



Metro

November 16, 2023

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SENIOR EXECUTIVE OFFICER, PROGRAM MANAGEMENT

SUBJECT: PURPLE (D LINE) EXTENSION PROJECT SECTION 1
OCTOBER 2023 MONTHLY PROJECT STATUS REPORT

Enclosed herewith is the Monthly Project Status Report for the Purple (D Line) Extension Project Section 1. This report contains the Los Angeles County Metropolitan Transportation Authority's (LACMTA) representation of the Purple (D Line) Extension Project Section 1 status for the period ending October 27, 2023.

If you have any questions regarding this report or its supporting information, please contact Salvador Chavez, Deputy Executive Officer, Program Control at (323) 900-2188.

JC: ah
Enclosure

PURPLE (D LINE) EXTENSION PROJECT Section 1



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Purple (D Line) Extension Project Section 1

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).

October 2023

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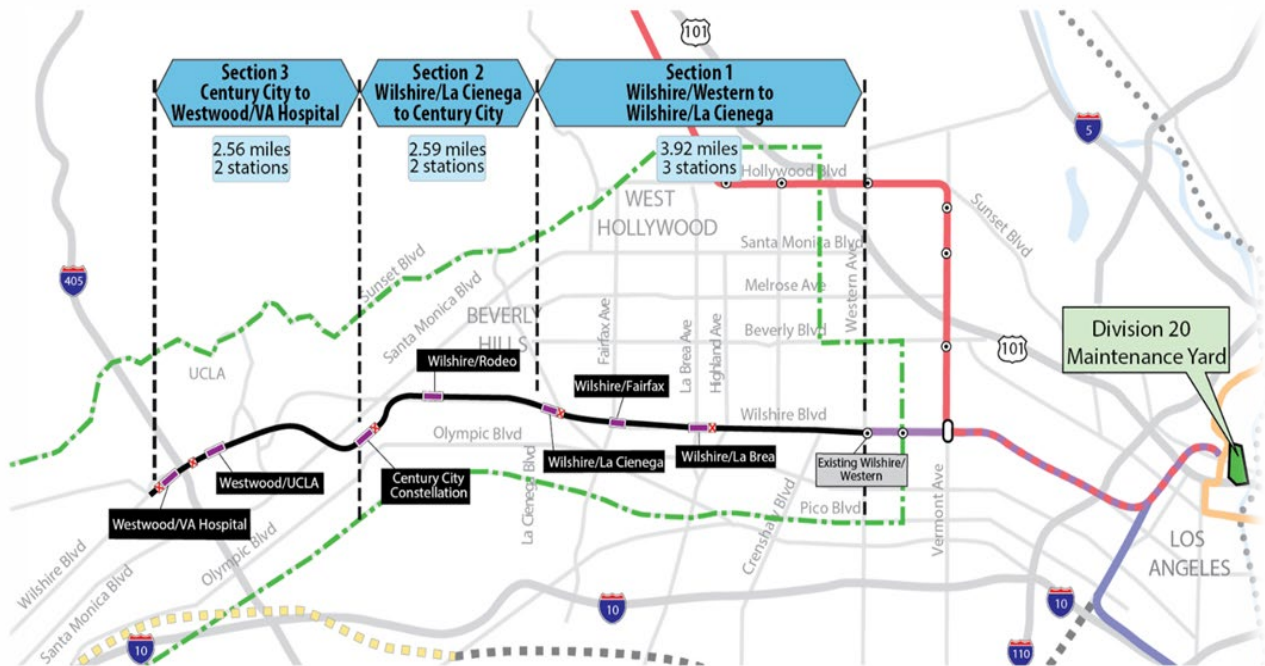
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PROJECT OVERVIEW

Project Background

Section 1 of the Purple (D 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 all three sections of the Project were environmentally cleared and adopted by LACMTA Board of Directors.

Section 1 will extend the existing Purple (D 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 the 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 and La Cienega Boulevards. 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 C1034. 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 and 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 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 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 (D Line), testing and commissioning.

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

The Design/Build contract provided for the 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 former MOW stores building and NRV facility is due to the future turn-back facility site in the yard. The contract substantial completion date was extended from May 1, 2019 to August 31, 2019.

Metro Furnished Equipment

Metro has procured a contract to provide 34 Heavy Rail Vehicles (HRV) necessary to operate the extension to the Purple (D 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 systems testing.

Program Management

The Purple (D Line) Extension Project Section 1 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 Project Staffing section of this report. The on-site program management team is also supported by Metro Headquarters' resources including but not limited to engineering, risk management, environmental, quality management, operations and creative services departments.

Project Schedule and Budget: Based on a review of the project schedule, Metro has adjusted the Revenue Service Date (RSD) from Fall 2024 to Spring 2025.

The Original Budget of \$3.1 billion reflects the Life of Project Budget approved by the Board on July 24, 2014 plus Finance Charges of \$0.4 billion. Based on a review of the project budget, the Current Budget and Current Forecast have been adjusted to \$3.5 billion. A detailed Life of Project Budget forecast is included under the Project Cost 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's 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 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 October 2023, the Project achieved 88.66% completion based on earned value measurements for design and construction. The critical path of the Project has changed from train control installation at the Wilshire/La Brea Station crossover to communications installation and testing at Wilshire/La Cienega Station.

The target forecasted substantial completion date for the Project is March 15, 2025. The target Revenue Service Date (RSD) for the Project is Spring 2025.

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.

The Engineering Management Services (EMS) team continues to provide engineering services to the C1045 Design/Build Contract during construction.

Construction Status

Reach 1 (Wilshire/Western to Wilshire/La Brea): electrical and systems installations continue.

Reach 2 (Wilshire/La Brea to Wilshire/Fairfax): electrical and systems installations are ongoing.

Reach 3 (Wilshire/Fairfax to Wilshire/La Cienega): third rail and electrical installations continue. Cross-passage #24 (Reach 3) is being used for trackwork concrete access and will complete once all trackwork concrete is placed.

Reach 4 tunnel: track installation is ongoing.

Wilshire/La Brea Station: civil restoration is ongoing on the north side of Wilshire Boulevard. Entrance structure and appendage construction, interior room build outs and escalator/elevator installation continue. MEP and systems installations move forward.

Wilshire/Fairfax Station: appendage work civil restoration on the north side of Wilshire Boulevard, entrance structure construction as well as masonry, architectural and MEP work at the platform and concourse levels continue. Stairs, elevator and escalator installations continue.

Wilshire/La Cienega Station: appendage work on the south side of Wilshire Boulevard and entrance structure construction are ongoing. *Final concrete platform wall placements, architectural, MEP, systems, elevator and escalator work continue.*

Substantial completion for the Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building Location 64 Contract (C1078) was extended to August 31, 2019. The final retention amount has been paid. Contract closeout efforts continue.

The C1045 Design/Build Contractor has taken possession of the rail site at the Division 20 Rail Yard. The rail welding subcontractor commenced production welding on October 23, 2020. The welding of running rail at the Division 20 Rail Yard was completed on December 9, 2020. Rail deliveries from the rail yard to Wilshire/La Brea Station commenced on March 29, 2021. Rail delivery for the entire Reach 1 (Wilshire/Western to Wilshire/La Brea) tunnel was completed in December 2021. All running rail stored in the yard was moved to the project site by the end of July 2022. The Purple (D Line) Project Section 1 storage area in the Division 20 Yard has been turned over to the Portal Widening Project. A new area near 6th Street bridge is being used for project material delivery.

