

# Crenshaw/LAX Transit Project



Metro<sup>®</sup>

# **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).

**MARCH 2014**


## **TABLE OF CONTENTS**

	Page No.
Project Summary.....	1
Project Overview.....	2-5
Management Issues.....	5-8
Project Alignment.....	9
Base Project Scope.....	10-11
Project Status	
• Project Schedule	
○ Key Milestones Six-Month Look Ahead.....	12
○ Project Summary Schedule.....	13
○ Schedule Measurements.....	14
○ Overall Construction Progress Curve.....	15
○ Major Equipment Delivery .....	16
○ Design-Builder's (C0988) Long Lead Item List.....	17
○ Critical Path Narrative.....	18
• Project Cost	
○ Project Cost .....	19
○ Project Cost Analysis.....	19-20
○ Project Contingency Drawdown.....	21
○ Project Contingency Drawdown Analysis.....	21
○ Disadvantaged Business Enterprise (DBE).....	22
○ Project Labor Agreements (PLA) Status.....	22
○ Summary of Changes.....	23-24
• Financial/Grant	
○ Financial/Grant .....	25
○ Status of Funds Anticipated.....	26
• Staffing	
○ Total Project Staffing.....	27
○ Metro Staffing.....	28
○ Construction Management Support Services Consultant.....	28
○ Engineering Services Consultant.....	29
• Real Estate.....	30
• Quality Assurance.....	31

**TABLE OF CONTENTS (Continued)**

	Page No.
• Environmental.....	32
• Construction Relations.....	33
• Creative Services.....	33
• Safety and Security.....	34
• Third Party Agreement and Advanced Utility Relocation Status.....	35
• Peak Hour and Nighttime Construction Variances.....	36
• California Public Utilities Commission (CPUC) Summary.....	37-38
• Chronology of Events.....	39-41
• Construction Contracts	
o Contract C0988 Status.....	42
o Contract C0990 Status.....	43
o Contract C0991 Status.....	44
o Contract C0992.....	45
o Contract C0992A.....	46
• Construction Photographs.....	47
Appendices	
• Cost and Budget Terminology.....	48
• List of Acronyms.....	49-53

**PROJECT SUMMARY**

<b>LOCATION:</b> Crenshaw Blvd at Exposition south to Green Line <b>DESIGN/CONSULTANT:</b> Hatch Mott MacDonald				<b>CONSTRUCTION MANAGEMENT CONSULTANT:</b> Stantec <b>CONTRACTOR:</b> Walsh-Shea Corridor Constructors (WSCC)			
<b>PROJECT PHOTO:</b> Potholing for utilities on Crenshaw Blvd.				<b>WORK COMPLETED PAST MONTH:</b>			
				<ul style="list-style-type: none"> <li>o WSCC continued exploratory utility potholing.</li> <li>o WSCC continued geotechnical instrumentation.</li> <li>o WSCC continued demolition of buildings.</li> <li>o WSCC continued rail and tie removal.</li> <li>o WSCC commenced noise wall construction at the Crenshaw/Expo Station Area.</li> <li>o Metro continued real estate acquisitions.</li> <li>o Metro Builders continued street sewer relocations and continued LADWP water line pipe sleeves installation.</li> <li>o LADWP continued water line relocations at north end.</li> </ul>			
<b>EXPENDITURE STATUS</b> (\$ In Millions)				<b>SCHEDULE ASSESSMENT</b>			
<b>ACTIVITIES</b>	<b>CURRENT BUDGET</b>	<b>EXPENDED AMOUNT</b>	<b>PERCENT EXPENDED</b>	<b>MAJOR SCHEDULE ACTIVITIES</b>	<b>PRIOR PLAN</b>	<b>CURRENT PLAN</b>	<b>VARIANCE WEEKS</b>
<b>DESIGN</b>	\$ 136.7	\$ 56.7	41.5%	<b>Environmental</b>			
				FEIS/FEIR	Sep-11	Sep-11	Complete
				Record of Decision	Dec-11	Dec-11	Complete
<b>RIGHT-OF-WAY</b>	\$ 127.4	\$ 97.6	76.6%	<b>Design</b>			
				Preliminary Engineering	Nov-11	Nov-11	Complete
				Final Design	Sep-15	Sep-15	0
<b>CONSTRUCTION</b>	\$ 1,353.1	\$ 149.9	11.1%	<b>Right-of-Way</b>			
				All parcels available	Aug-14	Dec-14	16 weeks behind
<b>OTHER</b>	\$ 440.8	\$ 71.0	16.1%	<b>Construction</b>			
				D-B Notice to Proceed	Sep-13	Sep-13	Complete
				D-B Substantial Complete	Sep-18	Sep-18	0
				Revenue Service Date	Oct-19	Oct-19	0
<b>TOTAL</b>	<b>\$ 2,058.0</b>	<b>\$ 375.2</b>	<b>18.2%</b>				
Note: cost as of March 28, 2014.							
<b>AREAS OF CONCERN</b>							
<ul style="list-style-type: none"> <li>o Right-of-way acquisition forecast dates trending later than planned.</li> <li>o CPUC approval of grade-separation crossings applications.</li> <li>o Timely future reviews of WSCC's designs by City of Los Angeles, City of Inglewood, Caltrans, FAA and Los Angeles World Airports.</li> <li>o Third party relocations prior to design-builder's construction activities</li> <li>o Execution of Agreement with City of Inglewood .</li> </ul>							
<b>ROW ACQUISITION</b>	<b>PLAN</b>	<b>ACQUIRED</b>	<b>REMAINING</b>	<b>CRITICAL ACTIVITIES / 3 MONTH LOOK AHEAD</b>			
FULL TAKES	35	27	8	<ul style="list-style-type: none"> <li>o Metro continue turning over real estate properties to WSCC.</li> <li>o WSCC submit 60% design package.</li> <li>o WSCC commence excavation support at Crenshaw/Expo station.</li> <li>o WSCC commence demolition of existing bridge at Century Blvd</li> <li>o WSCC continues geotechnical instrumentation and monitoring.</li> <li>o Metro Builders completes their advance utility relocations.</li> <li>o LADWP complete water line relocations at north end.</li> </ul>			
PARTIAL TAKES	27	1	26				
TEMPORARY EASEMENTS	12	0	12				
<b>TOTAL PARCELS</b>	<b>74</b>	<b>28</b>	<b>46</b>				

## **PROJECT OVERVIEW**

### **Major Contract Procurement**

*Metro is pursuing moving up the solicitation of Contract C0991, Southwestern Yard to this summer. A revised schedule is under review for the procurement of this contract and will be reported on next month.*

### **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 60<sup>th</sup> Street (north portal) – relocation of a 10” VCP sewer line to clear way for the cut and cover trench is forecast to complete May 10, 2014.*
- *At the Crenshaw cut and cover tunnel area 67<sup>th</sup> Street (south portal) – relocation of an 18” VCP sewer line to clear way for the cut and cover trench is forecast to complete May 15, 2014.*
- *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, are forecast to be complete May 10, 2014.*

*MBE has lost another 30 days this month and has not been able to mitigate schedule delays. Metro’s assessment is that the projected substantial completion date is June 30, 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 43 for cost and schedule information.*

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

- *Continued over the shoulder reviews and task force meetings on all elements of design.*
- *Submittal of Design Confirmation Group 2 which includes summary of design advancements made to date for guideway and trackwork, utilities, roadway work, overhead catenary, and ductbank project elements.*
- *Tunnel – TBM specification and tunnel liner segment specifications were received and are under review. A factory acceptance testing is preliminary scheduled in Germany at the factory site in June 2014.*

*Initial construction efforts continue along the three major areas or segments:*

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

- *Potholing has been completed.*
- *SWPPP – silt fence installed.*
- *Clearing and grubbing in the BNSF bridge area near Century and aviation.*

## **PROJECT OVERVIEW (Continued)**

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

- *Potholing continues.*
- *Geotechnical borings have been completed.*
- *Rail and tie removal continues.*
- *CCTV existing storm drain and sewer lines started.*

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

- *Crenshaw/Exposition Station area*
  - *Potholing continues.*
  - *Geotechnical boring continues.*
  - *Noise wall installation continues.*
- *Crenshaw/MLK Station area*
  - *Potholing continues.*
  - *Geotechnical boring is complete.*
- *Crenshaw/Vernon Station area*
  - *Potholing continues.*
  - *Geotechnical boring is complete.*

See Contract C0988 Status sheet on page 42 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 28 parcels acquired through March 2014. Twenty-five full takes and one temporary construction easement have been turned over to WSCC. Two additional full takes have been acquired and will be turned over to WSCC by June 2014.*

### **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 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.

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 March 2014 are \$1,616.7 million or 78.6% of the Current Budget. The project expenditures thru March 2014 are \$375.2 million or 18.2% 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.

The project schedule contingency remains the same this period at 8.7 months.

## **PROJECT OVERVIEW (Continued)**

A Risk Assessment Workshop was held on December 11<sup>th</sup> and 12<sup>th</sup> 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 been previously completed and submitted and approved by FAA for the Advanced Utility Relocation Contractor. Now a CSPP has to be submitted by the design-builder for their scope of work and get FAA approval before work can commence in the LAX area. The design-builder held an introductory meeting with FAA on November 19, 2013, to discuss access, height restrictions and site restrictions. *The design-builder has met with and will continue to meet with the FAA prior to submitting a draft CSPP.*

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

**Status/Action** *Metro completed and submitted all formal applications (packages 1 thru 5). The CPUC approved Package No. 5 on February 27, 2014. It is anticipated that the CPUC will approve Packages No. 2 and No. 3 on April 10, 2014. See page 38 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 May 2014.*

**Concern No. 3:** Execution of Local Match Agreements for 3 percent project funding is required with the City of Inglewood.

