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FROM: *for* SAMEH GHALY   
DEPUTY CHIEF PROGRAM MANAGEMENT OFFICER (INTERIM)

SUBJECT: CRENSHAW/LAX TRANSIT PROJECT  
AUGUST 2022 MONTHLY PROJECT STATUS REPORT

Attached 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 August 2022.

If you have any questions regarding this report or its supporting information, please contact Brittany Zhuang, Director, Project Control at (213) 424-7512.

SG: ts

# Crenshaw/LAX Transit Project

MONTHLY PROJECT STATUS REPORT

AUGUST 2022



Metro<sup>®</sup>

# **CRENSHAW/LAX TRANSIT PROJECT**

## **MONTHLY PROJECT STATUS REPORT**

THE PREPARATION OF THIS DOCUMENT HAS BEEN FINANCED IN PART  
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AUGUST 2022

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## **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 96<sup>th</sup> Street to not preclude a future light rail Metro Rail station being developed as part of the Airport Metro Connector (AMC) project as part of the LAX/Metro Transit Center Station. These accommodations are not funded by the Crenshaw/LAX Transit Project but are paid for by the Airport Metro Connector (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 alignment consists of three Segments A, B and C:

- Segment A stretches from south at C Line (Green), underground structure 1(UG1), aerial station at Century/Aviation to at grade Westchester/Veteran station including maintenance and vehicle storage facility. .
- Segment B includes 3 at grade stations (Downtown Inglewood, Fairview Heights and Hyde Park) and underground structure 3 (UG3) to 48<sup>th</sup> street portal.
- Segment C includes the remaining north portion of the project from underground portal structure 4 (UG4), three underground stations Leimert Park, Martin Luther King and Exposition.

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 light rail vehicles (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 that 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/contact rail, communications, and systems tie-in to the existing C Line (Green). 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 the 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 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 (22) Crenshaw cars are currently in revenue service on the C Line (Green) and A Line (Blue). In coordination with the mainline contractor, the contractor Kinkisharyo international, LLC of Light Rail Vehicle Contract P3010 completed the onboard vehicle

verification testing and the final software verification on all Segments including the Turnback and WSCC train control SIT-1 testing. Pre-revenue started in July 2022 between Westchester/Veteran and Exposition part of the project using P3010 vehicles.

#### Rail Operations Center (ROC)

The existing functional operations at the ROC has 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 for Crenshaw/LAX Transit Project.

ROC installation and testing were completed in February 2020. Metro has completed SCADA software development and all System Integration Test Phase 2 (SIT-2) test procedures and key personnel are assigned to manage and perform tests. Metro operations continue with SIT-2 with emphasis on safety-critical elements of non-SCADA subsystems (90% complete) including all safety-critical Supervisory Control and Data Acquisition (SCADA) systems (97.3% complete) testing from ROC. Metro management continues with coordination in support of ongoing and upcoming SIT-2 from ROC and needed support efforts during SIT-2 with WSCC, LKC and other subcontractors. SIT-2 team completed testing of the points and are focused on addressing the remaining discrepancies including testing with trains.. Emergency Drills were completed, and After-Action Report (AAR) are being finalized by Metro Fire Life Safety team. Metro will continue Phase 2 System Integration Testing, started Pre-revenue Operations full simulation on August 22, 2022, Fire Life Safety Certification continued with the preparation of SCVR (Safety Certification Verification Report) for California Public Utility Commission Certification leading to Revenue Service and opening to the public in Fall 2022.

#### Fare Collection

A notice-to-proceed was issued on January 30, 2018, to the existing Metro Universal Fare Collection System (UFCS) contractor, Cubic Transportation Systems (CUBIC), to procure UFCS equipment for the Crenshaw/LAX Project eight stations.

The Universal Fare Collection System (UFCS) contractor Cubic and mainline contractor WSCC have completed installation work at all locations. Fare gates, swing gates, and ticket vending machines (TVMs) installation are complete including communication with ROC.

#### **Program Management**

The Walsh Shea Corridor Constructors (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, community relations, quality management, operations, and creative services departments. In addition, a Project Management Support Services (PMSS) consultant is providing resources to supplement staff.



Project Schedule:

Metro issued in September 2018 a non-compensable unilateral change order (CO-223.1) to WSCC to extend their substantial completion milestone to December 11, 2019. The project continues to fall behind the dates reset in the non-compensable unilateral change order.

WSCC in their final monthly schedule update in June 2022, reflects a WSCC Systems Substantial Completion date of June 17, 2022, which Metro issued the certification of project substantial completion. All remaining open items are tracked and part of the project's final acceptance.

Project Budget:

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 Westchester/Veterans as part of the baseline project. This Motion added \$135 million to the Life of Project (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 Standard Cost Code (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.

Due to the extension of the Project's Substantial Completion date, the Metro Board of Directors action on May 28, 2020, increased the Life-of-Project Budget by \$90 million. The additional funding is required to provide funding for professional services that support the completion of the Project. The required support includes Metro staff and professional services consultants who provide various services to assist in the management and oversight of the Project.

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. An overview of monthly activities is presented in the Construction and Community Relations Section on Page 32.

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. The Crenshaw Project (K Line) tie-in with the Metro Rail C Line (Green) was completed and tested.

Metro's Project Team is monitoring and coordinating testing progress with operations, mainline contractor, and ROC management team to support ongoing System Integration Testing Phase 2 (SIT-2) of SDADA and non-SCADA points for all systems.

Walsh-Shea Corridor Constructors (WSCC) completed the remaining system's Local Field Acceptance Testing (LFAT), and Systems Integration Testing (SIT-1) on the project, submitted test reports, and continued working and submitting other open items and punch list which are in BIM-360 for tracking and resolution.

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 Revenue Readiness Plan (RRP) and critical path scheduling efforts are underway.

Metro Operations have completed Southwestern Yard (Division 16) rail activation and continues to provide support to the mainline contractor testing efforts as needed, including vehicles with operators for testing. Metro Management, WSCC Contractor, California Public Utilities Commission (CPUC) and Operations are meeting periodically to coordinate, manage, and support the Project testing and activation. FTA/PMOC have continued the project "Readiness for Service" review process as per Oversight Procedure 54 (OP54) in collaboration with Metro team. Metro Operations is continuing with coordination meetings "Project Substantial Completion Status, Progress, Issues and Readiness" and started the initial phase of the pre-revenue simulation and preparation for revenue service.

## **EXECUTIVE SUMMARY**

The Project has achieved 99.97% completion based on earned value measurements for design and construction. Walsh-Shea Corridor Constructors (WSCC) substantial completion was achieved, and Metro issued a certificate of Substantial completion on June 17, 2022.

The following is an overview of current design and construction activities.

### **Design Status**

#### Design - Build Contract C0988 (Mainline Contractor)

. The engineering support during construction is identified as a concern in the project due to extensive repair, rework and field issues resolutions required (for more details see Key Concerns 3, 7, 8, 9 and 10), affecting construction due to finishes cladding, plinth gap repair station speakers, electrical and mechanical (emergency fans/ dampers, troubleshooting of discrepancies and testing (EVOP, EGOP, ESOP -), open items discovered during SIT-2 (Discrepancies) including SIT-1 test reports finalization are ongoing. WSCC continues to support coordination and resolution of engineering issues including submittals, studies, NCR's, fire life safety (FLS) issues, test reports, and as-builts.

### **Construction Status**

#### Design - Build Contract C0988 Mainline Contractor

WSCC continues working on the punch list and open items including the remaining testing along the alignment. The four at-grade stations, underground structures (UG1, UG3 & UG4), and all six bridge superstructures including the aerial structure concrete placements are completed and field inspection, punch list, and acceptance process are continuing. The three underground stations system testing are complete pending final test reports approvals. Finish work inside the stations, entrance structures, and plaza finishes are complete and continuing with the punch list and open items in BIM-360.

Trackwork and Overhead Catenary System (OCS) and Overhead Contact Rail (OCR) are completed and verified. All segments are energized and under track allocation control. Segments A, B and C are currently under Metro operations track allocation. Wayside train control installation is complete along the alignment including in the underground stations, tunnels and connectivity is established with clean data communication to the Rail Operations Center (ROC), signal sighting and loss of cab signal issues are resolved. Systems installations LFAT's and SIT-1 are complete and continuing with remaining open issues and discrepancies resolution, and final test reports.

WSCC and Metro continue to coordinate with other agencies, cities, and utility companies (power, water, gas, and communication) at various locations as needed. The remaining open items are listed and being monitored, tracked, and resolved prior to the project final acceptance. Metro continues to track a project scorecard for all open items that are also being discussed during management meetings between Metro and WSCC.

