

Metro

*Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
3rd Floor Board Room*



Agenda - Final

Thursday, January 19, 2017

9:00 AM

**One Gateway Plaza, Los Angeles, CA 90012,
3rd Floor, Metro Board Room**

Construction Committee

Sheila Kuehl, Chair

Robert Garcia, Vice Chair

Mike Bonin

Jacquelyn Dupont-Walker

Janice Hahn

Carrie Bowen, non-voting member

Phillip A. Washington, Chief Executive Officer

METROPOLITAN TRANSPORTATION AUTHORITY BOARD RULES (ALSO APPLIES TO BOARD COMMITTEES)

PUBLIC INPUT

A member of the public may address the Board on agenda items, before or during the Board or Committee's consideration of the item for one (1) minute per item, or at the discretion of the Chair. A request to address the Board should be submitted in person at the meeting to the Board Secretary. Individuals requesting to speak on more than three (3) agenda items will be allowed to speak up to a maximum of three (3) minutes per meeting. For individuals requiring translation service, time allowed will be doubled.

The public may also address the Board on non-agenda items within the subject matter jurisdiction of the Board during the public comment period, which will be held at the beginning and/or end of each meeting. Each person will be allowed to speak for up to three (3) minutes per meeting and may speak no more than once during the Public Comment period. Speakers will be called according to the order in which the speaker request forms are received. Elected officials, not their staff or deputies, may be called out of order and prior to the Board's consideration of the relevant item.

In accordance with State Law (Brown Act), all matters to be acted on by the MTA Board must be posted at least 72 hours prior to the Board meeting. In case of emergency, or when a subject matter arises subsequent to the posting of the agenda, upon making certain findings, the Board may act on an item that is not on the posted agenda.

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- a. Disorderly behavior toward the Board or any member of the staff thereof, tending to interrupt the due and orderly course of said meeting.
- b. A breach of the peace, boisterous conduct or violent disturbance, tending to interrupt the due and orderly course of said meeting.
- c. Disobedience of any lawful order of the Chair, which shall include an order to be seated or to refrain from addressing the Board; and
- d. Any other unlawful interference with the due and orderly course of said meeting.

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NOTE: ACTION MAY BE TAKEN ON ANY ITEM IDENTIFIED ON THE AGENDA

CALL TO ORDER**ROLL CALL****APPROVE Consent Calendar items: 21, 22 and 23.****Consent Calendar items are approved by one motion unless held by a Director for discussion and/or separate action.**CONSENT CALENDAR**21** CONSIDER: [2016-0867](#)

- A. APPROVING up to \$500,000 in **Measure R 20% Highway Funds for design and construction of two temporary signals for the properties at 16810 -16900 Valley View Avenue in Cities of La Mirada and Cerritos**; and
- B. AUTHORIZING the Chief Executive Officer to execute the necessary agreements with Caltrans to implement the mitigation.

Attachments: [Valley View Temp. Signal Picture 2.pdf](#)

(ALSO ON AD HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE)**22** AUTHORIZE the Chief Executive Officer (CEO) to execute: [2016-0885](#)

- A. a five year cost-plus fixed fee Contract No. PS20109 to **LSA Associates, Inc. for sustainability climate change adaptation and greenhouse gas emissions reduction (GHG) services** on task orders, with an initial amount not-to-exceed \$6,365,000 inclusive of three base years (not to exceed \$3,742,143) with two one-year options (year one = \$1,274,468 and year two = \$1,348,109), subject to resolution of protest(s), if any; and
- B. individual Task Orders and changes within the Board approved contract amount.

Attachments: [Attachment A - Procurement Summary](#)
[Attachment B - DEOD Summary](#)
[Attachment C - Forecasted GHG Emissions Cost](#)

- 23** AUTHORIZE the Life-of-Project (LOP) budget of \$13,185,000 for a **three-year Fuel Storage Tank Project managed through Environmental Compliance and Sustainability Section (ECSS)**.

[2016-0886](#)

Attachments: [Attachment A - Cost Estimates](#)

NON-CONSENT

- 24** CONSIDER:

[2016-0828](#)

A. FINDING that use of the design-build contracting delivery approach pursuant to Public Utilities Code Section 130242(a) will achieve certain private sector efficiencies in the integration of the design and construction of the **Westside Purple Line Extension Project - Section 3** by providing for the award of a design-build contract to the lowest responsive and responsible bidder; and

(REQUIRES 2/3 VOTE)

B. APPROVING the use of the design-build contracting delivery approach pursuant to Public Contract Code 22160 - 22169 to reduce project costs, expedite project completion and allow for either an award to the lowest responsive and responsible bidder, or the negotiation and award of a design-build contract to a responsible proposer whose proposal is determined to be the best-value to Metro.

- 25** AUTHORIZE the Chief Executive Officer to execute:

[2016-0887](#)

A. a five-year cost-plus fixed fee Contract No. PS20111, with **ICF International for CEQA/NEPA Environmental Services and Support** on Task Orders, inclusive of two one-year options with an initial amount not-to-exceed \$25,604,000, inclusive of three base years (not to exceed \$15,076,003) with two one-year options (year one = \$5,211,497 and year two = \$5,315,727), subject to resolution of protest(s)subject to resolution of protest(s), if any; and

B. individual Task Orders and changes within the Board approved contract amount.

Attachments: [Attachment A - Procurement Summary-0887](#)
[Attachment B - DEOD SummaryProcurement Summary](#)
[Attachment C - Forecasted Environmental Compliance Work](#)

- 26** INCREASE the authorized funding for Contract No. EN077 with **Arcadis US, Inc. (AUS), to fund additional Environmental Hazardous Materials and Construction Services Task Orders** in an amount not-to-exceed \$3,255,000 increasing the total Contract Value from \$38,000,000 to \$41,255,000. [2016-0932](#)
- Attachments:** [Attachment A - Procurement Summary.pdf](#)
[Attachment B - Contract Modification-Change Order Log.pdf](#)
[Attachment C - DEOD Summary.pdf](#)
[Attachment D - Summary of Current and Proposed Work Requiring AUS Services](#)
- 27** CONSIDER: [2016-0944](#)
- A. FINDING that awarding contracts for a design-build delivery, pursuant to Public Utilities Code Section 130242 (a), will achieve certain private sector efficiencies in the integration of design, project work, and components related to real property renovation, improvements, and construction work at Metro transit facilities in Los Angeles County as defined by the projects listed in Attachment A; and
- (REQUIRES 2/3 VOTE)
- B. AUTHORIZING the Chief Executive Officer to award design-build contracts for **renovations, improvements, and construction at Metro transit facilities related to projects** listed in Attachment A.
- Attachments:** [Attachment A - Projects Proposed for Design-Build Approach.pdf](#)
- 48** CONSIDER: [2016-0980](#)
- A. AUTHORIZING the Chief Executive Officer (CEO) to negotiate and execute contract modification(s) to Contract No. C0988 with **Walsh/Shea Corridor Constructors (WSCC), for final costs associated with construction on accommodations so as not to preclude a future Light Rail Transit (LRT) Station at 96th Street** and implement an agreement on critical cost and schedule impacts in an amount of \$59,150,000 increasing the total contract value from \$1,311,627,532 to \$1,370,777,532, no impact to Crenshaw/LAX Project Life-of-Project Budget;
- B. AMENDING the FY17 budget by \$28,600,000 for Project 460303 Airport Metro Connector Accommodations from \$10,760,760 to \$39,360,760 for the allocable portion of its costs related to the \$59,150,000 under Recommendation A; and

- C. AUTHORIZING the CEO to negotiate and execute project-related agreements, including contract modification(s) up to the authorized Life-of-Project budget, to streamline project management of the Crenshaw/LAX Transit Project subject to monthly reporting requirements to the Board of Directors.

Attachments: [Attachment A - Procurement Summary.pdf](#)
[Attachment B - Contract Modification-Change Order Log.pdf](#)
[Attachment C - DEOD Summary.pdf](#)
[Attachment D - WSCC-Metro Agreement.pdf](#)
[Attachment E - WSCC-Metro Agreement.pdf](#)

(ALSO ON PLANNING AND PROGRAMMING COMMITTEE)

49 CONSIDER:

[2016-0973](#)

- A. INCREASING the Life of Project (LOP) Budget on the **Regional Connector Transit Corridor Project** by \$199 million from \$1,551,840,570 to \$1,750,840,570;
- B. AMENDING the FY17 Budget on the Regional Connector Transit Corridor Project by \$30.6 million from \$220,730,000 to \$251,330,000;
- C. AUTHORIZING the CEO to execute Contract Modification No. 74 with Regional Connector Constructors (RCC) in the amount not to exceed \$50,600,000, for delays and schedule mitigation measures, electrical and water utility relocation costs, additional fire life safety engineering and other design and construction changes, increasing the total contract value from \$1,052,391,660 to \$1,102,991,660.
- D. AUTHORIZING the CEO to negotiate and execute project-related agreements, including contract modification(s) up to the authorized Life of Project budget, to streamline project management of the Regional Connector Transit Corridor Project subject to monthly reporting requirements to the Board of Directors.

Attachments: [Attachment A - Procurement Summary C0980.pdf](#)
[Attachment B - DEOD Summary C0980.pdf](#)
[Attachment C - CMA Summary C0980.pdf](#)
[Attachment D - RC Funding Plan C0980.pdf](#)
[Attachment E - Measure R Cost Management Process and Policy Analysis C0980.pdf](#)
[Attachment F - Construction Committee Report Dated November 19 2015 C0980.pdf](#)

50 CONSIDER: [2016-0971](#)

- A. ESTABLISHING a Life-of-Project Budget (LOP) Budget of \$2,440,969,299 for the **Westside Purple Line Extension Section 2 Project**;
- B. AUTHORIZING the Chief Executive Officer (CEO) to award a 102 -month firm fixed price contract under Request for Proposal (RFP) No. C1120 to Tutor Perini/O & G, a Joint Venture (TPOG), the responsive and responsible Proposer determined to provide Metro with the best value for the final design and construction of the Westside Purple Line Extension Section 2 Project (Project) for a firm fixed price of \$1,376,500,000.00, subject to resolution of protest(s), if any; and
- C. AUTHORIZING the CEO to negotiate and execute project related agreements, including contract modification(s), up to the authorized Life-of-Project Budget for Sections 1 and 2 of the Westside Purple Line Extension Project, to streamline project management of the Project subject to monthly reporting requirements to the Board of Directors.

Attachments: [Attachment A -Procurement Summary-C1120 FINAL .pdf](#)
[Attachment B -DEOD Summary-C1129.pdf](#)
[Attachment C - Funding Expenditure Plan.pdf](#)
[Attachment D - Measure R Cost Management Process .pdf](#)

28 RECEIVE oral report by the **Program Management Chief Officer**. [2016-0992](#)

Attachments: [Program Management Chief Officer's Report - January 2017](#)

Adjournment

Consideration of items not on the posted agenda, including: items to be presented and (if requested) referred to staff; items to be placed on the agenda for action at a future meeting of the Committee or Board; and/or items requiring immediate action because of an emergency situation or where the need to take immediate action came to the attention of the Committee subsequent to the posting of the agenda.



Board Report

File #: 2016-0867, File Type: Contract

Agenda Number: 8

AD HOC CONGESTION, HIGHWAY AND ROADS COMMITTEE
JANUARY 18, 2017
CONSTRUCTION COMMITTEE
JANUARY 19, 2017

SUBJECT: CONSTRUCTION MITIGATION FOR I-5 SOUTH CAPACITY IMPROVEMENTS FROM I-605 TO ORANGE COUNTY LINE

ACTION: APPROVE MEASURE R FUNDS TO MITIGATE I-5 CONSTRUCTION

RECOMMENDATION

CONSIDER:

- A. APPROVING up to \$500,000 in **Measure R 20% Highway Funds for design and construction of two temporary signals for the properties at 16810 -16900 Valley View Avenue in Cities of La Mirada and Cerritos**; and
- B. AUTHORIZING the Chief Executive Officer to execute the necessary agreements with Caltrans to implement the mitigation.

ISSUE

The I-5 South Capacity Improvements project includes freeway widening and construction of HOV lanes and other improvements between I-605 and the Orange County Line. The State of California Department of Transportation (Caltrans) designed and is managing construction of the Projects.

Valley View (Segment 2) between Artesia Boulevard and North Fork Coyote Creek is the last segment of the I-5 South Capacity Improvements project for which a construction contract was approved on July 15, 2016. Construction on Valley View began in November, 2016 and is expected to be completed in 2022.

To mitigate traffic impacts resulting from construction as required by the project’s environmental document, Caltrans developed Traffic Management Plans (TMPs) for each construction stage. Caltrans traffic modeling suggested that the detour routes identified in the TMP would provide the needed capacity for the anticipated volumes. However after the contract was awarded, Parkway La Mirada Association expressed concerns over the ingress and egress during the construction staging around the properties at 16810 - 16900 Valley View Avenue and has requested implementation of appropriate mitigation measures to remedy the traffic impacts on their properties during construction

period.

DISCUSSION

Currently, the properties at 16810 - 16900 Valley View Avenue have three driveways without signalization. The construction staging in this area will reduce Valley View Avenue from four to two through lanes. The property owners hired a traffic consultant and provided Caltrans with the daily traffic count data of vehicles entering and leaving the properties through three driveways. Based on the data, Caltrans agreed that the lane reduction on Valley View Avenue would make the ingress and egress at the impacted properties worse during the construction period.

In order to optimize the traffic circulation at this location, installation of two temporary signals at the northerly and southerly driveways of the impacted properties is required as a mitigation measure during construction. The property owners, local businesses, Cities of La Mirada and Cerritos and Caltrans are in support of this recommendation.

DETERMINATION OF SAFETY IMPACT

There is no impact to public safety by approving this action.

FINANCIAL IMPACT

Caltrans will be reimbursed for the design and construction costs, up to \$500,000, upon completion of signal installation. Fiscal year 2017 budget will be reprioritized to absorb any or all portions of this cost within the adopted budget; no additional FY17 funds are sought through this recommendation. Since Segment 2 of the I-5 South Capacity Improvements is a multi-year project, the project manager, the cost center manager, and the Chief Program Management Officer are responsible for future year budgeting.

Impact to Budget

Segment 2 of the I-5 South Capacity Improvements, project 460337, is funded at \$631.1 million with Local Funds of \$161.1 Million, State Funds of \$350 million, and Federal Funds of \$120 million.

Funding up to \$500,000 for this work will be provided from Measure R 20% Highway Capital funds, within the I-5 Capacity Enhancement from I-605 to Orange County Line Funds (Line 27 of Measure R Expenditure Plan). This fund is not eligible for Metro bus and rail operations or capital projects.

ALTERNATIVES CONSIDERED

The Board may choose not to approve the staff's recommendation. However, this disapproval would adversely impact residents and businesses and may require broader actions by the Cities to divert pass through traffic to other corridors upon receiving citizen complaints.

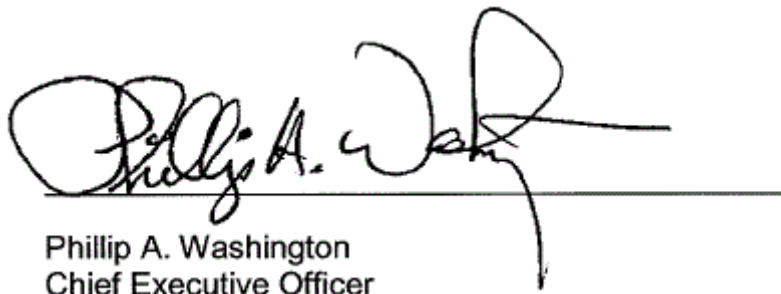
NEXT STEPS

Upon Board's approval of the recommended action, Metro staff will coordinate with Caltrans to implement the work.

Attachments: Valley View Temporary Signals Aerial Maps

Prepared by: Victor Gau, Director of Engineering, Highway Program (213) 922-3031
Aline Antaramian, Deputy Executive Officer, Highway Program (213) 922-7589
Abdollah Ansari, Senior Executive Officer, Highway Program (213) 922-4781
Bryan Pennington, Deputy Chief Program Management Officer (213) 922-7449

Reviewed by: Richard F. Clarke, Chief Program Management Officer (213) 922-7557



Phillip A. Washington
Chief Executive Officer



Cerritos

Southerly Driveway
Temp. Signal

Northerly Driveway
Temp. Signal

Area Affected
by Construction

La Mirada

16810 -16900 Valley
View Ave Properties





**Area Affected
by Construction**

**Northerly Driveway
Temp. Signal**

**Southerly Driveway
Temp. Signal**

**16810 -16900 Valley
View Ave Properties**

Valley View Ave

Frostman Blvd

Santa Ana Pkwy

5

**Board Report**

File #: 2016-0885, **File Type:** Contract**Agenda Number:** 22

**CONSTRUCTION COMMITTEE
JANUARY 19, 2017****SUBJECT: CLIMATE CHANGE ADAPTATION AND GREENHOUSE GAS EMISSIONS
CONSULTANT SERVICES****ACTION: EXECUTE PROFESSIONAL SERVICES CONTRACT FOR CLIMATE CHANGE
ADAPTATION AND GREENHOUSE GAS EMISSIONS****RECOMMENDATION**

AUTHORIZE the Chief Executive Officer (CEO) to execute:

- A. a five year cost-plus fixed fee Contract No. PS20109 to **LSA Associates, Inc. for sustainability climate change adaptation and greenhouse gas emissions reduction (GHG)** services on task orders, with an initial amount not-to-exceed \$6,365,000 inclusive of three base years (not to exceed \$3,742,143) with two one-year options (year one = \$1,274,468 and year two = \$1,348,109), subject to resolution of protest(s), if any; and
- B. individual Task Orders and changes within the Board approved contract amount.

ISSUE

Metro's operational sustainability program is recognized nationally as one of the leading programs in the transit industry. Under this program, reductions in Metro's operations costs have been achieved through greenhouse gas emission reductions, climate adaptation, and other sustainability projects and initiatives within our construction and operational activities. To continue the success of Metro's sustainability program and further achieve operational cost saving and associated benefits, we have solicited and recommend the execution of a professional services contract for climate change adaptation and greenhouse gas emission reduction services design and implementation.

Metro's current Environmental Compliance Services contract included consultant support for Metro's sustainability program. This contract was solicited to increase participation of firms that work in the sustainability industry in Metro's programs, especially those which are involved in the climate change adaptation and greenhouse gas emission reductions space.

DISCUSSION

Metro's current Environmental Compliance Services contract supports numerous sustainability projects, such as researching and preparing sustainability and greenhouse gas emission reduction measures and best practices for use in Metro's system and facilities, recommending policies, procedures, and actions that encourage and promote sustainability and greenhouse gas emission reductions throughout the organization, and identifying and measuring the agency's sustainability and emissions reduction activities.

Staff divided the current scope of sustainability-related work into four new individual scopes of work to increase participation of firms that work in the sustainability industry, specifically in the climate adaptation and greenhouse gas emission reduction industries. This Contract, No. PS20109, is the last of the four, three of which were approved in earlier years: Contract No. PS84203244, Engineering Services for Energy Efficiency and Renewable Energy, was issued on May 20, 2015; Contract No. PS84203245, Water Conservation, Solid Waste and Recycling contract, was issued on May 20, 2015; and Contract No. PS325890084203243, Sustainability Program Assistance Services contract, was issued on May 22, 2015.

Contract No. PS20109 would be an indefinite delivery/indefinite quantity contract. The consultant is not guaranteed any work because as the need for specific climate change/GHG-related design and consulting services arises, only then will staff be able to issue Contract Work Orders from which Task Orders or changes are drawn. These Task Orders and changes can be funded from an existing project's budget with consideration of any information available at the time of planning and applicable time constraints on performance of the work.

All of the work under this framework are negotiated on a not-to-exceed basis, and can only be performed and paid based on agreed upon rates negotiated at the onset of the project. Staff applies strict project controls in the execution of each of these Task Orders to closely monitor the Consultant's budget and Task Order schedules. No funds are obligated until a Contract Work Order/Task Order is awarded against a valid project.

The Contract No. PS20109 includes a 28% Race Conscious Disadvantaged Business Enterprise (RC DBE) goal. DBE attainment is based on the aggregate value of all task orders issued.

The success of Metro's sustainability program has resulted in its significant expansion over the last few years, prompting the diversification and focus of Metro's sustainability consultant support into several disciplines. The anticipated level of effort required to address climate change adaptation and greenhouse gas emissions reduction include the assistance in the preparation of design and construction documents and specifications, analyses, studies, surveys, investigations, modeling, predictions, and/or reports related to the operation and maintenance of Metro's transportation system, facilities, and support activities.

To accomplish the assigned tasks, the consultant will provide necessary staff, sub-consultants, equipment, software, supplies, and services. The consultant shall employ or subcontract as

necessary with such diverse professionals as Climate Change Scientists; Climate Adaptation Specialists; Risk Management Specialists; Climate Resiliency Specialists; GIS Operators; CADD/Microstation Operators; Greenhouse Gas Specialists; Grants Managers; Technical Experts; Professional Engineers; Sustainability Engineers; Sustainability Planners; Coastal Engineers; Transportation Specialists; and such other professional practitioners as may be needed to support the required climate adaptation and GHG emission reduction related initiatives/projects.

The new contract is for three years with two one-year options for a total of five years. The Procurement Summary for this contract is documented in Attachment A.

DETERMINATION OF SAFETY IMPACT

This Board action will not have an adverse impact on safety standards for Metro. It will however increase safety as projects become more resilient and adaptive to climate change.

FINANCIAL IMPACT

Contract No. PS20109 is an Indefinite Delivery/Indefinite Quantity (IDIQ) contract. No Metro funds are obligated until a Contract Work Order (CWO) is issued by a Metro authorized Contracting Officer against a valid project budget. No expenditures are authorized until a Task Order is awarded by a Metro authorized Contracting Officer for a specific package of work within the CWO. In other words, all task orders are to be individually negotiated and level of effort fully defined prior to the authorization of any project specific funds. Completion of work under those Task Orders within those CWO awards can continue beyond the contract end date.

Obligations and authorizations made within the total Contract Amount will be against specific project or operations budgets which make up the Board-approved Metro budget for this particular fiscal year. Specific funding for this contract will parallel the project approved by Board under separate actions. The Department Chiefs and Project Managers overseeing these projects will be responsible for providing appropriate budgets.

Impact to Budget

There will be no net impact to Bus and Rail Operating Budgets. The initial source of funds for this contract is included in the FY17 budget under Project Number 450004 - Climate Adaptation Initiative, Cost Center 8420 Environmental Compliance and Sustainability, Account 50316 Professional and Technical Services. Future task orders are to be individually negotiated and level of effort fully defined prior to the authorization of funds from the projects that would use these services.

ALTERNATIVES CONSIDERED

If Contract No. PS20109 is not awarded, then Metro could experience a delay in the implementation of sustainability projects, which will result in missed opportunities for achieving operational cost savings and system-wide resilience. During the last five years, the Metro Board has approved

various policies and plans (as well as provided direction to staff through several climate change related Motions) to achieve reductions in operational greenhouse gas emissions; implement innovative approaches and strategies to enhance customer experience, reduce limited natural and energy resource use; investigate public-private partnerships to supplement limited funds to design, build, operate, and maintain sustainability related infrastructure; and increase operational efficiency. Metro's operational sustainability program administered through the Environmental Compliance and Sustainability Section has executed significant portions of that mandate; and will continue to do so using all of the sustainability-related consulting contracts (including Contract No. PS20109) as an expert supplement for current staff's expertise.

The Metro Board may reject the recommended action and direct staff to do all climate change adaptation, GHG emission reduction, and related projects in house. Under such situation, Metro would have to hire additional staff that has specific expertise, which staff currently does not have. These would include Climate Change Scientists; Climate Adaptation/Resiliency Specialists; Risk Management Specialists; GIS Operators; CADD/Microstation Operators; Greenhouse Gas Specialists, and other related specialized disciplines.

While there are cost efficiencies that may be achieved by having some of these credentialed and highly skilled staff hired full-time, current Metro staff determined that it would be financially challenging to maintain these specialized highly skilled resources for the next five years (as regular employees) since they are currently projected to be needed only for short-term defined assignments. However, staff will need to revisit the need for long-term sustainability-related skills needs (that can potentially be hired full-time) every three years as our portfolio of these types of infrastructures increase (in-step with the expansion of our transit system).

Staff can solicit and award individual contracts for each climate change/GHG emission reduction expert consulting need, as the need arises. Staff does not recommend this alternative. Individually procuring these CWO's and Task Orders have associated inconsistent and most likely cumulative higher administrative and execution costs. As many of these types of projects overlap with one another in a single major capital project or facility, having multiple consultants with overlapping skills will cause delays and resulting administrative inefficiencies.

NEXT STEPS

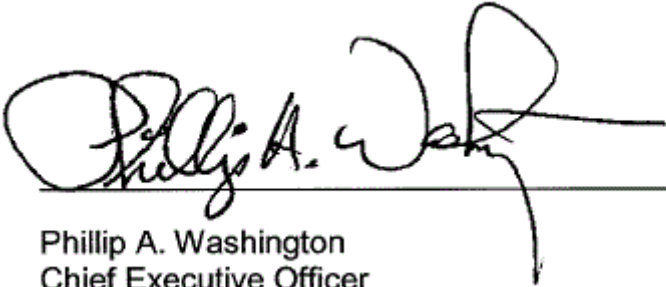
After the recommended Board Action is approved, staff will complete the process to negotiate and award Contract No. PS20109.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - DEOD Summary
Attachment C - Forecasted GHG Emissions Reduction Work

Prepared by: Cris B. Liban, Executive Officer Environmental Compliance and Sustainability
(213) 922-2471

Reviewed by: Richard Clarke, Chief Program Management Officer (213) 922-7557
Debra Avila, Chief Vendor/Contract Management Officer, (213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

CLIMATE CHANGE AND ADAPTATION AND GREENHOUSE GAS EMISSIONS
CONSULTANT SERVICES/PS20109

1.	Contract Number: PS20109	
2.	Recommended Vendor: LSA Associates, Inc.	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input type="checkbox"/> RFP <input checked="" type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: March 4, 2016	
	B. Advertised/Publicized: March 11, 2016	
	C. Pre-proposal/Pre-Bid Conference: March 17, 2016	
	D. Proposals/Bids Due: April 14, 2016	
	E. Pre-Qualification Completed: November 30, 2016	
	F. Conflict of Interest Form Submitted to Ethics: September 14, 2016	
	G. Protest Period End Date: 1/23/2017	
5.	Solicitations Picked up/Downloaded: 98	Bids/Proposals Received: 6
6.	Contract Administrator: Tamara Reid	Telephone Number: (213) 922-7215
7.	Project Manager: Emmanuel Liban	Telephone Number: (213) 922-2471

A. Procurement Background

This Board Action is to approve the award of Contract No. PS20109, for sustainability engineering services for climate change and adaptation and greenhouse gas emissions services. The scope of the Contract is to support the preparation of design and construction documents and specifications, analyses, studies, surveys, investigations, modeling, predictions, and/or reports related to the operation and maintenance of Metro's transportation system, facilities, and support activities. Board approval of contract awards are subject to resolution of all properly submitted protests.

The Request for Proposal (RFP) was issued in accordance with Metro's Acquisition Policy and California Government Code §4525 – 4529. The contract type is a five year cost-plus fixed fee, base year of three years and two one-year options.

Three amendments were issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on March 19, 2016 to revise technical specifications and submittal requirements;
- Amendment No. 2, issued on April 1, 2016 to change the proposal due date from April, 7, 2016 to April 14, 2016; and
- Amendment No. 3, issued on April 11, 2016 to remove redundant sections and documents.

On March 17, 2016, a pre-proposal conference was held with 26 firms in attendance. A total of six proposals from the following firms were received on April 14, 2016:

1. AECOM Technical Services, Inc. (AECOM)
2. AMEC Foster Wheeler (AMEC/FW)
3. ATC Group Services, LLC (ATC)
4. ICF International (ICF)
5. LSA Associates, Inc. (LSA)
6. WSP/Parsons Brinckerhoff (WSP/PB)

B. Evaluation of Proposals

A Proposal Evaluation Team (PET) consisting of staff from Environmental Compliance and Transportation Planning was convened and conducted a comprehensive technical evaluation of the proposal received.

The proposals were evaluated based on the following evaluation criteria and weights:

- | | |
|------------------------------------------------------------------------|-----|
| • Degree of Skills and Experience | 30% |
| • Understanding of Work Appropriateness of Approach for Implementation | 25% |
| • Innovative Climate Change/Greenhouse Gas Practices & Experience | 25% |
| • Effectiveness of Management Plan | 20% |

This is an Architecture and Engineering (A&E), qualifications based procurement. Price cannot be and was not used as an evaluation factor as governed by California Government Code §4525 - 4529. The evaluation criteria was appropriate and consistent with criteria developed for other, similar A&E solicitations.

During the week of August 1, 2016, the evaluation committee conducted oral presentations with the firms. The firms' project managers and key team members had an opportunity to present each team's qualifications and respond to the evaluation committee's questions. In general, each team's presentation addressed the requirements of the RFP, experience with all aspects of the required tasks, and stressed each firm's commitment to the success of the project. Also highlighted were staffing plans, work plans, and perceived project issues. Each team was asked questions relative to each firm's proposed alternatives and previous experience.

Qualification Summary of Recommended Firm:

The evaluation performed by the PET, in accordance with evaluation criteria set forth in the RFP, determined LSA Associates, Inc. (LSA) as the most qualified firm to provide the required services.

LSA has provided relevant environmental experience working on Metro projects such as Interstate 710 (I-710) and Countywide Planning Bench. LSA provided a very detailed report on Metro’s current resiliency and vulnerability and strategies to mitigate these issues. A detailed presentation of the staffing level requirements as well as the necessary software tools was submitted which demonstrated a clear understanding of the proposed scope of work.

LSA demonstrated they are well-skilled in providing the scope of services at the level required by this contract, and has the capabilities to provide staffing for task order assignments that may be issued under this contract.

The PET ranked the proposals and assessed strengths, weaknesses and associated risks of each of the Proposers to determine the most qualified firm.

