



Metro

Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2000 Tel
metro.net

September 21, 2020

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FROM: JAMES COHEN *Jim Cohen*
EXECUTIVE OFFICER, PROJECT MANAGEMENT

SUBJECT: WESTSIDE PURPLE LINE EXTENSION SECTION 1 PROJECT
AUGUST 2020 MONTHLY PROJECT STATUS REPORT

Enclosed herewith is the Monthly Project Status Report for the Westside Purple Line Extension Section 1 Project. This report contains the Los Angeles County Metropolitan Transportation Authority's (LACMTA) representation of the Westside Purple Line Extension Section 1 Project status for the period ending August 28, 2020.

If you have any questions regarding this report or its supporting information, please contact Rick Wilson, Executive Officer, Program Control at (323) 900-2113.

JC: ah
Enclosure

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).

August 2020

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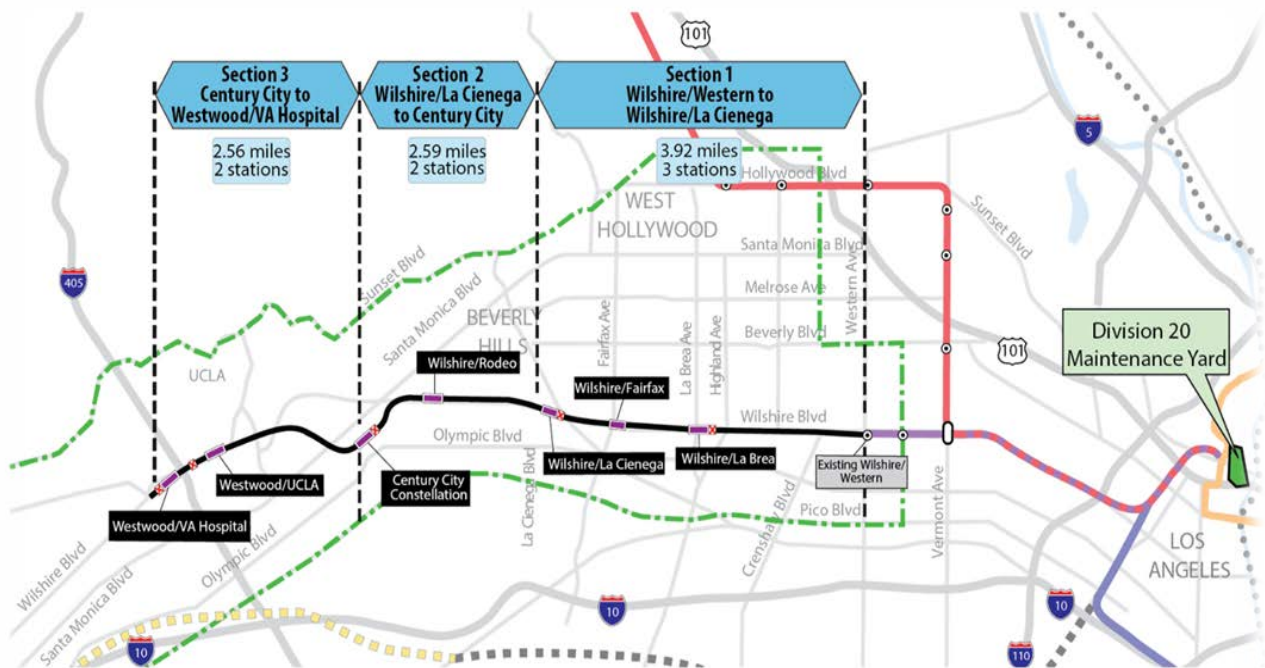
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PROJECT OVERVIEW

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 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 are due to the future turn-back facility site in the yard. The contract was substantially completed on May 1, 2019.

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 be 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 remain 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 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 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 August 2020, the Project achieved 64.4% completion based on earned value measurements for design and construction. The critical path of the project has shifted from the completion of the TBM tunnel drive to Wilshire/Fairfax Station structural concrete placement, which is currently scheduled to complete in September 2021. The project team is reviewing any impacts differing site conditions and third-party requirements may be having on the schedule.

Currently, the C1045 Design/Build Contract substantial completion date remains June 15, 2023, and the forecast Revenue Service Date (RSD) for the Project remains on targeted for completion in 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.

The Engineering Management Services (EMS) team continues to provide engineering services during construction to the C1045 design/build contract.

Construction Status

As of August 31, 2020, the Red TBM (Soyeon) has mined 1,704 feet (52% complete) of the Reach 3 tunnel, and the Purple TBM (Elsie) has mined 1,885 feet (57% complete) of the Reach 3 tunnel. To date, six (6) out of 12 Reach One (1) cross passages have been excavated. Concrete placement of the 1st cross passage is complete (CP #11). Work continues at all other cross passages.

At Wilshire/La Brea Station, station structure concrete work continues including 2nd lift exterior walls and concrete roof placement. *On August 29, 2020, roof (Blocks 12 & 13) concrete placement was completed. Street closures for roof appendage work at the Wilshire/Orange intersection is underway.*

At Wilshire/Fairfax Station, the first concourse concrete placement (Block 10) occurred on August 22, 2020. The Block 9 concourse concrete placement was completed on August 25, 2020. Work on the entrance structure and three appendages (Emergency Exit, Fan Room, Mechanical Room / Air Supply & Exhaust) move forward.

At Wilshire/La Cienega Station, roof form assembly is on-going (Blocks 3-7) with the first roof placement scheduled for September 26, 2020. Rebar installation at the 2nd lift walls (Blocks 10 – 14) moves forward. The first concrete placement in this area (Block 10) is scheduled for September 11, 2020. Daily maintenance of dewatering wells continues, along with maintenance of surface aesthetics per the City of Beverly Hills (COBH) Memorandum of Agreement (MOA).

The design/build contractor for the Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building Location 64 Contract (C1078) achieved substantial completion on May 1, 2019. The contractor continues to work on final punch list items.

The C1045 design/build contractor has taken possession of the rail site at the Division 20 Rail Yard. The rail welding subcontractor has rescheduled mobilization to October 2020. The current target completion date to complete rail welding is November 2020.

