

**Board Report**

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**CONSTRUCTION COMMITTEE  
JULY 15, 2021**

**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 March 1, 2021 to May 31, 2021.

**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 four change orders in this report were selected from the Program Management Major Project Status Report (Legistar file # 2021- 0423) covering March 1, 2021 to May 31, 2021. 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 involved project office.

We found that all four of the change orders in this report were:

- Negotiated and executed more expeditiously than would have occurred pursuant to the former Board approval process,
- Approved faster with the new delegation of authority, and
- Negotiated at lower cost than the contractors’ proposed price.

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 OIG Spot Checks Report within 30 days after this Report is issued. Included with this Report is a spreadsheet on the status of responses concerning former OIG Spot Check Report recommendations.

## **DISCUSSION**

### **4 Spot Checks Performed this Quarter**

#### **Spot Check #1 - Regional Connector - Transit Corridor Project**

This OIG Spot Check report concerns the Regional Connector - Transit Corridor Project (Contract C0980 MOD-00196): Construct the 2<sup>nd</sup> & Broadway Station Overbuild Load Transfer System

#### **Change Order Detail**

See Attachment A Spot Check #1 chart.

#### **Summary #1**

**Scope of Work** - This change order is to construct the Load Transfer System (LTS) at the Historic Broadway streets station entrance to accommodate the Los Angeles Tribune's future development structure above the station entrance (original design was revised under a previous modification). Since the execution of the original land acquisition agreement in 2014, the Tribune and Metro have been collaborating to meet the requirements of the Tribune's revised design above this new Metro station. The basis for the LTS are the designs produced by Tribune's engineer, shared with Metro in April 2019.

The LTS is necessary to transfer and distribute weight from the new structure to the underground station walls. The work involves extending the underground support system an additional 7.5 feet deeper (below grade), to facilitate constructability of the Tribune's planned multi-story structure. Other modifications are relocating exit stairs and modifying air vents along the support wall just south of 2nd Street. Some expenses were not foreseen at the time of project award in April 2014, as the Tribune's development of their structure was not finalized at that time. Tribune has contributed \$1.583 million to this change order per a negotiated agreement with real estate for the real property.

**Budget** - This modification was negotiated, and the award amount is \$7,267,980. The Contractor's proposal was \$7,841,735 and the ICE was \$7,211,804. The award amount was \$573,755 (7.3%) under the Contractor's proposal. The negotiated amount was \$56,176 (0.78%) over the ICE. Staff 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 March 23, 2021. The modification was awarded on April 01, 2021 and was completed in 8 workdays. Under the prior Board approval method for change orders, assuming a May Board meeting date, it would have taken an additional 48 workdays to complete the work.

**Recommendation** - None.

### **Spot Check #2 - Regional Connector - Transit Corridor Project**

This OIG Spot Check report concerns the Regional Connector Transit Corridor Project (Contract C0980 MOD 00202): Revise Communications Radio System Scope of Work- Construction

#### **Change Order Detail**

See Attachment A Spot Check #2 chart.

#### **Summary #2**

**Scope of Work** - This change order is to construct the communications radio system (original design was revised under a previous modification). The contractor will purchase radio materials and develop a plan to coordinate the transition from the existing train control radio system to a new dual radio base station system with a channelized repeater amplifier. The benefit of adding these new parts will enhance the system and allow for multiple channels of communication to send a stronger signal to Rail Operations Control. These new radio parts will be installed in the Train Control and Communication room at 7th Metro Station. The signal will extend the radio frequencies from 6th & Flower Streets to the 12th Street portal (utilizing the base station at 1st & Central). Metro has directed this additional work, and therefore adjustment in the contract price is warranted.

**Budget** - This modification was negotiated, and the award amount is \$4,868,856. The Contractor's proposal was \$5,142,513 and the ICE was ICE \$4,692,290. The award amount was \$450,233 (8.8%) under the Contractor's proposal. The negotiated amount was \$176,566 (3.8%) over the ICE. Staff 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 May 11, 2021. The modification was awarded on May 21, 2021 and was completed in 9 workdays. Under the prior Board approval method for change orders, assuming a July Board meeting date, it would have taken an additional 54 workdays to complete the work.

**Recommendation** - The OIG recommends that after installation of the new radio system that interface with Los Angeles fire, police and sheriff departments be tested and verified for their signal strength and connectivity.