Cost and Schedule Summary

Metro has incorporated a newly revised schedule for the remaining work into the C1045 Design/Build Contract monthly schedule update process, which includes appendage construction, civil restoration, architectural and MEP (mechanical, electrical, plumbing) work, systems infrastructure installation, testing, etc. *Metro has received October 2023’s schedule update for the C1045 Design/Build Contract, which reports the substantial completion date 353 calendar days after the June 29, 2024 contractual date.*

The target substantial completion date is March 15, 2025. The Project’s target RSD is Spring 2025.

The critical path of the Project has changed from train control installation at the Wilshire/La Brea Station crossover to communications installation and testing at Wilshire/La Cienega Station. A summary graphic of the critical path is found on Page 14.

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	06/09/23	386	06/29/24	6/17/25	-353 days

The Current Budget for the Project is \$3.5 billion. The Current Cost Forecast for the Project is \$3.7 billion. Detailed cost and budget information is provided on Page 17.

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

- Claim 002 – Reach 2 Gas Differing Site Condition
- Claim 003 – Tunnel Lighting

Key Management Concerns

Item 1: LADWP is requiring that the permanent surface hatch for Wilshire/Fairfax Station be installed prior to station permanent power energization. There is a potential 10 to 12 month delay to Wilshire/Fairfax Station energization if this position is maintained.

Status/Action: Metro executive management is discussing this issue with LADWP. The goal is to enact the same process as Wilshire/La Brea Station, where the Station will energize under a temporary surface hatch condition.

Item 2: the decision to install all new fare gates inside Purple Line stations is under consideration. Moving forward with this decision may impact the Project's revenue service date and budget.

Status/Action: the installation of new fare gates is under consideration.

Project Construction Photos



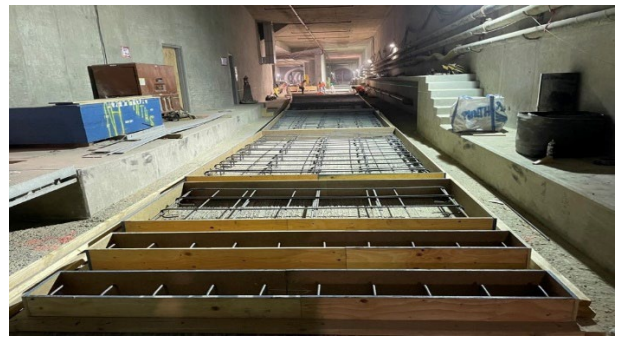
Masonry Work at the Wilshire/Western Interface Chamber