**Status/Action** Metro and the City of Inglewood have worked through various issues over the last few months and may have a solution to outstanding issues so an agreement can be executed in the near future.

## **MANAGEMENT ISSUES**

**Concern No. 4:** Execution of Grant Agreement with City of Los Angeles for \$55.0 Million.

**Status/Action** *The Agreement that will provide for the City of Los Angeles 3% contribution for the Crenshaw/LAX was rescheduled and placed on the agenda for Metro's Finance, Budget and Audit Committee in April 2014.*

**Concern No. 5:** 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 28 parcels acquired through March 2014. Twenty-five full takes and one temporary construction easement have been turned over to WSCC. Two additional full takes have been acquired and will be turned over to WSCC by June 2014. However, some parcels are being delivered later than originally scheduled 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. 6:** Variance to nighttime working hours.

**Status/Action** Variances to nighttime working hours on all five construction segments had been approved by the Los Angeles Police Commission. See page 35 for map of variance segments. Variances have to be renewed every six months.

*The variance to nighttime working hours for Segments A, B, C and E have been renewed thru June 3, 2014. Metro has been meeting with Council District 8 and has been successful in restoring variances from Council District 8 for the Advance Utility Relocations Contractor C0990.*

*The variance for Segment D for the design-builder remains suspended until WSCC completes work plan for construction within this area and presents to Council District 8 and the LAPD Noise Commission.*

**Concern No. 7:** 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

## **MANAGEMENT ISSUES**

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.

**Concern No. 8:** 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. Three construction changes are planned for execution with WSCC in the near future.

**Concern No. 9:** Special Permitting Process (SPP).

**Status/Action** Requires City of Los Angeles to approve SPP for Crenshaw/LAX Project which exempts project from certain restrictions. Application was approved by the City Council on January 6, 2014. *However, Metro is still working out details of the SPP with the City of Los Angeles.*

**Concern No. 10:** 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.

**Concern No. 11:** 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 has commenced review of third parties scope of works and will carefully review all invoices as they are received.

**Concern No. 12:** *Timing of the solicitation for Contract C0991 Southwestern Yard.*

**Status/Action** *Metro is pursuing moving up the solicitation of Contract C0991 Southwestern Yard to this summer. A revised schedule is under review.*

## MANAGEMENT ISSUES (Continued)

**Concern No. 13:** *Design-builders design submittal schedule*

**Status/Action** *WSSC is falling behind on meeting interim design milestones but are maintaining the Contract milestones. Due to this trend, Metro has requested a recovery plan on how WSSC will get back on schedule so as not to impact planned construction activities.*

# 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	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14
Contract C0992A Running Rail NTP	3/7/2014A						
Contract C0988 Design Confirmation Group 2 Submittal	3/7/2014A						
Contract C0988 Complete Utility Potholing - LAWA	3/11/2014A						
Contract C0988 Complete Utility Potholing - City of Inglewood	3/28/2014A						
Contract C0988 Submit TBM Final Design Details	04/25/14						
Contract C0988 Complete Utility Potholing - City of LA	04/29/14						
Contract C0988 Interim Design Submits to Metro	06/04/14						
Contract C0988 Start Piling Operation at Crenshaw/Expo	06/05/14						
Contract C0988 Start Demo & Excavation at Vernon	06/23/14						
Contract C0992A SDI 115RE SS Rail Delivery	06/16/14				<input type="checkbox"/>		
Contract C0990 Substantial Completion	06/30/14				<input type="checkbox"/>		
Contract C0992A Evraz115RE HH Rail Delivery	07/31/14					<input type="checkbox"/>	
Contract C0992 Concrete Ties Delivery	07/31/14					<input type="checkbox"/>	
Contract C0988 Demo Existing W. Century Blvd. Railroad Bridge	8/15/2014*						


 MTA Staff

 MTA Board Action

FTA (Federal)

