

Los Angeles County
Metropolitan Transportation Authority

FTA Quarterly Review

Briefing Book

FEBRUARY 28, 2018



Metro

FTA QUARTERLY REVIEW MEETING
Los Angeles County Metropolitan Transportation Authority
Wednesday, February 28, 2018 – 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

Edward Carranza
Phillip Washington
Drew Phillips
Charles Safer
Gregory Kildare

II. METRO PLANNING REPORTS

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

Therese McMillan

III. CONSTRUCTION REPORTS

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

Richard Clarke
Charles Beauvoir
James Cohen
Michael McKenna
Michael McKenna
Gary Baker
Timothy Lindholm

IV. FTA ACTION ITEMS

FTA/PMOC

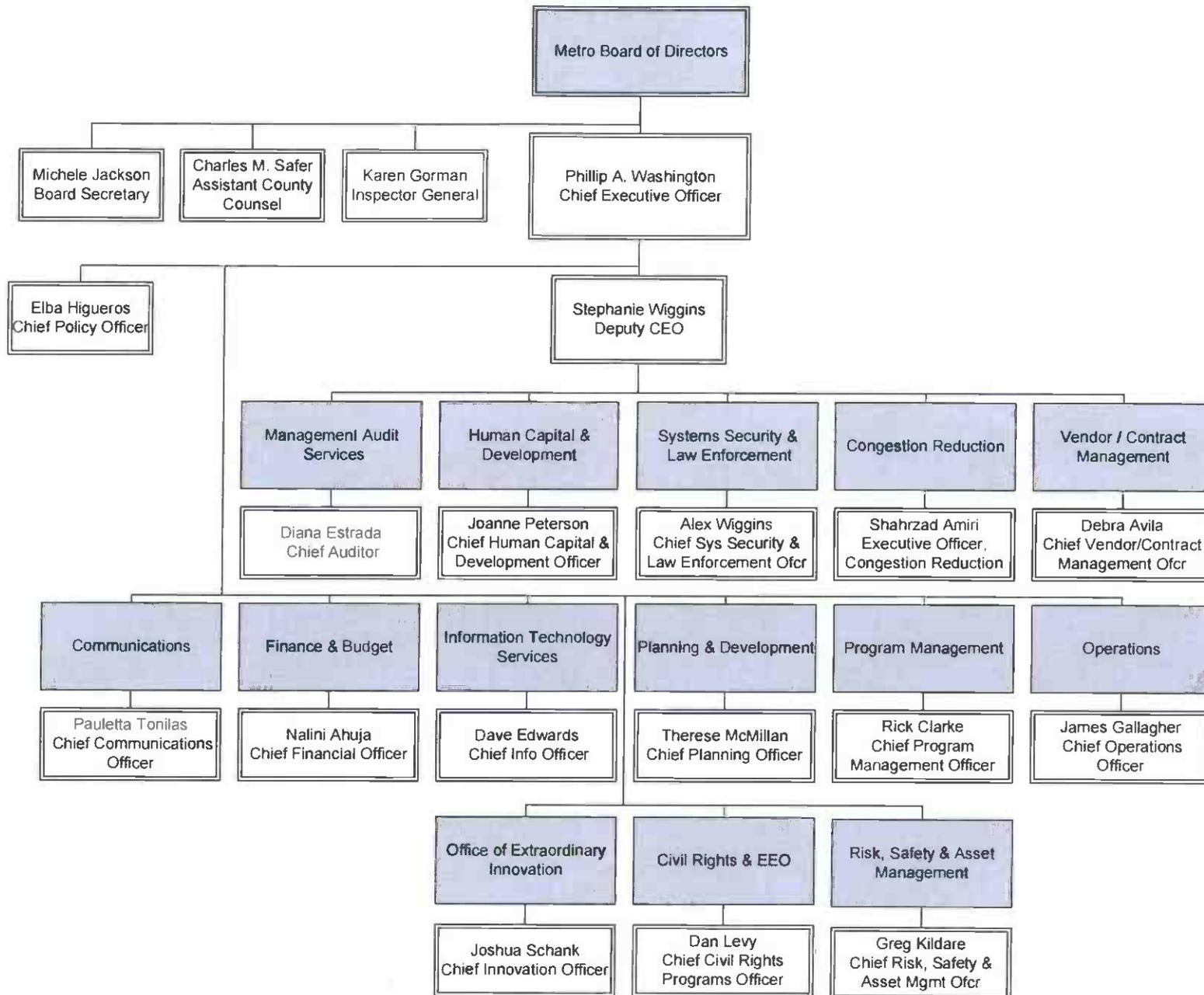
PROPOSED SCHEDULE AND LOCATION OF NEXT MEETING

Los Angeles County Metropolitan Transportation Authority

Wednesday, May 30, 2018

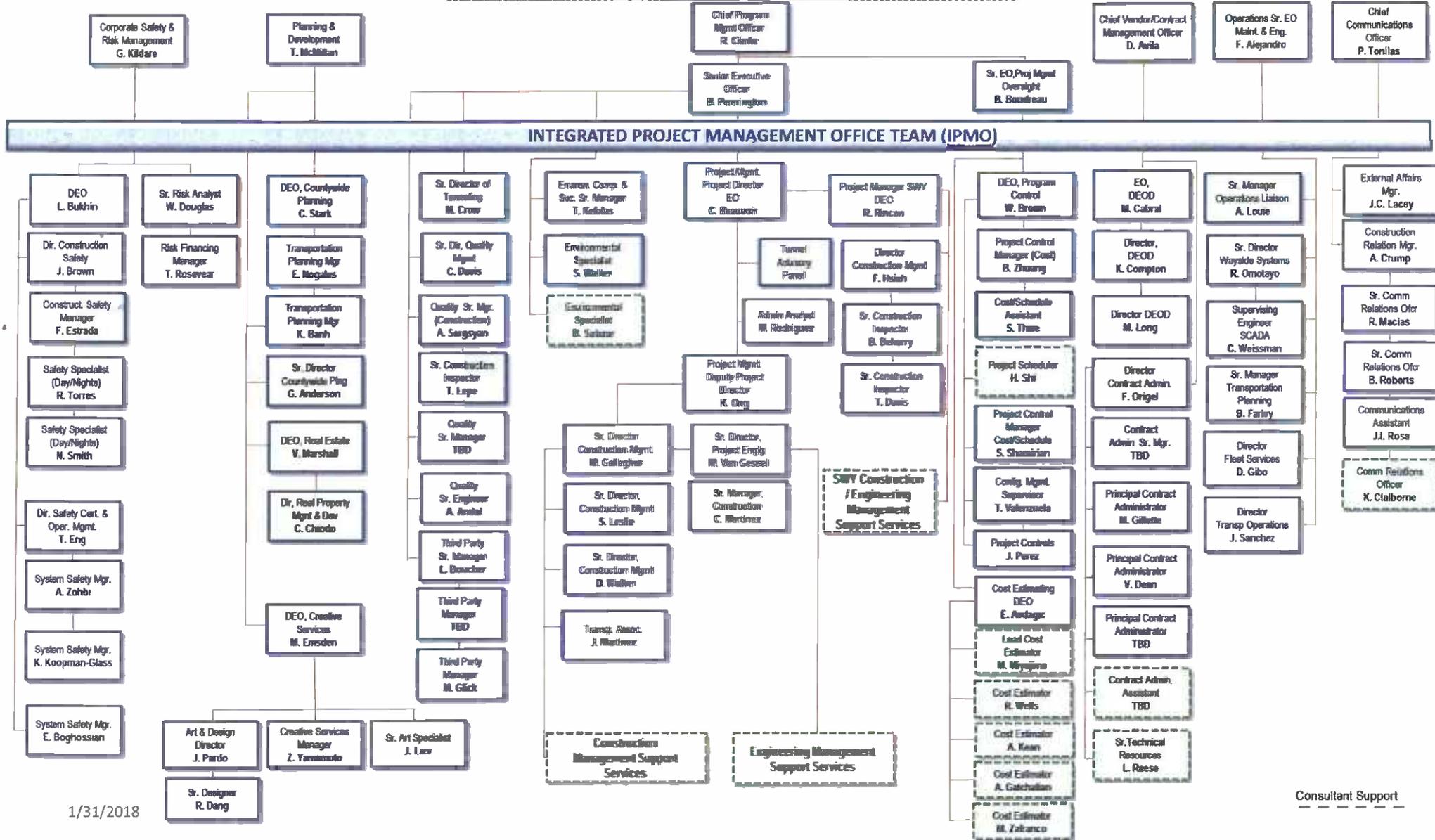
William Mulholland Conference Room - 15th Floor

Metro Organization Chart

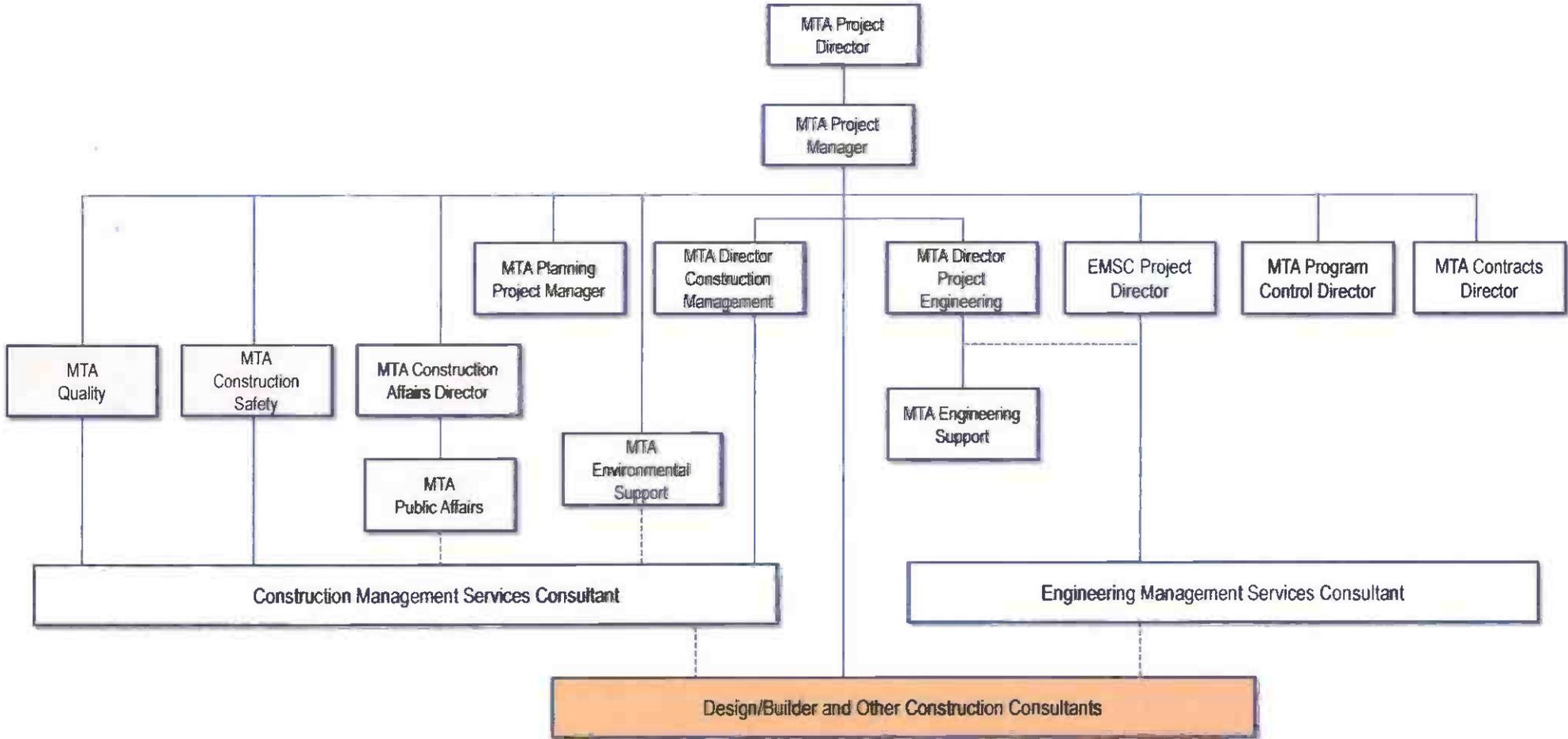


CRENSHAW/LAX TRANSIT PROJECT MATRIX ORGANIZATION

Metro Executive Management Organization and Staff

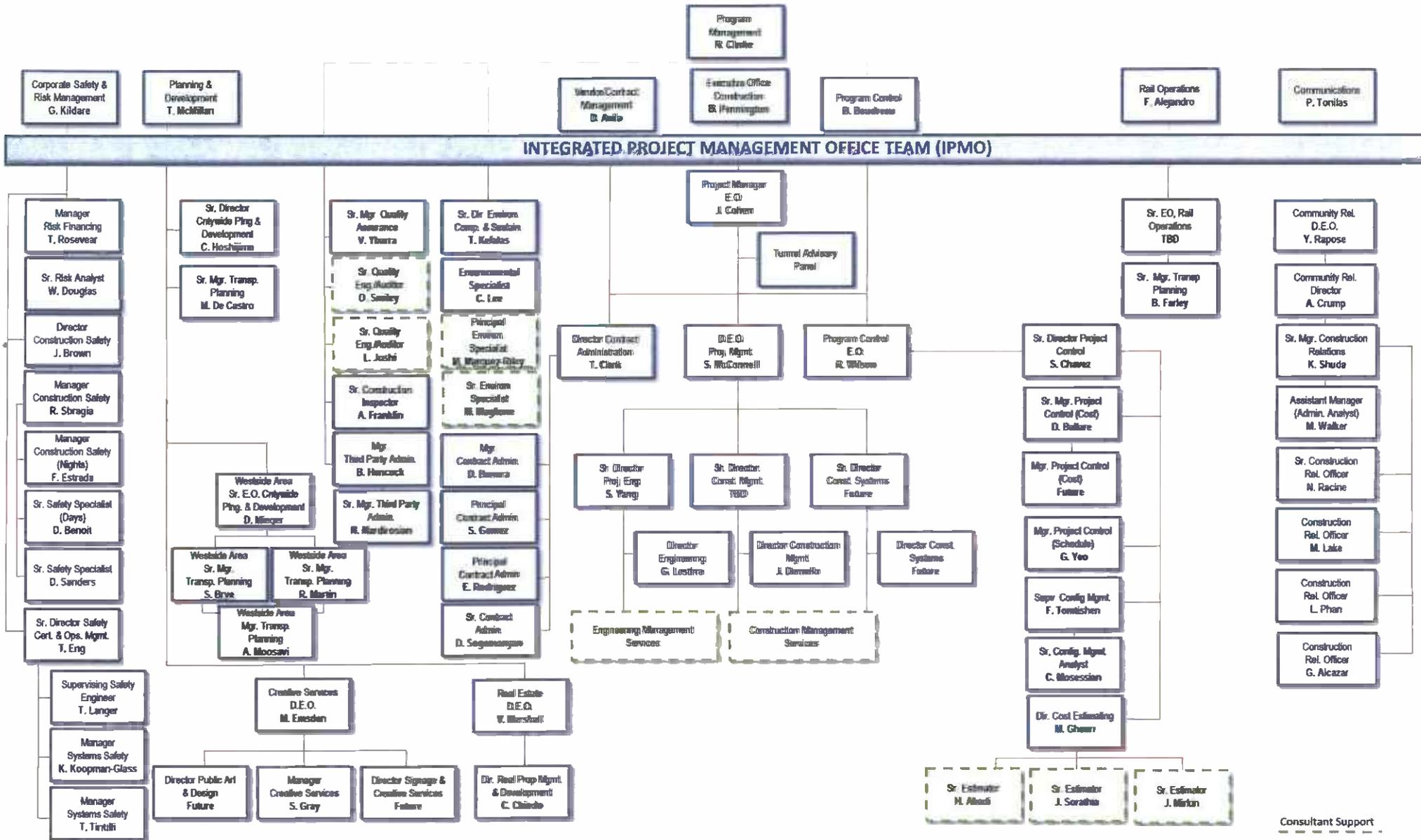


**CRENSHAW/LAX TRANSIT PROJECT
Responsibility and Reporting Matrix**

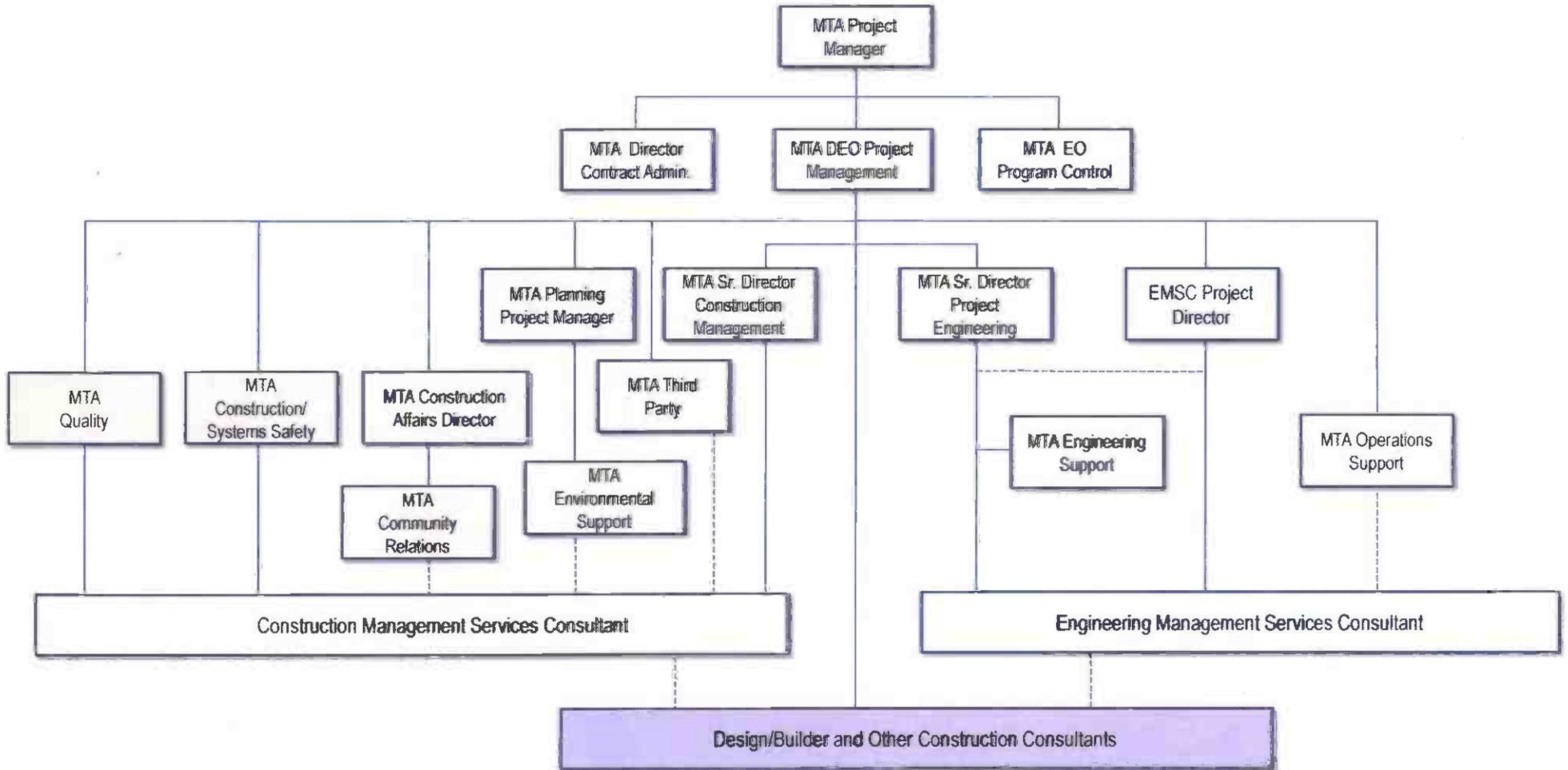


WESTSIDE PURPLE LINE EXTENSION SECTION 1 Matrix Organization

Metro Executive Management Organization and Staff

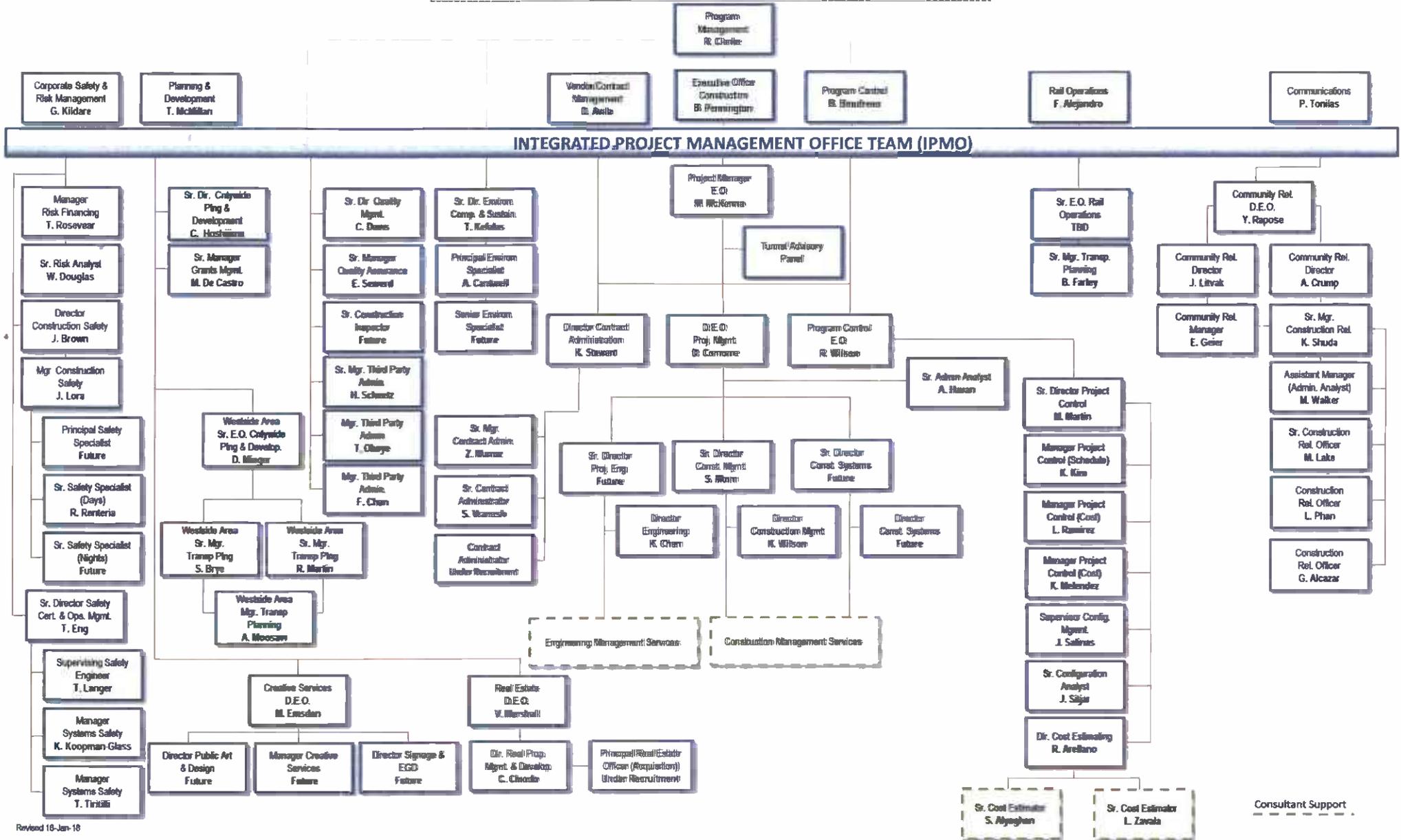


Westside Purple Line Extension Section 1 Responsibility and Reporting Matrix

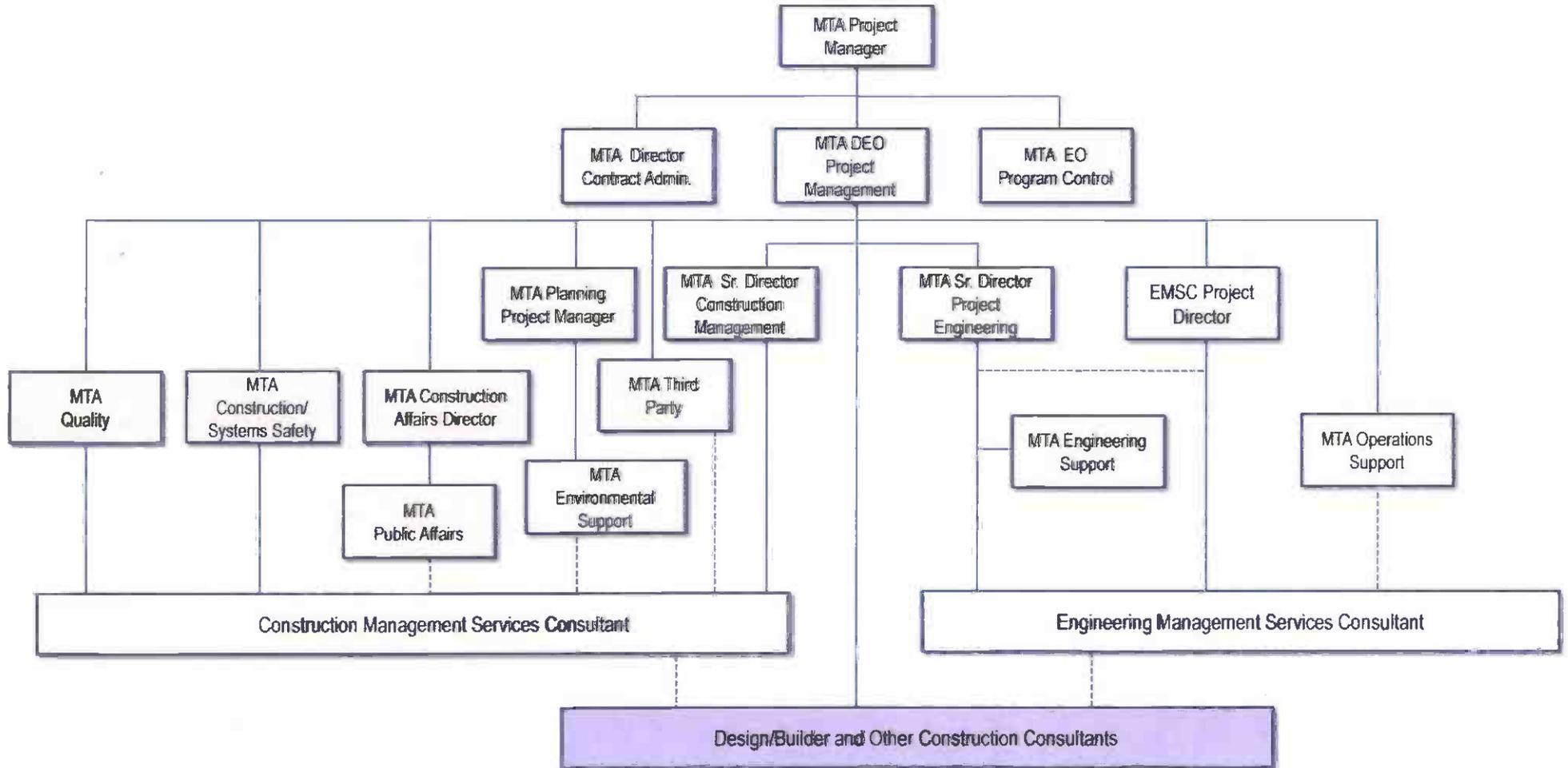


WESTSIDE PURPLE LINE EXTENSION SECTION 2 Matrix Organization

Metro Executive Management Organization and Staff

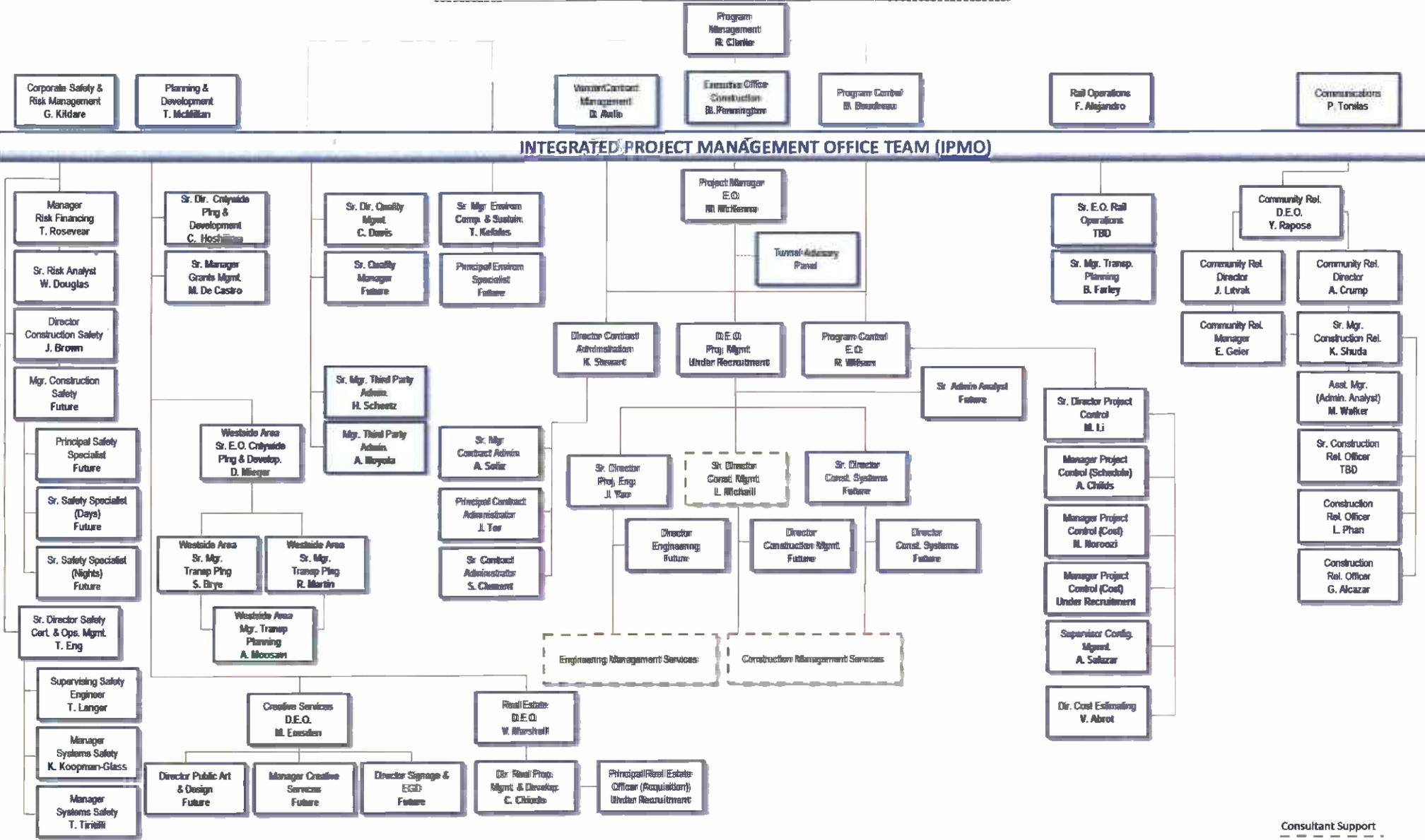


Westside Purple Line Extension Section 2 Responsibility and Reporting Matrix



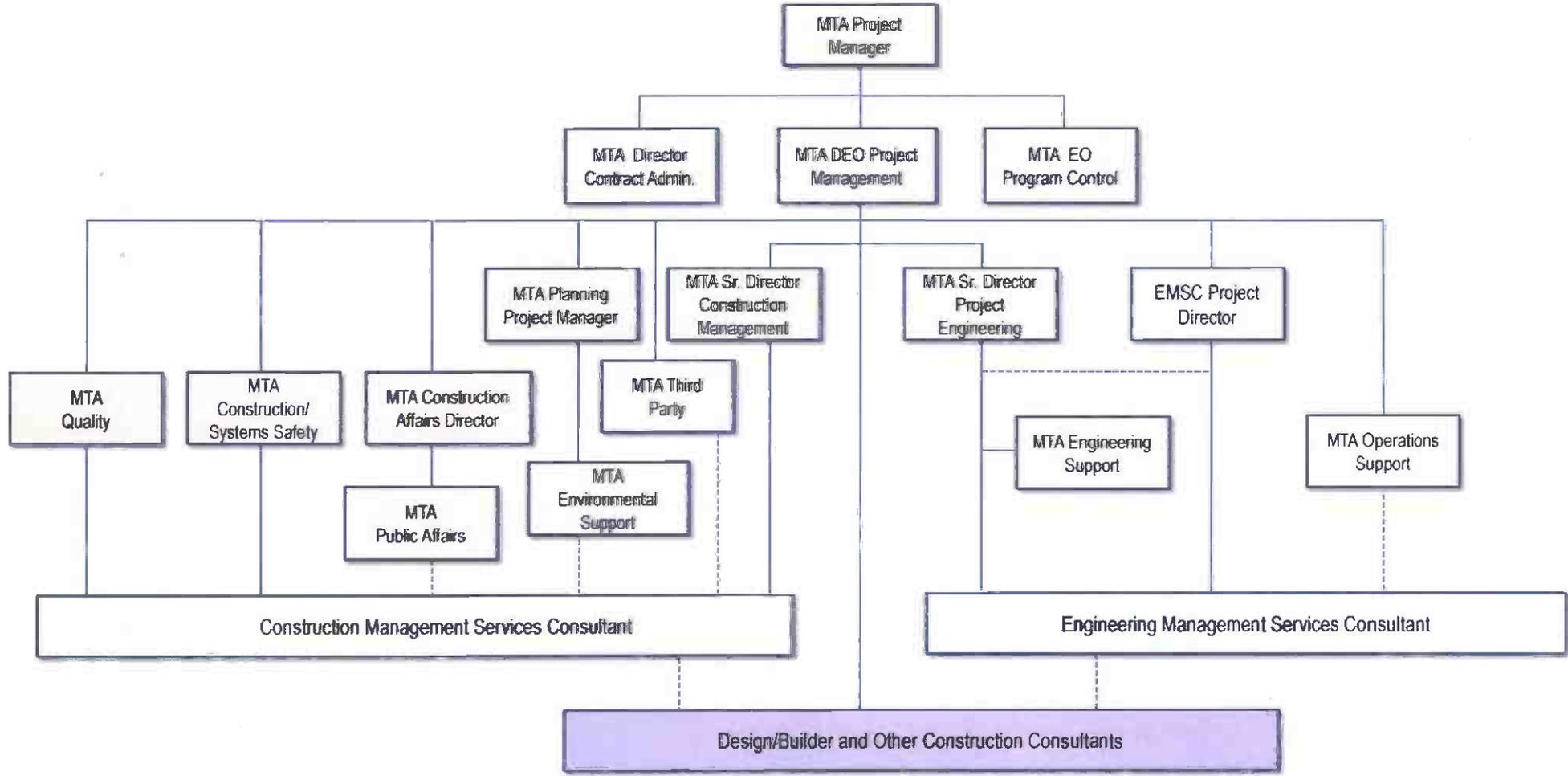
WESTSIDE PURPLE LINE EXTENSION SECTION 3 Matrix Organization

Metro Executive Management Organization and Staff



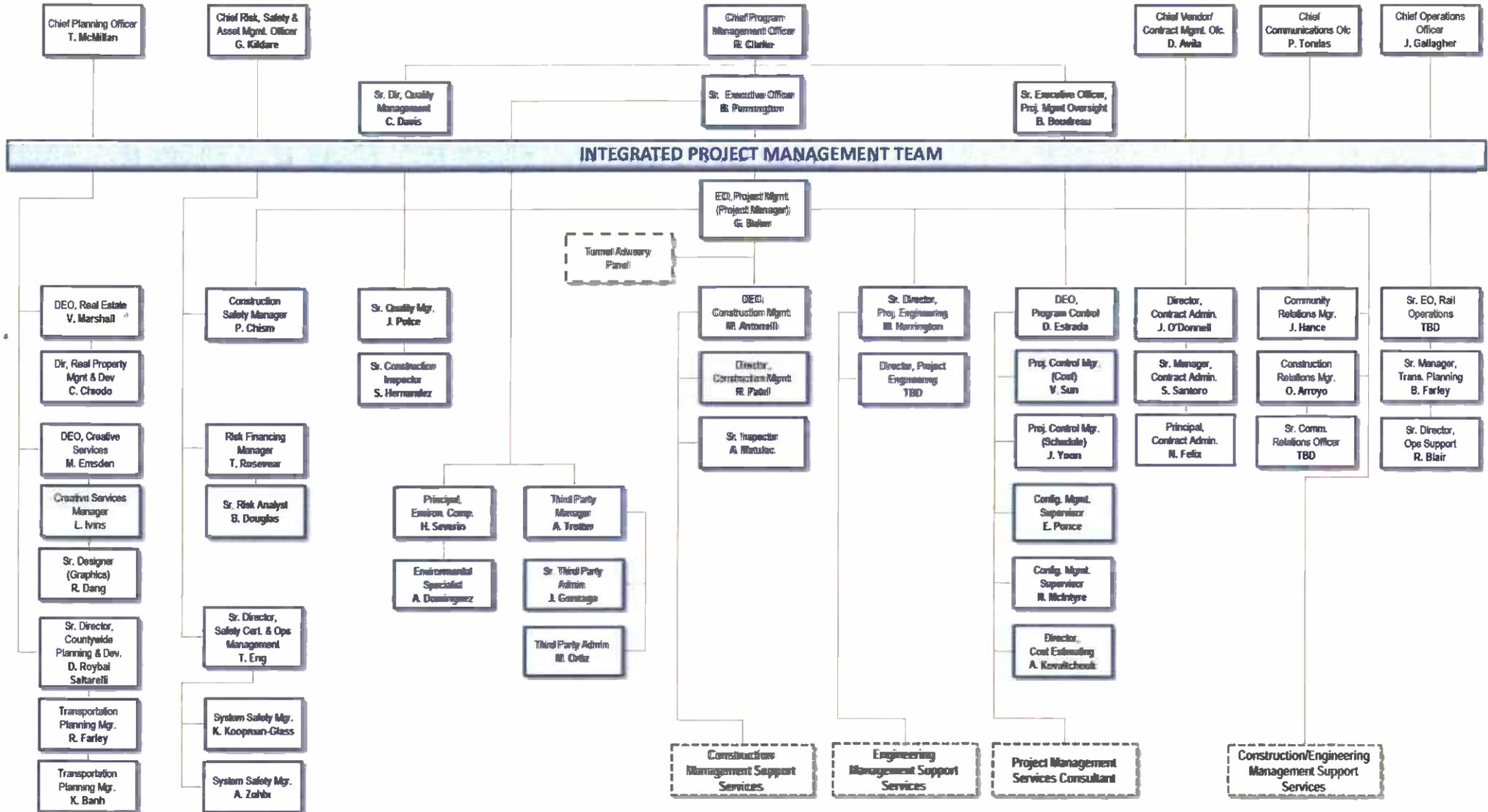
Consultant Support

Westside Purple Line Extension Section 3 Responsibility and Reporting Matrix

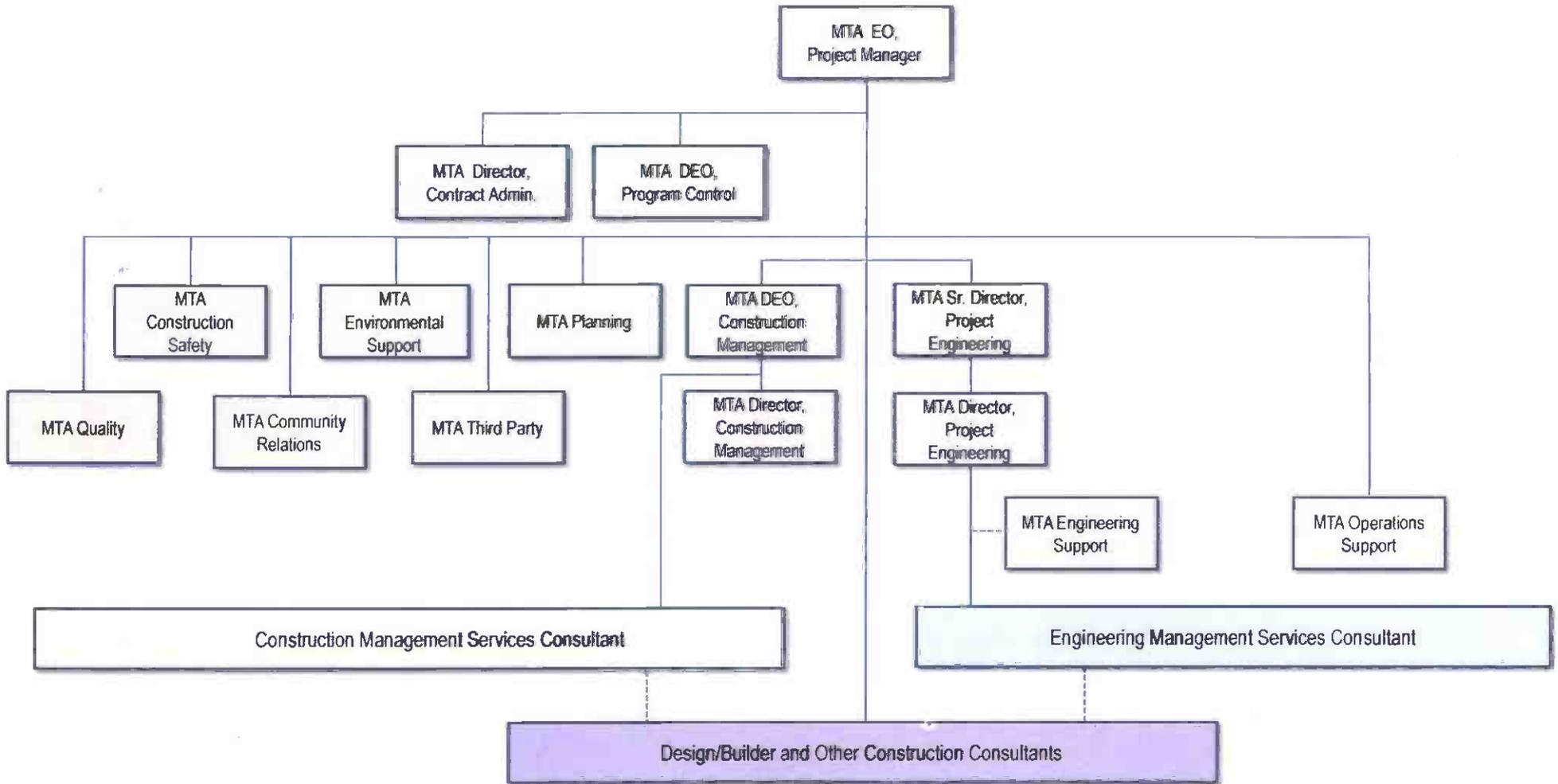


REGIONAL CONNECTOR TRANSIT PROJECT MATRIX ORGANIZATION

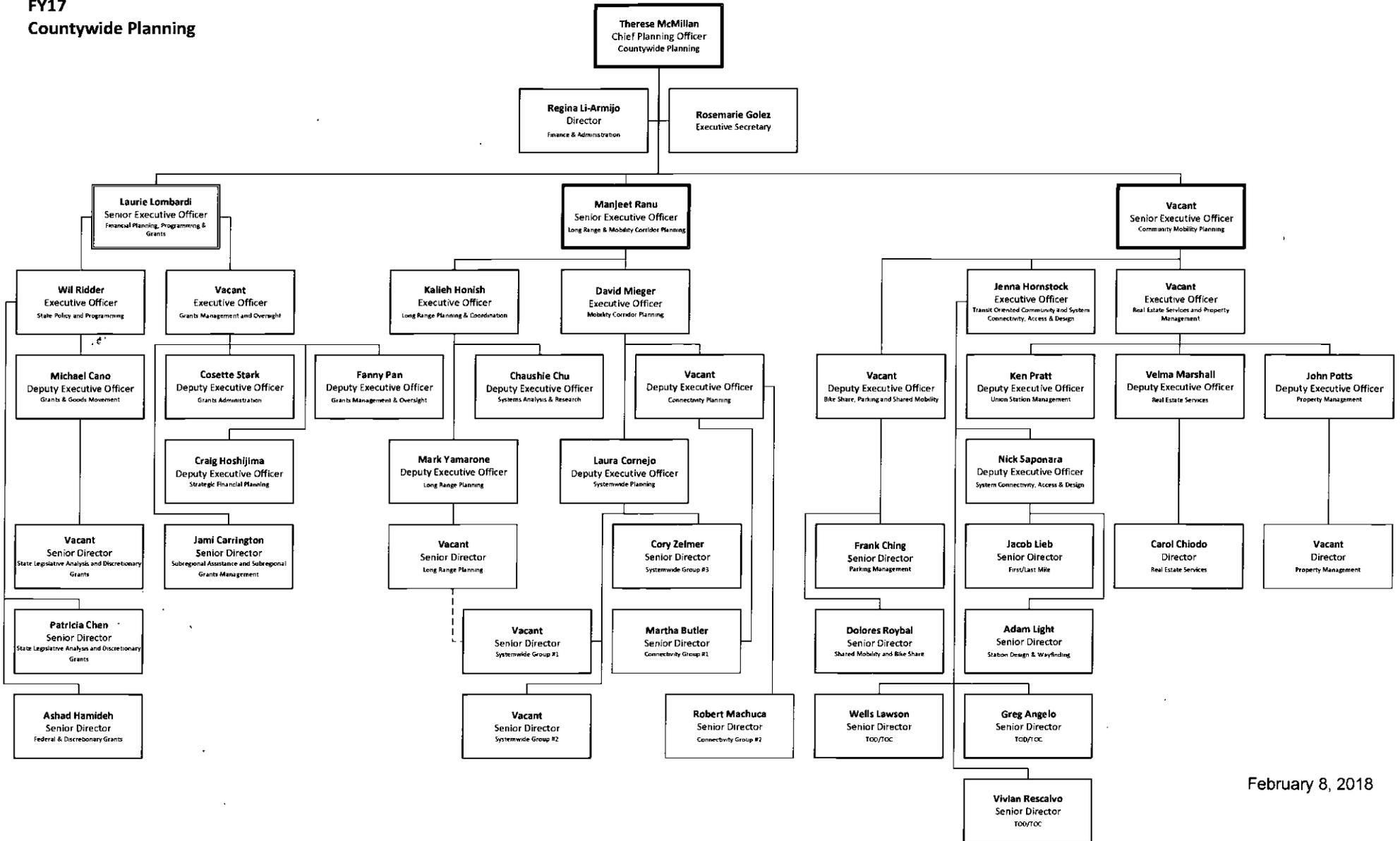
Metro Executive Management Organization and Staff



Regional Connector Transit Project Responsibility and Reporting Matrix

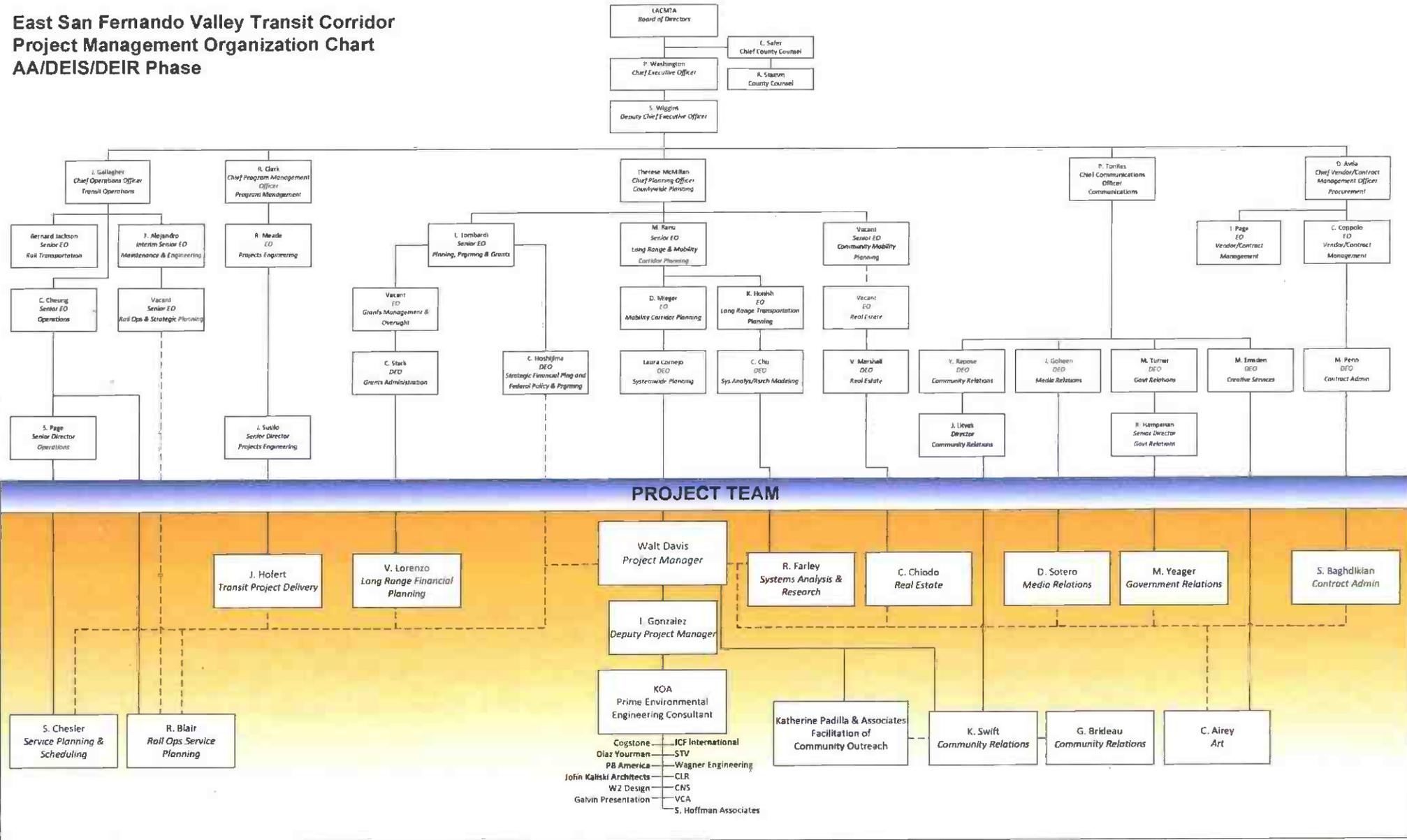


**FY17
Countywide Planning**



February 8, 2018

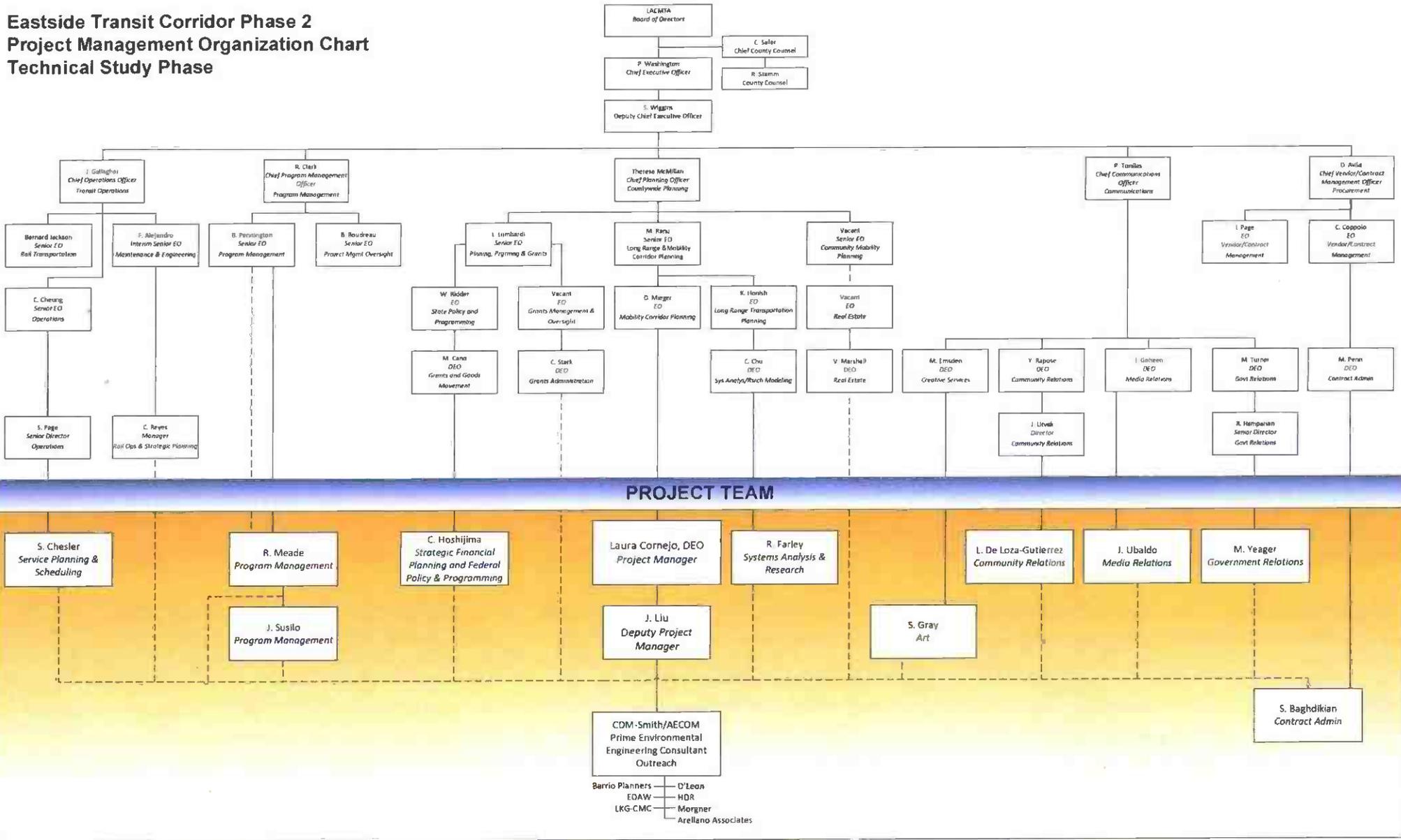
East San Fernando Valley Transit Corridor Project Management Organization Chart AA/DEIS/DEIR Phase



February 2, 2018

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

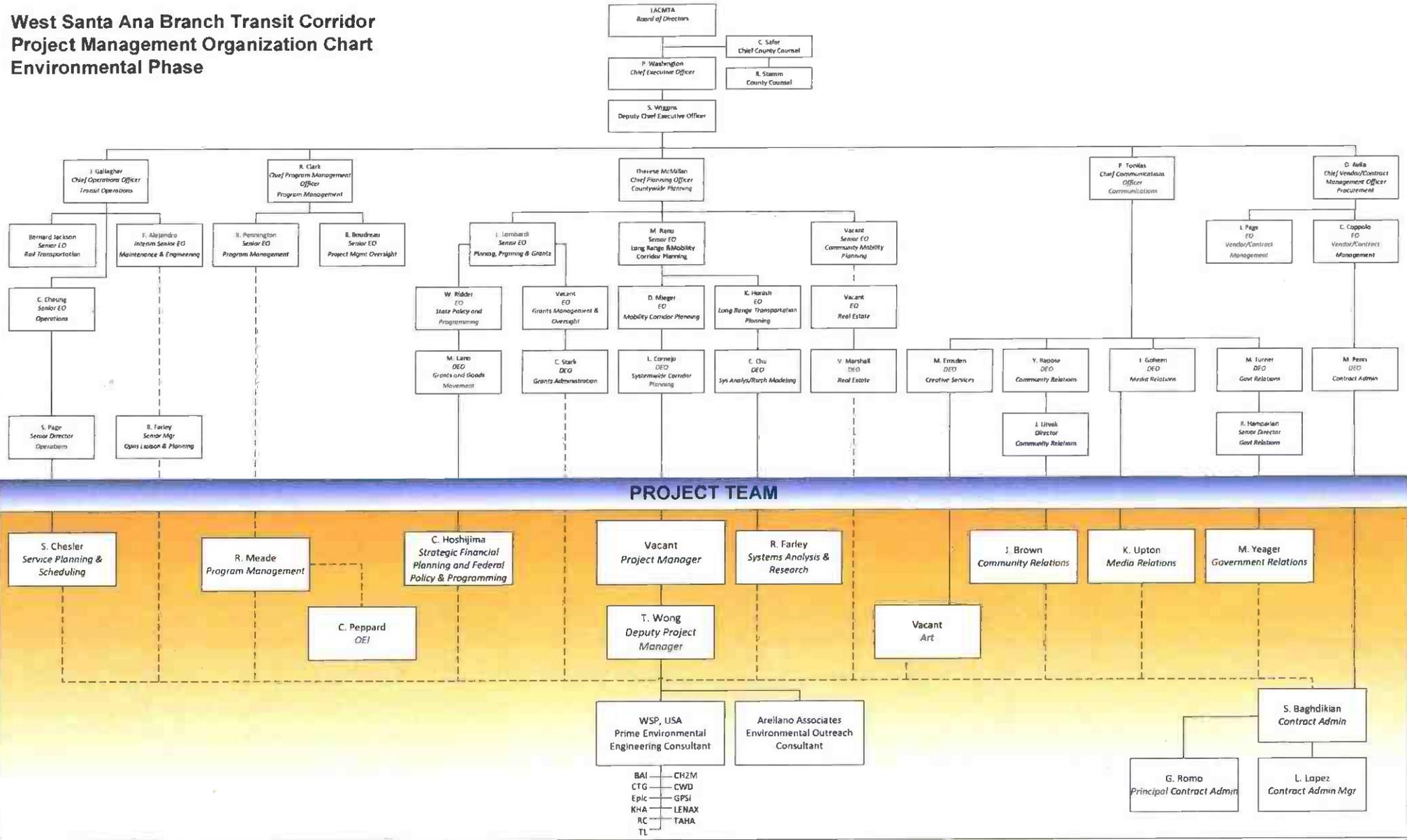
Eastside Transit Corridor Phase 2 Project Management Organization Chart Technical Study Phase



February 2, 2018

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

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



February 2, 2018

Legend: ——— Indicates Direct Relationship
 - - - - - Indicates Coordinated Relationship
 Yellow Background Indicates Project Team

Los Angeles County Metropolitan Transportation Authority (Metro)
State and Federal Legislative Matrix
FEBRUARY 2018
Metro Government Relations

STATE LEGISLATION

Bill ID/Topic	Location	Summary	Position	Recent Support/Oppose
AB 1721 Committee on Revenue and Taxation Los Angeles County Metropolitan Transportation Authority: transactions and use tax.	SENATE RLS. 6/1/2017 - Referred to Com. on RLS. (Set for hearing) (1/23/2018 - Immune to Deadlines according to JR61(f). Deadlines do not apply to bills in a Rules committee.)	Existing law authorizes the Los Angeles County Metropolitan Transportation Authority (MTA) to impose an additional transportation transactions and use tax at a maximum rate of 0.5% as long as a specified existing 0.5% transactions and use tax is in effect, and at a maximum rate of 1% thereafter, as specified, for a period of time determined by the MTA, if certain conditions exist and subject to various requirements, including the adoption of an expenditure plan and voter approval, as specified. This bill would correct an erroneous cross-reference in these provisions. This bill contains other existing laws.	Support	

**Los Angeles County Metropolitan Transportation Authority (Metro)
State and Federal Legislative Matrix
FEBRUARY 2018
Metro Government Relations**

Bill ID/Topic	Location	Summary	Position	Recent Support/Oppose
SB 268 Mendoza D Los Angeles County Metropolitan Transportation Authority.	ASSEMBLY L. GOV. 9/5/2017 - From committee with author's amendments. Read second time and amended. Re- referred to Com. on L. GOV	Existing law creates the Los Angeles County Metropolitan Transportation Authority with specified powers and duties relative to transportation planning, programming, and operations in the County of Los Angeles. The authority is governed by a 14-member board of directors that consists of the Mayor of the City of Los Angeles, 2 public members and one Los Angeles City Council member appointed by the mayor, 4 members appointed from the other cities in the county, the 5 members of the Los Angeles County Board of Supervisors, and a nonvoting member appointed by the Governor. This bill would require the authority, the Los Angeles County Division of the League of California Cities, the California Contract Cities Association, and the Los Angeles County City Selection Committee to prepare and provide to the Legislature by December 1, 2018, a plan agreed to by at least 3 of these entities, for reorganizing the membership of the authority to include 22 members, and to provide equitable and proportional voting representation for each area of the county on the authority, including more representation for cities other than the City of Los Angeles. The bill would require the plan to provide for the reconstitution of the authority no later than January 1, 2020. The bill, commencing on January 1, 2020, would require the membership of the authority to be reconstituted pursuant to the plan. The bill, if a plan is not submitted or is not implemented, would, commencing on January 1, 2020, provide for the authority to consist of 22 members, including the 5 members of the Los Angeles County Board of Supervisors, the Mayor of the City of Los Angeles, 5 members of the Los Angeles City Council and one public member appointed by the mayor, one member appointed by the City of Long Beach, 8 members from cities other than Los Angeles appointed by the Los Angeles County City Selection Committee, and one nonvoting member appointed by the Governor. The bill would require every appointee to serve a 4-year term without limitation or until the expiration of the term of his or her elected office. The bill would also delete, on January 1, 2020, the requirement for the authority to submit a plan to the Legislature if the number of members of the board of supervisors is increased. This bill contains other related provisions and other existing laws. Last Amended on 9/5/2017	Support	Floor Analysis (text 9/1/2017) Support Oppose

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. 2/12/2018
Bills highlighted in **PURPLE** have been submitted in the current month for Board consideration.

**Los Angeles County Metropolitan Transportation Authority (Metro)
State and Federal Legislative Matrix
FEBRUARY 2018
Metro Government Relations**

FEDERAL		
BILL/AUTHOR	DESCRIPTION	STATUS
H.R. 3001 U.S. Representative Alan Lowenthal (D-Long Beach)	ECONOMY IN MOTION: THE NATIONAL MULTIMODAL AND SUSTAINABLE FREIGHT INFRASTRUCTURE ACT Would establish a Freight Transportation Infrastructure Trust Fund and create freight specific formula and competitive grant program for multimodal projects. In 2015, Congress passed the bipartisan Fixing America’s Surface Transportation (FAST) Act, which for the first time outlined a national freight policy and set up both formula and competitive programs to invest in these systems. The FAST Act funded both of these programs through 2021, but because the Highway Trust Fund is not able to provide the amount of funding necessary to keep up with the nation’s infrastructure needs, it is important to identify and support sustainable funding sources that will be dedicated to specific uses that will improve infrastructure.	House - 06/23/2017 Referred to the Subcommittee on Water Resources and Environment.

