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Agenda - Final

Thursday, October 15, 2020

10:30 AM

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Construction Committee

Janice Hahn, Chair

Paul Krekorian, Vice Chair

Kathryn Barger

Jacquelyn Dupont-Walker

Robert Garcia

John Bulinski, non-voting member

Phillip A. Washington, Chief Executive Officer

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(ALSO APPLIES TO BOARD COMMITTEES)

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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 must be submitted electronically using the tablets available in the Board Room lobby. Individuals requesting to speak will be allowed to speak for a total of three (3) minutes per meeting on agenda items in one minute increments per item. For individuals requiring translation service, time allowed will be doubled. The Board shall reserve the right to limit redundant or repetitive comment.

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x3 *中文 (Chinese)*

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CALL TO ORDER**ROLL CALL****APPROVE Consent Calendar Item: 29.**

Consent Calendar items are approved by one motion unless held by a Director for discussion and/or separate action.

CONSENT CALENDAR**29. SUBJECT: AIRPORT METRO CONNECTOR PROJECT**[2020-0597](#)**RECOMMENDATION**

CONSIDER:

AUTHORIZING the CEO to direct specific Rail and Bus operations, communications and security equipment from single sources and to procure subcontracts to design, program and install proprietary rail and rail-car operating systems and equipment for the Airport Metro Connector (AMC) Project in order to safely and securely link critical station infrastructure with the currently installed rail systems and equipment on the Crenshaw/LAX Line (CLAX).

COMMENTS FROM THE PUBLIC ON ITEMS OF PUBLIC INTEREST WITHIN COMMITTEE'S
SUBJECT MATTER JURISDICTION

Adjournment



Board Report

File #: 2020-0597, File Type: Contract

Agenda Number: 29.

CONSTRUCTION COMMITTEE OCTOBER 15, 2020

SUBJECT: AIRPORT METRO CONNECTOR PROJECT

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

CONSIDER:

AUTHORIZING the CEO to direct specific Rail and Bus operations, communications and security equipment from single sources and to procure subcontracts to design, program and install proprietary rail and rail-car operating systems and equipment for the Airport Metro Connector (AMC) Project in order to safely and securely link critical station infrastructure with the currently installed rail systems and equipment on the Crenshaw/LAX Line (CLAX).

(REQUIRES TWO-THIRDS VOTE)

ISSUE

This action is to direct and allow the bidders on the AMC Project (AMC), currently issued, to single source specific rail and bus operations, communications, security and safety equipment and systems for the AMC Station Project to safely and securely connect and operate with the same equipment currently installed as part of the network for the CLAX line. As a new station on the established CLAX line, this procurement is required to ensure that the AMC Station has the critical equipment and systems in order to mitigate conflicts and maintain operations, communications, safety and security during both construction and public operations with the CLAX and Metro Systems overall.

BACKGROUND

After award of the CLAX Line design-build contract authorized by the Board on June 26, 2014, a new Metro transit station at 96th Street was added to the Crenshaw/LAX Transit Corridor to connect with the future Airport Automated People Mover (APM) system being built and operated by the Los Angeles World Airports (LAWA). This new station (AMC) was to be implemented under stand-alone contracts, competitively procured, for design and construction, and be fully integrated with the operations of the CLAX Line once constructed.

During extensive coordination of rail and bus operations throughout the development of the AMC Station project design, concerns were raised by Metro Rail Communications Engineering, Systems Engineering, Operations, and IT Departments regarding the integration of the following systems to the CLAX Line:

- Rail Operations Systems - Rail Car and Track Operations
- Rail and Bus Communications (TPIS, VMS, Public Address, Fire Alarm)
- Rail and Bus Security - Specifically security cameras and access controls
- Future Maintenance for these Systems

To meet these concerns, the 100% design and construction documents for the AMC Station have been fully coordinated with the required single-source components included within; however, specific Board approval to do so is required.

DISCUSSION

The justification for this single source procurement is based on avoiding current and future operational difficulties, including safety and security conflicts with the CLAX Line during both the construction of the AMC Project and the final use of the Station once open for public operations. The procurement of standardized systems equipment by the AMC Contractor, as prescribed in the contract documents, will provide secure and stable transition and operations of the following in delivering the AMC Project:

- Integration of Rail Communications, Rail and Rail Car Programming, Fire Alarm Systems to the current CLAX Line and Southwest Yard Maintenance Facility (SWY), for the temporary transfer and operations of the CLAX rail service during AMC construction;
- Continuity and stabilization in the integration and performance of systems for the final AMC Station to the CLAX Line and Metro Systems overall;
- Fully integrated Station Security between two distinct security systems (Metro Rail and Metro Bus);

The AMC Project Team is confident that these conditions can only be addressed with the procurement of specific equipment and related operating systems established on the CLAX Line.

A list of the specific components and systems equipment included within the IFB and this Board action is included as Attachment A. During construction of the AMC project, Metro Project Management, in coordination with Vendor/Contract Management, will review and accept all project equipment submittals to ensure proper compliance with the plans and specifications and this board action.

DETERMINATION OF SAFETY IMPACT

Approval of this action and the award of the AMC construction contract will result in a positive impact on safety by avoiding operations, safety and security conflicts with the CLAX Line. The installation of these bus and rail communication systems and security system, will ensure safe and uninterrupted service during the construction of the AMC Project and the final use of the Station once open for public operations.

FINANCIAL IMPACT

This board report seeks Board approval for sole source systems and equipment which are to be acquired by the contractor(s) and/or subcontractor selected to work on the AMC project. The cost of the systems and equipment is to be incorporated as part of the construction contract bid price. FY21 budget includes funds for this effort. Details will be provided at the time of contract award as the procurement is currently in blackout phase. Since this is a multi-year contract, the cost center manager, project manager, and Chief Program Management Officer will ensure that all related costs are budgeted in future fiscal years.

Impact to Budget

Airport Metro Connector is funded through Measure R Transit 35%, Measure M Transit 35%, and state grant SB1. These funds are not eligible for bus or rail operations.

..Implementation_Of_Strategic_Plan_Goals

IMPLEMENTATION OF STRATEGIC PLAN GOALS

This action directly supports the Project which is consistent with Metro's Strategic Plan Goals to enhance communities and lives through mobility and access to opportunity. By increasing capacity at the station, better integrating rail service to the APM, and creating a more intuitive and efficient passenger experience, the Project seeks to better connect residents to a wider range of regional employment, travel, and cultural opportunities.

ALTERNATIVES CONSIDERED

The Board may choose not to approve the single source procurement method and proceed with a competitive bid. The competitive procuring of the specific rail operations, rail and bus communications and security systems equipment is not recommended since it does not provide the assurance that fully compatible equipment will be installed. This may lead to operations, safety and security conflicts with the CLAX Line, causing costly delays and costs to the Project in both the near term construction and the long term future operations of the AMC Station.

NEXT STEPS

Upon Board approval, staff will proceed with amending the IFB to provide for the single source procurement of systems equipment and third-party systems design.

ATTACHMENTS

Attachment A - Description of requested equipment

Prepared by:

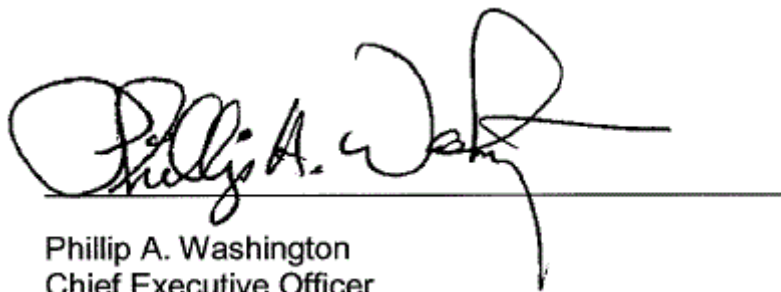
Paul Whang, Senior Director, Engineering, Program Management, (213) 922-4705;

Tim Lindholm, Senior Executive Officer, Program Management, (213) 922-7297

Reviewed by:

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

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



Phillip A. Washington
Chief Executive Officer



Interoffice Memo

Date	August 28, 2020
To	Debra Avila Chief, Vendor/Contract Administration
From	Paul Whang Senior Director, Engineering
Subject	Single Source Equipment List: AMC Station Project Rail and Bus Operations, Communications and Security Systems

Description of Equipment and Services Requested

The AMC Project requests the following single-source equipment and design:

- Rail Communications Equipment
 1. ADM Fiber WAN: Fujitsu FW9500
 2. Transit Passenger Information System (TPIS):
 - a. B&C Nucleus ROC headend software
 - b. SCU- HP DL380 Gen 10 Server
 - c. Application Servers - HP DL380 Gen 10
 - d. Workstations - Dell Optiplex 7060
 - e. VMS - AF-6700-32x144-8-A-DF
 - f. BSS Soundweb audio routing and processing hardware. This was one of the primary sole source request that triggered the re-design effort in November 2019.
 - g. Advantech PCIE-1730 Digital I/O card
 - h. Crown DCI 8|600DA Power amplifiers
 - i. RDL RM-MP12a Monitor Panel
 3. CCTV:
 - a. Video management software AKA ROC CCTV headend using Video Insight (VI) by Panasonic
 - b. Lenovo hardware
 - c. Axis Cameras
 4. Public Address System
 - a. BSS Soundweb (Harmon) audio routing and processing hardware
 - b. Bogen Zone Paging Controller PCM Series
 - c. Crown DCI 8|600 Amplifiers
 - d. JBL loudspeakers
 - e. Viking FXI-1 telephone interface

- f. RDL RM-MP12a Monitor Panel
 - g. HP DL380 Gen 10 Server for the SCU
 - 5. Telephone:
 - a. Cisco Unified Communications Manager to provide voice-over-IP network.
 - 6. Emergency Management Panel (EMP):
 - a. EMP consists of TPIS, CCTV, SCADA, Telephone and Fire Alarm system which rely on ARINC/ B&C Nucleus/ Video Insight proprietary systems as listed above.
 - 7. Seismic:
 - a. QMI-2600 provide station seismic alarms to SCADA server (ARINC AIM).
 - 8. Radio:
 - a. Icom's digital land mobile radio system that uses the NXDN™ common air interface.
 - Bus Communications Equipment
 - 1. Enterprise Layer 3 (Routers) and Layer 2 (Switches) Networking
 - a. Cisco Systems 9200 Series (IDF) Switches
 - b. Cisco Systems 9400 Series (Core) Switch
 - c. Cisco Systems 9500 Series Integrated Service Router
 - 2. Enterprise Telephone System
 - a. Cisco Systems IP VoIP 8800 Series Telephones
 - b. Cisco Systems VG320 Analog Gateway
 - c. Talkaphone VOIP 500 Series Hands-Free Telephones
 - d. Viking FXI-1 telephone interface
 - 3. Public Address System
 - a. Bogen Zone Paging Controller PCM Series
 - b. Bogen 70V Amplifiers
 - c. Bogen Outdoor Rated 70V Speakers
 - 4. Enterprise Wi-Fi 802.11 Networking
 - a. Hewlett Packard (HP) Aruba 320 Series Access Points
 - b. Hewlett Packard (HP) Aruba 370 Series Access Points
 - 5. Bus Transportation Passenger Information System
 - a. PCEnclosures LCD Guardian 42" Series NEMA Enclosure with AC Unit
 - b. Extron FOXBOX TX/RX Single Mode HDMI Extender
 - c. Transition Networks Single Mode Ethernet Media Converter
 - d. Azulle Access Plus Windows 10 Pro Fanless Mini PC Stick
 - 6. Campus Time and Date Clock
 - a. Primex ClassicSync 72MHz Transmitter 5Watt and 1Watt
 - b. Primex Digital Clock Levo Series
 - b. Security and SCADA Systems
 - 1. Access Control and Intrusion Detection System
 - a. Sielox Pinnacle Controller

- b. Sielox Pinnacle Aegis2 Software
 - c. HID Badge Readers
- 2. Close Circuit Television Surveillance
 - a. Bosch Autodome IP Starlight 5000i Cameras
 - b. Bosch DIVAR IP 7000 3U 12TB Network Video Recorder
 - c. Bosch BVMS Viewer Software
 - d. Berk-Tek OneReach POE Extender System
- 3. Access Control and Intrusion Detection System
 - a. Sielox Pinnacle Controller
 - b. Sielox Pinnacle Aegis2 Software
 - c. HID Badge Readers
- 4. Land Mobile Radio
 - a. UHF Tait TB9400 Base Station
- 5. SCADA System:
 - a. GE PACSystems RX3i controller
 - b. GE IC695PSA140 power supply
 - c. GE IC695ACC302 auxiliary smart battery model
 - d. GE IC694MDL660 discrete input modules
 - e. GE IC694MDL754 discrete output modules
 - f. GE IC695ETM001 EtherNet/IP module
 - g. GE IC695CMM002/4 serial communication module
 - h. Antaira LNX-1002G-SFP-T Ethernet switch
 - i. Phoenix Contact 2900313 and 2900299 interposing relays
 - j. Phoenix Contact 2296692, 2296715, 2296744 pre-manufactured field interface cables

General Note: With the scheduled duration of the construction, it is likely that advances will be made to the components listed above by the time of submittals and eventually, installation. Contractor to proceed with the most advanced generation of the above units that will best integrate with the CLAX Systems at the time of installation.