 Other Agencies

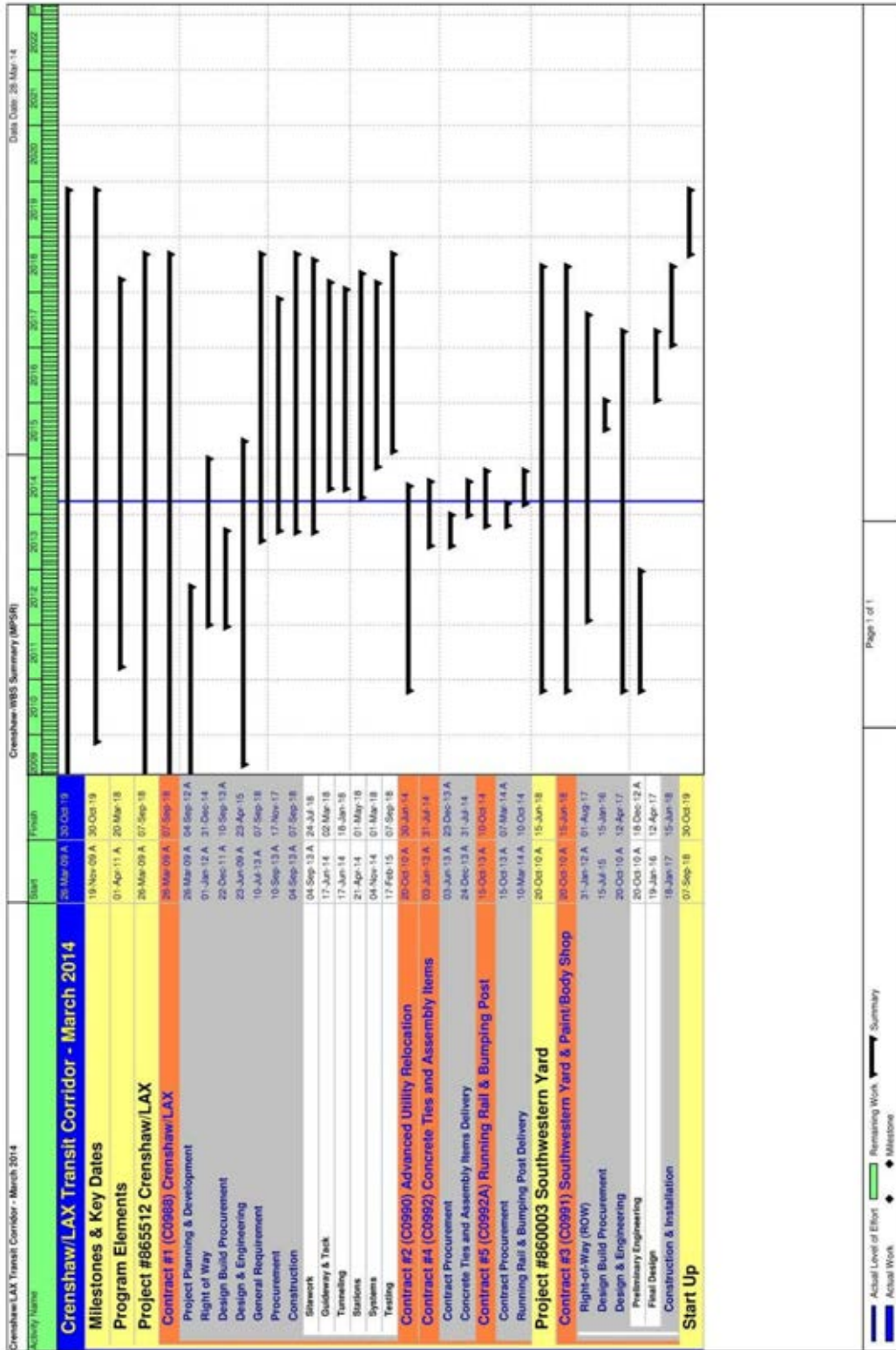
Contractors

 Walsh Shea Corridor Constructors

"A" following date is actual and completed

\* New Date

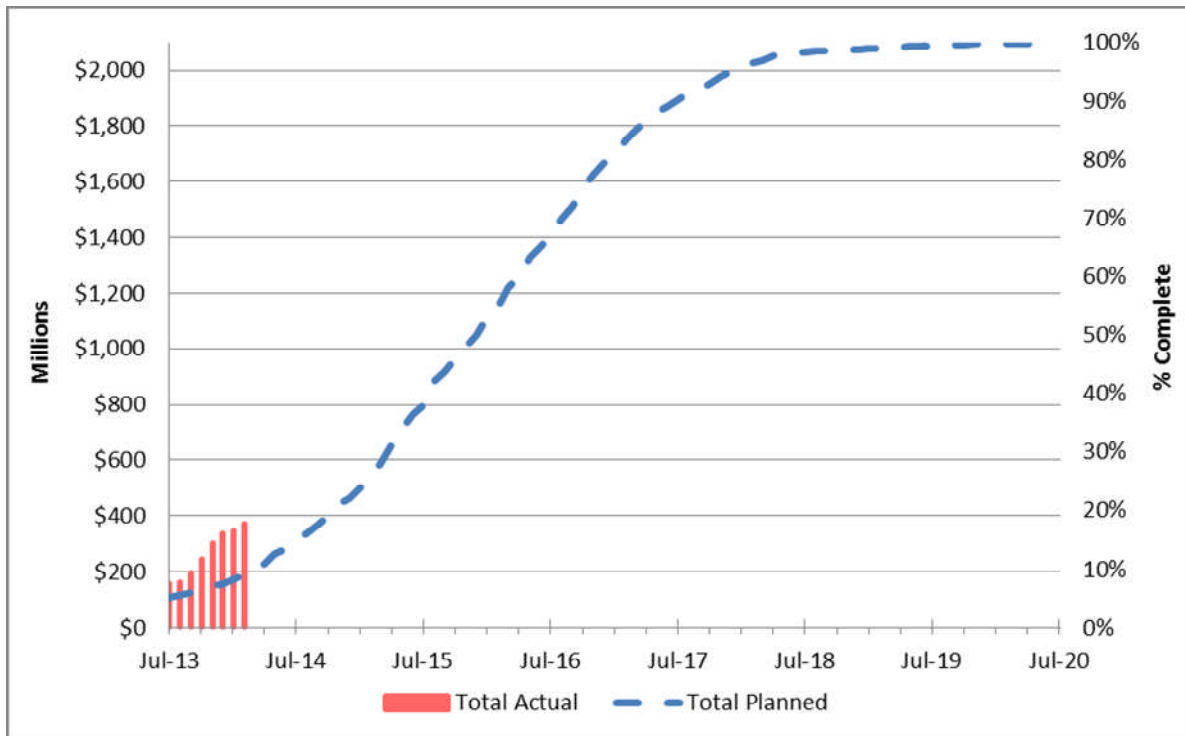
## PROJECT SUMMARY SCHEDULE



**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	
<b>Final Design Progress:</b>			
Contract C0988	35%	1%	On 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
<b>Construction Contracts Progress:</b>			
Contract C0988	0%	0%	On Schedule
Contract C0990	88%	1%	Behind Schedule
Contract C0991	0%	-	Not yet advertised
Contract C0992	0%	-	On Schedule
Contract C0992A	0%	-	NTP issued 03/07/2014
<b>Cumulative To Date Progress:</b>			
	14.1%		

**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 March 2014 schedule update.

The cumulative overall final design and construction progress remains same as last month of 14.1%.

Contract overall progress for C0990 is 86%. This contractor continues to be behind schedule. See Contract C0990 Status sheet, page 43, for more information.

Cumulative final design progress to date for C0988 is 35%, while construction progress reporting started this month and is less than 1% to date. See Contract C0988 Status sheet, page 42, for more information.

## **MAJOR EQUIPMENT DELIVERY STATUS**

### **Tunnel Boring Machine**

WSCC, the design-builder for Contract C0988, will procure the tunnel boring machine and equipment. A purchase order for the equipment has been released by the design-builder.

Following are the major milestone dates for TBM procurement:

- Place Purchase Order for EPBM – 10/31/2013
- Submit Final Design Details for TBM - 4/25/2014
- Fabricate & Deliver EPBM – 10/3/2014
- Procure & Deliver TBM Rolling Stock & Accessories – 12/31/2014

### **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**

Procurement of the concrete ties contract was awarded and Notice to Proceed was issued in December 23, 2013. The contractually bound to deliver on or before July 2014.

### **Running Rail & Bumping Post**

- Contract Award – 1/23/2014
- NTP – 3/7/2014
- Rail Submittal – 4/18/2014
- SDI 115RE SS Rail Delivery – 6/16/2014
- Evraz 115RE HH Rail Delivery – 7/31/2014
- Bumping Post Delivery – 10/10/2014

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

<b>Item</b>	<b>Delivery</b>	<b>Needed by</b>
Traffic Signal Poles	3/12/2015	3/16/2015
Street Light Poles	3/12/2015	3/16/2015
Tunnel Ventilation Fans	7/6/2015	1/12/2017
Jet Fans (Cut & Cover)	12/21/2015	10/6/2017
Structural Steel - Canopies	8/7/2015	3/21/2017
Laminated Tempered Canopy	5/7/2015	5/31/2016
Station - Elevators	1/19/2016	1/5/2017
Station - Escalators	1/19/2016	3/15/2016
Track - Special Trackwork	1/29/2016	2/1/2016
Track - Restraining Rail and Grade Crossing Ties	5/15/2015	9/18/2015
Unit Substations - Expo	6/26/2015	10/24/2017
Unit Substations - MLK	6/26/2015	4/13/2017
Unit Substations - Vernon	6/26/2015	2/7/2017
TPSS - Substation 1	9/21/2015	6/20/2016
TPSS - Substation 2	12/1/2015	10/18/2016
TPSS - Substation 3	2/11/2016	1/9/2017
TPSS - Substation 5	4/21/2016	4/25/2016
TPSS - Substation 6	7/1/2016	7/5/2016
TPSS - Substation 8	9/13/2016	9/14/2016
TPSS - Substation 9	11/22/2016	5/2/2017
TPSS - Substation 10	2/3/2017	6/26/2017
Equip. & Components for CCTV/Fire Alarm/Radio/Telephone	4/23/2015	5/15/2015
Equip. & Components for CTS/ROC	5/7/2015	5/8/2015
Equip. & Components for ETS	6/5/2015	10/17/2016
Equip. & Components for Gas Detection	6/5/2015	4/18/2017
Equip. & Components for Intrusion Detection	4/23/2015	5/15/2015
Equip. & Components for PA/VMS	6/5/2015	6/22/2015
Equip. & Components for Portal Surveillance	4/23/2015	5/15/2015
Equip. & Components for SCADA	5/7/2015	5/15/2015
Equip. & Components for Seismic Detection	6/5/2015	6/22/2015
Equip. & Components for UPS & Batteries	7/10/2015	10/24/2016
OCS Poles	9/22/2015	9/13/2016

## **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 critical path moves through final design and the procurement of the tunnel boring machines (TBMs). The TBM is a long lead item and as packages of final design are approved for construction, work will commence on the alignment construction activities prior to the TBMs arrival, assembly and testing.

The most critical and longest path for construction currently runs through the Expo Station Traffic Control Plan, Shoring, Excavation & Mud Slab; TBM Mining; Expo Station Concrete thru Systems / MEP, Finishes, Road Restorations, while underground structure #3 shoring, cut and cover follow closely as the near 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.

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**PROJECT COST STATUS**

COST REPORT BY ELEMENT											
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	-	442,238,848	-	16,000,000	-	452,500,001	-
20	STATIONS	153,906,000	-	316,050,000	-	300,550,000	406,239	2,130,028	-	316,050,000	-
30	SOUTHWESTERN YARD	66,673,000	-	66,673,000	-	-	-	-	-	66,673,000	-
40	SITWORK/SPECIAL CONDITIONS	235,576,000	-	348,565,999	766,440	332,796,936	17,781,820	131,728,946	(0)	357,220,999	8,655,000
50	SYSTEMS	125,132,000	-	169,311,000	-	149,821,000	-	-	-	169,311,000	-
10-50	CONSTRUCTION	1,052,622,000	-	1,353,100,000	766,440	1,225,406,784	18,188,059	149,858,974	(0)	1,361,755,000	8,655,000
60	RIGHT-OF-WAY	132,294,000	-	127,400,000	-	113,528,223	3,000,344	97,600,435	(0)	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	600,117	169,674,789	7,136,823	90,728,797	-	295,900,000	-
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	1,366,557	1,590,660,697	28,325,226	349,640,628	(0)	2,032,000,000	-
ENVIRONMENTAL/PLANNING-405512		5,526,150	-	5,526,150	1,292	5,526,150	1,292	5,526,150	1,292	5,526,150	-
ENVIRONMENTAL/PLANNING-465512		20,473,850	-	20,473,850	(1,292)	20,473,850	(1)	20,023,237	(1,292)	20,473,850	-
405512 & 465512 - SUBTOTAL		26,000,000	-	26,000,000	0	26,000,000	1,291	25,549,388	0	26,000,000	-
405512, 465512, 865512 & 860003 - TOTAL		1,749,000,000	-	2,058,000,000	1,366,557	1,616,660,697	28,326,517	375,190,015	(0)	2,058,000,000	-

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH 29-MAR-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

## **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 March 29, 2014. The total commitments increased by \$1.4 million this period primarily due to the following:*

- *SCC-40 (Sitework and Special Conditions) has increased by \$0.8 million for executed modifications associated with design-build Contract C0988 Crenshaw/LAX Transit Corridor, the Advanced Utility Relocations Contract C0990 and third party scope of work with California-American Water Company.*
- *SCC-80 (Professional Services) has increased by \$0.6 million for legal services, third party scope of work with the City of Inglewood, material lab testing services and environmental consultant services. The total commitment of \$169.7 million includes \$2.4 million for the Southwestern Yard.*

*The \$1,616.7 million in commitments to date represents 78.6% of the current budget.*

