

Los Angeles County
Metropolitan Transportation Authority

Crenshaw/LAX Transit Project



Metro[®]

CRENSHAW/LAX TRANSIT PROJECT

QUARTERLY PROJECT STATUS REPORT

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JUNE 2014


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PROJECT SUMMARY

LOCATION: Crenshaw Blvd at Exposition south to Green Line DESIGN/CONSULTANT: Hatch Mott MacDonald				CONSTRUCTION MANAGEMENT CONSULTANT: Stantec CONTRACTOR: Walsh-Shea Corridor Constructors (WSCC)			
PROJECT PHOTO: Pre-drilling holes for cutter soil mixing (CSM) operation in the Crenshaw/Exposition Station yard.				WORK COMPLETED PAST MONTH:			
				<ul style="list-style-type: none"> o WSCC continued final design. o WSCC continued cutter soil mixing pile installation at Exposition Station and MLK Station sites. o WSCC completed demolition of buildings for future Florence/La Brea Station. o Metro continued real estate acquisitions. o Metro Builders continued advanced utility relocations. o LADWP continued water line relocations at MLK Station. o Continued shipment of concrete ties to storage site. 			
EXPENDITURE STATUS (\$ In Millions)				SCHEDULE ASSESSMENT			
ACTIVITIES	CURRENT BUDGET	EXPENDED AMOUNT	PERCENT EXPENDED	MAJOR SCHEDULE ACTIVITIES	PRIOR PLAN	CURRENT PLAN	VARIANCE WEEKS
DESIGN	\$ 136.7	\$ 68.9	50.4%	Environmental			
				FEIS/FEIR	Sep-11	Sep-11	Complete
				Record of Decision	Dec-11	Dec-11	Complete
RIGHT-OF-WAY	\$ 127.4	\$ 99.0	77.7%	Design			
CONSTRUCTION	\$ 1,353.1	\$ 183.7	13.6%	Preliminary Engineering	Nov-11	Nov-11	Complete
				Final Design	Sep-15	Sep-15	On Schedule
OTHER	\$ 440.8	\$ 77.9	17.7%	Right-of-Way			
TOTAL	\$ 2,058.0	\$ 429.5	20.9%	All full take parcels available	Aug-14	Dec-14	16 weeks behind
Note: cost expended as of June 28, 2014.				Construction			
AREAS OF CONCERN				D-B Notice to Proceed	Sep-13	Sep-13	Complete
<ul style="list-style-type: none"> o Right-of-way acquisition forecast dates trending later than planned. o CPUC approval of grade-separation crossings applications. o Timely future reviews of WSCC's designs by City of Los Angeles, City of Inglewood, Caltrans, FAA and Los Angeles World Airports. o Third party relocations prior to design-builder's construction activities o Execution of Agreement with City of Inglewood. 				D-B Substantial Complete	Sep-18	Sep-18	o weeks behind
				Revenue Service Date	Oct-19	Oct-19	On schedule
				Note: design-builder forecasts potential delay but workarounds being developed.			
ROW ACQUISITION	PLAN	ACQUIRED	REMAINING	CRITICAL ACTIVITIES / 3 MONTH LOOK AHEAD			
FULL TAKES	35	31	4	<ul style="list-style-type: none"> o WSCC demolition of bridge at Century Boulevard and Aviation. o WSCC continue final design. o WSCC continue support of excavation work at Exposition Station. o WSCC continue support of excavation work at MLK Station. o LADWP continue water line relocations at MLK Station. o Metro Builders substantially completes all work. o Metro continue turning over real estate properties to WSCC. 			
PARTIAL TAKES	27	2	25				
TEMPORARY EASEMENTS	12	1	11				
TOTAL PARCELS	74	34	40				

PROJECT OVERVIEW

Major Contract Procurement

Metro has moved up the solicitation of Contract C0991, Southwestern Yard to this summer. Staff is working on preparing the solicitation package.

Construction

Contract C0990 - The advanced utility relocations Contractor, Metro Builders and Engineers Group, LTD (MBE) continues relocations along Crenshaw Blvd:

- At the Crenshaw cut and cover tunnel area 60th Street (north portal) - *relocation of a 10" VCP sewer line to clear way for the cut and cover trench is complete. The Jack & Bore operations under Crenshaw at 59th Place is also complete.*
- At the Crenshaw cut and cover tunnel area 67th Street (south portal) – *relocation of an 18" VCP sewer line to clear way for the cut and cover trench is complete.*
- The LADWP (Water) scope of work for lowering and encasing four water crossings on Crenshaw Blvd, three 8" steel water lines and one 12" steel water line, to clear the way for a cut and cover trench is complete.

MBE has not been able to mitigate schedule delays. Metro's assessment is that substantial completion can be issued by July 31, 2014. The projected completion date still does not appear to impact the follow-on design-builder's (C0988) scope of work.

See the Contract C0990 Status sheet on page 45 for cost and schedule information.

Contract C0988 – The design-builder, Walsh-Shea Corridor Constructors (WSCC) continues final design with preparation of required contract submittals. Key design status this month:

- *Continued to resolve remaining Design Confirmation comments for track, stations, TPSS and train control.*
- *Initiated Interim (60%) design reviews for facilities work.*
- *Initiated "Readiness for Construction" (85%) early Design Unit foundation bridge submittals.*
- *Existing Utility Verification report comments issued to WSCC. Metro is working with WSCC to disposition changed utility conditions.*
- A factory acceptance test for the TBM has been scheduled for July 2014 at the TBM factory site in Germany.

Construction efforts continue along the three major areas or segments:

Segment A – (South end, stationing 7+50 to 130+00)

- Continued removal of old BNSF signal boxes, track mechanisms, and communication poles. *The rail and tie removal has been completed.*
- Continued to receive steel for excavation and bridge support at the Bellanca St. Yard.
- Continued to receive Metro supplied concrete ties at the Bellanca St. Yard.
- *Started receiving rail for trackwork.*
- *Removed and stockpiled ballast along the right-of-way (Sta 15+00 – 130+00).*
- *Removed asbestos abatement on Century Bridge and approaches.*

PROJECT OVERVIEW (Continued)

Segment B – (Stationing 130+00 to 365+00)

- *Continued demolition at Florence/La Brea properties.*
- *Removed and stockpiled ballast along the right-of-way (Sta 130+00 – 273+00).*

Segment C – (North end, Stationing 365+00 to 449+00)

- Crenshaw/Exposition Station area
 - Continued additional geotechnical borings.
 - Continued tree removal and stump grinding.
 - Continued cutter soil mixing pile installation.
 - *Started relocation of 10" VCP SS line off west pile line.*
- Crenshaw/MLK Station area
 - Continued tree removal and stump grinding.
 - *Started water relocation at MLK Station area.*
- Crenshaw/Vernon Station area
 - Continued potholing.

See Contract C0988 Status sheet on page 44 for cost and schedule information.

Right-of-Way

There are a total of 74 parcels; one more parcel was added in October 2013 which was originally an encroachment. There are 35 full takes, 27 partial takes and 12 temporary construction easements (TCE's). *There have been 34 parcels acquired through June 2014. Twenty-nine full takes and two part takes have been provided to WSCC. The other three parcels will be provided to WSCC once relocations have been completed.* For some parcels trending late for turnover, Metro has negotiated later turnover dates with 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 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.

PROJECT OVERVIEW (Continued)

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 needs to secure a legally binding 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. The agreement was approved by the Metro Board in May 2014.

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 current budget includes the 49% cost allocation share that the Project is responsible for paying for the design and construction of the Southwestern Yard. This amount is \$139.4 million of the \$285.2 million forecast cost for the Southwestern Yard. The \$139.4 million is allocated in the various SCC categories.

The amount of funding available for the Crenshaw/LAX Transit Corridor Project, excluding the Southwestern Yard \$139.4 million allocation and Environmental/Planning budget of \$26.0 million is \$1,892.6 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 federal percentages are as follows; local funding 79.9%, state funding 14.0% and federal funding 6.1%.

The project commitments thru June 2014 are \$1,620.7 million or 78.8% of the Current Budget. The project expenditures thru June 2014 are \$429.5 million or 20.9% of the Current Budget. The expenditures to date are for previous environmental/planning and preliminary engineering efforts as well as final design and construction costs. 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 project master schedule continues to reflect a forecast of October 2019 for Revenue Service which includes the additional two station options, Leimert Park Station and Hindry Station. This Baseline Revenue Service Date reflects the award of the design-build contract and ratification of a board motion to execute the bid options in the RFP conditioned upon amendment to the TIFIA loan agreement and execution of an agreement with the City of Los Angeles.

PROJECT OVERVIEW (Continued)

The project schedule contingency was reduced by 46 calendar days this period. The cumulative to date reduction in schedule contingency is 105 calendar days. The drawdown of schedule contingency went from 6.7 months to 5.2 months. The reason for the reduction in schedule contingency is a reported delay by the design-builder in their monthly schedule update, due to their schedule forecast that the decking operation will not be completed in time prior to the start of the street work holiday moratorium late this year near the Crenshaw/Exposition Station.

A Risk Assessment Workshop was held on December 11th and 12th for the purpose of conducting a risk assessment of the project at a key stage of the project; after issuance of the notice to proceed to the design-builder. This was the third of five planned risk assessment workshops. The results from the workshop are included in the Risk and Contingency Management Plan that was updated and issued on February 28, 2014. The Plan includes as attachments the updated Risk Register that was issued on February 13, 2014 and an update of Metro's Master Schedule.

On a monthly basis, the project's risk manager will advise project management of the risk register items mitigation status. An update of the Project's risk register will be issued on July 18, 2014.

MANAGEMENT ISSUES

Concern No. 1: Complete Construction Safety Phasing Plan (CSPP) for design-builder scope of work near LAX and receive FAA approval.

Status/Action *A CSPP has to be submitted by the design-builder for their scope of work in the LAX area (underground trench). The design-builder continues to work on the support of excavation design required for the underground trench. Approximately in September 2014 the design-builder will update the CSPP and request reactivation of the permit required (FAA 7460) in order to start construction in the trench area by December 2014.*

Concern No. 2: Metro has submitted five applications to the California Public Utilities Commission (CPUC) for approval of grade crossing improvements.

Status/Action The CPUC approved Package No. 5 on February 27, 2014 and Packages No. 2 and No. 3 on April 10, 2014. See page 40 for more detail.

There have been protests on two of the five applications (packages 1 and 4). The Crenshaw Subway Coalition Park-Mesa grade crossing issue remains open. The CPUC Administrative Law Judge has not issued a decision. It is anticipated that the CPUC will act on Packages No. 1 and No. 4 in summer 2014.

MANAGEMENT ISSUES

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

Status/Action *Metro and the City of Inglewood continue to work through various issues and may have solutions to outstanding issues so an agreement can be executed in the future.*

Concern No. 4: Right-of-way acquisition forecast dates are trending later than planned.

Status/Action Metro continues to turn over parcels to the design-builder as they are acquired. *There have been 34 parcels acquired through June 2014. Twenty-nine full takes and two part takes have been provided to WSCC. The other three parcels will be provided to WSCC once relocations have been completed.*

Some parcels are being delivered later than originally planned to WSCC. Metro and the design-builder are working together to refine the turnover dates to ensure there is no impact to the design-builder's construction schedule. In addition, Metro is maintaining additional consultant staff to support existing Metro staff in appraisal reviews, making offers, relocations and any coordination efforts required.

Concern No. 5: Variance to nighttime working hours.

Status/Action *The design-builder's variance to nighttime working hours for Segments A, B, C and E has been renewed thru December 2, 2014. The variance for Segment D remains suspended. Metro is working with officials to get the suspension lifted.*

Concern No. 6: Timely future reviews of WSCC final design submittals by City of Los Angeles, City of Inglewood, Caltrans, FAA and Los Angeles World Airports.

Status/Action Metro is coordinating with all third party agencies in advance of the first submittals by WSCC to ensure that timely review requirements will be met to support WSCC's baseline schedule submittal dates. The final design submittals will be submitted for review by third parties according to the most critical submittals to ensure the third party agencies are reviewing the most important designs first. Also, along with the concern above is the potential for third party agencies review comments leading to potential change requests outside of the original design signed off by the agencies during the preliminary engineering phase of the project. Metro will take action and strictly monitor the review comments from the agencies

MANAGEMENT ISSUES

Concern No. 7: Additional scope of work for the design-builder to accommodate the Los Angeles World Airports (LAWA) Specific Plan Amendment Study (SPAS).