1	FIRM	Average Score	Factor Weight	Weighted Average Score	Rank
2	LSA				
3	Degree of Skills and Experience	78.50	30%	23.55	
4	Understanding of Work and Appropriateness of Approach for Implementation	91.60	25%	22.90	
5	Innovative Climate Change/Greenhouse Gas Practices & Experience	90.40	25%	22.60	
6	Effectiveness of Management Plan	90.50	20%	18.10	
7	Total		100%	87.15	1
8	ICF				
9	Degree of Skills and Experience	75.40	30%	22.62	
10	Understanding of Work and Appropriateness of Approach for Implementation	84.00	25%	21.00	
11	Innovative Climate Change/Greenhouse Gas Practices & Experience	86.80	25%	21.70	
12	Effectiveness of Management Plan	85.00	20%	17.00	
13	Total		100%	82.32	2

14	ATC				
15	Degree of Skills and Experience	69.33	30%	20.80	
16	Understanding of Work and Appropriateness of Approach for Implementation	80.00	25%	20.00	
17	Innovative Climate Change/Greenhouse Gas Practices & Experience	81.60	25%	20.40	
18	Effectiveness of Management Plan	82.00	20%	16.40	
19	Total		100%	77.60	3
20	AECOM				
21	Degree of Skills and Experience	66.33	30%	19.90	
22	Understanding of Work and Appropriateness of Approach for Implementation	75.64	25%	18.91	
23	Innovative Climate Change/Greenhouse Gas Practices & Experience	74.00	25%	18.50	
24	Effectiveness of Management Plan	76.50	20%	15.30	
25	Total		100%	72.61	4
26	WSP/PB				
27	Degree of Skills and Experience	63.53	30%	19.06	
28	Understanding of Work and Appropriateness of Approach for Implementation	75.64	25%	18.91	
29	Innovative Climate Change/Greenhouse Gas Practices & Experience	74.00	25%	18.50	
30	Effectiveness of Management Plan	76.50	20%	15.30	
31	Total		100%	71.77	5
32	AMEC/FW				
33	Degree of Skills and Experience	60.66	30%	18.20	
34	Understanding of Work and Appropriateness of Approach for Implementation	69.32	25%	17.33	

35	Innovative Climate Change/Greenhouse Gas Practices & Experience	72.00	25%	18.00	
36	Effectiveness of Management Plan	70.00	20%	14.00	
37	Total		100%	67.53	6

C. Cost/Price Analysis

The cost analysis included: (1) a comparison with cost historical data of other firms offering similar services; (2) an analysis of prior audited and overhead rates, and factors for labor, and other direct costs, and (3) compliance with Federal Acquisition Regulation (FAR) Part 31 guidelines. Metro has rates for direct labor and negotiated provisional overhead rates, and negotiated fixed fee factor for the Contract. The negotiated amount has been determined to be fair and reasonable.

An audit request has been submitted to the Metro Management Audit Services Department (MASD). In order to prevent any unnecessary delay in contract award, provisional overhead rates have been established subject to retroactive Contract adjustments. In accordance with FTA Circular 4220.1.f, if an audit has been performed by any other cognizant agency within the last twelve month period, Metro will receive and accept that audit report for the above purposes rather than perform another audit.

Proposer Name	Proposal Amount	Metro ICE	Recommended NTE Amount
LSA Associates	\$10,061,346	\$6,365,000	\$6,365,000

Note: This is a five year cost-plus fixed fee Contract with an initial amount not-to-exceed \$6,365,000 inclusive of three base years (not to exceed \$3,742,143) with two one-year options (year one = \$1,274,468 and year two = \$1,348,109).

D. Background on Recommended Contractor

LSA, was founded in 1976. LSA is an employee owned environmental, transportation, and community planning firm. LSA has provided services in environmental analysis, transportation planning and engineering, biology, wetlands, habitat restoration, natural resource management, water quality, global climate change, geographic information systems (GIS), community and land planning, cultural and paleontological resources, and air quality assessments for both public and private agencies.

LSA has been the primary consultant with Metro on the interstate 710 (I-710) Corridor Project Environmental Impact Report/Environmental Impact Statement (EIR/EIS). As the lead subcontractor to AECOM, LSA has been managing the

environmental team preparing the EIR/EIS and leading preparation of the technical studies. LSA is currently on Metro's Countywide Planning Bench for GIS services.

DEOD SUMMARY

CLIMATE CHANGE ADAPTATION AND GREENHOUSE GAS EMISSIONS
CONSULTANT SERVICES/PS20109

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established a 28% Disadvantaged Business Enterprise (DBE) goal for this solicitation. LSA Associates, Inc. exceeded the goal by making a 30.36% DBE commitment.

Small Business Goal	28% DBE	Small Business Commitment	30.36% DBE
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	DBE Subcontractors	Ethnicity	% Committed
1.	GlobalASR Consulting	Asian Pacific American	5.47%
2.	Katherine Padilla & Associates	Hispanic American	2.98%
3.	PacRim Engineering	Asian Pacific American	1.99%
4.	Pika Environmental	Caucasian Female	4.02%
5.	Sapphos Environmental	Hispanic American	15.90%
Total Commitment			30.36%

B. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract.

C. Prevailing Wage Applicability

Prevailing wage is not applicable to the Contract.

D. Living Wage Service Contract Worker Retention Policy Applicability

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

Attachment C. Forecasted GHG Emissions Reduction Work

Climate Action/Adaptation & GHG Reduction/Monitoring	FY17	FY18	FY19	FY20	FY21
a. Green Infrastructure and Resiliency Program	\$385,448.02	\$375,980	\$383,500	\$391,170	\$411,145
1. Life Cycle Analysis/Monitoring	\$199,068.71	\$194,682.15	\$198,575.79	\$202,547.31	\$212,518.33
2. Sustainability/Leadership Council	\$50,411.50	\$48,994.78	\$49,974.68	\$50,974.17	\$53,709.24
3. Climate Resiliency Planning, Implementation and Monitoring	\$135,967.82	\$132,303.01	\$134,949.07	\$137,648.05	\$144,917.63
b. EMS Integration	\$197,752.15	\$192,618	\$196,470	\$200,400	\$210,838
1. Initiation	\$45,689.04	\$148,456.68	\$151,425.81	\$154,454.32	\$162,246.47
2. On-going support	\$152,063.12	\$44,161.27	\$45,044.49	\$45,945.38	\$48,591.62
c. Green Construction Policy Tracking	\$73,351.11	\$72,001.00	\$73,441.02	\$74,909.84	\$78,401.08
d. Climate Change Tools' Development & Management	\$34,300.61	\$31,988.95	\$32,628.73	\$33,281.30	\$36,067.70
e. GHG Mitigation, Tracking & Verification	\$54,892.24	\$53,514.05	\$54,584.33	\$55,676.02	\$58,541.26
1. GHG Mitigation Strategy Support/Implementation	\$27,192.50	\$26,533.61	\$27,064.28	\$27,605.57	\$29,008.58
2. GHG Tracking & Verification	\$27,699.74	\$26,980.44	\$27,520.05	\$28,070.45	\$29,532.68
f. Climate Action/Adaptation Program	\$473,595.46	\$452,331.86	\$461,378.50	\$470,606.07	\$501,762.70
1. Climate Action & Adaptation Plan	\$170,268.06	\$163,687.98	\$166,961.74	\$170,300.97	\$180,771.41
2. Design Criteria/Specifications Update	\$70,021.52	\$68,023.79	\$69,384.27	\$70,771.96	\$74,591.49
3. Climate Adaptation Pilot Studies	\$233,305.88	\$220,620.09	\$225,032.49	\$229,533.14	\$246,399.79
g. Climate Change/GHG Policy Tracking & Support	\$48,347.29	\$46,544.82	\$47,475.72	\$48,425.23	\$51,353.02
<i>Yearly Total</i>	\$1,267,686.88	\$1,224,978.56	\$1,249,478.13	\$1,274,467.70	\$1,348,109.04
ROM Amount	\$6,364,720.31				
Contingency (15%)*	\$954,708				
Total with Contingency	\$7,319,428				

*Contract shall be managed to the awarded amount of \$6,365,000 which excludes CMA/Contingency

**Board Report**

File #: 2016-0886, **File Type:** Contract**Agenda Number:** 23

**CONSTRUCTION COMMITTEE
JANUARY 19, 2017****SUBJECT: FUEL STORAGE TANK PROGRAM FOR RAIL AND BUS FACILITIES****ACTION: ESTABLISH LIFE OF PROJECT BUDGET****RECOMMENDATION**

AUTHORIZE the Life-of-Project (LOP) budget of \$13,185,000 for a **three-year Fuel Storage Tank Project managed through Environmental Compliance and Sustainability Section (ECSS)**.

ISSUE

Metro currently operates Underground Fuel Storage Tanks (USTs) in 16 bus/rail divisions. UST systems are regulated by Los Angeles Fire Department, Los Angeles County Public Works, and State Water Resources Control Board (SWRCB) Title 23 and AQMD Rule 461. The Tank Program is budgeted annually based upon forecasted upgrades and repairs from the annual required testing performed on USTs. Early this year SWQCB inspected all of Metro's USTs that are regulated by SWRCB. SWRCB issued unforeseen Notices of Violations (NOVs) for UST systems at all of Metro Divisions. Consequently, there is a need to request the approval of an out of cycle UST project in order to address the NOVs to allow for continued availability of diesel for emergency generators and gasoline for Metro's non-revenue fleet.

Beyond the completion of the repairs associated with the USTs, the remaining project funding will be used to address on-going maintenance of operating USTs.

DISCUSSION

The existing UST Project (Project Number 202211) has a three year life of project budget with corresponding programmed annual activities that include the repair and replacement of UST parts, hoses, electrical conduits, and other related appurtenances. The calendar year 2016 is unusual. While Metro staff has programmed repairs and upgrades for this fiscal year and are scheduled to complete the project within time and budget, all of Metro's facilities were also simultaneously serially inspected by the SWRCB within a very short timeframe at the beginning of 2016. This concentrated inspection by SWRCB had not occurred in the past.

The programmed repairs are routine regulatory upgrades. A number of them were also programmed to ensure compliance within the grandfathering timeframe of the regulatory compliance period. While these USTs are scheduled to be repaired or upgraded, they were determined to be non-compliant per SWRCB. There were also additional repairs that we needed to do upon the opening up of some UST repair locations. These conditions only manifested themselves during the preparatory work of the repairs and upgrades including compromised seals, loose gaskets, broken parts, and similar issues. While anticipated, the compounded effect of accelerating programmed repair upgrades under the requirements of a NOV and the additional changed conditions led to an accelerated depletion of remaining project funding.

Staff had developed a project to be included in the FY18 budget cycle, but the compounded effect of NOV citation and additional changed conditions makes it necessary for staff to request for Board approval of this out of cycle project.

To accomplish the assigned tasks, staff will issue Task Orders to our Environmental Services Contractor (currently EN077) who will provide the necessary staff, sub-consultants, equipment, software, supplies, and services. They shall employ or subcontract as necessary with DBEs. An increase to the contract amount for Contract EN077 to accomplish some or all of this work is the subject of a separate Board Report. The rest of the work identified as part of this Board Report (FY18 to mid FY20) will be accomplished by the EN077 replacement contract that is anticipated to be awarded by the end of FY17.

DETERMINATION OF SAFETY IMPACT

NOVs are identified as an imminent threat to human health or safety or the environment. The programmed work will reduce the risk of a hazardous release from any of these tank systems in the future.

FINANCIAL IMPACT

The adopted fiscal year 2017 budget for Metro's operating capital projects is assessed and reprioritized through the midyear budget adjustments. The \$2.2 million required to address the NOVs will be funded as part of the midyear adjustment; no budget amendment is being sought for this current fiscal year. Since this is a multi-year project, the Chief Program Management Officer and Project Manager are responsible for budgeting costs for future years.

If the required repairs and upgrades are not addressed in FY17 Metro faces potential penalties of up to \$5,000/day per violation per California Health and Safety Code 6.7. Furthermore, tank systems will continually be "red-tagged" which prohibits the use of the tanks until the repairs are completed. This would significantly impact Bus and Rail daily operations.

Impact to Budget

The funding source for the LOP of \$13,185,000 (including the \$2.2 million for FY17 required repairs) is TDA Article 4 and Proposition A 35%. These funds are eligible for bus and rail operating and capital projects. These are appropriate funds for the subject matter; no other funds were considered.

ALTERNATIVES CONSIDERED

Staff requests project LOP approval to continue addressing NOV's issued by the SWRCB. This enables the mechanism to issue task orders and pay for the work performed. If the Metro Board rejects the formation of a new UST project, Task Orders cannot be issued, making it difficult to address NOV's as well as the repairs and upgrades resulting from the changed conditions. At that point, the SWRCB most likely will take legal action against Metro for not addressing the violations. Such action can result in Metro receiving potential penalties of up to \$5,000/day per violation. Programmed repairs and upgrades cannot also be completed in the future fiscal years increasing the likelihood of additional NOV's to be issued to our agency.

Staff is issuing a new Request for Proposal (RFP) for this type of work to take over the expiring EN077 Environmental Services contract. The replacement contract that will perform the rest of the FY18 through part of FY20 work is anticipated to be awarded at the end of FY17.

NEXT STEPS

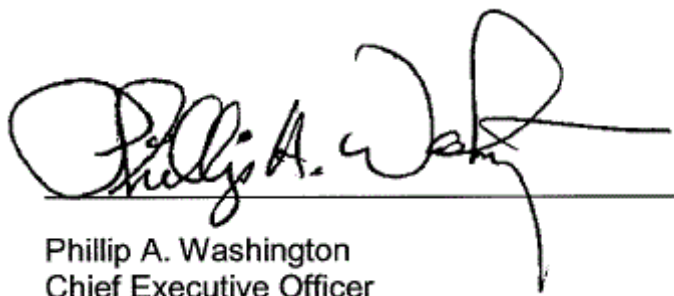
After the recommended Board Action is approved, staff will complete the process to award task orders under the newly approved project.

ATTACHMENTS

Attachment A. LOP Budget and Funding Plan

Prepared by: Cris B. Liban, Executive Officer, Environmental Compliance and Sustainability (213) 922-3471

Reviewed by: Richard Clarke, Chief Program Management Officer
(213) 922-7557



Phillip A. Washington
Chief Executive Officer

ATTACHMENT A. LOP BUDGET AND FUNDING PLAN

Projected UST Expenditures and Source of Funds (Feb.17 to Dec.19)

USES OF FUNDS				
	TO BE COMPLETED UNDER THE EN077 ENVIRONMENTAL SERVICES CONTRACT	TO BE COMPLETED UNDER NEW ENVIRONMENTAL SERVICES CONTRACT; ANTICIPATED AWARD IS END OF FY17		
PROJECT	FY17(A) Feb.2017-Jun.2017	FY18 (B)	FY19 (C)	FY20 (D) July 2019-Dec.2019
Division 2 AST Install	\$350,000			
Division 5 UST/AST Repairs and Upgrades	\$600,000	\$180,000		
Division 7 UST Repairs and Upgrades		\$1,400,000		
Division 18 AST Installation		\$1,000,000		
Division 9 UST Repairs and Upgrades	\$550,000			
Division 10 UST Repairs	\$300,000	\$350,000		
Install 8 New Waste Antifreeze AST		\$960,000		
D20,22,61 AST Installations		\$500,000		
CNG AST Standardization			\$2,000,000	\$400,000
Several Veeder Root Panels for ASTs			\$900,000	\$150,000
AST Repairs (routine)			\$450,000	\$150,000
Division 13 AST System Repairs		\$150,000		
SB 989 Failures/Maintenance	\$135,260	\$89,740	\$150,000	\$75,000
Emergency Response Failures UST/AST			\$500,000	\$125,000
SUM	\$1,935,260	\$4,629,740	\$4,000,000	\$900,000
Contingency (15%)	\$290,289	\$694,461	\$600,000	\$135,000
TOTAL	\$2,225,549	\$5,324,201	\$4,600,000	\$1,035,000

TOTAL REQUESTED BUDGET (A+B+C+D) \$13,184,750

SOURCES OF FUNDS	FY17(Aa)	FY18(Bb)	FY19(Cc)	FY20(Dd)
TDA Article 4 (or Other Eligible Bus Funds)	\$2,070,000	\$4,473,500	\$4,025,000	\$891,250
PA 35% (or Other Eligible Rail Funds)	\$155,549	\$850,701	\$575,000	\$143,750
Total:	\$2,225,549	\$5,324,201	\$4,600,000	\$1,035,000

TOTAL FUNDS SOURCED (Aa+Bb+Cc+Dd): \$13,184,750



Board Report

File #: 2016-0887, File Type: Contract

Agenda Number: 25

CONSTRUCTION COMMITTEE JANUARY 19, 2017

SUBJECT: CEQA/NEPA ENVIRONMENTAL SERVICES AND SUPPORT

ACTION: AWARD PROFESSIONAL SERVICES CONTRACT

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to execute:

- A. a five-year cost-plus fixed fee Contract No. PS20111, with **ICF International for CEQA/NEPA Environmental Services and Support** on Task Orders, inclusive of two one-year options with an initial amount not-to-exceed \$25,604,000, inclusive of three base years (not to exceed \$15,076,003) with two one-year options (year one = \$5,211,497 and year two = \$5,315,727), subject to resolution of protest(s)subject to resolution of protest(s), if any; and
- B. individual Task Orders and changes within the Board approved contract amount.

ISSUE

Environmental analysis and clearance of Los Angeles County Metropolitan Transportation Authority (Metro) projects is conducted under the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and Section 4(f) of the Department of Transportation Act (DOTA) of 1966, and other appropriate federal, state, and local laws, regulations, and guidelines related to the impact that Metro projects may have on the environment.

These Metro projects normally include rail development projects, bus service projects, and Metro facilities projects that have been planned and environmentally cleared through the use of federal Major Investment Study, Alternative Analysis/ Draft and Final Environmental Impact Statement processes or through a CEQA Draft and Final Environmental Impact Report. These projects may also have been evaluated with various supplemental or subsequent environmental documents.

DISCUSSION

The existing Environmental Compliance contract is a five year contract that expired on December 31, 2016. The environmental compliance services that the existing contract provides were in support of the major projects and various other bus and rail capital projects and this work needs to be continued. While existing Task Orders executed prior to the expiration of the previous contract provide continued support until the end of the period of performance for the specific Task Order, there is a need for a new environmental compliance services contract to execute new Task Orders that will support additional project needs to ensure Metro's continued compliance to NEPA, CEQA, and related statutes. The new environmental compliance services solicitation for the Contract that is to be awarded through this Board Report was initiated in mid-2016 and the evaluation has now been completed to ensure continuation of these services. The new Contract is for three years with two one-year options for a total of five years. The Procurement Summary for this contract is documented in Attachment A.

The services that this Contract provides include the preparation of studies, surveys, investigations, modeling, predictions, data analyses and reporting related to the categories of impact found in the CEQA/NEPA guidelines, or as required by conditions identified during the planning, development, and design stages of a project and/or during the construction, operation or close-out phases of a project. This work also includes the engineering and design of mitigation measures necessary to comply with the above listed requirements.

To accomplish the assigned tasks, the Contractor will provide necessary staff, sub-consultants, equipment, software, supplies, and services. They shall employ or subcontract as necessary with such diverse professionals like Acoustical Engineers, Air Quality Engineers, Biologists, Botanists, Arborists, Historians, Archeologists, Paleontologists, Legal Counsel, Environmental and Sustainability Scientists and Engineers and such other professional practitioners as may be needed to support Metro's environmental compliance programs.

DETERMINATION OF SAFETY IMPACT

This Board action will not have an impact on established safety standards for Metro's Construction projects.

FINANCIAL IMPACT

As specific environmental compliance needs arise, Task Orders will be issued and funded from their associated project budget, upon approval by the responsible Project Manager. Board approved and forecasted budgets within the FY17 to FY21 timeframe include, for example, major Bus and Rail Construction Projects, Metro Crenshaw Light Rail Project, Metro Regional Connector, and Metro Westside Extension Project, Bus Division Expansion Projects, Energy Conservation and Management (450001), Policy Development and Implementation (450002), Environmental Management System Implementation (450003), and Greenhouse Gas Emissions and Climate Change Management (450004). Anticipated services that will be used by these projects are provided

in Attachment C.

Contract No. PS20111 is an Indefinite Delivery/Indefinite Quantity (IDIQ) contract. No Metro funds are obligated until a Contract Work Order (CWO) is issued by a Metro authorized Contracting Officer against a valid project budget. No expenditures are authorized until a Task Order is awarded by a Metro authorized Contracting Officer for a specific package of work within the CWO. In other words, all task orders are to be individually negotiated and level of effort fully defined prior to the authorization of any project specific funds. Execution of work under those Task Orders within those CWO awards can continue beyond the contract end date.

Obligations and authorizations made within the total Contract Amount will be against specific project or operations budgets which make up the Board-approved Metro budget for this particular fiscal year. Specific funding for this contract will parallel the project approved by Board under separate actions. The Chiefs of the business units and Project Managers overseeing these projects will be responsible for providing appropriate budgets.

Impact to Budget

The Bus and Rail Operating and Capital Budgets are not impacted by this action.

ALTERNATIVES CONSIDERED

If Contract No. PS20111 is not awarded, Metro could experience increased liability for Contractor claims for delay to schedule completion milestones, incur opportunity costs, or risk fines and lawsuits resulting from inaction to comply with regulatory agency, local government, or community group requirements.

The Metro Board may reject the recommended action and direct staff to do all environmental compliance services support work in house. Under such situation, Metro would have to hire additional staff with expertise in many different subjects, such as acoustical engineering, archeology, paleontology, biology, botany, traffic engineering, environmental science and engineering; as well as purchase specialized equipment such as sound monitors, traffic counters, bio-monitors, etc. and related equipment. Such an action is not practical or cost-effective. Metro would incur more cost to do the work internally compared to employing consultants.

NEXT STEPS

After the recommended Board Action is approved, staff will complete the process to award PS20111.

ATTACHMENTS

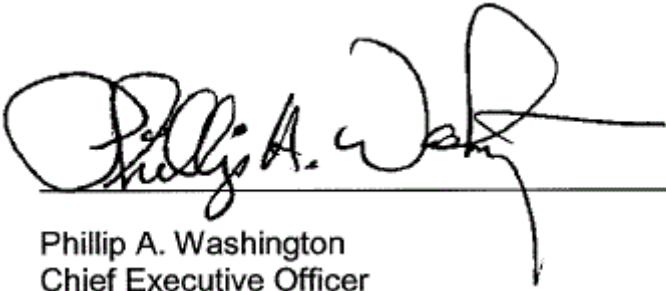
Attachment A - Procurement Summary, Environmental Compliance Services
Attachment B - DEOD Summary
Attachment C - Forecasted Environmental Compliance Services Work FY17-FY22

Prepared by: Cris B. Liban, Executive Officer, Environmental Compliance and Sustainability (213) 922-3471

Reviewed by: Richard Clarke, Chief Program Management Officer
(213) 922-7557

Debra Avila, Chief Vendor/Contract Management Officer

(213) 418-3051



Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

CEQA/NEPA ENVIRONMENTAL SERVICES AND SUPPORT / PS20111

1.	Contract Number: PS20111	
2.	Recommended Vendor: ICF International	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input type="checkbox"/> RFP <input checked="" type="checkbox"/> RFP-A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: January 29, 2016	
	B. Advertised/Publicized: February 9, 2016	
	C. Pre-proposal/Pre-Bid Conference: February 18, 2016	
	D. Proposals/Bids Due: March 14, 2016	
	E. Pre-Qualification Completed: November 2, 2016	
	F. Conflict of Interest Form Submitted to Ethics: June 3, 2016	
	G. Protest Period End Date: 1/2017	
5.	Solicitations Picked up/Downloaded: 81	Bids/Proposals Received: 5
6.	Contract Administrator: Tamara Reid	Telephone Number: (213) 922-7215
7.	Project Manager: Emmanuel Liban	Telephone Number: (213) 922-2471

A. Procurement Background

This Board Action is to approve Contract No. PS20111, issued in support of CEQA/NEPA environmental services and support. The scope of the Contract is to support the preparation of studies, surveys, investigations, modeling, predications, data analyses and reporting related to the categories of impact found in the CEQA/NEPA guidelines or as required by conditions identified during the planning, development, and design stages of a project and/or during the construction, operation or close-out phases of a project. Board approval of contract awards are subject to resolution of all properly submitted protests.

The RFP was issued in accordance with Metro's Acquisition Policy and California Government Code §4525-4529. The contract type is a five-year cost-plus fixed fee contract, inclusive of two one-year options.

One amendment was issued during the solicitation phase of this RFP:

- Amendment No. 1, issued on March 9, 2016 to modify RFP documents.

On February 18, 2016, a pre-proposal conference was held with 30 firms in attendance. A total of five proposals from the following firms were received on March 14, 2016:

1. AECOM Technical Services, Inc. (AECOM)
2. CH2M Hill

3. ICF International (ICF)
4. Sapphos Environmental Inc. (Sapphos)
5. Ultrasystems

B. Evaluation of Proposals

A Proposal Evaluation Team (PET) consisting of staff from Environmental Compliance and Transportation Planning was convened and conducted a comprehensive technical evaluation of the proposal received.

The proposal was evaluated based on the following evaluation criteria and weights:

- | | |
|-------------------------------------------------------------------------------------------|-----|
| • Proposed Team Capabilities and Experience | 26% |
| • Role and Relevant Experience and Capability of the Firms on the Prime Contractor's Team | 25% |
| • Staff Positions Identified in the Scope of Services | 25% |
| • Project Management Approach | 20% |
| • DBE Contracting Outreach and Mentor Protégé Approach | 4% |

This is an Architecture and Engineering (A&E), qualifications based procurement. Price cannot be used as an evaluation factor as governed by California Government Code §4525 - 4529. The evaluation criteria are appropriate and consistent with criteria developed for other, similar A&E solicitations.

During the week of April 18, 2016, the evaluation committee conducted oral presentations with the firms. The firms' project managers and key team members had an opportunity to present each team's qualifications and respond to the evaluation committee's questions. In general, each team's presentation addressed the requirements of the RFP, experience with all aspects of the required tasks, and stressed each firm's commitment to the success of the project. Also highlighted were staffing plans, work plans, and perceived project issues. Each team was asked questions relative to each firm's proposed alternatives and previous experience.

Qualification Summary of Recommended Firm:

The evaluation performed by the PET, in accordance with evaluation criteria set forth in the RFP, determined ICF as the most qualified firm to provide the required services.

ICF has provided relevant environmental planning and regulatory compliance experience working on Metro projects such as the Blue Line, Green Line, Orange Line, Red Line, and Gold Line and their extensions; the Wilshire BRT project; Crenshaw/LAX Transit Corridor; Exposition Line Phase I; and projects along the I-5, I-710, I-405, SR 2, SR 57, SR 60, and SR 210 freeways. ICF provided a detailed Project Management Plan that included extensive coordination with internal teams

and Metro as well as staffing requirements demonstrated a clear understanding of the proposed scope of work.

ICF demonstrated they are well-skilled in providing the scope of services at the level required by this contract, and has the capabilities to provide staffing for task order assignments that may be issued under this contract.

The PET ranked the proposals and assessed strengths, weaknesses and associated risks of each of the Proposers to determine the most qualified firm.

1	FIRM	Average Score	Factor Weight	Weighted Average Score	Rank
2	ICF				
3	Proposer's team capabilities and experience	92.65	26%	24.09	
4	Role and relevant experience and capability of the firms on the prime contractor's team	90.00	25%	22.50	
5	Staff positions identified in the scope of services	95.32	25%	23.83	
6	Project management approach	90.65	20%	18.13	
7	DBE Contracting Outreach & Mentor Protégé Approach	100.00	4%	4.00	
8	Total		100%	92.55	1
9	AECOM				
10	Proposer's team capabilities and experience	86.35	26%	22.45	
11	Role and relevant experience and capability of the firms on the prime contractor's team	86.32	25%	21.58	
12	Staff positions identified in the scope of services	88.68	25%	22.17	
13	Project management approach	83.00	20%	16.60	
14	DBE Contracting Outreach & Mentor Protégé Approach	100.00	4%	4.00	
15	Total		100%	86.80	2

16	Sapphos				
17	Proposer's team capabilities	91.00	26%	23.66	

	and experience				
18	Role and relevant experience and capability of the firms on the prime contractor's team	87.68	25%	21.92	
19	Staff positions identified in the scope of services	87.32	25%	21.83	
20	Project management approach	88.35	20%	17.67	
21	DBE Contracting Outreach & Mentor Protégé Approach	25.00	4%	1.00	
22	Total		100%	86.08	3
23	Ultrasystems				
24	Proposer's team capabilities and experience	80.65	26%	20.97	
25	Role and relevant experience and capability of the firms on the prime contractor's team	82.00	25%	20.50	
26	Staff positions identified in the scope of services	86.00	25%	21.50	
27	Project management approach	83.35	20%	16.67	
28	DBE Contracting Outreach & Mentor Protégé Approach	75.00	4%	3.00	
29	Total		100%	82.64	4
30	CH2MHill				
31	Proposer's team capabilities and experience	70.00	26%	18.20	
32	Role and relevant experience and capability of the firms on the prime contractor's team	64.32	25%	16.08	
33	Staff positions identified in the scope of services	80.00	25%	20.00	
34	Project management approach	81.65	20%	16.33	
35	DBE Contracting Outreach & Mentor Protégé Approach	75.00	4%	3.00	
36	Total		100%	73.61	5

C. Cost/Price Analysis

The cost analysis included: (1) a comparison with historical cost data of other firms offering similar services; (2) an analysis of prior audited and overhead rates, and factors for labor, and other direct costs, and (3) compliance with Federal Acquisition Regulation (FAR) Part 31 guidelines. Metro has rates for direct labor and provisional overhead rates, and a negotiated fixed fee rate for the contract. The negotiated amount has been determined to be fair and reasonable.

An audit request has been submitted to the Metro Management Audit Services Department (MASD). In order to prevent any unnecessary delay in contract award, provisional overhead rates have been established subject to retroactive Contract adjustments. In accordance with FTA Circular 4220.1.F, if an audit has been performed by any other cognizant agency within the last twelve month period, Metro will receive and accept that audit report for the above purposes rather than perform another audit.

Proposer Name	Proposal Amount	Metro ICE	Funding Amount
ICF International	\$26,000,000	\$25,604,000	\$25,604,000

Note: This is a a five-year cost-plus fixed fee Contract inclusive of two one-year options with an initial amount not-to-exceed \$25,604,000, inclusive of three base years (not to exceed \$15,076,003) with two one-year options (year one = \$5,211,497 and year two = \$5,315,727).