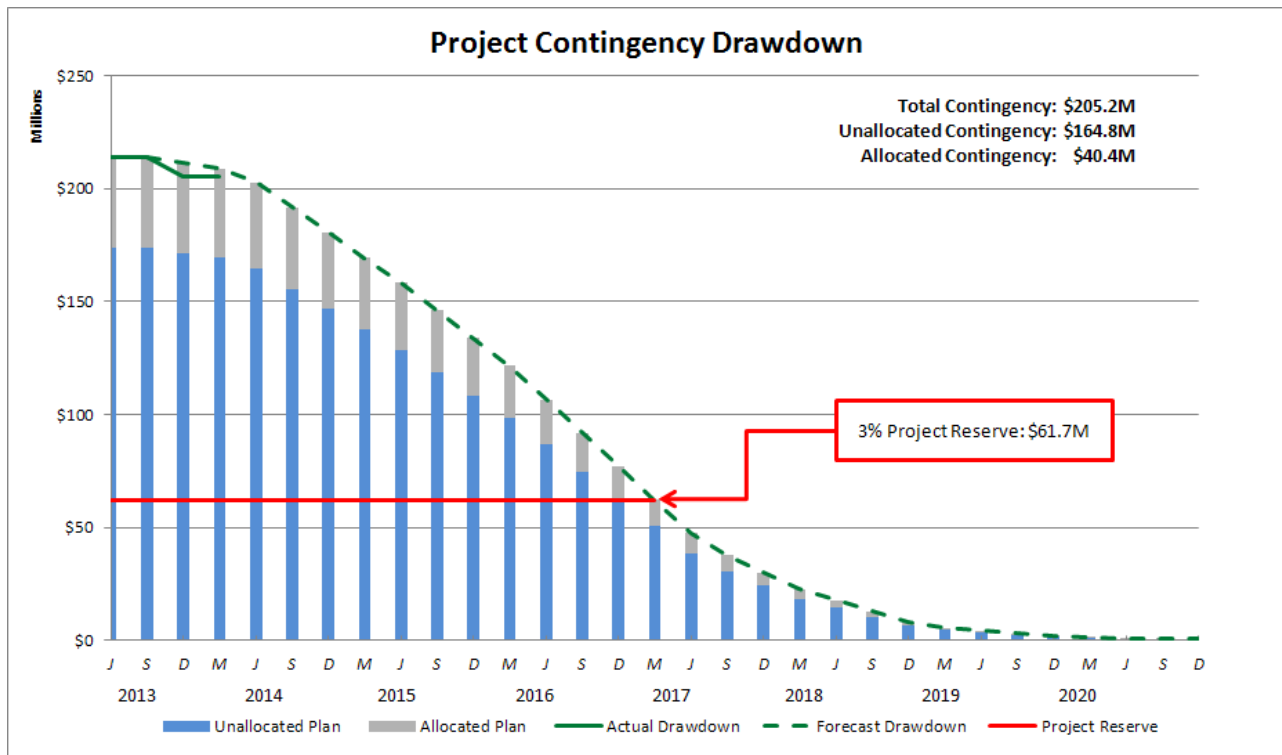
### **Expenditures:**

*The expenditures are cumulative through March 29, 2014. The total expenditures increased by \$28.3 million this period due to the following:*

- *SCC-20 (Stations) has increased by \$0.4 million for cost associated with design-build Contract C0988 Crenshaw/LAX Transit Corridor.*
- *SCC-40 (Sitework and Special Conditions) has increased by \$17.8 million for costs associated with design-build Contract C0988 Crenshaw/LAX Transit Corridor and the Advanced Utility Relocations Contract C0990.*
- *SCC-60 (Right-of-Way) has increased by \$3.0 million for cost associated with real estate appraisal, acquisition and relocation. The total expenditure of \$97.6 million includes \$53.3 million for the Southwestern Yard which has been capped at this funding level.*
- *SCC-80 (Professional Services) has increased by \$7.1 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 services, legal services, community relations and environmental consultant services. The total expenditure of \$90.7 million includes \$0.7 million for the Southwestern Yard.*

*The \$375.2 million in expenditures to date represents 18.2% of the current budget.*

**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.

**Current Period Contingency Drawdown Status:**

*There was no unallocated drawdown this period. There was \$56,891 drawdown from allocated contingency. The cumulative drawdown is \$8,711,891.*

**Cumulative Contingency Status:**

*The cumulative contingency is \$205,154,901 or 10.0%.*

**DISADVANTAGED BUSINESS ENTERPRISE (DBE) STATUS**

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

- DBE Goal – Design 20.40%
- Current DBE Commitment \$18,145,000 (20.64%)
- Current DBE Participation \$ 2,808,809 (10.43%)
- Sixteen (16) DBE Design subcontractors have been identified to-date
  
- DBE Goal – Construction 20%
- Current DBE Commitment \$103,709,720 (8.89%)
- Current DBE Participation \$ 1,359,804 (1.04%)
- Twenty-seven (27) DBE subcontractors have been identified to-date.

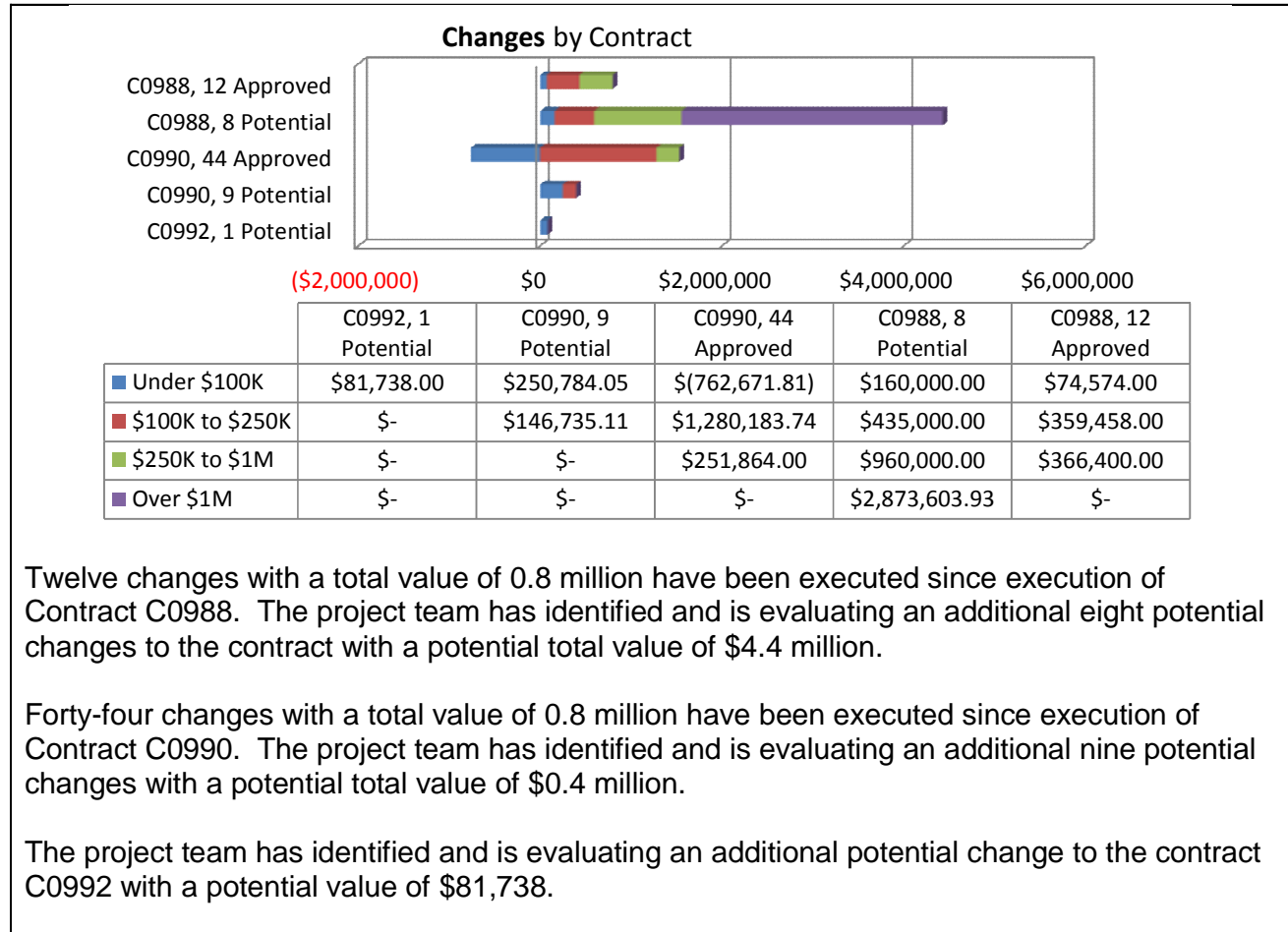
**PROJECT LABOR AGREEMENTS (PLA) STATUS**

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

(Reporting Data as of February 28, 2014)

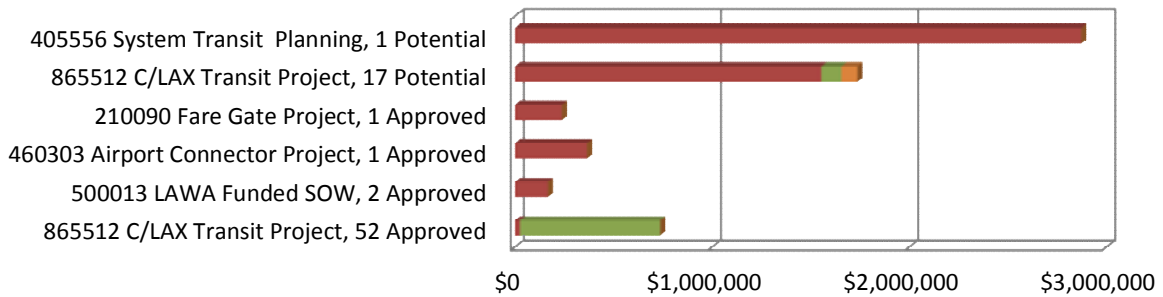
- Targeted Worker Goal – 40.00%
- Targeted Worker Current Participation - 71.90%
  
- Apprentice Worker Goal - 20.00%
- Apprentice Worker Current Participation - 11.60%
  
- Disadvantaged Worker Goal - 10.00%
- Disadvantaged Worker Current Participation 21.32%

**SUMMARY OF CHANGES**



**SUMMARY OF CHANGES**

**Changes by Metro Internal Project Number**



	865512 C/LAX Transit Project, 52 Approved	500013 LAWA Funded SOW, 2 Approved	460303 Airport Connector Project, 1 Approved	210090 Fare Gate Project, 1 Approved	865512 C/LAX Transit Project, 17 Potential	405556 System Transit Planning, 1 Potential
■ C0988	8	2	1	1	7	1
■ C0988 \$	\$26,754	\$168,278	\$366,400	\$239,000	\$1,555,000	\$2,873,604
■ C0990	44	0	0	0	9	0
■ C0990 \$	\$711,145	\$-	\$-	\$-	\$101,402	\$-
■ C0992	0	0	0	0	1	0
■ C0992 \$	\$-	\$-	\$-	\$-	\$81,738	\$-

Fifty-two changes with a total value of 0.7 million have been executed and seventeen potential changes have been identified with a potential total value of \$1.7 million for Project 865512 Crenshaw/LAX Transit Project.

