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TO: DISTRIBUTION

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SUBJECT: CRENSHAW/LAX TRANSIT PROJECT
APRIL 2020 MONTHLY PROJECT STATUS REPORT

Enclosed herewith is the Monthly Project Status Report for the Crenshaw/LAX Transit Project. This report contains the Los Angeles County Metropolitan Transportation Authority's (LACMTA) representation of the Crenshaw/LAX Transit Project status for the period ending May 1, 2020.

If you have any questions regarding this report or its supporting information, please contact Bill Brown, Deputy Executive Officer Program Control at (323) 903-4109.

SG: TS
Enclosure

Los Angeles County
Metropolitan Transportation Authority

Crenshaw/LAX Transit Project

MONTHLY PROJECT STATUS REPORT

APRIL 2020



CRENSHAW/LAX TRANSIT PROJECT

MONTHLY PROJECT STATUS REPORT

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APRIL 2020

TABLE OF CONTENTS

	Page No.
Project Overview.....	1-6
Executive Summary.....	7-12
Project Update	
• Project Schedule	
o Project Summary Schedule	13
o Progress Summary.....	14
o Planned vs. Actual Progress	14
o Key Milestones Six-Month Look Ahead.....	15
o Major Equipment Delivery Status	16
o Critical Path	17
o Project Schedule Contingency Drawdown.....	18
o Risk Management Narrative	19
• Project Cost	
o Project Cost Status & Analysis.....	20-21
o Cost Contingency Drawdown and Analysis.....	22
o Summary of Contract Modifications.....	23
Disadvantaged Business Enterprise (DBE).....	24
Project Labor Agreement	25
Financial/Grant.....	26
Project Staffing	27-28
Real Estate	29
Quality Assurance	29
Environmental	29
Construction and Community Relations	30
Creative Services	30
Safety and Security	31
Chronology of Events.....	32-33

PROJECT OVERVIEW

Project Background

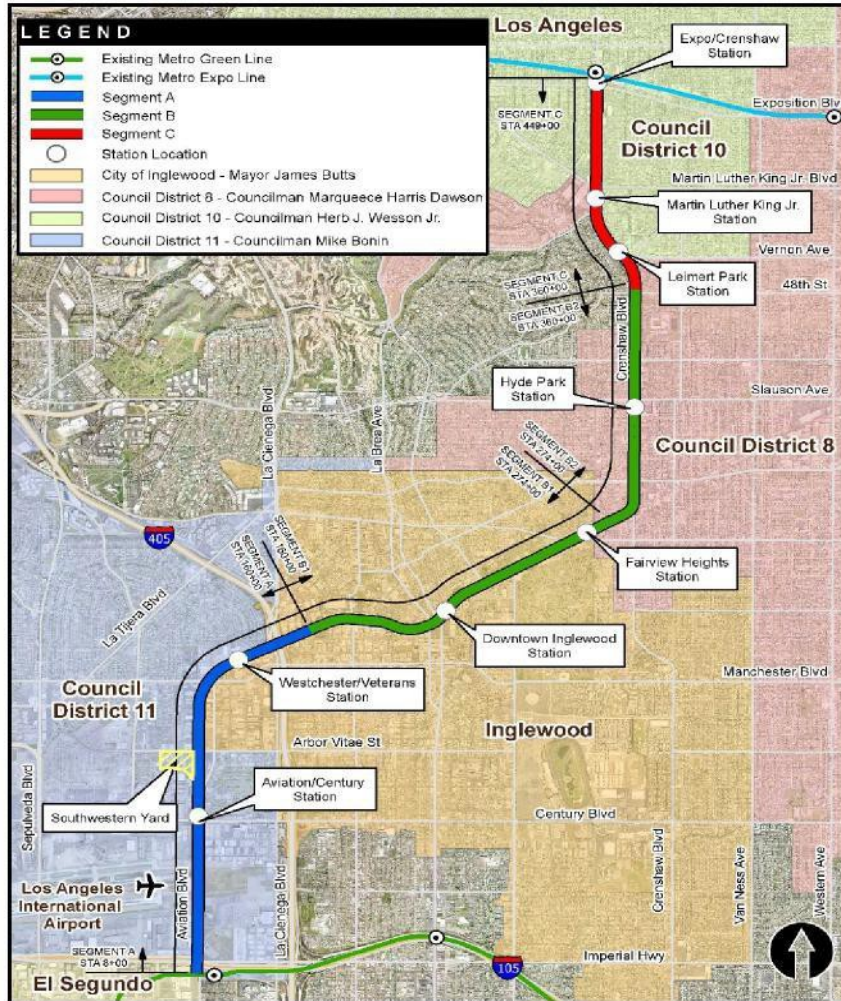
The Crenshaw/LAX Transit Project is a north/south light rail line that serves the cities of Los Angeles, Inglewood, Hawthorne and El Segundo as well as portions of unincorporated Los Angeles County. The alignment extends 8.5 miles, from the intersection of Crenshaw and Exposition Boulevards to a connection with the Metro Green Line south of the Aviation/LAX Station. The project provides major connections with the Los Angeles International Airport (LAX) as well as links to the C Line (Green), the E Line (Expo) and countywide bus network.

Two additional stations, Leimert Park and Westchester/Veterans were funded by the City of Los Angeles and by Metro and were approved to be part of the project by the Metro Board in May 2013. The Metro Board in July 2014 and again in May 2015 approved a revision to the project alignment to include accommodations to the alignment at 96th Street to not preclude a future light rail Metro Rail station being developed as part of the Airport Metro Connector (AMC) project. The accommodations included shifting the ultimate track configuration to the west side of the alignment to confine the revised trackwork on Metro Right-of-Way to mitigate potential cost exposure. These accommodations are not funded by the Crenshaw/LAX Transit Project but are paid for by the AMC project.

The alignment is comprised of a double-tracked rail line consisting of sections of at-grade in-street, at-grade within railroad right-of-way, aerial, and below-grade guideway sections, eight stations, park and ride facilities at two locations, utilities, landscaping, roadway improvements required by the project and a maintenance & storage facility (Southwestern Yard).

The Project configuration is based on years of planning and environmental work that is reflected in the following milestones:

- Major Investment Study – 2003
- Metro Board approval of Alternative Analysis – December 2009
- Initiation of Preliminary Engineering – September 2010
- Metro Board certification of Final EIS/EIR – September 2011
- FTA issuance of Record of Decision – December 2011
- TIFIA and TIGER II Grants approved September 2012



Major Procurements

Contract C0990 Crenshaw/LAX Advanced Utility Relocations

The design of several early utility relocations was advanced sufficiently into final design to allow for bidding of critical early utility relocations. This contract includes relocating three (3) existing duct banks that feed various NAVAIDS on the south airfield complex. New duct bank infrastructure was built by Metro with the fiber replacement work and cut-over by FAA/LAWA. These duct banks contain fiber lines and power lines which belong to both LAWA and FAA. Since the track alignment is below grade at these crossings, the duct banks were relocated in advance to allow for the construction of the track alignment. In addition, other wet utilities along the Harbor Branch and Crenshaw Boulevard segments of the corridor that can be relocated in advance were included as part of this contract.

Design-Build Contract C0991 Southwestern Yard

The Board-adopted 2009 Long Range Transportation Plan (LRTP) for Los Angeles County envisioned one new central Light Rail Transit (LRT) Maintenance facility to be used by all projects. Since the LRTP adoption, substantial progress on light rail system planning and development, including more accurate vehicle assignments, cost estimates, and functional requirements, has led Metro to conclude that two new LRT yards, an Eastern Yard and a Southwestern Yard, are necessary. This contract constructed the Southwestern Yard which consolidated maintenance facility requirements for this project as well as the operating Metro Green Line, proposed South Bay Metro Green Line Extension and proposed Metro Green Line to LAX. Southwestern Yard is complete and maintained by Metro Operations.

Contract C0992 Crenshaw/LAX Concrete Ties and Assembly Items

Metro added a contract for procuring owner-supplied equipment for the Design-Build Contract C0988 Crenshaw/LAX Transit Corridor Contractor. The equipment within the contract scope of work includes concrete ties and assembly items. Procurement completed and delivered to the project.

Contract C0992A Crenshaw/LAX Rail and Bumping Posts Procurement

Metro added a contract for rebidding the procurement of running rail and bumping posts for the Design-Build Contract C0988 Crenshaw/LAX Transit Corridor Contractor including a bumping post for the Design-Build Contract C0991 Southwestern Yard. Procurement completed and delivered to the project.

Design-Build Contract C0988 Crenshaw/LAX Transit Corridor

This is the largest project contract which completes final design and construction of the infrastructure required along the corridor alignment. The structures required to be constructed are eight stations (at-grade, elevated and underground), grade separations including flyover structures, cut and cover trenching, tunneling and two park-n-ride facilities. The scope of work includes all the necessary systems work including train control, traction power supply substations and distribution, overhead catenary, communications, and systems tie-in to the existing Metro Green Line. The project delivery method for this contract is design-build utilizing a two-step best value procurement approach with submittal of qualification statements through an RFQ process, prequalification of qualified proposers followed by release of a RFP soliciting technical and price proposals with an option at Metro's discretion for best and final offers (BAFO).

