



Board Report

File #: 2018-0403, File Type: Informational Report

Agenda Number:

CONSTRUCTION COMMITTEE JULY 19, 2018

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

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE Office of the Inspector General change order/modification construction spot checks report.

ISSUE

On January 25, 2018, the Metro Board directed Office of Inspector General (“OIG”) to conduct random spot checks on the projects listed in the quarterly program management report to ensure that the delegation of authority to approve construction change orders policy is performing in the manner desired by the Board of Directors.

BACKGROUND

I. SUMMARY

The OIG has developed a spot check program (“Spot Checks”) primarily focuses on approved change orders and modifications that exceed \$1 million. The Change Orders in this report were selected from the July Program Management Major Project Status Report (File # 2018-0393), covering March, April, and May 2018. The information for the Spot Checks were collected from the Program Management Department’s data base PMIS system. Also, in-person and telephonic interviews were conducted with Program Management, Project Control, and Procurement staff for each individual project office.

The OIG has reported seven change orders for the period from March 1, 2018 to May 31, 2018, that are using Metro funds; four were processed from Crenshaw/LAX, one from Regional Connector, and two from Westside Purple Line Extension Section 2. This quarter the Westside Purple Line Extension 1 did not have any change orders above \$500 thousand. Regional Connector and Westside Purple Line Extension 2 projects did not have any Change Orders above \$1 million (except for those the OIG previously reported in May 2018) but the OIG selected change orders between \$500 thousand to \$1 million on which to report.

We found that four Change Orders were negotiated/approved/executed on average faster than the former Board approval process would have taken. In addition, the negotiated cost for two Change Orders were lower, two were higher, and one was equal based upon the independent cost estimate (ICE) as a measure. Two Change Orders were unilateral actions and no negotiated amount has been agreed upon. For the Change Orders/Modifications the OIG reviewed, some of the Spot Checks have shown that the delegation of authority has, in certain cases, resulted in:

- Minimizing/reducing delay costs,
- A negotiated amount that was reasonable for the work to be done; and
- Minimizing construction delays.

II. Additions to the OIG Program Description

Format of report moving forward for the Change Orders, the OIG Spot Checks focus on:

- i. Introduction of Change Order/Modification
- ii. Facts of Change Order
- iii. Scope of Work
- iv. Budget
- v. Time to Execute Change Order
- vi. Recommendations

In regards to the Recommendations made by the OIG, Project Control will work with individual Project Management Field Offices to obtain responses. The responses will be put in a matrix and provided to the OIG within 30 days after the Board report is issued. The OIG will provide Program Management a response in the next quarter OIG construction spot check report (October 2018).

DISCUSSION

III. Spot Checks Performed in this Quarter

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

This OIG Spot Check report concerns the Crenshaw/LAX Transit Project (Contract C0988), Change Order (CO-00173.4), titled: Fire Rated Conduit and Cable for Tunnel Emergency Lighting.

Facts of Change Order

| <u>Description of Change Order CO-00173.4: Fire Rated Conduit and Cable for Tunnel Emergency Lighting</u> | |
|---|------------------|
| <u>Change Order Dates:</u> | |
| i. Metro initiated Change Order | December 6, 2017 |
| ii. Unilateral change executed date | June 15, 2018 |
| <u>Elapsed Time for Executing Change Order:</u> | |
| iii. Using new delegated process | 141 work days |
| iv. Estimate using former Board approval process | Still Accruing |
| <u>Cost of Change Order:</u> | |
| v. Metro independent cost estimate (ICE) * | \$1,756,013 |
| vi. Contractor's proposed cost | \$7,666,921 |
| vii. Unilateral change award amount | \$1,785,429 |
| viii. Negotiated amount over ICE | n/a |
| ix. Percentage of negotiated amount over ICE | n/a |

* Cost verified by outside independent estimator which was within 10% of ICE.

Conclusion

Scope of Work - Metro standard specifications in the contract require a particular material for some cables/pipes for lighting. That material was de-certified by Underwriters Laboratories and is no longer appropriate for use. The change of materials is at several underground locations affecting portal tunnel lighting. Metro Fire Life Safety Group determined other materials as options. The contractor has not agreed to what is the appropriate labor rate to be applied to installation of the new material. To avoid further delays, this change order was issued to proceed to purchase the materials and commence construction, but the labor rate is yet to be agreed upon.

