

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).

MARCH 2015

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PROJECT SUMMARY

METRO DIVISION 13

Bus Maintenance and CNG Fueling Facility

As of March 2015

LOCATION: Los Angeles		CONSTRUCTION MANAGEMENT CONSULTANT: MARRS					
DESIGN CONSULTANT: MDG		CONTRACTOR: McCarthy					
PROJECT PHOTO CNG Facility on Metro Drive		WORK COMPLETED PAST MONTH					
		<ul style="list-style-type: none"> • Completed Artwork structural steel erection on west side of building • Continued work installing elevators • Continue fire alarm systems through buildings • Continue interior build out of dry wall, sprinklers and MEP • Continue sack and patch of concrete at upper levels • Continue stair installations throughout buildings • Continue installation of roofing systems • Continue installation of lift equipment • Continue installation of City C&G plus sidewalks along Cesar Ave • Connected Fiber Optic communication cables from USG building • Continue interior finishes in Transportation Building 					
EXPENDITURE STATUS (\$ In Millions)		SCHEDULE ASSESSMENT					
ACTIVITIES	CURRENT BUDGET	EXPENDED AMOUNT	PERCENT EXPENDED	MAJOR SCHEDULE ACTIVITIES	PRIOR PLAN	CURRENT PLAN	VARIANCE (WEEKS)
DESIGN	6.593	6.593	100.0%	Environmental			
				Categorical Exemption	Dec-09 A	Dec-09 A	Complete
RIGHT-OF-WAY	0	0	n/a	Design			
				Final Design	Oct-09 A	Oct-09 A	Complete
CONSTRUCTION	88.8	77.59	87.4%	Right-of-Way			
				Not Applicable	n/a	n/a	n/a
OTHER	24.95	19.43	77.9%	Construction			
				Notice to Proceed	Jul-12 A	Jul-12 A	Complete
TOTAL	120.34	103.61	86.1%	Construction Complete	Jun-15	Jul-15	2
Expenses as of 2/28/2015							
AREAS OF CONCERN				CRITICAL ACTIVITIES / 3 MONTH LOOK AHEAD			
<ul style="list-style-type: none"> • Perform load test on post tensioned concrete structural beam • Improvements and widening of Cesar Chavez Ave • Permanent power CNG yard & equipment • Low voltage, ITS, communication, etc. installation by Metro • Artwork lantern secondary structural steel fabrication/erection • Installation of the electrical systems throughout the buildings 				<ul style="list-style-type: none"> • Installation of owner supplied furniture • Improvements and widening of Cesa Chavez Ave • Installation of the artwork lantern conduits & lighting • Complete installation of natrual gas meter by SCG for CNG facility • Install the elevators and get State inspection • Complete power connections to all building • Complete the installation of roof systems on all buildings • Pave all hard surface areas and roads onsite • Continue installation of mechanical, electrical and plumbing • Install frames, doors, hardware and window glazing • Start commisioning of the MEP systems • Instatllaion of the communication and ITS systems by Metro • Continue installation of photovoltaic panels 			
ROW ACQUISITION	PLAN	ACQUIRED	REMAINING				
PERMANENT PARCELS	0	n/a	0				
TEMPORARY PARCELS	0	n/a	0				
TOTAL PARCELS	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 January 2015, the contractor completed: structural steel for required for the project; overhead light fixtures, fire sprinkler piping and duct work at Building 1; and, installation of HVAC exhaust ducts, fans and louvers, tank vault at Building B.

In February 2015, Southern California Gas completed installation of meter set assembly. The contractor: relocated traffic signals at Cesar Chavez Avenue; poured Vignes Street sidewalks and driveways; and, completed the 10" fire line.

In March 2015, Southern California Gas turned on gas to Division 13. The contractor: installed the bus wash equipment; completed public artwork structural steel frame; started application of traffic coating on the parking structure's upper deck; completed PV Panel and perforated panels on Buildings B and C; and, completed Building A exterior finishes.

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 coordinated 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, work is completed.

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 issued 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 continued with unforeseen conditions such as unknown utilities, voids and flowing sand that impact the production rate. All U/G conduits are installed and LADWP has installed electrical cables. Demo of existing above ground electrical cables and wood poles was completed.

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 new equipment warranties for the Radiator and Welding Shops.

Concern No. 8: Time Impact Analysis

Status/Action The contractor has submitted various TIAs in order to determine the total time impacts incurred to the Contract Milestone as a result of Concerns 2 and 5 related to unforeseen sewer obstructions at the intersections of Vignes Street and Cesar Chavez Avenue as well as time impacts due to importing of clean soil for backfill. Metro has issued modifications extending the completion date.

Concern No. 9: Direct Cost Impacts

Status/Action McCarthy has submitted Metro reviewed and both parties settled the Direct Cost Impacts related to McCarthy's concrete operations due to installation and schedule 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. This issue was resolved in August 2014 and revised drawings were issued to contractor.

MANAGEMENT ISSUES (Continued)

Concern No. 12: Partial Shoring Failure During Elevated Roof Deck #14 Concrete Pour

Status/Action Contractor submitted investigation, demolition and remediation plans as well as safety and quality control protocol to restart all elevated concrete deck pours. Contractor provided a report that evaluated damage to permanent structure. Metro accepted their remedial plans and allowed contractor to re-start roof deck concrete pours. Contractor re-sequenced the work. The shoring failure caused a project delay completion from December 2014 to May 2015. Metro will have contractor perform a load test on Deck Pour #2 that concrete and shoring collapsed onto.

Concern No. 13: Permanent Electrical Power

Status/Action Metro continues to work with Department of Water and Power for new permanent electrical power service and not impact the project schedule.

Concern No. 14: Compressed Natural Gas (CNG)

Status/Action Metro continues to work with Southern California Gas Company (SCG) for CNG point of connection and new meter set assembly (MSA) to not impact the project schedule. SCG plans to install part of the connection on Vignes Street and some valves on Metro Drive. SCG is scheduled to install MSA the first week of December 2014.

