



*One Gateway Plaza, Los Angeles, CA 90012,
3rd Floor, Metro Board Room*

Agenda - Final

Thursday, July 20, 2023

9:30 AM

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Construction Committee

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Stephanie Wiggins, Chief Executive Officer*

METROPOLITAN TRANSPORTATION AUTHORITY BOARD AGENDA RULES

(ALSO APPLIES TO BOARD COMMITTEES)

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The public may also address the Board on non-agenda items within the subject matter jurisdiction of the Board during the public comment period, which will be held at the beginning and/or end of each meeting. Each person will be allowed to speak for one (1) minute during this Public Comment period or at the discretion of the Chair. Speakers will be called according to the order in which their requests are submitted. Elected officials, not their staff or deputies, may be called out of order and prior to the Board's consideration of the relevant item.

Notwithstanding the foregoing, and in accordance with the Brown Act, this agenda does not provide an opportunity for members of the public to address the Board on any Consent Calendar agenda item that has already been considered by a Committee, composed exclusively of members of the Board, at a public meeting wherein all interested members of the public were afforded the opportunity to address the Committee on the item, before or during the Committee's consideration of the item, and which has not been substantially changed since the Committee heard the item.

In accordance with State Law (Brown Act), all matters to be acted on by the MTA Board must be posted at least 72 hours prior to the Board meeting. In case of emergency, or when a subject matter arises subsequent to the posting of the agenda, upon making certain findings, the Board may act on an item that is not on the posted agenda.

CONDUCT IN THE BOARD ROOM - The following rules pertain to conduct at Metropolitan Transportation Authority meetings:

REMOVAL FROM THE BOARD ROOM - The Chair shall order removed from the Board Room any person who commits the following acts with respect to any meeting of the MTA Board:

- a. Disorderly behavior toward the Board or any member of the staff thereof, tending to interrupt the due and orderly course of said meeting.
- b. A breach of the peace, boisterous conduct or violent disturbance, tending to interrupt the due and orderly course of said meeting.
- c. Disobedience of any lawful order of the Chair, which shall include an order to be seated or to refrain from addressing the Board; and
- d. Any other unlawful interference with the due and orderly course of said meeting.

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Agendas for the Regular MTA Board meetings are prepared by the Board Clerk and are available prior to the meeting in the MTA Records Management Department and on the Internet. Every meeting of the MTA Board of Directors is recorded and is available at <https://www.metro.net> or on CD's and as MP3's for a nominal charge.

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The Committee Meeting begins at 9:30 AM Pacific Time on July 20, 2023; you may join the call 5 minutes prior to the start of the meeting.

Dial-in: 888-251-2949 and enter
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Public comment will be taken as the Board takes up each item. To give public comment on an item, enter #2 (pound-two) when prompted. Please note that the live video feed lags about 30 seconds behind the actual meeting. There is no lag on the public comment dial-in line.

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Los comentarios publicos en vivo se pueden dar por telefono o en persona.

La Reunion de la Junta comienza a las 9:30 AM, hora del Pacifico, el 20 de Julio de 2023.
Puedes unirte a la llamada 5 minutos antes del comienso de la junta.

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Written Public Comment Instruction:

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Please include the Item # in your comment and your position of "FOR," "AGAINST," "GENERAL COMMENT," or "ITEM NEEDS MORE CONSIDERATION."

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Board Administration

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Los Angeles, CA 90012

CALL TO ORDER**ROLL CALL**

APPROVE Consent Calendar Item: 14.

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

CONSENT CALENDAR

- 14. SUBJECT: THIRD PARTY ADMINISTRATION - CITY OF LOS ANGELES** [2023-0401](#)
FY24 ANNUAL WORK PLAN

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to execute the annual expenditure budget plan of \$36,536,291 for the FY24 Annual Work Plan for the City of Los Angeles (Attachment A).

Attachments: [Attachment A - FY24 Annual Work Plan for City of LA Board Report 6-5-23](#)

NON-CONSENT

- 15. SUBJECT: WESTSIDE PURPLE LINE EXTENSION SECTION 2** [2023-0316](#)

RECOMMENDATION

AMEND the Life-of-Project (LOP) budget for the Westside Purple Line Extension Section 2 Project by \$134,000,000, from \$2,440,969,299 to \$2,574,969,299, using the fund sources as summarized in Attachment A and consistent with the provisions of the Board-adopted Measure R and Measure M Unified Cost Management Policy (Attachment B).

Attachments: [Attachment A - Funding Expenditure Plan](#)
[Attachment B - Measure R and Measure M Unified Cost Management Policy](#)
[Attachment C - Projected Breakdown of Cost Allocation for \\$134 million](#)
[Presentation](#)

- 16. SUBJECT: PROGRAM MANAGEMENT QUARTERLY CHANGE** [2023-0410](#)
REPORT

RECOMMENDATION

RECEIVE AND FILE Status Report on Program Management Quarterly Change Report (Attachment A).

Attachments: [Attachment A - Quarterly Change Orders Log for Period of 3.1.23-5.31.23](#)
 [Attachment B – OIG Construction Change Order Spot Checks](#)

17. **SUBJECT: OFFICE OF THE INSPECTOR GENERAL CONSTRUCTION [2023-0398](#)**
 CHANGE ORDER SPOT CHECKS

RECOMMENDATION

RECEIVE AND FILE Office of the Inspector General Construction Change Order Spot Check Report for the period March 1 to May 31, 2023.

Attachments: [Attachment A - DATA Sheet July Spot Check 06.16.23](#)
 [Attachment B - Recommendations Responses 2018 to July 2023](#)
 [Presentation](#)

18. **SUBJECT: PROGRAM MANAGEMENT MAJOR PROJECT STATUS [2023-0395](#)**

RECOMMENDATION

RECEIVE AND FILE the Program Management Major Project Status Report.

Attachments: [Presentation](#)

- SUBJECT: GENERAL PUBLIC COMMENT [2023-0423](#)**

RECEIVE General Public Comment

Consideration of items not on the posted agenda, including: items to be presented and (if requested) referred to staff; items to be placed on the agenda for action at a future meeting of the Committee or Board; and/or items requiring immediate action because of an emergency situation or where the need to take immediate action came to the attention of the Committee subsequent to the posting of the agenda.

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

Adjournment



Metro

Board Report

Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2023-0401, **File Type:** Informational Report

Agenda Number: 14.

CONSTRUCTION COMMITTEE JULY 20, 2023

SUBJECT: THIRD PARTY ADMINISTRATION - CITY OF LOS ANGELES FY24 ANNUAL WORK PLAN

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to execute the annual expenditure budget plan of \$36,536,291 for the FY24 Annual Work Plan for the City of Los Angeles (Attachment A).

ISSUE

During the design, construction and maintenance phases of Metro projects, a significant amount of support is required from local jurisdictions via an annual work plan. The annual work plan shall serve as a commitment from the agency for the reimbursement of services by City of Los Angeles reviewing jurisdictions for an estimated amount of services. Without an annual work plan, the City of Los Angeles jurisdictions have no funding sources to support the projects in a timely manner in order to meet Metro's schedules.

BACKGROUND

In December of 2002, A Master Cooperative Agreement (MCA) was executed between Metro and the City of Los Angeles. The intent of the agreement was to establish a streamlined process among both entities to successfully construct Metro's ongoing projects. A function of the MCA was to clearly identify a yearly budget for each City department to provide those city services. This function was labeled as the Annual Work Plan. A new MCA is currently being negotiated between Metro and the City of Los Angeles, and the 2002 MCA remains in effect until the new MCA is finalized. The new MCA is an effort to support the Metro construction program by capturing lessons learned, updating and enhancing processes, and enhancing overall relationships and cooperation between the two agencies. Upon execution of the new MCA, the 2002 MCA shall be terminated. This work plan is consistent with the principals of the new draft MCA which contains a streamlined escalation ladder, improved processes for design review and acceptance, early involvement and improved collaboration processes, and the inclusion of a Project Liaison to coordinate across City departments for future mega projects. The Project Liaison will be piloted for the East San Fernando Valley Transit Corridor

project, and funds for this pilot are included within this AWP.

DISCUSSION

The Annual Work Plan funds Metro's project plan reviews from various City of Los Angeles departments to support reviews of design and construction project plans on an annual basis. These services are essential for streamlining project delivery, which includes expediting plan reviews and approvals, ensuring quality and effective construction measures, timely inspections, and other functional efforts as described above. All services are centered to avoid project delays and promote cost saving measures to effectively deliver the project with minimal impacts on the community and provide benefits of enhanced mobility and regional access to underserved populations within the respective project areas.

The action contained herein provides funding for the City of Los Angeles participation in projects within the limit of the current approved FY24 budget for Third Party Review and maintenance. (See Attachment A).

Metro's efforts to proactively manage these costs will include the following:

- A. Controlling the design review process through the early coordination of design efforts to confirm scope and establish/clarify standards and requirements.
- B. Reviewing submittals for completeness.
- C. Ensuring that third party requirements are identified and addressed prior to sending to the third party.
- D. Reviewing timesheets with each third-party organization on a monthly basis to ensure that hours charged are appropriate.
- E. Conducting executive and staff level partnering with third parties.

DETERMINATION OF SAFETY IMPACT

The recommended action has no impact on safety.

FINANCIAL IMPACT

The funding of \$36,536,291 which may be obligated and spent under this one-year work plan, is included in the FY24 adopted budget within the projects requiring the services to be performed by the City of Los Angeles as outlined in Attachment A. Since these are multi-year projects, the Project Managers and the Chief Program Management Officer will be responsible for budgeting future year costs.

EQUITY PLATFORM

While considering the projects, Metro will provide an estimated 42 miles of new transit systems (pedestrian, bicycle, rail and bus) and 11 potential passenger stations within the City of L.A limits and

Equity Focus Communities (EFC). This Board item action will reduce likelihood of transit and active transportation project delays.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

By executing the Annual Work Plan for FY24 and allowing the City departments to continue reviewing plans, while advancing a more streamlined approval process to successfully construct Metro's ongoing projects, it would positively support Metro's overall plan and goal of expanding the transportation network, increase mobility for all users and improve LA County's overall transit networks and assets.

IMPACT ON BUS AND RAIL OPERATING AND CAPITAL BUDGET

The funding for this Annual Work Plan will come from various sources of funds (see Attachment A). With the exception of major construction projects funded with specific grant funds, these funds are eligible for bus and rail operating and capital expenditures. No other sources of funds were considered for this activity because the primary beneficiary of the service is bus, rail and capital projects.

ALTERNATIVES CONSIDERED

The Board may reject the recommendation and direct us to include this work under Construction Contracts. Unfortunately, this is not recommended because it will delay each of the projects.

NEXT STEPS

Upon Board approval of the annual work plan, the City of Los Angeles shall submit the annual work plan to the Los Angeles City Council and Mayor's Office for adoption.

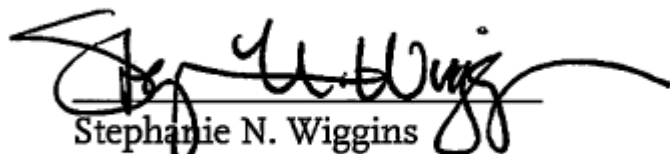
ATTACHMENTS

Attachment A - FY24 Annual Work Plan Anticipated Budget for the City of Los Angeles

Prepared by:

Eduardo Cervantes, Executive Officer, Projects Engineering, 213-922-7255.

Reviewed by: Sameh Ghaly, Chief Program Management Officer (Interim), 213-418-



Stephanie N. Wiggins
Chief Executive Officer

ATTACHMENT A

FY24 ANNUAL WORK PLAN ANTICIPATED BUDGET FOR CITY OF LOS ANGELES

CRENSHAW CATCH ALL

Bureau of Engineering	\$300,000
Dept. of Transportation	\$300,000
Con Ad	\$376,430
Subtotal:	\$976,430

REGIONAL CONNECTOR

Bureau of Engineering	\$750,000
Dept. of Transportation	\$784,883
Bureau of Street Services	\$149,955
Bureau of Street Lighting	\$90,691
Con Ad	\$654,111
Cross Coordination	\$50,000
General Services	\$5,064
Subtotal:	\$2,484,704

PURPLE LINE #1

Bureau of Engineering	\$900,000
Dept. of Transportation	\$1,097,585
Bureau of Street Services	\$125,985
Bureau of Street Lighting	\$285,632
Con Ad	\$794,258
Cross Coordination	\$100,000
LAPD	\$55,274
Subtotal:	\$3,358,734

PURPLE LINE #2

Bureau of Engineering	\$900,000
Dept. of Transportation	\$977,915
Bureau of Street Services	\$160,822
Bureau of Street Lighting	\$278,159
Con Ad	\$696,146
LASAN	\$156,933
Cross Coordination	\$100,000
LAPD	\$115,000
LASan	\$119,082
LAFD	\$53,040
Subtotal:	\$3,557,097

ATTACHMENT A (Continued)

PURPLE LINE #3

Bureau of Engineering	\$1,200,000
Dept. of Transportation	\$1,576,284
Bureau of Street Services	\$167,197
Bureau of Street Lighting	\$303,918
Con Ad	\$696,146
LASAN (WESD)	\$156,933
Cross Coordination	\$100,000

Subtotal:	\$4,200,478
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RAILTO RAIL

Bureau of Engineering	\$450,000
Dept. of Transportation	\$1,200,000
Bureau of Street Services	\$52,908
Bureau of Street Lighting	\$140,037
Con Ad	\$250,000

Subtotal:	\$2,092,945
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EASTSIDE 1ST/CENTRAL

Bureau of Engineering	\$200,000
Dept. of Transportation	\$63,759
Bureau of Street Lighting	\$109,083
Bureau of Street Services	\$70,305
LASAN	\$27,129
Con Ad	\$100,000

Subtotal:	\$570,276
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ORANGE LINE

Bureau of Engineering	\$875,000
Dept. of Transportation	\$968,223
Bureau of Street Services	\$258,245
Bureau of Street Lighting	\$296,545
Con Ad	\$20,000
LASAN	\$188,357

Subtotal:	\$2,606,370
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ESVTC

Bureau of Engineering	\$1,475,000
Dept. of Transportation	\$1,197,585
Bureau of Street Services	\$371,127
Bureau of Street Lighting	\$803,810
LASAN (WPD)	\$534,736
LASAN (WESD)	\$188,357
Con Ad	\$46,072
Cross Coordination Support	\$100,000

Subtotal:	\$ 4,716,687
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ATTACHMENT A (Continued)

Link US

Bureau of Engineering	\$600,000
Dept. of Transportation	\$403,425
Bureau of Street Services	\$80,638
Bureau of Street Lighting	\$230,915
LASAN (WESD)	\$45,600
Subtotal:	\$1,360,578

Brighton to Roxford

Bureau of Engineering	\$300,000
Dept. of Transportation	\$209,810
Bureau of Street Lighting	\$209,924
Subtotal:	\$719,734

Doran Street Grade Separation

Bureau of Engineering	\$300,000
Dept. of Transportation	\$270,381
Bureau of Street Services	\$166,581
Bureau of Street Lighting	\$177,236
LASAN (WESD)	\$50,689
Subtotal:	\$964,887

HOLLYWOOD TO PASADENA BRT

Bureau of Engineering	\$300,000
Dept. of Transportation	\$300,000
Bureau of Street Lighting	\$50,000
Con Ad	\$10,000
LA San	\$10,000
Bureau of Street Services	\$50,000
Subtotal:	\$720,000

WEST SANTA ANA

Bureau of Engineering	\$25,000
Dept. of Transportation	\$25,000
Bureau of Street Services	\$25,000
Bureau of Street Lighting	\$25,000
Subtotal:	\$100,000

SEPULVEDA NORTH

Bureau of Engineering	\$30,000
Dept. of Transportation	\$30,000
Bureau of Street Lighting	\$30,000
Subtotal:	\$90,000

ATTACHMENT A (Continued)

NEXT GEN SPEED AND RELIABILITY

Bureau of Engineering	\$775,000
Bureau of Street Services	\$1,250,000
Dept. of Transportation	\$3,665,000
Subtotal:	\$5,690,000

DIVISION 20

Bureau of Engineering	\$150,000
Dept. of Transportation	\$156,044
Bureau of Street Services	\$50,000
Bureau of Street Lighting	\$150,000
Con Ad	\$491,829
LASAN	\$50,000
Subtotal:	\$1,047,873

METRO CENTER PROJECT

Bureau of Engineering	\$300,000
Dept. of Transportation	\$58,663
Bureau of Street Services	\$264,292
Bureau of Street Lighting	\$304,988
Con Ad	\$88,897
LASAN	\$42,658
Subtotal:	\$1,059,498

I-105 EXPRESS LANES

Bureau of Engineering	\$30,000
Dept. of Transportation	\$30,000
Bureau of Street Lighting	\$30,000
Subtotal:	\$90,000

PATSAOURAS

Bureau of Engineering	\$15,000
Dept. of Transportation	\$10,000
Bureau of Street Services	\$10,000
Bureau of Street Lighting	\$10,000
Con Ad	\$10,000
Subtotal:	\$55,000

RED LIGHT PHOTO ENFORCEMENT

Bureau of Engineering	\$75,000
Subtotal:	\$75,000

GRAND TOTAL: \$36,536,291

TOTAL FY24 BUDGET: \$36,536,291



Board Report

File #: 2023-0316, File Type: Budget

Agenda Number: 15.

CONSTRUCTION COMMITTEE JULY 20, 2023

SUBJECT: WESTSIDE PURPLE LINE EXTENSION SECTION 2

ACTION: APPROVE RECOMMENDATION

RECOMMENDATION

AMEND the Life-of-Project (LOP) budget for the Westside Purple Line Extension Section 2 Project by \$134,000,000, from \$2,440,969,299 to \$2,574,969,299, using the fund sources as summarized in Attachment A and consistent with the provisions of the Board-adopted Measure R and Measure M Unified Cost Management Policy (Attachment B).

ISSUE

The Westside Purple Line Extension Section 2 Project (Project) is in its sixth year of construction and is 58% complete as of May 2023. To date, the Project has experienced unexpected conditions and additional requirements, resulting in a drawdown of Contingency to a level that Metro staff and the Federal Transit Administration (FTA) now believe is insufficient to address the remaining risks through the completion of the Project.

As a result of the cost contingency drawdowns detailed below, this Board Report requests an LOP budget increase of \$134 million, to replenish the Project's contingency and fund future impacts to the Project. This request assumes the most favorable outcome for current Project issues and risks.

BACKGROUND

The Project is the second of three sections of the nine-mile Purple Line Extension. It ranges from the future Wilshire/La Cienega Station that is part of the Section 1 Project to Century City. The Project is located entirely underground, primarily following Wilshire Boulevard, and includes the design and construction of approximately 2.59 miles of double-track heavy rail subway and two new stations, as well as the purchase of 20 heavy rail vehicles. The Wilshire/Rodeo Station is within the jurisdiction of City of Beverly Hills, and the Century City Constellation Station is within the jurisdiction of City of Los Angeles.

On January 26, 2017, the Metro Board approved the Life of Project (LOP) Budget of \$2,440,969,299 for the Project, excluding Finance Charges of \$88.7 million. Metro awarded a 3,100-calendar day

design/build contract (Contract) to Tutor Perini/O&G (TPOG) on January 30, 2017, and Notice to Proceed was issued on April 26, 2017.

DISCUSSION

The Project's LOP budget included a total contingency (allocated and unallocated) of \$345.7 million when it was established in January 2017. Since then, to pay for contract modifications and change orders addressing issues which were not known or undefined at the time of award and other impacts to the Project, \$241.13 million of Project contingency has been expended (which includes the positive impact of \$22 million of value engineering in 2018).

As of May 2023, the Project's remaining contingency of \$104.6 million is projected to be insufficient to support the Project through the end of fiscal year 2024.

The Project's cost contingency drawdowns to date can be categorized into the following three major categories: previously undefined scope, third party requirements, and professional services. All Contract Modifications and Change Orders have been subject to oversight from the Office of the Inspector General (OIG) and discussed in the Program Management Major Project Status Report and the Program Management Quarterly Change Report.

1. Previously Undefined Scope - Approximately \$137.62 million
2. Third Party Requirements - Approximately \$41.12 million
3. Professional Services and Utility Companies - Approximately \$62.39 million

In addition to the above listed categories of contingency drawdown, project staff have identified risks associated with pending and potential changes. Most notably, TPOG has submitted multiple Requests for Changes (RFCs) asserting schedule impacts for various reasons which Metro has not merited. As such, Metro has rejected most of the requests. Metro anticipates TPOG will advance some of them to a dispute resolution process. Since Metro is disputing most of TPOG's alleged delays, the requested amount in this Board Report does not include budget to fund the values claimed by the Contractor. Refer to Attachment C for the allocation of the proposed increase.

As reference, the FTA performed an independent 50% risk assessment in early February 2023 after the project reached 50% completion. The assessment concluded that the current budget is insufficient because it does not meet FTA's 65% confidence level requirement. The model identified a shortfall of \$232 million at the 65% confidence level. Metro staff also performed an independent risk assessment to the same confidence level and concluded a similar result. The Project's Full Funding Grant Agreement (FFGA) budget was based on a 50% confidence level. However, the FTA formally adopted the 65% confidence level as its new standard in 2022. If the FTA had maintained its 50% confidence level during its recent risk assessment, the projected budget shortfall would have been lower.

Major risks such as additional changes to project scope, professional services contracts exceeding

current forecasts, and contractor claims may cause additional cost and schedule impacts. Project staff will continue to assess ongoing and future Project risks, and the potential impact they may have on the LOP Budget and Project schedule, while continuing to manage those risks to control costs. Staff will return, if necessary, to the Board to report on any additional funding requirements that are identified beyond this current request.

DETERMINATION OF SAFETY IMPACT

This Board action will not have an impact on established safety standards for Metro's construction projects.

FINANCIAL IMPACT

Funds required for fiscal year 2024 are included in the FY24 Adopted Budget. Since this is a multi-year capital project, the Chief Program Management Officer and the Project Manager are responsible for budgeting costs in future fiscal years.

Impact to Budget

The sources of funds for the recommended actions are Federal New Starts and local Measure R 35% Transit Capital. These funds are not Subregional Equity Program funds nor eligible for operating costs.

Multi-year Impact

The sources of funds for the Project are capital funds identified in the recommended Funding/Expenditure Plan as shown in Attachment A. With respect to the requested \$134,000,000 increase, Attachment B shows the Measure R and Measure M Unified Cost Management Policy (the Policy) analysis and funding strategy required for cost increases to Measure R Projects.

To comply with the Policy of the Metro Board of Directors, Metro staff has evaluated potential offsetting cost reductions, including scope reductions, value engineering, shorter segments. Because the project is so far along, these actions are no longer feasible.

This report identifies additional funding resources consistent with the Policy approved by the Board in 2018. Attachment B provides a detailed discussion of the Policy. In summary, the Policy was developed in recognition that some projects would need additional funding. The Policy provides a consistent and equitable process to ensure that any financial impacts are limited to the local area where the project is located and does not have a region-wide impact.

