



Washington Metropolitan Area Transit Authority
INTERNAL REVIEW 2017

Comprehensive Internal Review: Metrorail Service Delivery

Rail Station Americans with Disabilities Act (ADA) Compliance Assessment **(11)**

Metrorail Train Operator Activities **(12)**

November 17, 2017



Quality Assurance, Internal Compliance & Oversight (QICO)

"Quality Trumps Quantity"



QICO INTERNAL REVIEW**Table of Contents**

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COMPREHENSIVE INTERNAL REVIEW SUMMARY:

What is QICO?

- It's an internal management function that reports to the General Manager (GM/CEO) that provides quality and compliance assessments to assure departments are fulfilling business objectives, addressing corrective actions, and complying with NTSB, FTA, TOC, MSC, and other agency requirements and recommendations, promoting transparency and accountability. Results of these reviews are presented to senior management to communicate what went well, and to promote the implementation of actions to address areas for improvement.

Purpose of this Review:

- This comprehensive internal review is comprised of Metrorail service delivery functions reviewed during the third and fourth quarters (Q3 & Q4) of calendar year (CY) 2017, and is intended to provide Metro's senior management with an overall assessment of the current policies, procedures, practices, and material condition that promote safe, effective, and consistent service. The subject areas assessed in this report relate to rail station compliance with Americans with Disabilities Act (ADA) requirements and Train Operator performance of assigned duties; the 11th and 12th installments of QICO's 20-part CY2017 internal review.

Methodology:

ADA Compliance -

- Assessment is based on the US Department of Transportation (USDOT) ADA Standards for Transportation Facilities, Federal Transit Administration (FTA) ADA Circular C 4710.1, Department of Justice 2010 ADA Standards for Accessible Design and WMATA's internal policies and procedures.
- This is the first installment of a three-year ADA assessment of all Metrorail stations, totaling 26 stations in this review.
- QICO observed the rail stations and their associated facilities, assessed their conformance to requirements, reviewed records and key documents and interviewed key personnel.

Train Operators -

- Review is based on the Metrorail Safety Rules and Procedures Handbook (MSRPH), applicable RSTO Standard Operating procedures (SOPs) and through identifying and assessing risks to quality of work, compliance with standards, records management and safety.
- QICO observed the Train Operators while on duty, assessed their conformance to requirements, reviewed records and key documents, listened to recordings of radio communication and interviewed key personnel.

Metrorail Service Delivery



November 2017

11. Rail Station ADA Compliance Assessment

Key Takeaway: While ADA requirements are clearly emphasized at Metrorail Stations, increased Station Manager awareness will improve the level of service provided to customers with disabilities.

Wins:

- ✓ During this review, QICO did not identify any ADA noncompliance issues with physical equipment or station accessibility.
- ✓ Stations inspected were found to be in a state of good housekeeping, including ADA access and general station areas.
- ✓ Proactive communication to customers when ADA related equipment is out of service, whether scheduled or unscheduled.

Areas for Improvement:

- Developing methods to measure and record performance of communications equipment is necessary to promote compliance with ADA requirements and promote effective maintenance practices.
- Reinforcing the location of Areas of Refuge (AOR) is required for Station Managers to deliver appropriate guidance to passengers in the case of an emergency.
- Continuing the development and implementation of strategies to address structural findings is necessary to improve certain platform surface conditions observed at three (3) of 26 stations examined in this review.
- QICO previously identified this concern during the Internal Review of Metrorail Structural Inspections, leading to the issuance of Required Action QICO-SIM-17-01.

Required Actions:

- **QICO-ADA-17-01:** Develop and implement a process to measure the performance and availability of ADA related communications equipment, as required by the Policy Instruction, to ensure compliance and improve maintenance practices.
(Risk Rating: Moderate)
- **QICO-ADA-17-02:** Reinforce locations of Areas of Refuge (AOR) with Station Managers, through training and visual indication inside the kiosks, to ensure timely response and customer guidance in the case of an emergency.
(Risk Rating: Elevated)

Actions Underway:

- Metrorail Structural Inspections Internal Review:
 - **QICO-SIM-17-01:** WMATA must continue developing a strategy to address structural findings.
(Risk Rating: Elevated)

12. Metrorail Train Operator Activities

Key Takeaway: While Train Operators are equipped with the knowledge and skills to perform their duties according to standards, close supervision is necessary to assure that all requirements are consistently and effectively adhered to.

Wins:

- ✓ Operators demonstrated thorough understanding of the job requirements as specified in the standards.
- ✓ Sampled Train Operators' training certifications were current and complete.

Areas for Improvement:

- System-wide enforcement of requirements for announcements and door operations is essential to providing consistent Train Operator performance.
- Consistent enforcement of radio communication protocols is essential to effective understanding of messages sent and received.
- System-wide enforcement of vehicle inspection requirements is necessary for Train Operators to consistently perform assigned duties.
- Effective tracking of supervisory spot-checks is required to assure that actions resulting from unsatisfactory performance results in measurable and verifiable change.
- Maintaining up-to-date procedures, troubleshooting guides, and checklists is needed so that Train Operators have access to these resources when performing work.

Required Actions:

- **QICO-TOR-17-01:** Conduct a comprehensive review and update of the current supervisory spot-check program for Rail Transportation (RTRA) to ensure it encompasses the totality of Train Operator duties and responsibilities, takes into account appropriate sampling and frequency of spot-checks, effectively captures non-compliance with requirements, and tracks remedial actions through validation and closure.
(Risk Rating: Elevated)
- **QICO-TOR-17-02:** Conduct a comprehensive review and update of Train Operator troubleshooting guides, procedural checklists and job aids to ensure they provide adequate guidance for current equipment and operational conditions, including fillable checklists for verification and traceability of activities.
(Risk Rating: Low)

Note: An itemized Corrective Action Plan (CAP) is developed for each required action to achieve effective and measurable resolution of identified concerns. To check the status of CAP implementation go to: <https://www.wmata.com/initiatives/transparency/upload/Overview-of-Internal-Compliance-Actions.pdf>



**Metrorail Service Delivery
Rail Station Americans with Disabilities Act (ADA)
Compliance Assessment (12)**



Quality Assurance, Internal Compliance & Oversight (QICO)
"Quality Trumps Quantity"



INTERNAL REVIEW SUMMARY

November 2017

11. Rail Station ADA Compliance Assessment

Key Takeaway: While ADA requirements are clearly emphasized at Metrorail Stations, increased Station Manager awareness will improve the level of service provided to customers with disabilities.

Why QICO Performed This Review:

- This internal review is intended to provide Metro senior management with an assessment of the current policies, procedures, and practices that promote WMATA's compliance with Americans with Disabilities Act (ADA) specifications and promote the actions needed to address areas of concern.
- QICO is an internal management function authorized by the General Manager to conduct objective reviews with unrestricted access to all functions, records, assets and employees under its purview.

QICO's Methodology:

- This is the first installment of a three-year comprehensive ADA review of all Metrorail stations.
- QICO developed relevant review activities based on the US Department of Transportation (USDOT) ADA Standards for Transportation Facilities, Federal Transit Administration (FTA) ADA [Circular C 4710.1](#), Department of Justice 2010 ADA Standards for Accessible Design and WMATA's internal policies and procedures.
- QICO observed the rail stations and their associated facilities, assessed their conformance to requirements, reviewed records and key documents and interviewed key personnel.

Wins and Areas for Improvement:

- ✓ During this review, QICO did not identify any ADA noncompliance issues with physical equipment or station accessibility.
- ✓ Stations inspected were found to be in a state of good housekeeping, including ADA access and general station areas.
- ✓ Proactive communication to customers when ADA related equipment is out of service, whether scheduled or unscheduled.
- Developing methods to measure and record performance of communications equipment is necessary to promote compliance with ADA requirements and promote effective maintenance practices.
- Reinforcing the location of Areas of Refuge (AOR) is required for Station Managers to deliver appropriate guidance to passengers in the case of an emergency.
- Continuing the development and implementation of strategies to address structural findings is necessary to improve certain platform surface conditions observed at three (3) of 26 stations examined in this review.
 - QICO previously identified this concern during the [Internal Review of Metrorail Structural Inspections](#), leading to the issuance of Required Action [QICO-SIM-17-01](#).

Required Actions:

- **QICO-ADA-17-01:** Develop and implement a process to measure the performance and availability of ADA related communications equipment, as required by the Policy Instruction, to ensure compliance and improve maintenance practices.
(Risk Rating: Moderate)
- **QICO-ADA-17-02:** Reinforce locations of Areas of Refuge (AOR) with Station Managers, through training and visual indication inside the kiosks, to ensure timely response and customer guidance in the case of an emergency.
(Risk Rating: Elevated)

Actions Underway:

Metrorail Structural Inspections Internal Review:

- **QICO-SIM-17-01:** WMATA must continue developing a strategy to address structural findings.
(Risk Rating: Elevated)

Note: An itemized Corrective Action Plan (CAP) is developed for each required action to achieve effective and measurable resolution of identified concerns. To check the status of CAP implementation go to <https://www.wmata.com/initiatives/transparency/upload/Overview-of-Internal-Compliance-Actions.pdf>.

11.1. ASSESSMENT OVERVIEW

Rail Stations Americans with Disabilities Act (ADA) Compliance

In 1990, the United States Department of Transportation (USDOT) revised its rules under the Americans with Disabilities Act (ADA) of 1973, specifically to provide that transportation entities are required to make reasonable modifications/accommodations to policies, practices and procedures to avoid discrimination and promote accessibility to individuals with disabilities. As a public transit service provider, Metro is required to comply with ADA standards, which contain service-related requirements for transportation facilities, acquisition of accessible vehicles, and paratransit as a compliment to fixed route service and more.

Improving accessibility for all riders including those within the ADA community is a key part of Metro’s BACK2GOOD Plan. In support of this plan, specifically the accessibility improvement component, Metro’s Office of Quality Assurance, Internal Compliance and Oversight (QICO) performed an ADA Compliance Assessment of 26 Metrorail Stations. This self-assessment evaluated Metro’s compliance with applicable ADA standards for transportation facilities, as set forth in the Department of Transportation’s (DOT) “ADA Standards for Transportation Facilities.” This is the first installment of a three-year ADA assessment of all Metrorail stations.

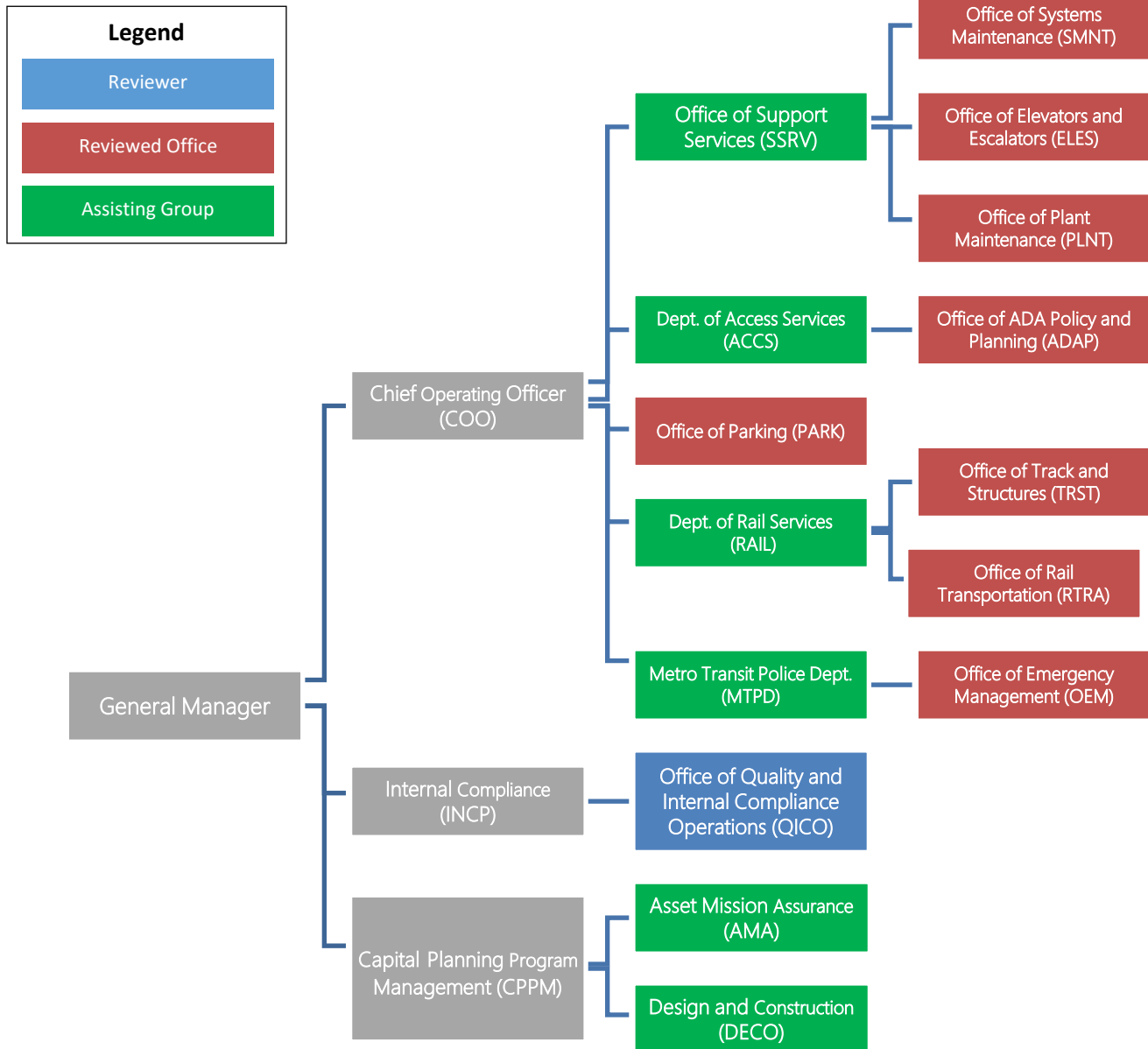
This review includes documentation review of all pertinent departments’ policies and procedures related to ADA compliance, reviews of reference documents and specifications from external sources (DOT), interviews with responsible department personnel, and on-site surveys of rail station facilities. The sample size of stations includes **all 9 transfer stations**, and **17 other stations** selected based on their high usage of ADA passengers, for a **total survey of 26 stations (28% of stations within WMATA)**.