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<p>H.R. 3388</p> <p>U.S. Representative Robert e. Latta (R-Ohio)</p>	<p>SELF DRIVE Act Designating Each Car's Automation Level Act or the DECAL Act</p> <p>This bill requires the Department of Transportation (DOT) to: complete research to determine the most cost effective method and terminology for informing consumers about the capabilities and limitations of each highly automated vehicle or each vehicle that performs partial driving automation; and determine whether such information includes terminology as defined by SAE International in Recommended Practice Report J3016 (published September 2016) or alternative terminology. After completion of such research, DOT shall initiate a rulemaking proceeding to require manufacturers to inform consumers about such information.</p> <p>The bill defines: (1) a "highly automated vehicle" as a motor vehicle, other than a commercial motor vehicle, that is equipped with an automated driving system; and (2) an "automated driving system" as the hardware and software of a vehicle that are collectively capable of performing the entire dynamic driving task on a sustained basis, regardless of whether such system is limited to a specific operational design domain.</p>	<p>Senate - 09/07/2017 Received in the Senate and Read twice and referred to the Committee on Commerce, Science, and Transportation</p>
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<p>S. 1885 U.S. Senator John Thune (R-South Dakota)</p>	<p>AV START Act The American Vision for Safer Transportation Through Advancement of Revolutionary Technologies (AV START) Act To support the development of highly automated vehicle safety technologies, and for other purposes. The legislation outlines provisions related to: safety oversight, federal state and local rules, using provisions from HR 3388, deployment, rulemaking, cyber security, data sharing and vehicle safety standards, consumer education and ADA considerations. Directs additional research and coordination with state and local governments on traffic safety and law enforcement. Creates requirements for manufacturers to ensure that all self-driving vehicles account for state and local traffic laws.</p>	<p>Senate - 11/28/2017 Placed on Senate Legislative Calendar under General Orders. Calendar No. 268</p>
<p>Continuing Resolution for FY 2018</p>	<p>The Continuing Resolution bill was an agreement to set funding levels for Fiscal Year 2018 and Fiscal Year 2019 - which will allow Appropriations Committee staff to complete their budget process by applying the new spending figures. The deal resulted in a large increase to non-defense spending over the next two federal fiscal years. The increase for Fiscal Year 2018 is \$63 billion and for Fiscal Year 2019 is \$68 billion. This provides roughly 10% more funding for federal transportation funding. Also included in the package is a "tax-extenders" deal that includes a retroactive alternative fuel tax benefit for properties and vehicles for 2017. The alternative fuels tax benefit expired in 2016 - which is why Congress had to retroactively approve</p>	<p>2/9/18 House and Senate approves Continuing Resolution to fund the Federal Government at Fiscal Year 2017 levels through March 23, 2018. The President then</p>

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**Los Angeles County Metropolitan Transportation Authority (Metro)
 State and Federal Legislative Matrix
 FEBRUARY 2018
 Metro Government Relations**

	<p>it for last year. This item (worth approximately \$18 million to our agency) is a Board-approved federal priority and will remain a priority as Congress will again need to approve the tax benefit for the current year. Metro will continue working with the Los Angeles County Congressional delegation to strongly support funding for our agency's Board-approved federal priorities.</p>	<p>signed the bill shortly after Congress held the vote.</p>
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Bills highlighted in [redacted] have been submitted in the current month for Board consideration.



COUNTY OF LOS ANGELES
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MARY C. WICKHAM
County Counsel

February 2, 2018

Martia Fox, Esq.
Regional Counsel, Region IX
FEDERAL TRANSIT ADMINISTRATION
90 Seventh Street, Suite 15-300
San Francisco, CA 94103

Re: Quarterly Update on Status of Key Legal Actions

Dear Ms. Fox:

Attached please find the Los Angeles County Metropolitan Transportation Authority's quarterly update as of December 31, 2017, on the Status of MTA Litigation Related to Federally Funded MTA Projects.

Please call if you have any questions (213) 922-2503.

Very truly yours,

MARY C. WICKHAM
Interim County Counsel

By

RICHARD P. CHASTANG
Principal Deputy County Counsel
Transportation Division

RPC:kh

Attachments

c: Charles M. Safer
Brian Boudreau
Emma Nogales
Leslie Rogers
Cindy Smouse
Cosette Stark

Los Angeles County Metropolitan Transportation Authority
 Status of Key MTA Litigation Related to Federally Funded MTA Projects
 Date as of December 31, 2017

CASE NAME	CASE NUMBER	GRANT NUMBER	NARRATIVE	CASE STATUS
Gerlinger (MTA) v. Parsons Dillingham consolidated with MTA v. Parson Dillingham	BC150298, etc. BC179027	MOS-1 and CA-03-0341, CA-90-X642 MOS-1 and CA-03-0341, CA-90-X642	Originated as Qui Tam action. Concerns allegations of overbilling by MTA's construction Manager, Parsons-Dillingham ("PD"). MTA filed suit against Parsons Dillingham for fraud and breach of contract in the performance of construction management services.	Defendants' Motion for Summary Judgment granted. MTA's motion for new trial denied. MTA has appealed Judgment granted in favor of MTA for breach of contract. Defendants have appealed. Oral arguments held January 12, 2018. Awaiting rulings.
Crenshaw Subway Coalition v. MTA, et al.	CV11-9603	TIFIA3 Loan	Environmental challenge under CEQA and Cal. Govt. Code alleging deficiencies in Crenshaw/LAX Light Rail Transit FEIR/EIS and discriminatory impacts on African-Americans in the Crenshaw area.	Judgments for MTA and FTA on CEQA and NEPA claims. Government Code Claim for disparate impact remanded to State court.
Today's IV. Inc. v. MTA	BS160846		Petitioner alleges that Metro is not maintaining access to the hotel and complying with applicable noise standards in violation of the MMRP.	Petitioner's applications for various TROs were denied; discovery is ongoing. Trial will be reset for no later than September 20, 2018
City of Beverly Hills v. MTA	BS144164		Petitioner alleges that Metro accelerated funding for the subway without CEQA clearance.	Case is currently on hold.
City of Rosemead	BS169937		Petitioner claims that Metro violated CEQA by adopting a motion supporting one alternative as the locally preferred alternative prior to completion of CEQA review.	Trial set for March 16, 2018
Beverly Hills Unified School District	2:18-cv-00716		Plaintiff alleges that MTA and FTA violated federal law (NEPA, §4(f), §106 and the APA) by issuing the Record of Decision approving the FEIS and FSEIS for the Purple Line Extension Project.	Complaint filed in USDC on January 26, 2018. MTA will file a responsive pleading by February 20, 2018.

CASE NAME	CASE NUMBER	GRANT NUMBER	NARRATIVE	CASE STATUS
Transport Technologies v. MTA	2:15-cv-6423-RSWL-MRW		This is a patent infringement lawsuit. Plaintiff alleges that MTA infringed upon its patent relating to wireless reader technology in connection with MTA's ExpressLanes Project. MTA's contract with the ExpressLanes Project general contractor Atkinson requires Atkinson to defend and indemnify MTA in any Intellectual Property claims.	In 2016, MTA initiated summary proceedings to contest plaintiff's patent claims. On November 17, 2017, the Patent Trial and Appeal Board ("PTAB") issued a decision in favor of MTA finding that the claims plaintiff has sued MTA on are unpatentable. On January 17, 2018 plaintiff filed an appeal in the United States Federal Circuit Court; however, pending a contrary decision on the appeal, MTA and other transportation agencies are free to continue using the ExpressLanes and the transponder devices associated with the ExpressLanes.

Wheelchair-Disability Discrimination Cases

CASE NAME	CASE NUMBER	GRANT NUMBER	NARRATIVE	CASE STATUS
Jewell Roper v. MTA	Case No. 2:17-cv-04051		This is a personal injury case in which the plaintiff alleged an ADA violation when an MTA driver deployed the ramp and the ramp hit her foot. Plaintiff is a wheelchair user.	Case was removed to federal court on 6/1/17. Discovery is underway. Case settled 12/21/17
Rosa Miller v. MTA	BC674571		This is a personal injury case in which the plaintiff alleged an ADA violation when she could not sit in seating area designated for disabled passengers because those seats were occupied by what she perceived to be non-disabled passengers.	Answer filed. Dispositive motion will be filed upon the completion of discovery. FSC 2/13/19 Trial 2/27/19

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

December 31, 2017

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. 11.18 acres of this property was acquired with federal assistance.

In May 2017, the Metro Board authorized an Exclusive Negotiation Agreement (“**ENA**”) with developers Trammell Crow Company (“**TCLA**”) and Greenland USA to pursue joint development of the site. Since then, Greenland USA determined that it was no longer able to participate in the project and assigned its rights (as is provided for in the ENA) to 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 of the site will include 1,000 – 1,200 market rate for-rent apartment units, 250 – 325 affordable rate for-rent apartment units, 400,000 square feet of office space, and 80,000 – 150,000 square feet of retail uses. TCLA and the project team are working closely with Metro Operations and Engineering to determine the optimal configuration of the new transit center and replacement transit parking. Further community outreach will take place in spring 2018 and environmental clearance and entitlement work is expected to start at the end of 2018.

In the interim, Metro is leasing a portion of the 1.8-acre site to an adjacent business for parking.

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. At the time, MBS had indicated to Metro that the cost of accommodating and working around existing Metro subway infrastructure on the site was too costly to proceed with the project as planned. MBS provided Metro with an alternate design for the project, which was significantly and materially different from the originally proposed design. After reviewing the alternate design, Metro elected to (a) not move forward with it, and (b) not pursue an extension of the Joint Development Agreement, letting it expire.

In December, Metro received an unsolicited proposal for development of the Phase B site. In accordance with Metro’s Unsolicited Proposal Policy and Process, a proposal

evaluation team was established and commenced its review of the proposal. This review and a determination regarding the proposal will be completed in the first quarter of 2018.

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 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 this year and residential move-in was completed in July. 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)

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

In March 2017, Metro released a Request for Proposals (RFP) for joint development of these parcels. On June 29, 2017, Metro received two proposals and completed a thorough evaluation. In January 2018, staff will request Metro Board authority to enter into an 18-month Exclusive Negotiation and Planning Document ("ENA") 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.

If the 18-month ENA is approved by the Metro Board, 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 as part of the outreach and engagement effort for the Mariachi Plaza station site. (See the update for Mariachi Plaza station, above, for details.) 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)

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 (“**ENA**”) with respect to the development of the Soto station site and the 0.29-acre parcel. Under the framework of the ENA, and a prior Short Term Exclusive Agreement and Planning Document (the “**Interim Agreement**”), 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 66 apartments, 65 of which will be affordable, to families earning 30-50% of Area Median Income, along with approximately 5,000 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 agreement from Metro, is being considered for community space and other community serving uses as part of the proposed development.

In December 2017, the parties extended the term of the ENA through December 22, 2018. The next steps for the project include submittal of an entitlements/CEQA package to the City of Los Angeles for their review and approval, and an application to the City of Los Angeles’ Housing and Community Investment Department for inclusion in their funding pipeline.

The Bridge/ELACC team was selected via a competitive procurement process to explore development of Metro’s Soto station sites in March 2015.

1st/Lorena (Parcel EG-409) – NO CHANGE

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 ENA 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 cleared the project under CEQA and approved its entitlements, but the matter was appealed and taken under review by the City. In light of the appeal, the Metro Board of Directors extended the ENA to June 2019 in order to grant the developer more time to work with the appellants and ultimately move forward with the proposed development.

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 authorized the execution of a Joint Development Agreement and Ground Lease with Abode Communities (“**Abode**”), and approved the

CEQA clearance for the project. Included in the Joint Development Agreement is a term sheet that sets forth the key terms and conditions of a Ground Lease that will provide for the construction and operation of the project.

Abode was selected via a competitive procurement process for development of the site in March 2015 and has been advancing the project under a Short-Term Exclusive Agreement and Planning Document (executed in March 2015) and an Exclusive Negotiation Agreement and Planning Document (executed in December 2015).

The project will provide 77 apartments, 76 of which will be affordable to families earning between 30% and 50% of the area median income, and will include approximately 8,000 square feet of ground floor retail space. The parties anticipate execution of the Ground Lease and commencement of construction in the 1st quarter of 2019.

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 an RFP 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, staff will request Metro Board authority to enter into an 18-month Exclusive Negotiation and Planning Document (“**ENA**”) with one of the proposers, Abode Communities (“**Abode**”), who had the highest scoring proposal.

The project will provide 60 apartments, 59 of which will be affordable for families earning between 30% and 50% of Area Median Income. The project will also include 25,000 square feet of a community serving grocery store and a 6,500 square foot community park.

If the 18-month ENA is approved by the Metro Board, 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.

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

Los Angeles County
Metropolitan Transportation Authority
California

OPERATIONS MONTHLY RAIL PERFORMANCE REPORT

DECEMBER 2017



METRO RAIL PERFORMANCE – DECEMBER 2017

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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 2015	FY 2016	FY 2017	FY 2018 Target	FY 2018 YTD	FYTD Status	Oct Month	Nov Month	Dec Month
Systemwide									
On-Time Pullouts	99.67%	99.63%	99.61%	99.50%	99.60%	🟢	99.36%	99.61%	99.60%
Mean Miles Between Chargeable Mechanical Failures ³	34,524	30,482	29,711	32,550	26,777	🟡	28,551	32,952	30,053
In-Service On-time Performance	98.39%	98.10%	98.24%	98.99%	98.34%	🟡	97.65%	98.91%	98.06%
Service Delivery Ratio	99.35%	99.22%	99.23%	99.00%	99.10%	🟢	98.82%	99.33%	98.72%
Traffic Accidents Per 100,000 Train Miles	1.18	1.17	1.01	1.01	1.02	🟡	1.59	0.68	0.80
CPUC Reportable Accidents per 100,000 Train Miles	0.43	0.60	0.36	0.37	0.69	🔴	1.19	0.68	0.53
Passenger Accidents per 100,000 Boardings	0.013	0.016	0.023	0.010	0.023	🔴	0.010	0.011	0.044
Complaints per 100,000 Boardings	0.78	1.43	1.98	1.10	1.77	🔴	1.95	1.77	1.52
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours ^{1,2}	11.11	10.97	12.27	10.42	11.99	🟡	14.79	17.47	4.98
Lost Work Days per 200,000 Exposure Hours ^{1,2}	880	482	733	450.00	887	🔴	950	1,195	-
OSHA Injuries per 200,000 Exposure Hours ^{1,2}	6.68	6.32	8.53	6.00	7.94	🔴	11.10	7.76	-
Wayside									
Overdue Work Orders (Non-PMP) - Aging of Outstanding Work Orders	83	351	970	N/A	1,639	N/A	199	274	675
Past-Due Preventive Maintenance - Aging of Outstanding Work Orders	1	2	93	N/A	165	N/A	17	34	67
% of Completed Inspections	99.51%	99.57%	99.72%	N/A	99.78%	N/A	99.75%	100.00%	99.50%
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours	9.07	4.77	5.35	4.53	4.09	🟢	0.00	8.23	0.00
Lost Work Days per 200,000 Exposure Hours ¹	309	148	194	138	344	🔴	462	337	0
OSHA Injuries per 200,000 Exposure Hours ¹	8.28	4.40	4.01	4.18	3.25	🟢	0.00	4.11	0
Blue Line									
On-Time Pullouts	99.41%	99.59%	99.60%	99.50%	98.99%	🟡	98.01%	99.26%	99.38%
Mean Miles Between Chargeable Mechanical Failures ³	23,716	19,240	15,405	22,825	12,103	🔴	14,121	13,164	15,635
In-Service On-time Performance	97.28%	96.10%	96.44%	98.80%	96.21%	🟡	96.76%	97.73%	94.80%
Service Delivery Ratio	98.88%	98.41%	98.54%	99.00%	97.86%	🟡	97.69%	98.74%	95.96%
Traffic Accidents Per 100,000 Train Miles	2.48	2.38	2.18	2.18	1.96	🟢	2.62	2.01	1.35
CPUC Reportable Accidents per 100,000 Train Miles	0.89	1.39	0.71	0.40	1.42	🔴	1.31	2.01	1.35
Passenger Accidents per 100,000 Boardings	0.034	0.016	0.046	0.010	0.045	🔴	0.052	0.000	0.000
Complaints per 100,000 Boardings	0.90	1.33	1.67	1.07	2.25	🔴	2.76	1.88	2.00
New Workers' Compensation indemnity Claims per 200,000 Exposure Hours	15.10	15.08	16.74	10.42	17.39	🔴	19.96	20.63	10.94
Lost Work Days per 200,000 Exposure Hours ¹	1,622	797	836	450	1,114	🔴	768	2,323	-
OSHA Injuries per 200,000 Exposure Hours ¹	10.64	6.79	10.40	6.00	8.27	🔴	4.99	15.47	-

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. Fails below Target 70 - 99%.

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

N/A = Not Available

Measurement	FY 2015	FY 2016	FY 2017	FY 2018 Target	FY 2018 YTD	FYTD Status	Oct Month	Nov Month	Dec Month
Red Line									
On-Time Pullouts	99.91%	99.79%	99.95%	99.50%	99.93%	●	100.00%	100.00%	100.00%
Mean Miles Between Chargeable Mechanical Failures ³	85,090	94,312	104,637	131,376	68,252	●	77,032	82,908	82,921
In-Service On-time Performance	99.13%	99.45%	99.39%	99.50%	99.25%	●	98.63%	99.43%	99.60%
Service Delivery Ratio	99.60%	99.71%	99.72%	100.00%	99.64%	●	99.53%	99.63%	99.72%
Traffic Accidents Per 100,000 Train Miles	0.47	0.75	0.57	0.57	0.43	●	0.00	0.00	0.83
CPUC Reportable Accidents per 100,000 Train Miles	0.07	0.07	0.14	0.21	0.14	●	0.00	0.00	0.00
Passenger Accidents per 100,000 Boardings	0.002	0.002	0.004	0.000	0.000	●	0.000	0.000	0.000
Complaints per 100,000 Boardings	0.54	0.57	1.19	0.55	1.09	●	1.25	1.04	0.64
New Workers' Compensation Indemnity Claims per	6.20	16.43	12.68	10.42	13.08	●	10.87	28.43	11.05
*Lost Work Days per 200,000 Exposure Hours	649	526	992	450	1,192	●	1,902	554	-
*OSHA Injuries per 200,000 Exposure Hours	3.54	7.99	7.52	6.00	4.50	●	5.44	5.69	-

Green Line									
On-Time Pullouts	99.32%	99.49%	99.69%	99.50%	99.44%	●	98.58%	100.00%	98.88%
Mean Miles Between Chargeable Mechanical Failures ³	21,054	19,238	16,375	23,220	18,820	●	14,909	32,871	14,807
In-Service On-time Performance	97.39%	98.52%	98.69%	98.80%	98.47%	●	98.22%	99.00%	96.10%
Service Delivery Ratio	99.50%	99.59%	99.61%	99.00%	99.24%	●	99.12%	99.46%	97.73%
Traffic Accidents Per 100,000 Train Miles	0.21	0.42	0.48	0.48	0.41	●	0.00	0.00	0.00
CPUC Reportable Accidents per 100,000 Train Miles	0.07	0.07	0.07	0.40	0.00	●	0.00	0.00	0.00
Passenger Accidents per 100,000 Boardings	0.024	0.034	0.048	0.010	0.000	●	0.000	0.000	0.000
Complaints per 100,000 Boardings	0.89	1.54	2.08	1.27	1.65	●	1.59	0.83	1.71
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours	7.32	7.18	9.14	10.42	12.67	●	18.01	18.53	0.00
*Lost Work Days per 200,000 Exposure Hours	479	228	712	450	932	●	1,019	959	-
*OSHA Injuries per 200,000 Exposure Hours	4.07	3.19	6.65	6.00	13.37	●	18.01	18.53	-

Gold Line									
On-Time Pullouts	99.98%	99.68%	99.82%	99.50%	99.90%	●	100.00%	99.62%	99.74%
Mean Miles Between Chargeable Mechanical Failures ³	44,171	40,426	38,427	60,252	35,050	●	37,707	31,821	33,910
In-Service On-time Performance	98.56%	97.60%	97.61%	98.80%	98.83%	●	97.76%	99.05%	99.28%
Service Delivery Ratio	99.34%	99.11%	98.88%	99.00%	99.12%	●	98.37%	99.20%	99.33%
Traffic Accidents Per 100,000 Train Miles	1.14	0.99	0.61	0.61	0.43	●	0.43	0.00	0.43
CPUC Reportable Accidents per 100,000 Train Miles	0.30	0.60	0.25	0.40	0.29	●	0.43	0.00	0.43
Passenger Accidents per 100,000 Boardings	0.007	0.039	0.030	0.010	0.084	●	0.000	0.000	0.302
Complaints per 100,000 Boardings	1.01	2.73	2.78	2.22	2.33	●	2.32	3.53	2.49
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours	15.96	11.87	14.31	10.42	12.20	●	15.91	5.61	5.81
*Lost Work Days per 200,000 Exposure Hours	1,068	766	1,055	450	1,087	●	1,001	1,731	-
*OSHA Injuries per 200,000 Exposure Hours	3.83	9.29	9.69	6.00	10.07	●	10.60	0.00	-

Expo Line									
On-Time Pullouts	-	99.53%	98.76%	99.50%	99.73%	●	100.00%	99.41%	99.84%
Mean Miles Between Chargeable Mechanical Failures ³	-	18,114	33,402	22,825	40,463	●	46,590	120,115	59,466
In-Service On-time Performance	99.14%	98.61%	98.48%	98.80%	98.57%	●	96.63%	99.12%	99.46%
Service Delivery Ratio	99.64%	99.56%	99.46%	99.00%	99.50%	●	99.29%	99.57%	99.75%
Traffic Accidents Per 100,000 Train Miles	1.02	0.74	1.26	1.26	2.15	●	5.52	1.63	1.65
CPUC Reportable Accidents per 100,000 Train Miles	1.02	0.50	0.63	0.40	1.74	●	4.73	1.63	0.82
Passenger Accidents per 100,000 Boardings	0.000	0.019	0.018	0.010	0.010	●	0.000	0.063	0.000
Complaints per 100,000 Boardings	1.12	3.38	3.68	1.83	2.36	●	2.51	2.33	2.00
New Workers' Compensation Indemnity Claims per	24.97	8.44	19.26	10.42	16.56	●	36.88	30.51	0.00
*Lost Work Days per 200,000 Exposure Hours	937	73	887	450	849	●	743	1,437	-
*OSHA Injuries per 200,000 Exposure Hours	-	5.63	16.60	6.00	13.63	●	44.25	7.63	-

* 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.

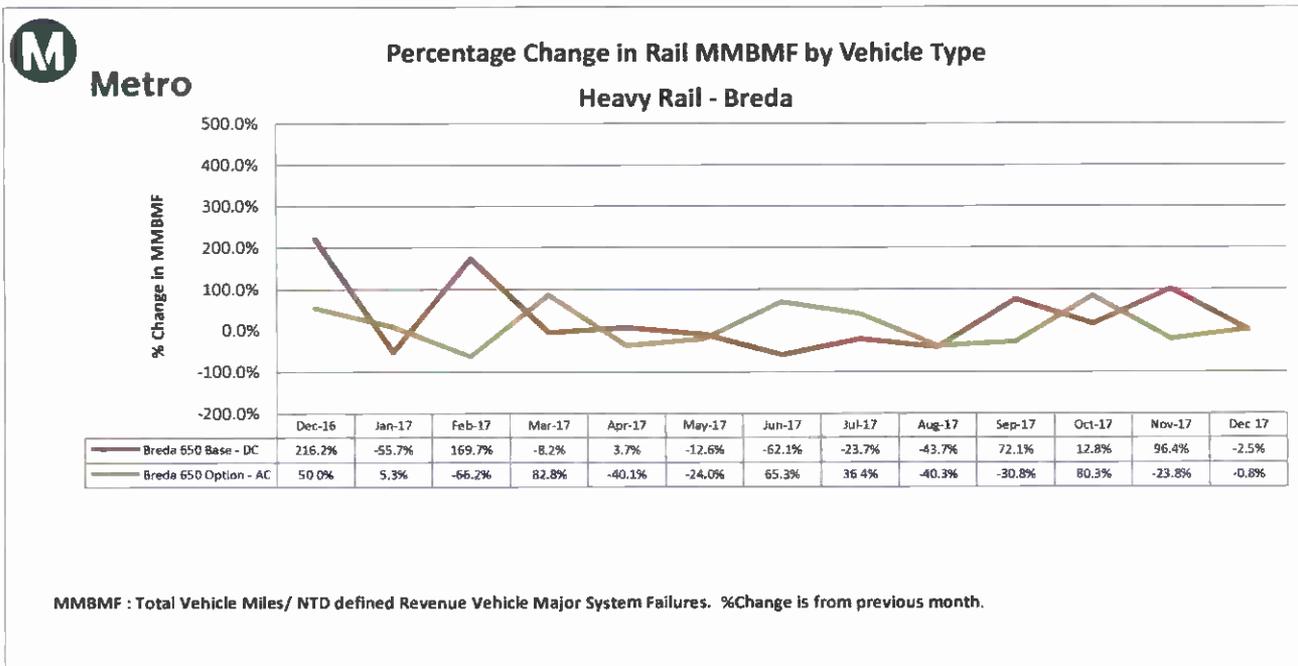
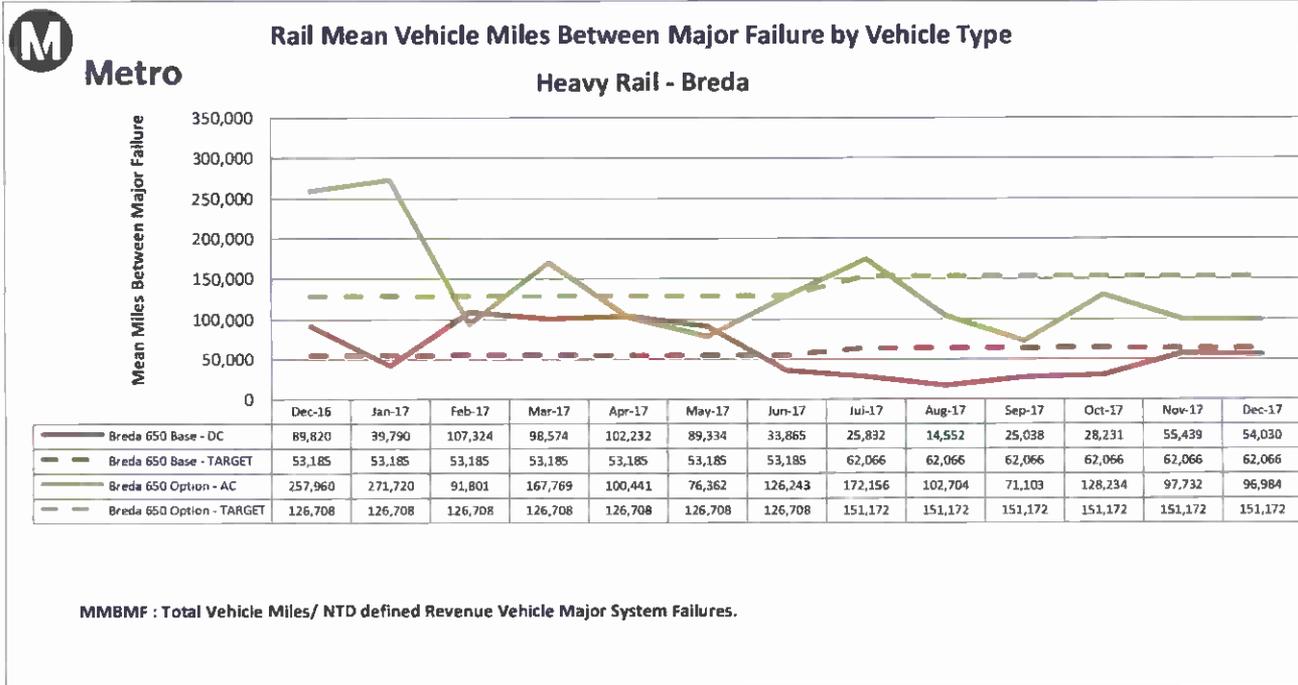
○ Yellow - Uncertain if the target will be achieved – slight problems, delays or management issues. Falls below Target 70 - 99%.

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

N/A = Not Available

METRO RAIL PERFORMANCE – DECEMBER 2017

Rail Performance by Vehicle Type



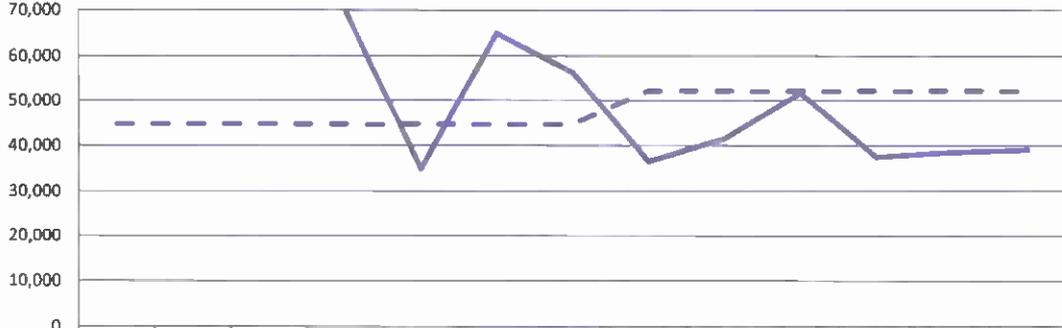


Metro

Rail Mean Vehicle Miles Between Major Failure by Vehicle Type

Light Rail - Breda

Mean Miles Between Major Failure



	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
AnsaldoBreda 2550 Base - AC	71,550	92,980	110,322	70,117	34,678	64,769	56,193	36,347	41,380	51,475	37,331	38,376	38,933
AnsaldoBreda 2550 Base - TARGET	44,517	44,517	44,517	44,517	44,517	44,517	44,517	51,977	51,977	51,977	51,977	51,977	51,977

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

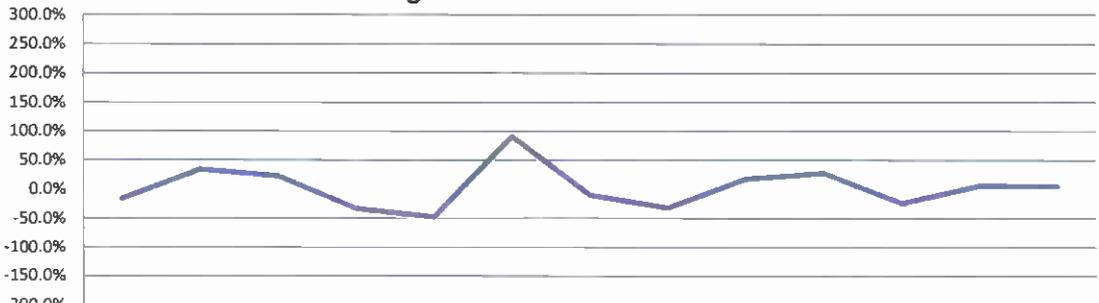


Metro

Percentage Change in Rail MMBMF by Vehicle Type

Light Rail - Breda

% Change in MMBMF



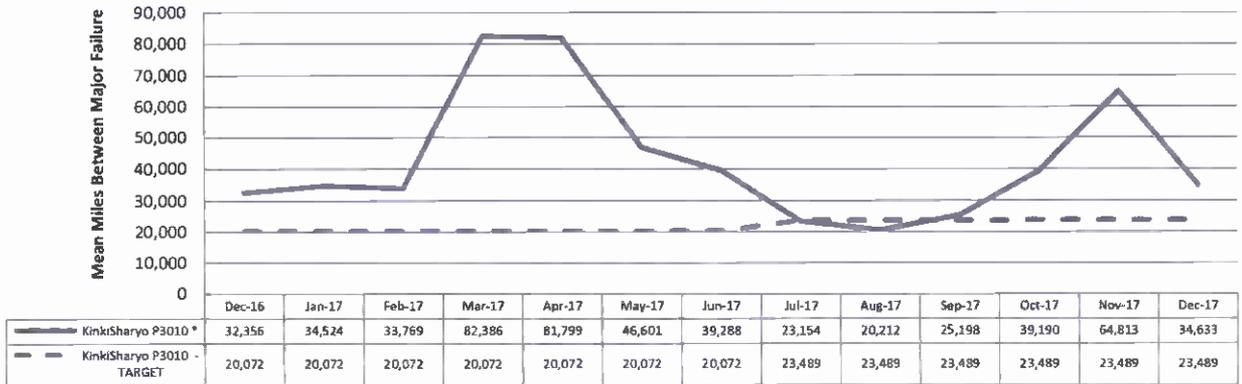
	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
AnsaldoBreda 2550 Base - AC	-19.5%	30.0%	18.7%	-36.4%	-50.5%	86.8%	-13.2%	-35.3%	13.8%	24.4%	-27.5%	2.8%	1.5%

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

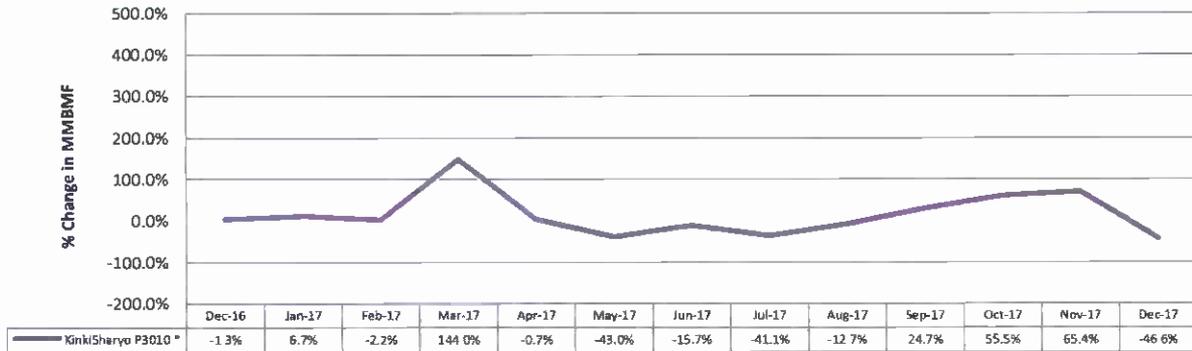


MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures.



Metro

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



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

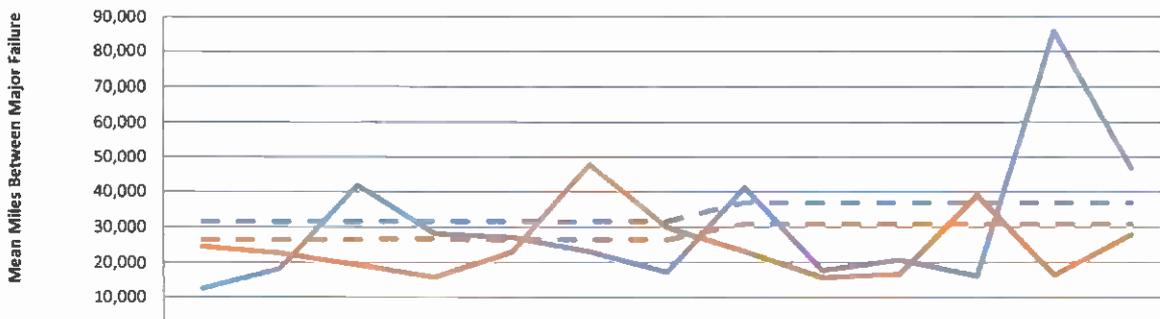
* KinkiSharyo rolling stock began service March 2016



Metro

Rail Mean Vehicle Miles Between Major Failure by Vehicle Type

Light Rail - NipponSharyo



	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
Nippon Sharyo 2020 - DC	12,147	17,872	41,450	27,775	26,695	22,633	16,760	40,831	17,363	20,372	15,702	85,687	46,539
Nippon Sharyo 2020 - TARGET	31,214	31,214	31,214	31,214	31,214	31,214	31,214	36,599	36,599	36,599	36,599	36,599	36,599
Nippon Sharyo 865 - DC	24,169	22,332	18,926	15,391	22,627	47,430	29,410	22,726	15,293	16,248	38,579	16,002	27,553
Nippon Sharyo 865 - TARGET	26,062	26,062	26,062	26,062	26,062	26,062	26,062	30,478	30,478	30,478	30,478	30,478	30,478

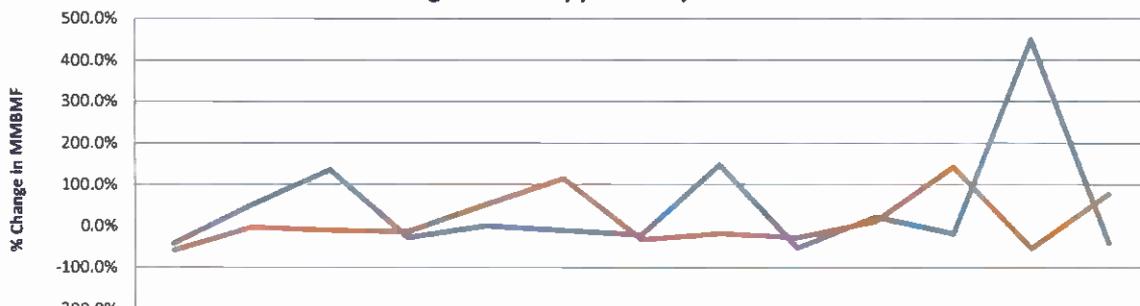
MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures.



Metro

Percentage Change in Rail MMBMF by Vehicle Type

Light Rail - NipponSharyo



	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
Nippon Sharyo 2020 - DC	-46.3%	47.1%	131.9%	-33.0%	-3.9%	-15.2%	-25.9%	143.6%	-57.5%	17.3%	-22.9%	445.7%	-45.7%
Nippon Sharyo 865 - DC	-63.2%	-7.6%	-15.3%	-18.7%	47.0%	109.6%	-38.0%	-22.7%	-32.7%	6.2%	137.4%	-58.5%	72.2%

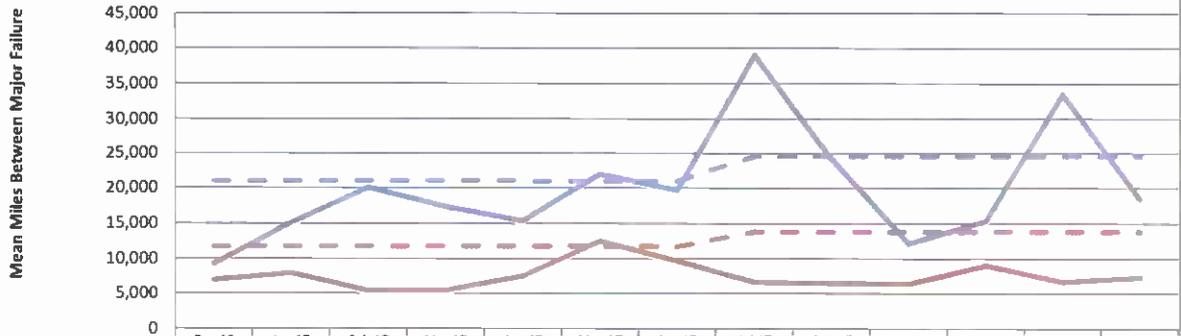
MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures. %Change is from previous month.



Metro

Rail Mean Vehicle Miles Between Major Failure by Vehicle Type

Light Rail - Siemens



	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
Siemens 2000 Base - AC	9,073	14,888	19,848	17,159	15,154	21,822	19,462	38,847	23,981	11,972	15,109	33,352	18,247
Siemens 2000 Base - TARGET	20,778	20,778	20,778	20,778	20,778	20,778	20,778	24,373	24,373	24,373	24,373	24,373	24,373
Siemens 2000 GE/ATP - AC	6,716	7,700	5,125	5,161	7,257	12,322	9,443	6,369	6,238	6,121	8,769	6,445	7,074
Siemens 2000 GE/ATP - TARGET	11,559	11,559	11,559	11,559	11,559	11,559	11,559	13,620	13,620	13,620	13,620	13,620	13,620

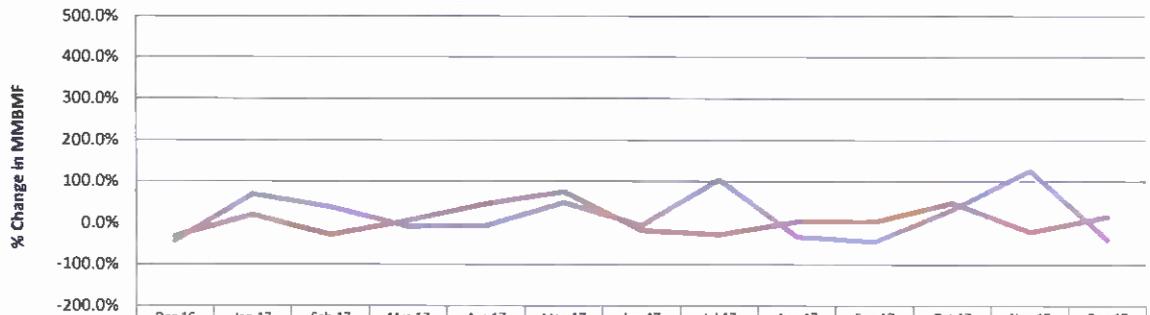
MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures.



Metro

Percentage Change in Rail MMBMF by Vehicle Type

Light Rail - Siemens



	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
Siemens 2000 Base - AC	-47.6%	64.1%	33.3%	-13.6%	11.7%	44.0%	-10.8%	99.6%	-38.3%	-50.1%	26.2%	120.7%	-45.3%
Siemens 2000 GE/ATP - AC	-36.6%	14.7%	-33.4%	0.7%	40.6%	69.8%	-23.4%	-32.5%	-2.1%	-1.9%	43.3%	-26.5%	9.8%

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

Mean Miles Between Major Failures

	FY 2017	FY 2018 Goal	FY 2018 YTD
AnsaldoBreda2550Base - AC	51,977	51,977	40,076
Breda 650 Base - DC	68,962	62,066	27,705
Breda 650 Option - AC	123,655	151,172	103,939
Kinkisharyo P3010	35,818	23,489	30,496
Nippon Sharyo 2020 - DC	19,963	36,599	26,147
Nippon Sharyo 865 - DC	23,455	30,478	20,479
Siemens 2000 Base - AC	16,738	24,373	19,922
Siemens 2000 GE/ATP - AC	7,988	13,620	6,714

Rail Fleet Distribution – DECEMBER 2017

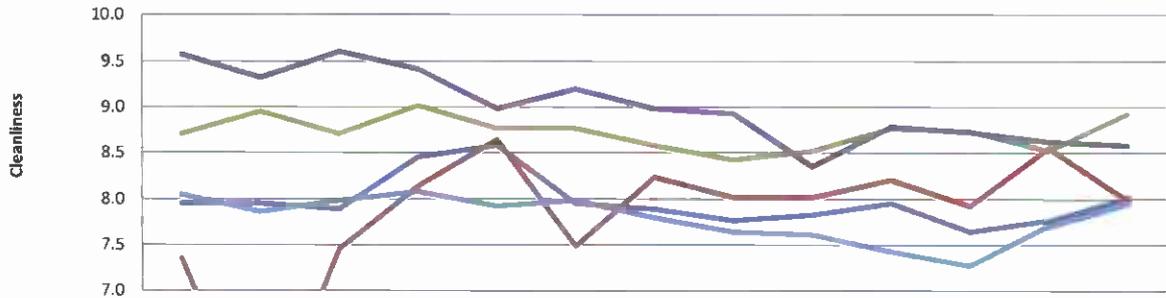
Number of Rail Vehicle Type by Division	Blue	Red / Purple	Green	Gold	Expo
AnsaldoBreda 2550 Base - AC				50	
Breda 650 Base - DC		30			
Breda 650 Option - AC		68			
KinkiSharyo P3010	21		9	17	55
Nippon Sharyo 2020 - DC	15				
Nippon Sharyo 865 - DC	31				
Siemens 2000 Base - AC	23				
Siemens 2000 GE/ATP - AC			29		
TOTALS	90	98	38	67	55

Cleanliness by Vehicle Type



Metro

Rail Cleanliness by General Vehicle Type

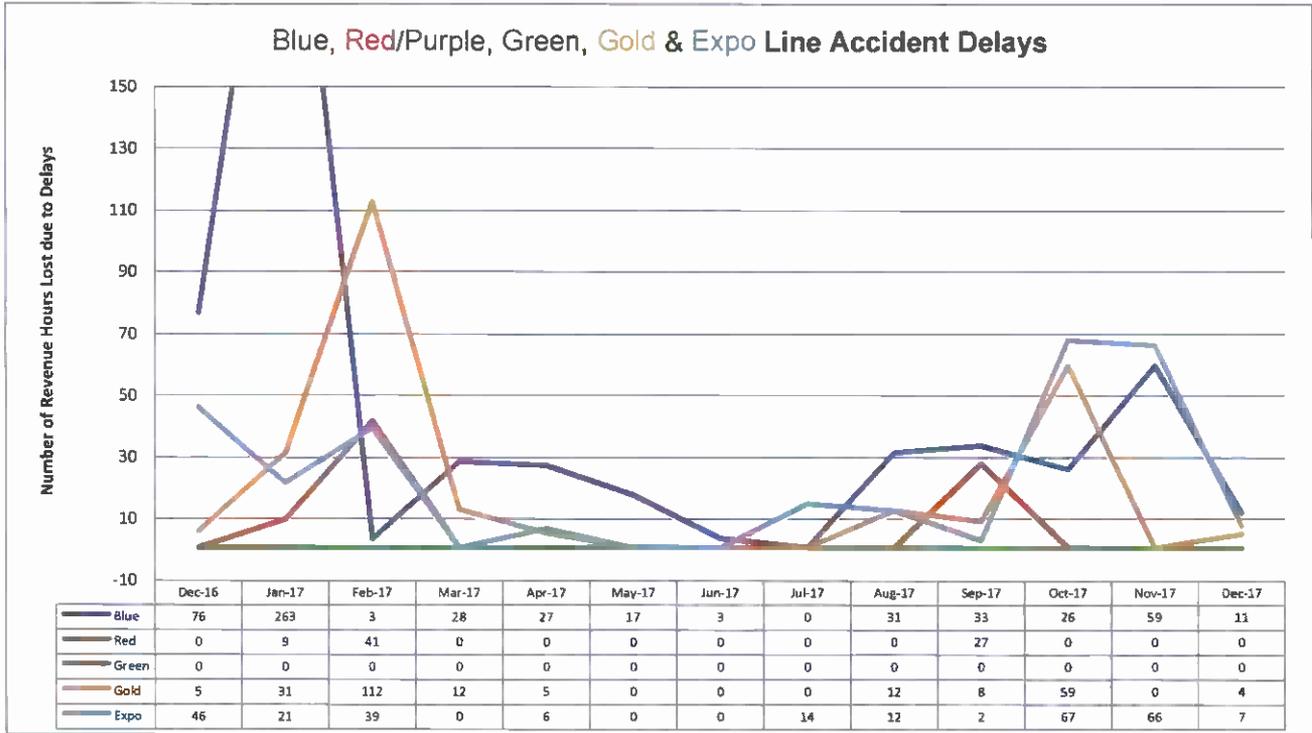


	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
A650	7.9	7.9	7.9	8.4	8.6	7.9	7.9	7.8	7.8	7.9	7.6	7.8	8.0
P2000	7.3	5.3	7.4	8.1	8.6	7.5	8.2	8.0	8.0	8.2	7.9	8.5	8.0
P2550	8.7	8.9	8.7	9.0	8.8	8.8	8.6	8.4	8.5	8.8	8.7	8.5	8.9
P3010	9.6	9.3	9.6	9.4	9.0	9.2	9.0	8.9	8.3	8.8	8.7	8.6	8.6
P865/P2020	8.0	7.8	8.0	8.1	7.9	8.0	7.8	7.6	7.6	7.4	7.3	7.7	7.9

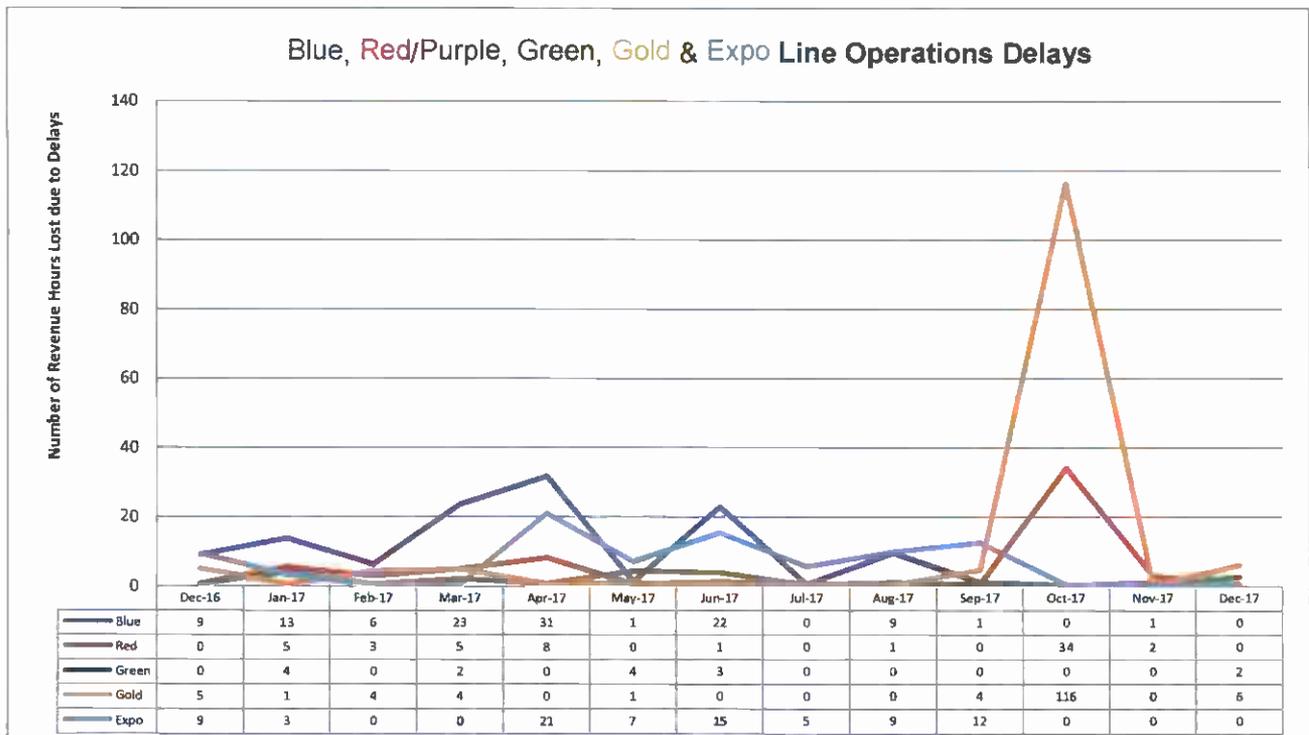
Note: Data Collection Began September 2016

RAIL DELAYS BY CATEGORY - SYSTEMWIDE

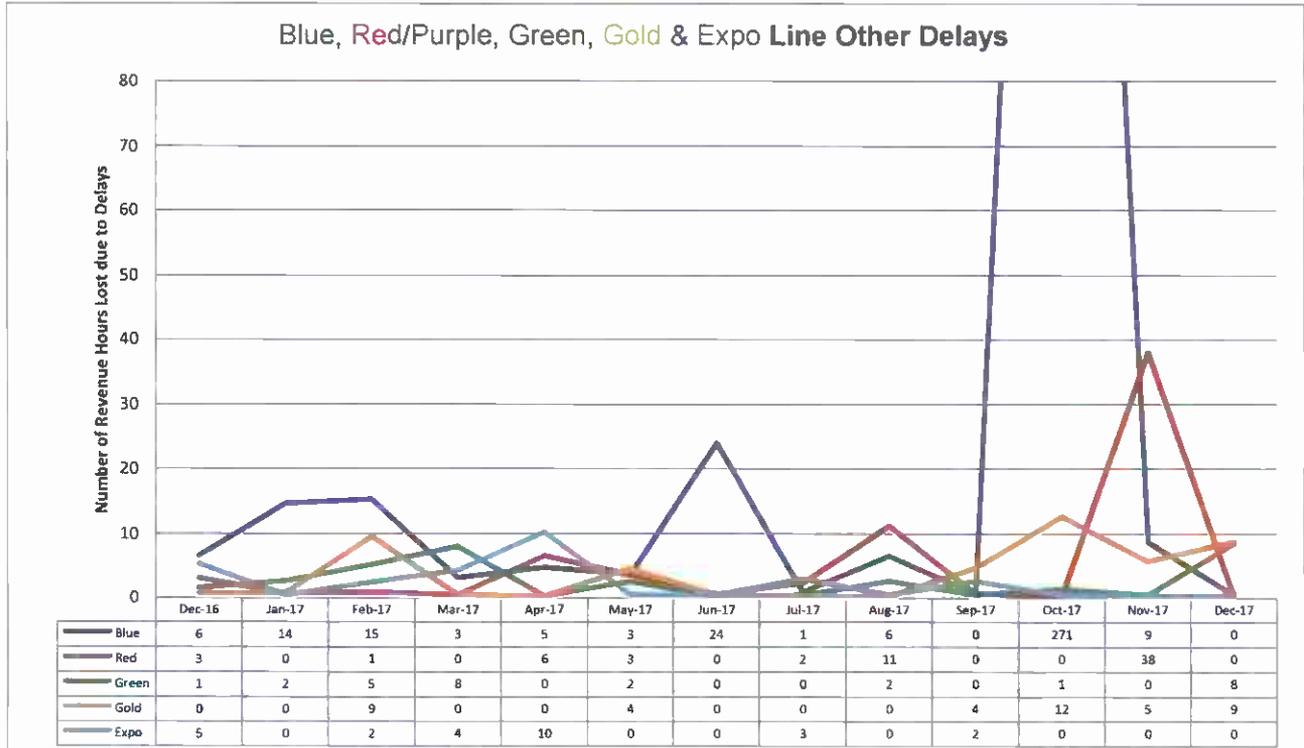
Revenue Hours Lost Related to - ACCIDENTS



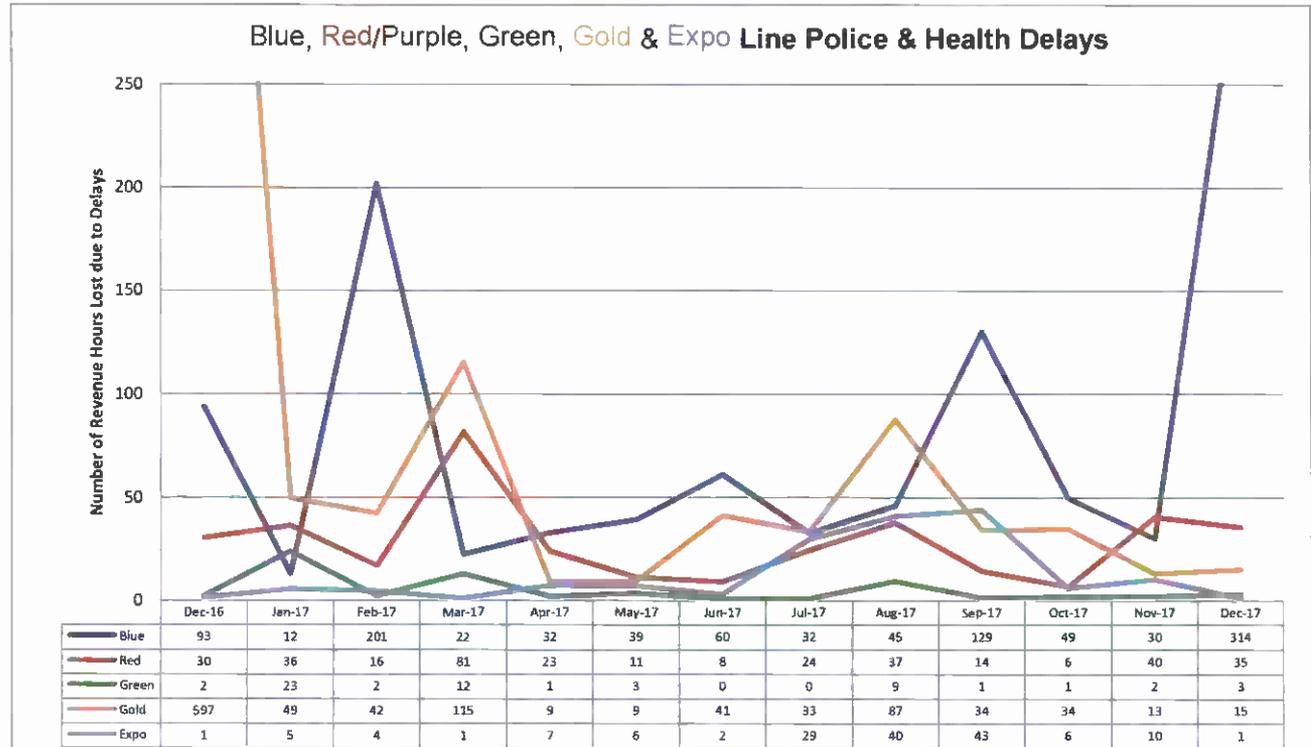
Revenue Hours Lost Related to - OPERATIONS



Revenue Hours Lost Related to - OTHER

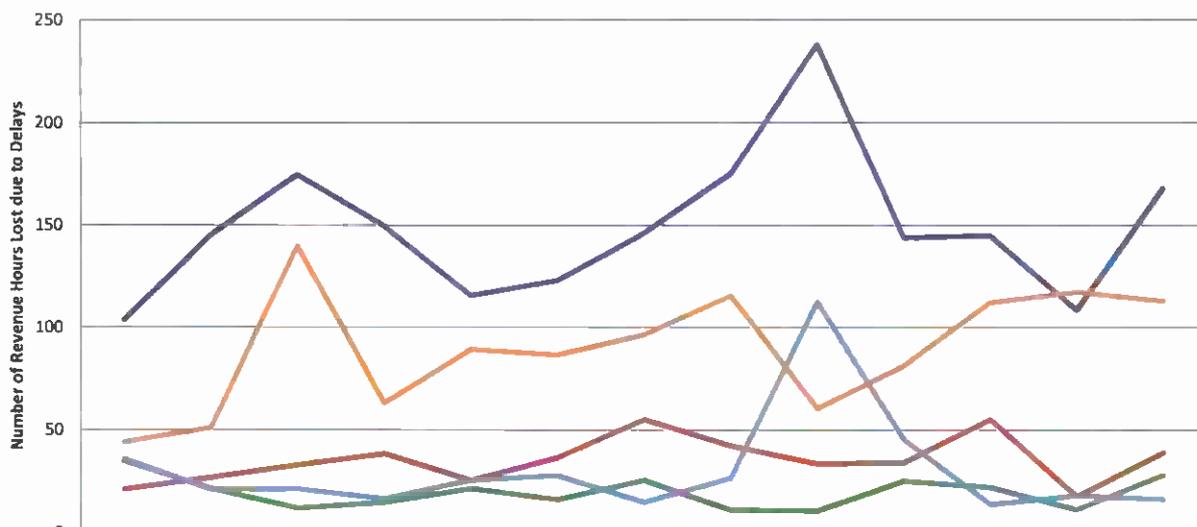


Revenue Hours Lost Related to - POLICE & HEALTH



Revenue Hours Lost Related to - Vehicle Delays

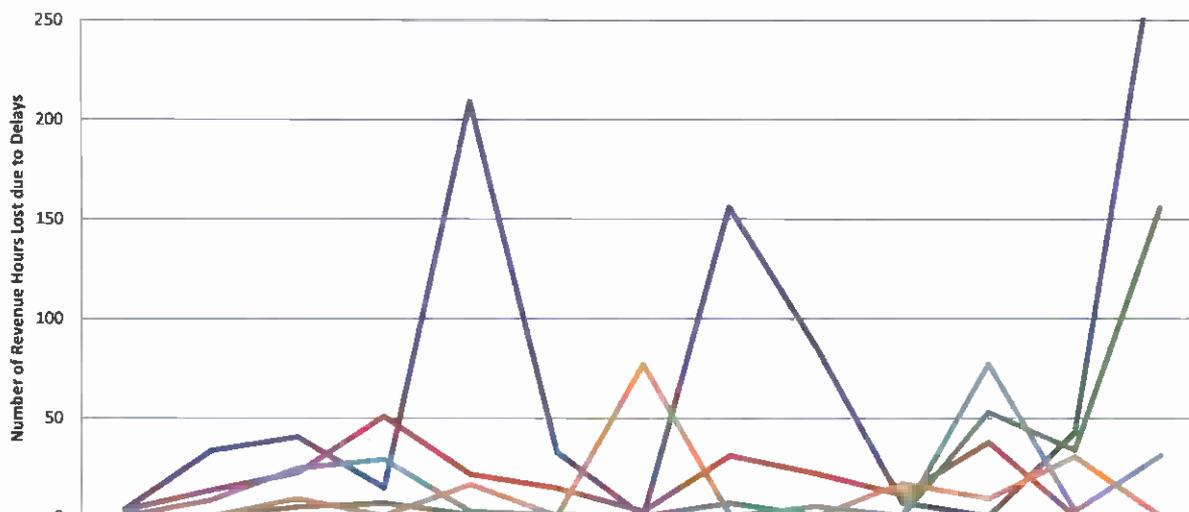
Blue, Red/Purple, Green, Gold & Expo Line Vehicle Delays



	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
Blue	109	145	174	149	115	122	145	174	237	143	145	108	167
Red	20	26	32	38	25	36	54	41	33	33	54	17	38
Green	34	21	11	14	21	15	25	10	10	24	21	11	27
Gold	43	50	139	63	89	86	96	115	60	81	111	117	112
Expo	35	21	21	16	25	27	14	26	112	44	13	17	16