One change with a value of 0.2 million has been executed for Project 210090 Fare Gate Project. Two changes with a total value of 0.2 million have been executed for Project 500013 Crenshaw/LAX LAWA Statement of Work. One change with a value of 0.4 million has been executed for Project 460303 Airport Connector Project. One potential change with a value of \$2.9 million has been identified for Project 405556 Systemwide Transit Planning (Station Mock-up scope of work).

**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%	7.3	86%	7.3	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%	27.0	13%	27.0	13%
STATE PROP 1 B LOCAL PARTNER PROG	0.0	49.5	49.5	49.5	100%	59.6	120%	59.6	120%
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	649.1	100%	255.5	39%	242.1	37%
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%
<b>TOTAL</b>	<b>1,749.0</b>	<b>2,058.0</b>	<b>1,099.6</b>	<b>1,616.7</b>	<b>78.6%</b>	<b>375.2</b>	<b>18.2%</b>	<b>361.8</b>	<b>17.6%</b>

NOTE: Expenditures are cumulative through March 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 (\$107.473), CNG Tax Credit (\$64.000) 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. Metro submitted a formal submittal in November 2013 for review and approval. *FTA has not yet responded to our submittal.*

**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.

**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.

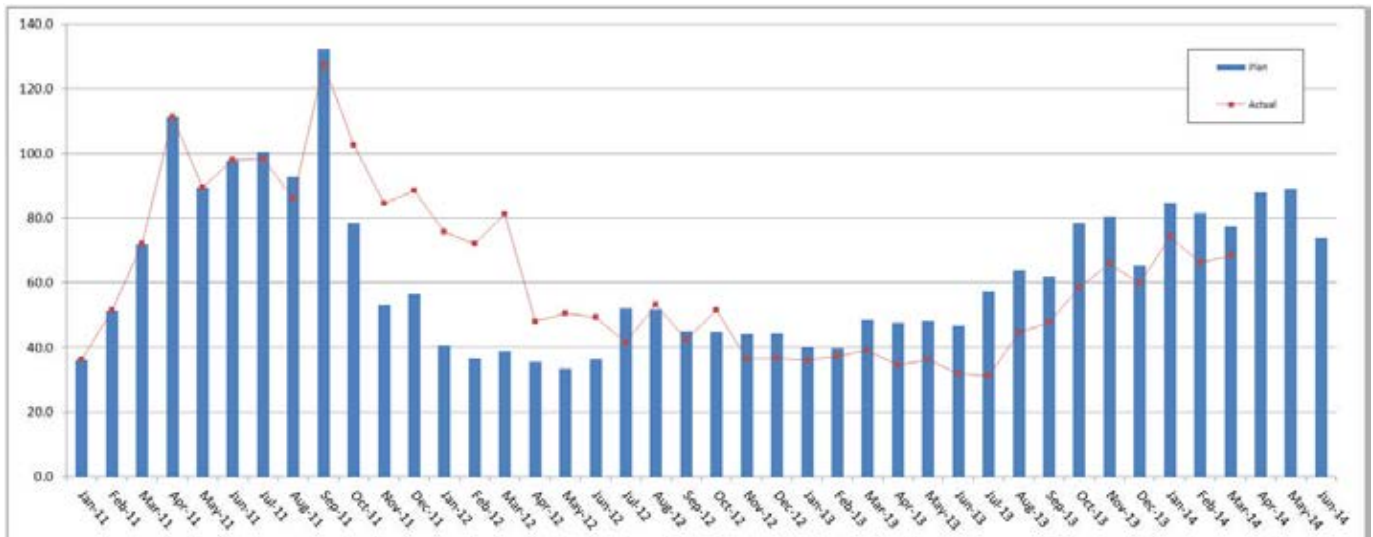
**MEASURE R – TIFIA LOAN (Transportation Infrastructure Finance & Innovation Act):** Application for a loan of \$545.9 M was submitted to the US Department of Transportation (DOT) in November 2011. Loan agreement was executed on September 12, 2012. The current financial plan is to drawdown funds not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

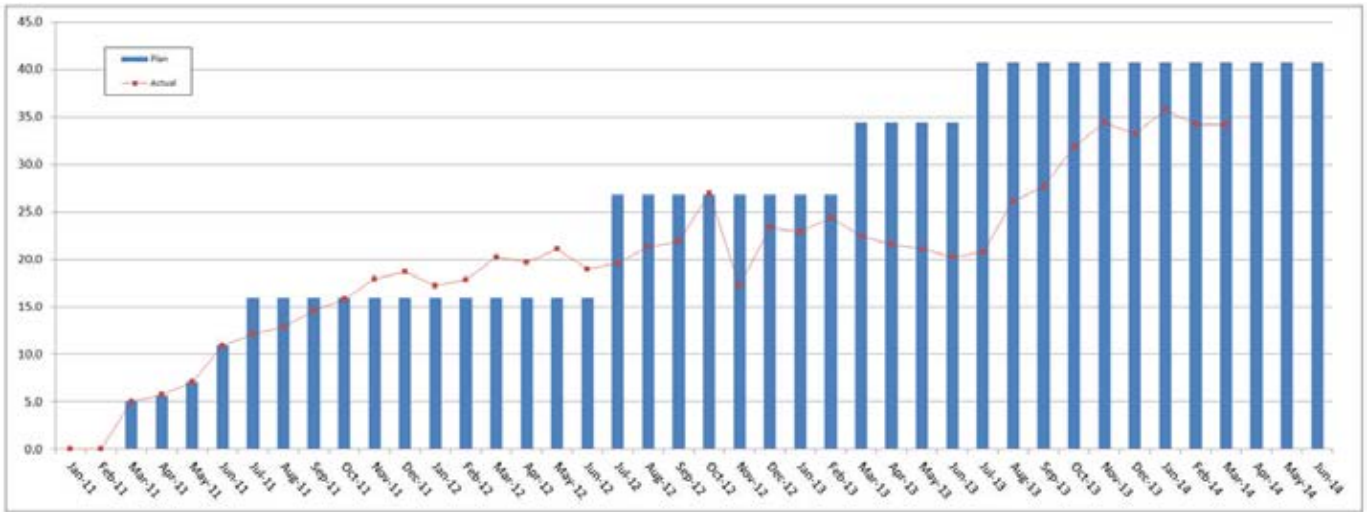
1. FTE = Full Time Equivalent
2. Staffing levels are for project 865512 only.
3. Actual staffing levels are cumulative through March 2014.

**TOTAL PROJECT STAFFING**

For March 2014, there were a total of 34.2 FTE's for MTA's Project Administration staff and 34.2 FTE's for consulting staff. The total project staffing was 68.4 FTE's for March 2014. The overall FY14 Total Project Staffing plan averages 75.1 FTE's per month.