Motor Control Centers (MCCs) at Wilshire/La Brea Station



Ventilation Fan Installation at Wilshire/Fairfax Station



Wilshire/La Cienega Crossover Concrete Placement



Switchgear Installation at Wilshire/La Cienega Station

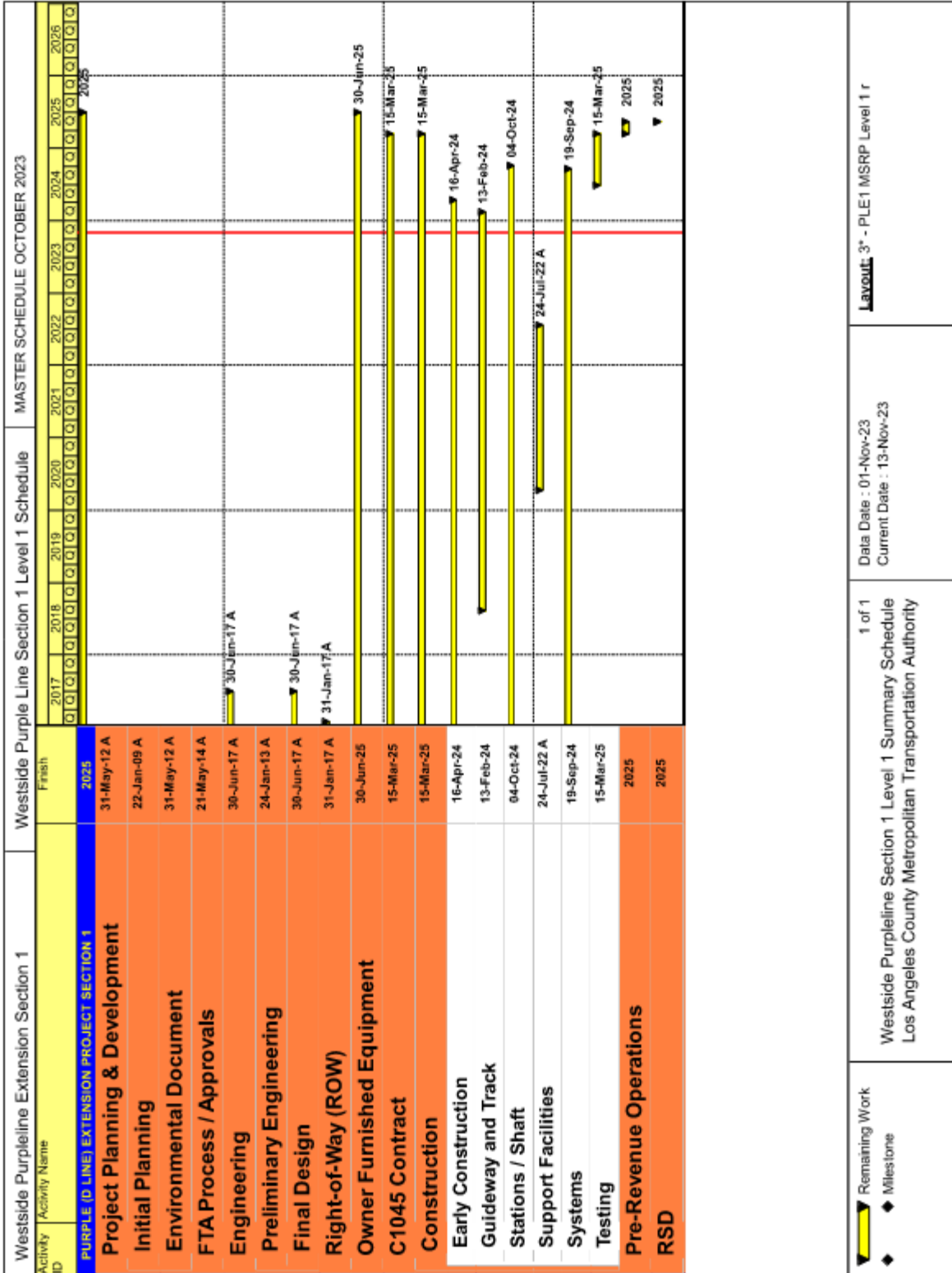


Reach 4 (Tail Track) Track Concrete Infill

PROJECT STATUS

PROJECT SCHEDULE

Project Summary Schedule

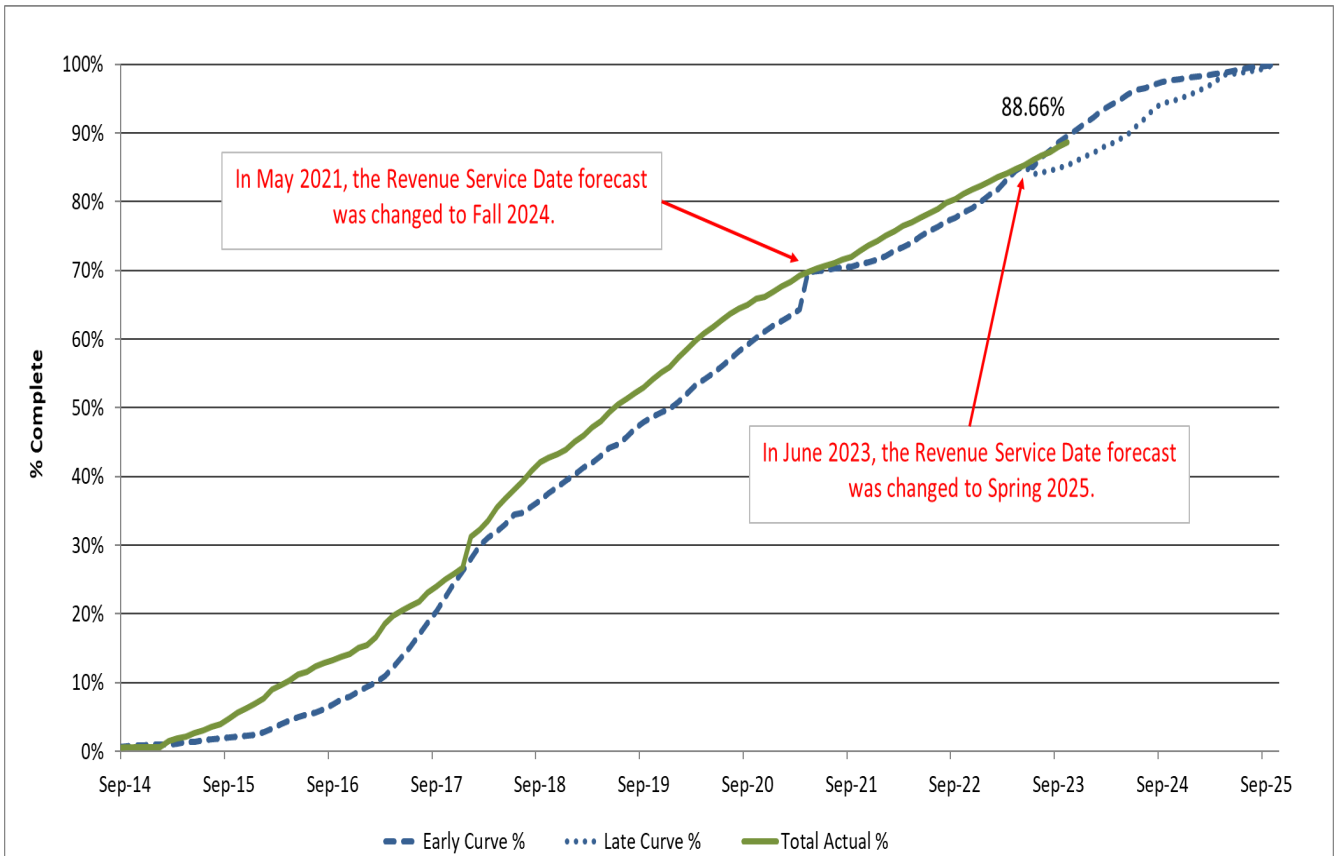


Progress Summary

	Status	Change from Last Period	Comment
Forecast Revenue Service	Spring 2025	None	
TIFIA Revenue Service	10/31/2024	None	
FFGA Revenue Service	10/31/2024	None	
Final Design Progress:			
Contract C1045	100.0%	0.0%	
Contract C1078	100.0%	0.0%	
Construction Contracts Progress:			
Contract C1048	100.0%	0.0%	Completed on Schedule
Contract C1045	87.9%	0.6%	
Contract C1055	100.0%	0.0%	Completed on Schedule
Contract C1056	100.0%	0.0%	Completed on Schedule
Contract C1078	100.0%	0.0%	Completed





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





Planned vs. Actual Progress



Key Milestone Six-Month Look Ahead

	Milestone Date	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24
Reach 1 Tunnel (La Brea to Western): Commence Rail Grinding	10/18/23 A	⬡					
Wilshire/La Brea Station: Escalator Truss #3 & #4 Lowered into Place	10/22/23 A	⬡					
Wilshire/La Brea Station: Complete Deck Panel Removal	10/22/23 A	⬡					
Wilshire/La Brea Station: Complete Installation of Double Crossover	11/06/23		⬡				
Wilshire/La Brea Station: Commence Smoke Enclosure Glazing	11/06/23		⬡				
Wilshire/Fairfax Station: Complete Elevator Structural Steel (Entrance Structure)	11/30/23		⬡				
Wilshire/Fairfax Station: Commence Smoke Enclosure Glazing	12/01/23			⬡			
Wilshire/La Cienega Station: Commence Smoke Enclosure Glazing	12/01/23			⬡			
Wilshire/La Cienega Station: Energize Permanent Power	01/15/24				⬡		
Wilshire/Fairfax Station: Commence Elevator Cab Installation (#1 & #2)	01/30/24				⬡		
Wilshire/La Cienega Station: Complete Installation of Wall Glass Art Work Tiles	02/22/24					⬡	
Wilshire/Fairfax Station: Energize Permanent Power	03/15/24						⬡

 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

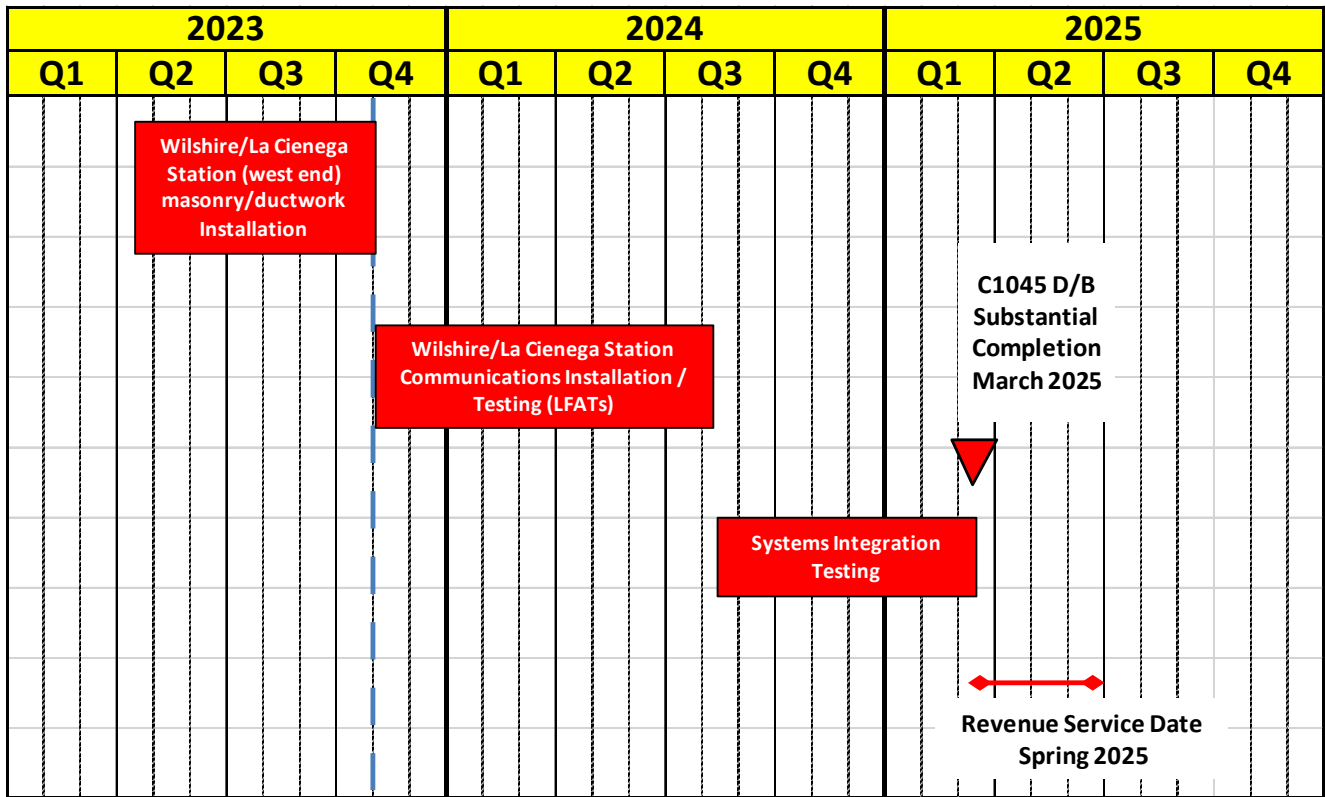
	Submittal	Procurement	Delivery	Installation
C1045 DESIGN/BUILD*				
Tunnel Boring Machine	1/29/16A	8/14/17A	12/15/17A	7/13/18A
Emergency Ventilation Fans	11/30/18A	4/1/19A	12/1/21A	12/21/21A
Station Elevators	4/27/18A	4/27/18A	04/10/23A	11/2/23
Station Escalators	4/27/18A	4/27/18A	7/21/21A	2/6/23A
Track - Running Rail	7/9/19A	8/9/19A	4/9/20A	10/18/21A
Traction Power Equipment	5/29/20A	11/5/21A	1/8/22A	4/28/23A
Automatic Train Control	4/1/16A	7/1/16A	12/20/16A	1/13/23A
SCADA RTU System	2/2/17A	1/16/18A	5/18/18A	4/24/24
Radio System	2/2/17A	2/3/20A	11/3/23	11/6/23
Heavy Rail Vehicles***	7/16/15A	5/1/19A	2/2/24	Spring 2025
Universal Fare System**	2/15/21A	9/30/21A	7/15/23A	9/12/24