Progress on the installation and testing is proceeding as follows:

- Remaining test reports (LFAT, SIT-1) are being coordinated for review and approval.
- SIT-2 of non-SCADA points at Segments B & C safety critical are 90% complete for all subsystems including train control testing, Southwestern Yard interface and Fare Collection system.
- SIT-2 of SCADA points at Segments B & C are 97.3% complete for all subsystems from ROC. Focus is being made on safety-critical items and getting SIT-2 discrepancies addressed.
- State inspection and certification of the remaining elevators at Vernon, MLK and Century stations are complete.
- Contract P3010 contractor Kinkisharyo International, completed onboard vehicle verification testing including verification of turnback during pre-revenue operations.
- The Universal Fare Collection System (UFCS) contractor Cubic have completed installation work at all locations including communication with ROC. All SCADA points are verified from ROC and are planning for final programming and activation prior to Revenue Service.
- Systems field walks are complete, and all items are added to BIM-360 with priority for tracking and resolution including a list of critical open items. Weekly scorecards for the project are developed, coordinated and discussed in detail during management meetings.
- Daily meetings are continuing between WSCC and Metro to address discrepancies discovered during SIT-2 SCADA point verification.

**Cost and Schedule Summary**

Metro Board of Directors action in May 2020 increased the Life-of-Project Budget by \$90 million. The increase is required due to the forecast delay of Substantial Completion to December 2020. The additional funding is required to provide funding for professional services that support the completion of the Project. Detailed cost information is provided later in this report.

**WSCC Schedule Metrics – Mainline Contractor**

	<b>Original Contract Date</b>	<b>Time Extension (CD)</b>	<b>Current Contract Schedule</b>	<b>Actual (Contractor)</b>	<b>Variance (CD)</b>
NTP	09/10/13				
Substantial Completion including SIT-1	09/08/18	459	12/11/19	6/17//22	-919

To date, the design and construction changes for WSCC related to base scope represent approximately 14.7% of the contract value which includes 4% funded by other Metro projects.

**Key Management Concerns**

No. 1: WSCC Construction Schedule Progress

Status/Action

WSCC has submitted their final Monthly Schedule Update for June 2022, which reflects Substantial Completion (SIT-1) date of June 17, 2022. There are discrepancies and open items (BIM 360) left to be completed by WSCC or their subcontractors and inspected by Metro. Many of the remaining items include CPUC list, test reports/submittals, Operation and Maintenance (O&M), training, and deficiency/punch list items discovered during SIT-2 need to be completed before Revenue Service Operation. The schedule has been impacted by issues with Emergency Management Panel (EMP) ventilation sequence reprogramming and testing, Automatic Train Control (ATC) connectivity system to ROC.

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 August 2022, there was a contingency replenishment of \$0.39 million which increased the remaining contingency to \$3.72 million. The remaining contingency is 0.2% of the total project current forecast and 9.8% the of total project cost-to-go.

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

Status/Action

There are engineering support activities during construction and testing such as test reports, submittals, re-submittals, requests for information (RFI), NCR's, FLS issues, including new field issues that have impacted the field work and testing progress. The impacts have created delays and potential inefficiencies to construction, systems work, testing, start-up, commissioning, LFAT, iLFAT and SIT-1. Issues including failed tests (discrepancies) and failed SIT-2 tests with discrepancies requiring investigation, troubleshooting, design support and resolution have affected progress in all areas of the project schedule including systems communication, train control acceptance, EMP system testing, Etc. Most of the known issues, including punch list items and discrepancies are put in the BIM-360 (Building Information Modeling 360) for tracking and resolution. All remaining open items are expected to be completed by project final acceptance.

No. 4: WSCC Required Rework and Impact to Follow-on Subcontractors

Status/Action

Several areas of work along the alignment could not be completed due to damaged, incomplete, and missing components. This has impacted and slowed down progress on vehicle testing, and various station communication systems work such as emergency fans, train control connectivity to ROC, Emergency Management Panel (EMP) ventilation sequence reprogramming and fire alarm systems testing. This issue is being tracked closely until all test reports are submitted, approved, and SIT-2 point are verified, and discrepancies are resolved.

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

Status/Action

Multiple areas of work along the alignment require close coordination with 3rd Party Agencies. Metro is working with WSCC and resolving issues as quickly as possible. There are no major issues remaining and meetings are setup as needed. Issues related to permanent power energization have been resolved and utility company equipment has been energized. Permanent distributed power is complete and temporary power is removed from all locations. This item is resolved.

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

Status/Action

Construction continues as an essential service under guidelines set forth by the City of Los Angeles. Safety protocols are continued to be required and monitored. Preventive measures have been implemented and the impact of Coronavirus (COVID-19) on project progress is being monitored by WSCC and Metro. WSCC continues to submit notifications of potential impacts to work for any cases on the project. Each impact claim will be assessed consistent with Contract terms. The number of COVID-19 cases were trending down since January 2022, with a few cases reported in June, July and August 2022. Metro has developed and implemented vaccination requirements and continues to update as conditions change. It remains unclear as to what extend the COVID-19 has impacted the Project.

No. 7: MSE Wall 202L Settlement and Movement

Status/Action

Construction activities around MSE Wall 202L movement were suspended pending a detailed analysis of the cause of movement and mitigation measures. The train control and vehicle testing were impacted by MSE Wall-202L movement which impacted any vehicle movement near the wall. The jet grouting repair work was completed in February 2021 and the restoration of AC-cap, ballast, track work, train control, and Overhead Catenary System registration were completed in March 2021. Train testing was allowed to resume in March 2021. This item is resolved.

No. 8: Emergency Management Panel (EMP) Display Omissions by WSCC

Status/Action

Several key components of EMP screen display of emergency hatch alarm and ventilation scenarios were omitted by WSCC. Metro and WSCC have worked together and have resolved all the safety concerns. Coordination efforts and development of required EMP screens are resolved expeditiously by redlining the drawings. EMP ventilation shut down sequence issue that requires reprogramming and testing for the three underground stations has been resolved, retested by WSCC/LKC and their subcontractor and test reports finalized. This item is resolved.

No. 9: Progress Rate of Testing for Local Factory Acceptance and System Integration

Status/Action

The remaining required WSCC testing effort including LFAT, Commissioning and SIT-1 were critical and considered a significant part of the required scope of work. The actual production rate of successful testing did not support WSCC's Monthly Schedule Updates or the weekly projections. The required testing effort includes LFAT and SIT-1, which are critical parts of the schedule and substantial completion milestones. Coordination between Metro System Engineering and WSCC are continuing to track the progress of remaining testing, discrepancy resolution and test reports that are required for final test acceptance. This item is mostly resolved and not considered a major concern at this time.

No. 10: OCS balance weight anchor stainless steel rope damage and fraying

Status/Action

During the field inspection and joint walk between Metro and WSCC it was discovered that Overhead Catenary System (OCS) balance weight anchor ropes were damaged at various degrees. After evaluation, it was determined that the OCS system needed to be evaluated and an engineering solution was provided to determine the cause and development of a permanent solution. All the OCS portion of the project above the grade track area was put on hold due to potentially unsafe for operating trains at any speed and all vehicle testing was suspended in the above grade portion of the project. WSCC/LKC and their specialty subcontractors identified the cause and have developed a potentially permanent solution that was approved by HNTP (Engineer of Record) and accepted by Metro engineering. LKC has replaced the ropes and completed the implementation of the final solution. This issue has caused delays, impacting the completion of P3010 vehicle software verification, train control integration, testing and project substantial completion. This item is resolved.

**PROJECT CONSTRUCTION PHOTOS**



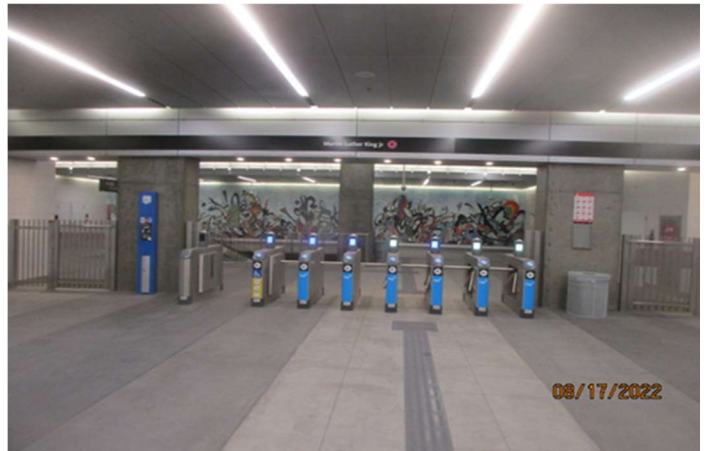
Hyde Park Station - WSCC preparing to conduct water leak test



Marina Landscaping removing debris and trimming shrubs in Downtown Inglewood.



MLK Station - Entrance Sign



MLK Station - turnstile Mezzanine level.



Expo Station - main entrance at the plaza.

