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

PROJECT PHOTO: Installation of southbound tunnel portal seal at south hammerhead at the Martin Luther King Jr. Station. WORK COMPLETED PAST MONTH: O Design-builder continues final design on street and landscape. O Continued construction forms and reinforcing steel superstructure at the content of and excavation at the north of Continued Content Description. In the south end and excavation at the north of Continued Content Description and reinforcing steel superstructure at the Completed West Travelling Pad. O Confinued Line Beint. O Completed MSE 117 inventing Pad. O Confinued Installation of socialing piles on East and Vest side of U.G.S. O Confinued Installation of socialing piles on East and Vest side of U.G.S. O Confinued Installation of socialing piles on East and Vest side of U.G.S. O Confinued Installation of socialing piles on East and Vest side of U.G.S. O Confinued Installation of socialing piles on East and Vest side of U.G.S. O Confinued Installation of socialing piles on East and Vest side of U.G.S. O Confinued Installation of socialing piles on East and Vest side of U.G.S. O Confinued Installation of socialing piles on thorough Time Vest side of U.G.S. O Confinued Installation of socialing piles on East and Vest side of U.G.S. O Confinued Installation of socialing piles on East and Vest side of U.G.S. O Confinued Installation of socialing piles on East and Vest side of U.G.S. O Confinued Installation of Social piles on East and Vest side of U.G.S. O Confinued Installation of Social piles on East and Vest side of U.G.S. O Confinued Installation of Social piles on East and Vest side of U.G.S. O Confinued Installation of Social piles on East and Vest side of U.G.S. O Confinued Installation of Social piles on East and Vest side of U.G.S. O Confinued Installation of Social piles on East and Vest side of U.G.S. O Confinued Installation of Social piles on East and Vest side of U.G.S. O Confinued Installation of Social piles on East and Vest side of U.G.S. O Confinued Installation of Social piles on Eas	LOCATION: Crenshaw E DESIGN/CONSULTANT:	•	sition to Gree	n Line	CONSTRUCTION MANAGEMENT CONSULTANT: Stantec CONTRACTORS: Walsh-Shea Corridor Constructors (Alignment) and Hensel Phelps / Herzog (Southwestern Yard)					
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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 and the contract is being 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. The major construction activity this month on the Project's critical path is the continuing of mining operations. The contractor continued tunnel boring of the south bound tunnel from Expo/Crenshaw Station heading to MLK Station. The break through at MLK Station is planned for August 14, 2016 where it will be moved across the floor of the station to the other side, and then mining will recommence from MLK Station to Leimert Park Station.

Design- Build Contract C0991 Southwestern Yard (Division 16) – The design-builder, Hensel Phelps / Herzog JV was issued a notice-to-proceed on June 29, 2015. The design-builder continues final design and submission of required submittals. Design activities continued including reconciliation of various design packages. Contractor commenced construction activities in May 2106. Completed temporary fence, cutting and capping utilities, demolition of slabs and other underground structures including abatement of hazardous material within Phase 1 right-of-way area.

Right-of-Way

Metro added in January 2019, two full takes and five part-takes/TCE's required for the construction of the Project. There are now a total of 79 parcels (four have been decertified). There are 37 full takes, 27 partial takes and 15 temporary construction easements (TCE's). There have been 72 parcels acquired through May 2016. Thirty-five full takes, 24 part-takes and 13 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 interim course of action is to expand the existing functional operations at the ROC under a Phase 1 approach to support five new rail lines and extensions including the Crenshaw/LAX Project. The existing ROC will be expanded and will reconfigure the existing ROC service control and closed circuit television monitoring areas to increase overall space requirements by approximately 22

PROJECT OVERVIEW (Continued)

percent. A full build-out of a combined BOC/ROC is also being planned under a Phase 2 approach on land to be acquired by Metro as a separate Capital Improvement Project near Division 20.

Final design of the ROC Reconfiguration Plan was completed and issued for review on February 28, 2014. The initial ROC reconfiguration effort will be for Exposition Phase II and Foothill Gold Line Projects. Crenshaw/LAX Transit Project ROC reconfiguration will be initiated in June 2017 and completed by February 2019.

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.

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.

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 funding 79.9%, (includes Measure R TIFIA Loan), state funding 10.5% and federal funding 9.6%.

PROJECT OVERVIEW (Continued)

The project commitments thru June 2016 are \$1,860.4 million or 90.4 % of the Current Budget. The project expenditures thru June 2016 are \$993.4 million or 48.3% of the Current Budget.

The current period expenditures are for design-builders monthly design and 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 internal project number and the total costs for the Southwestern Yard project is included in the Appendix.

This month the project schedule reflects no change in project status. Metro is reporting a projected 190 calendar day delay to the design-builder's contract substantial completion milestone (forecast 2019).

MANAGEMENT ISSUES

Concern No. 1: Execution of 3% Local Match funding agreement with the City of Inglewood.

Status/Action Metro and the City of Inglewood are finalizing an agreement which is anticipated to be executed in the near future.

Concern No. 2: Timely future reviews of WSCC final design submittals by City of Los Angeles.

<u>Status/Action</u> There are a few remaining final design submittals that are required to be submitted by the Contractor for City of Los Angeles review. Metro will continue to take action and strictly monitor the review comments from the agencies. *Ensure WSCC submittals are coordinated, quality checked and submitted within necessary timeline for reviews.*

Concern No. 3: Design-builders construction schedule

<u>Status/Action</u> This month the project schedule reflects no change in project status. Metro is reporting a projected 190 calendar day delay to the design-builder's contract substantial completion milestone (forecast 2019).

Concern No. 4: Cost and schedule impacts on the Crenshaw/LAX Transit Project to accommodate the future Airport Metro Connector Transit Station at 96th Street.

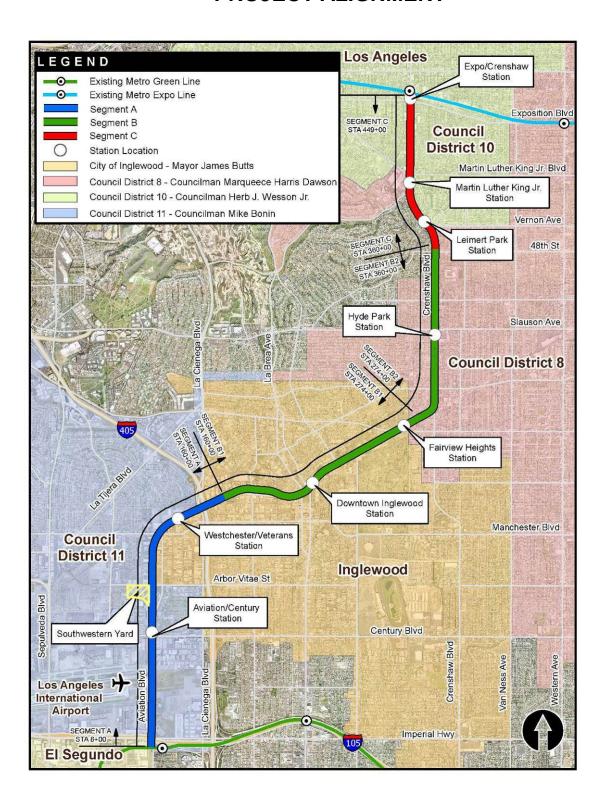
Status/Action In May 2015, the Metro Board approved Design Option 3 implementing changes required to the design-builder's design to accommodate the ultimate track configuration required for the future Airport Metro Connector Transit Station. The Metro Board approved \$7,400,000 for the direct construction costs for FY17, which was required to commence construction to prevent any additional schedule delay impact to the Project. The design submittal milestones to date have been completed earlier than planned. Metro continues to work with the design-builder to minimize impacts to construction. Metro is continuing to negotiate with the design-builder on the total time the work will take to accommodate the future Airport Metro Connector Transit Station. Any modifications to WSCC for this scope of work are not funded by the Crenshaw/LAX Transit Project but are funded by other funding sources.

MANAGEMENT ISSUES (Continued)

Concern No. 5: Design-builder's ability to meet their planned tunneling productivity rate.

Status/Action After an initial learning curve the contractor plans to achieve a rate of 74 feet per work day tunneling toward MLK Station and 93 feet per work day tunneling from MLK Station to Leimert Park Station. Thru the end of June 2016, the contractor is achieving an average of 35 feet per work day. Metro is closely monitoring the daily production rate and the contractor is aware that they need to mitigate any of their delay in a timely manner.

