

Los Angeles County
Metropolitan Transportation Authority

FTA Quarterly Review

Briefing Book

FEBRUARY 27, 2019



Metro

FTA QUARTERLY REVIEW MEETING AGENDA

Los Angeles County Metropolitan Transportation Authority

Wednesday, February 27, 2019 – 9:00 a.m.

William Mulholland Conference Room – 15th Floor

I. OVERVIEW

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

PRESENTER

Ray Tellis
Phillip Washington
Drew Phillips
Charles Safer
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
- D. Green Line Extension to Torrance

Laurie Lombardi

III. CONSTRUCTION REPORTS

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

Richard Clarke
Charles Beauvoir
Gary Baker
James Cohen
Michael McKenna
Kimberly Ong

IV. FTA ACTION ITEMS

FTA / PMOC

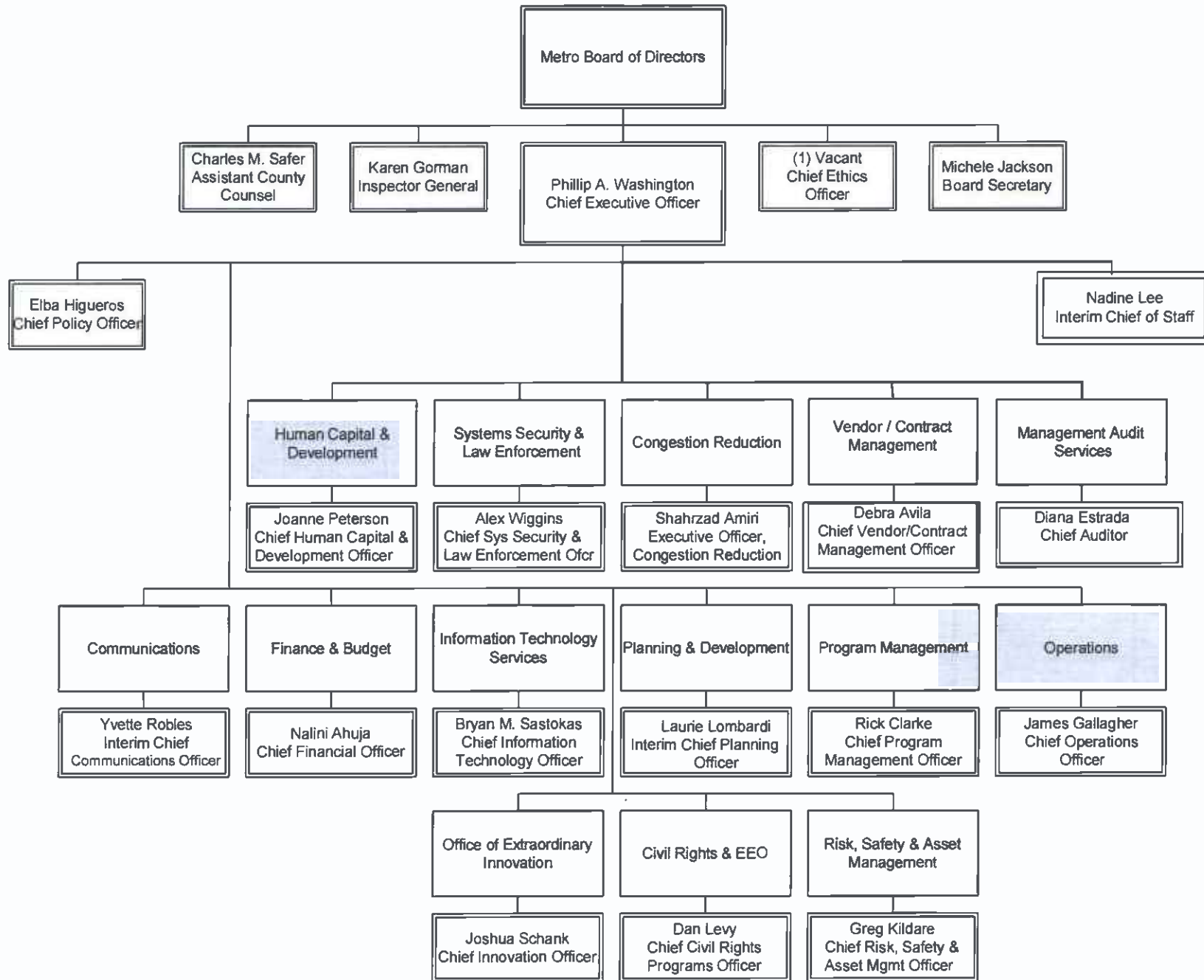
PROPOSED SCHEDULE AND LOCATION OF NEXT MEETING

Los Angeles County Metropolitan Transportation Authority

Wednesday, May 29, 2019

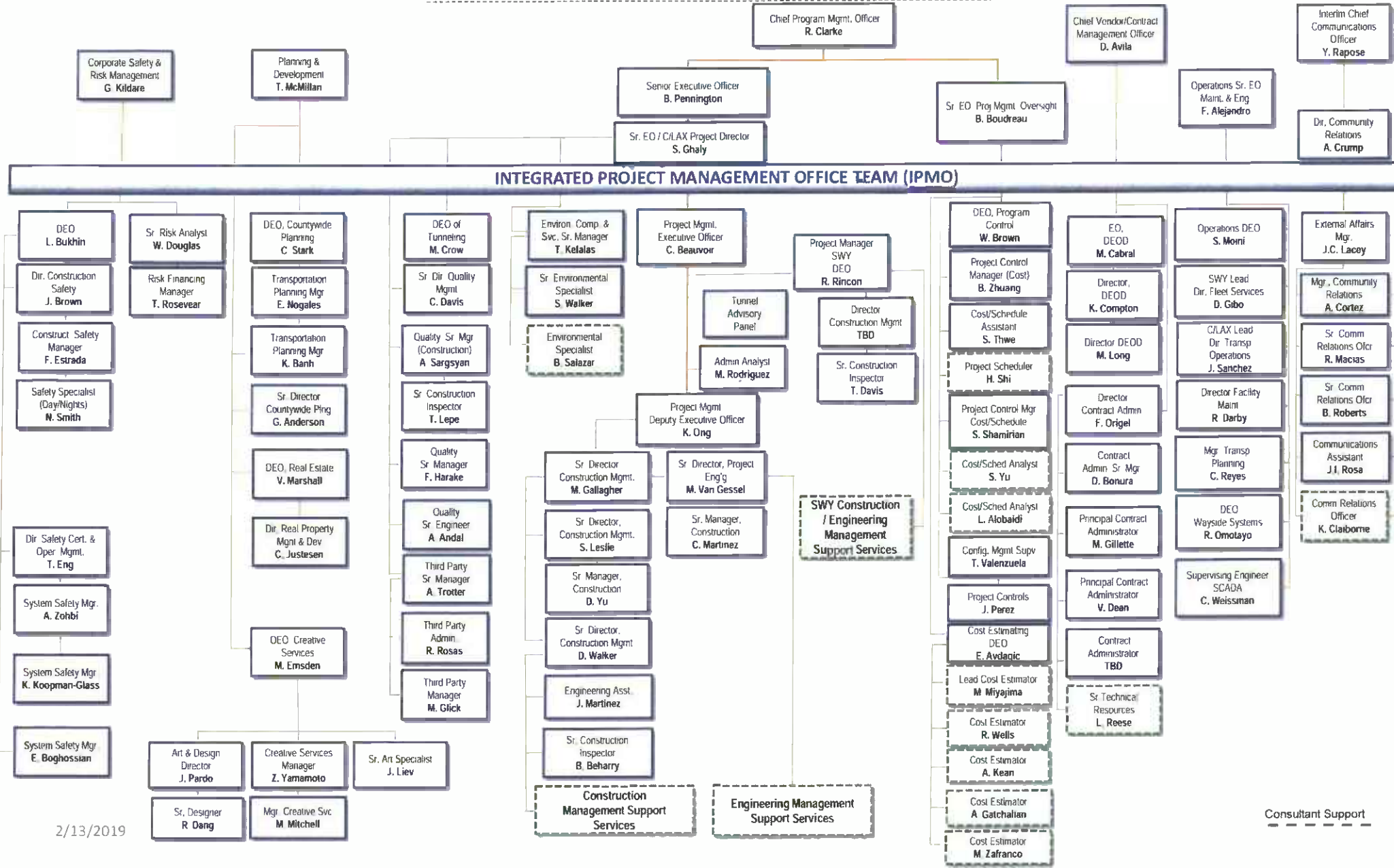
William Mulholland Conference Room - 15th Floor

Metro Organization Chart

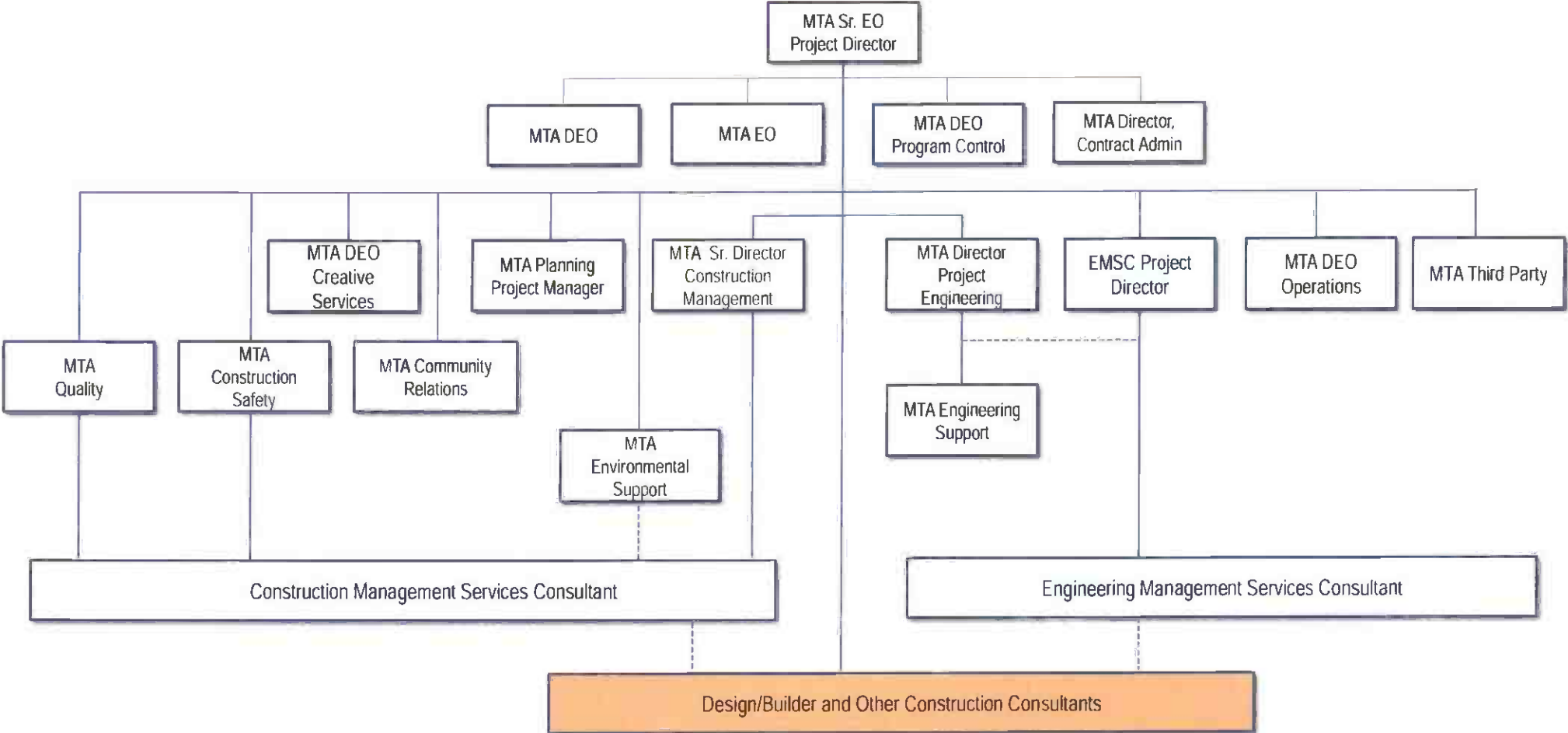


CRENSHAW/LAX TRANSIT PROJECT MATRIX ORGANIZATION

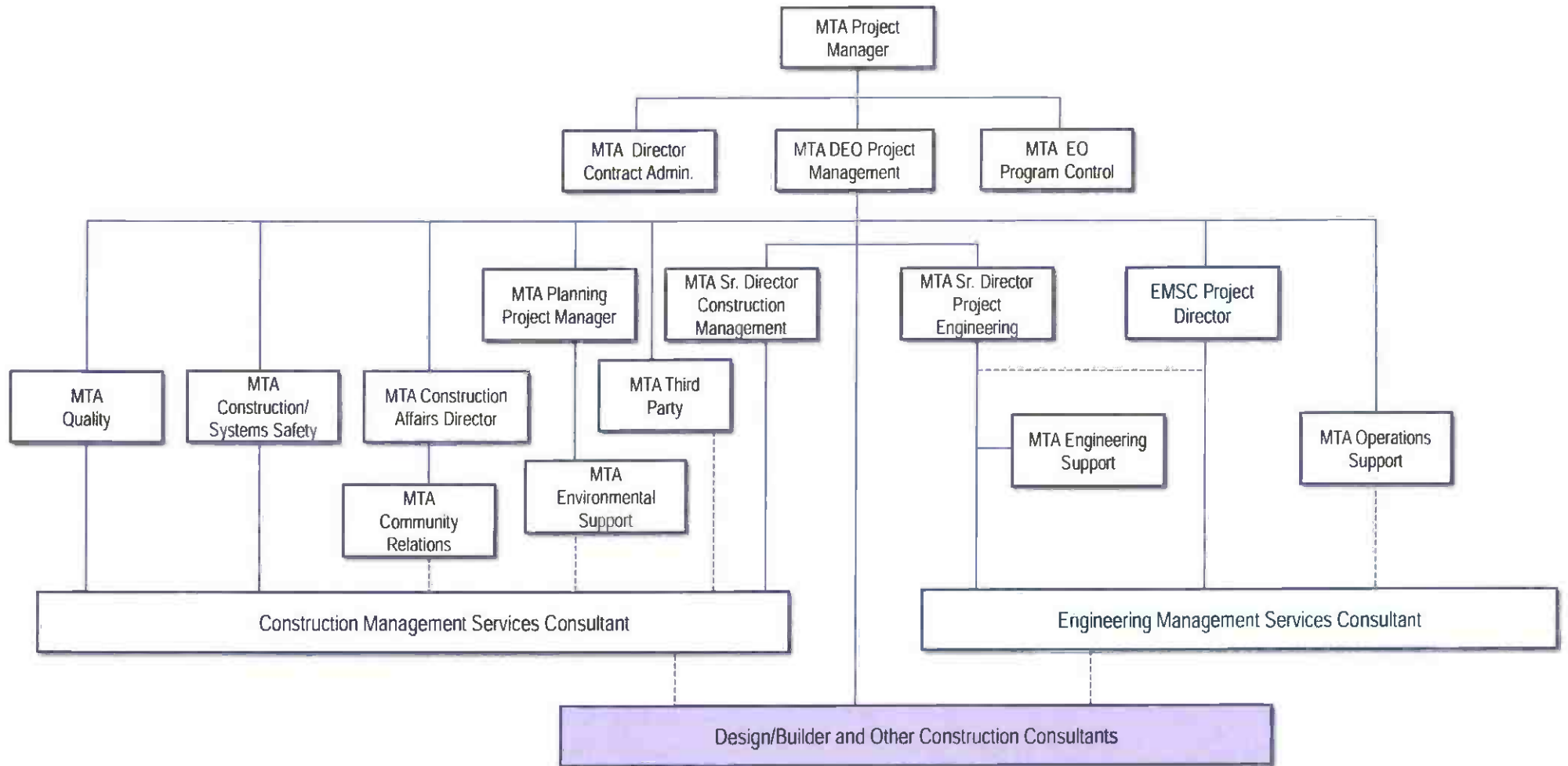
Metro Executive Management Organization and Staff



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



Westside Purple Line Extension Section 1 Responsibility and Reporting Matrix



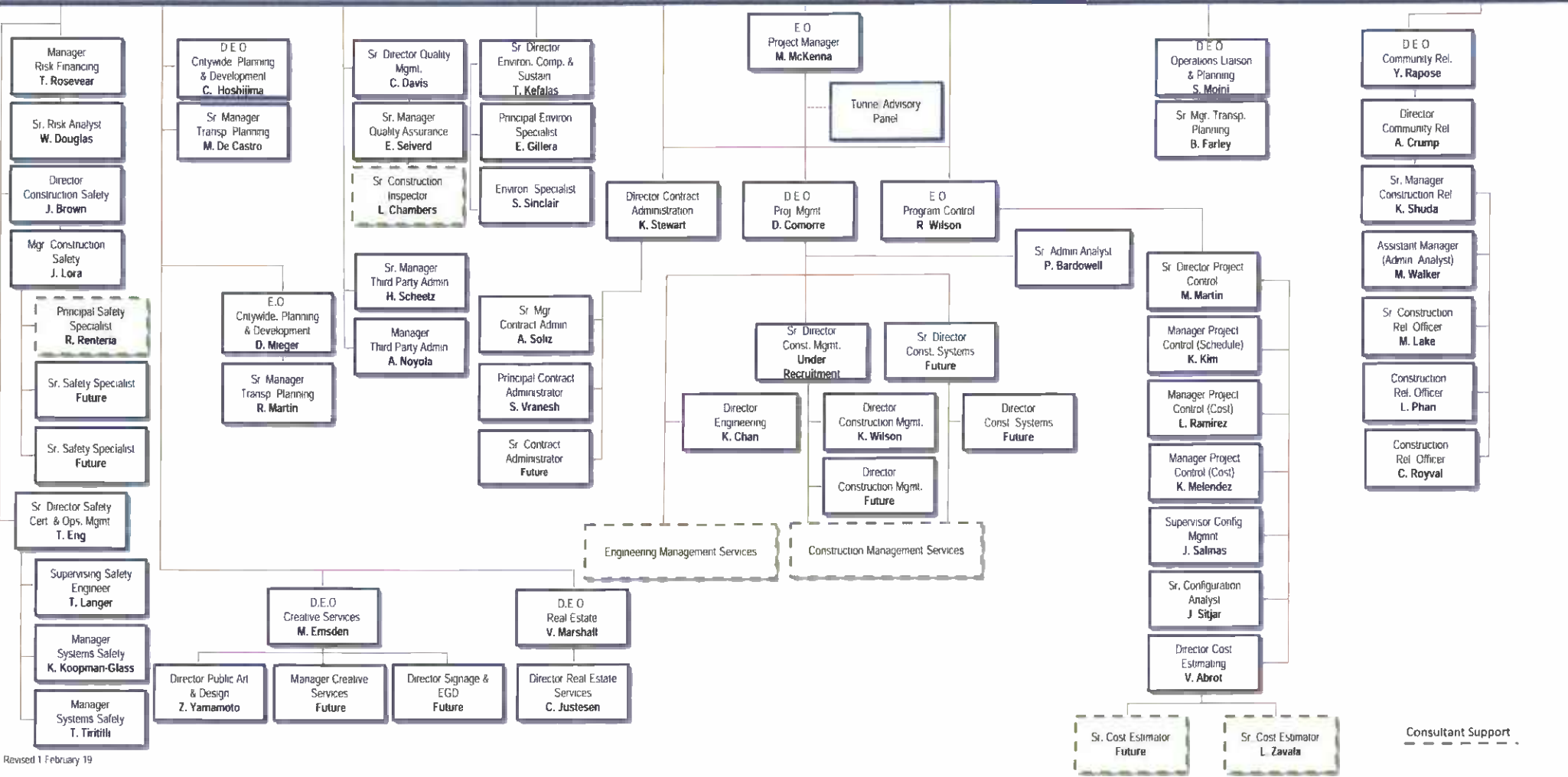
WESTSIDE PURPLE LINE EXTENSION SECTION 2

Matrix Organization

Metro Executive Management Organization and Staff

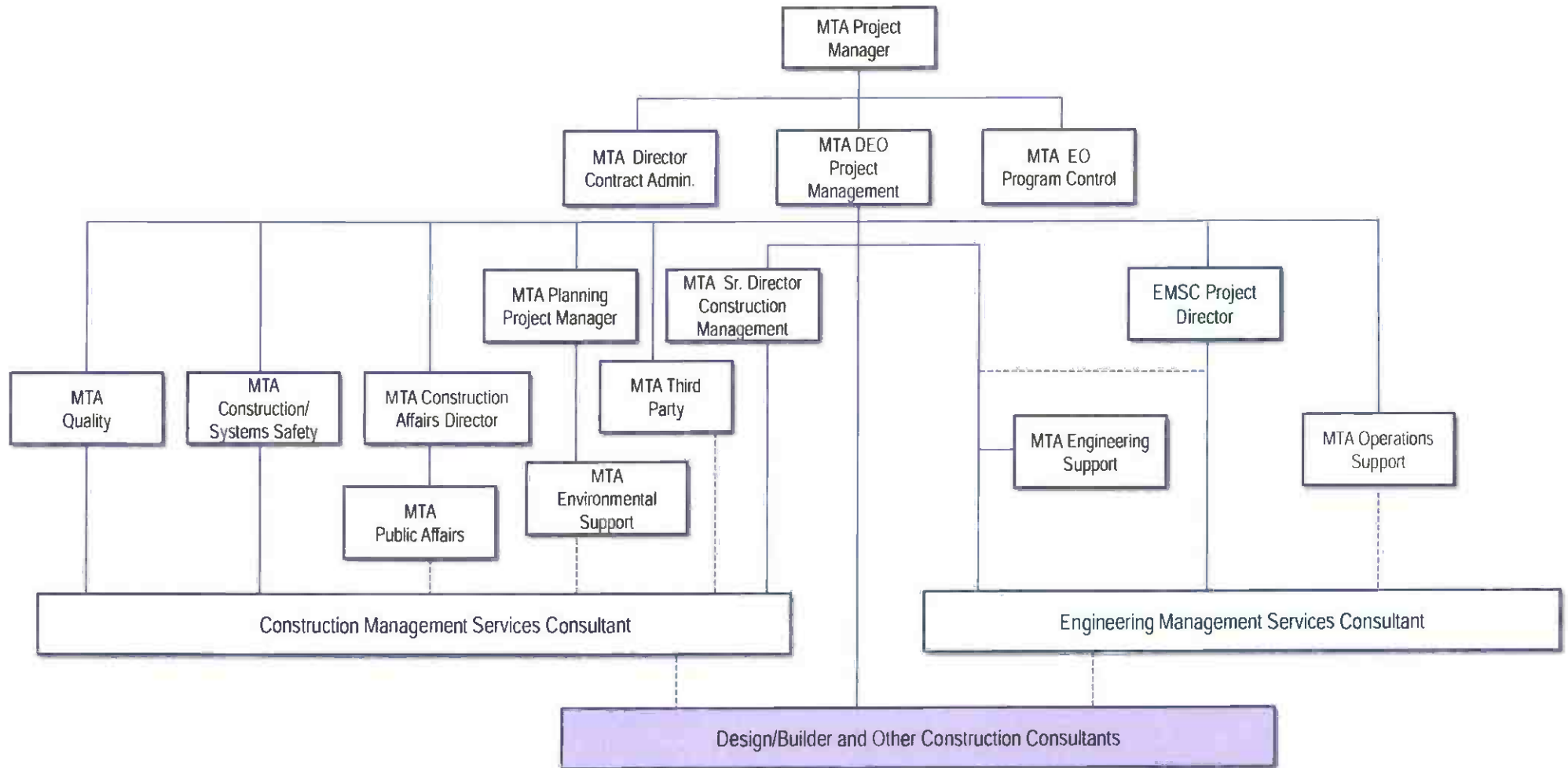


INTEGRATED PROJECT MANAGEMENT OFFICE TEAM (IPMO)



Consultant Support

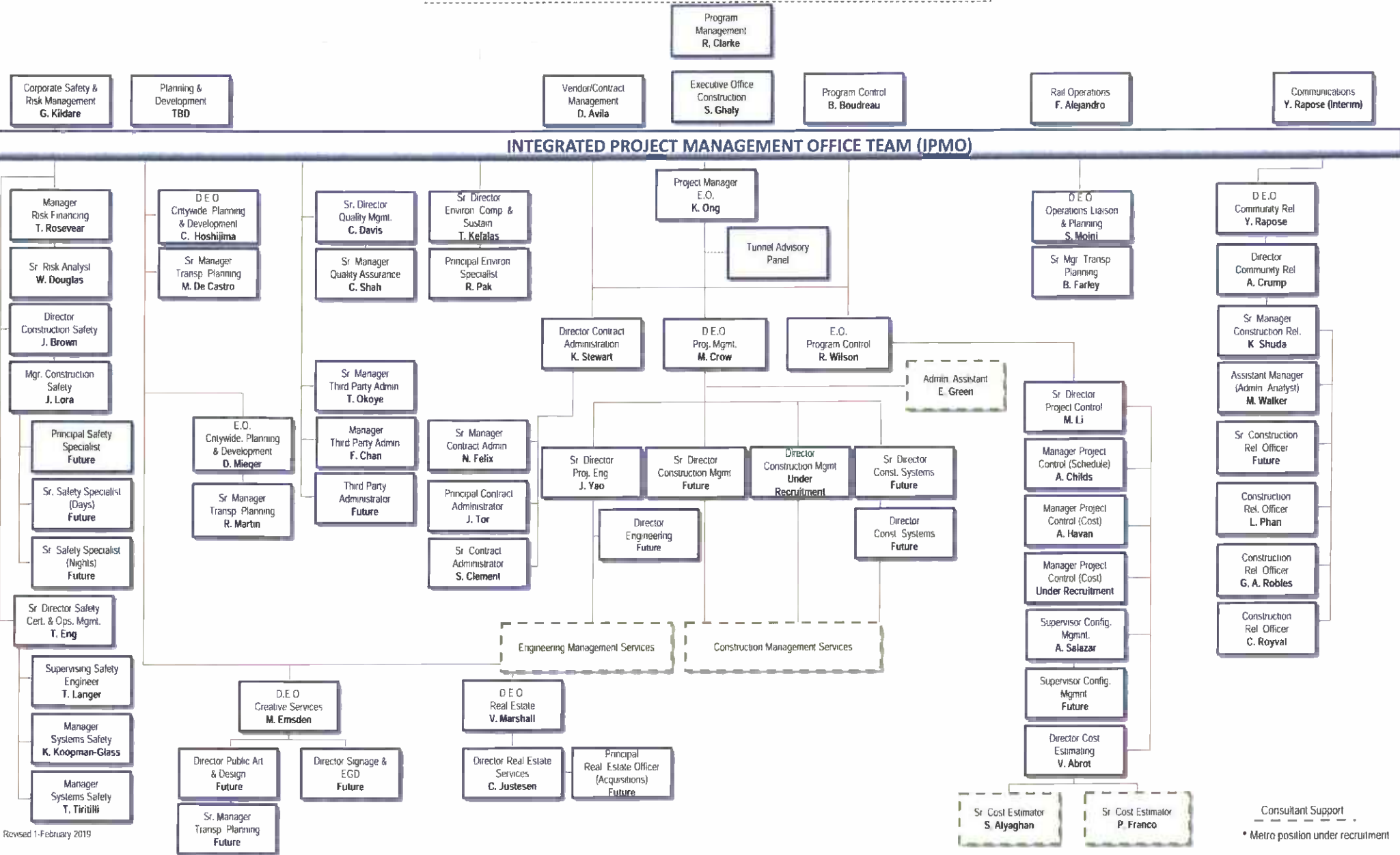
Westside Purple Line Extension Section 2 Responsibility and Reporting Matrix



WESTSIDE PURPLE LINE EXTENSION SECTION 3

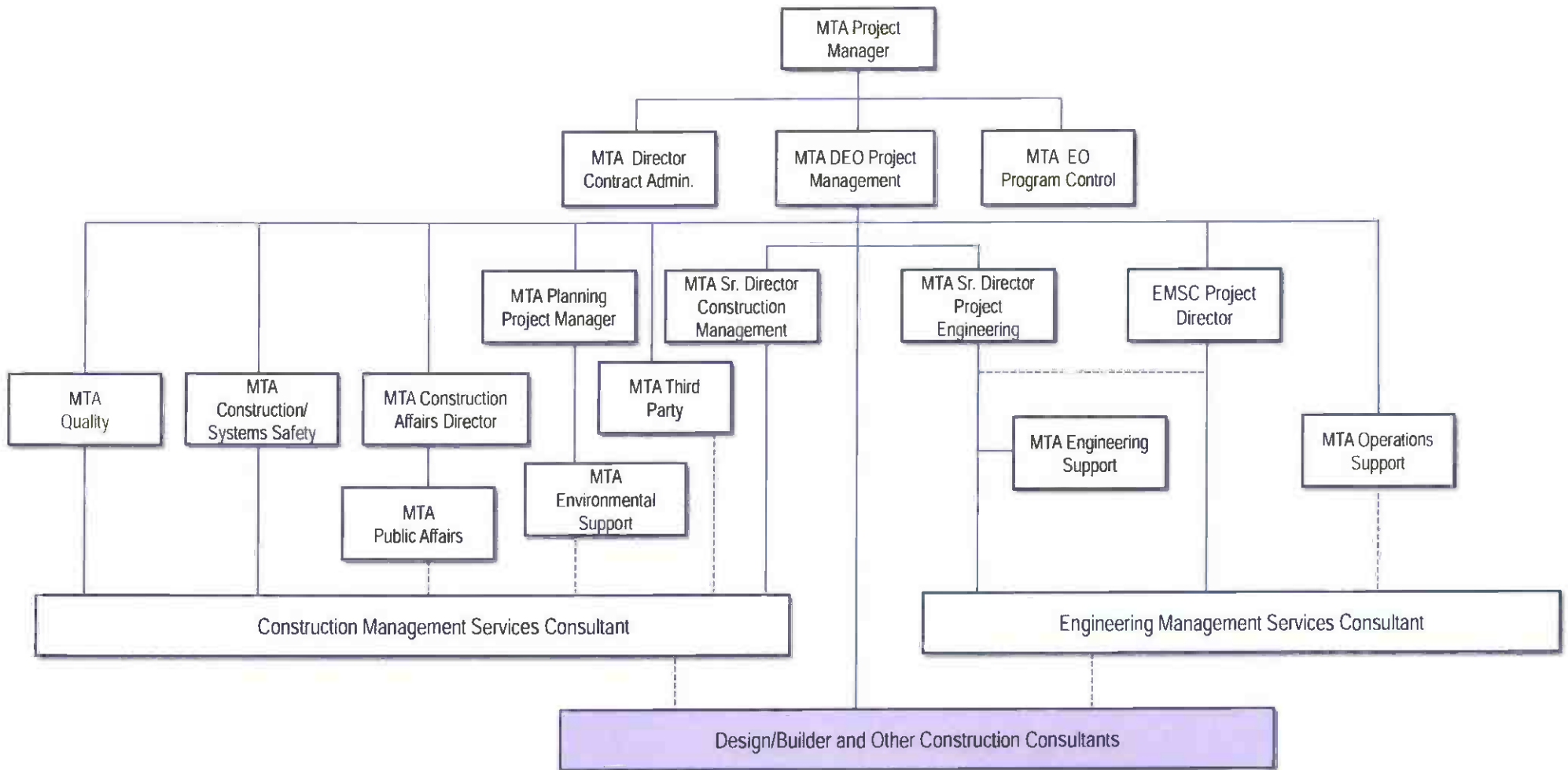
Matrix Organization

Metro Executive Management Organization and Staff



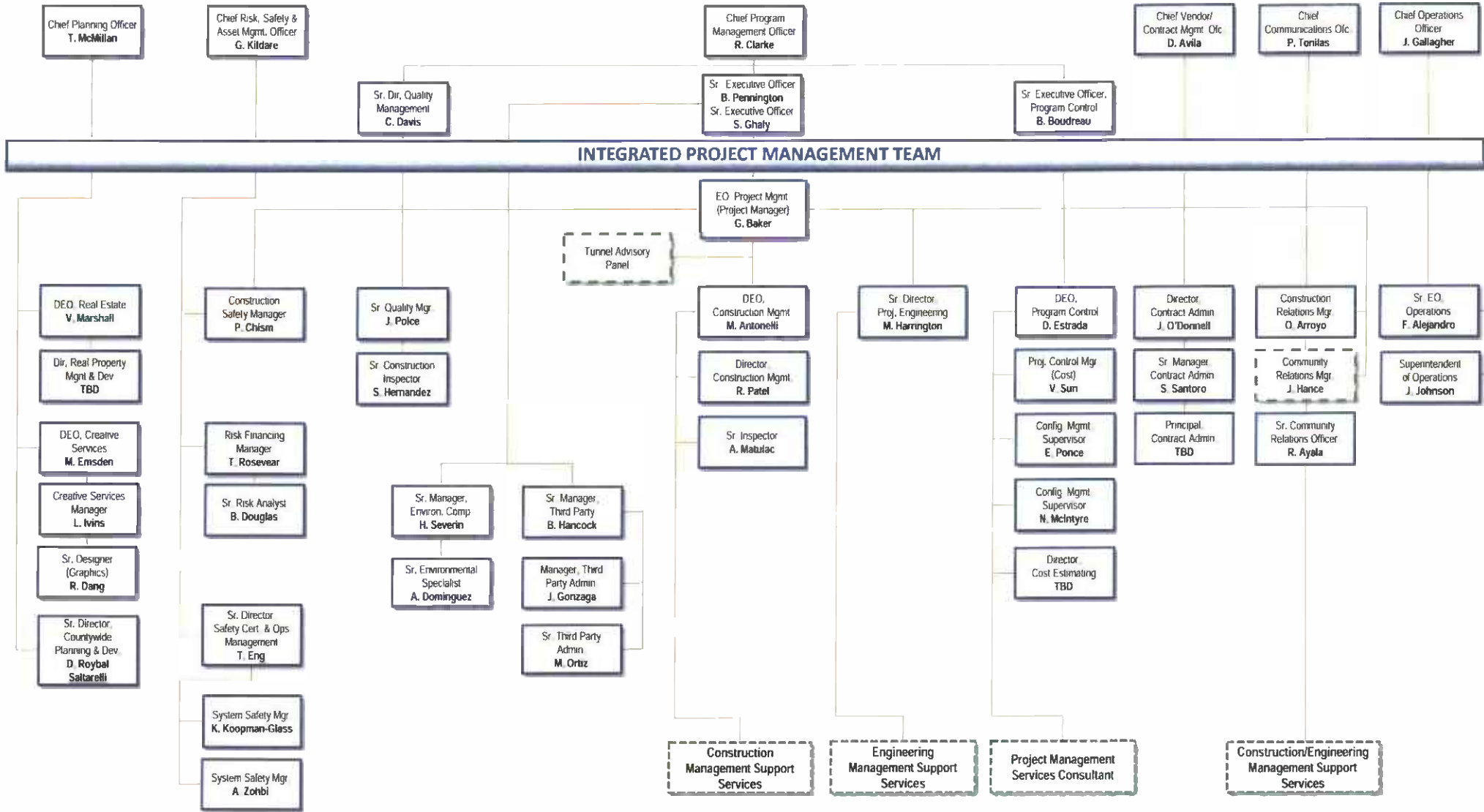
Consultant Support
 * Metro position under recruitment

Westside Purple Line Extension Section 3 Responsibility and Reporting Matrix

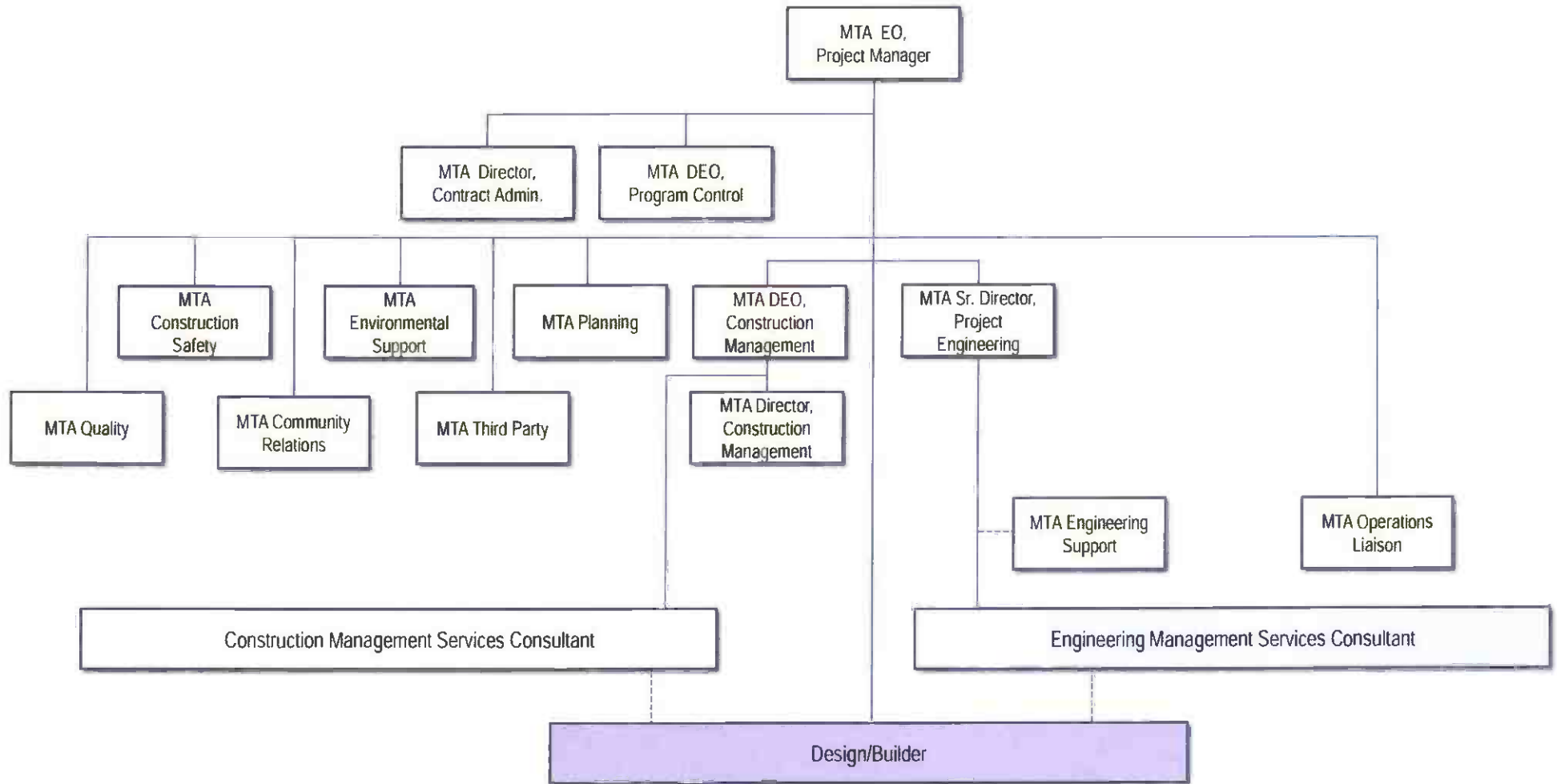


REGIONAL CONNECTOR TRANSIT PROJECT MATRIX ORGANIZATION

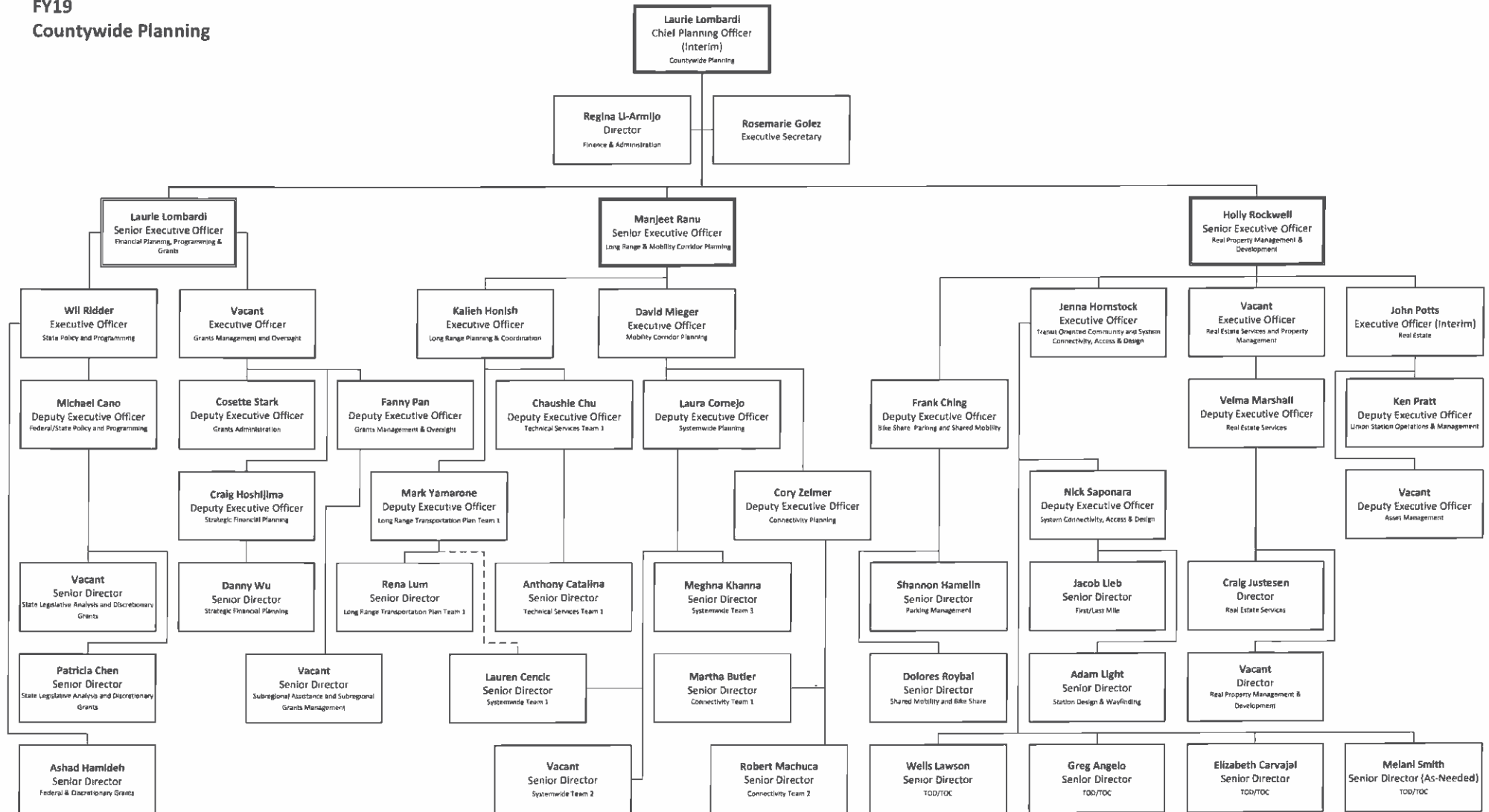
Metro Executive Management Organization and Staff



Regional Connector Transit Project Responsibility and Reporting Matrix

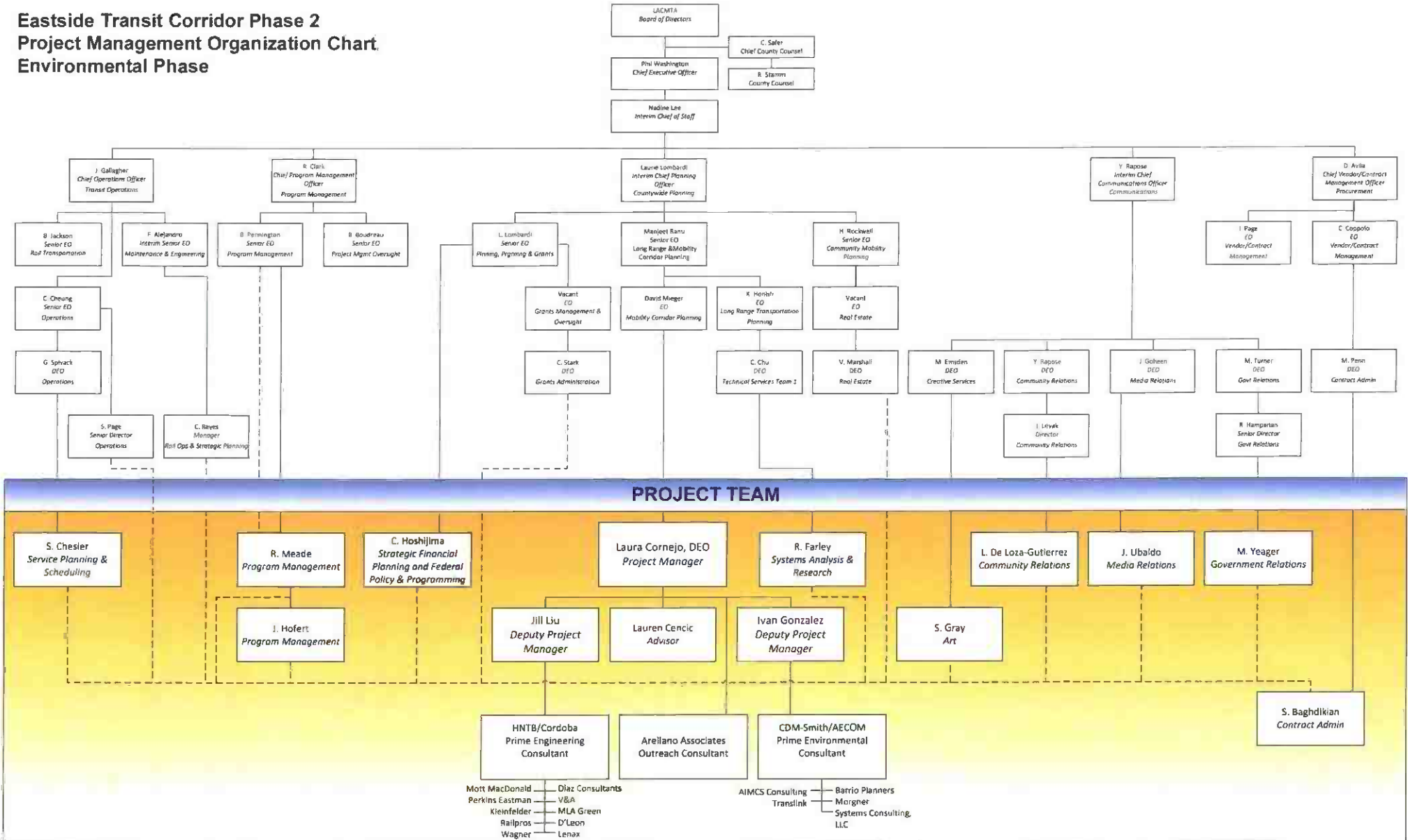


**FY19
Countywide Planning**



February 6, 2019

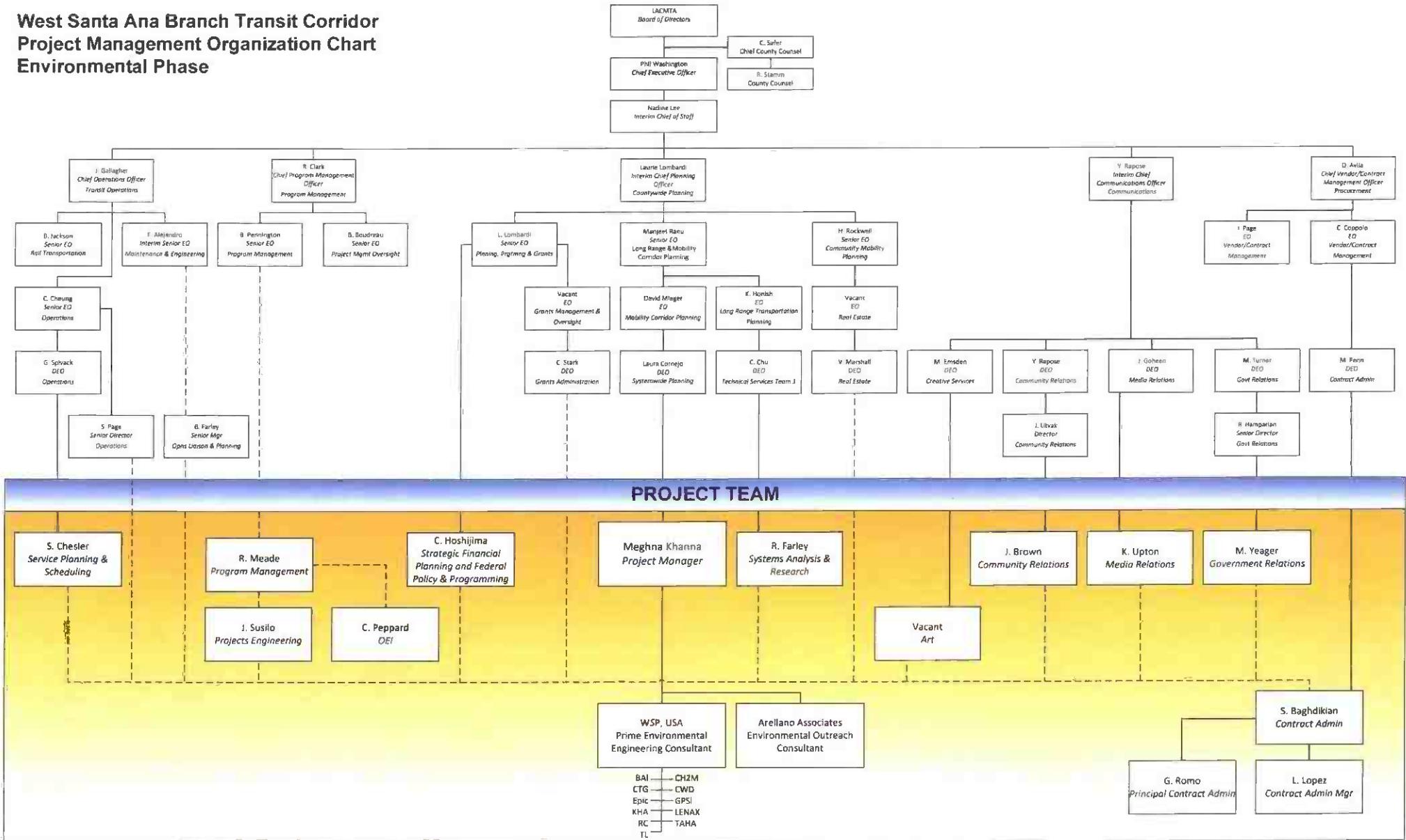
**Eastside Transit Corridor Phase 2
Project Management Organization Chart
Environmental Phase**



February 6, 2019

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

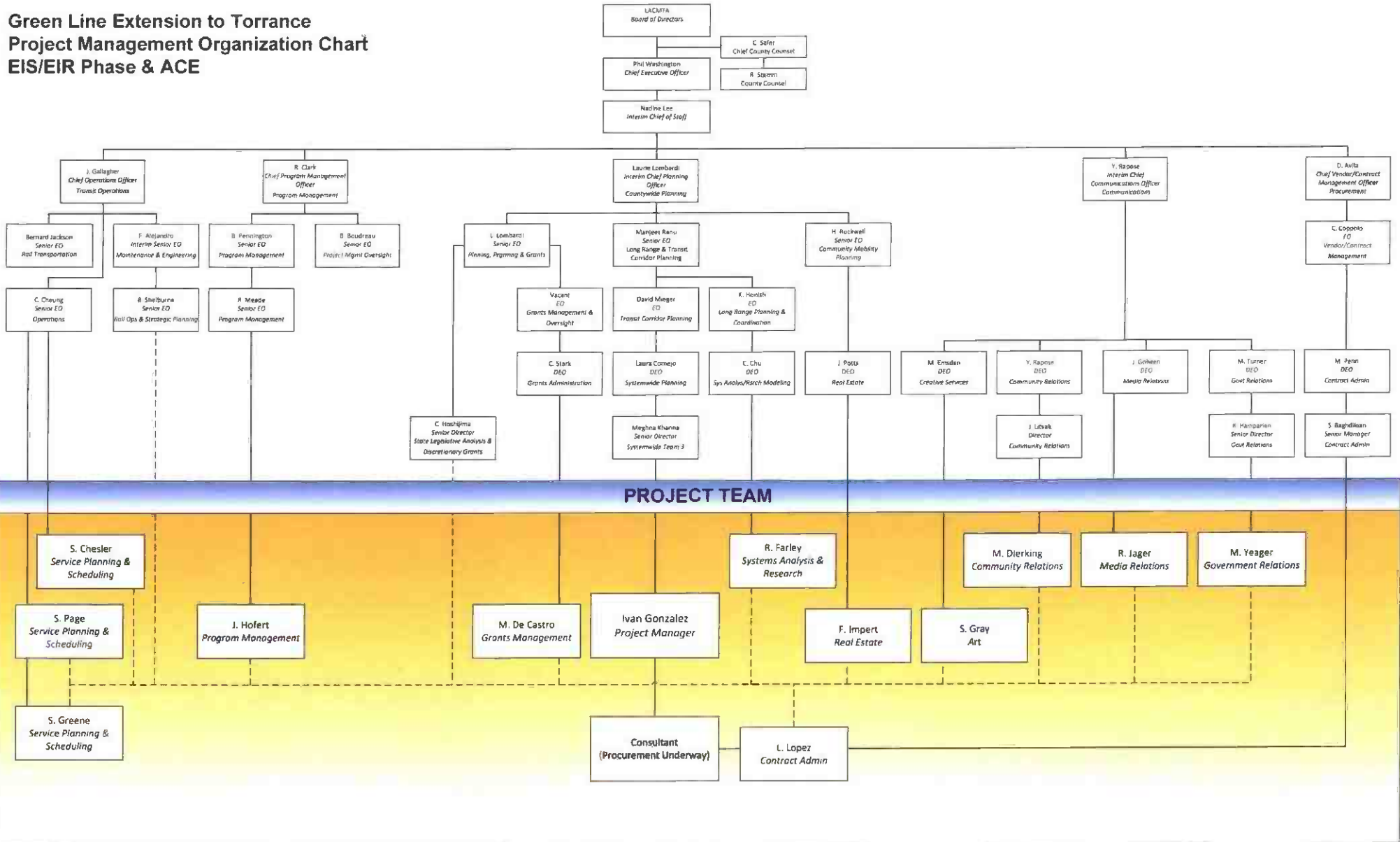
West Santa Ana Branch Transit Corridor Project Management Organization Chart Environmental Phase



February 6, 2019

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

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



February 6, 2019

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

**Los Angeles County Metropolitan Transportation Authority (Metro)
State and Federal Legislative Matrix – Board Approved Positions
DECEMBER 2018
Metro Government Relations**

STATE LEGISLATION

Bill ID/Topic	Location	Summary	Position
AB 327 Gipson D South Coast Air Quality Management District: fleets.	Inactive Bill - Died	Existing law authorizes the governing board of the South Coast Air Quality Management District to adopt rules and regulations that require specified operators of public and commercial fleet vehicles consisting of 15 or more vehicles, when adding vehicles or replacing vehicles in an existing fleet or forming a new fleet, to purchase vehicles that are capable of operating on methanol or other equivalently clean-burning alternative fuel and that require these vehicles to be operated, to the maximum extent feasible, on the alternative fuel when operating in the south coast district. This bill instead would authorize the governing board of the south coast district to adopt rules and regulations that require specified operators of public and commercial fleet vehicles consisting of 15 or more vehicles to purchase the cleanest commercially available vehicles, as defined, that will meet the operator's operational needs; to require the replacement of no more than 15% of existing vehicles per calendar year, as specified; and to require those cleanest commercially available vehicles to be operated, to the maximum extent feasible, in the south coast district. This bill would make legislative findings and declarations as to the necessity of a special statute for the south coast district.	Oppose Unless Amended
AB 1205 Jones-Sawyer D Los Angeles County Metropolitan Transportation Authority: contracting.	Chaptered	Existing law creates the Los Angeles County Metropolitan Transportation Authority (LACMTA), with various powers and duties with respect to transportation planning, programming, construction, and operations. Existing law authorizes LACMTA to award contracts under certain circumstances to small business enterprises with respect to work that is set aside for competition among certified small business enterprises, as long as price quotations are obtained by LACMTA from 3 or more small business enterprises, and requires LACMTA to report to the Legislature by December 31, 2017, regarding any contracts awarded in this regard. This bill would instead authorize LACMTA to award contracts in this manner as long as it solicits rather than obtains price quotations from 3 or more small business enterprises. The bill would delete the requirement that LACMTA report to the Legislature regarding contracts awarded to small business enterprises in this regard. This bill would similarly authorize LACMTA to award contracts under similar circumstances to medium business enterprises with respect to work that is set aside for competition among medium business enterprises.	SUPPORT (Sponsor)
AB 1912 Rodriguez D Public employees' retirement: joint powers agreements: liability.	Chaptered	AB 1912, Rodriguez. Public employees' retirement: joint powers agreements: liability. (1) Existing law establishes various public agency retirement systems, including, among others, the Public Employees' Retirement System, the State Teachers' Retirement System, the Judges' Retirement System II, and various county retirement systems pursuant to the County Employees Retirement Law of 1937. These systems provide defined pension benefits to public employees based on age, service credit, and amount of final compensation. Existing law authorizes a contracting agency, as defined, to terminate a contract under the Public Employees' Retirement System pursuant to specified procedures and authorizes the Board of Administration of the Public Employees' Retirement System to terminate a contract with a contracting agency under specified circumstances, including if a contracting agency fails to pay any installment of contributions into the Public Employees' Retirement Fund. The Joint Exercise of Powers Act generally authorizes 2 or more public agencies, by agreement, to jointly exercise any common power. Under the act, if an agency is not one or more of the parties to the agreement but is a public entity, commission, or	Oppose Unless Amended

**Los Angeles County Metropolitan Transportation Authority (Metro)
State and Federal Legislative Matrix – Board Approved Positions
DECEMBER 2018
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Bill ID/Topic	Location	Summary	Position
		<p>board constituted pursuant to the agreement, the debts, liabilities, and obligations of the agency are the debts, liabilities, and obligations of the parties to the agreement, unless the agreement specifies otherwise.</p> <p>This bill would specify that the parties to the joint powers agreement may not specify otherwise with respect to retirement liabilities of the agency if the agency contracts with a public retirement system, and would eliminate an authorization for a party to a joint powers agreement to separately contract or assume responsibilities for specific debts, liabilities, or obligations of the agency.</p> <p>Existing law authorizes a contracting agency, as defined, to terminate a contract under the Public Employees’ Retirement System pursuant to specified procedures and authorizes the Board of Administration of the Public Employees’ Retirement System to terminate a contract with a contracting agency under specified circumstances, including if a contracting agency fails to pay an installment of contributions into the Public Employees’ Retirement Fund.</p> <p>This bill would require member agencies of an agency established pursuant to a joint powers agreement that participates in, or contracts with, a public retirement system, prior to filing a notice of termination or upon notice of potential termination by the Board of Administration of the Public Employees’ Retirement System, to mutually agree as to the apportionment of the agency’s retirement obligations among themselves, provided that the agreement equals 100% of the retirement liability of the agency. If the member agencies are unable to mutually agree to the apportionment, the bill would require the board to apportion the retirement liability of the agency to each member agency, as specified, and would establish procedures allowing a member agency to challenge the board’s determination through the arbitration process. The bill would also provide that if a judgment is rendered against an agency or a party to the agreement for a breach of its obligations to the retirement system, the time within which a claim for injury may be presented or an action commenced against the other party that is subject to the liability determined by the judgment begins to run when the judgment is rendered. The bill would specify that those provisions apply both retroactively to a member agency, or current and former member agency, that has an agreement with the board on or before January 1, 2019, and to new agreements with the board on or after that date.</p> <p>(2) The Public Employees’ Retirement Law (PERL) creates the Public Employees’ Retirement System (PERS), which provides a defined benefit to members of the system, based on final compensation, credited service, and age at retirement, subject to certain variations. PERL vests management and control of PERS in its Board of Administration.</p> <p>Existing law requires the PERS board to enter into a specified agreement with the governing body of a terminating agency, upon request of that agency, to ensure that final compensation is calculated in the same manner as benefits of nonterminating agencies, and that related necessary adjustments in the employer’s contribution rate are made and benefits adequately funded, including a lump-sum payment at termination, if agreed to by the terminating agency and the board. Existing law requires a terminating agency to notify the PERS board of its intention to enter into this agreement within a specified period of time.</p> <p>Existing law authorizes the PERS board to choose not to enter into an agreement to terminate if the board determines that it is not in the best interests of PERS. Existing law requires all plan assets and liabilities of a terminating agency to be deposited in a single pooled account, the terminated agency pool subaccount within the Public Employees’ Retirement Fund, a continuously</p>	

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**Los Angeles County Metropolitan Transportation Authority (Metro)
State and Federal Legislative Matrix – Board Approved Positions
DECEMBER 2018
Metro Government Relations**

Bill ID/Topic	Location	Summary	Position
		<p>appropriated fund.</p> <p>This bill would also require the PERS board to enter into the above-described agreement upon request of a member agency of a terminating agency formed under the Joint Exercise of Powers Act and would provide that the member agencies of the terminating agency are liable to the system for inadequate funding of the benefits pursuant to the agreement. To the extent that the bill would increase any lump-sum payments made by a terminating agency and deposited into a subaccount within the Public Employees' Retirement Fund, the bill would make an appropriation.</p> <p>(3) Existing law makes a terminated agency liable to the system for any deficit in funding for earned benefits, interest, and for reasonable and necessary costs of collection, including attorney's fees. Existing law provides that the board has a lien on the assets of a terminated contracting agency, as specified, and that assets shall also be available to pay actual costs, including attorney's fees necessarily expended for collection on the lien.</p> <p>This bill would extend that liability and lien to all of the parties of a terminating agency that was formed under the Joint Exercise of Powers Act. To the extent that these changes would increase deposits in the Public Employees' Retirement Fund, the bill would make an appropriation.</p> <p>(4) Existing law authorizes the board of PERS to elect not to impose a reduction, or to impose a lesser reduction, on a terminated plan if the board has made all reasonable efforts to collect the amount necessary to fully fund the liabilities of the plan and the board finds that not reducing the benefits, or imposing a lesser reduction, will not impact the actuarial soundness of the terminated agency pool.</p> <p>This bill would eliminate that provision. The bill would require the board, prior to exercising its authority to reduce benefits and to the extent consistent with its fiduciary duties, to consider and exhaust all options and necessary actions, including evaluating whether to bring a civil action against any member agencies to a terminated agency formed by an agreement under the Joint Exercise of Powers Act to compel payment of the terminated public agency's pension obligations. The bill would also specify that the board is entitled to reasonable attorney's fees in addition to other costs. The bill would also set forth related legislative findings.</p> <p>Vote: majority Appropriation: yes Fiscal Committee: yes Local Program: no</p>	

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**Los Angeles County Metropolitan Transportation Authority (Metro)
State and Federal Legislative Matrix – Board Approved Positions
DECEMBER 2018
Metro Government Relations**

Bill ID/Topic	Location	Summary	Position
<p>AB 1721 Committee on Revenue and Taxation</p> <p>Los Angeles County Metropolitan Transportation Authority: transactions and use tax.</p>	<p>Inactive Bill – Died</p>	<p>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.</p>	<p>Support</p>
<p>AB 2417 Rodriguez D</p> <p>Metro Gold Line Foothill Extension Construction Authority.</p>	<p>Inactive Bill - Died</p>	<p>(1) Existing law creates the Metro Gold Line Foothill Extension Construction Authority, governed by a board of 5 voting members and 3 nonvoting members, appointed as specified, for purposes relating to the development of a light rail project extending from the City of Los Angeles to the Cities of Pasadena and Montclair, and authorizes the authority to accept grants, fees, and allocations from federal, state, local agencies, and private entities, and to accept transfers of funds from federal, state, and local agencies.</p> <p>This bill would increase to 6 the voting members of the board by adding one voting member appointed by the City of Montclair. Because this bill would require a local authority to assume additional responsibilities, it would create a state-mandated local program.</p> <p>(2) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.</p> <p>This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.</p>	<p>Oppose</p>

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**Los Angeles County Metropolitan Transportation Authority (Metro)
State and Federal Legislative Matrix – Board Approved Positions
DECEMBER 2018
Metro Government Relations**

Bill ID/Topic	Location	Summary	Position
<p>AB 2548 Friedman D</p> <p>Commute benefit policies: Los Angeles County Metropolitan Transportation Authority.</p>	<p>Chaptered</p>	<p>Existing law declares that the fostering, continuance, and development of public transportation systems are a matter of statewide concern. Existing law creates the Los Angeles County Metropolitan Transportation Authority, with various powers and duties with respect to transportation planning, programming, construction, and operations.</p> <p>This bill would authorize the authority to adopt, and revise as necessary, a commute benefit ordinance that requires covered employers operating within the authority's area with a specified number of employees to offer certain employees commute benefits, as specified, except that the bill would prohibit the ordinance from affecting employers covered by certain South Coast Air Quality Management District rules or regulations. The bill would require the ordinance to specify certain matters, including any consequences for noncompliance. The bill would, if the authority adopts a commute benefit ordinance, require the authority, before January 1, 2022, to submit a report to the transportation policy committees of each house of the Legislature and the Senate Committee on Environmental Quality that includes specified elements.</p> <p>Vote: majority Appropriation: no Fiscal Committee: no Local Program: no</p>	<p>SUPPORT (Sponsor)</p>

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State and Federal Legislative Matrix – Board Approved Positions
DECEMBER 2018
Metro Government Relations**

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<p>AB 3124 Bloom D</p> <p>Vehicles: length limitations: buses: bicycle transportation devices.</p>	<p>06/01/18 Chaptered by Secretary of State - Chapter 22, Statutes of 2018.</p>	<p>Existing law imposes a 40-foot limitation on the length of vehicles that may be operated on the highways, with specified exemptions. Existing law exempts from this limitation an articulated bus or articulated trolley coach that does not exceed a length of 60 feet, and authorizes the bus or trolley to be equipped with a folding device attached to the front of the bus or trolley if the device is designed and used exclusively for transporting bicycles. Existing law prohibits the above-described device from extending more than 36 inches from the front body of the bus when fully deployed, and prohibits a bicycle that is transported on that device from having the bicycle handlebars extend more than 42 inches from the front of the bus.</p> <p>This bill would additionally authorize an articulated bus or articulated trolley coach that does not exceed a length of 60 feet to be equipped with a folding device attached to the front of the bus or trolley if the device is designed and used exclusively for transporting bicycles as long as the device does not extend more than 40 inches from the front body of the bus when fully deployed. The bill would require a public agency operating transit services to establish a route review committee, as specified, in order to operate that articulated bus or articulated trolley coach, and would require the committee, by a majority vote, to make a determination of which routes are suitable for the safe operation of that articulated bus or articulated trolley coach. The bill would also make technical, nonsubstantive changes and a conforming change in a related provision.</p>	<p>Support</p>

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**Los Angeles County Metropolitan Transportation Authority (Metro)
State and Federal Legislative Matrix – Board Approved Positions
DECEMBER 2018
Metro Government Relations**

Bill ID/Topic	Location	Summary	Position
<p>AB 3201 Daly D</p> <p>California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program.</p>	<p>Inactive Bill - Died</p>	<p>The California Global Warming Solutions Act of 2006 designates the State Air Resources Board as the state agency charged with monitoring and regulating sources of emissions of greenhouse gases. The act authorizes the state board to include the use of market-based compliance mechanisms. Existing law requires all moneys, except for fines and penalties, collected by the state board as part of a market-based compliance mechanism to be deposited in the Greenhouse Gas Reduction Fund and to be available upon appropriation by the Legislature. This bill would add large-scale deployments of transit buses to the program's list of eligible projects, require the annual framework and plan for the program to instead be a 3-year framework and plan, and revise the definition of zero- and near-zero-emission to include infrastructure that reduces greenhouse gas emissions and improves air quality when compared with conventional or fully commercialized alternatives. This bill contains other existing laws. Last Amended on 5/1/2018</p>	<p>Support</p>

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State and Federal Legislative Matrix – Board Approved Positions
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Bill ID/Topic	Location	Summary	Position
<p>SB 268 Mendoza D</p> <p>Los Angeles County Metropolitan Transportation Authority.</p>	<p>Inactive Bill - Died</p>	<p>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</p>	<p>Oppose</p>

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**Los Angeles County Metropolitan Transportation Authority (Metro)
State and Federal Legislative Matrix – Board Approved Positions
DECEMBER 2018
Metro Government Relations**

Bill ID/Topic	Location	Summary	Position
<p>SB 1434 Leyva D</p> <p>Transportation electrification: electricity rate design.</p>	<p>Inactive Bill - Died</p>	<p>Under existing law, the Public Utilities Commission (PUC) has regulatory authority over public utilities, including electrical corporations. Existing law, enacted as part of the Clean Energy and Pollution Reduction Act of 2015, requires the PUC, in consultation with the State Energy Resources Conservation and Development Commission and State Air Resources Board, to direct electrical corporations to file applications for programs and investments to accelerate widespread transportation electrification to reduce dependence on petroleum, meet air quality standards, achieve the goals set forth in the Charge Ahead California Initiative, and reduce emissions of greenhouse gases to 40% below 1990 levels by 2030 and to 80% below 1990 levels by 2050. That law requires that the programs proposed by electrical corporations seek to minimize overall costs and maximize overall benefits. The PUC is required to approve, or modify and approve, programs and investments in transportation electrification, including those that deploy charging infrastructure, through a reasonable cost recovery mechanism, if they are consistent with the above-described purposes, do not unfairly compete with nonutility enterprises, include performance accountability measures, and are in the interests of ratepayers. This bill would require the PUC to direct electrical corporations with more than 100,000 service connections in California to file rate design applications, specific to transit agencies as commercial customers, that support and accelerate the deployment of zero-emission transit buses to reduce dependence on petroleum, meet air quality standards, and reduce emissions of greenhouse gases to 40% below 1990 levels by 2030 and to 80% below 1990 levels by 2050. The bill would authorize an electrical corporation with 100,000 or fewer service connections in California to file rate design applications for those purposes. The bill would require that a rate design proposed by an electrical corporation seek to minimize overall costs and maximize overall benefits to transit agencies and would require the commission to approve, or modify and approve, rate design applications, if they are consistent with this requirement and are in the interests of ratepayers. This bill contains other existing laws. Last Amended on 7/2/2018</p>	<p>Support</p>

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**Los Angeles County Metropolitan Transportation Authority (Metro)
State and Federal Legislative Matrix – Board Approved Positions
DECEMBER 2018
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Bill ID/Topic	Location	Summary	Position
<p>SB 1479 <u>Stern D</u></p> <p>Los Angeles County Metropolitan Transportation Authority: billing requirement.</p>	<p>Inactive Bill - Died</p>	<p>Existing law creates the Los Angeles County Metropolitan Transportation Authority with certain powers and duties relative to transportation planning and programming, and the operation of transit service. Existing law provides that the authority is the successor agency to the Southern California Rapid Transit District and the Los Angeles County Transportation Commission. This bill would adopt electricity billing requirements applicable to the Los Angeles County Metropolitan Transportation Authority that are similar to the above-described requirements applicable to BART, but would also impose those requirements applicable to an electrical corporation in the BART statute on a local publicly owned electric utility. The bill would declare that, due to the special circumstances applicable only to the Los Angeles County Metropolitan Transportation Authority, a general statute cannot be made applicable within the meaning of Section 16 of Article IV of the California Constitution, and the enactment of a special statute is therefore necessary. This bill contains other existing laws. Last Amended on 4/2/2018</p>	<p>Sponsor - Support</p>

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FEDERAL

BILL/AUTHOR	DESCRIPTION	STATUS
<p>SENATE BILL 2320</p> <p>Senator John Cornyn (R-TX) And Senator Mark Warner (D-VA)</p>	<p>“BUILDING AMERICAN INFRASTRUCTURE AND LEVERAGING DEVELOPMENT ACT” or BUILD ACT</p> <p>The U.S. Department of Transportation (USDOT) currently has a statutory cap (\$15 billion) on the amount of Private Activity Bonds available for approval to finance infrastructure projects. USDOT has approved \$10.8 billion in Private Activity Bonds, currently leaving just under \$5 billion available nationwide. It is expected that future project approvals throughout the nation will continue to decrease the amount of Private Activity Bonds available. S. 2320 raises the statutory cap by \$5.8 billion on Private Activity Bonds available to USDOT for approval.</p>	<p>SENATE – REFERRED TO THE COMMITTEE ON FINANCE</p>
<p>HOUSE RESOLUTION 1458</p> <p>REPRESENTATIVE EARL BLUMENAUER (D-OR)</p>	<p>“RAISE IT ACT”</p> <p>The federal government’s Highway Trust Fund is facing solvency issues and is increasingly reliant on general fund transfers from the U.S. Treasury. According to the Congressional Budget Office, the “trust fund will have insufficient resources to meet all of its obligations, resulting in steadily accumulating shortfalls.” Furthermore, the Congressional Budget Office estimates that the Highway Trust Fund will incur negative balances by the end of Fiscal Year 2020. Approving a solution to ensure solvency of the Highway Trust Fund will be a critical task for Congress to address as the current surface transportation authorization bill expires September 30, 2020.</p>	<p>HOUSE – REFERRED TO THE COMMITTEE ON WAYS AND MEANS</p>

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**Los Angeles County Metropolitan Transportation Authority (Metro)
State and Federal Legislative Matrix – Board Approved Positions
DECEMBER 2018
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<p>H.R. 6016</p> <p>U.S. Representative Grace Napolitano (D-El Monte)</p>	<p>THE BUS OPERATOR AND PEDESTRIAN ACT</p> <p>Would give transit agencies two years to develop a Bus Operations Safety Risk Reduction Program in partnership with their transit workforce, and with oversight from the U.S. Department of Transportation (USDOT).</p> <p>The bill authorizes \$25 million per year for 5 years to pay for the implementation of these safety improvements as part of their Bus Operations Safety Risk Reduction Programs:</p> <ul style="list-style-type: none"> • Assault mitigation infrastructure and technology, including barriers to prevent assaults on bus operators • De-escalation training for bus operators • Modified bus specifications and retrofits to reduce visibility impairments • Driver assistance technology that reduces accidents • Installation of enhanced bus driver seating to reduce ergonomic injuries <p>This legislation will also require transit agencies to report all assaults on bus drivers to the USDOT’s National Transit Database (NTD).</p>	<p>7/29/18 – Metro Board approves Support Work With Author position</p> <p>House - 06/07/2018 Referred to the Subcommittee on Highways and Transit</p>
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<p>H.R. 3305</p> <p>U.S. House of Representative Earl Blumenauer (D-Portland)</p>	<p>THE BIKESHARE TRANSIT ACT OF 2017</p> <p>Which would, if enacted into federal law, clarify the definition of bikeshare projects that qualify as an “associated transit improvement” under Title 49 of U.S. Code, add bikeshare projects to the definition of “capital project” under Title 49 of U.S. Code, and make bikeshare projects eligible for funding under the Congestion Mitigation and Air Quality Improvement Program (CMAQ) under Title 23 of U.S. Code. The legislation seeks to add bikeshare projects to the formal definitions of transit projects as well as make clear to states that administer FHWA funding that bikeshare is eligible to receive federal funding.</p>	<p>7/29/18 - Metro Board approves Support position (previous Metro support in 2016)</p> <p>House - 07/20/2017 Referred to the Subcommittee on Highways and Transit.</p>
<p>H.R. 3001</p> <p>U.S. Representative Alan Lowenthal (D-Long Beach)</p>	<p>ECONOMY IN MOTION: THE NATIONAL MULTIMODAL AND SUSTAINABLE FREIGHT INFRASTRUCTURE ACT</p> <p>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.</p>	<p>House - 06/23/2017 Referred to the Subcommittee on Water Resources and Environment.</p>

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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>
<p>S. 1885</p> <p>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</p> <p>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>

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<p>H.R 1625 – the Consolidated Appropriations Act, FY 2018</p>	<p>On March 23, 2018, the U.S. Senate passed H.R.1625, the Consolidated Appropriations Act, 2018 by a vote of 65 – 32. The measure was signed later that day by President Trump, averting a government shutdown slated for the end of that day. The House previously passed this bill by a vote of 256 – 167. Overall, the bill provides about \$13.5 billion in budgetary resources for the Federal Transit Administration (FTA), which is an increase of more than \$1 billion as compared to FY 2017 enacted levels. Programs funded by Mass Transit Account (MTA) of the Highway Trust Fund received \$9.733 billion, as authorized by the Fixing America's Surface Transportation (FAST) Act for FY 2018. A handful of programs traditionally funded by the MTA also received an additional \$834 million from the general fund, including \$400 million for Bus and Bus Facilities grant programs, \$400 million for State of Good Repair, and \$30 million for High Density States. Of the Bus and Bus Facilities funding, \$209.1 million is allocated to formula grants, \$161.45 for competitive grants, and \$29.45 for no or low emissions grants.</p> <p>The Capital Investment Grants (CIG) program was appropriated \$2.645 billion, up from \$2.413 billion in FY 2017. This total includes more than \$1.5 billion for New Starts, almost \$716 million for Core Capacity projects, and almost \$401 million for Small Starts. The bill also contains strong, legislative language to ensure the future of the CIG program.</p> <p>This bill provides \$1.9 billion for Amtrak overall. Of this, \$650 million goes to Amtrak’s Northeast Corridor (NEC), which is \$322 million more than FY 2017 enacted levels, and \$1.29 billion for Amtrak’s National Network. Finally, the TIGER program is funded at a level of \$1.5. billion, \$1 billion more than FY 2017 enacted levels.</p>	<p>3/23/18 Congress approved to fund the Federal Government at through September 30, 2018.</p> <p>The President then signed the bill shortly after Congress held the vote.</p>
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<p>H.R. 5857</p> <p>U.S. Representative Peter DeFazio (D- Oregon)</p>	<p>STOP SEXUAL ASSAULT AND HARASSMENT IN TRANSPORTATION ACT</p> <p>Would require transportation providers to adopt a formal policy providing that sexual assault and harassment in transportation is unacceptable under any circumstance. These providers must prominently display, on their websites or otherwise, a statement that they have adopted such a policy as well as the procedures their passengers can follow for reporting incidents of sexual assault and harassment. The policy must facilitate the reporting of these incidents; establish procedures for employees to follow if such an incident is reported; and require all appropriate employees to be trained on the policy. Additionally, the bill requires the Secretary of Transportation to annually collect data on incidents of sexual assault and harassment and make this data publicly available.</p>	<p>October 2018: Metro Board approved Support position</p> <p>House – referred to the Transportation and Infrastructure Subcommittee on Railroads, Pipelines and Hazardous Materials</p>
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February 6, 2019

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 an amended version of Los Angeles County Metropolitan Transportation Authority's Quarterly Update to reflect the correct quarterly update through December 31, 2018, which was inadvertently submitted with the date of January 30, 2019, on the status of MTA litigation related to federally-funded MTA projects.