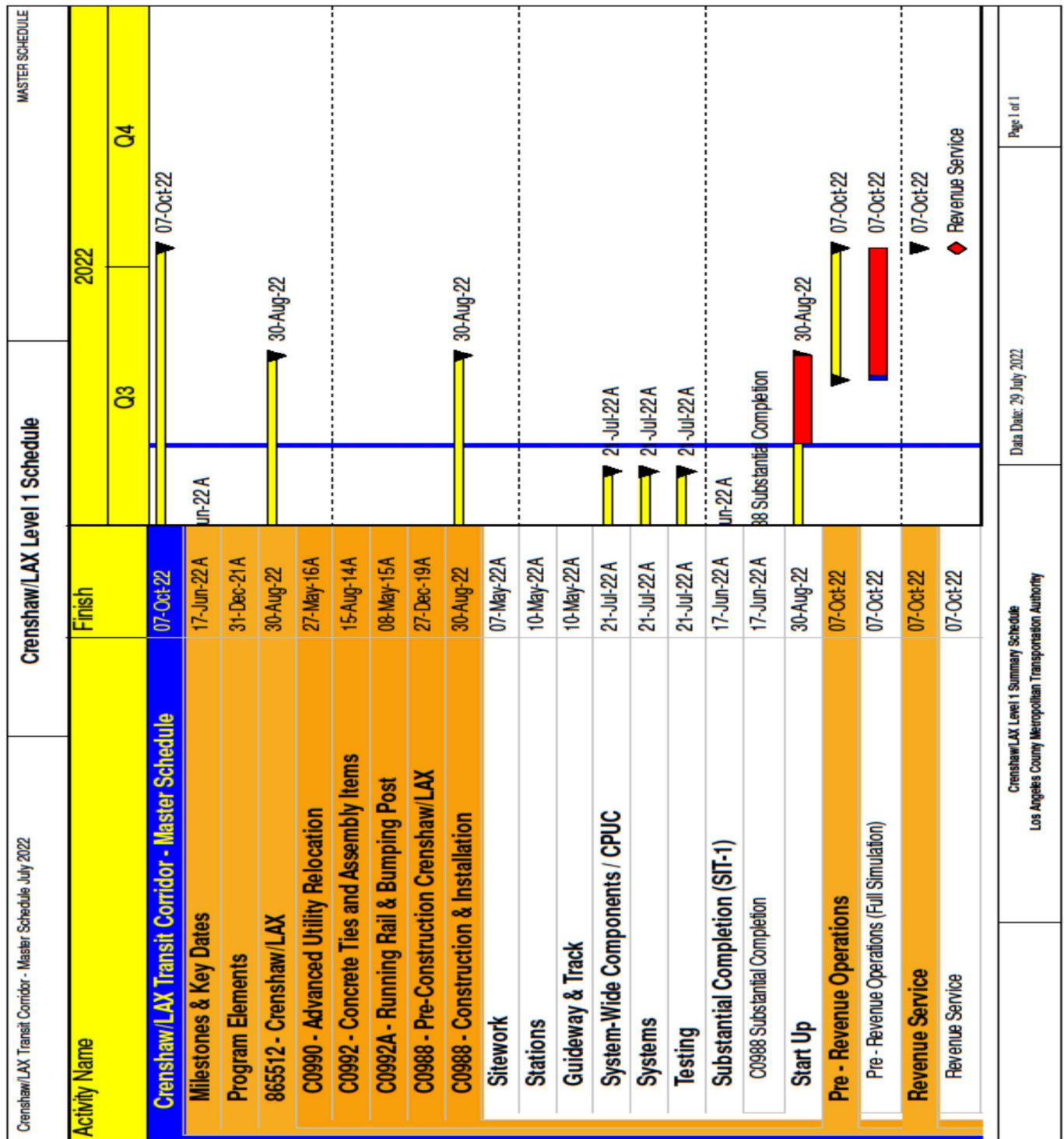


Expo station - Entrance Sign



# PROJECT UPDATE

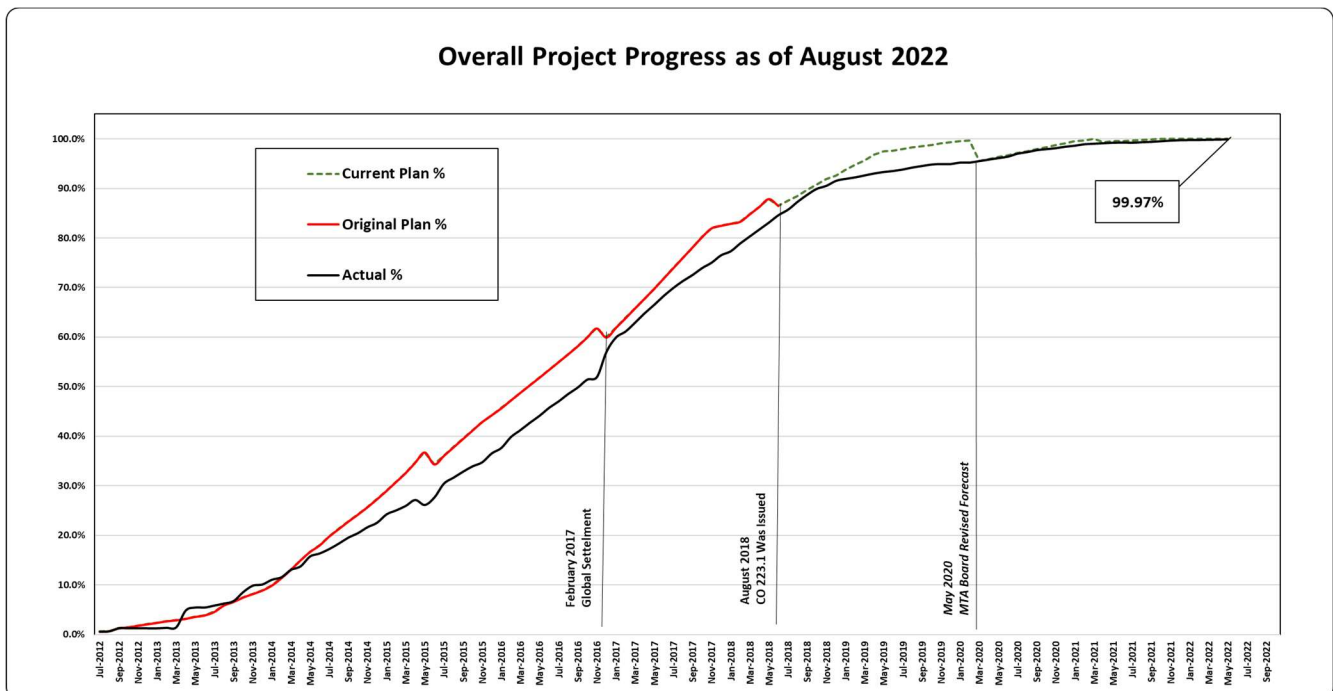
## Project Summary Schedule - (WSCC Forecast)












### Progress Summary

	Status	Change from Last Period	Comment
Current Revenue Service:	5/24/21	NA	
Forecast Revenue Service:	10/7/22	-7 days	Forecast by Metro
<b>Final Design Progress:</b>			
Contract C0988	100%	None	Design Completed
Contract C0990	100%	None	Design Completed
Contract C0991	100%	None	Design Completed
Contract C0992	100%	None	Design Completed
Contract C0992A	100%	None	Design Completed
<b>Construction Contracts Progress:</b>			
Contract C0988	99.93%	0.00%	Behind Schedule (Adjusted)
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	Jul-22	Aug-22	Sep-22	Oct-22	Oct-22	Nov-22
Complete Turnback (Installation, Testing by Others) *	7/8/22 A						
Grade Crossing Testing with CPUC *	7/21/22 A						
Metro Start Initial Pre-revenue Service *	7/25/22 A						
P3010 Vehicle Final Onboard Verification *	8/22/22 A						
Metro Start Full Pre-revenue Service Simulation	8/22/22 A						
Resolve all FLS tracking list *	09/15/22						
Metro Complete System Integration Phase II (SIT-2 Safety Critical)	09/23/22						
Metro Issues SCVR to CPUC for Approval (21 days prior to RSD) * (Safety/Security Certification Verification Report - SCVR)	09/16/22						
Metro CLAX Revenue Service Date *	10/07/22						


  


 MTA Staff


 Other Agencies


 MTA Board Action

 C0991 D/B Contractor

 FTA (Federal Transit Administration)

