

Los Angeles County
Metropolitan Transportation Authority

FTA Quarterly Review Briefing Book

MAY 29, 2019



FTA QUARTERLY REVIEW MEETING AGENDA

Los Angeles County Metropolitan Transportation Authority

Wednesday, May 29, 2019 – 9:00 a.m.

William Mulholland Conference Room – 15th Floor

I. OVERVIEW

- A. FTA Opening Remarks
- B. Metro Management Overview
- C. Financial Status
- D. Legal Issues
- E. Construction Safety and Security

PRESENTER

Ray Tellis
Phillip Washington
Drew Phillips
Charles Safer
Vijay Khawani

II. METRO PLANNING REPORTS

- A. East San Fernando Valley Transit Corridor
- B. Eastside Transit Corridor Phase 2
- C. West Santa Ana Branch Transit Corridor

Laurie Lombardi

III. CONSTRUCTION REPORTS

- A. Program Management Overview
- B. Crenshaw/LAX Transit Project
- C. Regional Connector Transit Project
- D. Westside Purple Line Extension Section 1 Project
- E. Westside Purple Line Extension Section 2 Project
- F. Westside Purple Line Extension Section 3 Project

Richard Clarke
Sameh Ghaly
Gary Baker
James Cohen
Michael McKenna
Kimberly Ong

IV. FTA ACTION ITEMS

FTA / PMOC

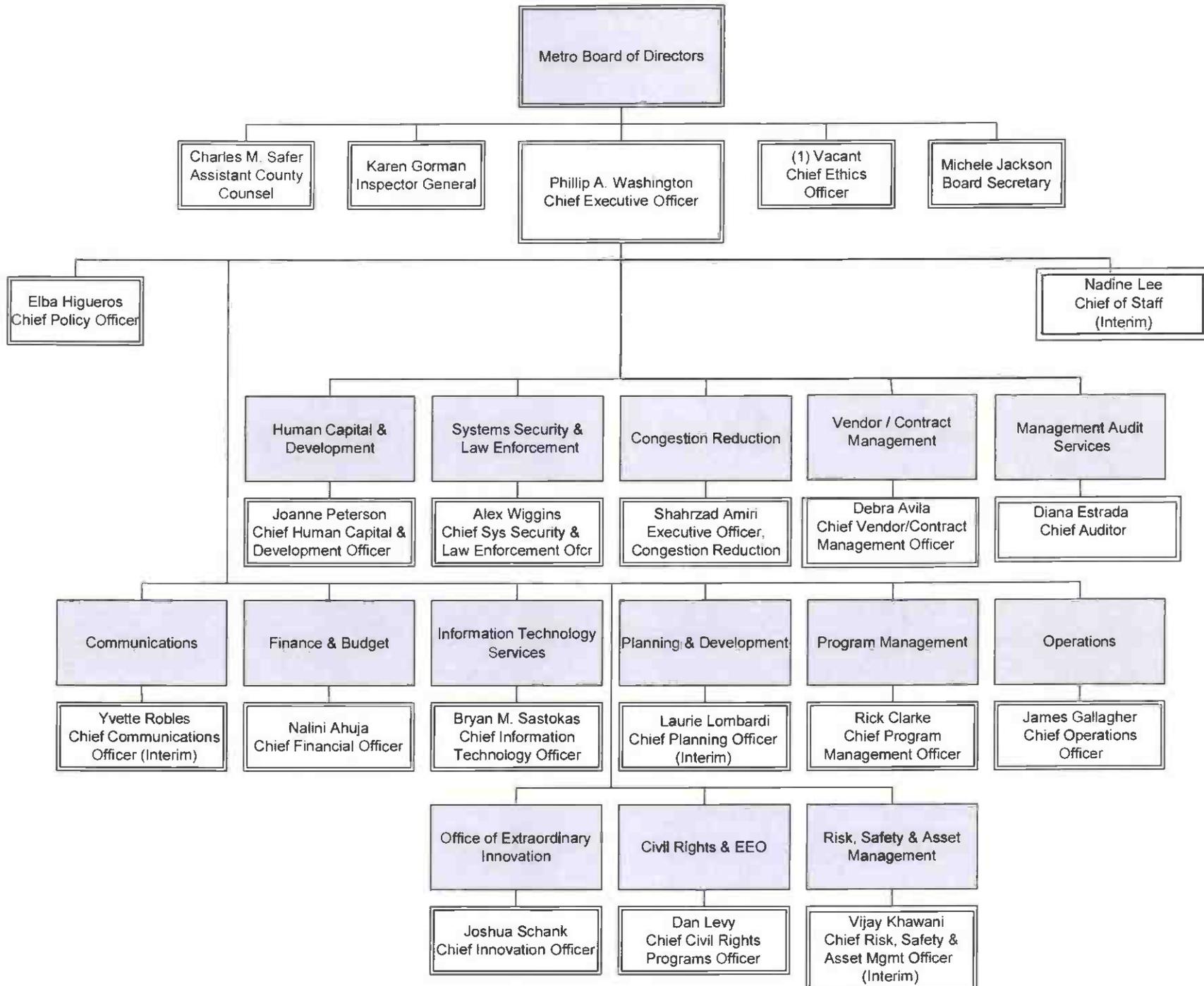
PROPOSED SCHEDULE AND LOCATION OF NEXT MEETING

Los Angeles County Metropolitan Transportation Authority

Wednesday, August 28, 2019

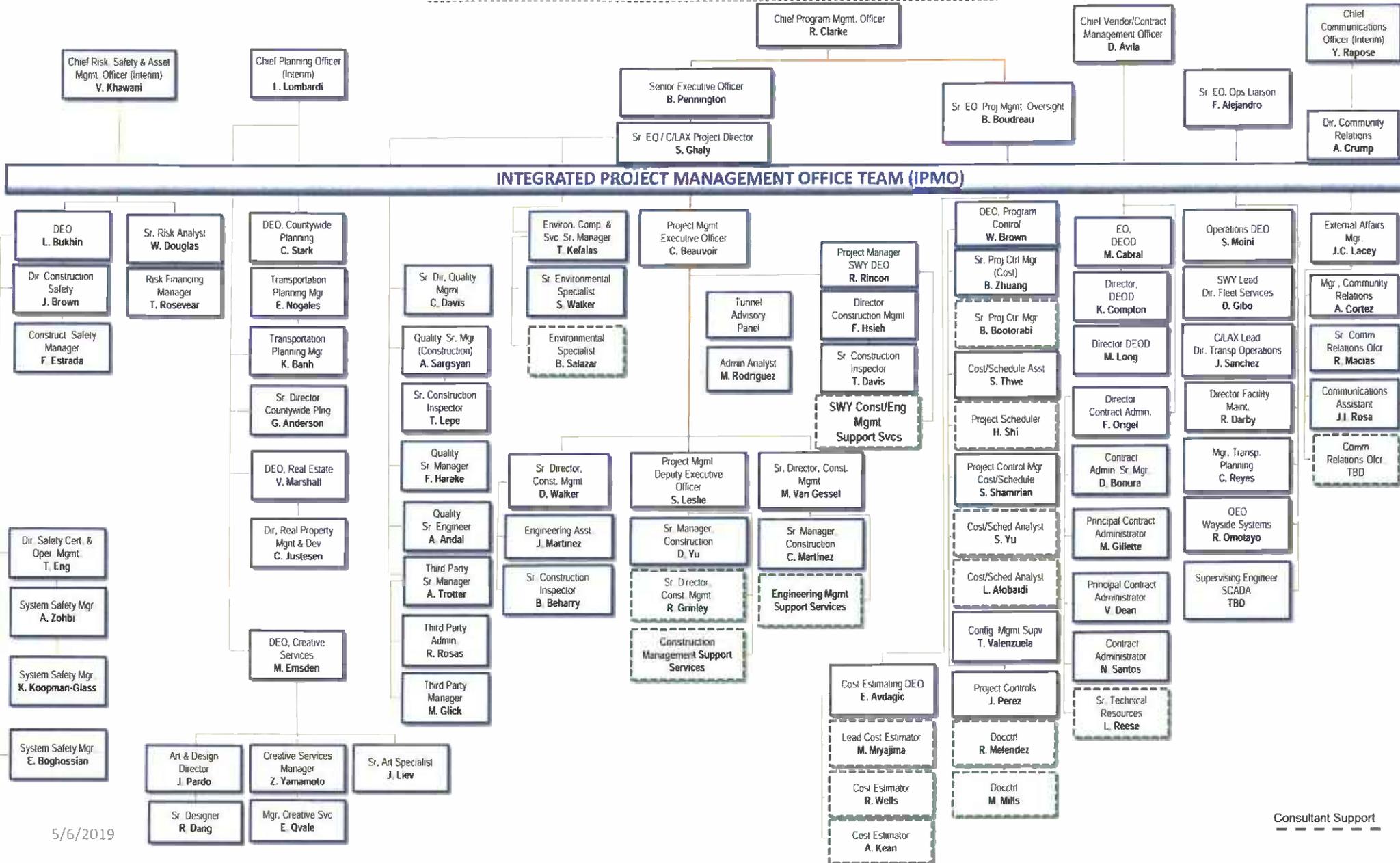
William Mulholland Conference Room - 15th Floor

Metro Organization Chart



CRENSHAW/LAX TRANSIT PROJECT MATRIX ORGANIZATION

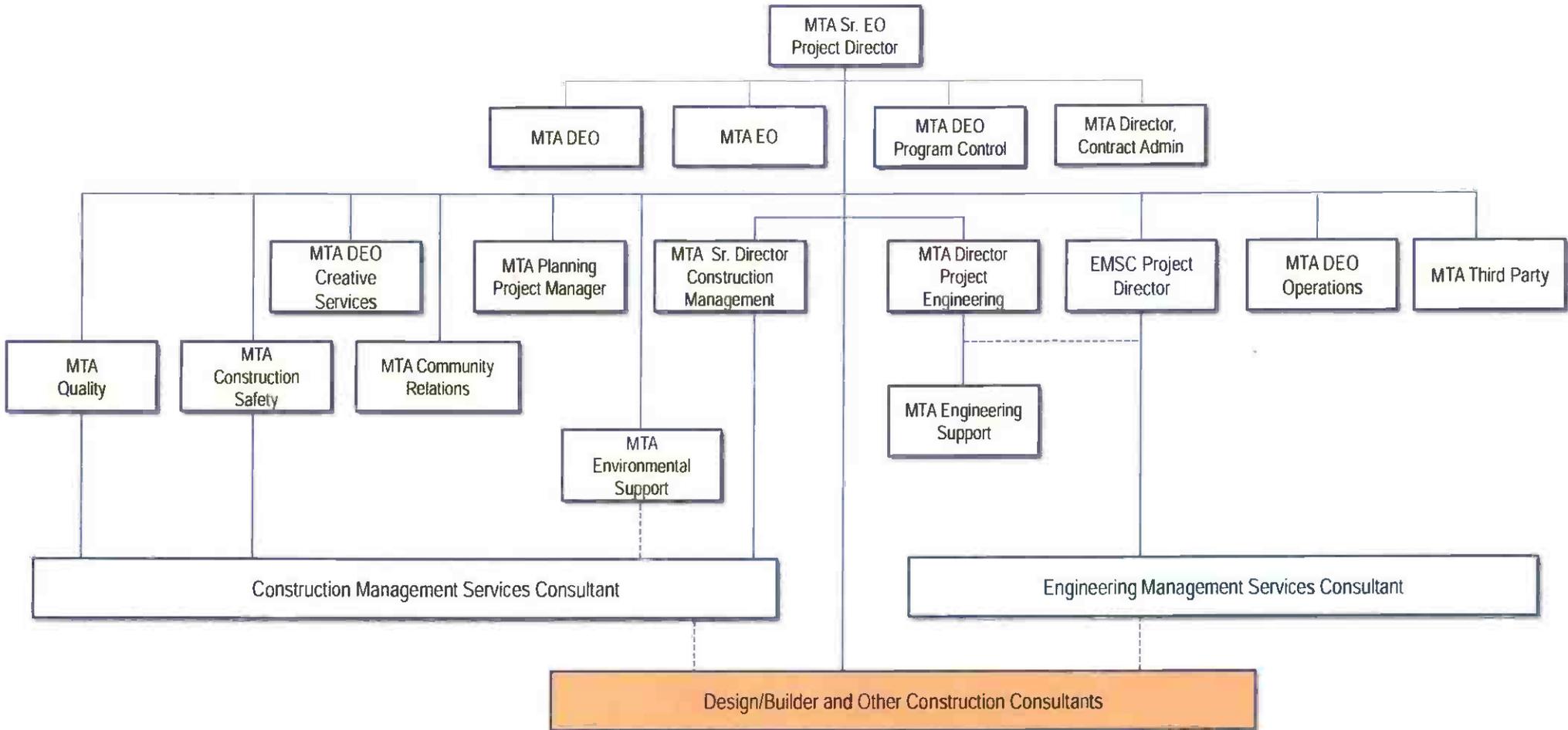
Metro Executive Management Organization and Staff



5/6/2019

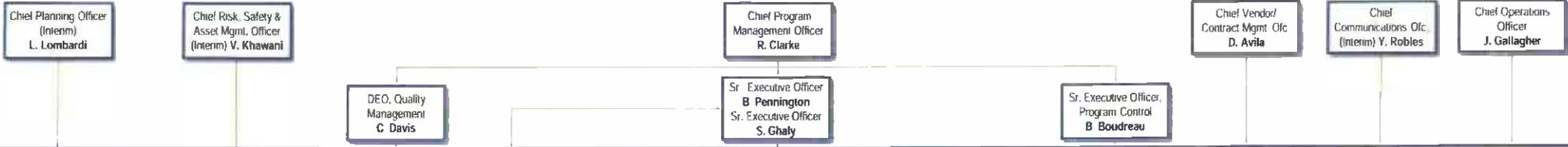
Consultant Support

**CRENSHAW/LAX TRANSIT PROJECT
Responsibility and Reporting Matrix**

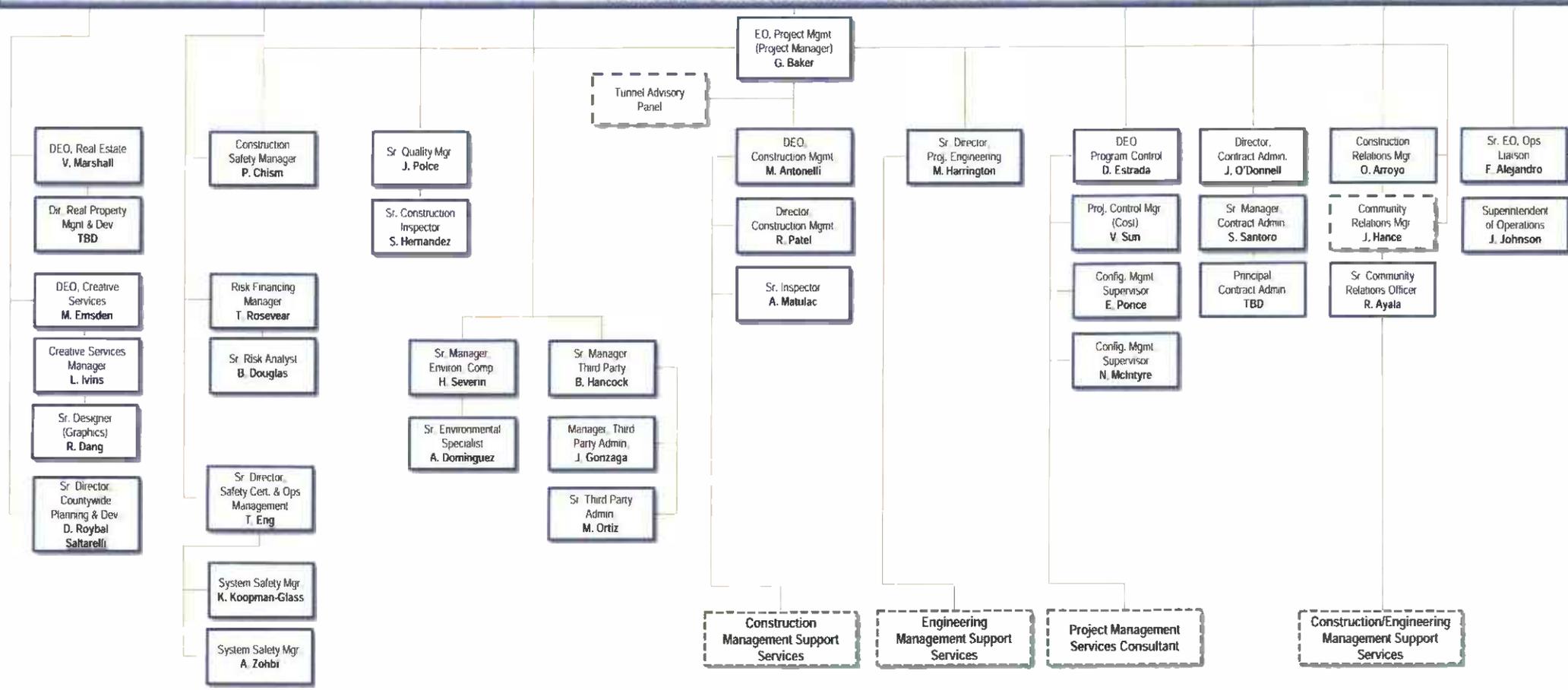


REGIONAL CONNECTOR TRANSIT PROJECT MATRIX ORGANIZATION

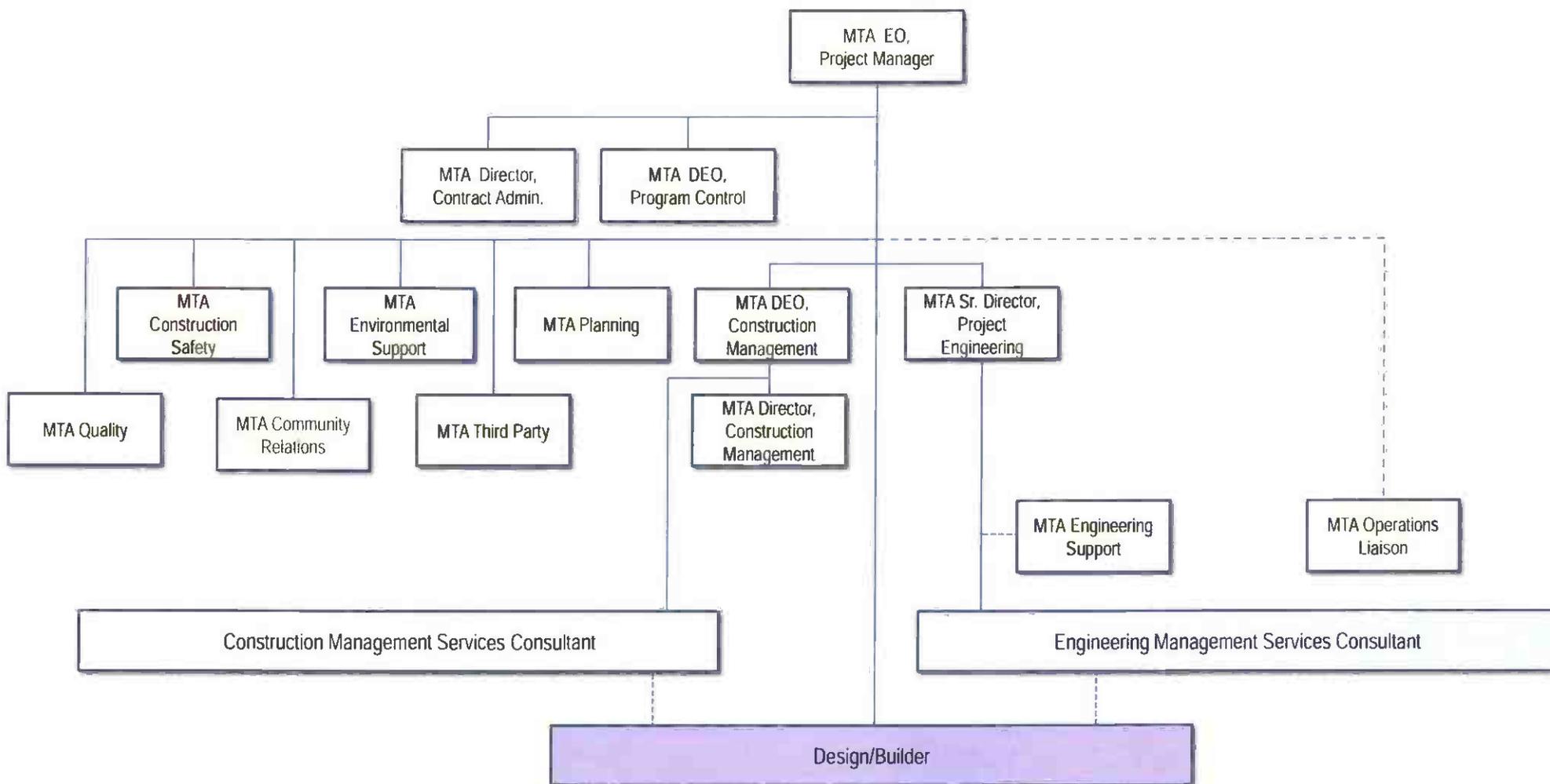
Metro Executive Management Organization and Staff



INTEGRATED PROJECT MANAGEMENT TEAM



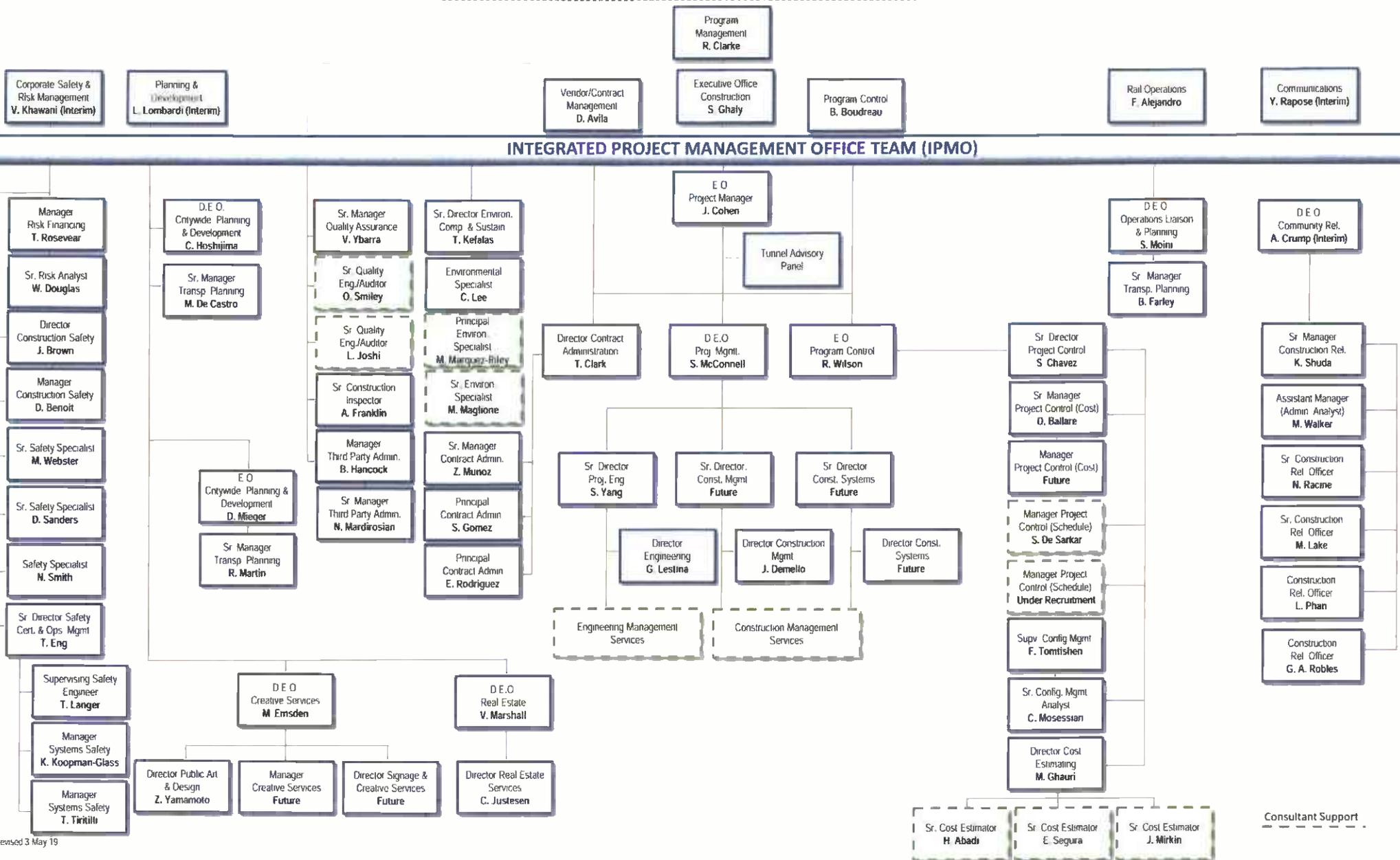
Regional Connector Transit Project Responsibility and Reporting Matrix



WESTSIDE PURPLE LINE EXTENSION SECTION 1

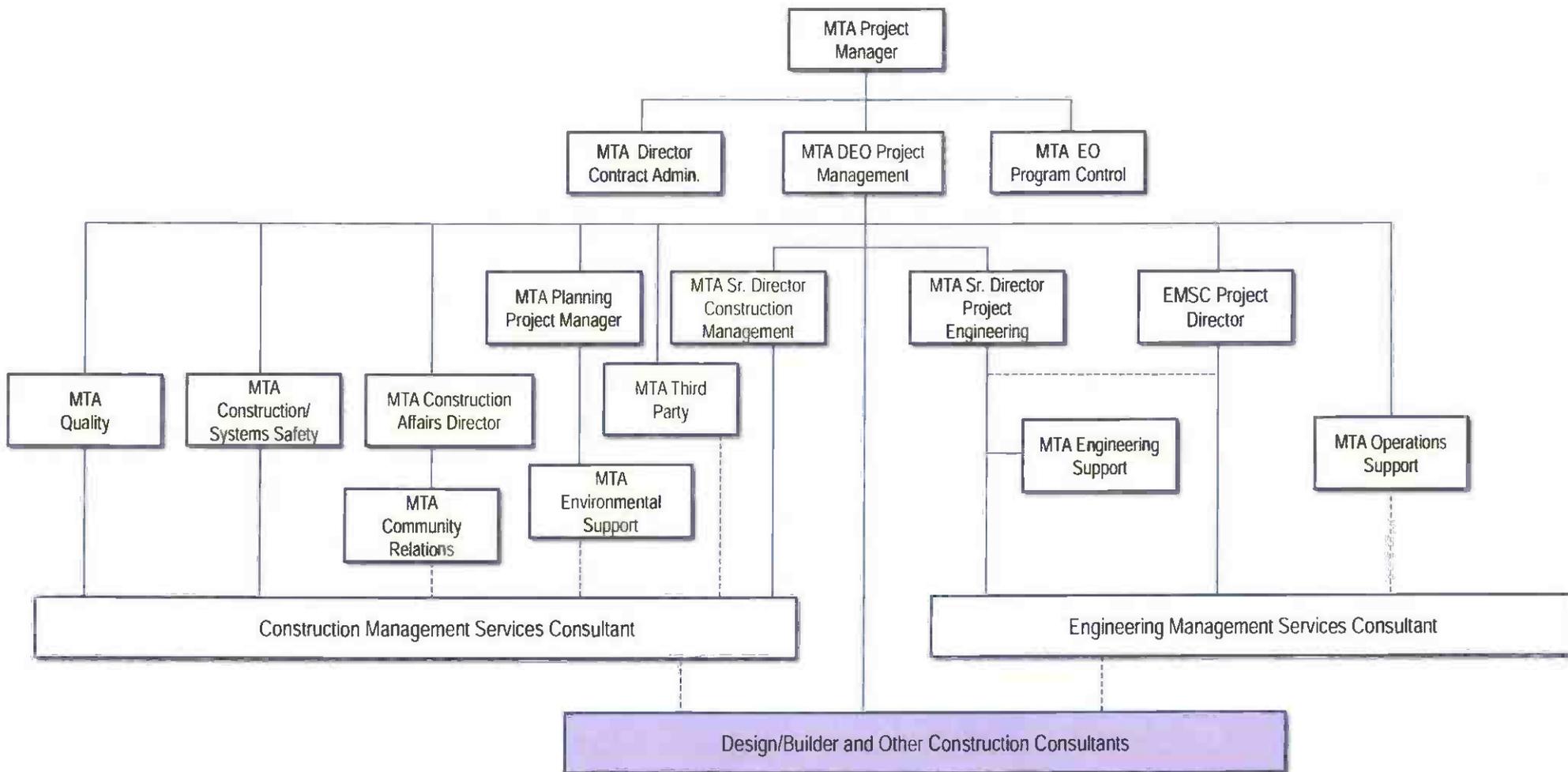
Matrix Organization

Metro Executive Management Organization and Staff



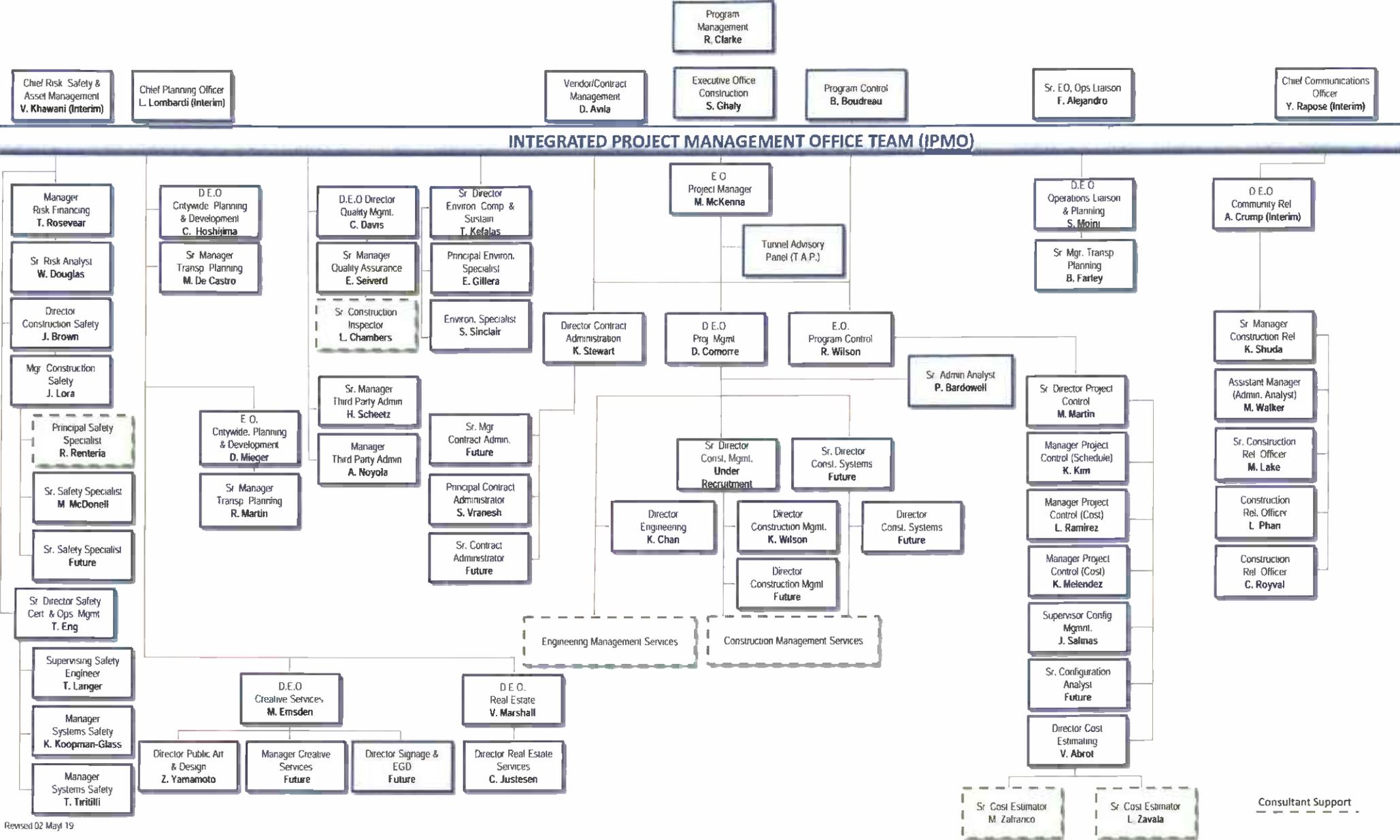
Consultant Support

Westside Purple Line Extension Section 1 Responsibility and Reporting Matrix



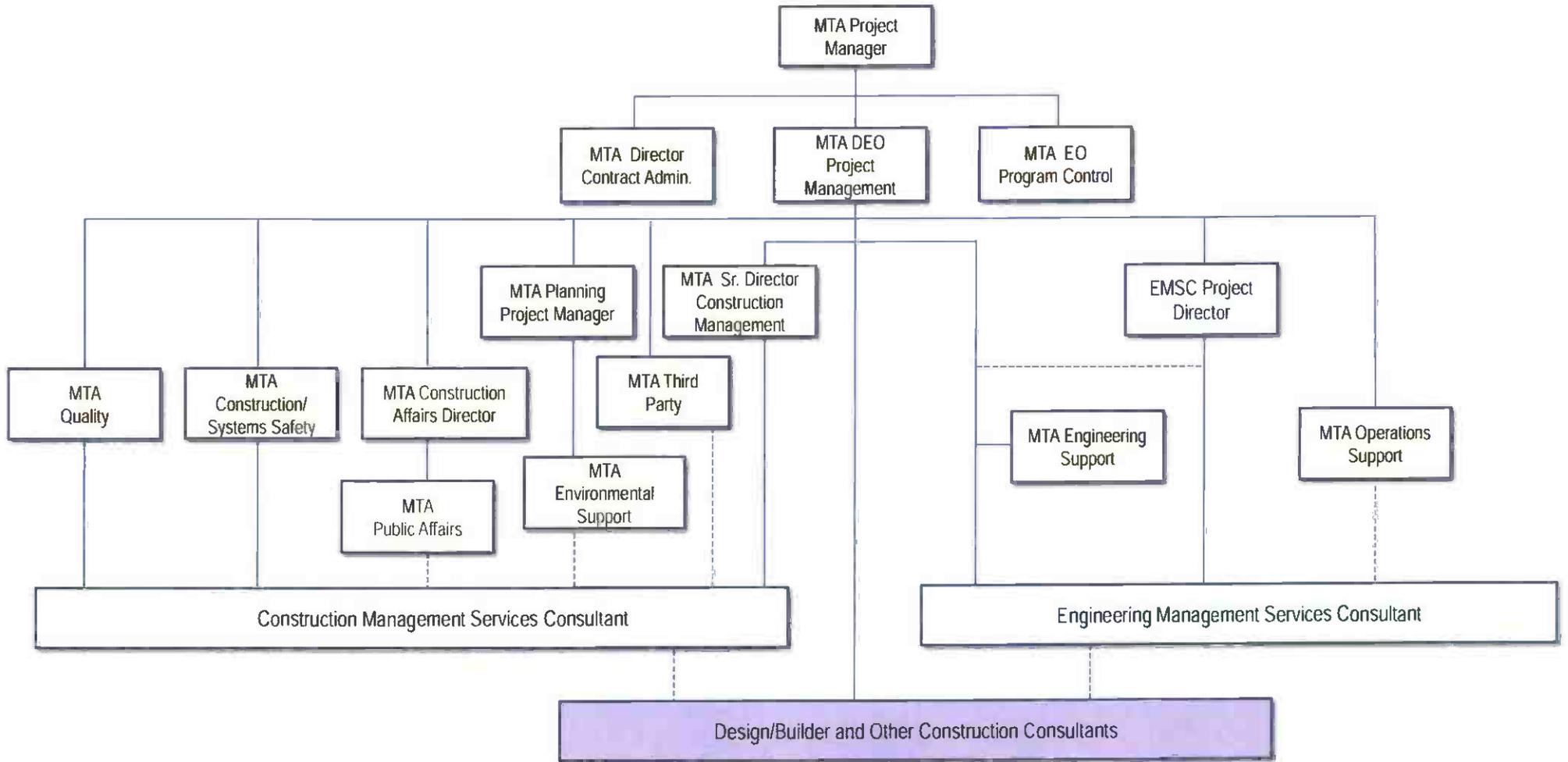
WESTSIDE PURPLE LINE EXTENSION SECTION 2 Matrix Organization

Metro Executive Management Organization and Staff

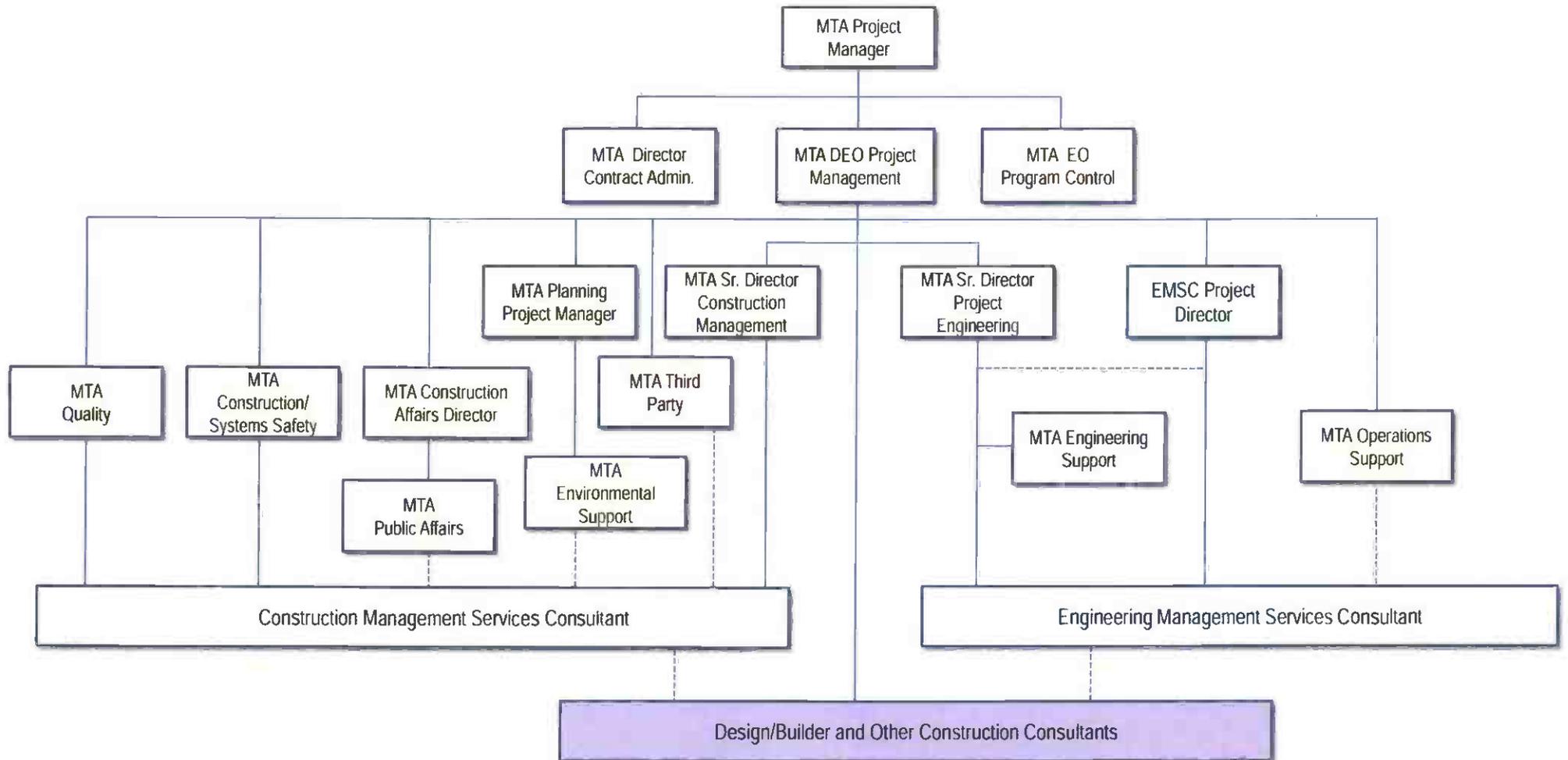


Consultant Support

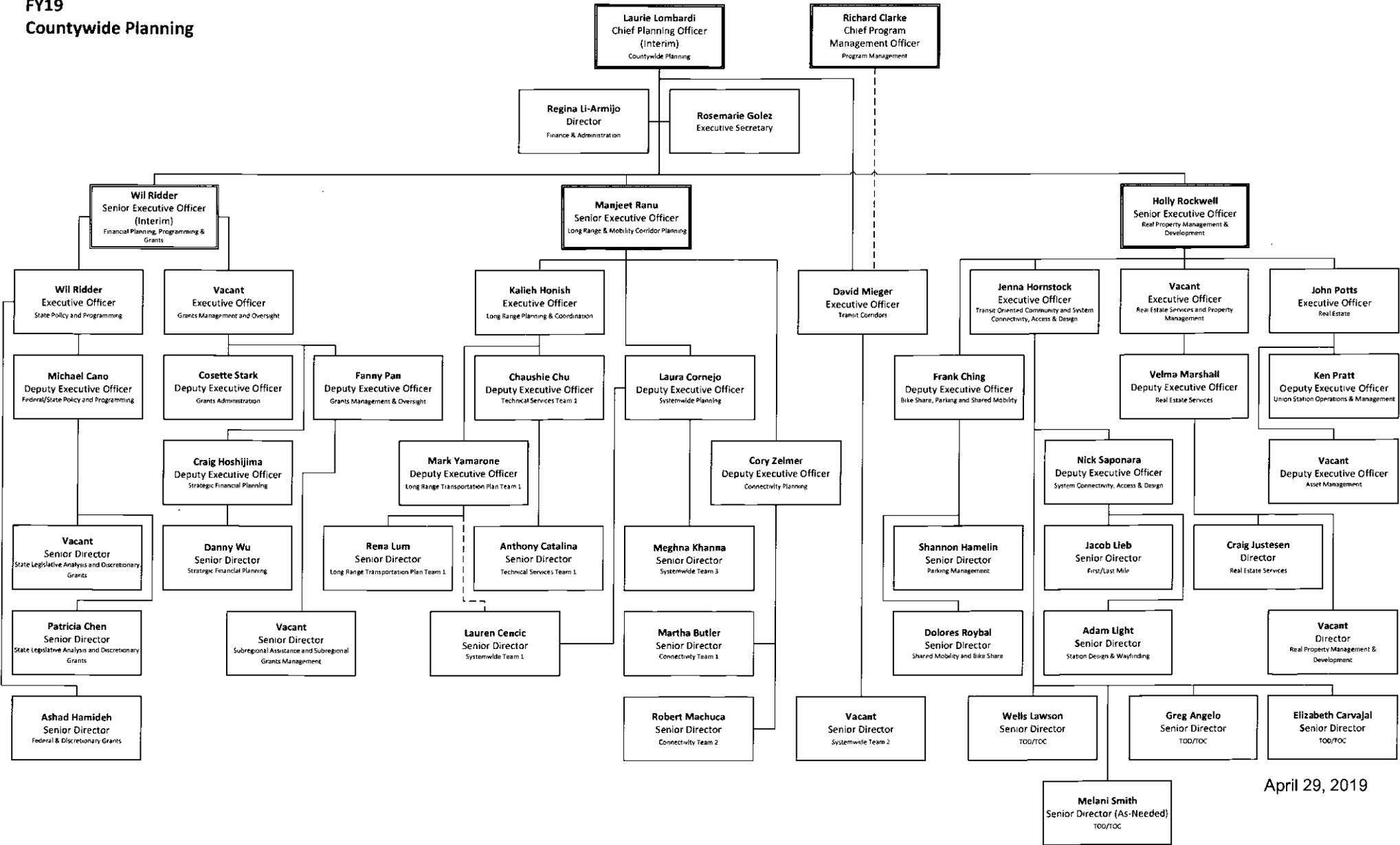
Westside Purple Line Extension Section 2 Responsibility and Reporting Matrix



Westside Purple Line Extension Section 3 Responsibility and Reporting Matrix

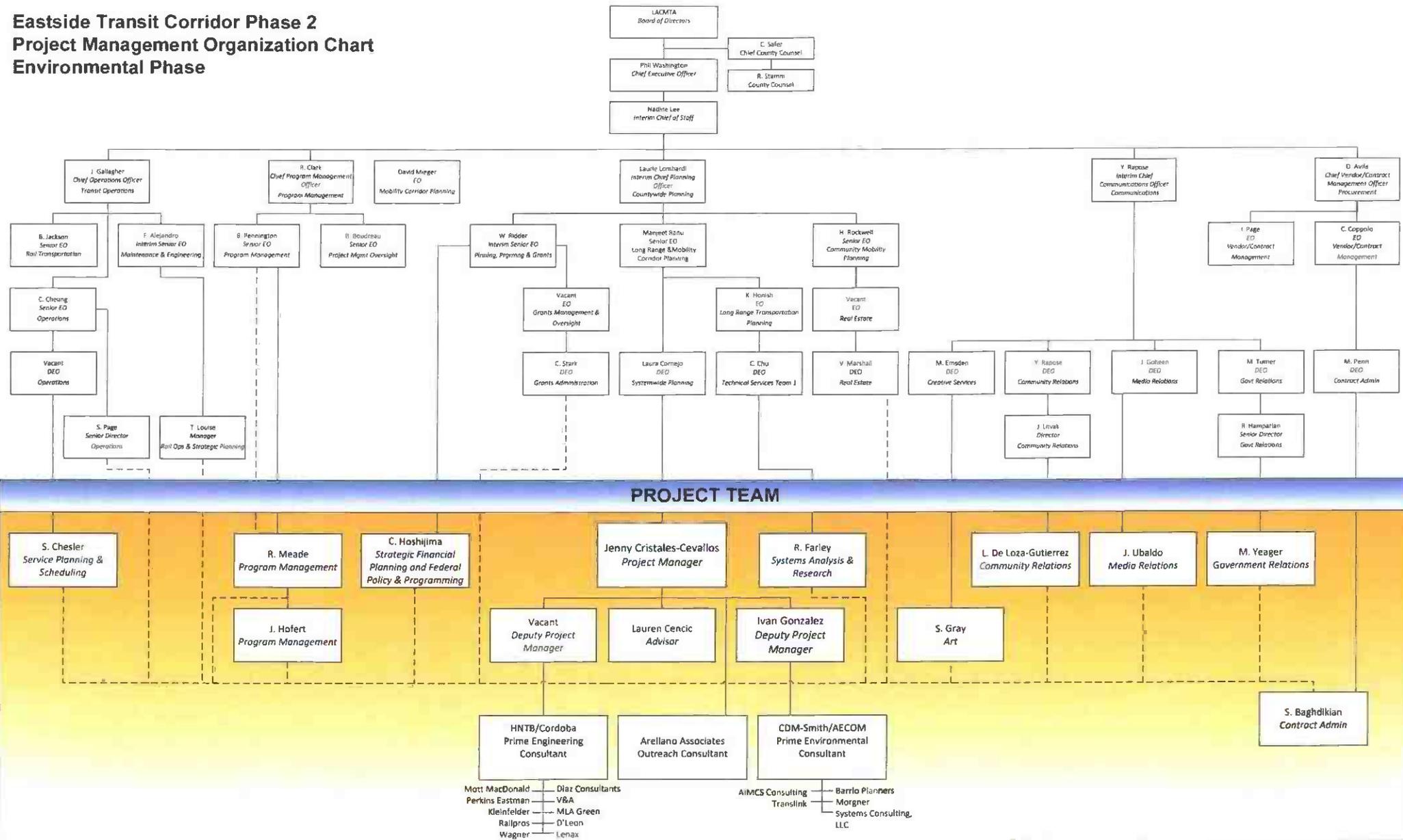


**FY19
Countywide Planning**



April 29, 2019

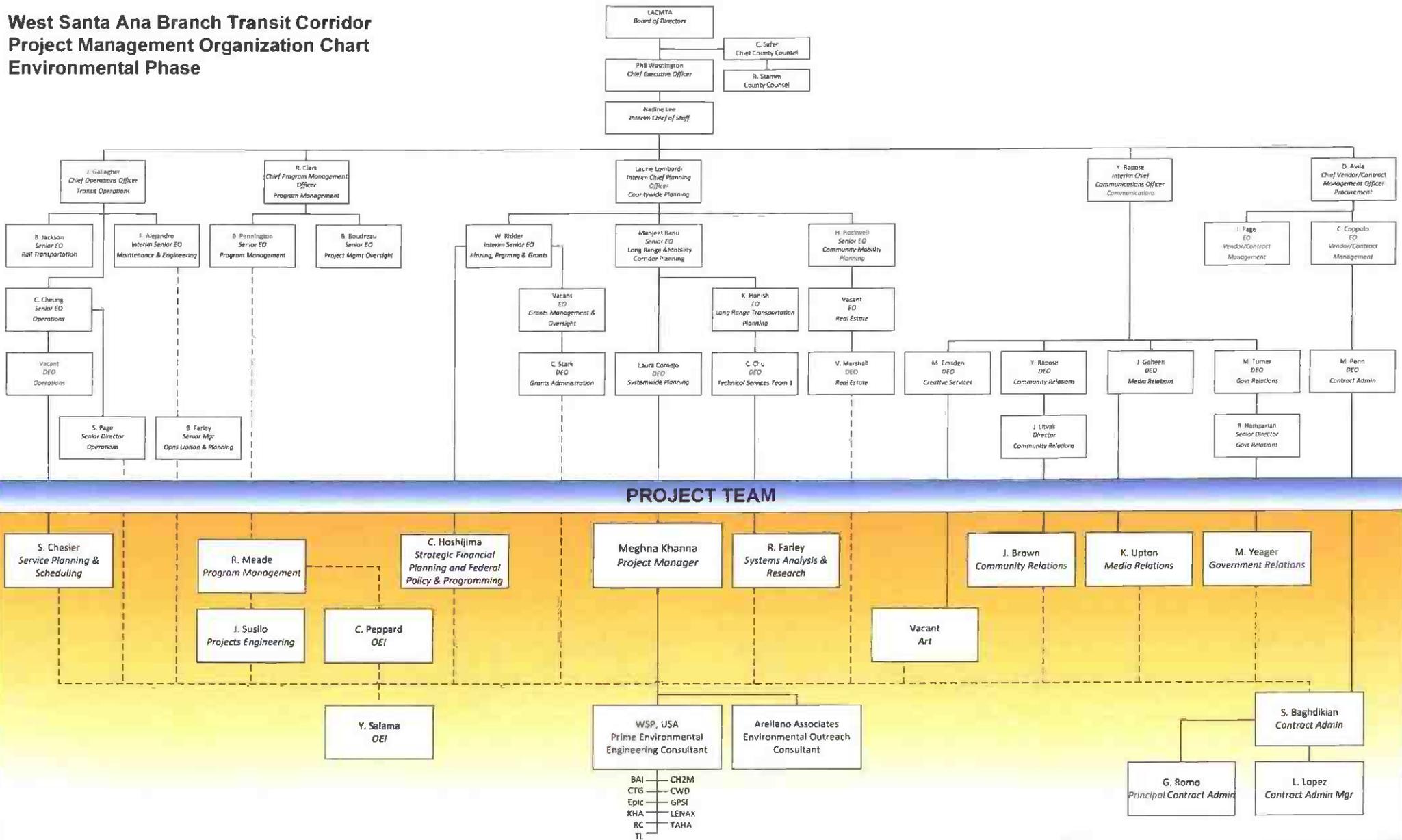
Eastside Transit Corridor Phase 2 Project Management Organization Chart Environmental Phase



April 29, 2019

Legend: ——— Indicates Direct Relationship
 - - - - - Indicates Coordinated Relationship
 [Yellow Box] Project Team

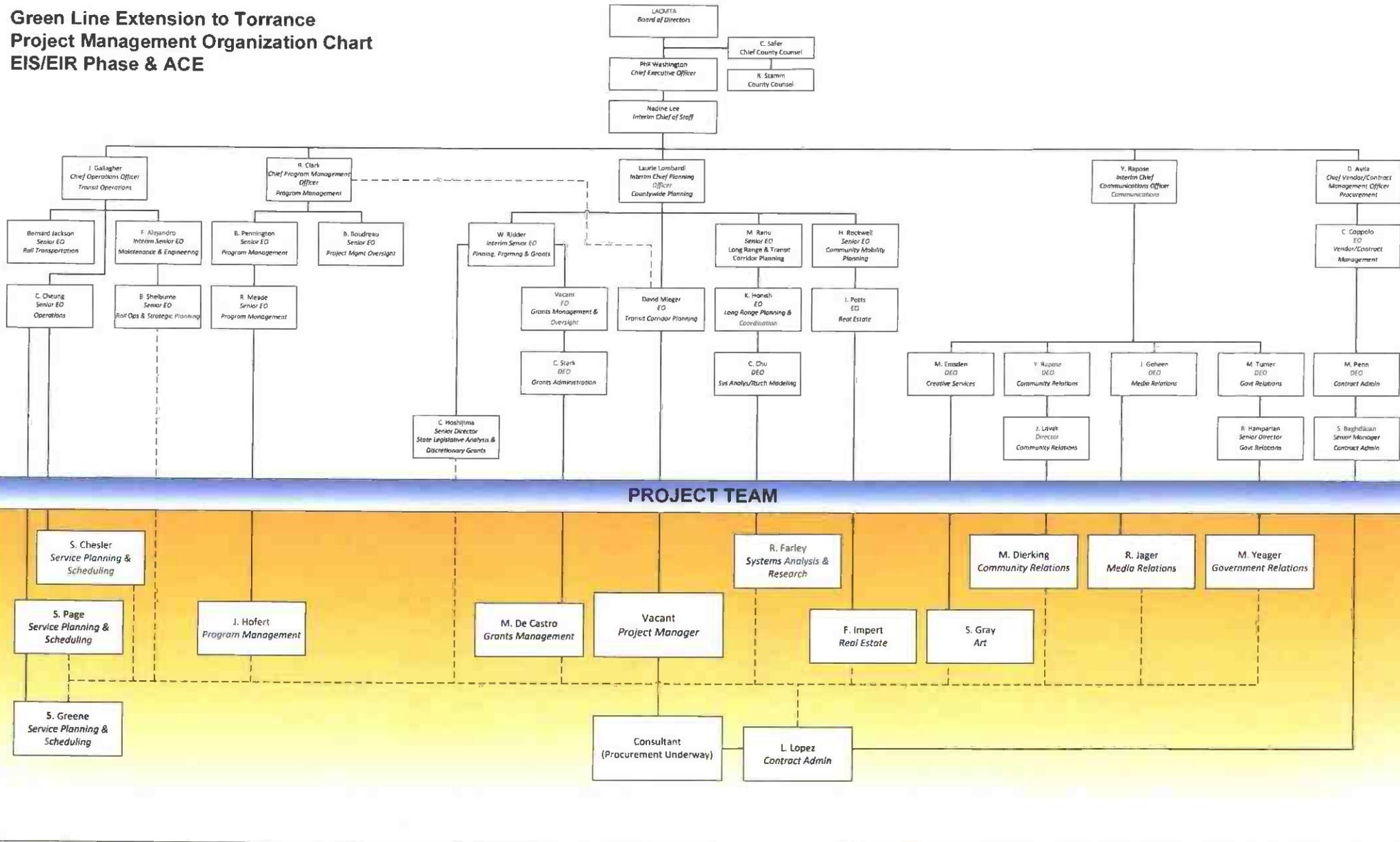
West Santa Ana Branch Transit Corridor Project Management Organization Chart Environmental Phase



April 29, 2019

Legend: ——— Indicates Direct Relationship
 - - - - - Indicates Coordinated Relationship
 [Yellow Box] Project Team

Green Line Extension to Torrance Project Management Organization Chart EIS/EIR Phase & ACE



April 29, 2019

Legend: ——— Indicates Direct Relationship
 - - - - - Indicates Coordinated Relationship
 [Yellow Box] Project Team

**Los Angeles County Metropolitan Transportation Authority (Metro)
 State and Federal Legislative Matrix – Board Approved Positions
 MARCH 2019
 Metro Government Relations**

STATE LEGISLATION

Bill ID/Topic	Location	Summary	Position
<u>AB 252</u> <u>Daly D</u> Department of Transportation: environmental review process: federal program.	ASSEMBLY APPR. 3/20/2019 - In committee: Set, first hearing. Referred to suspense file.	Existing law gives the Department of Transportation full possession and control of the state highway system. Existing federal law requires the United States Secretary of Transportation to carry out a surface transportation project delivery program, under which the participating states may assume certain responsibilities for environmental review and clearance of transportation projects that would otherwise be the responsibility of the federal government. Existing law, until January 1, 2020, provides that the State of California consents to the jurisdiction of the federal courts with regard to the compliance, discharge, or enforcement of the responsibilities it assumed as a participant in the program. This bill would extend the operation of these provisions indefinitely.	Support

**Los Angeles County Metropolitan Transportation Authority (Metro)
State and Federal Legislative Matrix – Board Approved Positions
MARCH 2019
Metro Government Relations**

FEDERAL LEGISLATION

BILL/AUTHOR	DESCRIPTION	STATUS
<p>H.R. 1139</p> <p>U.S. Representative Grace Napolitano (D-El Monte)</p>	<p>THE TRANSIT WORKER AND PEDESTRIAN PROTECTION ACT</p> <p>Would give transit agencies two years to develop a Bus Operations Safety Risk Reduction Program in partnership with their transit workforce, and with oversight from the U.S. Department of Transportation (USDOT).</p> <p>The bill authorizes \$25 million per year for 5 years to pay for the implementation of these safety improvements as part of their Bus Operations Safety Risk Reduction Programs:</p> <ul style="list-style-type: none"> • Assault mitigation infrastructure and technology, including barriers to prevent assaults on bus operators • De-escalation training for bus operators • Modified bus specifications and retrofits to reduce visibility impairments • Driver assistance technology that reduces accidents • Installation of enhanced bus driver seating to reduce ergonomic injuries <p>This legislation will also require transit agencies to report all assaults on bus drivers to the USDOT’s National Transit Database (NTD).</p>	<p>7/29/18 – Metro Board approves Support Work With Author position for a similar bill</p> <p>House - Referred to the Subcommittee on Highways and Transit</p>

Deferred=bill will be brought up at another time; Chaptered=bill has become law; LA=Last Amended; Enrolled=bill sent to Governor for approval or veto
Note: "Location" will provide most recent action on the legislation and current position in the legislative process. 5/7/2019
Bills highlighted in **PURPLE** have been submitted in the current month for Board consideration.

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MARCH 2019
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**FTA-Funded Excess Real Property and ALAP Parcels
Utilization Report**

March 31, 2019

Wilshire/Vermont Station (Parcels B2-113 through B2-121; ALAP Parcel B2-118) – NO CHANGE

These parcels encompass the 5.8-acre Wilshire/Vermont station site and a 1.02-acre site located across Shatto Place from the station site on the northeast corner of Wilshire Boulevard and Shatto Place. All property on the station site that is not used to support Metro rail operations has been sold or ground leased for development through Metro's joint development program. The ground leased portion of this site contains a mixed-use, transit-oriented development operated by Klein Financial and consists of 449 apartments (90 affordable) and approximately 36,000 square feet of retail space. The sold property contains an 800-student LAUSD middle school. The 1.02-acre site, situated across the street from the station site, is currently used as a Metro bus layover facility.

Temple/Beaudry (ALAP Parcels B-102 and B-103) – NO CHANGE

This site is currently being used to support Metro bus operations.

Wilshire/La Brea (ALAP Parcel A2-362) – NO CHANGE

This site has been turned over to the Westside Subway Project for construction of the Metro Purple Line extension's Wilshire/La Brea station.

Wilshire/Crenshaw (ALAP Parcels A1-300 and A2-301) – NO CHANGE

This property has been turned over to the Westside Subway Project to be used for construction staging with respect to the Metro Purple Line extension project.

Universal City Station (Parcels C3-750 through C3-755, C3-757 through C3-776, C3-778, C3-785, C3-786; ALAP Parcels A4-755, A4-765, A4-767, A4-772, A4-774 and A4-761) – NO CHANGE

This site is currently being used to house a portion of the Metro Red Line's Universal City station, a bus layover facility and a park-and-ride lot.

North Hollywood Station & Southwest Corner of Lankershim/Chandler (Parcels C3-806, C3-810, C3-812, C3-813, C3-815, C3-821-1 through C3-821-3, C3-825 and C3-826; ALAP Parcel C4-815)

These parcels encompass 15.6 acres that include the Metro Red Line's North Hollywood station site, its adjoining bus layover facility and park-and-ride lot, and a vacant 1.8-acre lot located on the southwest corner of Lankershim and Chandler Boulevards. Federal assistance was used to acquire 11.18 acres of this property.

In May 2017, the Metro Board authorized an Exclusive Negotiation Agreement and Planning Document with developers Trammell Crow Company (“TCLA”). Metro has since been working with TCLA as the project moves forward in its design phases to further shape the retail, residential, and transportation improvements coming to the station area.

The development program for the site contemplates 1,000 to 1,200 market rate apartments, 250 to 325 affordable apartments, 300,000 to 400,000 square feet of office space, and 80,000 to 150,000 square feet of retail uses. TCLA has submitted updated conceptual drawings for the project, which are under review by Metro’s internal stakeholders. The developer intends to submit an entitlements/CEQA package to the City of Los Angeles for their review and approval in mid2019. In October 2018, FTA approved Metro’s joint development project request subject to final review of, and concurrence with, the JDA and ground leases.

Westlake/MacArthur Park Station (ALAP Parcels A1-209, A1-211, A1-220, A1-221/225, A1-222 and A1-224)

These parcels encompass the 1.8-acre Westlake/MacArthur Park station site, situated between Alvarado Boulevard and Westlake Avenue, and a 1.6-acre site located one block southeast of the station site. These sites were anticipated to house a two-phased, transit-oriented development by McCormack Baron Salazar (“MBS”) known as “Phase A” and “Phase B.”

Phase A of this development - a mixed-use project that includes 90 affordable apartments, 20,000 sq. ft. of retail space and a 233-space parking structure, with 100 preferred parking spaces for transit users - was constructed in May 2012 and has been in operation on the 1.6-acre site since then. Phase A is situated on land ground leased by Metro to development entities created by MBS.

In May 2017, a Joint Development Agreement between Metro and MBS for the development of Phase B expired, leaving it available for development. An unsolicited proposal for this site’s development was submitted in December 2017. A proposal evaluation team reviewed this proposal in accordance with Metro’s Unsolicited Proposal Policy and Process, and is currently evaluating the Phase 2 Detailed Proposal.

Southwest corner of 1st/Boyle (Parcels ED-121 through ED-125, ED-191, ED-193 and ED-194) - NO CHANGE

On March 19, 2015, Metro and a MBS development entity entered into a ground lease for the construction and operation of a mixed-use, transit-oriented development on this 1.5-acre vacant site which is situated across the street from the Metro Gold Line’s Mariachi Plaza station. The proposed development is an 80-unit, affordable apartment project with approximately 4,000 square feet of retail space. Construction of the development was substantially completed in June of 2017 and residential move-in was completed in July of 2017. MBS is still seeking a tenant for the project’s retail space.

Mariachi Plaza Station (Parcels ED-130 through ED-132, ED-134 and ED-135) - NO CHANGE

These parcels encompass the Metro Gold Line's 1.3-acre Mariachi Plaza station site.

In March 2017, Metro released a Request for Proposals for joint development of these parcels. On June 29, 2017, Metro received two proposals and completed a thorough evaluation. In January 2018, the Metro Board of Directors authorized entering into an 18-month Exclusive Negotiation Agreement and Planning Document with one of the proposers, East Los Angeles Community Corporation ("**ELACC**"), the highest scoring firm. ELACC's proposal consists of a 60-unit affordable rental development targeted to low income families and young adults; 6,340 square feet of street-level retail facing the Plaza; a 6,000 square foot community garden; and a 2,035 square foot Mariachi Cultural Center. During the 18-month term of the Exclusive Negotiation Agreement and Planning Document, ELACC, with Metro staff support, will outreach to the community regarding the project, further refine the project scope, seek entitlements and negotiate a term sheet leading to a Joint Development Agreement and Ground Lease.

Southeast corner of Pennsylvania/Bailey (Parcel ED-147) - NO CHANGE

This 0.14-acre vacant lot, situated across Bailey Street from the Mariachi Plaza Station site, was included in the Request for Proposals for joint development of Mariachi Plaza released in March 2017. (See the update for Mariachi Plaza Station above for details.) ELACC's proposal contemplates developing this parcel into a community garden. During the quarter, this site was leased to a local business for customer parking.

Soto Station (Parcels ES-548, ES-549, ES-551A, ES-551B and ES-553 through ES-555) - NO CHANGE

These parcels encompass the Metro Gold Line's 1.09-acre Soto station site and a 0.29-acre, Metro-owned parcel located across Soto Street from the station.

In June 2016, Metro and Bridge Housing Corporation/East LA Community Corporation ("**Bridge/ELACC**") entered into an Exclusive Negotiation Agreement and Planning Document with respect to the development of the Soto station site and the 0.29-acre parcel. In December 2018, Metro and Bridge/ELACC extended the term of the Exclusive Negotiation Agreement and Planning Document through December 31, 2019. Under the framework of this agreement, and a prior Short Term Exclusive Agreement and Planning Document, Bridge/ELACC has continued to work with Metro to refine the project's scope and design with input from community stakeholders. These efforts have led to a proposed mixed-use project that will be constructed on a portion of 1.09-acre Soto station site and will provide 64 apartments (44 of which will be affordable, to families earning 30-50% of Area Median Income and 20 of which will be supportive housing for the formerly homeless), along with approximately 4,200 square feet of ground floor retail space. In addition, the Peabody/Werden Historic Home, which is currently being stored on the 0.29-acre site under a license granted by Metro, is being considered for community space and

other community serving uses as part of the proposed development.

In August 2018, the project was recommended for inclusion in City of Los Angeles Housing and Community Investment Department's affordable housing funding pipeline. This was a major milestone for the project and is key to its financial structure.

The next steps for the project include submittal of an entitlements/CEQA package to the City of Los Angeles for their review and approval (this submittal is anticipated in the first half of 2019), securing other project financing that is not secured via the affordable housing pipeline, and negotiation/completion a term sheet setting forth the key terms and conditions to be set forth in a Joint Development Agreement and ground lease.

1st/Lorena (Parcel EG-409)

This 1.27-acre site is mostly vacant but does house a traction power substation for the Metro Gold Line. Metro and A Community of Friends ("**ACOF**") are parties to an Exclusive Negotiation Agreement and Planning Document to explore the feasibility of constructing and operating a mixed-use, transit-oriented development on this site. The proposed development will contain 49 apartments (24 of which will provide supportive housing for veterans) and approximately 10,000 square feet of retail space. Community outreach has been completed and the project has been approved by the Boyle Heights Neighborhood Council and the Metro-established Boyle Heights Design Review Advisory Committee.

In March 2016, the City of Los Angeles Planning Department recommended approval of the project's entitlements and clearance of the project under CEQA via a Mitigated Negative Declaration. A month later, however, the adjacent property owner appealed the City Planning Department's recommendation and the project was placed on hold. In March 2018, it looked as though the project would be able to move forward when the City Council approved the project's entitlements and the Mitigated Negative Declaration, but in April 2018, the adjacent property owner filed suit against the City with respect to its CEQA analysis, which again placed the project on hold pending resolution of the lawsuit. A trial to resolve this matter was completed on February 1, 2019 and a ruling by the court is expected prior to May 1, 2019.

The Exclusive Negotiation Agreement and Planning Document is scheduled to expire in June 2019, but Metro and ACOF are working to extend this agreement to provide time to analyze and respond to the court ruling and to resolve any subsequent appeals. In the event that the litigation is resolved in the project's favor, the extension would also allow ACOF to secure project financing and the parties to finalize a term sheet containing the key provisions of a future Joint Development Agreement and Ground Lease. To this end, the Metro Board will consider, at its May 2019 meeting, a staff recommendation to extend the term of the Exclusive Negotiation Agreement and Planning Document through June 2021.

Cesar E. Chavez/Soto (Parcels EE-220 and EE-272 through EE-274)

This 1.96-acre site was acquired by Metro for an extension of the Metro Red Line into Boyle Heights, a project that was replaced by the extension of the Metro Gold Line to the Eastside.

In November 2017, the Metro Board approved the CEQA clearance for the project, and authorized the execution of a Joint Development Agreement and Ground Lease with Abode Communities (“**Abode**”) pursuant to certain specified key terms and conditions. In January 2018, Metro and Abode executed a Joint Development Agreement consistent with the Metro Board-approved key terms and conditions. Under the purview of this agreement, Abode is advancing the project’s design and seeking project financing, among other things. Upon completion of these tasks in accordance with the Joint Development Agreement, the parties will execute a Ground Lease for the construction and operation of the project, which will contain key terms and conditions consistent with Metro Board-approved key terms and conditions.

The project was originally scoped to contain 77 apartments for families earning between 30% and 50% of the area median income. During 2018, Abode was unsuccessful in its attempts to secure financing for this project in part because, then and now, available affordable housing funding sources favor the construction of permanent supportive housing for the formerly homeless. As a result, Metro and Abode have agreed to change the project’s affordable housing mix to include permanent supportive housing for the formerly homeless. As rescoped, the project will still provide 77 apartments, but 38 of the units will now be permanent supportive housing for the formerly homeless. The remaining 39 units will continue to be for families earning between 30% and 50% of the area median income. The project will also include approximately 8,000 square feet of ground floor retail space.

Cesar E. Chavez/Fickett (Parcels EE-276 through EE-283)

This 1.56-acre site sits across Matthews Street from the Cesar E. Chavez/Soto site and was also acquired by Metro for an extension of the Metro Red Line into Boyle Heights.

In March 2017, Metro released a Request for Proposals for joint development of this site. In June 2017, Metro received 5 proposals and conducted a thorough evaluation of these proposals in fall 2017. In January 2018, the Metro Board of Directors authorized entering into an 18-month Exclusive Negotiation Agreement and Planning Document with one of the proposers, Abode, who had the highest scoring proposal.

During the 18-month term of the Exclusive Negotiation Agreement and Planning Document, Abode, with Metro staff support, will outreach to the community regarding the project, further refine the project scope, seek entitlements and negotiate a term sheet leading to a Joint Development Agreement and Ground Lease.

The project was originally scoped to contain 60 apartments for families earning between 30% and 50% of the area median income, but as with the Cesar E. Chavez/Soto project, it has been rescoped to accommodate available affordable housing funding sources. As rescoped, the project will still provide 60 apartments, but now 30 of the units will be

permanent supportive housing for the formerly homeless. The remaining 30 units will continue to be for families earning between 30% and 50% of the area median income. The project will also include 25,000 square feet for a community serving grocery store and a 6,500 square foot community park.

Throughout the quarter, Metro leased a portion of this site to a community organization for parking.

Los Angeles County
Metropolitan Transportation Authority
California

OPERATIONS MONTHLY RAIL PERFORMANCE REPORT

MARCH 2019



METRO RAIL PERFORMANCE – MARCH 2019

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Metro Rail Scorecard Overview

Metro operates heavy rail, the Red and Purple Lines, from Union Station to North Hollywood and Union Station to Wilshire/Western. Data for Red and Purple lines are reported under Metro Red line in this report.

Metro also operates four light rail lines: Blue Line from Downtown to Long Beach, Green Line along the 105 freeway, Gold Line from Azusa to East Los Angeles, and Expo Line from Los Angeles to Santa Monica.

Metro Rail is responsible for the operation of approximately 104 heavy rail cars and 203 light rail cars carrying nearly 110 million passengers each year.

Also included in this report are Key Performance Indicators for Wayside, which is in the process of being developed.