D. Background on Recommended Contractor

ICF was founded in 1969. ICF is a multidisciplinary firm providing professional services in environmental planning and regulatory compliance. ICF provides the full range of environmental documentation for transportation projects and Categorical Exclusions under NEPA and Categorical Exemptions under CEQA.

ICF has a successful partnership with Metro that dates back to 1980, and has had a role helping to deliver some of Metro's largest projects, including the Blue Line, Green Line, Orange Line, Red Line, and Gold Line and their extensions; the Wilshire BRT project; Crenshaw/LAX Transit Corridor; Exposition Line Phase I; and projects along the I-5, I-710, I-405, SR 2, SR 57, SR 60, and SR 210 freeways in Los Angeles.

DEOD SUMMARY

CEQA/NEPA ENVIRONMENTAL SERVICES AND SUPPORT / PS20111

A. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established a 30% Disadvantaged Business Enterprise (DBE) goal for this solicitation. ICF International, Inc. met the goal by making a 30% DBE commitment.

Small Business Goal	30% DBE	Small Business Commitment	30% DBE
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	DBE Subcontractors	Ethnicity	% Committed
1.	A. Ontiveros & Associates	Hispanic American	0.50%
2.	ACT Consulting Engineers	Asian Pacific American	1.00%
3.	The Alliance Group Enterprise	Asian Pacific American	0.50%
4.	Arellano Associates	Hispanic American	1.70%
5.	BRC-Equals3, Inc.	Caucasian Female	1.00%
6.	Civil Works Engineers, Inc.	Caucasian Female	0.50%
7.	Cross-Spectrum Acoustics	African American	3.00%
8.	California Watershed Engineering Corp.	Subcontinent Asian American	1.00%
9.	Diaz Yourman Consultants	Hispanic American	2.50%
10.	Geospatial Professional Solutions, Inc.	Asian Pacific American	0.50%
11.	Global ASR Consulting	Asian Pacific American	1.00%
12.	Katherine Padilla & Associates	Hispanic American	1.70%
13.	LRS Program Delivery, Inc.	Asian Pacific American	0.50%
14.	Morgner Construction Mgmt.	Hispanic American	1.00%
15.	Paleo Solutions, Inc.	Caucasian Female	4.00%
16.	Public Connections Organization	African American	1.00%
17.	Ramos Consulting Services	Hispanic American	0.50%
18.	Terry A. Hayes Associates	African American	7.10%
19.	Translink Consulting, LLC	Asian Pacific American	1.00%
	Total Commitment		30.00%

B. Living Wage and Service Contract Worker Retention Policy Applicability

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

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this Contract.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this Contract.

Attachment C. Forecasted Environmental Compliance Work - FY17 to FY21

CEQA/NEPA	FY17	FY18	FY19	FY20	FY21
a. Documents	\$256,700.14	\$258,651.86	\$263,824.90	\$269,101.39	\$274,483.42
1. Exemptions/ Exclusions	\$42,581.65	\$42,902.01	\$43,760.05	\$44,635.25	\$45,527.96
2. Initial Studies/Environmental Assessments	\$21,191.99	\$21,334.35	\$21,761.04	\$22,196.26	\$22,640.19
3. Negative Declarations/ Mitigated Negative Declarations/ FONSI	\$29,783.35	\$29,977.42	\$30,576.97	\$31,188.51	\$31,812.28
4. EIR/EIS	\$163,143.14	\$164,438.07	\$167,726.83	\$171,081.37	\$174,502.99
b. Supporting Documentation/Studies	\$214,479.86	\$214,384.71	\$218,672.40	\$223,045.85	\$227,506.77
1. Air Quality	\$15,757.49	\$15,608.05	\$15,920.21	\$16,238.61	\$16,563.39
2. Biology	\$20,163.77	\$20,312.77	\$20,719.02	\$21,133.40	\$21,556.07
3. Cultural	\$46,936.02	\$46,986.85	\$47,926.59	\$48,885.12	\$49,862.82
4. Geology and Soils	\$31,135.52	\$30,987.16	\$31,606.91	\$32,239.04	\$32,883.83
5. Hydrology and Water Quality	\$23,195.10	\$23,194.21	\$23,658.10	\$24,131.26	\$24,613.88
6. Land Use and Planning	\$16,933.75	\$17,070.44	\$17,411.85	\$17,760.08	\$18,115.29
7. Noise	\$25,868.64	\$25,628.95	\$26,141.53	\$26,664.36	\$27,197.65
8. Transportation and Traffic	\$26,184.62	\$26,226.52	\$26,751.05	\$27,286.08	\$27,831.80
9. Visual Resources and Aesthetics	\$8,304.95	\$8,369.75	\$8,537.14	\$8,707.89	\$8,882.05
c. Field Monitoring	\$4,486,384.71	\$4,536,091.33	\$4,626,813.16	\$4,719,349.42	\$4,813,736.41
1. Air Quality	\$41,913.70	\$41,342.43	\$42,169.28	\$43,012.67	\$43,872.92
2. Archeology	\$1,944,566.09	\$1,968,595.45	\$2,007,967.36	\$2,048,126.71	\$2,089,089.24
3. Paleontology	\$1,939,535.02	\$1,963,826.20	\$2,003,102.73	\$2,043,164.78	\$2,084,028.08
4. Historical	\$481,898.21	\$484,571.14	\$494,262.56	\$504,147.81	\$514,230.77
5. Noise and Vibration	\$78,471.69	\$77,756.10	\$79,311.23	\$80,897.45	\$82,515.40
<i>Yearly Total</i>	\$4,957,564.71	\$5,009,127.90	\$5,109,310.46	\$5,211,496.67	\$5,315,726.60
ROM Amount	\$25,603,226.34				
Contingency (15%)*	\$3,840,484				
Total with Contingency	\$29,443,710				

*Contract shall be managed to the awarded amount of \$25,604,000 which excludes CMA/Contingency

**Board Report**

File #: 2016-0932, **File Type:** Contract**Agenda Number:** 26

**CONSTRUCTION COMMITTEE
JANUARY 19, 2017****SUBJECT: ALL TRANSIT CORRIDOR AND CAPITAL PROJECTS****ACTION: APPROVE CONTRACT MODIFICATION****RECOMMENDATION**

INCREASE the authorized funding for Contract No. EN077 with **Arcadis US, Inc. (AUS)**, to fund **additional Environmental Hazardous Materials and Construction Services Task Orders** in an amount not-to-exceed \$3,255,000 increasing the total Contract Value from \$38,000,000 to \$41,255,000.

RATIONALE

In September 2011, the Board authorized negotiation and award, and the Board funded the Contract in the initial amount of \$38,000,000, based upon a staff cost estimate of work necessary to support Metro's approved Capital Construction Program for FY12 through FY16. Outstanding Task Orders that were awarded in FY16 were carried over to FY17. These Task Orders are scheduled to terminate with the expiration of the EN077 Contract at the end of FY17. Any remaining Contract Value was projected to be sufficient to support existing environmental services efforts.

The emergence of changed conditions at major capital projects including Location 61S as well as multiple notices of violations resulting from additional regulatory compliance requirements related to State Water Resources Control Board and City and County of Los Angeles Fire Department underground storage tank requirements and SB 989 regulations required the additional use of AUS services beyond what staff has anticipated that can be handled within the current AUS Contract Value. Based upon forecasted work for the remainder of FY17 up to and until the expiration of this Contract at the end of the FY17, staff is requesting additional funding in the amount of 3,255,000 which would bring the total authorized value for this Contract to \$41,255,000.

Nearly every capital project, and many ongoing facilities maintenance or restoration activities undertaken by Metro require evaluation and, as necessary, removal or treatment of hazardous or contaminating substances. Metro must comply with all environmental laws to avoid fines, and civil or

criminal liability. To ensure such compliance, Metro has solicited and awarded contracts for environmental services. Under Contract No. EN077, AUS assists with the proper clean up, abating, managing, transporting, and disposing of contaminated or hazardous materials at various Metro operating facilities; and sampling and testing at various locations for contaminated and hazardous soils and water. AUS also performs, under this Contract, construction services that require environmental contractor specialization.

Specific projects identified to require environmental services, along with estimated costs of these services, is shown below. Attachment A includes a month to month cashflow projection on when these expenditures are going to be spent.

Underground Storage Tank Program	Est. Cost
Division 2 EG UST Removal & AST Install	\$350,000
Division 5 UST/AST Repairs and Upgrades	\$600,000
Division 9 UST Repairs and Upgrades	\$550,000
Division 10 UST System Repair	\$300,000
Emergency response failures UST/AST	\$135,260
Other Projects	
Soil & Water Transportation and Disposal	\$100,000
Purple Line Extension Waste Soil	\$ 40,000
Patsaouras Plaza Busway Management Environmental Support	\$217,000
Location 61 S / Soil Remediation	\$237,000
Regional Connector Waste Management On Call	\$ 15,000
PLE Lead and Asbestos Abatement Section 2	\$250,000
Crenshaw - LAX On-Call Incident Response Service	\$ 45,000
Location 61S Phase II Excavation	\$600,000
Bob Hope Airport Station	\$ 45,000
Geotechnical Waste Removal / LinkUSA Project Support	<u>\$ 70,000</u>
TOTAL	\$3,554,260

As of November 2016 (the time of report preparation), there is approximately \$1,900,000 remaining in the Contract Value for AUS. The requested increase in Contract Value will allow for the completion of the remaining work scheduled for FY17.

A replacement Environmental Services contract is currently under procurement and upon award at the end of FY17 will replace AUS to perform Environmental Services work.

IMPACTS TO OTHER CONTRACTS

Timely and thorough environmental services in connection with other construction contracts is essential to complete capital projects within schedule and budget. If the value of Contract No. EN077 is not increased, staff will not be able to respond to the outstanding and newly identified compliance requirements (including those that address the notices of violations); as well as respond to the major capital project changed conditions. Staff will also have to delay any remediation work that has a direct impact on the succeeding phases of projects. There is already a procurement for a replacement contract but the award will not be until the later part of this fiscal year. Any delay in provision of

environmental support will significantly increase Metro's liability for environmental regulatory compliance and contractor monetary claims of delay.

FINANCIAL IMPACT

EN077 is an Indefinite Delivery/Indefinite Quantity (IDIQ) contract. No Metro funds are obligated until a Contract Work Order (CWO) is issued by a Metro authorized Contracting Officer against a valid project budget. No expenditures are authorized until a Task Order is awarded by a Metro authorized Contracting Officer for a specific package of work within the CWO.

To date, Metro's financial and change control systems indicate that approximately \$36,000,000 out of the previously Board-approved \$38,000,000 has been obligated for completed and ongoing work. The remaining balance would not be sufficient to support contractor efforts to complete the required work for the rest of FY17.

The additional funding of \$3,255,000 is an increase in the amount which may be obligated and spent under the Contract. This increase in Contract Value is anticipated to be all spent by the end of FY17 and by the time the EN077 replacement contract is awarded.

Obligations and authorizations made within the total Contract Value will be against specific project or operations budgets which make up the Board-approved Metro budget for any particular fiscal year. The Chiefs of each of the business units overseeing these projects and the respective project managers are responsible for budgeting the costs.

Impact to Bus and Rail Operating and Capital Budget

The funding for this Contract Modification will come from various sources of projects and their corresponding funds (see Attachment A). These funds are eligible for bus and rail operating and capital expenditures.

ALTERNATIVES CONSIDERED

The Metro Board of Directors could decide not to increase the Contract Value for this Contract and thus staff has to solicit and award individual contracts for each environmental task to ensure the regulatory requirements and required mitigation work at project sites are addressed. Staff does not recommend this alternative owing most importantly to delays and correspondingly to high costs; as well as the administrative inefficiencies for managing multiple contracts.

As another alternative, Metro could perform all the environmental hazardous materials and construction services in-house. However to do so, Metro would need to hire additional staff with expertise in many different subjects, such as drilling, laboratory science, and operating heavy earth-moving and material handling equipment, as well as purchase earthmoving and material handling equipment, and laboratory equipment. Staff does not recommend this alternative owing to high capital costs to procure personnel and equipment as well as potential for implementation and training delays.

NEXT STEPS

After the recommended Board Action is approved, staff will complete the process to award task orders to address newly identified and required regulatory actions and mitigation/remediation measures.

ATTACHMENTS

- Attachment A - Procurement Summary
- Attachment B - Contract Modification/Change Order Log
- Attachment C - DEOD Summary
- Attachment D - Summary of Current and Proposed Work Requiring AUS Services

Prepared by:

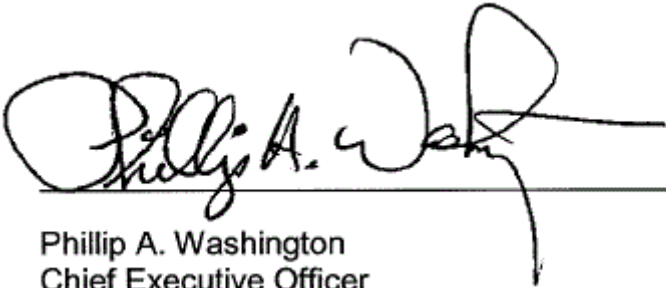
Cris B. Liban, Executive Officer, Environmental Compliance and Sustainability
(213) 922-2471

Tom Kefalas, Sr. Manager, Environmental Compliance and Services (213) 922-4887

Reviewed by:

Richard Clarke, Chief Program Management Officer (213) 922-7557

Debra Avila, Chief Vendor/Contract Management Officer (213) 418-3051



Phillip A. Washington
Chief Executive Officer

**PROCUREMENT SUMMARY
ENVIRONMENTAL WASTE HANDLING AND ENVIRONMENTALLY RELATED
CONSTRUCTION SERVICES/EN077**

1.	Contract Number: EN077		
2.	Contractor: Arcadis -US, Inc.		
3.	Work Description: Sampling and testing at various Metro locations for contaminated soils and water. Clean-up, abatement, management, transporting and disposing of contaminated or hazardous materials at various Metro operating facilities. Construction services that require environmental contractor specialization		
4.	The following data is current as of: Dec 12, 2016		
5.	Contract Status:		
	Proposals Recieved:	March 29, 2011	Contract Award Amount: \$38,000,000.
	Contract Awarded:	August 15, 2011	Total of Modifications Approved: 10
	NTP:	September 26, 2011	Current Contract Value: \$41,255,000.
	Original Complete Date:	August 14, 2014	Current Est. Complete Date: June 30, 2017
6.	Contract Administrator: Daniel A. Robb		Telephone Number: (213) 922-7074
7.	Project Manager: Cris Liban		Telephone Number: (213) 922-2471

A. Procurement Background

This Board Action is to approve an increase in Contract Modification Authority (CMA) in support of Contract EN077 to provide continuing and additional Environmental Waste Handling and Environmentally-Related Construction Services as set forth in Contract EN077 currently in effect between Metro and Arcadis-US, Inc.

This Contract Modification Authority will be processed in accordance with Metro's Acquisition Policy and the contract type is an Indefinite Delivery Indefinite Quantity Contract.

Contract EN077 with Arcadis US, Inc. is for a five (5) year term covering the period between August 15, 2011 through August 15, 2016, inclusive of two (2) one-year options. This Contract was approved by the Board of Directors on June 16, 2011 with approved expenditure of up to \$21.2 Million of the \$38 Million in total contract value for FY12 to FY14 inclusive of sales tax and two (2) one-year options. On July 17, 2014, the Board authorized the use of the remaining contract value (from \$21.2 Million to \$38 Million). Ten (10) contract modifications have been executed and approved by the Board over the life of the Contract.

- Modifications 1 through 3 were issued to update the Terms and Conditions of the Agreement to include the Memorandum of Costs.

- Modification 4 extended the Period of Performance from August 14, 2014 to September 30, 2014.
- Modification 5 extended the Period of Performance from September 30, 2014 to March 31, 2015.
- Modification 6 extended the Period of Performance from March 31, 2015 to June 30, 2015
- Modification 7 extended the Period of Performance from June 30, 2015 to December 31, 2015.
- Modification 8 extended the Period of Performance from January 1, 2016 to June 30, 2016.
- Modification 9 extended the Period of Performance from July 1, 2016 to December 31, 2016.
- Modification 10 extended the Period of Performance from January 1, 2016 to June 30, 2017.

This Board Action shall fund continuing and additional Environmental Hazardous Materials and Construction Services in an amount not to exceed \$3,255,000, increasing the total contract value from \$38,000,000 to \$41,255,000.

Anticipated projects for Arcadis EN077 include, but are not limited to:

Underground Storage Tank Program	Est. Cost
Division 2 EG UST Removal & AST Install	\$350,000
Division 5 UST/AST Repairs and Upgrades	\$600,000
Division 9 UST Repairs and Upgrades	\$550,000
Division 10 UST System Repair	\$300,000
Emergency response failures UST/AST	\$135,260
Other Projects	
Soil & Water Transportation and Disposal	\$100,000
Purple Line Extension Waste Soil	\$ 40,000
Patsaouras Plaza Busway Management Environmental Support	\$217,000
Location 61 S / Soil Remediation	\$237,000
Regional Connector Waste Management On Call	\$ 15,000
PLE Lead and Asbestos Abatement Section 2	\$250,000
Crenshaw – LAX On-Call Incident Response Service	\$ 45,000
Location 61S Phase II Excavation	\$600,000
Bob Hope Airport Station	\$ 45,000
Geotechnical Waste Removal / LinkUSA Project Support	<u>\$ 70,000</u>
TOTAL	\$3,554,260

Additional information regarding the history of Modifications to EN077 can be found in Attachment B – Contract Modification/Change Log.

B. Cost/Price Analysis

The recommended price of any future changes will be determined to be fair and reasonable based upon MAS audit findings, an independent cost estimate, cost analysis, price analysis, technical evaluation, fact finding, and negotiations.

ATTACHMENT B

CONTRACT MODIFICATION/CHANGE ORDER LOG

**ENVIRONMENTAL WASTE HANDLING AND ENVIRONMENTALLY RELATED
CONSTRUCTION SERVICES/EN077**

Mod. no.	Description	Status (approved or pending)	Date	\$ Amount
1.	Administrative Terms and Conditions	Approved	11/16/14	\$0.00
2.	Retention Reduction Per Contract Code Section 7201	Approved	12/22/13	\$0.00
3.	Add Subcontractors Trip Span & BTI	Approved	11/21/13	\$0.00
4.	No Cost Period of Performance Extension 8/14/14 to 9/30/14	Approved	8/5/14	\$0.00
5.	No Cost Period of Performance Extension 10/01/14 to 3/31/15	Approved	9/26/14	\$0.00
6.	No Cost Period of Performance Extension 3/31/15 to 6/30/15	Approved	3/11/15	\$0.00
7.	No Cost Period of Performance Extension 6/30/15 to 12/31/15	Approved	5/15/15	\$0.00
8.	No Cost Period of Performance Extension 01/01/15 to 6/30/16	Approved	9/24/15	\$0.00
9.	No Cost Period of Performance Extension 7/01/16 to 12/31/16	Approved	3/14/16	\$0.00
10.	No Cost Period of Performance Extension 1/01/17 to 6/30/17	Approved	9/29/16	\$0.00
11	Add funds for continuing and additional Environmental Hazardous Materials and Construction Services	Pending		\$3,255,000
				(Total for this mod.)
	Modification Total:			\$3,255,000
	Original Contract:			\$38,000,000
	Total:			\$41,255,000

DEOD SUMMARY

ENVIRONMENTAL WASTE HANDLING AND ENVIRONMENTALLY RELATED
CONSTRUCTION SERVICES/EN077

A. Small Business Participation

Arcadis-US, Inc. made a Disadvantaged Business Enterprise Anticipated Level of Participation (DALP) commitment of 40.00%. The project is 81% complete and the current DBE participation is 38.35%, a shortfall of 1.65%. According to Arcadis-US, Inc., they are currently spending over 40% on DBE subcontractors for various projects. Once they receive payment from Metro for large invoices for the Location 61S project and in turn pay their subcontractors, it will bring their participation above the 40% commitment.

Small Business Commitment	40.00% DALP	Small Business Participation	38.35%
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	DBE Subcontractors	Ethnicity	% Commitment	Current Participation¹
1.	J.C. Palomar Construction, Inc.	Hispanic American	CWO	14.83%
2.	Advanced Technology Laboratories	Hispanic American	CWO	0.79%
3.	Jet Drilling	Hispanic American	CWO	0.76%
4.	Alliance Environmental Group	Hispanic American	CWO	0.08%
5.	Tri Span	Hispanic American	CWO	12.27%
6.	Insight EEC	Subcontinent Asian American	CWO	3.27%
7.	Bradley Tank	Asian Pacific American	CWO	3.82%
8.	Cal Vada	Hispanic American	CWO	0.10%
9.	Performance Analytical Laboratories	Caucasian Female	CWO	0.37%
10.	Verduzco Electric	Hispanic American	CWO	2.06%
	Total		40.00%	38.35%

¹Current Participation = Total Actual amount Paid-to-Date to DBE firms ÷ Total Actual Amount Paid-to-date to Prime.

B. Living Wage and Service Contract Worker Retention Policy Applicability

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

C. Prevailing Wage Applicability

Prevailing wage is not applicable to this modification.

D. Project Labor Agreement/Construction Careers Policy

Project Labor Agreement/Construction Careers Policy is not applicable to this contract.



Board Report

File #: 2016-0944, File Type: Contract

Agenda Number: 27

CONSTRUCTION COMMITTEE JANUARY 19, 2017

SUBJECT: CAPITAL IMPROVEMENT PROJECTS PROCUREMENT SUPPORT

ACTION: APPROVE USE OF DESIGN-BUILD PROJECT DELIVERY METHOD

RECOMMENDATION

CONSIDER:

- A. FINDING that awarding contracts for a design-build delivery, pursuant to Public Utilities Code Section 130242 (a), will achieve certain private sector efficiencies in the integration of design, project work, and components related to real property renovation, improvements, and construction work at Metro transit facilities in Los Angeles County as defined by the projects listed in Attachment A; and

(REQUIRES 2/3 VOTE)

- B. AUTHORIZING the Chief Executive Officer to award design-build contracts for **renovations, improvements, and construction at Metro transit facilities related to projects** listed in Attachment A.

ISSUE

Metro is authorized to enter into contracts pursuant to Public Utilities Code Section 130242 utilizing the design build project delivery method (design build) . This section requires that the Board make the finding set forth in Recommendation A.

DISCUSSION

Staff periodically presents to the Board an updated list of projects for which it seeks approval to use design-build contracts. In FY17 staff is working on projects not previously approved to contract for construction services utilizing design-build.

California Public Utilities Code Section 130242 provides for award to the lowest priced responsive and responsible bidder. The primary benefit of the design-build process is a shortened project schedule where the design builder is able to start construction while the design is being completed. Other possible benefits include additional efficiencies in project management, administration, and

coordination. The design-build approach delivers the project ahead of a traditional design-bid-build project delivery method thus result in a lower total project cost. Staff has experienced success with design-build construction contracts in the Capital Program and is seeking additional opportunities to expand the use of this project delivery method.

DETERMINATION OF SAFETY IMPACT

The Board action will not have any impact on safety standards for Metro.

FINANCIAL IMPACT

Adoption of a design-build for certain projects would not have an adverse impact to the budget. Projects using the design-build either have or will have approved life-of-project (LOP) budgets. Funds for the selected projects are included under the respective projects in FY17 budget.

Historically, the adoption of design-build on small capital improvements at Metro's facilities has resulted in competitively priced bids and cost savings to the agency. Examples of improvements that have benefited from using design-build include bus washer replacements; hoist replacements; lighting and security upgrades; piping and plumbing upgrades; Heating, Ventilation, and Air Conditioning (HVAC) upgrades; Transit Passenger Information System (TPIS) and Close Circuit Television (CCTV) upgrades; and building expansions.

Impact to Budget

All projects are funded with a combination of Federal and local sources, including TDA Article 4, Proposition C 40%, and Proposition A 35%. The permeable concrete project will be funded by an existing grant through State Water Quality Assessment Board. The funds have been specifically set aside for these uses as part of the Capital Program. Approval of this action will not impact the bus and rail operating budget.

Since these are all multi-year projects, the Project Manager, the Cost Center manager, and the Chief Program Management Officer will be responsible for budgeting the cost in future years.

ALTERNATIVES CONSIDERED

This work could be accomplished through separate design and construction contracts, or through design services provided by agency staff and bid for construction. Staff does not recommend this approach. There are distinct and clear advantages to having a single contractor responsible for both design and construction, primarily in the avoidance of certain project management, staff, administration, and coordination costs.

NEXT STEPS

Staff will prepare design-build packages for the selected projects.

ATTACHMENTS

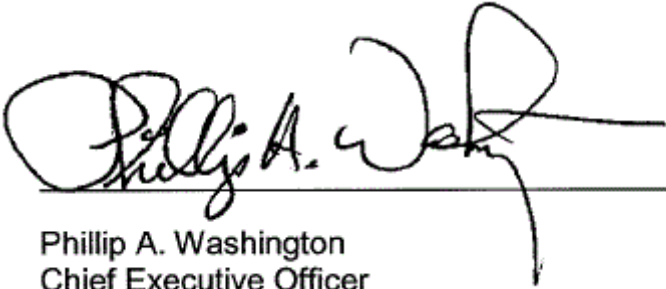
Attachment A - Projects Proposed for Design-Build Approach

Prepared by:

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Phillip A. Washington
Chief Executive Officer

List of Capital Improvement Projects Proposed for Design-Build Approach

Project Title	Project Description	Life-of-Project Budget
CNG Detection and Alarm Systems	Replace CNG detection systems at bus operating divisions, including alarms	\$ 4,586,000
Permeable Pavement and other Low Impact Development (LID) Projects	Replace pavement at end of its useful life with permeable pavement at Central Maintenance Facility and other bus and rail facilities.	\$ 1,000,000 (Grant)
EI Monte Busway Exhaust Fans	Retrofit the exhaust fans in the lower level concourse of the EI Monte Busway Station	\$ 2,200,000 (Estimated)
Concrete Surface Improvements	Existing concrete surface waterproofing, crack repairs, and slope corrections for slab, pavement, post tension deck, and other structural members	\$1,000,000 (Estimated)



Board Report

File #: 2016-0980, File Type: Agreement

Agenda Number: 48

REVISÉ
PLANNING AND PROGRAMMING COMMITTEE
JANUARY 18, 2017
CONSTRUCTION COMMITTEE
JANUARY 19, 2017

SUBJECT: CRENSHAW/LAX TRANSIT PROJECT AND AIRPORT METRO CONNECTOR ACCOMMODATIONS

ACTION: APPROVE CONTRACT MODIFICATION FOR 96TH STREET ACCOMMODATIONS AND COST/SCHEDULE IMPACTS AGREEMENT

RECOMMENDATION

CONSIDER:

- A. AUTHORIZING the Chief Executive Officer (CEO) to negotiate and execute contract modification(s) to Contract No. C0988 with **Walsh/Shea Corridor Constructors (WSCC)**, for **final costs associated with construction on accommodations so as not to preclude a future Light Rail Transit (LRT) Station at 96th Street** and implement an agreement on critical cost and schedule impacts in an amount of \$59,150,000 increasing the total contract value from \$1,311,627,532 to \$1,370,777,532, no impact to Crenshaw/LAX Project Life-of-Project Budget;
- B. AMENDING the FY17 budget by \$28,600,000 for Project 460303 Airport Metro Connector Accommodations from \$10,760,760 to \$39,360,760 for the allocable portion of its costs related to the \$59,150,000 under Recommendation A; and
- C. AUTHORIZING the CEO for a pilot period of 1 year to negotiate and execute project-related agreements, including contract modification(s) up to the authorized Life-of-Project budget, to streamline project management of the Crenshaw/LAX Transit Project subject to monthly reporting requirements, that would include any pending project-related agreements, change orders/contract modifications and any significant changes to contract contingency to the Board of Directors. This action would allow the board to see in advance all project-related agreements and change orders.

ISSUE

WSCC commenced construction of the accommodations so as not to preclude a future LRT Station at 96th Street in July 2016. Metro and WSCC have completed negotiations for the direct, indirect and delay impact costs associated with the Crenshaw/LAX Transit Project constructing the accommodations. Board authorization is requested to provide funding to modify the WSCC contract to allow construction to be completed and implement the agreement on cost and schedule impacts for the accommodation scope of work and to gain commitment from WSCC to complete Contract work for a fall 2019 Revenue Operations Date.

DISCUSSION

Accommodations so as not to preclude a future LRT Station at 96th Street

On May 28, 2015, the Board approved Design Option 3 for the Crenshaw/LAX track alignment so as not to preclude a future LRT Station at 96th Street. Subsequently, staff issued change orders to Walsh-Shea Corridor Constructors (WSCC), Metro's Crenshaw/LAX Transit Project design-builder, for engineering design services to incorporate the design changes for Option 3. The design modifications increased construction costs specifically associated with the required accommodations. On June 23, 2016, the Board approved funding to commence construction on the accommodations so as not to preclude a future LRT Station at 96th Street. Metro has now concluded negotiations with WSCC for the direct, indirect and delay impact costs associated with the Crenshaw/LAX Transit Project constructing the accommodations.

Underground Stations Deluge Impacts

Metro and WSCC have concluded negotiations to resolve cost impacts for the addition of an underground station deluge system within the Expo/Crenshaw Station crossover area. This system is required for Fire Life Safety requirements. The value represents a negotiated agreement.

Critical Cost and Schedule Impacts

Metro and WSCC have concluded negotiations to resolve schedule and cost related disputes that occurred during the first three years of the Contract with WSCC.

The schedule component of the agreement includes all time related matters for the first three years of the Contract through October 24, 2016. As part of the agreement, WSCC has submitted a Completion Schedule, that Metro has accepted, which provides a detailed description of how WSCC and Metro will collaboratively work together to complete the remaining project scope of work. WSCC has committed to Metro to complete Contract scope of work to support Metro in maintaining a fall 2019 Revenue Operations Date. This commitment by WSCC allows Metro to maintain the commitment made in the TIFIA loan document of completing the Crenshaw/LAX Transit Project by fall 2019. Another advantage of this commitment by WSCC to a fall 2019 Revenue Operations Date is that Metro and supporting staff cost can be maintained at its planned level that otherwise would have to be increased if a later Revenue Operations Date was established. Therefore, this decreases

the Project risk for additional cost increases.

Attachment “D” identifies the WSCC issues and amounts related to cost and schedule impacts that are included in the agreement. Attachment “E” identifies the Metro issues and amounts such as requests for cost and time credits that are included in the agreement. Both WSCC and Metro continue to have the right to pursue previously submitted non-time related cost impacts that are not identified as resolved by the agreement in either Attachment D or E.