Status/Action The scope of work is for Metro to undertake a parallel design effort and construct changes in the vicinity of the Aviation/Century Station to accommodate elements of the SPAS. The Crenshaw/LAX Transit Project obtained Metro Board authorization to Proceed in December 2013 with the required future design or construction effort. Three changes were executed with WSCC for only the parallel design effort required. Two of the planned three construction changes with WSCC are pending execution.

Concern No. 8: Relocations of utilities by outside third parties required to be performed in advance of the main Crenshaw/LAX Design Build Contractor's work.

Status/Action Metro is working closely with various third party agencies to have relocations of utilities performed in accordance with the design-builder's baseline schedule. In May, there was additional slippage in the scheduling of water main relocations at the Crenshaw/Expo Station area which may impact the design-builder. This has resulted in erosion to the project schedule contingency as forecasted by the design-builder.

Concern No. 9: Drawdown of project contingency.

Status/Action Metro in December 2013 forecast a potential drawdown of unallocated contingency in the amount of \$8.6 million for third party utility relocation work. This contingency drawdown is earlier than was anticipated for this stage of the project. Metro continues review of third parties scope of works and will carefully review all invoices as they are received.

Concern No. 10: Timing of the solicitation for Contract C0991 Southwestern Yard.

Status/Action *Metro continues preparation of a bid solicitation package for a planned advertisement in August 2014.*

Concern No. 11: Design-builders design submittal schedule

Status/Action WSCC is falling behind on meeting interim design milestones but are maintaining the Contract milestones. Due to this trend, Metro requested a recovery plan on how WSCC will get back on schedule so as not to impact planned construction activities. WSCC has reviewed the recovery plan with Metro that shows how designer will still meet the major design milestones this fall. An additional eight key design management staff have been assigned by WSCC to oversee the various segments of the design effort.

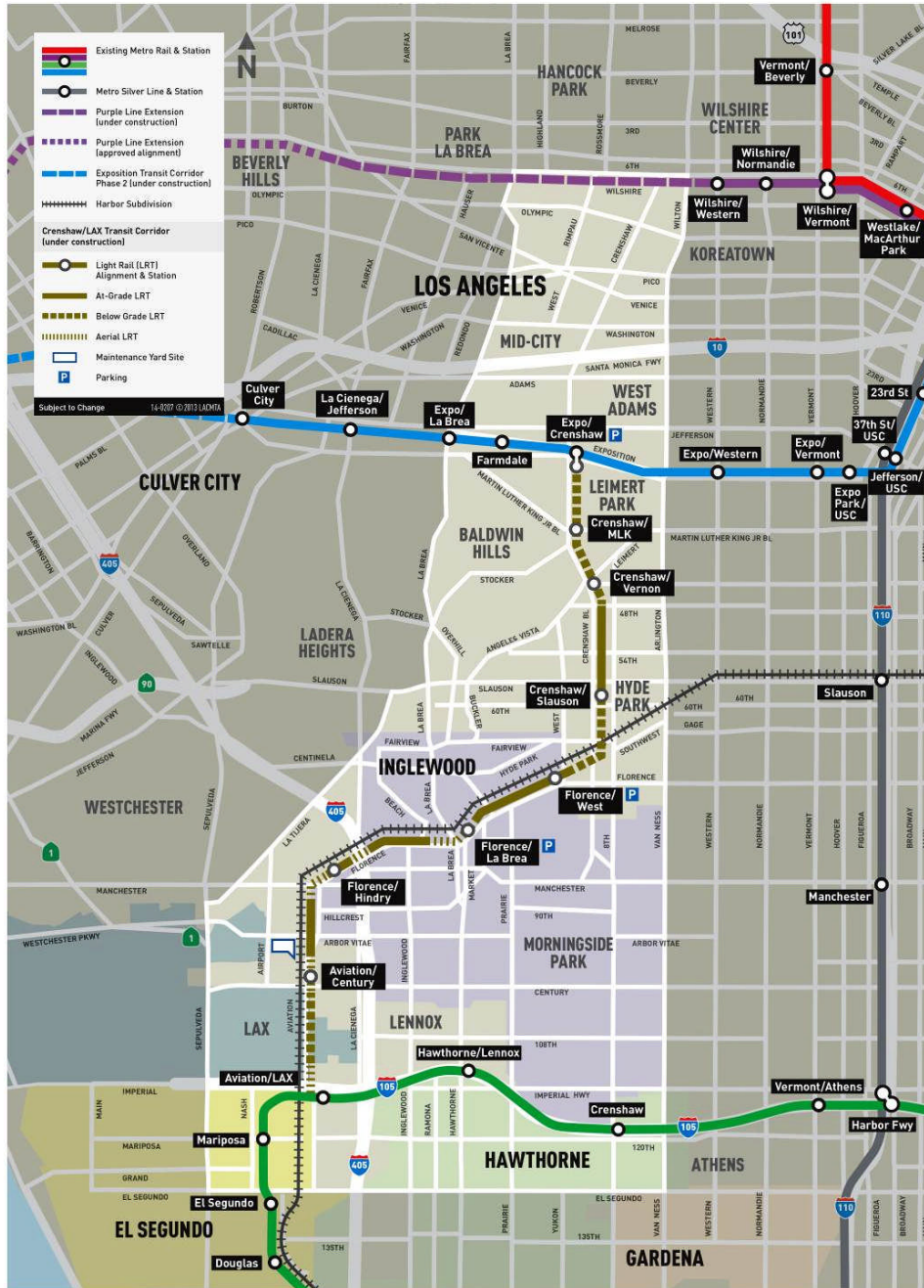
MANAGEMENT ISSUES (Continued)

Concern No. 12: *Design-builders construction schedule*

Status/Action *WSCC for the third consecutive month has shown an increase in the negative float in relationship to the substantial completion milestone. Due to this trend, Metro has requested a recovery plan on how WSCC will get back on schedule. In addition, Metro is reviewing WSCC request for a time extension due to third party utility relocation delays.*

PROJECT ALIGNMENT

Crenshaw/LAX Transit Project



BASE 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, pre-qualification 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).

BASE 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 is a one-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.

KEY MILESTONES SIX- MONTH LOOK AHEAD

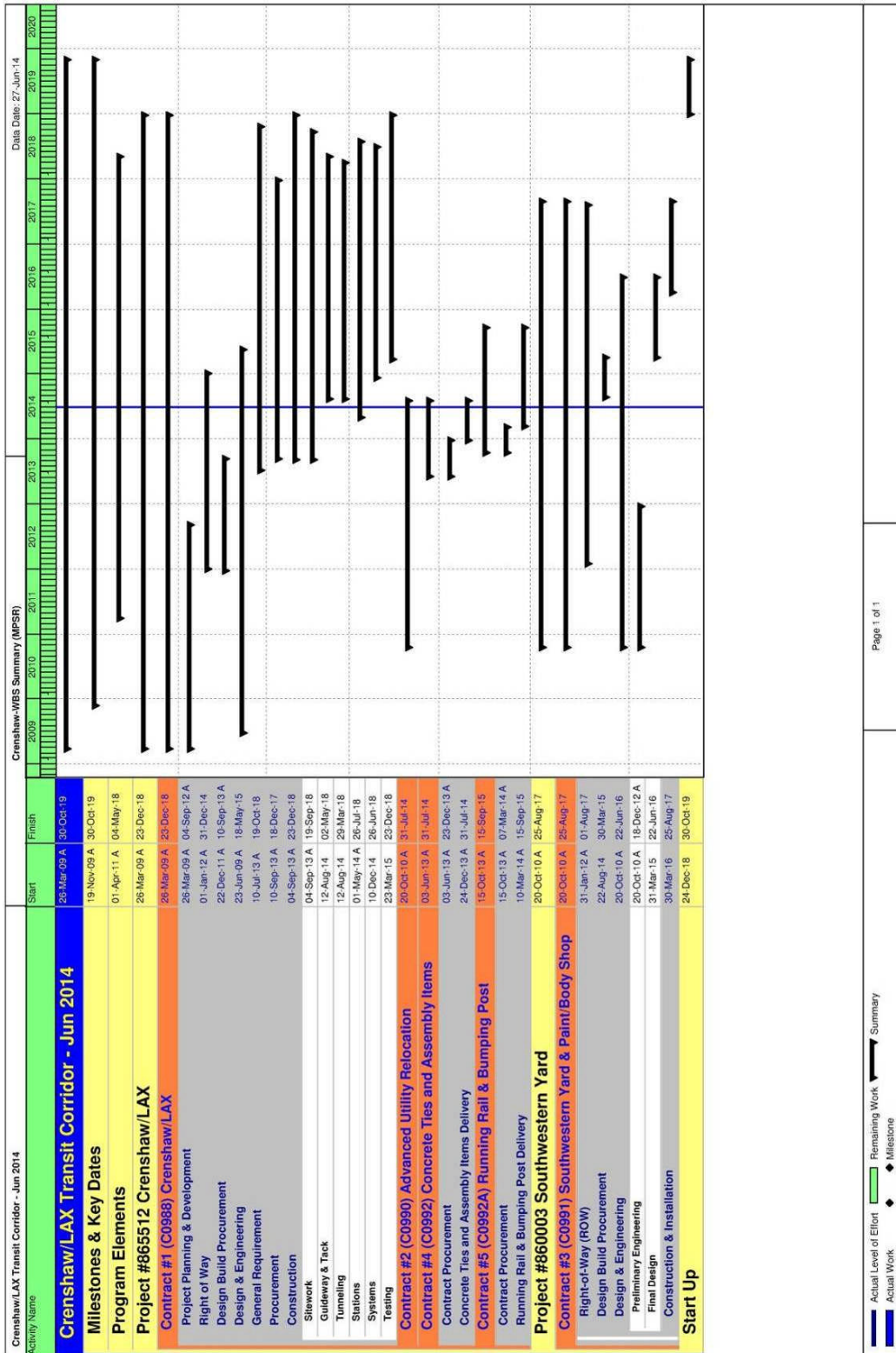
	Milestone Date	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14
Contract C0988 Start Shoring Operation at Crenshaw/Expo	6/19/2014A						
Contract C0988 Start Shoring Operation at Crenshaw/MLK	6/23/2014A						
Contract C0988 Submit Interim Design to Metro - System	07/02/14						
Contract C0988 Submit Interim Design to Metro - Segments	07/10/14						
Contract C0992A SDI 115RE SS Rail Delivery	07/15/14		<input type="checkbox"/>				
Contract C0988 Demo W. Century Blvd Railroad Bridge	07/27/14						
Contract C0988 Submit TBM Final Design to Metro	07/28/14						
Contract C0990 Substantial Completion	07/31/14		<input type="checkbox"/>				
Contract C0992 Concrete Ties Delivery	07/31/14		<input type="checkbox"/>				
Contract C0992A Evraz1 15RE HH Rail Delivery	08/15/14			<input type="checkbox"/>			
Contract C0991 Southwestern Yard Advertise IFB	08/22/14			<input type="checkbox"/>			
Contract C0988 Start Aerial Structure #1	08/28/14						
Contract C0988 Start Soldier Piling at Vernon	09/17/14						
Contract C0988 Submit RFC Design - COMM	10/17/14						
Contract C0988 Submit RFC Design - Segment A	10/21/14						
Contract C0988 Submit RFC Design - Segment C	10/22/14						
Contract C0988 Deliver TBM	11/07/14						
Contract C0988 Submit RFC Design - TPSS	11/18/14						
Contract C0991 Southwestern Yard Bids Due	11/19/14						<input type="checkbox"/>
Contract C0988 Submit RFC Design - Segment B	11/21/14						

 MTA Staff
  MTA Board Action
 FTA (Federal Transportation Authority)

