

Office Of Inspector General

Review of Metro

Construction Projects

Quantitative Data

Presented By

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Inspector General

October 2023

Construction Committee

Los Angeles County Metropolitan Transportation Authority



A: COSTS / BUDGET

File #
2023-0474

LOP Budget Data:

- 17 Projects reviewed
- Original LOP: \$14.7B
- Variance: \$ 1.6B
- Top 5 Projects: 86% Variance

Hard vs Soft Costs:

- Hard=Construction + 15% vs
Soft = Other Costs
- Hard 66% vs Soft 34%
- Change Orders drive up

↑ Hard Costs

LOP Budget/Cost Recommendations:

- Enhanced change basis coding
- Track and report (separately) variances to hard versus soft costs

17 Projects: Top 5 Percentage of Overall LOP
Budget Variance

"Other" Represents 12 of 17 Projects

Purple Line
Section 2,
134,000,000,
9%

Other,
223,790,000,
14%

Crenshaw/LAX:

**Pre-Award: 24% of Total LOP
Budget**

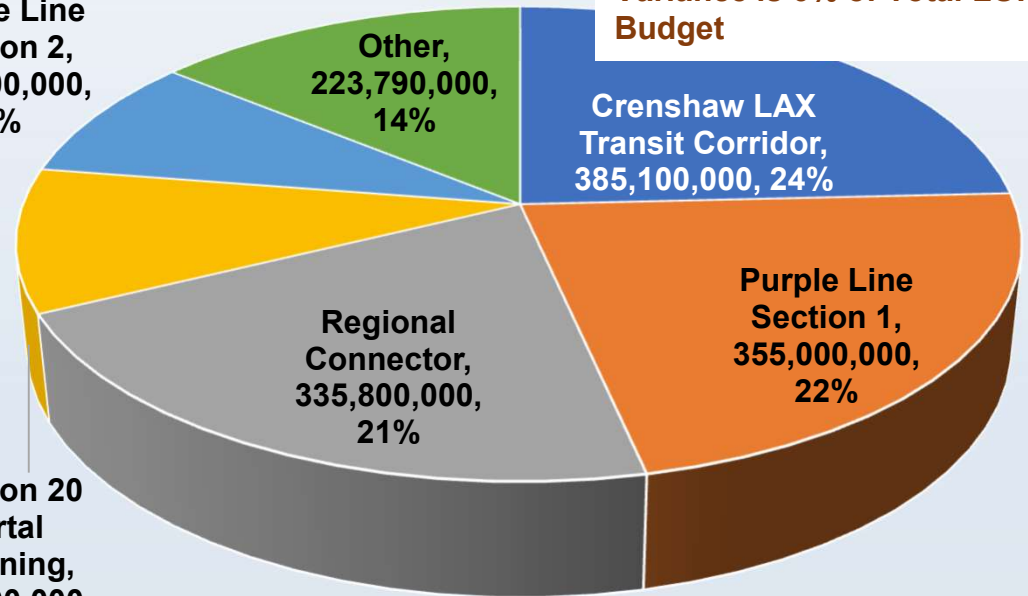
**Post-Award: \$90,000,000
Variance is 6% of Total LOP
Budget**

