

Los Angeles County  
Metropolitan Transportation Authority

# Metro Division 13 Quarterly Project Status Report



Metro®

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# **METRO DIVISION 13 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).

**DECEMBER 2013**

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## PROJECT SUMMARY

<b>LOCATION:</b> Los Angeles		<b>CONSTRUCTION MANAGEMENT CONSULTANT:</b> MARRS	
<b>DESIGN CONSULTANT:</b> MDG		<b>CONTRACTOR:</b> McCarthy	
<b>PROJECT PHOTO</b>		<b>WORK COMPLETED PAST MONTH</b>	
		<ul style="list-style-type: none"> <li>Continued DWP Duct Banks installation on Cesar Chavez</li> <li>Continued Fiber Optic Duct Banks installation on C. Chavez</li> <li>Completed work in the radiator area in Building 1</li> <li>Continued waterproofing exterior walls</li> <li>Continued lower level wall and slab pours</li> <li>Continued foundations on east side of project site</li> <li>Continued backfilling north-end walls</li> <li>Continued storm drain pipe installation of new &amp; existing buildings</li> <li>Continued concrete floor hardener in selected areas</li> <li>Continue design of the new CNG fueling facility</li> </ul>	
<b>EXPENDITURE STATUS</b> (\$ In Millions)		<b>SCHEDULE ASSESSMENT</b>	
<b>ACTIVITIES</b>	<b>CURRENT ESTIMATE</b>	<b>EXPENDED AMOUNT</b>	<b>PERCENT EXPENDED</b>
<b>DESIGN</b>	7.73	7.33	94.8%
<b>RIGHT-OF-WAY</b>	0	0	n/a
<b>CONSTRUCTION</b>	78.72	24.68	31.4%
<b>OTHER</b>	17.75	9.62	54.2%
<b>TOTAL</b>	104.20	41.63	40.0%
(As of 12/9/2013)			
		<b>MAJOR SCHEDULE ACTIVITIES</b>	<b>PRIOR PLAN</b>
		<b>CURRENT PLAN</b>	<b>VARIANCE (WEEKS)</b>
<b>Environmental</b>			
		Categorical Exemption	Dec-09 A
		Dec-09 A	Complete
<b>Design</b>			
		Final Design	Oct-09 A
		Oct-09 A	Complete
<b>Right-of-Way</b>			
		Not Applicable	n/a
		n/a	n/a
<b>Construction</b>			
		Notice to Proceed	Jul-12 A
		Jul-12 A	Complete
		Construction Complete	Jul-14
		Oct-14	12
<b>AREAS OF CONCERN</b>		<b>CRITICAL ACTIVITIES / 3 MONTH LOOK AHEAD</b>	
<ul style="list-style-type: none"> <li>Unforeseen Off-Site Conditions on Cesar Chavez St.</li> <li>Low voltage ITS revised design for project</li> <li>Project Schedule Reassessment</li> </ul>		<ul style="list-style-type: none"> <li>Finish installation of fiber optic duct bank on Metro Dr.</li> <li>Complete fire &amp; water lines connections</li> <li>Complete demo of existing weld shop area Bld No. 1</li> <li>Continue first deck slab pours and beam post stressing</li> <li>Install new steel DWP elec poles on Cesar Chavez St.</li> <li>Finish DWP U/G duct banks installation on Cesar Chavez</li> <li>Start the construction of new CNG fueling facility</li> </ul>	
<b>ROW ACQUISITION</b>	<b>PLAN</b>	<b>ACQUIRED</b>	<b>REMAINING</b>
PERMANENT PARCELS	0	n/a	0
TEMPORARY PARCELS	0	n/a	0
<b>TOTAL PARCELS</b>	0	n/a	0

## **PROJECT OVERVIEW & STATUS**

The Division 13 Bus Maintenance and Operations facility is a bus maintenance, operations, and service facility located in downtown Los Angeles, California. The project is to be constructed on existing LACMTA properties located at the northeast corner of East Cesar Chavez Avenue and Vignes Street. The project delivery method is Design/Bid/Build.

The facility is designed to accommodate a fleet of CNG buses and consists of a multi-level structured parking garage, a maintenance building, bus fueling, bus washing, chassis wash and non-revenue vehicle washing, non-revenue vehicle fueling, and maintenance and transportation offices and support areas.

Division 13 strives to set an example of sustainable design (LEED Gold goal) and the responsible use of natural resources. Many of the materials specified in the construction of this project are regionally sourced and/or have a high recycled content. Attention has been paid to the use of potable water with an exemplary system of storm water reclamation and reuse for bus operations and washing, and low maintenance native vegetation. Storm water run-off and the urban heat island effect are also addressed by a demonstration green roof on the Transportation Building.

Service and vehicle equipment include two and three-post in-ground lifts with modern, computer controlled automated adjustment, a bus wash system utilizing reclaimed storm water, non-revenue vehicle wash systems utilizing 100% recycled water, three-axis lift systems for accessing roof mounted equipment on buses, mobile work platforms at lower level work areas, high-density palletized stacking systems, carousel and vertical retrieval modules for parts.

In September 2013, Metro initiated preliminary design and specifications to provide a utility submetering system at Division 13 to record natural gas, electric and domestic water supplies, and waste water usage. The Division 13 project team held a pre-construction and kick-off meeting with Clean Energy for the CNG Bus Fueling Facility DBOM contract.

In October 2013, AT&T discovered significant pockets of sandy soils, unknown obstructions and additional voids while performing trenching activities for the installation underground LADWP vaults and conduit that continue to impact the Division 13 project budget and schedule.

In November, Metro continues the redesign of a photovoltaic system to fit within available funding. Metro continues coordination with the City for engineering solutions to geotechnical issues related to the electrical undergrounding. Metro issued a Project Bulletin, including drawings and specifications, for McCarthy to provide a utility submetering system to record natural gas, electric and domestic water supplies, and waste water. McCarthy completes work at and turns over the existing Radiator Shop back to CMF.

## **PROJECT OVERVIEW & STATUS**

In December 2013, Metro formally withdraws from the LADWP Feed-in-Tariff (FiT) program Round 1 as the Division 13 project was drawn #85 in the LADWP queue; Metro is still in the FiT program Round 2 and the project was drawn #15 in the LADWP queue. Metro worked with McCarthy to issue a 90% construction documents to re-integrate an approximate 271 kW PV System back into the project, including a rough-order-of-magnitude cost. Staff is developing an independent cost estimate and contract modification approval from our Board to authorize the Division 13 PV System.

## MANAGEMENT ISSUES

### **Concern No. 1: Relocation of Existing Fiber Optic and Copper Cables**

**Status/Action** Metro installed temporary Microwave IT/Communication Systems between the Metro Gateway Building and the Central Maintenance Facilities Buildings. The existing fiber optic and copper duct bank interfered with demolition and construction. To improve the speed of the system temporary fiber optic cables were installed. Metro is coordinating with AT&T and Time-Warner cable to relocate permanent fiber optic and copper cables on Lyon Street, Vignes Street, Cesar Chavez Avenue and the new Metro Drive.

### **Concern No. 2: Project Schedule Re-assessment**

**Status/Action** The August 2013 Schedule update had 75 working days of negative float. The Contractor has provided written Time Impact Analysis (TIAs) illustrating the impact of the delays on the Critical Path utilizing the current CPM Schedule and a separate fragnets showing Contractor's plan to mitigate various issues. Metro is in the process of issuing modifications to extend the contract completion date.