Revenue Hours Lost Related to - WAYSIDE

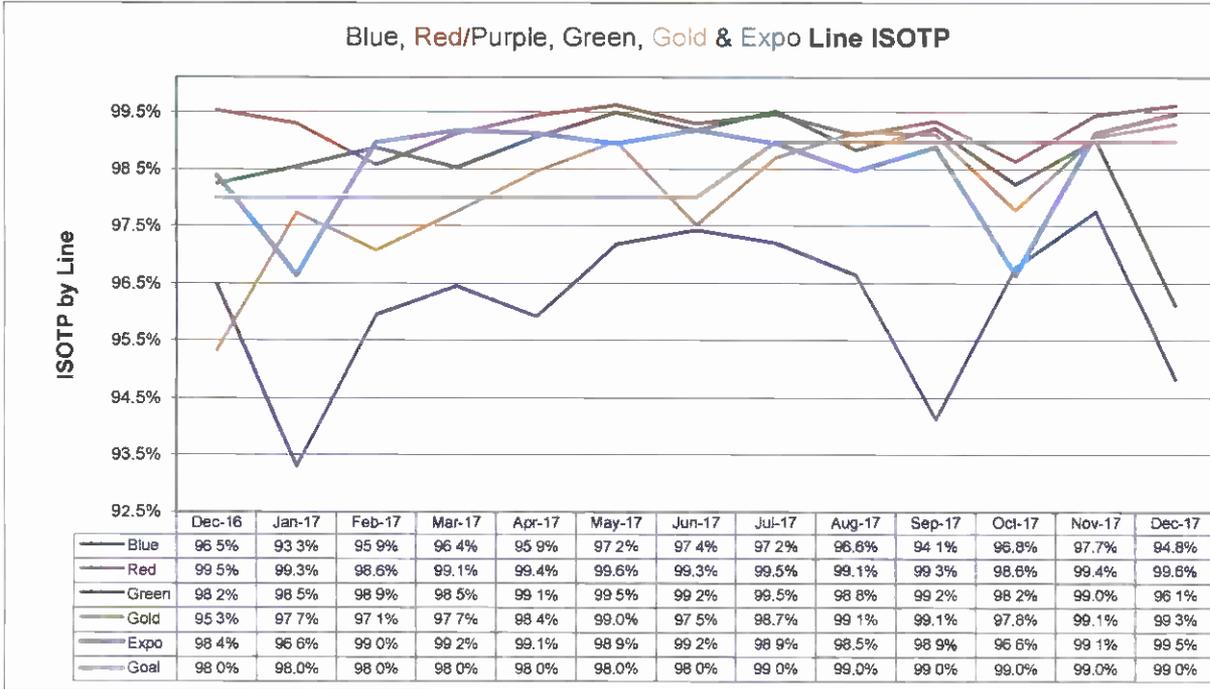
Blue, Red/Purple, Green, Gold & Expo Line Wayside Delays



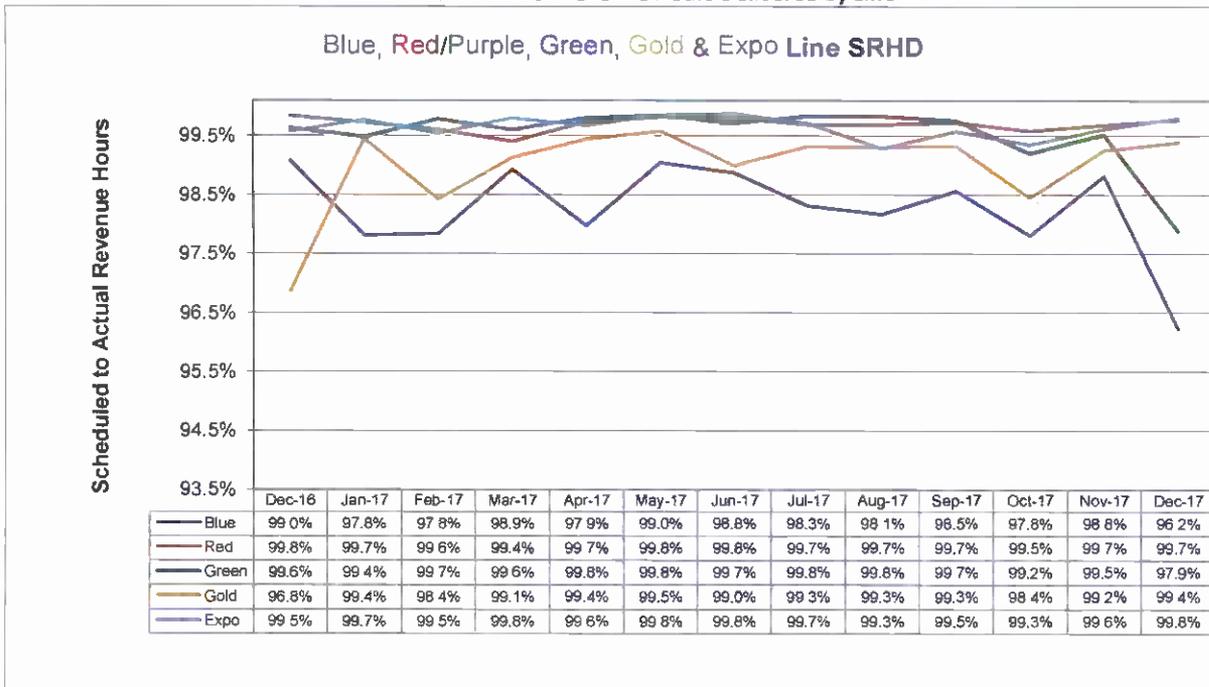
	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
Blue	4	33	40	14	208	32	0	155	85	7	0	42	299
Red	3	13	22	50	21	14	3	30	21	11	37	0	0
Green	1	0	5	7	1	0	0	7	0	0	52	33	155
Gold	1	0	9	0	16	0	76	1	0	17	9	30	0
Expo	0	8	24	28	2	1	0	0	5	0	76	3	31

Rail Service Performance

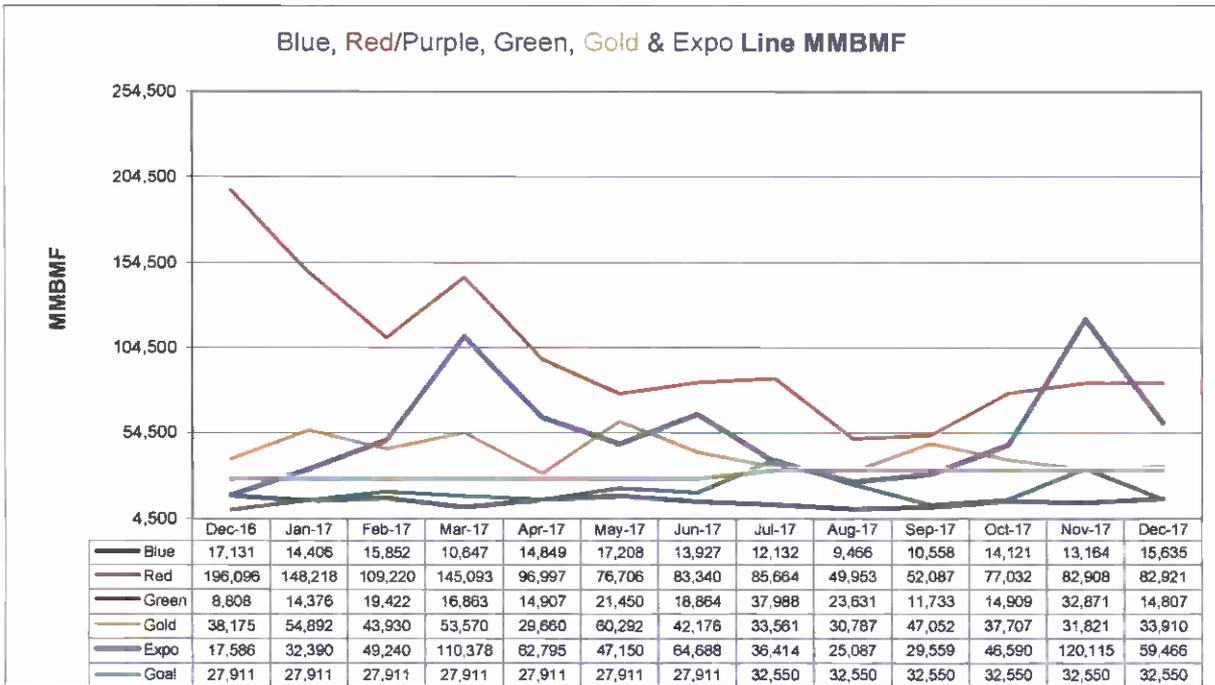
In Service On Time Performance by Line



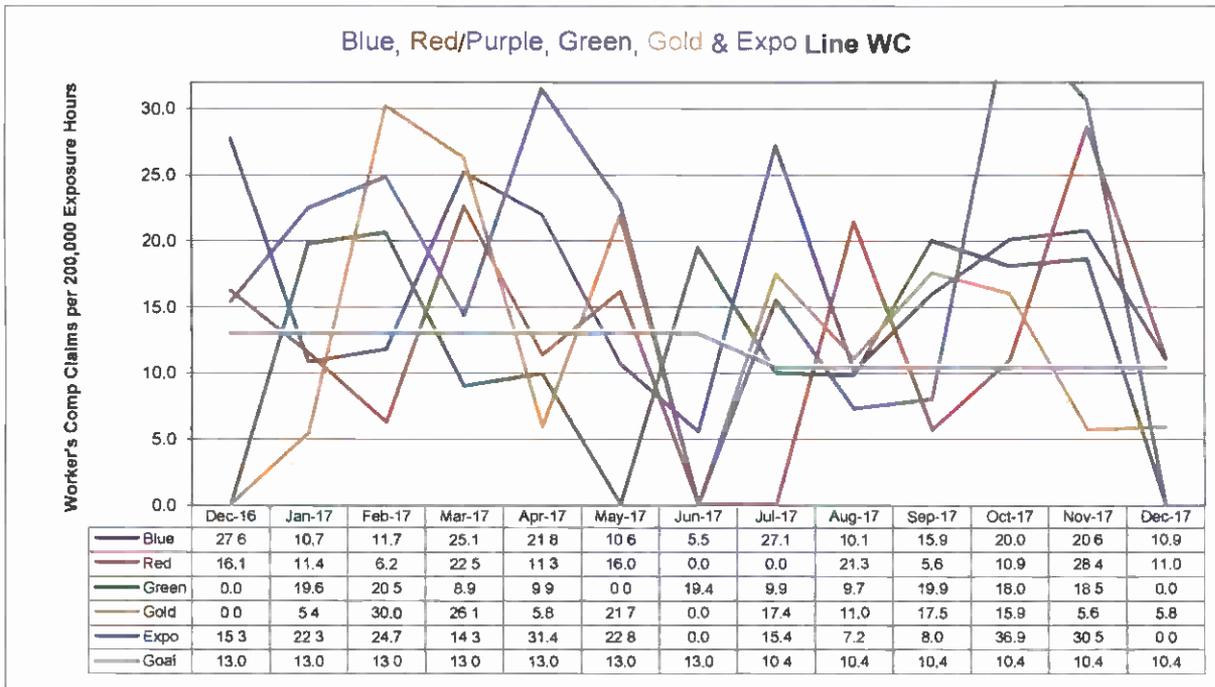
Ratio of Scheduled to Revenue Hours Delivered by Line



Mean Miles Between Mechanical Failures by Line

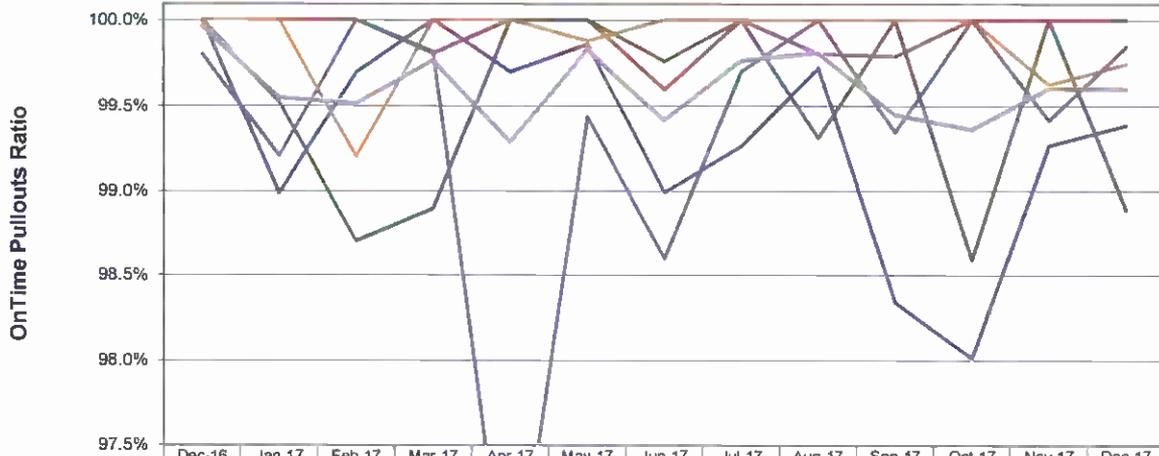


Workers Comp Claims by Line



On-Time Pullouts Ratio by Line

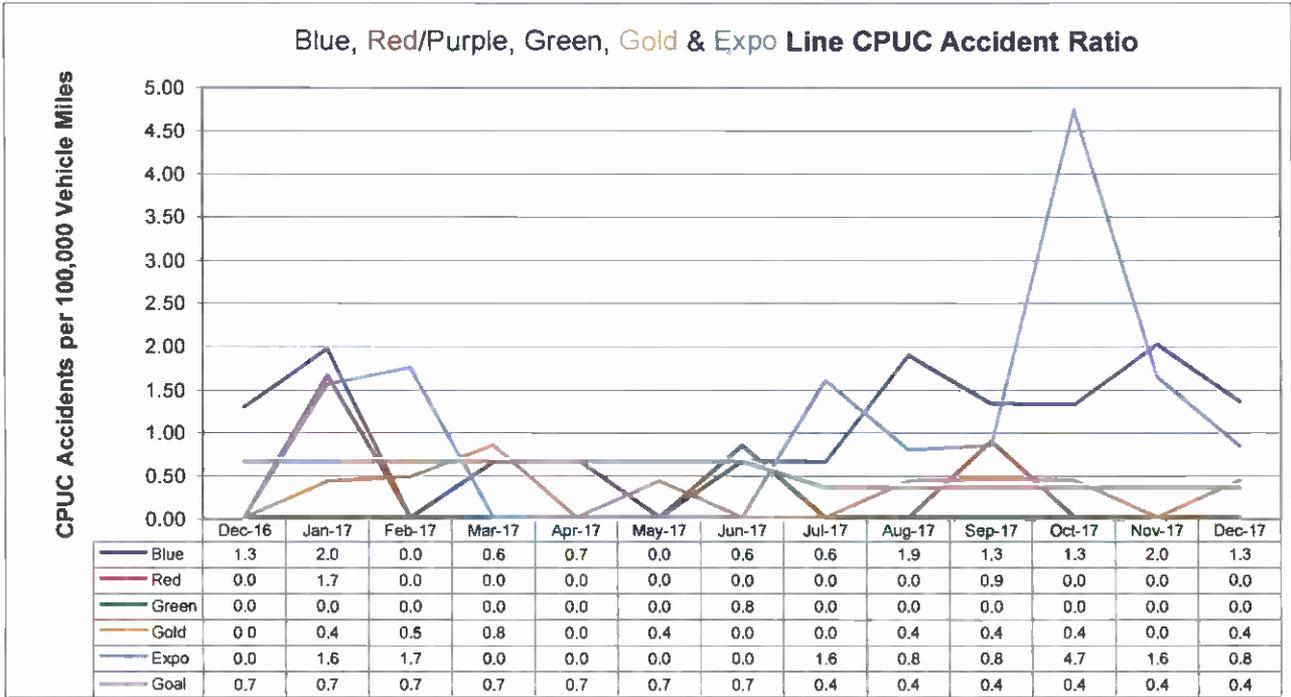
Blue, Red/Purple, Green, Gold & Expo Line OTP



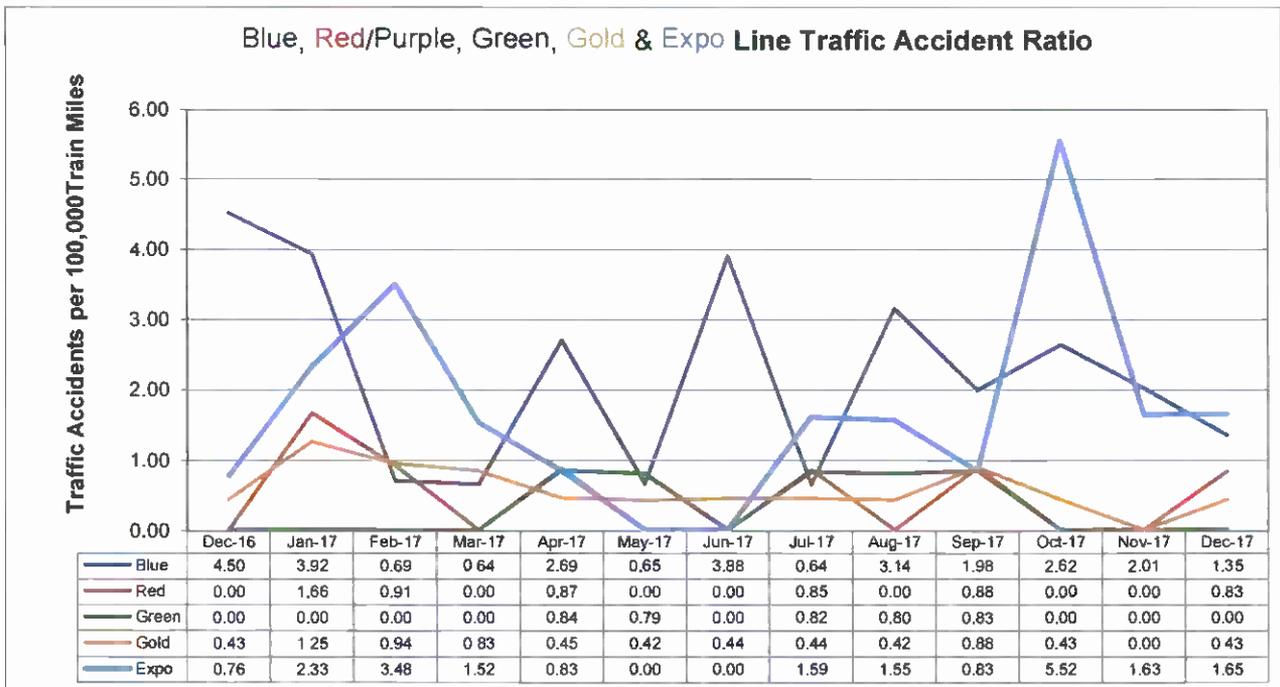
	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
Blue	100.0%	99.0%	99.7%	100.0%	99.7%	99.9%	99.0%	99.3%	99.7%	98.3%	98.0%	98.3%	99.4%
Red	100.0%	100.0%	100.0%	99.8%	100.0%	100.0%	99.6%	100.0%	99.8%	99.6%	100.0%	100.0%	100.0%
Green	100.0%	99.5%	98.7%	98.9%	100.0%	100.0%	99.8%	100.0%	99.3%	100.0%	98.6%	100.0%	98.9%
Gold	100.0%	100.0%	99.2%	100.0%	100.0%	99.9%	100.0%	100.0%	100.0%	100.0%	100.0%	99.6%	99.7%
Expo	99.8%	99.2%	100.0%	99.8%	96.4%	99.4%	98.6%	99.7%	100.0%	99.3%	100.0%	99.4%	99.8%
Goal	100.0%	99.6%	99.5%	99.8%	99.3%	99.8%	99.4%	99.8%	99.8%	99.4%	99.4%	99.6%	99.6%

Rail Safety Performance

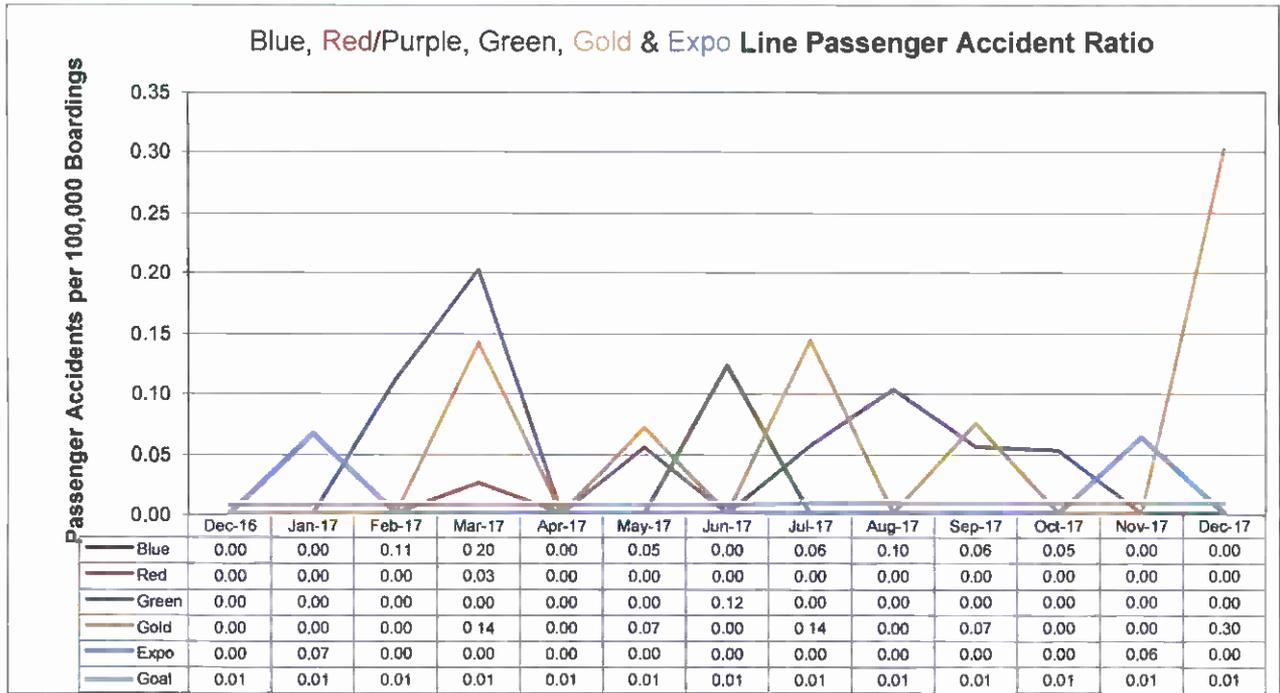
CPUC REPORTABLE ACCIDENTS PER 100,000 TRAIN MILES



TRAFFIC ACCIDENTS PER 100,000 TRAIN MILES

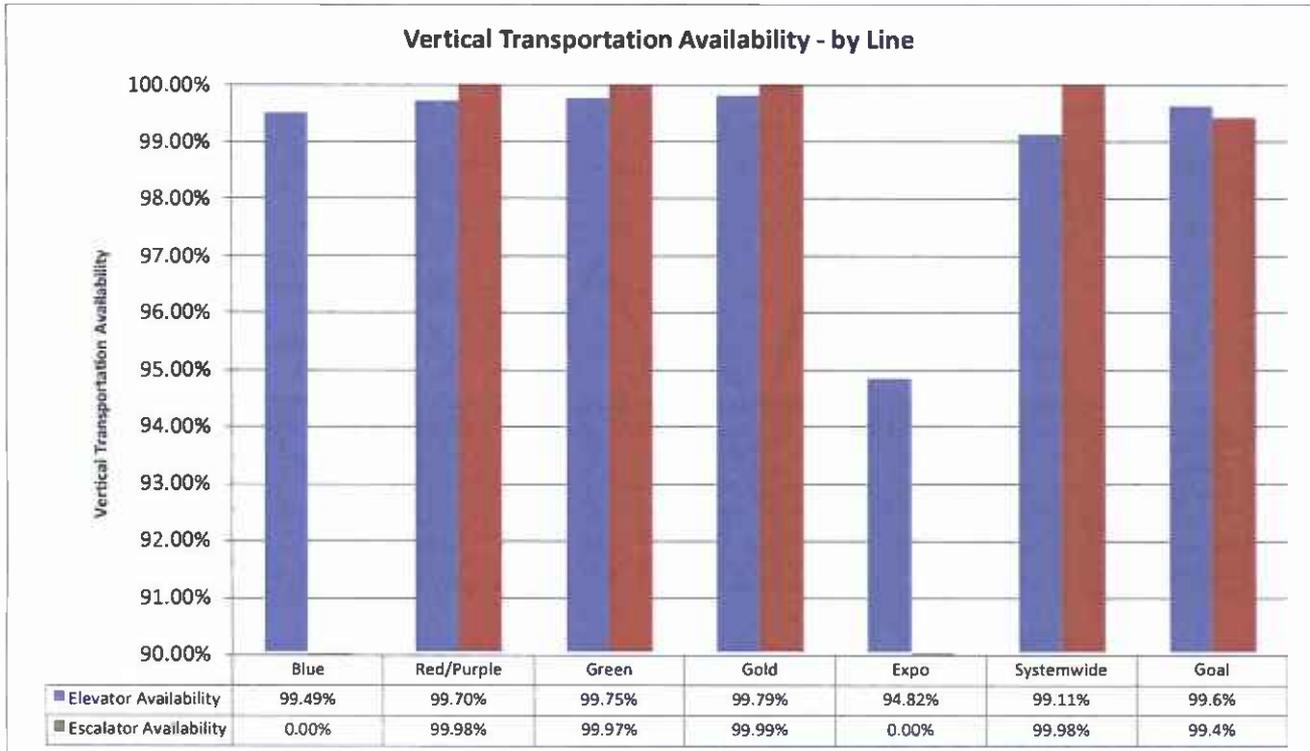


PASSENGER ACCIDENTS PER 100,000 BOARDINGS



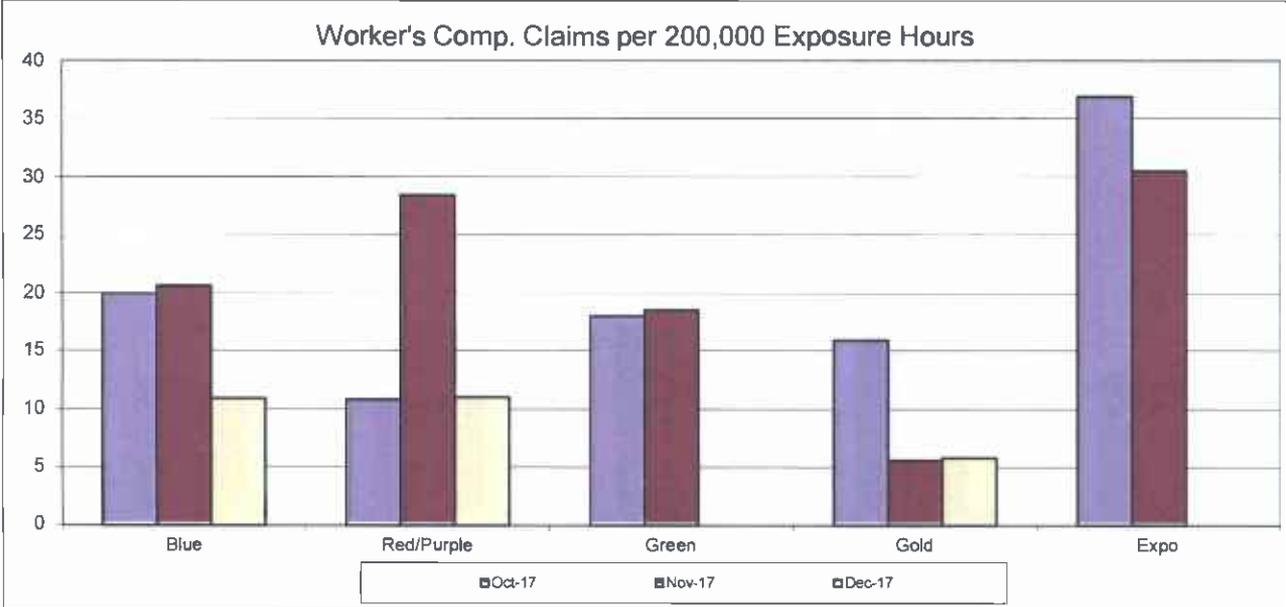
Systemwide Vertical Transportation Availability by Line

Dec 2017

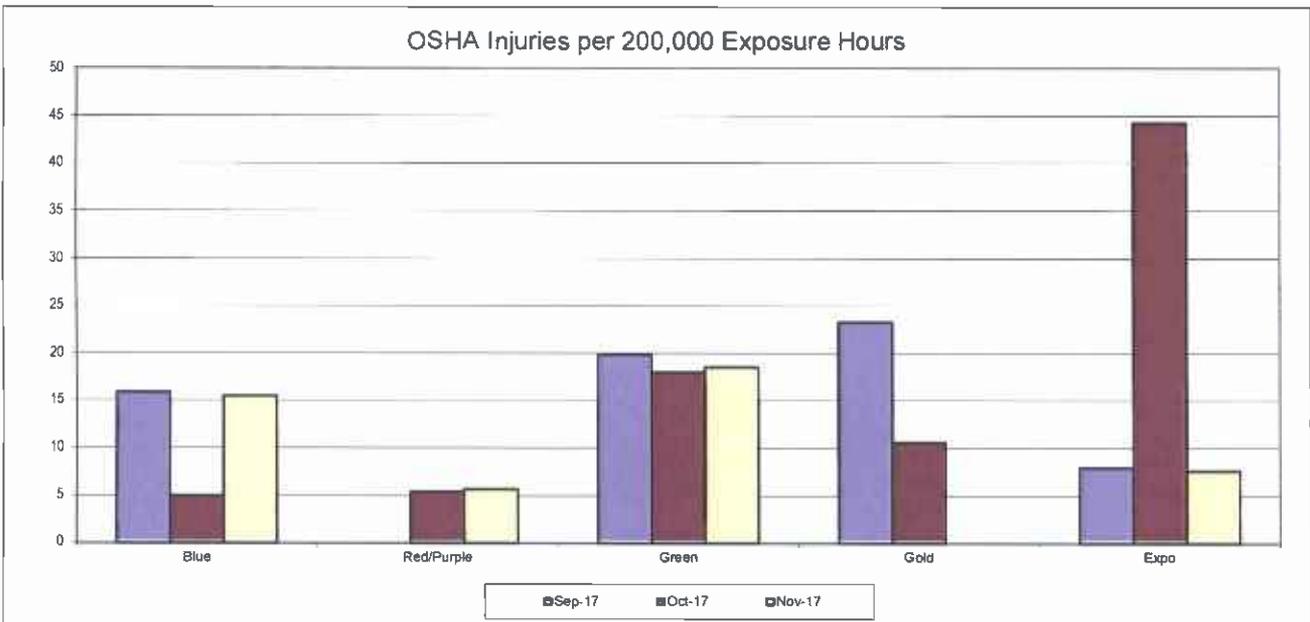
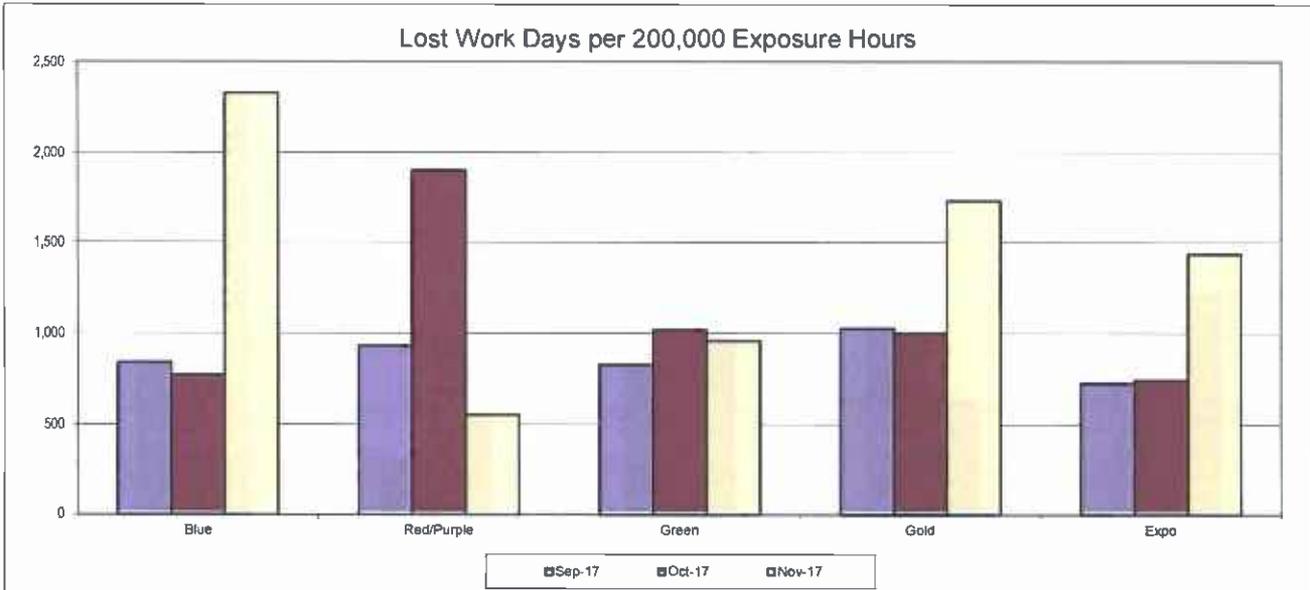


Note: No Escalators at Blue and Expo Lines

Worker's Comp. Claims
Oct 2017 - Dec 2017
3 Month Comparison



Lost Work Days and OSHA Injuries
Sep 2017 - Nov 2017
3 Month Comparison



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

BLUE LINE

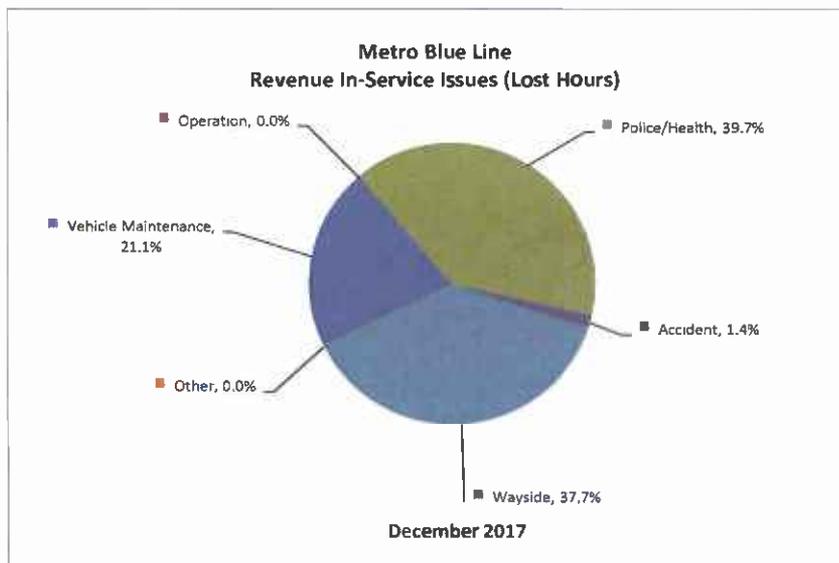
Out of a total of 19,612 hours operated, there were approximately 791 total hours of service delays.

December 2017 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	18,820	96.0%
Cancelled + Delayed Hours	791	4.0%
Total Revenue Hours	19,612	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	1	0.2	0.0%
Accidents	2	11.5	1.4%
Vehicle Maintenance	37	167.1	21.1%
Wayside	6	298.7	37.7%
Police & Health	17	313.8	39.7%
Other	1	0.2	0.0%
Total	64	791.4	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



December 2017 Blue Line incidents causing delay were as follows:

Operations Incidents:

12-12-2017 4:28:00 PM - Incident# 2945363 (0 lost trips, 9 lost minutes)

Operator Late

Train 106

T-069

(121A)-101-158

Southbound, Track 2 Venice interlocking.

Accidents:

12-01-2017 5:42:00 AM - Incident# 2940593 (1 lost trip, 189 lost minutes)

Train 109 reports 10-72 at Compton grade crossing track 1. Operator T-503 with operating car 125A coupled to 155-154. Operator reports an individual walked in front of train as the train was approaching grade crossing.

12-21-2017 4:42:00 PM - Incident# 2949041 (3 lost trips, 499 lost minutes)

Train 111 (230,302,234) T-363, Washington and Maple reports 10-72 minor accident, train occupying crossover. Track 2 available.

Vehicle Maintenance Incidents:

12-01-2017 5:08:00 AM - Incident# 2940588 (0 lost trips, lost minutes)

Train 605 reports propulsion faults

12-03-2017 4:55:00 AM - Incident# 2941260 (0 lost trips, lost minutes)

Late Pullout due to ATP issues

Train 105

T-54

(167)-120-110

Blue Line Yard

12-04-2017 8:42:00 AM - Incident# 2941622 (0 lost trips, 7 lost minutes)

Friction Brakes

(112B)-104-144

Train 113

T-262

Pico, Southbound, Track 2

12-04-2017 8:43:00 AM - Incident# 2942467 (0 lost trips, 7 lost minutes)

No Fault - No Movement (Operator reports brakes not releasing)

(112B)-104-144

T-262

Pico, Northbound, Track 1

12-04-2017 5:47:00 PM - Incident# 2941887 (1 lost trip, 167 lost minutes)

Doors off track unable to move 249-237-301A

Train 103

T-264

Track 1

Northbound

Florence station

12-05-2017 6:33:00 PM - Incident# 2942357 (4 lost trips, 701 lost minutes)

Doors will not close

12-06-2017 6:37:00 AM - Incident# 2942506 (1 lost trip, 180 lost minutes)

Friction Brakes

(237)-240-239

Train 113

T-549

Flower Junction, Northbound, Track 2

12-06-2017 3:01:00 PM - Incident# 2942721 (1 lost trip, 168 lost minutes)

Train 122 had prop faults at yard limits.

T-142

151-113-159

Yard Limits

12-07-2017 5:17:00 AM - Incident# 2942904 (1 lost trip, 175 lost minutes)

friction brakes unable to clear

Train #110 T-035 Car #135B-157-165

Northbound at Del Amo station.

12-07-2017 3:57:00 PM - Incident# 2943357 (1 lost trip, 168 lost minutes)

Train 108 reports No Movement with Propulsion Faults.

Train 108

T-034

LRV'S 130-137-160

south of Wardlow Station, track 1, northbound.

12-08-2017 6:50:00 PM - Incident# 2943904 (1 lost trip, 166 lost minutes)

Train 107 (1074,1092,1098) T-240, 103rd St. Station, track 2 reports speed restriction fault indication with an audible alarm.

12-11-2017 7:39:00 AM - Incident# 2944580 (0 lost trips, 13 lost minutes)

PA/ intercom

(1092)-1089-1096

Train 102

T-201

Vernon, southbound, track 2

12-11-2017 8:36:00 AM - Incident# 2944609 (0 lost trips, 8 lost minutes)

Other Vehicle System (TOD)

(1095a)-1075-1087

Train 107

T-110

Washington, Southbound, Track 2

12-11-2017 5:35:00 PM - Incident# 2944887 (7 lost trips, 1,168 lost minutes)

Train 104 (231, 239,301) T-053, reports passengers report smoke in car 301. NOTE: Incident train initially identified as train 104. However, correct train #103.

12-12-2017 5:53:00 AM - Incident# 2945027 (1 lost trip, 182 lost minutes)

Train 115 reports loss of Cab Signals north of Wardlow Station.

Train 115

T-291

\LRV'S (238A) 234-247

North of Wardlow Station, track 1, northbound.

12-12-2017 7:13:00 AM - Incident# 2945062 (0 lost trips, 7 lost minutes)

Train 112 reporting propulsion faults with a speed restriction.

Train 112

T-415

LRV'S 135-114-140

Transit mall, track 1, Northbound.

12-12-2017 3:23:00 PM - Incident# 2945330 (0 lost trips, 3 lost minutes)

Propulsion / Dynamic Brakes

Train 126

T-240

135-114-140

Southbound, Track 2 Willow station.

12-13-2017 5:20:00 PM - Incident# 2945840 (0 lost trips, 15 lost minutes)

Train 122 (103,158,121) T-291, Willow Station, track 1 reports he placed doors in release due to a door problem.

12-14-2017 5:02:00 AM - Incident# 2945956 (2 lost trips, 337 lost minutes)
Propfault, unable to move more than 5 feet.
Train 105
T-76
(137)-148-102
Washington N/B Track 1
+12

12-14-2017 7:49:00 AM - Incident# 2946049 (0 lost trips, lost minutes)
Propulsion fault reoccurring.
Train 102
T-201
(137)-148-102

12-15-2017 7:25:00 AM - Incident# 2946513 (1 lost trip, 174 lost minutes)
Operator reports propulsion fault with a speed restriction.
Train 113
T-281
Cars (230B)-235-237
Northbound, Track 1, Del Amo Station

12-15-2017 7:39:00 AM - Incident# 2946507 (0 lost trips, 12 lost minutes)
Operator T-231 reports no movement.
Train 105
T-231
Cars 1076-1075-1093
Washington Station, Track 2, Southbound

12-15-2017 7:40:00 AM - Incident# 2946522 (0 lost trips, 12 lost minutes)
Train 118 reports no movement.
Train 118
T-152
Cars 158-160-149
Florence Station, Track 2, Southbound

12-17-2017 4:50:00 AM - Incident# 2947107 (2 lost trips, 241 lost minutes)
Friction Brake fault on 248
Train 108
T-246
234-248
Tk 2 SB Wardlow

12-19-2017 7:03:00 AM - Incident# 2947880 (4 lost trips, 677 lost minutes)
Doors
(238B)-231-241
Train 117
T-292
Pico, Southbound, Track 2

12-19-2017 12:29:00 PM - Incident# 2948054 (1 lost trip, 184 lost minutes)
Doors (Sluggish propulsion, speed restriction, hvac)
244-229-(302)
Train 104
T-187
Wardlow, Southbound, Track 2

12-19-2017 4:23:00 PM - Incident# 2948153 (1 lost trip, 166 lost minutes)
Propulsion / Dynamic Brakes (Very slow).
Train 122
T-291
127-(103)-102
Southbound, Track 2 Florence station.

12-19-2017 9:55:00 PM - Incident# 2948219 (2 lost trips, 333 lost minutes)
Propulsion / Dynamic Brakes Burning brakes (246b)
Train 108
T-307
Cars 247, (246)
SB, Track 2, Wardlow Station

12-20-2017 4:56:00 AM - Incident# 2948275 (0 lost trips, 12 lost minutes)
Other Vehicle System (Spin/Slide)
(249A)-234-237
Train 106
T-125
Imperial, Northbound, Track 1

12-20-2017 2:03:00 PM - Incident# 2948537 (0 lost trips, lost minutes)
Car 137 doors doors open.
Train 109
T-286
164-137-163
Tk 1 Washington NB

12-20-2017 4:28:00 PM - Incident# 2948606 (1 lost trip, 166 lost minutes)
Car 236 propulsion fault
Train 121
T-233
Tk 2 58 Washington
240-236-245

12-20-2017 5:45:00 PM - Incident# 2948643 (2 lost trips, 349 lost minutes)
Artesia Interlocking No Movement
T-307
Train 128
Track 1
Northbound
(247A)-235-246

12-23-2017 1:00:00 PM - Incident# 2949671 (0 lost trips, 5 lost minutes)
Doors 1 and 2 cut-out on LRV 106B
Train 108
T-357
LRV'S 106-101
Pico Station, track 1, northbound.

12-24-2017 12:08:00 PM - Incident# 2949840 (6 lost trips, 697 lost minutes)
Operator reports of no movement
Train 107
T-258
238-244
1st Street station, Trk.1. southbound

12-26-2017 4:51:00 AM - Incident# 2950147 (3 lost trips, 507 lost minutes)
Propulsion / Dynamic Brakes
(135A)-149-157
Train 106
T-125
Compton, Northbound, Track 1

12-26-2017 6:51:00 AM - Incident# 2950250 (1 lost trip, 166 lost minutes)
No Fault - No Movement

12-27-2017 5:23:00 AM - Incident# 2950641 (1 lost trip, 167 lost minutes)
Train 603 reports no cab signals at Del Amo Station track 1.
Operating car 248A with 229 231
Operator T-50.

12-27-2017 6:30:00 AM - Incident# 2950678 (13 lost trips, 2,168 lost minutes)
Train 114 reports no movement with friction brake faults at Pico station track 2.
Cars 246 233 249
Operator T-050

12-27-2017 5:15:00 PM - Incident# 2950932 (2 lost trips, 334 lost minutes)
Prop Fault on car 160
Train 125
T-164
Tk 2 58 103rd
160-120

12-28-2017 5:20:00 AM - Incident# 2951034 (1 lost trip, 167 lost minutes)
Other Vehicle System (Spin/Slide)
(248B)-239-244
Train 601
T-259
Slauson, Northbound, Track 1

12-28-2017 7:04:00 AM - Incident# 2951114 (0 lost trips, 15 lost minutes)
Propulsion / Dynamic Brakes
(1102)-1106-1103
Train 102
T-201
Metro, Southbound, Track 1

Wayside Incidents:

12-09-2017 12:53:00 PM - Incident# 2944135 (5 lost trips, 581 lost minutes)
SCADA ARINC system showed that Willow station de-energized.

12-14-2017 8:42:00 AM - Incident# 2946088 (0 lost trips, 10 lost minutes)
Track Allocation/Work Permit E-S/Traction Power performing OCS repair on track #1, between Artesia signal 15 to Imperial signal #1N.

12-20-2017 5:02:00 AM - Incident# 2948324 (1 lost trip, 172 lost minutes)
Interlocking: Switch 23A Out Of Correspondence Imperial Pocket

12-20-2017 6:07:00 PM - Incident# 2948657 (0 lost trips, 8 lost minutes)
False Overrun Due to RTU Glitch Main yard Interlocking

12-21-2017 7:22:00 AM - Incident# 2948844 (103 lost trips, 17,139 lost minutes)
OCS: Section Insulator Damage
TP-151
9th Street Diamond.

12-22-2017 5:47:00 AM - Incident# 2949211 (0 lost trips, 12 lost minutes)
Switch 23 Out of Correspondence at Willow Interlocking

Police & Health Incidents:

12-03-2017 3:50:00 PM - Incident# 2941366 (90 lost trips, 16,200 lost minutes)
Shooting Compton Station Bus Zone

12-03-2017 6:17:00 PM - Incident# 2941386 (0 lost trips, 10 lost minutes)
Traffic Accident Creating a Blocade Trk 1 21st and Long Beach

12-05-2017 4:30:00 AM - Incident# 2941986 (0 lost trips, 6 lost minutes)
Train #102 R-136 Car # 1076A-1094-1081
Northbound at San Pedro station
reports medical emergency on board,

12-06-2017 2:10:00 AM - Incident# 2942447 (1 lost trip, 168 lost minutes)
Train # 119 turn back from 5th Street Station due to T/A, non Metro vehicle.

12-07-2017 12:22:00 PM - Incident# 2943240 (0 lost trips, 9 lost minutes)
Battery Suspect on board train 117

12-08-2017 8:30:00 AM - Incident# 2943656 (1 lost trip, 173 lost minutes)
Sick Individual at Slauson Station.

12-09-2017 8:29:00 PM - Incident# 2944191 (0 lost trips, lost minutes)
Train 101 (241, 233) T-253, Wardlow Station, track 1 reports male individual stated to him that he was going to put a bomb on the train.

12-10-2017 1:14:00 AM - Incident# 2944244 (0 lost trips, 22 lost minutes)
Train 108 reports a car blocking track 2 at Wilmington Grade Crossing.

12-14-2017 11:32:00 PM - Incident# 2946387 (0 lost trips, 13 lost minutes)
Operartor T-326 reports a female that couldn't breathe.
Train 104
T-326
Cars (114)-112-124
Northbound, Track 1, Willow Station

12-17-2017 12:40:00 PM - Incident# 2947193 (0 lost trips, 10 lost minutes)

Sick patron at Compton station.

12-17-2017 5:50:00 PM - Incident# 2947257 (0 lost trips, 8 lost minutes)
Reported Passenger Disturbance On Board Train

12-18-2017 6:16:00 PM - Incident# 2947727 (5 lost trips, 840 lost minutes)
Male patron complaining of chest pain.

12-19-2017 10:51:00 PM - Incident# 2948245 (0 lost trips, 10 lost minutes)
Blockade at Wilmington on track 2.

12-21-2017 1:06:00 AM - Incident# 2950617 (1 lost trip, 166 lost minutes)

LASD request trains to bypass Del Amo Station due to mentally ill individual threatening Contract Security on the platform.

12-22-2017 5:43:00 PM - Incident# 2949505 (0 lost trips, 8 lost minutes)
Passenger claims another passenger on train 125 stole his cell phone.

12-29-2017 7:05:00 AM - Incident# 2951526 (7 lost trips, 1,174 lost minutes)
Car Blockade on Track 2 at Long Beach/Burnett

12-31-2017 11:25:00 PM - Incident# 2952265 (0 lost trips, 10 lost minutes)
Trespasser on the ROW at the 7th/Metro Station.
T-514
Train #658
Cars(1072)-1021-1068
Northbound Trk#1
Pico Station

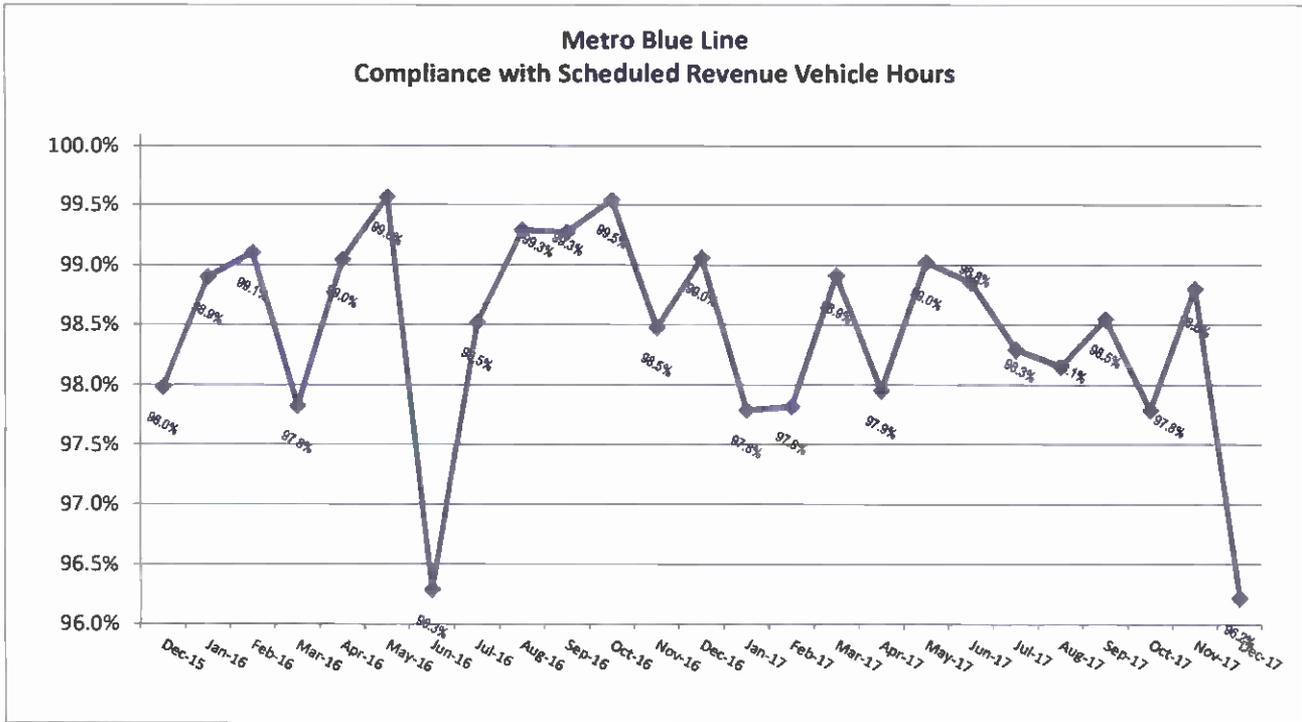
Other Incidents:

12-14-2017 3:18:00 PM - Incident# 2946259 (0 lost trips, lost minutes)
Train 111 (249,240,231) T-353, San Pedro Station, track 2 reports door open indication, no movement.

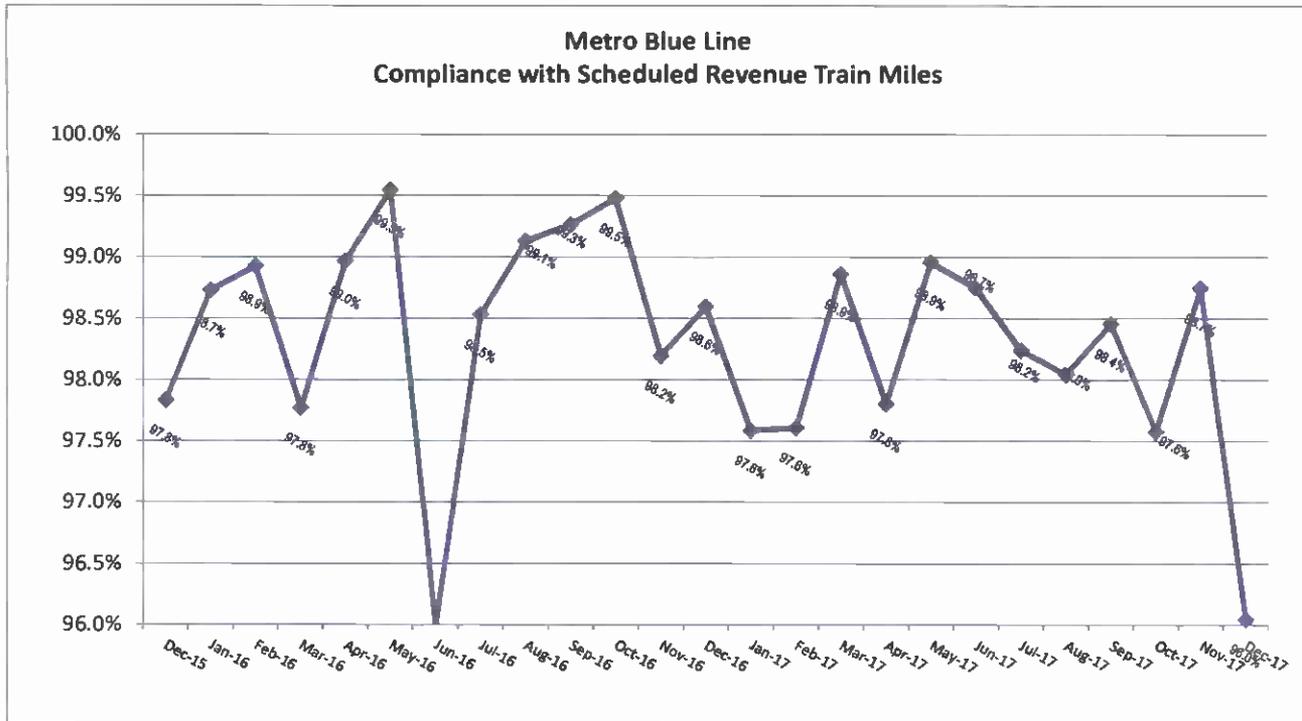
12-30-2017 1:59:00 AM - Incident# 2951851 (0 lost trips, 10 lost minutes)
Brush Fire reported, near sound wall 50 ft from track 2.

MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

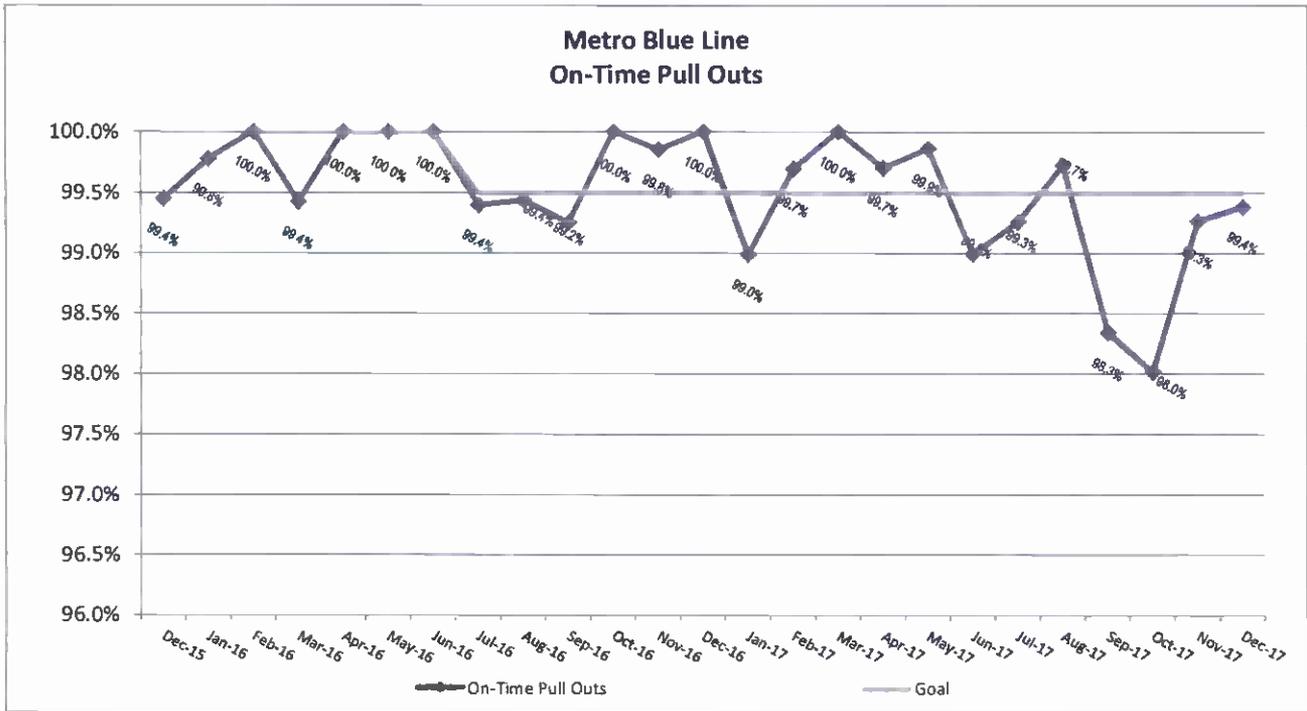
COMPLIANCE WITH SCHEDULED VEHICLE HOURS



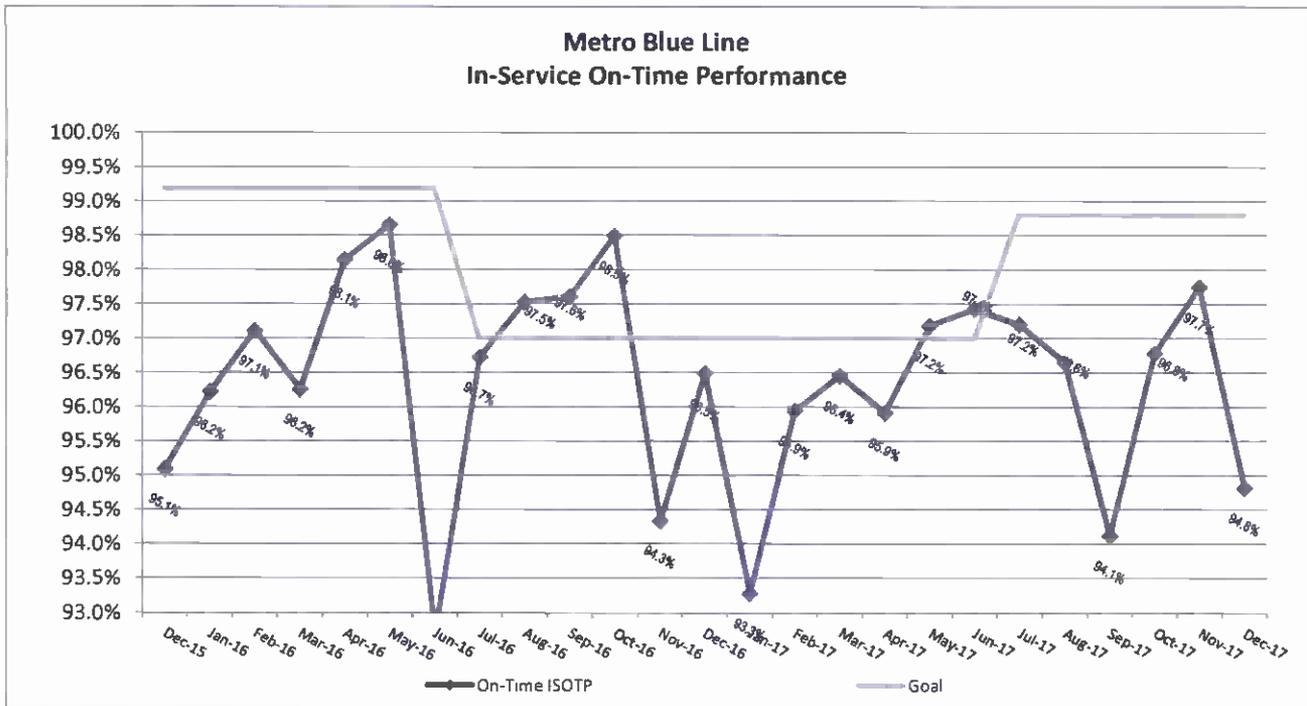
COMPLIANCE WITH SCHEDULED TRAIN MILES



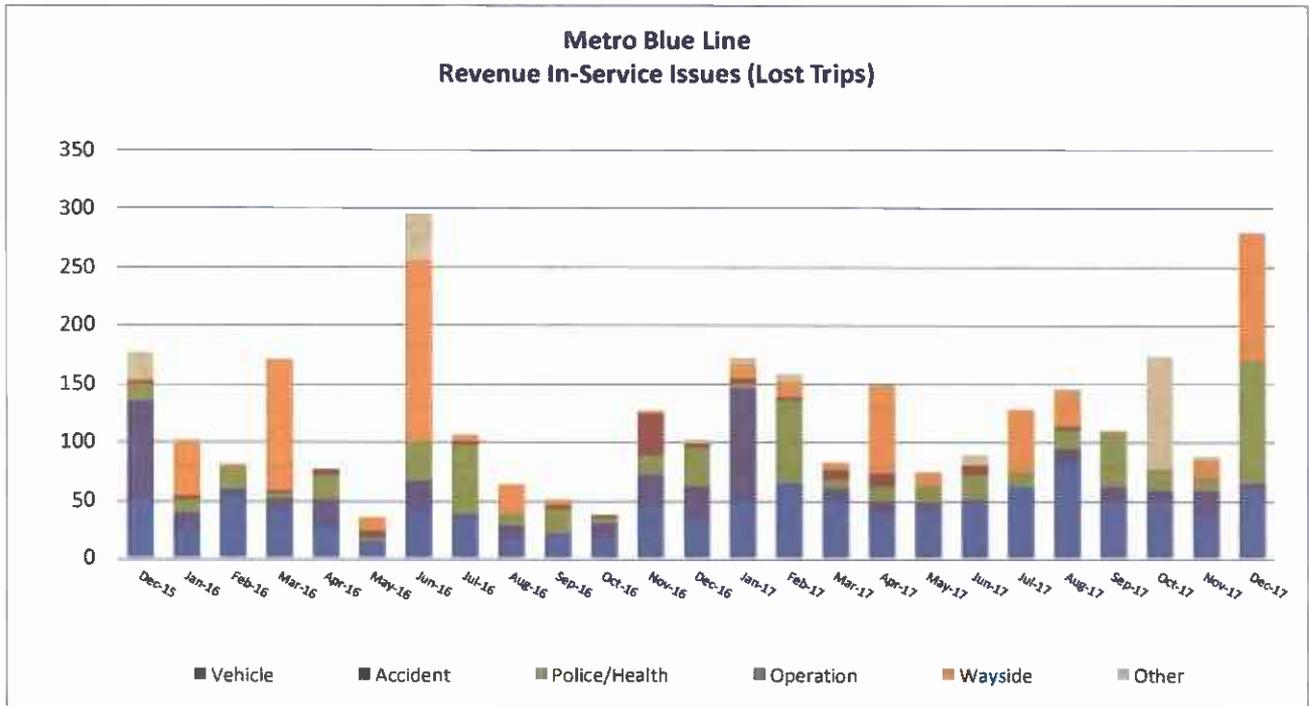
ON-TIME PULL OUTS



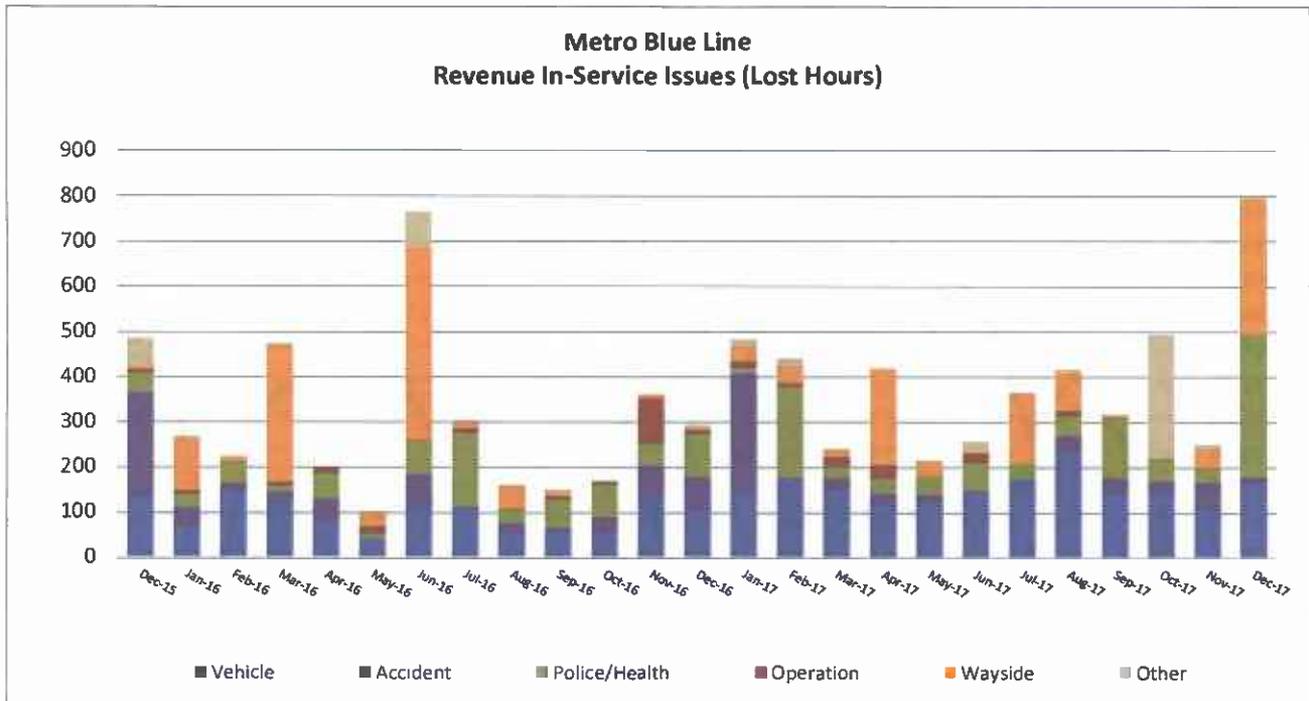
IN-SERVICE ON-TIME PERFORMANCE CHART



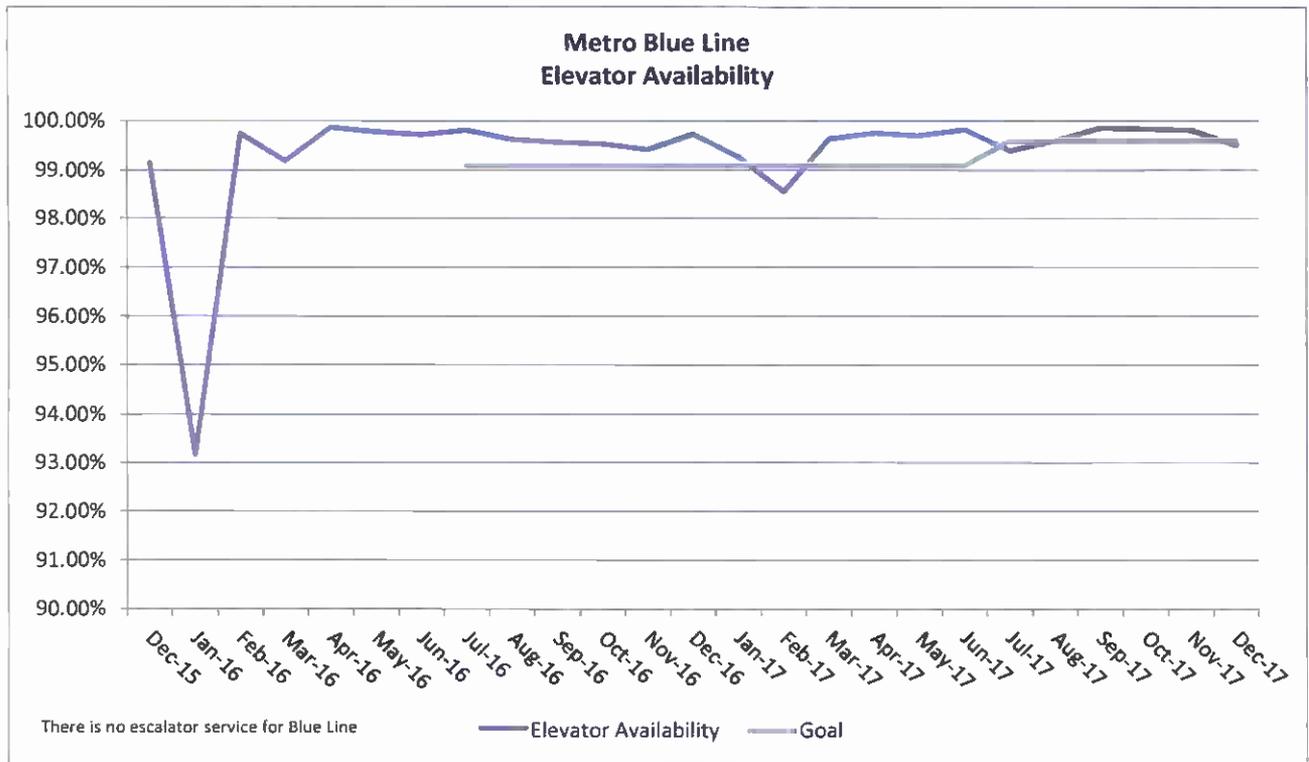
LOST TRIPS



LOST HOURS



VERTICAL TRANSPORTATION AVAILABILITY



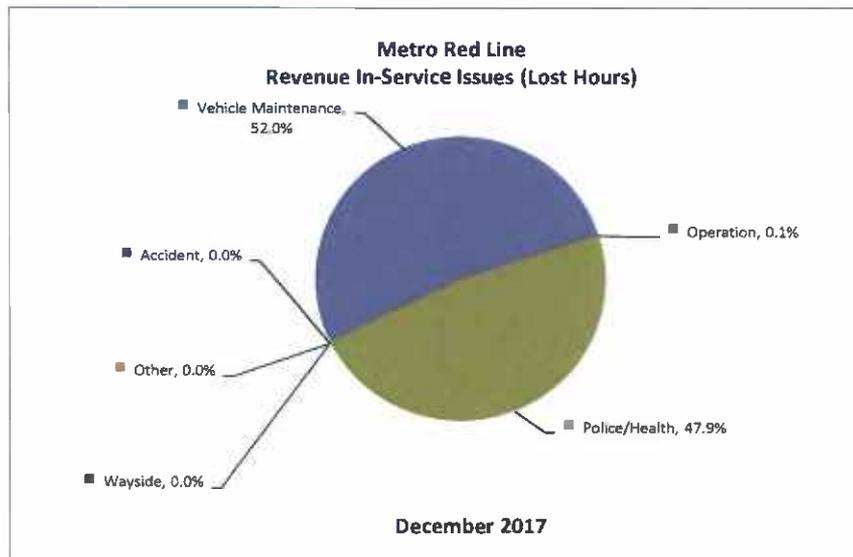
RED LINE

Out of a total of 26,435 hours operated, there were approximately 73 total hours of service delays.

December 2017 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	26,362	99.7%
Cancelled + Delayed Hours	73	0.3%
Total Revenue Hours	26,435	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	1	0.1	0.1%
Accidents	0	0.0	0.0%
Vehicle Maintenance	11	37.9	52.0%
Wayside	0	0.0	0.0%
Police & Health	9	35.0	47.9%
Other	0	0.0	0.0%
Total	21	73.0	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



December 2017 Red Line incidents causing delay were as follows:

Operations Incidents:

12-19-2017 2:21:00 PM - Incident# 2948089 (0 lost trips, 6 lost minutes)

T-435 on Train 202 cars 593, 594, 541, 542, Wilshire Western, BR Platform, proceeded eastbound on the BR track with wrong routing.

Vehicle Maintenance Incidents:

12-01-2017 5:43:00 AM - Incident# 2940606 (6 lost trips, 913 lost minutes)

Report of loud noise as train entered Civic Center station.

Train 206

T-378

Train now has no movement.

563 564 549 550

12-04-2017 4:32:00 AM - Incident# 2941462 (4 lost trips, 597 lost minutes)

Train 211 experiencing propulsion and service brake failure.

T-483

Civic Center AR Westbound.

549 550 583 584 (547) 548

Single tracking.

12-05-2017 6:58:00 PM - Incident# 2942369 (0 lost trips, 10 lost minutes)

Shattered glass doors #10 & 12.

Train #216

T-199

Cars #579-(580)-587-588-585-586.

E/Bound Universal City Station A/L Track.

12-12-2017 5:26:00 PM - Incident# 2945402 (0 lost trips, 9 lost minutes)

Recurring emergency brake application.

Train #215

T-166

Cars # (599)-600-547-548-541-542.

W/Bound Hollywood Highland Station A/R Track.

12-17-2017 10:21:00 PM - Incident# 2947299 (1 lost trip, 116 lost minutes)

Train 204 (585,586,601,602) T-272, Pershing Square Station, AL reports door problem.

12-18-2017 2:45:00 PM - Incident# 2947650 (0 lost trips, 9 lost minutes)

Service brake failure train line, no movement.

Union Station East IL, AR track, W/bound.

Cars: 599 600 579 (580) 549 550.

Train 216.

T-328.

12-19-2017 2:09:00 PM - Incident# 2948083 (1 lost trip, 149 lost minutes)

T-176 reports Train 203 cars 577, 578, 591, 592, Wilshire Western, BR Platform, no cab signal on car 592 going eastbound.

12-20-2017 3:12:00 PM - Incident# 2948566 (0 lost trips, 10 lost minutes)

Train 217 (569,570,595,596,567,568) T-217, Civic Ctr. Station, AR reports flashing cab signals.

12-22-2017 9:50:00 PM - Incident# 2949540 (0 lost trips, 15 lost minutes)

Train 215 (599,600,561,562,595,596) T-378, Westlake Station, AL reports car 600 has doors 1,3 off the track, no movement

12-26-2017 10:22:00 AM - Incident# 2950323 (2 lost trips, 299 lost minutes)

T-31 reports he smelled the friction brakes and it felt as if the train was dragging at Pershing Square AR.

Train 203

Cars 527, 522, (519), 526

12-28-2017 8:07:00 PM - Incident# 2951406 (1 lost trip, 149 lost minutes)

T-176 reports vibration on train 212 (cars 511-512-519-526-521-530), lead car 530, at Hollywood and Vine Station, AL track, Eastbound. T-176 states he feels it is unsafe to operate with patrons on board.

Police & Health Incidents:

12-10-2017 12:37:00 AM - Incident# 2944239 (2 lost trips, 348 lost minutes)

Train 206 T-41 arriving at Westlake AR Westbound received a emergency intercom activation regarding a male with a yellow jacket who assaulted a male hispanic with a red shirt and green pants.

12-10-2017 6:10:00 PM - Incident# 2944405 (2 lost trips, 348 lost minutes)

Reports trespasser on the ROW AR, was reported heading East when he was actually heading West.

12-11-2017 7:15:00 PM - Incident# 2944903 (2 lost trips, 299 lost minutes)

Operator reports a patron is having a seizure onboard train 203, car 568.

12-13-2017 1:44:00 PM - Incident# 2945754 (0 lost trips, 5 lost minutes)

Trespasser on the right of way in vicinity of pump station #3, on the A/L Track.

12-13-2017 4:17:00 PM - Incident# 2945806 (0 lost trips, 11 lost minutes)

North Hollywood Station Platform physical altercation.

12-15-2017 3:15:00 AM - Incident# 2946423 (0 lost trips, 24 lost minutes)

Trespasser reported accessing on the AL west gate at Hollywood Western.

12-15-2017 12:11:00 PM - Incident# 2946631 (0 lost trips, 4 lost minutes)

Patron screamed there is a bomb on the train.

Train 204 West

12-20-2017 8:29:00 AM - Incident# 2948407 (4 lost trips, 597 lost minutes)

Train 207 reports trespasser on the service walkway at CP 60 AR.

12-21-2017 5:29:00 AM - Incident# 2948761 (0 lost trips, lost minutes)

SCADA IDS alarm activated at Hollywood/Vine AL west by a trespasser on the ROW walking east on the tracks.

12-24-2017 7:17:00 AM - Incident# 2949793 (4 lost trips, 464 lost minutes)

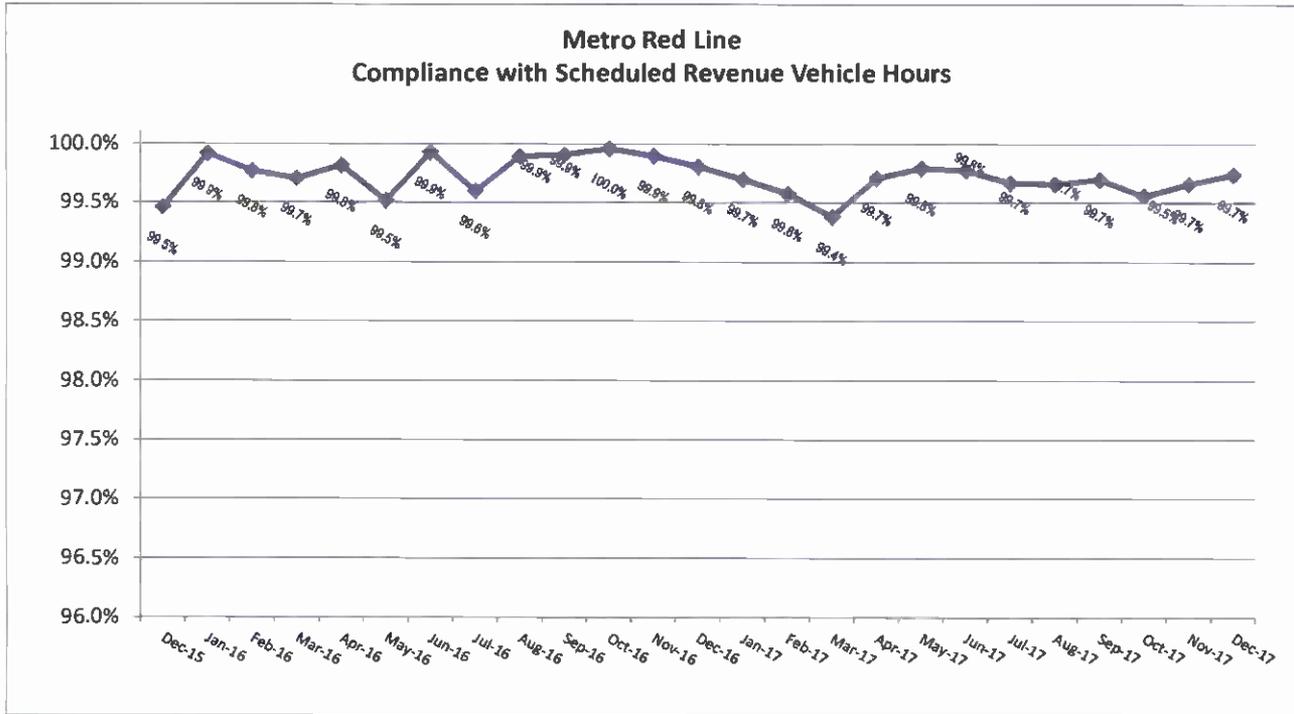
G-420 reports a African American male harrassing a female and jumped on the AL track at 7th & Metro running towards Westalke.

Male African American

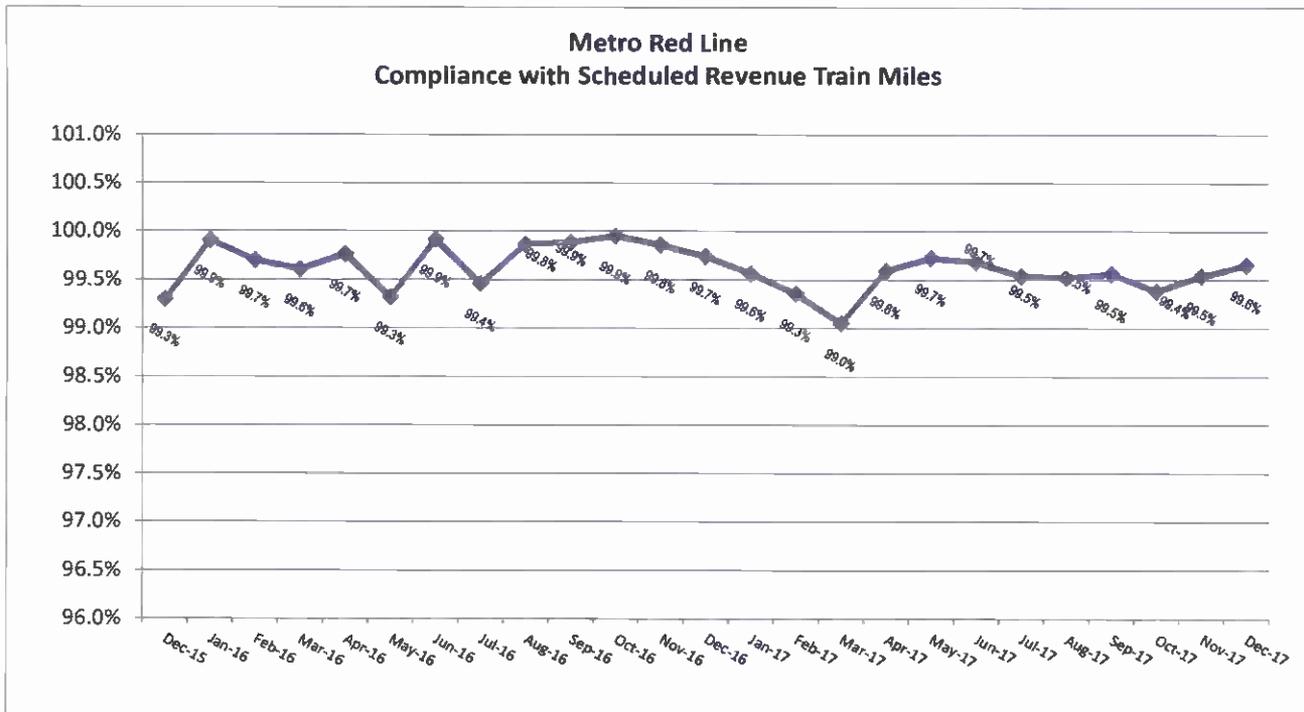
Red shirt, White pants

MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

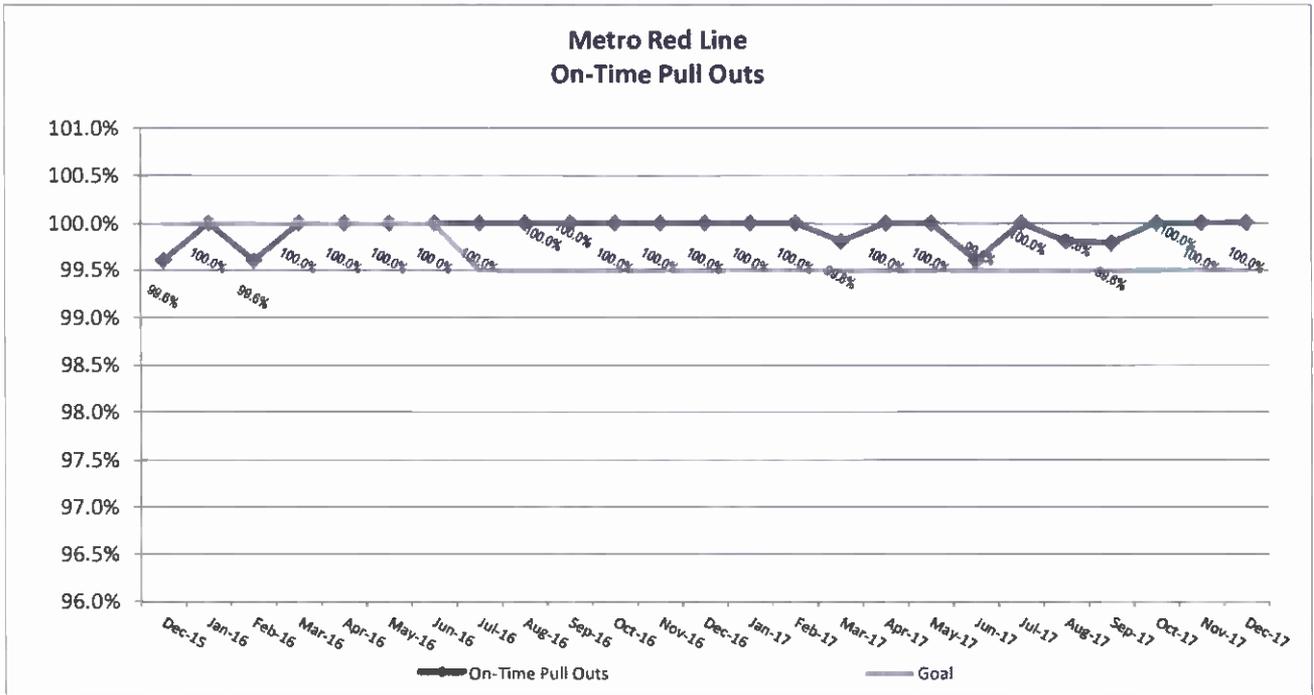
COMPLIANCE WITH SCHEDULED VEHICLE HOURS



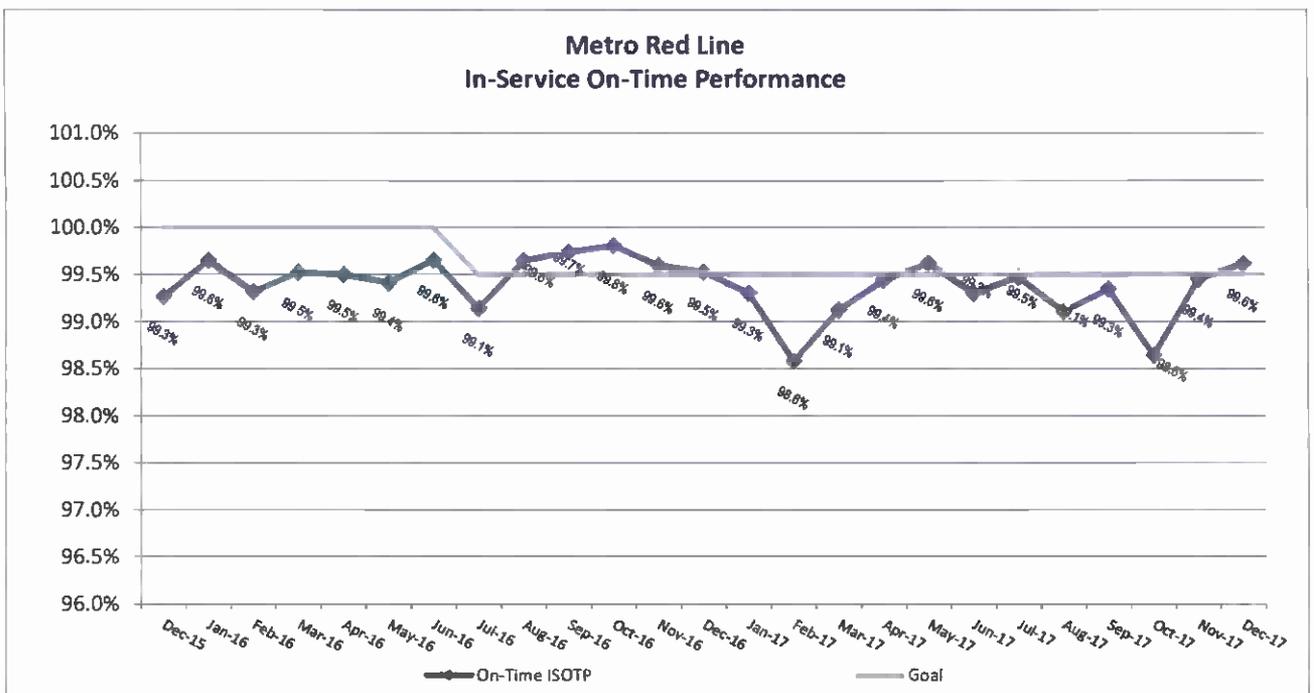
COMPLIANCE WITH SCHEDULED TRAIN MILES



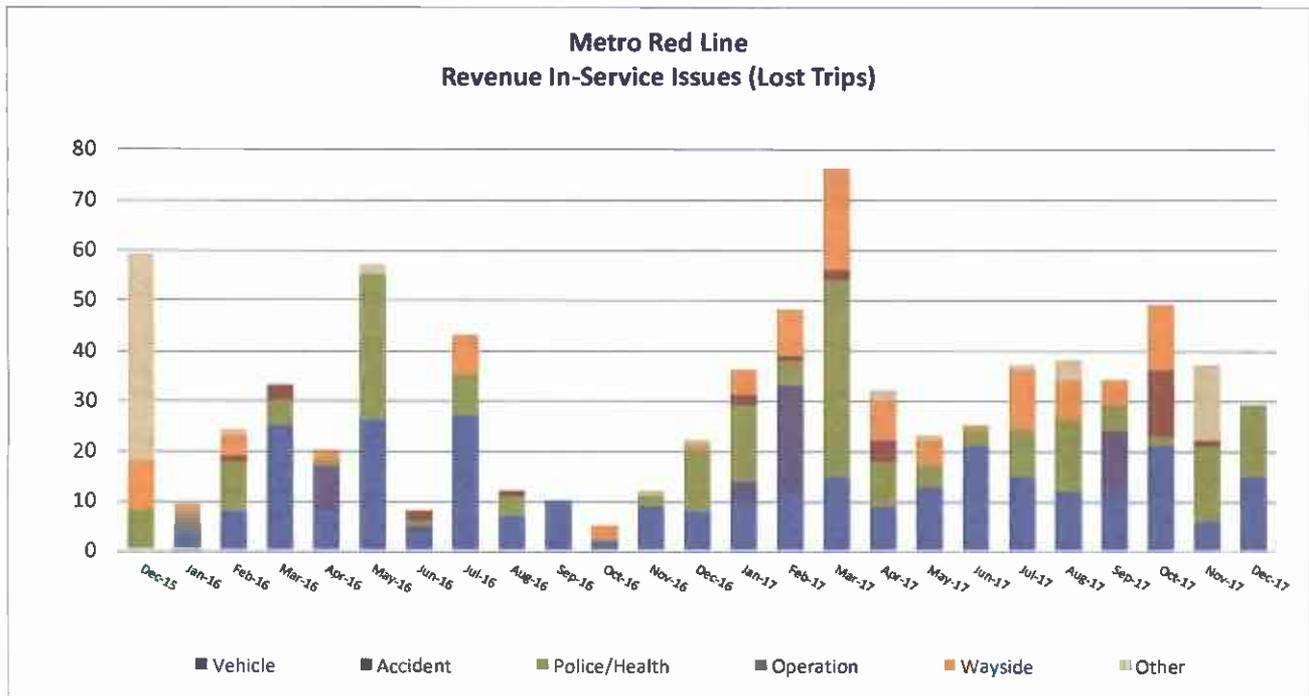
ON-TIME PULL OUTS



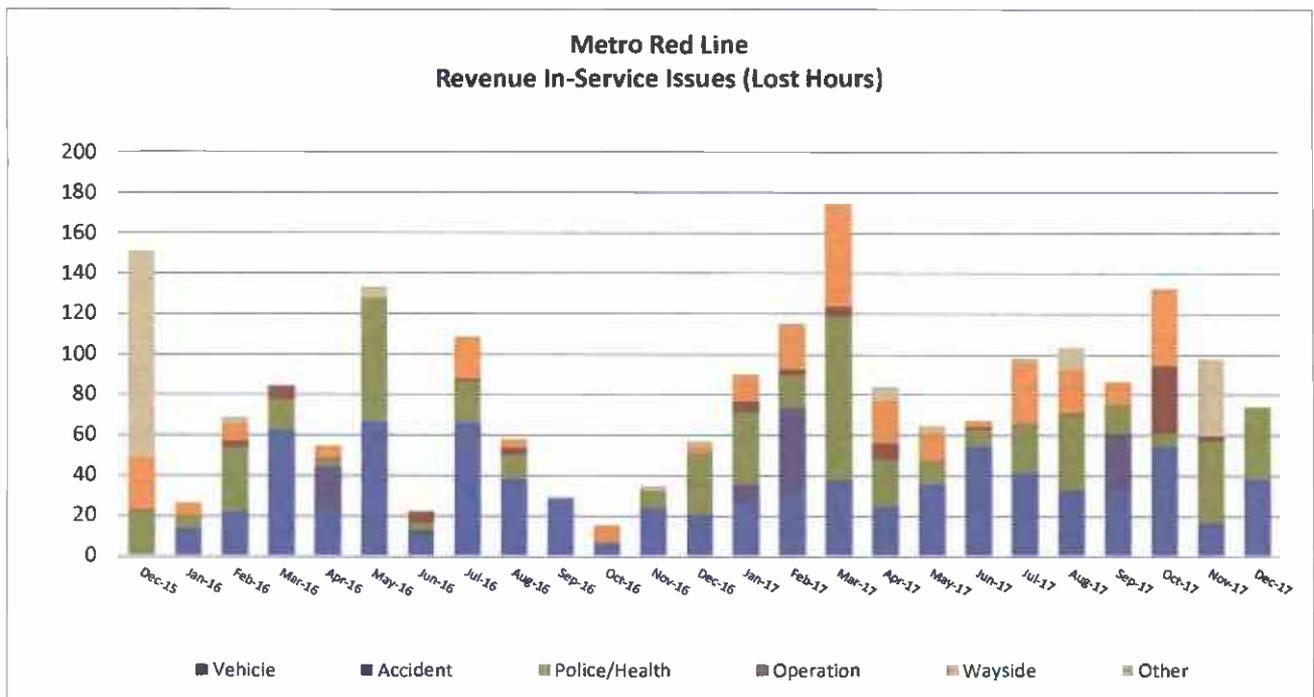
IN-SERVICE ON-TIME PERFORMANCE



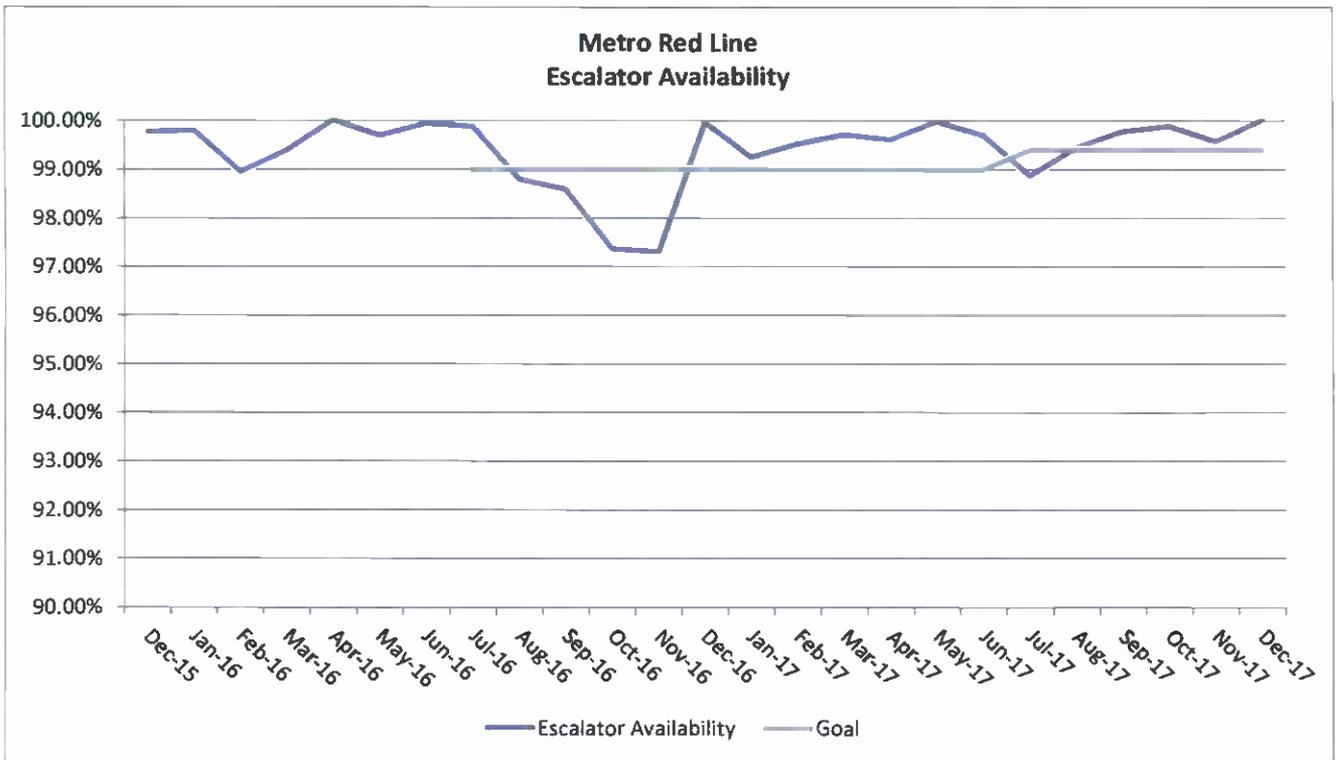
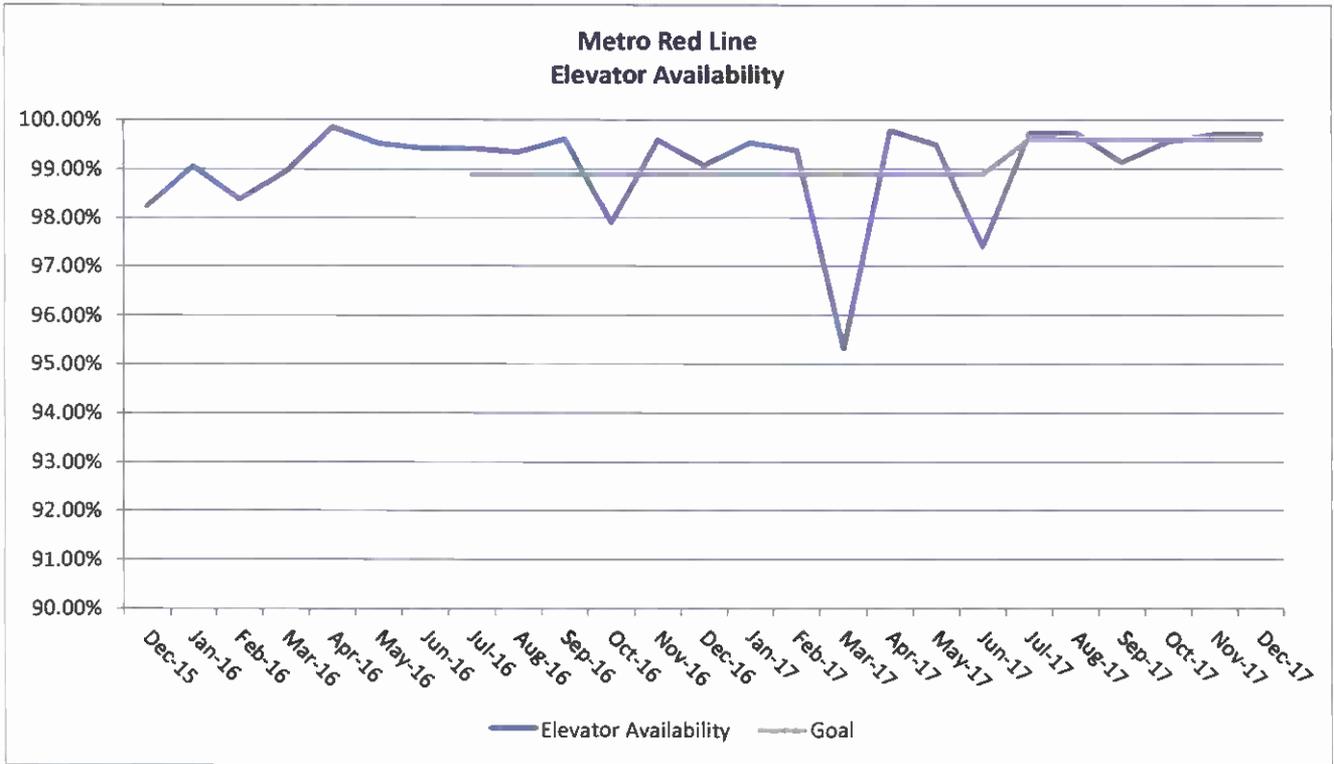
LOST TRIPS



LOST TRIPS



VERTICAL TRANSPORTATION AVAILABILITY



GREEN LINE

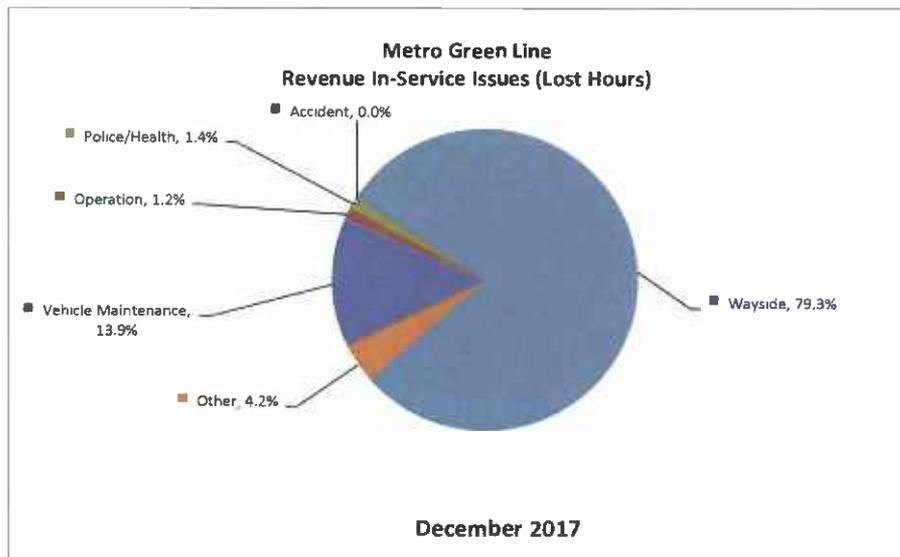
Out of a total of 8,608 hours operated, there were approximately 195 total hours of service delays.

December 2017 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	8,413	97.7%
Cancelled + Delayed Hours	195	2.3%
Total Revenue Hours	8,608	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	2	2.4	1.2%
Accidents	0	0.0	0.0%
Vehicle Maintenance	33	27.2	13.9%
Wayside	3	154.7	79.3%
Police & Health	4	2.7	1.4%
Other	5	8.2	4.2%
Total	47	195.1	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



December 2017 Green Line incidents causing delay were as follows:

Operations Incidents:

12-26-2017 3:28:00 PM - Incident# 2950490 (2 lost trips, 132 lost minutes)
Operator Error

12-26-2017 10:10:00 PM - Incident# 2950583 (0 lost trips, 9 lost minutes)
Late Departure

Vehicle Maintenance Incidents:

12-01-2017 6:42:00 AM - Incident# 2940642 (0 lost trips, 5 lost minutes)
Burning Smell and noise from the outside of the train Per
M-290 Snad dispenser broken.

Train 338
T-202
(215)-243
Marine Trk 2
+ 5 min.

12-04-2017 12:13:00 AM - Incident# 2941436 (0 lost trips, 10 lost minutes)
Train 331, LRV 202A.
Long Beach Station, Track 2 east.
Spin slide.

12-04-2017 4:32:00 PM - Incident# 2941872 (0 lost trips, 10 lost minutes)
Operator reports of an ADU fault
Train 345
T-266
(217)201
Hawthorne station, Trk. 2, eastbound

12-04-2017 6:28:00 PM - Incident# 2941885 (0 lost trips, 10 lost minutes)
Train 332 Car 221 developed a propulsion fault. Train also experienced a speed restriction fault.

12-05-2017 4:52:00 AM - Incident# 2941999 (0 lost trips, 19 lost minutes)
Car 226 Propulsion Fault With speed restriction
Train 228
T-20
Track 1 Westbound at Lakewood Station
Consist 226-205

12-06-2017 6:05:00 PM - Incident# 2942795 (1 lost trip, 74 lost minutes)
Recurring propulsion faults with speed restriction.
Train 346
T-105
Track 2, E/B
El Segundo Station
(206A)-201
ATO and manual modes

12-07-2017 3:08:00 PM - Incident# 2943323 (0 lost trips, 3 lost minutes)
Self applying brakes

12-08-2017 2:13:00 PM - Incident# 2943819 (3 lost trips, 199 lost minutes)
Doors not opening on train 336 at Douglas Station.
Train # 336
T-226
Douglas, track #1, westbound
(243) 212

12-08-2017 2:19:00 PM - Incident# 2943829 (0 lost trips, 6 lost minutes)
Unable to close doors on car (202) 7/8.
Train # 342
T-255
Marine, track #2, eastbound
219 (202)

12-08-2017 4:15:00 PM - Incident# 2943879 (0 lost trips, 6 lost minutes)
Propulsion and Speed Restriction on car (224A).
Train # 346
T-78
Aviation, track #2, eastbound
(224 222)

12-11-2017 1:42:00 PM - Incident# 2944770 (1 lost trip, 69 lost minutes)

Operator reports of a friction brake with no movement

Train 332

T-458

(224A)206

Maripose station, Trk. 1, westbound

12-11-2017 2:11:00 PM - Incident# 2944786 (0 lost trips, 14 lost minutes)

Operator reports of doors unable to close.

Train 335

T-184

(1086)1088

Wilmington station, Trk. 1, westbound

12-11-2017 4:32:00 PM - Incident# 2944855 (3 lost trips, 198 lost minutes)

Operator reports of no movement

Train 346

T-013

1084-1083

Marine station, Trk. 1, eastbound

12-11-2017 5:05:00 PM - Incident# 2944867 (0 lost trips, 6 lost minutes)

Operator reports of door problems

Train 347

T-044

1086-1088

Norwalk station, Trk. 1, westbound

12-11-2017 5:45:00 PM - Incident# 2944881 (0 lost trips, 6 lost minutes)

Operator reports of no movement

Train 346

T-013

1086-1088

Wilmington station, Trk. 1, westbound

12-12-2017 5:51:00 PM - Incident# 2945405 (0 lost trips, lost minutes)

Train 349 Car 1085/1084 has a no fault no movement.

12-13-2017 6:49:00 AM - Incident# 2945558 (0 lost trips, 9 lost minutes)

ATP problems Car 1087

Norwalk Station Track 1 Westbound

Operator T-458 Train 343

Car # (1087)-1083

12-13-2017 8:17:00 AM - Incident# 2945597 (0 lost trips, 6 lost minutes)

Propulsion fault, no movement.

Train # 340

T-489

Norwalk, track #1, westbound

1084 1085

12-14-2017 4:55:00 PM - Incident# 2946316 (2 lost trips, 132 lost minutes)

Train 334 (T-57) reports un-clearable propulsion fault on car 211.

12-15-2017 6:48:00 AM - Incident# 2946556 (0 lost trips, 16 lost minutes)

Train 335 (T-140) reports that they were unable to close the doors at Harbor Station.

12-15-2017 5:29:00 PM - Incident# 2946782 (0 lost trips, 20 lost minutes)

No fault no movement. cars 1087-1086

Train 347

T-394

Track 2

Eastbound

Douglas station

ATO MODE

12-15-2017 7:04:00 PM - Incident# 2946790 (0 lost trips, 10 lost minutes)

Propulsion fault no movemet. cars 208A-206

Train 347

T-348

Track 2

Eastbound

Vermont station

ATO MODE

12-19-2017 2:35:00 PM - Incident# 2948099 (0 lost trips, lost minutes)
Train # 345 pulled out of the yard late due to mechanical problems. As per schedule, train was to pull out eastbound and began service at Douglas Station.
Train # 345
T-496
Yard Limits
1086 1088

12-20-2017 4:11:00 AM - Incident# 2948266 (2 lost trips, 132 lost minutes)
Propulsion fault car # 215
Train # 332 Operator T-202
Mariposa Track 2 East.
Car # (215)-222

12-20-2017 5:24:00 PM - Incident# 2948639 (0 lost trips, 15 lost minutes)
Cab Door

12-21-2017 8:33:00 AM - Incident# 2948851 (4 lost trips, 274 lost minutes)
Car 1080 Doors will not close
Train 332
T-40
Harbor Station Track 2 Eastbound
Consist 1082-1080

12-22-2017 7:20:00 AM - Incident# 2949265 (1 lost trip, 75 lost minutes)
Low Air pressure
Train 339
T-140
(214)-217
Delays 5 or more affected

12-22-2017 3:35:00 PM - Incident# 2949477 (0 lost trips, 6 lost minutes)
Announcements, cars #(1085A)-1086
Train #450
T-496
Aviation Station, Track #002, Eastbound.

12-23-2017 6:54:00 AM - Incident# 2949595 (0 lost trips, 6 lost minutes)
Car 1087B No P/A system
Train 331
T-85
Long Beach Station track 1 westbound
Consist 1087-1084

12-25-2017 2:18:00 PM - Incident# 2950038 (1 lost trip, 65 lost minutes)
No fault no movement. car 223-205
T-458
Track 1
Westbound
Vermont IL signal 22
ATO MODE

12-26-2017 4:08:00 PM - Incident# 2950498 (2 lost trips, 132 lost minutes)
No cab signals

12-28-2017 8:06:00 AM - Incident# 2951119 (0 lost trips, 5 lost minutes)
Unable to receive cab signals or obtain stop and proceed on car (1083A).
Train # 343
T-255
Norwalk, westbound, Track 1
(1083A) 1080

12-28-2017 4:50:00 PM - Incident# 2951365 (0 lost trips, 10 lost minutes)
Train # 350 reports loss of cab signals departing Douglas Station.
Train # 350
T-177
Douglas, track #2, eastbound
1082 1083

12-29-2017 8:06:00 AM - Incident# 2951537 (0 lost trips, 9 lost minutes)
Propulsion / Dynamic Brakes, cars #(1084B)-1087
Train #335
T-343
Long Beach Station, Track #001, Westbound.

12-29-2017 8:33:00 AM - Incident# 2951546 (1 lost trip, 74 lost minutes)

Auto Train Operation, (1083A)-1082
Train #337
T-269
Harbor Station, Track #001, Westbound.

Wayside Incidents:

12-17-2017 6:20:00 AM - Incident# 2947121 (142 lost trips, 9,244 lost minutes)

Train 331 reports propulsion fault approaching Crenshaw Station track 2.
Train 331
T-344
Cars 244-(218)
Track 2, Eastbound, Hawthorne Station

12-19-2017 9:07:00 AM - Incident# 2947918 (0 lost trips, 20 lost minutes)

Work Permit E-5/Traction Power entering the mainline on High Rail to work location, Aviation to Vermont west IL (extended due to repairs needed).

12-20-2017 5:06:00 PM - Incident# 2948618 (0 lost trips, 16 lost minutes)

Service delay

12-27-2017 8:40:00 AM - Incident# 2950737 (0 lost trips, lost minutes)

OCS: Repair Track 1 from Aviation 14 to Vermont 8

Police & Health Incidents:

12-02-2017 9:58:00 PM - Incident# 2941228 (0 lost trips, 5 lost minutes)

T-297 reports individual is not letting her board the cab.
Train 335
206-221
T-297
Track 1
Norwork station
Westbound

12-05-2017 10:47:00 PM - Incident# 2942416 (2 lost trips, 132 lost minutes)

Train 345 reported being held by LAPD at Harbor Station.

12-25-2017 7:58:00 AM - Incident# 2949986 (0 lost trips, 12 lost minutes)

Possible seizure.
Train #341.
T-148.
LRV, 212, (215).
Harbor Freeway Station, Track #2, Eastbound.

12-26-2017 10:35:00 PM - Incident# 2950588 (0 lost trips, 12 lost minutes)

Pregnant woman Stomach pains

Other Incidents:

12-08-2017 3:41:00 PM - Incident# 2943857 (0 lost trips, 6 lost minutes)

Operator reports an individual is smoking marijuana at Avalon Station. No destruction of patron.
Train #344
T-096
Avalon, track #1, westbound
213 223

12-15-2017 4:49:00 PM - Incident# 2946774 (1 lost trip, 71 lost minutes)

No Alpha AA. Trip cancelled.

12-18-2017 2:33:00 PM - Incident# 2947640 (2 lost trips, 132 lost minutes)

MGL Controller (R-074) advises of the following:
Train 348.....no manpower or equipment
Train 349.....single rail car
Train 350.....train which was used at Nwk to push B/O consist into tail track

12-19-2017 7:33:00 AM - Incident# 2947887 (2 lost trips, 151 lost minutes)

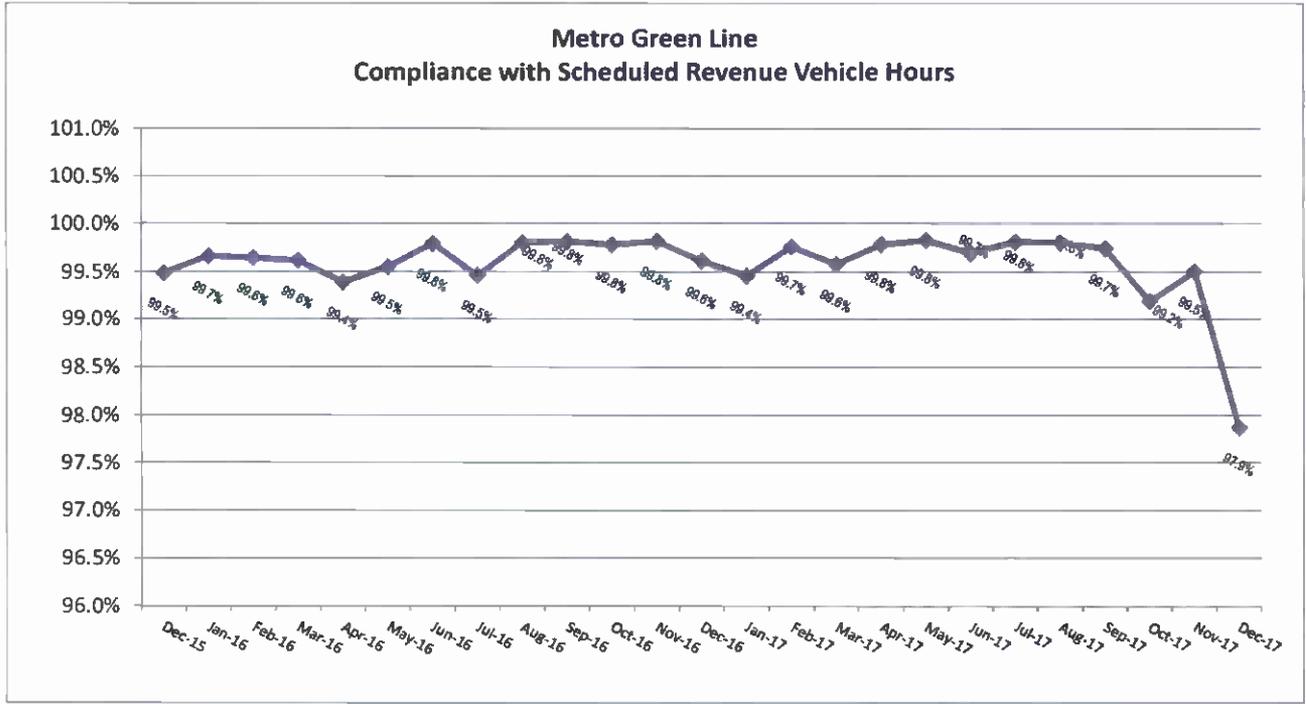
Train # 343 experience delays due to patron tampering with doors.