Board Report

File #: 2020-0647, File Type: Oral Report / Presentation

Agenda Number: 31.

CONSTRUCTION COMMITTEE OCTOBER 15, 2020

SUBJECT: PROGRAM MANAGEMENT MAJOR PROJECT STATUS REPORT

ACTION: ORAL REPORT

RECOMMENDATION

RECEIVE oral report on the Major Project Status by the Chief Program Management Officer.

DISCUSSION

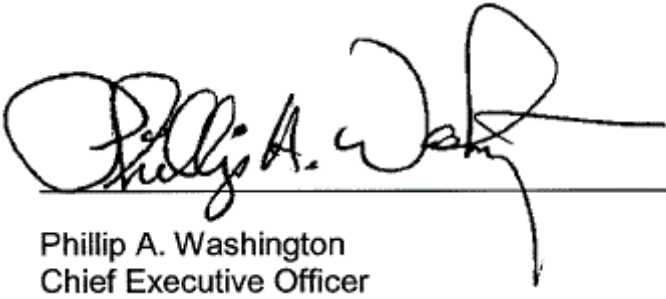
Update report covering the month of October 2020 by the Chief Program Management Officer.

ATTACHMENTS

Attachment A - Program Management Major Project Status Report

Prepared by:

- **Crenshaw/LAX** - Sameh Ghaly, Sr EO Project Mgmt., (213) 418-3369
- **Regional Connector** - Gary Baker, EO Project Mgmt., (213) 893-7191
- **Westside Purple Line Ext 1** - James Cohen, EO Project Mgmt., (213) 922-7911
- **Westside Purple Line Ext 2** - Michael McKenna, EO Project Mgmt., (213) 312-3132
- **Westside Purple Line Ext 3** - Kimberly Ong, EO Project Mgmt., (323) 903-4112
- **Patsaouras Plaza Busway Station** - Timothy Lindholm, EO Project Engr., (213) 922-7297
- **Willowbrook/Rosa Park Station** - Timothy Lindholm, EO Project Engr., (213) 922-7297
- **I-210 Barrier Replacement** - Androush Danielians, EO Project Engr., (213) 922-7598
- **I-5 North** - Abdollah Ansari, Sr EO Construction & Engr., (213) 922-4781
- **I-5 South** - Abdollah Ansari, Sr EO Construction & Engr., (213) 922-4781
- **Presentation** - Yohana Jonathan, Princ. Prog. Mgmt. Analyst, (213) 418-3031



Phillip A. Washington
Chief Executive Officer

Program Management Major Project Status Report

Presented By

Richard Clarke

Chief Program Management Officer





















October 2020

Construction Committee

Los Angeles County Metropolitan Transportation Authority



PROJECT BUDGET & SCHEDULE STATUS SUMMARY CHART

Project	Cost Performance	Schedule Performance	Comments
Crenshaw/LAX			Project is 96.4% complete. Contractor needs to increase work force to achieve substantial completion by December 2020. Revised forecast for revenue operations to 2021.
Regional Connector			Project is 70% complete and proceeding on schedule and within budget.
Westside Purple Line Extension-Section 1			Project is 64% complete. Reviewing any impacts differing site conditions and third party requirements may have on the project schedule.
Westside Purple Line Extension-Section 2			Project is 36% complete and proceeding on schedule and within budget.
Westside Purple Line Extension-Section 3			Project is 14% complete and proceeding on schedule and within budget.
Patsaouras Plaza			Project is 95% complete and Substantial Completion is anticipated to be achieved in mid October 2020.
Willowbrook/Rosa Parks Station			'A' Line Platform/Mezzanine and Vertical Circulation punch list work ongoing while station is in operation. Customer Center, Mobility Hub + Public Plaza and promenade finalizing preparations for turnover to Metro. Package B grading and utility work ongoing. Southern Ped Crossing opened September 15, 2020.
I-210 Barrier Replacement			Project 1 Final PS&E Package under review, Caltrans approval anticipated in Oct 2020. Development of the Project 2 PSR-PR is underway. PSR-PR for Project 2 is expected to be completed in August 2021.
I-5 North: SR 118 to SR 134			Segment 1 and 2 are completed. Segment 3 (Empire Ave & Burbank) is 84% complete. Segment 4 (Magnolia to SR-134) is 97% complete and began the plant establishment phase on June 1, 2020.
I-5 South: Orange County Line to I-605			Segments 1, 3, and the Carmenita Interchange are completed. Segment 2 (Valley View) is 68% complete. Segment 4 (Imperial) is 97% complete and began the plant establishment phase on Jan 31, 2020. Segment 5 (Florence) is 90% complete.

October 2020

Construction Committee

Los Angeles County Metropolitan Transportation Authority



On target



Possible problem



Significant Impact



Metro 2

CRENSHAW/LAX TRANSIT PROJECT

◆ BUDGET

	<u>Current</u>	<u>Forecast</u>
TOTAL COST	\$2,148M	\$2,148M

▲ SCHEDULE

	<u>Current</u>	<u>Forecast</u>
REVENUE OPERATION	May 2021	TBD - 2021

- Overall Project Progress is 96.4% complete.
- Contractor continues work at all stations and street work restoration/landscaping across Project.
- Concerned that contractor is still not applying sufficient work force to complete their remaining work including critical systems installations and testing by December 2020.



LEIMERT PARK STATION – Continue installing art glass panels around the main entrance canopy structure at the plaza level.



MARTIN LUTHER KING JR. STATION – Continue installing conduit for landscape lighting throughout the plaza level.

October 2020



On target



Possible problem



Significant Impact

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Metro 3

REGIONAL CONNECTOR TRANSIT PROJECT

BUDGET

	<u>Current</u>	<u>Forecast</u>
TOTAL COST	\$1,816M	\$1,816M

SCHEDULE

	<u>Current</u> Summer/Fall 2022	<u>Forecast</u> Summer/Fall 2022
REVENUE OPERATION		

- Overall Project Progress is 70% complete.
- Little Tokyo/Arts District Station & Surrounding Area:** Final preparations underway for decommissioning Gold Line Little Tokyo/Arts District Station scheduled to begin October 24th.
- Historic Broadway Station:** Entrance structure construction advancing as planned.
- Grand Av Arts/Bunker Hill Station:** Structural concrete, MEP and systems installation continues throughout the Station.
- Flower Street:** Installation of final walls and roof continue for tie-in to 7th/Metro Station.



Stainless steel elevator frames at platform level at Historic Broadway Station



Pre-heating process for Orgo-Thermite rail welding

October 2020



On target



Possible problem



Significant Impact

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Metro 4

WESTSIDE PURPLE LINE EXTENSION – SECTION 1

BUDGET

	<u>Current</u>	<u>Forecast</u>
TOTAL COST*	\$3,354M	\$3,354M

* Includes Board approved LOP budget plus finance costs.

SCHEDULE

	<u>Current</u>	<u>Forecast</u>
REVENUE	Fall	Fall
OPERATIONS	2024 (FFGA)	2023

- Overall Project Progress is 64% complete.
- Wilshire/Western Retrieval Shaft:** Continued support of Reach 1 cross passage construction. Break through into Wilshire/Western Station continues.
- Wilshire/La Brea Station:** Station structure concrete work continues including 2nd lift exterior walls and concrete roof placement . Concrete for the first set of permanent stairs was placed on September 4, 2020.
- Wilshire/Fairfax Station:** The first concourse concrete placement (Block 10) occurred on August 22, 2020. Entrance plaza structure and appendage work continue.
- Wilshire/La Cienega Station:** Structural concrete placement continues. The first 2nd lift wall placement in the high bay area (Block 10) was completed on September 11, 2020.
- Tunneling:** As of September 13, 2020, the Purple TBM (Elsie) has mined 1,992 feet (61% complete) and the Red TBM (Soyeon) has mined 1,734 feet (53% complete) of the Reach 3 tunnel.
- Reach 1 Tunnel Cross Passages (CP):** 6 out of 12 cross passages have been excavated. Concrete placement of the 1st cross passage is complete (CP #11). Work continues at all other cross passages. Completion is anticipated in February 2021.
- Reviewing any impacts differing site conditions and third party requirements may have on the project schedule.



Wilshire/Fairfax Station Concourse Concrete



Roof Shoring Frames at Wilshire/La Cienega Station

October 2020

Construction Committee

Los Angeles County Metropolitan Transportation Authority



On target



Possible problem



Significant Impact



Metro⁵

WESTSIDE PURPLE LINE EXTENSION – SECTION 2



BUDGET

	<u>Current</u>	<u>Forecast</u>
TOTAL COST*	\$2,530M	\$2,530M

* Includes Board approved LOP budget plus finance costs.



SCHEDULE

	<u>Current</u>	<u>Forecast</u>
REVENUE OPERATION	Winter 2026 (FFGA)	Summer 2025

- Overall Project progress is 36% complete.

Century City Constellation Station

- Pile installation in Constellation Boulevard west of the launch box is anticipated to be complete by November 2020.
- Decking operations west of the launch box are anticipated to be completed by Thanksgiving 2020.

Wilshire/Rodeo Station

- Excavation of the station box was 50% completed as of late September 2020.

Tunneling

- The abandonment of the two legacy oil wells by BHUSD's contractor is ongoing with oversight by CalGEM. Both wells are in the path of the BR tunnel. Abandonment of the first well was completed in September 2020.
- The BL TBM (Ruth) entered the tunnel access shaft in September 2020.
- The re-launch of the BR TBM (Harriet) will occur after completion of the oil well abandonment work by BHUSD.
- Tunneling operations will be transitioned to the access shaft after each TBM passes through the shaft.



