



## Board Report

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### CONSTRUCTION COMMITTEE JANUARY 19, 2023

**SUBJECT: OFFICE OF THE INSPECTOR GENERAL CONSTRUCTION CHANGE ORDER SPOT CHECKS**

**ACTION: RECEIVE AND FILE**

#### **RECOMMENDATION**

RECEIVE AND FILE Office of the Inspector General Construction Change Order Spot Check Report for the period September 1 to November 30, 2022.

#### **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 construction 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 Quarterly Major Project Status, Legistar 2022-0855. The OIG gathers the data, reviews all the change orders over \$500,000 and selects change orders from the major projects. The information for the Spot Checks was collected from the Program Management Information System (PMIS) which is the department’s database system. Also, virtual meetings and telephonic interviews were conducted with Metro Program Management, Project Control, and Procurement staff from each involved project office.

For each Spot Check, we summarize:

- Description of the change order,
- Change order detail,
- Scope of Work,
- Budget,
- Schedule (Time to execute the change order),
- Safety, and
- Recommendations (lessons learned are identified starting with this report).

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Metro's Program Control department has provided informal responses to this report before its issuance and are asked to provide written 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**

### **Spot Checks Performed in this Quarter**

#### **Spot Check #1 - Division 20 Portal Widening and Turnback Project**

This OIG Spot Check report concerns the DIV 20 Portal Widening and Turnback Project (Contract C1136 CO-121.1/MOD 57), Site Improvements for Garfield Yard to Store New Special Trackwork.

#### **Change Order Detail**

See Attachment A Spot Check #2 chart.

#### **Summary #1**

**Scope of Work** - This change order is to the contractor to prepare the Metro owned property at Garfield Avenue and 105 freeway for the storage of new track until Division 20 is ready to accept the rail strings. The work to be performed includes clearing, grading of site, and covering the surface with rock (class II base). A chain link fence will be added (3,124 Feet) with barbed wire and gates around 2.4 acres of the property. Security will be necessary 24/7 to ensure the materials are secure. The rail will be stored at this site until transported to the Division 20 rail yard once the Division 20 project site is ready to accept the new rail. After the rail is delivered to the Division 20 yard, the contractor will clean the property and remove the fencing.

The work is out of scope of the contract because storing the rail off site was not part of the original plan. The special trackwork manufactured in both Illinois and Wyoming is to be delivered on schedule but the Division 20 rail yard project fell behind schedule from differing site conditions at the 1<sup>st</sup> Street viaduct, and therefore the project site is not ready to accept the track.

**Budget** - This change order was negotiated as MOD 0057 for the amount of \$3,146,480, but the contractor refused to sign the modification so the project office chose to issue a unilateral change order. The Contractor's proposal was \$4,316,889 and the ICE was \$2,819,753. The difference in negotiated price to the Contractor's proposal is \$1,173,409 (27.1%) under Contractor's proposal. The ICE is \$1,497,136 (34.7%) under the contractor's proposal. The ICE is less than the negotiated amount by \$323,727 (11%). Staff stated that funds for this change order are within the recently amended Life-of-Project budget.

**Schedule** - The CEO Delegation of Authority process was utilized for this change order. The Contractor and Metro agreed on the Scope of Work on October 14, 2022. The unilateral change order was awarded on November 28, 2022, and was completed in 30 workdays. Under the prior Board approval method for change orders, assuming a January Board meeting date (no December meeting), it would have taken a total of 70 workdays to complete the transaction.

**Safety** - The DIV 20 Project has 616,833 total project hours through November 2022 with a 12-month Recordable Injury Rate of 0.97 (Bureau of Labor Statistics the National Average is 2.4) and a Days

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Away, Restricted or Transferred (Total DART) of 1.62 (Bureau of Labor Statistics National Average is 1.5).

**Recommendation** - As was recommended in the prior quarterly construction change orders spot check report, the OIG recommends the issue of liability for sub-contractor's bonds and insurance be resolved and further change orders follow the standard Metro construction practices and procedures.

### **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 / CO-0015), Station Artwork Architectural Glass

### **Change Order Detail**

See Attachment A Spot Check #2 chart.