### **Concern No. 3: Project Cost Re-assessment**

**Status/Action** Professional Services costs are being reassessed, especially those related to design cost.

### **Concern No. 4: Undergrounding of Utilities on Cesar Chavez Avenue**

**Status/Action** AT&T pothole along Cesar Chavez Avenue prior to starting the installation of underground DWP duct banks and precast concrete vaults. During the potholing large voids were found under the street surface. Voids were back filled with concrete slurry. The sewer connection issues at the intersection of Vignes Street and Cesar Chavez Avenue was resolved. Work continues with unforeseen conditions such as unknown utilities, voids and flowing sand that impact the production rate.

### **Concern No. 5: Soil Export and Import Issues**

**Status/Action** Over excavation and poor soils as directed by Project Geotechnical Engineer resulted in a significant and unanticipated export of Southern California Gas contaminated soil. Project has to import additional soils to be used as structural backfill throughout the site.

## MANAGEMENT ISSUES (Continued)

### **Concern No. 6: CNG Contractor Coordination**

**Status/Action** With Metro Board approval, Metro recently awarded Division 13 CNG Facility's design and construction to Clean Energy. Metro continues to coordinate CNG layout and construction with the Division 13 Contractor (McCarthy).

### **Concern No. 7: Central Maintenance Facility Coordination**

**Status/Action** Metro continues to coordinate work within the existing CMF Building 1, including equipment required for the Radiator and Welding Shops.

### **Concern No. 8: Time Impact Analysis**

**Status/Action** The contractor has submitted TIAs in order to determine the total time impacts incurred to the Contract Milestone as a result of Concerns 2, and 6 related to unforeseen sewer obstructions at the intersections of Vignes Street and Cesar Chavez Avenue. Metro will issue a modification extending the completion date.

### **Concern No. 9: Direct Cost Impacts**

**Status/Action** McCarthy has submitted Direct Cost Impacts related to McCarthy's concrete operations due to installation impacts from the sewer manholes on Vignes Street.

### **Concern No. 10: Contractual Issues**

**Status/Action** Metro has issued directives and unilateral change orders to the contractor and in return the contractor has issued notices of intent to claim as well as claims on design and construction related issues. In addition, design errors and omissions are above the typical industry standard.

### **Concern No. 11: Traffic Signal Coordination**

**Status/Action** As part of the City's approval for the Division 13 ingress/egress traffic signal, Metro is required to fulfill a condition obtaining the concurrence from the affected businesses along Vignes Street.

## PROJECT SCOPE

### PROJECT SIZE:

#### Site Area:

8.25 Acres (Division 13 only) / 10.58 Acres (including the entire site area)

#### Garage and Bus Fueling/Washing:

442,655 sf (~145,000 sf on each of 3 floors; lower level: employee & visitor parking; main level: bus parking, fuel & wash facilities; upper level: bus parking)

#### Maintenance:

71,000 sf (~7,800 sf – lower level; ~54,000 sf – main level; ~9,200 sf mezzanine level)

#### Operations/Transportation Building:

21,000 sf (~5,500 sf – lower level; ~9,000 sf – main level; ~6,500 sf – level two)

#### Bus Parking:

200 equivalent bus parking spaces

#### Employee Parking:

397 Spaces

### FEDERAL GRANTS AWARDED TO PROJECT:

\$47,750,000 State of Good Repair Grant

\$5,500,000 Clean Fuels Grant

### PROJECT BACKGROUND:

Public and infrastructure projects represent a commitment by government to the people they represent. The LA Metro Division 13 project is an example of this commitment. Its high-quality design will convey an element of respect to both the citizens that engage public transportation during their daily routine, and to those the agency employs to operate within the facility. As an efficient and highly functional facility, Division 13 is designed to realize operational savings while being a responsible, sustainable and aesthetically pleasing addition to the community.

- First new maintenance and operation facility to be commissioned by Metro in over 27 years with the goal of providing better service for LA residents
- Designed to optimize Metro's bus transit service throughout Central Los Angeles and the surrounding area
- Division 13's prominent siting will alter the urban landscape by replacing an inefficient surface parking lot with a landmark architectural icon for the LA community

## PROJECT SCOPE (Continued)

- The LA Metro Division 13 project:
  - Includes a maintenance facility with 19 service bays for the operation and maintenance of Metro's fleet
  - Can accommodate up to 200 CNG standard sized buses
  - Is designed to handle 60' long articulated buses
  - Provides a two story bus parking garage with fuel and wash facilities that can park and service 200 standard sized CNG buses daily and a Fleet Operations and Transportation Building for 329 employees
  - Will also accommodate 41 non-revenue vehicles and employee parking for 397
  
- Sustainable design features:
  - Site and building shade structures
  - Natural ventilation
  - Glare and heat gain reduction glazing
  - Daylighting to all major work areas
  - 275,000 gallon underground storm water retention tank
  - Green Roof garden, accessible to Metro employees
  - Cool Roof to reduce Heat Island Effect
  - Water efficient landscaping
  - Registered with the USGBC as Pursuing LEED-NC Gold

Division 13's primary architectural concept addresses the two major street facades of the facility with one palette of materials reflecting two separate conditions of movement. The Cesar Chavez elevation uses architectural panels to screen bus parking and circulation ramps, reflecting the high speed automobile activity that defines western American cities. At night the façade's focus shifts to highlight the functional movement of buses. The Vignes St. elevation addresses a slower, pedestrian scale appropriate to its urban setting and will encourage the public to utilize the urban plaza adjacent to the intersection of the two streets. The transportation building resides in front of the two story garage and is placed adjacent to the street to accommodate a need to screen operational functions while promoting a walkable, urban environment.

### PARKING STRUCTURE

The parking structure will be in 3 levels as explained below.

- The Ground Level Parking will accommodate fare retrieval, bus fueling, and wash activities with enough storage area to accommodate 52 standard buses. The ground floor of the parking structure will be dedicated to bus maintenance activities including tire and repair bays, a brake shop and a materials handling area. An entry lobby, providing elevator and stairway access to each floor of the proposed parking structure, will be located at the northeast and northwest portion of the parking structure.

## PROJECT SCOPE (Continued)

- The 2<sup>nd</sup> level Parking will provide parking for approximately 108 buses and 40 layover spaces. This level will also provide office spaces, break rooms, training room, rest rooms and conference room for Metro Staff.
- The 3<sup>rd</sup> level Parking will include 397 employee and visitor parking spaces.

### BUS MAINTENANCE FACILITY

The proposed parking structure will be flanked by two administrative uses, on the west end immediately north of the Vignes Street/Cesar E. Chavez Avenue intersection, by the two-story administration/office building, while the maintenance building will be located on the east end of the parking structure. The ground floor of the operations building will include dispatch offices, a kitchen and employee lounges, while the second floor will be comprised primarily of office uses. The ground floor of the maintenance building will include general maintenance uses such as tire bays and repair shops as well as a welding and materials handling area. The second floor will include maintenance and transportation offices, a training room and other office-related uses.