Measurement	FY 2016	FY 2017	FY 2018	FY 2019 Target	FY 2019 YTD	FYTD Status	Jan Month	Feb Month	Mar Month
Systemwide									
On-Time Pullouts	99.63%	99.61%	99.68%	99.80%	99.76%	●	99.82%	99.78%	99.88%
Mean Miles Between Chargeable Mechanical Failures ³	30,482	29,711	31,146	37,615	38,950	●	45,580	35,026	43,415
In-Service On-time Performance	98.10%	98.24%	98.48%	99.10%	98.84%	●	98.78%	99.17%	98.85%
Service Delivery Ratio	99.22%	99.23%	99.22%	99.70%	99.51%	●	99.35%	99.61%	99.74%
Traffic Accidents Per 100,000 Train Miles	1.17	1.01	0.96	0.85	0.63	●	0.94	0.34	0.15
CPUC Reportable Accidents per 100,000 Train Miles	0.60	0.36	0.54	0.37	0.28	●	0.67	0.17	0.15
Passenger Accidents per 100,000 Boardings	0.016	0.023	0.022	0.010	0.013	●	0.021	0.013	0.000
Complaints per 100,000 Boardings	1.43	1.98	1.81	1.10	1.86	●	1.79	2.19	2.10
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours ^{1,2}	10.97	12.27	11.17	10.05	11.38	●	20.82	4.86	6.27
Lost Work Days per 200,000 Exposure Hours ^{1,2}	482	733	886	821.44	802	●	705	696	-
OSHA Injuries per 200,000 Exposure Hours ^{1,2}	6.32	8.53	7.61	6.43	7.95	●	13.01	3.89	-
Wayside Maintenance & Engineering									
Past-Due Preventive Maintenance - Aging of Outstanding Work Orders	0	3	4	N/A	186	N/A	27	10	144
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours	4.77	5.35	5.02	5.40	6.34	●	6.52	0.00	6.62
Lost Work Days per 200,000 Exposure Hours ¹	148	194	312	296	294	●	169	14	0
OSHA Injuries per 200,000 Exposure Hours ¹	4.40	4.01	4.01	4.13	4.95	●	3.26	7.12	0
Blue Line (due to Blue Line construction, all Blue Line trips are pulling out of the Expo Line)									
On-Time Pullouts	99.59%	99.60%	99.39%	99.50%	99.49%	●	99.52%	0.00%	0.00%
Mean Miles Between Chargeable Mechanical Failures ³	19,240	15,405	13,772	18,555	19,979	●	26,918	23,352	77,584
In-Service On-time Performance	96.10%	96.44%	97.11%	98.80%	98.08%	●	98.99%	99.77%	98.75%
Service Delivery Ratio	98.41%	98.54%	98.42%	99.40%	99.25%	●	99.25%	99.76%	99.71%
Traffic Accidents Per 100,000 Train Miles	2.38	2.18	1.63	1.84	0.77	●	1.44	0.00	1.89
CPUC Reportable Accidents per 100,000 Train Miles	1.39	0.71	1.03	0.40	0.26	●	0.72	0.00	1.89
Passenger Accidents per 100,000 Boardings	0.016	0.046	0.033	0.010	0.016	●	0.000	0.000	0.000
Complaints per 100,000 Boardings	1.33	1.67	2.22	1.40	1.76	●	1.04	2.15	1.07
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours ^{1,2}	15.08	16.74	13.95	11.90	15.65	●	25.38	11.80	5.39
Lost Work Days per 200,000 Exposure Hours ¹	797	836	1,016	953	796	●	672	245	-
OSHA Injuries per 200,000 Exposure Hours ¹	6.79	10.40	8.10	5.93	7.45	●	25.38	0.00	-

¹ There is a One Month lag in reporting this data

² Includes Operations, RFS and Wayside

³ MMBMF for each line is based on Actual Vehicle Revenue Miles since hub miles are not available by the line operated. Vehicles from Division 11 may operate on the Expo or Blue Line

● Green - High probability of achieving the target (on track). Meets Target at 100% or better.

○ Yellow - Uncertain if the target will be achieved – slight problems, delays or management issues. Falls below Target 70 - 99%

● Red - High probability that the target will not be achieved – significant problems and/or delays. Falls below Target >70%.

N/A = Not Available

Measurement	FY 2016	FY 2017	FY 2018	FY 2019 Target	FY 2019 YTD	FYTD Status	Jan Month	Feb Month	Mar Month
Red Line									
On-Time Pullouts	99.79%	99.95%	99.88%	100.00%	99.84%	●	99.80%	100.00%	99.80%
Mean Miles Between Chargeable Mechanical Failures ³	94,312	104,637	68,407	94,035	63,980	●	74,557	42,261	41,325
In-Service On-time Performance	99.45%	99.39%	99.33%	99.70%	99.44%	●	99.41%	99.32%	99.36%
Service Delivery Ratio	99.71%	99.72%	99.65%	100.00%	99.69%	●	99.61%	99.65%	99.66%
Traffic Accidents Per 100,000 Train Miles	0.75	0.57	0.64	0.57	0.57	●	0.83	0.00	0.00
CPUC Reportable Accidents per 100,000 Train Miles	0.07	0.14	0.21	0.21	0.28	●	0.83	0.00	0.00
Passenger Accidents per 100,000 Boardings	0.002	0.004	0.000	0.000	0.003	●	0.000	0.000	0.000
Complaints per 100,000 Boardings	0.57	1.19	1.16	0.55	1.41	●	1.89	2.18	2.06
New Workers' Compensation Indemnity Claims per	16.43	12.68	11.80	10.80	13.91	●	41.11	5.75	0.00
*Lost Work Days per 200,000 Exposure Hours	526	992	827	809	736	●	836	690	-
*OSHA Injuries per 200,000 Exposure Hours	7.99	7.52	4.99	3.89	10.92	●	15.42	0.00	-

Green Line									
On-Time Pullouts	99.49%	99.69%	99.59%	99.70%	99.87%	●	99.61%	99.53%	100.00%
Mean Miles Between Chargeable Mechanical Failures ³	19,238	16,375	21,614	22,562	21,966	●	20,260	21,061	19,595
In-Service On-time Performance	98.52%	98.69%	98.72%	99.00%	98.79%	●	98.93%	99.04%	97.21%
Service Delivery Ratio	99.59%	99.61%	99.38%	100.00%	99.70%	●	99.74%	99.76%	99.79%
Traffic Accidents Per 100,000 Train Miles	0.42	0.48	0.34	0.35	0.26	●	0.87	0.00	0.00
CPUC Reportable Accidents per 100,000 Train Miles	0.07	0.07	0.00	0.40	0.00	●	0.00	0.00	0.00
Passenger Accidents per 100,000 Boardings	0.034	0.048	0.010	0.010	0.014	●	0.000	0.000	0.000
Complaints per 100,000 Boardings	1.54	2.08	1.69	1.20	2.08	●	1.78	2.67	3.43
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours	7.18	9.14	12.87	11.52	7.07	●	0.00	0.00	9.13
*Lost Work Days per 200,000 Exposure Hours	228	712	984	930	1,331	●	1,535	1,590	-
*OSHA Injuries per 200,000 Exposure Hours	3.19	6.65	9.84	8.70	5.68	●	0.00	0.00	-

Gold Line									
On-Time Pullouts	99.68%	99.82%	99.84%	100.00%	99.69%	●	100.00%	99.59%	99.75%
Mean Miles Between Chargeable Mechanical Failures ³	40,426	38,427	43,588	49,303	43,287	●	58,314	29,140	40,971
In-Service On-time Performance	97.60%	97.61%	98.19%	98.80%	98.66%	●	97.75%	98.46%	99.18%
Service Delivery Ratio	99.11%	98.88%	99.07%	99.50%	99.35%	●	99.01%	99.55%	99.68%
Traffic Accidents Per 100,000 Train Miles	0.99	0.61	0.55	0.51	0.49	●	1.23	0.95	0.00
CPUC Reportable Accidents per 100,000 Train Miles	0.60	0.25	0.26	0.40	0.24	●	0.82	0.48	0.00
Passenger Accidents per 100,000 Boardings	0.039	0.030	0.086	0.010	0.033	●	0.000	0.077	0.000
Complaints per 100,000 Boardings	2.73	2.77	2.65	1.80	2.82	●	1.80	2.70	2.19
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours	11.87	14.31	14.24	11.67	12.48	●	25.00	11.08	5.00
*Lost Work Days per 200,000 Exposure Hours	766	1,055	1,146	993	1,179	●	1,028	1,527	-
*OSHA Injuries per 200,000 Exposure Hours	9.29	9.69	11.87	8.94	9.44	●	20.00	11.08	-

Expo Line									
On-Time Pullouts	99.53%	98.76%	99.71%	99.70%	99.95%	●	100.00%	100.00%	100.00%
Mean Miles Between Chargeable Mechanical Failures ³	18,114	33,402	57,013	49,557	127,590	●	90,734	156,416	350,677
In-Service On-time Performance	98.61%	98.48%	98.72%	98.90%	98.92%	●	98.50%	99.16%	99.29%
Service Delivery Ratio	99.56%	99.46%	99.54%	99.80%	99.60%	●	99.37%	99.50%	99.92%
Traffic Accidents Per 100,000 Train Miles	0.74	1.26	1.78	1.26	1.20	●	0.00	0.00	0.00
CPUC Reportable Accidents per 100,000 Train Miles	0.50	0.63	1.30	0.40	0.65	●	0.81	0.00	0.00
Passenger Accidents per 100,000 Boardings	0.019	0.018	0.010	0.010	0.014	●	0.122	0.000	0.000
Complaints per 100,000 Boardings	3.38	3.68	2.20	1.40	2.06	●	2.31	1.55	2.03
New Workers' Compensation Indemnity Claims per	8.44	19.26	12.57	11.84	14.71	●	29.34	0.00	15.24
*Lost Work Days per 200,000 Exposure Hours	73	887	1,470	1,343	1,004	●	577	922	-
*OSHA Injuries per 200,000 Exposure Hours	5.63	16.60	9.92	9.92	10.74	●	14.67	-	-

* There is One Month lag in reporting this data

³ MMBMF for each line is based on Actual Vehicle Revenue Miles since hub miles are not available by the line operated. Vehicles from Division 11 may operate on the Expo or Blue Line

● Green - High probability of achieving the target (on track). Meets Target at 100% or better.

○ Yellow - Uncertain if the target will be achieved – slight problems, delays or management issues. Falls below Target 70 - 99%

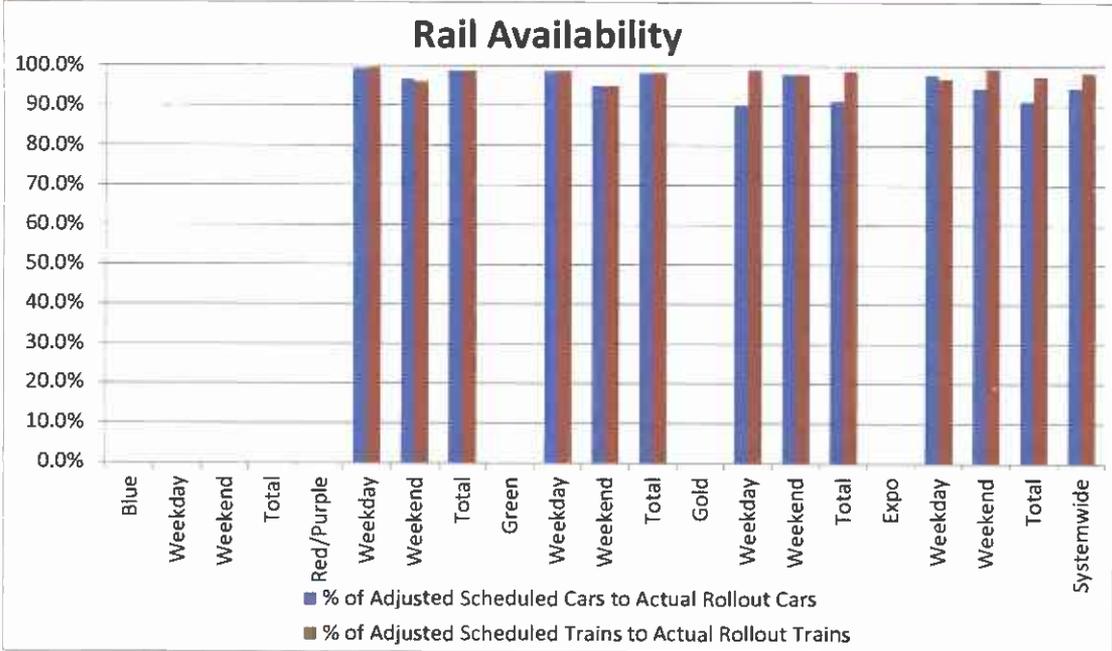
● Red - High probability that the target will not be achieved – significant problems and/or delays. Falls below Target >70%.

N/A = Not Available

Vehicle Availability Mar 2019

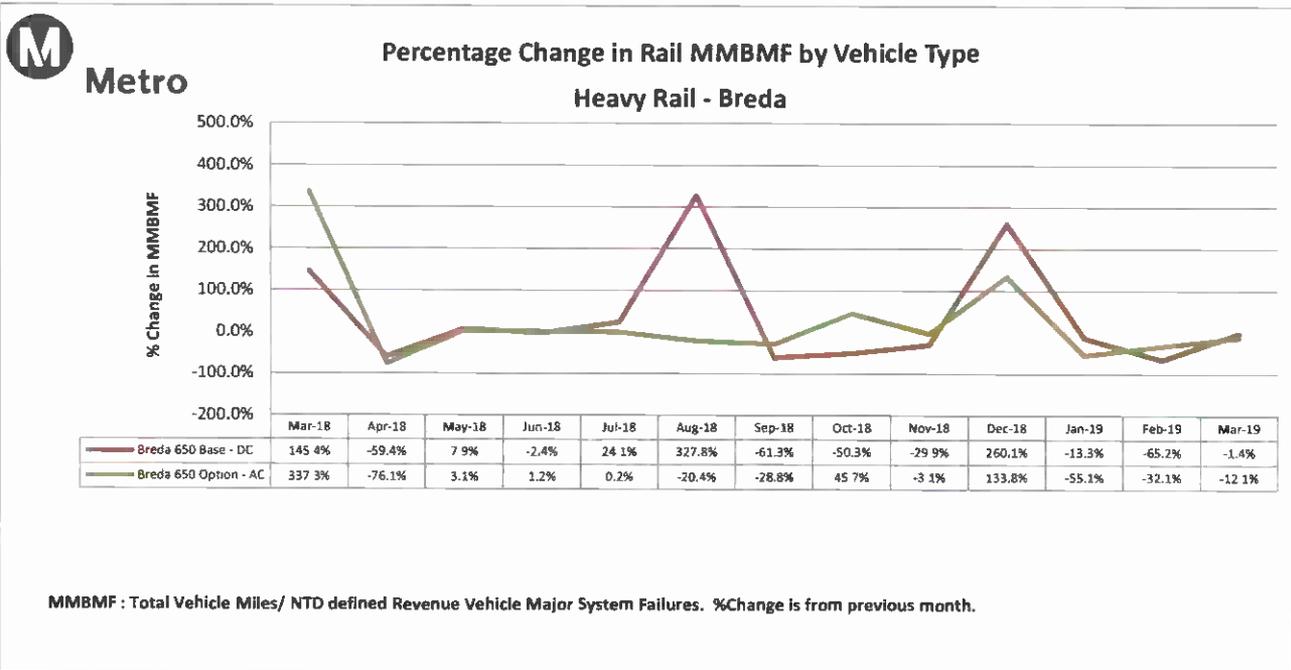
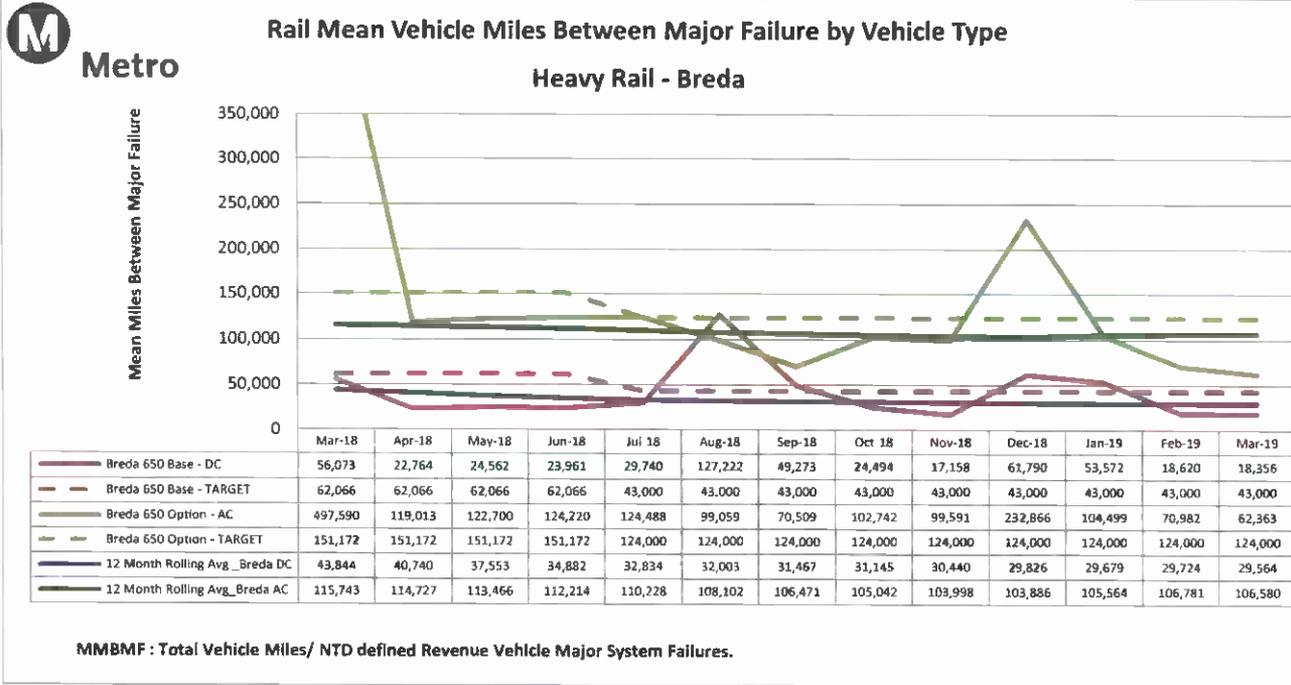
Day Type	% of Adjusted Scheduled Cars to Actual Rollout Cars	% of Adjusted Scheduled Trains to Actual Rollout Trains
Blue		
Weekday	*N/A	*N/A
Weekend	*N/A	*N/A
Total	*N/A	*N/A
Red/Purple		
Weekday	99.28%	99.50%
Weekend	96.54%	96.00%
Total	98.81%	98.80%
Green		
Weekday	98.62%	98.75%
Weekend	95.00%	95.00%
Total	98.15%	98.26%
Gold		
Weekday	90.17%	98.92%
Weekend	97.87%	97.87%
Total	91.15%	98.73%
Expo		
Weekday	97.87%	96.83%
Weekend	94.48%	99.43%
Total	91.19%	97.44%
Systemwide	94.51%	98.27%

*N/A: Due to Blue Line Construction, all Blue Lines Train are pulling out of Division 14 (Expo).



METRO RAIL PERFORMANCE – MARCH 2019

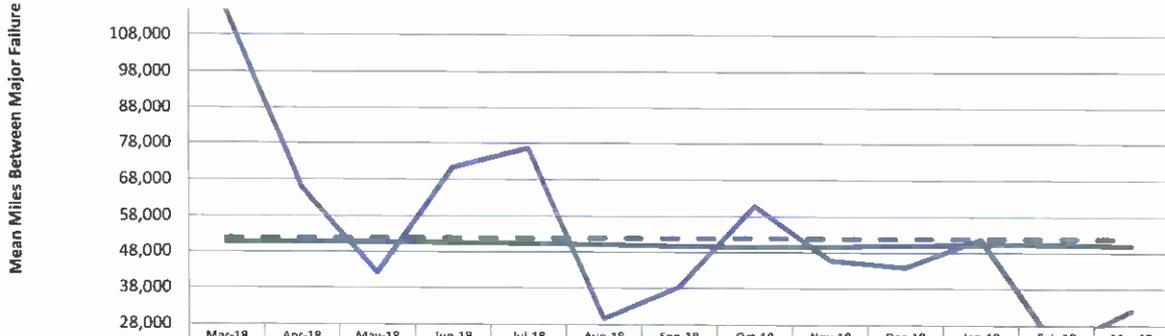
Rail Performance by Vehicle Type





Metro

Rail Mean Vehicle Miles Between Major Failure by Vehicle Type Light Rail - Breda



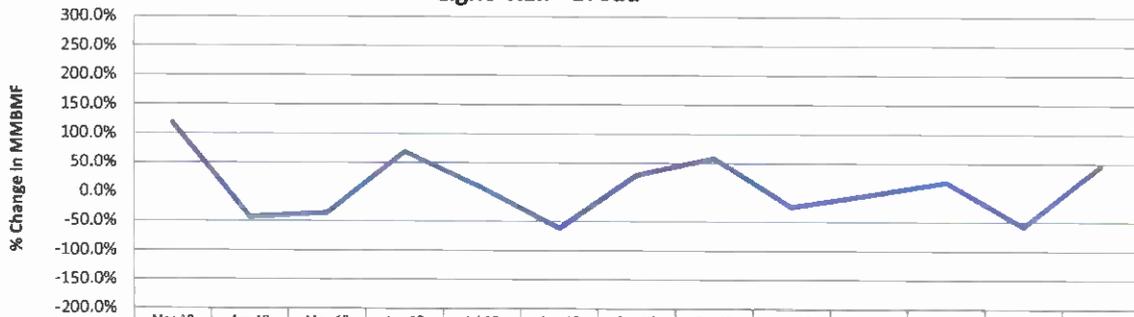
	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
— AnsaldoBreda 2550 Base - AC	114,997	65,940	42,253	71,408	76,730	29,623	38,403	60,989	45,884	43,889	51,768	21,949	32,069
- - AnsaldoBreda 2550 Base - TARGET	51,977	51,977	51,977	51,977	52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000	52,000
— 12 Month Rolling Avg	50,773	50,874	50,847	50,638	50,429	50,179	49,789	49,586	49,710	50,097	50,339	50,411	50,011

MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures.



Metro

Percentage Change in Rail MMBMF by Vehicle Type Light Rail - Breda



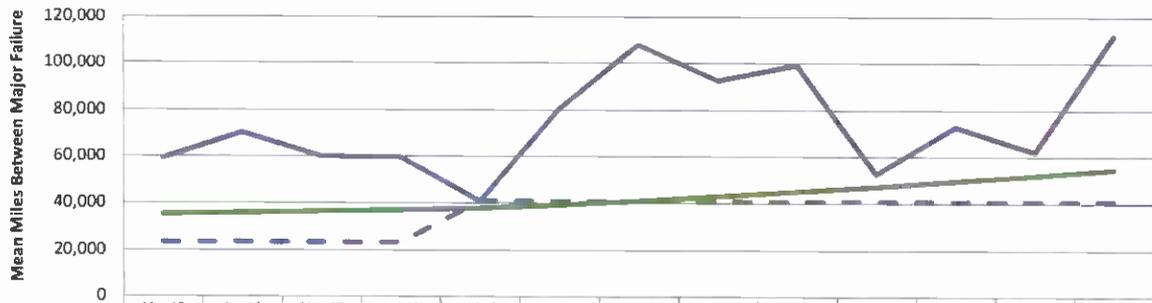
	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
— AnsaldoBreda 2550 Base - AC	118.5%	-42.7%	-35.9%	69.0%	7.5%	-61.4%	29.6%	58.8%	-24.8%	-4.3%	18.0%	-57.6%	46.1%

MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures. %Change is from previous month.



Metro

Rail Mean Vehicle Miles Between Major Failure by Vehicle Type Light Rail - KinkiSharyo



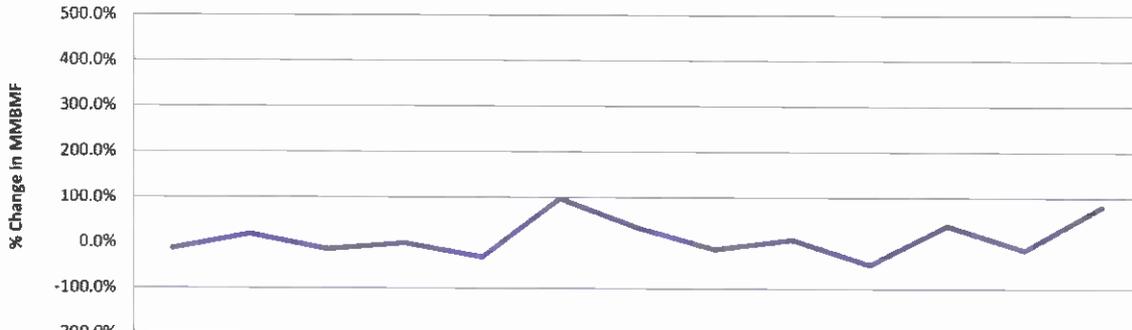
	Mar-18	Apr-18	May 18	Jun-18	Jul-18	Aug 18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
KinkiSharyo P3010 *	59,274	70,461	60,144	59,673	40,836	80,639	107,909	92,771	99,289	52,753	73,160	62,116	111,784
KinkiSharyo P3010 - TARGET	23,489	23,489	23,489	23,489	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000	41,000
12 Month Rolling Avg	35,252	35,861	36,507	37,118	37,880	39,237	41,041	43,081	45,127	47,286	49,760	52,080	54,644

MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures.



Metro

Percentage Change in Rail MMBMF by Vehicle Type Light Rail - KinkiSharyo



	Mar-18	Apr-18	May 18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
KinkiSharyo P3010 *	-13.1%	18.9%	-14.6%	-0.8%	-31.6%	97.5%	33.8%	-14.0%	7.0%	-46.9%	38.7%	-15.1%	80.0%

MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures. %Change is from previous month.

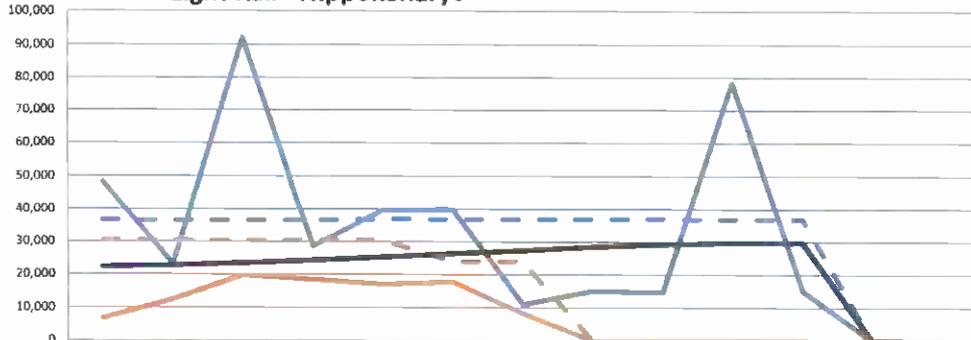


Metro

Rail Mean Vehicle Miles Between Major Failure by Vehicle Type

Light Rail - NipponSharyo

Mean Miles Between Major Failure



	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
Nippon Sharyo 2020 - DC *	48,401	23,206	92,295	28,597	39,850	40,025	11,089	15,181	14,712	78,477	15,158	0	0
Nippon Sharyo 2020 - TARGET	36,599	36,599	36,599	36,599	37,000	37,000	37,000	37,000	37,000	37,000	37,000	0	0
Nippon Sharyo 865 - DC **	6,818	12,587	19,850	18,498	17,122	17,816	8,346	0	0	0	0	0	0
Nippon Sharyo 865 - TARGET **	30,478	30,478	30,478	30,478	30,478	24,000	24,000	0	0	0	0	0	0
12 Month Rolling Avg - Nippon 2020 DC	22,334	22,762	23,454	24,363	25,272	26,348	27,348	28,502	29,261	29,756	29,806	0	0

* Nippon Sharyo 2020 Cars did not starting in February 2019

** Nippon Sharyo 865 -DC Cars have been retired starting September 2018

MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures.

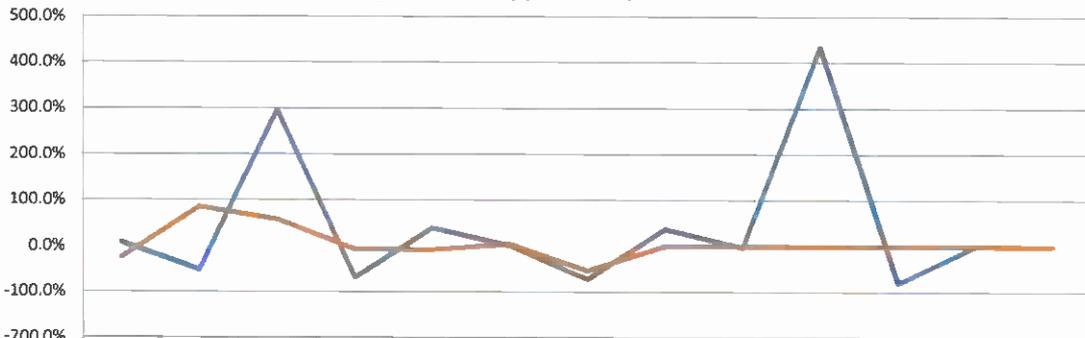


Metro

Percentage Change in Rail MMBMF by Vehicle Type

Light Rail - NipponSharyo

% Change in MMBMF



	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
Nippon Sharyo 2020 - DC *	7.6%	-52.1%	297.7%	-69.0%	39.4%	0.4%	-72.3%	36.9%	3.1%	433.4%	-80.7%	0.0%	0.0%
Nippon Sharyo 865 - DC **	-24.3%	84.6%	57.7%	-6.8%	-7.4%	4.1%	-53.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

* Nippon Sharyo 2020 did not operate starting in February 2019

** Nippon Sharyo 865 -DC Cars have been retired starting September 2018

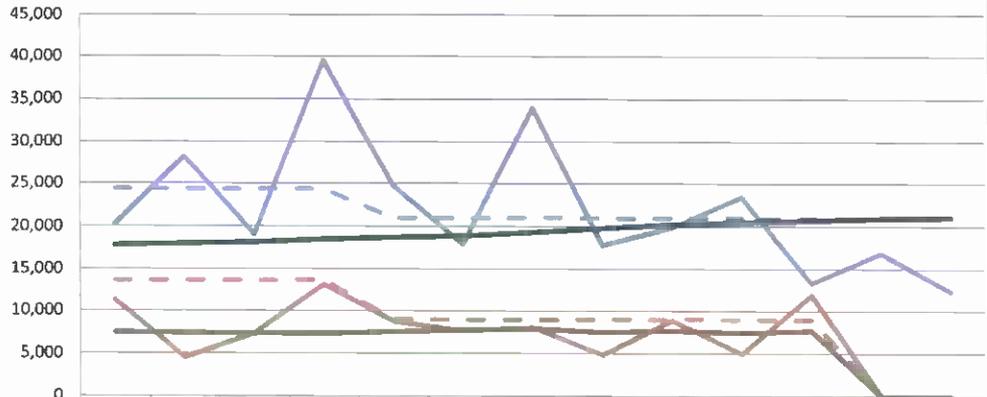
MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures. %Change is from previous month.



Metro

Rail Mean Vehicle Miles Between Major Failures by Vehicle Type Light Rail - Siemens

Mean Miles Between Major Failure



	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
Siemens 2000 Base - AC	20,271	28,221	19,061	39,557	24,742	17,919	33,989	17,816	19,888	23,455	13,310	16,886	12,338
Siemens 2000 Base - TARGET	24,373	24,373	24,373	24,373	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000	21,000
Siemens 2000 GE/ATP - AC **	11,299	4,519	7,347	13,129	8,775	7,657	8,052	4,877	8,911	4,963	11,882	0	0
Siemens 2000 GE/ATP - TARGET **	13,620	13,620	13,620	13,620	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000	9,000
12 Month Rolling Avg - Siemens 2000 Base - AC	17,827	18,017	18,163	18,491	18,719	18,906	19,320	19,841	20,254	20,547	20,746	20,962	21,085
12 Month Rolling Avg - Siemens 2000 GE/ATP - AC	7,459	7,416	7,368	7,317	7,563	7,721	7,912	7,501	7,690	7,453	7,709	0	0

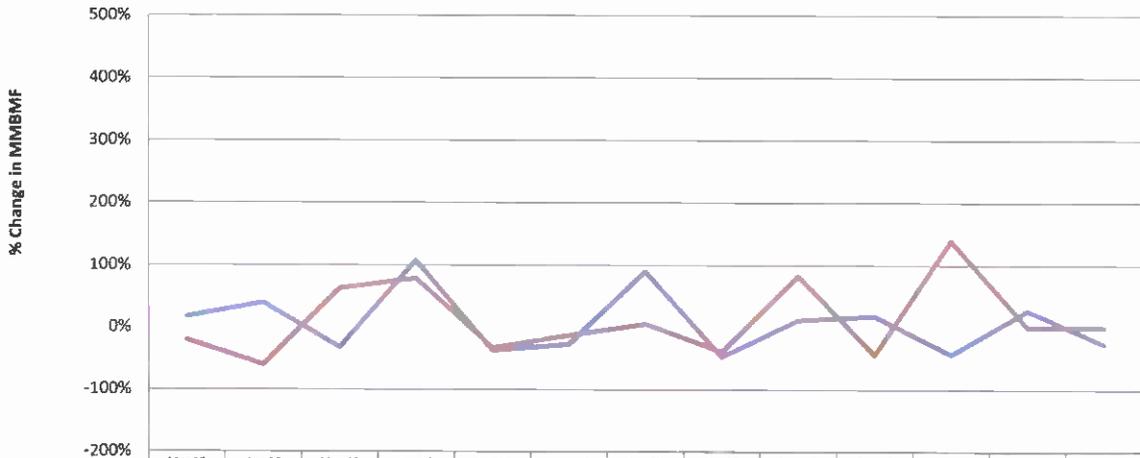
** The Siemens 2000 GE/ATP AC cars did not operate starting in February 2019.

MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures.



Metro

Percentage Change in Rail MMBMF by Vehicle Type Light Rail - Siemens



	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
Siemens 2000 Base - AC	16.4%	39.2%	-32.5%	107.5%	-37.5%	-27.6%	89.7%	-47.6%	11.6%	17.9%	-43.3%	26.9%	-26.9%
Siemens 2000 GE/ATP - AC **	20.4%	60.0%	62.6%	78.7%	-33.2%	-12.7%	5.1%	-39.4%	82.7%	-44.3%	139.4%	0.0%	0.0%

** The Siemens 2000 GE/ATP AC cars did not operate starting in February 2019.

MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures. %Change is from previous month.

Mean Miles Between Major Failures

	FY 2018	FY2019 Goal	FY2019 YTD
AnsaldoBreda2550Base - AC	49,423	52,000	40,111
Breda 650 Base - DC	25,946	43,000	30,992
Breda 650 Option - AC	107,839	124,000	93,862
Kinkisharyo P3010	42,166	41,000	72,643
Nippon Sharyo 2020 - DC	31,703	37,000	21,455
Nippon Sharyo 865 - DC	8,089	24,000	0
Siemens 2000 Base - AC	21,014	21,000	19,036
Siemens 2000 GE/ATP - AC	7,376	9,000	7,169

Rail Fleet Distribution – MARCH 2019

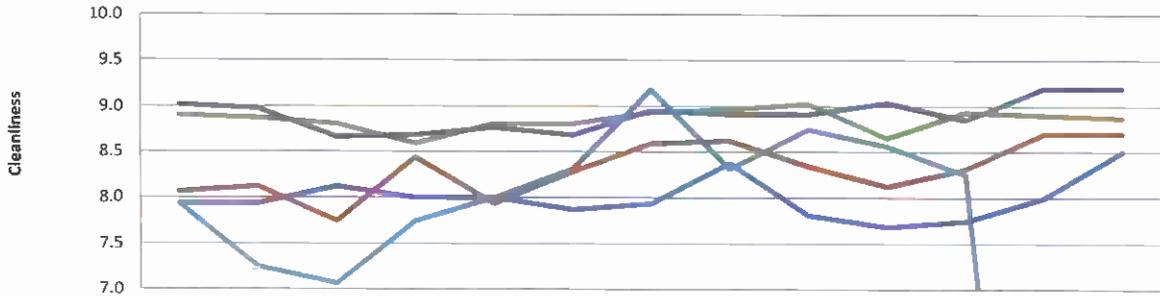
Number of Rail Vehicle Type by Division	Blue	Red / Purple	Green	Gold	Expo	Total
AnsaldoBreda 2550 Base - AC				50		50
Breda 650 Base - DC		30				30
Breda 650 Option - AC		68				68
KinkiSharyo P3010	21		19	37	89	166
Nippon Sharyo 2020 - DC	15					15
Nippon Sharyo 865 - DC						0
Siemens 2000 Base - AC	22					22
Siemens 2000 GE/ATP - AC			24			24
TOTALS	58	98	43	87	89	375

Cleanliness by Vehicle Type Mar 2019



Metro

Rail Cleanliness by General Vehicle Type



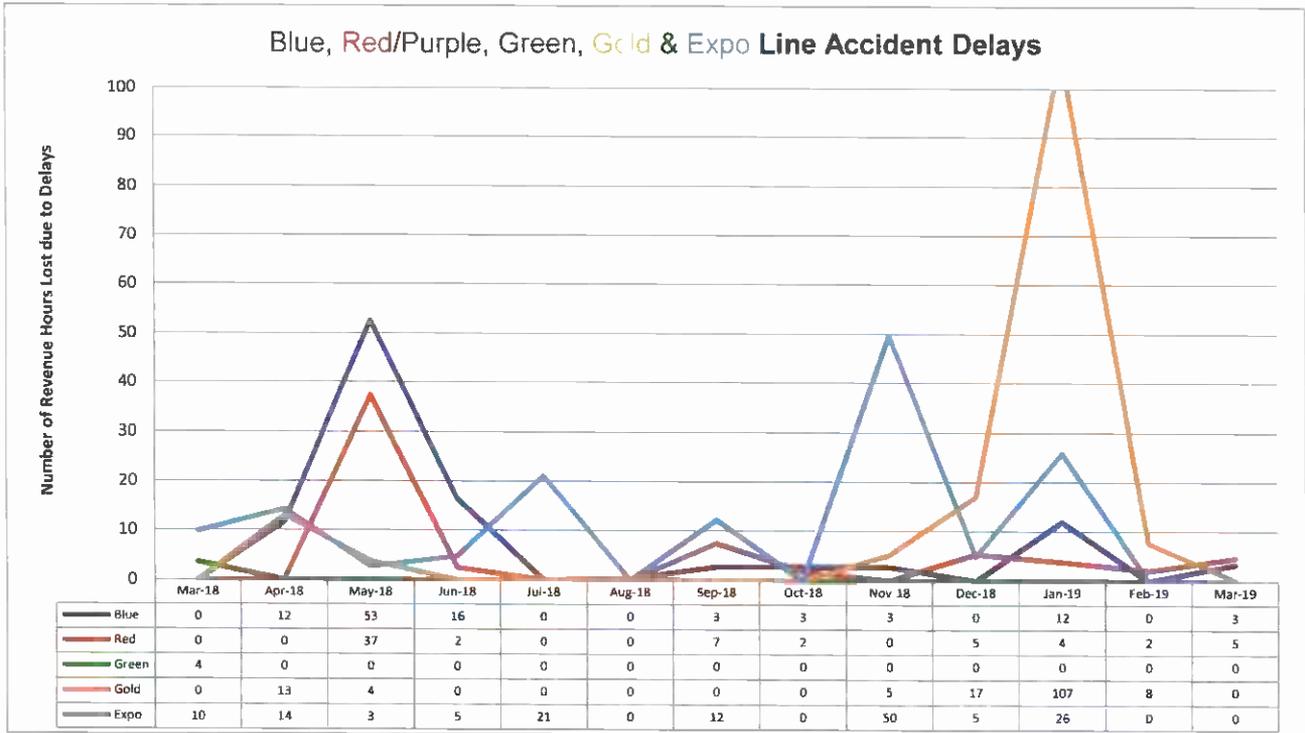
	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
A650	7.9	7.9	8.1	8.0	8.0	7.9	7.9	8.4	7.8	7.7	7.8	8.0	8.5
P2000	8.1	8.1	7.8	8.4	7.9	8.3	8.6	8.6	8.3	8.1	8.3	8.7	8.7
P2550	8.9	8.9	8.8	8.6	8.8	8.8	8.9	9.0	9.0	8.7	8.9	8.9	8.9
P3010	9.0	9.0	8.7	8.7	8.8	8.7	9.0	8.9	8.9	9.0	8.9	9.2	9.2
P865/P2020	7.9	7.3	7.1	7.8	8.0	8.3	9.2	8.3	8.8	8.6	8.3	7.0	7.0

Note: No Cleanliness inspection for P2020 - Blue Line due to closure

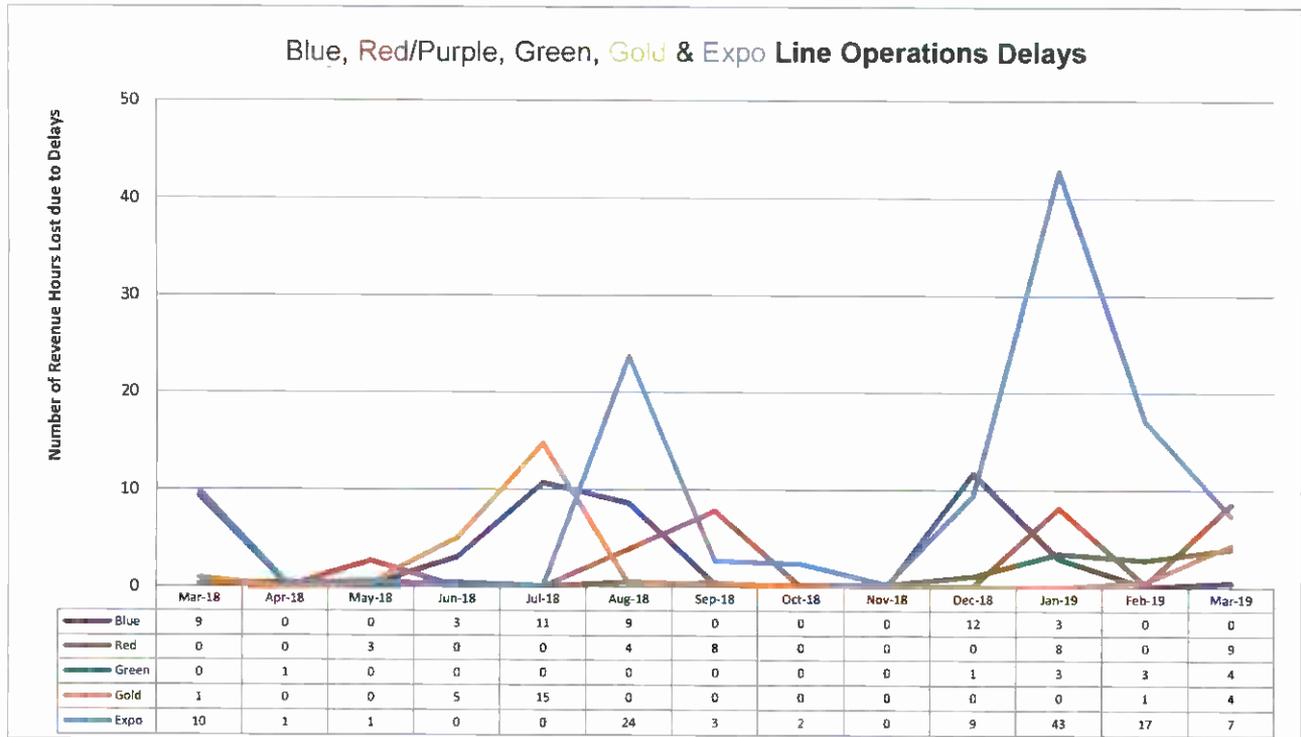
RAIL DELAYS BY CATEGORY - SYSTEMWIDE

Revenue Hours Lost Related to - ACCIDENTS

Mar 2019

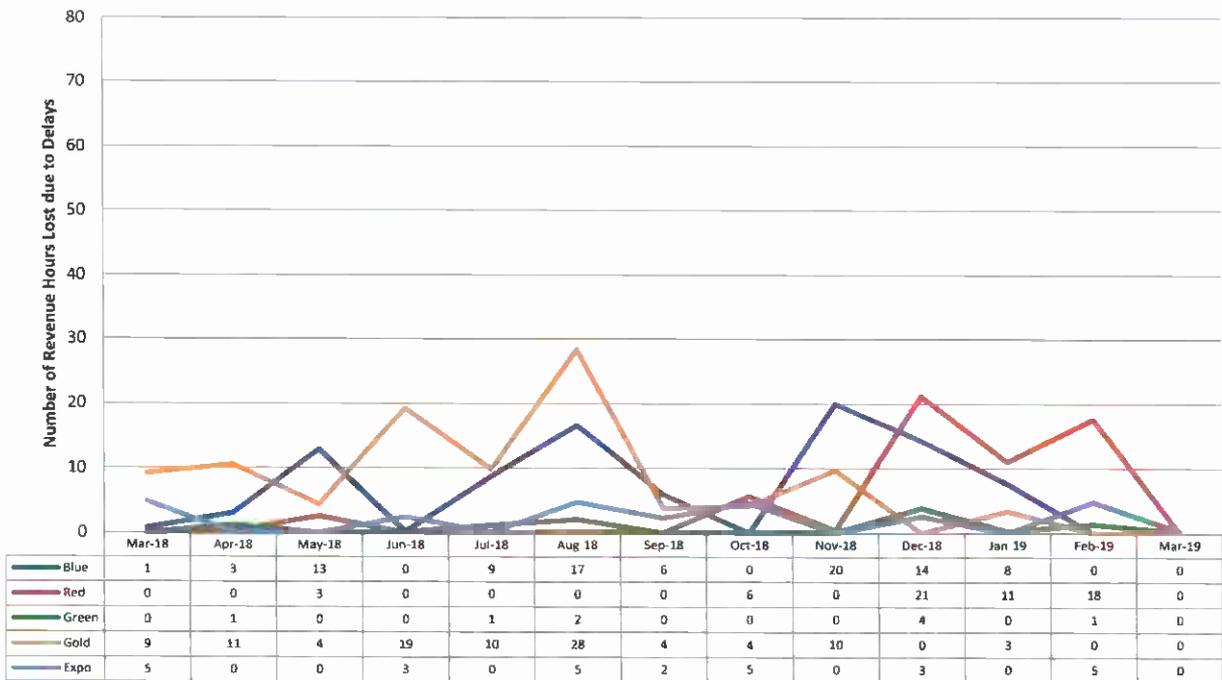


Revenue Hours Lost Related to - OPERATIONS



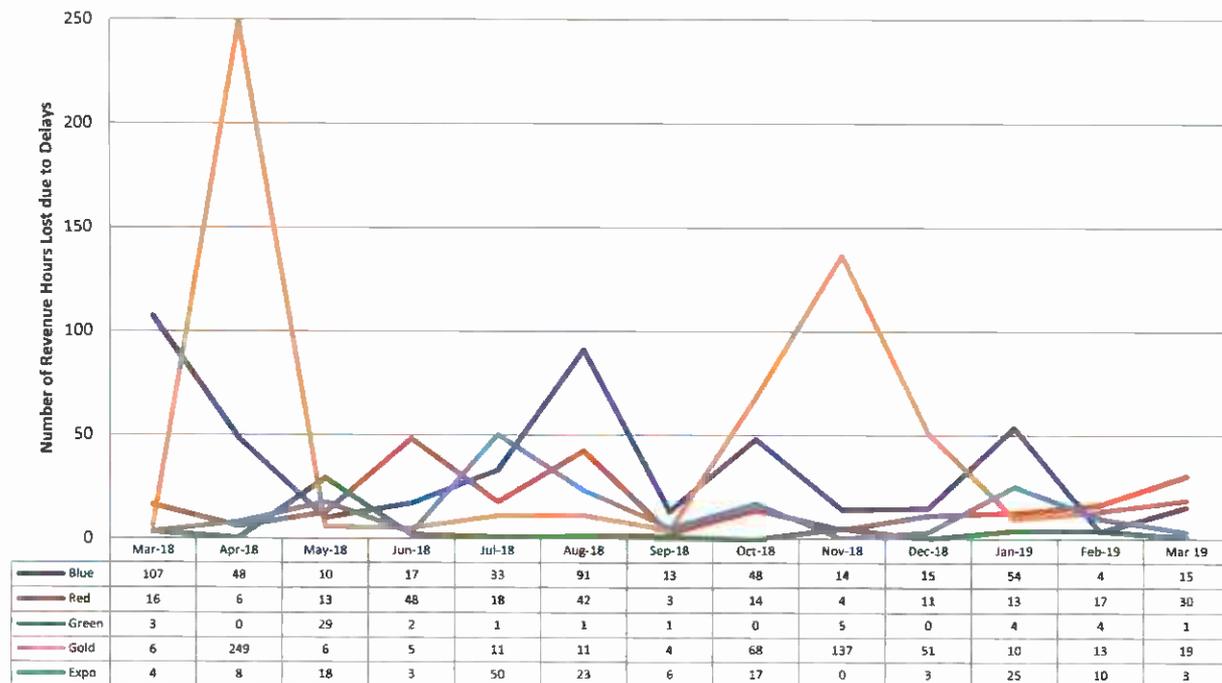
Revenue Hours Lost Related to - OTHER

Blue, Red/Purple, Green, Gold & Expo Line Other Delays



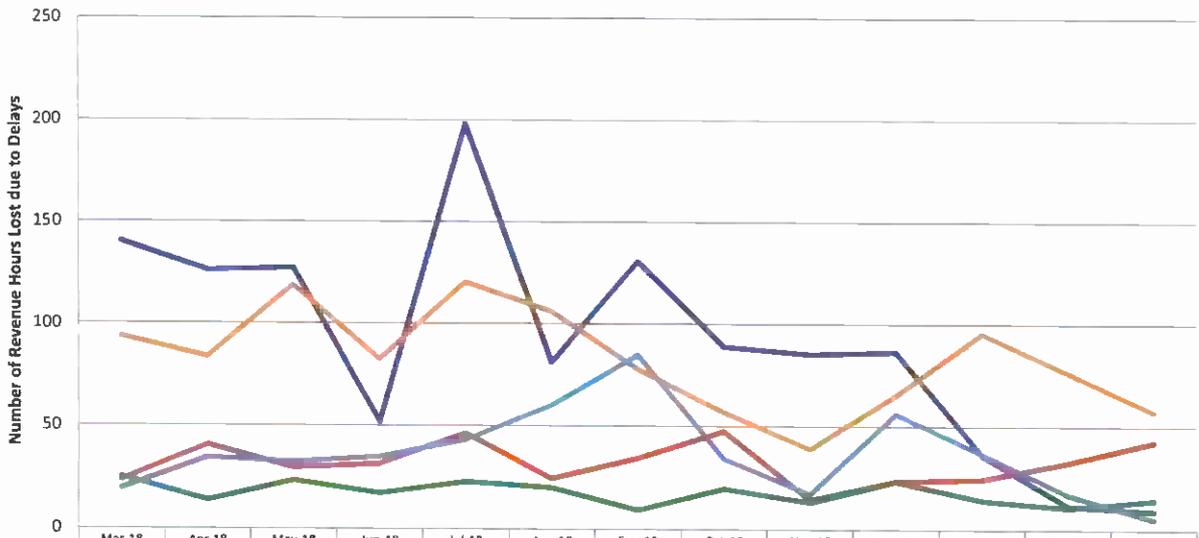
Revenue Hours Lost Related to - POLICE & HEALTH

Blue, Red/Purple, Green, Gold & Expo Line Police & Health Delays



Revenue Hours Lost Related to - Vehicle Delays

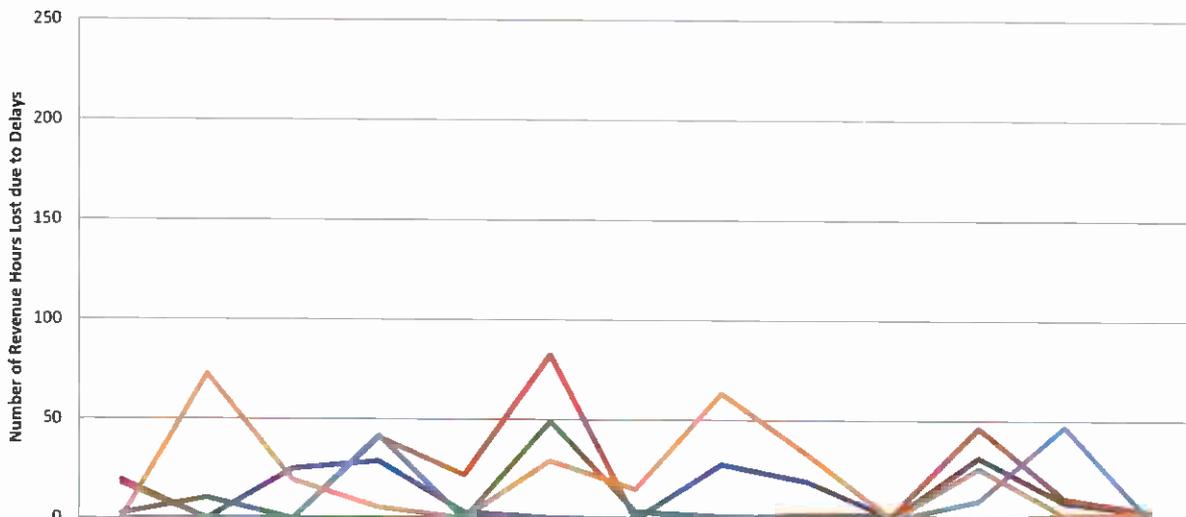
Blue, Red/Purple, Green, Gold & Expo Line Vehicle Delays



	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
Blue	141	126	127	52	198	81	131	89	86	87	36	12	9
Red	24	41	30	31	46	25	35	48	15	24	25	33	43
Green	25	14	24	17	23	20	9	20	13	23	14	11	15
Gold	94	84	119	83	121	106	78	57	39	66	96	77	57
Expo	20	34	32	35	43	60	85	34	17	56	37	17	5

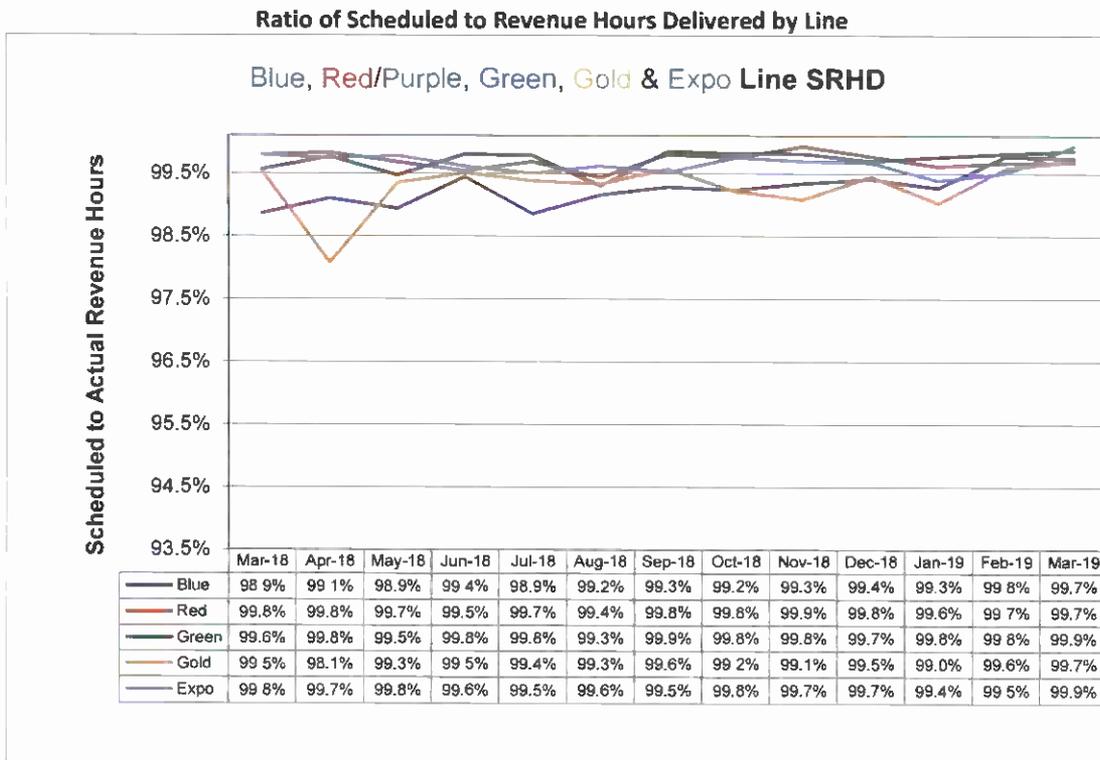
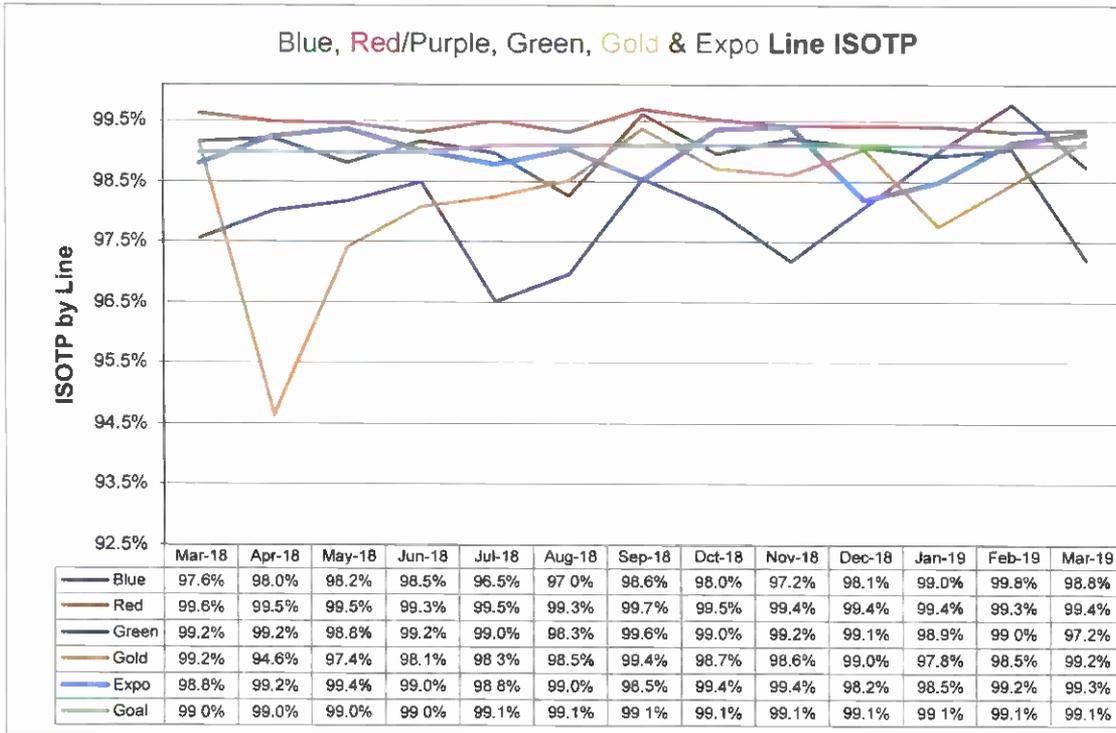
Revenue Hours Lost Related to - WAYSIDE

Blue, Red/Purple, Green, Gold & Expo Line Wayside Delays



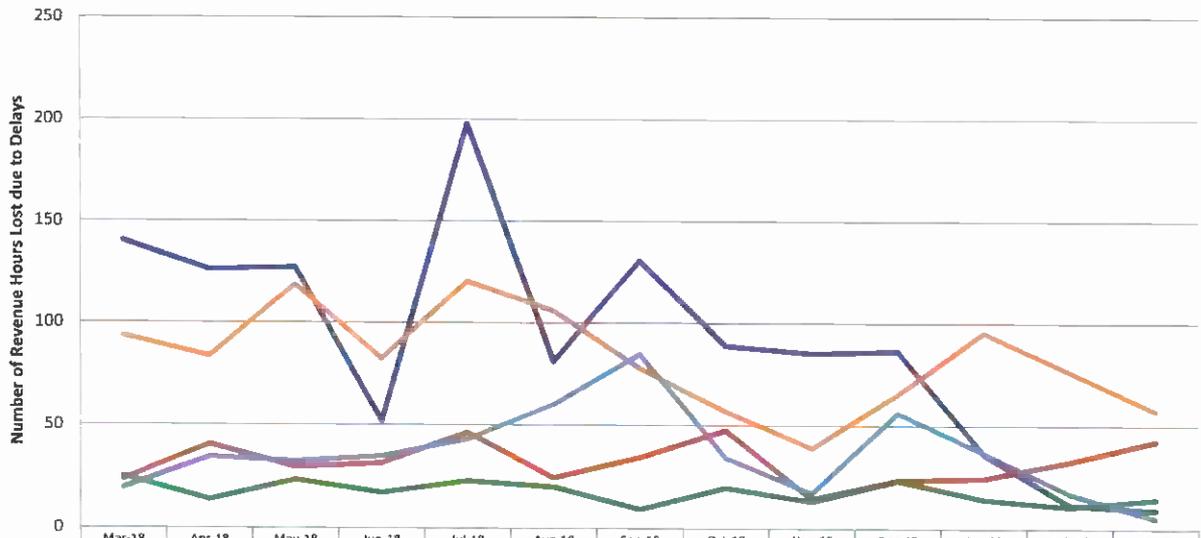
	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
Blue	19	0	25	29	4	1	0	28	19	1	31	9	4
Red	18	0	0	41	22	83	0	0	3	3	46	11	4
Green	2	10	0	0	0	49	4	2	1	2	0	2	1
Gold	0	73	20	6	0	29	15	63	33	0	26	3	4
Expo	0	0	0	42	0	0	0	0	0	0	10	47	0

Rail Service Performance In Service On Time Performance by Line Mar 2019



Revenue Hours Lost Related to - Vehicle Delays

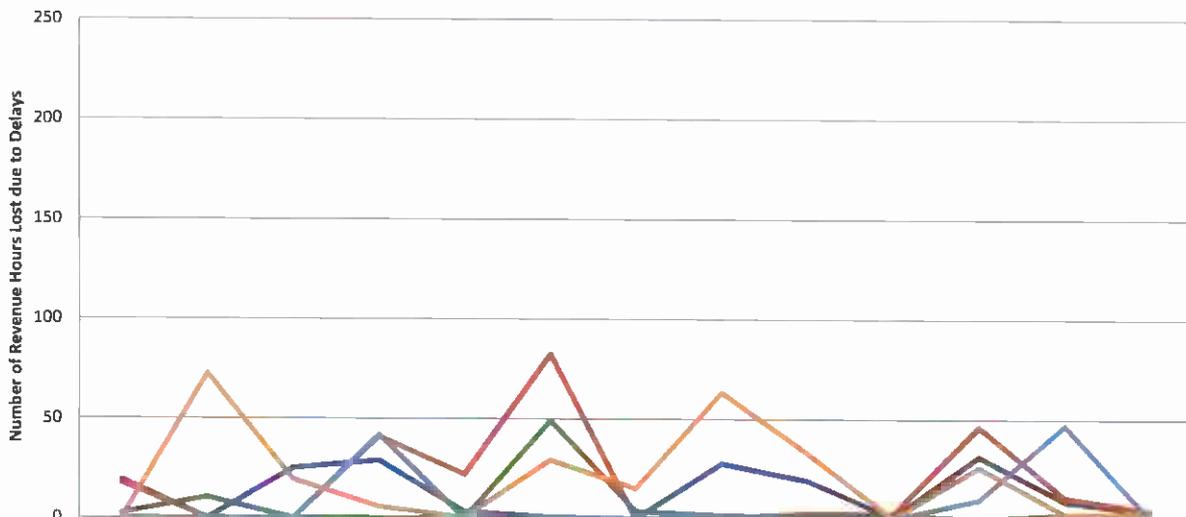
Blue, Red/Purple, Green, Gold & Expo Line Vehicle Delays



	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
Blue	141	126	127	52	198	81	131	89	86	87	36	12	9
Red	24	41	30	31	46	25	35	48	15	24	25	33	43
Green	25	14	24	17	23	20	9	20	13	23	14	11	15
Gold	94	84	119	83	121	106	78	57	39	66	96	77	57
Expo	20	34	32	35	43	60	85	34	17	56	37	17	5

Revenue Hours Lost Related to - WAYSIDE

Blue, Red/Purple, Green, Gold & Expo Line Wayside Delays

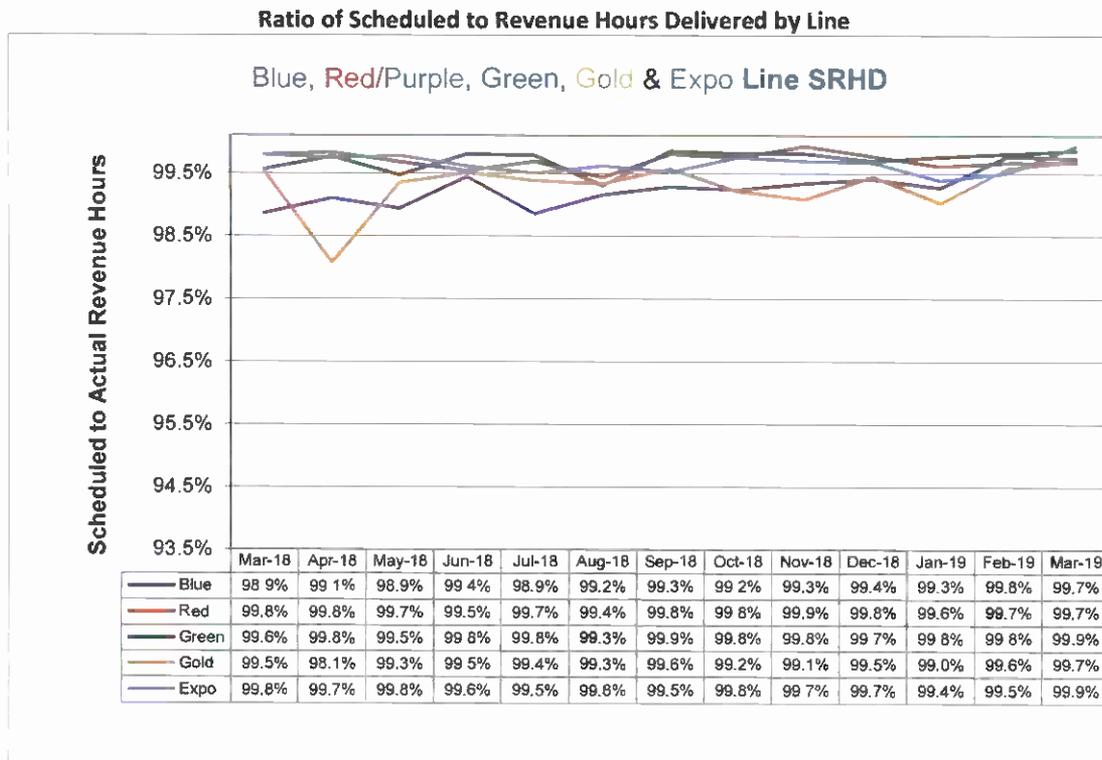
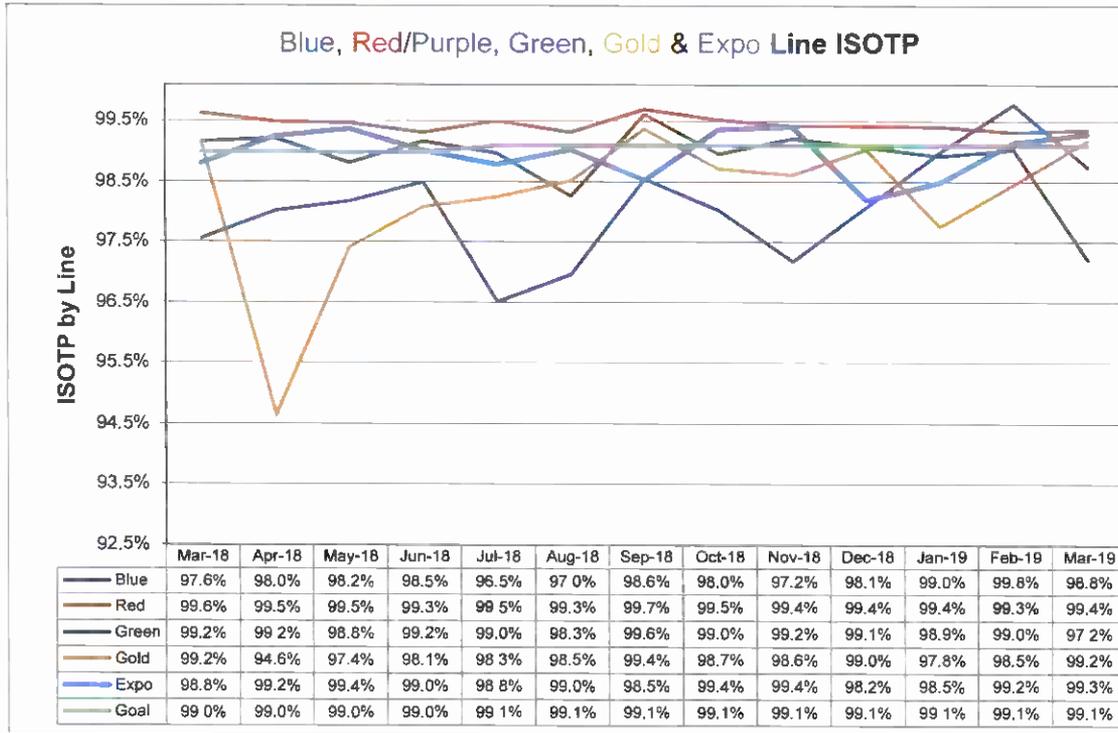


	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
Blue	19	0	25	29	4	1	0	28	19	1	31	9	4
Red	18	0	0	41	22	83	0	0	3	3	46	11	4
Green	2	10	0	0	0	49	4	2	1	2	0	2	1
Gold	0	73	20	6	0	29	15	63	33	0	26	3	4
Expo	0	0	0	42	0	0	0	0	0	0	10	47	0

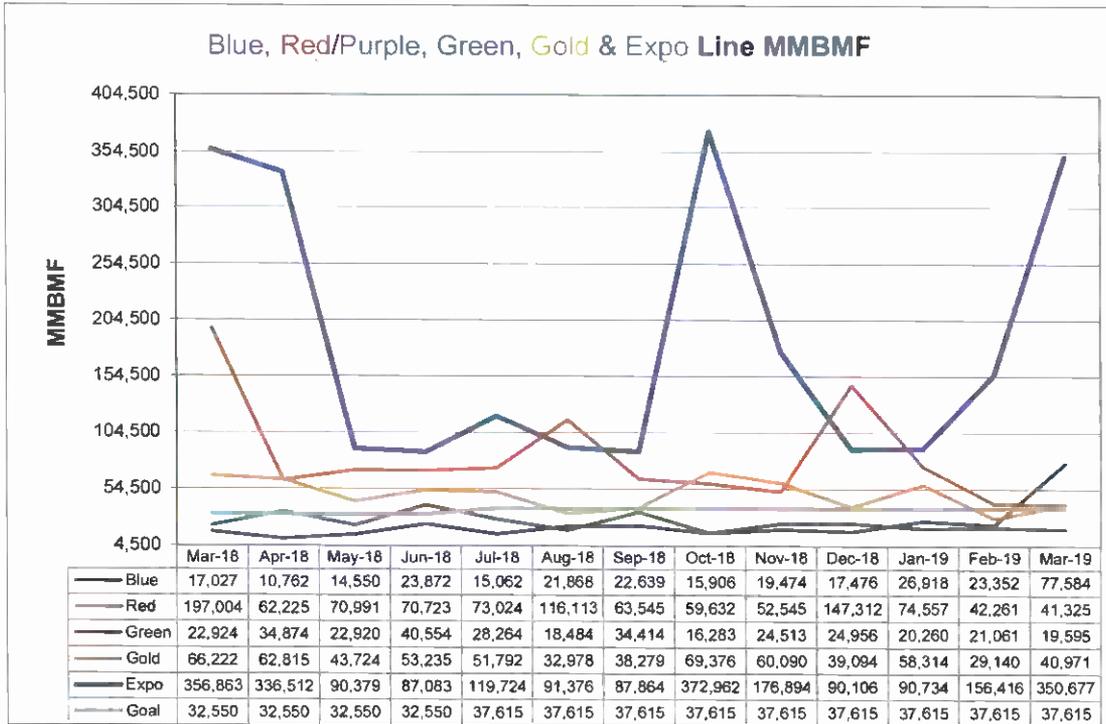
Rail Service Performance

In Service On Time Performance by Line

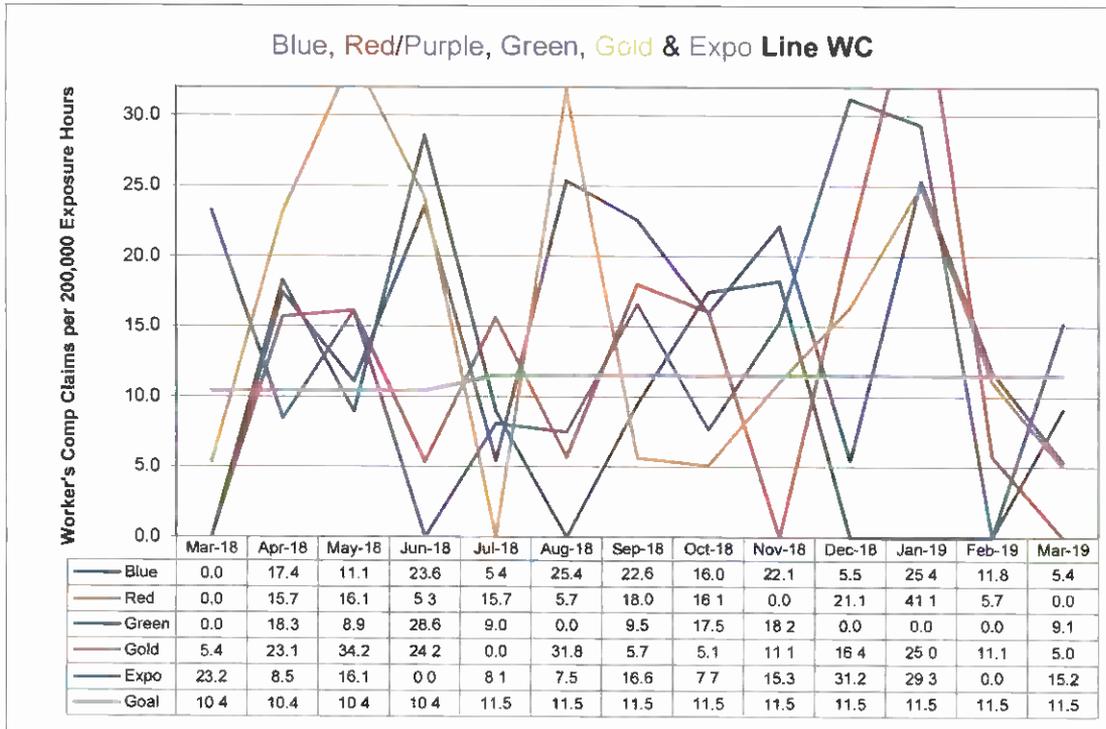
Mar 2019



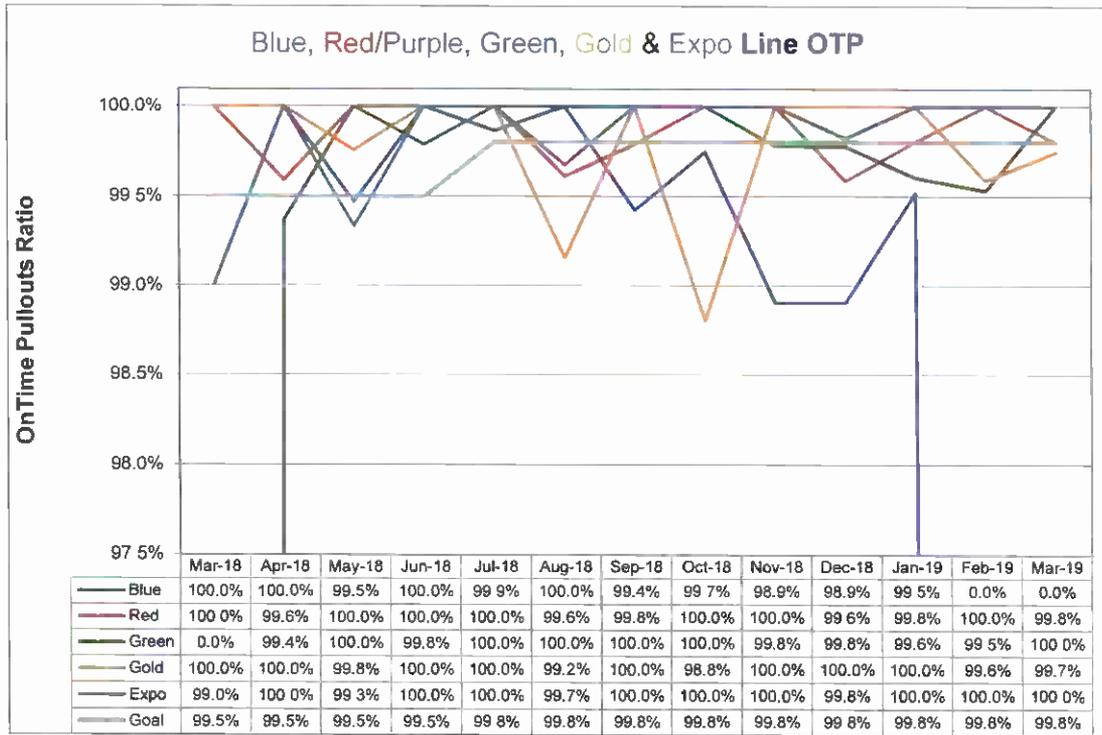
Mean Miles Between Mechanical Failures by Line



Workers Comp Claims by Line



On-Time Pullouts Ratio by Line

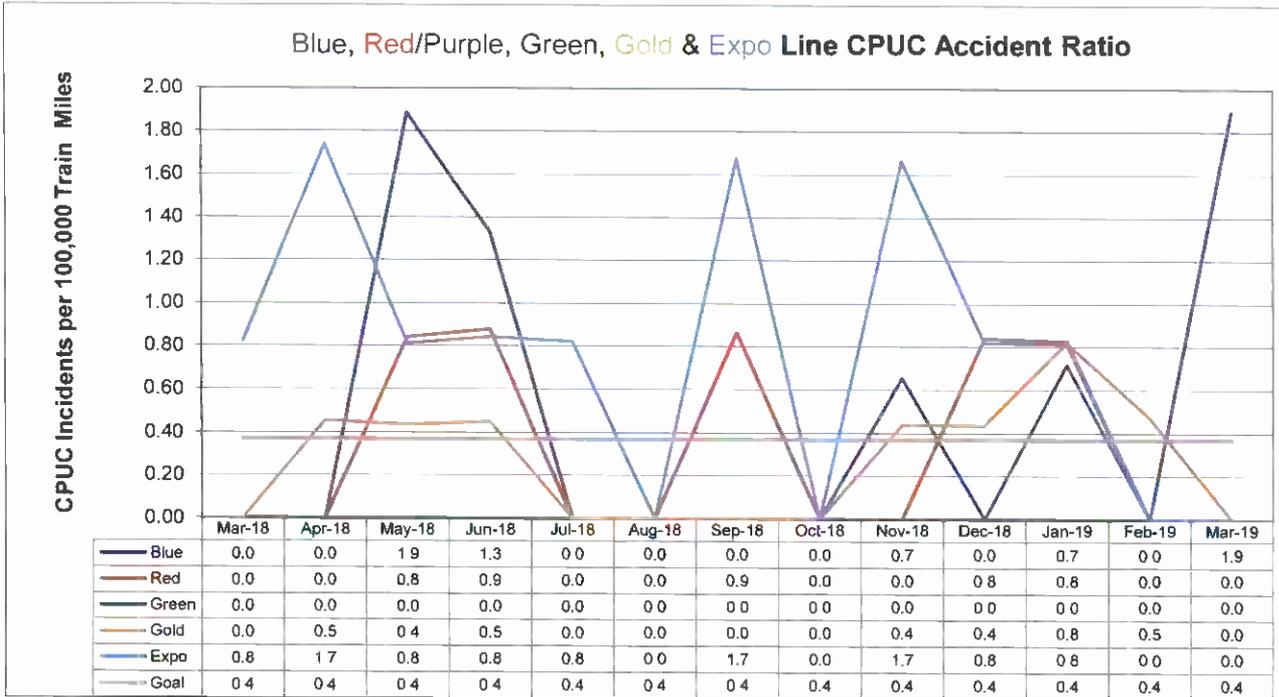


Due to Blue Line construction, Blue Line is pulling out of Division 14 - Expo Line.