### **Summary #2**

**Scope of Work** - This change order is to provide additional funds for the artwork at three underground Metro Purple Line stations. The installation of the artwork at La Brea, Fairfax, and La Cienega Stations, consists of enhanced exterior glass curtain walls at the plaza level entrances and interior glass tiles on the intermediate landing as well as the concourse level walls.

Since the artwork was not decided upon at the release of request for proposals (RFP), the original contract documents had a provisional sum amount (PSA), that provided for \$3,800,000 as an estimated set aside for artwork. These funds have been exhausted.

The actual cost of the artwork has thus far exceeded the PSA, so this change order is to cover the additional costs over the PSA. The issuance of the Not to Exceed (NTE) Change Order is to proceed with the artwork while negotiations are ongoing concerning the final costs of the remaining art related work to be done.

**Budget** - This NTE Change Order 0015 is for the amount of \$4,500,000. Because the negotiations are ongoing the ICE cannot be disclosed at this time until both parties come to an agreement on the scope of work. The Contractor's proposal is \$9,050,863 and the NTE amount is \$4,500,000. The difference in price is \$4,550,863, which is 50.5% less than the contractor's proposal. There will be a signed modification or another unilateral change order once a scope of work is agreed upon and a final settlement is reached. Staff stated that funds for this change order are within the Life-of-Project budget.

**Schedule** - The CEO Delegation of Authority process was utilized for this change order. The Contractor and Metro do not have an agreed upon Scope of Work and therefore the days saved cannot be calculated and the item would not be ready for the Board. The NTE funds were issued on September 20, 2022, to order art glass and associated materials.

**Safety** - The Purple Line Extension 1 Project has 7,801,217.94 project hours through October 2022 with a Recordable Injury Rate of 1.03 (Bureau of Labor Statistics reports the National Average is 2.4) and Days Away, Restricted or Transferred (DART) of 0.08 (Bureau of Labor Statistics reports the National Average is 1.5).

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**Recommendation** - The OIG recommends that a final scope of work and agreed upon total costs be determined as soon as possible.

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

This OIG Spot Check report concerns the Purple Line Extension Section 2 Transit Project (Stations Contract C1120 CO 0023.2), CCCS Relocated UPE Plenum at Westfield Mall.

#### **Change Order Detail**

See Attachment A Spot Check #3 chart.

#### **Summary #3**

**Scope of Work** - This change order is to relocate a portion of the heating, ventilation, and air conditioning (HVAC) system called a UPE Plenum. This UPE Plenum was to be located on the property of the Westfield Mall to allow for an underground entrance from the Century City Constellation Station into the Mall. The new owners of the Westfield Mall have now informed Metro that they are no longer interested in an underground mall entrance from public transportation. Therefore, Metro has determined an alternate location for the UPE Plenum in the public right-of-way along Constellation Boulevard to avoid the need for a real-estate easement agreement with Westfield management.

**Budget** - This unilateral NTE Change Order 0023.2 is for \$2,758,978. Because the negotiations are ongoing the ICE cannot be disclosed at this time until both parties arrived at a final dollar amount. The Contractor's proposal is \$5,227,898 and the NTE amount authorized by Metro is \$2,468,920, less than the contractor's proposal. There will be a subsequent contract modification once a final settlement is reached. Staff stated that funds for this change order are within the approved amended Life-of-Project budget.

**Schedule** - The CEO Delegation of Authority process was utilized for this change order. The Contractor and Metro agreed on the Scope of Work on August 11, 2022. An NTE change order for the \$2,758,978 was issued on September 14, 2022, and the transaction was completed in 25 workdays. Under the prior Board approval method for change orders, assuming an October Board meeting date, it would have taken a total of 56 workdays to complete the transaction.

**Safety** - The Purple Line Extension 2 Project has 2,984,206 project hours through October 2022 with a Recordable Injury Rate of 3.08 (Bureau of Labor Statistics reports the National Average is 2.4) and Days Away, Restricted or Transferred (DART) of 0.67 (Bureau of Labor Statistics reports the National Average is 1.5).

**Recommendation** - None.

### **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-0007.2) Revisions to Southern California Edison (SCE) Power Connection.

#### **Change Order Detail**

See Attachment A Spot Check #4 chart.