 Design Consultant

 Utility Company

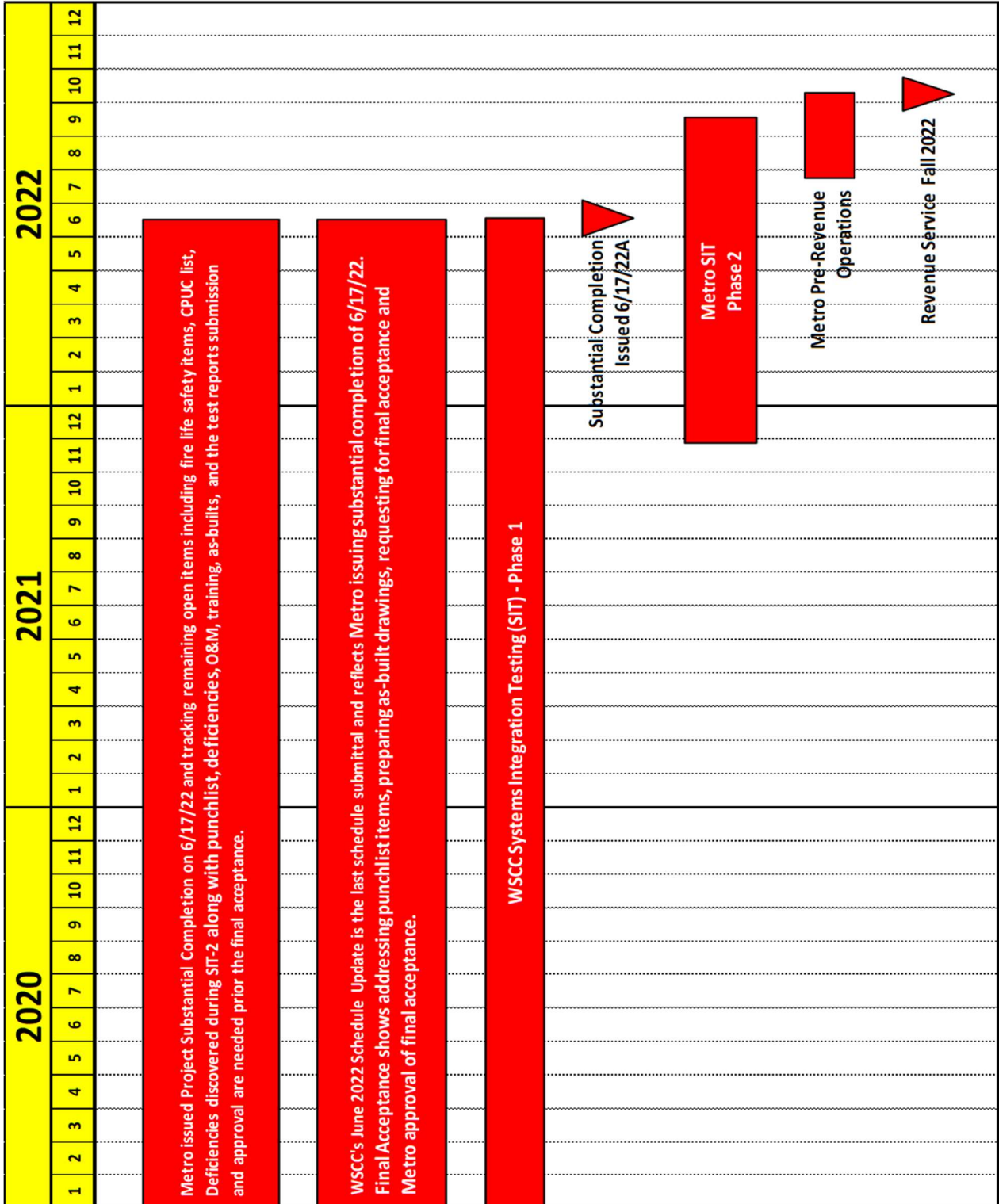
 C0988 D/B Contractor

"A" following date is actual and completed      \* New Date

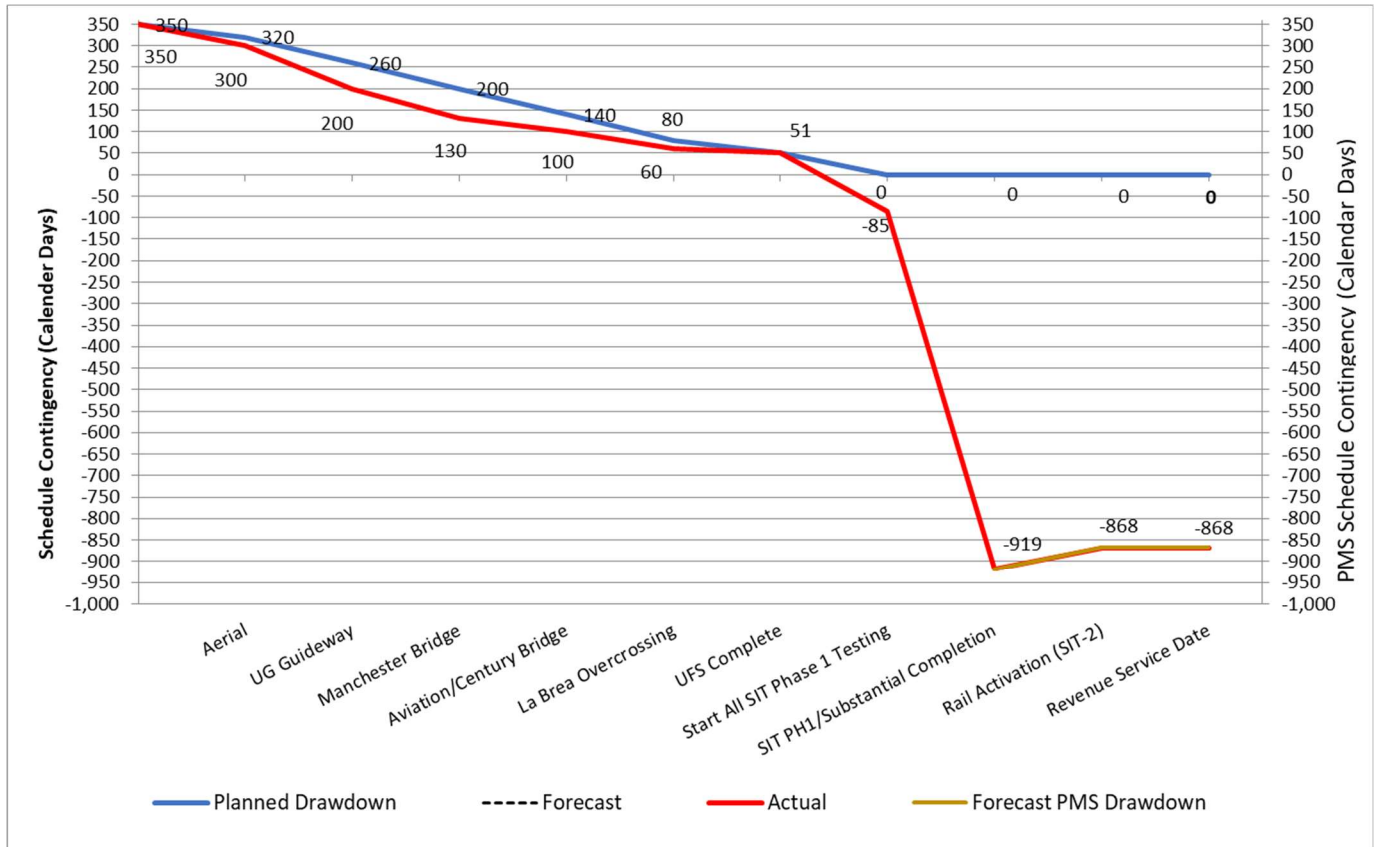
**Major Equipment Delivery Status**

<i>Metro Supplied Equipment</i>			
<b>Equipment</b>	<b>Initial Procurement</b>	<b>Scheduled Delivery</b>	<b>Scheduled Installation</b>
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)	Installed, Activate Prior to RSD
<i>Mainline Contractor Equipment Delivery Requirements</i>			
<b>Activity Name</b>	<b>Early Finish</b>	<b>Need Date</b>	
Remaining procurements items and replacement due to damage and quality issues are tracked separately under warranties	As needed	NA	
All areas of the project (Segments A, B & C) are turned over to Metro operations, equipment warranties, and maintenance are being coordinated.	As needed	NA	
* All the replacement items are tracked in Building Information System (BIM-360).			

Critical Path



### Project Schedule Contingency Drawdown



Metro issued in August 2018 a non-compensable unilateral change order (223.1) to WSCC to extend their substantial completion milestone to December 11, 2019. Thus, performance measurement is now tracked against this date.

Non-Contract milestone “Substantial Completion” certification for the project was issued on June 17, 2022. Metro is proceeding with System Integration Testing Phase II to complete safety critical points by September 23, 2022. Initial phase of Pre-revenue operations started on July 25, 2022 and full pre-revenue simulation started on August 22, 2022.

## Risk Management Narrative

### Summary of Risks

Within this reporting period no risk was closed. No new risk was added. There is a total of four (4) risks remaining to be managed in the next reporting period. Of the Four (4) risks, one (1) is scored as high (10 to 20 risk rating), one (1) as medium (4 to 9 risk rating), and two (2) as low (Less than 4 risk rating).