 Other Agencies
 Contractors
  Walsh Shea

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

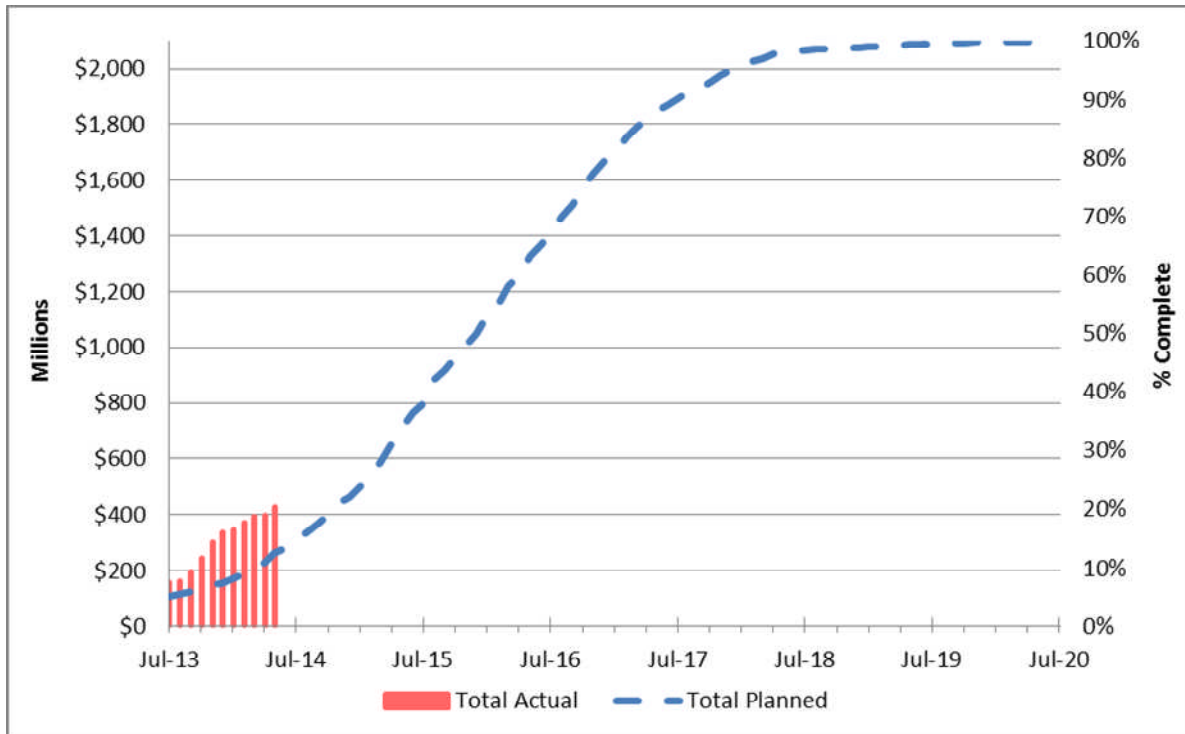
PROJECT SUMMARY SCHEDULE



SCHEDULE MEASUREMENTS

	Status	Change from Last 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	51%	4%	Behind Schedule
Contract C0990	100%	None	Design Completed
Contract C0991	-	-	P.E Completed only
Contract C0992	100%	None	Design Completed
Contract C0992A	100%	None	Design Completed
Construction Contracts Progress:			
Contract C0988	4%	0.5%	Behind Schedule
Contract C0990	99%	3%	Behind Schedule
Contract C0991	0%	-	Not yet advertised
Contract C0992	94%	44%	On Schedule
Contract C0992A	39%	39%	On Schedule
Cumulative To Date Progress:			
	17.0%	2%	

OVERALL CONSTRUCTION PROGRESS CURVE STATUS



The above progress curve is based on planned expenditures by the design-build contractor in the C0988 baseline schedule and actual program expenditures which incorporated progress projected by the design-build contractor in their June 2014 schedule update.

The cumulative overall final design and construction progress is 17.0%.

Contract overall progress for C0990 is 97%. This contractor continues to be behind schedule. See Contract C0990 Status sheet, page 45, for more information.

Final Design for C0988 commenced upon MTA issuing NTP on September 10, 2013. Cumulative final design progress to date is 51%, while the construction progress is 4% to date. See Contract C0988 Status sheet, page 44, for more information.

MAJOR EQUIPMENT DELIVERY STATUS

Tunnel Boring Machine

WSSC, the design-builder for Contract C0988, will procure the tunnel boring machine (TBM) and equipment.

Following are the major milestone dates for TBM procurement:

	Baseline	May-14	Jun-14	Monthly Variance
Place Purchase Order for EPBM	10/30/13	10/30/13A	10/30/13A	-
Submit Final Design Details for TBM	01/03/14	06/27/14	07/28/14	-31
Fabricate & Deliver EPBM	09/22/14	05/01/15	11/07/14	175
Procure & Deliver TBM Rolling Stock & Accessories	06/23/14	05/01/15	05/01/15	0

WSSC has rescheduled the TBM delivery to the jobsite as close to the originally date due to expensive monthly storage cost requested by the TBM manufacturer.

Light Rail Vehicles

The Board approved exercising Option 1 of Contract P3010 with Kinkisharyo International to provide light rail vehicles (LRV) for the Crenshaw/LAX project. By exercising this option prior to August 20, 2013, the Project avoided price escalation costs. 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 six pilot cars for the initial order of cars (non-option) are planned to be delivered on July 2015; then four cars will be delivered every month starting from Aug 2015 with the last group of cars to be delivered on Jan 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.

Concrete Ties and Assembly Items

The completion of the delivery of the concrete ties is still forecast by July 31, 2014.

Running Rail & Bumping Post

The delivery of the equipment is as follows:

- Rail Submittal – 4/18/2014 (Commenced)
- SDI 115RE SS Rail Delivery – 7/15/2014
- Evraz 115RE HH Rail Delivery – 8/15/2014
- Bumping Post Delivery – 9/15/2015 (see page 46 for more detail)

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

Item	Delivery	Needed by
Traffic Signal Poles	4/12/2015	7/6/2015
Street Light Poles	4/12/2015	7/6/2015
Tunnel Ventilation Fans	8/6/2015	3/2/2017
Jet Fans (Cut & Cover)	1/21/2016	3/20/2017
Structural Steel - Canopies	9/7/2015	6/8/2017
Laminated Tempered Canopy	6/5/2015	2/15/2017
Station - Elevators	2/19/2016	4/10/2017
Station - Escalators	2/19/2016	6/15/2016
Track - Special Trackwork	2/29/2016	3/1/2016
Unit Substations - Expo	8/21/2015	1/5/2018
Unit Substations - MLK	8/21/2015	5/23/2017
Unit Substations - Vernon	8/21/2015	3/28/2017
TPSS - Substation 1	10/16/2015	1/11/2016
TPSS - Substation 2	12/29/2015	12/31/2015
TPSS - Substation 3	3/9/2016	3/10/2016
TPSS - Substation 5	5/18/2016	5/19/2016
TPSS - Substation 6	7/29/2016	8/22/2016
TPSS - Substation 8	10/10/2016	12/29/2016
TPSS - Substation 9	12/20/2016	8/8/2017
TPSS - Substation 10	3/2/2017	9/21/2017
Communication Equipment for TC&C #1 / Aviation Yard	7/21/2015	2/4/2016
Communication Equipment for TC&C #2 / Aviation/Century	11/18/2015	1/21/2016
Communication Equipment for TC&C #4 / Hindry	2/22/2016	11/16/2016
Communication Equipment for TC&C #5 / Florence/West	9/29/2016	2/21/2017
Communication Equipment for TC&C #6 / Crenshaw/Slauson	2/7/2017	6/26/2017
Communication Equipment for TC&C #7 / Crenshaw/MLK	9/14/2017	10/11/2017
Communication Equipment for TC&C #8 / Crenshaw/Expo	12/18/2017	12/19/2017
Communication Equipment for COM #1 / UG-1	8/25/2015	7/12/2016
Communication Equipment for COM #2 / UG-2	4/4/2016	4/24/2017
Communication Equipment for COM #2 / Florence/La Brea	6/27/2016	3/30/2017
Communication Equipment for COM #3 / UG-3	11/10/2016	6/5/2017
Communication Equipment for COM #4 / UG-4	3/21/2017	11/13/2017
Communication Equipment for COM #4 / Vernon	6/14/2017	10/3/2017
OCS Poles	10/16/2015	8/8/2016

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 and MLK Station support of excavation (SOE) and decking, excavation & invert construction; TBM mining in south bound tunnel; cross passage excavation, tunnel invert and walkway construction; track and system installation, while the Vernon station SOE, decking & excavation, underground structure #3 shoring and excavation and underground structure #4 cut and cover 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 Dec 23, 2018, which is 105 calendar days behind. As part of a recovery plan, the Contractor is targeting completing decking before the holiday moratorium to gain six weeks of schedule. WSCC is also reviewing the deck installation plan in Expo and MLK with a full closure option rather than the weekend only to gain another eight weeks.

PROJECT COST STATUS

COST REPORT BY ELEMENT
PERIOD: JUNE 2014
UNITS IN DOLLARS

SCC CODE	DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		FORECAST VARIANCE
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
10	GUIDEWAYS	471,335,000	-	452,500,001	-	442,320,586	898,782	16,898,782	-	452,500,001	-
20	STATIONS	153,906,000	-	316,050,000	-	300,550,000	14,326,077	16,759,670	(1,000,000)	315,050,000	(1,000,000)
30	SOUTHWESTERN YARD	66,673,000	-	66,673,000	-	-	-	-	-	66,673,000	-
40	SITEWORK/SPECIAL CONDITIONS	235,576,000	-	348,565,999	56,789	334,572,297	4,551,971	150,026,104	1,000,000	354,970,999	6,405,000
50	SYSTEMS	125,132,000	-	169,311,000	-	149,821,000	20,000	20,000	-	169,436,000	125,000
10-50	CONSTRUCTION	1,052,622,000	-	1,353,100,000	56,789	1,227,263,883	19,796,830	183,704,555	-	1,358,630,000	5,530,000
60	RIGHT-OF-WAY	132,294,000	-	127,400,000	243,290	113,792,673	328,110	98,982,848	-	127,400,000	-
70	LRT VEHICLES	87,780,000	-	82,100,000	-	82,050,901	-	11,452,422	-	82,100,000	-
80	PROFESSIONAL SERVICES	273,147,000	-	295,900,000	511,154	172,028,227	10,991,696	109,781,783	-	299,025,000	-
90	UNALLOCATED CONTINGENCY	177,157,000	-	173,500,000	-	-	-	-	-	164,845,000	(8,655,000)
865512 & 860003 - SUBTOTAL		1,723,000,000	-	2,032,000,000	811,233	1,595,135,684	31,116,637	403,921,608	-	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	(450,612)	20,023,237	-	20,023,237	-	20,473,850	-
405512 & 465512 - SUBTOTAL		26,000,000	-	26,000,000	(450,612)	25,549,388	-	25,549,388	-	26,000,000	-
405512, 465512, 865512 & 860003 - TOTAL		1,749,000,000	-	2,058,000,000	360,621	1,620,685,072	31,116,637	429,470,995	-	2,058,000,000	-

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH 28-JUN-2014.

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:
 - Increase LOP base project scope in the amount of \$160.1 million, and
 - Increase LOP to include the options for Crenshaw/Vernon Station (Leimert Park Village) and Florence/Hindry Station in the amount of \$135.0 million.

The 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 \$139.4 million of the \$285.2 million total project forecast cost for the Southwestern Yard. The \$139.4 million is spread among the SCC categories 30, 40, 60, 80 and 90 in the Cost Report by Element table above.

The amount of funding available for the Crenshaw/LAX Transit Project, excluding the Southwestern Yard \$139.4 million allocation and Environmental/Planning budget of \$26.0 million, is \$1,892.6 million.

PROJECT COST ANALYSIS (Continued)

Current Forecast:

The total project current forecast is \$2,058 million. There is no current forecast variance with the current budget.

Commitments:

The commitments are cumulative through June 28, 2014. The total commitments increased by \$0.4 million this period primarily due to the following:

- SCC-40 (Sitework and Special Conditions) has increased by \$0.1 million for executed modifications associated with the Advanced Utility Relocations Contract C0990.
- SCC-60 (Right-of-Way) has increased by \$0.2 million for real estate acquisition services related to LAX Aviation/Century Intermodal Transit Center. The total commitment of \$113.8 million includes \$53.3 million for the Southwestern Yard which has been capped at this funding level.
- SCC-80 (Professional Services) has increased by \$0.5 million for executed modifications for preliminary engineering design contract E0117, Metro project administration, IPMO field office lease, executed modifications for project management support, and community relations services. The total commitment of \$172.0 million includes \$2.8 million for the Southwestern Yard.
- EP-465512 (Environmental Planning) has a decreased of \$0.4 million due to end of fiscal year purchase order close out and de-commitments.

