

# Case Study of LA Metro Program Management Information System



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Sr. Project Control Mgr

# LA Metro Background

- 3<sup>rd</sup> largest public transportation system in US
- Most populous county in US
- 88 incorporated cities
- Service area covers 1,433 mi<sup>2</sup>
- Transportation planner, designer  
builder, operator
- Worst traffic delay in the US annual delay  
per traveler



# What is Measure R?

- Sales tax initiative approved in Nov 2008
- \$40 Billion in transportation upgrades
- 30 year program, 210,000 new jobs
- Rail network expansion with airport connection
- Improve railroad regional commuter system
- Add carpool lanes, build freeway connectors
- Construct sound walls along freeways
- Local street improvements

# Problem Statement



## Measure R Largest Transportation Program

- Increased oversight and accountability
- Potential aggressive / accelerated schedule
- Maxes out Metro resources
- Increased expectations for project delivery
- Delivery strategy 4-5 project at a time
- Current structure 1-2 projects at a time
- Paradigm shift required

# Systems Needs Assessment

- Outdated technologies
- Manual data manipulation
- Departmental Silo's
- Differing information
- Challenging audit trails
- Redundant data and disconnected
- Computerized summary reports not available
- Cost reporting in spreadsheets.
- Untimely reporting of information



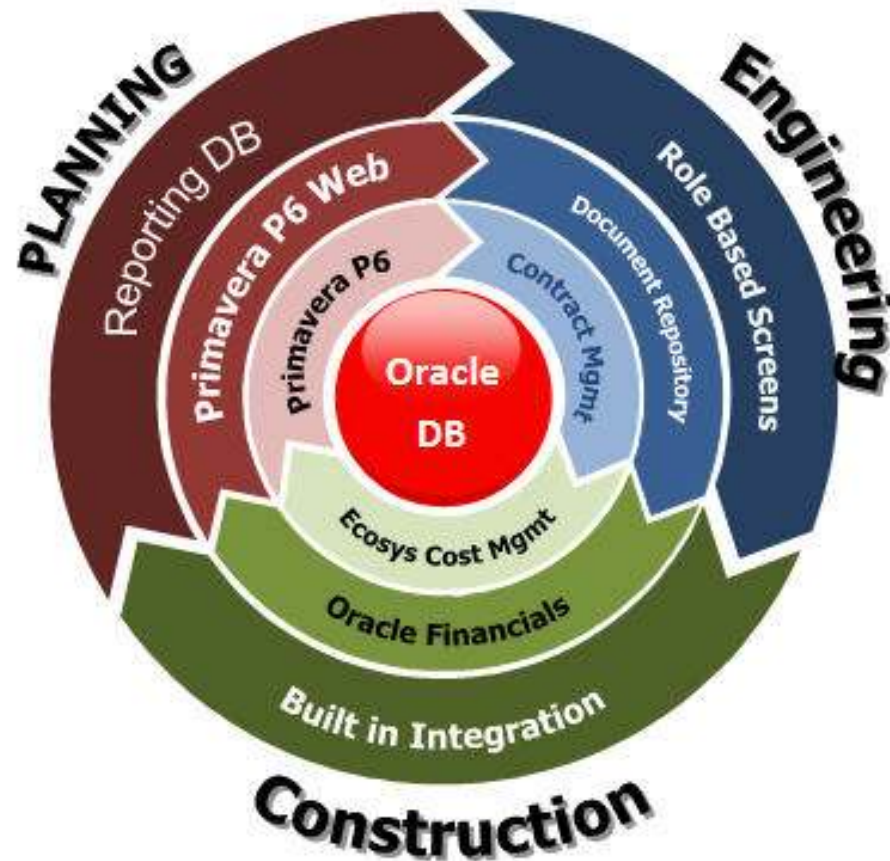


# System Requirements

- Centralized repository for information
- Improved data accuracy
- Automated financial data
- Proactive / Timely project status
- Enhance communication by removing silos
- Provide project and program performance, current status, and forecast trends
- Data available via web for stakeholders

**BETTER QUALITY, MORE TIMELY!**

# What is PMIS



Centralized System with integrated components:

- CMI & CM13
- P6 & P6 Web
- EcoSys
- SharePoint
- Public dashboard

# System Functionality



- **Oracle Primavera CM13, CMI interface**
  - Contract document and change control
  - Contract reporting and trend statistics
- **Oracle Primavera P6, P6Web**
  - Planning, scheduling, resource controls, dashboard communication, scorecard, risk tracking
- **EcoSys EPC**
  - Centralized cost repository, automated Oracle enterprise integration, cost reporting for budget, spent, and forecast, labor reporting
- **SharePoint**
  - Configuration management repository, design standards, corporate procedures, training
- **Public Facing Website**
  - Project Status Dashboard



# EXTERNALLY HOSTED – PMIS SYSTEM



Welcome,  
**Los Angeles County Metropolitan  
Transportation Authority**  
*Please Click on a category below*

FOR SUPPORT,  
SUBMIT A SUPPORT TICKET  
OR CALL: 877.367.7990

## Project Links

- EcoSys EPC
- Contract Management 13
- Contract Management 13  
Administration
- P6v7 Web
- P6v7 Terminal Server
- MS Sharepoint

## Documents

## Links

Contract Reporting, Document and Change Control Applications

# **CONTRACT MANAGEMENT CM13 AND CMI**

# CONTRACT MANAGEMENT INTERFACE



OP Web Tools

Welcome, Travis Lien-cmi! [\[Logout\]](#)

Powered by: MLM PROJECT SERVICES, INC.  
managed services solutions

Contract Management Interface

## Available CMI Documents

- [Submit a Request for Information \(RFI\) / Change \(RFC\)](#)
- [Submit a Cost Schedule Proposal \(CSP\)](#)
- [Submit a Submittal Document](#)
- [Submit General Correspondence](#)

## Available Status Reports

- [Request Status Logs](#)
- [Change Proposal Status Log](#)
- [Submittal Status Logs](#)
- [Submittal Status Log](#)
- [Submittal Status Log - Open Only](#)
- [General Correspondence Status Log](#)

- Custom application
- Web facing front end
- Used by outside entities
- Submit MTA documents
- Run status reports

Please select a report output type ✕

PDF ▼

[CMI User Guide](#)

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# CM13 DOCUMENT CONTROL

**ORACLE Primavera Contract Management**

Welcome, Julie Davis

Contract Management Control Center

Los Angeles Metro (Systemwide)

Workspace: (My Workspace)

**Prepare Reports**

- MTA01 CHG Change Log (r\_chg\_mta\_02)
- MTA01 CHG Contract Value Summary (r\_cn\_12\_mta\_02)
- MTA01 RFC Aging Summary BY MONTH PROMPT (r\_re...
- MTA01 RFI Aging Summary BY MONTH PROMPT (r\_re...
- MTA01 RFI RFC Log All PROMPT (r\_request\_01c)