11.2. REVIEW METHODOLOGY

Internal Review Stakeholders

The Office of Quality Assurance, Internal Compliance and Oversight (QICO) conducted an internal review of the different departments that supply ADA related services, equipment and maintenance within the rail station facilities. QICO is separate from the functions under review, reporting to the General Manager through the Chief of Internal Compliance (INCP). QICO provides objective quality assurance and compliance services in order to improve the quality of Metrorail operations, processes and compliance to regulatory requirements.



QICO conducted interviews with departmental personnel, performed field observations, and reviewed governing standard operating Procedures (SOPs), procedures, policies, and other documentation. Desk interviews were conducted with Departmental Management teams at various locations. This internal review notes both positive findings ([What Worked Well](#)) and negative findings ([Areas for Improvement](#)). The findings are rated based on severity of risk, which ranges from 'Insignificant' to 'High.' Recommendations are combined into several [Required Actions](#), which summarize the steps actions owners must take to address deficiencies.

11.3. REVIEW SCOPE

Category	Description																																																				
Review of Existing Documentation	<ul style="list-style-type: none"> - Reference documentation from external sources, such as Department of Transportation, Department of Justice, and the Federal Transit Administration, regarding standards, design specifications and inspection guidelines. - Policy/Procedure documentation from internal sources, including the Office of Emergency Management (OEM), Plant Maintenance (PLNT), Rail Transportation (RTRA), Systems Maintenance (SMNT), and Track and Structures (TRST). These sources provided documentation in the forms of Policy/Instruction manuals, management plans, SOPs, and design criteria manuals. - Reports from internal sources, to include equipment availability reports, after action reports, inventory lists, union personnel job picks, and Capital Improvement Project (CIP) tracker reports. - Inspection, Maintenance, and Supervisory reports and work orders from equipment and facility providers and maintainer groups. 																																																				
Interviews of Key Personnel	<ul style="list-style-type: none"> - Americans with Disabilities Act Policy and Planning (ADAP): ██████████, Director; ██████████, Design Review Manager; ██████████, Quality Assurance Specialist. - Office of Elevators and Escalators (ELES): ██████████, Assistant General Superintendent; ██████████, Superintendent. - OEM: ██████████, Manager of Planning and Technical Services; ██████████, Sr. Fire/Life Safety Officer. - Office of Parking (PARK): ██████████, Project Manager. - PLNT: ██████████, Director; ██████████, Supervisor (Sign Shop). - RTRA: ██████████, Superintendent-RISS; ██████████, Superintendent- Rail Operations Information Center (ROIC); ██████████, Instructor- Rail Operations Quality Training (ROQT). - SMNT: ██████████, General Superintendent; ██████████, Power Section (POWR) Superintendent, ██████████, Automatic Fair Collection (AFC) Superintendent, ██████████, Communications Section (COMM) Superintendent. - TRST: ██████████, Manager of Track Geometry Vehicle (TGV) Operations. 																																																				
Field Observations	<p>Locations are ordered by date of observation (Appendix D):</p> <table border="0"> <tr> <td>Fort Totten</td> <td>RD YL GR</td> <td>Anacostia</td> <td>GR</td> </tr> <tr> <td>Gallery Place</td> <td>RD YL GR</td> <td>NoMa-Gallaudet U</td> <td>RD</td> </tr> <tr> <td>Metro Center</td> <td>RD OR SV BL</td> <td>Union Station</td> <td>RD</td> </tr> <tr> <td>Columbia Heights</td> <td>YL GR</td> <td>Rhode Island Ave</td> <td>RD</td> </tr> <tr> <td>Benning Rd</td> <td>SV BL</td> <td>Brookland-CUA</td> <td>RD</td> </tr> <tr> <td>Pentagon City</td> <td>YL BL</td> <td>Southern Ave</td> <td>GR</td> </tr> <tr> <td>L'Enfant Plaza</td> <td>OR SV BL YL GR</td> <td>Suitland</td> <td>GR</td> </tr> <tr> <td>East Falls Church</td> <td>OR SV</td> <td>Braddock Rd</td> <td>YL BL</td> </tr> <tr> <td>Rosslyn</td> <td>OR SV BL</td> <td>Foggy Bottom-GWU</td> <td>OR SV BL</td> </tr> <tr> <td>Pentagon</td> <td>YL BL</td> <td>Silver Spring</td> <td>RD</td> </tr> <tr> <td>King St-Old Town</td> <td>YL BL</td> <td>Georgia Ave-Petworth</td> <td>YL GR</td> </tr> <tr> <td>Stadium-Armory</td> <td>OR SV BL</td> <td>Navy Yard-Ballpark</td> <td>GR</td> </tr> <tr> <td>Congress Heights</td> <td>GR</td> <td>Farragut North</td> <td>RD</td> </tr> </table>	Fort Totten	RD YL GR	Anacostia	GR	Gallery Place	RD YL GR	NoMa-Gallaudet U	RD	Metro Center	RD OR SV BL	Union Station	RD	Columbia Heights	YL GR	Rhode Island Ave	RD	Benning Rd	SV BL	Brookland-CUA	RD	Pentagon City	YL BL	Southern Ave	GR	L'Enfant Plaza	OR SV BL YL GR	Suitland	GR	East Falls Church	OR SV	Braddock Rd	YL BL	Rosslyn	OR SV BL	Foggy Bottom-GWU	OR SV BL	Pentagon	YL BL	Silver Spring	RD	King St-Old Town	YL BL	Georgia Ave-Petworth	YL GR	Stadium-Armory	OR SV BL	Navy Yard-Ballpark	GR	Congress Heights	GR	Farragut North	RD
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11.4. WHAT WORKED WELL

Measure	Finding	Description
Quality of Work	All stations inspected by QICO were found in a state of good housekeeping, including all ADA access areas and general station areas.	<ul style="list-style-type: none"> - PLNT Grounds, Maintenance and Custodial (GMAC) group provides sufficient coverage for each station, with GMAC supervisors performing follow up quality oversight. - Station Managers conduct hourly inspections which includes cleanliness observations, where deviations are being addressed in timely manner. (Source: Station ADA Assessment Reports)
Compliance with Standards	QICO's review did not identify any noncompliance with ADA equipment or accessibility.	<ul style="list-style-type: none"> - All station equipment subject to ADA requirements met the necessary standards, in accordance with their original construction or installation dates (i.e. fare vendor machines, ELES equipment, all fare gates, parking areas, etc.) (Source: Station ADA Assessment Reports)
	Proactive communication to customers when ADA related equipment is of out of service, whether scheduled or unscheduled.	<ul style="list-style-type: none"> - Scheduled or unscheduled out of service equipment are reported through the Maintenance Operation Center (MOC). Rail Operations Information Center (ROIC) is then notified to generate and deploy system wide informational messages through multiple outlets: Kiosk Information Display System (KIDS), Passenger Information Display System (PIDS), Public Address (PA), radio channel Ops 5 and the media hotline. - ROIC contacts Bus Services (BUSV) to arrange bus shuttle service as required. (Source: Station ADA Assessment Reports)
	The Office of Emergency Management (OEM) includes ADA representatives in quarterly emergency drills where applicable.	<ul style="list-style-type: none"> - Emergency drills are conducted on quarterly basis, following different scenarios in different locations. Representatives from the ADA community are involved and in some cases are asked to participate in the drills where applicable, to assure their inputs are taken into consideration in the after action reports.

11.5. AREAS FOR IMPROVEMENT

Note: Findings are rated based on the associated risk to organization's objectives, provided as Type of Risk followed by Risk Severity (Impact rating, Probability rating) Color Coding.

Refer to [Appendix A: Risk Assessment](#) for further details

Measure	Finding	Description
Compliance with Standards	<p>F-ADA-17-01: Developing methods to measure and record performance of communications equipment is necessary to ensure compliance with ADA requirements and promote effective maintenance practices.</p> <p><i>Operational Risk</i> <i>Moderate (3,3)</i> ■</p>	<ul style="list-style-type: none"> - Per Policy Instruction 16.1-1 (ADA Compliance and Jurisdiction of the Department of Access Services), section 5.09, all departments responsible for maintaining ADA equipment shall maintain records of performance standards, reliability and availability. - Such records are kept, maintained and provided from the offices of AFC and ELES but not from COMM. <p>Recommendation: Develop and implement a process to measure the performance and availability of ADA related communications equipment, as required by the Policy Instruction, to ensure compliance and improve maintenance practices.</p>
	<p>F-ADA-17-02: Reinforcing the location of Areas of Refuge (AOR) is required to ensure Station Managers deliver appropriate guidance to passengers in the case of an emergency.</p> <p><i>Safety Risk</i> <i>Elevated (3, 4)</i> ■</p>	<ul style="list-style-type: none"> - When asked to identify the location of the Area of Refuge, 40% of the station managers interviewed by QICO during the review indicated that it is "Beyond the end gates of the platform", when in fact, there was no Area of Refuge at that particular station. This may lead to confusion in the case of an actual emergency. <p>Recommendation: Reinforce locations of Areas of Refuge (AOR) with Station Managers, through training and visual indication inside the kiosks, to ensure timely response and customer guidance in the case of an emergency.</p> <p>(Source: FTA circular C-4710.1, Station ADA Assessment Reports)</p>
	<p>F-ADA-17-03: Continuing the development and implementation of strategies to address structural findings is necessary to improve certain platform surface conditions observed at three (3) of 26 stations examined in this review.</p> <p><i>Safety Risk</i> <i>Elevated (3, 5)</i> ■</p>	<ul style="list-style-type: none"> - The state of the platform substructure (concrete) can lead to tripping hazards such as popped tiles, open joints, excessive platform to railcar heights variations, etc. This has been noted in a previous report with a corrective action plan generated. (Appendix C, Photograph #1 & 2) - QICO identified these deficiencies at four (4) of the 26 stations assessed as part of this review, approximately 15%: East Falls Church, Southern Ave, Suitland, and Braddock Rd. - QICO previously identified this concern during the Internal Review of Metrorail Structural Inspections, where deficiencies to platform substructures, not posing immediate danger to passengers, were not addressed in an efficient manner. This led to the issuance of a Required Action and subsequent development of corrective action plan (CAP) QICO-SIM-17-01. <p>Recommendation: Continue execution of previously-issued corrective action plan (CAP) # QICO-SIM-17-01: WMATA must continue developing a strategy to address structural findings.</p> <p>(Source: FTA Circular C-4710.1, Station ADA Assessment Reports)</p>

11.6. SUMMARY OF REQUIRED ACTIONS

Note: Findings are rated based on the associated risk to organization's objectives, provided as Type of Risk followed by Risk Severity (Impact rating, Probability rating) Color Coding.