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

Risk ID	SCC	Risk Description	Risk Rating
359	80	Extended Overhead or productivity loss claims exposure not covered by cost impacts in individual risks. REA claim was received on 8/19/2021. An amendment to the REA claim was received on 12/31/2021 and is being evaluated by the claim team. Metro & WSCC are working on resolving small changes.	20

**Newly Identified Risks:** There are no new items added to the risk register.

**Closed Risks:** Four (4) risks are closed in this period.

**Risk Score Changes:** Five (5) risk scores are 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		FORECAST VARIANCE
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
10	GUIDEWAYS	471,335,000	-	417,788,306	-	415,625,898	-	415,625,898	-	415,625,898	(2,162,408)
20	STATIONS	153,906,000	-	308,067,041	543,462	305,809,850	553,926	305,601,906	(25,498)	305,809,850	(2,257,191)
30	SUPPORT FACILITIES SOUTHWEST YARD	66,673,000	-	66,919,206	-	66,634,870	-	66,582,100	-	66,634,870	(284,336)
40	SITWORK/SPECIAL CONDITIONS	235,576,000	-	404,953,359	(216,971)	419,351,995	1,895,090	409,492,468	(753,862)	420,009,816	15,056,457
50	SYSTEMS	125,132,000	-	175,073,936	476,958	172,667,062	825,120	167,204,570	(454,851)	175,265,105	191,168
<b>CONSTRUCTION SUBTOTAL (10-50)</b>		<b>1,052,622,000</b>	<b>-</b>	<b>1,372,801,849</b>	<b>803,449</b>	<b>1,380,089,675</b>	<b>3,274,137</b>	<b>1,364,506,943</b>	<b>(1,234,211)</b>	<b>1,383,345,539</b>	<b>10,543,690</b>
60	RIGHT-OF-WAY	132,294,000	-	137,726,295	-	139,128,481	(1,414)	138,793,174	-	139,129,941	1,403,646
70	LRT VEHICLES	87,780,000	-	83,571,544	-	82,158,061	-	81,837,755	-	83,571,544	-
80	PROFESSIONAL SERVICES	273,147,000	-	501,844,251	278,934	509,997,451	2,714,896	495,857,378	842,805	512,688,216	10,843,965
<b>SUBTOTAL (10-80)</b>		<b>1,545,843,000</b>	<b>-</b>	<b>2,095,943,938</b>	<b>1,082,382</b>	<b>2,111,373,668</b>	<b>5,987,619</b>	<b>2,080,995,250</b>	<b>(391,406)</b>	<b>2,118,735,239</b>	<b>22,791,301</b>
90	UNALLOCATED CONTINGENCY	177,157,000	-	26,507,031	-	-	-	-	391,406	3,715,730	(22,791,301)
100	FINANCE CHARGES	-	-	-	-	-	-	-	-	-	-
<b>TOTAL PROJECT 865512 (10-90)</b>		<b>1,723,000,000</b>	<b>-</b>	<b>2,122,450,969</b>	<b>1,082,382</b>	<b>2,111,373,668</b>	<b>5,987,619</b>	<b>2,080,995,250</b>	<b>0</b>	<b>2,122,450,969</b>	<b>0</b>
ENVIRONMENTAL/PLANNING - 405512		5,526,150	-	5,526,150	-	5,526,150	-	5,526,150	-	5,526,150	-
ENVIRONMENTAL/PLANNING - 465512		20,473,850	-	20,022,881	-	20,022,881	-	20,022,881	-	20,022,881	-
<b>TOTAL PROJECT S 405512 &amp; 465512 (ENV / PLAN'G)</b>		<b>26,000,000</b>	<b>-</b>	<b>25,549,031</b>	<b>-</b>	<b>25,549,031</b>	<b>-</b>	<b>25,549,031</b>	<b>-</b>	<b>25,549,031</b>	<b>-</b>
<b>TOTAL PROJECT S 405512, 465512 &amp; 865512</b>		<b>1,749,000,000</b>	<b>-</b>	<b>2,148,000,000</b>	<b>1,082,382</b>	<b>2,136,922,699</b>	<b>5,987,619</b>	<b>2,106,544,280</b>	<b>0</b>	<b>2,148,000,000</b>	<b>0</b>

1. Expenditures are Cumulative through September 2, 2022.

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

### 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

In May 2020, the Board amended the LOP budget by \$90 million, increasing the Total LOP Current Budget to \$2,148 million. This action was necessary due to the extension of the Project's Substantial Completion date to December 2020 and revenue service to commence in 2021. The LOP budget was amended to provide additional funding for professional services that are required to support the completion of the Project. The required support includes Metro staff and professional services consultants who provide various services to assist in the management and oversight of the Project.

### Commitments

Commitments increased by \$1.1 million this period to \$2,136.9 million which represents 99.5% of the current budget. The total increase is associated with professional services.

### Expenditures

Expenditures increased by \$6.0 million this period to \$2,106.5 million which represents 98.1% of the current budget. The total increase is for costs associated with design-build Contract C0988 Crenshaw/LAX Transit Corridor and professional services.

### Current Forecast

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

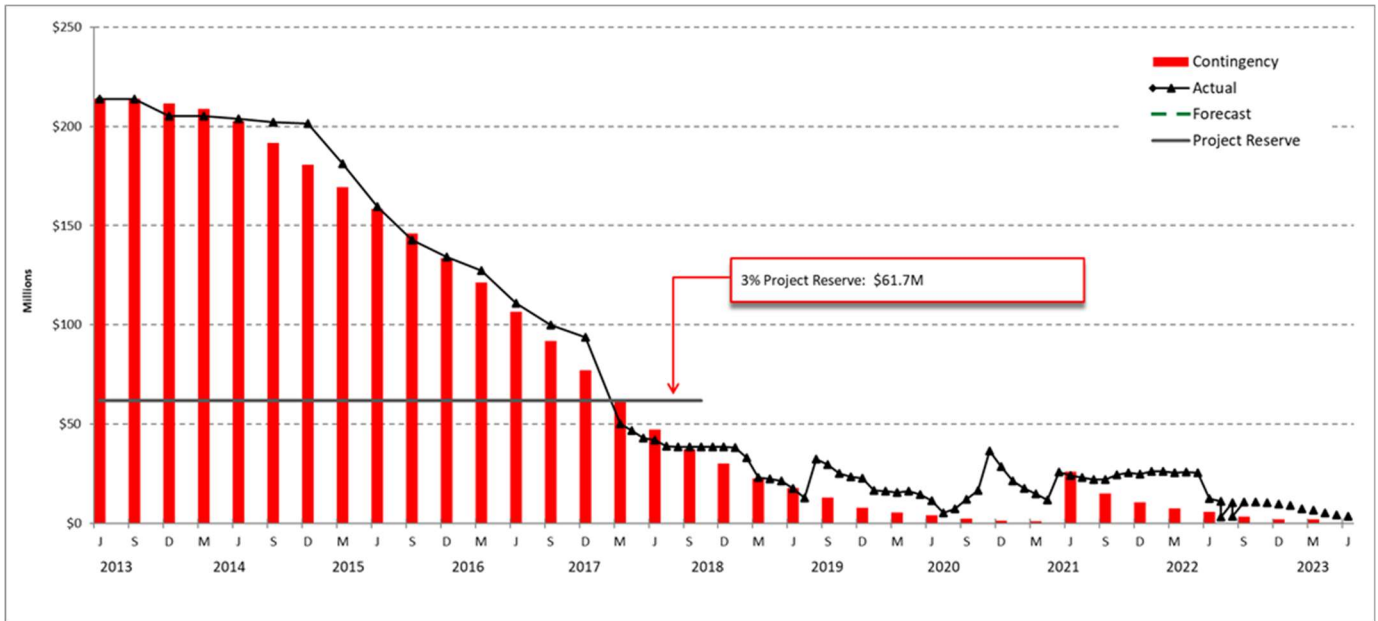


**Non-Crenshaw/LAX Transit Project Funded Scope of Work**

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	TODATE		
405566 SYSTEMWIDE TRANSIT PLANNING	-	320,035	-	320,035	-	320,035	-	320,035	-	
210090/93 FARE GATE PROJECT	-	4,891,226	-	4,391,226	-	4,391,226	-	4,391,226	(500,000)	
210152 CRENSHAW/LAX BUS TRANSFER FACILITY	-	2,200,000	-	2,200,000	-	2,200,000	-	2,200,000	-	
460303 AIRPORT METRO CONNECTOR	-	37,914,465	-	37,366,770	-	37,366,770	-	37,914,465	-	
500013 C/LAX LAWA SCOPE OF WORK	-	1,114,613	-	1,114,613	-	1,114,613	-	1,114,613	-	
405522 HIGHWAY PLANNING	-	105,457,668	-	105,457,668	-	105,402,636	-	105,457,668	-	
TOTAL	-	151,898,007	-	150,850,312	-	150,795,281	-	151,398,007	(500,000)	

