



Board Report

File #: 2021-0662, **File Type:** Oral Report / Presentation

Agenda Number: 30.

**CONSTRUCTION COMMITTEE
NOVEMBER 18, 2021**

SUBJECT: PROGRAM MANAGEMENT MAJOR PROJECT STATUS REPORT

ACTION: ORAL REPORT

RECOMMENDATION

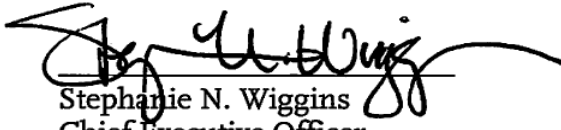
RECEIVE oral report on the Major Project Status by the Chief Program Management Officer.

DISCUSSION

Update report covering the month of November 2021 by the Chief Program Management Officer.

Prepared by:

- **Crenshaw/LAX** - Sameh Ghaly, Sr EO Project Mgmt., (213) 418-3369
- **Regional Connector** - Sameh Ghaly, Sr EO Project Mgmt., (213) 418-3369
- **Westside Purple Line Ext 1** - James Cohen, EO Project Mgmt., (213) 922-7911
- **Westside Purple Line Ext 2** - Michael McKenna, EO Project Mgmt., (213) 312-3132
- **Westside Purple Line Ext 3** - Kimberly Ong, EO Project Mgmt., (323) 903-4112
- **Airport Metro connector (AMC)** - Timothy Lindholm, Sr. EO Project Engr., (213) 922-7297
- **G Line BRT Improvements Project** - Timothy Lindholm, Sr. EO Project Engr., (213) 922-7297
- **I-5 North County Enhancements** - Timothy Lindholm, Sr. EO Project Engr., (213) 922-7297
- **Division 20 Portal Widening Turnback** - Rick Meade, Sr EO Project Mgmt., (562)524-0517
- **I-210 Barrier Replacement** - Androush Danielians, Sr EO Project Engr., (213) 922-7598
- **Presentation** - Yohana Jonathan, Mgr, Project Control, (213) 418-3031



Stephanie N. Wiggins
Chief Executive Officer

Program Management Major Project Status Report

Presented By

Bryan Pennington

Chief Program Management Officer

PROJECT BUDGET & SCHEDULE STATUS SUMMARY CHART

Project	Cost Performance		Schedule Performance		Comments
	Variance Approved LOP	Variance Revised Budget	Variance Original	Variance Revised Schedule	
Crenshaw/LAX					Project is 99.3% complete. Contractor is not applying sufficient work force to complete their remaining work. Remaining work is primarily underground station finishing, facility equipment, communications and train control system integration testing. Metro continues to work with contractor to mitigate the delays and impacts to the project schedule; emphasizing safety and reliability in final acceptance of project elements and systems. Equity - 8 of 8 stations (100%) are within or adjacent to Equity Focus Communities.
Regional Connector					Project is 87.5% complete. Comprehensive testing underway for 7th/Metro Center and adjacent facility interfaces; Site work and restoration throughout alignment continues; and MEP and systems work continues in stations and guideway. Equity - 3 of 3 stations (100%) are within or adjacent to Equity Focus Communities.
Westside Purple Line Extension-Section 1					Project is 72% complete. The Project is finalizing the current revision of the overall schedule which outlines the path forward to achieving the target substantial completion date of September 2024. Efforts to minimize schedule risk continue. Equity - This Project is not located within or adjacent to Equity Focus Communities.
Westside Purple Line Extension-Section 2					Project is 46% complete and proceeding on schedule and within budget. Equity - This project is not located within or adjacent to Equity Focus Communities.
Westside Purple Line Extension-Section 3					Project is 29% complete and proceeding on schedule and within budget. Equity - 1 of 2 stations (50%) are within or adjacent to Equity Focus Communities.
Airport Metro Connector					Early Works Phase is 34% complete. Site work continuing with grading work. Infrastructure for utility line in the Southwestern Yard is complete. Preparing for main communications line ductbank within SWY. Primary station contract process is nearing completion with NTP expected within a month. Equity - 100% of the project is within or adjacent to Equity Focus Communities.
G Line BRT Improvements					Progressive Design Build Contract being finalized for Industry review anticipated Oct 2021. Contract award anticipated Summer 2022. Pilot Gate construction underway. AURs and property acquisitions underway. Equity: 8 of 18 stations (45%) are within or adjacent to Equity Focus Communities
1-5 North County Enhancements					Contractor starts field work in October 2021 with temporary signage/stripping and pre-construction site survey. Equity - This project is not located within or adjacent to Equity Focus Communities.
Division 20 Portal Widening Turnback					Project is approximately 29% complete. Construction continues with the excavation and grading for duct banks and vaults, Portal excavation, utility installation, the 1st Bridge, duct banks and manholes for the Traction Power Substation and MicroLok cutover is ongoing. Unallocated contingency remaining is approximately 13%. An increase in Life of Project (LOP) will need to be explored to increase and restore contingency levels in order to secure adequate budget for completion of the project. LOP increase will be presented in the January Construction Committee meeting. In addition, the project schedule continues to be developed as the project team is working with the contractor to finalize an updated schedule. Equity - 100% of the project is within or adjacent to Equity Focus Communities.

