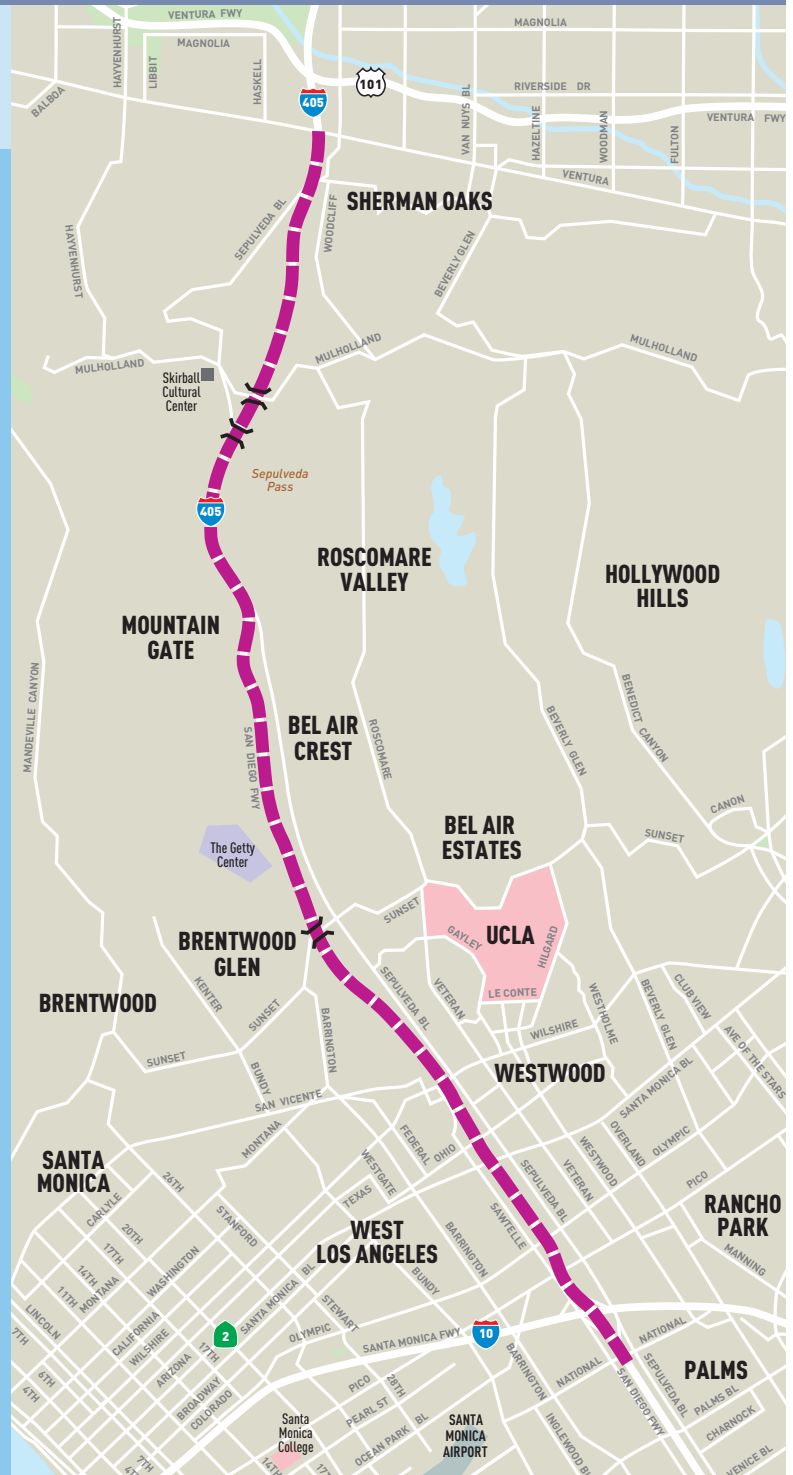




# I-405 Sepulveda Pass Improvements Project

## MONTHLY PROJECT STATUS REPORT



Metro®



11-00623P1 © 2010 LACMTA

# **INTERSTATE 405 SEPULVEDA PASS IMPROVEMENTS PROJECT**

## **MONTHLY PROJECT STATUS REPORT**


THE PREPARATION OF THIS DOCUMENT HAS BEEN FINANCED IN PART THROUGH GRANTS FROM THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) AND THE AMERICAN RECOVERY AND REINVESTMENT ACT (ARRA) AND FUNDS FROM THE STATE OF CALIFORNIA.

**AUGUST 2014**

## TABLE OF CONTENTS

	Page No.
Project Summary.....	1
Project Overview & Status.....	2-4
Management Issues.....	5-7
Project Status	
• Project Scope.....	8-9
• Schedule	
○ Key Milestones Six-Month Lookahead.....	10-11
○ Project Summary Schedule .....	12
○ Critical Path Narrative.....	13
• Project Cost Status.....	14-15
• Financial/Grant Status.....	16-17
• Staffing.....	18-20
• Real Estate.....	21
• Environmental.....	22
• Community Relations.....	23
• Quality Assurance.....	24
• Safety and Security Status.....	24
• Third Party.....	25
Contract C0882 Status.....	26
Chronology of Events.....	27-42
Construction Photographs.....	43-47
Appendices.....	48-51

**PROJECT SUMMARY**

<b>LOCATION: I-405 Sepulveda Pass Improvements Project</b>				<b>CONSTRUCTION MANAGEMENT CONSULTANT: Stantec</b>			
<b>DESIGN/CONSULTANT: Kiewit (D/B)</b>				<b>CONTRACTOR: Kiewit (D/B)</b>			
<b>PROJECT PHOTO</b>				<b>WORK COMPLETED PAST MONTH</b>			
Southbound Sepulveda at Wall 1921 - Paving Complete 				<ul style="list-style-type: none"> <li>- Irrigation and Landscaping installation continues</li> <li>- Traffic Signals and Permanent Lighting installation continues</li> <li>- GSA Parking Lot Restoration Continues</li> <li>- GSA Anti-climb Fence installation begins</li> <li>- Getty Center North Canyon Area work continues</li> <li>- Project Wide Curb and Gutter installation continues</li> <li>- Sepulveda Blvd. in Areas 4 and 5, street cap paving completed</li> <li>- Bridge 21 Skirball Center Dr. Bridge Animal Crossing Barrier completed.</li> <li>- SB Sepulveda from Skirball Center Drive, street Paving completed</li> </ul>			
<b>EXPENDITURE STATUS</b>				<b>SCHEDULE ASSESSMENT</b>			
<b>(\$ In Millions)</b>							
<b>ACTIVITIES</b>	<b>CURRENT BUDGET</b>	<b>EXPENDED AMOUNT</b>	<b>PERCENT EXPENDED</b>	<b>MAJOR SCHEDULE ACTIVITIES</b>	<b>PRIOR PLAN</b>	<b>CURRENT PLAN</b>	<b>VARIANCE WEEKS</b>
<b>DESIGN (Preliminary)</b> (PA&ED/PS&E)	\$47.0	\$47.0	100.0%	<b>Environmental</b>			
<b>RIGHT-OF-WAY</b> (Capital/Support/3rd Party)	\$108.7	\$63.5	58.4%	End Environmental Phase (PA&ED)	Mar-08	Mar-08	Complete
<b>CONSTRUCTION</b> (Construction Support/Construction)	\$983.1	\$939.6	95.6%	<b>Design</b>			
<b>Reversible Lane</b>	\$2.6	\$1.5	57.7%	End Design Support Phase (D/B)	Dec-13	Oct-14	41
<b>TOTAL</b>	<b>\$1,141.4</b>	<b>\$1,051.6</b>	<b>92.1%</b>	<b>Right-of-Way</b>			
				ROW Certification	Dec-13	Oct-14	41
<b>AREAS OF CONCERN</b>				<b>Construction</b>			
Bridge 21 Skirball Center Drive - NB East Elbow Fact Sheet Approval by Caltrans Getty Center North Canyon Parking Lot				Opening of SB I-405 Realignment	May-14	May-14	Complete
				Substantial Completion	Aug-14	Oct-14	9
<b>ROW ACQUISITION (Caltrans)</b>				<b>CRITICAL ACTIVITIES / 3 MONTH LOOK AHEAD</b>			
PARCELS ACQUIRED			66	Project Wide Signal and Lighting Installation Complete - September 2014			
PARCELS NOT ACQUIRED (Salvation Army-Litigation Pending)			1	Project Wide Substantial Completion - Mid-October 2014			
DECERTIFIED PARCELS			12	Project Wide Punchlist Work Begins - Mid-October 2014			
PAST DUE WITH NO APPARENT SCHEDULE IMPACT			0				
ADDITIONAL IMPACTS REQUIRING APPRAISAL MAPS			0				
<b>TOTAL REQUIRED PARCELS</b>			<b>79</b>				

## PROJECT OVERVIEW & STATUS

*The I-405 Sepulveda Pass Improvements Project will add a 10-mile HOV lane and improve supporting infrastructure such as ramps, bridges, and soundwalls on the San Diego Freeway (I-405); while widening lanes from the Santa Monica Freeway (I-10) to Ventura Freeway (U.S. 101). This project will reduce existing and forecasted traffic congestion on the I-405 and enhance traffic operations by adding freeway capacity in an area that experiences heavy congestion. In addition to these modifications, the project will improve both existing and future mobility and enhance safety throughout the corridor. Project benefits include a decrease in commuter time, reduce air pollution, and promote ridesharing. The I-405 Sepulveda Pass Improvements Project features include:*

- *Add a 10-mile HOV lane on the northbound I-405 between the I-10 and US-101 freeways*
- *Remove and replace the Skirball Center, Sunset Blvd. and Mulholland Dr. Bridges*
- *Realign 20 on and off ramps*
- *Widen 20 existing overpasses and structures*
- *Construct approximately 18 miles of retaining walls and soundwalls*

*Interstate 405 (I-405), also known as the San Diego Freeway, is a north/south route classified as an interstate/interregional loop freeway. It is part of the National Highway System (NHS), originating at the I-5 in Orange County in the City of Irvine and terminating at the I-5 in Los Angeles County, in the City of Los Angeles near the community of Mission Hills.*

*The design-build contract Notice to Proceed (NTP) was issued on June 2, 2009 with a Substantial Completion Deadline of May 31, 2013. Currently, the substantial completion is expected to occur in October 2014.*

### **Completion of Getty's North Canyon Work**

Metro has been trying to complete the North Canyon work for two years, facing numerous issues involving Kiewit and Getty. The latest issue was mitigation of road blocks in completing the work. Metro coordinated and worked with Kiewit outreach which ended up with one (1) actual bid, out of six (6) potential bidders, which was 3 times more than Metro's estimate. Metro authorized the work as Time and Material (T&M) just to avoid more delays and to reduce any risk to Kiewit, but Kiewit asked for indemnification for anything that could possibly arise from this work. This has caused delays in just getting the indemnification language agreed to between Metro Legal and Kiewit. At this point, this work is going to cause delays in finalizing Getty work. Although this work is not on the Project critical path, but Getty's operation to complete the work around Getty's entrance may be impacted. Metro is meeting internally to determine path forward; Continue on current path with Kiewit, use Caltrans to complete, or issue another contract. Based on discussions with Getty and Kiewit, Metro has determined the only reasonable way to complete this work is to work with Getty to have them complete as much of the Mitigation as possible. Currently we are de-scoping work previously given to Kiewit so that we can close out Kiewit's work in this area and at the same time explore options for payment to Getty to complete the work on Getty/Caltrans property.

### **Claims**

In regards to Kiewit's Claim 86, Metro has informed the DRB that Metro does not believe this claim is proper for hearing by the DRB for the basic reason that the claim is not allowed by the contract as it is not a discrete event or impact with supporting documentation to understand the nature of the impact, whether for quantum or impact to schedule.

## PROJECT OVERVIEW & STATUS (Cont'd)

Metro will continue to resolve claims with Kiewit through several methods; (1) Determine merit and negotiate without utilizing the DRB process; (2) DRB process as requested by Kiewit other than claim 86; 3) Any other process the contract allows, including referring to court.

Documentation of Kiewit claims or payment issues have been difficult at best using Kiewit's reports which has been discussed in previous monthly reports. Recently, Metro came to the conclusion that the only way to track this properly was to update the comments and track this effort ourselves. This effort was started in June 2014, after presenting this information at Executive Partnering in June. The information Metro presented reflected that at least ½ of Kiewit's complaints were actually in their court and the remaining were rejected by Metro or were recently given to Metro for review and approval. Metro acknowledges that there were issues Metro was slow in resolving, but small in comparison to Kiewit's issues and what they have claimed about Metro. At this time, Metro is in the process of recreating Kiewit claims data and developing our own cost report using Kiewit data. We will continue on this course and track it with the expectation to determine how long this effort will take based on existing resources. Metro has committed to enhancing our small claims resolution by adding two complete teams which are in place. Metro had to request the CM Consultant to provide these additional resources which will increase staff costs in the short term but may end this entire claim process sooner.