The Policy defines a cascading list of actions that can be taken. Because the Project is so far along, actions such as additional value engineering or changes in scope are no longer feasible. Additional funding is the only option.

EQUITY PLATFORM

The Project will increase service frequency, reliability and access for communities that use the Metro transit system to access housing, jobs, educational, medical and entertainment needs. This extension of the Purple (D) Line specifically impacts riders of the system from marginalized communities that travel along Red and Purple Line Corridors. The Project will provide access for riders traveling from Equity Focus Communities (EFCs), such as Downtown and Koreatown to resources and amenities within the Project area.

The Metro Purple Line Extension (PLE) Community Relations team produces and distributes construction work notices which include specific construction location updates, weekly construction work updates and monthly look ahead notices. They also conduct outreach for community meetings including distribution of digital notices, direct emails, mailed postcards, social media and paid online and print advertising. The Project's invitations for community meetings offer interpretation or translation services upon request, and all public meetings are held in locations that comply with Title IX. The Project continues efforts on behalf of Eat Shop Play and Business Interruption (BIF) in Century City and Beverly Hills.

The Contract has Disadvantaged Business Enterprise (DBE) goals of 17% for construction and 25.3% for design. Contract modifications that will be supported by the result from the request in this report will not change the level of commitments. The current level of participation, as of April 2023, is 15.6% for construction and 32.9% for design. There are approximately three more years left in the Contract to achieve the goals.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommendation supports Strategic Plan Goal Number 1 - Provide high-quality mobility options that enable people to spend less time traveling.

ALTERNATIVES CONSIDERED

The Board may choose not to move forward with amending the LOP budget. This is not recommended as Metro will be unable to provide funding to complete the Project according to the current schedule, as demonstrated by the FTA's risk assessment.

NEXT STEPS

Upon approval by the Board, the LOP budget will be amended accordingly per the recommendation

ATTACHMENTS

Attachment A - Funding/Expenditure Plan

Attachment B - Measure R and Measure M Unified Cost Management Policy Analysis

Attachment C - Projected Breakdown of Cost Allocation for \$134 million

Michael McKenna, Senior Executive Officer (Interim), Project Management, (424) 551-4447

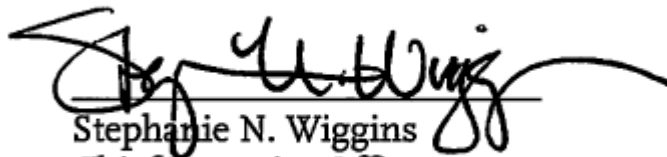
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Stephanie N. Wiggins
Chief Executive Officer

ATTACHMENT A
FUNDING/EXPENDITURE PLAN
WESTSIDE PURPLE LINE EXTENSION SECTION 2 PROJECT
(DOLLARS IN MILLIONS)

Capital Project 865522	Prior LOP (January 2017)	Current LOP Forecast	Prior Expenditures	FY23	FY24	FY25	FY26	FY27	Total	% of Total
Uses of Funds										
Construction	1,416.2	1,660.3	832.3	148.9	269.9	378.0	31.2	-	1,660.3	64.5%
Right-of-Way	426.4	331.7	297.9	5.7	1.5	23.1	3.5	-	331.7	12.9%
Vehicles	42.0	42.0	-	-	-	20.0	22.0	-	42.0	1.6%
Professional Services	374.9	504.2	309.0	52.8	63.8	53.3	24.7	0.6	504.2	19.6%
Project Contingency	177.2	32.5	-	-	29.0	3.5	-	-	32.5	1.3%
Subtotal Capital Project	2,436.6	2,570.6	1,439.2	207.3	364.2	477.9	81.4	0.6	2,570.6	99.8%
Planning/Environmental	4.3	4.3	3.4	-	-	1.0	-	-	4.3	0.2%
Total Project Cost*	2,441.0	2,575.0	1,442.6	207.3	364.2	478.8	81.4	0.6	2,575.0	100.0%
Sources of Funds**										
Section 5309 New Starts	1,187.0	1,187.0	836.8	100.0	156.1	94.1	-	-	1,187.0	46.1%
Section 5309 New Starts - American Rescue Plan Act of 2021	-	58.4	-	-	58.4	-	-	-	58.4	2.3%
Congestion Mitigation & Air Quality Program (CMAQ)	169.0	169.0	169.0	-	-	-	-	-	169.0	6.6%
Federal TIFIA Loan Proceed (Repaid with Measure R 35%)	307.0	307.0	307.0	-	-	-	-	-	307.0	11.9%
Measure R - Transit Capital (35%)	723.2	798.8	75.0	107.3	149.7	384.7	81.4	0.6	798.8	31.0%
Local Agency Transit Project Contributions	-	-	-	-	-	-	-	-	-	0.0%
Repayment of Capital Project Loans (Fund 3562)	54.8	54.8	54.8	-	-	-	-	-	54.8	2.1%
Total Project Funding	2,441.0	2,575.0	1,442.6	207.3	364.2	478.8	81.4	0.6	2,575.0	100.0%

*Does not include \$88.7 in finance costs.

**Timing of funding sources is subject to change.

ATTACHMENT B

Westside Purple Line Extension Section 2 Project

Measure R and Measure M Unified Cost Management Policy Analysis

Introduction

The Measure R and Measure M Unified Cost Management Policy (the Policy) was adopted by the Metro Board of Directors in July 2018. The precursor Measure R cost management policy was adopted in March 2011. The intent of the Policy is to inform the Metro Board of Directors regarding cost increases to Measure R- and Measure M-funded projects and the strategies available to close a funding gap. The Westside Purple Line Extension Section 2 Project (the Project) is subject to this policy analysis.

The life of project (LOP) budget for the Project was last approved by the Board on January 26, 2017, at \$2,440,969,299. The Project is subject to the Policy analysis now due to a proposed \$134,000,000 increase to the LOP budget. This request assumes the most favorable outcome for current project issues and risks. This analysis recommends trade-offs required by the Policy to identify the funds necessary to meet the cost increase.

Measure R and Measure M Unified Cost Management Policy Summary

The adopted Policy stipulates the following:

If a project cost increase occurs, the Metro Board of Directors must approve a plan of action to address the issue before taking any action to permit the project to move to the next milestone. Shortfalls will first be addressed at the project level prior to evaluation for any additional resources using these methods in this order as appropriate:

- 1) Scope reductions;
- 2) New local agency funding resources;
- 3) Value Engineering;
- 4) Other cost reductions within the same transit or highway corridor;
- 5) Other cost reductions within the same subregion; and finally,
- 6) Countywide transit or highway cost reductions or other funds will be sought using pre-established priorities.

Scope Reductions

The project cost increases were mainly due to undefined scope for the Project. These changes included items such as impacts related to real estate acquisitions, differing site conditions during advanced utility relocations, and changes to permanent power sources. These scope increases were evaluated and deemed necessary. Any scope modifications to previously established portions of the project would have required renegotiation of the scope, which would not have a certainty of success and could have delayed the progress of activities. Because of this, scope reductions were not feasible.

New Local Agency Funding Resources

Local funding resources (i.e., specific to the affected corridor or subregion) are considered in the next step as opposed to countywide or regional sources so as not to impact the funding of other Metro Board-approved projects and programs or subregions in the County.

The Project is eligible for Measure R funding and is allocated a portion of the total \$4,074,000,000 of funding that is identified for the “Westside Subway Extension” in the Measure R sales tax ordinance Expenditure Plan.

The Project is located in the Westside subregion and has station locations in the cities of Beverly Hills and Los Angeles. Local funding resources from both the subregion and the city could be considered for the cost increase.

Subregional Programs

Measure M has funding for a transit-eligible Subregional Equity Program (SEP) in the Westside subregion. The Measure M Expenditure Plan includes \$160,000,000 for the Westside SEP. Metro staff has previously recommended that the Measure M Subregional Equity Program (SEP) is used to address cost increases in the respective subregion. Staff recommended the South Bay and Central City Area subregions allocate a portion of the SEP to address a \$90,000,000 cost increase on the Crenshaw/LAX Transit Project, and the San Gabriel Valley subregion allocates \$126,000,000 for Gold Line Foothill 2B. Metro staff has also recommended that the Central City Area and Westside Cities subregions use the SEP to reimburse \$84,571,156 for a Westside Extension Section 1 cost increase. However, motion #2021-0435 from June 2021 states that, henceforth the Policy is amended to eliminate the Subregional Equity Program from consideration to address project funding shortfalls during construction. Because of this motion, the SEP is not considered for the Project cost increase.

Local Agency Contributions

The Cities of Los Angeles and Beverly Hills have Project stations and are expected to contribute funding to the Project as part of the 3% local agency funding assumption included in the Measure R ordinance. However, the cities are generally not responsible for cost increases to the Project, and the 3% contributions are not considered a source of funding for the Project cost increase.

Measure M, Measure R, and Propositions A and C provide “local return” funding to Los Angeles and Beverly Hills. Los Angeles will receive an estimated \$3.8 billion of local return over ten years from FY 2023 to FY 2032 while Beverly Hills is expecting \$32 million that is eligible for transit use and could contribute a portion to the Project. However, prior Board actions relating to the Twenty-Eight by '28 Initiative and funding for the cost increase to Gold Line Foothill 2B, Crenshaw/LAX Transit, Westside Subway Section 1, Eastside Access, and Division 20 did not support the use of local return. It is presumed these funds would similarly not be available for the cost increase to the Project.

State and Federal Funding (Discretionary)

The FTA has previously granted the Purple Line Subway Extension Section 1, Section 2, and Section 3 projects \$1.25 billion, \$1.187 billion, and \$1.3 billion, respectively, through the New Starts program. The March 2021 federal American Rescue Plan Act increased the New Starts grant on all three sections by \$218,284,002. In addition, through federal budgetary action, FTA provided an additional \$59,583,554 for Section 1, and has accelerated much of all three sections' New Starts funding compared to the scheduled payments in the Full Funding Grant Agreement. The increase and acceleration in New Starts can make Measure R funding available to address the cost increase on the Project.

Metro used the additional and accelerated New Starts to address \$66,428,844 of a \$150,000,000 cost increase for Section 1 in May 2021, a \$75,000,000 cost increase for Division 20 in February 2022, an \$80,000,000 cost increase for Division 20 in April 2023, and a \$53,000,000 cost increase for Section 3 in June 2023. The remaining additional New Starts plus the Measure R made available from accelerated New Starts (which reduces the financing costs for the Project) are sufficient to fund the \$134,000,000 cost increase for Section 2.

Additional State or federal discretionary funding (where Metro would compete for the funding) is not probable, given that the Project has experienced a cost increase and the design/build contract is already awarded.

Value Engineering

Value Engineering principles have been utilized to the extent possible to address the problems that were encountered. Efforts were made to select the best value option for each situation that balanced the need for a cost-effective solution while minimizing the potential impacts to project completion dates. C1120 Contract General Condition GC-33, Value Engineering Proposals, allows the Contractor to submit to Metro, in writing, value engineering proposals (VEPs) for modifying the requirements of any Project Definition Documents for the purpose of reducing costs. The Contractor submitted a written proposal to provide a precast concrete Special Lining in lieu of a fabricated steel lining and this was approved by Metro. However, this value engineering is not sufficient to offset the requested cost increase.

Other Cost Reductions within the Same Transit or Highway Corridor or within the Same Sub-region

The city and subregion have existing funding programs that have funding amounts yet to be programmed to the subregion or spent. The SEP is discussed above in the section "Subregional Programs."

The city of Los Angeles also receives funding through the Call-For-Projects, the competitive grant program funded and managed by Metro for the benefit of LA County cities, transit operators, and State highway projects last held in 2015. At times the funding for certain projects in the Call-For-Projects is "de-obligated" if not spent within a reasonable timeframe, and this can be a funding source for other uses. Currently, there

is no meaningful amount of de-obligated funds available unless the city chooses to terminate an existing project and all other projects are moving through their respective development process.

The subregion receives Measure M funding for other transit capital projects – Sepulveda Pass Transit Corridor, Crenshaw Northern Extension, and Lincoln Blvd BRT. These projects have not been completed or have not started their respective environmental processes. It is too early to determine if they could be delivered with excess or surplus funding that could provide funding for the Project cost increase.

Countywide Cost Reductions and/or Other Funds

Regional or countywide funding could be considered if new local agency resources are not allocated to the Project cost increase. These funds are programmed for other uses in Metro's 2020 Long Range Transportation Plan financial forecast during the timeframe when funds are needed for the Project cost increase. Eligible sources of countywide funding, including operations-eligible funds, are limited due to the restriction on using Proposition A and C for the Project and include General Fund and Lease Revenues. To address the restriction on Proposition A and C for new subway, Metro has previously implemented multi-project funding swaps where Proposition A and or C was programmed on a project and an equal amount of Measure R was then programmed on the subway project with the cost increase. Countywide funds would be considered if new local agency resources are not utilized for the cost increase.

State and Federal Funding (Formula)

Metro receives quasi-formula funding through the Congestion Mitigation & Air Quality Program (CMAQ), Regional Improvement Program (RIP), Local Partnership Program (LPP), and Surface Transportation Block Grant Program (STBGP) (Formerly RSTP). The approved funding plan, prior to the current LOP increase, includes \$168.9 million of CMAQ, and no STBG, RIP, and LPP are allocated. However, there is currently no capacity in the RIP or LPP. The RIP has been allocated to projects submitted in Metro's RTIP, and the next cycle of the LPP is planned to be used for other purposes. There is estimated capacity to program additional CMAQ and STBGP to the Project and could be considered if the recommended use of Measure R is not approved. CMAQ is also eligible for transit operations, but the maximum amount of CMAQ that can be used for operations is already programmed for planned operations costs of new Metro rail projects.

Recommendation

Metro staff recommends using \$3,439,092 of additional New Starts (equal to the total additional New Starts for Purple Line Extension less amounts previously allocated to prior cost increases for Section 1 and Section 3, and through a Measure R fund swap for Division 20) and \$130,560,908 of Measure R Transit 35% made available from accelerated New Starts payments for the proposed \$134,000,000 LOP budget increase.

ATTACHMENT C

WESTSIDE PURPLE LINE EXTENSION SECTION 2 PROJECT Projected Breakdown of Cost Allocation for \$134 million

Amount	Descriptions
\$134,000,000	This reflects identified risks associated with pending and potential changes related to construction activities. C1120 Contract Design/Build Contractor has submitted multiple RFCs concerning schedule impacts for various reasons which Metro has been unable to merit. Metro has rejected most of the requests. These may be subject to a dispute resolution process.
\$134,000,000	Total Increase

Board Report 2023-0316

July 2023

Life of Project (LOP) Budget Increase

WESTSIDE PURPLE LINE EXTENSION SECTION 2

FTA OP-40 New Contingency Requirements

- 2002 – FTA Introduces Risk Assessment Requirements
- 2015 – FTA OP-40 P50 Contingency Requirement (RC, PLE1, and PLE2)
- 2019 – FTA Directs PMOC's to use P65 Contingency Requirements (PLE3)
- 2022 – FTA OP-40 Officially Adopts the P65 Contingency Requirement (ESFV)

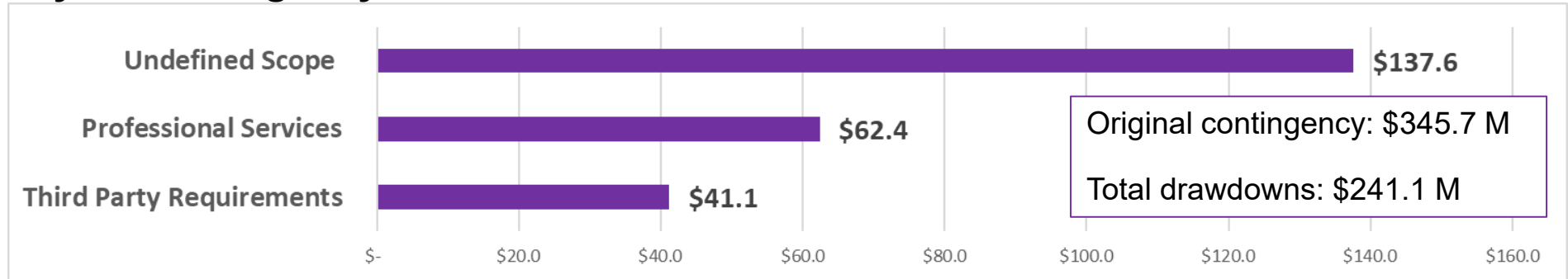
Key Milestone Checkpoints

Level	2015 Target	2022 Target
15% Design	None Provided	40%
Entry to 30% Design	25%	33%
60% Design	None Provided	26%
Pre-Bid 95% Design	15%	20%
Start Const. 100% Design	10%	13%
20% Construction Complete	None Provided	9%
50% Construction Complete	5%	7%
RSD	None Provided	2%

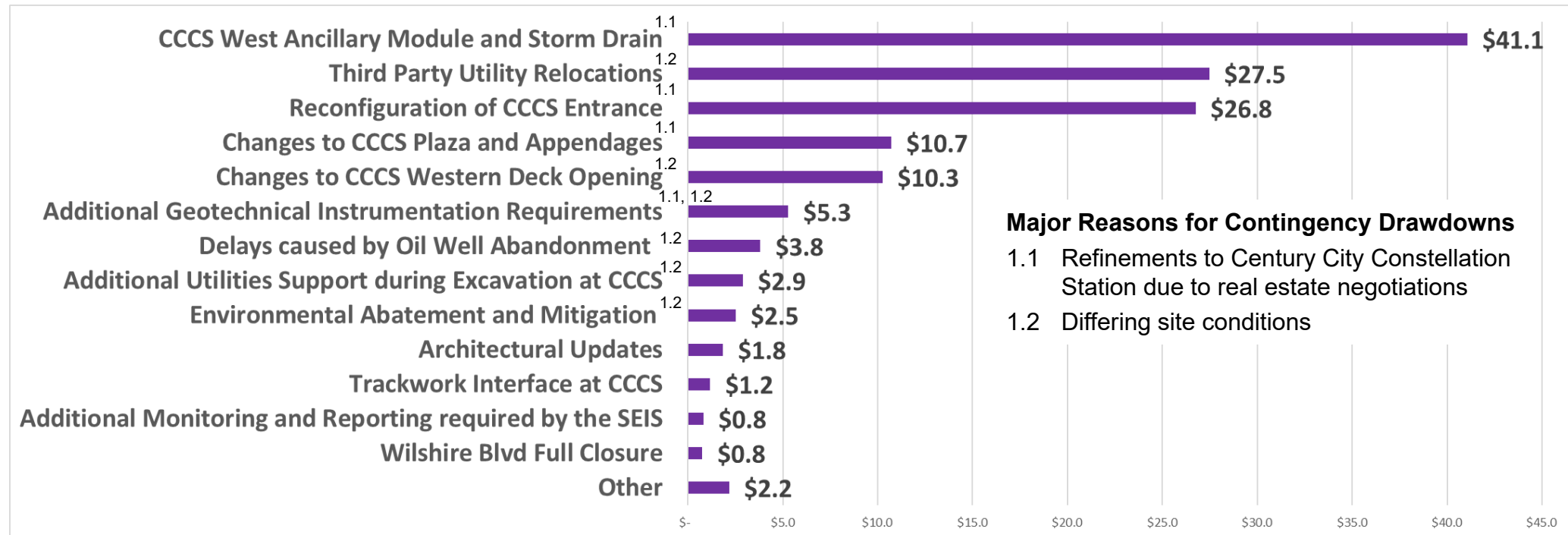
- Risk assessments by Metro staff and the Federal Transit Administration (FTA) indicate a budget shortfall of \$232M at the 65% confidence level
- The requested LOP budget increase of \$134M is based on the most favorable outcome for current Project issues and risks (just below the 50% confidence level)

WESTSIDE PURPLE LINE EXTENSION SECTION 2

History of Contingency Drawdowns



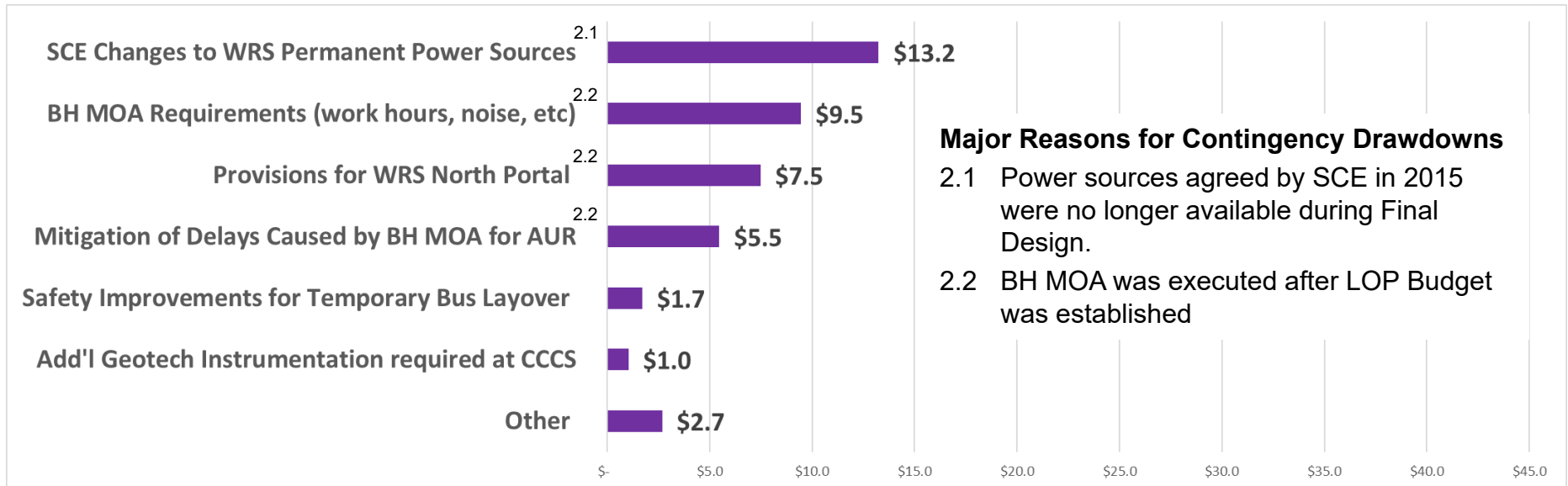
Previously Undefined Scope (\$137.6M)