### **Spot Check #3 - Purple Line Extension Section 1 Transit Project**

This OIG Spot Check report concerns the Purple Line Extension Section 1 Transit Project (Contract C1045 MOD-0131): Wilshire/Fairfax Station Subgrade DSC.

#### **Change Order Detail**

See Attachment A Spot Check #3 chart.

#### **Summary #3**

**Scope of Work** -The Alternate Dispute Resolution section of the contract with the contractor provides for a Dispute Review Board (DRB) to hear argument by the parties and make recommendations when there is a dispute. Alternate Dispute Resolution was necessary concerning whether the subgrade at the Wilshire/Fairfax Station complies with the contract requirements in the construction plans, technical specifications, and Geotechnical Design Memorandum Table 4. Metro stated the soil at the base was "firm and unyielding" as listed in the geotechnical report. The contractors Engineer on Record (EOR) did not agree with this soil type and would not sign off nor seal the engineering

drawings. Metro moved forward with MOD 0066 to utilize their own EOR. The negotiations took 83 days to change insurance provisions and to come to an agreement with the contractor.

The DRB reviewed the written evidence and testimony, provided a report on January 17, 2020. The DRB came to the following 5 conclusions:

1. Metro appears to accept delay from August 31 to September 13, 2018 (14 calendar days) as Metro's responsibility.
2. During period September 13, 2018 to December 13, 2018 (83 calendar days) the parties were involved in further investigations and testing as well as protracted negotiations regarding MOD 0066.
3. Metro took an inordinate period of time to draft MOD 0066 and the contractor could have returned to work earlier than December 06, 2018 [contractor chose to not work in this area since their EOR was being removed].
4. Responsibility for the 83-calendar day period should have been resolved by negotiation between the parties.
5. Project delays for this particular disputed task do not lie on the projects critical path. Compensation to the contractor should be restricted to the indirect and overhead costs associated with Fairfax Station only.

The DRB made the following 3 recommendations:

1. As a result of encountering differing site conditions during excavation the contractor is entitled to an adjustment in the total contract price in accordance with the contract documents.
2. The parties should negotiate the responsibility for delay arising from the differing site conditions and the appropriate compensation for contractor's reasonable delay cost not on the critical path.
3. Metro receives credit from contractor for the costs of Metro's Engineer of Record to approve the subgrade [...]

This Modification is to implement payment to the contractor consistent with the recommendations of the DRB, on January 17, 2020, for the Wilshire/Fairfax Station under Wilshire Blvd. between Ogden and Fairfax.

**Budget** - This modification was negotiated, and the award amount is \$4,203,350. The Contractor's proposal was \$5,276,320 and the ICE was \$4,200,888. The award amount was \$1,072,970 (20.3%) under the Contractor's proposal. The negotiated amount was \$2,462 (.06%) over the ICE. Staff stated that funds for this change are within the approved Life-of-Project budget.

**Schedule** - The new delegation process was utilized for this modification. Because there was a disagreement, parties moved the matter to a DRB for resolution. The DRB deliberated and issued its recommendations on January 17, 2020. One year later, in January 21, 2021, a change notice was issued to the contractor. The modification was awarded on March 08, 2021 and was completed in 33 workdays. Under the prior Board approval method for change orders, assuming a March Board meeting date, it would have taken 46 workdays to complete the work.

**Recommendation** - The OIG recommends that after a DRB issues its recommendations that favor the contractor, Metro act swiftly to move forward with a change notice to the contractor and not delay payment to the contractor, less any credits owed to Metro. We understand in this particular case the contractor assigned a lower priority for processing this change notice over many others.

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

This OIG Spot Check report concerns the Purple Line Extension Section 3 Transit Project (Contract C1152 MOD-00014): Revisions to Westwood/UCLA Station Entrances - Design Only

#### **Change Order Detail**

See Attachment A Spot Check #4 chart.

#### **Summary #4**

**Scope of Work** - The two Station entrances were modified after the construction contract was signed with the contractor due to an agreement that was recently negotiated with UCLA and real estate negotiations with the 10900 Wilshire Blvd property owner. At UCLA, the locations were revised for the electrical box, switch, and conduits to the west end of the Station plaza. Two parking spaces were removed to provide one reserved parking space for Department of Water and Power staff. Ventillation and emergency exits were also revised. A decorative wall was added to separate the Metro entrance from the UCLA parking lot and tree areas and landscaping was rearranged. Two pedestrian access openings were added from the campus through a nearby parking lot to the Station. At the southeast station entrance at 10900 Wilshire Blvd, the stairs, elevator, and entrance canopy were moved. Ventillation shafts and mechanical rooms were relocated and more.