Cost and Schedule Summary

For the C1045 Design/Build contract, the re-sequenced schedule, which reflects the current construction approach for the remainder of the project, has been incorporated into the schedule update process in July 2020. *Metro has received the August 2020 schedule update, which reports the substantial completion date finishing 168 calendar days after the June 15, 2023 contractual date.*

The project team is reviewing any impacts differing site conditions and third-party requirements may be having on the schedule. *At this time, the contractual substantial completion date remains June 15, 2023.*

The critical path of the project has shifted from the completion of the TBM tunnel drive to Wilshire/Fairfax Station structural concrete placement and finishes, followed by mechanical, electrical and plumbing (MEP), systems, 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	11/30/23	06/15/23	-168 days

The project budget and cost forecast has been adjusted to reflect the project’s \$200M LOP budget increase approval by Metro’s Board. The Current Budget and Current Forecast for the Project are both at \$3.4 billion. There are no claims on the Project. Detailed cost and budget information is provided on Page 17.

Key Management Concerns

The project team is reviewing any impacts differing site conditions and third-party requirements may have on the project schedule.

Project Construction Photos



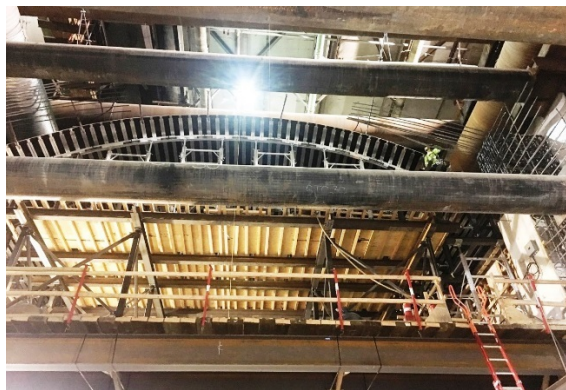
View of East Hammerhead at Wilshire/La Brea Station



Stripping Concourse Shoring at Wilshire/Fairfax Station



Grouting East End at Wilshire/La Cienega Station



Roof Shoring Frames at Wilshire/La Cienega Station



Phase 1 Traffic Control at Wilshire/San Vicente (Reach 3)

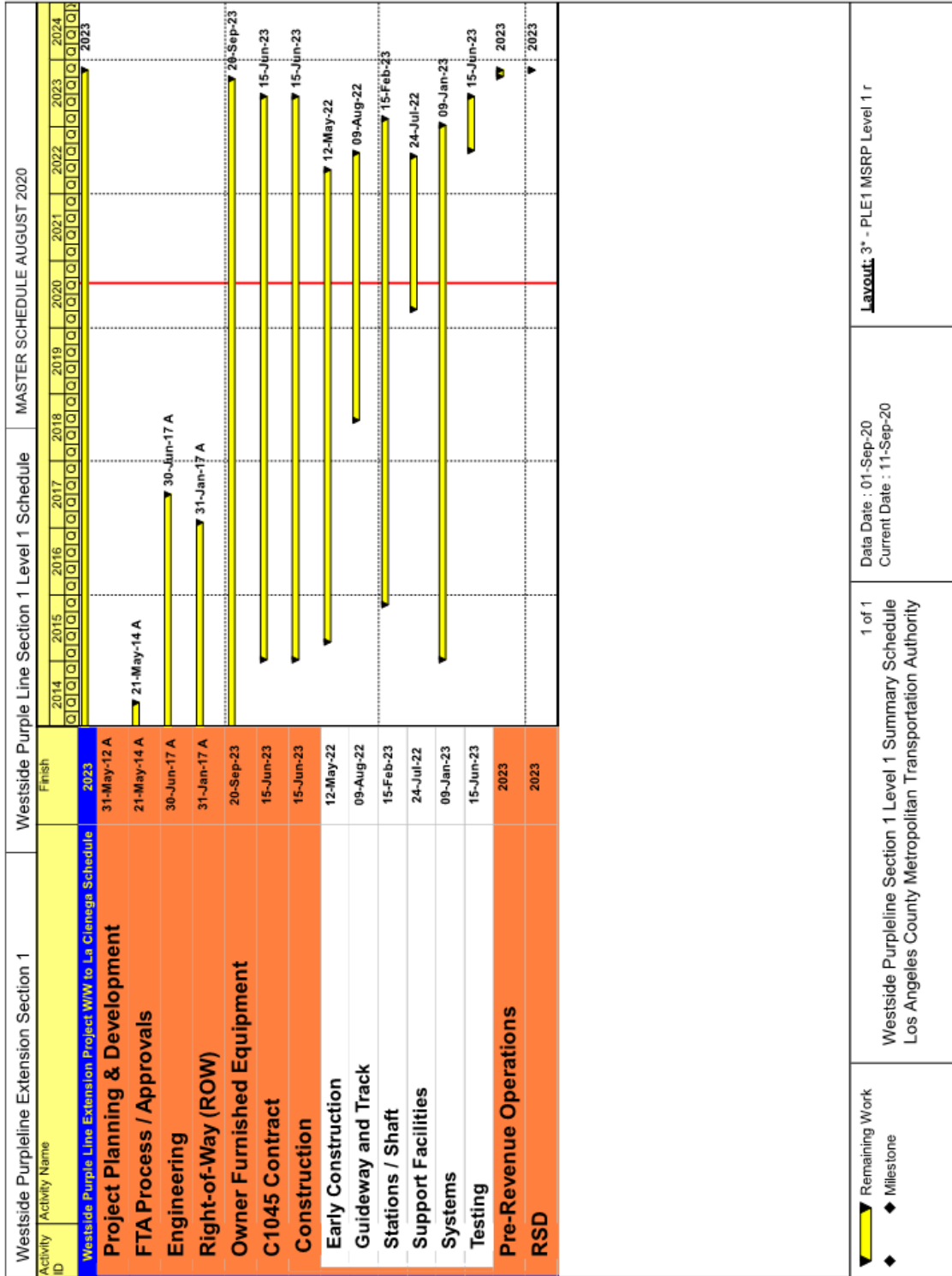


HDPE Installation at Cross Passage #8 (Reach 1)