Project Authority Levels

The Crenshaw/LAX project like many Metro mega projects, is a fast-moving, challenging and complex design-build project. Quick decision-making is required to take advantage of cost and scheduling opportunities and to keep the project moving. A lengthy change order approval process is not consistent with the needs of a large, design-build project and is being addressed at the staff level. Part of the process is the requirement to receive Board of Directors approval for changes above a specified threshold. On the Crenshaw/LAX Project, this threshold is for any change above \$1 million.

As Metro projects have grown in size and complexity over the years, the authorization levels have not kept pace with the demands of the projects. On a large mega-project, the thresholds requiring approval are easily exceeded. The need to bring a contract modification to the Board for approval can add two months to the schedule when contractors could have started the work immediately. This time can be critical to project schedules and risks exposure to extended overhead payments due the contractor, should the project be delayed.

As mentioned in the most recent Los Angeles Construction Market Analysis Update received by the Board in September 2015, contractors have indicated that delays in processing changes to be a significant risk when working on Metro projects. As a result they have had to include contingencies in their proposals to address this risk. This delay also puts DBEs subs at risk of not receiving timely payment for work performed.

The cost to the Crenshaw and Regional Connector projects for schedule delays ranges from \$3.3 to \$5 million per month for a total of \$6.6 million to \$10 million for a 2-month delay. Much of this delay can be avoided if Board approval was not required prior to implementing a change.

Therefore, staff is proposing CEO authority, as a one-year pilot, to execute contract project related agreements including contract modifications up to the Life of Project budget subject to monthly reporting requirements, that would include any pending project-related agreements, change orders/contract modifications and any significant changes to contract contingency. This action will allow the Board to see in advance all project-related agreements and change orders but would allow the staff the flexibility, responsibility and authority to manage this large, fast moving project consistent with the need for rapid decision-making and Project Schedule. Any change that results in a LOP budget increase would still require Board approval, which is the most critical aspect of managing

projects. This approach is consistent with other transit agencies including San Jose, Seattle, and Denver.

In addition, staff would continue to report on the project budget, project labor agreement and small business/disadvantaged business compliance as part of the monthly updates to the Construction Committee and the detailed monthly reports that are issued to all stakeholders including the Board.

The benefits of this action:

- Provides staff with the flexibility, responsibility and authority to manage this large, fast moving project consistent with the need for rapid decision-making and project schedule.
- Still requires approval for any action requiring a LOP budget increase.
- Keeps the big picture focus on overall project budget management as opposed to detailed change orders.
- Consistent with industry best practices for time sensitive, effective project management.

DETERMINATION OF SAFETY IMPACT

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

FINANCIAL IMPACT

Under recommendations 1 and 3, distinct financial impacts arise from the cost and schedule impacts Agreement affecting the Airport Metro Connector Project Accommodations (460303) and the Crenshaw/LAX Transit Project (865512).

Airport Metro Connector (AMC) Accommodations

If recommendations A and B are approved, \$28,600,000 will be added to the FY17 budget under Project 460303, AMC Project Accommodations, in Cost Center 8510, Program Management-Construction Procurement. Added to the previously approved \$7,400,000 from the June 2016 Board action, brings the total FY17 funds required for this effort to \$36,000,000. Although WSCC is the design-build contractor for the Crenshaw/LAX Transit Project, this recommendation is funded by the AMC Project (460303). The Crenshaw/LAX Transit Project Life-of-Project budget is a separate allocation.

Crenshaw/LAX Transit Project

If recommendation A is approved, the Crenshaw/LAX Transit Project (865512) will fund two items of the cost and schedule impacts Agreement as follows: 1) Underground Stations Deluge for \$650,000 and 2) Critical Cost and Schedule for \$29,900,000. The combined total of \$30,550,000 is included in the adopted FY17 budget for Project 865512, Crenshaw/LAX Transit Project, in Cost Center 8510, Program Management-Construction Procurement. The Crenshaw/LAX Transit Project FY17 and Life-of-Project budget is not impacted by this action.

Under existing Project Contingency Management policy, staff is required to inform the Board when project contingency is drawn down below the 3% project reserve line. The funding for this action of \$30,550,000 draws down from the Project 865512, Crenshaw/ LAX Transit Project contingency cost element and total project contingency remains above the reserve line upon approval of this Board action. Since this is a multi-year project the Chief Program Management Officer and the Project Manager will be responsible for budgeting in future fiscal years.

Impact to Budget

Measure R 35% is the planned funding source for the \$28,600,000 AMC Accommodations allocation. Existing Project contingency within the Crenshaw/LAX Transit Project Life of Project Budget will be used to fund the \$30,550,000 allocation of the Claims Agreement. Funding sources for the Crenshaw/LAX Transit Project include; Federal STP, CMAQ, State Proposition IB, Proposition A 35% and Measure R 35% as identified in the Crenshaw/LAX project funding plan. The FY17 budget does not include any Prop A 35% funds which are eligible for rail operations and capital projects. The other Crenshaw fund sources are not eligible for bus and rail operating expenditures as they have been programmed to support the Life of Project Budget plan. No other funds were considered.

ALTERNATIVES CONSIDERED

For the 96th Street accommodations, the Board may elect not to approve the negotiated final costs, including resolution of delay impact costs. Staff does not recommend this alternative since the Board in June 2016 approved beginning construction of the accommodations and construction is underway. Any delay would further impact the schedule to complete construction of the Crenshaw/LAX Transit Project and jeopardize the Project from maintaining the fall 2019 Revenue Operations Date.

The Board may elect to defer approval of the resolution of cost and schedule impacts at this time. Staff does not recommend this alternative for the Crenshaw/LAX Transit Project. Historically, cost and schedule impacts not addressed timely have increased in value over time when deferred. WSCC has, based on the agreement resolving the cost and schedule impacts, committed to complete Contract work to support Metro in maintaining a planned fall 2019 Revenue Operations Date. If the outstanding cost and schedule impacts are not resolved at this time, the associated delay cost may be higher as the costs tend to escalate with time. Also, if the contract modification for the agreement is not executed at this time, the current planned date of fall 2019 Revenue Operation Date would be in jeopardy.

NEXT STEPS

Upon Board Authorization, staff will proceed with issuing the required modifications to WSCC's contract.

ATTACHMENTS

Attachment A - Procurement Summary
Attachment B - Contract Modification/Change Order Log
Attachment C - DEOD Summary

Attachment D - WSCC Claims/Request for Changes included in Agreement

Attachment E - Metro Request for Credit included in Agreement

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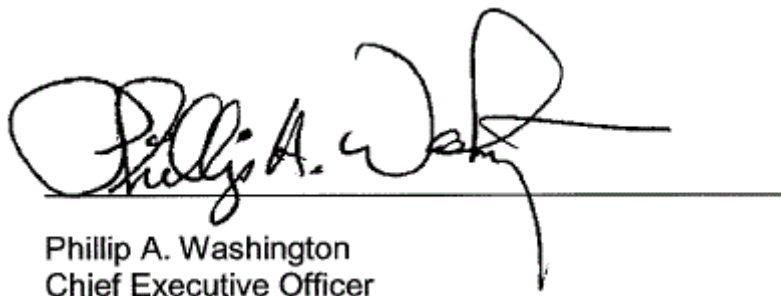
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Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

CRENSHAW/LAX TRANSIT PROJECT/ C0988

1.	Contract Number: C0988 – Crenshaw/LAX Transit Corridor Design-Build		
2.	Contractor: Walsh/Shea Corridor Constructors		
3.	Mod. Work Description: Design and Engineering, 96th Street Station accommodation, Excavation of EXPO and MLK Stations, South bore tunnel, replace sewer at Expo, protect-in-place both the LADWP electrical ductbank at Manchester and the Central Outfall Sewer at the I-405.		
4.	Contract Work Description: Design and construction the Crenshaw/LAX Light Rail Transit System.		
5.	The following data is current as of: October 31, 2016		
6.	Contract Completion Status:		
	Bids/Proposals Opened:	6/12/12	% Completion \$s: 53.4%
	Contract Awarded:	6/27/13	% Completion time: 61.4%
	NTP:	9/10/13	Original Contract Days: 1824
	Original Complete Date:	9/08/18	Change Order Days: 41
	Current Est. Complete Date:	5/1/19	Suspended Days: 0
	Total Revised Days:		1865
7.	Financial Status:		
	Contract Award:	\$1,272,632,356.00	
	Total Contract Modifications Approved:	\$38,995,175.59	
	Current Contract Value:	\$1,311,627,531.59	
	Contract Administrator: Frederick Origel Director, Contract Administration		
	Telephone Number: (213) 922-7331		
8.	Project Manager: Charles Beauvoir, S.E. Deputy Executive Officer, Project Management		Telephone Number: (213) 922-3095

A. Contract Action Summary

This Board Action is to approve Contract Modifications for the design and construction of the necessary accommodations for the future 96th Street Station, and approve claims resolution agreements in support of the Crenshaw/LAX Transit Design-Build Project.

Contract No. C0988 is a firm-fixed price type contract awarded in June 2013, in the amount of \$1,272,632,356 to Walsh/Shea Corridor Constructors (WSCC). WSCC was the highest rated proposer of four qualified design-build teams that submitted proposal and its proposal was determine to provide the best value to Metro. The Federal Transit Administration (FTA) defines best value as “the overall combination

of quality, price and other elements of a proposal that, when considered together, provides the greatest overall benefit in response to requirements described in the solicitation documents.” The Contract was awarded on June 27, 2013, with an original substantial completion date of September 8, 2019. The substantial completion date will be revised to May 1, 2019 upon Board approval of the recommended actions.

A total of 240 Modifications have been approved totaling \$38,995,175 and 28 contract modifications estimated at \$68,910,969 are pending, including the recommended contract modifications in this board item. The approved and pending contract modifications are listed in Attachment B.

B. Cost/Price Analysis

96th Street Station Accommodations Direct Cost

The recommended price for the design and construction of the 96th Street Station accommodation has been determined to be fair and reasonable in accordance with Metro Procurement Policies and Procedures. The negotiated process included, but was not limited to, fact finding, technical evaluation, development of an independent cost estimate (ICE), and cost analysis.

Change Description	Proposal amount	Metro ICE	Negotiated
Design and Construct accommodations for the Light Rail Station at 96 th Street. (Direct Cost – No Delay Cost)	\$17,833,687	\$9,524,580	\$10,400,000

Claims Agreement

WSSC and Metro agreed to fully and finally resolve certain claims, including the delay impact costs associated with change work to accommodate a future 96th Street Station for a lump sum amount of \$56,150,000. The claims are identified in attachments D and E. Attachment D identifies the WSSC issues and costs related to Request for Changes and Claims. Attachment E identifies Metro issues and costs against WSSC for scope and time credits. Included in the agreement price is \$650,000 to design and construct a water-based car deluge system for the underground station guideways at Vernon (Leimert), Martin Luther King, and Exposition Stations. The car deluge system will suppress a fire from a stalled Metro light rail vehicle (LRV).

ATTACHMENT B

**CONTRACT MODIFICATION / CHANGE ORDER LOG –
CRENSHAW/LAX TRANSIT PROJECT / C0988**

Mod. No.	Description	Status	Cost
1	Administrative Change - Update Special Provision SP -05- Notice and Service and SP-06-Insurance Requirements	Approved	No Cost
2	Administrative Change - Technical Reports Part 6.3 PSR/PR	Approved	No Cost
3	CPUC Application	Approved	No Cost
4	Administrative Change - Revised Contractor's Mailing address	Approved	No Cost
5.3	Clarification of Schedule F Applicability	Approved	No Cost
6	Administrative Change – Update Metro Rail Directive Drawings	Canceled	Canceled
7	Design -Aviation/Century Station – Pedestrian Vertical Circulation	Approved	\$366,400.00
8	Design - Century Boulevard Future Right Turn Lane (LAWA)	Approved	\$47,820.00
9	Design -Protect for Future Transport. Corridor at 98th Street	Approved	\$120,458.00
10	Update Volume 1: Form of Contract, Volume 4: Metro Specifications and Volume 5: Metro Rail Design Criteria	Canceled	Canceled
11	Special Events Traffic Control Site Improvements	Approved	\$26,754.00
12	Design Fare Gates At-Grade Latching	Approved	\$239,000.00
13	Construction of Fare Gates At-Grade Latching	Approved	\$2,310,000.00
14	Hazardous Material Abatement Parcel	Approved	\$260,338.90
15	Hazardous Material Abatement Parcel Florence	Approved	\$481,555.20
16	Updated Volume 1, 4, and 7	Approved	No Cost
17	Construction - Century Boulevard Future Right Turn Lane (LAWA)	Approved	\$122,503.49
18	Construction -Protect for Future Transport. Corridor at 98 th St	Approved	\$240,434.34
19	Update MRDC Station Benches	Approved	No Cost
20	Waste Removal Bellanca & Arbor ROW	Approved	\$80,880.00
21	Design Underground Structure HDPE	Approved	No Cost
22	ADA Directional Tile	Approved	No Cost
23	Modify Property Turnover Dates	Approved	No Cost
24	Phone System For Field Office	Approved	\$44,019.07
25	Additional Property Demo, Parcel HS-2706	Approved	\$60,731.85
26	Rail Design Criteria Update – Full Height Platform End Gate	Approved	\$194,412.00
27	Rail Design Criteria Update – LED Lighting	Approved	\$407,242.00
28	Rail Design Criteria Update – Park and Ride Lot ETEL	Approved	\$407,552.00
29.1	Traffic Control Support for DWP Utility Work	Approved	\$113,232.00
29.2	Adjustment Traffic Control for DWP at MLK	Approved	\$112,216.00
30.3	Access for Construction of Temporary Roadway	Approved	No Cost
31	Security Guard – Crenshaw/LAX IPMO	Approved	\$102,757.54
32	ACM Removal Century-Aviation Bridge	Approved	\$55,012.20
33	Revised Steel Canopy Sections	Approved	(\$66,254.00)
34	Temporary Fencing at Avis Property	Approved	\$1,212.43
35	Hazardous Material Abatement Gourmet Food Bldg	Approved	\$341,074.00
36	Hazard Material Abatement-Bldgs /Properties	Approved	\$211,166.00
37	Dispute Review Board Procedures	Canceled	Canceled
38.2	Update Volume 1 Conformed Articles	Approved	No Cost
39.1	Update Vol 1 SP 6 Insurance Requirements	Approved	No Cost

40.1	ADA Tactile Guidance Pathways	Approved	\$565,376.00
40.2	ADA Tactile – Color Change	Approved	No Cost
41	Parking for Florence/West Park & Ride	Approved	\$99,500.00
42	SC Edison Design Engineering	Approved	\$55,606.11
43	HVAC Repair/Replacement LAX IPMO	Approved	\$119,630.00
44	Fencing at ROW Cedar/Eucalyptus	Approved	\$8,695.00
45	Construct HDPE Geo membrane Cushion	Approved	\$697,495.00
46	Striping and Traffic Loops	Approved	\$19,041.13
47	CHP Support for Century Crush	Approved	\$46,566.84
48.2	35 Day Delay – Milestone	Approved	No Cost
49	Hazardous Material Parcels	Approved	\$52,420.00
50	UST Removal – Parcels SW-0103	Approved	\$51,827.00
51	UST Removal-Parcels HS2201/2206 CR3701	Approved	\$176,376.00
52	Update Roll-Up Grilles & Pay Phone	Approved	\$136,597.00
53	Contaminated Soil/Slurry	Approved	\$240,218.00
54	COI Design Serv. Century Crush	Approved	\$14,543.00
55	Security Guard – 24 hour Shifts	Approved	\$82,947.12
56	Station Architectural Standards	Approved	\$69,162.00
57	Millstone Revision Exercise Option 2A & 2B	Approved	No Cost
58.2	Design Extended Track	Approved	\$274,876.55
59	SP 24 Incorporating BAFO Changes	Approved	No Cost
60	Design Accommodations for 96 th St Sept 1,2, Part A	Approved	\$641,378.28
61.1	TIFA Certification Requirements	Approved	No Cost
62	Design Centinela Crossing/Eucalyptus	Approved	\$251,158.00
63	Design Harbor Sub At Grade Lighting	Approved	\$216,080.00
64	Removal of Contaminated Seg A Imperial	Approved	\$1,824.07
65	Capri AC Unit Replacement	Approved	\$22,191.89
66	Unknown UG Obstruction at MLK Phase	Approved	\$30,234.68
67	3rd Party (Conad) Repair on Victoria	Approved	\$1,592.63
68	LADWP Gate and Laydown	Approved	\$1,767.14
69.1	Revised Radio System Frequencies	Approved	\$6,222.00
70	Clarification of Radiating Cable and Assembly Parts	Canceled	Canceled
71	Aviation/Century Temp Sidewalk	Approved	\$18,207.00
72	Hazardous Material Removal at Parcel SW-010CR 3304	Approved	\$33,212.00
73	Dollar Rent A Car Facility Hazardous Material Removal	Approved	\$204,924.00
74	Access to Covered Manholes	Approved	\$200,000.00
75	Design Updated Station Customer Signage Directive Drawings	Approved	\$55,665.00
76	Capri Electrical-Surveillance Camera	Approved	\$19,649.58
77	Relocate LAWA Water Service – Design	Approved	\$50,702.00
78	African Drum Project Tree Removal	Approved	\$2,512.76
79	Update Vol. 1 Indefinite Qty Equipment	Approved	No Cost
80	Contaminated Drilling Slurry Century	Canceled	Canceled
81	Reroute Northrop Bent 1A	Approved	\$20,988.00

82	96th Station West Option Analysis	Approved	\$17,333.52
83	Additional Recurring of Properties	Approved	\$8,331.44
84	MIC Control System	Approved	\$1,076,736.00
85	Delete HS-2001 & 0.1 FM SP 16/17	Approved	No Cost
86	Fence Adjustment at MLK	Approved	\$10,011.21
87	Claim Resolution-Electric Mtrg Switchgear	Approved	\$610,300.00
88	Design 10" & 8" Abandon Lines Crenshaw	Approved	\$18,180.00
89	At Grade Station Ticketing Zone	Approved	\$70,074.00
90	Utility Investigation for 96th Street	Approved	\$35,808.21
91	Additional Security " Taste of Soul"	Approved	\$15,912.55
92	Abandoned 8" and 10" Pipe at Vernon Station	Approved	\$222,752.00
93	Daily Stand By Construction Zone 2/2A	Approved	\$90,000.00
94	Storage Trailer at the Arlington Yard	Approved	\$8,695.00
95	Unknown Concrete Slab Encounter at FCBC Facility	Approved	\$11,032.00
96	Electrical Ductbank Revisions at Exposition Station	Approved	\$541,193.00
97	Continuous Deflection Monitoring Greenline Counterweight Removal	Approved	\$155,461.00
98	Intrusion Detection Access Control Interface	Approved	\$65,926.00
99	16" Gas Pipe ACM Abatement Expo	Approved	\$17,972.98
100	Additional Rebar at Deck Panel	Approved	\$282,386.56
101	Security Guard for Crenshaw/LAX – Year 2	Approved	\$171,919.90
102	Cable Transmission System Update	Approved	\$65,517.00
102.1	Cable Transmission System Update – Add Diagrams	Approved	No Cost
103	Obstructions at Green Line Bent 3 and 4	Approved	\$30,821.00
104	Contaminated Soil – Multiple Locations	Approved	\$387,257.46
105	Century/Aviation Bridge Camera	Approved	\$9,719.00
106	Asbestos Testing Monitoring at Avis	Approved	\$1,894.00
107	Haz Mat Investigation Removal – Car Wash UST	Approved	\$14,541.73
108	Reconfiguration of Traffic Control Plan – La Brea	Approved	\$55,053.00
109	Cedar Encroachment Removal	Approved	\$17,566.00
110.2	Transmit LACMTA Lease Agreement and SWY Turnover Dates	Approved	\$26,533.00
111.1	Crenshaw Blvd. Tree and Landscaping	Pending	\$65,213.00
112	HNTB Design Costs for 96 th Street W. Alignment	Approved	\$920,532.00
113	Centinela Crossing Tree Preservation	Approved	\$45,450.00
114	Claim Resolution – DWP Vault Relocation MLK	Approved	\$125,614.66
115	Deletion of Public Phone	Approved	(\$59,315.19)
116	Harbor Sub Encasement Verification – Non Highlighted Utilities	Approved	\$94,240.13
117	Harbor Sub Encasement Verification – Unknown Utilities	Approved	\$159,743.78
118	Harbor Sub Encasement Verification – Highlighted Utilities	Approved	\$208,350.12
119	Encasement Verification – City of LA	Approved	\$45,448.78
120	Contaminated Oil Removal – UG1 FOG Lines	Approved	\$41,193.00
121	Florence/West Station – Redondo Blvd. Temporary Parking	Approved	\$35,000.00
122	ATC System at Slauson Signals	Approved	\$244,934.50
124.2	City of Inglewood Water Line Relocation	Pending	(\$9,639.95)

125	LKC Design W. Alignment Shift for 96 th Street	Approved	\$217,638.00
126.1	Provisional Sum – Unknown Utility	Approved	\$3,000,000.00
127.1	Modifications for 24" FAA Fiber Optic Duckbank at UG1	Approved	\$134,735.00
128	Greenline Safety Walkway – Design	Approved	\$44,068.00
129	Support of Excavation 2.0 Safety Factor	Approved	\$504,769.00
130	Unique 65 Foot Mast Arm at Aviation Blvd. and Century Blvd.	Canceled	Canceled
131	Unknown Obstructions at 405 Bridge Bent 2	Approved	\$63,480.00
132	Claim Resolution – Traffic Control at LADOT's	Approved	\$155,988.75
133	Design – Eliminate DWP Switchgear at MLK	Approved	\$51,410.00
134	Addition of LATS Time Synchronization	Approved	\$39,880.00
135	Updated Standard Wayside Rail Operation Signage	Approved	\$39,735.00
136	UG 1 Wayfinding – Design	Approved	\$68,548.00
137	LKC Design Accommodations 96 th Street, Step 2 part A	Approved	\$65,132.00
138	Claim Resolution – Install Video Detection Camera	Approved	\$27,216.00
139	Claim Resolution – ATSAC Fiber Optic Relocation at Expo	Approved	\$221,652.00
141	Mitigation Reimbursement (Golf Carts)	Approved	\$14,853.90
142	Design- North Yard Lead Revisions	Approved	\$21,030.00
143	Line Removal at Florence and Isis in Conflict with Storm Drain Installation	Approved	\$4,483.00
144	Removal of Underground Storage Tanks at Florence Properties	Approved	\$69,486.57
145	Remove/Dispose/Burn Contaminated Soils from Expo	Approved	\$487,827.24
146	TPSS No. 2 Upgrade from 1.5 MW to 2.0 MW	Approved	\$46,802.00
147	Unknown Slab at 111 th and Aviation	Approved	\$6,746.00
148	Subsurface Investigation 317 E. Florence	Approved	\$30,087.60
149	Removal of Underground Storage Tank at Expo Yard Excavation	Approved	\$43,876.87
150	Gas Line in Pole Foundation at Arlington and MLK	Approved	\$2,489.41
151	Market Street Catch Basin Tie-in	Approved	\$14,010.00
152	Abandoned 8" and 10" Pipe Environmental Testing UG-4	Approved	\$417,000.00
153.1	Removal of the Track/Rail and Hump at Imperial and Aviation Blvd.	Approved	\$70,128.00
154	18in Sanitary Sewer Relocation at MSE Wall	Approved	\$614,133.00
155	Claim Resolution – TPSS #1 Relocation S. Imperial	Approved	\$91,252.00
156	Qwest Line Relocation	Approved	\$436,312.00
157	Delay Cost at CP-4	Approved	\$115,000.00
158	Vernon ATSAC Relocation	Approved	\$270,555.00
159	Claim Resolution – FAA LAWA Navid Light	Approved	\$125,000.00
160	Pothole & Remove 216in Gas Line	Approved	\$52,000.00
162	Tunneling Requirements	Approved	(\$5,534.40)
163	Claim Resolution – 104 St. Deck Lid – Design	Approved	\$62,000.00
165	Claim Resolution – SWY Removal of Electric Service	Approved	\$25,000.00
168	Bronson Street Vacation	Approved	\$25,039.00
169	Quality Control Inspection	Approved	No Cost
170	Detector Loop Cable Repair 60th & Crenshaw	Approved	\$1,210.00
171.1	Encasement Verification of LA Sewer	Approved	\$10,000.00

172	Unknown Buried Culvert at Centinela	Approved	\$12,970.00
173	Florence/ La Brea Bus Transfer Station	Approved	\$2,200,000.00
174.1	Signal House Monitors	Pending	\$60,476.71
175	LAX Section Time of Day Limit UG-1	Approved	\$54,000.00
176	Claim Resolution -Support of FAA Ductbank UG-1	Approved	\$190,000.00
177	Harbor Subdivision Potholing unknown Utilities at Eucalyptus	Approved	\$17,631.34
178	TBM Lowering Event	Approved	\$28,730.60
180	Board Approved Station Name Change	Approved	\$138,450.81
181	TPSS No.1 New Power Transmission	Approved	\$324,093.00
182	LAWA Storm Drain Monitoring Unit Relocation	Approved	\$26,046.00
184	Claim Resolution - Ballast Retainer Wall	Approved	\$41,426.00
185	Claim Resolution - At-Grade Stations Check	Approved	\$22,197.00
186	Security Guard for Crenshaw/LAX - Year 3	Approved	\$180,990.51
188.1	Claim Resolution - Design Radio Redundancy	Approved	\$250,000.00
189	Revise Street Plans at Hindry Avenue - Design	Pending	\$56,925.00
190.1	Design Signage/Striping at Cedar	Pending	\$17,000.00
191.0	96th Street Station Accommodation - Agreed Direct Cost	Approved	\$1,452,819.57
192	Bones Discovered - Vernon Station	Pending	\$4,875.89
193	Shut Down at MLK Station	Approved	\$123,912.00
194.1	Revise CPUC Striping	Pending	\$2,807.00
195	COLA Roadway and Curb Revision	Approved	\$484,854.54
196	Compensate Time Extension Expo Delay	Approved	\$100,200.00
197	Relocate DWP Water Mains at Crenshaw	Pending	\$54,184.63
199	TWC Routing Through Crenshaw	Approved	\$79,978.00
200	Security Guard for Crenshaw/LAX - Year 2 and 3 Adjustment	Approved	\$127,377.04
201	Design Deluge System at Expo Crossover	Pending	\$650,000.00
202.1	Turnback and Speed Restrictions	Pending	\$356,675.19
203.1	LADOT Parking Lots Improvements	Pending	(\$856.11)
204.1	Design - Tree Well Brick Pavers	Pending	\$16,793.00
205	Walgreens Encroachment Fence	Pending	\$6,754.00
206	Unknown Concrete at Cedar and Oak	Approved	\$4,242.00
207	Metro Right-of-Way Property	Pending	\$425,000.00
208	Unknown Concrete Obstruction at RW75	Pending	\$3,931.17
209	Redondo Stockpile - Unknown Condition	Pending	No Cost
210	Manchester/Florence Aviation Traffic Signal	Pending	\$10,496.83
211	Imperial & Aviation Traffic Signal	Pending	\$22,947.00
212	SCGC Removal at Redondo	Pending	\$55,573.00
213	UST Removal at Pedestrian Underpass	Pending	(\$82.77)
214	Black Tar-like Substance at Arbor Vitae	Pending	No Cost
215	Time Warner Conflict at RW 75	Pending	\$71.99
216	Wally Fence Encroachment	Pending	No Cost
217	Tree Species and Bike Racks	Pending	\$20,110.00
TBD	96 th Street Station Accommodations and Settlement Agreement	Pending	\$66,550,000.00

Change Orders			
CO 18.1	Track Drainage CI Pipe in Lieu of PVC	NTE	\$130,217.00
CO 31	City of Inglewood Water Line Relocation	NTE	\$973,598.00
CO 37.2	Design Hold Out Signals Aviation/Century	NTE	\$50,000.00
CO 38	Abandoned 8" and 10" Pipe Environmental Test and Removal (UG3)	NTE	\$362,500.00
CO 40.2	Relocate LAWA Water Service to 111 th	NTE	532,695.00
CO 41	Design Deluge System at Expo Crossover	NTE	\$0
CO 44.1	UG-1 H2S Ventilation Fans - Design	NTE	\$390,429.00
CO 46.3	Underground Fire Rated Conduit Cable	NTE	\$300,000.00
CO 47	Crenshaw Blvd. Tree and Landscaping	NTE	\$399,308.00
CO 50.1	Turnback and Speed Restrictions	NTE	\$100,000.00
CO 60.1	Revise Street Plans at Hindry Avenue	NTE	\$21,600.00
CO 61	Park Mesa Heights Re-sequencing	NTE	\$300,000.00
CO 62	Encase City of LA Sanitary Sewers	NTE	\$100,000.00
CO 63.1	Civil Revisions for CPUC Striping at West Street	NTE	\$30,000.00
CO 64.1	Crenshaw Landscaped Median Rendering	NTE	\$126,000.00
CO 67.1	Ballast Wall Extension at Eucalyptus	NTE	\$51,395.00
CO 69.2	Unknown 18inch Storm Drain UG-1	NTE	\$22,931.00
CO 71	Credit Crenshaw Tree Permit	NTE	No Cost
CO 72	Removal of 24in Storm Drain at MLK Station	NTE	\$100,000.00
CO 73	Tree Species and Bike Racks	NTE	\$8,000.00
CO 74	Pedestrian Lights Slauson Station	NTE	\$16,000.00
CO 76.2	LADOT Parking Lots Improvements	NTE	\$86,423.00
CO 77	Imperial & Aviation Traffic Signal	NTE	\$12,000.00
CO 78	LADOT Requested Comment Matrix	NTE	\$20,000.00
CO 79	Shortening of Median Island Brynhurs	NTE	\$4,000.00
CO 80	Extended Track - Construction	NTE	\$350,000.00
CO 81.2	96th Street Station Accommodation - Construction	NTE	\$1,000,000.00
CO 82	Harbor Subdivision At-Grade Lighting - Construction	NTE	\$100,000.00
CO 84	Encase ATT Ductbank Near Redondo Blvd.	NTE	\$5,000.00
CO 85	LABSL Requests	NTE	\$140,000.00
CO 86	Relocate DWP Water Mains at Crenshaw	NTE	\$100,000.00
CO 87	UG-1 Raised Walkway - Design	NTE	\$131,287.00
CO 88.1	Remove and Install Driveways at Crenshaw	NTE	\$39,448.73
CO 90.1	Black Tar-like Substance at Arbor Vitae	NTE	\$4,014.75
CO 91	96th Street Station Accommodation - Electrical Requirements	NTE	\$500,000.00
CO 92.1	Support SCGC - Abandon 2" Gas at Brynhurs	NTE	\$7,500.00
CO 93	COI Sewers (UID 1216 & 1263) Design	NTE	\$16,000.00
CO 96	Time Warner Conflict at RW 75	NTE	\$3,570.91
CO 98	Redondo Stockpile - Unknown Condition	NTE	\$4,409.62
CO 101	UST Removal at Pedestrian Underpass	NTE	\$61,063.22
CO 102.1	TPSS #3 Redesign for SCE Power	NTE	\$80,000.00

CO 103	Imperial Non-percentage Pavement Profile	NTE	\$80,000.00
CO 104	Support DWP Water 6" Water Relocation	NTE	\$24,000.00
CO 105.1	Clarify Integration with Green Line	NTE	\$64,225.00
CO 107	UG-1 Raised Walkway - Construction	NTE	\$347,888.00
CO 109	Relocate Concrete with Steel Poles	NTE	\$80,000.00
CO 110	Design At-Grade Station Fencing	NTE	\$120,000.00
CO 111	Wally Fence Encroachment	NTE	\$983.73
CO 112	Removal/Disposal of Asbestos Pipes 255+00	NTE	\$23,314.40
CO 113	Accommodations for Bus Shelter	NTE	\$4,000.00
CO 114	Emergency Ventilation & Egress UG-1	NTE	\$30,000.00
CO 115	Special Permitting Process Impact	Pending	\$508,713.45
CO 116	96th Street Station Accommodations - Additional Ballast Wall	NTE	\$370,040.00
CO 117	Station Signage Revision (ADA)	NTE	\$50,000.00
CO 118	Cameral Install and Removal I405 Time Laps	NTE	\$3,200.00
CO 119	Cable Transmission System Update	NTE	\$168,000.00
CO 120	New Power Transmission TPSS #6	NTE	\$117,220.60
CO 121	Station Architectural Standards - Construction	NTE	\$435,334.00
CO 122	UG-1 Center Walkway Lighted Handrail	NTE	\$75,000.00
CO 123	Segment B-2 North and Central Tree	NTE	\$31,800.00
CO 124	City of Inglewood Sewer (UID 1263) C	NTE	\$76,000.00
CO 125	Florence/West Station – Redondo Blvd. Temporary Parking	Pending	\$15,000.00
CO 126	Grade Crossings Bell Noise Reduction	Pending	\$18,000.00
Subtotal – Approved Modifications & Change Orders			\$38,995,175.59
Subtotal – Pending Changes/Modifications			\$68,910,969.03
Total Mods and Pending Changes (Including this Change)			\$107,906,144.62
Prior CMA Authorized by the Board (including base award and other modifications)			\$144,299,993.00

DEOD SUMMARY

CRENSHAW/LAX TRANSIT PROJECT/C0988

A. (1) Small Business Participation - Design

Walsh/Shea Corridor Constructors (WSCC) made a 20.59% Disadvantaged Anticipated Level of Participation (DALP) commitment for Design. DBE commitments were made to 10 DBE subcontractors at the time of award, and 11 additional DBE subcontractors have been added to-date. WSCC is currently exceeding its commitment for Design with 24.86% DBE participation.