Concern No. 15: Furniture, Fixtures and Equipment

Status/Action Metro will procure and install furniture for all new administrative offices and areas in the Division 13 Transportation and Maintenance Buildings and will be using an existing General Services contract to obtain the FFE. A new solicitation is not required. Metro is preparing the purchase order to order the FFE identified in the contract specification. Installation of the furniture is scheduled to start in March 2015 and complete in early May 2015.

Concern No. 16: ITS Infrastructure

Status/Action Numerous Project Bulletins were issued for completing the ITS Infrastructure, including: a close circuit television (CCTV) system, security access control system, Local Area Network, M3 kiosks, desktop computer, copiers, printers, smart-boards and the installation of these items in order to enable the individuals working in Division 13 to communicate across the Agency on the enterprise network. Staff will be requesting quotes from vendors for the Procurement and awarding a purchase order.

MANAGEMENT ISSUES (Continued)

Concern No. 17: Public Art Component

Status/Action Metro continues to work with the contractor and its subcontractors on the lighting design and engineering for the Division 13 Lantern, in order to not impact the fabrication, delivery and erection of the artwork's structural steel.

Concern No. 18: Installation of Garage Equipment

Status/Action Metro is coordinating with the Division 13 and Metro's Revenue Department's contractors for a complete and operational garage equipment system, including wireless access points, vaults, probes, bins, garage computer with appropriate software and security cameras.

Concern No. 19: Contract Close Out

Status/Action *Metro is working with contractor to coordinate process and procedures to close out construction contract, including punch list procedure.*

Concern No. 20: Division 13 Activation Plan

Status/Action *The project team is coordinating with Metro Operations, Maintenance, Transportation, ITS, Service Development, TAP and Facility Maintenance departments to develop a comprehensive activation plan based on the project's substantial completion date.*

Concern 21: Division 13 Commissioning

Status/Action *Metro is initiating commissioning services to ensure building systems function within the optimal ranges as designed, developing pre-functional checklists, submittal reviews and functional performance testing for each active energy system.*

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 2nd 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 3rd 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.

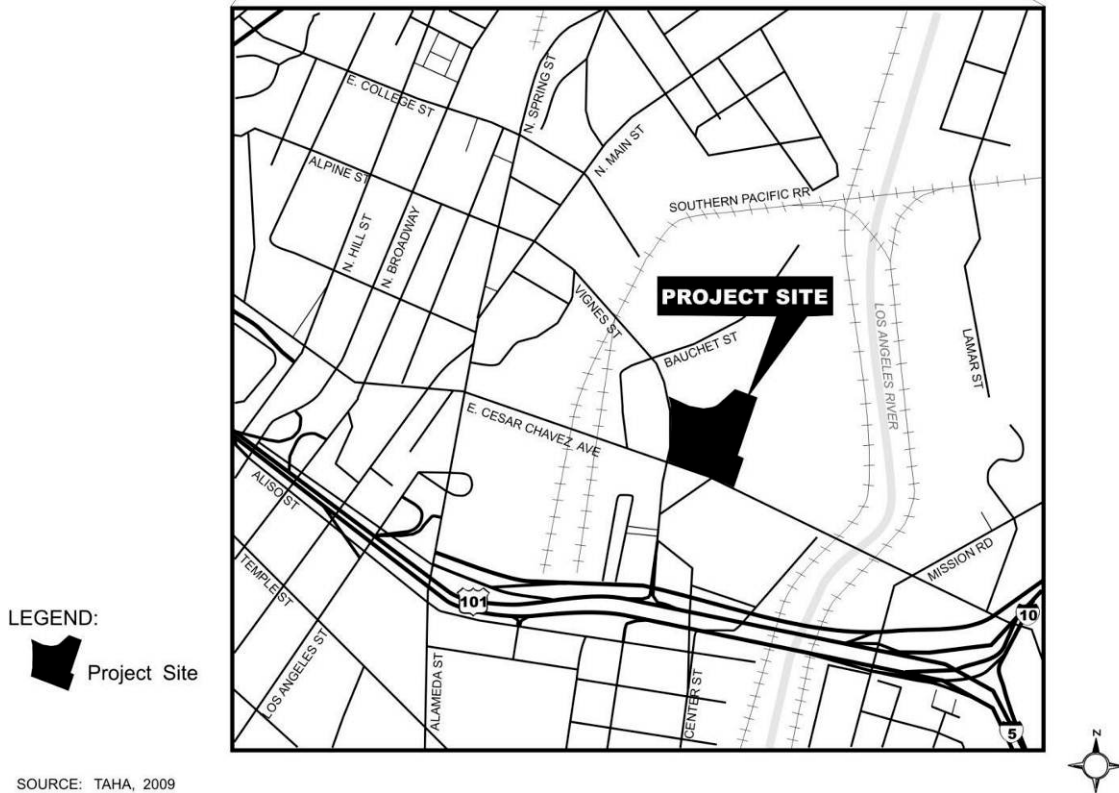


Figure 1 – Location Map

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	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15
Complete Exterior Skin at Building A	3/6/2015*	○					
PCC Pavement at North Area	3/24/2015*	○					
Start Electrical Start-Up at Building B & C	3/25/2015*	○					
Mechanical Start-Up at Building B & C	3/30/2015*	○					
Complete Landscaping Areas at West Area	3/30/2015*	○					
Complete Building No. 1	4/24/2015*		○				
Mechanical Start-Up at Building A	4/10/2015*		○				
Complete PCC pavement at South Area	4/11/2015*		○				
Complete Building F	4/16/2015*		○				
Complete Stair No. 12 at Building C	4/20/2015*		○				
Complete Roofing at Building C	4/24/2015*		○				
Complete Landscaping Areas at North Area	4/24/2015*		○				
Complete Street work at West Area	4/24/2015*		○				
Complete Landscaping Area at North/West	4/10/2015*		○				
Start Electrical Start-Up at Building A	4/20/2015*		○				
Start Equipment Start-Up at Building B & C	4/29/2015*		○				
Complete Structural Steel Ribbon	4/24/2015*		○				

 Metro Milestone
  Contractor
  Third Parties Approval
 * New Date

Note: Milestone dates will be impacted due to Roof Deck Pour #14 Shoring Partial Collapse on March 28, 2014