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

	Milestone Date	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
C0988 - TBM Mining & Segment Installation - 438+25.5 to 405+78 - SB	26 - Jul - 16						
C0988 - Prepare & Submit 480-Volt Switchboard Shop Drawings - Stations	26 - Jul - 16						
C0988 - TBM Mining & Segment Installation - 438+25.5 to 405+78 - SB	26 - Jul - 16						
C0988 - F/R/P Superstructure - Manchester Bridge	27 - Jul - 16						
C0988 - WSCC Submits to Metro - 100% Design - Pkg A.5	28 - Jul - 16	00 00 10 10 10 00 00 10 10 10					
C0988 - Set-up Form System & Pour Track Foundation - La Brea Bridge	02 - Aug - 16		100 PM 1				
C0988 - Frame 2: F/R/P Superstructure - Aerial Structure #1	03 - Aug - 16						
C0988 - TBM Breakout @ MLK Station - SB & Mine 401+55 to 401+05	12 - Aug - 16						
C0988 - Pour Foundations & Slabs - TC&C #7	19 - Aug - 16		-				
C0988 - Pump Stations - Cut & Cover #1 - UG #1	23 - Aug - 16						
C0988 - Fabricate Precast Segments & Store Off-Site	30 - Aug - 16						
C0988 - ATC: Factory Acceptance Test @ A01 (6+00 to 43+50)	07 - Sep - 16			-			
C0988 - Pour foundation Slabs - TPSS-06	07 - Sep - 16			W. C. 111			
C0988 - Fabricate 100% of Artwork Panels- Florence / West	16 - Sep - 16						
C0988 - Pour Concourse Slab 2 - Phase 2 / Stage 10 - MLK	20 - Sep - 16						
C0988 - Procure/Deliver ATC Enclosures & Components	21 - Sep - 16			MATERIAL PROPERTY.			
C0991 - Main Shop Building Construction Begins	26 - Sep - 16			\triangle			
C0988 - TPSS: Review/Approve Traction Power System SIT	05 - Oct - 16				10 to		
C0988 - Mfgr/Test/Ship Complete Comm Racks - MGL TCCB & ROC	07 - Oct - 16						
C0988 - Span 1: F/R/P Superstructure - I-405 Bridge	21 - Oct - 16						
C0988 - Pull Ductbank Wire - La Brea Bridge	25 - Oct - 16				10.00 Dollar		
C0991 - Complete Design	26 - Oct - 16				\triangle		
C0988 - Pour Concourse Upper Walls - Phase 3 / Stage 4A - MLK	27 - Oct - 16				100 Person		
C0988 - Fabricate & Delivery of Special Trackwork	20 - Nov - 16	_					_
C0988 - OCS: Purchase/Deliver Hardware & Insulators	30 - Nov - 16						
C0988 - PSS-09 Permanent Power Drop - LADWP - Utility Terminations and Cable Testing	06 - Dec - 16						MACH DENEAL
C0988 - Procure / Deliver Temp Test Center COM Equipment	08 - Dec - 16						
C0988 - Setup TCP - Manchester & Aviation - Phase 1	12 - Dec - 16						WEST 2000

"A" following date is actual and completed

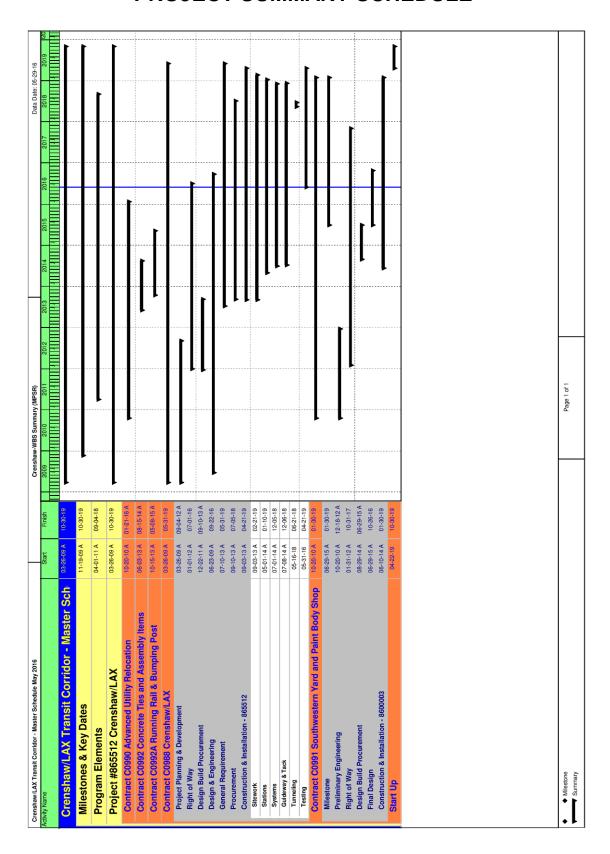
MTA Staff

MTA Board Action

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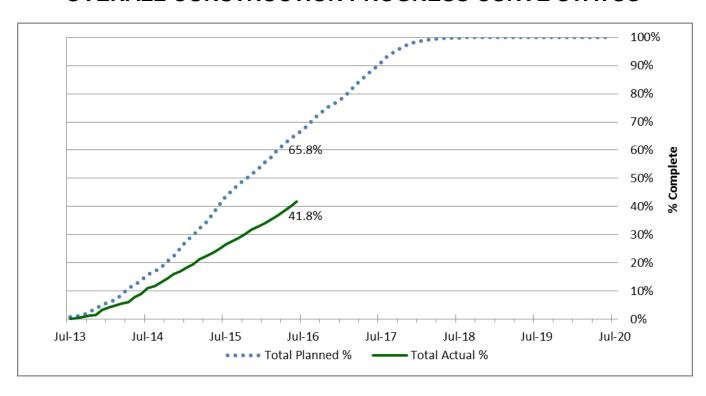
PROJECT SUMMARY SCHEDULE



SCHEDULE MEASUREMENTS

		Change from	
		Last	
	Status	Period	Comment
Current Revenue Service:	10/30/2019	None	
Forecast Revenue Service:	10/30/2019	None	
TIFIA Revenue Service:	10/30/2019	None	
Final Design Progress:			
Contract C0988	97.0%	0.0%	Behind Schedule
Contract C0990	100%	None	Design Completed
Contract C0991	61.6%	1.2%	On Schedule
Contract C0992	100%	None	Design Completed
Contract C0992A	100%	None	Design Completed
Construction Contracts Progress:			
Contract C0988	35.7%	1.7%	Behind Schedule
Contract C0990	100%	None	Substantially Completed
Contract C0991	0.8%	0.0%	Construction Started May 2016
Contract C0992	100%	None	Substantially Completed
Contract C0992A	100%	None	Substantially Completed

OVERALL CONSTRUCTION PROGRESS CURVE STATUS



The actual overall construction progress is 41.8% versus a planned progress of 65.8% through June 2016. The progress curves represent a composite percentage for the physical progress of work performed to complete the project's construction contracts, including the major design-build (C0988), advance utility relocation (C0990), and two equipment procurement contracts-concrete ties (C0992) and running rail (C0992A).

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

MAJOR EQUIPMENT DELIVERY STATUS

Tunnel Boring Machine

WSCC, the design-builder for Contract C0988, will procure the tunnel boring machine (TBM) and equipment. Following are the major milestone dates for TBM:

	Baseline	May-16	Jun-16	Monthly Variance
Submit Final Design Details for TBM	01/03/14	04/01/15A	04/01/15A	
Fabricate & Deliver TBM	09/22/14	11/21/14A	11/21/14A	
Procure & Deliver TBM Rolling Stock & Accessories	06/23/14	03/02/15A	03/02/15A	
TBM SB Tunnel Launch at Expo	04/28/15	04/27/16A	04/27/16A	
TBM SB Break through at Vernon	09/17/15	09/09/16	09/09/16	0
TBM NB Tunnel Launch at Expo	10/29/15	10/21/16	10/21/16	0
TBM NB Break through at Vernon	03/21/16	02/27/17	02/27/17	0

Light Rail Vehicles

The Board approved exercising Option 1 of Contract P3010 with Kinki Sharyo International to provide light rail vehicles (LRV) for the Crenshaw/LAX project. The total number of vehicles in the option is 28 which include 20 LRVs for the Crenshaw/LAX project and two additional cars for spares.

The first two pilot cars for the initial order of cars (non-option) were ready on July 7, 2015; then four cars were planned to be delivered every month starting from Aug 2015 with the last group of cars to be delivered in Jan 2017. However, the production rate of four cars per month has only recently been achieved. The contractor has to achieve a higher production rate to complete production of base work by January 2017.

Mobilization of Option 1 will commence after completion of the initial order. First delivery of Option 1 cars will be February 2017 and the last of the cars in September 2017.

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. Plan is to initiate change notice to the existing TVM contractor by November 2016 with a planned notice to proceed by August 2017.

Concrete Ties and Assembly Items

All 19,936 concrete ties have been delivered to the job.

Running Rail & Bumping Post

All required running rail & bumping post have been delivered to the job site.