November 2021

Construction Committee

On target

Possible problem (5-10% variance)

Significant Impact (over 10% variance)

SMALL BUSINESS PROJECT STATUS SUMMARY CHART

Project	Phase	Goal Type	Contractor Commitment	Current Participation	Variance	Comments
Crenshaw/LAX	Design	DBE	20.00%	20.85%	Exceeding	Walsh/Shea Corridor Constructors, JV is exceeding the DBE commitment by 0.85% on Design and 8.61% on Construction
	Construction	DBE	20.00%	28.61%	Exceeding	
Regional Connector	Design	DBE	22.63%	24.53%	Exceeding	Regional Connector Constructors is exceeding the DBE commitment by 2.90% on Design and 1.69% on Construction
	Construction	DBE	18.00%	19.69%	Exceeding	
Westside Purple Line Extension-Section 1	Design	DBE	20.25%	20.11%	Shortfall	Skanska-Traylor-Shea Joint Venture (STS) has a DBE shortfall of 0.14% on Design and 2.54% on Construction. STS has provided an updated DBE utilization forecast and a shortfall mitigation plan has been requested.
	Construction	DBE	17.00%	14.46%	Shortfall	
Westside Purple Line Extension-Section 2	Design	DBE	25.31%	35.11%	Exceeding	Tutor Perini/O&G, A Joint Venture (TPOG) is exceeding the DBE commitment on Design by 9.80% and has a shortfall of 3.47% on Construction. TPOG has a shortfall mitigation plan on file and is being monitored.
	Construction	DBE	17.00%	13.53%	Shortfall	
Westside Purple Line Extension-Section 3 – Tunnels	Design	DBE	11.19%	19.37%	Exceeding	Frontier-Kemper/Tutor Perini JV (FKTP) is exceeding the DBE commitment on Design by 8.18% and has a shortfall on Construction by 2.83%. FKTP has a shortfall mitigation plan on file and is being monitored.
	Construction	DBE	17.10%	14.27%	Shortfall	
Westside Purple Line Extension-Section 3 – Stations, Trackwork, Systems and Testing	Design	DBE	19.25%	17.48%	Shortfall	Tutor Perini/O&G, A Joint Venture (TPOG) has a shortfall of the DBE commitment on Design by 1.77% and 16.59% on Construction. TPOG has a shortfall mitigation plan on file and is being monitored.
	Construction	DBE	21.00%	4.41%	Shortfall	
Airport Metro Connector (Station)	Construction	SBE	20.79%	0.00%	TBD	Nearing release of NTP
		DVBE	4.96%	0.00%	TBD	
G Line BRT Improvements	PDB	TBD	TBD	TBD	TBD	Contract Award anticipated Summer 2022
1-5 North County Enhancements	Construction	DBE	13.01%	0.00%	TBD	Contractor is mobilizing to begin field work in October 2021.
Division 20 Portal Widening Turnback	Construction	SBE	19.34%	5.80%	Shortfall	Tutor Perini Corporation (TPC) has a shortfall of the SBE/DVBE commitments by 13.54% SBE and 0.95% DVBE. TPC has a shortfall mitigation plan on file and is being monitored.
		DVBE	3.31%	2.36%	Shortfall	