If you have any questions, please call (213) 922-2529.

Very truly yours,

MARY C. WICKHAM
County Counsel

By 
JOANNE NIELSEN
Principal Deputy County Counsel

JKN:www
Attachments

c: 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
 As of December 31, 2018

CASE NAME	CASE NUMBER	GRANT NUMBER	NARRATIVE	CASE STATUS
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 1/26/18. Trial is currently set for 4/29/19. However, the briefing and hearing schedule may be extended due to the federal government shutdown.
Brentwood Residents Coalition v. MTA	BS173523		This lawsuit is against the City of Los Angeles, with MTA named as a real party in interest. The lawsuit alleges that the City approved a categorical exemption for the Boring Company's proof of concept tunnel on Sepulveda Boulevard in West Los Angeles in violation of CEQA. Petitioners contend an Environmental Impact Report should have been prepared instead.	Case dismissed with prejudice on 12/21/18.
Crenshaw Subway Coalition v. MTA, et al.	CV1:1-9603	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. Case has been inactive.
City of Beverly Hills v. MTA	BS144164		Petitioner alleges that MTA accelerated funding for the subway without CEQA clearance.	Petitioner filed a Request for Dismissal with prejudice on 10/9/18.
City of Beverly Hills v. FTA, MTA	2:18-cv-03891		This lawsuit is against both MTA and the Federal Transit Administration ("FTA"), and their respective officials. The lawsuit alleges that the Supplemental Environmental Impact Statement issued by FTA in November 2017 for MTA's Purple Line Extension Project, Section 2 fails to comply with the National Environmental Policy Act and with Section 4(f) of the Department of Transportation Act.	Settlement talks are continuing. No court hearings are scheduled. MTA's answer due by 3/15/19.

CASE NAME	CASE NUMBER	GRANT NUMBER	NARRATIVE	CASE STATUS
Today's IV, Inc. v. MTA	BS160846		Petitioner alleges that MTA is not maintaining access to the hotel and complying with applicable noise standards in violation of the MMRP.	Trial is set for 7/8/19. Discovery is ongoing.
West Adams Heritage Association	BS173732		This lawsuit is against Caltrans, with MTA named as a real party in interest. The lawsuit alleges that Caltrans approved a Mitigated Negative Declaration for its I-110 Flyover Project in downtown Los Angeles in violation of CEQA. Petitioners contend an Environmental Impact Report should have been prepared instead.	Dismissal with prejudice entered on 1/22/19.
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 11/17/17, the Patent Trial and Appeal Board ("PTAB") issued a decision in favor of MTA finding that the claims on which plaintiff sued MTA are unpatentable. On 1/17/18, plaintiff filed an appeal in the United States Federal Circuit Court. On January 9, 2019, the Federal Circuit Court ruled in MTA's favor and affirmed the PTAB's decision to cancel the claims in the patent at issue. Plaintiff has a last chance to appeal to the U.S. Supreme Court.
Wheelchair Disability Discrimination Cases				
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.	FSC 2/13/19 Trial 2/27/19 - Trial will be continued due to difficulty obtaining Plaintiff's discovery responses. OSC re dismissal for failure to prosecute 9/1/20.

CASE NAME	CASE NUMBER	GRANT NUMBER	NARRATIVE	CASE STATUS
Leo Jordan v. MTA	BC710101		This is a personal injury case wherein the plaintiff, a wheelchair passenger, alleged he was traveling on an Access van when the van collided with another vehicle and caused him injuries as a result of the accident. The plaintiff also alleged an ADA violation because the Access van driver failed to properly secure and transport him.	MTA tendered this case to Access on 8/17/18 pursuant to the MOU between MTA and Access. Tender was accepted on 9/27/18. FSC 12/2/19 Trial 12/16/19 OSC re dismissal 6/14/21

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

December 31, 2018

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

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

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

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

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

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

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

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

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

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

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

These parcels encompass 15.6 acres that include the Metro Red Line's North Hollywood station site, its adjoining bus layover facility and park-and-ride lot, and a vacant 1.8-acre lot located on the southwest corner of Lankershim and Chandler

Boulevards. Federal assistance was used to acquire 11.18 acres of this property.

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

The development program for the site contemplates 1,000 to 1,200 market rate apartments, 250 to 325 affordable apartments, 300,000 to 400,000 square feet of office space, and 80,000 to 150,000 square feet of retail uses. TCLA has submitted updated conceptual drawings for the project, which are under review by Metro’s internal stakeholders. The developer intends to submit an entitlements/CEQA package to the City of Los Angeles for their review and approval in the first half of 2019. In October 2018, FTA approved Metro’s joint development project request subject to final review of, and concurrence with, the JDA and ground leases.

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, leaving it available for development. An unsolicited proposal for this site’s development was submitted in December 2017. A proposal evaluation team reviewed this proposal in accordance with Metro’s Unsolicited Proposal Policy and Process, and following its initial evaluation, requested a Phase 2 Detailed Proposal from the proposer. Such a proposal was submitted to Metro on August 31, 2018 and is under review.

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

On March 19, 2015, Metro and a MBS development entity entered into a ground lease

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

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

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

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

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

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

Soto Station (Parcels ES-548, ES-549, ES-551A, ES-551B and ES-553 through ES-555)

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

In June 2016, Metro and Bridge Housing Corporation/East LA Community Corporation ("Bridge/ELACC") entered into an Exclusive Negotiation Agreement and Planning Document with respect to the development of the Soto station site and the 0.29-acre parcel. In December 2018, Metro and Bridge/ELACC extended the term of the Exclusive Negotiation Agreement and Planning Document through December 31, 2019. Under the framework of this agreement, and a prior Short Term Exclusive Agreement and Planning Document, Bridge/ELACC has continued to work with Metro to refine the project's scope and design with input from community stakeholders. These efforts have

led to a proposed mixed-use project that will be constructed on a portion of 1.09-acre Soto station site and will provide 64 apartments (44 of which will be affordable, to families earning 30-50% of Area Median Income and 20 of which will be supportive housing for the formerly homeless), along with approximately 4,200 square feet of ground floor retail space. In addition, the Peabody/Werden Historic Home, which is currently being stored on the 0.29-acre site under a license granted by Metro, is being considered for community space and other community serving uses as part of the proposed development.

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

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

1st/Lorena (Parcel EG-409)

This 1.27-acre site is mostly vacant but does house a traction power substation for the Metro Gold Line. Metro and A Community of Friends ("**ACOF**") are parties to an Exclusive Negotiation Agreement and Planning Document to explore the feasibility of constructing and operating a mixed-use, transit-oriented development on this site. Unless extended, this agreement will expire in June 2019. The proposed development will contain 49 apartments (24 of which will provide supportive housing for veterans) and approximately 10,000 square feet of retail space. Community outreach has been completed and the project has been approved by the Boyle Heights Neighborhood Council and the Metro-established Boyle Heights Design Review Advisory Committee.

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

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

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

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

During the quarter, Abode and Metro discussed rescoping the project to better position it for available affordable housing funding. Ultimately, the parties agreed to alter the project’s affordable housing mix to include permanent supportive housing for the formerly homeless. As rescoped, the project contemplates 77 apartments (38 of which will be affordable to families earning between 30% and 50% of the area median income, and 38 of which will be permanent supportive housing for the formerly homeless). The project will also include approximately 8,000 square feet of ground floor retail space.

Cesar E. Chavez/Fickett (Parcels EE-276 through EE-283) - NO CHANGE

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

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

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

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

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

Los Angeles County
Metropolitan Transportation Authority
California

OPERATIONS MONTHLY RAIL PERFORMANCE REPORT

DECEMBER 2018



Metro

METRO RAIL PERFORMANCE – DECEMBER 2018

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Metro Rail Scorecard Overview

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

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

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

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

Measurement	FY 2016	FY 2017	FY 2018	FY 2019 Target	FY 2019 YTD	FYTD Status	Oct Month	Nov Month	Dec Month
Systemwide									
On-Time Pullouts	99.63%	99.61%	99.68%	99.80%	99.73%	●	99.63%	99.70%	99.59%
Mean Miles Between Chargeable Mechanical Failures ³	30,482	29,711	31,146	37,615	38,018	●	35,716	40,155	38,662
In-Service On-time Performance	98.10%	98.24%	98.48%	99.10%	98.80%	●	98.98%	98.86%	98.82%
Service Delivery Ratio	99.22%	99.23%	99.22%	99.70%	99.49%	●	99.51%	99.62%	99.54%
Traffic Accidents Per 100,000 Train Miles	1.17	1.01	0.96	0.85	0.88	●	0.39	1.07	1.19
CPUC Reportable Accidents per 100,000 Train Miles	0.60	0.36	0.54	0.37	0.24	●	0.00	0.54	0.40
Passenger Accidents per 100,000 Boardings	0.016	0.023	0.022	0.010	0.013	●	0.000	0.011	0.011
Complaints per 100,000 Boardings	1.43	1.98	1.81	1.10	1.80	●	1.75	1.75	1.68
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours ^{1,2}	10.97	12.27	11.17	10.05	11.62	●	12.59	11.35	12.31
Lost Work Days per 200,000 Exposure Hours ^{1,2}	482	733	886	821.44	878	●	754	808	-
OSHA Injuries per 200,000 Exposure Hours ^{1,2}	6.32	8.53	7.61	6.43	7.34	●	8.09	8.51	-
Wayside Maintenance & Engineering									
Past-Due Preventive Maintenance - Aging of Outstanding Work Orders	1	3	32	N/A	108	N/A	21	21	25
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours	4.77	5.35	5.02	5.40	7.35	●	13.42	7.46	3.77
Lost Work Days per 200,000 Exposure Hours ¹	148	194	312	296	440	●	201	153	-
OSHA Injuries per 200,000 Exposure Hours ¹	4.40	4.01	4.01	4.13	5.12	●	3.36	7.46	-
Blue Line									
On-Time Pullouts	99.59%	99.60%	99.39%	99.50%	99.48%	●	99.75%	98.90%	98.91%
Mean Miles Between Chargeable Mechanical Failures ³	19,240	15,405	13,772	18,555	18,293	●	15,906	19,483	17,471
In-Service On-time Performance	96.10%	96.44%	97.11%	98.80%	97.55%	●	98.03%	97.19%	98.08%
Service Delivery Ratio	98.41%	98.54%	98.42%	99.40%	99.17%	●	99.18%	99.34%	99.35%
Traffic Accidents Per 100,000 Train Miles	2.38	2.18	1.63	1.84	0.65	●	0.63	1.31	0.00
CPUC Reportable Accidents per 100,000 Train Miles	1.39	0.71	1.03	0.40	0.11	●	0.00	0.66	0.00
Passenger Accidents per 100,000 Boardings	0.016	0.046	0.033	0.010	0.021	●	0.000	0.000	0.000
Complaints per 100,000 Boardings	1.33	1.67	2.22	1.40	1.91	●	1.71	1.30	1.38
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours ¹	15.08	16.74	13.95	11.90	16.22	●	15.98	22.13	5.46
Lost Work Days per 200,000 Exposure Hours ¹	797	836	1,016	953	936	●	1,656	544	-
OSHA Injuries per 200,000 Exposure Hours ¹	6.79	10.40	8.10	5.93	5.39	●	5.33	0.00	-

¹ There is a One Month lag in reporting this data

² Includes Operations, RFS and Wayside

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

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

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

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

N/A = Not Available

Measurement	FY 2016	FY 2017	FY 2018	FY 2019 Target	FY 2019 YTD	FYTD Status	Oct Month	Nov Month	Dec Month
Red Line									
On-Time Pullouts	99.79%	99.95%	99.88%	100.00%	99.83%	●	100.00%	100.00%	99.59%
Mean Miles Between Chargeable Mechanical Failures ³	94,312	104,637	68,407	94,035	74,476	●	59,640	52,545	147,331
In-Service On-time Performance	99.45%	99.39%	99.33%	99.70%	99.48%	●	99.53%	99.42%	99.43%
Service Delivery Ratio	99.71%	99.72%	99.65%	100.00%	99.72%	●	99.75%	99.91%	99.77%
Traffic Accidents Per 100,000 Train Miles	0.75	0.57	0.64	0.57	0.71	●	0.83	0.00	1.68
CPUC Reportable Accidents per 100,000 Train Miles	0.07	0.14	0.21	0.21	0.28	●	0.00	0.00	0.84
Passenger Accidents per 100,000 Boardings	0.002	0.004	0.000	0.000	0.005	●	0.000	0.000	0.028
Complaints per 100,000 Boardings	0.57	1.19	1.16	0.55	1.10	●	1.32	0.87	1.08
New Workers' Compensation Indemnity Claims per	16.43	12.68	11.80	10.80	12.76	●	16.07	0.00	21.14
*Lost Work Days per 200,000 Exposure Hours	526	992	827	809	746	●	737	762	-
*OSHA Injuries per 200,000 Exposure Hours	7.99	7.52	4.99	3.89	8.81	●	16.07	0.00	-

Green Line									
On-Time Pullouts	99.49%	99.69%	99.59%	99.70%	99.93%	●	100.00%	99.78%	99.78%
Mean Miles Between Chargeable Mechanical Failures ³	19,238	16,375	21,614	22,562	22,864	●	16,283	24,513	24,933
In-Service On-time Performance	98.52%	98.69%	98.72%	99.00%	99.02%	●	98.97%	99.22%	99.09%
Service Delivery Ratio	99.59%	99.61%	99.38%	100.00%	99.66%	●	99.78%	99.79%	99.60%
Traffic Accidents Per 100,000 Train Miles	0.42	0.48	0.34	0.35	0.25	●	0.00	0.00	1.52
CPUC Reportable Accidents per 100,000 Train Miles	0.07	0.07	0.00	0.40	0.00	●	0.00	0.00	0.00
Passenger Accidents per 100,000 Boardings	0.034	0.048	0.010	0.010	0.020	●	0.000	0.000	0.000
Complaints per 100,000 Boardings	1.54	2.08	1.69	1.20	1.84	●	1.48	2.96	1.70
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours	7.18	9.14	12.87	11.52	9.10	●	17.48	18.25	0.00
*Lost Work Days per 200,000 Exposure Hours	228	712	984	930	1,199	●	1,294	1,675	-
*OSHA Injuries per 200,000 Exposure Hours	3.19	6.65	9.84	8.70	9.06	●	17.48	18.25	-

Gold Line									
On-Time Pullouts	99.68%	99.82%	99.84%	100.00%	99.63%	●	98.81%	100.00%	100.00%
Mean Miles Between Chargeable Mechanical Failures ³	40,426	38,427	43,588	49,303	45,185	●	69,376	60,239	39,094
In-Service On-time Performance	97.60%	97.61%	98.19%	98.80%	98.79%	●	98.73%	98.85%	99.04%
Service Delivery Ratio	99.11%	98.88%	98.07%	99.50%	99.38%	●	99.20%	99.40%	99.44%
Traffic Accidents Per 100,000 Train Miles	0.99	0.61	0.55	0.51	0.37	●	0.00	1.32	0.44
CPUC Reportable Accidents per 100,000 Train Miles	0.60	0.25	0.26	0.40	0.15	●	0.00	0.44	0.44
Passenger Accidents per 100,000 Boardings	0.039	0.030	0.086	0.010	0.037	●	0.000	0.075	0.000
Complaints per 100,000 Boardings	2.73	2.77	2.65	1.80	3.13	●	2.53	3.15	3.72
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours	11.87	14.31	14.24	11.67	11.79	●	5.12	11.07	16.38
*Lost Work Days per 200,000 Exposure Hours	766	1,055	1,146	993	1,129	●	-97	1,225	-
*OSHA Injuries per 200,000 Exposure Hours	9.29	9.69	11.87	8.94	6.53	●	5.12	5.53	-

Expo Line									
On-Time Pullouts	99.53%	98.76%	99.71%	99.70%	99.91%	●	100.00%	100.00%	99.82%
Mean Miles Between Chargeable Mechanical Failures ³	18,114	33,402	57,013	49,557	120,150	●	373,007	176,894	89,945
In-Service On-time Performance	98.61%	98.48%	98.72%	98.90%	98.90%	●	99.38%	99.41%	98.21%
Service Delivery Ratio	99.56%	99.46%	99.54%	99.80%	99.57%	●	99.75%	99.69%	99.51%
Traffic Accidents Per 100,000 Train Miles	0.74	1.26	1.78	1.26	1.77	●	0.79	2.50	3.28
CPUC Reportable Accidents per 100,000 Train Miles	0.50	0.63	1.30	0.40	0.82	●	0.00	1.67	0.82
Passenger Accidents per 100,000 Boardings	0.019	0.018	0.010	0.010	0.000	●	0.000	0.000	0.000
Complaints per 100,000 Boardings	3.38	3.68	2.20	1.40	2.10	●	2.28	2.39	1.54
New Workers' Compensation Indemnity Claims per	8.44	19.26	12.57	11.84	14.35	●	7.67	15.31	31.19
*Lost Work Days per 200,000 Exposure Hours	73	887	1,470	1,343	1,284	●	1,542	1,279	-
*OSHA Injuries per 200,000 Exposure Hours	5.63	16.60	9.92	9.92	12.53	●	7.67	30.62	-

* There is One Month lag in reporting this data

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

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

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

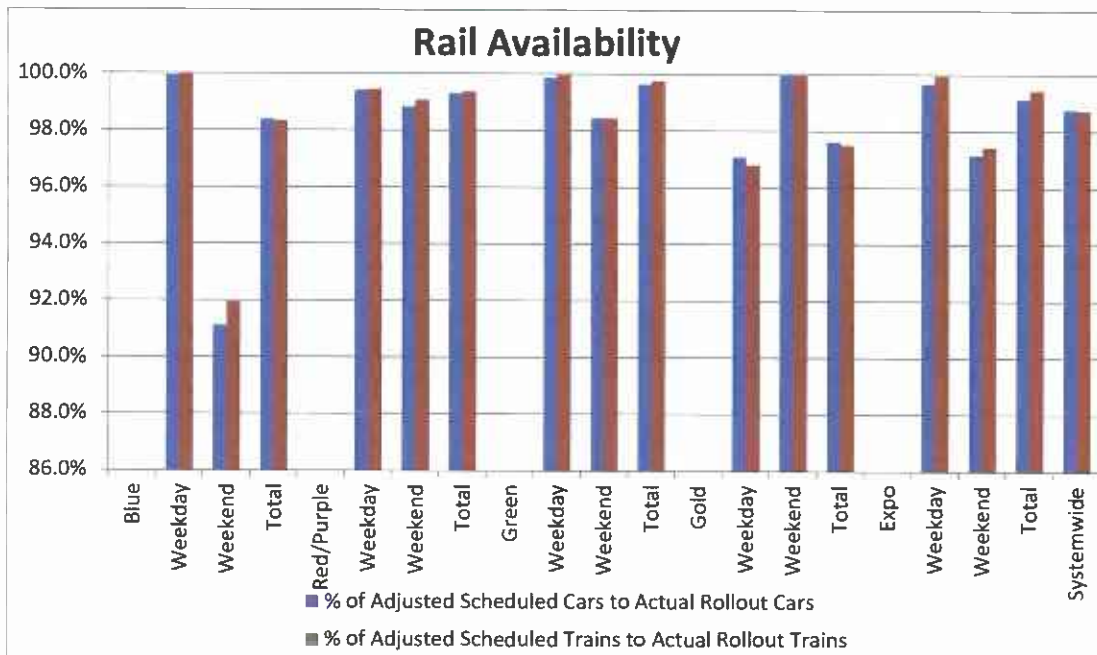
● Red - High probability that the target will not be achieved -- significant problems and/or delays. Falls below Target >70%.

N/A = Not Available

Vehicle Availability

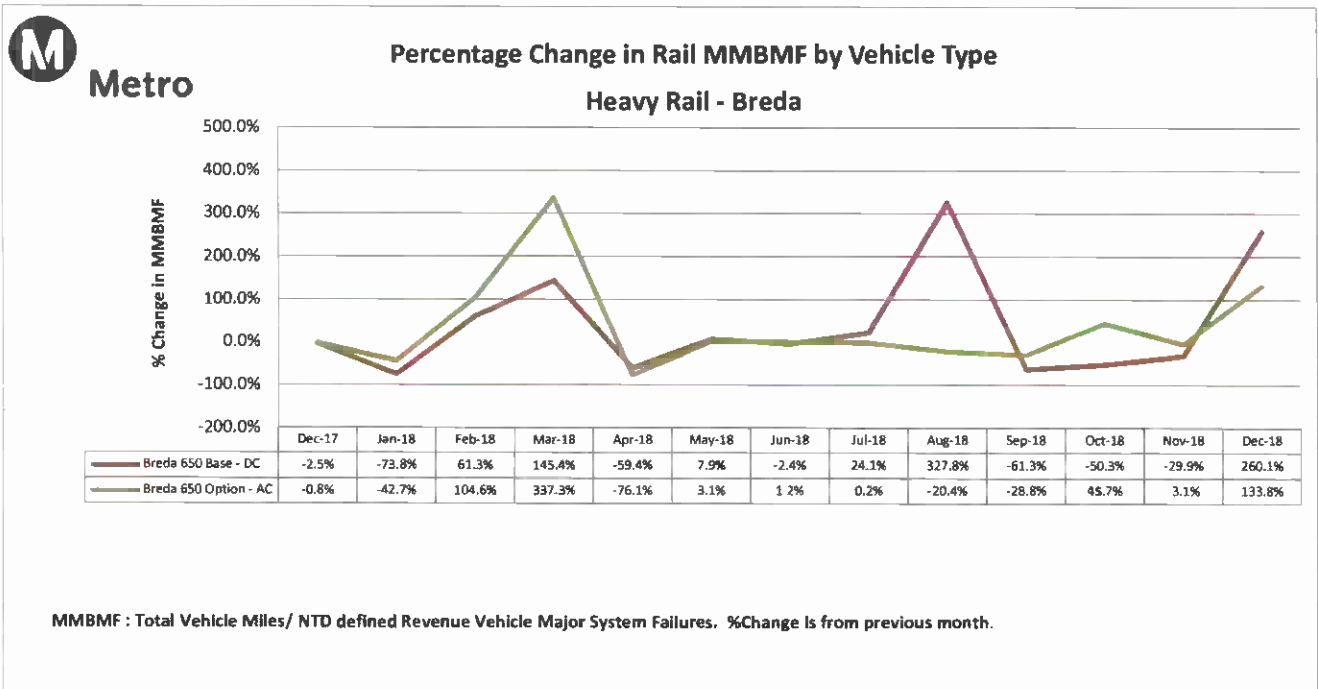
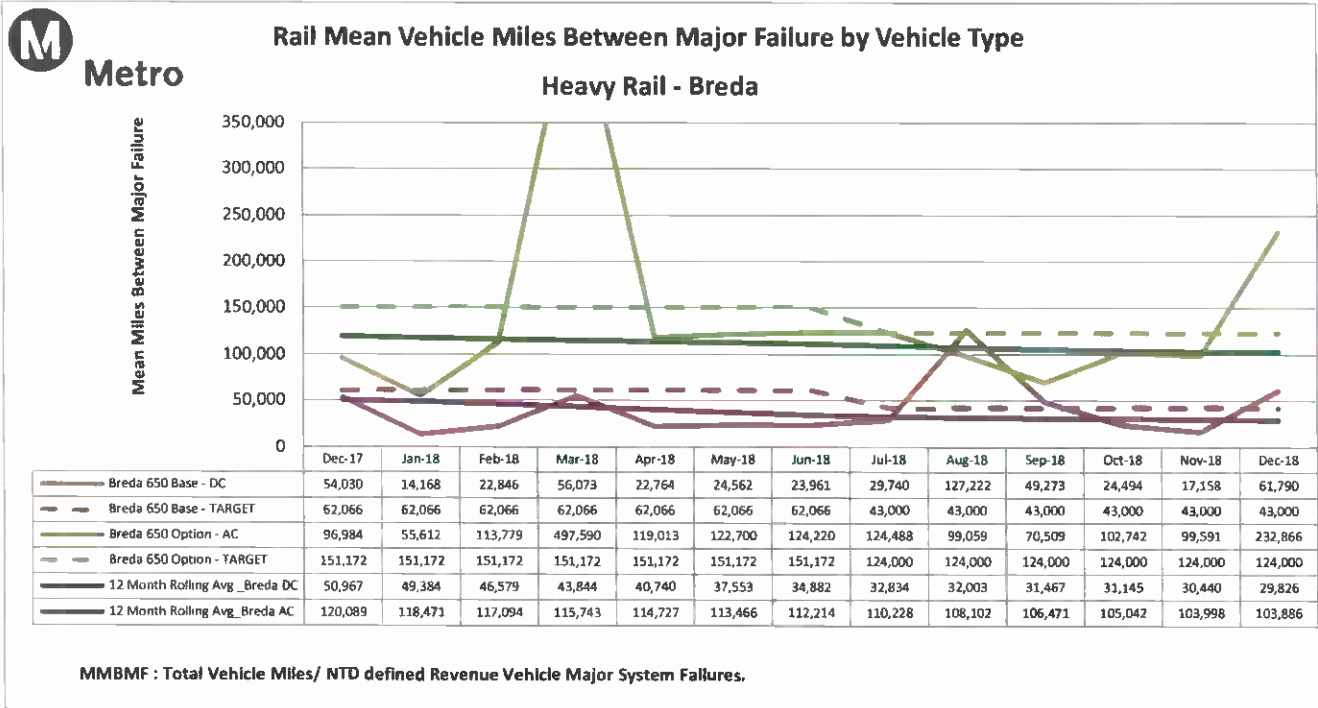
Dec 2018

Day Type	% of Adjusted Scheduled Cars to Actual Rollout Cars	% of Adjusted Scheduled Trains to Actual Rollout Trains
Blue		
Weekday	99.94%	100.00%
Weekend	91.13%	92.00%
Total	98.40%	98.36%
Red/Purple		
Weekday	99.43%	99.47%
Weekend	98.85%	99.09%
Total	99.31%	99.38%
Green		
Weekday	99.87%	100.00%
Weekend	98.46%	98.46%
Total	99.66%	99.78%
Gold		
Weekday	97.11%	96.83%
Weekend	100.00%	100.00%
Total	97.65%	97.54%
Expo		
Weekday	99.70%	100.00%
Weekend	97.20%	97.48%
Total	99.17%	99.46%
Systemwide	98.79%	98.76%



METRO RAIL PERFORMANCE – DECEMBER 2018

Rail Performance by Vehicle Type

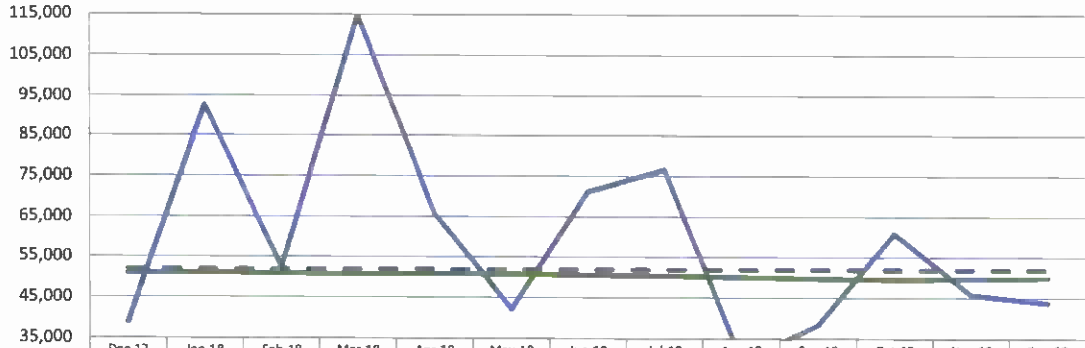




Metro

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

Mean Miles Between Major Failure



	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
— AnsaldoBreda 2550 Base - AC	38,933	92,854	52,534	114,997	65,940	42,253	71,408	76,730	29,623	38,403	60,989	45,884	43,889
- - AnsaldoBreda 2550 Base - TARGET	51,977	51,977	51,977	51,977	51,977	51,977	51,977	52,000	52,000	52,000	52,000	52,000	52,000
— 12 Month Rolling Avg	51,042	51,204	50,959	50,773	50,874	50,847	50,638	50,429	50,179	49,789	49,586	49,710	50,097

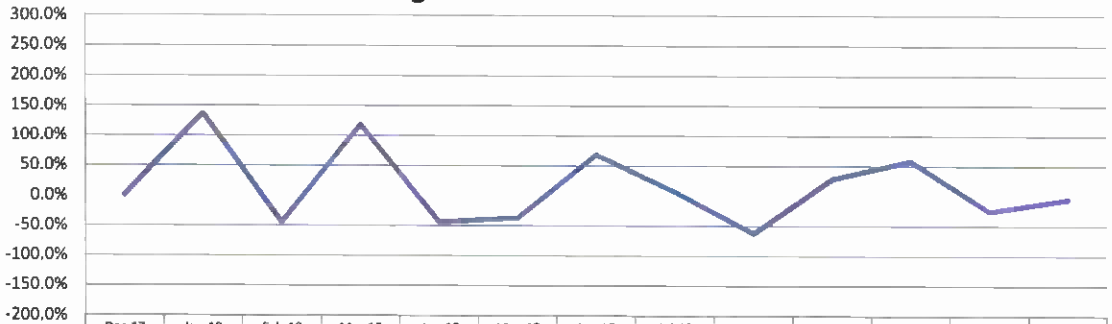
MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures.



Metro

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

% Change in MMBMF



	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
— AnsaldoBreda 2550 Base - AC	1.5%	138.5%	-43.4%	118.9%	-42.7%	-35.9%	69.0%	7.5%	-61.4%	29.6%	58.8%	-24.8%	-4.3%

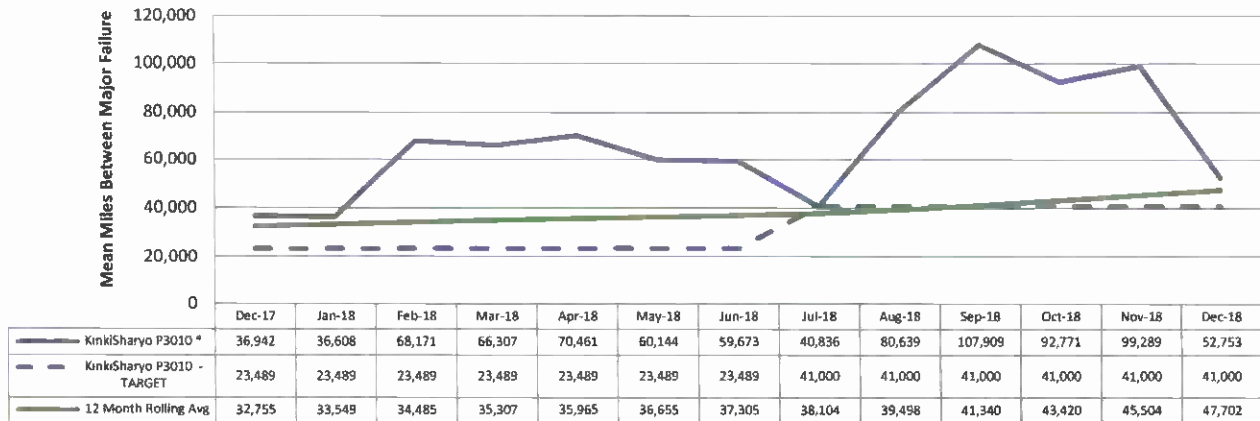
MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures. %Change is from previous month.



Metro

Rail Mean Vehicle Miles Between Major Failure by Vehicle Type

Light Rail - KinkiSharyo



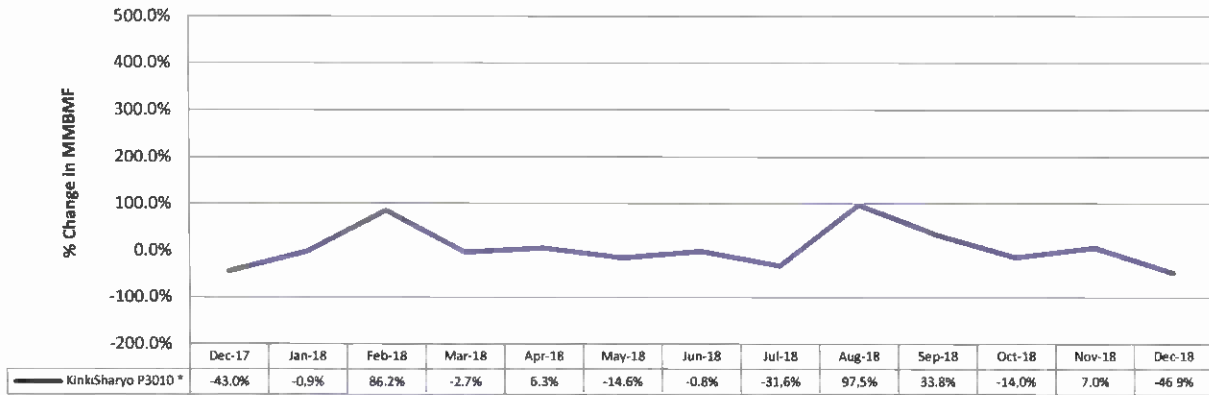
MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures.



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

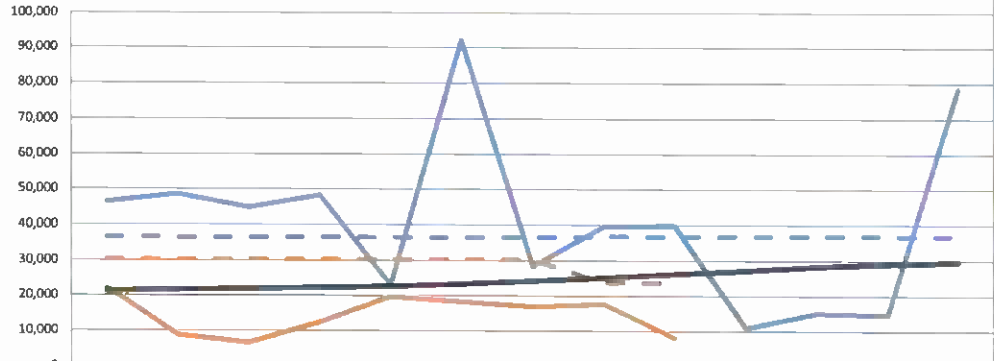


Metro

Rail Mean Vehicle Miles Between Major Failure by Vehicle Type

Light Rail - NipponSharyo

Mean Miles Between Major Failure



	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Nippon Sharyo 2020 - DC	46,539	48,643	44,981	48,401	23,206	92,295	28,597	39,850	40,025	11,089	15,181	14,712	78,477
Nippon Sharyo 2020 - TARGET	36,599	36,599	36,599	36,599	36,599	36,599	36,599	37,000	37,000	37,000	37,000	37,000	37,000
Nippon Sharyo 865 - DC	22,400	9,003	6,818	12,587	19,850	18,498	17,122	17,816	8,346				
Nippon Sharyo 865 - TARGET	30,478	30,478	30,478	30,478	30,478	30,478	30,478	24,000	24,000		N/A		
12 Month Rolling Avg - Nippon 2020 DC	21,409	21,774	22,028	22,334	22,762	23,454	24,363	25,272	26,348	27,348	28,348	29,201	29,756

N/A - Nippon Sharyo 865 -DC Cars have been retired starting September 2018

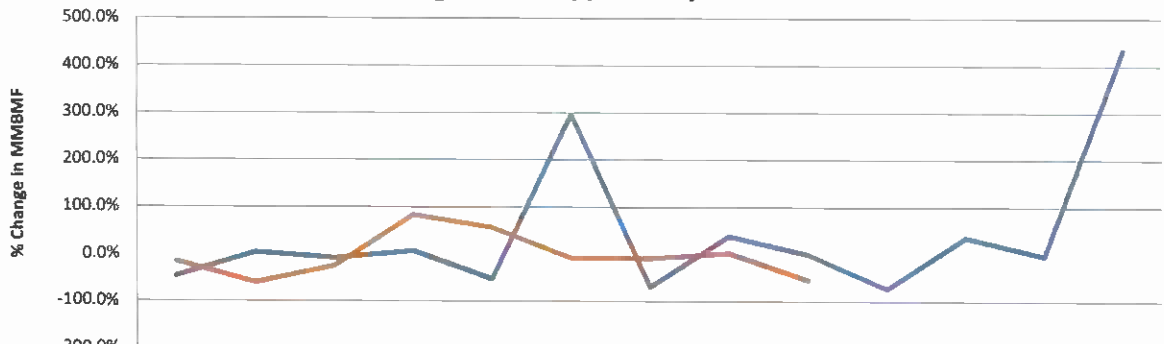
MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures.



Metro

Percentage Change in Rail MMBMF by Vehicle Type

Light Rail - NipponSharyo



	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Nippon Sharyo 2020 - DC	-45.7%	4.5%	-7.5%	7.6%	-52.1%	297.7%	-69.0%	39.4%	0.4%	-72.3%	36.9%	-3.1%	433.4%
Nippon Sharyo 865 - DC	-14.7%	-59.8%	-24.3%	84.6%	57.7%	-6.8%	-7.4%	4.1%	-53.2%		N/A		

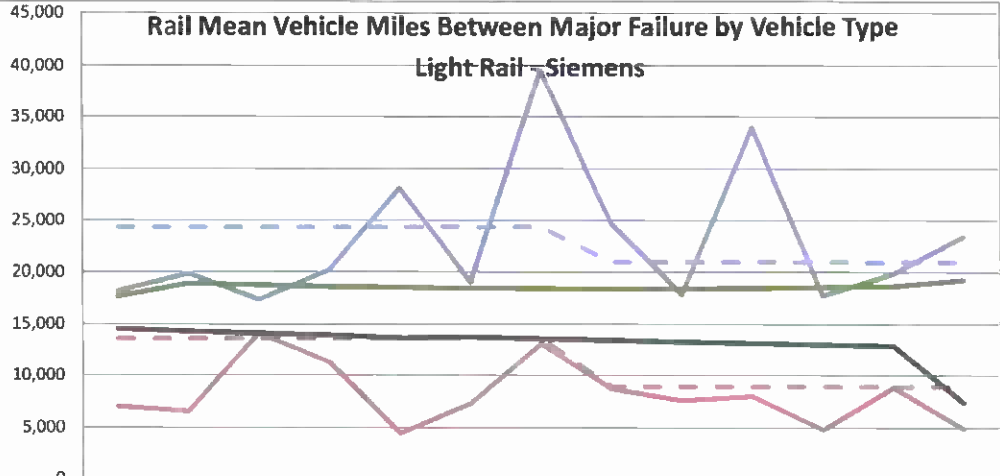
N/A - Nippon Sharyo 865 -DC Cars have been retired starting September 2018

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



Metro

Mean Miles Between Major Failure



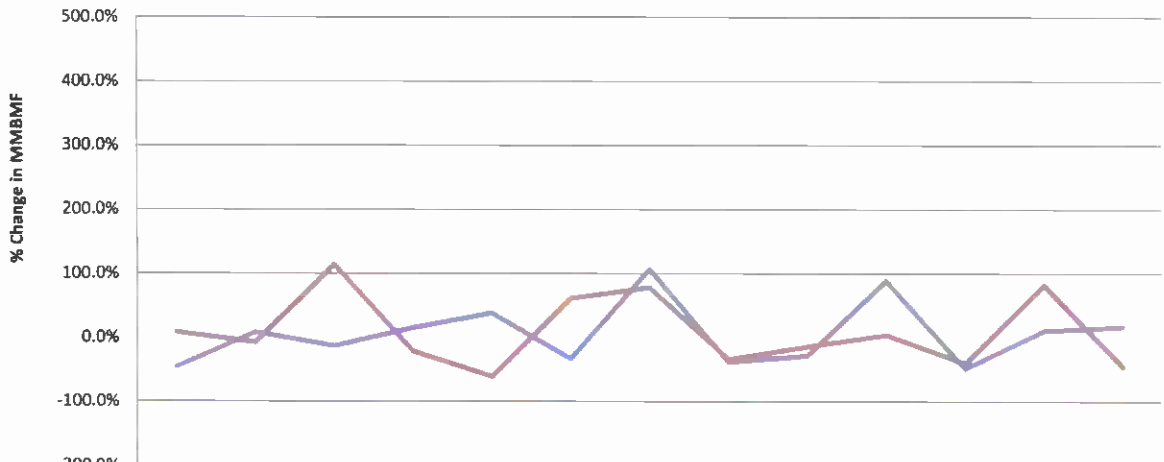
	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Siemens 2000 Base - AC	18,247	19,891	17,415	20,271	28,221	19,061	39,557	24,742	17,919	33,988	17,816	19,888	23,455
Siemens 2000 Base - TARGET	24,373	24,373	24,373	24,373	24,373	24,373	24,373	21,000	21,000	21,000	21,000	21,000	21,000
Siemens 2000 GE/ATP - AC	7,074	6,617	14,195	11,299	4,519	7,347	13,129	8,775	7,657	8,052	4,877	8,911	4,963
Siemens 2000 GE/ATP - TARGET	13,620	13,620	13,620	13,620	13,620	13,620	13,620	9,000	9,000	9,000	9,000	9,000	9,000
12 Month Rolling Avg - Siemens 2000 GE/ATP - AC	14,603	14,360	14,158	13,987	13,705	13,791	13,621	13,465	13,319	13,188	13,050	12,925	7,453
12 Month Rolling Avg Siemens 2000 Base - AC	17,725	18,948	18,801	18,660	18,584	18,504	18,484	18,439	18,459	18,536	18,629	18,700	19,296

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



Metro

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



	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Siemens 2000 Base - AC	-45.3%	9.0%	-12.5%	16.4%	39.2%	-32.5%	107.5%	-37.5%	-27.6%	89.7%	-47.6%	11.6%	17.9%
Siemens 2000 GE/ATP - AC	9.8%	-6.5%	114.5%	-20.4%	-60.0%	62.6%	78.7%	-33.2%	-12.7%	5.1%	39.4%	82.7%	-44.3%

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

Mean Miles Between Major Failures

	FY 2018	FY2019 Goal	FY2019 YTD
AnsaldoBreda2550Base - AC	49,423	52,000	44,948
Breda 650 Base - DC	25,946	43,000	36,512
Breda 650 Option - AC	107,839	124,000	105,865
Kinkisharyo P3010	42,626	41,000	70,235
Nippon Sharyo 2020 - DC	31,703	37,000	22,711
Nippon Sharyo 865 - DC	8,089	24,000	0
Siemens 2000 Base - AC	21,014	21,000	21,823
Siemens 2000 GE/ATP - AC	7,376	9,000	6,825

Rail Fleet Distribution – DECEMBER 2018

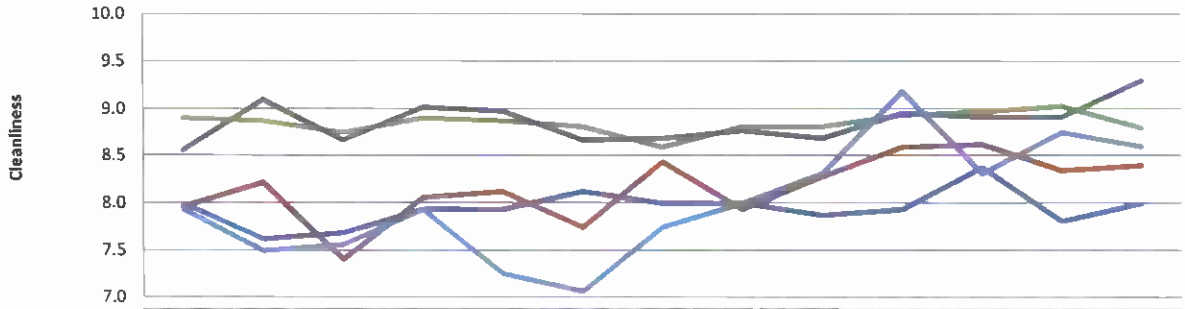
Number of Rail Vehicle Type by Division	Blue	Red / Purple	Green	Gold	Expo	Total
AnsaldoBreda 2550 Base - AC				50		50
Breda 650 Base - DC		30				30
Breda 650 Option - AC		68				68
KinkiSharyo P3010	54		13	27	56	150
Nippon Sharyo 2020 - DC	15					15
Nippon Sharyo 865 - DC						0
Siemens 2000 Base - AC	19				3	22
Siemens 2000 GE/ATP - AC			24			24
TOTALS	88	98	37	77	59	359

Cleanliness by Vehicle Type



Metro

Rail Cleanliness by General Vehicle Type



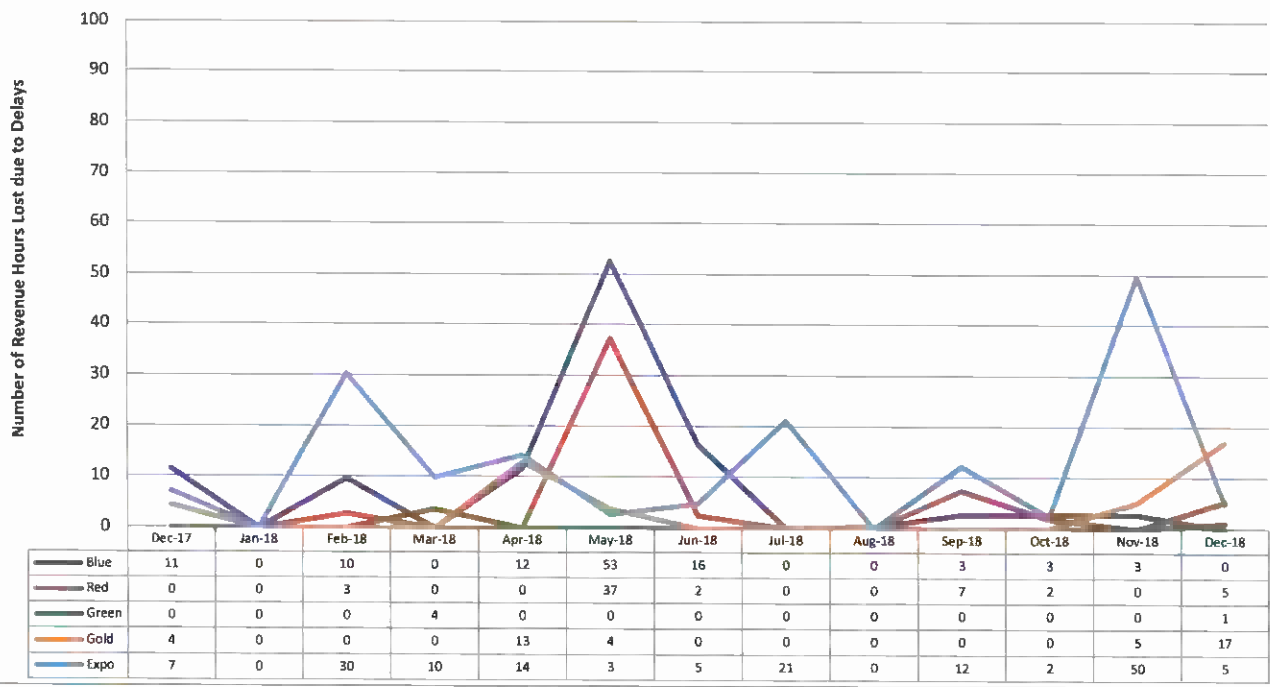
	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
A650	8.0	7.6	7.7	7.9	7.9	8.1	8.0	8.0	7.9	7.9	8.4	7.8	8.0
P2000	8.0	8.2	7.4	8.1	8.1	7.8	8.4	7.9	8.3	8.6	8.6	8.3	8.4
P2550	8.9	8.9	8.8	8.9	8.9	8.8	8.6	8.8	8.8	8.9	9.0	9.0	8.8
P3010	8.6	9.1	8.7	9.0	9.0	8.7	8.7	8.8	8.7	9.0	8.9	8.9	9.3
P865/P2020	7.9	7.5	7.6	7.9	7.3	7.1	7.8	8.0	8.3	9.2	8.3	8.8	8.6

Note: Data Collection Began September 2016

RAIL DELAYS BY CATEGORY - SYSTEMWIDE

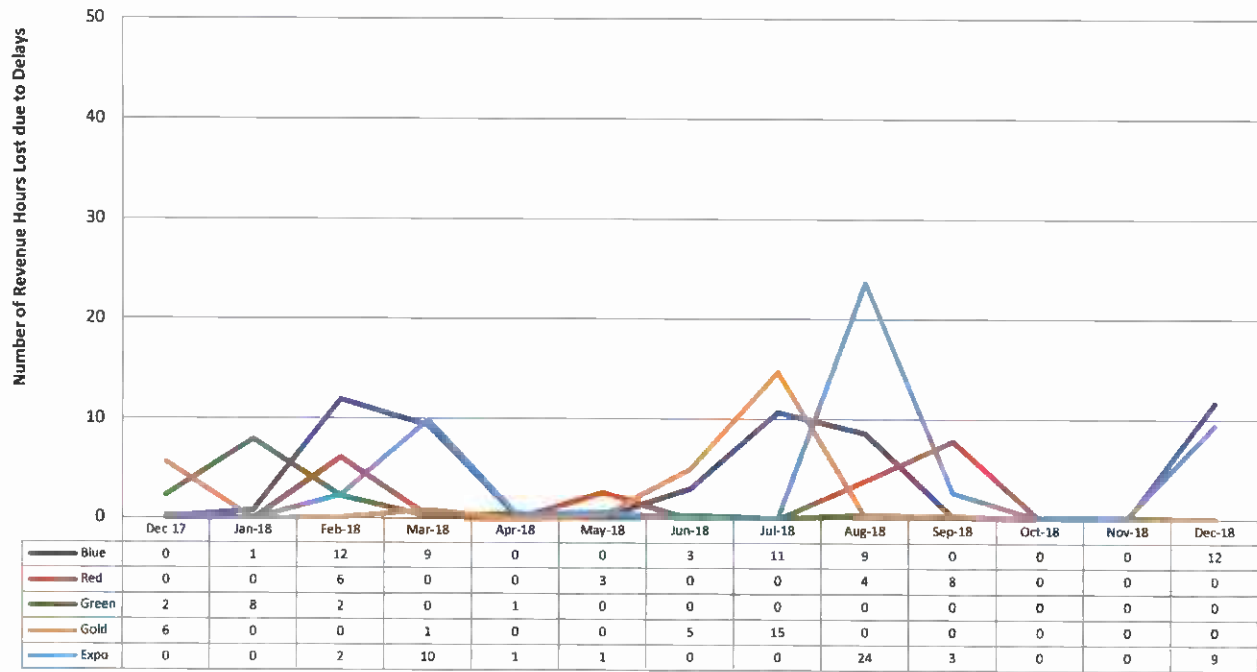
Revenue Hours Lost Related to - ACCIDENTS

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



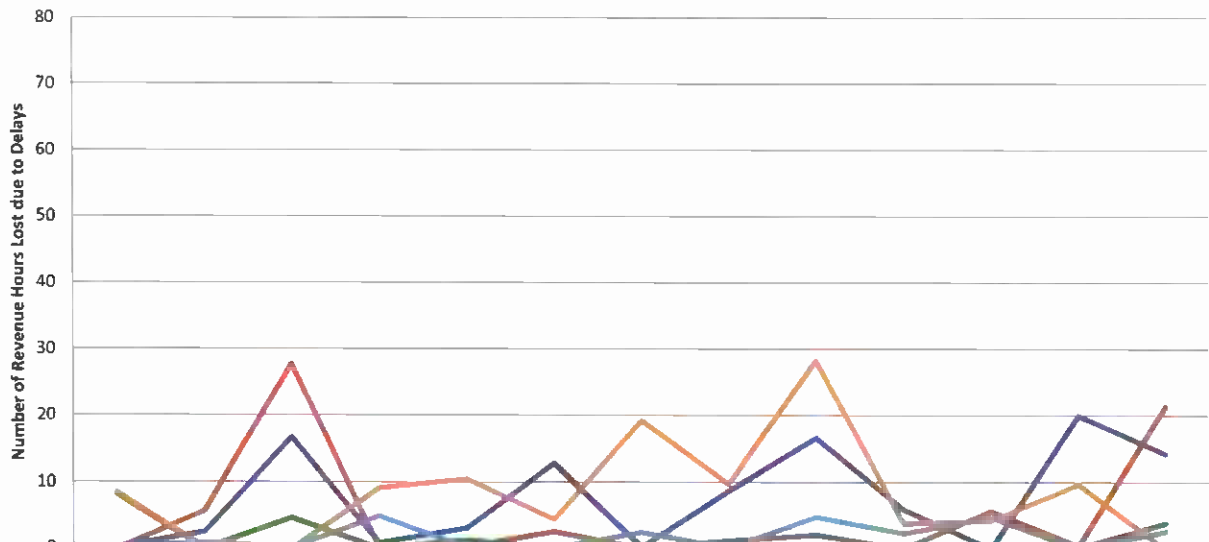
Revenue Hours Lost Related to - OPERATIONS

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



Revenue Hours Lost Related to - OTHER

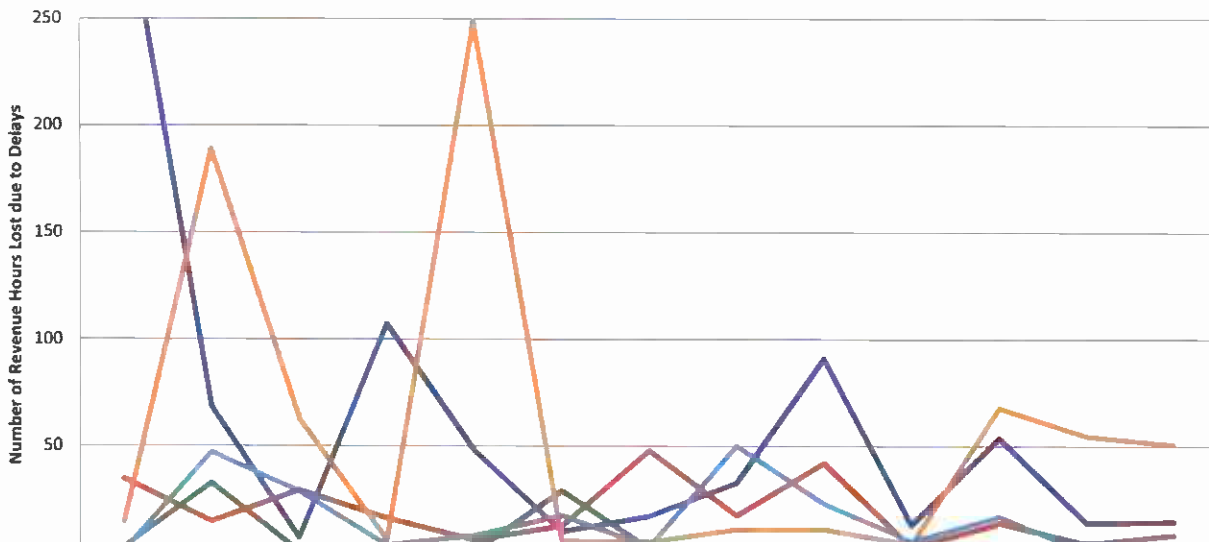
Blue, Red/Purple, Green, Gold & Expo Line Other Delays



	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Blue	0	3	17	1	3	13	0	9	17	6	0	20	14
Red	0	6	28	0	0	3	0	0	0	0	6	0	21
Green	8	0	5	0	1	0	0	1	2	0	0	0	4
Gold	9	0	0	9	11	4	19	10	28	4	4	10	0
Expo	0	1	0	5	0	0	3	0	5	2	5	0	3

Revenue Hours Lost Related to - POLICE & HEALTH

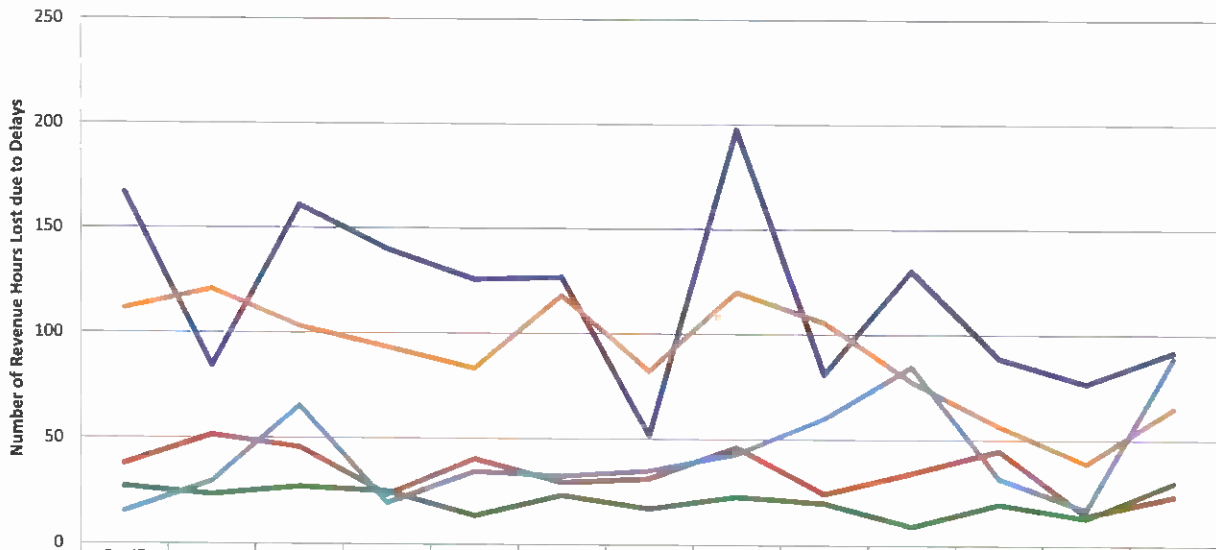
Blue, Red/Purple, Green, Gold & Expo Line Police & Health Delays



	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Blue	314	69	7	107	48	10	17	33	91	13	54	14	15
Red	35	15	30	16	6	13	48	18	42	3	14	4	9
Green	3	33	1	3	0	29	2	1	1	1	0	5	0
Gold	15	189	63	6	249	6	5	11	11	4	68	55	51
Expo	1	47	29	4	8	18	3	50	23	6	17	0	3