BL TBM "Ruth" at Tunnel Access Shaft



Excavation of the Wilshire/Rodeo Station

October 2020



On target



Possible problem



Major issue

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Metro 7

WESTSIDE PURPLE LINE EXTENSION – SECTION 3

OK BUDGET		
	<u>Current</u>	<u>Forecast</u>
TOTAL COST*	\$3,611M	\$3,611M

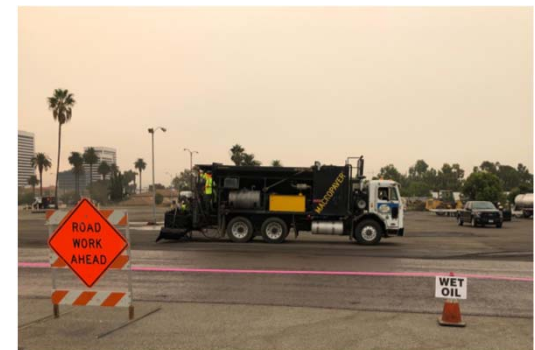
* Includes Board approved LOP budget plus finance costs.

OK SCHEDULE		
	<u>Current</u>	<u>Forecast</u>
REVENUE OPERATION	Winter 2028 (FFGA)	Spring 2027

- Overall Project progress is 14% complete
- Final design progress is 68% complete
- **C1151 Tunnel Contract**
 - TBM No.1 has been assembled in the tail track exit shaft (launch shaft); starter gantry to follow.
 - TBM launch seal and headwall are complete.
 - Southern California Edison completed their work to provide power to operate the TBMs.
 - Fabrication of tunnel precast concrete liners are ongoing.
 - Installation of instrumentation and monitoring equipment are ongoing.
- **C1152 Stations, Trackwork, and Systems Contract**
 - Final design is ongoing.
 - Relocation of the Stone Canyon Storm Drain at the Westwood/UCLA Station parking Lot 36 site has been completed.
 - VA parking lots refurbishment for temporary displaced parking during construction and electrical service conduit for the station is ongoing.
- **Other Third Party Utility Relocation Work**
 - Joint trench for combining Verizon and Frontier telecommunications remaining work, cable pulling/splicing, is anticipated to complete by October 30, 2020.



TBM Assembly at Base of Excavated Tail Track Exit Shaft



Paving Refurbishment at VA Parking Lot 3

October 2020



On target



Possible problem



Significant Impact

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Metro 7

PATSAOURAS BUS PLAZA STATION

OK BUDGET		
	<u>Current</u>	<u>Forecast</u>
TOTAL COST	\$50.9M	\$50.9M

◇ SCHEDULE		
	<u>Current</u>	<u>Forecast</u>
SUBSTANTIAL COMPLETION	Summer 2020	Fall 2020

- Overall project progress at approximately 98% complete.
- Substantial Completion anticipated mid October 2020.
- Outstanding contractual disputes resolved with Contractor.



Pedestrian Overcrossing to Patsaouras Bus Plaza



Pedestrian Ramp with Public Art Component



Pedestrian Ramp to Platform

October 2020



On target



Possible problem



Significant Impact

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Metro 8

WILLOWBROOK/ROSA PARKS STATION

OK BUDGET

	<u>Current</u>	<u>Forecast</u>
TOTAL COST	\$128.4M	\$128.4M

OK SCHEDULE

	<u>Current</u>	<u>Forecast</u>
SUBSTANTIAL COMPLETION	March 2021	March 2021

- Package A: Customer Center, Mobility Hub and Public Plaza are substantially complete and in preparations for turnover to Metro September/early October. Southern pedestrian crossing completed and open to the public as of September 15, 2020.
- Package C: Final Finishes, Systems (Variable Message Sign, TAP) and Vertical Circulation punch list work ongoing while Station is in Operations. North end of mezzanine and stair to C Line platform construction near completion and scheduled to be open to the public end of September.
- Package B: Package B grading ongoing with underground utility work started. Bus Operations and Communications coordinated for move of bus service to temporary bays near southern ped crossing when southern crossing opens. This will free up the entire Package B area for construction.



Grading Work @ Package B



Work at West C Line Entrance



Mobility Hub, Customer Service Building and Public Plaza substantially complete



October 2020



On target



Possible problem



Significant Impact

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Metro 9

I-210 BARRIER REPLACEMENT PROJECT

OK BUDGET		
	<u>Current</u>	<u>Forecast</u>
TOTAL COST	\$22.54M	\$22.54M
	Design	Design

OK SCHEDULE		
	<u>Current</u>	<u>Forecast</u>
Complete Design (Proj 1)	Oct 2020	Fall 2020
Complete Design (Proj 2)	Jan 2022	Winter 2022

- Project 1: Segment from Michillinda to Iconic Bridge – Project 1 Final PS&E Package is under review. Metro anticipates Caltrans approval in October 2020.
- Project 2: Segment from west end of the project to Michillinda – Development of Project Report for Project 2 is underway. Project 2 PSR-PR is expected to be completed in August 2021.



Newly Installed Caltrans Freeway Sign



Incident in 2014



Newly Installed Speed Limit Sign

October 2020



On target



Possible problem



Significant Impact

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Metro 10

I-5 Construction Projects (By Caltrans)



October 2020
Construction Committee
Los Angeles County Metropolitan Transportation Authority

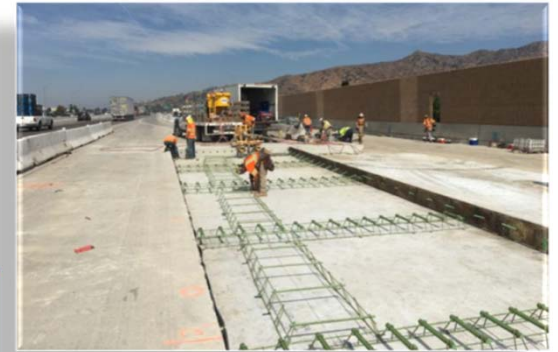
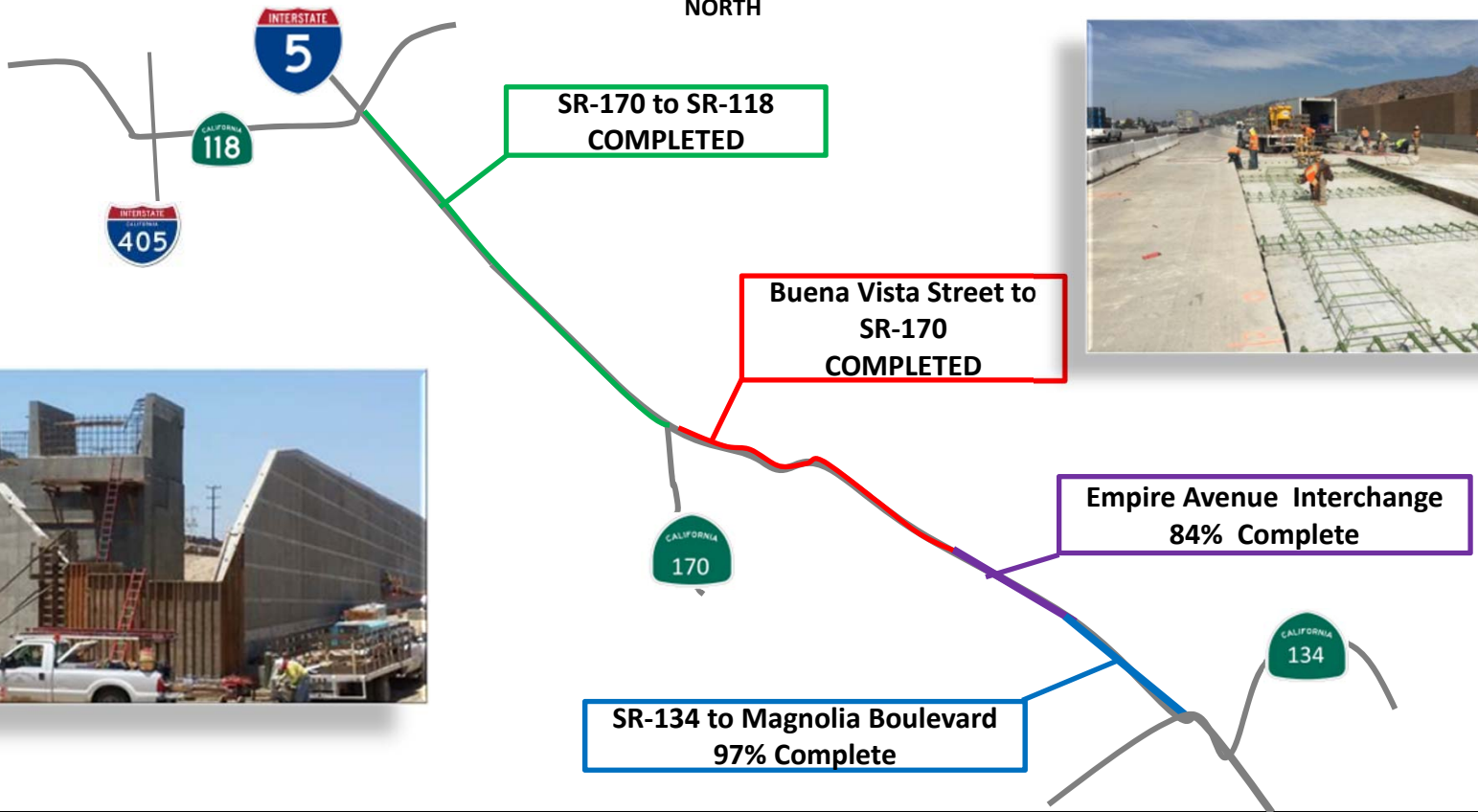


I-5 NORTH: SR 118 TO SR 134



! BUDGET		
TOTAL COST	Current	Forecast
	\$880.9M	\$930.2M*

! SCHEDULE		
ANTICIPATED PROJECT COMPLETION	Current	Forecast*
	Summer 2022	Winter 2022