#### **Summary #4**

**Scope of Work** - This change order is to provide permanent power to the Westwood / VA Hospital

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Station. Southern California Edison (SCE) asked Metro to move Purple Line Extension 3 overhead power lines to underground conduits along Wilshire Boulevard (from the US Army Reserve site to the VA construction staging area). Moving the power lines underground provides better power reliability to the future station.

The City of Los Angeles requested that Federal Avenue not be opened twice, (i.e. once for temporary power by the tunnel contractor and later by the station contractor for the permanent power). The City requested the two sets of power lines be combined into one underground conduit trench. By combining conduit lines in one underground trench, additional manholes were necessary. The City also believed a single trench would reduce disturbance to the community and result in reduced painting and street restoration time.

This change order also covers Ohio Avenue, Federal Avenue, and Wilshire Boulevard for underground power lines and manholes to the new Westwood / VA Hospital Station. This work was completed in 2019. At that time, the contractor refused to sign the modification for final payment until their subcontractors had no further billing statements and all issues were resolved.

**Budget** -. This modification was negotiated, and the award amount is \$4,217,568. The Contractor's proposal was \$6,236,425 and the ICE was \$2,496,761. The difference in price is \$2,018,857 (32.4%) under the contractor's proposal. The negotiated amount was \$1,720,807 (68.9%) over the ICE. Staff stated that funds for this change are within the approved amended Life-of-Project budget.

**Schedule** - The CEO Delegation of Authority process was utilized for this modification. Even though the work was completed in 2019 the Contractor and Metro just agreed on the content of the Scope of Work on October 5, 2022. The modification was awarded on November 8, 2022, and was completed in 25 workdays. Under the prior Board approval method for change orders, assuming a January Board meeting date, it would have taken a total of 78 workdays to complete the transaction.

**Safety** - The Purple Line Extension 3 Project has 2,294,942 project hours through November 2022 with a Recordable Injury Rate of 1.49 (Bureau of Labor Statistics reports the National Average is 2.4) and Days Away, Restricted or Transferred (DART) of 0.44 (Bureau of Labor Statistics reports the National Average is 1.5).

**Recommendation/Lessons Learned** - The OIG recommends that in all future contracts where it is possible to consolidate planned multiple street utility construction works that a single trench be dug, and both temporary and permanent power conduits be installed in the same trench at the same time as to reduce costs and minimize impacts to the neighborhood.

The OIG further recommends that when the Metro management authorizes work and exercises their authority under this Delegation Policy, there should be a maximum period after that action that it must be reported in the quarterly program management report and not wait 3 years to negotiate the modification and report an action to the Board.

## **FINANCIAL IMPACT**

This report will have no financial impact on the Agency beyond what is described above.

### **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 Life of Project budget.

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- Spot Check #1) \$3,146,480 DIV 20 Portal Widening & Turnback Project
  - Spot Check #2) \$4,500,000 Purple Line Extension Section 1 Project
  - Spot Check #3) \$2,758,978 Purple Line Extension Section 2 Project
  - Spot Check #4) \$4,217,568 Purple Line Extension Section 3 Project

### **EQUITY PLATFORM**

In the opinion of the OIG, we considered whether these change orders presented any equity related issues on their face. There is a location downtown by the Division 20 railroad yard that is within or adjacent to Equity Focus Communities (EFC's). At the Division 20 location there are not sound walls around the construction worksite. The residential apartment community, directly above the Santa Fe Metro offices shares an exterior wall with the rail yard precisely where all the construction and heavy machinery operate. The OIG recommends that this noise issue be reviewed by Program management. The OIG did not receive any data concerning other community impacts. Each of the contractors are striving to have work performed by Disadvantage Business Enterprises (DBE) typically at 12-15% implementation, for these change orders at these EFC sites. Except what is noted above, 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.

### **IMPLEMENTATION OF STRATEGIC PLAN GOALS**

The Office of Inspector General reviews large change orders over a calendar quarter and makes recommendations as appropriate to 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 programs, 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.