November 2021

Construction Committee

Los Angeles County Metropolitan Transportation Authority

CRENSHAW/LAX TRANSIT PROJECT

BUDGET	Approved	Previous	Current
TIFIA	LOP*	Period**	Forecast**
\$2,148M	\$2,058M	\$2,148M	\$2,148M
Variance from Approved LOP:		\$90M (4%)	\$90M (4%) ok
Variance from Revised Budget:			\$0 ok

*At time of the award of contract - Board Approval June 2013
 **Excludes finance costs and includes \$10M Non-TIFIA activities

SCHEDULE	Approved	(REVENUE OPERATION) Previous	Current
Original	Rebaseline	Period	Forecast*
Oct.2019	May 2020	Winter 2021	Summer 2022
Variance from Original:		+873d (28%)	+ 905d (29%) !
Variance from Revised Schedule:		+652d (27%)	+682d (28%) !

*Current Forecast is Contractor's August Schedule update

- Safety: Project Hours: 11,178,251 Recordable Injury Rate: 1.82 vs The National Average: 2.4 (as of August 31, 2021)
- Overall Project Progress is 99.3% complete.
- Contractor is not applying sufficient specialty work force to complete remaining work, testing/test reports on time.
- Remaining work is primarily underground station finishing, permanent remediations of OCS balance weight assembly NCR issue, the completion of facility equipment, communications and train control system integration testing.
- Metro continues to work with contractor to minimize delays and impacts to the project; emphasizing safety and reliability in final acceptance of project elements and systems.
- Equity - 8 of 8 stations (100%) are within or adjacent to Equity Focus Communities.



Expo Station – Continue fine grading the entire Park & Ride area.



Hyde Park – Preparing the floor surface at the south end entrance ramp for coat finish placement

November 2021



On target



Possible problem (5-10% variance)



Significant Impact (over 10% variance)





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REGIONAL CONNECTOR TRANSIT PROJECT

BUDGET

<u>FFGA</u>	<u>Approved LOP*</u>	<u>Previous Period**</u>	<u>Current Forecast**</u>
\$1,402M	\$1,420M	\$1,755M	\$1,755M
Variance from Approved LOP:		\$335M (24%)	\$335M (24%) 
Variance from Revised Budget:		\$0	

*At time of the award of contract – Board Approval April 2014
 **Excludes finance costs

SCHEDULE

<u>Original</u>	<u>Approved** Rebaseline</u>	<u>Previous Period</u>	<u>Current Forecast*</u>
May 2021	Fall 2022	Fall 2022	Fall 2022
Variance from Original:		+480d (19%)	+480d (19%) 
Variance from Revised Schedule:		0d	

*Current Forecast is Metro's October 2021 update
 **Approval in process

(REVENUE OPERATION)

- Safety: Project Hours: 6,547,222 Recordable Injury Rate: 0.73 vs The National Average: 2.4 (as of August 31, 2021)
- Overall Project Progress is 87.5% complete.
- **Little Tokyo/Arts District Station & Surrounding Area:** Station operations continue to be active at all levels and include MEP, finishes and systems installations. Backfill and street restoration are also progressing.
- **Historic Broadway Station:** Structural concrete on the Load Transfer System has been completed. Structural backfill, MEP, finishes, and systems installations are all underway. At street-level, backfill and street restoration continue.
- **Grand Av Arts/Bunker Hill Station:** Pedestrian Bridge pours have been completed. Finishes, systems operations, backfill and street restoration continue. Elevators are the focus and pacing element for the station.
- **Flower Street:** Removal of temporary concrete deck panels complete. MEP and systems installations continue along the completed guideway. Utility tie-ins are also progressing ahead of on-going backfill.
- **Trackwork:** Initial pull test completed along alignment. Remedial work along alignment continues on various installations to prepare for acceptance inspections. Grinding and profiling of rail expected to complete early 2022.
- **Systems:** Installations of traction power, train control and communications continuing; entire alignment now on permanent power; comprehensive systems testing now underway.
- **Equity:** 3 of 3 stations (100%) are within or adjacent to Equity Focus Communities.



