



Board Report

File #: 2015-1630, File Type: Contract

Agenda Number: 28.

2nd REVISED
CONSTRUCTION COMMITTEE
NOVEMBER 19, 2015

SUBJECT: REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT

ACTION: ESTABLISH A REVISED LIFE OF PROJECT BUDGET AND AUTHORIZE CONTRACT MODIFICATIONS TO CONTRACT C0980 TO MITIGATE COST AND SCHEDULE IMPACTS

RECOMMENDATION

- A. INCREASING the **Life of Project (LOP) Budget on the Regional Connector Project** by \$131.8 million, from \$1,420 million to \$1551.8 million;
- B. INCREASING the **Regional Connector FY16 Budget by \$20 million**;
- C. AUTHORIZING the CEO to execute Contract Modification No. 32 to Contract C0980, Regional Connector Constructors (RCC) for additional utility work and schedule recovery measures, in an amount not-to-exceed \$49,000,000, increasing the total contract price from \$986,177,590 to \$1,035,177,590; and
- D. AUTHORIZING the CEO to execute Contract Modification No. 33 to Contract C0980, Regional Connector Constructors (RCC) for the addition of a fan plant at the wye junction, in an amount not-to-exceed \$12 million, increasing the total contract price from \$1,035,177,590 to \$1,047,177,590. Upon Board approval of this recommendation and execution of Modification no. 33, staff will cancel Modification No. 4 \$4.1 million. Therefore, the net effect of this additional work is \$7.9 million.

ISSUE

In May 2014, the Metro Board awarded the C0980 contract to RCC for \$927.23 million, and established a life of project budget for the project at \$1,420 million, including \$92.7 million in contingency. Since contract award, several significant costs have been incurred which have eroded project contingency. Furthermore, FTA requested a project contingency analysis be performed which indicated that additional contingency is required to complete the project. The staff recommendation includes additional funding of \$132 million to cover cost growth on the project and to replenish contingency. Staff intends to aggressively manage all areas of the project and to continue to reduce costs wherever possible.

On April 30, 2015, the Metro Board approved Contract Modification No. 10, to transfer the remaining utility relocation work from Contract C0981R, for a not-to-exceed amount of \$27.1 million. Staff has negotiated the direct costs this work in the amount of \$18.1 million. The remaining amount is associated with extended overhead associated with schedule delay. These costs are currently being audited by MASD and the audit is expected to be completed by the end of November. As a follow-up to the Board's previous authorization, this report also recommends the approval of a not-to-exceed Contract Modification of \$49 million, to Contract C0980 to resolve all remaining costs associated with the additional utility work as well as schedule recovery measures, to ensure the project is completed by the FTA FFGA Revenue Service Date (RSD) of May 2021 and TIFIA. Staff is requesting approval of a not-to-exceed value at this time so that work critical to the project recovery schedule may begin by early January 2016. The recommended recovery measures must be started no later than January 4, 2016, or the Project will not be completed per the FFGA schedule agreed with FTA and TIFIA. If the FFGA schedule is not met, then as much as \$587.24 million in FFGA/TIFIA funds may be at risk. Late completion will also entitle the C0980 Contractor to additional extended overhead costs of \$3 million per month, as well as other Project costs, totaling approximately \$5 million per month. Also, late completion of the Regional Connector may put at risk future FTA funds for other Metro projects.

This report also recommends the approval of a not-to-exceed Contract Modification of \$12 million, to Contract C0980 to design and construct a fan plant at the wye junction. The addition of the fan plant resolves a long-standing project design issue to address on-going operational and fire/life safety recommendations. Upon Board approval of this recommendation and execution of the Modification no. 33, staff will cancel Modification No. 4 (Option 10 - Add Open Roof) as it will not be necessary when the fan plant is added, saving the project \$4.1 million. Therefore, the net effect to this Project of this additional work is \$7.9 million. Staff is requesting approval of a not-to-exceed value at this time so that work critical to the project schedule may begin in early December 2015. Overall design of the project is now 85% complete and delays in implementing the fan plant will negatively impact the overall project completion schedule and increase project costs.

There are a number of Lessons Learned arising from the content of this Board Report, many of which have already been implemented by staff and include, but are not limited to: timing of development of the final LOP in relation to the ~~Full Funding Grant Agreement process~~ project budget; additional risk assessments beyond those normally conducted; increased early utility investigations with a corresponding budget increase (additional community interface); and, close collaboration with the City of Los Angeles departments and Council to garner and receive support for granting of variances, permits and necessary street closures. These items are essential to progress and success of Metro projects.

DISCUSSION

Project Description:

The Regional Connector Transit Corridor Project (the Project) consists of the design and construction of a 1.9-mile light rail transit subway in downtown Los Angeles which creates an underground trunk line, connecting the existing Metro Gold Line, Metro Blue Line, and Metro Exposition Line light rail transit (LRT) systems.

The Project begins at the existing 7th/Metro Station and extends north to 2nd Street and Hope Street,

turning east along 2nd street to a new underground rail junction on Alameda street. The Project will include three new underground stations at 2nd/Hope, 2nd/Broadway, and 1st/Central Avenue.

The contract currently calls for construction to be substantially complete on October 23, 2020, followed by two months of pre-revenue testing to be completed on December 23, 2020. The Revenue Service Date (RSD) required under the FFGA is May 29, 2021, which provided five months of schedule float for project completion.

Background

In February 2014, the FFGA budget of \$1,402.9 million was approved for the project, including \$670 million in federal New Start funds. In May 2014, the C0980 design-build construction contract was approved awarded for \$927.23 million establishing and the life of project budget was established at \$1,420 million, including ~~\$92.7~~ 141.7 million in project contingency. The design-build construction contract (including options) was \$111 million higher than what was the estimated ~~construction line item~~ in the approved FFGA budget. The budget and estimate was set very early in the process with only a conceptual engineering design since Metro wanted to expedite the execution of the FFGA and secure the funding early to advance the project.

Contingency Recovery: The current project contingency is \$67.5 million including allocated and unallocated contingency. A project risk assessment has been performed in accordance with FTA guidelines, which establishes contingency level recommendations for the project. The revised LOP budget in amount of \$1,551.8 million contains Accordingly the revised LOP budget contains the FTA recommended the contingency of \$114.9 million, including allocated contingency of \$34.6 million and \$80.3 million of unallocated contingency (FFGA and Non-FFGA). This will increase the current project percentage contingency from ~~4.87.1%~~ to 7.410.7% of remaining project budget that is within FTA guidelines.

Since the inception of the contract, additional work scope has been identified requiring the issuance of contract modifications to the design-builder. Additionally, there has been a corresponding increase in associated support costs which collectively have eroded contingency levels on the project. A summary of 1) design-build contract costs, and 2) associated project support costs is provided below. A detailed discussion of each major project cost element is provided in Attachment D.