**Budget** -This modification was negotiated, and the award amount is \$631,627. The Contractor's proposal was \$682,638 and the ICE was \$235,535. The award amount was \$51,011 (7.5%) under the contractor's proposal. The negotiated amount was \$396,092 (168%) over the ICE. Staff 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 March 31, 2021. The modification was executed on April 23, 2021 and was completed in 18 workdays. Under the prior Board approval method for change orders, assuming a June Board meeting date, it would have taken 61 workdays to complete the work.

**Recommendation** - none.

#### **FINANCIAL IMPACT**

This report will have no Financial Impact to the agency.

#### **Impact to Budget**

- For all of the construction change orders reviewed, Metro states the funds are within the approved budget, and will utilize the contingency funds to cover the costs from the LOP budget.
- Spot Check #1) \$7,267,980 Regional Connector Transit Corridor Project
- Spot Check #2) \$4,868,856 Regional Connector Transit Corridor Project

- Spot Check #3) \$4,203,350 Purple Line Extension Section 1
- Spot Check #4) \$631,627 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.

### **EQUITY PLATFORM**

We considered whether these change orders presented any equity related issues on their face. All of the locations (2<sup>nd</sup>/Broadway, Regional Connector, Westwood/Wilshire) which are the subject of these change orders are within or adjacent to Equity Focus Communities (EFC's). The OIG did not receive any data concerning community impacts or whether the work would be performed by DBE's for these change orders at these EFC sites. The OIG observed no obvious disparate impacts created by these change orders on small businesses, low-income persons, or by the performance of the work in a manner that impacted a disadvantaged community beyond what is typical and usual when conducting any construction. To the extent equity issues were considered in the initial approval of the project, and that these changes keep the projects moving forward without further delay and add functionality, convenience or improve safety for the community, they may be considered to have positive equity impacts. The OIG is aware there is a DBE goal for each project that the contractor should strive to meet. At this time, the status of the DBE goal is not included in this report but we will monitor DBE goals and impacts to EFC on future construction change order reports. Further, it appears these investments for improvements to the radio system as described in spot check number two and installing additional building support as described in spot check number one, will mitigate safety concerns for the community. Additional entrances and access providing by the re-scoping of the design at UCLA will increase convenience for the community as described in spot check number four.

### **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 the recommendations with Project Management, and receive updates. The list of OIG recommendations and Metro management responses, is an attachment to this OIG report (Attachment B).

### **ATTACHMENTS**

Attachment A - Change Order Details for Spot Checks

Attachment B - Tracking Sheet of OIG Recommendations and Responses to last quarter

Attachment C - Power Point for July 2021 Construction Spot Checks

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Karen Gorman  
Inspector General

**Spot Check #1 – Regional Connector Transit Project - Contract C0980****Change Order Detail**

<u>Description of Modification MOD-0196</u> Construct the 2 <sup>nd</sup> & Broadway Station Overbuild Load Transfer System	
<u>Change Order Dates:</u>	
Scope of Work approved	March 23, 2021
Modification Executed	April 01, 2021
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	8 work days
Estimate using former Board approval process Agenda for the upcoming May 2021 Board	48 work days
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	\$7,211,804
Contractor's proposed cost	\$7,841,735
Negotiated amount	\$7,267,980
Percentage of negotiated amount over ICE	0.78%
Amount negotiated under Contractor's proposal	\$573,755

**Spot Check #2 – Regional Connector Transit Project - Contract C0980****Change Order Detail**

<u>Description of Modification MOD-0202</u> Revise Communications Radio System Scope of Work - Construction	
<u>Change Order Dates:</u>	
Scope of Work approved	May 11, 2021
Modification Executed	May 21, 2021
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	9 work days
Estimate using former Board approval process Agenda for the July Board	54 work days
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	\$4,692,290
Contractor's proposed cost	\$5,142,513
Negotiated amount	\$4,868,856
Percentage of negotiated amount over ICE	3.8%
Amount negotiated under Contractor's proposal	\$450,223