12-27-2017 3:18:00 PM - Incident# 2951748 (2 lost trips, 132 lost minutes)

Out Late due to no operators to complete roll-out

MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

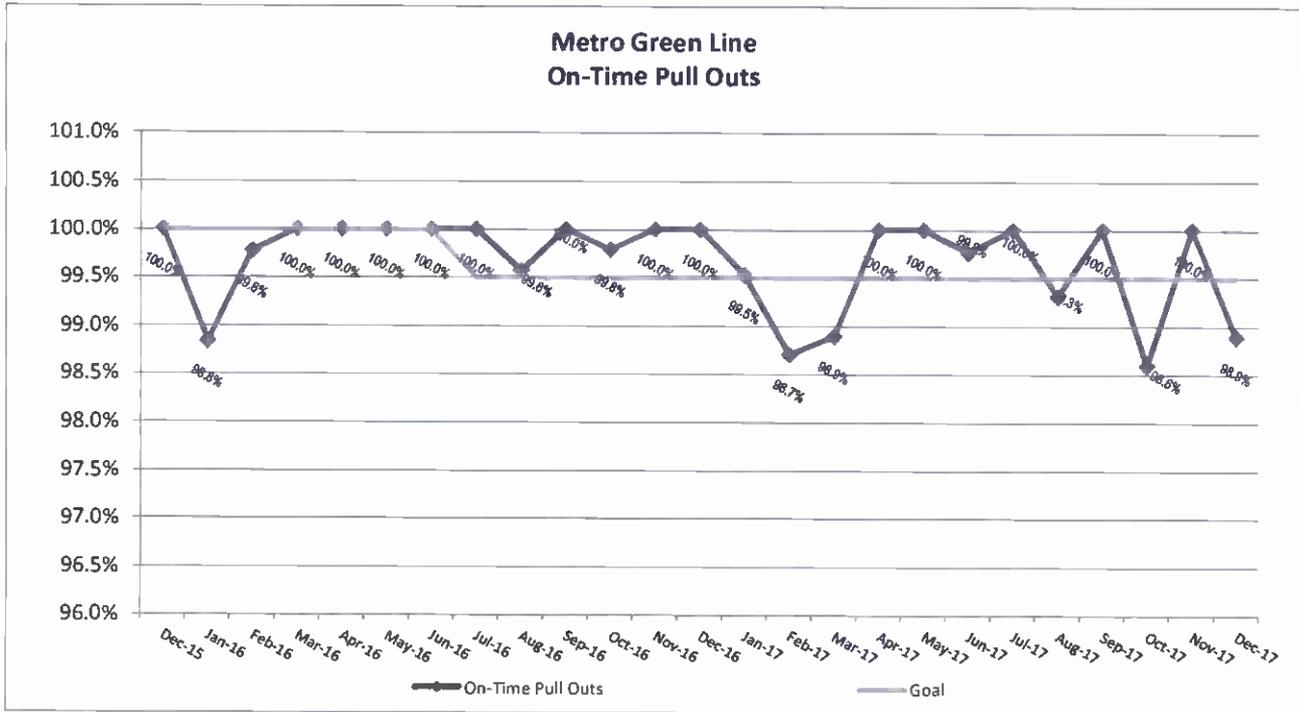
COMPLIANCE WITH SCHEDULED VEHICLE HOURS



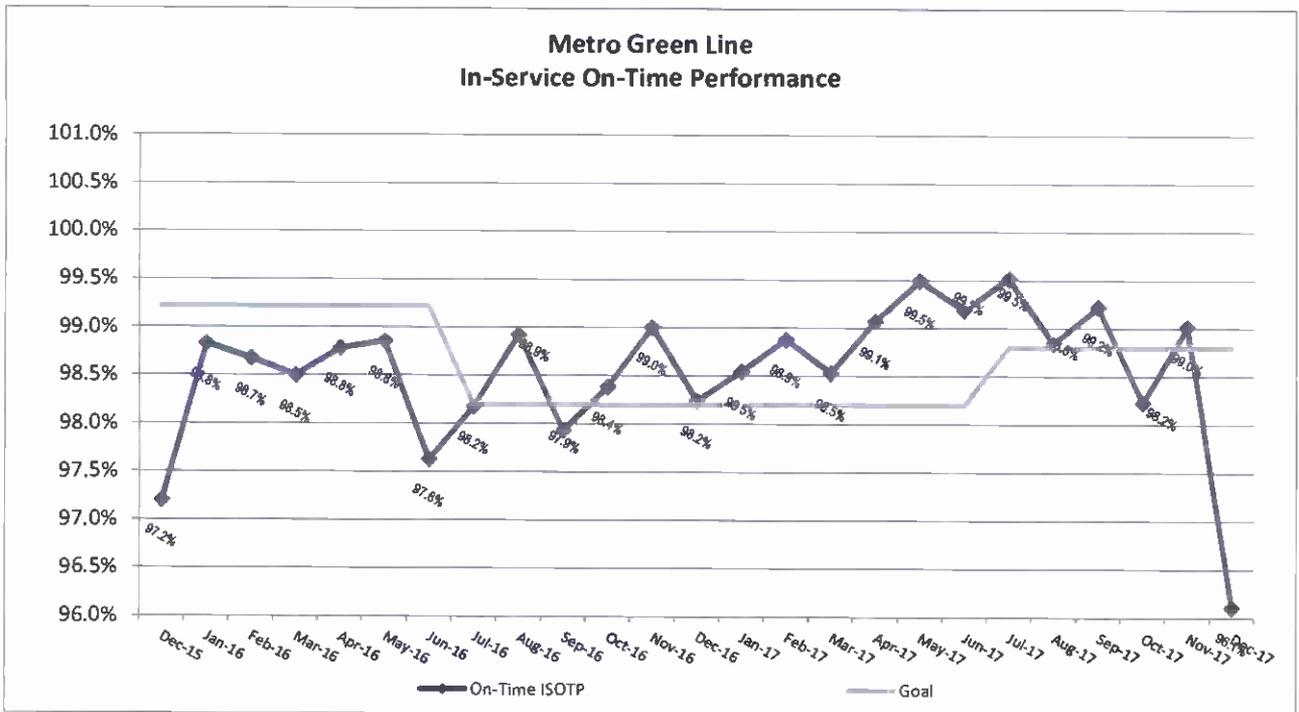
COMPLIANCE WITH SCHEDULED TRAIN MILES



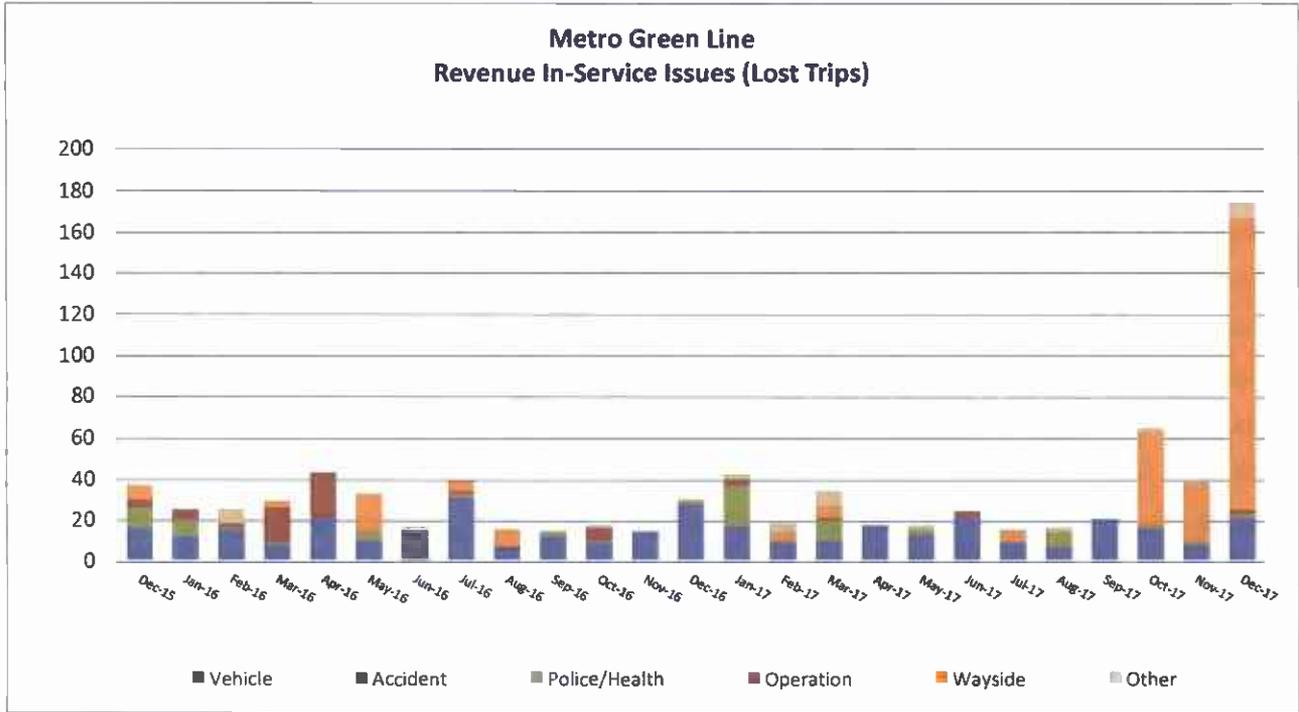
ON-TIME PULL OUTS



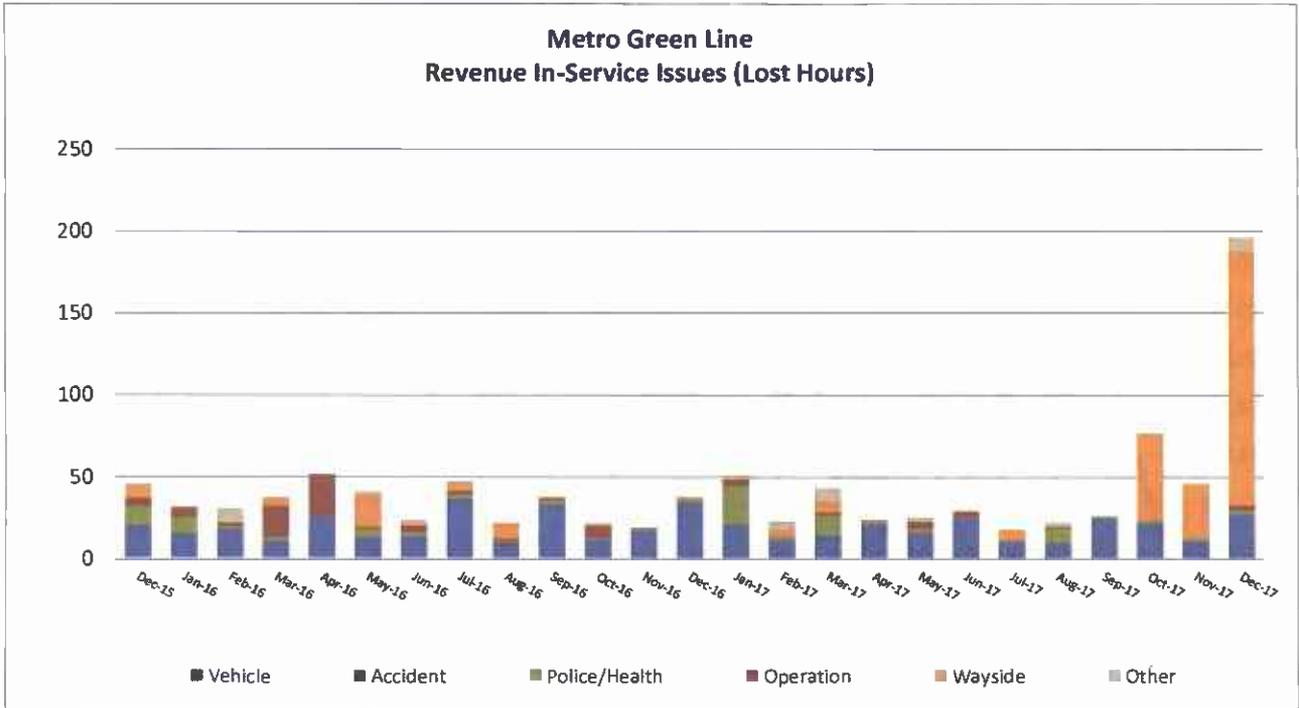
IN-SERVICE ON-TIME PERFORMANCE



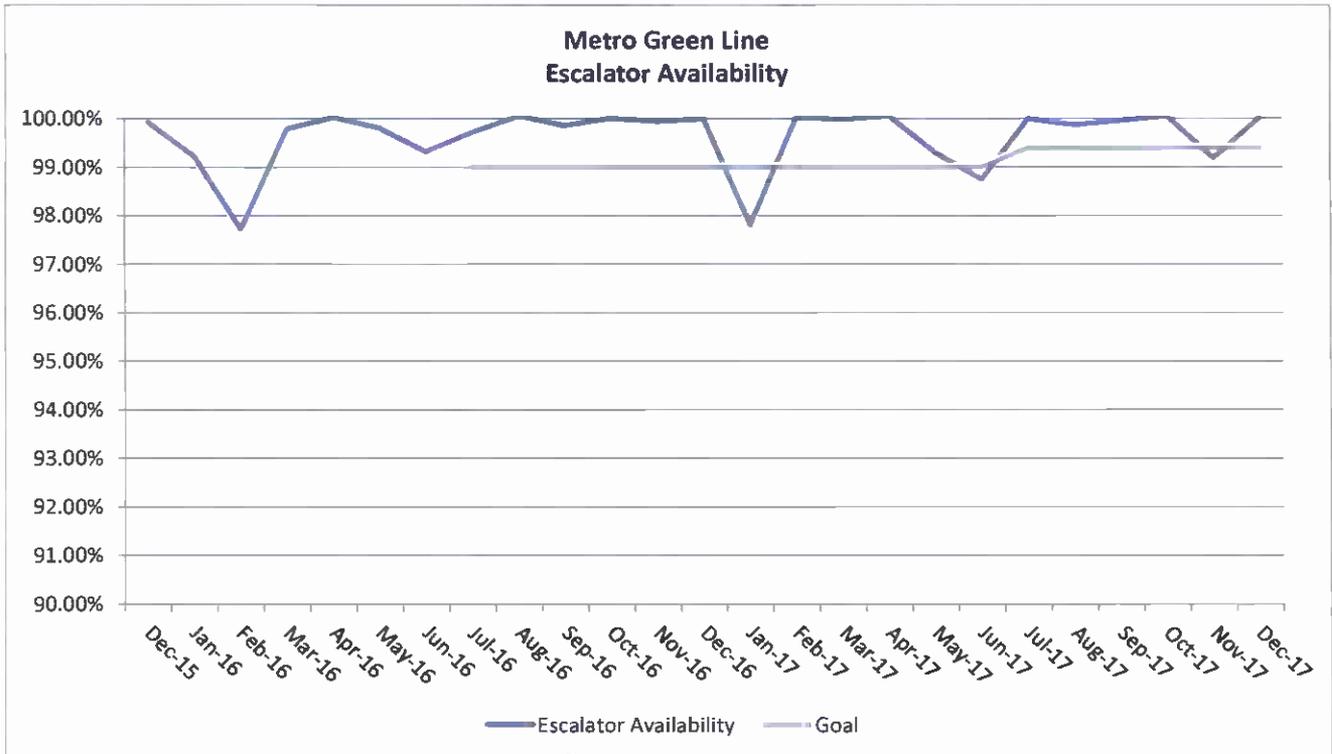
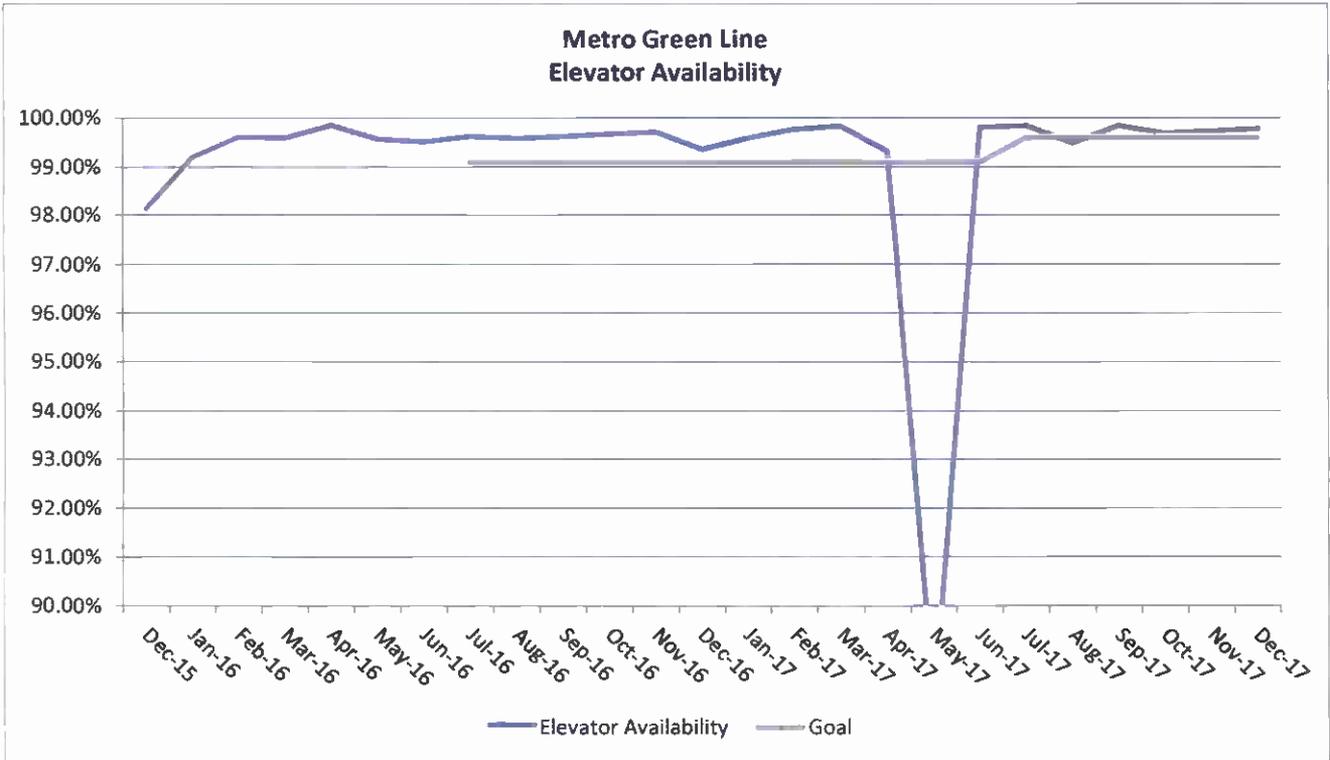
LOST TRIPS



LOST HOURS



VERTICAL TRANSPORTATION AVAILABILITY



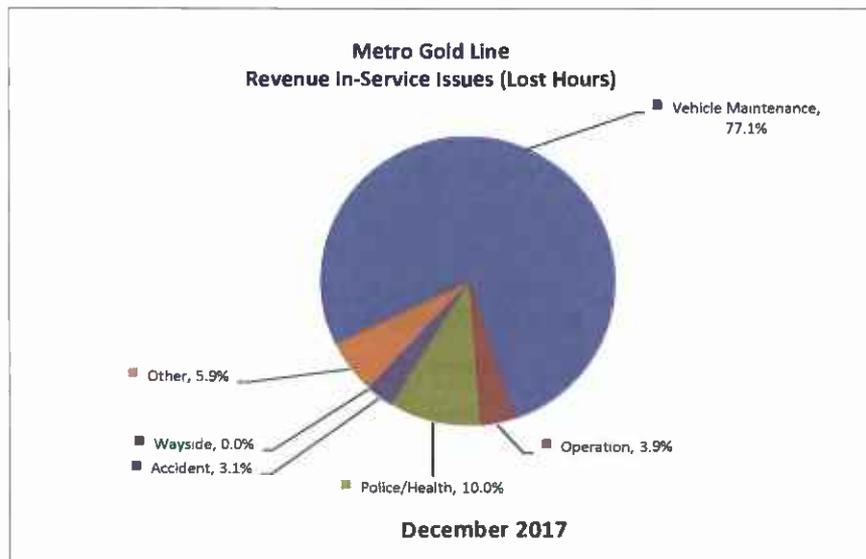
GOLD LINE

Out of a total of 21,875 hours operated, there were approximately 145 total hours of service delays.

December 2017 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	21,729	99.3%
Cancelled + Delayed Hours	145	0.7%
Total Revenue Hours	21,875	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	2	5.7	3.9%
Accidents	1	4.4	3.1%
Vehicle Maintenance	29	112.1	77.1%
Wayside	1	0.1	0.0%
Police & Health	11	14.6	10.0%
Other	2	8.6	5.9%
Total	46	145.5	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



December 2017 Gold Line incidents causing delay were as follows:

Operations Incidents:

12-02-2017 5:50:00 AM - Incident# 2941036 (0 lost trips, 5 lost minutes)

Rule Violation

Train #401

T-216

APU/Citrus Station, Track #001, Southbound

12-31-2017 7:56:00 AM - Incident# 2952080 (1 lost trip, 335 lost minutes)

Train 413 did not pull out of yard at scheduled pull out time due to Operator Error in the yard.

Cars 1010-1057-1055

Operator T-452

Yard Controller R-143

Accidents:

12-14-2017 9:29:00 AM - Incident# 2946109 (1 lost trip, 266 lost minutes)

Auto vs. Train at Del Mar Grade Crossing northbound, Track 1.

Vehicle Maintenance Incidents:

12-02-2017 1:23:00 PM - Incident# 2941124 (0 lost trips, 9 lost minutes)

Heating / Air Conditioning, (burning smell) cars #(733-722)

Train #407

T-186

Sierra MADre Villa, Track #002, Southbound

12-02-2017 4:20:00 PM - Incident# 2941171 (0 lost trips, 4 lost minutes)

Car 739 HSCB will not close, no movement.

T-470

Train 406

Cars (739)-718

Atlantic Station, Track 1, northbound.

12-05-2017 4:41:00 AM - Incident# 2941990 (0 lost trips, lost minutes)

Reports of no movement

Train #415

T-98

1011-1012-1059

Gold Line Division, 24, SB

12-05-2017 7:03:00 AM - Incident# 2942052 (6 lost trips, 1,476 lost minutes)

Reports of ATP failure

Train # 416

T-493

(748A)-743-722

Highland Park Station, Track #1, NB

12-05-2017 5:05:00 PM - Incident# 2942336 (1 lost trip, 246 lost minutes)

T-63 on Train 451 (1005, 1009), lead car 1009B, Fillmore, Track 1, Northbound. Reports no movement northbound.

12-05-2017 8:46:00 PM - Incident# 2942392 (1 lost trip, 246 lost minutes)

T-2 reports smell of burning brakes on train 426 (cars 730, 714, 746), on middle car 714, Del Mar, Track 2, Southbound.

12-06-2017 5:00:00 AM - Incident# 2942469 (0 lost trips, 7 lost minutes)

Reports of ATP failure

Train # 418

T-158

(748A)-743-722

Monrovia Interlocking, Track #1, SB

12-07-2017 3:50:00 PM - Incident# 2943365 (2 lost trips, 509 lost minutes)

T-137 reports speed restriction and prop fault on train 435, Lincoln Cypress Station, Track 2, Southbound.

12-07-2017 7:11:00 PM - Incident# 2943420 (0 lost trips, 15 lost minutes)

T-186 reports multiple door problems on train 404 cars 737-723. Soto Station, Track 2, Southbound.

12-08-2017 5:43:00 PM - Incident# 2943893 (0 lost trips, 12 lost minutes)

Locked up brakes on train 406
T-159
Tk 1 NB Soto station
725-733-718 unknown cars

12-10-2017 5:01:00 PM - Incident# 2944401 (1 lost trip, 335 lost minutes)

Smoking brakes car 714.
Train 407
T-482
Consist 724-714
Indiana station, Track 1 NB

12-11-2017 5:15:00 PM - Incident# 2944871 (1 lost trip, 266 lost minutes)

Propulsion / Dynamic Brakes, cars #714-723 (741) fan circuit breaker open
Train #423
T-009
Del Amr Station, Track #002, Southbound.

12-16-2017 11:55:00 PM - Incident# 2947080 (0 lost trips, 3 lost minutes)

Brake fault on car 705B
Train 411
T-411
Cars (705b),724
NB, Track 1, Civic Center Station

12-18-2017 7:07:00 AM - Incident# 2947459 (1 lost trip, 270 lost minutes)

Car 743B had a prop fault with a speed restriction.
T-124
Train-405
Consist-717(743)747
Southwest Museum Station,Track #1, Northbound.

12-19-2017 8:34:00 AM - Incident# 2947906 (0 lost trips, 4 lost minutes)

Doors, cars #(733-723)
Train #407
T-451
Del Mar Station, Track #002, Southbound.

12-19-2017 1:26:00 PM - Incident# 2948060 (0 lost trips, 6 lost minutes)

No Fault - No Movement, cars #(1012-1007)
Train #403
T-196
Atlantic Station, Track #001, Northbound.

12-19-2017 2:33:00 PM - Incident# 2948092 (1 lost trip, 273 lost minutes)

Doors will not open

12-19-2017 2:37:00 PM - Incident# 2948098 (1 lost trip, 266 lost minutes)

Propulsion fault (1007)1012.
Monrovia Station
Train #455, T-263, Track #001, Northbound.

12-20-2017 6:17:00 AM - Incident# 2948331 (1 lost trip, 266 lost minutes)

T-11 reports no movement on train 405 at Atlantic station.

12-23-2017 5:01:00 PM - Incident# 2949728 (1 lost trip, 224 lost minutes)

(735)-746
Dynamic Brake/Propulsion Fault
NB Arcadia
Train 403
T-388

12-24-2017 11:57:00 AM - Incident# 2949839 (1 lost trip, 228 lost minutes)

Car 724 has prop fault with speed restriction
T-248
Train 403
Consist-(724)745
Irwindale Station, Track #2, Southbound

12-24-2017 2:43:00 PM - Incident# 2949881 (1 lost trip, 224 lost minutes)

(723)-740
Recurring Propulsion Fault
NB Arcadia
Train 406
T-540

12-24-2017 3:30:00 PM - Incident# 2949883 (1 lost trip, 224 lost minutes)

(739)-748
TWC Fault - No Cab Signal
SB Monrovia Station
Train 406
T-263

12-26-2017 5:50:00 AM - Incident# 2950233 (1 lost trip, 272 lost minutes)
T-129 reports no movement on train 415.
cars {(1109)-1057-1055}
Major Propulsion fault.

12-26-2017 8:09:00 AM - Incident# 2950271 (1 lost trip, 266 lost minutes)
Friction Brakes, cars #746-741
Train #413
T-018
Atlantic Station, Track #001, Northbound

12-27-2017 11:50:00 AM - Incident# 2950822 (1 lost trip, 266 lost minutes)
Other Vehicle System, Master Controller not working, not responding to any Power requests.
Train 406
T-248
LRV (739B)748
Civic Center Station, Track 1
Southbound

12-27-2017 6:16:00 PM - Incident# 2950946 (1 lost trip, 266 lost minutes)
Friction Brakes (Smoking), cars #(747)-713-737
Train #429
T-304
Arcadia Station, Track #001, Northbound.

12-28-2017 1:53:00 PM - Incident# 2951277 (1 lost trip, 266 lost minutes)
Cars (713B-747) doors will not open.
T-305
Train 402
Cars (713B-747)
Allen Station, Track 1, northbound.

12-29-2017 2:30:00 PM - Incident# 2951718 (1 lost trip, 266 lost minutes)
(1057)-1010
Doors Not Opening
SB Duarte
T-63
Train 432

12-29-2017 6:14:00 PM - Incident# 2951799 (0 lost trips, 10 lost minutes)
(707)-744-746
Doors Not Closing
NB S Pasadena
Train 440
T-283

Wayside Incidents:

12-01-2017 4:54:00 PM - Incident# 2940917 (0 lost trips, 4 lost minutes)
DC Breaker: Open at Soldano B-12, B-13 and Virginia B-14 and B-15 creating de-energized tracks between APU Citrus and Irwindale station.

12-20-2017 6:58:00 AM - Incident# 2948374 (0 lost trips, lost minutes)
OCS damage, Jumper Wire hanging below the Contact Wire., Broken Pantograph.
Train 405
T-11
LRV (715A),719,729
Avenue 61, Track 1
Northbound.

Police & Health Incidents:

12-02-2017 1:15:00 PM - Incident# 2941119 (0 lost trips, 5 lost minutes)
Sick Individual

12-16-2017 3:53:00 PM - Incident# 2947031 (0 lost trips, 5 lost minutes)
Assault onboard train 409 car 750A, Track 1 at Arcadia Station.

12-17-2017 2:00:00 PM - Incident# 2947230 (0 lost trips, 5 lost minutes)
T-151 Reported Trespassers Walking NB From Little Tokyo on the 101 Flyover

12-18-2017 6:20:00 AM - Incident# 2947404 (2 lost trips, 543 lost minutes)

T-128 reports that a vehicle is stuck on the ROW at 3rd St and Ford Blvd.
T-128
Train-406
Consist-736-731
3rd St & Ford Blvd, Track #1 Side

12-18-2017 10:16:00 AM - Incident# 2947494 (0 lost trips, 6 lost minutes)
Weapon Possession
LASD: Cavajal
Atlantic Station (Parking structure and Kaiser building)

12-19-2017 5:35:00 AM - Incident# 2947850 (0 lost trips, 10 lost minutes)
T-146 reports of LASD holding train at APU Citrus Station due to sleeping individual.

12-20-2017 5:26:00 PM - Incident# 2948633 (0 lost trips, 10 lost minutes)
Sick Individual on board train 425
T-154
Cars (745a), 744
NB, Track 1, Arcadia Station
Train 425

12-21-2017 7:31:00 PM - Incident# 2949095 (0 lost trips, 8 lost minutes)
Train delay due to a sick car 710a
Train 454
T-63
Car 710
SB, Track 2, Azusa Citrus Station

12-22-2017 12:39:00 AM - Incident# 2949151 (1 lost trip, 266 lost minutes)
Medical attention requested at Union Station on board train 426.
Train 426
T-421
Cars 733, (723a), 740
NB, Union Station, Track 1

12-22-2017 4:05:00 PM - Incident# 2949491 (0 lost trips, 7 lost minutes)
Patron Was Assaulted on Platform at Union Station

12-22-2017 11:22:00 PM - Incident# 2949549 (0 lost trips, 10 lost minutes)
Hurt individual on train 436.

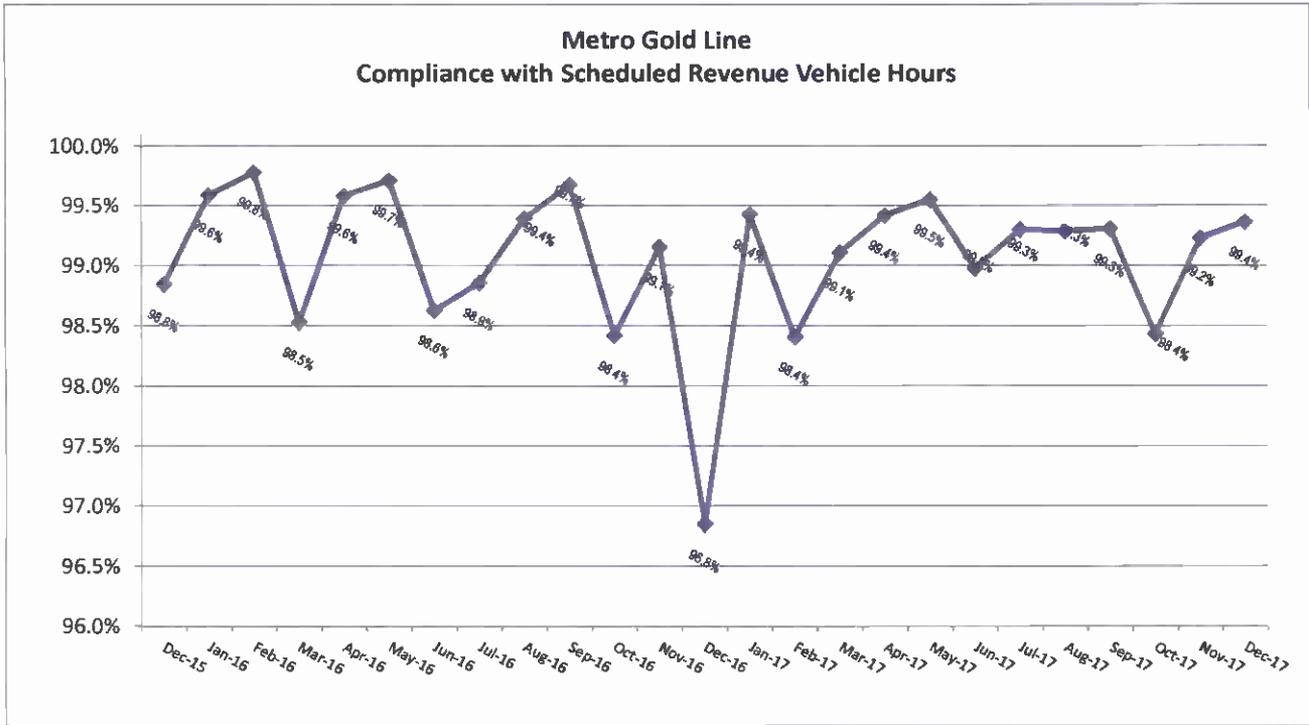
Other Incidents:

12-07-2017 4:37:00 AM - Incident# 2942895 (1 lost trip, 247 lost minutes)
R-161 reports operator 128 fail to sing on time for train 215, NA.

12-12-2017 3:21:00 PM - Incident# 2945326 (1 lost trip, 266 lost minutes)
Yard Control reports no equipment for roll out of Train 429 at 1538 hours.

MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

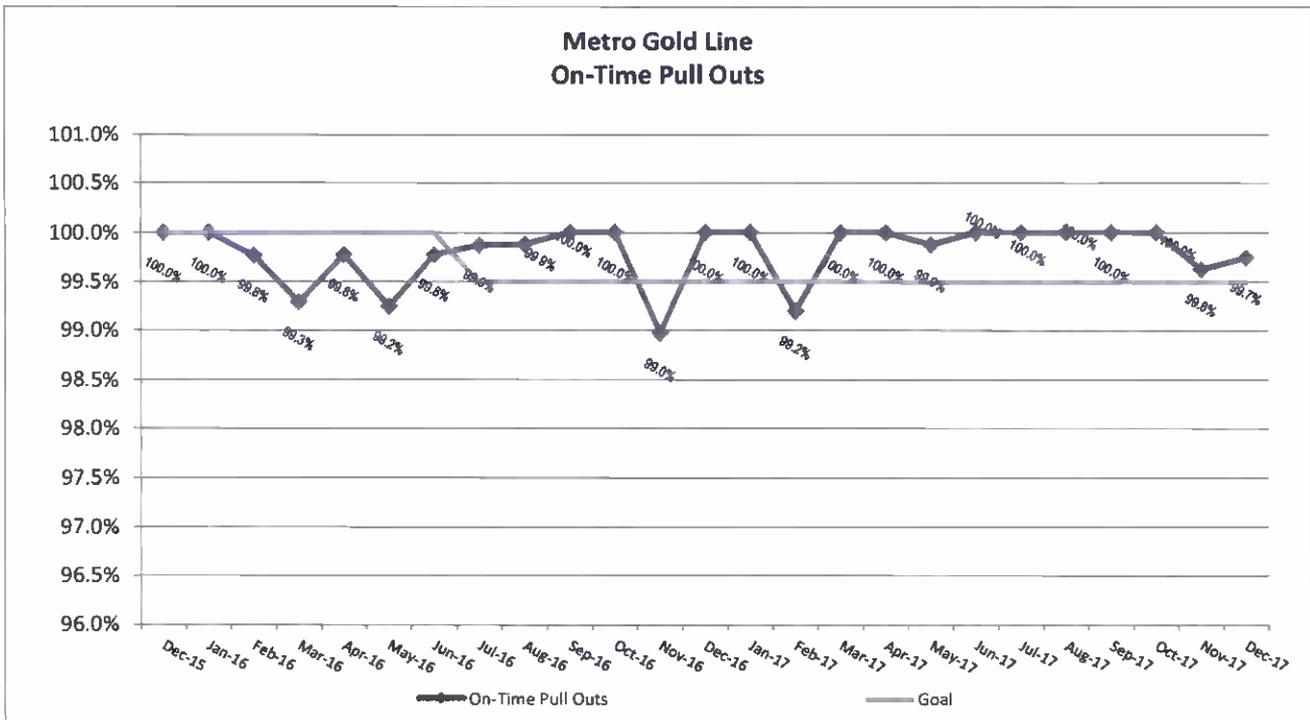
COMPLIANCE WITH SCHEDULED VEHICLE HOURS



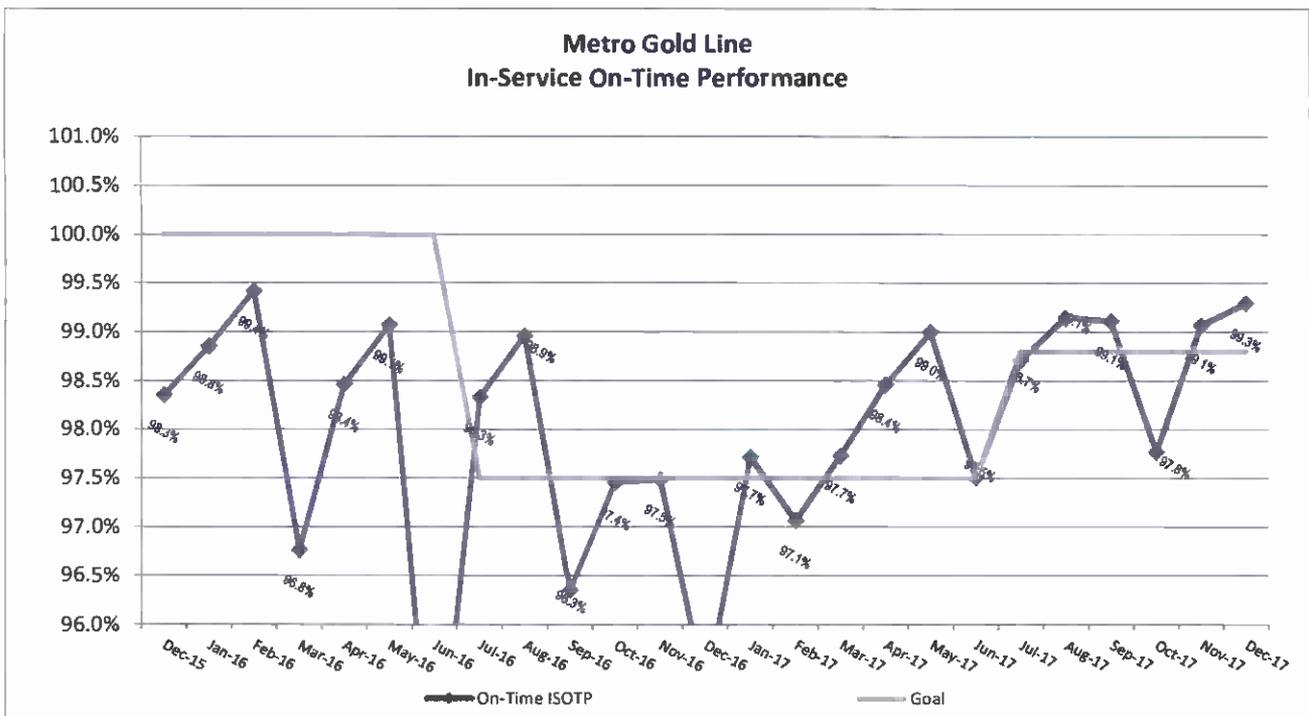
COMPLIANCE WITH SCHEDULED TRAIN MILES



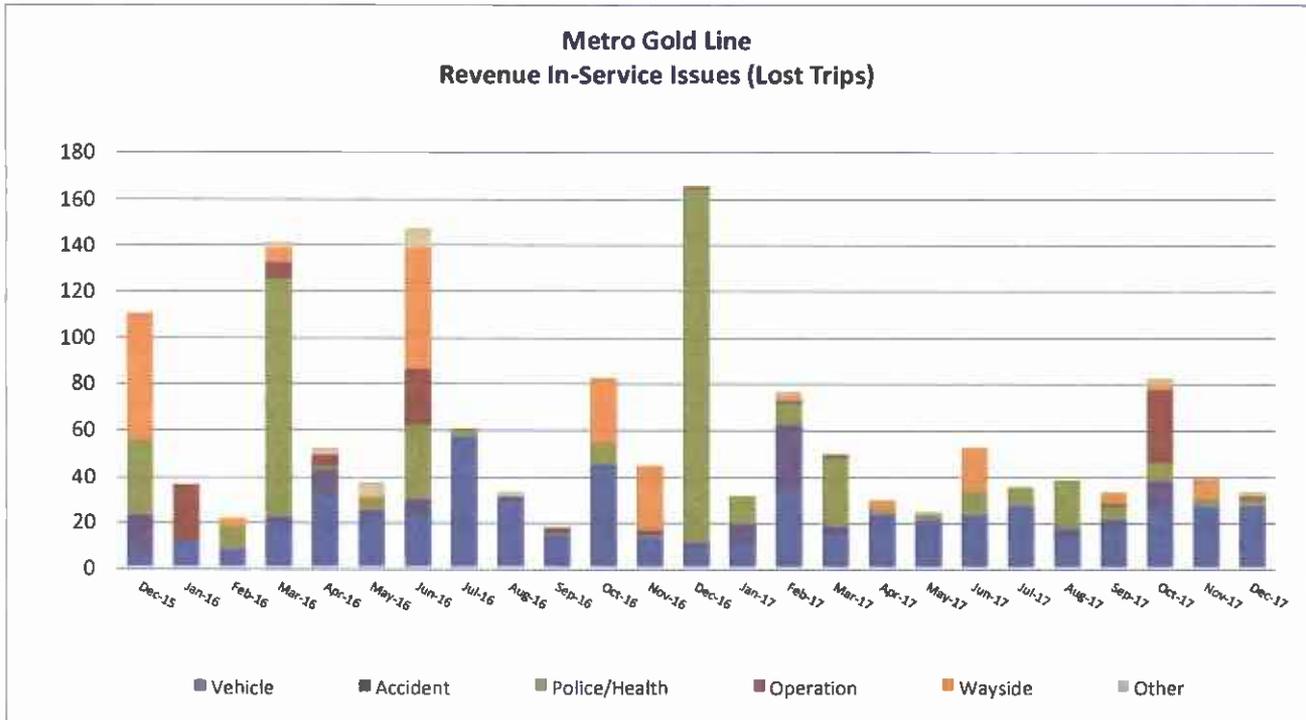
ON-TIME PULL OUTS



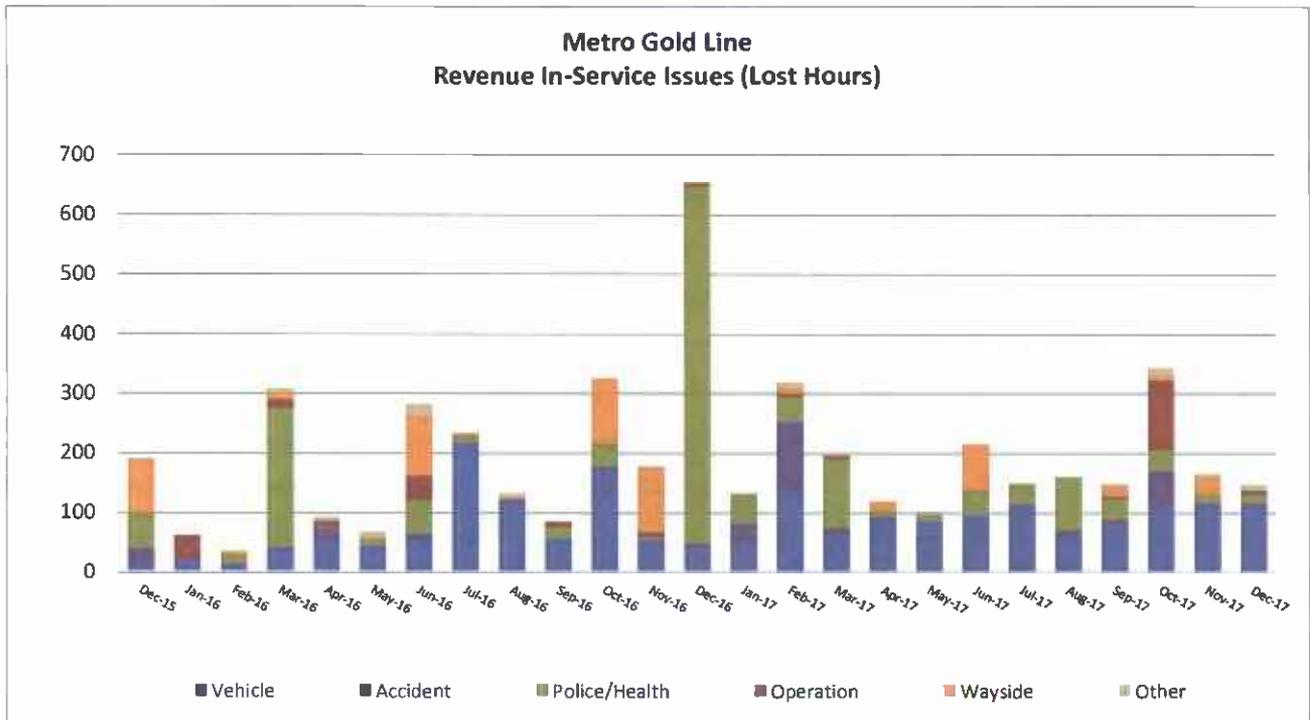
IN-SERVICE ON-TIME PERFORMANCE



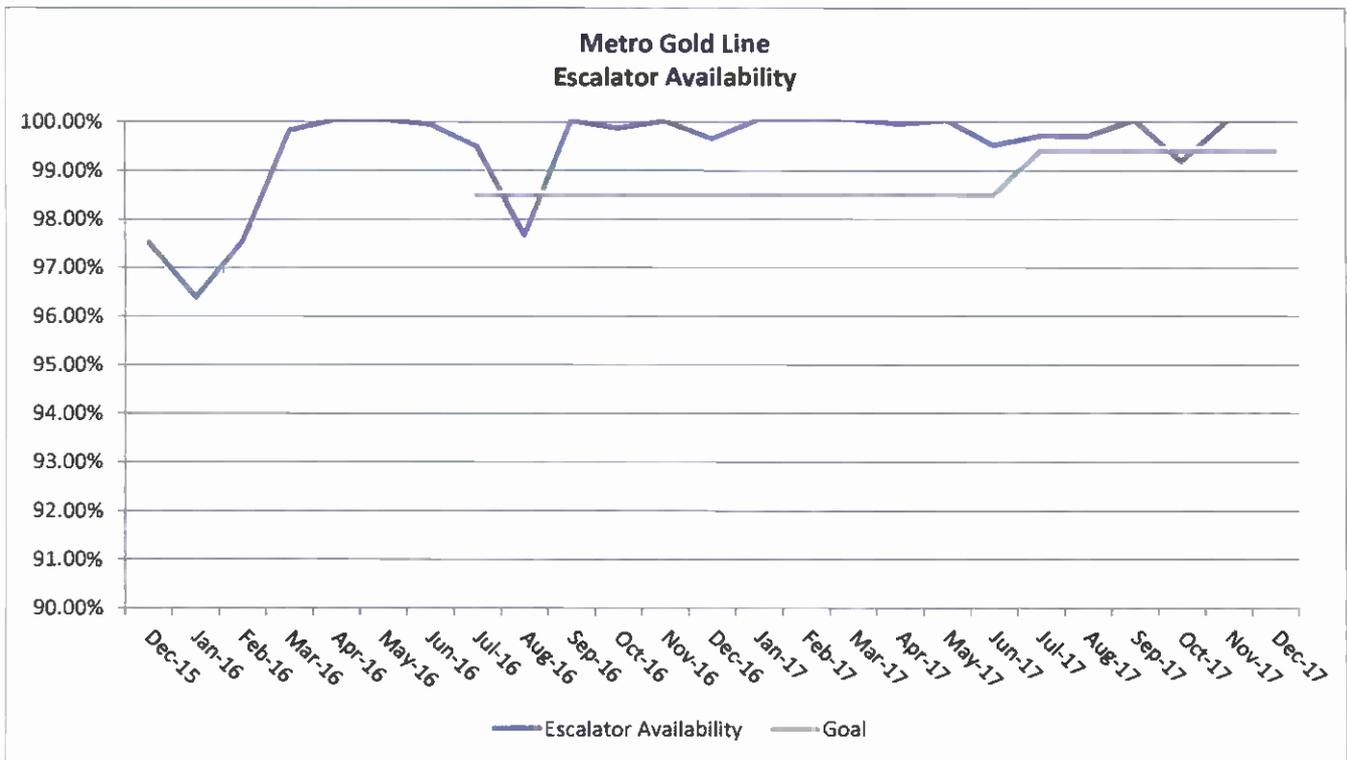
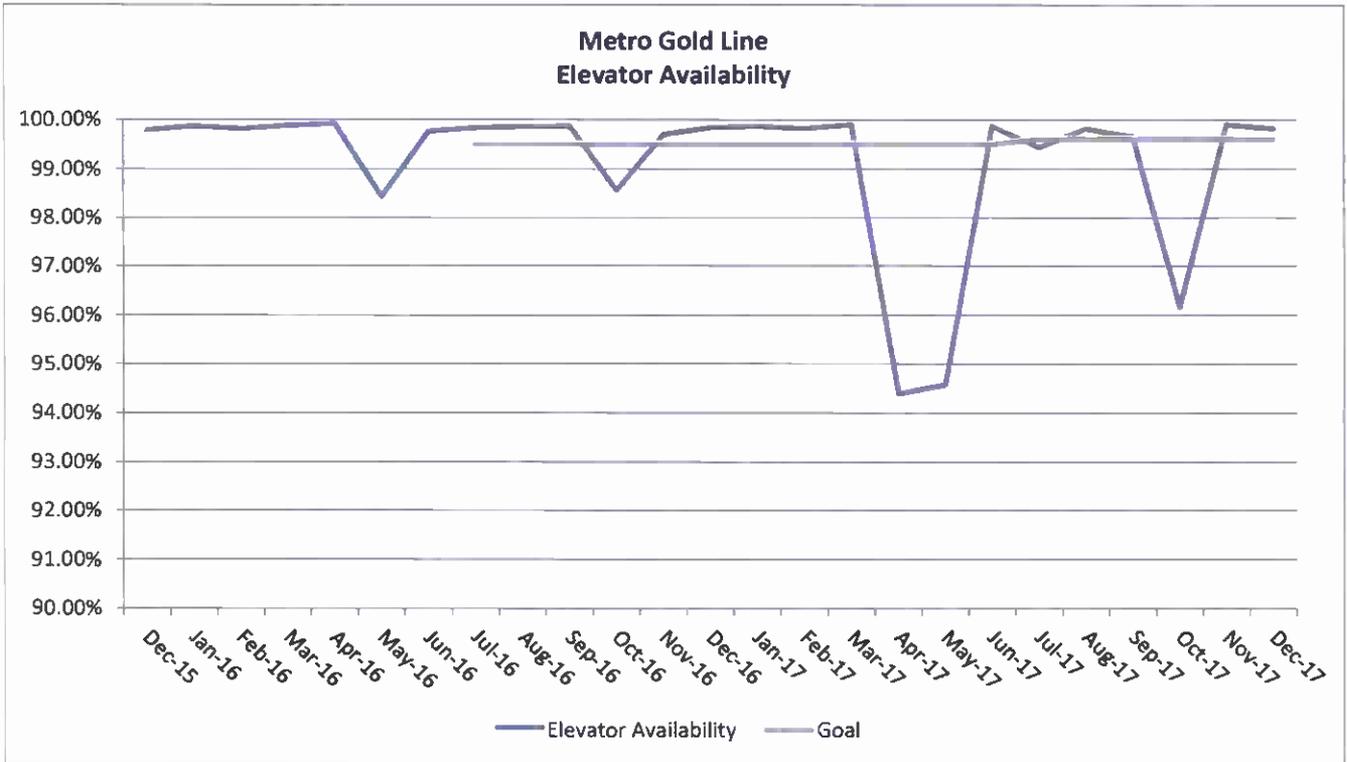
LOST TRIPS



LOST HOURS



VERTICAL TRANSPORTATION AVAILABILITY



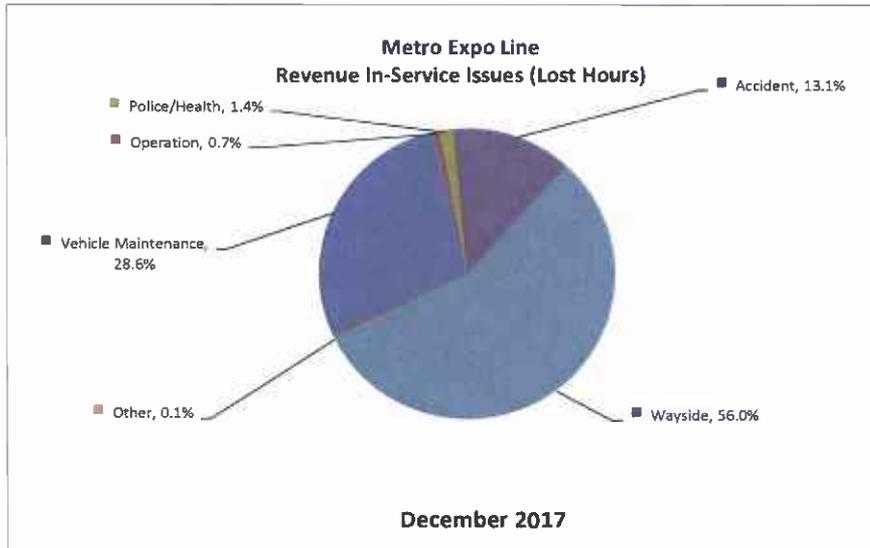
EXPO LINE

Out of a total of 21,964 hours operated, there were approximately 55 total hours of service delays.

December 2017 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	21,909	99.8%
Cancelled + Delayed Hours	55	0.2%
Total Revenue Hours	21,964	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	2	0.4	0.7%
Accidents	3	7.1	13.1%
Vehicle Maintenance	12	15.6	28.6%
Wayside	1	30.6	56.0%
Police & Health	3	0.8	1.4%
Other	1	0.1	0.1%
Total	22	54.5	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



December 2017 Expo Line incidents causing delay were as follows:

Operations Incidents:

12-12-2017 5:46:00 PM - Incident# 2945418 (0 lost trips, 9 lost minutes)

Out Late

Train 668

T-373

{1028}-1016-1068

Southbound, track 1 7th Metro Center.

12-13-2017 6:07:00 PM - Incident# 2945863 (0 lost trips, 13 lost minutes)

Expo Trains 654, 671, 655 ,672 ,656, 651, 665 have been late from 7th / Metro due to Schedule Summary M-27.

Accidents:

12-02-2017 10:48:00 PM - Incident# 2941231 (1 lost trip, 141 lost minutes)

10-73 , Accident at the intersection of Exposition Blvd. & Raymond Ave. Cars #(1017)-1040-1031.

12-29-2017 11:35:00 AM - Incident# 2951626 (1 lost trip, 146 lost minutes)

Accident: Shopping cart, cars #(1017AA)-1065-1042

Train #653

T-238

Barrington grade crossing, Track #003, Northbound.

12-31-2017 6:44:00 PM - Incident# 2952197 (1 lost trip, 141 lost minutes)

Auto vs. Train Flower and 18th.

T-323

Train 907

{1076A}-1091-1075

TK 2 Flower/18th St. S/B

Vehicle Maintenance Incidents:

12-01-2017 7:13:00 AM - Incident# 2940651 (0 lost trips, 10 lost minutes)

Operator T-133 reports dark screen no movement.

12-02-2017 7:04:00 PM - Incident# 2941204 (0 lost trips, 12 lost minutes)

Emergency Brake Applications with no movement.

Train #651

T-489

Cars #1050-{1023-A}-1070

5/Bound Lincoln Blvd. Track-4.

12-07-2017 7:25:00 AM - Incident# 2943086 (0 lost trips, 8 lost minutes)

Doors self open

Train 6703

southbound

26th st

{301B}-236-233

T-47

Track 4

doors 7/8

12-08-2017 8:57:00 AM - Incident# 2943663 (0 lost trips, 17 lost minutes)

Operator reports of a propulsion fault with a speed restriction.

Train 605

T-323

{246A}239-245

Motorman's Platform, Trk. 3, Northbound

12-10-2017 12:34:00 AM - Incident# 2944237 (0 lost trips, 10 lost minutes)

Operator T-139 reports self applied brakes.

12-10-2017 10:01:00 AM - Incident# 2944306 (0 lost trips, 13 lost minutes)

Train 901 reporting that train will not move faster than 5mph departing 7th & Metro Station.

Train 901

T-188

LRV'S 1097-1074-1098

7th & Metro Station, track 1, southbound.

12-14-2017 4:37:00 PM - Incident# 2947533 (1 lost trip, 141 lost minutes)

Recurring propulsion fault no movement

Train #655 T-358 car#1041-1043-1027

southbound at Metro Center.

12-15-2017 7:13:00 AM - Incident# 2946523 (0 lost trips, 7 lost minutes)
Train 663 reports no movement in the Portal (7th/Metro).
Train 663
T-62
Cars 1032-1021-1054
Southbound, Track 2, Portal (7th/Metro)

12-23-2017 8:55:00 AM - Incident# 2949621 (1 lost trip, 141 lost minutes)
Train 656 reports no cab signal at Relief Platform on track 3
Cars 1045B with 1046 1003
Operator T-157

12-24-2017 4:45:00 PM - Incident# 2949897 (0 lost trips, 8 lost minutes)
Doors 1/2 cut out on car 1046 A.
T-265
Train 655
(1046)-1003-1052
Track 3 Jefferson N/B

12-28-2017 8:29:00 AM - Incident# 2951140 (1 lost trip, 141 lost minutes)
HSCB fault on train 653 at 7th and Metro station.
CAr 1046B with 1003 1052
Operator T-489

12-29-2017 4:06:00 PM - Incident# 2951759 (3 lost trips, 429 lost minutes)
Unable to close doors on car (1048A doors 7/8).
Train # 668
T-268
USC/Expo track #4, southbound
1051 1045 (1048A)

Wayside Incidents:

12-14-2017 6:02:00 PM - Incident# 2946338 (13 lost trips, 1,833 lost minutes)
AC breaker tripped at Cloverfield
BO12, BO13 @ 17th St.TPSS
BO14,BO15 @ Barrington TPSS

Police & Health Incidents:

12-04-2017 7:45:00 PM - Incident# 2941931 (0 lost trips, 12 lost minutes)
Trespasser La Brea on Track 4.

12-09-2017 1:47:00 AM - Incident# 2943958 (0 lost trips, 20 lost minutes)
Train 669, T-509 reports a fight in progress onboard car 1014B. Train holding at Vermont Station track 4.

12-09-2017 8:27:00 PM - Incident# 2944193 (0 lost trips, 15 lost minutes)
Altercations aboard train
Train #657, T-449
1050-1020-(10668)
NB, 26th St. Station, Track #3

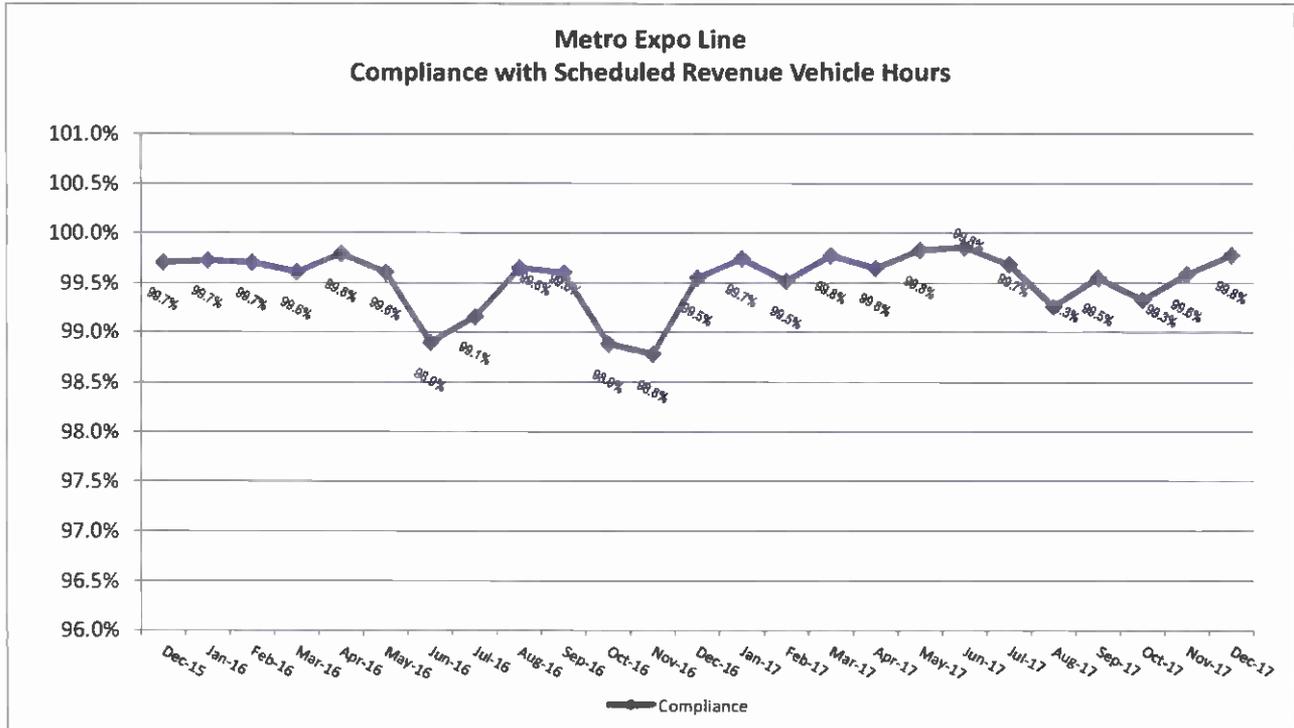
Other Incidents:

12-08-2017 3:50:00 PM - Incident# 2943856 (0 lost trips, 5 lost minutes)
All Expo-Trains are suspending HVAC operations between Crenshaw and Western,also restricted speed between Arlington and 11th Ave-tracks 3&4. A building/ structural fire caused the restrictions.

12-10-2017 4:28:00 AM - Incident# 2944256 (0 lost trips, lost minutes)
Train 655 pulled out 15 minutes late due to yard controllers error.

MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

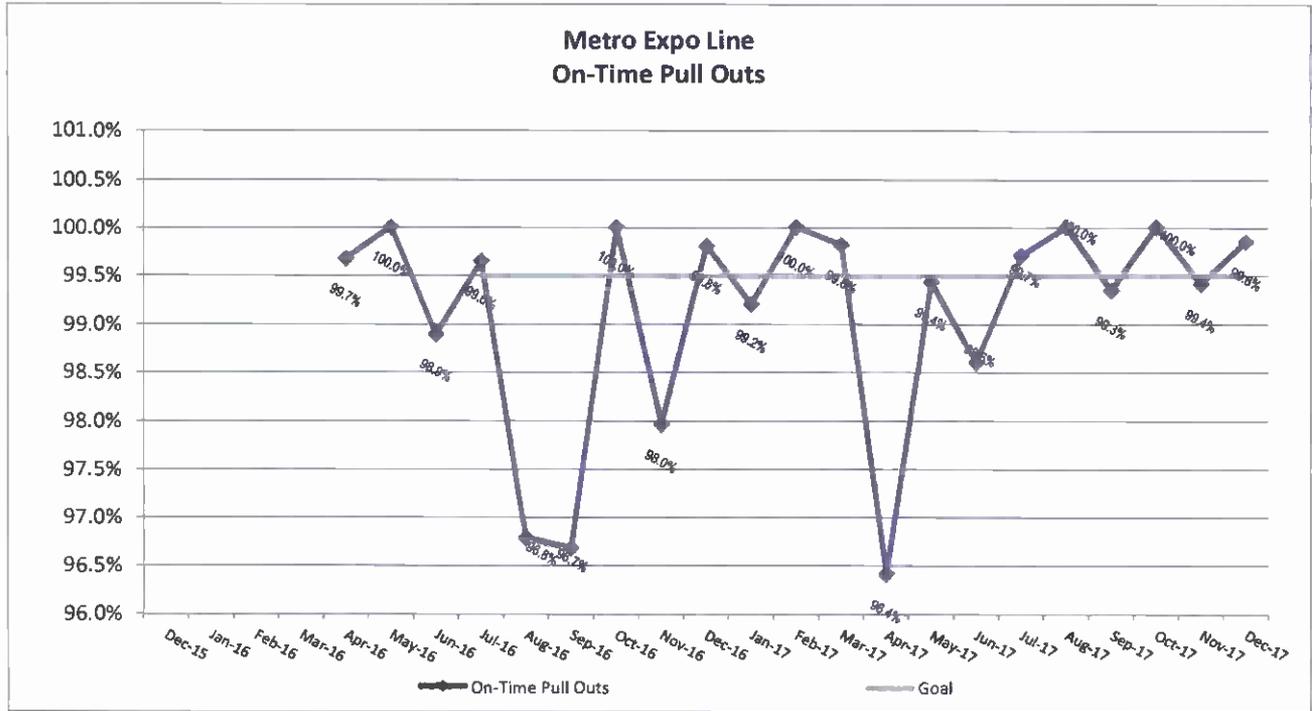
COMPLIANCE WITH SCHEDULED VEHICLE HOURS



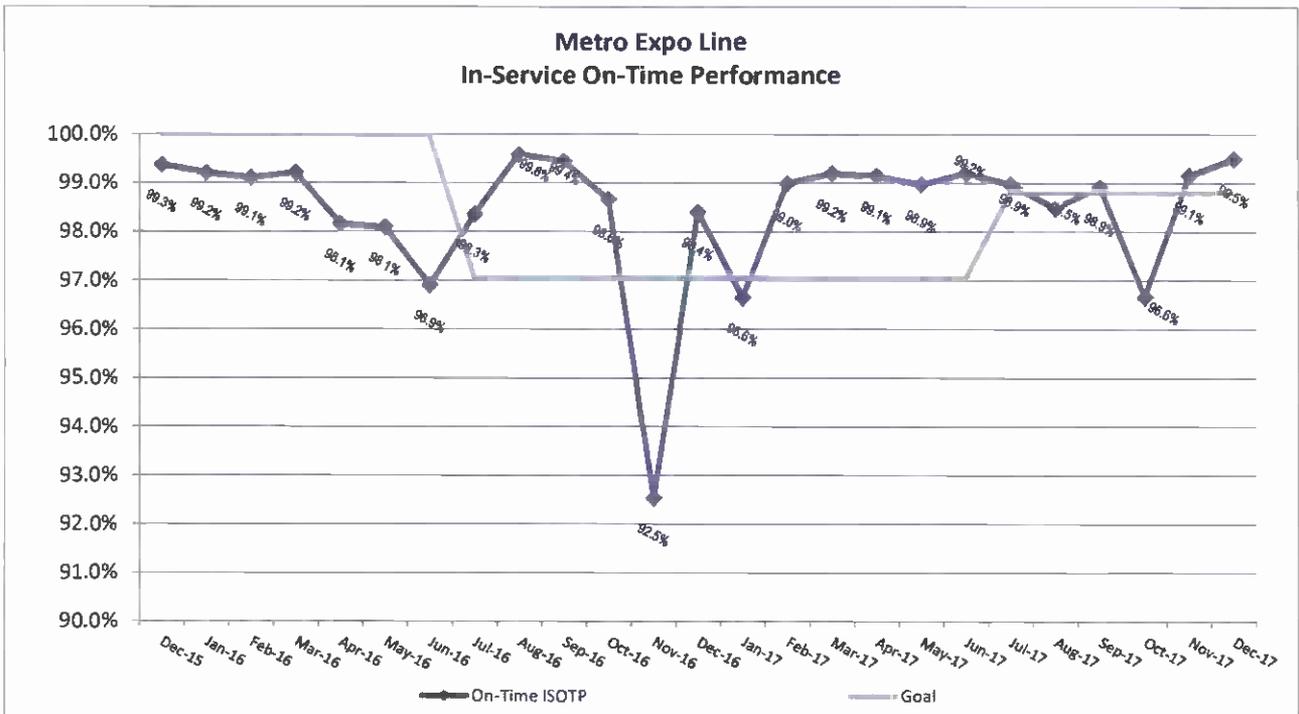
COMPLIANCE WITH SCHEDULED TRAIN MILES



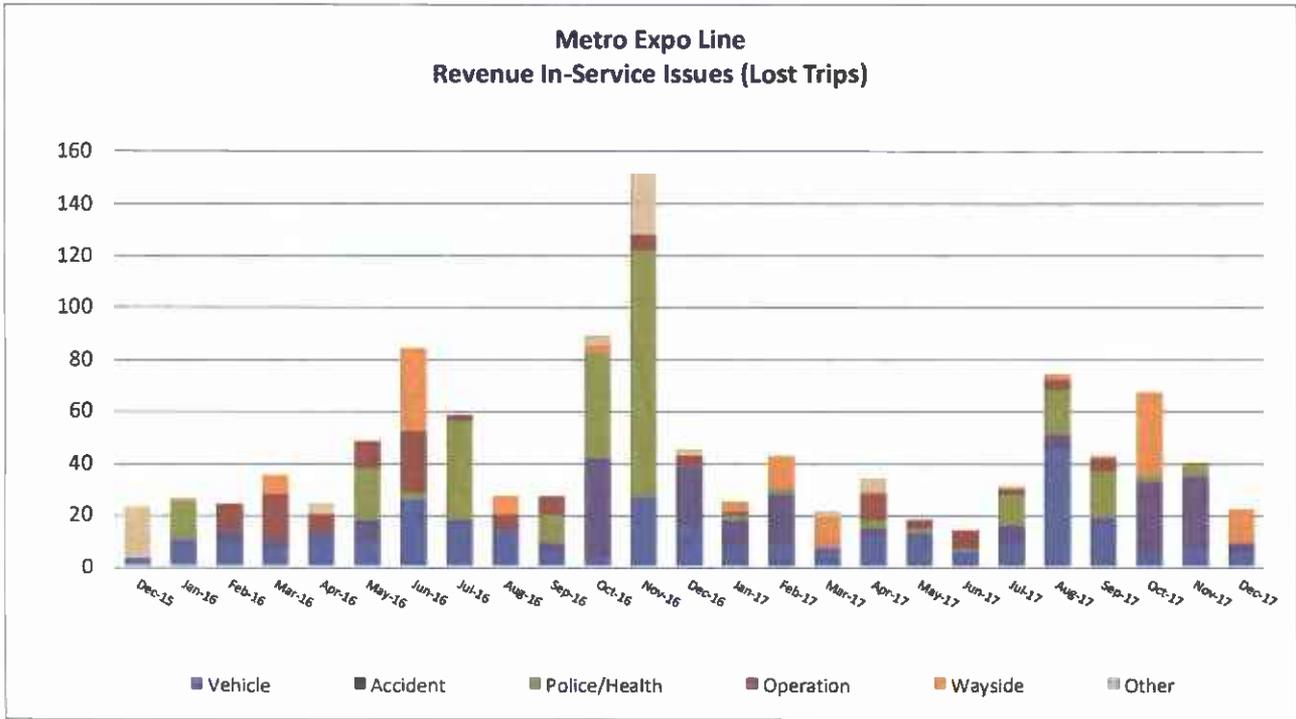
ON-TIME PULL OUTS



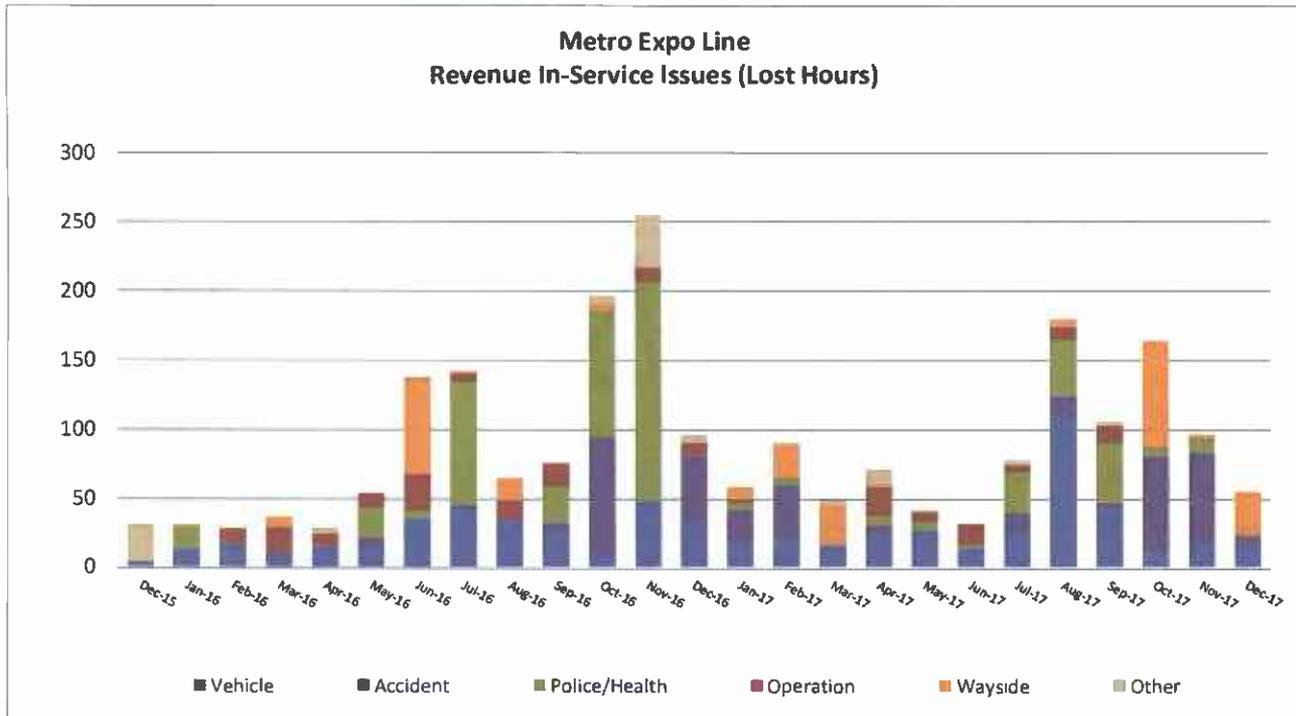
IN-SERVICE ON-TIME PERFORMANCE



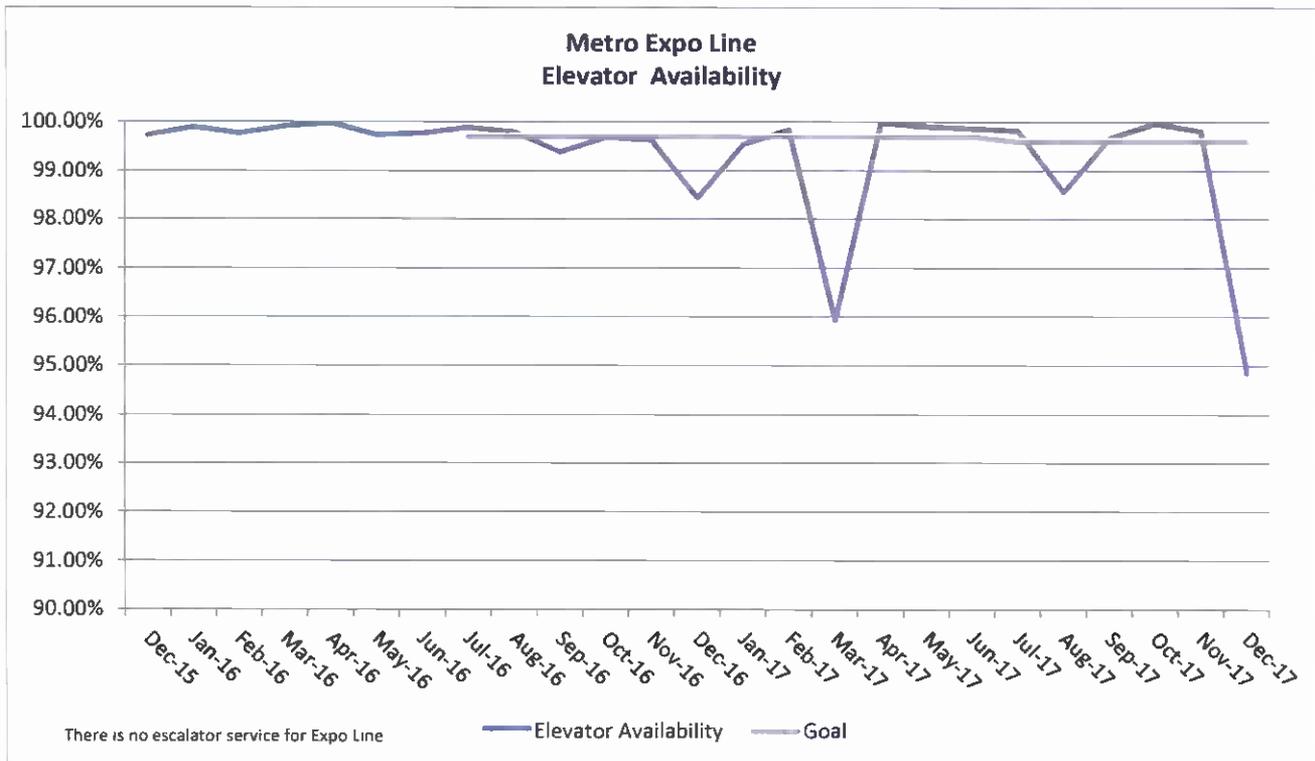
LOST TRIPS



LOST HOURS



VERTICAL TRANSPORTATION AVAILABILITY



Financial Status

December 2017

FTA Quarterly Review

February 28, 2018



Metro

Excellence in Service and Support

FY18 – Indicators

- **FY18 actual cash receipts from locally imposed sales tax revenues (PA, PC, MR, MM) increased 40.0% over FY17 through Q2, including first full quarter of Measure M receipts. Excluding M, increase was 5.2%**
- **The Dec 2017 Los Angeles County unemployment rate fell 0.5% from Sept to virtually even with State levels:
LA 4.4%, CA 4.3% and US 4.1%**
- **Inflation in the Los Angeles Metropolitan Area for the period ended Dec '17 = 3.6% over Dec '16**
 - **Excluding Food and Energy, core inflation equaled 3.6%**
- **Transit indicators – FY 18 Q2**
 - Ridership versus prior year**
 - Bus: -2.1%**
 - Rail: -1.2%**
 - Total: -1.9%**



Metro

Fare revenues – FY18 Q2 -4.0% vs FY 17 Q2

FY18 Q2 – Highlights

- **The Metro Board approved the expansion of the All Door Boarding program to the Rapid Lines 720 (Wilshire) and 724 (Vermont)**
- **Approved the implementation and initiation of the Small Business Bonding Assistance Pilot Program**
- **Approved the advancement of the Metro Orange Line (MOL) Transit Improvements to the Environmental, Engineering and Public Outreach stages.**

FY18 Q3– Look Ahead

- **Initiation of the FY 2018-19 Budget development process**
- **Implement the enhanced low income fare subsidy program “LIFE” to expand transit accessibility to economically vulnerable individuals.**
- **Adoption of the Supportive Transit Parking Program Master Plan including parking management and planning policies, operations, enforcement, and maintenance and technology integration.**

Los Angeles County
Metropolitan Transportation Authority

METRO CONSTRUCTION SAFETY FTA Quarterly Review Meeting February 28, 2018



Metro

CONSTRUCTION SAFETY QUARTERLY REPORT



Crenshaw/LAX Transit Project

CRENSHAW/LAX TRANSIT PROJECT

- ❑ Metro participated in WSCC Tool-Box Safety Huddle Meetings in October, November and December 2017.
- ❑ WSCC participated in Metro's All Hands Safety and Security Meetings in October, November and December 2017.
- ❑ WSCC participated in Metro's Safety Briefings in October, November and December 2017.
- ❑ Project-to-Date Total Work Hours: 5,122,088
Recordable Injuries as of December 2017: 74
Project Rate per 200,000 Labor Hours: 2.9
BLS National Heavy Construction Incident Rate: 2.8
Total Days Away Cases: 2
Total Restrictive Duty Cases: 5

CONSTRUCTION SAFETY QUARTERLY REPORT



Westside Purple Line Extension
Section 1 Project

WESTSIDE PURPLE LINE EXTENSION SECTION 1 PROJECT

❑ Project to Date Total Work Hours:	2,305,676
Recordable Injuries as of November 2017:	11
Project Rate per 200,000 Labor Hours:	1.0
BLS National Heavy Construction Incident Rate:	2.8
Total Days Away Cases	3



Regional Connector Transit Project

REGIONAL CONNECTOR TRANSIT PROJECT

❑ Project-to-Date Total Work Hours:	2,073,782
Recordable Injuries as of November 2017:	11
Project Rate per 200,000 Labor Hours:	1.1
BLS National Heavy Construction Incident Rate:	2.8
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.