**Actions**

High 0  
Normal 1  
Low 0

**Requests (RFI - RFC) (270)**

**RFI Turnaround Time (257)**

**Issues (33)**

**Submittals (719)**

**Dashboard**

- Aging reports
- Contract reports

**Los Angeles Metro (Systemwide)**

- Los Angeles Metro (Systemwide)
  - METRO - LA Metro Systemwide
  - PROSERV - Metro Prot. Services Agreements
  - Measure R Program
    - Measure R Administration
    - R0000 - Measure R - Systemwide
    - Meas. R Rail Projects
      - MTARKL - LA Metro Rail Systemwide
      - Orange Line Extension
      - Expo Line to Santa Monica
      - SPV East IV-2 Rapidways
      - Gold Line Foothill Extension
      - Crenshaw/LAX Transit Corridor
        - 310000 - Fare Gate Project
        - 400012 - Crenshaw Environmental Ph. 1
        - 400050 - Systemwide Transit Planning
        - 400012 - Crenshaw Conceptual Eng/Geo
        - 500013 - CLAX LAWA ROW
        - 500023 - Southwestern Yard
        - 501001 - Division 20 Paint and Body Shop
        - 500013 - Crenshaw/LAX Transit Corridor
- Project Information
- Communication
  - Transmittals
  - Requests (RFI - RFC)
  - Notices (Letters - NOC)
  - Noncompliance Notices
  - Letters
  - Corr. Sent
  - Corr. Recd
  - Meeting Minutes
  - Noteposts
  - Telephone Records
  - Safety
- Contract Information
- Log
  - Submittal Packages
  - Submittals
  - Owner Furnished Mat'l Eng
  - Field Reports
  - Insurance Log
  - Punch Lists
  - Drawing Sets
  - Drawings
- 30001200 - Crenshaw/LAX Transit Preliminary Eng.
- Regional Connector
- Westside Subway
- W. Santa Ana Branch
- Eastside Transit Ph 2
- Green Line to LAX



# CM13 CONTRACT REPORTING



**Metro**

865512 - Crenshaw/LAX Transit Corridor

Date: 6/20/2014

Page: 1 of 41

**CONFIDENTIAL**

## CHANGE ACTION STATUS LOG - DETAIL (SINGLE PROJECT)

CONTRACT: C0988 Crenshaw/LAX Transit Corridor Design-Build  
CONTRACTOR: Walsh Shea Corridor Constructors

CA: Fred Origel, Dir. Contract Administration  
RE: Kimberly Ong/Matt Gallagher

DOCUMENT NUMBER	LOGGED	ISSUED	APPROVED	EXECUTED	COST	DAYS	REFERENCE
<b>MOD EXECUTED</b>							
CHANGE MGMT #: 00083					ROM: \$0.00		CLAIM # REF #
TITLE: Update SP-05 and Revise SP-06					ICE: \$0.00		BASIS: 410 - Terms/Conditions - Owner
MOD: C0988-MOD-00001	8/30/2013	8/30/2013	8/30/2013	8/30/2013	FIN: \$0.00	0	AGE: 0
CO:					NTE:		BIC DUE:
CN: C0988-CN-00001	8/30/2013				CSP:		BIC: Complete
CHANGE MGMT #: 00085					ROM: \$0.00		CLAIM # REF #
TITLE: PSR/PR - Admin Change: Tech doc					ICE: \$0.00		BASIS: 710 - Outside Agency Request
MOD: C0988-MOD-00002	9/11/2013	9/17/2013	10/24/2013	10/24/2013	FIN: \$0.00		
CO:					NTE:		
CN: C0988-CN-00003	9/11/2013				CSP:		
CHANGE MGMT #: 00085					ROM: \$0.00		
TITLE: CPUC Application					ICE: \$0.00		
MOD: C0988-MOD-00003	9/16/2013	9/18/2013	11/6/2013	11/6/2013	FIN: \$0.00		
CO:					NTE:		
CN: C0988-CN-00002	9/16/2013				CSP:		
CHANGE MGMT #: 00097					ROM: \$0.00		
TITLE: Contractors Change of Address					ICE: \$0.00		
MOD: C0988-MOD-00004	11/13/2013	11/13/2013	12/3/2013	12/3/2013	FIN: \$0.00		
CO:					NTE:		
CN: C0988-CN-00009	11/7/2013				CSP:		
CHANGE MGMT #: 00121					ROM: \$22,000.00		
TITLE: Special Events Traffic Control Site					ICE: \$21,568.00		
MOD: C0988-MOD-00011	3/4/2014	3/10/2014	3/21/2014	3/21/2014	FIN: \$26,754.00		
CO:					NTE:		
CN: C0988-CN-00016	2/25/2014				CSP: \$26,854.05		

865512 Crenshaw/LAX Transit Corridor



**Metro**

Metropolitan Transportation Authority  
One Gateway Plaza  
Los Angeles, CA 90012-2652

CONTRACT

**MODIFICATION**

MOD: C0988-MOD-00020

CN/CO: C0988-CN-00020

CHANGE MGMT: 00137

CONTRACTOR: WALSH SHEA CORRIDOR CONSTRUCTORS  
CONTRACT/TITLE: CRENSHAW/LAX TRANSIT CORRIDOR DESIGN-BUILD  
CHANGE TITLE: Waste Removal - Bellanca Property and Arbor Vitae ROW

THE CONTRACT IS MODIFIED TO INCORPORATE THE FOLLOWING CHANGE(S):

CN/CO NO: C0988-CN-00020 Waste Removal - Bellanca Property and Arbor Vitae ROW

### WORK DESCRIPTION:

Remove the medical, universal, hazardous and general waste from the property at 9430 Bellanca including north and south of Arbor Vitae Right of Way (ROW) as indicated on the attached map.

### LOCATION OF WORK:

Various locations along alignment.

### PERIOD OF PERFORMANCE:

Upon receipt of executed Change Order or Contract Modification.

### CONTRACT DOCUMENTS AFFECTED (LIST):

N

CONTRACT VALUE AND DURATION: C0988-CN-00020

\$90,889.00

0 DAYS

### TASK NUMBER

3.3.04.14

### AMOUNT

\$85,880.00

TOTAL CONTRACT VALUE AND DURATION CHANGE:

TOTAL MOD VALUE

\$90,889.00

TOTAL DAYS

0

## END OF CHANGE C0988-MOD-00020 ##



Cost, Resource, and Schedule Management Applications

# **PRIMAVERA P6 AND P6 WEB**

# P6 ENTERPRISE SCHEDULE ORGANIZATION

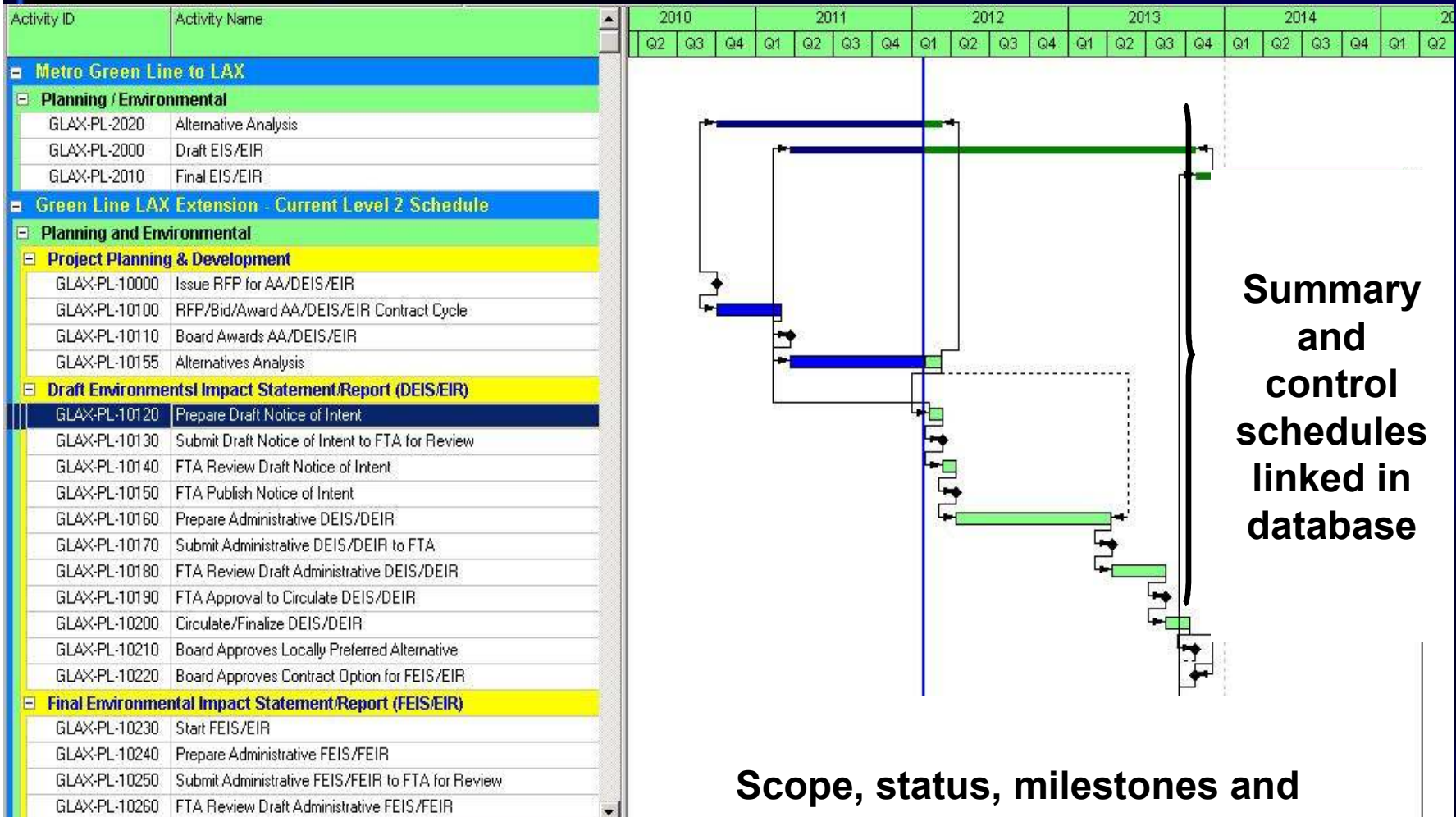


▶	▶	METRO	Los Angeles Metro
+	▶	Templates	Schedule Templates
+	▶	Rail 30/10	Measure R Rail 30/10 Initiative
▶	▶	Meas R_Detail	Measure R Rail Projects Detailed Schedules
+	▶	MOLEXT	MOL Extension
+	▶	Crenshaw	Crenshaw/LAX Transit Corridor
+	▶	RegC	Regional Connector
+	▶	West	Westside Subway Extension
+	▶	Expo	Expo LRT Phase 2
+	▶	Eastside2	Eastside Transit Corridor - Ph. 2
+	▶	GFH2	Gold Line Foothill Extension
▶	▶	GLAX	Green Line Extension to LAX
	▶	GLAX-Current	Green Line Extension to LAX Current Working Schedule
		GLAX_Current	Green Line LAX Extension - Current Level 2 Schedule
	▶	GLAX-Contractor	Green Line Extension to LAX Contractor Schedules
+	▶	GSBAY	South Bay Green Line Extension
+	▶	Sepulveda Pass	Sepulveda Pass Transit Corridor
+	▶	SFV N-S	East SFV N-S (Van Nuys)
+	▶	WSAB	West Santa Ana Branch
+	▶	Downtown Street Car	Downtown Street Car
+	▶	Highway	Highway Program
+	▶	CAP	Capital Improvement
+	▶	MS Sand	Master Sandbox / Temp Files
▶	▶	METRO Master	LA METRO Master Schedule Projects
▶	▶	Measure R	Measure R Program
	▶	Rail	Master Rail / BRT Projects
		WSAB_Summary	West Santa Ana Transit Corridor
		Westside_Summary	Westside Subway Extension
		SFV N-S_Summary	East San Fernando Valley N-S
		Sepulveda_Summary	Sepulveda Pass Transit Corridor
		Region Conn_Summary	Regional Connector Transit Corridor
		MOLE_Summary	Metro Orange Line Extension
		GSBAY_Summary	Green Line South Bay Extension
		GLAX_Summary	Green Line to LAX Extension
		GFH2_Summary	Gold Line Foothill Extension
		Expo Ph2-Summary	Exposition Transit Corridor Phase 2
		Eastside Ph2_Summary	Eastside Transit Corridor Phase 2
		Crenshaw_Summary	Crenshaw/LAX Transit Corridor Summary

**Control Level  
Schedules to track  
overall program  
performance and  
contractor detailed  
level progress  
schedules**

**Level 1 Master  
Schedules for  
Executive Level  
reporting of Project  
Status and Progress**

# P6 MULTI LEVEL SCHEDULES



**Scope, status, milestones and phases tied to public dashboard**



# P6Web – RAIL PROGRAM PORTFOLIO



**ORACLE Primavera P6** Print | Help | Preferences | Logout

**Dashboards** **Portfolios** **Projects** **Resources** **Administration**

Measure R - Major Pr... Sample PMIS Dashboar... Rail Independent Aut... CRD Program Highway Projects

**Measure R - Major Projects** Filter by Portfolio: Master Rail Projects

[Expand All](#) [Collapse All](#) [Customize](#)

**MTA Major Project Scorecard**

[Expand](#) [Collapse](#) [Export Spreadsheet](#) [Customize](#)

<b>Total</b>		\$15,609,000,000	\$13,139,900,000	\$13,226,900,000		\$742,806,819	29-Dec-22			
<b>Measure R Rail Projects</b>		\$15,609,000,000	\$13,139,900,000	\$13,226,900,000		\$742,806,819	29-Dec-22			
[-] Metro Orange Line Extension		\$215,600,000	\$215,600,000	\$215,600,000	0.00	\$136,805,251	23-Jul-13	15-Jun-12	OK	1
[-] Gold Line Foothill Extension		\$851,100,000	\$463,100,000	\$463,100,000	0.00	\$185,046,684	22-Feb-16	22-Feb-16		0
[-] Exposition Transit Corridor Phase 2		\$1,511,200,000	\$1,511,200,000	\$1,511,200,000	0.00	\$213,841,210	07-Nov-16	07-Nov-16		0
[-] East San Fernando Valley N-S		\$170,100,000	\$170,100,000	\$170,100,000	0.00	\$2,971,572	20-Nov-18	11-Oct-18		0
[-] Crenshaw/LAX Transit Corridor Summary		\$1,749,000,000	\$1,505,000,000	\$1,594,000,000	5.91	\$54,077,467	04-Dec-18	04-Dec-18		0
[-] Airport Metro Connector		\$330,000,000	\$244,800,000	\$244,800,000	0.00	\$2,518,849	07-Jan-19	07-Jan-19		0
[-] Regional Connector Transit Corridor		\$1,368,100,000	\$1,368,100,000	\$1,368,100,000	0.00	\$46,215,414	12-Nov-19	27-Dec-19		0

**MTA Measure R Transit Project Status**

[Expand](#) [Collapse](#) [Export Spreadsheet](#) [Customize](#)

[-] Metro Orange Line Extension					OK	OK	
[-] Exposition Transit Corridor Phase 2					OK	OK	
[-] Gold Line Foothill Extension					OK	OK	
[-] Crenshaw/LAX Transit Corridor Summary					OK	OK	
[-] Regional Connector Transit Corridor					OK		
[-] Westside Subway Extension					OK		
[-] Eastside Transit Corridor Phase 2							
[-] South Bay Green Line Extension							
[-] West Santa Ana Transit Corridor							

**My Issues**

[Add](#) [Expand All](#) [Collapse All](#) [Customize](#)

Display ☒ List ☐ Chart [Filter Open Items](#)

Issue Name	Issue Risk Dollar Amount*	Description	Priority	Resolution Date	Status	Email
<b>Crenshaw/LAX Transit Corridor Summary</b>						
<b>Management Issue</b>						
Define FAA/LAWA South Runway Construction			Normal		Open	
Execute BNSF			Normal		Open	