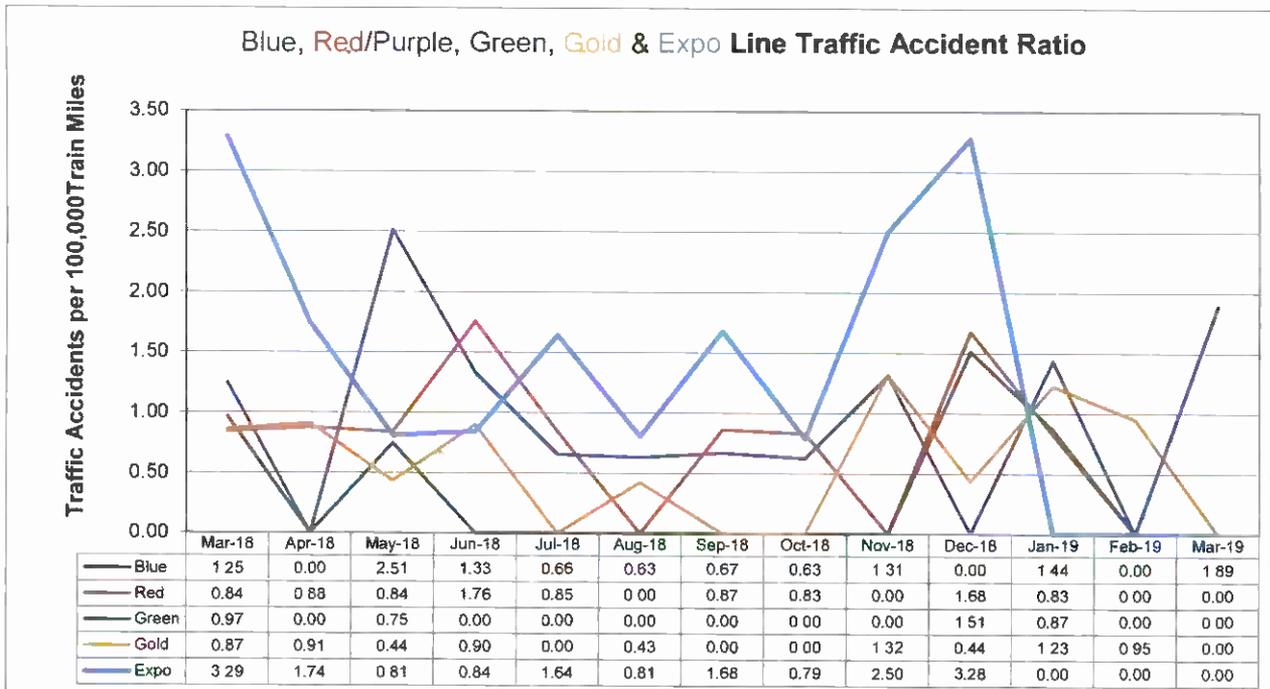
Rail Safety Performance

CPUC REPORTABLE INCIDENTS PER 100,000 TRAIN MILES

Mar 2019

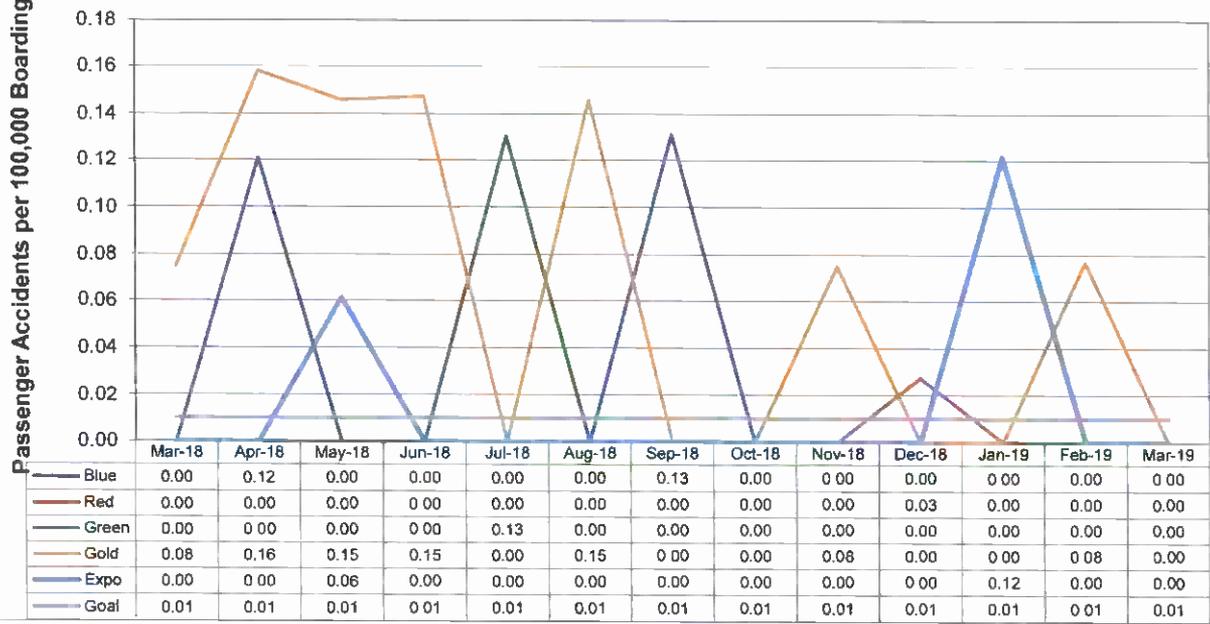


TRAFFIC ACCIDENTS PER 100,000 TRAIN MILES

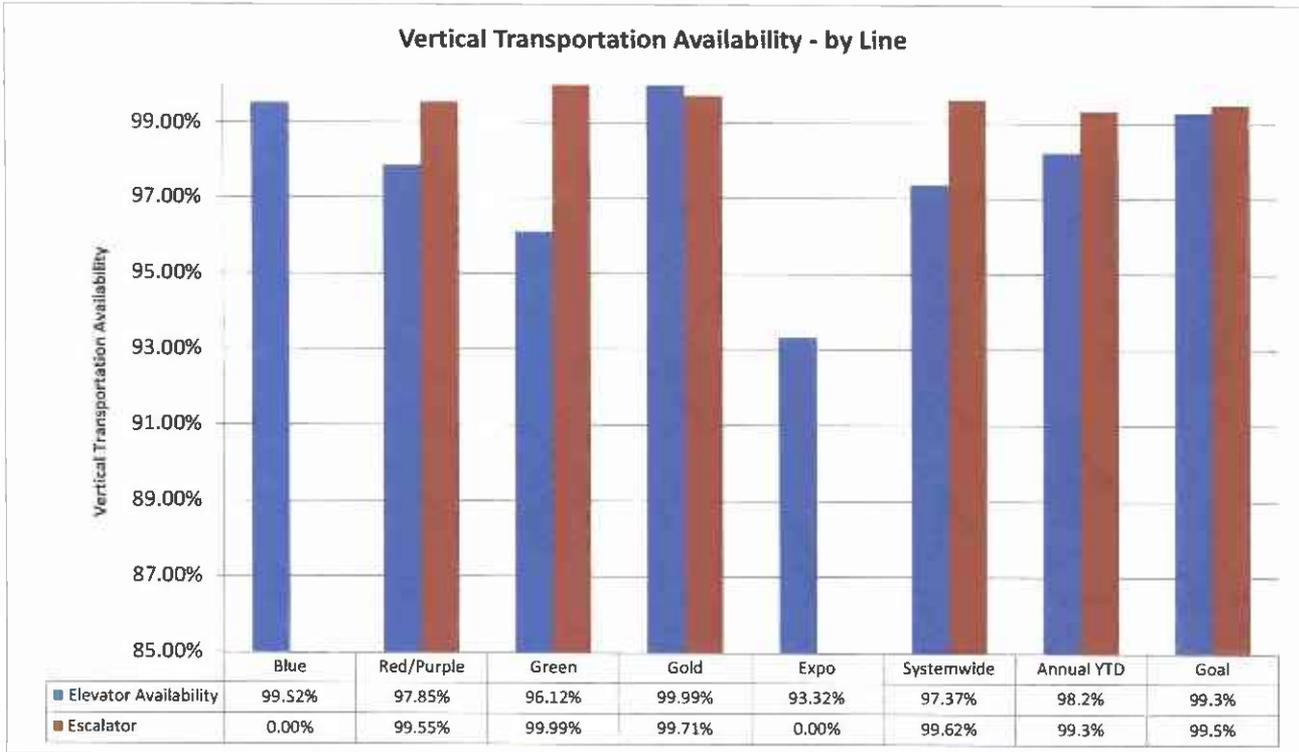


PASSENGER ACCIDENTS PER 100,000 BOARDINGS

Blue, Red/Purple, Green, Gold & Expo Line Passenger Accident Ratio

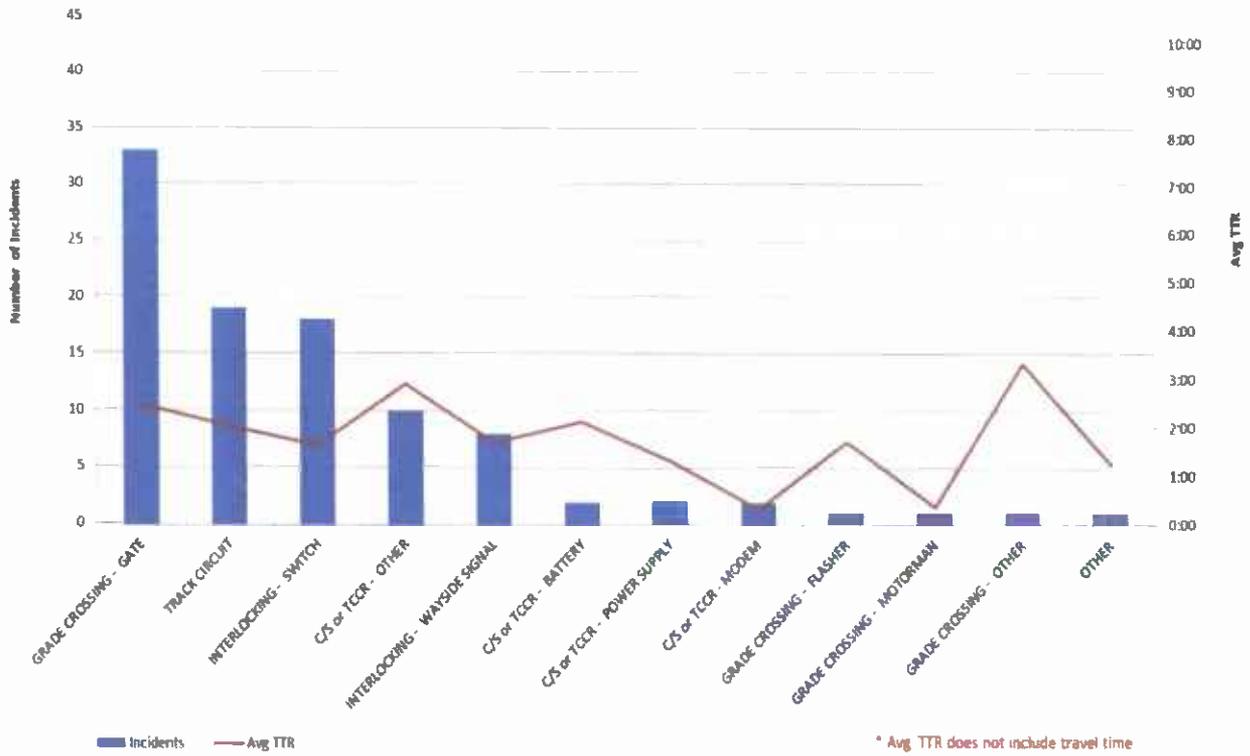


Systemwide Vertical Transportation Availability by Line Mar 2019

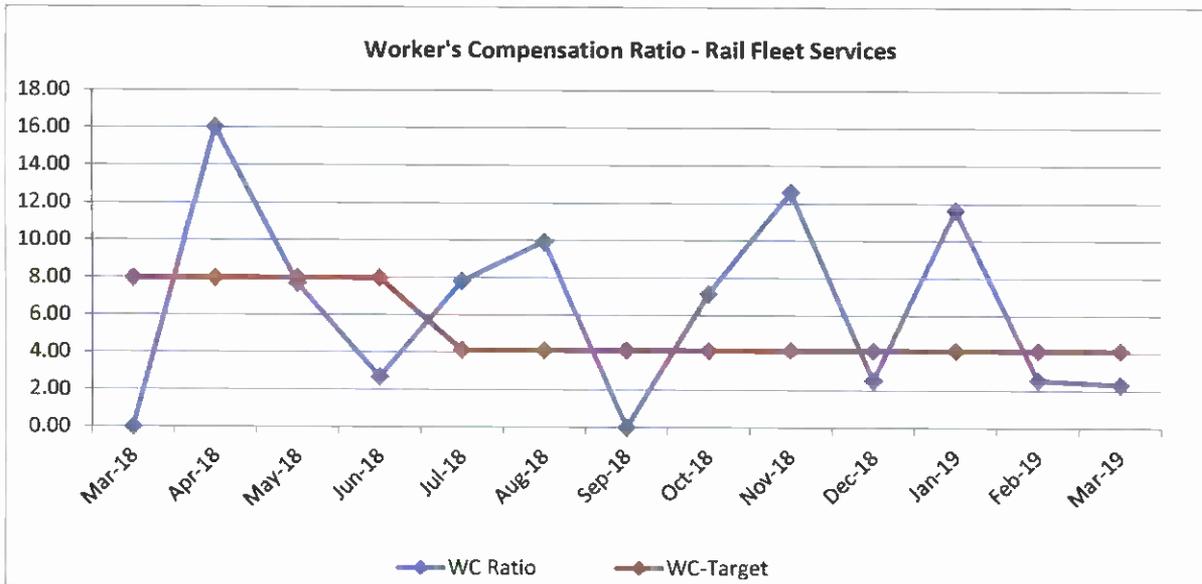
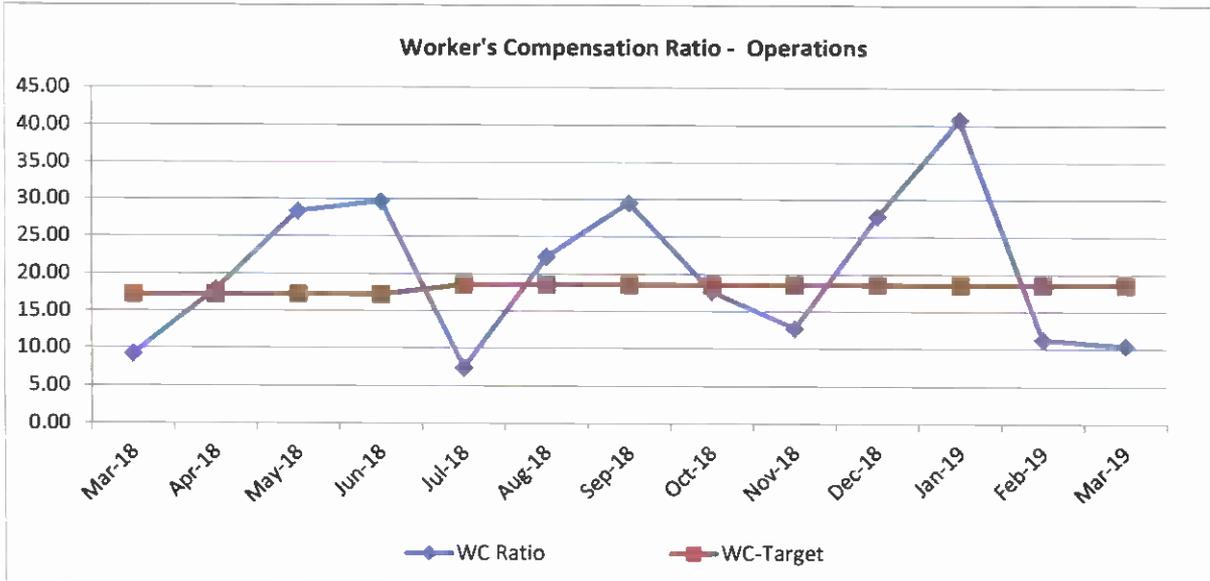


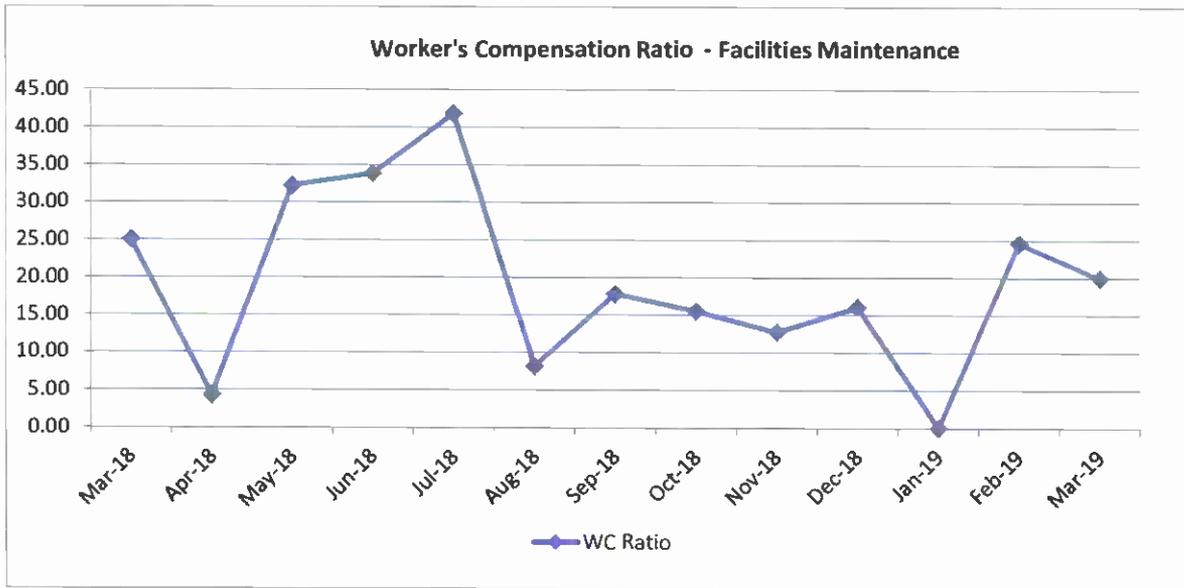
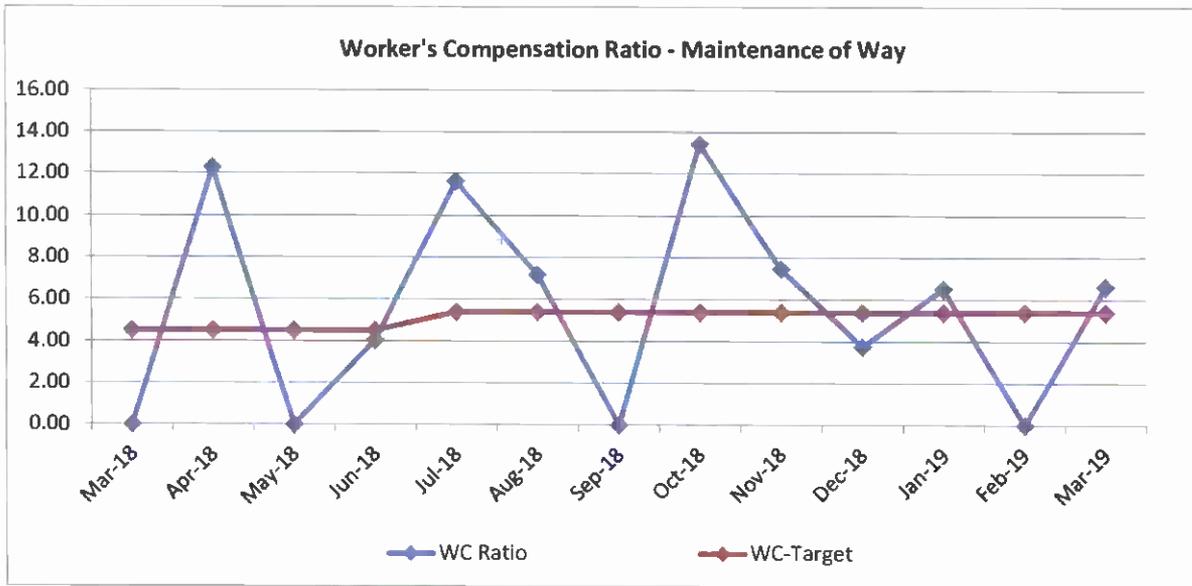
Note: No Escalators at Blue and Expo Lines

Wayside Signal Maintenance
 [Incidents & Avg Time-To-Repair (TTR)]
 March 2019

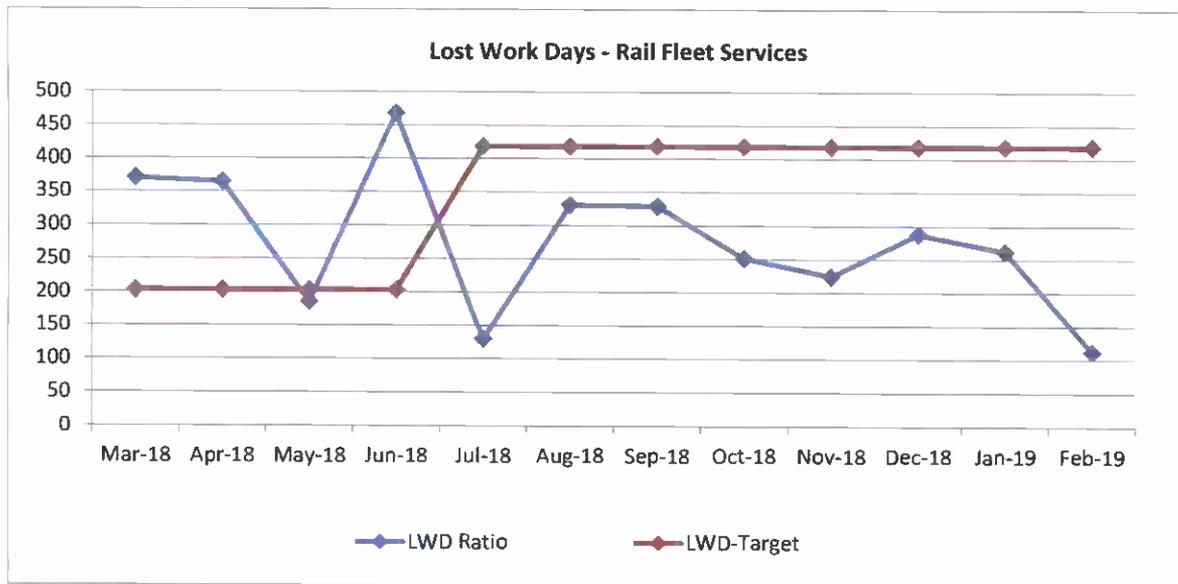
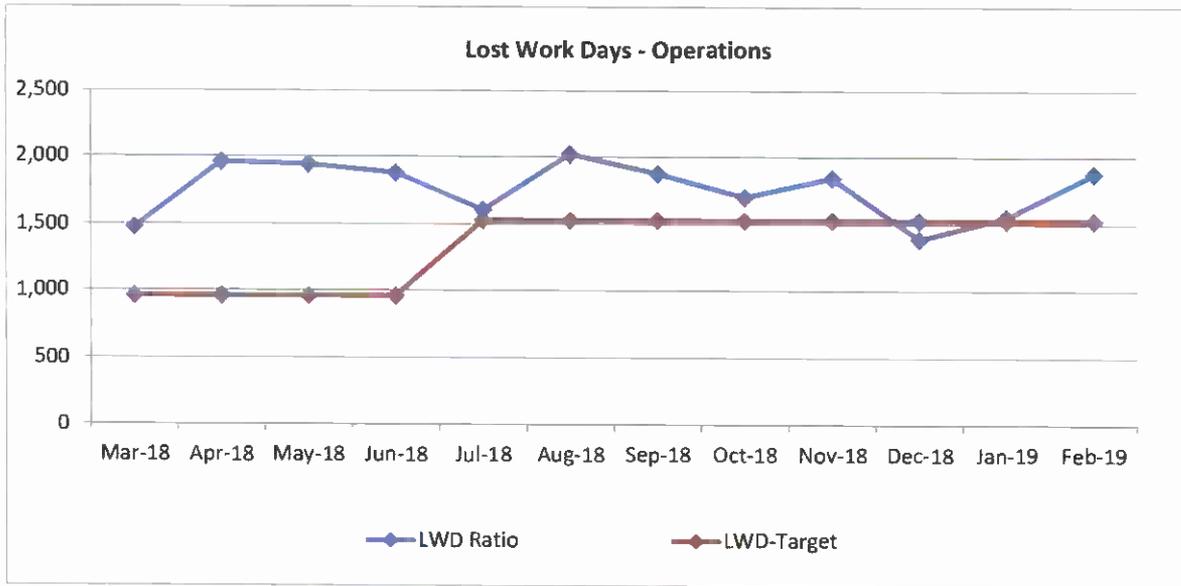


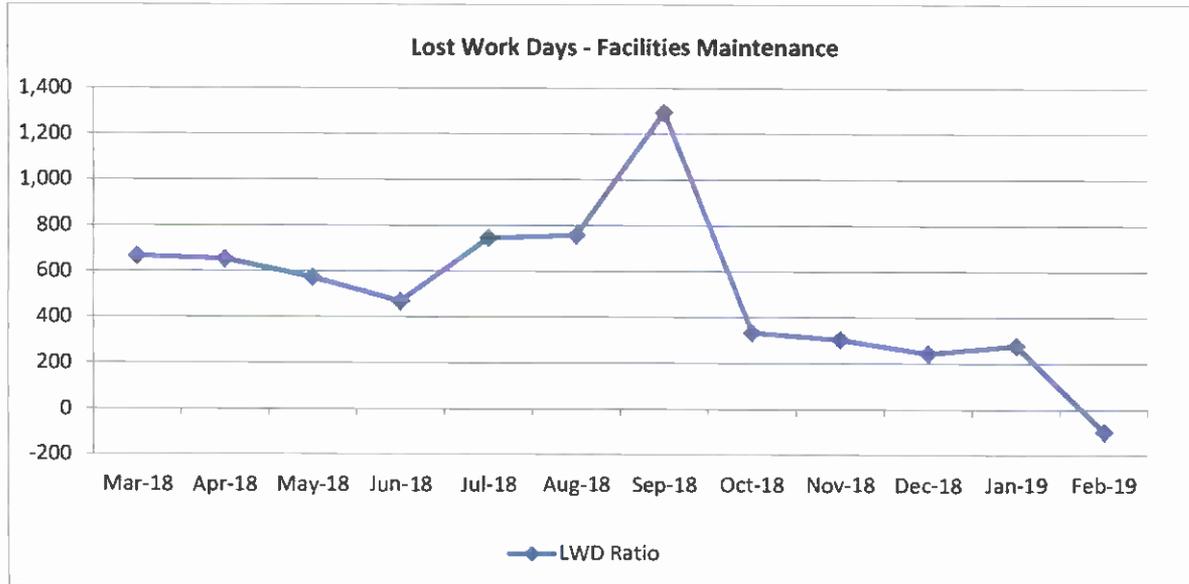
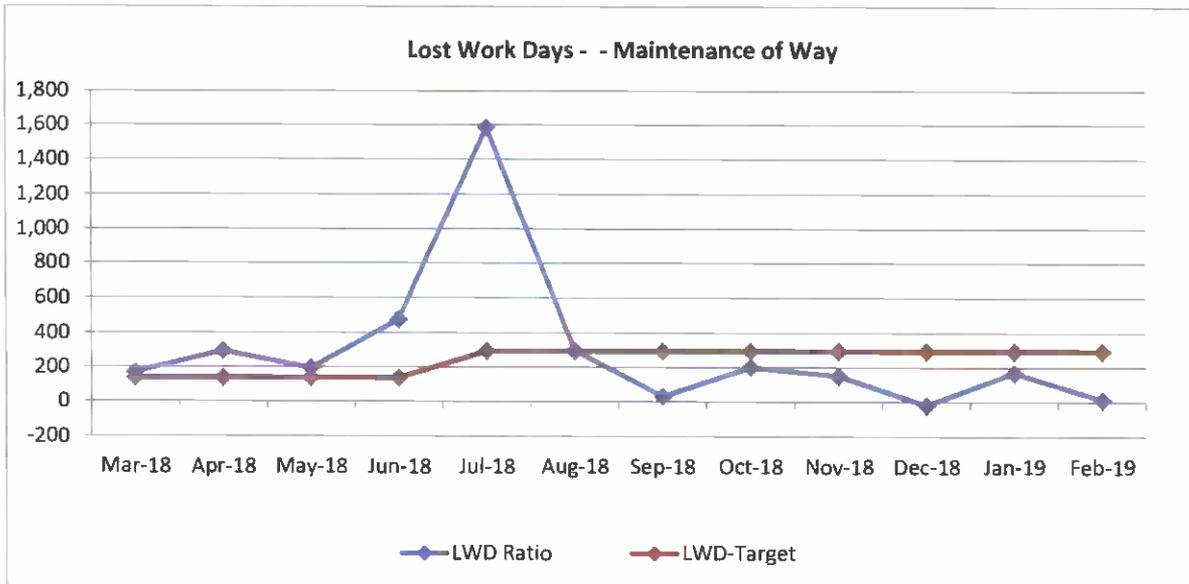
Administrative Key Performance Indicators Worker's Compensation, Lost Work Days, OSHA Mar 2019



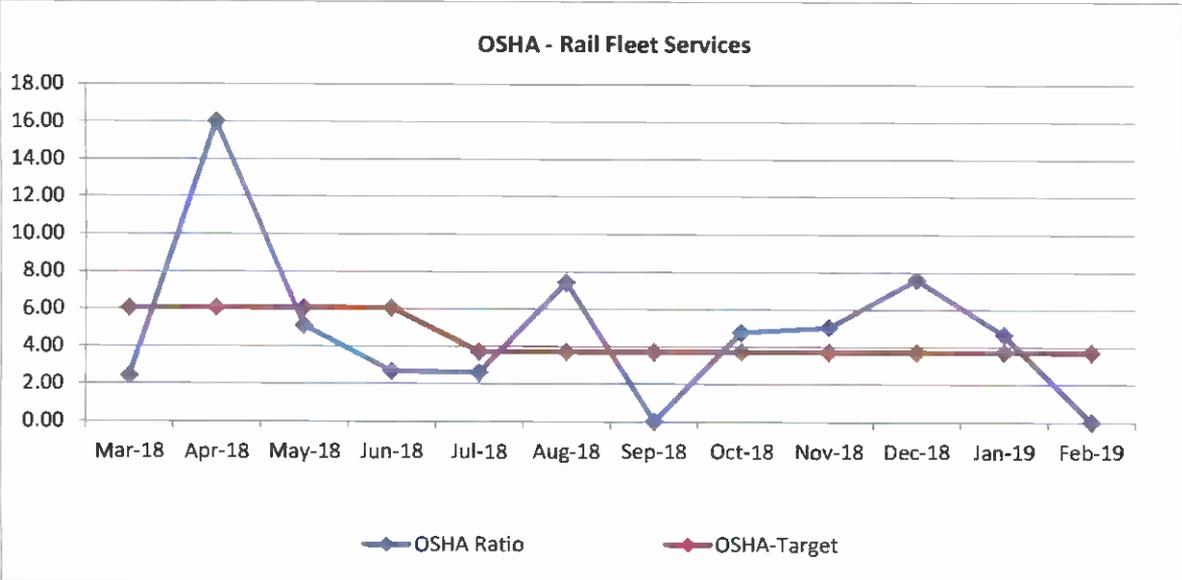
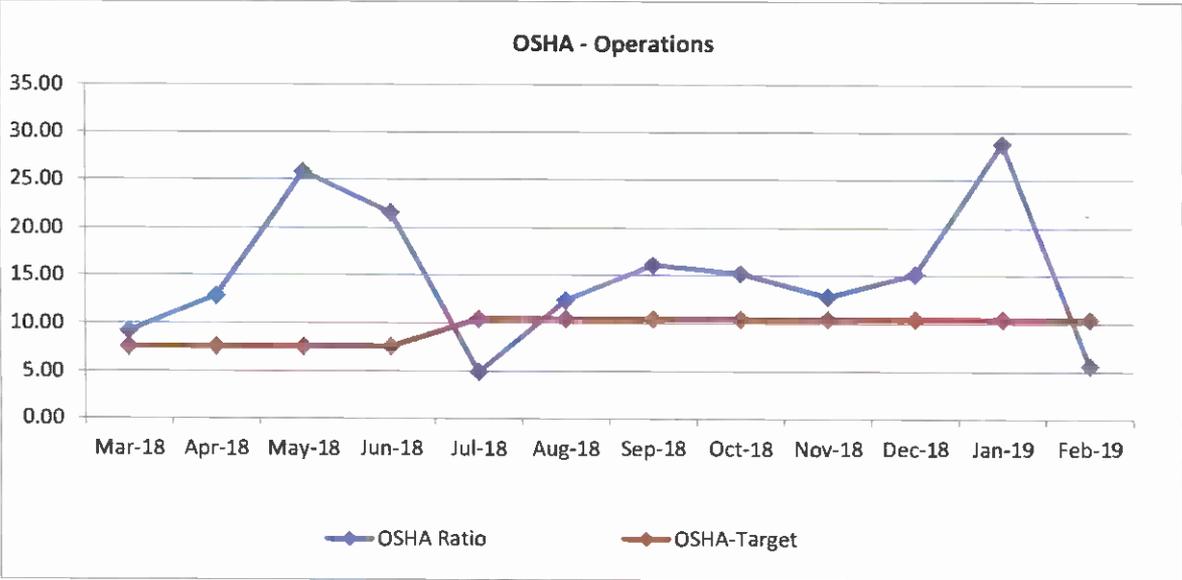


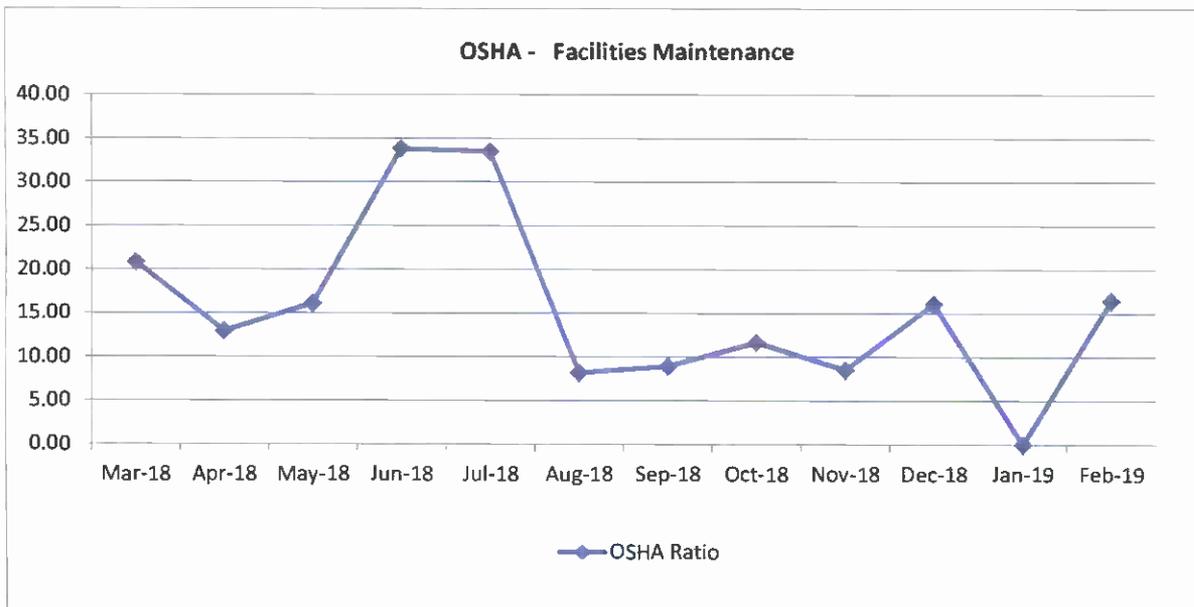
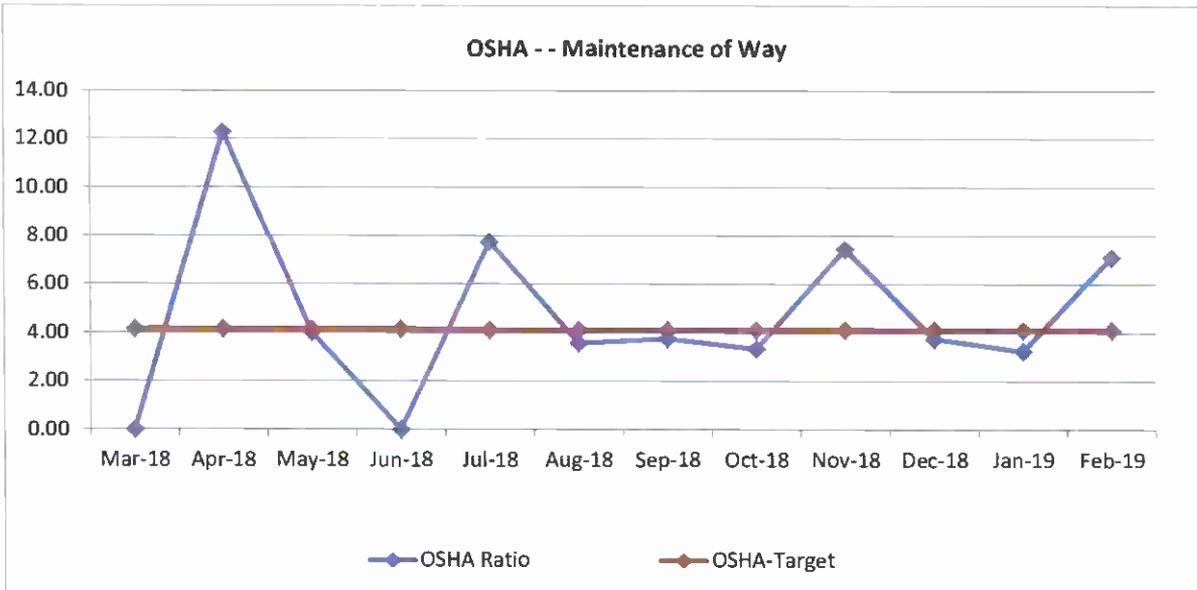
Facilities Maintenance goals to be established.





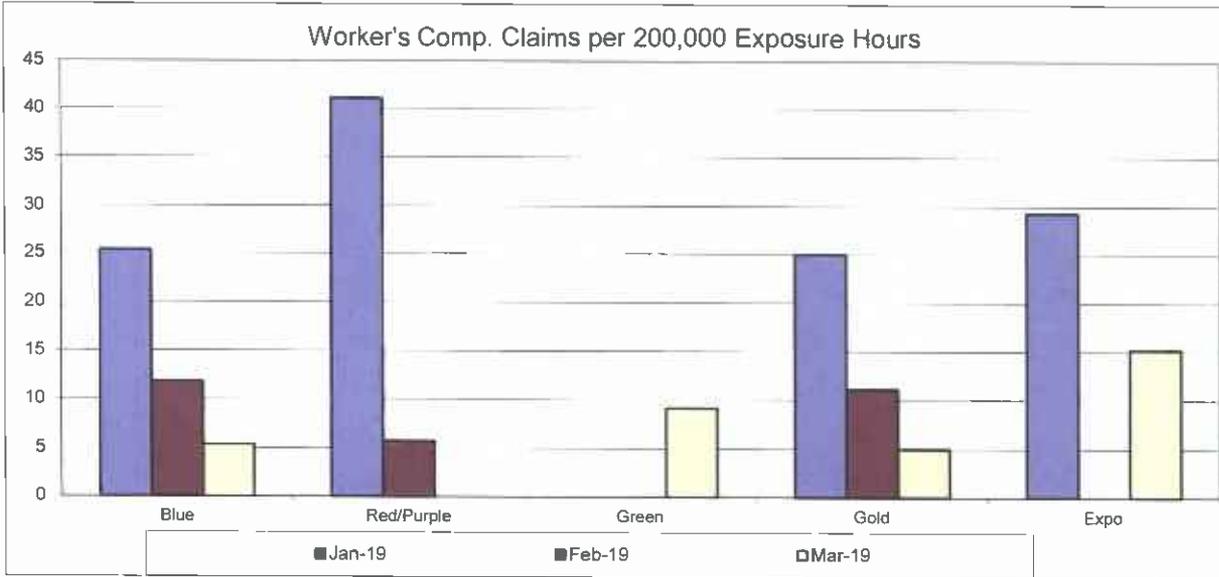
Facilities Maintenance goals to be established.



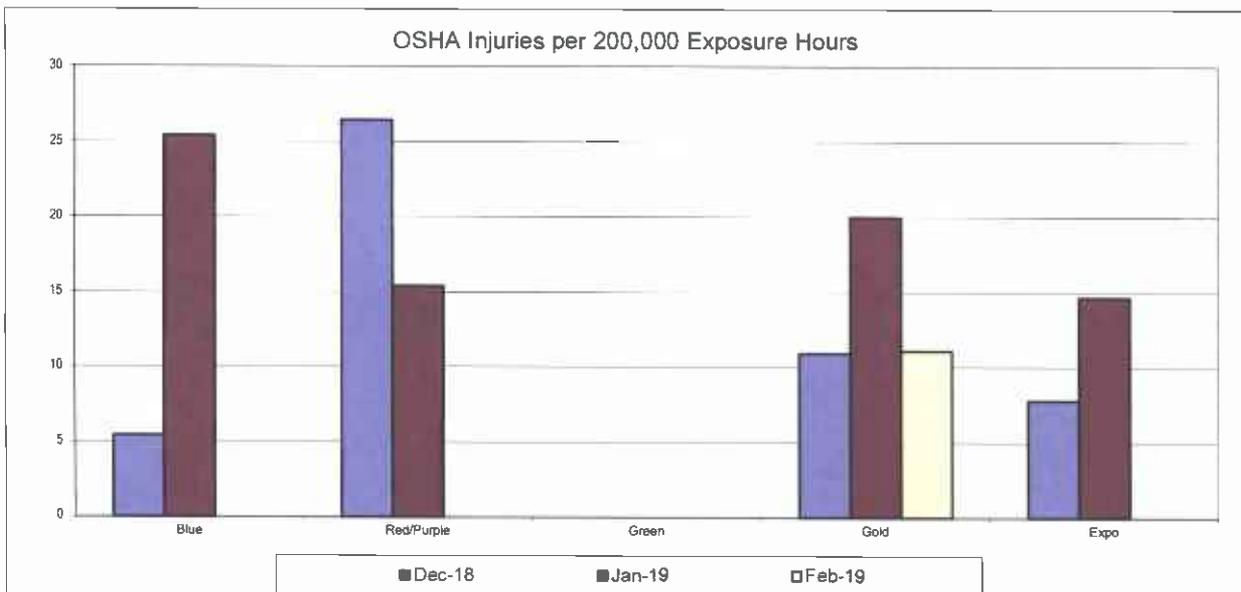
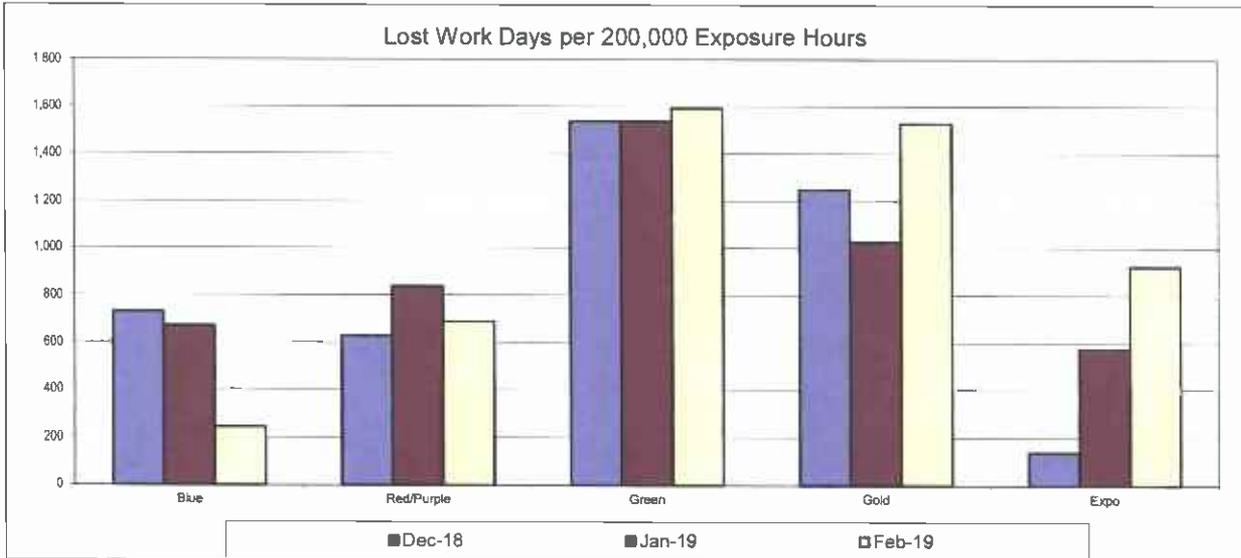


Facilities Maintenance goals to be established.

Worker's Comp. Claims
Jan 2019 - Mar 2019
3 Month Comparison



Lost Work Days and OSHA Injuries
Dec 2018 - Feb 2019
3 Month Comparison



Note: There is a one month lag in Lost Work Days and OSHA data.

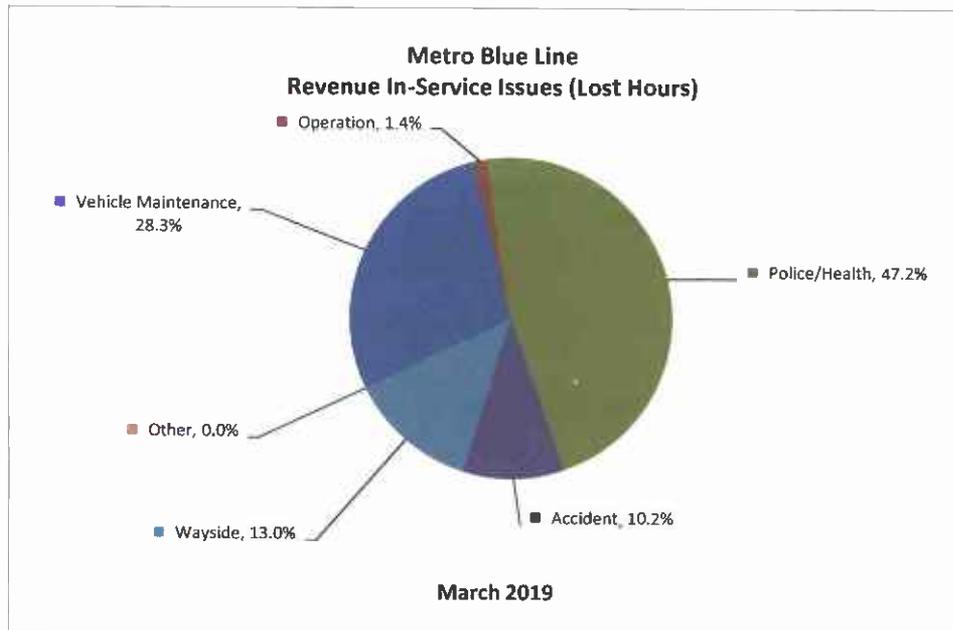
BLUE LINE

Out of a total of 11,281 hours operated, there were approximately 33 total hours of service delays.

March 2019 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	11,248	99.7%
Cancelled + Delayed Hours	33	0.3%
Total Revenue Hours	11,281	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	3	0.5	1.4%
Accidents	1	3.3	10.2%
Vehicle Maintenance	7	9.3	28.3%
Wayside	3	4.2	13.0%
Police & Health	9	15.4	47.2%
Other	0	0.0	0.0%
Total	23	32.6	100.0%

* Data from M3 used to report Service Delays is under review for accuracy
 The number of incidents on the following page may differ from the summary count due to some incidents not properly designated as cancelled or delayed



March 2019 Blue Line incidents causing delay were as follows:

Operations Incidents:

3/9/2019 8:32:00 AM - Incident# 3124003 (0 lost trips, 12 lost minutes)

Track personnel (MT-111, 150, 152 + 1 other) are requesting authorization to enter the ROW

3/11/2019 10:34:00 AM - Incident# 3124646 (0 lost trips, 5 lost minutes)

Train departed 5 minutes late due to operator working Alpha Frank doing unauthorized line rides.

3/31/2019 12:50:00 AM - Incident# 3132907 (0 lost trips, 10 lost minutes)

Operator reports an individual in coupler section.

Accidents:

3/22/2019 2:08:00 PM - Incident# 3129774 (1 lost trip, 199 lost minutes)

Train operator reports of a train vs. accident at the intersection of Washington and Los Angeles street.

Vehicle Maintenance Incidents:

3/5/2019 4:49:00 AM - Incident# 3121909 (1 lost trip, 174 lost minutes)

Friction Brakes (Self applying and emergency braking)

(1107A)-1087-1084

Train 682

T-132

Florence, Northbound, Track 1

3/6/2019 9:35:00 AM - Incident# 3122597 (0 lost trips, 4 lost minutes)

Windshield wiper broken

train# 606 T-076 Car 1135A-1132-1039

northbound at 103rd street station.

3/6/2019 11:37:00 PM - Incident# 3122913 (2 lost trips, 348 lost minutes)

Doors will not open

Train #691, T-34

(1051)-1071-1004

SB, San Pedro Station, Track #2

3/10/2019 9:37:00 AM - Incident# 3124251 (0 lost trips, 12 lost minutes)

Operator reports of no movement at the Vernon Station

Train 605

T-115

(1065)1067-1023

Vernon Station, Trk. 2, Southbound

3/19/2019 5:17:00 AM - Incident# 3128030 (0 lost trips, 7 lost minutes)

Propulsion / Dynamic Brakes, TOD, PA

(1117)-1139-1090

Train 684

T-42

Metro Center, Southbound, Track 2

3/20/2019 8:40:00 AM - Incident# 3128584 (0 lost trips, 5 lost minutes)

Train with speed restriction

train #603 T-053 car#1069-1040-1063

southbound at Slauson.

3/25/2019 6:54:00 AM - Incident# 3130548 (0 lost trips, 5 lost minutes)

Train 602, Cars 1069, 1062, and (1016).

Slauson station, northbound track 1.

Prop fault with speed restriction.

Wayside Incidents:

3/12/2019 10:39:00 AM - Incident# 3125118 (0 lost trips, 30 lost minutes)

Florence Interlocking switch out of correspondence 12A and 12B.

3/25/2019 8:52:00 AM - Incident# 3130922 (0 lost trips, 30 lost minutes)
MT-124 requested to do track welding repair on track #2.

3/28/2019 5:19:00 AM - Incident# 3131905 (1 lost trip, 194 lost minutes)
Loss Power at the Junction.

Police & Health Incidents:

3/1/2019 4:49:00 PM - Incident# 3120738 (0 lost trips, 14 lost minutes)
Fight on board train

3/12/2019 7:00:00 AM - Incident# 3125010 (0 lost trips, 4 lost minutes)
Woman removed from train with lots of bags.

3/13/2019 7:15:00 PM - Incident# 3125836 (0 lost trips, 6 lost minutes)
Train 606
T-043
Northbound
Track #1
(1117)-1139-1090
individual, female, African American causing a disturbance on the train.

3/14/2019 8:46:00 PM - Incident# 3126328 (1 lost trip, 174 lost minutes)
Suspect of an assault at Firestone Station

3/19/2019 2:05:00 PM - Incident# 3128250 (0 lost trips, 4 lost minutes)
Sick individual on train 607. Complaints of leg pain
R-178
1064-(10328)-1066
Track 2
Metro Center
South Bound

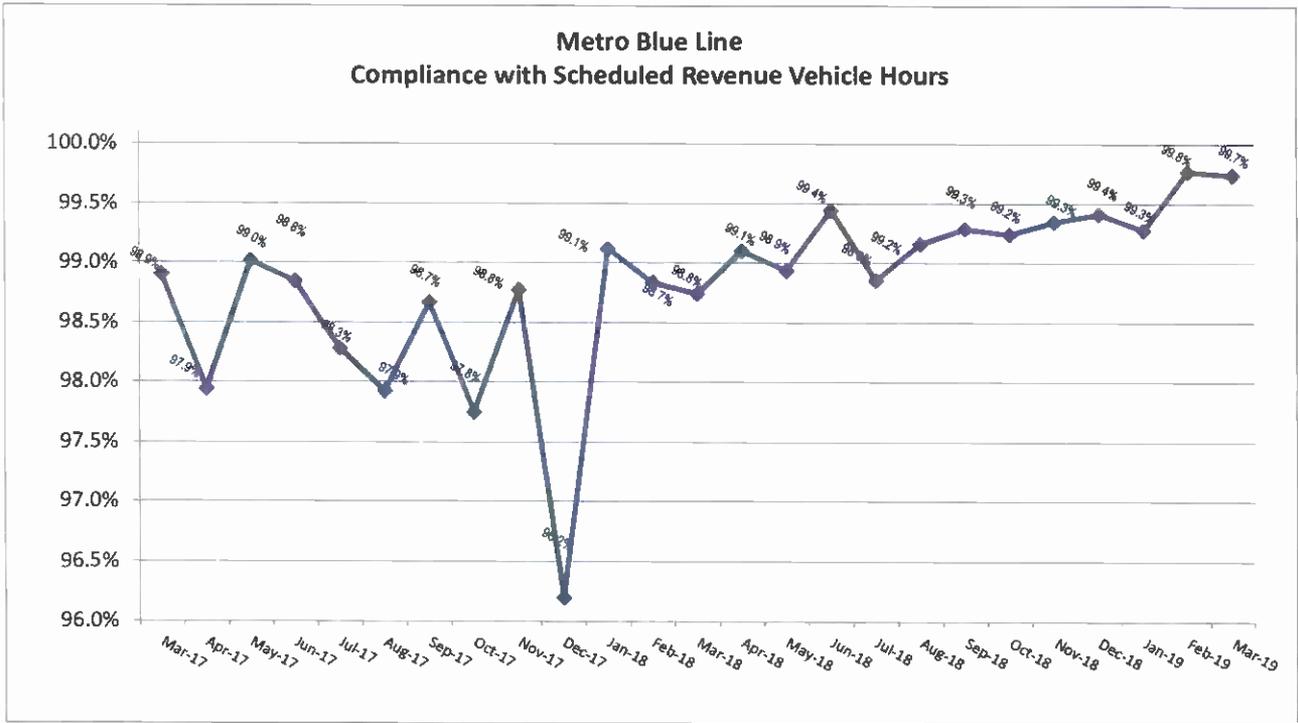
3/22/2019 9:38:00 PM - Incident# 3129934 (0 lost trips, 7 lost minutes)
Man hanging from canopy at Pico.

3/25/2019 6:46:00 AM - Incident# 3130523 (0 lost trips, 5 lost minutes)
LAPD evacuating 7MC.

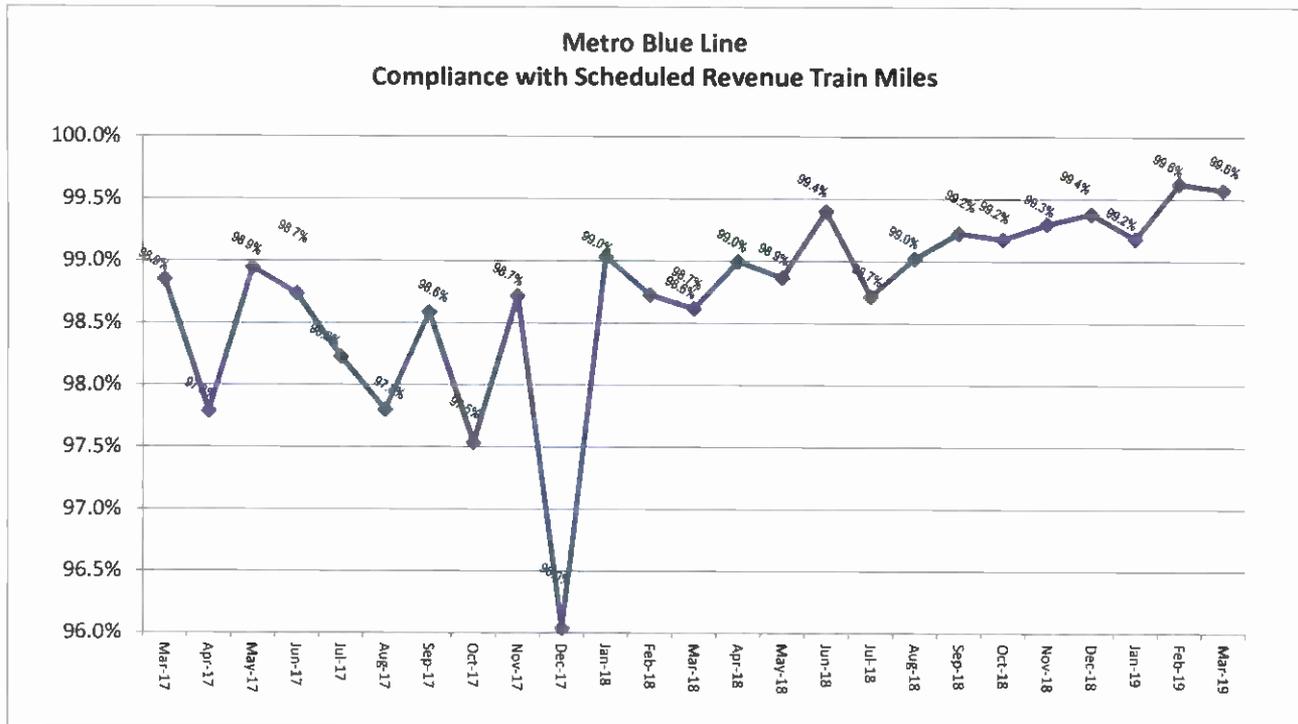
3/26/2019 6:43:00 AM - Incident# 3131027 (0 lost trips, 13 lost minutes)
Altercations aboard trains Car 1034A at Slauson Station, Train 686

3/29/2019 2:23:00 PM - Incident# 3132545 (4 lost trips, 696 lost minutes)
Train 607 reporting a traffic accident blocking tracks 1 & 2 Metro not involved.

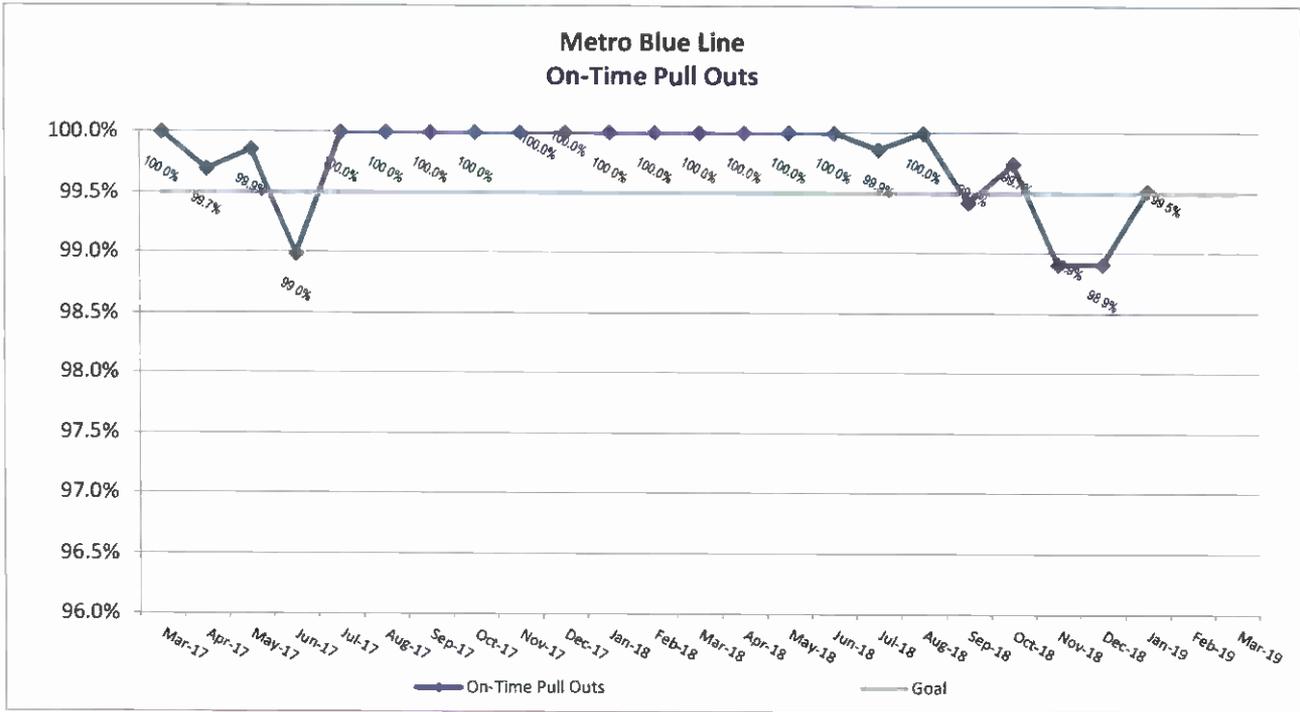
MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS
COMPLIANCE WITH SCHEDULED VEHICLE HOURS
Mar 2019



COMPLIANCE WITH SCHEDULED TRAIN MILES

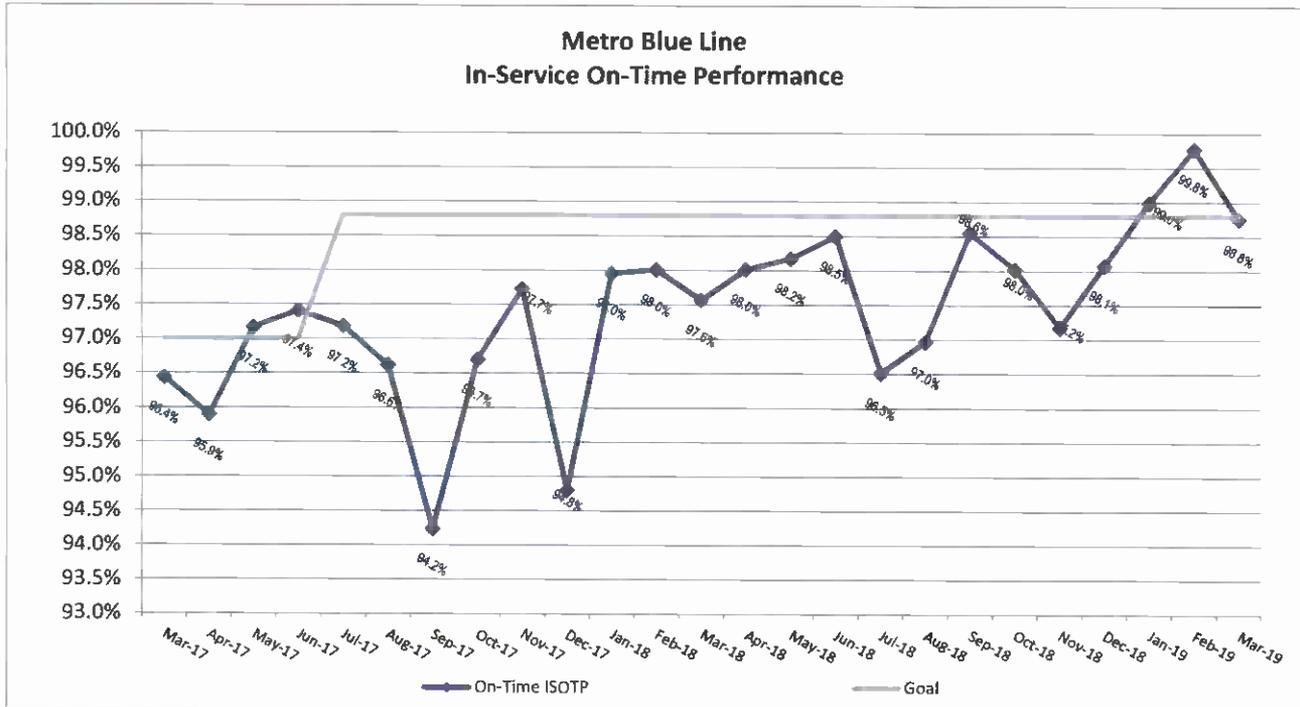


ON-TIME PULL OUTS

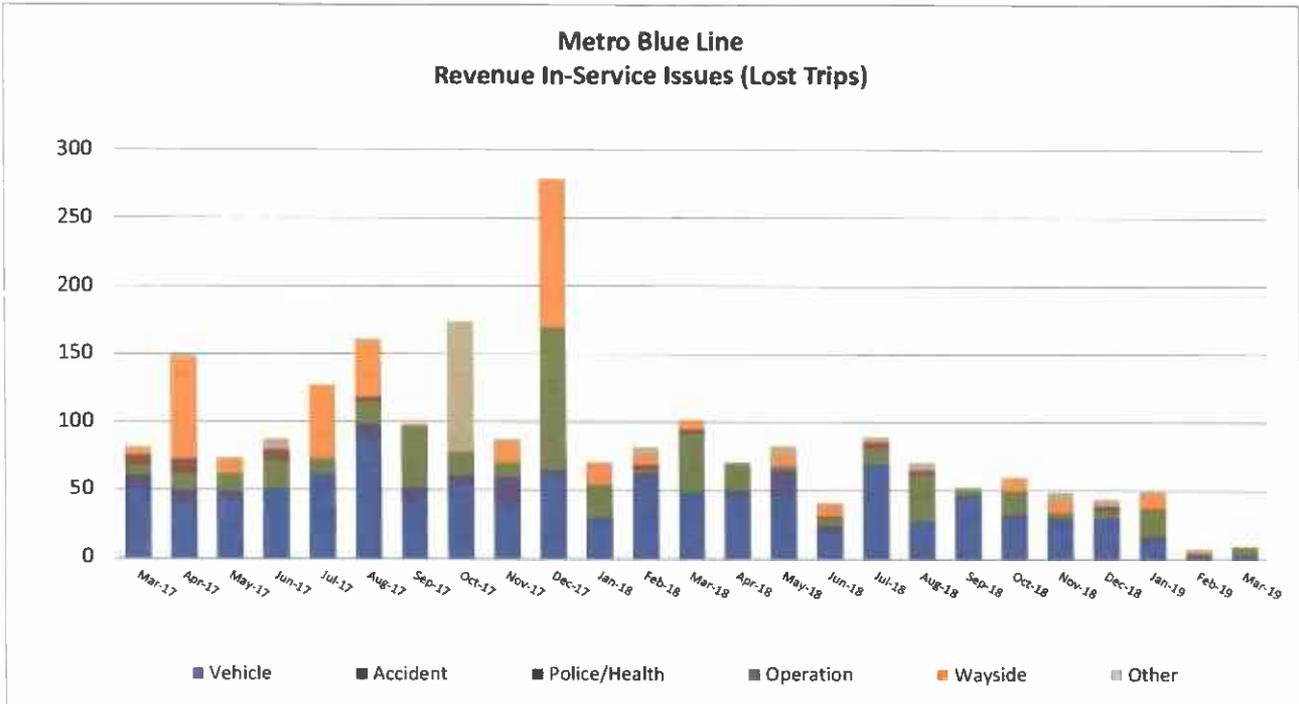


Due to Blue Line construction, Blue Line is pulling out of Division 14 - Expo Line.