The \$1,620.7 million in commitments to date represents 78.8% of the current budget.

Expenditures:

The expenditures are cumulative through June 28, 2014. The total expenditures increased by \$31.1 million this period due to the following:

- SCC-10 (Guideways and Track) has increased by \$0.9 million for cost associate with design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-20 (Stations) has increased by \$14.3 million for cost associated with design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-40 (Sitework and Special Conditions) has increased by \$4.6 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor and Advanced Utility Relocations Contract C0990.
- SCC-60 (Right-of-Way) has increased by \$0.3 million for cost associated with real estate acquisition, environmental and relocation. The total expenditure of \$99.0.million includes \$53.3 million for the Southwestern Yard which has been capped at this funding level.
- SCC-80 (Professional Services) has increased by \$11.0 million for costs associated with design-build Contract C0988 Crenshaw/LAX Transit Corridor, Engineering and Design Contract E0117, Metro project administration, IPMO field office lease and utilities, construction management support, legal, tunnel advisory panel, third party scope of work with Los Angeles City Departments, printing, quality management, community relations, and environmental consultant services. The total expenditure of \$109.8 million includes \$1.0 million for the Southwestern Yard.

The \$429.5 million in expenditures to date represents 20.9% of the current budget.

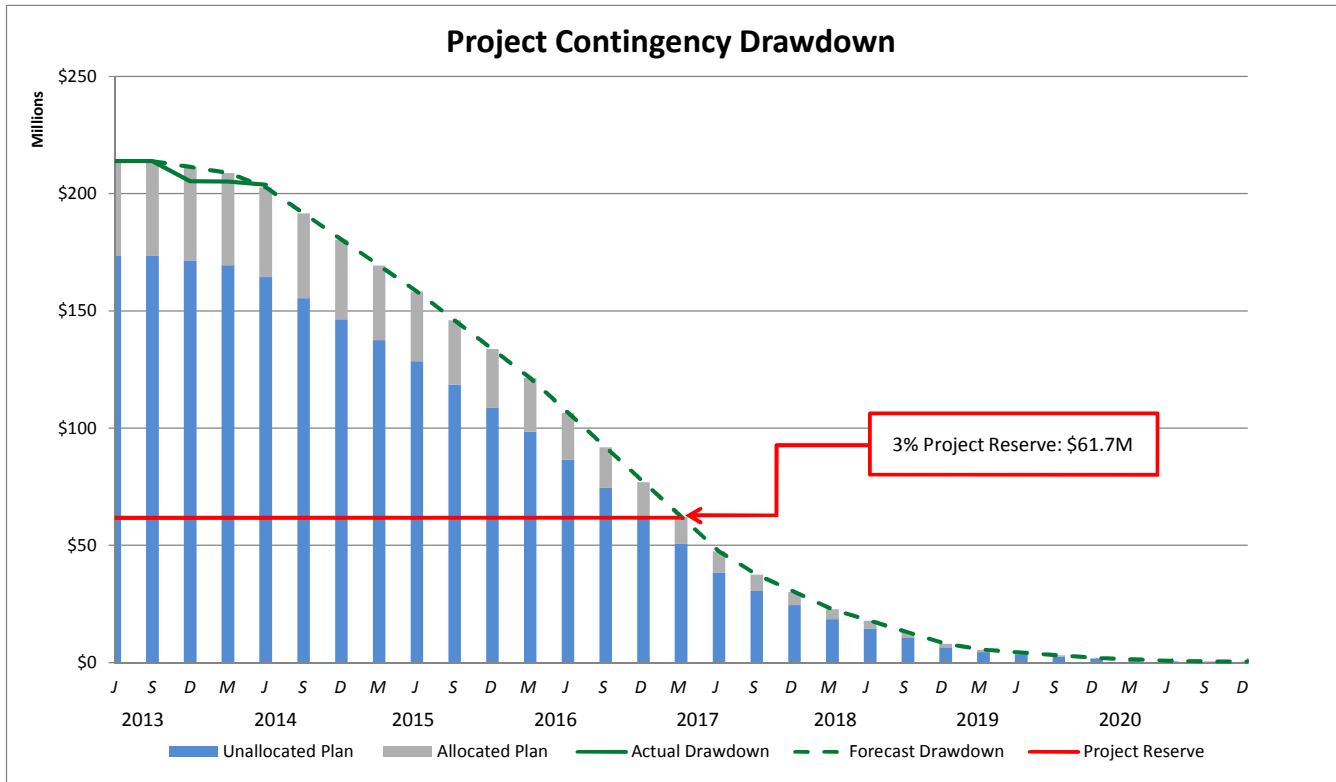
PROJECT COST ANALYSIS (Continued)

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).

C0988 NON-CRENSHAW/LAX TRANSIT PROJECT FUNDED SCOPE OF WORK										
DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		FORECAST VARIANCE
		PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
210090 FARE GATE PROJECT	2,310,000	-	2,549,000	-	2,549,000	95,600	119,500	-	2,549,000	239,000
460303 AIRPORT METRO CONNECTOR	366,400	-	366,400	-	366,400	40,304	95,264	-	366,400	-
500013 C/LAX LAWA SCOPE OF WORK	1,575,362	-	1,575,362	-	168,278	80,416	120,095	-	1,575,362	-
TOTAL	4,251,762	-	4,490,762	-	3,083,678	216,320	334,859	-	4,490,762	239,000

PROJECT CONTINGENCY DRAWDOWN



PROJECT 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 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 was \$1,296,687 drawdown of allocated contingency this quarter for additional costs associated with executed modifications with the design-build Contract C0988 Crenshaw/LAX Transit Corridor and the Advanced Utility Relocations Contract C0990. The cumulative drawdown of contingency is shown in the table below:

PROJECT CONTINGENCY DRAWDOWN (through 28-Jun-2014)					
	Original Contingency	Drawdown Previous	Drawdown this quarter	Drawdown To-Date	Remaining Contingency
Unallocated Contingency	173,500,000	(8,655,000)	-	(8,655,000)	164,845,000
Allocated Contingency	40,366,792	(56,891)	(1,296,687)	(1,353,578)	39,013,214
Total Contingency	213,866,792	(8,711,891)	(1,296,687)	(10,008,578)	203,858,214

DISADVANTAGED BUSINESS ENTERPRISE (DBE) STATUS

Contract C0988 Crenshaw/LAX Transit Corridor Design-Build

- DBE Goal – Design 20.40%
- Current DBE Commitment \$18,420,282 (20.34%)
- Current DBE Participation \$ 4,294,213 (13.87%)
- Twenty (20) Design subcontractors have been identified to-date

- DBE Goal – Construction 20%
- Current DBE Commitment \$73,429,116 (6.27%)
- Current DBE Participation \$ 6,386,761 (4.45%)
- Thirty (30) Construction subcontractors have been identified to-date.

PROJECT LABOR AGREEMENTS (PLA) STATUS

Contract C0988 Crenshaw/LAX Transit Corridor Design-Build

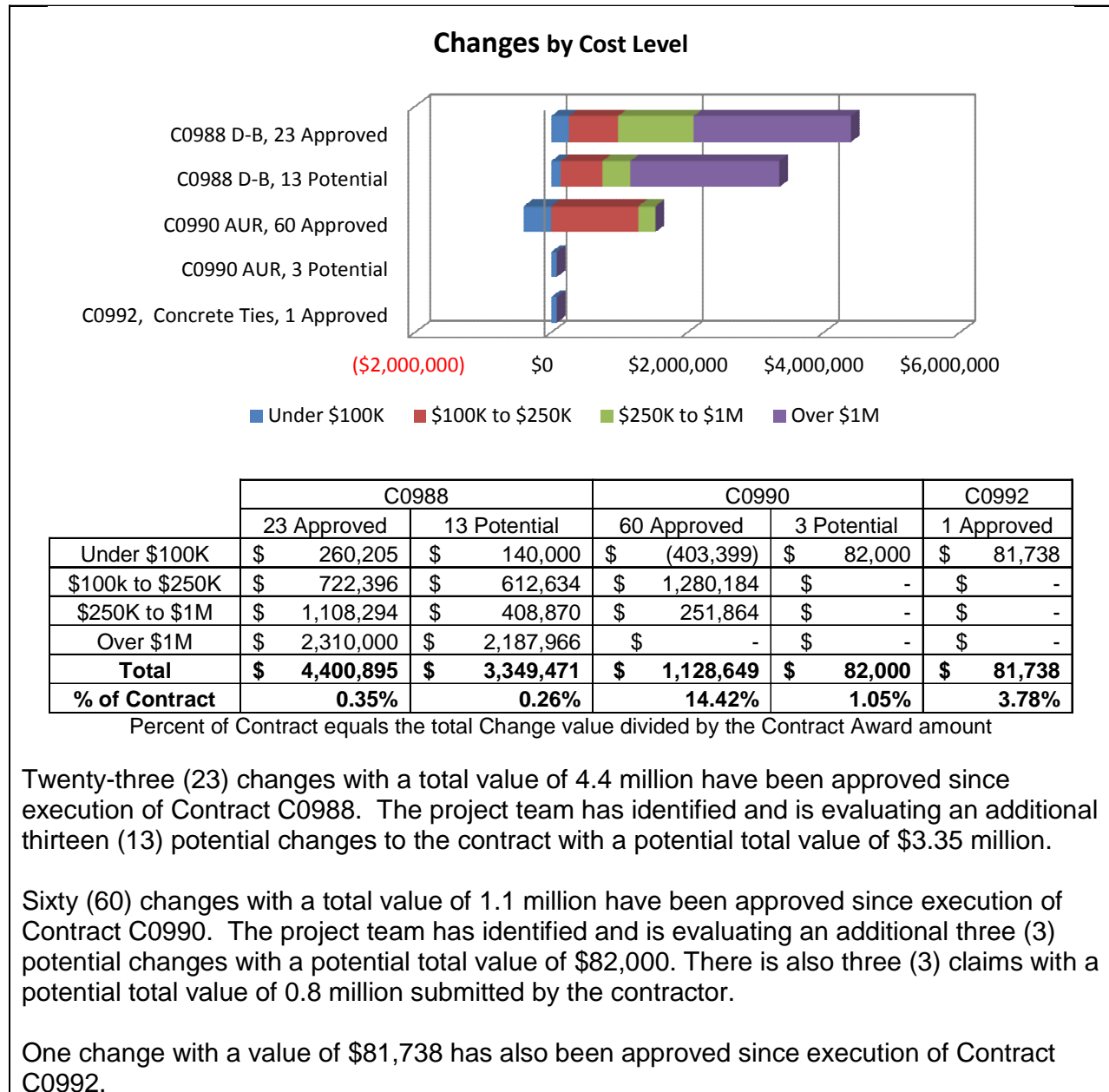
(Reporting Data as of May 17, 2014)