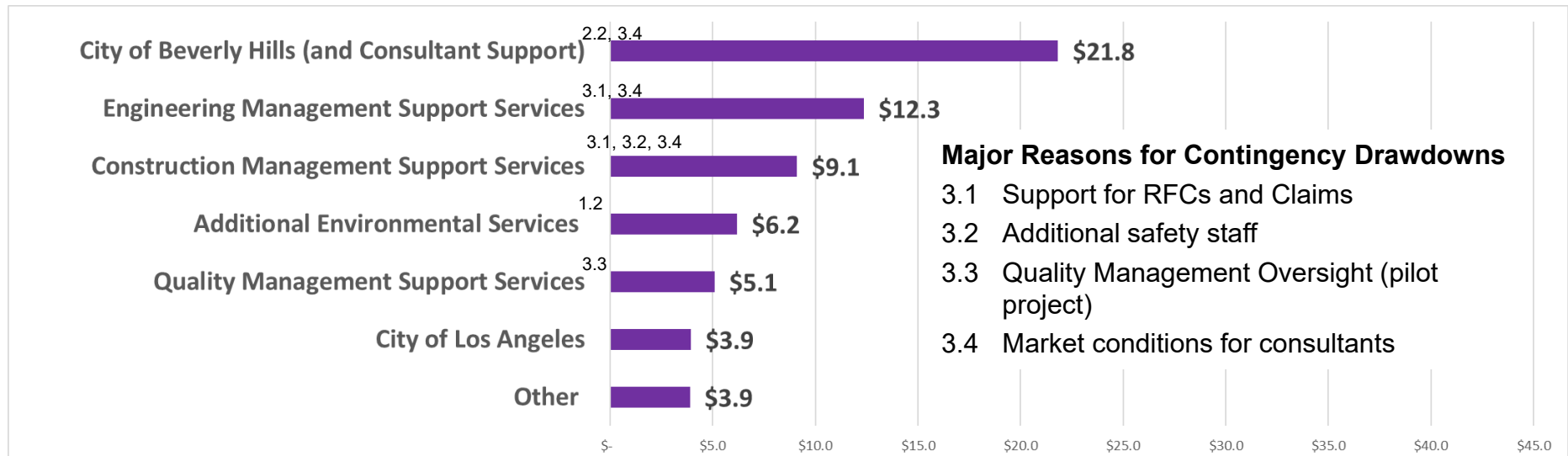
NOTE: CCCS = Century City Constellation Station

WESTSIDE PURPLE LINE EXTENSION SECTION 2

Third Party Requirements (\$41.1M)



Professional Services (\$62.4M)



CCCS = Century City Constellation Station

WRS = Wilshire Rodeo Station

Managing Risk and Future Contingency Drawdowns

- The requested LOP budget increase will replenish contingency to manage open risks which include:
 - **20** Open Claims
 - **10** Notices of Intent to Claim
- Next steps for Project Staff
 - Continue to monitor and manage current and future risks
 - Negotiate settlements on specific issues if merited
 - Utilize dispute resolution process in the Contract if necessary

WESTSIDE PURPLE LINE EXTENSION SECTION 2

Summary of C1120 Changes > \$1,000,000

Change #	Description of Change	Contractor Proposed Amount	Final Amount	Difference
MOD-173	Constellation Station West Ancillary and OPE Reconfiguration ^{1.1}	\$ 42,470,746	\$ 37,300,000	\$ 5,170,746
MOD-100	Century City Constellation Station Main Entrance - Construction ^{1.1}	\$ 32,776,271	\$ 25,500,000	\$ 7,276,271
MOD-171	WRS Permanent Power Duct Banks ^{2.1}	\$ 13,748,653	\$ 12,475,794	\$ 1,272,859
MOD-178	CCCS West Deck Access Opening Inefficiencies ^{1.2}	\$ 15,150,186	\$ 10,269,998	\$ 4,880,188
MOD-170	CCCS Entrance Plaza, Appendage, and Right-of-Way Revisions due to JMB ^{1.1}	\$ 14,060,104	\$ 10,384,466	\$ 3,675,638
MOD-179	Provisions for WRS North (Secondary) Entrance - Construction ^{2.2}	\$ 7,197,324	\$ 6,489,588	\$ 707,736
MOD-10	Worksite Traffic Control for SCG & AT&T Advanced Utility Relocation	\$ 3,931,012	\$ 3,650,000	\$ 281,012
MOD-153.1	CCCS Joint Trench Size Discrepancies (DSC-072) ^{1.2}	\$ 3,105,353	\$ 2,705,270	\$ 400,083
MOD-162.1	CCCS Relocated UPE Plenum at Westfield Mall-Construction ^{1.1}	\$ 5,227,898	\$ 2,758,978	\$ 2,468,920
MOD-104	Alternate Building Settlement Monitoring Methods (CO-24) ^{1.1, 1.2}	\$ 3,045,476	\$ 2,205,574	\$ 839,902
MOD-87	Resolution of Claim 11-Adjustment of Modification MOD-00005 Alternative for a Precast for Steel Special Tunnel Lining	\$ 2,654,890	\$ 2,533,545	\$ 121,345
MOD-176	WRS MOA Impacts to Work Activities January 5, 2021 through June 30, 2021 ^{2.2}	\$ 3,154,998	\$ 1,949,171	\$ 1,205,827
SUBTOTAL				\$ 28,300,526

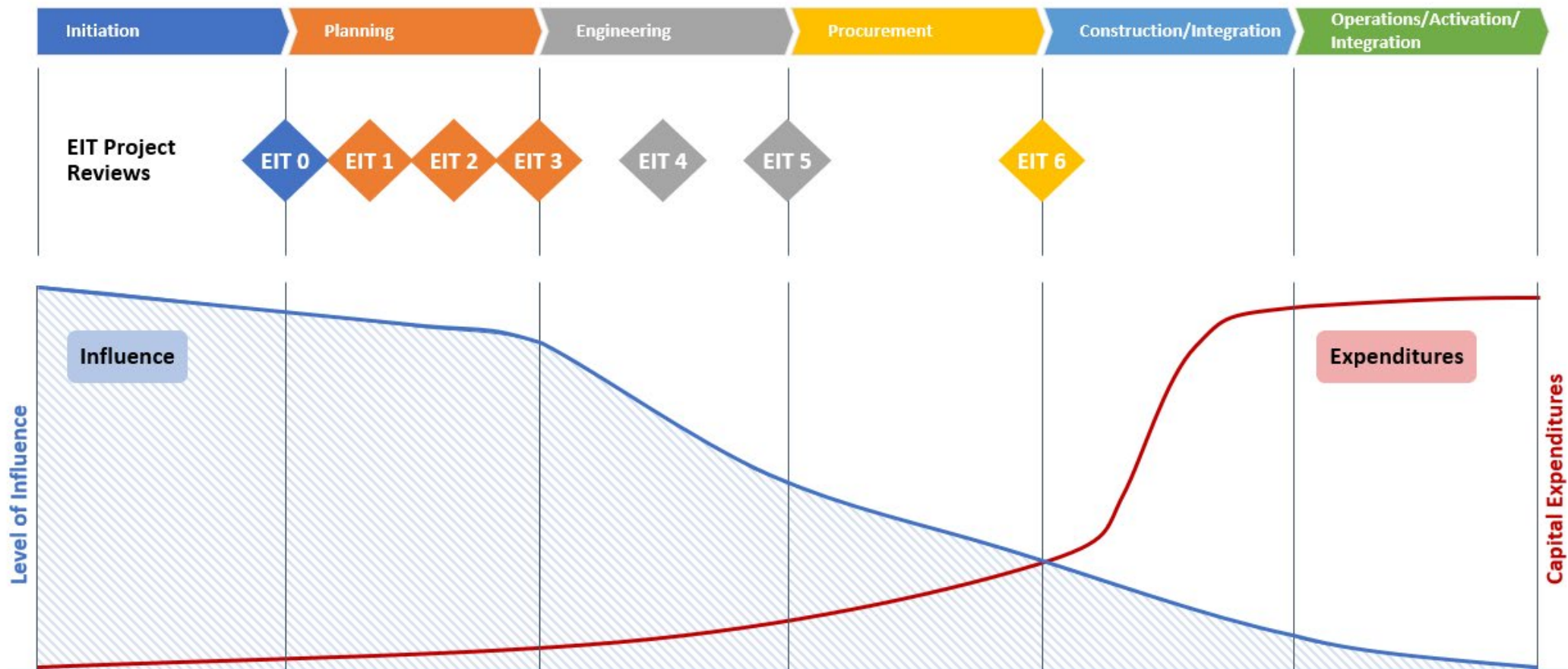
WESTSIDE PURPLE LINE EXTENSION SECTION 2

Summary of C1120 Changes > \$1,000,000 (continued)

Change #	Description of Change	Contractor Proposed Amount	Final Amount	Difference
MOD-56	LA County Sales Tax Increase	\$ 1,818,528	\$ 1,774,994	\$ 43,534
MOD-80	Demobilization and Remobilization due to COBH Moratorium ^{2.2}	\$ 1,854,511	\$ 1,698,253	\$ 156,258
MOD-55	Construction of Temporary Sound Wall/Shoring System with Slab Demolition - 2010 Century Park East	\$ 2,308,698	\$ 1,526,000	\$ 782,698
MOD-95	Station and Bicycle Parking Architectural Features Design and Construction changes at WR and CCC Stations	\$ 4,616,725	\$ 1,540,404	\$ 3,076,321
MOD-26	Santa Monica Boulevard Bus Layover - Design and Construction Changes	\$ 1,602,334	\$ 1,345,904	\$ 256,430
MOD-15	Century City Constellation Station - Main Entrance Final Design (CO-3) ^{1.1}	\$ 1,369,735	\$ 1,258,310	\$ 111,425
MOD-174	Elevator Hoistway Framing Steel Upsizing (Construction Only) – RFC 150.1	\$ 1,305,222	\$ 1,231,363	\$ 73,859
MOD-181	WRS MOA Impacts to Excavation after the Full Closure (June 16, 2020 through Nov. 12, 2020) ^{2.2}	\$ 1,217,437	\$ 1,162,784	\$ 54,653
MOD-121	Remaining Balance of Additional Geotechnical Instrumentation at Launch Box and Century City ^{1.1, 1.2}	\$ 1,259,676	\$ 1,111,131	\$ 148,545
MOD-62	North Canon Street Closure Sound Wall and Street Improvement (CO-13) ^{2.2}	\$ 1,373,075	\$ 1,084,053	\$ 289,022
MOD-73	Century City Constellation Station Trackwork Extension	\$ 2,929,409	\$ 1,180,087	\$ 1,749,322
MOD-134	Revise Design to Accommodate a Future Wilshire Rodeo Station North Secondary Entrance (CO-20.4)	\$ 1,081,155	\$ 1,000,000	\$ 81,155
TOTAL				\$ 35,123,748

PROJECT INFLUENCE CURVE / EIT STAGE GATES

The EIT focuses LA Metro's Capital Program resources where they can have the most influence on project outcomes: early in the life cycle



WESTSIDE PURPLE LINE EXTENSION SECTION 2

Lessons Learned for Metro's Early Intervention Team (EIT):

- **Undefined Scope (Added Scope)**
 - Initiate real estate processes as soon as practical, and evaluate the risks of more complicated acquisitions and make business decisions on a case-by-case basis.
 - Locate station appendages in the public right-of-way whenever possible.
 - Perform additional utility investigations (potholing, trenching, remote sensing).
- **Third Party Requirements**
 - Secure third-party agreements before issuing RFP.
 - Secure written agreements with power providers to prevent future changes.
 - Solicit early involvement from third parties to better define scope.
 - Revisit assumptions in future cost estimates for utility relocations.
- **Professional Services**
 - Secure third-party agreements before issuing RFP to confirm level of city involvement.
 - Confirm budgeted oversight staffing strategy aligns with project schedule needs and risks.



Board Report

File #: 2023-0410, **File Type:** Informational Report

Agenda Number: 16.

CONSTRUCTION COMMITTEE JULY 20, 2023

SUBJECT: PROGRAM MANAGEMENT QUARTERLY CHANGE REPORT

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE Status Report on Program Management Quarterly Change Report (Attachment A).

ISSUE

This board report is a receive and file that summarizes quarterly changes valued at greater than \$500,000 for projects managed by Program Management. Additional detail is provided in Attachment A - Quarterly Change Orders Log for Reporting Period of March 1, 2023 - May 31, 2023.

BACKGROUND

In January 2017, the Metro Board approved a one-year pilot to delegate the CEO the authority to execute project agreements up to the Life-of-Project (LOP) budget for the Crenshaw/LAX, Regional Connector, and Purple Line Extension Section 1 & 2 projects. The purpose of the pilot was to save time and minimize disruption due to the typical contract change administration approval process.

The pilot program was effective, generated cost savings, and avoided costly construction delays. At the January 26, 2018 Board meeting, the Board approved the continuation and expansion of the delegation of authority within Life of Project budget management on all Transit and Regional Rail Capital Projects. Staff was directed to provide quarterly reports to the Board on change orders and modifications that are above \$500,000. This CEO delegated authority of changes is very beneficial to expedite contract changes and avoid costly construction delays. Since the inception of the program up to 2,344 concurrent workdays or concurrent 9.1 years, aggregated across the program, have been saved. (For more information refer to Attachment B entitled OIG Construction Change Order Spot Checks CEO Delegated Authority Total Delays Avoided).

DISCUSSION

The change activities for the reporting period between March 1, 2023, and May 31, 2023, are included in Attachment A.

FINANCIAL IMPACT

The changes included in this report are within the approved LOP budget for each project.

EQUITY PLATFORM

The cost and time savings from the expansion of delegation of authority within Life of Project budget management has allowed Metro to more efficiently implement mobility options, benefiting transit riders and other marginalized communities.

Crenshaw/LAX	Equity - 8 of 8 stations (100%) are within or adjacent to Equity Focus Communities
Regional Connector	Equity - 3 of 3 stations (100%) are within or adjacent to Equity Focus Communities
Westside Purple Line Ext 1	Equity - This project is not located within or adjacent to Equity Focus Communities
Westside Purple Line Ext 2	Equity - This project is not located within or adjacent to Equity Focus Communities
Westside Purple Line Ext 3	Equity - 1 of 2 stations (50%) are within or adjacent to Equity Focus Communities
Division 20	Equity - 100% of the project is within or adjacent to Equity Focus Communities
Airport Metro Connector	Equity - 100% of the project is within or adjacent to Equity Focus Communities
Rail to Rail	Equity - 100% of the project is within or adjacent to Equity Focus Communities

Note: This analysis was conducted with the 2022 EFC map.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

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

NEXT STEPS

The next Change Order Log will cover the period of June 1, 2023 through August 31, 2023 and will be presented to the October 2023 Construction Committee.

ATTACHMENTS

Attachment A - Quarterly Change Orders Log for Reporting Period of March 1, 2023 - May 31, 2023

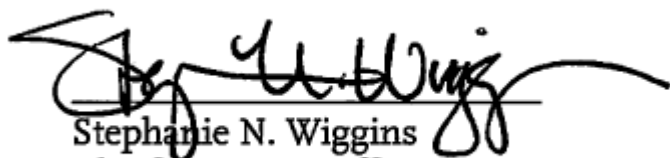
Attachment B - OIG Construction Change Order Spot Checks CEO Delegated Authority Delays Avoided

Prepared by:

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- **Westside Purple Line Ext 1** - James Cohen, Senior Executive Officer, Projects Engineering (Interim), (323) 900-2114
- **Westside Purple Line Ext 2** - Michael McKenna, Senior Executive Officer, Projects Engineering (Interim), (424) 551-4447
- **Westside Purple Line Ext 3** - Kimberly Ong, Senior Executive Officer, Projects Engineering (Interim), (424) 551-4501
- **Division 20 Portal** - Albert Soliz, Deputy Executive Officer, Project Management, (213) 922-4002
- **Airport Metro Connector** - Tim Lindholm, Deputy Chief Program Management Officer, (213) 922-7297
- **Rail to Rail** - Tim Lindholm, Deputy Chief Program Management Officer, (213) 922-7297
- **I-105 Express Lanes** - Tim Lindholm, Deputy Chief Program Management Officer, (213) 922-7297
- **Report** - Julie Owen, Senior Executive Officer, Program Control, (213) 922-7313

Reviewed by:

Sameh Ghaly, Chief Program Management Officer (Interim), (213) 418-3369



Stephanie N. Wiggins
Chief Executive Officer

CRENSHAW/LAX TRANSIT PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2023 - May 31, 2023)						
Change Types: 1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety						
A. DESIGN BUILD CONTRACT - CONTRACT NO. C0988 - WALSH SHEA CORRIDOR CONSTRUCTORS						
MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in BOLD fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					
B. PROFESSIONAL SERVICES CONTRACTS						
PS58665-009-MOD-00010	Arcadis US Inc.: Construction Claims/Litigation Support Services for Crenshaw/LAX Project March 1 through August 31, 2023.	5	04/04/23	TBD	\$904,798	\$899,992
C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS						
	None					

II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2023 - May 31, 2023)

A) DESIGN BUILD CONTRACT - CONTRACT NO. C0988 - WALSH SHEA CORRIDOR CONSTRUCTORS			
CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		
B) PROFESSIONAL SERVICES CONTRACTS			
E0117-MOD-00058	Vendor Mott MacDonald: Additional FY23/24 Funding for Claims Support and Extend Period of Performance to Crenshaw/LAX Transit Project. Budget award for the Consultant staff to provide Claims Support Services as there are not enough existing Metro positions available to provide eligible claims support for the Project. Some of the staff are on an as-needed basis only and not full-time basis based on the type of submittals or questions received.	5	Between \$500K and less than \$1M
C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS			
	None		

CRENSHAW/LAX CLOSE OUT PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2023 - May 31, 2023)						
Change Types: 1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety						
A. DESIGN BUILD CONTRACT - CONTRACT NO. C1217 - GRIFFITH COMPANY						
MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in BOLD fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					
B. PROFESSIONAL SERVICES CONTRACTS						
	None					
C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS						
	None					

II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2023 - May 31, 2023)

A) DESIGN BUILD CONTRACT - CONTRACT NO. C1217 - GRIFFITH COMPANY			
CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		
B) PROFESSIONAL SERVICES CONTRACTS			
	None		
C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS			
MC069-32-MOD-00001	Vendor Stantec Consulting, Inc.: Additional CMSS Support for the C/LAX Catch-All Contract - FY23 Ext. Thru 12/31/2023. Budget award for support services related to the scope of the Punch Out Construction Work under Contract #1 (C1217) with Griffith Company.	5	Between \$500K and less than \$1M

REGIONAL CONNECTOR TRANSIT PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2023 - May 31, 2023)

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

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

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in BOLD fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
C0980-MOD-249	Add 'I Roadway Pavement Restorations - Construction: Construct additional asphalt grind & overlay and concrete pavements along the project corridor.	5	2/3/2023	3/8/2023	\$2,001,932	\$1,580,000
C0980-MOD-250	2nd Broadway Reshoring to Facilitate Removal of Pin Piles 117 through 133: The 2nd Broadway Station Load Transfer System (LTS) Change increased the thickness of the roof slab of the entrance structure and added significant quantities of dense rebar and concrete in the form of beams above the roof slab. This modified the contactor means and methods. The proposed reshoring system will allow removal of the pin piles prior to the roof slab pours which facilitates the installation of formwork, rebar, and concrete placement of these slab pours.	5	2/28/2023	4/10/2023	\$622,694	\$554,500

B. PROFESSIONAL SERVICES CONTRACTS

	None					
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C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

	None					
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II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2023 - May 31, 2023)

A) DESIGN BUILD CONTRACT - CONTRACT NO. C0980 - REGIONAL CONNECTOR CONSTRUCTORS			
CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
C0980-CN-003XX	2nd/Hope Fire Hydrant and Fire Service Line Utility Conflicts: Contractor to resolve various utility conflicts near Hope/Grand. Work involved includes traffic control, additional exploratory excavation, backfill, asphalt paving, additional sawcut and asphalt demolition, design revisions to alignment, additional work with realignment and re-sequence of final pavement for Hope Street due to delayed work.	3	Between \$500K and less than \$1M
B) PROFESSIONAL SERVICES CONTRACTS			
E0119-MOD-0036	FY24 Funding for Design Support During Construction: Provide funding for staff augmentation through FY24 for Design Services During Construction activities for the Regional Connector Transit Corridor Project.	5	Between \$500K and less than \$1M
C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS			
MC070-MOD-00027	Add'l FY23 Funding for Construction Management Support Services and Arcadis and DHS Final Indirect Rates for FY21: Provide additional funding for staff augmentation through FY23 to assist Metro with the management of the final design and construction of the Regional Connector Project. It also establishes the Final FY21 indirect rates for Arcadis, and DHS Consulting.	5	Between \$1 and \$5 Million

WESTSIDE PURPLE LINE EXTENTION SECTION 1

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2023 - May 31, 2023)

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

A. DESIGN BUILD CONTRACT - CONTRACT NO. C1045 - SKANSKA-TRAYLOR-SHEA, A JOINT VENTURE

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in BOLD fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
CO-9.1	Substantial Completion Milestone Change due to Anomaly Impact: The Reach 3 Wilshire/San Vicente Anomaly has impacted critical path tunnel mining activities and the substantial completion date. This CN is being issued to adjust the current contract completion date and compensate the contractor for the associated extension of contract time. Contract completion milestones will be adjusted based on a review and analysis of the Time Impact Analysis as outlined in the contract.	3	2/10/2023	2/8/2023	N/A	\$10,883,019
CO-23.1	Isolate Track Circuits at Wilshire/Western Station (Construction): This change is to avoid potential safety issues related to failures of track circuits due to equipment between different manufactures when placed into service. This issue was the subject of letter from vendor Ansaldo STS dated 2/17/16 to contractor LK Comstock, subsequently forwarded to Metro C1045 contractor STS and on to Metro for consideration and action. Early completion of this work during Cutover Phase 1 will mitigate risks typically associated with the last moment detail interface works with the existing system while commissioning the newly installed systems.	7	4/5/2023	3/28/2023	N/A	\$1,500,000
CO-28	Expedite Cutterhead Removal at Tail Track: This change is being issued to expedite the removal of the WPLE1 cutterheads at the Purple Line Extension (PLE) Section 1 and 2 grout end block interface. This expedited removal will minimize potential cost/schedule impacts for both WPLE1 and WPLE2 Projects.	5	4/19/2023	4/18/2023	\$3,554,535	\$2,713,967
CO-31	DU4 La Cienega Appendages AA, AB, & AC Support of Excavation (SOE) Pile Conflict with AT&T Ductbank: This change compensates the contractor to relocate SOE piles to avoid the existing AT&T ductbank and adjacent building foundation. During potholing activities, it was discovered that SOE piles were in conflict with the existing AT&T ductbank and the adjacent building foundation.	3	4/19/2023	4/18/2023	\$1,537,051	\$1,304,663

A. DESIGN BUILD CONTRACT - CONTRACT NO. C1078 - CLARK CONSTRUCTION GROUP

	None					
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B. PROFESSIONAL SERVICES CONTRACTS

7	SECOTrans, Joint Venture: E0128-TO-021/Systems Engineering DSDC Support for Purple Line Extension Section 1 Systems Engineering Design Services During Construction Support for Purple Line Extension Section 1 – FY23 Level of Effort – Cutover Support.	5	04/11/23	4/18/2023		\$506,346.00
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C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

	None					
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II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2023 - May 31, 2023)