### DRB Claims Schedule

Two claims were heard by DRB in May 2014:

- 1) Mulholland acceleration – Quantum \$4.2M; *DRB ruled that Kiewit was owed \$2.7M. Metro rejected the DRB ruling but has offered Kiewit opportunity to sit down and resolve quantum.*
- 2) Dissipater – Merit; *DRB ruled that Kiewit had merit, the amount to be determined between Metro and Kiewit. Metro has rejected the DRB ruling.*

Two claims were heard in June 2014:

- 1) Traffic Signalization – Merit; *DRB ruled in favor of Kiewit. Metro has rejected this hearing result but will sit down with Kiewit to resolve Quantum.*
- 2) Battery Backup Systems – Merit; *DRB ruled in favor of Kiewit. Metro has not accepted this hearing result but will negotiate quantum as required by contract.*
- 3) Walls 1720/1730/1746 – Quantum \$9M; *Delayed due to Kiewit changing argument. Setting date has been difficult because of the numerous changes by Kiewit to their claim and supporting documents. This issue is scheduled to be heard at the November 2014 DRB meeting.*

Six Claims (90, 91, 93, 96, 98, and 104) which were scheduled to be presented to the DRB in July 2014 were resolved and the July 2014 DRB hearing was canceled.

## PROJECT OVERVIEW & STATUS (Cont'd)

August 2014 DRB was cancelled by mutual agreement of both parties. One (1) claim (PSA 245/542 Lateral Walls at Walls 1720/1730) is scheduled to be heard at the September 2014 DRB meeting.

As stated above, in "Claims" section, we are expanding our effort to resolve claims at a quicker pace.

### **Cost Forecasting**

Project recognizes three (3) key areas of cost increase:

- 1) Labor from Caltrans, Metro, Consultant, and City – This is being caused by the schedule delay and keeping staff onboard longer than anticipated. In addition, Caltrans has been charging significant amount of hours for some time which has little to do with delay but their interpretation of what is needed to perform Independent Quality Assurance.
- 2) Claims – The Contractor has always had Potential Impact letters and has reserved its right to claim areas of the work. But to this point, they have not given us an idea of what they would do with some of these claims. For example, the Signalization claim noted above was rejected 3.5 years ago with no action by Kiewit until 6 months ago. Therefore, Metro adjusted our recent forecast cost-to-complete based on Kiewit's latest indication that they would like to hear almost all claims at the DRB.
- 3) ROW capital billings by Caltrans are reported to Metro after the fact. This was initially reported going over budget according to Caltrans billing documentation. Metro has reconciled these cost issues and it appears there was double counting of these costs.

Forecasting costs for labor is real and we expect the cost of the project to increase with little control over these costs as they are associated with an impact. ROW is being verified by Metro and the control of this is in Caltrans authority to administer, where Metro can only verify that these costs are appropriate. The costs of Claims are dependent on Kiewit requesting a hearing and the outcome of those hearings. The swing on these issues is significant (\$46.4M) and we expect over the next several months a significant dollar amount of claims to be resolved.

### **Cost Recovery**

I-405 Team is putting together a list of issues that are considered improvements, excessive mitigations, or just requests from Caltrans, City, and County Agencies that contributed to the LOP Budget increase. Some of these are well documented, some are not. Examples include the Getty work and ramp improvements (Caltrans), widening of Sepulveda and slide repairs at Sepulveda and Homedale (City), and turn pocket SB Sepulveda at Wilshire (County).

## MANAGEMENT ISSUES

**Concern No. 1:** Align I-405 Closer to the Getty Parking Structure (96" MWD Waterline)

**Status/Action** Mitigation of North Canyon road is in process. Bids were received from only one (1) bidder out of six (6) potential bidders with a value about \$7M higher than Metro's estimate. Something appears to be out of sorts – only one bidder with a very high value. Metro has met with Caltrans ROW/Legal and Metro Legal to determine another approach to completing this work, and several plans have been discussed; Pay Getty to self-perform or have Caltrans issue a separate contract to complete these activities, outside of Kiewit's I-405 Contract. Additionally, Metro is meeting with Kiewit to try to come to a resolution. As of this report, Getty has stated that they will not self-perform the work, and Caltrans has indicated that they will not remove a large stockpile of material that they claim does not belong to Caltrans. Metro is running out of viable options dealing with these issues and the five groups that have many complaints about each other. Metro sent both Caltrans and Getty a letter asking them to remove the stockpile by March 15, 2014 which did not happen. Metro will remove the material and bill both Getty and Caltrans half the expenses each. In regards to the remaining work in North Canyon area, a meeting was held with Kiewit on March 26, 2014 to discuss the scope of work. The Project provided Kiewit with verbal direction that the work would be done on a Time and Material (T&M) basis with change orders forthcoming. After all the back and forth to get this work started over the last year with Metro authorizing time and material (T&M) to reduce risk to Kiewit, Kiewit is now asking for indemnification for design and construction which, for the design part, they may have a point but the construction do not. Metro, as stated earlier in this report, believes that Kiewit will never accomplish this work; therefore we will work with Getty and Caltrans to resolve these issues by requesting Getty to complete.

**Concern No. 2:** Provisional Sums

**Status/Action** There is a significant cost increase in Provisional Sums caused by unknown utility conflicts at bid time. Currently, Project is reviewing Utility scopes to verify their accuracy and identify other issues, such as future changes, that could impact the project later. In addition, the Project is actively pushing Kiewit to forward-price all relocations and stop Time and Material (T&M), except in emergency type situations. Kiewit has exceeded original estimates by double in some cases which has made resolution difficult, but Project is working the issue with Kiewit. Kiewit brings up unsubstantiated Provisional Sum costs at Executive Partnering sessions. Exceeding T&M estimates and lack of timely requests for reimbursement are areas that impact Kiewit and Metro. Without details, Project is left with few options but to wait on information and keep working with Kiewit to resolve the issues.



## MANAGEMENT ISSUES (Cont'd)

### Concern No. 3: Project Cost and Schedule Reassessment

**Status/Action** The current Life-of-Project (LOP) budget stands at \$1,141.4 million. As stated earlier in this report, Claim 86 is outside this discussion, and currently, Project has no way of knowing if any of Claim 86 has merit. Additionally, as noted earlier, Kiewit has been referring to other claims which Project is not aware of, has no idea if they are related to the already denied for merit, or if they are legitimate and could have impact on LOP budget. Recent cost analysis has shown upward pressure on the budget in a number of areas. Project has initiated weekly meetings to establish resolution for this issue.

Areas of potential concern:

- Labor costs for Caltrans, City, and Metro (including Consultants)
- Caltrans ROW costs
- Provisional Sums- reconciling T&M work, additional payment requests from Kiewit
- Additional Claims from Kiewit

### Concern No. 4: Landscaping

**Status/Action** The Project and other Agencies are resolving the tree planting issue for the Project. City and Caltrans have agreed to landscaping, but the mitigation of trees is not resolved. County/City/Caltrans/Metro are working on this issue to determine an understanding on the number of trees to be mitigated.

The City has determined the need for 430 additional trees to be mitigated on the Project. Caltrans has indicated the need for 4000+ additional trees to be mitigated on the Project. Regardless, the Project footprint cannot take the above mentioned number of trees, and Metro has been working with both City and Caltrans staff to address this, to no avail.

The Project, City, and Caltrans have been meeting on this issue continuously and options appear to be as follows:

- 1) Establish responsibility for planting – Kiewit or Metro
- 2) Determine who should do the work: Kiewit, City or Metro/Caltrans
- 3) Mitigation bank
- 4) Determine if it is possible to plant the trees outside the project limits
- 5) Finalizing pricing of this effort is being studied to help narrow down options

### Concern No. 5: Commercial Issues

**Status/Action** Kiewit and Metro have many complaints on commercial issues. Currently, the Project is working on addressing final lists of issues to avoid unnecessary complaints and focus on list of unresolved issues. Metro has regenerated Kiewit's lists of

## MANAGEMENT ISSUES (Cont'd)

commercial issues with Metro Comments incorporated in the document, which reflect that Kiewit has work to do to resolve these issues. In the past, Kiewit has been generous with criticism of Metro, and Metro has consistently pushed back that Kiewit is not accurate. Now that we are tracking Kiewit commercial issues, Kiewit has relented somewhat but we still have ways to go and we are staffing up to resolve these final commercial issues.

Metro has added two additional teams for a total of three teams to deal with claims resolution composed of Contract Administrator, Estimator, Engineer, and support from the Segment Managers. We are, in good faith, continuing with the DRB process even though Metro has minimal confidence in them.

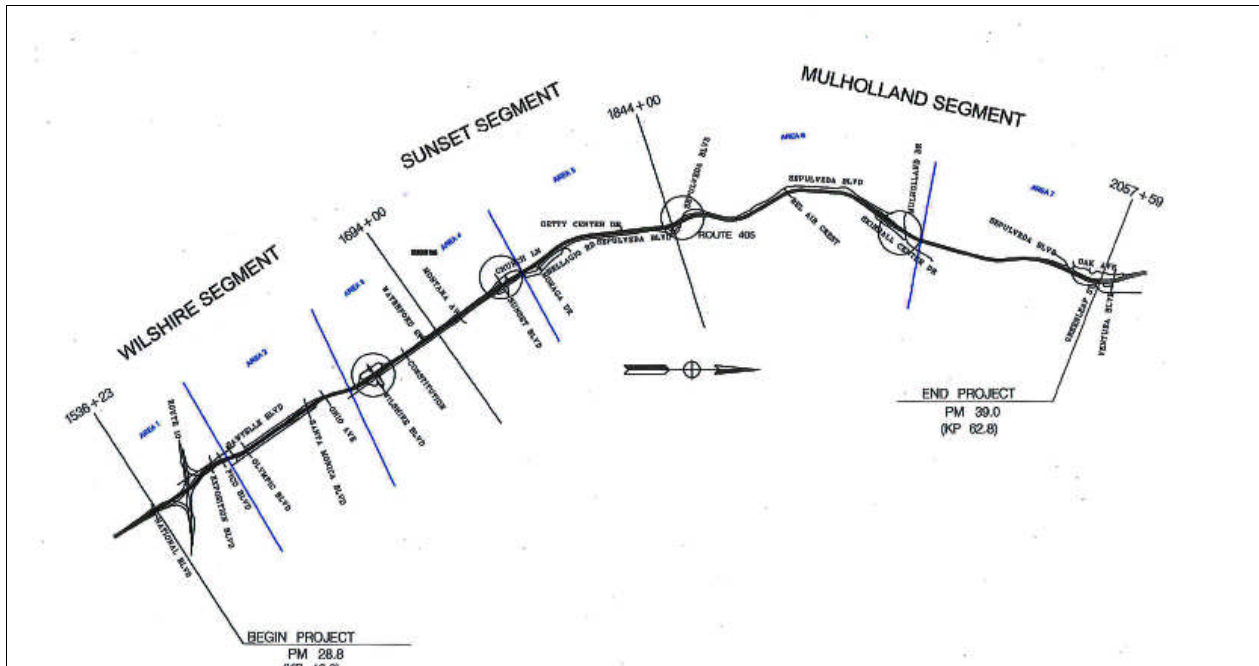
### **Concern No. 6:** Caltrans Staff and Real Estate Cost

**Status/Action** Recent cost analysis has shown a cost overrun for Caltrans staff budget cost and a potential overrun of ROW cost. Caltrans staff costs have been brought up to Caltrans Executive Management in the past and Caltrans has informed Metro on every occasion that staff charges are appropriate. These overruns are ongoing issues and Project is looking for viable solutions to resolve these issues. Project is also re-assessing related potential cost increases.

### **Concern No. 7:** Potential Increases to Staffing Costs

**Status/Action** Delays to the project schedule are potentially expected to increase staffing costs. Studies are underway to forecast the remaining staffing costs based on revised staff demobilization plan.

## PROJECT SCOPE



The I-405 Sepulveda Pass Improvements Project is a Design-Build contract to add a 10-mile High Occupancy Vehicle (HOV) lane on the northbound San Diego Freeway (I-405) between the Santa Monica (I-10) and Ventura (US 101) Freeways. The purpose of the project is to reduce congestion by adding the HOV lane and closing the HOV gap, which will provide a continuous HOV lane from the Orange County Line to the I-405/US-101 interchange. The scope entails an 11-foot half median, one 12-foot HOV lane, a 1-foot HOV buffer, five 12-foot mixed-flow lanes (six 12-foot mixed-flow lanes between Mulholland Bridge and Valley Vista), and a 10-foot outside shoulder.

Most of the freeway widening required for this project occurs along the east side of I-405 along Sepulveda Blvd. between Montana Ave. and Moraga Dr. and between Getty Center Drive and the northbound Getty Center off-ramp. Sepulveda Blvd. is going to be slightly realigned at the relocated southbound I-405 Skirball Center Drive on/off-ramps in order to add a dual-left-turn lane to the on-ramp.