Since the award of the Design-Build contract (C0980), the following three significant events have occurred which have increased, or will potentially increase, the contract cost.

1.0 Design Build Contract Costs

- A. Selection of Design Options: During the Best and Final Offer negotiations with the Design-Builder, a number of project elements were identified as possible options and were added to the contract as potential cost saving measures. The intent was that after award, the Design-Builder would have time to fully investigate these elements and to determine if they were necessary, potentially reducing costs to within the available budget. A total of 21 options totaling \$58.7 million were added to the contract. After award, nine options were exercised, which added \$35.7 million to the contract. By not exercising the remaining 12 options, the project was able to reduce potential costs by \$21 million, along with a

corresponding drawdown from contingency.

- B. AUR Transfer: Due to continuous and multiple unforeseen conditions and schedule delays, the AUR (Advanced Utility Relocation) contract (C0981R) was terminated for convenience and the Board approved transferring the balance of this utility work to the C0980 contract in April 2015, at a cost to the project of \$27.1 million. Since transferring this work to C0980, significant additional discoveries have occurred, including the discovery that electrical utilities, which were originally anticipated to be suspended under the deck, could not be temporarily supported for safety reasons, and which now all must be relocated in advance of construction. This and other unforeseen discoveries have added additional scope, costs and schedule impacts to the project. These additional scope, costs and schedule impacts are addressed in Item C (Schedule Delay Mitigation) below.
- C. Schedule Delay Mitigation: With the transfer the AUR work, the Board action recognized that the project schedule would be impacted by six months, based on the best information available at that time. As mentioned above, the additional work required as a result of the additional utility discoveries have extended the project schedule by a minimum of 2 and potentially 4 additional months, for a total impact of 8 to 10 months to contract C0980. These delays need to be recovered to meet the FFGA RSD of May 29, 2021. Staff has aggressively analyzed multiple schedule recovery scenarios and has worked collaboratively with the Design-Builder over the last several months to jointly develop a schedule recovery plan to meet FFGA schedule. A significant contributor to the LOP budget request is the estimated not-to-exceed amount of \$49 million associated with performing additional utility work required, as well as accelerating construction to meet the FFGA schedule. Without proactive measures to recover lost schedule, the contractor has the contractual right to submit a request for extended overhead costs for the actual utility caused delay. With 8 to 10 months of project delay, the potential cost to the project if mitigation measures are not adopted, ranges between \$49 and \$59 million. The incremental net cost to Metro for accelerating construction for an on-time completion is estimated at up to \$10 million. With the continued support of the City, the recovery strategy is scheduled to begin in early January 2016, subject to Board approval.

2. Associated Project Support Costs:

Additional support services costs are included in the project budget. These costs include: Third Party Work, Right-of-Way Acquisition, P3010 Light Rail Vehicles, Professional Services, Other Support Costs, and Environmental Planning. A detailed discussion of each of these project cost elements is provided in Attachment D.

DETERMINATION OF SAFETY IMPACT

This Board action will not have any negative impact on established safety standards.

FINANCIAL IMPACT

The funding increase of \$131.8 million will be included in the Life-of-Project budget under Project 860228 (Regional Connector Transit Corridor), in Cost Center 8510 (Construction Project Management). The FY16 Budget will be increased by \$20 million.

Since this is a multi-year capital project, the Executive Director of Program Management and the Project Manager will be responsible for budgeting costs for future years.

Impact to Budget

As discussed in Attachment F, the analysis required by the Uniform Cost Management Process and Policy for Measure R projects, the increase to the Life of Project budget for this project presents a special challenge in that the Metro Reform and Accountability Act of 1998 made underground work ineligible for Propositions A and C. In addition, the Regional Connector LOP already includes its full complement of Measure R funding, \$160 million. This leaves very few alternatives for addressing the LOP increase. To address the funding eligibility challenges, we recommend the funding transfers shown in Table 2, Strategy to Address Regional Connector Funding Gap in Attachment F.

The recommended transfers keep the LOP of project budgets whole for the projects already under construction. In June of 2015, we reported to the Metro Board of Directors that a shortfall exists in the SRTP forecast. At that time, the shortfall was still manageable, but we identified the risk of changing circumstances, such as rising costs and the possibility of a recession. Next spring, we will be updating the SRTP forecast and returning to the Metro Board of Directors with a recommendation for addressing this continuing problem.

ALTERNATIVES CONSIDERED

The Board may decline to approve recommended actions A and B. This is not recommended as not approving the LOP budget adjustment and funding under recommendations A and B, would have a significant impact on the Agency's ability to deliver the project with the current total unallocated contingency of ~~2.27.1%~~ (\$~~67.530~~ million). The Board may also decline to approve recommendation C. This is also not recommended as not approving the additional utility work and adoption of schedule recover measures means that work required to complete the project could not be performed, and that the Project would not be completed per the FFGA schedule agreed with FTA and TIFIA. This puts at risks the receipt of future FTA funds for other Metro projects. This late completion also entitles the C0980 Contractor to additional extended overhead costs as well as additional Project costs totaling approximately \$5 million per month.

NEXT STEPS

Under the terms of the Design-Build contract and as part of risk sharing, Metro and the Design-Build Contractor have respective responsibilities for applying for, and obtaining, the necessary City permits, variances and approvals under the terms of the base contract. In this regard, Staff anticipates working closely with City staff and the Council representative to obtain all necessary permits, variances, and approvals to expedite the project schedule so that Metro meets its commitment to FTA.

At this time, the project is approximately 20% complete. By FY18, Staff anticipates the project will be over 50% complete (design will be complete, and tunneling and excavation for stations will be substantially complete). In the intervening period, Staff will undertake a formal risk assessment with FTA. The results of this risk assessment will be shared with the Board, along with a recommendation for the appropriate Board action in FY18, which could include a request for additional funding resources.

ATTACHMENTS

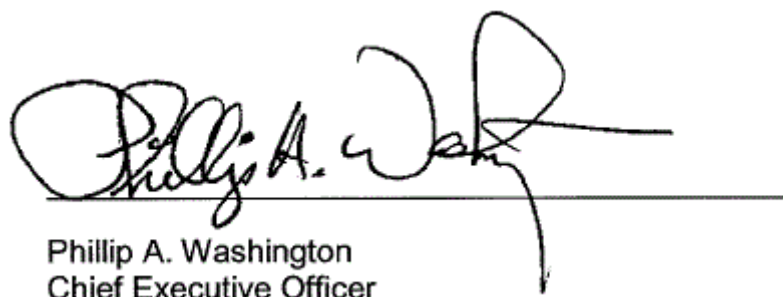
- Attachment A - Procurement Summary
- Attachment B - DEOD Summary
- Attachment C - Contract Modification Authority (CMA) Summary
- Attachment D - Project Cost Summary by Element and LOP Variance
- Attachment E - Funding/Expenditure Plan
- Attachment F - Uniform Cost Management Process and Policy Analysis
- Attachment G- Regional Connector Presentation