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

Item	Initiate Procurement	Submittal Needed By	Delivery	Installation Date
Tunnel Boring Machine	Executed	Complete	Completed	9/1/2015
Stations- Elevators	Executed	3/25/2015	Pits 10/5/15	Pits 10/5/15
Stations- Escalators	Selected	5/22/2015	7/1/2016	10/5/2016
Track- Special Trackwork	Selected	3/21/2015	10/26/2015	11/12/2015
Track- Restraining Rail and Grade Crossing Ties	4/13/2015	5/1/2015	2/10/2016	4/1/2016
TPSS- Substation 1	4/8/2015	5/23/2015	4/2/2016	6/1/2016
TPSS- Substation 2	6/8/2015	7/23/2015	6/2/2016	8/1/2016
TPSS- Substation 3	8/10/2015	9/24/2015	8/4/2016	10/3/2016
TPSS- Substation 5	10/8/2015	11/22/2015	10/2/2016	12/1/2016
TPSS- Substation 6	1/7/2016	2/21/2016	1/1/2017	3/2/2017
TPSS-Substation 7	3/7/2016	4/21/2016	3/2/2017	5/1/2017
TPSS- Substation 8	1/7/2016	2/21/2016	1/1/2017	3/2/2017
TPSS- Substation 9	12/9/2016	1/23/2016	12/3/2016	2/1/2017
Train Houses	3/1/2015	5/30/2015	3/27/2017	5/1/2017
OCS Poles	3/1/2015	5/30/2015	6/27/2016	8/1/2016
Traffic Signal Poles	3/15/2015	4/15/2015	8/1/2015	6/1/2015
LED Lighting Figures	3/15/2015	4/15/2015	8/1/2015	3/1/2016
		4/7/2016	12/31/2016	
Jet Fan- UG3	5/5/2016			3/1/2017
Jet Fan- UG4	11/5/2016	1/4/2017	7/3/2017	9/1/2017
Artwork- Century	1/6/2016	3/6/2016	9/2/2016	11/1/2016
Artwork- Hindry	1/6/2016	3/6/2016	9/2/2016	11/1/2016
Artwork- La Brea	11/6/2015	1/5/2016	7/3/2016	9/1/2016
Artwork- West	4/7/2016	6/6/2016	12/3/2016	2/1/2017
Artwork- Slauson	10/5/2016	12/4/2016	6/2/2017	8/1/2017
Artwork-Vernon Concourse	2/4/2017	4/5/2017	10/2/2017	12/1/2017
Artwork- Vernon Plaza	10/5/2016	12/4/2016	6/2/2017	8/1/2017
Artwork- MLK Concourse	2/4/2017	4/5/2017	10/2/2017	12/1/2017
Artwork- MLK Plaza	4/7/2017	6/6/2017	12/3/2017	2/1/2018
Artwork- Expo Concourse	7/5/2017	9/3/2017	3/2/2018	5/1/2018
Artwork- Expo Plaza	7/5/2017	9/3/2017	3/2/2018	5/1/2018
TVM- Century	N/A	7/5/2015	1/1/2016	3/1/2016
TVM- Hindry	N/A	4/5/2016	10/2/2016	12/1/2016
TVM- La Brea	N/A	9/3/2016	3/2/2017	5/1/2017
TVM- West	N/A	7/4/2016	12/31/2016	3/1/2017
TVM-Slauson	N/A	11/3/2016	5/2/2017	7/1/2017
TVM- Vernon	N/A	2/3/2017	8/2/2017	10/1/2017
TVM- MLK	N/A	3/6/2017	9/2/2017	11/1/2017
TVM- Expo	N/A	5/6/2017	11/2/2017	1/1/2018
Trees and Landscaping- La Brea	8/6/2015	10/5/2015	4/2/2016	6/1/2016
Irrigation and Landscape Planting- MLK	2/4/2017	4/5/2017	10/2/2017	12/1/2017
Landscape- West Park and Ride	8/6/2015	10/5/2015	4/2/2016	6/1/2016
Traffic Signal Controllers- Market and Florence	9/3/2014	11/2/2014	5/1/2015	6/30/2015
Traffic Signal Controllers- Locust Bus Bay and Florence	9/10/2014	11/9/2014	5/8/2015	7/7/2015
Traffic Signal Controllers- 111th and Aviation	3/11/2015	5/10/2015	11/6/2015	1/5/2016
Traffic Signal Controllers- Imperial and Aviation	11/26/2015	1/25/2015	7/23/2016	9/21/2016
Traffic Signal Controllers- Florence and High	4/17/2015	6/16/2015	12/13/2015	2/11/2016
Traffic Signal Controllers- Centinela and Florence	5/8/2015	7/7/2015	1/3/2016	3/3/2016
Traffic Signal Controllers- West and 71st	5/8/2015	7/7/2015	1/3/2016	3/3/2016
Traffic Signal Controllers- Hindry and Florence	1/1/2016	3/1/2016	8/28/2016	10/27/2016
Traffic Signal Controllers- La Brea and Florence	2/6/2016	4/6/2016	10/3/2016	12/2/2016
Traffic Signal Controllers- 104th and Aviation	9/30/2015	11/29/2015	5/27/2016	7/26/2016
Traffic Signal Controllers- Touth and Aviation Traffic Signal Controllers- Oak and Florence	3/5/2015	5/4/2015	10/31/2015	12/30/2015
Traffic Signal Controllers- Cedar and Florence	3/5/2015	5/4/2015	10/31/2015	12/30/2015
	3/5/2015	5/4/2015	10/31/2015	12/30/2015
Traffic Signal Controllers- Eucalyptus and Florence				<u> </u>
Traffic Signal Controllers- Ivy Florence and Cable	3/5/2015	5/4/2015	10/31/2015	12/30/2015
Traffic Signal Controllers - Century and Aviation	3/5/2015	5/4/2015	10/31/2015	12/30/2015
Traffic Signal Controllers- La Cienega and Florence	8/1/2016	5/4/2015	10/31/2015	12/30/2015
SF6 Gas Insulated Switches * Metro top/bottom	3/13/2015	6/1/2015	8/2/2016	10/1/2016

CRITICAL PATH NARRATIVE

Critical Path:

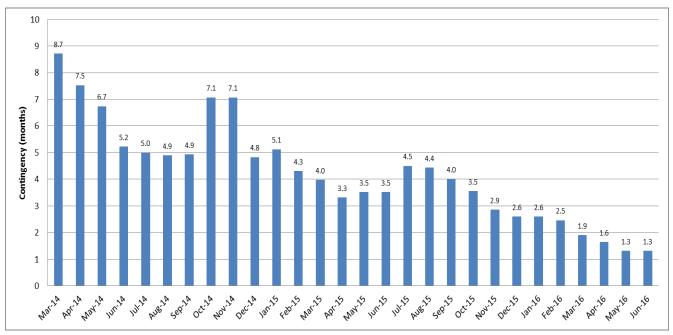
The longest path to project substantial completion begins with final design of the Design/Build Contract #C0988 Crenshaw/LAX Transit Corridor.

The most critical and longest path starts with the Expo Station support of excavation (SOE) and decking, excavation & invert construction; TBM mining operation; cross passage excavation, tunnel invert and walkway construction; track and system installation, while the MLK station SOE and decking, excavation & invert construction, OCS/Traction power and Train Control/Communication System installation follow closely as the secondary critical path.

Critical work concludes with phase I systems integration testing by the C0988 contractor, phase 2 systems integration testing by MTA and then pre-revenue operations.

The current critical path indicates Milestone 1 - Contract Substantial Completion date is April 21, 2019, which is 190 calendar days behind the current contract date.

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. The change of LOP Contingency is due to design-builder reforecast of their substantial completion milestone.

Metro did not receive any schedule update from the contractor for this month due to schedule re-baseline of their overall schedule; therefore we are maintaining the same contingency drawn down for this period.

The total contingency remaining is 1.3 months.

PROJECT COST STATUS

SCC	DESCRIPTION	ORIGINAL	CURRENT BUDGET		COMMI	TMENTS	EXPENDITURES		CURRENT FORECAST		CURRENT BUDGET/
CODE	DESCRIPTION	BUDGET	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	FORECAST VARIANCE
10	GUIDEWAYS	471,335,000	-	452,500,001	333,731	443,578,773	29,456,433	192,387,189	-	450,354,375	(2,145,626)
20	STATIONS	153,906,000	-	316,050,000	1,796,646	303,573,366	2,935,804	128,931,688	-	315,050,000	(1,000,000)
30	SUPPORT FACILITIES SOUTHWEST YARD	66,673,000	-	73,245,544	-	71,053,330	3,752,562	15,661,667	-	71,164,000	(2,081,544)
40	SITEWORK\SPECIAL CONDITIONS	235,576,000	-	348,565,999	4,844,340	372,358,317	6,312,773	255,870,162	4,649,203	382,118,552	33,552,553
50	SYSTEMS	125,132,000	-	169,311,000		152,363,920	2,903,294	6,385,667	-	169,436,000	125,000
	CONSTRUCTION SUBTOTAL (10-50)	1,052,622,000	-	1,359,672,544	6,974,717	1,342,927,707	45,360,865	599,236,372	4,649,203	1,388,122,927	28,450,383
60	RIGHT-OF-WAY	132,294,000	-	127,400,000	1,044,553	123,482,584	443,802	120,251,990	-	127,490,000	90,000.00
70	LRT VEHICLES	87,780,000	-	82,100,000		82,050,901	-	11,656,698	-	83,571,544	1,471,544
80	PROFESSIONAL SERVICES	273,147,000	-	300,093,178	2,850,254	286,360,568	7,728,864	236,680,482	583,580	345,523,143	45,429,965
	SUBTOTAL (10-80)	1,545,843,000	-	1,869,265,722	10,869,524	1,834,821,760	53,533,532	967,825,541	5,232,783	1,944,707,614	75,441,892
90	UNALLOCATED CONTINGENCY	177,157,000	,	162,734,278			-		(5,232,783)	87,292,386	(75,441,892)
	TOTAL PROJECT 865512 (10-100)	1,723,000,000	-	2,032,000,000	10,869,524	1,834,821,760	53,533,532	967,825,541	-	2,032,000,000	•
	ENVIRONMENTAL/PLANNING - 405512	5,526,150	-	5,526,150		5,526,150		5,526,150	-	5,526,150	-
	ENVIRONMENTAL/PLANNING - 465512	20,473,850	-	20,473,850	-	20,023,237	-	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	10,869,524	1,860,371,147	53,533,532	993,374,929		2,058,000,000	

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH 02-JUL-2016.