- Targeted Worker Goal – 40.00%
- Targeted Worker Current Participation - 69.40%

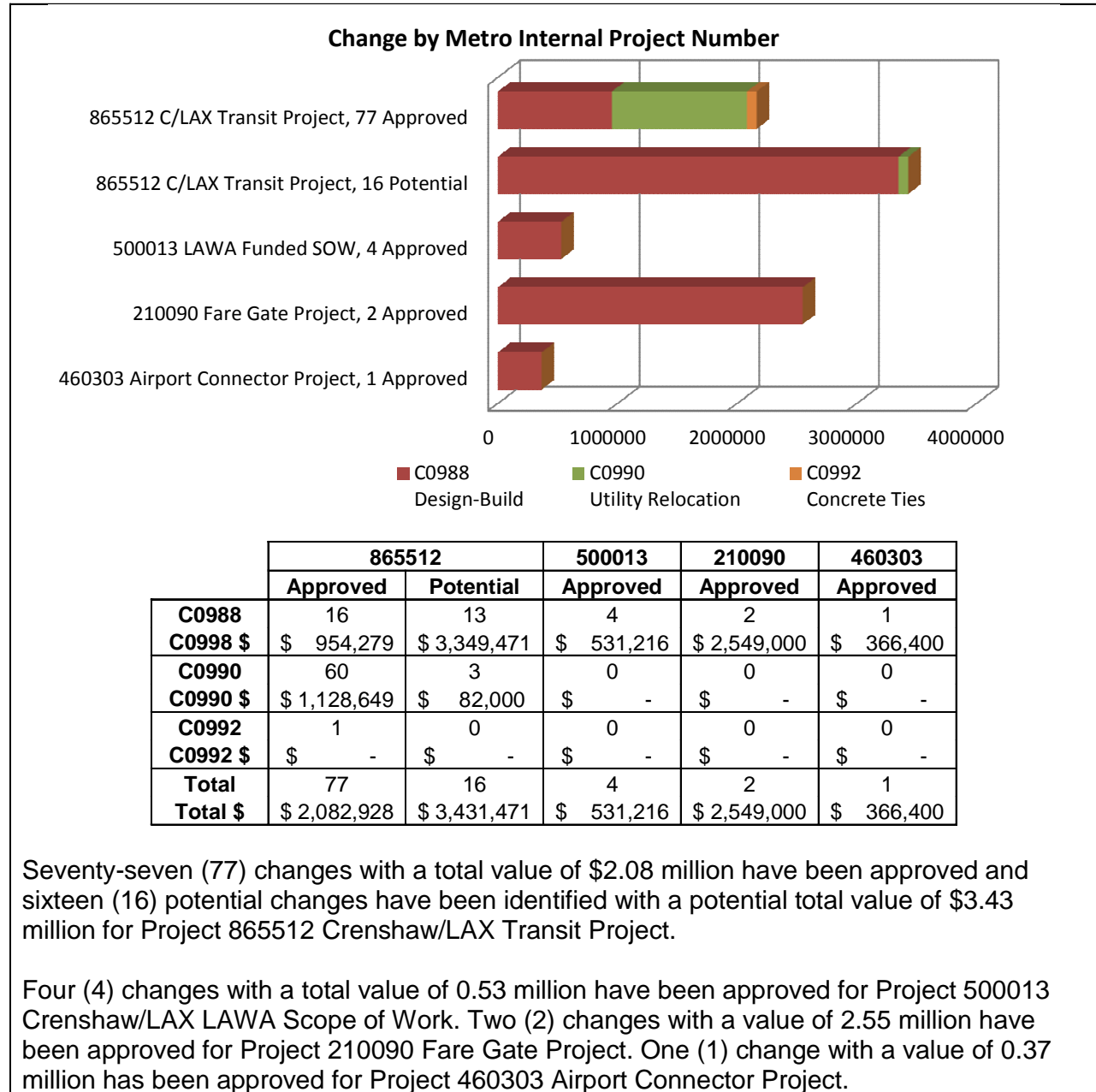
- Apprentice Worker Goal - 20.00%
- Apprentice Worker Current Participation - 12.09%

- Disadvantaged Worker Goal - 10.00%
- Disadvantaged Worker Current Participation 17.75%

SUMMARY OF CHANGES



SUMMARY OF CHANGES



FINANCIAL/GRANT STATUS

\$ in millions

SOURCE	(A)	(B)	(C)	(D)	(D/B)	(E)	(E/B)	(F)	(F/B)
	ORIGINAL BUDGET	TOTAL FUNDS ANTICIPATED	TOTAL FUNDS AVAILABLE	COMMITMENTS \$	%	EXPENDITURES \$	%	BILLED to FUNDING SOURCE \$	%
FEDERAL - CMAQ	68.2	54.0	0.0	54.0	100%	0.0	0%	0.0	0%
FEDERAL - SECTION 5309 BUS CAPT	8.6	8.6	8.6	8.6	100%	7.4	86%	7.4	86%
FEDERAL - REGIONAL STP	20.0	48.2	0.0	48.2	100%	0.0	0%	0.0	0%
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 PFM	0.178	0.178	0.178	0.178	100%	0.178	100%	0.178	100%
STATE PROP 1B PTMSEA	201.2	201.2	122.3	201.2	100%	117.0	58%	111.3	55%
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%	0.0	0%	0.0	0%
MEASURE R	661.1	661.1	347.1	653.1	99%	229.8	35%	229.8	35%
OTHER FUNDS*	52.4	187.5	0.0	0.0	0%	0.0	0%	0.0	0%
PROP C 25% HIGHWAY	148.9	189.6	3.8	3.4	2%	3.4	2%	3.4	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	4.9	0%	4.9	0%	4.9	10%
TOTAL	1,749.0	2,058.0	1,099.6	1,620.7	78.8%	429.5	20.9%	423.8	20.6%

NOTE: Expenditures are cumulative through June 2014.

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

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 approval is expected by September 2014.*

FEDERAL – RSTP: 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 approval is expected by September 2014.*

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.*

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.

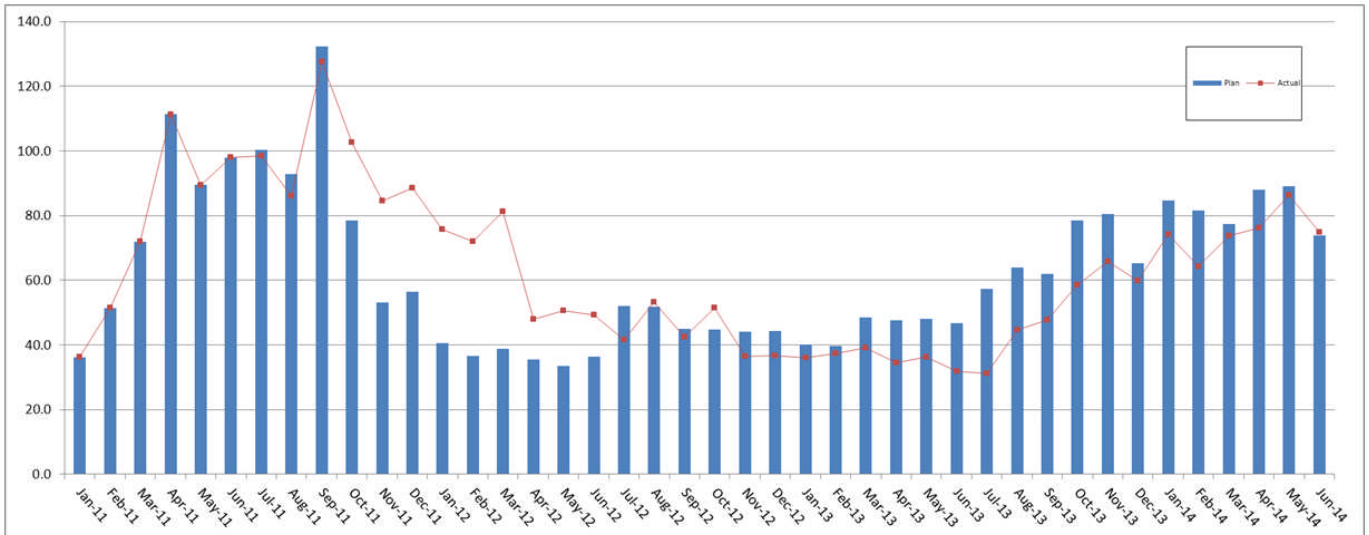
MEASURE R – TIFIA LOAN (Transportation Infrastructure Finance & Innovation Act): Application for a loan of \$545.9 M was submitted to the US Department of Transportation (DOT) in November 2011. Loan agreement was executed on September 12, 2012. The current financial plan is to drawdown funds not prior than FY16.

MEASURE R: \$53.4M has been allocated to the project based on the January 2012 Funding Plan. Funds are available for drawdown. An additional \$293.7M for FY13 has been allocated to the project based on the proposed May 2012 Measure R Extension Long Range Plan.

PROP C 25% HIGHWAY: \$3.8M has been allocated to the project based on the January 2012 Funding Plan. Funds are available for drawdown.

PROP A 35% RAIL CAPITAL: Based on November 2011 Long Range Transportation Plan, \$4.8 M of Proposition A 35% Rail Capital was allocated in FY2012 for the project.

STAFFING STATUS
Total Project Staffing – FTES



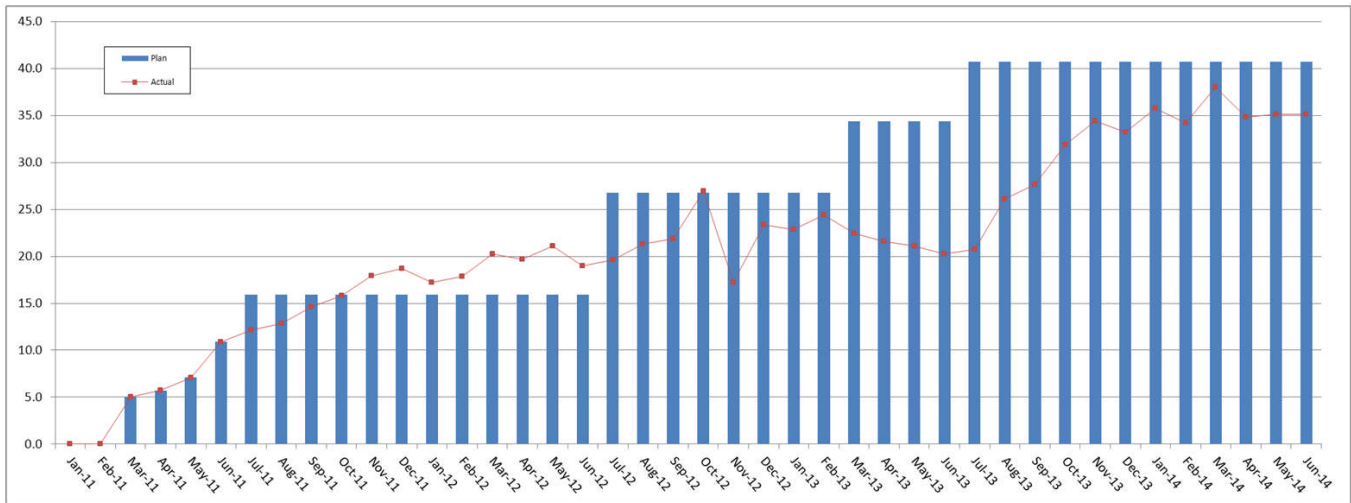
Notes:

1. FTE = Full Time Equivalent
2. Staffing levels are for project 865512 only.
3. Actual staffing levels are cumulative through June 2014.

TOTAL PROJECT STAFFING

For June 2014, there were a total of 35.1 FTE's for MTA's Project Administration staff and 39.8 FTE's for consulting staff. The total project staffing was 74.9 FTE's for June 2014. The overall FY14 Total Project Staffing plan averages 75.1 FTE's per month.

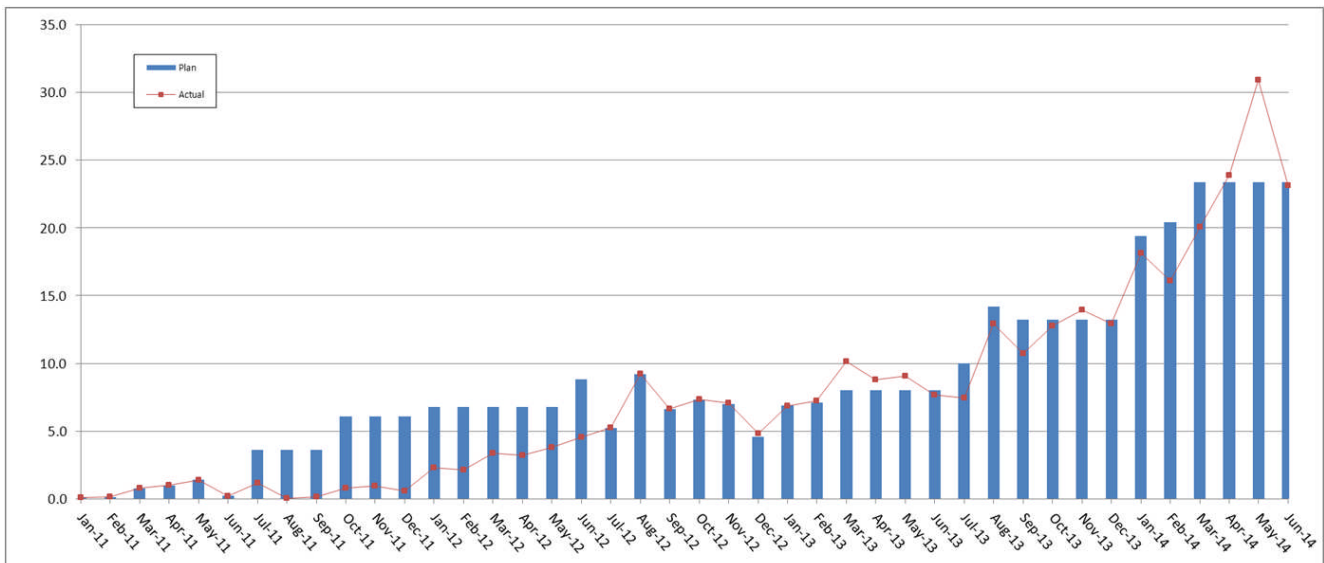
**STAFFING STATUS (Continued)
METRO STAFFING – FTES**



Notes:

1. FTE = Full Time Equivalent
2. Staffing levels are for project 865512 only.
3. Actual staffing levels are cumulative through June 2014.