KEY MILESTONE SCHEDULE SIX-MONTH LOOKAHEAD

	Milestone Date	Mar-15	Apr-15	May-15	Jun-15	Jul-15
Complete Elevator No. 2 & 3 at Building C	4/23/2015*		○			
Complete Elevator No. 1 at Building A	5/1/2015*			○		
Complete Interior Build Out at Building A	5/15/2015*			○		
Complete Building A	5/15/2015*			○		
Complete Building C	5/15/1/2015*			○		
Complete Building B	5/20/2015*			○		
Complete McCarthy's Initial Punchlist	5/21/2015*			○		
Complete Systems Commissioning	5/25/2015*			○		
Complete Final Inspection at Building B & C	5/29/2015*			○		
Submit Close out Documents and Punch List Corrections for Building A	6/23/2015*				○	
Submit Close out Documents and Punch List Corrections for Building B & C	6/5/2015*				○	
Complete Final Punch List Corrections	7/13/2015					○
Contractor's Final Completion Date	7/13/2015					○



Metro Milestone



Contractor

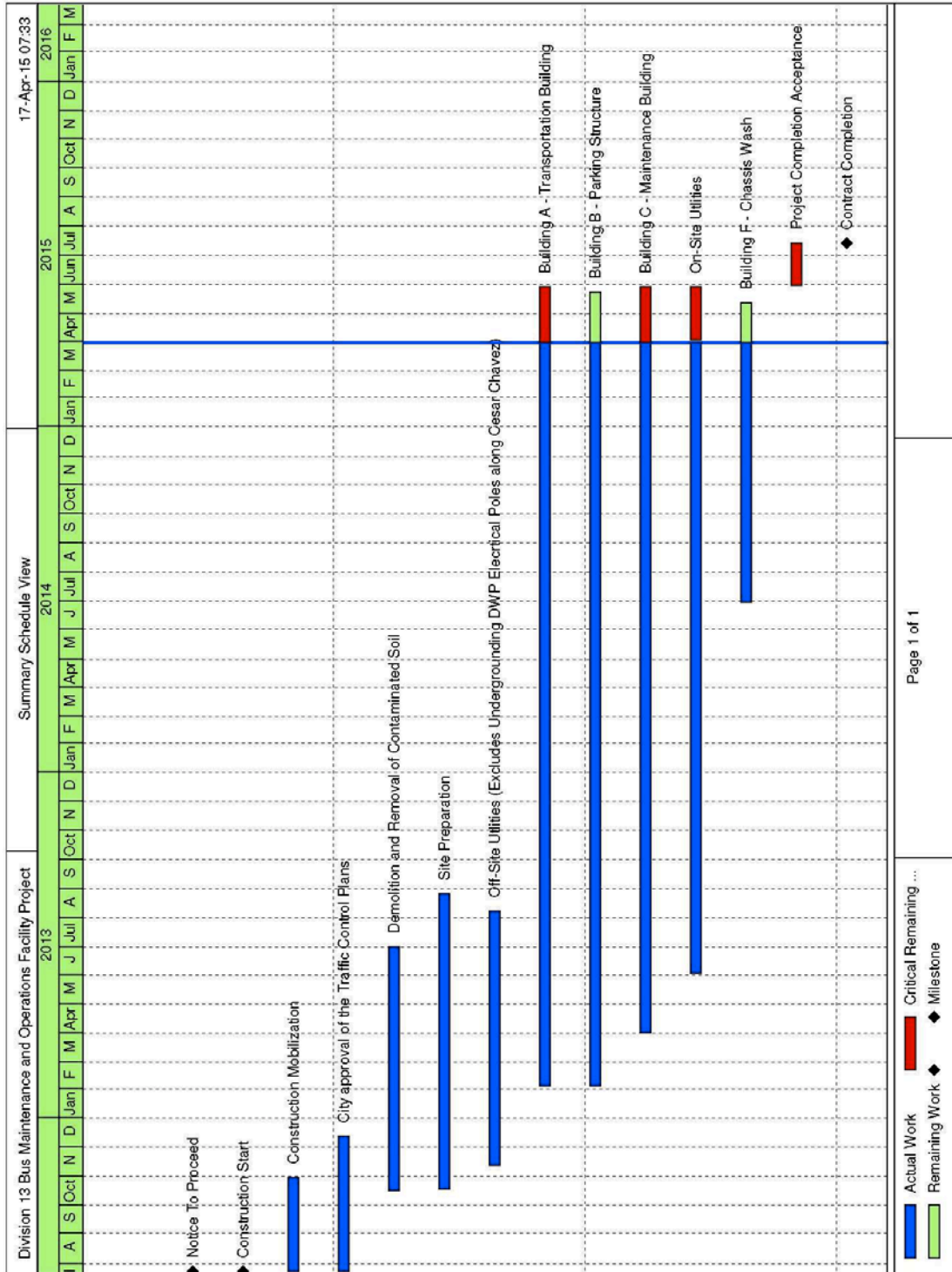


Third Parties Approval

* New Date

Note: Milestone dates will be impacted due to Roof Deck Pour #14 Shoring Partial Collapse on March 28, 2014

PROJECT SUMMARY SCHEDULE



CRITICAL PATH NARRATIVE

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

PROJECT COST STATUS

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: March 31, 2015
 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 - Division 13 Facili	70,947,000	-	82,412,000	1,314,000	77,235,000	7,161,000	73,847,000	1,327,000	81,779,000	(633,000)
C	CONSTRUCTION - CNG Facility	5,500,000	-	6,420,000	75,000	6,036,000	262,000	5,868,000	160,000	6,579,000	159,000
S	SPECIAL CONDITIONS	-	-	7,888,000	503,000	7,527,000	119,000	6,755,000	10,000	7,429,000	(459,000)
R	RIGHT-OF-WAY	-	-	-	-	-	-	-	-	-	-
P	PROFESSIONAL SERVICES	13,425,000	-	22,706,000	1,280,000	20,958,000	997,000	19,834,000	(457,000)	22,671,000	(35,000)
PC	PROJECT CONTINGENCY	5,128,000	-	916,000	-	-	-	-	(1,040,000)	1,884,000	968,000
TOTAL PROJECT		95,000,000	-	120,342,000	3,172,000	111,756,000	8,539,000	106,304,000	-	120,342,000	-