October 2020



On target



Possible problem



Significant Impact

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Metro 12

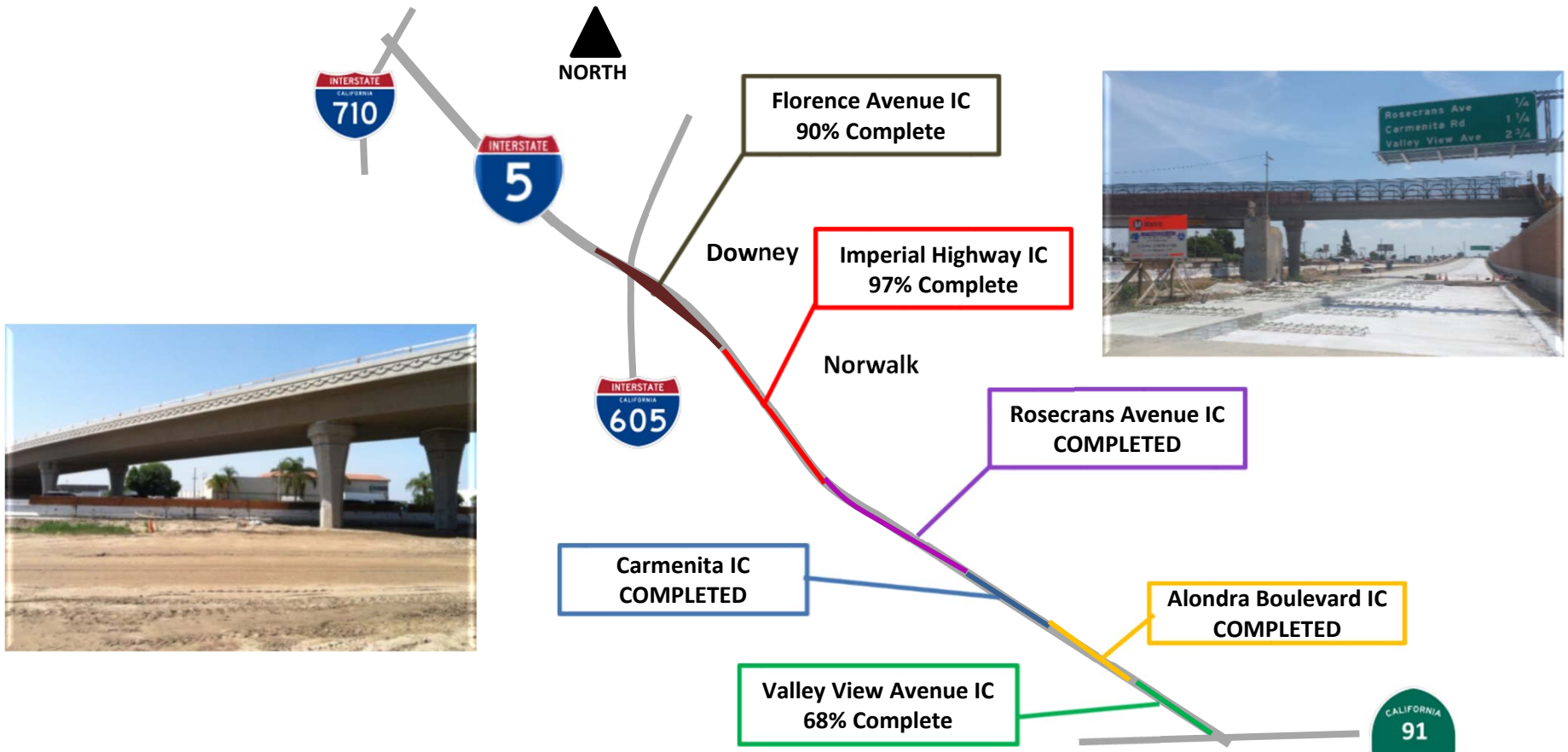
* Risk Analysis, Aug 2020

I-5 SOUTH: ORANGE COUNTY LINE TO I-605



OK BUDGET		
	Current	Forecast
TOTAL COST	\$1.888B	\$1.888B*

◇ SCHEDULE		
ANTICIPATED PROJECT COMPLETION	Current	Forecast*
	Fall 2022	Winter 2022



October 2020

Construction Committee

Los Angeles County Metropolitan Transportation Authority



On target



Possible problem



Significant Impact



Metro 13

* Risk Analysis, Aug 2020



Board Report

File #: 2020-0674, **File Type:** Informational Report

Agenda Number: 33.

**CONSTRUCTION COMMITTEE
OCTOBER 15, 2020**

SUBJECT: PROGRAM MANAGEMENT QUARTERLY CHANGE REPORT

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE status report on Program Management Quarterly Change Report.

BACKGROUND

At the January 26, 2018 Board meeting, the Board approved the continuation and expansion of the delegation of authority within Life of Project (LOP) budget management on all Transit and Regional Rail Capital Projects. Staff was directed to provide quarterly reports to the Board on change orders and modifications that are above \$500,000.

DISCUSSION

The change activities for the reporting period between June 1, 2020 and August 31, 2020 are included in Attachment A.

FINANCIAL IMPACT

The changes included in this report are included in the approved life-of-project budget for each project.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Recommendation supports strategic plan goal # 5 to provide responsive, accountable, and trustworthy governance within the Metro organization by keeping the Board informed of the Projects' change orders and modifications via submitting the Change Order log on a quarterly basis.

NEXT STEPS

The next Change Order Log will cover the period of September 1, 2020 to November 30, 2020 and will be presented to the January 2021 Construction Committee.

ATTACHMENTS

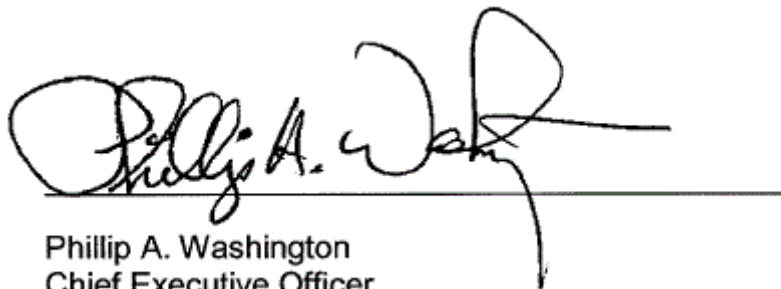
Attachment A - Quarterly Change Orders Report for Reporting Period of June 1, 2020 - August 31, 2020.

Prepared by:

- **Crenshaw/LAX** - Sameh Ghaly, Sr. EO Project Mgmt., (213) 418-3369
- **Regional Connector** - Gary Baker, EO Project Mgmt., (213) 893-7191
- **Westside Purple Line Ext 1** - James Cohen, EO Project Mgmt., (323) 900-2114
- **Westside Purple Line Ext 2** - Michael McKenna, EO Project Mgmt., (424) 551-4447
- **Westside Purple Line Ext 3** - Kimberly Ong, EO Project Mgmt., (424) 551-4501
- **Division 20 Portal** - Rick Meade, Sr. EO Project Mgmt., (213) 922-7917
- **Patsaouras Plaza** - Timothy Lindholm, Sr. EO Project Mgmt., (213) 922-7297
- **Sound Wall Package 11** - Timothy Lindholm, Sr. EO Project Mgmt., (213) 922-7297
- **Report** - Brian Boudreau, Sr. EO Program Control, (213) 922-2474

Reviewed by:

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



Phillip A. Washington
Chief Executive Officer

CRENSHAW/LAX TRANSIT PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (June 1, 2020 - August 31, 2020)

Change Types:

1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety

A. DESIGN BUILD CONTRACT - Contract No. C0988 - WALSH SHEA CORRIDOR CONSTRUCTORS

MOD/CHANGE #	DESCRIPTION <small>(if the change is a unilateral, explain in BOLD fonts that is why this is unilateral and a modification will follow upon negotiation is finalized between Contractor and Metro).</small>	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
MOD-00485	<u>Case 5 Bedding Required by LABOE:</u> Contractor shall provide labor, material, equipment to install Case 5 bedding in-lieu of Case 2 and Case 1 bedding for City of Los Angeles owned sewers and storm drains along the at-grade portions of the Project and for Case 5 bedding in lieu of Metro Rail Standard Drawing US-014 for City of Los Angeles owned sewers and storm drains at the underground stations.	1	5/11/2020	7/10/2020	\$ 740,664.00	\$ 687,500.00
MOD-00498	<u>Security Guard at Arlington Yard and Crenshaw IPMO (RFC-00674 and 00675):</u> Funding for Year 7 in the amount of \$311,712.00 + 1% bond cost of \$3,117.12 = \$314,829.12 to cover costs for armed security guard seven (7) days a week in three (3) eight (8) hour shifts per day. This twenty-four (24) hours security coverage at Arlington Yard and Crenshaw/LAX IPMO is for July 1, 2020, through June 30, 2021.	7	7/29/2020	8/20/2020	\$ 629,568.00	\$ 629,658.00

B) PROFESSIONAL SERVICES CONTRACTS

MOD/CHANGE #	DESCRIPTION <small>(if the change is a unilateral, explain in BOLD fonts that is why this is unilateral and a modification will follow upon negotiation is finalized between Contractor and Metro).</small>	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
MOD-00049.1	<u>(Mott MacDonald) Add Funding and Extend Crenshaw/LAX Phase III DSDC and Phase IV Systems Activation:</u> The existing funding level is extended for Phase III Design Services During Construction (DSDC) and Phase IV Systems Activation for the Crenshaw/LAX	5	7/14/2020	7/28/2020	N/A	\$ 4,416,554.00

C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACT - Contract MC069 - STANTEC CONSULTING, INC.

MOD/CHANGE #	DESCRIPTION	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
MOD-00019	<u>CWO 16 Construction Management Support Service (CMSS) - Additional Funding:</u> The estimated cost of CWO 16 has been revised and the period of performance has been extended through June 30, 2021. The funds allotted and authorized for expenditure is increased by \$6,800,000.	5	N/A	6/23/2020	N/A	\$ 17,924,430.40

II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (June 1, 2020 - August 31, 2020)

Change Types:

1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety

A) DESIGN BUILD CONTRACT - Contract No. C0988 - WALSH SHEA CORRIDOR CONSTRUCTORS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
CO-00270 cancels & supersedes CO- 00564.1	<u>Park Mesa Heights Paving:</u> Delete and credit to Metro all mid-block paving through PMH between 48th St. and 60th St., including all remaining paving between the intersections. Delete and credit to Metro all remaining adjustments to manholes, handholes, etc., falling within the limits of the deleted paving.	5	Credit between \$1M and \$5M

B) PROFESSIONAL SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACT - Contract MC069 - STANTEC CONSULTING, INC.

MOD/CHANGE #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

REGIONAL CONNECTOR TRANSIT PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (June 1, 2020 - August 31, 2020)

Change Types:

1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety

A. DESIGN BUILD CONTRACT - CONTRACT NO. C0980 - REGIONAL CONNECTOR CONSTRUCTORS

MOD/CHANGE #	DESCRIPTION	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
C0980-MOD-00173	2nd and Broadway Structural Re-Analysis, Load Transfer System, and Relocated Stairway/Shafts – Design Only	5	6/19/2020	6/29/2020	\$ 612,939.00	\$ 612,939.00
C0980-CO-0034	Replacement of DWP Conduits and Manholes on Flower St between 5th and 6th Street	5	N/A	7/20/2020	TBD	\$ 500,000.00

B. PROFESSIONAL SERVICES CONTRACT

MOD/CHANGE #	DESCRIPTION	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					

C. OTHER AGREEMENTS

MOD/CHANGE #	DESCRIPTION	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					

II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K

A. DESIGN BUILD CONTRACT - CONTRACT NO. C0980 - REGIONAL CONNECTOR CONSTRUCTORS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
C0980-CN-00183	DWP Switch Room 1/C & 2/H-Construction	5	Between \$500K and \$1M

B. PROFESSIONAL SERVICES CONTRACTS

Design Support Services During Construction

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

D. OTHER AGREEMENTS

MOD/CHANGE #	DESCRIPTION	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					

WESTSIDE PURPLE LINE EXTENSION, SECTION 1 PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (June 1, 2020 – August 31, 2020)

A. DESIGN BUILD CONTRACT - CONTRACT NO. C1045 - SKANSKA-TRAYLOR-SHEA, A JOINT VENTURE							
Change Types: 1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety							
MOD/CHANGE #	DESCRIPTION <small>(if the change is a unilateral, explain in BOLD fonts)</small>	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount	
MOD 111	Wilshire/Fairfax - Paleo Zone Modified Limits (CN-00126.1): The contract required that the Wilshire/Fairfax Station excavation in the identified paleo zone be restricted to six inch lifts to allow for identification and protection of any paleo artifacts. The actual paleo zone identified by the Metro paleontology consultant was more extensive than anticipated in the base contract.	3	4/28/2020	6/2/2020	\$ 9,518,396.00	\$ 4,917,392.00	
MOD 115	LADWP Room Change at La Brea and Fairfax Stations (CN-00106.2) - Engineering redesign was necessary to include recent LADWP switch and metering room requirements including additional man doors, overhead roll up doors, cables, conduits and drainage system.	4	5/7/2020	6/2/2020	\$ 753,717.00	\$ 642,681.00	
MOD 118	Wilshire/Western - Additional SOE Design Work Due to Deviation Request (CN-00084): Provides new/revised criteria that the Contactor must now use for the design and evaluation of the Support of Excavation (SOE) for the Wilshire/Western Retrieval Shaft.	5	8/4/2020	8/31/2020	\$ 572,152.00	\$ 520,032.00	
A. DESIGN BUILD CONTRACT - CONTRACT NO. C1078 - CLARK CONSTRUCTION GROUP							
	None						
B. PROFESSIONAL SERVICES CONTRACTS							
MOD 04	None	5	06/30/20	7/2/2020	\$ 664,283.00	\$ 652,039.00	
C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS							
	None						