A) DESIGN BUILD CONTRACT - CONTRACT NO. C1045 - SKANSKA-TRAYLOR-SHEA, A JOINT VENTURE			
CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
CN-00239	Sound Wall Pile Removal at Station Yards (TCEs): This change compensates the C1045 contractor for the removal of city and privately owned properties piles in their entirety ahead of any future development and in accord with Temporary Construction Easement (TCE) contract requirements. Entire pile removal was not indicated in the C1045 contract bid documents.	2	Between \$500K and less than \$1M
CN-00243	Cutterhead Removal Impacts to the BL Tunnel due to the Section 2 TBM Mining Operation: This change compensates the C1045 contractor for the standby time during the BL tunnel cutterhead removal. Due to safety reasons, the S1 cutterhead removal crew was placed on standby during the S2 TBM mining operation in the same area.	7	Between \$500K and less than \$1M
A. DESIGN BUILD CONTRACT - CONTRACT NO. C1078 - CLARK CONSTRUCTION GROUP			
	None		
B) PROFESSIONAL SERVICES CONTRACTS			
	None		
C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS			
	None		

WESTSIDE PURPLE LINE EXTENTION SECTION 2

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2023 - May 31, 2023)							
Change Types: 1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety							
A. DESIGN BUILD CONTRACT - CONTRACT NO. C1120 - Tutor Perini / O&G, A Joint Venture							
	MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in BOLD fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	MOD-00153.1	<u>CCCS Joint Trench Size Discrepancies (DSC-072) (CO-49)</u> : This change reimburses the Contractor for additional costs to expose, hang and support the joint trench where the dimensions exceed the typical dimensions depicted in the utility as-built drawings, and where the joint trench exceeds the contractual design flexibility of 25% for utility support systems. It also reimburses the Contractor for inefficiencies to the CCCS excavation work resulting from the additional support installation.	5	8/31/2022	3/30/2023	\$3,105,352.00	\$2,705,270.00
	MOD-00157.1	<u>Late ROW Availability of Parcel ID W-3801 (RFC-0086) (CO-46)</u> : This change compensates the Contractor for construction impacts due to delayed availability of Parcel ID W-3801 which was to occur on or before November 7, 2019 in accordance with SP-16, Site Access Dates, Appendix B Right of Way (ROW) Availability Schedule.	5	7/14/2022	3/26/2023	\$771,439.00	\$544,463.00
	MOD-000162.1	<u>CCCS Relocated UPE Plenum at Westfield Mall-Design (CO-23.1)</u> : This change is for the relocation of the under platform exhaust (UPE) plenum from private property to the public right-of-way (sidewalk) along Constellation Boulevard. It was initiated when the adjacent property owner informed Metro that they were no longer interested in constructing their own private entrance to the station concurrently with Metro's construction. Metro will be constructing the UPE appendage in the public ROW to avoid the cost of acquiring temporary and permanent easements from the adjacent property owner.	5	8/11/2022	3/22/2023	\$5,227,898.00	\$2,758,978.00
	MOD-00170	<u>CCCS Entrance Plaza, Appendage, and Right-of-Way Revisions due to JMB (Construction) (CO-29.1, 35.3, 39.1)</u> : The design of the station entrance and northeastern appendages for the Century City Constellation Station (CCCS) were not fully established at the time of Contract award. Metro coordinated with the adjacent property owner (Developer) at 1950 Avenue of the Stars, who was proceeding with a large development, to manage the spatial constraints for both projects. The coordination included modifying the location of the station entrance and certain appendages. The requirements were included in the acquisition agreement for the purchase of the permanent and temporary property rights necessary for the station construction.	5	11/11/2022	4/3/2023	\$14,060,104.00	\$10,384,466.00
	MOD-00171	<u>WRS Permanent Power Duct Banks (CO-31.2, 38, 51)</u> : The scope of this Change is to pothole, complete Final Design, and install Southern California Edison (SCE) duct banks for primary and secondary SCE power feeds to Wilshire/Rodeo Station (WRS) switchgears, based on a preliminary design provided by SCE. Per the original Contract, this work was planned to be performed by SCE, with duct bank connection points closer to WRS.	2	9/6/2022	3/20/2023	\$13,748,653.00	\$12,475,794.00
	MOD-00173	<u>Constellation Station West Ancillary and OPE Reconfiguration Construction (CO-32.2, 34.3)</u> : This Change compensates the Contractor for the construction of the reconfiguration of the west ancillary area and overplatform exhaust appendages at the Century City Constellation Station (MOD-0002 and MOD-0074). This also includes the construction of the 24" sanitary sewer and 42"storm drain relocation (MOD-0070).	5	10/26/2022	4/21/2023	\$42,470,746.00	\$37,300,000.00
	MOD-00174	<u>Elevator Hoistway Framing Steel Upsizing (Construction Only) RFC 150.1</u> : This Change will compensate the Contractor for the increase in construction costs for the elevator hoistway framing steel for the Wilshire/Rodeo Station and the Century City Constellation Station, due to larger steel members being required by the Final Design compared to what could have been expected based on the Contract Documents (refer to Metro Rail Standard Drawings AS-010, -011, and -012).	5	2/21/2023	3/21/2023	\$1,305,222.00	\$1,231,363.00
	MOD-00175	<u>WRS MOA Impacts to work activities during Holiday Moratorium (November 13, 2020 through January 4, 2021)</u> : This change is to compensate the Contractor for impacts to construction work due to the holiday moratorium restrictions from the City of Beverly Hills (COBH) in Memorandum of Agreement (MOA).	2	2/27/2023	3/22/2023	\$781,154.00	\$535,011.00
	MOD-00176	<u>WRS MOA Impacts to Work Activities January 5, 2021 through June 30, 2021</u> : This change is to compensate the Contractor for impacts to construction due the holiday moratorium restrictions from the City of Beverly Hills (COBH) Memorandum of Agreement (MOA).	2	3/6/2023	3/22/2023	\$3,154,998.00	\$1,949,171.00
	MOD-00178	<u>CCCS West Deck Access Opening Inefficiencies</u> : This change is to compensate the Contractor for construction impacts associated with the revisions to the Stage 7 Traffic Control Plans and the redesign of opening in the decking on Constellation Blvd, west of Avenue of the Stars, in order to provide continuous traffic access to an adjacent property owner, in accordance with the project's Final Environmental Impact Statement and Environmental Impact Report (FEIS/FEIR). At the time of Contract Award and during the preparation of the FEIS/FEIR, it was unknown that the recently remodeled hotel would use their eastern driveway as the main access to their Ballroom; it was also unknown that the existing west driveway would become a future entrance to a newly built underground parking garage that would serve new residential towers and retail areas.	5	1/4/2023	4/17/2023	\$15,150,186.00	\$10,269,998.00
	MOD-00179	<u>Provisions for WRS North (Secondary) Entrance - Construction (CO-33, 47)</u> : This change is for construction of elements within the Wilshire Rodeo Station to accommodate a future North (secondary) Entrance, based on design provisions authorized by MOD-134. The scope includes the construction of a new walkway, cantilevered from the station exterior wall, extending from the northwest corner of the existing concourse to a new knock out panel at the northwest corner of the station platform module, including all associated adjustments to ancillary items. This scope of work is required to accommodate the approved and executed Settlement Agreement between Metro and City of Beverly Hills which was authorized by the Metro Board on November 10, 2020.	2	3/10/2023	4/25/2023	\$7,197,324.00	\$6,489,588.00
	MOD-00181	<u>WRS MOA Impacts to Excavation after the Full Closure (June 16, 2020 through Nov. 12, 2020) (CO-52)</u> : The purpose of this change is to compensate the Contractor for impacts of additional work restrictions from the City of Beverly Hills (COBH) Memorandum of Agreement (MOA) for the construction work expected to occur after the specific work activities identified and included in MOD-00124.	2	10/26/2022	4/18/2023	\$1,217,437.00	\$1,162,784.00
	CO-00055.2	<u>MOA Impacts to Work Activities during 2022 Holiday Moratorium</u> : This Change Order (CO) revision increases the Not-to-Exceed (NTE) value from \$737,500 to a revised total NTE of \$872,000. This change is to compensate the Contractor for impacts to the Wilshire/Rodeo station construction activities from work restrictions imposed by the City of Beverly Hills (COBH) Memorandum of Agreement (MOA) from November 24, 2022 to January 1, 2023. The Change Order revision was necessary to keep the Work moving while negotiations for a bilateral Modification continue.	2	N/A	1/10/2023	N/A	\$872,000.00
B. PROFESSIONAL SERVICES CONTRACTS							
	None						
C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS							
	None						

II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2023 - May 31, 2023)

A) DESIGN BUILD CONTRACT - CONTRACT NO. C1120 - Tutor Perini / O&G, A Joint Venture

CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
CN-00208	MOA Impacts Along the Reach 4 and 5 Tunnel Alignment January 2, 2022, to November 23, 2022: The purpose of this Change Notice is to compensate the Contractor for impacts along the Reach 4 and 5 of the Tunnel Alignment construction activities from work restrictions imposed by the City of Beverly Hills (COBH) Memorandum of Agreement (MOA) during the following period: January 2, 2022 to November 23, 2022.This Change Notice excludes individual COBH holidays defined in the MOA which were not already part of the C1120 Contract. Those individual additional COBH holidays will be captured separately in a subsequent Change Notice.	2	Between \$500K and less than \$1M
CN-00209	MOA Impacts to WRS Work Activities within COBH January 2, 2023 to November 22, 2023: The purpose of this Change Notice is to compensate the Contractor for impacts to the Wilshire/Rodeo station construction activities from El Camino Dr. to Cresent Dr. for the station box and station entrance for work restrictions imposed by the City of Beverly Hills (COBH) Memorandum of Agreement (MOA) during the following period: January 2, 2023, to November 22, 2023. This Change Notice excludes individual COBH holidays defined in the MOA which were not already part of the C1120 Contract. Those individual additional COBH holidays will be captured separately in a subsequent Change Notice.	2	Between \$500K and less than \$1M
CN-00217	MOA Impacts to Allowable Work Hours and Work Days for Individual Holidays in 2023: The purpose of this Change Notice is to compensate the Contractor for impacts to the Wilshire/Rodeo station construction activities allowable work activities and workdays imposed by the City of Beverly Hills (COBH) Memorandum of Agreement (MOA) during calendar year 2023 holidays.	2	Between \$500K and less than \$1M
CN-00221	MOA Impacts to WRS Work Activities within COBH January 2, 2023 to November 22, 2023: The purpose of this Change Notice is to compensate the Contractor for impacts to the Wilshire/Rodeo station construction activities from El Camino Dr. to Cresent Dr. for the station box and station entrance for work restrictions imposed by the City of Beverly Hills (COBH) Memorandum of Agreement (MOA) during the following period: January 2, 2023, to November 22, 2023. This Change Notice excludes individual COBH holidays defined in the MOA which were not already part of the C1120 Contract. Those individual additional COBH holidays will be captured separately in a subsequent Change Notice.	2	Between \$500K and less than \$1M
CN-00222	MOA Impacts Along the Reach 4 and 5 Tunnel Alignment January 2, 2023 to November 22, 2023: The purpose of this Change Notice is to compensate the Contractor for impacts along the Reach 4 and 5 of the Tunnel Alignment construction activities from work restrictions imposed by the City of Beverly Hills (COBH) Memorandum of Agreement (MOA) during the following period: January 2, 2023 to November 22, 2023. This Change Notice excludes individual COBH holidays defined in the MOA which were not already part of the C1120 Contract. Those individual additional COBH holidays will be captured separately in a subsequent Change Notice.	2	Between \$500K and less than \$1M

B) PROFESSIONAL SERVICES CONTRACTS

	None		
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C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

CN-00005	Continuation of Construction Management Support Services for WPLE 2	5	More than \$15M
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WESTSIDE PURPLE LINE EXTENTION SECTION 3

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2023 - May 31, 2023)

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

A. DESIGN BUILD CONTRACT - CONTRACT NO. C1151 (FKTP)

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in BOLD fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
C1151-MOD-00024	Claim-04, Gravel Seam Impact BR Tunnel Rings 399 to 486 <i>- Character of gravel seam encountered during tunneling was not similar to those described in the Geotechnical Baseline Report (GBR). Consequently, the Contractor expended additional efforts due to the increased forces on the Tunnel Boring Machine during excavation.</i>	3	2/27/2023	3/9/2023	\$959,123	\$959,123

A. DESIGN BUILD CONTRACT - CONTRACT NO. C1152 (TPOG)

C1152-CO-00064.5	UCLA Sta – Additional Adjacent Development Analysis on SOE - DESIGN ONLY - A new adjacent development at Wilshire Blvd and Gayley Avenue, which is close to the Metro Station and Entrance at Lot 36, may be constructed during the duration of the Purple Line Extension Section 3 project. The schedule of the adjacent development and design details were not known at the time when the C1152 bid documents were prepared, and therefore, specific requirements to consider the development are not included in the Contract. Given the potential for the development to take place during the construction of the Westwood/UCLA Station, it is necessary for the C1152 contractor to determine if any impacts on the station and entrance structures and support of excavation would result if the adjacent development were constructed concurrently with the station.	5	2/7/2023	3/3/2023	N/A	\$740,066
C1152-MOD-00089	UCLA Station - Additional LADWP Temporary Power Conduits – CONSTRUCTION ONLY <i>- The original and planned corridor alignment for routing temporary conduits within the station box cannot be used for installation of conduits for temporary power source during station construction. The new and revised quantity of conduits and size of ductbank, as requested by LADWP is significantly large and hence original alignment cannot be used for temporary power connection during support of excavation. As a result, temporary conduits need to be designed and installed outside the station box, on the south side of Wilshire Blvd.</i>	2	2/22/2023	3/28/2023	\$2,587,000	\$2,587,000

B. PROFESSIONAL SERVICES CONTRACTS

	None					
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C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

	None					
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II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2023 - May 31, 2023)

A) DESIGN BUILD CONTRACT - CONTRACT NO. C1151 (FKTP)			
CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		
A. DESIGN BUILD CONTRACT - CONTRACT NO. C1152 (TPOG)			
	None		
B) PROFESSIONAL SERVICES CONTRACTS			
PS58665-007-MOD-00005	Arcadis US Inc. - WPLE3 Construction Claims Support Services (FY23 - FY24) - Continuation of construction claims support services (e.g. provide claims avoidance, mitigation and resolution support, issue and dispute review) through 6/30/24.	5	Between \$500K and less than \$1M
C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS			
	None		

DIVISION 20 PORTAL PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2023 - May 31, 2023)

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

A. DESIGN BUILD CONTRACT - CONTRACT NO. C1136

MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in BOLD fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
CO 14.1(MOD#52.1)	Install Track Connection for PLE1 CWR Transport. This UCO covers MOD#52 and supersedes Unilateral Change Order (CO) No. C1136-CO-00014.1. Install a Metro furnished No. 8 Turnout (Right Hand) at the location shown on the Drawings prepared by PLE1 Designer. Include secondhand turnout ties and OTM from salvaged materials from the yard. Install Traction Power, Signals and Communications in accordance with the Drawings prepared by PLE1 Designer.	6	3/7/2023	4/17/2023	\$951,284	\$501,357
CO 130(MOD#75)	The Contractor shall provide off-site storage for special trackwork for Contract Phase 1B from April 2022 through November 2022. Payment of storage costs shall be as incurred on a monthly basis.	5	3/7/2023	4/18/2023	\$1,874,014	\$1,856,217
CO 175(MOD#78)	Additional Trailer at the Ranch. This MOD#78 supersedes Unilateral Change Order (CO) No. C1136-CO-00175. The Ranch (Commercial and Center Streets) 1. Contractor to furnish and install a container trailer at The Ranch location at Center and Commercial streets along the 101 Freeway for 36 months. *See attachment 2. Trailer to include 2 offices and 10 cubicles, restrooms (male & female), kitchen (refrigerator, sink, microwave, water machine), lighting, AC and heat, 3. Contractor to furnish trailer with one (1) 4'x8' kitchen table and one (1) 4.5'x10' conference table, fourteen (14) chairs, one (1) 75" Samsung TV monitor, one (1) HP 15.6" Touch Screen Laptop – Intel Core i7 – 16GB Memory – 512GB SSD – Silver laptop or equivalent, twelve (12) sets of desks and chairs, twelve (12) coat racks, twelve (12) book cases, ten (10) desktop computers, twenty (20) computer monitors, ten (10) keyboards, and ten (10) computer mouses for Metro's use. Metro requests that the hard drives for these computers be: Samsung 970 EVO SSD 2TB, or equivalent. 4. Contractor to provide the office trailer with sewer connection and potable water for 36 months. 5. Contractor to janitorial services (1 day a week) for 36 months. 6. Contractor to pave over the gravel area with 3-inch Hot Mix Asphalt (HMA) 7. Contractor to provide security services (7 days a week: 3:30 pm to 6:30 am (Monday to Friday), 24 hours (Saturday-Sunday)) for 36 months.	5	4/19/2023	5/18/2023	\$1,181,268	\$1,125,853

B. PROFESSIONAL SERVICES CONTRACTS

	None					
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C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

	None					
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II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2023 - May 31, 2023)

A) DESIGN BUILD CONTRACT - CONTRACT NO. C1136			
CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
CO 41(MOD#88)	Collected MOD - CO-00022 Communication Pull Boxes and Yard Tower Room 279 UPS Layout; CO-00037 Add Power Distribution Units to Communication Interface Cabinets; CO-00041 Room 303 Communications Equipment. The Total MOD Value is inclusive of all costs for CO-00022.1, CO-00037.1, and CO-00041 scope of work and supersedes the previous CO-00022 not-to-exceed authorization of: \$800,000.00, CO-00037 not-to-exceed authorization of: \$763.00, and CO-00041 not-to-exceed authorization of: \$23,339.00.	5	Between \$1M and \$5M
B) PROFESSIONAL SERVICES CONTRACTS			
	None		
C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS			
	None		

AIRPORT METRO CONNECTOR

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2023 - May 31, 2023)						
Change Types: 1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety						
A. DESIGN BUILD CONTRACT - CONTRACT NO. C1194 - HPH						
MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in BOLD fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					
A. DESIGN BUILD CONTRACT - CONTRACT NO. C1197 - Tutor						
	None					
B. PROFESSIONAL SERVICES CONTRACTS - DSDC Gruen						
	None					
C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS						
	None					

II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2023 - May 31, 2023)

A) DESIGN BUILD CONTRACT - CONTRACT NO. C1194 - HPH			
CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
	None		
A. DESIGN BUILD CONTRACT - CONTRACT NO. C1197 - Tutor			
Tutor - C1197 CO 4 CN 38 Bulletin 40	Bulletin 40 - Project Wide Roof Modifications The Contractor shall provide the necessary labor, equipment, and materials to perform work in accordance with the Contract Documents and Bulletin 40. This includes providing new detailing/shop drawings, expediting fabrication, and installing a new light gage framing system at the roof level project wide. The original contract drawings had light gage framing and sheathing between the roofing panel system and the structural deck that could create pockets where secondary water may collect. Due to the difficulty of accessing the roof level of the station (50'+ above the ground level), it is imperative to prevent maintenance requirements, and repairs, at the roof level.	5	Between \$500K and less than \$1M
Tutor - CN 49 Milestone 2A Partial Substantial Completion	Milestone 2A - Partial Substantial Completion In an effort to expedite the public opening of the Rail and APM transfer scope of the AMC project, Metro seeks to obtain a Partial Substantial Completion ahead of the original Milestone 3 completion. This Partial Substantial Completion shall add a Milestone, defined as Milestone 2A, and shall focus on allowing public access certain portions of the AMC Station This shall include, but not limited to, fully operational rail and LRT Platform, cutover/integrate and test all AMC Communications subsystems including SCADA, completed interface connection of the AMC to the Airport People Mover (APM) ITF-East station mezzanine level, access to the AMC station from Aviation Blvd and a completed pathway between these elements.	5	More than \$15M
Tutor - CN 34 Metro Plaster/ Paint Mark-up	Metro Plaster/Paint Mark-up The AMC station is made with ceiling perforated mesh panels which allows the metal deck of the roof to be visible within the station. The raw color of the metal deck is very noticeable due to the color difference of the walls and soffit of the station. The Metro Project Team is satisfied with the appearance of the deck where acoustical plaster and paint is currently applied. The Metro project team would like to extend the limits of the acoustical plaster and paint through-out the project limits to blend and match the finish the underside of the roof as well as add an additional layer of protection to the exposed metal.	5	Between \$500K and less than \$1M
B) PROFESSIONAL SERVICES CONTRACTS - DSDC Gruen			
	None		
C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS			
	None		

RAIL TO RAIL

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2023 - May 31, 2023)						
Change Types: 1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety						
A. DESIGN BUILD CONTRACT - CONTRACT NO. C1166 - Rail to Rail (Griffith)						
MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in BOLD fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					
B. PROFESSIONAL SERVICES CONTRACTS						
	None					
C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS						
	None					

II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2023 - May 31, 2023)

A) DESIGN BUILD CONTRACT - CONTRACT NO. C1166 - Rail to Rail (Griffith)			
CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
None yet	<u>Contaminated Soil in Public ROW</u> With City of LA transferring all work in public right-of-way to Metro in 2022, Metro has begun working in the first two street intersections and encountered contamination. Potholing has indicated the contamination is widespread and will be encountered in most if not all of the 22 intersections City of LA transferred to Metro. Initial projections are that this could be a potential problem of up to \$5M.	5	Between \$1M and \$5M

B) PROFESSIONAL SERVICES CONTRACTS			
	None		

C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS			
	None		

D) THIRD PARTY AGREEMENTS			
CHANGE NOTICE/ORDER #	DESCRIPTION	Change Type	Rough Order of Magnitude Cost
LADOT - FY24 WOA	<u>FY24 Annual Work Plan with City of LA for LADOT</u> Metro sought to have the City self-perform the work in the public right of way. Instead, the City provided a \$27.3 million contribution. The current estimated cost for the work in the public right of way is approximately \$45 million. Due to the transfer in responsibility, Metro needs additional review and approvals from the various City of LA Departments. LADOT is forecasting a work order authorization (WOA) of \$1.2 Million	2	Between \$1M and \$5M
LABOE - FY24 WOA	<u>FY24 Annual Work Plan with City of LA for LABOE</u> Metro sought to have the City self-perform the work in the public right of way. Instead, the City provided a \$27.3 million contribution. The current estimated cost for the work in the public right of way is approximately \$45 million. Due to the transfer in responsibility, Metro needs additional review and approvals from the various City of LA Departments. LABOE is forecasting a WOA of \$450K but Metro rounded to 500K for unforeseen conditions.	2	Between \$500K and less than \$1M
DWP - WOA	<u>DWP connections for Irrigating MEtro ROW</u> The R2R alignment is almost 6 miles long and will need to tap into various water mains along the alignment. Preliminary discussions between DWP and the 3rd Party Administrator assigned to R2R has produced an estimate of 605K for this work.	2	Between \$500K and less than \$1M

I-105 EXPRESS LANES PROJECT

I. APPROVED MODIFICATIONS/CHANGES GREATER THAN \$500K IN THIS REPORTING PERIOD (March 1, 2023 - May 31, 2023)						
Change Types: 1 - Betterment 2 - Third Party 3 - Differing Site Conditions 4 - Regulatory Requirements 5 - Scope 6 - Value Engineering 7 - Safety						
A. CMGC CONTRACT - CONTRACT NO. PS84667000						
MOD/CHANGE #	DESCRIPTION (if the change is a unilateral, explain in BOLD fonts)	Change Type	Submission Date	Approval Date	Contractor's Proposed Amount	Approved Amount
	None					
B. PROFESSIONAL SERVICES CONTRACTS						
	None					
C. CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS						
	None					

II. PENDING MODIFICATIONS/CHANGES GREATER THAN \$500K (March 1, 2023 - May 31, 2023)

A) CMGC CONTRACT - CONTRACT NO. PS84667000

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

B) PROFESSIONAL SERVICES CONTRACTS (WSP, Segment 1, Contract # AE275020011497-TO8)

Mod 2	Mod 2 is to update all Plans, Specifications, and Estimating (PS&E) items to the 2022 Caltrans Standards released in October 2022, at which time the 95% PS&E was substantially complete. Also, to update geometrics to shift the profile grade/sawcut line for the mainline widening to the existing edge of traveled way to remove new rumble strips installed by Caltrans in 2022. Moreover, the mod includes additional design work and permit support to the existing Task Order 8.	5	Between \$1M - \$5M
Mod 3	Mod 3 is an extension to the scope of work to conduct additional geotech. field investigation; design an additional toll hub building at the I-105/I-605 interchange; revise the design of the I-110 toll hub building in Seg. 1; update the pavement delineation design after 95% PS&E; and develop a toll concept strip map for segments 1, 2 and 3.	5	Between \$1M - \$5M

C) CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONTRACTS

	None		
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Attachment B - OIG Spot Check CEO Delegated Authority Delays Avoided

Project Name	Total Work Days Saved	Years Saved
Crenshaw/LAX	336	1.3
Regional Connector	463	1.8
Purple Line Section 1	702	2.7
Purple Line Section 2	428	1.7
Purple Line Section 3	308	1.2
Division 20	107	0.4
Airport Metro Connector	12	0.0
Total Savings	2344	9.1

Program Management Quarterly Change Report Summary

Sameh Ghaly

Chief Program Management Officer (Interim)

Program Management Quarterly Change Report

- This report summarizes quarterly changes valued at greater than \$500,000 for projects managed by Program Management.
- The current Quarterly Change Orders Log is reporting a period from March 1, 2023 - May 31, 2023.
- Changes included in this report are within the approved LOP budget for each project.
- The next Change Order Log will cover the period of June 1, 2023, through August 31, 2023, and will be presented to the October 2023 Construction Committee.