Budget - The contractor's proposal, at \$7.67 million, is very high compared to Metro's Independent Cost Estimate (ICE) of \$1.756 million. Metro and the contractor are in agreement on the quantities and material; however, they are not in agreement on the labor rates. A unilateral change order was issued in the amount of \$1,785,429 to authorize the contractor to commence procurement and construction on the cable replacement and not delay the project pending an agreement.

Schedule - This change order was issued in December 2017. The total time needed to reach agreement is uncertain. In this case, the new delegation approach utilized by project management mitigates the schedule but, leaves open the risk of proceeding with no agreement on the labor rate.

Recommendation

The OIG recommendation is to: 1) update the Metro Specifications to list the change in the standards and to include the list of approved alternatives from Metro Fire Life and Safety group; and 2) continue to follow appropriate process to resolve the Change Order dispute.

B. Spot Check #2 - Crenshaw/LAX Transit Project

This OIG Spot Check report concerns the Crenshaw/LAX Transit Project (Contract C0988), Change Order (CO-00209.1), titled: Preliminary 45 day Acceleration.

Facts of Change Order

| <u>Description of Modification C0980-CO-00209.1: Preliminary 45 day Acceleration</u> | |
|--|----------------|
| <u>Change Order Dates:</u> | |
| i. Metro initiated Change Order | March 19, 2018 |
| i. Unilateral change executed date | March 29, 2018 |
| <u>Elapsed Time for Executing Change Order:</u> | |
| ii. Using new delegated process | 9 work days |
| iii. Estimate using former Board approval process | Still Accruing |
| <u>Cost of Change Order:</u> | |
| iv. Metro independent cost estimate (ICE) | Not documented |
| v. Contractor's proposed cost | Not documented |
| vi. Unilateral NTE award | \$8,000,000 |
| vii. Negotiated amount over/(under) ICE | n/a |
| viii. Percentage of negotiated amount over ICE | n/a |

Conclusion

Scope of Work - In January 2018, the contractor submitted a schedule update that indicated 56-days of schedule delay. Metro's CEO issued a directive letter to the contractor to accelerate the work to complete the project in time for the October 30, 2019, revenue operation date. The CEO directive letter requested two items: first, it proposed a startup/ramp-up period set of activities and costs for the first 45-days; and second, proposed an overall plan by the end of the 45-days for completion of the project on time.

Budget - This change order was authorized for up to \$8 million to initiate the first 45-day effort of a schedule recovery for critical activities at various locations along the 8.5-mile Crenshaw project. \$4 million was paid towards this Change Order.

Schedule - The new delegation process was completed in only 9 work days.

Recommendation

The OIG recommends Metro continue to explore with the contractor opportunities to accomplish schedule recovery.

C. Spot Check #3 - Crenshaw/LAX Transit Project

This OIG Spot Check report concerns the Crenshaw/LAX Transit Project (Contract C0988), Modification (MOD-00354), titled: COLA request to replace concrete street light and signal poles with steel poles - MLK area.

Facts of Change Order

| | |
|---|-------------------|
| <u>Description of Modification -MOD-000354 COLA request to replace concrete street light and signal poles with steel poles – MLK area</u> | |
| <u>Change Order Dates:</u> | |
| i. Metro initiated Change Notice | February 27, 2018 |
| ii. Modification Executed | June 15, 2018 |
| <u>Elapsed Time for Executing Change Order:</u> | |
| iii. Using new delegated process | 75 work days |
| iv. Estimate using former Board approval process | 85 work days |
| <u>Cost of Change Order:</u> | |
| v. Metro independent cost estimate (ICE) | \$1,369,843 |
| vi. Contractor's proposed cost | \$1,577,184 |
| vii. Negotiated amount | \$1,350,000 |
| viii. Negotiated amount (under) ICE | (\$19,843) |
| ix. Percentage of negotiated amount under ICE | (1.45%) |

Conclusion

Scope of Work - This Modification is to remove existing 15-foot concrete pedestrian poles and 40-foot concrete Davit street light poles not within the limits of work of the Crenshaw/LAX project and replace with 40-foot steel Davit light poles between the limits of 48th street to Exposition Blvd. The City states this change will make the streetscape have a uniform appearance along the alignment of the project with new city light poles.