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Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT / CONTRACT NO. C0980

1.	Contract Number: C0980		
2.	Contractor: Regional Connector Constructors, J.V.		
3.	Mod. Work Description: Additional Utility Work and Schedule Recovery Measures		
4.	Contract Work Description: Regional Connector Transit Corridor Project		
5.	The following data is current as of: October 13, 2015		
6.	Contract Completion Status:		
	Bids/Proposals Opened:	4	% Completion \$: 25.89%
	Contract Awarded:	05/06/14	% Completion time: 18.35%
	NTP:	07/07/14	Original Contract Days: 2,430
	Original Complete Date:	03/04/21	Change Order Days: 0
	Current Est. Complete Date:	03/04/21	Suspended Days: 0
	Total Revised Days:		2,430
7.	Financial Status:		
	Contract Award:	\$927,226,995	
	Total Contract Modifications Approved:	\$ 58,950,595	
	Current Contract Value:	\$986,177,590	
	Contract Administrator: Susan Santoro		Telephone Number: 213-922-4974
8.	Project Manager: Girish Roy, P.E. Deputy Executive Officer, Project Management		Telephone Number: 213-893-7119

A. Contract Action Summary

This Board Action is to approve the authorization of the CEO to execute two Contract Modifications. Contract Modification No. 32 is to implement additional utility work and schedule recovery measures throughout the project to complete all utility work required and mitigate project delay. Contract Modification No. 33 is to add the Alameda Wye Fan Plant.

These contract modifications will be processed in accordance with Metro's Acquisition Policy and the contract type is a Firm Fixed Price.

On May 6, 2014, Contract No. C0980 was awarded to Regional Connector Constructors (RCC), a Joint Venture between Skanska USA Civil West California District, Inc., and Traylor Bros. Inc., the responsive and responsible proposer determined to provide Metro with the best value, in the amount of \$927,226,995 for the final design and construction of the Regional Connector Transit corridor project. The period of performance for this contract is 2,430 calendar days.

On April 30, 2015, the Metro Board approved Contract Modification No. 10, to transfer the remaining utility relocation work from Contract C0981R, for a not-to-exceed amount of \$27.1 million. Staff has negotiated the direct costs for this work in the amount of \$18.1 million. The remaining amount is associated with extended overhead associated with schedule delay. These costs are currently being audited by MASD and the audit is expected to be completed by the end of November. Contract Modification No. 32 is to resolve all remaining costs associated with the additional utility work as well as schedule recovery measures, to ensure the project is completed by the FTA FFGA Revenue Service Date (RSD) of May 2021 and TIFIA. Staff is requesting approval of a not-to-exceed value at this time so that work critical to the project may begin by early January 2016.

Contract Modification No. 33 is to add a fan plant at the wye junction. Metro staff is requesting approval of a not-to-exceed amount for this work to allow the necessary design to be initiated as soon as negotiations are completed, so that any potential delays to the project schedule are minimized and so that the necessary real estate acquisition may begin.

B. Cost/Price Analysis

The final price for the contract changes will be reviewed and analyzed by Metro staff and determined to be fair and reasonable in accordance with Metro Procurement Policies and Procedures. The negotiation process will include, but not be limited to, clarification, fact-finding, technical analysis, cost analysis and discussions. Metro staff will complete an independent cost estimate prior to initiating negotiations with RCC. The recommended price will be audited by MASD and subject to removal of any unallowable or unallocable costs.

Item No.	Changes	Proposal amount	Metro ICE	Negotiated or NTE amount
1.	Mod 32 Schedule Recovery Measures	TBD	TBD	\$49 million
2.	Mod 33 Alameda Wye Fan Plant	TBD	TBD	\$12 million

DEOD SUMMARY

REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT / CONTRACT NO. C0980

A(1) Small Business Participation - Design

Regional Connector Constructors (RCC) made a 22.63% Race Conscious (RC) Disadvantaged Business Enterprise (DBE) commitment for Design. At the time of contract award, RCC listed seven (7) DBE subcontractors for Design, and five (5) additional DBE subcontractors have been added to date. Current DBE participation¹ is 16.29%, a shortfall of 6.34%. Design is 79% complete. RCC was contacted to address their current participation and indicated that the project's Lead Designer, Hatch Mott MacDonald (HMM), has identified additional scopes of work and executed contract awards that are expected to increase participation as Design continues. RCC is working closely with HMM to refine their projection as to the final total amounts for Design, and expects the 22.63% commitment to be met or exceeded by HMM's continuing DBE subcontractor commitments.

DISADVANTAGED BUSINESS ENTERPRISE COMMITMENT	22.63% DBE	DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION	16.29% DBE
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	DBE Subcontractors	Ethnicity	% Commitment	Current Participation¹
1	Abratique & Associates, Inc.	Asian Pacific American	0.74%	0.47%
2	Anil Verma Associates, Inc.	Sub Asian American	0.52%	0.64%
3	Armand Consulting, Inc.	Sub Asian American	1.86%	1.17%
4	D'Leon Consulting Engineers	Hispanic American	1.44%	1.29%

5	MARRS Services, Inc.	Asian Pacific American	1.61%	1.97%
6	McLean & Schultz	Hispanic American	3.07%	2.48%
7	Transmetrics	Hispanic American	2.46%	0.94%
8	Earth Mechanics*	Asian Pacific American	3.27%	0.48%
9	Electrical Building Systems*	Hispanic American	2.53%	1.59%
10	PacRim Engineering*	Asian Pacific American	1.26%	1.99%
11	V&A*	Hispanic American	3.20%	2.91%
12	Parthenon Corporation (formerly Romjean*)	African American	0.67%	0.36%
Total			22.63%	16.29%

¹Current Participation = Total Actual Amount Paid-to-Date to DBEs ÷ Total Actual Amount Paid-to-date to Prime.

* DBEs added after contract award

A(2) Small Business Participation - Construction

RCC made an 18.00% DBE commitment for Construction at the time of contract award, listing one (1) known DBE subcontractor and identifying DBE scopes of work. After the start of Construction, 29 DBE subcontractors have been added to date. RCC is currently achieving 0.43% of their proposed 18% DBE subcontract commitment for Construction. Construction is currently 9% complete. It is expected that DBE commitments will continue to increase as Design is completed and Construction work is bid out. Based on the total amount paid-to-date to RCC and the total actual amount paid-to-date to subcontractors, current DBE participation is 6.96%. RCC is expected to continue ongoing outreach and good faith efforts to meet their DBE contract commitment.