DISADVANTAGED BUSINESS ENTERPRISE ANTICIPATED LEVEL OF PARTICIPATION COMMITMENT	20.59% DALP	DISADVANTAGED BUSINESS ENTERPRISE ANTICIPATED LEVEL OF PARTICIPATION	24.86% DALP
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	Design DBE Subcontractors	Ethnicity	% Committed	Current Participation
1	BA, Inc.	African American	0.61%	0.95%
2	D'Leon Consulting Engineers Corporation	Hispanic American	0.85%	1.42%
3	FPL & Associates, Inc.*	Asian Pacific American	0.41%	0.44%
4	IDC Consulting Engineers, Inc.	Asian Pacific American	0.94%	0.97%
5	Innovative Engineering Group, Inc.*	Asian Pacific American	0.23%	0.29%
6	Libby Engineers, Inc.	Caucasian Female	0.85%	0.99%
7	Lynn Capouya, Inc.	Caucasian Female	0.96%	1.26%
8	MGE Engineering, Inc.	Asian Pacific American	1.48%	1.96%
9	MLA Green Inc	Hispanic American	0.51%	0.40%
10	NBA Engineering Inc	Caucasian Female	0.72%	0.80%

11	Parikh Consultants, Inc.	Asian Pacific American	1.85%	2.58%
12	Sapphos Environmental, Inc.*	Hispanic American	0.02%	0.01%
13	Selbert Perkins Design Inc.	Caucasian Female	0.27%	0.30%
14	T E C Management Consultants, Inc.*	African American	0.41%	0.76%
15	Ted Tokio Tanaka Architects*	Asian Pacific American	0.51%	0.49%
16	Togo Systems, Inc.*	Asian Pacific American	0.46%	0.71%
17	Universal Reproductions Inc. dba Universal Reprographics, Inc.*	Caucasian Female	0.03%	0.14%
18	V & A Inc.	Hispanic American	9.25%	10.18%
19	Y B I Management Services*	African American	0.03%	0.01%
20	YEI Engineers, Inc.*	Asian Pacific American	0.20%	0.12%
21	C & L Drilling Company*	Caucasian Female	Added	0.08%
Total			20.59%	24.86%

¹Current Participation = Total Actual amount Paid-to-Date to DBE firms ÷ Total Actual Amount Paid-to-date to Prime

*DBEs added after contract award

B. (2) Small Business Participation – Construction

Walsh/Shea Corridor Constructors (WSCC) made a 20% Disadvantaged Anticipated Level of Participation (DALP) commitment for Construction at the time of contract award, and made five DBE subcontract commitments. After the start of Construction, 106 DBE subcontractors were added. WSCC is currently achieving 14.26% of their proposed 20% DBE subcontract commitment for Construction. It is expected that DBE commitments will continue to increase as Construction progresses.

Based on the total amount paid-to-date to WSCC, the total actual amount paid-to-date to DBE subcontractors, current participation is 25.36%. WSCC is expected to continue ongoing outreach and good faith efforts to meet their DBE contract commitment.

DISADVANTAGED BUSINESS ENTERPRISE ANTICIPATED LEVEL OF PARTICIPATION COMMITMENT	20.00% DALP	DISADVANTAGED BUSINESS ENTERPRISE ANTICIPATED LEVEL OF PARTICIPATION	25.36% DALP
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	Construction DBE Subcontractors	Ethnicity	% Committed	Current Participation
1	A & M Gentry Trucking*	Caucasian Female	0.46%	0.37%
2	Advantage Demolition & Grading, Inc.*	African American	0.07%	0.13%
3	Alameda Construction Services, Inc.*	African American	0.00%	0.00%
4	Analysis & Solutions Consultants*	African American	0.04%	0.08%
5	Anytime Dumping, Inc.*	African American	0.68%	1.39%
6	APW Construction, Inc. dba Ace Fence Co.*	Asian Pacific American	0.03%	0.08%
7	Anthony & Sons Trucking	Hispanic American	Added	0.01%

8	Artnancy Transportation	Hispanic American	Added	0.04%
9	C & S Early Trucking	African American	Added	0.00%
10	C J Express	African American	Added	0.04%
11	Caliche Trucking	Hispanic American	Added	0.03%
12	City2City Trucking	African American	Added	0.03%
13	Convenient Trucking	Hispanic American	Added	0.00%
14	D B Trucking	African American	Added	0.03%
15	Diamond Transport	Hispanic American	Added	0.02%
16	Edward J Howell Jr	African American	Added	0.02%
17	Freeway Trucking Company	African American	Added	0.00%
18	Gant Trucking	African American	Added	0.03%
19	H & L Dump Service	Hispanic American	Added	0.05%
20	H P Trucking	African American	Added	0.05%
21	J. C. Martinez Trucking	Hispanic American	Added	0.01%
22	J. Reynaga Trucking	Hispanic American	Added	0.02%
23	JoJo's Trucking, Inc.	Hispanic American	Added	0.02%
24	Jus Dumpin LLC	African American	Added	0.02%
25	KIR Trucking	African American	Added	0.03%
26	L & T Enterprize	African American	Added	0.05%
27	My Three Brothers and Me	African American	Added	0.02%
28	Ocha Transportation	Hispanic American	Added	0.02%
29	Orlando's Trucking	Hispanic American	Added	0.01%
30	RDL Trucking	African American	Added	0.04%
31	Ready Two Roll Trucking, LLC	African American	Added	0.04%

32	Reynaga Trucking	Hispanic American	Added	0.02%
33	S C Transportation, Inc.	African American	Added	0.05%
34	Smashmouf Trucking	African American	Added	0.03%
35	West Side Boyz	Hispanic American	Added	0.05%
36	B & B Diversified Materials*	Asian Pacific American	0.26%	0.33%
37	Bravo Pacific, Inc. dba Marmolejo Contractors, Inc.*	Hispanic American	1.68%	2.91%
38	C & L Drilling Company*	Caucasian Female	0.00%	0.00%
39	C.P.R. Trucking, Inc.	Hispanic American	0.20%	0.06%
40	3531 Trucking	Caucasian Female	Added	0.00%
41	Abrego Trucking	Hispanic American	Added	0.00%
42	California Trucking	Hispanic American	Added	0.01%
43	Clean Street Sweeping, Inc.	Hispanic American	Added	0.04%
44	Coco's Trucking	Hispanic American	Added	0.00%
45	El Camino Trucking, Inc.	Hispanic American	Added	0.01%
46	Fortino Trucking	Hispanic American	Added	0.01%
47	HBA Trucking	Hispanic American	Added	0.01%
48	HD Trucking	Hispanic American	Added	0.01%
49	Hugos Trucking	Hispanic American	Added	0.01%
50	J P Sepulveda Trucking	Hispanic American	Added	0.01%
51	Joe G. Trucking	Hispanic American	Added	0.01%
52	L S Trucking	Hispanic American	Added	0.01%
53	Marquez Delivery	Hispanic American	Added	0.01%
54	MCB Trucking	Hispanic American	Added	0.01%

55	Omar Trucking	Hispanic American	Added	0.01%
56	P.G. TRUCKING	Hispanic American	Added	0.01%
57	P.M.R. Trucking	Hispanic American	Added	0.01%
58	Red Dragon Transport, Inc.	Hispanic American	Added	0.01%
59	SMR Transport	Hispanic American	Added	0.05%
60	Speedy Gonzalez Trucking	Hispanic American	Added	0.01%
61	Willie Trucking	Hispanic American	Added	0.01%
62	Cabrinha, Hearn & Associates*	Hispanic American	0.12%	0.44%
63	CBass Dirtyworks Trucking*	African American	0.03%	0.17%
64	Cindy Trump Inc*	Caucasian Female	0.00%	0.00%
65	Clean Up America, Inc.*	African American	0.04%	0.09%
66	Coast Surveying, Inc	Hispanic American	0.25%	0.43%
67	Coleman Construction, Inc.*	African American	0.07%	0.19%
68	D C D Electric Inc.*	African American	0.38%	0.67%
69	Davis Blue Print Co., Inc.*	Hispanic American	0.00%	0.03%
70	DC Engineering Group*	Hispanic American	0.01%	0.19%
71	Deborah Dyson Electrical Contractor*	African American	0.00%	0.01%
72	Deco Pave, Inc.*	Asian Pacific American	0.01%	0.10%
73	E-Nor Innovations Inc.*	African American	0.06%	0.13%
74	EW Corporation Industrial Fabricators*	Hispanic American	0.01%	3.37%
75	Excelsior Elevator Corp.*	Asian Pacific American	0.64%	0.34%

76	Fine Grade Equipment, Inc.*	Native American	0.02%	0.01%
77	Flores Construction*	Hispanic American	0.00%	0.01%
78	fs3, Inc.*	Hispanic American	0.01%	0.01%
79	G & C Equipment Corporation*	African American	2.21%	2.92%
80	G. O. Rodriguez Trucking, Inc.*	Hispanic American	0.00%	0.01%
81	Global Transloading, LLC*	Hispanic American	0.55%	0.97%
82	GW Civil Constructors, Inc.*	African American	1.05%	2.11%
83	Inspection Services, Inc. (ISI)*	Asian Pacific American	0.05%	0.09%
84	Integrity Rebar Placers, Inc.*	Hispanic American	2.85%	3.09%
85	Lowers Welding and Fabrication, Inc*	Caucasian Female	0.02%	0.62%
86	J P AND CONCEPTS CO.*	Caucasian Female	0.55%	0.51%
87	KLP Commercial, LLC*	Native American	0.07%	0.04%
88	Morgner Technology Management*	Hispanic American	0.07%	0.10%
89	Nextline Protection Services*	African American	0.03%	0.41%
90	Nexus Consulting and Management Services, Inc.*	Hispanic American	0.02%	0.08%
91	PacRim Engineering Inc*	Asian Pacific American	0.00%	0.01%
92	Padilla & Associates, Inc.	Hispanic American	0.15%	0.33%
93	Quality Engineering Inc.	African American	0.31%	0.35%
94	R J LaLonde, Inc.*	Caucasian Female	0.00%	0.01%
95	R.J. Safety Supply Company	Caucasian Female	0.00%	0.01%

	Inc.*			
96	Robnett Electric, Inc.*	African American	0.00%	0.01%
97	Safeprobe, Inc.*	Asian Pacific American	0.02%	0.03%
98	Sapphos Environmental, Inc.	Hispanic American	0.05%	0.07%
99	Seaport Lighting, Inc.*	Caucasian Female	0.74%	0.02%
100	Soteria Company, LLC	Hispanic American	0.10%	0.12%
101	South Coast Sweeping, Inc.*	Caucasian Female	0.12%	0.22%
102	TEC Management*	African American	0.02%	0.03%
103	The Jungle Nursery, Inc.*	Hispanic American	0.01%	0.02%
104	Thomas Land Clearing*	African American	0.03%	0.11%
105	Titan Disposal, LLC*	African American	0.03%	0.01%
106	Treesmith Enterprises, Inc.*	Hispanic American	0.02%	0.04%
107	Tri-County Drilling, Inc.*	Caucasian Female	0.01%	0.19%
108	Universal Reproductions Inc. dba Universal Reprographics, Inc.*	Caucasian Female	0.00%	0.02%
109	V & A Inc.*	Hispanic American	0.07%	0.12%
110	Valverde Construction, Inc.	Hispanic American	0.00%	0.01%
111	VMA COMMUNICATIONS, INC	Hispanic American	0.04%	0.09%
112	Y B I Management Services*	African American	0.00%	0.01%
Total			14.26%	25.36%

¹Current Participation = Total Actual amount Paid-to-Date to DBE firms ÷ Total Actual Amount Paid-to-date to Prime

*DBEs added after contract award

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

The Contractor has committed to complying with PLA/CCP requirements for this project. This project is 80.11% complete (based on total construction labor hours expended, divided by the total estimated construction labor hours in the approved Employment Hiring Plan) and the contractor is achieving the 40% Targeted Worker Goal at 58.80%, achieving the 20% Apprentice Worker Goal at 20.35%, and achieving the 10% Disadvantaged Worker Goal at 12.65%. Staff will continue to monitor and report the contractor's progress toward meeting the goals of the PLA/CCP.

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). Trades that may be covered include: surveying, potholing, field, soils and materials testing, building construction inspection, construction management and other support trades.

E. Living Wage Service Contract Worker Retention Policy

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

ATTACHMENT D

WSSC/METRO AGREEMENT

REQUEST FOR CHANGES AND CLAIMS

Item No.	RFC / Claim No.	Title
WSSC - Direct Cost		
1	Claim No. 62	HOBAS Inefficiencies (Direct Cost)
2	Claim No. 48	Central Outfall Sewer at I-405
3	Claim No. 70	1) Differing Site Condition - Exposition Station Excavation - CSM 2) Differing Site Condition - Exposition Station Excavation - Water Leakage/ Jet Grouting
4	Claim No. 71	Differing Site Condition - Martin Luther King Station - CSM
5	Claim No. 80 & 92	Protect in Place (PIP) of LADWP Duct Bank at Manchester (Design & Construction)
6	Claim No. 69	Special Permitting Process (SPP) - Los Angeles Department of Transportation
7	RFC No. 132	Special Permitting Process (SPP) - Los Angeles Bureau of Engineering (LABOE) - Support of Excavation (SOE) Calculations - Before 1/31/15
8	Claim No. 74	SPP - LABOE SOE Calculations - After 1/31/15
WSSC - Extension of Time		
9	RFC No. 53	TIA # 2 BOE Stop Notice
10	RFC No. 53	TIA # 4 Hobas Pipe Installation
11	Claim No.85	TIA # 5 96 th Street (Rev # 3)
12	Claim No. 70	TIA # 6 DSC - CSM at Exposition
13	Claim No. 70	TIA # 7 DSC Leaks
14	Claim No. 62	TIA # 8 Hobas Pipe Settlement Criteria

ATTACHMENT D

WSCC/METRO AGREEMENT

REQUEST FOR CHANGES AND CLAIMS

Item No.	RFC / Claim No.	Title
Subcontractor's - Extension of Time Delay		
15	Claim No. 85	LKC - Extended Overhead Neal Electric - Extended Overhead Select Electric - Extended Overhead DCD Electric - Extended Overhead Herzog - Extended Overhead
Design Extended Performance - HNTB		
16	Claim No. 39	Alignment Changes (HNTB)
17	Claim No. 55	Design - Extended Performance Due to City of LA (HNTB)
18		Design - Extended Performance Due to Metro (HNTB) - (submittal was pending)

**ATTACHMENT E
WSCC/METRO AGREEMENT
METRO REQUEST FOR CREDITS**

Item No.	Description	Segment
1	Weekend vs Full Closure for Decking at Underground Stations	C
2	Park Mesa Heights Roadway Work	B
3	Re-use existing light poles	B
4	Pedestrian separate light pole vs attachment	B
5	Unarmored vs Armored fiber optic cable	
6	Florence Roadway Work	B
7	La Brea Station Area - Existing Structures to Remain	B
8	Ballast Retainers	A and B
9	CMU Walls in Underground Trainway Areas	C
10	Mist vs Deluge @ Underground Platforms	C
11	Deflection of SOE	C
12	Removal of Basin Effect from Seismic Criteria	System wide
13	Timber Lagging for Temporary Shoring of Underground Structures	System wide
14	Plastic Hinge Zone Reinforcement (Compression Face) At Underground Stations	C
15	Load Tests for Drilled Shafts and Use of Miniature Shaft Inspection Device (MiniSID)	A and B
16	Joints in Cut and Cover Structures	System wide
17	Allow Application of Single Rail, Power Frequency Tack Circuits for Train Detection on Crossovers	System wide
18	End-bearing Resistance of SOE Vibrated Soldier Piles Supporting Underground Structures	System wide
19	UG1 & UG 3 Mud Slab Tolerance	A and B

**WSCC/METRO AGREEMENT
METRO REQUEST FOR CREDITS**

Item No.	Description	Segment
20	Plinth Direct Fixation Stirrup Reinforcement	System wide
21	Fans at Portal @ UG4	C
21A	Fans @ Crossover	C
22	Fans size at UG3	B
23	West Station Park and Ride Lot Aisle Width	B
24	Maximum Allowed Actual Superelevation (Ea)	System wide
25	Elimination of Local Utility Power Supply to the MLK TP	C
26	24" DWP Water Line Relocation at Vernon	C



Board Report

File #: 2016-0973, File Type: Informational Report

Agenda Number: 49

REVISED
CONSTRUCTION COMMITTEE
JANUARY 19, 2017

SUBJECT: REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT

ACTION: ESTABLISH A REVISED LIFE OF PROJECT BUDGET TO RIGHT-PRICE THE REGIONAL CONNECTOR PROJECT

RECOMMENDATION

CONSIDER:

- A. INCREASING the Life of Project (LOP) Budget on the **Regional Connector Transit Corridor Project** by \$199 million from \$1,551,840,570 to \$1,750,840,570;
- B. AMENDING the FY17 Budget on the Regional Connector Transit Corridor Project by \$30.6 million from \$220,730,000 to \$251,330,000;
- C. AUTHORIZING the CEO to execute Contract Modification No. 74 with Regional Connector Constructors (RCC) in the amount not to exceed \$50,600,000, for delays and schedule mitigation measures, electrical and water utility relocation costs, additional fire life safety engineering and other design and construction changes, increasing the total contract value from \$1,052,391,660 to \$1,102,991,660.
- D. AUTHORIZING the CEO, as part of a one-year pilot, to negotiate and execute project-related agreements, including contract modification(s) up to the authorized Life of Project budget, to streamline project management of the Regional Connector Transit Corridor Project subject to monthly reporting requirements, that would include any pending project-related agreements, change orders/contract modifications and any significant changes to contract contingency to the Board of Directors. This action would allow the Board to see in advance all project-related agreements and change orders.

ISSUE

The Regional Connector Transit Corridor Project (Project or Regional Connector Project) is a 1.9-mile underground light rail transit subway in Downtown Los Angeles connecting the existing Metro Gold Line, Metro Blue Line, and Metro Exposition Line light rail transit systems. The Project is extremely complex as it will interface with the different system elements from the existing transit lines and is being constructed through one of the oldest and most congested areas in Downtown Los Angeles, traversing through the heart of the Financial District/Historic Core and Little Tokyo/Arts District. Accordingly, traffic mitigation, stakeholder coordination, and aging third party infrastructure are key challenges for the Project.

With 95% of the design completed, a recently-performed risk assessment with the FTA affirms that this large, unique, and complex mega Project requires additional project budget based on a more thorough analysis of Project scope and risks. In conjunction with this review, the CEO has identified the need to streamline the contract administration process for the Regional Connector Project and is requesting the authority to negotiate and execute any remaining agreements such as professional services agreements, City or utility work orders and contract modifications within the LOP budget, subject to monthly reporting to the Board.

BACKGROUND

From the outset, this Project experienced budgetary pressures from a variety of causes. These include minimal initial contingency funding for significant project risks, insufficient funding for professional, agency and third party services, increased costs due to differing site conditions related to utility relocation, cost increases from repeated litigation-related impacts and delays, cost increases due to longer than anticipated durations for plan and permit approvals, and the resultant schedule impacts and mitigation expenses from all these factors. Costs to complete multiple aspects of the project are forecast to exceed the current approved budget and are summarized by major cost element in Table 1.

The Board authorized additional funding for the Project in December 2015, at which time staff indicated that a second budget augmentation request could be forthcoming once project needs were fully identified (Attachment F). Since that time, the Project was re-sequenced to position the project for success. Despite ongoing challenges, project momentum continues to ramp up significantly in all areas. Design is now nearing completion and heavy construction work at all three stations is well underway and the tunnel boring machine (TBM) is being assembled and will begin mining operations in mid-January 2017. Work along Flower Street, while still extremely challenging, is now progressing after extensive re-sequencing. Overall, Project completion is now approaching 30% complete.

The December 2015 Board Report included a “Next Step” Section which explained that the Project would perform a formal risk assessment in conjunction with FTA, where schedule and costs would be evaluated and the results and recommendations thereafter shared with the Board. This schedule and cost risk assessment has been completed and the guidance gained has been addressed and included in the recommendations contained in this report.

The results from the risk assessment indicate that projected costs listed in this Board report are now

reasonably forecast, and the completion schedule closely correlates with a model having a confidence factor consistent with conservative FTA standards. The fact that many of the Project’s risk areas have now been well researched or are now behind the Project, adds to the high level of confidence in both the cost estimate and schedule, and therefore leads to this “right-pricing recommendation.”

The resolution of various schedule issues, payment for compensable delay due the contractor, and additional design and construction scope elements have been incorporated into a comprehensive agreement which places the responsibility for a timely construction completion with the design-build contractor. This comprehensive agreement has the added benefit of simplifying the Project by consolidating milestones and bus bridging operations to provide for a single stage opening of the line earlier than would otherwise be possible under the original two-phased opening.

DISCUSSION

The Regional Connector Project has experienced budgetary pressures from a variety of causes since the outset of the Project. These include costs for mitigating construction permitting risks, normally assumed by the contractor and responding to continuing litigation related impacts beginning with an initial temporary restraining order requiring a Supplemental Environmental Impact Report (SEIR). Two subsequent and pending lawsuits continue to impact the Project and have required work re-sequencing, adoption of inefficient work methods and have resulted in permitting delays.

Additionally, at contract award, 21 bid options were identified as a means to allow the project additional design time to investigate further cost saving measures. Some cost saving measures proved to be feasible, however not as many as had been anticipated, thereby placing additional strain on the project budget. Nine (9) bid options were later exercised totaling \$47.5 million that was not included in the original Project budget.

Furthermore the minimal funding of professional services, agency expenses, third party and master cooperative agreements (MCA) now require that the cost for each of these elements be augmented to successfully complete the Project. A narrative describing broad areas of budget variances and requirements to right-price the project is provided below.

Table 1: Summary of Budget Variances Dollar in Millions

Element Description	Original LOP	Current Budget	Current Forecast	\$ Var
Design Build Contract	927.2	1,056.4	1,138.6	82.2
3rd Party, City of LA	28.4	57.1	70.4	13.3
ROW	74.2	82.7	92.7	10.0
Professional Services (CPJV)	154.6	164.8	227.3	62.6
Other Professional Services	26.1	32.6	46.1	13.6
Community Relations Office, PMA, QA, and				
Unallocated Contingency	126.9	67.6	84.9	17.3

Design-Build Contracts. In April 2014 the Board approved an LOP budget of \$1,420 million and awarded the C0980 Design/Build Contract for \$927,226,995, which was approximately \$53 million over the design-build budget established at the time the FTA Full Funding Grant Agreement was obtained in February 2014. To reduce costs during the solicitation of Contract No. C0980, Metro assumed responsibility for obtaining all City work hour variances and permits. At the time of the C0980 contract award, the Board was informed that this assumption of risk by Metro would save up to 15% on the contract value and one year of schedule. Contingency for this added risk was not included in the LOP budget. Subsequent experience has shown that these risks are significant and have contributed to major cost and schedule impacts on the project, particularly along Flower Street, at 1st/Alameda and 2nd/Broadway. To date, these additional costs have been absorbed through contingency utilization.

In January 2014, Metro awarded Contract No. C0981R to Pulice Construction Inc. for design-bid-build delivery of advanced utility relocations (AUR) of water, sewer and electrical power lines to allow for the cut and cover construction of the stations, guideways and portals by the Project's design-build contractor. During performance of the AUR 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, construction progress and schedule were significantly impacted. The AUR schedule impacts threatened the progress of the C0980 contract and led to the termination for convenience of the C0981R Contract in April 2015, and the transfer of the remaining AUR work to the Design-Builder. Given the extent of the unforeseen conditions, this was the best possible decision, as the Design-Build Contractor was better positioned to perform the additional work in ways that could mitigate further substantial delays. Notwithstanding these benefits, the transfer of this work to the Design-Builder in April 2015 added to the Project cost with a significant schedule impact.

A number of schedule recovery measures were authorized by the Board in December 2015 which yielded schedule mitigation of six (6) months. The costs associated with the transfer of the AUR work and schedule recovery measures to the design-build contract was \$76,100,000 and was included in the LOP Budget increase also authorized by the Board at that time.

Despite the successful implementation of these schedule recovery measures, construction progress continued to slip due to delays in the start of construction activities resulting from litigation, a delay to the start of work in Little Tokyo in response to community concerns, and increased time for approvals of design elements. Construction progress was further impacted by the inability to receive work-hour variances, particularly along Flower Street, which added significant schedule impacts that required mitigation. Over the course of several months, it became clear that further work re-sequencing was necessary to ensure that a practical and achievable schedule was in place for the balance of the Project. Collaboration between the Project and RCC resulted in a re-baselined project schedule that now demonstrates high confidence levels with reasonable flexibility.

However, the potential for future legal actions, late approvals to begin work and the continued difficulty in receiving extended construction work hours remain as serious threats to the project schedule. To successfully complete the Project as currently scheduled, Project staff requires assistance from all parties to maintain timely design approvals, and to receive and maintain extended construction work hours. Without continued assistance, further cost and schedule impacts are to be

expected.

The collective impact of utility conflicts, construction delays and work inefficiencies, together with outstanding design and construction scope items will, subject to Board approval of Recommendation B, be addressed in a comprehensive agreement (Contract Modification No. 74) with RCC for an amount up to \$50.6 million. This comprehensive agreement includes payment for compensable time due the contractor, for the above mentioned impacts and for associated engineering costs to manage and implement the added scope. The comprehensive agreement also pays for extensive electrical relocation work at 6th and Flower streets which was not part of the original project scope. This comprehensive agreement also further simplifies the construction of the north and east Gold Line tie-ins by consolidating project milestones and bus bridging operations into a more efficient, single-stage reopening of the Gold Line, at a lower overall cost to Metro.

Third Party, MCAs and Private Utilities: Significant scope and cost growth has occurred in this element due to previously described inaccuracies in the identified location and condition of underground utilities and the level of City effort required to support the project. The current budget of \$57.1 million is now estimated to cost \$70.4 million at completion.

Professional Services (Agency, CMSS, CPJV): This cost element consists of professional services from the project's consultant teams and Metro staff including project management, construction management and design support. This element has risen by more than 41% over the course of the Project due primarily to underfunding during the out years at the time of project inception. A protracted NEPA/CEQA and preliminary design phase also consumed significant resources during the planning phase.

These "soft costs" (including the Other Professional Services described below) now represent approximately 16% of revised total project costs. This is consistent with industry standards and below the 20% goal that Metro's Program Management Department has set. The current professional services budget of \$164.8 million is now estimated at \$227.3 million at completion.

Other Professional Services: Other professional services comprise legal counsel, auditing, project management assistance and construction relations. Continuing litigation defense costs on the Project and a significant level of necessary community and construction relations support in a challenging downtown environment have been largely responsible for cost growth in this category to \$46.1 million.

Real Estate: With rising property values in the Little Tokyo area, the planned three-year extension of the Temporary Construction Easement of the Mangrove Yard is now being valued well above the anticipated rates, resulting in a projected budget impact of \$10 million. Negotiations with the City of Los Angeles (the owner of the property) are pending.