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH March 31, 2015

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 LOP by \$9,200,000 from \$95,000,000 to \$104,200,000 and the Current Budget was revised to match the LOP increase. In October 2014, the Metro Board increased the LOP budget from \$104,200,000 to \$120,342,000, and the project budget was reallocated to match the forecasts for construction, professional services special conditions and to replenish contingency as indicated on Attachment C of the October 2014 Board Report. *The project budget established in October 2014 did not change for the period ending March 31, 2015.*

Current Forecast

Despite changes to individual elements this quarter, overall the project forecast remained unchanged this reporting period. The Construction forecast increased \$1.487 million due to change notices issued for design bulletins and because the contractor's proposals and Metro's independent cost estimates for earlier change notices were larger than the initial ROMs. Special conditions increased modestly by \$10,000 to address the last of the work related to undergrounding utilities along Cesar Chavez Avenue. The forecast for Professional Services decreased by \$457.0 thousand this quarter because the estimates for document control staff and the contract administrator were revised downward. Compared to the last quarter, the forecast for Contingency decreased by approximately \$1.0 million to \$1.88 million. However, the current forecast for contingency is still twice the \$916,000 budget established in October 2014.

PROJECT COST ANALYSIS (Continued)

Commitments

Commitments at the end of March 2015 were \$111.8 million, and increased by \$3.172 million this quarter. About half of the increase was due to previously forecasted construction change notices now encumbered as executed modifications to the contracts. An additional \$0.5 million was encumbered for third-party work previously agreed to (and accounted for in the forecast), but never encumbered. The remaining \$1.28 million of commitments for Professional Services were for agency costs and task orders issued to support Division 13, primarily extending the construction management consultant, design support during construction, and Metro staff assigned to Division 13.

Expenditures

Expenditures are cumulative through March 31, 2015. Expenditures increased \$8.539 million this reporting period. Most of the expenditures, \$7.423 million, were payments for the construction contracts. An additional \$0.119 million was spent this period on Special Conditions, specifically payment to AT&T for work performed in support of undergrounding utilities, and for expenses related to the Master Cooperative Agreements with the City of Los Angeles. The \$0.997 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 consultants.

FINANCIAL/GRANT STATUS

MARCH 2015

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 SOURCE \$	FUNDING SOURCE %
STATE PROP 1B - PTMISEA*	85.0	52.8	52.8	52.8	100%	52.8	100%	44.2	84%
TDA ARTICLE 4	10.0	14.3	14.3	5.7	40%	0.7	5%	0.0	0%
FEDERAL - 5309	0.0	47.8	47.8	47.8	100%	47.8	100%	47.8	100%
FEDERAL - 5308	0.0	5.5	5.5	5.5	100%	5.0	92%	5.0	92%
PROP C 40% RAIL CAPITAL	0.0	0.0	0.0	0.0	100%	0.0	100%	0.0	100%
TOTAL	95.0	120.3	120.3	111.8	92.9%	106.3	83.3%	97.0	80.6%

* PTMISEA: Public Transportation Modernization and Improvement Surface Enhancement Account

NOTE: Expenditures are cumulative through March 2015.

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 request was approved in January 2014. Funds are available for drawdown. In November 2014, \$16.1 was transferred from the bus procurement project to the Division 13 Project. Funds are available for drawdown.

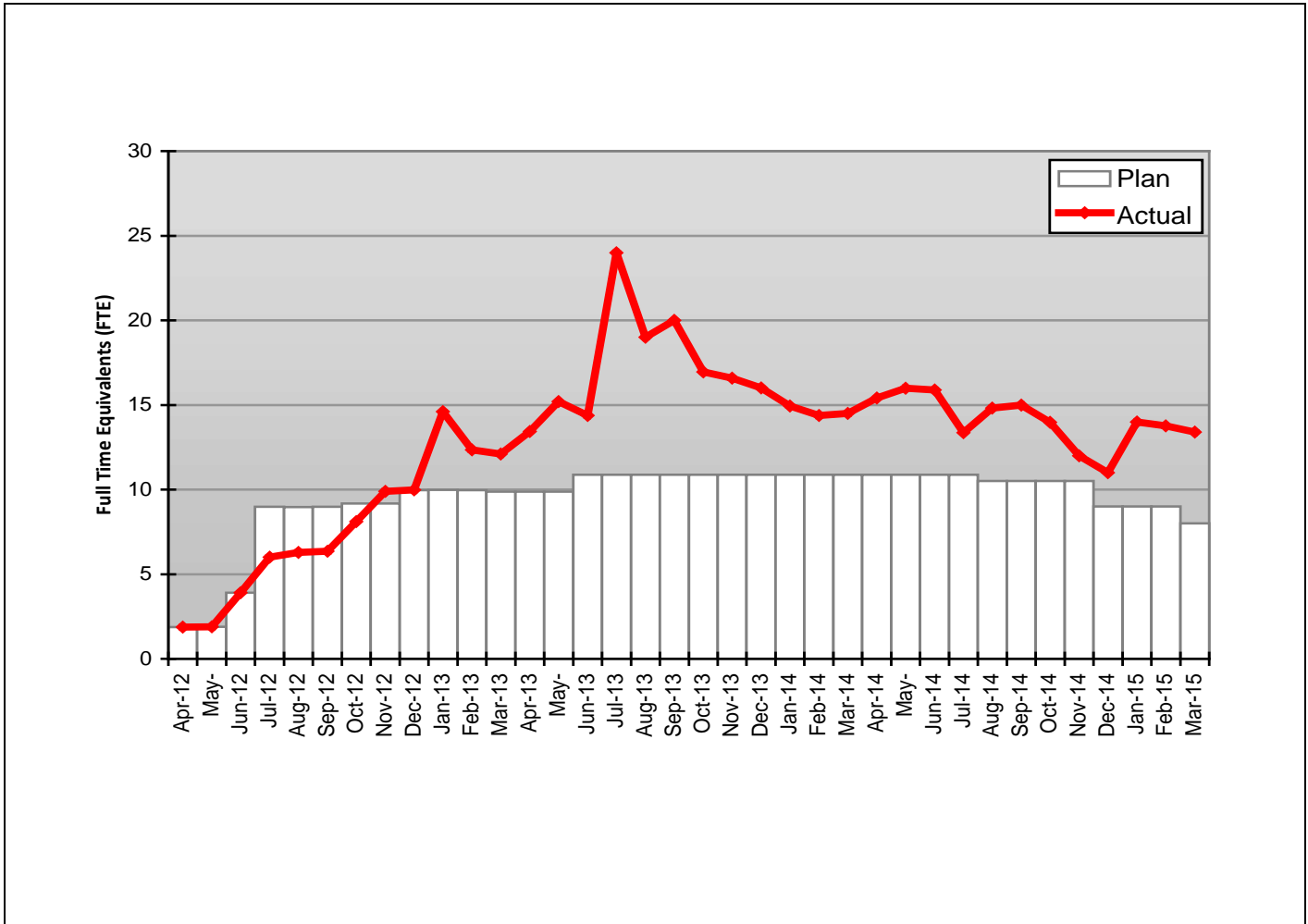
TDA ARTICLE 4: In April 2013, the Metro Board approved an increase of \$9.2M for a revised funding of \$14.3M. The FY15 funding plan includes \$14.3M of TDA Article 4.