DISADVANTAGED BUSINESS ENTERPRISE COMMITMENT	18.00% DBE	DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION	6.96% DBE
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	DBE Subcontractors	Ethnicity	% Commitment	Current Participation¹
1	TSG Enterprises, Inc. (Solis)	Hispanic American	0.04%	0.21%
2	Abratique & Atienza, Inc.*	Asian–Pacific American	0.05%	0.72%
3	Absolute Security International*	Asian–Pacific American	0.00%	0.10%
4	Ace Fence*	African American	0.01%	0.00%
5	Alameda Construction*	African American	0.01%	0.05%
6	Angela Liu Consulting*	African American	0.00%	0.00%

7	Anytime Dumping*	African American	0.01%	0.00%
8	Aragon Construction*	African American	0.01%	0.00%
9	C G O Construction Company*	African American	0.01%	0.51%
10	C2PM*	Asian-Pacific American	0.00%	0.00%
11	Clean Street Sweeping, Inc.*	Hispanic American	0.01%	0.03%
12	Clean Up America, Inc.*	African American	0.08%	0.15%
13	Davis Blue Print, Co., Inc.*	Hispanic American	0.00%	0.03%
14	E.W. Moon, Inc.	African American*	0.00%	0.37%
15	Empire Steel, Inc.	Asian-Pacific American*	0.01%	0.00%
16	E-Nor Innovations, Inc. (Supplier)	African American*	0.02%	0.87%
17	E-Nor Innovations, Inc. (Sub)	African American*	0.00%	0.18%
18	EW Corporation	Hispanic American*	0.06%	0.37%
19	G & C Equipment Corporation	African American*	0.05%	0.15%
20	G & F Concrete Cutting, Inc.	Hispanic American*	0.01%	0.35%
21	Invictus Enviromental Safety Solutions	African American*	0.00%	0.01%

22	Morgner Technology Management	Hispanic American*	0.01%	2.47%
23	PTS Surveying, Inc.	Native American*	0.00%	0.00%
24	Soteria Company, LLC	Hispanic American*	0.01%	0.05%
25	Supreme Wholesale Electric, Inc.	African American*	0.01%	0.31%
26	The Jungle Nursery	African American*	0.01%	0.00%
27	The Mop Crew	African American*	0.01%	0.00%
28	Treesmith Enterprises, Inc.	Hispanic American*	0.00%	0.00%
29	Ultimate Maintenance Services*	Hispanic American*	0.00%	0.00%
30	Young Communications	African American*	0.00%	0.03%
Total			0.43%	6.96%

*Current Participation = Total Actual Amount Paid-to-Date to DBEs ÷ Total Actual Amount Paid-to-date to Prime.
* DBEs added after contract award*

B. Project Labor Agreement / Construction Careers Policy (PLA/CCP)

The Contractor has committed to complying with PLA/CCP requirements for this project. This project is 1.72% complete (based on total construction labor hours expended/total estimated construction labor hours in the approved employment hiring plan) and the contractor is achieving the 40% Targeted Worker Goal at 58.84%, not achieving the 20% Apprentice Worker Goal at 15.01%, and achieving the 10% Disadvantaged Worker Goal at 12.64%. The contractor is still in the design-phase with limited construction activity, and is on schedule with their employment hiring plan. Staff will continue to monitor and report the contractor’s progress toward meeting the goals of the PLA/CCP.

C. Living Wage Service Contract Worker Policy

The Living Wage and Service Contract Worker Retention Policy is not applicable to this modification.

D. Prevailing Wage Applicability

Prevailing Wage requirements are applicable to this project. DEOD will continue to monitor contractors' compliance with the State of California Department of Industrial Relations (DIR), California Labor Code, and, if federally funded, the U S Department of Labor (DOL) Davis Bacon and Related Acts (DBRA).

ATTACHMENT C

CONTRACT MODIFICATION/CHANGE LOG REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT / CONTRACT NO. C0980

Mod. No.	Description	Status	Cost
CO 001	TIFIA Certification Requirements	Approved	0
CO 002	Revision to SP-01 DBE Reporting	Approved	0
CO 003	Advanced Utility Relocation Transfer from C0981R	Approved	18,140,287*
2	Opt.3 – 2 nd /Hope Upper Level Entr. & Ped. Bridge	Approved	3,320,000
3	Opt. RCC-1 2 nd /Broadway SEM	Approved	16,000,000
4	Option No. 10 Add Open Roof	Approved	4,100,000
5	Option No. 11 Add Ventilation Under Duct	Approved	2,150,000
6	Option No. 12 Change Basis of Design	Approved	8,000,000
7	Opt. RCC-2 Add Deep Foundations at 2 nd /Broadway	Approved	1,250,000
8	Opt. RCC-5 2 nd /Broadway Decking	Approved	100,000
9	Opt. RCC-3 Glazing at Portal Canopies	Approved	500,000
10	See CO 003	Pending	TBD
11	Rail Car Transporter	Approved	991,749
12	Little Tokyo Station Second Entrance Design	Approved	150,528
13	Shoofly Temp. Communications Design	Approved	26,880
14	Add'l Site Investigation at Volk Property	Approved	16,606
15	Hazardous Mat'l. Abatement at Volk Property	Approved	13,115
16	Wye Realignment Study	Approved	11,123
17	Lead-Contaminated Soil Removal at Volk Property	Approved	377,237
18	Revise SOE at 1 st /Central Station	Approved	595,560
19	Lead-Contaminated Soil Removal at Volk Property Ph. 2	Approved	131,822
20	Opt. RCC-8 Revert to Tunnel Lighting	Approved	340,000
21	1 st /Alameda Bump-outs & Widening Design	Approved	626,287
22	Extra Utility Relocation Mobilization	Approved	999,971
23	Deputy Grading Inspector at TBM Launch Pit	Approved	165,424
24	Deletion of Easements at Stavrum Property	Approved	0
25	Tactile Guidance Strips in Stations Design	Approved	209,637
26	Admin. Change to Conformed Contract	Pending	0
27	Modify Tunnel Liners @ JVP Design Only	Approved	41,209
28	Brick Structure at Shoofly Ductbank and Rose Street	Approved	102,900
29	Little Tokyo Station Second Entrance and Shoofly Temp.	Approved	552,520
30	Relocate Tree No. 37 (Cherry Tree)	Approved	10,540
31	Rail Car Transporter Trailer Modifications	Approved	27,200
32	Schedule Recovery Measures	Recommended	49,000,000
33	Alameda Wye Fan Plant	Recommended	12,000,000
Subtotal – Approved Modifications			\$58,950,595
Subtotal – Recommended Changes/Modifications			\$61,000,000
Total Approved Mods and Recommended Changes (including this change)			\$119,958,595
Prior CMA Authorized by the Board (including base award & other mods)			\$123,142,700
Increased CMA for this recommended action			\$0
Remaining CMA for Future Changes			\$55,232,392

*Partial amount, remainder to be determined.

REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT
 Project Cost Summary by Element and LOP Variance

In May 2014, the Board awarded the design-build contract for the C0980 Regional Connector project to RCC for \$927.23 million and established the life of project (LOP) budget at \$1,420 million.

