Crenshaw/LAX Transit Project



CRENSHAW/LAX TRANSIT PROJECT

QUARTERLY 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).

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PROJECT SUMMARY

LOCATION: Crenshaw Blvd at Exposition to Green Line

DESIGN/CONSULTANT: Mott MacDonald

CONSTRUCTION MANAGEMENT CONSULTANT: Stantec

CONTRACTORS: Walsh-Shea Corridor Constructors (Alignment) and

Hensel Phelps / Herzog (Southwestern Yard)

PHOTO: Installation of formwork for train control and communications room at Hyde Park Station.



WORK COMPLETED PAST MONTH:

- o Continued north bound tunnel concrete placement.
- o Continued tunnel cross passage excavation work.
- o Continued wall and concourse concrete placements at Expo, MLK Jr and Leimert Park stations.
- o Continued invert placements at underground structures # 3 and 4.
- o Continued civil construction work within Park Mesa Heights area.
- o Completed grade crossing work at Cedar and Eucalyptus streets.
- o Continued accommodations for future 96th Street Station.
- o Continued finishing work for Greenl Line tie-in structure.
- o Continued SWY main shop pits, foundation & grade beams construction and underground electrical & communication ductbanks.
- o Started SWY erection of Main Shop structural steel.
- o WSCC turned over the Bellanca storage site to Southwestern Yard contractor to allow yard trackwork to commence.

EXPENDITURE STATUS (\$ In Millions)	EXPENDITURE STATUS (\$ In Millions)						SCHEDULE ASSESSMENT				
	CI	URRENT	EXF	PENDED	PERCENT	MAJOR SCHEDULE	PRIOR	CURRENT			
ACTIVITIES	В	BUDGET	A۱	MOUNT	EXPENDED	ACTIVITIES	PLAN	PLAN	VARIANCE WEEKS		
						Environmental			•		
DESIGN	\$	136.7	\$	126.9	92.9%	FEIS/FEIR	Sep-11	Sep-11	Complete		
						Record of Decision	Dec-11	Dec-11	Complete		
RIGHT-OF-WAY	\$	127.4	\$	127.3	99.9%						
						Design					
CONSTRUCTION	\$	1,353.1	\$	871.5	64.4%	Preliminary Engineering	Nov-11	Nov-11	Complete		
						Final Design	Sep-15	Sep-17	24.5 months behind		
OTHER	\$	440.8	\$	209.5	47.5%						
						Right-of-Way					
TOTAL:	\$	2,058.0	\$	1,335.3	64.9%	Full-take parcels available	Jan-15	Jan-15	Complete (base scope)		
Note: Cost expended as o	f Ju	ne 30, 201	7.			Part-take and TCE parcels	Sep-15	Apr-16	Complete (base scope)		
						Construction					
AREAS OF CONCERN						D-B Notice to Proceed	Sep-13	Sep-13	Complete		
o Timely submission of re	mair	ning WSCC	''s de	sian suhn	nittals and	D-B Substantial Complete	May-19	May-19	One week behind		
review by City of Los Ange	eles.			Ü		Revenue Service Date	Oct-19	Oct-19	One week behind		
o WSCC's ability to mitigate potential schedule delays to their substantial completion milestone of May 1, 2019.					o their	Notes on Schedule: o Agreement approved in Jan 2017 by Metro Board for cost/schedule impacts revised the D-B Contractor's Substantial Completion Milestone to May 1, 2019. o Revenue Service Date includes no schedule contingency.					
ROW ACQUISITION		PLAN	AC	QUIRED	REMAINING	CRITICAL ACTIVITIES / 3 MONTH LOOK AHEAD					
FULL TAKES 37 36 1					1	o Continue tunnel cross-passage excavation work. o Continue the three underground stations walls and concourse concrete					

PROJECT OVERVIEW

Contract Closeout

Contract C0990 - The advanced utility relocations contract with Metro Builders and Engineers Group, LTD was substantially completed on August 21, 2014. The Metro Board authorized a final settlement in March 2016 on all remaining issues. A final payment was issued to the contractor in April 2016. The contract is closed out.

Contract C0992 – The concrete ties contract with Rocla Concrete Tie Inc., was substantially completed on August 15, 2014. The contractor was paid in full and the contract was closed out.

Contract C0992A – The running rail and bumping posts contract with LB Foster Rail Technology Corp was substantially completed on May 8, 2015. The contractor was paid in full and the contract was closed out.

Design- Build Contract C0988 (Alignment) – The design-builder, Walsh-Shea Corridor Constructors (WSCC) continues remaining base final design and change work. Construction efforts by the design-builder continued along all major areas.

With the completion of tunnel mining the TBM mining and supporting equipment have been demobilized from the construction site. The contractor continues to work on three of the five cross passages between the twin tunnels, excavating jet grouted soils and preparing one excavated cross passage for initial concrete placement activity. Work on the twin tunnels includes remaining invert and walkway concrete placements.

The three underground stations remain at various levels of completion. Work continues on remaining platform concrete, platform level walls, concourse floor and concourse walls. The aerial station structure concrete placement is substantially complete with entrance and finishes work to commence in the near future. Two of the four at-grade stations structure concrete placements are substantially completed with entrance and finish work to commence in the near future.

The underground shallow tunnel structure in front of the south runways of LAX along Aviation Boulevard is substantially completed. The shallow tunnel box structure south of Leimert Station and the shallow tunnel box structure south of Park Mesa Heights are both in various stages of construction.

All six bridge superstructures are substantially complete with the exception of the finishes and systems installations. Work has been completed on the mechanically stabilized earth (MSE) walls and continues for right-of-way at-grade work. Various construction efforts continue on the roadway section near or within the Park Mesa Heights area.

Trackwork installation is continuing in areas available along the southern area of alignment. The contractor has completed construction of five of 17 at-grade crossings.

Design- Build Contract C0991 Southwestern Yard (Division 16) – The design-builder, Hensel Phelps / Herzog JV (HPH) substantially completed final design and submission of submittals required for construction on October 26, 2016 and continues reconciliation of remaining design for future expansion of the main shop.

PROJECT OVERVIEW (Continued)

The contractor continues critical path work such as structural steel installation and remaining concrete placement of main shop building deep foundations, service and inspection pits, grade beams, blow down pits, truck wash pit, turntable pit, truck and car hoist pits plus the backfilling of completed work. Work also continues on the material storage building placing the slab on grade and continuing electrical and communication duct banks. A key milestone for the contractor was the commencement of installation of structural steel for the main shop.

HPH received the planned Phase II turnover of the south and north yard areas from the main line contractor which allowed HPH to commence demolition, excavation and site preparation.

Right-of-Way

Metro added in January 2016, two full takes and five part-takes/TCE's required for the construction of the Project. There are now a total of 79 parcels (eight have been decertified). There are 37 full takes, 27 partial takes and 15 temporary construction easements (TCE's). There have been 76 parcels acquired through June 2017. Thirty-six full takes, 26 part-takes and 14 TCE's have been provided to the design-builder WSCC.

Systems

Metro staff initiated a study to explore possible alternative layouts to accommodate the central control functions associated with new project needs, such as Crenshaw/LAX project, within the existing ROC facility as an interim measure. Metro has determined that the best course of action is to expand the existing functional operations at the ROC to support the new five new rail lines and extensions including Foothill Ext., Expo II, Crenshaw/LAX, Regional Connector and Purple Extension Projects. The existing ROC service control and closed circuit television monitoring areas are being expanded and reconfigured for each new rail line extension. The supporting facilities and electrical\communication systems are also expanded and upgraded accordingly to suit the needs of the growing Metro operations. The ROC Reconfiguration Plan will be updated to suit the central control needs of each upcoming new rail line extension. Metro will prepare a design update for the Crenshaw/LAX Project. All work for the ROC is planned to be completed concurrently with the C0988 design-builder scope work to ensure continuity of the systems effort.

Program Management

In May 2013, the 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.

PROJECT OVERVIEW (Continued)

With 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 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 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 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 draw down 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 services as well as an increase in professional services for construction and project management oversight.

The LOP budget is funded by various sources of funds which include local, state and federal funding. The TIFIA Loan is categorized under local funds as the loan is secured by a pledge of Measure R local sales tax funds. The funding percentages are as follows: local and state funding 91.3%, (includes Measure R TIFIA Loan), and federal funding is 8.7%.

The project commitments thru June 2017 are \$1,941.3 million or 94.3% of the Current Budget. The project expenditures thru June 2017 are \$1,335.3 million or 64.8% of the Current Budget.

The current period expenditures are for Contract C0988 design-builders monthly construction costs and professional services costs such as construction management and administrative staffing. The expenditures to date also include the Southwestern Yard expenditures that are part of the 49% cost allocation share that the Project is responsible for paying for. The 51% cost allocation is reported within another Metro internal project number. The total costs for the Southwestern Yard project is included in the Appendix.

PROJECT OVERVIEW (Continued)

In December 2016, the C0988 design-builder submitted a "Completion Schedule" which was subsequently reviewed and approved by Metro on December 16, 2016. This schedule represents a re-baseline of WSCC's Contract Schedule which reflects their means and methods for completing construction and testing during the remaining years with a commitment to complete on time to support Metro's planned revenue operations in the fall of 2019. The approved Completion Schedule resets WSCC's Contract Milestone #1 Substantial Completion to May 1, 2019.

WSCC in their June 2017 Schedule Update forecasts a one week delay (eight calendar days) to WSCC's Contract Milestone #1 Substantial Completion date of May 1, 2019. This is an additional three calendar day delay from last month's forecast. WSCC continues to explore mitigation opportunities along the alignment where the current impact of eight days can be mitigated.

MANAGEMENT ISSUES

Concern No. 1: Timely future reviews of WSCC final design submittals by City of Los Angeles.

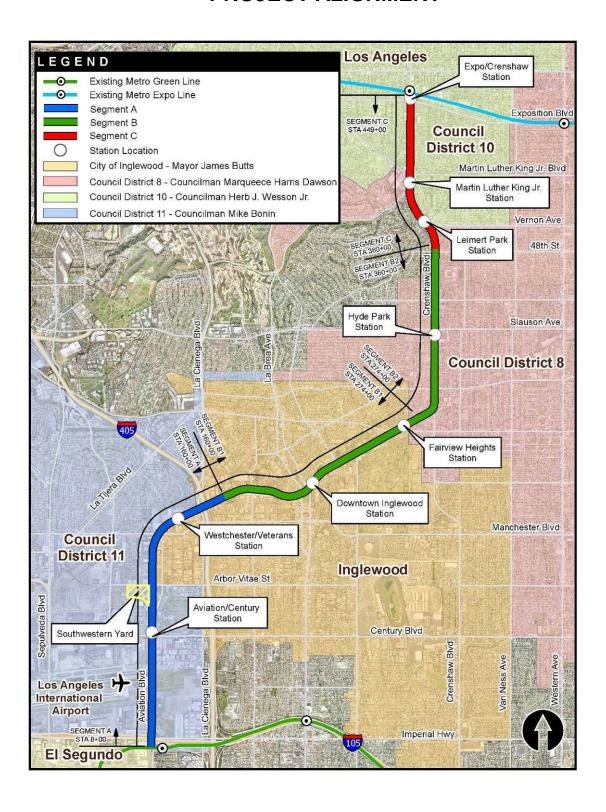
<u>Status/Action</u> The Contractor has completed the critical final design submittals for upcoming construction. The Contractor has a few remaining City of Los Angeles submittals that require the City review and approval. Metro is working closely with the contractor and its designer to review comments from the agencies and working with the Contractor to ensure that submittals are coordinated and submitted within the necessary timeline for review and that any necessary follow-up is completed to facilitate the City review. Metro meets weekly with the City and the Contractor on the submittal and project status and addresses issues raised that pertain to the submittal cycle and review.