Revenue Hours Lost Related to - Vehicle Delays

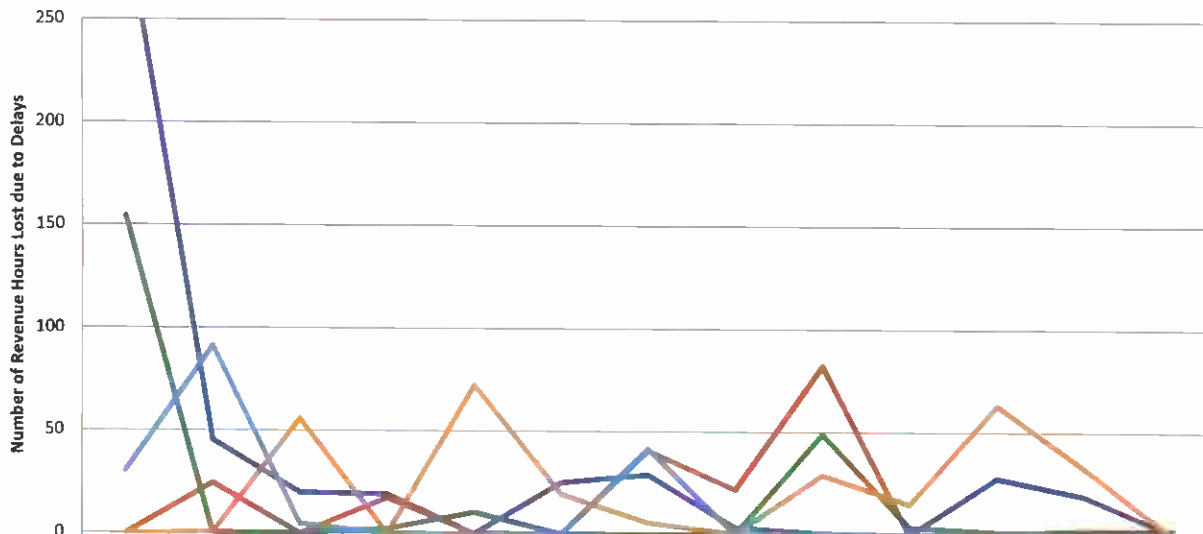
Blue, Red/Purple, Green, Gold & Expo Line Vehicle Delays



	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Blue	167	85	161	141	126	127	52	198	81	131	89	77	92
Red	38	52	46	24	41	30	31	46	25	35	45	15	24
Green	27	24	27	25	14	24	17	23	20	9	20	13	30
Gold	112	121	104	94	84	119	83	121	106	78	57	39	66
Expo	16	30	66	20	34	32	35	43	60	85	32	17	89

Revenue Hours Lost Related to - WAYSIDE

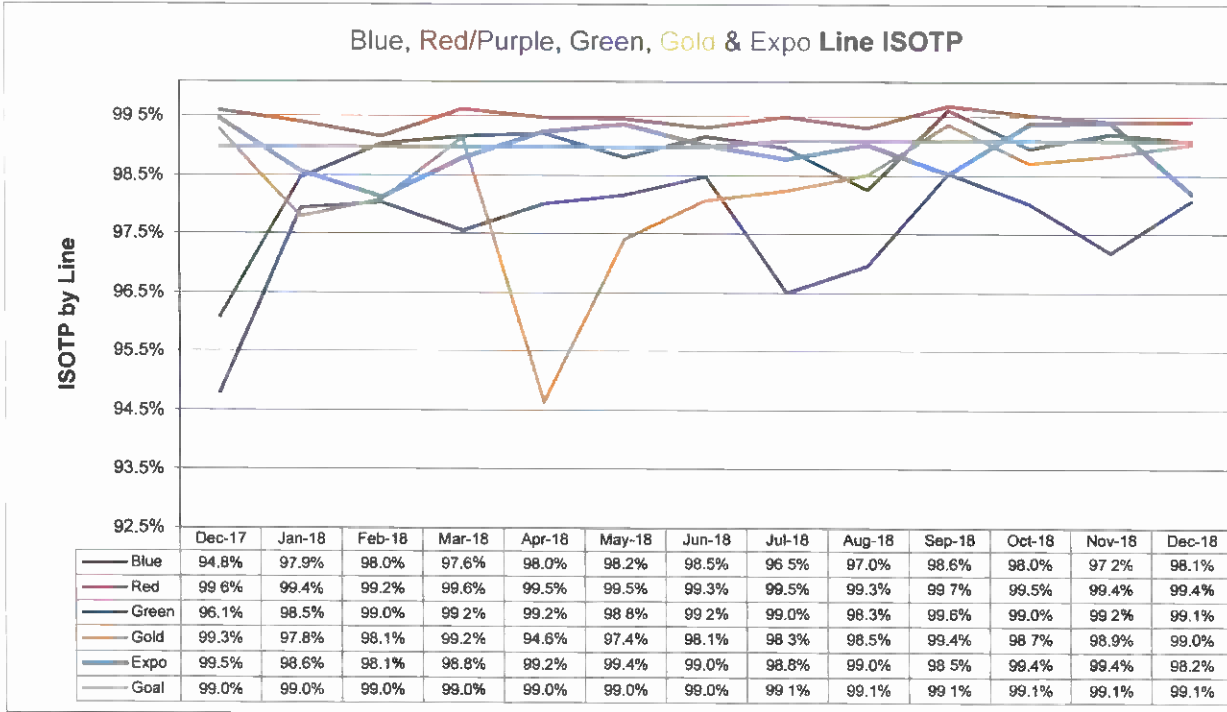
Blue, Red/Purple, Green, Gold & Expo Line Wayside Delays



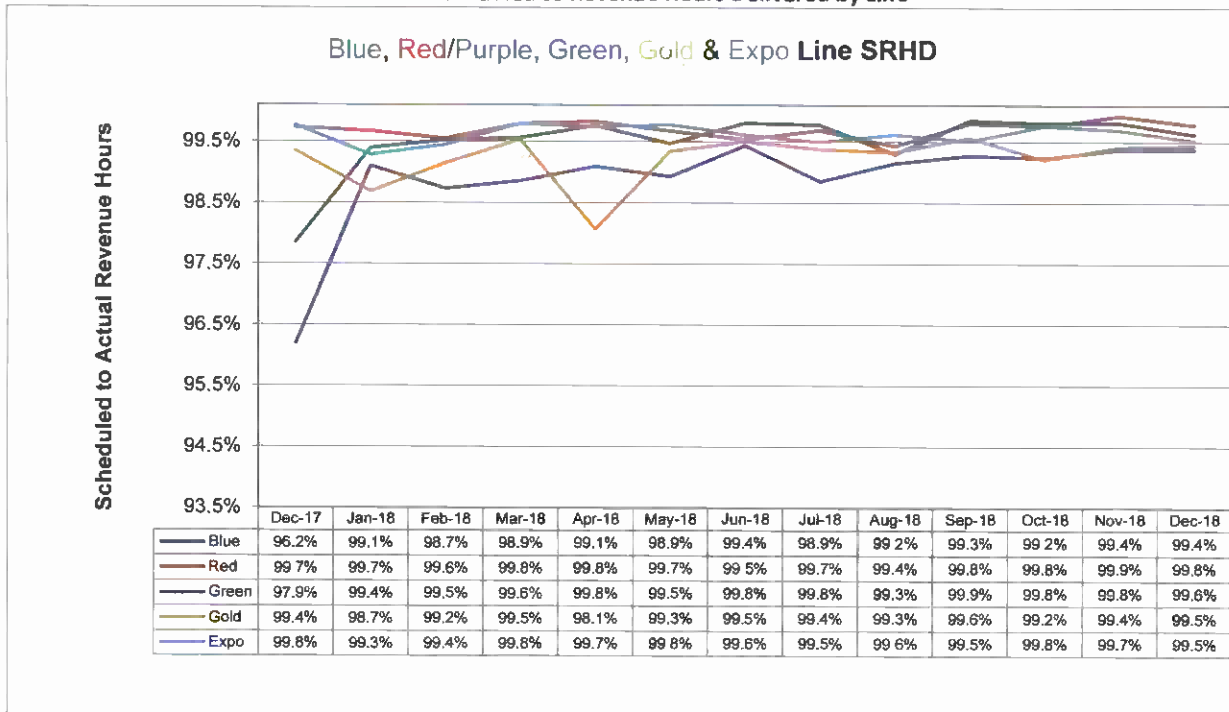
	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Blue	299	46	20	19	0	25	29	4	1	0	28	19	1
Red	0	25	0	18	0	0	41	22	83	0	0	3	3
Green	155	0	0	2	10	0	0	0	49	4	2	1	2
Gold	0	0	56	0	73	20	6	0	29	15	63	33	0
Expo	31	91	5	0	0	0	42	0	0	0	0	0	0

Rail Service Performance

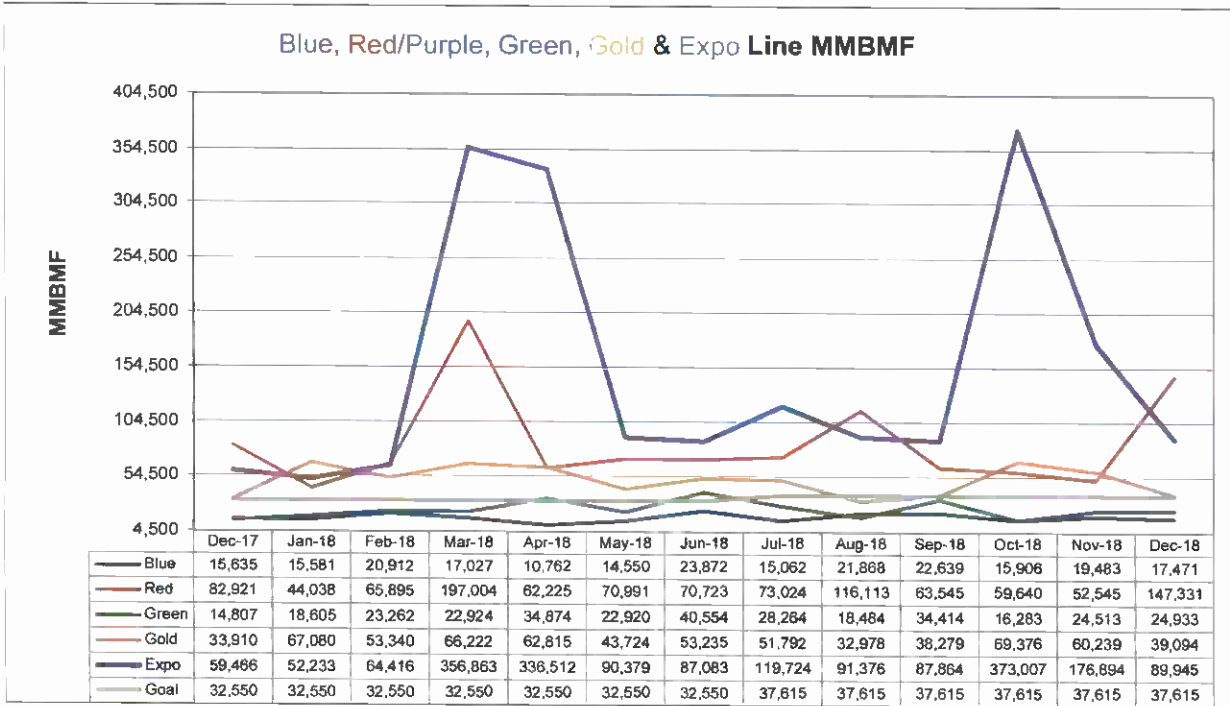
In Service On Time Performance by Line



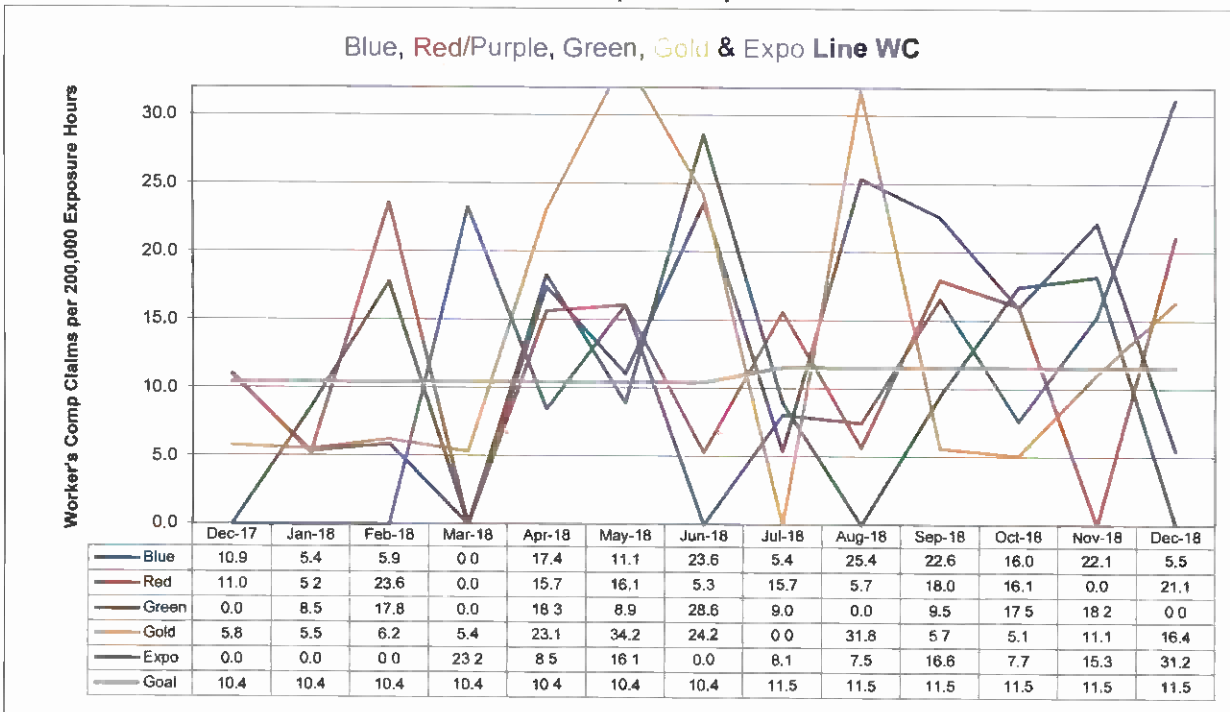
Ratio of Scheduled to Revenue Hours Delivered by Line



Mean Miles Between Mechanical Failures by Line

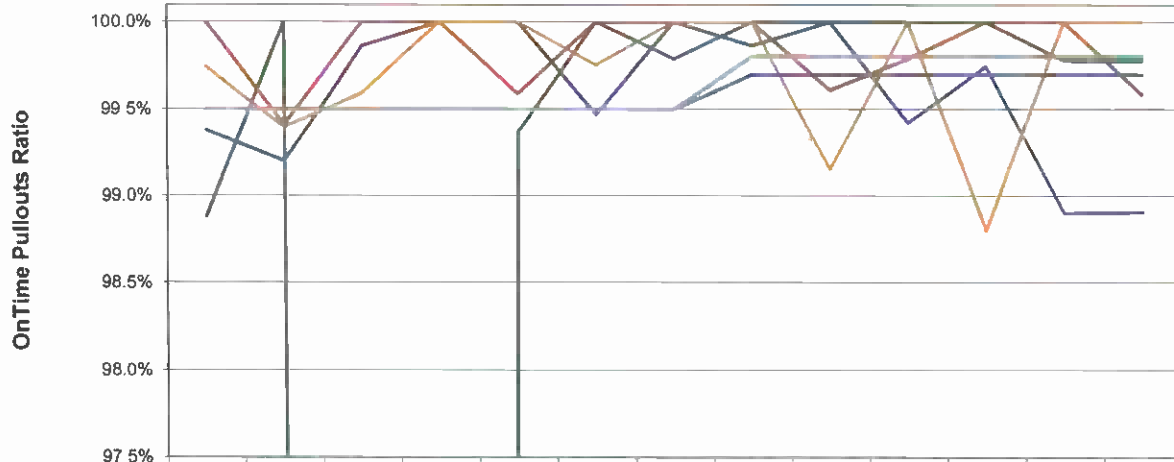


Workers Comp Claims by Line



On-Time Pullouts Ratio by Line

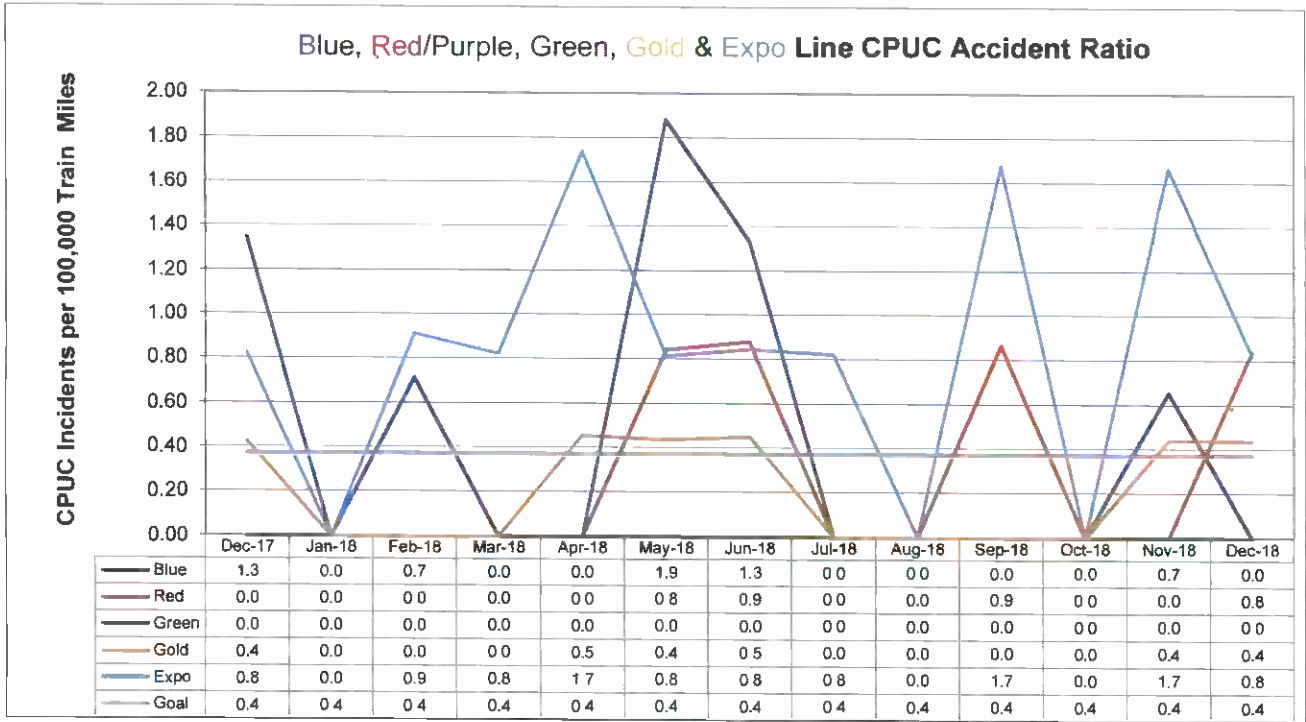
Blue, Red/Purple, Green, Gold & Expo Line OTP



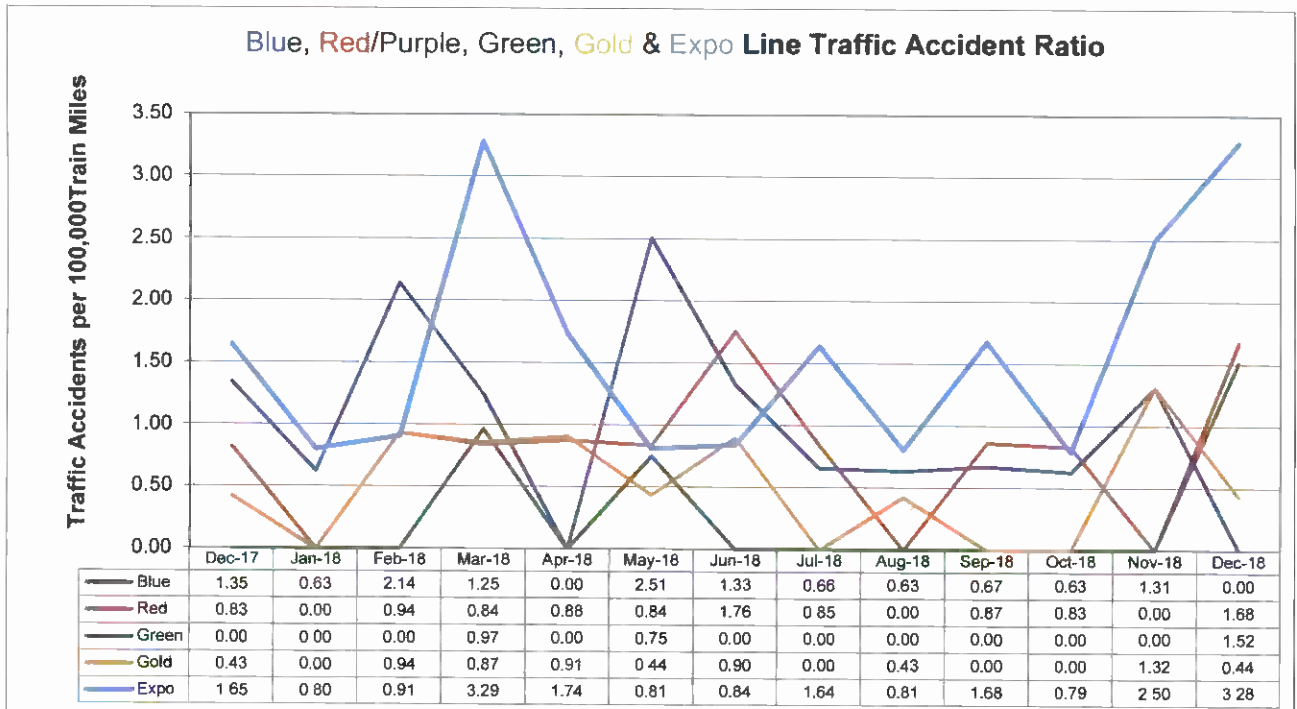
	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18
Blue	99.4%	99.2%	99.9%	100.0%	100.0%	99.5%	100.0%	99.9%	100.0%	99.4%	99.7%	98.9%	98.9%
Red	100.0%	99.4%	100.0%	100.0%	99.6%	100.0%	100.0%	100.0%	99.6%	99.8%	100.0%	100.0%	99.6%
Green	98.9%	100.0%	0.0%	0.0%	99.4%	100.0%	99.8%	100.0%	100.0%	100.0%	100.0%	99.8%	99.8%
Gold	99.7%	99.4%	99.6%	100.0%	100.0%	99.8%	100.0%	100.0%	99.2%	100.0%	98.8%	100.0%	100.0%
Expo	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.7%	99.7%	99.7%	99.7%	99.7%	99.7%
Goal	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.5%	99.8%	99.8%	99.8%	99.8%	99.8%	99.8%

Rail Safety Performance

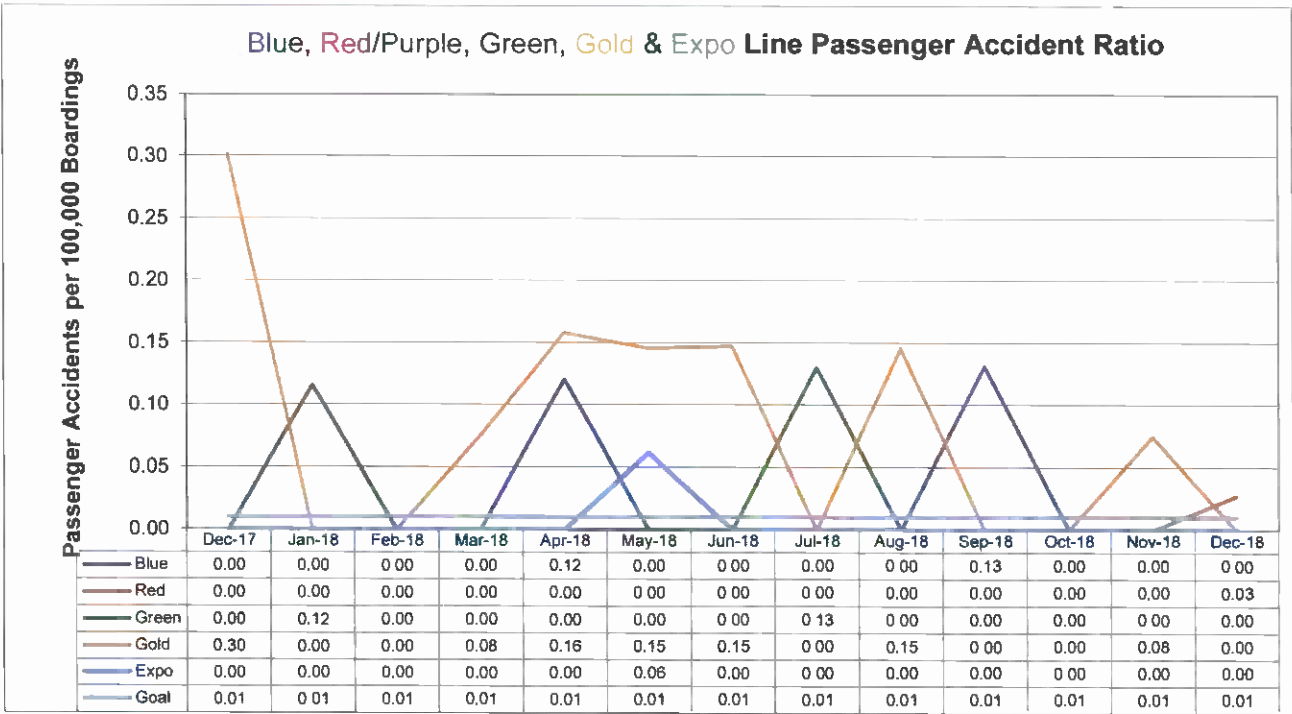
CPUC REPORTABLE INCIDENTS PER 100,000 TRAIN MILES



TRAFFIC ACCIDENTS PER 100,000 TRAIN MILES

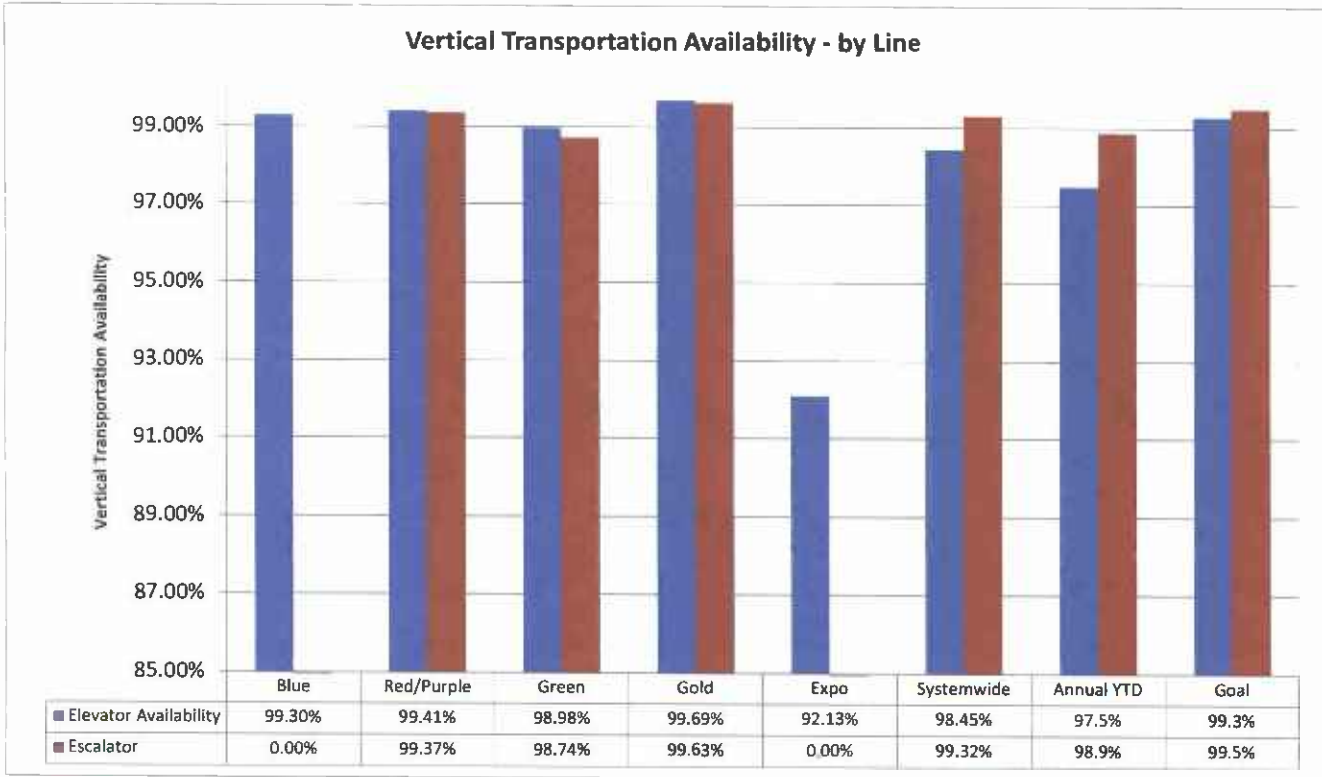


PASSENGER ACCIDENTS PER 100,000 BOARDINGS



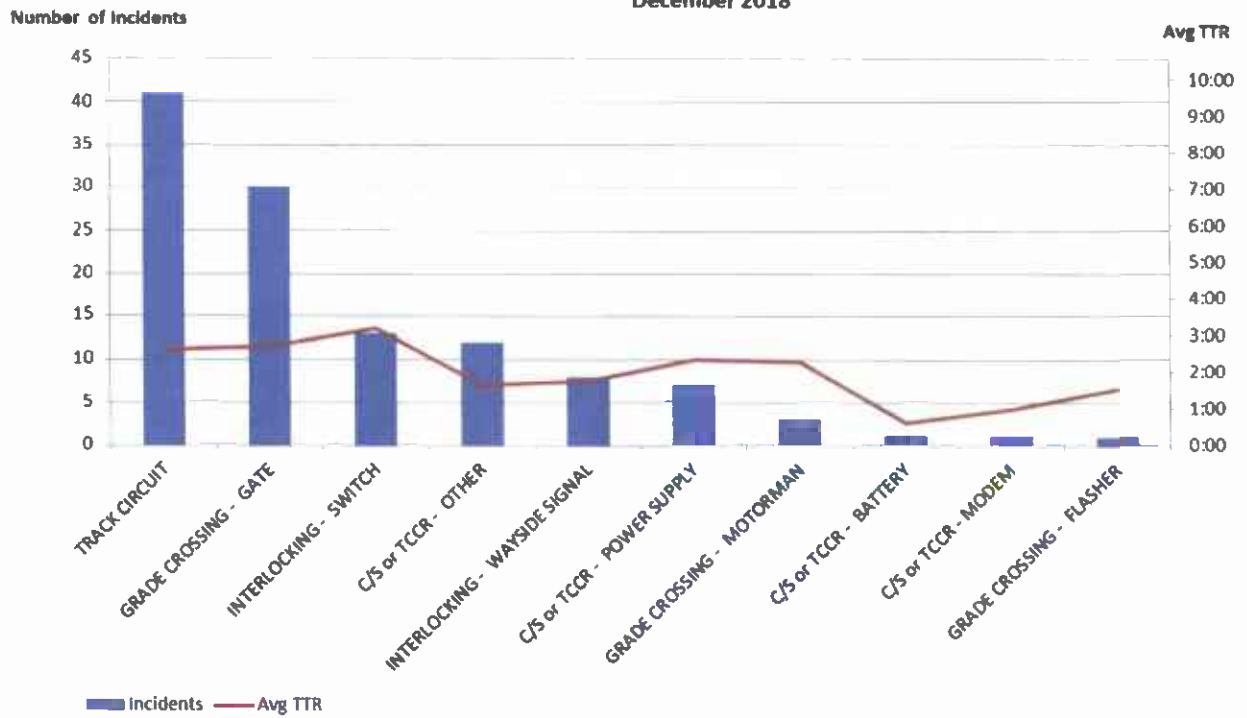
Systemwide Vertical Transportation Availability by Line

Dec 2018



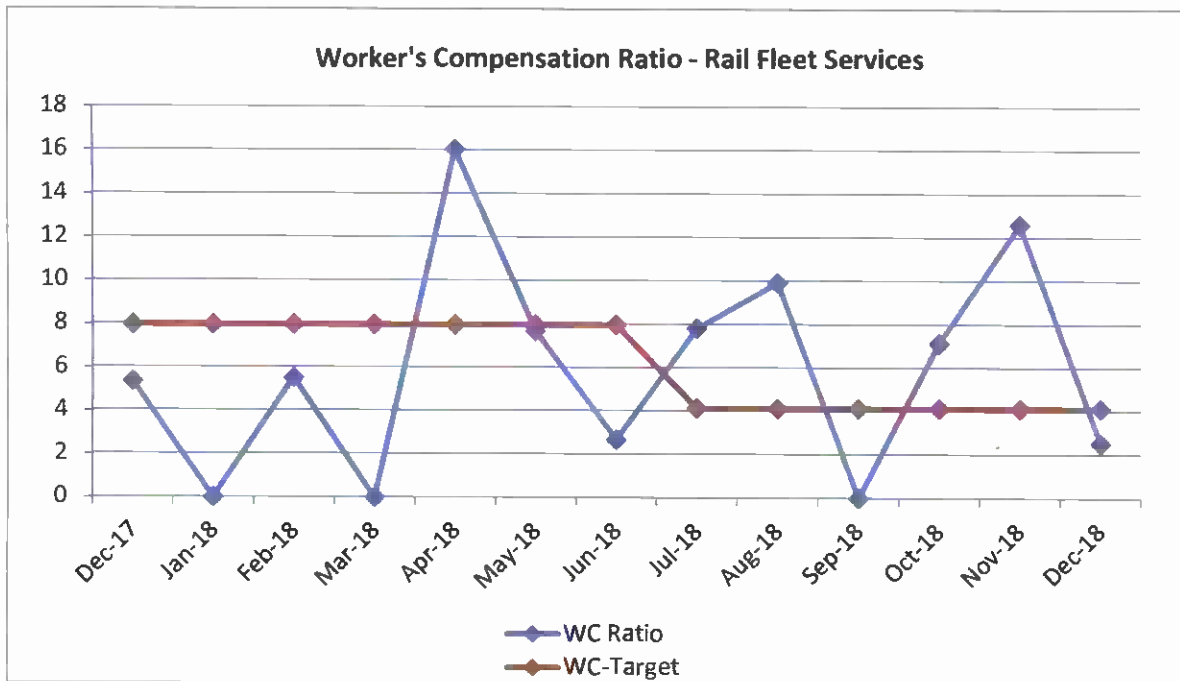
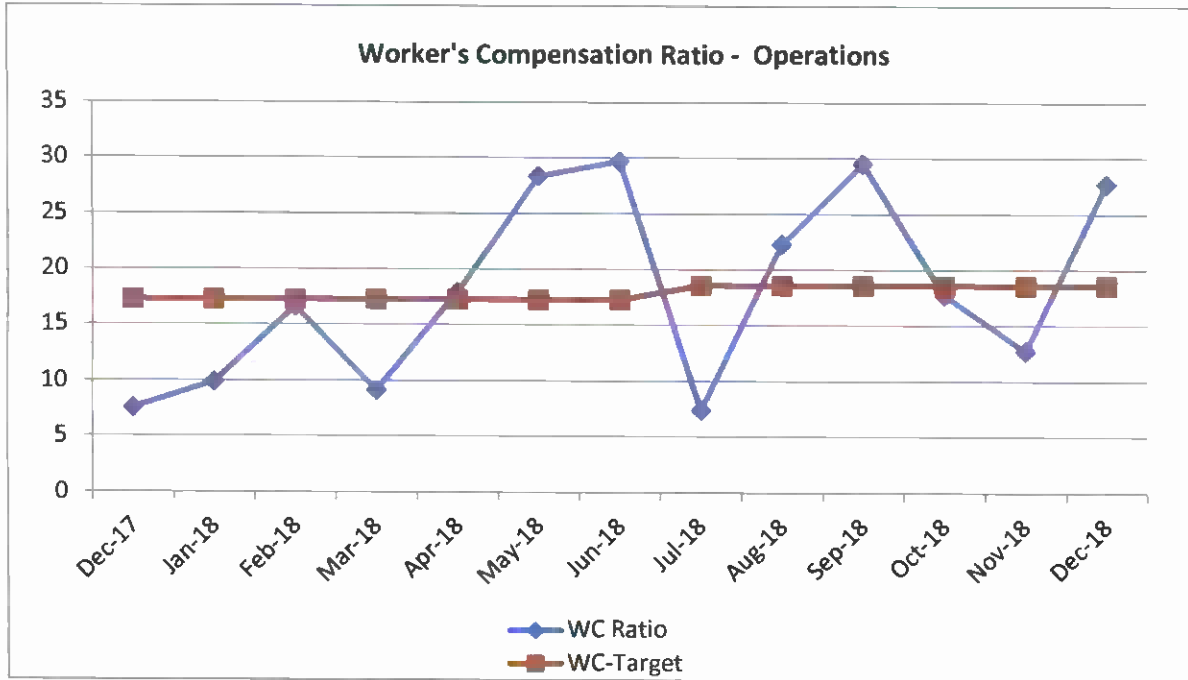
Note: No Escalators at Blue and Expo Lines

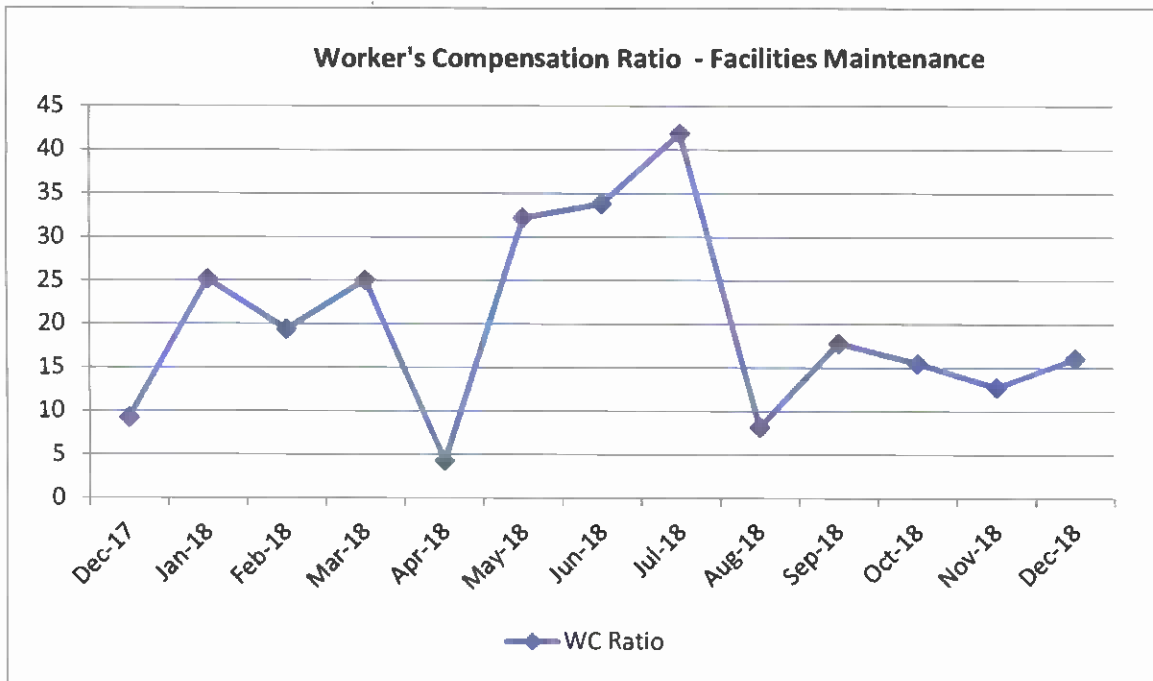
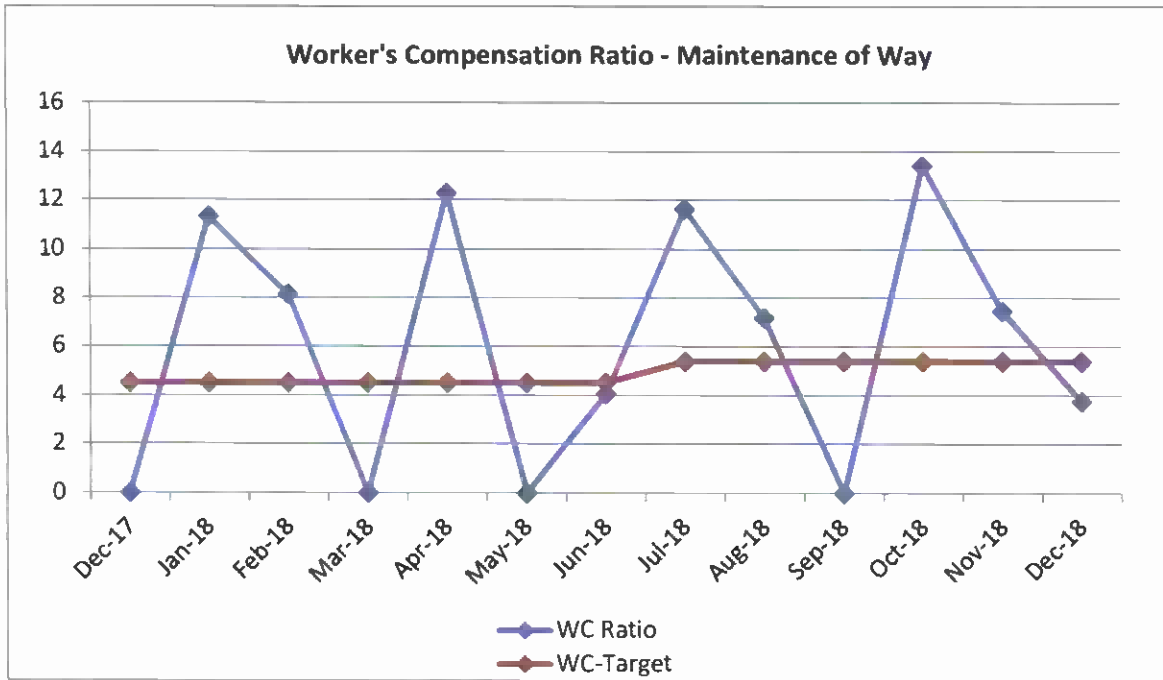
**Wayside Signal Maintenance
[Incidents & Avg Time-To-Repair (TTR)]
December 2018**



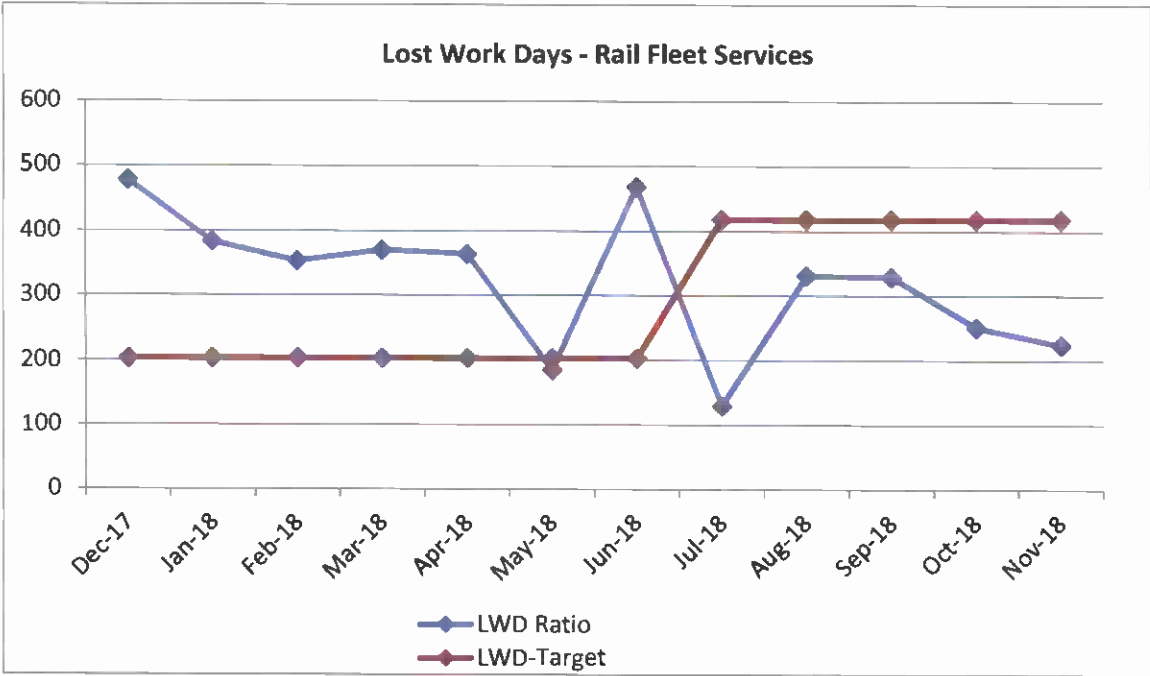
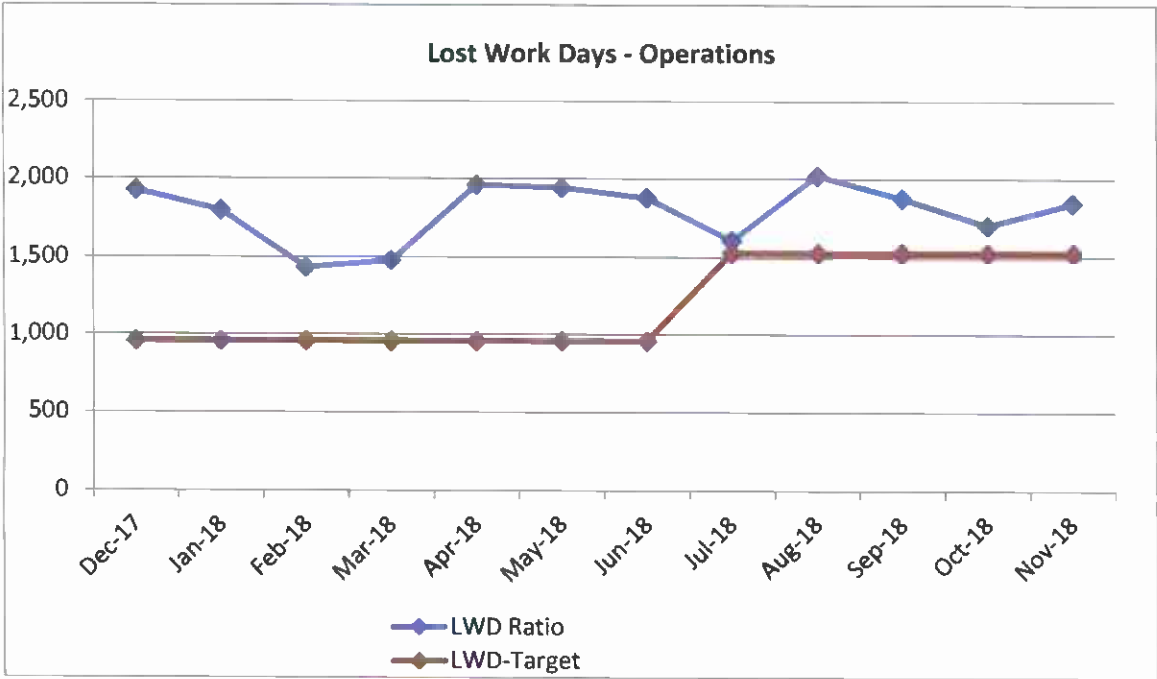
* Avg TTR does not

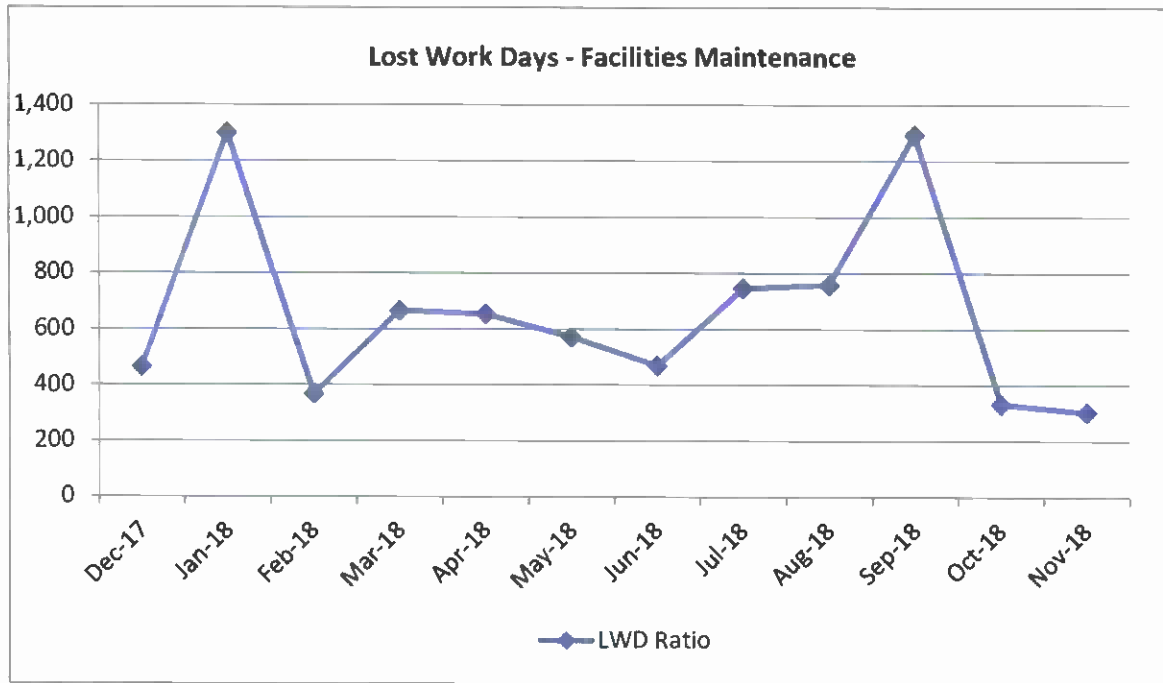
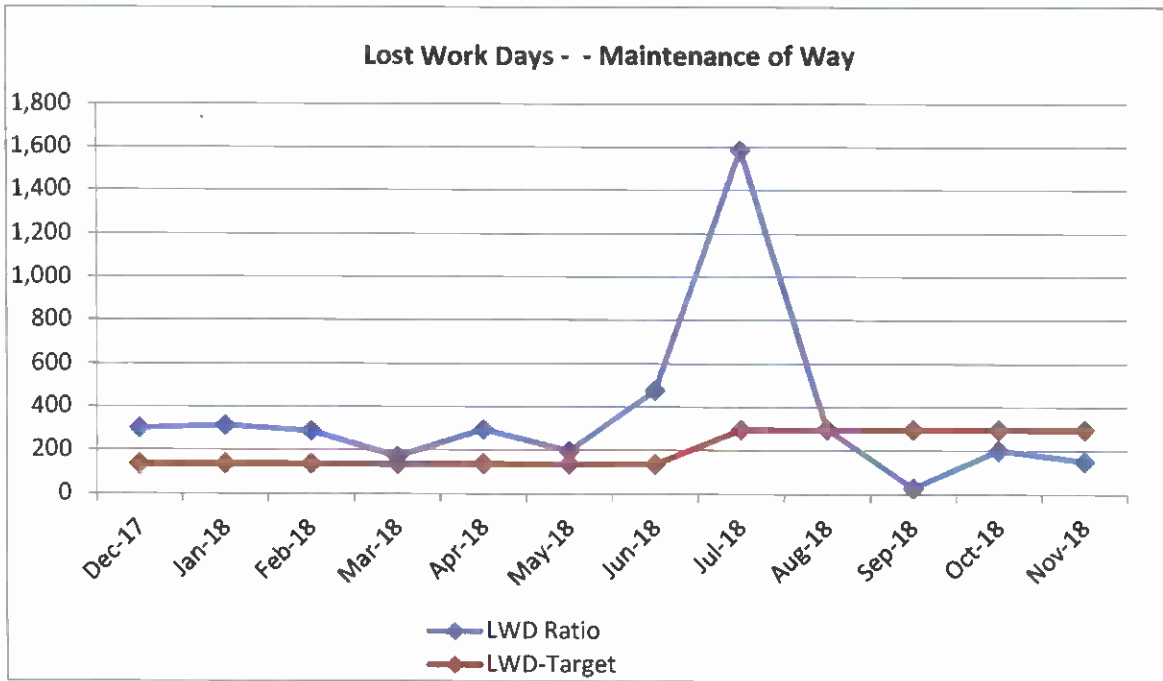
Administrative Key Performance Indicators Worker's Compensation, Lost Work Days, OSHA December-18



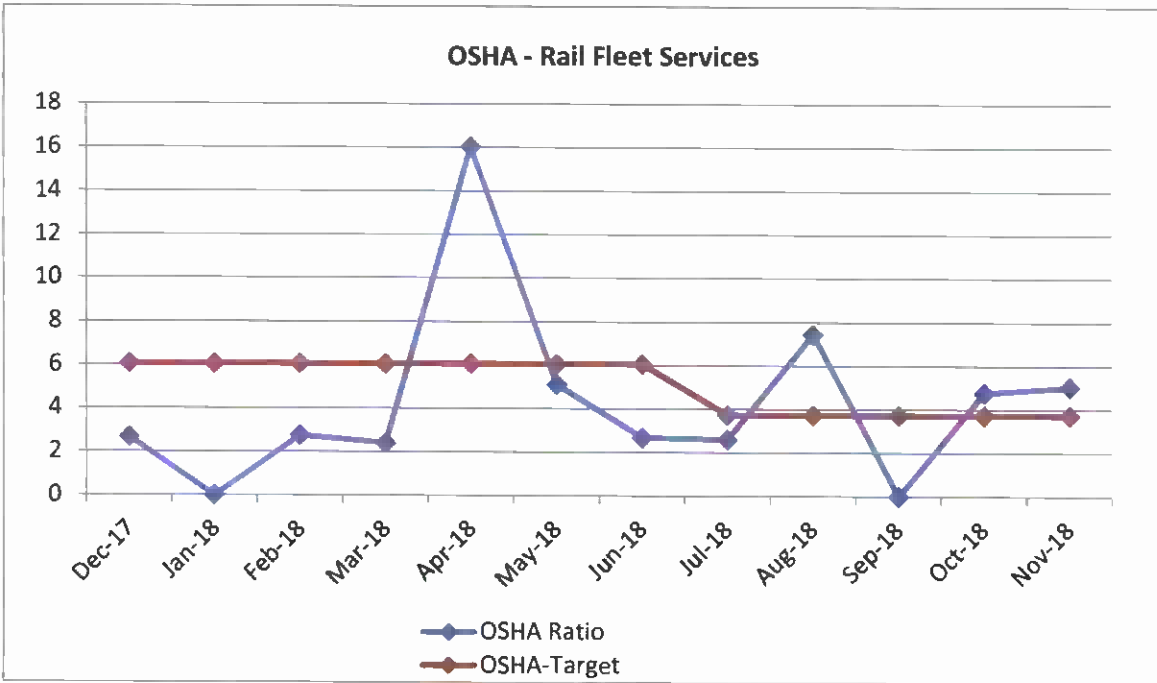
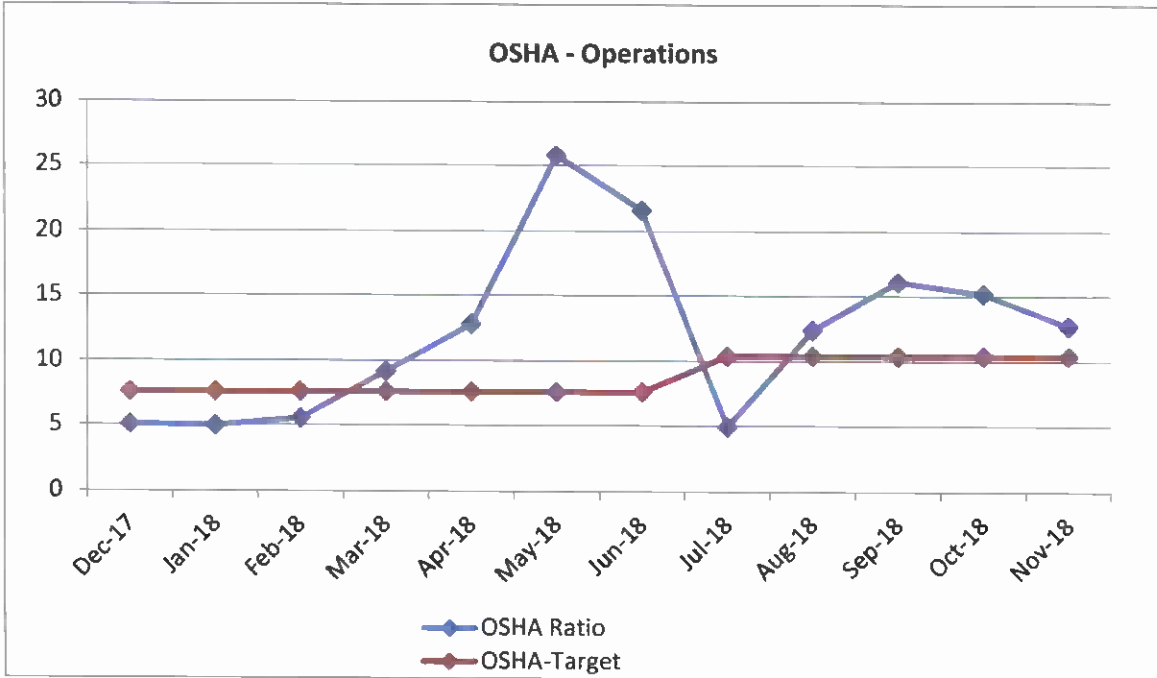


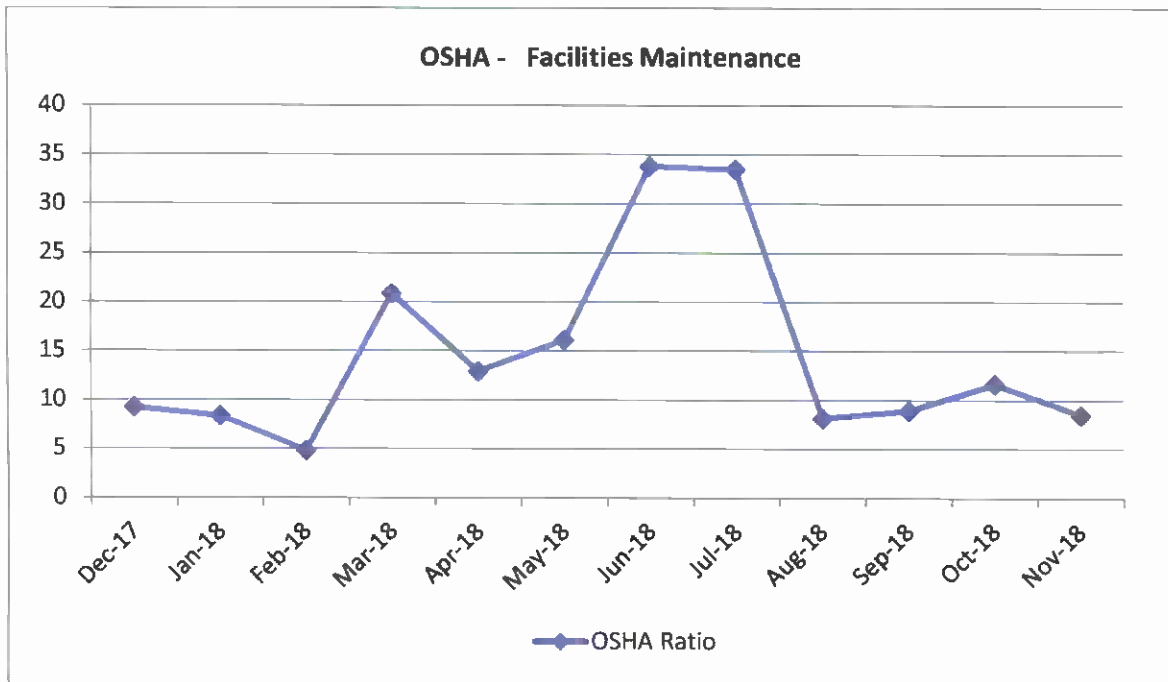
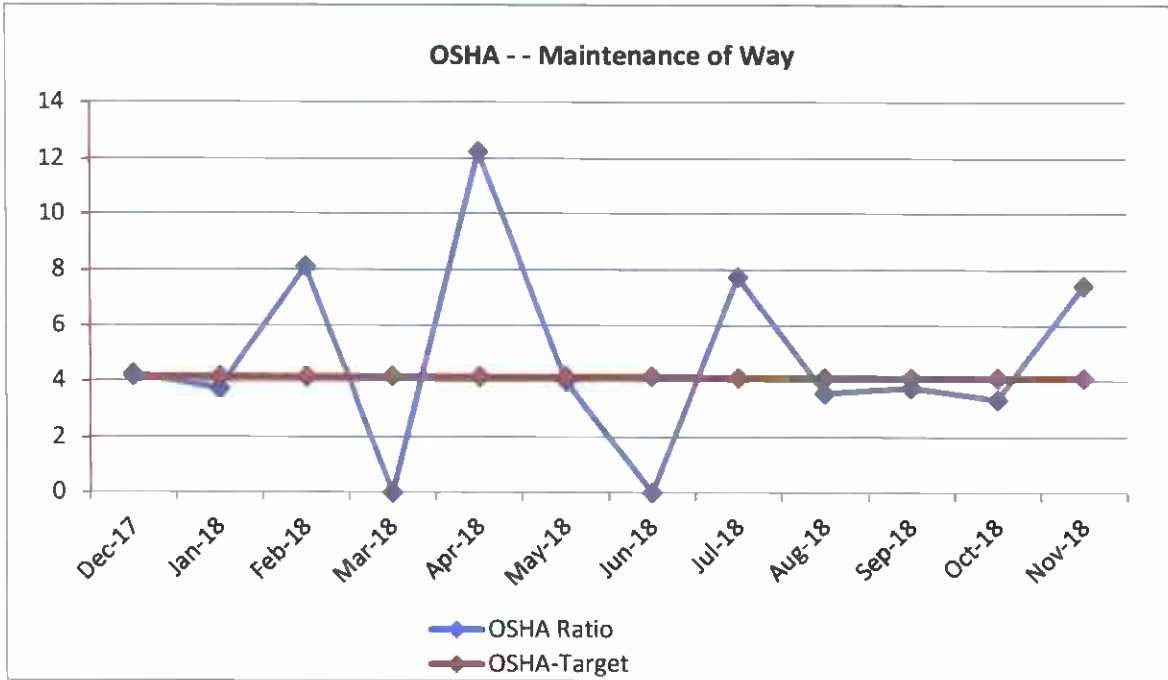
Facilities Maintenance goals to be established.





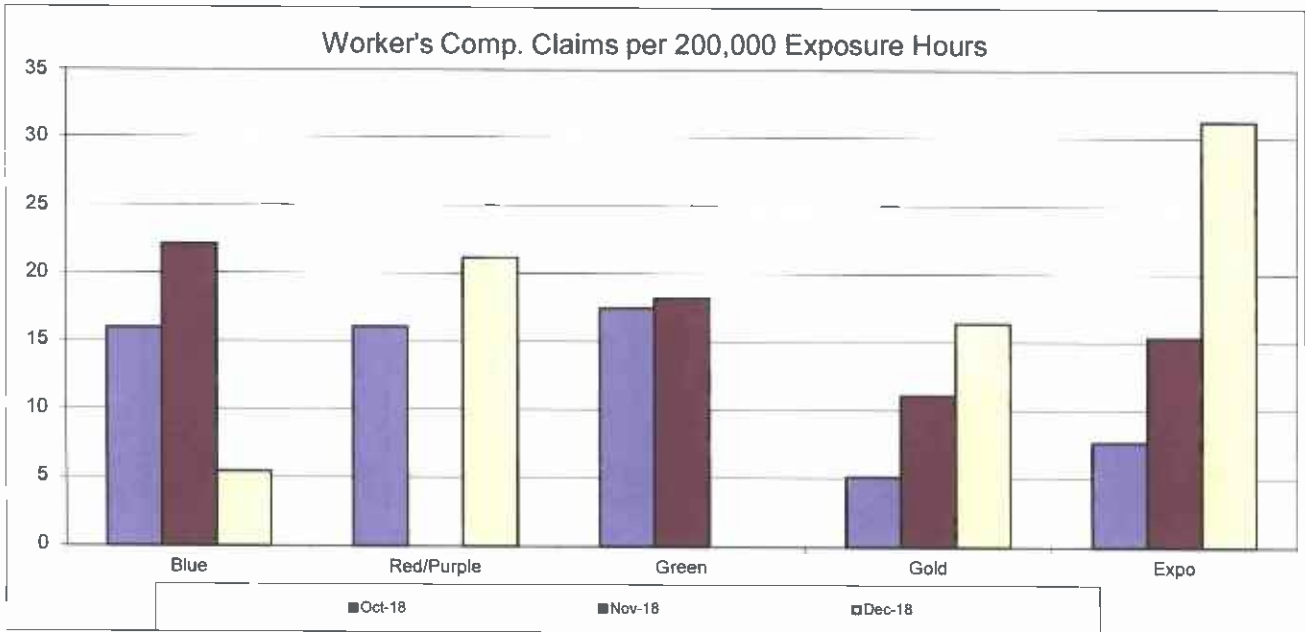
Facilities Maintenance goals to be established.



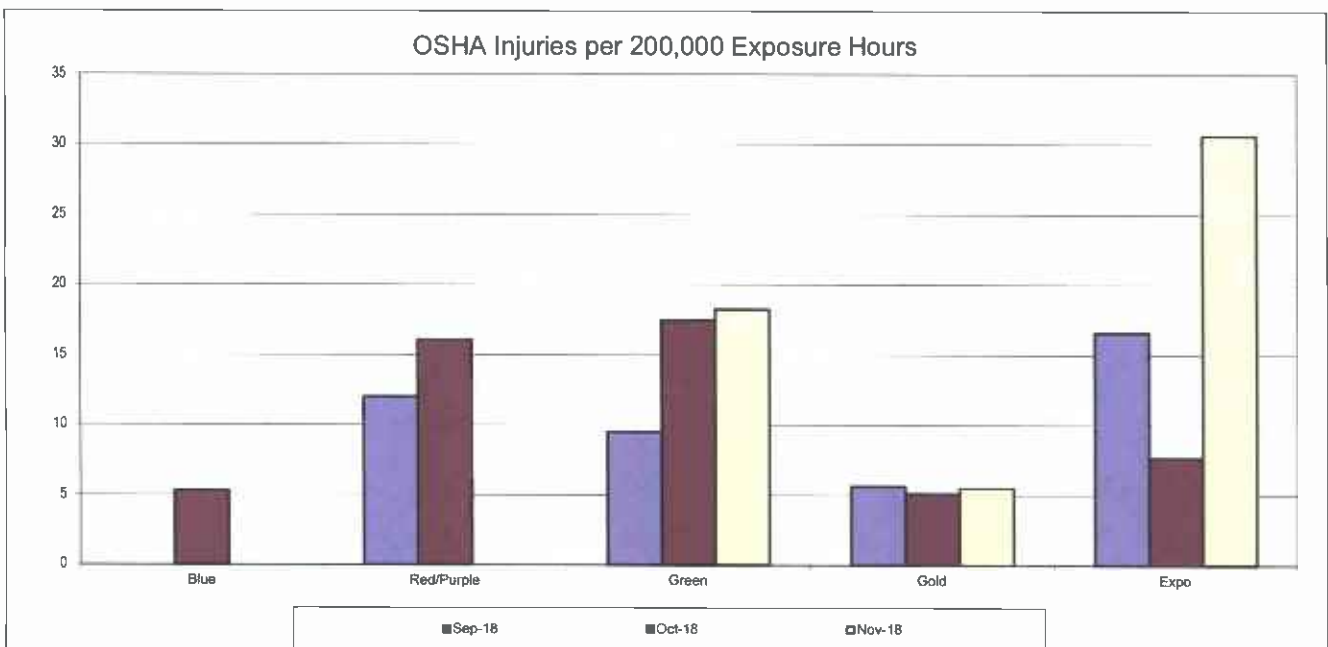
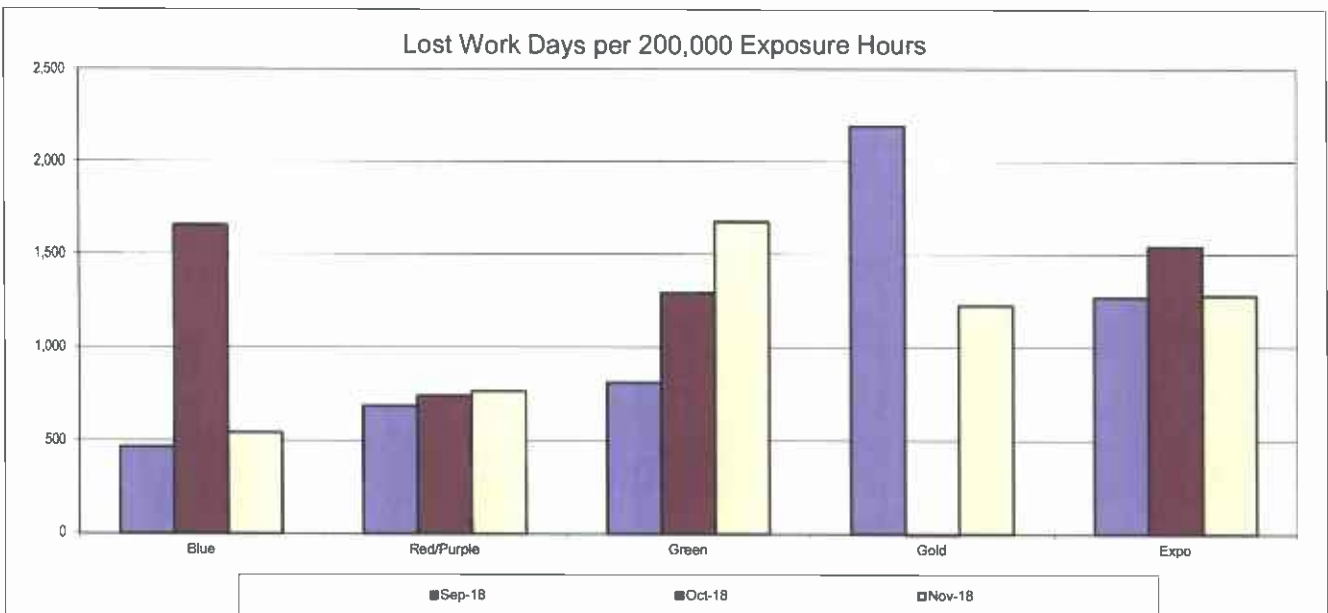


Facilities Maintenance goals to be established.