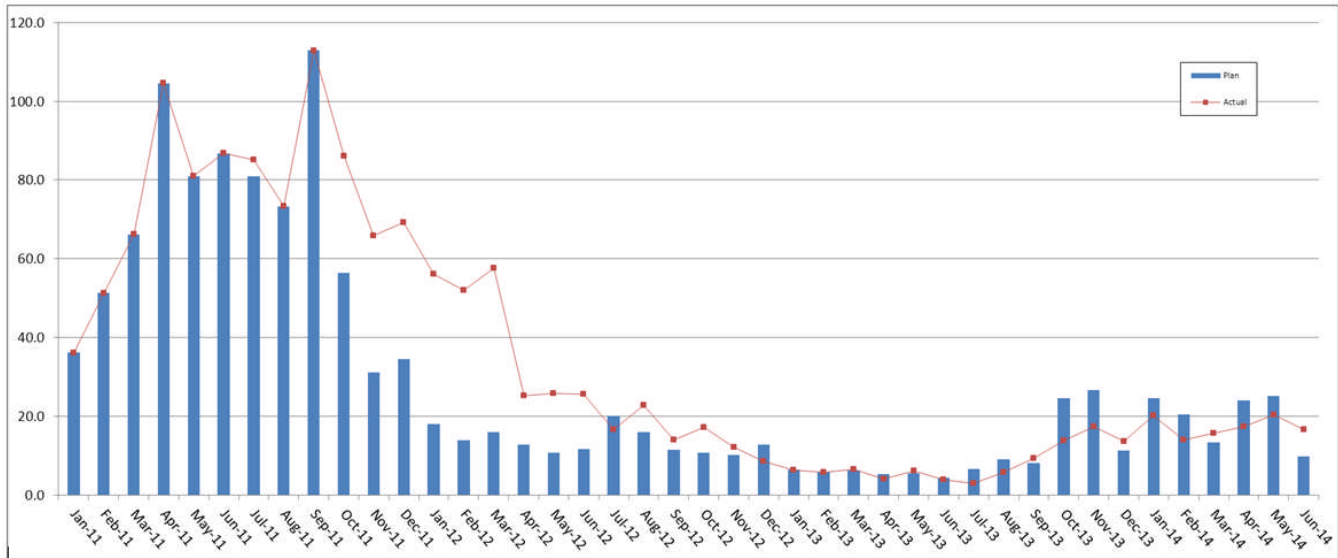
**CONSTRUCTION MANAGEMENT
SUPPORT SERVICES CONSULTANT – FTES**



Notes:

1. FTE = Full Time Equivalent
2. Staffing levels are for project 865512 only.
3. Actual staffing levels are cumulative through June 2014.

**STAFFING STATUS (Continued)
ENGINEERING SERVICES CONSULTANT – FTES**



Notes:

1. FTE = Full Time Equivalent
2. Staffing levels are for project 865512 only.
3. Actual staffing levels are cumulative through June 2014.

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 Corridor (D-B):									
Crenshaw Subdivision									
Full Takes	12	12		12	12	7	5	10	10
Part Takes (PT or SE)	10	9	1	9	9	1			1
TCE	10	10		10	10				
Subtotal Parcels	32	31	1	31	31	8	5	10	11
Harbor Subdivision									
Full Takes	14	14		15	15	8	7	12	13
Part Takes (PT or SE)	19	18	1	18	18	1			1
TCE	3	2	1	2	2	1			
Subtotal Parcels	36	34	2	34	34	10	7	12	14
Total CR/HS Parcels:	68	65	3	65	64	18	12	22	25
Southwestern Yard									
Full Takes	8	8		8	8	3	5	4	6
Part Takes	0								
TCE	0								
Subtotal Parcels:	8	8	0	8	8		5	4	6
Total SW Parcels:	8	8	0	8	8	3	5	4	6
C0990 C/LAX Advance Utility Relocations:									
Total Parcels:	0								
Total Project Parcels	76	*73	3	74	73	21	17	26	31

- **74 acquisitions: *73 planned for in the environmental report +1 full take for the Harbor Subdivision that was not certified.**
- **74 appraisals completed.**
- **73 offers made to property owners. 1 part take offer in Harbor Subdivision pending.**
- **34 parcels acquired: 29 full takes and 2 part takes provided to WSCC; 2 full takes and 1 Temporary Construction Easement (TCE) have been acquired but are not available for WSCC use until 07/11/14.**

Reported as of June 30, 2014

QUALITY ASSURANCE STATUS

C0988 Crenshaw/LAX Transit Corridor Design-Build Contract

- *Metro Quality continues daily field site visits to monitor:*
 - *Welding in Expo Yard*
 - *BNSF pole and line removal*
 - *Demolition*
 - *CSM Pile/Panel placement*
 - *Sanitary sewer relocation work*
- *Surveillance reports are on file.*
- *Metro Quality attended Readiness Review Meetings for Harbor Subdivision Area demolition and removal of electrical ductbanks and vaults.*
- *Fabrication of CSM piles and nondestructive examination of pile splicing by WSCC continues. Metro performed verification Non-Destructive Examination (NDE) on 10% of piles to date.*

C0990 Advanced Utility Relocations

- Quality attended Weekly Construction Progress Meeting and assisted contractor, Metro Builders, on quality-related issues.

C0992 Concrete Rail Ties

- Concrete ties deliveries continued with two “sticks” found damaged. Documentation has been submitted to Metro and coordination with the manufacturer is ongoing to resolve this issue.

ENVIRONMENTAL STATUS

C0988 Crenshaw/LAX Transit Corridor Design Build

- Reviewed and commented on the following Contractor Submittals:
 - *Noise Control Plan of Century Bridge Demolition*
 - *Revised Noise Control Plan for MLK Station*
 - *Green Construction Plan and Monthly Report*
 - *Sustainability Plan Monthly Reports*
 - *Weekly Biological Nesting Bird Survey Reports*
 - *Weekly Storm Water Pollution Prevent Plan (SWPPP) inspection reports,*
 - *Weekly Fugitive Dust Inspection Reports*
 - *Weekly Noise Monitoring Reports, and*
 - *Various Construction Work Plans*
- *Completed Second Quarter Mitigation Measure Status Report. Continue to document compliance with the Project Mitigation Monitoring and Reporting Plan (MMRP).*
- *Completed hazardous waste abatement at the La Brea Station (Parcels HS-2101 through HS-2104 and HS-2201 through HS-2206). Completed additional hazardous waste surveys for Century Bridge and Parcels CR-3701, CR-3801, CR-3802, HS-2702, and SW-0004).*
- *Submitted application for a South Coast Air Quality Management District (SCAQMD) Site-Specific Rule 1166 Permit for the management of Volatile Organic Compound (VOC) impacted soil.*
- *Completed sampling/ analysis of existing ballast for the former BNSF railroad along Metro ROW.*
- *Contractor is conducting additional soil and groundwater investigations at the Expo Station, Martin Luther King Station, Vernon Station and along Harbor Subdivision to identify potential areas of soil and groundwater contamination.*
- *Contractor encountered approximately 29 cubic yards of petroleum hydrocarbon impacted soil during the removal of the abandoned oil pipeline at the Martin Luther King Station.*
- *Coordinated Archaeological, Paleontological, and Native American Monitoring. State Historic Preservation Officer (SHPO) approved the Cultural Resources Monitoring and Mitigation Plan (CRMMP) and Paleontological Monitoring and Mitigation Plan (PMMP).*
- *Attended Contractor Weekly Progress meetings, Environmental Task-Force Meetings and various over-the-shoulder submittal meetings with Contractor.*

C0990 Advanced Utilities Contract

- *Coordinated monitoring for Archaeological Monitoring.*
- *Coordinated Storm Water Pollution Prevention Plan (SWPPP) Inspections.*
- *Coordinated noise monitoring for night-time advanced utility work.*

CONSTRUCTION RELATIONS STATUS

- *Partnered with the LAX/Coastal Chamber of Commerce to brief businesses located near LAX on the Century Bridge demolition (scheduled for July 25th).*
- *Provided a project briefing to the Consolidated Realty Board.*
- *Visited with students from Westchester High School to talk about careers in construction.*
- *Hosted a bi-monthly Community Construction Update Meeting in Inglewood.*
- *Promoted the Project at a Crenshaw Chamber of Commerce Meeting with Mayor Garcetti.*
- *Provided construction updates to Council District 8 (Parks) and to the L.A. Economic and Workforce Development Department (Perry).*
- *Briefed the SB Cities Service Council on construction activities.*
- *Briefed businesses and residents around the Martin Luther King and Expo Station areas on traffic reconfiguration plans.*
- *Briefed KJLH radio station on the project and upcoming events.*
- *Hosted Transit Oriented Development discussion group (CLC POD) to provide information about policies and planning.*

CREATIVE SERVICES STATUS

Systemwide Design and Art Program

- Continued to support mitigation efforts.

SAFETY & SECURITY STATUS

- Participated in weekly progress meetings with Construction Manager and Contractor Management to discuss safety/security related issues and construction schedules.
- Monitored construction activities on a daily basis including night construction activities to ensure compliance with contract specifications.
- Reviewed contractor safety submittals and construction work plans to ensure compliance with contract specifications.
- Conducted All-Hands Monthly Safety/Security Meeting with WCC's Construction Safety personnel and LAPD representatives.
- *Participated in Underground Reclassification Meeting with WSCC and Cal/OSHA Mining and Tunneling.*
- *Metro Builders reported 3,752 work hours and no incidents. WSCC reported 54,417 work hours and one incident for the month of June 2014. Total Project-to-Date work hours are 356,923 and four recordable incidents. The incident rate for the project is 2.2. The national recordable rate average is 3.8.*

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	10/14	N/A	Executed Letter of Agreement April 2012. <i>Metro working on outstanding issues.</i>
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.

ADVANCED UTILITY RELOCATION STATUS

- Advance relocation of DWP-Power conduits, manholes and conduits completed at MLK and Expo Station sites. Installation of the cable started in August 2013. Work at Crenshaw/Expo Station is complete. *Work at Crenshaw/MLK Station has been completed.*
- Design complete by DWP-Water for advance relocation of eleven (11) water lines along Crenshaw Boulevard. Start of construction was rescheduled due to impact of Buy America requirements. Relocations of water lines status:
 - *Crenshaw/MLK 24" relocation in progress, to complete early Oct. 2014.*
 - *Crenshaw @ 60th St. relocation to start Sept. 2nd and complete by end of Dec. 2014.*
 - *Crenshaw @ 63rd St. relocation to start Sept. 22nd and complete by end of Dec. 2014*
 - *Crenshaw @ Hyde Park St. relocation to start Nov. 10th and complete by end of Dec. 2014.*
- *Design is complete by SCE for advance relocation of fiber crossings and pole supports along the Harbor Subdivision. Construction completion expected by July 2014.*
- *Design is complete by SCE for the advance relocation of power crossings and pole supports on Redondo Blvd. at High St. Construction completion expected by July 2014.*

Crenshaw/LAX Transit Project

Peak Hour & Nighttime Construction Variances for the City of LA



CPUC CROSSING SUMMARY

Application	Location	Type	City
A1211018	Eucalyptus Avenue	Grade Crossing	Inglewood
A1211018	Centinela Avenue	Grade Crossing	Inglewood
A1211018	Pedestrian Crossing	Grade Separated (Underpass)	Inglewood
A1212030	Oak Street	Grade Crossing	Inglewood
A1212030	Cedar Avenue	Grade Crossing	Inglewood
A1212030	Ivy Avenue	Grade Crossing	Inglewood
A1212030	High Street	Grade Crossing	Inglewood
A1212029	Arbor Vitae Street	Grade Crossing	Inglewood
A1212029	Hindry Avenue	Grade Crossing	Inglewood
A1212029	Pedestrian Crossing at Florence/West station	Grade Crossing	Inglewood
A1212029	West Boulevard	Grade Crossing	Los Angeles/Inglewood
A1212029	Brynhurst Avenue	Grade Crossing	Los Angeles
A1301012	West 59th Street	Grade Crossing	Los Angeles
A1301012	Slauson Avenue	Grade Crossing	Los Angeles
A1301012	West 57th Street	Grade Crossing	Los Angeles
A1301012	West 54th Street	Grade Crossing	Los Angeles
A1301012	West 52nd Street	Grade Crossing	Los Angeles
A1301012	West 50th Street	Grade Crossing	Los Angeles
A1301012	West 48th Street	Grade Crossing	Los Angeles
A1302025	Hornet Way	Grade Separation	El Segundo
A1302025	Aviation Boulevard	Grade Separation	Los Angeles
A1302025	I-105 Freeway	Grade Separation	Los Angeles
A1302025	Imperial Highway	Grade Separation	Los Angeles
A1302025	111th Street	Grade Separation	Los Angeles
A1302025	104th Street	Grade Separation	Los Angeles
A1302025	Century Boulevard	Grade Separation	Los Angeles
A1302025	Manchester Avenue	Grade Separation	Inglewood
A1302025	La Cienega Boulevard	Grade Separation	Inglewood
A1302025	I-405 Freeway	Grade Separation	Inglewood
A1302025	Hyde Park Boulevard	Grade Separation	Inglewood
A1302025	La Brea Avenue	Grade Separation	Inglewood
A1302025	Pedestrian Crossing at La Brea-Florence Station (East)	Grade Crossing	Inglewood
A1302025	Pedestrian Crossing at La Brea-Florence Station (West)	Grade Crossing	Inglewood

= Highlighted grade crossing/grade separations have been approved.