## STAFFING STATUS (Continued)

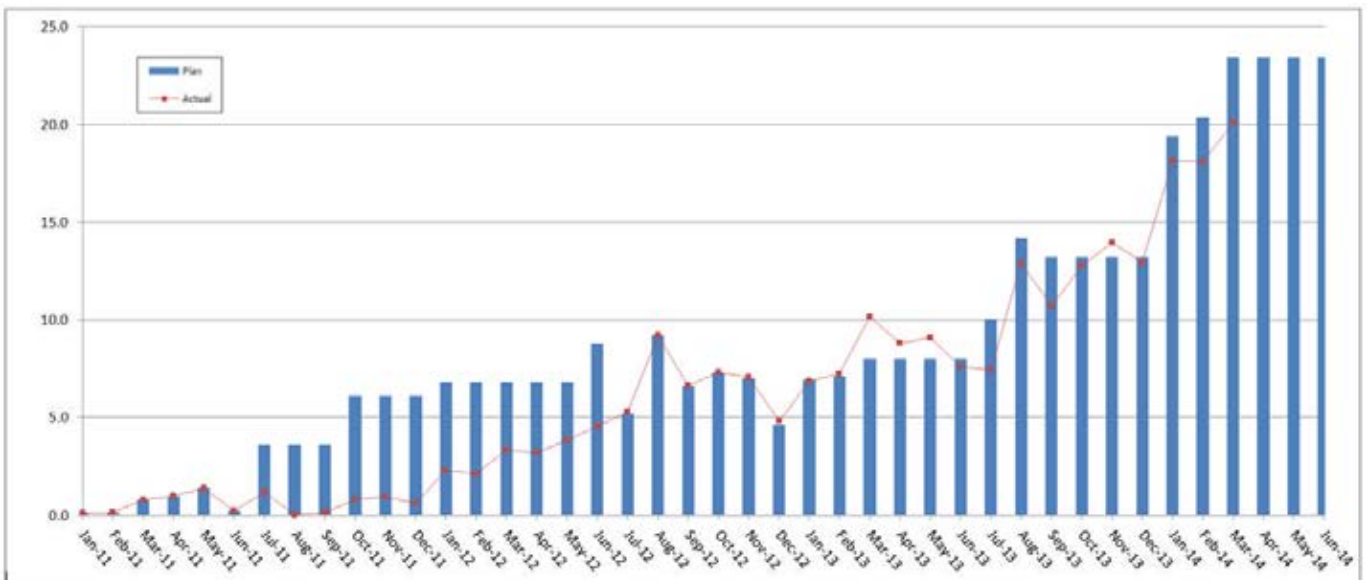
### METRO STAFFING – FTES



**Notes:**

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

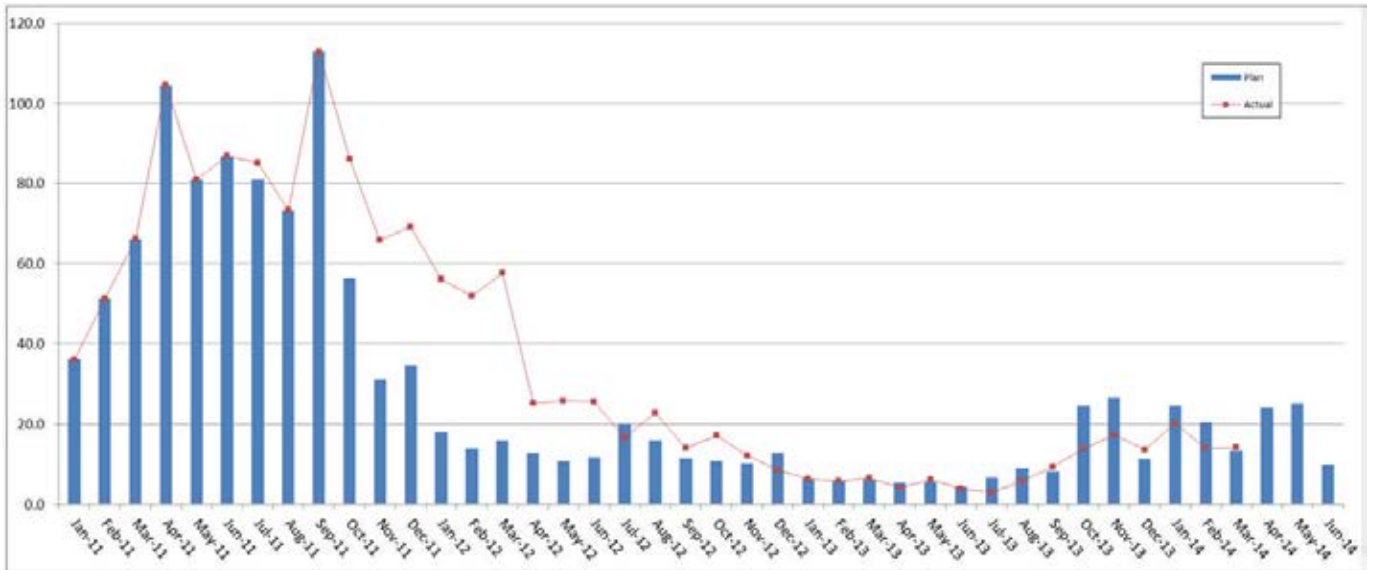
## CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONSULTANT – FTES



**Notes:**

1. FTE = Full Time Equivalent
2. Staffing levels are for project 865512 only.
3. Actual staffing levels are cumulative through March 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 March 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
<b>C0988 C/LAX Transit Corridor (D-B):</b>									
<b>Crenshaw Subdivision</b>									
Full Takes	12	12		12	12	5	4	8	8
Part Takes (PT or SE)	10	9	1	9	9	1			1
TCE	10	10		10	10				
<b>Subtotal Parcels</b>	<b>32</b>	<b>31</b>	<b>1</b>	<b>31</b>	<b>31</b>	<b>6</b>	<b>4</b>	<b>8</b>	<b>9</b>
Relocations	15							2	
<b>Harbor Subdivision</b>									
Full Takes	14	14		14	14	6	7	11	12
Part Takes (PT or SE)	19	18	1	18	17	2			
TCE	3	2	1	2	2				
<b>Subtotal Parcels</b>	<b>36</b>	<b>34</b>	<b>2</b>	<b>34</b>	<b>33</b>	<b>8</b>	<b>7</b>	<b>11</b>	<b>12</b>
Relocations	34							5	
<b>Total CR/HS Parcels:</b>	<b>68</b>	<b>65</b>	<b>3</b>	<b>65</b>	<b>64</b>	<b>14</b>	<b>11</b>	<b>19</b>	<b>21</b>
<b>Southwestern Yard</b>									
Full Takes	8	8		8	8	3	5	4	5
Part Takes	0								
TCE	0								
<b>Subtotal Parcels:</b>	<b>8</b>	<b>8</b>	<b>0</b>	<b>8</b>	<b>8</b>	<b>3</b>	<b>5</b>	<b>4</b>	<b>5</b>
Relocations	4							0	
<b>Total SW Parcels:</b>									
<b>C0990 C/LAX Advance Utility Relocations:</b>									
<b>Total Parcels:</b>	<b>0</b>								
<b>Total Project Parcels</b>	<b>76</b>	<b>*73</b>	<b>3</b>	<b>73</b>	<b>72</b>	<b>17</b>	<b>16</b>	<b>23</b>	<b>26</b>

- 74 acquisitions: \*73 planned for in the environmental report plus 1 full take for the Harbor Subdivision that was not certified.
- 73 appraisals completed.
- 72 offers made to property owners: 1 part take offer in Harbor Subdivision pending.
- 28 parcels acquired: 25 full takes provided to WSCC; 1 part take provided to WSCC; 2 full take acquired but not available for WSCC use until June 2014.

## **QUALITY ASSURANCE STATUS**

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

- *Reviewed and commented on the design confirmation packages 1 and 2.*
- *Reviewed the electronic quality records for the design confirmation packages 1 and 2.*
- *Reviewed the proposed revisions to the Design Quality Manual.*
- *Approved the replacement Design Quality Manager.*
- *Participated in a “Blue Beam” documents review presentation given by HNTB to better understand the interface quality reviews.*

### **C0988 Crenshaw/LAX Transit Corridor Construction Quality**

- *Quality travels the project alignment daily to identify work-in-progress and to assess the presence of WSCC QC, test laboratory use, progress and problems encountered.*
- *WSCC Daily Inspection Reports are reviewed for every day in the report period. Issues of concern are coordinated to resolution with WSCC.*
- *Reviewed Construction Work Plans and Construction Fencing Plans (CFP) and provided comments for Capri Mall and MLK Station setup areas.*
- *Participated in the Readiness Review Meetings for Clear and Grub project wide and BNSF pole and wire removal.*
- *Reviewed and approved new Assistant Project Quality Manager.*

## **ENVIRONMENTAL STATUS**

### **C0988 Crenshaw/LAX Transit Corridor Design Build**

- *Coordinated additional hazardous waste surveys at the La Brea Station, south portal parcel and north portal parcel.*
- *Coordinated noise monitoring for utilities pot-holing and track demolition.*
- *Attended weekly progress meeting, task force meetings and various over the shoulder submittal meetings with Contractor.*
- *Coordinated demolition of existing railroad facilities along Metro ROW.*
- *Coordinated Archaeological Monitoring.*
- *Coordinated Biological Monitoring for nesting bird surveys.*
- *Assisted WSCC with tree removal process with the City of Los Angeles.*
- *Reviewed the following Contractor Submittals:*
  - *Soil Management Plan.*
  - *Noise Monitoring Plan.*
  - *Sound Wall Design for Expo Station.*
  - *Sanitary Sewer Spill Prevention Plan.*
  - *Weekly Biological Nesting Bird Survey Reports.*
  - *Weekly Storm Water Pollution Prevention Plan (SWPPP) inspection reports, Rain Event Action Plans (REAPs), and Storm Water Quality Sampling Reports.*
  - *Weekly Fugitive Dust Inspection Reports.*
  - *Weekly Noise Monitoring Reports.*
  - *Various Construction Work Plans.*

### **C0990 Advanced Utilities Contract**

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

## **CONSTRUCTION RELATIONS STATUS**

- *Participated in project and introduction meeting with LAPD Commission and Walsh-Shea Corridor Constructors.*
- *Participated in weekly planning meeting with Capri owner (Baldwin Hills/Crenshaw Mall) regarding interim right-of-entry activities and Stage A construction work.*
- *Participated in project briefing with Metro Board Director Jackie Dupont-Walker and Mayor's office staff and alignment tour with Supervisor Mark Ridley Thomas.*
- *Held project briefing with Crenshaw Chamber of Commerce to discuss underground construction work at Crenshaw/Exposition and Crenshaw/MLK Blvds.*
- *Held Community Meeting with business owners of Crenshaw/Exposition Blvds. regarding underground construction work.*
- *Held project briefing with West Los Angeles Church Executive Team, United Neighborhoods Neighborhood Council and St. Bernadette's Church to discuss underground work at Crenshaw/Exposition Blvds.*
- *Held project open house for 300 key stakeholders.*
- *Participated in Crenshaw Leadership Council's Safety Project Oriented Development Meeting.*
- *Attended Baldwin Hills Merchants Meeting regarding underground construction work at Crenshaw/MLK Blvds.*
- *Participated in project briefing with City of Los Angeles, Councilmember Bernard Parks.*
- *Conducted outreach and disseminated construction notices for three new project related work activities.*
- *Participated in project staff and Walsh-Shea Corridor Constructors field meeting regarding bus stop relocations near Crenshaw/Vernon Station.*

## **CREATIVE SERVICES STATUS**

### **Art Program**

- *Responded to Artist Q&A.*
- *Issued survey to artists.*
- *Continue to support mitigation efforts.*
- *Hosted four Artist Workshops.*
- *Reviewed and commented on Design Confirmation package.*
- *Met with WSCC to define artwork locations.*