PROJECT STATUS

PROJECT SCHEDULE

Project Summary Schedule

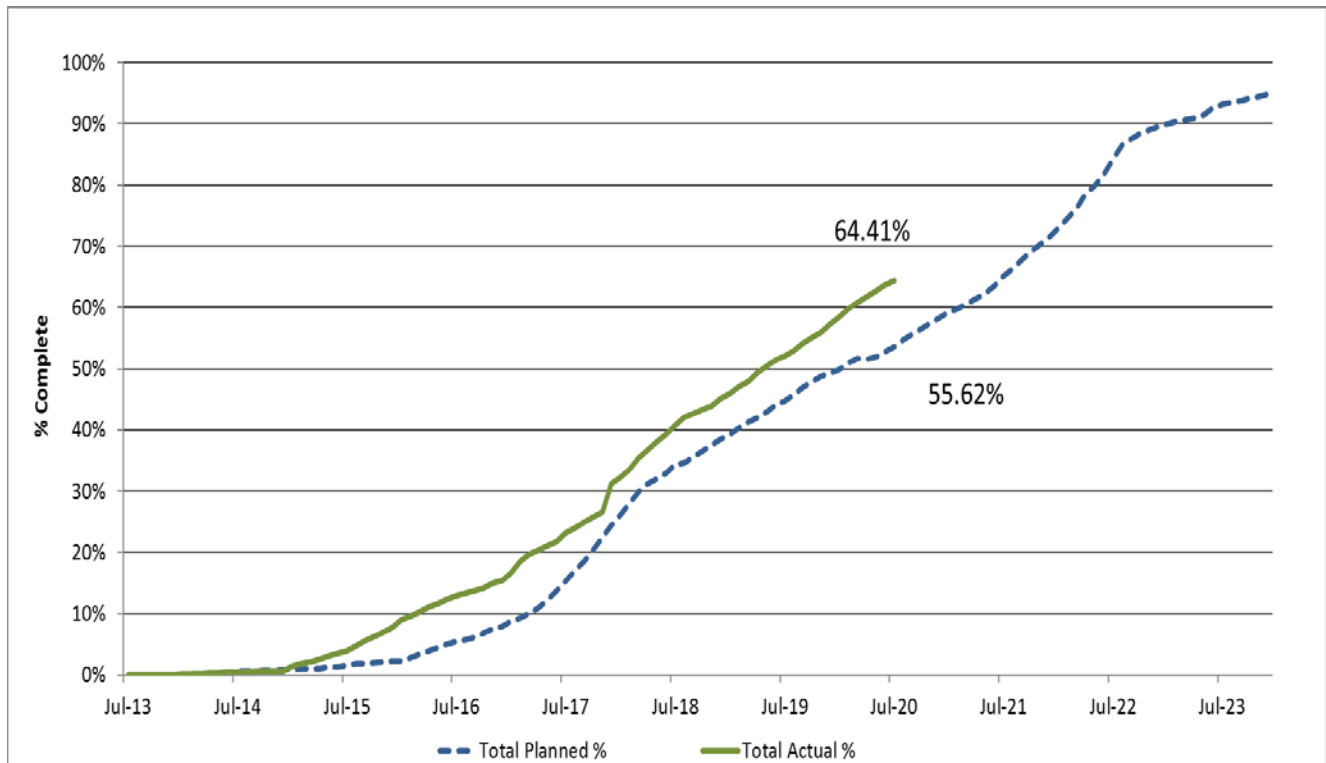


Progress Summary













	Status	Change from Last Period	Comment
Forecast Revenue Service	2023		Reviewing impacts from DSCs / 3rd Party Reqs.
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	61.8%	0.8%	
Contract C1055	100.0%	0.0%	Completed on Schedule
Contract C1056	100.0%	0.0%	Completed on Schedule
Contract C1078	99.9%	0.0%	Punchlist/Close-out Remain









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

Planned vs. Actual Progress



Key Milestone Six-Month Look Ahead

	Milestone Date	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21
Wilshire/La Cienega: Completed Placement 2nd Lift Walls (Blocks 3-7)	8/3/2020 A						
Wilshire/Fairfax: 1st Concourse Concrete Placement (Block 10)	8/22/2020 A						
Wilshire/La Brea: Completed Roof Concrete Placement (Blocks 12-13)	8/29/2020 A						
Wilshire/Fairfax: Place Invert Slab - Entrance Structure	09/09/20						
Wilshire/Fairfax: Place Protection Slab - Appendage A1C	09/10/20						
Wilshire/La Cienega: 1st Concrete Placement - 2nd Lift Walls (High Bay)	09/11/20						
Wilshire/La Brea: Commence Plenum Steel Beam Installation	10/12/20						
Commence Work at Cross Passage #6 (Reach 1)	10/14/20						
Commence Reach 1 Tunnel Invert Concrete Activities	11/16/20						
Division 20 Rail Yard: Complete Welding Running Rail	11/20/20						
Wilshire/Fairfax: Commence Concourse Concrete Placement (GL 3-7)	12/31/20						
Commence Reach 2 Cross Passage Activities	01/15/21						