Quarterly Changes

	# of Approved Changes	Total Approved Amount	Within LOP	# of Pending Changes	Range	Within LOP
CRENSHAW/LAX TRANSIT PROJECT	1	\$899,992	✓	1	Between \$500K - \$1M	✓
CRENSHAW/LAX CLOSE OUT PROJECT	–	–	–	1	Between \$500K - \$1M	✓
REGIONAL CONNECTOR TRANSIT PROJECT	2	\$2,134,500	✓	3	Between \$2M - \$7M	✓
WESTSIDE PURPLE LINE EXTENTION SECTION 1	5	\$16,907,995	✓	2	Between \$1M - \$2M	✓
WESTSIDE PURPLE LINE EXTENTION SECTION 2	13	\$88,678,886	✓	6	5 Between \$2.5M - \$5M; 1 over \$15M	✓
WESTSIDE PURPLE LINE EXTENTION SECTION 3	3	\$4,286,189	✓	1	Between \$500K - \$1M	✓
DIVISION 20 PORTAL PROJECT	3	\$3,483,427	✓	1	Between \$1M - \$5M	✓
AIRPORT METRO CONNECTOR	–	–	–	3	2 Between \$1M - \$2M; 1 over \$15M	✓
RAIL TO RAIL	–	–	–	4	Between \$3M - \$12M	✓
I-105 EXPRESS LANES PROJECT	–	–	–	2	Between \$2M - \$10M	✓



Board Report

File #: 2023-0398, **File Type:** Informational Report

Agenda Number: 17.

CONSTRUCTION COMMITTEE JULY 20, 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 March 1 to May 31, 2023.

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 2023-0410. 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 and Lessons Learned.

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 Check Report after this Report is issued. Included with this Report is a spreadsheet on the status of responses concerning former OIG Spot Check Report recommendations (Attachment B).

DISCUSSION

Spot Checks Performed in this Quarter

Spot Check #1 - Airport Metro Connector Transit Station/96th Street Station

This OIG Spot Check report concerns the Airport Metro Connector Project (Contract C1197 MOD 0015) Bulletin 28 - Onsite DWP and Bus Charging

Change Order Detail

See Attachment A Spot Check #1 table.

Summary #1

Scope - This change order is to adjust the Airport Metro Connector (AMC) main yard for power (Yard 1) and add a second power yard (Yard 2) with electrical and communication vaults, pull boxes, duct banks, and four (4) additional bus charging stations.

This change was requested by Metro Bus Operations to comply with the Metro 100% zero-emissions bus fleet by 2030 objective. The Bus Operations department requested more stations to increase the total to seven (7) charging units. The electrical capacity at Yard 1 only supports three charging stations. To accommodate the planned increase in electric buses, Yard 2 will have the capacity to support not only the four additional chargers but future charging units. The Contractor will be compensated for the labor, equipment and materials to perform both the design changes and the construction under this change order modifying the contract.

Budget - This change order was negotiated as MOD 0015 for the amount of \$3,029,448. The Contractor's proposal was \$3,458,833 and the ICE was \$2,771,166. The negotiated price is \$429,385 (12.4%) lower than the Contractor's proposal. The ICE is \$258,282 (9.3%) lower than the negotiated amount. 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 agreed on the Scope of Work on January 3, 2023. The modification was awarded on March 16, 2023 and was completed in 52 workdays. Under the prior Board approval method for change orders, assuming a March Board meeting date, it would have taken a total of 57 workdays to complete the transaction.

Safety - The Airport Metro Connector Transit Station/96th Street Station Project has 309,015 project hours through April 2023 with a Recordable Injury Rate of 2.8 (the Bureau of Labor Statistics the National Average is 2.4) and a Days Away Rate (DART) of 0.64 (the Bureau of Labor Statistics National Average is 1.5).

Recommendation/Lessons Learned - The OIG recommends Metro review all construction plans for satisfaction of the zero-emissions bus fleet objective to add as appropriate electric charging capability.

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

This OIG Spot Check report concerns the Purple Line Extension Section 1 (Contract C1045 / CO-0028), Expedite Cutterhead Removal at Trail Track

Change Order Detail

See Attachment A Spot Check #2 table.

Summary #2

Scope - This change order is to expedite the removal of the Section 1 tunnel boring machines cutterheads. The cutterhead is the front piece of the tunnel boring machine that rips through the earth to make a tunnel. The Section 1 cutterheads were located at the end of the track at the Wilshire/La Cienega Station which is also the eastern end of the Section 2 tunnel.

The contract for Section 1 does not state a specific milestone date to start the removal of the cutterheads nor how long the removal should take but the Project Manager from Purple Line Extension Section 1 determined by accelerating the start date and speeding up the pace to remove the cutterheads it would avoid major impacts to both Purple Line Extension Section 1 and Section 2 projects.

The removal of the Section 1 cutterheads during or after Section 2 tunnel boring machines arrival at the same connecting point would cause construction issues, safety concerns, and potential ventilation complications between the two projects. By requesting the removal of the cutterheads earlier than planned and having the contractor work extra shifts to accelerate the removal these issues and complications between projects were minimized if not eliminated. This change order mitigated cost and schedule impacts to both Purple Line projects. This work was completed during September to December 2022.

Budget - This change order was negotiated as unilateral Change Order 0028 for the amount of \$2,713,967. The Contractor's proposal was \$3,554,535 and the ICE was \$2,892,729. The negotiated price is \$840,568 (23.6%) lower than the Contractor's proposal. The ICE is higher than the negotiated amount by \$178,762 (6.2%). 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 agreed on the Scope of Work on March 27, 2023. The modification was awarded on April 18, 2023 and was completed in 16 workdays. Under the prior Board approval method for change orders, assuming a May Board meeting date, it would have taken a total of 43 workdays to complete the transaction.

Safety - The Purple Line Extension Section 1 Project has 8,515,618 project hours through April 2023 with a Recordable Injury Rate of 0.96 (the Bureau of Labor Statistics the National Average is 2.4) and a Days Away Rate (DART) of 0.07 (the Bureau of Labor Statistics National Average is 1.5).

Recommendation/Lessons Learned - The lessons learned from this change order is to add to the initial Contract details on the tunnel boring machine interplay between the two projects and the cutterhead removal and scheduling.

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

This OIG Spot Check report concerns the Purple Line Extension Section 2 (Contract C1120 MOD 0179), Provisions for WRS North (Secondary) Entrance - Construction (Wilshire Rodeo Station, Northwest corner of station.)

Change Order Detail

See Attachment A Spot Check #3 table.

Summary #3

Scope - Metro, in coordination with City of Beverly Hills is planning for a future secondary entrance at the Wilshire / Rodeo Station. This change order is to construct the portion of the second entrance within the Wilshire Rodeo Station up to and including a new knockout panel.

On November 10, 2020, the Beverly Hills City Council approved the Settlement Agreement with Metro for the construction of a secondary entrance on the northwest corner of the intersection of Beverly Drive and Wilshire Boulevard. The City of Beverly Hills will construct the street level entrance and below ground structure. Metro will construct elements inside the station box and a new knockout panel in the north wall to facilitate the City's connection to the station.

This change order incorporates multiple items to facilitate the future connection to the Beverly Hills secondary entrance. Included in this change order is the cantilevered walkway which will extend from the concourse to the knockout panel. Other items include: architecture finishes, the emergency ventilation system, gas and cold smoke extraction, fire hose cabinets, floor drains, fire sprinklers, maintenance outlet receptacles, light fixtures, and other electrical and communication provisions at the new knockout panel. All elements have been designed in compliance with the Metro Rail Design Criteria. The Wilshire / Rodeo station construction is underway.

Budget - This change order was negotiated as a modification for the amount of \$6,489,588. The Contractor's proposal was \$7,197,324 and the ICE was \$6,059,856. The negotiated price is \$707,736 (9.8%) lower than the Contractor's proposal. The ICE is \$429,732 (7.1%) lower than the negotiated amount. 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 agreed on the Scope of Work on March 10, 2023. The modification was awarded on April 25, 2023 and was completed in 21workdays. Under the prior Board approval method for change orders, assuming a May Board meeting date, it would have taken a total of 54 workdays to complete the transaction.

Safety - The Purple Line Extension Section 2 Project has 3,292,473 project hours through April 2023 with a Recordable Injury Rate of 2.92 (the Bureau of Labor Statistics the National Average is 2.4) and a Days Away Rate (DART) of 0.67 (the Bureau of Labor Statistics National Average is 1.5).

Recommendation/Lessons Learned - The OIG recommends continual monitoring of the City of Beverly Hill design plans as they near construction as to avoid any construction impacts, safety concerns and complications at the knockout panel.

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

This OIG Spot Check report concerns the Purple Line Extension Section 3 (Tunnels Contract C1151, MOD 0024), Claim-04 Gravel Seam Impact BR Tunnel Rings 399 to 486

Change Order Detail

See Attachment A Spot Check #4 table.

Summary #4

Scope - This change order is to compensate the contractor for additional maintenance to the tunnel boring machine and labor hours because of the differing site conditions encountered.

The Geotechnical Baseline Report stated the soil layers consisted of gravels of a certain size and volume. However, the tunnel boring machine traversed through larger sized gravel materials in greater volumes. This change in soil type caused a reduction in the speed of the tunnel boring machine and Metro also observed slowing of the tunnel boring machine accompanied by the Contractor's additional efforts to replace cutterhead tools worn by these conditions. The Contractor filed a claim for differing site conditions in August 2022 because of soil layers that the tunnel boring machine was encountering and requested coverage of additional labor hours. Merit was determined in February 2023 and the contractor was awarded an amount in March 2023.

Budget - This change order was negotiated as a modification for the amount of \$959,123. The Contractor's proposal was \$959,123 and the ICE was \$937,441. The award equaled the Contractor's proposal. The ICE was determined to be within 2.3% (\$21,682) of the Contractor's request. The team found the contractors request was fair and therefore awarded the amount. 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 agreed on the Scope of Work on February 3, 2023. The modification was awarded on March 9, 2023 and was completed in 25 workdays. Under the prior Board approval method for change orders, assuming an April Board meeting date, it would have taken a total of 59 workdays to complete the transaction.

Safety - The Purple Line Extension Section 3 Project has 2,614,618 project hours through April 2023 with a Recordable Injury Rate of 1.45 (the Bureau of Labor Statistics the National Average is 2.4) and a Days Away Rate (DART) of 0.38 (the Bureau of Labor Statistics National Average is 1.5).

Recommendation/Lessons Learned - The OIG recommends more geotechnical exploration in the development of the Geotechnical Baseline Report as to better identify the correct soil characteristics.

FINANCIAL IMPACT

This report itself has no impact on the Agency, the OIG is only summarizing the changes herein as requested by the Board of Directors.

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.

Spot Check #1)	\$3,029,448 Airport Metro Connector Transit Station
Spot Check #2)	\$2,713,967 Purple Line Extension Section 1 Project
Spot Check #3)	\$6,489,588 Purple Line Extension Section 2 Project
Spot Check #4)	\$959,123 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. The OIG did not receive any data concerning community impacts. There is a low-income equity-based community near the Veteran's Hospital on Wilshire Blvd. The completion of Extension 3 will benefit millions of men and women Veteran's by transporting them to and from Metro Station at the VA Hospital. The addition of bus charging stations for Metro electrical bus fleet will benefit all of Los Angeles county and surrounding cities as the smog begins to clear the skies and Angelenos will breathe easier. 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 in this report
Attachment B - OIG Recommendations and Responses Tracking Sheet

Prepared by: Prepared by: Suzanna Sterling, Construction Specialist Investigator (213) 244-7368
Reviewed by: Karen Gorman, Inspector General (213) 244-7337


Karen Gorman
Inspector General

Spot Check #1 – Airport Metro Connector Transit Station/96th Street Station - Contract C1197

Change Order Detail

<u>Description of Modification or Change Order - MOD-0015</u>	
Bulletin 28 – Onsite DWP and Bus Charging	
<u>Change Order Dates:</u>	
Scope of Work approved	January 3, 2023
Modification Executed	March 16, 2023
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	52 workdays
Estimate using former Board approval process Agenda for the March Board	57 workdays
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	\$2,771,166
Contractor's proposed cost	\$3,458,833
Negotiated amount	\$3,029,448
Percentage of negotiated amount <i>OVER ICE</i>	9.3%
Amount negotiated less than the Contractor's proposal	\$429,385

Spot Check #2 - Purple Line Section 1 Transit Project – Contract C1045

Change Order Detail

<u>Description of Modification or Change Order – CO-0028</u>	
Expedite Cutterhead Removal at Tail Track	
<u>Change Order Dates:</u>	
Scope of Work approved	March 27, 2023
Unilateral Issued No Modification Executed	April 18, 2023
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process,	16 workdays
Estimate using former Board approval process Agenda for the May Board	43 workdays
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	\$2,892,729
Contractor's proposed cost	\$3,554,535
Negotiated amount	\$2,713,967
Percentage of negotiated amount <i>UNDER ICE</i>	-6.2%
Amount negotiated less than the Contractor's proposal	\$840,568

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

<u>Description of Modification or Change Order – MOD-0179</u> Provisions for WRS North (Secondary) Entrance - Construction	
<u>Change Order Dates:</u>	
Scope of Work approved	March 10, 2023
Modification Executed	April 25, 2023
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	21 workdays
Estimate using former Board approval process Agenda for the May Board	54 workdays
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	\$6,059,856
Contractor's proposed cost	\$7,197,324
Negotiated amount	\$6,489,588
Percentage of negotiated amount <i>OVER ICE</i>	7.1%
Amount negotiated less than the Contractor's proposal	\$707,736

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

<u>Description of Modification or Change Order –MOD-0024</u> Claim-04 Gravel Seam Impact BR Tunnel Rings 399 to 486	
<u>Change Order Dates:</u>	
Scope of Work approved	February 3, 2023
Modification Executed	March 09, 2023
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	25 workdays
Estimate using former Board approval process Agenda for the April Board	59 workdays
<u>Cost of Change Order</u>	
Metro independent cost estimate (ICE)	\$937,441
Contractor's proposed cost	\$959,123
Negotiated amount	\$959,123
Percentage of negotiated amount <i>OVER ICE</i>	2.3%
Amount negotiated less than the Contractor's proposal	\$0.0

ATTACHMENT B (JULY 2023)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
July 2023 #1 Contract C1197 Airport Metro Connector MOD-0245: Bulletin 28 – Onsite DWP & Bus Charging	The OIG recommends Metro review all construction plans for satisfaction of the zero-emissions bus fleet objective to add as appropriate electric charging capability.		
#2 Contract C1045 Purple Line Ext. Section 1 CO-0028: Expedite Cutterhead Removal at Tail Track	The lessons learned from this change order is to add to the initial Contract details on the tunnel boring machine interplay between the two projects and the cutterhead removal and scheduling.		
#3 Contract C1120 Purple Line Ext. Section 2 CO-0179: Provisions for WRS North Secondary Entrance	The OIG recommends continual monitoring of the City of Beverly Hill design plans as they near construction as to avoid any construction impacts, safety concerns and complications at the knockout panel.		
#4 Tunnel Contract C1151 Purple Line Ext. Section 3 MOD-0024: Claim-04 Gravel Seam Impact BR Tunnel Rings 399-486	The OIG recommends more geotechnical exploration in the development of the Geotechnical Baseline Report as to better identify the correct soil characteristics.		

ATTACHMENT B (APRIL 2023)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
April 2023 #1 Contract C0980 Regional Connector MOD-0245: 10-Inch Sanitary Sewer Relocation & Upsize existing 8-Inch Sewer to 12- Inch	The OIG recommends to Work with the City where construction is going to occur at the earliest possible time to determine their requirements so that those requirements can be negotiated, included in the bidding documents when released with correct information and requirements, and if the requirement change is caused by Metro's increased utilization of the utility or if it amounts to a betterment for which a sharing/contribution should be made.	Agreed. Projects should do their best to identify utility conflicts ahead of time, but depending on the area and available documentation that is not always possible. This work was impacted by both surrounding facilities and modified work sequencing in the intersection when the project changed the plan after realizing the utility impacts of the terminated AUR contract.	
#2 Contract C1045 Purple Line Ext.Sect.1 CO-0022 Fully Guarded Double Crossovers	The OIG recommends consulting with Operations on the desired headway speeds at the design phase so that these requirements can be added at the earliest possible times. This may be added to the Construction Departments Lessons Learned data base to have fully guarded double crossover rail to keep the minimum headway and protect rail cars to avoid possible derailment in the future in the initial design and specifications and avoid future change orders.	Concur that the Project's required crossover speeds need to be finalized during the design phase and those needed speeds, combined with the available station box crossover length and width, will determine if a fully guarded crossover is required and if it will be required to be included as part of the Project's design.	
#3 Contract C1120 Purple Line Ext.Sect.2 CO-0058:Project and Construction Site Delay Impacts	None		
April 2023 #4 Stations Contract C1152 CO-0090.1 & MOD-0089 Purple Line Extension Section 3 UCLA Station - Additional LADWP Temporary Power Conduits	The OIG recommends: 1.For the Project to submit to the Lessons Learned data base, run by the Quality Assurance group, the events regarding coordination with LADWP (or another third-party utility) which required the increase in size of conduits and forced relocation of the ductbanks. By submitting information of these changes to the Lessons Learned data base, future projects will be warned that there might be an update to the electrical requirements applicable to their project. 2.The Metro Rail Design Criteria (MRDC) should get periodic updates to include new standards by agencies that review and approve Metro construction so that when future RFPs are issued they comply with those mandatory standards. This will not foreclose Metro seeking a waiver or amendment in the future from that entity on an individual project that might reduce the cost and that will not require a costly change order. Additionally, the MRDC should be updated to encourage early coordination with the third-party utilities to obtain their written agreement to the specifications for a project prior to the RFP issuance.	1. Agreement in sharing the LADWP standards (that were not previously made available to the project by LADWP) to be available for other Metro projects. 2. Third Party standards are maintained by the respective Third Parties and provided to Metro during the design phase for each project. Early coordination occurs with Third Parties; however, disclosing the current and applicable standards has at times not been consistent by the Third Parties. Metro is currently working with LADWP to establish a new Utility Cooperative agreement. Agreement terms: to include language where standards will be memorialized at the time of RFP issuance, language accommodating early involvement, language to establish a design freeze, language to define betterments, as well as other terms to minimize risks on projects. Similar agreements are also being pursued with other utility owners. It should also be noted that Metro is closely coordinating with all applicable City's and utility owners from an early engagement standpoint while the Projects are still in the planning phases. The following actions are currently being taken; Establishing and execution of Master agreements and Utility Cooperative Agreements with applicable City's and utility owners prior to the start of Preliminary Engineering and prior to the release of RFP's. Other general actions being taken include establishing more robust potholing and subservice investigations early on and engagement with utility owners early on to identify fatal flaws and pitfalls with alternatives. Pitfalls such as unavailability of power in the area to accommodate TBM's, addressing heavy relocations, identifying schedule challenges with relocations should they be required. The MRDC is a live document and goes through review and updates on a regular basis and usually before award of a major contract. MRDC is currently undergoing a major review and update. We have and will continue to share our MRDC with City of Los Angeles. The MRDC mainly refers to the Green Book for roadway and utility related items which is what almost all the Cities use as well. With the current efforts to engage the third parties prior to the release of the RFPs, we should be able to catch any third party requirement that would be outside the Green Book and MRDC.	