Unallocated Contingency: While the cost forecast has considered all risks known to date and which are currently being actively managed, it does not account for other potential risks which may surface over the next five years. Examples of these risks include the following items among others:

- Easements or Right of Entry delays
- Processing and approvals of designs and permit delays
- Safety certification issues or incompatibility of tie-ins related to existing Metro facilities
- Right-of-Way court awards which exceed prudent forecasts
- Schedule improvements
- Work hour variances that are delayed or revoked leading to schedule erosion
- Unknown utility or private-party encroachments impacting design or construction.

Additionally, if the above risks manifest themselves, their impacts may likewise range from mild to severe. A major element of the FTA risk assessment process discussed above is the evaluation of contingency. While the recommended contingency value of \$85M or 8% of estimated costs-to-go is lower than FTA's recommended value, total project costs are consistent with their risk findings.

Supporting Effective Project Management

The Regional Connector Project, like many Metro projects, is a fast-moving, challenging and uniquely complex design-build project. Quick decision-making is required to take advantage of cost and scheduling opportunities and to keep the project moving. A slow contract administration process is not consistent with the needs of a large, design-build project. There are limited project management resources, so the more time that project managers work on process-related activities, the less time they have solving problems. No process or too much process likely results in confusion, inefficiencies, and in some cases, conflicts. Part of the current process is the requirement to receive Board of Directors approval for project-related agreements and contract changes above a specified threshold. (On the Regional Connector Project, this threshold is for \$500,000 for agreements and \$1 million for change orders.)

On a large mega-project, the thresholds requiring approval are easily exceeded. The need to bring a project-related agreement or design-build contract modification to the Board for approval can add two months to the schedule when contractors could have started the work immediately. This time can be critical to project schedules and risks exposure to extended overhead payments due the contractor, should the project be delayed.

As mentioned in the most recent Los Angeles Construction Market Analysis Update received by the Board in September 2015, contractors have indicated that delays in processing changes to be a significant risk when working on Metro projects. As a result they have had to include contingencies in their proposals to address this risk. This delay also puts DBE subs at risk of not receiving timely payment for work performed.

The cost to the Regional Connector project for a schedule delay is \$5 million per month for a total of \$10 million for a 2 month delay. Much of this delay could be avoided if Board approval was not required prior to implementing a change.

Therefore, staff is proposing CEO authority, as part of a one-year pilot, to execute project-related agreements and change orders in any amount up to the Life of Project budget subject to monthly reporting requirements, that would include any pending project-related agreements, change orders/contract modifications and any significant changes to contract contingency. This action would allow the Board to see in advance all project-related agreements and change orders but would allow the staff the flexibility, responsibility and authority to manage this large, fast moving project consistent with the need for rapid decision-making and Project Schedule. Any change that results in a LOP budget increase would still require Board approval, which is the most critical aspect of managing projects. This approach is consistent with other transit agencies including San Jose, Seattle and Denver.

In addition, staff would continue to report on the project budget, project labor agreement and small business/disadvantaged business compliance as part of the monthly updates to the Construction Committee and the detailed monthly reports that are issued to all stakeholders including the Board.

The benefits of this action are:

- Provides staff with the flexibility, responsibility and authority to manage this large, fast moving project consistent with the need for rapid decision-making and Project Schedule
- Still requires approval for any action requiring a LOP budget increase
- Keeps the big picture focus on overall management of the Project Budget as opposed to detailed change orders
- Consistent with industry best practices for time sensitive, effective project management.

Lessons Learned: Several lessons learned on the Regional Connector project have already been adopted by the agency on other major capital projects. These include:

1. Establishing the LOP budget later in the development phase to provide sufficient time to perform a higher level of engineering that will enable Metro to better identify scope and project risks;
2. Modifying the LOP budget at project award to reflect any increases in project award costs over budget and other modifications made during the procurement process;
3. Provide sufficient schedule for the procurement and execution of Advance Utility Relocation Contracts and agency approval of permits, in anticipation of encountering changed conditions

resulting in schedule impacts.

DETERMINATION OF SAFETY IMPACT

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

FINANCIAL IMPACT

Upon approval of recommendation A, the LOP Budget will be increased by \$199,000,000 from \$1,551,840,570 to \$1,750,840,570 under Project 860228 - Regional Connector Transit Corridor, in Cost Center 8510 - Construction Project Management. Upon approval of recommendation B, the FY 17 budget will be amended by \$30,610,000 to a revised total of \$251,330,000 per attachment D affecting the aforementioned project and cost center. Since this is a multi-year capital project, the Chief Program Management Officer and the Project Manager will be responsible for budgeting costs for future fiscal years.

Impact to Budget

The sources of funds for \$199 million LOP increase are: Repayment of Capital Project Loans, Congestion Management/Air Quality (CMAQ) and the August Redistribution of CMAQ funds as shown in Attachment E. The proposed funding for the Regional Connector project does not negatively impact funding for operations or safety. The Measure R Cost Management Process and Policy Analysis, Attachment E, describes the process used to analyze the availability of funds for these cost and revenue assumption changes.

ALTERNATIVES CONSIDERED

The Board may decline to approve any or all of the recommended actions. This is not recommended for the following reasons:

1. If Recommendations A and B are not approved, the Agency will have a significant challenge delivering the Regional Connector Project and could place at risk the receipt of future FTA funds for other Metro projects.
2. If Recommendation C is not approved, the project will continue to seek Board approval of project-related agreements and contract modifications in accordance with current practice.

..Next Steps

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. Staff will continue 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.

ATTACHMENTS

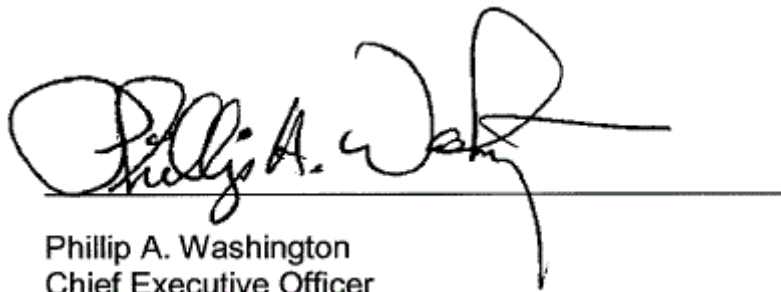
Attachment A - Procurement Summary
Attachment B - DEOD Summary
Attachment C - Contract Modification/Change Order Log
Attachment D - Funding and Expenditure Plan
Attachment E - Measure R Cost Management Process and Policy Analysis
Attachment F - Construction Committee Report dated November 19, 2015.

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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: Agreement to revise project schedule due to impacts from additional utility relocations and third party impacts		
4.	Contract Work Description: Regional Connector Transit Corridor Project		
5.	The following data is current as of: December 5, 2016		
6.	Contract Completion Status:		
	Bids/Proposals Opened:	4	% Completion \$s (Total Incurred Cost per November 2016 Invoice): 40.4%
	Contract Awarded:	05/06/14	% Completion time (Duration % Complete): 34%
	NTP:	07/07/14	Original Contract Days: 2,300
	Original Complete Date:	03/01/21	Change Order Days: 150
	Current Est. Complete Date:	07/28/21	Suspended Days: 0
		Total Revised Days:	2,450
7.	Financial Status:		
	Contract Award:	\$ 927,226,995	
	Total Contract Modifications Approved:	\$ 125,164,665	
	Current Contract Value:	\$1,052,391,660	
	Contract Administrator: Susan Santoro	Telephone Number: 213-922-4974	
8.	Project Manager: Gary Baker, Deputy Executive Officer, Project Management	Telephone Number: 213-893-7118	

A. Contract Action Summary

This Board Action is to approve Contract Modification No. 74 issued in support of a comprehensive agreement with Regional Connector Constructors, JV to resolve outstanding schedule mitigation and work scope issues.

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.

Metro and RCC have negotiated a comprehensive agreement that addresses schedule mitigation measures, compensable delays that have been determined to be due to RCC, and various outstanding and/or disputed design and construction elements. This agreement achieves a mutually agreed amount for the work items, and acknowledges RCC's responsibility for prompt construction completion.

B. Cost/Price Analysis

The negotiated amount of the comprehensive agreement is a business decision by the Project to resolve a number of changes, resolve all known potential claims, and to compensate RCC for excusable and compensable delays through December 8, 2106.

Contractor's Amount	Metro's Estimated Amount	Negotiated Amount
\$52,070,997	N/A	\$50,600,000

DEOD SUMMARY

REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT/
CONTRACT NO. C0980A. (1) Small Business Participation - Design

Regional Connector Constructors (RCC) made a 22.63% Disadvantaged Business Enterprise (DBE) commitment for Design. 11 DBE commitments were made at the time of award, and one additional DBE subcontractor has been added to-date. Current DBE participation is 23.32%. RCC is exceeding its Design commitment.

DISADVANTAGED BUSINESS ENTERPRISE COMMITMENT	22.63%	DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION	23.32%
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	Design DBE Subcontractors	Ethnicity	% Committed	Current Participation¹
1	Abratique & Atienza, Inc.	Asian-Pacific American	1.32%	0.60%
2	Anil Verma Associates, Inc.	Subcontinent Asian American	0.25%	1.07%
3	Armand Consulting, Inc.	Subcontinent Asian American	2.19%	1.61%
4	D'Leon Consulting Engineers Corporation	Hispanic American	2.50%	2.49%
5	Earth Mechanics Inc.	Asian-Pacific American	1.32%	0.50%
6	Electrical Building Systems, Inc.	Hispanic American	3.21%	2.29%
7	MARRS Services, Inc.	Subcontinent Asian American	1.75%	2.28%
8	Mc Lean & Schultz, Inc.	Hispanic American	3.51%	4.23%
9	PacRim Engineering, Inc.	Asian-Pacific American	2.19%	2.65%
10	Parthenon Corporation*	Hispanic American	ADDED	0.62%
11	Transmetrics, Inc	Hispanic American	1.76%	1.51%
12	V & A Inc.	Hispanic	2.63%	3.47%

	American		
Total		22.63%	23.32%

¹Current Participation = Total Actual amount Paid-to-Date to DBE firms ÷ Total Actual Amount Paid-to-date to Prime.
 *DBE added after contract award

A. (2) Small Business Participation – Construction

RCC made an 18% Disadvantaged Business Enterprise (DBE) commitment for Construction at the time of contract award, listing one known DBE subcontractor and identifying DBE scopes of work. After the start of Construction, 50 DBE subcontractors were added. RCC is currently achieving 4.1% of their proposed 18% DBE subcontract commitment for Construction. It is expected that DBE commitments will continue to increase as Construction progresses.

Based on the total amount paid-to-date to RCC, and the total actual amount paid-to-date to DBE subcontractors, current participation is 18.94%. RCC is expected to continue ongoing outreach and good faith efforts to meet their DBE contract commitment.

DISADVANTAGED BUSINESS ENTERPRISE COMMITMENT	18%	DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION	18.94%
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Item No.	Construction DBE Subcontractors	Ethnicity	% Commitment	Current ¹ Participation
1.	AAA Oil, Inc. dba California Fuels & Lubricants*	Hispanic American	0.01%	0.03%
2.	Abratique & Atienza, Inc.*	Asian-Pacific American	0.05%	0.28%
3.	Absolute Security International, Inc. dba Absolute International Security*	Asian-Pacific American	0.00%	0.38%
4.	Alameda Construction Services, Inc.*	African American	0.04%	0.13%

5.	Angela Liu Consulting Arborist, LLC*	Asian-Pacific American	0.00%	0.01%
6.	Anytime Dumping, Inc.*	African American	0.01%	0.11%
7.	APW Construction, Inc. dba Ace Fence Co.*	Hispanic American	0.03%	0.17%
8.	Aragon Construction Inc*	Hispanic American	0.01%	0.04%
9.	Armed Exterminators*	African American	0.00%	0.00%
10.	BA, Inc.*	African American	0.02%	0.10%
11.	C G O Construction Company*	African American	0.03%	0.11%
12.	C2PM, Inc.*	Asian-Pacific American	0.00%	0.00%
13.	Clean Street Sweeping, Inc.*	Hispanic American	0.01%	0.03%
14.	Clean Up America, Inc.*	African American	0.08%	0.11%
15.	D & D Lee, Inc.*	African American	0.00%	0.00%
16.	Davis Blue Print Co., Inc.*	Hispanic American	0.00%	0.07%
17.	E-Nor Innovations Inc.*	African American	0.03%	0.51%
18.	Ellis Equipment, Inc.*	Asian-Pacific American	0.00%	0.02%
19.	Empire Steel, Inc.*	Asian-Pacific American	0.01%	0.06%
20.	EW Corporation Industrial Fabricators*	Hispanic American	2.07%	11.65%

21.	EW Moon Inc*	African American	0.01%	0.09%
22.	G & C Equipment Corporation*	African American	0.06%	0.43%
23.	G & F Concrete Cutting, Inc.*	Hispanic American	0.02%	0.15%
24.	JET Drilling, Inc.*	Hispanic American	0.11%	0.32%
25.	Invictus Environmental Safety Solutions*	African American	0.00%	0.00%
26.	J L M Staffing Solutions*	African American	0.00%	0.05%
27.	J N A Builders, Inc.*	Asian-Pacific American	0.03%	0.19%
28.	JET Drilling, Inc.*	Hispanic American	0.00%	0.00%
29.	Juan Carlos Marquez Vega*	Hispanic American	0.02%	0.18%
30.	Jungle Communications, Inc.*	Hispanic American	0.00%	0.01%
31.	Jungle Nursery, Inc., The*	Hispanic American	0.00%	0.00%
32.	Kramer Translation*	Asian-Pacific American	0.00%	0.00%
33.	M&J Works, LP*	Hispanic American	0.01%	0.03%
34.	MAD Transportation*	Hispanic American	0.01%	0.00%
35.	Miranda Logistics Enterprise, Inc.*	Hispanic American	0.02%	0.04%
36.	Morgner Technology Management*	Hispanic American	0.07%	0.40%

37.	EXARO Technologies Corp.*	Hispanic American	0.00%	0.00%
38.	Parthenon Corporation*	Hispanic American	0.00%	0.04%
39.	Pre-Con Products Ltd.*	Hispanic American	0.01%	0.04%
40.	PTS Surveying Inc.*	Native American	0.05%	0.89%
41.	California Testing & Inspections, Inc.*	Hispanic American	0.40%	0.49%
42.	R. Dugan Construction*	Caucasian Female	0.01%	0.04%
43.	Rivera Trucking LLC*	Native American	0.81%	1.41%
44.	Robnett Electric, Inc.*	African American	0.00%	0.06%
45.	Soteria Company, LLC (formerly Griego and Associates)	Hispanic American	0.01%	0.02%
46.	Super Seal & Stripe*	Caucasian Female	0.01%	0.04%
47.	Supreme Wholesale Electric, Inc.*	African American	0.00%	0.13%
48.	Treesmith Enterprises, Inc.*	Hispanic American	0.00%	0.00%
49.	TSG Enterprises, Inc.*	Hispanic American	0.04%	0.07%
50.	Ultimate Maintenance Services*	Hispanic American	0.00%	0.01%
51.	Young Communications Group*	African American	0.00%	0.00%

	Total Commitment		4.1%	18.94%
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¹Current Participation = Total Actual amount Paid-to-Date to DBE firms ÷ Total Actual Amount Paid-to-date to Prime.
 *DBE 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 14.06% complete (based on total construction labor hours expended, divided by the total estimated construction labor hours in the approved Employment Hiring Plan) and the contractor is achieving the 40% Targeted Worker Goal at 57.95%, not achieving the 20% Apprentice Worker Goal at 19.10%, and not achieving the 10% Disadvantaged Worker Goal at 9.37%. Prime Contractor has submitted an Employment Hiring Plan which states compliance with the PLA/CCP workforce goals will be met in mid-2018. Staff will continue to monitor and report the contractor's progress toward meeting the goals of the PLA/CCP.

C. 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).

D. Living Wage Service Contract Worker Retention Policy

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

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

Mod. No.	Description	Status (approved or pending)	Cost		
			Contract Value	Mods.	Board Approved CMA
N/A	Initial Award	Approved	\$927,226,995		\$ 92,722,700
CO001	TIFIA Certification Requirements	Approved		\$ -	
CO002	Revision to SP-01 DBE Reporting	Approved		\$ -	
CO009	Admin.Modification to Incorporate Missing Specifications	Approved		\$ -	
CO012	Addition of Bulkhead for TBM Retrieval Pit Design Only	Approved		\$ 50,000	
CO013.1	Revisions to TPIS Requirements Design Only	Approved		\$ 214,000	
2	Opt. No. 3 - 2nd/Hope Upper Level Ent. & Ped. Bridge	Approved		\$ 3,320,000	\$3,320,000
3	Opt. RCC-1 2nd/Broadway SEM Cavern	Approved		\$ 16,000,000	
4	Opt. No. 10 Add Open Roof	Approved		\$ 4,100,000	
5	Opt. No. 11 Add Ventilation Under Deck	Approved		\$ 2,150,000	
6	Opt. No. 12 Change Basis of Design to Super Fast/Arson Growth Rate	Approved		\$ 8,000,000	
7	Opt. RCC-2 Add Deep Foundations @ 2nd/Broadway	Approved		\$ 1,250,000	
8	Opt. RCC-5 2nd/Broadway Decking	Approved		\$ 100,000	
9	Opt. RCC-3 Glazing at Portal Canopies	Approved		\$ 500,000	
10	Additional Utility Relocations (Transfers from C0981R)	Approved		\$ 27,100,000	\$ 27,100,000
11	Rail Truck and Trailer	Approved		\$ 991,749	
12	Little Tokyo Second Entrance (Design)	Approved		\$ 150,528	
13	Shoofly Temporary Communications Design	Approved		\$ 26,880	
14	Additional Site Investigation at Volk Property	Approved		\$ 16,606	
15	Additional Abatement at Bldg. Demo.	Approved		\$ 13,115	
16	Analysis of Track Design Options at Wye	Approved		\$ 11,123	
17	Hazardous Soil Removal at Volk Property	Approved		\$ 377,237	
18	1st/Central SOE Tieback Easement	Approved		\$ 595,560	
19	Lead-Contaminated Soil Removal at Volk Property - Ph. 2	Approved		\$ 131,822	
20	Opt RCC-8 Revert to Tunnel Lighting Spacing of 25'	Approved		\$ 340,000	
21	1st/Alameda Bumpouts (Design)	Approved		\$ 626,287	
22	Extra Utility Relocation Mobilization	Approved		\$ 999,971	
23	Deputy Grading Inspector for TBM Launch Pit SOE	Approved		\$ 165,424	
24	Delete subsurface easement at Stavrium Property	Approved		\$ -	
25	Tactile Guidance Strips in Stations - Design Only	Approved		\$ 209,637	
27	JVP Tunnel Liners Reinforcement - Design Only	Approved		\$ 41,209	
28	Buried Bricks in Shoofly excavation in Mangrove (DSC)	Approved		\$ 102,900	
29	Little Tokyo Second Entrance (Construction) & Shoofly Temp Comm.	Approved		\$ 552,520	

CONTRACT MODIFICATION/CHANGE ORDER LOG

REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT - CONTRACT NO. C0980

Mod. No.	Description	Status (approved or pending)	Cost		
			Contract Value	Mods.	Board Approved CMA
30	Relocate Cherry Tree	Approved		\$ 10,540	
31	Rail Car Transporter Modifications	Approved		\$ 27,200	
32	Schedule Recovery Measures	Approved		\$ 49,000,000	\$49,000,000
33	Add Wye Junction Fan Plant (Design Only)	Approved		\$ 1,210,000	\$1,210,000
34	K-Rail Modifications for Clarke Closure	Approved		\$ 24,193	
35	Additional Traffic Control/Flaggers at 2nd/Broadway LA Times	Approved		\$ 287,830	
36	1st/Alameda Additional Utility Potholing	Approved		\$ 425,010	
37	CN 25.1, CN 32, CN 33	Approved		\$ 51,796	
38	Environmental Impairment Liability Site (Pollution Legal Liability) Ins.	Approved		\$ 402,602	
39	Cut and Cover SOE Redesign (1/A & 2/B)	Approved		\$ 676,749	
40	Tunnel Liner Revisions	Approved		\$ 329,817	
41	Sprint Relocation at 2nd/Broadway	Approved		\$ 87,362	
42	Delete Public Pay Phones	Approved		\$ (25,910)	
43	2nd/Hope Ped Bridge Design	Approved		\$ 123,713	
44	Little Tokyo TVM Relocations	Approved		\$ 24,420	
45	24" W.L Conflict w/MFS telecomm./Flower Exploratory Potholing	Approved		\$ 180,727	
46	Revisions to Metro Station Signage Standards - Design Only	Approved		\$ 181,732	
47	CFD Analysis	Approved		\$ 77,000	
48	Artwork Lighting Revisions	Approved		\$ -	
50	Additional DSSP Install @ JVP	Approved		\$ 106,068	
51	Flower Street Delete Crossover/ Revise Eemrgency Exiting (Design Only)	Approved		\$ 918,000	
52.1	Increase Quantities for Bid Item 64 Removal Hazardous Materials - Asbestos	Approved		\$ 10,000	
53	2nd/Broadway Mandrel Pulice Conduits	Approved		\$ 80,358	
54	Shoofly Catch Basin Revised Design	Approved		\$ 11,818	
55	Automatic Train Control Synchronization	Approved		\$ 59,286	
56	Flower Street Roadway, Sidewalk & Lighting Improvements - (Design Only)	Approved		\$ 372,018	
57	Repair of Qwest Conduit on 5th Street E/O Flower	Approved		\$ 30,280	
58	Temporary Relocation of Storm Drain Lateral at 4th and Flower	Approved		\$ 130,861	
59	Flower Street Cut and Cover Mandrel of DWP(P) Ductbanks	Approved		\$ 53,550	
60	Add ATSAC CCTV Video Camera Sys. at 1st/Hope and 1st/Broadway	Approved		\$ 306,030	
63	Add Longitudinal Settlement Sensors	Approved		\$ 406,849	
64	MFS Telecom Duct bank Relocation on Flower Street	Approved		\$ 362,500	
65	Revise Communications Radio System SOW (Design Only)	Approved		\$ 298,221	
66	Otium Preconstruction Survey - Hope Station	Approved		\$ 45,577	

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

Mod. No.	Description	Status (approved or pending)	Cost		
			Contract Value	Mods.	Board Approved CMA
67	1/C & Flower Certified Welding Inspector (For 981 work)	Approved		\$ 213,000	
68	Revise Signal Aspects at Venice Interlocking	Approved		\$ 20,100	
69	2nd & Broadway Station Plaza Reconfiguration	Approved		\$ 55,000	
70	Common Station Features Redesign	Approved		\$ 301,000	
71	Add Construction Document Management Software	Approved		\$ 137,800	
72	Backflow Preventer Relocation	Approved		\$ 15,000	
TBD	Add Wye Junction Fan Plant Construction	Approved		\$ 10,790,000	\$ 10,790,000
73	Revise Excavation to Provide TBM Removal Shaft	Approved		\$ 3,700,000	\$ 3,700,000
Subtotal (Approved)				\$ 139,654,665	\$ 187,842,700
74	Agreement to Revise Project Schedule due to Impacts from Additional Utility Relocations and Third Party Impacts	Recommended		\$ 50,600,000	
Subtotal (Recommended)				\$ 50,600,000	

Subtotal - Approved Modifications		\$ 139,654,665	
Subtotal - Recommended Changes/Modifications		\$ 50,600,000	
Subtotal Approved Modifications + Recommended Changes/Modifications		\$ 190,254,665	
Subtotal - Pending Claims		\$ -	
Total: Mods + Recommended Changes/Mods + Possible Claims		\$ 190,254,665	
Previous Authorized CMA			\$ 187,842,700
CMA Necessary to Execute Recommended Changes/Mods + Possible Claims			\$ 50,600,000
Total CMA including this Action			\$ 238,442,700
CMA Remaining for Future Changes/Mods after this Action			\$ 48,188,035

REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT
ATTACHMENT D
FUNDING/EXPENDITURE PLAN
(Dollars in Millions)

Capital Project 860228	Prior	FY17	FY18	FY19	FY20	FY21	FY22	FY23	Total	% of Total
Uses of Funds										
Construction	327.86	180.37	128.34	175.18	211.11	123.65	7.37	0.00	1,153.87	65.9%
Right-of-Way	46.32	16.95	17.15	9.26	3.06	-	-	-	92.74	5.3%
Vehicles	0.84	5.85	7.40	1.91	0.27	-	-	-	16.28	0.9%
Prof. Services	188.37	45.52	39.58	29.35	29.81	25.37	14.23	4.28	376.51	21.5%
Project Contingency	-	2.38	22.99	17.98	18.11	14.10	8.40	1.00	84.95	4.9%
Subtotal Project	563.38	251.07	215.46	233.68	262.36	163.12	30.00	5.28	1,724.34	98.5%
Environmental/Planning	24.85	0.27	0.31	0.31	0.31	0.31	0.16	-	26.50	1.5%
Total LOP Cost	588.23	251.33	215.77	233.99	262.66	163.42	30.15	5.28	1,750.84	100.0%
LOP Budget as of Dec. 2015	662.28	220.73	156.60	179.93	246.62	65.99	19.70	-	1,551.84	
Variance	(74.05)	30.61	59.17	54.06	16.05	97.44	10.45	5.28	199.00	
Sources of Funds										
Federal 5309 New Starts	167.39	97.61	100.00	100.00	133.18	71.72			669.90	38.3%
Measure R 35% (TIFIA Loan Proceeds)	25.21	36.66	55.94	17.91	6.18	18.11			160.00	9.1%
Lease Revenues			6.01	27.84	30.40				64.25	3.7%
Repaymnt of Cap Proj Loans	122.48	38.20	10.80	65.37	20.91	51.49	10.95	5.28	325.48	18.6%
TDA	0.26								0.26	0.0%
STIP Regional Improvement Program	2.59								2.59	0.1%
City of Los Angeles contribution	5.00	7.00	6.00		23.98				41.98	2.4%
High Speed Rail Bonds	114.87								114.87	6.6%
Prop 1B PTMISEA	109.14	8.90	13.18	3.88					135.10	7.7%
CMAQ & RSTP	41.29	62.97	23.84	18.99	48.02	22.10	19.20		236.41	13.5%
Total Project Funding	588.23	251.34	215.76	233.99	262.67	163.42	30.15	5.28	1,750.84	100.0%

Variance 0.00 (0.00) 0.00 (0.00) (0.00) (0.00) 0.00 0.00 0.00 0.00 -

ATTACHMENT E

Regional Connector

Measure R Cost Management Process and Policy Analysis

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 Measure R Expenditure Plan. 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 (LOP) budget requires an increase of \$199 million, from \$1,551.84 million to \$1,750.84 million. This analysis recommends trade-offs required by this policy to identify the funds necessary to meet the \$199 million cost increase. Table 1 summarizes the approach to addressing the cost increase.

Table 1 – Strategy to Address Regional Connector Cost Increase (\$ in millions)

	Repayment of Capital Proj. Loans	Prop. C 25%	MR 35%	CMAQ	CMAQ August Redist.	Total
Regional Connector	\$41.0			\$98.0	\$60.0	\$199.0
Westside Purple Line Ext. Sect. 1	(\$6.6)		\$6.6			\$0.0
Crenshaw/ LAX LRT	(\$34.4)	\$132.4		(\$98.0)		\$0.0
New Revenues/ Efficiencies					(\$60.0)	(\$60.0)
Balance	\$0.0	\$132.4	\$6.6	\$0.0	\$0.0	\$139.0

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

We recommend programming \$60.0 million in Congestion Mitigation and Air Quality Improvement (CMAQ) Program funds to the project. Given the prohibition on using Proposition A and C funds, CMAQ is the only available discretionary fund source available.

This approach is to advance \$60.0 million of Metro’s share of CMAQ funds through the statewide pool of such funds managed by Caltrans. By drawing from the statewide pool, the funding advance will come from other possible commitments Caltrans could have made to other projects across the entire state. Over time, Metro will seek to roll the advance of its share forward each year by continuing to over-deliver projects into

the statewide pool. If we are successful, each year Caltrans redistributes (in August) similar advances that it receives from a nationwide pool of federal funds. These “August Redistribution” funds from the national pool are the ultimate target funding source for the \$60.0 million commitment to the Regional Connector Project.

We have been successful in the past with this approach. However, there may be the possibility of not being able to roll the CMAQ share advance forward into the statewide pool each year. The tradeoff with this approach is the potential to experience funding delays for CMAQ-funded projects. However, we still recommend this strategy as these expenses are not avoidable and the only other alternative is to fully fund the cost increase with Metro’s own cash resources.

While the passage of Measure M brings new revenue to the agency, the Regional Connector is not part of the expenditure plan and thus is not eligible for Measure M funds.

As a result of this step, a \$139 million funding gap remains. We recommend strategies in the following steps to close the remaining funding gap.

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 Light Rail Transit Phase II and Gold Line Foothill Extension have been completed and have no additional savings which could be transferred to the Regional Connector Project. While the Gold Line Eastside Transit Corridor Extension Phase II is in the same corridor, the funding for the project is outside of the timeframe needed for 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 any remaining funding shortfall for 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 from the Crenshaw/LAX Transit Light Rail Transit Project and the Westside Purple Line Extension Section 1. 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 35% Transit Capital can be assigned to this project because the Measure R Expenditure Plan caps the Measure R 35% allocation to the Regional Connector at \$160 million.

We propose transferring \$98 million in CMAQ funds and \$34.4 million in Repayment of Capital Project Loans Fund 3562 from the Crenshaw/LAX Transit Light Rail Transit Project to the Regional Connector. To backfill the Crenshaw/LAX Transit Light Rail Transit Project, we propose using Proposition C 25% by issuing additional bonds.

We also recommend transferring \$6.6 million of Repayment of Capital Project Loans Fund 3562 from the Westside Purple Line Extension Section 1 to the Regional Connector Project. The Westside Purple Line Extension Section 1 will be backfilled with some of the total remaining Measure R 35% designated for all three sections of the Westside Purple Line Extension.