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 during May 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 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

PROJECT COST ANALYSIS (Continued)

\$150.2 million out of a new total of \$307.2 million adopted by the Board. 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 amount of funding available for the Crenshaw/LAX Transit Project, excluding the Southwestern Yard Project \$150.2 million 49% allocation and Environmental/Planning budget of \$26.0 million, has been revised to \$1,881.8 million.

Current Forecast:

The total project current forecast is \$2,058 million. Within the SCC codes there was a reallocation of forecast for SCC-30 shifting final design cost for the Southwestern Yard and design-builder cost-to-SCC-80 per FTA guidelines.

Commitments:

The commitments are cumulative through July 2, 2016. The total commitments increased by \$10.9 million this period primarily due to the following:

- SCC-10 (Guideways) has increased by \$0.3 million due to executed modifications associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-20 (Stations, Stops, Terminals, Intermodal) has increased by \$1.8 million due to executed modifications associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-40 (Sitework and Special Conditions) has increased by \$4.8 million due to executed modifications associated with design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-60 (Right-of-Way) has increased \$1.1 primarily for real estate appraisal and acquisition. The total commitment of \$123.5 million includes \$53.2 million for the Southwestern Yard 49% allocation.
- SCC-80 (Professional Services) has increased of \$2.9 million due to executed contract modifications with the design-build Contract C0988 Crenshaw/LAX Transit Corridor, project administration, legal services and third party coordination by Los Angeles City Departments. The total commitment of \$286.4 million includes \$20.1 million for the Southwestern Yard 49% allocation.

The \$1,860.4 million in commitments to date represents 90.4% of the current budget.

Expenditures:

The expenditures are cumulative through July 2, 2016. The total expenditures increased by \$53.5 million this period due to the following:

- SCC-10 (Guideways) has increased by \$29.5 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-20 (Stations, Stops, Terminals, Intermodal) has increased by \$2.9 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.

PROJECT COST ANALYSIS (Continued)

- SCC-40 (Sitework and Special Conditions) has increased by \$6.3 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor, third party utility relocation with Department of Water & Power and Metro art program.
- SCC-50 (Systems) has increased \$2.9 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-60 (Right-of-Way) has increased \$0.4 primarily for real estate appraisal and relocation. The total expenditure of \$120.3 million includes \$52.6 million for the Southwestern Yard 49% allocation.
- SCC-80 (Professional Services) has increased by \$7.7 million for costs associated with Contract C0988 Crenshaw/LAX Transit Corridor, Contract C0991 Division 16: Southwestern Yard (Design/Build), Engineering and Design Contract E0117, Metro project administration, IPMO field office lease and utilities, construction management support services, legal services, design coordination and oversight by Caltrans District 07, third party coordination by Los Angeles City Departments, labor compliance monitoring, material lab testing, environmental consultant and miscellaneous specialty services. The total expenditure of \$236.7 million includes \$10.4 million for the Southwestern Yard 49% allocation.

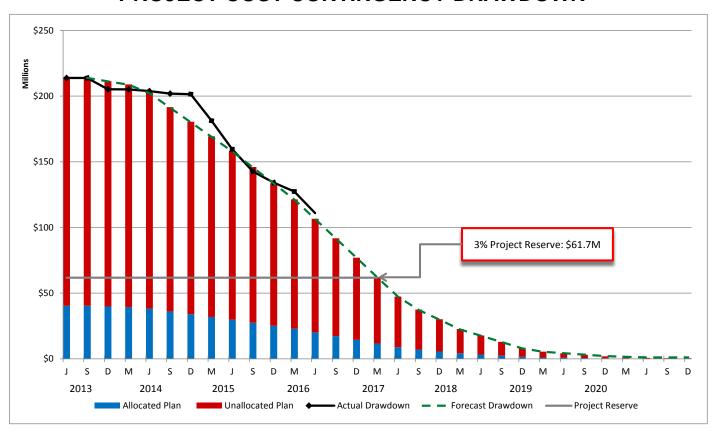
The \$993.4 million in expenditures to date represents 48.3% of the current budget.

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 design-builder (Contract C0988).

С	C0988 NON-CRENSHAW/LAX TRANSIT PROJECT FUNDED SCOPE OF WORK											
	DESCRIPTION	ORIGINAL	CURREN	T BUDGET	COMMITMENTS		EXPENDIT URES		CURRENT FORECAST		FORECAST	
DESCRIPTION		BUDGET	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	VARIANCE	
40	05556 SYSTEMWIDE TRANSIT PLANNING	139,236	-	139,236	-	139,236	3,504	135,732	-	139,236	-	
2	10090 FARE GATE PROJECT	2,310,000	-	2,482,746	-	2,482,746	-	172,746	-	2,482,746	-	
40	60303 AIRPORT METRO CONNECTOR	366,400	-	3,001,555	167,334	2,093,386	74,505	2,000,557	-	3,001,555	-	
50	00013 C/LAX LAWA SCOPE OF WORK	1,575,362	-	1,575,362	-	531,125	-	408,712	-	1,575,362	-	
	TOTAL	4,390,998	-	7,198,899	167,334	5,246,493	78,009	2,717,748	-	7,198,899	-	

PROJECT COST CONTINGENCY DRAWDOWN



Through 02-Jul-2016

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.

The project contingency drawdown curve is based on an October 2019 revenue service date.

PROJECT CONTINGENCY DRAWDOWN ANALYSIS (Continued)

There has been a cumulative drawdown of \$102,899,967 or 48.1% for both allocated and unallocated contingency through June 2016.

- The unallocated contingency decreased by \$5,232,783 due to executed contract modifications for the design-build contract C0988 Crenshaw/LAX Transit Corridor and third party coordination work order authorization with City of Los Angeles.
- Allocated contingency decreased by \$2,317,514 due to executed contract modifications for the design-build contract C0988 Crenshaw/LAX Transit Corridor.

PROJECT COST CONTINGENCY (through 02-July-2016) UNITS IN DOLLARS											
	Original				Remaining						
	Contingency	Previous	Current	To-Date	Contingency						
	(Budget)	Period	Period		(Forecast)						
Unallocated Contingency	173,500,000	(80,974,831)	(5,232,783)	(86,207,614)	87,292,386						
Allocated Contingency	40,366,792	(14,374,840)	(2,317,514)	(16,692,354)	23,674,438						
Total Contingency	213,866,792	(95,349,670)	(7,550,297)	(102,899,967)	110,966,825						

DISADVANTAGED BUSINESS ENTERPRISE (DBE) STATUS

Contract C0988 Crenshaw/LAX Transit Corridor Design-Build

(Reported Data as of June 15, 2016)

• DBE Goal – Design 20%

Current DBE Commitment \$20,324,963 (19.55%)

• Current DBE Participation \$24,080,308 (25.56%)

• Twenty (20) Design subcontractors have been identified to-date

• DBE Goal – Construction 20%

• DBE Commitment \$236,116,671 (20%)

Current DBE Commitment \$148,890,855 (12.60%)

Current DBE Participation \$116,646,616 (26.08%)

Seventy-nine (79) Construction subcontractors have been identified to-date.

