# Crenshaw/LAX Transit Corridor



# CRENSHAW/LAX TRANSIT CORRIDOR PROJECT

# MONTHLY 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).

**APRIL 2012** 

# TABLE OF CONTENTS

	Page No.
Project Overview	1-3
Management Issues	4-5
Project Alignment	6
Base Project Scope	7-9
Project Status	
Project Schedule	
<ul> <li>Key Milestones Six-Month Look Ahead</li> </ul>	10
<ul> <li>Project Summary Schedule</li> </ul>	11
o Critical Path Narrative	12
Project Cost	
o Project Cost – 865512	13
o Project Cost Analysis	13-14
Financial/Grant	
o Financial/Grant – 865512	15
o Status of Funds Anticipated	16
Staffing	
<ul> <li>Total Project Staffing</li> </ul>	17
o MTA Staffing	18
<ul> <li>Construction Management Support Services Consultant</li> </ul>	18
o Engineering Services Consultant	19
Real Estate	20
Quality Assurance	21
Environmental	21
Construction Relations	22
Art Development	22
Safety & Security	22
Third Party Agreement	23
California Public Utilities Commission (CPUC) Summary	24

# TABLE OF CONTENTS (Continued)

Page No.

Federal Aviation Administration/Los Angeles World Airports     Summary	25
Chronology of Events	26
Construction Contracts	
o Contract C0988 Status	27
o Contract C0990 Status	28
o Contract C0991 Status	29
Construction Photographs	30-31
Appendices	
Cost and Budget Terminology	32
List of Acronyms	33-35

# **PROJECT OVERVIEW**

#### Planning/Environmental

The Board approved the Project Definition and certified the Final Environmental Impact Report (FEIR) in September 2011. In addition, the Board authorized the Chief Executive Officer (CEO) to file a Notice of Determination, adopt the Finding of Fact and Statement of overriding Considerations, and the Mitigation Monitoring & Reporting Plan. An administrative record continues to be prepared.

The FEIS/FEIR was reviewed by the California transportation Commission (CTC) and they adopted the required resolution for future funding consideration on December 15, 2011.

The Record of Decision (ROD) was received from the FTA on December 30, 2011. With the receipt of ROD, advance utility relocations have commenced by third parties and right-of-way properties certified by the project can now be acquired by MTA.

MTA continues working with the FTA to include changes due to design refinements post ROD that are being evaluated in a supplemental environmental assessment to the FEIS as well as a CEQA addendum to the environmental documents. A public meeting is scheduled for May 10, 2012 with a public hearing anticipated in late June. A presentation was also made to the Crenshaw Leadership Council on April 26, 2012.

#### <u>Design</u>

The baseline preliminary engineering effort is complete. The design consultant submitted the final preliminary engineering drawing deliverables for Facilities and Systems in November 2011 and continues incorporating review comments and completing technical documents to support the release of an upcoming RFP *scheduled for release June 5, 2012* for a design-build main alignment Contract C0988 Crenshaw/LAX Transit Corridor.

The Board requested completion of a preliminary design for an underground station at Crenshaw Boulevard/ Vernon Avenue in the Leimert Park area and has been added to the Preliminary Engineering scope of work. This optional station will be added in the design-build contract. A further Board Motion was adopted at the December Board Meeting to adopt a bid option for an at-grade station at Florence/Hindry. The optional stations will not be constructed unless the upcoming contractor's proposals fall within the established project budget or additional funding is identified and made available.

The technical documents for Contract C0990 Crenshaw/LAX Advance Utility Relocations were completed and Contract was advertised on February 10, 2012. *A bid opening was held on April 18, 2012. Contract award is planned for May 31, 2012 with notice-to-proceed planned for late June 2012.* 

#### Third Party Agreement

Staff continues to coordinate outstanding design issues with FAA, LAWA, LADOT, LABOE,

# **PROJECT OVERVIEW (Continued)**

LABSL, DWP, City of Inglewood, Caltrans and CPUC on a regular basis. Working on finalizing all remaining agreements, where appropriate, with the third parties.

#### Right-of-Way

Developed a Real Estate Acquisition Management Plan and commenced Preliminary Engineering real estate actions such as development of a Relocation Plan. In addition, parcels increased from 50 to 75 due to engineering refinements in Preliminary Engineering have been certified and appraisals have been completed for 14 parcels. Parcels certified include 34 full takes, 10 partial takes and 10 temporary construction easements (TCE's). *Appraisals have been completed for 14 parcels*. Additional appraisals will be ordered in May. With receipt of ROD in December 2011, offers can now be made on right-of-way parcels certified by the project. One offer has been made at the Southwestern Yard. MTA is requesting an increased threshold in the value for property acquisitions from FTA based on similar requests made for Eastside and Expo Projects.

A term sheet has been negotiated between BNSF Railway Company to cease rail operations and abandon its interest in the five-mile Crenshaw Segment of the Harbor Branch right-of-way pending formal abandonment by the Surface Transportation Board. The term sheet was approved at the November MTA Board Construction Committee in November 2011 and the full Board in December 2011 subject to receipt of Record of Decision. *An agreement between BNSF and MTA was executed on April 30, 2012. The executed agreement includes a reduction in maintenance costs along the Harbor Branch and is included in the agreement, along with remnant property acquisitions to be quit-claimed by BNSF to MTA. With no freight traffic on this five mile segment of the Harbor Branch for the last two years, the abandonment qualifies for an expedited notice of exemption process with the Surface Transportation Board. This is the basis of the filing that BNSF has initiated.* 

#### Program Management

The Board approved the Life-of-Project (LOP) budget of \$1,749 million in October 2011. The LOP includes \$26 million for the environmental/planning scope of work and \$1,723 million for the preliminary engineering and construction scope of work. The Original Budget for the Construction effort includes a 49% cost allocation share that the Crenshaw/LAX project is responsible for paying for the design and construction of the Southwestern Yard.

The project commitments to date are \$68.4 million or 3.9% of the Original Budget. The project expenditures to date are \$53.6 million or 3.1% of the Original Budget. The expenditures to date are for Environmental/Planning, Preliminary Engineering and Third Party work.

# **PROJECT OVERVIEW (Continued)**

The project master schedule has been developed and includes the Revenue Service Date forecast of December 2018. The baseline schedule will be updated monthly and status reported against planned work. The forecast for revenue service will be updated upon award of the design-build main alignment Contract C0988 Crenshaw/LAX Transit Corridor.