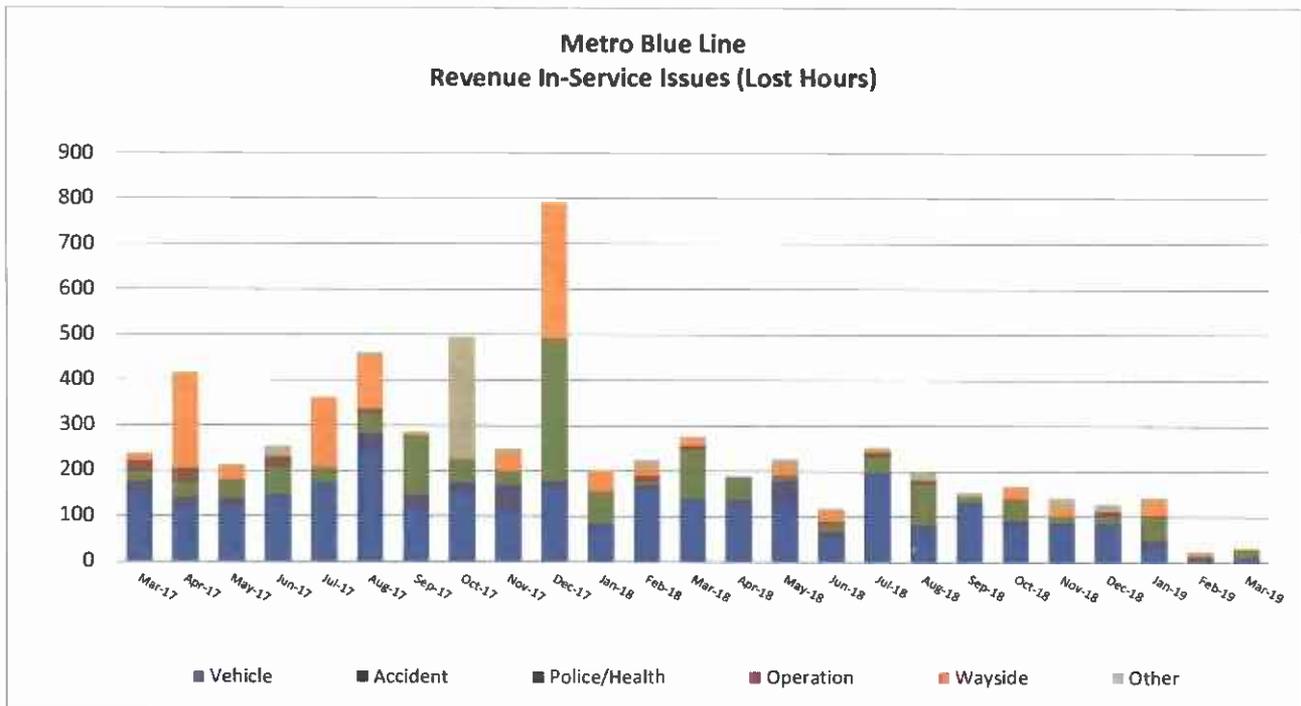
IN-SERVICE ON-TIME PERFORMANCE CHART



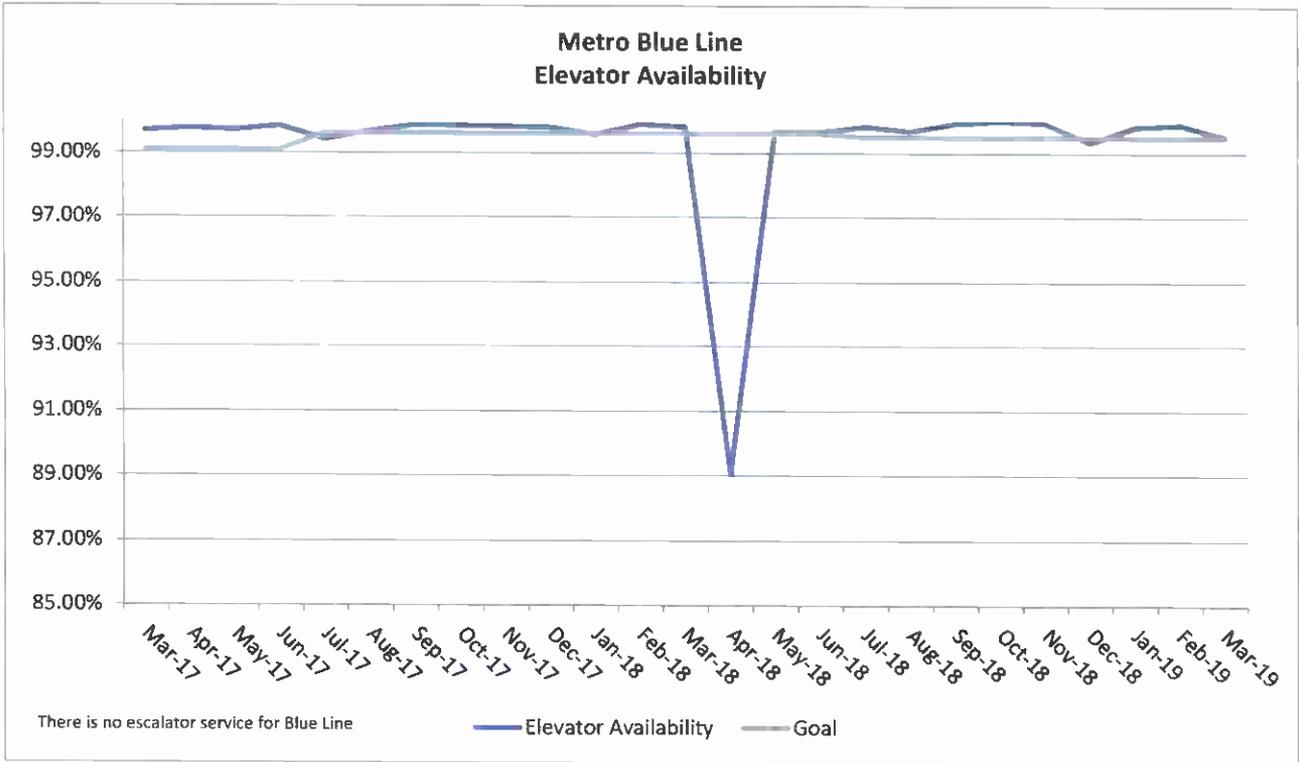
LOST TRIPS



LOST HOURS



VERTICAL TRANSPORTATION AVAILABILITY



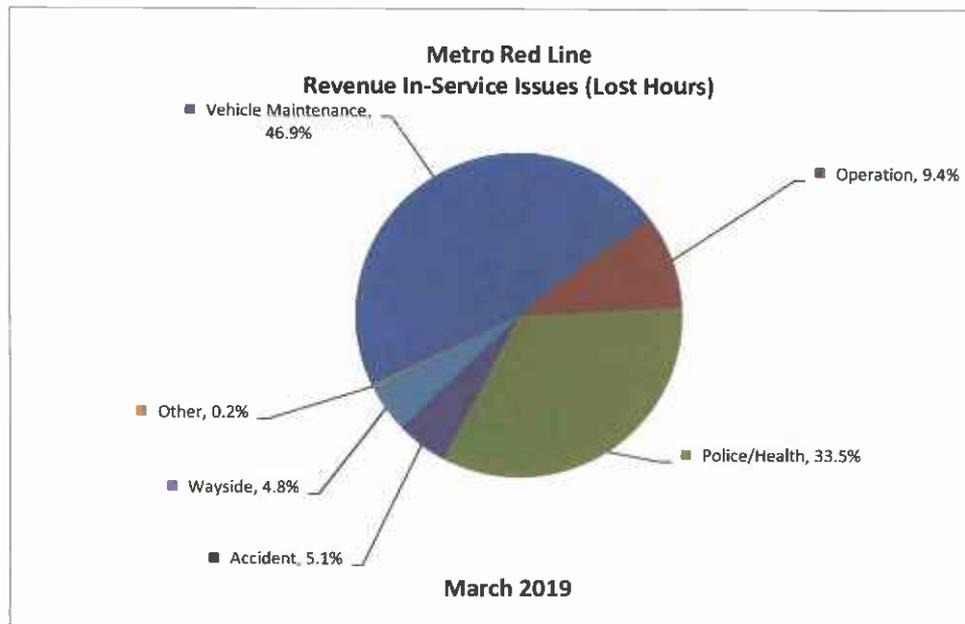
RED LINE

Out of a total of 26,432 hours operated, there were approximately 91 total hours of service delays.

March 2019 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	26,342	99.7%
Cancelled + Delayed Hours	91	0.3%
Total Revenue Hours	26,432	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	9	8.6	9.4%
Accidents	2	4.7	5.1%
Vehicle Maintenance	19	42.6	46.9%
Wayside	4	4.4	4.8%
Police & Health	8	30.4	33.5%
Other	1	0.2	0.2%
Total	43	90.7	100.0%

* Data from M3 used to report Service Delays is under review for accuracy
 The number of incidents on the following page may differ from the summary count due to some incidents not properly designated as cancelled or delayed



March 2019 Red Line incidents causing delay were as follows:

Operations Incidents:

3/1/2019 2:39:00 PM - Incident# 3120686 (0 lost trips, 10 lost minutes)

Report patron pull the emergency door release as the train was departing, no movement.

3/10/2019 7:58:00 AM - Incident# 3124243 (0 lost trips, 8 lost minutes)

Union Station AL-E Platform

Train 205 Car 541 cut out due to urine on the floor and in the seats.

3/10/2019 10:16:00 AM - Incident# 3124257 (1 lost trip, 158 lost minutes)

Train 203 Union Station AR-E

Reports of a Black Male brandishing a knife in Car 545.

Transit Security on scene holding the Train at the Station for LAPD to arrive and investigate.

LAPD conducted a sweep of the train, and did not find a knife.

3/11/2019 5:50:00 AM - Incident# 3124504 (0 lost trips, lost minutes)

Yard control reports train 207 pulled out late.

3/14/2019 7:19:00 AM - Incident# 3125983 (0 lost trips, 8 lost minutes)

Flashing cab signals

Train 211

T-147

Cars 577-578-567-568-539-(540)

North Hollywood AR East

3/17/2019 4:00:00 PM - Incident# 3127316 (0 lost trips, 5 lost minutes)

Operator misread summary and left back to the yard one hour early.

3/22/2019 5:57:00 AM - Incident# 3129512 (0 lost trips, 5 lost minutes)

Train 204 delayed 5 minutes westbound from Union due to Metro Security removing an unruly patron from the train.

3/22/2019 2:59:00 PM - Incident# 3129809 (0 lost trips, 10 lost minutes)

Report of mechanical problem with Train 217, dispatched late.

3/27/2019 7:05:00 PM - Incident# 3131812 (2 lost trips, 300 lost minutes)

Wilshire/Vermont Station Train 201/T-116 Car 509, Train received a North Hollywood route but destination was to Wilshire Western.

3/31/2019 8:08:00 PM - Incident# 3133082 (0 lost trips, 10 lost minutes)

Train 203 overshot Westlake Station by 1 doors.

T-464

Cars (503)-504-521-530

Westlake Station, AR, westbound.

Accidents:

3/15/2019 7:14:00 PM - Incident# 3126768 (1 lost trip, 154 lost minutes)

Elderly man fell on Train 213, car 582.

3/30/2019 1:57:00 PM - Incident# 3132820 (1 lost trip, 125 lost minutes)

Hollywood Western Station A/R Platform male patron falls from the platform onto the right of way.

Vehicle Maintenance Incidents:

3/2/2019 12:05:00 AM - Incident# 3120838 (0 lost trips, 13 lost minutes)

T-199 reports flashing cab signals and no movement at Union AR.

Train 214

Cars (579), 580, 593, 594, 543, 544

Union AR

3/4/2019 8:44:00 PM - Incident# 3121828 (0 lost trips, 10 lost minutes)

Flashing cab signals and emergency brake not releasing in car 542.

T-535

Train 214

Cars 595,596,547,548,541,(542)

North Hollywood AL EB.

3/6/2019 2:15:00 PM - Incident# 3122737 (0 lost trips, 10 lost minutes)

Operator reports Emergency Brake self apply, not releasing.

Universal City Station, AL track, E/bound.

Cars: 543 544 577 (578).

Train 209.

T-378.

3/7/2019 5:21:00 PM - Incident# 3123317 (0 lost trips, 9 lost minutes)

Recurring emergency brake application.

Train #218

T-378

Cars #539-540-583-584-547-(548).

E/Bound Universal City Station A/L Track.

3/9/2019 12:48:00 PM - Incident# 3124074 (0 lost trips, 7 lost minutes)

Recurring emergency brake application.

Train #206

T-012

Cars #523-528-529-(520).

E/Bound Hollywood Vine Station A/L Track.

3/14/2019 4:52:00 PM - Incident# 3126292 (0 lost trips, 10 lost minutes)

Doors fails to secure.

Train #215

T-169

Cars #545-546-603-604-571-572.

E/Bound 7th & Metro Station A/L Track.

3/14/2019 6:45:00 PM - Incident# 3126314 (0 lost trips, 5 lost minutes)

Recurring emergency brake application.

Train #215

T-378

Cars #537-538-547-548-599-600.

E/Bound North Hollywood Station A/R Track.

3/15/2019 5:56:00 AM - Incident# 3126431 (1 lost trip, 157 lost minutes)

Train 207

T-254

Operator reports having emergency brake application. No movement westbound

Union Station AR west

(505), 506, 525, 524, 521, 530

3/15/2019 4:47:00 PM - Incident# 3126754 (0 lost trips, 6 lost minutes)

Report flashing cab signal, emergency brake won't released and no movement.

T-217

Train 203

Cars 571-572-539-(540)

Wilshire Western BR eastbound.

3/15/2019 5:57:00 PM - Incident# 3126766 (13 lost trips, 1,956 lost minutes)

Report friction brake won't released, no movement.

T-116

Train 213

Cars (533)-534-(601)-602-553-554

Universal City AR westbound.

3/18/2019 5:37:00 AM - Incident# 3127465 (0 lost trips, 9 lost minutes)

Friction Brakes not releasing

Train 211

T-175

Cars (569)-570-579-580-583-584

Union Station AL West

3/21/2019 7:07:00 PM - Incident# 3129387 (0 lost trips, 7 lost minutes)

Smoke generating from the friction brakes.

Train #216

T-172

Cars #507-510-525-524-501-(502).

E/Bound Hollywood Western Station A/L Track.

3/23/2019 5:54:00 PM - Incident# 3130158 (1 lost trip, 158 lost minutes)

Stuck key switch (573)574,565,566,569,570.

Union Station

Train #205, T-199, AR, westbound.

3/25/2019 5:05:00 AM - Incident# 3130473 (0 lost trips, 10 lost minutes)

Operator reports emergency brake application departing North Hollywood Station.

3/27/2019 8:02:00 PM - Incident# 3131816 (0 lost trips, 12 lost minutes)

Friction Brake failure car # 600

7th Metro AR West

Train 202 T-427

Car # 571-572-599-(600)

3/27/2019 10:29:00 PM - Incident# 3131848 (0 lost trips, 10 lost minutes)

Emergency brake application car #520

North Hollywood AR East

Train 219 T-199

Car # 521-530-501-502-529-520

3/28/2019 7:36:00 PM - Incident# 3132220 (1 lost trip, 150 lost minutes)

Car 504 jerky propulsion.

T-365

Train 216

Cars 503-(504)-505-506-515-516

7th/Metro Station, AR, westbound.

3/29/2019 3:26:00 PM - Incident# 3132578 (0 lost trips, 10 lost minutes)

Report emergency brake apply, no movement.

T-254

Train 216

Cars 511-512-507-510-523-(528)

North Hollywood interlocking eastbound.

3/30/2019 6:57:00 PM - Incident# 3132861 (0 lost trips, 6 lost minutes)

Emergency brake self applied car # 520

Train 204 T-117

Westlake AL East

Car 513-514-529-(520)

Wayside Incidents:

3/14/2019 2:40:00 PM - Incident# 3126266 (0 lost trips, 5 lost minutes)

Union Station East Interlocking signals fails to clear remotely.

3/17/2019 11:29:00 PM - Incident# 3127408 (2 lost trips, 232 lost minutes)

Civic Center AR E Flow alarm. AR track was deenergized from Union to 7th Metro.

3/18/2019 3:51:00 PM - Incident# 3127837 (0 lost trips, 5 lost minutes)

Wilshire/Western ATC Ground Fault on A/C- D/C Power Failure.

3/22/2019 6:46:00 AM - Incident# 3129536 (0 lost trips, 20 lost minutes)

SCADA indicates switch 3 is out of correspondence at North Hollywood east interlocking.

Police & Health Incidents:

3/1/2019 9:11:00 AM - Incident# 3120508 (0 lost trips, 4 lost minutes)

MTA Security reports an patron unresponsive on board train car 525, requests to hold train for LAFD response.

MTA Security officer Burton, B.

North Hollywood Station AR track

Train 205

3/3/2019 3:56:00 PM - Incident# 3121263 (0 lost trips, 6 lost minutes)

Operator report a Hispanic male was assaulted by an African American male on board the train (565).

Train 3 204

T-15

Civic Center, AR, westbound

(565) 566 577 578 593 594

3/3/2019 5:38:00 PM - Incident# 3121278 (0 lost trips, 6 lost minutes)

10-390 reported at Civic Center AR, westbound.

Train # 208

T-314/Student T-462

Civic Center, AR, westbound

601 602 591 592 (595) 596

3/4/2019 2:23:00 PM - Incident# 3121648 (11 lost trips, 1,641 lost minutes)

Operator reports an unattended speaker on a dolly with a cord plugged into the outlet at North Hollywood Station platform.

Train # 210

T-271

North Hollywood, AR, eastbound

581 582 557 558

3/8/2019 6:30:00 AM - Incident# 3123529 (0 lost trips, 6 lost minutes)

Train 203

T-104

Union Station AL

Operator reports unruly patron is onboard R-45 and Metro Security request back up from LAPD. 553, (554), 603, 604

3/18/2019 9:45:00 PM - Incident# 3127933 (1 lost trip, 149 lost minutes)

T-138 (Alpha AD) physically assaulted while attempting to trouble shoot a door problem.

3/23/2019 9:38:00 PM - Incident# 3130189 (0 lost trips, 8 lost minutes)

Lost patron.

Wilshire Western Station

Train #204, T-351, BR, eastbound.

3/29/2019 6:10:00 AM - Incident# 3132412 (0 lost trips, 4 lost minutes)

Train 211 held by LAPD to get an unruly patron of the train

T-209

Train 211

North Hollywood Station AR platform

Consist 567-568-587-588-545-546

Other Incidents:

3/4/2019 7:04:00 AM - Incident# 3121529 (0 lost trips, 11 lost minutes)

Train #204 Cars: 505,506,503,504,523,(528) T-389

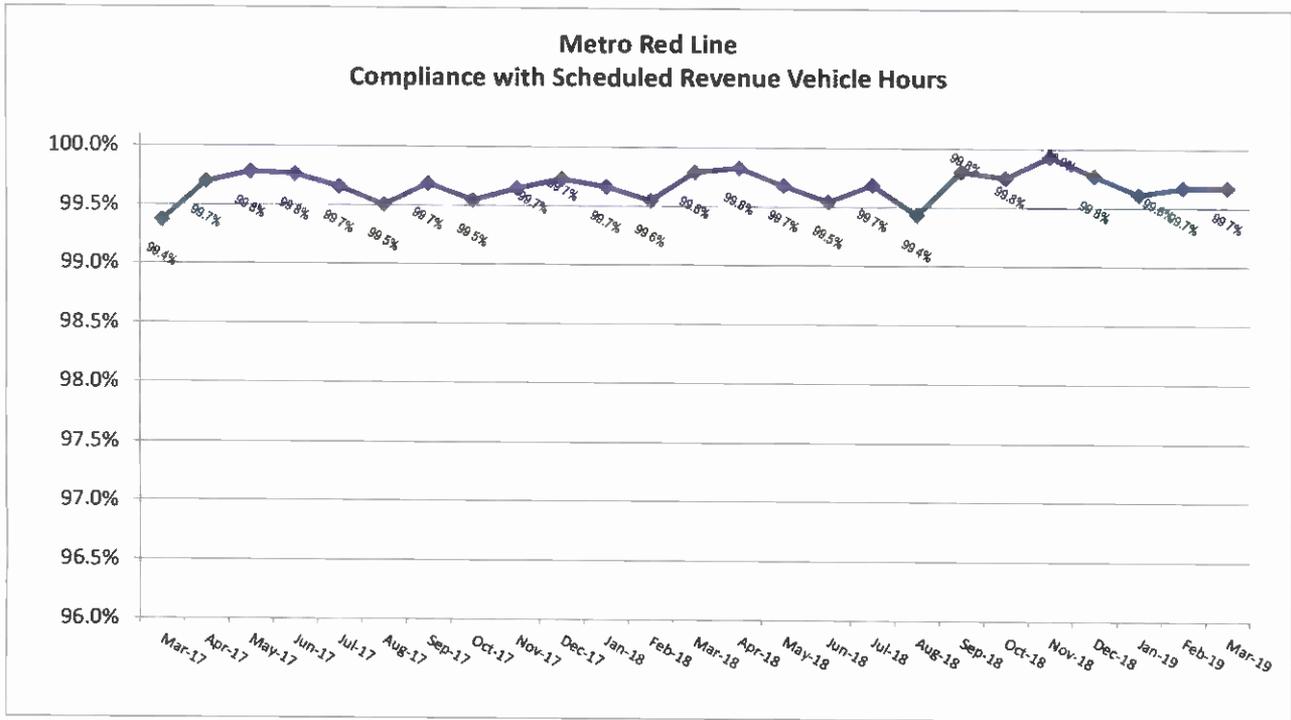
Vermont Sunset Station AL-E

Item was thrown on the right of way as Train 204 entered the Station, causing a small fire.

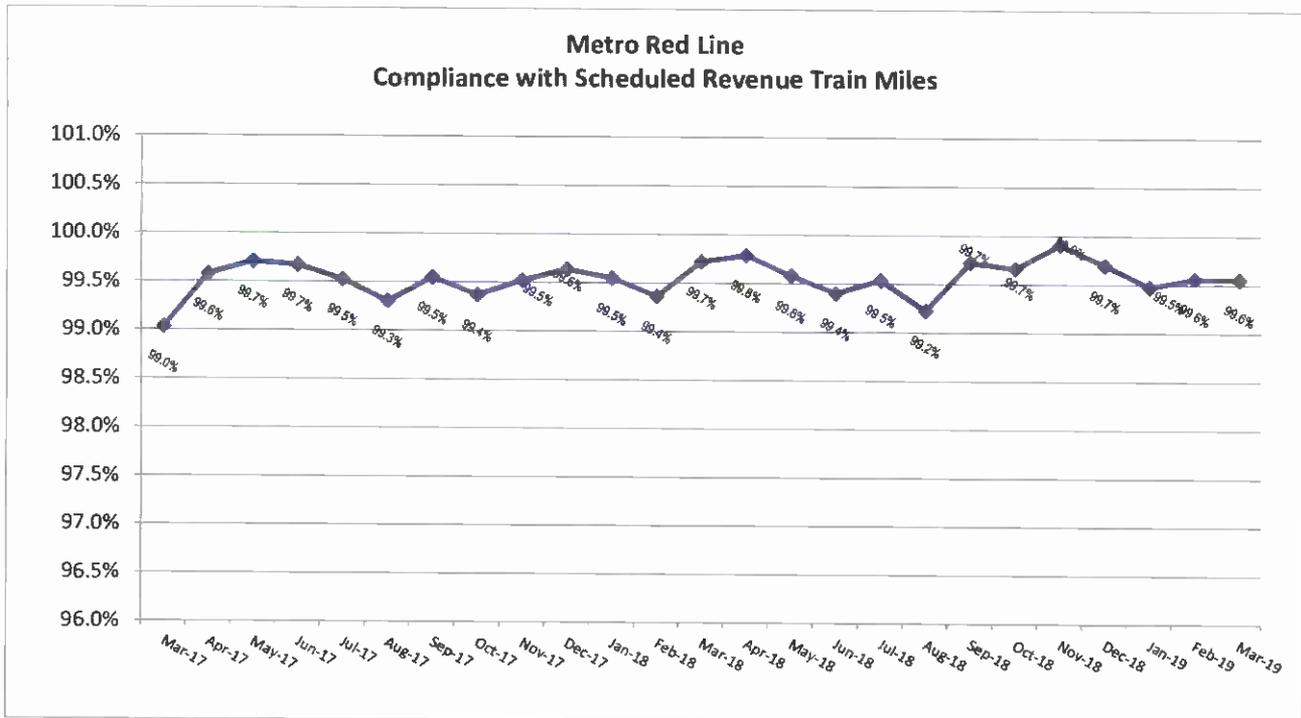
MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

COMPLIANCE WITH SCHEDULED VEHICLE HOURS

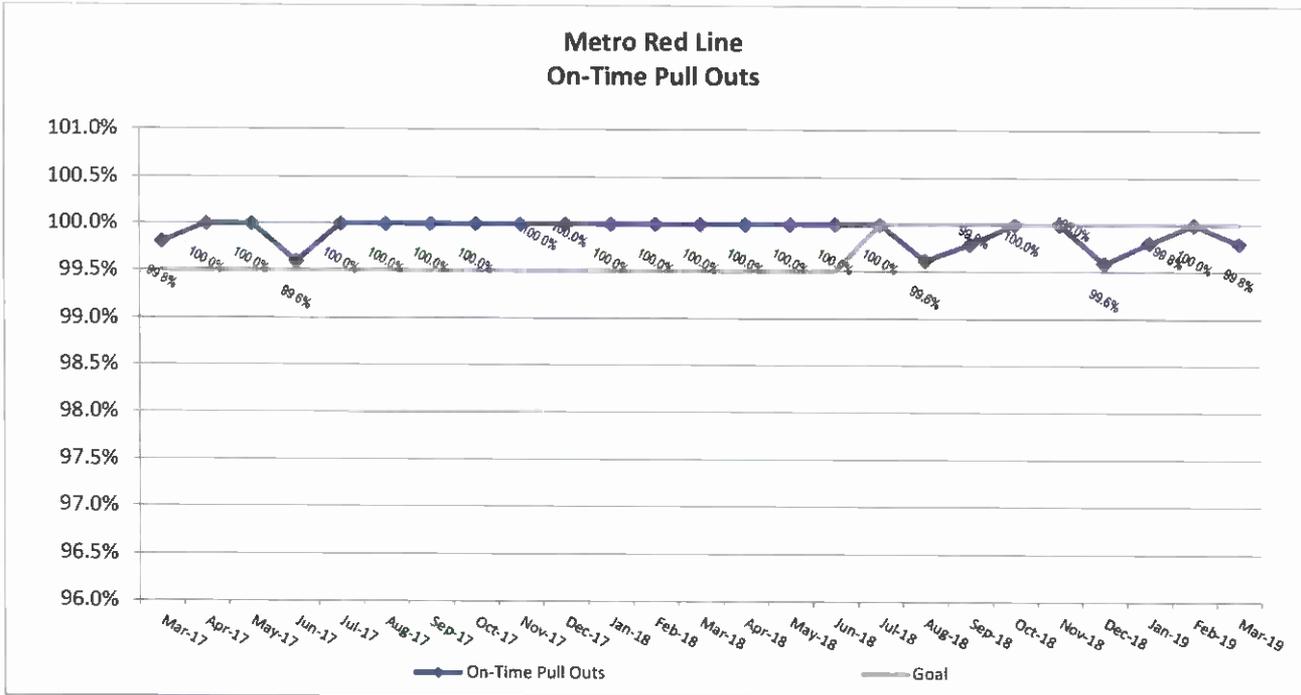
Mar 2019



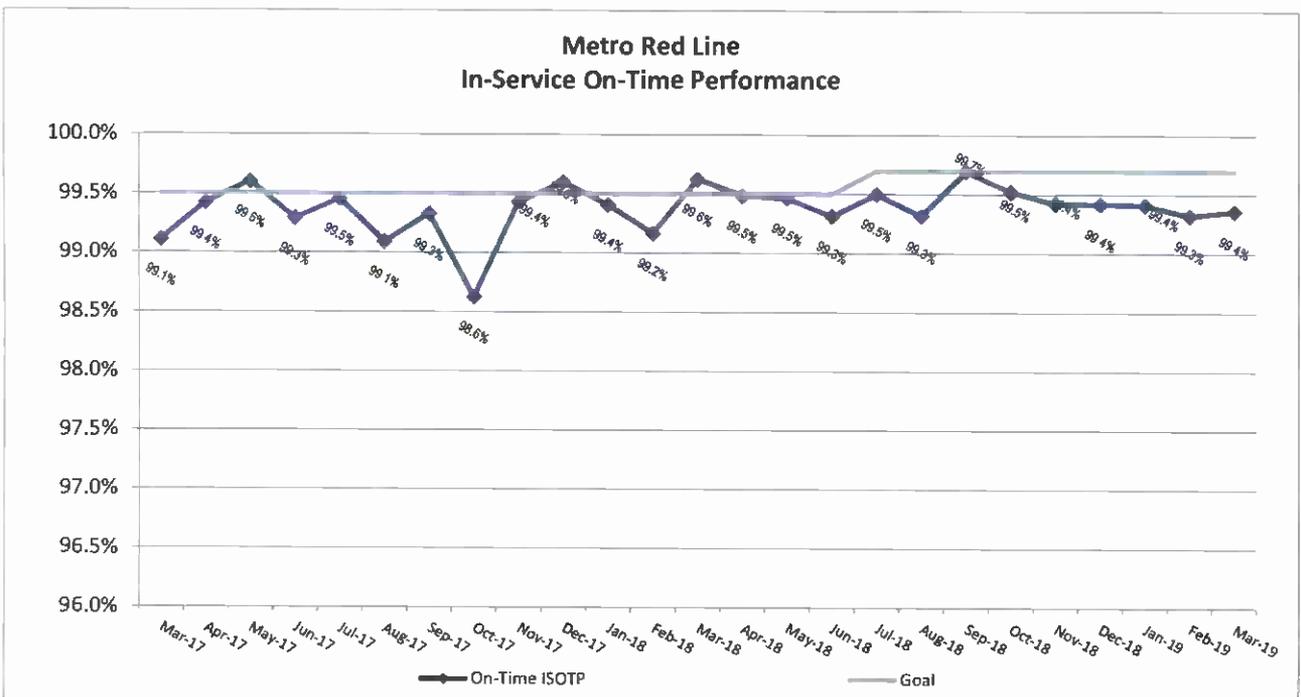
COMPLIANCE WITH SCHEDULED TRAIN MILES



ON-TIME PULL OUTS

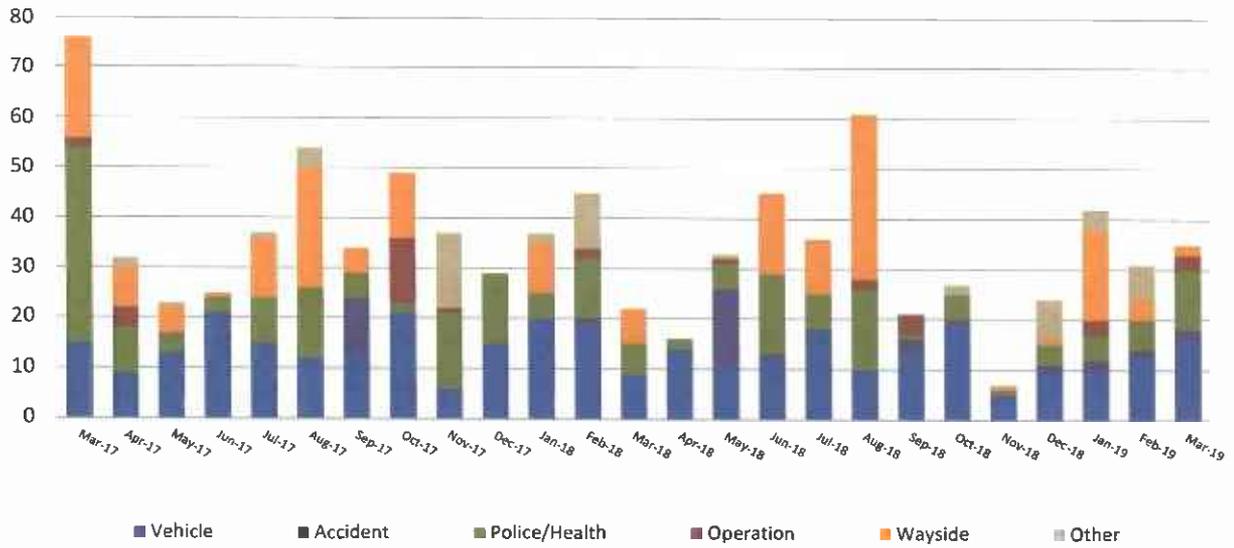


IN-SERVICE ON-TIME PERFORMANCE



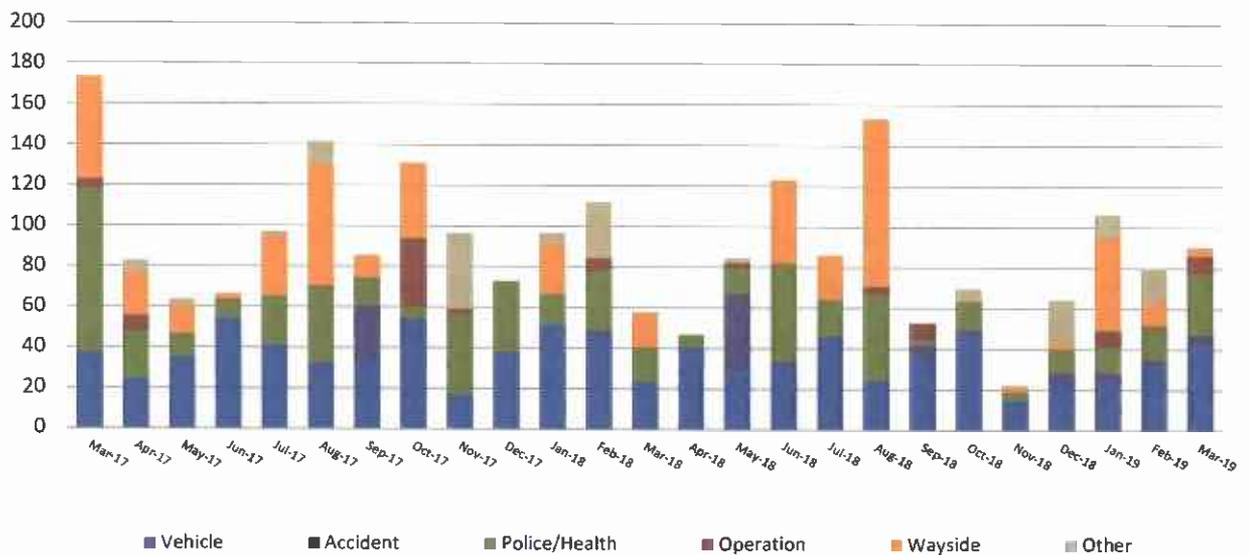
LOST TRIPS

**Metro Red Line
Revenue In-Service Issues (Lost Trips)**



LOST TRIPS

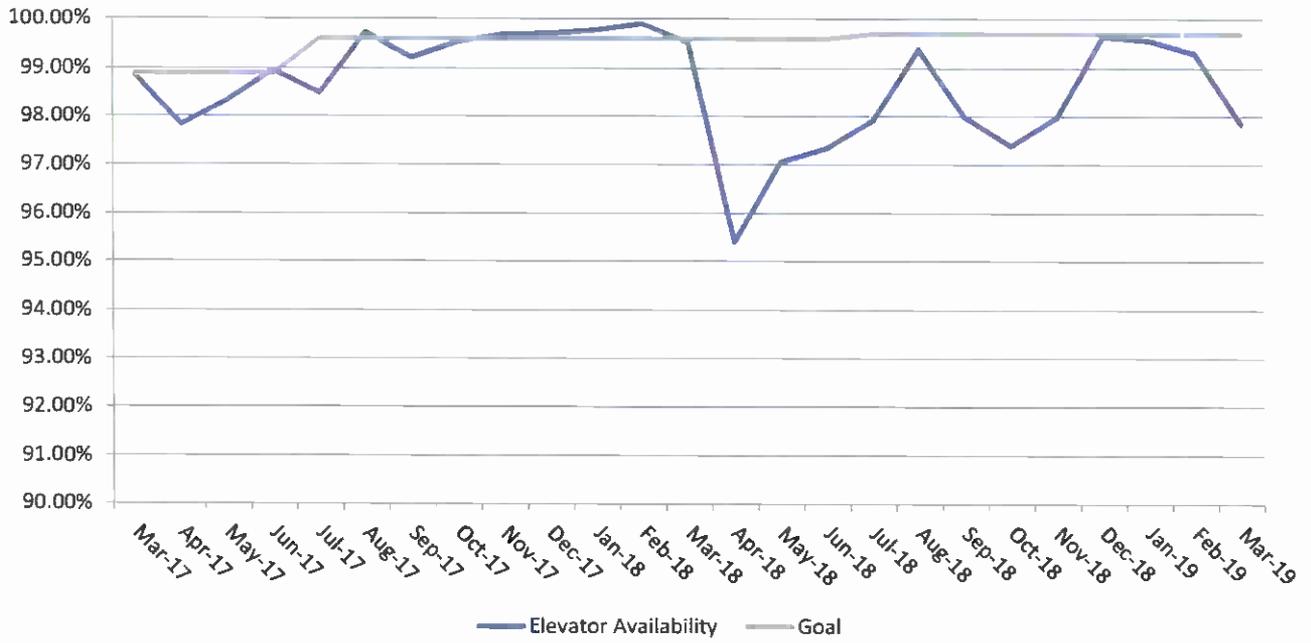
**Metro Red Line
Revenue In-Service Issues (Lost Hours)**



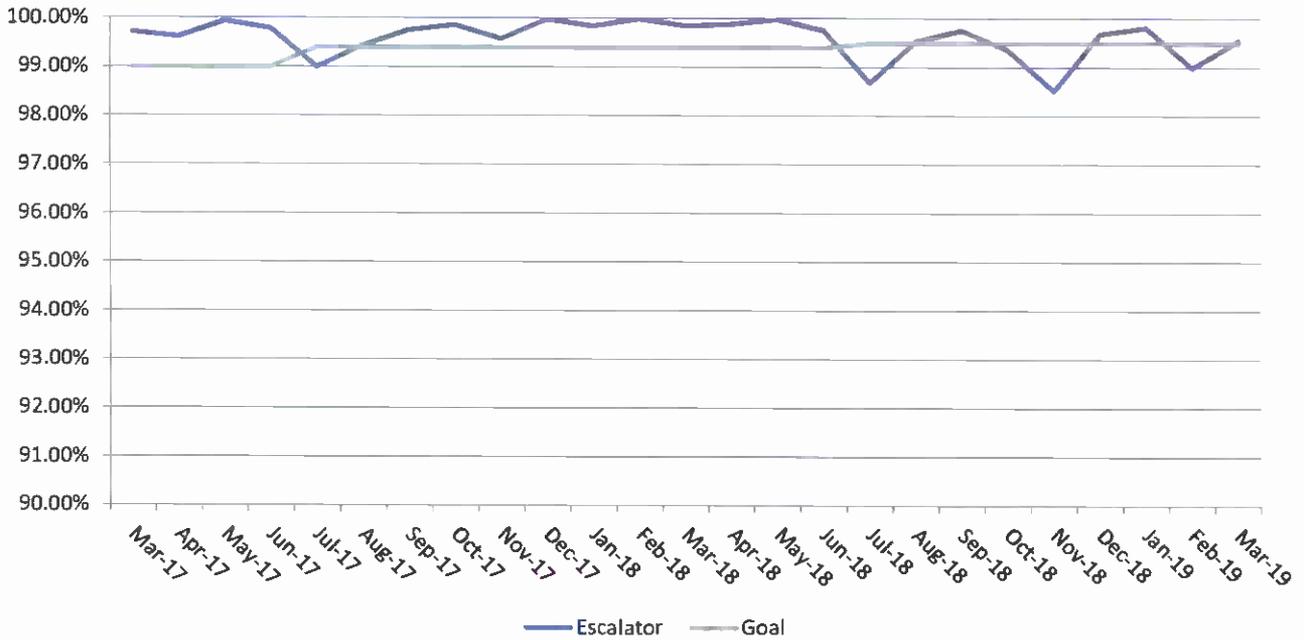
VERTICAL TRANSPORTATION AVAILABILITY

**Metro Red Line
Cluster Availability**

Elevator Availability



Metro Red Line Escalator Availability



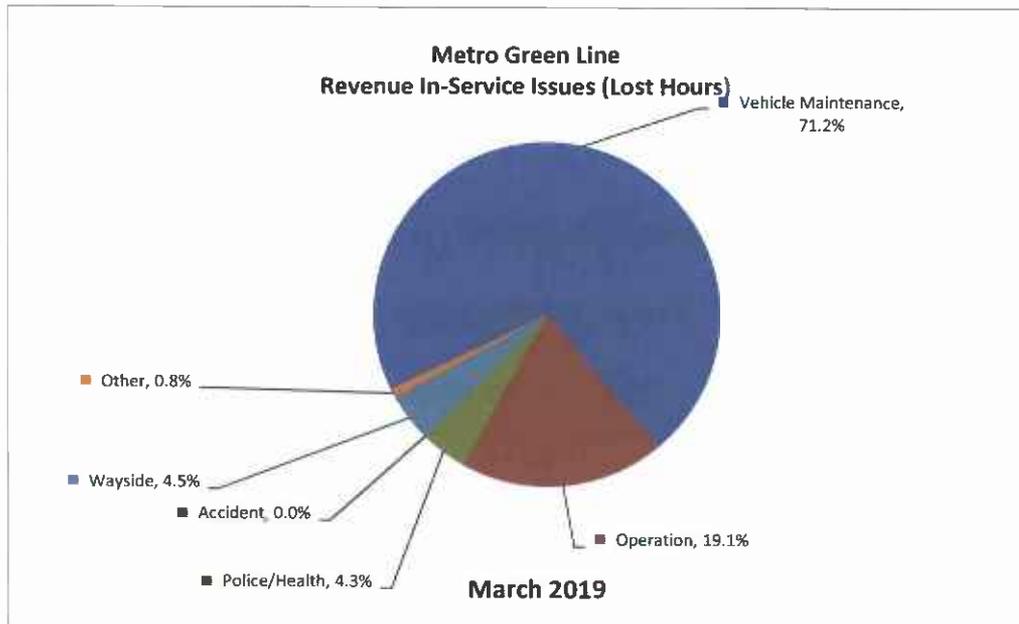
GREEN LINE

Out of a total of 9,703 hours operated, there were approximately 21 total hours of service delays.

March 2019 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	9,682	99.8%
Cancelled + Delayed Hours	21	0.2%
Total Revenue Hours	9,703	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	12	3.9	19.1%
Accidents	0	0.0	0.0%
Vehicle Maintenance	26	14.6	71.2%
Wayside	4	0.9	4.5%
Police & Health	4	0.9	4.3%
Other	1	0.2	0.8%
Total	47	20.5	100.0%

* Data from M3 used to report Service Delays is under review for accuracy
 The number of incidents on the following page may differ from the summary count due to some incidents not properly designated as cancelled or delayed



March 2019 Green Line incidents causing delay were as follows:

Operations Incidents:

3/4/2019 1:14:00 PM - Incident# 3121677 (0 lost trips, 19 lost minutes)

Train # 337 , Operator T-390 on alpha O W/B Track 1 was instructed to Turn Back From El Segundo Station and Proceed E/B in service on Track 2, as the Train was Operating 15 minutes late due to Unscheduled Longer Single Tracking.

3/9/2019 1:29:00 PM - Incident# 3124080 (0 lost trips, 5 lost minutes)

Train # 332 was Operated by alpha L T-361 , did not get relieved as per schedule at the Motorman By Alpha AA T-294.

Train had to Depart 5 Minutes late From Marine Station and Reverse Run on Track # 1 to Relieve alpha L.

3/19/2019 5:55:00 AM - Incident# 3127998 (1 lost trip, 68 lost minutes)

Turn back at Aviation Station

Train 345

T-068

1168-1169

Aviaton Station track 2 eastbound

3/20/2019 1:18:00 PM - Incident# 3128699 (0 lost trips, 8 lost minutes)

Operator T-96 working Alpha O in Train # 337 Departed 8 minutes late from Marine station due to 10-100 . She advised control that there is only 1 Restroom at Marine and it was occupied.

3/20/2019 3:37:00 PM - Incident# 3128842 (1 lost trip, 91 lost minutes)

T-348 Operating Train # 334 reports a Un re settable Propulsion Fault with a Speed Restriction in Car # (222)-207.

3/21/2019 2:08:00 PM - Incident# 3129279 (0 lost trips, 7 lost minutes)

TSB requested to hold train 332 at Long Beach Station due to police activity. Caused a 7 min delay.

3/22/2019 5:30:00 AM - Incident# 3129531 (0 lost trips, 5 lost minutes)

Train 337 out late.

Train 337

T-393

Cars 1177-1143

Eastbound, Green Line Yard, track 2

3/22/2019 8:52:00 AM - Incident# 3129587 (0 lost trips, 6 lost minutes)

radio, cars #(222A)=225

Train #336

T-231

Marine Station, track #1, Eastbound.

3/22/2019 8:11:00 PM - Incident# 3129906 (0 lost trips, 8 lost minutes)

Signals will be replacing switch 1B at Crenshaw Interlocking.

3/25/2019 9:13:00 PM - Incident# 3130925 (0 lost trips, lost minutes)

(Time Checks) Long Beach Station

Track 1 and Track 2

Eastbound and Westbound

3/26/2019 11:55:00 AM - Incident# 3131288 (0 lost trips, 13 lost minutes)

LASD holding Train 333 at Hawthorne Station for luggage.

Train 333

T-183

208-202

Hawthorne Station, eastbound, Track 2.

3/26/2019 8:00:00 PM - Incident# 3131367 (0 lost trips, lost minutes)

(Time Checks) Long Beach Station

Track 1 and Track 2

Eastbound and Westbound

3/28/2019 10:21:00 AM - Incident# 3132018 (0 lost trips, 6 lost minutes)

Traction Power Personnel requesting authorization to access the ROW from Vermont Signal 28 to Wilmington

West Pocket Signal 2

3/28/2019 8:00:00 PM - Incident# 3132221 (0 lost trips, lost minutes)

(Time Checks) Long Beach Station

Track 1 and Track 2

Eastbound and Westbound

Vehicle Maintenance Incidents:

3/2/2019 9:22:00 AM - Incident# 3120922 (0 lost trips, 15 lost minutes)

Train 224

T-344

Crenshaw Track 1 west

Operator reports having no movement in car 224. M--298 was dispatched to troubleshoot. Consist was off loaded and Train 333 boarded patrons.

(224), 223

3/5/2019 4:17:00 AM - Incident# 3121899 (0 lost trips, 20 lost minutes)

Operator reports a prop fault with a speed restriction.

Train 341

T-302

Cars (208)-227

Long Beach station track 1 West

3/7/2019 4:50:00 AM - Incident# 3122964 (0 lost trips, 11 lost minutes)

Train 345

T-327

Operator reports having re occurring propulsion failure.

El Segundo track 2 east

204, (208)

3/7/2019 5:17:00 PM - Incident# 3123290 (2 lost trips, 138 lost minutes)

Auto Train Protection (Speed Limit)

Train 354

T-235

(1155A)-1170

Westbound, Track 2 Hawthorne station.

3/8/2019 10:51:00 PM - Incident# 3123900 (0 lost trips, 5 lost minutes)

T-310 reported a propulsion fault with speed restriction on car 204.

3/10/2019 6:46:00 AM - Incident# 3124229 (1 lost trip, 65 lost minutes)

T-344 reports loss of propulsion on car 219B.

3/10/2019 10:24:00 PM - Incident# 3124402 (0 lost trips, 20 lost minutes)

No movement

Train 332

T-141

205,(243)

Wilmington East, Track 2, Eastbound

3/11/2019 6:42:00 AM - Incident# 3124502 (0 lost trips, 4 lost minutes)

Doors, cars #(1155A)-1170

Train #333

T-044

Hawthorne, track #1, Westbound

3/11/2019 4:15:00 PM - Incident# 3124828 (0 lost trips, 7 lost minutes)

T-20 on Train 354 (cars 224A-223) states no movement going eastbound. Train stopped just east of the marine platform.

3/12/2019 4:52:00 PM - Incident# 3125320 (0 lost trips, 7 lost minutes)

Propulsion / Dynamic Brakes, cars #(203)-223

Train #332

T-184

Harbor Station, track #1, Westbound.

3/13/2019 4:15:00 AM - Incident# 3125450 (0 lost trips, 7 lost minutes)

T-279

Train 342

Operator reports having self applying brakes both ends.

Norwalk Station west

(213), (243)

3/13/2019 6:33:00 PM - Incident# 3125825 (1 lost trip, 80 lost minutes)

T-184.

Train #352.

Douglass Station, Track #2, Eastbound.

(1151), 1168.

Operator had no cab signal and could not regain cab signal.

3/15/2019 8:06:00 AM - Incident# 3126497 (0 lost trips, 14 lost minutes)

Operator was in stop and proceed mode due to losing cab signal. Operator was unable to regain cab signal and was issued a clearance card for ATP Bypass and manual block.

Cars 222,(225)

3/15/2019 8:07:00 AM - Incident# 3126572 (1 lost trip, 65 lost minutes)

T-346 reports TWC Failure attempting to depart Norwalk Station Track 1. Operator was instructed to reverse ends and go back to the platform. Consist was placed in Tail Track 1 at Norwalk Station.

M-280 notified to respond.

3/18/2019 7:45:00 AM - Incident# 3127515 (1 lost trip, 71 lost minutes)

T-55 reports Train 333 (cars 204-209) with a propulsion fault and speed restriction.

Long Beach, Track 1, Northbound.

3/18/2019 8:15:00 PM - Incident# 3127908 (0 lost trips, 7 lost minutes)

Train 337 encountered a Track Brake Failure Alarm in car 222

Train 337

(222)-215

T-71

Douglas Station West Bound Track #1

3/19/2019 4:28:00 AM - Incident# 3127976 (1 lost trip, 76 lost minutes)

Brakes slipping and brakes sticking

Train 343

T-266

LRV cars (1170B)1171

Hawthorne Station track 2 eastbound

3/19/2019 4:35:00 AM - Incident# 3127977 (1 lost trip, 78 lost minutes)

ATP Failure

Train 344

T-260

LRV cars (225A)216

Douglas Station track 2 eastbound

3/20/2019 3:51:00 AM - Incident# 3128469 (0 lost trips, 9 lost minutes)

No Fault- No Movement

Train 332

T-231

LRV Cars 1169-(1168)

Marine Station track 2 eastbound

3/22/2019 5:25:00 AM - Incident# 3129508 (0 lost trips, 14 lost minutes)

Train 343 reported ATO not releasing.

Train 343

T-231

Cars 1168-1169

Marine Station, Eastbound, Track 2

3/22/2019 1:53:00 PM - Incident# 3129772 (0 lost trips, 10 lost minutes)

Friction Brake

(243)-215

T-57

EB Marine

Train 335

3/22/2019 3:37:00 PM - Incident# 3129842 (0 lost trips, 6 lost minutes)

No cab signal at Norwalk West IL.

Train 354

T-096

(1148)-1144

Norwalk West IL, Track 1, Westbound.

3/24/2019 10:40:00 PM - Incident# 3130421 (0 lost trips, 10 lost minutes)

No-Movement after uncoupling

3/25/2019 3:35:00 AM - Incident# 3130459 (1 lost trip, 66 lost minutes)

Train 331

(217A)-205

Eastbound Yard limit

T-409

Exiting the Yard, consist had a speed restriction and prop fault.

3/25/2019 4:45:00 PM - Incident# 3130880 (1 lost trip, 66 lost minutes)

Train 335

T-183

(205B)-222

Harbor Station

Westbound

Operator reports the consist had propulsion and brake fault

3/29/2019 5:13:00 AM - Incident# 3132316 (0 lost trips, 6 lost minutes)

Train operator reports of no movement

Train 346

T-220

(1146) 1170

Marine Station, Trk. 2, Westbound

Wayside Incidents:

3/6/2019 5:32:00 AM - Incident# 3122477 (0 lost trips, 15 lost minutes)

Track Circuit: False Occupancy at track circuit 22 and overrun at YDI signal 2.

3/6/2019 11:15:00 PM - Incident# 3122902 (0 lost trips, 20 lost minutes)

Unable to route trains out of Norwalk track 1 westbound.

3/13/2019 9:47:00 AM - Incident# 3125605 (0 lost trips, 6 lost minutes)

Vermont 8 to Crenshaw 6 OCS repair.

3/26/2019 10:53:00 AM - Incident# 3131138 (0 lost trips, 15 lost minutes)

Deenergized track and a train got stuck.

Police & Health Incidents:

3/2/2019 9:26:00 PM - Incident# 3121106 (0 lost trips, 21 lost minutes)

Train 332

T-294

(222)-217

Track #2

Eastbound

Operator reports an African American male was assaulting another patron.

3/12/2019 8:36:00 PM - Incident# 3125380 (0 lost trips, 10 lost minutes)

Unstable person rolling on ground

3/19/2019 7:44:00 PM - Incident# 3128374 (0 lost trips, 10 lost minutes)

Altercations aboard trains

Train 356

T-78

Cars 216+-203

Harbor 105 station E/ B track 1

3/29/2019 7:54:00 PM - Incident# 3132628 (0 lost trips, 12 lost minutes)

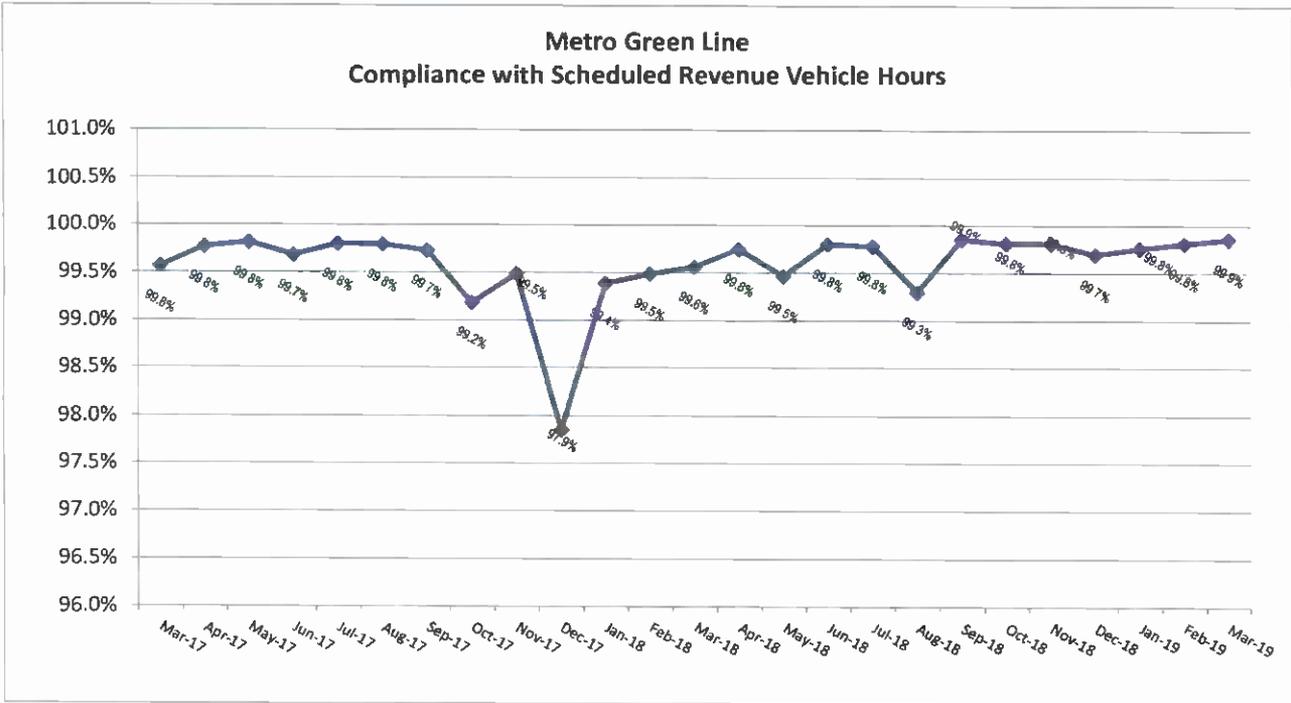
R-153 reported a african american male, wearing red pants and a black jacket. Was sexually assaulting a female patron at Marine Station on train 331 lead car 226. The african american female victim mid 20's wearing a blue top and white shorts.

Other Incidents:

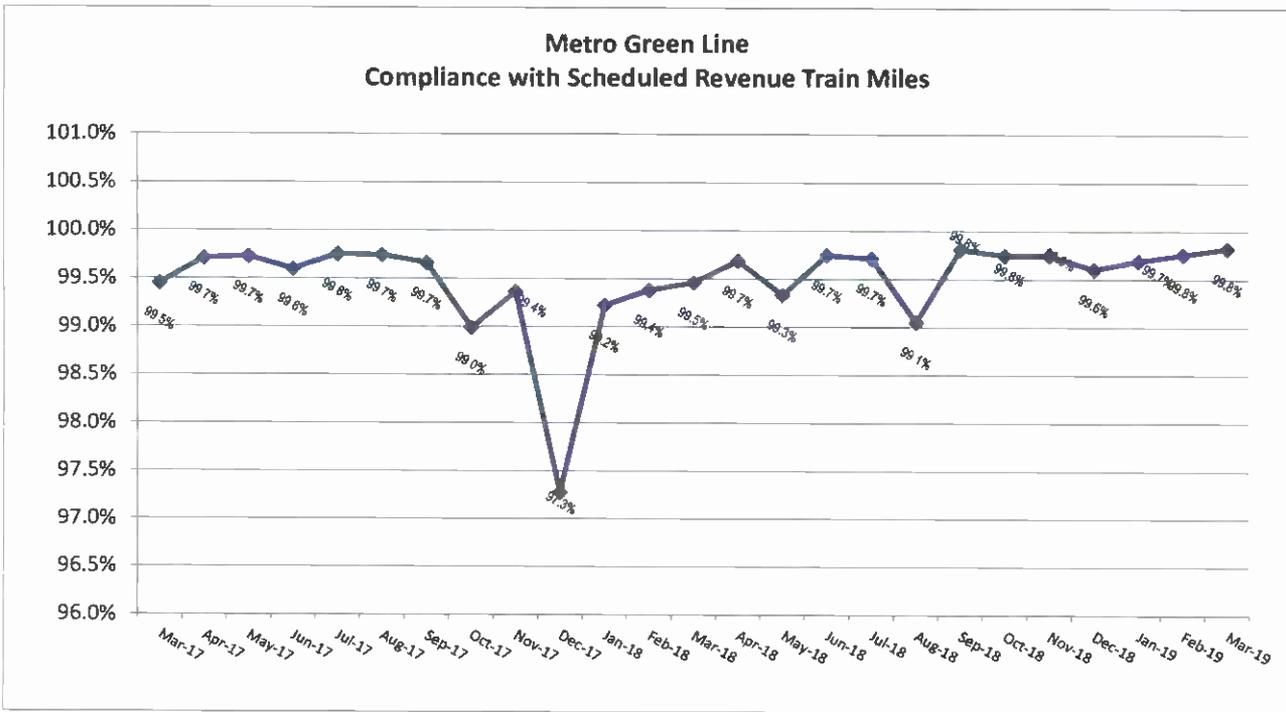
3/17/2019 9:30:00 AM - Incident# 3127227 (0 lost trips, 10 lost minutes)

SCADA Testing at Yard Interface

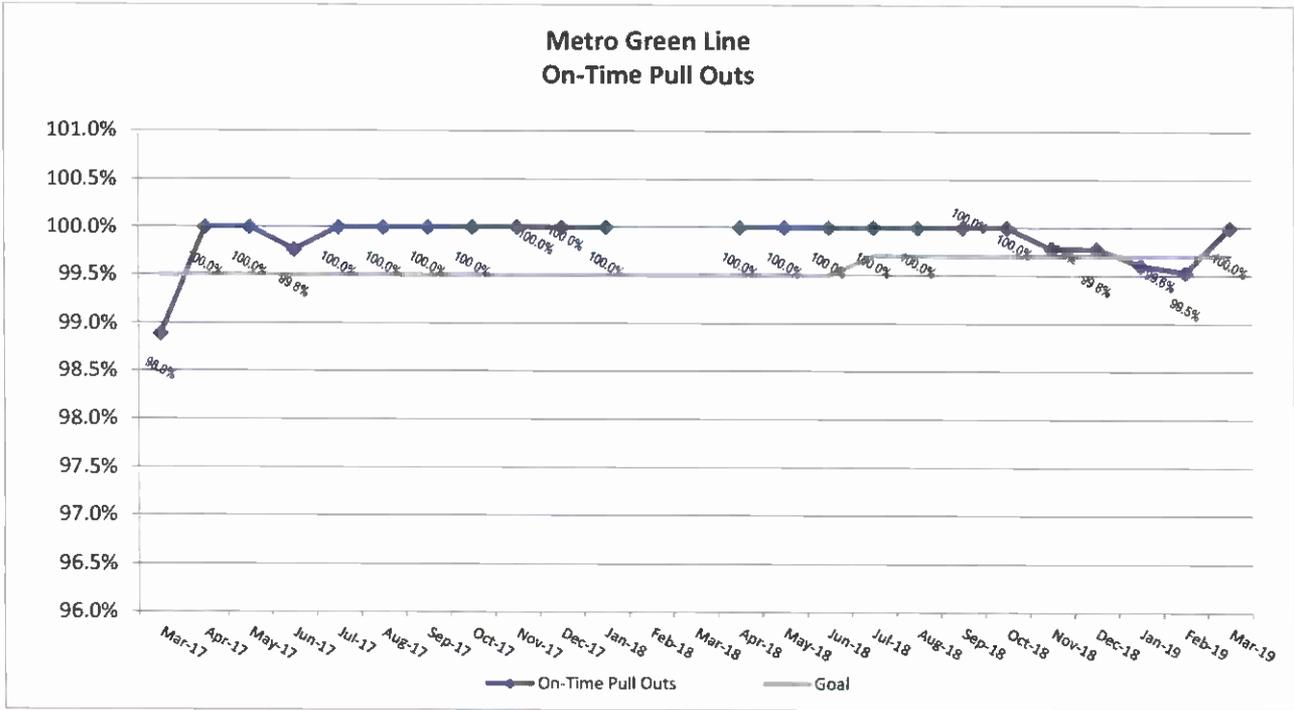
MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS
COMPLIANCE WITH SCHEDULED VEHICLE HOURS
Mar 2019



COMPLIANCE WITH SCHEDULED TRAIN MILES

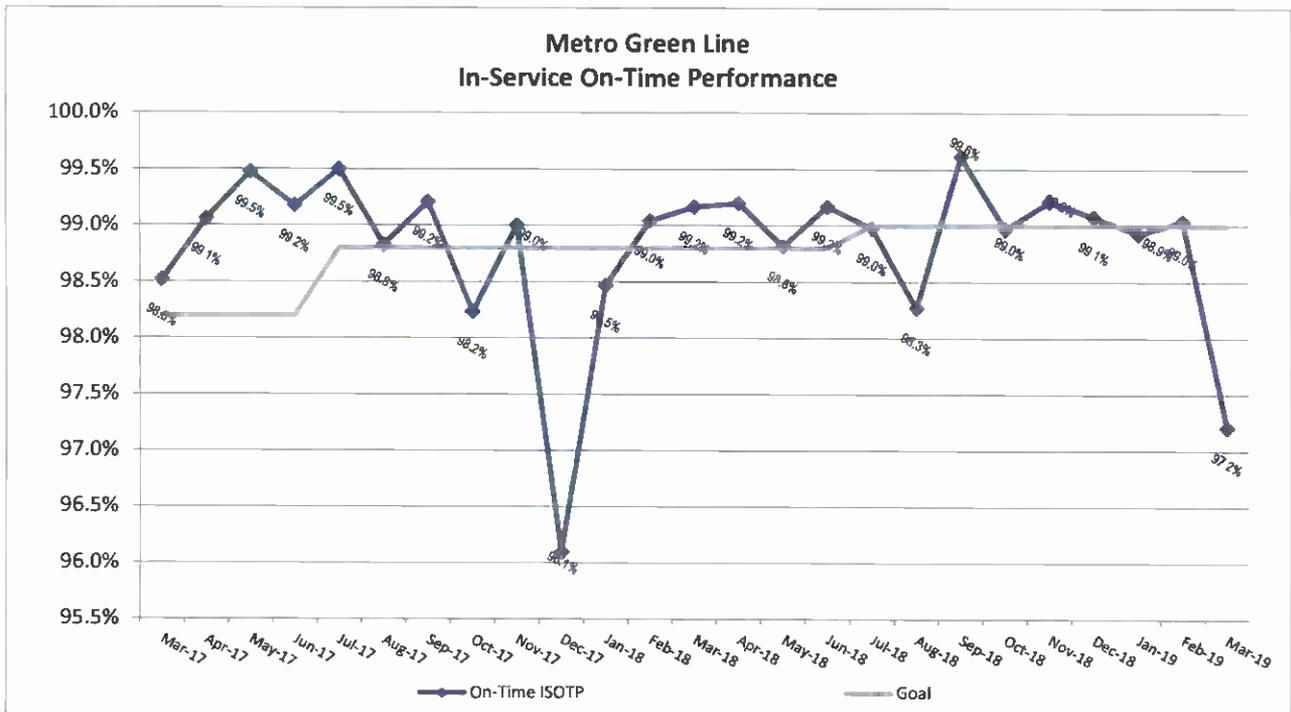


ON-TIME PULL OUTS



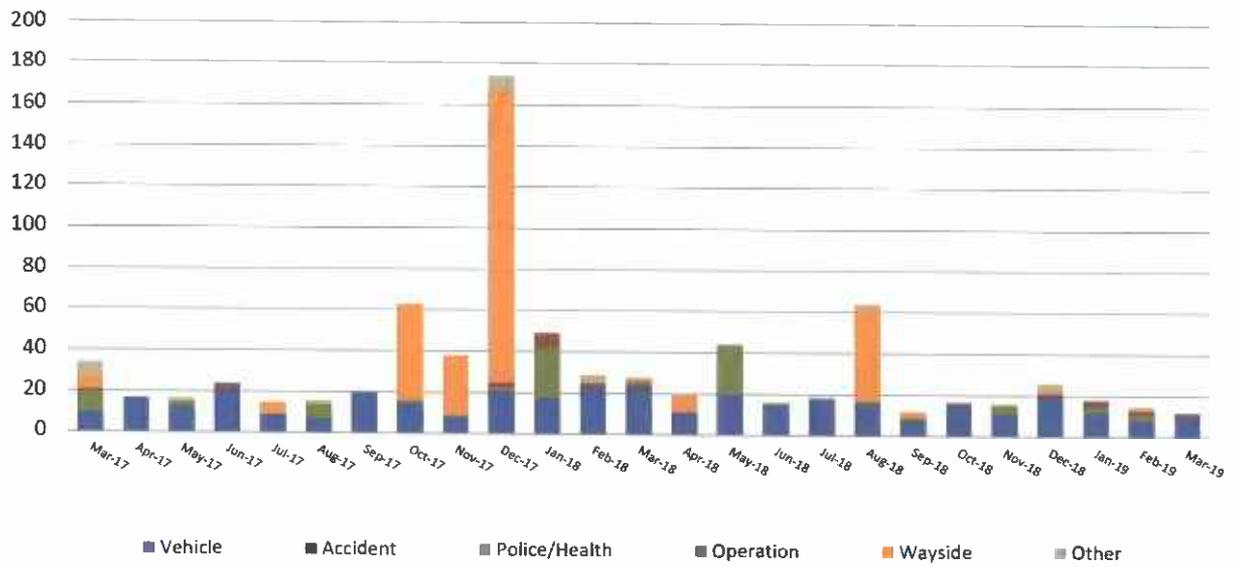
Due to the Crenshaw line link construction in Feb and March 2018, Green Line trains did not pull in or pull out, trains stayed on the tracks.