PROJECT LABOR AGREEMENTS (PLA) STATUS

Contract C0988 Crenshaw/LAX Transit Corridor Design-Build

(Reported Data as of May, 2016)

Targeted Worker Goal –
 40.00%

Targeted Worker Current Participation - 58.65%

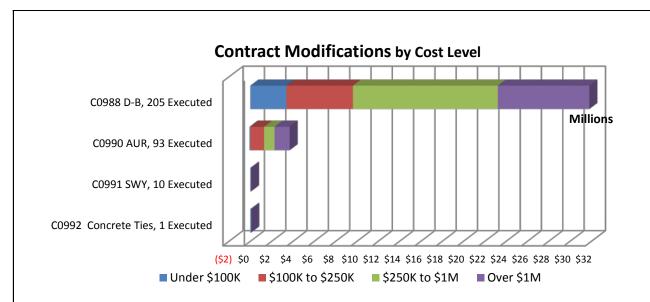
Apprentice Worker Goal - 20.00%

Apprentice Worker Current Participation - 18.94%

Disadvantaged Worker Goal - 10.00%

Disadvantaged Worker Current Participation 11.64%

SUMMARY OF CONTRACT MODIFICATIONS



	C0988			C0990		C0991	C0992		
	20	205 Executed		205 Executed 93 Executed		10 Executed		1 Executed	
Under \$100K	\$	3,371,405	\$	(70,251)	\$	60,960	\$	81,738	
\$100k to \$250K	\$	6,248,452	\$	1,280,184	\$	-	\$	-	
\$250K to \$1M	\$	13,600,138	\$	984,662	\$	-	\$	-	
Over \$1M	\$	8,586,736	\$	1,417,202	\$	-	\$	-	
Total Contract MODs	\$	31,806,731	\$	3,611,727	\$	60,960	\$	81,738	
% of Contract MODs		2.50%		46.14%		0.04%		3.78%	

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

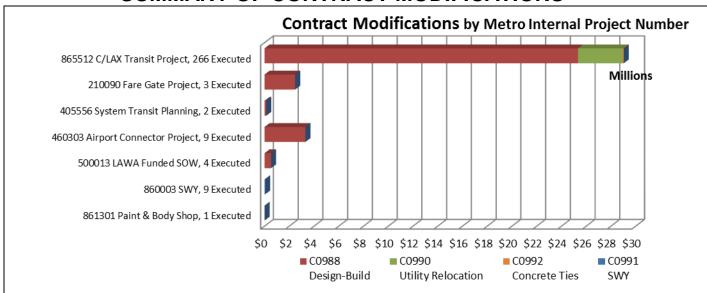
Two hundred and five (205) changes with a total value of \$31.81 million have been executed since award of Contract C0988. There are an additional thirty-three (33) changes with a total value of \$1.35 million pending the administrative approval process.

Ninety-three (93) changes with a total value of \$3.61 million have been executed for completed Contract C0990.

Ten (10) changes with a total value of \$60,960 have been executed since award of Contract C0991. There are an additional nine (9) changes with a total value of \$1.3 million credit pending the administrative approval process.

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

SUMMARY OF CONTRACT MODIFICATIONS



	865512	210090	405556	460303	500013	860003	861301
	Executed	Executed	Executed	Executed	Executed	Executed	Executed
C0988 - QTY	187	3	2	9	4	0	0
C0998 - \$	\$ 25,342,510	\$ 2,482,746	\$ 139,236	\$ 3,311,024	\$ 531,216	\$ -	\$ -
C0990 - QTY	78	0	0	0	0	0	0
C0990 - \$	\$ 3,611,797	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
C0991 - QTY	0	0	0	0	0	9	1
C0991 - \$	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 52,960	\$ 8,000
C0992 - QTY	1	0	0	0	0	0	0
C0992 - \$	\$ 81,738	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total - QTY	266	3	2	9	4	9	1
Total - \$	\$ 29,036,044	\$ 2,482,746	\$ 139,236	\$ 3,311,024	\$ 531,216	\$52,960	\$ 8,000

Two hundred and sixty six (266) changes with a total value of \$29.04 million have been executed for Project 865512 Crenshaw/LAX Transit Project. There are an additional thirty-three (33) changes with a total value of \$1.35 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.

Two (2) changes with a value of \$0.14 million have been executed for Project 405556 System Transit Planning.

Nine (9) changes with a value of \$3.31 million have been executed for Project 460303 Airport Metro Connector Project.

Four (4) changes with a total value of \$0.53 million have been executed for Project 500013 Crenshaw/LAX LAWA Statement of Work.

Nine (9) changes with a value of \$52,960 have been executed for Project 860003 Southwestern Yard. There are an additional six (6) changes with a total credit of \$1.3 million pending approval.

One (1) change with a value of \$8,000 has been executed for Project 861301 Southwestern Yard Paint and Body Shop.

FINANCIAL/GRANT STATUS

SOURCE	(A) ORIGINAL BUDGET	(B) TOTAL FUNDS	(C) TOTAL FUNDS	(D) (D/B) COMMITMENTS		(E) (E/B) EXPENDITURES		(F) (F/B) BILLED to FUNDING SOURCE	
		ANTICIPATED	AVAILABLE	\$	%	\$	%	\$	%
FEDERAL - CMAQ	68.2	54.0	54.0	54.0	100%	54.0	100%	54.0	100%
EDERAL - SECTION 5309 BUS CAPT	8.6	8.6	8.6	8.6	100%	8.6	100%	8.6	100%
FEDERAL - REGIONAL STP	20.0	120.9	73.7	120.9	100%	73.7	61%	40.0	33%
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%
FEDERAL REGIONAL IMPROV PROG	34.3	34.4	0.0	34.4	100%	0.0	0%	0.0	0%
STATE REGIONAL IMPROVEMENT PROG	2.2	2.2	2.2	2.2	100%	2.2	100%	2.2	100%
STATE PPM	0.178	0.178	0.178	0.178	100%	0.178	100%	0.178	100%
STATE PROP 1B PTMISEA	201.2	128.6	128.6	128.6	100%	128.6	100%	128.6	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%	480.1	88%	480.1	88%
MEASURE R	661.1	661.1	502.8	661.1	100%	159.9	24%	137.4	21%
OTHER FUNDS*	52.4	187.5	13.0	13.0	7%	13.0	7%	13.0	7%
PROP C 25% HIGHWAY	148.9	189.5	3.7	176.5	87%	3.7	2%	3.7	2%
PROP C 40% DISCRETIONARY	0.0	10.2	0.0	0.0	0%	0.0	0%	0.0	0%
PROP A 35% RAIL CAPITAL	4.8	50.4	4.9	50.4	0%	4.9	0%	4.9	10%

NOTE: Expenditures are cumulative through June 2016.

TOTAL

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

1,749.0

2,058.0

1,402.0

1,860.4

89.9%

993.4

45.7%

937.2 45.5%

Total Funds Anticipated based on Board approved June 2013 Revised Funding

^{*} 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. Metro will apply to FTA for a grant application of \$20.0 M during the second quarter of FY17.

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: \$502.753M has been allocated to the project through FY2016. Funds are available for drawdown.

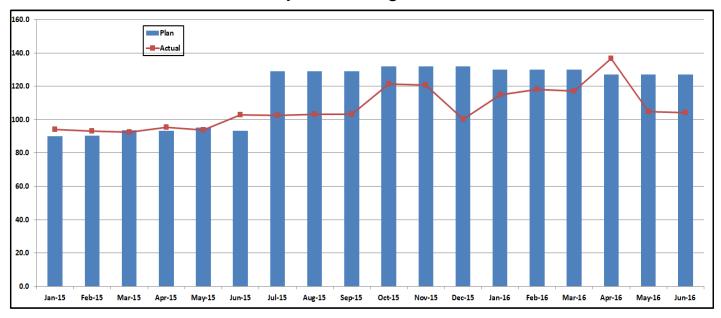
OTHER FUNDS: City of LA: Based on the funding agreement between Metro and the City of LA. \$13M is available for drawdown through FY2016.

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.

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 2016.

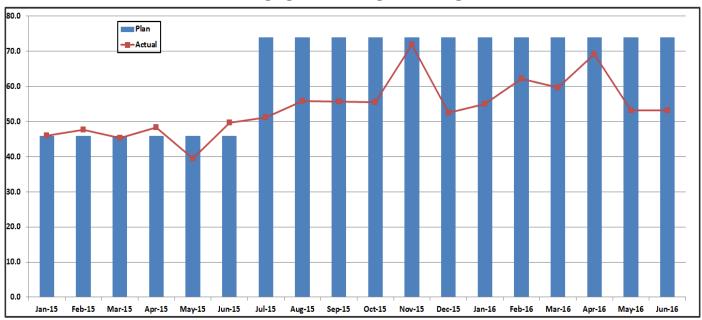
TOTAL PROJECT STAFFING

With the start of the 2016 fiscal year in July; the staffing for the Southwestern Yard Project is also included along with the Crenshaw/LAX Project for Metro and the Construction Management and Engineering Services consultants.

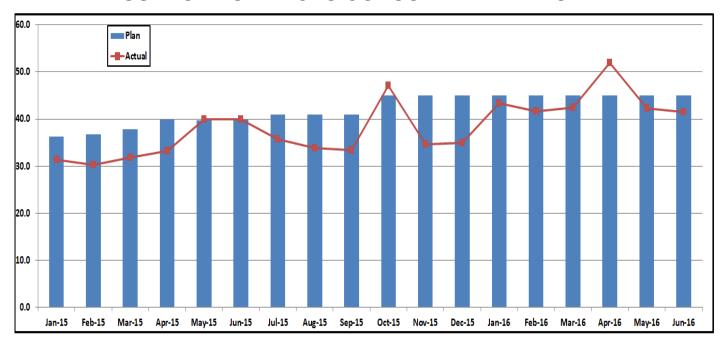
The planned staffing includes 11 new positions that were authorized by the Board in July 2015. Actual staffing will continue to be less than plan until new positions are filled throughout fiscal year 2016 and planned construction work increases with corresponding increases is staffing requirements.