A Risk Register has been developed for the project and is being updated monthly to reflect the issues/risks identified to date, which includes new risks as well as risks resolved. A follow-up three-day Risk Assessment Workshop was conducted in January 2012 and a final Risk Assessment Report was issued in February 2012. An updated Risk Management Plan was distributed in March 2012. Comments were received from the FTA/PMOC this month on the Risk Assessment Report and are under review by Project staff.

# **MANAGEMENT ISSUES**

**Concern No. 1:** Complete definition of FAA/LAWA south runway construction requirements for procurement documents and file 7460-1 form for signoff on constructability. Also, confirm decisions required on civil infrastructure to be built by MTA and fiber installation by FAA/LAWA. Written concept approval was received from LAWA in December on the utility relocation work scope. A conditional Notice to Proceed was received from LAWA this period.

**Status/Action** Regular meetings are being held with the local FAA/LAWA offices to resolve outstanding issues. Notifications of Proposed Construction Alterations (7460-1 form) are being processed "on airfield" through the local FAA office to expedite signoff. Approval was received from FAA on the guideway configuration. A 7460-1 was filed in March for constructability which includes the agreed time of day limitations. *A construction phasing plan for the advance utility work was approved on south runway 25R by FAA on April 26, 2012. MTA is complying with the conditions that include insurance provisions, payment bonds and indemnification which have been incorporated into the advance utility contract.* 

**Concern No. 2:** Execute Agreement with BNSF Railway Company to cease rail operations and abandon its interest in the Crenshaw Segment portion of the Harbor Branch right-of-way per Term Sheet.

**Status/Action** Received Construction Committee approval of Term Sheet at November 17, 2011 meeting, and MTA Board approval at December 15, 2011 Board Meeting. *With the receipt of a Record of Decision from FTA on December 30, 2011, MTA has prepared the final agreement based on the negotiated term sheet to BNSF and both parties executed the agreement on April 30, 2012. The agreement with BNSF includes a reduction on maintenance cap for Harbor Branch. Eight remnant parcels have been included to allow BNSF to quit-claim to MTA. A quitclaim deed is included in the agreement, which has now been executed. Execution of the agreement initiated the first payment to BNSF of \$1 Million and commits BNSF to file a formal abandonment to the Surface Transportation Board within 45 days. With no freight traffic on this five mile segment of the Harbor Branch for the last two years, the abandonment qualifies for an expedited notice of exemption process with the Surface Transportation Board. This is the basis of the filing that BNSF has initiated.* 

**Concern No. 3:** MTA Board to determine if Westchester Station will be included as a bid option to the Design-Build Contract C0988 Crenshaw/LAX Transit Corridor.

# **MANAGEMENT ISSUES (Continued)**

<u>Status/Action</u> A motion was presented and adopted at the December 15, 2011 Board Meeting, (which approved the inclusion of the Westchester Station, at-grade near Florence/Hindry as a bid option during the construction procurement. *Preliminary engineering design has been completed for a station platform without park and ride facilities to include as bid option to design-build Contract C0988 Crenshaw/LAX Transit Corridor.* 

**Concern No. 4:** Some right-of-way parcels for the Southwestern Yard have required relocations that currently support car rental facilities including Dollar Rent-A-Car and Avis Rent-A-Car may take considerably longer than planned.

Status/Action Although the Southwestern Yard is not on the project critical path, staff has evaluated schedule impacts to the start of construction and procurement options on how MTA could move forward to minimize delays to schedule. Relocation consultants have been brought on board by MTA to work directly with the car rental companies. LAWA continues to work directly with Dollar/Thrifty Rent-A-Car for possible use of the former Lot E parking lot on 111<sup>th</sup> Street as a relocation site for Dollar/Thrifty Rent-A-Car. Both MTA and Dollar are meeting with LAWA to reinforce the urgency to provide a commitment to Dollar in order to start the CEQA environmental process and relocation plans by June 2012. A timeline to complete the environmental process and relocation is estimated by Dollar at 18 months; or approximately December 31, 2013. The other rental car company impacted by the Southwestern Yard is Avis who is amenable to consolidating its facilities at its main rental car facility but this will require a lease extension with LAWA. The Southwestern Yard is planned to be released for bid in January/February 2013 and a two step Notice to Proceed is under consideration with an initial NTP for design.

**Concern No. 5:** Current estimate on the Southwestern Yard exceeds the project budget allocation for the maintenance facility. A stop work order was issued in January pending review and implementation of cost reduction strategies.

<u>Status/Action</u> A cost reduction strategy has been developed that reviewed all elements of the Southwestern Yard maintenance facility including deferral of nonessential elements and phasing the yard and shop facilities for initial two-car consists. *MTA has authorized the design consultant in March 2012 to re-start preliminary engineering activities. The design consultant is incorporating value engineering/cost reductions and has developed a more simplified and cost effective layout this is pending final acceptance by Operations. The Southwestern Yard is a consolidated Maintenance Facility to be used by several Measure R Projects in the South Bay Area with funding provided by each project.* 



#### **PROJECT ALIGNMENT**

# **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, six stations, park and ride facilities at three locations, utilities, landscaping, roadway improvements required by the project and a maintenance & storage facility (Southwestern Yard). During preliminary engineering, scope modifications were incorporated as part of the project and adopted by the MTA Board as part of the Project Budget. These changes, resulting from consultations with agencies such as the Public Utility Commission, Los Angeles Department of Transportation, and Federal Aviation Authority, included:

- 1) At-grade changed to below-grade segment from Exposition Boulevard to 39<sup>th</sup> Street;
- 2) La Brea Avenue Grade Separation changed from aerial to below-grade;
- 3) Fully cut and cover segment changed to partially covered trench adjacent to LAX as an interim condition; and
- 4) Cost sharing of a consolidated maintenance & storage facility near LAX (Arbor Vitae/Bellanca) called Southwestern Yard.

Additional engineering refinements developed through Preliminary Engineering are being addressed through an environmental addendum. These include demolition of two existing BNSF bridge structures that allow for realignment of the LRT tracks and significant cost savings; and additional right-of-way acquisitions with the majority being small partial takings and temporary construction easements for grade crossing safety improvements, sidewalk and bus bay modifications.

The two proposed optional stations, Crenshaw/Vernon (Leimert Park Village) and Westchester (Florence/Hindry), are not included in the adopted base project. However, a bid option will be included in the design-build contract for constructing an in-street underground Crenshaw/Vernon Station just north of Vernon Avenue that includes two options for station entrances as well as an additional bid option to cover a Westchester at-grade station without parking facilities near Florence/Hindry. The Crenshaw/Vernon in street station option is a change from the off-street station location cleared with the FEIS/FEIR. *This alternative instreet location is being addressed through a supplemental environmental assessment for NEPA and a separate CEQA addendum.* The Florence/Hindry Station option was previously cleared with the FEIS/FEIR but has been renamed from Manchester at-grade to Florence/Hindry.