**Crenshaw LAX
Transit Corridor,
385,100,000, 24%**

**Purple Line
Section 1,
355,000,000,
22%**

**Regional
Connector,
335,800,000,
21%**

**Division 20
Portal
Widening,
155,000,000,
10%**



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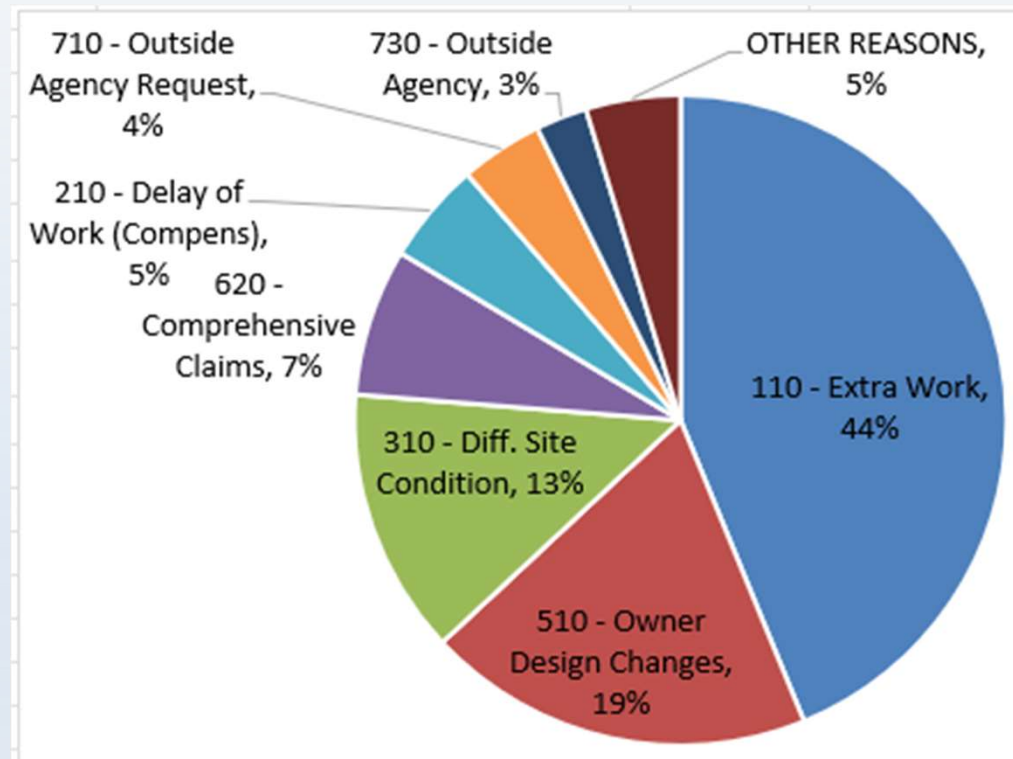
Change Order Analysis:

- 2,261 COs, Total Value \$1.2B
- 29 contracts, 13% avg CO Variance
- Top 5 Projects: 86% of Total Variance
- CO's over \$10M: 53% of Total Variance
- Design-Bid-Build: 10% avg CO Variance
- Design-Build: 14% avg CO Variance

Reason for Change Orders:

- Top CO Reasons for Change
 - Extra Work (Design-Bid-Build #1)
 - Design Changes (Design-Build #1)
 - Differing Site Condition

Top 7 "1994 Reasons" by % for Change Orders



CO Recommendations:

- Enhanced change basis coding with visibility as to (potentially) "avoidable" causes
- Identify change orders that result from alternative dispute resolution

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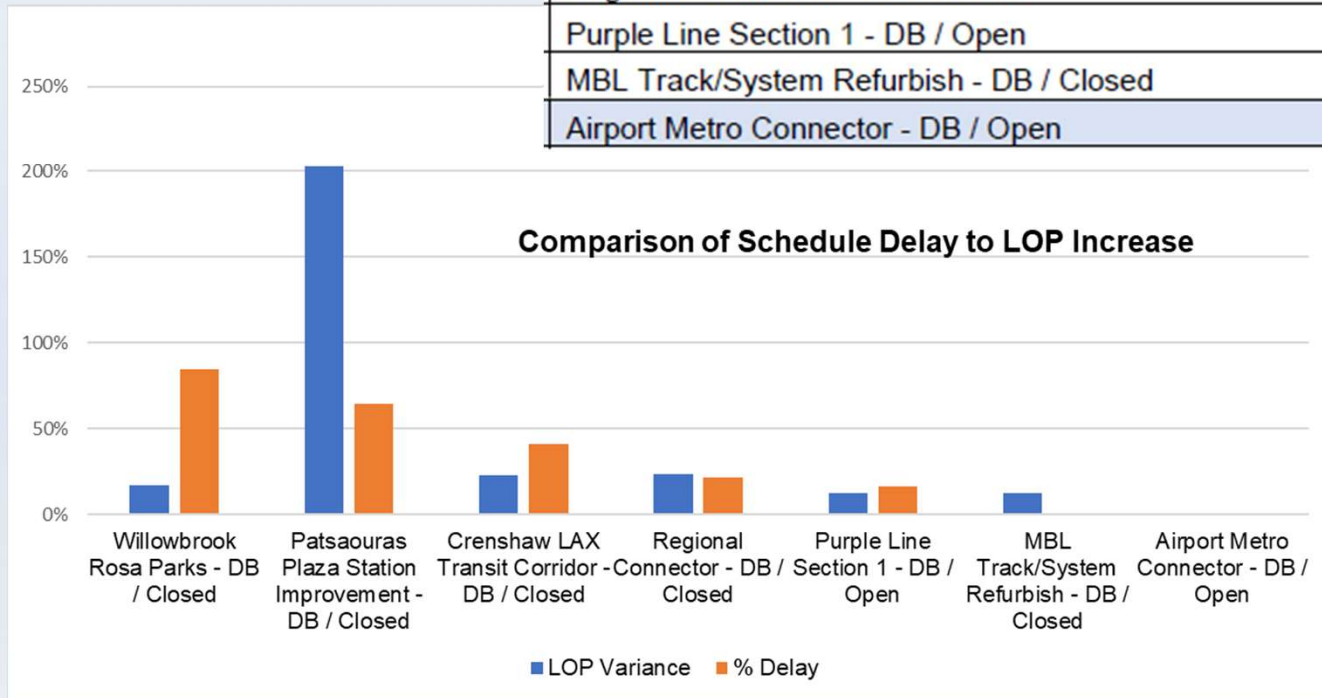
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Correlation Between LOP Budget and Schedule Variances