**Spot Check #3 - Purple Line Extension Section 1 Transit Project - Contract C1045****Change Order Detail**

<u>Description of Modification MOD-0131</u>	
Wilshire & Fairfax Station Subgrade Differing Site Conditions	
<u>Change Order Dates:</u>	
Dispute Review Board deliberated & decreed	Jan. 17, 2020
Change Notice issued to contractor	Jan. 21, 2021
Modification Executed	March 08, 2021
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	33 work days
Estimate using former Board approval process Agenda for the March Board	46 work days
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	\$4,200,888
Contractor's proposed cost	\$5,276,320
Negotiated amount	\$4,203,350
Percentage of negotiated amount over ICE	.06%
Amount negotiated under Contractor's proposal	\$1,072,970

**Spot Check# 4- Purple Line Extension Section 3 Transit Project - Contract C1152****Change Order Detail**

<u>Description of Modification - MOD-0014</u>	
Revisions to Westwood/UCLA Station Entrances – Design Only	
<u>Change Order Dates:</u>	
Scope of Work approved	March 31, 2021
Modification Executed	April 23, 2021
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	18 work days
Estimate using former Board approval process Agenda for the June Board	61 work days
<u>Cost of Modification:</u>	
Metro independent cost estimate (ICE)	\$235,535
Contractor's proposed cost	\$682,638
Negotiated amount	\$631,627
Percentage of negotiated amount over ICE	168%
Amount negotiated under the Contractor's proposal	\$51,011

ATTACHMENT B (July 2021)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
July 2021 #1 Contract C0980 MOD-00196 Regional Connector - Transit Corridor Project Construct the 2nd & Broadway Station Overbuild Load Transfer System	none		
July 2021 #2 Contract C0980 MOD-00202 Regional Connector - Transit Corridor Project Revise Communications Radio System Scope of Work- Construction	The OIG recommends that after installation of the new radio system that interface with Los Angeles fire, police and sheriff departments be tested and verified for their signal strength and connectivity.		
July 2021 #3 Contract C1045 MOD-0131 Purple Line Extension Sect. 1 Wilshire/Fairfax Station Subgrade Differing Site Conditions	The OIG recommends that after a DRB issues its recommendations that favor the contractor, Metro act swiftly to move forward with a change notice to the contractor and not delay payment to the contractor, less any credits owed to Metro. We understand in this particular case the contractor assigned a lower priority for processing this change notice over many others.		
July 2021 #4 Contract C1152 MOD-0014 Purple Line Extension Sect. 3 Revisions to Westwood/UCLA Station Entrances – Design Only	none		

ATTACHMENT B (April 2021)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
April 2021 #1 Contract C0988 MOD-00253.3 Crenshaw/LAX Transit Corridor Project Landscape Changes – Park Mesa	The OIG recommends that we identify quickly the differences in cost between the new scope of work from the contract and finalize plans and the cost with the prime Contractor.	-Agree and recommendation will be incorporated into C/LAX Project Lessons Learned. -C0988 Contract Team has started to identify the differences in cost between the new scope of work from the contract. Additionally, new scope of work will only be processed if it is a safety related change.	
April 2021 #2 Contract C0980 MOD-00188 Regional Connector - Transit Corridor Project 2nd/Hope Pedestrian Bridge - Construction	no recommendation concerning this change order		
April 2021 #3 Contract C1120 MOD-0095 Purple Line Extension Sect. 2 Station and Bicycle Parking, Architectural Features Design and Construction Changes at Wilshire/Rodeo & Century City Constellation Stations	The OIG recommends that Purple Line, Section 3, be immediately evaluated to determine if the MRDC architectural updates and the Metro bike hub system changes have been incorporated into the Purple Line Extension Section 3 Transit project. This will ensure consistency, compliance with the MRDC, and cost assessments to be determined and negotiated at the earliest possible time.	Purple Line Sect #2 response: Noted.  Purple Line Sect #3 response: The WPLE3 contract included the latest MRDC requirements for bike hubs at both stations at time of bid, which minimized changes to the WPLE3 contract.	
April 2021 #4 Contract C1120 MOD-0095 0100 Purple Line Extension Sect. 2 Century City Constellation Main Entrance - Construction	The large cost disparities between the ICE and a Contactor's proposal on high dollar transactions should continue to prompt further technical and commercial evaluation in order to arrive at a fair and reasonable price. The OIG recommends that the ICE be evaluated by the Estimating department to further evaluate the significant differences between the Contractor's proposal and their independent estimate utilizing both technical and commercial evaluation.	ESTIMATING response: Metro Estimating will review the ICE and CSP and work with V/CM and Project Management staff to evaluate the differences.  Purple Line Sect #2 response: Project staff will continue to involve Estimating staff in scoping discussions to ensure that they have a full understanding of the scope of work for all Change Work.	