# **BASE PROJECT SCOPE (Continued)**

With Board approval of a base Project Definition and certification of the Final Environmental Impact Report on September 22, 2011, the project team will continue with pre-construction activities. To accomplish the final design and construction of the project, the following contracts are being prepared to implement the project scope of work.

#### 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 will include relocating three (3) existing duct banks that feed various NAVAIDS on the south airfield complex. New ductbank infrastructure will be built by MTA 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 new 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 is bid-build Invitation for Bid (IFB) approach. *Contract award is scheduled for the end of May 2012.* 

#### 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 six baseline 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. Two optional stations will be included as bid options as well as improvements to the Crenshaw/Slauson intersection and additional fire suppression measures in tunnel/cut and cover segments.

The project delivery method for this contract is design-build utilizing a two step best value procurement approach with submittal of qualification statements through a RFQ process, prequalification of qualified proposers followed by release of a RFP soliciting technical and price proposals with an option at MTA's discretion for best and final offers (BAFO).

# **BASE PROJECT SCOPE (Continued)**

#### Design-Build Contract C0991 Southwestern Yard

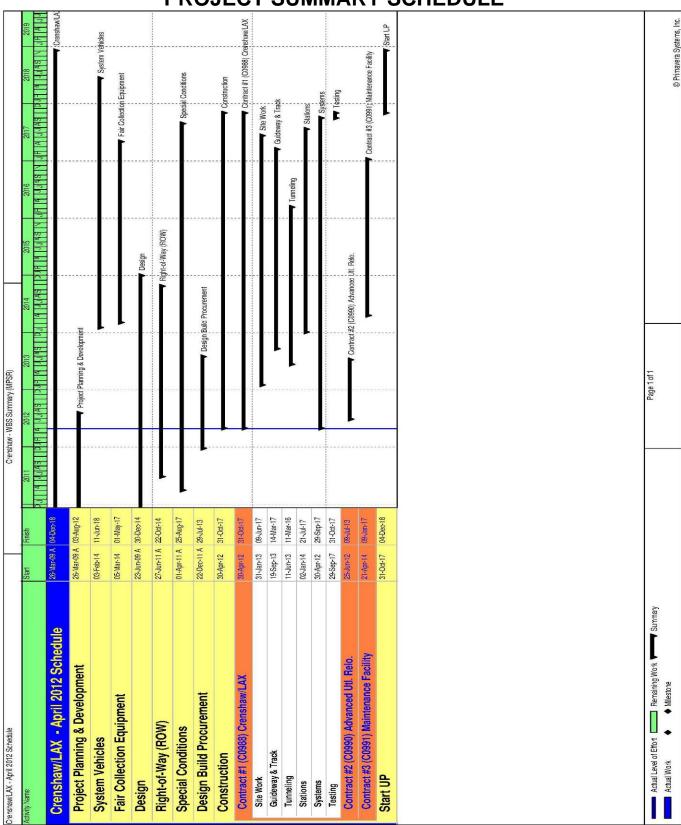
The Board-adopted 2009 Long Range Transportation Plan (LRTP) for Los Angeles County envisioned one new central Light Rail Transit (LRT) Maintenance facility to be used by all projects. Since the LRTP adoption, substantial progress on light rail system planning and development, including more accurate vehicle assignments, cost estimates, and functional requirements, has led MTA 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 design-build Invitation for Bid (IFB) approach and is currently scheduled to be released in January/February 2013.

Г

# **KEY MILESTONES SIX- MONTH LOOK AHEAD**

	Milestone Date	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12				
pprove Agreement with BNSF for Abandonment of RR racks	04/30/12A	•									
Receive Bids Contract C0990 Advanced Utility Relocations	6 04/11/12A										
ssue Request for Proposals Contract C0988 "D-B Transit Corridor"	06/05/12*		•								
pprove Design Consultant Phase III Design Services Dur Construction	<sup>ing</sup> 04/26/12A										
ward Contract C0990 Advanced Utility Relocations	05/31/12*		•								
NSF Files with STB Application for Abandonment	06/14/12			$\triangle$							
ITP Contract C0990 Advanced Utility Relocations	06/25/12			•							
upplemental EA FONSI and ROD	08/03/12					FTA					
MTA Staff     MTA Board Action	FTA (Federal	Transportatio	n Authority)								
△ Other Agencies □ Contractors	O HMM Des	sign									
		* New									



# **PROJECT SUMMARY SCHEDULE**

### **April 2012**

# **CRITICAL PATH NARRATIVE**

#### **Critical Path:**

The longest path to project substantial completion begins with the Procurement cycle; Award/NTP of the Design/Build Contract #1 Crenshaw/LAX Transit Corridor.

Upon award, the critical path moves through final design for the alignment and completing shop drawings to begin procurement of the tunnel boring machines (TBMs). The TBMs are a long lead item and as packages of final design are approved for construction work will commence on the alignment prior to the TBMs arrival, assembling and testing.

The critical path then flows to remaining construction elements; tunneling, guideway construction, station construction, and systems installation. Critical work concludes with systems integration testing and acceptance.

# **PROJECT COST STATUS - 865512**

	FREPORT BY ELEMENT										
ELE-	DESCRIPTION	ORIGINAL	CURREN	T BUDGET	COMMI	TMENTS	EXPEND	ITURES	CURREN	T FORECAST	FORECAST
MENT	DESCRIPTION	BUDGET	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	VARIANCE
С	CONSTRUCTION	1,054.7	-	1,054.7	(0.4)	5.6	0.1	0.7	-	1,054.7	-
R	RIGHT-OF-WAY	132.3	-	132.3	0.1	0.4	-	-	-	132.3	-
V	VEHICLES / BUSES	87.8	-	87.8	-	-	-	-	-	87.8	-
Р	PROFESSIONAL SERVICES	271.1	-	271.1	2.3	36.4	2.3	27.5	-	271.1	-
PC	PROJECT CONTINGENCY	177.1	-	177.1	-	-	-	•	-	177.1	-
PF	PROJECT FINANCE	-	-	-	-	-	-	•	-	-	-
	865512 - SUBTOTAL	1,723.0	-	1,723.0	2.0	42.4	2.4	28.2	-	1,723.0	-
EP	ENVIRONMENTAL/PLANNING-405512	5.5	-	5.5	-	5.5	-	5.5	-	5.5	-
EP	ENVIRONMENTAL/PLANNING-465512	20.5	-	20.5	-	20.5	-	19.9	-	20.5	-
	405512 & 465512 - SUBTOTAL	26.0	-	26.0	-	26.0	-	25.4	-	26.0	-
	405512, 465512 & 865512 - TOTAL	1,749.0	-	1,749.0	2.0	68.4	2.4	53.6	-	1,749.0	-

Note-1: 405512, 465512, and 865512 are internal MTA project numbers to differentiate between Environmental/Planning and construction components of the project. Project numbers 405512 and 465512 will have no further commitments or expenditures after June 2012. Note-2: Project 865512 expenditures are cumulative through March 2012.