Metro

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA



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

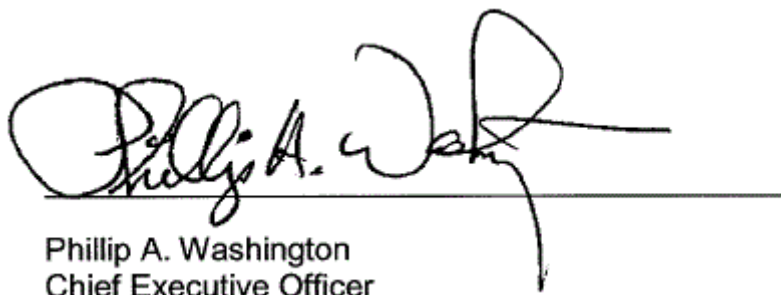
Attachment A - Procurement Summary
Attachment B - DEOD Summary
Attachment C - Contract Modification Authority (CMA) Summary
Attachment D - Project Cost Summary by Element and LOP Variance
Attachment E - Funding/Expenditure Plan
Attachment F - Uniform Cost Management Process and Policy Analysis
Attachment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

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Phillip A. Washington
Chief Executive Officer



Board Report

File #: 2016-0971, File Type: Contract

Agenda Number: 50

REVISED
CONSTRUCTION COMMITTEE
JANUARY 19, 2017

SUBJECT: WESTSIDE PURPLE LINE EXTENSION SECTION 2 PROJECT

ACTION: AWARD DESIGN/BUILD CONTRACT AND ESTABLISH LIFE-OF- PROJECT BUDGET

RECOMMENDATION

CONSIDER:

- A. ESTABLISHING a Life-of-Project Budget (LOP) Budget of \$2,440,969,299 for the **Westside Purple Line Extension Section 2 Project**;
- B. AUTHORIZING the Chief Executive Officer (CEO) to award a 102-month firm fixed price contract under Request for Proposal (RFP) No. C1120 to Tutor Perini/O & G, a Joint Venture (TPOG), the responsive and responsible Proposer determined to provide Metro with the best value for the final design and construction of the Westside Purple Line Extension Section 2 Project (Project) for a firm fixed price of \$1,376,500,000.00, subject to resolution of protest(s), if any; and
- C. AUTHORIZING the CEO, as part of a one-year pilot, to negotiate and execute project related agreements, including contract modification(s), up to the authorized Life-of-Project Budget for Sections 1 and 2 of the Westside Purple Line Extension Project, to streamline project management of the Project subject to monthly reporting requirements, that would include any pending project-related agreements, change orders/contract modifications and any significant changes to contract contingency to the Board of Directors. This action would allow the board to see in advance all project-related agreements and change orders.

ISSUE

In June 2016, a Full Funding Grant Agreement (FFGA) budget of \$2,410,544,879 (minus finance charges) was established by the Board for the Westside Purple Line Extension Section 2 Project. Within that Board approval action, it was noted that a LOP Budget would be established concurrent with the staff recommended contract award. This approach is consistent with the recommendations in the Office of the Inspector General (OIG) Construction Management Best Practices Study Report and

lessons learned regarding establishing final budgets, when adequate information (such as the selected price) is available.

In August 2016, the United States District Court for the Central District of California ruled that the Federal Transit Administration (FTA) must produce a Supplemental Environmental Impact Statement (SEIS) for portions of the Project. In its ruling, the Court declined to vacate the Record of Decision (ROD) for the Westside Purple Line Extension, allowing Metro and FTA to sign an FFGA for the Project. With the signed FFGA in hand, awarding the Design/Build contract at this time allows for preconstruction activities such as final design and utility relocations to occur while staff completes the SEIS, preventing a delay to the Project's schedule.

This report provides a recommendation for award of the contract within the FTA approved Full Funding Grant Agreement (FFGA). TPOG offers the best value to Metro given that the weighted technical results were comparable to the other proposers and the team's firm fixed price proposal is \$452 million less than the second ranked firm. In conjunction with this procurement, the CEO has identified the need to streamline the contract administration process for the Westside Purple Line Extension Section 2 Project and is requesting the authority as part of a one -year pilot, to negotiate and execute any remaining agreements such as professional services agreements, City or utility work orders, and contract modifications within the LOP budget, subject to monthly reporting to the Board, that would include any pending project-related agreements, change orders/contract modifications and any significant changes to contract contingency. This action would allow the Board to see in advance all project-related agreements and change orders but would allow the staff the flexibility, responsibility and authority to manage this large, fast moving project consistent with the need for rapid decision-making and Project Schedule.

The Metro leadership of the core Westside Purple Line team has a proven track record over a thirty year span, with successful project delivery on the Red line, Gold line and more recently on the successful startup of the Westside Purple Line Segment 1 Design build contract. The Project Manager for Segment 2 has over 20 years of experience in the design and construction of underground structures. His experience includes lead technical and management roles on complex underground construction projects for transit, highway and other heavy civil projects. In addition to the Metro leadership and core project management and support team, the project team will be supplemented in the integrated project management office by key staff from two nationally and internationally recognized consultants/Joint ventures providing engineering and construction management expertise. Additionally, Metro is in the process of procuring additional private sector program management expertise to supplement the Metro team at a strategic level.

As part of the approval process of the FFGA and the TIFIA loan, staff was required to produce a Westside Purple Line Extension Section 2 Project Management Plan (PMP) and sub plans that would ensure that Metro has the capacity and capability to manage and oversee the Project safely, on-time and within budget. As part of the Metro mid-year budget process, to strengthen the existing project management and support team, staff will be including the need for an additional 22 full time Metro staff. These staff will support engineering and construction management, project controls, safety,

quality, environmental compliance, third party coordination, community relations, real estate, vendor/contract management and project labor agreement administration. Furthermore, additional staff may be requested as part of the FY 18 budget and future budget processes, in accordance with the PMP and the needs of the project.

BACKGROUND

The Westside Purple Line Extension Section 2 Project consists of twin-bored tunnels and two underground stations located at Wilshire/Rodeo (City of Beverly Hills) and Century City Constellation (City of Los Angeles). Advanced utility relocation work has begun under pre-award authority that was granted by the Federal Transit Administration in December 2014. The major construction work will be performed under Contract No. C1120 which includes the design and construction of tunnels, stations, systems, and trackwork.

The recommended action to approve the LOP Budget is consistent with the approval action taken by the Board in June 2016 and the recent FTA approval of the Westside Purple Line Extension Section 2 Project FFGA and the Transportation Infrastructure Finance and Innovation Act (TIFIA) Loan from the United States Department of Transportation. The LOP Budget also includes \$30,424,420 of concurrent non-FFGA project activities. These concurrent activities include the planning/environmental phase of the Project, real estate loss of business goodwill, additional insurance coverage for Measure R Projects, certain community relations expenses, and public artwork. As of October 1, 2015, the Fixing America's Surface Transportation (FAST) Act prohibits federal transit funding for art elements of a transit project. The full funding plan is outlined in Attachment C.

On January 22, 2015, the Board authorized staff to use a design/build contracting delivery approach to complete the final design and construction of the Westside Purple Line Extension Section 2 Project and to solicit a contract for the 2.59 mile dual track heavy rail extension and two new underground stations. The Board authorized the procurement under Public Contract Code Section 20209.5 et seq., which allows for the negotiation and award of a design/build contract to a responsible proposer whose proposal is determined to be the best value to Metro.

A Request for Qualifications (RFQ)/Request for Proposals (RFP) two-step negotiated procurement was implemented for this design/build delivery approach. An open procurement was advertised on September 14, 2015, which culminated with three firms meeting the RFQ requirements and subsequently invited to submit proposals in response to the second phase of the solicitation, the RFP. Additional details for the procurement process, including the evaluation results, are in Attachment A.

DISCUSSION

The recommended action to award the contract to the most advantageous proposer, TPOG, is based on a "Best Value" selection process. In accordance with Public Contract Code (PCC) 20209.5 - 20209.14, and its succeeding legislation, California Public Contract Code (PCC) § 22160-22169

(effective January 2015), the RFP defined Best Value as a value determined by objective criteria and may include, but is not limited to price, features, functions, life-cycle costs, and other criteria deemed appropriate by Metro; and the Best Value Proposal as the most advantageous Proposal to Metro when evaluated in accordance with the Evaluation Criteria defined in the RFP.

The Source Selection Plan and Request for Proposal (RFP) established the weighted value assigned to the major evaluation criteria:

- Project Management 45%
- Technical Approach 20%
- Price 35%
 - *Subtotal* 100%
- A Prompt Payment to Subcontractors Initiative 5% (bonus scoring)
 - Total 105%

After a thorough and extensive competitive procurement process, Staff recommends TPOG as the contracting team for the final design and construction of the Westside Purple Line Extension Section 2 project.

Request for Best And Final Offer (BAFO)

The FTA Best Practices Manual points out that “BAFOs are revised proposals that extinguish the prior proposals”. The BAFOs may increase or decrease their original amount and make any other changes to the proposal unless specifically prohibited by the request for BAFO. Once a Proposer has submitted its BAFO, Metro does not have the luxury of picking between the original and subsequent proposals. New BAFO proposals are the only proposals that may then be considered and could require another round of evaluations and discussions if in the best interest of the Agency.

Unlike the mega project design-build procurements for Crenshaw/LAX, Regional Connector, and Westside Purple Line Extension Section 1, after discussions with Proposers were completed, there was no indication that a BAFO would result in lower pricing or other benefits for the Agency nor was it necessary to accommodate changes to the Scope of Work. There was reason to believe that prices might in fact increase given details that arose during Proposers’ respective discussions on issues within their proposals. The conclusion about the inefficacy of a BAFO was later supported by increased pricing submitted by two proposers, whereas the lowest price Proposer did not increase their price.

BAFOs may be sought at the discretion of the Contracting Officer after discussions/ negotiations have been completed with proposers in the competitive range. BAFOs are requested when it is determined necessary because (1) the nature of those discussions/negotiations has a significant or material impact on the proposals submitted; (2) the discussions/negotiations have resulted in a material change to the Scope of Work or other specifications; or (3) the Contracting Officer has

determined additional requirements are necessary. None of the above requisites existed for this solicitation to necessitate a request for BAFOs.

Supporting Effective Project Management

The Westside Purple Line Section 2, like many Metro projects, is a fast-moving, challenging and uniquely complex design-build project. Quick decision-making is required to take advantage of cost and scheduling opportunities and to keep the Project moving. A slow change order process is not consistent with the needs of a large, design/build project. There are limited project management resources, so the more time that project managers work on process-related activities, the less time they have solving problems. No process or too much process likely results in confusion, inefficiencies, and in some cases, conflicts. Part of the current process is the requirement to receive Board of Directors approval for changes above a specified threshold.

On a large mega-project, the thresholds requiring approval are easily exceeded. The need to bring a contract modification to the Board for approval can add two months to the schedule when contractors could have started the work immediately. This time can be critical to project schedules and risks exposure to extended overhead payments due the contractor, should the project be delayed.

As mentioned in the most recent Los Angeles Construction Market Analysis Update received by the Board in September 2015, contractors have indicated that delays in processing changes to be a significant risk when working on Metro projects. As a result they have had to include contingencies in their proposals to address this risk. This delay also puts DBEs subs at risk of not receiving timely payment for work performed.

The cost to the Crenshaw and Regional Connector projects for schedule delays ranges from \$3.3 to \$5 million per month for a total of \$6.6 million to \$10 million for a 2 month delay. Much of this delay could have been avoided if Board approval was not required prior to implementing a change.

Therefore, staff is proposing CEO authority to execute project related agreements, including change orders up to the LOP Budget. Any change that results in a LOP Budget increase would still require Board approval, which is the most critical aspect of managing projects. This approach is consistent with other transit agencies including San Jose, Seattle, and Denver.

In addition, staff would continue to report on the project budget, project labor agreement and small business/disadvantaged business compliance as part of the monthly updates to the Construction Committee and the detailed monthly reports that are issued to all stakeholders including the Board.

The benefits of this action are:

- Provides staff with the flexibility, responsibility and authority to manage this large, fast moving project consistent with the need for rapid decision-making and project schedule
- Still requires approval for any action requiring a LOP Budget increase

- Keeps the big picture focus on overall project budget management as opposed to detailed change orders
- Consistent with industry best practices for time sensitive, effective project management

In addition, Metro has or is in the process of implementing a number of construction best practices that would improve our ability to deliver projects on time and within budget. Examples include:

- Regular monthly reviews of the project status, together with a formal Annual Program Evaluation to continually assess project status for Board reporting.
- Implement a robust risk assessment process commencing early in the project development process and periodically through the project life to allow staff to identify risks/issues to facilitate early mitigation.
- Implement improved partnering processes at all levels from Chief Executive Officer on down to improve communication and facilitate timely resolution. Focus would be on avoiding or resolving disputes.
- Initiate a process to control potentially disruptive betterments, third party or Metro generated changes.
- To continuously provide adequate staff to manage the project, consistent with the approved Project Management Plans.

DETERMINATION OF SAFETY IMPACT

This Board action will not have an impact on established safety standards for Metro's construction projects.

FINANCIAL IMPACT

Funds required in fiscal year 2017 for this board action are included in Project 865522 Westside Purple Line Extension Section 2 Project, in Cost Center 8510 (Construction Project Management), and Account Number 53101 (Acquisition Building and Structure).

Since this is a multi-year Project, the Chief Program Management Officer and the Project Manager will be responsible for budgeting costs in future years.

Impact to Budget

The sources of funds for the Project are capital funds identified in the recommended Funding/Expenditure Plan as shown in Attachment C. The recommended LOP Budget was assumed in the Long Range Transportation Plan for the Westside Purple Line Extension Section 2 Project and does not have an impact to operations funding sources. With respect to the \$30,424,420 of Concurrent Non-FFGA Project Activities, Attachment D shows the Measure R Cost Management Process and Policy analysis required for cost increases to Measure R projects. To comply with the Policy of the Metro Board of Directors, additional Measure R funds required for this Project will be from the projected remaining Measure R 35% Transit funds committed to the Westside Purple Line

Extension Section 1, 2, and 3 collectively.

This Project is not eligible for Propositions A and C funding due to the proposed tunneling element of the Project.

ALTERNATIVES CONSIDERED

The Board may choose to not move forward with the contract award and adopting a LOP Budget. This is not recommended as this is an adopted project within the Long Range Transportation Plan, and not moving forward with the recommendations will delay the schedule, increase the cost of the Project, and jeopardize \$1.5 billion in grants and loans from the US Department of Transportation, as well as jeopardize completion of the Westside Purple Line Extension by 2024.

The Board may also choose to not move forward with authorizing the CEO to negotiate and execute project related agreements, including contract modifications, up to the authorized Life-of-Project Budget. This is not recommended because of the risks associated with potential schedule delays related to the approval process for project related agreements.

NEXT STEPS

Upon approval by the Board, Metro will issue a Notice-of-Award, execute a contract with the recommended Design/Build Contractor and once bonds, insurance, and project labor agreement requirements are met; issue a Contract Notice-to-Proceed.

Based on the Court's ruling, the SEIS will be a limited scope document, providing additional detail and assessment of the Project. A Draft SEIS will be released for public comments in writing and at a public hearing in early 2017. Metro staff anticipates the Final SEIS will be published in late summer 2017, prior to the start of major construction, which is scheduled to begin after January 2018.

ATTACHMENTS

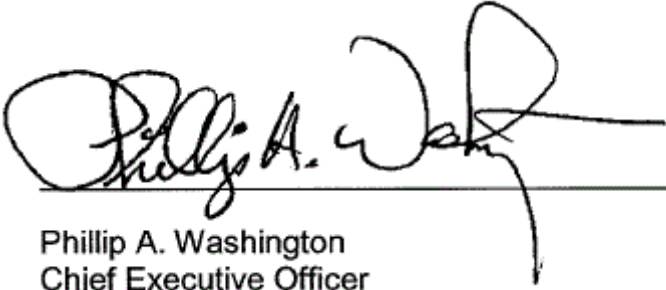
- Attachment A - Procurement Summary
- Attachment B - DEOD Summary
- Attachment C - Funding/Expenditure Plan
- Attachment D - Measure R Cost Management Process and Policy Analysis

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Phillip A. Washington
Chief Executive Officer

PROCUREMENT SUMMARY

WESTSIDE PURPLE LINE EXTENSION SECTION 2 PROJECT – DESIGN/BUILD
CONTRACT NO. C1120

1.	Contract Number: C1120	
2.	Recommended Vendor: Tutor Perini/O & G, a Joint Venture	
3.	Type of Procurement (check one): <input type="checkbox"/> IFB <input checked="" type="checkbox"/> RFP <input type="checkbox"/> RFP–A&E <input type="checkbox"/> Non-Competitive <input type="checkbox"/> Modification <input type="checkbox"/> Task Order	
4.	Procurement Dates:	
	A. Issued: 9-14-2015	
	B. Advertised/Publicized: 9-11-2015	
	C. Pre-Proposal Conference: 10-6-2015	
	D. Proposals Due: 06-01-2016	
	E. Pre-Qualification Completed: 12-4-2015	
	F. Conflict of Interest Form Submitted to Ethics: 6-8-2016	
	G. Protest Period End Date: 1/27/2017	
5.	Solicitations Picked up: 114	Bids/Proposals Received: 3
6.	Contract Administrator: Kenneth Stewart	Telephone Number: 213-922-7687
7.	Project Manager: Michael McKenna	Telephone Number: 213-312-3132

A. Procurement Background

This Board Action is to approve the award of a design-build “Best Value” procurement issued in support of the Westside Purple Line Extension Section 2 Project. Contract No. C1120 will extend the existing heavy rail subway Purple Line approximately 2.55 miles from the future terminus at Wilshire/La Cienega and will include two new stations: Wilshire/Rodeo and Century City Constellation. The Section 2 alignment travels westerly beneath the City of Beverly Hills and Century City area of the City of Los Angeles. Board approval of the contract award is subject to resolution of any properly submitted protest(s).

The Work under this Contract includes, but is not limited to, furnishing all management, coordination, professional services, labor, equipment, materials and other services to perform the final design and construction of twin bored Tunnels, Stations, Trackwork, Utilities and Systems of the Westside Purple Line Extension Section 2 Project. The contract type is a firm fixed price.

A Request For Qualifications (RFQ)/Request for Proposals (RFP) was issued on September 14, 2015. A pre-proposal conference was held on October 6, 2015, in the Board Room with representatives of approximately 200 firms in attendance. A networking event was held for the subcontracting community immediately after the conference.

The RFQ/RFP implemented a two-step negotiated procurement in accordance with California Public Contract Code § 22160-22169 and in accordance with Metro’s Acquisition Policy. The first phase of the procurement was a request for Statement of Qualifications (SOQ). A prequalification evaluation team evaluated the SOQs. Three responsive SOQs were received on October 30, 2015.

The three firms met the RFQ requirements, were designated as prequalified parties, and were invited to submit proposals in response to the second phase of the solicitation, the RFP.

The prequalified firms submitted technical and commercial questions which were recorded and reviewed by Metro staff. Formal written answers to approximately 600 questions were provided to the prequalified firms and the other 111 planholders.

Thirteen amendments were issued during the solicitation and evaluation process:

- Amendment No. 1, issued on October 7, 2015, extended the due date for SOQ questions by one week and adjusted the number of electronic/hard copies required;
- Amendment No. 2, issued on October 19, 2015, extended the SOQ due date by one week and made clarifications to various requirements;
- Amendment No. 3, issued on November 2, 2015, updated DBE listings and forms, updated General Requirements and provided technical documentation;
- Amendment No. 4, issued on November 10, 2015, extended the period of time for Proposers to perform DBE outreach events;
- Amendment No. 5, issued on December 4, 2015, announced the three firms pre-qualified to submit proposals for the benefit of the subcontracting community;
- Amendment No. 6, issued on December 10, 2015, provided additional and revised technical documents including requirements, drawings and design criteria;
- Amendment No. 7, issued on February 1, 2016, clarified contract language;
- Amendment No. 8, issued on February 4, 2016, clarified campaign contribution language, easement and right of way availability, the schedule of quantities and prices, and provided new and revised technical documentation;
- Amendment No. 9, issued on February 23, 2016, provided new and revised technical specifications and drawings;
- Amendment No. 10, issued on March 9, 2016, updated the DBE listing and introduced new subcontractor payment language;
- Amendment No. 11, issued on March 23, 2016, clarified Good Faith Efforts language, removed the DBE Tiered Program requirement disapproved by the FTA, updated DBE forms, clarified organizational document requirements, revised Provisional Sum definitions, and clarified technical document labelling and special inspections language;
- Amendment No. 12, issued on April 13, 2016, extended the proposal due date to June 1, 2016, revised the standard payment to subcontractor language and added an optional prompt payments to subcontractors initiative along with updated submittal language and evaluation criteria, clarified permitting language, added rail system related appendices, and provided a schedule template reference document;
- Amendment No. 13, issued on October 6, 2016, clarified Schedule of Quantities and Prices- Schedule D-Delay Compensation unit rate definitions and requirements and requested extension of the validity period of proposals an additional 90 days to February 26, 2017.

Three proposals were received on June 1, 2016, from the following firms:

1. Skanska-Obayashi a Joint Venture
2. Tutor Perini/O & G, a Joint Venture
3. Walsh Strabag Joint Venture

B. Evaluation of Proposals

A Proposal Evaluation Team (PET) consisting of staff from Metro Project Engineering, Metro Project Management, Metro Rail Wayside Systems, and the City of Los Angeles Bureau of Engineering conducted a comprehensive evaluation of the proposals received. The team was supported by 17 subject matter experts (SME) who reviewed selected portions of each proposal and prepared written reports to the PET according to their respective area of expertise. The PET considered the SMEs' input as part of their evaluation and score of each proposal.

The PET performed a detailed evaluation of all three proposals in accordance with the factors and sub-factors set forth in the RFP to assign a score and ranking. The evaluation considered all technical and price factors defined in the RFP and Source Selection Plan.

The proposals were evaluated based on the following major evaluation criteria and weights

- Project Management 45 percent
- Technical Approach 20 percent
- Price 35 percent
- A Prompt Payment to Subcontractors Initiative 5 percent (bonus scoring)

The Proposers could opt for the prompt payment initiative, noted above, that requires the prime contractor to pay its first tier subcontractors for work completed prior to submitting its monthly billing to Metro. This triggers the cascading of earlier payments where each subcontractor must make payment to their subcontractors of undisputed amounts within 7 days of having received payment. In return, Metro provides terms of Net 21 days payment of undisputed amounts to the Contractor.

Each Proposer received written Requests for Clarification regarding topics such as work experience, safety documentation, Disadvantaged Business Entity (DBE) forms, design cost reporting, subcontractor work scopes and registrations, and organizational documents.

Each proposing team was invited to make an oral presentation to the PET for the purpose of clarifying their proposal and demonstrating their understanding of Metro's requirements, thus allowing the PET to refine technical scoring. The presentation meeting format, the amount of time allowed, and general questions asked were standardized.

The Contract Administrator and Project Manager held separate discussions with each Proposer between August 4, 2016, and August 11, 2016, to address potential deficiencies, understand concerns about risk, and review assumptions taken in relation to the price proposal. Two of the Proposers, after discussions were held, submitted a revised proposal at a higher price.

Discussions confirmed the Proposers' understanding of the scope and appropriate approaches and plans to complete the scope of work. No material change to the Scope of Work was discovered that would necessitate a request for Best and Final Offers.

Each of the three proposals were responsive to the requirements of the RFP, including evidence of bonding capability, insurability, current contract licenses, appropriate and duly notarized joint venture agreements, as well as disclosure of litigation.

All three Proposers were determined to be within the competitive range so that all aspects of their offerings could be fully explored and understood.

Summary of Firms within the Competitive Range

Tutor Perini/O & G, a Joint Venture

Tutor Perini/O & G, JV is a joint venture made up of Tutor Perini Corporation of Sylmar, California and O & G Industries of Torrington, Connecticut, with Frontier Kemper as a tunneling subcontractor. Tutor Perini maintains a large nationwide presence building infrastructure in large metropolitan areas and has built railways and stations for Metro including multiple portions of Metro's Red Line Project. O & G Industries has delivered many important public projects on the East Coast.

Skanska-Obayashi a Joint Venture

Skanska-Obayashi JV is a joint venture between Skanska USA Civil West California District Inc. of Riverside, California and Obayashi Corporation of Burlingame, California. Skanska's experience includes building Metro's Foothill Gold Line and the Expo 2 Line. Skanska is currently a joint venture member building the Regional Connector Project and the Westside Purple Line Section 1 Project. Obayashi is a large, multinational construction firm maintaining offices and executing large construction projects, including those with tunnels, throughout the world.

Walsh Strabag Joint Venture

Walsh Strabag JV is a joint venture between Walsh Construction II, LLC of Chicago, Illinois and Strabag Corp of Wilmington, Delaware. Walsh is a very large privately held construction company with regional offices covering North America. It has executed transit projects in several large metropolitan areas throughout the United States. Walsh is currently a joint venture member building the Crenshaw/LAX Project. Strabag is a large, multinational construction firm maintaining offices and executing large projects throughout the world including a special tunneling division.

Evaluation Outcome

Based on a thorough evaluation of all proposals, as performed and determined by the Proposal Evaluation Team, the Tutor Perini/O & G, a Joint Venture proposal offers the "Best Value" and is the most advantageous to Metro.

Tutor Perini/O & G, a Joint Venture demonstrated strengths with readily available key personnel, an innovative approach to moving material underground, their Contracting Outreach and Mentor Protégé plan and the joint venture partners' history of working together. While the other two Proposers' weighted scores for Project Management and Technical Approach were minimally higher, the difference in the technical capability found in their proposals was not great enough to justify the significantly higher prices proposed. The Tutor Perini/O & G proposal is determined technically comparable at an award price that is approximately \$452 million lower than the next lowest proposal.

The final scores and ranking of the proposals is summarized in the table below.

Final Evaluation Scoring

1	Firm	Average Score	Factor Weight	Weighted Average Score	Rank
2	Tutor Perini/O & G, JV				
3	Project Management	71.47	45.00%	32.16	
4	Technical Approach	73.10	20.00%	14.62	
5	Price	100.00	35.00%	35.00	
6	*Voluntary Payment to Subcontractors Initiative	100.00	5.00%	5.00	
7	Total		105.00%	86.78	1
8	Skanska-Obayashi, JV				
9	Project Management	76.31	45.00%	34.34	
10	Technical Approach	77.15	20.00%	15.43	
11	Price	68.31	35.00%	23.91	
12	*Voluntary Payment to Subcontractors Initiative	100.00	5.00%	5.00	
13	Total		105.00%	78.68	2
14	Walsh Strabag JV				
15	Project Management	73.44	45.00%	33.05	
16	Technical Approach	79.05	20.00%	15.81	
17	Price	65.23	35.00%	22.83	
18	*Voluntary Payment to Subcontractors Initiative	100.00	5.00%	5.00	
19	Total		105.00%	76.70	3

All Scores rounded to the second decimal.

*All Proposers received full credit.

C. Cost/Price Analysis

A line by line proposal pricing evaluation was performed, with certain line items of each proposal being identified as of interest. The line items of interest were different for each Proposer. The respective line items were addressed during the commercial and technical discussions with Proposers.

The price of the recommended award is determined to be fair and reasonable based on adequate price competition and comparison to the independent cost estimate which was submitted concurrently with the proposals.

Proposer Name	Total Price Proposal ¹	Total ICE ² Price Proposal	Award Price ³	ICE Award Price ³
Tutor Perini/O & G, JV	\$1,453,622,111	\$1,343,780,007	\$1,376,500,000	\$1,234,711,573
Skanska-Obayashi, JV	\$1,947,004,375		\$1,828,934,700	
Walsh Strabag JV	\$2,324,627,678		\$2,018,569,899	

Note¹: The Total Price Proposal includes the Base Work, Provisional Sums, Unit Prices, Delay Compensation, and Life Cycle Costs.

Note²: The Independent Cost Estimate (ICE) amounts are submitted before the due date and opened concurrently with the other Proposals.

Note³: The Award Price includes Base Work and Provisional Sums only.

D. Background of Recommended Contractor

Tutor Perini/O & G, JV is a fully integrated joint venture between Tutor Perini Corporation (Tutor Perini), the Managing Partner with 75% equity, and O & G Industries, Inc. (O & G) with 25% equity.

Tutor Perini is advertised as the largest publicly traded civil works contractor that is headquartered in California and was ranked 14th of Engineering News-Record (ENR)'s Top 400 Contractors list for 2015. Tutor Perini has performed work on very large projects in the City of Los Angeles, throughout California, and the United States, including projects for LACMTA's underground system. Tutor Perini's experience includes the BART Extension to San Francisco International Airport line and track; the AirTrain at JFK International Airport, and Metro's Red Line.

O & G Industries, Inc. is a privately held company. O & G has been ranked as the 210th of the country's top 400 construction companies and is one of the larger heavy/civil contractors in the northeastern United States. O & G has worked with Tutor Perini on large projects in the past. Locally, Tutor Perini and O & G delivered the D-B Alameda Corridor Project in south Los Angeles.

STV Incorporated (STV) is the lead engineering firm. STV has worked with Tutor Perini on D-B transportation projects around the nation since 1997.

DEOD SUMMARY

WESTSIDE PURPLE LINE EXTENSION
SECTION 2 PROJECT / C1120A. (1) Small Business Participation - Design

The Diversity and Economic Opportunity Department (DEOD) established a 25% Disadvantaged Business Enterprise (DBE) goal for Design. Tutor Perini/O & G, JV exceeded the goal with a 25.31% DBE commitment.

SMALL BUSINESS GOAL	DBE 25%	SMALL BUSINESS COMMITMENT	DBE 25.31%
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	DBE Subcontractors	Ethnicity	% Committed
1	Arellano Associates LLC	Hispanic American	0.26%
2	Coast Surveying, Inc.	Hispanic American	0.52%
3	Cornerstone Studios, Inc.	Asian Pacific American	0.53%
4	PacRim Engineering, Inc.	Asian Pacific American	4.21%
5	DR Consultants & Designers	Hispanic American	2.55%
6	Epic Land Solutions	Caucasian Female	TBD
7	Exeltech Consulting, Inc.	Subcontinent Asian American	2.69%
8	Fariba Consulting	Other	1.18%
9	GC Tech, Inc.	African American	0.96%
10	Lin Consulting, Inc.	Asian Pacific American	2.46%
11	NBA Engineering, Inc.	Caucasian Female	2.10%
12	Paleo Solutions, Inc.	Caucasian Female	0.02%
13	Ted Tokio Tanaka Architect	Asian Pacific American	5.24%
14	YEI Engineers, Inc.	Asian Pacific American	1.63%
15	Electrical Building Systems, Inc.	Hispanic American	0.96%
		Total Commitment	25.31%

B. (2) Small Business Participation - Construction

DEOD established a 17% DBE goal for Construction. Tutor Perini/O & G, JV made a 17% DBE commitment. To be responsive to DBE requirements, Tutor Perini/O & G, JV was required to identify all known DBE subcontractors at the time of proposal. Tutor Perini/O & G, JV listed seven (7) known DBE firms as noted below, with commitments totaling 8.27%. In addition, Tutor Perini/O & G, JV was required to submit a DBE Contracting Plan identifying construction opportunities to meet its DBE commitment throughout the Construction phase of the project. Tutor Perini/O & G, JV is required to update the Contracting Plan monthly as contract work is bid and awarded to DBE firms. DEOD reviewed and approved the Contracting Plan submitted by Tutor Perini/O & G, JV which included a 17% DBE commitment for Construction and identified scopes of work for DBE subcontracting opportunities.

