

**Board Report**

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**File #:** 2021-0121, **File Type:** Informational Report**Agenda Number:**

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**CONSTRUCTION COMMITTEE  
APRIL 15, 2021****SUBJECT: OFFICE OF THE INSPECTOR GENERAL CONSTRUCTION CHANGE ORDER SPOT CHECKS****ACTION: RECEIVE AND FILE****RECOMMENDATION**

RECEIVE AND FILE Office of the Inspector General Change Order Construction Spot Check Report for the period December 1, 2020 to February 28, 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 April 2021 Program Management Major Project Status Report (Legistar file # 2021-0118) covering December 1, 2020 to February 28, 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 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, and all four were approved faster with the new delegation of authority. In addition, three of the four change orders were negotiated at lower cost than the contractors’ proposed price. For the remaining change order, the final award amount is being negotiated. This quarter’s Spot Checks of change orders found the delegation of authority has resulted in:

- A negotiated amount that was less than the Contractors’ proposed price for the work to be done,
- Contractor immediately ordering parts and materials, reducing delay,

- Contractor continuing working without stoppages related to these change orders, and
- Zero construction delay costs incurred for these changes.

Each Spot Check summarizes the following areas:

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

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

## **DISCUSSION**

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

#### **Spot Check #1 - Crenshaw/LAX Transit Corridor Project**

This OIG Spot Check report concerns the Crenshaw/LAX Transit Corridor Project (Contract C0988 CO 253.3) Landscape Changes - Park Mesa.

#### **Change Order Detail**

See Attachment A Spot Check #1 chart.

#### **Summary #1**

**Scope of Work** -Destination Crenshaw is a community-inspired and funded project along Crenshaw Blvd, which will include outdoor public art, streetscape, and landscaping in the medians on both sides of Crenshaw Blvd, within the Crenshaw Rail Project limits.

Metro and the City of Los Angeles have agreed to coordinate efforts and utilize some of the design plans by Destination Crenshaw instead of only Metro's original landscape design since the landscaping proposed for Destination Crenshaw is in the same area as the Crenshaw/LAX Rail Project. That coordination will prevent duplication and conflicting work plans. This change order is a combination of deleted and added work plans which include procurement of trees, shrubs and ground cover, planting, two years of maintenance, an irrigation system, and bike racks.

Metro and the Contractor have not come to an agreement on the entire scope of work and costs. Ongoing negotiations are occurring to determine what changes were included in the contract and what are new additional costs. The project team used a "not to exceed" amount method to authorize commencement of work to avoid a schedule impact while those discussions continue. The Contractor receiving the funds are the Metro prime and its subcontractors, not Destination Crenshaw.

**Budget** - The Not to Exceed amount for this change order is \$2,000,000. The Contractor's proposal was \$5,711,786 and final negotiations are not complete. The Independent Cost Estimate (ICE) just

for the subcontractor performing the landscape work is \$1,726,733 and the Rough Order of Magnitude (ROM) amount for the entire change is \$2,000,000. Metro will complete the estimate for the change prior to final negotiations. Because the final award amount is not negotiated, the dollar amount and percentage saved cannot be calculated. Staff stated that the change will result as a net increase to the contract for Walsh Shea.

**Schedule** - The new CEO Delegation of Authority method was utilized for this modification. The scope of work is not agreed upon and this change order was issued to authorize work to avoid a schedule impact. If this change order had gone to Board for approval, it would have been the upcoming May 2021 Board which would have been 55 work-days later causing a schedule impact to the Contractor.

**Recommendation** - 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.

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

This OIG Spot Check report concerns the Regional Connector - Transit Corridor Project (Contract C0980 MOD-00188) 2<sup>nd</sup>/Hope Pedestrian Bridge - Construction.

### **Change Order Detail**

See Attachment A Spot Check #2 chart.

### **Summary #2**

**Scope of Work** - The Broad originally asked Metro to make design changes to the 2<sup>nd</sup> and Hope Street Station Pedestrian Bridge to allow direct access from the station to the Broad museum and parking structure. This change order covers the differential between the construction costs for the previous design of the Pedestrian Bridge and the new design. Changes for the Pedestrian Bridge at 2<sup>nd</sup> and Hope Street Station include: changes to the rebar, formwork, concrete piles, columns, decking, plumbing, and electrical, as well as aesthetic and environment changes with landscaping, planters, handrail and guardrails modifications.

**Budget** - This modification was negotiated, and the award amount is \$3,051,100. The Contractor's proposal was \$3,142,506 and the ICE was \$2,998,353. The award amount was \$91,406 (2.9%) under the Contractor's proposal. The negotiated amount was \$52,747 (1.8%) 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 November 10, 2020. The modification was awarded on December 22, 2020 and was completed in 30 workdays. Under the prior Board approval method for change orders, assuming a January Board meeting date, it would have taken an additional 52 workdays to complete the work.