* Dates derived from STS's October 2023 Revised Schedule

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

*** Metro supplied equipment

Project Critical Path



The critical path of the Project has changed from train control installation at the Wilshire/La Brea Station crossover to communications installation and testing at Wilshire/La Cienega Station.

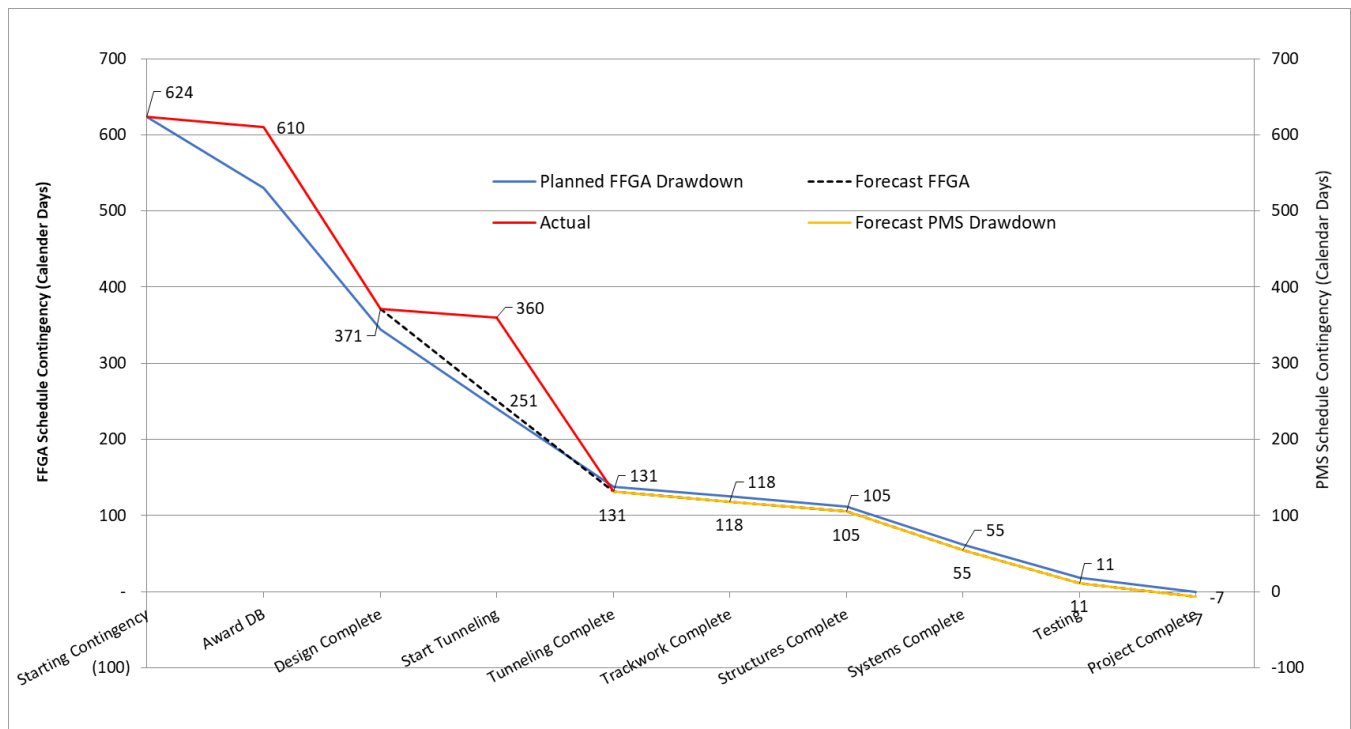
The target substantial completion date is March 15, 2025. The Project's target RSD is Spring 2025.

Project Schedule Contingency Drawdown Analysis

The project schedule contingency drawdown model is based upon the FFGA RSD of October 2024. Metro has adjusted the Project Master Schedule (PMS) forecast RSD to Spring 2025. The planned FFGA schedule contingency drawdown and the PMS forecast will remain the same until trackwork is completed.

At the start of TBM mining in October 2018, there was a noticeable buffer of available float between the PMS model and the FFGA model. This float buffer has been eroded due to impacts associated with the Reach 3 anomaly, which hindered TBM tunnel mining progress resulting in a later than planned actual completion of this milestone.

The next planned update for this model is after completion of trackwork installation. With the installation of the Wilshire/La Cienega Station crossover track scheduled to start in November 2023, the completion timeframe for this milestone is under review.



Risk Management Narrative

Summary of Risks

Two new potential risks were identified during the quarterly Risk Register meeting, and four risks were closed this period. A total of twenty-nine (29) risks remains to be managed in the next quarter.

Of the twenty-nine (29) risks, three (3) are scored as high, eight (8) as medium and eighteen (18) as low.

The next Purple (D Line) Extension Project Section 1 Risk Register quarterly update is scheduled for January 2024.

Top Risks

The table below shows the top Project risks:

Risk ID	Risk Description	Risk Score	Action Items
678.0	COVID-19 Pandemic Impact.	15	1. Evaluate state and local government guidelines. 2. The Project has not received any formal request(s) for change (RFC).
686.0	Installation of E2 Paddle gates on all Purple Line Stations (NEW).	10.5	1. Decision to move forward with new fare gates may impact the Project revenue service date and budget.
676.0	Subcontractor ability to get the required resources to perform work. Resource (Labor) shortage (Direct and Indirect).	10	1. Actively manage schedule and resource needs. 2. The contractor has added another crew for Reaches 1 & 2 systems installation in the tunnel. This change has been reflected in the monthly schedule update.
685.0	Permanent power at Fairfax Station energization may not occur until the permanent hatch is installed (DWP requirement) (NEW).	9	1. Metro executive management to mitigate (remove) the requirement between energizing Fairfax Station (Permanent Power Available) and the installation of the permanent hatch. 2. Permanent power is available at Wilshire/La Brea Station. 3. LADWP has accepted the Wilshire/Fairfax switch room. The five month (or less) window for DWP to complete their work is underway.
682.0	Procurement / Installation of Special Trackwork.	6	1. Special trackwork delivery potentially delayed to Feb-24; Currently scheduled for Nov-23. 2. Work arounds including advanced placement of concrete plinths and advanced coring currently being implemented.
628.0	Systems integration with existing Purple Line at Wilshire/Western Station.	6	1. Wilshire/Western cutover completed on April 19, 2023. 2. Coordination of schedule with Metro Operations is ongoing. 3. Systems Integration Plan to be submitted in support of a June 2024 Systems Integration Testing start date.
680.0	Supply chain (material) delivery	6	1. Actively manage schedule for material need/delivery dates.