Concern No. 2: Design-builders construction schedule

<u>Status/Action</u> WSCC submitted a "Completion Schedule" which was subsequently reviewed and approved by Metro on December 16, 2016. This schedule represents a rebaseling of WSCC's Contract schedule which reflects their means and methods for completing construction and testing during the next three years with a commitment to complete on time to support Metro's planned revenue operations in the fall of 2019. The approved Completion Schedule resets WSCC's Contract Milestone #1 Substantial Completion to May 1, 2019.

WSCC in their June 2017 Schedule Update forecasts a one week delay (eight calendar days) to WSCC's Contract Milestone #1 Substantial Completion date of May 1, 2019. This is an additional three calendar day delay from last month's forecast. WSCC continues to explore mitigation opportunities along the alignment where the current impact of eight days can be mitigated.

PROJECT ALIGNMENT



PROJECT SCOPE

The Crenshaw/LAX Transit Corridor 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. The Board adopted a light rail system as the Locally Preferred Alternative (LPA) in December 2009.

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 three locations, utilities, landscaping, roadway improvements required by the project and a maintenance & storage facility (Southwestern Yard).

The scope of work for the three construction contracts and two owner-supplied equipment contracts is shown below.

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 ductbank infrastructure will be built by Metro with the fiber replacement work and cut-over by FAA/LAWA. These ductbanks contain fiber lines and power lines which belong to both LAWA and FAA. Since the track alignment is below grade at these crossings, the ductbanks have to be 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 are included as part of this contract.

The project delivery method for this contract was bid-build Invitation for Bid (IFB).

Design-Build Contract C0988 Crenshaw/LAX Transit Corridor

This is the largest project contract which will complete final design and construction of the infrastructure required along the corridor alignment. The structures required to be constructed are eight stations, grade separations including flyover structures, cut and cover trenching, tunneling and three park-n-ride facilities. The scope of work will include 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 a RFQ process, prequalification of qualified proposers followed by release of a RFP soliciting technical and price proposals with an option at Metro's discretion for best and final offers (BAFO).

PROJECT SCOPE (Continued)

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 will construct the Southwestern Yard which will consolidate 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. The cost of constructing the Southwestern Yard will be proportionately split among the four projects.

The project delivery method for this contract was a two-step design-build IFB approach.

Owner-Supplied Equipment - 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.

The project delivery method for this contract was bid-build IFB approach.

Owner-Supplied Equipment - 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.

The project delivery method for this contract was bid-build IFB approach.

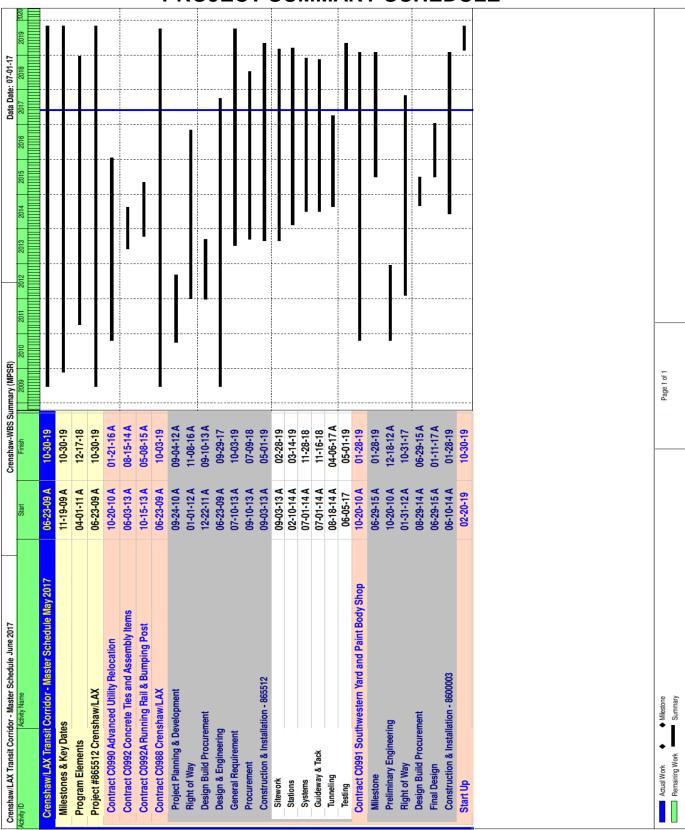
Start Up

The commencement of pre-revenue operations will be determined by Metro Operations. The design-builder will have completed Phase I systems integration testing (SIT) and Metro will have subsequently completed and passed Phase II SIT. Metro may conduct some Phase II SIT efforts concurrently with the start of pre-revenue operations at the discretion of Metro Operations. All testing will be required to include and pass a "stress test" of maximum operational service levels to be acceptable. Pre-revenue operations includes: 1) train runs, especially those involving multiple trains, on the integrated and fully operational extension; 2) rehearsal of expected revenue operations scenarios; 3) as well as abnormal and emergency scenarios in which random combinations of system interactions are tested; 4) equipment "burned-in"; and 5) training of metro personnel who will eventually operate and maintain the extension and for emergency services personnel. Activities occurring during pre-revenue operations are carried out by a designated Metro Project Rail Activation Group.

KEY MILESTONES SIX- MONTH LOOK AHEAD

Activity ID	Activity Name	Milestone Date	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17
988-CT-41579	Turnover to Track - STA 225+00 to 274+25 At Grade (Centinela to Brynhurst)	02-Feb-17 A						
988-CT-13495	Ballast Wall - Rebar Walls - I-405 to La Brea	08-Jun-17 A						
988-CT-86095	Post-Tension - I-405 Bridge	28-Jun-17 A	EG 211					
988-CT-19115	Construct Tunnel Drainage & Utilities - U Section #4	30-Jun-17 A	EG 211					
988-CT-84935	F/R/P OCS Foundation - Bridge - Aviation / Century Bridge	03-Jul-17						
988-CT-79176	EL - OCS Foundation - Aerial Structure #1	06-Jul-17						
988-CT-54100	Demo IPMO - SW-0001 - SW Yard	14-Jul-17						
988-CT-84975	Bridge Emergency Walkway - Aviation / Century Bridge	17-Jul-17						
988-SCE-T1050	TPSS-01 Permanent Power Drop - SCE - Procurement of Cable and Equipmen	20-Jul-17						
988-CT-5870	Exc/Lag/Brace Phase 2 Entrance Structure to Concourse Level - Leimert Park Station	24-Jul-17		<u></u>				
988-MOD-3180	Deluge System at Expo Crossover	28-Jul-17						
988-MOD-2780	TPSS No.2 Upgrade from 1.5 MW to 2.0 MW	28-Jul-17						
988-CT-50800	Construct TC&C #3 Walls (Services Building Room) - Aviation / Century	31-Jul-17		<u></u>				
988-TW-3700	Install Ballasted #10N RHXO Crossover @ PS STA 100+81 - Seg. A	01-Aug-17						
988-CT-33000	Turnover to Track (sta. 9+00 to 16+64) - Aerial Structure #1	09-Aug-17						
988-IFC-OCS03	I-Face: Track Complete in Segment 3 - Start OCS (160+73 to 256+09)	15-Aug-17						
988-CT-23700	Turnover to Track - 111th St Bridge	07-Sep-17						
988-CT-69105	Pour Concourse Slab - Sequence 4 - MLK	07-Sep-17				<u></u>		
988-TW-9684	Construct Ballasted Track (Arbor Rail Pile STA 103+50 to STA 75+20) - Seg. A	11-Sep-17						
988-CT-5659	Ductbank - Manhole / Vault / Pad / Pull Box - TPSS-07/ Aux. Power (Future)	20-Sep-17						
988-CT-36200	Turnover to Track (Manchester Bridge -STA 118+70 to 121+31) - Manchester Bridge	21-Sep-17						
988-IFC-TCC02	I-Face: TC&C Room Ready for systems @ A02 Aviation/Century TC&C #3	03-Oct-17					EG 2511	
988-CT-8360	Pour (C11, C12, C13, C16) - Leimert Park Station	05-Oct-17						
988-SCE-T1170	TPSS-03 Permanent Power Drop - SCE - Utility Install Infrastructure and conduit	25-Oct-17						
988-IFC-ATC01	I-Face: Track Complete @ A01 (6+00 to 43+50)	01-Nov-17						4
988-TW-1400	Destress DF Track - STA 27+15 to 28+20 - 111th St. Bridge - Seg. A	01-Nov-17						
988-CT-9189	Backup Power (TPSS) - TPSS-04	17-Nov-17						<u> </u>
988-TW-2100	Construct Ballasted Track - Arbor Rail Pile STA 103+50 to 118+58 Manchester - Seg. A	20-Nov-17						
MTA Board A	Action MTA Staff Walsh Shea Corridor Constructors	\ Hensel Phelps / H	Herzog	"A	" following d	ate is actual	and comple	ted

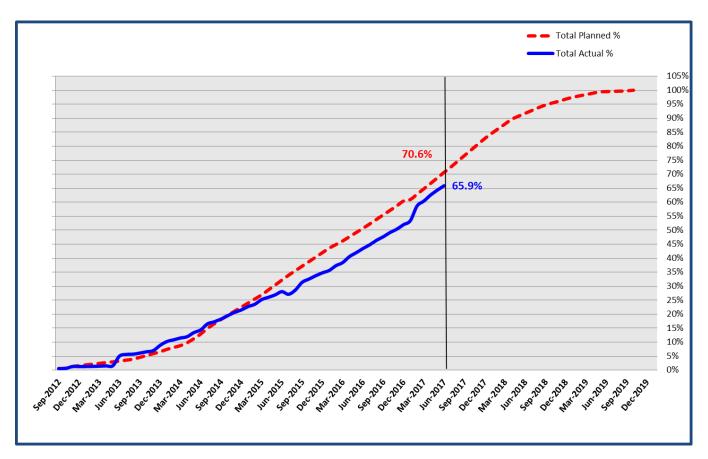
PROJECT SUMMARY SCHEDULE



SCHEDULE MEASUREMENTS

		Change	
		from	
	Status	Last Period	Comment
			Comment
Current Revenue Service:	10/30/2019	0	
Forecast Revenue Service:	11/06/2019	-3	Behind Schedule; exploring mitigation
TIFIA Revenue Service:	10/30/2019	0	
Final Design Progress:			
Contract C0988	98.4%	0.1%	Behind Schedule
Contract C0990	100%	None	Design Completed
Contract C0991	84.8%	2.6%	On Schedule
Contract C0992	100%	None	Design Completed
Contract C0992A	100%	None	Design Completed
Construction Contracts			
Progress:			
Contract C0988	60.5%	1.5%	Behind Schedule
Contract C0990	100%	None	Substantially Completed
Contract C0991	17.2%	3.0%	On Schedule
Contract C0992	100%	None	Substantially Completed
Contract C0992A	100%	None	Substantially Completed

OVERALL CONSTRUCTION PROGRESS CURVE STATUS



The actual overall construction progress is 65.9% versus a planned progress of 70.6% through June 2017. The progress curves represent a composite percentage for the physical progress of work performed to complete the project's construction contracts, including, but not limited to the alignment design-build (C0988), advance utility relocation (C0990), Southwestern Yard design-build (C0991), and two equipment procurement contracts-concrete ties (C0992) and running rail (C0992A).

The physical progress percentage excludes non-construction items such as construction mobilization costs and all general requirement costs not tied specifically to a construction work effort.

The progress curve includes forecast for the alignment design-builder and includes the Southwestern Yard design-builder progress effort.

MAJOR EQUIPMENT DELIVERY STATUS

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. KI is continuing final assembly on option 1 cars in Palmdale, CA.