### BAUCHET PARKING STRUCTURE

A three-story parking structure has been constructed at the northern portion of the project site. This structure contains 427 parking spaces. The structure will provide approximately 50 employee parking spaces for the Bauchet Street Storage and Facilities' Maintenance Structure and replace the Central Maintenance Facility (CMF) Lot A surface parking lot that has been removed as part of the project. Access to this structure is provided via an entrance located on Macy Street, east of Bauchet Street. Additional egress only will be provided via an egress road located on CMF property that will exit on Cesar Chavez Avenue or Keller Street.

## PROJECT SCOPE (Continued)

### PROJECT LOCATION

The project site is situated in the industrial area northeast of Downtown Los Angeles.

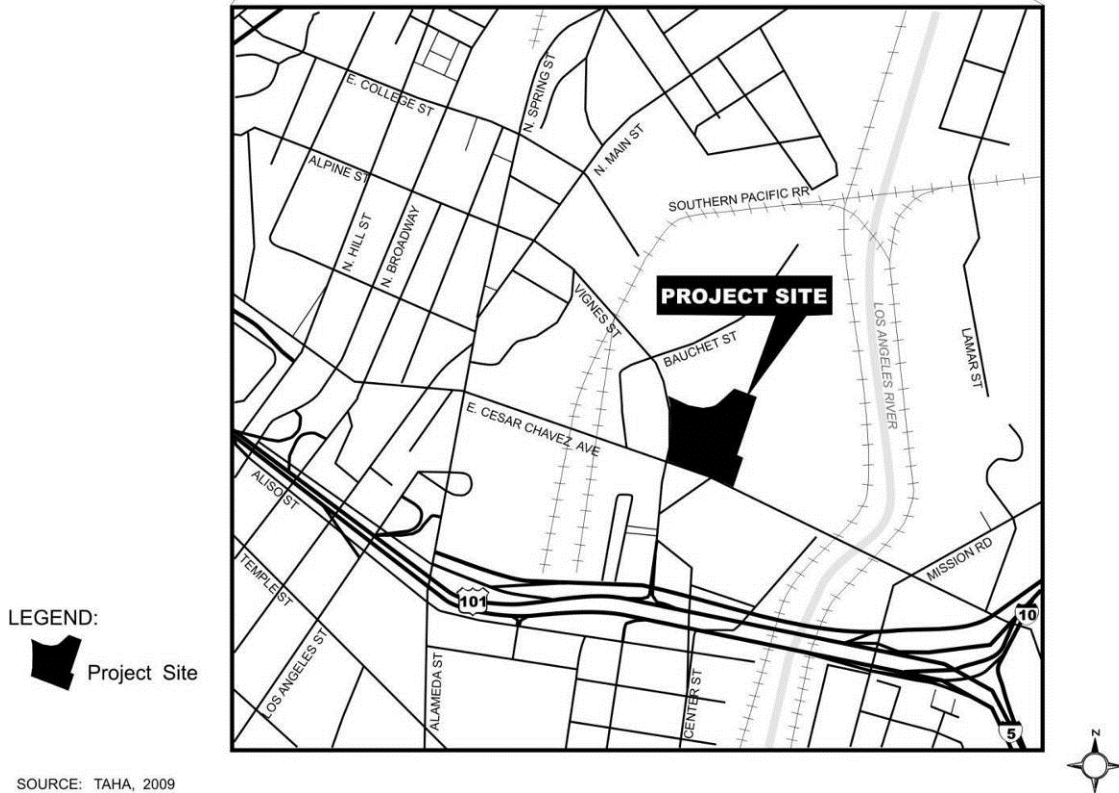


Figure 1 – Location Map

Regional access to the project site is provided by U.S. Highway 101/Interstate 5 (Hollywood Freeway/Santa Ana Freeway), which is less than 0.5 miles south of the project site, and Interstate 10 (San Bernardino Freeway), which is approximately 0.5 miles southeast of the project site.

The project site is located on the northeast corner at the intersection of Vignes St. and Cesar E. Chavez Ave. It is bound by the Twin Towers Correctional Facility and Bauchet Street to the north; Vignes St. to the west; the Metro Support Services Center (MSSC), the Burlington Northern Santa Fe Railroad (BNSF) intermodal yard, and the Los Angeles River to the east and the C. Erwin Piper Technical Center and Cesar E. Chavez Ave. to the south (Figure 1).

### KEY MILESTONE SCHEDULE SIX-MONTH LOOKAHEAD

	Milestone Date	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14
Start Elevated Deck at Building B Level 2	2/20/2014			○			
Start Deck pour at Building C Level 1	3/4/2014				○		
Complete Elevated Deck at Building B Level 1	3/5/2014				○		
Start Foundation of Building F	3/10/2014*				○		
Complete installation of Vaults and Conduits at Cesar Chavez	3/30/2014*				○		
Start CNG Yard at Building B	4/3/2014*					○	
Start Elevated Deck at Building A Level 1	4/7/2014					○	
Start Slab-on-grade at Building C	4/15/2014*					○	
Complete Foundation of Building C	4/16/2014*					○	
Start Walls and Columns at Building B Level 2	4/17/2014					○	
Complete First Level Stairs and Ramps at Building B Level 1	4/23/2014					○	
Start Walls and Columns at Building A Level 2	5/4/2014						○
Complete Walls and Columns at Building A Level 2	5/27/2014						○
Complete Walls and Columns at Building B Level 1	5/28/2014						○
Complete Elevated Deck at Building B Level 2	5/28/2014						○