Worker's Comp. Claims
Oct 2018 - Dec 2018
3 Month Comparison



Lost Work Days and OSHA Injuries Sep 2018 - Nov 2018 3 Month Comparison



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

BLUE LINE

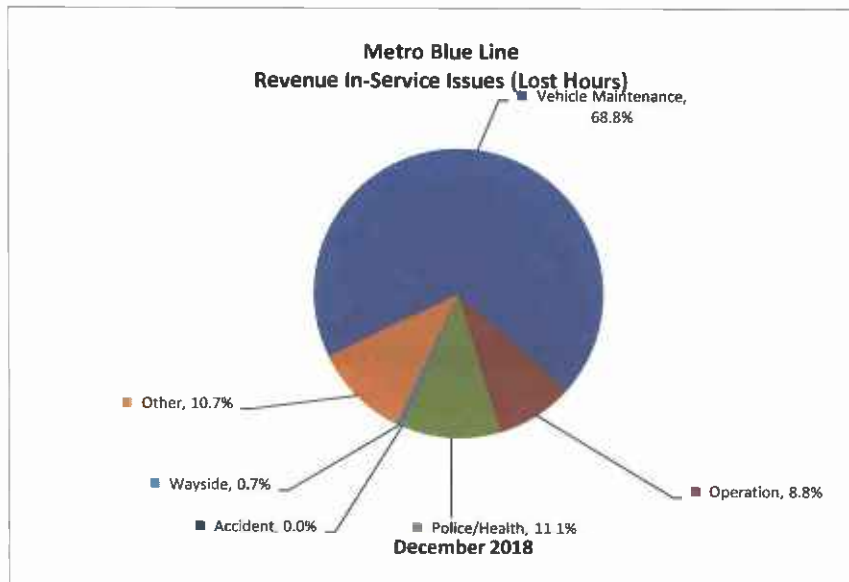
Out of a total of 20,673 hours operated, there were approximately 134 total hours of service delays.

December 2018 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	20,539	99.4%
Cancelled + Delayed Hours	134	0.6%
Total Revenue Hours	20,673	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	2	11.7	8.8%
Accidents	0	0.0	0.0%
Vehicle Maintenance	31	92.1	68.8%
Wayside	5	0.9	0.7%
Police & Health	11	14.9	11.1%
Other	3	14.3	10.7%
Total	52	133.9	100.0%

* Data from M3 used to report Service Delays is under review for accuracy

The number of incidents on the following page may differ from the summary count due to some incidents not properly designated as cancelled or delayed



December 2018 Blue Line incidents causing delay were as follows:

Operations Incidents:

12/5/2018 1:16:00 PM - Incident# 3086000 (0 lost trips, 7 lost minutes)

Rule Violation, cars #(250B)-247-230

Train #105

T-115

Junction inter locking, Track #002, Southbound.

12/31/2018 8:31:00 PM - Incident# 3095807 (4 lost trips, 696 lost minutes)

Due to no man power alpha Q was cancelled.

Vehicle Maintenance Incidents:

12/1/2018 5:44:00 AM - Incident# 3084315 (1 lost trip, 179 lost minutes)

No Movement-Low Air Pressure

Train 111

T-256

(236)-238

Vernon Station, Track 1, Northbound

12/4/2018 5:05:00 AM - Incident# 3085256 (0 lost trips, 15 lost minutes)

Auto Train Protection (Speed Limit)

(244)-247-230

Train 601

T-359

Del Amo, Northbound, Track 1

12/4/2018 5:30:00 AM - Incident# 3085281 (3 lost trips, 500 lost minutes)

Propulsion / Dynamic Brakes

(233)-301-(241)

Train 603

T-26

Del Amo, Northbound, Track 1

12/4/2018 6:35:00 PM - Incident# 3085630 (0 lost trips, 15 lost minutes)

T-307

Train 107

Train (155), 156, 158

Southbound

Pico Station

Operator lost movement exiting the tunnel.

12/4/2018 6:39:00 PM - Incident# 3087361 (0 lost trips, 5 lost minutes)

T-307

Train 125

Northbound Pico Station

Track 1

1085 1137 1123

No movement

12/5/2018 5:35:00 AM - Incident# 3085728 (1 lost trip, 177 lost minutes)

Auto Train Protection (Speed Limit) 233

T-087

Train 604

LRV (233) 245 301

Del Amo Station, Track 1, northbound.

12/5/2018 5:55:00 AM - Incident# 3085739 (1 lost trip, 182 lost minutes)

Windshield Wipers not operating 1135

T-102

Train 114

LRV 1090 1108 (1135)

Compton Station, Track 1, northbound.

12/5/2018 9:40:00 AM - Incident# 3085869 (0 lost trips, 12 lost minutes)

Auto Train Protection (Speed Limit) 1121

T-102

Train 106

LRV (1121) 1112 1103

Dominguez Flyover, Track 2, southbound.

12/6/2018 5:19:00 AM - Incident# 3086237 (0 lost trips, 6 lost minutes)

Operator reports that the windsheild wipers are not working on car @1089A.

T-495

Train#107

Cars(1089A)-1090-1108

Southbound Trk#2

Willow Station

12/6/2018 5:41:00 AM - Incident# 3086276 (2 lost trips, 334 lost minutes)

Operator reports that he had no horn nor gong.

T-087

Tr#604

Cars(247B)-230-238

Willowbrook Trk#1

Northbound

12/6/2018 5:59:00 AM - Incident# 3086259 (1 lost trip, 167 lost minutes)

Operator reports that the windsheild wipers are not working on car #1091B.

T-76

Tr#101

Cars(1091B)-1092-1097

PCH Northbound

Trk#1

12/6/2018 6:05:00 AM - Incident# 3086285 (1 lost trip, 173 lost minutes)

Operator reports of a recurring prop fault and a speed restriction on car #242B.

T-S21

Tr#117

Cars(242A)-301-237

Wardlow Trk#2

Southbound

12/6/2018 6:49:00 AM - Incident# 3086314 (1 lost trip, 173 lost minutes)

Operator reports that the windsheild wipers are not working on car #113SB.

T-26

Train#115

Cars(113SB)-1096-1116

Washington St.

Southbound Trk#2

12/6/2018 10:26:00 PM - Incident# 3086758 (1 lost trip, 167 lost minutes)

Operator reported Flats in car 1131

Train 103

(1131)-1082-1087

Artesia Station Track #2 Southbound

T-053

12/7/2018 12:45:00 PM - Incident# 3087044 (1 lost trip, 165 lost minutes)

Operator reports of friction brake faults and eventually lost air pressure.

T-164

Train#110

Cars165-162(157A)

Wardlow St.

Trk#2, Southbound

12/10/2018 12:39:00 PM - Incident# 3087925 (1 lost trip, 167 lost minutes)

on 231B.

Approaching Grand Station

Train #108, T-125, track #2, southbound.

12/10/2018 4:35:00 PM - Incident# 3088059 (1 lost trip, 167 lost minutes)

T-352 reports propulsion fault and speed restriction on train 103 lead car 249, cars 244-231-(249), Willowbrook, Track 2, Southbound.

12/13/2018 2:30:00 PM - Incident# 3089381 (0 lost trips, 20 lost minutes)

T-240.

Train #108.

(231), 236, 250

Slauson Station, Track #1, Northbound.

Door problem at Slauson Station.

12/13/2018 11:44:00 PM - Incident# 3089532 (0 lost trips, 20 lost minutes)

Car does not key on

Train 102 Plat #2 7th/Metro

T-321

(159B)-161-162

12/15/2018 4:34:00 AM - Incident# 3089947 (0 lost trips, 7 lost minutes)

Train 103 reporting ATP problems, no Cab Signals

Train 103

T-363

LRV'S (244B)-240

Yard interlocking northbound track 1

12/16/2018 4:40:00 AM - Incident# 3090204 (1 lost trip, 174 lost minutes)

Train 103 reports a propulsion fault with emergency lighting on LRV 245.

Train 103

T-521

LRV'S (245) 233-249

Del Amo Station track 1 northbound.

12/16/2018 5:37:00 PM - Incident# 3090349 (1 lost trip, 174 lost minutes)

T-433

Train 111

Washington, track 2.

Reported doors not opening.

12/17/2018 5:35:00 PM - Incident# 3090790 (1 lost trip, 167 lost minutes)

Operator T-300 operating out of car 234A had a prop fault speed restriction unable to clear caused service delays from Washington TK 2 to Willow brook Station. Consist was off loaded and pulled into Imperial Pocket.

12/18/2018 6:29:00 AM - Incident# 3090924 (1 lost trip, 167 lost minutes)

Train 118 reported a Propulsion Fault with a Speed Restriction on car 1074A

Train 118

T-521

(1074A)-1101-1077

Warlow Station, Track 1, Northbound.

12/20/2018 12:24:00 PM - Incident# 3091966 (0 lost trips, 17 lost minutes)

(1107B)-1089-1098

Doors 3+4 Unable to Close

SB Pico Station

Train 108

T-528

12/21/2018 6:29:00 AM - Incident# 3092233 (1 lost trip, 166 lost minutes)

Friction Brakes Faults when stopped

Train 603

T-110

(244A)-250-229

La Cienega Station, Track 4, Southbound

12/25/2018 4:49:00 PM - Incident# 3093608 (1 lost trip, 116 lost minutes)

Propulsion / Dynamic Brakes

Train 110

T-081

(302B)-(250)

Northbound, track 1 Willow station.

12/26/2018 5:09:00 PM - Incident# 3094004 (6 lost trips, 1,013 lost minutes)

No Movement

Train 103 T-352

Tk 1 NB

Firestone

1095-1096-1121

12/28/2018 6:14:00 AM - Incident# 3094612 (0 lost trips, 6 lost minutes)

Train 603, Cars 233, 239, & 301.

Jefferson Station, Track 4 south.

Unable to engage street run.

12/29/2018 5:07:00 AM - Incident# 3094993 (0 lost trips, 6 lost minutes)

Train 111 reports Propulsion Faults with a speed restriction on LRV 240.

Train 111

T-256

LRV'S (240) 230

Wardlow Station track 2 southbound.

12/31/2018 6:35:00 AM - Incident# 3095642 (5 lost trips, 870 lost minutes)

T-495.

Train 112.

Southbound, Track #2, Willowbrook Station.

(250), 237, 235.

T-495 reported doors would not release. Brakes wouldn't release.

Wayside Incidents:

12/1/2018 7:42:00 AM - Incident# 3084330 (0 lost trips, 10 lost minutes)

Traction Power personnel (TP-063, TP-188, TP-180) are requesting authorization to enter the ROW between Florence 2N and Imperial 2S for OCS repairs

12/5/2018 2:06:00 PM - Incident# 3086027 (0 lost trips, 20 lost minutes)

SCADA shows false occupancy from Nadeu to Willow inter locking on both tracks, Controller R-212 will issue clearance cards for ATP bypass under manual block procedures.

12/8/2018 5:11:00 PM - Incident# 3087380 (0 lost trips, 10 lost minutes)

Venice Interlocking out of correspondence.

12/22/2018 9:30:00 AM - Incident# 3092691 (0 lost trips, 10 lost minutes)

Reports of damaged section insulator on track #2 departing Willowbrook Station.

12/23/2018 3:49:00 AM - Incident# 3092850 (0 lost trips, 5 lost minutes)

Debris on the messenger wire at mile post 13.5, track#2 between Artesia Station and the interlocking (over pass).

Train#112

T#259

1078,1083,1075

Northbound, Track#1, Artesia Station

Police & Health Incidents:

12/3/2018 8:24:00 AM - Incident# 3084867 (0 lost trips, 6 lost minutes)

Male Hispanic laying on the tracks at Greenleaf Grade Crossing

Train 104

T-005

1116-1097-1123

Greenleaf Grade, Track 1, Northbound

12/3/2018 11:32:00 PM - Incident# 3085206 (2 lost trips, 334 lost minutes)

Train operator T-433 reports PIC activation of a male individual full of blood.

12/6/2018 5:35:00 PM - Incident# 3086708 (1 lost trip, 176 lost minutes)

Greenleaf Blvd/Willowbrook car on between tracks 1 and 2.

Train 111

T-307

Artesia, Track 1, northbound

12/12/2018 8:47:00 PM - Incident# 3089037 (1 lost trip, 177 lost minutes)

Passenger Assaulted on train (Medical Requested)

Train 108 Track #2 Firestone Station

T-264

1092-1072-(1103B)

12/14/2018 8:34:00 AM - Incident# 3089657 (0 lost trips, 6 lost minutes)

LASD held NB train 116 at Vernon station.

12/20/2018 4:45:00 AM - Incident# 3091777 (0 lost trips, 20 lost minutes)

Train operator (T-037) reports of a possible suicide on board her train

TYrain 103

T-037

(155)165-167

T-Mall, Trk. 1, northbound

12/23/2018 4:20:00 PM - Incident# 3092966 (1 lost trip, 116 lost minutes)

Train 103

T-428

1075,1083

Southbound Track #2

A trespasser was on the ROW at 7th and Metro with a blanket, blue clothing, female.

12/24/2018 11:06:00 AM - Incident# 3093260 (0 lost trips, 7 lost minutes)

Operator T-76 reported a male experiencing a seizure at the Willow Station.

12/27/2018 4:34:00 AM - Incident# 3094109 (0 lost trips, 10 lost minutes)

T-363 reported a trespasser lying in between tracks 1 and 2 South of 103rd Street Station (0.86).

T-363

Train 105

(1097)-1116-1082

Northbound, Track 1

103rd Street Station

12/29/2018 5:15:00 PM - Incident# 3095187 (0 lost trips, 35 lost minutes)

Nude female patron on train

Train 115

T-400

242,(245)

Grand station, track 2, southbound.

12/31/2018 10:52:00 AM - Incident# 3095580 (0 lost trips, 5 lost minutes)

Law enforcement looking for a gun

LASD: Berogge

Greenleaf/ Wilmington

Other Incidents:

12/11/2018 9:17:00 AM - Incident# 3088268 (3 lost trips, 500 lost minutes)

Fire: Other (Fire at home located across from Anaheim Station, fire hose blocking track 1.)

12/16/2018 4:23:00 AM - Incident# 3090197 (0 lost trips, 7 lost minutes)

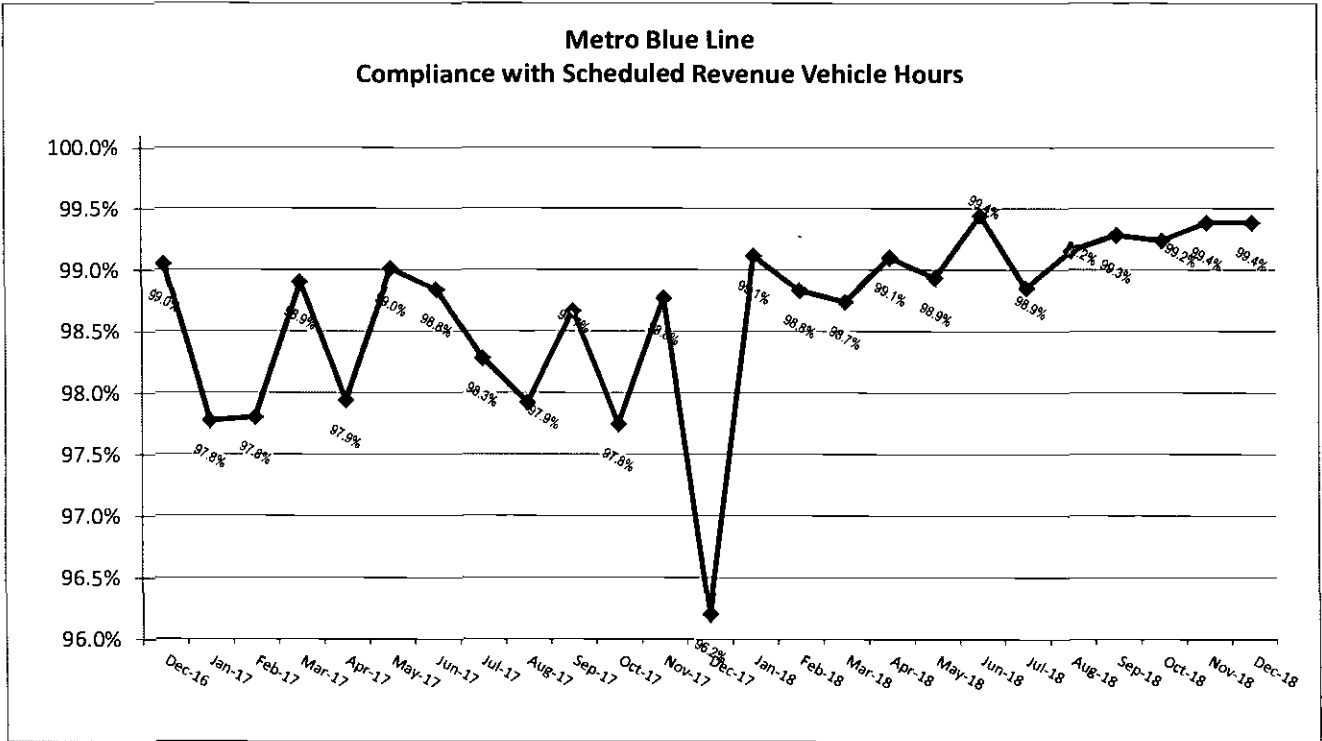
Train 103 pull-out late 7 minutes due to a missout from the original operator (T-363).

12/30/2018 4:04:00 AM - Incident# 3095247 (2 lost trips, 348 lost minutes)

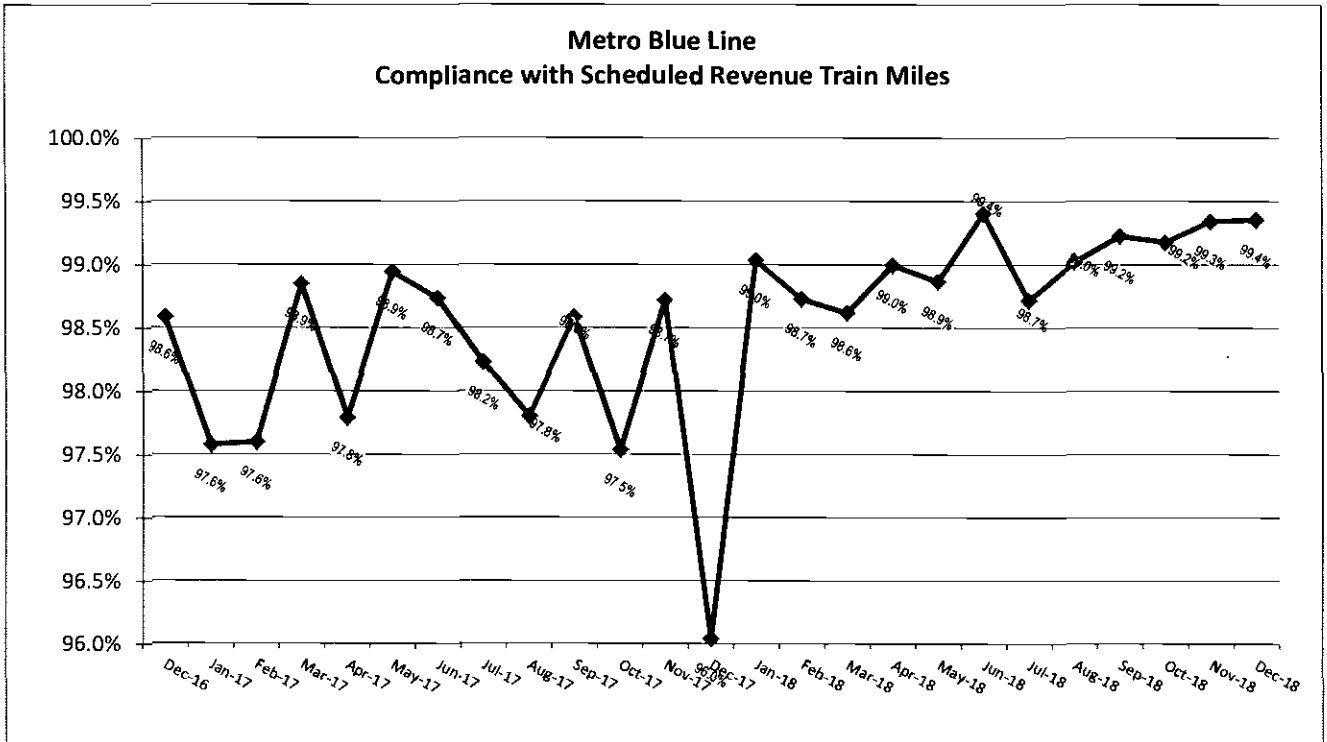
Yard Control notifies ROC of no manpower for Alpha G.

MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

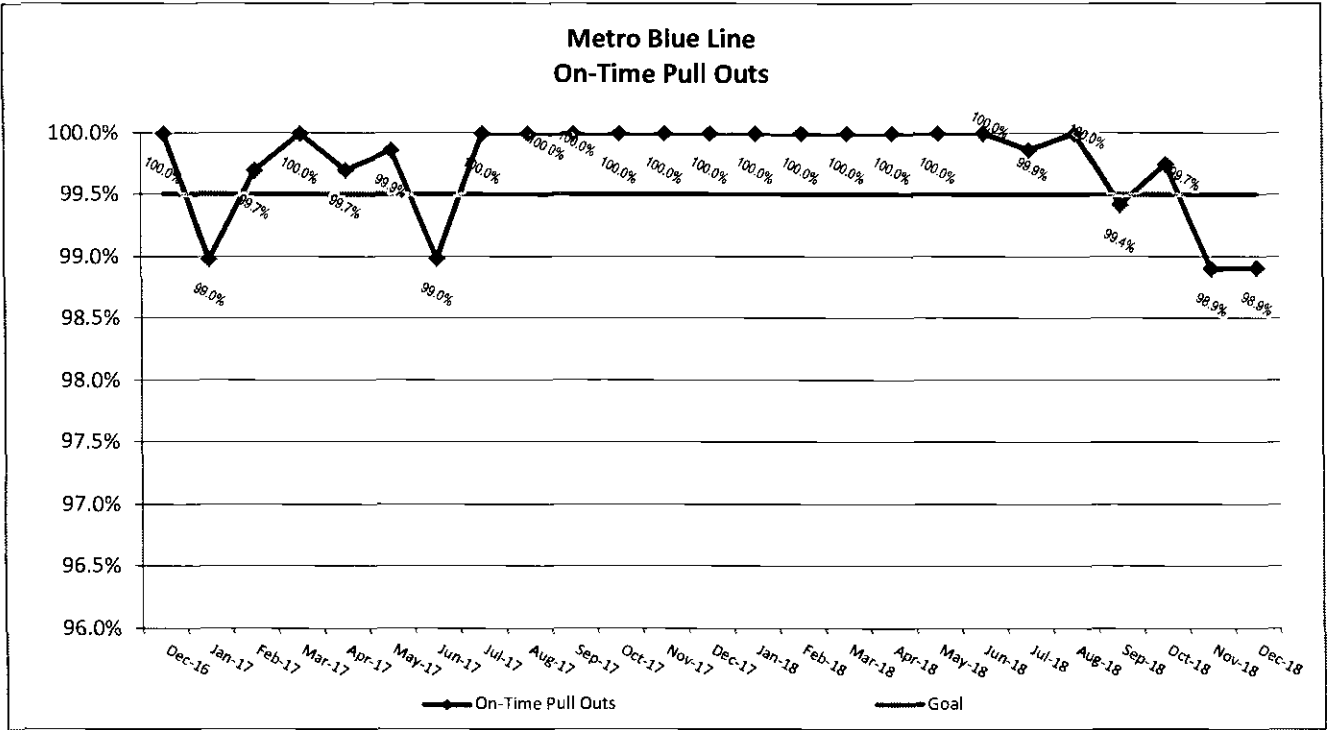
COMPLIANCE WITH SCHEDULED VEHICLE HOURS



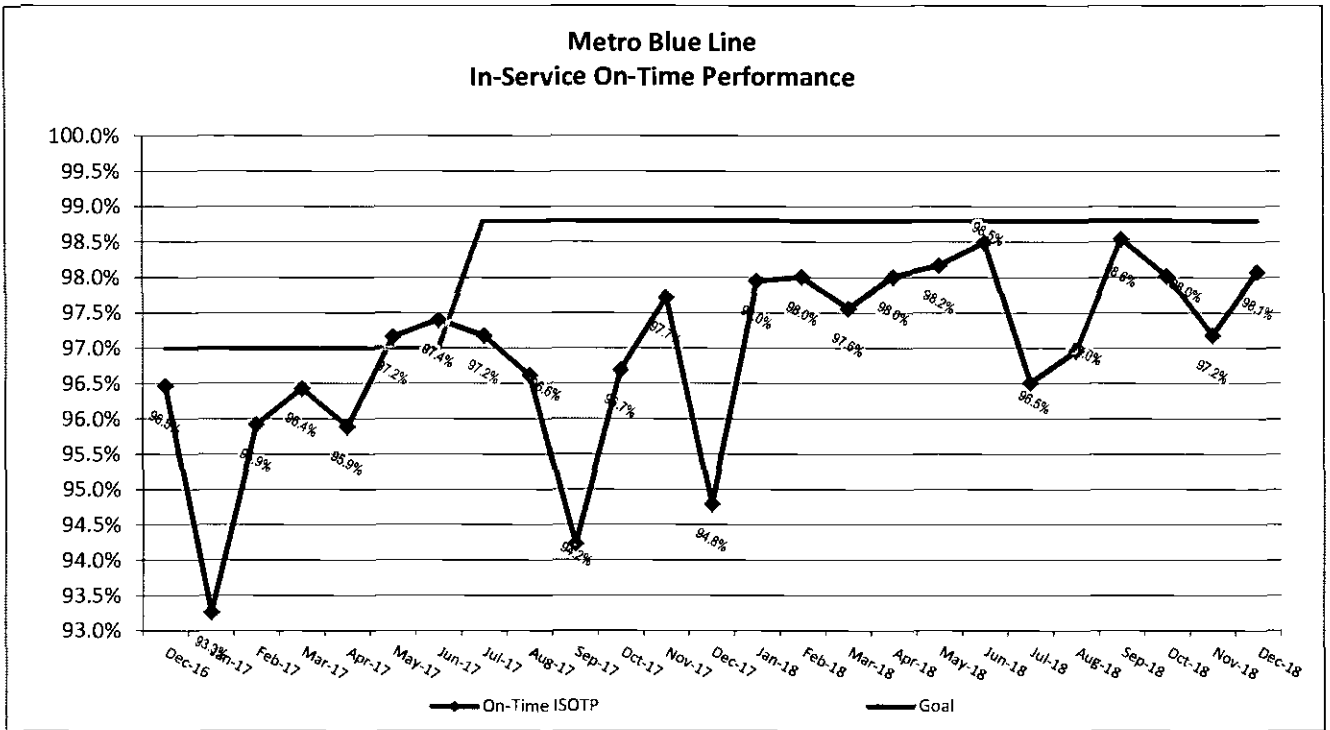
COMPLIANCE WITH SCHEDULED TRAIN MILES



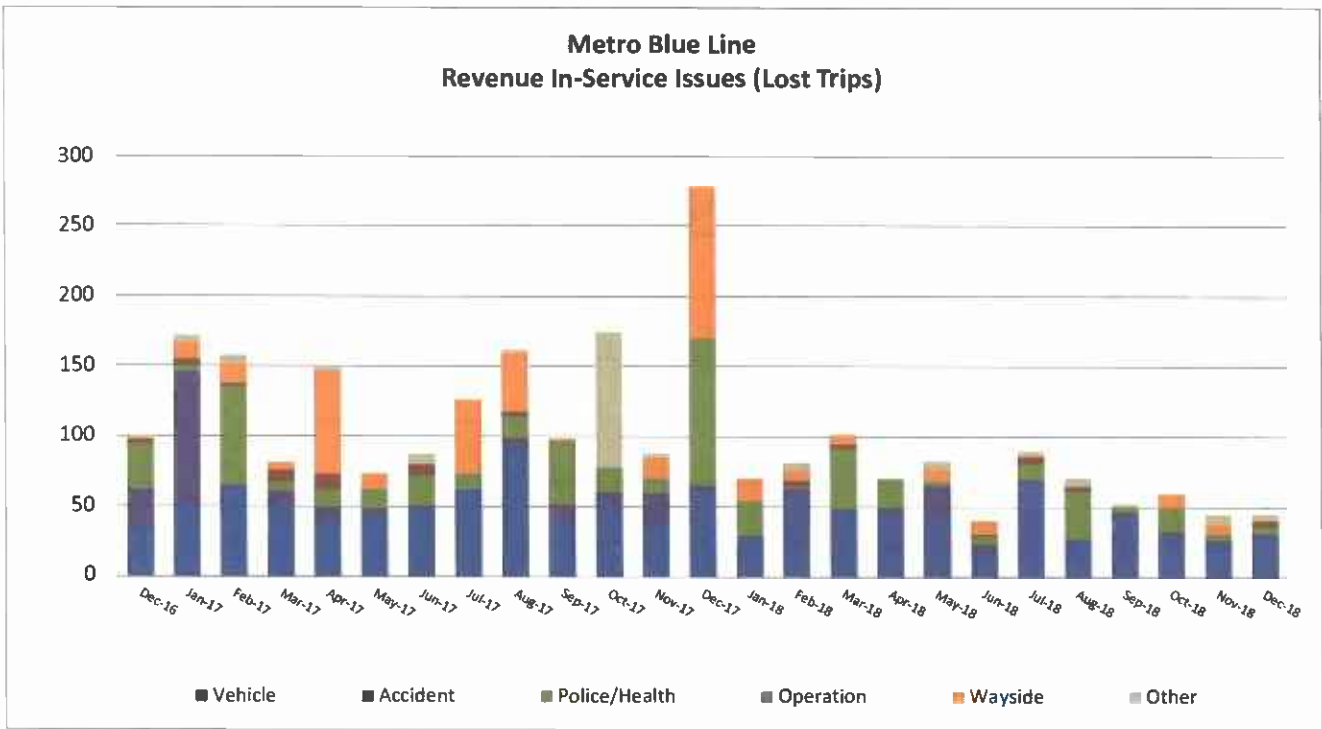
ON-TIME PULL OUTS



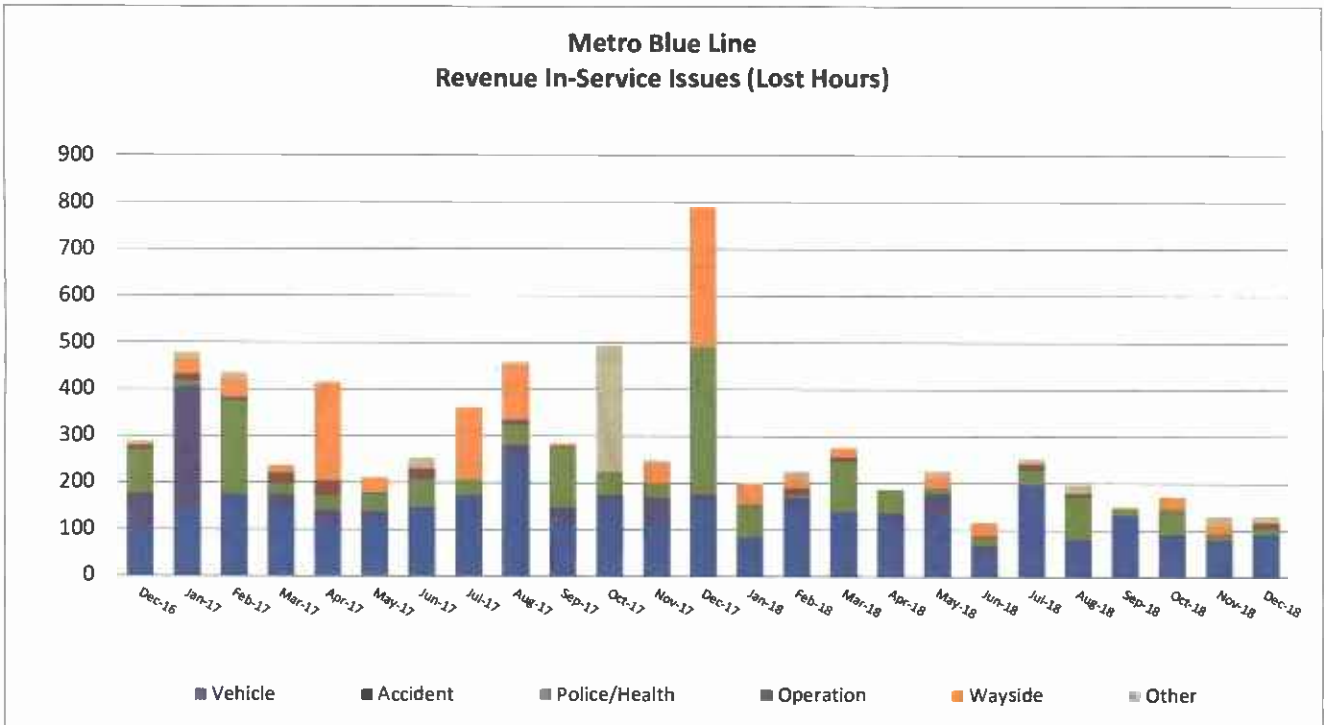
IN-SERVICE ON-TIME PERFORMANCE CHART



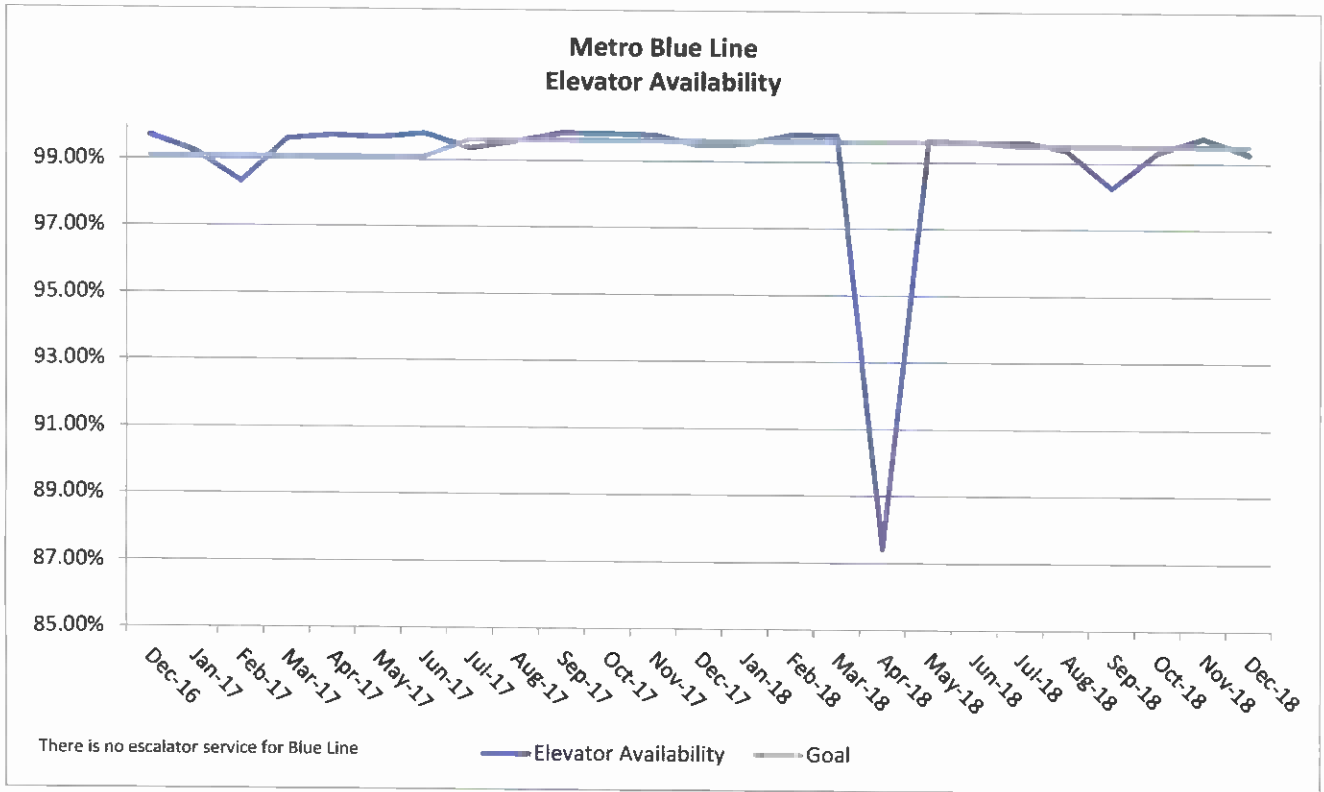
LOST TRIPS



LOST HOURS



VERTICAL TRANSPORTATION AVAILABILITY



RED LINE

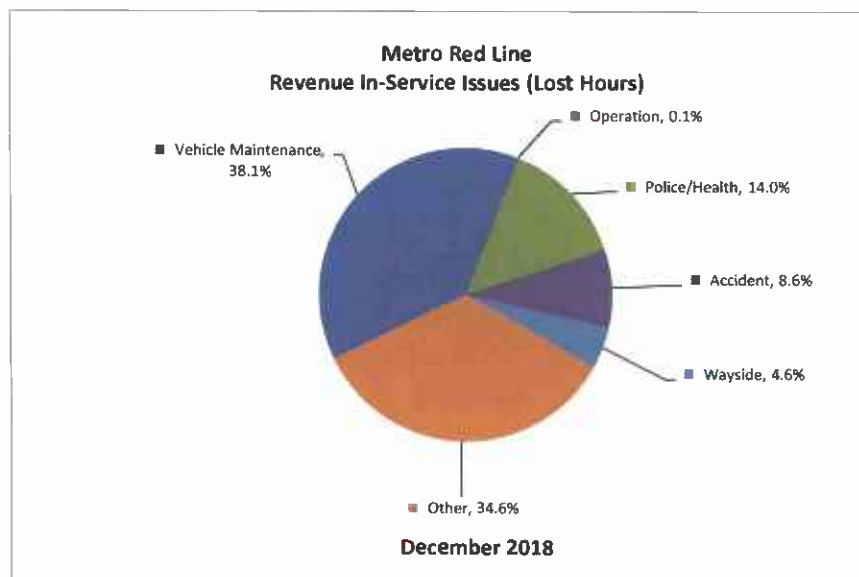
Out of a total of 27,014 hours operated, there were approximately 62 total hours of service delays.

December 2018 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	26,952	99.8%
Cancelled + Delayed Hours	62	0.2%
Total Revenue Hours	27,014	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	1	0.1	0.1%
Accidents	2	5.3	8.6%
Vehicle Maintenance	10	23.6	38.1%
Wayside	2	2.9	4.6%
Police & Health	8	8.6	14.0%
Other	5	21.4	34.6%
Total	28	61.9	100.0%

* Data from M3 used to report Service Delays is under review for accuracy

The number of incidents on the following page may differ from the summary count due to some incidents not properly designated as cancelled or delayed



December 2018 Red Line incidents causing delay were as follows:

Operations Incidents:

12/14/2018 3:23:00 PM - Incident# 3089825 (0 lost trips, 5 lost minutes)

Union Station operator request 10-100, causing a service delay of 5 minutes.

Accidents:

12/14/2018 5:00:00 PM - Incident# 3089878 (1 lost trip, 169 lost minutes)

10-72 Accident male patron jumps from the platform into the path of train #214. Cars #(563)564-591-592-539-540.

12/28/2018 10:27:00 PM - Incident# 3094961 (1 lost trip, 151 lost minutes)

Operator T-199 reported a 10-72 Civic Center AR Westbound.

Vehicle Maintenance Incidents:

12/1/2018 11:12:00 AM - Incident# 3084377 (0 lost trips, 3 lost minutes)

Doors 8,10 out of alignment on Train 207

T-500, Train 207

AR, Union Station

567-568-591-(592)

12/6/2018 5:23:00 AM - Incident# 3086233 (0 lost trips, 8 lost minutes)

Doors on car 548 did not open

Train 211

T-175

Hollywood Western AL East

547-(548)-561-562-583-584

12/6/2018 5:16:00 PM - Incident# 3086690 (2 lost trips, 298 lost minutes)

Tran unable to proceed west from Union Station due to ATP failure.

Train 202, car 561.

T-3.

12/6/2018 7:41:00 PM - Incident# 3086722 (1 lost trip, 149 lost minutes)

Auxiliary Power failure car # 520

Universal City Station AL East

T-172 Train 218

Car # 529-(520)-521-530-515-516

12/9/2018 9:39:00 AM - Incident# 3087504 (0 lost trips, 8 lost minutes)

Train 205 reports emerg. brakes will not release

T329, Train 205

AR, West, Union

513-514-523-(528)

12/17/2018 7:09:00 AM - Incident# 3090469 (0 lost trips, 8 lost minutes)

Doors will not close on entire consist

Train 208

T-175

Cars (591)-592-539-540

Union Station AL West

12/18/2018 3:00:00 PM - Incident# 3091169 (0 lost trips, lost minutes)

Operator T-319 reports a spark on the last car of train 206 as it was entering the Station. 7th Metro Center.

12/20/2018 7:40:00 AM - Incident# 3091854 (0 lost trips, 11 lost minutes)

T-175

Train 202

Operator reports having flashing cab signals while attempting to depart eastbound. The consist needed EMO to regain movement.

Wilshire Western BR east

549, 550, 599, (600)

12/21/2018 7:50:00 AM - Incident# 3092264 (0 lost trips, 12 lost minutes)

Train 204 reports door problem @ HH

T-483, Train 204

AL, East, HH

591-592-567-568-(549)-550

12/21/2018 5:31:00 PM - Incident# 3092531 (2 lost trips, 301 lost minutes)

T-172 Operating Train# 219 has Flashing Cab Signals in Lead car# 602 Departing Universal City Station AL Track E/B. EMO Authorized with Clearance Card.

Cars :- 537-538-561-562-601-602.

12/27/2018 7:55:00 AM - Incident# 3094229 (4 lost trips, 618 lost minutes)

Train 201 T-155 experienced a no movement fault.

Wayside Incidents:

12/13/2018 12:15:00 PM - Incident# 3089307 (1 lost trip, 161 lost minutes)

ETS RN37B-HW and RN39B-HW Loop Fail, open breakers D03 / D05. Hollywood Western and Vermont Sunset TPSS.

12/13/2018 5:40:00 PM - Incident# 3089469 (0 lost trips, 11 lost minutes)

TRAC5-8 indicate false occupancy at AR track circuit 383 and 398.

Police & Health Incidents:

12/1/2018 8:20:00 AM - Incident# 3084337 (0 lost trips, 6 lost minutes)

T-371

Train 205

Operator reports seeing a male trespasser before entering Hollywood Vine station AL.

585, 586, 573, 574

12/5/2018 1:50:00 PM - Incident# 3086035 (0 lost trips, 13 lost minutes)

Trespasser on the right of way Pershing Square A/R Track.

12/5/2018 7:18:00 PM - Incident# 3086134 (1 lost trip, 149 lost minutes)

Train #215 Cars #569-570-(571)-572-559-560, male patron slips and falls on board.

12/6/2018 1:11:00 PM - Incident# 3086524 (0 lost trips, lost minutes)

Passenger on Train 209, car 577 reports his luggage stolen.

12/8/2018 12:09:00 PM - Incident# 3087284 (0 lost trips, 10 lost minutes)

7th Street Metro Center AR-W

African American Female (unknown name and address)

Seizure / non responsive

Rescue Engine #9 /Transported to County Hospital

Train #204 Car #581

Consist (581),582,603,604

LAFD Dispatcher #131 / LAFD Incident #600

12/9/2018 11:55:00 AM - Incident# 3087531 (0 lost trips, 12 lost minutes)

Wilshire Western Station BR-W

Wheelchair Patron fell out of his wheelchair due to the condition of his wheelchair (broken wheels)

Patron only known as "Randy", unknown last name and address.

LAFD Incident #684/ LAFD Dispatcher #68/ Engine #21/ RA829

12/14/2018 7:00:00 AM - Incident# 3089615 (0 lost trips, 5 lost minutes)

Train operator reports of a male black (NFD) wearing a scarf with no clothes

12/16/2018 10:45:00 PM - Incident# 3090382 (1 lost trip, 174 lost minutes)

SCADA indicates ETS tripped RN33 and RN31 with open breakers D05 and D03.

12/17/2018 6:19:00 PM - Incident# 3090783 (1 lost trip, 149 lost minutes)

Train 214 reported a man with a shot gun on board.

12/27/2018 7:56:00 AM - Incident# 3094202 (0 lost trips, lost minutes)

Union Station Platform AL-W

Train #203 Consist (533),534,567,568

African American Female (transient) brandishing a knife in Car#533.

Transit Security and LAPD were dispatched to Union Station.

Suspect was escorted from the train by LAPD.

Other Incidents:

12/18/2018 9:48:00 AM - Incident# 3091020 (2 lost trips, 321 lost minutes)

Trespasser activated the deluge system on the AR East at Hollywood Vine Station. ETS trip RN57 active

12/19/2018 3:00:00 PM - Incident# 3091611 (0 lost trips, 12 lost minutes)

T-15 reports female trespasser jumped down onto the tracks on the AL track at North Hollywood Station and is running down the ROW.

12/22/2018 3:18:00 AM - Incident# 3092610 (0 lost trips, 7 lost minutes)

ROC did not receive an intrusion alarm for trespasser inside of CP 24. The motion sensor camera image appeared 0318 hours inside CP 24. CP 24 is east of Vermont Santa Monica Station. LAPD, Metro Security and S-20 were dispatched. CCTV notified.

12/24/2018 8:10:00 PM - Incident# 3093439 (4 lost trips, 597 lost minutes)

SCADA indicates loss of control power, RTU is down.

12/31/2018 11:05:00 AM - Incident# 3095678 (2 lost trips, 348 lost minutes)

There was no train operator at 7th Metro Ctr. for the scheduled departure of train 202 from Union Station at 1105 Hrs.

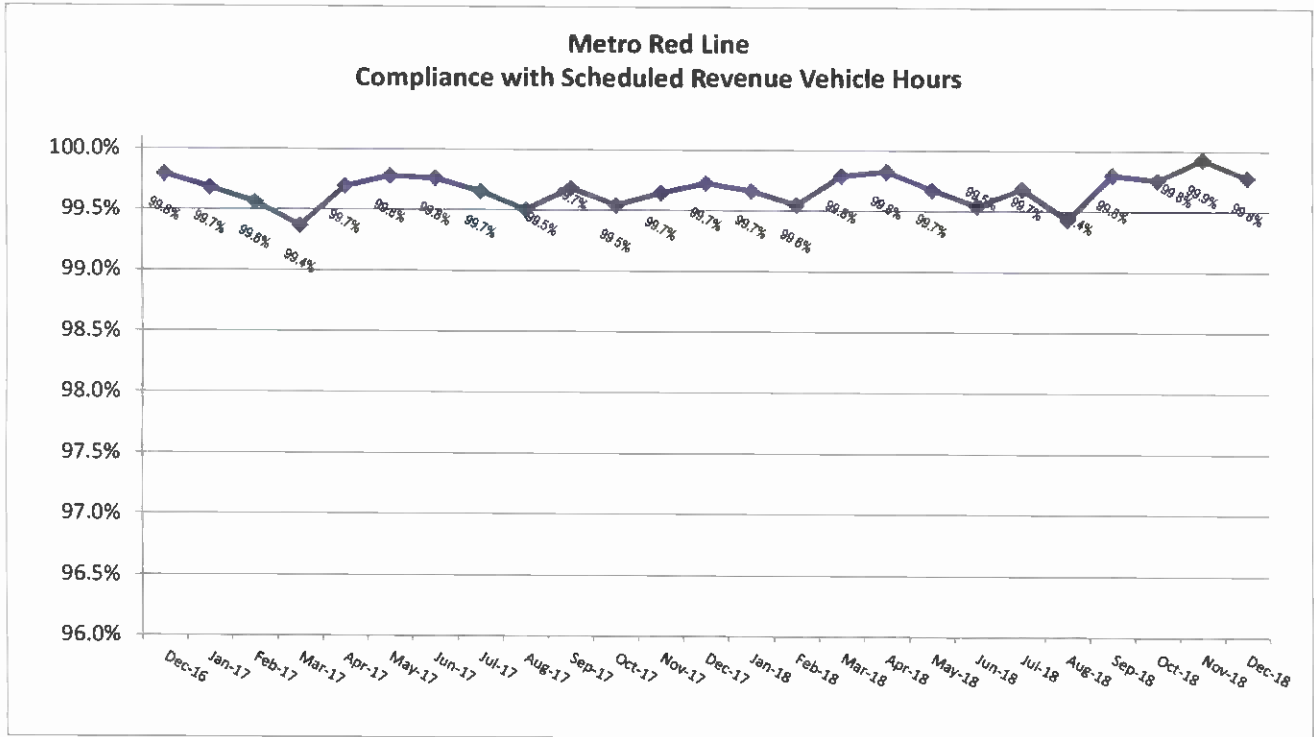
Train 202

T-138

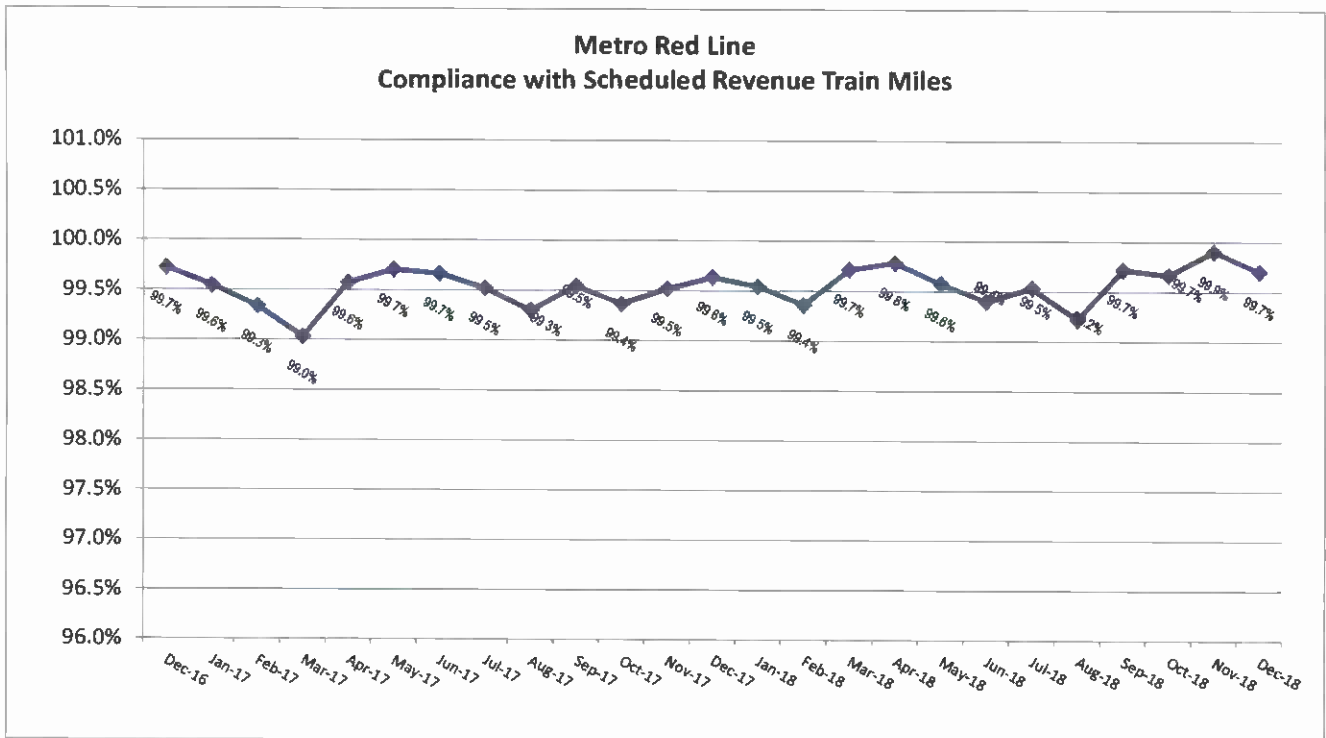
Union Station, AR, Westbound

MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

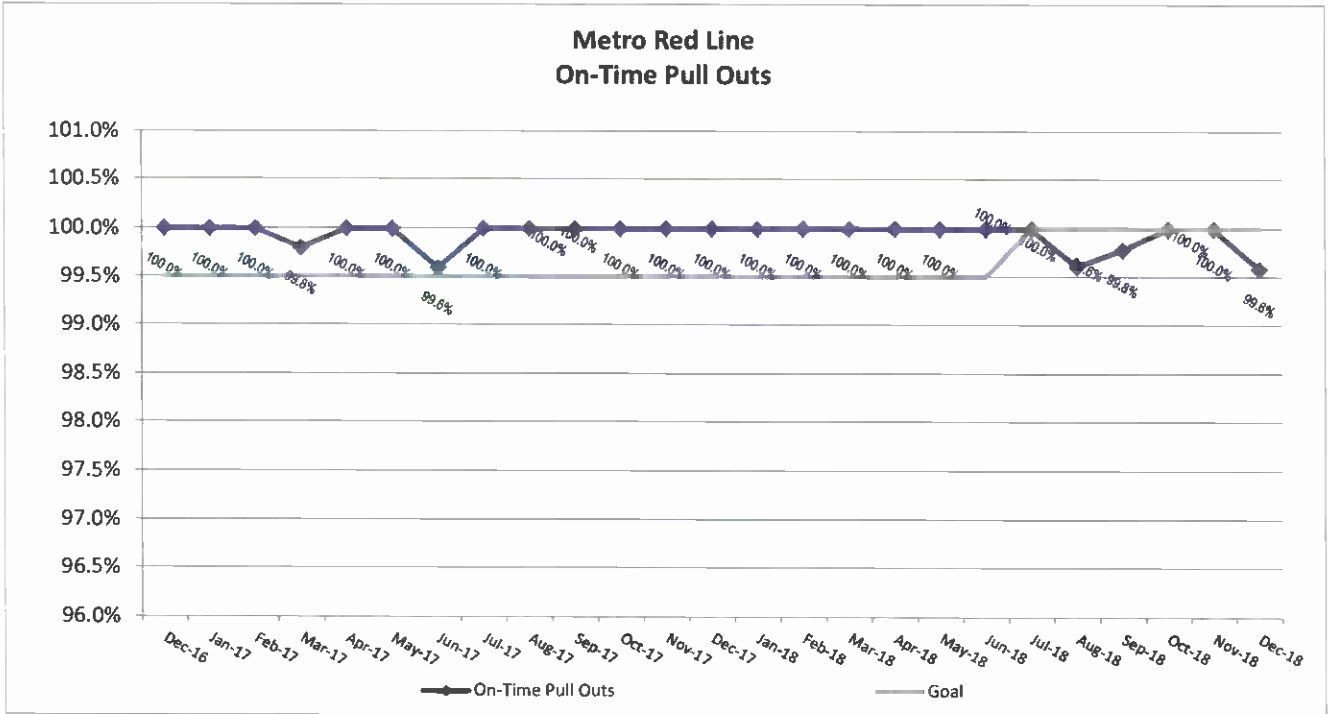
COMPLIANCE WITH SCHEDULED VEHICLE HOURS



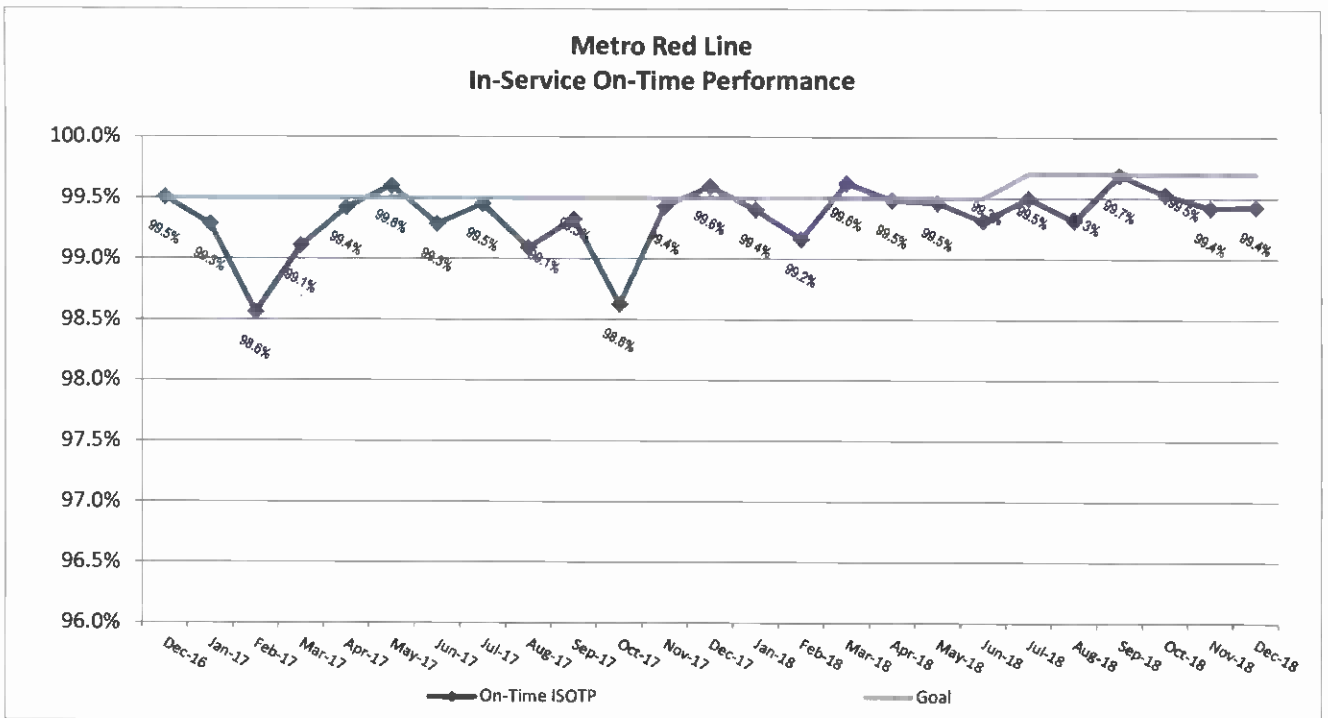
COMPLIANCE WITH SCHEDULED TRAIN MILES



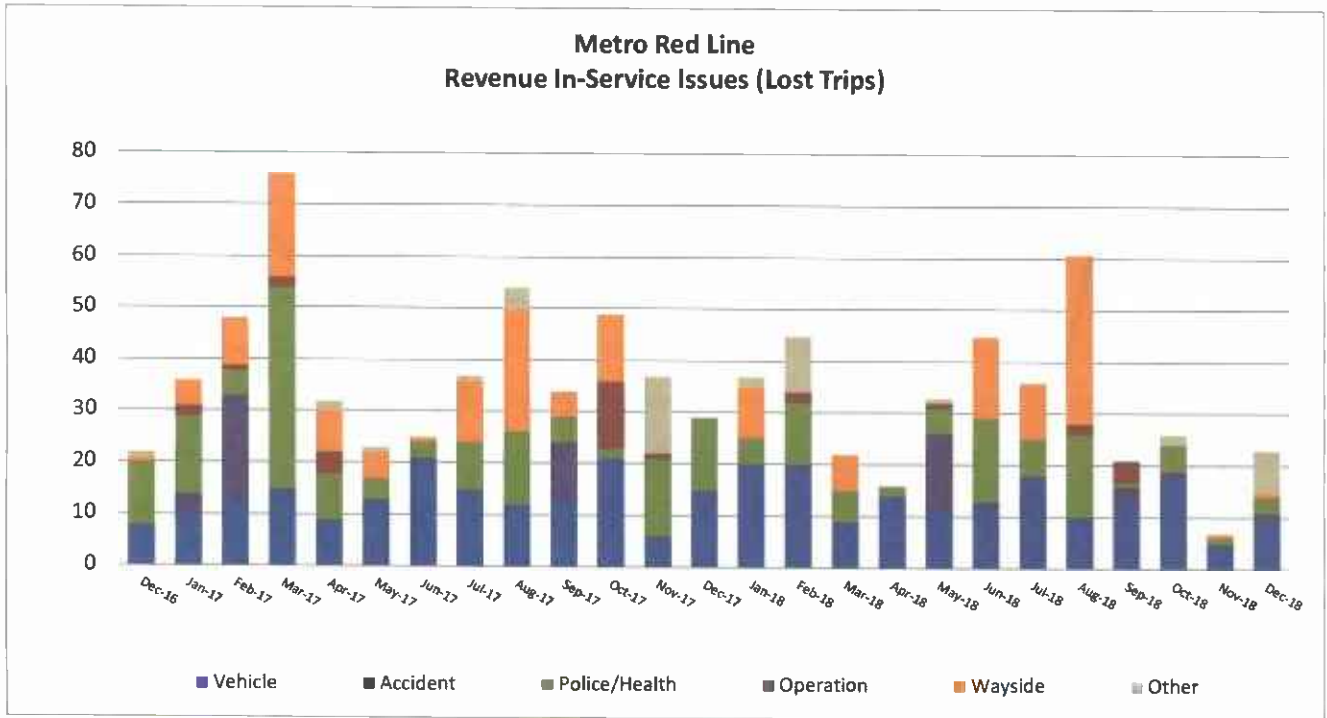
ON-TIME PULL OUTS



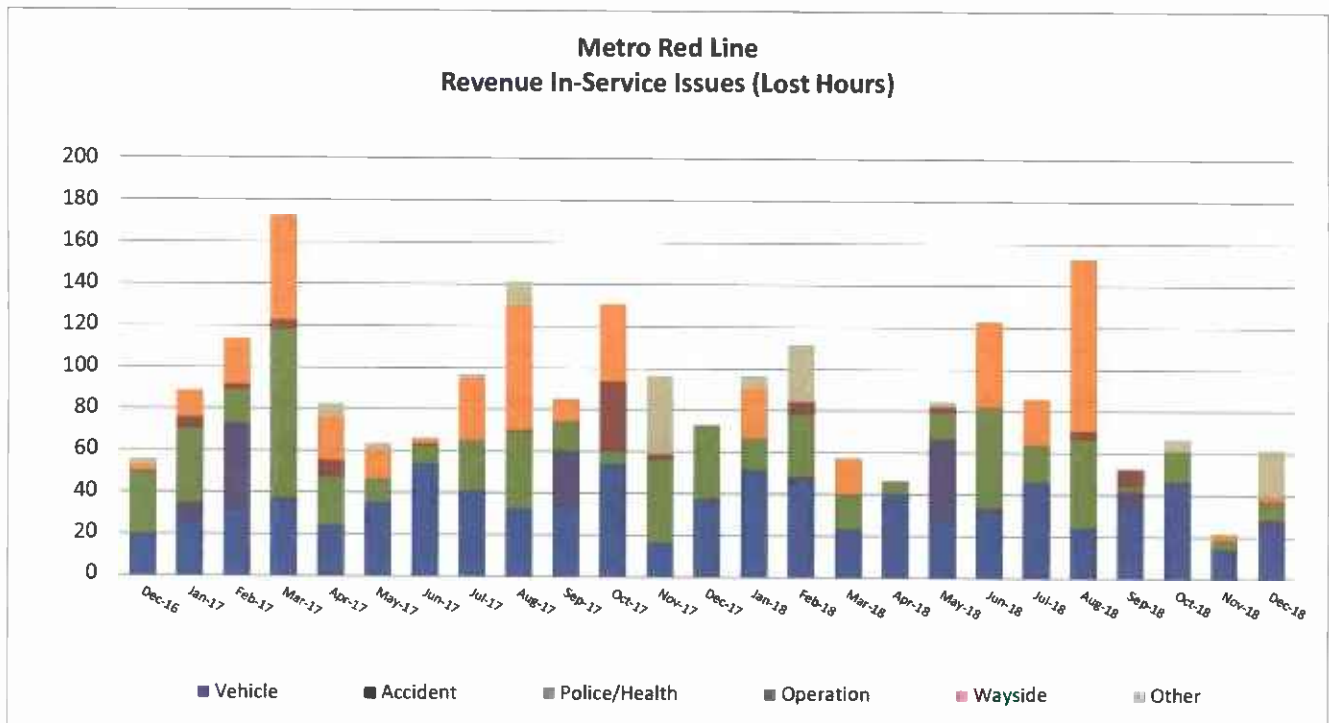
IN-SERVICE ON-TIME PERFORMANCE



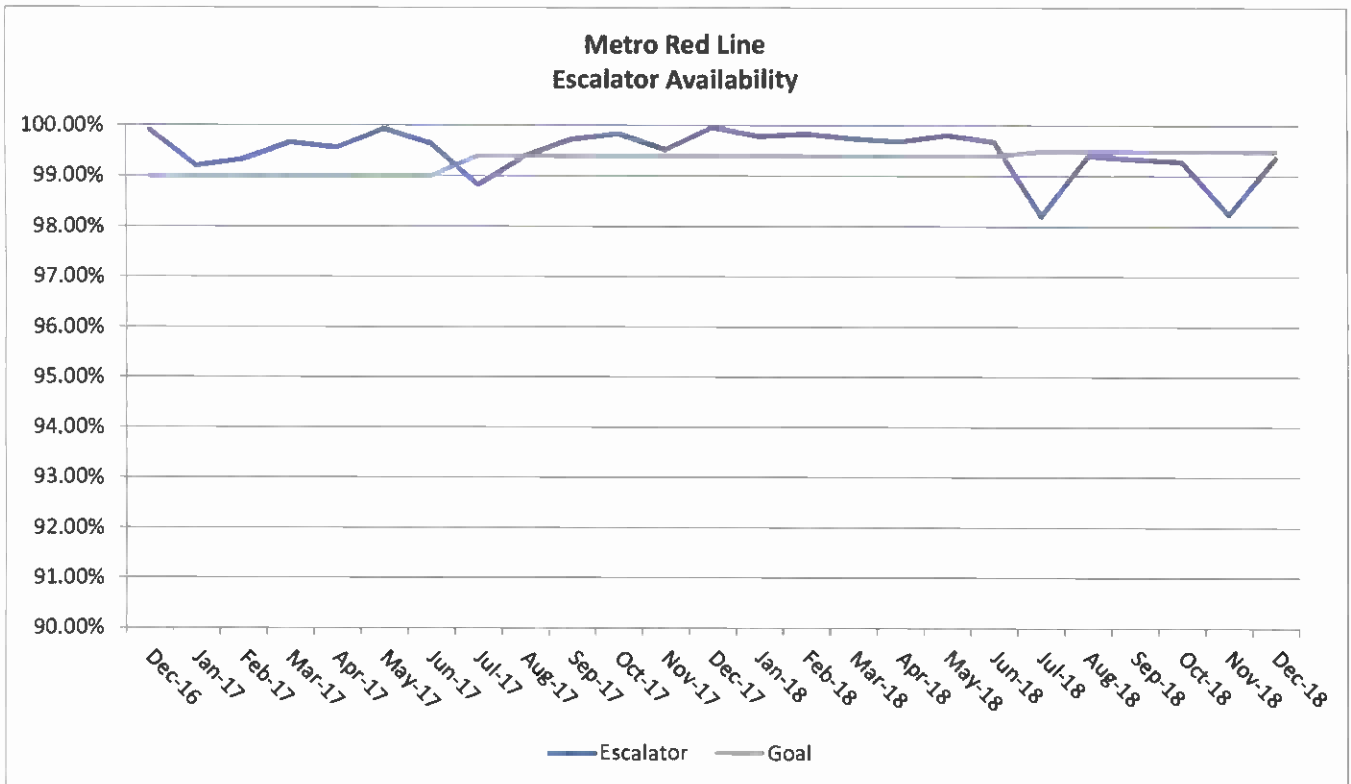
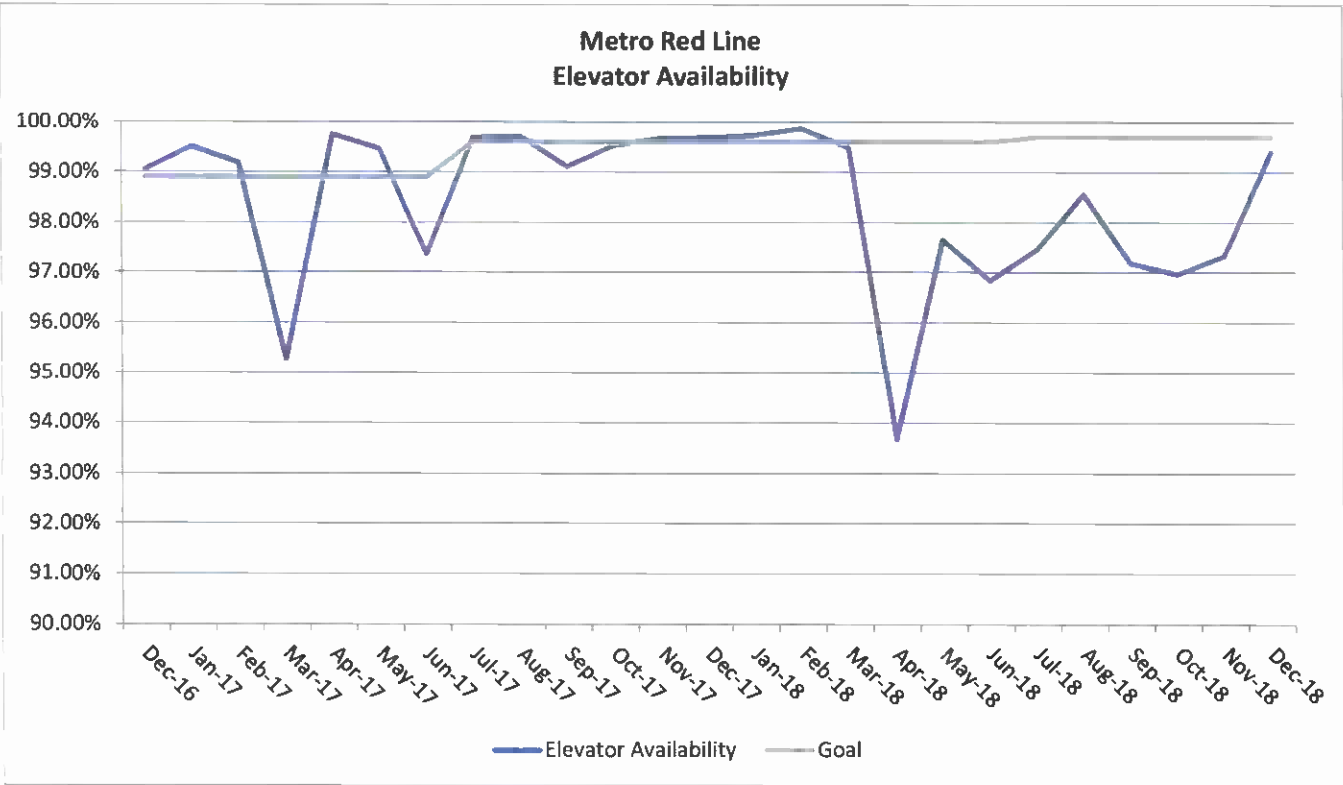
LOST TRIPS



LOST TRIPS



VERTICAL TRANSPORTATION AVAILABILITY



GREEN LINE

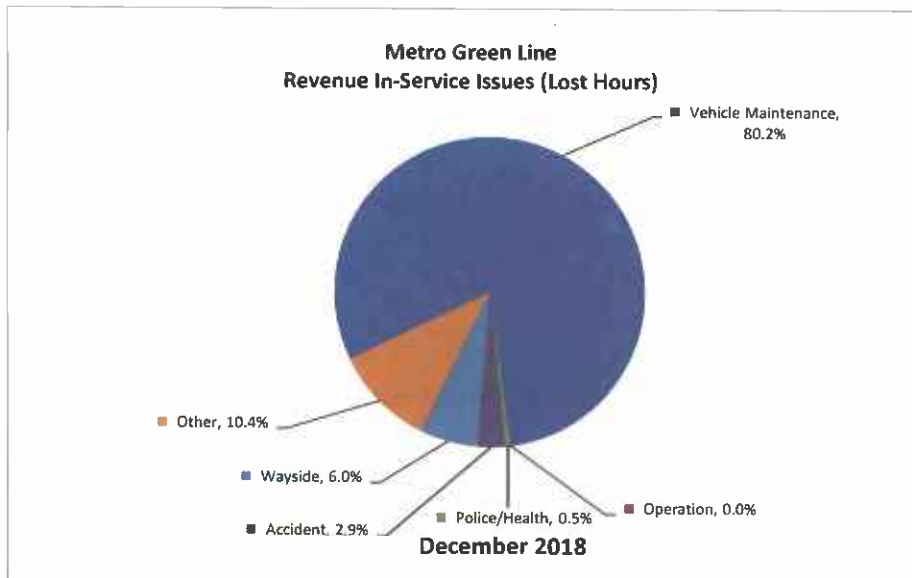
Out of a total of 9,465 hours operated, there were approximately 37 total hours of service delays.