Ticket Vending Machines

Procurement of the ticket vending machines will commence after the design-builder completes final design and the total requirements for the project are known. Initiated change notice to the existing TVM contractor in December 2016 with a planned notice to proceed by October 2017.

DESIGN-BUILDER'S (C0988) LONG LEAD ITEM LIST

Area	Activity ID	Activity Name	Start	Need Date
Site/Civil	988-PR-6375	Fab/Procure & Deliver Jet Fans - UG #3, UG#4	22-Jul-17	06-Feb-18
Site/Civil	988-PR-7475	Deliver Station Artwork Panels - Leimert Park Station (Porcelain Enamel Steel)	15-Oct-18	20-Dec-18
Site/Civil	988-PR-7555	Deliver Station Artwork Panels - Expo Stn - Glazing	31-Oct-18	11-Feb-19
Site/Civil	988-PR-7595	Deliver Station Artwork Panels - Vernon Stn- Glazing	04-Dec-18	05-Mar-19
Site/Civil	988-PR-7515	Deliver Station Artwork Panels - Martin Luther King Jr. Station (Porcelain Enamel Steel)	23-Nov-18	25-Mar-19
Stations	988-PR-4800	Escalators - Materials & Fabrication - Leimert Park Station	02-May-16 A	03-Apr-18
Stations	988-PR-30511	Deliver Escalators	23-Jan-18	08-Apr-18
Stations	988-PR-6360	Fab/Procure & Deliver Laminated Tempered Canopy Glass & Steel	25-Sep-17	18-Jul-18
Trackwork	988-PR-30731	P/S R/A Shop Dwgs Restraining Rail 132 lbs & Fasteners for Green Line	16-Nov-16 A	21-Aug-17
Trackwork	988-PR-7085	Procure Restraining Rail 132 lbs & Fasteners for Green Line	06-Jul-17	29-Nov-17
Traction Power	988-PR-6705	Fabricate & Deliver Dry Type Transformers - Century	04-Feb-17 A	14-Sep-17
Traction Power	988-PR-6555	Fabricate & Deliver Medium Voltage Cable	03-Apr-17 A	20-Sep-17
Traction Power	988-PR-6955	Fabricate & Deliver Low Voltage Cable - Cut & Fill	03-Apr-17 A	27-Sep-17
Traction Power	988-PR-6765	Fabricate & Deliver Low Voltage Cable (Project Wide)	03-Jul-17	09-Oct-17
Traction Power	988-PRC-T0600	Mfgr/Assemble/Wire Substation - TPSS-06	01-May-17 A	12-Oct-17
Traction Power	988-PRC-T0500	Mfgr/Assemble/Wire Substation - TPSS-05	22-May-17 A	02-Nov-17
Traction Power	988-PRC-T0100	Mfgr/Assemble/Wire Substation - TPSS-01	13-Jun-17 A	24-Nov-17
Traction Power	988-PRC-T0200	Mfgr/Assemble/Wire Substation - TPSS-02	05-Jul-17	15-Dec-17
Traction Power	988-PRC-T0300	Mfgr/Assemble/Wire Substation - TPSS-03	16-Aug-17	30-Jan-18
Traction Power	988-PR-6545	Fabricate & Deliver TPSS Generator	11-Jul-17	05-Feb-18

Traction Power	988-PRC-T0800	Mfgr/Assemble/Wire Substation - TPSS-08	29-Sep-17	14-Mar-18
Traction Power	988-PR-6475	Fabricate & Deliver Pad Mount Transformer - TPSS	03-Jul-17	10-Apr-18
Traction Power	988-PRC-T0810	Factory Acceptance Testing - TPSS-08	07-Mar-18	23-Apr-18
Traction Power	988-PRC-T1000	Mfgr/Assemble/Wire Substation - TPSS-10	10-Nov-17	25-Apr-18
Traction Power	988-PRC-T0820	Prepare & Ship TPSS-08	21-Mar-18	07-May-18
Traction Power	988-PRC-T0900	Mfgr/Assemble/Wire Substation - TPSS-09	05-Jan-18	18-Jun-18
Traction Power	988-PRC-T0910	Factory Acceptance Testing - TPSS-09	11-Jun-18	02-Jul-18
Traction Power	988-PRC-T0920	Prepare & Ship TPSS-09	25-Jun-18	17-Jul-18
Traction Power	988-PRC-T1010	Factory Acceptance Testing - TPSS-10	18-Apr-18	20-Aug-18
Traction Power	988-PRC-T1020	Prepare & Ship TPSS-10	02-May-18	04-Sep-18
Overhead Contact System	988-PRC-O0020	OCS: Manufacture / Deliver Poles	17-Feb-17 A	29-Nov-17
Procurement - Signal System	988-PRC-A3110	ATC: Factory Acceptance Test @ Arbor (85+90 to 130+00)	02-Jun-17 A	03-Nov-17
Procurement - Signal System	988-PRC-A3120	ATC: Develop Factory Acceptance Test Report @ Arbor (85+90 to 130+00)	25-Jul-17	27-Nov-17
Procurement - Communication System	988-PRC-C0050	Mfgr/Test/Ship Complete Comm Racks - MGL TCCB & ROC	03-Jul-17	01-Dec-17
Procurement - Communication System	988-PRC-C0051	Deliver & Receive Complete Comm Racks - MGL TCCB & ROC	13-Sep-17	04-Dec-17
Procurement - Signal System	988-PRC-A3130	ATC: Pack & Ship Train Control Bungalow @ Arbor (85+90 to 130+00)	15-Aug-17	11-Dec-17
Procurement - Communication System	988-PRC-C1400	COM: Procure Equip. Complete		26-Jan-18
Procurement - Communication System	988-PRC-C0009	Procure/Deliver IDS Wire & Cable	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0008	Procure/Deliver Fire Alarm Wire & Cable	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0025	Procure Equip. & Components for PA/VMS	21-Jun-17 A	26-Jan-18

Procurement - Communication	988-PRC-C0020	Procure Equip. & Components for CCTV	21-Jun-17 A	26-Jan-18
Procurement - Communication	988-PRC-C0075	Procure Equip. & Components for Portal Surveillance	21-Jun-17 A	26-Jan-18
Procurement - Communication	988-PRC-C0070	Procure Equip. & Components for Telephone	21-Jun-17 A	26-Jan-18
Procurement - Communication	988-PRC-C0065	Procure Equip. & Components for Seismic Detection	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0060	Procure Equip. & Components for SCADA	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0055	Procure Equip. & Components for Radio	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0045	Procure Equip. & Components for Intrusion Detection	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0040	Procure Equip. & Components for Gas Detection	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0035	Procure Equip. & Components for Fire Alarm	24-Jul-17	26-Jan-18
Procurement - Communication System	988-PRC-C0030	Procure Equip. & Components for EMP	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0016	Procure/Deliver TVM Wire & Cable	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0014	Procure/Deliver Radio Wire & Cable	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0013	Procure/Deliver CCTV Wire & Cable	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0012	Procure/Deliver PA/VMS Wire & Cable	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0011	Procure/Deliver Telephone Wire & Cable	21-Jun-17 A	26-Jan-18

Crenshaw/LAX Transit Project Quarterly Project Status Report

June 2017

Procurement -	988-PRC-C0005	Procure Equip. & Components	21-Jun-17 A	26-Jan-18
Communication	300 THE C0003	for CTS	21 3411 17 74	20 Jan 10
System		1.0.0.0		
Procurement -	988-PRC-C0010	Procure/Deliver CTS Wire &	21-Jun-17 A	26-Jan-18
Communication	300-F NC-C0010	Cable	21-Juli-17 A	20-Jan-10
System		Cable		
Procurement -	988-PRC-C0510	Mfgr/Test/Ship Complete	29-Nov-17	06-Apr-18
Communication	366-1 NC-C0310	Comm Racks - TC&C #5 -	25-1100-17	00-Αρι-10
System		Weschester/Veterans		
Procurement -	988-PRC-C0210	Mfgr/Test/Ship Complete	29-Nov-17	06-Apr-18
Communication	300 1 NC C0210	Comm Racks - UG1 Radio Room	23 1107 17	00 / lpi 10
System		Committacks CCI Natio Noom		
Procurement -	988-PRC-C0110	Mfgr/Test/Ship Complete	29-Nov-17	06-Apr-18
Communication		Comm Racks - TC&C #1		•
System		Continental (12+00)		
Procurement -	988-PRC-C0611	Deliver & Receive Complete	29-Mar-18	25-May-18
Communication		Comm Racks - TC&C #6		
System		Inglewood		
Procurement -	988-PRC-C0610	Mfgr/Test/Ship Complete	29-Nov-17	25-May-18
Communication		Comm Racks - TC&C #6		
System		Inglewood		
Procurement -	988-PRC-C0410	Mfgr/Test/Ship Complete	29-Nov-17	25-May-18
Communication		Comm Racks - TC&C #4 Arbor		
System				
Procurement -	988-PRC-C0310	Mfgr/Test/Ship Complete	29-Nov-17	25-May-18
Communication		Comm Racks - TC&C #3 Century		
System				
Procurement -	988-PRC-C0100	Mfgr/Test/Ship Complete	29-Nov-17	29-May-18
Communication		Comm Racks - TC&C #7 Colina		
System				
Procurement -	988-PRC-C0715	Deliver & Receive SCADA Equip	29-Mar-18	29-May-18
Communication		- TC&C #8 Fairview Heights		
System				
Procurement -	988-PRC-C0711	Deliver & Receive Complete	29-Mar-18	29-May-18
Communication		Comm Racks - TC&C #8		
System		Fairview Heights		

CRITICAL PATH NARRATIVE

Critical Path:

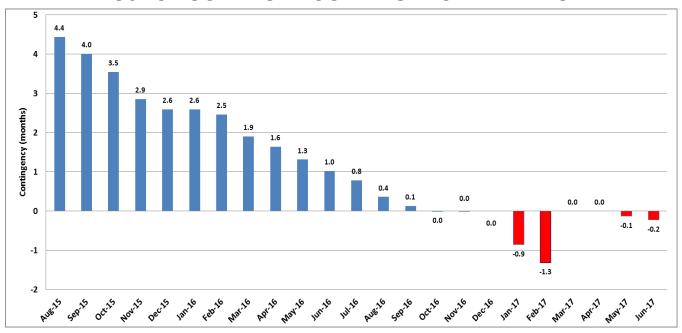
With the addition of construction activities for the accommodations to support a future LRT station at 96th Street in the approved Completion Schedule the project's critical path changed in December 2016. The critical path for the project as shown in the design-builder's Completion Schedule has shifted from the tunnel boring machine mining operations and tunnel concreting activities to the accommodations construction activities to support a future LRT station at 96th Street.

The revised critical path activities include the construction of 96th Street infrastructure, all ballasted walls and operator relief platform in Segment A, trackwork, systems work, and automatic train control (ATC) field acceptance testing at train control and communication (TC&C) room No. 3. The ATC field acceptance testing then continues for Segments B and C. The critical path continues with design-builder's systems integration testing, phase 1, leading to the design-builder's substantial completion milestone.

The current critical path is underdrain and bottom ballast in Segment "A", trackwork installation at Segment "A" then moves to Segment "B" flows to train controls/communication installation at TC&C #8.

The current critical path then continues with WSCC systems integration testing, phase 1 and Metro's systems integration testing, and phases 2 and Metro's pre-revenue operations. The critical path completes with the commencement of revenue operations.

PROJECT SCHEDULE CONTINGENCY DRAWDOWN



PROJECT SCHEDULE CONTINGENCY DRAWDOWN ANALYSIS

The project schedule contingency drawdown is based on the revenue service date of October 30, 2019.