IN-SERVICE ON-TIME PERFORMANCE



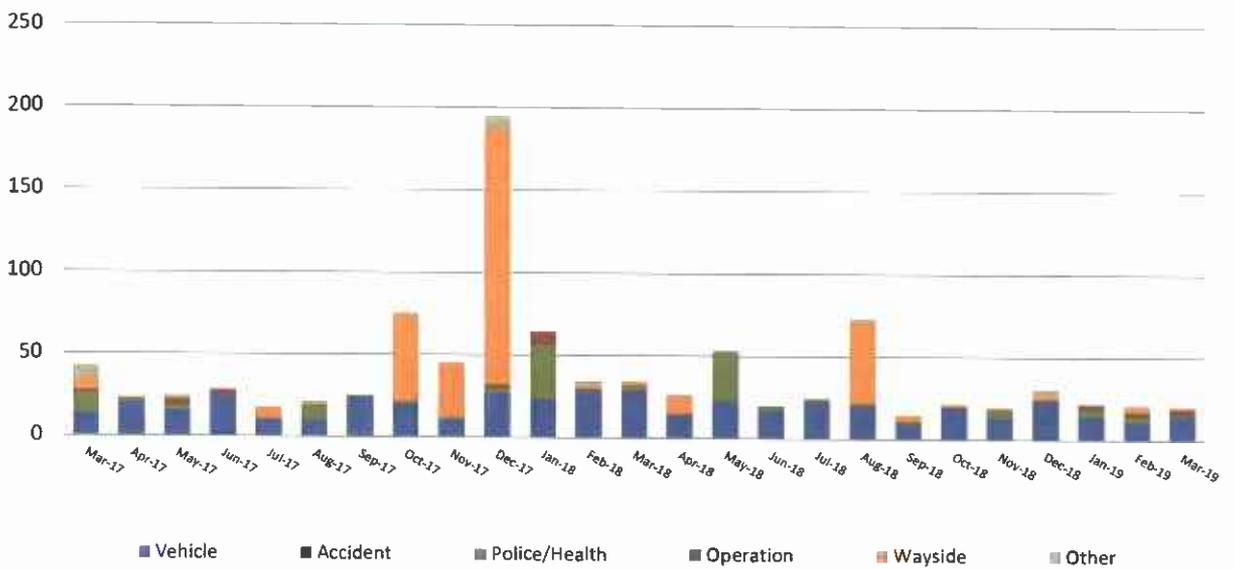
LOST TRIPS

Metro Green Line Revenue In-Service Issues (Lost Trips)



LOST HOURS

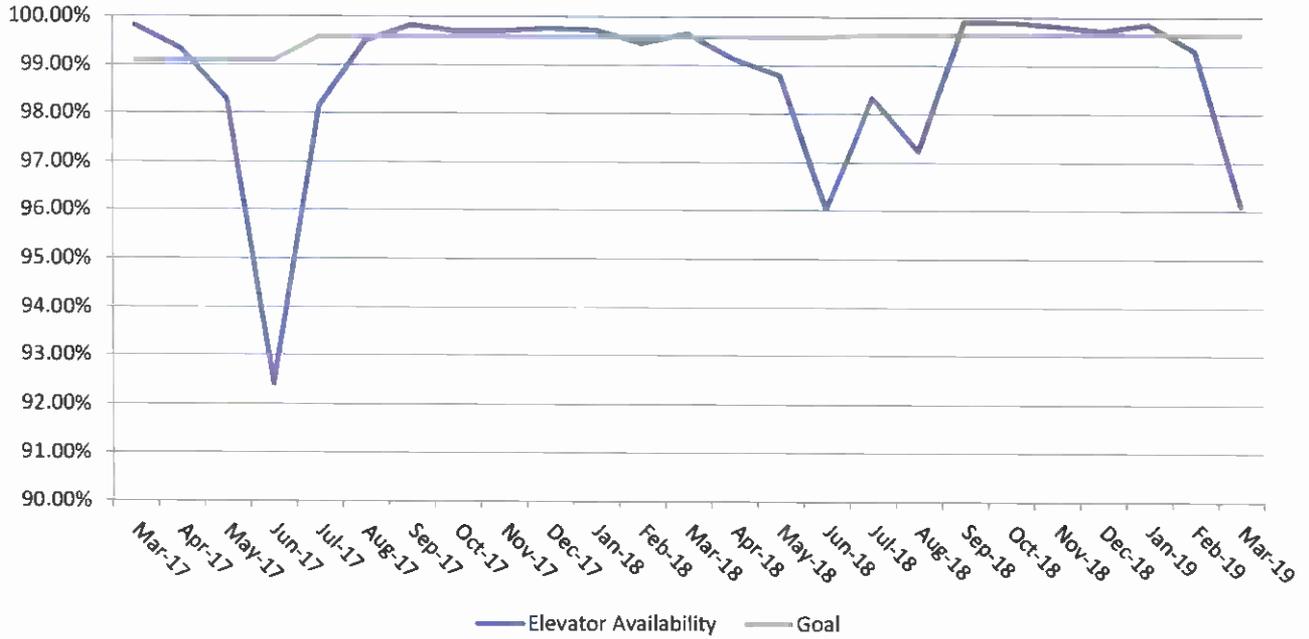
Metro Green Line Revenue In-Service Issues (Lost Hours)



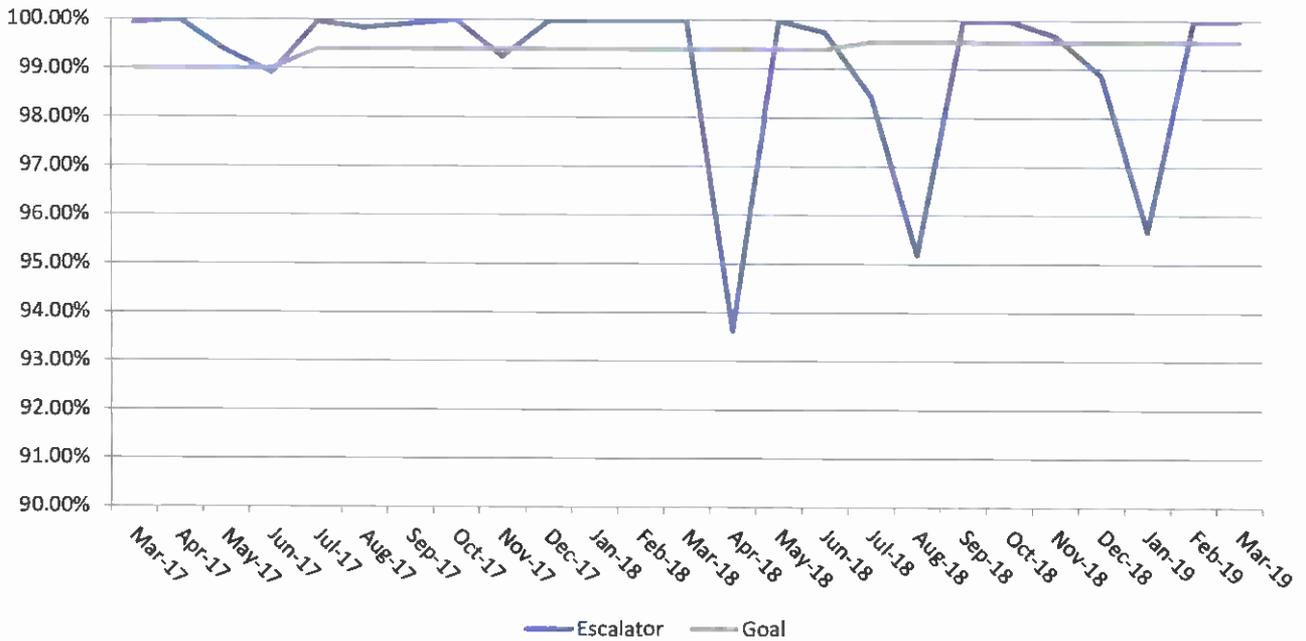
VERTICAL TRANSPORTATION AVAILABILITY

Metro Green Line

**Metro Green Line
Elevator Availability**



**Metro Green Line
Escalator Availability**



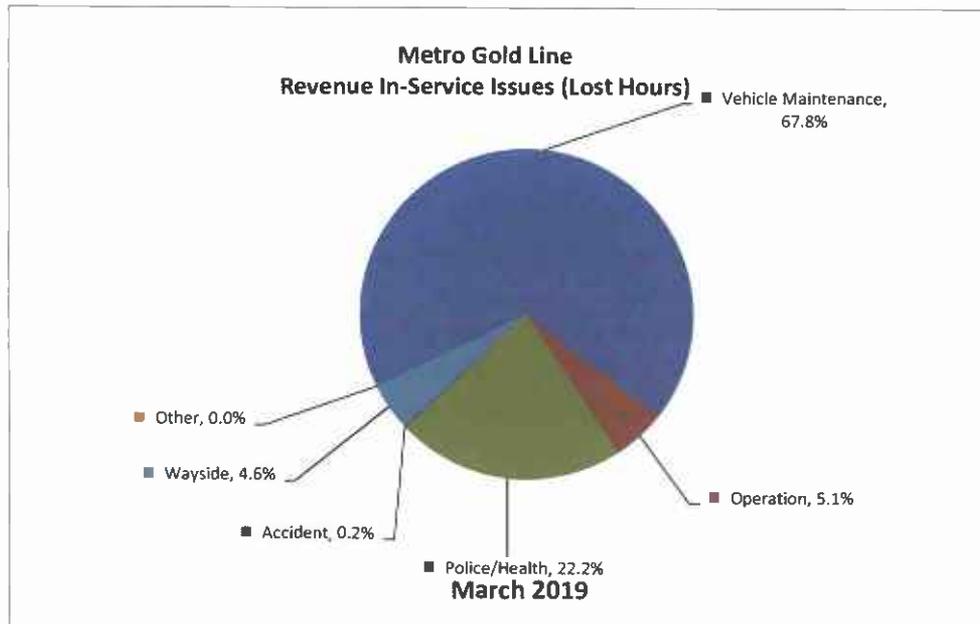
GOLD LINE

Out of a total of 26,203 hours operated, there were approximately 84 total hours of service delays.

March 2019 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	26,118	99.7%
Cancelled + Delayed Hours	84	0.3%
Total Revenue Hours	26,203	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	5	4.3	5.1%
Accidents	1	0.2	0.2%
Vehicle Maintenance	25	57.3	67.8%
Wayside	2	3.9	4.6%
Police & Health	4	18.8	22.2%
Other	0	0.0	0.0%
Total	37	84.5	100.0%

* Data from M3 used to report Service Delays is under review for accuracy.
 The number of incidents on the following page may differ from the summary count due to some incidents not properly designated as cancelled or delayed



March 2019 Gold Line incidents causing delay were as follows:

Operations Incidents:

3/5/2019 4:14:00 AM - Incident# 3121901 (0 lost trips, lost minutes)

Train 403 was late pulling out due to vehicle problems in the yard.

3/14/2019 8:54:00 PM - Incident# 3126339 (1 lost trip, 219 lost minutes)

Reports wrong side door operation at Monrovia Station.

3/15/2019 5:04:00 AM - Incident# 3126404 (0 lost trips, 9 lost minutes)

Train 454

Operator T-323 had a scheduled departure time Northbound at Allen Station at 10:45am, Train 454 arrived at Allen Station at 10:53am. Operator T-323 did not notify or contact control of 8 Minute delay.

3/21/2019 1:18:00 AM - Incident# 3128937 (0 lost trips, 10 lost minutes)

Train 405 delayed 10 minutes northbound. Operator T-406 reports High Speed Circuit Breaker & Prop Faults on car 713 with speed restriction of 35 mph at South Pasadena Station track #1.

Train 405

T-406

Cars 705 (713) 707.

3/21/2019 5:11:00 AM - Incident# 3128973 (0 lost trips, 7 lost minutes)

Train 416

T-120

LRV Cars 707-713-705

Operator had a scheduled departure time from Monrovia Yard Limits Signal 12N of 0451 hours. Train pulled out of The Monrovia Yard at 0506 hours.

3/30/2019 2:48:00 PM - Incident# 3132815 (0 lost trips, 13 lost minutes)

Train delay (operator unable to engage stop and proceed mode or activated the ATP bypass switches.

Train #404

T-445

Avenue 53, track #2, Southbound.

Accidents:

3/17/2019 8:06:00 PM - Incident# 3127365 (0 lost trips, 12 lost minutes)

Train 405 (702,722) T-159, Union Station, track 1 reports group of people by the edge of the platform, informing him that a female patron had fallen on to the track and had been helped back on to the platform but she is in need of medical assistance.

Vehicle Maintenance Incidents:

3/1/2019 7:18:00 PM - Incident# 3120766 (1 lost trip, 219 lost minutes)

Auto Train Protection (Speed Limit)

Train 454

T-093

(748A)-737-738

Northbound, Track 1 Sierra Madre station.

3/2/2019 5:39:00 PM - Incident# 3121056 (1 lost trip, 146 lost minutes)

Train unable to open doors.

T-465

Train 404

(1126)-(1009)

S. Pasadena Track 1 N/B

3/2/2019 8:34:00 PM - Incident# 3120919 (0 lost trips, 12 lost minutes)

(1008)-1125

Wipers B/O

NB at Allen

Train 402

T-451

3/3/2019 8:25:00 AM - Incident# 3121184 (0 lost trips, 12 lost minutes)

Reports of door issue

Train #411

T-440

(710B)-722

Duarte Station, Track #1, NB

3/3/2019 11:22:00 PM - Incident# 3121356 (0 lost trips, 10 lost minutes)

Train 407 (1166-1157) T-388 reports loss of cab signals in the vicinity of Fremont Grevelia grade crossing, track 1.

3/4/2019 5:30:00 AM - Incident# 3121431 (1 lost trip, 219 lost minutes)

T-120 reports having door problems at Lake Station when activating door open/ close button.
Cars 1111, (11S7B)
Lake Station and Memorial Station track #2.

3/4/2019 7:48:00 AM - Incident# 3121514 (0 lost trips, 6 lost minutes)

Train 403 reports Emergency breaking with a EB loop fault that will not cleared.
Train 403
T-456
LRV'S (719A) 716-710
Little Tokyo Station, track southbound.

3/4/2019 8:20:00 AM - Incident# 3121534 (1 lost trip, 219 lost minutes)

Train 403 reporting Smoking breaks.
LRV-710 ATP, TWC and Gateway faults.
LRV- 719 Major Propulsion Faults.
Train 403
T-354
LRV (710) 716- (719)
Indiana Station, track1 northbound.

3/5/2019 2:48:00 PM - Incident# 3122241 (1 lost trip, 219 lost minutes)

ATP failure.
T-88
Train 404
(701)-718-728
Highland Pk Track 1 N/B

3/5/2019 3:42:00 PM - Incident# 3122270 (0 lost trips, 7 lost minutes)

Door problem
T-002
Train 401
706-(731)-708
China Town Station Tk 1 N/B

3/12/2019 4:22:00 PM - Incident# 3125317 (4 lost trips, 883 lost minutes)

No fault/No movement.
T-456
Train 407
722-710
S.W. Museum Tk 2 S/B

3/12/2019 5:51:00 PM - Incident# 3125350 (1 lost trip, 219 lost minutes)

Friction brake/No movement.

T-151

Train 402

(719)-708-719

Mariachi Station Tk 2 S/B

3/14/2019 4:45:00 PM - Incident# 3126296 (0 lost trips, 10 lost minutes)

Door fault

Train #454

T-267

Cars (745A)-(747B)-749

NB, Heeritage Square Track #1

3/16/2019 7:10:00 AM - Incident# 3126931 (0 lost trips, 3 lost minutes)

Train 402

T-426

Little Tokyo Track 2 SB

Operator reported of loss of cab signal to street run transition, Operator was unable to re-engage Street Run operation.

3/16/2019 9:05:00 AM - Incident# 3126948 (1 lost trip, 146 lost minutes)

No movement,ATP issues.

Train#402

T#224

(1166A/B),1161

Track#2,Southbound,Azusa Citrus Station.

3/18/2019 9:00:00 AM - Incident# 3127576 (0 lost trips, 11 lost minutes)

Door faults.

Train#406

T#36

1012,1055,(1172)

Track#1,Northbound,Civic Center Station.

3/19/2019 5:07:00 AM - Incident# 3127990 (0 lost trips, lost minutes)

Train 454 was late to enter the mainline due to major prop faults.

Cars 745-748-744

Division 21 yard.

3/21/2019 7:33:00 AM - Incident# 3129050 (0 lost trips, 23 lost minutes)

Train 416

T-263

LRV Cars (707)-713-705

Operator reported that he is experiencing ATP Failure on LRV Car 707 and is constantly resetting the ATP.

3/22/2019 5:52:00 PM - Incident# 3129887 (0 lost trips, 18 lost minutes)

Hi speed circuit braker.

T-323

Train 423

1172-1055-(1012)

Irwindale Track 1 S/B

3/24/2019 1:26:00 PM - Incident# 3130322 (0 lost trips, 10 lost minutes)

Report propulsion failure with speed restriction of 35 MPH.

T-518

Train 407

Cars

Downtown Azusa track 2 southbound.

3/25/2019 12:15:00 AM - Incident# 3130433 (0 lost trips, 20 lost minutes)

No Cab Signal or street run

Train 412

T-478

LRV cars (1172A)1055

Atlantic Station track 1 northbound

3/25/2019 12:00:00 PM - Incident# 3130689 (1 lost trip, 223 lost minutes)

Report smoking friction brake.

T-458

Train 451

Cars 746-742-(739)

Lincoln/Cypress track 2 southbound.

3/25/2019 5:32:00 PM - Incident# 3130872 (1 lost trip, 219 lost minutes)

Propulsion fault 701(726)(724).

Union Station

Train #428, T-441, track #1, northbound.

3/25/2019 7:49:00 PM - Incident# 3130913 (1 lost trip, 219 lost minutes)

Friction brake fault (723)(731)(708), consist is moving very slow.

Atlantic Station

Train #429, T-196, track #1, northbound.

3/27/2019 12:18:00 PM - Incident# 3131690 (1 lost trip, 219 lost minutes)

Operator reports AC unit is not working.

Atlantic Station, TK 1, N/bound.

Cars: 731 (707) 723.

Train 401.

T-280.

3/30/2019 10:09:00 AM - Incident# 3132745 (1 lost trip, 146 lost minutes)

Friction Brakes

Train 413

T-536

(726B)-725

Northbound, Track 1 Arcadia station.

Wayside Incidents:

3/5/2019 3:58:00 PM - Incident# 3122292 (0 lost trips, 15 lost minutes)

Monrovia South switch 5 A/B out of correspondence.

3/7/2019 9:56:00 PM - Incident# 3123394 (1 lost trip, 219 lost minutes)

Switches out of correspondence at Atlantic Interlocking.

Police & Health Incidents:

3/2/2019 8:34:00 PM - Incident# 3121084 (0 lost trips, 12 lost minutes)

Train 415

T-267

LRV cars 1166-(1157A)

Memorial Park Station track 1 northbound

Victim: Debbie Guidoln (626) 241-7695 Caucasian female approximately 60 years of age.

African American female wearing a pink hoodie, Dodger hat and white tennis shoes.

3/13/2019 7:06:00 PM - Incident# 3125856 (3 lost trips, 664 lost minutes)

Blockade at 3rd and Rowan street, due to car hitting the right of way access gate.

3/27/2019 3:38:00 PM - Incident# 3131767 (2 lost trips, 438 lost minutes)

Medical emergency Car 732.

T-106

Train 408

Cars 73-(732)-722

Arcadia Station, Track 1, northbound.

3/30/2019 9:53:00 AM - Incident# 3132738 (0 lost trips, 12 lost minutes)

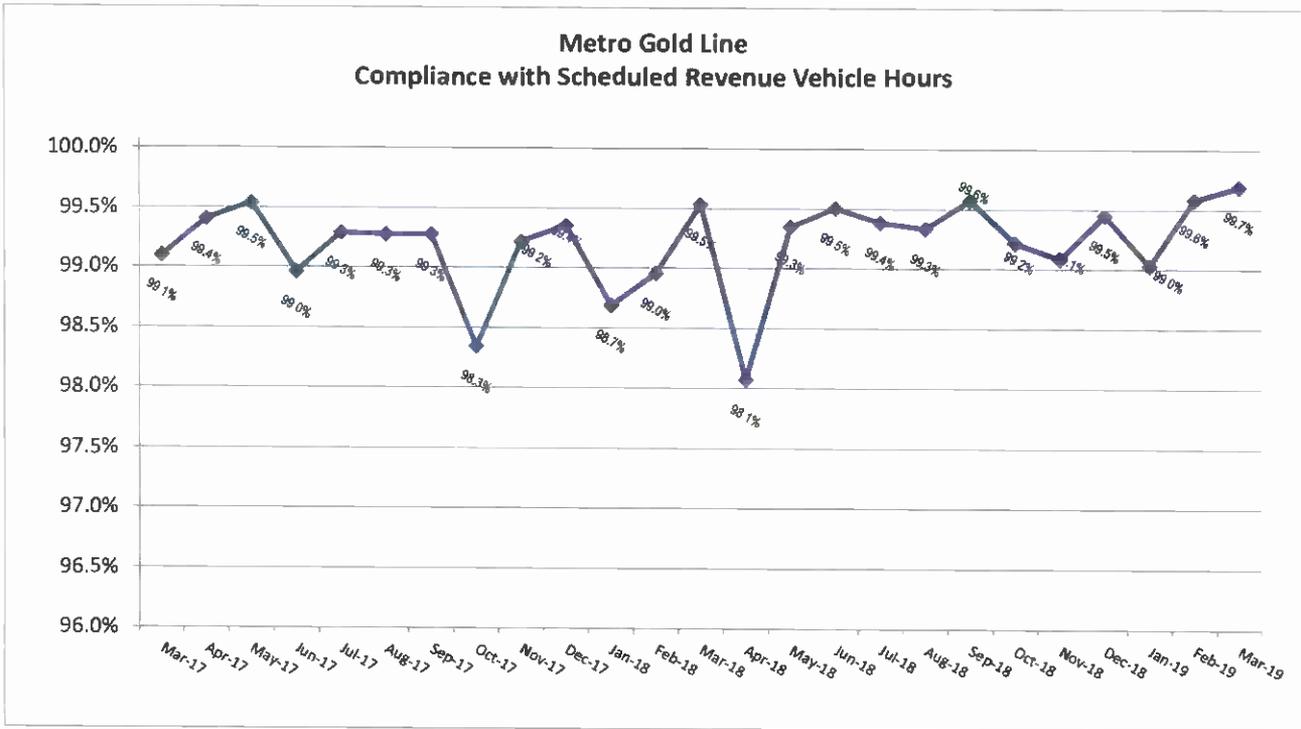
Blockade

Train #409

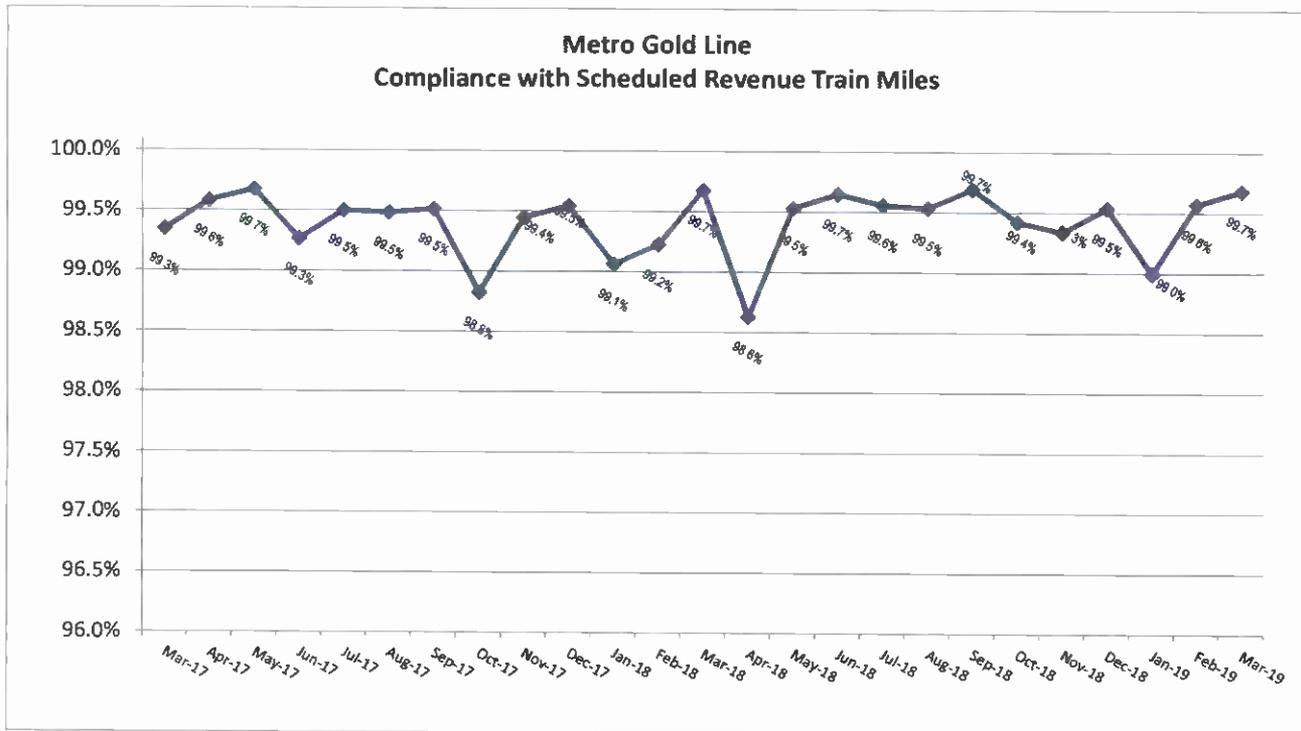
T-151

Lorena and 1st, tracks 1 and 2.

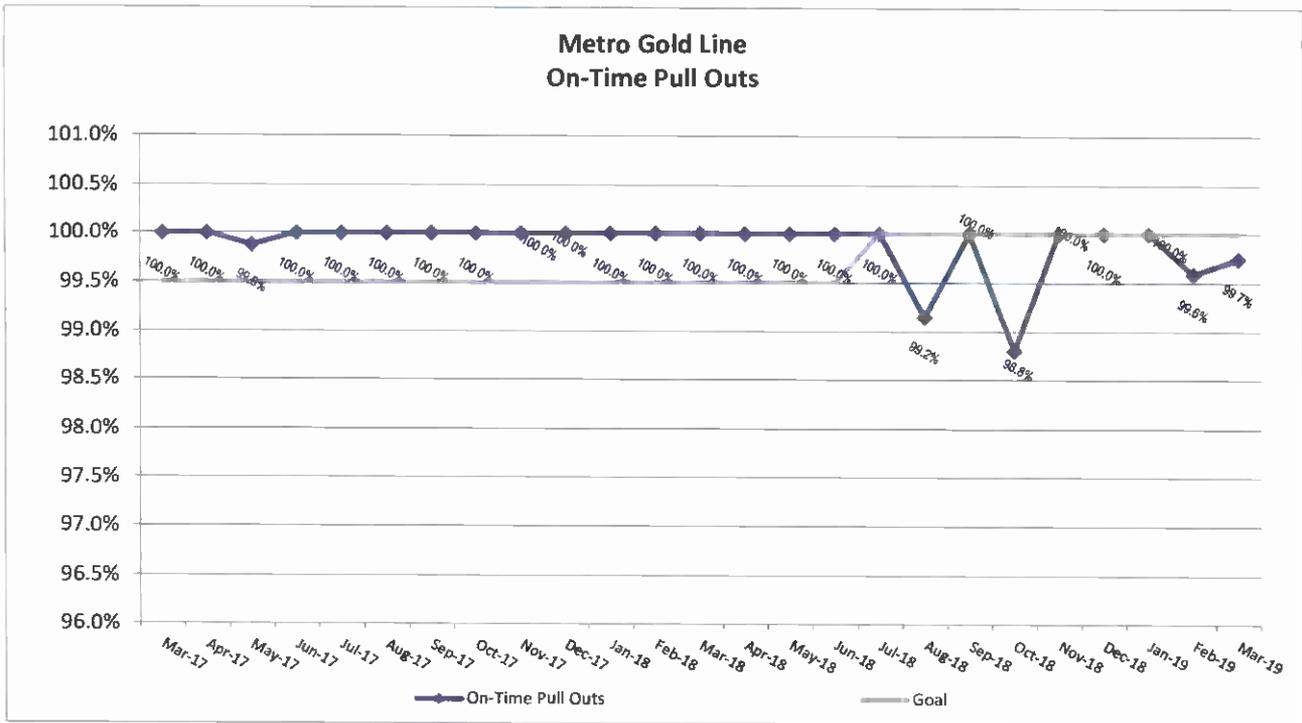
MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS
COMPLIANCE WITH SCHEDULED VEHICLE HOURS
Mar 2019



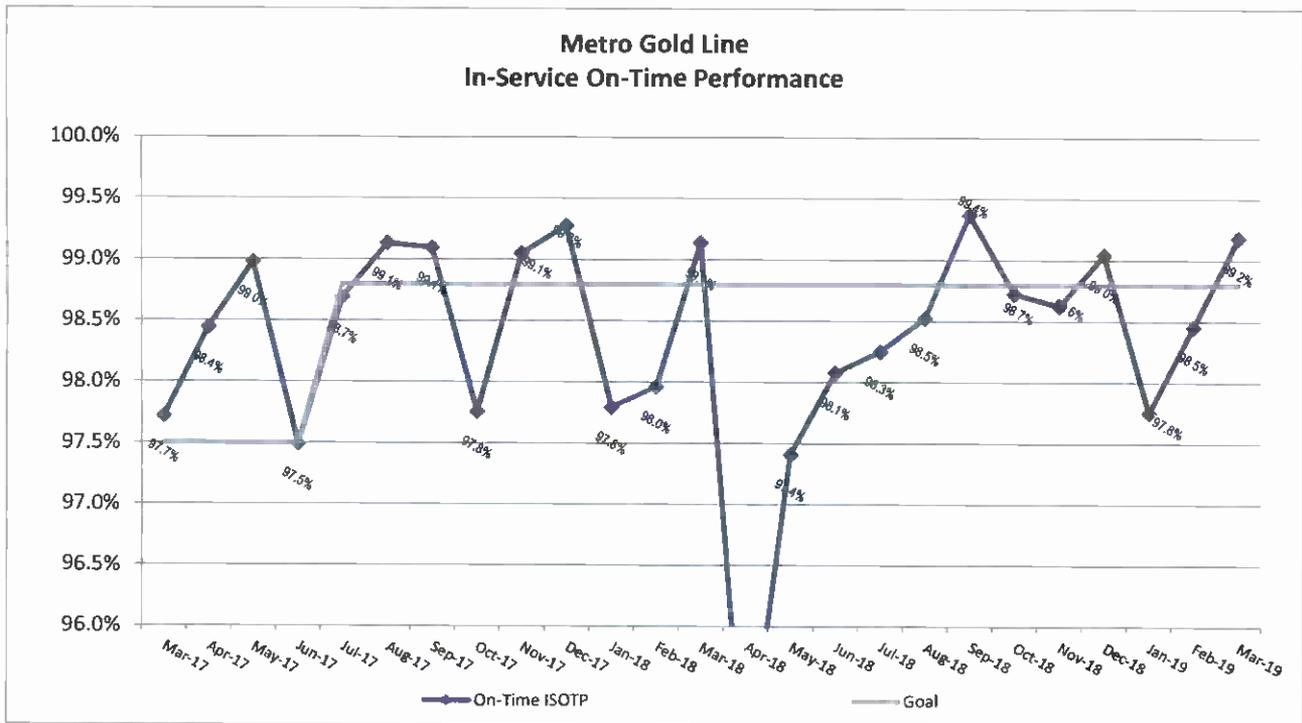
COMPLIANCE WITH SCHEDULED TRAIN MILES



ON-TIME PULL OUTS

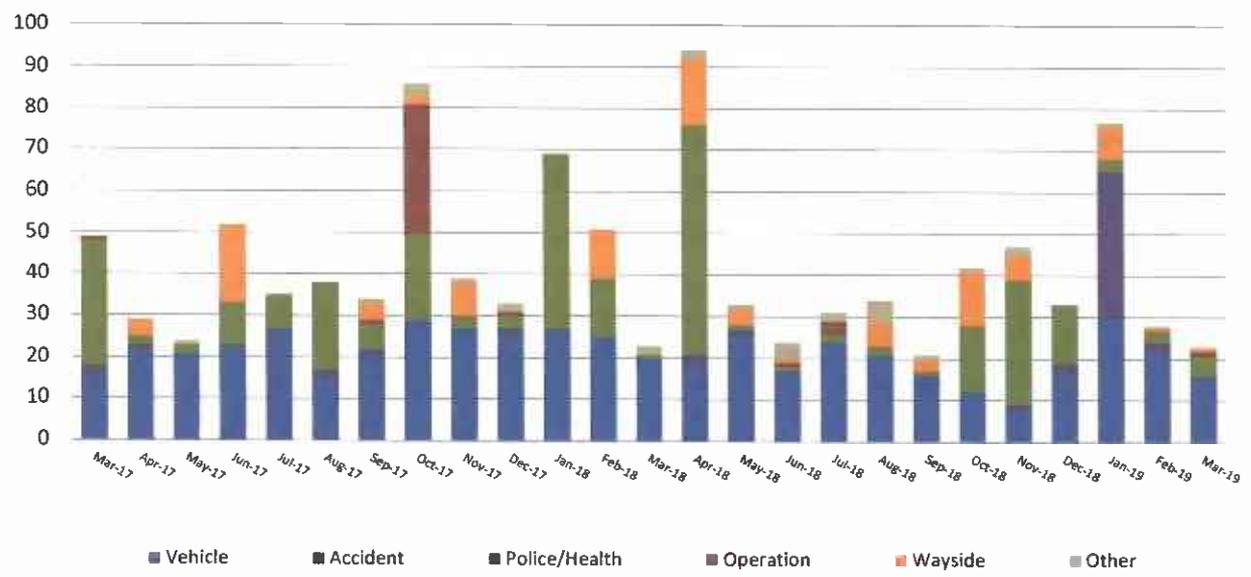


IN-SERVICE ON-TIME PERFORMANCE



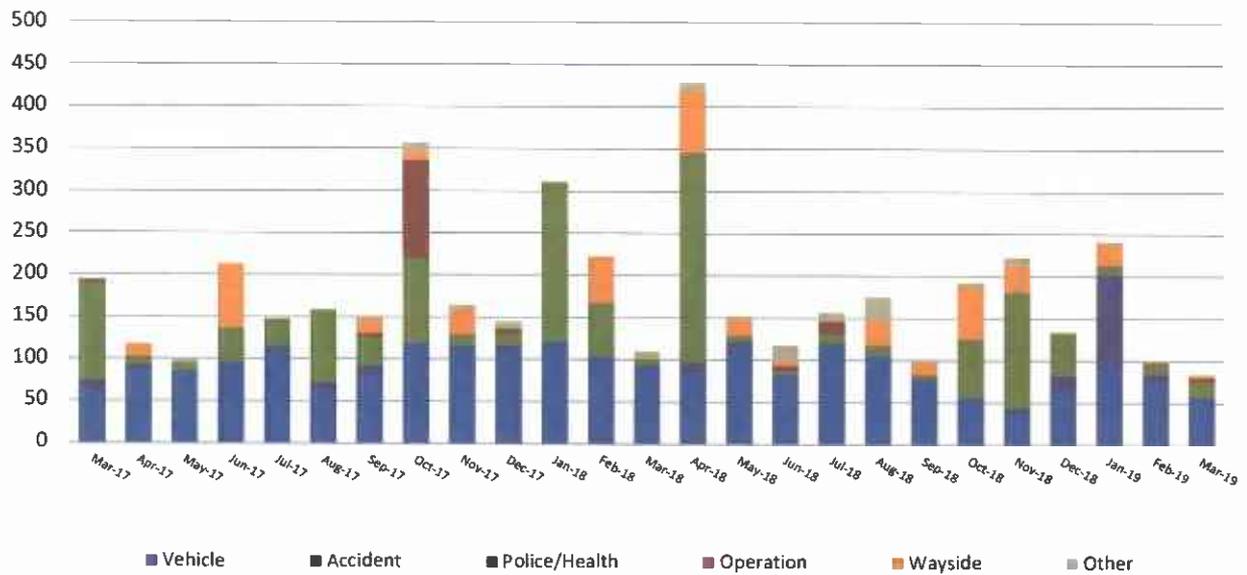
LOST TRIPS

Metro Gold Line Revenue In-Service Issues (Lost Trips)



LOST HOURS

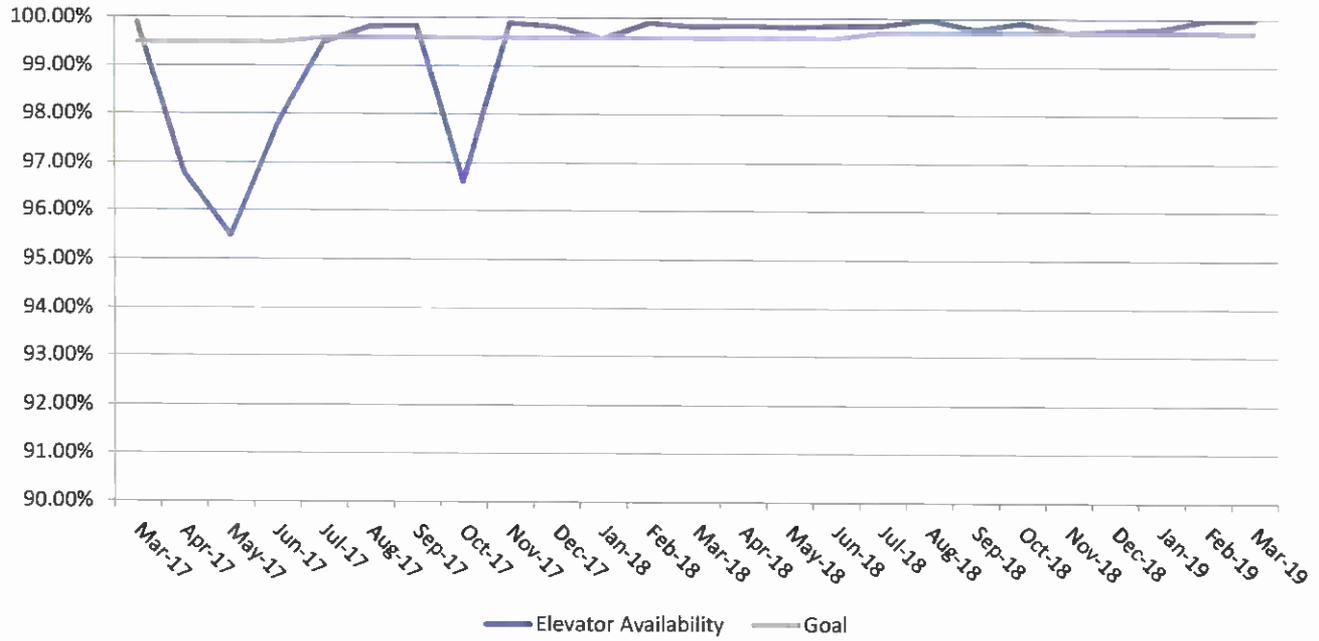
Metro Gold Line Revenue In-Service Issues (Lost Hours)



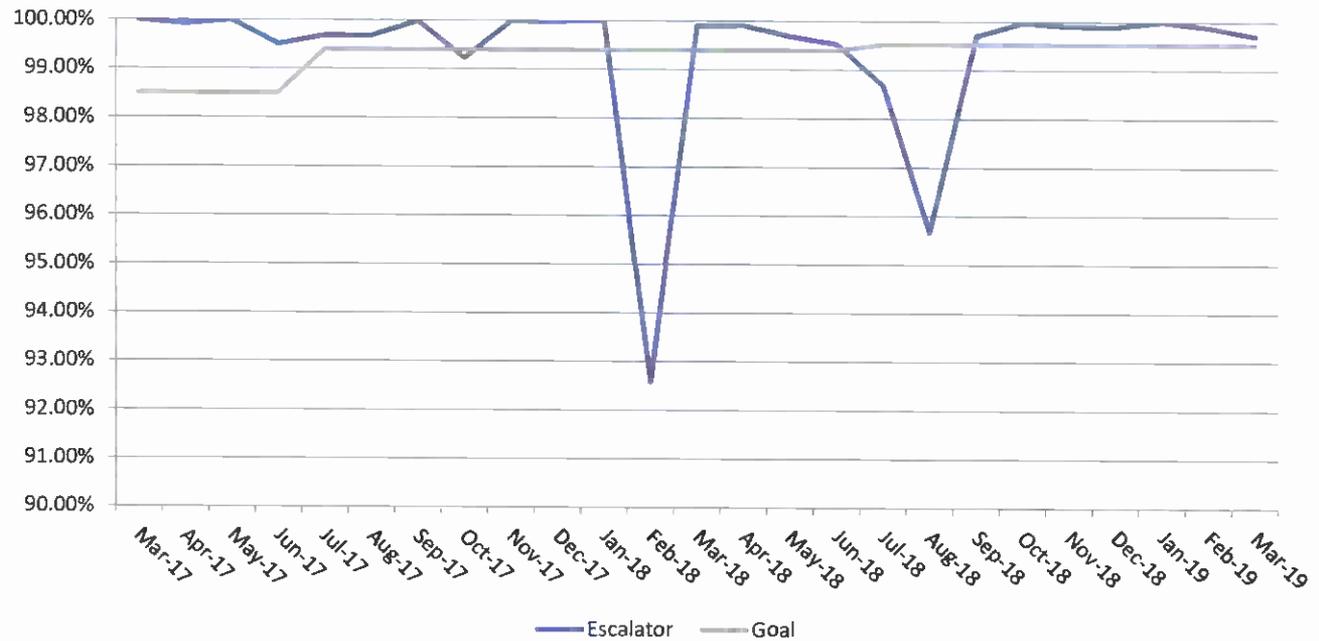
VERTICAL TRANSPORTATION AVAILABILITY

Metro Gold Line

**Metro Gold Line
Elevator Availability**



**Metro Gold Line
Escalator Availability**



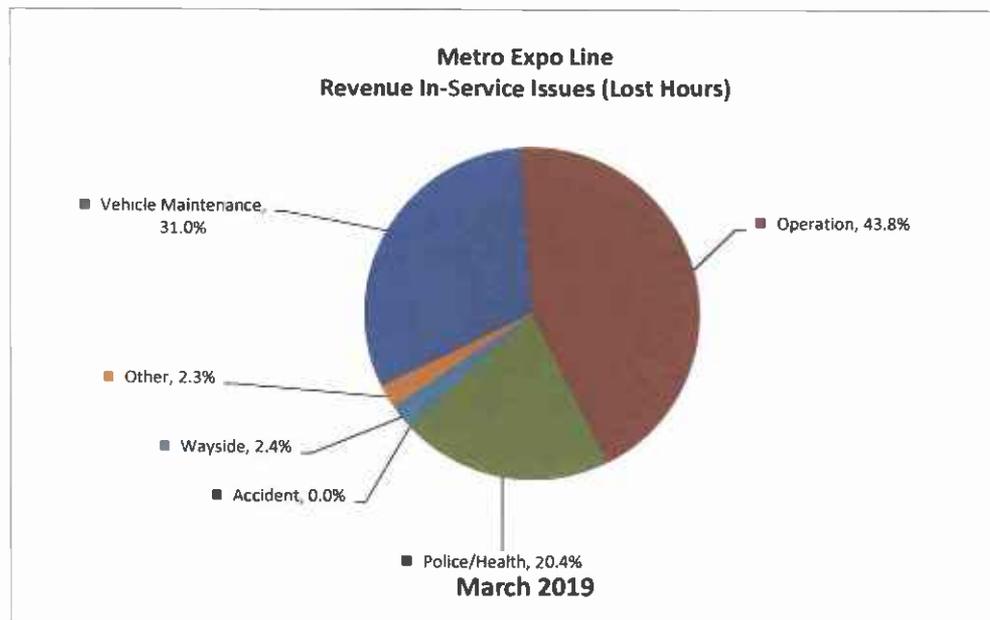
EXPO LINE

Out of a total of 21,502 hours operated, there were approximately 17 total hours of service delays.

March 2019 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	21,485	99.9%
Cancelled + Delayed Hours	17	0.1%
Total Revenue Hours	21,502	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	3	7.4	43.8%
Accidents	0	0.0	0.0%
Vehicle Maintenance	5	5.2	31.0%
Wayside	2	0.4	2.4%
Police & Health	5	3.4	20.4%
Other	2	0.4	2.3%
Total	17	16.9	100.0%

* Data from M3 used to report Service Delays is under review for accuracy
 The number of incidents on the following page may differ from the summary count due to some incidents not properly designated as cancelled or delayed



March 2019 Expo Line incidents causing delay were as follows:

Operations Incidents:

3/4/2019 4:49:00 PM - Incident# 3121776 (3 lost trips, 423 lost minutes)

Train 695 (1127A), 1108, 1076, operator T- 232, overran signal 2S at 6th Street interlocking, southbound on track 4.

3/6/2019 7:47:00 PM - Incident# 3122867 (0 lost trips, 15 lost minutes)

Broken Fence at 5th/Colorado due to car on right of way

3/7/2019 5:21:00 PM - Incident# 3123313 (0 lost trips, 5 lost minutes)

Patron obstructing Door way due to stolen item

Train 608

T-362

K1122, K1135, (K1138)

Downtown SM, track 3, northbound

Vehicle Maintenance Incidents:

3/6/2019 9:17:00 AM - Incident# 3122567 (0 lost trips, 6 lost minutes)

T-311 reports windshield wiper fell off train 686 lead car 1084B.

Cars 1084-1116

Westwood Station, Track 4, Southbound.

3/7/2019 12:33:00 AM - Incident# 3122921 (1 lost trip, 141 lost minutes)

Doors will not open

Train #613, T-381

1051-1071-1004

SB, 7th and Metro Center Station, Track #2

3/7/2019 6:08:00 AM - Incident# 3122993 (0 lost trips, 6 lost minutes)

T-386 reported that her consist did not have a speed code departing DTSM-4th Street Station.

T-386

Train 612

(1020)-1041

Northbound, Track 4

DTSM-4th Street Station

3/17/2019 12:37:00 AM - Incident# 3127165 (0 lost trips, lost minutes)

Door Problem

Train 606 T-377

TK3 DTSM

1032-1066-(1105)

3/27/2019 3:01:00 PM - Incident# 3131748 (1 lost trip, 141 lost minutes)

Train Operator T-133 reports of a propulsion fault on car#1087 B.

T-133

Tr#608

Cars(1087B)-1092-1096

Southbound Trk#4

Palm Station

3/29/2019 11:40:00 AM - Incident# 3132474 (0 lost trips, 20 lost minutes)

Train 610 reports a Friction Brakes not releasing on and no movement. southbound.

Train 610

T-056

LRV'S 1061-1070-1051

7th & Metro track 1 southbound.

Wayside Incidents:

3/20/2019 4:45:00 PM - Incident# 3128852 (0 lost trips, 5 lost minutes)

Barrington TPSS, breakers opened, TP-167 performing maintenance at location.

3/29/2019 5:23:00 AM - Incident# 3132318 (0 lost trips, 20 lost minutes)

Track Circuit: Ground Detector

Signal Ground Fault (S090C AC) IND

Police & Health Incidents:

3/3/2019 2:18:00 AM - Incident# 3121133 (0 lost trips, 10 lost minutes)

Assault/ Police Activity

3/4/2019 8:14:00 PM - Incident# 3121824 (0 lost trips, 20 lost minutes)

Train 614 initially reported no movement. It turned out to be an Assault as Passengers " Pulled T" to stop the Train.

Train 614

1117B-(1139)-1090

T-296

South of Sepulveda Station Track #3 Northbound.

3/9/2019 8:52:00 AM - Incident# 3124004 (1 lost trip, 151 lost minutes)

Metro Security (Ofcr. Simon) called to report of possible human remains on the ROW

3/9/2019 11:23:00 PM - Incident# 3124188 (0 lost trips, 10 lost minutes)

Train Operator T-290 reports a female individual laying on the ground of th train.

3/21/2019 7:37:00 PM - Incident# 3129410 (0 lost trips, 15 lost minutes)

Robbery suspects on car 1082

Other Incidents:

3/25/2019 8:05:00 PM - Incident# 3130917 (0 lost trips, 10 lost minutes)

RTU: Lost Communication

Palms to 17th station.

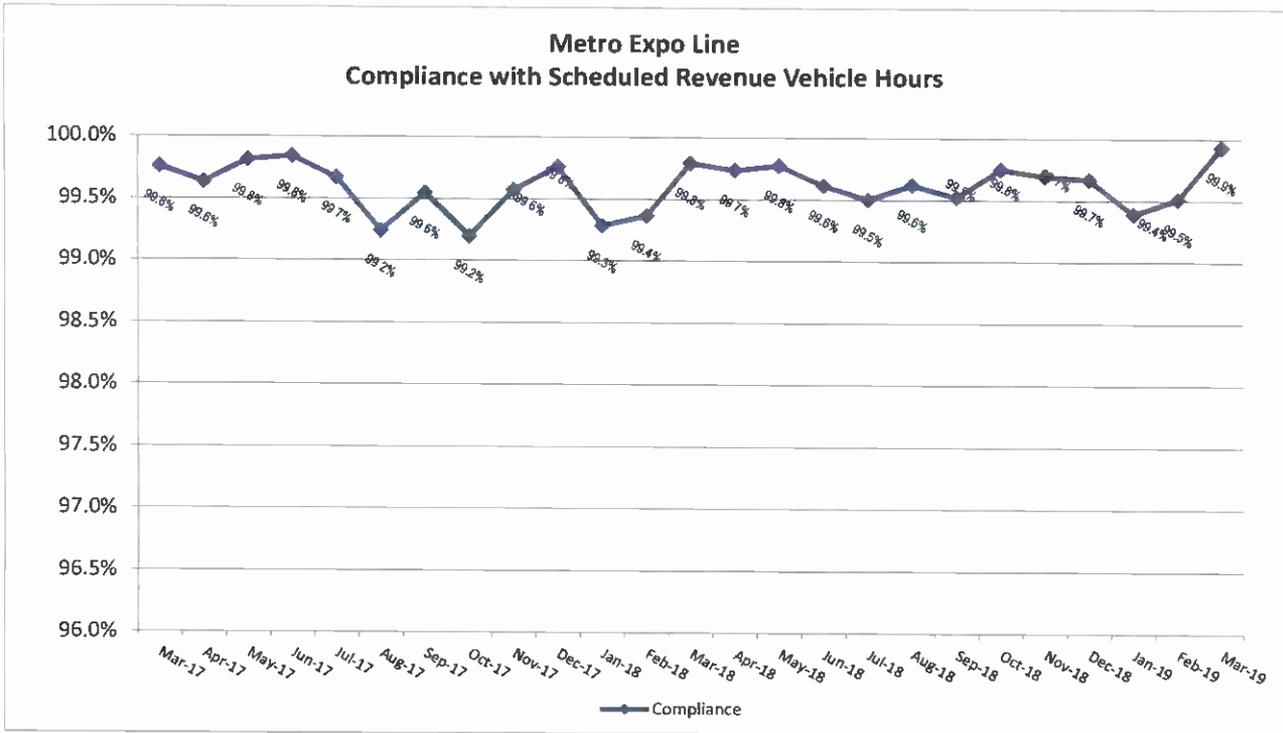
3/31/2019 12:40:00 AM - Incident# 3132903 (0 lost trips, 13 lost minutes)

Passenger not allowing train to move at Santa Monica Station.

MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

COMPLIANCE WITH SCHEDULED VEHICLE HOURS

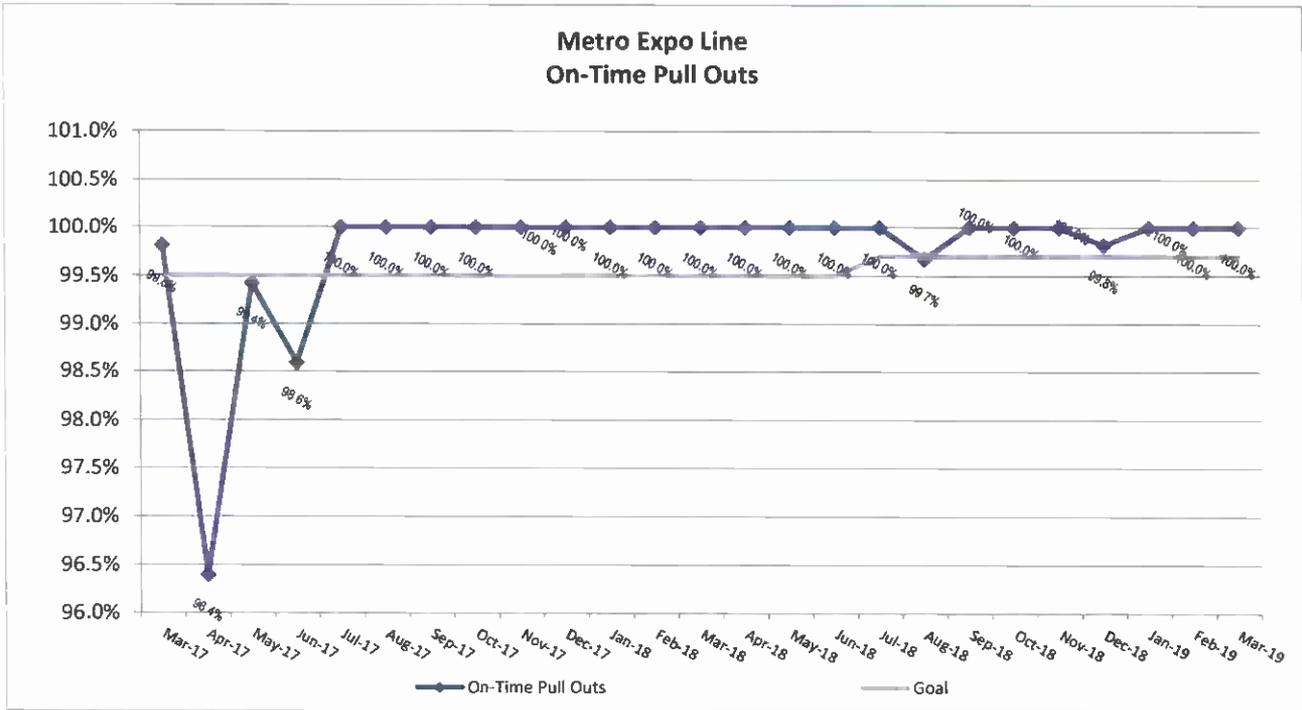
Mar 2019



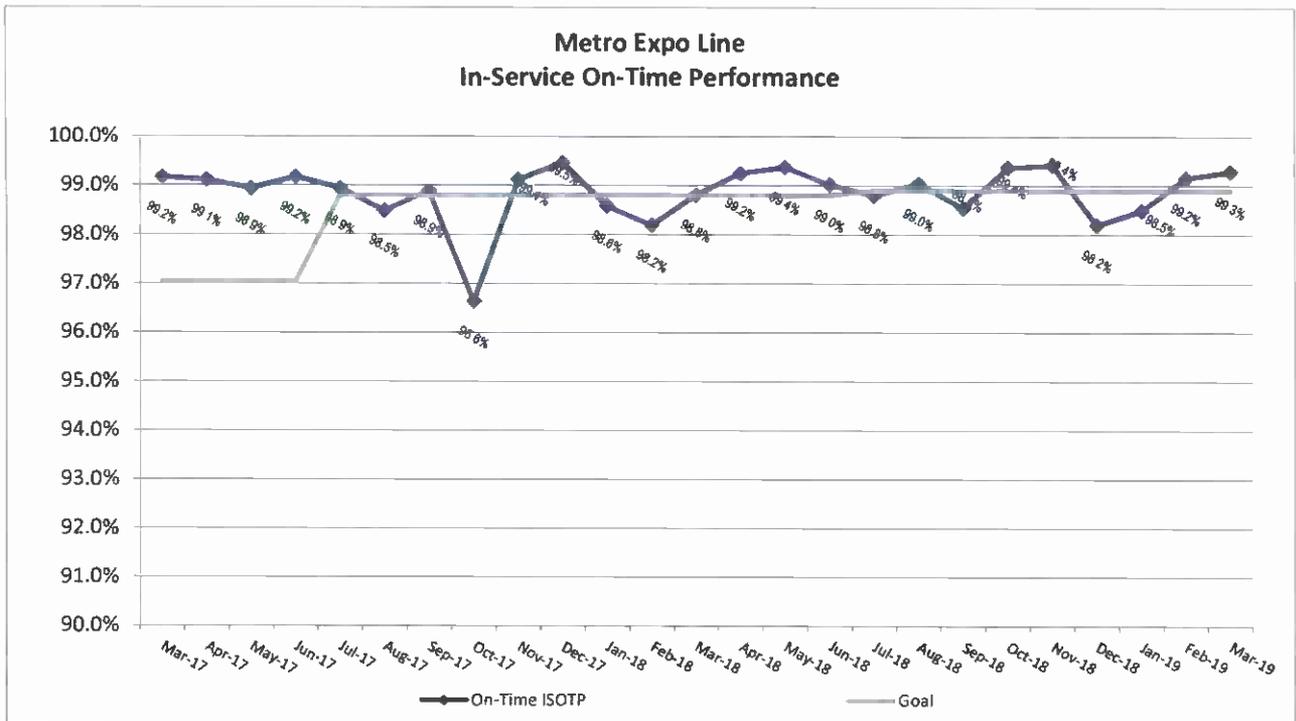
COMPLIANCE WITH SCHEDULED TRAIN MILES



ON-TIME PULL OUTS

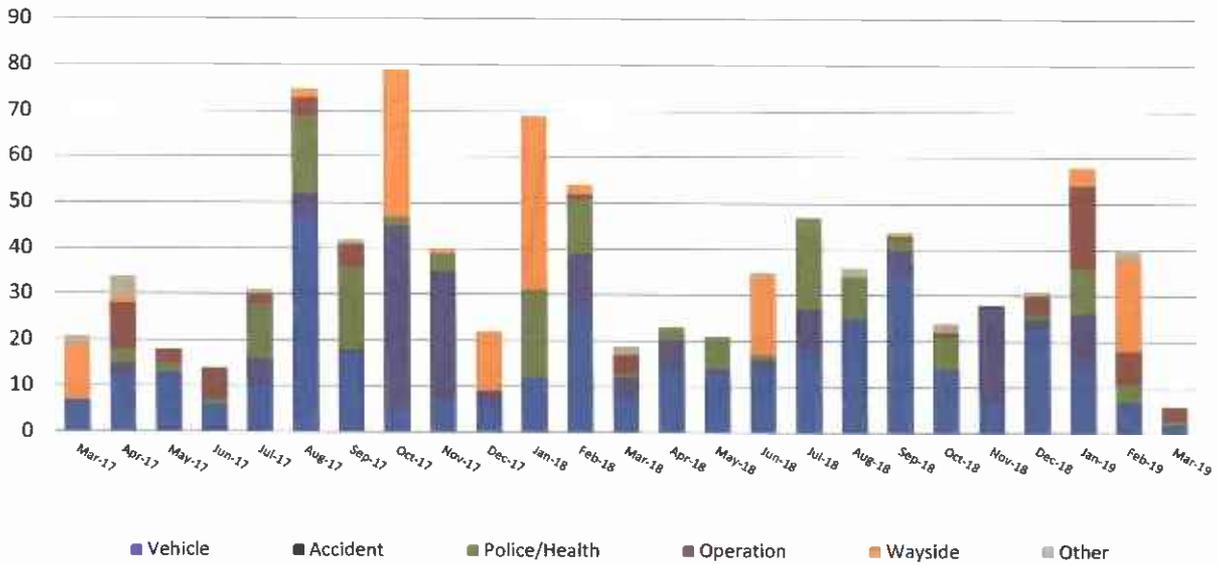


IN-SERVICE ON-TIME PERFORMANCE



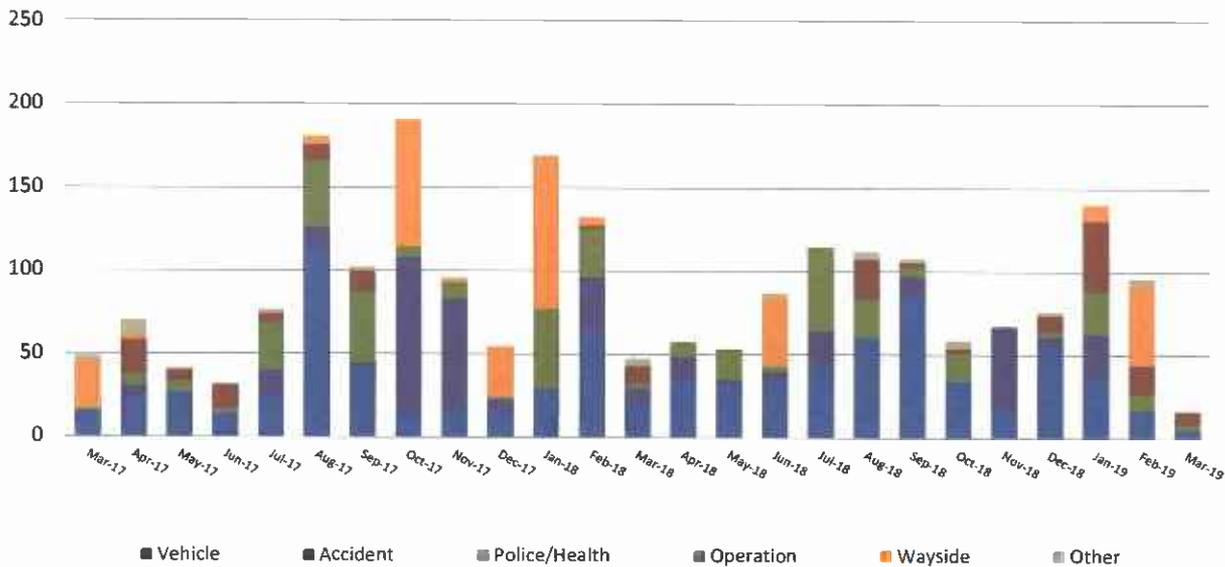
LOST TRIPS

Metro Expo Line Revenue In-Service Issues (Lost Trips)



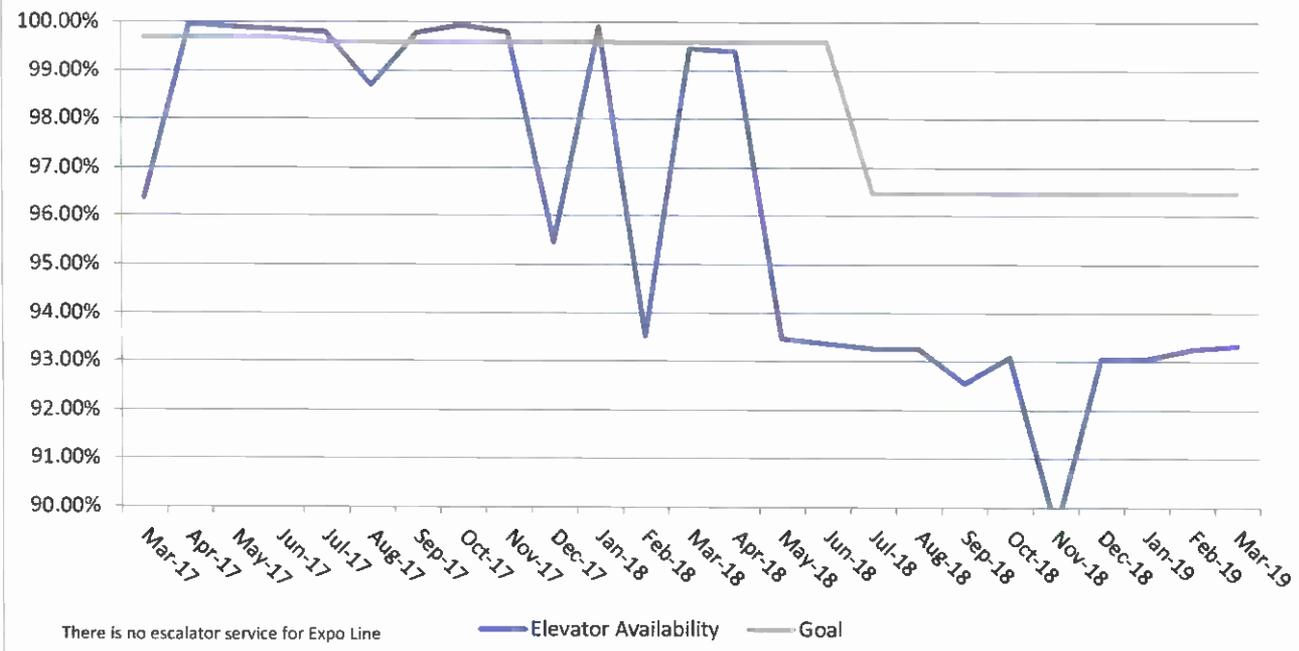
LOST HOURS

Metro Expo Line Revenue In-Service Issues (Lost Hours)



VERTICAL TRANSPORTATION AVAILABILITY

Metro Expo Line Elevator Availability



Note: An elevator at Culver City Station has been out of service indefinitely.

Financial Status

March 2019

FTA Quarterly Review
May 2019



Metro

Excellence in Service and Support

FY19 – Indicators

- **FY19 actual cash receipts from locally imposed sales tax revenues (PA, PC, MR, MM) totaled \$896M during Q3 of the fiscal year, an increase of 8.4%.**
- **The Mar 2019 Los Angeles County unemployment rate continues to increase slightly as the local Labor Force remains at near record levels. All figures each had a small decrease.**
 - LA 4.6%, CA 4.3% and US 3.8%**
- **Inflation in the Los Angeles Metropolitan Area continued to decline to 2.7% for the period Mar '19 over Mar '18**
 - Excluding Food and Energy, core inflation equaled 2.8%**
- **Transit indicators – FY 19 – Q3**
 - Ridership versus prior year**
 - Bus: -3.2%**
 - Rail: -7.2%**
 - Total: -4.3%**
 - Fare revenues – FY19Q3 -14% vs FY 18Q3**

FY19 Q3 – Highlights

- The Metro Board approved the development of a one-year “Pay-As-You-Use” pilot program for the I-110 and I-10 Express Lanes
- Staff released the draft 2019 Public Participation Plan (PPP) as part of the Title VI Program Update.
- Staff conducted public listening and outreach workshops to explore alternative service concepts and policies to improve Metro services – NextGen
- The Metro Board approved the use of the former Division 6 site as a temporary bridge housing facility.

FY19 Q4 – Look Ahead

- Metro Board consideration of the FY 2019-20 (FY20) budget at \$7.2B including:

Dollars in Millions

Program Type	FY19 Budget	FY20 Propsed	\$ Change	% Change
Transit Infrastructure	2,003.3	2,378.4	375.1	18.7%
Transit Operations	1,773.9	1,844.4	70.5	4.0%
State of Good Repair (SGR)	534.2	492.0	(42.2)	-7.9%
Subsidy Programs	1,330.6	1,404.7	74.1	5.6%
Regional Rail	179.3	178.2	(1.1)	-0.6%
General Planning	181.9	169.9	(12.1)	-6.6%
Congestion Management	128.3	135.8	7.5	5.8%
Debt	417.1	534.7	117.6	28.2%
Administration	71.5	68.8	(2.7)	-3.8%
Grand Total	6,620.2	7,206.9	586.7	8.9%

- Sales Tax Revenues are assumed to grow 3.4% over FY19 to total: \$4.2B
- Service Changes included reflect minimal changes in Bus and a reduction of 5.7% in Revenue Vehicle Service Hours (RVSH) on Rail.

Los Angeles County
Metropolitan Transportation Authority

METRO CONSTRUCTION SAFETY FTA Quarterly Review Meeting May 29, 2019



Metro

CONSTRUCTION SAFETY QUARTERLY REPORT



Crenshaw/LAX Transit Project

CRENSHAW/LAX TRANSIT PROJECT

- ❑ Metro participated in WSCC Tool-Box Safety Huddle Meetings in January, February and March 2019.
- ❑ WSCC participated in Metro's All Hands Safety and Security Meetings in January, February and March 2019.
- ❑ Metro's Executive Safety Team participated in Safety Walks in January, February and March 2019.
- ❑ Project-to-Date Total Work Hours: 8,015,554
- ❑ Recordable Injuries as of March 2019: 92
- ❑ Project Rate per 200,000 Labor Hours: 2.3
- ❑ BLS National Heavy Construction Incident Rate: 2.8
- ❑ Total Days Away Cases: 4
- ❑ Total Restrictive Duty Cases: 12

CONSTRUCTION SAFETY QUARTERLY REPORT



Westside Purple Line Extension
Section 1 Project



Regional Connector Transit Project

WESTSIDE PURPLE LINE EXTENSION SECTION 1 PROJECT

<input type="checkbox"/> Project to Date Total Work Hours:	3,589,230
<input type="checkbox"/> Recordable Injuries as of March 2019:	19
<input type="checkbox"/> Project Rate per 200,000 Labor Hours:	1.1
<input type="checkbox"/> BLS National Heavy Construction Incident Rate:	2.8
<input type="checkbox"/> Total Days Away Cases:	6

REGIONAL CONNECTOR TRANSIT PROJECT

<input type="checkbox"/> Project to Date Total Work Hours:	3, 621,212
<input type="checkbox"/> Recordable Injuries as of March 2019:	15
<input type="checkbox"/> Project Rate per 200,000 Labor Hours:	.83
<input type="checkbox"/> BLS National Heavy Construction Incident Rate:	2.8
<input type="checkbox"/> Total Days Away Cases:	0

CONSTRUCTION SAFETY QUARTERLY REPORT



- Conducted monthly All Hands Safety/Security Meetings with the Westside Purple Line Extension Section 1 Project and Regional Connector Transit Project contractors.
- Monitored construction activities on a daily basis including nights and weekends to ensure compliance with contract specifications including Cal/OSHA and CPUC.
- Participated in weekly progress meetings to discuss safety / security and quality related issues and work schedules.