SMALL BUSINESS GOAL	DBE 17%	SMALL BUSINESS COMMITMENT	DBE 17%
	DBE Subcontractors	Ethnicity	% Committed
1	Analysis & Solutions Consultants	African American	0.58%
2	Chaudhary & Associates, Inc. (2 nd Tier)	Asian Pacific American	0.02%
3	Jet Drilling (2 nd Tier)	Hispanic American	0.12%
4	J. Hernandez Consulting	Hispanic American	0.01%
5	G & C Equipment Corporation (Supplier – 60%)	African American	3.72%
6	Martinez Steel Corporation	Hispanic American	2.51%
7	Valverde Construction, Inc.	Hispanic American	1.31%
8	To Be Determined at Time of Final Design	TBD	8.73%
		Total Commitment	17%

C. Contracting Outreach and Mentoring Plan

To be responsive to DBE requirements, Tutor Perini/O & G, JV was required to submit a DBE Contracting Outreach and Mentoring Plan (COMP), which included the minimum requirement to apply 25% of the total DBE commitment dollars for

Design and 15% of the DBE commitment dollars for Construction for participation in the mentor protégé program.

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

The PLA/CCP requires that contractors commit to meet the following targeted hiring goals for select construction contracts over 2.5 million dollars: This contract is subject to the USDOT Pilot Local Hire Initiative.

Community / Local Area Worker Goal	Apprentice Worker Goal	Disadvantaged Worker Goal
40%	20%	10%

E. Prevailing Wage Applicability

Prevailing Wage requirements are applicable to this project. DEOD will 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).

F. Living Wage Service Contract Worker Retention Policy Applicability

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

**FUNDING/EXPENDITURE PLAN
WESTSIDE PURPLE LINE EXTENSION SECTION 2 PROJECT**

(DOLLARS IN MILLIONS)

Capital Project 865522	Prior	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	Total	% of Total
Uses of Funds														
Construction	0.2	81.9	106.6	218.7	267.8	237.0	228.2	156.9	78.3	24.2	-	-	1,400.0	57.4%
Right-of-Way	80.7	50.6	95.8	185.4	7.0	-	-	-	-	-	-	-	419.4	17.2%
Vehicles	-	-	-	-	-	-	42.0	-	-	-	-	-	42.0	1.7%
Professional Services	46.4	24.0	44.5	36.7	31.0	29.8	30.5	29.5	25.6	23.4	52.2	-	373.5	15.3%
Project Contingency	-	16.9	25.0	23.0	24.5	25.9	33.3	14.8	7.4	1.5	3.3	-	175.7	7.2%
FFGA Subtotal*	127.2	173.4	271.9	463.8	330.2	292.7	334.1	201.3	111.3	49.1	55.5	-	2,410.5	98.8%
Concurrent Non-FFGA Project Activities	0.0	8.5	7.3	5.8	3.8	0.3	0.1	0.1	-	-	-	-	26.1	1.1%
Planning/Environmental	0.5	2.6	1.2	-	-	-	-	-	-	-	-	-	4.3	0.2%
Non-FFGA Subtotal	0.5	11.2	8.5	5.8	3.8	0.3	0.1	0.1	-	-	-	-	30.4	1.2%
Total Project Cost	127.7	184.5	280.4	469.7	334.1	293.1	334.3	201.4	111.3	49.1	55.5	-	2,441.0	100.0%
Sources of Funds**														
Federal 5309 New Starts	58.0	30.0	128.3	183.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	87.0	1,187.0	48.6%
Federal TIFIA Loan Proceeds (Repaid with Measure R 35%)	-	146.0	61.0	100.0	-	-	-	-	-	-	-	-	307.0	12.6%
Measure R 35%	14.9	8.5	78.1	156.0	178.1	149.1	208.3	101.4	11.3	(50.9)	(44.5)	(87.0)	723.2	29.6%
Repayment of Capital Project Loans	54.8	-	-	-	-	-	-	-	-	-	-	-	54.8	2.2%
Federal CMAQ	-	-	13.0	30.0	56.0	44.0	26.0	-	-	-	-	-	169.0	6.9%
Total Project Funding	127.7	184.5	280.4	469.7	334.1	293.1	334.3	201.4	111.3	49.1	55.5	-	2,441.0	100.0%

*Does not include \$88.7 in finance costs.

**Timing of funding sources is subject to change.

MEASURE R COST MANAGEMENT PROCESS AND POLICY ANALYSIS
WESTSIDE PURPLE LINE EXTENSION SECTION 2 PROJECT

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 Measure R Expenditure Plan. 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 Westside Purple Line Extension Section 2 Project warrants such an analysis due to a \$30.4 million cost increase. The Measure R funds assumed for the Westside Purple Line Extension Section 2 Project to date amount to \$999.8 million (out of a total Measure R commitment of \$4,074 million for all three sections). At this time, we estimate that \$286.4 million of Measure R 35% would remain at the completion of the three sections. We propose using \$30.4 million of the \$286.4 million to address the cost increase as shown in the "Other Cost Reductions within the Same Transit Corridor" step.

Measure R Cost Management Policy Summary

The adopted Policy stipulates the following:

If a project cost 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 Westside Purple Line Extension Section 2 Project does not fall within a Regional Facility Area.

Value Engineering and/or Scope Reductions

During the development of the Preliminary Engineering for the Request for Proposal (RFP) documents, staff conducted Value Engineering (VE) Workshops utilizing a VE Panel of transit industry professionals with participation including the FTA’s Project Management Oversight Consultant (PMOC). The VE items believed to have the potential of yielding the largest cost savings were incorporated into the Advanced Preliminary Engineering (PE) designs in 2012. These items included the reduction of underground station footprint sizes and station depths. Station room layouts and other architectural elements were standardized to reduce design, construction, operations and maintenance costs. The Project Team also analyzed constructability issues and various construction sequencing scenarios to reduce risks and the overall durations for tunneling and cut-and-cover underground construction.

In 2014, an operational analysis was performed and the operational infrastructure was evaluated to determine the impacts if scope items were not constructed or purchased. The resulting operational impacts are as follows:

- Not constructing the track crossover, east of the Wilshire/Rodeo Station, will increase passenger wait times between trains when one track is out of service between Wilshire/La Cienega and Century City/Constellation stations.
- Not constructing tunnel/systems/track for the tailtrack west of the Century City/Constellation Station will not provide for storage of trains for routine operations, special events or vehicle maintenance issues. However, the station will still provide the minimum operational requirements for a temporary terminus to be located at the Century City/Constellation Station.
- Reducing the heavy rail vehicles to be acquired for the WPLE Section 2 Project from 20 to 10 will require either: 1) increases in the passenger wait times or 2) operation of shorter trains.

The impact of the crossover and tailtrack elimination has been determined to be reasonably acceptable for the operation of WPLE Section 2.

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

Similarly, the \$1,187 million New Starts Full Funding Grant Agreement (FFGA) states that all cost increases are to be borne by the project sponsor, not the Federal Transit Administration. Accordingly, we are assuming that no additional New Starts funds can be made available to cover the cost increase.

While the passage of Measure M brings new revenue to the agency, the Westside Purple Line Extension Project Section 2 Project is not part of the expenditure plan and thus is not eligible for Measure M funds.

Shorter Segmentation

While shorter segmentation is possible for the Westside Purple Line Extension, we recommend against this step for several reasons. The only Section which could be shortened is Section 3. This would require eliminating the Veteran Affairs Station and moving the terminus to Westwood. In addition to higher real estate prices in Westwood, eliminating the Veteran Affairs station would require LACMTA to prepare a supplemental Environmental Impact Statement/Environmental Impact Report (EIS/EIR) due to significant project changes. As a result, there may be significant project delays and increased costs to the project. We do not recommend shorter segmentation.

Other Cost Reductions within the Same Transit Corridor

The Westside Purple Line Extension will be constructed in three sections. Section 1 is already under construction and there are no reductions that can be moved from Section 2 to Section 3. As we enter into advanced preliminary engineering for Section 3, we will be considering further value engineering studies. The results of these studies will not be available in the timeframe necessary for this action.

The current financial model update has identified up to \$286.4 million in Measure R 35% assigned to the Westside Purple Line Extension as potentially available¹. Allocating \$30.4 million from this source now to Section 2 to meet the cost overrun will result in \$256.0 million remaining.

Other Cost Reductions within the Same Subregion

¹ Section 7(1)(d)(4) of the Measure R Ordinance allows any unused Measure R be credited to the Transit Capital Subfund and expended for Capital Projects located within the same subregion as the project so completed.

This cost increase does not require any subregional cost reductions or other funds.

Countywide Transit Cost Reductions and/or Other Funds

This cost increase does not require any countywide cost reductions or other funds.



Board Report

File #: 2016-0992, **File Type:** Oral Report / Presentation

Agenda Number: 28

**CONSTRUCTION COMMITTEE
JANUARY 19, 2017**

RECEIVE oral report by the **Program Management Chief Officer**.

DISCUSSION

Oral Report by the Program Management Chief Officer.

ATTACHMENTS

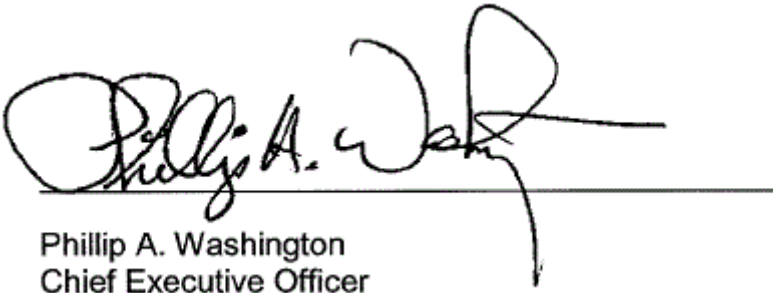
Attachment A - Program Management Chief Officer's Report - January 2017

Prepared by:

- **Crenshaw/LAX** - Charles Beauvoir, Deputy Executive Officer, Project Mgmt., (213)299-3095
- **Regional Connector** - Gary Baker, Deputy Executive Officer, Project Mgmt., (213)893-7191
- **Westside Purple Line Ext 1 and 2-** Dennis Mori, EO Project Mgmt., (213)922-7238
- **I-405** - Richard Clarke, Chief Program Management Officer, (213)922-7557
- **Patsaouras Plaza Busway Station** - Timothy Lindholm, EO Project Engr., (213)922-7297
- **Presentation** - Yohana Jonathan, Departmental System Analyst, (213)922-7592

Reviewed by:

Richard Clarke, Chief Program Management Officer, (213)922-7557



Phillip A. Washington
Chief Executive Officer

Program Management Chief Officer's Report

Project Status Report

Presented By

Richard Clarke

Chief Program Management Officer













January 2017

Construction Committee

Los Angeles County Metropolitan Transportation Authority



PROJECT BUDGET & SCHEDULE STATUS SUMMARY CHART

Project	Cost Performance	Schedule Performance	Comments
Crenshaw/LAX			Completed Claims Settlement Agreement. Commits design-builder to support Metro in achieving planned October 2019 Revenue Service Date. Metro received and approved design-builder's Completion Schedule, which includes no critical path schedule contingency. The remaining cost contingency is approaching the 3% Project Reserve level.
Regional Connector			Developing schedule options with contractor; correlating cost forecast accordingly.
Westside Purple Line Extension-Section 1			Overall construction progress is 14.2% complete versus 8.0% planned.
Westside Purple Line Extension-Section 2			FFGA obtained in December 2016.
I-405 Sepulveda Pass improvements Project			Working through remaining items affecting Final Acceptance. Claim 86 was negotiated and Board approved the final LOP Budget.
Patsaouras Plaza			Construction foundations begin in January 2017. Forecasted completion in December 2017.

January 2017



On target



Possible problem



Major issue



Metro

Construction Committee

Los Angeles County Metropolitan Transportation Authority

CRENSHAW/LAX TRANSIT PROJECT

◇ BUDGET	Current	Forecast
TOTAL COST	\$2,058M	\$2,058M

◇ SCHEDULE	Current	Forecast
REVENUE OPERATION	Oct 2019	Oct 2019

- Overall project progress is 55% complete.
- The northbound TBM continues toward MLK Jr Station with hole thru planned for February 2017.
- Concrete placements continues in the three underground stations.
- Street widening continues in Park Mesa Heights area.
- Civil/structural work continues on Aviation/Century, Manchester bridges, and La Brea bridges. Superstructure falsework erection continues on the I-405 bridge.
- Concrete placements is nearing completion for the covered trench section in front of LAX runways.
- Southwestern Yard design-builder continues excavation and foundation concrete work.



Greenline underpass deck concrete placement in progress



Excavation continues for underground structure on Crenshaw Blvd

January 2017



On target



Possible problem



Major issue

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Metro

REGIONAL CONNECTOR TRANSIT CORRIDOR

⚠ BUDGET		
	Current	Forecast
TOTAL COST	\$1,599M	TBD

* Includes Board approved LOP plus Planning and Finance costs.

⚠ SCHEDULE		
	Current	Forecast
REVENUE OPERATION	May 2021	TBD

- Overall Project Progress is 29.2%, Construction is 24.8% and Final Design is 95.6% complete.
- TBM assembly, grout and foam plant installation and utility line connections are underway in preparation for TBM launch, scheduled for January 2017.
- Successfully completed traffic switch to Broadway Phase 2 Mid-Block Closure to continue pile installation and decking.
- Continue installation of tie-backs, struts and walers at 2nd/Hope Support of Excavation (SOE). Station excavation expected to reach bottom by January 2017 to begin invert pour and prepare station for the TBM walk-through.
- Continue deck beam installation at 4th/Flower on weekends and water line relocation at night.
- Adit construction continues at the Tie-back Removal Shaft. Backfill will begin mid-December to restore site and roadway to steady state.



Thrust frame assembly and eye seal



Utility hanging within 2nd/Broadway excavation

January 2017



On target



Possible problem



Major issue

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Metro

WESTSIDE PURPLE LINE EXTENSION – SECTION 1

OK BUDGET		
	Current	Forecast
TOTAL COST*	\$3,154M	\$3,154M

* Includes Board approved LOP plus Planning and Finance costs.

OK SCHEDULE		
	Current	Forecast
REVENUE OPERATION	Oct 2024 FFGA	Nov 2023

Overall Project Progress is 14.2 % complete vs. 8.0% planned

Tunnels, Stations, Trackwork and Systems Design-Build Contract

- Hanging of existing utilities from under the installed deck panels continues at the Wilshire/La Brea Station site.
- Excavation for the Wilshire/La Brea Station that commenced on October 12, 2016 continues beneath the concrete deck.
- The Wilshire/Fairfax pile installation operation, which started on August 18, 2016, has moved to the south side of Wilshire Boulevard on the weekend of November 19, 2016.
- The demolition of the existing buildings at the Wilshire/La Cienega staging areas is complete. Potholing for noise barrier installation is scheduled to start in January 2017.
- The jet grouting operation along Wilshire Boulevard at the cross passages moves forward. This work along the reach 1 tunnel section is scheduled to continue through July 2017.
- Tunnel Boring Machines (TBMs) are being fabricated for delivery at the end of 2017. Tunneling is planned to begin in 2018.



Installing Strut at Wilshire/La Brea Station



Drilling Piles at Ogden Yard

January 2017



On target



Possible problem



Major issue

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Metro

WESTSIDE PURPLE LINE EXTENSION – SECTION 2

OK BUDGET

	Current	Forecast
TOTAL COST	TBD	\$2,499M

Life-of-Project Budget is yet to be adopted. Forecast includes finance costs

OK SCHEDULE

	Current	Forecast
REVENUE OPERATION	Dec 2026	Aug 2025

- Contract C1120 – Design/Build Request for Qualifications/Request for Proposal was released on September 14, 2015.
- The three teams meeting the minimum requirements as a result of the RFQ were announced on December 4, 2015.
- Price proposals were received on June 1, 2016.
- Advanced utility relocations by third parties started on September 6, 2016 at Century City Constellation Station.
- Contract C1120 award by the MTA Board is scheduled for January 2017 and subsequent NTP in April 2017.
- Full Funding Grant Agreement (FFGA) was executed by the FTA on December 15, 2016.



Telecom joint trench construction at Constellation Boulevard

January 2017



On target



Possible problem



Major issue

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Metro

I-405 SEPULVEDA PASS IMPROVEMENTS PROJECT

OK BUDGET		
	Current	Forecast
TOTAL COST	\$1,606M	\$1,606M

OK SCHEDULE		
	Current	Forecast
SUBSTANTIAL COMPLETION	Sept 2015	Sept 2015

- Contractor is working toward Final Completion.
- Working through remaining items affecting Final Acceptance.
- Claim 86 was negotiated and presented to the Board.
- The Board approved the final LOP budget of \$1,606M.



January 2017



On target



Possible problem



Major issue



Metro

Construction Committee

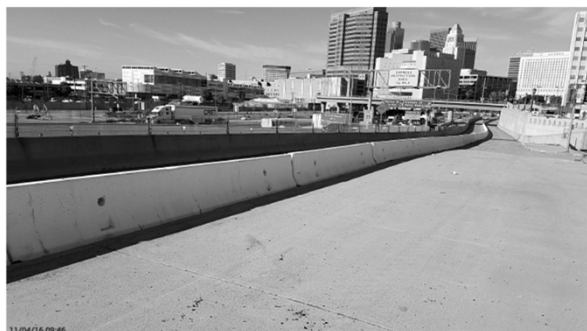
Los Angeles County Metropolitan Transportation Authority

PATSAOURAS PLAZA BUSWAY STATION

OK BUDGET		
	Current	Forecast
TOTAL COST	\$39.7M	\$39.7M

◇ SCHEDULE		
	Current	Forecast
SUBSTANTIAL COMPLETION	Dec 2017	Dec 2017

- OHL Health and Safety Plan was approved and OHL Encroachment Permit has been issued.
- Demolished roadway median.
- Completed installation and permitting of the industrial waste-water treatment and storage system.
- 4-month Closure of Vignes Street begins in January.
- Mobilizing drilling equipment in January.



Temp Median Barrier



Reconfigured Lanes



Dewatering Equipment

January 2017



On target



Possible problem



Major issue


Construction Committee


Los Angeles County Metropolitan Transportation Authority



Metro

REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT				CONSTRUCTION MANAGEMENT CONSULTANT: ARCADIS			
DESIGN CONSULTANT: Connector Partnership JV				CONTRACTOR: Regional Connector Constructors, Joint Venture			
Decking Installation on Flower Street				WORK/ACTIVITY DURING PAST MONTH			
				<ul style="list-style-type: none"> Completed concrete pour for invert at 1st/Central Station Completed compensation grouting under Central Ave Completed TBM shaft excavation and SOE at Mangrove Yard Completed excavation and installation of walers and struts at the Wye Completed relocation of communication utilities in 2nd/Spring Intersection Completed traffic switch to Broadway Phase 2 mid-block closure Completed Alimak installation and certification at 2nd/Hope Station Resumed pile installation at 1st Street Leg Pile installation at 2nd/Broadway continued Installation of deck beams at 2nd/Broadway intersection continued Installation of tie-backs, struts and walers at 2nd/Hope SOE continued Water relocations along Flower Street continued Deck beams and deck panels installation at 4th/Flower Sts. continued Excavation and installation of steel liner plates and grouting at the Tie-back Removal Pit continued Preparation activities for TBM Launch continued Shotcrete and removal of tie-backs at Removal Shaft continued Geotechnical monitoring equipment installation across the project alignment continued 			
EXPENDITURE STATUS (\$ In Millions)				SCHEDULE ASSESSMENT			
ACTIVITIES	CURRENT BUDGET	EXPENDED AMOUNT	PERCENT EXPENDED	MAJOR SCHEDULE ACTIVITIES	PRIOR PERIOD	CURRENT PLAN	VARIANCE WEEKS FROM PRIOR PERIOD
DESIGN	\$134.2	\$119.3	88.9%	Environmental			
				FEIS / FEIR	N/A	04/26/12	Complete
				SEIS Flower St.	N/A	12/18/15	Complete
RIGHT-OF-WAY	\$110.5	\$68.9	62.4%	Design			
				PE Notice to Proceed	N/A	01/04/11	Complete
CONSTRUCTION	\$1,091.6	\$388.5	35.6%	Final Design complete	05/31/17	07/31/17	9
OTHER	\$262.7	\$102.6	39.0%	Note: No adverse impact to the overall schedule is anticipated from current design delays.			
TOTAL	\$1,598.9	\$679.4	42.5%	Right-of-Way			
				All parcels available	08/15/18	08/15/18	0
Current Budget reflects Board approved Life-of-Project Budgets for Project 860228 (including finance charges) and 861228.				Note: ROW dates are adjusted to reflect the latest D/B Contractor's coordinated Need Dates. Duco Yard need date is in August 2018.			
Note: Expended amounts are through 10/31/2016.				Construction - Design / Build Contract			
				Notice to Proceed	07/07/14	07/07/14	Complete
AREAS OF CONCERN				Construction complete	05/02/16	05/15/21	2
<ul style="list-style-type: none"> Studies continue to re-cast the project schedule which was impacted by differing site conditions along the alignment. These studies indicate delays to the Revenue Service Date will occur. The re-cast schedule will reflect a comprehensive assessment of all operations focused on delivering the project expeditiously while retaining flexibility needed over the next few years. Detailed design is underway to relocate the 6th/Flower DWP power assets. This work requires collaboration with COLA relative to TCPs, BOE approvals, DWP efforts, etc. to minimize schedule and cost impacts. Stakeholder challenges are also anticipated; engagement by Metro Outreach resources are being planned accordingly. 				Revenue Service Date	07/15/16	07/28/21	2
				Note: Delay to the Revenue Service Date is under review.			
				CRITICAL ACTIVITIES / 3 MONTH LOOK AHEAD			
				<ul style="list-style-type: none"> 100% design packages for all three stations, bored tunnel, SEM cavern and systems; review of the related AFCs Complete assembly and Launch TBM Begin tunnel monitoring Complete pile installation at 2nd/Broadway Finish 2nd Street decking by April 2017 Complete excavation to station box and SEM Cavern at 2nd/Broadway Complete excavation and begin invert pour at 2nd/Hope Station Resume cap beam installation on Flower St. Reconcile path-forward for schedule and costs 			
ROW ACQUISITION	PLAN	CERTIFIED	A ACQUIRED	REMAINING			
PERMANENT PARCELS	5	5	4	1*			
TEMPORARY PARCELS	31	16	15	3*			
TOTAL PARCELS	36	21	19	4**			
* Remaining parcels are scheduled in-advance of need dates.							
** Broad SSE, DucoYard, 2nd & Hope Pedestrian Bridge and Wye Fan Plant.							

LOCATION: Crenshaw Blvd at Exposition to Green Line				CONSTRUCTION MANAGEMENT CONSULTANT: Stantec			
DESIGN CONSULTANT: Hatch Mott				CONTRACTORS: Walsh-Shea Corridor Constructors (Alignment) and Hensel Phelps / Herzog (Southwestern Yard)			
PROJECT PHOTO: Crews removing struts at underground No. 1 in front of LAX Airport runways.				WORK COMPLETED PAST MONTH:			
				<ul style="list-style-type: none"> o Commence mining of NB tunnel to MLK Jr. Station o Continued interior walls at Expo Structure. o Continued street work at Park Mesa area. o Continued decking intersections at Underground structure #3. o Continued construction of Green Line superstructure. o Continued erection of falsework for construction of I-405 bridge. o Continued construction of Manchester bridge superstructure. o Completed erection of falsework and started walls for Century Station. o Completed invert construction at underground structure #1. 			
EXPENDITURE STATUS (\$ In Millions)				SCHEDULE ASSESSMENT			
ACTIVITIES	CURRENT BUDGET	EXPENDED AMOUNT	PERCENT EXPENDED	MAJOR SCHEDULE ACTIVITIES	PRIOR PLAN	CURRENT PLAN	VARIANCE WEEKS
DESIGN	\$ 136.7	\$ 126.5	92.6%	Environmental			
RIGHT-OF-WAY	\$ 127.4	\$ 120.8	94.8%	FEIS/FEIR	Sep-11	Sep-11	Complete
CONSTRUCTION	\$ 1,353.1	\$ 686.2	50.7%	Record of Decision	Dec-11	Dec-11	Complete
OTHER	\$ 440.8	\$ 168.0	38.1%	Design			
TOTAL	\$ 2,058.0	\$ 1,101.5	53.5%	Preliminary Engineering	Nov-11	Nov-11	Complete
Note: Cost expended as of Dec. 02, 2016.				Final Design	Sep-15	May-17	20.5 months behind
				Right-of-Way			
AREAS OF CONCERN				Full-take parcels available	Jan-15	Jan-15	Complete (base scope)
				Part-take and TCE parcels	Sep-15	Apr-16	Complete (base scope)
<ul style="list-style-type: none"> o Design-builder's ability to mitigate schedule delays. o Timely submittal of WSCC's design submittals and review by City of Los Angeles. o 96th street station accommodations cost/schedule impacts. o Ability of TBM to meet production rate forecasted on schedule. 				Construction			
				D-B Notice to Proceed	Sep-13	Sep-13	Complete
				D-B Substantial Complete	Oct-18	May-19	7.2 months behind
				Revenue Service Date	Oct-19	Oct-19	On schedule*
				The D-B Substantial Complete prior plan has been modified by a 35-day concurrent delay contract modification in March 2015 and a six-day			
				*Note: Revenue Service Date includes a significant reduction in contingency.			
ROW ACQUISITION	PLAN	ACQUIRED	REMAINING	CRITICAL ACTIVITIES / 3 MONTH LOOK AHEAD			
FULL TAKES	37	36	1	<ul style="list-style-type: none"> o Commence concrete placement for SB tunnel invert. o Complete Green Line superstructure. o Complete Manchester Bridge superstructure. o Complete invert slab at Underground Structure #4. o Commence trackwork in Segment B1. 			
PARTIAL TAKES	27	26	1				
TEMPORARY EASEMENT	15	14	1				
TOTAL PARCELS	79	76	3				

WESTSIDE PURPLE LINE EXTENSION SECTION 1 PROJECT				CONSTRUCTION MANAGEMENT CONSULTANT: WEST, a Joint Venture			
DESIGN CONSULTANT: Parsons / Brinckerhoff				CONTRACTOR: Skanska, Traylor and Shea, a Joint Venture			
Wilshire/La Brea Tie-Back Installation North Shaft				WORK COMPLETED PAST MONTH			
				<ul style="list-style-type: none"> - C1045 Wilshire/La Brea Station excavation continues - C1045 Tunnel jet grouting at cross passage 9, started cross passage 10 - C1045 Wilshire/La Brea tie-back installation continues - C1045 Wilshire/La Brea water treatment system installation underway - C1045 Wilshire/Fairfax Station north side pile installation continues - C1045 Wilshire/Fairfax Station Ogden yard work continues - C1045 Wilshire/La Brea Geotech Instrumentation - complete installation east of La Brea - C1045 Wilshire/La Brea install dewatering discharge line at south muck shaft - C1045 Wilshire/Fairfax Station Stage 1 inclinometers - C1045 Wilshire/La Cienega SCE to begin cable pulling and splicing work at Wilshire/La Cienega - C1045 DU 6 Systems – 100% design submittal 			
EXPENDITURE STATUS (\$ In Millions)				SCHEDULE ASSESSMENT			
ACTIVITIES	CURRENT BUDGET	EXPENDED AMOUNT	PERCENT EXPENDED	MAJOR SCHEDULE ACTIVITIES	PRIOR PLAN	CURRENT PLAN	VARIANCE WEEKS
DESIGN	\$159.2	\$137.0	86.0%	Environmental			
				FEIS / FEIR	N/A	05/31/12	Complete
RIGHT-OF-WAY	\$175.6	\$158.8	90.4%	Design			
CONSTRUCTION	\$1,740.3	\$459.5	26.4%	PE Notice to Proceed	N/A	01/12/11	Complete
				Final Design complete	03/22/17	03/22/17	0
OTHER	\$1,079.3	\$118.6	11.0%	Right-of-Way			
TOTAL	\$3,154.4	\$873.9	27.7%	All parcels available*	12/31/15	12/31/15	0
Current Budget includes Environmental/Planning and Finance Costs.				Construction - Main Design / Build Contract			
AREAS OF CONCERN				Notice to Proceed	01/12/15	01/12/15	Complete
				Construction complete	11/08/23	11/08/23	0
				* Parcels related to main D/B Contract C1045			
ROW ACQUISITION	PLAN	AVAILABLE	REMAINING	CRITICAL ACTIVITIES / 3 MONTH LOOK AHEAD			
PERMANENT PARCELS	15	14	1	<ul style="list-style-type: none"> - C1045 DU 2 Wilshire/La Brea Station – AFC complete - C1045 DU 5 Tunnels – AFC complete - C1045 DU 3 Wilshire/Fairfax AFC Complete - C1045 Wilshire/La Brea Station excavation continues - C1045 Wilshire/Fairfax pile installation continues - C1045 Wilshire/Fairfax pile installation switch to south side of Wilshire Blvd. - C1078 Complete site utilities and building foundation 100% design - C1045 Wilshire/Fairfax LADWP Power to complete relocations at Wilshire/Fairfax Station - C1045 Wilshire/La Brea underdeck utility hanging completes - C1045 Wilshire/La Cienega demolition of buildings at staging areas complete - LADWP Power relocations to complete at Wilshire/Fairfax - AT&T Relocations to complete at Wilshire/La Cienega 			
TEMPORARY PARCELS	4	4	0				
TOTAL PARCELS	19	18	1				