# WEB — PROJECT PORTFOLIO



**ORACLE Primavera P6**
Print | Help | Preferences | Logout

Dashboards Portfolios Projects Resources Administration

Workspace Activities Issues Documents Issue Forms

**Workspace of Metro Orange Line Extension**
Expand All | Collapse All | Customize
Launch Contract Management

**Notebook topics**

Notebook Topic	Description
MTA - Cost Scorecard	
MTA - Status Dashboard	
PMIS - Critical Path	
With a Revenue Service Date of June 30, 2012, the longest schedule path to contract completion occurs with completing outstanding work: station systems testing, Marilla parking lot, landscaping and punchlist items.	
PMIS - Current Status	
PMIS - Project Description	

Page: 1 of 1

**Project Issues**

Add | Expand All | Collapse All | Customize

Display ☒ List ☐ Chart Filter open issues

Issue Name	Issue Risk Dollar Amount	Description	Resolution Date	E-Mail
<b>Management Issue</b>				
<b>Management Issue Detail</b>				
Delay to Project Substantial Completion			31-Jul-12	
The design builder is late in providing the schedule mitigation plan and continues to fall further behind plan. Working with the design-builder to submit a recovery schedule to support a summer 2012 opening of the project.				
<b>Project Status Reports</b>				

Page: 1 of 2 [Next >>]

**Request for Information (RFI)**

Requests (RFI - RFC) (213)

**Submittals**

Submittals (717)



# P6WEB — PROJECT STATUS REPORTS



## Crenshaw/LAX Transit Corridor Summary

Status Date : 05/31/2014

### PROJECT DESCRIPTION

The Crenshaw/LAX Transit Corridor is a North/South corridor that serves the cities of Los Angeles, Inglewood, Hawthorne and El Segundo as well as unincorporated areas in Los Angeles County. The alignment extends 8.5 miles, from the intersection of Crenshaw and Exposition Boulevards to a connection with the Metro Green Line at the Aviation/LAX Station. This project provides major connections with the Los Angeles International Airport (LAX) as well as links the Metro Green Line, the Exposition Line and countywide bus network.

The alignment is comprised of a double-tracked right-of-way consisting of sections at-grade in-street, at-grade within railroad right-of-way, aerial, and below-grade guideway sections, eight stations, park and ride facilities, utilities, landscaping, roadway improvements required by the project and a maintenance and storage facility (Southwestern Yard). New rail stations will be Crenshaw/Exposition, Crenshaw/Martin Luther King, Crenshaw/Venice, Elvert Park, Crenshaw/Stations, Florence/West, and Aviation/LAX.

### MAP



### CURRENT STATUS

Advance utility relocations continued by third parties and contractors. The advanced utility relocations contractor, Metro Builders and Engineers Group, continues street sewer relocations and water line pipe sleeves installation on Crenshaw Blvd.

The design-builder, Walsh-Shea Corridor Constructors (WSCC) continues final design and is submitting design submittals as required. WSCC completed initial exploratory utility potholing and is removing rail and ties from the southern section of the alignment. WSCC continued noise wall construction at the Crenshaw/Expo Station area as well as continued lead and asbestos abatement prior to demolition of buildings.

Metro is continuing real estate acquisition of properties required for construction and has turned over 27 of 34 permanent parcels to the design-builder WSCC.

The project is scheduled to open to the public in 2019.

### PROJECT MILESTONES

Milestone	Baseline Plan	Forecast / Actual
Issue Advanced Conceptual Engineering RFP	June 2009	June 2009
Board selects Locally Preferred Alternative	December 2009	December 2009
Advertise D/B Contract#1 Crenshaw/LAX	June 2012	June 2012
Issue Const. NTP Contract#1 Crenshaw/LAX	February 2013	September 2013
Begin Final Design Contract#1 Crenshaw/LAX	February 2013	September 2013
Commence Revenue Operations	December 2018	October 2019

Live Link to  
Status Report

### ORACLE Primavera P6

Dashboards Portfolios

Measure R - Major Pr... Sample PMIS Dashboard

### Measure R - Major Projects

Expand All | Collapse All | Customize

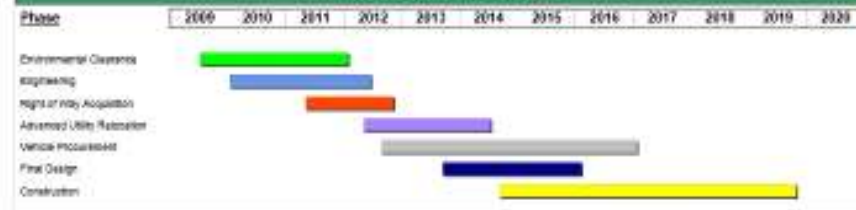
#### Project Status Reports

- [Crenshaw / LAX Transit Corridor](#)
- [Eastside Transit Corridor Phase II](#)
- [Exposition Light Rail Transit to Santa Monica](#)
- [Exposition Light Rail Transit to Santa Monica](#)
- [Gold Line Foothill Light Rail Extension](#)
- [Green Line Extension to LAX](#)
- [Green Line South Bay Extension](#)
- [Metro Orange Line Extension](#)
- [Regional Connector](#)
- [San Fernando Valley East North-South](#)
- [San Fernando Valley I-405 Corridor](#)
- [West Santa Ana Branch Corridor](#)
- [Westside Subway Extension](#)

Funding %
32.1%
26.0%
12.7%
9.7%
8.6%
2.6%
2.4%
2.4%
0.4%
0.1%
100%

Expenditures to Date	Current Forecast to Date
25.0	\$25.5
27.2	\$103.9
13.5	\$98.7
82.1	\$11.0
71.5	\$98.8
26.3	\$398.4
	\$2,058.0