Metro received and approved a revised baseline schedule (Completion Schedule) from the C0988 design-builder in December 2016. With the extension of time for the design-builders Substantial Completion Milestone to May 1, 2019 and a Metro/design-builder commitment to achieving an October 30, 2019 revenue operations date, no planned schedule contingency exists in the revised baseline schedule.

The C0988 design-builder submitted a schedule update that forecast an eight (8) calendar day delay to their substantial completion milestone of May 1, 2019. The design-builder is looking at several options of mitigating this forecast delay. Metro therefore has reflected the potential delay as a drawdown of schedule contingency this month until the design-builder has implemented mitigation measures.

PROJECT COST STATUS

SCC	DESCRIPTION	ORIGINAL	CURREN	CURRENT BUDGET		COMMITMENTS		ITURES	CURRENT FORECAST		CURRENT BUDGET/
CODE	DESCRIT HOW	BUDGET	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	FORECAST VARIANCE
10	GUIDEWAYS	471,335,000	-	450,354,375	210,000	450,379,135	13,711,085	341,129,819	210,000	450,773,510	419,136
20	STATIONS	153,906,000	-	315,050,000		314,110,354	4,541,033	162,833,858		314,110,354	(939,646
30	SUPPORT FACILITIES SOUTHWEST YARD	66,673,000	-	71,164,000		71,053,330	2,343,248	26,979,244		71,164,000	
40	SITEWORK\SPECIAL CONDITIONS	235,576,000	-	395,798,361	99,134	393,612,024	2,540,572	305,161,782	99,134	402,171,699	6,373,337
50	SYSTEMS	125,132,000	-	169,436,000	333,261	155,684,985	1,841,757	35,444,245	333,261	170,395,775	959,775
	CONSTRUCTION SUBTOTAL (10-50)	1,052,622,000		1,401,802,736	642,395	1,384,839,828	24,977,695	871,548,947	642,395	1,408,615,338	6,812,601
60	RIGHT-OF-WAY	132,294,000	-	127,490,000	5,570	127,469,720	45,900	127,308,237		127,490,000	-
70	LRT VEHICLES	87,780,000	-	83,571,544	٠	82,050,901	2,665,066	27,753,688	-	83,571,544	
80	PROFESSIONAL SERVICES	273,147,000	-	368,734,466	390,037	321,397,823	3,915,526	283,143,190	364,999	370,222,041	1,487,576
	SUBTOTAL (10-80)	1,545,843,000	•	1,981,598,746	1,038,003	1,915,758,272	31,604,187	1,309,754,063	1,007,394	1,989,898,923	8,300,177
90	UNALLOCATED CONTINGENCY	177,157,000	-	50,401,254				-	(1,007,394)	42,101,077	(8,300,177
	TOTAL PROJECT 865512 (10-100)	1,723,000,000		2,032,000,000	1,038,003	1,915,758,272	31,604,187	1,309,754,063		2,032,000,000	
	ENVIRONMENTAL/PLANNING - 405512	5,526,150	-	5,526,150		5,526,150	-	5,526,150	-	5,526,150	-
, and the second	ENVIRONMENTAL/PLANNING - 465512	20,473,850	-	20,473,850	-	20,023,237	-	20,023,237	-	20,473,850	-
TOTAL	PROJECTS 405512 & 465512 (ENV / PLAN'G)	26,000,000	-	26,000,000		25,549,388		25,549,388	-	26,000,000	
	TOTAL PROJECTS 405512, 465512 & 865512	1,749,000,000	-	2,058,000,000	1,038,003	1,941,307,660	31,604,187	1,335,303,450	-	2,058,000,000	

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH 30-JUN-2017.

PROJECT COST ANALYSIS

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) budget of \$1,749 million for the Crenshaw/LAX Transit Project.

Current Budget:

There have been two increases in the LOP to date:

- The Board in December 2012 approved an increase of \$13.9 million for a new LOP 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:
 - o Increase LOP base project scope in the amount of \$160.1 million, and
 - o 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

PROJECT COST ANALYSIS (Continued)

\$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 adopted budget for Southwestern Yard Project is included this month in the appendix section of this report.

The Current Budget allocation for the Crenshaw/LAX Transit Project, 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. The reallocation was required due to the draw down 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 services as well as an increase in professional services for construction and project management oversight.

Current Forecast:

The total project current forecast is \$2,058 million. However, there was a reallocation of forecast within the SCC-10 (Guideways), SCC-40 (Sitework and Special Conditions), SCC-50 (Systems), SCC-80 (Professional Services) and a corresponding reduction to SCC-90 (Unallocated Contingency) per FTA Guidelines.

Commitments:

The commitments are cumulative through June 30, 2017. The total commitments increased by \$1.0 million this period primarily due to the following:

- SCC-20 (Stations, Stops, Terminals, Intermodal) has increased by \$0.2 million for executed modifications associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-40 (Sitework and Special Conditions) has increased by \$0.1 million for executed modifications associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-50 (Systems) has increased \$0.3 million for executed modifications with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-80 (Professional Services) has increased of \$0.4 million due to executed modifications associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor, IPMO field office lease and legal services. The total commitment of \$321.4 million includes \$20.0 million for the Southwestern Yard 49% allocation.

The \$1,941.3 million in commitments to date represents 94.3% of the current budget.

PROJECT COST ANALYSIS (Continued)

Expenditures:

The expenditures are cumulative through June 30, 2017. The total expenditures increased by \$31.6 million this period due to the following:

- SCC-10 (Guideways) has increased by \$13.7 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-20 (Stations, Stops, Terminals, Intermodal) has increased by \$4.6 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-30 (Southwestern Yard) has increased by \$2.3 million for costs associated with the design-build Contract C0991 Division 16: Southwestern Yard (Design/Build).
- SCC-40 (Sitework and Special Conditions) has increased by \$2.5 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-50 (Systems) has increased \$1.9 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-70 (Vehicles) has increased by \$2.7 for costs associated with exercising Option 1 of the P3010 Contract with KINKISHARYO INTERNATIONAL, LLC. to procure 22 light rail vehicles.
- SCC-80 (Professional Services) has increased by \$3.9 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor, Engineering and Design Contract E0117, Contract C0991 Division 16: Southwestern Yard (Design/Build), Metro project administration, IPMO field office lease and utilities, construction management support, third party coordination by Los Angeles City Departments, project management support, material test laboratory, community relations, labor compliance monitoring and environmental consultant services. The total expenditure of \$283.1 million includes \$14.7 million for the Southwestern Yard 49% allocation.

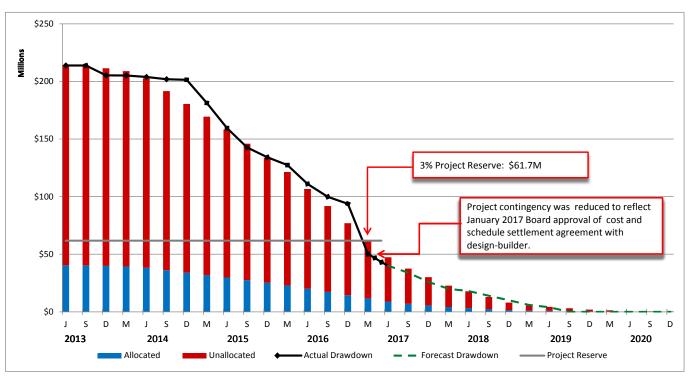
The \$1,335.3 million in expenditures to date represents 64.9% of the current budget.

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	CURRENT BUDGET		COMMITMENTS		EXPENDIT URES		CURRENT FORECAST	
DESCRIPTION		PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	VARIANCE
405556 SYSTEMWIDE TRANSIT PLANNING		-	175,495	-	175,495	-	175,495	-	175,495	-
210090/93 FARE GATE PROJECT		-	2,482,746	-	2,482,746		172,746	-	2,482,746	-
210152 CRENSHAW/LAX BUS TRANSFER FAC	CILITY	-	2,200,000	-	2,200,000	-	395,287	-	2,200,000	-
460303 AIRPORT METRO CONNECTOR		-	37,914,465	-	35,323,475	672,000	32,084,673	-	37,914,465	-
500013 C/LAX LAWA SCOPE OF WORK		-	1,575,362	-	531,125	-	408,712	-	1,575,362	-
TOTAL		-	44,348,068	-	40,712,841	672,000	33,236,913	-	44,348,068	-

PROJECT COST CONTINGENCY DRAWDOWN



Through 02-Jun-2017

PROJECT COST CONTINGENCY DRAWDOWN ANALYSIS

The project current budget of \$2,058,000,000 includes an "unallocated contingency" amount of \$173,500,000 which is included as a separate Standard Cost Category (SCC) element. Also included within the current budget is an "allocated contingency" of \$40,366,792 which is allocated, where applicable, to specific contracts within each SCC element. The allocated contingency is not broken out separately in the current budget, as this amount covers anticipated but unknown contract modifications issued by Metro. The total project cost contingency is \$213.866,792 or 10.4%.

Included in the project contingency drawdown is a 3% project reserve line. 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.

The project contingency drawdown curve is based on an October 2019 revenue service date. In February 2017, the forecast drawdown curve was revised.

PROJECT CONTINGENCY DRAWDOWN ANALYSIS (Continued)

There has been a cumulative drawdown of \$171,765,715 or 80.3% for both allocated and unallocated contingency through June 2017.

- The unallocated contingency decreased by \$1,007,394 for executed modifications for design-build contract C0988 Crenshaw/LAX Transit Corridor and contract PS12251 with BCA Watson Rice LLP for change order audit services and community relations outreach program services.
- There is no allocated contingency remaining as of February 2017 month-end reporting.

PROJECT COST CONTINGENCY (through 30-Jun-2017) UNITS IN DOLLARS									
Original Remaining Contingency Previous Current To-Date Contingence (Budget) Period Period (Forecast)									
Unallocated Contingency	173,500,000	(130,391,529)	(1,007,394)	(131,398,923)	42,101,077				
Allocated Contingency	40,366,792	(40,366,792)	ı	(40,366,792)	0				
Total Contingency	213,866,792	(170,758,320)	(1,007,394)	(171,765,715)	42,101,077				

DISADVANTAGED BUSINESS ENTERPRISE (DBE) STATUS

Contract C0988 Crenshaw/LAX Transit Corridor Design-Build

(Reported Data as of June 2017)

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.

•	Current DBE Commitment – Total DBE	\$23,096,459	(20.00%)
	Committed Dollars divided by Total Contract	Ψ 2 3,030,433	(20.00 /0)
	Value for Design or Construction.		

• Current DBE Participation – Total amount \$27,329,809 (26.38%) paid to date to DBEs divided by the amount paid to date to Prime.

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.

DBE Commitment - Contract commitment	\$251,067,446	(20.00%)
divided by current contract value for		

Construction.

Current DBE Commitment - Actual \$226,262,295 (18.02%)

 commitments as Construction work is awarded.

Current DBE Participation - Total amount \$176,386,987 (23.08%) paid to date to DBEs divided by the amount

paid to date to DBEs divided by the amount paid to date to Prime

150 Construction subcontractors have been identified to-date.

PROJECT LABOR AGREEMENTS (PLA) STATUS

	Contract C0988 Crenshaw/LAX Transit Corridor De (Reported Data as of May 2017)	esign-Build
•	Targeted Worker Goal – Construction work to be performed by residents from Economically Disadvantaged Area of LA County	40.00%
	Targeted Worker Current Attainment	59.26%
•	Apprentice Worker Goal – Construction work to be performed by Apprentices	20.00%
	Apprentice Worker Current Attainment	21.66%
•	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	12.31%

DISADVANTAGED BUSINESS ENTERPRISE (DBE) STATUS

Contract C0991 Division 16: Southwestern Yard Design-Build

(Reported Data as of May 2017)

_	DBE Goal (Design) – A numerically expressed
•	ercentage of funds apportioned to Design Contracts nd is calculated based upon the relative availability f DBE firms as compared to all firms in the relevant
	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.