Metro Milestone



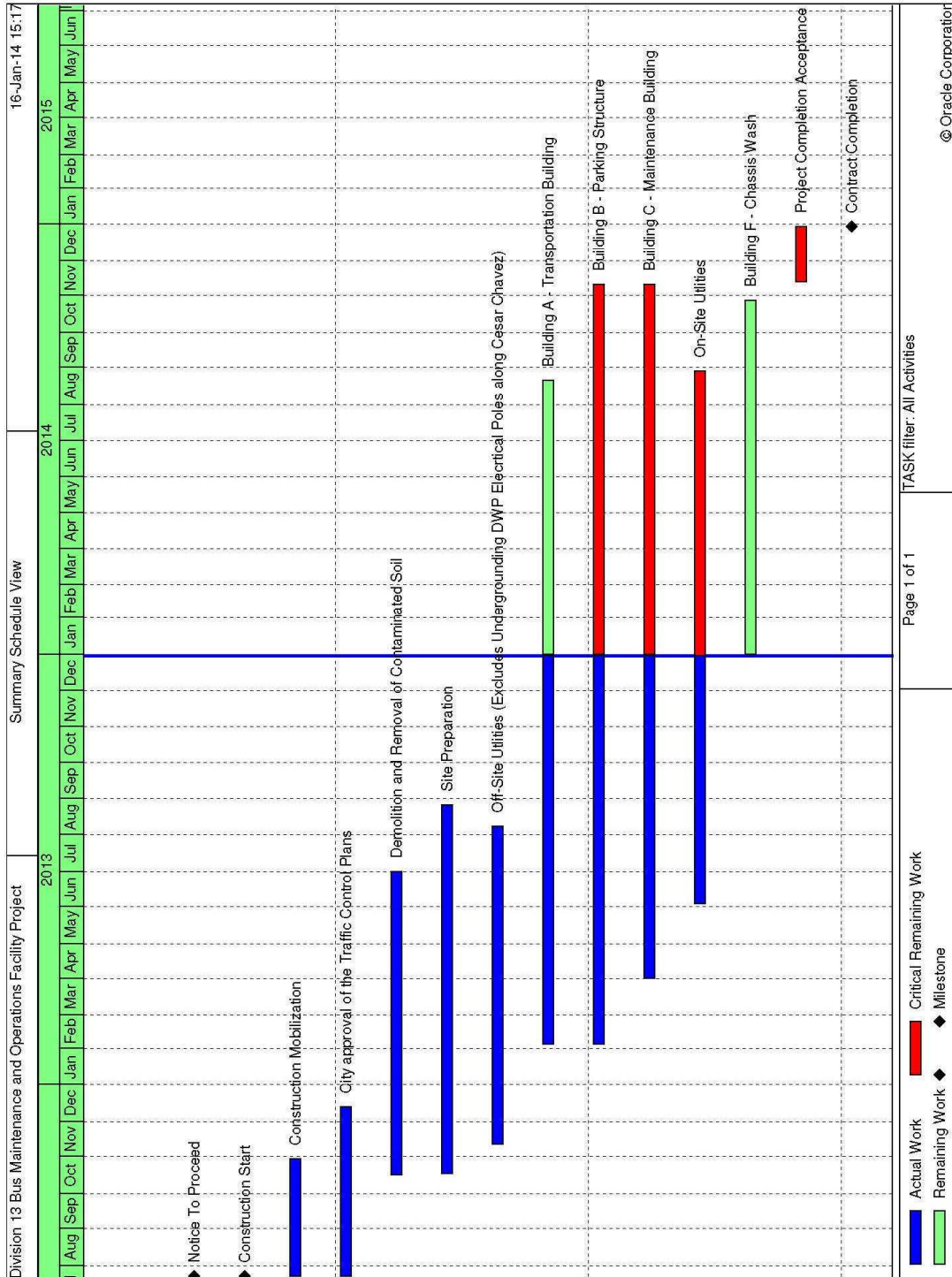
Contractor



Third Parties Approval

\* New Date

# PROJECT SUMMARY SCHEDULE



## **CRITICAL PATH NARRATIVE**

Based on the current summary schedule, the primary critical path runs through On-Site Utilities, Building B – Parking Structure, Building C – Maintenance Building and Project Completion and Acceptance.

## PROJECT COST STATUS

DIVISION 13  
 FEDERAL PROJECT # CA-04-0190-00, PROJECT 202001  
 ENGINEERING CAPITAL IMPROVEMENT PROJECTS DIVISION  
 METRO TRANSIT PROJECT DELIVERY DEPARTMENT  
 COMBINED COST REPORT BY ELEMENT  
 PERIOD ENDING: DECEMBER 2013  
 DOLLARS

ELEMENT CODE	ELEMENT DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		BUDGET / FORECAST VARIANCE
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
C	CONSTRUCTION	76,447,000	-	77,300,000	7,387,000	76,221,000	5,120,500	26,502,000	(38,600)	77,013,000	287,000
S	SPECIAL CONDITIONS	-	-	5,455,000	1,432,000	4,199,000	329,000	2,175,000	56,000	6,321,000	(866,000)
R	RIGHT-OF-WAY	-	-	-	-	-	-	-	-	-	-
P	PROFESSIONAL SERVICES	13,425,000	-	19,625,000	2,473,000	17,294,000	1,089,000	14,906,000	(114,000)	19,702,000	(77,000)
PC	PROJECT CONTINGENCY	5,128,000	-	1,820,000	-	-	-	-	97,000	1,164,000	656,000
<b>TOTAL PROJECT</b>		<b>95,000,000</b>	<b>-</b>	<b>104,200,000</b>	<b>11,292,000</b>	<b>97,714,000</b>	<b>6,538,500</b>	<b>43,583,000</b>	<b>400</b>	<b>104,200,000</b>	<b>-</b>

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH December 31, 2013

## PROJECT COST ANALYSIS

### Original and Current Budget

The original Life of Project (LOP) budget of \$95,000,000 was established in September 2008 when the project was in preliminary design. In April 2013, the Metro Board increased the Project 202001 Life of Project Budget (LOP) by \$9,200,000 from \$95,000,000 to \$104,200,000 and the Current Budget was revised to be in line with the overall Current Forecast. Although the forecast trends higher for two elements, the project team is not yet reallocating funds for reasons discussed below.

### Current Forecast

Despite trending higher in two elements – Special Conditions and Professional Services – the overall Current Forecast remains unchanged. The Construction forecast is trending down \$38,600 due to a series of deductive change notices created during the quarter. Potentially offsetting the credit next quarter are the change notices still being negotiated. In the most recent quarter, several contract modifications were executed for amounts greater than the initial estimates identified in the change notices. The forecast for Special Conditions continues to trend higher due to the discovery of additional voids beneath the street on Cesar Chavez during activities related to undergrounding the electric power lines. The extent and impact of this discovery is still being evaluated. Staff expects the contractor will submit a request for change in the next quarter. Professional services trended lower because the negotiated value of the task orders issued for FY14 construction management support were less than forecasted. However, the forecast for this element still exceeds current budget by \$77,000. The forecast for contingency improved as staff pursued cost recovery and credit change orders. However, it is anticipated that contingency will decrease as budget is moved to Special Conditions to address the differing site conditions of voids, flowing sand, and unforeseen utilities being encountered along Cesar Chavez Street during work related to undergrounding the electric power lines.

## PROJECT COST ANALYSIS (Continued)

### Commitments

Commitments at the end of December were \$97.7 million. Commitments increased this period by \$11.3 million. Almost \$6 million was related to the CNG fueling facility contract awarded last quarter, and the purchase order created to process progress payments. The purchase order for the CNG facility contract was less than the contract award because Metro immediately issued a deductive change order. Approximately \$1.4 million was encumbered by Special Conditions including \$1.1 million for work related to undergrounding the electrical power lines. An additional \$300,000 in commitments was due to the fiscal year 2014 (FY14) funds encumbered for the Master Cooperative Agreements with the City of Los Angeles. The remaining \$2.5 million of commitments was due to the FY14 task orders issued for the construction management consultant contracts and the cost of Metro staff labor during the reporting period.

### Expenditures

Expenditures are cumulative through December 31 2013. Expenditures increased \$6.54 million this reporting period primarily due to work performed by the construction contractor. Approximately \$329,000 million was spent this period on Special Conditions related to the Master Cooperative Agreements with the City of Los Angeles. The \$1.09 million spent this period on professional services was for costs associated with in-house project administration, the construction management consultants, and construction support by the design consultant.

## FINANCIAL/GRANT STATUS

DECEMBER 2013

STATUS OF FUNDS BY SOURCE

\$ 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 \$	%
STATE PROP 1B - PTMISEA*	85.0	36.6	31.0	36.6	100%	23.5	64%	21.2	58%
TDA ARTICLE 4	10.0	14.3	0.0	7.8	55%	0.0	0%	0.0	0%
FEDERAL - 5309	0.0	47.8	47.8	47.8	100%	20.0	42%	20.0	42%
FEDERAL - 5308	0.0	5.5	5.5	5.5	100%	0.0	0%	0.0	0%
PROP C 40% RAIL CAPITAL	0.0	0.0	0.0	0.0	100%	0.0	100%	0.0	100%
<b>TOTAL</b>	<b>95.0</b>	<b>104.2</b>	<b>84.3</b>	<b>97.7</b>	<b>93.8%</b>	<b>43.6</b>	<b>41.8%</b>	<b>41.2</b>	<b>39.6%</b>

\* PTMISEA: Public Transportation Modernization and Improvement Surface Enhancement Account

NOTE: Expenditures are cumulative through December 2013.