II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (June 1, 2020 – August 31, 2020)

A. DESIGN BUILD CONTRACT - CONTRACT NO. C1045 - SKANSKA-TRAYLOR-SHEA, A JOINT VENTURE			
CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
CN-00161.1	<u>REACH 3 - Supplementary HDD Investigation at Wilshire/San Vicente Area</u> : As part of Metro's effort to mitigate TBM stoppage, Horizontal Direction Drilling (HDD) is performed at potential oil well locations, prior to the arrival of the TBMs, to ensure the tunnel envelope is clear. During HDD of the Wilshire/San Vicente Intersection area, an anomaly was discovered just outside the potential oil well zone. This CN allows the contractor to perform additional horizontal and vertical drilling investigations in this area.	5	Between \$500K - \$1M
CN-00164	<u>Chemical grouting at Wilshire/San Vicente Area</u> : This CN covers the cost to install two chemical grouting blocks within the tunnel envelopes of BR and BL tunnels at the Wilshire/San Vicente intersection. These grout blocks provide ground stabilization in the area of possible hand mining work that will occur in front of the TBM to remove potential metal anomalies within the tunnel envelope to avoid damage to TBM's cutting tool.	5	Between \$5M - \$10M

A. DESIGN BUILD CONTRACT - CONTRACT NO. C1078 - CLARK CONSTRUCTION GROUP			
	None		

B. PROFESSIONAL SERVICES CONTRACTS			
	None		

C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS			
	None		

WESTSIDE PURPLE LINE EXTENSION, SECTION 2 PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (June 1, 2020 - August 31, 2020)

Change Types:

1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety

A. DESIGN BUILD CONTRACT - CONTRACT No. C1120

MOD/CHANGE #	DESCRIPTION <small>(if the change is a unilateral, explain in BOLD fonts)</small>	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
MOD-00080	Demobilization and Remobilization due to COBH Moratorium: The C1120 design builder was required to comply with the City of Beverly Hills (COBH) holiday moratorium between Thanksgiving and New Year's Day, which was not a prior City policy, not a part of the contract package, and was negotiated into the Memorandum of Agreement (MOA). As part of the requirement, the COBH requested that all equipment, barriers, traffic control signs, and signals be removed from Wilshire Blvd and to restore the streets to their original state. The Contractor was also required to remove from the site or provide temporary storage for equipment and materials which do not fit in either of the two staging yards located at North Canon and Reeves.	5	1/31/2020	6/19/2020	\$ 1,854,510.00	\$ 1,698,253.00
MOD-00083	MOA Impact to WRS North Side Piling Work at City of Beverly Hills: The purpose of this Change was to compensate the contractor for impacts to piling operations on the north side of the Wilshire/Rodeo Station box, resulting from construction work restrictions in the City of Beverly Hills (COBH) Memorandum of Agreement (MOA). These restrictions were not included in the C1120 Contract because negotiations for the MOA for Section 2 of the Purple Line Extension were delayed by the City until the MOA for Section 1 was executed, which occurred after award of the C1120 Contract. The RFP for Section 2 was based on the draft final MOA for Section 1, however the City subsequently imposed additional restrictions for the Wilshire/Rodeo Station. Mitigation requirements included: restrictions to work hours, additional mitigation measures, lane closures and haul route restrictions.	5	6/17/2020	7/9/2020	\$ 827,507.00	\$ 823,903.00
MOD-00087	Resolution of Claim 11-Adjustment of Modification MOD-00005 Alternative for a Precast for Steel Special Tunnel Lining: The purpose of this Change was to adjust the final value of Value Engineering Proposal Modification 5 "Alternative for a Precast for Steel Special Tunnel Lining" (C1120-MOD-00005) by accounting for adjustments due to necessary changes from the original proposal which were a result of design development which could not have been foreseen at the time of the original Mod due to the unique and complex nature of the VECP.	5	6/24/2020	7/31/2020	\$ 2,654,890.00	\$ 2,533,545.00

B. PROFESSIONAL SERVICES CONTRACT

MOD/CHANGE #	DESCRIPTION	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					

II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (June 1, 2020 - August 31, 2020)

A. DESIGN BUILD CONTRACT - C1120			
CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

B. PROFESSIONAL SERVICES CONTRACTS			
CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
TBD	Continuation of Engineering Support Services during Construction for WPLE 2	5	TBD

C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS			
CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
TBD	Continuation of Construction Management Support Services for WPLE Section 2	5	TBD

D. OTHER AGREEMENTS			
MOD/CHANGE #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

WESTSIDE PURPLE LINE EXTENSION, SECTION 3 PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (June 1, 2020 - Aug 31, 2020)

Change Types:

1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety

A. DESIGN BUILD CONTRACT - CONTRACT No. C1151

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in BOLD fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
C1151-MOD-00004.1	Ground Water Treatment Plant Upgrades	3	N/A	6/30/2020	\$ 1,411,157.00	\$ 1,087,504.00
C1151-MOD-00005	Addition of Sepulveda Staging Area	5	N/A	7/31/2020	\$ 2,908,321.00	\$ 2,612,951.00

A. DESIGN BUILD CONTRACT - C1152

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in BOLD fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					

A. DESIGN BUILD CONTRACT - C1153

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in BOLD fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	Contract Closed					

B. PROFESSIONAL SERVICES CONTRACTS

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in BOLD fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					

II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (June 1, 2020 - August 31, 2020)

A. DESIGN BUILD CONTRACT - C1151

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
C1151-CO-00009	Raise Vertical Tunnel Alignment	7	\$1.0 M - \$2.0 M

A. DESIGN BUILD CONTRACT - C1152

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
C1152-CN-00014	Delete SCE Power Conduits at Const. Staging Area (Const)	5	(\$2.0M - \$3.0M) Credit

A. DESIGN BUILD CONTRACT - C1153

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	Contract Closed		

B. PROFESSIONAL SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

DIVISION 20 PORTAL PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (June 1, 2020 – August 31, 2020)

Change Types:
 1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety

A. DESIGN BID BUILD CONTRACT - CONTRACT NO. C1136 - TUTOR PERINI CORPORATION

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in BOLD fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					

A. DESIGN BID BUILD CONTRACT - CONTRACT NO. C1184 - C3M

	None					
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B. PROFESSIONAL SERVICES CONTRACTS -CONTRACT NO. AE66758000 T.Y.LIN INTERNATIONAL

	None					
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C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS- CONTRACT NO.MC074 ANSER ADVISORY MANAGEMENT LLC

4	One Santa Fe Tenant Improvement IPMO Office/CM support for additional Services				5	\$ 3,172,792.00
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II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (June 1, 2020 – August 31, 2020)

A. DESIGN BID BUILD CONTRACT - CONTRACT NO. C1136 - TUTOR PERINI CORPORATION

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
002	Temporary cleaning platform; transfer of scope from C1193 to C1136 and existing testing requirements	5	\$ 3,200,000.00
003	Long lead procurement (manholes and special trackwork)	5	\$ 720,000.00
005	Railroad Agreements	2	\$ 500,000.00

B. DESIGN BID BUILD CONTRACT NO. C1184 - C3M

	None		
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C. PROFESSIONAL SERVICES CONTRACTS- CONTRACT NO.AE66758000 T.Y.LIN INTERNATIONAL

	None		
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D. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS - CONTRACT NO.MCO74 ANSER ADVISORY MANAGEMENT LLC

6	Additional Labor provided to support MTA's Train Operations team	7	\$ 12,662,006.00
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PATSAOURAS PLAZA PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (June 1, 2020 - August 31, 2020)

Change Types:

1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety

A. DESIGN BUILD CONTRACT - C0970 Patsaouras Plaza Busway Station - OHL

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in BOLD fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					

II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (June 1, 2020 - August 31, 2020)

A. DESIGN BUILD CONTRACT - C0970 Patsaouras Plaza Busway Station - OHL

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
TBD	This Contract Modification represents the Settlement Agreement between Metro and the Contractor, OHL USA, Inc., to resolve the following items. 1) 2019/2020 Construction Delays 2) Potential Change Orders 3) Global Impact and Inefficiencies 4) Revised contract completion date	4	\$ 625,000.00

B. PROFESSIONAL SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		

**Board Report**

File #: 2020-0620, **File Type:** Informational Report**Agenda Number:** 34.

**CONSTRUCTION COMMITTEE
OCTOBER 15, 2020****SUBJECT: OFFICE OF THE INSPECTOR GENERAL CHANGE ORDER CONSTRUCTION SPOT CHECKS****ACTION: RECEIVE AND FILE****RECOMMENDATION**

RECEIVE AND FILE Office of the Inspector General Change Order Construction Spot Check Report for the period June 1 to August 31, 2020.

ISSUE

On January 25, 2018, the Metro Board directed the Office of the Inspector General (“OIG”) to conduct random spot checks on change orders for the projects listed in the quarterly program management report to ensure that the CEO Delegation of Authority to approve Construction Change Orders Policy is performing in the manner desired by the Board of Directors.

BACKGROUND

The OIG’s Construction Change Order Spot Check Program (“Spot Checks”) focuses on approved change orders and modifications that exceed \$500,000. The five change orders in this report were selected from the October 2020 Program Management Major Project Status Report covering June 1 to August 31, 2020. The information for the Spot Checks was collected from the Program Management Information System (PMIS) which is the department’s database system. Also, TEAM meetings and telephonic interviews were conducted with Metro Program Management, Project Control, and Procurement staff from each project office.

We found that all five of the change orders in this report were negotiated and executed more expeditiously than would have occurred pursuant to the former Board approval process, and all five were approved faster with the new delegation of authority. In addition all five change orders were negotiated at lower cost than the contractors’ proposed price. This quarter’s Spot Checks of change orders found the delegation of authority has resulted in:

- A negotiated amount that was less than the contractors’ proposed price for the work to be done,
- Enabled the contractor to immediately order parts and materials, reducing delay,
- Contractor and was able to continue working without stoppages related to these change

- orders, and
- Zero construction delay costs were incurred for these changes.

Each Spot Check summarizes the following areas:

- Description of the change order,
- Change order detail,
- Scope of Work,
- Budget,
- Schedule: Time to execute the change order, and
- Recommendations if any.

Metro's Program Control department will provide responses to the recommendations in this report of OIG Spot Checks within 30 days after this Board report. Included with this report is a separate spreadsheet of recommendations and the status of responses concerning former OIG Spot Check recommendations.

DISCUSSION

Spot Checks Performed in this Quarter

A. Spot Check #1 - Crenshaw/LAX Transit Corridor Project

This OIG Spot Check report concerns the Crenshaw/LAX Transit Corridor Project_(Contract C0988 MOD-00485) Case 5 Bedding Required by Los Angeles Bureau of Engineering (LABOE).

Change Order Detail

See Attachment A Spot Check #1 chart.

Summary #1

Scope of Work - This change order is for an additional requirement by Los Angeles Bureau of Engineering (LABOE) to increase supporting material for City owned sewers and storm drain utility pipes along the at-grade sections of the Crenshaw project and at the underground stations in lieu of the Metro rail standard amount and type of material.

The contract does not list the exact supporting material to be used, but it does reference Metro standard drawing US-014 "Backfill Operations" and states "type A", which provides limited supporting materials underneath the utility pipe. The materials required by LABOE is full concrete encasement placed under, around and over the top of the pipe which extends 5-inches minimum above the top of pipe. The City LABOE references a source for their standards, the Green book - Standard Specifications for Public Works Construction.

Prior to the award of this contract, bidders asked Metro whether this LABOE higher standard of supporting materials would be required. Metro's responses states that it would not be required and to use the Metro standard detail (this reference is found in pre-bid Q&A numbers 271 & 272).