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.	Recommendation is noted. VCM is seeking a resolution to the sub-contractor bond and insurance for change orders.	
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.	Metro acknowledges the OIG's recommendations and will work toward resolution of scope & cost disagreements involving the Architectural Art Glass. Negotiations are pending the contractors confirmation on available dates for these negotiations. To avoid these potential impacts for future projects, WPLE 1 is working with the Metro Art department on a lessons learned session to help implement a change in the development of the artwork scope in future contracts. This will impact the contractual and procurement requirements for the artwork (timing, line item allowances, contingency) so that there is less cost discrepancy for the artwork between the time overall Construction Contract is developed and when the artwork is procured.	
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	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 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.	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	The OIG acknowledges the unknown underground site condition of numerous conflicting underground utilities, but the existing AT&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&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. 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.	Agreed. The AT&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.	
October 2022 #2 Contract C1136 CO-0017.4/MOD 0037 Division 20 Portal Widening and Turnback Project - 1st Street Bridge Continuous Monitoring	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.	Agreed	
October 2022 #3 Contract C1197 MOD-009 Airport Metro Connector Transit Station Bulletin 16 – Light Rail Transit (LRT) Fence Updates	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.	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.	
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	None		

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	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: 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; 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; 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; 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.	Metro acknowledges the recommendations listed and provides the following responses below: 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. 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. 3.Acknowledged 4.ECSD management will review awarded projects and available facilities and make recommendations on where to make changes to disposal practices as needed.	
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	Since the 'Green book' states the support and materials for sewer and storm drain pipe are to be encased in concrete, the OIG recommends that the LA Metro rail standard drawing US-014, be updated to reflect the required City standard and Metro may negotiate with the LABOE to adopt a different standard for specific projects as warranted. We further recommend, as discussed in previous reports, that Metro study the large discrepancies between the Metro ICE and the award amounts to determine if there is a method by which those discrepancies can be narrowed. This recommendation applies to many of the Spot Checks reviewed in this Report, and is based also on a Metro audit completed by the Management Audit Services Department that noted significant discrepancies in these amounts to be a frequent occurrence.	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	The MOA between Metro and COBH imposes additional restrictions on Metro and adds costly change orders to the original contract. The OIG recommends Metro adopts a standardized MOA for use in negotiations with all jurisdictions within Los Angeles County and utilizes this agreement for every construction project going forward in each respective jurisdiction and that budget estimates for projects should be revised as necessary to take into consideration MOAs entered into.	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	It is the OIG's understanding that water pump tests and water quality tests were performed, but they were performed at the original location, the Army Reserve site, which is no longer the correct shaft location. Now the site is at the Veterans Administration property. A change in location can greatly affect both the levels and quality of the groundwater, thus increasing the revised dewatering process. It is critical that the Real Estate Department be included at the earliest possible time in negotiating the property requirements for a project. Having to change location plans after a contract award can have significant scheduling and expense consequences.	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	The Purple Line Extension 3 was a 'next decade project' and was accelerated to be completed in the next 5 years with many project processes that had to be compressed to meet the schedule. We also understand that the real estate acquisition process is contingent on the funding being in place. The real estate acquisition process and all other real estate arrangements must be negotiated as early as possible and negotiate those property rights strategically to ensure we have our real estate needs met at the earliest and least expensive manner possible.	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.	

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	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. 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.	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.	
August 2020 #2 Contract C1045 MOD-00106 Purple Line Extension Sect. 1 Center Muck Shaft at La Brea (ECI-03)	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.	OIG comment received will be included in the lessons learned.	
August 2020 #3 Contract C1045 MOD-00107 Purple Line Extension Sect. 1 Center Muck Shaft at La Brea (ECI-03)	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.	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.	

ATTACHMENT B (August 2020)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
August 2020 #4 Contract C1120 MOD-00073 Purple Line Extension Sect. 2 Century City Constellation Station Track work Extension	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. 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. 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.	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. 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. 2. This recommendation will be referred to Metro Engineering for consideration.	

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	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. 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.	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. 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.	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	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. 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.	The emissions limit for equipment was set at the time the Contractor submitted the specific ventilation plan to SCAQMD for permit. 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. 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.	
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	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. The OIG recommends Real estate arrangements should be negotiated as early as possible.	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	While the soil at every site is unique, it is possible to create a standard for testing soils for gasses. There is no current rule or technical specification within Metro criteria for extraction of CH₄ or H₂S from the soil. 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.	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	The implementation of the drilling and magnetometer survey from Section 1 has been incorporated into Purple Line Extension Section 2 and 3 contracts. The OIG recommends that the procedures implemented for locating tanks, pipes and other abandoned waste be added to the Lessons Learned database. 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.	PLE1 implemented methodologies for locating known tanks, pipes and other abandoned waste will be added to the Lessons Learned database. PLE1 notes that the hazardous waste removal is relatively small/negligible compared with the overall volume of soil removed. After reviewing the potential ROI on pursuing legal actions against any potential responsible parties for cost recovery the current determination based on the available data is that it is not worth the effort and cost at this time. However, it was decided that Metro County Counsel would provide a preliminary review on the issue and it would be revisited in the future.	

ATTACHMENT B (Oct 2019)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
Oct. 2019 / #1 C0988-MOD-00432 Crenshaw/LAX - Update Station Customer Signage, Construction	The Metro RDC was updated with 2010 ADA Standards for Accessible Design later, and after the release and execution of the Crenshaw contract. When new standards are issued all request for proposal specifications pending after that date should be reviewed for correction before release when possible. For request for proposals released between 2010 and 2014,(when we changed the specification and Metro RDC) the OIG recommends immediate evaluation to determine if they were also awarded based on the old pre 2010 standards to determine whether their projects might be similarly impacted.	Agreed	
Oct. 2019 / #3 C1078 MOD-00083 Purple Line Sect. 1 - La Cienega Dewatering DSC	The Geotechnical Baseline Report stated that the ground conditions would permit drainage of water. The OIG questions if the consultant who developed the Geotechnical Baseline Report properly interpreted the boring data. Investigation is warranted to determine if the report accurately reflects the data. The OIG recommends recovering part of the cost, if the investigation demonstrates that the report was erroneous. The OIG further recommends future Geotechnical Baseline Reports should include interpretation of the borings to determine within a 95% confidence level the nature of the underlying soil and the location of the water table.	Project reviewed the GBR and actual field data and concludes this is a DSC. There is no error and omission on the part of the consultant.	
Oct. 2019 / #4 C1078 MOD-00085 Purple Line Sect. 1 - Geotechnical Instrumentation: Revise Geotechnical Contingency Plan and Reporting	The OIG recommends if Metro believes this change order is a betterment, then Metro should complete the new "Potential Notice of Betterment" form, submit a copy to LABOE and retain a copy for negotiations at the end of the contract if not sooner. This means Metro would move forward at LABOE expense. Going forward, this "Potential Notice of Betterment" form should be completed when applicable and submitted to the LABOE prior to agreeing to move forward, thus allowing the LABOE to make the decision if the betterment is truly necessary.	Project concurs and will develop a Potential Notice of Betterment for LABOE.	

ATTACHMENT B (July 2019)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
July 2019 / #1 C0988-MOD-00426 Crenshaw/LAX - Irrigation Water Meters, Park Mesa Medians	The OIG recommends this disagreement between the City of Los Angeles Public Works and LA Metro about the responsibility for the changes should be discussed and resolved.	This item is tied to the tree permit that included adding pavement in areas beyond the project limits, increasing the number of replacement of trees for those cut down, adding landscaped medians (which require the subject irrigation). All of the items above were discussed with City and the two parties agreed to an MOU for which the City would be paid 3.5 million to pave the street (work valued at 7.0 million plus) and that this agreement resolved the other issues mentioned above with Metro installing at its cost (medians, trees...etc)	
July 2019 / #2 C0980 MOD-00141.2 Regional Connector - Impacts to Support of Excavation: Decking, Utilities and Temporary Drainage	The OIG recognizes the age of the buildings at the site and errors of definitive drawings. The OIG recommends to research on the front end, even drawings to confirm accuracy, to preclude issuing an expensive change order after construction has commenced.	There are definitely some lessons to be applied to future projects based on Regional Connector's experience with utilities. The most significant finding is the need to conduct utility condition assessments in areas where cut-and-cover construction is planned. This could be accomplished by a combination of potholing, inspection of maintenance holes/vaults and research with the utility owner. The documented age of the utility and the presence of large masonry vaults/maintenance holes, should serve as guides in the determination of whether facilities should be replaced.	No further action by Regional Connector
July 2019 / #3 C1078 MOD-00025 Purple Line Sect. 1 - Revised Low Impact Development (LID)	The OIG recommends that all upcoming sites where known industrial and railway activity occurred, that a full investigation of soils occurs and is stated in the Environmental Impact Statement. Performing such investigation early may result in additional early costs, but these circumstances will then become known costs of the project and may be prepared with less delay and less costs than waiting.	Site investigation and soil remediation was completed prior to the construction of the site. However, the original plan for the DTSC directed site cleanup was the previous owners responsibility. Due to the nature in how this property was eventually acquired in order to meet the construction schedule (imminent domain) there was no time to cleanup the groundwater issues prior to LID designs. and assess any data gaps that may have existed. Orders from the DTSC to continue remediation efforts of the groundwater, beyond Metro's planned clean up phase, pushed the environmental effort beyond a clear end date which in effect conflicted with the LID design since it would be predicted to pushing an identified contaminated groundwater plume during rain events once completed. In the future, if Metro can anticipate action to be required from outside entities (that can take significant time to develop and execute) beyond the initial environmental phase, it will request contractor to change the design prior to 60% completion to avoid major changes	
July 2019 / #4 MC1120 MOD-00037 Purple Line Sect. 2 - Revision to Avg Depth of Seismic Borings along Wilshire Blvd. on Tunnel Reach 5	The OIG commends the Engineering department for taking supplementary steps to determine additional the location of seismic fault line in relation to the track alignment for improved safety and long term structural integrity.	Noted	N/A

ATTACHMENT B (April 2019)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
April 2019 / #1 C0988 MOD-00402 Crenshaw/LAX - Provisional Payments - Pending Dispute Resolution Fire Rated Cable (multiple) Change Orders	1. The OIG recommends that Metro expeditiously and fairly resolve the litigation with the Contractor. 2. The OIG further recommends that a review team monitor the billings of the Contractor to validate the efficacy of the incentive program as this may become a tool for improving future performance on other projects.	1. Agree, different mechanisms to achieve this being considered. 2. Agree, already being implemented.	1. December 2019 2. Closed
April 2019 / #3 C1045 MOD-00071 Purple Line Sect. 1 - Golder Gas Investigation and Report	The Independent Cost Estimate was not an accurate representation of work stated in the agreed upon scope of work. The OIG recommends that Metro continue to follow through on the plan for mitigation of gas migration utilizing the Contractor's new report of procedures where known high concentrations of hydrogen sulfide and methane gases exist.	Metro is following thru on the plan. Installation of wells for field testing began in 3/19. The mitigation options draft memo, based on the field testing observations, was received 6/25. Design of a selected gas migration mitigation option, i.e. increasing the number of soil vapor extraction wells, is ongoing.	Completion of mitigation recommendation and implementation, is tentatively scheduled for December 31, 2019.
April 2019 / #4 C1045 MOD-00072 Purple Line Sect. 1 - Reach 3 Additional Gas Testing and Assessment	The OIG recommends: 1. In following the new Contractor's report, Work Plan for Exploratory Program to Assess Mitigations for Potential Gas Migration, a. Record all steps that were successful and those that need modification. b. Have information formatted and add to Technical Specifications. c. Have steps and procedures added into Lessons Learned d. Incorporate these finding and procedures into any future bid process where potential gas migration and tunnel boring may occur. 2. Note under Lessons Learned where known high concentrations of hydrogen sulfide and methane gases exist, prior study and geotechnical investigation be completed and included in the bid documents.	1. Metro has the following comments: a. Plan to record this. Modifications to the testing program in field to be made as appropriate b. This is likely a unique area. A Full report on the program and recommendations is included in the work. Pending the outcome, Technical Specifications would be developed for the Project c. Agree, also see b above d. We note that investigation is in progress now to study gas migrations. Pending outcome, future bid process would include results, including incorporation in Geotechnical Investigation and Technical Requirements 2. Agree. In this instance the area was studied and fully identified/described in the bid documents. Also see 'b' above.	12/31/2019

ATTACHMENT B (April 2019)			
OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
April 2019 / #5 C1045 MOD-00074 Purple Line Sect. 1 - Additional Instrumentation (Project Wide) as requested by LABOE and STS EOR	The OIG recommends that instrumentation bought for this project become property of LA Metro, so that future projects (remainder of the Purple Line Extension 2 and 3) will have instrumentation on hand to immediately install when Support of Excavation for those projects begin.	Metro has made several attempts in the past for Purple Line and Regional to salvage and reuse geotechnical instrumentation. However, passing the instruments between projects offer a number of challenges. These include the following: • The Design life of instrumentation equipment is limited given the temporary nature of the work. • Given the diminished value of the used instrumentation equipment it is often abandoned in place. An effort to salvage the equipment may result in increased costs. • The means, methods and performance of shoring, instrumentation and monitoring are left with the Design-builder. Dictating the used instruments would interfere with the selection of means and methods and make Metro responsible for warranting the equipment for the life of the project. • The technology associated with the equipment continues to evolve. Metro may then be obligating the contractor to use obsolete equipment. • Timing and turnover of instrumentation. The contract schedules for Regional, Crenshaw and Purple Line Sections 1, 2 and 3 all overlap. As such, the instrumentation for each project is needed at the same time. • Metro would need to inventory and temporary store the instrumentation equipment. There is a risk that Metro may be storing the equipment permanently or Metro may need to make efforts for their disposal.	Closed

ATTACHMENT B (Jan. 2019)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
Jan 2019 / #1 C0988 MOD 00335.1 Crenshaw - Cable Transmission System Update - Construction	"The OIG recommends: The schedule negotiations with the contractor be expeditiously concluded so the schedule impacts are minimized."	Not sure what this means. CO's were issued prior to MOD that obligated the contract to commence work - this mitigated schedule impacts. Response could stay as-is I suppose (with edits) as it is relatively benign in nature	Closed
Jan 2019 / #3 C1120 MOD-00026 Purple Line Sect. 2 - Santa Monica Blvd. Bus Layover Design and Construction Changes	The OIG recommends: That Operations and LADOT be provided the scope of work after requests are submitted or "no comments" are received to confirm their requests have been added into the scope prior to the release of the RFP.	Because the OIG's recommendation is for actions to be taken prior to the release of RFPs, it has been passed on to Metro Engineering for consideration in revising Policy DSGN01 DB for future projects.	Metro Engineering (Androush Danielians/ Eduardo Cervantes) have been notified. They provided the below comment: A process will be set in place that will be included in future Specs and contract language for the PE Consultant. The process will require the consultant to submit plans to all applicable agencies (including Metro). Upon receiving comments, the Consultant shall address each comment as to the disposition in a matrix/spreadsheet. The spreadsheet / matrix will then be submitted to each of the commenting agencies. That agency will then be requested to accept the project disposition (via an initial). If the agency is not in acceptance of the disposition, the Consultant via the Project shall work with each agency until that comment disposition is accepted. The final signed off matrix shall then be included in the RFP for the DB (contractor) to complete the path forward based on the agreed upon disposition.

ATTACHMENT B (Oct. 2018)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
Oct 2018 / #1 C0988-MOD-00347.2 Crenshaw - UG1 Center Walkway Lighted Handrail	The OIG recommends: Management should note the steps and procedures in Lessons Learned and follow up during management group discussions, on ways to expedite and coordinate future situations involving evaluation of numerous options to quickly reach a best alternative.	Agree noted - this was a unique and complex issue needing evaluation and testing of different option prior to selection and moving forward. Process used now accounts for this.	Closed - Will incorporate the suggested comment into lessons learned to be used in future projects.
Oct 2018 / #2 C1045 MOD-00060 Purple Line Sect. 1 - Accommodate COBH Memorandum of Agreement	The OIG recommends: To start future MOA processes with cities during the planning stages of the Environmental Assessment and identify the concerns/matters relating to the MOA in the Risk Registry.	Agree	Per the PM's comments Planning needs to close this item. Planning (Manjeet Ranu) was informed on 04/05/19 and is supposed to provide comments by the end of April 2019.
Oct 2018 / #3 C1045 MOD-00061 Purple Line Sect. 1 - Addl. SOE design work for LaBrea Station due to deviation request for bldg settlement	The OIG recommends: This matter concerning dewatering and SOE be added to the Lessons Learned files and the separation of dewatering and SOE be updated in the Metro Design Criteria as a special case.	Agree	Closed - Per the PM's comments Project responded to the concern, but Gateway Engineering needs to close this issue. Engineering (Androush Danielians) has been notified and responded that the related MRDC has been previously revised.
Oct 2018 / #4 C1045 MOD-00058 Purple Line Sect. 1 - LaBrea Additional Instrumentation	The Independent Cost Estimate was not an accurate representation of work stated in the agreed upon scope of work. The OIG recommends: The project manager or knowledgeable person from the project team, establishes a coordination meeting both in the field and office for the estimator to see and hear each detail of new scope of work. Hearing and visualization of the scope changes will assist the estimator in preparing a more accurate Independent Cost Estimate.	Agree, The Estimator will continue to be invited to the Fact Finding with the Contractor as identified in CF-14"	Closed - Staff is being invited as stated in the response.
Oct 2018 / #5 C1120-MOD-00015 Purple Line Sect. 2 - Century City Constellation Station Main Entrance Final Design	The OIG understands the real estate transaction between the developer and Metro is not a signed agreement as of the time of this report. The OIG recommends: Metro management and Metro real estate staff work expeditiously with the developer to finalize cost estimates and complete the real estate transaction to minimize the likelihood of additional costs associated with further modifications to the design of the station entrance.	Agree	Closed - Ongoing Process.

ATTACHMENT B (July 2018)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
July 2018 / #1 C0988-MOD-00173.4 Crenshaw - Fire rated conduit and cable for tunnel emergency lighting	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 2) continue to follow appropriate process to resolve the Change Order dispute.	1- Agree as appropriate 2- Agree	1- Closed - was updated in next project, Regional Connector. 2- Closed
July 2018 / #2 C0988-CO-00209.1 Crenshaw - Preliminary 45 day acceleration	The OIG recommends Metro continue to explore with the contractor opportunities to accomplish schedule recovery.	Agree	Closed
July 2018 / #3 C0988-MOD-00354 Crenshaw - COLA request to replace concrete street light & signal poles w/steel poles- MLK area	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.	Agree - Under consideration	Closed
July 2018 / #5 C0980-MOD-00119 Regional Connector - Addl Special conditions CAL/OSHA Tunnel classification	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.	Agree - Regional Connector will share lesson learned with respect to gas detection and OSHA notification protocol with Purple Line Projects 1,2 & 3.	Closed - Discussed with Project Managers in the meeting held on Nov 13, 2018.

ATTACHMENT B (July 2018)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
July 2018 / #6 C1120-MOD-00011 Purple Line sect. 2 - Temp K-rail Noise Barrier	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.	(1) The use of traffic control measures is governed by the municipality in which work is occurring. Both K-rail with plywood and chain link fence with screening are already contractually allowed, and considered appropriate installations in the proper application. Future projects will consider the use of each barrier system on a case by case basis, considering actual traffic impacts and the proximity to commercial and residential properties. (2) Work hours in streets are governed by the municipality in which the work is occurring (and often time by the City Councilmember representing the district where the work is being performed). For future applications with long duration activities, and when approved by the municipality having jurisdiction, K-rail with plywood will be considered to maximize work hours. (3) Lessons learned from AUR work on the WPLE2 project will be documented for consideration by future projects. The WPLE3 project considered the use of k-rail barriers for AUR work, but because of the significant traffic during daytime hours, AUR work has been limited to nighttime hours by LADOT (municipal agency having jurisdiction), with a requirement to fully restore travel lanes during daytime hours. A k-rail barrier system cannot be feasibly moved on the street at the start of a shift and removed at the end. Therefore, it was not practical to utilize k-rail barriers.	Lessons learned from AUR work on the WPLE2 project will be documented for consideration by future projects by the end of FY19 .

ATTACHMENT B (July 2018)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
July 2018 / #7 C1120-MOD-00012 Purple Line Sect. 2 - Oil Abatement at launch box CCC Station	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.	The Project is actively coordinating with Kathleen Dougherty from County counsel to determine if Superfund legislation provisions can be used to pursue cost reimbursement for the extra work.	The Project is actively coordinating with Kathleen Dougherty from County counsel to determine if Superfund legislation provisions can be used to pursue cost reimbursement for the extra work.

ATTACHMENT B (May 2018)

OIG REPORT/ SPOT CHECK # MOD # Description	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
May 2018 / #1 C0988-MOD-00345 Crenshaw - Oil Water Separator at UG Stations	The Metro rail design criteria (MRDC) was updated on October 31, 2017, to reflect the addition of the elevator, escalator pit drain and underground station track drains to be processed through a clarifier to remove oil, grease, and sand. Metro management should: 1. Update the "Lessons Learned" files regarding the OWS change to the MRDC and communicate the lesson to other Project Managers working major transit construction projects (This is consistent with recommendation 51 and 89p in the OIG's Construction Management Best Practices Study.). 2. Investigate this change to determine: a) If the scope of work of other major transit construction projects require this design update for the OWS. b) If the Regional Connector and the Westside Purple Line Extension sections 1, 2, and 3 should be amended for the same OWS omission to reduce additional change orders and costs. c) When should have the City been provided this information and reviewed construction plans prior to the cement being poured to avoid redesign costs?	the primary driver to the change is that the Metro criteria does not stipulate the percentage level of contaminants that should be expected to design the OWS system. Since none was provided then the contractor assumed the minimum and therefore designed a system that did not require OWS. since the percentage of contaminants were of the level to need and OWS then this triggered there was a need for a redesign...etc.	Closed - Will incorporate the suggested comments into lessons learned to be used in future projects.
May 2018 / #3 C1078-MOD-00011 Purple Sect 1 - Schdl Impacts from Arcadis Work/change to accommodate const schdl extension from site impacts	All Environmental Site Assessments were performed prior to excavation. No record of underground tanks or buried reinforced concrete slabs were found by the Department of Conservation and Division of Oil, Gas, and Geothermal Resources (DOGGR). However, based on lessons learned from this site, Metro management should: 1. Conduct Ultrasonic Soil Examinations at future questionable sites to attempt to avoid unidentified hazards. This is consistent with recommendations (88b, 88c, and 88d) in the OIG's report on Capital Project Construction Management Best Practices Study (February 29, 2016). 2. Perform research to determine who could have installed the tanks and buried reinforced concrete slabs, and provide this information to the LA Metro Legal department for consideration of possible legal action to recover the cost of remediation under the Comprehensive Environmental Response, Compensations and Liability Act of 1980 (CERCLA). 3. Perform an assessment of the schedule to determine if any recovery of time is possible.	Agree, but please note that as with all major capital construction projects, every effort is made to exercise due diligence and to ensure consistent and comprehensive investigations in identifying underground issues by use of Phase I ESAs, Phase II ESA (if recommended) under the guidance and direction of Metro's Environmental Staff and the use of Ground Penetrating Radar (GPR) in order to attempt to identify these conditions prior to bid. An exhaustive investigation is not cost or schedule prohibitive, however further effort on identifying the existing Oil and Gas Wells through DOGGR may be warranted. Also, to note: COLA does not have design drawings of all underground tanks. There are no as built drawings for the various Tar Collection Sumps located on the Westside of LA.	Closed - Lessons learned are to apply more resources to upfront identification of potential unforeseen underground issues such as DOGGR wells, USTS identified in the initial Phase I ad II, GBR and EDR Reports.