## STATUS OF FUNDS ANTICIPATED

**STATE PROP 1B PTMISEA:** State Proposition 1B Bond sales provided \$31M to the project and the funds are available for drawdown. A grant allocation to Caltrans for the remaining \$5.6M was requested in March 2013. Allocation approval is expected by March 2014.

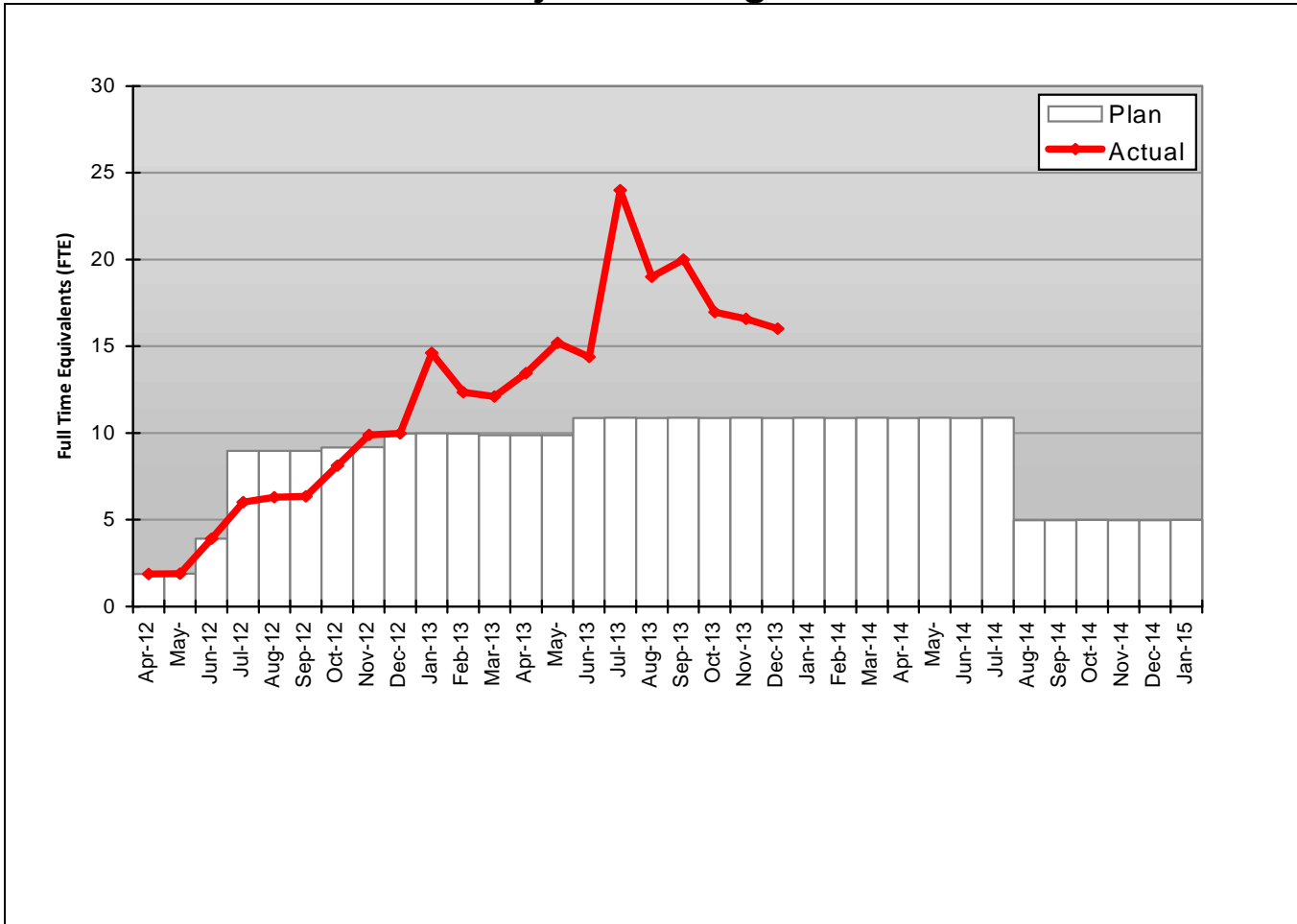
**TDA ARTICLE 4:** The Metro Board approved the allocation of \$5.1 million to the project. FY14 Budget does not include the allocation of TDA Article 4 Funds.

**FEDERAL 5309:** \$47.8M under FTA grant CA-04-0190 is available for drawdown for the construction of Division 13 Bus Operations and Maintenance Facility.

**FEDERAL 5308:** \$5.5M under FTA grant CA-58-0006 is available for drawdown for the construction of Division 13 CNG Fueling Facility.

## STAFFING STATUS

### Total Project Staffing - FTEs



### Total Project Staffing

The changes to the staffing status are due to unanticipated number of Request-For-Information (RFIs), unanticipated number of Change Notices, different site condition, changes to design, and additional design need. The indicated unanticipated work and delays caused by the different site condition increased the need for additional staffing to support the construction management.

## ENVIRONMENTAL STATUS

### Environmental Status since issuance of the FTA NEPA Categorical Exclusion:

- A NEPA CE was granted by the FTA on December 18, 2009.
- Lyon Street was vacated on November 18, 2009.
- A street tree removal permit was granted from the City of LA on May 19, 2011.

**The following IS/MND mitigation measures have been addressed and included in the Specification and/or Design drawings:** AE 1, AE 2 (LEED requirements), AE3, CR4, N4, GS 1

**The following construction mitigation measures are being implemented as required: They are continually renewed and adjusted per changing site conditions:** AQ1, AQ 2, AQ3, AQ4, AQ5, AQ6, AQ7, CR1, CR2, CR3, CR4, CR5, CR6, G52, HM1, HM2, HM3, N3, N4

- Regarding mitigation measures CR1 – CR6, Archaeological and Paleontology monitoring have been occurring since project excavation began. To date, 15 features have been uncovered and will be evaluated against Section 106 requirements. One feature, a human bone was discovered and the LA County Coroner was notified. Consultation then ensued between the Native American Most Likely Descendent (MLD), Federal Transit Administration, State Historic Preservation Officer and Metro. Consultation and the resulting process are documented in a letter to SHPO dated May 20, 2013. Native American monitoring continued through the remainder of the excavation per agreement with the MLD. Carbon dating of the human remains is completed and will be documented in the final Section 106 report. Main excavation is completed and we are researching, culling and curating artifacts. However, there is some minor utility trenching and further soil remediation work that will be monitored in the future.

## QUALITY ASSURANCE STATUS

### C0974 Division 13 Maintenance & Operations Facility

- Reviewed Revision 0 and Revision 1 Quality Manual submittals from the CNG Contractor.
- Monitored Contractor issued Notice-to-Comply (NTC) documents. None had any Safety related issues noted.
- Assisted Contractor with testing of import fill from a Southern California Gas site.
- Monitored concrete slab and deck pours.
- Participated in two Readiness Review Meetings.