Refer to [Appendix A: Risk Assessment](#) for further details

Required Action	Finding	Owner
<p>QICO-ADA-17-01: Develop and implement a process to measure the performance and availability of ADA related communications equipment, as required by the Policy Instruction, to ensure compliance and improve maintenance practices.</p> <p>Moderate ■■■</p>	<p>F-ADA-17-01 ■■■</p> <p>Developing methods to measure and record performance of communications equipment is necessary to ensure compliance with ADA requirements and promote effective maintenance practices.</p>	SMNT
<p>QICO-ADA-17-02: Reinforce locations of Areas of Refuge (AOR) with Station Managers, through training and visual indication inside the kiosks, to ensure timely response and customer guidance in the case of an emergency.</p> <p>Elevated ■■■</p>	<p>F-ADA-17-02 ■■■</p> <p>Reinforcing the location of Areas of Refuge (AOR) is required to ensure Station Managers deliver appropriate guidance to passengers in the case of an emergency.</p>	RTRA
Actions Underway from Metrorail Structural Inspections Internal Review		
<p>QICO-SIM-17-01: WMATA must continue developing a strategy to address structural findings.</p> <p>Elevated ■■■</p>	<p>F-ADA-17-03 ■■■</p> <p>Continuing the development and implementation of strategies to address structural findings is necessary to improve certain platform surface conditions observed at three (3) of 26 stations examined in this review.</p>	ENGA
<p>Approved Corrective Action Plans (CAPs) are provided following the Internal Review reports, with each developed to address the findings and required actions listed above.</p>		



Metrorail Service Delivery
Metrorail Train Operator Activities (12)



Quality Assurance, Internal Compliance & Oversight (QICO)
"Quality Trumps Quantity"

November 2017



INTERNAL REVIEW SUMMARY

Why QICO Performed This Review:

- This internal review is intended to provide Metro senior management with an assessment of the Rail Station and Train Operations (RSTO) Train Operators' performance of assigned duties and promote the actions needed to address areas of concern.
- QICO is an internal management function authorized by the General Manager to conduct objective reviews with unrestricted access to all functions, records, assets and employees under its purview.

QICO's Methodology:

- QICO developed relevant review activities based on the Metrorail Safety Rules and Procedures Handbook (MSRPH), applicable RSTO Standard Operating Procedures (SOPs) and through identifying and assessing risks to quality of work, compliance with standards, records management and safety.
- QICO observed the Train Operators while on duty, assessed their conformance to requirements, reviewed records and key documents, listened to recordings of radio communication and interviewed key personnel.
- Review findings and required actions are rated based on severity of risk, which ranges from 'Insignificant' to 'High' scale.

12. Metrorail Train Operator Activities

Key Takeaway: While Train Operators are equipped with the knowledge and skills to perform their duties according to standards, close supervision is necessary to assure that all requirements are consistently and effectively adhered to.

Wins and Areas for Improvement:

- ✓ Operators demonstrated thorough understanding of the job requirements as specified in the standards.
- ✓ Sampled Train Operators' training certifications were current and complete.
- System-wide enforcement of requirements for announcements and door operations is essential to providing consistent Train Operator performance.
- Consistent enforcement of radio communication protocols is essential to effective understanding of messages sent and received.
- System-wide enforcement of vehicle inspection requirements is necessary for Train Operators to consistently perform assigned duties.
- Effective tracking of supervisory spot-checks is required to assure that actions resulting from unsatisfactory performance results in measurable and verifiable change.
- Maintaining up-to-date procedures, troubleshooting guides, and checklists is needed so that Train Operators have access to these resources when performing work.

Required Actions:

- **QICO-TOR-17-01:** Conduct a comprehensive review and update of the current supervisory spot-check program for Rail Transportation (RTRA) to ensure it encompasses the totality of Train Operator duties and responsibilities, takes into account appropriate sampling and frequency of spot-checks, effectively captures non-compliance with requirements, and tracks remedial actions through validation and closure.
(Risk Rating: Elevated)
- **QICO-TOR-17-02:** Conduct a comprehensive review and update of troubleshooting guides, procedural checklists and job aids to ensure they provide adequate guidance for current equipment and operational conditions, including appropriate oversight activities being performed.
(Risk Rating: Low)

Note: An itemized Corrective Action Plan (CAP) is developed for each required action to achieve effective and measurable resolution of identified concerns. To check the status of CAP implementation go to <https://www.wmata.com/initiatives/transparency/upload/Overview-of-Internal-Compliance-Actions.pdf>.

12.1. DEPARTMENT/FUNCTION OVERVIEW

Rail Station and Train Operations (RSTO)

The Rail Station and Train Operations Branch (RSTO) is responsible for providing front-line transportation services to Metrorail passengers. This unit manages the line functions of train and station operations of the rail system and is organized by rail divisions.

The Director of Rail Station and Train Operations is responsible for more than 1,450 employees, managing train and station operations covering Metro's 117 miles of track, 91 rail stations, all rail yards and terminals. RSTO is also responsible for responding to major accidents/incidents, developing service alternatives, as well as supervising and enforcing all safety policies and programs; having the potential to directly impact WMATA's rail operations.

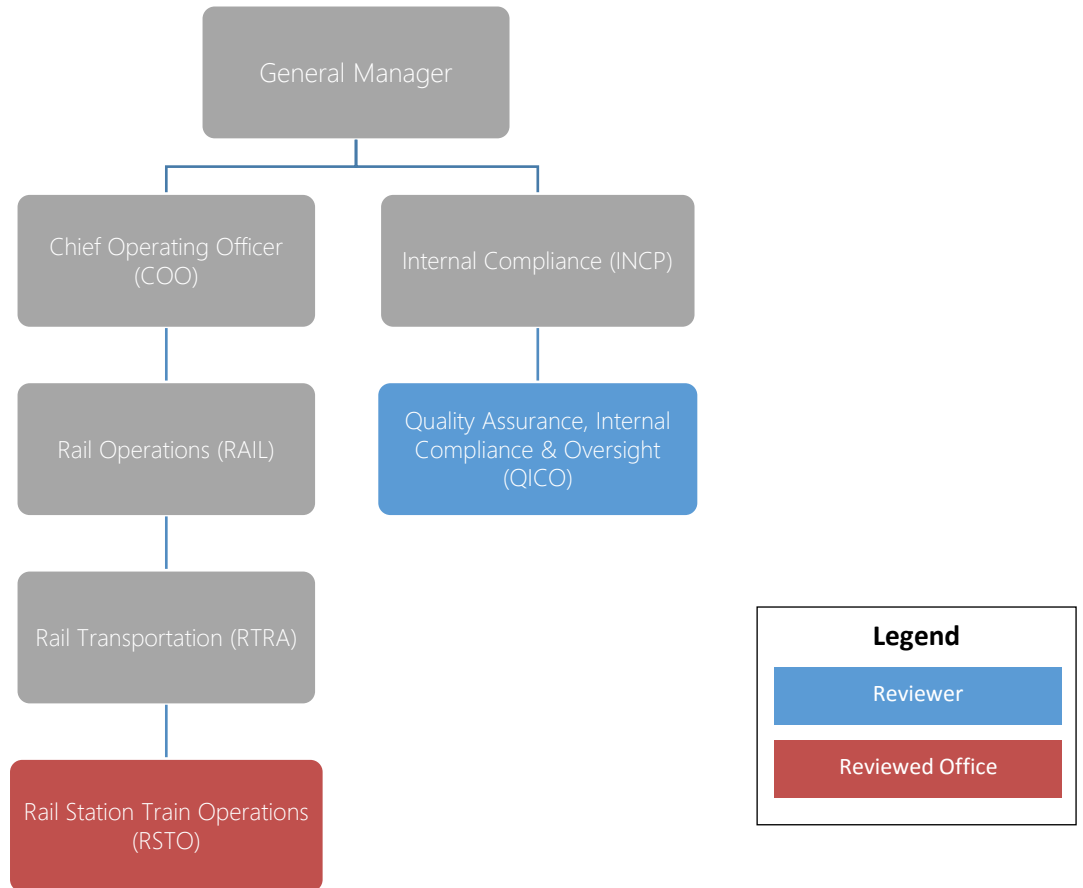
At the time of this review, there were 658 Train Operators covering the train operations. Train Operators are responsible for the following:

- The monitoring and operation of all train movements in passenger and non-passenger service in accordance with the MSRPH, SOPs, and Special Orders as required, observing wayside signals and signs while monitoring the boarding and alighting of Metrorail passengers.
- Adherence to all issued schedules and headways, and making pre-trip inspections of trains before entering mainline for passenger service.
- Providing passengers with trip information through public address announcements at all station stops, informing them of the next station stop, transfer points, elevator outages, and other pertinent information throughout passenger service and during emergencies.
- Following all instructions of the Rail Operations Control Center (ROCC), Road and Terminal Supervisors, and Interlocking Operators at all times.
- Exercising judgment under normal and emergency situations, while carrying out duties necessary to provide for the safety of Metrorail passengers, employees, and equipment.
- Reporting and troubleshooting minor rail car related malfunctions on mainline and while in yards, making adjustments to overcome problems and complete scheduled trips.
- Provide verbal reports to ROCC, Division Managers and Supervisors, and submit written reports after emergencies, unusual occurrences, incidents, and accidents, or when otherwise requested.
- Under the direction of the Interlocking Operator, complete yard and shop movements and properly store trains and cars on yard storage tracks.
- Operation of trains to dispatching tracks for passenger service or non-passenger transports, conducting train and yard inspections and, when instructed, the operation of trains and cars through car washes.

12.2. REVIEW METHODOLOGY

Internal Review Stakeholders

The **Office of Quality Assurance, Internal Compliance and Oversight (QICO)** conducted an internal review of the Train Operators activities within RSTO, which resides within Rail Transportation (RTRA), within the Department of Rail Services (RAIL), under the Chief Operating Officer (COO). As shown below, QICO is separate from the function under review, reporting to the General Manager through Internal Compliance (INCP). QICO provides objective quality assurance and compliance services in order to improve the quality of Metrorail operations, processes, and compliance to regulatory requirements.



QICO observed Train Operators performing their duties, interviewed key personnel, and reviewed records and governing procedures. This internal review notes both positive findings ([What Worked Well](#)) and negative findings ([Areas for Improvement](#)). The findings are rated based on severity of risk, which ranges from 'Insignificant' to 'High.' Recommendations are combined into several [Required Actions](#), which summarize the steps actions owners must take to address deficiencies.

12.3. REVIEW SCOPE

Category	Description
<p>Field Observations</p>	<p>QICO observed Train Operators performing their duties through train ride-along assessments, platform assessments and yard/shop assessments, the total sample size analyzed only represents 0.11% of the total trips during the month of September 2017. (Appendix E)</p> <p>Train ride-along assessment routes ordered by date of observation:</p> <ul style="list-style-type: none"> - Franconia-Springfield to Pentagon BL - Mt. Vernon Sq. to Greenbelt GR - L’Enfant Plaza to Largo Town Center BL - L’Enfant Plaza to New Carrollton OR - New Carrollton to L’Enfant Plaza OR - Brookland-CUA to Glenmont RD - L’Enfant Plaza to Mt. Vernon Sq. YL - Rosslyn to Vienna OR - Archives to Branch Avenue GR <p>Platform assessments ordered by date of observation:</p> <ul style="list-style-type: none"> - Mt. Vernon Sq. YL GR - Pentagon YL BL - Greenbelt GR - Largo Town Center BL - L’Enfant Plaza OR SV BL YL GR - Silver Spring RD - New Carrollton OR - Metro Center RD - Gallery Place YL GR - Brookland-CUA RD <p>Yard/shop assessments ordered by date of observation:</p> <ul style="list-style-type: none"> - Shady Grove - Greenbelt - Branch Avenue - New Carrollton
<p>Interviews of Key Personnel</p>	<ul style="list-style-type: none"> - RSTO Manager Operations Support ([REDACTED]) - RTRA Division Superintendent, New Carrollton ([REDACTED]) - RTRA Division Superintendent, Largo ([REDACTED]) - Train Operator ([REDACTED]) - Train Operator ([REDACTED]) - Train Operator ([REDACTED])

12.3. REVIEW SCOPE

Category	Description
Review of Existing Documentation	<ul style="list-style-type: none"> - SOP #12 Movement of Rail Vehicles Within, Into, On the Lead and Out of a Maintenance Facility - SOP #16 Coupling and Uncoupling Revenue cars - SOP #34 Defective Trains - SOP #40 Door Operations / Station Servicing Procedures - SOP #43 Stowing and Deploying Inter-Car Barriers - SOP #45 Removing Revenue Vehicles from Service on Mainline and at Terminal Locations - SOP #50 Train Operator Standard Baseline Announcements - Permanent Order T-6-10 Radio Protocols - Permanent Order T-16-09 Modification of Trailing Cab Door Procedures-SOP #40 - RSTO Standard Operating Procedures (SOPs) - Troubleshooting Guide and Procedural Checklists
Review of Radio Recordings	<ul style="list-style-type: none"> - [REDACTED] - [REDACTED] - [REDACTED]

12.4. WHAT WORKED WELL

Measure	Finding	Description
Quality of Work	Train Operators demonstrated thorough understanding of their job's requirements as specified in standards.	<ul style="list-style-type: none"> - The three (3) operators interviewed all demonstrated thorough knowledge and understanding of their job's requirements as detailed in the MSRPH, Personnel Notices, SOPs and Operations and Administrative Procedures (OAP).
Compliance with Standards	Sampled Train Operators' training certifications were current and complete.	<ul style="list-style-type: none"> - Training records of four (4) random Train Operators were sampled for compliance. Records indicated that the four (4) Train Operators were trained on-time and their certification status was current as required.