**Recommendation** - The OIG has no recommendation concerning this change order.

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

This OIG Spot Check report concerns the Purple Line Extension Section 2 Transit Project (Contract C1120 MOD-0095), Station and Bicycle Parking, Architectural Features Design and Construction Changes at Wilshire/Rodeo and Century City Constellation Stations.

**Change Order Detail**

See Attachment A Spot Check #3 chart.

**Summary #3**

**Scope of Work** - The changes in this modification pertains to both the design drawings and construction as requested by Metro Planning department. There have been multiple architectural updates to the Metro Rail Design Criteria (MRDC) and the Metro bike hub system that were finalized after the issuance of the construction contract. Some of those updates have been incorporated into Section 1 of the Purple Line Extension. These changes will allow uniformity of design on the Purple Line in Section 1 and 2 as well improve the customer experience.

This change order adds: stainless steel accoutrements for reduced equipment failure due to outside conditions for ticket vending machine areas, canopies over the entrance plaza, elevators, emergency exit doors, paneling under stairs and escalators, as well as color change to the floor pavers, and modified bicycle racks. These and other modifications result from the architectural updates to the MRDC to improve equipment performance and the customer experience.

**Budget** - This modification was negotiated, and the award amount is \$1,540,404. The Contractor's proposal was \$4,616,725 and the ICE was \$513,374. The award amount was \$3,076,321 (66.6%) under the Contractor's proposal. The negotiated amount was \$1,027,030 (200.1%) over the ICE. A technical analysis, factfinding and further refinement of required work activities took place to narrow in Metro's favor the initial large cost disparity between the ICE and the Contractor's proposal to arrive at a fair and reasonable forward price. 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 November 6, 2020. The modification was awarded on January 7, 2021 and was completed in 42 workdays. Under the prior Board approval method for change orders, assuming a January Board meeting date, it would have taken an additional 53 workdays to complete the work.

**Recommendation** - 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.

**Spot Check #4 - Purple Line Extension Section 2 Transit Project**

This OIG Spot Check report concerns the Purple Line Extension Section 2 Transit Project (Contract C1120 MOD-0100), Century City Constellation Main Entrance - Construction.

**Change Order Detail**

See Attachment A Spot Check #4 chart.

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**Summary #4**

**Scope of Work** - The NE corner of Constellation Blvd. and Avenue of the Stars in Century City is the JMB property where the new Century City Constellation Station will be located. Metro has been awaiting JMB's proposed plans for its contiguous property while Metro has been in negotiation with JMB for a corner of their property for the new Station to be built there. JMB has finalized their plans in coordination with Metro. Metro Real Estate Department has completed negotiations with JMB property owners for the related easement on JMB's property. This acquisition was a planned event that was not completed until this time.

The project team and Metro Real Estate Department has found that by rotating the entry way plan 90 degrees, it will utilize a smaller footprint and the real estate acquisition was significantly reduced, thereby reducing an anticipated change order by \$10 million. Rotation of the new station also avoided unnecessary delays to the Contractor, provides for a more efficient main entrance plaza and an enhanced bike hub.

This modification covers construction of the revised entrance from the plaza, down to the ticketing area and includes all elevators, escalators, stairways, artwork decoration, electrical, security, ventilation, fixtures, and related work costs. The design cost was covered in a previous change order.

**Budget** -This modification was negotiated, and the award amount is \$25,500,000. The Contractor's proposal was \$32,776,271 and the ICE was \$21,121,000. The award amount was \$7,276,271 (22.2%) under the contractor's proposal. 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 October 8, 2020. However, the modification took a long time to negotiate because of the cost disparity between the amount Metro was willing to offer and final amount acceptable to the Contractor. The modification was executed on February 4, 2021 and was completed in 81 workdays. Under the prior Board approval method for change orders, assuming an April Board meeting date, it would have taken 138 workdays to complete the work.

**Recommendation** - 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.

**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.

- Spot Check #1) \$2,000,000 Crenshaw/LAX Transit Corridor Project

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- Spot Check #2) \$3,051,100 Regional Connector Transit Corridor Project
  - Spot Check #3) \$1,540,404 Purple Line Extension Section 2
  - Spot Check #4) \$25,500,000 Purple Line Extension Section 2

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

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

Our goal is to provide rational, trustworthy information to the Board and support the efforts of Metro management to constantly improve and refine its efforts for the benefit of the public. The Office of the Inspector General will continue reporting to the Board the results of Construction Change Order Spot Checks selected from the Program Management Major Project Status Quarterly Report.