## SAFETY AND SECURITY STATUS

- There was one recordable injury on the Project during the quarter from October to December 2013.
- Safety Staff participated in pre-activity (readiness review) meetings to ensure compliance with approved Work Plans and contract specifications.
- Monitoring construction activities during day shifts to ensure contractor compliance with contract specifications.
- Safety staff attended weekly Progress Meetings, Foreman's Weekly Safety Meetings and other project meetings to evaluate Contractors Safety Program compliance with contract requirements.
- Contractor – Project to Date Work Hours (Design & Construction): 112,097
- Total Project to Date Work Hours (Contractor & Metro Staff): 130,445
- Project to Date Recordable Injury Rate: 1.780 (each rate is per 200,000 work hours)
- Project to Date Total Time Away Injury Rate: 0.0 (Zero Time Away From Work Injuries)
- Project to Date Total Days Away Rate: 0.0 (Zero Days Away From Work)

**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	Master Cooperative Agreement	Completed	N/A	Executed
LADWP Power	Utility Cooperative Agreement	Completed	N/A	Executed
LADWP Water	Utility Cooperative Agreement	Completed	N/A	Executed
Verizon	Utility Cooperative Agreement	Completed	N/A	Executed
AT&T	Utility Cooperative Agreement	Completed	N/A	Executed
Southern California Gas Company	Utility Cooperative Agreement	Completed	N/A	Executed

## CONTRACT STATUS

<p><b>Metro Division 13 Bus Maintenance and Operations Facility Project</b>  <b>Contractor: McCarthy</b></p>	<p><b>Contract No.: C0974</b>  <b>Status as of: December 27, 2013</b></p>																																				
<p><b>Major work started/completed this period:</b></p> <ul style="list-style-type: none"> <li>• Completed gravel base and vapor barrier at Transportation Building Area 1.</li> <li>• Poured slab on grade No. 1 and 2.</li> <li>• Completed setting of shoring framework at elevated flat slab and placement of formwork for elevator No. 1 shaft.</li> <li>• Areas 5, 6, 7 foundations, lower level walls, shear walls and columns at the Parking Garage are 98% complete.</li> <li>• Completed lower level slab on grade phase, pours 1- 4.</li> <li>• Completed placement of post tension tendons and steel rebar for deck panel and column buildup at 1st level in Area 7.</li> <li>• Completed first concrete pour at 1st level Area 7 and stressing of tendons on slab.</li> <li>• Completed placement of post tension tendons and steel rebar at 1st level concrete slab at Area 5.</li> <li>• Completed foundation pours 10 and 11 at Maint. Bldg.</li> <li>• Completed equipment installation at Radiator Shop.</li> <li>• Completed welding shop plasma table and spark arrestor.</li> <li>• Started deck panel and beam buildup for elevated deck at Parking Garage.</li> <li>• Demolition continues at the old Radiator Shop.</li> <li>• Continue installation of formworks for post tension slab and beams in Area 6.</li> <li>• Installed formworks in walls and columns in Area 9-10.</li> </ul> <p><b>Areas of Concern:</b></p> <ul style="list-style-type: none"> <li>• Unforeseen conditions of voids, flowing sands, utilities, etc.; during the installation of DAWP underground concrete vaults and conduits along Cesar Chavez.</li> <li>• DWP electrical installation of new underground electrical cables, new steel poles and conduits intercepts along Cesar Chavez Avenue and Vignes Street.</li> <li>• Final DWP design and yard design impacting underground coordination.</li> <li>• Export of SCG contaminated soils throughout the project site exceeding the bid quantities.</li> <li>• Unforeseen underground utilities and obstructions during excavation of trenches for sewer connection on east side of project site.</li> <li>• Import of soil, testing and screening to be used as structural backfill throughout the site.</li> <li>• Critical activities between Bldg. C and Bldg. 1.</li> </ul>	<p><b>Major Activities (In Progress):</b></p> <ul style="list-style-type: none"> <li>• Concrete walls and columns for Parking Garage and Maint Bldg.</li> <li>• Underground fiber optic duct bank and precast pull vaults on Vignes Street and Metro Driveway.</li> <li>• Installation of temporary fiber optic line to service Metro CMF facility.</li> <li>• Concrete lower level walls and columns for Parking Garage Bldg.</li> <li>• Concrete slab-on-grade at Parking Garage Building.</li> <li>• Trench excavation for the undergrounding of DWP electrical vaults and conduits on Cesar Chavez Avenue and Vignes Street.</li> <li>• Demolition of existing infrastructure at Bldg. 1 for the remodeling of the brake, lube, compressor and Radiator Shop.</li> <li>• Underground fiber optic duct bank, 6" water and 6" gas lines on Metro Driveway.</li> <li>• Elevated deck 1st level concrete pours #1, #2 at Parking Garage.</li> </ul> <p><b>Major Activities Next Period:</b></p> <ul style="list-style-type: none"> <li>• Elevated deck 1st level concrete deck pours 3-9.</li> <li>• Post stressing of cables from deck beams and elevated decks.</li> <li>• Concrete foundations at Building C.</li> <li>• Complete concrete for elevator shaft No. 1.</li> <li>• Trenching and installation of site electrical conduits.</li> <li>• Underground low voltage lines on Cesar Chavez Avenue.</li> <li>• Masonary walls at lower level.</li> <li>• Ramp decks at Parking Garage.</li> <li>• Stairs 1 and 7 at Parking Garage.</li> <li>• CNG layout and construction.</li> </ul>																																				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Original Baseline</th> <th>Time Extension</th> <th>Current Contract</th> <th>Forecast Completion</th> <th>Variance Cur-Fcast</th> </tr> </thead> <tbody> <tr> <td>Commencement</td> <td style="text-align: center;">07/23/12</td> <td style="text-align: center;">0</td> <td style="text-align: center;">07/23/12</td> <td style="text-align: center;">07/23/12</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Completion</td> <td style="text-align: center;">06/23/14</td> <td style="text-align: center;">186</td> <td style="text-align: center;">12/26/14</td> <td style="text-align: center;">12/29/14</td> <td style="text-align: center;">-3</td> </tr> <tr> <td>Punchlist Complete</td> <td style="text-align: center;">06/23/14</td> <td style="text-align: center;">186</td> <td style="text-align: center;">12/26/14</td> <td style="text-align: center;">12/29/14</td> <td style="text-align: center;">-3</td> </tr> <tr> <td>Final Acceptance</td> <td style="text-align: center;">06/23/14</td> <td style="text-align: center;">186</td> <td style="text-align: center;">12/26/14</td> <td style="text-align: center;">12/29/14</td> <td style="text-align: center;">-3</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Original Baseline	Time Extension	Current Contract	Forecast Completion	Variance Cur-Fcast	Commencement	07/23/12	0	07/23/12	07/23/12	0	Completion	06/23/14	186	12/26/14	12/29/14	-3	Punchlist Complete	06/23/14	186	12/26/14	12/29/14	-3	Final Acceptance	06/23/14	186	12/26/14	12/29/14	-3						
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<p><b>Schedule Summary:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Notice of Award</td> <td style="text-align: right;">05/24/12</td> </tr> <tr> <td>Notice to Proceed</td> <td style="text-align: right;">07/23/12</td> </tr> <tr> <td>Original Contract Duration (CD*)</td> <td style="text-align: right;">700</td> </tr> <tr> <td>Approved Time Extensions (CD*)</td> <td style="text-align: right;">186</td> </tr> <tr> <td>Current Contract Duration (CD*)</td> <td style="text-align: right;">886</td> </tr> <tr> <td>Elapsed Time from NTP (CD*)</td> <td style="text-align: right;">525</td> </tr> <tr> <td>Contract Elapsed Time Percent</td> <td style="text-align: right;">59.26%</td> </tr> </table>	Notice of Award	05/24/12	Notice to Proceed	07/23/12	Original Contract Duration (CD*)	700	Approved Time Extensions (CD*)	186	Current Contract Duration (CD*)	886	Elapsed Time from NTP (CD*)	525	Contract Elapsed Time Percent	59.26%	<p><b>Cost Summary:</b> <span style="float: right;"><b>\$ In 000's</b></span></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">1. Award Value:</td> <td style="text-align: right;">73,364</td> </tr> <tr> <td>2. Executed Modifications:</td> <td style="text-align: right;">1,652</td> </tr> <tr> <td>3. Approved Change Orders:</td> <td style="text-align: right;">48</td> </tr> <tr> <td>4. Current Contract Value (1 + 2):</td> <td style="text-align: right;">75,016</td> </tr> <tr> <td>5. Incurred Cost:</td> <td style="text-align: right;">27,645</td> </tr> <tr> <td>6. Percent Incurred Cost:</td> <td style="text-align: right;">36.9%</td> </tr> </table>	1. Award Value:	73,364	2. Executed Modifications:	1,652	3. Approved Change Orders:	48	4. Current Contract Value (1 + 2):	75,016	5. Incurred Cost:	27,645	6. Percent Incurred Cost:	36.9%										
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\* Calendar Days