 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

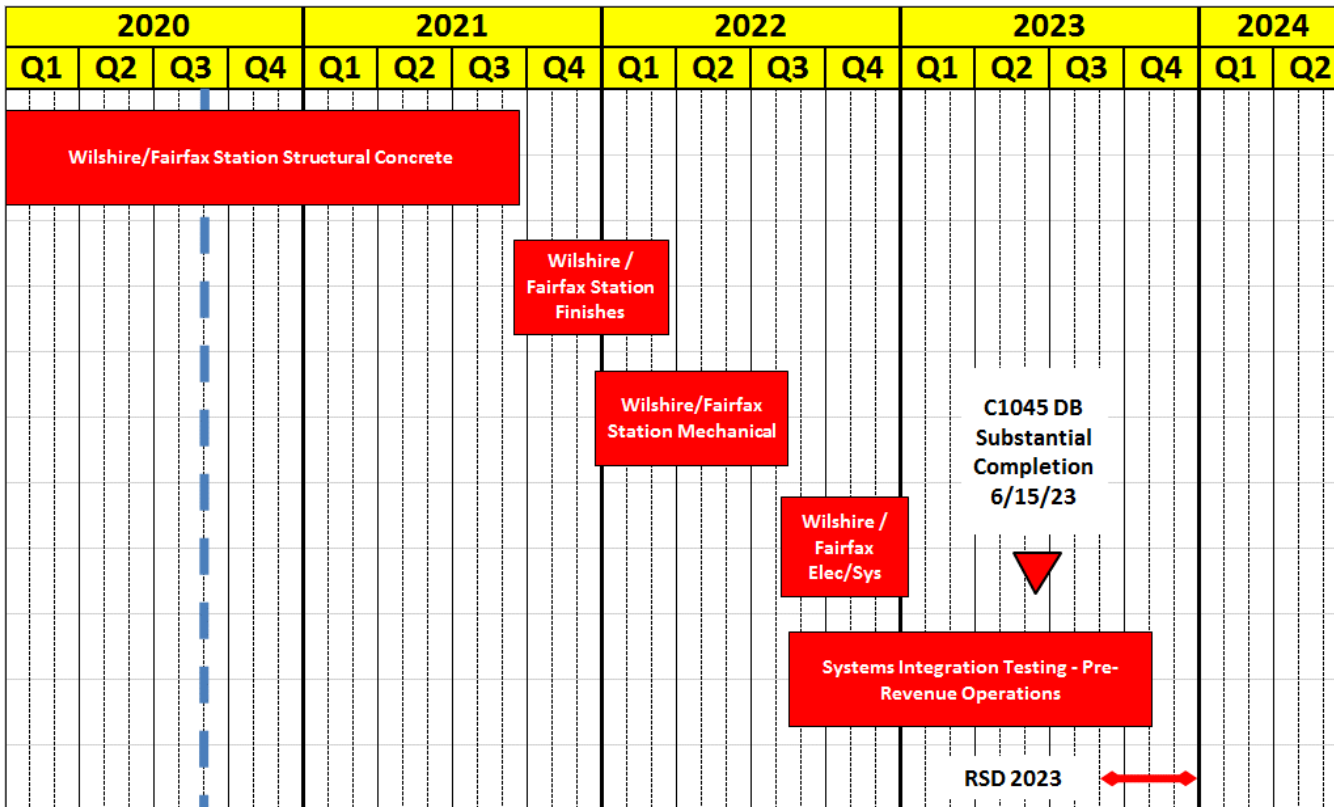
Major Equipment Delivery

	Submittal	Procurement	Delivery	Installation
C1045 DESIGN/BUILD*				
Tunnel Boring Machine	1/29/16A	8/14/2017A	12/15/17A	7/13/18A
Emergency Ventilation Fans	11/30/18A	4/1/19A	3/25/21	3/26/21
Station Elevators	4/27/18A	4/27/18A	7/31/21	11/18/22
Station Escalators	4/27/18A	11/1/20	9/29/21	4/25/22
Track - Running Rail	7/09/19A	8/09/19A	4/9/20A	6/3/21
Traction Power Equipment	9/18/20	3/15/21	9/15/21	9/22/21
Automatic Train Control	4/1/16A	7/1/16A	12/20/16A	2/18/22
SCADA RTU System	2/2/17A	1/16/18A	5/18/18A	2/8/21
Radio System	2/2/17A	2/03/20A	11/30/20	5/3/21
Heavy Rail Vehicles***	7/16/15A	5/1/19A	3/31/23	4/15/23
Universal Fare System**	TBD	TBD	TBD	10/6/21

* Dates derived from STS's August 2020 Schedule.

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

Project Critical Path



The re-sequenced schedule, which reflects the current construction approach for the remainder of the project, has been incorporated into the schedule update process in July 2020.

For the month of August 2020, the critical path of the project has shifted from the completion of the TBM tunnel drive to Wilshire/Fairfax Station structural concrete placement, which is currently scheduled to complete in September 2021.

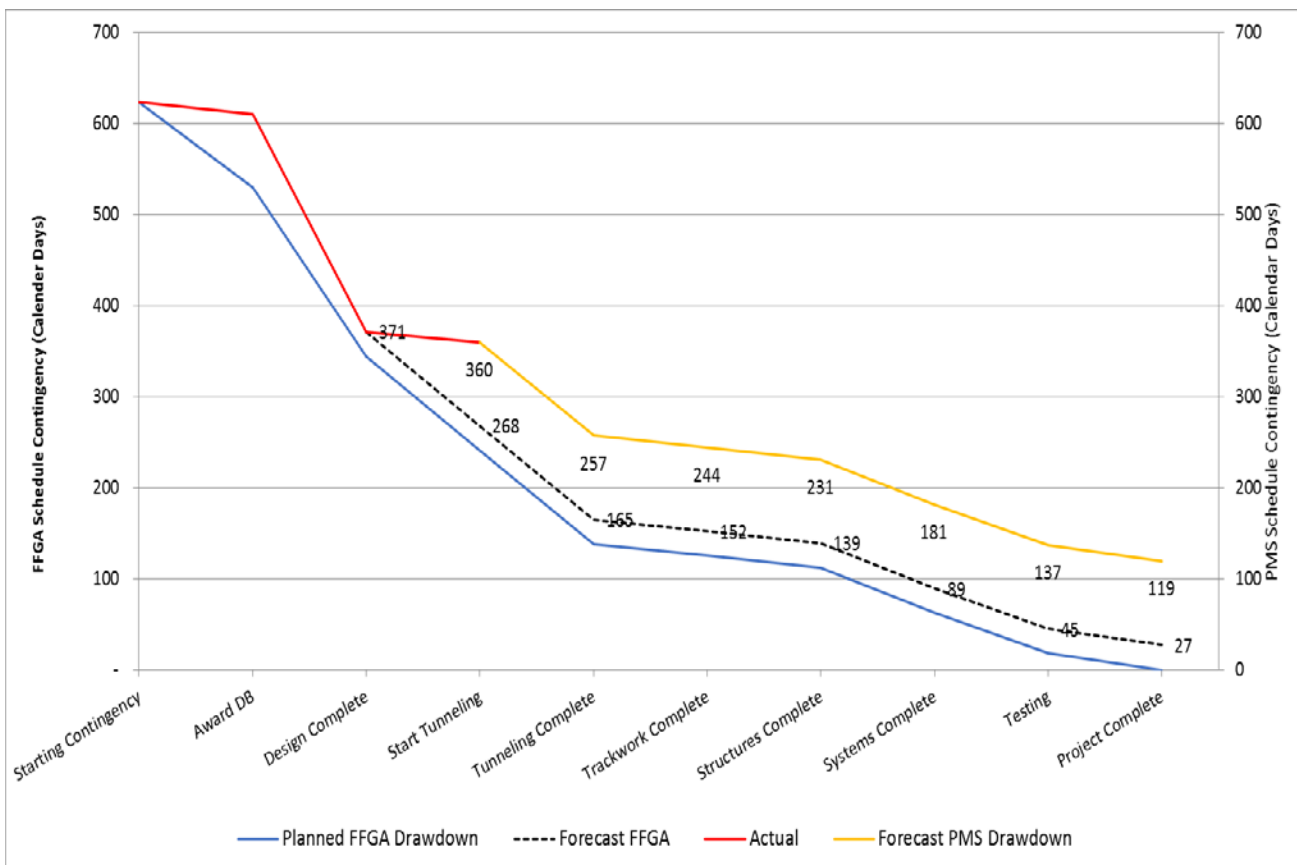
The project team is reviewing any impacts differing site conditions and third-party requirements may have on the project schedule. At this time, the Revenue Service Date remains in 2023.