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	-	494,309	-	503,071	31,889	488,318	-	623,394	129,085
20	STATIONS, STOPS, TERMINALS, INTERMODAL	440,621	-	606,997	107	584,693	13,456	509,919	-	629,924	22,927
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	43,323	-	45,723	-	45,702	-	45,702	-	45,723	-
40	SITework & SPECIAL CONDITIONS	751,566	-	824,103	(78)	858,893	11,128	773,203	-	913,741	89,638
50	SYSTEMS	113,574	-	122,195	-	110,620	387	70,438	-	138,982	16,787
CONSTRUCTION SUBTOTAL (10-50)		1,737,378	-	2,093,328	29	2,102,980	56,860	1,887,579	-	2,351,765	258,437
60	ROW, LAND, EXISTING IMPROVEMENTS	175,634	-	202,980	-	202,980	1,716	190,311	-	202,980	-
70	VEHICLES	160,196	-	108,302	-	99,230	-	31,740	-	108,302	-
80	PROFESSIONAL SERVICES	412,710	-	616,500	74	596,335	3,664	519,410	-	613,329	(3,171)
SUBTOTAL (10-80)		2,485,918	-	3,021,110	103	3,001,525	62,240	2,629,040	-	3,276,376	255,266
90	UNALLOCATED CONTINGENCY	248,592	-	68,400	-	-	-	-	-	38,134	(30,266)
100	FINANCE CHARGES	375,470	-	375,470	-	125,286	-	125,286	-	375,470	-
TOTAL PROJECTS 465518 & 865518 (10-100)		3,109,980	-	3,464,980	103	3,126,812	62,240	2,754,326	-	3,689,980	225,000
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	-	3,504,350	103	3,166,181	62,240	2,793,683	-	3,729,350	225,000

NOTE: FINANCE CHARGES ARE MANAGED UNDER DEBT SERVICE - MEASURE R PROJECT NO. 660301

Original Budget

The Original Budget of \$3.1 billion reflects the Board approved Life of Project Budget approved on July 24, 2014 plus Finance Charges of \$0.4 billion.

Current Budget

The Current Budget remains the same this period at \$3.5 billion.

Current Forecast

The Current Forecast remains the same this period at \$3.7 billion.

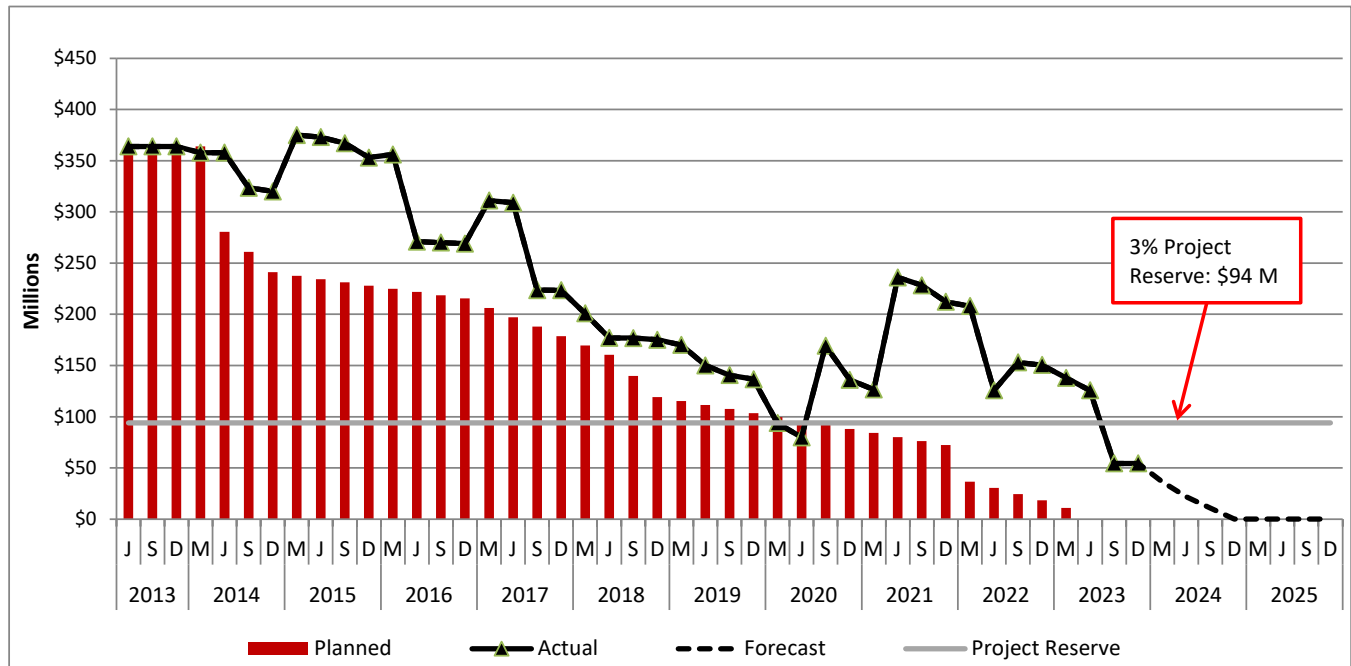
Commitments

Commitments increased by \$0.1 million this period primarily due to executed Change Orders for the C1045 Design/Build Contract. The \$3.2 billion in Commitments to Date represents 90.4% of the Current Budget.

Expenditures

Expenditures increased by \$62.2 million primarily due to costs associated with the C1045 Design/Build Contract, real estate acquisition, City of Beverly Hills Memorandum of Agreement, Construction Management Support Services, Engineering Management Support Services, and Metro Project Administration. The \$2.8 billion in Expenditures to Date represent 79.7% of the Current Budget.

Cost Contingency Drawdown



Cost Contingency Drawdown Analysis

The Project’s Original Budget of \$3.1 billion (plus Finance Charges of \$0.4 billion) included a project cost contingency of \$320.6 million or 10.2% of the total project budget. To date, the Project has experienced higher than expected differing site conditions, an increase in third party and safety requirements, and changes in scope.

The Board approved to increase the Life-of-Project (LOP) Budget by \$5.0 million in 2016, \$200.0 million in 2020, and \$150.0 million in 2021. The 3% project reserve is currently \$93.9 million to address cost contingency drawdowns and fund ongoing expenses. Metro’s Board is to be notified when it becomes necessary to drawdown contingency below the project reserve threshold to cover project costs. As of September 2023, the remaining contingency balance is below the 3% project reserve threshold of \$93.9 million.