### **NEXT STEPS**

The OIG shall provide every quarter, an ongoing spreadsheet of recommendations to Program Control and Program Management. 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

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Karen Gorman  
Inspector General

**Spot Check #1 – Division 20 Portal Widening Turnback Project - Contract C1136****Change Order Detail**

<u>Description of Modification or Change Order – CO-121.1</u> Site Improvements for Garfield Yard to Store New Special Trackwork	
<u>Change Order Dates:</u>	
Scope of Work approved	October 14, 2022
Unilateral Change Order Executed	November 28, 2022
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	30 workdays
Estimate using former Board approval process Agenda for the January Board	70 workdays
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	\$2,819,753
Contractor's proposed cost	\$4,316,889
Negotiated amount	\$3,143,480
Percentage of negotiated amount over ICE	11.5%
Amount negotiated less than the Contractor's proposal	\$1,173,409

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

<u>Description of Modification or Change Order – CO-0015</u> Station Artwork Architectural Glass	
<u>Change Order Dates:</u>	
Scope of Work approved	TBD
Not To Exceed amount issued (NTE)	September 20, 2022
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process,	TBD
Estimate using former Board approval process Agenda NOT READY for the Board	TBD
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	Cannot disclose
Contractor's proposed cost	\$9,050,863
Not Negotiated – NTE ONLY	\$4,500,000
Percentage of negotiated amount <i>over/under</i> ICE	TBD
NTE Amount less than the Contractor's proposal	\$4,550,863



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

<u>Description of Modification or Change Order – CO-0023.2</u> CCCS Relocated UPE Plenum at Westfield Mall	
<u>Change Order Dates:</u>	
Scope of Work approved	August 11, 2022
NTE Unilateral Amount Executed	September 14, 2022
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	25 workdays
Estimate using former Board approval process Agenda for the October Board	56 workdays
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	Cannot disclose
Contractor's proposed cost	\$5,227,898
NTE Unilateral amount	\$2,758,978
Percentage of negotiated amount <i>over/under</i> ICE	TBD
Amount less than the Contractor's proposal	\$2,468,920

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

<u>Description of Modification or Change Order – MOD-0007.2</u> Revisions to Southern California Edison (SCE) Power Connection	
<u>Change Order Dates:</u>	
Scope of Work approved	October 5, 2022
Modification Executed	November 8, 2022
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	25 workdays
Estimate using former Board approval process Agenda for the January Board	78 workdays
<u>Cost of Modification:</u>	
Metro independent cost estimate (ICE)	\$2,496,761
Contractor's proposed cost	\$6,236,425
Negotiated	\$4,217,568
Percentage of negotiated amount over ICE	68.9%
Amount negotiated less than the Contractor's proposal	\$2,018,857

## ATTACHMENT B (January 2023)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
January 2023 #1 Contract C1136 CO-0121.1 Division 20 Portal Widening and Turnback Project - Site Improvements for Garfield Yard to Store New Special Trackwork	As was recommended in the prior quarterly construction change orders spot check report, the OIG recommends the issue of liability for sub-contractors bonds and insurance be resolved, and further change orders follow the standard Metro construction practices and procedures.	PM and V/CM have committed to working together as necessary to analyze the issue and seek resolution. As part of that process, the two departments will work with the Office of the IG to close out the action.	
January 2023 #2 Contract C1045 CO-0015 Purple Line Extension Section 1 Station Artwork Architectural Glass	The OIG recommends that a final scope of work and agreed upon total costs be determined as soon as possible.	PM and V/CM have committed to working together as necessary to analyze the issue and seek resolution. As part of that process, the two departments will work with the Office of the IG to close out the action.	
January 2023 #3 Contract C1120 CO-0023.2 Purple Line Extension Section 2 Relocated UPE Plenum at Westfield Mall	None.		
January 2023 #4 Tunnels Contract C1151 MOD-0007.2 Purple Line Extension Section 3 Revisions to Southern California Edison (SCE) Power Connection	<p>The OIG recommends that in all future contracts where it is possible to consolidate planned multiple street utility construction works, that a single trench be dug and both temporary and permanent power conduits be installed in the same trench at the same time as to reduce costs and minimize impacts to the neighborhood.</p> <p>The OIG further recommends, that when the Metro management authorize work and exercise their authority under this Delegation Policy, there should be a maximum period after that action that it must be reported in the quarterly program management report, and not wait 3 years to negotiate the modification and report an action to the Board.</p>	PM and V/CM have committed to working together as necessary to analyze the issue and seek resolution. As part of that process, the two departments will work with the Office of the IG to close out the action.	