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, changes to design, additional design need and construction delays. The indicated unanticipated work and delays 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.
- All encountered contaminated wastes have been properly characterized and disposed of at permitted facilities.
- Metro Environmental Contractor removed existing clarifier on south side of existing Building 3 (Dec 2012).

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 Aesthetics mitigation measures have been addressed as part of the LEED design process.

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.

- Regarding mitigation measures CR1 – CR6, Archaeological and Paleontology monitoring have been occurring since project excavation began. *To date, 17 historic features have been uncovered and will be evaluated against Section 106 requirements. In addition, a prehistoric 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 will continue 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 only a small amount of follow up work completed in February 2015. Construction work continues, but remaining work is not expected to require monitoring.* As agreed, archaeological and Native American monitoring will continue during ground disturbance that has the potential to encounter intact cultural or paleontological materials. Presently, we are also researching, curating artifacts and working on a draft final report. Regarding the noise mitigation measure (N1-N4), no noise complaints have been received to date. Continue with MLD monitoring throughout the remainder of project as necessary.

QUALITY ASSURANCE STATUS

C0974 Division 13 Maintenance & Operations Facility

- *Final Load Test for the reconstructed area of Deck Number 2 (Partial Collapse) was issued by WDP (Austin, Texas).*
- *Final report of the Partial Deck Collapse Analysis was issued by WJE (Pasadena, CA).*
- *Prepared for a proof load test of a concrete beam (between Gridline G and H) scheduled to be conducted in early-to-mid April 2015.*
- *Reviewed Contractor's Quality Assurance Audit Reports for the Quarter.*
- *Arranged oversight soil testing and welding/material testing and subfloor structural testing by Metro's Independent Third Party Laboratories.*
- *Participated in Readiness Review Meetings and Project Status Meetings.*

SAFETY AND SECURITY STATUS

- *There were no recordable injuries on the Project during the quarter from January to March 2015.*
- 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.
- *Completed over the shoulder reviews with McCarthy Builders for Job Hazard Analysis and Construction Work Plans. This process helps with the submittal turnaround time and ensures a quality submittal is being submitted for review.*
- *Performed project wide safety walks with the Contractor and assisted with any safety concerns and corrective actions on these concerns.*
- *The project had an increase in work force to 175 craft workers onsite.*
- *McCarthy conducted new hire orientations for all new employees working on the site. It covers jobsite safety rules for McCarthy and Metro compliance regulations.*
- *January – March: McCarthy Work Hours: 91,827 (Design and Construction): 4,476*
- *Contractor – Project to Date Work Hours: 430,388 (Design & Construction)*
- *Total Project to Date Work Hours (Contractor & Metro Staff): 504,058*
- *Project to Date Recordable Injury Rate: 0.40 (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

Third Party	Type of Agreement	Forecast Execution Date	Required Need Date	Status/ Comments
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>Metro Division 13 Bus Maintenance and Operations Facility Project Contractor: McCarthy</p>	<p>Contract No.: C0974 Status as of: March 27, 2015</p>																															
<p>Major work started/completed this period:</p> <ul style="list-style-type: none"> • Completed installation and termination of overhead gas detection devices at Parking Garage. • Completed installation of door frames, drywall and insulation at Level 1 Building A. • Completed installation of hollow metal door frames, coiling frames and windows at Level 1 Building 1. • Completed installation of rebar baskets reinforcement and concrete pour at Maintenance Building C. • LADWP completed form, pour curb and gutter at Cesar Chavez at DWP Service Yard. • Completed concrete pour of perimeter curbs at structural decks at Chassis Wash Area. • Completed concrete pour at Metro Driveway. • Completed F/R/P sidewalks and ramps and installation of irrigation at Underground Utilities. • Started final connections at South West pumps at Parking Garage. • Started installation of above ground diesel tanks at Chassis Wash Area. • Started elevator #1 car build out at Building A. • Started installation concrete filled bollard Door C114 Bldg 1. • Started final point coating at Lower Level Maintenance Bldg. • Started elevator #3 installation at Maintenance Building. <p>Areas of Concern:</p> <ul style="list-style-type: none"> • Import of soil due to contaminated soil exceeding quantity. • Bulletin No. 38r2 Communications Scope of Work, submittal review, WAP, cameras and furniture location. • Export of SCG contaminated soils throughout the project site exceeding the bid quantities. • Fabrication, delivery and erection of artwork structural steel. • Final lighting configuration/design for artwork lantern cube. • Parking control changes and reduction to SOW. • Installation of roof systems and windows. • Paving of all hardscape areas. • Permanent power to CNG fueling facility. • Installation of MSA for natural gas from street feed. • Installation of Fare Garage Computer and vaulting equipment. 	<p>Major Activities (In Progress):</p> <ul style="list-style-type: none"> • Overhead rough-ins and flushes at Lower Level Parking Garage. • Interior build out, MEP installation at Building 1. • Building A overhead MEP and room finishes at Lower Level 1. • Remediation of obstructions, excavation and shoring and installation of sewer lateral L at Building No. 1. • Pulling wire from electrical service yard to main electrical rooms. • Retaining wall along Metro driveway. • Underground gas and water piping at East area. • Load testing of concrete Deck #2 that was damaged when Deck 14 shoring collapsed. • Permanent power to Utility Yard Service by LADWP. <p>Major Activities Next Period:</p> <ul style="list-style-type: none"> • Continue installation of overhead MEP at Parking Garage, Building A and Maintenance Building C. • Complete 3200 AMP bus duct DWP service yrd to CNG compound. • Installation of vegetated roof at Building A. • PCC pavement at Metro Driveway. • Underground gas and water piping at East Area. • Completion of steel roof ribbon system and roof metal deck. • Exterior skin at Transportation Building. • Transportation Building room finishes. • Installation of racking system and mounted crane at Bldg No. 1. • Installation of street lighting and signals at Cesar Chavez Avenue. • Installation of sidewalk, curbs and gutters along Cesar Chavez Ave. • Final connections of storm water lines at South west pumps. • Installation of MSA at main gas line service by SCG. • Terminate electrical connections to equipment at Building No. 1. 																															
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Completion	06/23/14	201	01/10/15	07/13/15	07/13/15	-184																										
Punchlist Complete	06/23/14	201	01/10/15	07/13/15	07/13/15	-184																										
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* Calendar Days