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. This model will be updated when TBM mining is complete, which is anticipated in Q4 2020.

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 July 2020. Within this quarterly reporting period there were no new risks identified and two (2) risks were closed. A total of thirty-four (34) risks remain to be managed in the next reporting period.

Of the thirty-four (34) risks, five (5) are scored as high, ten (10) as medium and nineteen (19) as low.

The next WPLE Section 1 Project Risk Register quarterly update is scheduled for October 2020.

Top Five (5) Risks

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

Top Risks

Risk ID	Risk Description	Risk Score	Action Items
202.0	Areas with concentrated methane and H2S presence will complicate construction progress and safety, increase price and may cause delays.	20	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. Additional geotechnical investigations are being performed by the DB contractor (Golder & Associates). Supplemental reports/findings to follow. 3. The Gas Task Force has been reassembled. 4. Reach 2 Tunneling has been completed.
678.0	COVID-19 Pandemic Impact	20	1. Evaluate state and local government guidelines 2. Put contingency plans in place.
625.1	Encountering unknown anomalies during tunneling (e.g. tie-backs, steel beam, oil wells).	14	1. Anomaly under investigation at western array of Reach 3. 2. Planning surface chemical grouting from inside the box culvert and from surface.
90.1	Risk of gas incident during construction.	13	1. Monitoring for gas during construction. 2. Taskforce formed to develop work plan for stations. 3. Metro have strict safety requirements in place which will be part of the safety requirements for contractors. Metro will further supplement existing safety requirements based on geotechnical investigations/Environmental investigations. 4. Reach 2 Tunneling has been completed.
676.0	Subcontractor ability to get the required resources to perform work.	10	1. Actively manage schedule and resource needs.

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	64,106	452,400	2,000	403,477	3,784	261,340	50,923	452,400	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	440,621	131,577	572,197	-	535,138	6,288	330,574	37,059	572,197	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	43,323	2,688	46,012	10	45,712	-	45,698	1,304	46,012	-
40	SITework & SPECIAL CONDITIONS	751,566	70,517	825,008	224	788,369	3,609	621,906	26,253	825,008	-
50	SYSTEMS	113,574	5,421	118,995	344	102,207	375	32,663	4,009	118,995	-
CONSTRUCTION SUBTOTAL (10-50)		1,737,378	274,309	2,014,612	2,578	1,874,902	14,055	1,292,180	119,548	2,014,612	-
60	ROW, LAND, EXISTING IMPROVEMENTS	175,634	27,346	202,980	-	202,980	-	184,427	-	202,980	-
70	VEHICLES	160,196	(51,893)	108,302	-	98,248	-	23,704	-	108,302	-
80	PROFESSIONAL SERVICES	412,710	160,678	575,463	804	452,050	1,933	395,215	65,145	575,463	-
SUBTOTAL (10-80)		2,485,918	410,439	2,901,357	3,382	2,628,180	15,988	1,895,526	184,694	2,901,357	-
90	UNALLOCATED CONTINGENCY	248,592	(210,439)	38,153	-	-	-	-	(29,099)	38,153	-
100	FINANCE CHARGES	375,470	-	375,470	-	-	-	-	44,405	375,470	-
TOTAL PROJECTS 465518 & 865518 (10-100)		3,109,980	200,000	3,314,980	3,382	2,628,180	15,988	1,895,526	200,000	3,314,980	-
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	200,000	3,354,350	3,382	2,667,549	15,988	1,934,883	200,000	3,354,350	-

Original Budget

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

Current Budget

The Current Budget was adjusted to reflect the Board approved Life of Project Budget increase of \$200.0 million. The increase is primarily due to differing site conditions associated with the Design/Build Contract C1045, City of Beverly Hills Memorandum of Agreement, City of Los Angeles Master Cooperative Agreements, Construction Management Support Services, Project Management Support Services and Metro Project Administration.

Current Forecast

The Current Forecast increased by \$200.0 million. The Guideway & Track Elements increased by \$50.9 million, the Stations, Stops, Terminal, Intermodal increased by \$37.1 million, the Support Facilities increased by \$1.3 million, the Sitework & Special Conditions increased by \$26.3 million, the Systems increased by \$4.0 million, and the Professional Services decreased by \$65.1 million. The Unallocated Contingency decreased by \$29.1 million, and the Finance Charges increased by \$44.4 million.