December 2018 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	9,428	99.6%
Cancelled + Delayed Hours	37	0.4%
Total Revenue Hours	9,465	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	0	0.0	0.0%
Accidents	1	1.1	2.9%
Vehicle Maintenance	21	30.0	80.2%
Wayside	2	2.2	6.0%
Police & Health	2	0.2	0.5%
Other	3	3.9	10.4%
Total	29	37.4	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 2018 Green Line incidents causing delay were as follows:

Operations Incidents: (none for December 2018)

Accidents:

12/10/2018 10:59:00 PM - Incident# 3088141 (1 lost trip, 66 lost minutes)

Train vs. trash can

12/15/2018 10:57:00 PM - Incident# 3090168 (0 lost trips, lost minutes)

Train vs. Object/ Shopping cart

Train # 341, T-294

Car # 215B

Lakewood Station, Track # 2

EastBound

Vehicle Maintenance Incidents:

12/2/2018 1:01:00 PM - Incident# 3084618 (0 lost trips, 10 lost minutes)

Radio: not receiving LRV 219B

T-491

Train 342

LRV (219B) 222

Long Beach Station, Track 2, eastbound.

12/3/2018 4:43:00 AM - Incident# 3084758 (0 lost trips, 3 lost minutes)

Train 345, Cars (1144-1142) .

Marine Station, Platform 1 east.

Doors will not open.

12/3/2018 5:25:00 AM - Incident# 3084767 (1 lost trip, 66 lost minutes)

Train 344 Cars 219 and (223)

Long Beach Station, Track 1 west.

Doors will not open.

12/4/2018 6:59:00 AM - Incident# 3085320 (0 lost trips, 8 lost minutes)

T-141

Train 342

Track 1 westbound from Norwalk.

No cab signal, unable to engage Stop and Proceed.

12/6/2018 5:41:00 AM - Incident# 3086260 (2 lost trips, 139 lost minutes)

Emergency Braking/No ATP/ Unable to open doors

Train 345

T-068

(1145A)-1150

Avalon Station, Track 1, Westbound

12/7/2018 5:33:00 AM - Incident# 3086834 (1 lost trip, 72 lost minutes)

Train 337 proceeded onto the mainline five minutes late, due to propulsion faults with speed restrictions.

12/10/2018 5:35:00 AM - Incident# 3087711 (1 lost trip, 66 lost minutes)

Door open by them selves after berthing.

Train 332 T-269 (1150A) 1149

Eastbound Hawthorne Station

12/11/2018 4:42:00 AM - Incident# 3088197 (0 lost trips, 3 lost minutes)

Train 345, Cars 217 & 227.

Marine Station, Platform 1 east.

Unclearable prop fault.

12/11/2018 10:10:00 PM - Incident# 3088573 (0 lost trips, 10 lost minutes)

Train Delay

12/12/2018 5:05:00 AM - Incident# 3088648 (2 lost trips, 132 lost minutes)

T-183 experienced re-occurring propulsion faults.

Train 336

cars (214-205)

12/12/2018 8:33:00 AM - Incident# 3088767 (1 lost trip, 66 lost minutes)

Car 1148 no cab signal.

12/13/2018 3:18:00 PM - Incident# 3089417 (2 lost trips, 132 lost minutes)

(227A)-221

Propulsion Fault w/ Speed Restriction

EB at Aviation

Train 355

T-396

12/20/2018 7:28:00 AM - Incident# 3091852 (1 lost trip, 66 lost minutes)

Bank of Door not opening

Train 332

T-269

(1150A)-1144

Wilmington Station, Track 1, Westbound

12/21/2018 2:18:00 PM - Incident# 3092456 (1 lost trip, 65 lost minutes)

Reported door problem, doors unable to close on car 208.

T-183

Train 336

Cars (208), 224

Hawthorne station, track 2, eastbound.

12/22/2018 5:08:00 AM - Incident# 3092628 (1 lost trip, 63 lost minutes)

Train operator T-105 reports HSCB Trip on train 332.

Train 332

T-105

Cars (224)-218

El Segundo Station, Track 2, eastbound.

12/27/2018 7:44:00 AM - Incident# 3094200 (8 lost trips, 529 lost minutes)

Loss of cab signal and emergency braking when coming into and berthing at stations.

Train 345

T-105

(1145), 1146

Long Beach Station, eastbound, Track 2.

12/29/2018 9:04:00 AM - Incident# 3095061 (0 lost trips, 5 lost minutes)

Auto Train Protection (Speed Limit), (227A)-226

Train #332

T-344

1000 feet Lakewood Station, track #1, Westbound.

12/30/2018 1:05:00 PM - Incident# 3095351 (1 lost trip, 65 lost minutes)

No movement on train 332.

12/31/2018 3:55:00 AM - Incident# 3095477 (1 lost trip, 78 lost minutes)

Re occurring ATP faults And Door Problems

Train 332

T-55

(1141a)1145

Douglas, Harbor and Wilmington Station

12/31/2018 6:40:00 AM - Incident# 3095523 (0 lost trips, lost minutes)

Friction Brake fault

Train 344

T-409

Car (206A) 204

Wilmington Station West bound

12/31/2018 10:16:00 AM - Incident# 3095675 (2 lost trips, 151 lost minutes)

T-177 reports no movement with a door fault on train 334 cars 1148-1147. Aviation, Track 2, Eastbound.

12/31/2018 5:55:00 PM - Incident# 3095842 (1 lost trip, 68 lost minutes)

Train 332

T-247

Westbound at Norwalk

Track #2

(226A), 213

Operator stated he did not have movement and the codes in the locker would not clear.

Wayside Incidents:

12/5/2018 5:50:00 PM - Incident# 3086114 (0 lost trips, 5 lost minutes)

Aviation East Interlocking, Signal Local Exit Inhibit Invoked

12/9/2018 1:19:00 PM - Incident# 3087556 (2 lost trips, 129 lost minutes)

A04 at Hawthorned yard is open.

Police & Health Incidents:

12/6/2018 11:07:00 PM - Incident# 3086761 (0 lost trips, 6 lost minutes)

Sick Individual

Train 356

T-294

(227B)-222

Marine station, Track 2 Eastbound.

12/29/2018 1:31:00 PM - Incident# 3095118 (0 lost trips, 5 lost minutes)

doors held opened: a possibel fight on board the train, cars #(203B)-223

Train #334

T-394

Avalon Station, track #1, Westbound.

Other Incidents:

12/4/2018 6:25:00 AM - Incident# 3085295 (0 lost trips, 5 lost minutes)

CCTV observer R-40S observed a patron that had collapsed by the elevator on the Aviation Station platform.

12/5/2018 12:50:00 PM - Incident# 3086006 (3 lost trips, 204 lost minutes)

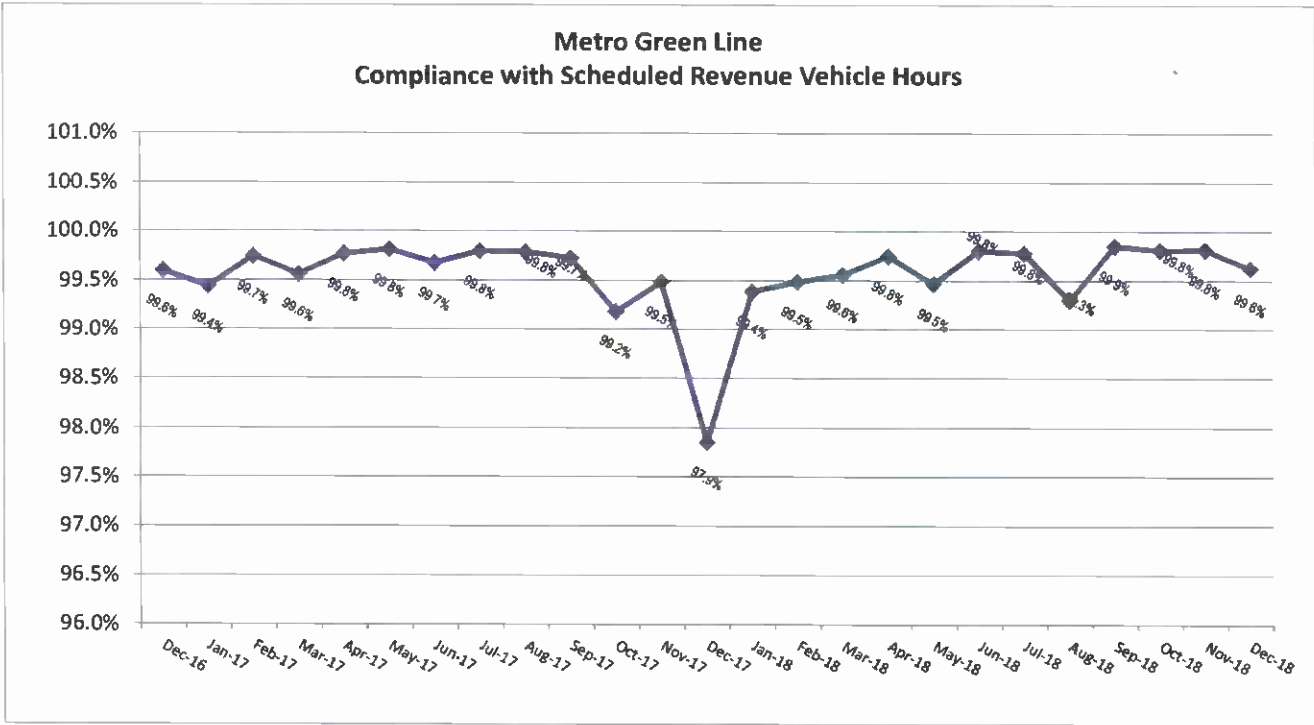
Power Outtage as per DWP.

12/8/2018 6:48:00 PM - Incident# 3087384 (0 lost trips, 25 lost minutes)

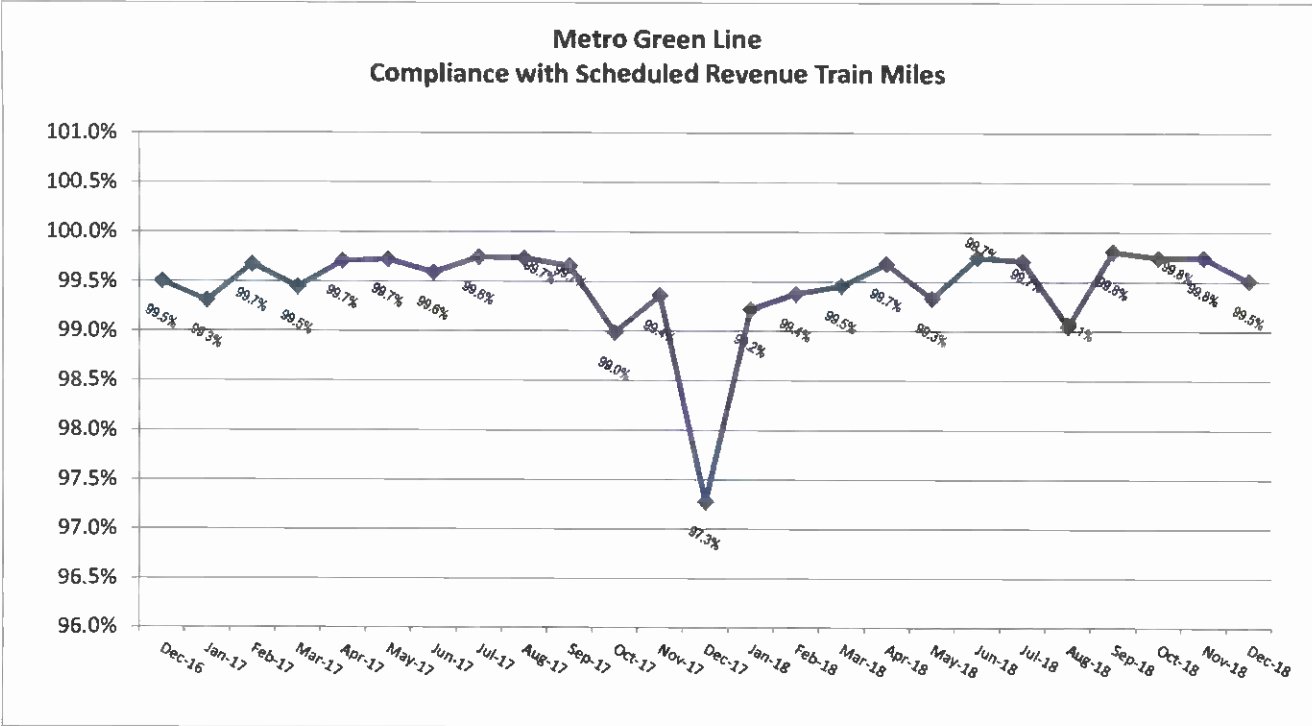
Train 332 was delayed due to a african american female wearing yellow was holding the doors at several stations.

MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

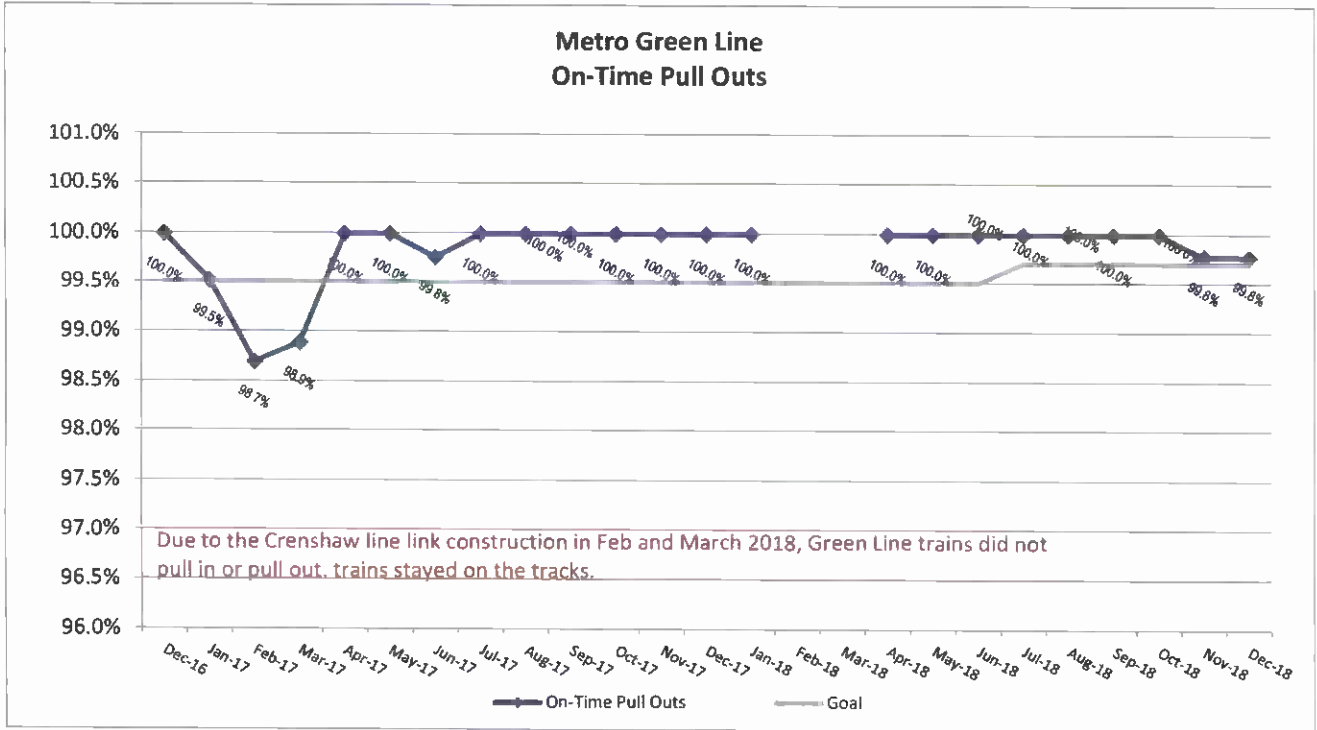
COMPLIANCE WITH SCHEDULED VEHICLE HOURS



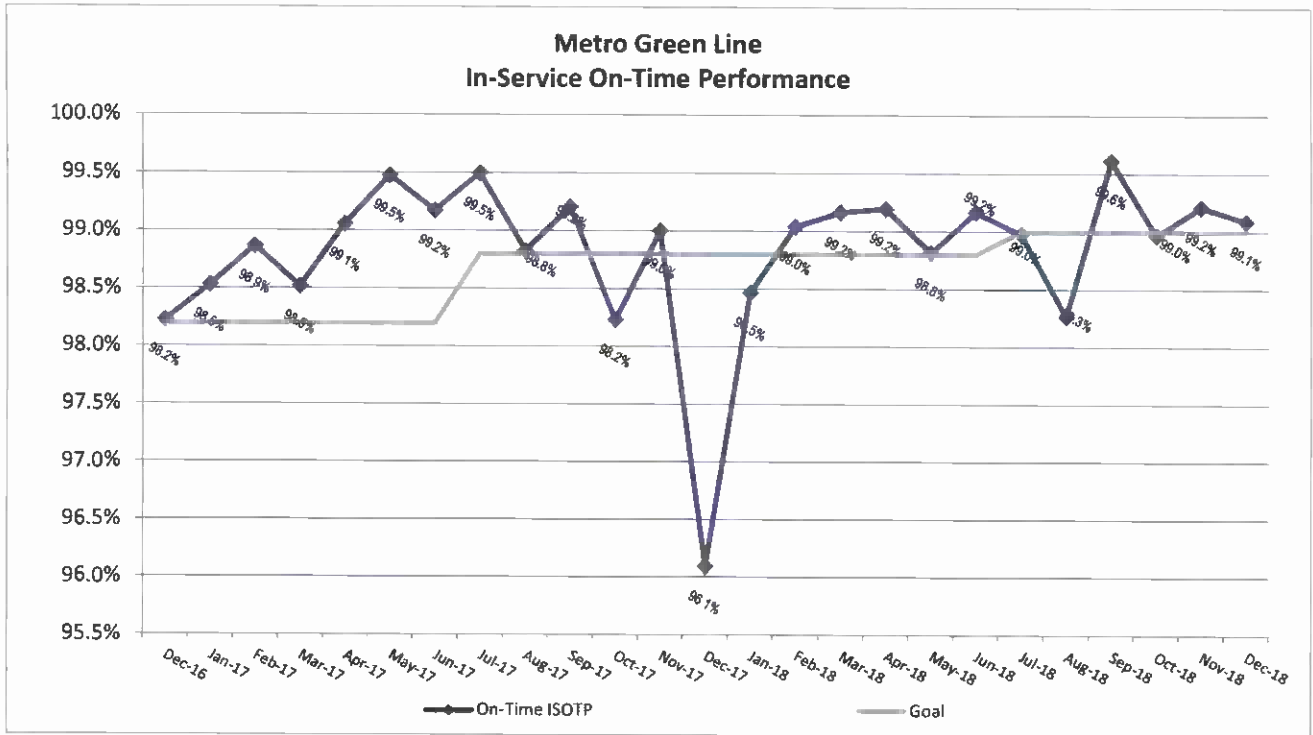
COMPLIANCE WITH SCHEDULED TRAIN MILES



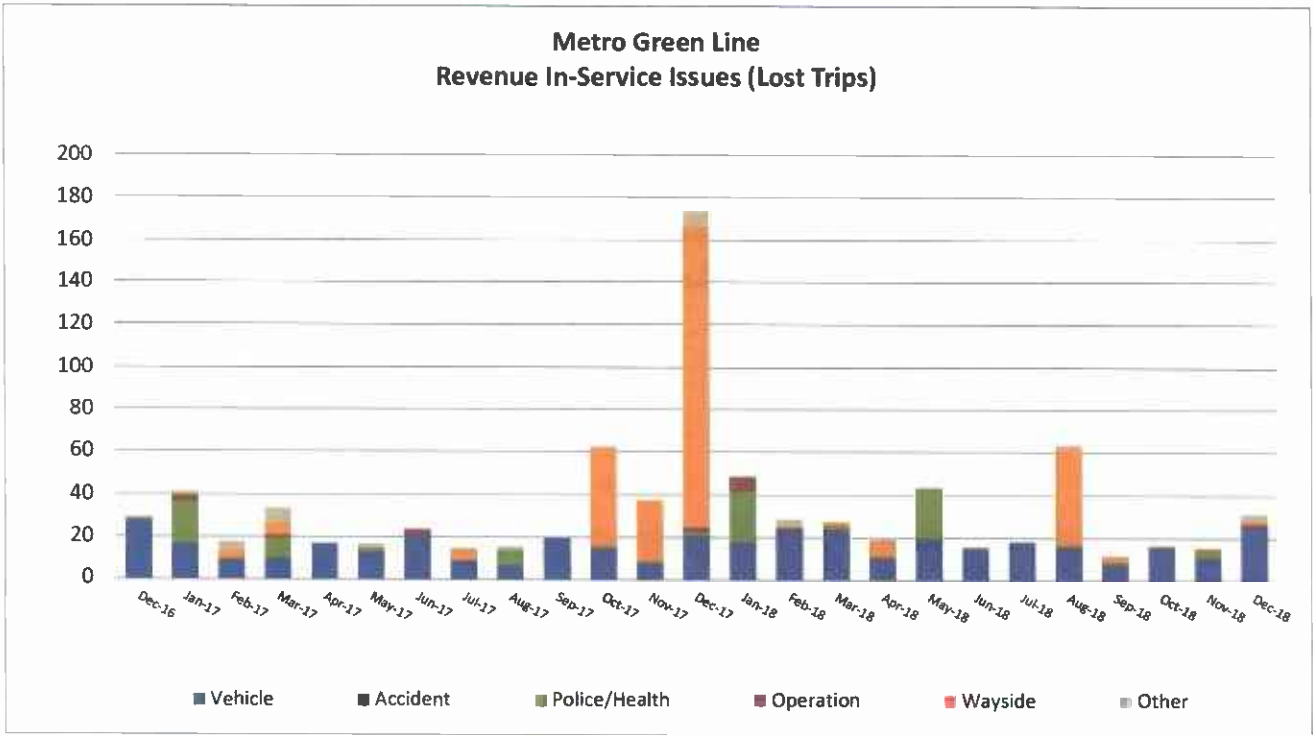
ON-TIME PULL OUTS



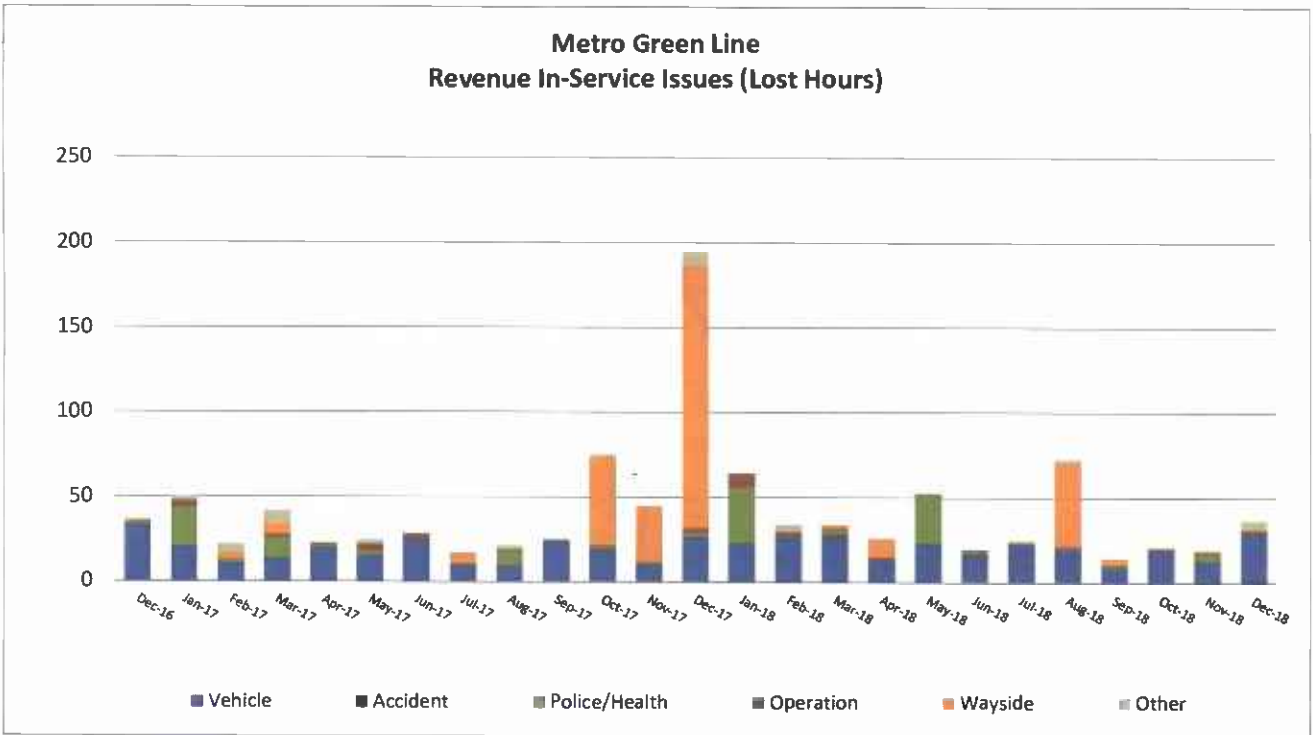
IN-SERVICE ON-TIME PERFORMANCE



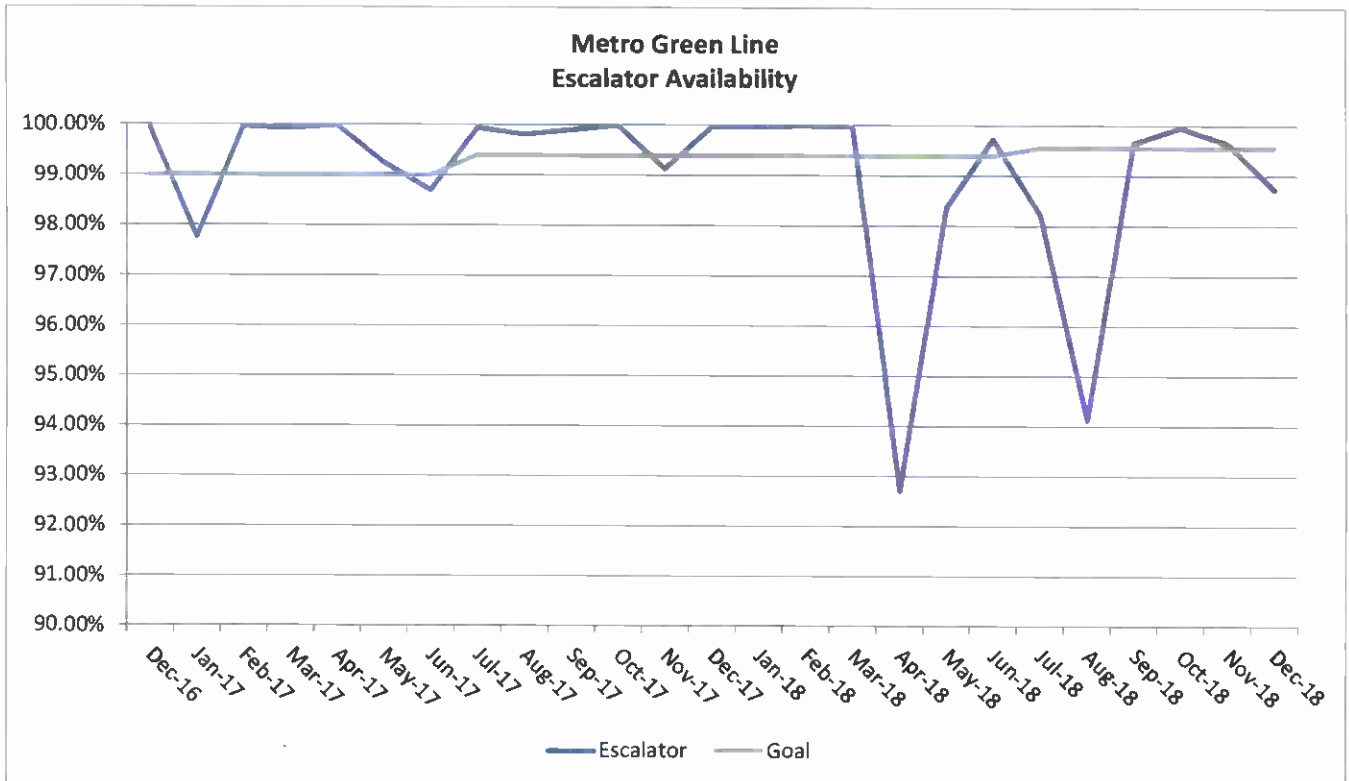
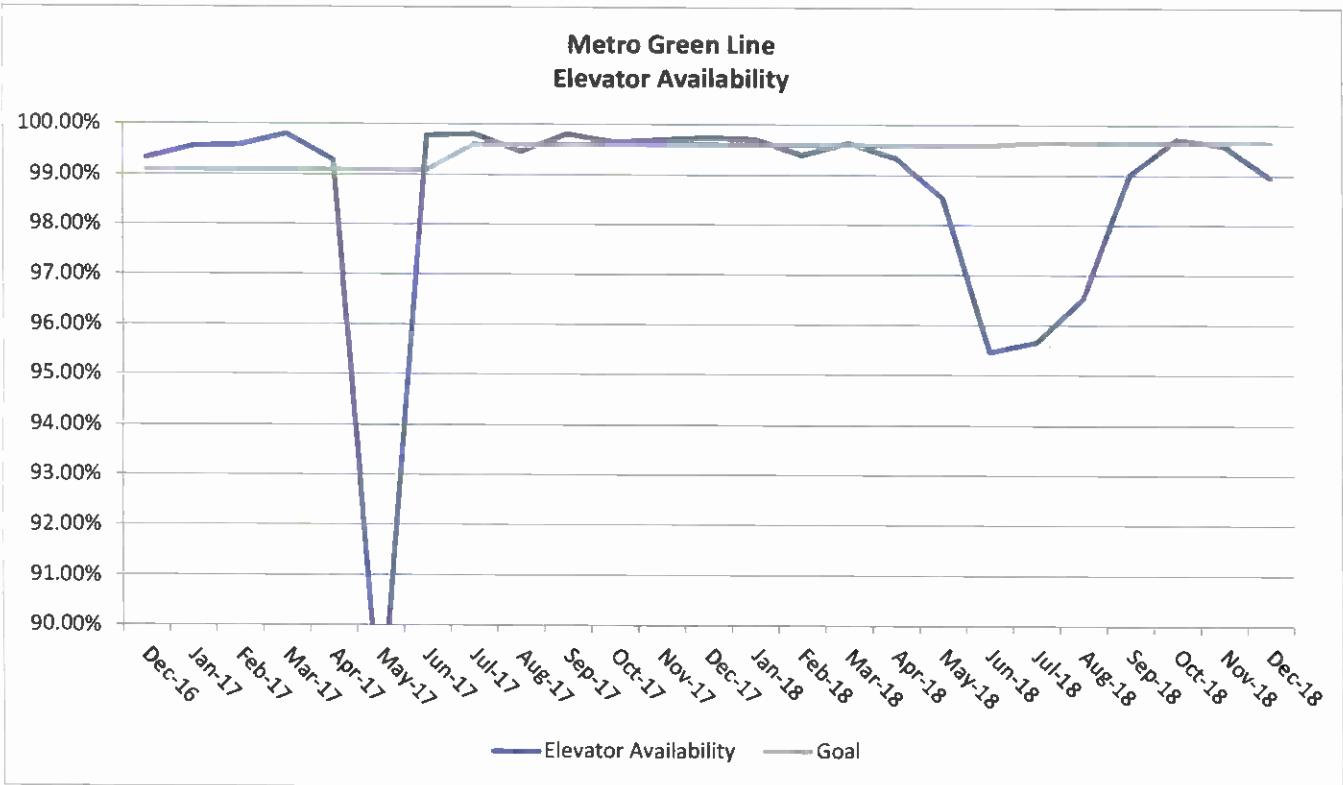
LOST TRIPS



LOST HOURS



VERTICAL TRANSPORTATION AVAILABILITY



GOLD LINE

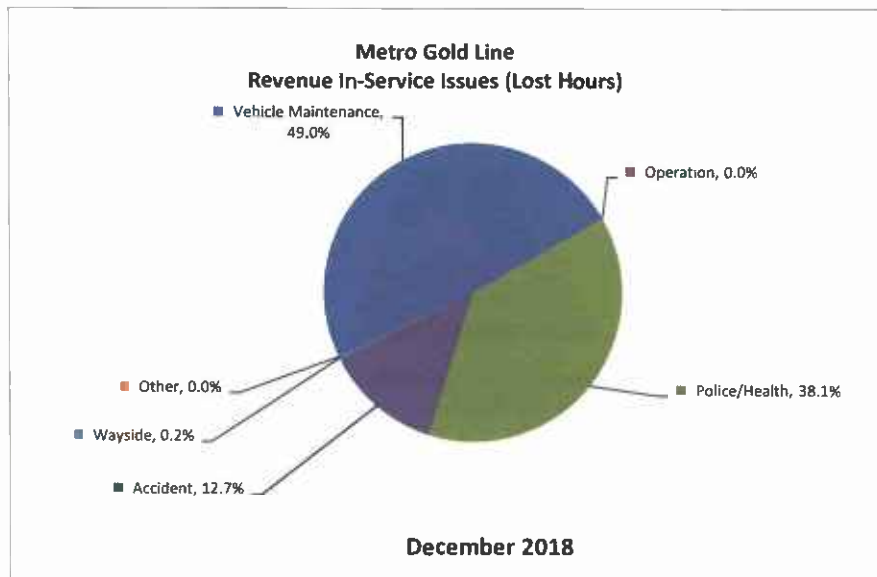
Out of a total of 23,769 hours operated, there were approximately 134 total hours of service delays.

December 2018 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	23,635	99.4%
Cancelled + Delayed Hours	134	0.6%
Total Revenue Hours	23,769	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	0	0.0	0.0%
Accidents	1	17.0	12.7%
Vehicle Maintenance	20	65.6	49.0%
Wayside	1	0.3	0.2%
Police & Health	6	51.1	38.1%
Other	0	0.0	0.0%
Total	28	134.0	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 2018 Gold Line incidents causing delay were as follows:

Accidents:

12/5/2018 5:28:00 PM - Incident# 3086103 (3 lost trips, 1,018 lost minutes)

Train vs auto at 1st/Vignes.

Train # 407

T-207

1st/Vignes, track #2, southbound

(718A) 720 704

Vehicle Maintenance Incidents:

12/5/2018 5:51:00 AM - Incident# 3085738 (0 lost trips, 10 lost minutes)

Train 413

T-280

LRV cars (701) 722 710

Monrovia Interlocking Northbound track 1

12/7/2018 7:05:00 AM - Incident# 3086887 (1 lost trip, 336 lost minutes)

Train 410

T-341

LRV Cars 1160-1006-(1013)

Northbound Tk1 Indiana Station

Operator reports of Propulsion Fault on trailing LRV Car 1013.

12/7/2018 11:22:00 AM - Incident# 3086988 (1 lost trip, 336 lost minutes)

Operator reports of 2 prop faults and a speed restriction.

Train 406

T-36

LRV Cars 710-(732)-(706)

South Sierra Madre Station Track 2

12/8/2018 6:24:00 PM - Incident# 3087382 (2 lost trips, 453 lost minutes)

Operator reports no movement at Highland Park Station.

12/10/2018 1:15:00 PM - Incident# 3087955 (1 lost trip, 288 lost minutes)

Broken propulsion inverter and dynamic brake faults, affected car/s unknown.

Train#454

T#186

(745,740,737)

Track#2,Southbound,Duarte Road

12/12/2018 12:38:00 PM - Incident# 3088849 (2 lost trips, 587 lost minutes)

ATP and emergency braking.

Train#401

T#131

704,712,(730)

Track#2,Southbound,Pico Aliso Interlocking

12/13/2018 5:45:00 AM - Incident# 3089130 (1 lost trip, 287 lost minutes)

Train 403

T-036

LRV Cars (1013)-1011-1057

Indiana Station Track 1

Operator reports of a "alarm" on but no fault indications.

12/13/2018 7:13:00 AM - Incident# 3089164 (0 lost trips, 15 lost minutes)

Train 415

T-036

LRV Cars (1013)-1011-1057

Duarte Station Track 2

Operator reports of HSCB Fault with Speed Restriction.

12/13/2018 3:40:00 PM - Incident# 3089464 (1 lost trip, 295 lost minutes)

Friction brakes keep activating 723B)(730)(710).

Indiana Station

Train #423, T-92, track #2, southbound.

12/17/2018 5:36:00 AM - Incident# 3090441 (0 lost trips, 6 lost minutes)

Door lock is misaligned.

Train 411

T-536

LRV cars (705B)-701-715

Citrus/APU Station southbound track 1

12/17/2018 7:08:00 AM - Incident# 3090486 (0 lost trips, 7 lost minutes)

No movement.

Train 409

T-354

LRV cars 715-71-705

Atlantic Station northbound track 1

12/17/2018 3:43:00 PM - Incident# 3090745 (2 lost trips, 375 lost minutes)

Train 427 (713,722) T- 134, Sierra Madre Villa Station, track 2 reports reoccurring propulsion fault with speed restriction, car 722.

12/18/2018 8:54:00 AM - Incident# 3090985 (1 lost trip, 188 lost minutes)

Train 414

T-129

LRV cars (722)-713

Lincoln/ Cypress Station northbound track 1

12/18/2018 9:29:00 AM - Incident# 3090987 (1 lost trip, 188 lost minutes)

Train 402

T-304

LRV cars (708)-720

Irwindale Station southbound track 2

12/19/2018 7:13:00 AM - Incident# 3091390 (0 lost trips, lost minutes)

Train 418

T-143

LRV cars 1160-(1109)

Atlantic Station propulsion fault track 1

12/19/2018 7:37:00 AM - Incident# 3091397 (1 lost trip, 188 lost minutes)

Train 405

T-477

LRV cars 709-707-733

Irwindale Station southbound track 2

12/20/2018 5:30:00 AM - Incident# 3091796 (1 lost trip, 188 lost minutes)

Reports odor and smoking brakes.

Train 401

T-429

(734A)-728-713

Arcadia Station, Track 1, NB

12/21/2018 6:38:00 PM - Incident# 3092538 (0 lost trips, 9 lost minutes)

Major propulsion fault.

T-421

Train 429

701-719-(712)

Duarte Station Tk 2 S/B

12/27/2018 6:03:00 AM - Incident# 3094140 (0 lost trips, 10 lost minutes)

Train 401

T-143

Track 2 South at Monrovia Station

LRV Cars 1126-1006-(1111A)

Operator reported nomovement at Monrovia Station track 2

12/30/2018 6:21:00 PM - Incident# 3095402 (1 lost trip, 151 lost minutes)

Report friction brake self apply, no movement

T-218

Train 411

Cars (1111B)-1126

Arroyo Verde track 1 north bound.

12/31/2018 4:00:00 AM - Incident# 3095475 (0 lost trips, lost minutes)

No Fault (no movement)

Train 412

T-009

LRV cars (728)-721

Downtown Azusa southbound track 2

12/31/2018 4:10:00 AM - Incident# 3095476 (0 lost trips, 20 lost minutes)

No Fault (no movement)

Train 402

T-426

LRV cars (1011)-1010

Sierra Madre Villa Station southbound track 2

Wayside Incidents:

12/19/2018 5:15:00 AM - Incident# 3091332 (0 lost trips, 20 lost minutes)

Train 454

T-477

LRV cars 739-746-743

Switch 25 A and 25 B out of correspondence in Division 21

Police & Health Incidents:

12/1/2018 4:55:00 AM - Incident# 3084305 (10 lost trips, 2,240 lost minutes)

Train 402

Operator T-143

Northbound Track1 at 1st and Lorena

Operator reports that a Vehicle collided with a telephone pole near the track 1 side and the pole is leaning over to the OCS on track 1.

12/2/2018 7:35:00 PM - Incident# 3084676 (0 lost trips, 7 lost minutes)

LASD reports male individual at Monrovia Station brandishing a weapon.

Train # 402

T-465

Monrovia, track #2, southbound

(722) 710 708

12/13/2018 9:16:00 AM - Incident# 3089210 (1 lost trip, 287 lost minutes)

Train 407 reported at Ditman interlocking a female patron aboard LRV Car 722 pulled the emergency handle.

12/14/2018 4:29:00 AM - Incident# 3089567 (0 lost trips, 9 lost minutes)

Reports of fight onboard

Train #402

T-250

(1059A)-1009

Chinatown Station, Track #,402 SB

12/20/2018 7:11:00 AM - Incident# 3091844 (2 lost trips, 375 lost minutes)

Reports of mace discharge

Train 406

T-158

(1109A)-1057-1011

12.7, Track 1, NB

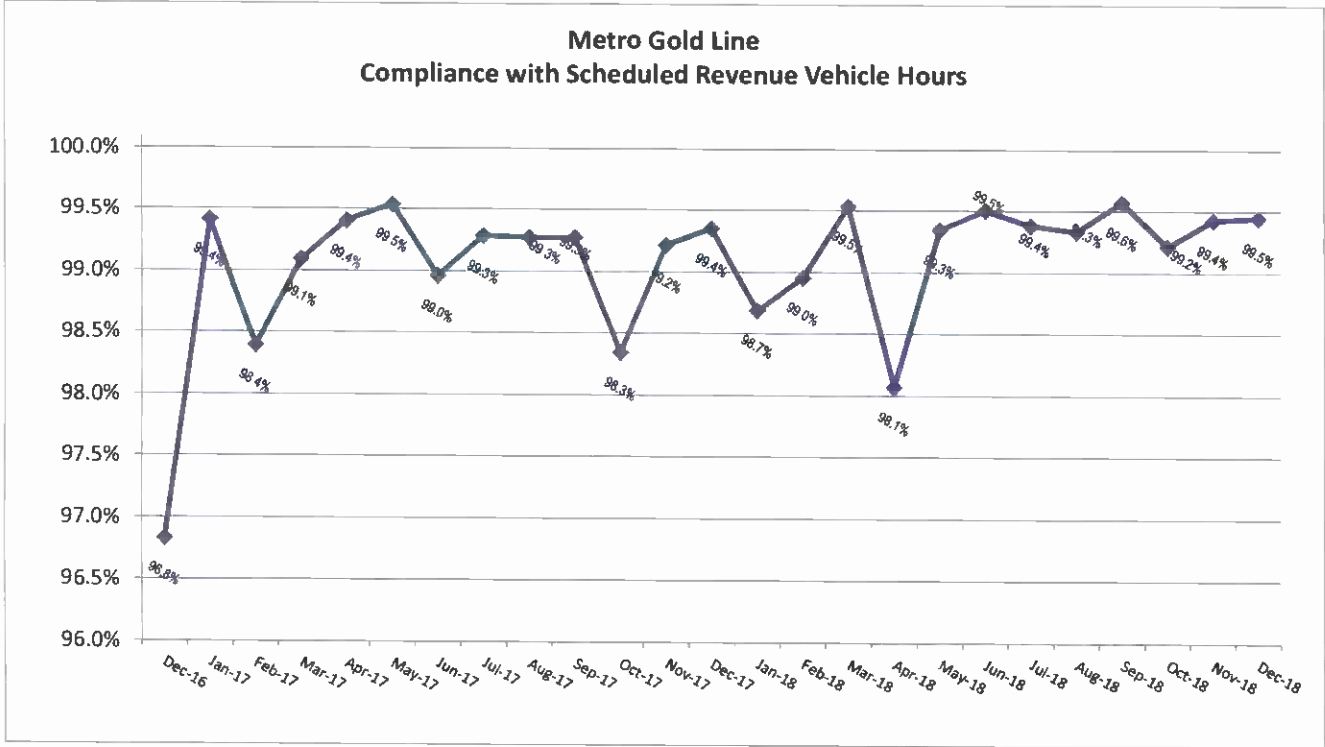
12/22/2018 8:33:00 PM - Incident# 3092801 (1 lost trip, 146 lost minutes)

Allen Station track 1 African American male approximately 40 years of age wearing all black passed out.

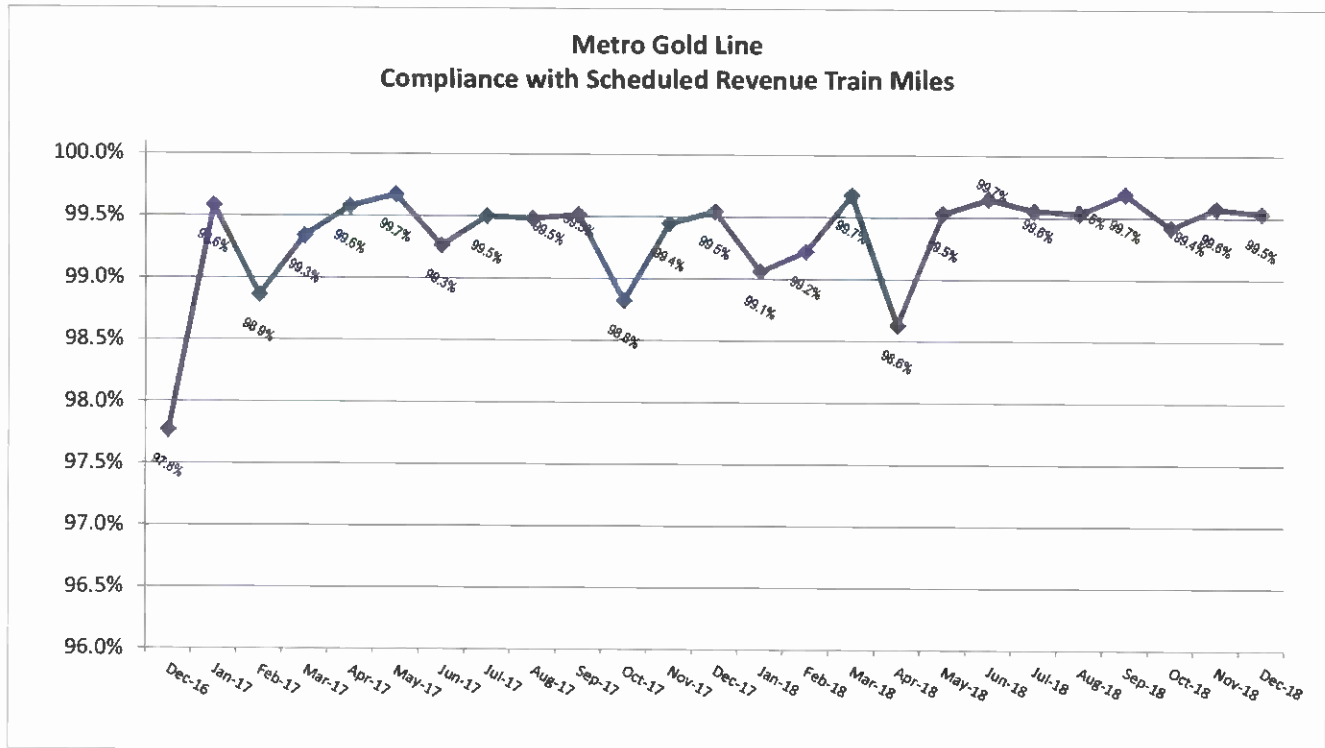
LASD 657F LASD 682A Engine #32.

MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

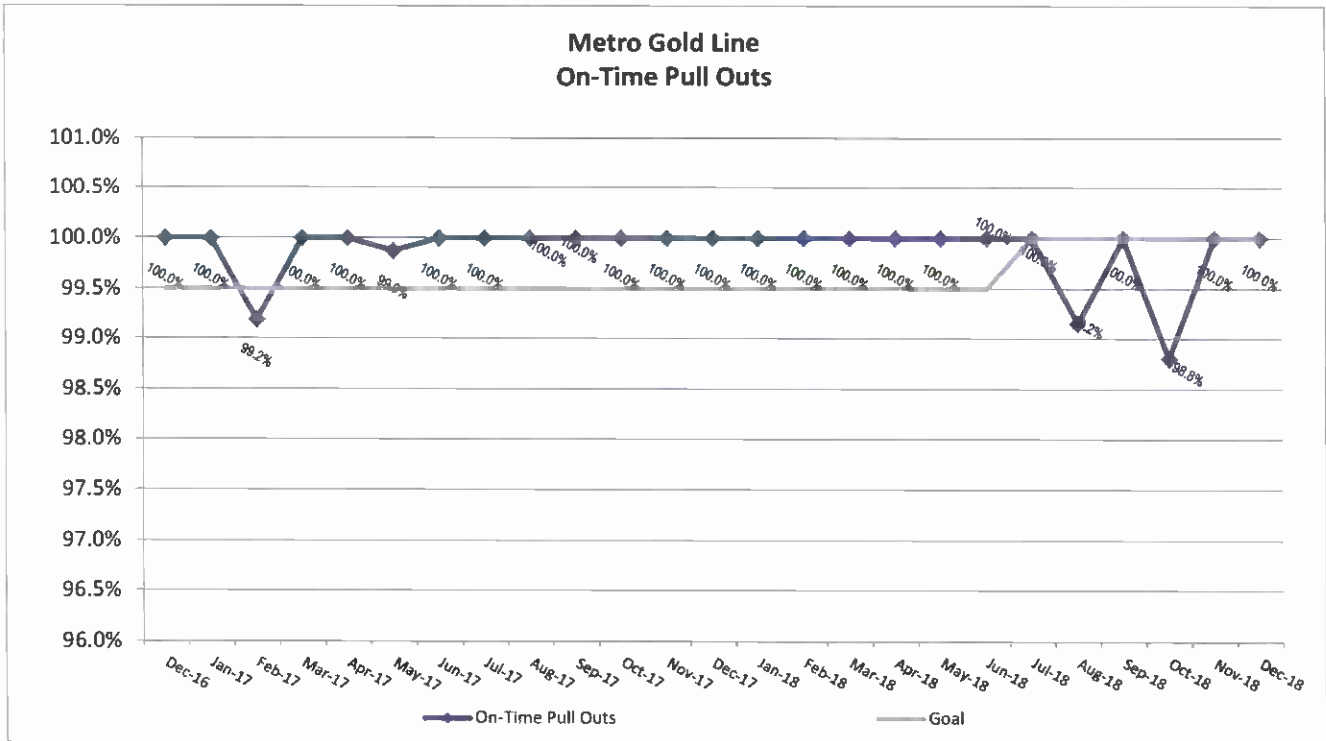
COMPLIANCE WITH SCHEDULED VEHICLE HOURS



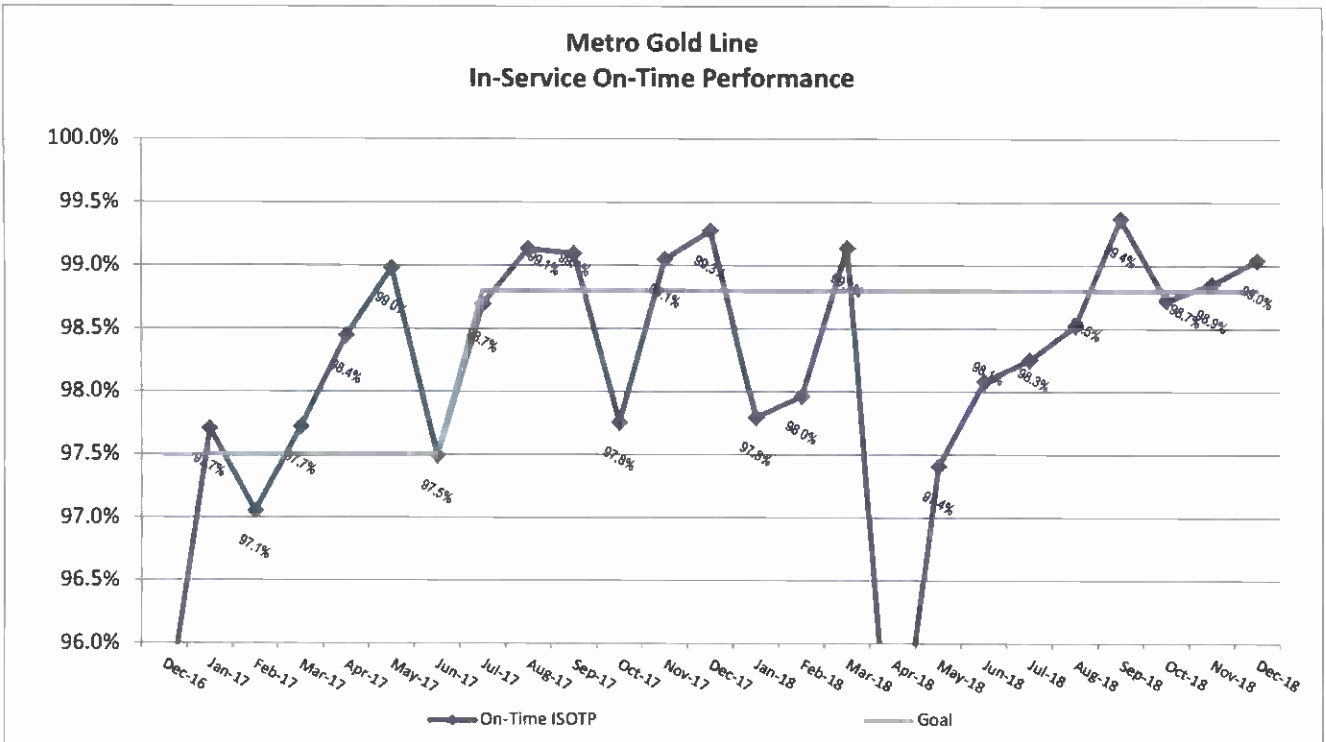
COMPLIANCE WITH SCHEDULED TRAIN MILES



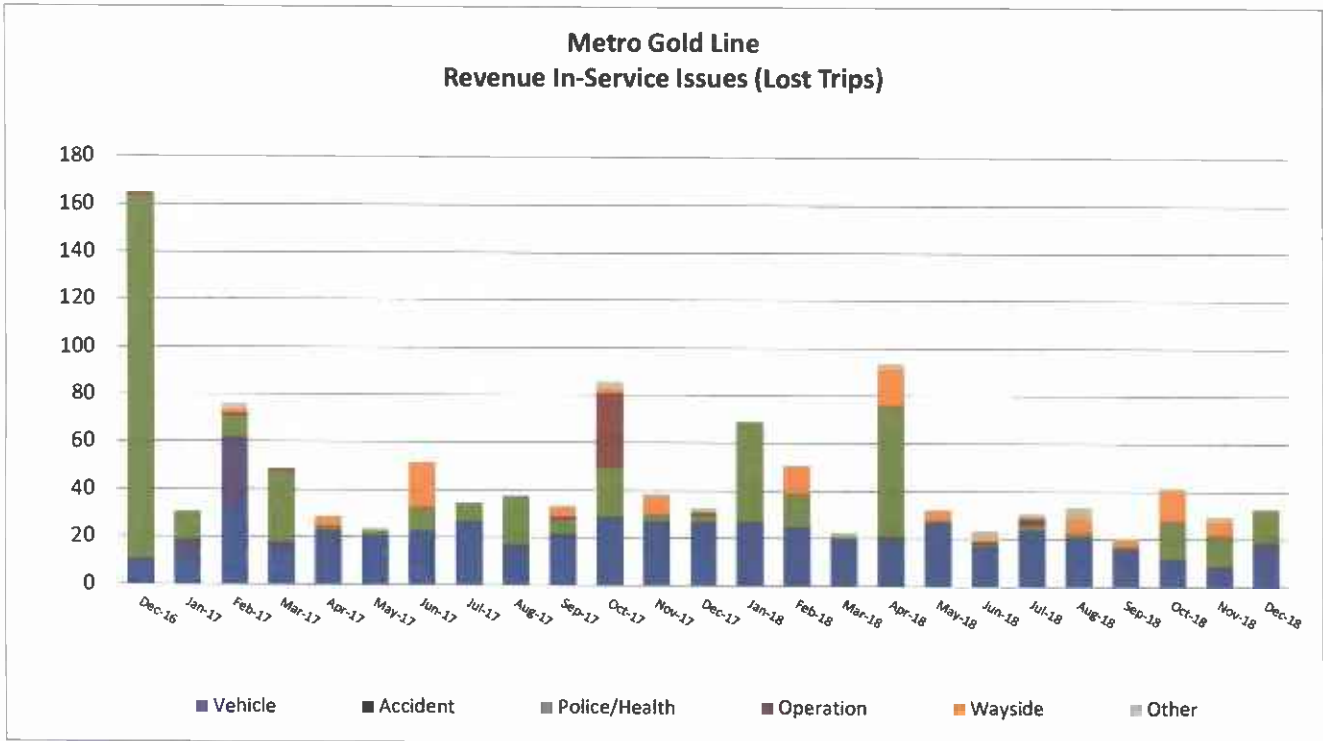
ON-TIME PULL OUTS



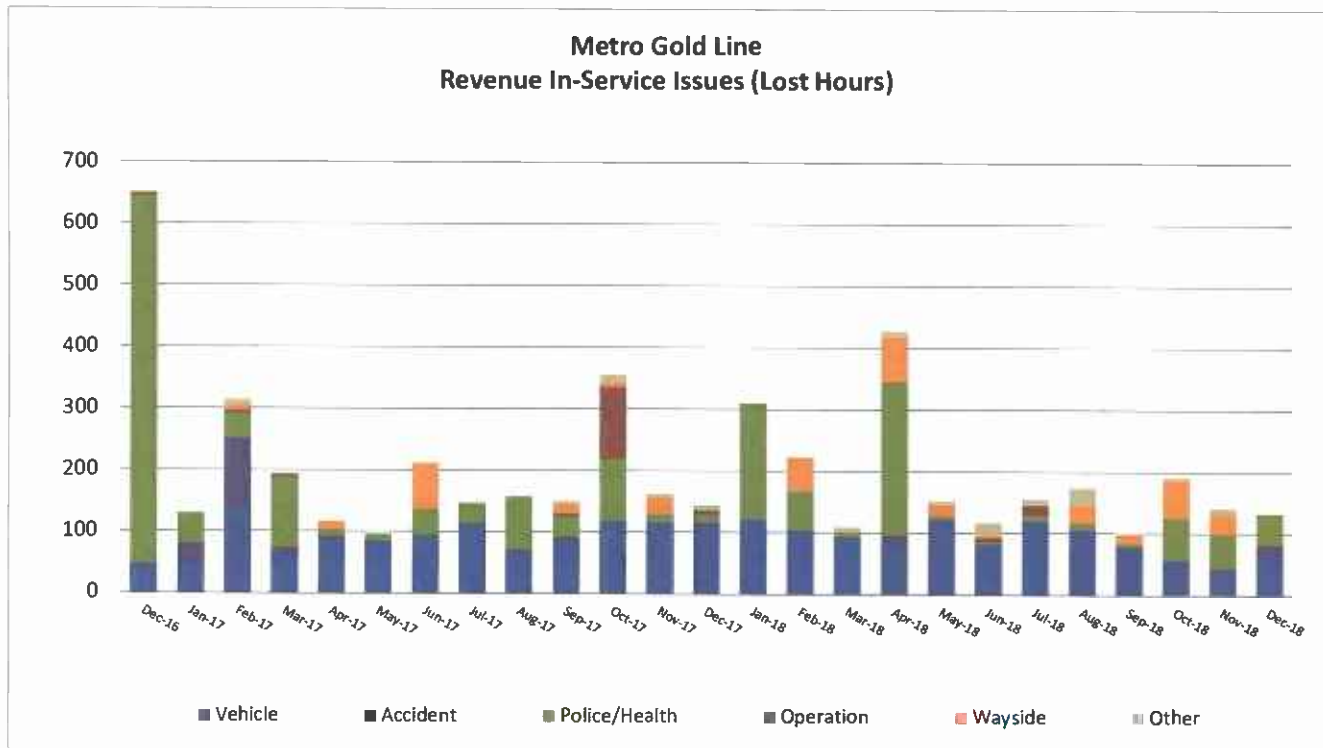
IN-SERVICE ON-TIME PERFORMANCE



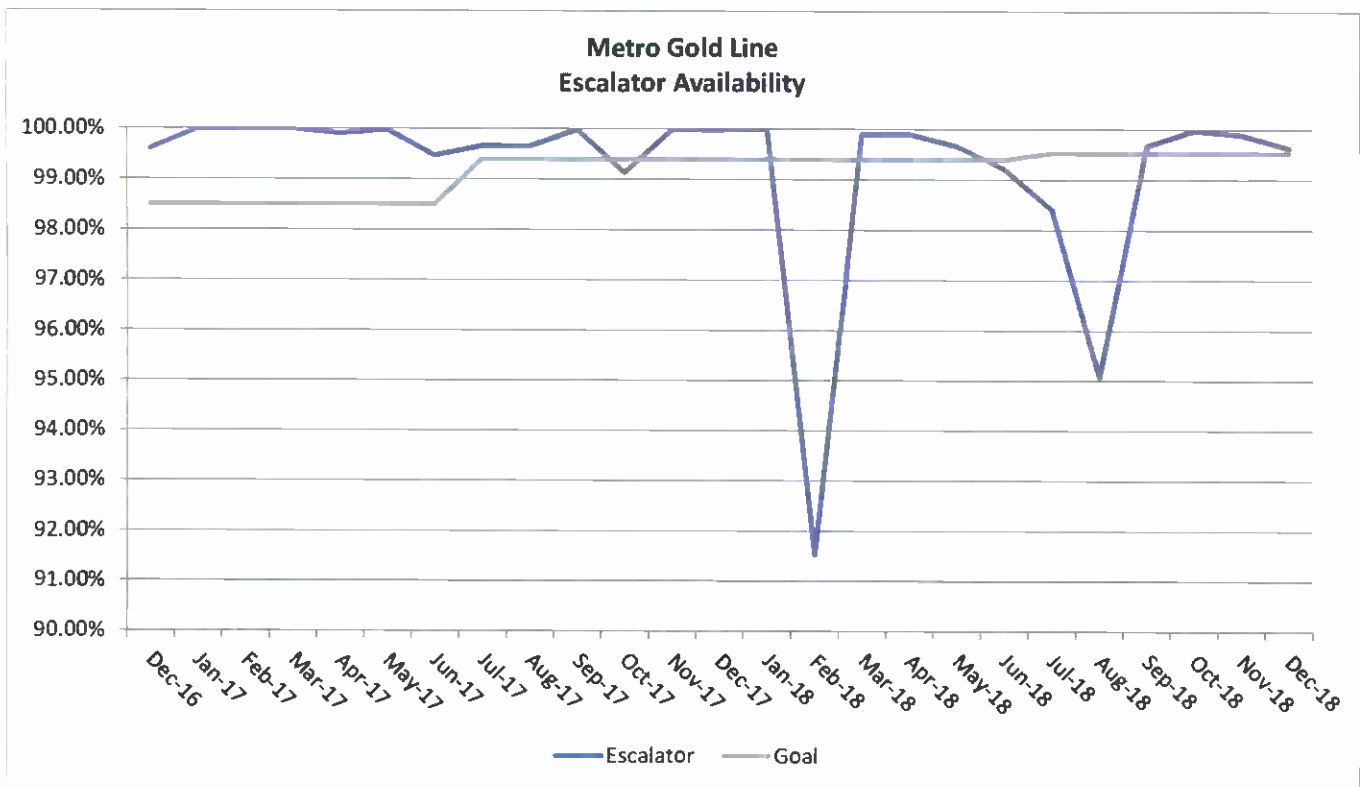
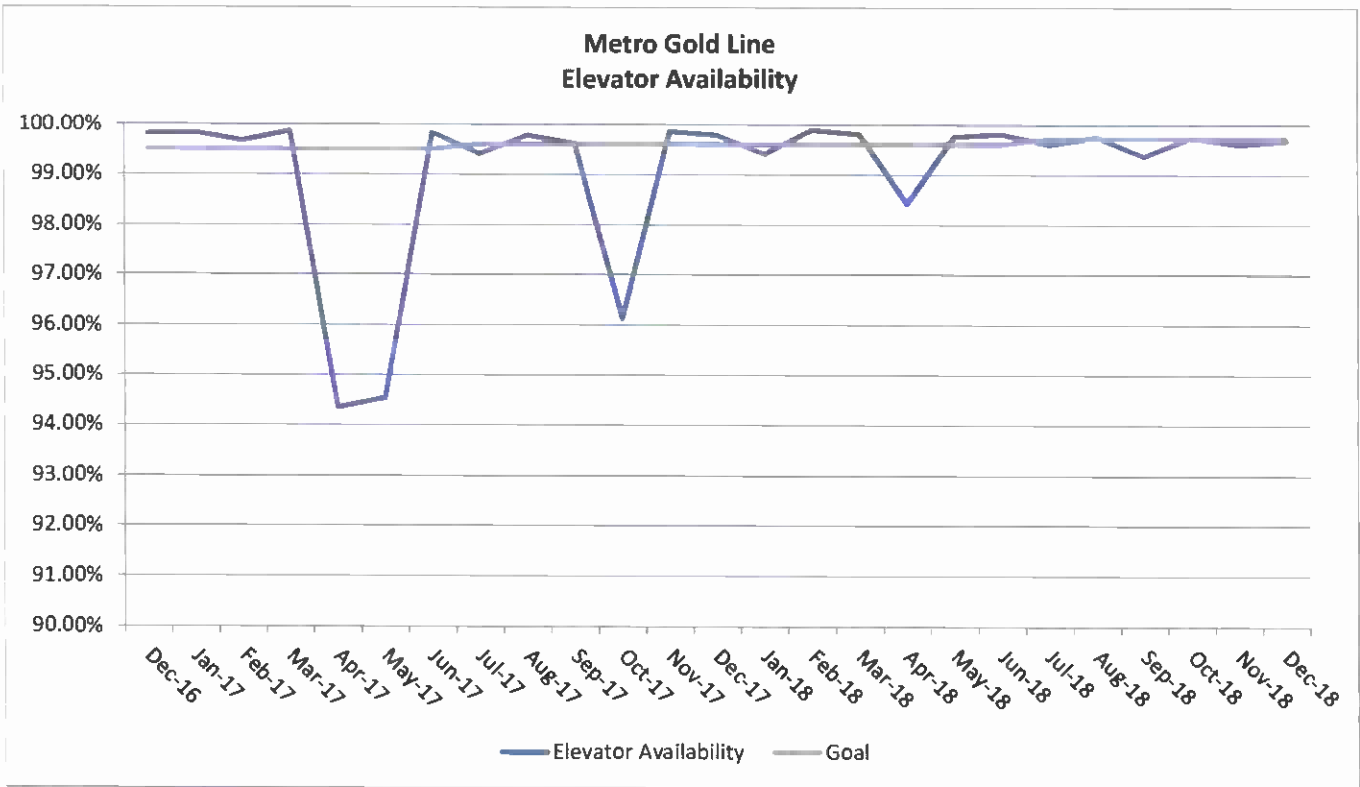
LOST TRIPS



LOST HOURS



VERTICAL TRANSPORTATION AVAILABILITY



EXPO LINE

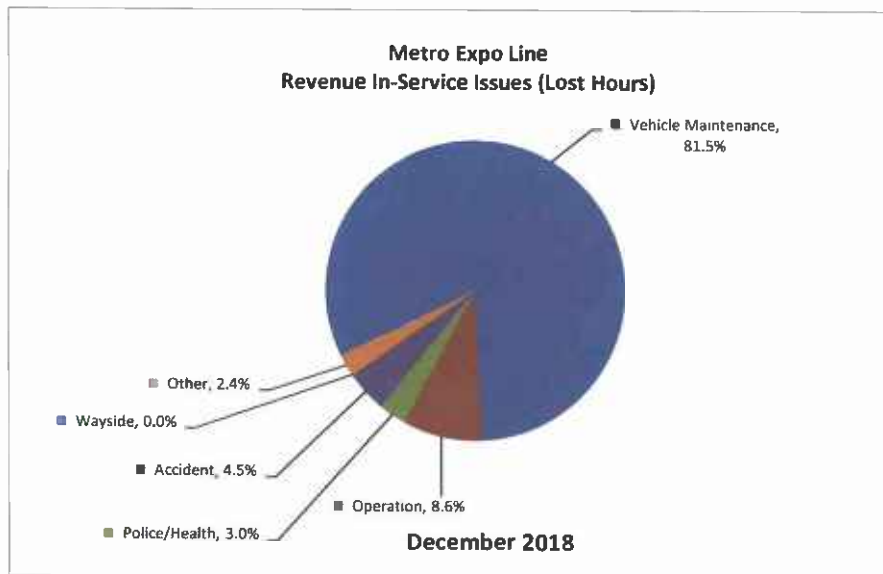
Out of a total of 22,171 hours operated, there were approximately 109 total hours of service delays.