# PROJECT COST ANALYSIS

#### **Original Budget and Current Budget:**

The Board in October 2011 established the Life-of-Project (LOP) budget of \$1,749 million for the Crenshaw/LAX Transit Corridor Project. The budget includes the 49% cost allocation share that the Project is responsible for paying for the design and construction of the Southwestern Yard. The breakout by element above has been revised to allocate the Southwestern Yard cost to all appropriate cost elements instead of only within the Construction element.

**Current Forecast:** The total project forecast is \$1,749 million.

#### Commitments:

The commitments are cumulative through April 2012. The total commitments increased by \$2.1 million this period. In the Construction element there was a decrease of \$0.3 million due to purchase order close out and de-commitments for third party scope of work with the Los Angeles City. In the Right-Of-Way element there was an increase of \$0.1 million for appraisals and environmental scope of work. In the Professional Services element there was an increase of \$2.3 million for executed contract modifications associated with the Preliminary Engineering Design Contract E0117, IPMO field office lease, legal services, environmental permits and fees, and printing services. The \$68.4 million in commitments to date represents 3.9% of the current budget.

# **PROJECT COST ANALYSIS (Continued)**

#### **Expenditures:**

The expenditures are cumulative through March 2012. In the Construction element there was an increase of \$0.1 million for third party scope of work with Los Angeles City and Cable Engineering Services. In the Professional Services element there was an increase of \$2.3 million for costs associated with the preliminary engineering design contract E0117, Metro project administration, IPMO field office lease and related expenses, construction management support services, legal services, permits fees with Caltrans District-07, tunnel advisory panel services, community outreach program, and miscellaneous specialty services. The \$53.6 million in expenditures to date represents 3.1% of the current budget.

# **FINANCIAL/GRANT STATUS**

\$ in millions									
	(A)	(B)	(C)	(D)	(D/B)	(E)	(E/B)	(F)	(F/B)
	ORIGINAL	TOTAL	TOTAL	COMMITM	<b>/ENTS</b>	EXPEND	TURES		FUNDING
SOURCE	BUDGET	FUNDS	FUNDS	•		•			SOURCE
		ANTICIPATED	AVAILABLE	\$	%	\$	%	\$	%
FEDERAL- CMAQ	68.2	68.2							
REGIONAL IMPROVEMENT PROG	36.7	36.7	24	24	6%	2.4	6%	24	6%
FEDERAL - SECTION 5309 BUS CAPT	8.6	8.6	8.6	8.6	100%	7.1	83%	7.1	83%
FEDERAL - REGIONAL STP	20.0	20.0					0%	1	0%
FEDERAL - ALTERNATIVE ANALYSIS	1.2	1.2	1.2	1.2	100%	1.2	100%	1.2	100%
STATE PROP 1B PTMSEA	201.2	201.2							
FEDERAL - TIFIA LOAN (Measure R)	545.9	545.9							
MEASURE R	661.1	661.1	53.4	525		39.6		37.9	
LOCAL AGENCY FUNDS	52.4	52.4							
PROP C 25% HIGHWAY	148.9	148.9	3.8	3.8		3.3		3.3	
PROP A 35% RAIL CAPITAL	4.8	4.8							
TOTAL	1,749.0	1,749.0	69.4	68.4	3.9%	53.6	3.1%	51.9	3.0%

NOTE: Expenditures are cumulative through March 2012.

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

# STATUS OF FUNDS ANTICIPATED

**FEDERAL SECTION 5309 BUS CAPITAL:** FTA approved MTA Grant on July 6, 2010 for a total of \$8.6M for bus and related facilities Preliminary Engineering effort. Funds are available for drawdown.

**REGIONAL IMPROVEMENT PROGRAM:** \$178.6K was allocated by the State during the Planning Stage of the Project (FY07). \$2.2M was allocated by the California Transportation Commission on January 28, 2011 for Preliminary Engineering work.

**FEDERAL ALTERNATIVE ANALYSIS:** \$1.2M was approved by FTA under the Alternative Analysis Program. Funds have been drawn down.

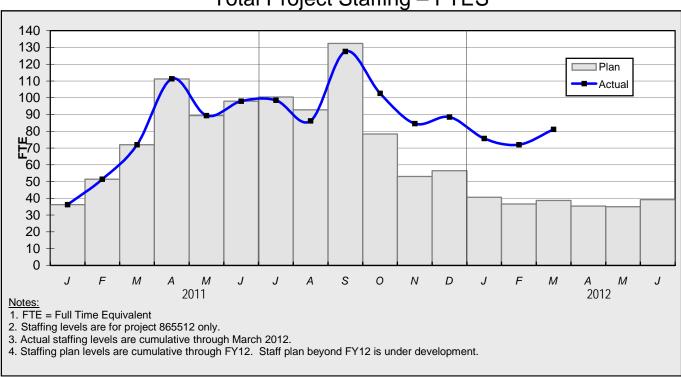
**FEDERAL TIFIA LOAN (Measure R) (Transportation Infrastructure Finance & Innovation Act):** Application for a loan of \$545.9M was submitted to the US Department of Transportation (DOT) in November 2011. On January 25, 2012 MTA made a presentation to the TIFIA Office on the projects description, financial capacity, and other related items. *Negotiations between USDOT and MTA continue on the terms and conditions of the TIFIA Ioan.* TIFIA Office has requested additional clarification and negotiations are continuing. Loan application is expected to be executed by September 1, 2012 *pending completion of the Supplemental Environmental Assessment and publishing a Finding of No Significant Impact (FONSI).* 

**STATE PROP 1B – PTMISEA:** A request for an allocation of \$38.4M was submitted to the State on June 1, 2011. A revised allocation request for \$12M was submitted in February 2012. This revised amount will fund ROW and final design activities. The revised allocation request won't be approved until the State Bond Sale is completed (June 2012). An additional funding allocation request of \$160M was submitted to Caltrans in March 2012. Approval is not expected until Fall 2012.