Light Rail Vehicles

The Board approved exercising Option 1 of Contract P3010 with KinkiSharyo International (KI) to provide light rail vehicles (LRV) for the Crenshaw/LAX project. The total number of vehicles in the Option is 28 which include 20 LRVs for the Crenshaw/LAX project and two additional cars for spares. The remaining six cars are for replacement of Metro's current fleet. The first Option 1 P3010 car was delivered in May 2017. The final P3010 car (22nd car) for Crenshaw/LAX project was delivered in September 2017, completing the Option delivery for the Crenshaw Project.

All twenty-two Crenshaw cars are currently in revenue service on the Green and Blue Lines. KinkiSharyo/ASTS to work on the Cutover (revenue service) software development to include Crenshaw's final alignment, track profiles, and berthing locations. Once completed, a series of lab software validation tests were performed prior to implementation on the P3010s. Vehicles software is being field verified in coordination with the mainline contractor for Segment A and will continue testing of each Segment including the Green line junction, SIT-1 completion as pre-requisites complete going from south to north of the alignment.

Rail Operations Center (ROC)

The existing functional operations at the ROC are being expanded to accommodate the central control functions associated with five new rail lines including Crenshaw/LAX Project. The Project is contributing \$3.5 million towards this expansion which is scheduled to be completed in time for Crenshaw/LAX Project System Integration phase 2 testing (SIT-2), pre-revenue, safety drills and revenue service.

ROC facilities installation, testing was substantially completed in February 2020. SCADA software development is in final stages of coordination and completion. Preparations are being made to start SIT-2 testing as soon as the CTS-Fiber backbone system is available.

Fare Collection

A notice-to-proceed was issued on January 30, 2018 to the existing Metro Universal Fare System (UFS) contractor, Cubic Transportation Systems, to procure UFS equipment for the Crenshaw/LAX Project eight stations. The contractor commenced manufacturing of the equipment in February 2018 and completed manufacturing of the equipment and shipped to a local storage area where it is being stored until the Crenshaw/LAX Project stations become ready for its installation. UFS contractor and mainline contractor are coordinating the details required for preparation, access, and installation for each station.

Program Management

The WSCC contract is being managed by a team of Metro and consultant personnel jointly located at the Integrated Project Management Office (IPMO). Mott MacDonald provides engineering and design support services while Stantec, Inc., provides construction management support services. An overview of staffing is provided under the Staffing section of this report. The on-site program management team is also supported by Metro Headquarters resources to include, but not limited to, engineering, risk management, environmental, quality management, operations, and creative services departments. In addition, a Project Management Support Services (PMSS) consultant is providing resources to supplement staff.

Project Schedule and Budget:

A potential Revenue Service Date is under review by Project Management.

In May 2013, the Metro Board approved a Motion that amended the fiscal year 2014 Proposed Metro Budget to include funding for an underground station at Leimert Park Village and an at-

grade station at Hindry as part of the baseline project. This Motion added \$135 million to the LOP budget which included \$80 million in uncommitted fiscal year 2014 funding and \$55 million from the City of Los Angeles. Metro reached agreement with the City of Los Angeles to cover the incremental cost of the stations above the \$80 million identified in fiscal year 2014 funding which the Metro Board approved in May 2013.

With Metro Board approval on June 27, 2013, the additional \$135 million is included in the sources of funds chart as well as the additional \$160.1 million for the increased cost of the base work. All recommendations were approved by the Metro Board on June 27, 2013 except that change order authority was maintained at \$500,000. This board action amended the life of project budget to \$2,058 million.

The Metro Board approved on May 28, 2015, an increase in the amount of funding that the Crenshaw/LAX Project is contributing toward the total cost of the Southwestern Yard Project. An additional \$10.8 million is required to be funded by drawdown from the Unallocated Contingency Current Budget SCC 90 and added to the Southwestern Yard Current Budget SCC 30. The current budget includes the 49% cost allocation share that the project is responsible for paying which includes funding of the design and construction for the Southwestern Yard. This amount is revised to \$150.2 million out of a new total of \$307.2 million adopted by the Metro Board.

The amount of funding available for the Crenshaw/LAX Transit Corridor Project, excluding the Southwestern Yard \$150.2 million allocation and Environmental / Planning budget of \$26.0 million is \$1,881.8 million. Although there is no change to the Total LOP Current Budget there was a reallocation for changes to the SCC elements within the Current Budget in April 2017. The reallocation was required due to the drawdown to date of the SCC 90 Allocated Contingency for changes issued to the design-build contractor, additional relocations of utilities by third parties, additional legal services, and special service as well as an increase in professional services for construction and project management oversight.

Construction and Community Relations:

The Construction and Community Relations team is tasked with promoting the Project and performing public outreach within the community to keep stakeholders informed of construction activities occurring along the Project alignment. To facilitate the communication, community leadership councils have been formed which represent geographic-based constituent groups along the Project.

The Project is also engaged in social media outreach and various marketing and advertising efforts designed to keep the public informed and excited about the Project. These efforts are aimed at promoting businesses that are affected by construction.

System Integration:

The Project's integration of three separate lines, each possessing distinct system technologies,

presents significant challenges for both the Project and Metro. The Project is coordinating the systems interface design, construction, testing, and commissioning while the Agency maintains revenue service on the operating lines.

Metro project team is coordinating progress with operations, mainline contractor, and ROC management team to ensure all requirements are in place to support System Integration Testing Phase 2 (SIT-2).

Rail Activation:

The Project and Metro Operations recognize the extensive planning required in preparation for rail activation of the new regional light rail service the Project will enable through the south Los Angeles area. Associated detailed rail activation planning and scheduling efforts are underway.

EXECUTIVE SUMMARY

As of the end of April 2020 the Project has achieved 95.2% completion based on earned value measurements for design and construction. The focus of the Project continues with facilitating critical path construction activities. Work is trending behind schedule due to the alignment contractor's slower than planned progress. The following is an overview of current design and construction activities.

Design Status

Design - Build Contract C0988 (Mainline Contractor) –

Walsh-Shea Corridor Constructors (WSCC) continues design and engineering in support of construction, installation, testing, and commissioning. The design/engineering support during construction is identified as a concern and potential risk in the project due to extensive repair, rework and field issues resolutions required (for more details see Key Concerns 3 and 4) affecting all areas of construction, installation, and testing.

Construction Status

Mainline Contractor - WSCC continues construction along all areas of the alignment. The four at-grade stations, underground structures (UG1, UG3 & UG4) and all six bridge superstructures including the aerial structure concrete placements are substantially complete and continuing with finishes, systems installation, and testing. The three underground stations remain at various levels of completion with emphasis on electrical, mechanical, systems, finish work inside the stations and entrance structures. WSCC is continuing with systems testing Local Field Acceptance Test (LFAT) at various locations on the project.

Trackwork and OCS/OCR are nearing completion with wayside train control installation continuing along the alignment. System installation and wiring continues in the stations for traction power, train control and communication including LFAT. WSCC and Metro continue to coordinate with DWP and SCE for power energization and other utility work (water, gas, communication, phone) at various locations.

- Finish work continues at all stations including platform edge pavers, tiles, ceiling system, lighting, and plaza work.
- Elevators installation is substantially complete at Century/Aviation station and continuing at Leimert Park and Martin Luther King Stations. Elevator installation has started at Expo/Crenshaw Station.
- All booster fans are substantially complete with wiring in the underground structures.
- Underground Emergency Ventilation Fans (EVF) are at various stages of installation, conduits and wiring for power and controls at all underground stations.
- TPSS metering gears are energized by the utility companies for TPSS's 1, 2, 3, 5, 6, 8 and 10. Testing continues on equipment and electrical system to provide distributing permanent power to various parts of the stations.

- Remaining electrical systems (rectifier transformers) have been delivered and are being installed and wired at underground stations.
- Auxiliary power sites (104th street, 60th street and Victoria) all buildings and equipment have been delivered and installed and are being prepared to receive power from DWP and ultimately permanent power to equipment. Auxiliary power sites provide power to cross passages, radio equipment, sump pumps, ventilation, booster fans, and other systems in the cross passages.
- Core drilling, layout and conduit installation including rework for various communication systems are continuing in all stations, including the underground stations and cross passages. Wiring and terminations have started at Leimert Park and Martin Luther King Stations.
- System integration tests, Phase 1, including running vehicles for clearance test, live wire, train control and vehicle on board testing, have not been performed in past few months due to incomplete pre-requisite LFAT's.
- The fiber optic innerduct and fiber optic are continuing to be installed along the alignment including connection to E line (Expo).
- Final adjustments overhead catenary rail is being completed at UG4 and Leimert Park Station.

Cost and Schedule Summary

Metro issued in September 2018 a non-compensable unilateral change order to WSCC to extend their substantial completion milestone to December 11, 2019. Metro is evaluating a 2021 date for revenue service based on the contractors revised forecasted substantial completion milestone date.

WSCC in April 2020, submitted a monthly schedule update for February 2020 period of performance. The update indicated the contractor continues to forecast a Substantial Completion date of 12/22/20. Metro is evaluating the monthly updates for January and February 2020. Metro is continuing to meet with contractor to address remaining open items related to TPSS's, Auxiliary Power, Elevators, Emergency Ventilation Fans, and communication systems status.