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

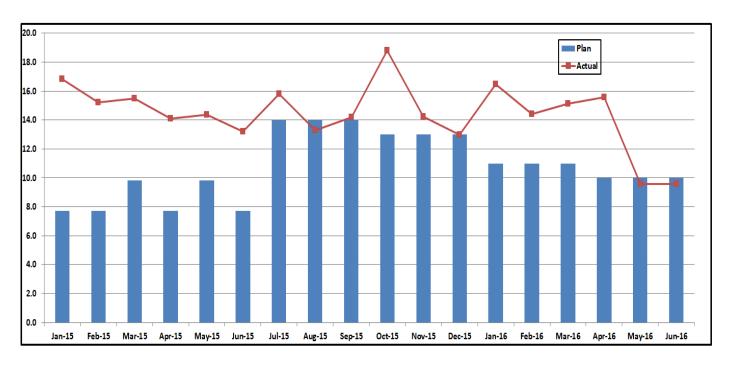
STAFFING STATUS (Continued) METRO STAFFING – FTES



CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONSULTANT – FTES



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 Corrido	or (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	10		10	10	1	8		9
Subtotal Parcels	32	31	1	31	31	11	19	12	30
Crenshaw Subdivision Addit	ional Parcels:								
Full Takes									
Part Takes	1	1		1					
TCE									
Subtotal Parcels:	1	1		1					
Total Crenshaw Parcels	33	32	1	32	31	11	19	12	30
Harbor Subdivision									
Full Takes	15	14		15	15	8	7	12	15
Part Takes (PT or SE)	18	16	2	18	17	6	10		14
TCE	3	2	1	2	2		2		2
Subtotal Parcels	36	32	3	35	34	14	19	12	31
Harbor Subdivision Addition	al Parcels:		,	,		,			
Full Takes	3	2	1	1					
Part Takes	4	2	2	2	2	2			1
TCE	3	3		3	3	2			2
Subtotal Parcels:	10	7	3	6	5	4			3
Total Harbor Subdivision Parcels	46	39	6	41	39	18	19	12	34
Total CR/HS Parcels:	79	71	7	73	70	29	38	24	64
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	7	81	78	33	42	31	72

- All critical parcels have been turned over to the Contractor.
- Only two of the original 76 acquisitions remain to be turned over to the Contractor. Anticipate having possession of these parcels by the end of summer.
- The project has added eight parcels to the list of required properties. Three
 of these acquisitions are complete.

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.
- WSCC Quality Control issued two (2) Nonconformance Reports (NCR's) during the month including an incorrect Ring Build and tow conduits that were not included in the Frame 2 concrete pour for the Aviation/Century Bridge work.
- WSCC Quality Control issued two Potential Nonconformance Reports for damage to a manhole grade ring and change of slope to a RCP at the La Brea/Florence intersection.
- Metro closed two Nonconformance Reports that were created in 2015 for Expo repairs.
- Metro and WSCC Quality Assurance performed surveillances at the CSI Hanson Plant.
- HNTB Design Quality Control reviewed 24 NDC's, 4 RFI's and 8 Design Package Reports.
- Metro Quality approved the resume for a WSCC QC Inspector.
- Metro Quality added a Senior Quality Engineer to the project staff.
- Metro Independent Testing Lab conducted verification testing of MSE Wall 17 soils and structural weld inspection oversight.

ENVIRONMENTAL STATUS

C0988 Crenshaw/LAX Transit Corridor Design Build

- Reviewed and commented on the following Contractor Submittals:
 - Weekly Noise Monitoring Data for station and alignment construction
 - Green Construction Plan Monthly Report
 - Sustainability Plan Monthly Reports
 - Weekly Storm Water Pollution Prevent Plan (SWPPP) inspection reports
 - Weekly Fugitive Dust Inspection Reports
 - Various Construction Work Plans
- Monitoring groundwater dewatering activities at the Expo and MLK Station excavations.
 The Second Quarter Monitoring Report is due to the RWQCB in July 2016.
- Metro obtained a Waste Discharge Permit (WDR) for the Regional Water Quality Control Board (RWQCB) for the injection of chemical grout into the groundwater at the Expo Station and MLK Station. Submitted the Monthly Monitoring Report to the RWQCB in May 2016.
- Conducted Contractor Cultural Awareness Training.
- Coordinated cultural monitoring (Archaeological, Paleontological and Native American Monitoring). Several fossils were recovered for the excavation areas at Vernon Station and Underground Guideway #4.
- Completed removal of asbestos containing material (transite pipes) encountered along the Harbor Subdivision in Inglewood.

CONSTRUCTION RELATIONS STATUS

- Metro and WSCC continue to work on the implementation of the Temporary Construction Parking Plan.
- Continue to report TBM progress through Metro social media channels.
- Assisted People's Coordinated Services with continued operations during the 21 day closure of the frontage road in Park Mesa Heights.
- Continue to work with businesses and residents interested in the Park Mesa At-Grade segment including the Baldwin Hills Estates HOA and Dulan's Restaurant.
- Conducted a community walk and issued corrections to WSCC for civil work along Crenshaw Blvd.
- Coordinated the creation of a Hyde Park Station Art Community Advisory Committee.
- Distributed construction notices in the UG3 Park Mesa area for k-rail reconfiguration.
- Conducted outreach to key stakeholders in the City of Inglewood for the closure of Century Blvd. during the removal and replacement of falsework.
- Continue to work with Metro Bus Operations to ensure that bus stops between 60th and 67th Street are operational during construction.
- The CLC Economic Development workgroup met on June 28th with a presentation from Metro Joint Development.

SYSTEMWIDE DESIGN AND ART PROGRAM STATUS

- Responded to RFIs and submittal drawings.
- Worked with Design Builder to refine artwork technical requirements, schedule and budget.
- Participated in Systemwide Design integration reviews and presentations.
- Provided art program update to community stakeholders.
- Worked with artists to refine designs for submission to fabricators.
- Engaged in an online social media campaign presenting the artwork for the stations on the Source, Facebook and Instagram.
- Facilitated the fabricator selection process for the pavilion entrance glass artwork for three underground stations.
- Provided porcelain enamel steel artwork submissions for one station to design builder for fabrication.
- Facilitated artist talk event at Roger's Park to introduce the work of three Inglewood stations artists.
- Facilitated artist talk and workshop with two of the underground stations artists for the students at Whitney Young Continuation High School.

SAFETY & SECURITY STATUS

- Participated in weekly progress meetings with WSCC's Management and Construction Management Team to discuss safety/security/quality related issues and construction schedules.
- Conducted bi-weekly Site Safety Walks with WSCC's Safety personnel to enhance overall safety awareness. Minor safety hazards observed and corrected during safety monitoring.
- Participated in WSCC's weekly Safety Tool-Box Meetings, Executive and Sub-Contractor Safety Committee Meetings and monthly Supervisors Safety Meeting.
- · Conducted monthly All Hands Meeting.
- Participated in Expo Station TBM Intervention Maintenance Program.
- Walsh/Shea reported 116,257 work hours and one recordable incident for the month of May 2016. Total Project-to-Date work hours are 2,605,210 and twenty-seven recordable incidents. The Project Incident Rate is 2.0. The Bureau of Labor Statistics (BLS) average recordable rate per 200,000 work-hours is 3.0.

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 next step
 is for the Administrative Law Judge to issue the Scoping Memo and Ruling, which will
 set forth the procedural schedule and address the scope of the proceeding.
- Metro is awaiting the Administrative Law Judge Scoping document.