### PROJECT SCHEDULE

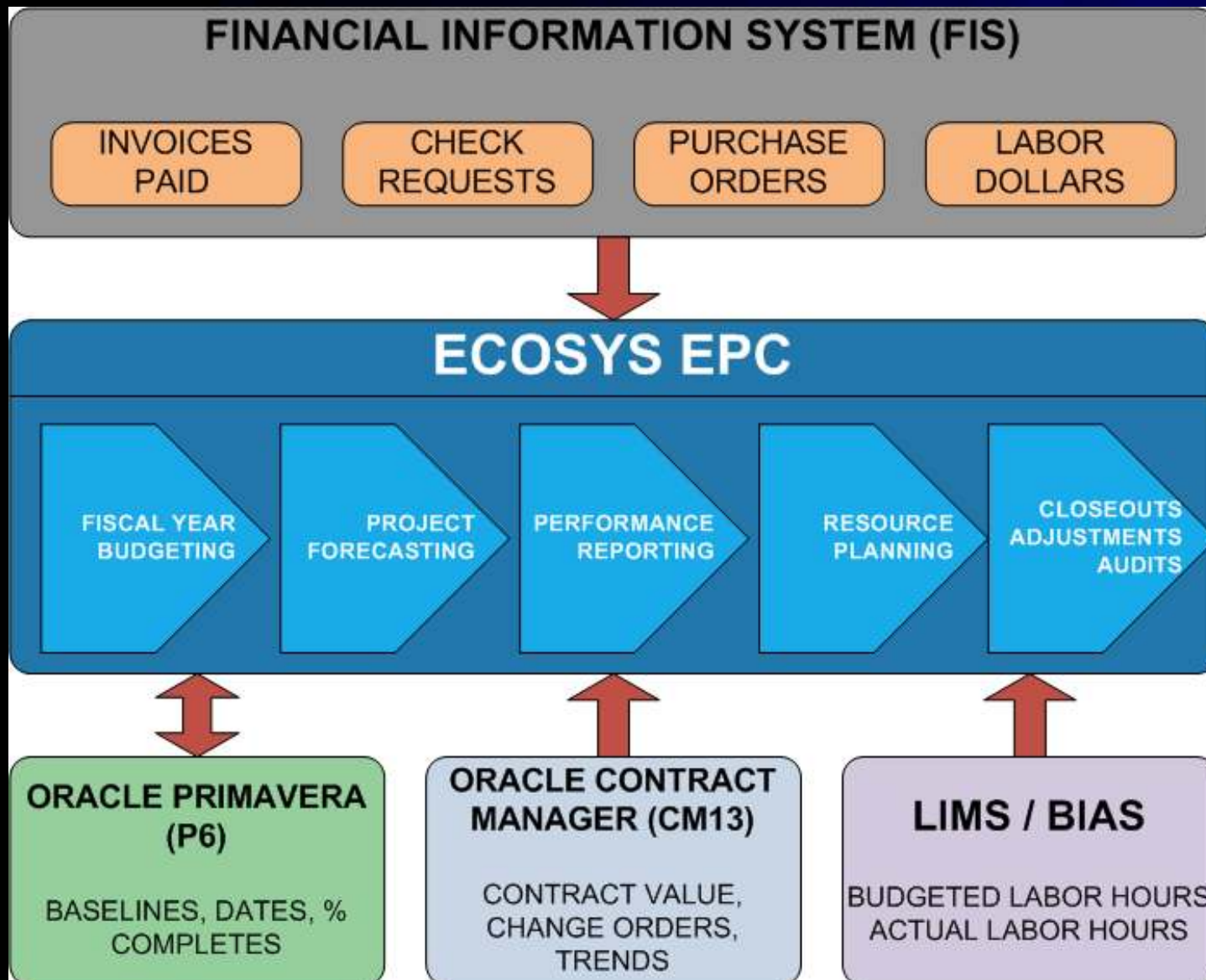


Custom Reporting Engine used to integrate data  
from multiple data sources

**Staff and Cost Reporting (Budget, Actual and Forecast Costs)**

**ECOSYS**

# EcoSys ARCHITECTURE



# EcoSys Cost Summary Report

## SL06A- Category Status Report

Category ID	Category Name	Original Baseline	Current Baseline	Total Commitments	Total Expenditures	Percent Spent
<b>Total</b>		<b>\$19,640,336,507</b>	<b>\$19,902,737,011</b>	<b>\$4,017,228,544</b>	<b>\$2,302,697,450</b>	
CREN	Crenshaw / LAX Transit Corridor	\$1,749,000,000	\$2,058,000,000	\$1,631,201,495	\$479,684,735	23
EAST	Eastside Transit Corridor-Phase2	\$2,490,000,000	\$2,490,000,000	\$30,269,440	\$29,388,102	1
EASTOPS	Eastern Operations MaintenanceFacility	\$198,437,375	\$207,437,375	\$198,437,375	\$141,190,690	68
EXPO	Expo LRT Phase 2	\$1,846,567,903	\$1,846,567,905	\$947,440,020	\$736,080,070	40
GFH2	Gold Line Foothill Extension	\$735,000,000	\$741,000,000	\$576,252,096	\$437,493,413	59
GLAX	Green Line Extension to LAX	\$330,000,000	\$330,000,000	\$7,141,303	\$6,845,469	2
GSBAY	South Bay Green Line Extension	\$555,000,000	\$555,000,000	\$6,271,157	\$5,758,456	1
MOLEXT	Metro Orange Line Extension	\$215,600,000	\$154,000,501	\$145,446,420	\$146,146,085	95
REGC	Regional Connector	\$1,426,932,198	\$1,426,932,198	\$152,966,635	\$116,567,669	8
SEP	Sepulveda Pass Transit Corridor	\$2,468,000,000	\$2,468,000,000	\$2,518,521	\$2,379,156	0
SFV	East SFV N-S (Van Nuys)	\$170,100,000	\$170,100,000	\$7,203,618	\$7,219,986	4
SWESTOPS	Southwestern OperationsMaintenanceFacility	\$0	\$0	\$0	\$0	0
WEST1	Westside Subway Section1	\$2,843,194,030	\$2,843,194,031	\$301,761,152	\$189,062,178	7
WEST2	Westside Subway Section2	\$1,817,740,000	\$1,817,740,000	\$9,092,360	\$3,802,316	0
WEST3	Westside Subway Section3	\$2,145,765,000	\$2,145,765,000	\$0	\$0	0
WSAB	West Santa Ana Branch	\$649,000,000	\$649,000,000	\$1,226,951	\$1,059,126	0

## Project Status Report

Project ID	Project Name	Original Baseline	Current Baseline	Total Commitments	Total Expenditures	Percent Spent
<b>Total</b>		<b>\$19,640,336,507</b>	<b>\$19,902,737,011</b>	<b>\$4,017,228,544</b>	<b>\$2,302,697,450</b>	
<b>CREN - Crenshaw / LAX Transit Corridor</b>		<b>\$1,749,000,000</b>	<b>\$2,058,000,000</b>	<b>\$1,631,201,495</b>	<b>\$479,684,735</b>	
405512	Crenshaw EnvironmentalPhase1	\$5,526,150	\$5,526,150	\$5,526,043	\$5,526,150	100.0
465512	Crenshaw Conceptual Engineering	\$20,473,850	\$20,473,850	\$20,061,533	\$20,023,237	97.8
860003	SouthWestern Yard	\$0	\$0	\$83,137,854	\$83,574,632	0.0
865512	CrenshawLax Transit Corridor	\$1,723,000,000	\$2,032,000,000	\$1,522,476,065	\$370,560,716	18.2
<b>EAST - Eastside Transit Corridor - Phase 2</b>		<b>\$2,490,000,000</b>	<b>\$2,490,000,000</b>	<b>\$30,269,440</b>	<b>\$29,388,102</b>	



# EcoSys ACCOUNTING INTEGRATION



\* Year: FY2013    Category: (all)    Project Manager: Wong    Refresh

Project Analysis - HGWY							Project Actuals Analysis						
Project ID	Project Name	PO's	Labor	Invoices	Check Requests	Total Expenses	Cost Account ID	Jul 2012	Aug 2012	Sep 2012	Oct 2012	Nov 2012	Dec 2012
		\$2,885,066.30	\$530,773.10	\$22,022,210.30	\$0.00	\$22,552,983.40							
410002	Regional Surface Trans	\$154,835.25	\$0.00	\$17,032,816.09	\$0.00	\$17,032,816.09		\$1,069,792.51	\$3,425,083.17	\$1,618,263.19	\$4,977,288.72	\$648,582.43	\$5,293,806.00
460307	PHASE II ACE GRADE SEPAR	\$0.00	\$36,658.88	(\$1,457,235.45)	\$0.00	(\$1,420,576.57)	54001	\$1,069,792.51	\$3,425,083.17	\$368,782.35	\$4,977,288.72	\$648,582.43	\$4,765,055.00
460309	COUNTYWIDE SOUNDWALL	\$0.00	\$4,156.36	\$117,563.96	\$0.00	\$121,720.32	54002	\$0.00	\$0.00	\$1,249,480.84	\$0.00	\$0.00	\$528,750.00
460313	I-5 N Enhance Sr14-Kern Co.	\$0.00	\$90,332.56	\$83,699.44	\$0.00	\$174,032.00							
460319	SOUNDWALL PACKAGE 5	\$0.00	\$126,513.17	\$1,641,937.83	\$0.00	\$1,768,451.00							
460320	SOUNDWALL PACKAGE 6	\$179,597.25	\$28,673.45	\$334,958.45	\$0.00	\$363,631.90							
460321	SOUNDWALL PACKAGE 7	\$0.00	\$61,068.02	\$620,870.93	\$0.00	\$681,938.95							
460322	SOUNDWALL PACKAGE 8	\$2,550,633.80	\$143,403.53	\$3,647,599.05	\$0.00	\$3,791,002.58							
460323	SOUNDWALL PACKAGE 10	\$0.00	(\$477.88)	\$0.00	\$0.00	(\$477.88)							
460324	SOUNDWALL PACKAGE 11	\$0.00	\$40,445.01	\$0.00	\$0.00	\$40,445.01							
460330	SR-138 Capacity Enhanceme	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00							