- Patsaourus Plaza:
Compensable delay
- Willowbrook:
Added Work

Project	LOP Variance	Schedule Variance
Willowbrook Rosa Parks - DB / Closed	17%	85%
Patsaouras Plaza Station Improvement - DB / Closed	203%	64%
Crenshaw LAX Transit Corridor - DB / Closed	23%	41%
Regional Connector - DB / Closed	24%	22%
Purple Line Section 1 - DB / Open	13%	17%
MBL Track/System Refurbish - DB / Closed	13%	0%
Airport Metro Connector - DB / Open	0%	0%



Schedule Recommendation:

Track and report change basis for delays to schedule.

Contractor Delegated Safety Duties: Protection of Employees, Third Parties & Property

- Plan & Implement Safety
- Report Incidents
- Implement Corrective Actions

(A) SAFETY /Employee Health	Regional Connector		% per 200k Work	Crenshaw / LAX		% per 200k Work	PLE-1 ¹⁸		% per 200k Work Hours	PLE-2		% per 200k Work Hours
Types of Safety Incidents	7,886,846 Work Hours			12,059,920 Work Hours			8,636,811			3,390,250		
Recordable	28	25%	0.71	85	22%	1.41	41	41%	0.95	51	28%	3.01
First Aid	30	27%	0.76	213	56%	3.53	45	45%	1.04	99	55%	5.84
Other	1	1%	0.03	1	0%	0.02	1	1%	0.02	2	1%	0.12
Near Miss	20	18%	0.51	52	14%	0.86	8	8%	0.19	23	13%	1.38
Wobblers (Recordable Not First Aid?)	0	0%	0.00	11	3%	0.18	2	2%	0.05	5	3%	0.29
Administrative & OSHA Inspections	28	25%	0.71	17	4%	0.28	2	2%	0.05	1	1%	0.08
Substance Abuse	3	3%	0.08	4	1%	0.07	0	0%	0.00	0	0%	0.00
Total	110	100%	2.79	383	100%	6.35	99	100%	2.29	181	100%	10.88

Recommendation:

- “Weight” Contractor’s Safety Culture indicators higher in “Responsible” Bidder Review
 - ❖ Seek Experience Modification Rating (“EMR”) ≤ 1.0 for Recordable Injuries
- Require adherence to Metro’s Safety Manual pre-bid and training post-award
- Revise contract to require Contractor to submit project Cal/OSHA forms to Metro

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NEXT STEPS

File #
2023-0178

The Review of Metro Construction Projects Quantitative Data includes 13 recommendations to further enhance Metro’s performance and reporting on cost/budget, schedule and safety metrics.

The list of OIG recommendations is an attachment to this OIG report (Attachment B).

Additionally, concurrently with this quantitative report, the OIG submits a report entitled “2023 OIG Construction Best Practices Report” (Legistar Report No. 2023-0178.) That summarizes the OIG’s findings regarding the Program Management Group’s compliance with 109 recommendations made in the OIG’s 2016 Construction Best Practices Report.

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