Updated: 06/30/2016

Crenshaw/LAX Transit Corridor Project Metro Traffic Closure Key Map - June - August 2016 LEGEND Existing Metro Green Line CLOSURE TYPE 0 Expo/Crenshav Station Existing Metro Expo Line Full Aerial TWIOTHERKIN At-Grade 0 Partial Below Grade Day Council ADISTRICT 10 City of Inglewood - Mayor James Butts Night Council District 8 - Councilman Marqueece Harris Dawson Martin Luther King Jr. Station Council District 10 - Councilman Herb J. Wesson Jr. Council District 11 - Councilman Mike Bonin **ACTIVITY, LOCATION AND *DURATION** K-rail in the middle of Crenshaw Blvd. - 08/21/15 to 2018 (Stage C) 12. See Park Mesa Heights detail Place piles cantilever deck westside at Crenshaw 13. Century Blvd. Westbound Closure - 07/25/16 between 59th St. and 67th St. (UG3) -14. 104th St Closure Phase 1 - 07/05/16 to 08/01/16 Phase 2 - 08/01/16 to 08/31/16 06/17/16 to 08/30/16 Green line tie-in South of Imperial Hwy. - 03/06/15 to 01/01/17 K-rail and lane closure at La Cienega Blvd. - 07/06/15 to 05/30/17 East and west directional closures day and weekends - on 60th St., Hyde Park, 63rd St., 66th St., 66th Pl. and 67th St. - 01/11/16 to 08/30/16 Hindry Ave. lane closure (Stage A) - 11/01/15 to 11/01/17 City of Inglewood lane closure at Florence Ave. and Ivy Ave. - 07/01/15 to 06/30/16 **Council District 8** Potholing between 48th St. and 60th St. - 01/18/16 to 08/01/16 01/11/16 - 08/30/1 9. UG1 excavation -01/04/16 to 08/01/16 Aviation/Florence and Manchester closure - 05/31/16 to 06/30/16 06/17/16 - 08/30/1 Eastbound lane closure Imperial at Aviation - 05/31/16 to 06/30/16 W FLORENCE A 2 Fairview Heights Station Dates shown in RED have been updated 4 4 4 Downtown Heights W MANCHESTER AV S Council W MANCHESTER BLVD Westchester/Veterans Station District 11 WARBOR Southwestern Yard Park Mesa Heights Construction Work 131313 Los Angeles International Airport June 2016 July 2016 August 2016 05/31/16 - 06/30/1 Mo Tu We Th Fr Sa Su Mo Tu We Th Fr Sa 12 13 14 15 16 17 18 10 11 12 13 14 15 16 14 15 16 17 18 19 2 19 20 21 22 23 24 25 17 18 19 20 21 22 23 21 22 23 24 25 26 2 El Segundo 24 25 26 27 28 29 30 28 29 30 31

*Note: Traffic closure dates and durations are subjected to change

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).

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 2, 2016 Progress/Work Completed: Areas of Concern: - Possible cobbles and boulders found during excavation at Expo and Construction MLK station. - Continued Tunnel segment production. - Station excavation impacted by excessive water inflow at EXPO Continued TBM Mining Continued construction of the lower walls at Expo station. Station Completed construction of Invert slab at MLK Station. - Segment A guideway work may be impacted by implementation of a Completed mud slab construction at Leimert Park Staiton. westward shifting of the LRT tracts in Guideway at Segment A for the Continued Utility Hanging at UG #4. future 96th Street Station. · Continued Storm drain installation and demo of curbs and gutters - Contractor's schedule does not accurately forecast its work efforts.

- UG#3. - Continued the construction of Ballast Wall in Seg B1.
- Continued structural concrete work at the Pedestrian Underpass.
- Continued construction of Platform Decks at West station.
- Completed substructure work at I-405 bridge
- Continued foundation work at Hindry Station
- Completed falsework and continuing on the superstructure of Manchester

Continued the Installation of SOE beams along the east and west line of

- Continued construction of Century bridge superstructure
- Continued assembling the traveler system at UG #1
- Completed all falsework and continuing on the superstructure at Green Line

Cost Assessment:

5. Incurred Cost:

The current construction contract cost forecast is \$1,301.06 million and is within the Board authorized budget.

The Contractor submitted their 34th payment application in the approved amount of \$22,300,702.44

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

Schedule Assessment:

at Park Mesa

Contractor's June 2016 schedule update indicates Milestone 1 - Contract Substantial Completion is 190 calendar days behind the current contract date. - Contractor did not submit their June schedule update, due to re-baseline of their overall schedule for July.

08/01/13

Schedule Summary: 1. Date of Award:

2. Notice to Proceed: 09/10/13 3. Original Substantial Completion Duration: 1824 4. Current Substantial Completion Duration: 1859

5. Elapsed Time from NTP: 1026 55.2%

Cost Summary: \$ In millions 1. Award Value:

2. Executed Modifications: 28.88 3. Approved Change Orders: 2.93

1,272.63

617.44

Current Contract Value (1 + 2 + 3): 1,304.44

Milestones	Original Contract	Current Contract	Forecast	Calendar Day Variance	PERCENT COMPLETE from 9/10/13 to 7/02/16
WIIICSTOTICS	Contidot	Contidot	TOTOGGG	Variation	
lestone 1 - Contract Substantial					

Willocotorioo	001111401	001111401	1 0100001	· ananco
Milestone 1 - Contract Substantial Completion	09/08/18	10/13/18	04/21/19	-190
Milestone 2 - UFS Completion	03/09/18	04/13/18	10/09/18	-179
Milestone 3 - Commence SIT Phase I	06/09/18	07/14/18	01/22/19	-192
Milestone 4 - Const./Turnover Parcels SW-0101, 0102, 0103	12/04/15	03/04/16	5/1/2016A	-58
Milestone 5 - Const./Turnover Parcels SW-0002, 0003, 0004, 0104	06/05/17	06/05/17	06/05/17	0
Milestone 6 - Const./Turnover Parcels SW-0001	08/01/17	08/01/17	07/31/17	1
Milestone 7 - Provide Access for Division 16 Southwestern Yard D-B	01/23/16	01/23/16	02/22/16A	-30

CONTRACT C0990 STATUS

Crenshaw/LAX Advanced Utility Relocations

PE Design Contractor: Hatch Mott (H CM Consultant: Stantec			Contract No.: C0990				
Contractor: - Metro Builders and Eng	ineers Group L	.TD	Status as of July 2, 2016				
Progress/Work Completed: - The construction was substantially comple - Board authorized in March a settlement w - Contract in close out.	eted on August 21 vith the contractor	, 2014	Areas of Concern:				
Schedule Assessment: - Metro granted substantial completion to M 2014, which is 276 calender days behind The settlement with the contractor settled		August 21,	Cost Assessment: - The final contract is \$11,316,140.00 and ha to contractor. * A modification in process for credit of unuse the amount of \$123,156.85.				
Cahadula Cumumanu			0	↑ In maillion o			
Schedule Summary:			Cost Summary:	\$ In millions			
	05/30/12		1. Award Value:	7.83			
	07/17/12		2. Executed Modifications:*	3.49			
3. Original Substantial Completion Duration	365		3. Approved Change Orders:	-			
Current Substantial Completion Duratic	468		4. Current Contract Value (1 + 2 + 3):	11.32			
5. Elapsed Time from NTP:	753		5. Incurred Cost:	11.32			
Original Milestones Contract	Current Contract Forec	Calendar Day ast Variance	PERCENT COMPL from 7/17/12 to 8/21/				
Milestone 1 - Contract Substantial Completion 07/17/13	11/18/13 08/21/	14A -276	Daniera 0%				
Completion			Design				
 			Construction	100%			
			Construction				
			Total Incurred Cost	100%			
			0% 20% 40% 60% Percent Complete P	80% 100%			
		Ī	i ercent complete r				

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 2, 2016



Progress/Work Completed:

Progress/Work Completed:

- Design submittal 100% of APDU-1 was AAN.
- Design Submittal 100% of APDU-2A was submitted in June
- Design submittal 85% of ADPU-2B was Rejected in June and is being revised for resubmittal in July.
- Design submittal 85% of ADPU-2C for future Main Shop Expansion 85% has been submitted.
- Phase I, right of way was turned over to HPH on May 2, 2016.
- Bellanca Revocable Permit was issued in June.
- Temporary Access Road (TAR) was approved for construction.
- DWP installed new poles east of Temporary Access Road.

Areas of Concern:

- DWP and ATT utility line relocation design is continuing and anticipated to be complete as early as end of July 2016.

Schedule Assessment:

- MOD #02 was executed extending milestones 2, 3, 4 by 90 calendar days as shown on the Schedule milestone section below.
- MOD #06 was also executed to adjust the contract Rain Days allowance.
- C0991 contract critical path runs through design and start of construction for the Main Shop Facility.
- 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.
- Risk Register for SWY was expanded as part of the overal Crenshaw project risk process
- Schedule updates for March, April and May were AAN and June schedule update submitted by HPH.

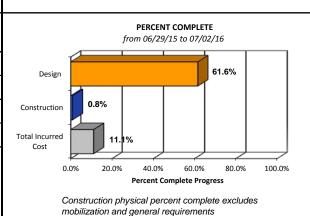
Cost Assessment:

- Contract to Hensel Phelps / Herzog JV was awarded for \$172.3 million.
- Contractor has caught up with submitting both monthly schedule and cost update submittals.
- April, May, June 2016 pay applications have been approved by Metro.
- Trends are being prepared for adjustments within the LOP Budget.
- Separate cash flow and contingency draw down curves are being prepared and will be included in future report.