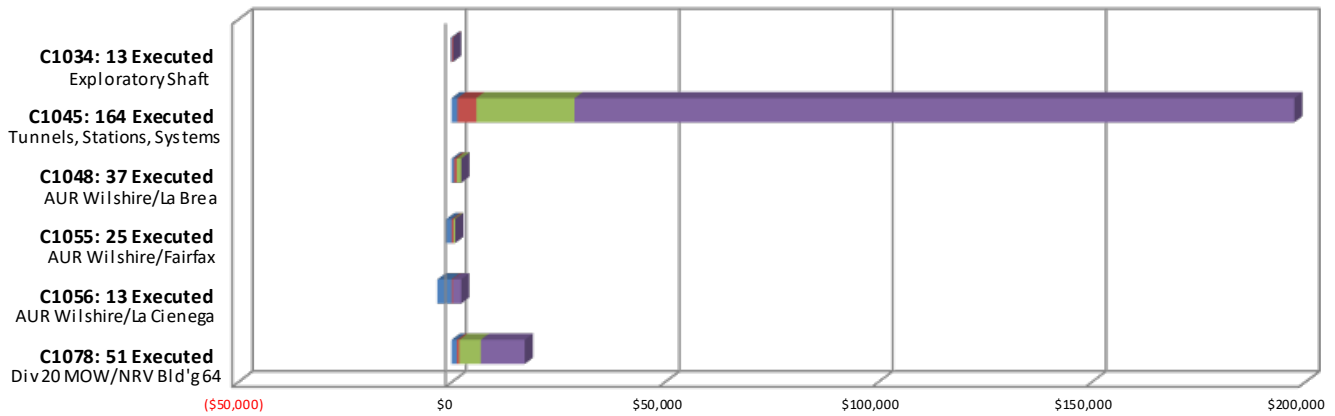
The Project Cost Contingency Drawdown curve has been adjusted to reflect the Spring 2025 Revenue Service Date (RSD) forecast.

The Allocated Contingency decreased by \$0.1 million this period due to executed Change Orders for the C1045 Design/Build Contract.

PROJECT COST CONTINGENCY					
DOLLARS IN THOUSANDS					
	Original Contingency (Budget)	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	248,592	(246,346)	-	(246,346)	2,246
Allocated Contingency	71,963	(19,731)	(89)	(19,820)	52,144
Total Contingency	320,555	(266,077)	(89)	(266,165)	54,390

Summary of Contract Modifications

Contract Modifications (MODs) by Cost Level
 Dollars in Thousands



	C1034 13 Executed	C1045 164 Executed	C1048 37 Executed	C1055 25 Executed	C1056 13 Executed	C1078 51 Executed	Total
Under \$100K	(164)	1,341	574	(1,179)	(3,325)	1,217	(1,536)
\$100K to \$250K	321	4,437	617	436	245	578	6,634
\$250K to \$1M	-	22,978	1,051	391	-	5,034	29,454
Over \$1M	-	168,715	-	-	1,983	10,309	181,007
Total Contract MODs	157	197,471	2,242	(352)	(1,097)	17,138	215,559
Contract Award Amount	6,487	1,636,419	6,181	14,430	20,250	52,830	1,736,597
% of Contract MODs	2.4%	12.1%	36.3%	-2.4%	-5.4%	32.4%	12.4%

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.

One hundred and sixty-four Contract MODs with a total value of \$197.5 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.

Fifty-one Contract MODs with a total value of \$17.1 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)

As of September 2023:

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	\$14.6 M 20.25%
Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime	\$15.1 M 22.11%

Seventeen (17) 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 Actual commitment as Construction work is awarded	\$286.6 M 15.96%
Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime	\$286.0 M 18.18%

One hundred seventy-four (174) Construction DBE subcontractors have been identified to date.

PROJECT LABOR AGREEMENTS (PLA)

As of September 2023:

Targeted Worker Goal Construction work to be performed by residents from Economically Disadvantaged Areas in the United States	40.00%
Targeted Worker Current Attainment	63.00%
Apprentice Worker Goal Construction work to be performed by Apprentices	20.00%
Apprentice Worker Current Attainment	20.02%
Disadvantaged Worker Goal Construction work to be performed by disadvantaged workers	10.00%
Disadvantaged Worker Current Attainment	12.09%

FINANCIAL/GRANT

Status of Funds by Source

DOLLARS IN MILLIONS

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	\$1,250.000	\$1,250.000	\$1,250.000	\$1,223.223	98%	\$1,013.034	81%	\$994.132	80%
FEDERAL - SECTION 5309 NEW STARTS (ARPA-CIG**)	\$0.000	\$66.429	\$66.429	\$66.429	100%	\$66.429	100%	\$66.429	100%
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	\$749.306	\$749.306	\$749.306	100%	\$749.306	100%	\$749.306	100%
MEASURE R 35%	\$869.178	\$1,342.159	\$1,342.159	\$1,074.750	80%	\$912.441	68%	\$816.118	61%
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	\$5.932	\$5.932	\$5.932	100%	\$5.932	100%	\$5.932	100%
CITY OF LOS ANGELES	\$75.273	\$75.273	\$31.290	\$31.290	42%	\$31.290	42%	\$31.290	42%
TOTAL	\$3,149.350	\$3,504.350	\$3,460.367	\$3,166.181	90.4%	\$2,793.683	79.7%	\$2,678.458	76.4%

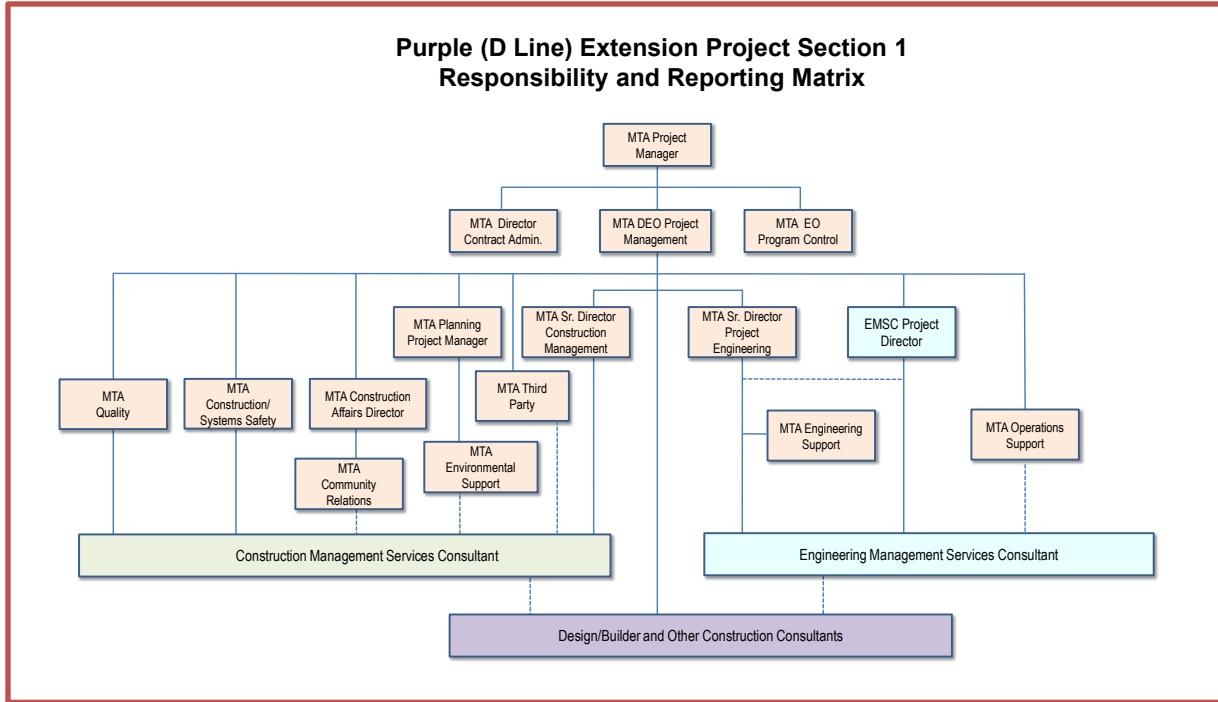
EXPENDITURES ARE CUMULATIVE THROUGH OCTOBER 31, 2023
 ORIGINAL BUDGET BASED ON JULY 2014 BOARD APPROVED LOP BUDGET

*OTHERS INCLUDE Prop A/C/TDA Admin (\$4.1M), General Fund (\$1.8M), and State Capital (\$0M)