### Cost Contingency Drawdown



### Cost Contingency Drawdown Analysis

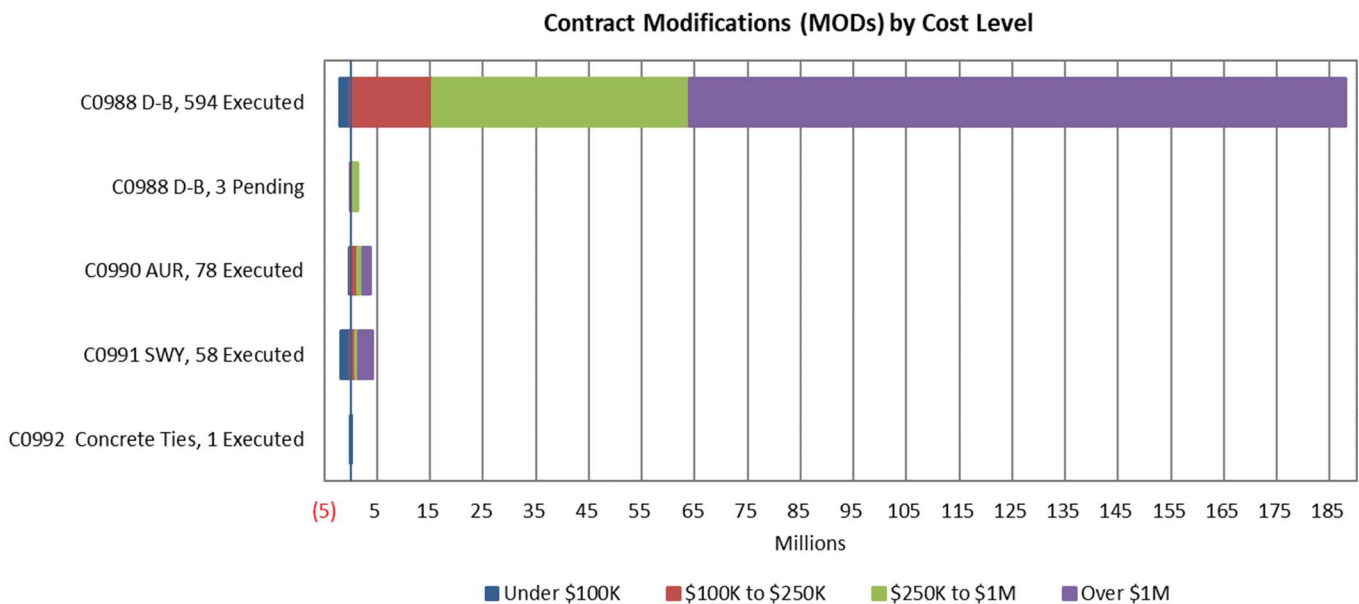
In May 2020, the Board amended the LOP budget by \$90 million, increasing the Total LOP Current Budget to \$2,148 million. The increase included \$14.2 million for additional unallocated contingency. The drawdown plan is correlated to anticipate risk trends and measures drawdown moving forward.

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, \$391,406 was replenished to contingency. The remaining total project contingency (allocated and unallocated) is \$3,715,730.

PROJECT COST CONTINGENCY (through 02-September-2022)					
UNITS IN DOLLARS					
	Original Contingency	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	173,500,000	(170,175,676)	391,406	(169,784,270)	3,715,730
Allocated Contingency	40,366,792	(40,366,792)	-	(40,366,792)	-
<b>Total Contingency</b>	<b>213,866,792</b>	<b>(210,542,468)</b>	<b>391,406</b>	<b>(210,151,062)</b>	<b>3,715,730</b>

## Summary of Contract Modifications



	C0988	C0990	C0991	C0992	Total
	594 Executed	78 Executed	58 Executed	1 Executed	
<b>Under \$100K</b>	\$ (2,032,905)	\$ (70,251)	\$ (1,918,854)	\$ 81,738	\$ (3,940,272)
<b>\$100k to \$250K</b>	\$ 15,450,085	\$ 1,280,184	\$ 875,202	\$ -	\$ 17,605,471
<b>\$250K to \$1M</b>	\$ 48,477,263	\$ 984,662	\$ 590,334	\$ -	\$ 50,052,259
<b>Over \$1M</b>	\$ 124,014,264	\$ 1,417,202	\$ 2,590,000	\$ -	\$ 128,021,466
<b>Total Contract MODs</b>	\$ 185,908,707	\$ 3,611,797	\$ 2,136,682	\$ 81,738	\$ 191,738,923
<b>Contract Award Amount</b>	\$ 1,272,632,356	\$ 7,827,500	\$ 172,312,695	\$ 2,161,297	\$ 1,454,933,848
<b>% of Contract MODs</b>	14.61%	46.14%	1.24%	3.78%	13.18%

Five hundred and ninety-five (595) changes with a total value of \$187.26 million have been executed since the award of Contract C0988. There are additional one (1) change with a total value of \$0.10 million pending the administrative approval process.

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

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

One (1) change with a value of \$81,738 was executed for the 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 July 2022)

- **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** - Contract DBE Committed Dollars divided by Total Contract Value for Design or Construction. **\$29,700,639 (20.00%)**
- **Current DBE Participation - Total amount** paid to date to DBEs divided by the amount paid to date to Prime. **\$30,396,204 (20.52%)**

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 **\$261,207,536 (20.00%)**
- **Current DBE Commitment** - Actual commitments as Construction work is awarded **\$323,709,814 (24.79%)**
- **Current DBE Participation - Total amount** paid to date to DBEs divided by the amount paid to date to Prime (\$1,306,974,657) **\$370,103,213 (28.32%)**

Three hundred eighty-two (382) Construction subcontractors have been identified to-date

## PROJECT LABOR AGREEMENTS (PLA)

### Contract C0988 Crenshaw/LAX Transit Corridor Design-Build

(Reported Data as of July 2022)

- **Targeted Worker Goal** – Construction work to be performed by residents from Economically Disadvantaged Areas of LA County **40.00%**
- **Targeted Worker Current Attainment** **60.12%**
- **Apprentice Worker Goal** – Construction work to be performed by Apprentices **20.00%**
- **Apprentice Worker Current Attainment** **23.48%**
- **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** **10.30%**