Even though the request is made by LABOE, the Metro project management team decided not to pursue a betterment claim against the City for requiring this higher support standard as it was known to Metro prior to the contract award. The City has the responsibility to determine how the city's

utilities should be protected and therefore no betterment notification form was filed. The contractor is to provide all material, equipment, and labor to complete this modification.

Budget - The cost for this modification is \$687,500. The contractor's proposal was \$740,664. The independent cost estimate (ICE) was \$494,125. The award amount was \$53,164 (7.2%) less than the contractor's proposal. The negotiated amount was \$193,375 (39.1%) over the ICE. Staff has stated that funds for this change are within the approved Life-of-Project budget.

Schedule - The new CEO Delegation of Authority method was utilized for this modification. The agreed upon scope of work occurred on June 1, 2020. The modification was executed on July 10, 2020, and process was completed in 29 work-days. If the modification had gone to the August Board (July was a dark month with no meetings) for approval the process would have been 63 work-days later than under the CEO Delegated Authority method.

Recommendation - Since the 'Green book' states the support and materials for sewer and storm drain pipe are to be encased in concrete, the OIG recommends that the LA Metro rail standard drawing US-014, be updated to reflect the required City standard and Metro may negotiate with the LABOE to adopt a different standard for specific projects as warranted.

We further recommend, as discussed in previous reports, that Metro study the large discrepancies between the Metro ICE and the award amounts to determine if there is a method by which those discrepancies can be narrowed. This recommendation applies to many of the Spot Checks reviewed in this Report, and is based also on a Metro audit completed by the Management Audit Services Department that noted significant discrepancies in these amounts to be a frequent occurrence.

B. Spot Check #2 - Purple Line Extension Section 1 Transit Project

This OIG Spot Check report concerns the Purple Line Extension Section 1 Transit Project (Contract C1045 MOD-00111), Fairfax Paleo Zone Modified Limits

Change Order Detail

See Attachment A Spot Check #2 chart.

Summary #2

Scope of Work - This change order is to extend the limits of excavation downward at the Fairfax station. The reason for this change is this paleo geological zone is larger than what was anticipated in the contract.

During the excavation of the Fairfax station the Metro paleontologist precisely identified the paleo geological zone to be deeper than what was specified in the Geotechnical Baseline Report (GBR) of the original contract documents. Digging in this expanded zone was restricted to removal of 6-inches at a time to protect the potential artifacts and less likely to destroy fossils. This extra tedious excavation resulted in removal of approximately 50,000 cubic yards of dirt as compared to the original 19,000 cubic yards as stated in the GBR contract documents.

Budget -The cost for this modification is \$4,917,392. The contractor's proposal was \$9,518,316. The ICE was \$ 3,631,303. The award amount of \$4,600,924 was 48.3% less than the contractor's

proposal. The negotiated amount of \$1,286,089 was 35.4% over the ICE. Staff has stated that funds for this change are within the approved Life-of-Project budget.

Schedule - The CEO Delegation of Authority process was utilized for this modification. The agreed upon scope of work occurred on April 10, 2020. The modification was executed on June 2, 2020, and process was completed in 38 work-days. Under the prior Board approval method for change orders, assuming a June Board meeting date, it would have taken 55 work-days to complete the process.

Recommendation - The OIG recommends future GBR's include a more comprehensive underground site assessment to determine a better approximation of the marine and paleo geological layers. In this instance, a robust underground assessment would have avoided the costly change order. However, the additional excavation costs would have been included in the higher base bid value.

C. Spot Check #3 - Purple Line Extension Section 2 Transit Project

This OIG Spot Check report concerns the Purple Line Extension Section 2 Transit Project (Contract C1120 MOD-0080), Demobilization and Remobilization due to COBH Moratorium

Change Order Detail

See Attachment A Spot Check #3 chart.

Summary #3

Scope of Work - This change order compensates the contractor's cost to demobilize and remobilize within the City of Beverly Hills (COBH) for the new holiday moratorium.

COBH required the contractor to clear and restore their streets during the holiday season from Thanksgiving through New Year's Day. They required that all equipment, barriers, traffic control signs, lighting, signals, and pavement striping be removed from Wilshire Blvd. and to restore the streets to their original state. This holiday moratorium is not part of the municipal code, but it is a requirement of the Memorandum of Agreement (MOA) between Metro and COBH, which was not agreed upon nor incorporated into the Contract C1120 at the time of award. The request for proposal for the Contract was based on the requirements of the draft final MOA for Section 1 of the Purple Line Extension, which did not include a holiday moratorium from Thanksgiving through New Year's Day.

This new holiday moratorium imposes additional restrictions and costs on the contractor beyond the original Contract by prohibiting work in the public right of way during the moratorium. While it prohibits construction work above ground in the city streets, the moratorium does not stop work in the staging yards or under the deck.

Metro plans to request an exemption from this year's moratorium (2020/2021 holiday season), following the steps outlined in the MOA. The direct costs associated with demobilizing and remobilizing traffic control should be less than last year's cost because there are fewer traffic control devices on this section of the street, and the work is primarily underground. It is important for the exemption to be approved, for the truck loading zones associated with the section of street where excavation will be occurring.

Budget -This modification was negotiated and the award amount is \$1,698,253. The contractor's proposal was \$1,854,510 and the ICE was \$924,038. The award amount was \$156,257 (8.4%), under the contractor's proposal. The negotiated amount was \$774,215 (83.8%) over the ICE. Staff has stated that funds for this change are within the approved Life-of-Project budget

Schedule - The project procurement group confirmed that negotiations for MOD-0080 did take more internal and contractor discussion/document review than some of the other change actions. Additionally they stated that, "The additional effort ensured we were properly valuing a contract change." The new CEO Delegation of Authority process was utilized for this modification. The agreed upon scope of work occurred on January 31, 2020, but the negotiations to an agreed cost did not occur until June 10, 2020. The modification was executed on June 19, 2020, and was completed in 9 work-days. Under the prior Board approval method for change orders, assuming an August Board meeting date (July was a dark month for the board), it would have taken 56 work-days to complete the process.

Recommendation - The MOA between Metro and COBH imposes additional restrictions on Metro and adds costly change orders to the original contract.

The OIG recommends Metro adopts a standardized MOA for use in negotiations with all jurisdictions within Los Angeles County and utilizes this agreement for every construction project going forward in each respective jurisdiction and that budget estimates for projects should be revised as necessary to take into consideration MOAs entered into.

Spot Check #4 - Purple Line Extension Section 3 Transit Project

This OIG Spot Check report concerns the Purple Line Extension Section 3 Transit Project (Tunnels Contract C1151 MOD-0004.1), Increase Ground Water Treatment Plant Capacity at Tail Track Exit Shaft

Change Order Detail

See Attachment A Spot Check #4 chart.

Summary #4

Scope of Work - This change order requires the contractor to provide and install three additional wells and a second water treatment system for treatment of PCE (Perchloroethylene and Tetrachloroethylene) and copper, and dewater up to 1,000 gallons per minute. The contract calls for one onsite water treatment system to extract trace metals (copper) and PCE's, and process 330 gallons per minute of dewatering from the tail track excavation shaft.

The contractor performed several water tests which indicated a larger volume of groundwater and higher traces of copper levels and PCEs than expected that must be reduced to an amount required by the National Pollutant Discharge Elimination System (NPDES) permit

From these tests it was determined that the onsite water treatment system needs to be larger and more sophisticated to reduce the associated contaminants to below that required by the NPDES

permit.

Budget -This modification was negotiated and the award amount is \$1,087,504. The contractor's proposal was \$1,411,157 and the ICE was \$867,390. The award amount was \$323,653 (22.9%), under the contractor's proposal. The negotiated amount was \$220,114 (25.4%) over the ICE. Staff has stated that funds for this change are within the approved Life-of-Project budget.

Schedule - The CEO delegation of authority process was utilized for this modification. The agreed upon scope of work occurred on June 14, 2020. The modification was awarded on June 30, 2020, and was completed in 12 work-days. Under the prior Board approval method for change orders, assuming an August Board meeting date (July was a dark month), it would have taken an additional 53 work-days to complete the work.

Recommendation - It is the OIG's understanding that water pump tests and water quality tests were performed, but they were performed at the original location, the Army Reserve site, which is no longer the correct shaft location. Now the site is at the Veterans Administration property. A change in location can greatly affect both the levels and quality of the groundwater, thus increasing the revised dewatering process.

It is critical that the Real Estate Department be included at the earliest possible time in negotiating the property requirements for a project. Having to change location plans after a contract award can have significant scheduling and expense consequences.

Spot Check #5 - Purple Line Extension Section 3 Transit Project

This OIG Spot Check report concerns the Purple Line Extension Section 3 Transit Project (Tunnels Contract C1151 MOD-0005), Addition of Sepulveda Staging Area to Compensate VA Site Reduction

Change Order Detail

See Attachment A Spot Check #5 chart.

Summary #5

Scope of Work - Under a previous modification the tail track exit shaft parcel was moved from the Army Reserve property to the adjacent Veterans Affairs (VA) property. However, the VA property is smaller and the shared access road with the VA has reduced the contractor's construction staging area by 1.1 acres.

This change order is payment for the contractor to find and secure a property lease, not exceeding 2 acres in size, for the construction staging area for the contractor and subcontractors operations related to the work on the C1151 Tunnel Contract. The property must be located near the tail track exit shaft at the VA property. The lease will terminate at the project substantial completion.

The contractor has located a staging area property to lease along Sepulveda Blvd (north of the VA site) which has been proposed as the preferred location.

Budget -This modification was negotiated and the award amount is \$2,612,951. The contractor's

proposal was \$2,908,321 and the ICE was \$1,634,911. The award amount was \$295,370 (10.2%) under the contractor's proposal. The negotiated amount was \$978,040 (59.8%) over the ICE. Staff has stated that funds for this change are within the approved Life-of-Project budget.

Schedule - The new delegation process was utilized for this modification. The agreed upon scope of work occurred on June 29, 2020. The modification was awarded on July 31, 2020, and was completed in 24 work-days. Under the prior Board approval method for change orders, assuming an August Board meeting date, it would have taken an additional 43 work-days to complete the work.

Recommendation - The Purple Line Extension 3 was a 'next decade project' and was accelerated to be completed in the next 5 years with many project processes that had to be compressed to meet the schedule. We also understand that the real estate acquisition process is contingent on the funding being in place.

The real estate acquisition process and all other real estate arrangements must be negotiated as early as possible and negotiate those property rights strategically to ensure we have our real estate needs met at the earliest and least expensive manner possible.

FINANCIAL IMPACT

Report will have no Financial Impact to the agency.

Impact to Budget

For all of the construction change orders, Metro states the funds are within the approved budget, and will utilize the contingency funds to cover the costs.

- Spot Check #1) \$687,500 Crenshaw/LAX Transit Corridor Project
- Spot Check #2) \$4,917,392 Purple Line Extension Section 1
- Spot Check #3) \$1,698,253 Purple Line Extension Section 2
- Spot Check #4) \$1,087,504 Purple Line Extension Section 3
- Spot Check #5) \$2,612,951 Purple Line Extension Section 3

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendations that the Office of Inspector General has put forward support Metro's Strategic Plan Goal #5: Provide responsive, accountable, and trustworthy governance within the Metro organization and CEO goals to exercise fiscal discipline to ensure financial stability. The OIG mission includes reviewing expenditures for fraud, waste, and abuse in Metro program, operations and resources. For each selected change order reviewed, the OIG evaluates whether there are red flags of fraud, waste, or abuse taking place. We report the details of the significant change orders, and make recommendations consistent with the OIG's Construction Best Practices report dated February 29, 2016, more particularly focusing on lessons learned, improving efficiencies, and prudent spending.