Budget - The cost associated with this modification is \$1.35 million. The ICE was \$1.37 million. The award was \$19,843 or (-1.45%) below the Metro ICE.

Schedule - The new delegation process was utilized for this modification. The time it took to initiate and execute the change order into a modification was 75 work days. Under the former process, the change order would have gone before the June Board, for a total of 85 work days.

Recommendation

This modification might be considered a 'Betterment' and recommend that consideration of a similar value be negotiated with the City to offset this cost in connection with this project.

D. Spot Check #4 - Crenshaw/LAX Transit Project

This OIG Spot Check report concerns the Crenshaw/LAX Transit Project (Contract E0117), Modification (MOD-00044), titled: E0117 - Phase 3 - MOD-00044 Extend Crenshaw/LAX Phase 3 DSDC and commence Phase 4 system activation.

Facts of Change Order

| | |
|---|-------------------|
| <u>Description of Modification –E0117-Phase 3-MOD-00044 Extend Crenshaw/LAX Phase 3 DSDC and commence Phase 4 system activation</u> | |
| <u>Change Order Dates:</u> | |
| i. Metro initiated Change Notice | February 26, 2018 |
| ii. Modification Executed | April 11, 2018 |
| <u>Elapsed Time for Executing Change Order:</u> | |
| iii. Using new delegated process | 33 work days |
| iv. Estimate using former Board approval process | 64 work days |
| <u>Cost of Change Order:</u> | |
| v. Metro independent cost estimate (ICE) | \$5,456,542 |
| vi. Contractor's proposed cost | \$5,500,000 |
| vii. Negotiated amount | \$5,500,000 |
| viii. Negotiated amount over ICE | \$43,458 |
| ix. Percentage of negotiated amount over ICE | 0.796% |

Conclusion

Scope of Work - This modification is to extend the Phase 3 Design Services of the Design Build Construction contract during this critical junction of construction to avoid any disruption with the design. Additionally, this modification is to formally kickoff Phase 4 of the System Activation Support Services. The designers will provide support to Metro in the last two years with system testing and rail activation support.

Budget - The funds of \$6 million are within the original approved budget, no additional funds are requested. \$500 thousand is for the design support of Division 16 Southwestern Yard, and \$5.5 million is for the stations, rail, and tunnels. The ICE was in the amount for \$5.456 million and the negotiated amount for Phase 4 is \$5.5 million this is 0.706% above the Metro ICE.

Schedule - The new delegation process was utilized for the modification within a total of 33 work days. By using the previous Board process, the modification would have gone before the May Committee/Board meeting for a total of 64 work days. The wait time for the additional month could have disrupted the design build contract.

Recommendation - None.

E. Spot Check #5 - Regional Connector Transit Project

This OIG Spot Check report concerns the Regional Connector Transit Project (Contract C0980), Modification (MOD-00119), titled: Additional Special Conditions to Cal/OSHA Tunnel Classification through March 31, 2018. This quarter the Regional Connector did not have any Change Orders/Modifications greater than \$1 million dollars (that were not previously reported by the OIG), the highest modification was chosen at \$585,148.

Facts of Change Order

| <u>Description of Modification –Additional of Special Conditions to Cal/OSHA Tunnel Classification through March 31, 2018</u> | |
|---|------------------|
| <u>Change Order Dates:</u> | |
| i. Metro initiated Change Notice | October 12, 2017 |
| ii. Modification Executed | March 29, 2018 |
| <u>Elapsed Time for Executing Change Order:</u> | |
| iii. Using new delegated process | 113 work days |
| iv. Estimate using former Board approval process | 153 work days |
| <u>Cost of Change Order:</u> | |
| v. Metro independent cost estimate (ICE) | \$585,148 |
| vi. Contractor's proposed cost | \$782,389 |
| vii. Negotiated amount | \$585,148 |
| viii. Negotiated amount = ICE | \$0 |
| ix. Percentage of negotiated amount over ICE | 0% |