Some freeway widening also occurs along the west side of the freeway between Olympic Blvd. and Waterford Street, and between Bel Air Crest to just north of Ventura Blvd. This entails NB and SB lanes and shoulder standardization.

In order to reduce accidents associated with traffic on the ramps, project scope includes several interchange improvements as detailed below:

## PROJECT SCOPE

- Wilshire Blvd. interchange in both directions  
The northbound on-ramp from eastbound Wilshire Blvd. is grade-separated from the northbound off-ramp to westbound Wilshire Blvd. and from Sepulveda Blvd. The southbound off-ramp to eastbound Wilshire Blvd. is grade-separated from the southbound off-ramp to westbound Wilshire Blvd.
- Northbound I-405 Sunset Blvd. interchange  
The northbound I-405 off-ramp to eastbound Sunset Blvd. is widened to include one more lane. Two exclusive 12-foot lanes on the reconstructed Sunset Blvd. overcrossing and two 12-foot lanes on the on-ramp are provided for the northbound I-405 on-ramp from eastbound Sunset Blvd. In the eastbound direction three 12-foot lanes and in the westbound direction three 11-foot lanes are provided which solves the existing reduction from three lanes to two lanes in the eastbound direction. In both directions, 4-foot shoulders and 5-foot sidewalks as well as a 13-foot median are provided on the Sunset Blvd. overcrossing.
- The irregular northbound I-405 on/off-hook ramps at the Getty Center interchange are reconfigured to a standard diamond interchange to increase stopping sight distances in order to improve safety.
- The southbound I-405 Skirball Center Drive interchange is relocated to form a “T” intersection with Sepulveda Blvd. This eliminates the existing intersection at Skirball Off-Ramp and Skirball Center Drive.
- The southbound Valley Vista On and Off Ramps are realigned due to freeway widening and freeway mainline realignment between SB Valley Vista On/Off Ramps. The realignment will improve the stopping sight distance for the SB Valley Vista Off-Ramp. A third lane will be added to the SB Valley Vista On-Ramp to increase the ramp capacity.
- A second NB lane will be added on Skirball Center Drive between the Skirball Bridge and NB Skirball ramps.
- A NB auxiliary lane and bike lanes will be added on Sepulveda Blvd. on each direction, between the new SB Skirball ramps and Skirball Bridge.

A total of 12 soundwalls and 54 retaining walls within the project limits are constructed at embankments where right-of-way is constrained.






A total of 12 undercrossings within the project limits are widened. Three overcrossings at Sunset Boulevard, Skirball Center Drive, and Mulholland Drive are replaced.

**KEY MILESTONE SCHEDULE SIX-MONTH LOOKAHEAD**

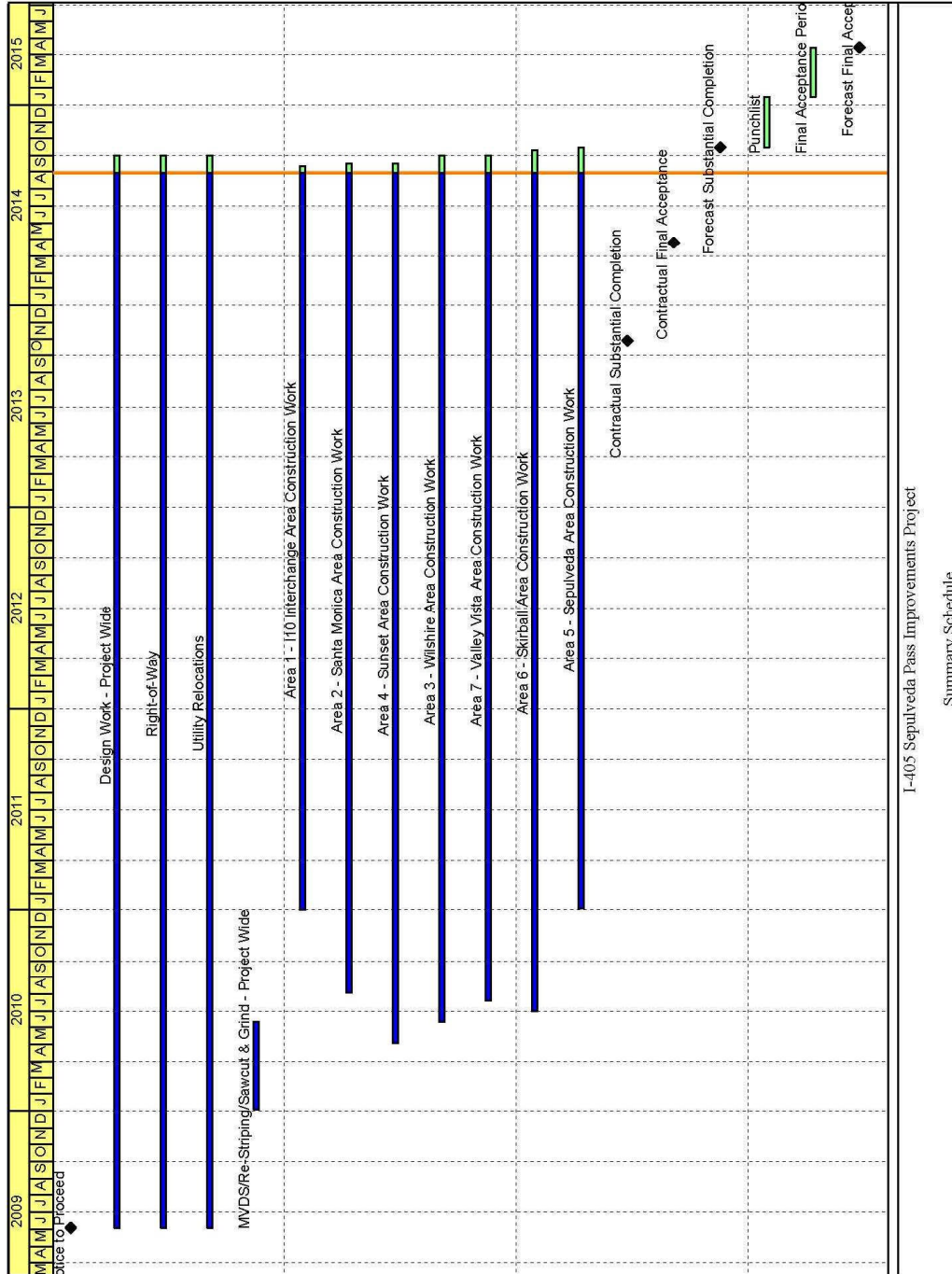
	Milestone Date	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15
Area 7 Valley Vista - Wall 2011 Slope Stabilization Work Begins	8/12/14A	○					
Area 3 Wilshire - GSA Anti-Climb Fence Installation Begins	8/18/14A	○					
Area 6 Skirball - South Bound Sepulveda from Skirball Center to Mission Dump Road Paving Completed.	8/28/14A	○					
Area 6 Skirball - Reconfigure Striping Completed	8/30/14A	○					
Area 3 Wilshire - GSA Anti-Climb Fence Installation Completed	9/5/14		○				
Area 6 Skirball - Installation of Wildlife Fence Begins	9/9/14		○				
Segment 1 - Landscaping Completed	9/12/14		○				
Area 4 Sunset - Substantial Completion	9/15/14		○				
Area 4 Sunset - Punchlist Work Begins	9/16/14		○				
Area 7 Valley Vista - Installation of Wildlife Fence Begins	9/16/14		○				
Area 7 Valley Vista - Substantial Completion	9/17/14		○				
Area 7 Valley Vista - Punchlist Work Begins	9/18/14		○				
Area 6 Skirball - Substantial Completion	10/10/14			○			
Area 6 Skirball - Punchlist Work Begins	10/11/14			○			
Area 5 Sepulveda - Substantial Completion	10/15/14			○			
Project Wide Substantial Completion - Fully Open to Traffic Milestone	10/15/14			○			
Area 5 Sepulveda - Punchlist Work Begins	10/16/14			○			
Area 2 Santa Monica - Punchlist Work Complete	11/15/14				○		

	Metro Milestone		Design/Build		Third Parties Approval
	Caltrans Milestone	*	New Date		FHWA Federal Highway Administration Approval

**KEY MILESTONE SCHEDULE SIX-MONTH LOOKAHEAD**

	Milestone Date	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15
Area 1 I-10 Interchange - Punchlist Work Complete	11/15/14				○		
Area 3 Wilshire - Punchlist Work Complete	11/16/14				○		
Area 4 Sunset - Punchlist Work Complete	12/15/14					○	
Area 6 Skirball - Punchlist Work Complete	12/16/14					○	
Area 7 Valley Vista - Punchlist Work Complete	12/17/14					○	
Area 6 Skirball - Punchlist Work Complete	1/9/15						○
Area 5 Sepulveda - Punchlist Work Complete	1/13/15						○
<p>  <b>Metro</b> Metro Milestone                 Design/Build                 Third Parties Approval   <b>CT</b> Caltrans Milestone                * New Date                 <b>FHWA</b> FHWA Federal Highway Administration Approval         </p>							

## PROJECT SUMMARY SCHEDULE



I-405 Sepulveda Pass Improvements Project

Summary Schedule

## **CRITICAL PATH NARRATIVE**

Based on the current project update, the primary critical path runs through Permanent Traffic Signals at Getty Center including Procurement, Conduit, Equipment, Wire, Boxes, Testing, and Inspection. The path ends with Area 5 Substantial Completion.



## PROJECT COST STATUS

METRO CONSTRUCTION MANAGEMENT DIVISION / CALTRANS  
 COMBINED COST REPORT BY PHASE  
 PERIOD ENDING: AUGUST 2014  
 DOLLARS IN THOUSANDS

PHASE #	PHASE CODE	DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		BUDGET / FORECAST VARIANCE
				PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
0	PA&E	PROJECT APPROVAL & ENVIRO DOCS	22,000	-	21,457	-	21,078	-	21,078	-	21,457	-
1	PSE	PLANS, SPECS, & ENGINEERING	63,100	-	25,560	-	26,040	-	26,012	-	25,632	72
2	RS	RIGHT-OF-WAY SUPPORT	14,000	-	9,543	84	8,567	84	8,567	-	8,076	(1,467)
3	CS	CONSTRUCTION SUPPORT	28,000	-	67,813	2,062	109,262	3,077	103,065	-	85,387	17,574
4	C	CONSTRUCTION	823,900	-	915,241	1,202	911,083	(7,146)	832,535	-	937,456	22,215
9	RC	RIGHT-OF-WAY CAPITAL	83,000	-	99,186	391	63,280	1	54,997	-	60,792	(38,394)
<b>SUBTOTAL PROJECT</b>			<b>1,034,000</b>	<b>-</b>	<b>1,138,800</b>	<b>3,739</b>	<b>1,139,311</b>	<b>(3,984)</b>	<b>1,046,255</b>	<b>-</b>	<b>1,138,800</b>	<b>-</b>
4	C	CONSTRUCTION OF CITY OF L.A.'S REVERSIBLE LANES PROJECT	-	-	2,600	-	1,466	-	1,466	-	2,600	-
4	C	CONSTRUCTION OF CALTRANS DRAINAGE SYSTEM REPAIRS	-	-	-	-	-	-	-	-	-	-
<b>TOTAL PROJECT</b>			<b>1,034,000</b>	<b>-</b>	<b>1,141,400</b>	<b>3,739</b>	<b>1,140,777</b>	<b>(3,984)</b>	<b>1,047,721</b>	<b>-</b>	<b>1,141,400</b>	<b>-</b>

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH JULY 31, 2014.  
 KIEWIT EXPENDITURES ARE ONLY THROUGH MAY 31, 2014 DUE TO INVOICING LAG.

## PROJECT COST ANALYSIS

### Original and Current Budgets

The Original Budget reflects the Metro Board adopted Life-of-Project (LOP) Budget which was approved in April 2009 in the amount of \$1,034 million. An additional \$6.0 million was approved by the Metro Board in February 2011 to add the City of LA's Reversible Lanes Project Scope funded by the City of Los Angeles, along with \$8.0 million approved by the Metro Board to add Caltrans drainage system repairs to be funded by Caltrans. The Metro Board approved a decrease in the amount of \$3.4 M for the Reversible Lanes and an increase of \$26.1M for betterments. This brings the total Current Budget to \$1,070.7 million. In June and July 2013, the Metro Board approved increases of \$70.7 million which brings the Current Budget to \$1,141.4 million. The Project Cost Report has been updated to reflect this increase.

### Current Budget and Current Forecast

The Current Budget is \$1,141.4 million. Trends 1 through 280 have been approved and are included in the Current Forecast of \$1,141.4 million. Trends are being prepared for all Professional Services (including Metro, Caltrans and Stantec staff) and will be included in next month's report. Project Budget Change Requests (PBCR) 1 through 9 have been issued and included in the Current Budget.