Our goal is to provide rational, trustworthy information to the Board and support the efforts of Metro

management to constantly improve and refine its efforts for the benefit of the public. The Office of the Inspector General will continue reporting to the Board the results of Construction Change Order Spot Checks selected from the Program Management Major Project Status Quarterly Report.


NEXT STEPS

The OIG shall provide every quarter, an on-going spread sheet of recommendations to Program Control. Program Control and Program Management agrees to respond to the recommendations of the OIG within 30 days. The OIG continues to meet periodically to discuss reports, recommendations, and the status of implementation of recommendations, with Project Management and receive updates. The list of OIG recommendations and Metro management responses, is an attachment to this OIG report.

ATTACHMENTS

- Attachment A - Charts for Spot Checks
- Attachment B - Tracking Sheet of OIG Recommendations and Responses
- Attachment C - Power Point for October 2020 Construction Spot Checks

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Karen Gorman
Inspector General

Spot Check #1 – Crenshaw/LAX Transit Corridor Project - Contract C0988**Change Order Detail**

<u>Description of Modification MOD-00485</u> Case 5 Bedding Required by LABOE	
<u>Change Order Dates:</u>	
Scope of Work approved	June 01, 2020
Modification Executed	July 10, 2020
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	29 work days
Estimate using former Board approval process Agenda for the August Board (July dark)	63 work days
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	\$494,125
Contractor's proposed cost	\$740,664
Negotiated amount	\$687,500
Percentage of negotiated amount over ICE	39.1%
Amount negotiated less than the Contractor's proposal	\$53,164

Spot Check #2 - Purple Line Extension Section 1 Transit Project - Contract C1045**Change Order Detail**

<u>Description of Modification MOD-00111</u> Fairfax Paleo Zone Modified Limits	
<u>Change Order Dates:</u>	
Scope of Work approved	April 10, 2020
Modification Executed	June 02, 2020
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	38 work days
Estimate using former Board approval process Agenda for the June Board	55 work days
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	\$3,631,303
Contractor's proposed cost	\$9,518,316
Negotiated amount	\$4,917,392
Percentage of negotiated amount over ICE	35.4%
Amount negotiated under Contractor's proposal	\$4,600,924

Spot Check #3 - Purple Line Extension Section 2 Transit Project - Contract C1120**Change Order Detail**

<u>Description of Modification MOD-0080</u> Demobilization and Remobilization due to COBH Moratorium	
<u>Change Order Dates:</u>	
Scope of Work approved	January 31, 2020
Cost agreed upon	June 10, 2020
Modification Executed	June 19, 2020
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	9 work days
Estimate using former Board approval process Agenda for the August Board (July dark)	56 work days
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	\$924,038
Contractor's proposed cost	\$1,854,510
Negotiated amount	\$1,698,253
Percentage of negotiated amount over ICE	83.8%
Amount negotiated under Contractor's proposal	\$156,257

Spot Check# 4 - Purple Line Section 3 Transit Project – Tunnels Contract C1151**Change Order Detail**

<u>Description of Modification - MOD-0004.1</u> Increase Ground Water Treatment Plant Capacity at Tail Track Exit Shaft	
<u>Change Order Dates:</u>	
Scope of Work approved	June 14, 2020
Modification Executed	June 30, 2020
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	12 work days
Estimate using former Board approval process Agenda for the August Board (July dark)	53 work days
<u>Cost of Modification:</u>	
Metro independent cost estimate (ICE)	\$867,390
Contractor's proposed cost	\$1,411,157
Negotiated amount	\$1,087,504
Percentage of negotiated amount over ICE	25.4%
Amount negotiated under the Contractor's proposal	\$323,653

Spot Check# 5 - Purple Line Section 3 Transit Project – Tunnels Contract C1151**Change Order Detail**

<u>Description of Modification - MOD-0005</u>	
Addition of Sepulveda Staging Area to Compensate VA Site Reduction	
<u>Change Order Dates:</u>	
Scope of Work approved	June 29, 2020
Modification Executed	July 31, 2020
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	24 work days
Estimate using former Board approval process Agenda for the August Board	43 work days
<u>Cost of Modification:</u>	
Metro independent cost estimate (ICE)	\$1,634,911
Contractor's proposed cost	\$2,908,321
Negotiated amount	\$2,612,951
Percentage of negotiated amount over ICE	59.8%
Amount negotiated under the Contractor's proposal	\$295,370

ATTACHMENT B (October 2020)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
<p>October 2020 #1 Contract C0988 MOD-00485 Crenshaw/LAX Transit Corridor Project Case 5 Bedding Required by LABOE</p>	<p>Since the 'Green book' states the support and materials for sewer and storm drain pipe are to be encased in concrete, the OIG recommends that the LA Metro rail standard drawing US-014, be updated to reflect the required City standard and Metro may negotiate with the LABOE to adopt a different standard for specific projects as warranted.</p> <p>We further recommend, as discussed in previous reports, that Metro study the large discrepancies between the Metro ICE and the award amounts to determine if there is a method by which those discrepancies can be narrowed. This recommendation applies to many of the Spot Checks reviewed in this Report, and is based also on a Metro audit completed by the Management Audit Services Department that noted significant discrepancies in these amounts to be a frequent occurrence.</p>		
<p>October 2020 #2 Contract C1045 MOD-00111 Purple Line Extension Sect. 1 Fairfax Paleo Zone Modified Limits</p>	<p>The OIG recommends future GBR's include a more comprehensive underground site assessment to determine a better approximation of the marine and paleo geological layers. In this instance, a robust underground assessment would have avoided the costly change order. However, the additional excavation costs would have been included in the higher base bid value.</p>		
<p>October 2020 #3 Contract C1120 MOD-00080 Purple Line Extension Sect. 2 Demobilization and Remobilization due to COBH Moratorium</p>	<p>The MOA between Metro and COBH imposes additional restrictions on Metro and adds costly change orders to the original contract.</p> <p>The OIG recommends Metro adopts a standardized MOA for use in negotiations with all jurisdictions within Los Angeles County and utilizes this agreement for every construction project going forward in each respective jurisdiction and that budget estimates for projects should be revised as necessary to take into consideration MOAs entered into.</p>		
<p>October 2020 #4 Contract C1151 MOD-00073 Purple Line Extension Sect. 3 Increase Ground Water Treatment Plant Capacity at Tail Track Exit Shaft</p>	<p>It is the OIG's understanding that water pump tests and water quality tests were performed, but they were performed at the original location, the Army Reserve site, which is no longer the correct shaft location. Now the site is at the Veterans Administration property. A change in location can greatly affect both the levels and quality of the groundwater, thus increasing the revised dewatering process.</p> <p>It is critical that the Real Estate Department be included at the earliest possible time in negotiating the property requirements for a project. Having to change location plans after a contract award can have significant scheduling and expense consequences.</p>		

ATTACHMENT B (October 2020)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
October 2020 #5 Contract C1151 MOD-00073 Purple Line Extension Sect. 3 Addition of Sepulveda Staging Area to Compensate VA Site Reduction	<p>The Purple Line Extension 3 was a 'next decade project' and was accelerated to be completed in the next 5 years with many project processes that had to be compressed to meet the schedule. We also understand that the real estate acquisition process is contingent on the funding being in place.</p> <p>The real estate acquisition process and all other real estate arrangements must be negotiated as early as possible and negotiate those property rights strategically to ensure we have our real estate needs met at the earliest and least expensive manner possible.</p>		

ATTACHMENT B (August 2020)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
August 2020 #1 Contract C1045 MOD-00095 Purple Line Extension Sect. 1 Transit Project: Phase 5 Golder EOR Mitigation Plan Implementation	<p>The OIG is in agreement with applying extra safety precautions that the Metro project office has put forward. Where conditions are relatively unique to the tunneling industry, more prescriptive specifications for means and methods in these zones is warranted.</p> <p>Since the Contractor, Golder Gas, performed the entire mitigation plan including removal and mitigation, the OIG recommends that LA Metro ensure that Golder Gas is held contractually, jointly, and severally liability for any future incident involving gas in the area where the soil vapor extraction wells and the monitoring wells are installed and abandoned. This is the common practice in environmental cases where a "consulting expert" is hired to monitor and mitigate a hazardous substance issue.</p>	<p>The Section 1 Project will review the indemnification text issued to Golder that was required by STS in order for Golder to proceed with the work. This indemnification will determine what Golder's future obligations are.</p>	
August 2020 #2 Contract C1045 MOD-00106 Purple Line Extension Sect. 1 Center Muck Shaft at La Brea (ECI-03)	<p>The OIG recognizes that this type of shaft at the La Brea station can serve a legitimate purpose and that the OIG recommends that use of such methods should be considered and contemplated in future project specifications and a reserve for same should be made when the savings in time, expense, and safety outweigh the cost of such a shaft.</p>	<p>OIG comment received will be included in the lessons learned.</p>	
August 2020 #3 Contract C1045 MOD-00107 Purple Line Extension Sect. 1 Center Muck Shaft at La Brea (ECI-03)	<p>The OIG is concerned that a bid of 40% over an ICE, when you are in a noncompetitive circumstance, may not be a good faith offer or bad communication on specifications. Such behaviors can have the effect of damaging a relationship during an early phase of construction and create distrust that can harm project collaboration in the future. We appreciate a contractor's willingness to proceed on work even without a commitment from Metro in some cases for the payment for that work, but recommend the contractor exercise greater care in formulating its proposals and that Metro be clear and fair but diligent and firm in its ICE calculations and negotiations stance.</p>	<p>OIG comment received. Contractor will be reminded to have appropriate personell attend the fact finding and provide timely complete CSP in order to resolve issues in a collaborative manner.</p>	

ATTACHMENT B (August 2020)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
<p>August 2020 #4 Contract C1120 MOD-00073 Purple Line Extension Sect. 2 Century City Constellation Station Track work Extension</p>	<p>1. The OIG is concerned that a bid is almost 3 times over the ICE, when you are in a noncompetitive circumstance, may not be a good faith offer or bad communication on specifications. Such behaviors can have the effect of damaging a relationship during an early phase of construction and create distrust that can harm project collaboration in the future. We appreciate a contractor's willingness to proceed on work even without a commitment from Metro in some cases for the payment for that work, but recommend the contractor exercise greater care in formulating its proposals and that Metro be clear and fair but diligent and firm in its ICE calculations and negotiations stance.</p> <p>LA Metro is having to absorb the cost of track extension change orders that arose due to errors and omissions on the part of the engineering consultant WSP. The OIG was informed that WSP miscalculated the braking distance in the initial project definition drawings that were supplied to the construction contractor. Metro will have to cover this expense with the contractor, but should look to the design engineering firm for reimbursement to Metro of the costs it would not have had to otherwise incur less amounts saved or mitigations.</p> <p>2. The OIG additionally recommends that Metro review the current Metro Rail Design Criteria (MRDC) compared to the newly released FRA track design standards for accommodating a train entering a stub-end to determine if any modification or update to our MRDC is warranted.</p>	<p>1. If a Cost and Schedule Proposal (CSP) is significantly higher than the Independent Cost Estimate (ICE), Metro's Contract Administrator and the Project Team engages in further meetings with the Contractor to clarify scope in order to determine the source of the discrepancies between the two estimates. These meetings are professional in nature, and often result in favorable resolution on a price that is somewhere between the ICE and the revised CSP. This process ultimately leads to the execution of mutually agreed upon Contract Modifications, and avoids costly disputes related to Changed Work.</p> <p>Related to the cost of the change, if WSP had calculated the braking distance correctly, the Contractor's proposal price would have included the cost for the trackwork that was recently added by Contract Modification. As a result, the awarded contract value would have been slightly higher, and the project contingency slightly lower at Notice to Proceed. The only additional cost that this error by WSP may have created is a theoretical premium for paying for added trackwork in a non-competitive environment, which would be difficult to prove. It should be noted that the difference between the executed Contract Modification price and the ICE was about 17%, or \$171,000. As a result, it is likely that it would be difficult for Metro to determine if it paid a non-competitive premium. That said, the recommendation will be discussed with senior executive management in VCM and Program Management to determine if any action against WSP will take place.</p> <p>2. This recommendation will be referred to Metro Engineering for consideration.</p>	