## **SAFETY & SECURITY STATUS**

- Participated in weekly progress meetings with Construction Manager and Contractor Management to discuss safety/security related issues and construction schedules.
- IPO staff participated in Construction Safety Orientation conducted by Walsh & Shea Safety personnel.
- Monitored construction activities on a daily basis including night construction activities to ensure compliance with contract specifications.
- Reviewed contractor submittals and work plans to ensure compliance with contract specifications.
- Conducted All-hands Safety Meeting with LAPD, LA Sheriff and WSSC's site safety personnel.
- *Met with Cal/OSHA Mining and Tunneling to discuss WSSC's request for Underground Reclassification.*
- *Metro Builders reported 4,034 work hours and no incidents. WSSC reported 58,362 work hours for the month of March 2014. Total Project-to-Date work hours are 193,349 and one recordable incident. The incident rate for the project is 1.0. The national recordable rate average is 3.8.*

**THIRD PARTY AGREEMENT STATUS**

<b>Third Party</b>	<b>Type of Agreement</b>	<b>Forecast Execution Date</b>	<b>Required Need Date</b>	<b>Status/ Comments</b>
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	5/14	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**

- Relocation of DWP-Power conduits, and manholes completed at Manchester Avenue; Installation of cable started and cut-over has been completed.
- 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 forecast to be complete by April 2014.*
- 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. Work commenced in January 2014 and is forecast to complete by September 2014. Coordinating work activities with the design-builder so as not to impact their planned work.
- Design in progress by SCE for advance relocation of fiber crossings and pole supports along the Harbor Subdivision. Construction completion expected by July 2014.
- Design in progress by SCE for the advance relocation of power crossings and pole supports on Redondo Blvd. at High St. Construction completion expected by June 2014.

# Crenshaw/LAX Transit Project

## Peak Hour & Nighttime Construction Variances for the City of LA



**CPUC CROSSING SUMMARY**

<b>Application</b>	<b>Location</b>	<b>Type</b>	<b>City</b>
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) is working on the Decision with support from local CPUC staff. Metro is concurrently in discussion with City of Inglewood for resolution. CPUC has accepted the settlement agreement between Metro and Faithful Central Bible Church regarding Eucalyptus and the pedestrian underpass. *The CPUC still needs to approve the pedestrian underpass and to issue a decision on the Centinela crossing. Forecast CPUC Commission Approval: May 1, 2014*

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

**Status:** *Local CPUC Rail Safety Staff is continuing to work on the reports for these uncontested crossings and is targeted to complete the reports by end of March. Forecast CPUC Commission Approval: April 10, 2014*

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

**Status:** *Local CPUC Rail Safety Staff is continuing to work on the reports for these uncontested crossings and is targeted to complete the reports by end of March. Forecast CPUC Commission Approval: April 10, 2014*

### **#A1301012 – Package 4, Crenshaw Street-Running Crossings**

**Status:** The CPUC Administrative Law Judge (ALJ) is working on the Decision with support from local CPUC staff. The CPUC Administrative Law Judge is forecast to issue a proposed Decision in March; however, this may additionally be delayed since the Decision for Centinela has not been issued. The Crenshaw Subway Coalition did not issue a Brief or Reply Brief. *Forecast CPUC Commission Approval: May 1, 2014*

### **#A1302025 – Package 5, Grade Separated Crossings**

*The CPUC approved Package 5 on February 27, 2014*

Note: # is the CPUC action number.

2. Commission approvals are subject to appeal if there are adverse parties (only applies to packages #1 and #4).

## **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.


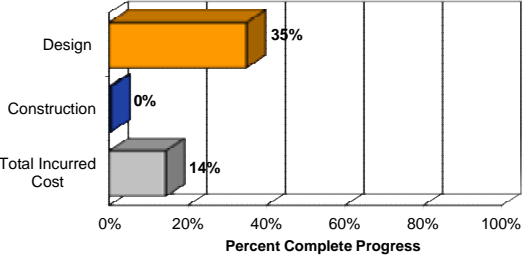
### **CHRONOLOGY OF EVENTS (Continued)**

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.


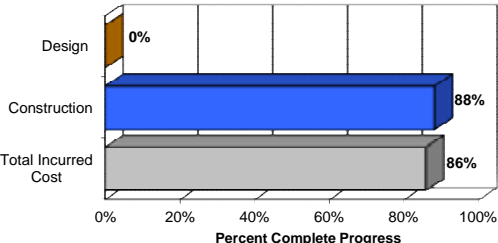
### **CHRONOLOGY OF EVENTS (Continued)**

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	<i>Issued Notice to Proceed to LB Foster Rail Technology Corp., Contract C0992A Rail and Bumping Posts.</i>


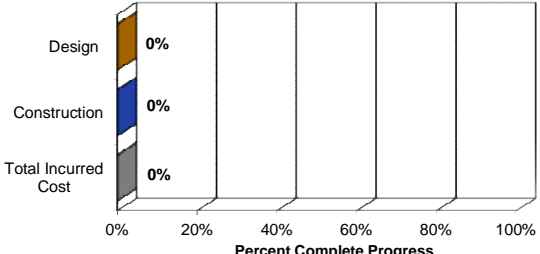
**CONTRACT C0988 STATUS**  
*Crenshaw/LAX Transit Corridor*

<p><b>PE Design Contractor: Hatch Mott MacDonald (HMM)</b> <b>CM Consultant: Stantec</b> <b>Contractor: - Walsh Shea Corridor Constructors (WSCC)</b></p>	<p><b>Contract No.: C0988</b> <b>Status as of March 28, 2014</b></p> 																																								
<p><b>Progress/Work Completed:</b></p> <ul style="list-style-type: none"> <li>- Submitted Initial Visual Quality Report</li> <li>- Continued development of Maintenance of Traffic Plans for Expo, MLK, and Vernon Stations</li> <li>- Continued Green Line Bridge Interim Design</li> <li>- Initiated Design for COLA Storm Drain, COLA Sanitary Sewer and City of Inglewood Storm Drain and Water</li> <li>- Continued coordination of third party utilities</li> <li>- Continued development of the 3D model</li> <li>- Submitted design Confirmation for Track/Trackway and Ductbank</li> <li>- Submitted Group 2 Design Confirmation Reports to Metro</li> <li>- Completed Geotechnical Fieldwork and finalizing Lab Testing</li> <li>- Continued interim design on all Segments, Traction Power, Communication System</li> <li>- Submitted design confirmation for OCS and Train Control and Signaling System</li> <li>- Continued with the fabrication of the Tunnel Boring Machine</li> <li>- Continued potholing in the Harbor Subdivision - Segment A &amp; B</li> <li>- Continued potholing in the Crenshaw Subdivision - Segment C</li> <li>- Continued SWPP implementation - Segment A, B &amp; C</li> <li>- Continued BNSF rail Removal - Segment A &amp; B</li> <li>- Started Noise Wall Installation at Expo</li> </ul>	<p><b>Areas of Concern:</b></p> <ul style="list-style-type: none"> <li>- None</li> </ul>																																								
<p><b>Schedule Assessment:</b></p> <p>Metro's assessment of the contractor's schedule update is that they are behind on meeting interim design milestones but are maintaining the Contract milestone dates.</p> <p>Contractor's March 2014 schedule update indicated they are still on schedule in regard to Contract Milestones.</p>	<p><b>Cost Assessment:</b></p> <p>The current construction contract cost forecast is \$1,273.19 million and is within the Board authorized budget.</p> <p>The Contractor submitted their 7th payment application in the approved amount of \$16,601,752.37.</p>																																								
<p><b>Schedule Summary:</b></p> <table border="0"> <tr> <td>1. Date of Award:</td> <td style="text-align: right;">08/01/13</td> </tr> <tr> <td>2. Notice to Proceed:</td> <td style="text-align: right;">09/10/13</td> </tr> <tr> <td>3. Original Substantial Completion Duration:</td> <td style="text-align: right;">1824</td> </tr> <tr> <td>4. Current Substantial Completion Duration:</td> <td style="text-align: right;">1824</td> </tr> <tr> <td>5. Elapsed Time from NTP:</td> <td style="text-align: right;">199</td> </tr> </table>	1. Date of Award:	08/01/13	2. Notice to Proceed:	09/10/13	3. Original Substantial Completion Duration:	1824	4. Current Substantial Completion Duration:	1824	5. Elapsed Time from NTP:	199	<p><b>Cost Summary:</b> <span style="float: right;"><b>\$ In millions</b></span></p> <table border="0"> <tr> <td>1. Award Value:</td> <td style="text-align: right;">1,272.63</td> </tr> <tr> <td>2. Executed Modifications:</td> <td style="text-align: right;">0.80</td> </tr> <tr> <td>3. Approved Change Orders:</td> <td></td> </tr> <tr> <td>4. Current Contract Value (1 + 2 + 3):</td> <td style="text-align: right;">1,273.43</td> </tr> <tr> <td>5. Incurred Cost:</td> <td style="text-align: right;">183.79</td> </tr> </table>	1. Award Value:	1,272.63	2. Executed Modifications:	0.80	3. Approved Change Orders:		4. Current Contract Value (1 + 2 + 3):	1,273.43	5. Incurred Cost:	183.79																				
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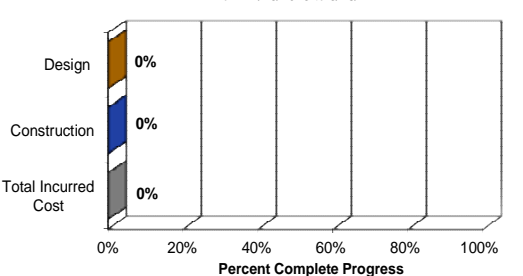
**CONTRACT C0990 STATUS**  
*Crenshaw/LAX Advanced Utility Relocations*