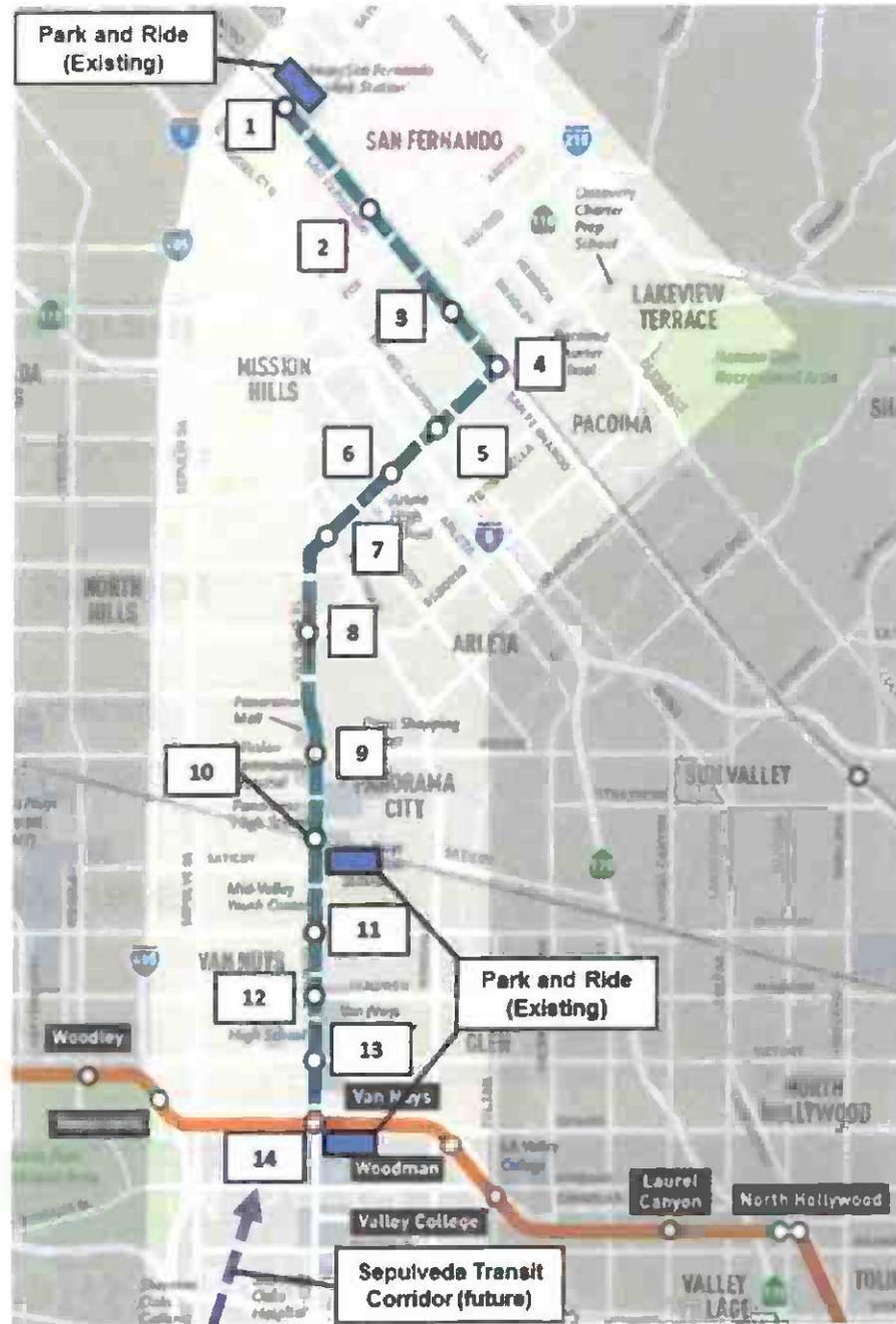


Metro

East San Fernando Valley Transit Corridor

Study Corridor

- LRT corridor (9.4 miles) from Metro Orange Line to Sylmar/San Fernando Metrolink Station
- 14 stations serving
 - Van Nuys
 - Panorama City
 - Pacoima
 - Sylmar
 - San Fernando



1. Sylmar/San Fernando Metrolink Station
2. Maclay Station
3. Paxton Station
4. Van Nuys/San Fernando Station
5. Laurel Canyon Station
6. Arleta Station
7. Woodman Station
8. Nordhoff Station
9. Roscoe Station
10. Van Nuys Metrolink Station
11. Sherman Way Station
12. Vanowen Station
13. Victory Station
14. Van Nuys Metro Orange Line Station

East San Fernando Valley Transit Corridor

Project Status

- FEIS/FEIR
 - SHPO Consultation ongoing
 - Grade Crossing Safety Analysis
 - Orange Line Station Connection
- Engineering
 - Completed Advanced Conceptual Engineering (10% design)
 - Updating Cost Estimates

Next Steps

- Admin. FEIS/FEIR for FTA Review
- Board Certification + Record of Decision
- Award of PE Contract



Eastside Transit Corridor Phase 2

Study Corridor

Light rail transit corridor
extending Gold Line
eastward to Whittier and/or
South El Monte



Eastside Transit Corridor Phase 2

Status

- Winter/Spring 2019 – Preparation for NOI/NOP, data collection, and design refinement studies
- Spring 2019 – Key technical meetings with cities, agencies, and stakeholders

Next Steps

- Summer 2019 – Scoping meetings

West Santa Ana Branch Transit Corridor



Study Corridor

19 mile light rail transit corridor connecting southeast LA County to Downtown Los Angeles

Board Approvals

- December 2018 Board approvals:
 - Three stations removed from further study:
 - Washington,
 - Vernon and
 - 183rd/Gridley Station
 - Aerial grade-separated alignment over the I-10 until Slauson Station
 - Five aerial grade-separations
 - Alternative G2 (Pershing Square design option) removed from further study
 - Optional Bloomfield extension and station removed from further study

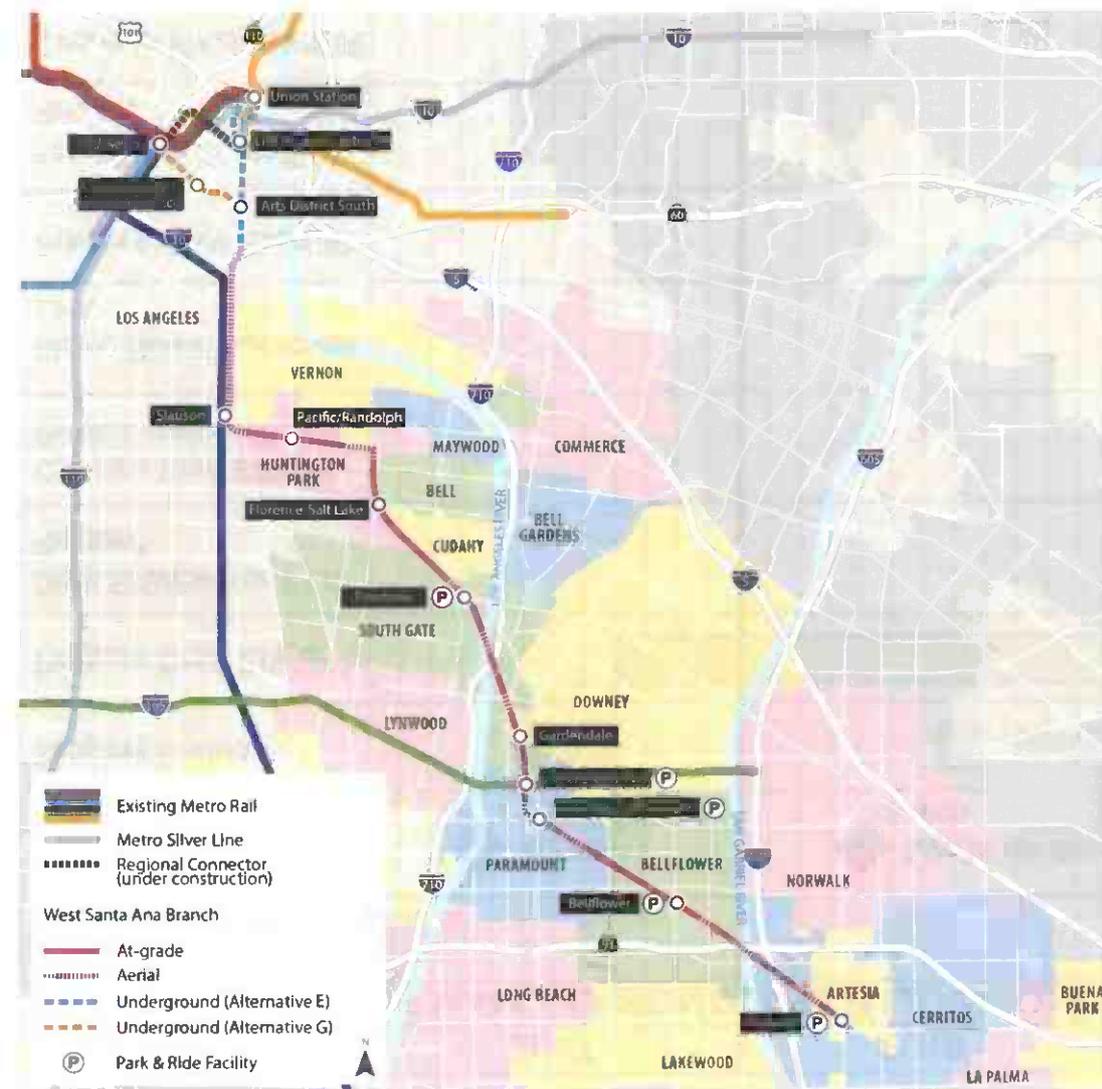
West Santa Ana Branch Transit Corridor

Status

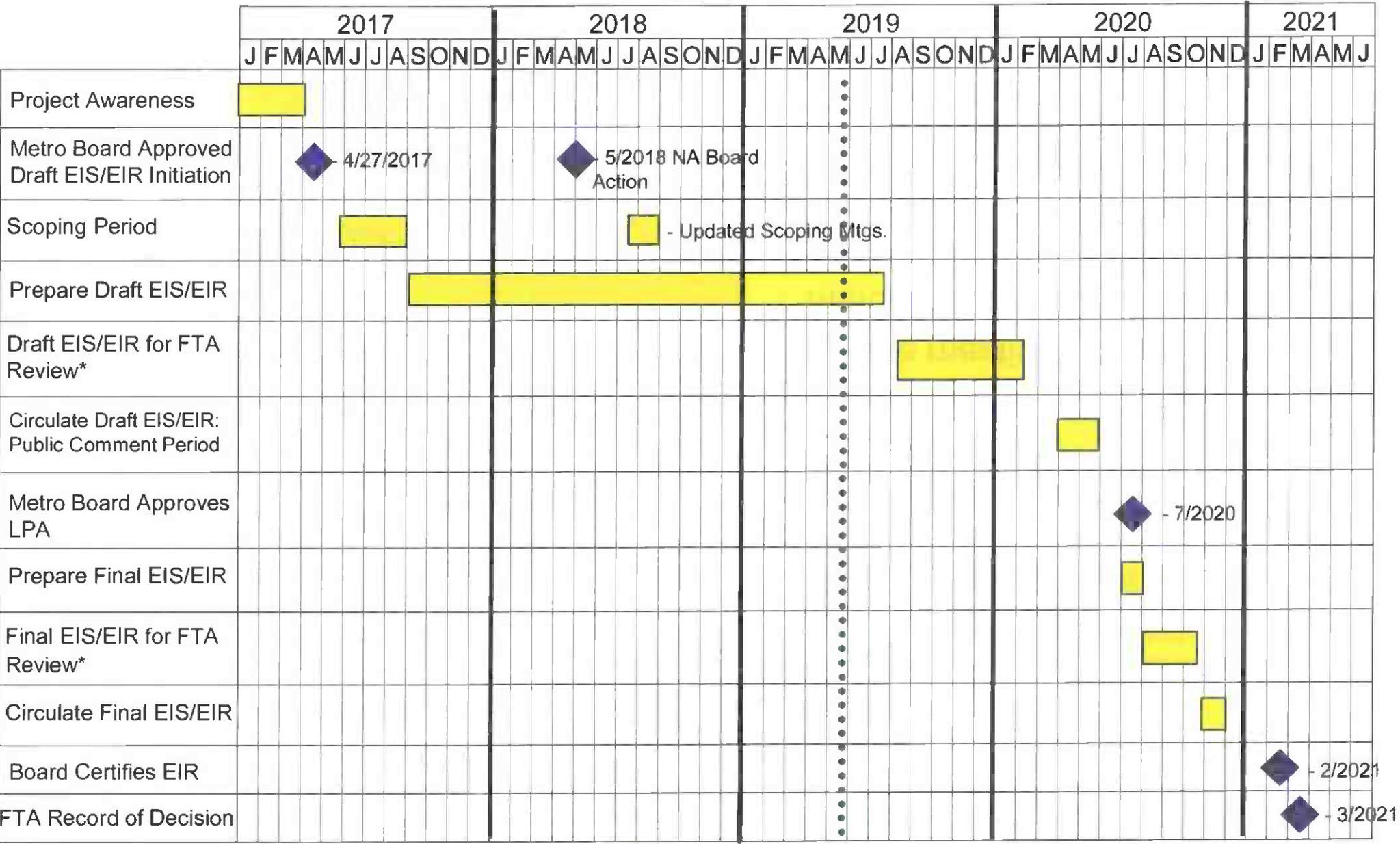
- April to June 2018 – Elected Officials and Agency Tour and Public Tours
- Ongoing stakeholder briefings

Next Steps

- Advance design
- Fall 2019 – Round 2 Community update meetings
- March 2020 – Completion of draft EIS/EIR
- Support FTA staff resource needs to accelerate environmental review process



West Santa Ana Branch Transit Corridor Schedule



= Milestone Date

Last Revised: 5/2019

*FRA review to be coordinated.

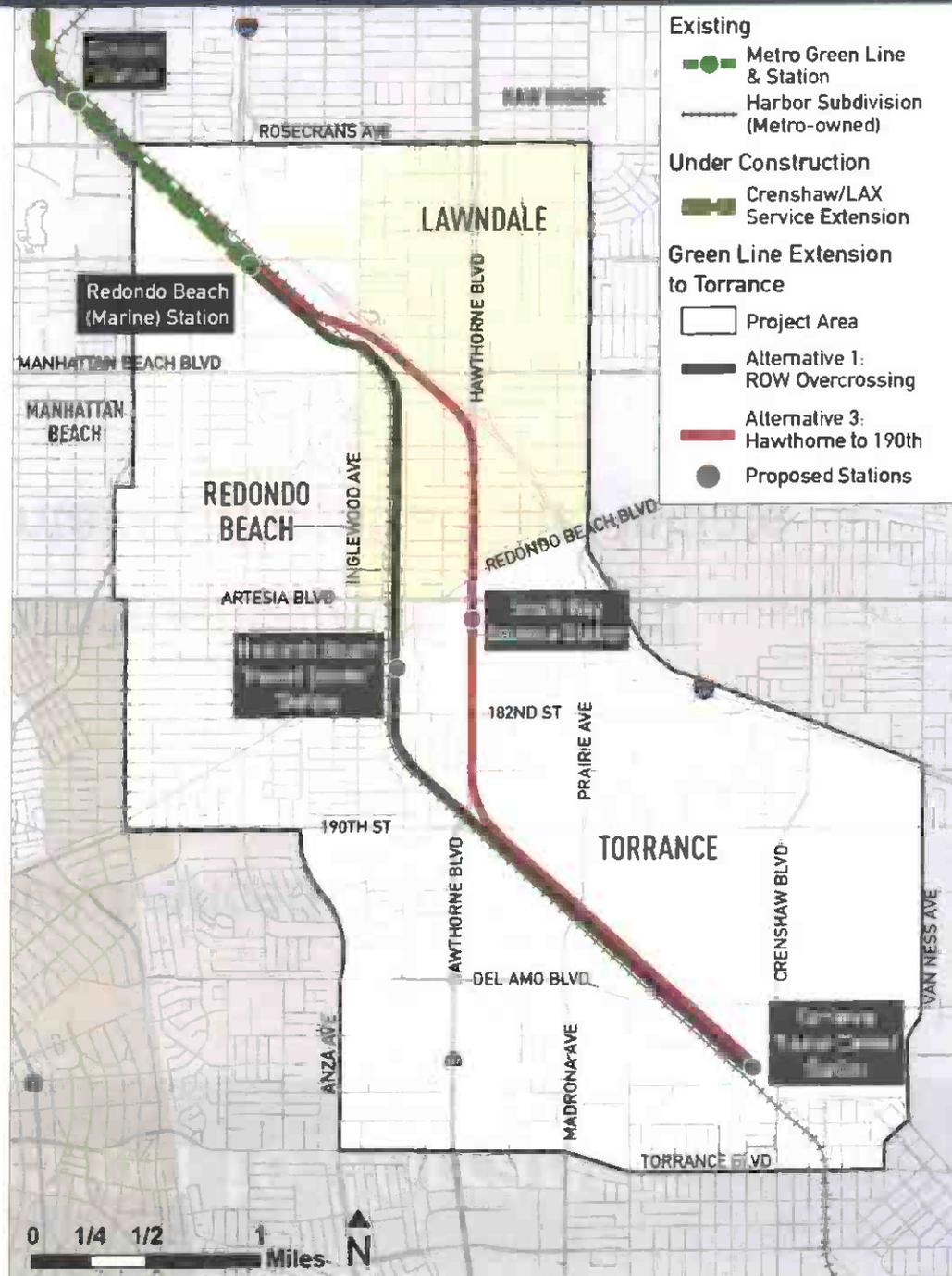
Green Line Extension to Torrance

Study Corridor

4.6-mile light rail transit extension from Redondo Beach (Marine) Station to Torrance Transit Center

Board Approvals

- September 2018 – Metro Board approved carrying forward the following two alternatives into the EIS/EIR:
 - ROW Overcrossing Alternative
 - Hawthorne Boulevard Alternative



Green Line Extension to Torrance

Status

- Preparing RFP for Environmental/Advanced Conceptual Engineering contract

Next Steps

- Fall 2019 – Release RFP for Environmental/ACE contract
- Winter 2020 – Award Environmental/ACE contract and initiate Environmental Study

Milestones

PROJECT		NOI/NOP	Admin Draft to FTA	NOA	LPA	Admin Final to FTA
CEQA/ NEPA	East San Fernando Valley Transit Corridor	Mar-13	Jul-16	Aug-17	Jun-18	Jul-19
	Eastside Transit Corridor Phase 2	Jan-10 ^[1]	Dec-13 ^[1]	Aug-14 ^[1]	Dec-21 ^[2]	Sep-22
	West Santa Ana Branch Transit Corridor	Jun-17	Aug-19	Mar-20	Jul-20	Aug-20
	Green Line Extension to Torrance	Mar-20	Mar-21	Jul-21	Nov-21	Aug-21

[1] Dates for the Original Draft EIS/R

[2] Reinitiated Draft EIS/R

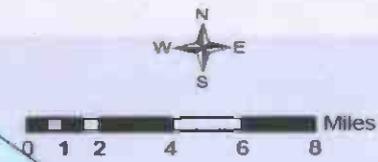
Metro Rapid System Gap Closure Lines

Los Angeles Metro BRT Network

Legend

- Gap Closure Lines
- Metro Rapid Lines
- Metro Orange Line
- Metro Silver Line
- Metro Rail
- + -+ Metrolink

Includes 7 Metro Rapid Corridors
 Total of 126 Miles
 Total Project Cost \$25.7 Million
 Note: All Gap Closure Rapid lines are currently operating



Metro Rapid System Gap Closure Lines

Transit Signal Priority

- 126.3 miles of Transit Signal Priority along 7 Metro Rapid corridors
 - Torrance-Long Beach
 - Venice
 - Atlantic
 - Garvey-Chavez
 - West Olympic
 - South Sepulveda
 - San Fernando
- Completed 123 miles or 97% to date
- Last 3.3 miles in Culver City*
 - July 2018 – City awarded contract
 - August 2019 – Complete project



Metro Rapid System Gap Closure Lines Shelter Implementation

Status

- 150 total station locations
- 113 stations completed in 17 jurisdictions
- 37 stations remaining:

Number of Stations	Agency	Completion Date	Notes
29	City of Torrance	Fall 2019	Contractor selected
8	Culver City	Spring 2019	Engineering revisions underway
37	TOTAL		



Metro Rapid System Gap Closure Lines

Current Project Budget and Expenditures

Funding Source	Current Budget
Federal Section 5309 Very Small Starts	\$16,700,000
Local Match	\$12,504,301
TOTAL BUDGET	\$29,204,301

Activities	Approved Budget	Current Budget	Expenditures To Date	Forecast to Complete
Transit Signal Priority	\$24,044,301	\$23,121,925	\$19,119,423	\$4,002,502
Shelters	\$ 5,160,000	\$ 5,160,000	\$ 4,567,730	\$592,270
TOTAL	\$29,204,301	\$28,281,925	\$23,218,802	\$5,985,499

Cesar Chavez Bus Stop Improvements Project

Status

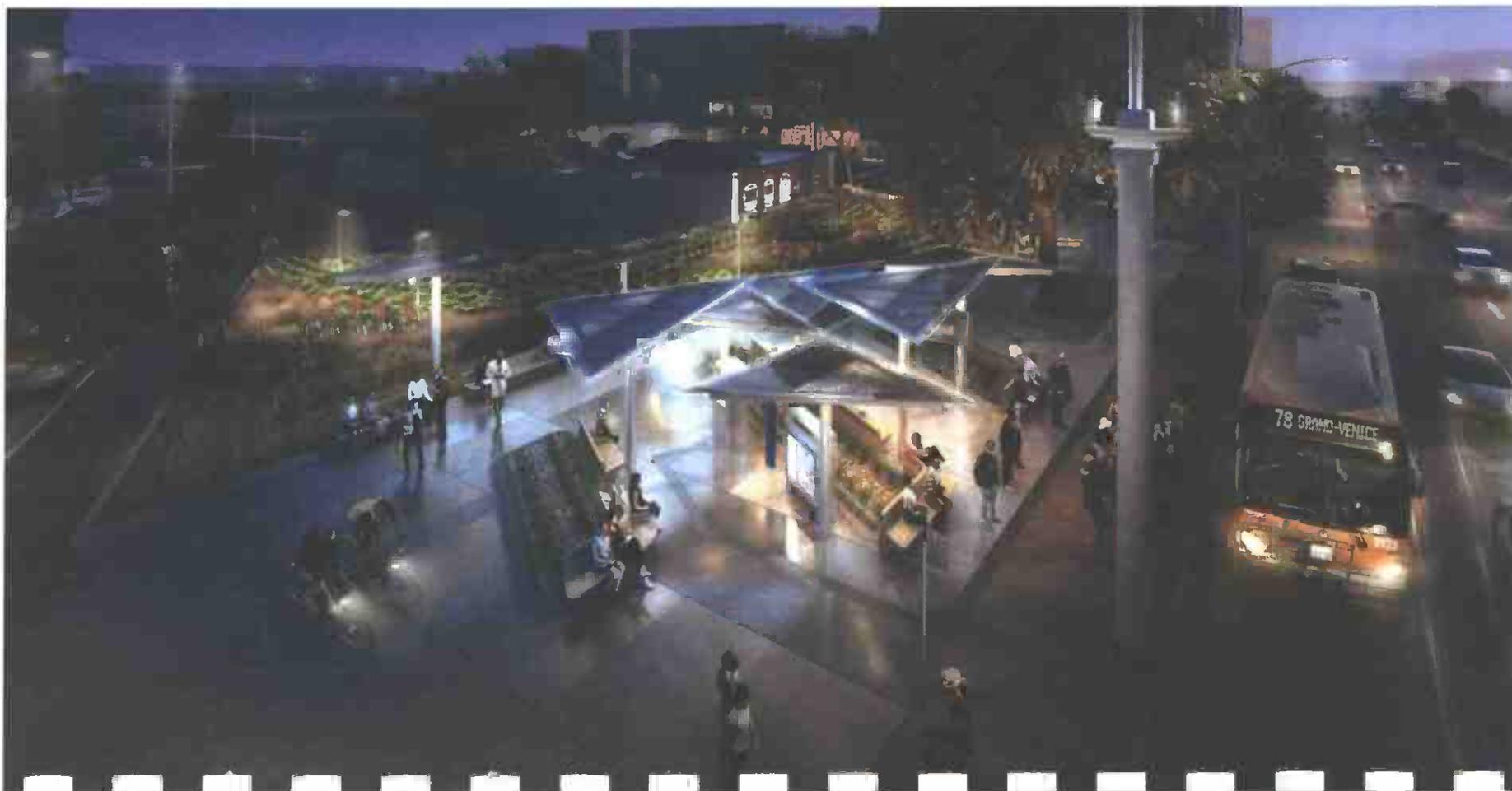
- Metro Board approved next steps in December
- City approvals for work in City streets are underway
- Agreement executed for additional City shelters



Cesar Chavez Bus Stop Improvements Project

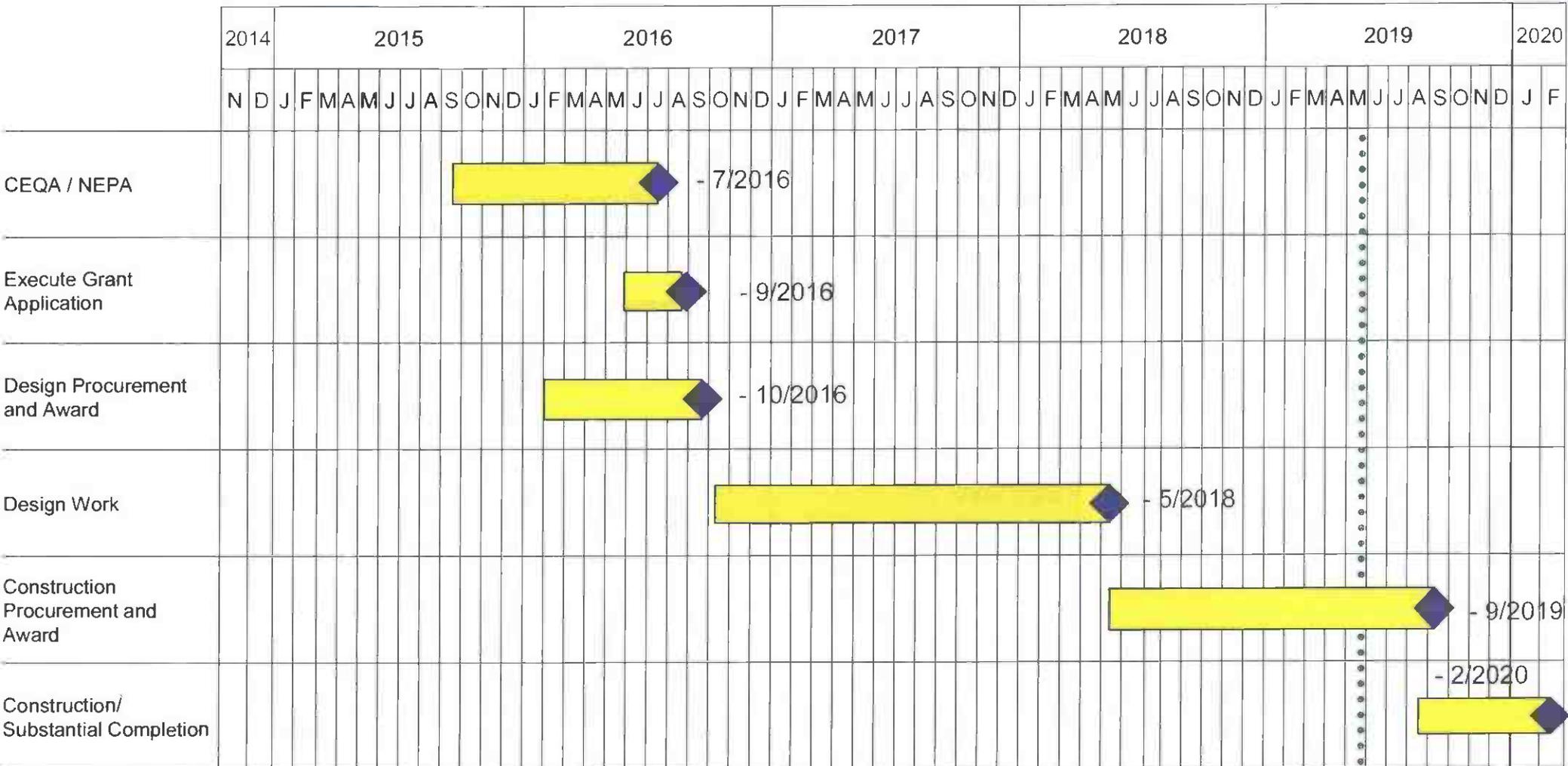
Next Steps / Schedule

- Begin construction 2019
- Complete construction 2020



Cesar Chavez Bus Stop Improvements Project

Schedule (est.)



◆ = Milestone Date

Cesar Chavez Bus Stop Improvements Project

Current Project Budget and Expenditures

Funding Source	Current Budget
FTA Grant	\$1,668,557
Local Funds	\$417,140
Budget of Original Grant	\$2,085,697
Metro Overmatch Dollars	\$1,444,303
TOTAL BUDGET	\$3,530,000

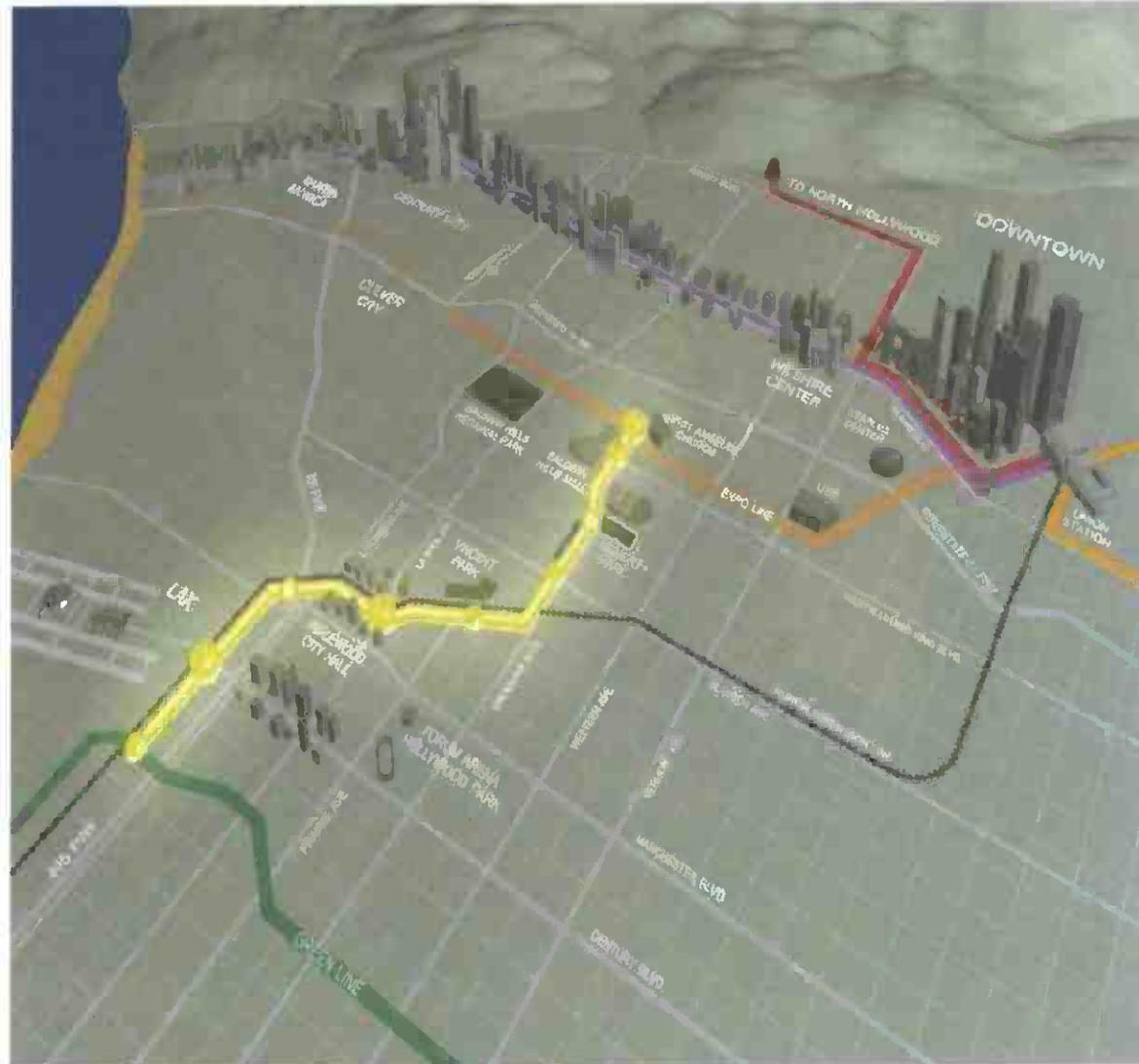
Original Budget	Current Budget	Expenditures to Date	Forecast to Complete
\$ 2,085,697	\$ 3,530,000	\$ 460,898	\$ 3,069,102

Crenshaw/LAX Transit Project FTA Quarterly Review – May 29, 2019



Project Description

- 8.5 miles, 8 stations, 22 LRT vehicles
- Current Budget = \$2,058 million
- Current Forecast = \$2,058 million
- Remaining Unallocated Contingency = 0.8% of Total Project Current Forecast and 7.4% of Total Project Cost-to-Go
- Contractor Award Date = August 01, 2013
- Current Revenue Service = October 30, 2019
- Forecast Revenue Service = Spring/Summer 2020
- Final Design progress = 100%
- Construction progress = 92%
- Federal Funds = \$227.6 million
- Local Funds = \$1,615.2 million
- State Funds = \$215.3 million



Key Project Updates

- Contractor continues critical construction efforts in the north end underground structures.
- Working with 3rd parties to complete power drops for traction power substations in support of testing systems equipment.
- Contractor addressing open sidewalk and street punch list items along alignment.
- The safety recordable rate is at 2.3 (March 2019), which is less than the national average of 2.8 (based on 200,000 work hours).
- The estimated jobs created to-date is 18,762 with 499 estimated jobs created last quarter*.

* Estimate methodology reference *Construction Impacts of Metro's Measure R Transportation Projects, 2015 Update*, https://laedc.org/wp-content/uploads/2016/04/Measure-R-Projects-SUMMARY_20160304.pdf

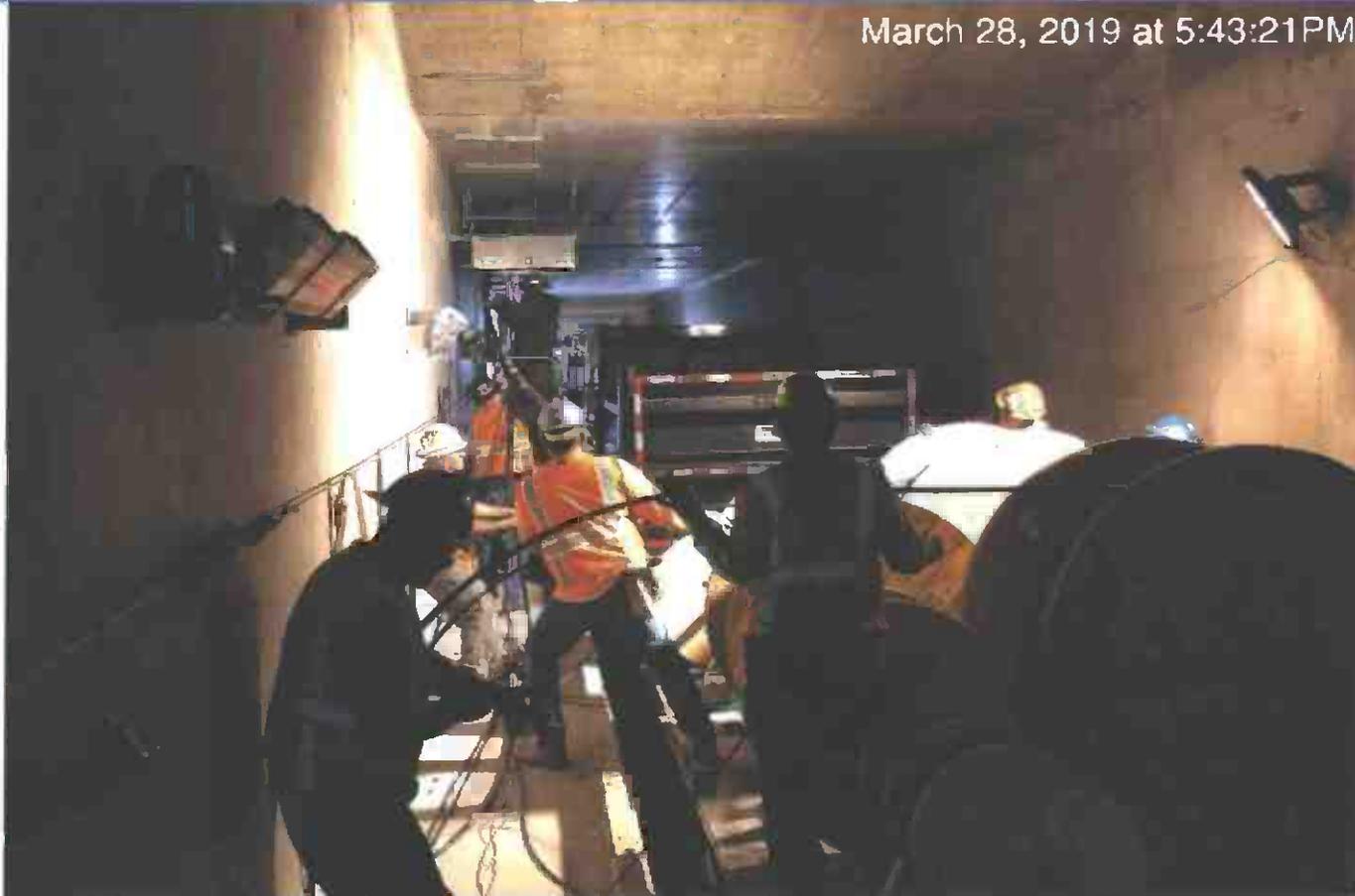
Construction Update Segment A



Systems subcontractor LKC continues work on overhead contact system at Underground Tunnel #1

Construction Update Segment B

March 28, 2019 at 5:43:21PM



Pulling cable in Underground Tunnel #3

Construction Update Segment C



Installation of fire sprinklers within the concourse level of Expo/Crenshaw Station

Construction Update Southwestern Yard



Ribbon cutting ceremony for Southwestern Yard on April 3, 2019

DBE Participation Status for Design and Construction – Alignment D-B

- DBE Goal – Design 20.00%
- Current DBE Commitment \$25,078,875 20.00%
- Current DBE Participation \$28,332,024 23.79%

26 Design subcontractors have been identified to-date.

-
- DBE Goal-Construction 20.00%
 - Current DBE Commitment (contract) \$257,764,345 20.00%
 - Current DBE Participation (paid) \$284,370,834 25.82%

303 Construction subcontractors have been identified to-date.

Commitment – Current DBE contract commitment divided by current contract value.

Participation – Total amount paid to date to DBEs divided by the amount paid to date to the Prime.

DBE Participation Status for Design and Construction – Southwestern Yard D-B C0991

- DBE Goal – Design 20.93%
- Current DBE Commitment \$2,467,837 (20.93%)
- Current DBE Participation \$2,438,163 (20.79%)

10 Design subcontractors have been identified to-date

-
- DBE Goal – Construction 16.00%
 - Current DBE Commitment (contract) \$25,930,837 (16.00%)
 - Current DBE Participation (paid) \$26,888,572 (17.84%)

95 Construction subcontractors have been identified to-date.

Commitment – Current DBE contract commitment divided by current contract value.
 Participation – Total amount paid to date to DBEs divided by the amount paid to date to the Prime.

Project Cost Status

UNITS IN DOLLARS

SCC CODE	DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		CURRENT BUDGET/ FORECAST VARIANCE
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
10	GUIDEWAYS	471,335,000	-	450,354,375	814,571	453,629,467	2,779,521	436,390,979	814,571	453,632,487	3,278,112
20	STATIONS	153,906,000	-	315,050,000	-	309,849,246	4,180,370	255,807,678	-	309,849,246	(5,200,754)
30	SOUTHWESTERN YARD	66,673,000	-	71,164,000	(914)	67,231,864	211,215	65,202,035	-	69,634,000	(1,530,000)
40	SITWORK/SPECIAL CONDITIONS	235,576,000	-	395,798,361	(3,375,330)	401,236,669	(5,227,798)	347,705,348	(3,375,330)	407,788,179	11,989,818
50	SYSTEMS	125,132,000	-	169,436,000	1,413,310	170,657,796	1,087,080	114,629,383	1,426,438	174,509,360	5,073,360
CONSTRUCTION SUBTOTAL (10-50)		1,052,622,000	-	1,401,802,736	(1,148,362)	1,402,605,042	3,030,388	1,219,735,423	(1,134,321)	1,415,413,273	13,610,537
60	RIGHT-OF-WAY	132,294,000	-	127,490,000	1,501,700	131,443,207	1,506,498	131,275,889	1,501,700	131,458,966	3,968,966
70	LRT VEHICLES	87,780,000	-	83,571,544	-	82,158,061	39,103	78,832,400	-	83,571,544	-
80	PROFESSIONAL SERVICES	273,147,000	-	368,734,466	319,748	382,127,058	4,050,735	350,275,610	353,302	385,947,296	17,212,830
SUBTOTAL (10-80)		1,545,843,000	-	1,981,598,746	673,086	1,998,333,369	8,626,725	1,780,119,322	720,681	2,016,391,079	34,792,333
90	UNALLOCATED CONTINGENCY	177,157,000	-	50,401,254	-	-	-	-	(720,681)	15,608,921	(34,792,333)
TOTAL PROJECT 865512 with SWY 49% (10-100)		1,723,000,000	-	2,032,000,000	673,086	1,998,333,369	8,626,725	1,780,119,322	-	2,032,000,000	-
ENVIRONMENTAL/PLANNING - 405512		5,526,150	-	5,526,150	-	5,526,150	-	5,526,150	-	5,526,150	-
ENVIRONMENTAL/PLANNING - 465512		20,473,850	-	20,473,850	-	20,022,881	-	20,022,881	-	20,473,850	-
TOTAL PROJECTS 405512 & 465512 (ENV / PLAN'G)		26,000,000	-	26,000,000	-	25,549,031	-	25,549,031	-	26,000,000	-
TOTAL PROJECTS 405512, 465512 & 865512		1,749,000,000	-	2,058,000,000	673,086	2,023,882,400	8,626,725	1,805,668,353	-	2,058,000,000	-

1. Expenditures are Cumulative through March 29, 2019.

2. Expenditures exclude \$6.6 million for State Board of Equalization (SBOE) decision to tax LRT Vehicle deliveries since August 2016. Metro is appealing the decision by the SBOE but paid tax so as not to incur any late fees.

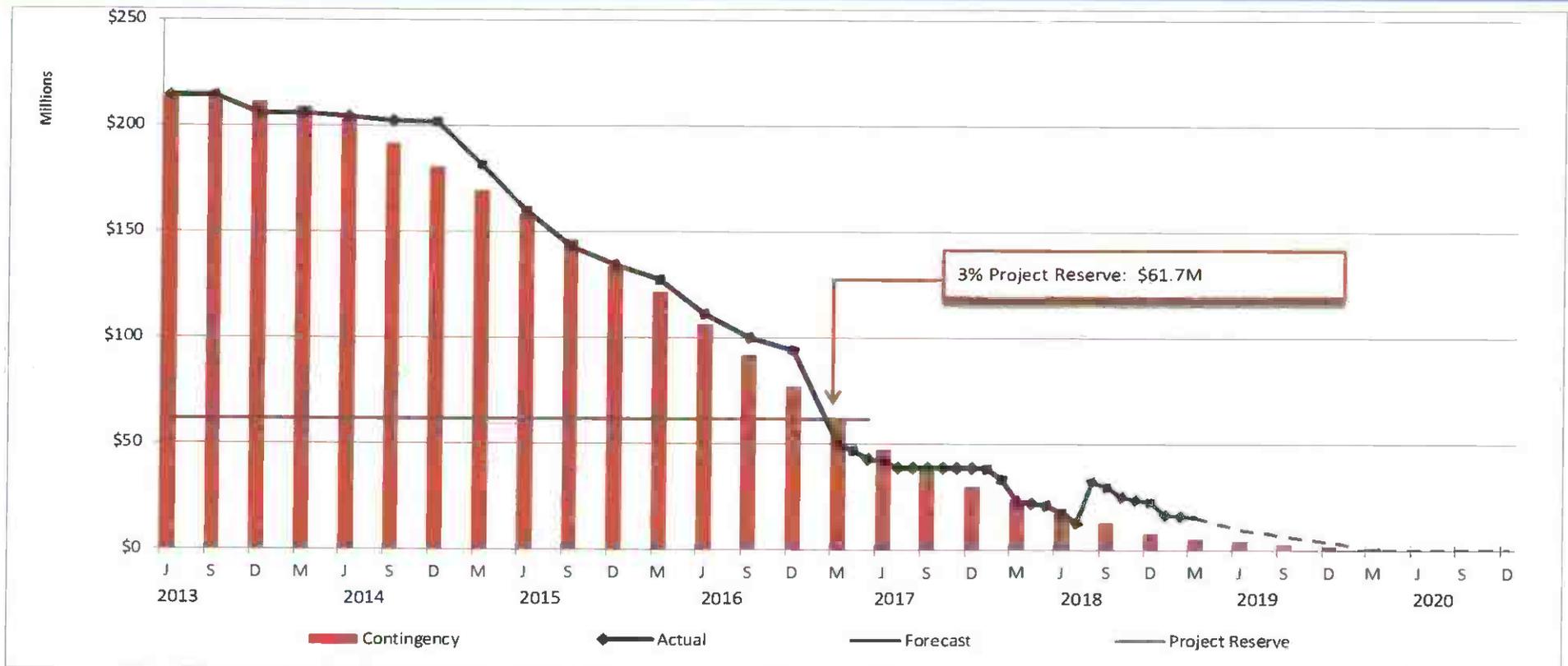
3. Expenditures exclude \$5.5 million for various right-of-way and professional services costs that are being reallocated to other local funding.

Non-Crenshaw/LAX Transit Project Funded Scope of Work

- The costs shown in the table below are not part of Crenshaw/LAX Transit Project costs but are funded by other Metro projects using the services of the alignment design-builder (Contract C0988)

C0988 NON-CRENSHAW/LAX TRANSIT PROJECT FUNDED SCOPE OF WORK									
DESCRIPTION	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		FORECAST VARIANCE
	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
405556 SYSTEMWIDE TRANSIT PLANNING	-	320,035	-	320,035	-	320,035	-	320,035	-
210090/93 FARE GATE PROJECT	-	2,566,226	-	2,566,226	-	1,541,048	-	2,566,226	-
210152 CRENSHAW/LAX BUS TRANSFER FACILITY	-	2,200,000	-	2,200,000	-	403,334	-	2,200,000	-
460303 AIRPORT METRO CONNECTOR	-	37,914,465	-	37,047,674	-	36,872,566	-	37,914,465	-
500013 C/LAX LAWA SCOPE OF WORK	-	1,575,362	-	1,114,613	-	545,439	-	1,575,362	-
405522 HIGHWAY PLANNING	-	1,935,000	-	1,935,000	-	693,003	-	1,935,000	-
TOTAL	-	46,511,088	-	45,183,548	-	40,375,425	-	46,511,088	-

Budget Contingency Drawdown



PROJECT COST CONTINGENCY (through 29-Mar-2019)

UNITS IN DOLLARS

	Original Contingency	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	173,500,000	(157,170,398)	(720,681)	(157,891,080)	15,608,920
Allocated Contingency	40,366,792	(40,366,792)	-	(40,366,792)	-
Total Contingency	213,866,792	(197,537,190)	(720,681)	(198,257,872)	15,608,920

Summary Schedule

Crenshaw/LAX Transit Corridor - Master Schedule March 2019		Crenshaw/LAX Level 1 Schedule												MASTER SCHEDULE MARCH 2019			
Activity ID	Activity Name	Finish	2019				2020				2021				2022		
			Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
	Crenshaw/LAX Transit Corridor - Master Schedule March 2019	14-Jul-20	→ 03-Nov-20														
	Milestones & Key Dates	14-Jul-20	→ 03-Nov-20														
	Program Elements	12-Aug-19	→ 03-Mar-20														
	865512 - Crenshaw/LAX	14-Jul-20	→ 14-Jul-20														
	C0988 - Pre-Construction Crenshaw/LAX	16-Mar-18															
	C0988 - Construction & Installation	14-Jul-20	→ 14-Jul-20														
	Stations	13-Dec-19	→ 13-Dec-19														
	Guideway & Track	13-Sep-19	→ 13-Sep-19														
	System-Wide Components	05-Nov-19	→ 05-Nov-19														
	Systems	10-Dec-19	→ 10-Dec-19														
	Testing	14-Jul-20	→ 14-Jul-20														
	Start Up	14-Jul-20	→ 14-Jul-20														
	Pre - Revenue Operations		↔ 14-Jul-20														
	RSD		◆ Revenue Service Spring/Summer of 2020														
	860003 - Southwestern Yard and Paint Body Shop	30-Jan-19	→ 30-Jan-19 A														
	Milestone	30-Jan-19	→ 30-Jan-19 A														
	Preliminary Engineering	18-Dec-12															
	Right of Way	31-Oct-17															
	Design Build Procurement	29-Jun-15															
	Final Design	11-Jan-17															
	Construction & Installation	30-Jan-19	→ 30-Jan-19 A														

◆ Milestone
↔ Remaining Work

Top Risks & Mitigations

RISK ID	RISK DESCRIPTION	RISK SCORE	MITIGATION STRATEGIES
124	Main Line testing prior to pre-revenue operations may take longer than expected, resulting in increased Main Line Metro and Consultant costs and potential delay to December 11, 2019 - Substantial Completion.	18	<ol style="list-style-type: none"> 1. Prepare appropriate testing schedule and review with operations people. 2. Have pre-meetings with test firm presidents to emphasize importance of staffing. 3. Testing schedules to be prepared based on previous project startup experience. 4. DB submit test plan, Metro review for completeness. 5. Monitor completion of factory acceptance testing - FATs. 6. Monitor completion of LFATS 7. Expedite contractor/vendor turnaround of test results. 8. Keep test firms informed of critical schedule needs.
359	Extended Overhead or productivity loss claims exposure not covered by cost impacts in individual risks.	18	<ol style="list-style-type: none"> 1. Verify the CM is keeping very good documentation 2. Respond to all contractor notice of delay to protect Metro interests and clarify negative implications in contractors letters. 3. Resolve time impacts at the same time as resolving the direct cost of changes. 4. Identify potential critical procurements.
362	Schedule activities that are critical to completion. Trackwork OCR at UG-4	16	<ol style="list-style-type: none"> 1. Prepare work around plans for activities behind schedule. 30% 20% 2. Identify what scope can be reschedule for completion after substantial completion.

Regional Connector Transit Project

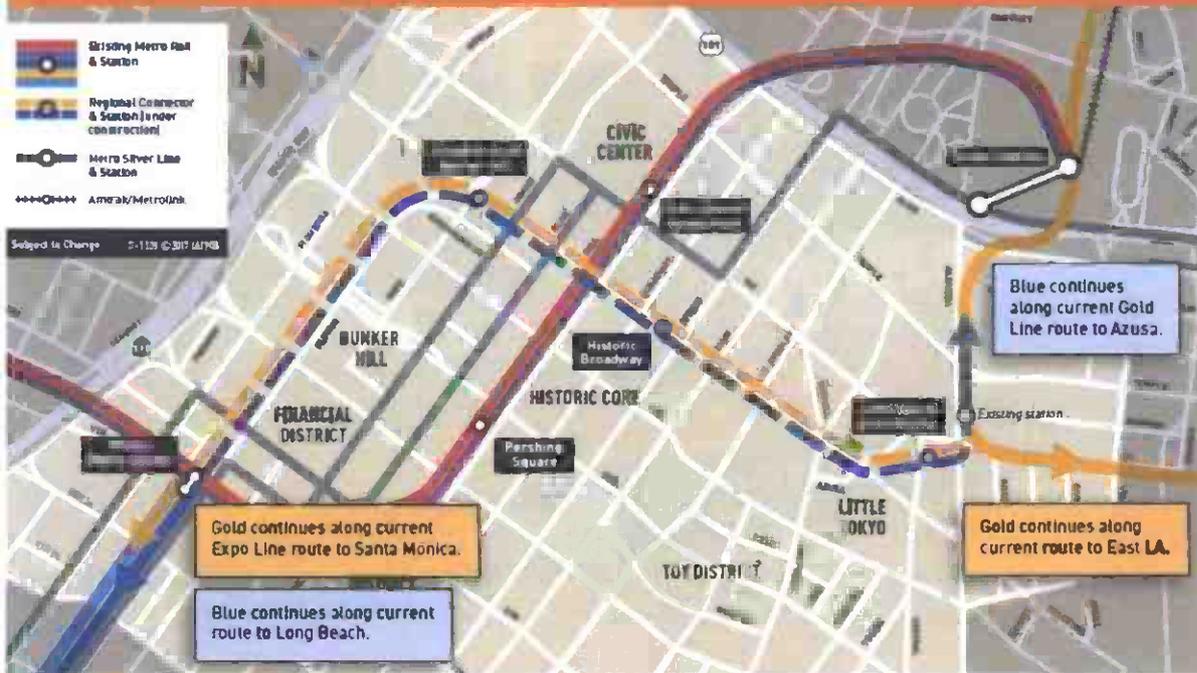
FTA Quarterly Review Meeting

May 29, 2019



Metro

Project Description



- 1.9 mile Link Connecting Blue & Expo Lines with Gold Line
- 3 New Stations
- 4 Light Rail Vehicles
- 90,000 Daily Project Transit Trips
- 17,700 Daily New Transit Trips

- FFGA Budget – \$1,402.93M
- FFGA Forecast – \$1,670.83M
- FFGA Proposed RSD – 02/2023
- Forecast RSD – 09/2022
- FFGA Contingency (Proposed Budget) – 3.47%
- FFGA Contingency (To Go) – 5.29%
- Federal Funds – \$889.41M
- Local Funds – \$880.73M
- Design-Build Contractor: Regional Connector Constructors (RCC)
- Award Amount: \$927.23M
- Status: In Construction
- Overall Project Progress – 56.7%
- Final Design Progress – 99.9%
- Construction Progress – 53.5%

Key Project Updates

- Schedule/Budget/Risk Refresh Update
- Substantial Completion Milestone aligned with contract completion date
- RSD includes extended Rail Activation and Start-up
- Broadway Station / SEM Cavern / Overbuild has recovered and advancing well
- Contractor has committed to dedicating additional craft and supervisory resources
- Estimated Jobs Created to Date as of March 2018 is 12,122 with a Estimated Total Jobs of 20,000.**

*Using RIR method of calculating.

**Estimate methodology per: Cooper, Christine Ph.D. & Mitra, Somjita Ph.D. *Construction Impacts of Metro's Measure R Transportation Projects, 2015 Update*, Institute for Applied Economics, Los Angeles County Economic Development Corporation, February 2016.

Construction Update Tunnels



Installing Floating Slab Track curb rebar



Floating Slab Track curb formwork installation

- Began work on Floating Slab Track Curb and continue tunnel patching and repairs

Construction Update

Little Tokyo/Arts District Station

- Excavation and related support of excavation and structural concrete operations continue throughout the Wye, 1st Street Leg and Central Station



Ancillary exterior concrete wall placement

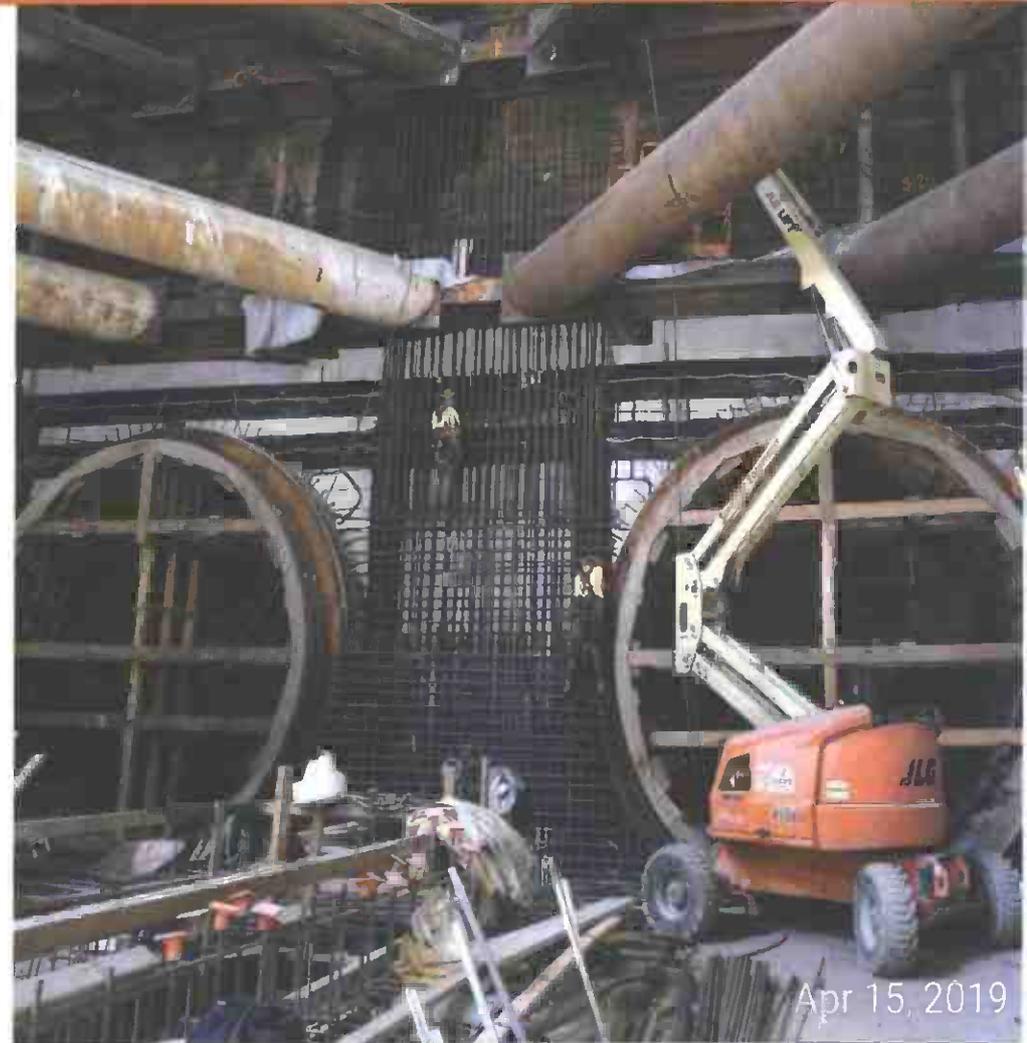


DC Disconnect Room conduit installation at Wye invert

Construction Update Historic Broadway Station



Entrance structure south wall formwork



West headwall rebar installation

- Structural concrete continues with exterior walls in station entrance and concourse

Construction Update

SEM Cavern



HDPE installation



Rebar installation

- Final liner work is underway with varied trades working in SEM Cavern; formwork anticipated by April 30

Construction Update

Grand Av Arts/Bunker Hill Station



Apr 18, 2019

Los Angeles



Apr 18, 2019 at 8:49:33 AM

Gen Thad Kosciuszko Way

Los Angeles CA 9001

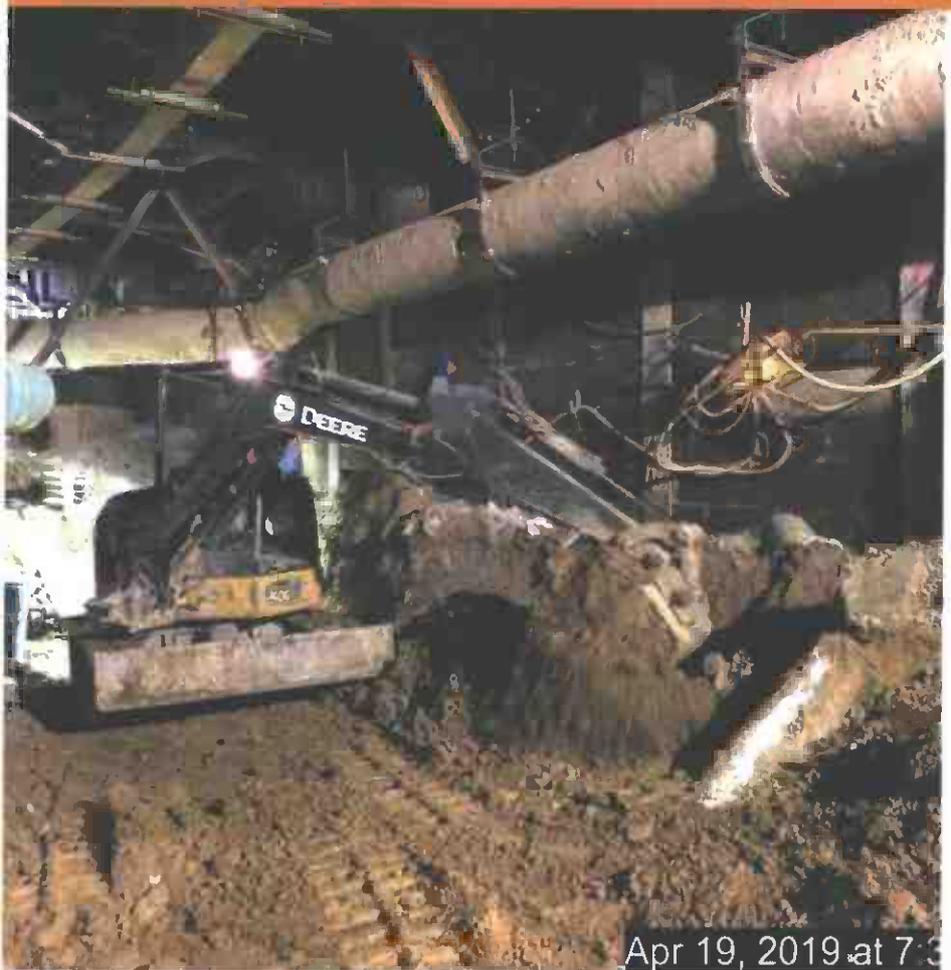
United State

Rebar installation at East Hammerhead Concourse Level

Concrete placement at Concourse Level column

- Structural concrete walls continue to be erected at multiple levels throughout station

Construction Update Flower Street



Excavation to middle level at west wall



Bottom mat rebar installation at FCC-7 and FCC-8

- Excavation and utility protection south of 5th continues
- Concrete operations between 4th and 5th Streets continue

Disadvantaged Business Enterprises

Contract C0980 Regional Connector Transit Corridor Design-Build (Reporting Data as of February 2019)

Phase	DBE Goal	Current DBE Commitment	Current DBE Attainment	DBE Sub-consultants Identified
Design	20%	\$14.3M (22.63%)	26.95%	Twelve (12) design DBE sub-consultants have been identified to date
Construction	18%	\$194M (18%)	12.03%	Ninety-three (93) construction DBE sub-consultants have been identified to date

FFGA Project Cost Status Above the Line

REGIONAL CONNECTOR TRANSIT CORRIDOR PROJECT (860228)
PERIOD ENDING MAR 2019
DOLLARS IN THOUSANDS

SCC CODE	DESCRIPTION	ORIGINAL FFGA BUDGET	PROPOSED FFGA BUDGET*	COMMITMENTS	EXPENDITURES	PROPOSED FFGA FORECAST AT COMPLETION**	VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS	280,622	244,931	245,505	170,943	252,663	7,732
20	STATIONS, STOPS, TERMINALS, INTERMODAL	354,268	220,966	221,040	58,675	221,584	618
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS	0	0	0	0	0	0
40	SITWORK & SPECIAL CONDITIONS	141,785	578,180	566,613	448,592	594,691	16,511
50	SYSTEMS	69,667	72,674	67,574	16,692	75,154	2,479
	CONSTRUCTION SUBTOTAL (10-50)	846,343	1,116,752	1,100,732	694,902	1,144,092	27,341
60	ROW, LAND, EXISTING IMPROVEMENTS	115,889	90,629	52,458	52,367	74,297	-16,331
70	VEHICLES	16,275	16,275	16,275	4,729	16,275	0
80	PROFESSIONAL SERVICES	261,455	350,272	289,878	270,745	364,881	14,610
	SUBTOTAL (10-80)	1,239,963	1,573,927	1,459,343	1,022,743	1,599,547	25,619
90	UNALLOCATED CONTINGENCY	135,399	82,600	0	0	56,981	-25,619
100	FINANCE CHARGES	27,571	14,301	0	0	14,301	0
	TOTAL PROJECT (10-100)	1,402,932	1,670,828	1,459,343	1,022,743	1,670,828	0

NOTE: TOTAL INCURRED COST TO DATE \$1,030,977,477.

*PROPOSED FFGA BUDGET UPDATED ON AN ANNUAL BASIS; LAST UPDATED (MAY 2017). GRANT AMENDMENT TO REFLECT UPDATES PERMITTED ONLY AFTER FFGA AMENDMENT IS APPROVED.

**CURRENT PROJECT BUDGET LESS NON-FFGA ACTIVITIES.

Project Cost Status FFGA – Non-FFGA

REGIONAL CONNECTOR TRANSIT CDRRIDOR PROJECT (860228)
PERIOD ENDING MAR 2019
DOLLARS IN THOUSANDS

SCC CODE	DESCRIPTION	ORIGINAL FFGA BUDGET	PROPOSED FFGA BUDGET*	COMMITMENTS	EXPENDITURES	PROPOSED FFGA FORECAST AT COMPLETION**	VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS	280,622	244,931	245,505	170,943	252,663	7,732
20	STATIONS, STOPS, TERMINALS, INTERMODAL	354,268	220,966	221,040	58,675	221,584	618
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	0	0	0	0	0	0
40	SITWORK & SPECIAL CDNDITIONS	141,785	578,180	566,613	448,592	594,691	16,511
50	SYSTEMS	69,667	72,674	67,574	16,692	75,154	2,479
	CONSTRUCTION SUBTOTAL (10-50)	846,343	1,116,752	1,100,732	694,902	1,144,092	27,341
60	ROW, LAND, EXISTING IMPROVEMENTS	115,889	90,629	52,458	52,367	74,297	-16,331
70	VEHICLES	16,275	16,275	16,275	4,729	16,275	0
80	PROFESSIONAL SERVICES	261,455	350,272	289,878	270,745	364,881	14,610
	SUBTOTAL (10-80)	1,239,963	1,573,927	1,459,343	1,022,743	1,599,547	25,619
90	UNALLOCATED CONTINGENCY	135,399	82,600	0	0	56,961	-25,619
100	FINANCE CHARGES	27,571	14,301	0	0	14,301	0
	TOTAL PROJECT (10-100)	1,402,832	1,670,828	1,459,343	1,022,743	1,670,828	0

NOTE: TOTAL INCURRED COST TO DATE \$1,030,977,477.

*PROPOSED FFGA BUDGET UPDATED ON AN ANNUAL BASIS; LAST UPDATED (MAY 2017). GRANT AMENDMENT TO REFLECT UPDATES PERMITTED ONLY AFTER FFGA AMENDEMENT IS APPROVED.

**CURRENT PROJECT BUDGET LESS NON-FFGA ACTIVITIES.

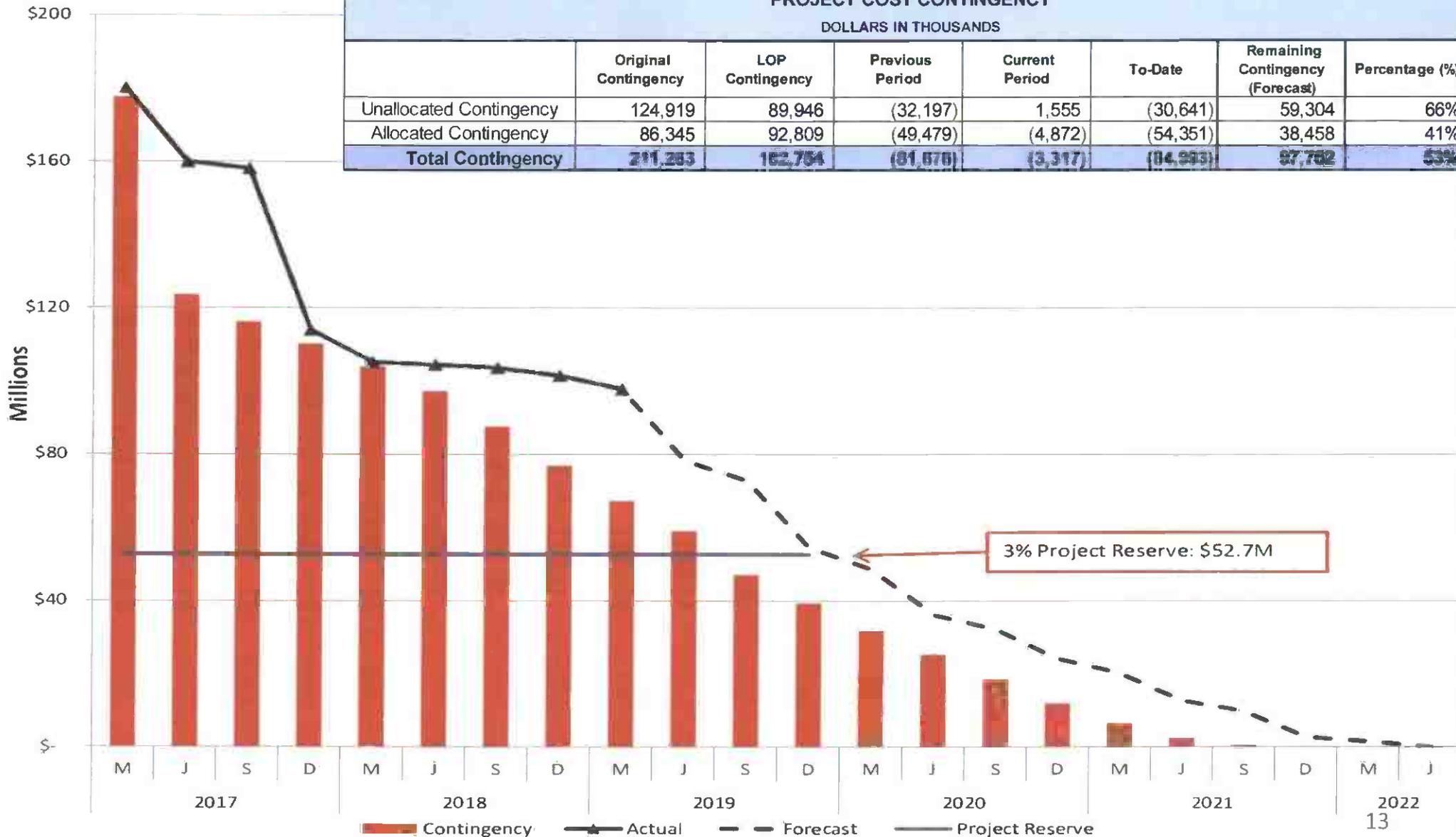
SCC CODE	DESCRIPTION	ORIGINAL NON FFGA BUDGET	PROPOSED NON FFGA BUDGET	COMMITMENTS	EXPENDITURES	PROPOSED NON FFGA FORECAST AT COMPLETION	VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS		4,350	5,113	652	1,350	-3,000
20	STATIONS, STOPS, TERMINALS, INTERMODAL		8,953	8,953	8,057	8,980	26
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS		0	0	0	0	0
40	SITWORK & SPECIAL CDNDITIONS		20,237	11,540	4,731	30,050	9,813
50	SYSTEMS		750	129	19	900	150
	CONSTRUCTION SUBTOTAL (10-50)		34,289	25,735	13,359	41,280	6,991
60	ROW, LAND, EXISTING IMPROVEMENTS		2,113	0	0	2,113	0
70	VEHICLES		0	0	0	0	0
80	PROFESSIONAL SERVICES		29,066	13,665	9,968	27,097	-1,969
	SUBTOTAL (10-80)		65,468	39,400	23,327	70,490	5,022
90	UNALLOCATED CONTINGENCY		7,346	0	0	2,324	-5,022
100	FINANCE CHARGES		0	0	0	0	0
	TOTAL NON-FFGA (10-100)		72,814	39,400	23,327	72,814	0
	ENVIRONMENTAL PLANNING		26,500	26,500	25,063	26,500	0
	TOTAL NON-FFGA (INCL. ENV/PLANNING)		99,314	65,900	48,390	99,314	0

NOTE: TOTAL INCURRED COST TO DATE \$48,914,825. METRO AND TRIBUNE AGREED ON REIMBURSEMENT OF \$1.6 MILLION RELATED TO 2ND/BROADWAY OVERBUILD.