12.5. AREAS FOR IMPROVEMENT

Note: Findings are rated based on the associated risk to organization's objectives, provided as Type of Risk followed by Risk Severity (Impact rating, Probability rating) Color Coding. Refer to [Appendix A: Risk Assessment](#) for further details

Measure	Finding	Description
<p>Compliance with Standards</p>	<p>F-TOR-17-01: System-wide enforcement of Train Operator Standard Baseline Announcements (SOP 50) is necessary to ensure clear and consistent communication to passengers. <i>Operational Risk Elevated (4,4)</i> ■</p>	<p>QICO noted Train Operator non-compliance with requirements outlined in MSRP SOP 50 (Train Operator Standard Baseline Announcements), the total sample size analyzed only represents 0.11% of the total trips during the month of September 2017.</p> <ul style="list-style-type: none"> - 100% non-compliance with the announcement required at terminals two (2) minutes prior to departure upon keying up. - 64% non-compliance with the announcement required at terminals thirty (30) seconds before departure. This causes confusion among passengers, particularly in the presence of two (2) trains at the terminal at the same time, where it is not clear which train departs first. (Appendix C. Photograph #1) <ul style="list-style-type: none"> o Based on a sample of ten (10) trains observed at the following terminals: Greenbelt, Largo Town Center, Franconia-Springfield and New Carrollton. - 59% non-compliance with the announcement required when train doors are open while servicing a platform. <ul style="list-style-type: none"> o Based on 162 observations performed at platforms and while riding aboard trains. - 61% non-compliance with the announcement required when entering a station, while the train is berthing on platform. <ul style="list-style-type: none"> o Based on 61 observations performed while riding aboard trains. - 67% non-compliance with the announcement required at the station prior to terminal, while train doors are open. <ul style="list-style-type: none"> o Based on six (6) observations while riding aboard trains at the following stations: Landover, Wheaton, Morgan Boulevard, College Park, Dunn Loring and Suitland. - 33% non-compliance with the announcement required when entering a terminal, while train is berthing. <ul style="list-style-type: none"> o Based on six (6) observations, while riding aboard trains approaching the following stations: Landover, Wheaton, Morgan Boulevard, College Park, Dunn Loring and Suitland. - 50% non-compliance with the announcement required at transfer stations while train is berthing. <ul style="list-style-type: none"> o Based on ten (10) observations while riding aboard trains through the following stations: King Street, Pentagon, L'Enfant Plaza, Fort Totten, Gallery Place, Stadium-Armory, and East Falls Church. <p>(Source: Train Operator Assessment Summary)</p> <p>Recommendation: Evaluate Train Operator performance in relation to MSRP SOP 50 through supervisory spot-checks to ensure consistent and effective communication to passengers in accordance with requirements.</p>

<p>Compliance with Standards</p>	<p>F-TOR-17-02: System-wide enforcement of Door Operations / Station Servicing Procedures (SOP 40) is necessary to ensure consistent loading and offloading of trains at stations.</p> <p><u>Safety Risk Elevated (4.3)</u> ■</p>	<p>QICO noted Train Operator non-compliance with requirements outlined in MSRP SOP 40 (Door Operations / Station Servicing Procedures), the total sample size analyzed only represents 0.11% of the total trips during the month of September 2017.</p> <ul style="list-style-type: none"> - 35% non-compliance with the door operations requirement of waiting for five (5) seconds prior to opening the doors manually. <ul style="list-style-type: none"> o Based on 34 observations performed at the following stations: Metro Center, New Carrollton, Pentagon, Gallery Place, Brookland, L'Enfant Plaza, Greenbelt, Mt. Vernon Sq., Largo, and Silver Spring. - 9% non-compliance with the door operations requirement of placing the operator's head out of window while berthed on platform. <ul style="list-style-type: none"> o Based on 34 observations performed at the following stations: Metro Center, New Carrollton, Pentagon, Gallery Place, Brookland, L'Enfant Plaza, Greenbelt, Mt. Vernon Sq., Largo, and Silver Spring. - 15% non-compliance with the door operations requirement of monitoring the platform area while the doors are open. <ul style="list-style-type: none"> o Based on 34 observations performed at the following stations: Metro Center, New Carrollton, Pentagon, Gallery Place, Brookland, L'Enfant Plaza, Greenbelt, Mt. Vernon Sq., Largo, and Silver Spring. - 19% non-compliance with the door operations requirement of constantly monitoring the doors while they are closing. <ul style="list-style-type: none"> o Based on 31 observations performed at the following stations: Metro Center, New Carrollton, Pentagon, Gallery Place, Brookland, L'Enfant Plaza, Mt. Vernon Sq., Largo, and Silver Spring. - 38% non-compliance with the door operations requirement of configuring the trailing operating cab door to allow passenger access to the emergency call station. <p><u>(Appendix C. Photograph #2)</u></p> <ul style="list-style-type: none"> o Based on 16 observations performed at the following stations: Greenbelt, Metro Center, New Carrollton, Pentagon, Gallery Place, Brookland, L'Enfant Plaza, Mt. Vernon Sq., Largo, and Silver Spring. - Operator cannot view the entire length of the train at Brookland station, track 2, and Silver Spring Station, track 2, due to the convex curvature of the track. <p><u>(Appendix C. Photograph #3)</u></p> <p>(Source: <u>Train Operator Assessment Summary</u>)</p> <p>Recommendation: Evaluate Train Operator performance in relation to MSRP SOP 40 through supervisory spot-checks to ensure consistent and effective passenger loading and offloading at stations.</p>
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12.5. AREAS FOR IMPROVEMENT

Note: Findings are rated based on the associated risk to organization's objectives, provided as Type of Risk followed by Risk Severity (Impact rating, Probability rating) Color Coding.
Refer to [Appendix A: Risk Assessment](#) for further details

Measure	Finding	Description
Compliance with Standards	<p>F-TOR-17-03: Consistent enforcement of radio communication protocols, as outlined in Permanent Order T-16-10, is essential to ensure messages are sent, received and understood effectively. Governance Risk Elevated (3,4) ■</p>	<ul style="list-style-type: none"> - 82% non-compliance with the requirement to end each transmission with the word "over". - 55% non-compliance with the requirement for one-hundred percent word for word repeat back of Rail Operations Control Center (ROCC) instructions. - 70% non-compliance with the requirement to use only authorized terms and responses when communicating such as "affirmative", "copy", and "central". - 10% non-compliance with the requirement to establish positive identification prior to each transmission. <ul style="list-style-type: none"> o Based on review of recorded audio from each of the three ROCC radio channels on 8/1/2017, 8/3/2017 and 8/5/2017. <p>(Source: Train Operator Assessment Summary)</p> <p>Recommendation: Evaluate Train Operator performance in relation to Permanent Order T-16-10 through supervisory spot-checks to ensure consistent and effective radio communication.</p>
	<p>F-TOR-17-04: System-wide enforcement of vehicle inspection requirements is necessary to ensure Train Operators consistently perform assigned duties. Safety Risk Elevated (4,4) ■</p>	<ul style="list-style-type: none"> - 83% non-compliance with the requirement for Train Operators to perform a walk-around inspection of rail vehicles prior to moving them out of a maintenance facility, as detailed in MSRPH SOP 12.5.1. - No fillable checklists are used as a reference and as a record for the inspections being performed prior to the movement of rail vehicles. <ul style="list-style-type: none"> o Based on seven (7) observations performed at the following maintenance facilities: New Carrollton, Greenbelt, Shady Grove and Branch Avenue. <p>(Source: Train Operator Assessment Summary)</p> <p>Recommendation: Evaluate Train Operator performance in relation to MSRPH SOP 12 through supervisory spot-checks to ensure inspection of rail vehicles occur as required.</p>
Records Management	<p>F-TOR-17-05: Effective tracking of supervisory spot-checks is required to ensure actions resulting from unsatisfactory performance results in measurable and verifiable change. Operational Risk Low (2,4) ■</p>	<ul style="list-style-type: none"> - There is no formal representation of actions generated as a result of unsatisfactory spot checks reported through Cognos and generated by the Rail Supervisor Daily Activity Report (RSDAR) are consistently validated and closed-out. This introduces ambiguity surrounding the implementation of these remedial actions, limiting the ability to verify completion. <p>Recommendation: Conduct a comprehensive review and update of the current supervisory spot-check program to ensure it effectively captures non-compliance with requirements, and tracks remedial actions through validation and closure.</p>

12.5. AREAS FOR IMPROVEMENT

Note: Findings are rated based on the associated risk to organization's objectives, provided as Type of Risk followed by Risk Severity (Impact rating, Probability rating) Color Coding.
Refer to [Appendix A: Risk Assessment](#) for further details

Measure	Finding	Description
<p>Records Management</p>	<p>F-TOR-17-06: Maintaining up-to-date procedures, troubleshooting guides, and checklists is needed to ensure Train Operators have access to these resources when performing work. <u>Operational Risk</u> <u>Low (2,4)</u> ■</p>	<ul style="list-style-type: none"> - The latest available version of the Troubleshooting Guide and Procedural Checklist Handbook furnished by Rail Transportation (RTRA) Management and required to be carried by Train Operators is insufficient for current job requirements. <ul style="list-style-type: none"> o The version currently being issued by RTRA indicates on its cover a date of "04/12"; however all internal pages are dated January 1994. o The contents of this manual are applicable only to the non-rehabilitated Rohr and Breda fleets (1000 & 4000 series railcars), both of which have been decommissioned. - There are no job aids covering the 7000 series trains, which are substantially different from all previous Metro rail car fleets and require different steps to complete troubleshooting activities. - No fillable checklists are used as a reference and as a record for the procedural checks being performed. <p>Recommendation: Conduct a comprehensive review and update of troubleshooting guides, procedural checklists and job aids to ensure they provide adequate guidance for current equipment and operational conditions, including sufficient oversight for verification of activities.</p>

12.6. SUMMARY OF REQUIRED ACTIONS

Note: Findings are rated based on the associated risk to organization's objectives, provided as Type of Risk followed by Risk Severity (Impact rating, Probability rating) Color Coding.

Refer to [Appendix A: Risk Assessment](#) for further details

Required Action	Finding	Owner
QICO-TOR-17-01: Conduct a comprehensive review and update of the current supervisory spot-check program for Rail Transportation (RTRA) to ensure it encompasses the totality of Train Operator duties and responsibilities, takes into account appropriate sampling and frequency of spot-checks, effectively captures non-compliance with requirements, and tracks remedial actions through validation and closure. Elevated ■	F-TOR-17-01 ■	System-wide enforcement of Train Operator Standard Baseline Announcements (SOP 50) is necessary to ensure clear and consistent communication to passengers. RTRA
	F-TOR-17-02 ■	System-wide enforcement of Door Operations / Station Servicing Procedures (SOP 40) is necessary to ensure consistent loading and offloading of trains at stations. RTRA
	F-TOR-17-03 ■	Consistent enforcement of radio communication protocols, as outlined in Permanent Order T-16-10, is essential to ensure messages are sent, received and understood effectively. RTRA
	F-TOR-17-04 ■	System-wide enforcement of vehicle inspection requirements is necessary to ensure Train Operators consistently perform assigned duties. RTRA
	F-TOR-17-05 ■	Effective tracking of supervisory spot-checks is required to ensure actions resulting from unsatisfactory performance results in measurable and verifiable change. RTRA
QICO-TOR-17-02: Conduct a comprehensive review and update of troubleshooting guides, procedural checklists and job aids to ensure they provide adequate guidance for current equipment and operational conditions, including sufficient oversight for verification of activities. Low ■	F-TOR-17-06 ■	Maintaining up-to-date procedures, troubleshooting guides, and checklists is needed to ensure Train Operators have access to these resources when performing work. RTRA
Approved Corrective Action Plans (CAPs) are provided following the Internal Review reports, with each developed to address the findings and required actions listed above.		

