

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)