### Commitments

The Commitments increased by \$3.7 million this period primarily for PO's for Kiewit contract mods, Professional Services and Metro/Caltrans staff charges. Total Commitments are \$1,140.8 million.

## PROJECT COST ANALYSIS (Contd)

### Expenditures

Expenditures are cumulative through July 2014. The actual period expenditures of \$11.2 million were offset by prior year accrued adjustments of (\$15.2 million) leaving a balance of (\$4.0 million). Expenditures within the construction support phase included Metro and Caltrans project staff and miscellaneous consultant contract services. Costs in the right-of-way categories were for 3<sup>rd</sup> party Metro staff costs and for third party and utility relocation expenditures. Caltrans right-of-way expenditures for the period included staff charges for right-of-way support and Caltrans Real Estate acquisitions. One Kiewit invoice in the amount of \$8.0 million was processed by Metro Accounting this period for the month of May 2014. The \$1,047.7 million in Project Expenditures to date represents 91.8% of the Current Budget.

**FINANCIAL/GRANT STATUS – ORIGINAL SCOPE ACTIVITIES**

AUGUST 2014

STATUS OF FUNDS BY SOURCE

SOURCE	(A)	(B)	(C)	(D)	(D/B)	(E)	(E/B)	(F)	(F/B)
	APPROVED BUDGET	TOTAL FUNDS ANTICIPATED	TOTAL FUNDS AVAILABLE	COMMITMENTS \$	%	EXPENDITURES \$	%	BILLED TO FUNDING SOURCE * \$	%
FEDERAL SAFETEA-LU	\$117.000	\$117.000	\$117.000	\$117.000	100%	\$117.000	100%	\$69.685	60%
FEDERAL ARRA	\$189.900	\$189.900	\$189.900	\$189.900	100%	\$189.900	100%	\$189.900	100%
STATE CMA	\$640.100	\$640.100	\$640.100	\$640.100	100%	\$640.100	100%	\$560.375	88%
STATE TCRP	\$90.000	\$90.000	\$90.000	\$90.000	100%	\$90.000	100%	\$44.577	50%
STATE RSTP	\$10.100	\$10.100	\$10.100	\$10.100	100%	\$8.596	85%	\$7.447	74%
PROPOSITION C 25%	\$13.000	\$88.000	\$13.000	\$88.000	100%	\$2.125	2%	\$2.125	2%
FURTHER COST/REVENUE RECOVERY	\$0.000	\$3.700	\$0.000	\$3.700	100%	\$0.000	0%	\$0.000	0%
<b>SUB TOTAL FUNDS</b>	<b>\$1,060.100</b>	<b>\$1,138.800</b>	<b>\$1,060.100</b>	<b>\$1,138.800</b>	<b>100%</b>	<b>\$1,047.721</b>	<b>92%</b>	<b>\$874.109</b>	<b>77%</b>
CITY OF LA **	\$2.600	\$2.600	\$0.000	\$1.977		\$0.000		\$0.000	
<b>TOTAL FUNDS</b>	<b>\$1,062.700</b>	<b>\$1,141.400</b>	<b>\$1,060.100</b>	<b>\$1,140.777</b>		<b>\$1,047.721</b>		<b>\$874.109</b>	

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH JULY 2014  
 TOTAL FUNDS ANTICIPATED BASED ON JUNE 2013 PROJECT COST AND FUNDING PLAN AND JULY 2013 BOARD REPORT.  
 \* BILLING AMOUNT IS LESS THAN EXPENDITURES AMOUNT DUE TO SYSTEM LAG IN SUBMITTING INVOICES TO CALTRANS.  
 \*\* CONSTRUCTION OF CITY OF LA REVERSIBLE LANES PROJECT.

### STATUS OF FUNDS ANTICIPATED

**FEDERAL SAFETEA-LU:** \$117M is available for drawdown for specific phases of the Project as agreed upon in the Cooperative Agreement between Caltrans and Metro.

**FEDERAL ARRA:** \$189.9M is available for drawdown for specific phases of the Project as agreed upon in the Cooperative Agreement between Caltrans and Metro with consultation with FHWA.

**STATE CMIA:** State Proposition 1B Bond sales provided \$254.7M to the project. Funds are available for drawdown. The remaining balance of \$359.3M has been allocated and are available for drawdown. In December 2012, the California Transportation Commission and Metro Board approved the reprogramming of \$26.1M in CMIA funding to the I-405 Project. Funds are available for drawdown.

**STATE TCRP:** \$42M is available for drawdown for specific phases of the Project as agreed upon in the Cooperative Agreement between Caltrans and Metro. The remaining balance of \$48M has been made available by the CTC and is available for drawdown.

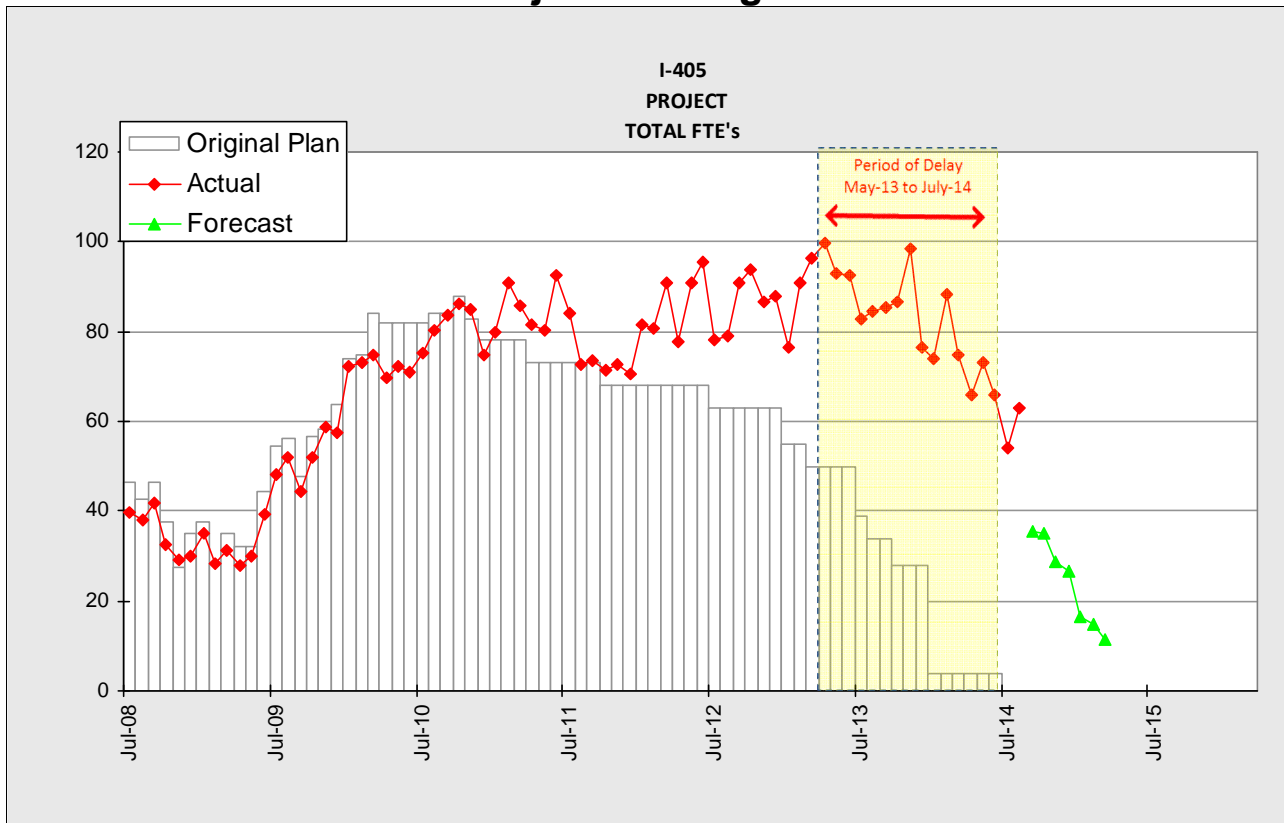
**STATE RSTP:** \$10.1M is available for drawdown for specific phases of the Project as agreed upon in the Cooperative Agreement between Caltrans and Metro.

**PROPOSITION C 25%:** The Metro Board initially approved the allocation of \$13M to the Project. In June 2013, the Metro Board approved an additional allocation of \$75M.

**CALTRANS:** Metro Board authorized staff in July 2012 to execute a Memorandum of Understanding between Caltrans Maintenance and Metro for a total amount of \$8M for the cleaning and the reconstruction of Caltrans drainage. In March 2013, Caltrans informed Metro that the work and funding have been cancelled.

## STAFFING STATUS

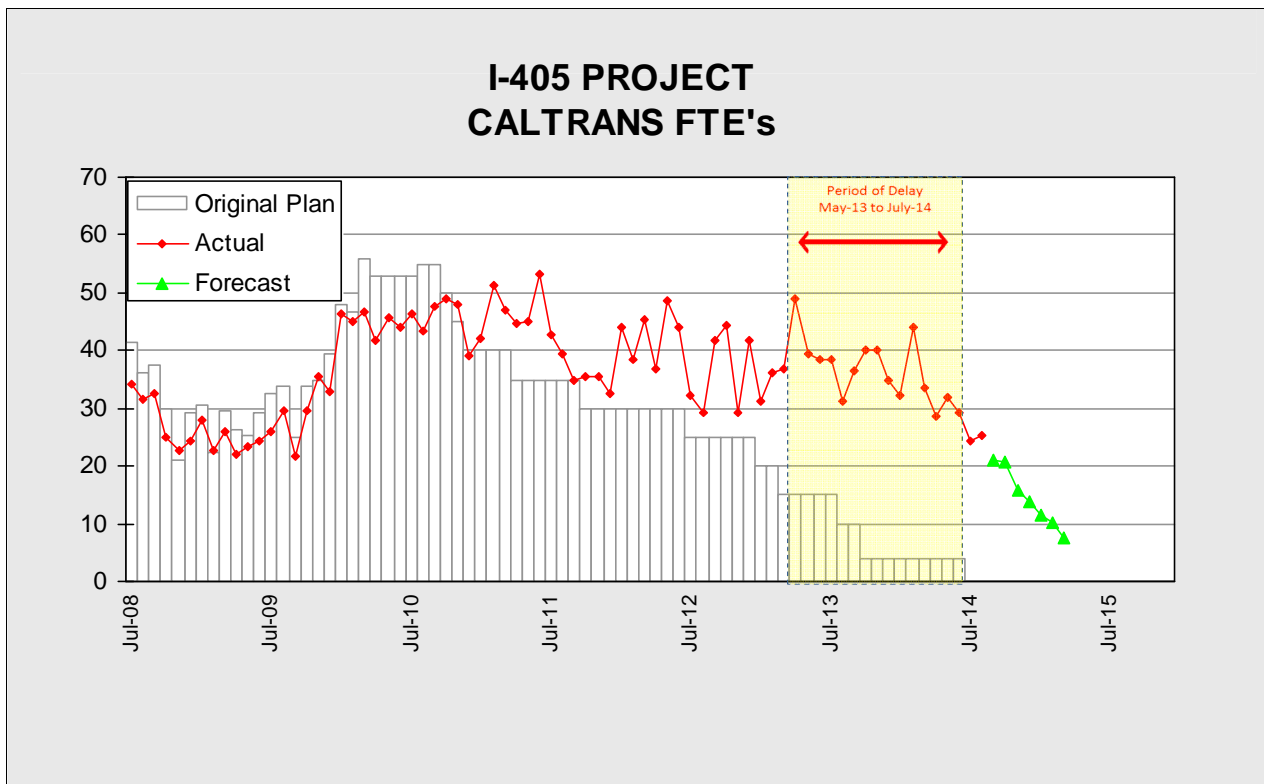
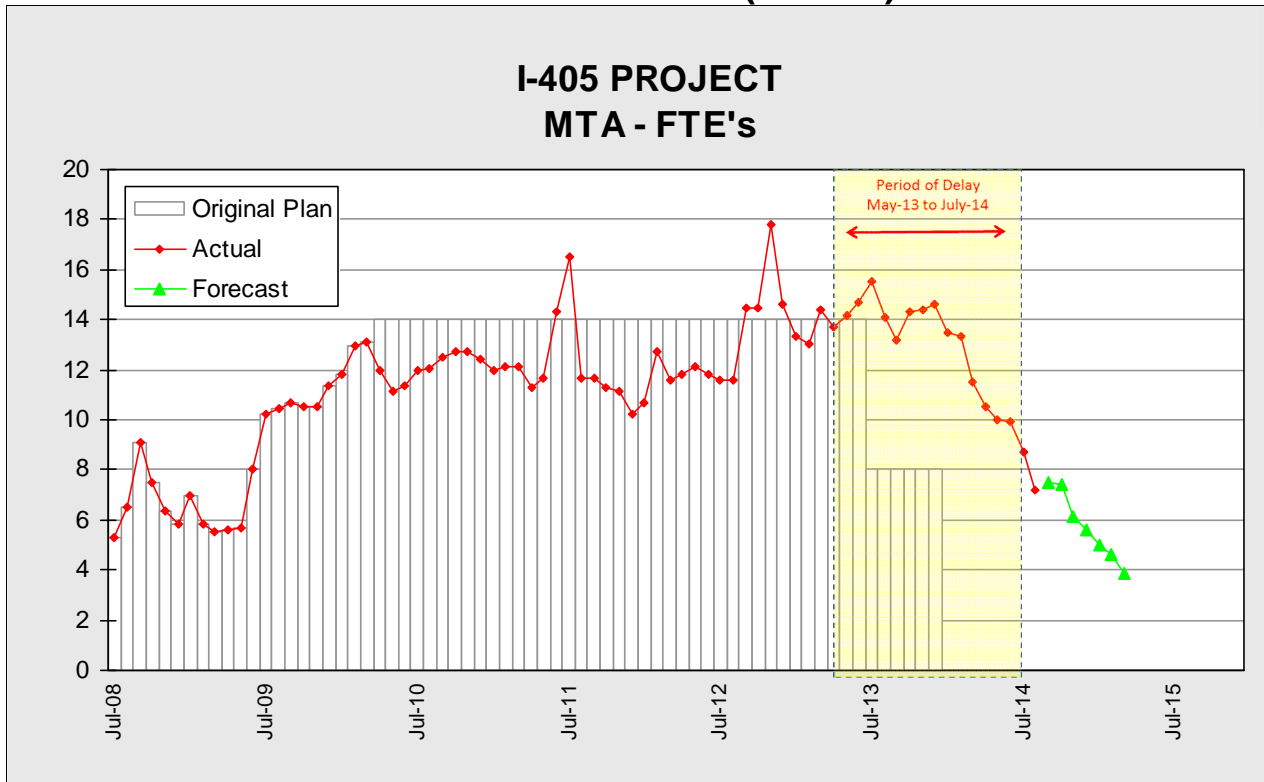
### Total Project Staffing - FTEs