FIS Data																			
PO Number	Vendor Number	Vendor Name	Line Number	Task Number	Invoice Number	Invoice Date	Cost Center	Cost Account	Invoice Amount	Amount	Status	PA Date	Invoice ID	Invoice Distrib ID	Distrib Line Num	Transaction Date	Payment Date	Payment Method	Payment Status Flag
										\$4,977,288.72									
MOU-P0007193										\$830,540.60									
M 66892	GATEWAY CITIES COUNCIL	3	007193	11-1	09/18/2012	0441	54001	\$830,540.60	\$830,540.60	OPEN	01/25/2012	1349898	4724593			10/01/2012	10/17/2012	CHECK	P
MOU-P00080002										\$2,191,678.74									
M 39583	SAN GABRIEL VALLEY COG	13	008002	13-064	10/09/2012	0441	54001	\$476,374.41	\$476,374.41	OPEN	03/22/2011	1351939	4733614	3		10/11/2012	10/19/2012	EFT	Y
M 39583	SAN GABRIEL VALLEY COG	12	008002	11-058A	10/10/2012	0441	54001	\$1,715,304.00	\$1,034,098.28	OPEN	03/22/2011	1351597	4731266	1		10/10/2012	10/10/2012	CHECK	Y
M 39583	SAN GABRIEL VALLEY COG	13	008002	11-058A	10/10/2012	0441	54001	\$1,715,304.00	\$681,206.05	OPEN	03/22/2011	1351597	4731267	2		10/10/2012	10/10/2012	CHECK	Y
MOU-P0008102										\$478,495.51									
M 29651	LANCASTER, CITY OF 01	3	008102	204	10/23/2012	0441	54001	\$478,495.51	\$430,645.96	OPEN	08/06/2012	1354975	4745977	3		10/26/2012			
M 29651	LANCASTER, CITY OF 01	3	008102	204	10/23/2012	0441	54001	\$478,495.51	\$47,849.55	OPEN	08/06/2012	1354975	4745986	4		10/26/2012			
M 29651	LANCASTER, CITY OF 01	3	008102	204	10/23/2012	0441	54001	\$478,495.51	(\$47,849.55)	OPEN	08/06/2012	1354975	4746055	5		10/26/2012			
M 29651	LANCASTER, CITY OF 01	3	008102	204	10/23/2012	0441	54001	\$478,495.51	\$47,849.55	OPEN	08/06/2012	1354975	4746066	6		10/26/2012			
MOU-P000F1159										\$1,178,288.70									
M 94622	ALAMEDA CORRIDOR - EAST	3	F1159	12/13-250-2	10/08/2012	0441	54001	\$1,178,288.70	\$1,178,288.70	OPEN	08/01/2011	1351967	4733275	3		10/11/2012			



# ECOSYS STAFFING ANALYSIS



## P2 - LIMS Monthly Report by FTE - NEW / WD Oct 2012

.	First Name	Last Name	Hours	Actual FTE	Budget FTE	Variance
<b>405523-I405 CAR POOL LANE</b>						
<b>6810-CORPORATE SAFETY</b>						
<b>3.1.01</b>						
			0.00	0.00	1.00	1.00
	JAMES	BROWN	56.00	0.30	0.00	(0.33)
			<b>56.00</b>	<b>0.30</b>	<b>1.00</b>	<b>0.67</b>
<b>3.1.04</b>						
			0.00	0.00	1.00	1.00
	DAVID	SANDERS	4.00	0.02	0.00	(0.02)
	RALPH	SBRAGIA	144.00	0.78	0.00	(0.86)
			<b>148.00</b>	<b>0.80</b>	<b>1.00</b>	<b>0.12</b>
			<b>204.00</b>	<b>1.11</b>	<b>2.00</b>	<b>0.78</b>
<b>6940-CONTRACT ADMINISTRATION</b>						
<b>3.1.04</b>						
	EVA	RODRIGUEZ	7.00	0.04	0.00	(0.04)
	IVAN	PAGE	40.50	0.22	0.00	(0.24)
	JOSEPH	O'DONNELL	14.00	0.08	0.00	(0.08)
	MICHAEL	HOLGUIN	184.00	1.00	0.00	(1.10)
	ZACHARY	MUNOZ	13.00	0.07	0.00	(0.08)
			<b>258.50</b>	<b>1.40</b>	<b>0.00</b>	<b>(1.54)</b>
			<b>258.50</b>	<b>1.40</b>	<b>0.00</b>	<b>(1.54)</b>

Enterprise procedures and training

# SHAREPOINT

# PMIS SHAREPOINT



MTA SharePoint

MTA SharePoint > CMExternalDocLib > Programwide Documents > Policies and Procedures

CMExternalDocLib > Policies and Procedures

Contract Management External Lib

New Upload Actions Settings Paste

Type	Name	Postback	Author	File Size	Created By	Modified By	Project #
	Overnight of Accessible Services Programs and Construction Projects (G2) SS	11/17/2011 2:29 PM		67 KB	Dianne Curzon	Dianne Curzon	
	PM13 REV 0 FDUL	12/27/2012 10:17 AM		239 KB	Dianne Curzon	Dianne Curzon	
	POLICY CF01 REV 2	10/11/2011 12:50 PM		195 KB	Dianne Curzon	Dianne Curzon	
	POLICY CF02 REV 2	10/11/2011 12:51 PM		153 KB	Dianne Curzon	Dianne Curzon	
	POLICY CF03 REV 4	10/11/2011 12:51 PM		763 KB	Dianne Curzon	Dianne Curzon	
	POLICY CF04 REV 4	10/11/2011 12:51 PM		224 KB	Dianne Curzon	Dianne Curzon	
	POLICY CF05 REV 2	10/11/2011 12:52 PM		251 KB	Dianne Curzon	Dianne Curzon	
	POLICY CF06 REV 2	10/11/2011 12:52 PM		151 KB	Dianne Curzon	Dianne Curzon	
	POLICY CF07 REV 1	10/11/2011 12:53 PM		219 KB	Dianne Curzon	Dianne Curzon	
	POLICY CF08 REV 3	10/11/2011 12:53 PM		360 KB	Dianne Curzon	Dianne Curzon	
	POLICY CF09 REV 2	10/11/2011 12:53 PM		281 KB	Dianne Curzon	Dianne Curzon	
	POLICY CF12 REV 3	10/11/2011 12:54 PM		115 KB	Dianne Curzon	Dianne Curzon	
	POLICY CF13 REV 4	10/11/2011 12:54 PM		127 KB	Dianne Curzon	Dianne Curzon	
	MULTI SP14 REV 0	10/11/2011 12:55 PM		794 KB	Dianne Curzon	Dianne Curzon	
	POLICY CF15 REV 4	10/11/2011 12:55 PM		180 KB	Dianne Curzon	Dianne Curzon	
	POLICY CF16 REV 1	10/11/2011 12:55 PM		91 KB	Dianne Curzon	Dianne Curzon	
	POLICY CF17 REV 0 Metro Betterment Change Requests	1/7/2013 8:27 AM		99 KB	Dianne Curzon	Dianne Curzon	
	POLICY CM1 REV 1	10/24/2011 11:19 AM		162 KB	Dianne Curzon	Dianne Curzon	
	POLICY CM17 REV 4	10/24/2011 11:28 AM		99 KB	Dianne Curzon	Dianne Curzon	
	POLICY CM20 REV 3	10/24/2011 11:17 AM		93 KB	Dianne Curzon	Dianne Curzon	
	POLICY CM23 REV 3	10/24/2011 11:18 AM		174 KB	Dianne Curzon	Dianne Curzon	
	POLICY CM24 REV 3	10/24/2011 11:18 AM		172 KB	Dianne Curzon	Dianne Curzon	
	POLICY CM3 REV 4	10/24/2011 11:17 AM		343 KB	Dianne Curzon	Dianne Curzon	
	POLICY CM4 REV 4	10/24/2011 11:20 AM		98 KB	Dianne Curzon	Dianne Curzon	
	POLICY CM7 REV 4			134 KB	Dianne Curzon	Dianne Curzon	
	POLICY CM8 REV 3			213 KB	Dianne Curzon	Dianne Curzon	
	POLICY DSGN0 REV 2			251 KB	Dianne Curzon	Dianne Curzon	
	POLICY DSGN010-B REV 2			831 KB	Dianne Curzon	Dianne Curzon	
	POLICY DSGN010-B-B REV 2			1618 KB	Dianne Curzon	Dianne Curzon	
	POLICY DSGN02 REV 2			101 KB	Dianne Curzon	Dianne Curzon	
	POLICY DSGN03 REV 2			273 KB	Dianne Curzon	Dianne Curzon	
	POLICY DSGN04 REV 2			151 KB	Dianne Curzon	Dianne Curzon	
	POLICY DSGN05 REV 2			385 KB	Dianne Curzon	Dianne Curzon	
	POLICY DSGN06 REV 2			188 KB	Dianne Curzon	Dianne Curzon	