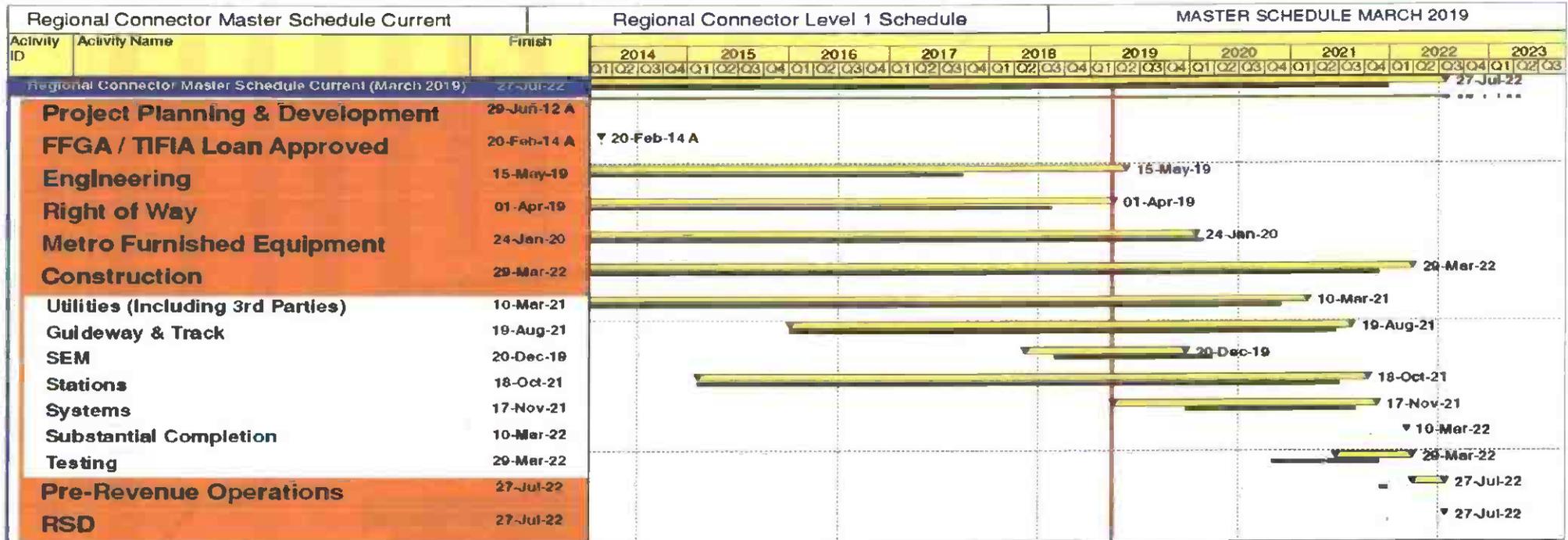
TOTAL PROJECT	1,402,832	1,770,142	1,527,743	1,022,743	1,670,828	0
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Budget Contingency Drawdown

PROJECT COST CONTINGENCY							
DOLLARS IN THOUSANDS							
	Original Contingency	LOP Contingency	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)	Percentage (%)
Unallocated Contingency	124,919	89,946	(32,197)	1,555	(30,641)	59,304	66%
Allocated Contingency	86,345	92,809	(49,479)	(4,872)	(54,351)	38,458	41%
Total Contingency	211,263	162,754	(81,676)	(3,317)	(84,993)	97,752	53%



Summary Schedule

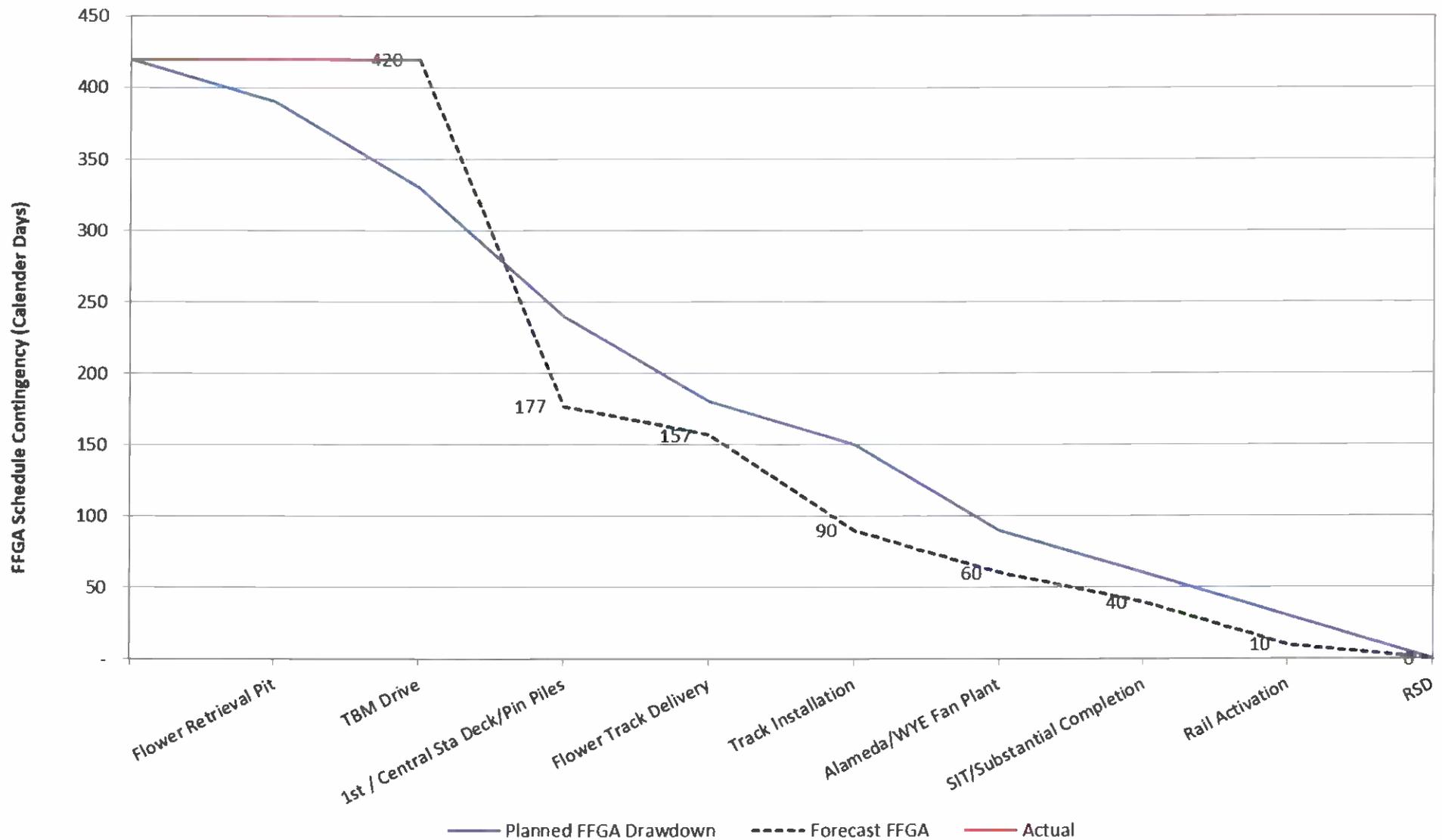


-  Remaining Work
-  Baseline
-  Baseline Milestone
-  Milestone

1 of 1
 Regional Connector Level 1 Summary Schedule
 Los Angeles County Metropolitan Transportation Authority

Data Date : 30-Mar-19
 Current Date : 09-Apr-19

Schedule Contingency Drawdown (Proposed FFGA RSD)

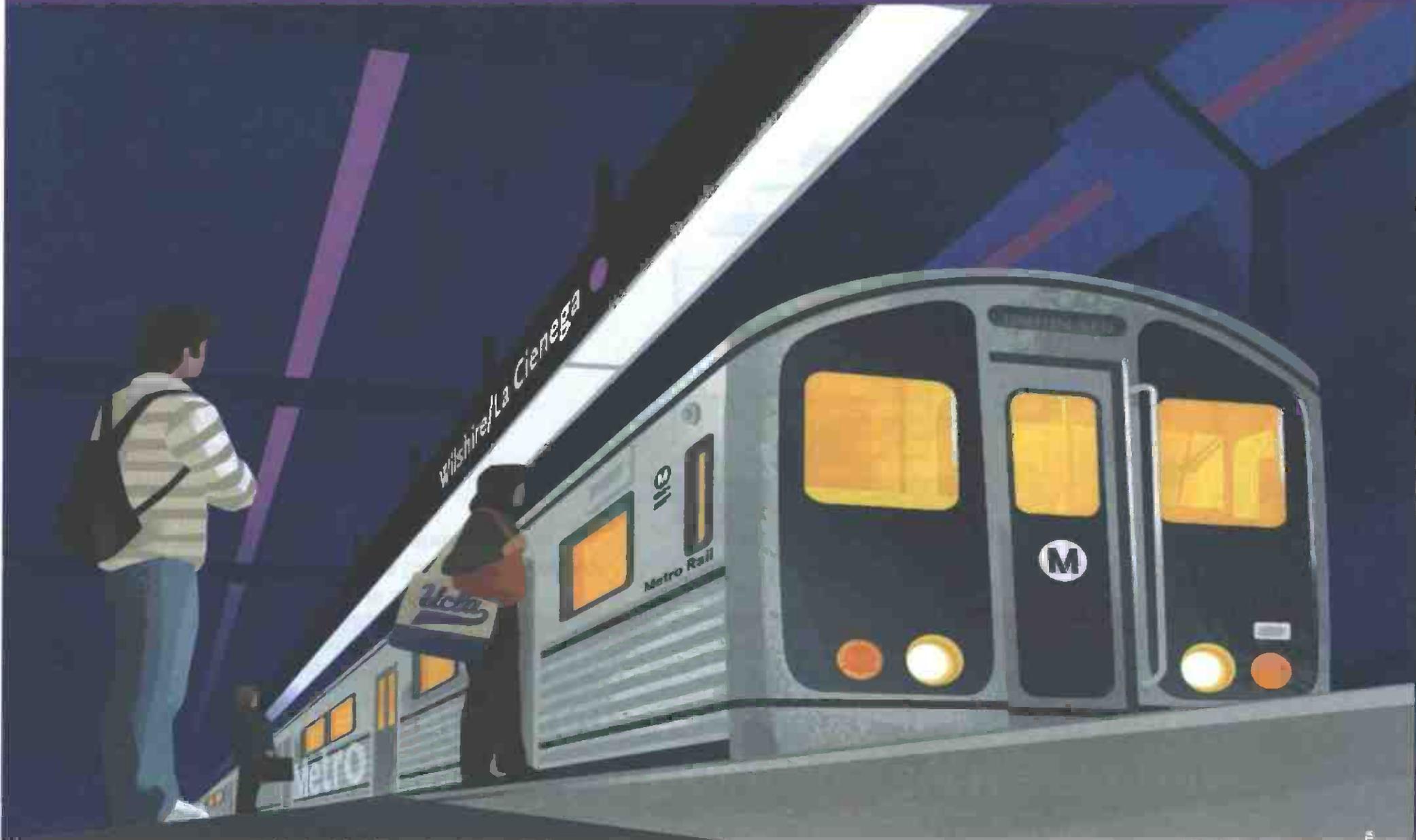


Top Risks & Mitigations

April 2019

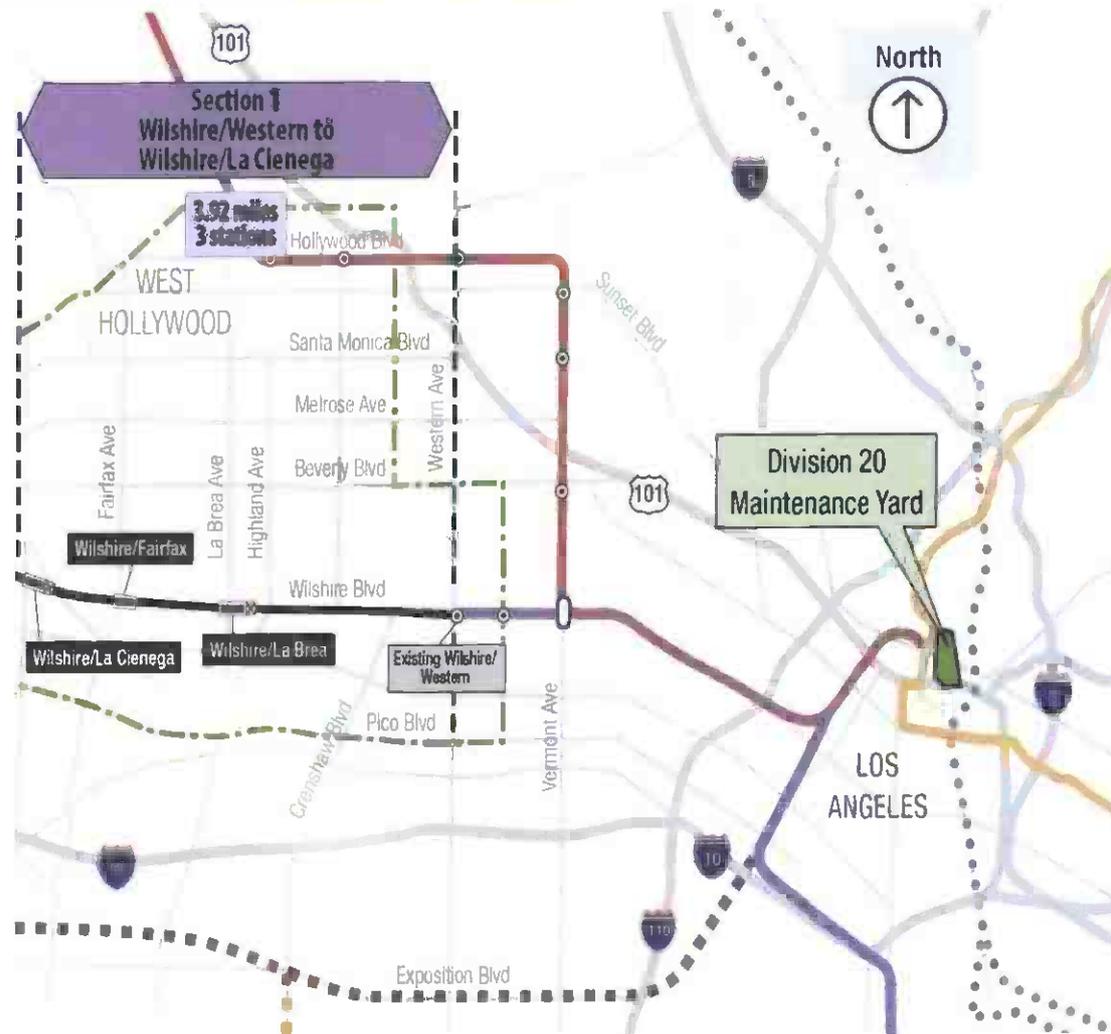
RISK ID	RISK DESCRIPTION	RISK SCORE	ACTION ITEMS
470	Costs related to lease extension at Mangrove Yard as indicated by COLA exceed current forecast allocated.	12.5	Report variance to Board via APE Report
311	Commonwealth Agreement may impact costs due to extended "construction phase."	8	Refine response to FSP obligations w/ already budgeted costs.
394	Additional station and guideway craft and supervisory resources are needed to change the prevailing dynamic of insufficient crews to staff available work fronts; float erosion is likely to continue if craft labor crew numbers are not increased.	7.5	Engage RCC on specific hiring plans of field resources to include supervision and added crews
475	Logistical challenges related to the remaining utilities requiring relocation in and around 1 st and Alameda pose varied threats to the Project.	7.5	Pair all defined work with a predecessor, estimated schedule duration, TCP requirements and other stakeholder constraints that may be exercised.
465	Incorporation of Duco Yard sanitary lines into scope indicate additional costs. Meanwhile schedule impacts are TBD.	7.5	<ol style="list-style-type: none"> 1. Finalize design 2. Engage stakeholders for related TCP requests 3. Expedite subcontract procurement while preserving good-faith efforts

Westside Purple Line Extension Section 1 Project FTA Quarterly Review May 29, 2019



Westside Purple Line Extension Section 1 Project (Wilshire/Western to Wilshire/La Cienega) Project Description

- The WPLE Section 1 Project is 3.92 miles (Wilshire/Western to Wilshire/La Cienega); Scope of work includes twin-bored tunnels, three (3) new subway stations, and 34 HRVs:
 - Wilshire/La Brea
 - Wilshire/Fairfax
 - Wilshire/La Cienega
- Division 20 Yard Modifications
- FFGA Budget: \$2.82 Billion
- FFGA Forecast: \$3.09 Billion
- FFGA RSD: October 31, 2024
- Forecast RSD: Fall 2023
- Design Progress: 100% (Final Design Complete)
- Construction Progress: 47%
- Daily Project Transit Trips: 33,694
- Daily New Transit Trips: 9,841
- Current Contingency Forecast (SCC 10-80): 7%
- Current Contingency Forecast of Cost-to-Go (SCC 10-80): 14%
- Federal Funds: \$1.26 Billion
- Local Funds: \$1.56 Billion
- Status: All three (3) stations and W/W TBM Shaft under construction. Tunnel drive is on-going.



Westside Purple Line Extension Section 1 Project Key Project Updates

- The current job creation estimates as extrapolated from the Los Angeles Economic Development Corporation (LAEDC) analysis of job impacts are the following:
 - March 2019: 230 estimated jobs
 - To date: 15,411 estimated jobs

Westside Purple Line Extension Section 1 Project Project Update Division 20 MOW/NRV Building Location 64

Current Activities:

- Contract C1078 substantial completion achieved.
- Punch list items.

Status: On May 1, 2019, Metro issued a Certificate of Substantial Completion for the C1078 (MOW/NRV Building) contract. A final punch list was developed and is currently being worked on by the contractor. The process of moving Metro staff into the new building has commenced.



Parts & Storage Building



Division 20 MOW Building



Division 20 MOW Bldg – Bay Room 150

Westside Purple Line Extension Section 1 Project Project Update Wilshire/Western TBM Retrieval Shaft

Current Activities:

- Tunnel Eye Construction; Dewatering.
- Preparation for TBM arrival in June 2019.

Status:

- Preparation for TBM arrival including framing installation for tunnel eyes. Gantry crane installation is anticipated in May 2019.
- Continued maintenance of sump and dewatering pumps.



Cleaning Dewatering Well at Western Shaft



Eye Brow Steel Framing at Western Shaft



Delivery of Gantry Crane at Western Shaft

Westside Purple Line Extension Section 1 Project Project Update Wilshire/La Brea Station

Current Activities:

- Tunnel muck removal, precast tunnel segment delivery
- Concourse construction; installation of tunnel rings for Reach 2.

Status:

- Continued rebar placement and embedded conduit and pipe sleeves at concourse slab.
- Tunnel ring installation for Reach 2 is underway.
- Tunnel segments continue to be received, inspected and stockpiled.



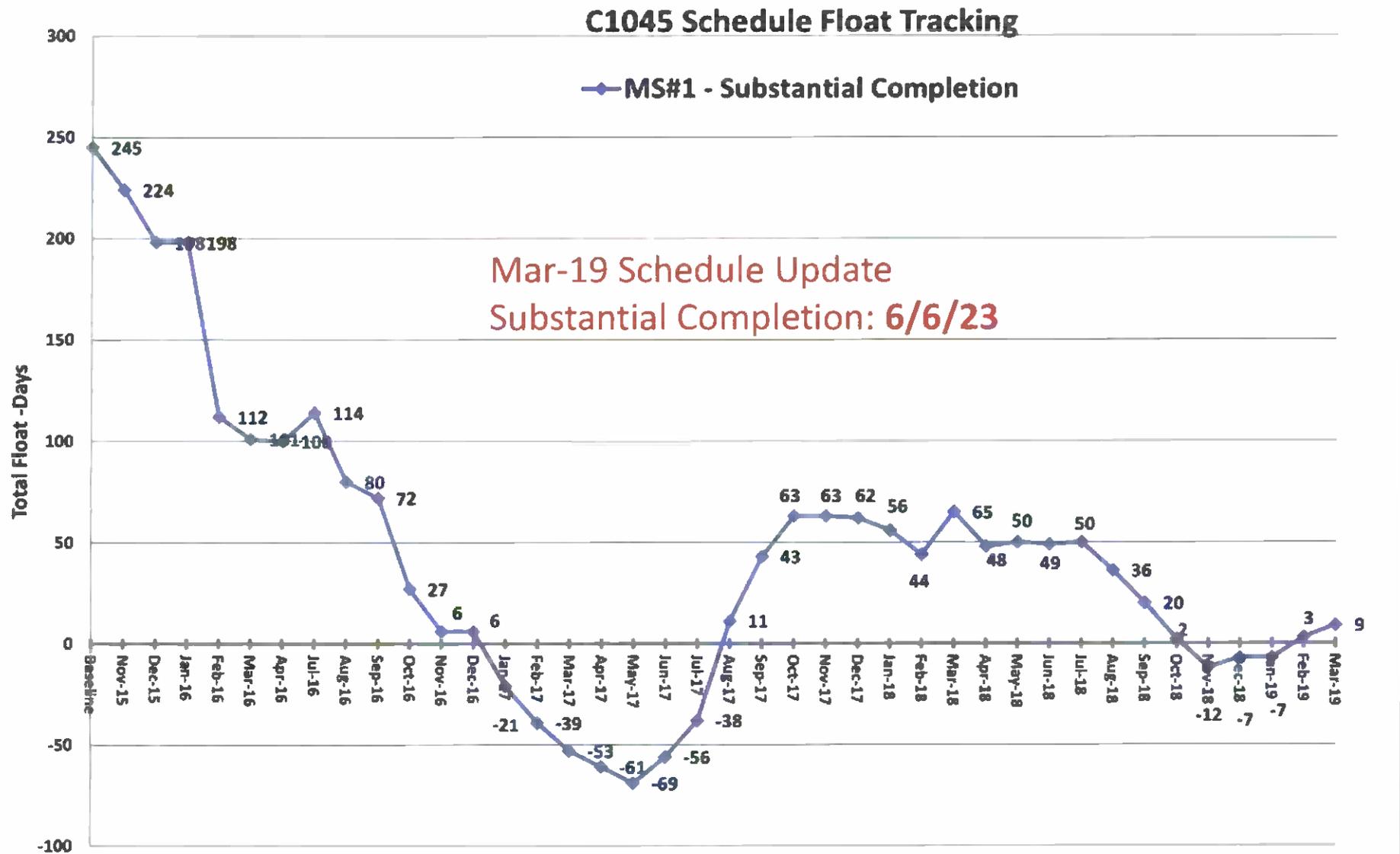
Electrical Conduit at Concourse Deck



Reach 2 TBM Eye



Westside Purple Line Extension Section 1 Project Project Update Schedule Float Tracking



Westside Purple Line Extension Section 1 Project Project Update Wilshire/Fairfax Station

Current Activities:

- Preparation for station concreting activities.

Status:

- HDPE installation and protection slab placement is on going concurrently.
- Invert rebar placement is scheduled to start in May 2019.



Fairfax Station Looking West



Fairfax Station Protection Slab Placement



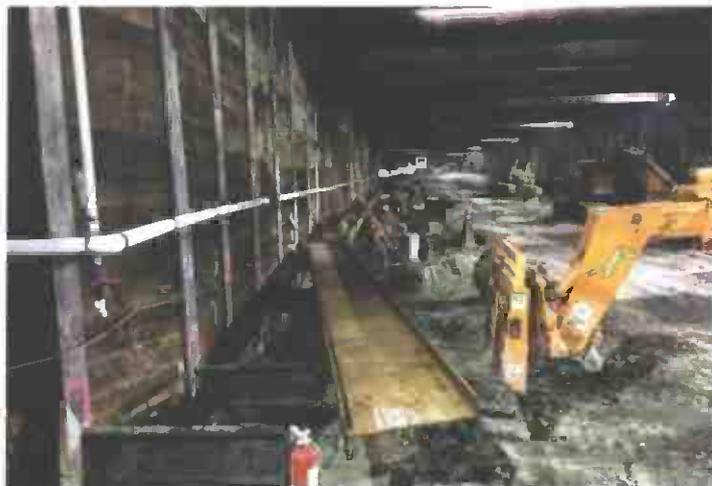
Westside Purple Line Extension Section 1 Project Project Update Wilshire/La Cienega Station

Current Activities:

- Shaft excavation, waler/strut installation, additional dewatering wells

Status:

- Installation of Level C struts is complete. Level D waler installation has commenced.
- Installation of additional internal dewatering wells continues.
- Bottom of excavation is anticipated to be reached in August 2019.
- Maintenance items per the COBH MOA is ongoing.



Installing Level D Walers at La Cienega Station



Installed Dewatering System at La Cienega Station



Removed Crane Mats at La Cienega Station

Westside Purple Line Extension Section 1 Project

Project Update

Tunneling – Tunnel Boring Machines

Current Activities:

- Reach 1 (W/LB to W/W) TBM Mining
- Instrumentation installation

Status:

- Reach 1 Mining as of May 5, 2019:
 - TBM #1 – 7,607 feet or 79%
 - TBM #2 – 6,673 feet or 69%
- Installation of Reach 2 instrumentation is on-going.



View of Reach 1 Tunnel Lining



Reach 1 Tunnel Locomotive



Reach 1 Tunnel Muck Belt

Westside Purple Line Extension Section 1 Project Project Cost Status

DOLLARS IN THOUSANDS

SCC CODE	DESCRIPTION	APPROVED FFGA BUDGET	PROPOSED FFGA BUDGET*	COMMITMENTS	EXPENDITURES	CURRENT FORECAST**	PROPOSED FFGA BUDGET/ FORECAST VARIANCE
10	GUIDEWAY & TRACK ELEMENTS	565,080	387,938	386,539	174,626	387,938	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	570,051	489,322	468,455	171,800	489,322	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	39,086	38,092	36,525	34,655	38,092	-
40	SITWORK & SPECIAL CONDITIONS	139,820	812,415	783,069	556,675	812,415	-
50	SYSTEMS	123,579	115,199	101,033	27,087	115,199	-
CONSTRUCTION SUBTOTAL (10-50)		1,437,616	1,842,966	1,775,620	964,843	1,842,966	-
60	ROW, LAND, EXISTING IMPROVEMENTS	212,475	190,036	190,036	170,440	190,036	-
70	VEHICLES	160,196	108,302	98,118	14,607	108,302	-
80	PROFESSIONAL SERVICES	410,342	506,876	368,886	324,763	506,876	-
SUBTOTAL (10-80)		2,220,629	2,648,180	2,432,659	1,474,653	2,648,180	-
90	UNALLOCATED CONTINGENCY	225,859	110,856	-	-	110,856	-
100	FINANCE CHARGES	375,470	331,065	-	-	331,065	-
TOTAL PROJECT (10-100)		2,821,957	3,090,101	2,432,659	1,474,653	3,090,101	-

NOTE: TOTAL INCURRED COST TO DATE \$1,493,297

* PROPOSED FFGA BUDGET UPDATED ON AN ANNUAL BASIS, LAST UPDATED MARCH 2018. GRANT AMENDMENT TO REFLECT UPDATES ONLY PERMITTED AFTER FFGA AMENDMENT IS APPROVED.

** CURRENT PROJECT BUDGET LESS CONCURRENT NON-FFGA ACTIVITIES.

Westside Purple Line Extension Section 1 Project FFGA / Non-FFGA Costs

DOLLARS IN THOUSANDS

SCC CODE	DESCRIPTION	ORIGINAL FFGA BUDGET	PROPOSED FFGA BUDGET	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	PROPOSED FFGA BUDGET/ FORECAST VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS	565,080	387,938	386,539	174,626	387,938	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	570,051	489,322	468,455	171,800	489,322	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS	39,086	38,092	36,525	34,655	38,092	-
40	SITWORK & SPECIAL CONDITIONS	139,820	812,415	783,069	556,675	812,415	-
50	SYSTEMS	123,579	115,199	101,033	27,087	115,199	-
	CONSTRUCTION SUBTOTAL (10-50)	1,437,616	1,842,966	1,775,620	964,843	1,842,966	-
60	ROW, LAND, EXISTING IMPROVEMENTS	212,475	190,036	190,036	170,440	190,036	-
70	VEHICLES	160,196	108,302	98,118	14,607	108,302	-
80	PROFESSIONAL SERVICES	410,342	506,876	368,886	324,763	506,876	-
	SUBTOTAL (10-80)	2,220,629	2,648,180	2,432,659	1,474,653	2,648,180	-
90	UNALLOCATED CONTINGENCY	225,859	110,856	-	-	110,856	-
100	FINANCE CHARGES	375,470	331,065	-	-	331,065	-
	TOTAL FFGA PROJECT ACTIVITIES (10-100)	2,821,957	3,090,101	2,432,659	1,474,653	3,090,101	-

NOTE: TOTAL INCURRED COST TO DATE \$1,493,297

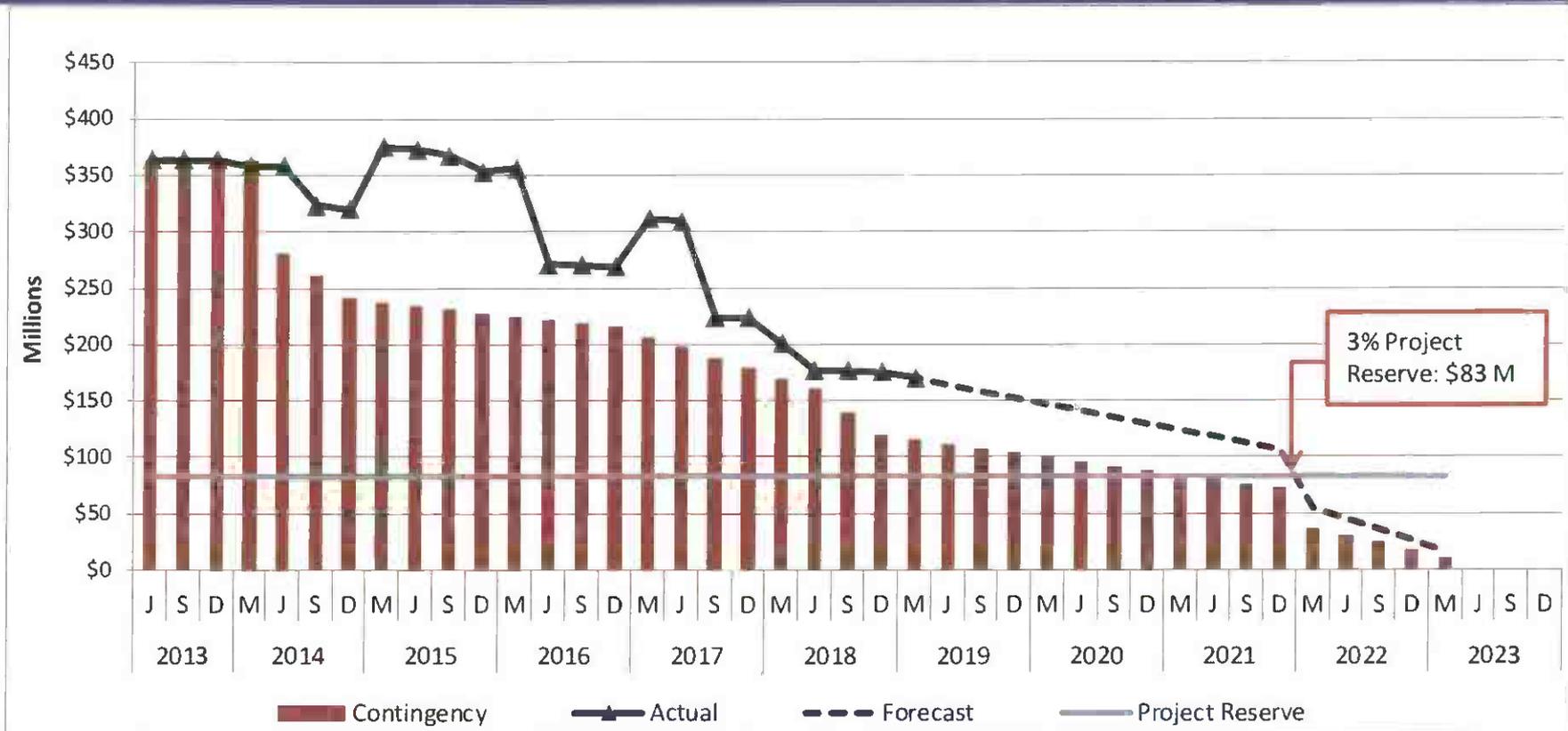
SCC CODE	DESCRIPTION	ORIGINAL NON FFGA BUDGET	CURRENT NON FFGA BUDGET	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	CURRENT NON FFGA BUDGET/ FORECAST VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS	-	-	-	-	-	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	-	-	-	-	-	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS	-	2,925	5,073	5,053	5,260	2,335
40	SITWORK & SPECIAL CONDITIONS	-	-	484	484	2,031	2,031
50	SYSTEMS	-	-	-	-	-	-
	CONSTRUCTION SUBTOTAL (10-50)	-	2,925	5,557	5,537	7,291	4,366
60	ROW, LAND, EXISTING IMPROVEMENTS	12,805	12,805	12,945	10,181	12,945	140
70	VEHICLES	-	-	-	-	-	-
80	PROFESSIONAL SERVICES	1,500	3,575	2,843	3,210	3,628	53
	SUBTOTAL (10-80)	14,305	19,305	21,345	18,929	23,864	4,559
90	UNALLOCATED CONTINGENCY	2,000	5,574	-	-	1,015	(4,559)
100	FINANCE CHARGES	-	-	-	-	-	-
	TOTAL CONCURRENT NON-FFGA PROJECT ACTIVITIES (10-100)	16,305	24,879	21,345	18,929	24,879	-
	ENVIRONMENTAL/PLANNING	39,370	39,370	39,370	39,357	39,370	-
	TOTAL NON-FFGA (INCL. ENV./PLANNING)	55,674	64,248	60,715	58,286	64,248	-

NOTE: TOTAL INCURRED COST TO DATE \$58,306

TOTAL PROJECT	2,838,262	3,154,350	2,493,374	1,532,939	3,154,350	-
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NOTE: TOTAL INCURRED COST TO DATE \$1,551,603

Westside Purple Line Extension Section 1 Project Project Cost Contingency Drawdown

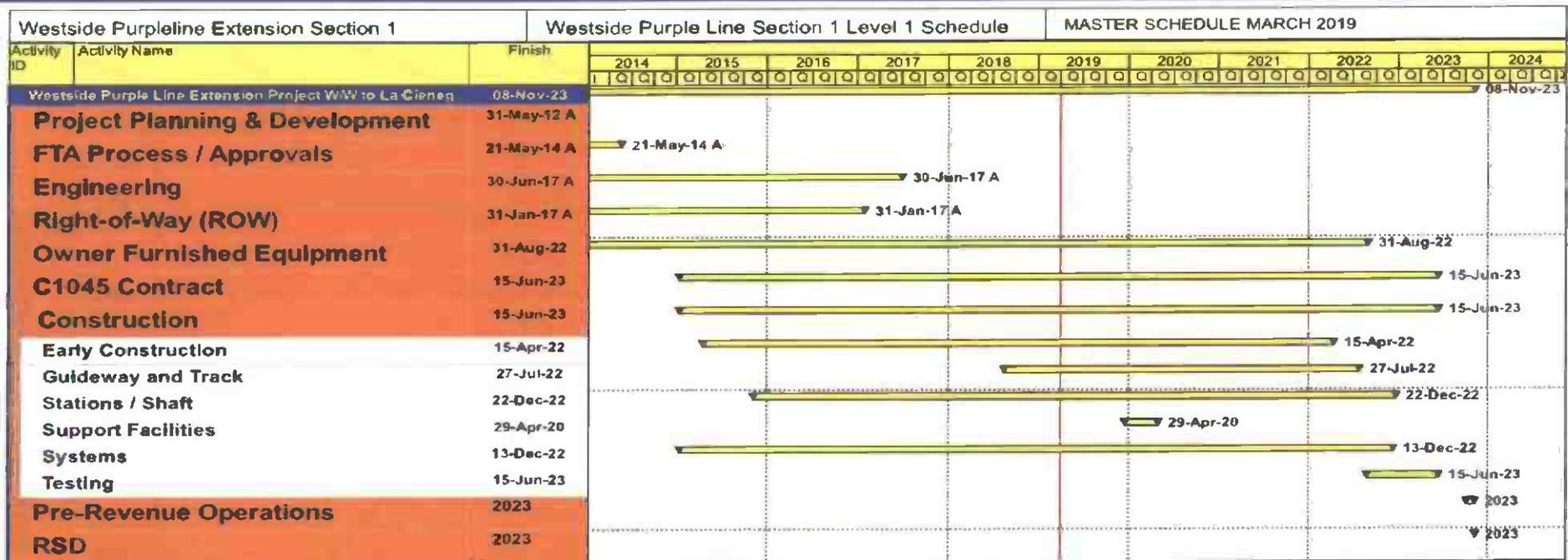


PROJECT COST CONTINGENCY					
DOLLARS IN THOUSANDS					
	Original Contingency (Budget)	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	248,592	(136,721)	-	(136,721)	111,871
Allocated Contingency	71,963	(13,121)	(580)	(13,701)	58,263
Total Contingency	320,555	(149,841)	(580)	(150,422)	170,134

Westside Purple Line Extension Section 1 Project Disadvantaged Business Enterprise (DBE) Status

DISADVANTAGED BUSINESS ENTERPRISE (DBE)	
DISADVANTAGED BUSINESS ENTERPRISE (DBE)	
Contract C1045 Westside Purple Line Extension - Section 1 (Reported Data as of February 2019)	
<ul style="list-style-type: none"> DBE Goal – Design A numerically expressed percentage of funds apportioned to Design Contracts and is calculated based upon the relative availability of DBE firms as compared to all firms in the relevant geographic market area. 20.25% Current DBE Commitment – Design Total DBE Committed Dollars divided by Total Contract Value for Design or Construction. \$13,117,649 (20.25%) Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime. \$12,437,501 (20.33%) <p>Fourteen (14) Design DBE subcontractors have been identified to-date.</p>	
<ul style="list-style-type: none"> DBE Goal – Construction A numerically expressed percentage of funds apportioned to Construction Contracts and is calculated based upon the relative availability of DBE firms as compared to all firms in the relevant. 17.00% Current DBE Commitment – Construction Contract commitment divided by current contract value for Construction. \$266,737,709 (17.00%) Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime. \$108,229,801 (14.63%) <p>One hundred-sixteen (116) Construction DBE subcontractors have been identified to-date.</p>	

Westside Purple Line Extension Section 1 Project Master Program Schedule/C1045 Baseline Update



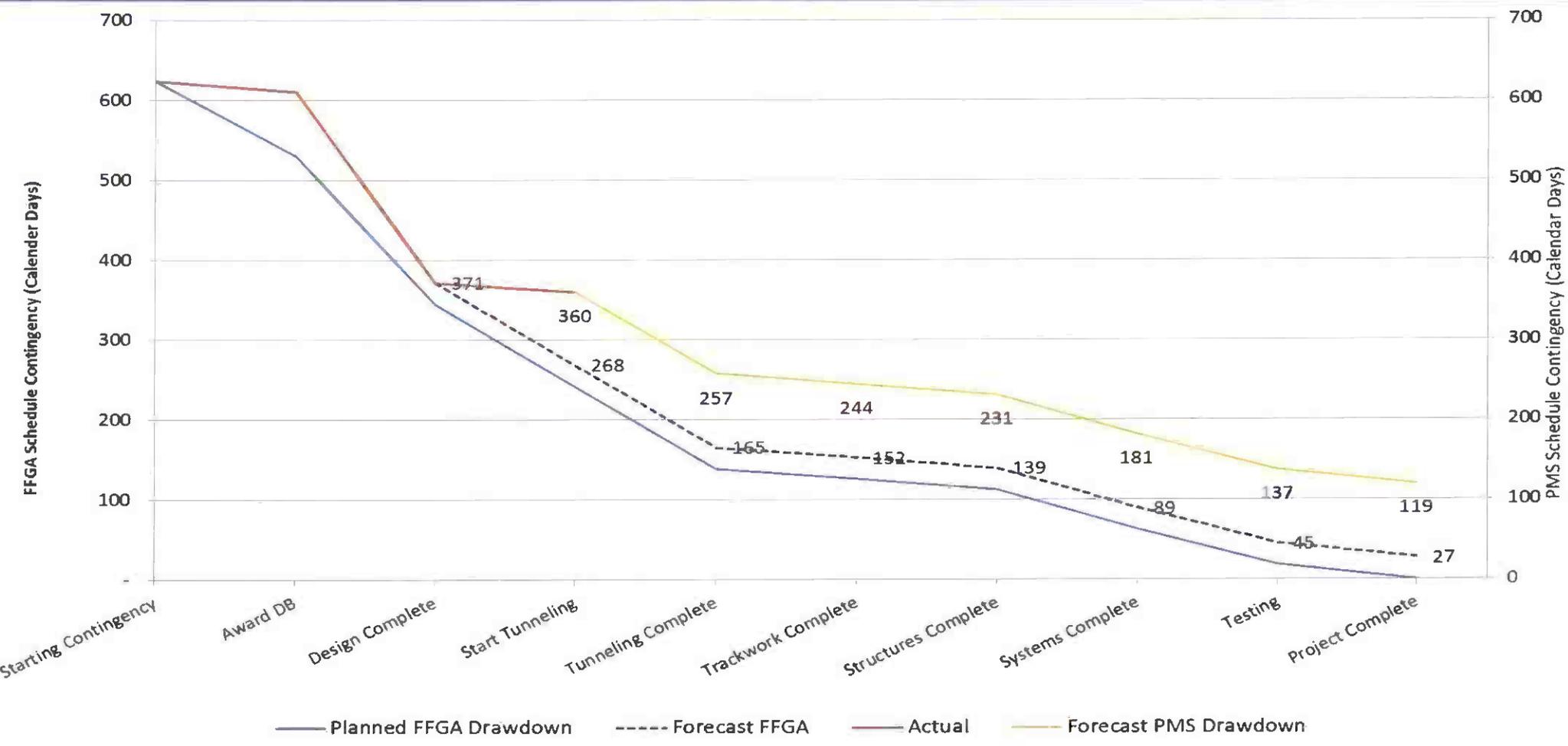
 Remaining Work
 Milestone

1 of 1
 Westside Purpleline Section 1 Level 1 Summary Schedule
 Los Angeles County Metropolitan Transportation Authority

Data Date : 01-Apr-19
 Current Date : 11-Apr-19

Layout: 3* - PLE1 MSRP Level 1 r

Westside Purple Line Extension Section 1 Project Project Schedule Contingency Drawdown



Project Schedule Contingency Drawdown Analysis

The project schedule contingency drawdown model provides a dual-axis perspective based upon the FFGA RSD of October 2024 and Metro’s Project Master Schedule (PMS) forecast of fall 2023.

Westside Purple Line Extension Section 1 Project Top Risks & Mitigations

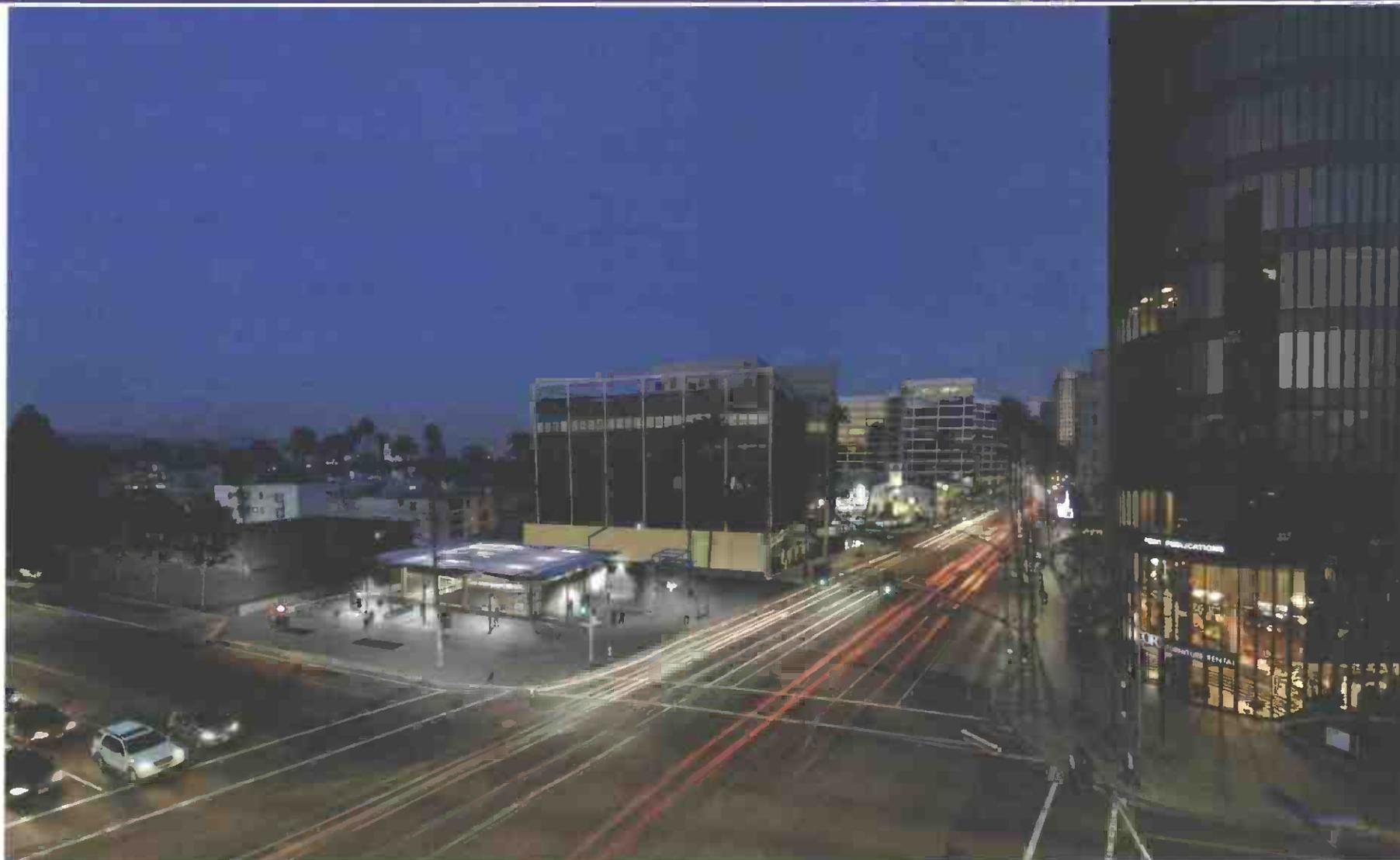
Risk ID	Risk Description	Risk Score	Action Items
633.0	Cost of ROW acquisition exceeds the FFGA SCC Line Item.	15	<ol style="list-style-type: none"> 1. Metro's Life of Project Budget includes contingency that covers the increase. The Risk Score will remain as "high" until the \$3.15 billion Life of Project Budget is reconciled with the \$2.82 billion FFGA Budget. 2. FTA has approved the property sale. Escrow on the Gale property has closed. Proceeds from the sale have been reflected in FIS (Financial Information System). 3. Three parcels are in the condemnation phase. 2 settlement proposals have been approved by the MTA Board. Reconciliation remains on going.
675.0	DBE Participation Goal for Construction. Currently targeted at 17%.	13	<ol style="list-style-type: none"> 1. DB Contractor making good faith efforts to meet DBE goals.
676.0	Subcontractor ability to get the required resources to perform work.	13	<ol style="list-style-type: none"> 1. Actively manage schedule and resource needs.
677.0	Resource (Labor) shortage (Direct and Indirect).	13	<ol style="list-style-type: none"> 1. Actively manage schedule and resource needs.
668.1	Gas may travel into adjacent properties or utilities and result in incident.	9	<ol style="list-style-type: none"> 1. Metro has strict safety requirements in place, which are part of the safety requirements for contractors. Metro will further supplement existing safety requirements based on Geotechnical/Environmental investigations. 2. The Gas Task Force has been reassembled. MOD 72 has been issued to conduct additional gas testing and assessment along Reach 3. 3. Pilot well drilling is underway. Testing is anticipated by end of May with the final report expected in July/August.

*Based on April 2019 Risk Register

~ Risk #674 CLOSED (Acceptability of station subgrade at Fairfax)

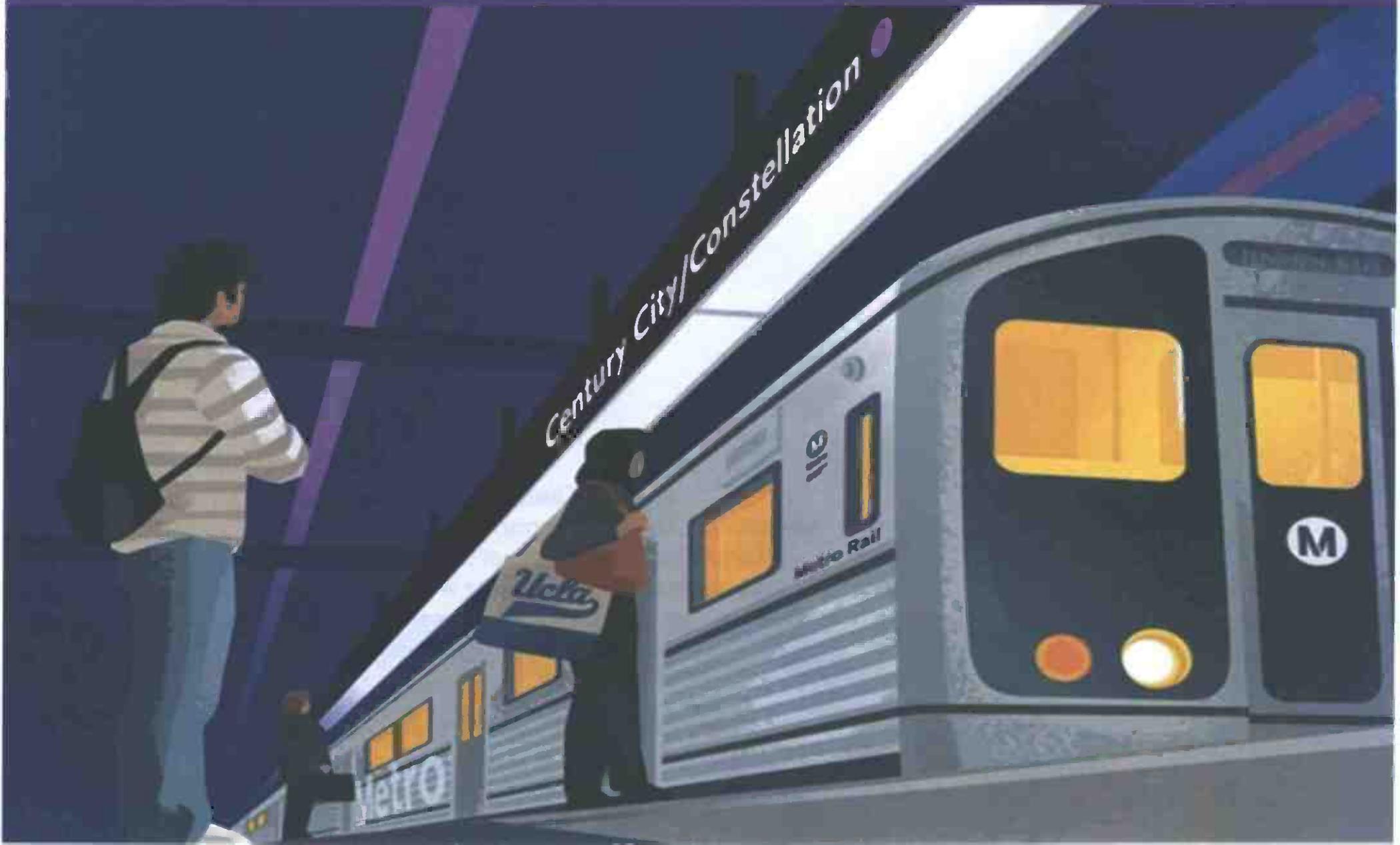
~ Risk #678 CLOSED (Water quality impacting treatment/maintenance of water system)

Westside Purple Line Extension Section 1 Project Questions



C1045 Design/Build Contract Computer-Generated Rendering of Wilshire/La Cienega Station 18

Westside Purple Line Extension Section 2 Project FTA Quarterly Review May 29, 2019



Westside Purple Line Extension Section 2 Project

Project Description

- The WPLE Section 2 Project is a 2.59 mile alignment from the future Wilshire/La Cienega Station to the future Century City Constellation Station. The Project includes 20 heavy rail vehicles, twin-bored tunnels and two (2) new subway stations:
 - Wilshire/Rodeo
 - Century City Constellation
- FFGA Budget: \$2.50 Billion
- FFGA Forecast: \$2.50 Billion
- FFGA RSD: December 31, 2026
- Forecast RSD: 2025
- Design/Builder: Tutor Perini/O&G, a Joint Venture (TPOG)
- Design Progress: 92%
- Construction Progress: 17%
- Daily Project Transit Trips: 36,121
- Daily New Transit Trips: 5,350
- Current Contingency Forecast (SCC 10-80): 15%
- Current Contingency Forecast of Cost-to-Go (SCC 10-80): 22%
- Federal Funds: \$1.36 Billion
- Local Funds: \$1.14 Billion



Westside Purple Line Extension Section 2 Project

Key Project Updates

- Negotiations with the City of Beverly Hills (COBH) for a settlement agreement to end the city's lawsuit against FTA and Metro is ongoing.
- Design Update: TPOG has recently submitted the following:
 - 100%; Invert Slab Design for the TBM Launch Box
 - 100%; Wilshire/Rodeo Station Structural Design
 - IFC; Temporary Street and Temporary Utility Design at Wilshire/Rodeo Station
- The current job creation estimates as extrapolated from the Los Angeles Economic Development Corporation (LAEDC) analysis of job impacts is as follows:
 - To date: 6,177 estimated jobs
 - March 2019: 156 estimated jobs
- As of April 27, 2019: 1,697 of 4,100 Tunnel Rings have been produced.

Westside Purple Line Extension Section 2 Project Wilshire/Rodeo Station Update

- Demolition of north staging yard properties was completed on April 2, 2019.
- Potholing for underground utilities has commenced and is ongoing.
- Preparation for wet utility relocations is ongoing.



Potholing Activities

Westside Purple Line Extension Section 2 Project Century City Constellation Station Update

- Installation of deck beams for the TBM launch box was completed on April 2, 2019.
- Installation of temporary power for the tunnel boring machine (TBM) continues.
- TBM launch box excavation and supporting underground utilities continues.
- TBM unveiling celebration will occur in June 2019.
- Civil work for LADWP Power and AT&T was completed in December 2018 (excluding intercepts). Cable pulling and splicing for both utilities will continue through November 2019.
- Santa Monica bus layover construction is ongoing with an anticipated completion in August 2019.



TBM Launch Box Overview



Installation of TBM Launch Box Lagging

Westside Purple Line Extension Section 2 Project FFGA Cost Status

PERIOD ENDING: MARCH 2019

DOLLARS IN THOUSANDS

SCC CODE	DESCRIPTION	APPROVED FFGA BUDGET	CURRENT FFGA BUDGET ¹	COMMITMENTS	EXPENDITURES	CURRENT FFGA FORECAST	CURRENT BUDGET / CURRENT FORECAST VARIANCE
10	GUIDEWAY & TRACK ELEMENTS	385,323	328,836	307,056	42,682	321,703	(7,133)
20	STATIONS, STOPS, TERMINALS, INTERMODAL	517,378	443,071	410,368	13,334	454,245	11,174
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	-	-	-	-	-	-
40	SITWORK & SPECIAL CONDITIONS	406,955	560,625	537,498	283,764	564,989	4,364
50	SYSTEMS	96,734	81,907	68,537	7,362	83,025	1,118
	CONSTRUCTION SUBTOTAL (10-50)	1,406,389	1,414,439	1,323,459	347,143	1,423,962	9,523
60	ROW, LAND, EXISTING IMPROVEMENTS	312,422	419,396	223,081	153,049	419,396	-
70	VEHICLES	85,351	42,000	-	-	42,000	-
80	PROFESSIONAL SERVICES	383,941	374,574	238,059	169,795	386,642	12,068
	SUBTOTAL (10-80)	2,188,104	2,250,409	1,784,599	669,986	2,272,000	21,591
90	UNALLOCATED CONTINGENCY	222,441	160,136	-	-	138,545	(21,591)
100	FINANCE CHARGES	88,695	88,695	-	-	88,695	-
	TOTAL (10-100)	2,499,240	2,499,240	1,784,599	669,986	2,499,240	-

NOTE: TOTAL FFGA INCURRED COST TO DATE \$682,192

EXCLUDES CONCURRENT NON-FFGA PROJECT ACTIVITIES

¹ REFLECTS CURRENT LIFE OF PROJECT (LOP) BUDGET PLUS FINANCE CHARGES

Westside Purple Line Extension Section 2 Project FFGA / Non-FFGA Cost Status

PERIOD ENDING: MARCH 2019
DOLLARS IN THOUSANDS

SCC CODE	DESCRIPTION	ORIGINAL FFGA BUDGET	CURRENT FFGA BUDGET ¹	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	CURRENT BUDGET / CURRENT FORECAST VARIANCE
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90	UNALLOCATED CONTINGENCY	222,441	160,136	-	-	138,545	(21,591)
100	FINANCE CHARGES	88,695	88,695	-	-	88,695	-
	TOTAL PROJECT (10-100)	2,499,240	2,499,240	1,784,599	669,986	2,499,240	-

NOTE: TOTAL FFGA INCURRED COST TO DATE \$682,192

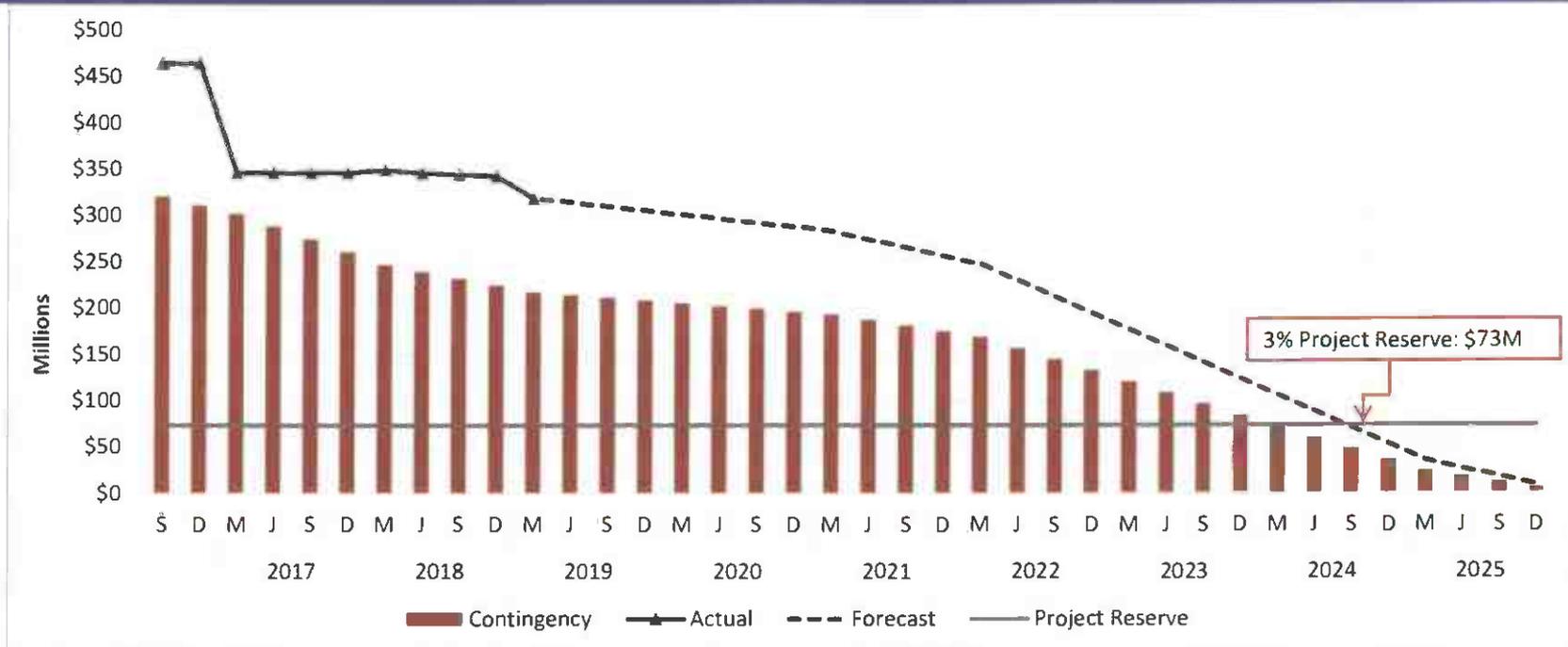
SCC CODE	DESCRIPTION	ORIGINAL NON FFGA BUDGET	CURRENT NON FFGA BUDGET	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	CURRENT NON FFGA BUDGET/ FORECAST VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS	-	-	-	-	-	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	-	-	-	-	-	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS	-	-	-	-	-	-
40	SITWORK & SPECIAL CONDITIONS	16,175	16,175	8,065	4,715	14,997	(1,178)
50	SYSTEMS	-	-	-	-	-	-
	CONSTRUCTION SUBTOTAL (10-50)	16,175	16,175	8,065	4,715	14,997	(1,178)
60	ROW, LAND, EXISTING IMPROVEMENTS	7,000	7,000	7,000	6,993	7,000	-
70	VEHICLES	-	-	-	-	-	-
80	PROFESSIONAL SERVICES	1,400	1,400	665	134	1,400	-
	SUBTOTAL (10-80)	24,575	24,575	15,729	11,842	23,397	(1,178)
90	UNALLOCATED CONTINGENCY	1,500	1,500	-	-	2,678	1,178
100	FINANCE CHARGES	-	-	-	-	-	-
	TOTAL NON-FFGA (10-100)	26,075	26,075	15,729	11,842	26,075	-
	ENVIRONMENTAL/PLANNING	4,349	4,349	3,770	3,126	4,349	-
	TOTAL NON-FFGA (INCL. ENV./PLANNING)	30,424	30,424	19,500	14,967	30,424	-

NOTE: TOTAL NON-FFGA INCURRED COST TO DATE \$14,967

	TOTAL PROJECT	2,529,664	2,529,664	1,804,099	684,953	2,529,664	-
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NOTE: TOTAL INCURRED COST TO DATE \$697,159

Westside Purple Line Extension Section 2 Project Project Cost Contingency Drawdown



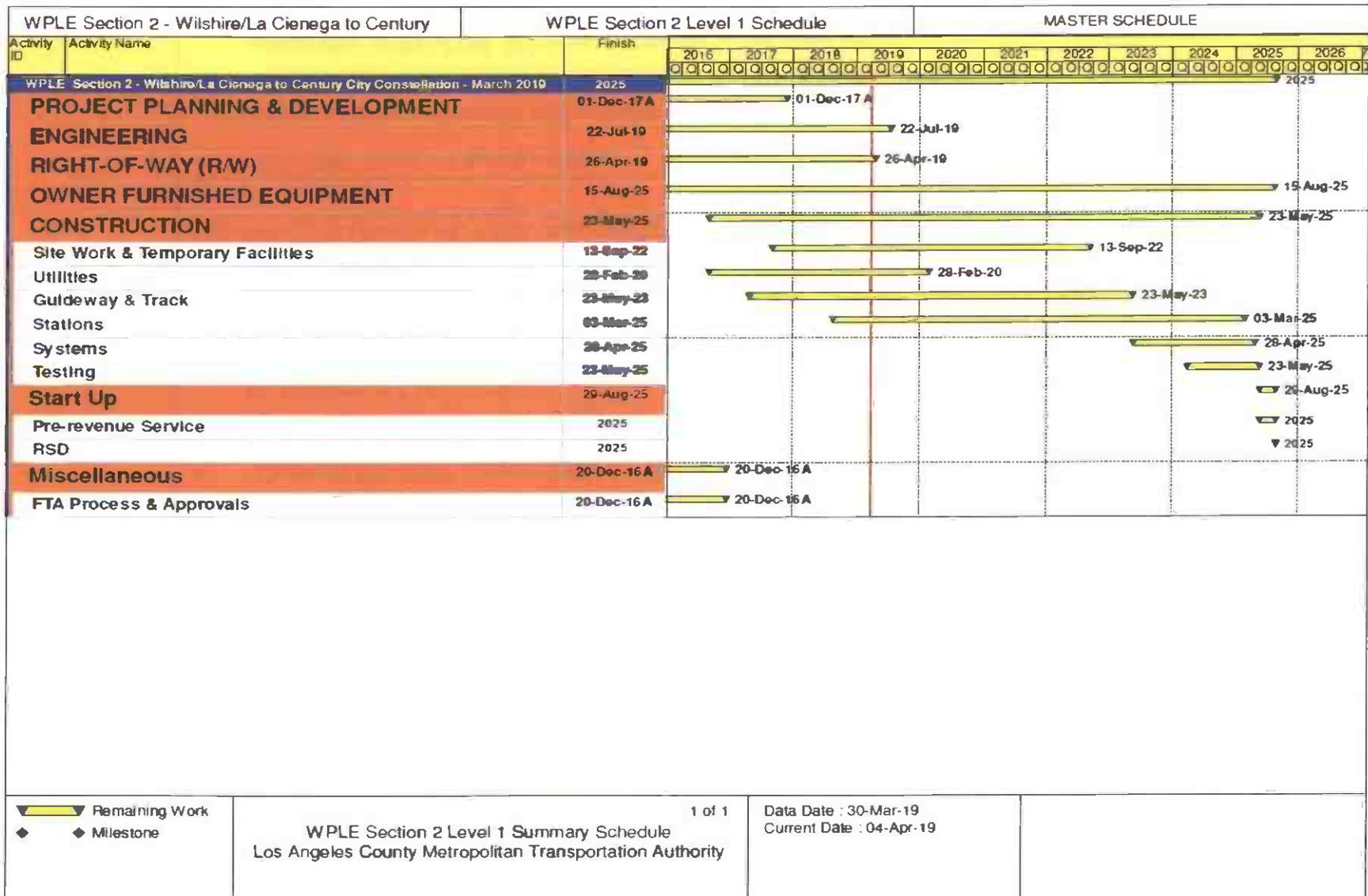
PROJECT COST CONTINGENCY					
DOLLARS IN THOUSANDS					
	Original Contingency (Budget)	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	177,176	(15,540)	(20,413)	(35,953)	141,223
Allocated Contingency	168,534	10,030	(1,879)	8,150	176,684
Total Contingency	345,710	(5,511)	(22,292)	(27,803)	317,907

Westside Purple Line Extension Section 2 Project Race-Conscious Disadvantaged Business Enterprise (DBE) Status

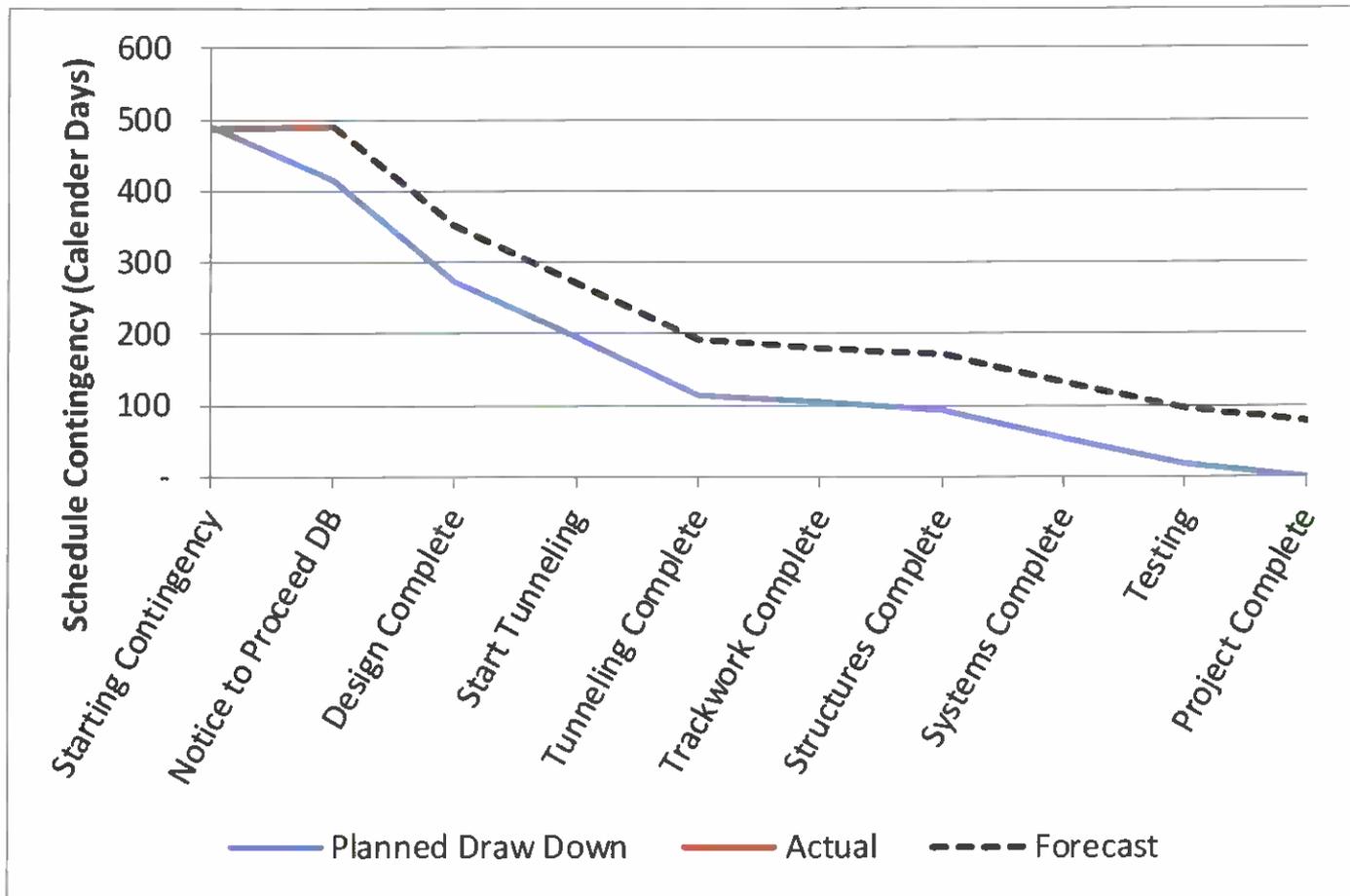
<ul style="list-style-type: none"> RC-DBE Goal – Design (Reported Data as of March 2019) A numerically expressed percentage of funds apportioned to Design Contracts and is calculated based upon the relative availability of RC-DBE firms as compared to all firms in the relevant geographic market area. 25.31% Current RC-DBE Commitment – Design Total RC-DBE Committed Dollars divided by Total Contract Value for Design or Construction. \$15,144,515 (25.31%) Current RC-DBE Participation Total amount paid to date to RC-DBEs divided by the amount paid to date to Prime. \$16,220,246 (31.22%) <p>Eighteen (20) Design RC-DBE subcontractors have been identified.</p>
<ul style="list-style-type: none"> RC-DBE Goal – Construction A numerically expressed percentage of funds apportioned to Construction Contracts and is calculated based upon the relative availability of RC-DBE firms as compared to all firms in the relevant geographic market area. 17.00% Current RC-DBE Commitment – Construction Actual commitments as Construction work is awarded. \$117,518,758* (9.00%) Current RC-DBE Participation Total amount paid to date to RC-DBEs divided by the amount paid to date to Prime. \$15,125,409 (4.79%) <p>Twenty-one (22) Construction RC-DBE subcontractors have been identified.</p>

* Last month's Construction Commitments were reported as \$221,007,018, however, it should have reflected Commitments as Construction is awarded \$117,518,758. It has been corrected this period.

Westside Purple Line Extension Section 2 Project Summary Project Schedule



Westside Purple Line Extension Section 2 Project Project Schedule Contingency Drawdown



Project Schedule Contingency Drawdown Analysis

The project schedule contingency drawdown model provides a dual-axis perspective based upon the FFGA RSD of December 2026 and Metro's Project Master Schedule (PMS) forecast of summer 2025.

Westside Purple Line Extension Section 2 Project Top Risks & Mitigations

Risk ID	Risk Description	SCC	Risk Score
PLE2-6	Acquisition of property is delayed due to condemnation and/or legal battle.	60	16.0
PLE2-54	Turnover of property to DB contractor is delayed beyond the dates stipulated in the Contract Documents.	60	15.0
PLE2-23	3rd party utility relocations delay construction.	40	12.0
PLE2-70	Public protest to the Project causes delays.	90	12.0
PLE2-24	Resource constraints at private utility companies delay schedule.	40	9.0

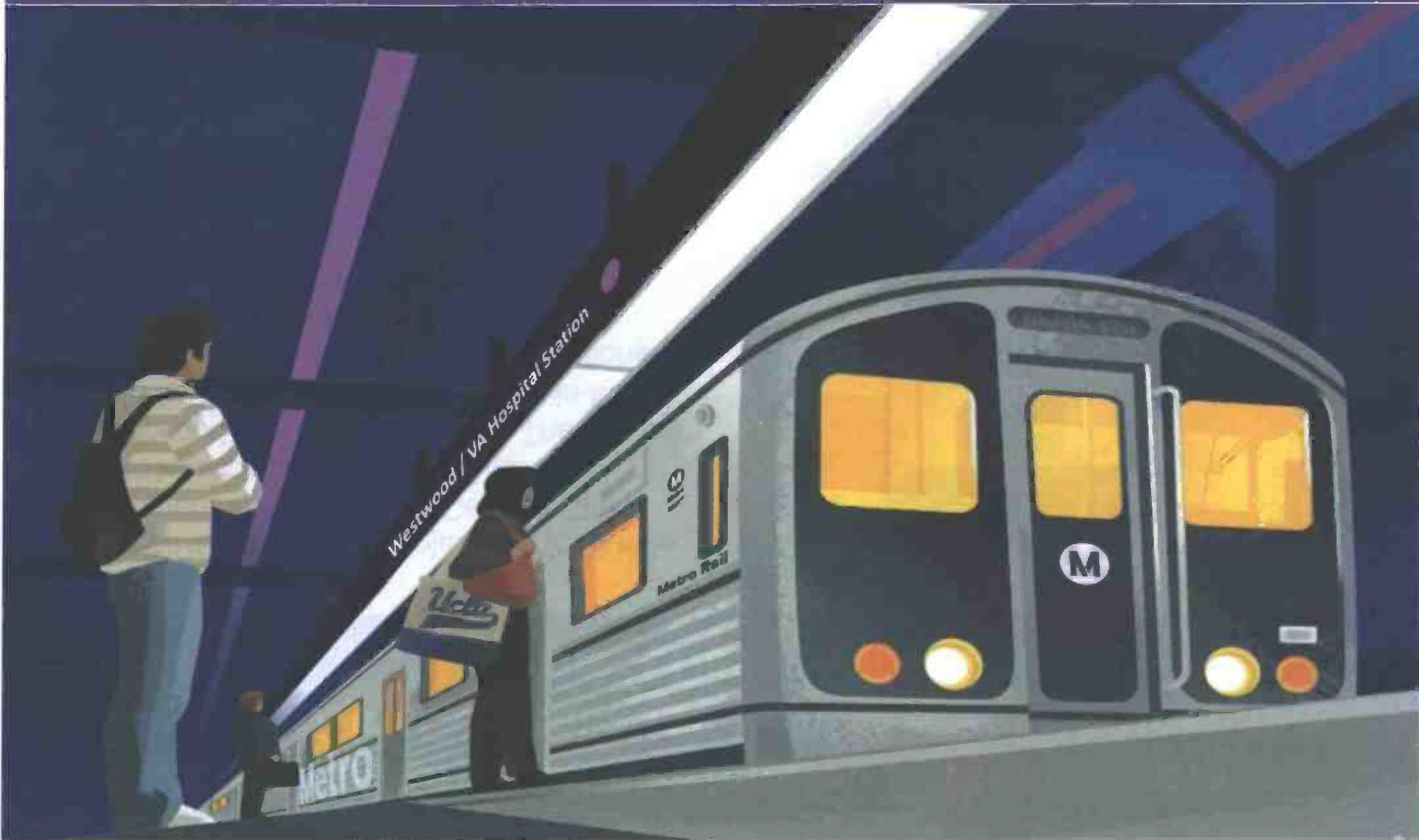
Based on April 2019 Risk Register

Westside Purple Line Extension Section 2 Project Questions



Wilshire/Rodeo Station

Westside Purple Line Extension Section 3 Project FTA Quarterly Review May 29, 2019



Westside Purple Line Extension Section 3 Project (Century City Constellation to Westwood/VA Hospital) Project Description

- The WPLE Section 3 Project is a 2.56 mile alignment from the future Century City Constellation Station to the future Westwood/VA Hospital Station. The Project includes 16 heavy rail vehicles, twin-bored tunnels and two (2) new subway stations:
 - Westwood/UCLA
 - Westwood/VA Hospital
- Capital Cost Estimate (Proposed FFGA):
 - \$3.599 Billion
- Revenue Service Date:
 - Forecast – 2027
 - Proposed FFGA – December 31, 2028
- Daily Project Transit Trips: 42,903
- Daily New Transit Trips: 9,386



Westside Purple Line Extension Section 3 Project

Key Project Updates

- C1151 Tunnel Contract:
 - Preparation of 60% design submittals for review.
 - Ongoing coordination with SCE to install power.
 - Finalize Access and Easement Agreement (AEA) with the Veterans Affairs (VA) for contractor's construction staging area.
 - Initiated field investigations (geotechnical).
- C1152 Stations, Trackwork and Systems Contract:
 - Metro received Letter of No Prejudice, and Contract award is anticipated in May 2019.
- C1153 Advanced Utility Relocations (AUR) Contract:
 - Overall progress is 89% complete.
 - Contract substantial completion is scheduled to occur on July 3, 2019.
- The current job creation as extrapolated from the Los Angeles Economic Development Corporation (LAEDC) analysis of job impacts is the following:
 - March 2019: 242 estimated jobs
 - Third quarter of FY 2019: 456
 - To date: 1,222 estimated jobs

Westside Purple Line Extension Section 3 Project Westwood/UCLA Station AUR and Third Party Relocation Update

AUR at Westwood/UCLA Station

- LADWP Power relocations are complete.
- LADWP Water relocation started on November 20, 2018 and is ongoing.