ATTACHMENT B (April 2020)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
<p>April 2020 #1 C0980 MOD-00161 Regional Connector - Procure Medium Attenuation Fasteners in Lieu of Standard Direct Fixation Rail Fasteners for the 2nd & Broadway Crossover</p>	<p>Regional Connector project is very unique because of all the existing historical buildings above the construction. Noise pollution has become a major concern for urban transit dwellers and authorities. The rule of thumb is a 10decibel technical increase in noise is heard by the human ear as "doubled" in loudness. When constructing underground for tunnels and stations the Environmental Impact Report must remember to always mitigate sound and vibration to protect the potentially impacted fragile surface buildings.</p> <p>The OIG recommends this scenario be written into the Lessons Learned file for future similar situations when constructing under historic or special case existing buildings.</p>	<p>The Regional Connector Project has extensive vibration mitigation elements included in the design where the operating guidway passes nearby sensitive receptors including recording studios, music venues and hotels. The project also requires that noise and vibration monitoring be performed during construction near sensitive facilities.</p> <p>The lesson learned and responded to in the referenced Contract Modification, is that information gathered during construction monitoring should be used to adjust the designed mitigations where field conditions indicate they are necessary.</p>	<p>Completed with issuance of subject contract modification. Equipment to be installed 3rd quarter 2020</p>
<p>April 2020 #2 C1045 MOD-00098 Purple Line Sect. 1 Additional Air Scrubbers at Fairfax Station</p>	<p>The OIG recommends further questioning to Southern California AQMD to determine why on a previous Metro construction contract (at the same location) they set the emission limit at 50 parts per billion, and the published standards are set at an emission limit of 30 parts per billion. On this contract the limits are set at 15 parts per billion. The inconsistency of the emissions limit should be taken under consideration and request in writing from AQMD why the standard emission limit could not be applied to this permit.</p> <p>The OIG further recommends in future construction pre-bid meetings, disclose to all potential contractors that the AQMD permit values necessary for the technical specification, "Temporary Construction Ventilation for Scrubber Units" has varied in the recent past and to verify the amount with an AQMD representative. If possible a commitment needs to be obtained from AQMD by the contractor at the time of submission of a bid amount, that the standard is firm for a defined period.</p>	<p>The emissions limit for equipment was set at the time the Contractor submitted the specific ventilation plan to SCAQMD for permit.</p> <p>The SCAQMD does not have a set standard for hydrogen sulfide, but the states standard is 30 parts per billion. SCAQMD develops their requirements based on specific site conditions. Our EIR states Metro and its contractors will set and maintain work equipment and standards to meet SCAQMD standards.</p> <p>A letter will be sent to SCAQMD for clarification on how SCAQMD can consistently apply emissions regulations for hydrogen sulfide for Metro's future projects.</p>	
<p>April 2020 #3 C1120 MOD-00064 Purple Line Sect. 2 Geotechnical Instrumentation Installation and Monitoring AT&T and Beverly Hills High School</p>	<p>The OIG recommends that the independent estimator visit the field location concerning where the work for this change order will occur. The construction manager should walk the estimator through the scope of the changes for which they are developing a cost estimate. The independent estimate was a 126.7% lower than the negotiated price. Where such significant discrepancies in price estimates exist, either the estimator for Metro, or the estimator for the contractor needs to re-evaluate the scope of the change order.</p>	<p>Agreed. Moving forward the estimating group will endeavor to work even more closely with available subject matter experts to assure a thorough understanding of scope and of the engineering and construction processes involved.</p>	
<p>April 2020 #4 C1151 MOD-00001 Purple Line Sect. 3 Revise the Tail Track Exit Shaft Location from US Army Reserv to Veterans Affairs Property</p>	<p>If the Army Reserve location had been negotiated prior to the contract award, these amounts might have been included in the original bid, although the price then and now might have been the same for this different location.</p> <p>The OIG recommends Real estate arrangements should be negotiated as early as possible.</p>	<p>Metro agrees with the OIG's comment regarding the price of the change. The cost would roughly be the same whether it was negotiated prior to contract award or after award. We agree that real estate arrangements (agreements) should be negotiated as early as possible. The project initiated contact with the property owner for the Exit Shaft property acquisition after the project was identified to be accelerated from the original 2035 Revenue Service Date. Metro did engage in talks with the VA early in the Project but obtaining VA approval to access their property has not been without a few challenges that Metro was able to overcome.</p>	

ATTACHMENT B (January 2020)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
Jan 2020 / #1 C0988-MOD-00437 Crenshaw/LAX UG1 (H2S) Ventilation Fans - Construction	none		
January 2020 #2 C0980 MOD-00154 Regional Connector - Acoustical Treatments for Areas Not on Finish Schedule	none		
January 2020 #3 C1045 MOD-00089 Purple Line Sect. 1 Development and On Site Validation of the Selected Gas Mitigation Option for M13	<p>While the soil at every site is unique, it is possible to create a standard for testing soils for gasses. There is no current rule or technical specification within Metro criteria for extraction of CH₄ or H₂S from the soil.</p> <p>The OIG recommends after the final report is submitted by the contractor, that a technical specification for testing be developed and written into the MDRC to use in the future.</p>	<p>PLE1 Final M13 Mitigation Report will be forwarded to Metro Geotechnical Department for their review and further processing.</p>	
January 2020 #4 C1045 MOD-00090 Purple Line Sect. 1 Oil Well Investigation In Lieu of TBM Probe Ahead	<p>The implementation of the drilling and magnetometer survey from Section 1 has been incorporated into Purple Line Extension Section 2 and 3 contracts.</p> <p>The OIG recommends that the procedures implemented for locating tanks, pipes and other abandoned waste be added to the Lessons Learned database.</p> <p>The OIG further recommends that Metro evaluates whether to pursue recovery for waste removal costs under CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act, also known as Superfund. Passed in 1980). The OIG recommends that Metro's Engineering Program Management provide information on this matter to Metro's Legal department to assist in making this determination and potentially pursuing this recovery.</p>	<p>PLE1 implemented methodologies for locating known tanks, pipes and other abandoned waste will be added to the Lessons Learned database. PLE1 notes that the hazardous waste removal is relatively small/negligible compared with the overall volume of soil removed. After reviewing the potential ROI on pursuing legal actions against any potential responsible parties for cost recovery the current determination based on the available data is that it is not worth the effort and cost at this time. However, it was decided that Metro County Counsel would provide a preliminary review on the issue and it would be revisited in the future.</p>	

Office Of Inspector General Construction Change Order Spot Check Report

Presented By
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Spot Check Costs

Summary of Selected Change Order Costs

Four OIG spot checks of Change Orders / Modifications reported

1 Change Order for Crenshaw/LAX Transit Corridor

❖ Case 5 Bedding Required by LABOE = \$687,500

2 Change Order Purple Line Section 1

❖ Fairfax Paleo Zone Modified Limits = \$4,917,392

3 Change Order for Purple Line Section 2

❖ Demobilization and Remobilization due to COBH Moratorium = \$1,698,253

4 Change Order for Purple Line Section 3

❖ Increase Ground Water Treatment Plant Capacity at Tail Track Exit Shaft = \$1,087,504

5 Change Order for Purple Line Section 3

❖ Addition of Sepulveda Staging Area to Compensate VA Site Reduction = \$2,612,951

Spot Check Schedule Comparison

Schedule Comparison: new delegated process vs. former Board approval process

PROJECT	Title of Change Order	Time Saved Executed date to Board Mtg.	NEW Delegated Process final SOW to Executed date	Former Board Approval Process
CRENSHAW / LAX TRANSIT CORRIDOR	Case 5 Bedding Required by LABOE	34	29	63
WESTSIDE PURPLE LINE SECT 1	Fairfax Paleo Zone Modified Limits	17	38	55
WESTSIDE PURPLE LINE SECT 2	Demobilization and Remobilization Due to COBH Moratorium	47	9	56
WESTSIDE PURPLE LINE SECT 3	Increase Ground Water Treatment Plant Capacity at Tail Track Exit Shaft	41	12	53
WESTSIDE PURPLE LINE SECT 3	Addition of Sepulveda Staging Area to Compensate VA Site Reduction	19	24	43

Spot Check Recommendations

#1
October 2020
Contract C0988
MOD-00485
Crenshaw/LAX
Transit Corridor
Project Case 5
Bedding Required by
LABOE

Since the 'Green book' states the support and materials for sewer and storm drain pipe are to be encased in concrete, the OIG recommends that the LA Metro rail standard drawing US-014, be updated to reflect the required City standard and Metro may negotiate with the LABOE to adopt a different standard for specific projects as warranted.

We further recommend, as discussed in previous reports, that Metro study the large discrepancies between the Metro ICE and the award amounts to determine if there is a method by which those discrepancies can be narrowed. This recommendation applies to many of the Spot Checks reviewed in this Report, and is based also on a Metro audit completed by the Management Audit Services Department that noted significant discrepancies in these amounts to be a frequent occurrence.

#2
October 2020
Contract C1045
MOD-00111 Purple
Line Extension Sect.
1 Fairfax Paleo Zone
Modified Limits

The OIG recommends future GBR's include a more comprehensive underground site assessment to determine a better approximation of the marine and paleo geological layers. In this instance, a robust underground assessment would have avoided the costly change order. However, the additional excavation costs would have been included in the higher base bid value.

October 2020

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Spot Check Recommendations

File #
2020-0620

#3
October 2020
Contract C1120
MOD-00080 Purple
Line Extension
Sect. 2
Demobilization and
Remobilization due
to COBH
Moratorium

The MOA between Metro and COBH imposes additional restrictions on Metro and adds costly change orders to the original contract.

The OIG recommends Metro adopts a standardized MOA for use in negotiations with all jurisdictions within Los Angeles County and utilizes this agreement for every construction project going forward in each respective jurisdiction and that budget estimates for projects should be revised as necessary to take into consideration MOAs entered into.

#4
October 2020
Contract C1151
MOD-00073 Purple
Line Extension
Sect. 3 Increase
Ground Water
Treatment Plant
Capacity at Tail
Track Exit Shaft

It is the OIG's understanding that water pump tests and water quality tests were performed, but they were performed at the original location, the Army Reserve site, which is no longer the correct shaft location. Now the site is at the Veterans Administration property. A change in location can greatly affect both the levels and quality of the groundwater, thus increasing the revised dewatering process.

It is critical that the Real Estate Department be included at the earliest possible time in negotiating the property requirements for a project. Having to change location plans after a contract award can have significant scheduling and expense consequences.

October 2020

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Los Angeles County Metropolitan Transportation Authority



Spot Check Recommendations

File #
2020-0620

#5
October 2020
Contract C1151
MOD-00073 Purple
Line Extension
Sect. 3
Addition of
Sepulveda Staging
Area to
Compensate VA
Site Reduction

The Purple Line Extension 3 was a 'next decade project' and was accelerated to be completed in the next 5 years with many project processes that had to be compressed to meet the schedule. We also understand that the real estate acquisition process is contingent on the funding being in place.

The real estate acquisition process and all other real estate arrangements must be negotiated as early as possible and negotiate those property rights strategically to ensure we have our real estate needs met at the earliest and least expensive manner possible.

October 2020

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