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TO: DISTRIBUTION

FROM: SAMEH GHALY
SR. EXECUTIVE OFFICER/PROJECT MANAGEMENT

SUBJECT: CRENSHAW/LAX TRANSIT PROJECT
JANUARY 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 January 31, 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: CS
Enclosure

Los Angeles County
Metropolitan Transportation Authority

Crenshaw/LAX Transit Project

MONTHLY PROJECT STATUS REPORT

JANUARY 2020

Metro®

CRENSHAW/LAX TRANSIT 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).

JANUARY 2020

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PROJECT OVERVIEW

Project Background

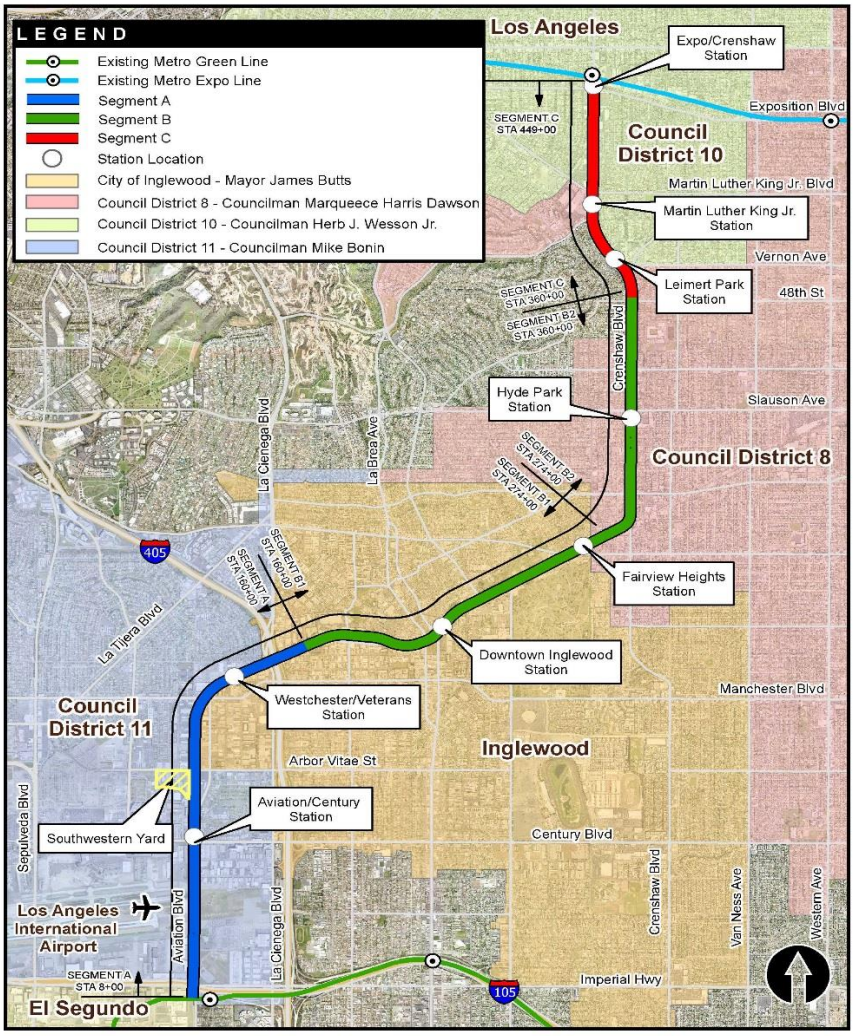
The Crenshaw/LAX Transit Project is a north/south corridor that serves the cities of Los Angeles, Inglewood, Hawthorne and El Segundo as well as portions of unincorporated Los Angeles County. The alignment extends 8.5 miles, from the intersection of Crenshaw and Exposition boulevards to a connection with the Metro Green Line at the Aviation/LAX Station. The project provides major connections with the Los Angeles International Airport (LAX) as well as links to the Metro Green Line, the Exposition Line 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 track-work 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 right-of-way 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 was 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 an 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 will be field verified and tested following each Segment's (A, B and C including the Green line junction) SIT-1 completion. This is being done in coordination with the mainline contractor.

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 is on target to complete installation, testing by January 2020. SCADA software development is in final stages of completion.

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 at 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:
The Revenue Service Date (RSD) is forecast for summer/fall of 2020.

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 planning and scheduling efforts to optimize the extensive efforts are underway. Southwestern Yard completed as planned and Metro Operations has implemented rail activation and is in full control of the facility.

EXECUTIVE SUMMARY

As of the end of January 2020 the Project has achieved 94.9% 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 progress. The following is an overview of current design and construction activities.

Design Status

Design - Build Contract C0991 Southwestern Yard Contractor (Division 16) -
Hensel Phelps/Herzog JV (HPH) has completed final design including design and engineering in support of construction and as-builts including record drawings and documents required for Contract closeout. A separate package for future expansion of the main shop was developed (preliminary engineering level only) and turned over to Metro.

Design - Build Contract C0988 (Mainline Contractor) –
Walsh-Shea Corridor Constructors (WSCC) continues design and engineering in support of construction, installation, and testing. The design/engineering support during construction is identified as potential risk in the project due to extensive repair and rework required (for more details see Key Concerns 3 and 4) affecting almost 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 and underground structures (UG1, UG3 & UG4) concrete placements are substantially complete and finish work continues for these stations. All six bridge superstructures are substantially complete and continuing with finishes, systems installations and testing. The aerial station structure concrete placement is substantially complete. The three underground stations remain at various levels of completion with emphasis on electrical, mechanical, systems and finish work inside the stations and entrance structures. WSCC is continuing with systems LFAT and has started livewire, clearance and train control testing in the south section of the Project.

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

- Finish work continues at all stations including platform edge pavers, tiles, ceiling system, and lighting.
- Elevator installation is continuing at Century/Aviation station and one underground station. Additional crews are expected to be added to work on the other underground stations.
- All booster fans are installed and are continuing to be wired and finished in the underground structures allowing the remaining OCR system to be installed at the fan locations.

- Underground Emergency Ventilation Fans (EVF) are at various stages of progress and contractor is currently working on field issues to retrofit as needed and install conduits for power and controls.
- TPSS metering gears are energized by the utility companies for TPSS's 1, 2, 3, 5, 6, 8 and 10. DB contractor is working on testing the equipment and electrical system to provide distributing permanent power at each location.
- Remaining electrical systems (Rectifier Transformers) preparation work continue at a slower pace as anticipated but expected to be ready for installation at MLK and EXPPO stations in February 2020.
- Auxiliary power sites (104th street, 60th street and Victoria) are being prepared and pads are placed to receive the equipment as they are delivered over the next few months. Auxiliary power sites provide power to cross passages, radio equipment, sump pumps, ventilation. booster fans, and other systems in the cross passages.
- Conduit installation including rework for various communication systems are continuing in all stations, including the underground stations and cross passages.
- System integration tests, Phase 1, including running vehicles for clearance test, live wire, train control and vehicle on board testing, have started on the south side of the Project. Testing is continuing at a slow rate of progress due to incomplete pre-requisites and remaining LFAT's.

Planning is underway for restoration of Park Mesa Height (PMH) street restoration. Remaining street restoration work is continuing and is driven by 3rd party utility work, coordination with City of Los Angeles and county agencies.

Southwestern Yard (Division 16) – HPH has achieved Substantial Completion as of January 30, 2019 and temporary certification of occupancy was issued on February 15, 2019. The contractor completed all punch list items and is working on closeout items which are substantially completed as of December 2019. Metro continues the closeout process for this Contract.