## CONSTRUCTION PHOTOGRAPHS



Transportation Building, Parking Garage and Maintenance Building in construction; at the bottom side Cesar Chavez Avenue and at the left side Vignes Street – November 2013.



Transportation Building, Parking Garage and Maintenance Building in construction; at the bottom side Cesar Chavez Avenue and at the left side Vignes Street – December 2013.

## CONSTRUCTION PHOTOGRAPHS



Transportation Building, Parking Garage and Maintenance Building in construction; at the bottom side Cesar Chavez Avenue and at the left side Vignes Street – October 2013.

## CONSTRUCTION PHOTOGRAPHS



Walls concrete placement for reservoir tank on Building B.



Fiber optic installation on Metro Driveway.



Duct installation for plasma cutter at Weld Shop.



Reservoir tank concrete walls at Parking Garage.

## CONSTRUCTION PHOTOGRAPHS



Exhaust fan ducts and radiator lift arcs at Radiator Shop.



Oil water vault installation at Parking Garage.



Ramp and walls level 1 at Transportation Bldg.



Concrete wall placement in progress at Area 7.

## CONSTRUCTION PHOTOGRAPHS



Duct work installation at Plasma Room in progress.



Underground electrical conduit installation at Cesar Chavez.



Exhaust duct placement at new Radiator Shop.



Fiber optic installation in progress on Metro Driveway.

## CONSTRUCTION PHOTOGRAPHS



Lower level form walls at Area 5 in progress.



Footing excavation and rebar placement at Areas 8, 9, 10.



Rebar placement for foundation at Areas 8, 9 and 10.



U.G. electrical conduits at column base of Area 5.

## CONSTRUCTION PHOTOGRAPHS



Wall concrete placement at Brake Room in progress.



Fan room underground tunnel concrete walls in progress.



Setting of steel formwork for elevator No. 1 shaft at Area 1.



Setting of wall formwork for elevator No. 1 shaft at Area 1.

## CONSTRUCTION PHOTOGRAPHS



Rebar placement for slab on grade at Transportation Bldg.



Rebar placement for slab on grade at Transportation Bldg.

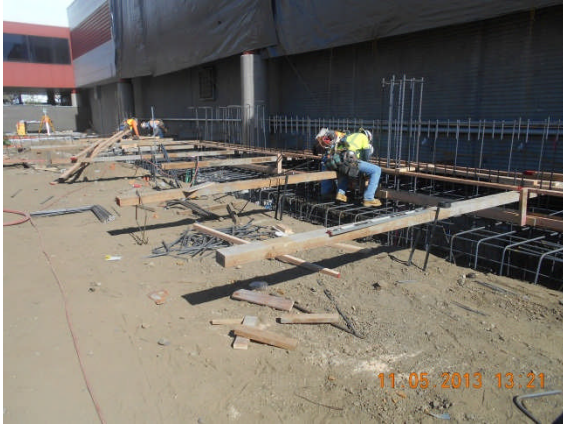


Concrete poured for slab on grade at Transportation Bldg.



Rebar reinforcement at foundation and footing at Areas 8-9.

## CONSTRUCTION PHOTOGRAPHS



Rebar reinforcement rebar at footings Areas 8 and 9.



Concrete pour for foundations and footings at Areas 8-9.



Columns erection at Areas 8 and 9.



Rebar placement for slab on grade at Area 7 lower level.

## CONSTRUCTION PHOTOGRAPHS



Installation of UG electrical conduits at Metro Driveway.



Installation of UG conduits and water pipes at Garage Bldg.



Rebar placement on lower level at Areas 6 and 7.



Concrete slab finish on lower level at Area 7.

## CONSTRUCTION PHOTOGRAPHS



Formwork setting of south east wall at level 1 Area 9.



Slurry placement in UG trench at Cesar Chavez Avenue.



AC patch of UG trench at Cesar Chavez.



Radiator Shop leak tank detectors and lift equipment.

## CONSTRUCTION PHOTOGRAPHS



Placement of walls formwork for Exhaust Room.



Setting of 1<sup>st</sup> level deck panels at Area 7.



Excavation for underground electrical conduits at Area 8.



Installation of UG elec. conduits for main duct bank Area 8.

## CONSTRUCTION PHOTOGRAPHS



Interior soft demolition of old Radiator Shop.



AC patch of UG utilities trench at Cesar Chavez.



Post tension tendons for deck & beam buildup at 1<sup>st</sup> level dk.



Steel rebar and tendons placement 1<sup>st</sup> level deck at Area 7.

## CONSTRUCTION PHOTOGRAPHS



First pour of 1<sup>st</sup> level deck at Area 7 Parking Garage.



Pulling of tendons in concrete slab at 1<sup>st</sup> level deck Area 7.



Monitoring and testing of tendon pulling on 1<sup>st</sup> level deck.



Demolition of existing concrete slab at old Radiator Shop.

## CONSTRUCTION PHOTOGRAPHS



P.T. tendons placement at beams 1<sup>st</sup> level deck Area 7.



Steel rebar and tendon placement on 1<sup>st</sup> level deck at Area 7.



Formwork setting for elevated ramp 1<sup>st</sup> level Parking Garage.



Demolition of CMU wall at old Radiator Shop.

## CONSTRUCTION PHOTOGRAPHS



Placement of steel rebar for beams 1<sup>st</sup> level deck Area 5.