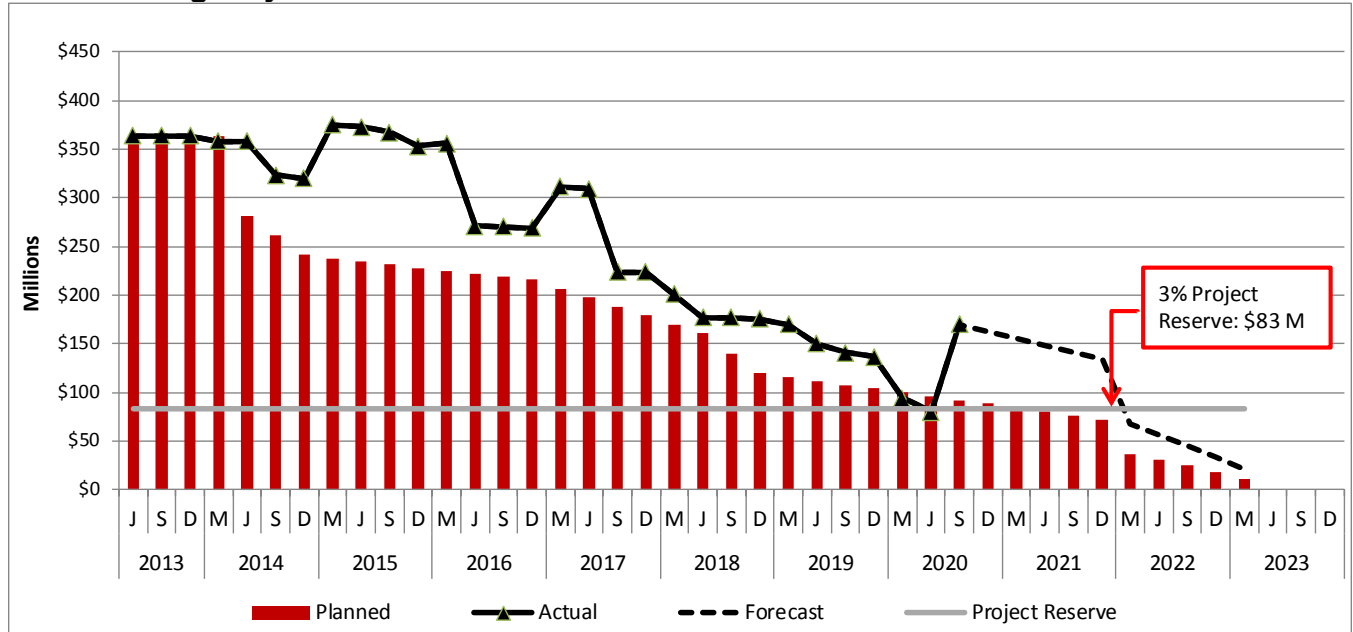
Commitments

The Commitments increased by \$3.4 million primarily due to executed Contract Modifications for the Design/Build Contract C1045. The \$2.7 billion in Commitments to date represent 79.5% of the Current Budget.

Expenditures

The Expenditures increased by \$16.0 million for costs associated with the Design/Build Contract C1045, Engineering Management Support Services, and Metro Project Administration. The \$1.9 billion in Expenditures to date represent 57.7% 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 contingency balance remaining is below the 3% project reserve threshold of \$83.4 million.

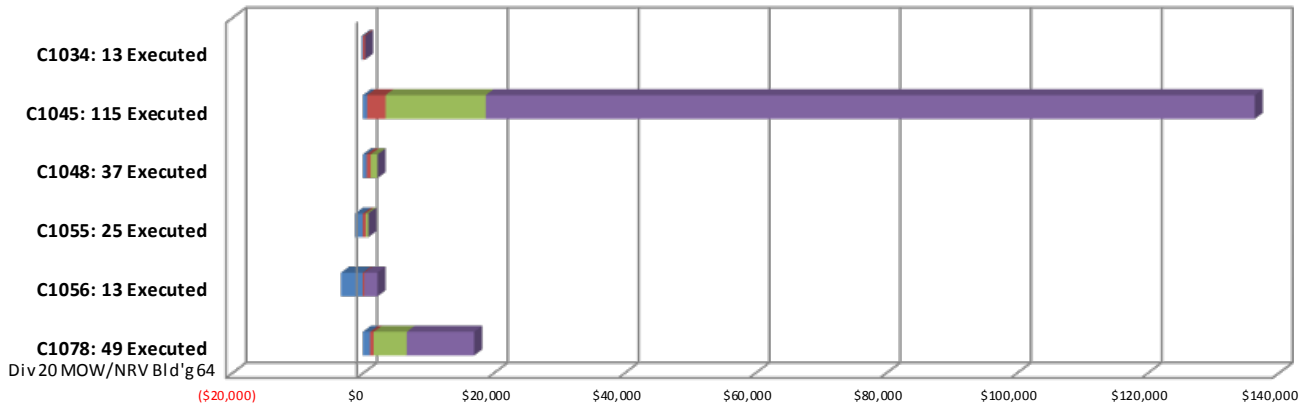
The project cost contingency drawdown curve is based on a 2023 Revenue Service date.

The unallocated contingency decreased this period by \$29.1 million, and the allocated contingency increased by \$119.3 million to reflect the Board approved Life of Project Budget amendments.

PROJECT COST CONTINGENCY					
DOLLARS IN THOUSANDS					
	Original Contingency (Budget)	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	248,592	(181,340)	(29,099)	(210,439)	38,153
Allocated Contingency	71,963	(59,447)	119,337	59,891	131,854
Total Contingency	320,555	(240,787)	90,239	(150,548)	170,007

Summary of Contract Modifications

Contract Modifications (MODs) by Cost Level
 Dollars in Thousands



	C1034 13 Executed	C1045 115 Executed	C1048 37 Executed	C1055 25 Executed	C1056 13 Executed	C1078 49 Executed	Total
Under \$100K	(164)	617	574	(1,179)	(3,325)	1,091	(2,387)
\$100K to \$250K	321	2,837	617	436	245	578	5,034
\$250K to \$1M	-	15,318	1,051	391	-	5,034	21,794
Over \$1M	-	117,590	-	-	1,983	10,309	129,882
Total Contract MODs	157	136,362	2,242	(352)	(1,097)	17,012	154,324
Contract Award Amount	6,487	1,636,419	6,181	14,430	20,250	52,830	1,736,597
% of Contract MODs	2.4%	8.3%	36.3%	-2.4%	-5.4%	32.2%	8.9%

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 fifteen Contract MODs with a total value of \$136.4 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.

Forty-nine Contract MODs with a total value of \$17.0 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 July 2020:

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	\$13.6 M 20.25%
Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime	\$12.9 M 19.94%

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	\$195.8M 12.56%
Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime	\$150.1M 14.25%

One hundred forty-four (144) Construction DBE sub-contractors have been identified to date.

PROJECT LABOR AGREEMENTS (PLA)

As of July 2020:

Targeted Worker Goal Construction work to be performed by residents from Economically Disadvantaged Areas in the United States	40.00%
Targeted Worker Current Attainment	60.02%
Apprentice Worker Goal Construction work to be performed by Apprentices	20.00%
Apprentice Worker Current Attainment	19.33%
Disadvantaged Worker Goal Construction work to be performed by disadvantaged workers	10.00%
Disadvantaged Worker Current Attainment	11.95%