**FINANCIAL/GRANTS**

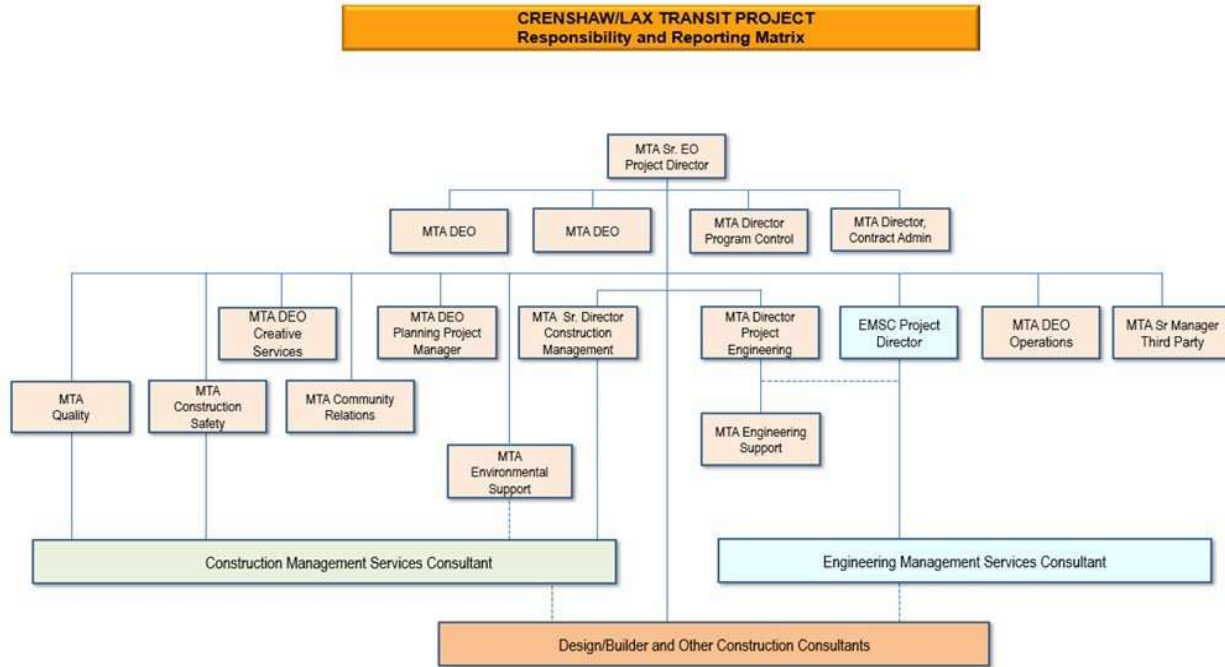
CRENSHAW \$M									
AUGUST 2022		STATUS OF FUNDS BY SOURCE							
SOURCE	(A)	(B)	(C)	(D)	(D/B)	(E)	(E/B)	(F)	(F/B)
	ORIGINAL BUDGET	TOTAL FUNDS ANTICIPATED	TOTAL FUNDS AVAILABLE	COMMITMENTS \$	%	EXPENDITURES \$	%	BILLED TO FUNDING SOURCE \$	%
	FEDERAL - CMAQ	68.200	137.100	137.100	137.100	100%	137.100	100%	137.100
FEDERAL - SECTION 5309 BUS CAPITAL	8.600	8.563	8.563	8.563	100%	8.563	100%	8.563	100%
FEDERAL - REGIONAL STP	20.000	103.307	103.307	103.307	100%	103.307	100%	103.307	100%
FEDERAL - ALTERNATIVE ANALYSIS	1.200	1.200	1.200	1.200	100%	1.200	100%	1.200	100%
FEDERAL - TIGER II	-	13.904	13.904	13.904	100%	13.904	100%	13.904	100%
STATE REGIONAL IMPROVEMENT PROG	36.522	36.600	36.600	36.600	100%	36.600	100%	36.600	100%
STATE PPM	0.178	0.179	0.179	0.178	100%	0.178	100%	0.179	100%
STATE PROP 1B PTMISEA	201.200	128.950	128.950	128.950	100%	128.950	100%	128.950	100%
STATE PROP 1 B LOCAL PARTNERSHIP PROGRAM	-	49.529	49.529	49.529	100%	49.529	100%	49.529	100%
MEASURE R - TIFIA LOAN	545.900	545.900	545.900	545.900	100%	545.900	100%	545.900	100%
MEASURE R 35%	661.100	245.600	245.600	432.240	176%	432.240	176%	432.240	176%
CITY CONTRIBUTION	52.400	101.707	101.707	101.707	100%	96.052	94%	80.707	79%
GENERAL FUNDS		54.300	54.300	54.300	100%	54.300	100%	54.300	100%
MISC. REVENUE		1.700	1.700	1.700	100%	1.700	100%		0%
PROPOSITION C 25% HIGHWAY	148.900	454.562	454.562	454.562	100%	436.971	96%	430.983	95%
PROPOSITION C 40% DISCRETIONARY	-	0.000	0.000	-	-	-	0%	-	0%
PROPOSITION A 35% RAIL CAPITAL	4.800	209.700	209.700	11.983	6%	4.850	2%	4.850	2%
MEASURE M 35%		55.200	55.200	55.200	100%	55.200	100%	55.201	100%
<b>TOTAL</b>	<b>1,749.000</b>	<b>2,148.000</b>	<b>2,148.000</b>	<b>2,136.923</b>	<b>99%</b>	<b>2,106.544</b>	<b>98%</b>	<b>2,083.511</b>	<b>97%</b>

NOTES:

- 1 EXPENDITURES ARE CUMULATIVE THROUGH AUGUST 2022
- 2 TOTAL NEW LOP APPROVED IN MAY 2020 IS \$2,148M.
- 3 ORIGINAL BUDGET BASED ON BOARD APPROVED OCTOBER 2011 FUNDING/EXPENDITURE PLAN.
- 4 BILLED AMOUNT TRANSFER FROM MR TO PA PENDING

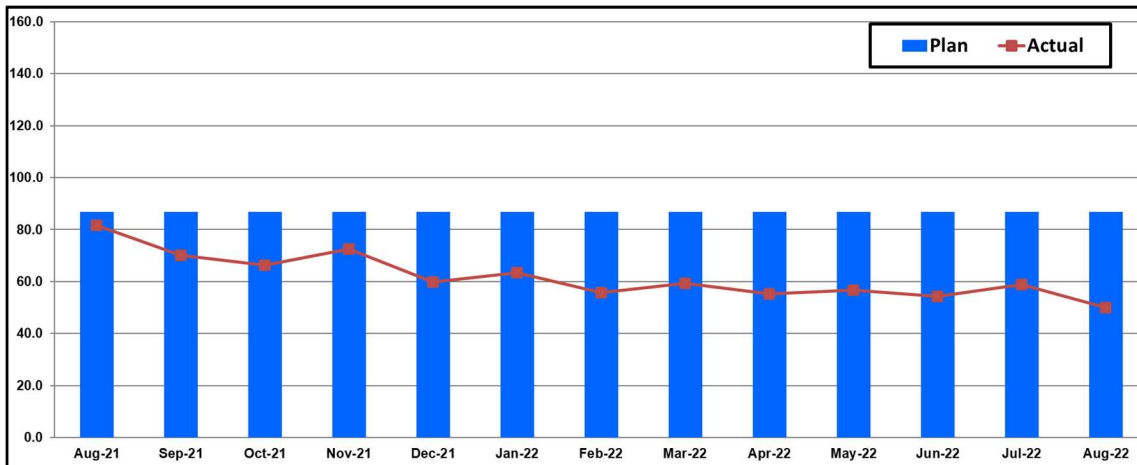
## PROJECT ORGANIZATION AND STAFFING

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

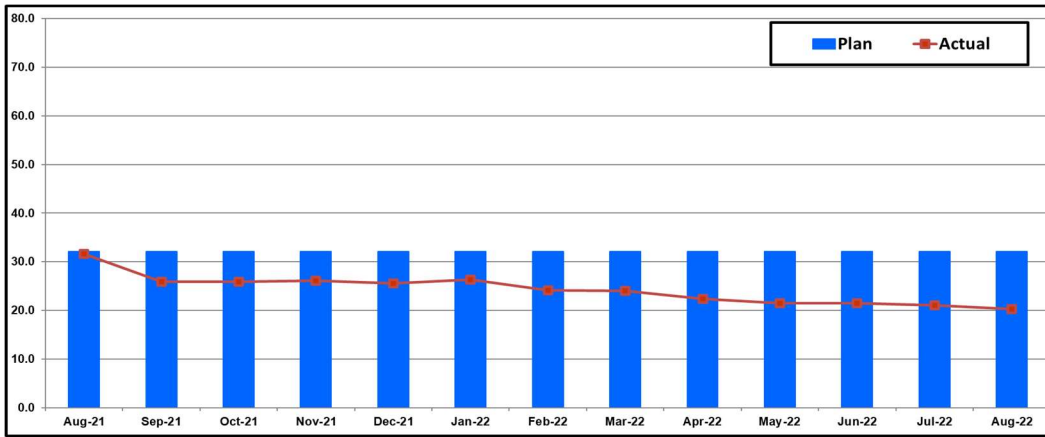


The project staffing charts have been updated with a revised FY23 staffing plan. The overall FY23 Total Project Staffing Plan averages 86.8 Full-Time Equivalent (FTEs) per month consisting of 32.1 for Metro Agency staff, 44.5 for Construction Management Support Services Consultant, and 10.2 for Design and Engineering Support Services Consulting staff.

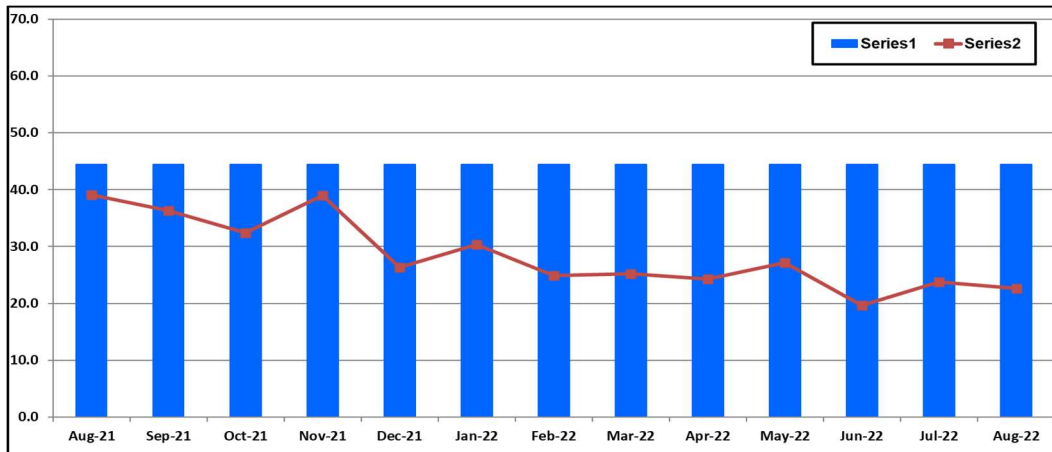
For August 2022, total project staffing were 49.9 FTEs for the month consisting of 20.2 FTEs for Metro’s project administration staff, 22.7 FTEs for Construction Management Support Services Consultant and 7 FTEs for Design and Engineering Support Services Consulting staff.