Since that date, a number of additional costs have been incurred which have eroded the contingency levels on the project. A summary of these items is provided in Table 1 together with accompanying justification.

Table 1: Summary LOP Budget Adjustment

Project Budget Summary				
Cost Element		Original	Forecast	Change
1.0 DESIGN-BUILD CONTRACT (C0980)				
1.1	C0980 Design Build Contract	927,227	1,024,849	97,619
2.0 PROJECT SUPPORT COSTS				
2.1	3 rd Party, City of LA and Other Agency	28,413	52,331	23,918
2.2	Right of Way Acquisition	74,208	82,704	8,495
2.3	P3010 Light Rail Vehicles	16,275	16,275	0
2.4	Professional Services	176,183	184,540	8,357
2.5	Other (Environmental, Community Outreach, Art etc.)	20,975	27,828	6,852
2.6	Environmental Planning	24,200	26,250	2,050
2.7	C0981R AUR Contract	25,643	22,170	(3,473)
2.8	C0980 Contingency			
	Allocated Contingency	0	34,573	34,573
	Un-allocated Contingency	126,892	80,325	(46,567)
	Total	1,420,016	1,551,841	131,824

1. Design-Build Contract (C0980): Since the award of the Design-build contract the following three significant events have occurred which have increased or will potentially increase the contract cost and which have eroded the project contingency levels.

- a. Selection of Options: During the procurement phase, several design elements were identified as possible options to the contract in an effort to reduce costs to within available budget. During the BAFO process, nine of these options were exercised resulting in an approximate \$35.8 million increase in the contract value, Option 12 is expected to have a credit of \$6 million. The selected options listed in Table 2.

Table 2: Options Exercised

Option	Options Exercised	Amount (\$1000s)
3	2nd Hope Street Station, Upper Elevator entrance and pedestrian	3,320

	bridge	
10	Add open roof over Alameda crossover	4,100
11	Add ventilation under duct at 2 nd /Broadway Station crossover	2,150
12	Change basis of design to super fast growth rate/arson fire	8,000
RCC-1	Add 2nd/Broadway SEM Cavern and Crossover, Complete	16,000
RCC-2	Add deep foundations for 2 nd /Broadway ancillary box for Future Overbuild	1,250
RCC-3	Utilize Glazing Supported by spiders at portal canopies	500
RCC-5	2 nd /Broadway decking required to be installed during weekend closures in lieu of full street closure for period of 1 month	100
RCC-8	Revert to 25 feet spacing of tunnel lighting.	340
	Subtotal	35,760
	Credit Adjustments for option 12	(6,000)
	Total	29,760

- b. Transfer of Incomplete Utility Work: In January 2014, Metro awarded a contract for the advance utility relocations (AUR) of water, sewer and electrical power lines to allow for the cut and cover construction of the project's stations, guideways and portals. During the performance of this work, the AUR contractor encountered a significant number of unknown and abandoned utilities and structures that were either not shown or shown incorrectly on the current as-built drawings. As a result, the utility construction progress and schedule was impacted, to the extent that the AUR utility work was beginning to significantly impact construction work of the C0980 Design-Build Contractor. Based on the rate of progress, it was anticipated that the AUR contractor would have needed another 10 to 12 months to complete the work. In consideration of this and for the convenience of both parties, the AUR contract was terminated and the balance of work was transferred to the Regional Connector (C0980) contract by Board action in April 2015 at a cost to the project of \$27.1 million, paid through project contingency.

Since assuming this work, the design-build contractor has made significant additional discoveries involving electrical utilities which could not be temporarily supported from the temporary station deck structure as was anticipated. Potholing revealed that the age and conditions of these facilities make it unsafe to excavate and LADWP now requires that new facilities be installed before the existing services are removed from service. As this work needs to be completed prior to beginning station box construction at 2nd/Broadway, the project has incurred additional costs and time delay for design and construction.

- c. Schedule Delay Mitigation: With the Board action to transfer the balance of the AUR work to the C0980 contract, it was acknowledged that the Regional Connector project's baseline schedule would be impacted by approximately six months, based on the information available at that time. Subsequently, it was discovered that certain electrical utilities could not be temporarily supported as anticipated for safety reasons, due to their deteriorated

condition, and had to be relocated in advance of construction. These discoveries have greatly impacted cost and extended the schedule. In total, the contract C0980 contract schedule has been impacted by approximately 8 to 10 months, or 2 to 4 months past the FFGA Revenue Service Date (RSD) after utilizing all available schedule float. Mitigation of these delays is required to complete the project by the FFGA RSD date of May 29, 2021.

Working together with the design-build contractor, Metro staff have aggressively analyzed multiple schedule recovery scenarios and jointly developed a three part strategy which offers the best opportunity to complete the project by the FFGA RSD. The proposed recovery strategy involves re-sequencing, modifying and accelerating elements of the contract work.

The proposed recovery strategy consists of three elements with the objective of launching the TBM from the Mangrove site earlier than currently possible under the impacted schedule. For the schedule recovery to be successful, implementation of the first recovery measure is scheduled to begin by January 2016, subject to Board approval. The second and third elements of the recovery strategy will be implemented in August and September of 2016 respectively, and consist of re-sequencing major work activities. In addition to recovering the schedule, staff believes that the proposed recovery plan helps mitigate many of the potential risks still associated with critical activities ~~within the City~~.

The preliminary cost proposal from the contractor to complete the additional utility work and implement the recovery strategy to complete the project by the FFGA RSD is \$49 million. In order for staff to finalize the costs for each of the recovery measures, the contractor must redesign portions of the work and prepare detailed estimates and schedules for negotiation. Due to the time required to complete these tasks and to preserve the opportunity to complete on time by beginning accelerated construction work in January 2016, staff is seeking authorization to issue a contract modification to the design-build contractor, for an amount not-to-exceed \$49,000,000. It is Staff's intent to fully negotiate all costs prior to issuing a Modification for these recovery efforts to the contractor. Funding for this change is contained within the life of project budget authorization requested by this report.

If a recovery strategy is not implemented, the contractor has the contractual right to submit a request for extended overhead costs for the actual delay. With 8 to 10 months of project delay, the potential cost to the project ranges between \$49 and \$59 million, including extended agency and consultant oversight costs. The incremental net cost to Metro for re-sequencing and accelerating construction for an on-time completion is therefore estimated to be up to \$10 million.