-

\$ In millions Schedule Summary: Cost Summary: 172.31 1. Date of Award: 28-May-15 1. Award Value: 2. Notice to Proceed: 29-Jun-15 2. Executed Modifications: 0.03 3. Original Substantial Completion Duration: 3. Approved Change Orders: 1,220 0.04 4. Current Substantial Completion Duration: 1,311 4. Current Contract Value (1 + 2 + 3): 172.37 5. Elapsed Time from NTP: 369 28.15% 5. Incurred Cost (thru May 2016): 19.06

Milestones	Original Contract	Current Contract	Forecast	Calendar Day Variance
MS#1 Yard and Main Shop Design Completion	26-Oct-16	26-Oct-16	26-Oct-16	0
MS#2 Main Shop Communication Room Completion	15-Jan-18	16-Apr-18	3-Apr-18	13
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	28-Jan-19	2



CONTRACT C0992 STATUS

Concrete Ties

PE Design Contractor: Hatch M CM Consultant: Stantec Contractor: Rocla Concrete Tie Progress/Work Completed: - All 19,936 concrete ties have been (Contract C0988). - Contract is closed out.	e Inc.	site by the	Contract No.: C0992 Status as of July 2, 2016 Areas of Concern:						
Schedule Assessment: All concrete ties were delivered to jo	b site by Au	gust 15, 20	014.		Cost Assessment: The final contract cost is \$2.25 million and has been completely paid to contractor.				
Schedule Summary:			12/10/13		Cost Summary: \$ In millions				
Date of Award:			12/10/13		1. Award Value: 2.16				
2. Notice to Proceed:			220		2. Executed Modifications: 0.09				
Original Substantial Completion I			235		3. Approved Change Orders:				
Current Substantial Completion I Elapsed Time from NTP:	Ouration:		235		4. Current Contract Value (1 + 2 + 3): - 2.25 5. Incurred Cost: 2.25				
Milestones	Original Contract	Current Contract	Forecast	Calendar Day Variance	PERCENT COMPLETE from 12/23/2013 to 8/15/14				
Milestone 1 - Contract Substantial Completion	07/31/14	08/15/14	08/15/14A	0	Delivered 100%				
'				0	Delivered 100%				
	 				Shipped 100%				
				0	Simpped				
				0	Total Incurred 100%				
				0	Cost 0% 20% 40% 60% 80% 100%				
				0	Percent Complete Progress				
					Construction physical percent complete excludes mobilization and general requirements				

CONTRACT C0992A STATUS

Running Rail and Bumping Posts

PE Design Contractor: Hatch M CM Consultant: Stantec Contractor: LB Foster Rail Tech		orp			Contract No.: C0992A Status as of July 2, 2016				
Progress/Work Completed: - All 115RE SS Blank Stick Rails har - All 115RE HH rail have been delive - All Bumping Posts have been delive - Contract is closed out.	ered to job s	ite.	•		Areas of Concern:				
Schedule Assessment: All running rails and bumping posts w	vere deliver	ed ahead c	of the schedu	le.	Cost Assessment: The final contract cost is \$5,2 million and has been completely paid to contractor.	t			
Sahadula Summanu					Cost Summary: \$ In millions				
Schedule Summary: 1. 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 E	ouration.		300	,	Executed Modifications: Approved Change Orders:				
Current Substantial Completion D			558		4. Current Contract Value (1 + 2 + 3): - 5.2				
Competition L Elapsed Time from NTP:	urauvii.		448		5. Incurred Cost: 5.2				
Milestones	Original Contract	Current Contract	Forecast	Calendar Day Variance	from 3/7/2014 to 05/29/15				
Milestone 1 - Contract Substantial	12/31/14	09/30/15	05/08/15A	145					
Completion				0	Construction 100)%			
				0	Total Incurred Cost)%			
				0	0% 20% 40% 60% 80% 100%				
				0	Percent Complete Progress Construction physical percent complete excludes				
					mobilization and general requirements				

CONSTRUCTION PHOTOGRAPHS



GREENLINE UNDERPASS – Soffit, exterior girder and overhang formwork placement ongoing.



UG#1 – Waterproofing (HDPE) installation at Sump Pump #2.



UG#1 – Roof slab rebar installation for the cut and cover tunnel section.



AVIATION/CENTURY BRIDGE - Frame 1 deck rebar installation.



WESTCHESTER STATION - Mass excavation and fine grading for the station footing.



FAIRVIEW HEIGHTS STATION – Crews continue with MEP embed installation for the TC&C room invert. Poured the station platform footing and stem walls.



PARK MESA HEIGHTS – Excavating for curb and gutter.



UG#4 - Staging struts.



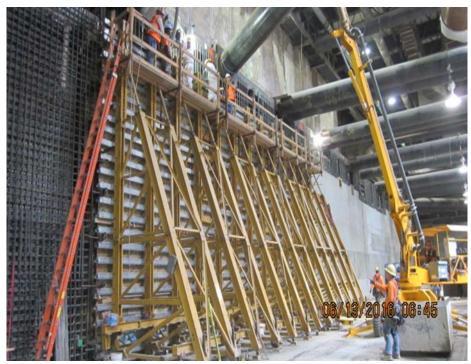
LEIMERT PARK STATION – Installation of grounding grid in preparation for mudslab placement.



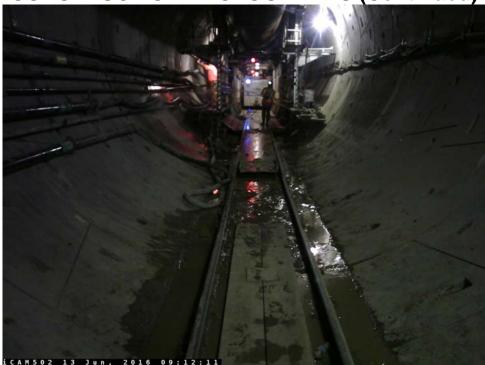
MARTIN LUTHER KING JR. STATION – Installation of southbound tunnel portal seal at south hammerhead.



MARTIN LUTHER KING JR. STATION – Installation of geotextile membrane at the station.



EXPOSITION/CRENSHAW STATION – Placement of lower west wall section D-14.



TUNNELING – Looking south into the southbound tunnel.



TUNNELING - Muck cars and segment cars on tracks.

APPENDIX

PROJECT COST STATUS – SOUTHWESTERN YARD

UNITS	INITS IN DOLLARS											
SCC	DESCRIPTION	ORIGINAL	CURREN	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		
CODE	DESCRIPTION	BUDGET	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	VARIANCE	
10	GUIDEWAYS	0	0	0	0	0	0	0	0	0	0	
20	STATIONS	0	0	0	0	0	0	0	0	0	0	
30	SUPPORT FACILITIES (Y & S)	85,546,835	0	85,189,999	0	86,532,695	0	0	0	86,889,531	1,699,532	
40	SITEWORK\SPECIAL CONDITIONS	35,932,000	0	38,273,000	0	38,658,086	3,778,522	15,687,627	0	38,273,000	0	
50	SYSTEMS	25,784,616	0	32,991,000	0	32,991,000	0	0	0	32,991,000	0	
	(10-50) CONSTRUCTION	147,263,451	0	156,453,999	0	158,181,781	3,778,522	15,687,627	0	158,153,531	1,699,532	
60	RIGHT-OF-WAY	99,910,000	0	100,000,000	617,425	106,286,238	0	105,580,096	0	100,000,000	(0)	
70	VEHICLES	0	0	0	0	0	0	0	0	0	0	
80	PROFESSIONAL SERVICES	35,601,095	0	33,639,631	206,344	27,673,827	1,913,024	16,158,456	0	31,815,199	(1,824,432)	
90	PROJECT CONTINGENCY	13,659,732	0	17,106,370	0	0	0	0	0	17,231,270	124,900	
TOTAL		296,434,278	0	307,200,000	823,769	292,141,846	5,691,546	137,426,179	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	PERIOD	TO DATE	VARIANCE
861301 DIV 22 PAINT & BODY SHOP	11,000,000	0	11,000,000	429	6,916,249	429	193,965	0	11,000,000	0

PROJECT GRAND TOTAL 307,434,278	210 200 000	024 100	200 020 002	- 104 075	407 (00 444			
FROJECT GRAND TOTAL 307,434,276	318,200,000	824,198	299,058,095	5,691,975	137,620,144	0	318,200,000	(0)

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 Life-of-Project (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 life of project 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 cost is \$318.2 million.

APPENDIX PROJECT COST ANALYSIS (Continued)

Current Forecast:

The forecast is under review.

Commitments:

The commitments are cumulative through July 2, 2016.

Total commitments increased by \$0.82 million for this period due to the following:

- SCC-40
 - o No Change.
- SCC-60
 - Right-of-Way (ROW) commitment increased by \$0.62 million due to proper allocation of commitments.
- SCC-80
 - Other professional services such as legal, construction management and labor increased by \$0.20

The \$299.06 million in commitments to date represents 93.98% of the current budget.

Expenditures:

The expenditures are cumulative through July 2, 2016.

The total expenditures increased by \$5.69 million for this period due to the following:

- SCC-40
 - o Contractor's Hensel Philips/Herzog JV expenditure increase of \$2.97 million.
 - o Third party utility expenditure increase of \$0.78 million.
- SCC-60
 - o No Change.
- SCC-80
 - Agency expenditure increase by \$0.19 million for May/June.
 - Professional services expenditure increase by \$0.49 million.
 - Contractor's Hensel Philips/Herzog JV design expenditure increase of \$1.26 million.

The \$137.6 million in expenditures to date represents 43.25% 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

IONAL 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.