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 potential 2020 date for revenue service based on the revised substantial completion milestone date. WSCC in December, submitted monthly schedule updates for October 2019 and November 2019 period of performance. These updates indicated the contractor has alleged an additional 74 calendar days delay to their Substantial Completion date. Metro is evaluating the monthly updates. Metro is meeting with contractor to address remaining open items related to TPSS's, Auxiliary Power, Elevators, Emergency Ventilation Fans (EVF) status, sequence and duration of testing, alleged issues and potential contractor mitigation measures.

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	7/25/2020	-227 days

HPH Schedule Metrics – Southwestern Yard Contractor

	Original Contract Date/Duration	Time Extension (CD)	Current Contract Schedule	Forecast (Contractor)	Variance CD (Trending)
NTP	06/29/15				
Substantial Completion	10/31/18	91	01/30/19	01/30/19 (Actual)	Completed

Project costs continue to track within budget and projected contingency limits. To date, the design and construction changes for WSCC related to base scope represent approximately 14% of the contract value with a potential to increase to 15%. Detailed cost information is provided later in this report.

Key Management Concerns

No. 1: WSCC Construction Schedule Progress

Status/Action
Metro is evaluating a potential Summer/Fall of 2020 date for revenue service based on the revised WSCC Contract Substantial Completion Milestone date of December 11, 2019. Progress on construction activities continue to slip based on WSCC's weekly six-week look ahead schedule. Major scheduling effort underway between Metro and WSCC to verify durations and logic paths for major elements of work.

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 January 2020 there was a contingency drawdown of $7.1 million which reduced the remaining contingency to $21.6 million. The remaining contingency is 1.1% of total project current forecast and 13.5% 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 $44.6 million reallocated through the end of January 2020.

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

Status/Action
Various elements of design support during construction are affecting almost all areas of construction and impacting the work progress without having a clear plan to improve performance in the field, including some work proceeding at risk without approved submittals. These impacts include items such as the emergency fans field issue resolutions, power and control conduits which are taking longer than planned 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, power coordination studies, submittals, requests for information (RFI's), and deviation requests. Metro strongly believe that the Engineer of Record (EOR) needs to be present during LFAT and systems integration testing (SIT) Phase 1 to address field issues. The presence of the EOR could help mitigate potential delays.

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 progress to be less than planned, impacting the follow-on subcontractors work and creating inefficient performance. These issues impact the contractor's progress payment amounts, slows down progress, pushes activities to be performed in parallel creating crewing availability issues and impact the follow-on work. In addition, the required rework has an impact on design, procurement, installation, testing and commissioning progress.
Contractor has been investigating and addressing blocked, damaged conduits and systems pathways in tunnels and underground stations since March 2019. Metro has requested the contractor to reflect all these forensic investigation activities and corrective measures in their monthly schedule update, but only a few activities have been added to the schedule. The magnitude of damage to conduit is significantly greater than originally known by the contractor, affecting various stations systems including fire alarm system. Contractor has significantly completed the surface mounted conduits in the tunnels. However, the fire alarm conduit rework continues at a slow rate of production. An action plan and recovery plan are required to be prepared by the contractor for all the rework.

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. Multiple items such as power and water services, plus other interfaces

with gas, telephone, communication and City of Los Angeles known requirements are affecting work progress. Metro is working with DB contractor to support the resolution and coordination issues.

Effect of contractor's 3rd party utility coordination continues to progress slower than anticipated. The progress and energization of auxiliary power sites are affecting the distribution of power to underground facilities. The contractor needs to mitigate the issues to avoid impact to critical testing activities.

Project Construction Photos

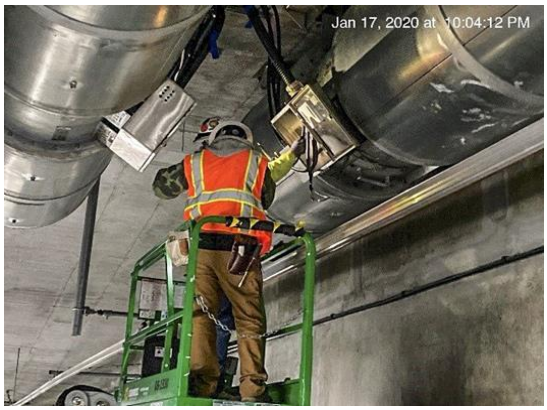
Contractor placing auxiliary power bungalow and generator at Victoria Yard in Hyde Park