This report also recommends the approval of a not-to-exceed Contract Modification of \$12 million, to Contract C0980 to design and construct a fan plant at the wye junction. The addition of the fan plan resolves a long-standing project design issue to address on-going operational and fire/life safety recommendations. Upon Board approval of this recommendation and execution of the Modification no. 33, staff will cancel Modification No. 4 (Option 10 – Add Open Roof) as it will not be necessary when the fan plant is added, saving the project \$4.1 million. Therefore, the net effect to this Project of this additional work is \$7.9 million, which will be offset by using unallocated contingency. Staff is requesting approval of a not-to-exceed value at this time so that work critical to the project schedule may begin in early December 2015. Overall design of the project is now 85% complete and delays in implementing the fan plant will negatively impact the overall project completion schedule and increase project costs. Additionally, immediate implementation of the fan plant design is required so that the necessary real estate acquisition may begin.

2. Project Support Costs: The following is a description of the budget status of the various project support services on the project.

2.1 Third Party Work: Third party activities include primarily private utility relocations and task order costs for the various City agencies under Master Cooperative Agreements. The overall cost for 3rd Party services has risen from a budgeted amount of \$28 million to a projected \$55 million. Of this \$27 million overrun, approximately \$19 million is attributed to private utility relocation costs. Due to the need to redesign and replace a substantial portion of the LADWP electrical infrastructure along 2nd street between Spring and Broadway, the utility relocation expense has risen significantly.

	Third Party Cost Element	Original	Forecast	Change
1	Private Utilities (includes LADWP)	11,413	30,231	18,818
	Private Utilities Contingency		3,000	3,000
2	MCA's (City of Los Angeles and other Agencies)	17,000	17,000	0
3	Other Misc. Costs	0	5,100	5,100
	Total	28,413	55,331	26,918

2.2 Right of Way Acquisition: Right of way acquisition costs on the project are projected to increase by \$8.5 million.

	ROW Cost Element	Original	Forecast	Change
1	Japanese Village	7,340	21,480	14,140
2	Robert Volk	13,661	20,760	7,099
3	Veolia Energy	21,659	22,196	537
4	L.A. Times	10,941	73	(10,868)
5	Others Properties	20,608	18,195	(2,413)
	Total	74,208	82,704	8,495

2.3 P3010 Light Rail Vehicles: Budget allocation for the purchase of vehicles for the project – no change.

2.4 Professional Services: Professional services required to support the project consist of agency management and administrative support, community relations staff, engineering management support, construction management services, Metro operational support, and advisory and audit functions. Collectively, these costs are projected to increase from \$176.2 million to \$184.5 million. Staff is actively managing these services to contain costs growth through the remainder of the project.

	Professional Services Cost Element	Original	Forecast	Change
1	Agency (Metro Support Staff)	54,542	54,542	0
2	Others (TAP, Auditing, QA Labor Compliance & Legal)	12,833	13,963	1,130
3	Community Relations & Storefront Lease	2,759	3,559	800
4	Engineering Management	58,168	64,595	6,427
5	Construction Management Services	41,857	41,857	0
6	Metro Operations	6,024	6,024	0
	Total	176,183	184,540	8,357

1.5 Other Support Costs: Cost growth of approximately \$6.9 million has also been experienced in environmental planning and mitigation, public art, the universal fare system and central control expansion.

	Other Support Costs	Original	Forecast	Change
1	Environmental	2,480	8,030	5,550
2	Art Program	398	1,300	902
3	Central Control	2,369	2,369	0
4	Universal Fare System	8,214	8,214	0
5	Misc. Printing, Community Outreach, IPMO office etc.	7,515	7,915	400
	Total	20,976	27,828	6,852

2.6 Environmental Planning: Environmental planning costs have increased \$2.3 million.

	Environmental Planning Cost Element	Original	Forecast	Change
1	Environmental Planning	24,200	26,250	2,050
	Contingency		250	250
	Total	24,200	26,500	2,300

2.7 AUR Contract C0981R: As stated above, the Advance Utilities Contract was terminated for convenience. A settlement of for all outstanding costs has been reached which is \$3.5 million below the original contract value. These savings will be allocated back to the project budget.

2.8 Contingency Recovery: A project risk assessment has been performed in accordance with FTA guidelines, which establishes contingency level recommendations for the project. Accordingly the revised LOP budget

contains the recommended allocated contingency of \$34.6 million, including \$80.3 million of unallocated contingency (FFGA and Non-FFGA)

	C0980 Contingency Allocation	Original	Forecast	Change
1	Allocated Contingency	0	34,573	34,573
2	Unallocated Contingency	126,892	80,325	(46,567)
	Total	126,892	114,898	(11,994)

REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT

ATTACHMENT E

FUNDING/EXPENDITURE PLAN

(Dollars in Millions)

Capital Project 860228	Prior	FY16	FY17	FY18	FY19	FY20	FY21	FY22	Total	% of Total
Uses of Funds										
Construction	220.17	138.39	184.57	122.36	149.94	227.07	62.12	19.70	1,124.31	72.5%
Right-of-Way	26.12	43.70	8.89	4.00	0.00	0.00	0.00	0.00	82.70	5.3%
Vehicles	0.00	2.00	2.64	5.06	6.06	0.51	0.00	0.00	16.28	1.0%
Prof. Services	143.07	50.05	22.27	18.18	16.92	12.04	3.16	0.00	265.69	17.1%
Project Contingency	0.00	13.59	1.06	7.00	7.00	7.00	0.71	0.00	36.36	2.3%
Subtotal Project	389.35	247.72	219.43	156.60	179.93	246.62	65.99	19.70	1,525.34	98.3%
Environmental/Planning	24.63	0.57	1.30	0.00	0.00	0.00	0.00	0.00	26.50	1.7%
Total Project Cost	413.99	248.29	220.73	156.60	179.93	246.62	65.99	19.70	1,551.84	100.0%
Original Project Cost	372.54	273.14	255.83	242.36	222.47	38.32	15.34	0.00	1,420.02	
Variance	41.44	-24.85	-35.11	-85.76	-42.54	208.30	50.65	19.70	131.82	
Sources of Funds										
Federal 5309 New Starts	82.04	115.03	100.00	96.29	93.08	136.26	47.20	0.00	669.90	43.2%
Measure R 35% (TIFIA Loan Proceeds)	0.00	61.86	21.09	26.16	25.91	6.86	18.11	0.00	160.00	10.3%
Lease Revenues	0.00	0.00	0.00	6.01	27.84	30.40	0.00	0.00	64.25	4.1%
Repaymnt of Cap Proj Loans (1)	98.92	4.68	48.65	8.96	33.10	-38.78	-2.87	0.00	152.67	9.8%
TDA	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.0%
STIP Regional Improvement Program	2.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.59	0.2%
City of Los Angeles contribution	0.00	5.00	7.00	6.00	0.00	23.98	0.00	0.00	41.98	2.7%
High Speed Rail Bonds	114.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	114.87	7.4%
Prop 1B PTMISEA	92.16	20.86	8.90	13.18	0.00	0.00	0.00	0.00	135.10	8.7%
CMAQ	23.15	40.85	0.00	0.00	0.00	0.00	0.00	0.00	64.00	4.1%
RIP	0.00	0.00	14.40	0.00	0.00	0.00	0.00	0.00	14.40	0.9%
Repaymnt of Cap Proj Loans (2)	0.00	0.00	20.69	0.00	0.00	87.89	3.55	19.70	131.82	8.5%
Total Project Funding	413.99	248.29	220.73	156.60	179.93	246.62	65.99	19.70	1,551.84	100.0%

ANALYSIS OF UNIFIED COST MANAGEMENT PROCESS AND POLICY FOR MEASURE R PROJECTS

Introduction

The Measure R Cost Management Process and Policy (the Policy) was adopted by the Metro Board of Directors in March 2011. The Policy caps Measure R project funding at the amounts in the Expenditure Plan approved by voters. The intent of the Policy is to inform the Metro Board of Directors regarding potential cost increases to Measure R-funded projects and the strategies available to close any funding gaps. The Regional Connector project is subject to this policy analysis.