CONTRACT STATUS

<p>Metro Division 13 Bus Maintenance and Operations CNG Facility Project Contractor: Clean Energy</p>	<p>Contract No.: C0974 Status as of: March 27, 2015</p>																																								
<p>Major work started/completed this period:</p> <ul style="list-style-type: none"> • Completed the final electrical conduit connections to all CNG service equipment. • Completed welding of overhead piping to service equipment an steel tubing. • 3200A feed to electrical room for CNG Yard. • CNG construction, start-up and commissioning. • Due to lack of permanent power and the installation of the CNG sensors Metro demobilized Clean Energy for several month until General Contractor can have items completed for Clean Energy to test CNG equipment by fueling Metro buses. <p>Areas of Concern:</p> <ul style="list-style-type: none"> • CNG point of connection (POC) for MSA and new meters on Metro Drive with Southern California Gas (SCG). 	<p>Major Activities (In Progress):</p> <ul style="list-style-type: none"> • SCG install MSA and meter. • Welding of service piping. • Pressure testing of CNG piping by EFS/West, witness by Metro Fire Marshall. <p>Major Activities Next Period:</p> <ul style="list-style-type: none"> • Pull wire and termination at CNG equipment. • Test the CNG equipment by fueling of Metro buses. • Commission the CNG fueling facility. 																																								
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CONSTRUCTION PHOTOGRAPHS

FLY OVER JOBSITE PHOTOGRAPH (1-31-2015)



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

FLY OVER JOBSITE PHOTOGRAPHS (2-28-2015)



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

CONSTRUCTION PHOTOGRAPHS (Continued)

FLY OVER JOBSITE PHOTOGRAPHS (3-27-2015)



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

CONSTRUCTION PHOTOGRAPHS (Continued)



Placement of steel reinforcement along Metro Drive Way.



Placement of concrete along Metro Drive Way.



Interior metal stud framing at restroom in Transp. Bldg. 1 Level.



Installation of zinc panels at exterior of Transp. Bldg.

CONSTRUCTION PHOTOGRAPHS (Continued)



Interior metal framing at Transportation Bldg. Level 1.



Installation of metal roof panels at the Roof Ribbon Parking.



Saw cutting new concrete joints at Metro Drive Way.



Membrane roof installation at the Transportation Bldg.

CONSTRUCTION PHOTOGRAPHS (Continued)



Wiring pulling at the CNG Yard equipment service.



Overhead CNG gas piping at Fuel Island in Parking Garage.



Pulling electrical feeders at the electrical panels in Parking.



Installation of zinc panels at exterior of Transportation Bldg.

CONSTRUCTION PHOTOGRAPHS (Continued)



View of the exterior curtain wall at the Transportation Bldg.



Concrete finishing at the West side of C Building.



Installation of sheet rock at the exterior walls of Bldg. C.



Concrete pouring in progress at East side of Utility Yard.

CONSTRUCTION PHOTOGRAPHS (Continued)



Installation of steel column members for the roof progress.



Installation of curtain wall glazing in progress at Building A.



Interior painting in progress at Maintenance Building.



Installation of horizontal beams at the roof deck in progress.

CONSTRUCTION PHOTOGRAPHS (Continued)



View of finished concrete at the CFM and Maintenance Bldg.



Installation of catwalk system at the roof deck in progress.



Installation of steel roof ribbon in progress at Parking Garage.



View of roof ribbon system at the roof deck Parking Garage.

CONSTRUCTION PHOTOGRAPHS (Continued)



Placement of concrete along Parking Walkway.



Curb Gutter Completed along Cesar Chavez Ave.



Reinforced framed for Ramp and earthwork along Vignes St.



Curb & Sidewalk wood framing at Lyon St Garage entrance.

CONSTRUCTION PHOTOGRAPHS (Continued)



Relocating vent of electrical vaults at Cesar Chavez Ave.



Zinc Interlock wall panel system installation. North of Bldg. A . .



Bollards installation at Metro Driveway/ Vignes St Curb.



Stairs #1 Concrete Phase Done. Red Structural Steel.
Installation in Progress at South of Transp. Bldg.

CONSTRUCTION PHOTOGRAPHS (Continued)



Painting Frame phase. Parking Garage Roof Framing.



Insolation Installation at Roof of Maintenance Bldg.



Installation of steel membranes of Roof Deck in progress.



Insolation Installation at Maintenance Bldg.

CONSTRUCTION PHOTOGRAPHS (Continued)



Water protection application at Roof of Maintenance Bldg.



Walls finishing process at Bldg. A Level 2.



CNG Yard completed pipe installation.