Vehicle testing on new bridge over I-405

Canopy over main station entrance at EXPO/Crenshaw Station

Trackwork overhead catenary system– Crenshaw and 57th Street

Wiring controls for testing motor control center at underground Structure No. 1

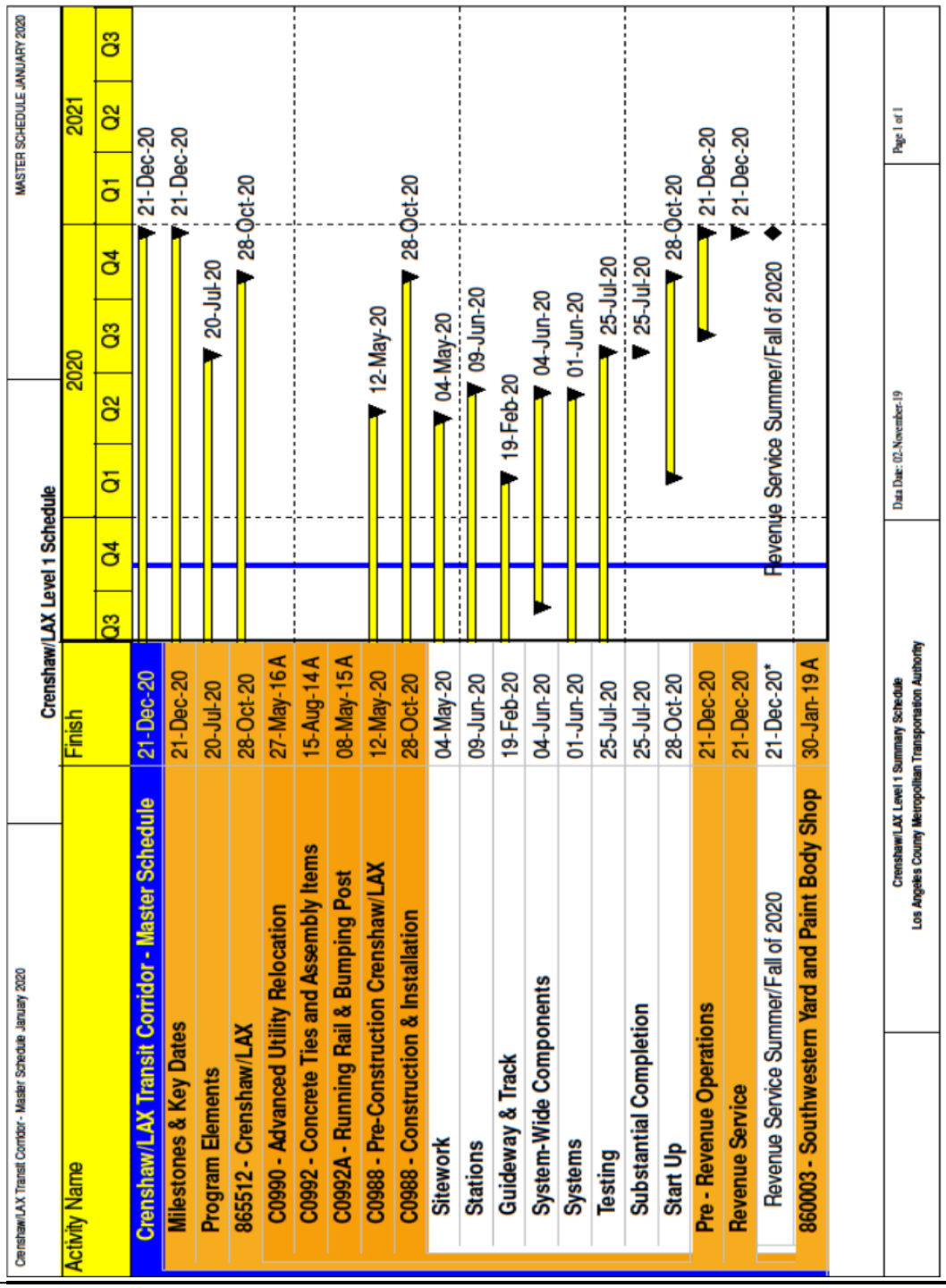


Wiring booster fans in underground structure No. 3 in the Hyde Park Area

PROJECT UPDATE

PROJECT SCHEDULE

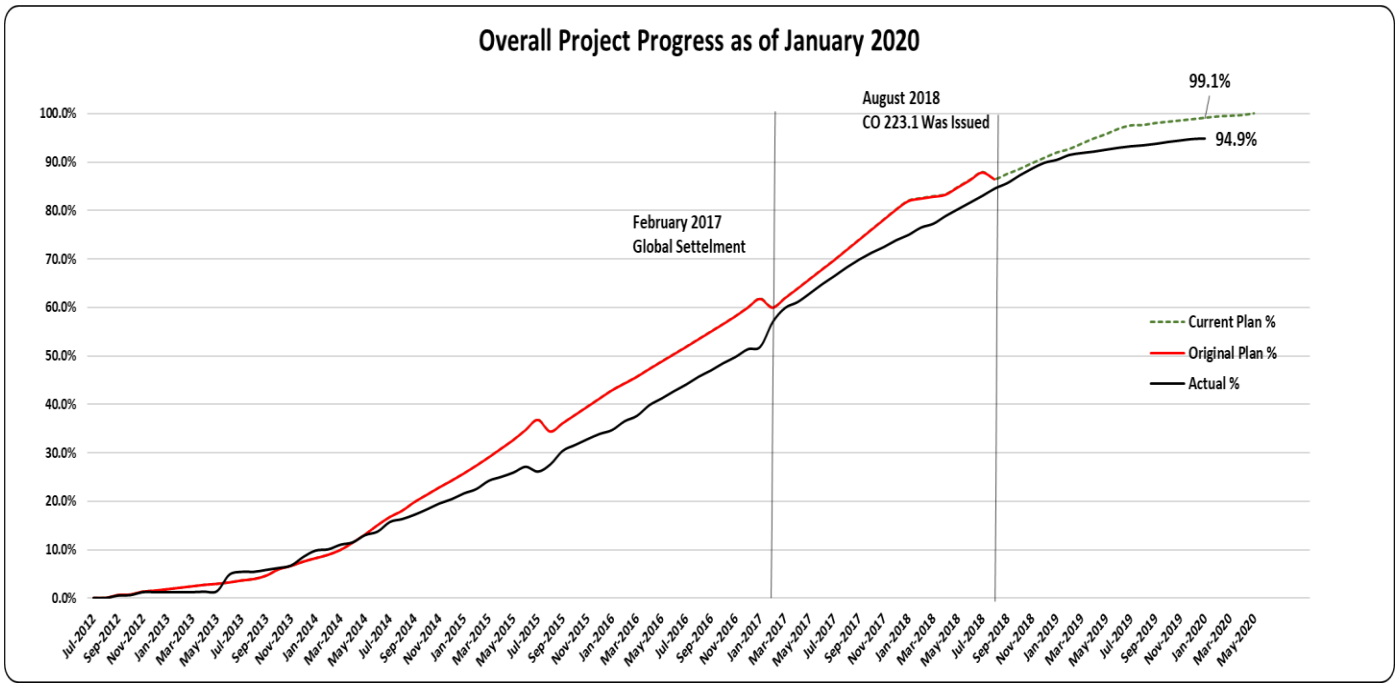
Project Summary Schedule



Progress Summary

	Status	Change from Last Period	Comment
Current Revenue Service:	10/30/2019	0	Under Review
Forecast Revenue Service:	-	0	Revenue Service Summer/Fall of 2020
TIFIA Revenue Service:	10/30/2019	0	Under Review by TIFIA Office
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	91.4%	0.1%	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	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
MCC Procure Deliver and Set - 60th Aux Power *	02/25/20		⬡				
MCC Procure, Deliver and Set - Victoria Aux Power *	02/25/20		⬡				
Contractual Milestone 3, Start All System Integration Tests (SIT-1), Forecast *	03/30/20			⬡			
MCC Procure, Deliver and Set - 104th Aux Power *	04/13/20				⬡		
Ventilation Equipment - MLK Station Installation and Testing *	04/20/20				⬡		
Aux Power at Victoria Ave - Permanent Power Drop - LADWP - Install Equipment, Cable, Energize & test *	04/22/20				▽		
Aux Power at 60th St - Permanent Power Drop - LADWP - Install Equipment, Cable, Energize & test *	04/22/20				▽		
TPSS-10, LFAT Commission Expo *	04/22/20				⬡		
Ventilation Equipment - Leimert Station Installation and Testing*	05/08/20					⬡	
OCS Live wire and Clearance SIT-1 Tests (Segment B)	05/14/20					⬡	
Aux Power at 104th St - Permanent Power Drop - LADWP - Install Equipment, Cable, Energize & test *	05/22/20					▽	
TPSS-09, LFAT Commission MLK *	05/29/20					⬡	
Radio Room Ready Ready - UG1	06/04/20						⬡
Radio Room Ready LFAT - UG3	06/13/20						⬡
Radio Antena - Expo	06/20/20						⬡