The Regional Connector Project Life-of-Project budget requires an increase in cost from \$1,420.02 million to \$1,551.84 million (Table 1). This analysis recommends trade-offs required by this policy to identify the funds necessary to meet the \$131.82 million multi-year cost increase described below.

Table 1 – Regional Connector Cash Flow Needs (\$ in millions)

Capital Project 860228	Prior	FY16	FY17	FY18	FY19	FY20	FY21	FY22	Total
Total Project Cost (Oct 2015)	414.0	248.3	220.7	156.6	179.9	246.6	66.0	19.7	1,551.8
Original LOP (April 2014 Bd Rept)	372.5	273.1	255.8	242.4	222.5	38.3	15.3	-	1,420.0
2015 Over/(Under) 2014 LOP	41.4	(24.9)	(35.1)	(85.8)	(42.5)	208.3	50.6	19.7	131.8
Cash Flow as of FY2016 Budget	372.5	227.8	301.2	242.4	222.5	38.3	15.3		1,420.0
Oct 2015 Over/(Under) FY2016	41.4	20.5	(80.4)	(85.8)	(42.5)	208.3	50.6	19.7	131.8

To increase the Regional Connector Project Life-of-Project budget, the Board's Policy calls for approval of an action plan to address the increase at the project level, i.e. with value engineering, scope reductions, local contributions, corridor and/or sub-regional contributions, prior to using other countywide resources, as described below.

Measure R Cost Management Policy Summary

The adopted Policy stipulates the following:

If a project increase occurs, the LACMTA Board of Directors must approve a plan of action to address the issue prior to taking any action necessary to permit the project to move to the next milestone. Increases will be measured against the 2009 Long Range Transportation Plan (LRTP) as adjusted by subsequent actions on cost estimates taken by the LACMTA Board of Directors. With certain exceptions, shortfalls will first be addressed at the project level prior to evaluation for any additional resources using these methods in this order:

- 1) Value engineering and/or scope reductions;
- 2) New local agency funding resources;

- 3) Shorter segmentation;
- 4) Other cost reductions within the same transit corridor or highway corridor;
- 5) Other cost reductions within the same sub-region; and finally,
- 6) Countywide transit and highway cost reductions and/or other funds will be sought using pre-established priorities.

The policy was amended in January 2015 to establish Regional Facility Areas at Ports, airports and Union Station; and states that any:

“...capital project cost increases to Measure R funded projects within the boundaries of these facilities are exempt from the corridor and subregional cost reductions. Cost increases regarding these projects will be addressed from the regional programs share.”

The Regional Connector Project does not fall within a Regional Facility Area.

Value Engineering and/or Scope Reductions

The Regional Connector Project has undergone several scope reductions, including the removal of the 5th/Flower Street Station. Further reductions in scope would likely substantially delay the project or result in a project not consistent with the Locally Preferred Alternative. As a result, we recommend moving to the next step.

New Local Agency Funding Resources

At this time, there are no new additional funding resources available to this project. At this time, the funding levels from MAP-21 have not been increased. Additionally, the zero fund estimate for the 2016 State Transportation Improvement Program has resulted in no new programming capacity from the state. As we move forward, we can bring new funding opportunities to the Board's attention. Given the lack of new funding resources, we recommend moving to the next step.

Shorter Segmentation

Given that the goal of the Regional Connector project is to provide seamless travel between two points, it is not possible to shorten the project. The two end points of the project (Little Tokyo/Arts District Station and 7th Street/Metro Center Station) are 1.9 miles apart and there is no possible way to shorten the segment between these points which is consistent with the LPA and the operational objectives of the project. We therefore recommend moving to the next step.

Other Cost Reductions within the Same Transit Corridor

As the Regional Connector links several corridors together into one, we looked at possible cost reductions along all connected corridors. The corridors included in this analysis were Exposition Light Rail Transit Phase II, Gold Line Foothill Extension Phase 2A, and the Gold Line Eastside Transit Corridor Extension Phase II.

The Exposition Phase II and Gold Line Foothill Extension Phase 2A project are undergoing pre-revenue service testing. At this time, it is not possible to attain project savings from these projects as there may remain additional closeout costs and claims

which need to be settled. The Gold Line Eastside Extension Phase II project is not funded in the first decade, making it impossible to reduce its scope of work and move funds from that project to the Regional Connector.

Other Cost Reductions within the Same Sub-region

The Regional Connector Project is located within the Central Subregion. Given that this project will create continuous corridors between several subregions (Central, Gateway, San Gabriel Valley, and Westside), we are recommending that the cost increase of the Regional Connector Project be dealt with at the Countywide level.

Countywide Cost Reductions and/or Other Funds

Given the regional nature of this project, we are proposing shifting funds between two other projects and deferring a future transit or highway project as shown in Table 2. This is necessary for two principal reasons: 1) Proposition A and Proposition C funds are restricted to non-subway uses only; and, 2) no additional Measure R Transit Capital subfund can be assigned to this project because the Measure R Expenditure Plan caps the Measure R contribution at \$160 million. Additionally, the lack of additional funding resources from the state and federal level at this time means we may need to defer future projects to maintain the delivery schedule of projects under construction.

To close the Regional Connector Project funding gap, we recommend shifting \$131.82 million in Repayment of Capital Loans Fund 3562 from the Purple Line Extension to the Regional Connector. To replace those funds, we recommend backfilling the Purple Line Extension with Measure R Transit Subfund, previously assigned to the Crenshaw/LAX LRT Project. To then fully restore funding to the Crenshaw/LAX LRT Project, we recommending using Proposition C 25% funds for that project.

Table 2 – Strategy to Address Regional Connector Funding Gap

	Repayment of Capital Loans	Measure R 35%	Proposition C 25%	Total
Regional Connector	\$131.82			\$131.82
Purple Line Extension	(\$131.82)	\$131.82		\$0
Crenshaw/LAX LRT		(\$131.82)	\$131.82	\$0
Additional SRTP Shortfall			(\$131.82)	(\$131.82)
Balance	\$0	\$0	\$0	\$0

To make the Proposition C 25% available, a future highway or transit project that is not yet awarded for construction may need to be deferred. On June 22, 2015, we provided the Board through a Board Box Memo with an illustrative example of projects that may be deferred. This analysis arose out of a request from the Board and the Executive Director, Finance and Budget.