FINANCIAL/GRANT

Status of Funds by Source

DOLLARS IN MILLIONS

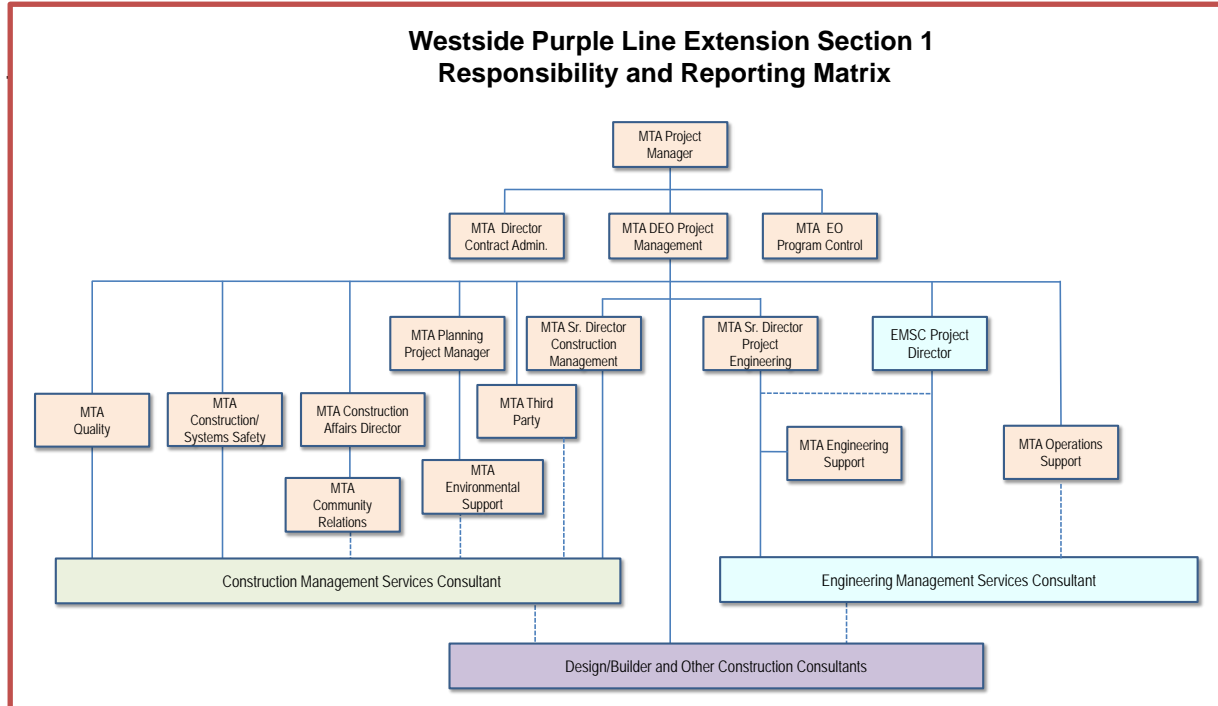
SOURCE	(A)	(B)	(C)	(D)	(D/B)	(E)	(E/B)	(F)	(F/B)
	ORIGINAL BUDGET	TOTAL FUNDS ANTICIPATED	TOTAL FUNDS AVAILABLE	COMMITMENTS \$	%	EXPENDITURES \$	%	BILLED TO FUNDING SOURCE \$	%
FEDERAL - SECTION 5309 NEW STARTS	\$1,250.000	\$1,250.000	\$665.000	\$1,250.000	100%	\$602.913	48%	\$602.913	48%
FEDERAL CMAQ	\$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	\$1,213.622	\$932.750	\$600.804	50%	\$515.225	42%	\$493.416	41%
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	\$50.898	\$50.898	\$50.898	100%	\$50.898	100%	\$50.898	100%
CITY OF LOS ANGELES	\$75.273	\$75.273	\$1.290	\$1.290	2%	\$1.290	2%	\$1.290	2%
TOTAL	\$3,149.350	\$3,354.350	\$2,414.495	\$2,667.549	79.5%	\$1,934.883	57.7%	\$1,913.074	57.0%

EXPENDITURES ARE CUMULATIVE THROUGH AUGUST 31, 2020
 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 (\$45.0M)

PROJECT ORGANIZATION AND STAFFING

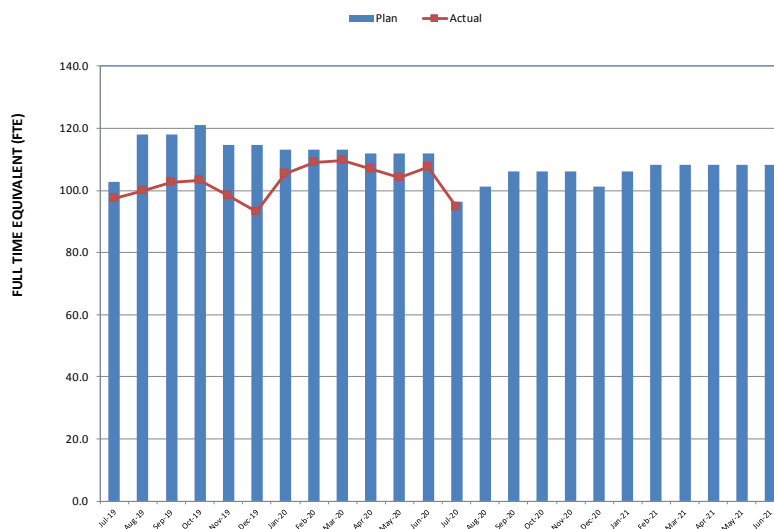
The design-build contract is being managed by a joint team of Metro and consultant personnel jointly located at the Integrated Project Management Office (IPMO).



The overall FY21 Total Staffing Plan averages 105.4 FTEs per month.

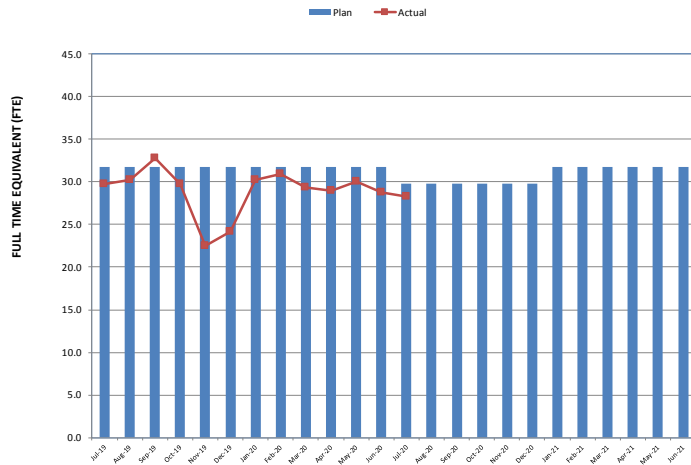
For July 2020, there were a total of 28.2 FTEs for MTA's Project Administration Staff and 66.3 FTEs for Consulting Staff. The total project staffing for July 2020 was 94.6* FTEs.