Welding for elevator hoist way frames at Grand Av Arts/Bunker Hill Station



Alameda No. 10 Crossover rail distribution

November 2021



On target



Possible problem
(5-10% variance)



Significant Impact
(over 10% variance)

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WESTSIDE PURPLE LINE EXTENSION – SECTION 1

BUDGET			
FFGA	Approved LOP* **	Previous Period**	Current Forecast**
\$2,822M	\$2,774M	\$3,129M	\$3,129M
Variance from Approved LOP:		\$355M (13%)	\$355M (13%) 
Variance from Revised Budget:		\$0	

**At time of the award of contract – Board Approval July 2014*
***Excludes finance costs*

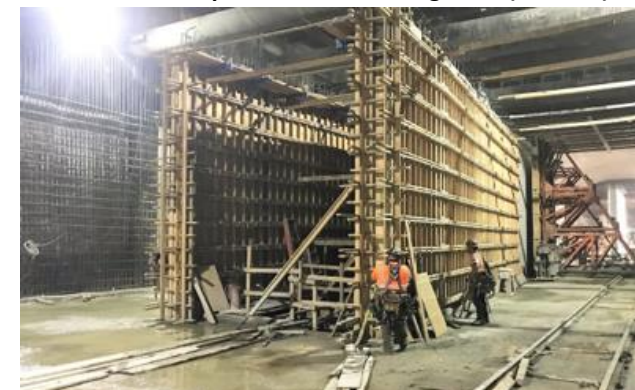
SCHEDULE (REVENUE OPERATION)			
Original	Approved Rebaseline	Previous Period	Current Forecast*
Nov.2023	Fall 2024	Fall 2024	Fall 2024
Variance from Original:		+365d (11%)	+365d (11%) 
Variance from Revised Schedule:		0d	

**Current Forecast is Contractor's August Schedule update*

- Safety: Project Hours: 6,157,610 Recordable Injury Rate: 1.27 vs. The National Average: 2.4 (as of August 31, 2021)
- Overall Project progress is 72% complete.
- **Wilshire/La Brea Station:** Backfill (above the roof) activities, west hammerhead and entrance structure work, interior MEP installation and appendage construction are ongoing.
- **Wilshire/Fairfax Station:** All concrete roof sections (11 out of 16) for this phase of construction have been placed. East and west hammerhead structure continues. Entrance plaza and appendage work are ongoing. Plenum steel placement (concourse) has started.
- **Wilshire/La Cienega Station:** All TBM gantries have been removed from the project site. East/west hammerhead structure work and appendage construction are progressing.
- **Reach 1 Tunnel:** Tunnel invert and walkway concrete activities continue. Track installation commenced in October 2021.
- **Reach 2 Tunnel:** Two out of six cross passages (CPs) have been excavated. Additional grouting on the other CPs is being performed prior to excavation.
- **Budget/Schedule:** An FTA/PMOC risk assessment has been performed. Results will be shared once findings are analyzed.
- **Equity:** This Project is not located within or adjacent to Equity Focus Communities.



Excavation Complete at Cross Passage #16 (Reach 2)



East Interior Wall Formwork at Wilshire/La Cienega

WESTSIDE PURPLE LINE EXTENSION – SECTION 2

BUDGET	Approved	Previous	Current
<u>FFGA</u>	<u>LOP*</u>	<u>Period**</u>	<u>Forecast**</u>
\$2,499M	\$2,441M	\$2,441M	\$2,441M
Variance from Approved LOP:		\$0M (0%)	\$0M (0%) OK
Variance from Revised Budget:			\$0 OK

*At time of the award of contract – Board Approval January 2017

**Excludes finance costs

SCHEDULE		(REVENUE OPERATION)	
<u>Original</u>	<u>Approved Rebaseline</u>	<u>Previous Period</u>	<u>Current Forecast*</u>
Aug. 2025	N/A	Summer 2025	Summer 2025
Variance from Original:		+0d (0%)	+0d (0%) OK
Variance from Revised Schedule:			0d OK