Tendons placement at elevated ramp of Garage Building.

## **CHRONOLOGY OF EVENTS**

December 2, 2011	Project put on hold by Metro Management.
April 3, 2012	Project hold released by Metro Management.
May 15, 2012	Award Notice issued to successful bidder.
May 24, 2012	Contract awarded to McCarthy Building Companies.
May 24, 2012	Limited Notice to Proceed issued to contractor for non-construction, non-craft labor work.
July 23, 2012	Notice to Proceed issued to Contractor.
December 3, 2012	The City of Los Angeles (Department of Transportation) approved temporary Traffic Control Plans.
December 18, 2012	Start of hazardous soil removal.
December 18, 2012	Start City utilities at Vignes Street.
January 8, 2013	Mass grading, over-excavation and recompaction at Transportation and Parking Structure.
January 31, 2013	Mass grading, over-excavation and recompaction at Maintenance Building.
February 6, 2013	Start layout for foundations at Transportation and Parking Garage buildings.
February 28, 2013	Start concrete placement for foundations at Transportation and Parking Structure.
March 12, 2013	Start lower level shear and retaining walls reinforcement at Transportation and Parking Structure.
March 26, 2013	Discover fossilized human bone at Vignes Street.
April 18, 2013	Start excavation and layout foundations at maintenance building.
April 24, 2013	Start footing reinforcement at Maintenance Building.
April 25, 2013	Complete installation of Shoring Piles and Shoring at Diamond Building.

## CHRONOLOGY OF EVENTS (Continued)

April 25, 2013	Complete excavation of foundations at Building C.
April 30, 2013	Start footing concrete placement at Maintenance Building.
May 13, 2013	Start on-site utilities at Transportation Building.
May 15, 2013	Start installation of below grade waterproofing.
May 23, 2013	Complete slot cutting at west side of Building 1.
June 12, 2013	Approval of Cesar Chavez Traffic Plans.
June 18, 2013	Complete installation of storm drain.
July 13, 2013	Install foundation at Building C along H Line.
July 14, 2013	Complete jack and bore from MH #24 to MH #25 intersection Vignes/Cesar.
July 19, 2013	Slot cutting at the south of Building No. 1.
July 23, 2013	Complete foundation of wash pit.
July 29, 2013	Completion of 10 and 8 inch water line.
August 2, 2013	Start relocation of Radiator Shop.
August 7, 2013	Complete installation of offsite sewer line.
August 19, 2013	Complete Slab-on-Grade Phase No. 1 at Building B.
August 22, 2013	Complete wash pit walls.
August 23, 2013	Complete excavation and removal of Lyon Street.
August 30, 2013	Install telephone and data line at Radiator Shop.
Sept. 27, 2013	Install equipment and HVAC System at Radiator Shop.
Sept. 30, 2013	Complete foundations at Building B.
October 11, 2013	Start layout for foundations at Maintenance Building.
October 11, 2013	Start foundations at Building C.

### CHRONOLOGY OF EVENTS (Continued)

October 16, 2013	Start excavation of foundations at Maintenance Building.
October 26, 2013	Start reinforcement for spread footings and grade beams at Maintenance Building.
November 5, 2013	Start demolition of Building No. 1.
November 6, 2013	Concrete placement for foundations at Maintenance Building.
November 7, 2013	Start slab-on grade concrete placement at Transportation Building.
November 13, 2013	Start walls and columns at Building C Level 1.
November 13, 2013	Complete slot cutting at west side of Building 1.
November 22, 2013	Complete relocation of Radiator Shop.
December 4, 2013	Concrete deck pour No.1, Building B elevated deck at Level 1.
December 9, 2013	Complete slab-on grade at Building B.
December 11, 2013	Start 1 <sup>st</sup> level deck panel and beam buildup at Parking Garage.
December 13, 2013	Contractor completed slab-on grade concrete placement at Parking Garage.
December 20, 2013	Start pouring deck at Building B Level 1.
December 23, 2013	Stress reinforcing cables pour No.1.
December 30, 2013	Concrete deck pour No. 2, Building B elevated deck at Level 1.

## APPENDICES

### COST AND BUDGET TERMINOLOGY

**ADOPTED BUDGET:** The Approved Project Budget as established by Metro Board of Directors at the time it authorizes Construction Project Management Division to commence full design and construction of the project (Project Adoption).

**CURRENT FORECAST:** Evaluation of costs to go combined with actual expenditures.

**COMMITMENTS:** The total of actual contract awards, 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. Also includes commitments reported by other agencies.

**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 and expenditures reported by other agencies.

## APPENDIX LIST OF ACRONYMS

AFC	Approved For Construction
BNSF	Burlington Northern Santa Fe Railway
CADD	Computer Aided Drafting and Design
CCTV	Closed Circuit Television
CD	Calendar Day
CM	Construction Manager
CMAC	Congestion Mitigation Air Quality
CMIA	Cash Management Improvement Act
CN	Change Notice
CNG	Certified Natural Gas
CO	Change Order
CPM	Critical Path Method
CPUC	California Public Utilities Commission
CR	Camera Ready
CO	Change Order
CTC	California Transportation Commission
D-B	Design-Build
D-B-B	Design-Bid-Build
DBOM	Design, Build, Operate and Maintain
DD	Design Development
DEIR	Draft Environmental Impact Report
DWP	Department of Water and Power
EA	Environmental Assessment
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
FD	Final Design
FEIR	Final Environmental Impact Report
FHWA	Federal Highway Administration
FIS	Financial Information System
FOCT	Fiber Optics Cable Transmission System
FTE	Full Time Equivalent
IFB	Invitation for Bid
IPO	Integrated Project Office
LA	Los Angeles
LFAT	Local Field Acceptance Test
LNTP	Limited Notice To Proceed
LONP	Letter Of No Prejudice
LOP	Life of Project
MCA	Master Cooperative Agreement
METRO	Los Angeles County Metropolitan Transportation Authority

## APPENDIX LIST OF ACRONYMS (Continued)

MIS	Major Investment Study
MOT	Maintenance of Traffic
MOU	Memorandum of Understanding
MSSC	Metro Support Services Center
N/A	Not Applicable
NOA	Notice of Award
NTE	Not to Exceed
NTP	Notice To Proceed
O & M	Operations and Maintenance
PC	Project Control
PE	Preliminary Engineering
PIP	Project Implementation Plan
PLA	Project Labor Agreement
PM	Project Manager
PMA	Project Management Assistance
PMP	Project Management Plan
P&P	Policies & Procedures
PR	Project Report
PS&E	Plans, Specs & Engineering
PSR	Project Study Report
QA	Quality Assurance
QAR	Quality Assurance Report
QC	Quality Control
QPSR	Quarterly Project Status Report
RFC	Request For Change or Released for Construction (based on context)
RFP	Request For Proposal
ROM	Rough Order of Magnitude
ROW	Right-Of-Way
RSTP	Regional Surface Transportation Program
RWQCB	Regional Water Quality Control Board
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SCE	Southern California Edison
SD	Storm Drain
SIT	System Integration Testing
SOW	Statement Of Work
SP	Special Provision
TBD	To Be Determined
UPS	Uninterrupted Power Supply
USDOT	United States Department of Transportation
VE	Value Engineering
WBS	Work Breakdown Structure
WP	Work Package