◆ 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

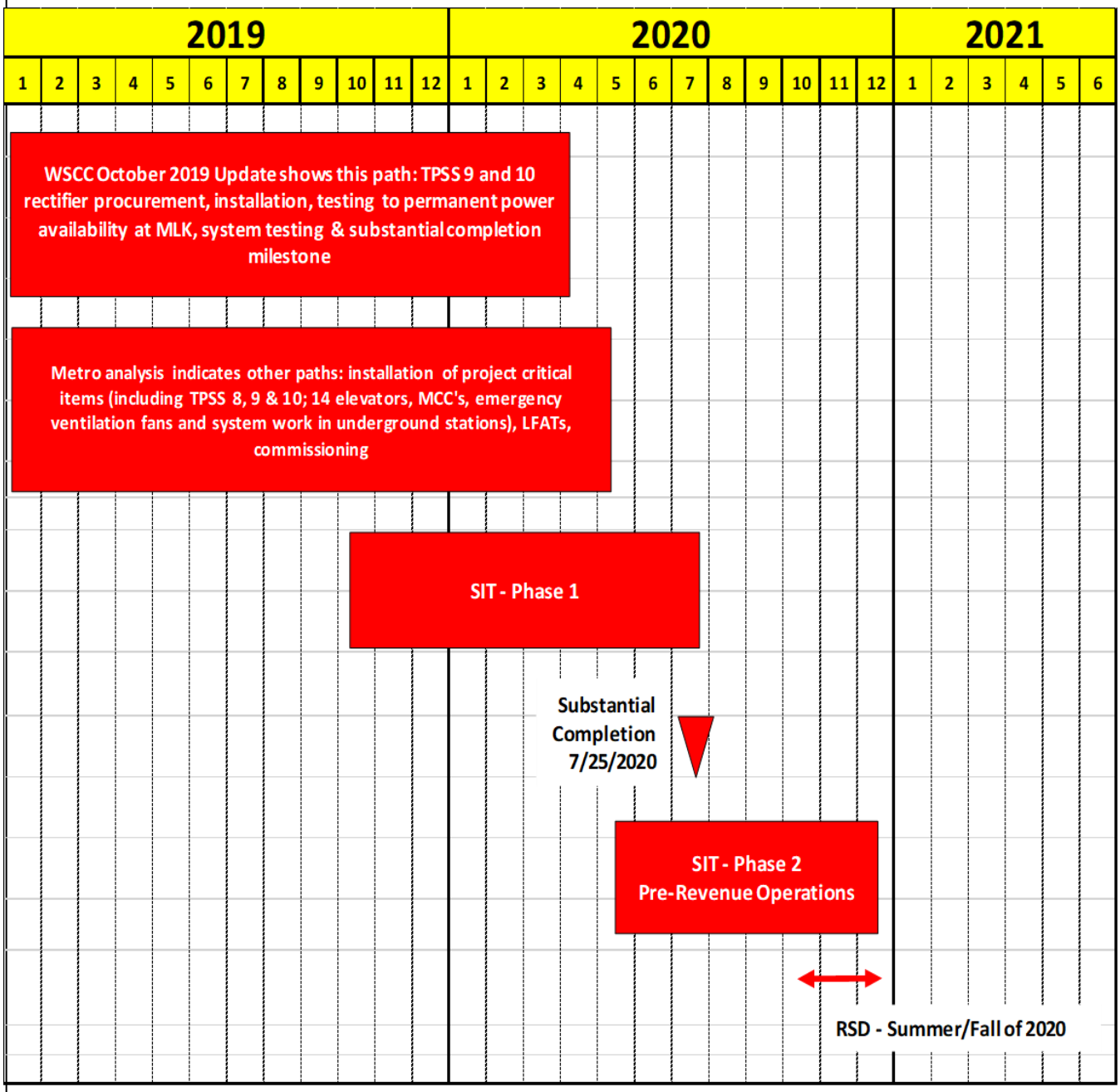
Metro Supplied Equipment

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)	5/1/2020 (Prior to RSD)

Mainline Contractor Equipment Delivery Requirements

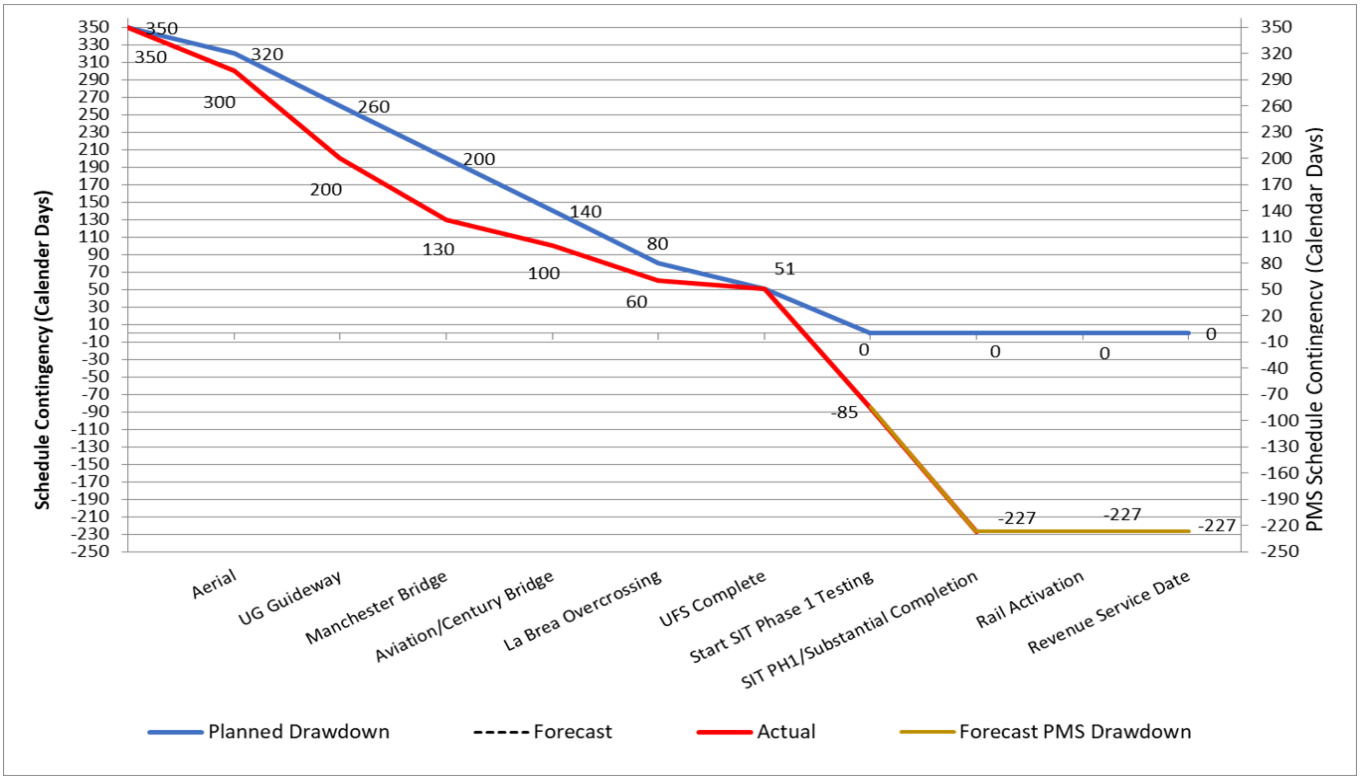
Activity Name	Early Finish	Need Date
Fabricate, Edge Lights – Mockup (Rejected in December 2019)	February 2020	June 2019
Fabricate, Edge Lights – Leimert Station	April 2020	August 2019
Fabricate, Edge Lights – MLK Station	April 2020	August 2019
Fabricate, Edge Lights – Expo Station	April 2020	August 2019
Fabricate, Test & Deliver Aux-Power Equipment - 104th St.	February 2020*	June 2019*
Fabricate, Test & Deliver Aux-Power Equipment - Victoria St.	February 2020*	June 2019*
Fabricate, Test & Deliver Aux-Power Equipment – 60th St.	February 2020*	May 2019*
Fabricate, Test & Deliver MCC's - 104th Street	February 2020*	August 2019*
Fabricate, Test & Deliver MCC's - Victoria/60th Street	February 2020*	June 2019*
*Requires schedule mitigation by Mainline Contractor		

Critical Path



The critical path of the Project remains completing construction activities, then systems installation, wiring and commissioning of traction power substations, communications, train control, OCS/OCR installations and various subsystem field acceptance testing. The critical path then flows through Systems Integration Testing (SIT), Phase I (by WSCC) and then SIT Phase II (by Metro), leading to pre-revenue services and revenue service.

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.

The contractor last schedule update submitted was for period as of October 2019. They reported they are behind schedule, adding additional alleged delays reported for this period. Metro assessment is that WSCC is behind schedule by at least 227 calendar days. Metro is meeting with WSCC to discuss detail schedule issues and possible path forward schedule reflecting a more realistic and validated schedule update. Draft schedule update for November/December 2019 was provided by WSCC, which is under review and analysis by Metro.

Metro is evaluating a potential summer/fall 2020 date for revenue service based on the revised substantial completion milestone date and referenced schedule studies.

Risk Management Narrative

Summary of Risks

Within this reporting period two risks were closed. No new risk was added. There is a total of twenty (20) risks remaining to be managed in the next reporting period.