December 2018 Service Hours *	Revenue	
	Hours	Percent
Revenue Hours without Delays	22,061	99.5%
Cancelled + Delayed Hours	109	0.5%
Total Revenue Hours	22,171	100.0%

Summary of the incidents:	Count	Hours	Percent
Operations	2	9.4	8.6%
Accidents	2	4.9	4.5%
Vehicle Maintenance	19	89.1	81.5%
Wayside	0	0.0	0.0%
Police & Health	5	3.3	3.0%
Other	3	2.6	2.4%
Total	31	109.3	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 2018 Expo Line incidents causing delay were as follows:

Operations Incidents:

12/4/2018 3:14:00 PM - Incident# 3085573 (2 lost trips, 282 lost minutes)

Train #651, Cars #1002-1038-(1051-B), reports a near miss upon arriving 7th & Metro Station.

12/31/2018 11:09:00 PM - Incident# 3095876 (2 lost trips, 282 lost minutes)

Sick Employee

Train #656, T-315

Downtown Santa Monica

Accidents:

12/15/2018 5:08:00 AM - Incident# 3089967 (1 lost trip, 154 lost minutes)

Train 654, Cars (1027A), 1046, and 1071.

USC/ Watt Way, Track 4 south.

Train vs. auto at the intersection and vehicle fled the location.

12/30/2018 3:21:00 PM - Incident# 3095378 (1 lost trip, 141 lost minutes)

Report an elderly man fell on the floor, he is requesting medical.

Vehicle Maintenance Incidents:

12/3/2018 1:48:00 PM - Incident# 3085017 (0 lost trips, 12 lost minutes)

Propulsion / Dynamic Brakes, cars #250-248-229

Train #601

T-405

La Brea Station Track #4, Southbound.

12/5/2018 6:30:00 AM - Incident# 3085776 (2 lost trips, 297 lost minutes)

Train 603, Cars (231), 245 and 236.

La Brea Station, Track 4 south.

ATP

12/6/2018 5:35:00 AM - Incident# 3086242 (2 lost trips, 282 lost minutes)

T-241 reported the windshield wipers in car (1035) stopped working.

T-241

Train 660

(1035)-1050-1014

Southbound, Track 4

Bundy Station

12/6/2018 7:20:00 AM - Incident# 3086321 (1 lost trip, 141 lost minutes)

T-133 reported his consist had no movement Trk 4 USC/EXPO

T-133

Train 661

(238A)-230

Southbound, Trk 4

USC/EXPO Station

12/6/2018 8:22:00 AM - Incident# 3086354 (1 lost trip, 141 lost minutes)

Operator reports of a inoperative windshield wiper
Train 604
T-062
(1001A)1033-1023
Santa Monica, Trk. 3, Northbound

12/7/2018 7:48:00 AM - Incident# 3086894 (1 lost trip, 141 lost minutes)

Train #664.
T-377
(1029), 1070, 1023.
Crenshaw, Northbound, Track #3.
T-377 reported the doors would not open to alight passengers. Had to be opened manually by operator.

12/10/2018 6:32:00 AM - Incident# 3087730 (0 lost trips, 6 lost minutes)

T-517
Train 662
Car 1032B
Track 3 Santa Monica
Horn/Gong not working.

12/12/2018 3:39:00 PM - Incident# 3088946 (0 lost trips, 4 lost minutes)

Auto Train Protection (Speed Limit), cars #(1034A)-1036
Train #652
T-380
7th Avenue, Track #03, Northbound.

12/13/2018 7:02:00 AM - Incident# 3089149 (1 lost trip, 151 lost minutes)

Train 603, Cars 244, 234, and 245.
Colorado and 7th, Track 3 north.
Friction brakes locked.

12/13/2018 2:07:00 PM - Incident# 3089372 (0 lost trips, 12 lost minutes)

no movement, cars #(240)-233-242
Train #652
T-380
7th and Metro, Track #001, Southbound.

12/13/2018 3:46:00 PM - Incident# 3089421 (0 lost trips, 5 lost minutes)

Propulsion / Dynamic Brakes, cars (1040)-1048-1053
Train #655
T-358
6th street interlocking, track #3, Northbound.

12/13/2018 7:00:00 PM - Incident# 3089483 (1 lost trip, 156 lost minutes)

No movement.

Train#602
T#379
239,229,247
Track#3,Northbound, USC Expo Station

12/17/2018 6:06:00 AM - Incident# 3090474 (18 lost trips, 2,550 lost minutes)

Train 601, Cars (230) 238 and (241).
Western Ave., Track 4 south.
Lost air pressure and brakes applied.

12/18/2018 1:57:00 PM - Incident# 3091146 (1 lost trip, 141 lost minutes)

Other Vehicle System (Train line)
(1039)-1070-(1067)
Train 656
T-38
Santa Monica, Northbound, Track 3

12/26/2018 6:20:00 AM - Incident# 3093719 (2 lost trips, 282 lost minutes)

Train 603, Cars 241, (244 & 231).
Western Station, Track 4 south.

12/27/2018 6:03:00 AM - Incident# 3094144 (3 lost trips, 446 lost minutes)

Train 603, Cars 302, 245, & 242
Pico Station, Track 2 southbound.
Doors would not open.

12/27/2018 1:38:00 PM - Incident# 3094355 (1 lost trip, 158 lost minutes)

T-380.
Train #604.
Crenshaw Station, Track #3, Northbound.
(160), 159, 168.

T-180 reported train had no movement after "T" was pulled.

12/29/2018 12:33:00 AM - Incident# 3094977 (1 lost trip, 141 lost minutes)

Train 665 Propulsion Fault No Movement.
Train 665
(1027)-1061-1064
T-533
7th / Metro Southbound Track #1

12/31/2018 3:15:00 PM - Incident# 3095784 (2 lost trips, 282 lost minutes)

Auto Train Protection (Speed Limit), cars #(1042A)-1021-1030
Train #651
T-373
23rd Street Station, track #4, Southbound

Police & Health Incidents:

12/11/2018 6:58:00 PM - Incident# 3088531 (0 lost trips, 5 lost minutes)

T-123 reports male patron passing out on train and requesting medical. Train 666 cars 1001-1033-1026, 23rd st. Station, Track 3, Northbound.

12/13/2018 4:25:00 PM - Incident# 3089448 (0 lost trips, 6 lost minutes)

Alleged sick individual.

Train#656

T#377

Cars#1064,1045,(1037A)

Track#3,Northbound,Crenshaw Station

12/28/2018 12:50:00 AM - Incident# 3094530 (0 lost trips, 10 lost minutes)

Alleged theft.

12/28/2018 6:32:00 PM - Incident# 3094927 (1 lost trip, 155 lost minutes)

T-375.

Train 654.

Western Station, Track #4, Southbound.

(1035), 1070, 1051.

Car accident on track #4.

12/29/2018 12:04:00 AM - Incident# 3094971 (0 lost trips, 20 lost minutes)

Train Operator reported that a Passenger on board had a bloody arm requesting Medical Assistance in Train 669

Train 669

(1026)-1033-1065

Culver City Station Southbound

T-412

Other Incidents:

12/18/2018 10:45:00 AM - Incident# 3091086 (0 lost trips, 6 lost minutes)

RTU: Lost Communication at 6th Street Interlocking

12/21/2018 11:09:00 PM - Incident# 3092587 (1 lost trip, 141 lost minutes)

K1002 Sick car

Train 671

T-455

(K1002), K1038, K1051

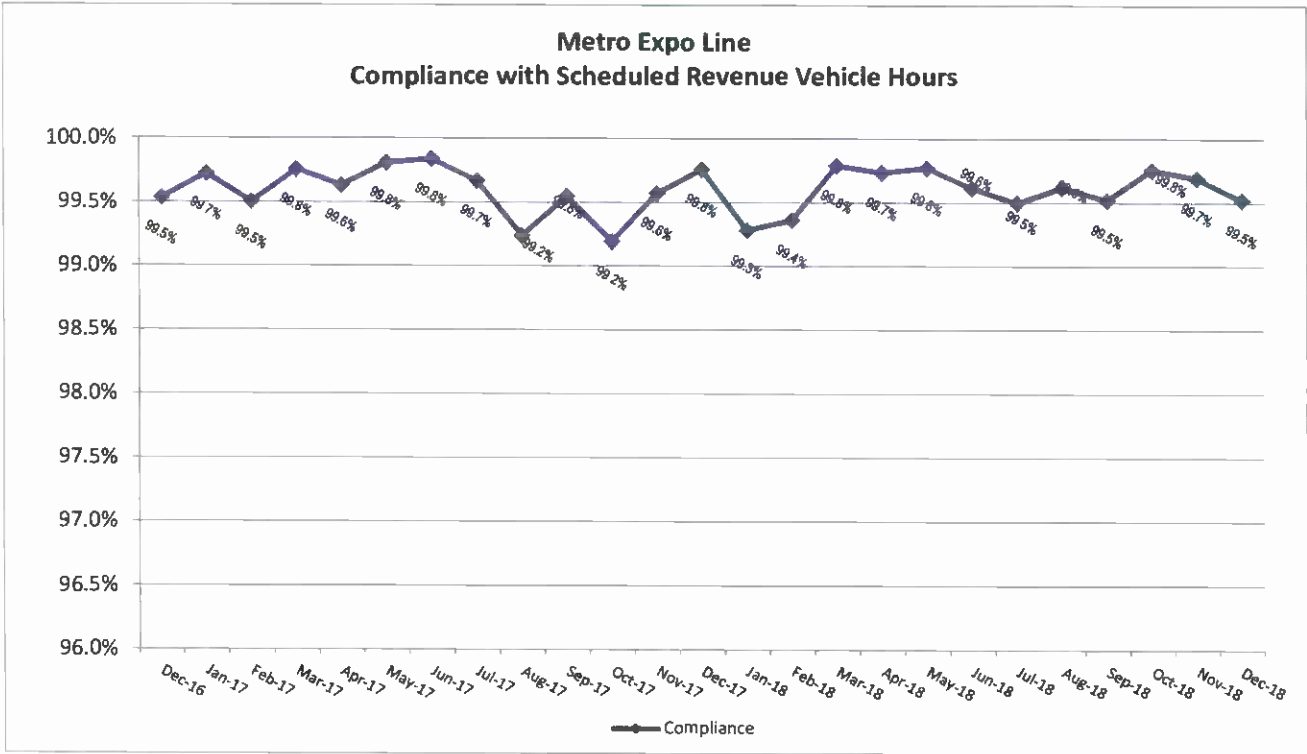
Santa Monica, Track 3, Northbound

12/22/2018 4:25:00 AM - Incident# 3092612 (0 lost trips, 10 lost minutes)

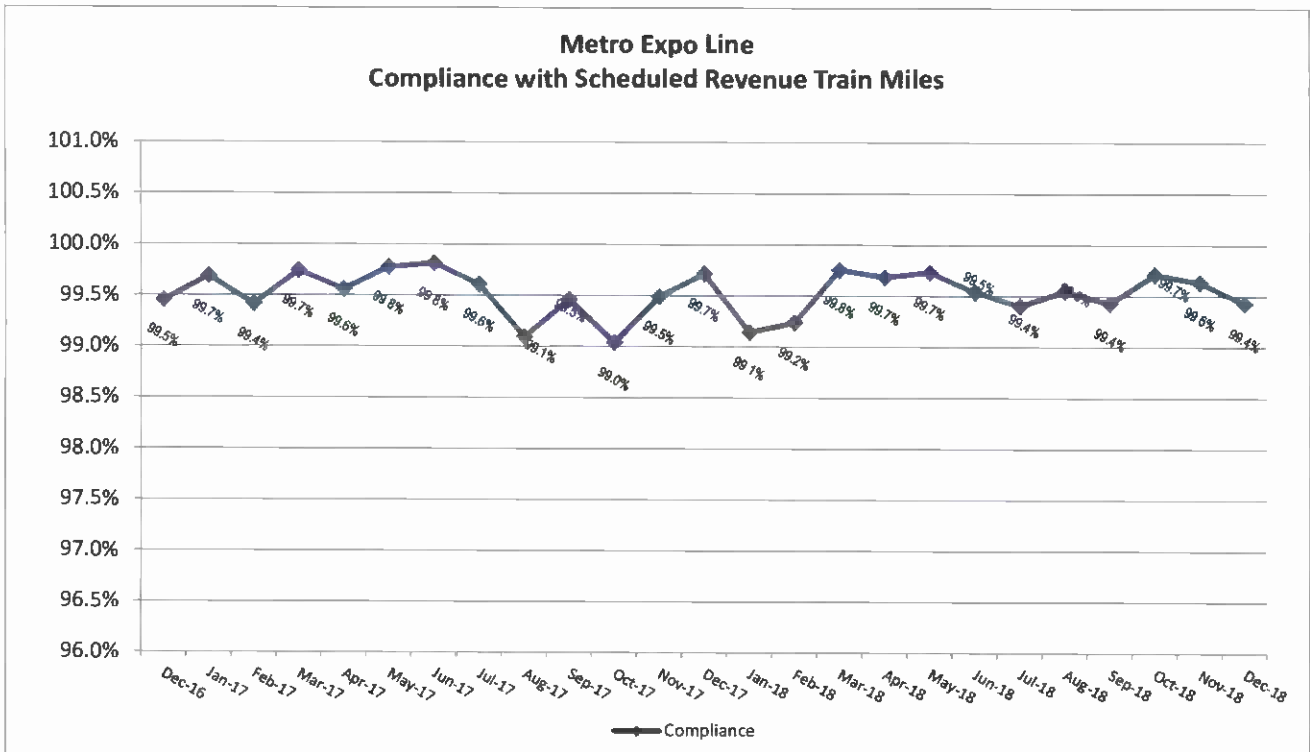
Outlate due to miss-out.

MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS

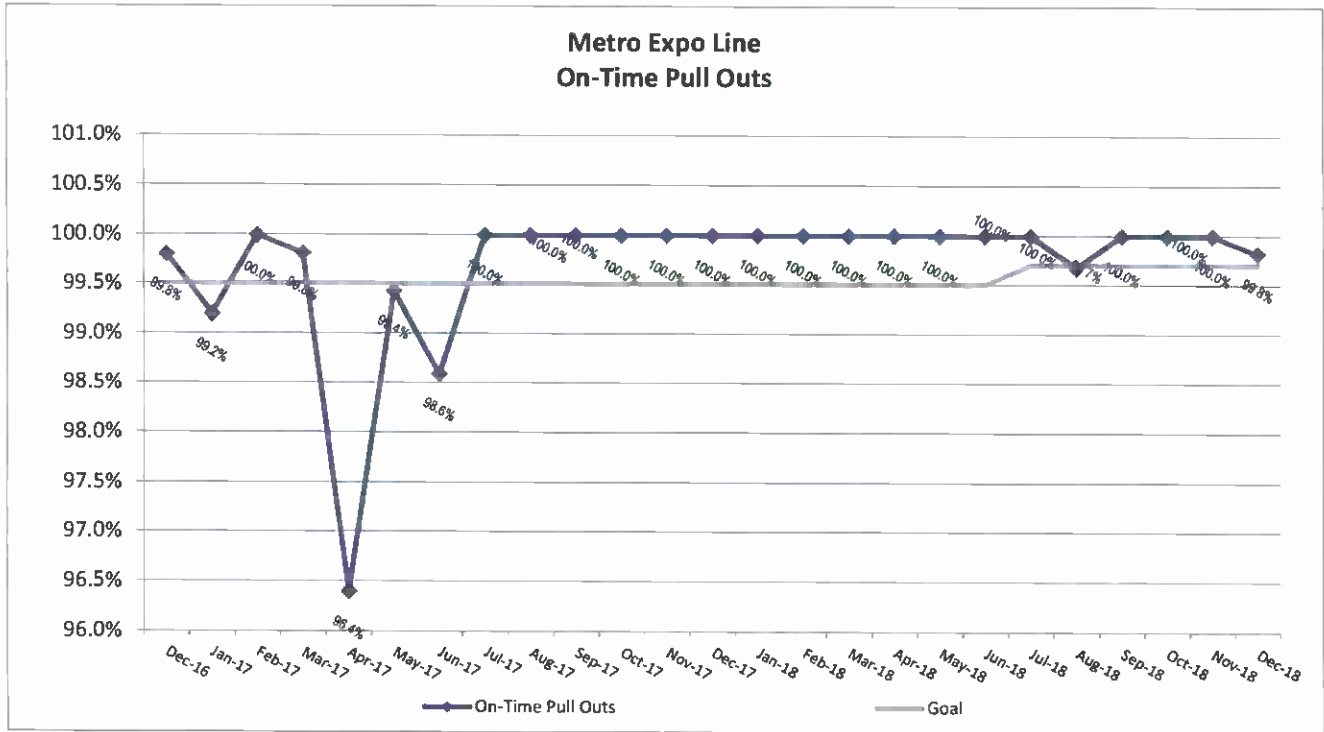
COMPLIANCE WITH SCHEDULED VEHICLE HOURS



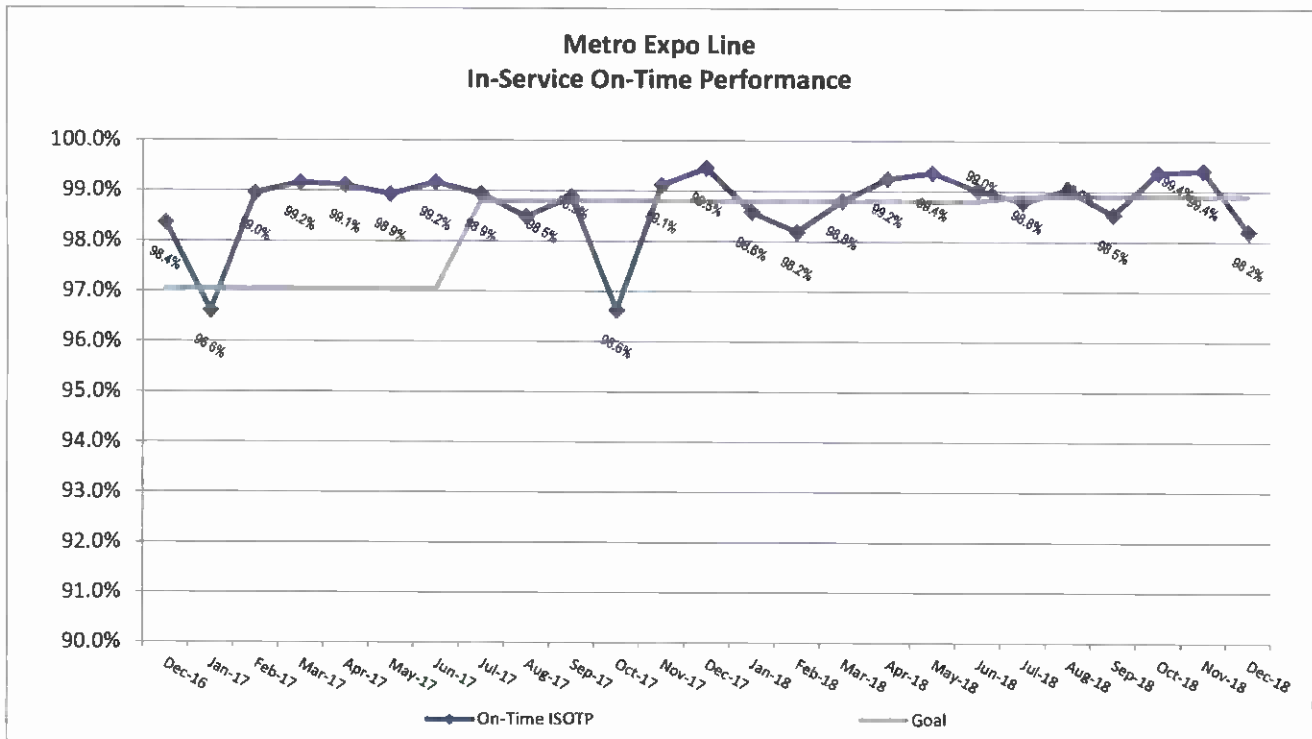
COMPLIANCE WITH SCHEDULED TRAIN MILES



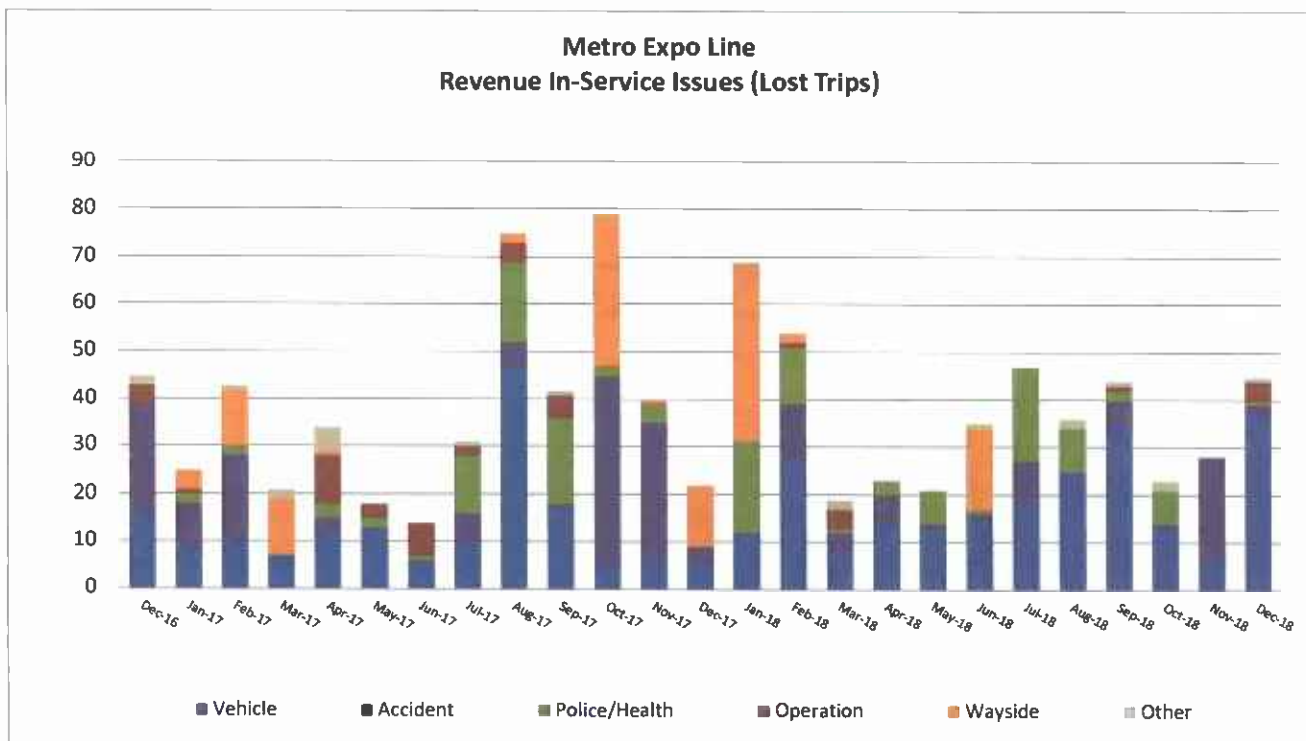
ON-TIME PULL OUTS



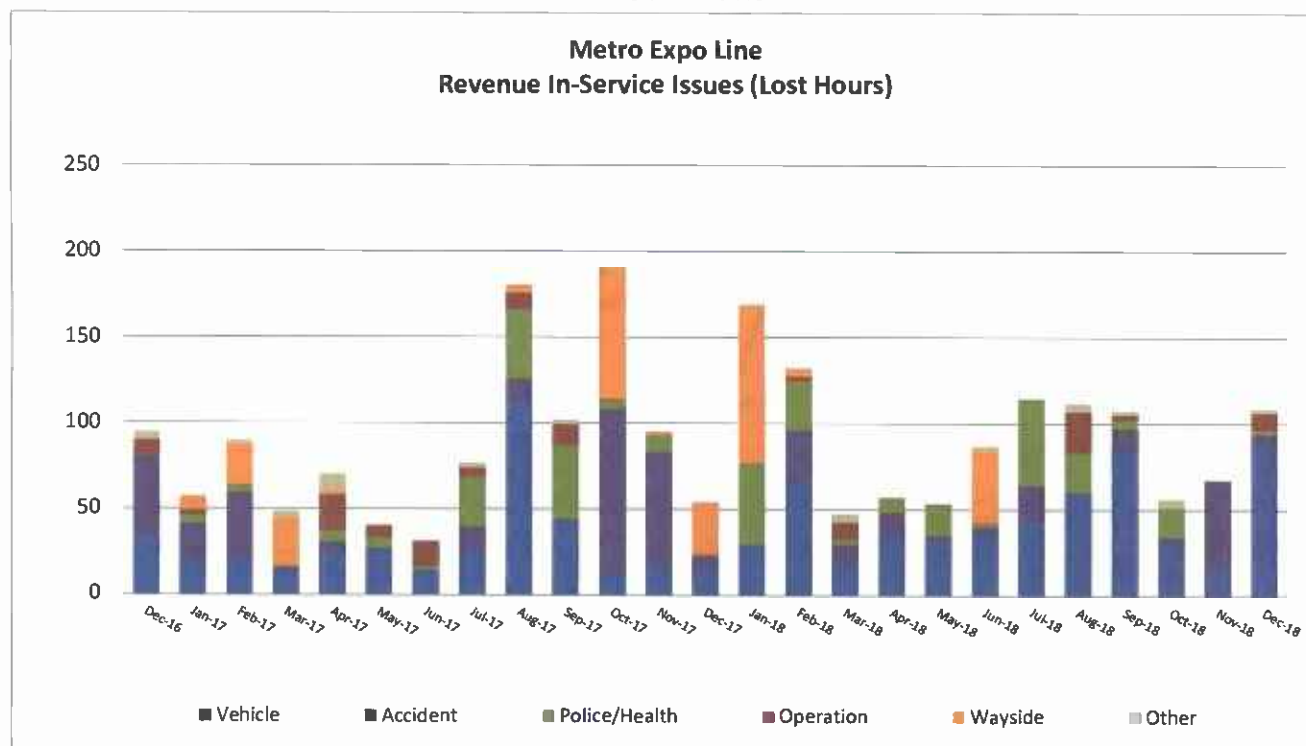
IN-SERVICE ON-TIME PERFORMANCE



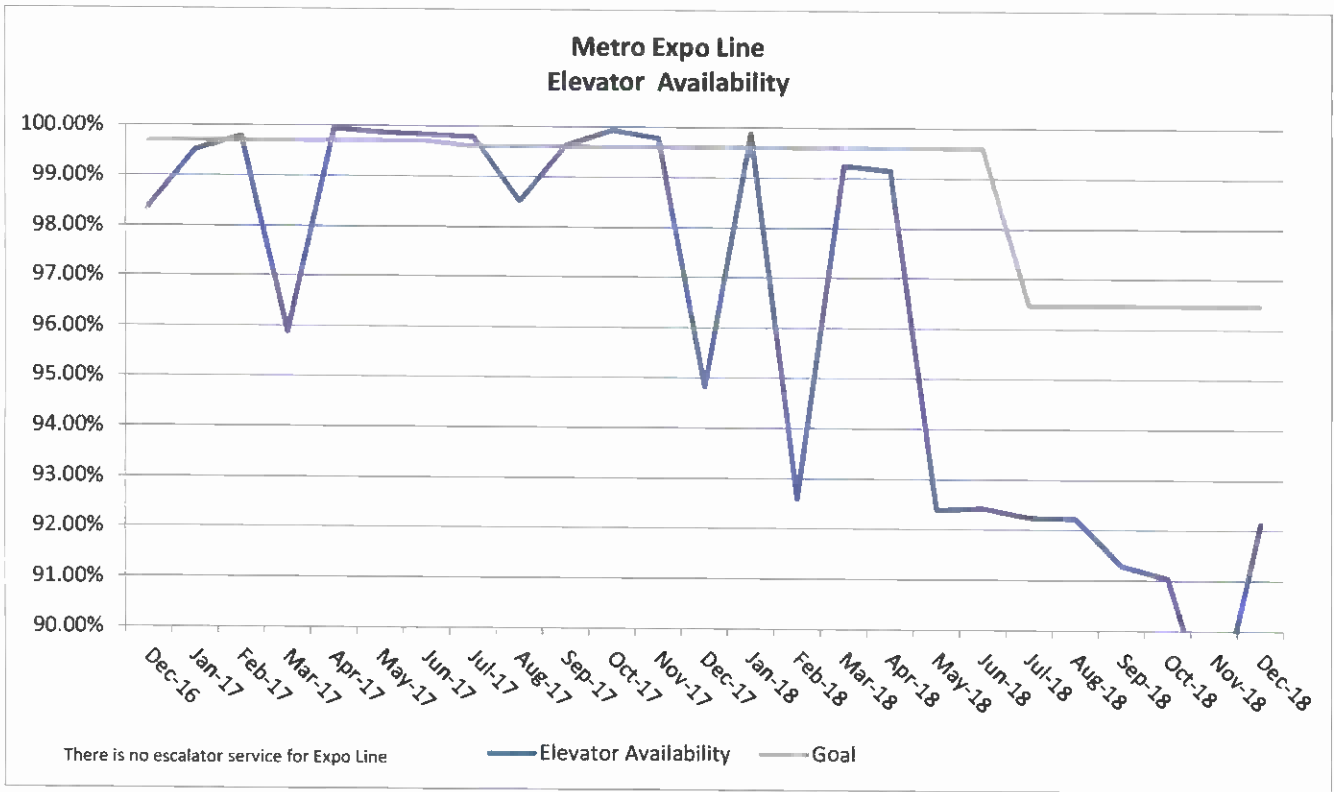
LOST TRIPS



LOST HOURS



VERTICAL TRANSPORTATION AVAILABILITY



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

Financial Status

December 2018

FTA Quarterly Review

February 2019



Metro

Excellence in Service and Support

FY19 – Indicators

- **FY19 actual cash receipts from locally imposed sales tax revenues (PA, PC, MR, MM) totaled \$851.7M during Q2 of the fiscal year, an increase of 3.2%. (YOY receipt comparisons now include Measure M)**
- **The Dec 2018 Los Angeles County unemployment rate continues to increase slightly as the local Labor Force hits a 20 year high. State and National figures each had a small increase.**
LA 4.8%, CA 4.2% and US 3.9%

Note: December 2018 recorded at or near 20 year highs in Labor Force and Employment levels in California and Los Angeles County.

- **Inflation in the Los Angeles Metropolitan Area declined to 3.2% for the period Dec '18 over Dec '17**
 - **Excluding Food and Energy, core inflation equaled 3.0%**
- **Transit indicators – FY 19 – Q2**
 - Ridership versus prior year**
 - Bus: -3.2%**
 - Rail: -2.2%**
 - Total: -2.9%**
 - Fare revenues – FY19Q2 -7.5% vs FY 18Q2**



FY19 Q2 – Highlights

- Metro's Board approved the establishment of a Transit Line Operational Naming Convention to convert the current naming convention to a color and letter designation for rail lines and bus rapid transit lines;
- Metro's Board affirmed its commitment to support the operations of Los Angeles County's first transportation infrastructure school; \$71M through FY35
- Metro's Board approved the Crenshaw/LAX-Green Line initial operational plan
- Metro's Board approved the Final Environmental Impact Report (FEIR) for the Division 20 Portal Widening and Turnback Facility

FY19 Q3– Look Ahead

- **Launch of the pilot Mobility on Demand project at 3 stations to provide First/Last mile rail station connections**
- **Initiation of the 8 month New Blue capital improvements project on the Metro Blue Line.**
- **Potential issuance of Proposition C bonds to finance new construction and refinance earlier issues to continue to take advantage of low interest rates.**

Los Angeles County
Metropolitan Transportation Authority

METRO CONSTRUCTION SAFETY FTA Quarterly Review Meeting February 27, 2019



01/30/2019 08:52:15



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 2018.
- WSCC participated in Metro's All Hands Safety and Security Meetings in October and November 2018.
- Metro's Executive Safety Team participated in Safety Walks in October and November 2018.
- Project-to-Date Total Work Hours: 7,675,031
- Recordable Injuries as of December 2018: 89
- Project Rate per 200,000 Labor Hours: 2.32
- BLS National Heavy Construction Incident Rate: 2.8
- Total Days Away Cases: 3
- Total Restrictive Duty Cases: 11



Metro

CONSTRUCTION SAFETY QUARTERLY REPORT



Westside Purple Line Extension
Section 1 Project



Regional Connector Transit Project

WESTSIDE PURPLE LINE EXTENSION SECTION 1 PROJECT

<input type="checkbox"/> Project to Date Total Work Hours:	3,388,051
<input type="checkbox"/> Recordable Injuries as of December 2018:	17
<input type="checkbox"/> Project Rate per 200,000 Labor Hours:	1.00
<input type="checkbox"/> BLS National Heavy Construction Incident Rate:	2.8
<input type="checkbox"/> Total Days Away Cases:	4

REGIONAL CONNECTOR TRANSIT PROJECT

<input type="checkbox"/> Project to Date Total Work Hours:	3, 415,453
<input type="checkbox"/> Recordable Injuries as of December 2018:	15
<input type="checkbox"/> Project Rate per 200,000 Labor Hours:	.88
<input type="checkbox"/> BLS National Heavy Construction Incident Rate:	2.8
<input type="checkbox"/> Total Days Away Cases:	0



Metro

CONSTRUCTION SAFETY QUARTERLY REPORT



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



Metro

Metro Rapid System Gap Closure Lines

Los Angeles
Metro BRT Network

Legend

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

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



Metro Rapid System Gap Closure Lines

Transit Signal Priority

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



Metro Rapid System Gap Closure Lines Shelter Implementation

Status

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

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



Metro Rapid System Gap Closure Lines

Current Project Budget and Expenditures

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

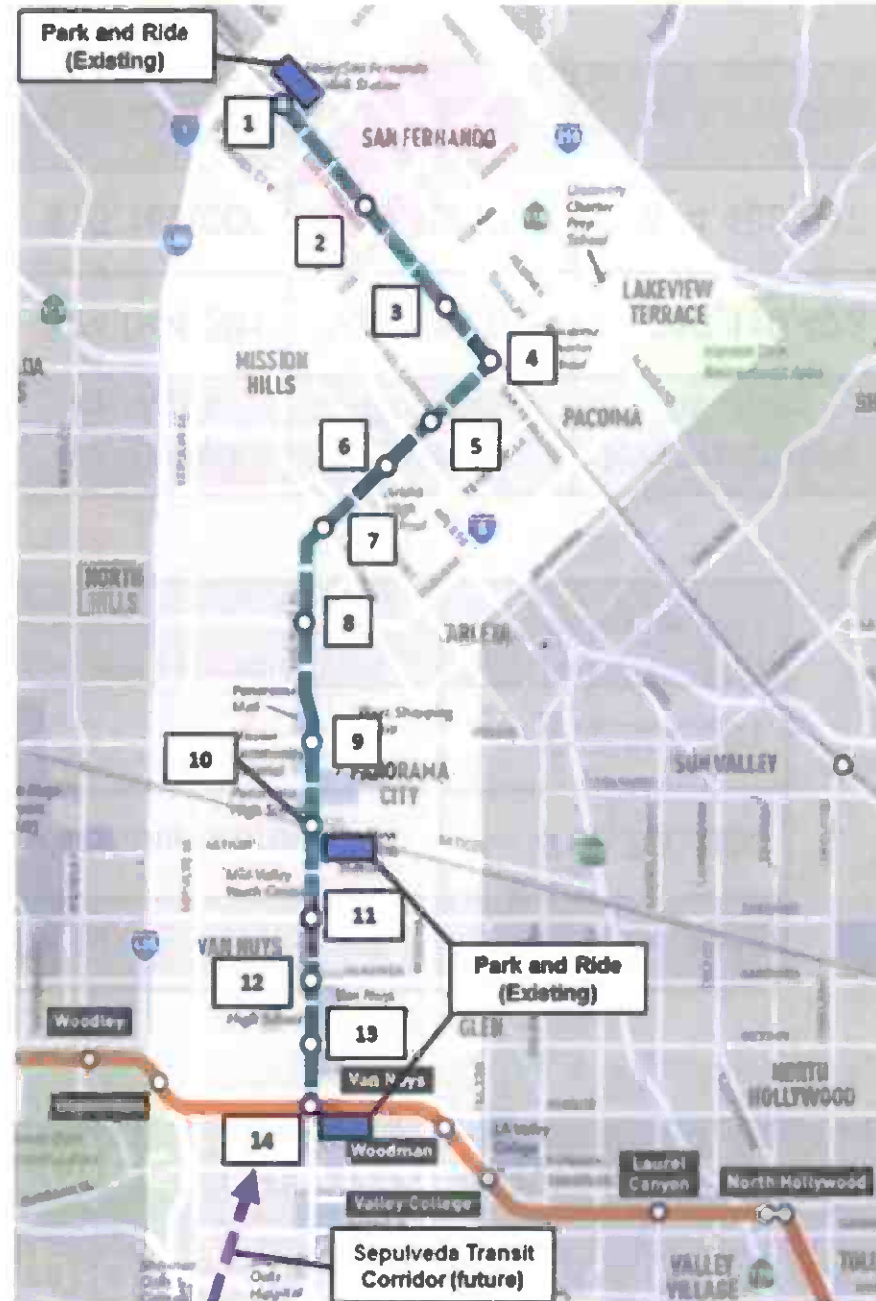
Activities	Approved Budget	Current Budget	Expenditures To Date	Forecast to Complete
Transit Signal Priority	\$24,044,301	\$23,121,925	\$19,119,423	\$4,002,502
Shelters	\$ 5,160,000	\$ 5,160,000	\$ 4,483,947	\$676,053
TOTAL	\$29,204,301	\$28,281,925	\$23,218,802	\$5,985,499



East San Fernando Valley Transit Corridor

Study Corridor

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



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



East San Fernando Valley Transit Corridor

Project Status

- FEIS/FEIR
 - SHPO Consultation on Findings of Effect
 - Grade Crossing Safety Analysis
 - Orange Line Station Connection
- Engineering
 - Finalizing Advanced Conceptual Engineering (10% design)
 - Updating Cost Estimates
 - Receipt of PE Proposals

Next Steps

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



Eastside Transit Corridor Phase 2

Study Corridor

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

Board Approvals

- October 2018 – Metro Board awarded new contracts for reinitiated environmental study and advanced conceptual engineering



Eastside Transit Corridor Phase 2

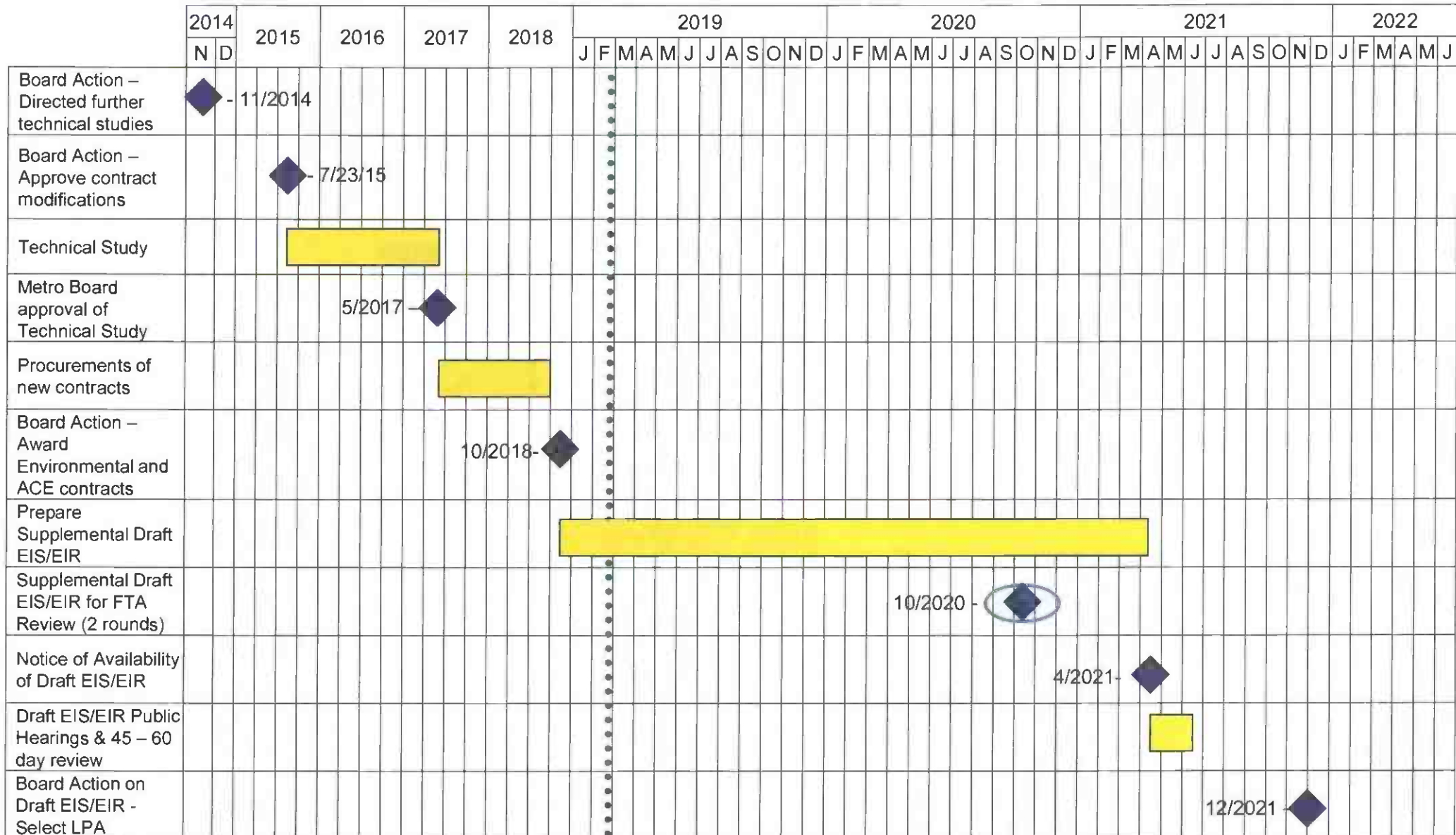
Status

- November 2018 – Project kick-off
- Winter/Spring 2019 – Initiation of preparation for NOI/NOP, data collection, and design refinement studies
- Ongoing outreach to cities, coalitions, and key stakeholders

Next Steps

- Spring 2019 – Stakeholder briefings and agency coordination meetings
- Summer 2019 – Scoping meetings

Eastside Transit Corridor Phase 2 Schedule



Last Revised: 2/2019

◆ = Milestone Date ○ = FTA Action

West Santa Ana Branch Transit Corridor



Study Corridor

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

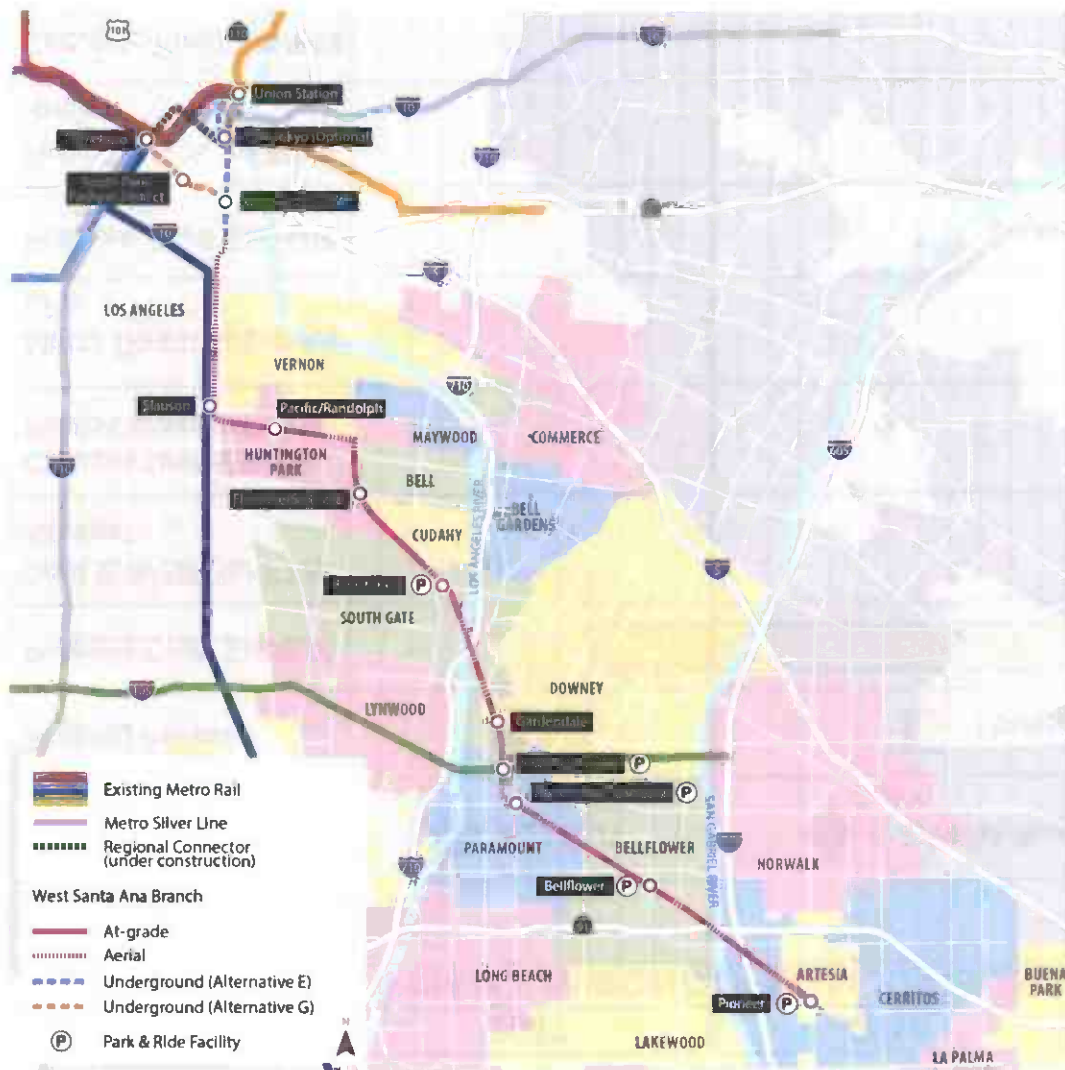
Board Approvals

- May 2018 Board approvals:
 - Northern Alignment Options
 - Alternative E – Alameda Underground
 - Alternative G – Downtown Transit Core
 - One Southern Alignment

Community Meetings

- July 2018 – Four updated scoping meetings
- August 2018 – Completion of comment period

West Santa Ana Branch Transit Corridor



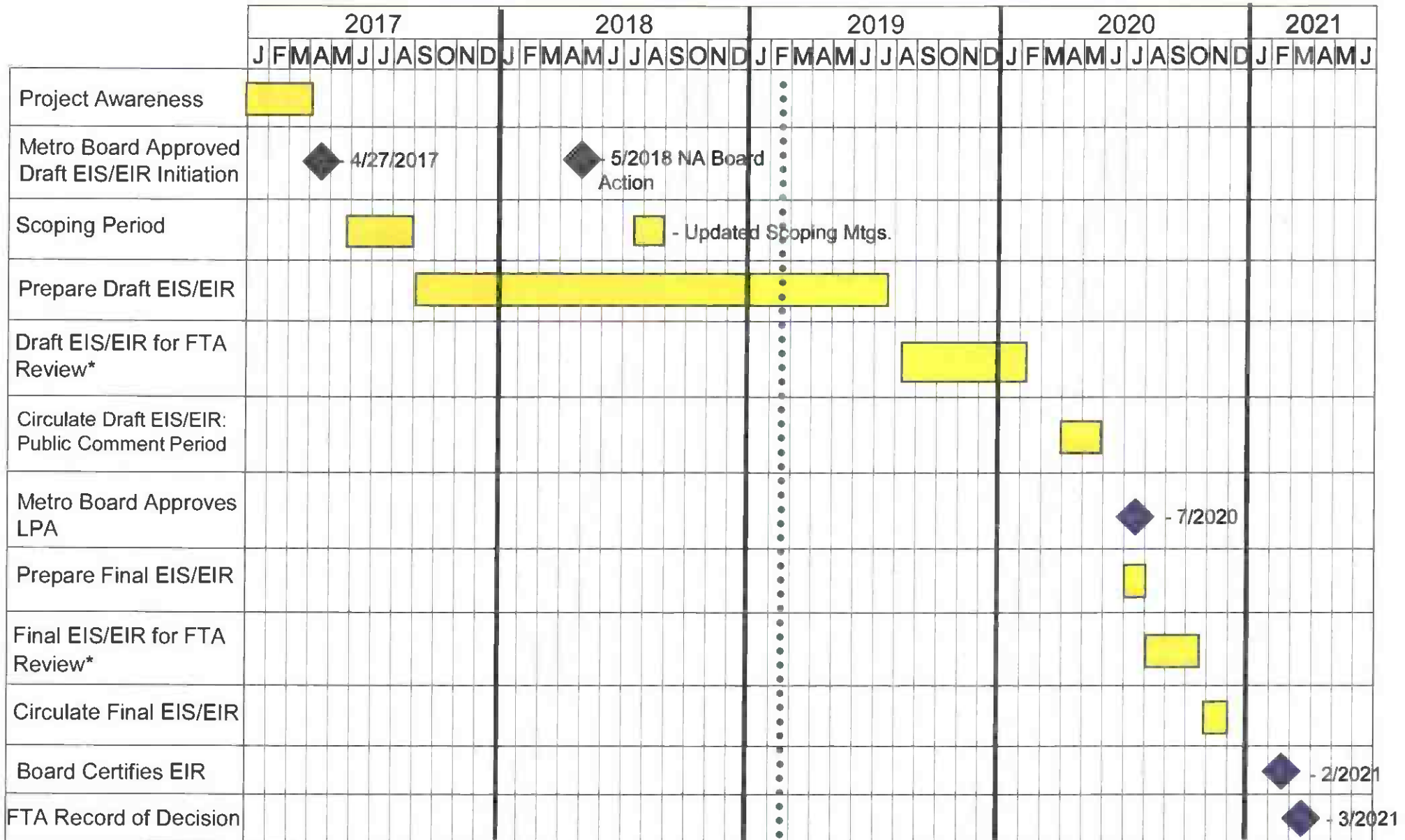
Status

- November 2018 Board action:
 - Updated project definition to address scoping comments, discussion with cities and stakeholders
 - Execution of third-party agreements
 - Contract modifications to advance level of design and outreach services
- Ongoing stakeholder briefings

Next Steps

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

West Santa Ana Branch Transit Corridor Schedule



*FRA review to be coordinated.

◆ = Milestone Date

Last Revised: 2/2019

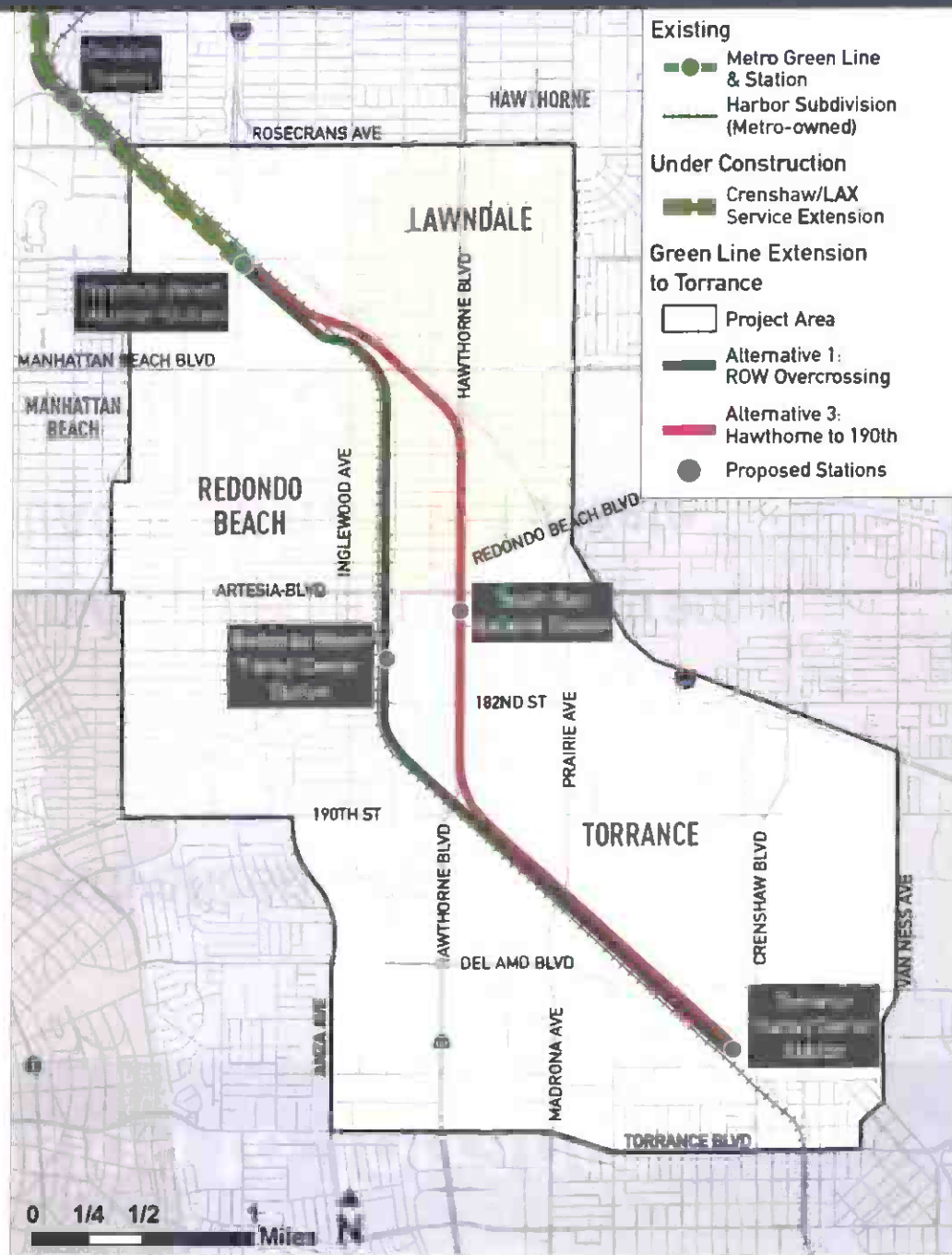
Green Line Extension to Torrance

Study Corridor

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

Board Approvals

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



Green Line Extension to Torrance

Status

- Preparing RFP for Environmental/Advanced Conceptual Engineering contract

Next Steps

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

Milestones

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

[1] Dates for the Original Draft EIS/R

[2] Reinitiated Draft EIS/R

Cesar Chavez Bus Stop Improvements Project

Status

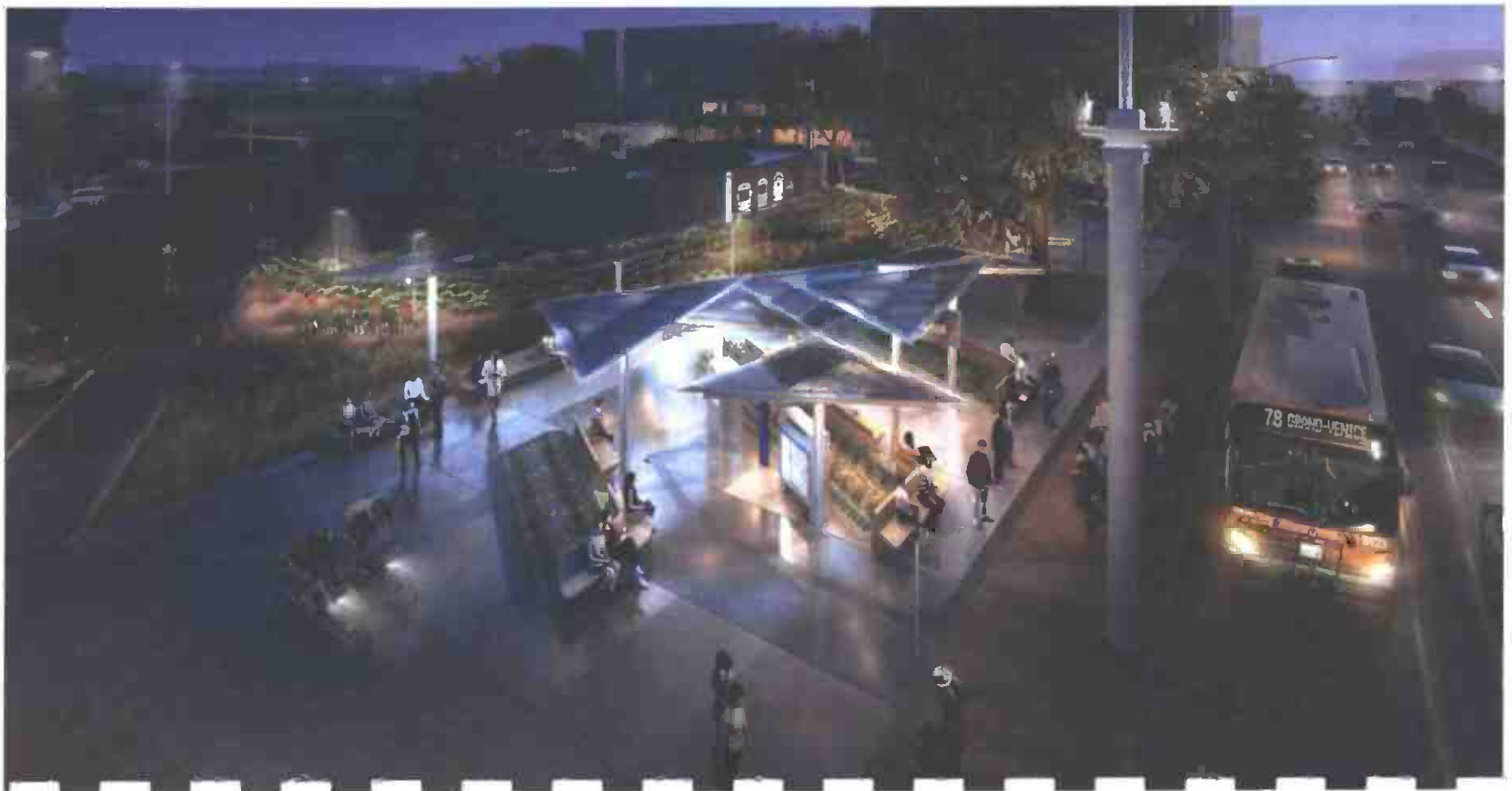
- Metro Board approved next steps in December
- City approvals for work in City streets are underway



Cesar Chavez Bus Stop Improvements Project

Next Steps / Schedule

- Begin construction 2019
- Complete construction 2020



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	\$342,849	-
Construction	\$1,742,848	\$1,742,848	\$23,248	\$1,719,600
TOTAL	\$2,085,697	\$2,085,697	\$366,097	\$1,719,600

Crenshaw/LAX Transit Project FTA Quarterly Review – February 27, 2019



Project Description

- 8.5 miles, 8 stations, 22 LRT vehicles
- Current Budget = \$2,058 million
- Current Forecast = \$2,058 million
- Remaining Unallocated Contingency = 1.1% of Total Project Current Forecast and 9.3% of Total Project Cost-to-Go
- Contractor Award Date = August 01, 2013
- Current Revenue Service = October 30, 2019
- Forecast Revenue Service = Spring 2020
- Final Design progress = 100%
- Construction progress = 90%
- Federal Funds = \$177.6 million
- Local Funds = \$1,665.2 million
- State Funds = \$215.2 million



Key Project Updates

- Completed major work in January 2019 for Crenshaw Line track and systems cut-over to GreenLine.
- The main line contractor continues work through all areas of the alignment but progress is slower than planned.
- The safety recordable rate is at 2.3 (December 2018), which is less than the national average of 2.8 (based on 200,000 work hours).
- The estimated jobs created to-date is 18,263 with 757 estimated jobs created last quarter*.
- The Southwestern Yard (Division 16) contractor achieved substantial completion on January 30, 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 C



LEIMERT PARK STATION – Installation of escalator 1 and 2 at the entrance



MARTIN LUTHER KING JR. STATION – Installed formwork for walls at the Plaza level

Construction Update Segment B



48th ST. Crossing

Construction Update Segment A



**AVIATION/CENTURY STATION
Platform**

Construction Update Southwestern Yard

SOUTHWESTERN YARD – Train on heavy repair platform
in main shop



SOUTHWESTERN YARD – Main
building

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

- DBE Goal – Design 20.00%
- Current DBE Commitment \$24,912,763 20.00%
- Current DBE Participation \$28,870,695 24.41%

26 Design subcontractors have been identified to-date.

-
- DBE Goal-Construction 20.00%
 - Current DBE Commitment (contract) \$257,764,345 20.00%
 - Current DBE Participation (paid) \$269,515,469 25.74%

289 Construction subcontractors have been identified to-date.

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

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

- DBE Goal – Design 20.00%
 - Current DBE Commitment \$2,467,837 (20.93%)
 - Current DBE Participation \$2,283,939 (19.78%)
- 10 Design subcontractors have been identified to-date

-
- DBE Goal – Construction 16.00%
 - Current DBE Commitment (contract) \$25,930,837 (16.00%)
 - Current DBE Participation (paid) \$24,443,779 (17.39%)

88 Construction subcontractors have been identified to-date.

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

Project Cost Status

UNITS IN DOLLARS

SCC CODE	DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		CURRENT BUDGET/ FORECAST VARIANCE
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
10	GUIDEWAYS	471,335,000	-	450,354,375	-	452,814,896	6,911,557	425,879,606	-	452,817,916	2,463,541
20	STATIONS	153,906,000	-	315,050,000	-	309,479,038	6,772,294	242,820,117	-	309,479,038	(5,570,962)
30	SUPPORT FACILITIES SOUTHWEST YARD	66,673,000	-	71,164,000	-	68,132,352	638,825	62,598,474	-	71,164,000	-
40	SITEWORK/SPECIAL CONDITIONS	235,576,000	-	395,798,361	781,968	399,763,393	5,289,567	350,290,835	60,000	406,314,904	10,516,542
50	SYSTEMS	125,132,000	-	169,436,000	132,128	169,139,633	6,065,187	108,742,491	-	173,013,161	3,577,161
CONSTRUCTION SUBTOTAL (10-50)		1,052,622,000	-	1,401,802,736	914,096	1,399,329,311	25,677,430	1,190,331,523	60,000	1,412,789,019	10,986,283
60	RIGHT-OF-WAY	132,294,000	-	127,490,000	419,501	129,432,593	400,893	129,261,700	462,870	129,476,073	1,986,073
70	LRT VEHICLES	87,780,000	-	83,571,544	-	82,158,061	1,399,970	78,793,298	-	83,571,544	-
80	PROFESSIONAL SERVICES	273,147,000	-	368,734,466	(320,318)	368,674,564	2,148,994	337,959,551	153,688	383,269,186	14,534,720
SUBTOTAL (10-80)		1,545,843,000	-	1,981,598,746	1,013,279	1,979,594,529	29,627,287	1,736,346,072	676,558	2,009,105,823	27,507,077
90	UNALLOCATED CONTINGENCY	177,157,000	-	50,401,254	-	0	-	-	(676,558)	22,894,177	(27,507,077)
TOTAL PROJECT 865512 (10-100)		1,723,000,000	-	2,032,000,000	1,013,279	1,979,594,529	29,627,287	1,736,346,072	-	2,032,000,000	-
ENVIRONMENTAL/PLANNING - 405512		5,526,150	-	5,526,150	-	5,526,150	-	5,526,150	-	5,526,150	-
ENVIRONMENTAL/PLANNING - 465512		20,473,850	-	20,473,850	-	20,022,881	-	20,022,881	-	20,473,850	-
TOTAL PROJECTS 405512 & 465512 (ENV / PLAN'G)		26,000,000	-	26,000,000	-	25,549,031	-	25,549,031	-	26,000,000	-
TOTAL PROJECTS 405512, 465512 & 865512		1,749,000,000	-	2,058,000,000	1,013,279	2,005,143,560	29,627,287	1,761,895,103	-	2,058,000,000	-

1. Expenditures are Cumulative through December 28, 2018.

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

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

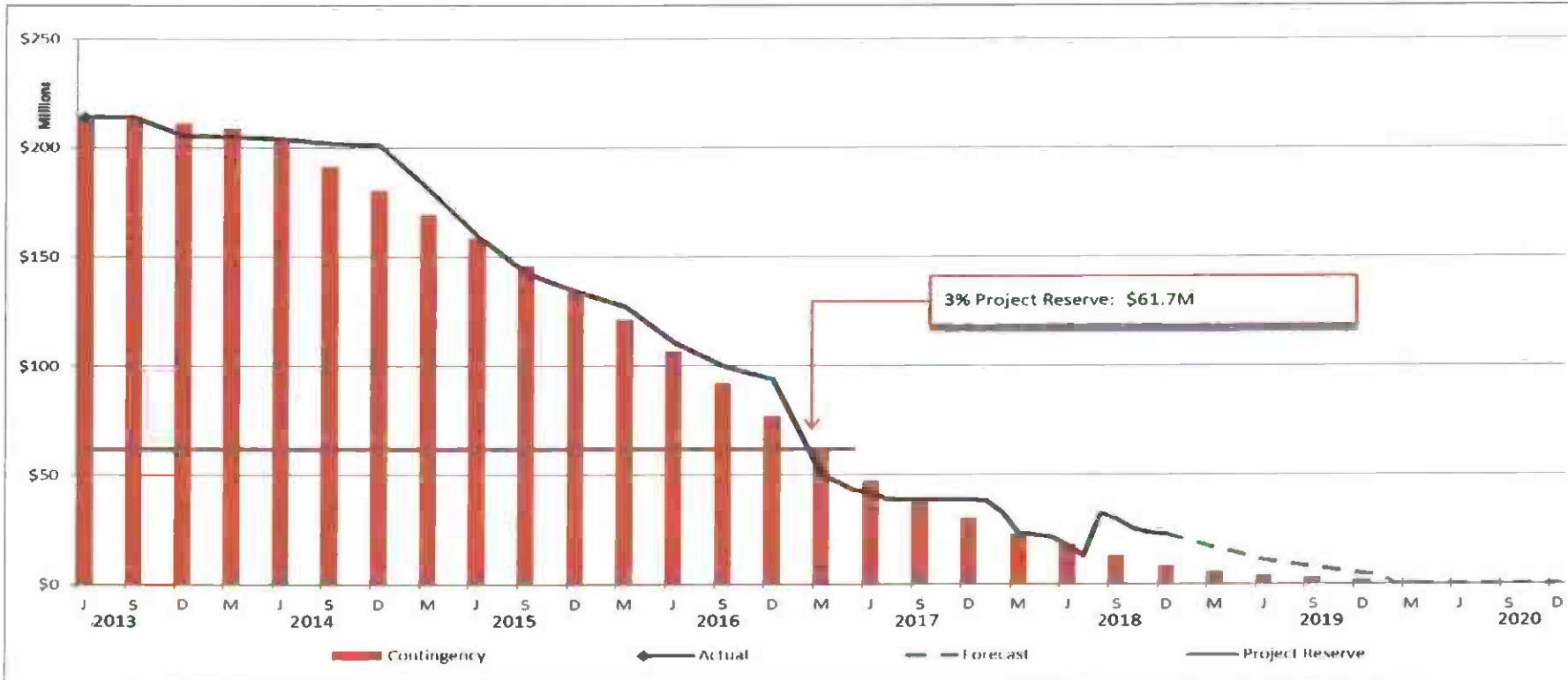
4. Re-categorized Task=3.4.06 from SCC-80.03 to SCC-60.01.