- Configuration controlled
- Enterprise policies
- Design criteria
- Standard specs
- CM13 document repository
- Desktop procedures

# SHORT TRAINING VIDEOS

The screenshot displays the 'Metro Training' SharePoint site. The left sidebar contains navigation links: 'View All Site Content', 'Documents' (with 'Shared Documents'), 'Lists' (with 'Calendar', 'Tasks', 'Training Videos'), 'Discussions' (with 'Team Discussion'), 'Sites', and 'People and Groups - Site Content'. The main content area shows a list of training videos. The first video is titled '2014-03-10 09.29 PMIS - Overview' from Michael Williams, with a duration of 14:39. The second video is titled '2014-03-10 10.26 SharePoint Programmwide Overview' from Michael Williams, with a duration of 04:26. Below these, a third video is partially visible, titled 'CMI Training (For Contractors to Submitt documents into the PMIS system)' from Michael Williams.

## Training Options

- Hands on classroom
- Written manuals
- Virtual live meeting
- Short videos

Transparency and Public Accountability

# **PUBLIC FACING STATUS DASHBOARD**



# DASHBOARD ACCESS



**Go**  
Getting Around

**Grow**  
Projects & Programs

**Know**  
News & Media

**Metro**  
About & Contact Us

## Under Construction

Crenshaw/LAX Transit Project  
Division 13 Bus Maintenance Facility  
Expo Phase 2 to Santa Monica  
Gold Line Foothill Extension  
I-405 Sepulveda Pass  
Purple Line Extension  
Regional Connector Transit Project  
Wilshire Bus Rapid Transit Project

## In the Works

Measure R Transit Projects  
Measure R Highway Projects  
Other Projects  
Metro Project Tracker  
Project Management Information System  
Regional Rail

**All Projects, Programs & Reports**

## Programs

Advanced Transit Vehicle Consortium  
Call for Projects  
Congestion Management Program  
Freeway Service Patrol  
FTA Section 5310 Program  
Immediate Needs Transportation Program  
JARC and New Freedom Programs  
Joint Development Program  
Local Return Program  
Metro EV Charge Stations  
Rider Relief  
Public-Private Partnerships  
Sustainability  
Transportation Improvement Program

**All Programs**

## Plans & Reports

Bicycle Transportation Strategic Plan  
Long Range Transportation Plan  
Draft Short Range Transportation Plan 2014

## All Plans & Reports

## Funding

ARRA Economic Stimulus  
Measure R  
Transportation Funding

## All Funding

**Integrated from PMIS systems and published monthly**

# DASHBOARD PORTFOLIO VIEW

[All Portfolios](#) / Measure R Rail Projects

## Measure R Rail Projects

Updated through April 2014

### Portfolio Cost Summary (in millions) ⓘ


Print

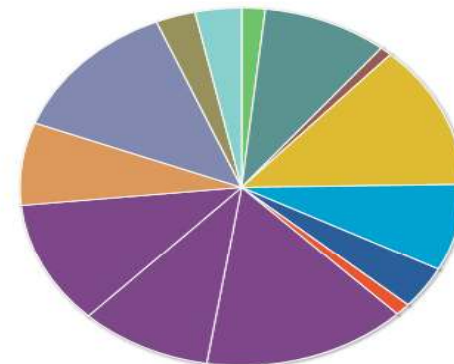
### Portfolio Cost Summary ⓘ

View Another Cost Type ▼

Print

PDF

Project	Original Budget	Current Budget	Commitment	Cost To Date	Cost Forecast
<b>Total</b>	<b>\$19,168.1</b>	<b>\$19,455.7</b>	<b>\$4,125.4</b>	<b>\$1,896.7</b>	<b>\$19,455.7</b>
 <b>Crenshaw/LAX Transit Corridor Summary</b>	\$1,749.0	\$2,058.0	\$1,617.9	\$395.8	\$2,058.0
 <b>Exposition Transit Corridor Phase 2</b>	\$1,511.2	\$1,511.2	\$1,136.0	\$669.5	\$1,511.2
 <b>Gold Line Foothill Extension Phase 2A</b>	\$741.0	\$741.0	\$533.3	\$377.3	\$741.0
 <b>Metro Orange Line Extension</b>	\$215.6	\$154.0	\$148.6	\$144.5	\$154.0
 <b>Airport Metro Connector*</b>	\$330.0	\$330.0	\$6.6	\$6.0	\$330.0
 <b>East San Fernando Valley Transit Corridor*</b>	\$170.1	\$170.1	\$7.1	\$7.1	\$170.1
 <b>Eastside Transit Corridor Phase 2*</b>	\$2,490.0	\$2,490.0	\$27.5	\$24.7	\$2,490.0

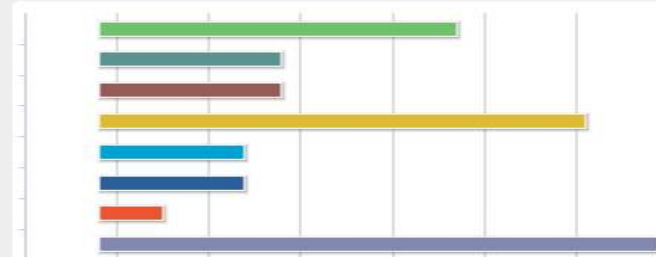


Rollover a pie slice to view Project name and cost

### Portfolio Duration ⓘ


Print

PDF



Interactive view of key project details. Data automated from EcoSys and P6 data sources. Includes approval controls for publication. Data refreshed monthly.

# Project Portfolio View

 **Metro**



Measure R Project Dashboard

All Portfolios / Measure R Rail Projects / Exposition Transit Corridor Phase 2

**Exposition Transit Corridor Phase 2**

Scope Status Cost Schedule

**Project Description** ⓘ  
The Expo Phase 2 Project is located in the Westside of Los Angeles, extending approximately seven miles from the Expo Phase 1 terminus at Culver City Station to Santa Monica. The Phase 2 alignment begins at the terminus of Expo Phase 1 and utilizes the existing Exposition Right-of-Way (ROW), then diverges from the Exposition ROW and enters onto Colorado Avenue east of 17<sup>th</sup> Street. The alignment follows the center of Colorado Avenue to the proposed terminus in downtown Santa Monica in the vicinity of the intersection of 4<sup>th</sup> Street and Colorado Avenue.  
[More project info on metro.net](#)

**Map** ⓘ  
  
 Metro

Project Scope  
and Map

Links to other  
resources

# Project Status View



## Measure R Project Dashboard

[All Portfolios](#) / [Measure R Rail Projects](#) / [Exposition Transit Corridor Phase 2](#) ▾

### Exposition Transit Corridor Phase 2

[Scope](#) [Status](#) [Cost](#) [Schedule](#)

#### Current Status ⓘ

The Phase 2 Design-Build contractor, Skanska/Rados continues to advance the final design documents. Most of the design packages have been approved for construction. Third Party utility relocations are in progress and many conflicts with the construction phase of the project have been resolved. Construction is underway with the construction of most of the bridges along the alignment as well as the parking structure tracking to complete by the end of the year. Guideway grading, drainage, OCS foundation and ductbank installation have started. Station construction started in March 2013. Most of the rail has been delivered to the project site and installation has just started. The construction of the maintenance facility is underway. Coordination continued with the Cities of Los Angeles and Santa Monica, Metro and Caltrans.