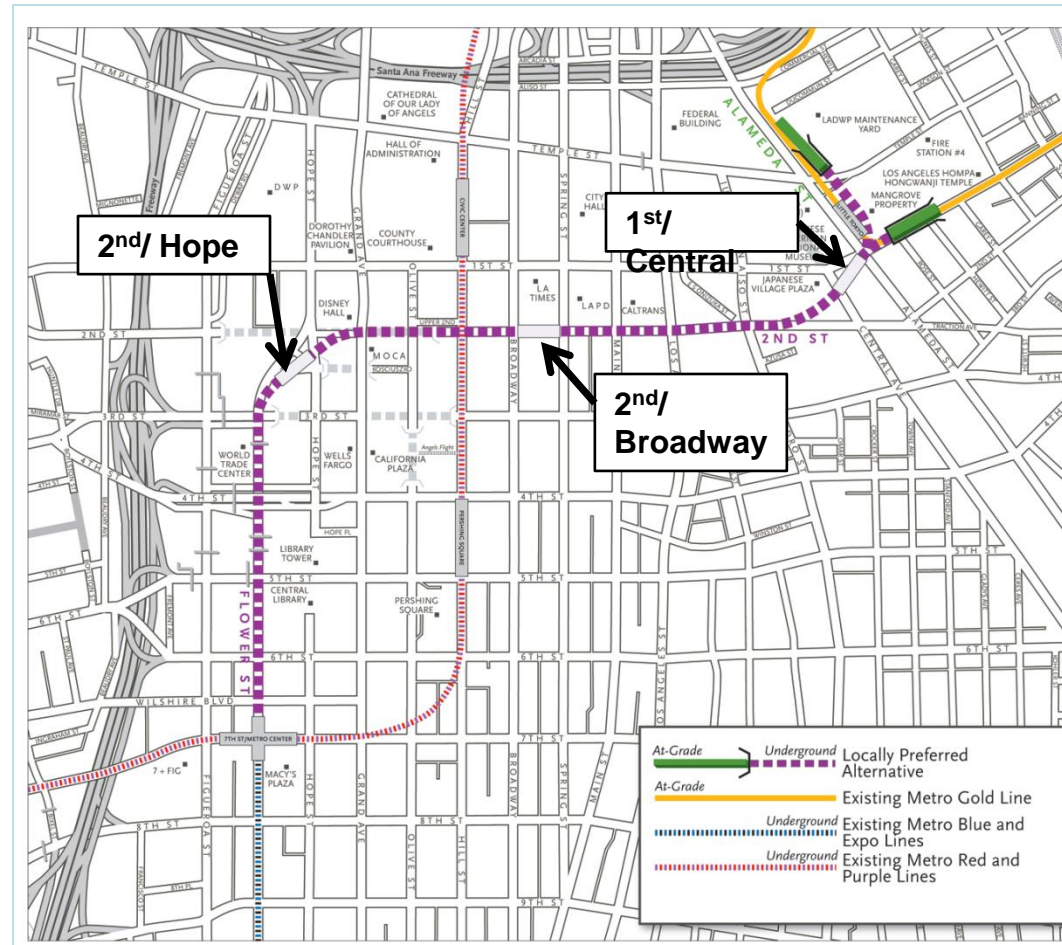
Regional Connector Transit Corridor

Project LOP BUDGET Summary and Little Tokyo/Art District
Station Bus Bridge - November 9, 2015



Regional Connector Transit Corridor Project Overview

- 1.9 mile underground light rail line from 7th Street/ Metro Center to the Metro Gold Line at 1st/ Alameda Streets
- 3 underground stations-
 - 2nd/ Hope
 - 2nd/ Broadway
 - 1st/ Central
- Connects Metro Gold Line, Metro Blue Line, and Expo Line
- One seat ride from Azusa to Long Beach and East LA to Santa Monica



LOP Budget & C0980 Modifications Authorization Summary

- Significant events increased DB contract cost due to differing site conditions and FFGA schedule mitigation
Exercise of contract options, AUR scope transfer, FFGA schedule recovery, Fire Life Safety fan plant, Including C0981R credit, and contingency replenishment for a net increase of \$78.8M.
- Project Support Services cost increase
Professional Services, 3rd Party coordination, Right-of-Way acquisition, and other support cost including environmental, art and community outreach to support the major project events and changes for a net increase of \$53.0M.
- Total LOP Budget increase request \$131.8M

LOP Budget Key Cost Increase Elements

➤ DB Contract and Project Contingency

✓ Design Build Contract C0980	\$97.6M
✓ C0980 Allocated Contingency	\$31.3M
✓ Unallocated Contingency (From \$126.9M to \$80.3M)	- \$46.6M
✓ C0981R Contract (\$5.5 Reduction -\$2.0M CMA)	<u>- \$ 3.5M</u>
Sub-total	<u>\$78.8M</u>

➤ Project Support Services cost increase

✓ 3rd Party/Utilities	\$23.9M
✓ 3 rd Party allocated Contingency	\$ 3.0M
✓ ROW	\$ 8.5M
✓ Professional Services	\$ 8.4M
✓ Environmental, Art, Community	\$ 8.9M
✓ Environmental Allocated Contingency	<u>\$ 0.3M</u>
Sub-total	<u>\$53.0M</u>

Total LOP Budget Increase **\$131.8M**

Lessons Learned and Approach Moving Forward

- Develop Final LOP Budget after FFGA with Greater Level of Project Development and Detailed Risk Assessment, including FTA
- More Extensive Early Utility Investigations Including Additional Investment (Can Result in Additional Community Interface)
- City Department and Council Support for Variances, Permits and Necessary Street Closures Essential
- As Project Moves from Current 20% Completion to 50% in FY18, a Formal Risk Assessment with FTA Will Be Conducted and Shared With the Board for Appropriate Board Action, Which Could Include a Request for Additional Funding Resources

Coordination with Foothill Gold Line Opening March 5th, 2016

- Work in the area of Little Tokyo/Arts District Station will be accelerated to provide uninterrupted service with Foothill Gold Line opening.
- Related Bus Bridge work will begin on December 5th and complete by Feb 15th 2016.
 - ✓ Bus Bridging for 72 days for Gold Line patrons to from Union Station to Pico/Aliso Station.
 - ✓ Overall schedule recovery measures for Regional Connector are being proposed to the Board to mitigate AUR impacts. This work has been incorporated into that strategy for on-time completion.
 - ✓ Permits and Approvals are critical to meeting this accelerated schedule.