Of the twenty (20) risks, eleven (11) are scored as high (10 to 20 risk rating), four (4) as medium (4 to 9 risk rating), and five (5) 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 December 11, 2019 - 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	WSCC Design/Engineering Support during Construction, Installation and Testing	15
373	20	WSCC Damaged, Repair, Rework and Incomplete work including tunnel conduits, Track plinths, Communication (Fire Alarm System).	13
374	50	3rd Party coordination of civil work and street improvement additional scope work requirements and Auxiliary Power sites.	13
201	50	DB unable to obtain critical skilled specialty workers needed for complex systems, elevator testing, etc.	13
355	50	Issues with long lead delivery or improper planning for integration, testing and startup of Communication systems.	12
277	50	SCADA interface between ROC & field installations could impact Metro's SIT2.	11
354	50	Issues with energization of Traction Power. Auxiliary Power equipment procurement, installation, testing and coordination with DWP and Edison.	11

Newly Identified Risks: there is no new item added to the risk register.

Closed Risks: No risks were closed in this period.

Risk Score Changes: *One (1) risk score was 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	-	417,293,686	(1,437,803)	408,357,888	-	417,293,686	(33,060,689)
20	STATIONS, STOPS, TERMINALS, INTERMODAL	153,906,000	-	315,050,000	-	308,067,041	4,800,311	285,408,522	-	308,067,041	(6,982,959)
30	SUPPORT FACILITIES (SOUTHWEST YARD)	66,673,000	-	71,164,000	-	67,318,266	-	66,072,328	-	67,338,361	(3,825,639)
40	SITEWORK\SPECIAL CONDITIONS	235,576,000	-	395,798,361	1,961,947	403,143,226	938,175	347,788,601	1,761,947	403,370,250	7,571,888
50	SYSTEMS	125,132,000	-	169,436,000	50,000	175,016,183	5,608	140,059,519	50,000	175,019,936	5,583,936
	CONSTRUCTION SUBTOTAL (10-50)	**1,052,622,000**	**-**	**1,401,802,736**	**2,011,947**	**1,370,838,401**	**4,306,292**	**1,247,686,860**	**1,811,947**	**1,371,089,274**	**(30,713,462)**
60	RIGHT-OF-WAY	132,294,000	-	127,490,000	110,967	133,847,213	13,052	133,596,626	110,967	133,847,214	6,357,214
70	VEHICLES / BUSES	87,780,000	-	83,571,544	-	83,571,544	-	81,362,870	-	83,571,544	(0)
80	PROFESSIONAL SERVICES	276,040,400	-	**368,734,466**	5,087,040	418,287,087	5,663,269	387,978,773	5,207,620	421,865,710	53,131,245
	SUBTOTAL (10-80)	**1,548,736,400**	**-**	**1,981,598,746**	**7,209,954**	**2,006,544,246**	**9,982,613**	**1,850,625,128**	**7,130,534**	**2,010,373,743**	**28,774,997**
90	UNALLOCATED CONTINGENCY	177,157,000	-	50,401,254	-	-	-	-	(7,130,534)	21,626,257	(28,774,997)
	TOTAL PROJECT 865512 (10-100)	**1,725,893,400**	**-**	**2,032,000,000**	**7,209,954**	**2,006,544,246**	**9,982,613**	**1,850,625,128**	**-**	**2,032,000,000**	**(0)**
	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	**1,751,893,400**	**-**	**2,058,000,000**	**7,209,954**	**2,032,093,277**	**9,982,613**	**1,876,174,159**	**-**	**2,058,000,000**	**(0)**

1. Expenditures are Cumulative through January 31, 2020
2. 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.
3. Expenditures exclude $5.5 million for various right-of-way and professional services costs that are being reallocated to other local funding.

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

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 have been two increases in the total LOP Current Budget to date:

- 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 $7.2 million this period to $2,032.0 million which represents 98.7% of the current budget. The total increase is related to design-build Contract C0988 Crenshaw/LAX Transit Corridor, third party utility relocation, real estate acquisition and professional services. The total commitments include $149.5 million for the Southwestern Yard 49% allocation.

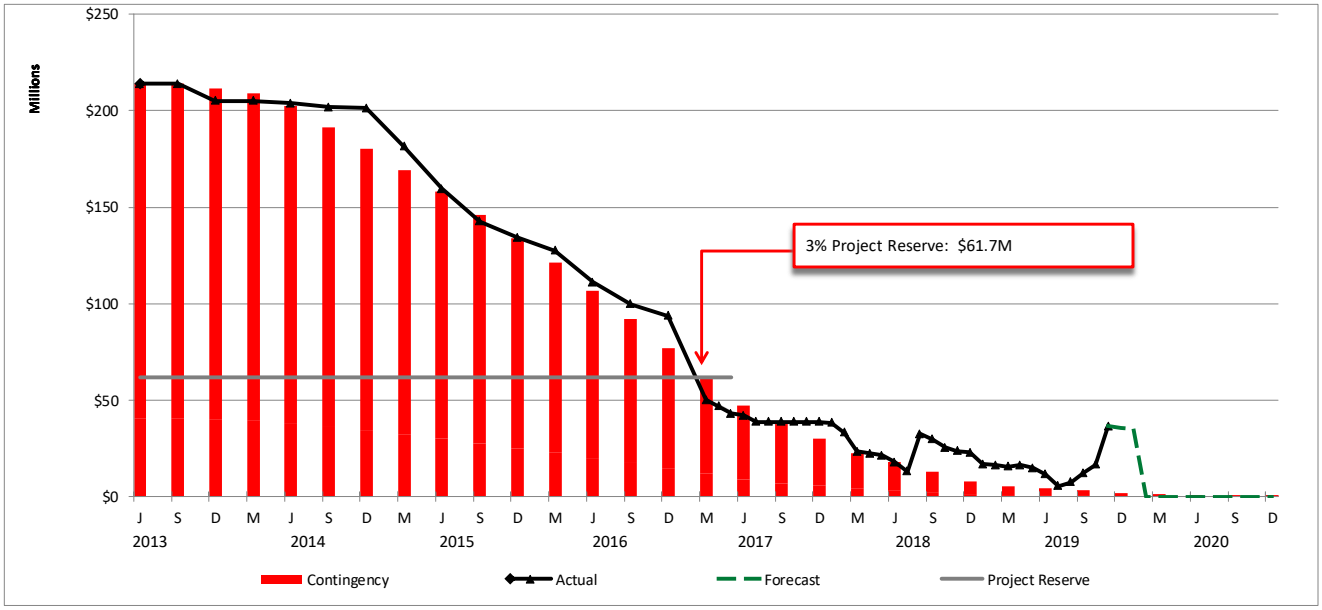
Expenditures:
Expenditures increased by $9.9 million this period to $1,876.2 million which represents 91.1% of the current budget. The total increase is for costs associated with design-build Contract C0988 Crenshaw/LAX Transit Corridor, third party utility relocation, real estate acquisition and professional services. The cumulative expenditures to date include $143.4 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	500,000	3,066,226	-	3,066,226	-	2,354,226	500,000	3,066,226	-
210152 CRENSHAW/LAX BUS TRANSFER FACILITY	-	2,200,000	-	2,200,000	89,832	762,663	-	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	-	4,479,724	-	4,479,724	219,174	2,626,246	-	4,479,724	-
TOTAL	500,000	49,555,812	-	47,720,825	309,006	43,656,283	500,000	49,555,812	-

Cost Contingency Drawdown



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.