Total Project Staffing – Metro and Consultants

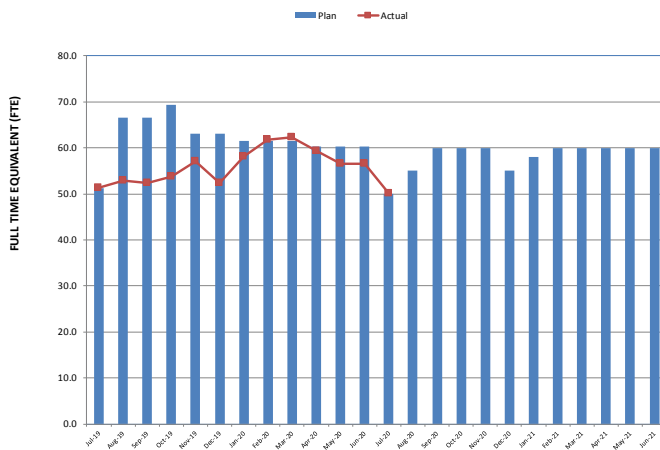


*Actuals include 2.2 FTEs related to Project Management Support Services (PMSS).

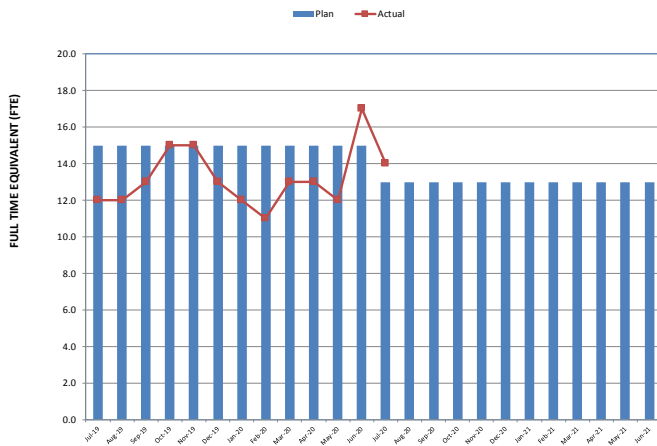
Metro Staff



CM Support Services Staff (Consultant)



Engineering Services Staff (Consultant)



All above data through July 2020

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.

There remains one parcel at the Wilshire/Fairfax Station location in the condemnation phase. The final settlement agreement is currently being completed and is expected to be closed out within the quarter.

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.
- Station quality progress:
 - Wilshire/La Brea – engaged in oversight activities for construction of roof structure, concourse deck and stair members.
 - Wilshire/Fairfax – monitored entrance structure (SOE) excavation, lagging, structural steel shoring members and exterior/interior walls.
 - Wilshire/La Cienega – engaged in oversight activities for construction of exterior walls (first lift), rebar, concrete placement, HDPE, and mechanical plumbing/piping.
- Processed 42 surveillances, 21 Quality Action Requests (QARs), 28 Nonconformance Reports (NCRs) and one (1) Corrective Action Request (CAR).

C1078 – Division 20 MOW and NRV Building Location 64

- Project is in final phase of completing punch list items.
- Processed two (2) surveillances, 11 QARs (all closed), 17 NCRs and one (1) CAR.

ENVIRONMENTAL

- *Board of Public Works approved CEQA memo for the proposed Orange Avenue and Sycamore Avenue closures for the Wilshire/La Brea Station appendage construction.*
- *Verified ventilation noise at Ogden Yard following completion of TBM mining past the M-13 zone.*
- *FTA issued a draft memo of acceptance of the 27th Quarterly MMRP Report (4th Qtr. 2019) with a finding of “Compliant” with no comments.*
- *Communicated means and methods including traffic control and mitigation measures for appendage construction at Wilshire/La Brea and Wilshire/Fairfax to FTA.*

CONSTRUCTION AND COMMUNITY RELATIONS

- Attended virtual Neighborhood Council meetings, monthly environmental mitigation meetings, held meetings online and made Project presentations to: Beverly Hills residents and business stakeholders, Elected Officials' Deputies, Construction Community Meetings and various stakeholders.
- 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 that remained open for pick-up and delivery during COVID-19 restrictions.
- Continued additional construction mitigations including: alternative parking options, business signage, street signs and print ads at no cost to the businesses.
- Corresponded with council district offices regarding construction effects on traffic and shared major stakeholder concerns.
- Updated website, Facebook, Twitter as needed. Published monthly PLE (Purple Line Extension) newsletter to email list. Placed monthly ads in local papers.
- Tours were suspended due to COVID-19.
- Produced and distributed:
 - *Six (6) construction work notices for construction activities;*
 - The La Cienega Monthly Look Ahead;
 - Weekly look-aheads for Division 20;
 - Weekly construction look-ahead emails to construction stakeholders; and
 - Monthly look-ahead emails for the City of Beverly Hills.

CREATIVE SERVICES

- Continued design development for Wilshire Customer Center artwork relocation to Wilshire/Western Station.
- *Continued design development for concourse glass tile artwork design at Wilshire/La Cienega Station.*
- Coordination underway with design-builder for fabrication procurement.

SAFETY & SECURITY

- *There were no recordable injuries in August 2020.*
- Metro Safety staff conducted daily safety inspections, attended weekly Tool Box, 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.
- *Both Tunnel Boring Machines (TBM's) are mining in Reach 3 (Wilshire/Fairfax to Wilshire/La Cienega) and have encountered no methane alarms.*
- Methane extraction from the TBM pathway to the surface is now complete, and the contractor ENVENT has withdrawn from the traffic closure.
- *July 2020 Contractor Work Hours (Design & Construction): 86,175*
- *Contractor - Project to Date Work Hours (Design & Construction) (through 7/31/20): 3,836,765*
- *Total Project to Date Work Hours (Contractor & the IPO Staff) (through 7/31/20): 5,012,553*
- *Project to Date Recordable Injury Rate: 1.27 (32 Recordable Injuries) (each rate is per 200,000 work hours) (National Rate: 2.5)*
- *Project to Date Total Days Away (DART) Injury Rate: 0.119 (3 Days Away or Lost Time) (each rate is per 7 Days/Time Away from Work Injuries) (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	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	HDPE protection slab placement commenced at Wilshire/Fairfax Station.
May 2019	Substantial Completion for the C1078 Contract (Division 20 MOW/NRV Building Location 64) was achieved on May 1, 2019.
June 2019	Both TBM #1 (Soyeon) and TBM #2 (Elsie) completed the 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	Bottom of excavation reached 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 the Reach #2 tunnel drive. TBM #2 (Elsie) commenced the 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 the Reach #3 tunnel drive.
August 2020	<i>Commenced concourse concrete placement at Wilshire/Fairfax Station.</i>