Conclusion

Scope of Work - This modification was due to a change in scope because on April 6, 2017, the project experienced methane gas discharge from the ground that exceeded the 5% of the lower explosive limit threshold of the Cal/OSHA tunnel safety orders. In response, Cal/OSHA revised on April 10, 2017 the underground classification requiring continuous full-time gas monitoring be performed by a State of California certified gas tester exclusively dedicated to monitor in the bored tunnels, cross passageways and caverns for safety of Metro and contractor workers'. This continuous monitoring occurred through March 31, 2018. The requirement was later modified by Cal/OSHA to exclude caverns, consequently reducing the amount of time for gas testing. While the Special Condition of continuous gas testing in the cavern has been lifted, Metro and the contractor will continue to operate under customary testing requirements of every 4 hours established by the Tunnel Safety Orders of Cal/OSHA through the end of the project for Metro and contractor workers' safety.

Budget - This change notice and original rough order of magnitude (ROM) was first thought to be three times higher at \$1.5 million, but after clarification of intent, removing the cavern from the continuous testing requirement, and interpretation of the contract, it was negotiated for a lower amount of \$585,148. The ICE was at \$585,148 and the contractors' proposal was \$782,389. The

award was for the same amount as the ICE.

Schedule - The schedule in counting the work days began last year when the change notice was initiated October 12, 2017. The methane gas incident occurred on April 6, 2017, and the contractor was monitoring according to Cal/OSHA requirements for 6 months until the contractor submitted the request for a change. The initial change notice was then put into the system. Quotes were received from the contractor and scope was updated on March 23, 2018. Procurement was able to quickly execute the modification on March 29, just 5 work days later. Counting from the time (for uniformity of the report) the change notice was initiated, the count is 113 work days. The delegation process allowed procurement to move quickly once all documents were received. If the Board process was utilized the report would have gone to the May Committee/Board meeting, a total of 153 work days.

Recommendation

OIG recommends that during coordination meetings, between project management of Regional Connector and of Westside Purple Line Extensions 1, 2 & 3, communicate Lessons Learned concerning gas emissions monitoring when tunneling in this region to ensure timely notification and coordination with Cal/OSHA once a notifiable event occurs.

F. Spot Check #6 - Westside Purple Line Extension - Section 2 Transit Project

This OIG Spot Check report concerns the Westside Purple Line Extension Section 2 Transit Project (Contract C1120), Modification (MOD-00011), titled: Temp K-rail Noise Barrier - AUR Work. This quarter Westside Purple Line Extension 2 did not have any Change Orders/Modifications greater than \$1 million dollars (that were not previously reported by OIG); the highest modification was chosen at \$978,982.00.

Facts of Change Order

| <u>Description of Modification –Temp K-Rail Noise Barrier – AUR Work</u> | |
|--|----------------|
| <u>Change Order Dates:</u> | |
| i. Metro initiated Change Notice | April 13, 2018 |
| ii. Modification Executed | May 18, 2018 |
| <u>Elapsed Time for Executing Change Order:</u> | |
| iii. Using new delegated process | 26 work days |
| iv. Estimate using former Board approval process | 51 work days |
| <u>Cost of Change Order:</u> | |
| v. Metro independent cost estimate (ICE) | \$985,765 |
| vi. Contractor's proposed cost | \$1,033,914 |
| vii. Negotiated amount | \$978,982 |
| viii. Negotiated amount (under) ICE | (\$6,783) |
| ix. Percentage of negotiated amount under ICE | (0.69%) |

Conclusion

Scope of Work - This modification is for the addition of installing temporary noise barrier panels to the top of K-Rails in the City of Beverly Hills along Wilshire Blvd. In addition to the sound wall system, the contractor is to provide management, coordination, professional services, labor, equipment and materials for this modification to the contract. This modification notes the removal of chain link fencing with green or brown screen with sound blankets (inside) that was listed in the original scope of work. The Data Sheet states, the City of Beverly Hills has requested the use of panels for Public Information Graphics. These K-Rails with panels will provide worksite traffic control along Wilshire Blvd from Beverly Drive to Rexford Drive and enable longer working hours for the Advance Utility Relocation of AT&T and SoCal Gas.

Budget - The modification was negotiated down to \$978,982 which is \$6,783 below the ICE of \$985,765. The contractors' proposal came in at \$1,033,914. This is a savings of 0.69% below the ICE.