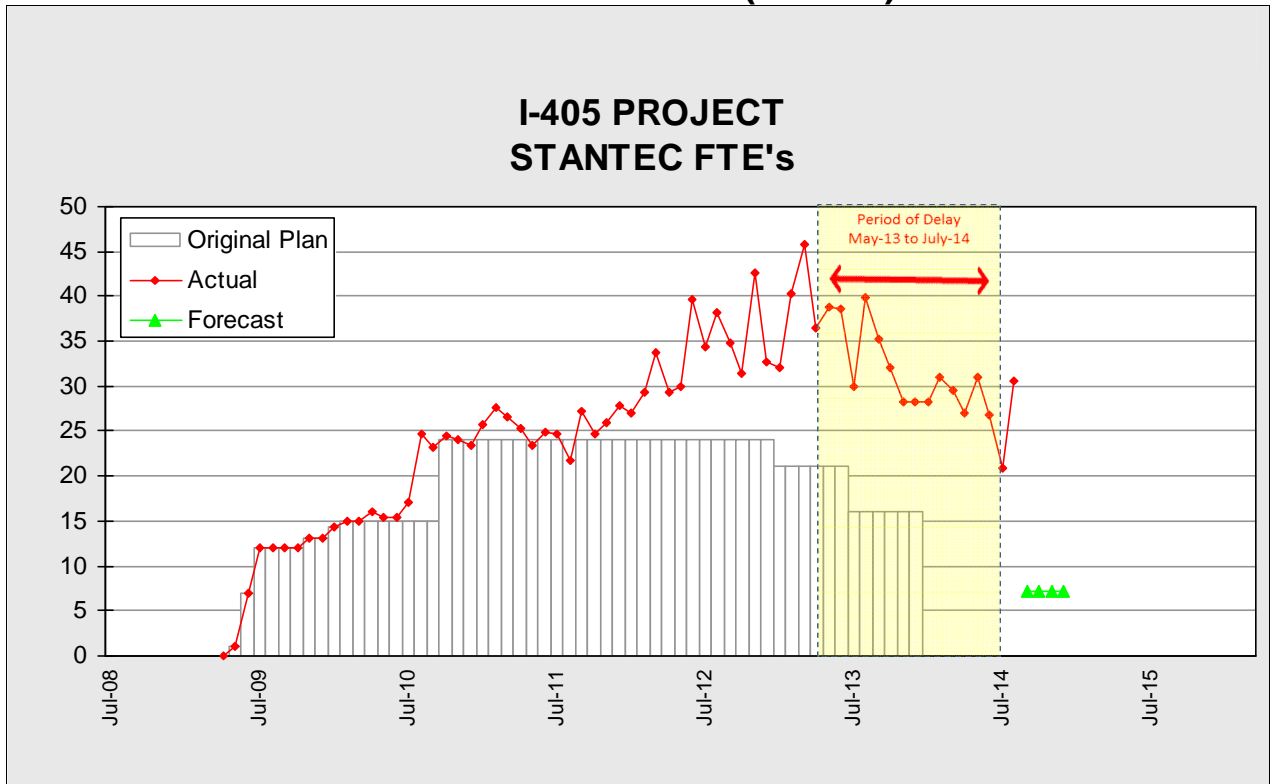
### Total Project Staffing

Due to the project delay, project staffing has been reforecasted through the end of project as shown in the staffing status charts.

### STAFFING STATUS (Cont'd)



### STAFFING STATUS (Cont'd)



## REAL ESTATE STATUS

The Real Estate acquisition process is proceeding and the Project is working on obtaining and releasing the parcels to the Contractor.

- Parcel 79612 (MWD) – Right-of-Entry (ROE) is in place for the SB Skirball Ramps and all works inside the MWD property. Annual renewal is required. Caltrans is in the process of finalizing and acquiring the Permanent ROW requirements.
- ROW Tie-back easements at 1791/1797 – ROE has been provided. Caltrans is in the process of acquiring the permanent rights pending a meeting with the Getty.
- Parcel 79619 (LACMTA) – Construction has been completed. Caltrans HQ is currently reviewing the deeds.
- Permanent and Temporary easements are required at the Leo Baeck Temple to install signal foundation at Getty Center Drive and Sepulveda – An ROE (temporary easement) has been granted and currently Caltrans is in the process of acquiring the permanent easement. Caltrans has submitted a second revision of the ROW contract and is waiting to hear back from Leo Baeck. No delays to construction will occur due to Real Estate.
- Parcel 79559 (GSA) – A temporary construction easement was acquired to do the work at the GSA. Currently the GSA is reviewing the final deeds for final conveyance of the property.



## ENVIRONMENTAL STATUS

- Draft Cooperative Agreement between Caltrans and Santa Monica Mountains Recreation and Conservation Authority to transfer mitigation funds associated with impacts at Getty Villa Trailhead is under review by Caltrans Headquarters.
- Ongoing coordination with Caltrans Design and Kiewit to track and document the completion of the project environmental commitments (avoidance, minimization, and mitigation measures, permits, formal agreements et. al) through the Environmental Commitments Record Implementation Program .
- Ongoing coordination with Caltrans Design and Kiewit to track and document the completion of the project environmental commitments (avoidance, minimization, and mitigation measures, permits, formal agreements et. al) through the Environmental Commitments Record Implementation Program .
- Ongoing coordination with the Resource Conservation District of the Santa Monica Mountains regarding California Department of Fish and Wildlife and Regional Water Quality Control Board permit amendment requirement of .75 acres of riparian mitigation.

## COMMUNITY RELATIONS STATUS

- Distributed construction notices for the following construction activities: drilling soil nails and installing mesh into the slope behind retaining Wall 2011, installation of signals, removal of k-rail and conduct final striping on Sepulveda Blvd., painting steel girders on the Sepulveda undercrossing in Sherman Oaks, conduit repair on the sidewalk of Ventura Blvd, restriping lanes and conducting signal work on Sepulveda Blvd., installation of street light conduit, traffic signals, street light service pull boxes on Sepulveda Blvd., formal walk on the Mulholland Bridge, grind existing asphalt, widening, top lift paving, striping and electrical work, DWP trench, paving and installation of fire hydrant on Sepulveda Blvd., trench, paving, various drainage and electrical activities at Church Island, demolition, removal of pavement and pouring back new white pavement on Getty Center on-ramp and raising manholes, utility work, saw cutting, demolishing pavement and paving on Sepulveda Blvd.
- Coordinated the following work activities: Several operations with the Skirball Cultural Center, Mulholland Education Corridor and Bel Air Crest HOA, maintenance concerns regarding a Kiewit occupied home on Sutton cul-de-sac, Bel Air Crest request for a portable message board, parking restrictions and new signage on southbound Sepulveda Blvd., outreach to homes affected by street light installation and parking restrictions, traffic mitigations for Getty Center Summer Concerts, ADA ramp work with the Getty, future landscaping on top of Chevron gas lines, trash and debris near the Luxe Hotel, fence installation on Thurston Circle, graffiti cleanup on the southbound Skirball off-ramp wall and work on retaining Wall 2011.

## **QUALITY ASSURANCE STATUS**

- Metro Quality participated in:
  - Bi-weekly Quality Team Meetings.
  - Weekly Construction Progress Meetings.
- Daily operation and formal walks to identify and resolve punch list items in preparation for contract closeout.
- Monitor KIWC's TAP Program.

## **SAFETY AND SECURITY STATUS**

- There were no injuries on the Project during August 2014.
- Safety Staff participated in scheduled pre-activity (readiness review) meetings to ensure compliance with approved Work Plans and contract specifications.
- Construction activities are monitored during day and night shifts to ensure contractor compliance with contract specifications
- Safety staff attended weekly Progress Meeting, Foreman's Weekly Safety Meetings and other project meetings to evaluate Contractors Safety Program compliance with contract requirements.
- August Contractor Work Hours (Design & Construction): 107,679
- Contractor – Project to Date Work Hours (Design & Construction through 8/31/2014): 8,503,568
- Total Project to Date Work Hours (Contractor & the IPO Staff through 8/31/2014): 9,286,312
- Project to Date Recordable Injury Rate: 0.7 (Thirty-four Recordable Injuries) (each rate is per 200,000 work hours).
- Project to Date Total Time Away Injury Rate: 0.3 (Fifteen Time Away From Work Injuries).
- Project to Date Total Days Away Rate: 27.2 (1263 Days Away From Work)
- Metro Construction Safety is providing Safety and Security Contract Compliance oversight during both day and night shifts as many as six days a week due to overall project work schedule.

**THIRD PARTY AGREEMENT STATUS**

Third Party	Type of Agreement	Forecast Execution Date	Required Need Date	Status/ Comments
City of Los Angeles	MCA	Cancelled	Cancelled	A stand-alone Master Cooperative Agreement (MCA) between the City of Los Angeles and LACMTA is no longer being pursued because the I-405 will soon be completed and County Counsel advised an MCA is not required.
Los Angeles County Department of Public Works/Los Angeles Flood Control District	MCA	Cancelled	Cancelled	On advice of County Counsel, LACMTA is not required to enter into a Master Cooperative Agreement with the Los Angeles County Department of Public Works/Los Angeles Flood Control District since the I-405 Project is a State Project, not a LACMTA Project.
Utility Owners	Utility Agreements	Various	Various	Caltrans style Utility Agreements (similar to MTA Work Order Authorizations) will be completed as relocation plans are approved for each location.