Status updated  
in P6  
Notebooks



Project Photos



# Project Cost View

## Costs by Phase



## Measure R Project Dashboard

[All Portfolios](#) / [Measure R Rail Projects](#) / [Exposition Transit Corridor Phase 2](#)

### Exposition Transit Corridor Phase 2

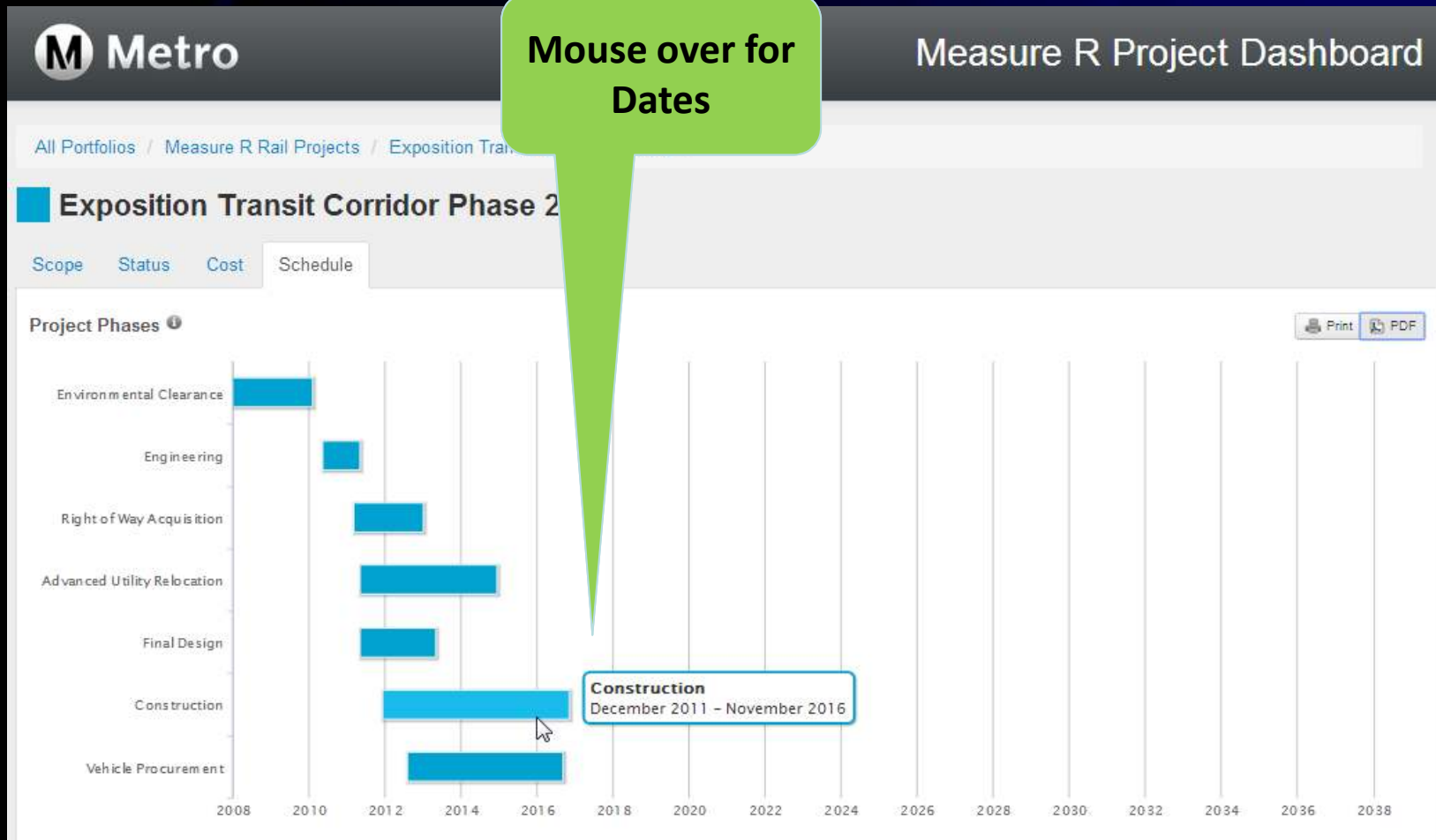
[Scope](#) [Status](#) [Cost](#) [Schedule](#)

Project Cost Summary (in millions) ⓘ

Print

Phase	Original Budget	Current Budget	Commitment	Cost To Date	Cost Forecast
Total	\$1,511.2	\$1,511.2	\$1,117.2	\$564.2	\$1,511.2
Construction	\$829.9	\$835.8	\$720.2	\$330.5	\$835.8
Right-of-Way	\$265.0	\$259.1	\$96.6	\$94.9	\$259.1
Vehicles / Buses	\$202.1	\$202.1	\$202.1	\$61.0	\$202.1
Professional Services	\$148.2	\$148.2	\$98.3	\$77.8	\$148.2
Project Contingency	\$66.0	\$66.0	\$0.0	\$0.0	\$66.0

# Project Schedule View



# DASHBOARD PUBLICATION CYCLE

Enterprise project controls functions  
coordinated and dashboards/reports  
published monthly

## 2014

### Calendar Legend:

- MTA Holiday
- Data Date
- FIS Actuals
- Schedules Updated
- Forecast Complete
- Publish Dashboard

### January

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

### February

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

### March

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

### April

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

### May

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

### June

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

### July

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

### August

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

### September

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

### October

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

### November

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

### December

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

# System Benefits Realized



- **Data Integration**
  - “Single version of the truth”
  - **Data Quality & security**
    - elimination of duplicate data entry and manual compilation
    - Business rule enforcement
    - Version control & Audit trail
- **Reporting Efficiencies**
  - **Automated project status reports at the click of a button**
  - **Staff efficiencies from reduced manual logging and redundant data entry**
    - Document, Change Control, Cost Control
    - More time for proactive analysis; corrective action



# System Benefits Realized



- **Process Standardization**
  - Identified and eliminated inconsistencies
  - Cost reconciliation and reporting across projects
  - Standard reports
  - Change management
  - Business rule enforcement of data
- **Management visibility into project & program status**
  - Customized dashboards
  - Portfolio management information via detailed roll-ups
  - Detailed project information

# **Lessons Learned – Implementation**

- Define requirements, evaluate work processes
- Choose your implementation method  
(Top-down vs. Cultural)
- Need management sponsor, system facilitator,  
early adopter champions
- Establish goals and communicate progress
- Implement focus groups where needed
  - MTA has focus groups around process areas for cost,  
schedule, change and document control

# Lessons Learned - Technical



- Institutional data standards to facilitate summary and portfolio-level reporting
- Cost-Schedule Integration is very important
  - Master schedule maps to multiple accounting project numbers and tasks
- Cost Engineers managed costs at a lower level of detail than that available from the accounting system (Contract POs)
  - Manually split actuals upon automation

# Conclusion

## Implementation Mantra:

- People hate change because change is hard
- Look to empower staff through education and training
- Management and leadership are key
- Change management strategies are vital
- Learn from bumps in the road, be flexible, and keep moving forward



# Questions



**FOR MORE INFORMATION:**

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