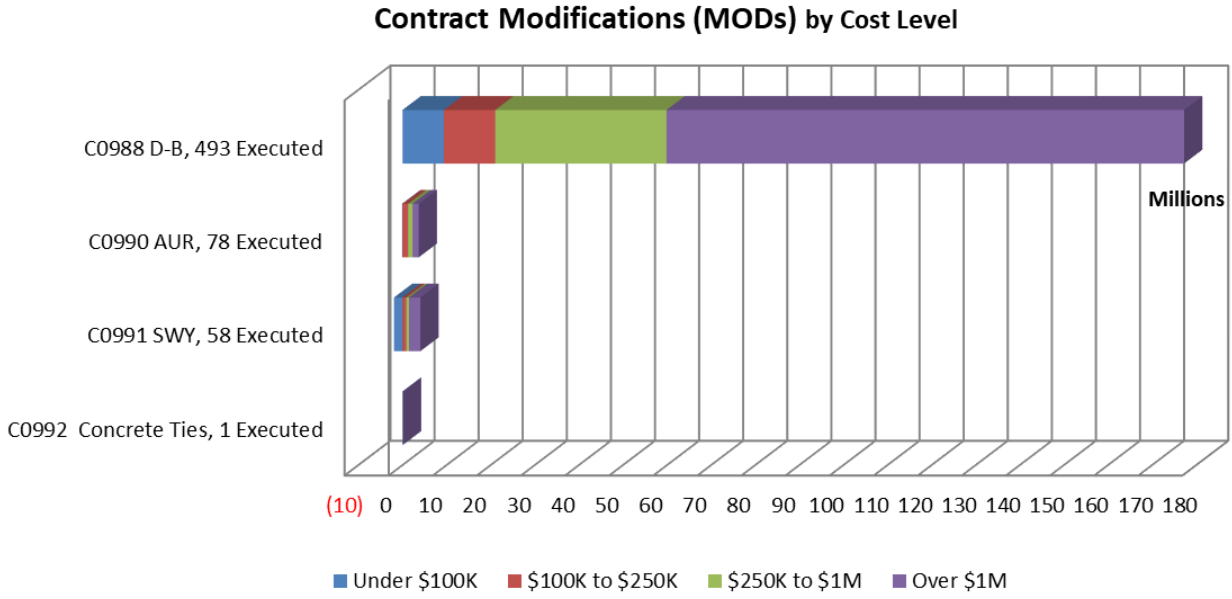
Included in the project contingency drawdown is a 3% project reserve threshold. The Board is to be notified when it becomes necessary to drawdown contingency below the project reserve line to cover project costs. This notification request was adopted by the Metro Board of Directors in September 2012.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

This month, $7,130,534 was a drawn down from contingency. The remaining total project contingency (allocated and unallocated) is $21,626,257.

PROJECT COST CONTINGENCY (through 31-Jan-2020)
UNITS IN DOLLARS

	Original Contingency	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	173,500,000	(144,743,210)	(7,130,534)	(151,873,744)	21,626,256
Allocated Contingency	40,366,792	(40,366,792)	-	(40,366,792)	-
Total Contingency	**213,866,792**	**(185,110,002)**	**(7,130,534)**	**(192,240,535)**	**21,626,257**

SUMMARY OF CONTRACT MODIFICATIONS



	C0988	C0990	C0991	C0992	Total
	493 Executed	78 Executed	58 Executed	1 Executed	
Under $100K	$ 9,281,484	$ (70,251)	$ (1,918,854)	$ 81,738	**$ 7,374,117**
$100k to $250K	$ 12,002,477	$ 1,280,184	$ 875,202	$ -	**$ 14,157,862**
$250K to $1M	$ 39,338,085	$ 984,662	$ 590,334	$ -	**$ 40,913,082**
Over $1M	$ 117,387,403	$ 1,417,202	$ 2,590,000	$ -	**$ 121,394,605**
Total Contract MODs	**$ 178,009,450**	**$ 3,611,797**	**$ 2,136,682**	**$ 81,738**	**$ 183,839,666**
Contract Award Amount	**$ 1,272,632,356**	**$ 7,827,500**	**$ 172,312,695**	**$ 2,161,297**	**$ 1,454,933,848**
% of Contract MODs	**13.99%**	**46.14%**	**1.24%**	**3.78%**	**12.64%**

Four hundred and ninety-eight (498) changes with a total value of $178.01 million have been executed since award of Contract C0988. There are an additional thirty-five (35) changes with a total credit value of $0.11 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 January 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.	**$29,667,569**	**(22.15%)**

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	**$259,867,146**	**(20.00%)**
• **Current DBE Commitment** - Actual commitments as Construction work is awarded	**$288,851,326**	**(22.23%)**
• **Current DBE Participation** - Total amount paid to date to DBEs divided by the amount paid to date to Prime	**$313,490,486**	**(26.79%)**

345 Construction subcontractors have been identified to-date.

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

Contract C0991 Division 16: Southwestern Yard Design-Build
(Reported Data as of January 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. **20.93%**

- **Current DBE Commitment** – Total DBE Committed Dollars divided by Total Contract Value for Design or Construction. **$2,467,837** **(20.93%)**

- **Current DBE Participation** – Total amount paid to date to DBEs divided by the amount paid to date to Prime. **$2,557,509** **(21.81%)**

Ten (10) 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. **16.00%**

- **DBE Commitment** - Contract commitment divided by current contract value for Construction. **$25,930,837** **(16.00%)**

- **Current DBE Commitment** - Actual commitments as Construction work is awarded **$32,931,968** **(20.32%)**

- **Current DBE Participation** - Total amount paid to date to DBEs divided by the amount paid to date to Prime **$32,459,938** **(21.13%)**

Ninety-six (96) Construction subcontractors have been identified to-date

PROJECT LABOR AGREEMENTS (PLA)

Contract C0988 Crenshaw/LAX Transit Corridor Design-Build

(Reported Data as of January 2020)

• **Targeted Worker Goal** – Construction work to be performed by residents from Economically Disadvantaged Area of LA County	**40.00%**
• **Targeted Worker Current Attainment**	**59.53%**
• **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**	**11.37%**

FINANCIAL/GRANT

$ in millions

SOURCE	(A) ORIGINAL BUDGET	(B) TOTAL FUNDS ANTICIPATED	(C) TOTAL FUNDS AVAILABLE	(D) COMMITMENTS $	(D/B) COMMITMENTS %	(E) EXPENDITURES $	(E/B) EXPENDITURES %	(F) BILLED to FUNDING SOURCE $	(F/B) BILLED to FUNDING SOURCE %
FEDERAL - CMAQ	68.2	104.0	54.0	104.0	100%	54.0	52%	54.0	52%
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	511.2	97%	467.5	88%	448.3	85%
CITY CONTRIBUTION	52.4	101.7	101.7	95.3	85%	43.6	44%	40.7	44%
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	377.7	100%	375.9	99%	368.4	97%
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	2,008.0	2,032.1	99.0%	1,876.2	91.0%	1,846.6	90.0%