**MEASURE R:** \$53.4M has been allocated to the project based on the January 2012 Funding Plan. Funds are available for drawdown.

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

### **STAFFING STATUS**



#### Total Project Staffing – FTES

# TOTAL PROJECT STAFFING

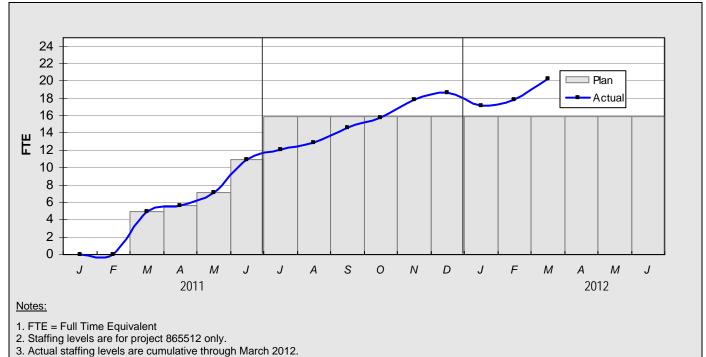
The overall FY12 Total Project Staffing plan averages 61.6 FTE's per month.

For March 2012, there were a total of 20.3 FTE's for MTA's Project Administration staff and 60.9 FTE's for consulting staff. The total project staffing was 81.2 FTE's for March 2012.

Project staffing beyond FY12 is under development.

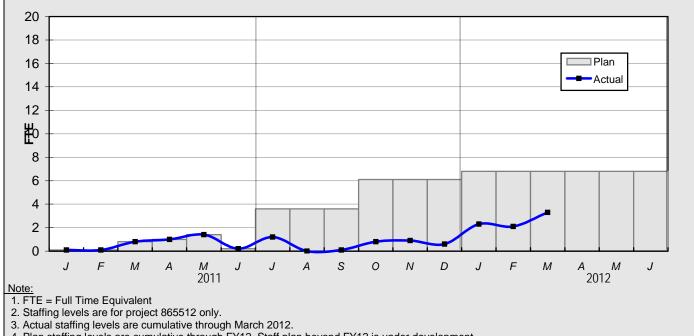
# **STAFFING STATUS (Continued)**

**MTA STAFFING – FTES** 

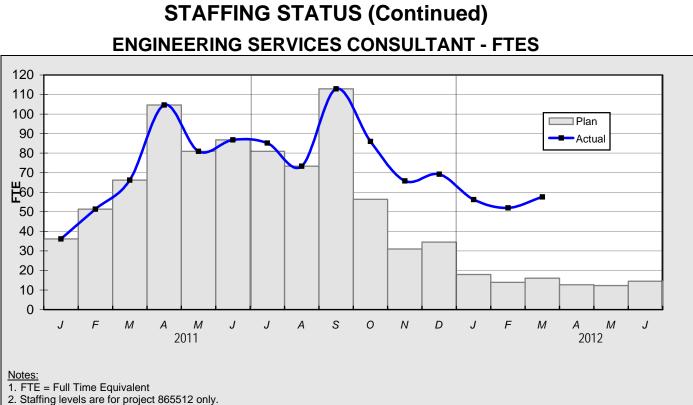


4. Plan staffing levels are cumulative through FY12. Staff plan beyond FY12 is under development.

#### CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONSULTANT – FTES



4. Plan staffing levels are cumulative through FY12. Staff plan beyond FY12 is under development.



3. Actual staffing levels are cumulative through March 2012.

4. Plan staffing levels are cumulative through FY12.Phase II only. Staff plan beyond FY12 is under development.

**April 2012** 

# **REAL ESTATE STATUS**

Contract No.	Number of Parcels	Certified	Appraisals Complete	Just Comp. Approved	Offers Made	Agreements Signed	Condemnation Filed	Relocations Complete	Parcels Available
C0988 C/LAX Trans	it Corridor (D	I-B):							
Crenshaw									
Full Takes	12	11	4						
Part Takes (PT or SE)	10	8							
TCE (only)	10	7							
Subtotal Parcels	32	26							
Relocations	15								
Harbor Subdivision									
Full Takes	14	14	9						
Part Takes (PT or SE)	18	13							
TCE (only)	3	2							
Subtotal Parcels	35	29							
Relocations	34								
Total Parcels:	67	55							
C0991Southweste	ern Yard (D-B	<u>s):</u>							
Full Takes	8	8	1	1	1				
Part Takes	0								
TCE	0								
Total Parcels:	8	8							
Relocations	4								
C0990 C/LAX Advance	Utility Reloc	ations:							
Total Parcels:	0								
Total Project Parcels	75	63							

- Received comments from the PMOC on the Relocation Plan. Responses have been prepared and returned to the PMOC.
- Fourteen appraisals (14) completed at the Exposition and La Brea Station areas and Southwestern Yard. Additional appraisals to be ordered in May.
- Nineteen Environmental Investigations underway.
- Acquisition and relocation consultants assigned for initial acquisition parcels including the Southwestern Yard which has a high priority given the lengthy relocation durations.

# **QUALITY ASSURANCE STATUS**

• Reviewed Vernon Station Option submittal from Engineering Services Consultant.

#### **C0990 Advanced Utility Relocations**

• Reviewed Quality information submitted for bid packages.

# **ENVIRONMENTAL STATUS**

- Supplemental Environmental Assessment/Addendum Worked with FTA, Crenshaw and Consultant Team to get the Project Description and environmental changes to FTA. Advised on public outreach process, reviewed Phase 1 submittals from Real Estate for acquisitions. Provided updated Environmental Status change memo to FTA; received comments and have incorporated into Supplemental Environmental Assessment, which was submitted to FTA on May 5, 2012 for review prior to circulation. Work is in progress on the preparation of a letter for compliance with Section 106 of the National Historic Preservation Act that requires approval from SHPO.
- Authorized consultant to update Phase 1 Assessment on Crenshaw Blvd. with additional Phase 2 work proposed to establish basis for obtaining pollution liability insurance. A decision on the additional Phase 2 work will be made following the updated Phase 1 assessment.