FTA Quarterly Planning Update

February 28, 2018

Metro Planning Report

- Small Starts Projects
 - Metro Rapid System Gap Closure Lines
- Other Projects
 - East San Fernando Valley Transit Corridor
 - Eastside Transit Corridor Phase 2
 - West Santa Ana Branch Transit Corridor
- TIGER VII Grant Project
 - Rail to Rail Active Transportation Corridor Connector Project
- Ladders of Opportunity Grant Project
 - Cesar Chavez Bus Stop Improvements Project



Metro Rapid System Gap Closure Lines



Metro Rapid System Gap Closure Lines

Transit Signal Priority

- Included total of 126.3 miles of TSP along 7 Metro Rapid corridors:
 - Torrance-Long Beach
 - Venice
 - Atlantic
 - Garvey-Chavez
 - West Olympic
 - South Sepulveda
 - San Fernando
- Completed 123 miles or 97%
- Last 3.3 miles in Culver City*
 - January 2018 – City re-released RFP
 - August 2019 – Complete project



Metro Rapid System Gap Closure Lines Shelter Implementation

Status

- Installed stations at 102 locations within 13 jurisdictions
- Completing installation at 48 additional stations to complete program:

Metro stations:

- March 2018 – Award construction contract for 11 stations
- Fall 2018 – Completes Metro's shelter installation

Municipal Operator Rapid stations:

- November 2017 – Culver City began shelter installation at 8 locations (completion June 2018)
- January 2018 – City of Torrance awarded contract for up to 29 shelters (completion June 2018)



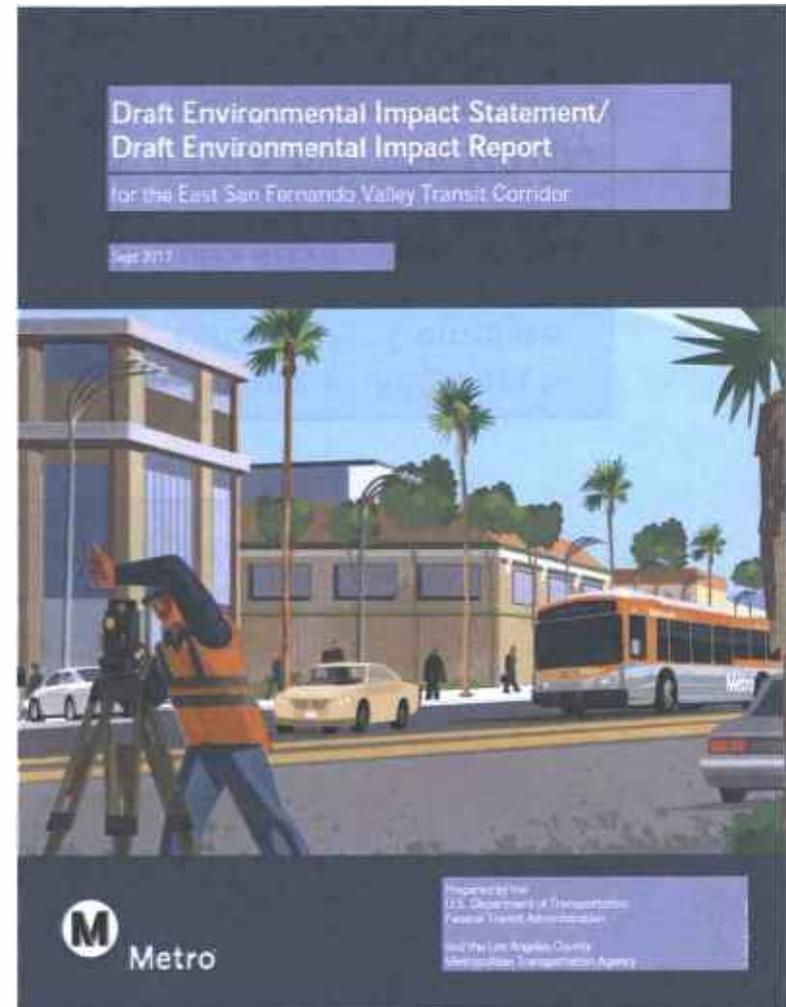
Metro Rapid System Gap Closure Lines Current Project Budget and Expenditures

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	\$19,093,403	\$23,121,925
Shelters	\$ 5,160,000	\$ 5,160,000	\$ 4,112,676	\$5,140,000
TOTAL	\$29,204,301	\$28,281,925	\$23,206,079	\$28,261,925

East San Fernando Valley Transit Corridor

- Draft EIS/EIR Public Review Period:
 - More than 900 comments received during 60-day Public Review Period:
 - Support for an at-grade rail alternative
 - Opposition to a Maintenance and Storage Facility near Metro Orange Line (MOL)
 - Concerns pertaining to potential right-of-way acquisitions
- Current Activities:
 - Review and organize comments
 - Prepare Public Comment Summary Report
 - Initiate work on Final EIS/EIR
 - Release RFP for preliminary engineering



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	\$19,093,403	\$23,121,925
Shelters	\$ 5,160,000	\$ 5,160,000	\$ 4,112,676	\$5,140,000
TOTAL	\$29,204,301	\$28,281,925	\$23,206,079	\$28,261,925

East San Fernando Valley Transit Corridor

Draft EIS/EIR Board Action (Anticipated)

April 2018 – Metro Board Action

- Approve Locally Preferred Alternative
 - LRT or BRT
 - MSF location
- Authorize Preparation of Final EIS/EIR
- Authorize Supplemental Studies
 - Rail Intersection Safety Study along San Fernando rail right-of-way
 - Connections Study at Van Nuys MOL Station
 - First/Last Mile Study within ¼ mile of newly identified stations

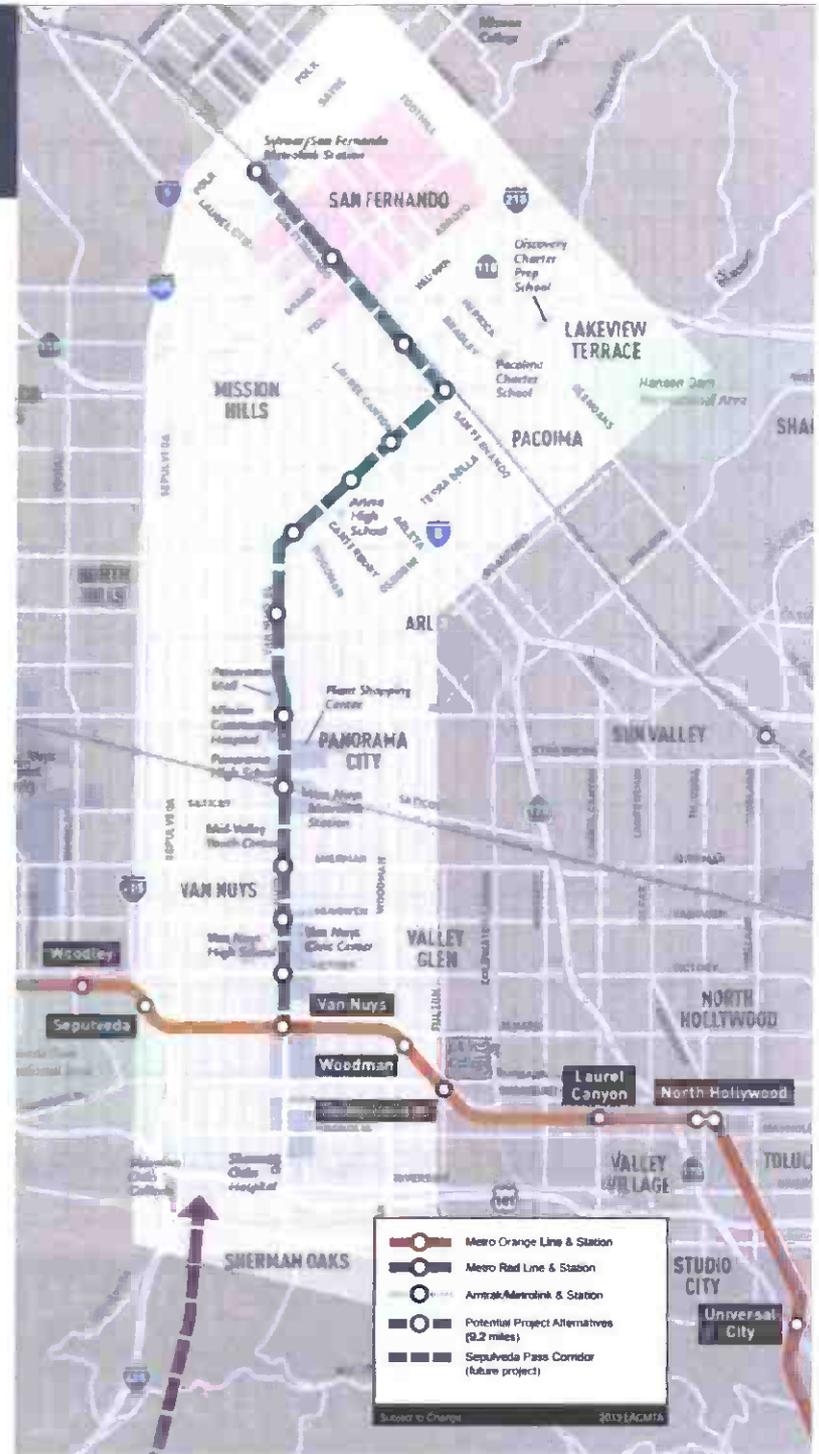


East San Fernando Valley Transit Corridor

Draft EIS/EIR Board Action (Anticipated)

April 2018 – Metro Board Action

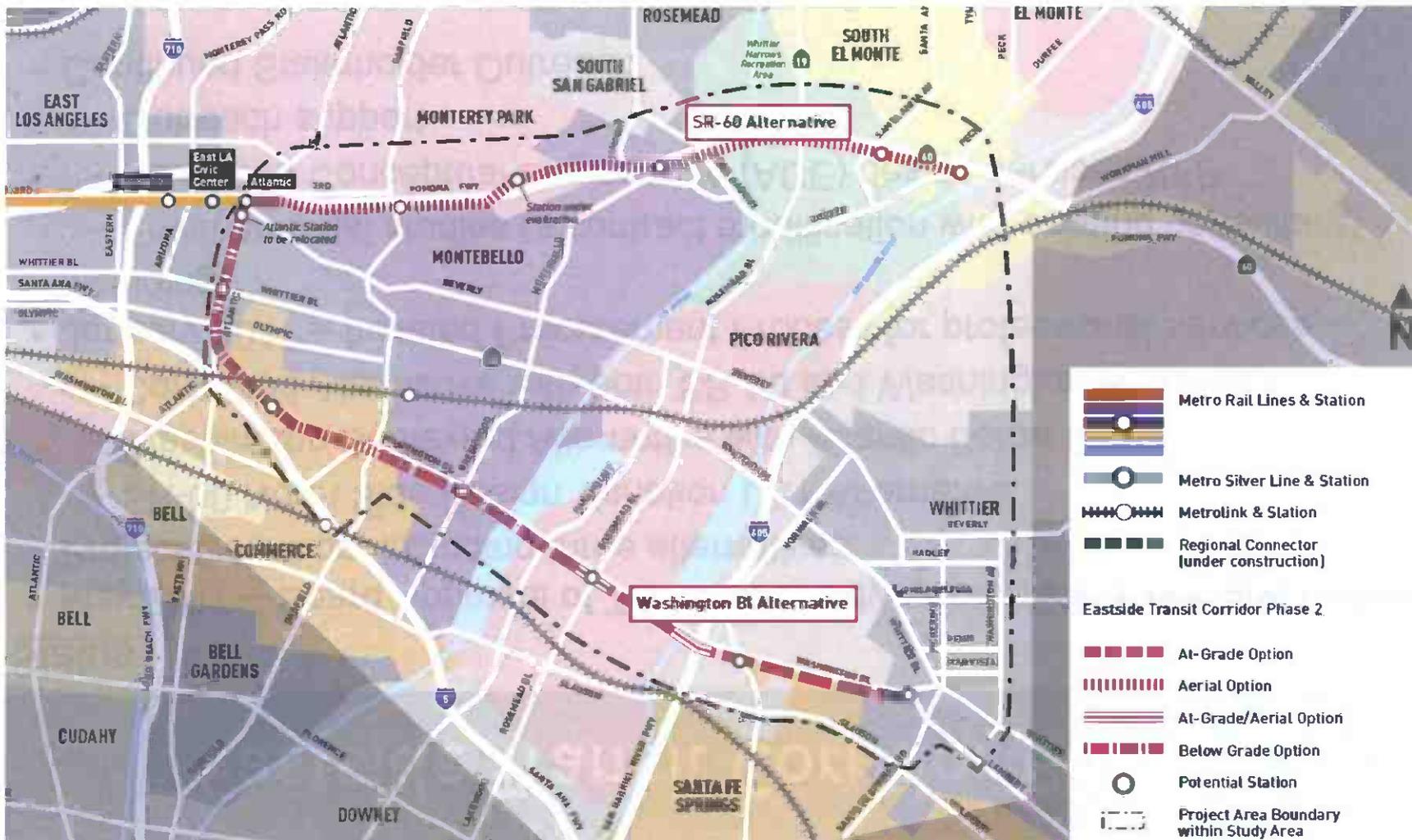
- Approve Locally Preferred Alternative
 - LRT or BRT
 - MSF location
- Authorize Preparation of Final EIS/EIR
- Authorize Supplemental Studies
 - Rail Intersection Safety Study along San Fernando rail right-of-way
 - Connections Study at Van Nuys MOL Station
 - First/Last Mile Study within ¼ mile of newly identified stations



Eastside Transit Corridor Phase 2

Three (3) Build Alternatives:

- SR-60 North Side Design Variation LRT Alternative
- Washington Boulevard Alternative with Atlantic Below Grade
- Combined Alternative with both SR-60 and Washington Boulevard via Atlantic Segments



Eastside Transit Corridor Phase 2

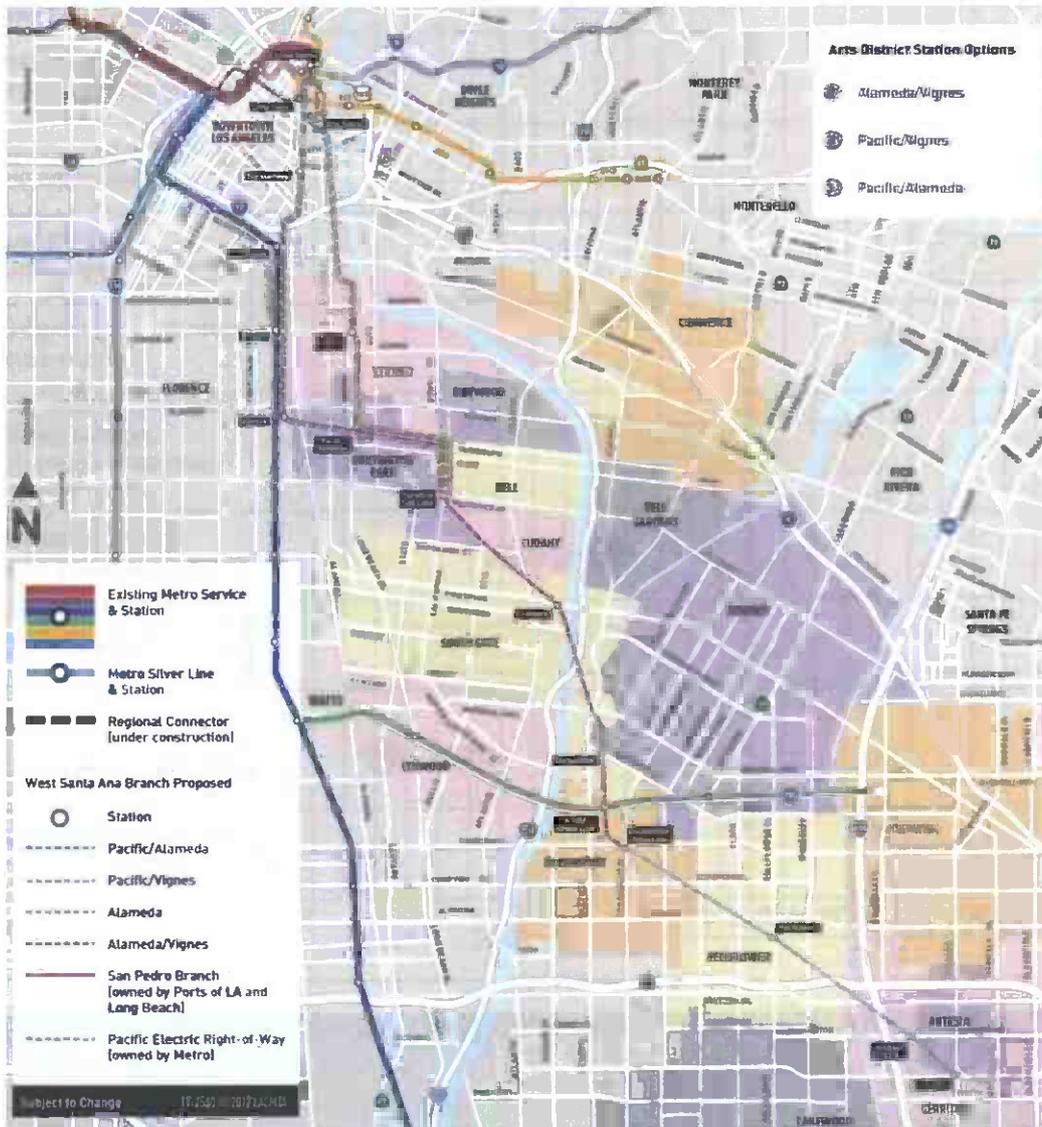
Status

- May 2017 – Board Approval of Technical Study recommendations and updated Project Definition, including three alternatives:
 - SR-60 North Side Design Variation LRT Alternative
 - Washington Boulevard Alternative with Atlantic Below Grade
 - Combined Alternative with both SR-60 and Washington Boulevard
- January 2017 – Initiated Procurement Process for professional services, including:
 - Environmental studies (a contract modification with existing consultant)
 - Advanced Conceptual Engineering (ACE) design services RFP
 - Outreach support
- Continued Stakeholder Outreach

Next Steps

- Summer 2018 – Board authorization to re-initiate Environmental Clearances and Advanced Conceptual Engineering

West Santa Ana Branch Transit Corridor



20-mile light rail transit corridor connecting downtown Los Angeles to southeast LA County

Draft EIS/EIR will evaluate:

- > Northern Alignment Options
- > One Southern Alignment
- > Stations
- > Grade Crossings
- > Maintenance Yard Options
- > Site Specific Design Options

West Santa Ana Branch Northern Alignment Options



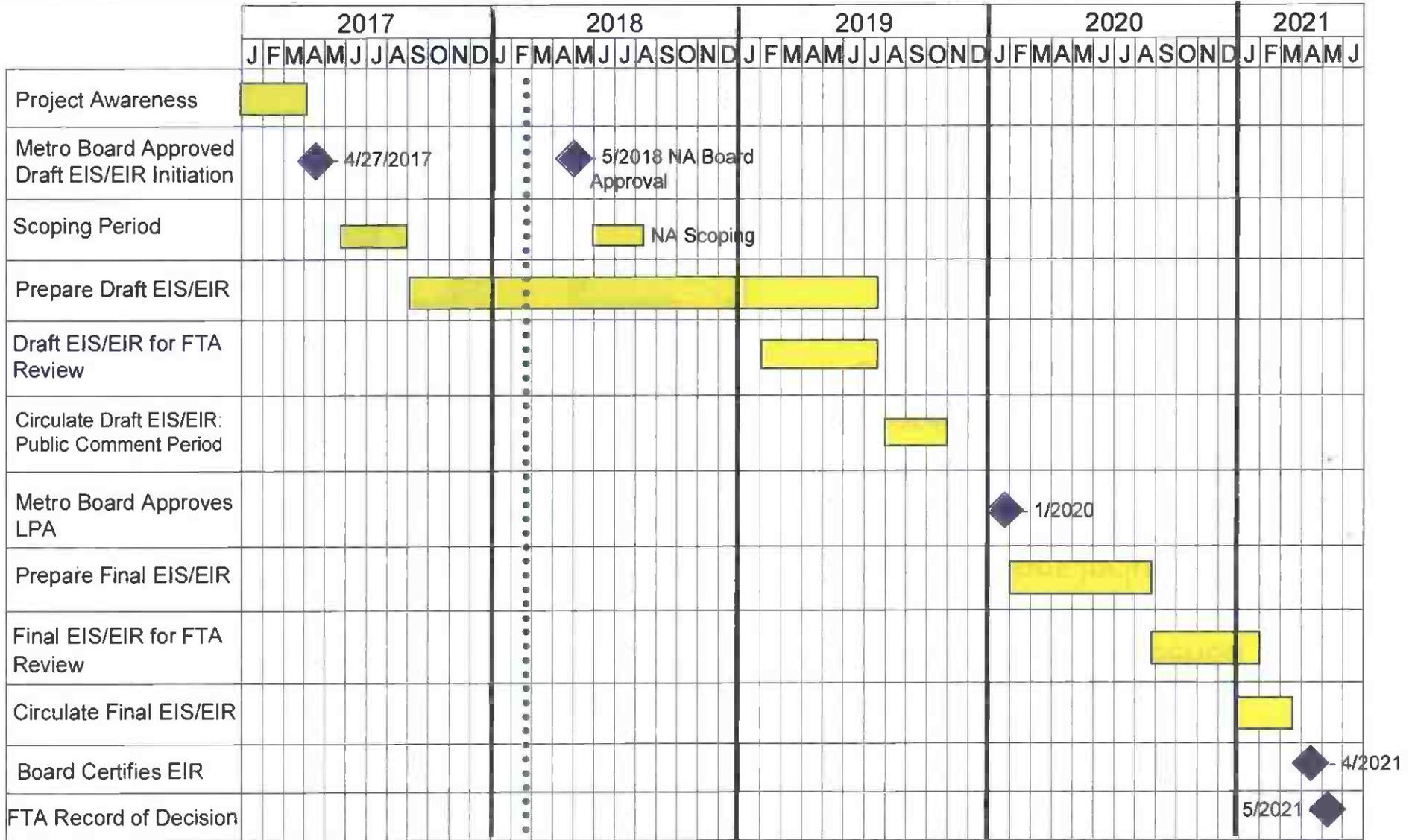
Status

- In response to scoping period comments, expanding northern alignment options including:
 - Conducting additional technical analysis and updating screening process
 - Continuing to provide stakeholder briefings

Next Steps

- May 2018 – Board action on refined northern alignment options and to reinitiate environmental scoping
- Summer – Begin northern alignment options community meetings

West Santa Ana Branch Transit Corridor Schedule



◆ = Milestone Date

Last Revised: 2/2018

Rail to Rail Active Transportation Corridor (ATC) Connector Project

Status

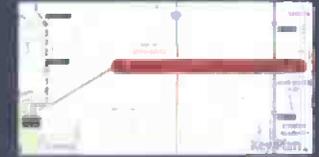
- September 5, 2017 – Fully executed Funding Agreement
- November 2017 – Invitation for Bid solicitation package released
- Early February – Bids due

Next Steps

- July 2018 – Award construction contract
- Continued coordination with:
 - City of Los Angeles (Bureaus and Departments)
 - Crenshaw/LAX Project Team



Slauson Corridor Design Concept



- 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 (Slauson west of San Pedro)



Mid-block Concept (Typical 30' ROW)

COMPOSITION
30' typical ROW

11' street buffer

7' walking path

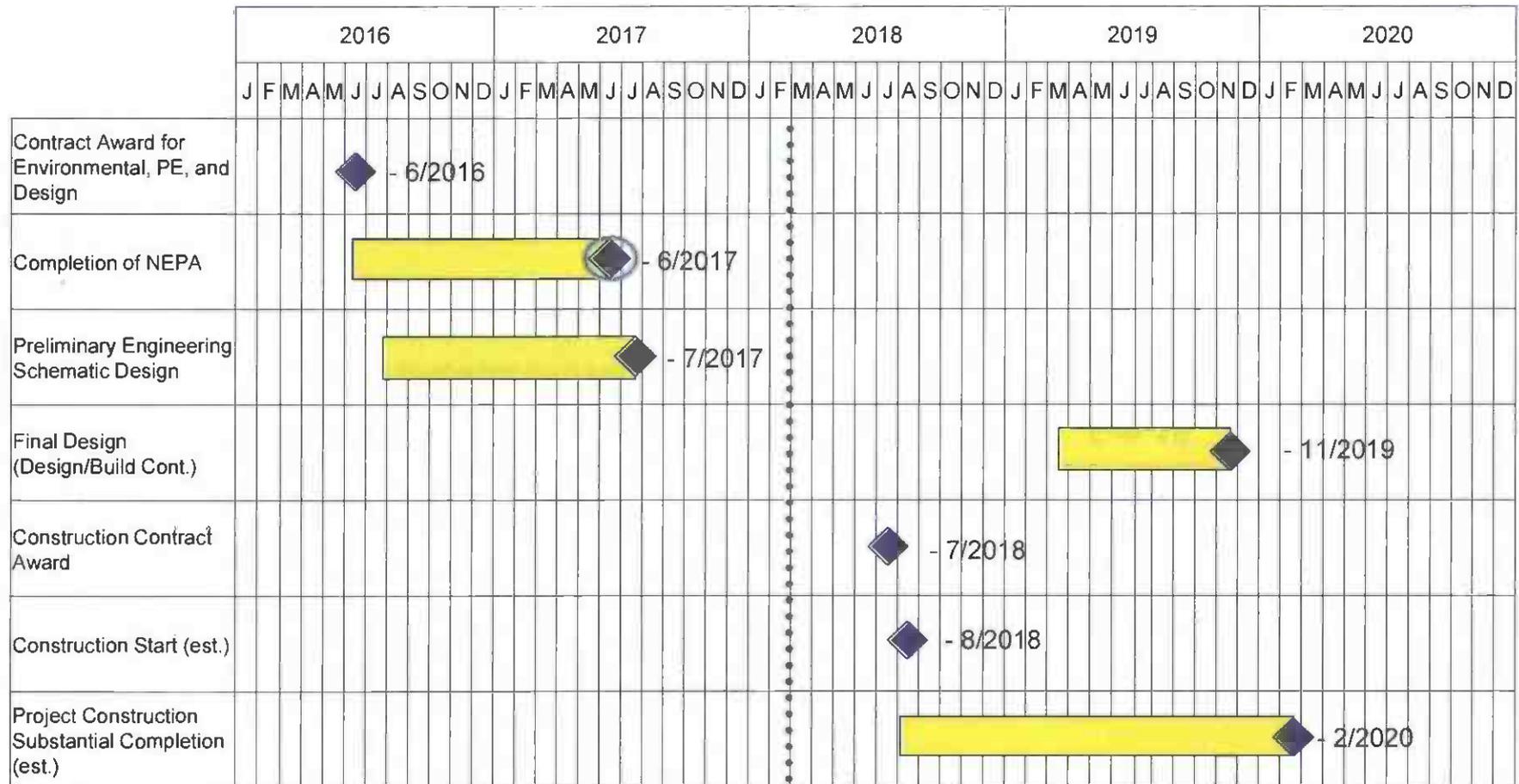
12' bike path

2' property line buffer



Metro

Rail to Rail ATC Connector Project Schedule (est.)



Last Revised: 2/2018

◆ = Milestone Date

○ = FTA Action

Milestones

PROJECT		NOI/NOP	Admin Draft to FTA	NOA	LPA
CEQA/ NEPA	East San Fernando Valley Transit Corridor	Mar-13	Jul-16	Aug-17	Apr-18
	Eastside Transit Corridor Phase 2 ¹	Jan-10	Dec-13	Aug-14	Feb-21
	West Santa Ana Branch Transit Corridor	Jun-17	Feb-19	Aug-19	Jan-20

¹ November 2014 Board approved completion of further technical studies

TIGER PROJECTS (CEQA/NEPA)		Environmental Completion	Project Completion
VII	Rail to Rail Active Transportation Corridor Connector Project	Jun-17	Feb-20

Cesar Chavez Bus Stop Improvements Project

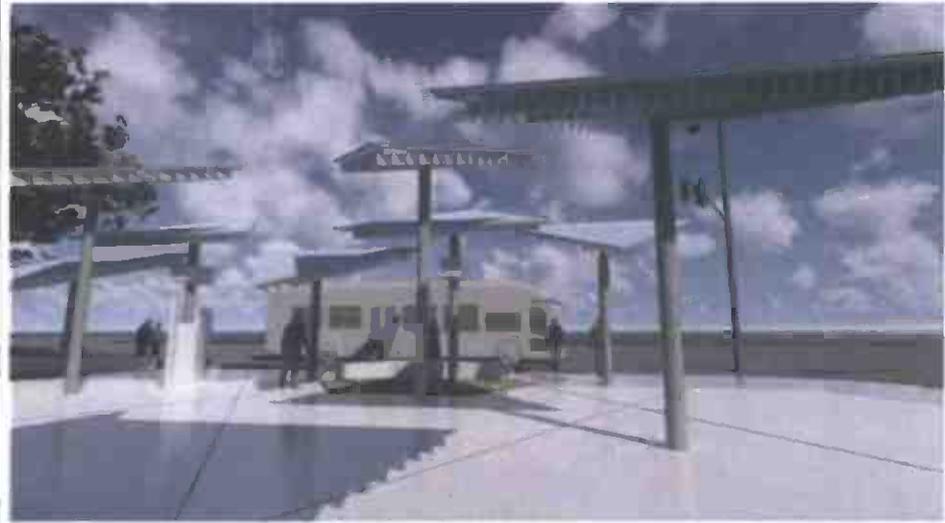
Status

- Existing conditions analysis of tunnel complete
- Second “pop-up” outreach meeting complete
- 85% Design of Transit Pavilion complete
- 100% Design of Transit Pavilion in progress

Next Steps

- Refine cost estimate
- Finalize 100% Design & AFC Design
- Procure contractor

Cesar Chavez Bus Stop Improvements Project Renderings



FOR REFERENCE ONLY

NO.	DATE	BY	DESCRIPTION
1	08/14/2017	CLJ	REVISION: FINAL

Gensler
 500 South Figueroa
 Los Angeles, CA 90071
 Telephone: 213 347-7600



Metro

LOS ANGELES COUNTY
 METROPOLITAN TRANSPORTATION AUTHORITY
 ONE GATEWAY PLAZA
 LOS ANGELES, CA 90012

Cesar Chavez Transit Pavilion
 137 South Main Street, Los Angeles, CA 90012

Project No. 15000000000000000000
 Sheet No. A-12
 Date: 08/14/17

Cesar Chavez Bus Stop Improvements Project

Current Project Budget and Expenditures

Funding Source	Current Budget
FTA Grant	\$1,668,557
Local Funds	\$417,140
TOTAL BUDGET	\$2,085,697

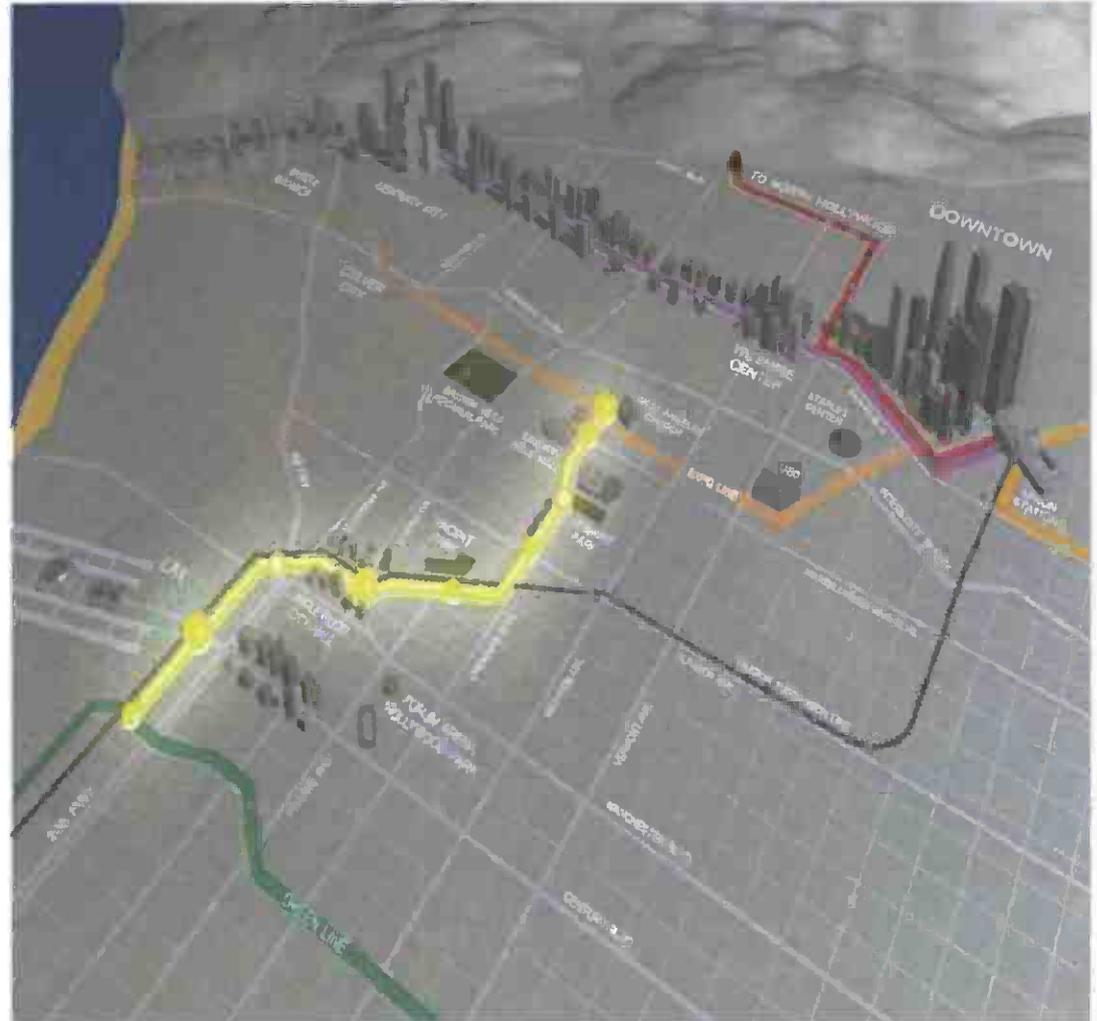
Activities	Approved Budget	Current Budget	Expenditures To Date	Forecast to Complete
Design	\$342,849	\$342,849	\$133,567.68	\$209,281.32
Construction	\$1,742,848	\$1,742,848	\$0	\$1,742,848
TOTAL	\$2,085,697	\$2,085,697	\$133,567.68	\$1,952,129.32

Crenshaw/LAX Transit Project FTA Quarterly Review – February 28, 2018



Project Description

- 8.5 miles, 8 stations, 22 LRT vehicles
- Current Budget = \$2,058 million
- Current Forecast = \$2,058 million
- Contractor Award Date = August 01, 2013
- Current Revenue Service = October 30, 2019
- Forecast Revenue Service = October 30, 2019
- Design progress = 99%
- Construction progress = 75%
- Forecast Remaining Contingency = 1.8% of total Budget
- Federal Funds = \$651.8 million
- Local Funds = \$1,117.3 million
- State Funds = \$288.9 million



Project Update

- The main line contractor Walsh Shea Corridor Constructors (WSCC) is 40-days behind schedule and needs to mitigate delay to get back on schedule to the planned revenue service in October 2019.
- Cost contingency is less than 1.8% of total budget.
- The December 2017 safety recordable rate is at 2.9 which is above the national average of 2.8 (based on 200,000 work hours).
- The estimated jobs created to-date is 15,795 with 780 estimated jobs created last quarter.*
- Green Line tie-in construction activities commenced January 26, 2018.
- Systems Integration Test planning between WSCC and Metro project and operations teams advanced by one year.
- The Southwestern Yard contractor Hensel Phelps Herzog (HPH) is ahead of schedule toward a planned completion in January 2019.

* 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



Trackwork at 96th



Green Line tie-in effort



Setting overhead catenary system poles

Construction Update Segment B



Hyde Park Station



UG3

Construction Update Segment C



Vernon Station



Expo Station



Tunnel



MLK Station

Construction Update Southwestern Yard



Dumping ballast at underdrains



Welding bent plate at service platform



Placing reinforcement for car wash slab



Installing stairs to service platform

Project Cost Status

UNITS IN DOLLARS

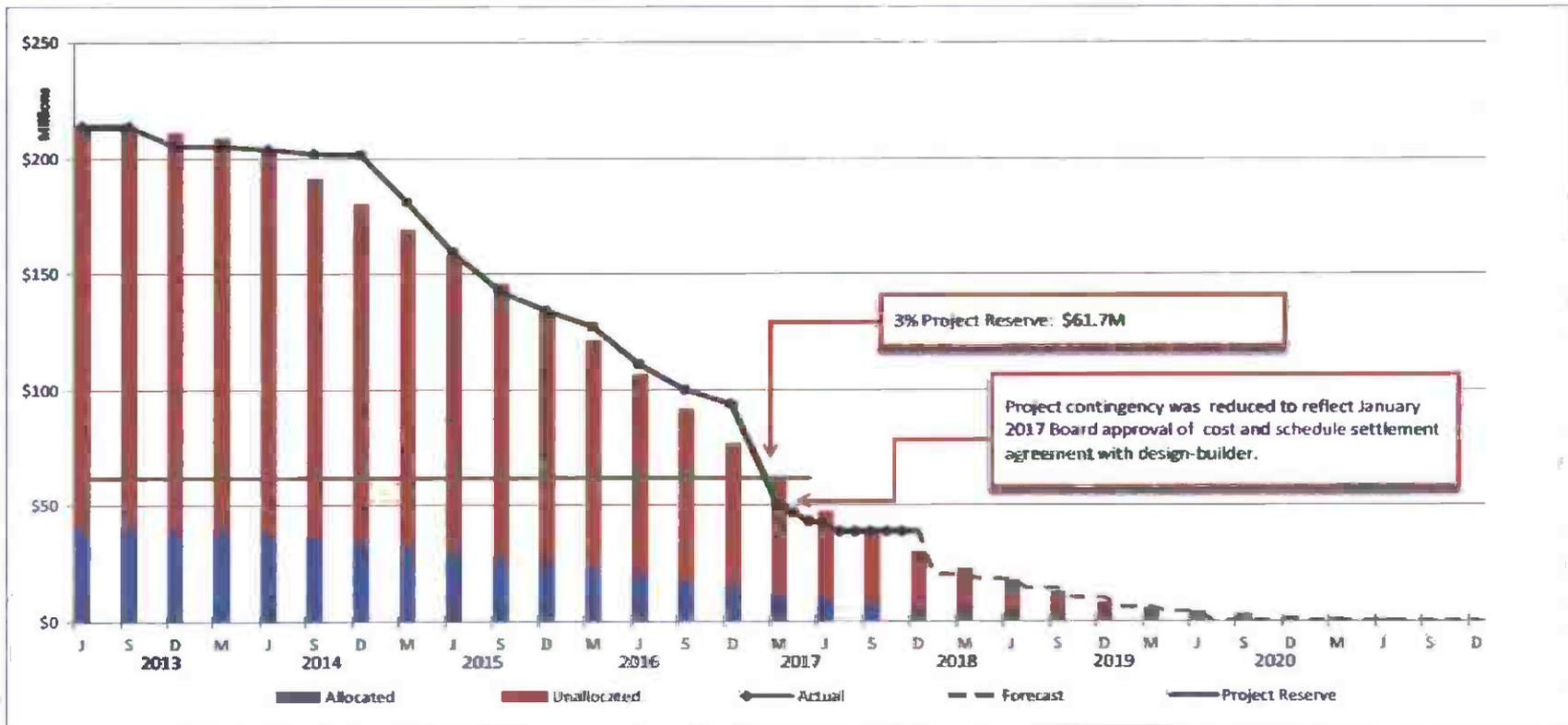
SCC CODE	DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		CURRENT BUDGET/ FORECAST VARIANCE
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
10	GUIDEWAYS	471,335,000	-	450,354,375	-	450,882,396	4,534,041	388,698,066	-	450,885,416	531,042
20	STATIONS	153,906,000	-	315,050,000	-	315,662,242	3,116,365	182,315,634	-	315,662,242	612,242
30	SUPPORT FACILITIES SCOUT HINVEST YARD	66,673,000	-	71,164,000	-	71,053,330	2,151,212	41,521,988	-	71,164,000	-
40	SITWORK/SPECIAL CONDITIONS	235,576,000	-	395,798,361	66,242	399,095,061	2,323,787	324,841,306	(2,146,208)	406,623,846	10,825,485
50	SYSTEMS	125,132,000	-	169,436,000	2,146,208	158,244,340	2,448,863	56,894,087	2,146,208	166,054,934	(3,381,066)
CONSTRUCTION SUBTOTAL (10-50)		1,052,622,000	-	1,401,002,736	2,212,450	1,394,937,369	14,574,268	994,271,080	-	1,410,390,439	8,587,703
60	RIGHT-OF-WAY	132,294,000	-	127,490,000	(9,146)	124,512,056	3,238	124,369,996	-	124,512,167	(2,977,833)
70	LRT VEHICLES	87,780,000	-	83,571,544	-	82,050,901	2,359,824	73,059,808	-	83,571,544	-
80	PROFESSIONAL SERVICES	273,147,000	-	368,734,466	6,017,773	352,726,040	3,734,168	301,928,878	-	374,806,814	6,072,349
SUBTOTAL (10-80)		1,545,843,000	-	1,981,580,746	8,291,677	1,954,226,366	20,671,499	1,493,629,762	-	1,993,280,965	11,682,219
90	UNALLOCATED CONTINGENCY	177,157,000	-	50,401,254	-	-	-	-	-	38,719,035	(11,682,219)
TOTAL PROJECT 865512 (10-100)		1,723,000,000	-	2,032,000,000	8,291,677	1,954,226,366	20,671,499	1,493,629,762	-	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	(357)	20,022,881	(357)	20,022,881	-	20,473,850	-
TOTAL PROJECTS 405512 & 465512 (ENV/PLANNING)		26,000,000	-	26,000,000	(357)	25,549,031	(357)	25,549,031	-	26,000,000	-
TOTAL PROJECTS 405512, 465512 & 865512		1,749,000,000	-	2,058,000,000	8,290,720	1,979,775,397	20,671,143	1,519,178,793	-	2,058,000,000	-

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	-	175,495	90,000	320,035	-	175,495	-	175,495	-
210090/93 FARE GATE PROJECT	-	2,566,226	-	2,566,226	-	252,726	-	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	-	36,794,171	107,535	34,238,625	-	37,914,465	-
500013 CLAX LAWA SCOPE OF WORK	-	1,575,362	332,695	863,911	-	408,712	-	1,575,362	-
TOTAL	-	44,431,548	422,695	41,744,343	107,535	35,478,892	-	44,431,548	-

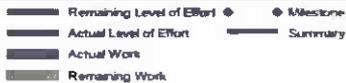
Budget Contingency Drawdown



PROJECT COST CONTINGENCY (through 29-Dec-2017)					
UNITS IN DOLLARS					
	Original Contingency (Budget)	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	173,500,000	(134,780,965)	-	(134,780,965)	38,719,035
Allocated Contingency	40,366,792	(40,366,792)	-	(40,366,792)	-
Total Contingency	213,866,792	(175,147,757)	-	(175,147,757)	38,719,035

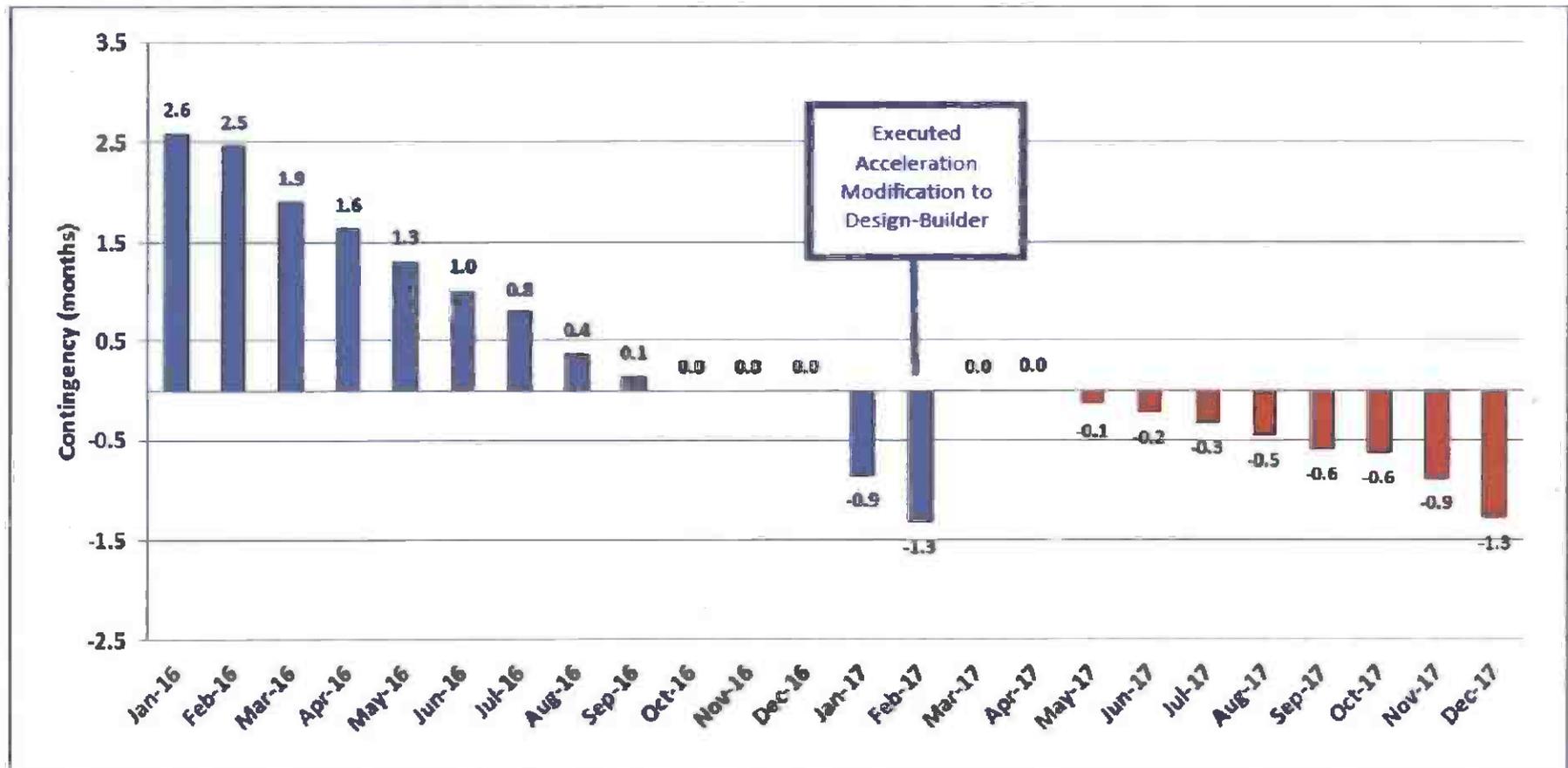
Summary Schedule

Crenshaw/LAX Transit Corridor - Master Schedule December 2017			Crenshaw RBS Summary (MPSR)		Data Date: 30-Dec-17										
ActivityID	Activity Name	Start	Finish	2023	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Crenshaw/LAX Transit Corridor - Master Schedule Dec				23-Jun-09 A	09-Dec-19										
Milestones & Key Dates				19-Nov-09 A	09-Dec-19										
Program Elements				01-Apr-11 A	04-Apr-19										
865512 - Crenshaw/LAX				23-Jun-09 A	09-Dec-19										
C0988 - Pre-Construction Crenshaw/LAX				23-Jun-09 A	19-Mar-18										
Right of Way				01-Jan-12 A	08-Nov-16 A										
Design Build Procurement				22-Dec-11 A	10-Sep-13 A										
Design & Engineering				23-Jun-09 A	19-Mar-18										
C0988 - Construction & Installation				06-Dec-13 A	09-Dec-19										
Stations				06-Dec-13 A	29-Apr-19										
Guldway & Track				01-Jul-14 A	07-Jan-19										
System-Wide Components				13-Mar-18	28-Nov-18										
Systems				01-Jul-14 A	08-Jan-19										
Training				12-Jul-16 A	04-Dec-18										
Testing				02-Jan-18	10-Jun-19										
Start Up				30-Apr-19	09-Dec-19										
860003 - Southwestern Yard and Paint Body Shop				20-Oct-10 A	30-Jan-19										
Milestone				29-Jun-15 A	30-Jan-19										
Preliminary Engineering				20-Oct-10 A	18-Dec-12 A										
Right of Way				31-Jan-12 A	31-Oct-17 A										
Design Build Procurement				29-Aug-14 A	29-Jun-15 A										
Final Design				29-Jun-15 A	11-Jan-17 A										
Construction & Installation				10-Jun-14 A	30-Jan-19										



Planned Revenue Service is October 30, 2019. Project contractor is 40 calendar days behind schedule which is reflected in the projected December 9, 2019 date shown. Schedule mitigation measures are under review.

Schedule Contingency Drawdown



Top Risks & Mitigations

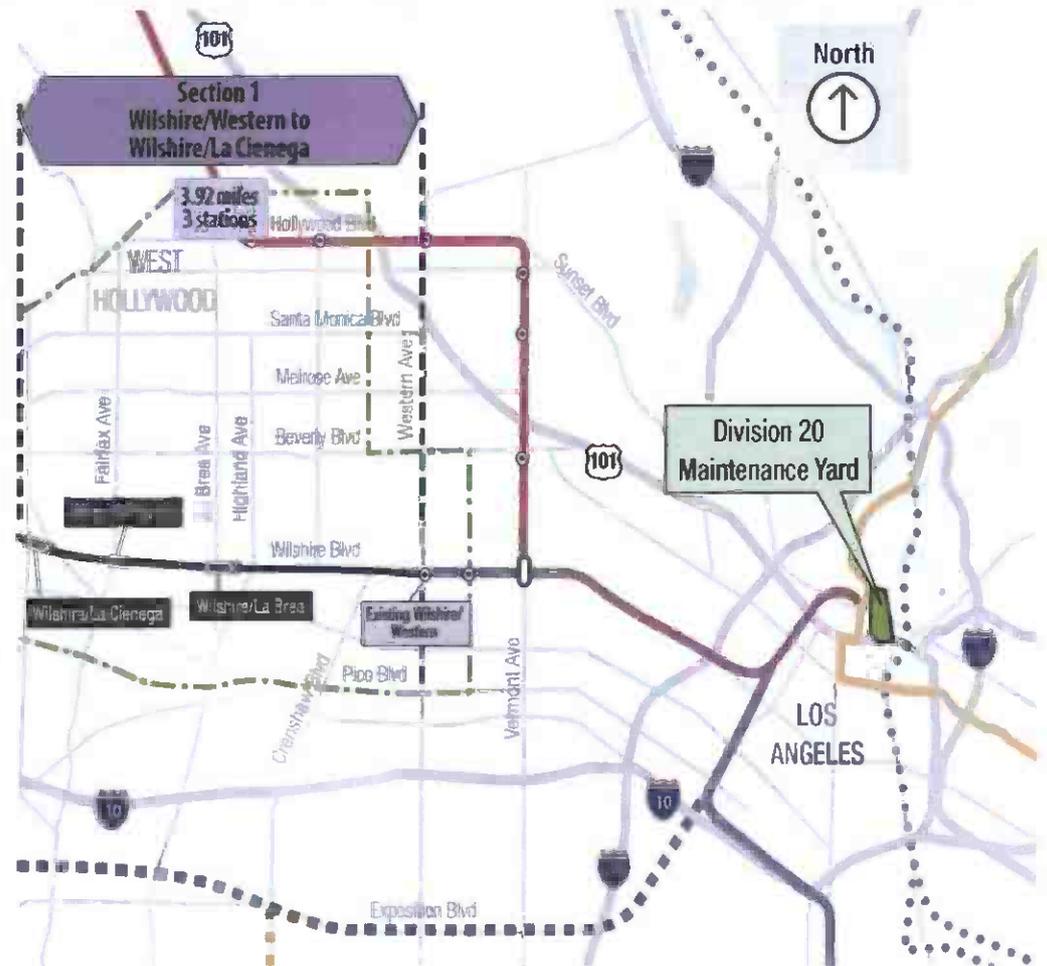
RISK ID	RISK DESCRIPTION	RISK SCORE	MITIGATION STRATEGIES
124	Main Line and SWY testing prior to pre-revenue operations may take longer than expected, resulting in increased Metro and consultant costs and potential delay to RSD.	18	<ol style="list-style-type: none"> 1. Prepare appropriate testing schedule and review with operations people. 2. Monitor completion of FATs. 3. Push to gain schedule float (contingency) 4. Expedite contractor/vendor turnaround of test results. 5. Keep test firms informed of critical schedule needs.
354	Issues with energization of Traction Power	11	<ol style="list-style-type: none"> 1. Coordinate with utilities way in advance – get their review of design and submittals. 2. Do Supplier Quality Surveillance of substation fabrication. 3. Keep utilities informed of current schedule.
201	DB unable to obtain critical skilled specialty workers needed for complex systems, elevator testing, etc.	9	<ol style="list-style-type: none"> 1. Suggest the following to DB: <ul style="list-style-type: none"> - Direct job seekers to apprentice programs - Communicate with union apprenticeship coordinators - Develop labor targets and maintain those levels through project 2. Monitor PLA target goals.
141	Potential for added scope to the project due to community demands. Related to Design	9	<ol style="list-style-type: none"> 1. Work closely with the Mayor's and Council District's offices to monitor community requests to add scope. 2. Educate the public through community meetings about the defined project scope. 3. Identify opportunities to Third Parties where additional funding can be requested (e.g., Call for Projects, grants). 4. Enforce additional scope by communities to be funded by the respective cities per MCAs. 5. Metro upper Management discussions with City of Los Angeles.
356	Issues with long lead delivery or improper planning for testing and startup of TPSS, TP Emergency shutdown, Emergency phones in tunnels, SCADA, etc.	9	<ol style="list-style-type: none"> 1. Verify contractor has qualified installers and inspectors. 2. Verify system vendors are kept informed of schedule. 3. Verify that all required interfaces with other systems has been addressed in the testing and startup procedures.
357	Issues with long lead delivery or improper planning for integration, testing and startup of Life Safety systems – Fire Alarm, Intrusion Access Control (Security doors)	9	<ol style="list-style-type: none"> 1. Verify contractor has qualified installers and inspectors. 2. Verify system vendors are kept informed of schedule. 3. Verify that all required interfaces with other systems has been addressed in the testing and startup procedures.