<p><b>PE Design Contractor: Hatch Mott MacDonald (HMM)</b> <b>CM Consultant: Stantec</b> <b>Contractor: - Metro Builders and Engineers Group LTD</b></p>	<p><b>Contract No.: C0990</b> <b>Status as of March 28, 2014</b></p> 																																			
<p><b>Progress/Work Completed:</b> - The jack and bore work at 60th Street &amp; Crenshaw was suspended and will be restarted when the OSHA permit is approved - Work has continued on the bypass and install manholes on Crenshaw Blvd at 67th Street. - Work has continued at Crenshaw &amp; 48th, 50th, 54th and Slauson waterline: excavation, shoring, bedding/laying of pipe.</p>	<p><b>Areas of Concern:</b> - The requirement for a Cal OSHA permit for the jack and bore has resulted in a 4-6 week delay in the installation of the 60th Street sanitary sewer line. - An unmarked 16" diameter oil pipeline has been discovered on the west side of Crenshaw at 48th Street. DWP is reviewing the proposed redesign of this section of the line. - The shoring welding at the jacking pit was not in compliance with the approved welding procedure. Metro Builder is currently working on a corrective action plan to repair the shoring welding.</p>																																			
<p><b>Schedule Assessment:</b> The forecast dates for Contract Milestones shown in the table below are based on the contractor's Mar14 Schedule Update.  Metro has granted total 124 calendar days extension as a result of lost production due to sandy soil conditions and revised installation methodology for sewer line work at 59th &amp; Crenshaw, and traffic control and work hour restriction to 67th &amp; Crenshaw. The contractual Substantial Completion is now 11/18/13.  The contractor has moved beyond the sandy soils location at 60th street. However, the Contractor continues to be behind the scheduled completion date due to the additional issues as noted in the area of concerns.  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 June 30, 2014.</p>	<p><b>Cost Assessment:</b> The current construction contract cost forecast is \$8.63 million and within the Board authorized budget. The forecast has increased from the previous reporting period primarily due to approved change orders.  The Contractor previously submitted their 16th Payment application in the approved amount of \$323,480.61.  Increase in costs to the construction contract award value are a result of design enhancements and change orders. Decreases are the result of scope deletions.</p>																																			
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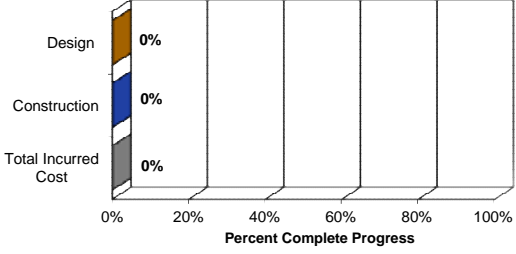
**CONTRACT C0991 STATUS**  
*Southwestern Yard*

<p><b>PE Design Contractor: Hatch Mott MacDonald (HMM)</b> <b>CM Consultant: Stantec</b> <b>Contractor: - TBD</b></p>	<p><b>Contract No.: C0991</b></p> <p><b>Status as of March 28, 2014</b></p> 																																													
<p><b>Progress/Work Completed:</b> - PE drawing package completed December 2012. - IFB contract package on hold.</p>	<p><b>Areas of Concern:</b> - None.</p>																																													
<p><b>Schedule Assessment:</b></p>	<p><b>Cost Assessment:</b></p>																																													
<p><b>Schedule Summary:</b></p> <ol style="list-style-type: none"> <li>Date of Award:</li> <li>Notice to Proceed:</li> <li>Original Substantial Completion Duration:</li> <li>Current Substantial Completion Duration:</li> <li>Elapsed Time from NTP:</li> </ol>	<p><b>Cost Summary:</b> <span style="float: right;"><b>\$ In millions</b></span></p> <ol style="list-style-type: none"> <li>Award Value:</li> <li>Executed Modifications:</li> <li>Approved Change Orders:</li> <li>Current Contract Value (1 + 2 + 3): -</li> <li>Incurred Cost:</li> </ol>																																													
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**CONTRACT C0992 STATUS**  
*Concrete Ties*

<p><b>PE Design Contractor: Hatch Mott MacDonald (HMM)</b> <b>CM Consultant: Stantec</b> <b>Contractor: Rocla Concrete Tie Inc.</b></p>	<p><b>Contract No.: C0992</b> <b>Status as of March 28, 2014</b></p> 																																								
<p><b>Progress/Work Completed:</b>                  - Bids received on August 27, 2013                  - Metro Board approved Contract Award on December 5, 2013                  - Notice to Proceed issued on December 23, 2013                  - Plant Production planned to be completed by the end of Apr 2014                  - Deliver on or before July 31, 2014.</p>	<p><b>Areas of Concern:</b>                  - None.</p>																																								
<p><b>Schedule Assessment:</b></p>	<p><b>Cost Assessment:</b>                  The current contract cost forecast is \$2,161,297.                  No pay application was submitted by the cutoff date of March 28, 2014.</p>																																								
<p><b>Schedule Summary:</b></p> <table border="0"> <tr> <td>1. Date of Award:</td> <td>12/10/13</td> </tr> <tr> <td>2. Notice to Proceed:</td> <td>12/23/13</td> </tr> <tr> <td>3. Original Substantial Completion Duration:</td> <td>220</td> </tr> <tr> <td>4. Current Substantial Completion Duration:</td> <td>220</td> </tr> <tr> <td>5. Elapsed Time from NTP:</td> <td>95</td> </tr> </table>	1. Date of Award:	12/10/13	2. Notice to Proceed:	12/23/13	3. Original Substantial Completion Duration:	220	4. Current Substantial Completion Duration:	220	5. Elapsed Time from NTP:	95	<p><b>Cost Summary:</b> <b>\$ In millions</b></p> <table border="0"> <tr> <td>1. Award Value:</td> <td>2.1</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>- 2.1</td> </tr> <tr> <td>5. Incurred Cost:</td> <td></td> </tr> </table>	1. Award Value:	2.1	2. Executed Modifications:		3. Approved Change Orders:		4. Current Contract Value (1 + 2 + 3):	- 2.1	5. Incurred Cost:																					
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**CONTRACT C0992A STATUS**  
*Running Rail and Bumping Posts*

<p><b>PE Design Contractor: Hatch Mott MacDonald (HMM)</b> <b>CM Consultant: Stantec</b> <b>Contractor: LB Foster Rail Technology Corp</b></p>	<p><b>Contract No.: C0992A</b> <b>Status as of March 28, 2014</b></p> 																																								
<p><b>Progress/Work Completed:</b>                  - Bids received on August 27, 2013.                  - Contract C0992 was split into two contracts with the rail and bumping posts now under new Contract C0992A.                  - Contract C0992A was advertised on October 15, 2013.                  - Bids were received on November 20, 2013.                  - Metro Board approved Contract Award on January 23, 2014.                  - Notice to Proceed issued on March 7, 2014</p>	<p><b>Areas of Concern:</b>                  - None.</p>																																								
<p><b>Schedule Assessment:</b></p>	<p><b>Cost Assessment:</b>                  The current contract cost forecast is \$5,184,044.79                  No pay application was submitted by the cutoff date of March 28, 2014</p>																																								
<p><b>Schedule Summary:</b></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">300</td> </tr> <tr> <td>5. Elapsed Time from NTP:</td> <td align="right">21</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:	300	5. Elapsed Time from NTP:	21	<p><b>Cost Summary:</b> <span style="float:right"><b>\$ In millions</b></span></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></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:																					
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## CONSTRUCTION PHOTOGRAPHS



WSSC installation of I-beams for noise wall installation at Expo Station site.



Potholing on Crenshaw Boulevard near Rodeo Street.

**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
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
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
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
EEO	Equal Employment Opportunity
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPBM	Earth Pressure Balance Machine

**APPENDIX**  
**LIST OF ACRONYMS (Continued)**

FAA	Federal Aviation Administration
FAR	Federal Acquisition Regulation
FCBC	Faith Central Bible Church
FD	Final Design
FEIR	Final Environmental Impact Report
FEIS	Final Environmental Impact Statement
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
LPA	Locally Preferred Alternative
LRT	Light Rail Transit
L RTP	Long Range Transportation Plan
LRV	Light Rail Vehicle

**APPENDIX**  
**LIST OF ACRONYMS (Continued)**

MBE	Metro Builders and Engineers Group, Ltd
MCA	Master Cooperative Agreement
MIC	Microbiologically Influenced Corrosion Control System
MIS	Major Investment Study
MOS	Minimum Operating Segment
MOU	Memorandum of Understanding
MPS	Master Program Schedule
MPSR	Monthly Project Status Report
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
PIP	Project Implementation Plan
PLA	Project Labor Agreement
PM	Project Manager
PMIP	Project Management Implementation 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
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

**APPENDIX**  
**LIST OF ACRONYMS (Continued)**

RFC	Request For Change
RFMP	Rail Fleet Management Plan
RFP	Request For Proposals
RFQ	Request For Qualifications
RFSC	Request for Special Consideration
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
STV	STV Group
SWPP	Storm Water Prevention Plan
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

**APPENDIX  
LIST OF ACRONYMS (Continued)**

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
VCA	Voluntary Cleanup Agreement
VE	Value Engineering
WBS	Work Breakdown Structure
WP	Work Package
WSCC	Walsh/Shea Corridor Constructor
YOE	Year of Expenditure