Installation of Bamboo ceiling in Bldg. A Level 1.

CONSTRUCTION PHOTOGRAPHS (Continued)



Concrete Pouring at Above Ground Fuel Slab.



Handrails installed; welding on Red Steel members at Bldg. A.



Under floor work under progress at Level 1 of Bldg. A.



Vertical Steel members installed & earthwork at Garage Prkg.

CONSTRUCTION PHOTOGRAPHS (Continued)



PV Panels Installation at Parking Garage Structure.



Pour of concrete in progress on front of Vignes St.



Installation of Bamboo Ceiling Finish Bldg. A Level 1.



Ramps finished & cement curing on sidewalk along Vignes St.

CONSTRUCTION PHOTOGRAPHS (Continued)



Rain pounding residue at Parking Garage Upper Level.



Roof Drain clogged by rain at Vegetated Area.



Power now activated in Parking Garage Lower Level.



Open trench for piping at Vignes St. entrance.

CONSTRUCTION PHOTOGRAPHS (Continued)



Metro PMs Staff at Project Site view of Artwork.



Installation of horizontal steel membranes at exterior west side of Parking Building.



Welded wire mesh fence complete at Maint. Building Level 2.



Elevation and Earthwork for Ramp access at Utility Yard.

CONSTRUCTION PHOTOGRAPHS (Continued)



Jelly Fish Tank and Water Reservoir in place at Utility Yrd Area.



Opening Trench for sidewalk concrete pouring Lyon St entrance.



Structural Steel Frame for Artwork Completed at SW corner.



Polycoat Catalyst application at Parking Garage Upper Level.

CONSTRUCTION PHOTOGRAPHS (Continued)



Architectural panels completely installed at Maintenance Bldg.



Prep and forming CMU Wall for Utility Yard Area.



Perforated Zinc Screen Wall installed at Div. 13 South Elevation.



Elevated Roof Deck installed at Parking Garage Upper Level.

CONSTRUCTION PHOTOGRAPHS (Continued)



Paint application completed at Parking Garage Lower Level.



Horizontal Steel members and perforated wall installed Parking Building.



Painting application at Maintenance Building completed.



Ramp and Wire Mesh Fence installed at Transportation Building.

CONSTRUCTION PHOTOGRAPHS (Continued)



Perforated Zinc Wall installed at Transportation Bldg. Level 1.



Parking Garg Upper Level, 3 weeks after application of Polycoat.



PV panels, Elevated Deck & Steel Artwork installed SW Corner.



Dancefloor scaffolding ready for installation of Artwork Panels & bird deterrents.

CHRONOLOGY OF EVENTS – BUS MAINTENANCE FACILITY

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 – BUS MAINTENANCE FACILITY (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 – BUS MAINTENANCE FACILITY (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 st 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.
January 7, 2014	Complete installation of ramp deck no. 1.
January 9, 2014	Contractor completed hard demolition at Building No. 1.
January 21, 2014	Complete installation of 3 Hours Wall at Building C.
January 27, 2014	Complete reinforcement and concrete placement for the elevated decks pour 2, 2, 4, 5 and 6.

CHRONOLOGY OF EVENTS – BUS MAINTENANCE FACILITY (Continued)

January 28, 2014	Layout, excavate and install reinforcement for foundations at Area 8 and 9.
February 11, 2014	Completion of elevator shaft Walls, Level 1.
February 14, 2014	Complete installation of Deck Pour No. 8, 9, 10, 11 and 12.
February 17, 2014	Contractor completed balance of concrete Deck Pours No. 7 thru 12, Building B elevated deck at Level 1.
February 17, 2014	Start layout CIP electrical trenches at the DWP Utility Service Yard.
February 21, 2014	Start roof level setting Deck Panel No. 13 at Building B.
March 12, 2014	Complete concrete Deck Pour No. 13, Building B elevated deck roof level.
March 25, 2014	Complete concrete Deck Pour No. 15, Building B elevated deck roof level.
March 28, 2014	Contractor starts concrete Deck Pour No. 14, Building B elevated deck roof level.
March 28, 2014	Roof Deck Pour No. 14 partial shoring collapse. No major injuries, four first aid cases.
April 1, 2014	Contractor Developed and provided Phase 1 demo plan of collapsed Deck #14.
April 8, 2014	SEOR and Metro returned final review and comments of Phase 1 demo plan to Contractor.
April 9, 2014	Contractor starts investigation of Deck #14 collapse.
April 17, 2014	Contractor executes Phase 1 demo plan, the removal of concrete debris of deck #14 collapse.
April 21, 2014	Metro/ WJE starts investigation analysis of deck #14 collapse.

CHRONOLOGY OF EVENTS – BUS MAINTENANCE FACILITY (Continued)

April 29, 2014	Contractor/WDP developed initial plan for Phase 2 removal of deck rebar and tendons of collapsed deck #14 and ramp #3.
April 29, 2014	Contractor WDP performs nondestructive testing of structural slab, columns and ramp elements.
May 12, 2014	Contractor completes concrete Deck Pour No. 17, Building B Elevated Deck Roof Level.
May 19, 2014	SEOR approves design for permanent structure rebuild plan.
May 19, 2014	Contractor completes concrete Deck Pour No.9, Building B Elevated Deck Roof Level.
May 23, 2014	SEOR approves design for permanent structure rebuild plan.
June 6, 2014	Contractor completes concrete Deck Pour No.21 Building B Elevated Deck Roof Level.
June 16, 2014	Contractor completes concrete Deck Pour No.23 Building B Elevated Deck Roof Level.
June 20, 2014	Contractor completes concrete Deck Pour No. 14 and Ramp Deck #3 Building B Elevated Deck Roof Level.
July 1, 2014	Contractor completes foundations.
July 1, 2014	Contractor starts installation of axle-lift equipment at Running Repair Bays in Area 7.
July 2, 2014	Paint prep, prime and first coat begins at lower level Parking Garage and Maintenance Building.
July 9, 2014	LADWP starts electrical pole removal and power is ran underground along Cesar Chavez.
August 4, 2014	Contractor completes Deck Pour No. 22, Building B Elevated Deck Roof Level.
August 6, 2014	LADWP final inspection of DPW switchgears completed.
August 11, 2014	Contractor completes Deck Pour No. 24 and Ramp #4, Building B Elevated Deck Roof Level.