*Current Forecast is Contractor's April Schedule update

- Safety: Project Hours: 2,233,078 Recordable Injury Rate: 3.31 vs The National Average: 2.4 (as of August 31, 2021)
- Overall Project progress is 46% complete as of period ending September 2021.
- **Century City Constellation Station**
 - Excavation of the station box was 25% complete as of October 15, 2021.
 - Excavation of the station entrance box has commenced.
- **Wilshire/Rodeo Station**
 - Concrete placement for the first level walls is 51% complete.
- **Tunneling**
 - Both tunnel boring machines (TBMs) “Ruth” and “Harriet” are operating within the City of Beverly Hills. Progress as of October 18, 2021, is as follows:
 - Ruth (eastbound subway tunnel) – 4,022ft (35%)
 - Harriet (westbound subway tunnel) – 4,047ft (35%)
- **Equity** - This project is not located within or adjacent to Equity Focus Communities



Constellation Station Box Excavation



First Level Walls at Wilshire/Rodeo Station

November 2021

OK On target

◆ Possible problem
(5-10% variance)

▲ Significant Impact
(over 10% variance)

WESTSIDE PURPLE LINE EXTENSION – SECTION 3

BUDGET

<u>FFGA</u>	<u>Approved LOP*</u>	<u>Previous Period**</u>	<u>Current Forecast**</u>
\$3,599M	\$3,224M	\$3,224M	\$3,224M
<i>Variance from Approved LOP:</i>		\$0M (0%)	\$0M (0%) OK
<i>Variance from Revised Budget:</i>			\$0 OK

*At time of the award of contract – Board Approval February 2019

**Excludes finance costs

SCHEDULE

		(REVENUE OPERATION)	
<u>Original</u>	<u>Approved Rebaseline</u>	<u>Previous Period</u>	<u>Current Forecast*</u>
Mar. 2027	N/A	Spring 2027	Spring 2027
<i>Variance from Original:</i>		+0d (0%)	+0d (0%) OK
<i>Variance from Revised Schedule:</i>			0d OK

*Current Forecast is Contractor's March Schedule update

**Approval in process

- Safety: Project Hours: 1,305,735 Recordable Injury Rate: 1.53 vs The National Average: 2.4 (as of August 31, 2021)
- Overall Project Progress is 29% complete.
- Final design progress is 90% complete.
- Tunneling
 - TBM Iris (BR) – TBM has mined over 1800 feet to date.
 - TBM Aura (BL) – Configuration continues for full production mining.
- Stations
 - Westwood/VA: Utility relocation continues, installation of dewatering wells in progress.
 - Westwood/UCLA: Utility relocation continues; Support of Excavation pile installation continues along Wilshire Blvd.
- Equity - 1 of 2 stations (50%) are within or adjacent to Equity Focus Communities.



Tunneling Overview



SOE Pile Installation for Westwood/UCLA Station

November 2021

OK On target

◆ Possible problem
(5-10% variance)

▲ Significant Impact
(over 10% variance)

AIRPORT METRO CONNECTOR (AMC) PROJECT

BUDGET	Approved LOP*	Previous Period	Current Forecast
TOTAL COST	\$898.6M	\$898.6M	\$898.6M
Variance from Approved LOP:		\$0M (0%)	\$0M (0%)
Variance from Revised Budget:			\$0

*Approved May 2021 Board

SCHEDULE	Approved Rebaseline	(Revenue Operation) Previous Period	Current Forecast*
Original	N/A	Fall 2024	Fall 2024
Variance from Original:		+0d (0%)	+0 d (0%)
Variance from Revised Schedule:			0d

*Current Forecast is Metro's May Schedule update

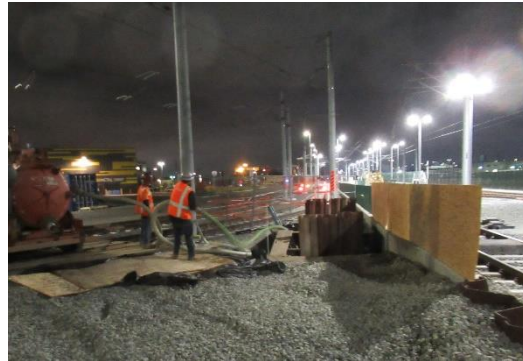
- Early Works Phase construction (34% complete) continues with final site grading work. Infrastructure work for utility line in SWY is complete. Preparing for installation of temp systems ductbank within Southwestern Yard.
- Primary Station Construction Contract nearing release of Notice To Proceed - scheduled for Fall 2021.
- Automated People Mover (APM) Station structural concrete completed. Structural Steel installation in progress.
- Equity - 100% of the project is located within or adjacent to Equity Focus Communities.