## ATTACHMENT B (October 2022)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
October 2022 #1 Contract C0980 MOD-0239 Regional Connector Transit Corridor Project - Additional AT&T Duct bank Installations at 2nd Street – Construction	<p>The OIG acknowledges the unknown underground site condition of numerous conflicting underground utilities, but the existing AT&amp;T communication vaults that were both too small and in poor condition were known prior to the beginning of contract. It should be noted that AT&amp;T did not initially provide design or informational requests for new vaults and now Metro must create a change order and pay the contractor for an oversight on the utility's behalf.</p> <p>The OIG recommends, as a Lesson Learned, that in project planning for Metro to ask the utility company to acknowledgement that all vaults, duct banks, and utility lines conform to current specifications and are in satisfactory condition. It is prudent for Metro to be aware of the utilities condition before entering into a construction contract.</p>	<p>Agreed. The AT&amp;T infrastructure was not in a condition that could be hung in place safely resulting in the construction of a new system. It would be best to understand the condition of all utilities to the best possible extent prior to start of construction but not always possible.</p>	
October 2022 #2 Contract C1136 CO-0017.4/MOD 0037 Division 20 Portal Widening and Turnback Project - 1st Street Bridge Continuous Monitoring	<p>As was recommended in the prior quarterly construction change orders spot check report, the OIG recommends the issue of liability for sub-contractors claims and bonds be resolved so that it is not necessary to use NTE change order methods, and further change orders follow the standard Metro construction practices and procedures.</p>	<p>Agreed</p>	
October 2022 #3 Contract C1197 MOD-009 Airport Metro Connector Transit Station Bulletin 16 – Light Rail Transit (LRT) Fence Updates	<p>The OIG recommends Metro consider updating Metro's design criteria and necessary specifications to reflect current 2022 California Seismic standards in the MRDC and future requests for proposals to build better and be prepared for future earthquakes. This may be considered a lesson learned.</p>	<p>The OIG recommendation may not completely reflect the issue. The contract MOD for bulletin 16th was the result of design change during the construction. In reviewing of the contractor's submittal, two things became apparent. First, the picket members were very heavy and disproportionate to the size of the horizontal members carrying them which created a structural concern. The second issue was a quality/constructability concern as the design shown on the contract drawings and the shop drawings required each picket to be field welded in place. All welds are required by the original Contract Documents to be ground smooth. The design change addressed both issues. For the structural issue, the thickness of the 4" o.c. pickets were reduced although the depth of the horizontal members was increased. For the constructability issue, the pickets were panelized so that they could be shop fabricated and craned into place. The panels were attached to the horizontals with bolts rather than welds, speeding up the installation time which would reduce crane use and reduce field welding and grinding. None of these issues were related to Metro's design criteria or technical spec.</p>	
October 2022 #4 Contract C1045 MOD 0159 Purple Line Ext. Sect. 1 Track Level Access Openings at Wilshire/Western, Wilshire/La Brea and Wilshire/ La Cienega	<p>None</p>		

## ATTACHMENT B (August 2022)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
August 2022 #1 Contract C1136 MOD-0029 Division 20 Portal Widening and Turnback Project - Time Extension for MOD-20 Addl Scope and Addl Requirements for DIV 20	The OIG recommends, that all future construction contracts include a capped amount per day to pay the contractor when Metro stops critical path construction work or contractor incurs significant delays due to unforeseen causes.	Agreed	
August 2022 #2 Contract C1136 CO-0011.3 Division 20 Portal Widening and Turnback Project - 1st Street Viaduct - Crack and Spall Repair	1) The OIG recommends that the scope of work should be agreed upon as soon as possible.  2) The OIG recommends the issue of liability for sub-contractors claims and bonds be resolved, and further change orders follow the standard Metro construction practices and procedures. We further recommend that the language concerning bonds and sub-contractors in the Metro standard forms for modification/change orders be moved to the Metro standard contract terms and conditions.	Agreed	
August 2022 #3 Contract C1120 CO-0041 Purple Line Ext. Sect. 2 Tunneling Suspension Associated with Abandonment of Oil Wells	The OIG recommends Metro consider implementing Unilateral change orders when the contractor is claiming compensation for delays greater than the contract cap permits.	Agreed	
August 2022 #4 Stations Contract C1152 CO-0035.1 Purple Line Ext. Sect. 3 VA Steam Tunnel Size Increase and Redundancy	Now that the cost schedule proposal (CSP) has been received, the OIG recommends that the Contractor's CSP be thoroughly evaluated to finalize the change order to enter into an agreed upon modification to replace working on a NTE basis as soon as possible.	The Contractor has split the CSP into two parts. Part 1 is the heavy civil work. Part 2 is the Mechanical / Electrical / Plumbing work.  Metro has finalized their analysis of Part 1 of the Contractor's CSP of the change and should finalize a value with the contractor imminently.  Metro has performed an initial round of fact finding and analysis of Part 2 and is engaging in further meetings with the Contractor to resolve the differences.	