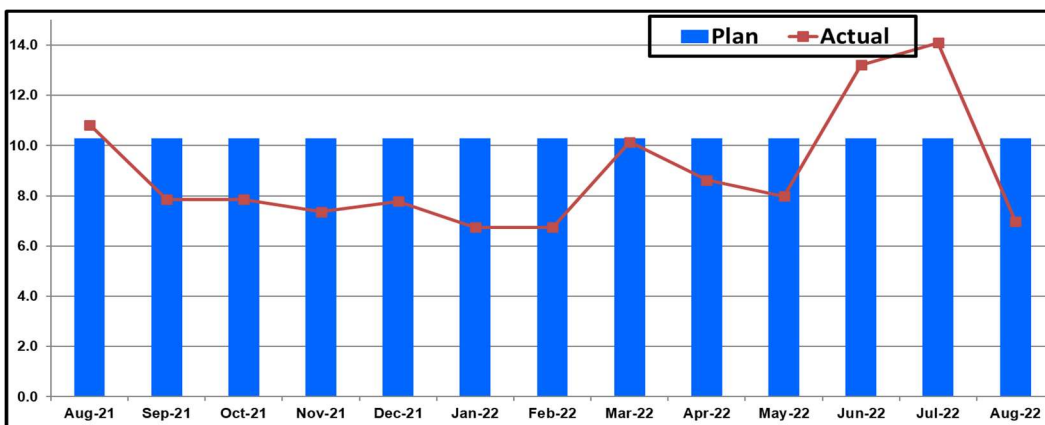
**Metro Staff**



**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**

- There is 1 active condemnation.
- There are 3 active relocation cases with final relocation claims pending.
- Metro is working on initiating process for Street Vacations / Dedications.

## **QUALITY ASSURANCE**

- Attended weekly Quality Team Meetings with WSCC Lead Quality personnel.
- Obtained weekly update for items related to City of Los Angeles Bureau of Contract Administration (ConAd).
- WSCC Quality issued zero (0) Nonconformance Report (NCR) during this period.
- Metro Quality issued zero (0) Nonconformance Report (NCR) to WSCC during this period
- WSCC Quality continued project walks If- Needed & BIM 360 process with Metro during this month.
- No new CWP review and Readiness Review meetings were conducted during this month.
- Metro Quality participated in Internal Project Review Weekly Meetings

## **ENVIRONMENTAL**

- Noise and vibration monitoring by WSCC were concluded in July 2021. There were no Metro noise and vibration spot checks during this period.
- SWPPP inspections of all project areas were conducted weekly by WSCC and spot checks by Metro to observe site conditions and report on performance of stormwater protection Best Management Practices (BMPs) and overall housekeeping.
- There were no qualifying rain events during the reporting period.
- No fugitive dust complaints were received during the reporting period.
- EMS and Environmental Compliance Progress meetings were held on 8/11/2022 and 8/25/2022.
- Notice of Termination of the SWPPP submitted to Waterboard and certified by the LRP (Legally Responsible Person) on 8/25/2022 and is now under review by the Waterboard (9/6/2022).
- The Project team is working closely with WSCC and LA Sanitation to close the construction industrial wastewater (IWW) permits and prepare for permanent IWW Permits.

## **CONSTRUCTION/COMMUNITY RELATIONS**

- Ongoing outreach to stakeholders about the implementation of the Metro Photo Enforcement Program and ongoing work along Crenshaw Boulevard at intersections with at-grade crossings.
- Continued outreach to area stakeholders including the LAX area regarding systems testing activities and mitigation measures.
- K-Line Operational Fact Sheet was published at station dedication events, e-blast to project stakeholder database, posted on the website and on social media channels.
- Ongoing planning and coordination for K Line Community Events:
- Collaborating with Metro Operations Team on K Line operational plan outreach campaign.
- Internal collaboration and pre-planning for K Line opening weekend.

## **CREATIVE SERVICES**

- Led Art and Signage-related coordination with Catch-All Contractor.
- Reviewed and responded to Art program and Signage close out submittals.
- Interim and permanent service plan wayfinding signage coordination.
- Led Metro Art participation in Hyde Park and Fairview Heights Station Dedication Events.
- Developed artwork related public communications materials.
- Ongoing Punch-Out Contract signage & customer information coordination.
- Ongoing QA/QC of station signage elements.

## SAFETY AND SECURITY

- Conducted Monthly All Hands Safety & Security walk/meeting at MLK Station Box and Alignment on **08/25/2022**. Topics discussed- Self Rescuers no longer required at all UG Station Boxes TSO's Lifted on **07/11/2022**, COVID- 19 reporting procedures and protocols, thefts along the alignment, Track Allocation Procedures, Substantial completion, Right of Way and Train Movement TESTING 22 HOURS OUT OF THE DAY.
- WSCC has not conducted or participated in weekly safety walks as no safety manager on site.
- Participated in 10:00 am Internal Project Review conference calls with S Ghaly.
- The weekly owners Tuesday scheduled progress meetings have been cancelled.
- Participated in the weekly corporate safety conference call to update the safety team on safety issues and current jobsite updates.
- Monitored underground stations and alignment, participated in the weekly Mon., Wed. and Fri. safety walks with WSCC Underground Safety Manager surveying construction activities daily including weekends to ensure compliance with contract specifications.
- **08/24/2022** Readiness Review meeting was conducted for steel erection at AMC for the LRT Crane review.
- **08/19/2022** participated and attended QOM Workshop for AMC submittal review process.
- Participated in the **TRC Abatement & Demo** weekly progress updates meeting on **08/04/2022, 08/11/2022, 08/18/2022, 08/25/2022**.
- Participated in Weekly Construction Progress meeting with TPC at the AMC on **08/04/2022, 08/11/2022, 08/18/2022** and **08/25/2022**.
- Participated in the **PLE1** Weekly Construction Progress Meeting on **08/04/2022, 08/11/2022, 08/18/2022, 08/25/2022**.
- Total Days Away (**DART**) Injury Rate: Eight (8) Days Away from Work (DART) Injuries is 0.14. The National Ave is 1.3.
- Project to Date – **DART** (561 Days Away from Work) is 12.2. (No National Published Rate).
- Contract C0988 (WSCC) completed 1,284.50 work hours with (0) recordable/Days Away from Work injury for the month of August 2022. Total Project to Date work hours is 11,426,840.77 with a total of one hundred and two (102) recordable incidents. The Project Recordable Rate is 1.78
- The Bureau of Labor Statistics (BLS) average recordable rate per 200,000 work hours is 2.4

## CHRONOLOGY OF EVENTS

November 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.
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 <sup>th</sup> St. Station).

## CHRONOLOGY OF EVENTS (continued)

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 achieved by the Southwestern Yard (Division 16) Contract C0991 Contractor, Hensel/Phelps/Herzog JV.
May 28, 2020	The Board amended the Life-of-Project budget by \$90 million for a new total of \$2,148 million. The Project Schedule was revised to reflect a 2021 revenue service date.
March 12, 2022	Partial substantial completion for Segments A and B was issued to the Crenshaw/LAX Transit Project Contract C0988 Contractor, Walsh-Shea Corridor Constructors.
March 30, 2022	Held closing event and celebrated the success of Business Solution Center, and Business Interruption Fund programs.
April 14, 2022	Held bid opening for Crenshaw Construction Punch Out Work Contract C1217.
June 13, 2022	All Emergency Drills are complete.
June 17, 2022	Substantial Completion issued Walsh-Shea Corridor Constructors, Contract C0988 Crenshaw/LAX Transit Project.
June 22, 2022	Held City Partners and Third-Party Collaborators VIP Event at Expo/Crenshaw Station.

### CHRONOLOGY OF EVENTS (continued)

June 25, 2022	Held Station Dedication at Leimert Park Station.
June 30, 2022	Held bid opening for “re-bid” of Crenshaw Construction Punch Out Work Contract C1217
July 8, 2022	The Project (K Line) website <a href="https://kline.metro.net">https://kline.metro.net</a> is live and available to the public
July 23, 2022	Held Station Dedication at Martin Luther King Station.
July 25, 2022	Started initial Pre-Revenue simulation.
August 6, 2022	Held Station Dedication at Hyde Park Station.
August 8, 2022	Award Contract C1217 Crenshaw Construction Punch Out Work to Griffith Company.
August 17, 2022	Los Angeles Sanitation inspected the Project’s Industrial Wastewater hookups.
August 20, 2022	Held Station Dedication at Fair View Heights Station.
August 22, 2022	Started full Pre-Revenue simulation.
August 25, 2022	Notice of Termination of the SWPPP submitted and certified by the Legally Responsible Person (LRP).