WSCC Schedule Metrics – Mainline Contractor

	Original Contract Date/Duration	Time Extension (CD)	Current Contract Schedule	Forecast (Contractor)	Variance CD (Trending)
NTP	09/10/13				
Substantial Completion	09/08/18	459	12/11/19	12/22/20	-378 days

To date, the design and construction changes for WSCC related to base scope represent approximately 14.3% of the contract value with a potential to increase to 14.5%. Detailed cost information is provided later in this report.

Key Management Concerns

No. 1: WSCC Construction Schedule Progress

Status/Action

Metro is evaluating the schedule and the progress being made by the contractor to determine the best and safest path forward to commence revenue service. Detail analysis and studies are being performed and considered by Management.

No. 2: Remaining Contingency is less than 2% of Total Project Budget.

Status/Action

Metro monthly monitors and reports on the drawdown of contingency. In April 2020 there was a contingency drawdown of \$3.1 million which reduced the remaining contingency to \$11.9 million. The remaining contingency is 0.6% of total project current forecast and 9.2% of total project cost-to-go.

Metro initiated in July 2018 reallocating the associated expenditures to date for specific scope of work. The reallocation allows the Project to use these funds for additional contractor modifications, increased third party requirements and professional services modifications to support a revised forecast completion schedule. The reallocation therefore allows Metro to replenish a portion of the Crenshaw/LAX Project contingency.

Metro has \$60 million in fiscal year 2020 available for specific scope of work that is eligible to be reallocated to a non-Crenshaw/LAX Project. This \$60 million is in addition to the \$68 million made available in fiscal year 2019, for a combined total of \$128 million. In fiscal year 2019, \$67.2 million was reallocated. In fiscal year 2020, of the \$60 million available, there has been \$45.8 million reallocated through the end of April 2020.

No. 3: WSCC Design/Engineering Support during Construction, Installation and Testing

Status/Action

Various elements of design support during construction are affecting and impacting the field work progress causing some work proceeding at risk without approved submittals and creating potential delays to construction, installation, and testing schedule.

There are engineering/design support activities that are continuing to impact progress such as test procedures, submittals, requests for information (RFI's), and deviation requests. Metro believes that the Engineer of Record (EOR) needs to be present during LFAT and systems integration testing (SIT) Phase 1 to address field issues and mitigate potential testing or retesting delays. The impact of engineering issues continues to affect multiple areas of the project.

No. 4: WSCC Required Rework

Status/Action

Several areas of work along the alignment that is the responsibility of the contractor to perform could not be completed due to damaged, incomplete and missing components. This has caused the contractor's base work progress to be less than planned, impacting the follow-on subcontractors work.

Contractor has been investigating and reworking blocked, damaged conduits and systems pathways in tunnels and underground stations since March 2019. This has slowed down progress on various stations systems work. Issues with field installation of conduits, layouts and coring continue to be discovered and is impacting planned work in the underground stations.

No. 5: 3rd Party Coordination and Impact on follow on activities

Status/Action

Multiple areas of work along the alignment are being affected due to contractor coordination issues with 3rd parties. Interface items such as power, water, gas, telephone, communication, City of Inglewood, and City of Los Angeles, are affecting work progress. Metro is working with DB contractor to assist in resolving issues as quickly as possible. DB contractor needs to mitigate any issues to avoid impact to train testing and other testing activities.

No. 6: COVID-19 Impact on progress of the project

Status/Action

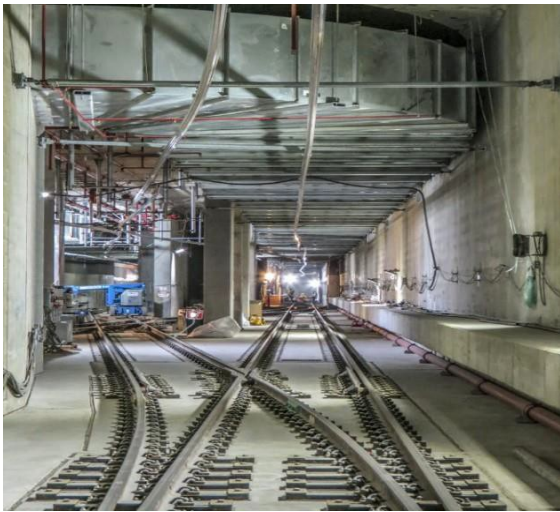
Construction continues under guidelines set forth by the City of Los Angeles. Preventive measures have been implemented. The impact of COVID-19 on project progress is being monitored by WSCC and Metro.

No. 7: MSE-wall 202 Settlement and Movement

Status/Action

Construction activities in the area of wall 202 movement have been suspended pending detail analysis of the cause of movement.

PROJECT CONSTRUCTION PHOTOS



Expo/Crenshaw Station -track level view southbound emergency walkway, fire extinguishing, vent system and overhead power rail



Expo/Crenshaw Station – Station Plaza and main entrance canopy



Martin Luther King, Jr. Station – Installing 12” HDPE drainage Pipe on the west side of plaza level.



Downtown Inglewood Station – TVM Canopy

PROJECT CONSTRUCTION PHOTOS (con't)



Fairview Heights Station – Station view, paved parking, sidewalks
Lighting and fencing



Hyde Park Station – Began formwork and rebar installation for
south end entrance ramp of the platform

PROJECT UPDATE

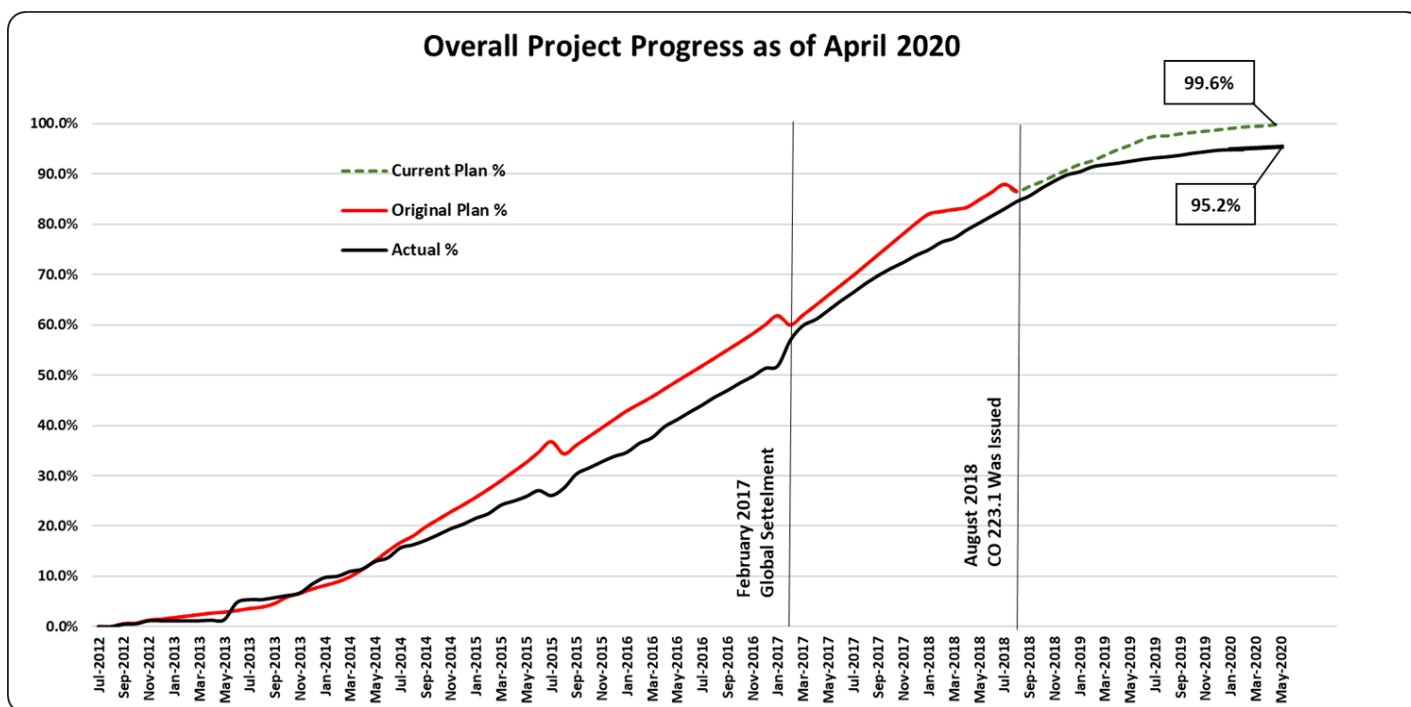
PROJECT SCHEDULE
Project Summary Schedule

Project Schedule Under Review

Progress Summary









	Status	Change from Last Period	Comment
Current Revenue Service:	10/30/2019	0	Under Review
Forecast Revenue Service:	-	0	Under Review
Final Design Progress:			
Contract C0988	99.8%	0.0%	Design Services During Construction Behind Schedule
Contract C0990	100%	None	Design Completed
Contract C0991	100%	None	Design Services During Construction Completed
Contract C0992	100%	None	Design Completed
Contract C0992A	100%	None	Design Completed
Construction Contracts Progress:			
Contract C0988	92.1%	0.5%	Behind Schedule
Contract C0990	100%	None	Completed
Contract C0991	100%	None	Completed
Contract C0992	100%	None	Completed
Contract C0992A	100%	None	Completed