\$2,383,718 (20.93%)

 Current DBE Participation – Total amount paid to date to DBEs divided by the amount paid to date to Prime.

\$1,642,735 (18.94%)

Nine (9) 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 **\$27,806,897** (16.00%) current contract value for Construction.

• Current DBE Commitment - Actual commitments as \$20,640,872 (11.88%)
Construction work is awarded

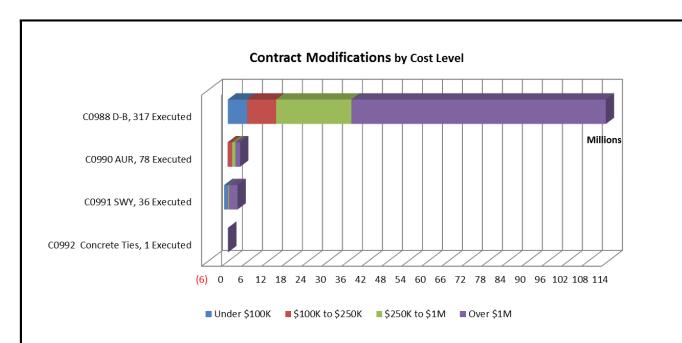
Current DBE Participation - Total amount paid to \$3,269,9722 (12.66%) date to DBEs divided by the amount paid to date to

Forty-one (41) Construction subcontractors have been identified to-date.

PROJECT LABOR AGREEMENTS (PLA) STATUS

	TROUEGI LABOR AGRELMENTO (1 LA) GTATOG							
Contract C0991 Division 16: Southwestern Yard Design-Build (Reported Data as of May 2017)								
•	Targeted Worker Goal – Construction work to be performed by residents from Economically	40.00%						
	Targeted Worker Current Attainment	49.93%						
•	Apprentice Worker Goal – Construction work to be performed by Apprentices	20.00%						
	Apprentice Worker Current Attainment	21.98%						
•	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	11.04%						

SUMMARY OF CONTRACT MODIFICATIONS



	C0988		C0990			C0991	C0992			
	317 Executed		78 Executed		36 Executed			1 Executed		
Under \$100K	\$ 5,764,137.31		(\$ 70,250.91)		(\$ 1,117,048.31)		\$	81,738.00		
\$100k to \$250K	\$	8,719,361.74	\$	1,280,183.74	\$	97,420.00	\$	0.00		
\$250K to \$1M	\$	22,574,418.58	\$	984,662.39	\$	217,580.00	\$	0.00		
Over \$1M	ver \$1M \$ 76,351,733.81		\$ 1,417,201.61		\$ 2,590,000.00		\$	0.00		
Total Contract MODs		113,409,651.44	\$	3,611,796.83	\$	1,787,951.69	\$	81,738.00		
% of Contract MODs		8.91%		46.14%		1.04%		3.78%		

Three hundred and seventeen (317) changes with a total value of \$113.41 million have been executed since award of Contract C0988. There are an additional thirty-four (34) changes with a total value of \$0.71 million pending the administrative approval process.

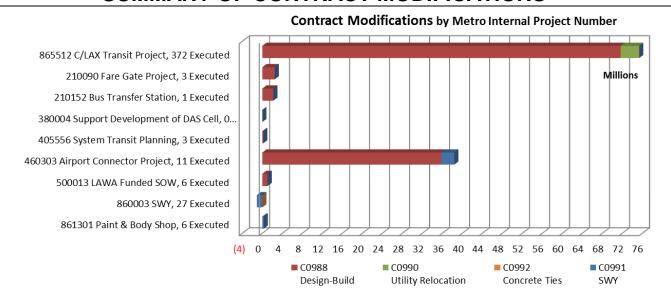
Seventy-eight (78) changes with a total value of \$3.61 million have been executed for completed Contract C0990.

Thirty-six (36) changes with a total value of \$1.79 million have been executed since award of Contract C0991. There are an additional seven (7) changes with a total value of \$0.05 million pending the administrative approval process.

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

SUMMARY OF CONTRACT MODIFICATIONS



	865512 210090		210152 405556		460303	500013	860003	861301	
	Executed	Executed	Executed	Executed	Executed	Executed	Executed	Executed	
C0988 - QTY	293	3	1	3	9	6	0	0	
C0998 - \$	71,693,329	2,482,746	2,200,000	175,495	35,794,171	1,063,911	0	0	
C0990 - QTY	78	0	0	0	0	0	0	0	
C0990 - \$	3,611,797	0	0	0	0	0	0	0	
C0991 - QTY	0	0	0	0	2	0	27	6	
C0991 - \$	0	0	0	0	2,598,580	0	(1,090,054)	279,426	
C0992 - QTY	1	0	0	0	0	0	0	0	
C0992 - \$	81,738	0	0	0	0	0	0	0	
Total - QTY	372	3	1	3	11	6	27	6	
Total - \$	75,386,863	2,482,746	2,200,000	175,495	38,392,751	1,063,911	(1,090,054)	279,426	

Three seventy two (372) changes with a total value of \$75.39 million have been executed for Project 865512 Crenshaw/LAX Transit Project. There are an additional thirty-two (32) changes with a total value of \$0.71 million pending the administrative approval process.

Three (3) changes with a value of \$2.48 million have been executed for Project 210090 Fare Gate Project. One (1) change with a value of \$2.20 million has been executed for Project 210152 Bus Transfer Station Project.

Three (3) changes with a value of \$0.18 million have been executed for Project 405556 System Transit Planning.

Eleven (11) changes with a value of \$38.39 million have been executed for Project 460303 Airport Metro Connector Project.

Six (6) changes with a total value of \$1.06 million have been executed for Project 500013 Crenshaw/LAX LAWA Statement of Work.

Twenty seven (27) changes with a value of \$1.09 million credit have been executed for Project 860003 Southwestern Yard project. There are additional five (5) changes with a total value of \$0.05 million pending the administrative approval process.

Six (6) changes with a value of \$0.28 million have been executed for Project 861301 Southwestern Yard Paint and Body Shop.

FINANCIAL/GRANT STATUS

\$ in millions

	(A) ORIGINAL	(B) TOTAL	(C) TOTAL	(D) (D/B) COMMITMENTS		(E) (E/B) EXPENDITURES		(F) (F/B) BILLED to FUNDING	
SOURCE	BUDGET	FUNDS ANTICIPATED	FUNDS AVAILABLE	\$	%	\$	%	\$	SOURCE %
FEDERAL - CMAQ	68.2	54.0	54.0	54.0	100%	54.0	100%	54.0	100%
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	102.2	73.7	102.2	100%	61.6	60%	46.6	46%
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	2.2	36.6	100%	2.2	6%	2.2	6%
STATE PPM	0.178	0.178	0.178	0.178	100%	0.178	100%	0.179	100%
STATE PROP 1B PTMISEA	201.2	128.9	128.9	128.9	100%	128.9	100%	128.9	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	446.7	529.3	100%	439.5	77%	418.2	74%
OTHER FUNDS*	52.4	187.5	19.0	70.9	37%	19.0	10%	19.0	10%
PROP C 25% HIGHWAY	148.9	349.8	6.0	349.8	100%	6.0	2%	3.7	1%
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	50.4	50.4	50.4	100%	4.9	10%	4.9	10%
TOTAL	1,749.0	2,058.0	1,400.1	1,941.3	94.3%	1,335.3	64.9%	1,296.8	54.5%

NOTE: Expenditures are cumulative through June 30, 2017

Original Budget based on Board approved October 2011 Funding/Expenditure Plan

Total Funds Anticipated based on August 2016 Funding Plan

^{*} Other funds include: Local Agency Funds (\$107.470), CNG Tax Credit (\$54.000) and 3rd Party Lease Contingency (\$26.000)

STATUS OF FUNDS ANTICIPATED

FEDERAL – CMAQ: Metro submitted to FTA in October 2013 a draft grant application of \$30M for review. FTA has reviewed the application and allowed Metro to formally submit the grant application in July 2014. Grant was approved in December 2014. Funds are available for drawdown. Metro submitted to FTA in January 2015 a grant application of \$24M for approval. Grant was approved on September 23, 2015. Funds are available for drawdown.

FEDERAL – RSTP: FTA approved a grant of \$45M in May 2014 to fund the project rail cars. Funds are available for drawdown. Metro submitted to FTA in October 2013 a draft grant application of \$28.2M for review. FTA has reviewed the application and allowed Metro to formally submit the grant application in July 2014. Grant was approved in December 2014. Funds are available for drawdown.

STATE PROP 1B – PTMISEA: An allocation request for \$12M was approved in May 2012 and funds are available for drawdown. In March 2013, allocation requests of \$11.4M and \$98.9M were submitted to Caltrans. The \$11.4M allocation request was approved in June 2013. Funds are available for drawdown. The \$98.9M allocation request was approved on February 6, 2014. Funds are available for drawdown. A new allocation request of \$6.170M was submitted in June 2014 to Caltrans for approval. The allocation request was approved on February 4, 2015. Funds are available for drawdown.

STATE PROP 1B LP: An allocation request of \$49.5M was submitted in April 2013 and approved in July 2013. The allocation request was executed by Caltrans in December 2013. Funds are available for drawdown.

MEASURE R – TIFIA LOAN (Transportation Infrastructure Finance & Innovation Act): Application for a loan of \$545.9M was submitted to the US Department of Transportation (DOT) in November 2011. Loan agreement was executed on September 12, 2012.

MEASURE R: \$446.7M has been allocated to the project through FY2017. Funds are available for drawdown.

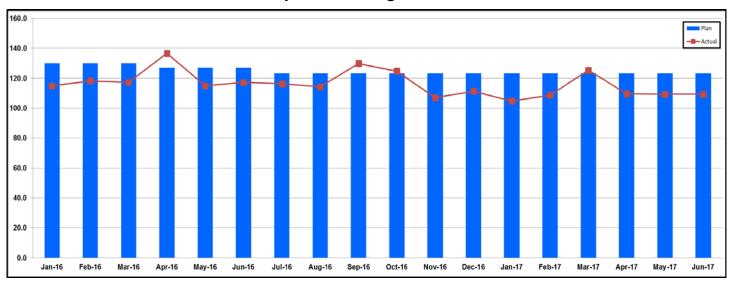
OTHER FUNDS: City of LA: Based on the funding agreement between Metro and the City of LA. \$19M is available for drawdown through FY2017.

PROP C 25% HIGHWAY: \$3.8M has been allocated to the project based on the June 2014 TIFIA Financial Model Funding Plan. Funds are available for drawdown.

PROP A 35% RAIL CAPITAL: \$4.8M has been allocated to the project based on the June 2014 TIFIA Financial Model. No Proposition A 35% Rail Capital funds are allocated for fiscal 2017.

STAFFING STATUS

Total Project Staffing – FTES



Notes:

- 1. FTE = Full Time Equivalent
- 2. Staffing levels include the Southwestern Yard Project.
- 3. Actual staffing levels are cumulative through June 2017.

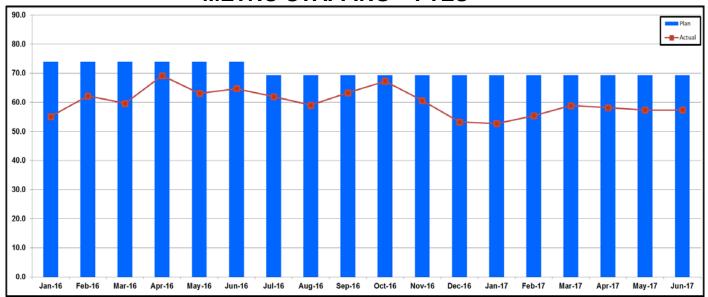
TOTAL PROJECT STAFFING

The overall FY17 Total Project Staffing Plan averages 123.3 Full Time Equivalent (FTEs) per month consisting of 69.3 for Metro Agency staff, 47.0 for Construction Management Support Services Consultant and 7.0 for Design and Engineering Support Services Consulting staff.