ATTACHMENT B (January 2021)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
<p>January 2021 #1 Contract C0980 MOD-00184 Regional Connector - Transit Corridor Project Expanded Duco Yard and Temple Street Sanitary Sewer Work</p>	<p>The OIG recommends that future contracts with the designer should include verification of sewers identified as abandoned, and to document the verification on the construction drawings if the cost of such verification is minor and the consequences of reliance on erroneous information is significant. Additionally, the OIG recommends that the as-built record drawings at the City be updated.</p>	<p>Planning and engineering need to rely on as-built records for much of their work. However, where key utilities are involved, it is best that their condition and status be validated during the preliminary design phase. This investigation is often expensive and not easily performed without site investigation. The engineer must use his/her judgement to determine which utilities require physical investigation and inspection. Project budget contingency should be set aside for utility discrepancies that may be discovered during construction. Agree that even minor utilities, improperly documented, can have a significant cost and/or schedule impact to a project and should be investigated early, to the extent possible. The City is the best entity to ensure that underground maps are complete.</p>	<p>No further action from Regoinal Connector as project design has already been completed. However, efforts are continually made to perform potholing investigations for verificatoin prior to construction so as to avoid impacts to schedule should discrepancies be found.</p>
<p>January 2021 #2 Contract C1045 MOD-00121 Purple Line Extension Sect. 1 Alternate Soil Disposal</p>	<p>California laws, including Senate Bill 1383 of 2016 set mandatory targets to reduce waste going to landfills. Metro developed a recycling policy (GEN 51) in response to State recycling goals and to support Metro's sustainability goals. The Conditional Use Permit for the Chiquita Canyon Landfill was set to expire and the Landfill operator sought a new permit, which was granted in July, 2017. The new permit requirements limits the rate of tonnage of dumping allowed, hours of operation, and the county set other multiple requirements that Chiquita Canyon must adhere. The OIG recommends:</p> <ol style="list-style-type: none"> <li>1. Construction waste disposal options are utilized to minimize project costs and to help achieve the reduction goal of a 75% reduction in waste by 2025;</li> <li>2. Project teams work very closely with the Metro Sustainability Department, State, Los Angeles County, other regulators, landfill owners, and contractor's personnel, to determine options consistent with GEN 51 for the reuse of soils and construction debris in the current or other construction sites;</li> <li>3. When a Board member has a matter come before them at their respective municipalities that can potentially effect Metro projects, if they would give notice to Metro of the matter, Metro can determine how its projects will be impacted and possibly address the matter with the municipality or 3rd party prior to the matter being approved including possibly negotiate that the terms of a permit not allow price increases or other impacts on Metro projects where contractual commitments have previously been negotiated in reliance on previous conditions;</li> <li>4. LA Metro evaluate how other LA Metro projects for which a contract was entered may be impacted by the newly imposed landfill mitigations and higher fees.</li> </ol>	<p>Metro acknowledges the recommendations listed and provides the following responses below:</p> <ol style="list-style-type: none"> <li>1. Per contract, the project must divert/recycle 75% of waste. Purple Line Section 1 has diverted 100% of excavated clean material on the project to be reused as beneficial cover or fill at offsite projects.</li> <li>2. The Purple Line Section 1 project has a member of the Metro Environmental Compliance and Sustainability Department (ECSD) on staff. This team member updates project management and contractors on opportunities to reduce waste impacts as they become available across the county.</li> <li>3. Acknowledged</li> <li>4. ECSD management will review awarded projects and available facilities and make recommendations on where to make changes to disposal practices as needed.</li> </ol>	
<p>January 2021 #3 Contract C1120 MOD-0091 Purple Line Extension Sect. 2 Increase UPS Spare Capacity at Wilshire Rodeo and Century City Constellation Stations</p>	<p>The OIG recommends that immediately prior to sending out an RFP, Metro should insure that the most current MRDC is used.</p>	<p>In this case, the updated MRDC Section 8 was added to the RFP near the end of the solicitation period, but conflicts with other contract documents were not identified because of the late issuance of the update. Staff agree that all future changes to the MRDC should be coordinated by Metro Engineering and issued before future RFPs are released.</p>	