Planned vs. Actual Progress



Key Milestones Six Months Look Ahead

	Milestone Date	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20
Procure, Deliver and Set Equipment - 104th Aux Power *	04/24/20	⬡					
MCC Procure, Deliver and Set - 104th Aux Power *	05/11/20		⬡				
Aux Power at Victoria Ave - Permanent Power Drop - LADWP - Install Equipment, Cable, Energize & test *	06/19/20			▽			
Contractual Milestone 3, Start All System Integration Tests (SIT-1), Forecast *	06/21/20			⬡			
Ventilation Equipment - Leimert Station Installation and Testing*	06/22/20			⬡			
Ventilation Equipment - Expo. Station Installation and Testing *	06/22/20			⬡			
TPSS-09, LFAT Commission MLK *	07/13/20				⬡		
TPSS-10, LFAT Commission Expo *	07/14/20				⬡		
Radio Room Ready Ready - UG1	07/20/20				⬡		
Aux Power at 60th St - Permanent Power Drop - LADWP - Install Equipment, Cable, Energize & test *	07/22/20				▽		
Procure and Deliver Edge Lights - UG Stations	07/23/20				⬡		
Aux Power at 104th St - Permanent Power Drop - LADWP - Install Equipment, Cable, Energize & test *	07/27/20				▽		
Ventilation Equipment - MLK Station Installation and Testing *	08/06/20					⬡	
Radio Room Ready LFAT - UG3	09/30/20						⬡

 MTA Staff
  MTA Board Action
  FTA (Federal)
  Utility Company
 Other Agencies
  C0991 D/B Contractor
  Design Consultant
  C0988 D/B Contractor
 "A" following date is actual and completed
 * New

Major Equipment Delivery

Metro Supplied Equipment

Equipment	Initial Procurement	Scheduled Delivery	Scheduled Installation
LRT Vehicles	(NTP) 8/20/12 A	Option 1 9/1/17 A	N/A
Ticket Vending Machines and Equipment	1/30/18 A	2/28/19 A (Warehoused)	TBD (Prior to RSD)

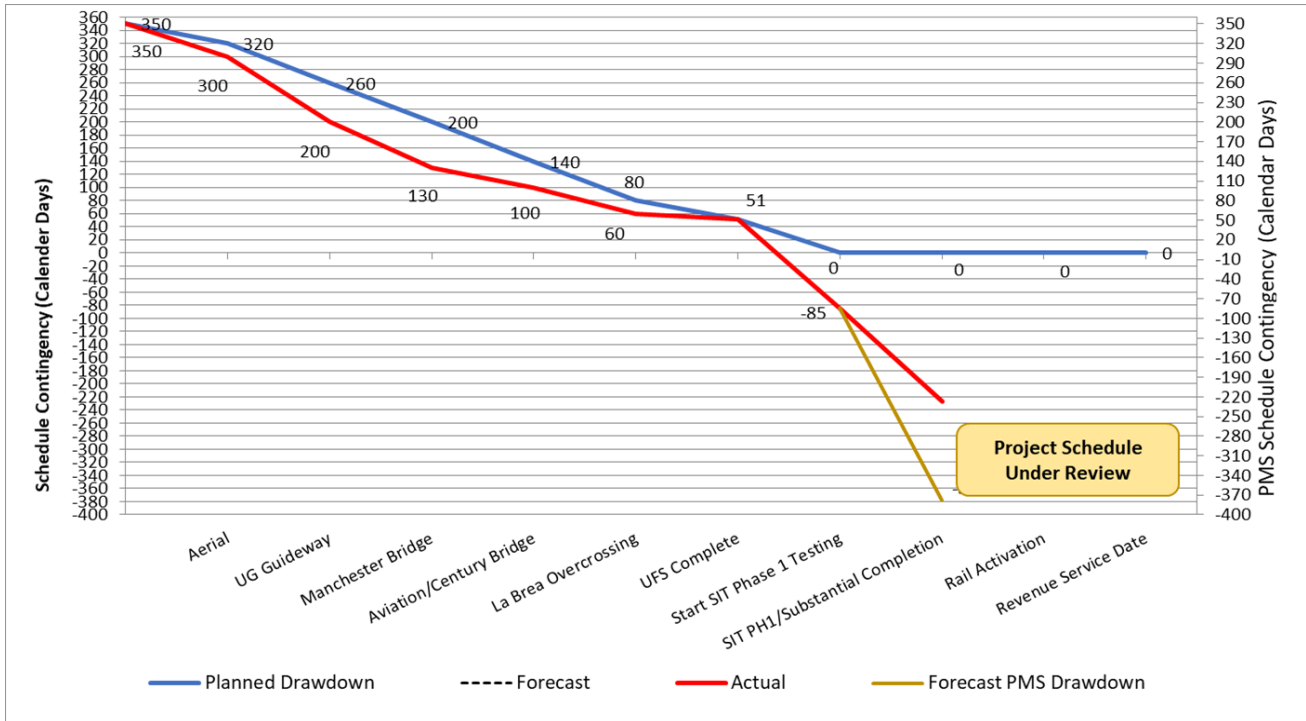
Mainline Contractor Equipment Delivery Requirements

Activity Name	Early Finish	Need Date
Fabricate, Edge Lights – Mockup (Rejected in December 2019)	April 2020	June 2019
Fabricate, Edge Lights – Leimert Station	June 2020	August 2019
Fabricate, Edge Lights – MLK Station	June 2020	August 2019
Fabricate, Edge Lights – Expo Station	July 2020	August 2019
Fabricate, Test & Deliver Aux-Power Equipment - 104 th St.	April 2020*	June 2019*
Fabricate, Test & Deliver MCC's - 104 th Street (At storage)	May 2020*	August 2019*
*Requires schedule mitigation by Mainline Contractor		

Critical Path

Project Schedule Under Review

Project Schedule Contingency Drawdown



Metro issued in August 2018 a non-compensable unilateral change order to WSCC to extend their substantial completion milestone to December 11, 2019. Thus, performance measurement is now tracked against this new date.

A potential Revenue Service is under review by project management.

Risk Management Narrative

Summary of Risks

Within this reporting period one risk was closed. One new risk was added. There is a total of twenty (21) risks remaining to be managed in the next reporting period.

Of the twenty (21) risks, eleven (11) are scored as high (10 to 20 risk rating), four (4) as medium (4 to 9 risk rating), and six (6) as low (Less than 4 risk rating).

Top Risks: The table below shows the top project risks:

Risk ID	SCC	Risk Description	Risk Rating
124	50	Main Line testing prior to pre-revenue operations may take longer than expected, resulting in increased Main Line Metro and Consultant costs and potential delay to Substantial Completion.	18
359	80	Extended Overhead or productivity loss claims exposure not covered by cost impacts in individual risks.	18
362	50	Schedule activities that are critical to completion (Trackwork, OCR/OCS, TPSS and Auxiliary Power Energization, Emergency Fans, Train Control wiring/testing and Communications equipment installation/wiring/testing, Fire Alarm including Damaged Tunnel Conduits).	16
369	20	Delay of fire rated conduit/cable installation.	15
372	20	WSSC Design/Engineering Support during Construction, Installation and Testing	15
354	50	Issues with energization of Traction Power. Auxiliary Power equipment procurement, installation, testing and coordination with DWP and Edison.	14
373	20	WSSC Damaged, Repair, Rework and Incomplete work including tunnel conduits (Complete), Track plinths, Communication (Fire Alarm System).	13
355	50	Issues with long lead delivery or improper planning for integration, testing and startup of Communication systems.	12
376	20	WSSC Damaged, Repair, & Rework - MSE Wall 202 movement and settlement	10
201	50	DB unable to obtain critical skilled specialty workers needed for complex systems, elevator testing, etc.	10
377	50	COVID-19 (Coronavirus) – Project Impact	10

Newly Identified Risks: There was one new item added to the risk register for COVID-19

Closed Risks: One risk was closed in this period.

Risk Score Changes: No risk scores were changed this period.

Actions in Next Reporting Cycle

Continuous efforts in Risk Management will be made through the following actions:

- Update the project risk register.