## ATTACHMENT B (April 2022)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
April 2022 #1 Contract C0988 MOD-0551 Crenshaw/LAX Transit Corridor Project Landscape Changes – Park Mesa	none		
April 2022 #2 Contract C0980 MOD-00230 Regional Connector - Transit Corridor Project Alameda Emergency Stair Exit (ES2)	The OIG recommends in-house plan review be as fully completed as possible before Metro groups sign off on the design plans.	The project team agrees with OIG and does have both project staff and Metro staff provide reviews for all plans. This change originated with the change in FLS requirements within the Wye which was identified after award of contract.	
April 2022 #3 Contract C1045 MOD-0144 Purple Line Extension Sect. 1 Construction LaCienega Station During Mining	none		
April 2022 #4 Contract C1045 MOD-0147 Purple Line Extension Sect. 1 Vapor Extraction Street Restoration	none		

## ATTACHMENT B (January 2022)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
January 2022 #1 Contract C0980 MOD-00218 Regional Connector - Transit Corridor Project Metro Eastside Access Improvement Project "Segment 2" Esplanade and other improvements along Alameda Street – Construction Only	none		
January 2022 #2 Contract C1136 CO-00020.2 Division 20 Portal Widening and Turnback Project Differing Site Conditions - Connections to Existing Ductbanks and Unknown Utilities Impacts	The OIG recommends that Metro continue to track the time and materials used by the contractor while negotiating the Contractor's cost and schedule proposal and to bring this change order to a final award amount.	Final award amount for CO-00020.2 has been reached. Negotiations with the Contractor (TPC) consisted of multiple workshops to reach agreement on rates of production, activity duration, labor, materials and equipment required, complexity of the work. Since agreement on these items was challenging, Metro made a business decision to start with the contractor's estimate and deduct items that were not allowed in the contract. A final settlement for CO 20 was reached at \$43.3M, approximately \$10M under the contractor's original estimate. A time delay for changes related to CO 20 in the amount of \$6M, or 6 months at \$1M per month, has also been agreed upon for these changes.	Substantial Completion and commissioning of the turnback track is scheduled for late Fall of 2024 to coincide with Revenue Operations of PLE1. Final project completion could be as much as a year later.
January 2022 #3 Contract C1120 CO-00034 Purple Line Extension Sect. 2 Century City Constellation Station Storm Drain and Sanitary Sewer Relocation Construction of MOD 70 Design	none		
January 2022 #4 Contract C1152 MOD-0007 Purple Line Extension Sect. 3 Replacement Parking at VA Hospital Lot 42 During Station Construction	The OIG recommends that the Contractor be instructed to timely submit cost proposals, enter negotiations, and sign agreements before work is performed so Metro can process the work order close in time to work being performed, not only to pay the contractor but to help ensure the sub-contractors are paid timely.	No Comments	