CORRECTIVE ACTION PLANS (CAPs)



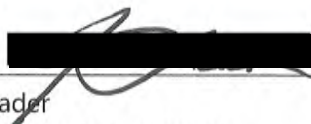
INTERNAL REVIEW

Capital Program Management and Execution

In response to the internal review of Metrorail Service Delivery, including review of Metrorail Station Americans With Disabilities Act (ADA) Compliance Assessment and Metrorail Train Operator Activities, the office of Quality Assurance, Internal Compliance & Oversight (QICO) has coordinated the development of four (4) CAPs. Each CAP outlines the findings, recommendations and requirements to be addressed, and a detailed action plan outlining responsible parties and specific actionable items.

EXECUTIVE LEADERSHIP OF RESPONSIBLE PARTIES

Corrective Action Plan Commitment

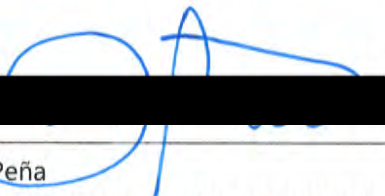


Joseph Leader
Chief Operating Officer (COO)

11/12/17
Date

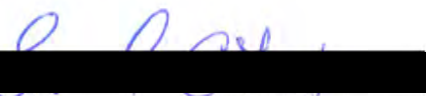
WMATA INTERNAL OVERSIGHT

Corrective Action Plan Acknowledgement



Angel Peña
Managing Director, Quality Assurance, Internal Compliance & Oversight (QICO)

11/15/17
Date



Eric Christensen
Chief, Internal Compliance (INCP)

11/15/17
Date



Paul J. Wiedefeld
General Manager & Chief Executive Officer (GM/CEO)

11/15/17
Date

RAIL STATION ADA ASSESSMENT CAPS

[\(Summary of Required Actions\)](#)



CORRECTIVE ACTION PLAN

Purpose and Scope

On September 1, 2017 the office of Quality Assurance, Internal Compliance & Oversight (QICO) issued a comprehensive internal review report, regarding the current policies, procedures, and practices that ensure WMATA's compliance with the Americans with Disabilities Act (ADA). This Corrective Action Plan (CAP) has been developed to address the finding and required action per QICO-ADA-17-01.

QICO Finding	QICO Recommendation
F-ADA-17-01: Developing methods to measure and record performance of communications equipment is necessary to ensure compliance with ADA requirements and promote effective maintenance practices.	- Develop and implement a process to measure the performance and availability of ADA related communications equipment, as required by the Policy Instruction, to ensure compliance and improve maintenance practices.

Required Action

QICO-ADA-17-01: Develop and implement a process to measure the performance and availability of ADA related communications equipment, as required by the Policy Instruction, to ensure compliance and improve maintenance practices.
(Risk Rating: Moderate)



ACTION PLAN

Description

SMNT-COMM will produce a monthly report derived from MAXIMO Work Order data. The report will show the number of work orders opened per communication system (Intercom, Public Address, and PIDS) per station. This information will be tracked to identify any trends for increased failures.

Business Impact – Budget/Cost Estimate

Process Improvement – A current process/procedure needs to be optimized to address the QICO Required Action. This type of initiative does not need additional resources because current manpower will be used to improve the process.

PLAN STRUCTURE

Actionable Items	Description	Responsible Party	Estimated Start	Estimated Completion
1) Equipment Standards	Document outlining definitions of ADA equipment, associated performance standards, and specific reporting requirements, in accordance with Policy Instruction 16.1/1, section 5.09.	SMNT	10/16/17	12/06/17
2) Equipment Report	A periodic report to show the number of Maximo Work Orders (W/O) associated with ADA equipment; including Passenger Information Display Signs (PIDS), Intercom Systems and Public Address Systems.	COMM	11/01/17	01/31/18
3) Equipment Report Analysis	Analysis of Maximo W/O to identify trends in equipment system component failure. These results will be used to develop action plans to resolve issues identified, including recommendation of system repair or replacement due to failure rates and lifecycle considerations as required.	COMM	01/31/18	02/28/18
4) QICO CAP Verification Report	QICO will evaluate actionable items submitted to confirm there is reasonable evidence that the findings and this required action have been resolved, taking into account the actionable item descriptions and performance measures.	QICO	02/28/18	03/28/18

*In the event of personnel or departmental changes, responsibilities for actionable items shall transfer to the new leadership.





COMPLETION DOCUMENTATION

Performance Measures

- Equipment Standards developed under Actionable Item #1 meet the requirements set in Policy Instruction 16.1/1, section 5.09.
- Equipment reports under Actionable Item #2 are produced in accordance with requirements established under actionable item #1.
- Evidence of actions developed as a result of analysis performed under Actionable Item #3, including those completed and planned for future action.

RESPONSIBLE PARTIES

COMM	Matthew Lang	
SMNT	Gairy Johnson	 11/8/17

SECOND LEVEL RESPONSIBILITY

AGM Rail Services	Andrew Off	 8 NOV 17
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CORRECTIVE ACTION PLAN

Purpose and Scope

On September 1, 2017 the office of Quality Assurance, Internal Compliance & Oversight (QICO) issued a comprehensive internal review report, regarding the current policies, procedures, and practices that ensure WMATA's compliance with the Americans with Disabilities Act (ADA). This Corrective Action Plan (CAP) has been developed to address the finding and required action per QICO-ADA-17-02.

QICO Finding


QICO Recommendation

F-ADA-17-02: Reinforcing the location of Areas of Refuge (AOR) is required to ensure Station Managers deliver appropriate guidance to passengers in the case of an emergency.

- Reinforce locations of Areas of Refuge (AOR) with Station Managers, through training and visual indication inside the kiosks, to ensure timely response and customer guidance in the case of an emergency.

Required Action

QICO-ADA-17-02: Reinforce locations of Areas of Refuge (AOR) with Station Managers, through training and visual indication inside the kiosks, to ensure timely response and customer guidance in the case of an emergency.

(Risk Rating: Elevated) 



ACTION PLAN

Description

RTRA will re-issue and re-instructed all Station Managers and Rail Operation Supervisors on Permanent Order T-17-07 Procedures for the Areas of Refuge (AOR). Each will sign to acknowledge receipt and understanding of the Order. Notices will be placed in kiosks at stations with AORs for Station Manager use, including locations and potential routes of access.

Business Impact – Budget/Cost Estimate

Process Execution – A current process/procedure exists that meets the QICO Required Action, but needs to be executed. This type of initiative does not need additional resources.

PLAN STRUCTURE

Actionable items	Description	Responsible Party	Estimated Start	Estimated Completion
1) Permanent Order Reinstruction	Station Managers and Rail Operation Supervisors will be re-instructed on the contents of Permanent Order T-17-07 – Procedures for the Areas of Refuge (AOR) – with each providing signature acknowledgement and receipt.	Lisa Woodruff (RTRA)	09/27/17	12/13/17
2) Kiosk Notices	Notices placed in kiosks at stations with AORs for Station Manager use, including locations and potential routes of access.	Lisa Woodruff (RTRA)	09/27/17	01/30/18
3) QICO CAP Verification Report	QICO will evaluate actionable items submitted to confirm there is reasonable evidence that the findings and this required action have been resolved, taking into account the actionable item descriptions and performance measures.	QICO	01/30/17	02/28/18

*In the event of personnel or departmental changes, responsibilities for actionable items shall transfer to the new leadership.

COMPLETION DOCUMENTATION

Performance Measures

- 80% of active Station Managers and Rail Operation Supervisors provide signature acknowledgement of Permanent Order T-17-07.
- 100% of stations specified in Permanent Order T-17-07 as having an AOR has notices posted, as developed under Actionable Item #2.

RESPONSIBLE PARTIES

RTRA	Lisa Woodruff	
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SECOND LEVEL RESPONSIBILITY

AGM Rail Services	Andrew Off	9 NOV 17
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METRO RAIL TRAIN OPERATOR CAPS

[\(Summary of Required Actions\)](#)

CORRECTIVE ACTION PLAN

Purpose and Scope

On October 6, 2017, QICO issued a comprehensive Report from an internal review of Metrorail Train Operator Activities. This Corrective Action Plan (CAP) has been developed to address the findings and required action per QICO-TOR-17-01.

QICO Finding	QICO Recommendation
<p>F-TOR-17-01: System-wide enforcement of Train Operator Standard Baseline Announcements (SOP 50) is necessary to ensure clear and consistent communication to passengers.</p>	<ul style="list-style-type: none"> - Evaluate Train Operator performance in relation to MSRP SOP 50 through supervisory spot-checks to ensure consistent and effective communication to passengers in accordance with requirements.
<p>F-TOR-17-02: System-wide enforcement of Door Operations / Station Servicing Procedures (SOP 40) is necessary to ensure consistent loading and offloading of trains at stations.</p>	<ul style="list-style-type: none"> - Evaluate Train Operator performance in relation to MSRP SOP 40 through supervisory spot-checks to ensure consistent and effective passenger loading and offloading at stations.
<p>F-TOR-17-03: Consistent enforcement of radio communication protocols, as outlined in Permanent Order T-16-10, is essential to ensure messages are sent, received and understood effectively.</p>	<ul style="list-style-type: none"> - Evaluate Train Operator performance in relation to Permanent Order T-16-10 through supervisory spot-checks to ensure consistent and effective radio communication.
<p>F-TOR-17-04: System-wide enforcement of vehicle inspection requirements is necessary to ensure Train Operators consistently perform assigned duties.</p>	<ul style="list-style-type: none"> - Evaluate Train Operator performance in relation to MSRP SOP 12 through supervisory spot-checks to ensure inspection of rail vehicles occur as required.
<p>F-TOR-17-05: Effective tracking of supervisory spot-checks is required to ensure actions resulting from unsatisfactory performance results in measurable and verifiable change.</p>	<ul style="list-style-type: none"> - Conduct a comprehensive review and update of the current supervisory spot-check program to ensure it effectively captures non-compliance with requirements, and tracks remedial actions through validation and closure.

Required Action

QICO-TOR-17-01: Conduct a comprehensive review and update of the current supervisory spot-check program for Rail Transportation (RTRA) to ensure it encompasses the totality of Train Operator duties and responsibilities, takes into account appropriate sampling and frequency of spot-checks, effectively captures non-compliance with requirements, and tracks remedial actions through validation and closure.

(Risk Rating: Elevated)



ACTION PLAN

Description

RTRA/RSTO will review the Supervisor spot-check program and provide a procedure for corrective measures of deficiencies found by Supervisors.

Business Impact – Budget/Cost Estimate

- Process Improvement – A current process/procedure needs to be optimized to address the QICO Required Action. This type of initiative does not need additional resources because current manpower will be used to improve the process.

PLAN STRUCTURE

Actionable items	Description	Responsible Party	Estimated Start	Estimated Completion
1) Supervisor Spot Check Program	Provide RTRA Supervisor Spot Check Program SOP (RSDAR SOP).	RTRA	11/01/17	01/01/18
2) Corrective Action Process	Management SOP Process for corrective actions to be taken for deficiencies that are found during a Supervisor's spot check.	RTRA	01/01/18	03/31/18
3) QICO CAP Verification Report	QICO will evaluate actionable items submitted to confirm there is reasonable evidence that the findings and this required action have been resolved, taking into account the actionable item descriptions and performance measures.	QICO	03/31/18	05/02/18

*In the event of personnel or departmental changes, responsibilities for actionable items shall transfer to the new leadership.

COMPLETION DOCUMENTATION

Performance Measures

- 80% of active RTRA Supervisors provide signature acknowledgement of Program SOP developed under actionable item #1.
- Evidence of corrective action process implementation in accordance with requirements developed under actionable item #2.

RESPONSIBLE PARTIES

RTRA	Ron Lewis	
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SECOND LEVEL RESPONSIBILITY

Director RSTO	Robert Relyea	
Managing Director RTRA	Lisa Woodruff	
AGM Rail Services	Andrew Off	8 NOV 17



CORRECTIVE ACTION PLAN

Purpose and Scope

On October 6, 2017, QICO issued a comprehensive Report from an internal review of Metrorail Train Operator Activities. This Corrective Action Plan (CAP) has been developed to address the findings and required action per QICO-TOR-17-02.

QICO Finding	QICO Recommendation
F-TOR-17-07: Maintaining up-to-date procedures, troubleshooting guides, and checklists is needed to ensure Train Operators have access to these resources when performing work.	- Conduct a comprehensive review and update of troubleshooting guides, procedural checklists and job aids to ensure they provide adequate guidance for current equipment and operational conditions, including sufficient oversight for verification of activities.