PROJECT COST

Project Cost Analysis

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	GUIDEWAYS	471,335,000	-	450,354,375	-	417,788,306	188,906	412,272,150	-	417,788,306	(32,566,069)
20	STATIONS	153,906,000	-	315,050,000	-	308,067,041	3,861,780	291,597,714	-	308,067,041	(6,982,959)
30	SOUTHWESTERN YARD	66,673,000	-	71,164,000	(350,000)	66,968,266	(851,912)	66,119,977	(350,000)	66,988,361	(4,175,639)
40	SITWORK/SPECIAL CONDITIONS	235,576,000	-	395,798,361	974,253	404,604,408	3,858,651	358,109,422	974,253	404,953,359	9,154,998
50	SYSTEMS	125,132,000	-	169,436,000	55,620	175,071,803	1,479,134	147,525,214	-	175,073,936	5,637,936
	CONSTRUCTION SUBTOTAL (10-50)	1,052,622,000	-	1,401,802,736	624,253	1,372,499,824	8,536,560	1,275,624,477	624,253	1,372,871,004	(28,931,733)
60	RIGHT-OF-WAY	132,294,000	-	127,490,000	(1,185)	133,858,899	13,052	133,635,783	(1,185)	133,858,900	6,368,900
70	LRT VEHICLES	87,780,000	-	83,571,544	-	83,571,544	-	81,608,893	-	83,571,544	-
80	PROFESSIONAL SERVICES	273,147,000	-	368,734,466	1,924,848	426,282,218	6,230,752	399,869,203	2,521,640	429,842,491	61,108,025
	SUBTOTAL (10-80)	1,545,843,000	-	1,981,598,746	2,547,916	2,016,212,485	14,780,364	1,890,738,356	3,144,708	2,020,143,938	38,545,192
90	UNALLOCATED CONTINGENCY	177,157,000	-	50,401,254	-	-	-	-	(3,144,708)	11,856,062	(38,545,192)
	TOTAL PROJECT 865512 with SWY 49% (10-100)	1,723,000,000	-	2,032,000,000	2,547,916	2,016,212,485	14,780,364	1,890,738,356	-	2,032,000,000	-
	ENVIRONMENTAL/PLANNING - 405512	5,526,150	-	5,526,150	-	5,526,150	-	5,526,150	-	5,526,150	-
	ENVIRONMENTAL/PLANNING - 465512	20,473,850	-	20,473,850	-	20,022,881	-	20,022,881	-	20,473,850	-
	TOTAL PROJECTS 405512 & 465512 (ENV/PLAN/G)	26,000,000	-	26,000,000	-	25,549,031	-	25,549,031	-	26,000,000	-
	TOTAL PROJECTS 405512, 465512 & 865512	1,749,000,000	-	2,058,000,000	2,547,916	2,041,761,516	14,780,364	1,916,287,387	-	2,058,000,000	-

1. Expenditures are Cumulative through May 1, 2020.

2. Expenditures exclude \$7.8 million for various right-of-way and professional services costs that are not eligible for federal funding.

3. Expenditures exclude \$6.6 million for State Board of Equalization (SBOE) decision to tax LRT Vehicle deliveries since August 2016. Metro is appealing the decision by the SBOE but paid tax so as not to incur any late fees.

The project numbers 405512, 465512, 865512 and 860003 are internal to Metro and are used to differentiate between environmental/planning and construction components.

Original Budget:

The Board in October 2011 established the Life-of-Project (LOP) Original Budget of \$1,749 million for the Crenshaw/LAX Transit Project.

Current Budget:

There were two increases in the total LOP Current Budget prior to award of the design-build contract in June 2013:

- The Board in December 2012 approved an increase of \$13.9 million for a new LOP Current Budget total of \$1,762.9 million. The Unallocated Contingency Standard Cost Category (SCC) 90 budget line item was increased by the \$13.9 million for a new total of \$191.1 million.
- The Board in June 2013 approved an increase of \$295.1 million for a new LOP total of \$2,058.0 million. The total increase was based on two actions:
 - Increase LOP base project scope in the amount of \$160.1 million, and
 - Increase LOP to include the options for Crenshaw/Vernon Station (Leimert Park Village) and Florence/Hindry Station in the amount of \$135.0 million.
- The Board in May 2015 approved an increase in the amount of funding that the Crenshaw/LAX project is contributing toward the total cost of the Southwestern Yard Project. An additional \$10.8 million was drawdown from the Unallocated Contingency Current Budget SCC 90 and added to the Southwestern Yard Current Budget SCC 30. The Current Budget includes the 49% cost allocation share that the project is responsible for paying which includes funding of the design and construction for the Southwestern Yard. This amount was revised to \$150.2 million.

The \$150.2 million is spread among the SCC 30, 40, 60, 80 and 90 in the Cost Report by Element table above. A project cost status chart depicting the LOP Current Budget for the Southwestern Yard Project is included in the appendix section of this report. The Current Budget allocation for Crenshaw/LAX Transit Project only, excluding the Southwestern Yard Project \$150.2 million 49% allocation and the Environmental/Planning Current Budget of \$26.0 million, is \$1,881.8 million.

Although there is no change to the Total LOP Current Budget there was a reallocation for changes to the SCC elements within the Current Budget in April 2017.

Commitments

Commitments increased by \$2.5 million this period to \$2,041.8 million which represents 99.2% of the current budget. The total increase is related to design-build Contract C0988 Crenshaw/LAX Transit Corridor and professional services. The total commitments include \$149.2 million for the Southwestern Yard 49% allocation.

Expenditures

Expenditures increased by \$14.8 million this period to \$1,916.3 million which represents 93.1% of the current budget. The total increase is for costs associated with design-build Contract C0988 Crenshaw/LAX Transit Corridor, third party utility relocation, real estate lease, and professional services. The cumulative expenditures to date include \$143.6 million for the Southwestern Yard 49% allocation.

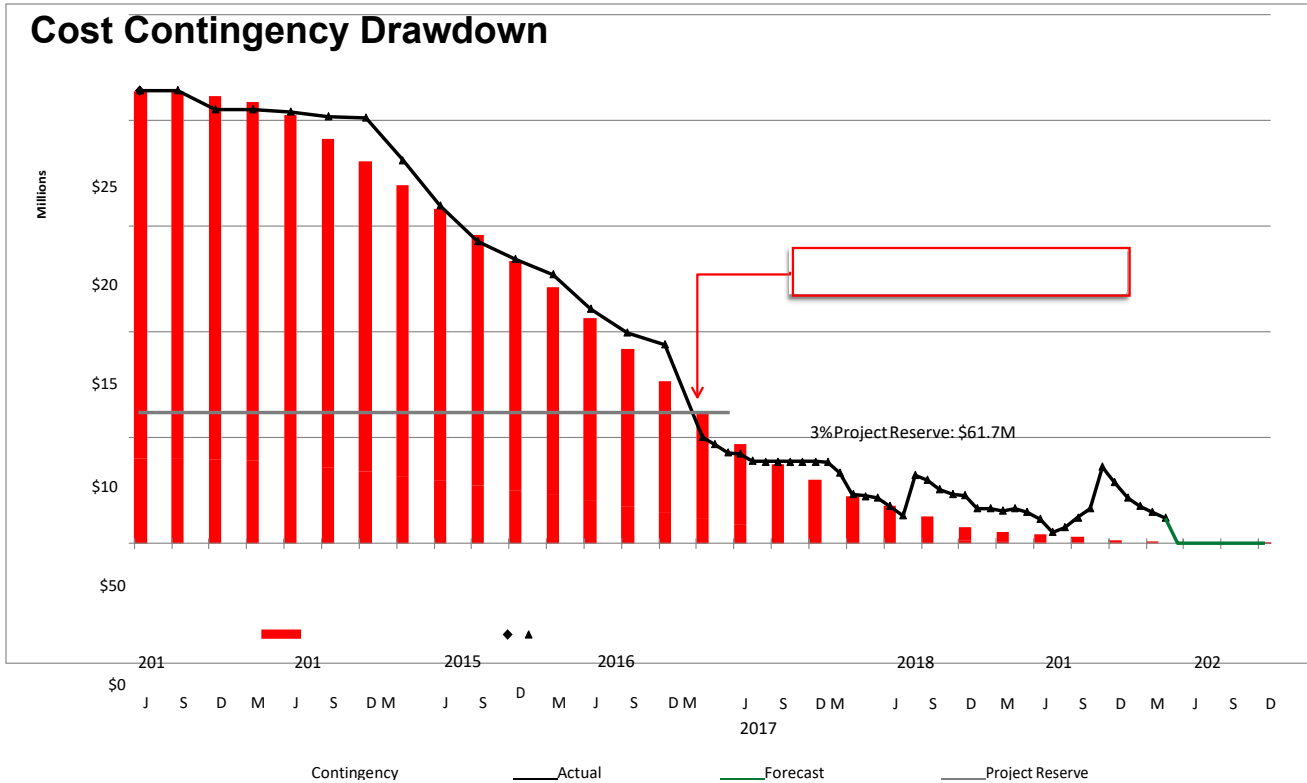
Current Forecast:

The total current forecast remains the same as the total current budget.

Non-Crenshaw/LAX Transit Project Funded Scope of Work

The costs shown in the table below are not part of Crenshaw/LAX Transit Project costs but are funded by other Metro projects using the services of the alignment design-builder (Contract C0988).