## **CONSTRUCTION RELATIONS STATUS**

- Held meeting with Crenshaw Leadership Council and provided update on outreach efforts for upcoming NEPA Environmental Assessment Open House, Business Profiles and Destination Discounts Program.
- Held meeting with project staff and City of Los Angeles Department of Transportation and Office of Council Member Bernard Parks regarding parking impacts before and after project completion.
- Preparing for public information meeting on May 10, 2012 as part of the supplemental environmental assessment process.
- Working to finalize a project work variation for project limits within the City of Los Angeles.

# **ART DEVELOPMENT STATUS**

- Reviewed and commented on station design submittals.
- Reviewed and commented on system signage design documents.
- Coordinated Crenshaw/LAX video project, final edits are being incorporated into the individual video clips.

# SAFETY & SECURITY STATUS

• Reviewed and revised the Construction Safety and Security Manual based on Lessons Learned from past projects.

# THIRD PARTY AGREEMENT STATUS

Third Party	Type of Agreement	Forecast Executio n Date	Required Need Date	Status/ Comments
City of Los Angeles	Master Cooperative Agreement	06/12	06/12	Negotiations taking place with City; updated language on remaining terms developed and under review by MTA.
Los Angeles World Airports	Letter of Agreement	06/12	06/12	Discussions in-progress.
City of Inglewood	Master Cooperative Agreement	06/12	06/12	Interim LOA was executed on April 17, 2012. Held meeting on April 25, 2012 to negotiate MCA; negotiations; both parties appear to be in basic agreement on the MCA.
Los Angeles Department of Water and Power	Memorandum of Understanding	06/12	06/12	MTA addressed comments; LADWP to review
Los Angeles County Public Works	Letter of Agreement	04/11	03/12	Executed
Caltrans	Amendment	08/11	03/12	Executed
Private Utilities	LOA, MOU or UCA	05/11 to 06/12	06/12	Discussions continuing with Third Party entities.

# **CPUC CROSSING SUMMARY**

Package	PE Consultant submits RCHAP* to MTA	MTA submits RCHAP* to CPUC	Field Diagnostic Meeting	CPUC Preliminary Recommendations to MTA	Revise Package and Submit to PUC for Commission Resolutions	Submit Formal Application (if required) to PUC	CPUC Approval
1	1/26/12A	2/6/12A	3/28/12(A) - 3/30/12(A	07/06/12	07/20/12	09/12/12	11/12/12
2	1/26/12A	2/6/12A	3/28/12(A) - 3/30/12(A	07/06/12	07/20/12	09/12/12	11/12/12
3	1/26/12A	2/6/12A	3/28/12(A) - 3/30/12(A		07/20/12	09/12/12	11/12/12
4	1/26/12A	2/6/12A	3/28/12(A) - 3/30/12(A		07/20/12	09/12/12	11/12/12
5 (*)	1/26/12A	2/6/12A ard Analysis Report (	3/28/12(A) - 3/30/12(A	) 07/06/12	07/20/12	09/12/12	11/12/12
()	Rall Crossing Haza	aru Anaiysis Report	· · ·	Description			
1	Harbor Subdivis	sion At Grade	4	Crenshaw	At Grade		
·	Centinela Av 2		-		th Strret 5FA		
	Ivy Avenue 27-	FA		West 501	th Street 6-FA		
	Eucalyptus Ave	enue 28-FA		West 52	nd Street 7-FA		
	North Cedar Av	venue 29-FA		West 54	th Street 8-FA		
	Oak Street 30-	FA		West 571	th Street 9-FA		
	Arbor Vitae Str	reet 36-FA			w Boulevard/West 5 Avenue 10-FA	9th Street 11-FA	
2	Harbor Subdivis	sion At Grade	5		Grade Separation		
	Victoria Avenue	e 21-88B			load 2-FA		
	Brynhurst Aver	nue 22-88B		Rodeo P	lace 3-FA		
	West Boulevar	d 23-FA		Coliseum	n Street 4-FA		
	Redondo (Clos	sure)		Crensha	w Boulevard/West 6	0th Street 13-16	
	Hindry 34-FA			Crensha	w Boulevard/West 6	3rd Street 14-16	
		n Pedestrian Crossin	g	Crensha	w Boulevard/West 6	6th Street 16-16	
	High Street			Crensha	w Boulevard/West 6	6th Place 17-1	
3	Harbor Subdivis Separation	sion Grade		Crensha	w Boulevard/West 6	7th Street 18-16	
	La Brea Street	26-88B		Hyde Pa	rk Boulevard 31-88E	3	
	San Diego (SR	2 405) UP 32-164D		Crensha	w Boulevard/West V	ernon Avenue	
	La Cienega Bo	oulevard 33-88B		Crensha	w Boulevard/West 4	3rd Place	
	Manchester (S	R105) 35-88B			w Boulevard/West 4		
	Century Boulev	vard UP37-164D		Crensha	w Boulevard/West S	tocker Street	
	104th Street 38	8 (87?)-88B		Crensha	w Boulevard/West N	lartin Luther King Bo	ulevard
	111th Street 39	9-88B			w Boulevard/West N		
	Imperial Highw	ay 40-164D			w Boulevard/West 3		
	I-405			Crensha	w Boulevard/West C	oliseum Place	
	West Hyde Par	rk					

Project follows CPU General Order No. 164-D as agreed to by MTA and the CPUC. The CPUC Crossing Summary adheres to the steps outlined in G.O. 164-D.

# FEDERAL AVIATION ADMINISTRATION (FTA)/ LOS ANGELES WORLD AIRPORTS (LAWA) SUMMARY STATUS

- MTA has included in the base scope a partially covered trench configuration as an interim condition which allows MTA to keep the overall project budget at \$1,749 million. The preliminary engineering design includes a partially covered trench which includes provisions to allow for a future 1,600 foot covered trench section. FAA approved a formal Notification of Proposed Construction Alteration (Form 7460-1) for the partially covered configuration on February 29, 2012. Metro has filed an additional 7460-1 permit application on March 1, 2012 to define construction phasing requirements and time of day limitations for construction. These requirements have been incorporated into the RFP technical documents.
- FAA provided written notice of late comments on the SDEIS/RDEIR for the Southwestern Yard site that was adopted by the MTA Board in April 2011. Comments requested the filing of a 7460-1 application for the yard site at Arbor Vitae and Bellance. An evaluation was performed by MTA and a written response with analysis submitted to FAA that indicates a 7460-1 is not required.

# 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.
April 26, 2012	Board authorized the CEO to exercise option with Contract No. E0117 for Phase III Design Services During Construction.