Non-Crenshaw/LAX Transit Project Funded Scope of Work

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

C0988 NON-CRENSHAW/LAX TRANSIT PROJECT FUNDED SCOPE OF WORK									
DESCRIPTION	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		FORECAST VARIANCE
	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
405556 SYSTEMWIDE TRANSIT PLANNING	-	320,035	-	320,035	-	320,035	-	320,035	-
210090/93 FARE GATE PROJECT	-	2,566,226	-	2,566,226	-	1,541,048	-	2,566,226	-
210152 CRENSHAW/LAX BUS TRANSFER FACILITY	-	2,200,000	-	2,200,000	-	403,334	-	2,200,000	-
460303 AIRPORT METRO CONNECTOR	-	37,914,465	-	37,047,674	-	36,597,813.7	-	37,914,465	-
500013 C/LAX LAWA SCOPE OF WORK	-	1,575,362	-	1,114,613	-	792,109	-	1,575,362	-
TOTAL	-	44,576,088	-	43,248,548	-	39,654,340	-	44,576,088	-

Budget Contingency Drawdown



PROJECT COST CONTINGENCY (through 28-Dec-2018)					
UNITS IN DOLLARS					
	Original Contingency	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	173,500,000	(149,929,265)	(676,559)	(150,605,824)	22,894,176
Allocated Contingency	40,366,792	(40,366,792)	-	(40,366,792)	-
Total Contingency	213,866,792	(190,296,057)	(676,559)	(190,972,616)	22,894,176

Top Risks & Mitigations

RISK ID	RISK DESCRIPTION	RISK SCORE	MITIGATION STRATEGIES
124	Main Line testing prior to pre-revenue operations may take longer than expected, resulting in increased Main Line Metro and Consultant costs and potential delay to December 11, 2019 - Substantial Completion.	18	<ol style="list-style-type: none"> 1. Prepare appropriate testing schedule and review with operations people. 2. Have pre-meetings with test firm presidents to emphasize importance of staffing. 3. Testing schedules to be prepared based on previous project startup experience. 4. DB submit test plan, Metro review for completeness. 5. Monitor completion of factory acceptance testing - FATs. 6. Monitor completion of LFATS 7. Expedite contractor/vendor turnaround of test results. 8. Keep test firms informed of critical schedule needs.
359	Extended Overhead or productivity loss claims exposure not covered by cost impacts in individual risks.	18	<ol style="list-style-type: none"> 1. Verify the CM is keeping very good documentation 2. Respond to all contractor notice of delay to protect Metro interests and clarify negative implications in contractors letters. 3. Resolve time impacts at the same time as resolving the direct cost of changes. 4. Identify potential critical procurements.
362	Schedule activities that are critical to completion. Plinth work Trackwork OCR at UG-4	1e	<ol style="list-style-type: none"> 1. Prepare work around plans for activities behind schedule. 30% 20% 2. Direct contractor on specific critical scope. 40% 20% 3. Identify what scope can be reschedule for completion after substantial completion.

Regional Connector Transit Project

FTA Quarterly Review Meeting

February 27, 2019



Project Description



- FFGA Budget – \$1,402.93M
- FFGA Forecast – \$1,670.83M
- FFGA Proposed RSD – 02/2023
- Forecast RSD – 09/2022
- FFGA Contingency (Proposed Budget) – 2.8%
- FFGA Contingency (To Go) – 7.7%
- Federal Funds – \$889.41M
- Local Funds – \$880.73M
- Design-Build Contractor: Regional Connector Constructors (RCC)
- Award Amount: \$927.23M
- Status: In Construction
- Overall Project Progress – 54.8%
- Final Design Progress – 99.8%
- Construction Progress – 52.2%

- 1.9 mile Link Connecting Blue & Expo Lines with Gold Line
- 3 New Stations
- 4 Light Rail Vehicles
- 90,000 Daily Project Transit Trips in 2035
- 17,700 Daily New Transit Trips in 2035

Key Project Updates

- Substantial Completion Milestone aligned with contract completion date
- RSD includes extended Rail Activation and Start-up
- Broadway Station / SEM Cavern / Overbuild has recovered and advancing well
- Contractor has committed to dedicating additional craft and supervisory resources
- Estimated Jobs Created to Date as of *December 2018* is *11,808* with a Estimated Total Jobs of 20,000.**

*Using RIR method of calculating.

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

Construction Update Tunnels



Walkway placement in right tunnel, Reach 1



Setting walkway form rails and guides in tunnels, Reach 2

- Walkway and concrete pours continue along tunnel alignment

Construction Update

Little Tokyo/Arts District Station

- Excavation and related support of utilities continue at both the Station and the Wye Junction
- Concrete preparation and placements occurring throughout the area



Sump/Ejector pit invert placement HDPE



Bottom mat rebar installation at west end

Construction Update Historic Broadway

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



Wall D concrete curing



Front face rebar installation at Wall D

Construction Update

SEM Cavern



SEM Cavern overview



Right center wall demolition

- SEM crossover cavern excavation approximately 95% complete
- Forecast completion early March; slightly ahead of schedule

Construction Update

Grand Av Arts/Bunker Hill Station



HDPE and water bar installation at south exterior wall



Strut removal at west hammerhead

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

Construction Update Flower Street



Jan 30, 2019 1:30:05 PM

Support of communication duct banks near 6th/Flower



Jan 30, 2019 1:39:54 PM

HDPE installation progress at FCC-1 and FCC-2

- Excavation and utility protection south of 5th continues; invert placement underway between 4th and 5th Streets

Disadvantaged Business Enterprises

Contract C0980 Regional Connector Transit Corridor Design-Build (Reporting Data as of December 2018)

Design	<ul style="list-style-type: none"> • DBE Goal • Current DBE Commitment • Current DBE Participation • Twelve (12) design DBE sub-consultants have been identified to date 	<p>20%</p> <p>\$14.0M (22.63%)</p> <p>26.90%</p>
Construction	<ul style="list-style-type: none"> • DBE Goal • Current DBE Commitment • Current DBE Participation • <i>Eighty-five (85)</i> construction DBE sub-consultants have been identified to date 	<p>18%</p> <p>\$192M (18%)</p> <p>12.04%</p>

FFGA Project Cost Status Above the Line

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

SCC CODE	DESCRIPTION	ORIGINAL FFGA BUDGET	PROPOSED FFGA BUDGET*	COMMITMENTS	EXPENDITURES	PROPOSED FFGA FORECAST AT COMPLETION**	VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS	280,622	244,931	244,274	167,386	251,876	6,945
20	STATIONS, STOPS, TERMINALS, INTERMODAL	354,268	220,966	221,040	55,278	221,471	505
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS	0	0	0	0	0	0
40	SITWORK & SPECIAL CONDITIONS	141,785	578,180	564,727	441,875	596,930	18,750
50	SYSTEMS	69,667	72,674	67,824	16,612	74,674	1,999
	CONSTRUCTION SUBTOTAL (10-50)	846,343	1,116,752	1,097,864	681,150	1,144,951	28,199
60	ROW, LAND, EXISTING IMPROVEMENTS	115,889	90,629	52,461	52,322	74,297	-16,331
70	VEHICLES	16,275	16,275	16,275	3,352	16,275	0
80	PROFESSIONAL SERVICES	261,455	350,272	289,163	266,733	370,958	20,686
	SUBTOTAL (10-80)	1,239,963	1,573,927	1,455,764	1,003,558	1,606,482	32,555
90	UNALLOCATED CONTINGENCY	135,399	82,600	0	0	50,045	-32,555
100	FINANCE CHARGES	27,571	14,301	0	0	14,301	0
	TOTAL PROJECT (10-100)	1,402,932	1,670,828	1,455,764	1,003,558	1,670,828	0

NOTE: TOTAL INCURRED COST TO DATE \$1,009,129,039.

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

**CURRENT PROJECT BUDGET LESS NON-FFGA ACTIVITIES.

Project Cost Status

FFGA / Non-FFGA

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

SCC CODE	DESCRIPTION	ORIGINAL FFGA BUDGET	PROPOSED FFGA BUDGET*	COMMITMENTS	EXPENDITURES	PROPOSED FFGA FORECAST AT COMPLETION**	VARIANCE
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20	STATIONS, STOPS, TERMINALS, INTERMODAL	354,266	220,966	221,040	55,278	221,471	505
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS	0	0	0	0	0	0
40	SITework & SPECIAL CONDITIONS	141,785	578,180	564,727	441,875	596,930	18,750
50	SYSTEMS	69,667	72,674	67,824	16,612	74,674	1,999
	CONSTRUCTION SUBTOTAL (10-50)	846,343	1,116,752	1,097,864	681,150	1,144,951	28,199
60	ROW, LAND, EXISTING IMPROVEMENTS	115,889	90,629	52,461	52,322	74,297	-16,331
70	VEHICLES	16,275	16,275	16,275	3,352	16,275	0
80	PROFESSIONAL SERVICES	261,455	350,272	289,163	286,733	370,958	20,686
	SUBTOTAL (10-80)	1,239,963	1,573,927	1,455,764	1,003,558	1,606,462	32,555
90	UNALLOCATED CONTINGENCY	135,399	82,600	0	0	50,045	-32,555
100	FINANCE CHARGES	27,571	14,301	0	0	14,301	0
	TOTAL PROJECT (10-100)	1,402,932	1,670,828	1,455,764	1,003,558	1,670,828	0

NOTE: TOTAL INCURRED COST TO DATE \$1,009,129,039.

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

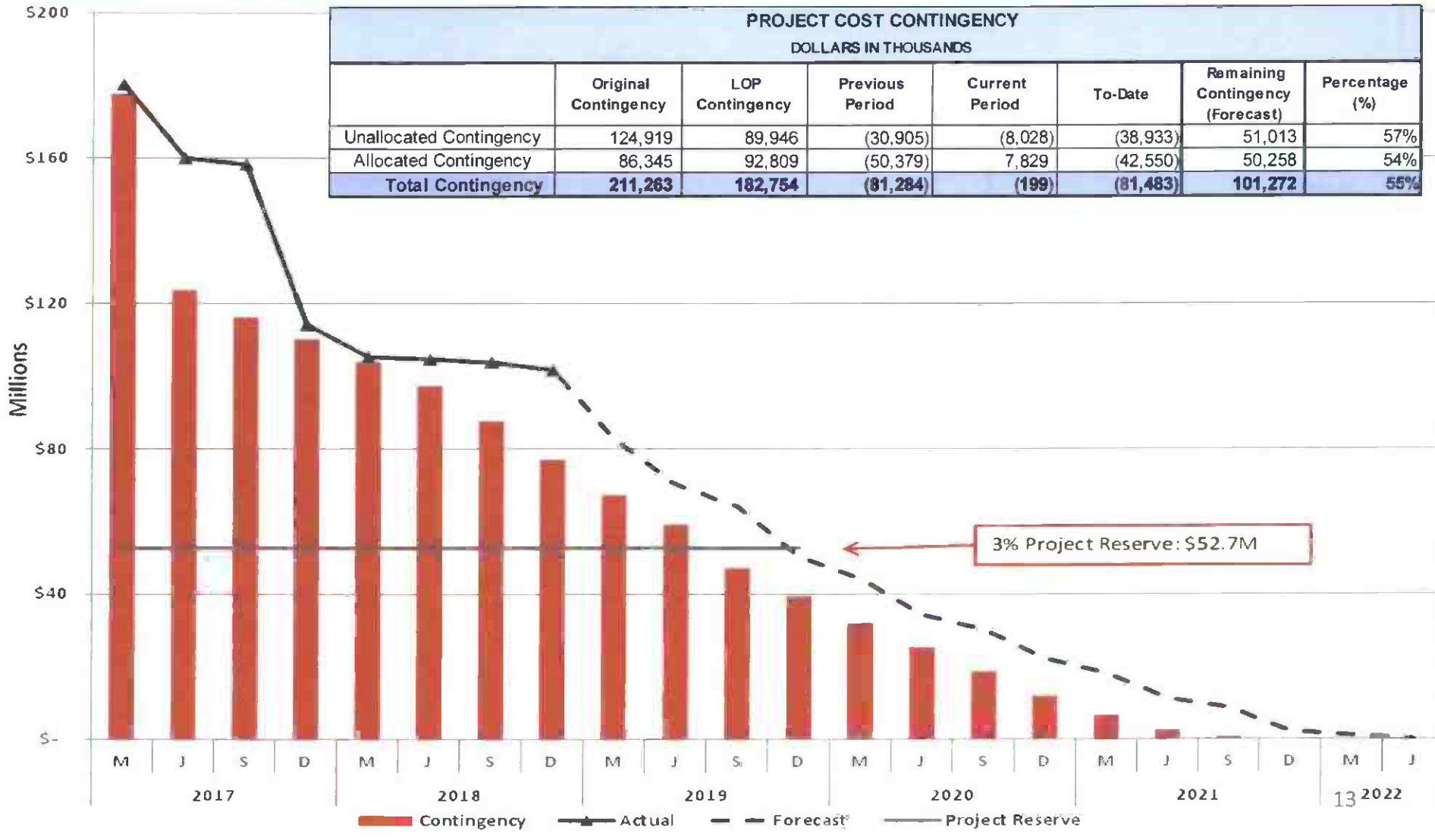
**CURRENT PROJECT BUDGET LESS NON-FFGA ACTIVITIES.

SCC CODE	DESCRIPTION	ORIGINAL NON FFGA BUDGET	PROPOSED NON FFGA BUDGET	COMMITMENTS	EXPENDITURES	PROPOSED NON FFGA FORECAST AT COMPLETION	VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS		4,350	4,350	489	2,261	-2,089
20	STATIONS, STOPS, TERMINALS, INTERMODAL		8,953	8,953	8,057	8,989	28
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS		0	0	0	0	0
40	SITework & SPECIAL CONDITIONS		20,237	11,465	4,726	26,988	6,751
50	SYSTEMS		750	129	19	900	150
	CONSTRUCTION SUBTOTAL (10-50)		34,289	24,896	13,291	39,129	4,840
60	ROW, LAND, EXISTING IMPROVEMENTS		2,113	0	0	2,113	0
70	VEHICLES		0	0	0	0	0
80	PROFESSIONAL SERVICES		29,066	13,673	9,959	30,604	1,538
	SUBTOTAL (10-80)		65,468	38,570	23,250	71,846	6,378
90	UNALLOCATED CONTINGENCY		7,345	0	0	968	-6,378
100	FINANCE CHARGES		0	0	0	0	0
	TOTAL NON-FFGA (10-100)		72,814	38,570	23,250	72,814	0
	ENVIRONMENTAL/PLANNING		26,500	26,500	26,500	26,500	0
	TOTAL NON-FFGA (INCL. ENV./PLANNING)		99,314	65,070	49,750	99,314	0

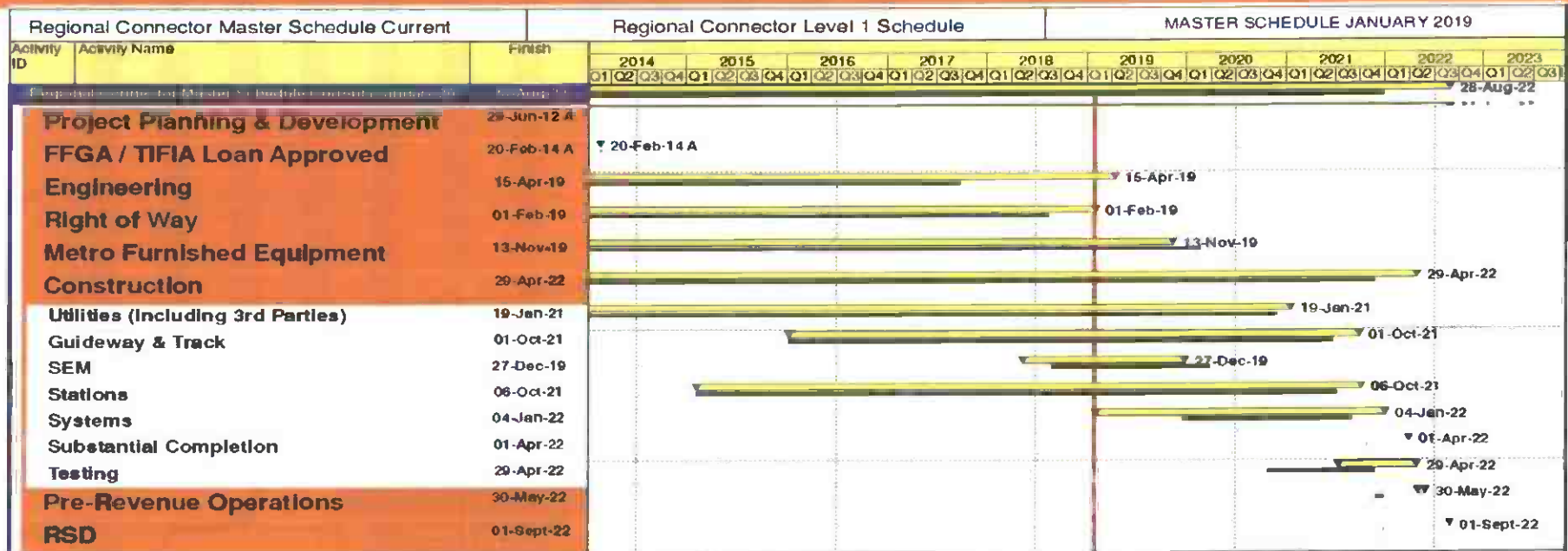
NOTE: TOTAL INCURRED COST TO DATE \$48,313,304. METRO AND TRIBUNE AGREED ON REIMBURSEMENT OF \$1.6 MILLION RELATED TO 2ND/BROADWAY OVERBUILD.

TOTAL PROJECT	1,402,932	1,770,142	1,520,833	1,051,871	1,770,142	0
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Budget Contingency Drawdown

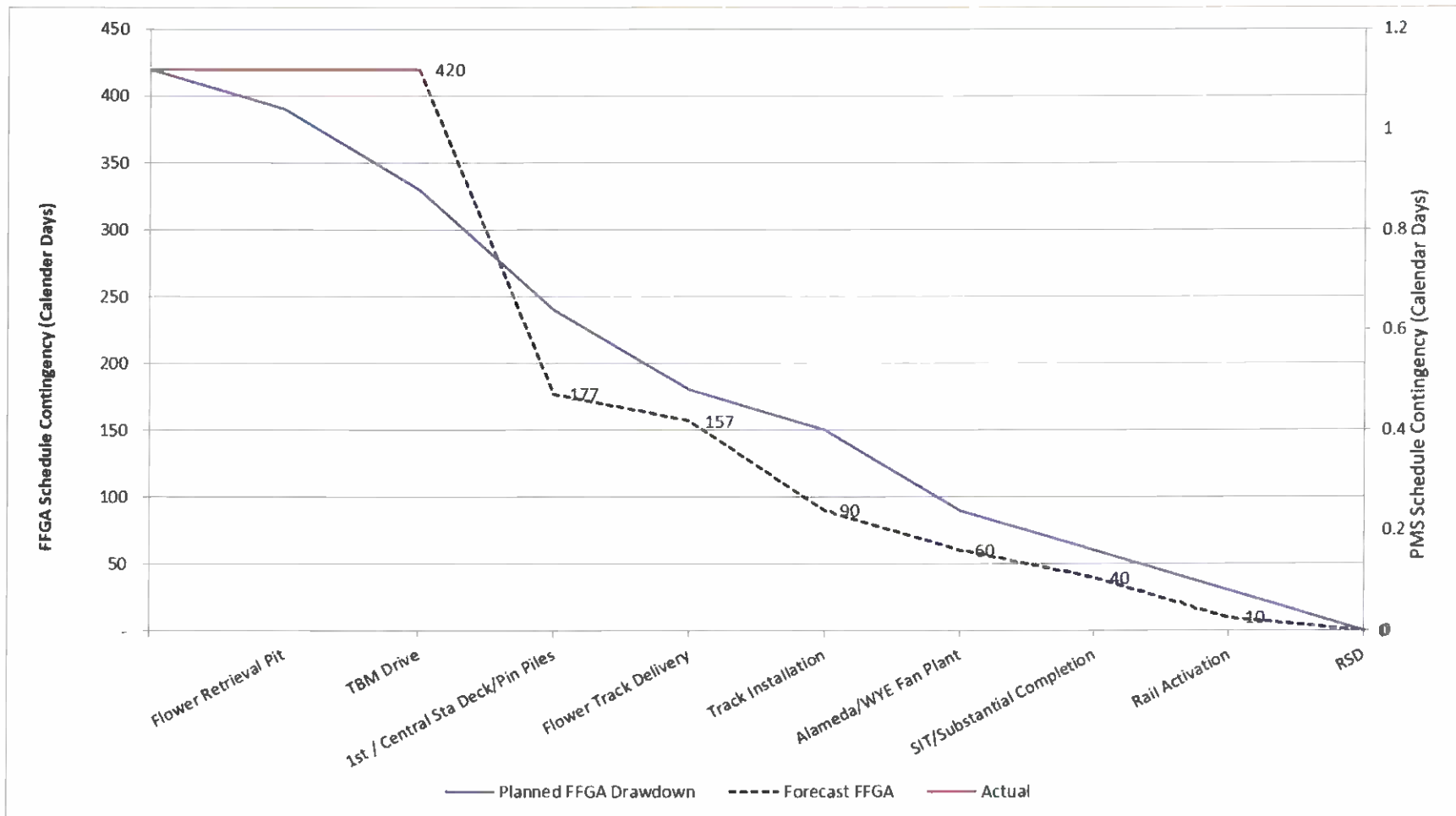


Summary Schedule



Remaining Work Baseline Baseline Milestone Milestone	1 of 1 Regional Connector Level 1 Summary Schedule Los Angeles County Metropolitan Transportation Authority	Data Date : 01-Feb-19 Current Date : 12-Feb-19	
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Schedule Contingency Drawdown (Proposed FFGA RSD)



Top Risks & Mitigations

January 2019

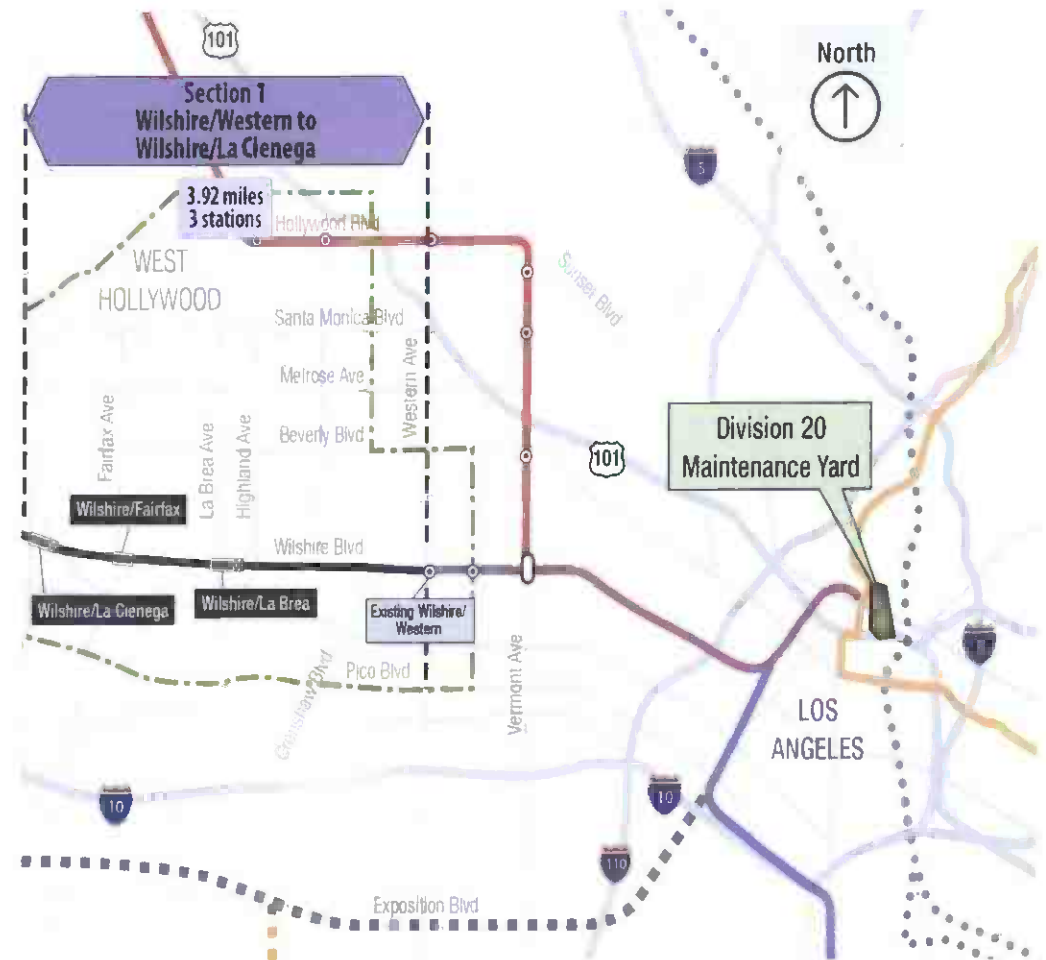
RISK ID	RISK DESCRIPTION	RISK SCORE	ACTION ITEMS
213	Lawsuits at Flower Street may delay the Project and increase costs.	8	<i>Strict compliance of Mitigation Monitoring and Reporting Requirements (MMRP).</i>
311	Commonwealth Agreement may impact costs due to extended "construction phase."	8	<i>Refine response to FSP obligations w/ already budgeted costs.</i>
394	<i>Additional station and guideway craft and supervisory resources are needed to change the prevailing dynamic of insufficient crews to staff available work fronts; float erosion is likely to continue if craft labor crew numbers are not increased.</i>	7.5	<i>Engage RCC on specific hiring plans of field resources to include supervision and added crews</i>
415	<i>RCC eroding float trend will exhaust schedule flexibility; milestones may be in jeopardy if plan and production continue to miss targets</i>	7.5	<i>Organize leadership discussion on RCC plan and practice regarding schedule.</i>
363	<i>Wye pin pile removal after backfill and street restoration may have schedule and cost implications beyond the Wye</i>	6	<i>Secure and review RCC sequence and schedule to demonstrate path-forward</i>

**Westside Purple Line Extension Section 1 Project
FTA Quarterly Review
February 27, 2019**



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

- The WPLE Section 1 Project is 3.92 miles (Wilshire/Western to Wilshire/La Cienega); Scope of work includes twin-bored tunnels, three (3) new subway stations, and 34 HRVs:
 - Wilshire/La Brea
 - Wilshire/Fairfax
 - Wilshire/La Cienega
- Division 20 Yard Modifications
- FFGA Budget: \$2.82 Billion
- FFGA Forecast: \$3.09 Billion
- FFGA RSD: October 31, 2024
- Forecast RSD: Fall 2023
- Design Progress: 100% (Final Design Complete)
- Construction Progress: 44%
- Daily Project Transit Trips: 33,694
- Daily New Transit Trips: 9,841
- Current Contingency Forecast (SCC 10-80): 7%
- Current Contingency Forecast of Cost-to-Go (SCC 10-80): 14%
- Federal Funds: \$1.26 Billion
- Local Funds: \$1.56 Billion
- Status: All three (3) stations and W/W TBM Shaft under construction. Tunnel drive has commenced.



Westside Purple Line Extension Section 1 Project Project Update

- The current job creation estimates as extrapolated from the Los Angeles Economic Development Corporation (LAEDC) analysis of job impacts is the following:
 - December 2018: 158 estimated jobs
 - FY 2019, second quarter: 619 estimated jobs
 - To date: 14,772 estimated jobs

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

Current Activities:

- Building exterior activities, electrical/low-voltage work, finish work/signage and sitework

Status:

- **Division 20 MOW Building:** Substantial completion remains on schedule for March 29, 2019. Exterior elevations, commissioning and start-up of equipment is targeted for early February. Finish work is on-going with installation of signage also schedule to start in February.
- **Parts and Storage Expansion:** Completion of Rapidstak shelves, installation of exterior roll-up door and metals panels scheduled for early February.



Location 64 Santa Fe Yard – Rail Bay 152 & 153



Location 64 Santa Fe Yard – LADWP Transformer



Division 20 MOW Building – Glazing Installation

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

Current Activities:

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

Status:

- On January 11, 2019, the TBM temporary support slab was poured.
- Civil restoration to 'Steady State' was completed in January 2019.
- Waler and strut removal is currently underway.



Lifting Strut out of the Western Shaft



Lifting Forklift out of the Western Shaft



Lifting Waler out of the Western Shaft

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

Current Activities:

- Tunnel muck removal; precast tunnel segment delivery
- Interior load bearing walls; concourse construction

Status:

- Concrete placement for interior load bearing walls continues.
- Shoring installation for the concourse deck is on-going.
- Tunnel segments continue to be received, inspected and stockpiled.



Concourse Deck Shoring



La Brea Station Looking East



Concrete Placement at North Interior Wall

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

Current Activities:

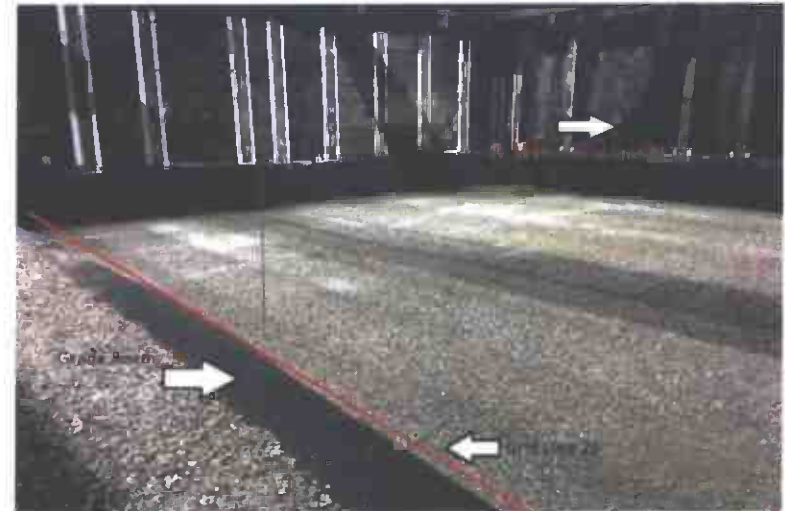
- Station excavation
- Fine grading of subgrade; grounding grid, vent mat, gravel layer installation

Status:

- Mass excavation at the east end of the station continues.
- Grounding grid installation started mid-January 2019.



Fairfax Station Fine Grading



Fairfax Station Venting Gravel



Fairfax Station Subgrade

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

Current Activities:

- Shaft excavation, waler/strut installation, dewatering activities

Status:

- Installation of Level C struts continues. Bottom of excavation is anticipated to be reached in May 2019.
- Maintenance of surface aesthetics per the COBH MOA is ongoing.



Pumping Ground Water at La Cienega



Strain Gauge Installation on Level C Struts



La Cienega Station Looking East

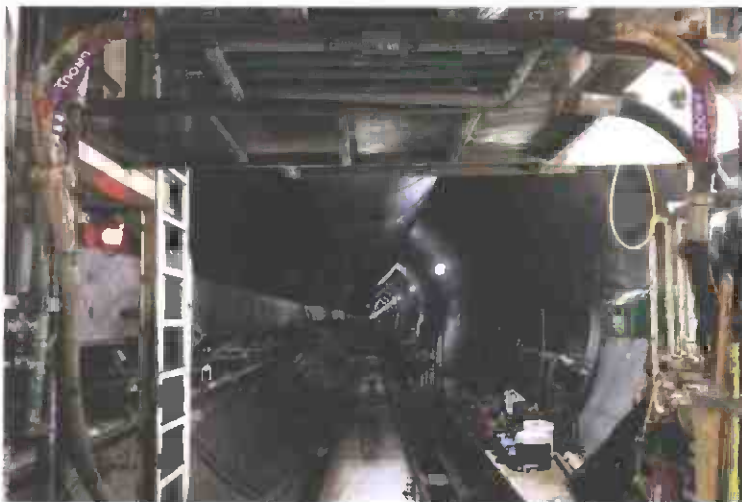
Westside Purple Line Extension Section 1 Project Project Update Tunneling – Tunnel Boring Machines

Current Activities:

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

Status:

- Reach 1 Mining as of February 1, 2019:
 - TBM #1 - 3,357 feet or 35%
 - TBM #2 – 2,107 feet or 22%
- Reach 1 instrumentation installation nearly complete. Reach 2 instrumentation has commenced.



Reach 1 Tunneling Looking West



Reach 1 Tunneling – Belt Booster Drive



Tunnel Ventilation Booster Fan at North Yard

Westside Purple Line Extension Section 1 Project FFGA 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	382,446	150,487	387,938	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	570,051	489,322	468,344	169,812	489,322	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	39,086	38,092	36,525	29,573	38,092	-
40	SITework & SPECIAL CONDITIONS	139,820	812,415	782,823	545,013	812,415	-
50	SYSTEMS	123,579	115,199	100,549	25,991	115,199	-
CONSTRUCTION SUBTOTAL (10-50)		1,437,616	1,842,966	1,770,686	920,877	1,842,966	-
60	ROW, LAND, EXISTING IMPROVEMENTS	212,475	190,036	190,036	168,286	190,036	-
70	VEHICLES	160,196	108,302	98,118	14,607	108,302	-
80	PROFESSIONAL SERVICES	410,342	506,876	368,223	315,273	506,876	-
SUBTOTAL (10-80)		2,220,629	2,648,180	2,427,063	1,419,043	2,648,180	-
90	UNALLOCATED CONTINGENCY	225,859	110,856	-	-	110,856	-
100	FINANCE CHARGES	375,470	331,065	-	-	331,065	-
TOTAL PROJECT (10-100)		2,821,957	3,090,101	2,427,063	1,419,043	3,090,101	-

NOTE: TOTAL INCURRED COST TO DATE \$1,431,605

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

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

Westside Purple Line Extension Section 1 Project FFGA / Non-FFGA Cost Status

DOLLARS IN THOUSANDS

SCC CODE	DESCRIPTION	ORIGINAL FFGA BUDGET	PROPOSED FFGA BUDGET	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	PROPOSED FFGA BUDGET/ FORECAST VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS	565,080	387,938	382,446	150,487	387,938	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	570,051	489,322	468,344	169,812	489,322	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS	39,086	38,092	36,525	29,573	38,092	-
40	SITWORK & SPECIAL CONDITIONS	139,820	812,415	782,823	545,013	812,415	-
50	SYSTEMS	123,579	115,199	100,549	25,991	115,199	-
	CONSTRUCTION SUBTOTAL (10-50)	1,437,616	1,842,966	1,770,686	920,877	1,842,966	-
60	ROW, LAND, EXISTING IMPROVEMENTS	212,475	190,036	190,036	168,286	190,036	-
70	VEHICLES	160,196	108,302	98,118	14,607	108,302	-
80	PROFESSIONAL SERVICES	410,342	506,876	368,223	315,273	506,876	-
	SUBTOTAL (10-80)	2,220,629	2,648,180	2,427,063	1,419,043	2,648,180	-
90	UNALLOCATED CONTINGENCY	225,859	110,856	-	-	110,856	-
100	FINANCE CHARGES	375,470	331,065	-	-	331,065	-
	TOTAL FFGA PROJECT ACTIVITIES (10-100)	2,821,957	3,090,101	2,427,063	1,419,043	3,090,101	-

NOTE: TOTAL INCURRED COST TO DATE \$1,431,605

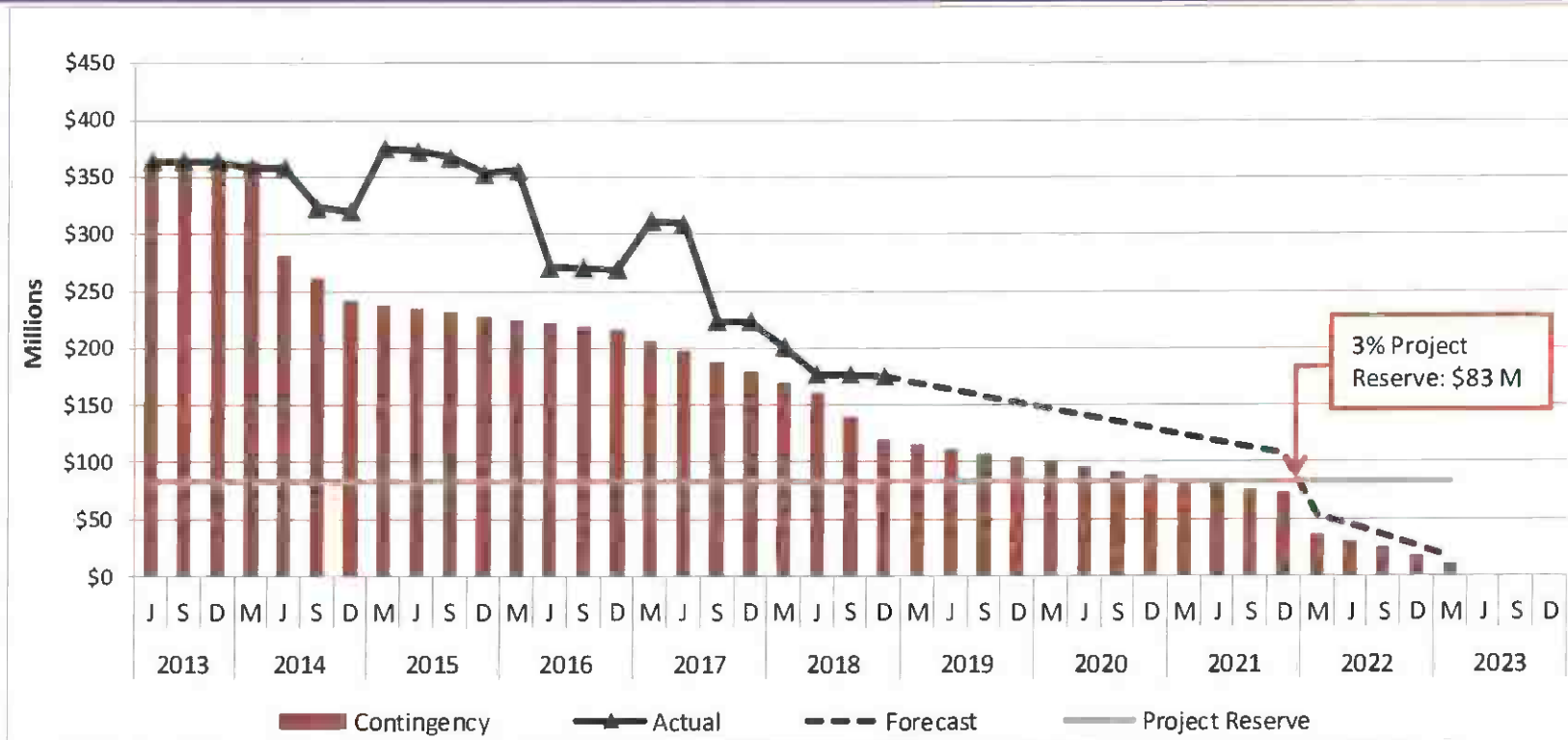
SCC CODE	DESCRIPTION	ORIGINAL NON FFGA BUDGET	CURRENT NON FFGA BUDGET	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	CURRENT NON FFGA BUDGET/ FORECAST VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS	-	-	-	-	-	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	-	-	-	-	-	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS	-	2,925	5,073	4,405	5,260	2,335
40	SITWORK & SPECIAL CONDITIONS	-	-	484	484	2,031	2,031
50	SYSTEMS	-	-	-	-	-	-
	CONSTRUCTION SUBTOTAL (10-50)	-	2,925	5,557	4,889	7,291	4,366
60	ROW, LAND, EXISTING IMPROVEMENTS	12,805	12,805	12,945	8,473	12,945	140
70	VEHICLES	-	-	-	-	-	-
80	PROFESSIONAL SERVICES	1,500	3,575	2,843	3,160	3,628	53
	SUBTOTAL (10-80)	14,305	19,305	21,345	16,522	23,864	4,559
90	UNALLOCATED CONTINGENCY	2,000	5,574	-	-	1,015	(4,559)
100	FINANCE CHARGES	-	-	-	-	-	-
	TOTAL CONCURRENT NON-FFGA PROJECT ACTIVITIES (10-100)	16,305	24,879	21,345	16,522	24,879	-
	ENVIRONMENTAL/PLANNING	39,370	39,370	39,370	39,357	39,370	-
	TOTAL NON-FFGA (INCL. ENV./PLANNING)	55,674	64,248	60,715	55,879	64,248	-

NOTE: TOTAL INCURRED COST TO DATE \$56,177

	TOTAL PROJECT	2,838,262	3,154,350	2,487,778	1,474,922	3,154,350	-
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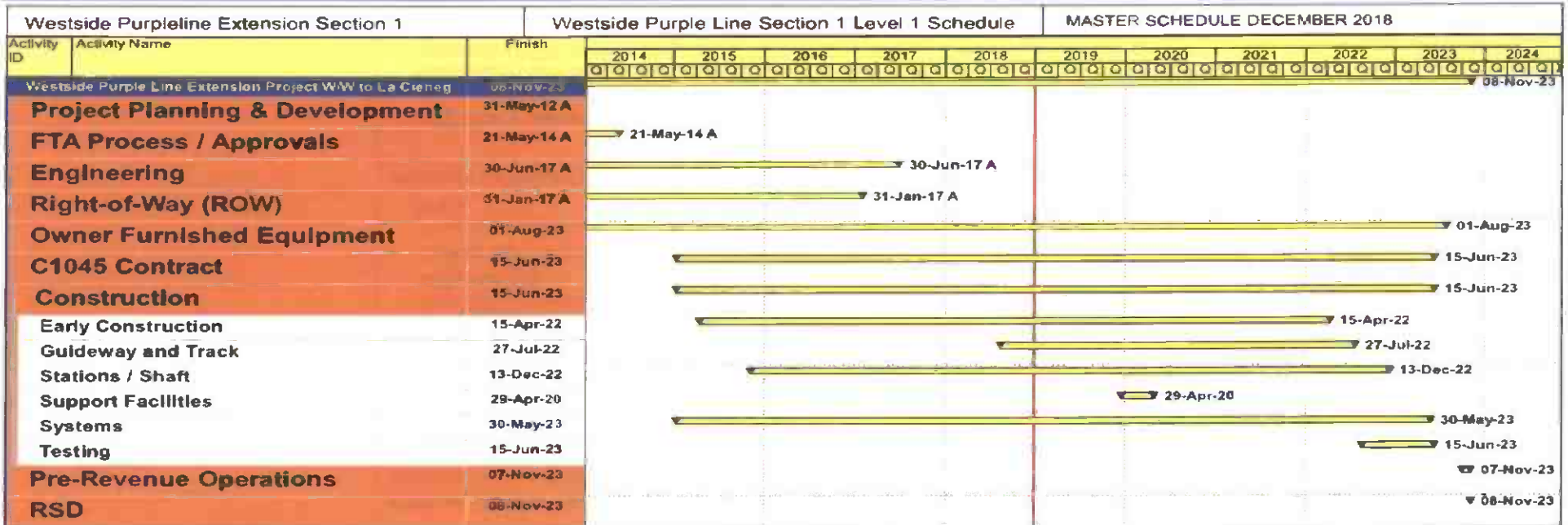
NOTE: TOTAL INCURRED COST TO DATE \$1,467,782

Westside Purple Line Extension Section 1 Project Project Cost Contingency Drawdown



PROJECT COST CONTINGENCY					
DOLLARS IN THOUSANDS					
	Original Contingency (Budget)	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	248,592	(136,721)	-	(136,721)	111,871
Allocated Contingency	71,963	(7,769)	(862)	(8,630)	63,333
Total Contingency	320,555	(144,489)	(862)	(145,351)	175,204

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



 Remaining Work
 Milestone

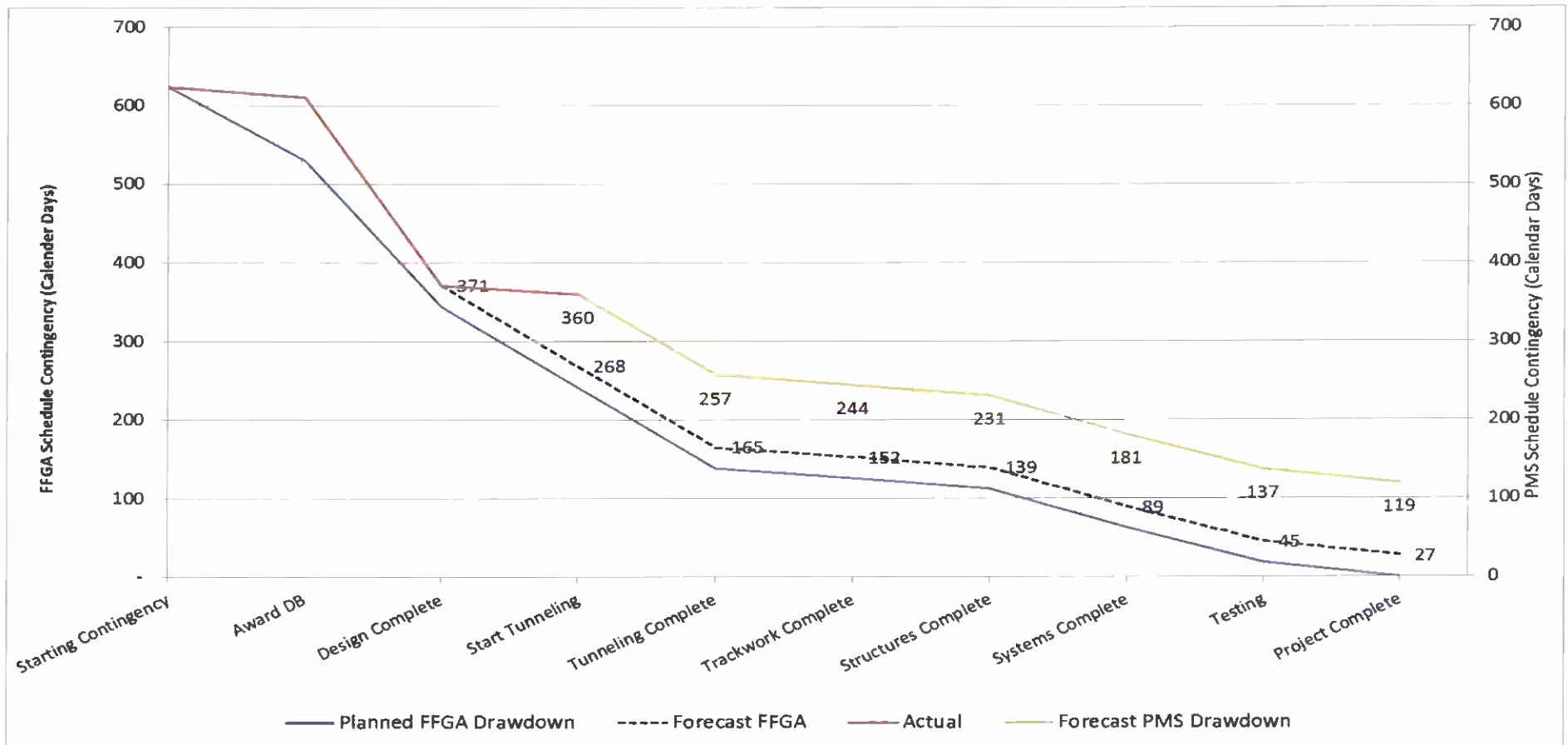
1 of 1
 Westside Purpleline Section 1 Level 1 Summary Schedule
 Los Angeles County Metropolitan Transportation Authority

Data Date : 01-Jan-19
 Current Date : 10-Jan-19

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

DISADVANTAGED BUSINESS ENTERPRISE (DBE)	
DISADVANTAGED BUSINESS ENTERPRISE (DBE)	
Contract C1045 Westside Purple Line Extension - Section 1 (Reported Data as of November 2018)	
<ul style="list-style-type: none"> • DBE Goal – Design A numerically expressed percentage of funds apportioned to Design Contracts and is calculated based upon the relative availability of DBE firms as compared to all firms in the relevant geographic market area. 20.25% • Current DBE Commitment – Design \$13,117,650 Total DBE Committed Dollars divided by Total Contract Value for Design or Construction. (20.25%) • Current DBE Participation \$12,353,196 Total amount paid to date to DBEs divided by the amount paid to date to Prime. (19.34%) 	
Fourteen (14) Design DBE subcontractors have been identified to-date.	
<ul style="list-style-type: none"> • DBE Goal – Construction A numerically expressed percentage of funds apportioned to Construction Contracts and is calculated based upon the relative availability of DBE firms as compared to all firms in the relevant. 17.00% • Current DBE Commitment – Construction \$266,737,709 Contract commitment divided by current contract value for Construction. (17.00%) • Current DBE Participation \$106,850,225 Total amount paid to date to DBEs divided by the amount paid to date to Prime. (15.76%) 	
One hundred-eleven (111) Construction DBE subcontractors have been identified to-date.	

Westside Purple Line Extension Section 1 Project Project Schedule Contingency Drawdown



Project Schedule Contingency Drawdown Analysis

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

Westside Purple Line Extension Section 1 Project Top Risks & Mitigations

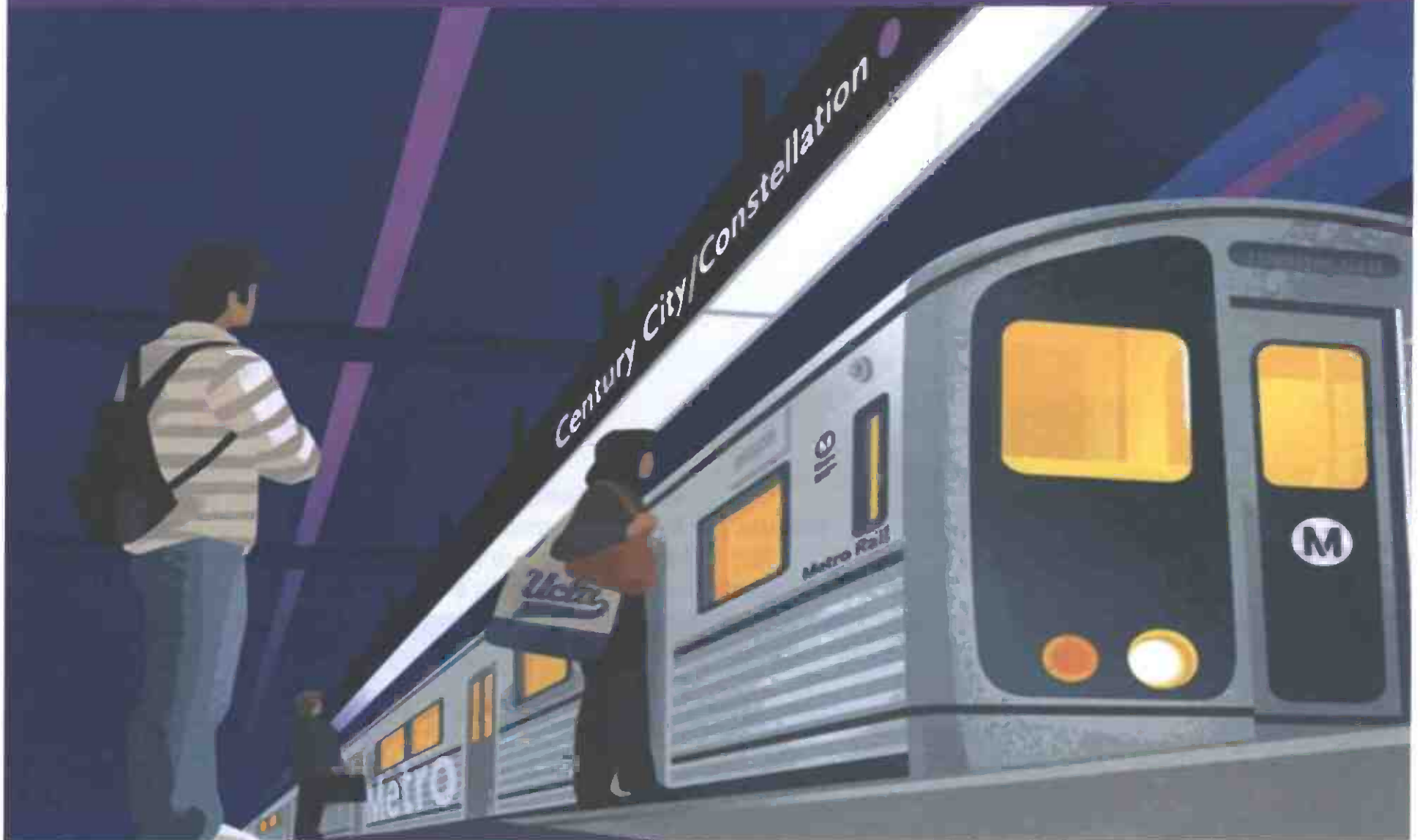
Risk ID	Risk Description	Risk Score	Action Items
633.0	Cost of ROW acquisition exceeds the FFGA SCC Line Item.	15	<ol style="list-style-type: none"> 1. Metro's Life of Project Budget includes contingency that covers the increase. The Risk Score will remain as "high" until the \$3.15 billion Life of Project Budget is reconciled with the \$2.82 billion FFGA Budget. 2. FTA has approved the property sale. Escrow on the Gale property has closed. Proceeds from the sale have been reflected in FIS (Financial Information System). 3. Project cost reconciliation with Real Estate is on-going. Three parcels are in the condemnation phase.
676.0	Subcontractor ability to get the required resources to perform work.	13	<ol style="list-style-type: none"> 1. Actively manage schedule and resource needs.
674.0	Station subgrade at Fairfax.	13	<ol style="list-style-type: none"> 1. MOD 66 issued for Metro acceptance of Fairfax Subgrade. 2. Pending DRB decision on DSC and associated cost/schedule impacts.
677.0	Resource (Labor) shortage (Direct and Indirect).	13	<ol style="list-style-type: none"> 1. Actively manage schedule and resource needs.
678 (New)	Water quality impacting treatment/maintenance of water system.	10	<ol style="list-style-type: none"> 1. Additional maintenance underway. Responsible party to be determined.
675.0	DBE Participation Goal for Construction. Currently targeted at 17%.	10	<ol style="list-style-type: none"> 1. DB Contractor making good faith efforts to meet DBE goals.

Westside Purple Line Extension Section 1 Project Questions



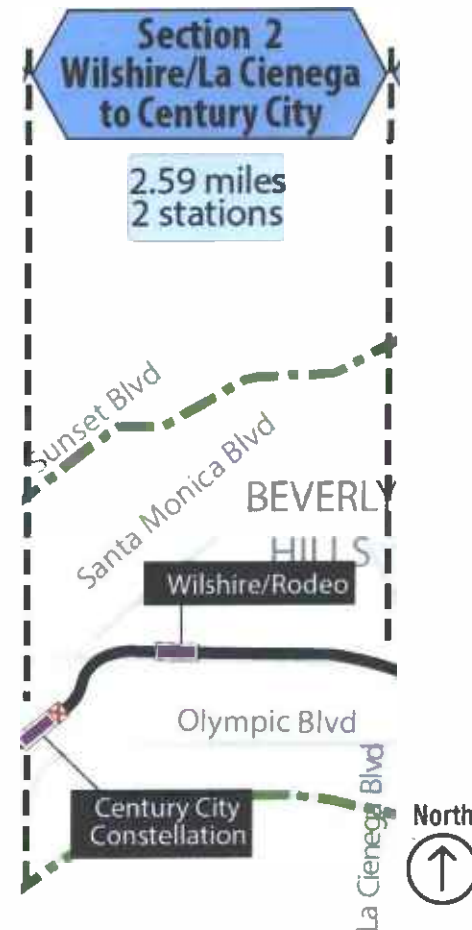
C1045 Design/Build Contract Computer-Generated Rendering of Wilshire/La Cienega Station 17

**Westside Purple Line Extension Section 2 Project
FTA Quarterly Review
February 27, 2019**



Westside Purple Line Extension Section 2 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: Summer 2025
- Design/Builder: Tutor Perini/O&G, a Joint Venture (TPOG)
- Design Progress: 88%
- Construction Progress: 14%
- Daily Project Transit Trips: 36,121
- Daily New Transit Trips: 5,350
- Current Contingency Forecast (SCC 10-80): 16%
- Current Contingency Forecast of Cost-to-Go (SCC 10-80): 23%
- Federal Funds: \$1.36 Billion
- Local Funds: \$1.14 Billion



Westside Purple Line Extension Section 2 Project

Key Project Updates

- Metro Board of Directors approved the modified City of Beverly Hills (COBH) Memorandum of Agreement (MOA) for the C1120 Contract on January 24, 2019 and is awaiting COBH City Council's anticipated approval on February 19, 2019.
- Design Update: TPOG is continuing with the required contractual submittals and has recently submitted the following:
 - 100%; Wilshire/Rodeo Station Structure, Architecture, Restoration
 - 100%; Volume 1 E, Package 3, Tunnels and Cross Packages
 - AFC; Geotechnical Instrumentation
- The current job creation estimates as extrapolated from the Los Angeles Economic Development Corporation (LAEDC) analysis of job impacts is as follows:
 - December 2018: 206 estimated jobs
 - FY 2019, second quarter: 613 estimated jobs
 - To date: 5,811 estimated jobs

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

- The 10 remaining contractually required seismic fault line borings started on October 29, 2018, and are ongoing.
- Preparation for contractor utility relocations is ongoing.
- Sound wall installation is ongoing and 80% complete.



Sound Wall Installation



Seismic Borings



Sound Wall Installation

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

- Civil work for LADWP Power and AT&T completed in December 2018. Cable pulling and splicing for both utilities will continue through November 2019.
- Installation of the temporary LADWP power substation for the tunnel boring machine (TBM) continues.
- TPOG completed 88 soldier piles at the tunnel boring machine (TBM) launch box in January 2019.
- Santa Monica bus layover construction is ongoing with an anticipated completion in March 2019.
- AT&T parking structure demolition started in December 2018 and is ongoing with an anticipated turnover to Metro in March 2019.



Pile Installation



AT&T Parking Lot Demolition

Westside Purple Line Extension Section 2 Project FFGA Cost Status

PERIOD ENDING: DECEMBER 2018

DOLLARS IN THOUSANDS

SCC CODE	DESCRIPTION	APPROVED FFGA BUDGET	CURRENT FFGA BUDGET ¹	COMMITMENTS	EXPENDITURES	CURRENT FFGA FORECAST	CURRENT BUDGET / CURRENT FORECAST VARIANCE
10	GUIDEWAY & TRACK ELEMENTS	385,323	328,836	306,924	34,307	328,836	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	517,378	443,071	410,368	12,859	443,071	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	-	-	-	-	-	-
40	SITWORK & SPECIAL CONDITIONS	406,955	560,625	533,926	273,189	560,625	-
50	SYSTEMS	96,734	81,907	68,537	6,670	81,907	-
	CONSTRUCTION SUBTOTAL (10-50)	1,406,389	1,414,439	1,319,755	327,025	1,414,439	-
60	ROW, LAND, EXISTING IMPROVEMENTS	312,422	419,396	223,081	147,546	419,396	-
70	VEHICLES	85,351	42,000	-	-	42,000	-
80	PROFESSIONAL SERVICES	383,941	374,574	223,517	159,272	374,574	-
	SUBTOTAL (10-80)	2,188,104	2,250,409	1,766,353	633,842	2,250,409	-
90	UNALLOCATED CONTINGENCY	222,441	160,136	-	-	160,136	-
100	FINANCE CHARGES	88,695	88,695	-	-	88,695	-
	TOTAL (10-100)	2,499,240	2,499,240	1,766,353	633,842	2,499,240	-

NOTE: TOTAL FFGA INCURRED COST TO DATE \$642,536

EXCLUDES CONCURRENT NON-FFGA PROJECT ACTIVITIES

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

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

PERIOD ENDING: DECEMBER 2018

DOLLARS IN THOUSANDS

SCC CODE	DESCRIPTION	ORIGINAL FFGA BUDGET	CURRENT FFGA BUDGET ¹	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	CURRENT BUDGET / CURRENT FORECAST VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS	385,323	328,836	306,924	34,307	328,836	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	517,378	443,071	410,366	12,859	443,071	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS	-	-	-	-	-	-
40	SITWORK & SPECIAL CONDITIONS	406,955	560,625	533,926	273,189	560,625	-
50	SYSTEMS	96,734	81,907	68,537	6,670	81,907	-
	CONSTRUCTION SUBTOTAL (10-50)	1,406,389	1,414,439	1,319,755	327,025	1,414,439	-
60	ROW, LAND, EXISTING IMPROVEMENTS	312,422	419,396	223,081	147,546	419,396	-
70	VEHICLES	85,351	42,000	-	-	42,000	-
80	PROFESSIONAL SERVICES	383,941	374,574	223,517	159,272	374,574	-
	SUBTOTAL (10-80)	2,188,104	2,250,409	1,766,353	633,842	2,250,409	-
90	UNALLOCATED CONTINGENCY	222,441	160,136	-	-	160,136	-
100	FINANCE CHARGES	88,695	88,695	-	-	88,695	-
	TOTAL PROJECT (10-100)	2,499,240	2,499,240	1,766,353	633,842	2,499,240	-

NOTE: TOTAL FFGA INCURRED COST TO DATE \$642,536

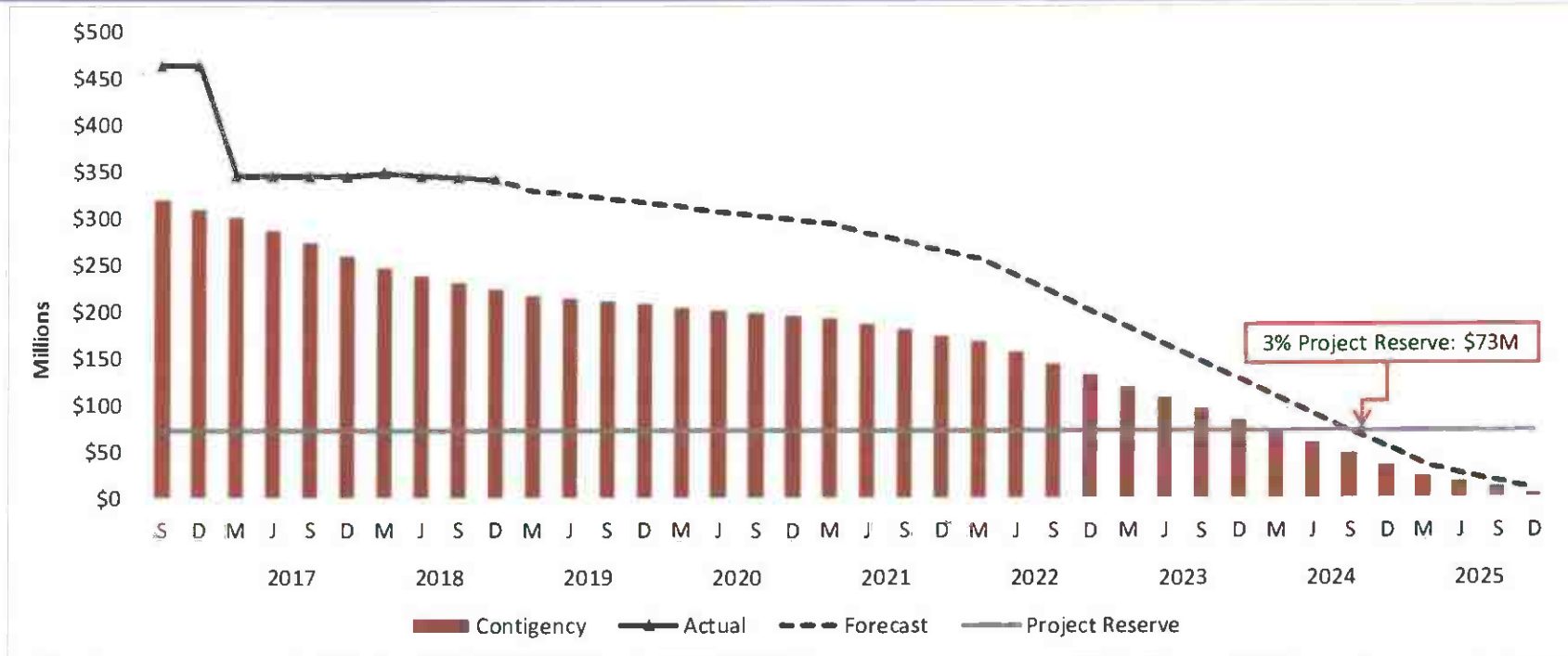
SCC CODE	DESCRIPTION	ORIGINAL NON FFGA BUDGET	CURRENT NON FFGA BUDGET	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	CURRENT NON FFGA BUDGET/ FORECAST VARIANCE
10	GUIDEWAYS & TRACK ELEMENTS	-	-	-	-	-	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	-	-	-	-	-	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS	-	-	-	-	-	-
40	SITWORK & SPECIAL CONDITIONS	16,175	16,175	8,065	4,715	16,175	-
50	SYSTEMS	-	-	-	-	-	-
	CONSTRUCTION SUBTOTAL (10-50)	16,175	16,175	8,065	4,715	16,175	-
60	ROW, LAND, EXISTING IMPROVEMENTS	7,000	7,000	7,000	6,993	7,000	-
70	VEHICLES	-	-	-	-	-	-
80	PROFESSIONAL SERVICES	1,400	1,400	665	103	1,400	-
	SUBTOTAL (10-80)	24,575	24,575	15,729	11,811	24,575	-
90	UNALLOCATED CONTINGENCY	1,500	1,500	-	-	1,500	-
100	FINANCE CHARGES	-	-	-	-	-	-
	TOTAL NON-FFGA (10-100)	26,075	26,075	15,729	11,811	26,075	-
	ENVIRONMENTAL/PLANNING	4,349	4,349	3,770	3,037	4,349	-
	TOTAL NON-FFGA (INCL. ENV./PLANNING)	30,424	30,424	19,500	14,848	30,424	-

NOTE: TOTAL NON-FFGA INCURRED COST TO DATE \$14,848

TOTAL PROJECT	2,529,664	2,529,664	1,785,853	648,890	2,529,664	-
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NOTE: TOTAL INCURRED COST TO DATE \$657,384

Westside Purple Line Extension Section 2 Project Project Cost Contingency Drawdown



PROJECT COST CONTINGENCY					
DOLLARS IN THOUSANDS					
	Original Contingency (Budget)	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	177,176	(15,540)	-	(15,540)	161,636
Allocated Contingency	168,534	11,909	(54)	11,855	180,388
Total Contingency	345,710	(3,632)	(54)	(3,686)	342,024

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

- **RC-DBE Goal – Design** (Reported Data as of December 2018)

A numerically expressed percentage of funds apportioned to Design Contracts and is calculated based upon the relative availability of RC-DBE firms as compared to all firms in the relevant geographic market area. 25.31%
- **Current RC-DBE Commitment – Design**

Total RC-DBE Committed Dollars divided by Total Contract Value for Design or Construction. \$14,951,191
(25.31%)
- **Current RC-DBE Participation**

Total amount paid to date to RC-DBEs divided by the amount paid to date to Prime. \$14,203,640
(22.68%)

Eighteen (18) Design RC-DBE subcontractors have been identified.