**CONTRACT STATUS**

<p><b>I-405 Sepulveda Pass Improvements Project</b>  <b>Design/Build Contractor: Kiewit</b></p>	<p><b>Contract No.: C0882</b>  <b>Status as of: August 29, 2014</b></p>																																		
<p><b>Progress/Work Completed:</b>  Major work started/completed this period:  - SB Sepulveda Blvd. from Skirball Center to Mountaingate Drive paving and reconfigure striping completed.  - GSA anti-climb fence installation begins.  - Wall 2011 slope stabilization begins.  - Maintenance during construction - SWPPP cleanout and repairs, graffiti removal from k-rails, trash and debris removal.</p> <p><b>Areas of Concern:</b>  - Completion and approval of Project Fact Sheets.  - Getty Center North Canyon Area.  - Global Maintenance of Traffic (MOT).</p>	<p><b>Major Activities (In Progress):</b></p> <ul style="list-style-type: none"> <li>• Grading and paving.</li> <li>• Permanent lighting installation.</li> <li>• Permanent traffic signals installation.</li> <li>• Getty Center North Canyon parking lot.</li> <li>• Skirball Center Drive NB elbow wall construction.</li> <li>• Irrigation and landscaping.</li> <li>• Project job walks.</li> <li>• Maintenance during construction.</li> </ul> <p><b>Major Activities Next Period:</b></p> <ul style="list-style-type: none"> <li>• Area 3 GSA anti-climb fence installation complete.</li> <li>• Area 6 installation of wildlife fence begins.</li> <li>• Project job walks.</li> </ul>																																		
		<p>Original Baseline</p>	<p>Time Extension</p>	<p>Current Contract</p>	<p>Forecast Completion</p>	<p>Variance Cur-Fcast</p>																													
	<p>Commencement</p>	<p>08/31/09</p>	<p>0</p>	<p>08/31/09</p>	<p>08/31/09</p>	<p>0</p>																													
	<p>Completion</p>	<p>05/31/13</p>	<p>149</p>	<p>10/27/13</p>	<p>10/15/14</p>	<p>-353</p>																													
	<p>Punchlist Complete</p>	<p>08/29/13</p>	<p>149</p>	<p>01/25/14</p>	<p>01/13/15</p>	<p>-353</p>																													
	<p>Final Acceptance</p>	<p>11/27/13</p>	<p>149</p>	<p>04/25/14</p>	<p>04/13/15</p>	<p>-353</p>																													
<p><b>Schedule Summary:</b></p> <table border="0"> <tr> <td>Notice of Award</td> <td>04/29/09</td> </tr> <tr> <td>Notice to Proceed</td> <td>06/02/09</td> </tr> <tr> <td>Original Contract Duration (CD)</td> <td>1640</td> </tr> <tr> <td>Approved Time Extensions (CD)</td> <td>149</td> </tr> <tr> <td>Current Contract Duration (CD)</td> <td>1789</td> </tr> <tr> <td>Forecast Contract Duration</td> <td>2142</td> </tr> <tr> <td>Forecast Final Acceptance</td> <td>04/13/15</td> </tr> <tr> <td>Elapsed Time from NTP (CD)</td> <td>1,915</td> </tr> <tr> <td>Contract Elapsed Time Percent</td> <td>89.4%</td> </tr> </table>	Notice of Award	04/29/09	Notice to Proceed	06/02/09	Original Contract Duration (CD)	1640	Approved Time Extensions (CD)	149	Current Contract Duration (CD)	1789	Forecast Contract Duration	2142	Forecast Final Acceptance	04/13/15	Elapsed Time from NTP (CD)	1,915	Contract Elapsed Time Percent	89.4%	<p><b>Cost Summary:</b> <span style="float: right;"><b>\$ In 000's</b></span></p> <table border="0"> <tr> <td>1. Award Value:</td> <td style="text-align: right;">720,922</td> </tr> <tr> <td>2. Executed Modifications:</td> <td style="text-align: right;">144,490</td> </tr> <tr> <td>3. Approved Change Orders:</td> <td style="text-align: right;">41,336</td> </tr> <tr> <td>4. Current Contract Value (1 + 2 + 3):</td> <td style="text-align: right;">906,748</td> </tr> <tr> <td>5. Incurred Cost:</td> <td style="text-align: right;">848,209</td> </tr> <tr> <td>6. Percent Incurred Cost:</td> <td style="text-align: right;">93.5%</td> </tr> </table>					1. Award Value:	720,922	2. Executed Modifications:	144,490	3. Approved Change Orders:	41,336	4. Current Contract Value (1 + 2 + 3):	906,748	5. Incurred Cost:	848,209	6. Percent Incurred Cost:	93.5%
Notice of Award	04/29/09																																		
Notice to Proceed	06/02/09																																		
Original Contract Duration (CD)	1640																																		
Approved Time Extensions (CD)	149																																		
Current Contract Duration (CD)	1789																																		
Forecast Contract Duration	2142																																		
Forecast Final Acceptance	04/13/15																																		
Elapsed Time from NTP (CD)	1,915																																		
Contract Elapsed Time Percent	89.4%																																		
1. Award Value:	720,922																																		
2. Executed Modifications:	144,490																																		
3. Approved Change Orders:	41,336																																		
4. Current Contract Value (1 + 2 + 3):	906,748																																		
5. Incurred Cost:	848,209																																		
6. Percent Incurred Cost:	93.5%																																		

## CHRONOLOGY OF EVENTS

May 18, 2007	The Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) is issued.
May 22, 2007 to October 1, 2007	Public review of draft EIS.
February 29, 2008	The Final Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) is issued.
March 10, 2008	The Final Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) errata with U. S. General Services Administration (GSA) comments is issued.
March 14, 2008 to April 14, 2008	Public review of Final EIS.
April 25, 2008	Record of Decision (ROD) approved.
October 10, 2008	LACMTA issued Invitation For Bid (IFB) for the project.
February 20, 2009	Project bids opened.
April 23, 2009	LACMTA Board authorized the Chief Executive Officer to award Design-Build Contract C0882 to Kiewit Pacific Co.
April 23, 2009	LACMTA Board approved establishing a budget of \$1.034 billion for project 405523.
April 23, 2009	LACMTA awarded Contract C0882 to Kiewit Pacific in the amount \$694,156,000 to include Schedules A, C, and H (Option 4).
April 29, 2009	LACMTA issued a revised NOA to Kiewit Pacific in the amount \$720,922,000 to include Schedules A, C, E (Option 1), F (Option 2), G (Option 3), and H (Option 4).
June 2, 2009	LACMTA issued Notice to Proceed to Kiewit Pacific for the Design-Build Contract C0882.
August 31, 2009	Contract Commencement Date.
September 24, 2009	Kiewit Pacific submitted the Project Baseline Schedule.
October 14, 2009	Project Design Quality Management Plan approved.

## CHRONOLOGY OF EVENTS (Cont'd)

December 14, 2009	Project Quality Management System approved.
January 20, 2010	Project Baseline Schedule was approved.
January 27, 2010	Roadway Restriping commenced.
March 12, 2010	Major Project Permits were obtained; Permit 401 – Water Quality Control Board, Permit 404 – U.S. Army Corps of Engineers, and Permit 1600 – California Department of Fish & Game.
May 31, 2010	The Project completed one year without a Recordable Injury.
July 23, 2010	Sunset Bridge major demolition of the south side top deck and center column.
August 2, 2010	Commenced construction on Bridge 4a/b.
August 16, 2010	Commenced ExxonMobil 16" utility relocation at Bridge 16.
August 20, 2010	Operating Engineers Local 12 initiate labor action by striking.
August 24, 2010	Completed ductbank work on Sepulveda for DWP utility undergrounding.
August 24, 2010	Commenced construction of Walls 1720/1730.
August 24, 2010	ITS Backbone is cut.
September 7, 2010	DWP started pulling wires for utility undergrounding on Sepulveda.
September 9, 2010	Operating Engineers Local 12 Labor action is settled and strike ends.
September 13, 2010	Completed the excavation of Roadway at 1685/1691.
September 15, 2010	Completed the removal of Wall 1665.
September 18, 2010	Completed installation of Temporary walkway at Skirball Bridge.
September 28, 2010	Pioneer access to Sunset on-ramp, Bridge 15 Abutment 1.

### CHRONOLOGY OF EVENTS (Cont'd)

October 12, 2010	Began excavation of Sunset Bridge 16 Abutment 1 Footing.
October 12, 2010	Began demolition of Skirball Bridge 21.
October 15, 2010	Completed demolition Skirball Bridge 21.
October 15, 2010	Began driving piles at Santa Monica Bridge 4.
October 15, 2010	Installed Beams at Sunset Bridge 16, Bent #2.
October 15, 2010	Began driving piles on Santa Monica Bridge 4.
October 19, 2010	Completed demolition of Sunset Bridge 16, Abutment 4.
October 21, 2010	Installed beams at Sunset Bridge 15 On Ramp, Abutment 1.
October 22, 2010	Began Demolition of Sunset Bridge 16, Abutment 1.
October 22, 2010	Installed Piles at Wall 1720.
October 25, 2010	Began Excavation at Walls 1685/1691.
October 28, 2010	Began the relocation of overhead power lines at Ohio Ave Bridge 5.
October 28, 2010	Clear and grub area at Wall 1746.
November 12, 2010	Completed demolition of soundwall, barrier rail, and overhang at Bridge 13.
November 15, 2010	Completed installation of SOE at Abutment 1 NB at Bridge 4 Santa Monica.
November 15, 2010	Completed demolition of existing ExxonMobil 16" Oil Pipeline.
November 17, 2010	Completed excavation of CIP at Wall 1640.
November 18, 2010	Began excavation at Wall 1635.
November 29, 2010	Began Excavation at Bridge 13.
November 30, 2010	Began relocation of SCE underground vault.



### CHRONOLOGY OF EVENTS (Cont'd)

December 7, 2010	Began driving piles at Bridge 13 - Montana Avenue UC.
December 14, 2010	Completed Pile driving at Abutment 1 Bridge 16 Sunset OC.
December 15, 2010	Completed the installation of new power poles and raised the utility wires at Bridge 5 - Ohio Avenue.
December 16, 2010	Completed piles at abutments 1 and 2 for Bridge 13 Montana Ave UC.
December 17, 2010	Began installation of SOE beams at Bridge 15 Sunset on-ramp.
January 3, 2011	Began Construction of Piers and Columns at Bridge 16.
January 11, 2011	Began Construction Activities at Bridge 5.
January 13, 2011	Began Construction Activities at Bridge 12.
January 17, 2011	Began Installation of Footings and Pile Caps at Bridge 16.
February 1, 2011	Began Construction Activities at Bridge 21 – Skirball Center Drive.
February 14, 2011	Began Field Work relocating Storm Drain at Veterans Administration (VA).
February 21, 2011	Began Field Work relocating Chevron Oil Pipeline at Bridge 23 – Sepulveda UC.
February 23, 2011	Began Construction Activities at Bridge 15 – Sunset On-Ramp.
February 25, 2011	Completed Drilling and Placing Beams at NB Abutments 1 & 2 at Bridge 12 – Constitution UC.
February 28, 2011	Completed Pouring Columns at Bent 3, Bridge 16 – Sunset OC.
March 2, 2011	Began Field Work relocating LADWP 4" Waterline at Valley Vista.
March 2, 2011	Completed Driving 14" Square Piles at Bridge 3 Abutment 1.
March 15, 2011	Began Field Work relocating So Cal Gas Line at Wall 1746.

### CHRONOLOGY OF EVENTS (Cont'd)

March 18, 2011	Completed Setting Soldier Beams at Bridge 15 Bent 2 & 3 Mainline.
March 23, 2011	Began Field Work Encasing Sewer Lines 401-403 at Walls 1720, 1730 and 1746.
March 31, 2011	Completed Setting and Backfilling Wall Panels at Wall 1942B.
April 4, 2011	Began Installation of Bent 2 & Bent 3 Columns at Bridge 21 Skirball Center Drive OC.
April 5, 2011	Began Installation of Storm Drain at Walls 1720 and 1730.
April 10, 2011	Completed Installation of Girders at Bridge 13 Montana Ave UC.
April 22, 2011	Completed Bridge 9 Wilshire Blvd. UC demolition for widening.
April 25, 2011	Began Work Relocating Shell Oil Line at Bridge 23 Sepulveda UC.
May 2, 2011	Began Relocation of Area 2 Sewer Lines # 201-203.
May 6, 2011	Completed Setting Girders at Southside of Bridge 16 Sunset OC.
May 11, 2011	Began Construction Work on Bridge 3 Olympic Blvd.
May 25, 2011	Completed Tie Back Installation at Walls 1720 and 1730.
June 3, 2011	Completed Girder Installation on the North Side of Bridge 21 Skirball OC.
June 13, 2011	Began Installation of Precast Deck Panels on Bridge 16 Sunset OC.
June 24, 2011	Began Demolition of Existing Walls 1720 and 1730 along Sepulveda Blvd.
June 30, 2011	Completed Installation of Precast Deck Panels on Bridge 16 Sunset OC.

### **CHRONOLOGY OF EVENTS (Cont'd)**

July 6, 2011	Began Relocation of LADWP Overhead Power Lines at Mulholland Bridge.
July 13, 2011	Completed installation of Void Slab Deck at Bridge 12 Constitution UC.
July 14, 2011	Completed Pouring Diaphragms 1, 2, and 3 at Bridge 21 Skirball OC.
July 16, 2011	Began Demolition of South Side of Bridge 22 Mulholland OC.
July 17, 2011	Completed Demolition of South Side of Bridge 22 Mulholland OC.
July 20, 2011	Completed Installation of Pre-cast Girders at Bridge 4SB Santa Monica UC.
July 26, 2011	Began Driving Piling at Bridge 8 NB from EB Wilshire, Bent 8.
August 1, 2011	Began installation of forms and rebar for Top Deck at Bridge 21, Skirball Center Drive.
August 3, 2011	Began work on the Interchange Ramp from Westbound I-10 to Northbound I-405.
August 6, 2011	Began work installing Top Deck at Bridge 4 Santa Monica Blvd.
August 24, 2011	Completed pouring the Top Deck at Bridge 13, Montana Ave.
August 26, 2011	Completed installation of Footing & Pile Cap/Abutment-Wingwalls/Bridge Bearing Bridge 3 Olympic Blvd.
August 31, 2011	Completed pouring the Top Deck at South Side of Bridge 16, Sunset Blvd.
September 15, 2011	Completed installation of Top Deck and Diaphragm on Bridge 16, Sunset Blvd.
September 16, 2011	Completed pouring the Top Deck at Bridge 21, Skirball Center Drive.
September 23, 2011	Began construction of LADWP Power Utilities undergrounding ductbank between Stations 1740 and 1760.