# **CONTRACT C0988 STATUS**

Crenshaw/LAX Transit Corridor

PE Design Contractor: Hatch Me Contractor: - TBD	ott MacDor	nald (HMN	1)		Contract No.: C0988 Status as of: April 27, 2012
Progress/Work Completed: - Issued Request for Qualification (R - Received Statement of Qualification - Continued preparing solicitation par - Notices for pre-qualified teams to be	ns in March ckage for iss	2012. sue in late	May 2012.		Areas of Concern:
Schedule Assessment:					Cost Assessment:
Schedule Summary:					Cost Summary: \$ In 000's
1. Date of Award:					1. Award Value:
2. Notice to Proceed:					2. Executed Modifications:
3. Original Substantial Completion E	Ouration:				3. Approved Change Orders:
4. Current Substantial Completion D	ouration:				4. Current Contract Value (1 + 2 + 3): -
5. Elapsed Time from NTP:					5. Incurred Cost:
Milestones	Original Contract	Current Contract	Forecast	Calendar Day Variance 0	fromto
				0	Construction
				0 0 0	Total Incurred 0%
					0% 20% 40% 60% 80% 100% Percent Complete Progress
				0	Construction physical percent complete excludes
					mobilization and general requirements

# **CONTRACT C0990 STATUS**

Crenshaw/LAX Advanced Utility Relocations

PE Design Contractor: Hatch Mc Contractor: - TBD	ott MacDon	nald (HMM	1)		Contract No.: C0990 Status as of: April 27, 2012	
Progress/Work Completed: - HMM completed products in January - Invitation for Bid Contract C0990 iss - Bids for C0990 received in April 207	sued Februa	ary 2012.			Areas of Concern:	
Schedule Assessment:					Cost Assessment:	
Schedule Summary:					Cost Summary: \$ In 00	0's
1. Date of Award:					1. Award Value:	
2. Notice to Proceed:					2. Executed Modifications:	
3. Original Substantial Completion D	uration:				3. Approved Change Orders:	
4. Current Substantial Completion D					4. Current Contract Value (1 + 2 + 3):	
5. Elapsed Time from NTP:					5. Incurred Cost:	
Milestones	Original Contract	Current Contract	Forecast	Calendar Day Variance 0	fromto	E
				0		
				0	Construction 0% Total Incurred Cost 0%	
				0		80% 100%
				0	0% 20% 40% 60% Percent Complete Prog	
					Construction physical percent complete mobilization and general requirements	excludes

# **CONTRACT C0991 STATUS**

Southwestern Yard

Contractor: - TBD	Mott MacDon	ald (HMN	1)		Contract No.: C0991 Status as of: April 27, 2	2012		1	AN
<ul> <li>Progress/Work Completed:</li> <li>- HMM is continuing design to sup February 2013.</li> <li>- Incorporating value engineering</li> </ul>					<ul> <li>Areas of Concern:</li> <li>Increased time for reloca on yard parcels.</li> <li>Relocation consultant be needs of existing tenant</li> </ul>	ing selected	to determ		
Schedule Assessment:					Cost Assessment:				
Schedule Summary:					Cost Summary:		\$ In 0		
Schedule Summary: 1. Date of Award:					Cost Summary: 1. Award Value:		\$ In 0	00's	
					-	ns:	\$ In 0	00's	
1. Date of Award:	n Duration:				1. Award Value:		\$ In 0	00's	
2. Notice to Proceed:					<ol> <li>Award Value:</li> <li>Executed Modification</li> </ol>	ders:	·	00's	
<ol> <li>Date of Award:</li> <li>Notice to Proceed:</li> <li>Original Substantial Completion</li> </ol>					<ol> <li>Award Value:</li> <li>Executed Modification</li> <li>Approved Change Or</li> </ol>	ders:	·	00's	
<ol> <li>Date of Award:</li> <li>Notice to Proceed:</li> <li>Original Substantial Completion</li> <li>Current Substantial Completion</li> </ol>		Current Contract	Forecast	Calendar Day Variance	<ol> <li>Award Value:</li> <li>Executed Modification</li> <li>Approved Change Or</li> <li>Current Contract Value</li> </ol>	ders:	): -		
<ol> <li>Date of Award:</li> <li>Notice to Proceed:</li> <li>Original Substantial Completion</li> <li>Current Substantial Completion</li> <li>Elapsed Time from NTP:</li> </ol>	n Duration:		Forecast	Day	<ol> <li>Award Value:</li> <li>Executed Modification</li> <li>Approved Change Or</li> <li>Current Contract Value</li> </ol>	ders: ie (1 + 2 + 3) PERCENT	): - COMPLE		
<ol> <li>Date of Award:</li> <li>Notice to Proceed:</li> <li>Original Substantial Completion</li> <li>Current Substantial Completion</li> <li>Elapsed Time from NTP:</li> </ol>	n Duration:		Forecast	Day Variance	<ol> <li>Award Value:</li> <li>Executed Modification</li> <li>Approved Change On</li> <li>Current Contract Value</li> <li>Incurred Cost:</li> </ol>	ders: ie (1 + 2 + 3) PERCENT	): - COMPLE		
<ol> <li>Date of Award:</li> <li>Notice to Proceed:</li> <li>Original Substantial Completion</li> <li>Current Substantial Completion</li> <li>Elapsed Time from NTP:</li> </ol>	n Duration:		Forecast	Day Variance 0	<ol> <li>Award Value:</li> <li>Executed Modification</li> <li>Approved Change Ori</li> <li>Current Contract Value</li> <li>Incurred Cost:</li> </ol>	ders: ie (1 + 2 + 3) PERCENT	): - COMPLE		
<ol> <li>Date of Award:</li> <li>Notice to Proceed:</li> <li>Original Substantial Completion</li> <li>Current Substantial Completion</li> <li>Elapsed Time from NTP:</li> </ol>	n Duration:		Forecast	Day Variance 0 0 0	<ol> <li>Award Value:</li> <li>Executed Modification</li> <li>Approved Change Ort</li> <li>Current Contract Value</li> <li>Incurred Cost:</li> </ol> Design 0%           Construction           0%           Total Incurred	ders: ie (1 + 2 + 3) PERCENT	): - COMPLE		
<ol> <li>Date of Award:</li> <li>Notice to Proceed:</li> <li>Original Substantial Completion</li> <li>Current Substantial Completion</li> <li>Elapsed Time from NTP:</li> </ol>	n Duration:		Forecast	Day Variance 0 0 0	<ol> <li>Award Value:</li> <li>Executed Modification</li> <li>Approved Change Ori</li> <li>Current Contract Value</li> <li>Incurred Cost:</li> </ol> Design 0% Construction 0% Total Incurred 0%	ders: ue (1 + 2 + 3) PERCENT from	): - <b>COMPLE</b> <u>to</u>	TE	100%
<ol> <li>Date of Award:</li> <li>Notice to Proceed:</li> <li>Original Substantial Completion</li> <li>Current Substantial Completion</li> <li>Elapsed Time from NTP:</li> </ol>	n Duration:		Forecast	Day Variance 0 0 0 0 0	<ol> <li>Award Value:</li> <li>Executed Modification</li> <li>Approved Change Ori</li> <li>Current Contract Value</li> <li>Incurred Cost:</li> </ol> Design 0% Construction 0% Total Incurred 0%	ders: ue (1 + 2 + 3) PERCENT from	):	<b>TE</b>	100%
<ol> <li>Date of Award:</li> <li>Notice to Proceed:</li> <li>Original Substantial Completion</li> <li>Current Substantial Completion</li> <li>Elapsed Time from NTP:</li> </ol>	n Duration:		Forecast	Day Variance 0 0 0	<ol> <li>Award Value:</li> <li>Executed Modification</li> <li>Approved Change Ori</li> <li>Current Contract Value</li> <li>Incurred Cost:</li> </ol> Design 0% Construction 0% Total Incurred 0%	ders: PERCENT from 0% 40% Percent Co	): -	TE 80% gress	