- **RC-DBE Goal – Construction**

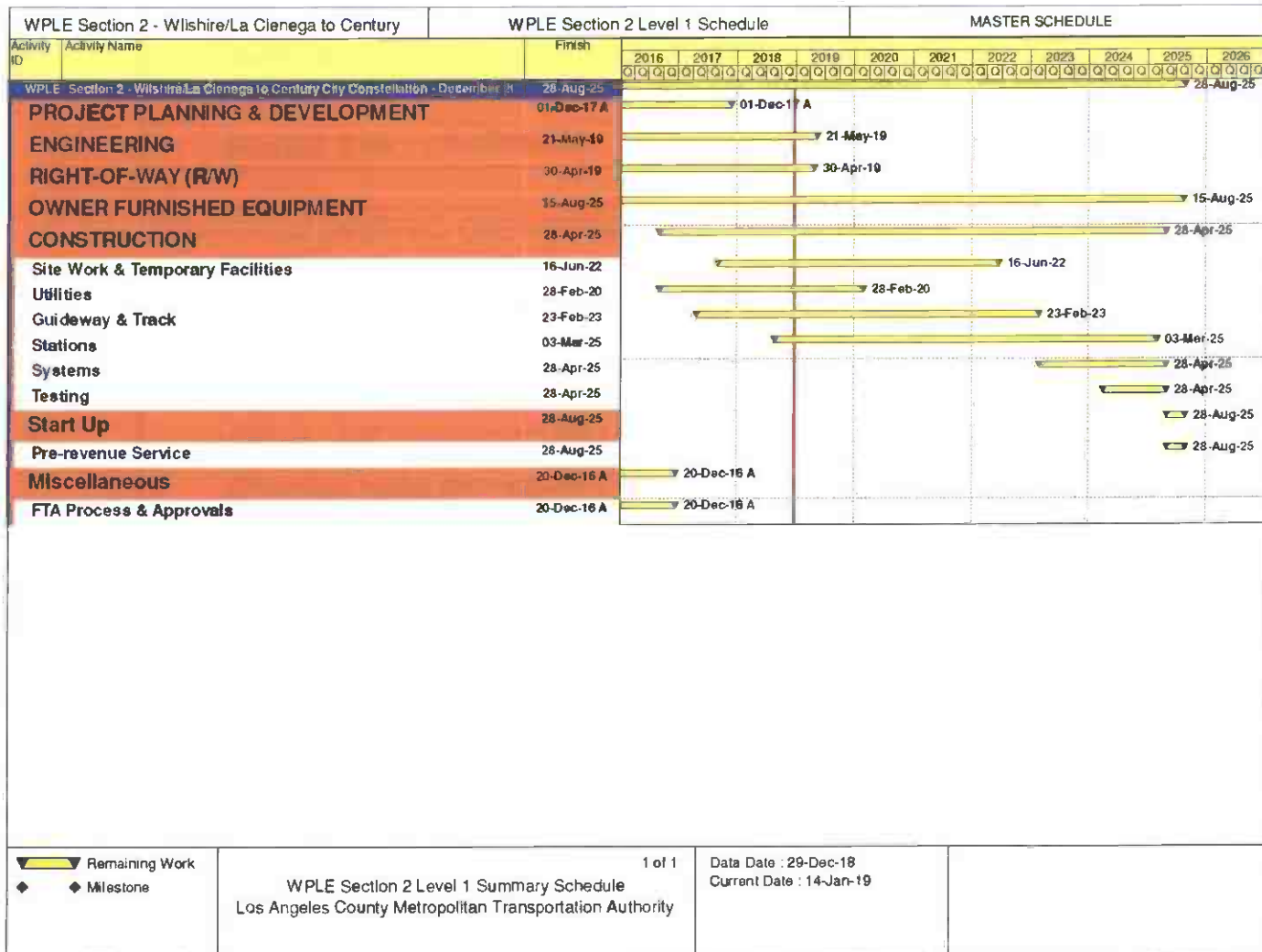
A numerically expressed percentage of funds apportioned to Construction Contracts and is calculated based upon the relative availability of RC-DBE firms as compared to all firms in the relevant geographic market area. 17.00%
- **Current RC-DBE Commitment – Construction**

Actual commitments as Construction work is awarded. \$117,601,859
(9.03%)
- **Current RC-DBE Participation**

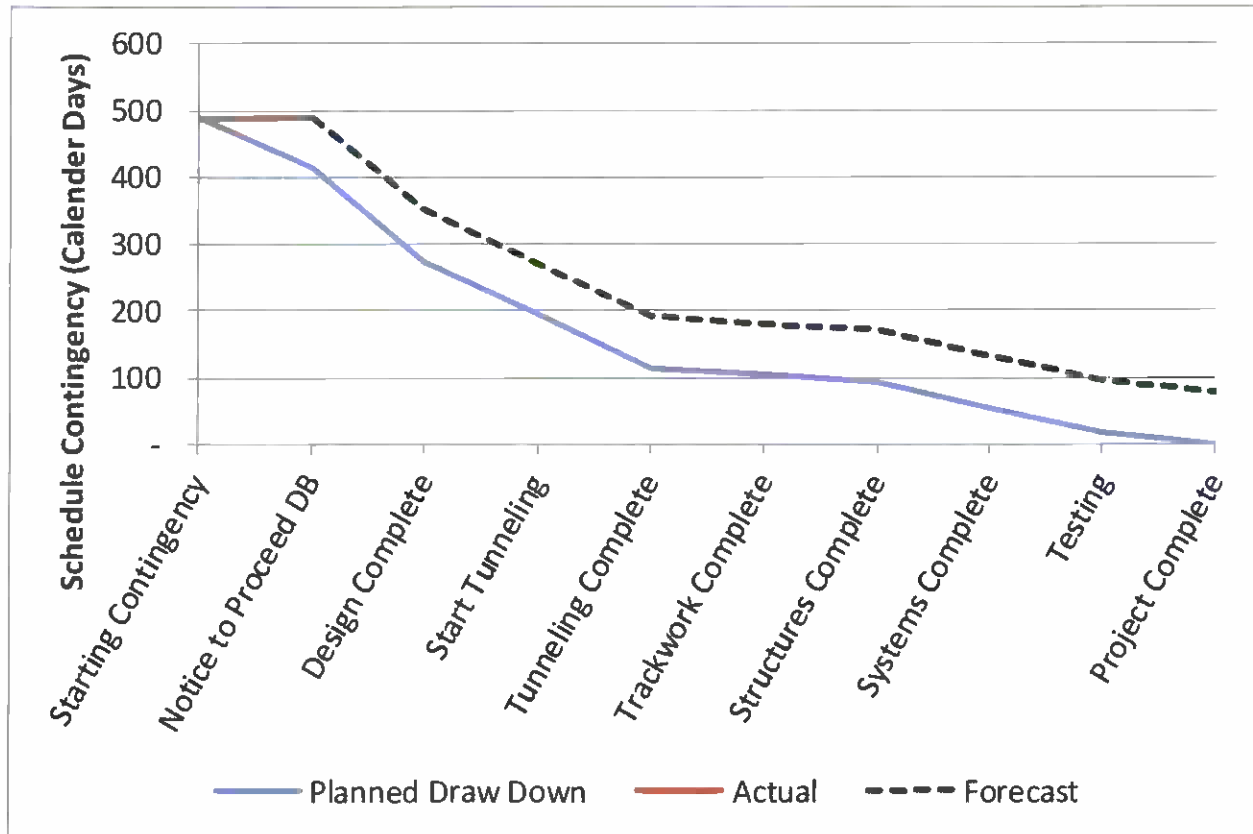
Total amount paid to date to RC-DBEs divided by the amount paid to date to Prime. \$13,452,142
(4.57%)

Twenty-one (21) Construction RC-DBE subcontractors have been identified.

Westside Purple Line Extension Section 2 Project Summary Project Schedule



Westside Purple Line Extension Section 2 Project Project Schedule Contingency Drawdown



Project Schedule Contingency Drawdown Analysis

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

Westside Purple Line Extension Section 2 Project Top Risks & Mitigations

RiskID	Risk Description	Risk Score	Action Items
282.2	Turnover of property to DB contractor is delayed beyond the dates stipulated in the Contract Documents.	15.0	1. Metro to complete property acquisition before the need date.
33.2	Acquisition of property is delayed due to condemnation and/or legal battle.	14.0	1. Current project schedule accounts for additional time required for condemnation.
125.2	3rd party utility relocations delay construction.	12.0	1. Work with COLA and COBH and utility owners to expedite obtaining permits, and complete design and construction on schedule. 2. Metro is working more closely with LADWP and AT&T to monitor progress and mitigate any potential impacts to the Project schedule.
395.0	Public protest to the Project causes delays.	12.0	1. Continue working collaboratively with the COLA and COBH communities.
126.2	Resource constraints at private utility companies delay schedule.	9.0	1. Maintain close coordination with utility companies and sequence utility work as necessary.

Westside Purple Line Extension Section 2 Project Questions

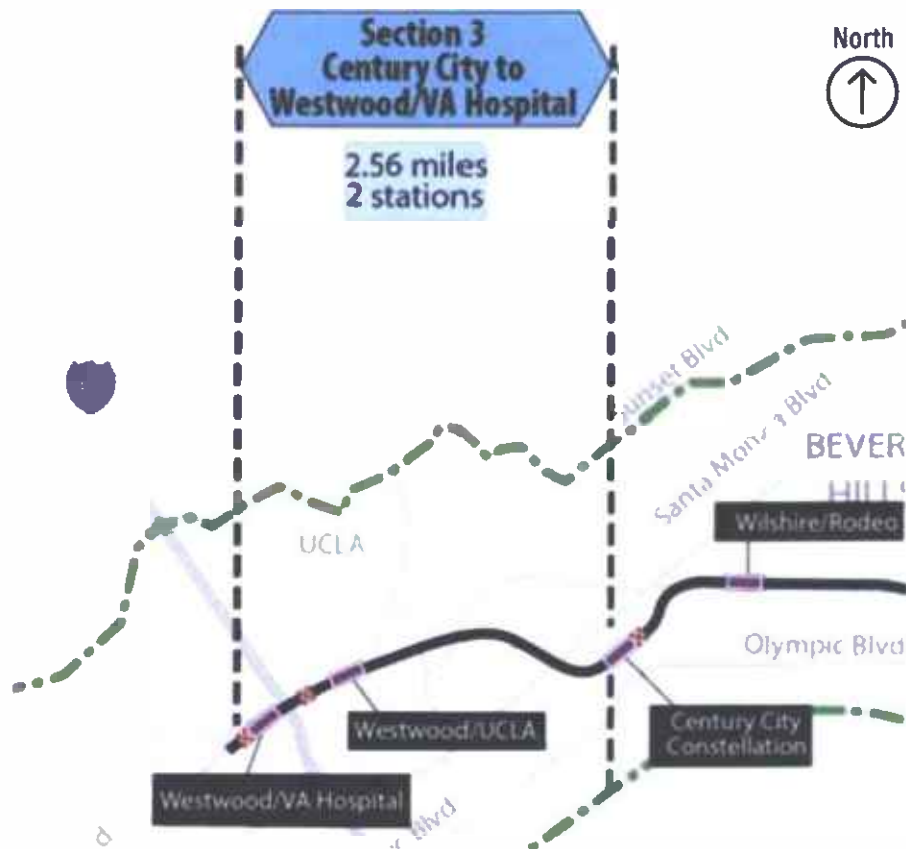


Wilshire/Rodeo Station

**Westside Purple Line Extension Section 3 Project
FTA Quarterly Review
February 27, 2019**



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



- The WPLE Section 3 Project is a 2.56 mile alignment from the future Century City Constellation Station to the future Westwood/VA Hospital Station. The Project includes 16 heavy rail vehicles, twin-bored tunnels and two (2) new subway stations:
 - Westwood/UCLA
 - Westwood/VA Hospital
- Capital Cost Estimate (Proposed FFGA):
 - \$3.663 Billion
- Revenue Service Date:
 - Forecast – 2027
- Daily Project Transit Trips: 42,903
- Daily New Transit Trips: 9,386

Westside Purple Line Extension Section 3 Project Project Update

- Received FTA's approval of 130c environmental document on December 21, 2018.
- C1151 Tunnel Contract – Contract award to Frontier-Kemper/Tutor Perini Joint Venture was issued on November 30, 2018 and Notice to Proceed was issued on January 15, 2019.
- C1152 Stations, Trackwork and Systems Contract – Contract award is subject to FTA's approval of a Full Funding Grant Agreement (FFGA).
- C1153 Advanced Utility Relocations (AUR) Contract – Overall progress is 70% complete.
- The current job creation as extrapolated from the Los Angeles Economic Development Corporation (LAEDC) analysis of job impacts is the following:
 - December 2018: 26 estimated jobs
 - FY 2019, second quarter: 97 estimated jobs
 - To date: 766 estimated jobs

Westside Purple Line Extension Section 3 Project Project Update AUR at Westwood/UCLA Station

- Construction started on April 30, 2018 and is 70% complete.
- Work is being performed at nights and on weekends.
- LADWP Power relocations are nearing completion.
- LADWP Water relocation started on November 20, 2018 and is ongoing.
- Contract substantial completion is scheduled to occur in Spring 2019.

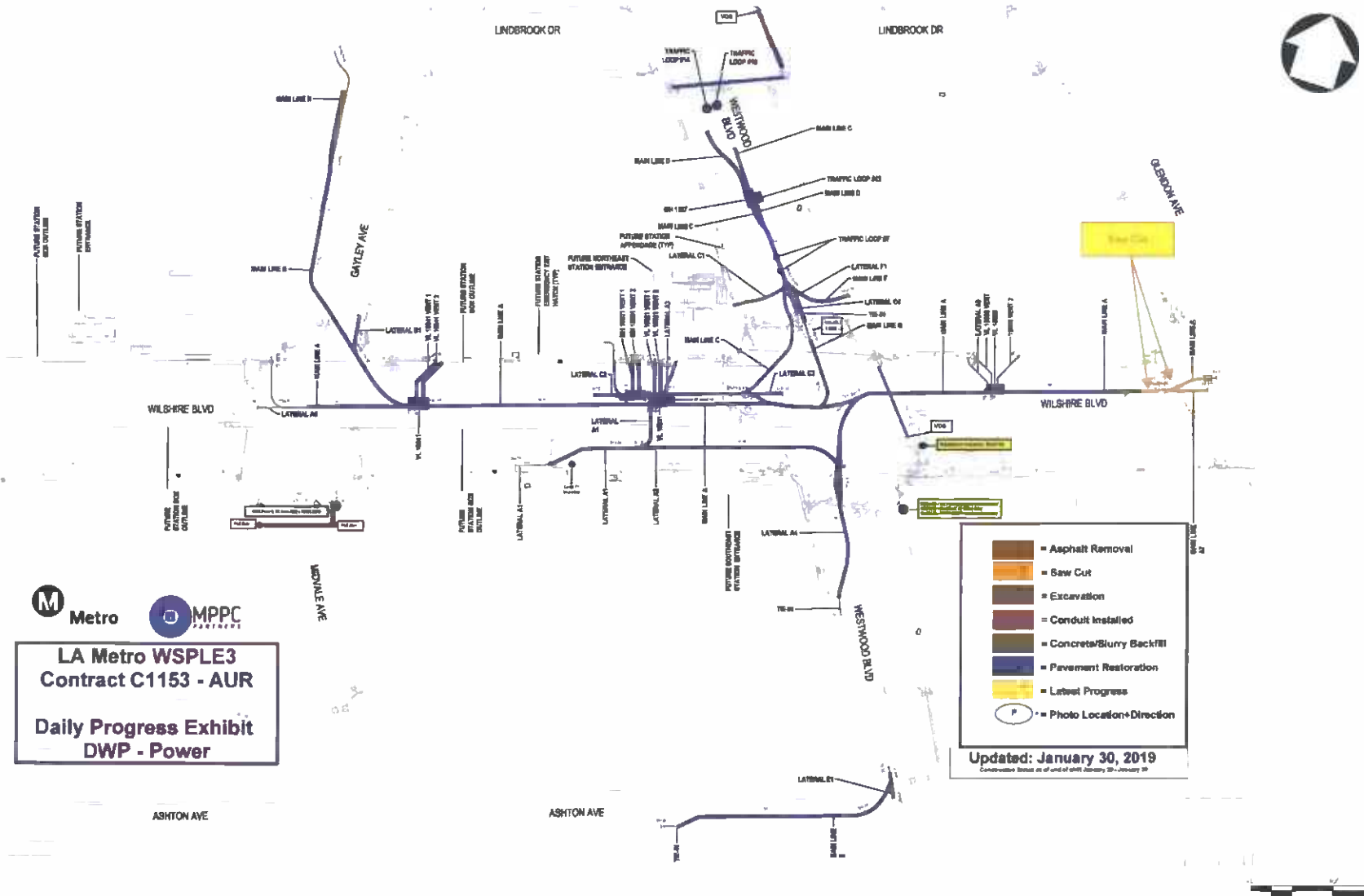


Conduit Encasing on Wilshire Blvd.



Conduit Installation on Wilshire Blvd.

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



M Metro **MPPC**
LA Metro WSPLE3
Contract C1153 - AUR
Daily Progress Exhibit
DWP - Power

Westside Purple Line Extension Section 3 Project Project Cost Status

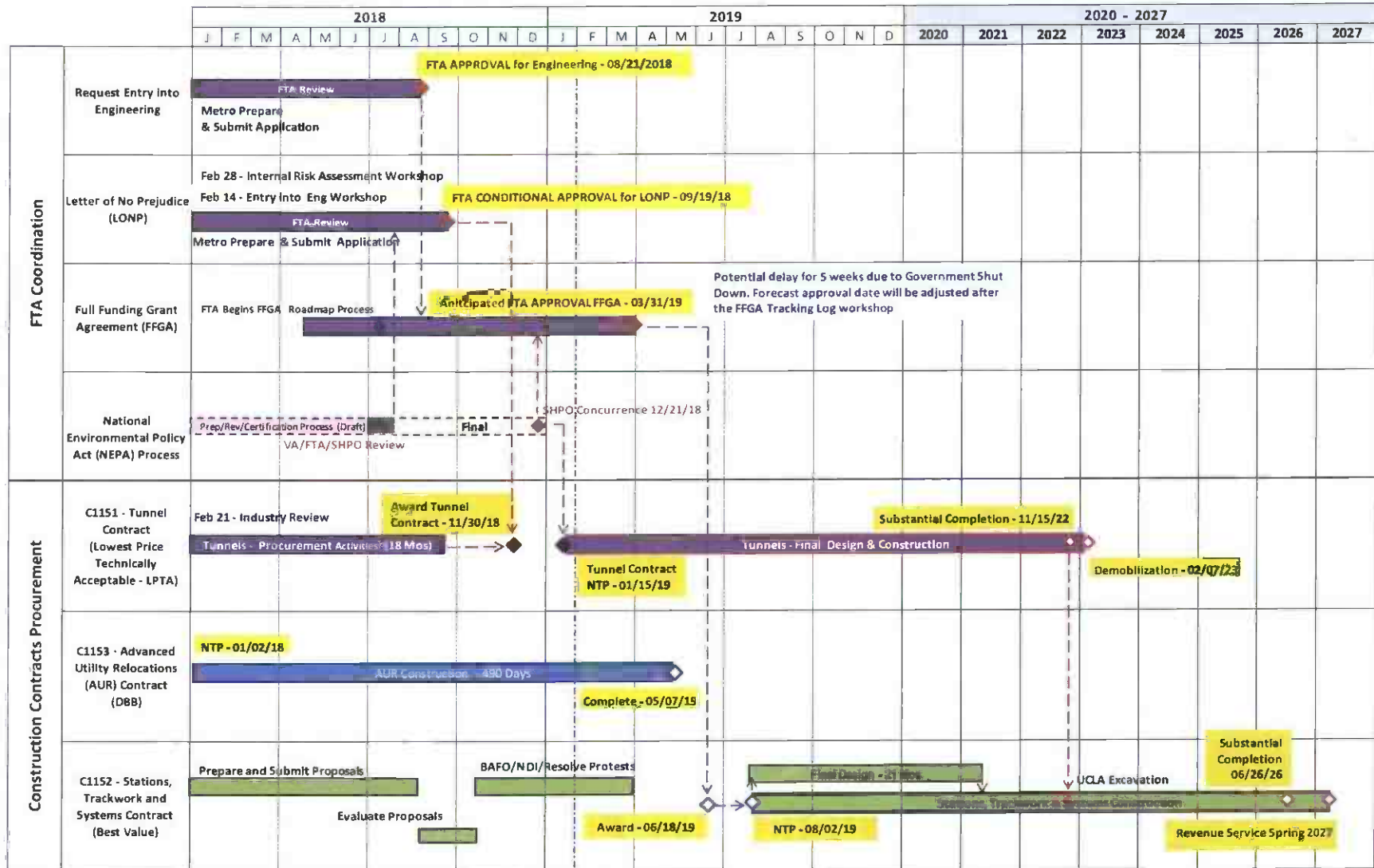
DOLLARS IN THOUSANDS

SCC CODE	DESCRIPTION	CURRENT ESTIMATE	LIFE OF PROJECT BUDGET *	PROPOSED BUDGET	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	PROPOSED BUDGET / FORECAST VARIANCE
10	GUIDEWAY & TRACK ELEMENTS	490,712	362,560	490,712	285,500	-	490,712	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	624,995	6,428	624,995	5,300	-	624,995	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	-	-	-	-	-	-	-
40	SITWORK & SPECIAL CONDITIONS	491,805	193,286	491,805	128,511	8,658	491,805.26	-
50	SYSTEMS	130,778	-	130,778	-	-	130,778	-
CONSTRUCTION SUBTOTAL (10-50)		1,738,290	562,274	1,738,291	419,311	8,658	1,738,291	-
60	ROW, LAND, EXISTING IMPROVEMENTS	466,875	466,874	466,874	120,876	40	466,874	-
70	VEHICLES	38,092	-	38,092	-	-	38,092	-
80	PROFESSIONAL SERVICES	504,493	215,924	504,493	108,469	55,462	504,493.37	-
SUBTOTAL (10-80)		2,747,749	1,245,073	2,747,750	648,656	64,161	2,747,750	-
90	UNALLOCATED CONTINGENCY	464,143	128,623	464,142	-	-	464,142.39	-
100	FINANCE CHARGES	451,100	-	451,100	-	-	451,100	-
TOTAL PROJECT (10-100)		3,662,992	1,373,696	3,662,992	648,656	64,161	3,662,992	-

NOTE: TOTAL INCURRED COST TO DATE IS \$65,818,301

* EXCLUDES ENVIRONMENTAL PLANNING PHASE

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
701.3	Tariffs potentially impact D/B contractors.	10.5	1. Monitor the market trend and assess the potential impact.
287.3	Delays due to obtaining lane closures and peak hour exemptions.	9.0	1. Identify temporary bus stop re-locations. Meet with City to identify relocation of stops outside work areas. 2. Metro to review bus routes and stop locations.
657.3	Replacement parking at VA hospital may impact cost and schedule. Additional parking spaces above and beyond the in-kind parking spaces replacement will be funded by local fund. No cost risk impact on FFGA budget.	9.0	1. Include in ROW budget - Complete 2. Identify local funding source to meet the additional parking spaces requirement.
653.3	Delay of contract turnover from tunnels to stations.	8.0	1. Review scope, ROW, procurement methodology, NEPA action, LONP to identify schedule risks. 2. Received LONP and 130c documents.
119.3	Construction market risk - heated market conditions for rail transit, inc. significant tunnel projects in many other US regions and international.	8.0	

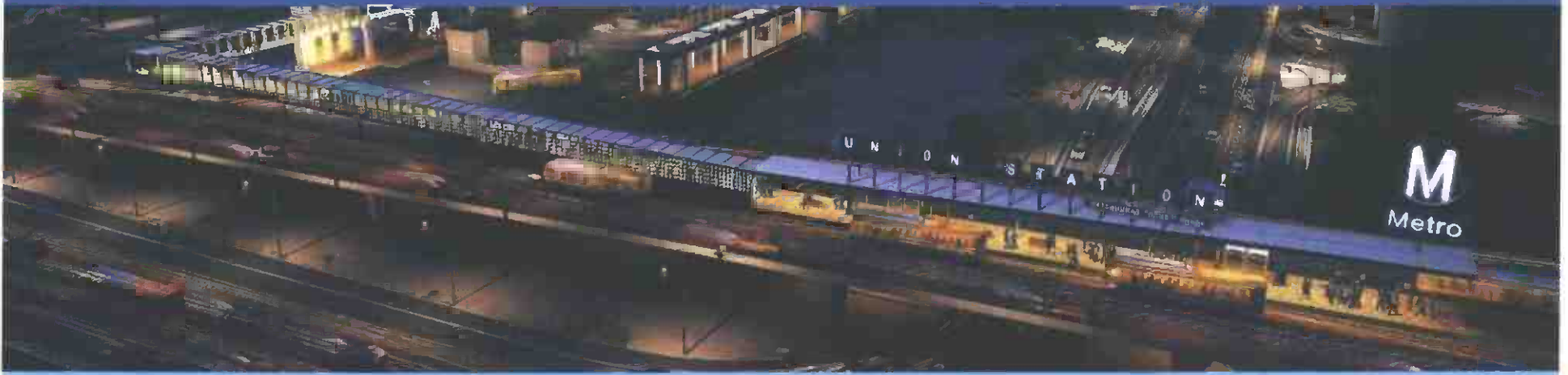
Patsaouras Plaza Busway Station

FTA Quarterly Review – February 27, 2019



Patsaouras Plaza Busway Station

Project Description



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



Patsaouras Plaza Busway Station Project Budget



ELEMENT CODE	ELEMENT DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	BUDGET / FORECAST VARIANCE
				TO DATE	TO DATE	TO DATE	
C	CONSTRUCTION	19,992,000	25,435,000	23,907,000	16,568,000	29,833,000	4,398,000
S	SPECIAL CONDITIONS	750,000	2,517,000	1,314,000	1,069,000	1,774,000	(743,000)
R	RIGHT-OF-WAY	-	-	-	-	-	-
P	PROFESSIONAL SERVICES	7,425,000	9,024,000	12,856,000	12,032,000	15,772,000	6,748,000
PC	PROJECT CONTINGENCY	2,817,000	2,817,000	-	-	-	(2,817,000)
TOTAL PROJECT		30,984,000	39,793,000	38,077,000	29,669,000	47,379,000	-



Expenditures through December 31, 2018



Patsaouras Plaza Busway Station

Issues With Potential to go Above \$100,000



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



Patsaouras Plaza Busway Station

Design/Build Contract C0970 - Current Quarter Update



Construction

- Formed the emergency stairway
- Formed the Plaza level lift
- Poured Plaza level walls

Administration

- Revised Cultural Resources Monitoring and Discovery Plan
- Prepared Archeological Identification, Evaluation, and Treatment Plan
- Negotiated the settlement for global time impacts



Patsaouras Plaza Busway Station

Design/Build Contract C0970 – Top Risks and Mitigations

Risk	Impact	Mitigation
Potential for differing site conditions at Pedestrian ramp micropiles and elevator foundations	Budget/ Schedule	Immediate direction to contractor to do changed work. Metro reallocating savings from Special Conditions to pay for work. 3 rd Party Agents on Project Team.
Delays due to Cultural Resources at Pedestrian Ramp Micropiles and Austin Vault	Budget/ Schedule	Immediate direction to contractor to re-sequence the work.
Potential for Board not approving settlement and LOP increase	Budget/ Schedule	Seek Board direction on how to proceed



Patsaouras Plaza Busway Station

Activities for Next Quarter



- Request Board Approval of the Settlement and LOP Increase

When work resumes ...

- Continue micropiling the foundations for the pedestrian overcrossing
- Continue Mechanical/Electrical/Plumbing (MEP) work
- Pour the emergency stairway
- Pour the Plaza level lift
- Finish Plaza level walls



Patsaouras Plaza Busway Station Construction Photos



Setting elevator enclosure forms



Pouring Plaza level elevator enclosure columns



Pouring second level elevator enclosure columns



Setting falsework for the emergency stairway exit



Metro



Willowbrook/Rosa Parks Station

FTA Quarterly Review Meeting

February , 2019



Willowbrook/Rosa Parks Station

Project Description

- The Project features the extension of the Blue Line Platform; new pedestrian crossing; multi-purpose plaza; bike mobility hub; transit security facility & customer service center; new pedestrian promenade; bus bays; lighting and signage.
- TIGER Grant No. CA-2016-010-00 (FY2014)
- Grant Execution Date: June 2, 2016
- Project Completion Date: July 15, 2020
- Current Budget: \$66,657,573
- Current Forecast: \$68,604,819
- Design Progress: 99%
- Construction progress: 16%
- Federal Funds: \$10,250,000
- Local Funds: \$58,354,819



Willowbrook/Rosa Parks Station

Major Activities During Reporting Period



- Early Start Package:
 - Completed demobilization and clean-up
 - Initiated contract closeout process
- Package A:
 - Completed CMU wall at Mobility Hub
 - Trenched and installed cisterns
 - Installed structural steel at Customer Service & Security Building (CSSB)
- Package B:
 - Continued coordination with Caltrans for review of Encroachment Permit application



Metro

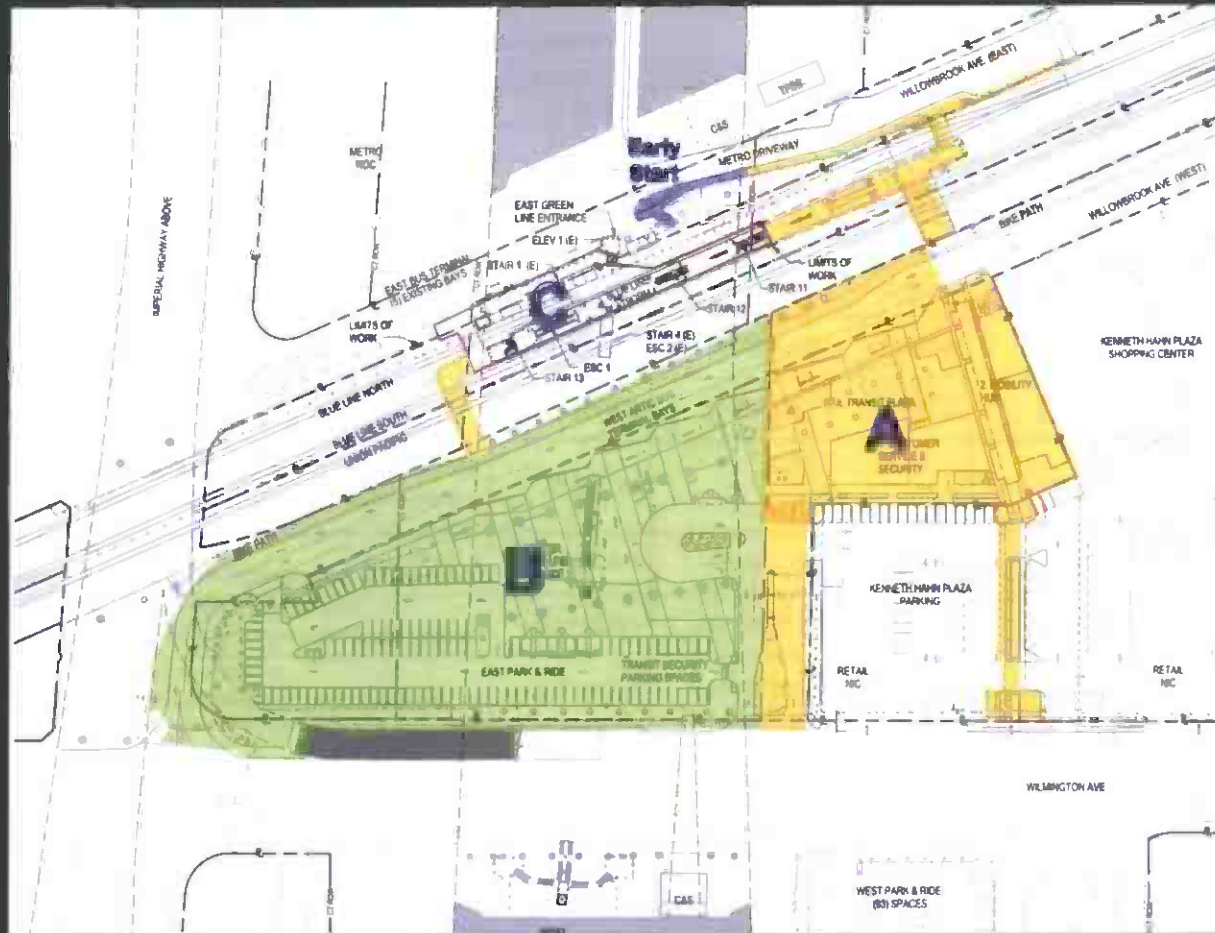
Willowbrook/Rosa Parks Station Project Schedule

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



Willowbrook/Rosa Parks Station

Project Cost Update

Activity	ORIGINAL GRANT BUDGET	COMMITMENTS	EXPENDITURES	CURRENT FORECAST	ORIG GRANT BUDGET / CURRENT FORECAST VARIANCE
Blue Line Improvements (Items 1-5: Platform Extensions, Canopies, Grade Crossing Improvements, new South Entrance, ROW Fencing)	\$4,747,240	\$5,331,807	\$ 567,834	\$ 5,960,173	\$1,212,933
Green Line Improvements (Items 6-9: Vertical Circulation, Lighting & Acoustical Enhancements)	\$14,417,979	\$3,715,104	\$ 356,229	\$ 4,152,937	(\$10,265,042)
New Construction (Items 10-13: Civic Plaza, Metro Customer Service Center, Sheriff's Facility, Mobility Hub)	\$16,642,913	\$17,791,987	\$ 4,227,285	\$ 19,888,813	\$3,245,900
Bus and Shelter Improvements (Items 14-16: Improvements to West and East Bus Depots)	\$3,462,904	\$1,345,715	\$ 129,036	\$ 1,504,310	(\$1,958,594)
Parking Improvements (Items 17-19: Safety enhancement and reconfiguration for both East and West Park & Ride Lots)	\$3,555,068		\$ -	\$ 7,000,000	\$3,444,932
Circulation Improvements (Items 20-23: Signage, Transit Hall, Pedestrian Promenade, Kiss & Ride Lot)	\$4,844,679	\$3,121,139	\$ 307,031	\$ 3,488,972	(\$1,355,707)
Site-Wide Improvements (Items 24-26: General Site Work, Landscaping, Artwork)	\$3,236,024	\$2,452,178	\$ 1,444,366	\$ 2,741,173	(\$494,851)
Preliminary Engineering and Final Design	\$4,281,888	\$5,794,075	\$ 5,168,045	\$ 5,818,092	\$1,536,204
Construction - Agency Labor/Const Mgmt/Other Prof Svc	\$0	\$6,512,063	\$ 287,461	\$ 6,394,500	\$6,394,500
Construction - Third Party	\$0	\$579,644	\$ 168,994	\$ 787,500	\$787,500
Contingency	\$5,518,878	\$5,518,878	\$ -	\$ 3,978,450	(\$1,540,428)
Land Transaction	\$4,650,000	\$5,996,532	\$ 5,553,317	\$ 5,389,800	\$739,800
Tenant Relocation	\$1,300,000		\$ 204,345	\$ 1,500,100	\$200,100
Total Project Cost	\$66,657,573	\$58,159,121	\$18,413,941	\$ 68,604,820	\$1,947,247

1. Expenditures cumulative through 12/31/2018, TIGER expenditures YTD: \$4,943,828

2. Total Construction Progress percentage: 16%



Metro

Willowbrook/Rosa Parks Station

Top Risks and Mitigations

Risk ID	Risk Description	Type	Risk Rating	Mitigation Strategies
16b	3rd party coordination: - UPRR - CPUC	M	16	Engage CPUC changes with FRA
19	Complete construction during scheduled Blue Line Closure (8 months)	C	10.5	1. Complete construction and testing for Station re-opening and public access in September 2019
21	Coordination with Operations and other concurrent Blue Line Projects ongoing.	C	10.5	1. Continue ongoing coordination with Operations during phasing plan development and construction.
11	Buy America Requirements	DM	9	1. Stantec to make sure "Buy America" requirements are in the contract documents - Complete 2. Make sure that Items specified meet Buy America requirements - Ongoing
16a	3rd party coordination: - Caltrans - County	M	7.5	1. Separate the Project into five (5) separate design packages (Design & Construction) - Complete 2. Coordinate the review of Package B - Ongoing

Willowbrook/Rosa Parks Station

Anticipated Activities for Next Reporting Period

- Early Start Package:
 - Finalize contract closeout
- Package A:
 - Complete CMU wall at the Mobility Hub
 - Install structural steel at the Mobility Hub
 - Begin roof decking and wall framing at CSSB
 - Initiate Blue Line Platform work (demolition, underground work) with New Blue Shutdown
- Package B:
 - Release IFB for construction of Package B.



Eastside Access Improvements 1st and Central Station FTA Quarterly Meeting – February 27, 2019



Eastside Access Improvements Project Segments

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

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

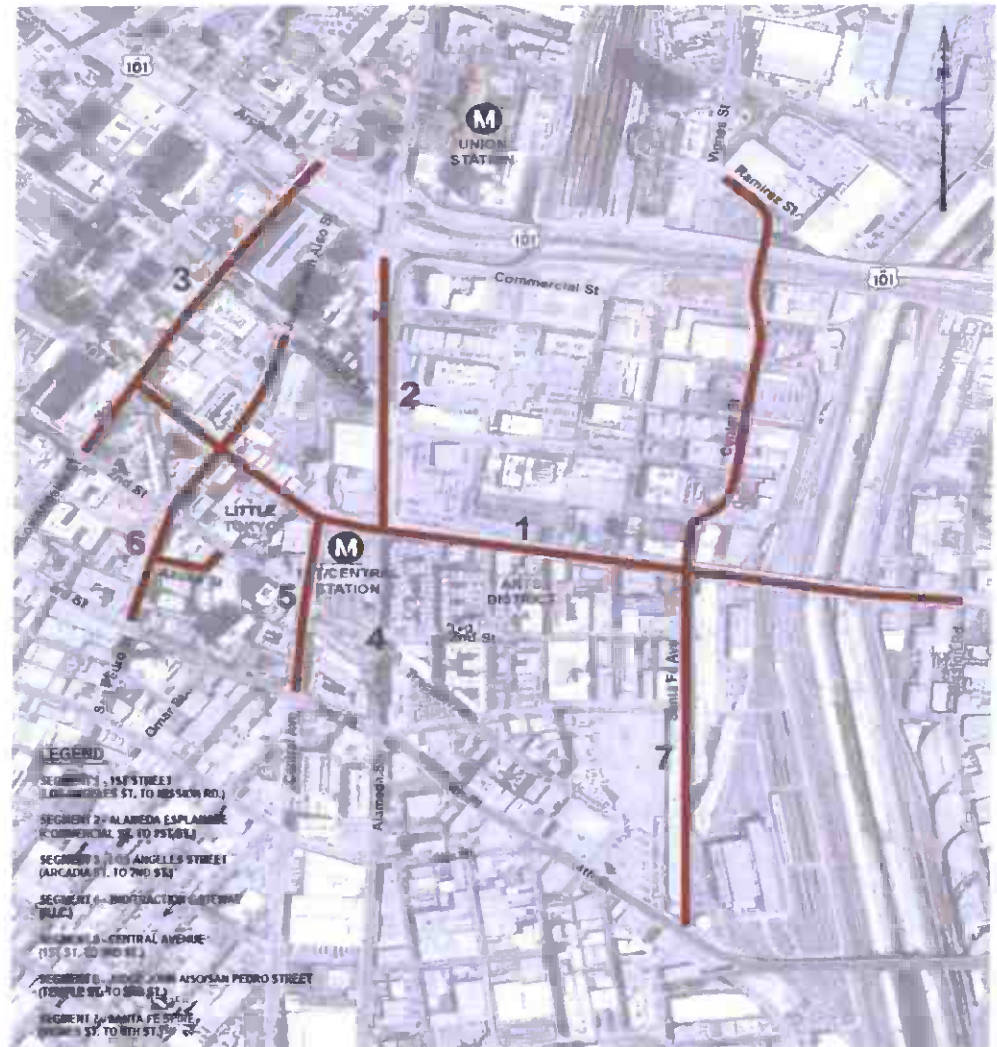
Segment 3 – Los Angeles Street
(Arcadia St. to 2nd St.)

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

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

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

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



Eastside Access Improvements

Project Description

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

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

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

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

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

Eastside Access Improvements

Preliminary Funding Plan



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

Eastside Access Improvements Design-Construction Budget

SEGMENT	ACTIVITY	ORIGINAL BUDGET	CURRENT FORECAST	GRANT - FORECAST VARIANCE	EXPENDITURES
1	1st Street: From Los Angeles Street to Mission Road	\$2,896,108	\$1,844,700	\$1,051,408	\$0
2	Alameda Esplanade	\$1,290,531	\$4,494,900	-\$3,204,369	\$0
3	Los Angeles Street Esplanade: From the Plaza to 2nd Street	\$3,698,730	\$705,300	\$2,993,430	\$0
4	2nd Traction Street	\$1,038,816	\$237,400	\$801,416	\$0
5	Central Avenue: From 1st Street to 3rd Street	\$310,438	\$324,400	-\$13,962	\$0
6	Judge John Aiso/San Pedro Street: From Temple to 3rd Street	\$691,711	\$361,000	\$330,711	\$0
7	Santa Fe Spine	\$1,163,645	\$2,845,800	-\$1,682,155	\$0
	Funda.Ped. Improvements for the Project	\$386,999	\$314,200	\$72,799	\$0
	General Sit Access and Staging (Mob/Demob etc.)	\$0	\$1,000,000	-\$1,000,000	\$0
	Subtotal:	\$11,476,978	\$12,127,700	-\$650,722	\$0
	Preliminary Engineering/Professional Services	N/A	\$2,960,492		\$1,960,802
	Third Party	N/A	\$900,000		\$413,564
	Metro Project Labor and Construction Management	N/A	\$3,000,000		\$54,514
	Escalation	\$1,423,022	\$0		\$0
	Mobilization/Traffic Control	\$1,100,000	\$0		\$0
	Construction Contingency (@30%)	\$2,800,000	\$3,638,310		\$0
	Total Project Cost:	\$16,800,000	\$22,626,502	-\$5,826,502	\$2,428,879

1/30/2019

Notes:

Expenditures cumulative through January 30, 2019

Current Budget is based on median 65% Cost estimate

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

Eastside Access Improvements Project Schedule

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

NOTES:

(1) Start of construction for Segment 2 is projected based on completion of Regional Connector construction in April 2022

(2) It is anticipated that Punch list for individual segments will be completed immediately after construction completion of each segment

Eastside Access Improvements Risk Register

Score	Low (1)	Med (2)	High (3)	Very High (4)	Significant (5)	Risk Score P(C*TY)
Probability (P)	< 10%	10-50%	50-70%	75-90%	> 90%	
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	

Risk Register by SCC Eastside Access Improvements Project

Risk Register Version: Jan 2019

Identification							Management					Most Recent Comments	
Risk ID	Risk Description	Risk Type	Cost	Time	Prob	Risk Score	Risk Owner	Mngt Strategy	Action Items	Action By	Due Date	Action Status	Latest Review Comments
SCC 10 GUIDEWAY & TRACK ELEMENTS													
ESIP-008	Segment 2 Construction delays could extend project beyond TIGER deadline	C	2	3	5	12.5	Metro	Mitigate	1 Explore possibility of using Metro funds for Segment 2 construction 2 PM to coordinate with RC on Project process	1 Metro 2 Metro	1 03/01/2019 2 04/30/2019	1 In Progress 2 In Progress	12/20/18 - Preliminary steps started for the Change Notice. Metro waiting on 100% plan approval to define scope. 2/4/2019 - Risk Scoring changed as RCC schedule has slipped by 9 months from July 21 to April 22.
SCC 40 SITEWORK & SPECIAL CONDITIONS													
ESIP-011	Unanticipated utility work could delay project and increase cost	C	1	2	1		Metro	Accept	1 Design phase investigations completed 2 Revisit design during construction	1 Metro 2 Metro	1 04/30/2019 2 04/30/2020	1 Completed the initial investigation based on Navigate LA 2 Will require the contractor to perform Dig-Alert etc. prior to start of construction	07/02/2018 - PM has approached RC for related information 12/5/2018 - Site investigations complete, work not deep enough to impact u/g utilities, trees can be relocated if there are conflicts. Additionally IFB will include "Dig Alert" requirements for the contractor.
SCC 90 UNALLOCATED CONTINGENCY													
ESIP-001	Initial Grant Budget shortfall due to forecasted cost increase	R	4	1	5	12.5	Metro	Mitigate	1 Metro to identify additional funding sources for Board approval	1 Metro	1 06/10/2019	1 In Progress	11/5/2018 - Upon bid opening LOP budget will be established for approval at December 2018 Board Meeting 12/5/2018 - Contacted OMB to make them aware of the funding requirement. 12/10/18 - Kick off meeting was held with OMB to discuss additional funding sources
ESIP-15	Lack of bidders delays project and increases cost	M	2	3	3	7.5	Metro	Mitigate			1 4/30/2019	1 To be initiated	12/5/2018 - New risk added 12/20/2018 - Construction outreach (workshop) will be conducted upon completion of 100% design plans to gauge the responses from the contractors.
ESIP-002	RCC Change Order could exceed allotted budget	R	2	1	4	8	Metro	Mitigate	1 EAIP to coordinate with RC prior to confirming the Mod	1 Metro	1 05/01/2019	1 In Progress	11/5/2018 - Sole source justification to be prepared and coordinate with RC team on change order for RCC 12/5/2018 - Sole source justification memo will be prepared for Metro files only. (not for FTA) 12/20/18 - Preliminary steps started for the Change Notice. Metro waiting on 100% plan approval to define scope 2/4/2019 - CN to be issued to RCC by end of Feb 2019. RCC delay may impact scope
ESIP-16	CoLA requirements may add additional scope	R	2	1	3	4.5	Metro	Mitigate	1 Elevate situation to senior management 2 Conduct over the shoulder design reviews with CoLA	1 Metro 2 Metro		1 In Progress 2 In Progress	2/4/2019 - New risk identified
ESIP-009	Metro procurement process for construction could delay contract award	R	1	2	1		Metro	Mitigate	1 Metro project team to complete as much documentation as possible	1 Metro		1 In Progress	11/5/2018 - Project team has started on Div. 1 Documentation 12/5/2018 - Taking proactive steps to release bids on time. Coordinating with CoLA 12/20/2018 - Initiated Division 1 specification reviews and updates including the scope of work

Eastside Access Improvements

Current Quarter Update

Major Activities During Last Quarter (October '18 – December'18)

Design Development

- Prepare and Submit 100% design plans
 - Submitted 100% Plans to LADOT
 - Submitted 100% Plans to LABSL
 - Submitted 100% Plans to LABSS
 - Submitted 100% Plans to LABOS
 - Submitted 100% Plans to LABOE

Scheduled Comments Resolution Meetings with various Bureaus

Cost and Schedule Containment Plan (CSCP)

- Submitted updated CSCP on October 23 to FTA for review

Eastside Access Improvements

Activities for Next Quarter

Major Activities Planned During January '19 to March '19

Design Development

- Design Plans Comments Resolution with various COLA Bureaus to advance the plans from 100% level to Approved For Construction (AFC) level
- Submit AFC Plans to COLA for approval
- Initiate Procurement documentation preparation – Starting with Division 1 Specifications
- Initiate Construction Outreach activities

Cost and Schedule Containment Plan (CSCP):

Update and finalize CSCP as necessary

P3010 Light Rail Vehicle Acquisition FTA/PMOC Quarterly – January 2019



Reporting Month: October 2018-December 2018

Presentation Date: February 2019

Key Project Issues

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

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

Project Updates

- KI continues to deliver P3010 vehicles per contractual requirement.
- The delivery of Option 4 Cars is underway.
- 15 Cars shipped; 172 Cars shipped total as of the end of the reporting period.
- 13 Cars Conditionally Accepted; 154 Cars Conditionally Accepted total.
- 28 Cars in Revenue Service at the Gold/Foothill Extension Line; 119 Cars in Expo, Blue, Green Lines.
- Car 1200 is the latest Car in the Final Assembly line.

Project Cost Status (Base Order)

DOLLARS IN THOUSANDS

DESCRIPTION	APPROVED BUDGET	CURRENT BUDGET	COMMITMENTS	EXPENDITURES	FORECAST TO COMPLETION	VARIANCE
BASE ORDER - 78 LRV'S	\$263,211,780.00	\$263,211,780.00	\$263,211,780.00	\$245,260,008.00	\$17,951,773.00	\$0.00
SPARE PARTS	\$19,911,594.00	\$19,911,594.00	\$19,911,594.00	\$12,583,698.00	\$7,327,896.00	\$0.00
SPECIAL TOOLS	\$819,258.00	\$819,258.00	\$819,258.00	\$0.00	\$819,258.00	\$0.00
DIAGNOSTIC TEST EQUIPMENT	\$2,683,041.00	\$2,683,041.00	\$2,683,041.00	\$0.00	\$2,683,041.00	\$0.00
TRAINING	\$1,366,776.00	\$1,366,776.00	\$1,366,776.00	\$129,844.00	\$1,236,932.00	\$0.00
MANUALS	\$675,512.00	\$675,512.00	\$675,512.00	\$0.00	\$675,512.00	\$0.00
PERFORMANCE BOND	\$8,714,500.00	\$8,714,500.00	\$8,714,500.00	\$8,714,500.00	\$0.00	\$0.00
ON-SITE ENGINEER	\$1,679,366.00	\$1,679,366.00	\$1,679,366.00	\$1,595,398.00	\$83,968.00	\$0.00
VEHICLE SUB-TOTAL	\$299,061,827.00	\$299,061,827.00	\$299,061,827.00	\$268,283,448.00	\$30,778,379.00	\$0.00
APPROVED MODIFICATIONS SUB-TOTAL	\$5,373,918.00	\$7,010,096.00	\$7,010,096.00	\$7,010,096.00	\$0.00	\$0.00
CONTINGENCY SUB-TOTAL	\$10,704,091.00	\$9,067,913.00	\$0.00	\$0.00	\$9,067,913.00	\$0.00
VEHICLE TOTAL	\$315,139,836.00	\$315,139,836.00	\$306,071,923.00	\$275,293,544.00	\$39,846,292.00	\$0.00
PROFESSIONAL SERVICES (ELEMENT A)	\$21,208,749.00	\$21,208,749.00	\$21,208,749.00	\$18,068,144.00	\$3,140,605.00	\$0.00
PROFESSIONAL SERVICES (ELEMENT B)	\$8,378,885.00	\$8,378,885.00	\$8,378,885.00	\$3,692,479.00	\$4,686,406.00	\$0.00
PROFESSIONAL SERVICES SUB-TOTAL	\$29,587,634.00	\$29,587,634.00	\$29,587,634.00	\$21,760,623.00	\$7,827,011.00	\$0.00

Notes:

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

Reporting Month: October 2018 - December 2018

Presentation Date: February 2019

Project Cost Status (Options #1 and #4)

DOLLARS IN THOUSANDS

DESCRIPTION	APPROVED BUDGET	CURRENT BUDGET	COMMITMENTS	EXPENDITURES	FORECAST TO COMPLETION	VARIANCE
Options 1 & 4 - 97 LRVs	\$323,798,891.00	\$323,798,891.00	\$323,798,891.00	\$276,863,243.00	\$46,935,648.00	\$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	\$289,030,026.00	\$77,291,618.00	\$0.00
CONTINGENCY SUB-TOTAL	\$18,604,375.00	\$18,604,375.00	\$13,682,122.00	\$13,682,122.00	\$4,922,253.00	\$0.00
VEHICLE TOTAL	\$384,926,019.00	\$384,926,019.00	\$380,003,766.00	\$302,712,148.00	\$82,213,871.00	\$0.00

Notes:

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

Reporting Month: October 2018 - December 2018

Presentation Date: February 2019

Project Cost Status (Options #2 and #3)

DOLLARS IN THOUSANDS

DESCRIPTION	APPROVED BUDGET	CURRENT BUDGET	COMMITMENTS	EXPENDITURES	FORECAST TO COMPLETION	VARIANCE
Options 2 & 3 - 60 LRVs	\$214,370,374.00	\$211,235,977.00	\$211,235,977.00	\$43,006,112.00	\$168,229,865.00	\$0.00
SPARE PARTS	\$15,821,024.00	\$15,589,699.00	\$15,589,699.00	\$0.00	\$15,589,699.00	\$0.00
SPECIAL TOOLS	\$389,435.00	\$383,740.00	\$383,740.00	\$0.00	\$383,740.00	\$0.00
DIAGNOSTIC TEST EQUIPMENT	\$1,416,049.00	\$1,395,344.00	\$1,395,344.00	\$0.00	\$1,395,344.00	\$0.00
TRAINING	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
MANUALS	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
PERFORMANCE BOND	\$7,921,238.00	\$3,418,462.00	\$3,418,462.00	\$0.00	\$3,418,462.00	\$0.00
ON-SITE ENGINEER	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
VEHICLE SUB-TOTAL	\$239,918,120.00	\$232,023,222.00	\$232,023,222.00	\$43,006,112.00	\$189,017,110.00	\$0.00
CONTINGENCY SUB-TOTAL	\$15,869,912.00	\$23,764,810.00	\$4,302,939.00	\$4,302,939.00	\$19,461,871.00	\$0.00
VEHICLE TOTAL	\$255,788,032.00	\$255,788,032.00	\$236,326,161.00	\$47,309,051.00	\$208,478,981.00	\$0.00

Notes:

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

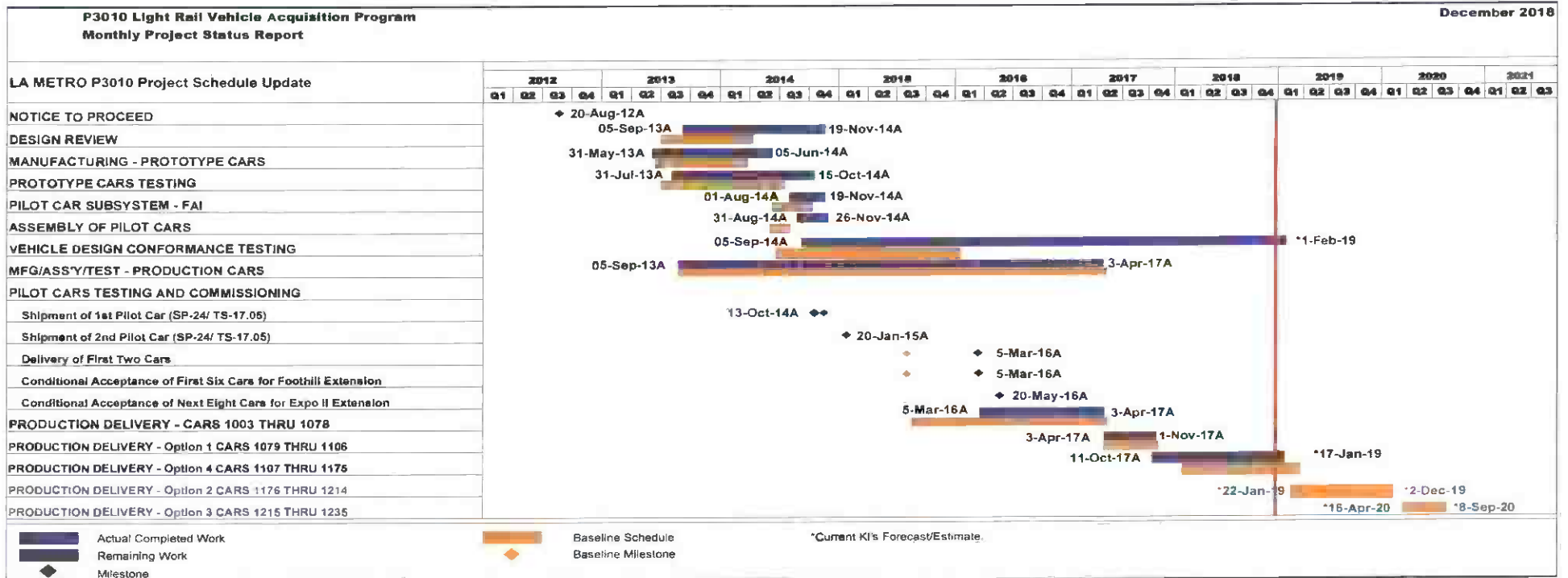
Budget Contingency Drawdown

PROJECT COST CONTINGENCY (through December 2018)			
UNITS IN DOLLARS			
Orders	Current Contingency (Budget)	Allocated To-Date (Forecast)	Remaining Contingency (Forecast)
Base Order	\$16,078,009.00	\$7,010,096.00	\$9,067,913.00
Options 1 and 4	\$18,604,375.00	\$13,682,122.00	\$4,922,253.00
Options 2 and 3	\$23,764,810.00	\$4,302,939.00	\$19,461,871.00
Total Contingency	\$58,447,194.00	\$24,995,157.00	\$33,452,037.00

Notes:

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

Summary Schedule



Top Risks & Mitigations

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

Questions

Los Angeles County
Metropolitan Transportation Authority

Heavy Rail Vehicle Acquisition Program



FTA Quarterly Meeting Review
February 4, 2019



Metro

New Heavy Rail Vehicle Program

- **PROJECT STATUS (ACTIVITIES FOR REPORTING PERIOD)**
 - Pre-Production Configuration Review (PPCR)
 - Metro will be exercising the Fire Mist Suppression System (FMSS) Alternative Technology.
 - This Design Review phase is on-going and anticipated to be completed in April 2019 based upon FMSS implementation.
 - Metro Technical Support
 - Metro and its Consultants have been providing technical support to the Contractor and its suppliers through working sessions.
 - Metro has Resident Engineers stationed in Changchun, China and Quincy, MA in order to provide the Contractor and its suppliers with direct technical support and clarification to inquiries.
 - Metro have been providing the Contractor and its suppliers with direct contact to our Consultant Subject Matter Experts (SMEs) for technical support and clarification inquiries.



Metro

New Heavy Rail Vehicle Program

- PROJECT BUDGET

DESCRIPTION	ORIGINAL PROJECT BUDGET	CURRENT PROJECT BUDGET	EXPENDITURES (ITD)	CURRENT PROJECT FORECAST (CONTRACT MODIFICATIONS)	PROJECT FORECAST
BASE ORDER 64 VEHICLES	\$178,395,869	\$178,395,869	\$26,557,951	-\$279,575	\$178,116,294
PROFESSIONAL SERVICES	\$20,938,375	\$20,938,375	\$7,102,068	\$0	\$20,938,375
MTA ADMINISTRATION	\$11,960,055	\$11,960,055	\$2,487,824	\$0	\$11,960,055
VEHICLE SUBTOTAL	\$211,294,299	\$211,294,299	\$36,147,843	-\$279,575	\$211,014,724
CONTINGENCY	\$21,926,767	\$21,926,767	\$0	\$0	\$21,926,767
TOTAL PROJECT	\$233,221,066	\$233,221,066	\$36,147,843	-\$279,575	\$232,941,491

New Heavy Rail Vehicle Program

- CHANGE ORDER IN-PROCESS

Metro Requested Changes	Status	Credit to CRRC
Addition of Low Beam	In-Process	\$106,487.45
FMSS Escalation Cost	In-Process	\$246,130.38
FMSS Spare Parts	In-Process	\$81,039.00
FMSS Specials Tools	In-Process	\$16,038.00
Total		\$449,694.83
CRRC Requested Changes	Status	Credit to Metro
IP Ratings of Underfloor Enclosures	In-Process	\$8,736.00
Fuse vs HSCB/APE	In-Process	\$286,375.38
Single Sided Interior Announcement Sign	In-Process	\$134,226.96
Door System Recycle Button and Trainline Elimination	In-Process	\$12,953.50
Leveling Valves	In-Process	\$286,978.00
Total		\$729,269.84
Variance		-\$279,575.01

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

HR 4000 MASTER SCHEDULE BASELINE 3 CPR_PPCR_FCR_FAI_DATA DATE 11 04 2018 HR 4000 MASTER SCHEDULE

DATA DATE 11/4/2018

ID	Code	Description	Start	End	Duration	Progress	Start	End	Duration	Progress	
1	1	LA Project	08/17	08/127	08/17	08/127	08/17	08/127	08/17	08/127	0 days
2	2	CPR	08/17	10/31/17	08/17	10/31/17	08/17	10/31/17	08/17	10/31/17	0 days
30	30	PPCR	06/18	4/23/18	06/18	4/23/18	06/18	4/23/18	06/18	4/23/18	0 days
21	112	PPCR for Gangway	06/18	06/18	06/18	06/18	06/18	06/18	06/18	06/18	0 days
22	113	PPCR for Lighting	07/18	07/18	07/18	07/18	07/18	07/18	07/18	07/18	0 days
23	114	PPCR for Electrical	07/18	07/18	07/18	07/18	07/18	07/18	07/18	07/18	0 days
24	116	PPCR for ATC & TWC	02/18	02/18	02/18	02/18	02/18	02/18	02/18	02/18	0 days
25	118	PPCR for Flooring	10/11/18	10/11/18	10/11/18	10/11/18	10/11/18	10/11/18	10/11/18	10/11/18	0 days
30	117	PPCR for Interior & Exterior Appointments	10/11/18	10/11/18	10/11/18	10/11/18	10/11/18	10/11/18	10/11/18	10/11/18	0 days
27	118	PPCR for Trucks	10/18/18	10/18/18	10/18/18	10/18/18	10/18/18	10/18/18	10/18/18	10/18/18	0 days
30	119	PPCR for Friction Brakes & Pneumatic	10/18/18	10/18/18	10/18/18	10/18/18	10/18/18	10/18/18	10/18/18	10/18/18	0 days
30	120	PPCR for Propulsion & Dynamic Braking	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	10/23/18	0 days
00	121	PPCR for Passenger Doors & Controls	11/14/18	11/14/18	11/14/18	11/14/18	11/14/18	11/14/18	11/14/18	11/14/18	0 days
21	122	PPCR for Trainline & Network System	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18	0 days
32	123	PPCR for MDS	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18	11/1/18	0 days
30	124	PPCR for Event Recorder	10/31/18	10/31/18	10/31/18	10/31/18	10/31/18	10/31/18	10/31/18	10/31/18	0 days
34	00	PPCR for Auxiliary Power Equipment	11/01/18	11/01/18	11/01/18	11/01/18	11/01/18	11/01/18	11/01/18	11/01/18	0 days
36	100	PPCR for Coupler & Draftgear	11/7/18	11/7/18	11/7/18	11/7/18	11/7/18	11/7/18	11/7/18	11/7/18	0 days
00	101	PPCR for Communication & Passenger Information	11/01/18	11/01/18	11/01/18	11/01/18	11/01/18	11/01/18	11/01/18	11/01/18	0 days
37	102	PPCR for Cab Equipment and Controls	11/14/18	11/14/18	11/14/18	11/14/18	11/14/18	11/14/18	11/14/18	11/14/18	0 days
00	103	PPCR for Cab Structural Equipment	11/14/18	11/14/18	11/14/18	11/14/18	11/14/18	11/14/18	11/14/18	11/14/18	0 days
00	104	PPCR for HVAC	11/10/18	11/10/18	11/10/18	11/10/18	11/10/18	11/10/18	11/10/18	11/10/18	-1 day
28	70	PPCR for Underframe Electrical Equipment	11/20/18	11/20/18	11/20/18	11/20/18	11/20/18	11/20/18	11/20/18	11/20/18	-1 day
41	106	PPCR for Carbody	11/20/18	11/20/18	11/20/18	11/20/18	11/20/18	11/20/18	11/20/18	11/20/18	0 days
42	108	PPCR & Tooling Design Freeze for Seats	1/23/19	1/23/19	1/23/19	1/23/19	1/23/19	1/23/19	1/23/19	1/23/19	0 days
00	107	PPCR for FMS	4/23/19	4/23/19	4/23/19	4/23/19	4/23/19	4/23/19	4/23/19	4/23/19	0 days
44	00	FAI	2/01/18	1/01/20	2/01/18	1/01/20	2/01/18	1/01/20	2/01/18	1/01/20	0 days
00	00	FCR	4/17/19	3/20/20	4/17/19	3/20/20	4/17/19	3/20/20	4/17/19	3/20/20	0 days
07	70	PILOT VEHICLE DELIVER	12/31/20	12/31/20	12/31/20	12/31/20	12/31/20	12/31/20	12/31/20	12/31/20	0 days
00	70	COMMISSIONING	03/02/20	03/02/20	03/02/20	03/02/20	03/02/20	03/02/20	03/02/20	03/02/20	0 days
00	00	WARRANTY CLOSE OUT	7/23/21	03/12/27	7/23/21	03/12/27	7/23/21	03/12/27	7/23/21	03/12/27	0 days

New Heavy Rail Vehicle Program

RISK MANAGEMENT

Risk ID	Risk Type	Risk Description	Date	Updated	Cost	Time	Prob	Risk Score	Risk Owner	Mitigation Strategy	Action Items	Cost	Time	Prob	Risk Score After Mitigation
1	External	U.S. Government tariffs on steel, aluminum and other products could result in a Change Order	06-Apr-18	19-Jan-19	5	1	5	15	Contractor	Accept	1. LACMTA is in discussions with other affected Agencies, MBTA, SEPTA & CTA. 2. LACMTA Gov't Affairs is closely monitoring 3. LACMTA will request a cost mitigation plan from CRRC 4. LACMTA is exploring mitigation measures that will be discussed with CRRC	5	1	4	12
2	Operations	Resources and track availability may be a constraint for LACMTA and delay the Contractor in commissioning Vehicles	25-Jan-16	19-Jan-19	3	4	4	14	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
3	Engineering	Contractor may not be able to provide necessary U.S. based resources, which may delay design, performance and car delivery.	15-Nov-16	19-Jan-19	3	3	4	12	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	2	3	3	7.5
4	Engineering/Production	The Contractor may not effectively manage their suppliers during design and production	15-Nov-16	19-Jan-19	3	4	4	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. Participate periodically in CRRC Bi-Weekly Supplier meetings 4. Schedule design review workshops with CRRC and Suppliers	2	3	3	7.5
5	Production	CRRC and their suppliers may not be capable of adhering to Metro quality standards.	19-Jul-17	19-Jan-19	2	4	3	9	Contractor	Mitigate	1. LACMTA closely monitoring quality and performance of CRRC on the MBTA Project 2. LACMTA will oversee CRRC audits of their suppliers 3. LACMTA will assign resources to perform regular audits of CRRC manufacturing in Chnagchun and Springfield. 4. Require CRRC to submit names of contacts at transit properties currently using the various systems so that LACMTA support staff can discuss quality and reliability experience of the properties regarding these systems.	2	3	3	7.5

New Heavy Rail Vehicle Program

- **ANTICIPATED ACTIVITIES FOR NEXT REPORTING PERIOD**
 - Continue with Pre-Production Configuration Review (PPCR)
 - Follow up on Quality Assurance audit of the Contractor and its Suppliers and close out Open Action Items
 - Conduct Working Sessions and Design Review meetings with the Contractor and its Supplier.
 - Contractor has construction has started for the Localization facility in the City of Industry (installing equipment, interior office spaces, and etc.). It is anticipated to be completed in July 2019, then the start of installation and test for production equipment.
 - Vehicle Crash Energy Management (CEM) test was conducted in Changsha, China in January 2019. Physical results are good pending actual data analysis.
 - Carbody production in Changchun, China will start in April/May 2019.



Metro

FTA Quarterly Review Action Item Report – December 13, 2018

Item No.	Status	Description	Responsible Agency	Responsible Staff	Due Date
		No FTA Quarterly Review Action Items			