Backfill Work at South End of Site



LAVA APM Steel Work in Progress



Utility Work at SWY – Night Shift



On Site Backfilling Work

G LINE BRT IMPROVEMENTS PROJECT

BUDGET	Approved LOP	Previous Period	Current Forecast
TOTAL COST	N/A	N/A	\$361M
Variance from Approved LOP:		\$0M (0%)	\$0M (0%)
Variance from Revised Budget:			\$0

**Project will work within the annual budget constraints until LOP is established*



SCHEDULE	Approved Rebaseline	(Revenue Operation) Previous Period	Current Forecast*
Original	N/A	N/A	Dec 2026
Variance from Original:		+0d (0%)	+0 d (0%)
Variance from Revised Schedule:			0d

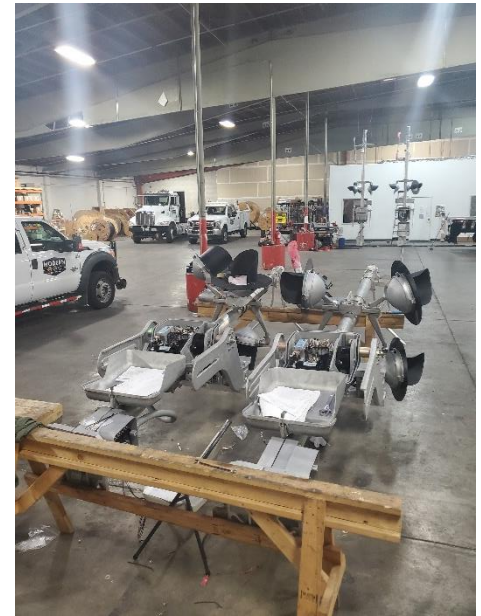
**Current Forecast is Metro's Internal Schedule, Baseline schedule not yet approved at time of update*



- Progressive Design Build Contract in final draft
- Industry Review anticipated week of October 25th
- Pilot Gate construction commenced September 2021
- Owner-performed AURs underway at Sepulveda, Vesper and Sylmar
- Ongoing coordination with interfacing contracts:
 - ESFV Light Rail Project
 - District NoHo Joint Development Project
 - LADOT Chandler Bike Path
- Nine Property Acquisitions underway:
 - Two acquisitions in negotiation phase
 - Seven acquisitions in appraisal stage
- PDB RFP anticipated for a Dec 2020 advertisement
- PDB Contract Award anticipated Summer 2022
- Equity: 8 of 17 stations (47%) are within or adjacent to Equity Focus Communities



Pilot Gate - DWP Service Pedestal Installation



Pilot Gate - Gate Assembly

November 2021

Construction Committee

Los Angeles County Metropolitan Transportation Authority



I-5 NORTH COUNTY ENHANCEMENTS

BUDGET	Approved LOP*	Previous Period	Current Forecast
TOTAL COST	\$679.3M	\$679.3M	\$679.3M
Variance from Approved LOP:		\$0M (0%)	\$0M (0%)
Variance from Revised Budget:			\$0

*At time of the award of contract – Board Approval (March 2021)

SCHEDULE	Approved Rebaseline	(Substantial Completion) Previous Period	Current Forecast*
Original July 2026	N/A	Summer 2026	Summer 2026
Variance from Original:		+0d (0%)	0d (0%)
Variance from Revised Schedule:			N/A

*Current Forecast is Metro's Internal Schedule, Baseline schedule not yet approved at time of update