ATTACHMENT B (October 2021)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
October 2021 #1 Contract C0980 MOD-00206 Regional Connector - Transit Corridor Project Add Wye Junction Fan Plant - Construction	Since the Board approved of a budget for this item in 2015 at \$12 mil., the cost has increased to a total of \$21,186,000 (a 77% increase). This Fan System cost has been reported in pieces, as parts were completed, but not as a whole to indicate the cost creep overall over time. We recommend that when LOP information is being periodically provided to the Board that it includes a summary, per project, to show historical cost information over the life of each project. That summary should indicate if they anticipate completing the project within the current LOP and how many LOP increases have occurred so far.	The initial board item in 2015 for the fan plant was an ROM at the time and had yet to be fully designed and estimated for a complete change. As the project progressed the design and went into construction, the team worked through the negotiations for the full scope of the fan plant. As of now, there has only been one LOP increase and the project has anticipated that the project would fall within the LOP to date. Project team will work with Program Management leadership on how information is reported and follow Program Management's direction for any changes on how LOP is reported.	
October 2021 #2 Contract C1136 MOD-00020 Division 20 Portal Widening and Turnback Project Additional Scope and Additional Requirements for the Division 20 Portal Widening and Turnback Project	The OIG recommends: 1. When Metro needs to expedite a project, include Operations in the initial planning phase early, prior to and during design so they can provide constant input during the design. 2. Explore with Operations if they need additional resources to dedicate full time to assist in the intense design, planning, and implementation pre-opening phases of Metro's rail infrastructure/capital projects, or other ways in which Program Management and Operations can work together to approach these projects to maximize cooperation, communication, and assistance. 3. Have the Legal Department review our designer contracts to determine if they are adequate to hold contractors accountable, enforceable, and require use of bonds and proof of adequate insurance to cover errors of this type and resulting in cost of this magnitude.	1. Project alignments were revised during planning phase to accommodate additional storage capacity and technical requirements required for turnback headways. As design progressed, Operations participated in frequent design review meetings. 2. Additional Operations resources during design phases would be beneficial and help produce more comprehensive reviews. 3. Project team is coordinating with County Counsel on review of designer contracts.	
October 2021 #3 Contract C1045 MOD-0 137 Purple Line Extension Sect. 1 Increased Well Maintenance at Western Shaft due to Groundwater Chemistry Impacts	see #4 for recommendation		
October 2021 #4 Contract C1045 MOD-00138 Purple Line Extension Sect. 1 Additional Dewatering Treatment and Discharge Impacts at Western	The OIG recommends that all dewatering change orders for this project should be evaluated or audited. The Geotechnical Baseline Report issued by the consultant to Metro was not accurate for the soil type, ground water, and hydrogen sulfide levels for each segment of Purple Line Section 1 and the consultant might be held liable for some of the costs of differing site conditions not correctly determined by the consultant. Unplanned dewatering site conditions also cost Metro \$15.8 mil. at the La Brea Station and \$16.8 mil. at the La Cienega Station in 2020 and 2019 respectively.	The dewatering MODs for WPLE-1 have been already been evaluated as part of the CN process. In order to minimize the potential for future DSCs on other Projects, consideration should be undertaken to expend more resources during Preliminary Engineering (PE) to more accurately project the actual conditions encountered. The costs of additional PE should be weighed against the increased base bid prices, or future Change Order costs if no additional PE efforts are undertaken. Valid additional costs to Metro, via the base bid or Change Order, will be incurred either way. It is premature at this time to hold the PE Consultant liable for all or a portion of the costs of this MOD.	

## 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.	Agreed, all radio systems will be fully tested and verified for 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.	In this case there was no requirement for Metro to issue a Change Notice due to the DRB ruling. The Contractor (STS) chose to delay providing Metro with a cost proposal associated with the DRB ruling due to other higher Contractor priorities. After the eventual receipt of the DRB ruling proposal from the Contractor, the costs were negotiated, and a MOD issued (w/o any Change Notice being created). It should be noted that whether a Change Notice is issued or not, the Contractor has the right to submit a proposal whenever and for whatever they perceive as changed work (via a Request for Change). Section 1 has and continues to issue Change Notices in a timely manner when Metro recognizes merited changed scope of work.	
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
January 2021 #1 Contract C0980 MOD-00184 Regional Connector - Transit Corridor Project Expanded Duco Yard and Temple Street Sanitary Sewer Work	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.	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.	No further action from Regional Connector as project design has already been completed. However, efforts are continually made to perform potholing investigations for verification prior to construction so as to avoid impacts to schedule should discrepancies be found.
January 2021 #2 Contract C1045 MOD-00121 Purple Line Extension Sect. 1 Alternate Soil Disposal	<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>	
January 2021 #3 Contract C1120 MOD-0091 Purple Line Extension Sect. 2 Increase UPS Spare Capacity at Wilshire Rodeo and Century City Constellation Stations	The OIG recommends that immediately prior to sending out an RFP, Metro should insure that the most current MRDC is used.	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.	