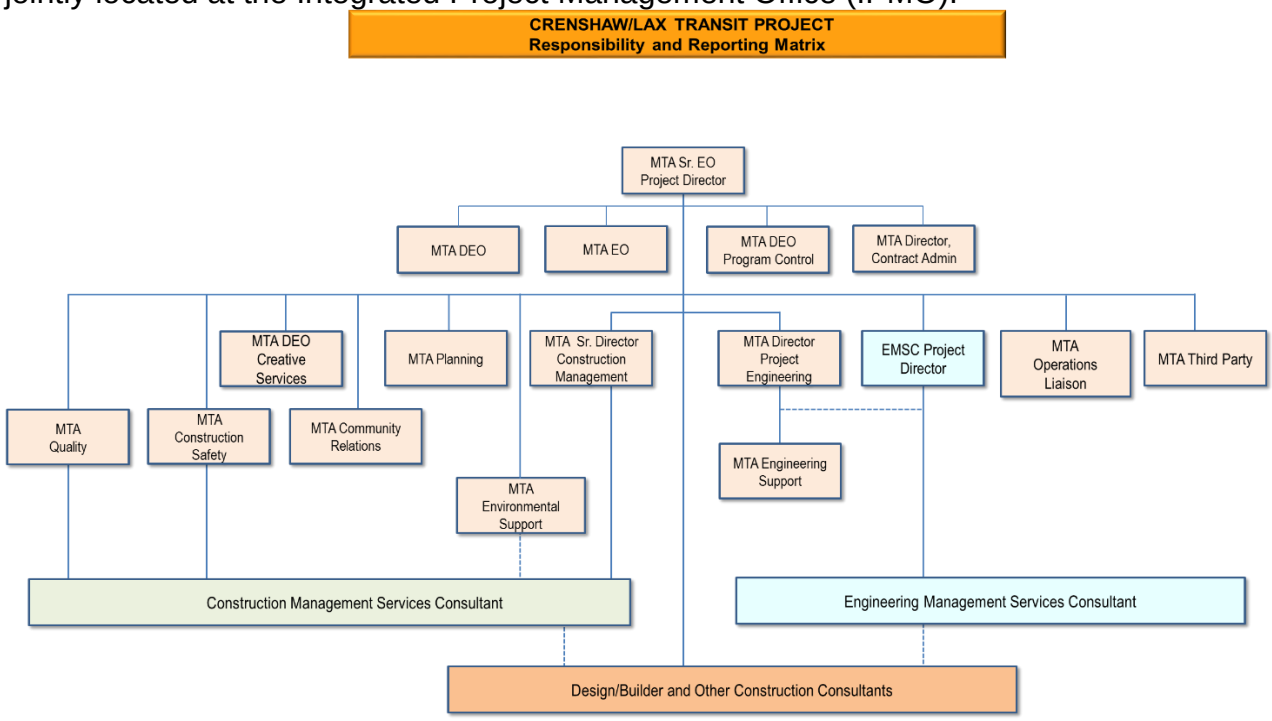
NOTE: Expenditures are cumulative through January 31, 2020

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 include late fees.

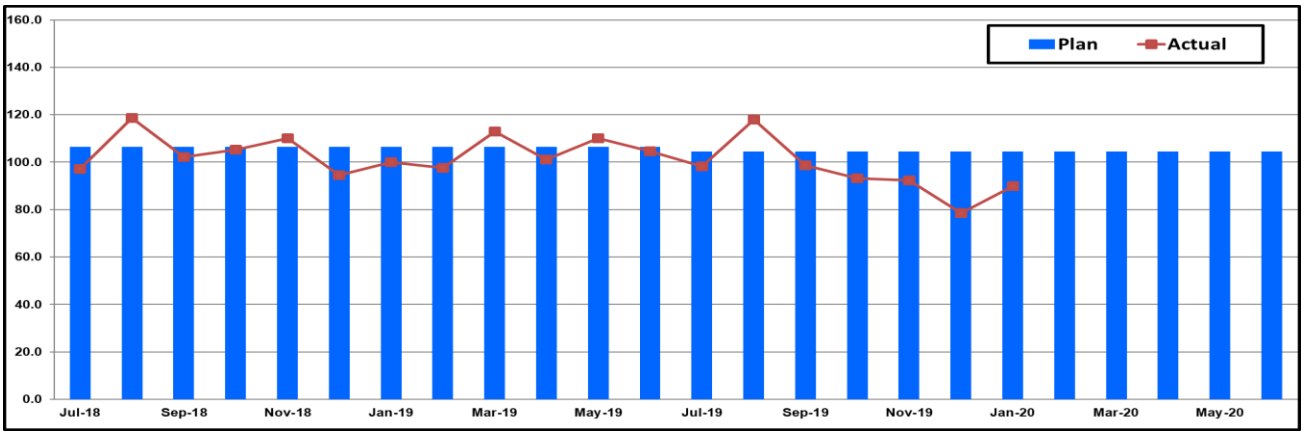
PROJECT ORGANIZATION AND STAFFING

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

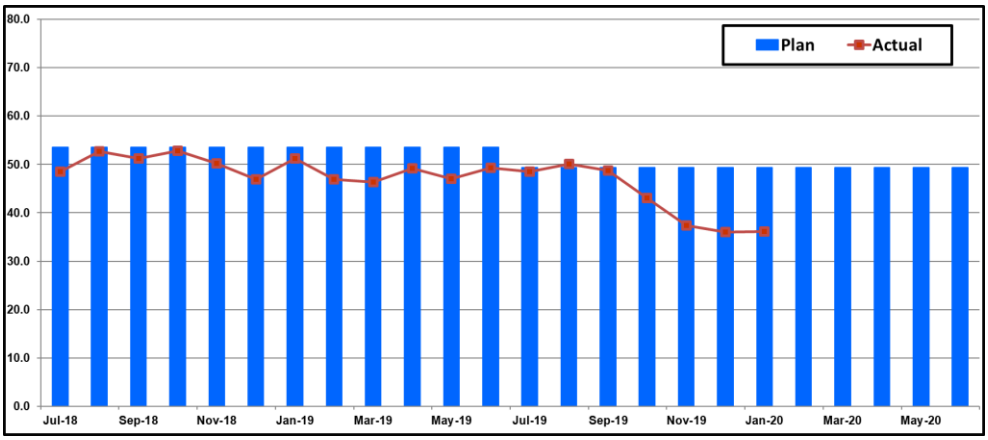


The overall FY19 Total Project Staffing Plan averages 104.5 Full Time Equivalent (FTEs) per month consisting of 49.4 for Metro Agency staff, 46.1 for Construction Management Support Services Consultant and 9.0 for Design and Engineering Support Services Consulting staff.

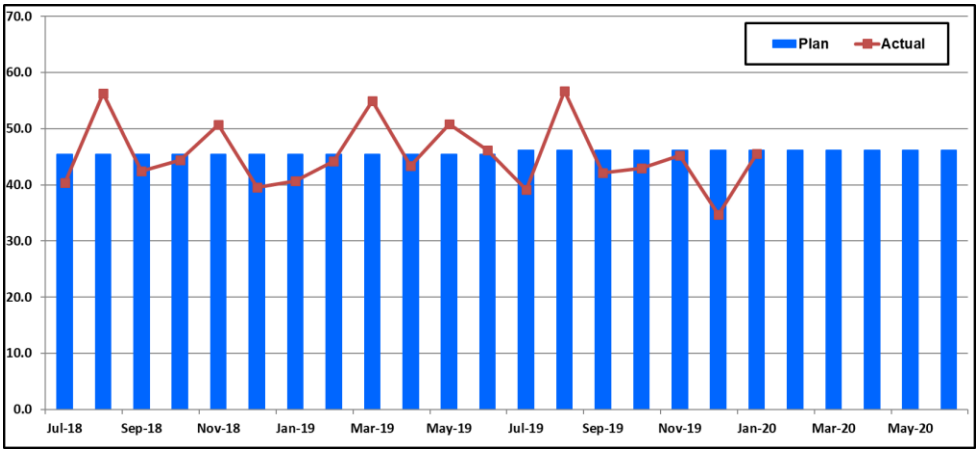
For January 2020, total project staffing was 89.9 FTEs for the month consisting of 36.2 FTEs for Metro's project administration staff, 36.2 FTEs for Construction Management Support Services Consultant and 8.2 FTEs for Design and Engineering Support Services Consulting staff.