- Contractor starts field work by placing temporary signs and performing pre-construction preparations in October 2021
- Construction Community Meeting Kick-off on October 27th
- Groundbreaking event in early November
- Equity - This project is not located within or adjacent to Equity Focus Communities



Contractor is taking survey of pre-construction existing conditions along project corridor

DIVISION 20 PORTAL WIDENING TURNBACK

BUDGET	Approved LOP*	Previous Period	Current Forecast
TOTAL COST	\$801.7M	\$801.7M	\$801.7M
Variance from Approved LOP:		\$TBDM (0%)	\$TBD ▲
Variance from Revised Budget:			\$TBD ▲

*At time of the award of contract – Board Approval (February 2020)

SCHEDULE	Approved Rebaseline	(Substantial Completion) Previous Period	Current Forecast*
Original June 2024	N/A	June 2024	TBD
Variance from Original:		+0d (0%)	TBD ◆
Variance from Revised Schedule:			TBD ◆

*Current Forecast is Contractor's Schedule update

- Overall Project progress is 29% complete.

Includes Real Estate Acquisitions, Environmental, Design, Contract Mobilization, Early Demolition, Power, Utility contracts and contract change orders

- C1136 Portal Widening Turnback Contract

PWT C1136 Contract progress is 32%.

Phase 1 Track, utilities, and civil work continues

1st Street Bridge Rehabilitation and Portal excavation

& first MicroLok cutover ongoing

- Major Change Orders to Date:

Hazardous Material Removal

1st Street Bridge Rehabilitation

Completion of Utility Contracts

3rd Party Unforeseen Interfaces

Design Revisions (*in progress*)

- C1184 Traction Power Substation Contract at 64%

- Coordination with Adjacent Projects

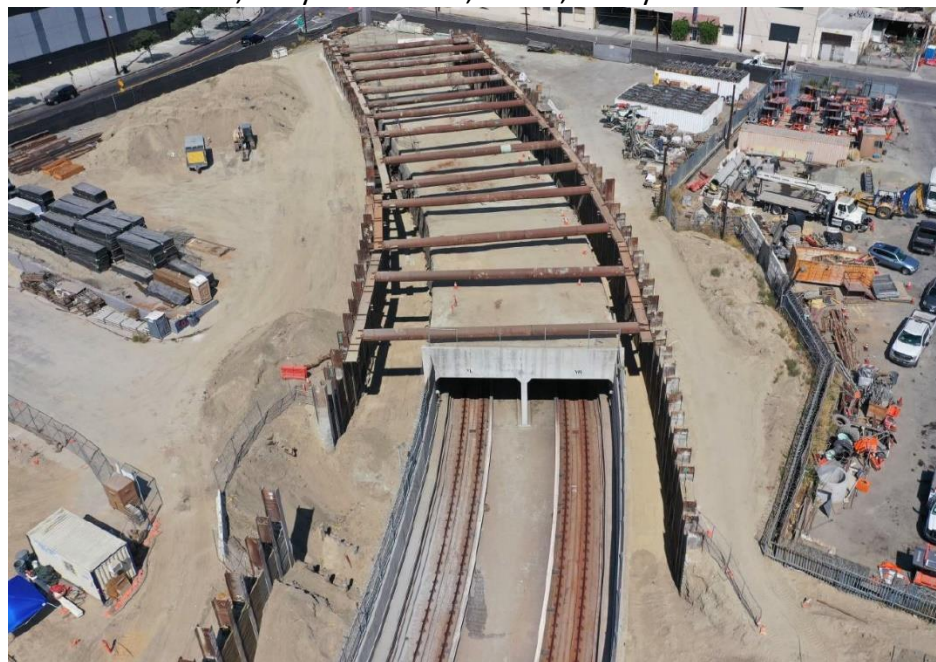
Purple Line Extension (PLE1)

Regional Connector; Metro Center Project

6th Street Bridge (City of L.A. Project)

- Continued Regular risk assessments to determine budget/schedule

- Equity - 100% of the project is located within or adjacent to Equity Focus Communities



November 2021



On target



Possible problem
(5-10% variance)



Significant Impact
(over 10% variance)



Metro 12

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Los Angeles County Metropolitan Transportation Authority