CPUC CROSSING SUMMARY (Continued)

Metro filed formal grade applications to CPUC between November 16, 2012 and January 23, 2013. Protests were received on CPUC Application Packages 1 and 4; no protests were received on CPUC Application Packages 2, 3 and 5. Status by CPUC application is below:

#A1211018 – Package 1, Centinela, Eucalyptus and Pedestrian Underpass West of Eucalyptus

Status: The CPUC Administrative Law Judge (ALJ) continues to work on a proposed decision. CPUC has accepted the settlement agreement between Metro and Faithful Central Bible Church regarding Eucalyptus and the pedestrian underpass. The CPUC still needs to issue a decision on the Centinela crossing, the pedestrian underpass and the Eucalyptus crossing. Forecast CPUC Commission Approval: August 14, 2014.

#A1212030 – Package 2, At-Grade Gated Crossings in Inglewood

Status: The CPUC approved Package 5 on April 10, 2014.

#A1212029 – Package 3, At-Grade Gated Crossings in Inglewood and Los Angeles

Status: The CPUC approved Package 3 on April 10, 2014.

#A1301012 – Package 4, Crenshaw Street-Running Crossings

Status: The CPUC Administrative Law Judge (ALJ) continues to work on a proposed decision. *Forecast CPUC Commission Approval: August 14, 2014.*

#A1302025 – Package 5, Grade Separated Crossings

The CPUC approved Package 5 on February 27, 2014.

Note: # is the CPUC action number.

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.


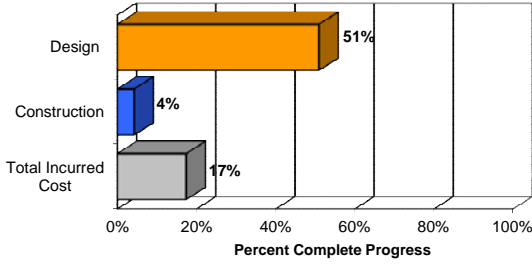
CHRONOLOGY OF EVENTS (Continued)

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.


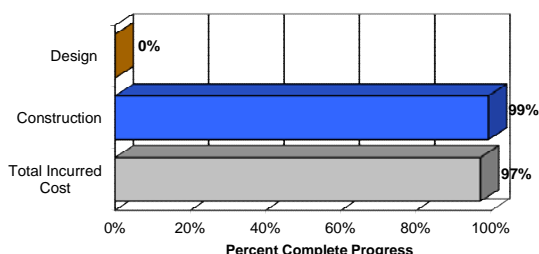
CHRONOLOGY OF EVENTS (Continued)

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.
March 7, 2014	Issued Notice to Proceed to LB Foster Rail Technology Corp., Contract C0992A Rail and Bumping Posts.


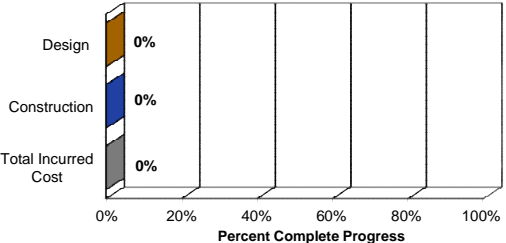
CONTRACT C0988 STATUS
Crenshaw/LAX Transit Corridor

<p>PE Design Contractor: Hatch Mott MacDonald (HMM) CM Consultant: Stantec Contractor: - Walsh Shea Corridor Constructors (WSSC)</p>	<p>Contract No.: C0988 Status as of June 27, 2014</p> 																																			
<p>Progress/Work Completed: Design - Submitted Maintenance of Traffic Plans Stage A 85% for Greenline, Vernon and Century demolition, and Stage B.1 60% for Expo, MLK and Vernon. - Submitted RFC- Special Trackwork 1st Package and Tunnel Segmental Liner. - Submitted Interim Design - Composite Utility Rearrangement. - Complete UG Geotech Data Reports and Design Reports. - Submitted AG Geotechnical Data Report - Segment A, B, & . - Design Confirmation phase is closed except for the Traction Power Load Flow Report and Volume 10 Train Control. - Submitted interim design - Traction Power, OCS, Communication and Train Control. - Submitted interim design- Aerial Guideway Structure, Bored Tunnel, Underground #1, #3 and #4, Segment A & C Stations. - Continued Guideway RFC plans for all segment. Construction - Completed SOE design for Expo Station and MLK Station. - Continued with the fabrication of the tunnel boring machine. - Continued SWPP implementation - Segment A, B & C. - Completed construction for CSM Test Panel work in Expo. - Commenced construction for CSM in Expo (East Side). - Completed mobilization at MLK Station. - Continued utility relocation work at MLK Station. - Commenced utility relocation work at Expo Station. - Continued with utility monitoring & CCTV inspection. - Continued with bird nesting observation.</p>	<p>Areas of Concern:</p> <ul style="list-style-type: none"> Board of Public Works' (BPW) notice conditions the tree removal permit upon many requirements and conditions that are outside the scope of work for the C0988 Crenshaw/LAX Transit Corridor Project. Submittal to the City of LA for a full street closure to maximize CSM production at Expo and MLK. 																																			
<p>Schedule Assessment:</p> <p>Metro's assessment of the contractor's schedule update is that they are behind on meeting interim design milestones.</p> <p>Contractor's Jun 2014 schedule update indicates Milestone 1 - Contract Substantial Completion is 105 calendar days behind.</p>	<p>Cost Assessment: The current construction contract cost forecast is \$1,276.93 million and is within the Board authorized budget.</p> <p>The Contractor submitted their 9th payment application in the approved amount of \$9,993,632.37.</p>																																			
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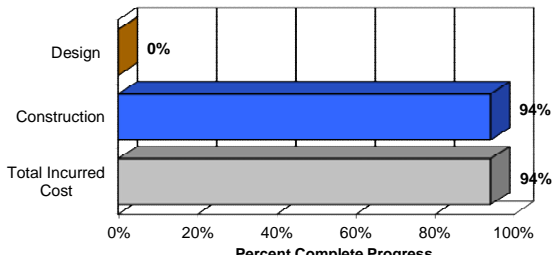
CONTRACT C0990 STATUS
Crenshaw/LAX Advanced Utility Relocations

<p>PE Design Contractor: Hatch Mott MacDonald (HMM) CM Consultant: Stantec Contractor: - Metro Builders and Engineers Group LTD</p>	<p>Contract No.: C0990 Status as of June 27, 2014</p> 																																			
<p>Progress/Work Completed: - Completed jack and bore work & continued manhole constriction and sewer connection at 59th Street. - Completed LADWP water crossing work at Crenshaw & Slauson. - Continued LADWP waterline change order work on Crenshaw & 54th and Slauson.</p>	<p>Areas of Concern: - Design changes and Hot Tap Sleeve submittal processed by DWP impacted the water shutdown on Crenshaw & 54th.</p>																																			
<p>Schedule Assessment: The forecast dates for Contract Milestones shown in the table below are based on the contractor's June 2014 Schedule Update.</p> <p>Metro has agreed to grant a total of 103 calendar day time extension as a result of lost production due to sandy soil conditions and revised installation methodology for sewer line work at 59th & Crenshaw, and traffic control and work hour restriction to 67th & Crenshaw. There are additional 21 day time extension modification due to the peak hour restriction and revised installation method pending to be approved.</p> <p>The Contractor continues to be behind the scheduled completion date due to the issues for jack and bore at 59th Street and design changes and Hot Tap Sleeve submittal at Crenshaw & 54th as noted in the area of concerns.</p> <p>Metro's assessment of the contractor's forecast completion date shown in the table below (and projected current cash flow burn rates) is a potential completion of July 31, 2014.</p>	<p>Cost Assessment: The current construction contract cost forecast is \$8.95 million and within the Board authorized budget. The forecast has increased from the previous reporting period primarily due to approved change orders.</p> <p>The Contractor submitted their 20th payment application in the approved amount of \$314,727.67</p> <p>Increase in costs to the construction contract award value are a result of design enhancements and change orders.</p>																																			
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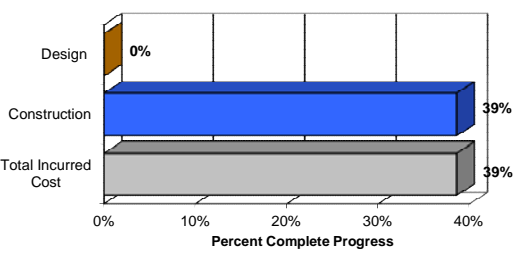
CONTRACT C0991 STATUS
Southwestern Yard

<p>PE Design Contractor: Hatch Mott MacDonald (HMM) CM Consultant: Stantec Contractor: - TBD</p>	<p>Contract No.: C0991</p>  <p>Status as of June 27, 2014</p>																																													
<p>Progress/Work Completed: - Metro continue preparation of a bid solicitation package to a planned advertisement in August 2014.</p>	<p>Areas of Concern: - None.</p>																																													
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CONTRACT C0992 STATUS
Concrete Ties