ATTACHMENT B (May 2018)

OIG REPORT/ SPOT CHECK # MOD # Description	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
May 2018 / #4 C1120-MOD-00002 Purple Sect 2 - Worksite Traffic Control for AUR	Metro management should: 1. Establish a single party to serve as a “clearinghouse” for all utilities relocations during construction. The “clearinghouse” could be assumed by the Metro group, Third Party Administration. (This is consistent with recommendations 80, 88, 89, 89j, 89n, and 89v in the OIG’s report on Capital Project Construction Management Best Practices Study.) 2. Utilize the “clearinghouse” process to improve the Advance Utility Relocations. (Consistent with recommendations 79, 83, 87, 89b, 89c, 89d, 89g, 89h, 89s, and 89t in the Best Practices Study.) 3. Create “Lessons Learned” for the establishment of a single clearinghouse in the initial scope of work for the Design Build Contractor to avoid future costly change orders. (This is consistent with recommendation 89p in the Best Practices Study.)	Point of clarification: 'Worksite Traffic Control for AUR' was CO No. 2, not MOD-002. The unilateral change order was later negotiated and issued as MOD 10 . Response: consistent with OIG's " Capital Project Construction Management Best Practices Study", the WPLE Project established and utilized a single point of contact for advanced utility relocations outside of the scope of the DB contracts. This group is lead by Metro Third Party coordinators, engineering resources, and construction management consultants. Program Management agrees with the recommendations in the Best Practices Study, however this MOD was specific to a project decision on how to handle the implementation of traffic control for two third party utilities that the Project needed to work simultaneously to mitigate a delay caused by the Beverly Hills City Council delaying the start of construction. This Modification to the C-1120 contract is not extra work to the Project. This work was budgeted and originally expected to be performed by the individual AUR companies and reimbursed by the Project. The Project moved this work into the C1120 contract, by Modification, in order to expedite the AUR construction work which was successful. This work was necessary regardless of which entity performed it. Compensating the DB for this work eliminated compensation to the AUR companies for this work, and allowed SCE and the Gas Company to work simultaneously.	Closed Creation of Clearinghouse was already completed for WPLE2. Future projects will address this matter during Preliminary Engineering. Lessons learned from AUR work on the WPLE2 project will be documented for consideration by future projects by the end of FY19 .

Office Of Inspector General Construction Change Order Spot Check Report

Presented By
Karen Gorman
Inspector General

July 2023

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Spot Check Schedule Comparison

File #
2023-0398

Schedule Comparison: New Delegated Authority process vs. former Board Approval

PROJECT	Title of Change Order	Time Saved Executed date to Board Mtg.	NEW Delegated Process final SOW to Executed date	Former Board Approval Process
AIRPORT METRO CONNECTOR PROJECT	Bulletin 28 – Onsite DWP and Bus Charging	5	52	57
WESTSIDE PURPLE LINE EXT. SECT 1	Expedite Cutterhead Removal at Tail Track	27	16	43
WESTSIDE PURPLE LINE EXT. SECT 2	Provisions for WRS North (Secondary) Entrance - Construction	33	21	54
WESTSIDE PURPLE LINE EXT. SECT 3	Claim-04 Gravel Seam Impact BR Tunnel Rings 399 to 486	34	25	59

July 2023

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Spot Checks 1 & 2

File #
2023-0398

1 – Airport Metro Connector- Bulletin 28 – Onsite DWP and Bus Charging

Recommendation:

Award: **\$3,029,448**

The OIG recommends Metro review all construction plans for satisfaction of the zero-emissions bus fleet objective to add as appropriate electric charging capability.

2 - Purple Line Extension Sect. 1 - Expedite Cutterhead Removal at Tail Track

Recommendation/Lessons Learned:

Award: **\$2,713,967**

The lessons learned from this change order is to add to the initial Contract details on the tunnel boring machine interplay between the two projects and the cutterhead removal and scheduling.

July 2023

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Spot Check 3 & 4

File #
2023-0398

3 - Purple Line Extension Sect. 2 - Provisions for WRS North (Secondary) Entrance

Recommendation:

Award: \$6,489,588

The OIG recommends continual monitoring of the City of Beverly Hill design plans as they near construction as to avoid any construction impacts, safety concerns and complications at the knockout panel.

4 - Purple Line Extension Sect. 3 - Claim-04 Gravel Seam Impact BR Tunnel Rings 399-486

Recommendation:

Award: \$959,123

The OIG recommends more geotechnical exploration in the development of the Geotechnical Baseline Report as to better identify the correct soil characteristics.

July 2023

Construction Committee

Los Angeles County Metropolitan Transportation Authority





Board Report

File #: 2023-0395, File Type: Oral Report / Presentation

Agenda Number: 18.

CONSTRUCTION COMMITTEE JULY 20, 2023

SUBJECT: PROGRAM MANAGEMENT MAJOR PROJECT STATUS

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE the Program Management Major Project Status Report.

ISSUE

Program Management's major capital status report provides significant highlights regarding several major capital projects that are nearing or under construction.

BACKGROUND

Metro's mission is to provide a world-class transportation system that enhances the quality of life for all who live, work, and play within LA County. Program Management oversees the construction of major capital projects. The attached project status report provides significant information about the progress of 11 major capital projects (Regional Connector, Westside Purple Line Sections 1, 2, and 3, Gold Line Foothill Ext. Phase 2B, Division 20 Portal Widening Turnback, Airport Metro Connector, I-5 North County Enhancements, I-105 Express Lanes, G Line BRT Improvements, and East San Fernando Valley Transit Corridor).

DISCUSSION

The project status report highlights the 11 aforementioned major projects concerning cost and schedule performance, small business project participation status, safety, risk, and equity. The report highlights construction activities from April to June 2023. The safety data is based on the latest available information, consistent with reporting timelines.

EQUITY PLATFORM

Regional Connector	Equity - 100% (3 of 3 stations) within or adjacent to Equity Focus Communities.
Westside Purple Line Ext 1	Equity - this project is not within or adjacent to Equity Focus Communities.

Gold Line Foothill Ext. Phase 2B	Equity - 25% (1 of 4 stations) within or adjacent to Equity Focus Communities.
Westside Purple Line Ext 2	Equity - this project is not within or adjacent to Equity Focus Communities.
Division 20 Portal Widening Turnback	Equity - 100% within or adjacent to Equity Focus Communities.
Westside Purple Line Ext 3	Equity - 50% (1 of 2 stations) within or adjacent to Equity Focus Communities.
Airport Metro Connector	Equity - 100% within or adjacent to Equity Focus Communities.
I-5 North County Enhancements	Equity - this project is not within or adjacent to Equity Focus Communities.
I-105 Express Lanes	Equity - 70% within or adjacent to Equity Focus Communities.
G Line BRT Improvements	Equity - 65% (11 of 17 stations) within or adjacent to Equity Focus Communities.
East San Fernando Valley Transit Corridor	Equity - 100% within or adjacent to Equity Focus Communities.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Strategic plan goal # 1, Metro will expand transportation options, improve the quality of its transit network and assets, and take steps to manage demands on the entire network.

SAFETY

The safety national average rate is 2.4. Below are the project's recordable injury rate as compared to the national average.

	Project Hours	Recordable Injury Rate	Comments
Regional Connector	7,862,831	0.69	Below National Average
Westside Purple Line Ext 1	8,385,195	0.98	Below National Average
Gold Line Foothill Ext. Phase 2B	1,237,316	0.32	Below National Average
Airport Metro Connector	436,882	2.29	Below National Average
Westside Purple Line Ext 2	3,335,483	2.94	Above National Average

Division 20 Portal Widening Turnback	740,516	0.81	Below National Average
Westside Purple Line Ext 3 (C1151)	1,419,127	2.68	Above National Average
Westside Purple Line Ext 3 (C1152)	1,195,491	0	Below National Average
I-5 North County Enhancements	304,633	1.34	Below National Average
I-105 Express Lanes	0	0	Not in construction
G Line BRT Improvements	0	0	Not in construction
East San Fernando Valley Transit Corridor	0	0	Not in construction

The safety data is based on the latest available information, consistent with reporting timelines.

NEXT STEPS

Staff will continue to work toward the completion of major capital projects. The next quarterly Program Management major project status report and updates will be in October 2023.

Prepared by:

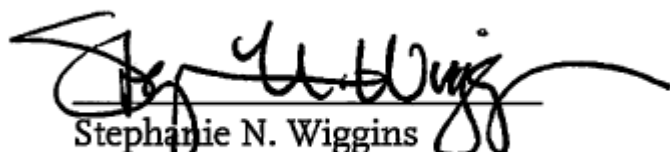
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Reviewed by:

Sameh Ghaly, Chief Program Management Officer (Interim), (213) 418-3369



Stephanie N. Wiggins
Chief Executive Officer

Program Management

Quarterly Major Project Status Report

Sameh Ghaly

Chief Program Management Officer (Interim)

Construction Committee

July 2023

Project Budget & Schedule Status Summary Chart

	Cost Performance		Schedule Performance		
Project	Variance Approved LOP	Variance Revised Budget	Variance Original	Variance Revised Schedule	Comments
1. Regional Connector					Project is 100% complete. Opened for Revenue Service June 16, 2023. Station, Plaza and landscaping finishes and clean-up continue. Equity – 100% of the project is within or adjacent to Equity Focus Communities.
2. Westside Purple Line Extension-Section 1					Project is 85% complete. The current forecast Revenue Service Date has been revised from Fall 2024 to Spring 2025. Equity - This Project is not located within or adjacent to Equity Focus Communities.
3. Gold Line Foothill Extension Phase 2B					Project is 70.4% complete. Construction continues with the reopening of the Bonita/Cataract intersection, station work at Glendora, San Dimas, La Verne and Pomona, SCRAA MOW building, OCS and alignment track installment. Equity - 25% of the project is within or adjacent to Equity Focus Communities.
4. Airport Metro Connector					The Project is approximately 64% complete. Steel structure installation is complete within the Rail Station, Main Hub and Bike Hub areas with the Bus Plaza steel installation in progress and approximately 90% complete. Concrete for the Rail Platform Main Hub is in progress with track work beginning with installation of ballast system. The installation of underground utilities throughout the site is also ongoing. Equity – (100%) of the project is within or adjacent to Equity Focus Communities.
5. Westside Purple Line Extension-Section 2					The Project is approximately 58% complete. The Project schedule is currently trending behind the target date, which is currently under review. Project will be seeking a LOP budget increase in accordance with the APE submitted to the Board in March 2023. Equity - This project is not located within or adjacent to Equity Focus Communities.
6. Division 20 Portal Widening Turnback					Project is 52% complete. Construction continues with the deliveries and setting of the Emergency Backup Power Supply (EBPS) and Traction Power Substation (TPSS) 4 out of 6 sections, West Portal Wall and Invert, installation of North Storage Yard tracks, and South Storage Yard duct banks. A \$80M increase in Life of Project (LOP) was approved at the April 2023 Regular Board meeting. Risk Assessment for project budget and schedule currently in development. Equity - 100% of the project is within or adjacent to Equity Focus Communities.
7. Westside Purple Line Extension-Section 3					Project is 49% complete. The Project schedule is currently trending behind with a revised forecast Revenue Service Date of Fall 2027. As for budget, the Board approved \$53M LOP increase in June 2023 for Concurrent Non-Full Funding Grant Agreement (Non-FFGA) activities. Equity - 50% of the project is within or adjacent to Equity Focus Communities.
8. I-5 North County Enhancements					Project is 25% complete. Retaining wall excavation/construction, new Weldon Canyon bridge construction, work on Butte Canyon and Castaic Creek bridges, Aerially Deposited Lead (ADL) removal, roadway excavation and base placement, and drainage/barrier work continues. Equity - This project is not located within or adjacent to Equity Focus Communities.
9. I-105 Express Lanes*					Design is 64% complete overall. Segment 1 design is 100% complete. Segment 1 100% Opinion of Probable Cost (OPCC) and Independent Cost Estimate (ICE) were received on June 16th. Segments 2 and 3 Design is at 35% complete. Equity: 70% of the project is within or adjacent to Equity Focus Communities.
10. G Line BRT Improvements*					Design is 30% complete. Pilot Gate construction and testing are complete. Advanced Utility Relocation (AUR) and property acquisitions are underway. Equity: 65% of the project is within or adjacent to Equity Focus Communities.
11. East San Fernando Valley Transit Corridor*					Design is 30% complete for systems, stations, MSF and utilities and 60% for guideway and civil. Advanced Utility Adjustment (AUA) construction began on February 16, 2023. Progressive Design Build (PDB) Contract issued NTP on April 14, 2023. Real property acquisitions are underway. Equity – 100% of the project is within or adjacent to Equity Focus Communities.

*Projects without a LOP budget



July 2023 Construction Committee



On target



Possible problem
(5-10% variance)



Significant Impact
(over 10% variance)

Small Business Project Status Summary Chart (reflective of payments reported through April 2023)

Project	Phase	Goal Type	Contractor Commitment	Current Participation	Status	Variance from Last Reporting +/-	**Adjusted Participation %	% Complete	Comments
1. Regional Connector	Design	DBE	22.63%	24.48%	OK	-.06%		99%	Regional Connector Constructors is exceeding the DBE commitment by 1.85% on Design and 3.30% on Construction.
	Construction	DBE	18.00%	21.30%	OK	+.12%	23.13%	94%	
2. Westside Purple Line Extension-Section 1	Design	DBE	20.25%	22.12%	OK	+.14%		94%	Skanska-Traylor-Shea Joint Venture (STS) is exceeding the DBE commitment by 1.87% on Design and has a 0.22% DBE shortfall on Construction. STS reported an uptick in DBE participation on both Design and Construction of 0.14% and 0.20%, respectively during this reporting period. STS has a shortfall mitigation plan on file.
	Construction	DBE	17.00%	16.78%		+.20%	16.98%	84%	
3. Gold Line/Foothill 2B	Construction	--	--	--	--	--	--	--	Reporting on this contract is handled by the Metro Gold Line Foothill Extension Construction Authority.
4. Airport Metro Connector (Station)	Construction	SBE	20.79%	17.21%		+.61%		42%	Tutor Perini Corporation's (TPC) has a 3.58% SBE shortfall and is exceeding the DVBE commitment by 0.85%. TPC reported an uptick in SBE/DVBE participation of 0.61% and 1.12%, respectively during this reporting period. An assessment for a shortfall mitigation plan will be performed at 50% completion.
		DVBE	4.96%	5.81%	OK	+.12%			
5. Westside Purple Line Extension-Section 2	Design	DBE	25.31%	32.80%	OK	+.273%		95%	Tutor Perini/O&G, A Joint Venture (TPOG) is exceeding the DBE commitment on Design by 7.49% and has a 1.59% shortfall on Construction. TPOG reported an uptick in DBE participation on both Design and Construction of 2.73% and 0.04%, respectively during this reporting period. TPOG has a shortfall mitigation plan on file.
	Construction	DBE	17.00%	15.41%		+.04%		62%	
6. Division 20 Portal Widening Turnback	Construction	SBE	19.34%	12.27%		-.14%	12.48%	72%	Tutor Perini Corporation (TPC) has a 7.07% SBE and a 0.32% DVBE shortfall. TPC reported a decrease in both its SBE and DVBE participation by 0.14% during this reporting period. TPC has a shortfall mitigation plan on file and noted delays in the project as the reason for the shortfall. TPC submitted an update to their plan on April 21, 2023.
		DVBE	3.31%	2.99%		-.14%	3.04%		
7. Westside Purple Line Extension-Section 3 – Tunnels	Design	DBE	11.19%	18.09%	OK	+.12%		96%	Frontier-Kemper/Tutor Perini JV (FKTP) is exceeding the DBE commitment on both Design and Construction.
	Construction	DBE	17.10%	21.61%	OK	-.09%	21.70%	92%	
7. Westside Purple Line Extension-Section 3 – Stations, Trackwork, Systems and Testing	Design	DBE	19.25%	19.38%	OK	+.19%		83%	Tutor Perini/O&G, A Joint Venture (TPOG) is exceeding the Design commitment by 0.13% and has a 13.87% shortfall on Construction. TPOG reported an uptick in DBE of 0.19% on Design during this reporting period. TPOG has a shortfall mitigation plan on file and contends that the shortfall on Construction is the result of DBE work being performed on the project through substantial completion (3rd quarter 2026). A follow-up assessment will be performed at 50% completion.
	Construction	DBE	21.00%	7.13%		-.19%		39%	
8. I-5 North County Enhancements	Construction	DBE	13.01%	13.41%	OK	+6.12%		21%	OHLA USA, Inc.'s current level of DBE participation is 13.41%, exceeding the commitment by 0.40%. OHLA reported an 6.12% increase in DBE participation during this reporting period.

Small Business Project Status Summary Chart (reflective of payments reported through April 2023)

Project	Phase	Goal Type	Contractor Commitment	Current Participation	Status	Variance from Last Reporting +/-	**Adjusted Participation %	% Complete	Comments
9. I-105 Express Lanes*(Phase 1)	CM/GC	DBE	12.40%	2.73%		+.75%		19%	Flatiron-Myers, A Joint Venture's current level of DBE participation is 2.73%. Flatiron-Meyers reported an uptick in DBE participation of 0.75% during this reporting period.
10. G Line BRT Improv.* (PDD Phase 1)	PDB	SBE	18.35%	13.66%		+10.12%		26%	Valley Transit Partners' current level of SBE/DVBE participation is 13.66% and 3.32%, respectively. Valley Transit Partners reported an uptick in SBE/DVBE participation of 10.12% and 3.32%, respectively during this reporting period.
		DVBE	3.73%	3.32%		+3.32%			
11. East San Fernando Valley Transit Corridor*	PE/DSDC	SBE	25.29%	20.81%		+1.14%		64%	Gannett Fleming, Inc (GFI) has a 4.49% SBE shortfall and is exceeding the DVBE commitment by 1.01%. GFI reported an uptick in SBE/DVBE participation of 1.14% and 0.51%, respectively during this reporting period. GFI has a shortfall mitigation plan on file.
		DVBE	5.54%	6.55%		+.51%			
12. ESFV LRT Line Project - Phase 1	PDB	DBE	19.33%	0%		TBD	0%	TBD	Notice to Proceed was issued on April 14, 2023. No prime payments have been reported to-date.

Regional Connector Transit Project

BUDGET				
	FFGA	Approved LOP*	Previous Period**	Current Forecast**
	\$1,402M	\$1,420M	\$1,755M	\$1,755M
	Variance from Approved LOP:		\$335M (24%)	\$335M (24%) 
	Variance from Revised Budget:		\$0	

*At time of the award of contract – Board Approval April 2014

**Excludes finance costs

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline**	Previous Period	Current Forecast
	May 2021	Fall 2022	Fall 2022	June 2023
	Variance from Original:		+480d (19%)	+748d (28%) 
	Variance from Revised Schedule:			+119days*** 

** Substantial Completion for guideway was achieved in June 2022.

***Computed using the last day of the season.



Regional Connector Transit Project

Safety

Project Hours: 7,862,831; Recordable Injury Rate: 0.69 vs. The National Average: 2.4. Data date is through April 2022.

Updates

- **The Regional Connector was opened for Revenue Service June 16, 2023.**
- **Little Tokyo/Arts District Station & Surrounding Area:** Plaza finishes and surrounding landscaping continue.
- **Historic Broadway Station:** Restorations on 2nd Street west of Broadway continue. Plaza and surrounding landscaping continues.
- **Grand Av Arts/Bunker Hill Station:** Street restorations and landscaping continue around the Station. Tie-in details between the Pedestrian Bridge and Broad property are underway.
- **Flower Street and 7th/Metro Center:** Street restoration at 6th/Flower and corner of 5th/Flower, as well as tree installation between 4th St and Wilshire is ongoing.
- **Systems:** The final push for of systems integrated testing is complete.

Equity

- 3 of 3 stations (100%) are within or adjacent to Equity Focus Communities.



July 2023 Construction Committee

Westside Purple Line Extension – Section 1

BUDGET				
	FFGA	Approved LOP* **	Previous Period**	Current Forecast**
	\$2,822M	\$2,774M	\$3,129M	\$3,354M***
	Variance from Approved LOP:		\$355M (13%)	\$580M (21%) 
	Variance from Revised Budget:			\$225M (7%) 

*At time of the award of contract – Board Approval July 2014

**Excludes finance costs

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast*
	November 2023	Fall 2024	Fall 2024	Spring 2025
	Variance from Original:		+397d (12%)	+554d (17%) 
	Variance from Revised Schedule:			+157d (4%) 

*Current Forecast is based on Project Revised Schedule reflecting the new target RSD of Spring 2025.

***Budget is under review. The results will be reflected in future updates, subject to Board Approval .



Westside Purple Line Extension – Section 1

Safety

Project Hours: 8,385,195; Recordable Injury Rate: 0.98 vs. The National Average: 2.4.

Updates

- **Overall Project Progress is 85% complete.**
- **Western Interface Chamber:** Systems work continues in various Station mezzanine level rooms (EVF & Auxiliary Power Electrical Rooms).
- **Wilshire/La Brea Station:** Entrance structure roof activities are underway. Track crossover work continues. Platform construction is complete. Appendages, street restoration, systems and MEP work continue.
- **Wilshire/Fairfax Station:** Entrance structure and appendage construction is ongoing. Platform construction is complete. Architectural and MEP work at the platform and concourse levels moves forward.
- **Wilshire/La Cienega Station:** Weekend decking/street restoration work is nearing completion. Above roof electrical ductbank and sanitary sewer installation continues. Station entrance and appendage construction is ongoing. Masonry work at east and west ends of the Station moves forward. Architectural and MEP work continues.
- **Tunneling**
 - **Reach 1:** Electrical and systems installation work is ongoing.
 - **Reach 2:** Track installation is complete. Ready for systems installation.
 - **Reach 3 & Tail Track:** Reach 3 track installation is underway. Reach 4 permanent concrete liner is complete.

Equity

- This Project is not located within or adjacent to Equity Focus Communities.



Wilshire/La Cienega
Deck Removal/Street Restoration



Reach 3 Tunnel (Fairfax to La Cienega)
Direct Fixation Blocks and Track Installation



Gold Line Foothill Extension Phase 2B

BUDGET				
		Approved LOP*	Previous Period	Current Forecast
		\$1,533M	1,533M	\$1,533M
	Variance from Approved LOP:		\$0M (0%)	\$0M (0%) 
	Variance from Revised Budget:			\$0 

* At time of the award of contract – Board Approval (June 2017)

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast*
	January 2025	N/A	Winter 2025	Fall 2024
	Variance from Original:		-2d (.10%)	-35d (1.83%) 
	Variance from Revised Schedule:		+0d (0%)	-33d (1.73%) 

* Current Forecast is Authority's April 2023 Schedule Update



Gold Line Foothill Extension Phase 2B

Safety

- Project Hours: 1,237,316
Recordable Injury Rate: 0.3 vs. the National Average: 2.4.

Updates (Metro Gold Line Foothill Extension Authority)

The design and construction of the 9.1-mile, 4 station light rail extension project is progressing.

- **Overall Project Progress is 70% complete.**
- Completed construction of Route 66, and 210 and 57 freeway pier protection
- Freight track relocation completed
- All 4 LRT bridges completed
- CPUC has approved all 49 grade crossings to date (up to Montclair)
- Work at 29 of 37 grade crossings from Glendora to Pomona completed
- Major grade crossing work/long-term closures completed
- All 8 TPSS's have been installed
- **Construction Continues as follows:**
- LRT track installation (nearly complete)
- MSE retaining walls and sound wall fencing throughout the project
- 4 new stations: Glendora, San Dimas, La Verne, and Pomona
 - Started the installation of architectural elements at Glendora station
- LRT train control, OCS poles and wire installation

Equity

- 25% of the project is located within or adjacent to Equity Focus Communities.