Required Action

QICO-TOR-17-02: Conduct a comprehensive review and update of troubleshooting guides, procedural checklists and job aids to ensure they provide adequate guidance for current equipment and operational conditions, including appropriate oversight activities being performed.

(Risk Rating: Low) ■



ACTION PLAN

Description

RTRA/RSTO will ensure that all applicable troubleshooting guides, procedural checklists and job aids are updated to incorporate new rail equipment (7K Series trains) and remove outdated information for retired equipment. RTRA/RSTO will also review overarching procedural documents to ensure they are in line with current equipment requirements.

Business Impact – Budget/Cost Estimate

- Process Improvement – A current process/procedure needs to be optimized to address the QICO Required Action. This type of initiative does not need additional resources because current manpower will be used to improve the process.

PLAN STRUCTURE

Actionable items	Description	Responsible Party	Estimated Start	Estimated Completion
1) Process Updates	Coordinate with SAFE, CMNT, and OPMS to provide updated troubleshooting guides, procedural checklists and job aids to reflect new equipment (7k series trains) and remove outdated/retired equipment.	RTRA	11/01/17	09/30/18
2) MSRPH Review	Review of MSRPH to ensure it accurately reflects current equipment.	RTRA	11/01/17	09/30/18
3) QICO CAP Verification Report	QICO will evaluate actionable items submitted to confirm there is reasonable evidence that the findings and this required action have been resolved, taking into account the actionable item descriptions and performance measures.	QICO	09/30/18	11/07/18

*In the event of personnel or departmental changes, responsibilities for actionable items shall transfer to the new leadership.

COMPLETION DOCUMENTATION

Performance Measures

- Evidence that updated troubleshooting documentation completed and distributed, developed under actionable item #1.
- 80% of active train operators provide signature acknowledgement of updated MSRPH developed under actionable item #2.

RESPONSIBLE PARTIES

RTRA	Ron Lewis	
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SECOND LEVEL RESPONSIBILITY

Director RSTO	Robert Relyea	
Managing Director RTRA	Lisa Woodruff	
AGM Rail Services	Andrew Off	8 NOV 17

SUPPLEMENTAL MATERIALS

APPENDIX A: REVIEW CRITERIA AND RISK ASSESSMENT

REVIEW CRITERIA

Quality Measures		Definition
Compliance with Standards	Business Practices	The existence of sufficient, necessary, and/or compliant policies, procedures, work instructions, requirements, and training programs to define departmental activities and processes. This may include determination that existing practices fall short of, or exceed, industry standard practices and/or regulatory requirements.
	Procedural Requirements	Adherence to, or non-compliance with, existing/adopted procedures applicable to work activities (e.g. Standard Operating Procedures, Administrative Procedures, Work Instructions, MSRPH, etc.).
	Technical Specifications	Adherence to, or non-compliance with, applicable engineering or other technical requirements that specify material and/or workmanship standards. This includes assessment of the applicability of operational and maintenance procedures/processes, and instances of asset modification as they relate to governing engineering documentation.
	Applicable Job Safety Requirements	The existence of, and/or adherence to, safety requirements applicable to specific work performed, including those established by enterprise-wide governing standards (e.g. MSRPH, RWPM, etc.) or those specific to a particular type of work (e.g. PPE).
Quality of Work	Performance of Work	Objective determination of whether actions taken to complete work were performed effectively and in accordance with applicable standards. This may include either the assessment of individual work activities and/or the assessment of aggregated work over a period of time or across multiple locations.
	Quality Control Measures	The existence of, and/or effectiveness/adequacy of, internal management controls that ensure the consistency and reliability of work performed.
	Materials and Tooling	Availability of the correct and approved materials and/or tooling necessary to perform work, including currently calibrated equipment, and materials/parts that are compliant with specifications and within lifecycle requirements (not-expired).
	Housekeeping	The overall assessment of conditions at work sites, i.e. the organization and cleanliness of work zones, facilities and repair shops.
Records Management	Work Order Management	Assessment of the protocols, standards, and practices in place to control the scheduling, documentation, and tracking of work activities performed on assets.
	Document Control	Assessment of the protocols, standards, and practices in place to control authoritative version-control, ownership, and dissemination of business-critical documents; including, but not limited to, policies, procedures, work instructions, material/asset specifications, safety/data sheets, etc.
	Records Storage and Retention	Assessment of the protocols, standards, and practices in place to control the storage and catalog of defined records and/or documentation for specified periods of time, to be available for later retrieval and/or archive.

RISK ASSESSMENT SUMMARY

Note: Required actions are rated based on severity of risk, which ranges from 'Insignificant' to 'High' scale. Refer to [Appendix A Risk Assessment](#) for details.

Definitions

Insignificant	Low	Moderate	Elevated	High
Reasonable assumption that this risk will not occur and unlikely to cause the activity to fail to meet part of its objective.	Reasonable assumption that this risk will likely not occur & may cause a failure of the business process to meet part of its objectives.	Reasonable assumption that this risk may occur & may cause a failure of the business process to meet a significant part of its objectives.	Reasonable assumption that this risk will likely occur & likely to cause a failure of the business process to meet a significant part of its objectives.	Reasonable assumption that this will occur & will cause a failure of the business process to meet its objectives or cause objective failure in other activities.

RISK ASSESSMENT

Risk Assessment Methodology

Risk is defined as an uncertain event or condition that, if it occurs, has a positive or negative effect on the organization's objectives and operations (both threats and opportunities). It is assessed on the combination of the probability of occurrence of risk and the severity of the risk. Risk management is an attempt to answer the following questions:

- What can go wrong? – The Risk
- How often does/will it happen? – The Probability of Occurrence
- How bad are the consequences? – The Impact
- Is the risk acceptable? – The Risk Treatment, Remediation

Categories of Risk

- *Service Delivery* – A broad range of risks with direct or indirect impact on daily transit and / or business operations. The risk of direct or indirect losses or other negative effects due to inadequate or failed internal business or transit operations, or from external events that impair internal processes, people, or systems.
- *Financial* – The risk to achievement of the Authority's mission arising from an inability to manage credit, debt and financial leverage, and other financial resources. Financial risk would also include risk arising from adverse movements in market rates or the Authority's inability to meet its obligations.
- *Legal & Compliance* – Risks arising from a failure to comply with applicable laws and regulations and a failure to detect and report activities that are not compliant with statutory, regulatory, or internal policy requirements. Failure to comply with prescribed guidelines and established practices. This would also include a lack of awareness or ignorance of the relevant standards, guidelines or regulations.
- *Reputation* – The risk to the achievement of the Authority's mission arising from negative internal or external stakeholder opinion. Reputation risk affects the Authority's ability to establish new and /or sustain existing relationships.
- *Safety* - The risk of achievement of the Authority's mission arising from failures to prevent hazards that may cause harm to human, equipment, or the environment. This would also include risk arising from the Authority's inability to comply with safety-related legal or regulatory standards.
- *Strategic* – Risks arising from failure to achieve strategic or tactical objectives, an adverse business decision, or a lack of strategic direction and leadership. This would also include the ineffective implementation of the strategic plans, a lack of business strategies developed to achieve goals, and inadequate resources deployed against the achievement of those goals. Strategic risks can be affected by changes in the political environment such as changes in administration and resulting changes in strategic priorities. Strategic risks can also be triggered by actions of key stakeholders such as the Tri-Jurisdictional law makers or the Federal Transit Authority (FTA).
- *Technology* – The risk of unexpected losses from inadequate systems, breaches in information technology security, and inadequate business continuity planning. This would also include risks to the achievement of the Authority's mission arising from the inability of networks, security, and technologies to meet Metro's evolving needs.

Risk Assessment

The following risk matrix (Figure 1) was used to assess risks within the universe of review areas. The universe (see Table 1) is comprised of the potential range of all review activities and review business units (or departments) that fall within QICO's scope and oversight authority. These business units consist of programs, processes, assets and people which together contribute to the fulfilment of the departments' strategic goals (Goal 1 - Build Safety Culture; Goal 2 - Deliver Quality Service; Goal 3 - Improve Regional Mobility; and Goal 4 - Ensure Fiscal Stability).

Risks are assessed based on the probability of occurrence (see vertical axis in Figure 1) and the significance of their impact (see horizontal axis in Figure 1). The impacts ratings are rated on a scale of 1 (minimum) to 5 (maximum) and are driven by the category of risks, which are then aligned on the metrics shown on the next page. The probability ratings are rated on a scale of 1 (minimum) to 5 (maximum) and are driven by the metrics shown on the next page.

Each finding is given a severity rating of Insignificant, Low, Moderate, Elevated or High. All areas with Elevated / High ratings are considered to be high risk to the organization's objectives; and need to be mitigated/ reduced in severity at the earliest. The risk ratings to the findings are provided as "Type of Risk" followed by "Severity Rating (Impact, Probability)" (e.g. a finding with "Elevated (4, 3)" would mean a 'significant (4)' impact along with a 'possible (3)' probability of occurrence).

RISK ASSESSMENT

Risk Assessment Methodology

Figure 1: Risk Assessment Matrix

Almost Certain (5)	↑ Probability of Occurrence	Low	Moderate	Elevated	High	High
Likely (4)		Low	Low	Moderate	Elevated	High
Possible (3)		Low	Low	Moderate	Elevated	Elevated
Unlikely (2)		Insignificant	Low		Moderate	Moderate
Rare (1)		Insignificant	Insignificant	Low	Moderate	Moderate
Probability		← Potential Impact of Risk →				
Impact		Negligible (1)	Minor (2)	Moderate (3)	Significant (4)	Major (5)

Potential Impact of Risk Events Defined

Negligible | 1 – Unlikely to cause the activity to fail to meet part of its objectives.

Minor | 2 – May cause a failure of the business process to meet part of its objectives, which may expose Metro to minor financial losses, less- effective or efficient operations, some non- compliance with laws and regulations, waste of resources, etc.

Moderate | 3 – May cause a failure of the business process to meet a significant part of its objectives, or negatively impact the objectives of other activities, which may expose Metro to moderate financial losses, reductions to or ineffectiveness of operations, non-compliance with laws and regulations, sizable waste of resources, etc.

Significant | 4 – Likely to cause a failure of the business process to meet a significant part of its objectives, or negatively impact the objectives of other activities, which may expose Metro to significant financial losses, reductions to or ineffectiveness of operations, non-compliance with laws and regulations, sizable waste of resources, etc.

Major | 5 – Will cause a failure of the business process to meet its objectives, or cause objective failure in other activities, which may cause or expose Metro to major financial losses, interruptions in operations, failure to comply with laws and regulations, major waste of resources, failure to achieve stated goals, etc.

Probability of Occurrence of Risk Events Defined

Rare | 1 – Reasonable assumption that this risk will not occur

Unlikely | 2 – Reasonable assumption that this risk will likely not occur

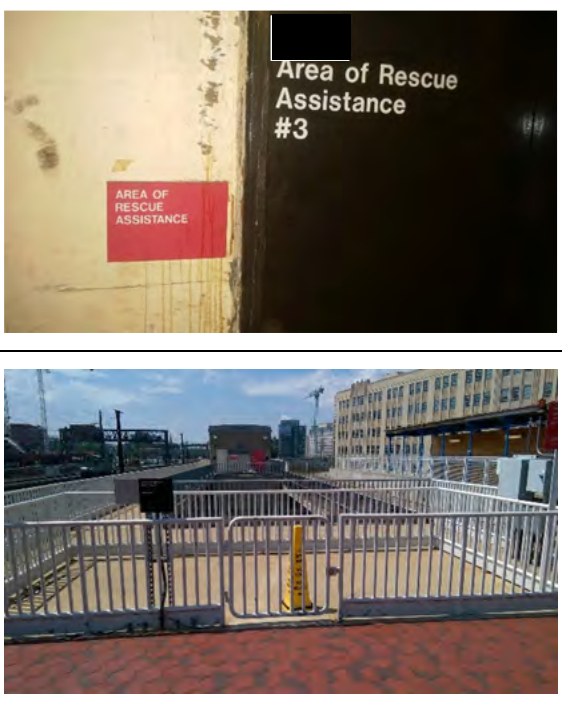


Possible | 3 – Reasonable assumption that this risk may occur

Likely | 4 – Reasonable assumption that this risk will likely occur

Certain | 5 – Reasonable assumption that this will occur

APPENDIX B: DEFINITIONS

APPENDIX B: DEFINITIONS

Definitions	Photos
<p>Area of Rescue Assistance (AORA) / Area of Refuge (AOR)</p> <p>Locations where, in the event of an emergency, people who are unable to immediately egress the facility, stay protected until assistance arrives. These locations have the means to communicate with a remote WMATA employee capable of facilitating the required rescue and support.</p>	
<p>Between Car Barriers</p> <p>Devices installed between the railcars so the blind or otherwise visually impaired customers shall not confuse the open area for a railcar doorway.</p>	
<p>Bus Boarding / Alighting Area</p> <p>A dedicated area for bus service. Area includes bus shelters, informational signage, proper curb/ ramp configurations, required lighting, and clear path of travel to station.</p>	

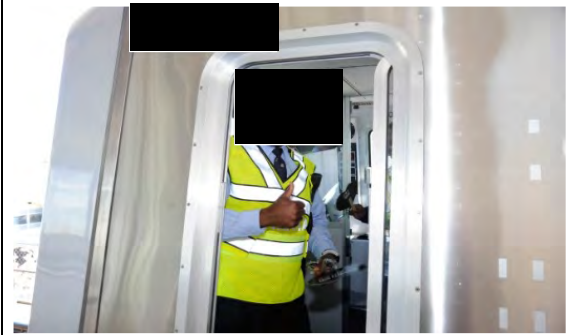
APPENDIX B: DEFINITIONS

Definitions

Photos

Cab window

A window positioned in the operator's cab of a rail car than can be opened so that train operators may observe activity on the exterior of their train.