### **April 2012**

# **CONSTRUCTION PHOTOGRAPHS**



Crenshaw/LAX Leadership Council Meeting held on April 26, 2012.



Crenshaw/LAX Leadership Council Meeting held on April 26, 2012.

# **April 2012**



# **CONSTRUCTION PHOTOGRAPHS**

Crenshaw/LAX Leadership Council Meeting held on April 26, 2012.

### APPENDIX

# COST AND BUDGET TERMINOLOGY

Project Cost Descriptions -		
ORIGINAL BUDGET	The Original Project Budget as established by the Metropolitan Transportation Authority (MTA) Board on October 27, 2011.	
CURRENT BUDGET	The Original Budget plus all budget amendments approved formal MTA 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 MTA 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 MTA for contractor or consultant invoices, third party invoices, staff salaries, real estate and other expenses that is reported in MTA'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 MTA as a direct result of project activities. This includes cost sharing construction items, insurance premium rebates, and the like.	

Γ

# APPENDIX

# LIST OF ACRONYMS

ATC	Automatic Train Control
ATSAC	Automated Traffic Surveillance and Control
BNSF	Burlington Northern Santa Fe Railway Company
CADD	Computer Aided Drafting and Design
CALTRANS	California Department of Transportation
CCTV	Closed Circuit Television
CD	Calendar Day
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
CTC	California Transportation Commission
CUD	Contract Unit Description
DB	Design Build
DBB	Design Bid Build
DOT	Department of Transportation
DWP	Department of Water and Power
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPBM	Earth Pressure Balance Machine
FAA	Federal Aviation Administration
FAR	Federal Acquisition Regulation
FD	Final Design
FEIS	Final Environmental Impact Statement
FEIR	Final Environmental Impact Report
FIS	Financial Information System
FSEIR	Final Supplemental Environmental Impact Report
FSEIS	Final Supplemental Environmental Impact Statement
FTA	Federal Transit Administration
FTE	Full Time Equivalent
GDSR	Geotechnical Design Summary Report Hatch Mott MacDonald
	Invitation for Bid
IFB IPMO	
JV	Integrated Project Management Office Joint Venture
LA	Los Angeles
LABOE	Los Angeles Bureau of Engineering
LABOS	Los Angeles Bureau of Sanitation
LACFCD	Los Angeles County Flood Control District

# APPENDIX

# LIST OF ACRONYMS (Continued)

LACMTA LADOT LADPW LAUSD LAUSD LAWA LAX LAX LNTP LONP LRT LRTP LRV MIS MPSR N/A NEPA NPDES NTE NTP OCS PA/VMS PE PEER PGL PIP PM PMA PMIP PMA PMIP PMA PMIP PMA PMIP PMA PMIP PMA PMIP PMA PMIP PMA PMIP PMA PMIP PMA PMIP PMA PMA PMIP PMA PMA PMIP PMA PMA PMA PMA PMA PMA PMA PMA PMA PM	Los Angeles County Metropolitan Transportation Authority Los Angeles Department of Transportation Los Angeles Department of Public Works Los Angeles Unified School District Los Angeles Unified School District Los Angeles International Airport Limited Notice To Proceed Letter Of No Prejudice Light Rail Transit Long Range Transportation Plan Light Rail Vehicle Major Investment Study Monthly Project Status Report Not Applicable National Environmental Protection Act National Pollution Discharge Elimination System Not to Exceed Notice To Proceed Overhead Cantenary System Public Address/Visual Messaging Sign Preliminary Engineering Permit Engineering Evaluation Report Pasadena Gold Line Project Management Assistance Project Management Implementation Plan Project Management Plan Project Report Project Report Project Report Project Report Project Study Report Quality Assurance Quality Assurance Report Quality Control
QC QPSR	Quality Control Quarterly Project Status Report
QTIB	Qualified Transit Improvement Bonds
RAMP	Real Estate Acquisition Management Plan
RCMP	Risk Assessment Management Plan
RFC	Request For Change
RFP RFQ	Request For Proposals Request For Qualifications
	NEQUEST OF QUANITURIONS

# APPENDIX

# LIST OF ACRONYMS (Continued)

RLPE ROCC ROD ROM RSD ROW SAV SCAQMD SCADA SCC SCE SCRRA SHA SHPO SIT SOV SOW SP SSMP STB STIP STP STV TBD TBM TCRP TIFIA TIGER TPSS	Red Light Photo Enforcement Rail Operations Control Center Record Of Decision Rough Order of Magnitude Revenue Service Date Right-Of-Way Stand Alone Validator Southern California Air Quality Management District Supervisory Control and Data Acquisition Standard Cost Category Southern California Edison Southern California Regional Rail Authority State Highway Account State Historic Preservation Office System Integration Testing Schedule Of Value Statement Of Work Special Provision Safety and Security Management Plan Surface Transportation Board State Transportation Improvement Program Surface Transportation Program STV Group To Be Determined Tunnel Boring Machine Traffic Congestion Relief Program Transportation Infrastructure Finance and Innovation Act Transportation Investment Generating Economic Recovery Traction Power Substation
	Tunnel Boring Machine
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
YOE	Year of Expenditure