ATTACHMENT B (January 2021)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
January 2021 #4 Contract C1152 CO-0005.1 Purple Line Extension Sect. 3 VA Hospital Replacement Parking for Lot 42 During Station Construction Phase	The OIG recommends that the Project office and Real Estate continue to work closely and aggressively to come to a full resolution with the VA hospital and the contractor on the modified costs.	Agree	

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>Recommendation will be incorporated into C/LAX project Lessons Learned.</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>Recommendation will be incorporated into PLE1 project Lessons Learned.</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>Agreed.</p>	
<p>October 2020 #4 Contract C1151 MOD-0004.1 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>	<p>The location of the Tail Track Exit Shaft had to move from an environmentally cleared site occupied by the Army reserve site to the US Department of Veterans Affairs West Los Angeles campus when it became evident that the US Army Reserve was unwilling to allow the use of this location for either construction laydown or a permanent Metro Facility. Metro Real Estate and Project staff successfully negotiated with the Department of Veterans Affairs to enable relocation of this construction laydown area and permanent facility to their West Los Angeles Campus.</p>	

ATTACHMENT B (October 2020)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
<p>October 2020 #5 Contract C1151 MOD-0005 Purple Line Extension Sect. 3 Addition of Sepulveda Staging Area to Compensate VA Site Reduction</p>	<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>	<p>The space available for staging at the Tail Track Exit Shaft on the Department of Veterans Affairs Campus is limited; being located in a nationally designated historic district. Metro Real Estate and Project Staff have and are working closely together, in a timely manner to ensure real estate acquisitions are coordinated with project need dates to minimize overall risk and cost to Metro in delivering the project.</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 &amp; 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&amp;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 CH<sub>4</sub> or H<sub>2</sub>S 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, <b>it was decided that Metro County Counsel would provide a preliminary review on the issue and it would be revisited in the future.</b></p>	

# Office Of Inspector General Construction Change Order Spot Check Report

Presented By  
**Karen Gorman**  
Inspector General

July 2021

Construction Committee

Los Angeles County Metropolitan Transportation Authority



# Spot Check Costs

## Summary of Selected Change Order Costs

Four OIG spot checks of Change Orders / Modifications reported

### **1 Change Order for Regional Connector Transit Corridor**

❖ Construct the 2<sup>nd</sup> & Broadway Station Overbuild Load Transfer System = \$7,267,980

### **2 Change Order for Regional Connector Transit Corridor**

❖ Revise Communications Radio System Scope of Work - Construction = \$4,868,856

### **3 Change Order for Purple Line Section 1**

❖ Wilshire & Fairfax Station Subgrade Differing Site Conditions = \$4,203,350

### **4 Change Order for Purple Line Section 3**

❖ Revisions to Westwood/UCLA Station Entrances – Design Only = \$631,627

# 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
REGIONAL CONNECTOR	Construct the 2 <sup>nd</sup> & Broadway Station Overbuild Load Transfer System	40	8	48
REGIONAL CONNECTOR	Revise Communications Radio System Scope of Work - Construction	45	9	54
WESTSIDE PURPLE LINE SECT 1	Wilshire & Fairfax Station Subgrade Differing Site Conditions	13	33	46
WESTSIDE PURPLE LINE SECT 3	Revisions to Westwood/UCLA Station Entrances – Design Only	43	18	61

# Spot Check Recommendations

File #  
2021-0405

#1

Contract C0980

MOD-00196

Regional Connector -

Transit Corridor Project:

Construct the 2<sup>nd</sup> &

Broadway Station

Overbuild Load Transfer

System

No Recommendations

#2

Contract C0980

MOD-00202

Regional Connector -

Transit Corridor Project:

Revise Communications

Radio System Scope of

Work - Construction

The OIG recommends that after installation of the new radio system that interface with Los Angeles fire, police and sheriff departments be tested and verified for their signal strength and connectivity.

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# Spot Check Recommendations

File #  
2021-0405

#3

Contract C1045  
MOD-0131  
Purple Line Extension  
Sect. 1  
Wilshire & Fairfax  
Station Subgrade  
Differing Site  
Conditions

The OIG recommends that after a DRB issues its recommendations that favor the contractor, Metro act swiftly to move forward with a change notice to the contractor and not delay payment to the contractor, less any credits owed to Metro. We understand in this particular case the contractor assigned a lower priority for processing this change notice over many others.

#4

Contract C1152  
MOD-0014  
Purple Line Extension  
Sect. 3  
Revisions to  
Westwood/UCLA  
Station Entrances –  
Design Only

No Recommendations

July 2021

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