C0988 NON-CRENSHAW/LAX TRANSIT PROJECT FUNDED SCOPE OF WORK									
DESCRIPTION	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		FORECAST VARIANCE
	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
405556 SYSTEMWIDE TRANSIT PLANNING	-	320,035	-	320,035	-	320,035	-	320,035	-
210090/93 FARE GATE PROJECT	1,825,000	4,891,226	-	4,891,226	115,500	2,544,726	1,825,000	4,891,226	-
210152 CRENSHAW/LAXBUS TRANSFER FACILITY	-	2,200,000	-	2,200,000	89,832	1,121,992	-	2,200,000	-
460303 AIRPORT METRO CONNECTOR	-	37,914,465	-	37,072,922	-	37,047,674	-	37,914,465	-
500013 C/LAX LAWA SCOPE OF WORK	-	1,575,362	-	581,918	-	545,439	-	1,575,362	-
405522 HIGHWAY PLANNING	88,804	4,568,528	88,804	4,568,528	-	2,898,515	88,804	4,568,528	-
TOTAL	1,913,804	51,469,615	88,804	49,634,628	205,332	44,478,381	1,913,804	51,469,615	-



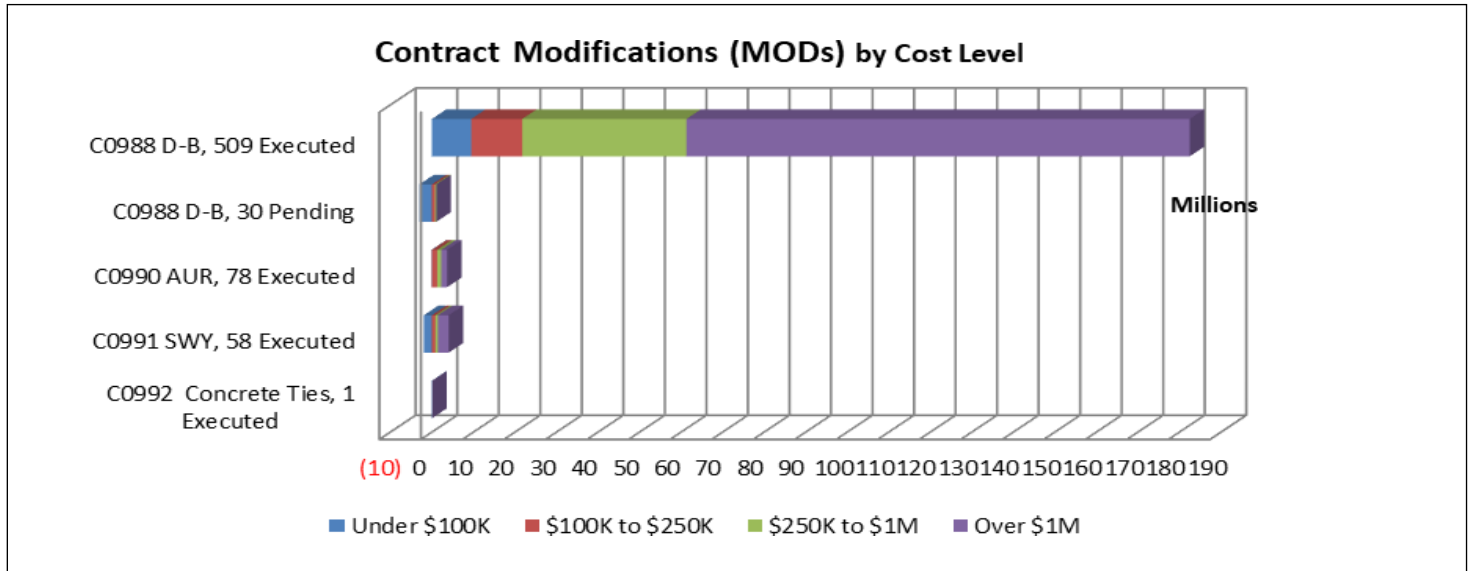
Cost Contingency Drawdown Analysis

The project current budget of \$2,058,000,000 includes a contingency amount of \$213,866,792. The drawdown plan is correlated to anticipate risk trends and measures drawdowns moving forward.

Included in the project contingency drawdown is a 3% project reserve threshold. The Board is to be notified when it becomes necessary to drawdown contingency below the project reserve line to cover project costs. This notification request was adopted by the Metro Board of Directors in September 2012. In February 2017, the project contingency drawdown curve went below the 3% project reserve level and the Board was notified.

This month, \$3,144,708 was a drawn down from contingency. The remaining total project contingency (allocated and unallocated) is \$11,856,062.

PROJECT COST CONTINGENCY (through 27-Mar-2020)					
UNITS IN DOLLARS					
	Original Contingency	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated	173,500,000	(158,499,231)	(3,144,708)	(161,643,939)	11,856,061
Allocated Contingency	40,366,792	(40,366,792)	-	(40,366,792)	-
Total Contingency	213,866,792	(198,866,023)	(3,144,708)	(202,010,731)	11,856,062



	C0990		C0991		C0992		Total
	493 Executed	78 Executed	58 Executed	1 Executed			
Under \$100K	\$ 9,484,814	\$ (70,251)	\$ (1,918,854)	\$ 81,738	\$	\$	7,577,447
\$100k to \$250K	\$ 12,,276,547	\$ 1,280,184	\$ 875,202	\$ -	\$	\$	14,431,932
\$250K to \$1M	\$ 39,549,085	\$ 984,662	\$ 590,334	\$ -	\$	\$	41,124,082
Over \$1M	\$ 121,191,340	\$ 1,417,202	\$ 2,590,000	\$ -	\$	\$	125,198,542
Total Contract MODs	\$ 182,501,786	\$ 3,611,797	\$ 2,136,682	\$ 81,738	\$	\$	188,332,003
Contract Award Amount	\$ 1,272,632,356	\$ 7,827,500	\$ 172,312,695	\$ 2,161,297	\$	\$	1,454,933,848
% of Contract MODs	14.34%	46.14%	1.24%	3.78%			12.94%

Five hundred and one (509) changes with a total value of \$182.5 million have been executed since award of Contract C0988. There are an additional thirty (30) changes with a total credit value of \$1.88 million pending the administrative approval process.

Seventy-eight (78) changes with a total value of \$3.61 million have been executed for completed Contract C0990.

Fifty-eight (58) changes with a total value of \$2.14 million have been executed since award of Contract C0991.

One (1) change with a value of \$81,738 was executed for completed Contract C0992.

Percent of Contract modifications equals the total Change modifications divided by the Contract Award amount

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

Contract C0988 Crenshaw/LAX Transit Corridor Design-Build

(Reported Data as of March 2020)

- **DBE Goal (Design)** – A numerically expressed percentage of funds apportioned to Design Contracts and is calculated based upon the relative availability of DBE firms as compared to all firms in the relevant geographic market area. **(20.00%)**

- **Current DBE Commitment** – Total DBE Committed Dollars divided by Total Contract Value for Design or Construction. **\$25,799,791 (20.00%)**

- **Current DBE Participation** – Total amount paid to date to DBEs divided by the amount paid to date to Prime. **\$30,001,868 (22.13%)**

Twenty-Six (26) Design subcontractors have been identified to-date

- **DBE Goal (Construction)** - A numerically expressed percentage of funds apportioned to Construction Contracts and is calculated based upon the relative availability of DBE firms as compared to all firms in the relevant geographic market area. **(20.00%)**

- **DBE Commitment** - Contract commitment divided by current contract value for Construction **\$259,965,769 (20.00%)**

- **Current DBE Commitment** - Actual commitments as Construction work is awarded **\$289,851,326 (22.26%)**

- **Current DBE Participation** - Total amount paid to date to DBEs divided by the amount paid to date to Prime **\$322,595,094 (27.10%)**

345 Construction subcontractors have been identified to-date.

PROJECT LABOR AGREEMENTS (PLA)
Contract C0988 Crenshaw/LAX Transit Corridor Design-Build

(Reported Data as of March 2020)

• Targeted Worker Goal – Construction work to be performed by residents from Economically Disadvantaged Area of LA County	40.00%
• Targeted Worker Current Attainment	59.55%
• Apprentice Worker Goal – Construction work to be performed by Apprentices	20.00%
• Apprentice Worker Current Attainment	23.77%
• Disadvantaged Worker Goal – Construction work to be performed by Disadvantaged Workers whose primary place of residence is within LA County	10.00%
• Disadvantaged Worker Current Attainment	11.31%