Schedule - Metro management used the new delegation process to quickly move this modification forward. The change notice was first created on April 13, 2018 and executed on May 18, 2018 for a total of 26 work days. Using the former Board process, this change notice would have come before the June Committee/Board meeting for a total process time of 51 work days.

Recommendation

1. The OIG recommends for work activities along an open city street (center of roadway) to add the option into future Scopes of Work to consider use of plywood barrier panels set into K-Rail when noise and working hours are extraordinary factors versus chain link fence with screens and sound blankets.
2. Plywood panels set into K-Rail enable longer working hours as compared to the standard traffic cones. This form of traffic control can also be set up and left in place during long work periods. The OIG recommends writing into Metro's Standard Specifications, for long duration activities, the option of utilizing plywood barriers set into K-Rail for traffic control plans to maximize the work hours and assist in traffic control.
3. The OIG further recommends that, this form of barrier be recorded in Lessons Learned and considered for the Westside Purple Line Extension Section 3. Program Management may consider it in meetings between Section 2 and Section 3 to share Lessons Learned.

G. Spot Check #7 - Westside Purple Line Extension - Section 2 Transit Project

This OIG Spot Check report concerns the Westside Purple Line Extension Section 2 Transit Project (Contract C1120), Modification (MOD-00012), titled: Oil Line Abatement at Launch Box Century City/Constellation Station (CCCS). This quarter Westside Purple Line Extension 2 did not have any Change Orders/Modifications greater than \$1 million dollars (that were not previously reported by OIG); the second highest modification was chosen at \$757,306.

Facts of Change Order

| <u>Description of Modification –Oil Line Abatement at Launch Box Century City/Constellation Station (CCCS)</u> | |
|--|----------------|
| <u>Change Order Dates:</u> | |
| i. Metro initiated Change Notice | March 29, 2018 |
| ii. Modification Executed | May 18, 2018 |
| <u>Elapsed Time for Executing Change Order:</u> | |
| iii. Using new delegated process | 37 work days |
| iv. Estimate using former Board approval process | 66 work days |
| <u>Cost of Change Order:</u> | |
| v. Metro independent cost estimate (ICE) | \$672,668 |
| vi. Contractor's proposed cost | \$801,420 |
| vii. Negotiated amount | \$757,306 |
| viii. Negotiated amount over ICE | \$84,638 |
| ix. Percentage of negotiated amount over ICE | 12.6% |

Conclusion

Scope of Work - This modification has the contractor complete the abatement of abandoned asbestos lined oil pipelines. This modification includes licensed hazardous waste haulers and disposal of materials containing asbestos. All work is to be performed by trained asbestos workers and supervision of certified asbestos contractors. Air monitoring must be conducted, and samples collected and analyzed. A site-specific Health and Safety plan must be prepared prior to any work. The asbestos containing material surrounding the inner product pipe was an unforeseen condition and not anticipated during the design phase.

Budget - The final cost associated with this modification was \$757,306. The ICE was \$672,668 and the contractors' proposal was \$801,420. The final price of the modification was \$84,638 or 12.6% higher than the ICE but lower than the contractor's proposal.

Schedule - Using the new delegation process Metro was able to create, process and, execute the modification in 37 work days. Using the prior Board approval process, the report would have been ready in time for the June Committee/Board meeting, a total of 66 work days.

Recommendation

This is a potential CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act, also known as Superfund. Passed in 1980) remediation that Metro should evaluate and pursue if appropriate to recover funds from the previous property owners. Metro may be entitled to proceed against the previous line of owners and recover damages for the clean-up of the abandoned oil pipelines that are asbestos lined causing the pollution.

The OIG recommends that Metro's Engineering Program Management provide information on this matter to allow Metro's Legal department to assist in making this determination.


NEXT STEPS

The Office of 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. The next OIG Construction Spot Check report will be in October.

Program Control and Program Management will respond to the recommendations of the OIG found in the May report and this report within 30 days. Responses to our recommendations will be set forth in the October OIG Construction Change Order Spot Check Quarterly Report.

Prepared by: Suzanna Sterling, Construction Specialist Investigator, (213) 244-7368

Reviewed by: Karen Gorman, Inspector General, (213) 244-7337



Karen Gorman
Inspector General