### **NEXT STEPS**

The OIG shall provide every quarter, an on-going spread sheet of recommendations to Program Control. Program Control and Program Management agrees to respond to the recommendations of the OIG within 30 days. The OIG continues to meet periodically to discuss reports, recommendations, and the status of implementation of 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**

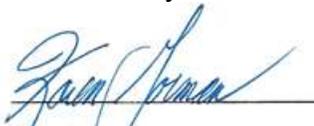
Attachment A - Change Order Details for Spot Checks

Attachment B - Tracking Sheet of OIG Recommendations and Responses

Attachment C - Power Point for April 2021 Construction Spot Checks

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Karen Gorman  
Inspector General

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

<u>Description of Change Order CO-00253.3</u> Landscape Changes – Park Mesa	
<u>Change Order Dates:</u>	
Scope of Work approved	Not settled
Change Order Executed	March 11, 2021
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	0 work days
Estimate using former Board approval process Agenda for the upcoming May 2021 Board	55 work days
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	\$1,726,733
Contractor's proposed cost	\$5,711,786
Not To Exceed amount	\$2,000,000
Percentage of negotiated amount over ICE	Undetermined %
Amount negotiated less than the Contractor's proposal	Undetermined \$

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

<u>Description of Modification MOD-0188</u> 2 <sup>nd</sup> /Hope Pedestrian Bridge - Construction	
<u>Change Order Dates:</u>	
Scope of Work approved	November 10, 2020
Modification Executed	December 22, 2020
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	30 work days
Estimate using former Board approval process Agenda for the January Board (no December Board)	52 work days
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	\$2,998,353
Contractor's proposed cost	\$3,142,506
Negotiated amount	\$3,051,100
Percentage of negotiated amount over ICE	1.8%
Amount negotiated under Contractor's proposal	\$91,406

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

<u>Description of Modification MOD-0095</u> Station and Bicycle Parking, Architectural Features Design and Construction Changes at Wilshire/Rodeo & Century City Constellation Stations	
<u>Change Order Dates:</u>	
Scope of Work approved	November 6, 2020
Modification Executed	January 7, 2021
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	42 work days
Estimate using former Board approval process Agenda for the January Board (no December Board)	53 work days
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	\$513,374
Contractor's proposed cost	\$4,616,725
Negotiated amount	\$1,540,404
Percentage of negotiated amount over ICE	200.1%
Amount negotiated under Contractor's proposal	\$3,076,321

**Spot Check# 4- Purple Line Extension Section 2 Transit Project - Contract C1120****Change Order Detail**

<u>Description of Modification - MOD-0100</u> Century City Constellation Main Entrance - Construction	
<u>Change Order Dates:</u>	
Scope of Work approved	October 8, 2020
Modification Executed	February 4, 2021
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	81 work days
Estimate using former Board approval process Agenda for the April Board	138 work days
<u>Cost of Modification:</u>	
Metro independent cost estimate (ICE)	\$21,121,000
Contractor's proposed cost	\$32,776,271
Negotiated amount	\$25,500,000
Percentage of negotiated amount over ICE	22.2%
Amount negotiated under the Contractor's proposal	\$7,276,271



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

April 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 Crenshaw/LAX Transit Corridor Project**

❖ Landscape Changes – Park Mesa = \$2,000,000

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

❖ 2<sup>nd</sup>/Hope Pedestrian Bridge – Construction = \$3,051,100

### **3 Change Order for Purple Line Section 2**

❖ Station and Bicycle Parking, Architectural Features Design and Construction Changes at Wilshire/Rodeo and CCC Stations = \$1,540,404

### **4 Change Order for Purple Line Section 2**

❖ Century City Constellation Main Entrance – Construction = \$25,500,000

# Spot Check Schedule Comparison

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

PROJECT	Title of Change Order	Time Saved Executed date to Board Mtg.	NEW Delegated Process final SOW to Executed date	Former Board Approval Process
CRENSHAW / LAX	Landscape Changes – Park Mesa	55	0	55
REGIONAL CONNECTOR	2 <sup>nd</sup> /Hope Pedestrian Bridge – Construction	22	30	52
WESTSIDE PURPLE LINE SECT 2	Station and Bicycle Parking, Architectural Features Design & Construction Changes at Wilshire/Rodeo & CCC Stations	11	42	53
WESTSIDE PURPLE LINE SECT 2	Century City Constellation Main Entrance – Construction	57	81	138

# Spot Check Recommendations

File #  
2021-0121

#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.

#2

Contract C0980

MOD-00184

Regional Connector

- Transit Corridor

Project

2nd/Hope

Pedestrian Bridge -

Construction

The OIG has NO recommendation for this change order.

April 2021

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# Spot Check Recommendations

File #  
2021-0121

#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.

#4

Contract C1120

MOD-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.

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