## CHRONOLOGY OF EVENTS (Cont'd)

September 27, 2011	Completed pouring curb and gutter on west side of Bridge 16, Sunset Blvd.
September 29, 2011	Completed pouring Lateral Retaining Walls #6, #7, and #8 at Retaining Wall 1720.
October 14, 2011	Completed pouring footing for Bent 2 at Bridge 22, Mulholland Drive.
October 17, 2011	Began installation of Bent 2 Forms at Bridge 22, Mulholland Drive.
October 18, 2011	Began construction activities at Bridge 18, Bel Air Crest.
October 22, 2011	New Bridge 16, Sunset Blvd. South Side opened to vehicle traffic.
October 27, 2011	Completed pouring Abutment 1 at Bridge 22, Mulholland Drive.
November 1, 2011	Began demolition of Bridge 16 Sunset Blvd. north side.
November 7, 2011	Began installation of CIDH Piles for I-10 Connector.
November 9, 2011	Completed demolition of Bridge 16 Sunset Blvd. north side.
November 22, 2011	Received the VA License to Enter agreement.
November 22, 2011	Completed pouring Bridge 22 Mulholland OC Bent 2 Columns.
November 22, 2011	Completed pouring Bridge 5 Ohio NB Abutments 1 & 2.
December 1, 2011	MSE Wall 1897 along NB Sepulveda Blvd. south of Skirball Center Drive ruptures. Kiewit stops work on all MSE Walls throughout the project and begins investigation into MSE Wall deficiencies.
December 1, 2011	Began 2 <sup>nd</sup> pouring of Bridge 22 Mulholland Abutment 1.
December 8, 2011	Completed subgrade for NM Connector.
December 17, 2011	Began installation of Precast Girders at Bridge 5A Ohio Ave.
December 19, 2011	Began installation of falsework beams for Bridge 15 Sunset on-ramp.

## CHRONOLOGY OF EVENTS (Cont'd)

December 19, 2011	Began driving piles for Bridge 16 Sunset Blvd. Bent 3.
January 4, 2012	Began De-construction of MSE Wall 1738A.
January 9, 2012	Began De-construction of MSE Wall 1665.
January 16, 2012	Completed demolition of the I-405 median barrier at Mulholland Bridge and began erection of Falsework.
January 19, 2012	Began pouring footings for Soundwalls at Retaining Walls 1720 and 1730.
January 20, 2012	Completed pouring column # 1 @ Sunset Blvd. Bridge.
January 25, 2012	Began De-construction of MSE Wall 1634.
January 27, 2012	Kiewit stopped work on all Soil Nail Walls due to developing cracks, pending investigation.
January 31, 2012	Poured columns at Bel Air Crest Bridge.
February 13, 2012	Construction activities are started in Area 5 at Bridge 18 Getty Center UC and Bridge 19 Sepulveda UC.
February 15, 2012	De-construction of MSE Wall 1738A at Sunset NB Off-Ramp is completed.
February 18, 2012	Piers and Columns are poured for Bridge 16 Sunset Blvd.
February 18, 2012	LADWP completes installation of new underground cabling in ductbank along Sepulveda Blvd and Wilshire Ave. Final paving of Sepulveda trench is completed.
February 28, 2012	Kiewit submits notification to LACMTA that all remaining MSE Walls, with the exceptions of completed MSE Walls 1619 and 1942B will be de-constructed.
March 2, 2012	Full NB Freeway Closure at Mulholland Bridge to install Falsework Girders.
March 6, 2012	Caltrans identifies a potential Safety Concern during Mulholland Bridge Falsework Girder Installation on the SB Side and orders girders to be removed. Caltrans issues Stop Work Order pending review of Girder Installation Process.

## CHRONOLOGY OF EVENTS (Cont'd)

March 8, 2012	Caltrans completes review of Girder Installation Process and authorizes resumption of installation of Falsework Girders at Mulholland Bridge. SB Side Falsework Girders are installed.
March 22, 2012	Concrete Girders are installed at Bridge 5B Ohio UC SB side.
April 7, 2012	Kiewit completes installation of Mulholland Bridge (South Side) Sheet Decking and begins installation of structural rebar.
April 10, 2012	Kiewit resumes construction of MSE Walls. Construction of Wall 1672 new leveling pad is started.
April 14, 2012	Kiewit begins installation of top deck and diaphragm structural rebar at Bridge 4 Santa Monica UC.
April 20, 2012	Kiewit pours concrete top deck, curb, and gutter at Bridge 9 Wilshire UC.
May 1, 2012	Begin installation of Concrete girders at Bridge 16 Sunset OC North Side.
May 4, 2012	Kiewit resumes construction of MSE Walls using an approved new Wall Panel Vendor and Construction Plan. Construction begins at MSE Wall 1672 along Sepulveda Blvd. north of Wilshire Blvd.
May 4, 2012	Completion of installation of Concrete Girders at Bridge 16 Sunset OC North Side.
May 18, 2012	Construction of MSE Wall 1808 along Sepulveda Blvd. north of Getty Center Drive is started using new Wall Panels and Construction Plan.
May 24, 2012	Structural construction is started within the GSA Property. Construction of Bridge 7 Bent 3 is started.
May 31, 2012	Construction of MSE Wall 1686 along Sepulveda Blvd. north of Constitution Drive is started using new Wall Panels and Construction Plan.

## CHRONOLOGY OF EVENTS (Cont'd)

June 2, 2012	NW1 Ramp from WB I-10 to NB I-405 is opened for traffic.
June 6, 2012	GSA Microwave Security System is installed.
June 7, 2012	Bridge 7 NB I-405 to EB Wilshire Off-ramp Columns for Bents 3 and 4 are constructed on GSA Property.
June 22, 2012	90-Day Shutdown of Bridges 10 & 11 NB I-405 to WB Wilshire and WB Wilshire to NB I-405 commenced.
June 27, 2012	Demolition of existing Bridges 10 & 11 is completed.
July 15, 2012	Bridge 21 Skirball Center Drive, North side, is opened to traffic.
July 20, 2012	Bridge 22 Mulholland Drive, Top Deck is poured.
July 21, 2012	Bridges 10 & 11 Pre-cast Girders are installed.
July 30, 2012	Bridge 21 Skirball Center Drive, South Side, Demolition is started.
August 3, 2012	Bridge 21 Skirball Center Drive, South Side, Demolition is Completed.
August 10, 2012	Bridges 10 & 11 Top Deck is Poured.
August 23, 2012	Bridge 16 Sunset Blvd. Top Deck is Poured.
August 31, 2012	Bridges 10 & 11 are Opened for Traffic.
September 4, 2012	Bridge 7 Falsework installation begins.
September 24, 2012	Bridge 16 is fully opened for traffic.
September 24, 2012	Bridge 22 South Side is opened for traffic.
September 28, 2012	Began demolition of the north side of Mulholland Bridge 22.
September 30, 2012	Complete demolition of the north side of Mulholland Bridge 22.
October 1, 2012	Began construction activities for Bridge 17, Church Lane UC.

## CHRONOLOGY OF EVENTS (Cont'd)

October 1, 2012	Began construction activities for Bridge 22, Mulholland OC north side.
October 15, 2012	MSE Wall 1897 reconstruction is completed.
October 19, 2012	Bridge 15 Sunset NB On-ramp, top deck is poured.
October 23, 2012	RW 1720 punch list work begins.
November 4, 2012	Re-aligned Sepulveda Blvd. to the east at Bronwood Apartments.
November 6, 2012	Begin construction activities for Bridge 14 Sunset NB Off-ramp.
November 8, 2012	Bridges 6A and 6B SB Off-ramp to EB Wilshire abutments poured.
November 28, 2012	Completed re-striping and realignment of Sepulveda Blvd. to the east at walls 1720 & 1730.
November 29, 2012	Completed pouring Top Deck at Bridge 1 I-10 Connector.
December 4, 2012	Completed installation of Pre-Cast Girders at Bridge 2 Exposition.
December 6, 2012	Sepulveda Blvd. is restriped and realigned from Montana Avenue to Bridge 14 NB Sunset Off-Ramp.
December 20, 2012	Completed pouring Top Deck at Bridge 18 Getty Center Drive NB and SB.
December 21, 2012	Completed girder installation at Bridge 6A and 6B SB Wilshire Off-Ramp.
January 4, 2013	False work for Bridge 7 is completed allowing construction of CIP Box Girder to progress from abutment to abutment.
January 4, 2013	Completed installation of 10' diameter CIDH Piles for Bridge 14 Construction of foundation piles is started.
January 15, 2013	Completed pouring outside stems for Bridge 8.



## **CHRONOLOGY OF EVENTS (Cont'd)**

January 23, 2013	Completed installation of top deck metal decking for Bridge 6A.
February 3, 2013	Opened new SB 405 On-ramp from Skirball Center Drive.
February 11, 2013	Began installation of Falsework for Mulholland Bridge north side.
February 21, 2013	Opened new SB 405 On-ramp from EB Wilshire Blvd.
February 22, 2013	Opened new NB 405 On-ramp from Cotner Ave. at Olympic Blvd.
March 8, 2013	Began 14-day closure of SB I-405 to WB Wilshire Off-ramp to allow construction of new Off-ramp.
March 16, 2013	Completed construction of new SB I-405 to WB Wilshire Off-ramp and re-opened the Off-ramp 6 days early.
March, 22, 2013	Began forming bottom deck of north side of Bridge 22, Mulholland OC.
March 25, 2013	Opened new Bridge 1, I-10 EB to I-405 NB, and began demolition of existing Bridge 2 Span 4 to Abutment 9.
April 6, 2013	Completed paving on NB side of I-10 to I-405 Interchange Area.
April 9, 2013	Completed Bridge 22, Mulholland Dr. OC, Falsework installation.
April 18, 2013	Completed Bridge 7, NB 405 to EB Wilshire Off-ramp, Top Deck installation.
May 3, 2013	Completed NB I-405 paving activities in the Santa Monica Area.
May 23, 2013	Change Order 105.00 is issued extending the Substantial Completion Deadline by 149 days to October 27, 2013.
May 24, 2013	General Purpose Lane opened in Segment 1 from the I-10 to the Santa Monica Area.
May 30, 2013	Began removal of Falsework at Bridge 7 NB I-405 to EB Wilshire Off-ramp.

## CHRONOLOGY OF EVENTS (Cont'd)

June 11, 2013	Additional NB General Purpose Lane is opened to traffic from Santa Monica Blvd. to Wilshire Blvd.
June 20, 2013	Completed work on Bridge 7, NB 405 to EB Wilshire Off-ramp.
June 21, 2013	Completed installation of girders on Bridge 21, Skirball Center Drive OC.
June 22, 2013	Bridge 15, Sunset Blvd. to NB 405 On-ramp, opened to traffic.
June 26, 2013	Bridge 7, NB 405 to EB Wilshire Off-ramp, opened to traffic.
June 29, 2013	Bridge 22, Mulholland OC, completed pouring Top Deck.
July 3, 2013	Bridge 7, NB 405 to EB Wilshire Off-ramp, demolition of existing bridge is completed.
July 18, 2013	Bridge 22, Mulholland OC, Falsework removal is started.
July 30, 2013	Area 2, Santa Monica Area, Median paving is completed.
August 2, 2013	Bridge 14 Sunset NB Off-ramp, 120-Day Closure Window begins.
August 4, 2013	Bridge 14 Sunset NB Off-ramp, Demolition of existing bridge is completed.
August 15, 2013	Bridge 17 Sepulveda UC, Top Deck concrete is poured.
August 22, 2013	Bridge 8 EB Wilshire to NB 405 On-ramp, 90-Day Closure Window begins.
August 22, 2013	Bridge 8 EB Wilshire to NB 405 On-ramp, Demolition of existing bridge is completed.
Sept. 12, 2013	Bridge 14 Sunset Off-ramp, steel girder installation over Sepulveda Blvd. is started.
Sept. 14, 2013	SB I-405 to Valley Vista Off-ramp to EB Wilshire, new Off-ramp is opened to traffic.
Sept. 23, 2013	Bridge 6A and 6B SB I-405 Off-ramp to EB Wilshire, new Off-ramp is opened to traffic.