**AMERICAN RESCUE PLAN ACT - CAPITAL INVESTMENTS PROGRAM (ARPA-CIG)

PROJECT ORGANIZATION AND STAFFING

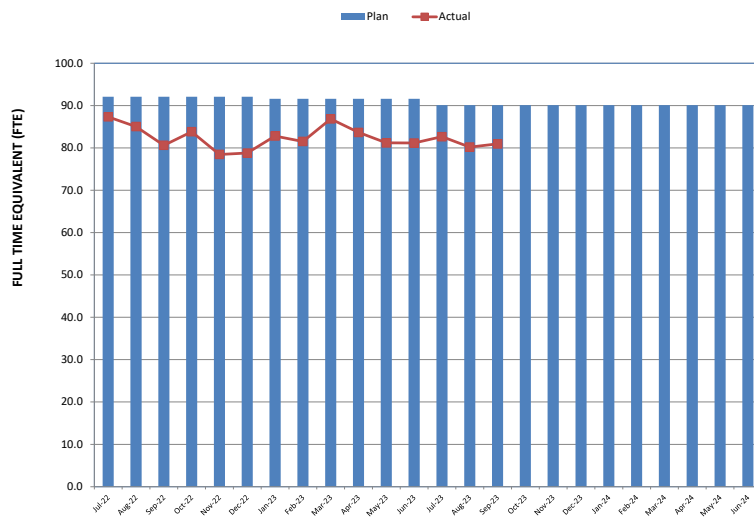
The Design/Build Contract is being managed by a joint team of Metro and consultant personnel jointly located at the Integrated Project Management Office (IPMO).



The overall FY24 Total Staffing Plan averages 90.1 FTEs per month.

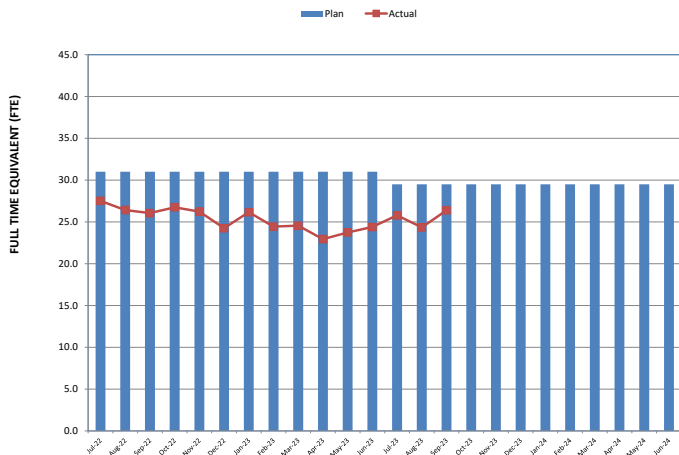
For September 2023 there were a total of 26.4 FTEs for MTA's Project Administration Staff and 54.6 FTEs for Consulting Staff. The total Project staffing for September 2023 was 81.0* FTEs.

Total Project Staffing – Metro and Consultants

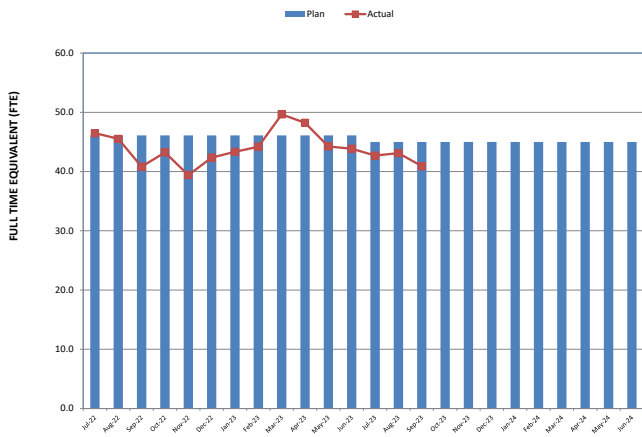


*Actuals include 2.5 FTEs related to Project Management Support Services (PMSS).

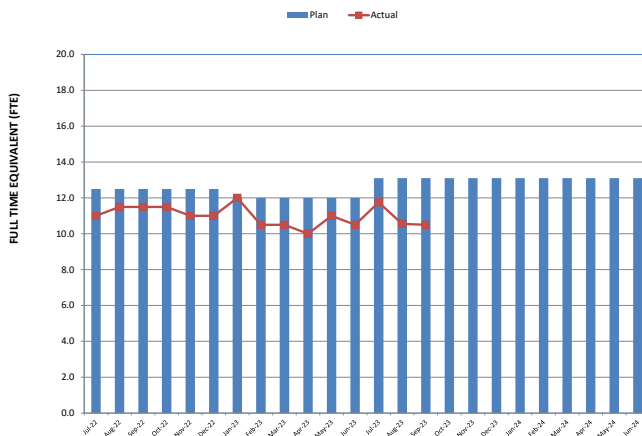
Metro Staff



CM Support Services Staff (Consultant)



Engineering Services Staff (Consultant)



All above data through September 2023

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	9	109	109	9
Part Takes	6	6	6	6	6	0	0	6
TCE	4	4	4	4	3	0	0	4
Total Parcels	19	19	19	19	18	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.

One parcel at the Wilshire/Fairfax Station location remains in the condemnation phase. The final settlement agreement is being closed out, and the closeout date has not been established. Metro is in the process of extending Temporary Construction Easement (TCE) lease agreements.

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 predominantly compliant.
- Reviewed and provided comments on quality related submittals, construction work plan, project specifications, product data and quality manuals.
- Station quality progress:
 - Wilshire/La Brea – engaged in oversight activities for entrance structures, crossover structural members and civic site restoration.
 - Wilshire/Fairfax – engaged in oversight activities for entrance structure/ancillary level and maintenance walkways.
 - Wilshire/La Cienega – engaged in oversight activities for construction of appendage structures, backfill activities and street restoration.
- *Processed 66 surveillances, 32 Quality Action Requests (QARs), 32 Nonconformance Reports (NCRs) and one (1) Corrective Action Request (CAR).*

ENVIRONMENTAL

- *Reviewed Vibration Control Management Plans for the fourth quarter of 2023 as prepared by the Contractor.*
- *Gathered traffic data to support planned weekend closures of Wilshire Boulevard at the Wilshire/Western retrieval shaft in the City of Los Angeles.*
- *Monitored project related discharges to stormwater and sewer systems for compliance with permitted volumes.*
- *Finalized the 42nd Quarterly Mitigations Monitoring and Reporting Plan (MMRP) summary report for transmittal to the Federal Transportation Authority (FTA).*

CONSTRUCTION AND COMMUNITY RELATIONS

- Attended monthly/weekly meetings with City of Los Angeles Department of Transportation, virtual Neighborhood Council meetings, monthly environmental mitigation meetings and daily/weekly internal construction update meetings for work in the cities of Los Angeles and Beverly Hills as well as held meetings online and conducted monthly project update presentations to Beverly Hills residents and business stakeholders, elected officials' deputies, various stakeholders along the alignment and at construction community meetings. September's monthly community update for Wilshire/La Cienega Station was held in person at the City of Beverly Hills' City Hall
- Corresponded with and presented to Los Angeles City Council district offices, the Board of Public Works, Greater Miracle Mile and Beverly Hills Chambers of Commerce, and City of Beverly Hills staff regarding construction effects on traffic and shared major stakeholder concerns.
- Continued with the "Eat, Shop, Play Spotlight" (ESP) campaign to advertise and promote businesses that participate in ESP Wilshire and Beverly Hills specific to eateries or other service-oriented businesses that remain open or have reopened for onsite pickup, dining-in and delivery.
- Continued additional construction mitigations including business signage, street signs and print ads at no cost to the businesses. Referred businesses to Metro's Business Interruption Fund (BIF) program.
- Updated website, Facebook, and Twitter regularly. Published monthly Purple Line Extension (PLE) newsletter to email list. Placed monthly ads in local papers.
- Conducted extensive one-on-one outreach to Beverly Hills business stakeholders and additional outreach to residents in advance of the Wilshire/La Cienega Station weekend closures of Wilshire Blvd. for decking removal activities.
- *Produced and distributed fifty (50) construction work notices for construction activities; the La Cienega Monthly look-ahead distributed by Walking Man; weekly look-ahead for Division 20; weekly construction look-ahead emails to community stakeholders; and monthly look-ahead emails for the City of Beverly Hills.*

CREATIVE SERVICES

- *Artist-led community event for the Wilshire/La Brea Station was held at The Deco Building.*
- Reviewed and responded to Contractor submittals for art fabrication.
- Continued coordination with Contractor on design development for artwork lighting.
- Managed fabrication sample reviews with artist in coordination with the Contractor.
- Developed design options for signage impacts at the existing station due to phased construction of the Purple Line Extension Project.