Glendora Station – Communication Bungalow



Airport Metro Connector (AMC) Project

BUDGET				
		Approved LOP*	Previous Period	Current Forecast
		\$898.6M	\$898.6M	\$898.6M
	Variance from Approved LOP:		\$0M (0%)	\$0M (0%) 
	Variance from Revised Budget:			\$0 

* Approved April 2021 Board

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast*
	Fall 2024	N/A	Fall 2024	Fall 2024
	Variance from Original:		+0d (0%)	+0d (0%) 
	Variance from Revised Schedule:			N/A 

* Current Forecast is Metro's April 2023 Schedule Update



Airport Metro Connector (AMC) Project

Safety

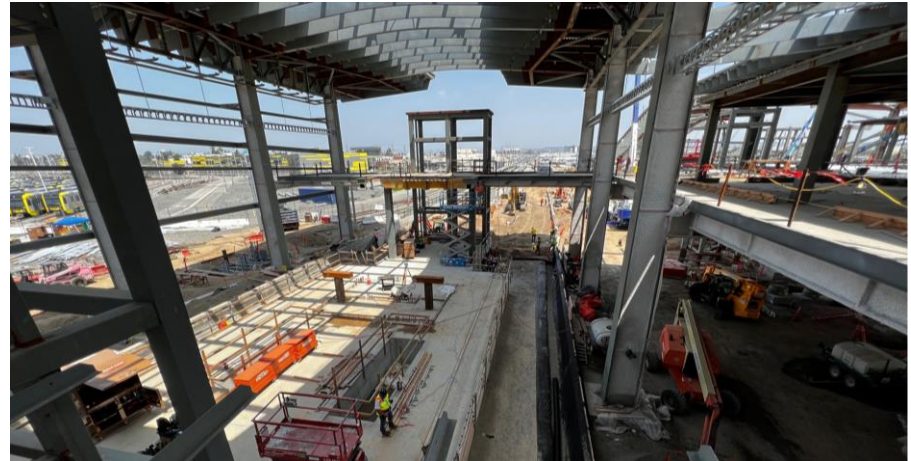
Project Hours: 436,882; Recordable Injury Rate: 2.29 vs.
The National Average: 2.4.

Updates

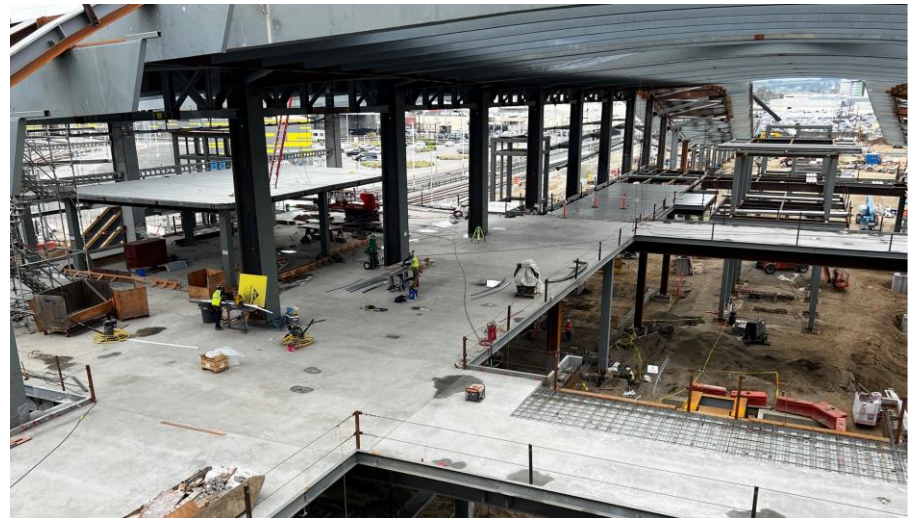
- **Overall project progress is 64% complete.**
- Primary Station Construction at 46% completion
 - Steel structure and metal decking is complete at the Rail Platform, Main hub and Bike Hub areas. Bus Plaza steel is at 90% completion.
 - Rail Platform structural slab has been completed. Track work beginning with installation of ballast system.
 - Structural slab at Main Hub is nearly complete.
 - Roofing and ceiling utilities is ongoing above the Rail Platform and Main Hub areas.
 - LADWP underground infrastructure on Arbor Vitae has been completed with minor work remaining on Aviation Blvd.

Equity

- 100% of the project is located within or adjacent to Equity Focus Communities.



Rail Platform Area



Main Hub Area with Customer Service Kiosk to the left



July 2023 Construction Committee

Westside Purple Line Extension – Section 2

BUDGET				
	FFGA	Approved LOP*	Previous Period**	Current Forecast**
	\$2,499M	\$2,441M	\$2,441M	\$2,575M
	Variance from Approved LOP:		\$0M (0%)	\$134M (5%) 
	Variance from Revised Budget:		\$0M (0%)	\$134M (5%) 

*At time of the award of contract – Board Approval January 2017

**Excludes finance costs.

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast*
	August 2025	N/A	Summer 2025	Fall 2025
	Variance from Original:		+0d (0%)	+114d (3%) 
	Variance from Revised Schedule:		+0d (0%)	+114d (3%) 

*Additional delay to the contractual milestones is pending contractor's justification.

The project team is identifying opportunities to mitigate and is monitoring potential impacts. Staff will provide periodic updates to the Board.



Westside Purple Line Extension – Section 2

Safety (As of May 31, 2023)

- Project Hours: 3,335,483
- Recordable Injury Rate: 2.94 vs. The National Average: 2.4

Updates

- **Overall Project Progress is 58% complete.**
- **Century City Constellation Station** (Progress as of June 8, 2023)
 - Station excavation is 89% complete.
 - Support of Excavation 89% complete at brace level 5 and 71% at brace level 6.
 - Storm drain realignment outside the box is 70% complete.
- **Wilshire/Rodeo Station** (Progress as of June 8, 2023)
 - Invert level slab work is 72% complete.
 - Invert level walls are 72% complete, concourse level walls are 15%, and station box roof is 15%.
 - Installation of SCE vaults required for permanent power and conduit installation continues.
- **Tunnels** (Progress as of June 8, 2023).
 - Four (4) of the fourteen (14) SEM cross passages have been excavated, with work continuing within Reach 5. All dewatering wells have been installed along the alignment. .

Equity

- This Project is not located within or adjacent to Equity Focus Communities.



Century City Constellation Station - Excavation Progress



Cross Passage 35 excavation



Division 20 Portal Widening Turnback

BUDGET				
		Approved LOP*	Previous Period**	Current Forecast
		\$801.7 M	\$956.7 M	\$956.7 M
	Variance from Approved LOP:		\$155M (19%)	\$155M (19%) 
	Variance from Revised Budget:			\$0 

* At time of the award of contract – Board Approval (February 2020)

** LOP increase approved at April 2023 Board meeting

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast*
	June 2024	Spring 2025	Spring 2026	Spring 2026
	Variance from Original:		+675d (43%)	+675d (43%) 
	Variance from Revised Schedule:			

* Current Forecast is Contractor's Schedule Update.



Division 20 Portal Widening Turnback

Safety

Project Hours: Project Hours: 740,516 Recordable Injury Rate: 0.81 vs. The National Average: 2.4.

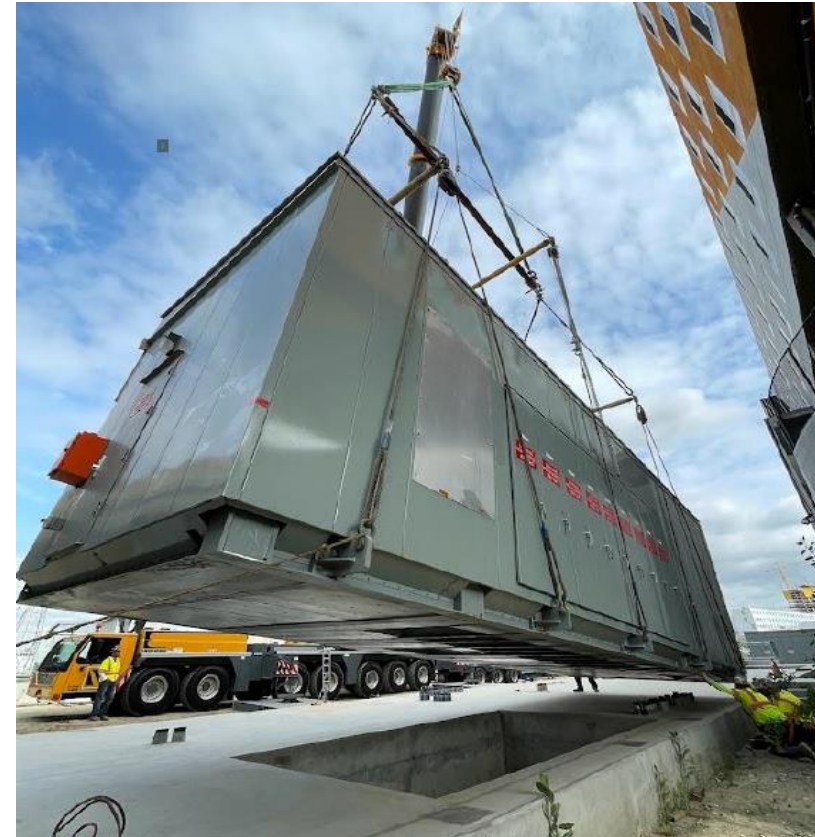
Updates

- **Overall Project Progress is 52% complete.**
EBPS install, TPSS Delivery 4 out 6 sections, TPSS Cable pulling, Portal Wall and Invert construction, 1st Bridge Monitoring concludes, North Yard ballast and track installation.
- **C1136 TPC Portal Widening Turnback Contract**
PWT C1136 Contract progress is 51%.
North Yard special tracks and ballast install, South Yard various duct banks, Portal retaining wall, 1st Bridge Monitoring
Major Change Orders to Date:
Hazardous Material Removal.
1st St Bridge Repairs of Differing Site Conditions.
Completion of early utility Contracts.
3rd Party Interfaces.
Design Revisions (*in progress*).
- **C1184 C3M Traction Power Substation Contract** at 88.5%
TPPS – 4 out 6 sections have been delivered and set
- **Coordination with Adjacent Projects**
Purple Line Extension (PLE1), Regional Connector;
Metro Center Project, HR4000 and A650 Vehicle Delivery.
- **Continued Regular risk assessments to determine budget/schedule**

Equity

- **100% of the project is located within or adjacent to Equity Focus Communities.**

Traction Power Substation delivery and setting (4 out of 6)



July 2023 Construction Committee

Westside Purple Line Extension – Section 3

BUDGET				
	FFGA	Approved LOP*	Previous Period**	Current Forecast**
	\$3,599 M	\$3,224 M	\$3,277 M	\$3,277 M
	Variance from Approved LOP:		+\$53M (1.6%)	+\$53M (1.6%) 
	Variance from Revised Budget:			\$0 

* At time of the award of contract – Board Approval February 2019

** Excludes finance costs. In June 2023, the Board approved \$53M LOP increase for Concurrent Non-Full Funding Grant Agreement (Non-FFGA) activities.

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast*
	March 2027	N/A	Spring 2027	Fall 2027
	Variance from Original:		+181d (5.4%) 	+223d (6.65%) 
	Variance from Revised Schedule:		TBD 	TBD 

* Contract schedule is forecasting a slippage to the contractual milestones.

The project team is identifying opportunities to mitigate and is monitoring potential impacts. Staff will provide periodic updates to the Board.



Westside Purple Line Extension – Section 3

Safety

Project Hours: 2,614,618 Recordable Injury Rate: 1.45 vs. The National Average: 2.4.

- C1151: Project Hours: 1,419,127; Recordable Injury Rate: 2.68.
- C1152: Project Hours: 1,195,491.; Recordable Injury Rate: 0.0.
- **Updates**

- **Overall Project Progress is 49% complete.**
- **Final design progress is 97% complete.**
- **Tunnels**
 - Both Tunnel Boring Machines (TBMs) completed mining in April and are parked 2 ft behind the Constellation Station West End wall;
 - Excavation for one out of 14 cross passages has started.
- **Westwood/UCLA Station**
 - Excavation is about 26% complete. Walers and struts continue to be installed at level 2; 17% of walers and 9% struts have been installed. Utility support work ongoing and approximately 52% complete.
- **Westwood/VA Hospital Station**
 - Excavation is about 24% complete. Walers and struts continue to be installed at levels 1 and 2; 27% of walers and 20% of struts have been installed. Tieback installation is 6% complete.
 - The VA steam tunnel relocation work continues; Mechanical, Electrical, and Plumbing fit-out inside the steam tunnel (90% complete).
 - Backfilling around the steam tunnel vaults remains at 93%.

Equity

- 1 of 2 stations (50%) are within or adjacent to Equity Focus Communities.



Westwood/UCLA Station: Excavation at Wilshire Blvd



Westwood/VA Station: Tiebacks Installation– North & West Walls



I-5 North County Enhancements

BUDGET				
		Approved LOP*	Previous Period	Current Forecast
		\$679.3M	\$679.3M	\$679.3M
	Variance from Approved LOP:		\$0M (0%)	\$0M (0%) 
	Variance from Revised Budget:			\$0 

* At time of the award of contract - Board Approval (March 2021)

SCHEDULE			Substantial Completion	
	Original	Approved Rebaseline	Previous Period	Current Forecast**
	July 2016	N/A	Summer 2026	Summer 2026
	Variance from Original:		+0d (0%)	+0d (0%) 
	Variance from Revised Schedule:			N/A 

** The Contractor's last Update shows minor slippage, but Metro has not accepted the Critical Path and expects this slippage to be corrected



I-5 North County Enhancements

Safety

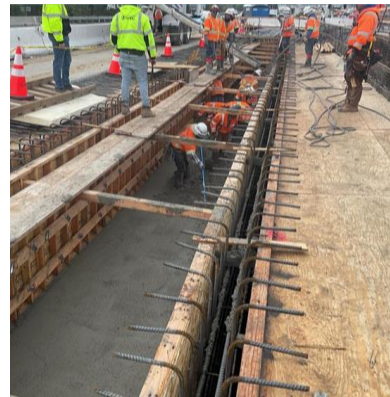
Project Hours: 304,633; Recordable Injury Rate: 1.34 vs.
The National Average: 2.4.

Updates

- **Overall Project progress is 25% complete.**
- Construction Stage 1, Phase 1 & 2 on-going:
 - Partial Demo/Pile Driving/Footing, Abutment/Bent, Soffit & Stem and Lost Deck Construction on several bridges.
 - Retaining Walls, Drainage, Barrier/Roadway Demo, Excavation, and Base Placement.
 - Construction of new Weldon Canyon Bridge
- Project Team continues to coordinate with stakeholders: Caltrans, Federal Highway Administration (FHWA), City of Santa Clarita, Los Angeles County, CHP, NPS, CDFW, and other local stakeholders.

Equity

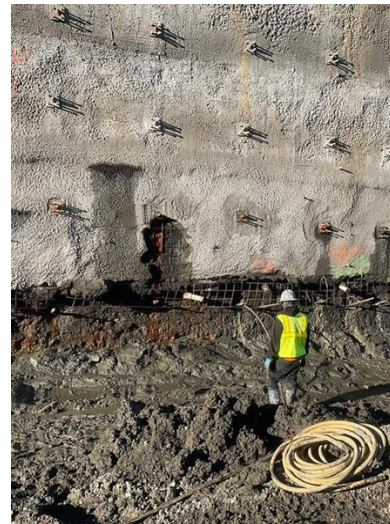
- This project is not located within or adjacent to Equity Focus Communities.



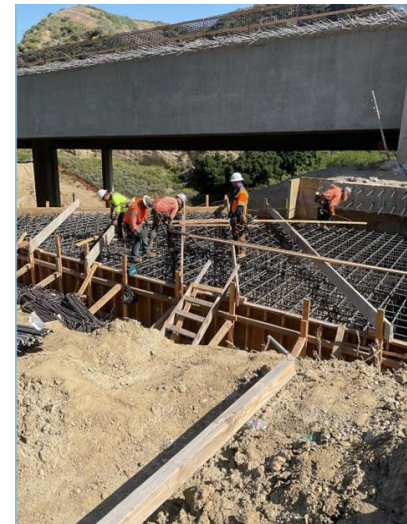
Soffit pour at Butte Canyon bridge



On-site concrete batch plant



Grouting at Retaining Wall 2461
after March rain storm



Placing rebar at of Gavin Canyon
Bridge



Projects without Life of Project (LOP) Budget

- **105 Express Lanes**
- **G Line BRT Improvements Project**
- **East San Fernando Valley Transit Corridor**



105 Express Lanes

BUDGET				
		Approved Budget to Date	Previous Period	Current Forecast
	Pre-Construction	\$119.4 M	\$119.4 M	\$119.4 M
	Project	\$119.4 M	\$780M - \$1B	\$780M - \$1B
	Variance from Approved Pre-Construction Budget:		\$0M (0%)	\$0M (0%) 
	Variance from Approved LOP:		N/A	N/A
	Variance from Revised Budget:			N/A 

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast
	N/A	N/A	Spring 2028	Spring 2028
	Variance from Original:		+0d (0%)	+0d (0%) 
	Variance from Revised Schedule:		N/A	N/A 



105 Express Lanes

Safety

Project Construction Hours: 0; Recordable Injury Rate: N/A vs. The National Average: 2.4.

Updates

- **Design is 64% complete**
- **Program Management**
 - Time extension request for SB 1 funding allocation submitted to Caltrans
 - Traffic and Revenue Study in progress
- **Design**
 - Segment 1 design 100% completed in April and Segments 2 and 3 design 35% complete
 - Dominquez Channel easement and rental agreement adopted by LA County Board
- **Construction Manager/General Contractor (CMGC)**
 - Segment 1 100% Opinion of Probable Construction Cost (OPCC) in progress
 - Interface meetings with WSAB and Metro MOW in progress
- **Roadside Toll Collection System (RTCS)**
 - Infrastructure Design Document (IDD) submitted in March
 - Major submittal review underway
 - Requirements Traceability Matrix (RTM) review sessions in progress

Equity

- 70% of the project is within or adjacent to Equity Focus Communities.



Traffic on 105 Freeway Westbound



The Project Map



July 2023 Construction Committee

G Line BRT Improvements Project

BUDGET				
		Approved Budget to Date	Previous Period	Current Forecast
	Pre-Construction	\$149.7M	\$149.7M	\$149.7M
	Project	\$149.7M	N/A	\$392-511M
	Variance from Approved Pre-Construction Budget:		\$0M (0%)	\$0M (0%) 
	Variance from Approved LOP:		N/A	N/A
	Variance from Revised Budget:			\$0M 

* Project will work within the annual budget constraints until LOP is established.

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast*
	N/A	N/A	N/A	December 2026
	Variance from Original:		+0d (0%)	+0d (0%) 
	Variance from Revised Schedule:			N/A 

* Current Forecast is Metro's Internal Schedule, Baseline schedule is not yet approved at time of update.

**Approved Budget only includes the Pre-Construction Budget. The project will be requesting LOP budget upon award of the PDB Contract Phase 2.



G Line BRT Improvements Project

Safety

Project Construction Hours: 0; Recordable Injury Rate: N/A vs. National Average: 2.4.

Updates

- **Design is 30% complete**
- **Progressive Design Build Contract**
 - 30% design complete for Grade Separations and Bike Path Improvements key elements. 30% design under review for Stormwater Capture key element
 - 30% Milestone OPCC under development
 - Technology Evaluation for Gated Intersections complete, proceeding into Proof of Concept phase with recommended cloud tech solution for gate activation
 - Geotech Investigations and Potholing, and Survey underway
- **Utility Owner-performed AURs**
 - Sepulveda – removal of poles and overhead wires pending PDB contractor installation of new power service
 - Vesper – DWP crews completed cable pulling in August, Charter construction start pending City permit approval
 - Sylmar – DWP undergrounding near completion. Charter planning to vacate line
- **Property Acquisitions**
 - Eight acquisitions underway
 - Offers presented to owners between 3/31/22, and 5/24/22

Equity

- 11 of 17 stations (65%) are within or adjacent to Equity Focus Communities.



Potholing at Van Nuys Blvd



East San Fernando Valley Transit Corridor

BUDGET				
		Approved Budget to Date	Previous Period	Current Forecast
	Pre-Construction	\$496.9M	\$496.9M	\$496.9M
	Project	\$496.9M	N/A	\$2.81B - \$3.57B
	Variance from Approved Pre-Construction Budget:		\$0M (0%)	\$0M (0%) 
	Variance from Approved LOP:		N/A	N/A
	Variance from Revised Budget:			\$0M 

***Approved Budget only includes the Pre-Construction Budget.*

SCHEDULE			Revenue Operation	
	Original	Approved Rebaseline	Previous Period	Current Forecast*
	N/A	N/A	N/A	2030
	Variance from Original:		+0d (0%)	+0d (0%) 
	Variance from Revised Schedule:			N/A 

** Current schedule forecast reflects Metro's Draft Baseline Schedule. Approval is pending.*



East San Fernando Valley Transit Corridor

Safety

Project Hours*: 0; Recordable Injury Rate: N/A vs. The National Average: 2.4. *AUA inaugurals on February 16, 2023.

Updates

- **Design is 30% complete for systems, stations, utilities and MSF; 60% complete for guideway and civil.**
 - **Advancing utility composite plans to 60% and AUA 2-8 to 100% complete.**
 - **Construction Management Support Services Contract**
 - Notice to Proceed (NTP) given to Arcadis / Mott MacDonald (AMM) Joint Venture November 4, 2022. Staff augmentation progressing.
 - **Maintenance and Storage Facility (Solar Energy & Storage)**
 - NTP on December 7, 2022 to PCS Energy LLC for the Public-private partnership (P3) Contract. Contractor interfacing with SFTC.
 - **Advance Utility Adjustment (AUA) Contract DWP Design 1**
 - NTP on December 1, 2022 to W.A. Rasic Construction Company, Inc.
 - Excavations and placement of 3 of 4 vaults completed, construction of duct banks underway, adjustment of gas line underway.
 - **Progressive Design Build Contract**
 - NTP on April 14, 2023 to San Fernando Transit Constructors (SFTC).
 - Estimating efforts underway to develop OPC for base design.
 - **Property Appraisals underway**
 - Appraisals commenced in January/February 2023.
 - Formal acquisitions anticipated to commence in July/August 2023.
 - CEQA addendum of the priority parcels is expected by July 2023 and NEPA reevaluation approval expected by November 2023.
 - **Light Rail Vehicle (LRV) Acquisition**
 - A contract is being developed by Metro VCM for a consulting firm to support LRV procurement.
- Equity**
- 100% of the project is within or adjacent to Equity Focus Communities.



Installation of 1 of 4 vaults by W.A. Rasic on Van Nuys Blvd, between Vanowen and Vose.



Installation of a 4" gas main by SCG on Van Nuys Blvd, just south of Saticoy.



July 2023 Construction Committee