FINANCIAL/GRANT

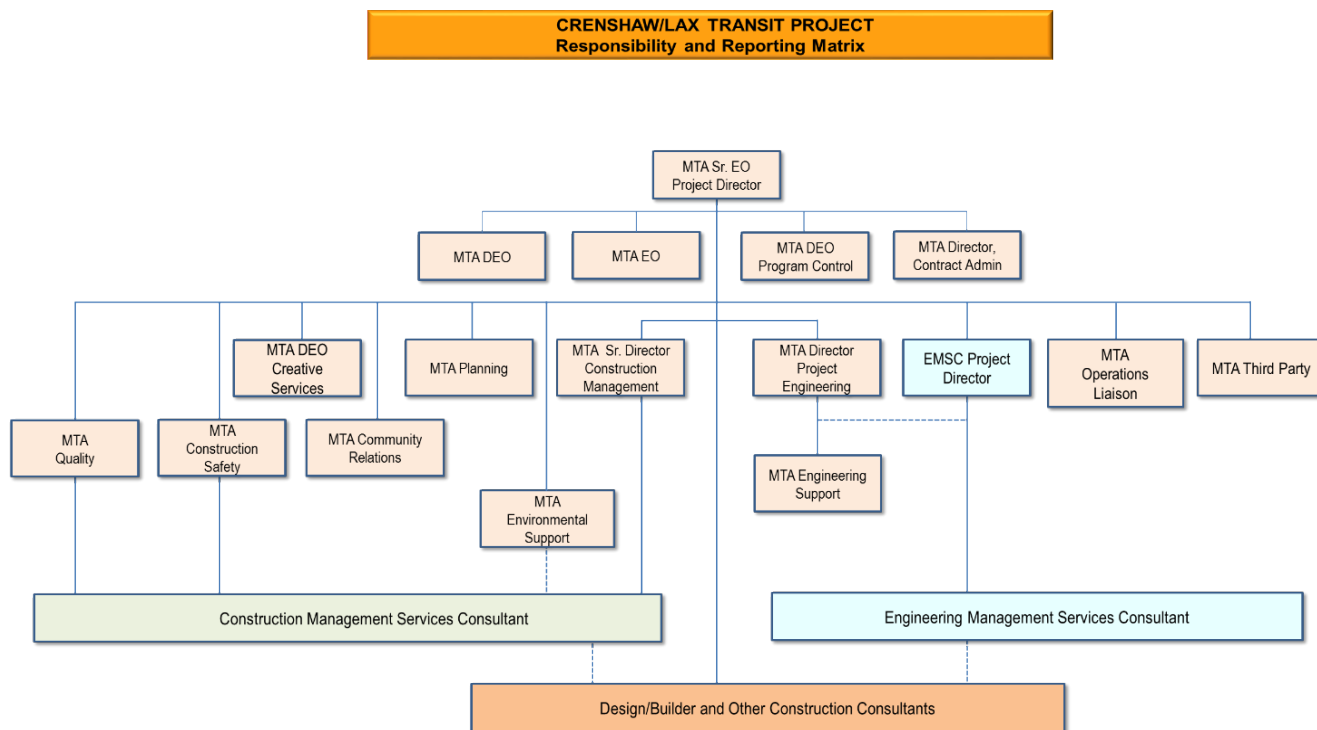
\$ in millions

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 - CMAQ	68.2	104.0	104.0	104.0	100%	96.0	92%	91.1	88%
FEDERAL - SECTION 5309 BUS CAPT	8.6	8.6	8.6	8.6	100%	8.6	100%	8.6	100%
FEDERAL - REGIONAL STP	20.0	99.9	99.9	99.9	100%	91.2	91%	91.2	91%
FEDERAL - ALTERNATIVE ANALYSIS	1.2	1.2	1.2	1.2	100%	1.2	100%	1.2	100%
FEDERAL - TIGER II	0.0	13.9	13.9	13.9	100%	13.9	100%	13.9	100%
STATE REGIONAL IMPROVEMENT PROG	36.5	36.6	36.6	36.6	100%	36.6	100%	36.6	100%
STATE PPM	0.178	0.178	0.178	0.178	100%	0.178	100%	0.178	100%
STATE PROP 1B PTMISEA	201.2	129.0	129.0	129.0	100%	129.0	100%	129.0	100%
STATE PROP 1 B LOCAL PARTNER PROG	0.0	49.5	49.5	49.5	100%	49.5	100%	49.5	100%
MEASURE R - TIFIA LOAN	545.9	545.9	545.9	545.9	100%	545.9	100%	545.9	100%
MEASURE R	661.1	529.3	529.3	506.8	97%	450.0	85%	429.6	81%
CITY CONTRIBUTION	52.4	101.7	101.7	95.3	85%	43.6	43%	40.7	40%
GENERAL FUNDS	0.0	54.3	54.3	54.3	100%	54.3	100%	54.3	100%
PROP C 25% HIGHWAY	148.9	379.1	379.1	391.7	103%	391.7	103%	391.7	103%
PROP C 40% DISCRETIONARY	0.0	0.0	0.0	0.0	0%	0.0	0%	0.0	0%
PROP A 35% RAIL CAPITAL	4.8	4.9	4.9	4.9	100%	4.9	100%	4.9	100%
TOTAL	1,749.0	2,058.0	2,058.0	2,042	99.0%	1,916.3	93.0%	1,888.3	92.0%

NOTE: Expenditures are cumulative through April 30, 2020
 Original Budget based on Board approved October 2011 Funding/Expenditure plan
 Expenditures exclude \$6.6 Million for State Board of Equalization decision to tax LRT vehicle deliveries since August 2016
 Metro is appealing decision but paid taxes to not incur late fees
 Expenditures exclude \$5.5 mil for various right of way and professional services cost being reallocated to other local funding

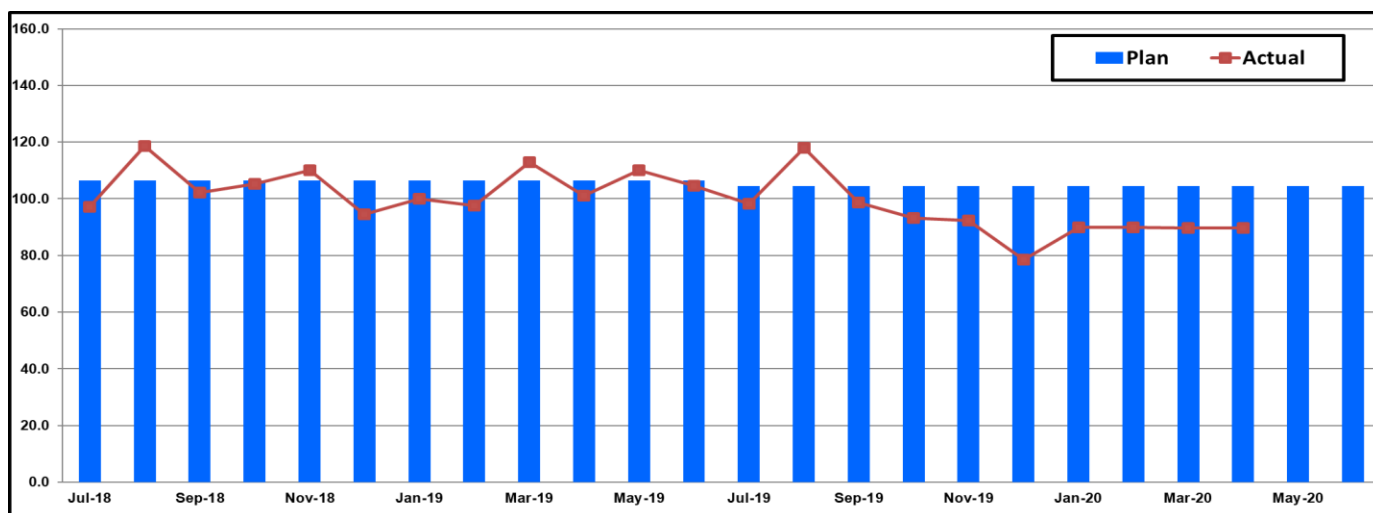
PROJECT ORGANIZATION AND STAFFING

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

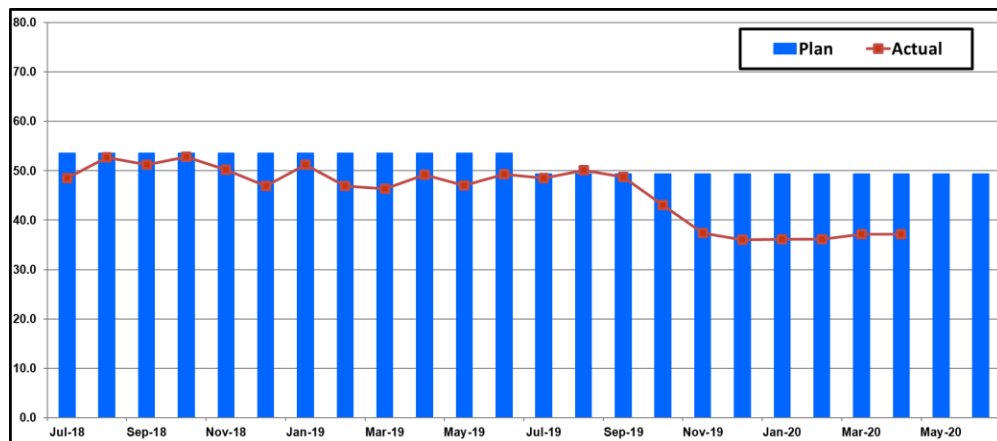


The overall FY19 Total Project Staffing Plan averages 104.5 Full Time Equivalent (FTEs) per month consisting of 49.4 for Metro Agency staff, 46.1 for Construction Management Support Services Consultant and 9.0 for Design and Engineering Support Services Consulting staff.

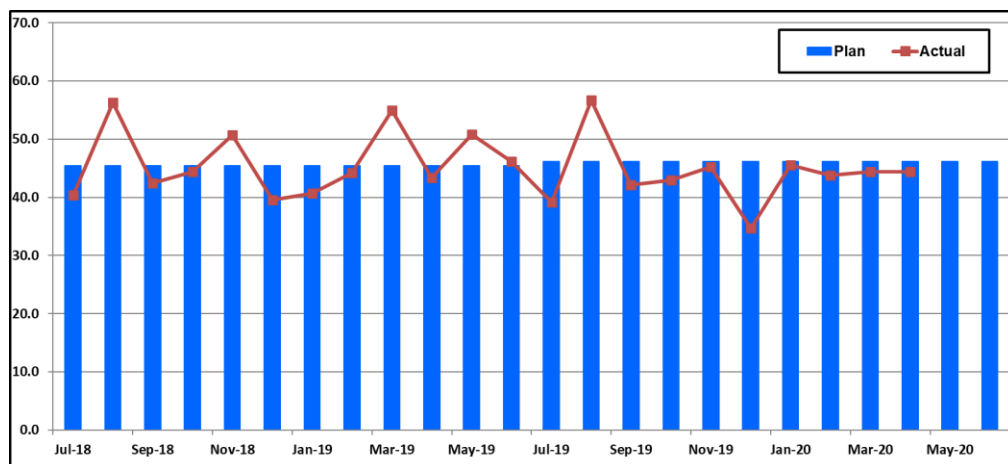
For April 2020, total project staffing were 89.7 FTEs for the month consisting of 37.1 FTEs for Metro’s project administration staff, 44.4 FTEs for Construction Management Support Services Consultant and 8.2 FTEs for Design and Engineering Support Services Consulting staff.