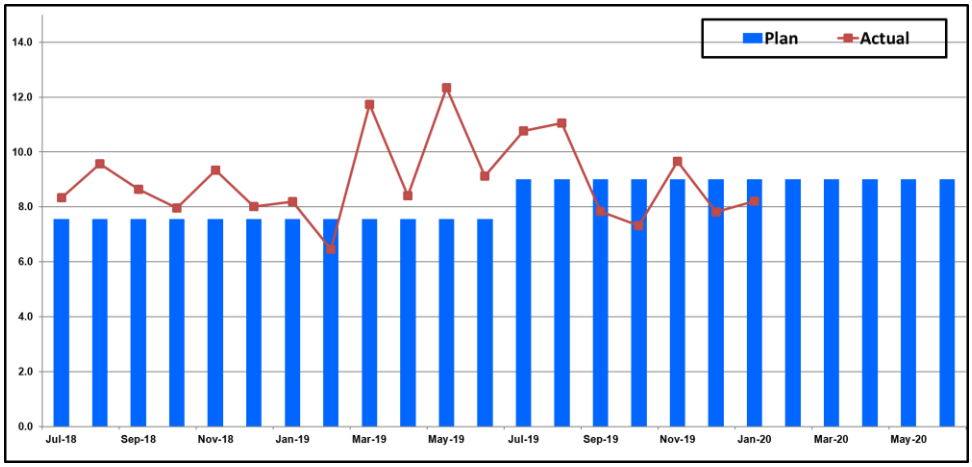
Metro Staff



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

- 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 one (1) Nonconformance Report (NCR) during this month.
- Metro Quality participated in Readiness Review meeting for Sign Installation.
- 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

C0988 Crenshaw/LAX Transit Corridor Design Build

- 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.
- No Fugitive dust violations were reported or witnessed during the reporting period.
- EMS and Environmental Compliance Progress meetings were held during this reporting period on 01/15/20 and 01/29/20.
- There were no qualifying rain events during the reporting period.
- There were no Metro observed nighttime noise exceedances during this reporting period.
- Asbestos containing material (ACM) was intended to be removed during this reporting period but was instead rescheduled to the following month. Samples were taken to verify the asbestos and approve the correct disposal facility.

CONSTRUCTION/COMMUNITY RELATIONS

- Continued working with WSCC to minimize the impacts of lane and street closures along the Crenshaw/LAX alignment.
- Circulated 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 business and residents along the Crenshaw/LAX alignment.
- Ongoing coordination with WCSS and Metro Bus Operations to plan for bus detour routes to accommodate lane reductions and closures.
- Continued outreach to area stakeholders including the LAX area regarding ongoing construction activities.
- Continued face to face outreach to key stakeholders and community organizations along the alignment.
- Ongoing planning for community construction update meetings and presentations to key stakeholder groups.

CREATIVE SERVICES

- Confirmation of Permanent Room ID Sign Messages
- Coordination of Signage and Artwork Installation RFI Responses
- Signage Fabrication Oversight
- Inspections of porcelain enamel steel art panel installation at MLK, Expo, and Leimert Park Stations

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, new CAL OSHA regulations, security issues.
- 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.
- Conducted All Hands Safety Meeting on 1-23-2020 and discussed incident review, man hours and weekend schedule work.
- Monitored construction activities daily including weekends to ensure compliance with contract specifications.
- Contract C0991 Hensel Phelps Project to date completed 518,946 work hours with 3 recordable injuries. Hensel Phelps and their subcontractors completed 14,113 work hours and zero (0) recordable injuries for the month of January 2020 Note: HPH has submitted to Metro a notice of Substantial Completion as of January 30th, 2020. HPH continuing to work on punch list items.
- 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 115,992.33 work hours with (0) recordable/Days Away from Work injury for the month of January 2020. Total Project to Date work hours is 9,296,470.89 with a total of nighty nine (99) recordable incidents. The Project Recordable Rate is 2.12
- 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 (96th 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.

PROJECT COST STATUS – SOUTHWESTERN YARD

SCC CODE	DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		FORECAST VARIANCE
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
10	GUIDEWAYS	0	0	0	0	21,997	0	21,997	0	21,997	21,997
20	STATIONS	0	0	0	0	0	0	0	0	0	0
30	SUPPORT FACILITIES (Y & S)	85,546,835	0	85,189,999	0	85,694,629	0	85,364,573	0	85,694,629	504,630
40	SITEWORK\SPECIAL CONDITIONS	35,932,000	0	38,273,000	0	40,041,398	0	37,685,681	0	40,041,398	1,768,398
50	SYSTEMS	25,784,616	0	32,991,000	0	34,372,709	4,737	33,396,955	0	34,392,804	1,401,804
	(10-50) CONSTRUCTION	147,263,451	0	156,453,999	0	160,130,732	4,737	156,469,206	0	160,150,828	3,696,829
60	RIGHT-OF-WAY	99,910,000	0	100,000,000	0	102,420,623	0	102,417,651	0	102,420,623	2,420,623
70	VEHICLES	0	0	0	0	0	0	0	0	0	0
80	PROFESSIONAL SERVICES	35,601,095	0	33,639,631	(40,510)	43,268,502	(9,518)	36,632,546	80,056	43,916,606	10,276,975
90	PROJECT CONTINGENCY	13,659,732	0	17,106,370	0	0	0	0	(80,056)	711,943	(16,394,427)
TOTAL		296,434,278	0	307,200,000	(40,510)	305,819,857	(4,780)	295,519,403	(0)	307,200,000	0

C0991 PAINT & BODY SHOP PROJECT										
DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		FORECAST VARIANCE
		PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
861301 DIV 22 PAINT & BODY SHOP	11,000,000	0	11,000,000	0	11,000,000	0	10,321,826	0	11,000,000	0

GRAND TOTAL	**307,434,278**	**0**	**318,200,000**	**(40,510)**	**316,819,857**	**(4,780)**	**305,841,229**	**(0)**	**318,200,000**	**0**

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH JANUARY 31, 2020.

PROJECT COST ANALYSIS

The project number 865512, 860003 and 861301 are internal to Metro and are used to differentiate between various components of the project.

Original Budget:
The Board in May 2015 established the Life-of-Project (LOP) budget of $307.2 million for the Southwestern Yard Project.

Current Budget:
The Board in May 2015 approved an increase for the funding for the Southwestern Yard by $22.0 million to increase the LOP budget to $307.2 million to allow for the award of design-build Contract C0991 Southwestern Yard Project. Of the total $307.2 million, $150.2 million is funded in the Crenshaw/LAX Transit Project LOP budget which includes the original 49% allocation amount of $139.4 million plus a new $10.8 million reduction from the Crenshaw/LAX Transit Project contingency line item in the budget. There is no increase in the LOP for the Crenshaw/LAX Transit Project. The original 51% share associated with future Green Line related extensions in an amount of $145.8 million was increased by $11.2 million for a new total of $157.0 million.

In addition to the $307.2 million there is another $11.0 million that is the budget for the paint and body shop, under another Metro internal cost project number, which funding was approved by a prior agreement for a paint and body shop to support the Green Line shops and was required for the award of the design-build Contract C0991 Southwestern Yard Project.

The grand total of the combined budget is $318.2 million.

Current Forecast:
The current project forecast is $318.20 million and remain the same as total current budget.

Commitments:
The commitments are cumulative through January 31, 2020. The total commitments decreased by $0.04 million to $316.82 million to date represents 99.57% of the current budget.

Expenditures:
The expenditures are cumulative through January 31, 2020. The total expenditures increased by $0.01 million to $305.84 million which represents 96.12% of the current budget. The decrease is for cost associated FIS adjustment to project administration.