CHRONOLOGY OF EVENTS – BUS MAINTENANCE FACILITY (Continued)

August 22, 2014	Contractor begins excavation of the retaining wall foundation at Metro Driveway.
September 4, 2014	Contractor completes concrete pour of delay strips at roof elevation.
September 12, 2014	Contractor completes concrete pour of Retaining Wall Section #2 along Cesar Chavez Avenue.
September 15, 2014	LADWP schedule to start work for the installation of the new 10-in fire service.
September 20, 2014	LADWP starts pulling underground cable to Utility Yard Service.
September 24, 2014	Contractor submits the Load Test Procedure for Deck #1 at Parking Garage.
September 24, 2014	Contractor completes tree removal along Cesar Chavez Avenue.
September 26, 2014	Contractor completes stripping of false work of decks of Building B and C except for delay strip section at Parking Garage Building B.
September 26, 2014	Contractor completes stripping of false work of decks of Building B and C except for delay strip section at parking Garage Building B.
September 26, 2014	Contractor starts structural steel installation.
October 3, 2014	LADWP completes installation of the new 10 inch fire service.
October 7, 2014	Balance of masonry walls completed at Building B.
October 9, 2014	Contractor completes the installation and backfilling of sewer lateral L at Building No. 1.
October 25, 2014	Contractor completes placement of retaining wall at Metro Driveway.
November 13, 2014	Completed final Load Testing procedures at Deck #2.
November 14, 2014	Contractor stripped false work for delay strip at Building B.
November 14, 2014	Contractor completes shop drawings for art work.

CHRONOLOGY OF EVENTS – BUS MAINTENANCE FACILITY (Continued)

November 18, 2014	Approval to proceed with revised 10 ½" PCC pavement section at Metro Driveway and east side.
November 19, 2014	Completed placement of exterior light poles at Building B.
November 21, 2014	Contractor starts exterior metal framing at Building A.
December 19, 2014	LADWP completes permanent power and installs meter to utility DWP Yard service.
December 19, 2014	Approved LADOT signaling and stripping plans provided to Contractor.
December 24, 2014	Contractor starts placement of steel rebar reinforcement at Metro Driveway.
<i>January 9, 2015</i>	<i>Completed installation of overhead light fixture at Building No. 1.</i>
<i>January 15, 2015</i>	<i>Completed installation of overhead fire sprinkler piping at Bldg. No. 1.</i>
<i>January 22, 2015</i>	<i>Completion of structural steel top out.</i>
<i>January 22, 2015</i>	<i>Completed installation of HVAC exhaust ducts/fans and louvers at Building B lower level.</i>
<i>January 23, 2015</i>	<i>Completed installation of overhead duct work at Building No. 1.</i>
<i>January 23, 2015</i>	<i>Completed all tank vault activities at Building B lower level tank walls.</i>

CHRONOLOGY OF EVENTS – BUS MAINTENANCE FACILITY (Continued)

<i>February 6, 2015</i>	<i>Completion of Southern California Gas installation of MSA at Main Gas Service.</i>
<i>February 20, 2015</i>	<i>Relocation of traffic signals at Cesar Chavez Avenue.</i>
<i>February 26, 2015</i>	<i>Pouring of sidewalks and driveways at Vignes Street (8').</i>
<i>February 26, 2015</i>	<i>Bulletin #22 added 10" fire line completed.</i>
<i>March 12, 2015</i>	<i>Completed installation of vehicle wash equipment (EQ. ID#3838) at RM's 103 and 104.</i>
<i>March 20, 2015</i>	<i>Completed structural steel frame artwork.</i>
<i>March 20, 2015</i>	<i>Building B elevated deck upper level application for traffic coating completed at mid-section.</i>
<i>March 26, 2015</i>	<i>SCG turned on gas to CNG Yard.</i>
<i>March 27, 2015</i>	<i>Completed Building B and C south elevation PV panel and perforated panels.</i>
<i>March 27, 2015</i>	<i>Completed Building A exterior finishes.</i>

CHRONOLOGY OF EVENTS – CNG FACILITY PROJECT

May 5, 2014	Approval to start construction.
May 9, 2014	Contractor to start mobilization on site.
June 10, 2014	Contractor begins 6-inch suction gas line trench excavation on Metro Driveway.
July 8, 2014	Contractor completes concrete pouring for the light pole footings.
July 8, 2014	Contractor completes 100% design submittal.
July 22, 2014	Underground 6-inch gas suction line installation complete along Metro Driveway.
July 24, 2014	6-inch gas suction line trench excavation and backfill complete at the CNG Compound.
August 14, 2014	Underground electrical conduits installation begins.
August 25, 2014	Contractor completes installation of interior pipe racks structure.
September 4, 2014	Concrete poured for equipment pads at the CNG Yard.
September 17, 2014	Major CNG compressors/dryer skids, diesel fuel generator delivered on site.
September 18, 2014	Contractor completes setting of major gas compression equipment at the CNG Yard.
October 6, 2014	<i>Contractor starts installation of overhead mechanical piping and electrical conduits.</i>
October 27, 2014	<i>Contractor continues installing electrical conduits and mechanical piping in electrical rooms, dispensing and service equipment at the compound area.</i>
December 8, 2014	<i>Contractor starts pressure testing of high pressure system.</i>

CHRONOLOGY OF EVENTS – CNG FACILITY PROJECT

January 31, 2015	Pressure testing of CNG piping by EFS/West, witness by Metro Fire Marshall.
February 27, 2015	De-mobilize clean energy from project site due to lack of permanent power and CNG Building sensors operational to continue work.
March 26, 2015	SCG turned on gas to CNG Yard.

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	Compressed 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
LADWP	Los Angeles Department of Water and Power
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
MSA	Meter Set Assembly
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
SEOR	Structural Engineer of Record
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

APPENDIX
LIST OF ACRONYMS (Continued)

WBS	Work Breakdown Structure
WDP	Whitlock Dalnymple Poston
WP	Work Package