## 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
October 2020 #1 Contract C0988 MOD-00485 Crenshaw/LAX Transit Corridor Project Case 5 Bedding Required by LABOE	<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>	Recommendation will be incorporated into C/LAX project Lessons Learned.	
October 2020 #2 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.	Recommendation will be incorporated into PLE1 project Lessons Learned.	
October 2020 #3 Contract C1120 MOD-00080 Purple Line Extension Sect. 2 Demobilization and Remobilization due to COBH Moratorium	<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>	Agreed.	
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>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>	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.	

## ATTACHMENT B (October 2020)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
October 2020 #5 Contract C1151 MOD-0005 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>	<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
<p>August 2020 #1 Contract C1045 MOD-00095 Purple Line Extension Sect. 1 Transit Project: Phase 5 Golder EOR Mitigation Plan Implementation</p>	<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>	
<p>August 2020 #2 Contract C1045 MOD-00106 Purple Line Extension Sect. 1 Center Muck Shaft at La Brea (ECI-03)</p>	<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>	
<p>August 2020 #3 Contract C1045 MOD-00107 Purple Line Extension Sect. 1 Center Muck Shaft at La Brea (ECI-03)</p>	<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
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>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>	Completed with issuance of subject contract modification. Equipment to be installed 3rd quarter 2020
April 2020 #2 C1045 MOD-00098 Purple Line Sect. 1 Additional Air Scrubbers at Fairfax Station	<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>	
April 2020 #3 C1120 MOD-00064 Purple Line Sect. 2 Geotechnical Instrumentation Installation and Monitoring AT&T and Beverly Hills High School	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.	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.	
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>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>	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.	



## 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>	PLE1 Final M13 Mitigation Report will be forwarded to Metro Geotechnical Department for their review and further processing.	
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>	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>	

# Office Of Inspector General Construction Change Order Spot Check Report

Presented By  
**Karen Gorman**  
Inspector General

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January 2023

Construction Committee

Los Angeles County Metropolitan Transportation Authority



# Spot Checks 1 & 2

## 1 - Division 20 - - Site Improvements for Garfield Yard to Store New Special Trackwork

Award: **\$3,146,480**

### ***Recommendation:***

As was recommended in the prior quarterly construction change orders spot check report, the OIG recommends the issue of liability for sub-contractors bonds and insurance be resolved, and further change orders follow the standard Metro construction practices and procedures.

## 2 - Purple Line Extension Sect. 1 - - Station Artwork Architectural Glass

NTE: **\$4,500,000**

### ***Recommendation:***

The OIG recommends that a final scope of work and agreed upon total costs be determined as soon as possible.

## Spot Check 3 & 4

**3 - Purple Line Extension Sect. 2- - CCCS Relocated UPE Plenum at Westfield Mall**  
*No Recommendation* Award: **\$2,758,978**

**4 - Purple Line Extension Sect. 3 - - Revisions to Southern California Edison (SCE) Power Connection**  
Award: **\$4,217,568**

***Recommendation:***

- 1) The OIG recommends that in all future contracts where it is possible to consolidate planned multiple street utility construction works, that a single trench be dug and both temporary and permanent power conduits be installed in the same trench at the same time as to reduce costs and minimize impacts to the neighborhood.
- 2) The OIG further recommends, that when the Metro management authorize work and exercise their authority under this Delegation Policy, there should be a maximum period after that action that it must be reported in the quarterly program management report, and not wait 3 years to negotiate the modification and report an action to the Board.

# Spot Check Schedule Comparison

File #  
2022-0825

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
DIVISION 20 PORTAL WIDENING & TURNBACK PROJECT	Site Improvements for Garfield Yard to Store New Special Trackwork	40	14	70
WESTSIDE PURPLE LINE EXT. SECT 1	Station Artwork Architectural Glass	N/A	N/A	N/A
WESTSIDE PURPLE LINE EXT. SECT 2	CCCS Relocated UPE Plenum at Westfield Mall	31	25	56
WESTSIDE PURPLE LINE EXT. SECT 3	Revisions to Southern California Edison (SCE) Power Connection	53	25	78

January 2023

Construction Committee

Los Angeles County Metropolitan Transportation Authority