**Westside Purple Line Extension Section 1 Project
FTA Quarterly Review Meeting
February 28, 2018**



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: November 8, 2023
- Design Progress: 100% (Final Design Complete)
- Construction Progress: 27%
- Daily Project Transit Trips: 33,694
- Daily New Transit Trips: 9,841
- Forecast Contingency: 8%
- Federal Funds: \$1.26 Billion
- Local Funds: \$1.56 Billion
- Status: All three (3) stations and W/W TBM Shaft under construction



Westside Purple Line Extension Section 1 Project Key Project Updates

- Work at the Wilshire/La Cienega Station location is currently being performed under the terms of the Memorandum of Understanding (MOA) with the City of Beverly Hills. A change notice has been issued to STS for the changed scope of work per the MOA. Awaiting Cost and Schedule Proposal (CSP) from STS.
- Escrow on the Gale Property (Parcel W-2307) closed on November 30, 2017. The proceeds from the sale will be reflected in the next Monthly Project Status Report.
- The current job creation for the second quarter of FY 2018 is 637 and to date is 13,335 estimated jobs, as extrapolated from the Los Angeles Economic Development Corporation (LAEDC) analysis of job impacts.

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

Current Activities:

- Building construction

Overview:

- Steel erection complete

Status:

- The property exchange agreement with Chalmers closed escrow on February 2, 2018.
- The below grade structure and the elevator/inspection pits have been completed.
- Structural steel erection started on December 15, 2017 and 'topped-out' on January 24, 2018.
- The installation of metal decking has commenced in preparation for slab on metal deck pours.
- Water relocation activities in the Division 20 Parts & Storage Expansion area are ongoing.



Structural Steel Topped-Out



Metal Decking Installation

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

Current Activities:

- Piling

Overview:

- Approximately 65 piles total to be installed.

Status:

- SOE pile installation at the Wilshire/Western TBM retrieval site started on December 8, 2017, and completed on January 19, 2018.
- Potholing to expose existing utility structures continues on an as-needed basis.
- Closure(s) of Wilshire Boulevard being planned for the anticipated decking operation in February 2018. The project team is proposing to the Board of Public Works a full, continuous 10 day closure between February 16, 2018 through February 25, 2018.
- Jet grouting activities have commenced.



Piling at the Wilshire/Western Site



Jet Grouting at the Wilshire/Western Site

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

Current Activities:

- Grounding Grid, Mud Mat Concrete, HDPE Installation, Rebar and Conduit
- Dewatering

Overview:

- Work primarily occurs underground beneath concrete decking.
- Material delivery and hauling occurs day/night.

Status:

- Wilshire/La Brea Station dewatering activities, grounding grid installation and HDPE installation are on going.
- Rebar installation for the first invert concrete pour has commenced.
- TBM tunneling is schedule to commence in August 2018.



Rebar Installation at Wilshire/La Brea Station East



HDPE Membrane at Wilshire/La Brea Station

Westside Purple Line Extension Section 1 Project

Project Update

Wilshire/Fairfax Station

Current Activities:

- Excavation
- Waler/Strut Installation

Overview:

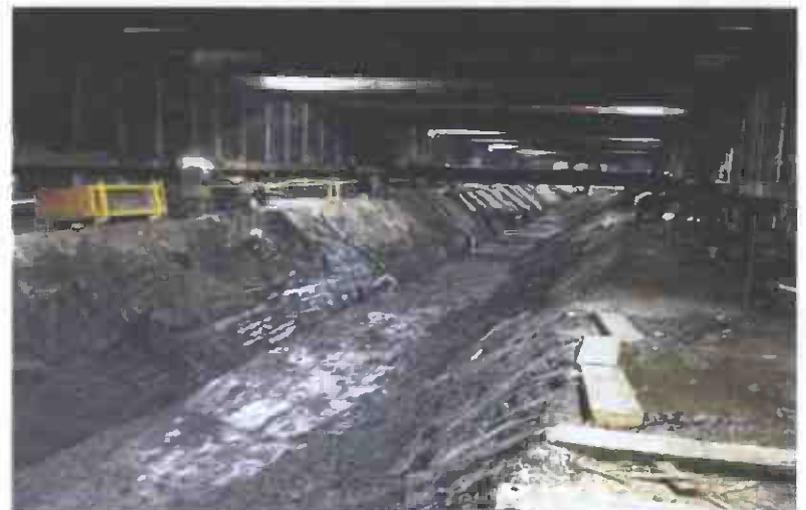
- Work primarily occurs underground beneath concrete decking.
- Material delivery and hauling occurs day/night.
- Excavation in Paleo zone limited to 6" lifts.

Status:

- Level B strut installation at the Wilshire/Fairfax station continues.
- Installation of lookouts and walers at Level C is underway with strut installation expected to start in February 2018.
- Excavation east of Gridline 11 (west side of the muck shaft), is now clear of the Paleo zone. There will be no more 6" lifts required in that area.



Setting Walers at Wilshire/Fairfax Station



West Side of Muck Shaft at Wilshire/Fairfax Station

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

Current Activities:

- Hanging Utilities
- Station Excavation

Overview:

- Work primarily occurs underground beneath concrete decking.
- Material delivery and hauling occurs day/night.

Status:

- The Wilshire/La Cienega decking operation was completed on January 8, 2018.
- Work on the electrical vaults inside the La Cienega Station Yard is on going.
- The installation hanging of utilities below the deck continues.



Wilshire/La Cienega Station Decking Operation



La Cienega Yard Electrical Vault

Westside Purple Line Extension Section 1 Project Project Update Tunneling – Tunnel Boring Machines

Current Activities:

- Twin Tunnel Boring Machines (TBMs) Delivery

Overview:

- Manufactured in Germany.

Status:

- TBMs arrived in Los Angeles in December 2017. TBM components being shipped to contractor's Riverside storage site.
- Tunneling is planned to start in August 2018.
- Tunnel instrumentation installation along the alignment continues – 53 of 68 drilled along Reach 1.



WPLE Section 1 TBMs



Conveyor Equipment at Wilshire/La Brea Station Site

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	380,970	65,260	387,938	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	570,051	473,316	447,611	99,093	473,316	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	39,086	38,092	36,483	5,468	38,092	-
40	SITework & SPECIAL CONDITIONS	139,820	797,064	776,152	476,270	797,064	-
50	SYSTEMS	123,579	114,574	99,544	14,893	114,574	-
CONSTRUCTION SUBTOTAL (10-50)		1,437,616	1,810,983	1,740,760	660,984	1,810,983	-
60	ROW, LAND, EXISTING IMPROVEMENTS	212,475	190,036	190,036	179,521	190,036	-
70	VEHICLES	160,196	108,302	98,118	5,475	108,302	-
80	PROFESSIONAL SERVICES	410,342	482,655	341,220	269,929	482,655	-
SUBTOTAL (10-80)		2,220,629	2,591,976	2,370,133	1,115,910	2,591,976	-
90	UNALLOCATED CONTINGENCY	225,859	167,060	-	-	167,060	-
100	FINANCE CHARGES	375,470	331,065	-	-	331,065	-
TOTAL PROJECT (10-100)		2,821,957	3,090,101	2,370,133	1,115,910	3,090,101	-

NOTE: TOTAL FFGA INCURRED COST TO DATE \$1,130,065,085

* 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	566,080	387,938	380,970	65,260	387,938	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	570,051	473,316	447,611	99,093	473,316	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS	39,086	38,092	36,483	5,468	38,092	-
40	SITWORK & SPECIAL CONDITIONS	139,820	797,064	776,152	476,270	797,064	-
50	SYSTEMS	123,579	114,574	99,544	14,893	114,574	-
	CONSTRUCTION SUBTOTAL (10-50)	1,437,616	1,810,983	1,740,760	660,984	1,810,983	-
60	ROW, LAND, EXISTING IMPROVEMENTS	212,475	190,036	190,036	179,521	190,036	-
70	VEHICLES	160,196	108,302	98,118	5,475	108,302	-
80	PROFESSIONAL SERVICES	410,342	482,655	341,220	269,929	482,655	-
	SUBTOTAL (10-80)	2,220,629	2,591,976	2,370,133	1,115,910	2,591,976	-
90	UNALLOCATED CONTINGENCY	225,859	167,060	-	-	167,060	-
100	FINANCE CHARGES	375,470	331,065	-	-	331,065	-
	TOTAL FFGA PROJECT ACTIVITIES (10-100)	2,821,957	3,098,101	2,370,133	1,115,910	3,090,101	-

NOTE: TOTAL FFGA INCURRED COST TO DATE \$1,130,065,086

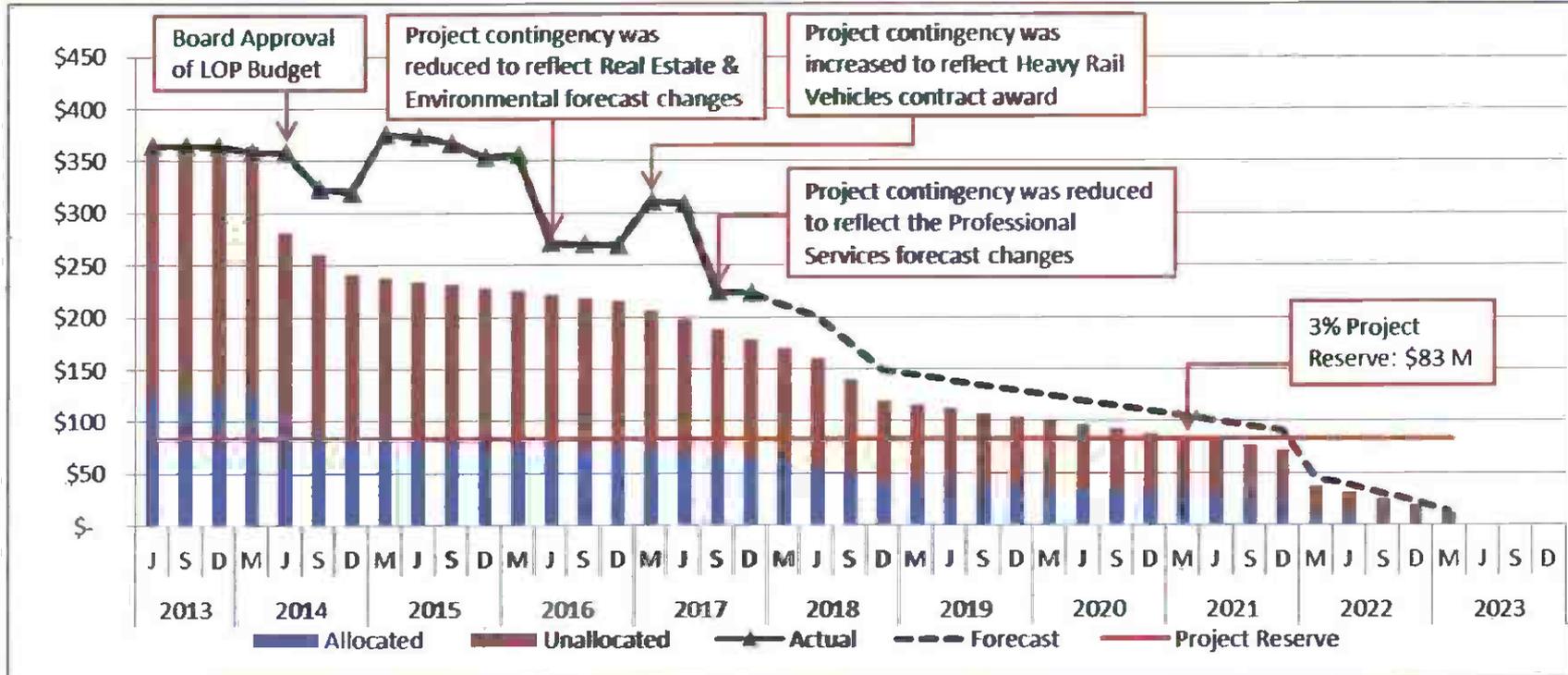
SCC CODE	DESCRIPTION	ORIGINAL NON FFGA BUDGET	CURRENT NON FFGA BUDGET	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	CURRENT NON FFGA BUDGET/ FORECAST VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS	-	-	-	-	-	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	-	-	-	-	-	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS	-	2,925	5,073	450	5,260	2,335
40	SITWORK & SPECIAL CONDITIONS	-	-	484	484	2,031	2,031
50	SYSTEMS	-	-	-	-	-	-
	CONSTRUCTION SUBTOTAL (10-50)	-	2,925	5,557	935	7,291	4,366
60	ROW, LAND, EXISTING IMPROVEMENTS	12,805	12,805	12,945	8,319	12,945	140
70	VEHICLES	-	-	-	-	-	-
80	PROFESSIONAL SERVICES	1,500	3,575	2,867	3,014	3,628	53
	SUBTOTAL (10-80)	14,305	19,305	21,369	12,267	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	21,369	12,267	24,879	-
	ENVIRONMENTAL/PLANNING	39,370	39,370	39,370	39,357	39,370	-
	TOTAL NON-FFGA (INCL. ENV./PLANNING)	55,674	64,248	60,738	51,624	64,248	-

NOTE: TOTAL NON FFGA INCURRED COST TO DATE \$97,085,138

	TOTAL PROJECT	2,838,262	3,154,350	2,430,871	1,167,534	3,154,350	-
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NOTE: TOTAL INCURRED COST TO DATE \$1,181,945,215

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	(80,517)	-	(80,517)	168,075
Allocated Contingency	71,963	(16,582)	(33)	(16,615)	55,349
Total Contingency	320,555	(97,099)	(33)	(97,132)	223,424

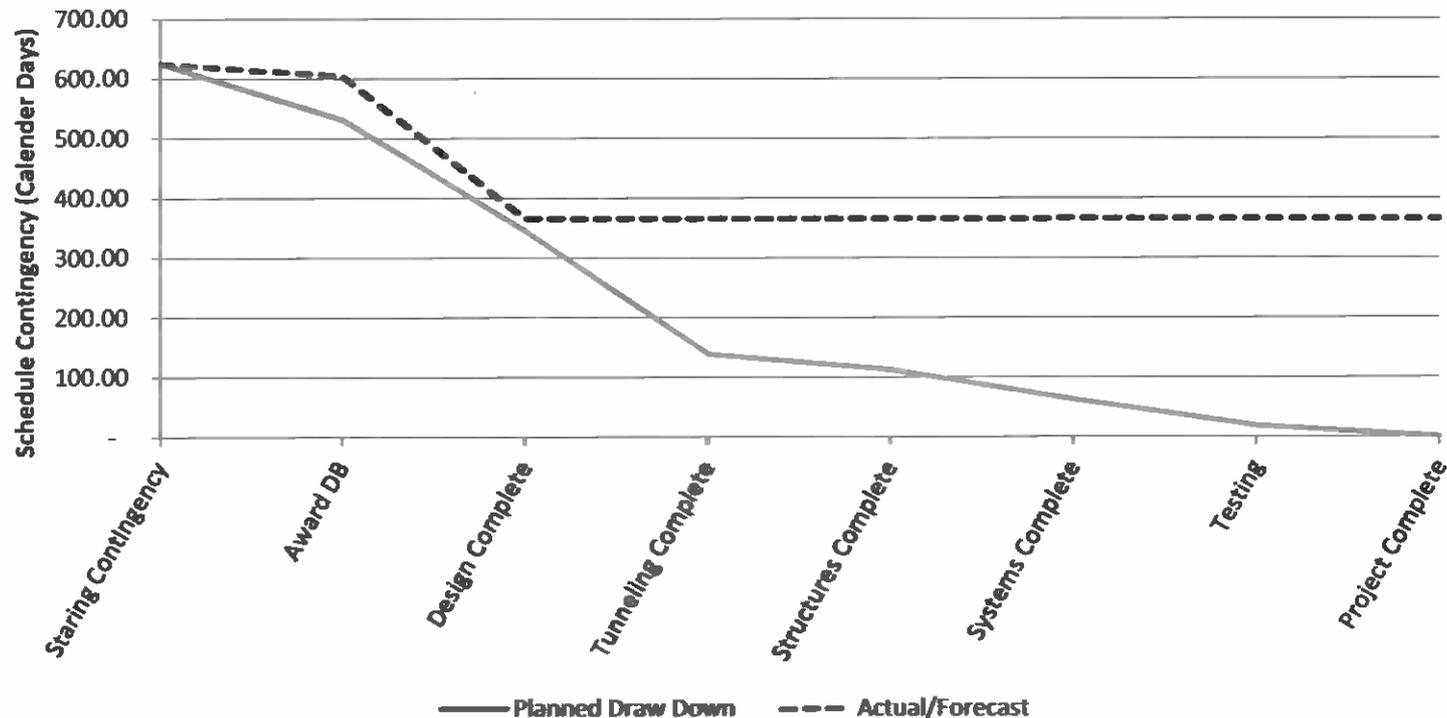
Westside Purple Line Extension Section 1 Project Master Program Schedule/C1045 Baseline Update

WPLE Section 1 - Wilshire/Western to La Cienega - December 2017		Project Schedule Report												Data Date: 01-Jan-18			
Activity Name	Finish	2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027															
		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Record of Decision	09-Aug-12 A																
Contract Procurements	30-Sep-15 A																
Right-of-Way	31-Jan-17 A																
Advanced Utility Reloc.	16-Jun-17 A																
Final Design - DB	30-Jun-17 A																
Construction	29-Aug-23																
Testing/Pre-Rev. Svc.	07-Nov-23																
Forecast RSD	08-Nov-23*																
FFGA RSD	31-Oct-24*																

 Primary Baseline	 Remaining Work	 Milestone
 Actual Work	 Critical Remaining Work	

Page 1 of 1
Design-Build Notes:

Westside Purple Line Extension Section 1 Project Project Schedule Contingency Drawdown



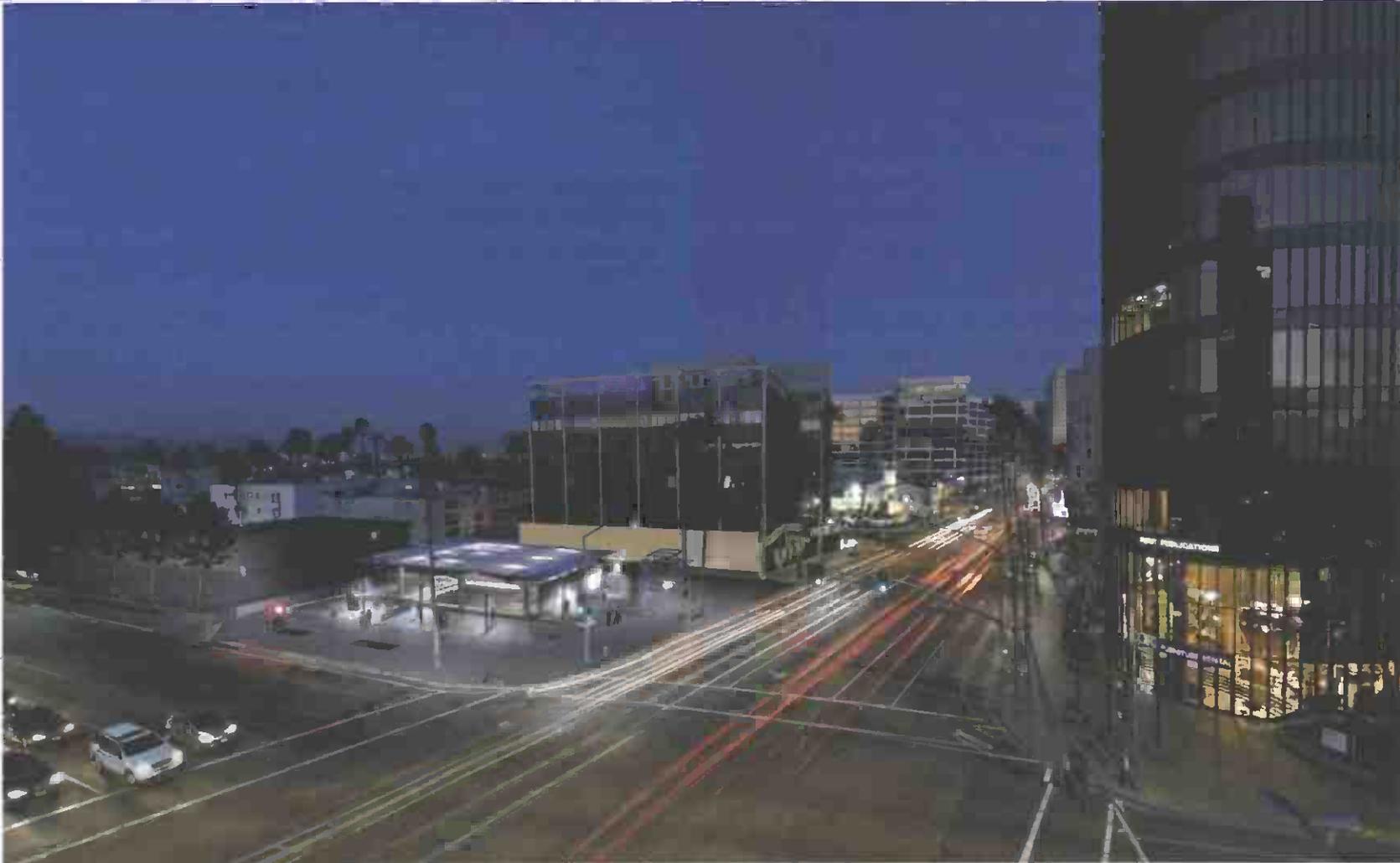
PROJECT SCHEDULE CONTINGENCY DRAWDOWN ANALYSIS

The project schedule contingency drawdown curve is based on a November 8, 2023 Revenue Service Date (RSD).

Westside Purple Line Extension Section 1 Project Top Risks & Mitigations

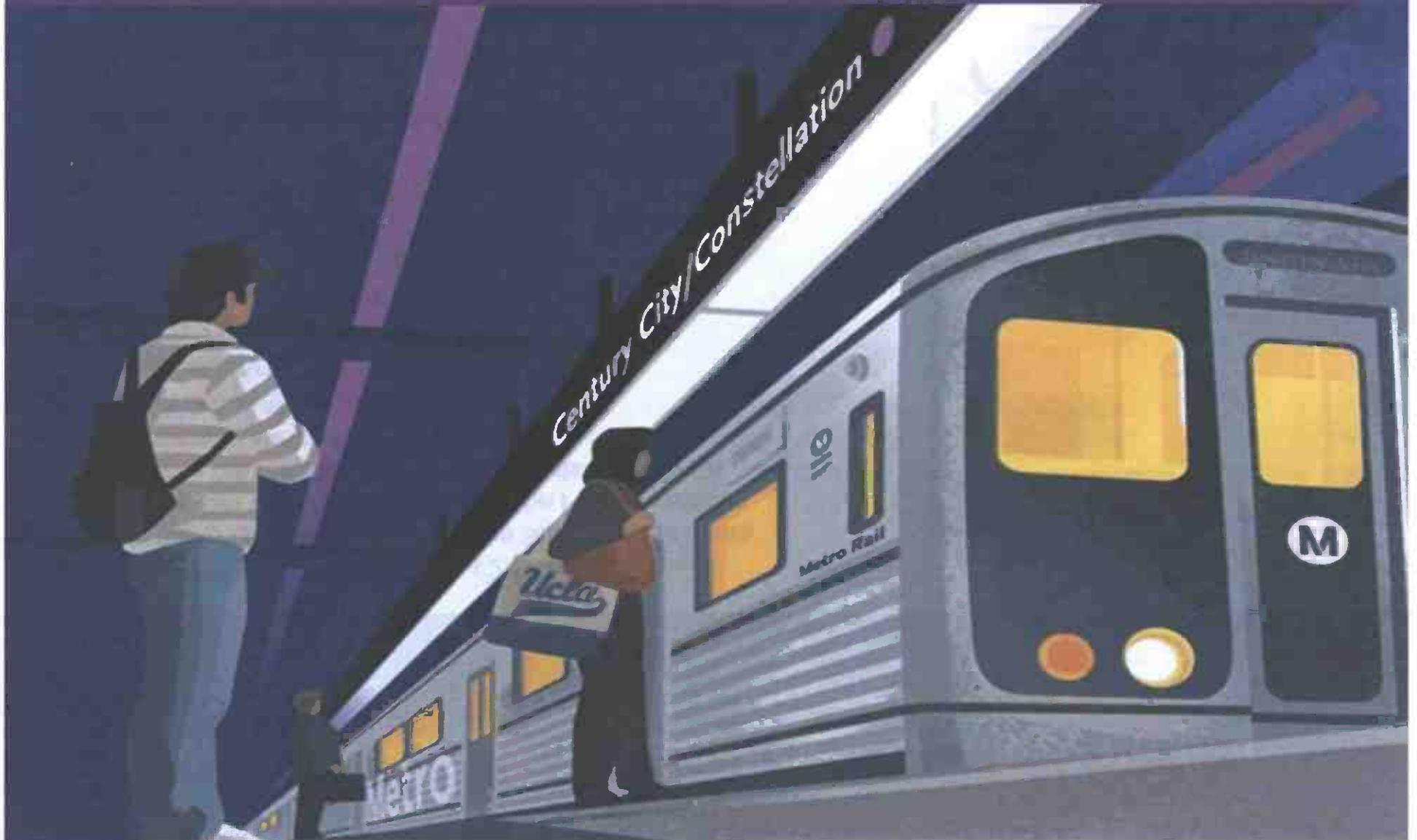
Risk ID	Risk Description	Risk Score	Action Items
633.0	Cost of ROW acquisition exceeds the FFGA SCC Line Item.	18	<ol style="list-style-type: none"> 1. Metro's Life of Project Budget includes contingency that covers the increase. The Risk Score will remain as "high" until the \$3.15 billion Life of Project Budget is reconciled with the \$2.82 billion FFGA Budget. 2. FTA has approved the property sale. Escrow on the Gale property has closed. 3. Project will reconcile with cost from Real Estate within 1st quarter 2018.
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. Re-assemble taskforce. Target date 02/15/18.
288.1	Construction impacts including air quality, noise, and vibration have the potential for impacts on neighboring communities which may require mitigation efforts. Section 1 construction will take place in Wilshire Blvd. which is mixed residential and commercial.	9	<ol style="list-style-type: none"> 1. DB contractor to comply with all requirements in the FEIS regarding air quality, noise and vibration issues and any other local ordinances requirements. 2. DB Contractor has mitigation measures in place.
256.0	Potential cost and schedule impact for building settlement and damage from underground construction and potential dewatering difficulties.	7.5	<ol style="list-style-type: none"> 1. Modified contingency plan as needed. 2. Wilshire/La Brea Station has been excavated and dewatered. Settlement less than expected.
202.0	Areas with concentrated methane and H2S presence will complicate construction progress and safety, increase price and may cause delays.	7.5	<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. Additional geotechnical investigations are being performed by the DB contractor (Goulder & Associates) in this area. 3. Re-assemble taskforce. Target date 02/15/18.

Westside Purple Line Extension Section 1 Project Questions



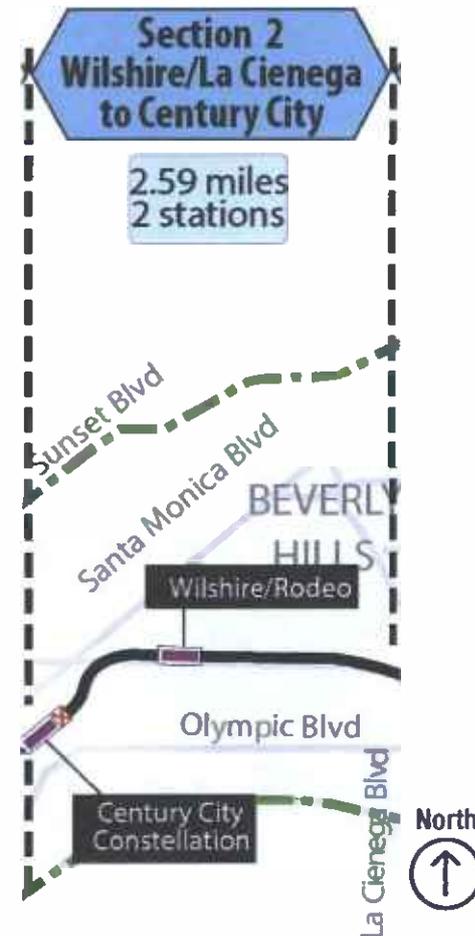
C1045 Design/Build Contract Computer-Generated Rendering of Wilshire/La Cienega Station 16

**Westside Purple Line Extension Section 2 Project
FTA Quarterly Review Meeting
February 28, 2018**



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: August 29, 2025
- Design/Builder: Tutor Perini/O&G, a Joint Venture (TPOG)
- Design Progress: 51%
- Construction Progress: 0%
- Daily Project Transit Trips: 36,121
- Daily New Transit Trips: 5,350
- Forecast Contingency: 16%
- Federal Funds: \$1.36 Billion
- Local Funds: \$1.14 Billion



Westside Purple Line Extension Section 2 Project

Key Project Updates

- **Supplemental Environmental Impact Statement (SEIS) Status:**
 - The Supplemental Record of Decision was issued on November 22, 2017.
 - The Final SEIS was published in the Federal Registry on December 1, 2017.
- **Real Estate Acquisition Status:**
 - TPOG has possession of the former ACE Gallery property for demolition, construction staging and ultimately construction of the Wilshire/Rodeo Station entrance.
 - 2040 Century Park East (JMB parking lot) temporary Right of Access Agreement was entered into on January 10, 2018. Turnover to TPOG is anticipated on February 24, 2018.
 - TBM Launch Box site turnover to TPOG was issued on January 11, 2018, and access to the adjacent sidewalk was provided on January 16, 2018.
 - AAA property and Gillis Family Partnership property turnover to TPOG was provided on January 26, 2018.
- Day and night geotechnical investigations in the City of Beverly Hills are ongoing.
- Total work-hours to date as of December 2017 is 135,213 with zero recordable incidents (each rate is per 200,000 work hours) (National Rate: 2.8).
- The current job creation for December 2017 is 207, for the second quarter of FY 2018 is 790 and to date is 5,006 estimated jobs, as extrapolated from the Los Angeles Economic Development Corporation (LAEDC) analysis of job impacts.

Westside Purple Line Extension Section 2 Project Contract C1120 Update

- TPOG is continuing with the required contractual submittals and has submitted the following design related submittals: Tree Removal Permit Application; Cyber Security Plan; Station Noise Monitoring; and Design Package 2 – Remaining Utility Conflicts (Outside of Launch Box) 85% submittal complete.
- Design Package 1 – Utility/Civil Design at Launch Box in Century City 85% submittal was received on November 2, 2017 and was returned on December 1, 2017, Approved as Noted.
- Design Package 2 - Remaining Utility Conflicts (Outside of Launch Box) 85% submittal was received on December 19, 2017 and was returned on January 18, 2018, Approved as Noted.
- MOD-00005 (Tunnel Liner VEP) was executed and resulted in Project savings.
- Baseline CPM Schedule is now being utilized for measuring progress and payment.
- Metro's Executive Partnering Sessions with TPOG were held on November 14, 2017 and February 5, 2018.

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

- SCE – Utility relocations began on September 5, 2017 and completed on January 30, 2018.
- SCG/AT&T (combined) – Utility relocations are scheduled to begin on February 12, 2018. Completion is anticipated in Summer 2018.
- Beverly Hills City Council approved the Memorandum of Agreement (MOA) governing remaining third party utility work on November 22, 2017.
- Negotiations with the City of Beverly Hills for an MOA for the C1120 Contract began in August 2017 and is anticipated to complete by April 2018.



SCE relocation work



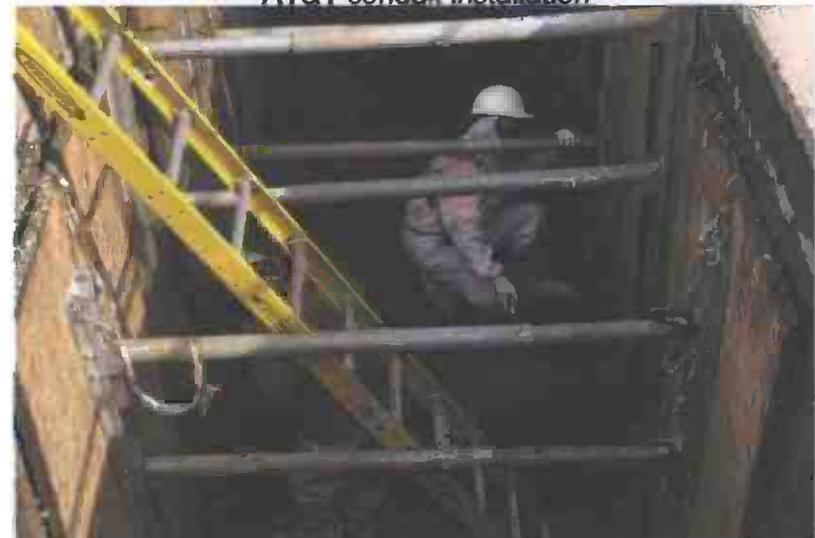
SCE relocation work

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

- Telecom joint trench civil work completed in June 2017 and cable pulling and splicing completed on January 11, 2018.
- AT&T – Construction began in November 2017 at the station box and is ongoing.
- LADWP Power – Construction began in May 2017 and civil work is approximately 40% complete.



AT&T conduit installation



LADWP Power duct installation

Westside Purple Line Extension Section 2 Project Project Cost Status

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	346,440	329,943	23,000	346,440	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	517,378	434,990	410,368	41	434,990	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	-	-	-	-	-	-
40	SITWORK & SPECIAL CONDITIONS	406,955	537,107	523,241	168,925	537,107	-
50	SYSTEMS	96,734	81,457	68,537	1,207	81,457	-
	CONSTRUCTION SUBTOTAL (10-50)	1,406,389	1,399,994	1,332,089	193,174	1,399,994	
60	ROW, LAND, EXISTING IMPROVEMENTS	312,422	419,396	225,081	126,121	419,396	-
70	VEHICLES	85,351	42,000	-	-	42,000	-
80	PROFESSIONAL SERVICES	383,941	373,478	173,268	99,657	373,478	-
	SUBTOTAL (10-80)	2,188,104	2,234,869	1,730,438	418,952	2,234,869	
90	UNALLOCATED CONTINGENCY	222,441	175,676	-	-	175,676	-
100	FINANCE CHARGES	88,695	88,695	-	-	88,695	-
	TOTAL (10-100)	2,499,240	2,499,240	1,730,438	418,952	2,499,240	

NOTE: TOTAL FFGA INCURRED COST TO DATE \$433,313,346

EXCLUDES CONCURRENT NON-FFGA PROJECT ACTIVITIES

¹ APPROVED LIFE OF PROJECT (LOP) PLUS FINANCE CHARGES

Westside Purple Line Extension Section 2 Project FFGA / Non-FFGA Costs

DOLLARS IN THOUSANDS

SCC CODE	DESCRIPTION	ORIGINAL FFGA BUDGET	CURRENT FFGA BUDGET	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	PROPOSED FFGA BUDGET/ FORECAST VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS	386,323	346,440	329,943	23,000	346,440	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	517,378	434,990	410,368	41	434,990	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS.	-	-	-	-	-	-
40	SITework & SPECIAL CONDITIONS	406,955	537,107	523,241	168,925	537,107	-
50	SYSTEMS	96,734	81,457	68,537	1,207	81,457	-
	CONSTRUCTION SUBTOTAL (10-50)	1,406,389	1,399,994	1,332,089	193,174	1,399,994	-
60	ROW, LAND, EXISTING IMPROVEMENTS	372,422	419,396	225,081	126,121	419,396	-
70	VEHICLES	85,358	42,000	-	-	42,000	-
80	PROFESSIONAL SERVICES	383,941	373,476	173,268	99,657	373,478	-
	SUBTOTAL (10-80)	2,188,104	2,234,869	1,730,438	418,952	2,234,869	-
90	UNALLOCATED CONTINGENCY	222,441	175,676	-	-	175,676	-
100	FINANCE CHARGES	88,695	88,695	-	-	88,695	-
	TOTAL PROJECT (10-100)	2,499,240	2,499,240	1,730,438	418,952	2,499,240	-

NOTE: TOTAL FFGA INCURRED COST TO DATE \$433,313,346

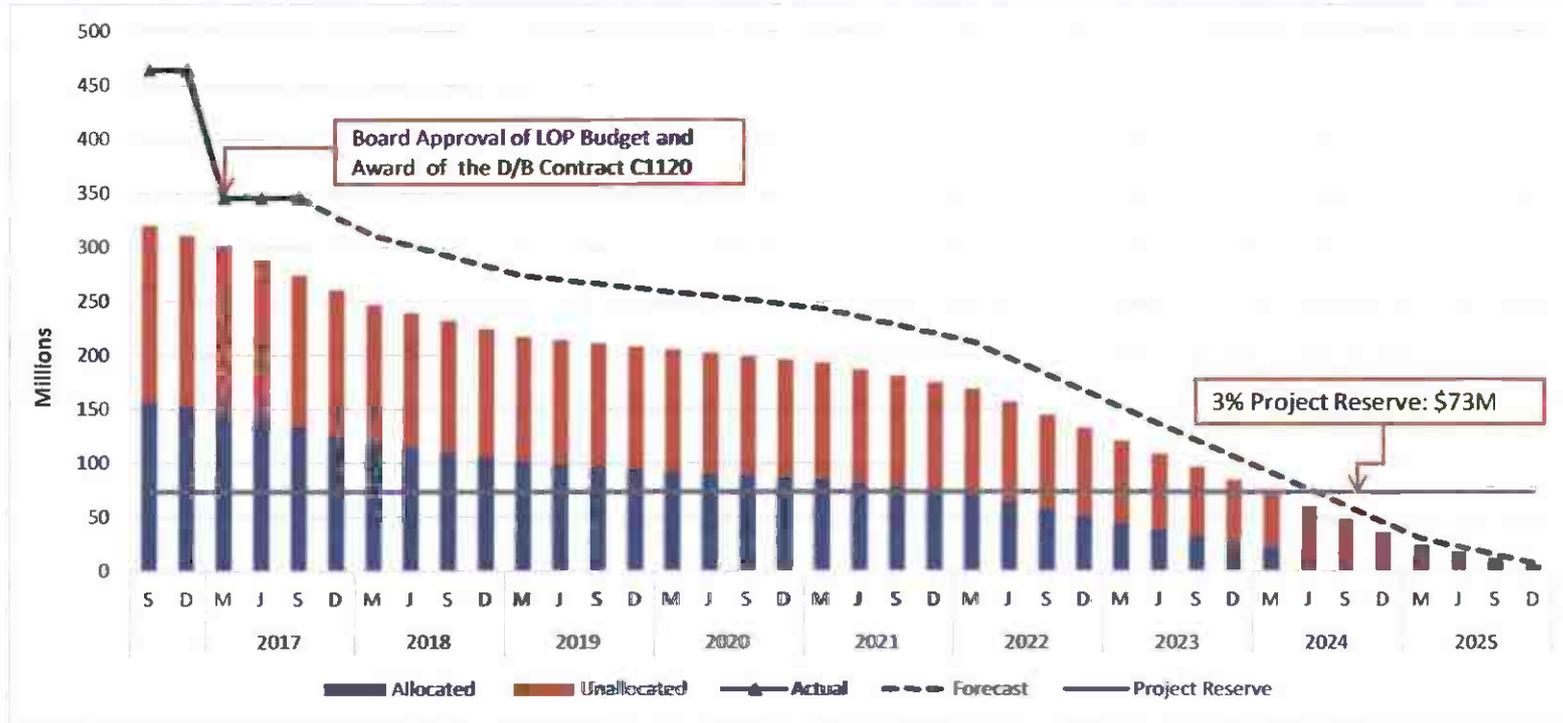
SCC CODE	DESCRIPTION	ORIGINAL NON FFGA BUDGET	CURRENT NON FFGA BUDGET	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	CURRENT NON FFGA BUDGET/ FORECAST VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS	-	-	-	-	-	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	-	-	-	-	-	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS.	-	-	-	-	-	-
40	SITework & SPECIAL CONDITIONS	16,175	16,175	3,350	-	16,175	-
50	SYSTEMS	-	-	-	-	-	-
	CONSTRUCTION SUBTOTAL (10-50)	16,175	16,175	3,350	-	16,175	-
60	ROW, LAND, EXISTING IMPROVEMENTS	7,000	7,000	5,000	4,522	7,000	-
70	VEHICLES	-	-	-	-	-	-
80	PROFESSIONAL SERVICES	1,400	1,400	602	29	1,400	-
	SUBTOTAL (10-80)	24,575	24,575	8,952	4,551	24,575	-
90	UNALLOCATED CONTINGENCY	1,500	1,500	-	-	1,500	-
100	FINANCE CHARGES	-	-	-	-	-	-
	TOTAL NON-FFGA (10-100)	26,075	26,075	8,952	4,551	26,075	-
	ENVIRONMENTAL/PLANNING	4,349	4,349	3,329	2,656	4,349	-
	TOTAL NON-FFGA (INCL. ENV./PLANNING)	30,424	30,424	12,282	7,207	30,424	-

NOTE: TOTAL NON-FFGA INCURRED COST TO DATE \$7,206,943

	TOTAL PROJECT	2,529,664	2,529,664	1,742,720	426,159	2,529,664	-
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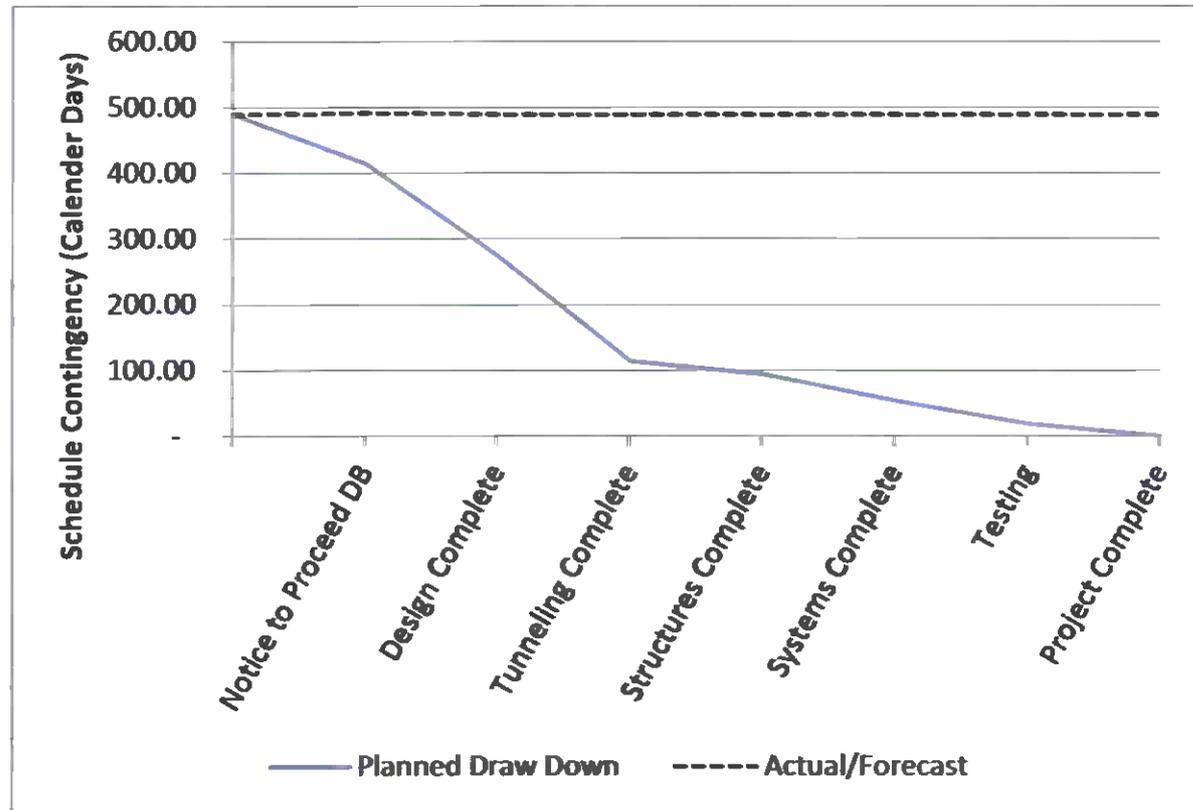
NOTE: TOTAL INCURRED COST TO DATE \$440,520,289

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	0	0	0	177,176
Allocated Contingency	168,534	0	0	0	168,534
Total Contingency	345,710	0	0	0	345,710

Westside Purple Line Extension Section 2 Project Project Schedule Contingency Drawdown



The project schedule contingency drawdown curve is based on an August 29, 2025 Forecast Revenue Service Date (RSD).

Westside Purple Line Extension Section 2 Project Top Risks & Mitigations

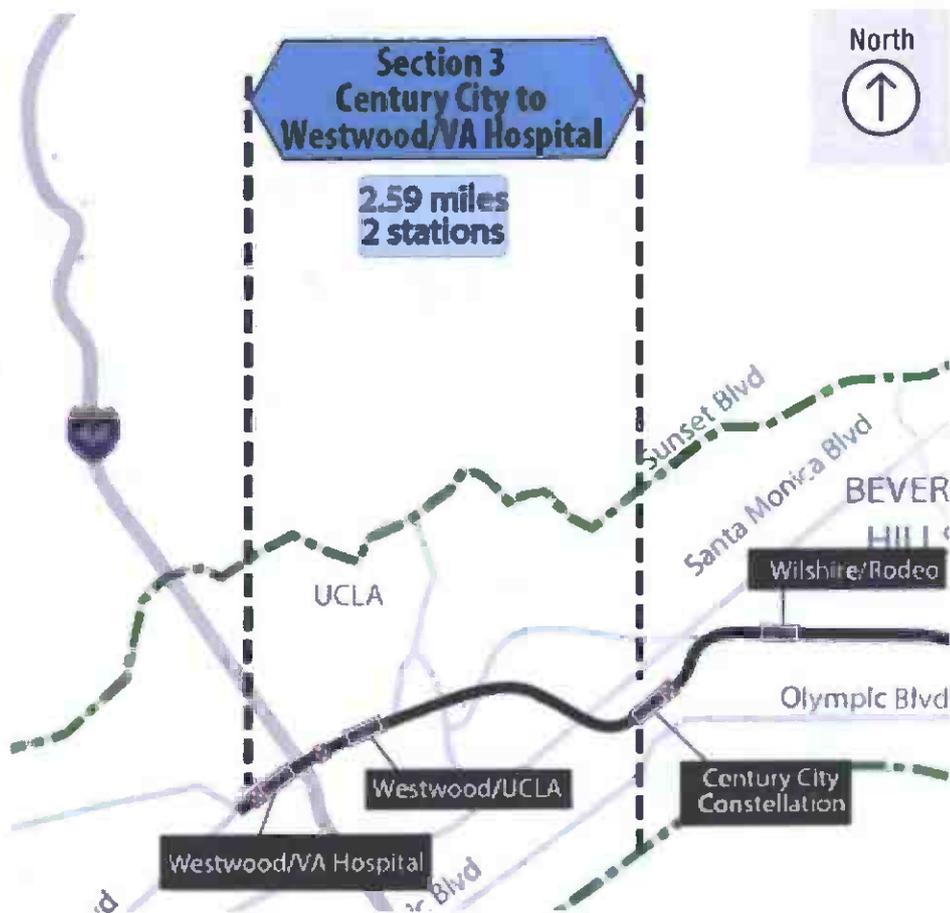
Risk ID	Risk Description	Risk Score	Action Items
396.0	Delayed negotiations on MOA with City of Beverly Hills (COBH) for utility work and DB contract could delay the Project and/or result in additional project costs.	18	<ol style="list-style-type: none"> 1. Metro will continue developing agreements based on current MOA. 2. MOA governing remaining utility work was approved by COBH on November 22, 2017. 3. Negotiations for Contract C1120 are underway with COBH.
125.2	Utility relocations could delay construction.	18	<ol style="list-style-type: none"> 1. Work with City and Utility Owners to expedite obtaining permits, and complete design and construction on schedule. 2. COBH MOA for AUR work was approved on November 22, 2017.
282.2	Turnover of property to DB contractor is delayed beyond the dates stipulated in the contract documents.	12	<ol style="list-style-type: none"> 1. Metro to complete property acquisition before the need date. 2. Building demolish to be part of DB contract. DB Contractor to start work as early as possible.
33.2	Acquisition of property is delayed due to condemnation and/or legal battle.	11	<ol style="list-style-type: none"> 1. Current project schedule accounts for additional time required for condemnation.
678.2	Resource availability for Real Estate and County Counsel	9	<ol style="list-style-type: none"> 1. Utilize outside resources for services rendered.

Westside Purple Line Extension Section 2 Project Questions



Wilshire/Rodeo Station

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



- The WPLE Section 3 Project is a 2.59 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 (YOE Dollars):
 - \$3.48 Billion
- Revenue Service Date:
 - Forecast – March 4, 2026
- Daily Project Transit Trips: 42,903
- Daily New Transit Trips: 9,386

Westside Purple Line Extension Section 3 Project Project Update

- Metro requested entry into the FTA New Starts Engineering Phase on April 28, 2017. FTA approval is anticipated in the 1st quarter of 2018.
- Request for Letter of No Prejudice (LONP) was submitted on September 11, 2017 to FTA for approval. LONP Review Workshop action items have been addressed by Metro. LONP is pending FTA approval.
- Procurement
 - C1151 Tunnel Contract on schedule - Technical proposals were received on November 13, 2017 and price proposals are due on March 23, 2018. Recommendation for award is pending FTA approval of the LONP.
 - C1152 Stations, Trackwork and Systems Contract on schedule - Request for Qualifications (RFQ)/Request for Proposals (RFP) was issued on September 15, 2017. Qualifications from respondents were received on November 20, 2017. Proposals are due on May 21, 2018.
- Construction
 - C1153 Advanced Utility Relocations (AUR) contract – Contractor is securing all permit requirements to begin construction in April 2018.
- The current job creation for December 2017 is 14, for the second quarter of FY 2018 is 44 and to date is 490 estimated jobs, as extrapolated from the Los Angeles Economic Development Corporation (LAEDC) analysis of job impacts.

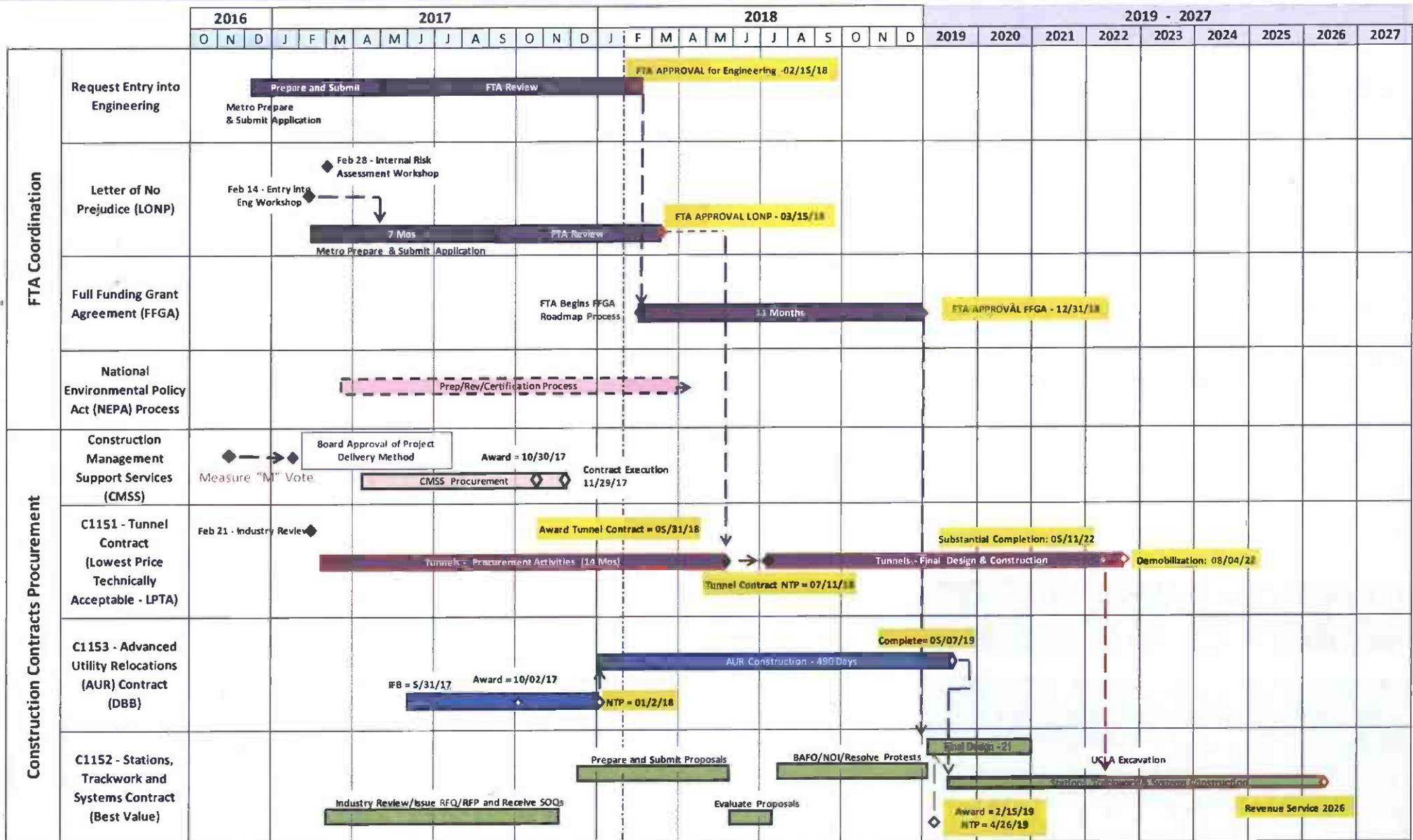
Westside Purple Line Extension Section 3 Project Project Cost Status

DOLLARS IN THOUSANDS

SCC CODE	DESCRIPTION	CURRENT COST ESTIMATE	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	CURRENT COST ESTIMATE / CURRENT FORECAST VARIANCE
10	GUIDEWAY & TRACK ELEMENTS	539,403	-	-	539,403	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	574,996	-	-	574,996	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	-	-	-	-	-
40	SITWORK & SPECIAL CONDITIONS	497,346	17,006	150	497,346	-
50	SYSTEMS	130,112	-	-	130,112	-
CONSTRUCTION SUBTOTAL (10-50)		1,741,857	17,006	150	1,741,857	-
60	ROW, LAND, EXISTING IMPROVEMENTS	368,375	101,437	40	368,375	-
70	VEHICLES	35,280	-	-	35,280	-
80	PROFESSIONAL SERVICES	494,399	74,859	39,751	494,399	-
SUBTOTAL (10-80)		2,639,911	193,301	39,940	2,639,911	-
90	UNALLOCATED CONTINGENCY	273,112	-	-	273,112	-
100	FINANCE CHARGES	564,746	-	-	564,746	-
TOTAL (10-100)		3,477,769	193,301	39,940	3,477,769	-

NOTE: TOTAL INCURRED COST TO DATE \$41,051,965

Westside Purple Line Extension Section 3 Project Preliminary Summary Schedule



Westside Purple Line Extension Section 3 Project Top Risks & Mitigations

Risk ID	Risk Description	Risk Score	Action Items
640	FTA approval of LONP delayed due to environmental process.	25.0	1. Expedite environmental reviews.
652.3	Additional environmental documentation process delays tunnel contract.	25.0	1. Determine what additional environmental documentation may be required. 2. Complete 106 review. 3. Draft 130C Submitted to VA and Army Reserve on 01/25/18.
659.3	Metro does not have adequate ROW staff and appraisers may result in schedule delay.	25.0	1. Metro to hire additional staff. 2. Metro to use consultants through existing contracts, where possible.
645	Availability of Metro Project resources to manage the project (capacity and capability).	20.0	1. Metro to provide necessary resources to manage the project.
671.3	Properties required at Army Reserve may not be available.	17.5	1. Establish MOU with Army Reserve.
567	Delay in the acquisition of easements on the VA Hospital Property.	12.0	1. Establish MOU with VA Hospital.
681	The upward trend of the real estate market may exceed the current property value estimate.	12.0	1. Monitor the real estate market trend and adjust the allocated contingency when it deems appropriate.

Regional Connector Transit Project

FTA Quarterly Review Meeting

February 28, 2018



Project Description

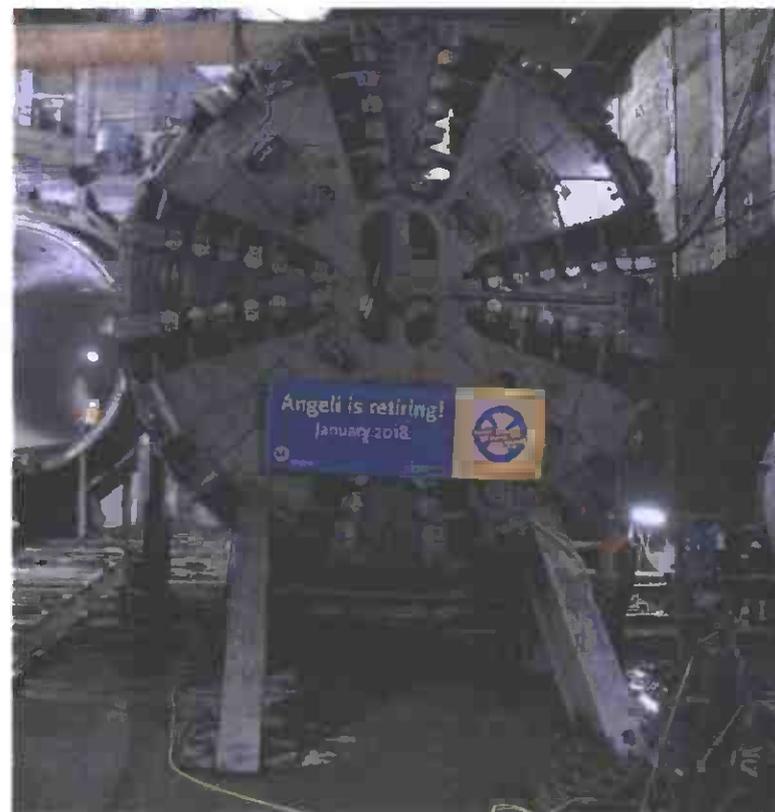


- 1.9 mile Link Connecting Blue & Expo Lines with Gold Line
- 3 New Stations
- 4 Light Rail Vehicles
- 90,000 Daily Project Transit Trips
- 17,700 Daily New Transit Trips

- FFGA Budget – \$1,402.93M
- FFGA Forecast – \$1,670.83M
- FFGA RSD – 02/2023
- Forecast RSD – 12/2021
- FFGA Contingency (Budget) – 4.34%
- FFGA Contingency (To Go) – 8.98%
- Federal Funds – \$911.30M
- Local Funds – \$858.84M
- Design-Build Contractor:
Regional Connector Constructors
- Award Amount: \$927.23M
- Status: In Construction
- Overall Project Progress – 45%
- Final Design Progress – 99.6%
- Construction Progress – 41.5%

Key Project Updates

- Focus remains on two schedule critical areas of the Project:
 1. 6th/Flower Utilities
 2. 2nd/Broadway Station
- Project Recordable Injury Rate = 1.06
 - C0980 – 1,962,722 WH / 10 Recordable
 - C0981 – 111,060 WH / 1 Recordable
- Estimated Jobs Created to Date as of Q2 FY18 is 10,036 with a Estimated Total Jobs of 20,000*.



Tunneling completed January 16th

*Estimate methodology per: Cooper, Christine Ph.D. & Mitra, Somrita 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.