Other Third Party Relocation Work

- Joint trench for Verizon and Frontier telecom is ongoing.
- LADWP cable pulling is ongoing.

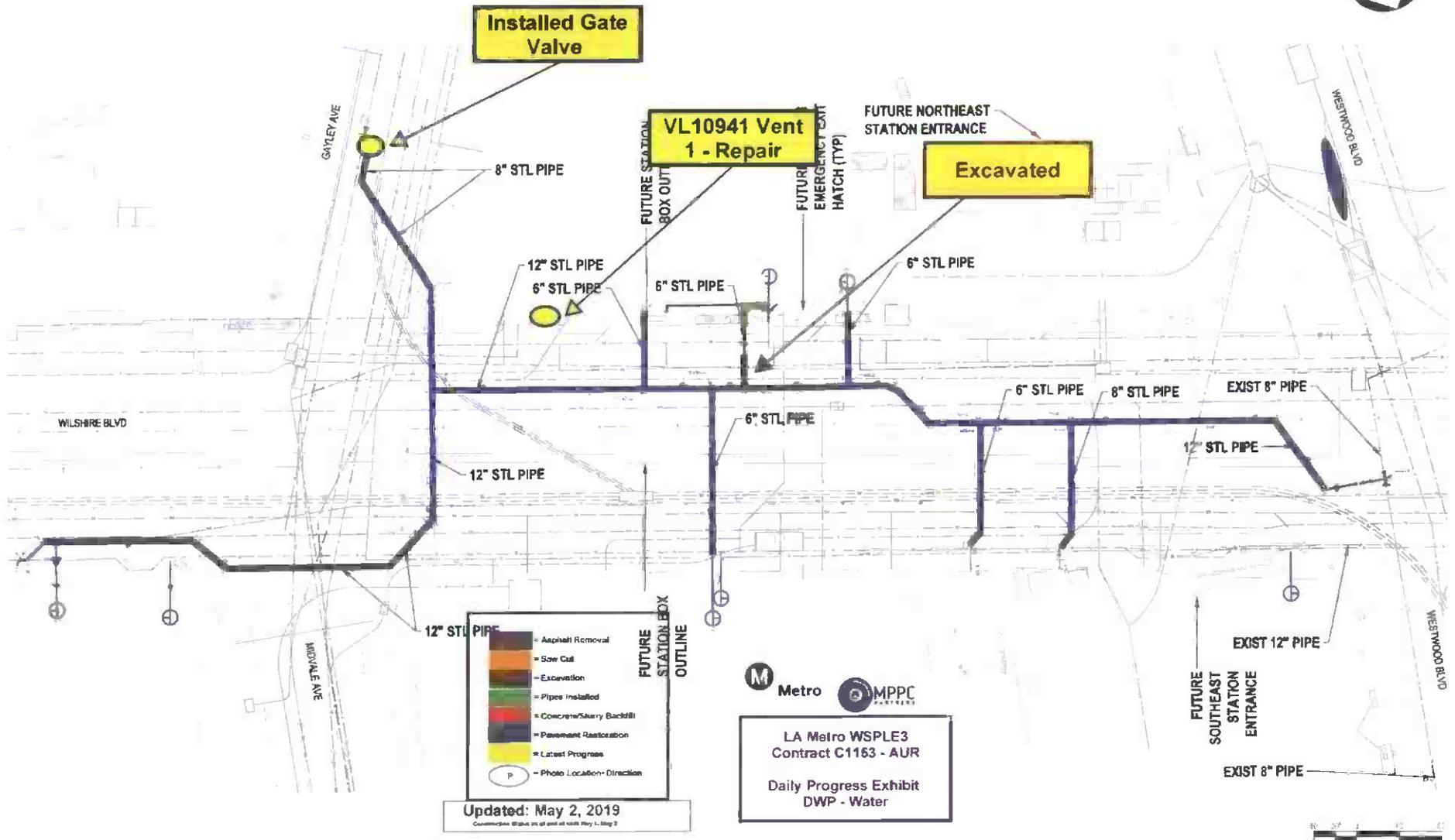


LADWP Water Vault Installation



Gate Valve Steel Lateral Installation

Westside Purple Line Extension Section 3 Project Project Update – AUR Contract (LADWP Water)



Westside Purple Line Extension Section 3 Project Project Cost Status

PERIOD ENDING: MARCH 2019

DOLLARS IN THOUSANDS

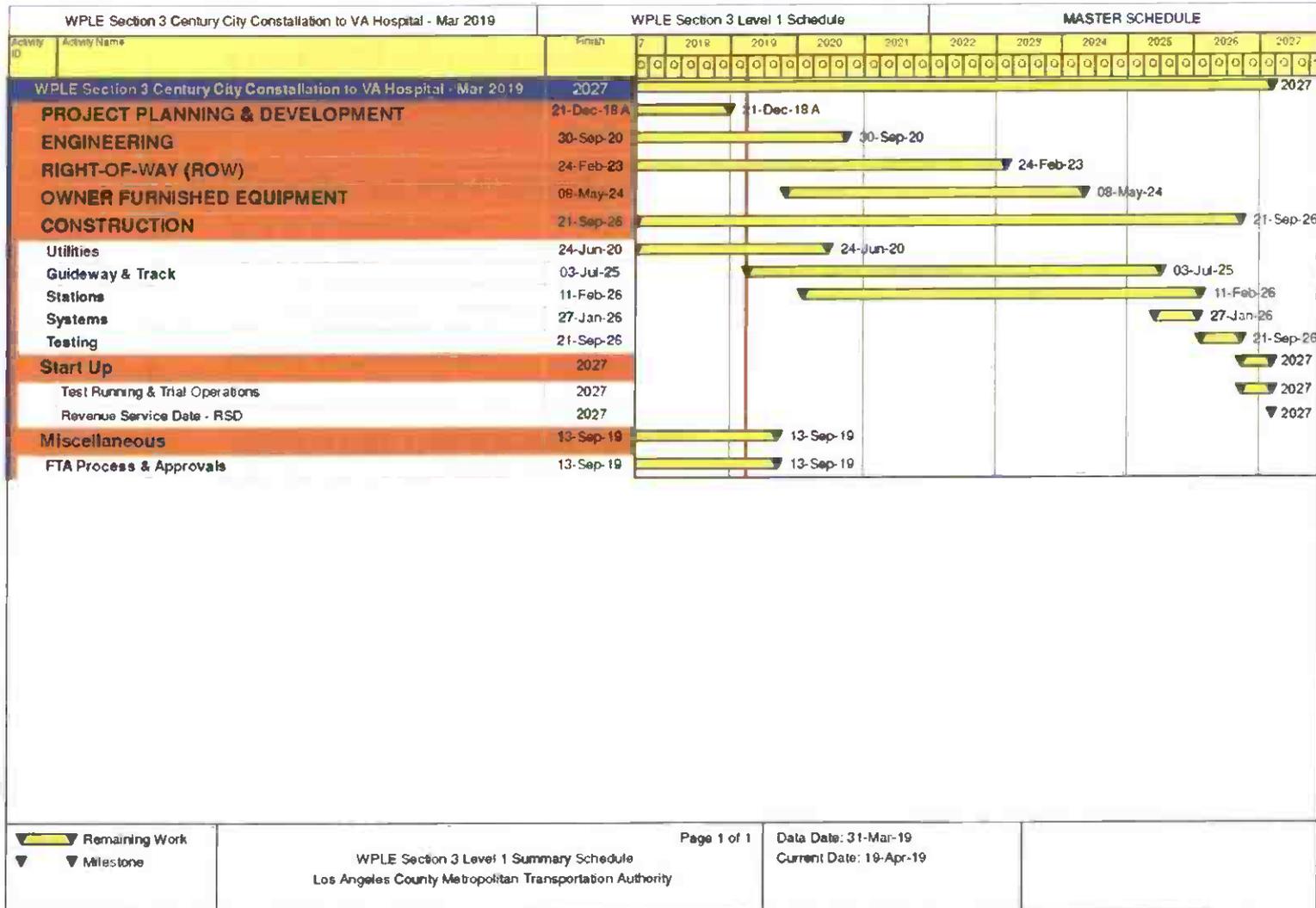
SCC CODE	DESCRIPTION	LIFE OF PROJECT BUDGET ¹	PROPOSED FFGA BUDGET ²	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	PROPOSED FFGA BUDGET / FORECAST VARIANCE
10	GUIDEWAY & TRACK ELEMENTS	490,712	490,712	285,600	9,750	490,712	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	624,995	624,995	5,300	-	624,995	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	-	-	-	-	-	-
40	SITWORK & SPECIAL CONDITIONS	491,805	491,805	128,835	31,801	491,805	-
50	SYSTEMS	130,778	130,778	-	-	130,778	-
CONSTRUCTION SUBTOTAL (10-50)		1,738,291	1,738,291	419,735	41,551	1,738,291	-
60	ROW, LAND, EXISTING IMPROVEMENTS	466,874	466,874	120,885	43	466,874	-
70	VEHICLES	38,092	38,092	-	-	38,092	-
80	PROFESSIONAL SERVICES	504,493	504,493	108,602	60,681	504,493	-
SUBTOTAL (10-80)		2,747,750	2,747,750	649,222	102,275	2,747,750	-
90	UNALLOCATED CONTINGENCY	464,142	464,142	-	-	464,142	-
100	FINANCE CHARGES	387,375	387,375	-	-	387,375	-
TOTAL FFGA PROJECT ACTIVITIES (10-100)		3,599,267	3,599,267	649,222	102,275	3,599,267	-

TOTAL FFGA INCURRED COST TO DATE IS \$121,415,438

¹ Reflects current Life of Project (LOP) budget plus finance charges.

² LOP does not include \$11.7 million Concurrent Non-FFGA activities.

Westside Purple Line Extension Section 3 Project Preliminary Summary Schedule



Westside Purple Line Extension Section 3 Project Disadvantaged Business Enterprise (DBE) Status

(Reported Data as of March 2019 for Contract C1151)

<ul style="list-style-type: none"> DBE Goal – Design A numerically expressed percentage of funds apportioned to Design Contracts and is calculated based upon the relative availability of DBE firms as compared to all firms in the relevant geographic market area. 	11.19%
<ul style="list-style-type: none"> Current DBE Commitment – Design Total DBE Committed Dollars divided by Total Contract Value for Design or Construction. 	\$1,930,225 (11.19%)
<ul style="list-style-type: none"> Current DBE Participation Total amount paid to date to RC-DBEs divided by the amount paid to date to Prime. 	\$0 (0%)
Five (5) Design DBE subcontractors have been identified.	
<ul style="list-style-type: none"> DBE Goal – Construction A numerically expressed percentage of funds apportioned to Construction Contracts and is calculated based upon the relative availability of RC-DBE firms as compared to all firms in the relevant geographic market area. 	17.10%
<ul style="list-style-type: none"> Current DBE Commitment – Construction Actual commitments as Construction work is awarded. 	\$15,042,419 (3.83%)
<ul style="list-style-type: none"> Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime. 	\$0 (0%)
Six (6) Construction DBE subcontractors have been identified.	

Westside Purple Line Extension Section 3 Project Top Risks & Mitigations

Risk ID	Risk Description	Risk Score	Action Items
701.3	Tariffs potentially impact D/B contractors.	10.5	1. Monitor the market trend and assess the potential impact.
287.3	Delays due to obtaining lane closures and peak hour exemptions.	9.0	1. Identify temporary bus stop re-locations. Meet with City to identify relocation of stops outside work areas. 2. Metro to review bus routes and stop locations. 3. Submit the Peak Hour Exemption Request
657.3	Replacement parking at VA hospital may impact cost and schedule. Additional parking spaces above and beyond the in-kind parking spaces replacement will be funded by local fund. No cost risk impact on FFGA budget.	9.0	1. Include in ROW budget - Complete 2. Identify local funding source to meet the additional parking spaces requirement.
653.3	Delay of contract turnover from tunnels to stations.	8.0	1. Review scope, ROW, procurement methodology, NEPA action, LONP to identify schedule risks. 2. Received LONP and 150c documents.
648	Construction activities may cause significant disruption to the communities and businesses along the alignments and could potentially drive onerous mitigation to satisfy the public.	7.5	1. Community outreach sessions. 2. Develop additional mitigation plans to reduce traffic impacts, and provide safe access. 3. Provisional Sums (based on Sound Wall - can be quantified)

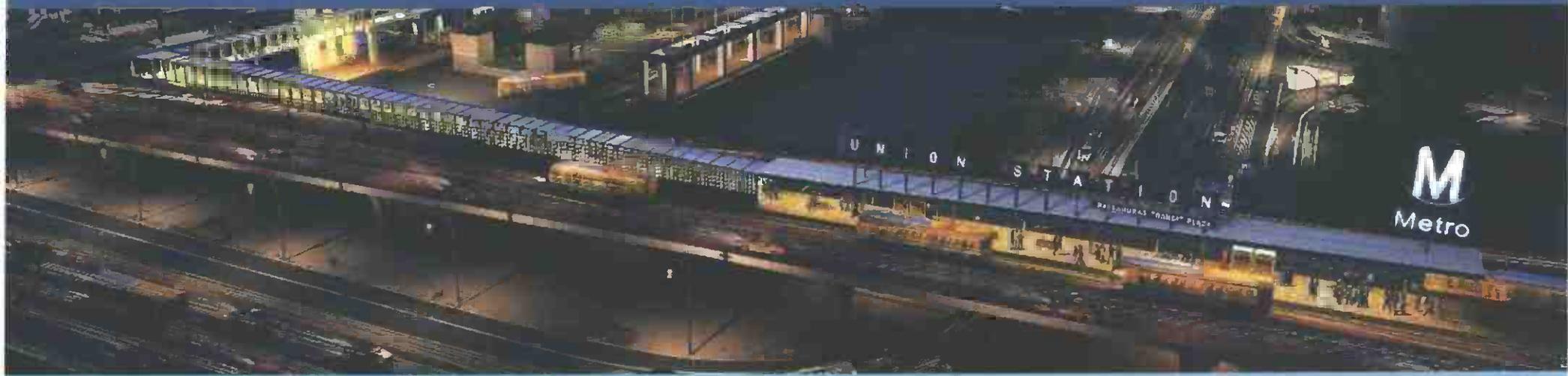
Patsaouras Plaza Busway Station

FTA Quarterly Review – May 29, 2019



Patsaouras Plaza Busway Station

Project Description



- Relocates patron boarding station currently on North Alameda
- Improves vertical and horizontal pedestrian circulation
- Provides direct connection to Union Station
- Widens existing Caltrans Los Angeles River Busway Bridge
- Will serve Metro, Foothill Transit, and other operators



Patsaouras Plaza Busway Station Project Budget



ELEMENT CODE	ELEMENT DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	BUDGET / FORECAST VARIANCE
				TO DATE	TO DATE	TO DATE	
C	CONSTRUCTION	19,992,000	25,435,000	23,907,000	18,351,000	-31,494,000	6,059,000
S	SPECIAL CONDITIONS	750,000	2,517,000	1,566,000	1,118,000	1,962,000	(555,000)
R	RIGHT-OF-WAY	-	-	-	-	-	-
P	PROFESSIONAL SERVICES	7,425,000	9,024,000	13,094,000	12,554,000	16,222,000	6,748,000
PC	PROJECT CONTINGENCY	2,817,000	2,817,000	-	-	-	(2,817,000)
TOTAL PROJECT		30,984,000	39,793,000	38,567,000	32,023,000	49,677,000	-



Expenditures through March 31, 2019



Patsaouras Plaza Busway Station

Issues With Potential to go Above \$100,000



- Settlement for the Global Time Impact Analysis for Design-related Delays
Negotiated but the Contract Modification is not yet Executed (pending Board Approval)
- Differing Site Conditions (Man-Made Buried Objects at Bents)
Negotiated but the Contract Modification is not yet Executed



Patsaouras Plaza Busway Station

Design/Build Contract C0970 - Current Quarter Update



Construction

- Poured the emergency stairway
- Poured the Plaza level lift

Administration

- Identified and recorded the Environmentally Sensitive Area (ESA) features
- Began drafting Board Report to address the settlement for global time impacts



Patsaouras Plaza Busway Station

Design/Build Contract C0970 – Top Risks and Mitigations

Risk	Impact	Mitigation
Potential for differing site conditions at Pedestrian ramp micropiles and elevator foundations	Budget/ Schedule	Immediate direction to contractor to do changed work. Metro reallocating savings from Special Conditions to pay for work. 3 rd Party Agents on Project Team.
Delays due to Cultural Resources at Pedestrian Ramp Micropiles and Austin Vault	Budget/ Schedule	None at this point. Contractor has re-sequenced the work he could and has now completed it.
Potential for Board not approving settlement and LOP increase	Budget/ Schedule	Seek Board direction on how to proceed



Patsaouras Plaza Busway Station

Activities for Next Quarter



- Request Board Approval of the Settlement and LOP Increase

When work resumes ...

- Continue micropiling the foundations for the pedestrian overcrossing
- Continue Mechanical/Electrical/Plumbing (MEP) work
- Strip emergency stairway
- Form and pour canopy columns
- Prepare grade for the retaining wall



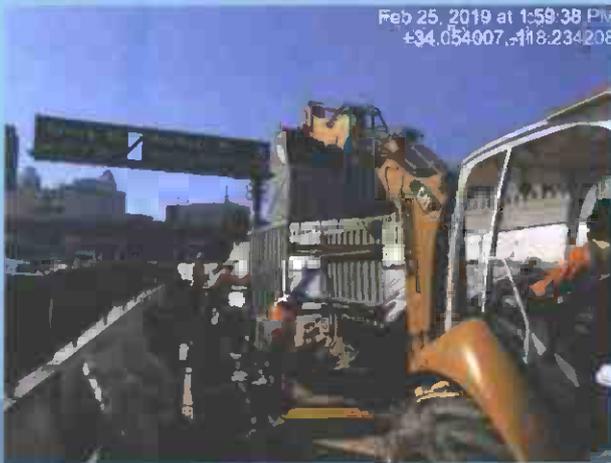
Patsaouras Plaza Busway Station Construction Photos



Pouring the emergency stairway exit



Pouring columns for the elevator structure



Setting trench boxes for the ESA investigation



Investigation of the ESA at the west end of the retaining wall



Metro



Willowbrook/Rosa Parks Station

FTA Quarterly Review Meeting

May 29, 2019



Willowbrook/Rosa Parks Station

Major Activities During Reporting Period



- Early Start Package:
 - Finalized Credit Modifications
 - Contract closeout process is ongoing
- Package A:
 - Excavated the footings for the canopy & Blue Line (BL) platform extension
 - Completed the Cast-in-Drilled-Hole Piles for the BL platform
 - Welded the structural steel at the Mobility Hub (MH)
 - Installed exterior sheathing at the Customer Service & Security Building (CSSB)
- Package B:
 - Resubmitted ISA and ADL/ACM study to Caltrans for final review

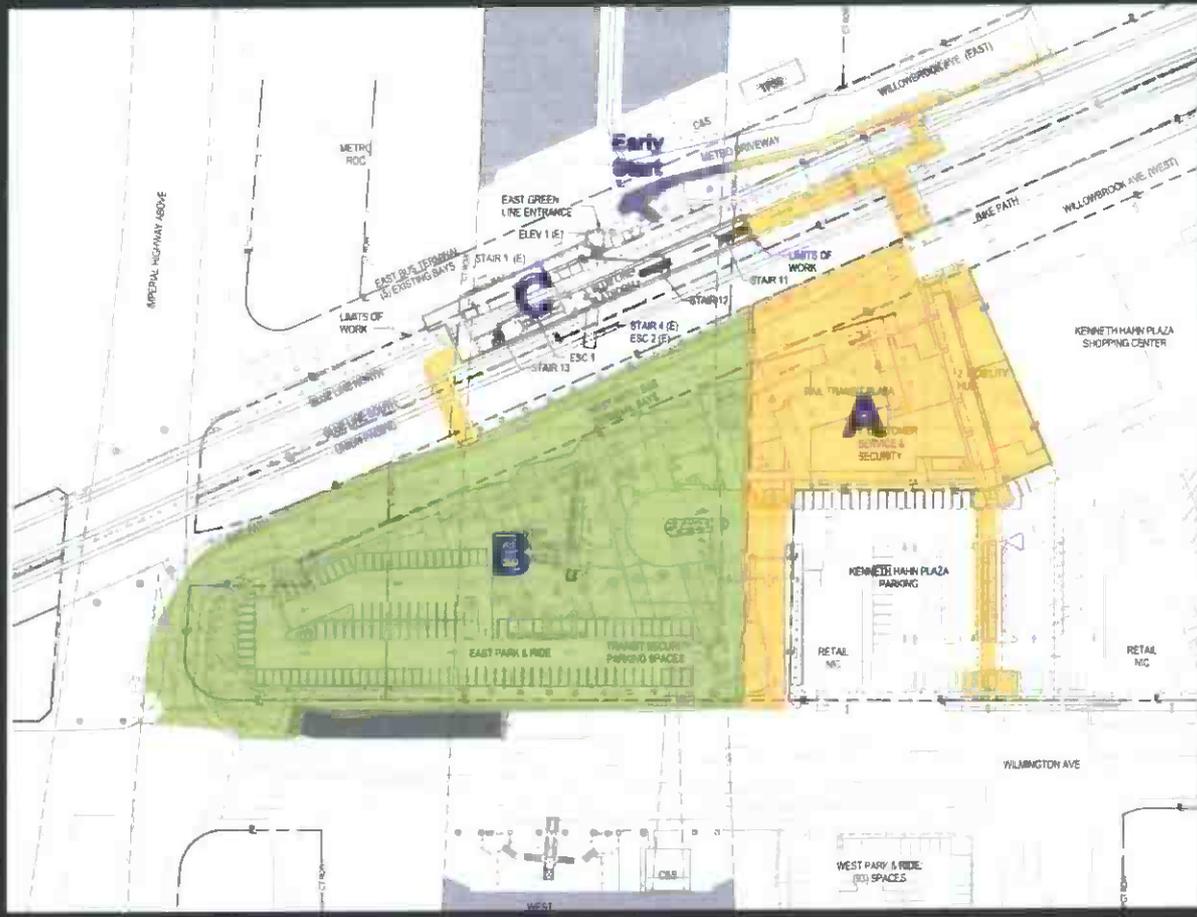


Metro

Willowbrook/Rosa Parks Station Project Schedule

MILESTONE	Baseline Date	Current Date
Grant Award	1/17/2014	1/17/2014
Environmental Finding	8/1/2015	8/1/2015
Preliminary Engineering		
30% Design	9/9/2016	9/9/2016
Final Design		
60% Design	11/18/2016	12/29/2016
100% Design	11/30/2016	7/6/2017
Third Party Approval (Caltrans/LACDPW)	3/24/2017	3/24/2018
Completion of Land Transfer	7/1/2016	10/24/2017 A
TIGER Funds 100% Obligated	9/30/2016	6/8/2016
Design Bid Docs/Date: Early Start		
Bid Set Submittal		8/21/2017 A
Contract Award		12/7/2017 A
Construction		
Notice to Proceed		12/20/2017 A
Begin Construction		12/27/2017 A
End of Construction (substantial completion)		10/31/2018 A
Design Bid Docs/Date: Package A		
Bid Set Submittal	10/31/2016	11/22/2017
IFB Issue	5/1/2016	1/18/2018 A
Contract Award	9/1/2016	6/5/2018 A
Construction		
Notice to Proceed	10/30/2016	7/30/2018 A
Begin Construction	5/30/2017	8/6/2018 A
End Construction (substantial completion)	10/31/2018	9/27/2019
Design Bid Docs/Date: Package B		
Change Order Issue		5/28/2019
Construction		
Notice to Proceed		8/1/2019
Begin Construction		11/11/2020
End Construction (substantial completion)	10/3/2018	7/15/2020
Project Closeout Date	4/30/2019	6/30/2021

Willowbrook/Rosa Parks Station Project Phasing



Willowbrook/Rosa Parks Station

Project Cost Update

Activity	ORIGINAL GRANT BUDGET	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	ORIG GRANT BUDGET / CURRENT FORECAST VARIANCE
Blue Line Improvements (<i>Items 1-5: Platform Extensions, Canopies, Grade Crossing Improvements, new South Entrance, ROW Fencing</i>)	\$4,747,240	\$5,331,807	\$ 922,123	\$ 5,960,173	\$1,212,933
Green Line Improvements (<i>Items 6-9: Vertical Circulation, Lighting & Acoustical Enhancements</i>)	\$14,417,979	\$3,715,104	\$ 397,043	\$ 4,152,937	(\$10,265,042)
New Construction (<i>Items 10-13: Civic Plaza, Metro Customer Service Center, Sheriff's Facility, Mobility Hub</i>)	\$16,642,913	\$17,791,987	\$ 5,342,177	\$ 19,888,813	\$3,245,900
Bus and Shelter Improvements (<i>Items 14-16: Improvements to West and East Bus Depots</i>)	\$3,462,904	\$1,345,715	\$ 214,749	\$ 1,504,310	(\$1,958,594)
Parking Improvements (<i>Items 17-19: Safety enhancement and reconfiguration for both East and West Park & Ride Lots</i>)	\$3,555,068		\$ -	\$ 7,000,000	\$3,444,932
Circulation Improvements (<i>Items 20-23: Signage, Transit Hall, Pedestrian Promenade, Kiss & Ride Lot</i>)	\$4,844,679	\$3,121,139	\$ 440,800	\$ 3,488,972	(\$1,355,707)
Site-Wide Improvements (<i>Items 24-26: General Site Work, Landscaping, Artwork</i>)	\$3,236,024	\$2,452,178	\$ 2,063,730	\$ 2,741,173	(\$494,851)
Preliminary Engineering and Final Design	\$4,281,888	\$5,794,075	\$ 3,664,401	\$ 5,818,092	\$1,536,204
Construction - Agency Labor/Const Mgmt/Other Prof Svc	\$0	\$6,512,063	\$ 287,461	\$ 6,394,500	\$6,394,500
Construction - Third Party	\$0	\$579,644	\$ 168,994	\$ 787,500	\$787,500
Contingency	\$5,518,878	\$5,518,878	\$ -	\$ 3,978,450	(\$1,540,428)
Land Transaction	\$4,650,000	\$5,996,532	\$ 5,553,317	\$ 5,389,800	\$739,800
Tenant Relocation	\$1,300,000		\$ 204,345	\$ 1,500,100	\$200,100
Total Project Cost	\$66,657,573	\$58,159,121	\$19,259,138	\$ 68,604,820	\$1,947,247

1. Expenditures cumulative through 03/29/2019; TIGER expenditures YTD: \$6,587,987

2. Total Construction Progress percentage: 21%



Metro

Willowbrook/Rosa Parks Station

Top Risks and Mitigations

Top Risks and Mitigations

Risk ID	Risk Description	Type RDMC	Risk Rating	Mitigation Strategies
16b	3rd party coordination: - UPRR	M	16	- Coordinate with new UPRR personnel
19	Complete construction during scheduled Blue Line Closure (8 months)	C	10.5	1. Complete construction and testing for Station re-opening and public access in September 2019
21	Coordination with Operations and other concurrent Blue Line Projects ongoing.	C	10.5	1. Continue ongoing coordination with Operations during phasing plan development and construction.
11	Buy America Requirements	DM	9	1. Stantec to make sure "Buy America" requirements are in the contract documents - Complete 2. Make sure that Items specified meet Buy America requirements - Ongoing
16a	3rd party coordination: - Caltrans - County	M	7.5	Coordinate the review of Package B - Ongoing with Caltrans

Willowbrook/Rosa Parks Station

Anticipated Activities for Next Reporting Period

- Early Start Package:
 - Finalize contract closeout
- Package A:
 - Begin civil work for the southern pedestrian crossing
 - Form and pour columns and install beams at Blue Line platform and mezzanine
 - Start interior framing and MEP rough-in at Mobility Hub
 - Complete MEP rough-in and start finishes at Customer Service & Security Building
- Package B:
 - Issue IFC of Package B to Icon West to begin change order process



Eastside Access Improvements 1st and Central Station FTA Quarterly Meeting May 29, 2019



Metro

Eastside Access Improvements Project Segments

Segment 1 . 1st Street
(Los Angeles St. to Mission Rd.)

Segment 2 . Alameda Esplanade
(Commercial St. to 1st St.)

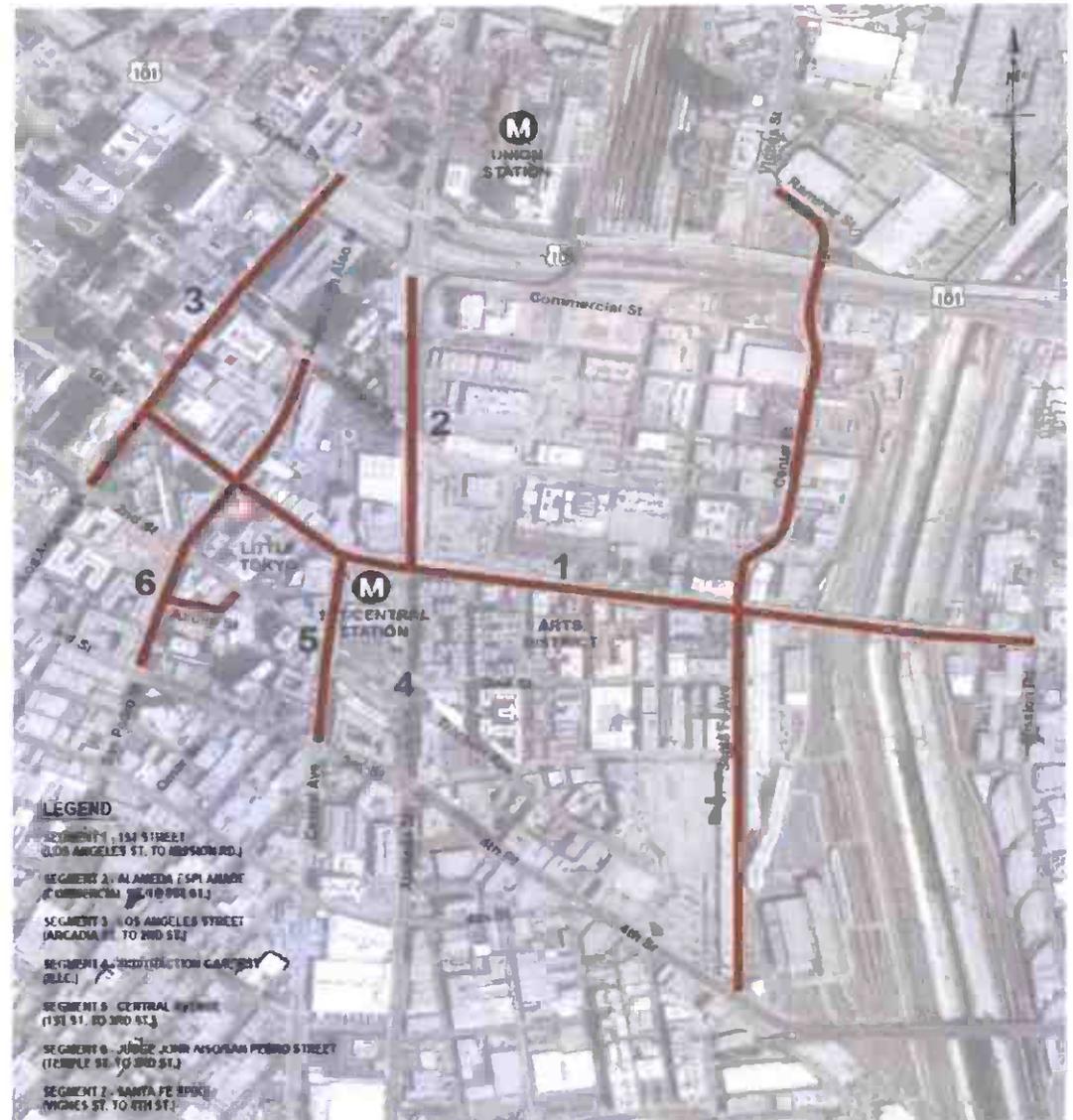
Segment 3 . Los Angeles Street
(Arcadia St. to 2nd St.)

Segment 4 . 2nd/Traction Gateway
(at 2nd/Alameda and Traction)

Segment 5 . Central Avenue
(1st St. to 3rd St.)

**Segment 6 . Judge John Aiso /
San Pedro Street**
(Temple St. to 3rd St.)

Segment 7 . Santa Fe Spine
(Vignes St. to 4th St.)



Eastside Access Improvements

Project Description

- The Eastside Access Improvement Project (EAIP) is funded by
- TIGER Discretionary Grant funds (Grant # CA-79-0005) which was executed on
- September 22, 2015 with a completion date of June 30, 2020.

- EAIP is located in heart of downtown Los Angeles to implement Streetscape,
- Pedestrian Safety and Bicycle Access improvements connecting Little Tokyo and
- surrounding communities with Los Angeles Union Station.

- TIGER Budget: \$16.8 Million
- Forecasted Budget: \$22.6 Million includes construction Contingency of 30%

- Design Status: 100% Plan submitted to COLA. Currently under review

- Construction Status: Scheduled to start in early 2020
Currently 0% complete

Eastside Access Improvements

Preliminary Funding Plan



TIGER - Federal Share	\$11,800,000
TIGER - Local Share	\$5,000,000
Total Funding:	\$16,800,000

Eastside Access Improvements

Design-Construction Budget

SEGMENT	ACTIVITY	ORIGINAL BUDGET	CURRENT FORECAST	GRANT - FORECAST VARIANCE	EXPENDITURES
1	1st Street: From Los Angeles Street to Mission Road	\$2,896,108	\$1,844,700	\$1,051,408	\$0
2	Alameda Esplanade	\$1,290,531	\$4,494,900	-\$3,204,369	\$0
3	Los Angeles Street Esplanade: From the Plaza to 2nd Street	\$3,698,730	\$705,300	\$2,993,430	\$0
4	2nd Traction Street	\$1,038,816	\$237,400	\$801,416	\$0
5	Central Avenue: From 1st Street to 3rd Street	\$310,438	\$324,400	-\$13,962	\$0
6	Judge John Aiso/San Pedro Street: From Temple to 3rd Street	\$691,711	\$361,000	\$330,711	\$0
7	Santa Fe Spine	\$1,163,645	\$2,845,800	-\$1,682,155	\$0
	Funda.Ped. Improvements for the Project	\$386,999	\$314,200	\$72,799	\$0
	General Sit Access and Staging (Mob/Demob etc.)	\$0	\$1,000,000	-\$1,000,000	\$0
	Subtotal:	\$11,476,978	\$12,127,700	-\$650,722	\$0
	Preliminary Engineering/Professional Services	N/A	\$2,960,492		\$1,978,336
	Third Party	N/A	\$900,000		\$451,352
	Metro Project Labor and Construction Management	N/A	\$3,000,000		\$96,585
	Escalation	\$1,423,022	\$0		\$0
	Mobilization/Traffic Control	\$1,100,000	\$0		\$0
	Construction Contingency (@30%)	\$2,800,000	\$3,638,310		\$0
	Total Project Cost:	\$16,800,000	\$22,626,502	-\$5,826,502	\$2,526,273

2/28/2019

Notes:

Expenditures cumulative through February 25, 2019

Current Budget is based on median 65% Cost estimate

Design Contingency, GC, Bonds & Insurance, Profit & OH, Escalation , and Traffic Control included in the Segment Costs

Eastside Access Improvements Project Schedule

MILESTONE	BASELINE DATE	RE-BASELINE	RE-BASELINE	DECEMBER '18 UPDATE	DECEMBER '18 UPDATE
Grant Award	21-Sep-15	21-Sep-15			
Design (100% Plan Approval)					
Start Date:	30-Sep-15	8-Mar-16			
End Date:	30-Sep-16	30-Apr-19			
Procurement:					
IFB Issue:	6-Aug-19	6-Aug-19		19-Aug-19	
Bid Opening:	3-Oct-19	3-Oct-19		16-Oct-19	
NTP:	12-Mar-20	12-Mar-20		12-Mar-20	12-Mar-20
Owner Developed Construction Schedule		START	END	START	END
Submittals		13-Mar-20	13-Apr-20	13-Mar-20	13-Apr-20
Segment 1		14-Apr-20	2-Jun-20	14-Apr-20	2-Jun-20
Segment 2 (Note 1)		6-Jul-21	10-Jan-22	1-Apr-22	3-Oct-22
Segment 3		12-May-20	16-Oct-20	12-May-20	16-Oct-20
Segment 4		3-Jun-20	3-Aug-20	3-Jun-20	3-Aug-20
Segment 5		4-Aug-20	7-Dec-20	4-Aug-20	7-Dec-20
Segment 6		28-Apr-20	17-Sep-20	28-Apr-20	17-Sep-20
Segment 7		27-May-20	27-Apr-21	27-May-20	27-Apr-21
Punch List for Segment 2 (Note 2)		11-Jan-22	8-Feb-22	4-Oct-22	31-Oct-22
Project Close-Out:		9-Feb-22	30-Dec-22	1-Nov-22	22-Sep-23

NOTES:

- (1) Start of construction for Segment 2 is projected based on completion of Regional Connector construction in April 2022
- (2) It is anticipated that Punch list for individual segments will be completed immediately after construction completion of each segment

Eastside Access Improvements

Risk Register

Score	Low (1)	Med (2)	High (3)	Very High (4)	Significant (5)	Risk Score P*(C+T)/2
Probability (P)	< 10%	10-50%	50-70%	75-90%	> 90%	1-10
Cost Impact (C)	< \$250K	\$250K - \$1M	\$1 - 3M	\$3 - 10M	> \$10M	3 - 10
Time Impact (T)	< 1 Mth	1 - 3 Mths	3 - 6 Mths	6 - 12 Mths	> 12 Mths	3 - 10

Risk Register by SCC
 Eastside Access Improvements Project Risk
 Register Version: Jan 2019

Identification			Assessment					Management			Most Recent Comments		
Risk ID	Risk Description	SCC	Status	Risk Category	Prob	Cost	Time	Risk Score	Mitigation Strategy	Risk Owner	Action Items	Action by Date	Review Comments
RR-001	City requirements could result in increase in scope of work impacting cost	90	Active		5	3	3	15	Mitigate	1. May need additional funds. Will adjust LOP for Board approval	1. 12/31/2019	07/02/2019 - PM will closely monitor AFC design progress 03/12/2019 - PM continues to closely monitor AFC design progress. Time increased from 2 to 3 and Action Date modified	
RR-003	BNSF contract settlement will delay start of construction & cause cost impact	90	Active		5	4	4	20	Mitigate	1. Metro legal and Planning to negotiate settlement with BNSF.	1. 07/31/2018	07/05/2018 - PM coordinating closely with planning 03/12/2019 - PM continues to coordinate closely with planning. Probability increased from 3 to 5, Cost increased from 2 to 4, Time increased from 2 to 4, and Action Date modified	
RR-004	Metro property at Extra Space Storage may not be available in time	90	Active		3	1	3	6	Mitigate	1. Metro Real Estate Department is working out settlement	1. 03/01/2020	07/05/2018 - PM coordinating with Real Estate Dept. 03/12/2019 - PM continues to coordinate with Real Estate Dept. Property needs to be acquired prior to bid. Action Date modified	
RR-005	Union Pacific (Track Removal) Design and Construction Agreement could delay construction	10	Active		3	3	4	12	Mitigate	1. Early settlement with BNSF & CPUC approval required for UP agreement	1. 08/30/2019	7/5/2018 - PM coordinating with UPRR, BNSF & CPUC 03/12/2019 - PM continues coordinating with UPRR, BNSF & CPUC. BNSF agreement is a prerequisite for a UPRR agreement. Time increased from 3 to 4 and Action Date modified	
RR-006	Delay in completing DTSC acceptance Process could delay NTP issue date	10	Active		3	4	4	12	Mitigate	1. Metro Env to work closely with DTSC to establish soil remedial action	1. 08/31/2019	03/12/2019 - Cost increased from 2 to 4, Time increased from 3 to 4, Action and Action Date modified	
RR-007	Soil Remediation directions from DTSC could have significant cost and schedule impact	10	Active		4	2	3	10	Mitigate	1. IFB to identify such projects so that bidders can plan work appropriately	1. 08/31/2019	07/05/2018 - PM coordinating with Metro Env and DTSC 03/12/2019 - PM continues to coordinate with Metro Env and DTSC. Probability increased from 2 to 4. Cost reduced from 3 to 2, and Action Date modified	
RR-008	Unanticipated utility work could delay project and increase cost	40	Active		4	3	4	17	Mitigate	1. Metro to work closely with SES Consultant to detect such possibility	1. 07/01/2020	07/02/2018 - PM working closely with SES Consultant 03/12/2019 - PM working closely with SES Consultant to identify known utilities	
RR-010	Delay in pole removal by DWP could slow the construction activities	40	Active		2	1	3	4	Mitigate	1. Metro to coordinate with DWP as soon as 100% plans are ready for DWP review	1. 03/01/2020	07/05/2018 - PM coordinating with Metro 3rd Party 03/12/2019 - PM continues coordinating with Metro 3rd Party. Action and Action Date modified	
RR-011	Revised design could result in cost estimate and may require additional funds	10	Active		5	8	3	26	Mitigate	1. Upon receipt of 100% plans Metro estimation team will prepare ICE	1. 08/30/2019	07/05/2018 - Metro has issued Task Order to SES to complete 100% design 03/12/2019 - Action and Action Date modified	
RR-014	Delay in 100% plans conceptual approval by City will impact IFB release date	90	New		3	3	4	12	Mitigate	1. Closer City coordination, Diligent QC of submittals by MOG & Metro Eng	1. 08/31/2019	03/12/2019 - New risk added this period. Linked to closed RR-002	

Eastside Access Improvements

Current Quarter Update

Major Activities During Last Quarter (January '19 – March'19) Design Development

- Received City Comments on 100% Design submittal # 1 (Jan 2019)
- Resolution Meetings with City Bureaus (Jan-Feb 2019)
- Updating plans for submittal as pre-AFC Plans
- Met with various Bureaus for Over-The-Shoulder Reviews

Cost and Schedule Containment Plan (CSCP)

- Updating CSCP for FTA's LA Metro office review

Eastside Access Improvements

Activities for Next Quarter

Major Activities Planned During April '19 to June '19

Design Development

- Comments Resolution for previously submitted plans
- Prepare 100% (Pre-AFC) Plans For Construction for City Bureaus review
- Submit Pre-AFC Plans to City Bureaus
- Address City Bureaus comments
- Submit AFC Plans to City Bureaus for final approval
- Meet with City of Los Angeles officials and Community leaders
- Update the Cost and Schedule Containment Plan (CSCP)
- Finalize Cost and Schedule Containment Plan (CSCP)

Los Angeles County Metropolitan Transportation Authority



Rail to Rail Active Transportation Corridor Connector Project
FTA Quarterly Meeting - Wednesday, May 29, 2019



Metro

Rail to Rail Active Transportation Corridor Connect

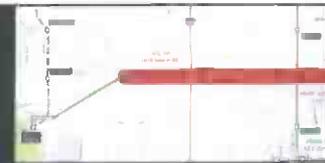


RAIL TO RAIL ACTIVE TRANSPORTATION CORRIDOR CONNECTOR PROJECT

Project Information Summary

- Active Transportation Corridor (ATC) connects Fairview Height Station and Blue Line Station
- The overall Length is approximately 5.6 miles including Metro Right of way and City/County Intersections
- Demolition/Removal of abandoned Harbor Subdivision tracks and appurtenance, and UPRR Track Modifications
- Soil Treatment
- ATC consists of 2-way Class I, II, and III Bike Paths and Pedestrian Walkway
- Amenities include: Landscaping, Trees, Lights, Security Cameras, Street Furniture, Mixing Zones, and way-Finding Signage
- Modifications to City/County owned Intersections typically include crosswalks, striping, curb and curb corner treatment, signage, street light and signal modifications, etc. as required

Slauson Corridor Design Concept



Mid-block Concept (Typical 30' ROW)

- Asphalt paved walkway and 2-way bike path
- Lighting (spaced every 60')
- Fencing at ROW edge where needed (Metro standard panelized)
- Furnishings & signage
- Bioswales for stormwater run-off treatment with low fencing at edge
- Shade trees
- Diversity of trees/plant species
- Boulders and low, drought tolerant landscape in street buffer

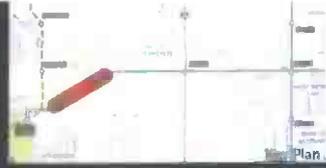


Existing photo of Slauson west of San Pedro (Note: Metro ROW ends 10' from building face in ballast area)



Examples of bioswale on pedestrian path (Woodman Ave) and between bikeway & thoroughfare (Queens Plaza Bikeway, NY)

Hyde Park / Chesterfield Square Segment



Mid-block Concept (Typical 30' ROW)

This design concept focuses on safety/security concerns between Slauson and 11th Avenues where private properties abut Metro's ROW. Given the narrow ROW, the walk and bike paths are separated with a stormwater treatment median (bioswale). The layout addresses visibility concerns by limiting trees, and discourages encampments by minimizing landscaped areas. The separated walk and bike paths would meet at regular intervals. Features include:

- Asphalt paved walkway and bike path
- Lighting (spaced every 75') with ability to integrate cameras and emergency telephones on pole
- Fencing at ROW edge where needed (Metro standard panelized)
- Trees at access points
- Low, drought tolerant plants and decomposed granite
- Drain to center buffer with bioswale
- Vines where appropriate (not in front of murals)

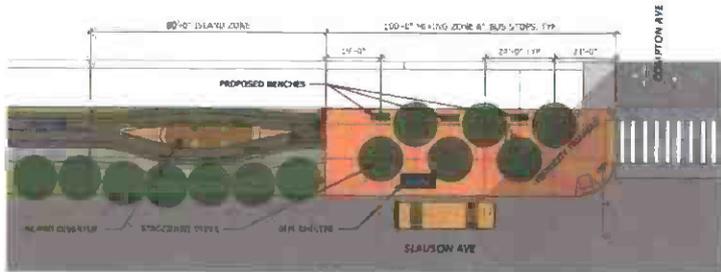


Before photo of Metro ROW at Hyde Park / Chesterfield Square segment



Mixing Zones

Slauson Corridor Concept at Bus Stop



Concept plan at bus stop mixing zones



Existing photo of Slauson/Compton intersection



Example of diverter planted with drought-tolerant flax



Example of street bond graphic (Auckland, NZ)



LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
ACTIVE TRANSPORTATION RAIL TO RIVER CORRIDOR – SEGMENT A

CITYWORKS DESIGN TEAM
| MIX - 1

RAIL TO RAIL ACTIVE TRANSPORTATION CORRIDOR CONNECTOR PROJECT

Projected Milestones

D-B-B Project Delivery:

- AFC Design: July 2019
- Procurement Complete: March 2020
- NTP to Contractor: May 2020
- Construction Start: June 2020
- Substantial Completion: June 2022
- Project Close-Out: August 2022

RAIL TO RAIL ACTIVE TRANSPORTATION CORRIDOR CONNECTOR PROJECT

January – March 2019 Key Activities

- Advance Design on Metro right of way to 60% level
- Advance Design on City and County right of way to 60% level
- Develop southside curb improvement Design
- Update Speed Table Exception Memo for City Review
- Continue BNSF negotiations
- Soil Investigation and explore treatment options
- Coordinate with Metro Real Estate Department to address issues
- Initiate Community / Construction Relations strategies

RAIL TO RAIL ACTIVE TRANSPORTATION CORRIDOR CONNECTOR PROJECT

Funding and ROM Budget

Funding:

• TIGER:	\$15,000,000
• ATP:	\$8,326,000
• SB848 Grant:	\$8,000,000
• Local:	\$30,800,000 (*)
Total Funding:	<u>\$62,126,000</u>

ROM LOP Budget:

• Design:	\$3,500,000
• Metro Soft Costs:	\$4,000,000
• Soil Treatment:	\$8,000,000
• Targeted Construction:	\$85,000,000(**)
• Contingency:	\$7,000,000
<u>Projected LOP Total:</u>	<u>\$107,500,000</u>

() Local Contribution Amount to be increased based on the LOP estimate*

*(**) Based on preliminary Design Details, Estimate to be completed upon completion of 60% design*



Thank you



Metro

P3010 Light Rail Vehicle Acquisition

FTA Quarterly Review Meeting – First Quarter 2019



Reporting Month: January 2019 - March 2019

Presentation Date: May 29, 2019

Key Project Issues

“The intermittent unreliability of the vehicle on-board communication systems has not yet been resolved. Redesign of the system using a new communication system vendor (TOA) has been progressing. The current forecast indicates the redesign completion with qualification test by January 2020. Once the new solution is validated and qualified, fleet-wide implementation of the new communication system would begin. As a result, no P3010 vehicles as of today, have received Final Acceptance status. Metro continues to monitor the progress with Kinkisharyo (KI) closely.

Understanding the criticality of the need, though the system does not have any safety impacts, several Service Bulletins have been issued to Metro’s Operations in the effort to mitigate potential disruption to passengers during revenue service. Our team continue to monitor the re-design progress with KI and TOA and keep our customers informed.

Project Updates

- KI continues to deliver P3010 vehicles per contractual requirement.
- The delivery of Option 2 Cars is underway.
- 13 Cars shipped; 185 Cars shipped total as of the end of the reporting period.
- Starting Car 1194, KI and Metro have jointly agreed to temporarily suspend vehicle shipment to Metro site until they are in the final configuration including redesigned communication system.
- 15 Cars Conditionally Accepted; 169 Cars Conditionally Accepted total.
- 37 Cars in Revenue Service at the Gold/Foothill Extension Line; 132 Cars in Expo, Blue, Green Lines.
- Car 1212 is the latest Car in the Final Assembly line.

Project Cost Status (Base Order)

DOLLARS IN THOUSANDS

DESCRIPTION	APPROVED BUDGET	CURRENT BUDGET	COMMITMENTS	EXPENDITURES	FORECAST TO COMPLETION	VARIANCE
BASE ORDER - 78 LRV'S	\$263,211,780.00	\$263,211,780.00	\$263,211,780.00	\$245,260,008.00	\$17,951,773.00	\$0.00
SPARE PARTS	\$19,911,594.00	\$19,911,594.00	\$19,911,594.00	\$12,583,698.00	\$7,327,896.00	\$0.00
SPECIAL TOOLS	\$819,258.00	\$819,258.00	\$819,258.00	\$0.00	\$819,258.00	\$0.00
DIAGNOSTIC TEST EQUIPMENT	\$2,683,041.00	\$2,683,041.00	\$2,683,041.00	\$0.00	\$2,683,041.00	\$0.00
TRAINING	\$1,366,776.00	\$1,366,776.00	\$1,366,776.00	\$129,844.00	\$1,236,932.00	\$0.00
MANUALS	\$675,512.00	\$675,512.00	\$675,512.00	\$0.00	\$675,512.00	\$0.00
PERFORMANCE BOND	\$8,714,500.00	\$8,714,500.00	\$8,714,500.00	\$8,714,500.00	\$0.00	\$0.00
ON-SITE ENGINEER	\$1,679,366.00	\$1,679,366.00	\$1,679,366.00	\$1,595,398.00	\$83,968.00	\$0.00
VEHICLE SUB-TOTAL	\$299,061,827.00	\$299,061,827.00	\$299,061,827.00	\$268,283,448.00	\$30,778,379.00	\$0.00
APPROVED MODIFICATIONS SUB-TOTAL	\$5,373,918.00	\$7,010,096.00	\$7,010,096.00	\$7,010,096.00	\$0.00	\$0.00
CONTINGENCY SUB-TOTAL	\$10,704,091.00	\$9,067,913.00	\$0.00	\$0.00	\$9,067,913.00	\$0.00
VEHICLE TOTAL	\$315,139,836.00	\$315,139,836.00	\$306,071,923.00	\$275,293,544.00	\$39,846,292.00	\$0.00
PROFESSIONAL SERVICES (ELEMENT A)	\$21,208,749.00	\$21,208,749.00	\$21,208,749.00	\$18,785,364.00	\$2,423,385.00	\$0.00
PROFESSIONAL SERVICES (ELEMENT B)	\$8,378,885.00	\$8,378,885.00	\$8,378,885.00	\$3,821,509.00	\$4,557,376.00	\$0.00
PROFESSIONAL SERVICES SUB-TOTAL	\$29,587,634.00	\$29,587,634.00	\$29,587,634.00	\$22,606,873.00	\$6,980,761.00	\$0.00

Notes:

- The MTA Administration Budget of \$5,886,472.00 is not included in the chart above.
- P3010 Life Of Project (LOP) TOTAL (Base Buy, Options #1 & #4 and Options #2 & #3, and MTA Administration budget) is \$972 Million

Reporting Month: January 2019 – March 2019

Presentation Date: May 2019

Project Cost Status (Options #1 and #4)

DOLLARS IN THOUSANDS

DESCRIPTION	APPROVED BUDGET	CURRENT BUDGET	COMMITMENTS	EXPENDITURES	FORECAST TO COMPLETION	VARIANCE
Options 1 & 4 - 97 LRVs	\$323,798,891.00	\$323,798,891.00	\$323,798,891.00	\$307,508,270.00	\$16,290,621.00	\$0.00
SPARE PARTS	\$27,332,000.00	\$27,332,000.00	\$27,332,000.00	\$9,742,339.00	\$17,589,661.00	\$0.00
SPECIAL TOOLS	\$943,789.00	\$943,789.00	\$943,789.00	\$0.00	\$943,789.00	\$0.00
DIAGNOSTIC TEST EQUIPMENT	\$2,080,181.00	\$2,080,181.00	\$2,080,181.00	\$0.00	\$2,080,181.00	\$0.00
TRAINING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MANUALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PERFORMANCE BOND	\$12,166,783.00	\$12,166,783.00	\$12,166,783.00	\$12,166,783.00	\$0.00	\$0.00
ON-SITE ENGINEER	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
VEHICLE SUB-TOTAL	\$366,321,644.00	\$366,321,644.00	\$366,321,644.00	\$329,417,392.00	\$36,904,252.00	\$0.00
CONTINGENCY SUB-TOTAL	\$18,604,375.00	\$18,604,375.00	\$13,682,122.00	\$13,693,526.00	\$4,910,849.00	\$0.00
VEHICLE TOTAL	\$384,926,019.00	\$384,926,019.00	\$380,003,766.00	\$343,110,918.00	\$41,815,101.00	\$0.00

Notes:

- The MTA Administration Budget of \$3,048,674.00 is not included in the chart above.
- P3010 Life Of Project (LOP) TOTAL (Base Buy, Options #1 & #4 and Options #2 & #3, and MTA Administration Budget) is \$972 Million

Project Cost Status (Options #2 and #3)

DOLLARS IN THOUSANDS

DESCRIPTION	APPROVED BUDGET	CURRENT BUDGET	COMMITMENTS	EXPENDITURES	FORECAST TO COMPLETION	VARIANCE
Options 2 & 3 - 60 LRVs	\$214,370,374.00	\$211,235,977.00	\$211,235,977.00	\$58,172,348.00	\$153,063,629.00	\$0.00
SPARE PARTS	\$15,821,024.00	\$15,589,699.00	\$15,589,699.00	\$0.00	\$15,589,699.00	\$0.00
SPECIAL TOOLS	\$389,435.00	\$383,740.00	\$383,740.00	\$0.00	\$383,740.00	\$0.00
DIAGNOSTIC TEST EQUIPMENT	\$1,416,049.00	\$1,395,344.00	\$1,395,344.00	\$0.00	\$1,395,344.00	\$0.00
TRAINING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MANUALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PERFORMANCE BOND	\$7,921,238.00	\$3,418,462.00	\$3,418,462.00	\$0.00	\$3,418,462.00	\$0.00
ON-SITE ENGINEER	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
VEHICLE SUB-TOTAL	\$239,918,120.00	\$232,023,222.00	\$232,023,222.00	\$58,172,348.00	\$173,850,874.00	\$0.00
CONTINGENCY SUB-TOTAL	\$15,869,912.00	\$23,764,810.00	\$4,302,939.00	\$4,302,939.00	\$19,461,871.00	\$0.00
VEHICLE TOTAL	\$255,788,032.00	\$255,788,032.00	\$236,326,161.00	\$62,475,287.00	\$193,312,745.00	\$0.00

Notes:

- The MTA Administration Budget of \$7,211,968.00 is not included in the chart above.
- Contingency increased due to savings from negotiated contract amounts and savings from the performance bond.
- P3010 Life Of Project (LOP) TOTAL (Base Buy, Options #1 & #4 and Options #2 & #3, and MTA Administration) is \$972 Million.

Budget Contingency Drawdown

PROJECT COST CONTINGENCY (through March 2019)			
UNITS IN DOLLARS			
Orders	Current Contingency (Budget)	Allocated To-Date (Forecast)	Remaining Contingency (Forecast)
Base Order	\$16,078,009.00	\$7,010,096.00	\$9,067,913.00
Options 1 and 4	\$18,604,375.00	\$13,693,526.00	\$4,910,849.00
Options 2 and 3	\$23,764,810.00	\$4,302,939.00	\$19,461,871.00
Total Contingency	\$58,447,194.00	\$25,006,561.00	\$33,440,633.00

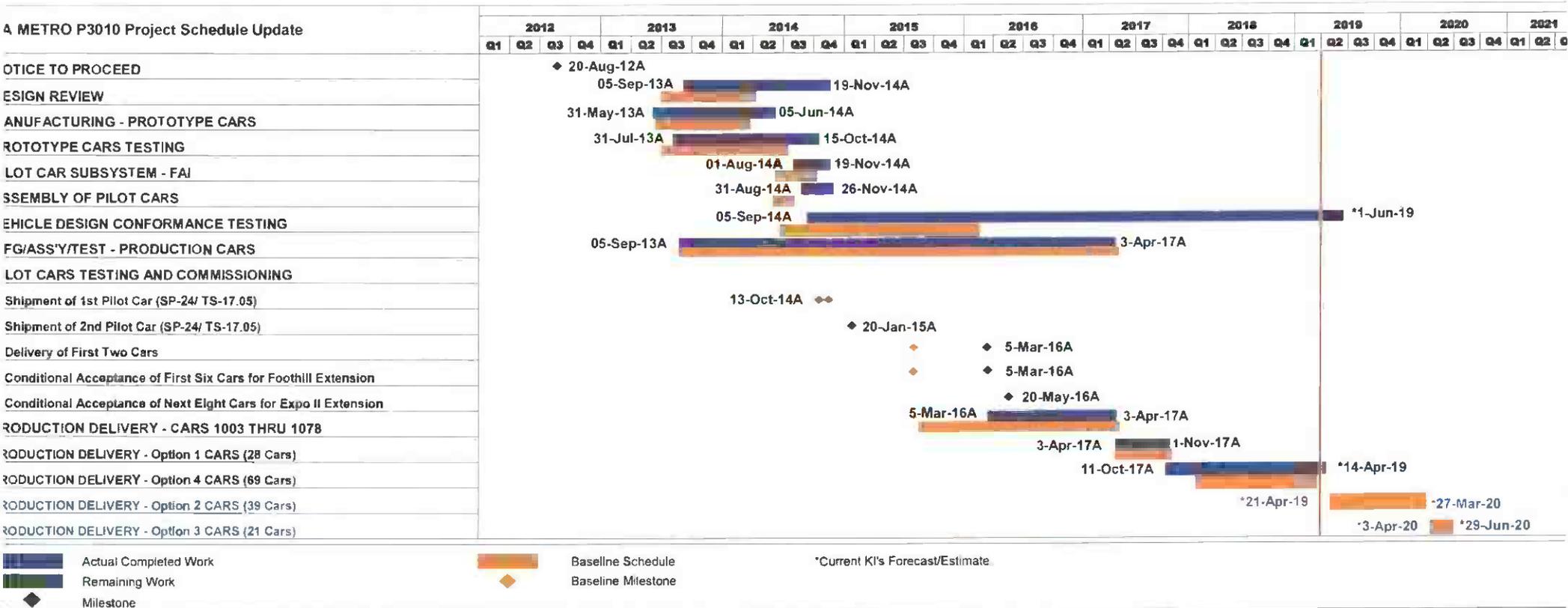
Notes:

- Base Order Contingency Forecasts updated to account for the Approved Modifications budget.
- Options 2 and 3 Contingency increased due to savings from negotiated contract amounts and savings from the performance bond.

Summary Schedule

P3010 Light Rail Vehicle Acquisition Program Monthly Project Status Report

March 2019



Top Risks & Mitigations

Risk ID	Risk Description	Risk Score	Risk Mitigation
03	Aggressive Schedule - Overly aggressive project schedule may potentially become impossible for both Metro and KI to implement.	12	<ol style="list-style-type: none"> 1. Maintain master integrated schedule to identify interfacing capital projects. 2. Stagger project implementation schedule (i.e. avoid overlap of procurement cycles). 3. Identify activities that can be fast-tracked.
12	Systems integration is critical to a smooth testing program.	11	Metro to closely monitor KI's approach and implementation of the systems integration including the communication systems.
02	Design Conformance Testing (DCT) - DCT is performed on Metro's property prior to vehicle acceptance and could take longer than expected due to mainline test track availability.	9	<ol style="list-style-type: none"> 1. Perform early coordination with Operations and Planning on the test logistics and yard/track/Operator needs. 2. Develop contingency plans to continue performing mainline test at alternative yards. 3. Monitor and anticipate mainline test track availability.
01	Final Assembly Site – Potential workforce challenges including not being able to obtain/maintain qualified personnel to perform quality work within aggressive FA schedule.	9	<ol style="list-style-type: none"> 1. Perform early training on acquired staffs, clearly define working expectations, and allocate time for corrective actions. 2. Identify potential open items, establish/maintain quality verification process and standards, allocate staffs to mitigate potential schedule slippage due to re-works and re-tests. 3. KI to provide plans to grow and retain current staffs as well as incentives for attracting new qualifying staffs.
04	Contract Modification Process – Changes initiated by either party during design review, assembly, commissioning and warranty could potentially cause delay or claims.	8	<ol style="list-style-type: none"> 1. Anticipate, identify and define potentially essential “Needs” and “Wants” in the early stages of the project phase. 2. Engage customers and stakeholders for early discussions. 3. Obtain swift concurrence on the “Needs” based on safety, maintainability, and reliability requirements.

Questions

Los Angeles County
Metropolitan Transportation Authority

Heavy Rail Vehicle Acquisition Program



FTA Quarterly Meeting Review
May 29, 2019



Metro

New Heavy Rail Vehicle Program

- **PROJECT STATUS (ACTIVITIES FOR REPORTING PERIOD)**
 - Pre-Production Configuration Review (PPCR)
 - This Design Review phase is on-going and anticipated to be completed by the mid June 2019.
 - First Article Inspections (FAIs) will start in June 2019.
 - 1/3 Vehicle Mockup preliminary review completed in March 2019.
 - Metro Technical Support
 - Metro and its Consultants have been providing technical support to the Contractor and its suppliers through working sessions.
 - Metro has Resident Engineers stationed in Changchun, China and Quincy, MA in order to provide the Contractor and its suppliers with direct technical support and clarification to inquiries.
 - Metro have been providing the Contractor and its suppliers with direct contact to our Consultant Subject Matter Experts (SMEs) for technical support and clarification inquiries.



Metro

New Heavy Rail Vehicle Program

- PROJECT BUDGET

DESCRIPTION	ORIGINAL PROJECT BUDGET	CURRENT PROJECT BUDGET	EXPENDITURES (ITD)	CURRENT PROJECT FORECAST (CONTRACT MODIFICATIONS)	PROJECT FORECAST
BASE ORDER 64 VEHICLES	\$178,395,869	\$178,395,869	\$28,935,163	\$154,644	\$178,550,513
PROFESSIONAL SERVICES	\$20,938,375	\$20,938,375	\$8,223,166	\$0	\$20,938,375
MTA ADMINISTRATION	\$11,960,055	\$11,960,055	\$2,767,653	\$0	\$11,960,055
VEHICLE SUBTOTAL	\$211,294,299	\$211,294,299	\$39,925,981	\$154,644	\$211,448,943
CONTINGENCY	\$21,926,767	\$21,926,767	\$0	\$154,644	\$21,772,123
TOTAL PROJECT	\$233,221,066	\$233,221,066	\$39,925,981	\$154,644	\$233,221,066

New Heavy Rail Vehicle Program

- CHANGE ORDER IN-PROCESS**

Metro Requested Changes	Status	Credit to CRRC
Addition of Low Beam	In-Process	\$106,487.45
FMSS Increased Cost	In-Process	\$246,130.38
FMSS Spare Parts	In-Process	\$81,039.00
FMSS Specials Tools	In-Process	\$16,038.00
Stanchion Additions and Flip Seat Conversion	In-Process	\$434,219.00
Total		\$883,913.83
CRRC Requested Changes	Status	Credit to Metro
IP Ratings of Underfloor Enclosures	In-Process	\$8,736.00
Fuse vs HSCB/APE	In-Process	\$286,375.38
Single Sided Interior Announcement Sign	In-Process	\$134,226.96
Door System Recycle Button and Trainline Elimination	In-Process	\$12,953.50
Leveling Valves	In-Process	\$286,978.00
Total		\$729,269.84
Variance		\$154,643.99

New Heavy Rail Vehicle Program

- **PROJECT SCOPE**

- **Base Order of 64 new HRVs:**

- 34 HRVs to support the Purple Line Extension (PLE), Section 1
 - 30 HRVs for A650 Base Buy fleet replacement.
 - The Total Project Budget is \$233 million, excluding five Options.

- **Options:**

- Option 1 (24 HRVs) and Option 2 (84 HRVs) to support fleet and service expansion
 - Option 3 (20 HRVs) to support the Purple Line Extension (PLE), Section 2
 - Option 4 (16 HRVs) to support the Purple Line Extension (PLE), Section 3
 - Option 5 (74 HRVs) for the A650 Option Buy fleet replacement

- Metro does not intend to exercise any Options until we are confident in the Contractor being able to deliver a safe, reliable and performing vehicle.



Metro

New Heavy Rail Vehicle Program

RISK MANAGEMENT

Risk ID	Risk Type	Risk Description	Date	Updated	Cost	Time	Prob	Risk Score	Risk Owner	Mitigation Strategy	Action Items	Cost	Time	Prob	Risk Score After Mitigation
1	External	U.S. Government tariffs on steel, aluminum and other products could result in a cost change order	06-Apr-18	19-Jan-19	5	1	5	25	Contractor	Accept	<ol style="list-style-type: none"> LACMTA is in discussions with other affected Agencies, MBTA, SEPTA & CTA. LACMTA Gov't Affairs is closely monitoring LACMTA will request a cost mitigation plan from CRRC LACMTA is exploring mitigation measures that will be discussed with CRRC 	5	1	4	12
2	Operations	Resources and track availability may be a constraint for LACMTA and delay the Contractor in commissioning Vehicles	25-Jan-16	31-Aug-18	3	4	4	24	LACMTA	Mitigate	<ol style="list-style-type: none"> LACMTA will coordinate closely with competing projects to avoid conflicts and resource availability. LACMTA will consider some preliminary testing to be performed in the yard. Contractor to perform static, functional and dynamic testing before delivering Vehicles to ensure that LACMTA yard is a Commissioning Site. 	3	3	3	9
3	Engineering	Contractor may not be able to provide necessary U.S. based resources, which may delay design, performance and car delivery.	15-Nov-16	02-Dec-18	3	3	4	12	LACMTA	Mitigate	<ol style="list-style-type: none"> LACMTA to work and coordinate with Contractor to plan and mitigate risks. LACMTA to work and coordinate with Consultants to leverage and apply best practices/lessons learned to plan and mitigate risks. LACMTA to meet with CRRC Senior Execs to push for necessary resources 	2	3	3	7.5
4	Engineering/Production	The Contractor may not effectively manage their suppliers during design and production	15-Nov-16	19-Jan-19	3	4	4	24	LACMTA	Mitigate	<ol style="list-style-type: none"> Closely monitor the Contractor and their management of its suppliers. Arrange a bi-weekly meeting between LACMTA support staff and responsible CRRC staff to discuss progress. Encourage intermediate "over-the-shoulder" design reviews. Participate periodically in CRRC Bi-Weekly Supplier meetings Schedule design review workshops with CRRC and Suppliers 	2	3	3	7.5
5	Engineering	Lack of system integration expertise may result in system design conflicts or omissions that result in delays.	15-Nov-16	31-Aug-18	3	3	3	9	LACMTA	Mitigate	<ol style="list-style-type: none"> Provide close oversight of system integration effort. Conduct working sessions with Contractor and Consultant SMEs to facilitate the design process. Monitor performance of mr Li Enlong, System Integration Engineer 	3	2	3	7.5

New Heavy Rail Vehicle Program

- **ANTICIPATED ACTIVITIES FOR NEXT REPORTING PERIOD**
 - Begin with First Article Inspections (FAIs)
 - Begin Final Configuration Reviews (FCRs)
 - Follow up on Quality Assurance audit of the Contractor and its Suppliers and close out Open Action Items
 - Conduct Working Sessions and Design Review meetings with the Contractor and its Supplier
 - Contractor has construction has started for the Localization facility in the City of Industry (installing equipment, interior office spaces, and etc.). It is anticipated to be completed in July 2019, then the start of installation and test for production equipment.



Metro

FTA Quarterly Review Action Item Report – February 27, 2019

Item No.	Status	Description	Responsible Agency	Responsible Staff	Due Date
1-2/27	Closed	County Counsel to provide FTA Regional Counsel and the TIFIA Office a status of TIFIA legal actions.	County Counsel	Joanne Nielsen/ Charles Safer	3/27/19