Cognos

A business software application that includes modules for data reporting, analysis, and scoring and monitoring of events and metrics.

RSDAR Data Analysis Breakdown
Real Reporting Dashboard from 2017-01-01 to 2017-06-30

Average Admissions per day for Supervisors (1) Average Train-CarChecks per day (1) Average StationSpotChecks per day (1)

Supervisor Information					Performance Activities				
Supervisor	Admissions	Train-CarChecks	StationSpotChecks	Productive Activities	Admissions	Train-CarChecks	StationSpotChecks	Productive Activities	
Supervisor 1	20	100	50	10	10	50	25	5	
Supervisor 2	30	150	75	15	15	75	37.5	7.5	
Supervisor 3	40	200	100	20	20	100	50	10	
Supervisor 4	50	250	125	25	25	125	62.5	12.5	
Supervisor 5	60	300	150	30	30	150	75	15	
Supervisor 6	70	350	175	35	35	175	87.5	17.5	
Supervisor 7	80	400	200	40	40	200	100	20	
Supervisor 8	90	450	225	45	45	225	112.5	22.5	
Supervisor 9	100	500	250	50	50	250	125	25	
Total	410	2050	1025	85	85	425	212.5	42.5	

Station Spot Check - Unsatisfactory									
Station	Admissions	Train-CarChecks	StationSpotChecks	Productive Activities	Admissions	Train-CarChecks	StationSpotChecks	Productive Activities	
Station 1	10	50	25	5	10	50	25	5	
Station 2	15	75	37.5	7.5	15	75	37.5	7.5	
Station 3	20	100	50	10	20	100	50	10	
Station 4	25	125	62.5	12.5	25	125	62.5	12.5	
Station 5	30	150	75	15	30	150	75	15	
Station 6	35	175	87.5	17.5	35	175	87.5	17.5	
Station 7	40	200	100	20	40	200	100	20	
Station 8	45	225	112.5	22.5	45	225	112.5	22.5	
Station 9	50	250	125	25	50	250	125	25	
Total	230	1150	575	57.5	230	1150	575	57.5	

Curb Ramp

A Curb Ramp is a solid ramp graded down from the top surface of a sidewalk to the surface of an adjoining to allow ADA access. Curb Ramps are required wherever there is a vertical change of greater than half an inch on an accessible path.



Exit Fare Machine

The brown "Exit fare" machines are located near the Metrorail exit gates. The machine can be used to add value to an existing SmarTrip card when customers are prevented from exiting because their SmarTrip card has insufficient fare. The machine can also be used to and provide up to \$9.95 in change. Exit fare machines accept cash only (\$1, \$5 and \$10 bills as well as coins); they do not accept debit or credit cards.



APPENDIX B: DEFINITIONS

Definitions

Photos

Fare Vending Machines / SmarTrip Sale Recharging Machine (SSRM)

The SSRM dispenses SmarTrip cards and a variety of period passes as selected by the customer. The blue "Fare Vending" machines sell up to six SmarTrip cards at a time.



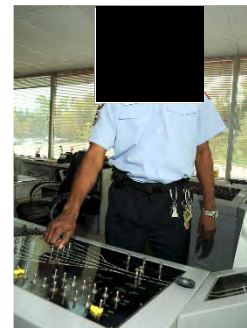
Inter-car barrier

A series of chains connecting individual rail cars in a train that are designed to prevent customers from unintentionally occupying the space between the ends of the rail cars.

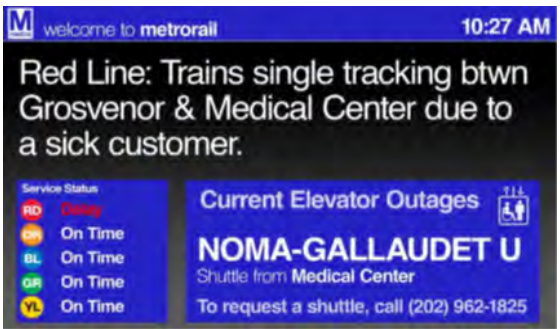
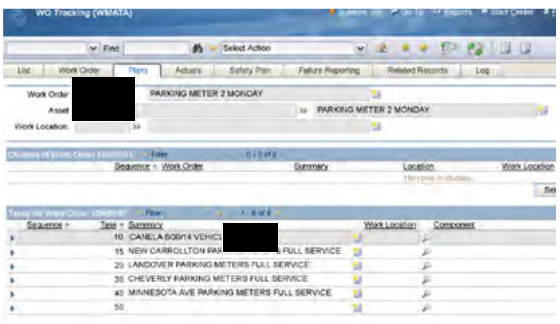
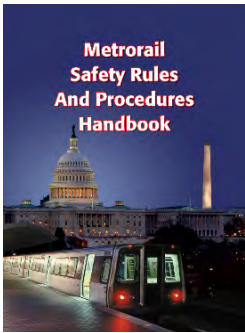



Interlocking Operator





A supervisor with overall responsibility for all rail car movement and activities within a rail yard






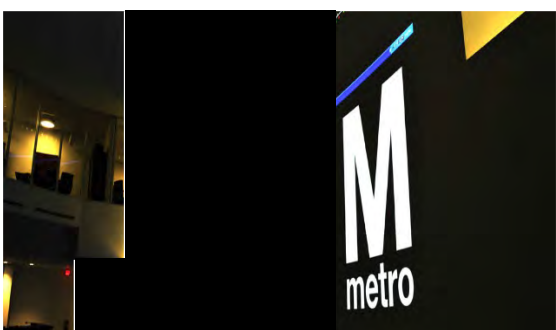
APPENDIX B: DEFINITIONS

Definitions	Photos
<p>Kiosk Information Display System (KIDS) Information display system to provide updates on schedules, locations, equipment out of service alerts, and possible shuttle service.</p>	 <p>The image shows a digital display from a Metrorail kiosk. At the top, it says 'welcome to metrorail' and '10:27 AM'. The main message reads: 'Red Line: Trains single tracking btwn Grosvenor & Medical Center due to a sick customer.' Below this, there are two sections: 'Service Status' with a legend (RD: Delay, OR: On Time, BL: On Time, GR: On Time, YL: On Time) and 'Current Elevator Outages' for 'NOMA-GALLAUDET U' with a note 'Shuttle from Medical Center' and a phone number '(202) 962-1825'.</p>
<p>MAXIMO MAXIMO is WMATA's maintenance management system used for work order, incident, and track defect tracking.</p>	 <p>The image is a screenshot of the MAXIMO software interface. It shows a 'Work Order' for 'PARKING METER 2 MONDAY'. Below the header, there is a table of work order details. The table has columns for 'Sequence #', 'Task', 'Summary', 'Work Location', and 'Component'. The data rows include tasks like 'CANELA 60014 VEHICLE', 'NEW CARROLLTON PARKING METERS FULL SERVICE', 'LANDOVER PARKING METERS FULL SERVICE', 'CHEVERLY PARKING METERS FULL SERVICE', and 'MINNESOTA AVE PARKING METERS FULL SERVICE'.</p>
<p>Metrorail Safety Rules and Procedures Handbook (MSRPH) The MSRPH contains all standard operating procedures, safety rules, operating rules, general rules, temporary orders, and permanent orders authorized to ensure the safe, efficient operation of the rail system.</p>	 <p>The image shows the cover of the 'Metrorail Safety Rules And Procedures Handbook'. The cover features a photograph of a Metrorail train at night, with the illuminated dome of the U.S. Capitol building in the background.</p>
<p>Operator's Cab A secured space at the head end of a train that includes all controls, indications, and equipment used by the train operator to operate the train.</p>	 <p>The image shows the interior of a Metrorail operator's cab. It is a compact, functional space with various control panels, levers, and displays. A large black rectangular area has been redacted in the center of the image, obscuring some of the equipment.</p>

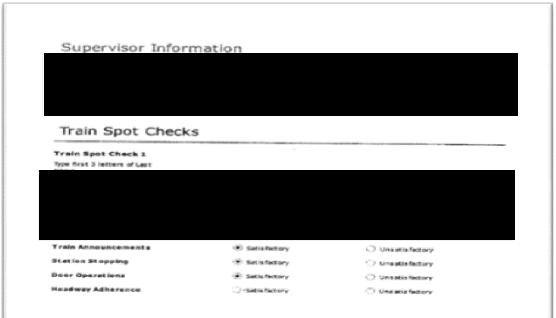


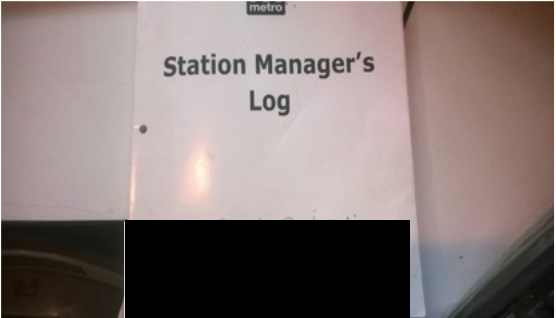
APPENDIX B: DEFINITIONS

Definitions	Photos
<p>Passenger Emergency Reporting System (PERS)</p> <p>The Passenger Emergency Reporting System (PERS) is located on pylons or stanchions throughout all stations. By depressing the talk button, customers can communicate with the station manager in the Kiosk to report emergencies and hazardous conditions or to seek assistance.</p>	
<p>Passenger Information Display System (PIDS)</p> <p>Informational display to provide real time updates on train schedules, delays, or other service related issues.</p>	
<p>Platform Edge Tactile Strip and Contrasting Edging</p> <p>A platform edge treatment required by DOT to assist visually impaired patrons when approaching the platform edge.</p>	
<p>Platform End Gate</p> <p>A mechanical gate at the end of the platform intended to keep customers from going beyond the platform into potentially unsafe areas.</p>	

APPENDIX B: DEFINITIONS

Definitions	Photos
<p>Platform Signage Directional, location, and line informational signage located on the platforms.</p>	
<p>Pocket Track A third track situated between the two main line tracks strategically placed at various points throughout the system to facilitate the reversing of trains without disrupting traffic on the main tracks.</p>	
<p>Public Address System (PA) Amplified announcement system for Station Manager messages as well as system wide messages from the Rail Operations Information Center (ROIC).</p>	
<p>Rail Operations Control Center (ROCC) The central control point with ultimate responsibility for all train movement and other activities taking place on mainline track.</p>	