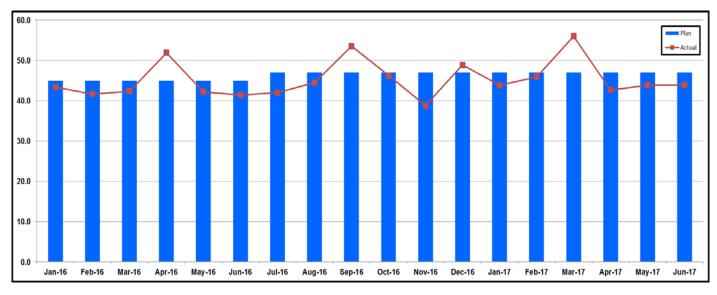
For June 2017, total project staffing were 117.7 FTEs for the month consisting of 57.3 FTEs for Metro's project administration staff, 43.9 FTEs for Construction Management Support Services Consultant and 8.1 FTEs for Design and Engineering Support Services Consulting staff.

The next three charts show actual staffing versus planned staffing for the three major project participants.

STAFFING STATUS (Continued) METRO STAFFING – FTES



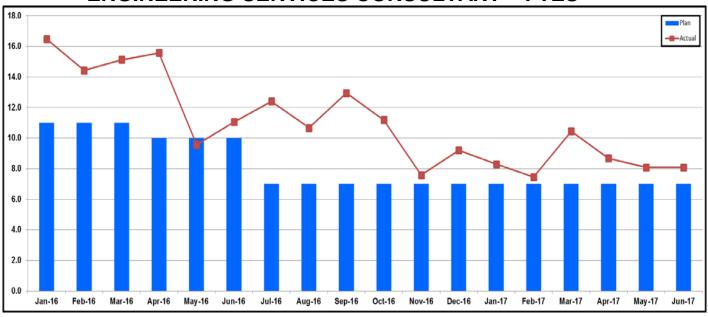
CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONSULTANT – FTES



Crenshaw/LAX Transit Project
Quarterly Project Status Report

June 2017

STAFFING STATUS (Continued) ENGINEERING SERVICES CONSULTANT – FTES



REAL ESTATE STATUS

Contract No.	Number of Parcels	Certified	Decertified	Appraisals Complete	Offers Made	Agreements Signed	Condemnations Filed	Relocations Complete	Parcels Available to WSCC		
C0988 C/LAX Transit Cor	ridor (D-B):										
Crenshaw Subdivision											
Full Takes	12	12		12	12	7	5	12	12		
Part Takes (PT or SE)	10	9	1	9	9	3	6		9		
TCE	10	9	1	10	10	1	8		9		
Subtotal Parcels	32	30	2	31	31	11	19	12	30		
Crenshaw Subdivision Additional Parcels:											
Full Takes Full Takes											
Part Takes	1	1		1	1	1					
TCE											
Subtotal Parcels:	1	1		1	1	1					
Total Crenshaw	33	31	2	32	32	12	19	12	30		
Parcels	33	31	2	JZ	JZ	12	17	12	30		
Harbor Subdivision	1		1						1		
Full Takes	15	15		15	15	8	7	12	15		
Part Takes (PT or SE)	18	16	2	18	17	8	10		15		
TCE	3	2	1	2	2		2		2		
Subtotal Parcels	36	33	3	35	34	16	19	12	32		
Harbor Subdivision Addi	tional Parcels:										
Full Takes	3	2	1	2	1			1	1		
Part Takes	4	2	2	2	2	2			2		
TCE	3	3		3	3	3			3		
Subtotal Parcels:	10	7	3	7	6	5		1	6		
Total Harbor Subdivision Parcels	46	40	6	42	40	21	19	13	38		
Total CR/HS Parcels:	79	71	8	74	72	33	38	25	68		
Southwestern Yard						•					
Full Takes	8	8		8	8	4	4	7	8		
Part Takes											
TCE											
Subtotal Parcels:	8	8		8	8	4	4	7	8		
Total SW Parcels:	8	8		8	8	4	4	7	8		
Total Project Parcels	87	79	8	82	80	37	42	32	76		

- All parcels necessary to construct the guideway have been turned over to the Contractor.
- Work requiring the remaining parcels is not on the critical path and will be used to construct ADA, sidewalk, and other civil improvements.
- Efforts continue to closeout court cases on the various condemned properties.

QUALITY ASSURANCE STATUS

C0988 Crenshaw/LAX Transit Corridor Design-Build Contract

- Attended weekly Quality Staff Meetings with City of Los Angeles, Los Angeles Bureau of Contract Administration, HNTB, and WSCC Lead Quality personnel.
- Reviewed submittals for WSCC surveillances.
- ConAd issued a Job Memorandum for concrete sidewalk construction in Segment B2 which has lifted resulting in a tripping hazard. Panels will be removed and replaced.

ENVIRONMENTAL STATUS

C0988 Crenshaw/LAX Transit Corridor Design Build

- Reviewed and commented on the following Contractor Submittals:
 - Weekly Noise and Vibration Monitoring Data for station and alignment construction
 - Green Construction Policy Monthly Report
 - o Weekly Storm Water Pollution Prevent Plan (SWPPP) inspection reports
 - Weekly Fugitive Dust Inspection Reports
 - Various Construction Work Plans and Submittals
 - Second Quarter Noise Control Plan
- Conducted Contractor Cultural Awareness Training.
- Coordinated cultural monitoring (Archaeological, Paleontological and Native American Monitoring).
- Attended Construction Environmental Management System (EMS) meetings with Design-builder.
- Attended readiness review meeting for Florence/Oak at-grade crossing work 6/9.
- Conducted night time noise monitoring at Florence/Oak at-grade crossing.
- Construction EMS audit by ULDQS was performed on 6/20 and 6/21.
- VOC-contaminated soil encountered and properly disposed of per Rule 1166 at 96th St. work area.
- Asbestos concrete pipe encountered and properly disposed of per SCAQMD at 57th/Crenshaw, Crenshaw/50th-52nd.
- UST at La Brea Yard encountered on 6/9 and removed on 6/22 and 6/23.
- Submitted SCAQMD notification on 6/6 for the abatement of 9323 Bellanca building.
- Demolition of the interior of the 9323 Bellanca building began on 6/22 after abatement containment areas had been cleared by CAC and containment was taken down. Demolition of the exterior of the building began on 6/20.

C0991 Southwestern Yard Design Build

- Asbestos concrete pipe encountered at the Bellanca Yard on 6/22 and properly disposed of per SCAQMD Procedure 5 on 6/26.
- Initiated removal of contents in clarifier at SW-003.

CONSTRUCTION RELATIONS STATUS

- Coordinated outreach and media campaign for the full directional closures of I-405 near Florence Avenue to remove falsework.
- Continued to monitor the utilization of temporary construction parking lots and cityowned parking lots in the Park Mesa Heights area.
- Coordinating with Metro Operations and LADOT on red curb striping near Dulan's Restaurant.
- Began outreach on the remediation of soil contamination at the Hi Tech Cleaners site.

SYSTEMWIDE DESIGN AND ART PROGRAM STATUS

- Hosted project area youth mentorship meeting at Metro.
- Organized a Community Leadership Council.
- Hosted Meet the Artist Luncheon at the Museum of African American Art.
- Continued to review and respond to submittals.
- Facilitated coordination between artists and fabrication firms.

SAFETY & SECURITY STATUS

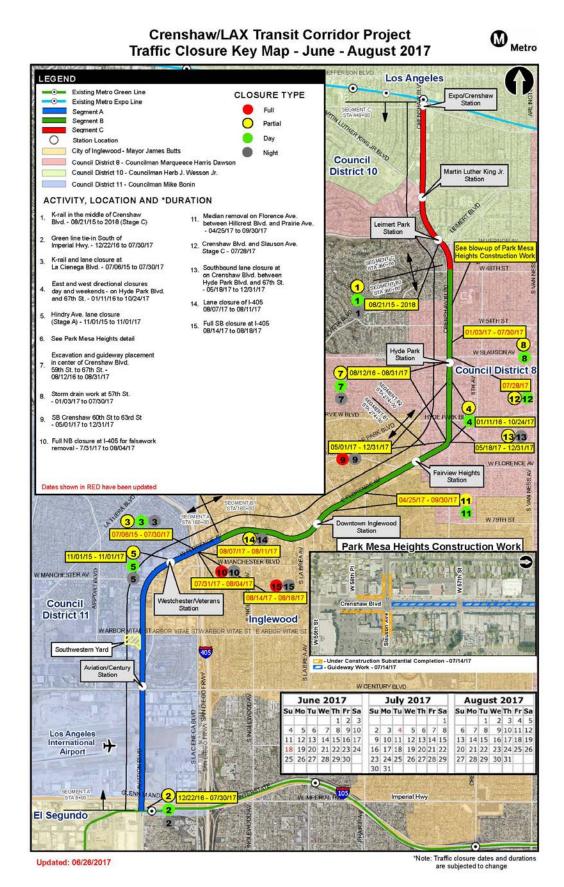
- Participated in weekly progress meetings with WSCC's Management and Construction Management Team to discuss safety/security/quality related issues and the six-week construction schedule.
- Participated in WSCC's weekly Safety Tool-Box Meetings and Executive Safety and Security Committee Meeting.
- Monitored construction activities on a daily basis including weekends to ensure compliance with contract specifications.
- Monitored tunnel cross passage, underground stations, I-405 Fwy super structure bridge stripping/forms, at-grade crossings, SWY Division 16, excavations, site preparations, steel erection and track-installation along the alignment.
- Conducted Monthly All Hands Safety and Security Meeting for June 2017.
- Contract C0990 Metro Builders Advanced Utility Relocation completed 360,287 work hours with four recordable incidents. This contract is closed out.
- Contract C0991 Hensel Phelps Project-to-Date completed 91,620 work hours. Hensel Phelps and their subcontractors completed 17,509 work-hours with zero recordable incidents for the month of June 2017.
- Contract C0988 (WSCC) completed 142,613 work hours with zero recordable incidents for the month of June 2017. Total Project-to-Date work hours are 4,458,735 with a total of sixty-five recordable incidents. The project Recordable Rate is 2.9. The Bureau of Labor Statistics (BLS) average recordable rate per 200,000 work-hours is 2.8.

THIRD PARTY AGREEMENT STATUS

Third Party	Type of Agreement	Forecast Execution Date	Required Need Date	Status/ Comments
City of Los Angeles	Amendment to Master Cooperative Agreement	N/A	N/A	Parties will work under 2003 MCA.
City of Inglewood	Master Cooperative Agreement	8/16	N/A	Executed Letter of Agreement April 2012. Metro working on outstanding issues.
Los Angeles Department of Water and Power	Amendment to Memorandum of Understanding	N/A	N/A	Metro and LADWP will work under 2002 Utility Cooperative Agreement which remains in effect.
Los Angeles County Public Works	Letter of Agreement	4/11	3/12	Executed
Caltrans	Amendment	8/11	3/12	Executed
Private Utilities	LOA, MOU or UCA	5/11 to 5 / 13	N/A	Metro is working with affected third party utilities under work orders unless license agreements dictate relocation by utility company. No additional agreements required.