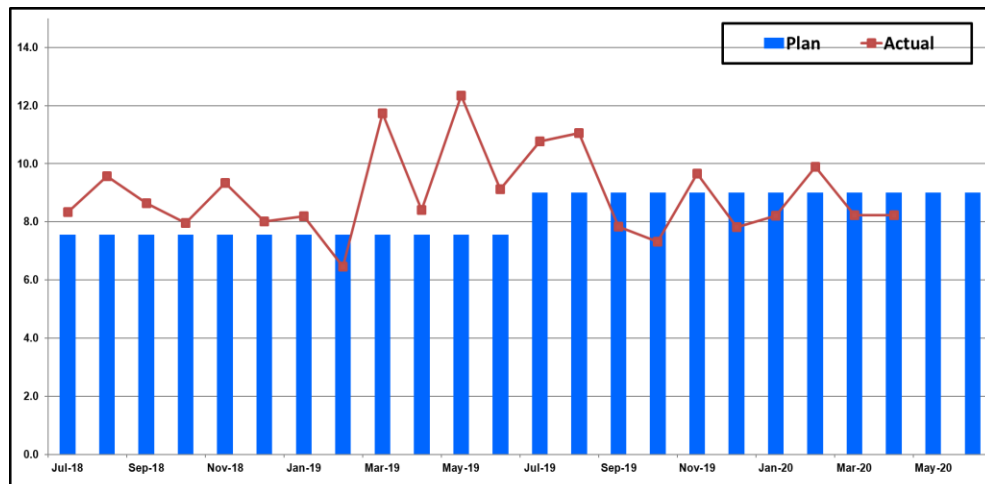
Metro Staff



CM Support Services Staff (Consultant)



Engineering Services Staff (Consultant)



Staffing by Group

The opposing graphs represent planned vs. actual staffing levels by group.

Metro staffing includes full time staff located in the IPMO as well as part-time support located at Gateway Headquarters.

Staffing plans are developed for each fiscal year based on project needs.

REAL ESTATE

Metro is working on extending some temporary construction easements due to revised construction schedule.

QUALITY ASSURANCE

C0988 Crenshaw/LAX Transit Corridor Design-Build Contract

- Attended weekly Quality Team Meetings with WSCC Lead Quality personnel and City of Los Angeles Bureau of Contract Administration (ConAd) in attendance.
- WSCC Quality issued six (6) Nonconformance Reports (NCRs) during this period.
- No Readiness Review meetings were conducted during this period.
- Metro Quality participated in Internal Project Review Weekly Meetings.
- Metro's Independent Testing Lab (ITL) was not scheduled to perform verification inspections and tests during this month.

ENVIRONMENTAL

- Noise and vibration spot checks continue to be conducted weekly at multiple sensitive locations, and at locations of new activities along the project alignment.
- SWPPP inspections of all project areas are conducted weekly by WSCC and spot checks by Metro to observe site conditions and report on performance of stormwater protection Best Management Practices and overall housekeeping.
- Two (2) Fugitive dust complaints were reported through the dust hotline during the reporting period on 3/30 and 04/17.
- EMS and Environmental Compliance Progress meetings were held during this reporting period on 04/08/20 and 04/22/20.
- There was one (1) qualifying rain event during the reporting period. A REAP was prepared on 04/02/2020 and sampling was performed on 04/06/20.
- Spot check nighttime noise monitoring was performed by Metro on 4/13/20, 4/15/20, 4/20/20 and 4/27/20. There were no Metro observed nighttime noise exceedances.

CONSTRUCTION/COMMUNITY RELATIONS

- Continued working with WSCC to minimize the impacts of lane and street closures along the Crenshaw/LAX Transit Project.
- Circulated bilingual public notice for project construction activities. The notices are distributed via-email, social media networks, and hand delivered to key stakeholders.
- Continued coordinating with WSCC to mitigate impacts to businesses and residents along the Crenshaw/LAX Transit Project.
- Ongoing coordination with WCSS and Metro Bus Operations to plan for bus detour routes to accommodate lane reductions and closures required to implement construction activities.
- Continued outreach to area stakeholders including the LAX area regarding ongoing construction activities and mitigation measures.
- Continued outreach to key stakeholders and community organizations via-phone calls and emails.
- Ongoing planning for community construction virtual update meetings and presentations to key stakeholder groups.

CREATIVE SERVICES

- Installation inspections for porcelain enamel steel artworks on platform walls for Vernon and MLK Stations.
- Metro Comment Review Coordination for Glass Mosaic Artwork CWP, Glass Mosaic Shop Drawings, and Art Fence Fabricator Studio Submittals.
- Coordinate RFI responses for signage fabrication.
- Finalize G-Tel faceplate layout.
- Review stairwell numbering sequence with Metro F/L/S.
- Review and comment CWP for signage installation.

SAFETY AND SECURITY

- Conducted Monthly All Hands Safety & Security meeting with WSCC and the following topics were discussed- Elevator and escalator status access & egress, ROW protection/track allocation, Corvid-19 concerns, security issues, Fire Department, ventilation, and plaza level activities.
- Participated in WSCC's daily briefings regarding lessons learned, weekly Safety huddles/Safety briefings at EXPO, MLK and Vernon stations, weekly progress/scheduled meetings where we discussed safety related issues.
- Participated in the Wednesday weekly corporate safety conference call to update the safety team emphasis on coverings and shields.
- Cancelled All Hands Safety Meeting on 04-30-2020 due to CORVID-19.
- Monitored construction activities daily including weekends to ensure compliance with contract specifications.
- Total Days Away (DART) Injury Rate: Six (6) Days Away from Work (DART) Injuries is 0.1. The National Ave is 1.7.
- Project to Date – Total Days Away Rate (561 Days Away from Work) is 12.2. (No National Published Rate.
- Contract C0988 (WSCC) completed 112,306.34 work hours with (0) recordable/Days Away from Work injury for the month of March 2020. Total Project to Date work hours is 9,669,795.57 with a total of ninety nine (99) recordable incidents. The Project Recordable Rate is 2.04
- The Bureau of Labor Statistics (BLS) average recordable rate per 200,000 work hours is 2.5.

CHRONOLOGY OF EVENTS

October 2011	Board approved the Life-of-Project Budget of \$1.749 billion.
December 30, 2011	Received Record of Decision from FTA.
March 12, 2012	Received Statement of Qualifications for Contract C0988 C/LAX Transit Corridor.
May 30, 2012	Awarded Contract No. C0990 C/LAX Advanced Utility Relocations to Metro Builders and Engineers Group LTD.
May 23, 2013	Board amended the Agency's FY14 Proposed Budget to include funding of \$80 million for an underground station at Leimert Park Village as part of the baseline project.
June 27, 2013	The Board awarded Contract C0988 Crenshaw/LAX Transit Corridor to Walsh-Shea Corridor Constructors.
September 10, 2013	Issued Notice to Proceed to Walsh-Shea Corridor Constructors, Contract C0988 Crenshaw/LAX Transit Project.
December 5, 2013	The Board approved Memorandum of Understanding with the Los Angeles World Airports for a parallel design and possible construction modifications near Aviation/Century Station to accommodate elements of LAWA's SPAS.
December 5, 2013	The Board awarded Contract C0992 with Rocla Concrete Tie, Inc, for the procurement of concrete ties and assembly items.
January 21, 2014	A Groundbreaking Ceremony was held at the Crenshaw/Exposition Station.
January 23, 2014	The Board awarded Contract C0992A Rail and Bumping Posts to LB Foster Rail Technologies Corp.
August 21, 2014	Substantial Completion issued for Advanced Utility Relocations Contract C0990.

CHRONOLOGY OF EVENTS (Continued)

May 28, 2015	The Board awarded Contract C0991 Division 16: Southwestern Yard to Hensel Phelps/Herzog JV. Also increased by \$22.0 million the Life of Project Budget for the Southwestern Yard Project to a new amount of \$307.2 million.
May 28, 2015	The Board approved Design Option 3 for the track alignment to accommodate the future Metro Connector Transit Station (96 th St. Station).
June 29, 2015	Issued Notice to Proceed to Hensel Phelps/Herzog JV, Contract C0991 Division 16: Southwestern Yard.
April 27, 2016	The Tunnel Boring Machine was launched and drilling from north to south of the alignment started.
May 7, 2016	Held Halfway There Community Celebration at Leimert Park marking the halfway point of the project.
May 27, 2016	Held Groundbreaking Ceremony for the Southwestern Yard (Division 16).
April 6, 2017	The northbound tunnel boring machine completed mining with the hole thru at Leimert Park Station.
June 15, 2018	Restoration of the road over the three underground stations along Crenshaw Blvd. commenced at Leimert Park Station area and the at-grade transition section.
January 30, 2019	Substantial completion was achieved by the Southwestern Yard (Division 16) Contract C0991 Contractor, Hensel/Phelps/Herzog JV.