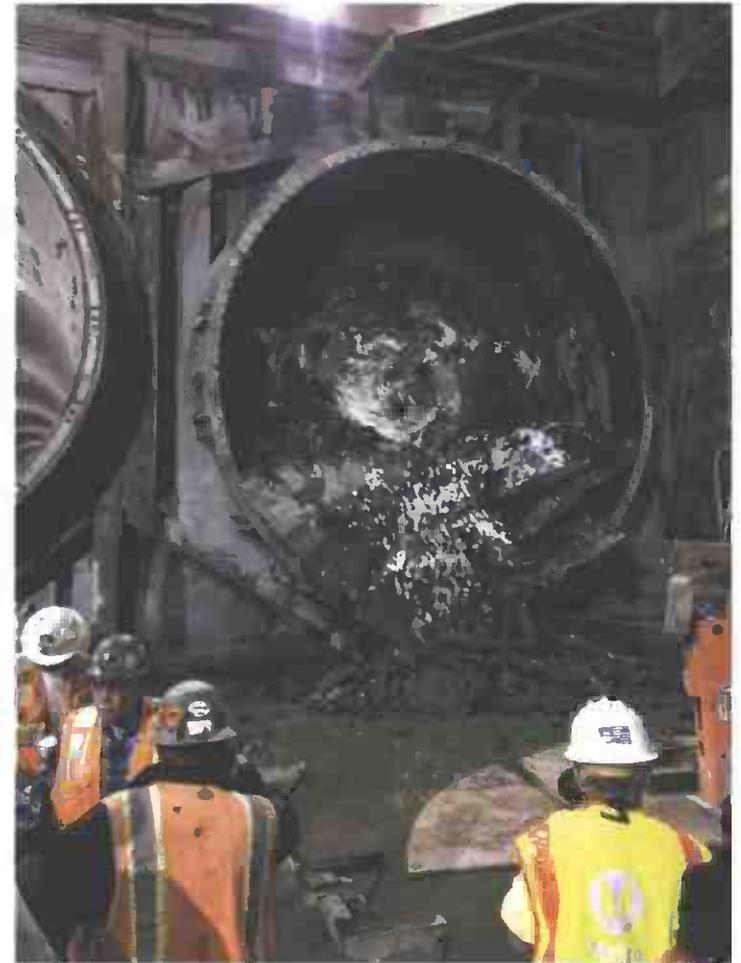
Construction Update

Tunneling

- Successfully mined beneath 4th Street Sewer, without incident
- Breakthrough at 4th/Flower occurred January 16th
- Cross passages excavation underway



Breakthrough at Grand Av Art/Bunker Hill Station (12/08/17)



Breakout at 4th/Flower (01/16/18)

Construction Update Historic Broadway Station

- Underpinning of the LA Times building is proceeding
- Excavation, lagging and tieback installation is ongoing
- Planning underway for tunnel break-out and completion of box excavation thereafter



Underpinning of LA Times Building



Tieback installation

Construction Update

Grand Av Arts/Bunker Hill Station

- Concourse level activities are ongoing
- Permanent walls are being placed



Wall form installation



Concourse entrance form work

- Station work will ramp up once TBM trailing gear is walked back through station

Construction Update Flower Street



DWP utility work at south Flower



Storm drain bypass at south access shaft



Excavation to rough grade level at north Flower

- Completed LADWP power vault excavation; platform construction underway
- Excavation and utility hanging continue
- TBM retrieval has begun; Gantry Crane assembled and extractions performed under weekend street closures

Project Cost Status

DOLLARS IN THOUSANDS

PERIOD ENDING DEC 2017

SCC CODE	DESCRIPTION	ORIGINAL FFGA BUDGET	PROPOSED FFGA BUDGET	COMMITMENTS	EXPENDITURES	PROPOSED FFGA FORECAST AT COMPLETION	VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS	280,622	244,674	239,396	132,491	244,887	213
20	STATIONS, STOPS, TERMINALS, INTERMODAL	354,268	227,048	220,966	41,846	221,202	154
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS	0	0	0	0	0	0
40	SITework & SPECIAL CONDITIONS	141,785	578,230	564,843	391,605	597,216	18,986
50	SYSTEMS	69,667	72,849	63,736	8,069	73,455	606
	CONSTRUCTION SUBTOTAL (10-50)	846,343	1,116,801	1,088,942	574,012	1,136,760	19,959
60	ROW, LAND, EXISTING IMPROVEMENTS	115,889	90,629	70,551	51,666	74,297	-16,331
70	VEHICLES	16,275	16,275	16,275	1,678	16,275	0
80	PROFESSIONAL SERVICES	261,455	350,222	265,514	236,171	356,674	6,451
	SUBTOTAL (10-80)	1,239,963	1,573,927	1,441,282	863,527	1,584,007	10,080
90	UNALLOCATED CONTINGENCY	135,399	82,600	0	0	72,520	-10,080
100	FINANCE CHARGES	27,571	14,301	0	0	14,301	0
	TOTAL PROJECT (10-100)	1,402,932	1,670,828	1,441,282	863,527	1,670,828	0

Note: Expenditures reflect FIS incurred cost through 12/31/2017 plus pending invoices from RCC, CPJV and Arcadis.

Project Cost Status

FFGA / Non-FFGA

DOLLARS IN THOUSANDS

PERIOD ENDING DEC 2017

SCC CODE	DESCRIPTION	ORIGINAL FFGA BUDGET	PROPOSED FFGA BUDGET	COMMITMENTS	EXPENDITURES	PROPOSED FFGA FORECAST AT COMPLETION	VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS	280,622	244,674	238,396	132,491	244,887	213
20	STATIONS, STOPS, TERMINALS, INTERMODAL	354,268	287,048	220,968	47,846	227,202	154
30	SUPPORT FACILITIES, YARDS, SHOPS, ADMIN BLDGS.	0	0	0	0	0	0
40	SITework & SPECIAL CONDITIONS	140,785	578,234	564,843	397,605	597,276	18,986
50	SYSTEMS	68,667	72,849	63,736	8,069	73,455	606
	CONSTRUCTION SUBTOTAL (10-50)	846,342	1,116,804	1,088,942	574,012	1,136,760	19,959
60	ROW LAND EXISTING IMPROVEMENTS	116,689	90,629	70,551	51,666	74,297	-16,331
70	VEHICLES	16,275	16,275	16,275	16,275	16,275	0
80	PROFESSIONAL SERVICES	261,455	360,222	265,514	236,171	356,674	6,451
	SUBTOTAL (10-80)	1,239,863	1,573,922	1,441,282	863,527	1,584,007	10,080
90	UNALLOCATED CONTINGENCY	135,399	82,600	0	0	82,520	10,060
100	FINANCE CHARGES	28,571	14,381	0	0	14,301	0
	TOTAL PROJECT (10-100)	1,402,932	1,670,823	1,441,282	863,527	1,670,823	0

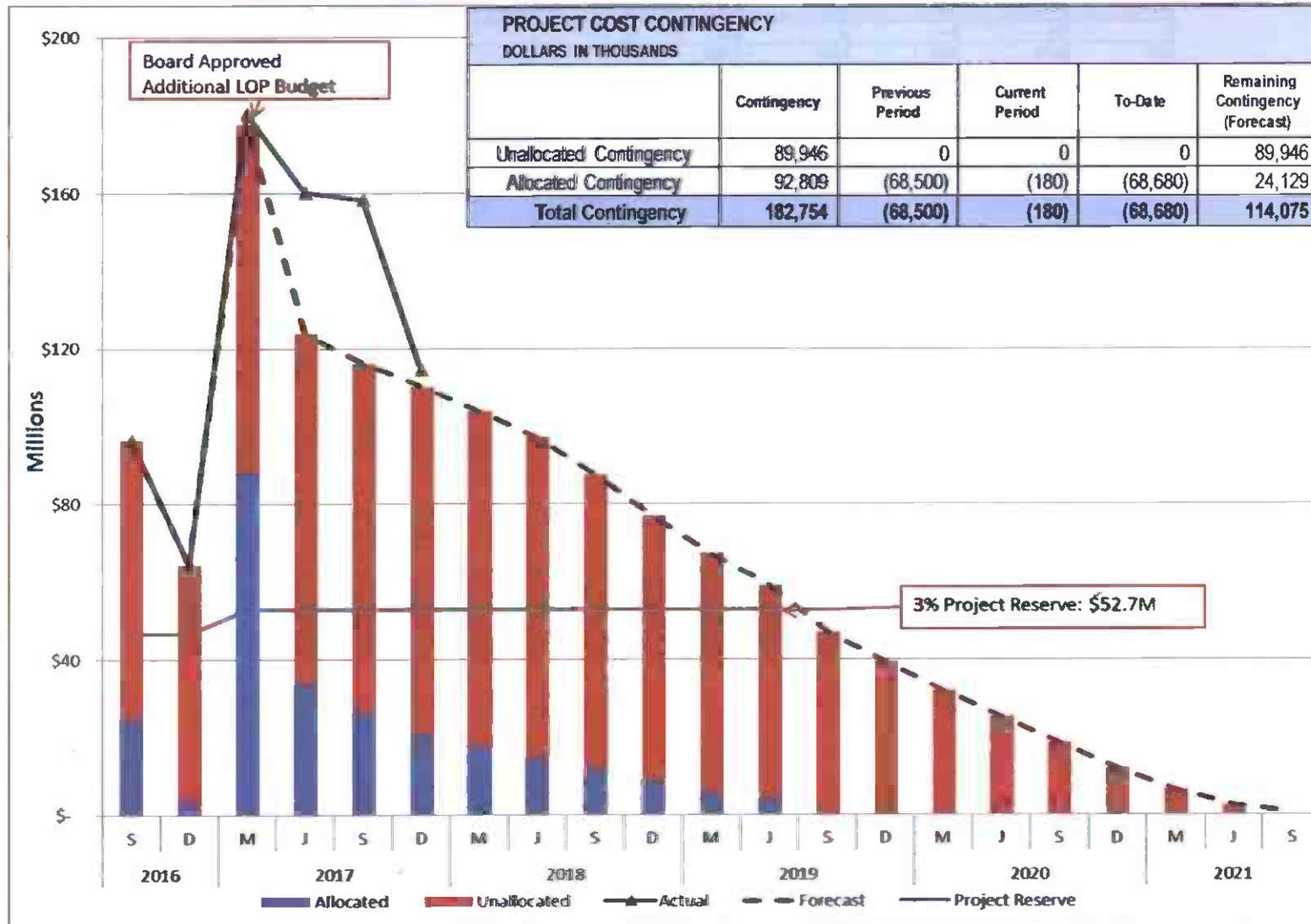
Note: Expenditures reflect FIS incurred cost through 12/31/2017 plus pending invoices from RCC, CPJV and Arcadis.

SCC CODE	DESCRIPTION	ORIGINAL NON FFGA BUDGET	PROPOSED NON FFGA BUDGET	COMMITMENTS	EXPENDITURES	PROPOSED NON FFGA FORECAST AT COMPLETION	VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS		4,388	4,100	238	4,398	0
20	STATIONS, STOPS, TERMINALS, INTERMODAL		9,592	2,953	308	9,592	0
30	SUPPORT FACILITIES, YARDS, SHOPS, ADMIN, BLDGS		0	0	0	0	0
40	SITework & SPECIAL CONDITIONS		19,984	9,991	4,403	25,036	5,062
50	SYSTEMS		750	0	0	750	0
	CONSTRUCTION SUBTOTAL (10-50)		34,694	17,034	4,950	39,776	5,062
60	ROW LAND EXISTING IMPROVEMENTS		2,113	0	0	2,113	0
70	VEHICLES		0	0	0	0	0
80	PROFESSIONAL SERVICES		28,661	10,919	9,075	26,164	2,497
	SUBTOTAL (10-80)		65,468	27,953	14,024	68,053	2,586
90	UNALLOCATED CONTINGENCY		7,346	0	0	4,760	2,586
100	FINANCE CHARGES		0	0	0	0	0
	TOTAL NON-FFGA (10-100)		72,814	27,953	14,024	72,814	0
	ENVIRONMENTAL PLANNING		26,500	26,500	26,948	26,500	0
	TOTAL NON-FFGA (INCL. ENV. PLANNING)		99,314	54,453	38,972	99,314	0

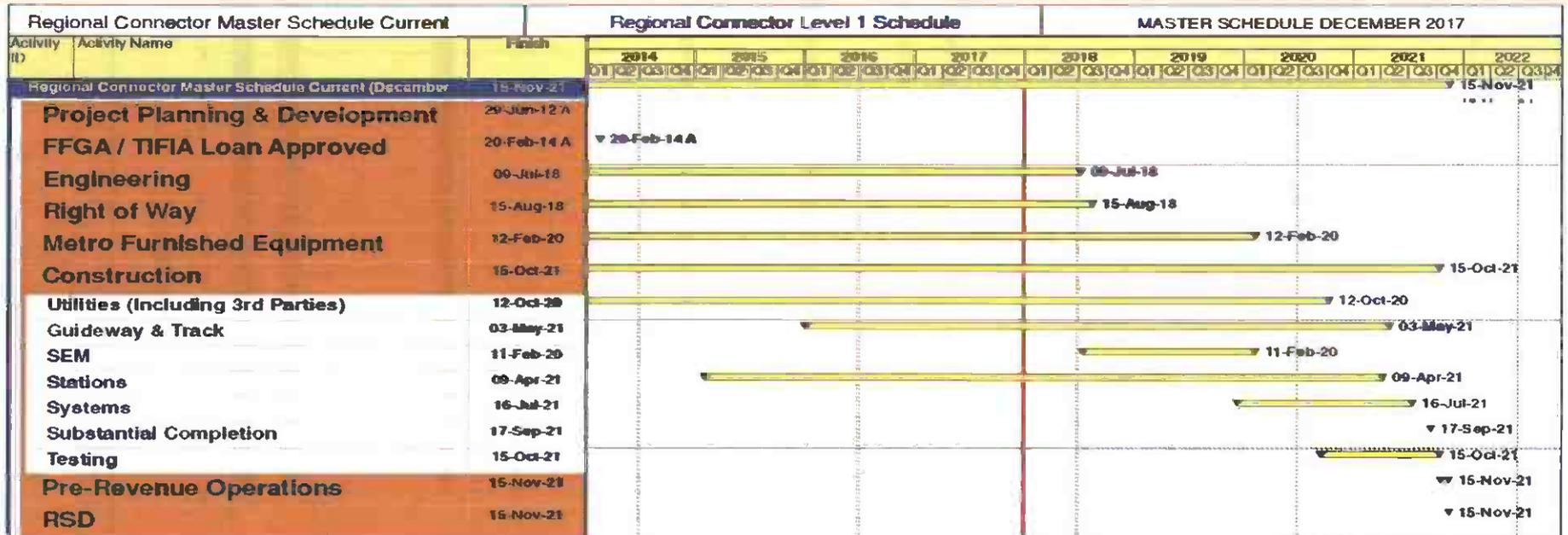
Note: Expenditures reflect FIS incurred cost through 12/31/2017 plus pending invoices from RCC. Metro and Tribune have agreed you reimbursement of ~\$1.6 million related to 2nd/Broadway Overbuild.

	TOTAL PROJECT	1,402,932	1,770,142	1,468,735	902,500	1,770,142	0
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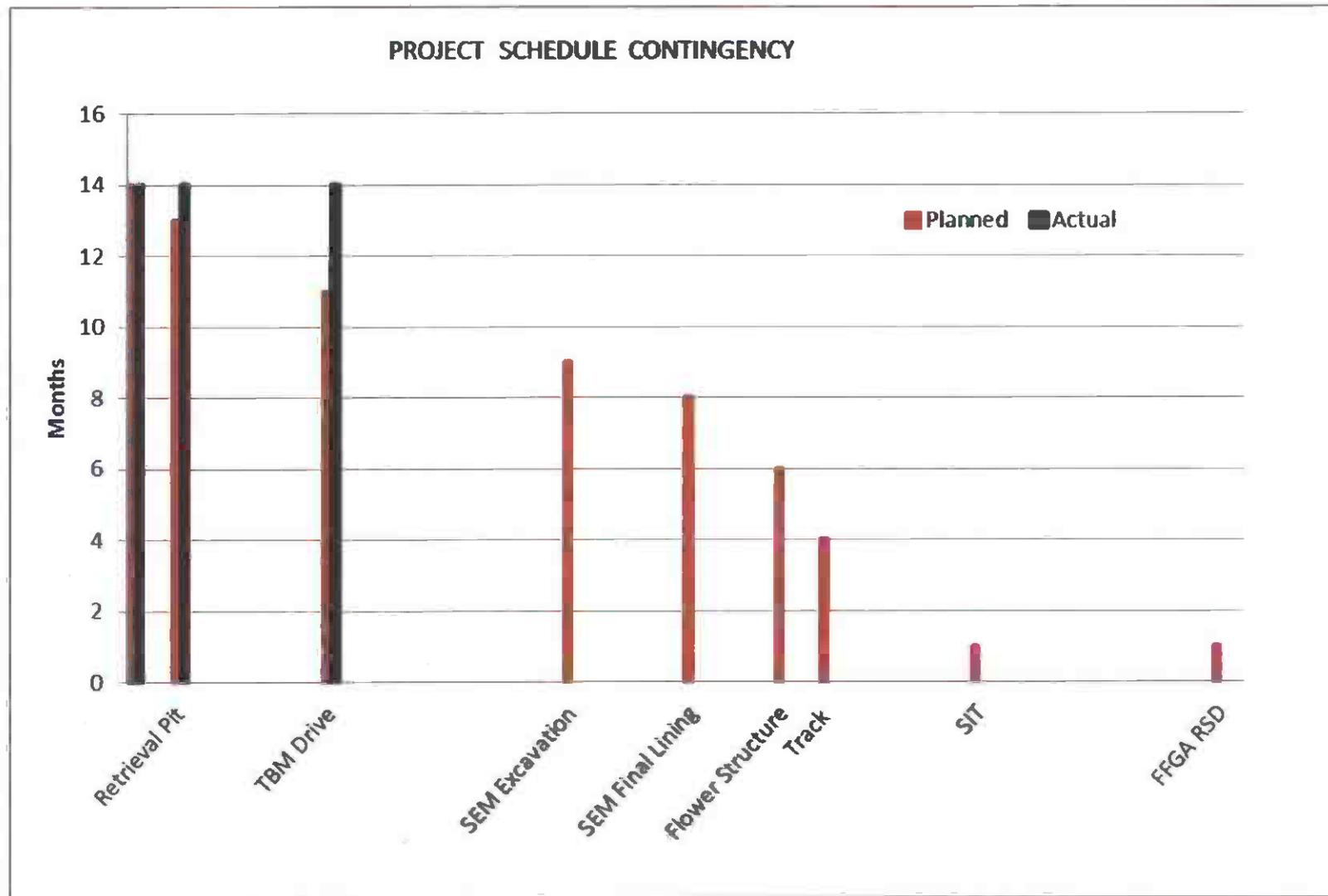
Budget Contingency Drawdown



Summary Schedule



Schedule Contingency Drawdown



Top Risks & Mitigations

January 2018

RISK ID	RISK DESCRIPTION	RISK SCORE	ACTION ITEMS
213	Lawsuits at Flower Street may delay the Project and increase costs.	11	<ol style="list-style-type: none"> 1. Strict compliance of Mitigation Monitoring and Reporting Requirements (MMRP) 2. Review of RCC plans and activities 3. Outreach to stakeholders 4. Meeting weekly with Bonaventure to share work plans and discuss concerns/requests 5. Interface with other Flower Street stakeholders to discuss ongoing plans and issues
296	6 th and Flower utility interface (DWP, AT&T, storm drain, MCI, Level 3, Zayo utilities) may cause delay and additional cost.	9	<ol style="list-style-type: none"> 1. Monitor progress and issues weekly 2. AT&T duck work at 6th and Flower to be resolved 3. RCC to re-sequence piling operations to maximize benefits to 6th Street closure 4. RFC anticipated for added cost – not time
311	Commonwealth Agreement may impact costs due to extended "construction phase."	8	<ol style="list-style-type: none"> 1. Ensure responsiveness to Commonwealth commitments 2. Refine response to FSP obligations with already budgeted costs 3. Interface with Community Relations regarding Business Assistance
333	Damage to streets throughout the alignment due to volume of work (i.e. potholing, trenching, water and power utility installation) may require additional restoration work.	8	<ol style="list-style-type: none"> 1. Monitor progress of both restoration packages. 2. Revisit South of 6th St on Flower for scope requests.
349	Capital costs for betterment requests from BOE/DOT.	8	<ol style="list-style-type: none"> 1. Identify concessions for betterments for related cost estimates. 2. Set-up general "Betterments" line.

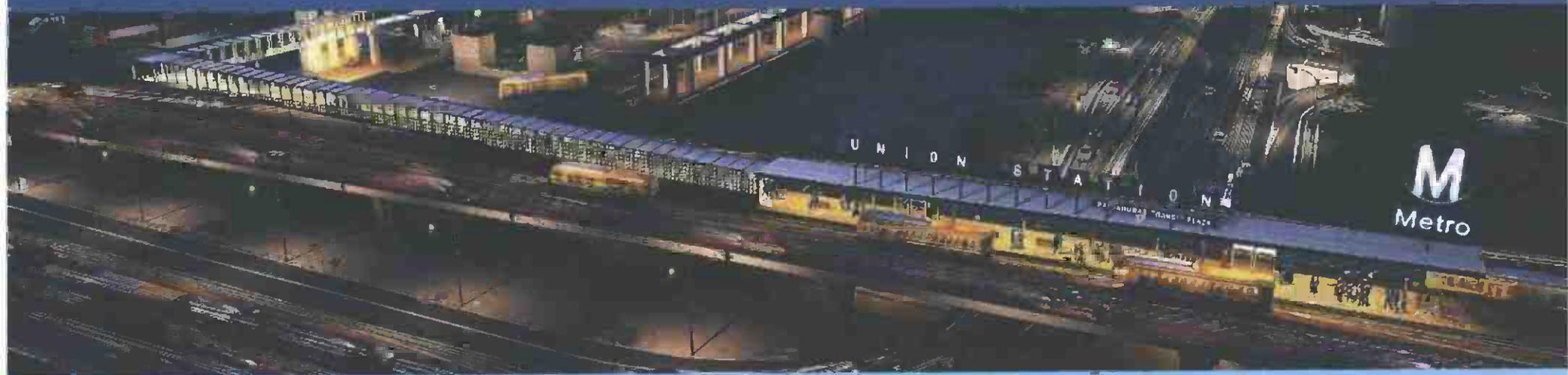
Patsaouras Plaza Busway Station

FTA Quarterly Review – February 28, 2018



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	25,596,000	12,817,000	26,487,000	1,052,000
S	SPECIAL CONDITIONS	750,000	2,517,000	1,126,000	330,000	1,259,000	(1,258,000)
R	RIGHT-OF-WAY	-	-	-	-	-	-
P	PROFESSIONAL SERVICES	7,425,000	9,024,000	10,666,000	10,117,000	11,604,000	2,580,000
PC	PROJECT CONTINGENCY	2,817,000	2,817,000	-	-	443,000	(2,374,000)
TOTAL PROJECT		30,984,000	39,793,000	37,388,000	23,064,000	39,793,000	-

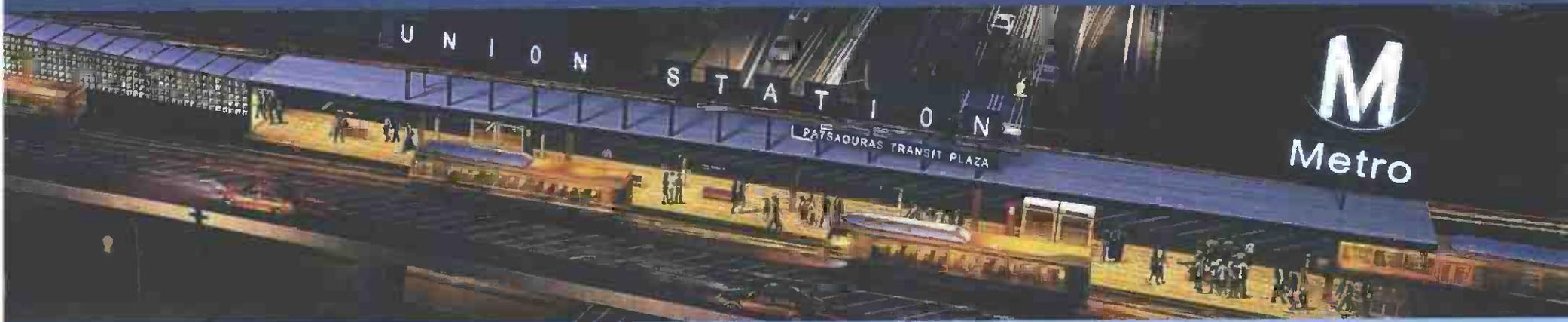


Expenditures through December 31, 2017



Patsaouras Plaza Busway Station

Issues With Potential to go Above \$100,000



- 8" Water Line Relocation
- Global Time Impact Analysis for Delays
- Differing Site Conditions – Man-Made Buried Objects at Bents

No change from last quarter – Contract Modifications not negotiated



Patsaouras Plaza Busway Station Project Schedule

C0970 - Union/Patsaouras Plaza Station		December 2017 vs. Approved Re-Baseline 2017						24-Jan-18											
Activity Name	Orig. Dur.	Re-Baseline Start	Re-Baseline Finish	Start	Finish	Gantt Chart (2015-2018)													
C0970 - Union/Patsaouras Plaza Station - December 2017	1295	29-Feb-14	05-Oct-18	29-Feb-14 A	05-Feb-19	[Gantt Chart]													
Key Milestones	1295	29-Feb-14	30-Apr-15	29-Feb-14 A	14-Feb-19	[Gantt Chart]													
Contract Milestones / Summary	1295	29-Feb-14	31-Mar-14	29-Feb-14 A	14-Feb-19	[Gantt Chart]													
A1000 Contract Award	1	29-Feb-14	29-Feb-14	29-Feb-14 A	29-Feb-14 A	[Gantt Chart]													
A1010 Notice to Proceed (NTP)	1	31-Mar-14	31-Mar-14	31-Mar-14 A	31-Mar-14 A	[Gantt Chart]													
A1090 Final Design Complete	0				29-Feb-15 A	[Gantt Chart]													
A1100 Construction Start	0			03-Jan-17 A		[Gantt Chart]													
A1080 Substantial Completion	0				14-Feb-19	[Gantt Chart]													
Required & Furnished Permits	42	20-May-14	30-Apr-15	20-May-14 A	30-Apr-15 A	[Gantt Chart]													
A1020 Caltrans Encroachment Permit Survey	20	20-May-14	11-Aug-14	20-May-14 A	11-Aug-14 A	[Gantt Chart]													
A1040 Caltrans Encroachment Permit Construction	5	08-Oct-14	03-Dec-14	08-Oct-14 A	03-Dec-14 A	[Gantt Chart]													
A1030 Caltrans Encroachment Permit Police	5	15-Aug-14	30-Apr-15	15-Aug-14 A	30-Apr-15 A	[Gantt Chart]													
Final Design	985	31-Mar-14	29-Feb-15	31-Mar-14 A	03-Jan-17 A	[Gantt Chart]													
A1050 Final Design	259	31-Mar-14	29-Feb-15	31-Mar-14 A	29-Feb-15 A	[Gantt Chart]													
A1110 Permits and Traffic Control Plans	5			01-Mar-15 A	03-Jan-17 A	[Gantt Chart]													
Construction	577	03-Jan-17	05-Sep-18	03-Jan-17 A	05-Sep-18	[Gantt Chart]													
A1120 Demotion	5			03-Jan-17 A	05-Apr-17 A	[Gantt Chart]													
A1140 El Monte Busway Bridge Widening CIDH	5			27-Mar-17 A	28-Jun-17 A	[Gantt Chart]													
A1130 Utility Potholing and Relocations	5			02-Feb-17 A	04-Aug-17 A	[Gantt Chart]													
A1150 El Monte Busway Bridge Widening Substructure	5			25-Apr-17 A	15-Nov-17 A	[Gantt Chart]													
A1160 El Monte Busway Bridge Widening Superstructure	5			25-Sep-17 A	31-May-18	[Gantt Chart]													
A1180 Relocate K-Rail on the Bridge	1			01-Jan-18	01-Jun-18	[Gantt Chart]													
A1170 Pedestrian Over-Crossing Substructure	46			04-Jan-18	03-Aug-18	[Gantt Chart]													
A1190 Pedestrian Overcrossing Superstructure & Enclosure	60			05-Aug-18	25-Oct-18	[Gantt Chart]													
A1060 Construction	263	03-Jan-17	05-Sep-18	03-Jan-17 A	15-Jan-19	[Gantt Chart]													
A1200 Pedestrian Overcrossing Finishes	57			29-Oct-18	15-Jan-19	[Gantt Chart]													
Project Substantial Completion	22	05-Sep-18	05-Oct-18	05-Sep-18	05-Feb-19	[Gantt Chart]													
A1070 Project Substantial Completion	22	05-Sep-18	05-Oct-18	15-Jan-19	14-Feb-19	[Gantt Chart]													



* Contractor's current schedule. Actual finish to be negotiated.



Patsaouras Plaza Busway Station

Design/Build Contract C0970 - Current Quarter Update



Design Status

- Pedestrian Ramp/Bridge/Station (structures): AFC design package awaiting Caltrans approval
- Roadway Plans: AFC design package awaiting Caltrans approval
- PSR/PR: Received Caltrans approval of Revised supplemental PSR/PR

Construction

- Completed falsework for busway bridge widening on right side of freeway
- Continued falsework on left side of freeway
- Initiated deck pours on right side of freeway
- Initiated Mechanical/Electrical/Plumbing (MEP) work



Patsaouras Plaza Busway Station

Design/Build Contract C0970 – Top Risks and Mitigations



Risk	Impact	Mitigation
Pedestrian ramp micropiles and elevator foundations potential for differing site conditions	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.
TIA's for design related schedule delays	Budget	Metro/Contractor Executive Management in settlement negotiations
TIA's for construction related schedule delays	Budget	Metro directed and contractor agreed to expedited monthly schedule update and TIA processing



Patsaouras Plaza Busway Station

Activities for Next Quarter



- Complete micropiling the foundations for the pedestrian overcrossing
- Complete falsework on left side of freeway
- Continue Mechanical/Electrical/Plumbing (MEP) work
- Complete pouring the elevator foundations
- Complete and file the Storm Drain exception with CALTRANS
- Finalize Cost and Schedule Containment Plan



Patsaouras Plaza Busway Station

Construction Photos



Frame 3 Right Concrete Pour



Frame 1 Left Rebar Installation



Pouring Footing for Ped Bridge C5



Pouring Stems and Soffit
Frame 2 Left



Metro



Willowbrook/Rosa Parks Station

FTA Quarterly Review Meeting

February 28, 2018



Willowbrook/Rosa Parks Station

Major Activities During Reporting Period



- Early Start Package:
 - Issued NTP and started construction on December 27th.
 - Started expenditure of Grants funds for construction.
- Package A.
 - Released IFB for construction of Package A.
 - Started coordination with Caltrans for review and approval of ROW Certification.

Willowbrook/Rosa Parks Station

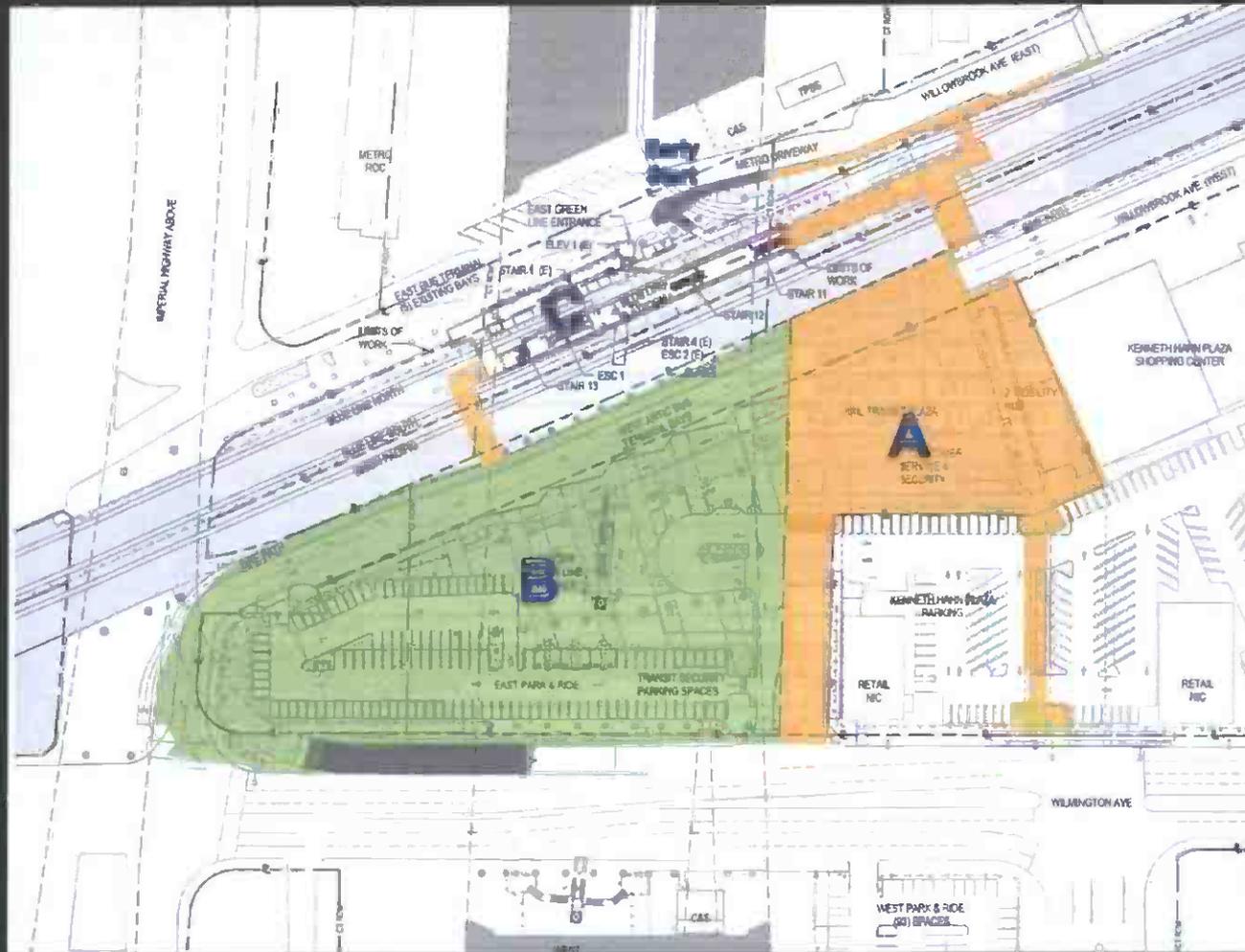
Project Schedule

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		8/9/2019
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	5/14/2018
Construction		
Notice to Proceed	10/30/2016	6/4/2018
Begin Construction	5/30/2017	8/2/2018
End Construction (substantial completion)	10/31/2018	8/30/2019
Design Bid Docs/Date: Package B		
Bid Set Submittal		3/1/2019
IFB Issue		4/1/2019
Contract Award		8/1/2019
Construction		
Notice to Proceed		11/1/2019
Begin Construction		1/15/2020
End Construction (substantial completion)	10/3/2018	7/15/2020
Project Closeout Date	4/30/2019	6/30/2021



Metro

Willowbrook/Rosa Parks Station Project Phasing



Metro

Willowbrook/Rosa Parks Station

Project Cost Update

Activity	ORIGINAL GRANT BUDGET	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	ORIGINAL 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	\$4,747,240	\$2,800	\$ 8,012,339	(\$3,265,099)
Green Line Improvements (<i>Items 6-9: Vertical Circulation, Lighting & Acoustical Enhancements</i>)	\$14,417,979	\$14,417,979	\$0	\$ 5,936,478	\$8,481,501
New Construction (<i>Items 10-13: Civic Plaza, Metro Customer Service Center, Sheriff's Facility, Mobility Hub</i>)	\$16,642,913	\$16,642,913	\$0	\$ 12,409,835	\$4,233,078
Bus and Shelter Improvements (<i>Items 14-16: Improvements to West and East Bus Depots</i>)	\$3,462,904	\$3,462,904	\$0	\$ 567,798	\$2,895,106
Parking Improvements (<i>Items 17-19: Safety enhancement and reconfiguration for both East and West Park & Ride Lots</i>)	\$3,555,068	\$3,555,068	\$0	\$ 4,241,432	(\$686,364)
Circulation Improvements (<i>Items 20-23: Signage, Transit Hall, Pedestrian Promenade, Kiss & Ride Lot</i>)	\$4,844,679	\$4,844,679	\$1,845	\$ 1,115,317	\$3,729,362
Site-Wide Improvements (<i>Items 24-26: General Site Work, Landscaping, Artwork</i>)	\$3,236,024	\$3,236,024	\$21,450	\$ 9,060,970	(\$5,824,946)
Preliminary Engineering and Final Design	\$4,281,888	\$5,889,710	\$5,285,788	\$ 5,889,710	(\$1,607,822)
Construction - Agency Labor			\$11,331		
Construction - Third Party			\$105,533		
Contingency (10%)	\$5,518,878	\$5,518,878	\$0	\$ 4,134,417	\$1,384,461
Land Transaction	\$4,650,000	\$4,650,000	\$5,553,317	\$ 4,650,000	\$0
Tenant Relocation	\$1,300,000	\$1,300,000	\$55,741	\$ 1,300,000	\$0
Total Project Cost	\$66,657,573	\$68,265,395	\$11,037,806	\$ 57,318,296	\$9,339,277

1. Expenditures cumulative through 1/23/2018; TIGER expenditures YTD: \$21,530.06

2. The mezzanine is approximately 29% of the total project costs, PE Commitments and Expenditures were adjusted accordingly.



Metro

Willowbrook/Rosa Parks Station

Top Risks and Mitigations

Top Risks and Mitigations

Risk ID	Risk Description	Type RDMC	Risk Rating	Mitigation Strategies
20	Construction phasing plan coordination with Metro Operations during Blue Line Closure	C	13.5	1. Continue ongoing coordination with Operations during phasing plan development and construction.
16	3rd party coordination: - Caltrans	M	7.5	1. Separate the Project into five (5) separate design packages (Design & Construction) - Complete 2. Coordinate the review of Packages A, C and ROW - Ongoing
16b	3rd party coordination: - County - Union Pacific - CPUC	M	9	1. Continue coordination during County review of Packages A and C with LOA 2. Establish monthly coordination meetings/updates with UP
3	As-built drawings not available for underground, Potential Unknown Utilities	DM	7.5	1. Field investigation during design development - Done 2. Evaluating Sewer and Date lines based on the investigation - Potholing for Sewer connection will be const. contract. - Installing new Data line
22	Blue Line Renovation impact to WRP Project	M	4	1. Continue coordination with other BL renovation projects. 2. Establish monthly coordination meetings during construction.



Metro

Willowbrook/Rosa Parks Station

Anticipated Activities for Next Reporting Period

- Early Start Package – Complete civil sitework for relocation of waterline and SCE utilities.
- Package A:
 - Pre-bid conference and evaluation of bids.
 - Secure Caltrans approval of ROW certification.
- Package B:
 - Begin internal Metro review of 100% bid set
 - Submit Encroachment Permit application to Caltrans



Eastside Access Improvements_1st and Central Station FTA Quarterly Meeting – February 28, 2018



Metro

Eastside Access Improvements

Project Description

Project consists of 7 different segments within City of Los Angeles Right of Way and Include:

- Bike lanes, Cycle Track, and Walk-Bike Esplanade installation
- Sidewalk widening and repairs
- Crosswalk improvements
- Tree planting
- Replacement of street lights
- Wayfinding and signage
- Storm Water Management



Eastside Access Improvements

Preliminary Funding Plan



TIGER VI Discretionary Funds	\$11,800,000
Local (TIGER Match)	\$5,000,000
TOTAL	\$16,800,000



February 17, 2016 Planning and Programming Committee

February 25, 2016 Metro Board Meeting

Eastside Access Improvements Design-Construction Budget

EASTSIDE ACCESS AND 1ST & CENTRAL LOP BUDGET and FORECAST

SEGMENT	ACTIVITY	ORIGINAL BUDGET	CURRENT BUDEGT	EXPENDITURES	CURRENT FORECAST	GRANT - FORECAST VARIANCE
1	1st Street: From Los Angeles Street to Mission Road	\$2,896,108	\$1,791,334	\$0	\$1,791,334	\$1,104,774
2	Alameda Esplanade	\$1,290,531	\$4,364,962	\$0	\$4,364,962	-\$3,074,431
3	Los Angeles Street Esplanade: From the Plaza to 2nd Street	\$3,698,730	\$684,920	\$0	\$684,920	\$3,013,810
4	2nd Traction Street	\$1,038,816	\$230,535	\$0	\$230,535	\$808,281
5	Central Avenue: From 1st Street to 3rd Street	\$310,438	\$315,017	\$0	\$315,017	-\$4,579
6	Judge John Aiso/San Pedro Street: From Temple to 3rd Street	\$691,711	\$350,559	\$0	\$350,559	\$341,152
7	Santa Fe Spine	\$1,163,645	\$2,763,476	\$0	\$2,763,476	-\$1,599,831
8	Funda.Ped. Improvements for the Project + Azusa + Little Tokyo	\$386,999	\$305,090	\$0	\$305,090	\$81,909
	General Sit Access and Staging	\$0	\$989,400	\$0	\$989,400	-\$989,400
	Subtotal:	\$11,476,978	\$11,795,291	\$0	\$11,795,291	-\$318,313
	Preliminary Engineering/Professional Services	N/A	\$2,060,492	\$1,399,425	\$2,660,492	
	Third Party	N/A	\$900,000	\$92,060	\$900,000	
	Metro Project Labor and Construction Management (*)	N/A	\$0	\$0	\$3,000,000	
	Escalation	\$1,423,022	Included above	\$0	\$0	
	Mobilization/Traffic Control	\$1,100,000	Included above	\$0	\$0	
	Construction Contingency (@20%)	\$2,800,000	\$2,359,058	\$0	\$2,359,058	
	Total Project Cost:	\$16,800,000	\$17,114,842	\$1,491,485	\$20,714,842	-\$3,914,842

2/6/2018

Notes:

Expenditures cumulative through February 1, 2018

Current Budget is based on 65% Cost estimate

Professional Services Cost under review - Estimated Increase of \$600,000

Includes estimated Metro (soft) cost during the construction phase of \$3,000,000

Construction Contingency of 20% included

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



Metro

Eastside Access Improvements Project Schedule

MILESTONE SCHEDULE

31-Jan-18

MILESTONE	BASELINE DATE	CURRENT DATE
Grant Award	22-Sep-15	22-Sep-15
Environmental Finding	22-Sep-15	22-Sep-15
Design (30% - 100%)		
Start Date:	30-Sep-15	8-Mar-16
End Date:	30-Sep-16	29-Jun-18
Procurement:		
IFB Issue:		9/7/2018 (**)
Contract Award:NTP:		2/26/2019 (**)
Construction:		
Start Date (All Segments Except Segment 2):		2/27/2019 (**)
Substantial Completion (All Sements Except Segment 2):		6/15/2020 (**)
Start Date Segment 2 (Upon completion of Regional Connector Work):		2-Aug-21
Substantial Completion (Segment 2):		28-Mar-22
Project Close-Out:	30-Sep-20	17-Jan-23



(*) Met with Regional Connector Team to review projected start date for Segment 2. Current projection of start date is July/August 2021.

(**) To be verified after RC and EA projects get clear directions from COLA

Metro

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%	>=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

ID	RISK CATEGORY	RISK DESCRIPTION	RISK				HMA TARGET DATE	RISK OWNER	RISK MANAGEMENT ACTION - RMA	ACTION STATUS
			PROB	COST	TIME	RISK SCORE				
			(P)	(C)	(T)	P*(C+T)/2				
	Funding									
1		Initial Grant Budget shortfall due to forecasted cost increase	5	4	5	11.5	Apr-18	Metro	Metro to identify additional funding sources for Board approval	PM working with Sr. Mgr.
2		RCT Charge Order account could exceed allotted budget	5	2	2	7	Apr-18	Metro	Metro to include same scope as an optional item in IFB	PM coordinating with RCT team
3		Increase in TTA Contract Fee	3	2	1	7.5	Mar-16	Metro	Metro to identify issues and justifications prior to March Board	PM has initiated the discussions
	Design									
3		Delay in 100% Plan approval will impact IFB release date	4	2	4	12	May-18	Metro	Clear City coordination, Diligent QC of submittals by TTA & Metro Eng.	PM working with City and TTA
4		Revision on Test Area Parking, 1st Ave Parking, and Alameda Parking could delay design	2	1	3	4	Mar-18	Metro	Explore the possibility of CD 14 support to resolve the issue	PM working with CD 14
5		BSA Review could increase in number of lights & flow and impact budget	2	3	4	7	Dec-17	Metro	TTA to modify design to meet BSA's requirements without increasing costs	TTA working with BSA
	Schedule									
6		Design and Construction delays could extend project beyond TISAR deadline	3	3	5	10.5	Mar-18	Metro	Prepare a realistic schedule that is achievable and obtain TTA approval	PM has prepared PB Schedule
7		Delay in completing 1st and Central Improvements could impact Segment 2 construction	5	2	5	12.5	Mar-18	Metro	Schedule monthly standing meetings Regional Committee team	PM has met with RC and RCT
	Construction									
8		Metro Procurement process for construction could delay contract award	3	3	3	9	May-18	Metro	IFB to mature IFB development process as early as possible	PM to start IFB process in early 2018
9		Construction delay due to concurrent projects in the area could affect schedule/cost	2	3	1	4	Jan-19	Metro	IFB to identify such projects so that bidders can plan work accordingly	Metro has met with City to identify such projects
10		Unplanned utility work could delay project and increase cost	4	3	4	12	Mar-18	Metro	Metro to conduct Utility Identification (UI) including during design phase	PM has initiated the idea with TTA



Metro

Eastside Access Improvements

Current Quarter Update



- Received comments on 65% Design from BOE, BSS, BSL, DOT
- Preparing 65% resubmittal for BSS, BOE, and DOT
- Conducted multiple coordination meetings with City, Metro Projects
- Met with CD14 to get support on resolution on key project issues



Metro

Eastside Access Improvements

Activities for Next Quarter



- Complete 65% submittal after addressing open issues
- Continue 85% - 100% plan submittal process
- Continue Bi-Weekly Meeting with Regional Connector
- Meet with CD 14 to resolve Open items



Metro

P3010 Light Rail Vehicle Acquisition

FTA/PMOC Quarterly – February 28, 2018



Reporting Month: November 2017 to January 2018
Presentation Date: February 28, 2018

Key Project Issues

“The intermittent unreliability of the vehicle on-board communication systems has not yet been resolved. The forecast date for development of a solution is October, 2018. As a result, no vehicles have been awarded Final Acceptance status pending mitigation of the communications problem.”

Service Bulletins have been issued to further improve the communication system’s reliability. In parallel with this effort, KI has engaged another communication system vendor to achieve 100% reliability. The updates and progress have been satisfactory and the Project Team will continue to follow up with KI accordingly.

Project Updates

- The delivery of Option 1 Cars is underway.
- 10 Cars shipped; 121 Cars shipped total.
- 16 Cars Conditionally Accepted; 109 Cars Conditionally Accepted total.
- 15 Cars in Revenue Service at the Foothill Extension Line; 93 Cars in Expo, Blue, Green Lines.
- Car 1144 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	\$268,427,613.00	\$268,427,613.00	\$268,427,613.00	\$241,627,594.00	\$26,800,019.00	\$0.00
SPARE PARTS	\$20,069,679.00	\$20,069,679.00	\$20,069,679.00	\$12,583,698.00	\$7,485,980.90	\$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	\$304,435,745.00	\$304,435,745.00	\$304,435,745.00	\$264,651,034.00	\$39,784,711.00	\$0.00
CONTINGENCY SUB-TOTAL	\$10,704,091.00	\$10,704,091.00	\$6,147,614.00	\$6,147,614.00	\$4,556,477.00	\$0.00
VEHICLE TOTAL	\$315,139,836.00	\$315,139,836.00	\$310,583,359.00	\$270,798,648.00	\$44,341,188.00	\$0.00
PROFESSIONAL SERVICES (ELEMENT A)	\$21,208,749.00	\$21,208,749.00	\$21,208,749.00	\$16,114,295.00	\$5,094,454.00	\$0.00
PROFESSIONAL SERVICES (ELEMENT B)	\$8,378,885.00	\$8,378,885.00	\$8,378,885.00	\$3,123,155.00	\$5,255,730.00	\$0.00
PROFESSIONAL SERVICES SUB-TOTAL	\$29,587,634.00	\$29,587,634.00	\$29,587,634.00	\$19,237,450.00	\$10,350,184.00	\$0.00

Reporting Month: November 2017 to January 2018

Presentation Date: February 28, 2018

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	\$154,730,134.00	\$169,068,757.00	\$0.00
SPARE PARTS	\$27,332,000.00	\$27,332,000.00	\$27,332,000.00	\$0.00	\$27,332,000.00	\$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	\$166,896,917.00	-\$199,424,727.00	\$0.00
CONTINGENCY SUB-TOTAL	\$18,604,375.00	\$18,604,375.00	\$6,534,165.00	\$6,534,165.00	\$12,070,210.00	\$0.00
VEHICLE TOTAL	\$384,926,019.00	\$384,926,019.00	\$372,855,809.00	\$173,431,082.00	\$211,494,937.00	\$0.00

Note: P3010 Life Of Project (LOP) TOTAL (Base Buy, Options #1 & #4 and Options #2 & #3) is \$972 Million

Reporting Month: November 2017 to January 2018

Presentation Date: February 28, 2018

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	\$214,370,373.96	\$214,370,373.96	\$214,370,373.96	\$24,080,898.87	\$190,289,475.09	\$0.00
SPARE PARTS	\$15,821,024.40	\$15,821,024.40	\$15,821,024.40	\$0.00	\$15,821,024.40	\$0.00
SPECIAL TOOLS	\$389,434.57	\$389,434.57	\$389,434.57	\$0.00	\$389,434.57	\$0.00
DIAGNOSTIC TEST EQUIPMENT	\$1,416,049.63	\$1,416,049.63	\$1,416,049.63	\$0.00	\$1,416,049.63	\$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	\$7,921,238.44	\$7,921,238.44	\$7,921,238.44	\$0.00	\$7,921,238.44	\$0.00
ON-SITE ENGINEER	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
VEHICLE SUB-TOTAL	\$239,918,121.00	\$239,918,121.00	\$239,918,121.00	\$24,080,898.87	\$215,837,222.13	\$0.00
CONTINGENCY SUB-TOTAL	\$15,869,912.00	\$15,869,912.00	\$11,651,376.00	\$11,651,376.00	\$4,218,536.00	\$0.00
VEHICLE TOTAL	\$255,788,033.00	\$255,788,033.00	\$251,569,497.00	\$35,732,274.87	\$220,055,758.13	\$0.00

Note: P3010 Life Of Project (LOP) TOTAL (Base Buy, Options #1 & #4 and Options #2 & #3) is \$972 Million

Reporting Month: November 2017 to January 2018

Presentation Date: February 28, 2018

Budget Contingency Drawdown

PROJECT COST CONTINGENCY (through January 2018)					
UNITS IN DOLLARS					
Orders	Original Contingency (Budget)	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Base Order	\$10,704,091	\$0	\$773,695	\$6,147,614	\$4,556,477
Options 1 and 4	\$18,604,375	\$0	\$5,669,567	\$6,534,165	\$12,070,210
Options 2 and 3	\$15,869,912	\$0	\$11,651,376	\$11,651,376	\$4,218,536
Total Contingency	\$45,178,378	\$0	\$18,094,638	\$24,333,155	\$20,845,223

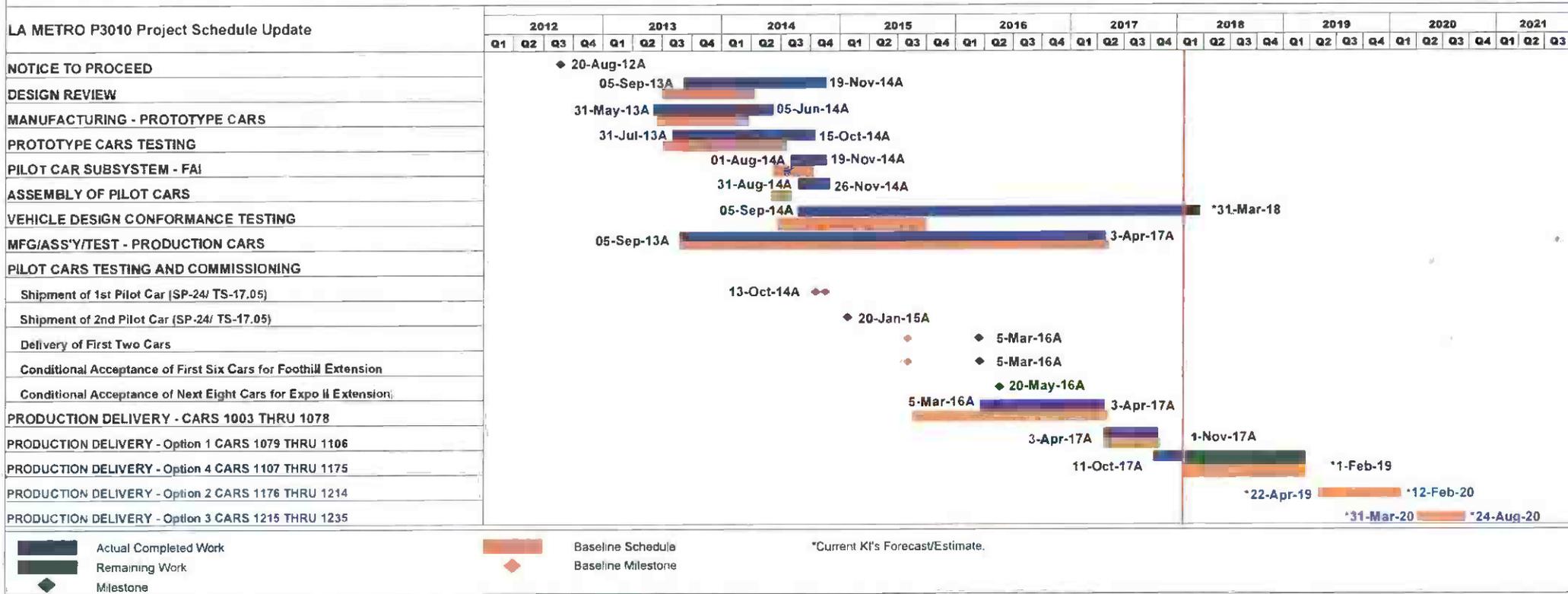
Reporting Month: November 2017 to January 2018

Presentation Date: February 28, 2018

Summary Schedule

P3010 Light Rail Vehicle Acquisition Program Monthly Project Status Report

January 2018



Reporting Month: November 2017 to January 2018

Presentation Date: February 28, 2018

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.

Reporting Month: November 2017 to January 2018

Presentation Date: February 28, 2018

Heavy Rail Vehicle Acquisition Program



FTA Quarterly Meeting Review
February 28, 2018



Metro

New Heavy Rail Vehicle Program

- **PROJECT STATUS (ACTIVITIES FOR REPORTING PERIOD)**
 - **Conceptual Proposal Review (CPR)**
 - This Design Review phase will be closed out by the end of February 2018; with the exception of the HVAC system. The Contractor had to replace the HVAC supplier due to technical compliance issues.
 - All Supplier Contracts has been signed, including new HVAC supplier.
 - **Pre-Production Configuration Review (PPCR)**
 - This Design Review phase will begin in February 2018 and be completed by September 2018.
 - The Project is on-schedule based upon the latest schedule forecast from the Contractor and Metro's internal review; last production vehicle will be delivered two months ahead of schedule.
 - **Metro Technical Support**
 - Metro and its Consultants have been providing technical support to the Contractor and its suppliers through working sessions.
 - Metro will have Resident Engineers stationed in Changchun, China and Quincy, MA beginning in February 2018 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 and the Contractor are conducting biweekly meetings/conference calls with each major System Supplier that requires additional support.



Metro

New Heavy Rail Vehicle Program

- PROJECT BUDGET

DESCRIPTION	ORIGINAL PROJECT BUDGET	CURRENT PROJECT BUDGET	EXPENDITURES (YTD)	CURRENT PROJECT FORECAST (CONTRACT MODIFICATIONS)	PROJECT FORECAST
BASE ORDER 64 VEHICLES	\$178,395,869	\$178,395,869	\$16,759,486	\$0	\$178,395,869
PROFESSIONAL SERVICES	\$20,938,375	\$20,938,375	\$3,873,086	\$0	\$20,938,375
MTA ADMINISTRATION	\$11,960,055	\$11,960,055	\$1,823,713	\$0	\$11,960,055
VEHICLE SUBTOTAL	\$211,294,299	\$211,294,299	\$22,456,285	\$0	\$211,294,299
CONTINGENCY	\$21,926,767	\$21,926,767	\$0	\$0	\$21,926,767
CONTINGENCY SUBTOTAL	\$21,926,767	\$21,926,767	\$0	\$0	\$21,926,767
TOTAL PROJECT	\$233,221,066	\$233,221,066	\$22,456,285	\$0	\$233,221,066



Metro

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

- MASTER PROJECT SCHEDULE (MPS) – BASE ORDER

ID	ID	Task Name	Start	Finish	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
1	1	LA PROJECT	Fri 6/30/17	Fri 4/30/27	[Timeline bar from 6/30/17 to 4/30/27]											
2	2	Conceptual Proposal Review (CPR)	Fri 6/30/17	Wed 11/29/17	[Timeline bar from 6/30/17 to 11/29/17]											
20	20	Pre-Production Configuration Review														
21	21	PPCR for Carbody	Fri 8/17/18	Fri 8/17/18	◆ 8/17											
22	22	PPCR for Interior & Exterior Appointments	Tue 8/21/18	Tue 8/21/18	◆ 8/21											
23	23	PPCR for Lighting	Wed 8/22/18	Wed 8/22/18	◆ 8/22											
24	24	PPCR for Cab Equipment and Controls	Thu 8/23/18	Thu 8/23/18	◆ 8/23											
25	25	PPCR for HVAC	Mon 8/27/18	Mon 8/27/18	◆ 8/27											
26	26	PPCR for Coupler & Draftgear	Thu 8/30/18	Thu 8/30/18	◆ 8/30											
27	27	PPCR for Trucks	Fri 8/31/18	Fri 8/31/18	◆ 8/31											
28	28	PPCR for Friction Brakes & Pneumatic	Thu 9/6/18	Thu 9/6/18	◆ 9/6											
29	29	PPCR for Electrical	Mon 9/3/18	Mon 9/3/18	◆ 9/3											
30	30	PPCR for Passenger Doors & Controls	Wed 8/29/18	Wed 8/29/18	◆ 8/29											
31	31	PPCR for Propulsion & Dynamic Braking	Tue 9/4/18	Tue 9/4/18	◆ 9/4											
32	32	PPCR for Auxiliary Power Equipment	Fri 9/7/18	Fri 9/7/18	◆ 9/7											
33	33	PPCR for MDS	Mon 9/10/18	Mon 9/10/18	◆ 9/10											
34	34	PPCR for Event Recorder	Tue 9/11/18	Tue 9/11/18	◆ 9/11											
35	35	PPCR for Trainlines & Network System	Wed 9/12/18	Wed 9/12/18	◆ 9/12											
36	36	PPCR for Communication & Passenger Information	Fri 9/14/18	Fri 9/14/18	◆ 9/14											
37	37	PPCR for ATC & TWC	Mon 9/17/18	Mon 9/17/18	◆ 9/17											
38	38	Pre-Production Configuration Review (PPCR)	Mon 9/17/18	Mon 9/17/18	◆ 9/17											
39	39	Final Configuration Review (FCR)	Thu 4/4/19	Thu 4/4/19	◆ 4/4											
40	40	First Article Inspections (Fals)	Thu 2/14/19	Thu 2/14/19	◆ 2/14											
41	41	Pilot Vehicle Delivery & Test in g Base Order Delivery	Fri 4/3/20	Mon 8/31/20	4/3 → 8/31											
42	42	Base Order Delivery	Tue 4/7/20	Thu 3/31/22	4/7 → 3/31											
43	43	Warranty Final Completion	Fri 1/1/21	Fri 4/30/27	1/1 → 4/30											



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	Engineering	Contractor may not be able to provide necessary U.S. based resources, which may delay design, performance and car delivery.	15-Nov-16	29-Jan-18	5	3	4	16	LACMTA	Mitigate	1. LACMTA to work and coordinate with Contractor to plan and mitigate risks. 2. LACMTA to work and coordinate with Consultants to leverage and apply best practices/lessons learned to plan and mitigate risks. 3. LACMTA to meet with CRRC Senior Execs to push for necessary resources	4	4	3	12
2	Production	Times Electric, Kingair and HZY have a very aggressive schedule for leasing, designing and permitting their new manufacturing facility in the LA Area. The facility may not be ready in time for vehicle production.	10-May-17	29-Jan-18	3	4	5	17.5	Contractor	Mitigate	1. LACMTA to assign resources to closely work with and monitor the Supplier's Local Employment Plan. 2. Should it be necessary, design verification could be first held at their Chinese facility and then official FATs performed in LA. 3. LACMTA to audit suppliers for compliance to LEP commitment 4. Require CRRC to identify a dedicated person responsible for shepherding this process who will regularly meet with LACMTA staff and discuss progress.	2	3	4	10
3	Engineering/Production	The Contractor may not effectively manage their suppliers during design and production	15-Nov-16	29-Jan-18	4	3	4	14	LACMTA	Mitigate	1. 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. 2. Encourage intermediate "over-the-shoulder design reviews. 3. Hold periodic Supplier Forums, to communicate current issues and look ahead info. 4. Schedule design review workshops with CRRC and Suppliers	3	3	3	9
4	Operations	Resources and track availability may be a constraint for LACMTA and delay the Contractor in delivering Vehicles	25-Jan-16	29-Jan-18	3	4	4	12	LACMTA	Mitigate	1. LACMTA will coordinate closely with competing projects to avoid conflicts and resource availability. 2. LACMTA will consider some preliminary testing to be performed in the yard. 3. Contractor to perform static, functional and dynamic testing before delivering Vehicles to ensure that LACMTA yard is a Commissioning Site.	3	3	3	9
5	Engineering	Lack of system integration expertise may result in system design conflicts or omissions that result in delays.	15-Nov-16	29-Jan-18	3	3	3	9	LACMTA	Mitigate	1. Provide close oversight of system integration effort. 2. Conduct working sessions with Contractor and Consultant SMEs to facilitate the design process.	3	3	3	9



Metro

New Heavy Rail Vehicle Program

- **ANTICIPATED ACTIVITIES FOR NEXT REPORTING PERIOD**
 - Start of Pre-Production Configuration Review (PPCR)
 - Perform Quality Assurance audit of the Contractor and its Suppliers
 - Conduct Working Sessions and Design Review meetings with the Contractor and its Supplier.
 - Contractor has identified a facility in Irwindale, CA for the Localization program and is in the process of finalizing negotiations for a lease-to-buy commercial terms.
 - Metro will exercise the Alternative Technology for the Fire Mist Suppression System (FMSS).



Metro

FTA Quarterly Review Action Item Report – December 6, 2017

Item No.	Status	Description	Responsible Agency	Responsible Staff	Due Date
1-8/31	Open	Metro to provide the FTA/PMOC a white paper outlining a Project Cost and Schedule Containment Plan for the Patsaouras Plaza Busway Station.	LACMTA	Timothy Lindholm	9/30/17
2-8/31	Closed	Metro to provide the FTA/PMOC a white paper outlining a Project Cost and Schedule Containment Plan for the Eastside Access Improvements Project.	LACMTA	Milind Joshi	9/30/17
1-5/31	Closed	Metro to develop a job creation methodology and provide job creation figures on the Crenshaw/LAX Transit Project, Westside Purple Line Extension Section 1 and 2 Projects and Regional Connector Transit Project to the FTA/PMOC on a quarterly basis.	LACMTA	Brian Boudreau/ William Brown/ Rick Wilson/ Daniel Estrada	8/31/17
2-5/31	Closed	Metro to provide the FTA/PMOC a list identifying the number of P3010 vehicles allocated to each project.	LACMTA	Jesus Montes/ Annie Yang	8/31/17
1-2/22	Closed	Metro to consider including Finance Costs as part of the LOP Budget for Federal Projects.	LACMTA	Brian Boudreau/ William Brown/ Rick Wilson/ Daniel Estrada	8/31/17