CPUC CROSSING SUMMARY STATUS

- The CPUC has approved all packages.
- LACMTA filed a response on March 25, 2016 in response to a petition that was filed by a community member, Chandra V. Mosley, to modify the CPUC Decision that approved seven at-grade crossings on Crenshaw Blvd, located from 48th St. to 59th St.
- Metro attended the Prehearing regarding the petition on May 24, 2016.
- The scoping document (Ruling) was issued on July 1, 2016 by the Administrative Law Judge Scoping which set forth the procedural schedule and address the scope of the proceeding.
- Metro filed a brief on August 5, 2016 and a Reply Brief on August 15, 2016.
- Administrative Law Judge is reviewing the submitted Briefs and will issue a Proposed Decision.



CHRONOLOGY OF EVENTS

2003	Major Investment Study
April 2007	Board authorized the CEO to award Contract PS 4330-1968 to complete environmental clearance and conceptual engineering.
December 2009	Board adopted the LRT Alternative as the Locally preferred Alternative and received and filed the Crenshaw Transit Corridor DEIS/DEIR.
December 2009	Board authorized the CEO to award Contract No. EO117 for Phase I, Advanced Conceptual Engineering.
September 2010	Board authorized the CEO to exercise option with Contract No. EO117 for Phase II Preliminary Engineering.
April 2011	Board adopted the Arbor Vitae/Bellanca (Site 14) LPA for the Maintenance Facility Site
July 2011	Board approved Southwestern Yard cost allocation.
September 2011	Board approved Project Definition and certified Final Environmental Impact Report
October 2011	Board approved the Life-of-Project Budget of \$1.749 billion.
December 15, 2011	CTC reviewed the FEIS/FEIR and adopted the required resolution for future funding consideration.
December 23, 2011	Request for Qualifications for Contract C0988 C/LAX Transit Corridor was released to Industry.
December 30, 2011	Received Record of Decision from FTA.
February 10, 2012	Released Invitation for Bid for Contract C0990 Crenshaw/LAX Advanced Utility Relocations.
March 12, 2012	Received Statement of Qualifications for Contract C0988 C/LAX Transit Corridor.

CHRONOLOGY OF EVENTS (Continued)

May 16, 2012	Notification of pre-qualified proposers 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.
June 22, 2012	Released Request for Proposals for Contract C0988 C/LAX Transit Corridor.
August 24, 2012	Received approval from the Surface Transportation Board regarding BNSF Railway Company abandonment along five-mile Crenshaw Segment of the Harbor Branch ROW.
September 4, 2012	Preparation of a FONSI for Supplemental Environmental Assessment to the FEIS was approved by FTA.
September 28, 2012	Completed abandonment process with BNSF.
September 28, 2012	TIFIA and TIGER II Grants approved.
December 6, 2012	Received proposals for Contract C0988 C/LAX Transit Corridor.
February 22, 2013	Issued Amendment No. 8 requesting Best and Final Offers (BAFO) for Contract C0988 C/LAX Transit Corridor.
March 15, 2013	Received BAFO's for Contract C0988 C/LA Transit Corridor.
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.
July 10, 2013	Issued notice of award to Walsh-Shea Corridor Constructors, Contract C0988 Crenshaw/LAX Transit Corridor.

CHRONOLOGY OF EVENTS (Continued)

August 1, 2013	United States Department of Transportation approves Metro's request to increase the Crenshaw/LAX Project Budget to \$2,058 million.
August 8, 2013	Issued notice of execution of the contract was issued to Walsh-Shea Corridor Constructors, Contract C0988 Crenshaw/LAX Transit Corridor.
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.
July 25, 2014	Century Crunch" – weekend demolition of the defunct Century railroad bridge at the intersection of Century Blvd. and Aviation.
August 21, 2014	Substantial Completion issued for Advanced Utility Relocations Contract C0990.
August 29, 2014	Released Invitation for Bid for Contract C0991 Crenshaw/LAX Southwestern Yard (Division 16) Maintenance Facility.
September 19, 2014	CPUC has approved all five (5) grade crossing applications and no further actions are required.
January 22, 2015	Received Technical and Price Bids for the Southwestern Yard (Division 16) Maintenance Facility.
March 25, 2015	Opened Price Bids for the Southwestern Yard (Division 16) Maintenance Facility.

CHRONOLOGY OF EVENTS (Continued)

May 28, 2015	The Board awarded Contract C0991 Division 16: Southwestern Yard to Hensel Phelps/Herzog JV. Also increased by \$22.0 million the Life of Project Budget for the Southwestern Yard Project to a new amount of \$307.2 million.
May 28, 2015	The Board approved Design Option 3 for the track alignment to accommodate the future Metro Connector Transit Station (96 th St. Station).
June 29, 2015	Issued Notice to Proceed to Hensel Phelps/Herzog JV, Contract C0991 Division 16: SouthwesternYard.
July 23, 2015	The Board approved the Official and Operational Names of the eight stations.
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).
October 20,2016	The southbound tunnel boring machine completed mining with the hole thru at Leimert Park Station.
April 6, 2017	The northbound tunnel boring machine completed mining with the hole thru at Leimert Park Station.

SW-0001

Milestone 7 - Provide Access for

Division 16 Southwestern Yard D-B

01/23/16

01/23/16

02/22/16A

CONTRACT C0988 STATUS

Crenshaw/LAX Transit Corridor

PE Design Contractor: Hatch Mott (HM) Contract No.: C0988 **CM Consultant: Stantec** Contractor: - Walsh Shea Corridor Constructors (WSCC) Status as of July 01, 2017 Progress/Work Completed: Areas of Concern: Construction Timely submittal of WSCC's design submittals and review by City of Continued north bound tunnel concrete placement. Los Angeles. Continued twin tunnel cross passage excavation work. WSCC's ability to mitigate potential schedule delay to their Continued wall and concourse concrete placements at Expo, MLK Jr and substantial completion milestone of May 1, 2019. Leimert Park stations. Continued invert placements at underground structures #3 and #4. Continued street and utility work at Park Mesa area. Continued civil construction work within Park Mesa Heights area. Continued accommodations for future 96th Street Station. Continued finishing work for Green Line tie-in structure. WSCC turned over the Bellanca storage to Southwesten Yard contractor. **Cost Assessment:** Schedule Assessment: The current construction contract cost forecast is \$1,380,342,258.69 WSCC's June 2017 schedule update reflects a eight day delay to Milestone 1. WSCC and is within the Board authorized budget. is looking at several options to mitigate the forecast delay. The Contractor submitted their 47th payment application in the approved amount of \$19,420,512.19 Please note that not all executed modifications may have been included in the Contractor current payment application. Schedule Summary: Cost Summary: \$ In millions 1. Date of Award: 08/01/13 1. Award Value: 1,272.63 09/10/13 106 89 2. Notice to Proceed: 2. Executed Modifications: 3. Original Substantial Completion Duration: 1824 3. Approved Change Orders: 6.51 4. Current Substantial Completion Duration: 2059 4. Current Contract Value (1 + 2 + 3): 1,386.03 5. Elapsed Time from NTP: 1390 5. Incurred Cost: 929.99 67.5% Calendai PERCENT COMPLETE Original Current from 09/10/13 to 07/01/17 Contract Variance Milestones Contract Forecast Milestone 1 - Contract Substantial 09/08/18 05/01/19 05/09/19 -8 Completion 03/09/18 05/17/18 Milestone 2 - UFS Completion 11/01/18 168 02/09/19 Milestone 3 - Commence SIT Phase I 06/09/18 02/01/19 -8 60.5% Construction Milestone 5A - Const./Turnover Parcels 06/05/17 06/05/17 6/5/2017A 0 SW-0002, 0003, 0004, 0104 (South) Total Incurred 67.4% Milestone 5B - Const./Turnover Parcels 06/05/17 06/11/17 6/11/17A 0 0.0% 20.0% 40.0% 60.0% 80.0% 100.0% SW-0002, 0003, 0004, 0104(North) Milestone 6 - Const./Turnover Parcels **Percent Complete Progress** 08/01/17 08/01/17 07/18/17 14

Construction physical percent complete excludes

mobilization and general requirements

CONTRACT C0990 STATUS

Crenshaw/LAX Advanced Utility Relocations

PE Design Contractor: Hat CM Consultant: Stantec				Contract No.: C0990				
Contractor: - Metro Builde	rs and En	gineers G	roup LTD	Status: Completed				
Progress/Work Completed - The construction was substar - Board authorized in March a s - Contract is closed out.	tially comp	leted on Au with the co	igust 21, 20° ntractor.	14	Areas of Concern:			
Schedule Assessment: - Metro granted substantial completion to Metro Builders on August 21, 2014, which is 276 calender days behind The settlement with the contractor settled all time issues.					Cost Assessment: - The final contract is \$11,316,140.00 and has be to contractor. * A modification in process for credit of unused the amount of \$123,156.85.			
Schedule Summary:					Cost Summary:	\$ In millions		
Date of Award:		05/30/12			1. Award Value:	7.83		
Notice to Proceed:		07/17/12			Executed Modifications:*	3.49		
Original Substantial Comple	tion Duration				Approved Change Orders:	-		
Current Substantial Comple					 Current Contract Value (1 + 2 + 3): 	11.32		
5. Elapsed Time from NTP:		753			5. Incurred Cost:	11.32		
Milestones	Original Contract	Current Contract	Forecast	Calendar Day Variance	PERCENT COMPLET from 7/17/12 to 8/21/14	ľE		
Milestone 1 - Contract Substantial Completion	07/17/13	11/18/13	08/21/14A	-276	Design 0%			
					Construction	100%		
					Total Incurred Cost	100%		
					0% 20% 40% 60%	80% 100%		
					Percent Complete Prog			
					Construction physical percent complete excludes mobilization and general requirements			

CONTRACT C0991 STATUS

Southwestern Yard

PE Design Contractor: Hatch Mott (HM) **CM Consultant: Stantec**

Contractor: - Hensel Phelps / Herzog JV

Contract No.: C0991

Status as of July 01, 2017



Progress/Work Completed:

risers.

- Continued main shop pits, foundation and SOG construction.
- NTP/MOD was issued for LAWA-CIDH piles/columns on March 1, 2017.
- · Major equipment and material fabrication started in March 2017 and continued (Structural Steel, Turntables, Wheel Lathes and Hoists), steel is being delivered and installed. Continued with electrical and communication duct banks, dry wells, oil clarifiers and fire
- Completed material storage building foundations and placed slab on grade.

Areas of Concern:

There are no major areas of concern at this time.

Schedule Assessment:

- Interface coordination between HPH, WSCC, City, 3rd Parties are being managed proactively to address and to minimize any impact on the project cost and Schedule.
- HPH is using an earlier phase 2 access to establish a re-baseline schedule to complete the SWY two months ahead of contract requirement.
- A re-baseline schedule was submitted and accepted by Metro.
- Work is progressing ahead of schedule.
- . All phase II access dates were achieved ahead of time.
- . HPH has stated that there is a potential for them to complete early by 11/20/2018.

Cost Assessment:

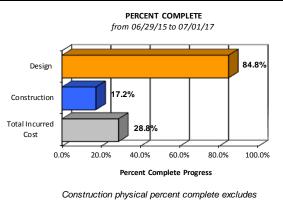
The current construction contract cost forecast is \$174,100,646.69 is within the Board authorized budget.

The Contractor submitted their 23rd payment application in the approved amount of \$4,730,300.30

Please note that not all executed modifications may have been included in the Contractor current payment application.