<p>PE Design Contractor: Hatch Mott MacDonald (HMM) CM Consultant: Stantec Contractor: Rocla Concrete Tie Inc.</p>	<p>Contract No.: C0992 Status as of June 27, 2014</p> 																																								
<p>Progress/Work Completed: - 18,048 ties out of a total 19,926 ties have been shipped from factory. - As of June 2014, 7,656 ties have been received onsite by the design-builder (Contract C0988).</p>	<p>Areas of Concern: - None.</p>																																								
<p>Schedule Assessment: Metro's assessment of the vendor's delivery schedule is that they are still on schedule in regard to Contract Milestones.</p>	<p>Cost Assessment: The current contract cost forecast is \$2,161,297. The Contractor submitted seven invoices with a total amount of \$960,390.16 in Jun 2014.</p>																																								
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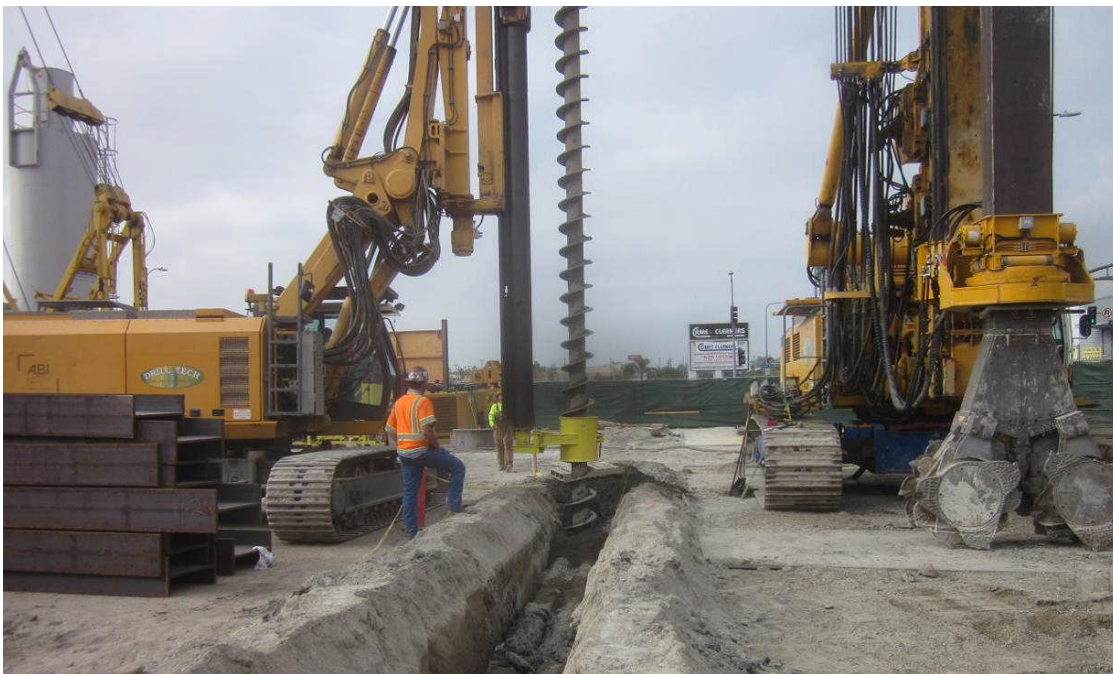
CONTRACT C0992A STATUS
Running Rail and Bumping Posts

<p>PE Design Contractor: Hatch Mott MacDonald (HMM) CM Consultant: Stantec Contractor: LB Foster Rail Technology Corp</p>	<p>Contract No.: C0992A Status as of June 27, 2014</p> 																																			
<p>Progress/Work Completed: - Rolling of the 115RE SS rail at the SDI rail facility began on 4/20/2014. - A total of 1,247.18 net ton 115RE SS Blank Stick Rail has been delivered. All 115RE SS rails are expected to be shipped to the job-sites by July 2014. - A total of 1,617.08 NT 115RE HH rail have been shipped from the Evraz Rail Mill. The current plan is to begin trucking over the remaining 115RE HH Rails to the Metro job-sites beginning in mid July 2014 and complete deliveries in mid August 2014.</p>	<p>Areas of Concern: - None.</p>																																			
<p>Schedule Assessment: Metro's assessment of the vendor's delivery schedule is that the running rails are still on schedule to complete deliveries to the job-sites by the end of August 2014. Both Metro and LB Foster agreed to a time extension change for the delivery of the bumping post. The new delivery date has been changed from 12/31/2014 to 9/15/2015.</p>	<p>Cost Assessment: The current contract cost forecast is \$5,184,044.79 The Contractor submitted two invoices for a total amount of \$1,998,745.83 in June 2014.</p>																																			
<p>Schedule Summary:</p> <table border="0"> <tr> <td>1. Date of Award:</td> <td align="right">01/23/14</td> </tr> <tr> <td>2. Notice to Proceed:</td> <td align="right">03/07/14</td> </tr> <tr> <td>3. Original Substantial Completion Duration:</td> <td align="right">300</td> </tr> <tr> <td>4. Current Substantial Completion Duration:</td> <td align="right">558</td> </tr> <tr> <td>5. Elapsed Time from NTP:</td> <td align="right">112</td> </tr> </table>	1. Date of Award:	01/23/14	2. Notice to Proceed:	03/07/14	3. Original Substantial Completion Duration:	300	4. Current Substantial Completion Duration:	558	5. Elapsed Time from NTP:	112	<p>Cost Summary: \$ In millions</p> <table border="0"> <tr> <td>1. Award Value:</td> <td align="right">5.2</td> </tr> <tr> <td>2. Executed Modifications:</td> <td></td> </tr> <tr> <td>3. Approved Change Orders:</td> <td></td> </tr> <tr> <td>4. Current Contract Value (1 + 2 + 3):</td> <td align="right">5.2</td> </tr> <tr> <td>5. Incurred Cost:</td> <td align="right">2.0</td> </tr> </table>	1. Award Value:	5.2	2. Executed Modifications:		3. Approved Change Orders:		4. Current Contract Value (1 + 2 + 3):	5.2	5. Incurred Cost:	2.0															
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CONSTRUCTION PHOTOGRAPHS



Lowering beam at pile located between MLK and Stocker.



.Pre-drilling holes for soil mixing at the Exposition Station Yard.

CONSTRUCTION PHOTOGRAPHS



Cutter soil mixing equipment at the Exposition Station Yard.

**APPENDIX
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 SERVICES	Includes design engineering, project management assistance, 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.

APPENDIX
LIST OF ACRONYMS

ACE	Advanced Conceptual Engineering
ADA	Americans with Disabilities Act
ADR	Alternative Dispute Resolution
ALJ	Administrative Law Judge
AMC	Airport Metro Connector
APM	Automated People Mover
ATC	Alternative Technical Concept
ATC	Automatic Train Control
ATSAC	Automated Traffic Surveillance and Control
BAFO	Best and Final Offer
BID	Business Improvement Development
BIM	Building Information Modeling
BNSF	Burlington Northern Santa Fe Railway Company
BOC	Bus Operations Control
CADD	Computer Aided Drafting and Design
CALTRANS	California Department of Transportation
CARB	California Air Resources Control Board
CCTV	Closed Circuit Television
CD	Calendar Day
CD	Council District
CDRL	Contract Data Requirement List
CE	Categorical Exemption
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CM	Construction Manager
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CN	Change Notice
CO	Change Order
CPM	Critical Path Method
CPUC	California Public Utilities Commission
CR	Camera Ready
CRMMP	Cultural Resources Monitoring and Mitigation Plan
CSM	Cutter Soil Mixing
CSPP	Construction Safety Phasing Plan
CTC	California Transportation Commission
CUD	Contract Unit Description
CWP	Construction Work Plan
DB	Design Build
DBB	Design Bid Build
DBE	Disadvantaged Business Enterprise
DOT	Department of Transportation
DRB	Dispute Review Board
DWP	Department of Water and Power

APPENDIX
LIST OF ACRONYMS (Continued)

EEO	Equal Employment Opportunity
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPBM	Earth Pressure Balance Machine
FAA	Federal Aviation Administration
FAR	Federal Acquisition Regulation
FAT	Factory Acceptance Testing
FCBC	Faith Central Bible Church
FD	Final Design
FEIR	Final Environmental Impact Report
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FFGA	Full Funding Grant Agreement
FLSR	Fire Life Safety Report
FONSI	Finding of No Significant Impact
FRA	Federal Railroad Administration
FSEIR	Final Supplemental Environmental Impact Report
FSEIS	Final Supplemental Environmental Impact Statement
FTA	Federal Transit Administration
FTE	Full Time Equivalent
GBR	Geotechnical Baseline Report
GDSR	Geotechnical Design Summary Report
GFE	Good Faith Effort
HMM	Hatch Mott MacDonald
IFB	Invitation for Bid
IPMO	Integrated Project Management Office
ITF	Intermodal Transportation Facility
JV	Joint Venture
LA	Los Angeles
LABOE	Los Angeles Bureau of Engineering
LABOS	Los Angeles Bureau of Sanitation
LABSL	Los Angeles Bureau of Street Lighting
LACFCD	Los Angeles County Flood Control District
LACMTA	Los Angeles County Metropolitan Transportation Authority
LADOT	Los Angeles Department of Transportation
LADPW	Los Angeles Department of Public Works
LADWP	Los Angeles Department of Water and Power
LAUSD	Los Angeles Unified School District
LAWA	Los Angeles World Airports
LAX	Los Angeles International Airport
LNTP	Limited Notice To Proceed
LOA	Letter of Agreement
LONP	Letter Of No Prejudice
LOP	Life-of-Project

APPENDIX
LIST OF ACRONYMS (Continued)

LPA	Locally Preferred Alternative
LRT	Light Rail Transit
L RTP	Long Range Transportation Plan
LRV	Light Rail Vehicle
MBE	Metro Builders and Engineers Group, Ltd
MCA	Master Cooperative Agreement
MIC	Microbiologically Influenced Corrosion Control System
MIS	Major Investment Study
MOA	Memorandum of Agreement
MOS	Minimum Operating Segment
MOU	Memorandum of Understanding
MPS	Master Program Schedule
MPSR	Monthly Project Status Report
MSDS	Material Safety Data Sheet
MSF	Maintenance & Storage Facility
N/A	Not Applicable
NEPA	National Environmental Protection Act
NFPA	National Fire Protection Association
NOD	Notice of Determination
NPDES	National Pollution Discharge Elimination System
NTE	Not to Exceed
NTP	Notice To Proceed
OCC	Operations Control Center
OCS	Overhead Catenary System
OSHA	Occupational Health and Safety Administration
OTS	Over the Shoulder
PA/VMS	Public Address/Visual Messaging Sign
PDQM	Project Design Quality Manual
PE	Preliminary Engineering
PEER	Permit Engineering Evaluation Report
PID	Photo Ionization Detector
PIP	Project Implementation Plan
PLA	Project Labor Agreement
PM	Project Manager
PMIP	Project Management Implementation Plan
PMMP	Paleontological Monitoring and Mitigation Plan
PMOC	Project Management Oversight Consultant
PMP	Project Management Plan
P&P	Policies & Procedures
POD	Project Oriented Discussions
PQPM	Project Quality Program Manual
PR	Project Report
PSR	Project Study Report

APPENDIX
LIST OF ACRONYMS (Continued)

QA	Quality Assurance
QAR	Quality Assurance Report
QC	Quality Control
QPSR	Quarterly Project Status Report
QTIB	Qualified Transit Improvement Bonds
RAMP	Real Estate Acquisition Management Plan
RCHAR	Rail Crossing Hazards Analysis Report
RCMP	Risk Assessment Management Plan
REAP	Rain Event Action Plans
RFC	Request For Change
RFMP	Rail Fleet Management Plan
RFP	Request For Proposals
RFQ	Request For Qualifications
RHA	Risk Hazard Analysis
RLPE	Red Light Photo Enforcement
ROC	Rail Operations Center
ROD	Record Of Decision
ROM	Rough Order of Magnitude
ROW	Right-Of-Way
RPZ	Runway Protection Zone
RSD	Revenue Service Date
RTIP	Regional Transportation Improvement Program
SAV	Stand Alone Validator
SCAQMD	Southern California Air Quality Management District
SCADA	Supervisory Control and Data Acquisition
SCC	Standard Cost Category
SCE	Southern California Edison
SCG	Southern California Gas Company
SCRRA	Southern California Regional Rail Authority
SHA	State Highway Account
SHPO	State Historic Preservation Office
SIT	System Integration Testing
SOQ	Statement of Qualification
SOV	Schedule Of Value
SOW	Statement Of Work
SP	Special Provision
SPAS	Specific Plan Amendment Study
SPP	Special Permitting Process
SSMP	Safety and Security Management Plan
STB	Surface Transportation Board
STIP	State Transportation Improvement Program
STP	Surface Transportation Program

**APPENDIX
LIST OF ACRONYMS (Continued)**

STV	STV Group
SWPP	Storm Water Prevention Plan
SWY	Southwestern Yard (Division 16)
TOD	Transit Oriented Development
TPSS	Traction Power Substation
TRACS	Transit Automatic Control System
TVA	Threat Vulnerability Analysis
TVM	Ticket Vending Machine
TBD	To Be Determined
TBM	Tunnel Boring Machine
TCE	Temporary Construction Easement
TCRP	Traffic Congestion Relief Program
TIFIA	Transportation Infrastructure Finance and Innovation Act
TIGER	Transportation Investment Generating Economic Recovery
TOD	Transit Oriented Development
TPSS	Traction Power Substation
TRACS	Transit Automatic Control System
TVA	Threat Vulnerability Analysis
TVM	Ticket Vending Machine
UFS	Universal Fare System
USDOT	United States Department Of Transportation
VE	Value Engineering
WBS	Work Breakdown Structure
WP	Work Package
WSCC	Walsh/Shea Corridor Constructor
YOE	Year of Expenditure