### **CHRONOLOGY OF EVENTS (Cont'd)**

Sept. 24, 2013	Bridge 14 Sunset Off-ramp, steel girder installation over Sepulveda Blvd. is completed.
Sept. 30, 2013	SB I-405 to Skirball Center Drive Off-ramp, new Off-ramp is opened to traffic.
October 7, 2013	Bridge 8 EB Wilshire Blvd. to NB I-405 On-ramp, top deck and barrier concrete pour completed.
October 8, 2013	Bridge 2 Exposition Avenue UC, top deck concrete pour completed.
October 25, 2013	Bridge 23 Sepulveda Blvd. UC, top deck concrete pour completed.
October 26, 2013	Bridge 21 Skirball Center Dr. OC, top deck concrete pour completed.
October 30, 2013	Bridge 8 EB Wilshire Blvd. to NB On-ramp falsework removed.
November 2, 2013	SB I-405 On-ramp from EB Wilshire Blvd. is opened to full capacity traffic.
November 17, 2013	Bridge 8 EB Wilshire Blvd. to NB I-405 On-ramp is opened to traffic. 90-day closure window is ended.
November 23, 2013	Bridge 14 I-405 NB Off-ramp to Sunset Blvd. Falsework is removed.
November 24, 2013	Bridge 21 Skirball Center Drive OC falsework is removed.
November 25, 2013	Bridge 14 I-405 Off-ramp to Sunset Blvd. is opened to traffic. 120-day closure window is ended.
December 14, 2013	Bridge 17 Church Lane UC, Top Deck Concrete is poured.
December 17, 2013	RW 1720 & 1730, Shotcrete installation is completed.
December 18, 2013	Bridge 22, Mulholland OC, Bridge is opened to full traffic capacity.
December 23, 2013	Bridge 2, Exposition UC, Bridgework is completed.

## CHRONOLOGY OF EVENTS (Cont'd)

January 7, 2014	RW 1730, artwork installation is started.
January 21, 2014	Bridge 21 Skirball Center drive, approach slabs completed.
January 23, 2014	Bridge17 Church Lane, approach slabs completed.
January 24, 2014	Bridge 19 Sepulveda Blvd., bridge work completed.
February 4, 2014	Bridge 23, Sepulveda Blvd., bridge work completed.
February 14, 2014	80-hour lane reduction begins.
February 18, 2014	80-hour lane reduction ends.
February 18, 2014	Area 5-7 median barrier installation and AC grind and overlay, planned during 80-hour lane reduction, completed.
March 4, 2014	Getty Center North Canyon Road Construction begins with drainage system installation.
March 5, 2014	Walls 1720 and 1730 Artwork stenciling completed.
March 12, 2014	Area 6 Skirball Center NB I-405 traffic switched to new median lane.
March 15, 2014	Area 4 Sepulveda Blvd. SB paving replacement from Montana Avenue to Church Lane begins.
March 21, 2014	Bridge 21, Skirball Center Dr., additional lane, total of 2 SB lanes and 1 NB Lane, opened to traffic.
April 11, 2014	Bridge 9, NB I10 to Wilshire Blvd. HOV Lane opened to traffic.
April 28, 2014	NB I-405 I-10 to Wilshire Blvd. HOV Lane opened to traffic.
May 23, 2014	NB I-405 HOV Lane fully opened to traffic.
May 31, 2014	SB I-405 General Purpose Lanes from Getty Center to Wilshire Area, paving and permanent delineation completed.
June 1, 2014	Area 4 Sunset, Mainline K-rail removal completed.
June 1, 2014	Area 5 Sepulveda, Mainline Pavement grind and overlay and K-rail removal completed.

**CHRONOLOGY OF EVENTS (Cont'd)**

June 25, 2014	Area 7, Valley Vista, cul-de-sac paving completed.
July 3, 2014	SB I-405 final lane configuration completion.
July 10, 2014	Wall 1746 slope paving completed.
July 11, 2014	Walls 1720 and 1730 slope paving stain completed.
July 16, 2014	Area 2 LABSL lighting final inspection completed.
August 12, 2014	Slope stabilization behind Wall 2011 begins.
August 18, 2014	GSA anti-climb fence installation begins.
August 30, 2014	SB Sepulveda from Skirball Center Drive to Mountaingate Drive paving and striping completed.

## CONSTRUCTION PHOTOGRAPHS



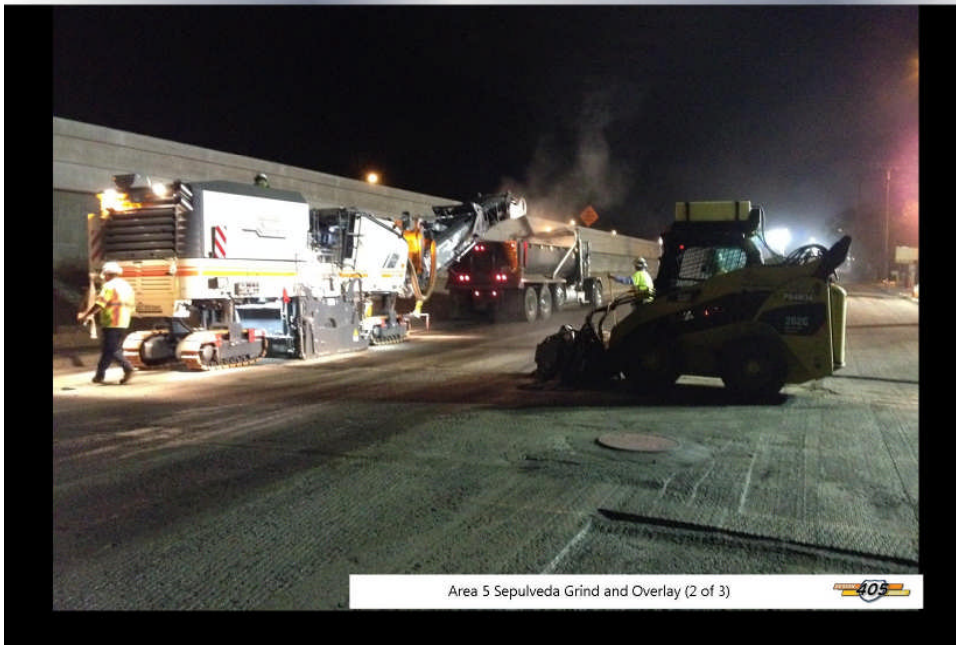
### AUGUST 2014 PROGRESS PHOTOS



Area 5 Sepulveda Grind and Overlay (1 of 3)



### AUGUST 2014 PROGRESS PHOTOS



Area 5 Sepulveda Grind and Overlay (2 of 3)



## CONSTRUCTION PHOTOGRAPHS



### AUGUST 2014 PROGRESS PHOTOS



Area 5 Sepulveda Grind and Overlay (3 of 3)



### AUGUST 2014 PROGRESS PHOTOS



Area 6 Sepulveda Roadway Paving (1 of 3)

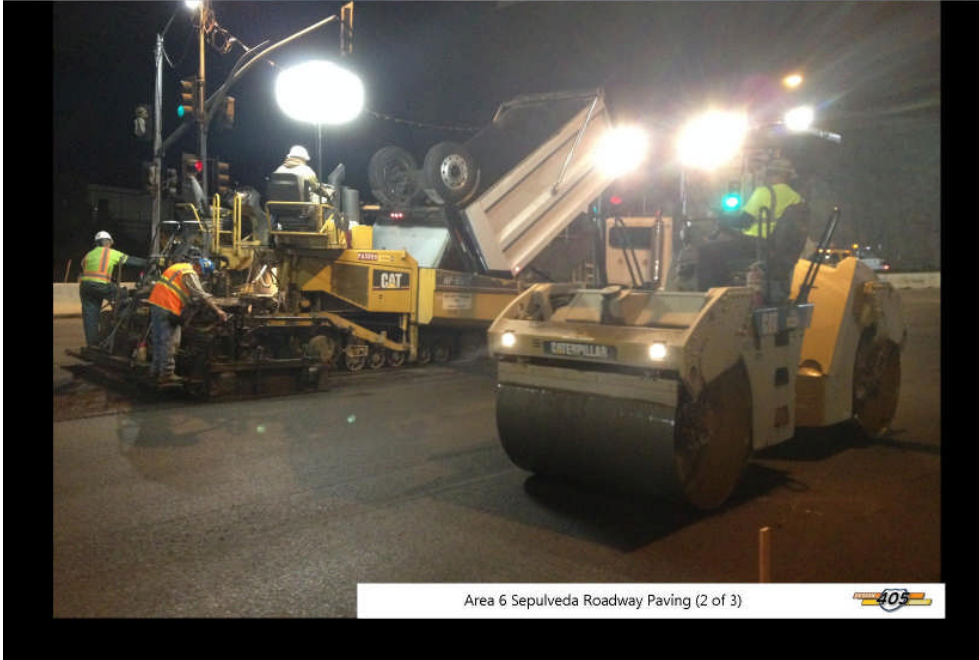




## CONSTRUCTION PHOTOGRAPHS



### AUGUST 2014 PROGRESS PHOTOS



Area 6 Sepulveda Roadway Paving (2 of 3)



### AUGUST 2014 PROGRESS PHOTOS



Area 6 Sepulveda Roadway Paving (3 of 3)





## CONSTRUCTION PHOTOGRAPHS



## CONSTRUCTION PHOTOGRAPHS



## APPENDICES

### COST AND BUDGET TERMINOLOGY

**APPROVED 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 BUDGET:** The Original Budget plus all budget amendments approved by formal Metro action. Also referred to as Approved Budget.

**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.

**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).

**PROJECT APPROVAL & ENVIRONMENTAL DOCUMENTS:** Costs for agency staff and consulting contracts leading to project approval and environmental clearances.

**PLANS, SPECS. & ENGINEERING:** Agency staff and consulting contract costs between the initial project approval and environmental clearances but prior to start of construction.

**RIGHT-OF-WAY SUPPORT:** Costs for agency staff involved in real estate appraisal and parcel purchase activities and agency staff costs involved in utility relocations and third party agreements. Includes real estate appraisal costs.

**CONSTRUCTION SUPPORT:** Agency staff and consulting contract costs occurring during the construction phase of the project.

**CONSTRUCTION:** Costs for highway construction, bridge and on/off ramp construction and modifications, retaining wall and sound wall construction. Includes final design costs by Design/Build Contractor.

**RIGHT-OF-WAY CAPITAL:** Costs for real estate parcel purchases and utility relocations costs after approval of utility company agreements. Includes costs for Master Cooperative Agreements after approval by agencies.

## APPENDIX

### LIST OF ACRONYMS

ARRA	American Recovery & Reinvestment Act
AWIS	Automated Work Zone Information Systems
CADD	Computer Aided Drafting and Design
CALTRANS	California Department of Transportation
CCTV	Closed Circuit Television
CD	Calendar Day
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CM	Construction Manager
CMAC	Congestion Mitigation Air Quality
CMIA	Cash Management Improvement Act
CMS	Changeable Message Signs
CN	Change Notice
CO	Change Order
COE	Corps of Engineers
COLA	City Of Los Angeles
CPM	Critical Path Method
CPUC	California Public Utilities Commission
CR	Camera Ready
CTC	California Transportation Commission
D-B	Design-Build
D-B-B	Design-Bid-Build
DD	Design Development
DEIR	Draft Environmental Impact Report
DR	Deficiency Report
DWP	Department of Water and Power
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
GDSR	Geotechnical Design Summary Report
GSA	General Services Administration
GSRD	Gross Solids Removal Devices
HAR	Highway Advisory Radio
HOV	High Occupancy Vehicle
IFB	Invitation for Bid
IPO	Integrated Project Office
ITS	Intelligent Transportation Systems

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

LA	Los Angeles
LABOE	Los Angeles Bureau of Engineering
LACFCD	Los Angeles County Flood Control District
LADOT	Los Angeles Department of Transportation
LADPW	Los Angeles Department of Public Works
LADWP	Los Angeles Department of Water and Power
LARTMC	Los Angeles Regional Transportation Management Center
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
MIS	Major Investment Study
MOT	Maintenance of Traffic
MPSR	Monthly Project Status Report
MSE	Mechanically Stabilized Earth
MVDS	Microwave Vehicle Detection System
MVP	Maintenance Vehicle Pullouts
MWD	Metropolitan Water District
N/A	Not Applicable
NCR	Non-Conformance Report
NEPA	National Environmental Quality Act
NHS	National Highway System
NOA	Notice of Award
NTE	Not to Exceed
NTP	Notice To Proceed
NTSC	National Television System Committee
P6	Primavera Project Planner® (scheduling software)
PC	Project Control
PE	Preliminary Engineering
PIP	Project Implementation Plan
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

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

QC	Quality Control
QPSR	Quarterly Project Status Report
RFC	Request For Change or Released for Construction (based on context)
RFP	Request For Proposal
RMS	Ramp Metering Systems
ROM	Rough Order of Magnitude
ROW	Right-Of-Way
SIT	System Integration Testing
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
SONET	Synchronous Optical Network
SOV	Schedule Of Value
SOW	Statement Of Work
SP	Special Provision
TBD	To Be Determined
TCRP	Traffic Congestion Relief Program
TMS/CS	Traffic Monitoring Stations/Count Stations
TPM	Transportation Management Plan
VE	Value Engineering
WBS	Work Breakdown Structure
WP	Work Package