	Schedule Summary:			c	Cost	Summary:	\$ In millions
	1. Date of Award:	28-May-15			1.	Award Value:	172.31
	2. Notice to Proceed:	29-Jun-15			2.	Executed Modifications:	1.76
	3. Original Substantial Completion Duration:	1,220			3.	Approved Change Orders:	0.03
	4. Current Substantial Completion Duration:	1,311			4.	Current Contract Value (1 + 2 + 3):	174.10
	5. Elapsed Time from NTP:	733	55.9%		5.	Incurred Cost (thru June 2017):	50.06
ı							

				Calendar
	Original	Current		Day
Milestones	Contract	Contract	Forecast	Variance
MS#1 Yard and Main Shop Design Completion	26-Oct-16	26-Oct-16	26-Oct-16 A	0
MS#2 Main Shop Communication Room Completion	15-Jan-18	16-Apr-18	11-Apr-18	5
MS#3 Main Shop Substantial Completion	30-Apr-18	30-Jul-18	30-Jul-18	0
MS#4 Southwestern Yard Substantial Completion	31-Oct-18	30-Jan-19	29-Jan-19	1



mobilization and general requirements

CONTRACT C0992 STATUS

Concrete Ties

PE Design Contractor: Hatch CM Consultant: Stantec Contractor: Rocla Concrete)	Contract No.: C0992 Status: Completed						
Progress/Work Completed: - All 19,936 concrete ties have be (Contract C0988) Contract is closed out.	en received	onsite by t	he design-b	uilder	Areas of Concern:				
Schedule Assessment:					Cost Assessment:				
All concrete ties were delivered to	job site by	August 15,	2014.		The final contract cost is \$2.25 million and he to contractor.	as been completely paid			
Schedule Summary:					Cost Summary: \$ In	millions			
Date of Award:			12/10/13		1. Award Value:	2.16			
2. Notice to Proceed:			12/23/13		2. Executed Modifications:	0.09			
3. Original Substantial Completio	n Duration:		220		3. Approved Change Orders:				
4. Current Substantial Completion	n Duration:		235		4. Current Contract Value (1 + 2 + 3): - 2.25				
5. Elapsed Time from NTP:			235		5. Incurred Cost:	2.25			
Milestones Milestone 1 - Contract Substantial Completion	Original Contract	Current Contract 08/15/14	Forecast 08/15/14A	Calendar Day Variance	PERCENT COMPLETE from 12/23/2013 to 8/15/14				
Completion					Delivered	100%			
				0	Shipped	100%			
				0	Total Incurred Cost	100%			
				0	0% 50%	100%			
				0	Percent Complete Progress				
					Construction physical percent comp mobilization and general requirement				

CONTRACT C0992A STATUS

Running Rail and Bumping Posts

PE Design Contractor: Hatch M CM Consultant: Stantec Contractor: LB Foster Rail Tecl		orp	Contract No.: C0992A Status: Completed						
Progress/Work Completed: - All 115RE SS Blank Stick Rails ha - All 115RE HH rail have been delive - All Bumping Posts have been delive - Contract is closed out.	ered to job s	site.	Areas of Concern:						
Schedule Assessment: All running rails and bumping posts v	were deliver	ed ahead c	Cost Assessment: The final contract cost is \$5,2 million and has been completely paid to contractor.						
Schedule Summary:					Cost Summary: \$ In millions				
Date of Award:			01/23/14		1. Award Value: 5.2				
Notice to Proceed:			03/07/14		Executed Modifications:				
Notice to Proceed. Original Substantial Completion [Ourotion:		300		Approved Change Orders:				
Current Substantial Completion E			558		4. Current Contract Value (1 + 2 + 3): - 5.2				
Elapsed Time from NTP:	ouration.		448		5. Incurred Cost: 5.2				
Milestones	Original Contract	Current Contract	Forecast	Calendar Day Variance	PERCENT COMPLETE from 3/7/2014 to 05/29/15				
Milestone 1 - Contract Substantial Completion	12/31/14	09/30/15	05/08/15A	145					
Completion				0	Construction 100%				
				0	Total Incurred Cost				
				0	2007 4007 2007 1007				
				0	0% 20% 40% 60% 80% 100% Percent Complete Progress				
					Construction physical percent complete excludes mobilization and general requirements				

CONSTRUCTION PHOTOGRAPHS



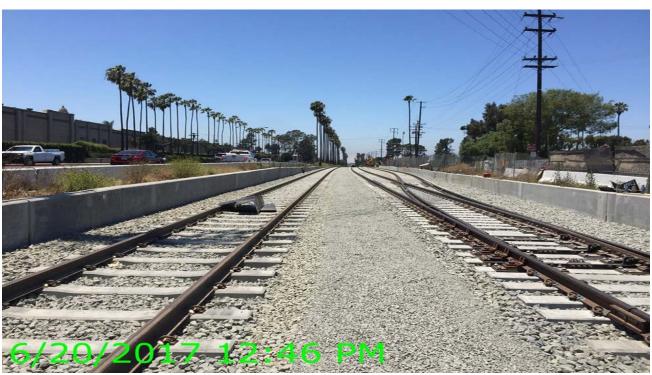
UG#1 – UG1 plinth construction underway.



AVIATION/CENTURY BRIDGE – Construction of the plaza level service building and station elevator shaft underway.



WESTCHESTER STATION – Crews continued with finish work for the north bound station platform. Crews placed concrete for the south bound platform footing.



B1 GUIDEWAY – Ballasted trackwork between Centinela and High St. nearly complete with the exception of de-stressing. Siding track turnout to the right. Center walkway ballast has been placed.



B1 GUIDEWAY - Herzog performing hand held UT testing between Centinela and High St.



OAK ST. GRADE CROSSING - Crews finished the Oak Street grade crossing under a weekend closure.



OAK ST. GRADE CROSSING - Crews finished the Oak Street grade crossing.



Ballasted track between Cedar and Eucalyptus.



HYDE PARK STATION - Installation of formwork for walls at TC&C room.



PARK MESA – Installation of ballast wall along west wall between 52nd St. and 54th St.



UG4 – Placement of invert sections I-2 and I-4; UG4 invert is now complete.



LEIMERT PARK STATION – Removing Tier-2 struts.



MARTIN LUTHER KING JR. STATION – Installation of rebar along south lower walls and installation of NB/SB Omega rings at south hammerhead.



EXPOSITION/CRENSHAW STATION – Installation of formwork for concourse level wall section G-28.



TUNNELING – Placement of NB Tunnel Invert section 10.



TUNNELING – Installation of electrical components/conduits for the NB tunnel invert between Expo and MLK.



TUNNELING - Excavation of jet-grouted soils at CP-4.



TUNNELING – Smoothing shotcrete completed at CP-5 for waterproofing.

APPENDIX

PROJECT COST STATUS – SOUTHWESTERN YARD

LINITS IN DOLLARS

SCC	DESCRIPTION	DESCRIPTION ORIGINAL		CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		FORECAST
CODE	DESCRIPTION	BUDGET	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PREVIOUS	PERIOD	TO DATE	VARIANCE
10	GUIDEWAYS	0	0	0	0	0	0	0	0	0	0	0
20	STATIONS	0	0	0	0	0	0	0	0	0	0	0
30	SUPPORT FACILITIES (Y & S)	85,546,835	0	85,189,999	0	84,976,970	1,114,780	11,441,550	85,333,806	0	85,333,806	143,807
40	SITEWORK\SPECIAL CONDITIONS	35,932,000	0	38,273,000	0	38,776,849	470,098	22,565,874	38,478,736	0	38,478,736	205,736
50	SYSTEMS	25,784,616	0	32,991,000	0	32,991,000	1,873,150	4,593,950	32,991,000	0	32,991,000	0
	(10-50) CONSTRUCTION	147,263,451	0	156,453,999	0	156,744,819	3,458,028	38,601,374	156,803,543	0	156,803,543	349,543
60	RIGHT-OF-WAY	99,910,000	0	100,000,000	0	102,474,206	0	102,418,610	102,420,624	0	102,420,624	2,420,623
70	VEHICLES	0	0	0	0	0	0	0	0	0	0	0
80	PROFESSIONAL SERVICES	35,601,095	0	33,639,631	332,605	30,004,357	510,642	23,750,790	34,894,595	0	34,894,595	1,254,964
90	PROJECT CONTINGENCY	13,659,732	0	17,106,370	0	0	0	0	13,081,239	0	13,081,239	(4,025,131)
TOTAI	-	296,434,278	0	307,200,000	332,605	289,223,383	3,968,670	164,770,774	307,200,000	0	307,200,000	(0)

C0991 PAINT & BODY SHOP PROJECT											
DESCRIPTION	ORIGINAL	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST			FORECAST
	BUDGET	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PREVIOUS	PERIOD	TO DATE	VARIANCE
861301 DIV 22 PAINT & BODY SHOP	11,000,000	0	11,000,000	18,229	9,462,472	18,229	2,683,347	11,000,000	0	11,000,000	0

GRAND TOTAL	307,434,278	0	318,200,000	350,833	298,685,854	3,986,899	167,454,121	318,200,000	0	318,200,000	(0)

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH JULY 01, 2017.

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.

APPENDIX PROJECT COST ANALYSIS (Continued)

Current Forecast: The forecast is under review.

Commitments:

The commitments are cumulative through July 1, 2017.

Total commitments increased by \$0.35 million for this period due to the following:

- SCC-30
 - No change to report.
- SCC-40
 - o No change to report.
- SCC-50
 - No change to report.
- SCC-60
 - No change to report.
- SCC-80
 - Professional services such as legal, construction management, and labor commitment increased by \$0.35 million.

The \$298.69 million in commitments to date represents 93.9% of the current budget.

Expenditures:

The expenditures are cumulative through July 1, 2017.

The total expenditures increased by \$3.99 million for this period due to the following:

- SCC-30
 - Hensel Phelps/Herzog JV expenditure increase by \$1.12 million.
- SCC-40
 - Hensel Phelps/Herzog JV expenditure increased by \$0.47 million.
- SCC-50
 - Hensel Phelps/Herzog JV expenditure increase by \$1.87 million.
- SCC-60
 - No change to Right-of-Way expenditure.
- SCC-80
 - Hensel Phelps/Herzog JV, agency expenditure and professional services expenditure increase by \$0.53 million.

The \$167.45 million in expenditures to date represents 52.6% of the current budget.

COST AND BUDGET TERMINOLOGY

Project Cost Descriptions -

ORIGINAL BUDGET The Original Project Budget as established by the Metropolitan

Transportation Authority (Metro) Board on October 27, 2011.

CURRENT BUDGET The Original Budget plus all budget amendments approved by

formal Metro Board action. Also referred to as Approved

Budget.

COMMITMENTS The total of actual contracts awarded, executed change orders

or amendments, approved work orders of Master Cooperative Agreements, offers accepted for purchase of real estate, and other Metro actions which have been spent or result in the

obligation of specific expenditures at a future time.

EXPENDITURES The total dollar amount of funds expended by Metro for

contractor or consultant invoices, third party invoices, staff salaries, real estate and other expenses that is reported in

Metro's Financial Information System (FIS).

CURRENT FORECAST The best estimate of the final cost of the project when all

checks have been issued and the project is closed out. Current Forecast is composed of actual costs incurred to date, the best estimate of work remaining and a current risk assessment for

each budgeted cost item.

Cost Report by Element Descriptions -

CONSTRUCTION Includes construction contracts. Cost associated with

Guideways, Stations, Southwestern Yard, Sitework/Special.

Conditions and Systems.

RIGHT-OF-WAY Includes purchase cost of parcels, easements, right-of-entry

permits, escrow fees, contracted real estate appraisals and

tenant relocation.

VEHICLES Includes the purchase of LRT vehicles and spare parts for the

project.

PROFESSIONAL Includes design engineering, project management assistance,

SERVICES construction management support services, legal counsel,

agency staff costs, and other specialty consultants.

CONTINGENCY A fund established at the beginning of a project to provide for

anticipated but unknown additional costs that may arise during

the course of the project.

PROJECT REVENUE Includes all revenue receivable to the Metro as a direct result

of project activities. This includes cost sharing construction

items, insurance premium rebates, and the like.