SAFETY & SECURITY

- *There were no recordable injuries, lost time or COVID cases in October.*
- Metro Safety staff conducted daily safety inspections, attended weekly Toolbox, Progress, readiness review and other Project meetings to evaluate Contractor's safety program compliance with contract requirements.
- Metro Safety staff worked regularly 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 and STS have extra safety staff assigned to monitor safety performance and program changes instituted after the March 23, 2022 fatality.
- *September 2023 Contractor Work Hours (Design & Construction): 125,667*
- *Total Project to Date Work Hours (through August): 9,131,168*
- *Project to Date Recordable Injury Rate: 0.90 (41 Recordable Injuries) (each rate is per 200,000 work hours) (National Rate: 2.4)*
- *Project to Date Total Days Away (DART) Injury Rate: 0.09 (4 cases Days Away or Lost Time cases) (National Rate: 1.5)*

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	Completed decking operations for Wilshire/Fairfax Station.
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	Completed decking operations for Wilshire/La Cienega Station.
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	Completed concrete wall pours needed to support TBM assembly at Wilshire/La Brea Station.
July 2018	Began delivery of TBM components to the Wilshire/La Brea Station site.
October 2018	Commenced Reach One's (1) mining operation with the launch of TBM #1 from Wilshire/La Brea Station.
November 2018	Launched TBM #2 from Wilshire/La Brea Station.
December 2018	Reached the bottom of excavation at the Wilshire/Western TBM retrieval site.
January 2019	Placed the temporary concrete slab at the Wilshire/Western TBM retrieval site.
February 2019	Reached the bottom of excavation at Wilshire/Fairfax Station.
March 2019	Completed mud mad placement at Wilshire/Fairfax Station.
April 2019	HDPE protection slab placement commenced at Wilshire/Fairfax Station.
May 2019	Achieved substantial completion for the C1078 Contract (Division 20 MOW/NRV Building Location 64) on May 1, 2019.
June 2019	Both TBM #1 (Soyeon) and TBM #2 (Elsie) completed Reach One (1) tunnel alignment mining.

July 2019	Began transport of both TBMs (#1 Soyeon and #2 Elsie) from the Wilshire/Western Shaft to Wilshire/La Brea Station.
August 2019	Completed invert concrete placement at Wilshire/Fairfax Station.
September 2019	Reached bottom of excavation at Wilshire/La Cienega Station.
October 2019	TBM #2 (Elsie) commenced Reach #2 tunnel drive.
November 2019	Completed 1 st lift exterior wall concrete placement at Wilshire/Fairfax Station.
December 2019	Commenced station invert concrete placement at Wilshire/La Cienega Station.
January 2020	Commenced Reach 1 cross passage excavation.
February 2020	Completed Wilshire/La Cienega Station invert concrete placement.
March 2020	Commenced Wilshire/La Brea Station roof concrete placement.
April 2020	Arrival of first rail delivery to the Division 20 Rail Yard.
May 2020	TBM #1 (Soyeon) completed Reach #2 tunnel drive. TBM #2 (Elsie) commenced Reach #3 tunnel drive.
June 2020	Completed 1st lift wall concrete placement (GL 3-15) at Wilshire/La Cienega Station. Completed Reach Two (2) tunnel mining.
July 2020	TBM #1 (Soyeon) commenced Reach #3 tunnel drive.
August 2020	Commenced concourse concrete placement at Wilshire/Fairfax Station.
September 2020	Completed first roof placement (Block 7) at Wilshire/La Cienega Station.
October 2020	Commenced welding running rail at the Division 20 Rail Yard.
November 2020	Placed protection slab at the Wilshire/La Cienega Station entrance.
December 2020	Completed welding of running rail at the Division 20 Rail Yard.
January 2021	The Purple TBM (Elsie) restarted Reach 3 tunnel drive and has reached the Wilshire/San Vicente anomaly site.
February 2021	The Purple TBM (Elsie) completed Reach 3 tunnel drive.

February 2021	Started Reach 1 tunnel invert concrete placement.
March 2021	The Red TBM (Soyeon) completed Reach 3 tunnel drive.
April 2021	The Purple TBM (Elsie) completed Tail Track tunnel drive.
May 2021	Completed TBM tunnel mining activities for the Project.
June 2021	Completed Reach 1 cross passage structures.
July 2021	Commenced TBM Gantry removal from Wilshire/La Cienega Station.
August 2021	Commenced Reach 2 cross passage excavation.
September 2021	Placed all concrete roof sections (11 out of 16) for this phase of construction at Wilshire/Fairfax Station.
October 2021	Commenced Reach 1 trackwork installation activities.
November 2021	Commenced cross passage 19 (Reach 2) excavation.
December 2021	Completed concourse concrete slab placement at the east end of Wilshire/Fairfax Station.
January 2022	Completed Reach 1 south tunnel walkway concrete placement.
February 2022	Completed concrete concourse deck placement at the west end of Wilshire/Fairfax Station.
March 2022	Completed Reach 2 cross passage excavation.
April 2022	Commenced the weekend deck beam removal/station backfill operation on Wilshire Boulevard.
May 2022	Completed concrete concourse deck placement at the west end of Wilshire/La Brea Station.
June 2022	Completed concrete concourse deck placement at the west end of Wilshire/La Cienega Station.
July 2022	Completed all arched concrete roof placements at Wilshire/Fairfax Station.
August 2022	Commenced remaining roof concrete placements at the west end of Wilshire/La Brea Station.
September 2022	Commenced remaining roof concrete placements at the west end of Wilshire/La Cienega Station.
October 2022	Commenced Reach 2 trackwork installation activities.

November 2022	Completed concrete roof placements at the Gale shaft section of Wilshire/La Cienega Station (Blocks 8 & 9)
December 2022	Completed all arched roof concrete placements at Wilshire/La Brea and Wilshire/La Cienega Stations.
January 2023	Completed first concrete placement of platform level walls at Wilshire/La Cienega Station.
February 2023	Completed all tunnel invert and walkway concrete placements for the entire Project.
March 2023	Completed concrete placement of Wilshire/Fairfax Station platform.
April 2023	Completed concrete placement of Wilshire/La Brea Station platform.
May 2023	Installed Traction Power AC Equipment at Wilshire/La Brea Station.
June 2023	Completed first delivery of contact rail to the Project site.
July 2023	Commenced Reach 2 tunnel (La Brea to Fairfax) fiber optic cable installation.
August 2023	Metro received the first Heavy Rail Vehicle at the Division 20 Yard.
September 2023	Wilshire/La Brea Station permanent power available.
<i>October 2023</i>	<i>Completed deck panel removal at Wilshire/La Brea Station marking the completion of all deck panel removals for the Project.</i>