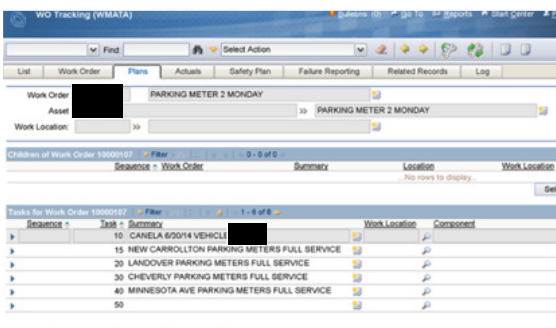

APPENDIX B: DEFINITIONS

Definitions	Photos																																
<p>Rail Supervisors Daily Activity Report (RSDAR)</p> <p>An electronic daily report form for use by Rail Transportation Supervisors to conduct and log train spot checks and other miscellaneous activities.</p>																																	
<p>Standard Operating Procedure (SOP)</p> <p>Standard Operating Procedures (SOP) delineate responsibilities and procedures for performing certain Metrorail functions.</p>	 <table border="1"> <thead> <tr> <th>CATEGORY</th> <th colspan="3">TOPIC</th> </tr> </thead> <tbody> <tr> <td>Operational/Maintenance</td> <td colspan="3">Torque Indicating Devices</td> </tr> <tr> <td>SOP NO.</td> <td colspan="3">TITLE</td> </tr> <tr> <td>1.02</td> <td colspan="3">Management of Torque Indicating Devices</td> </tr> <tr> <td>LATEST REVISION NO.</td> <td>ORIGINATION DATE</td> <td>DATE REVIEW DUE</td> <td>EXPIRATION DATE</td> </tr> <tr> <td>4</td> <td>January 10, 2010</td> <td>January 4, 2019</td> <td>None</td> </tr> <tr> <td>LATEST REVISION DATE</td> <td>LATEST REVIEW DATE</td> <td></td> <td></td> </tr> <tr> <td>January 5, 2015</td> <td>January 5, 2017</td> <td></td> <td></td> </tr> </tbody> </table> <p>SOP APPLIES TO: All Car Maintenance (CMNT) Personnel DEPARTMENT/OFFICE/INDIVIDUAL OF PRIMARY RESPONSIBILITY (OPR) CMNT/Manager, Technical Support Services</p>	CATEGORY	TOPIC			Operational/Maintenance	Torque Indicating Devices			SOP NO.	TITLE			1.02	Management of Torque Indicating Devices			LATEST REVISION NO.	ORIGINATION DATE	DATE REVIEW DUE	EXPIRATION DATE	4	January 10, 2010	January 4, 2019	None	LATEST REVISION DATE	LATEST REVIEW DATE			January 5, 2015	January 5, 2017		
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<p>Station Layout Display</p> <p>Visual display of station layout, including exits, elevators, and escalators.</p>																																	
<p>Station Manager's Logbook</p> <p>A recording system for the Station Managers daily activities. Includes inspection checklists, service requests, and any passenger incidents.</p>																																	

APPENDIX B: DEFINITIONS

Definitions	Photos
<p>Station Operator Console (SOC)</p> <p>Enhanced Data Acquisition and Display System; data handling equipment located in the kiosk which receives and transfers data to the Central Computer and monitors and controls mezzanine AFC equipment.</p> <p>The Station Operator Console Subsystem (SOC) monitors and controls the status and operation of the Automatic Fare Collection System Equipment. SOC is connected to the Exit fare Machines, Sales SmarTrip Recharging Machines and the customer Fare gates.</p>	 A photograph of a Station Operator Console (SOC) kiosk. It features a large monitor displaying a blue sky and green landscape, a keyboard, a mouse, and a trackball. The kiosk is situated in a well-lit area, possibly a station control room.
<p>Street Level Elevator Access</p> <p>Elevator access available at street level for ADA customers.</p>	 A photograph of a street-level elevator access kiosk. The kiosk is a dark, rectangular structure with a glass door and a control panel. It is located outdoors on a paved area, with a grassy area and trees in the background.
<p>Terminal</p> <p>Any station platform that is designated as the starting or ending point for regular revenue service. A terminal station is not necessarily the end of a rail route segment.</p>	 A photograph of a train platform at a terminal station. A train is stopped at the platform, and several people are visible. The platform is paved with a brick pattern, and there are glass safety barriers along the edge.
<p>Train Approach Warning Lights</p> <p>A system of lights installed in the platform edge that flash as trains approach to give visual warning to customers who may have hearing disabilities.</p>	 A photograph showing a close-up of the platform edge. Several red lights are embedded in the pavement, which are used as a visual warning system for hearing-impaired passengers when a train is approaching.

APPENDIX B: DEFINITIONS

Definitions	Photos																																			
<p>Turntable</p> <p>A special segment of track work within a maintenance facility that is able to be rotated 360 degrees to allow rail car components to be removed from the underside of the car.</p>																																				
<p>Work Order (WO)</p> <p>A Work Order (WO) specifies a particular task and the labor, materials, services, and tools required to complete the task. Work Orders are tracked primarily through Maximo.</p>	 <table border="1"> <thead> <tr> <th>Sequence</th> <th>Task</th> <th>Summary</th> <th>Work Location</th> <th>Component</th> </tr> </thead> <tbody> <tr> <td>10</td> <td>CAMELA GOODIE VEHICLE</td> <td></td> <td></td> <td></td> </tr> <tr> <td>15</td> <td>NEW CARROLLTON PARKING METERS FULL SERVICE</td> <td></td> <td></td> <td></td> </tr> <tr> <td>20</td> <td>LANDOVER PARKING METERS FULL SERVICE</td> <td></td> <td></td> <td></td> </tr> <tr> <td>30</td> <td>CHEVERLY PARKING METERS FULL SERVICE</td> <td></td> <td></td> <td></td> </tr> <tr> <td>40</td> <td>MINNESOTA AVE PARKING METERS FULL SERVICE</td> <td></td> <td></td> <td></td> </tr> <tr> <td>50</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Sequence	Task	Summary	Work Location	Component	10	CAMELA GOODIE VEHICLE				15	NEW CARROLLTON PARKING METERS FULL SERVICE				20	LANDOVER PARKING METERS FULL SERVICE				30	CHEVERLY PARKING METERS FULL SERVICE				40	MINNESOTA AVE PARKING METERS FULL SERVICE				50				
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<p>Yard</p> <p>A collection of infrastructure components comprising a series of rail car storage tracks, maintenance facilities, and administrative buildings typically located at the end of a rail line.</p>																																				

APPENDIX C: PHOTOGRAPHS

APPENDIX C: PHOTOGRAPHS

Finding & Description

Photos

ADA Review

Photograph #1 & 2

F-ADA-17-03:

Track 1 platform, chain marker 691+25, the existence of tripping hazards in the platform areas due to the platform substructures being in a state of deterioration.



Photograph #3

O-ADA-17-01:

Out of service platform edge lighting were noted in several stations.



APPENDIX C: PHOTOGRAPHS

Finding & Description

Photos

Train Operator Review

Photograph #1

F-TOR-17-01:

Two trains berthed at the same time in a terminal station. The lack of announcements two (2) minutes and thirty (30) seconds prior to the departure causes confusion among customers on which train to board.



Photograph #2

F-TOR-17-02:

Wrong configuration the trailing operating cab door, which does not allow passenger access to the emergency call station.



Photograph #3

F-TOR-17-02:

Operator cannot view the entire length of the train at Brookland station, track 2, and Silver Spring Station, track 2, due to the convex curvature nature of the track.



APPENDIX D: ADA STATION ASSESSMENT REPORTS

APPENDIX D: STATION ADA ASSESSMENT REPORTS

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24.	GEORGIA AVE-PETWORTH	YL GR	43
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26.	FARRAGUT NORTH	RD	47

1. FORT TOTTEN



Station Assessment Overview

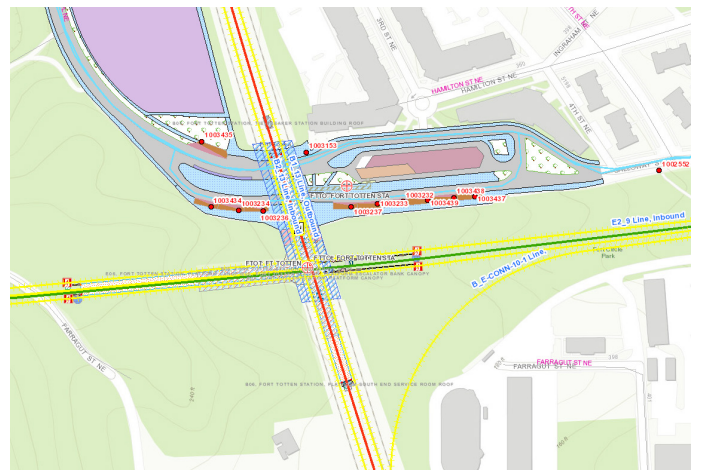
QICO Assessment Team	[REDACTED]		
Assesment Date/Time	June 30, 2017 / 10:00am – 12:00pm	Station Structure	Above Grade
Year of Construction	1978	Bus Bay	Yes
Area of Refuge (AOR)	No	Parking	Yes

Station Description

Station Map

Fort Totten metro station (Station ID: B06) is located in the District of Columbia. This station serves the Green, Yellow and Red lines.

Station has single entrance that connect to the middle of both upper and lower platforms. Passengers from parking, kiss and ride, and bus bays utilize one elevator and six escalators at the main entrance to access the platform. Fort Totten station is a two level platform both levels are center platforms.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from the street, bus bay and parking garage to the station's entrance. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the train platform. Clear signage along the accessible route and the platform. Station accessibility signage is mounted on columns at the center of platform and across the train tracks.
Maintenance	At the time of inspection, all elevators were functional. Kiosk Information Display System (KIDS) and Passenger Information Display System (PIDS) are working properly. All Automatic Fare Collection (AFC) equipment are working properly.
Train Boarding and Alighting	Both upper and lower platforms are in good condition. No horizontal or vertical gaps on platform.
Bus Boarding and Alighting	Bus bays and street side bus stop serve this station. Bus boarding and alighting areas are ADA compliant.

AREAS FOR IMPROVEMENT	
Area of Review	Description
Path of Travel	Accessible signs in the parking lots are missing and some are faded. This issue has been added to the ADA tracking log to track action's closure.
Out of Service	At the time of inspection, one escalator was not operational. This issue has been addressed through repair work order number [REDACTED]
Evacuation Plan	At the time of inspection station manager indicated that the Area of Refuge is beyond the platform gates. However, this station does not have an Area of Refuge.

2. GALLERY PLACE



Station Assessment Overview

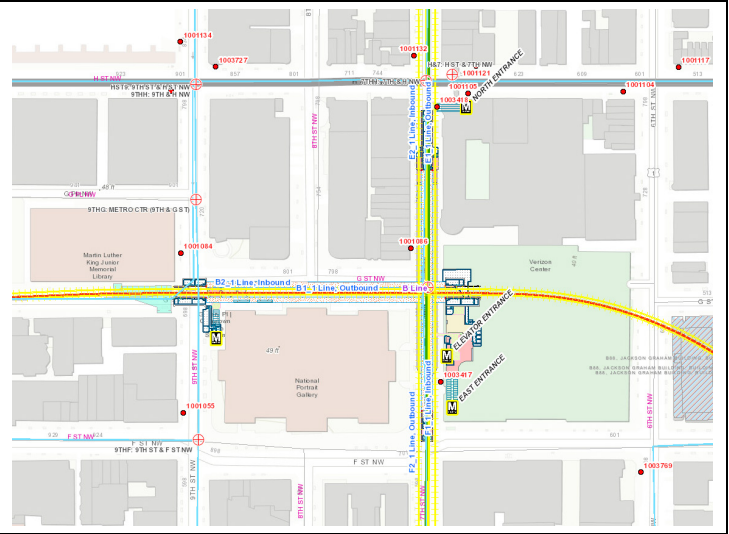
QICO Assessment Team	[REDACTED]		
Assessment Date/Time	July 3, 2017 / 9:00am – 11:00am	Station Structure	Below Grade
Year of Construction	1976	Bus Bay	No
Area of Refuge (AOR)	No	Parking	No

Station Description

Gallery PL - Chinatown metro station (Station ID: B01) is located in the District of Columbia. This station serves the Red, Green, and Yellow lines.

The station has three entrances. The east entrance connects to the mezzanine level. The west entrance connects to the west end of the upper platform. The north Entrance connects to the north end of the Lower platform. Elevator access is located at the east entrance. Passengers from sidewalks and side street bus stop utilize two elevators and several escalators at the entrances to access the platforms. Gallery PL station is a two level platform. Lower level is a center platform and upper level is an edge platform.

Station Map



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good Housekeeping.
Path of Travel	Clear path of travel from the sidewalk and street bus stops to the station entrances. Easy access to the Automatic Fare Vending (AFV) and fare gates. Clear access to the station's bathroom and the inside of the station's bathroom is ADA compliant. Clear signage along the accessible route and the platform. Station accessibility signage is mounted on the tunnel's inside walls and on ceiling.
Maintenance	At the time of inspection KIDS/ PIDS were working properly. At the time of inspection elevators and escalators were working properly. At the time of inspection station lighting and train approach lighting were working. At the time of inspection all AFC equipment were working properly.
Train Boarding and Alighting	Both upper and lower platforms are in good condition. No horizontal or vertical gaps on platform.

AREAS FOR IMPROVEMENT

Area of Review	Description
Evacuation Plan	At the time of inspection, station manager indicated that the Area of Refuge is beyond the platform gates. However, this station does not have an Area of Refuge.

3. METRO CENTER



Station Assessment Overview

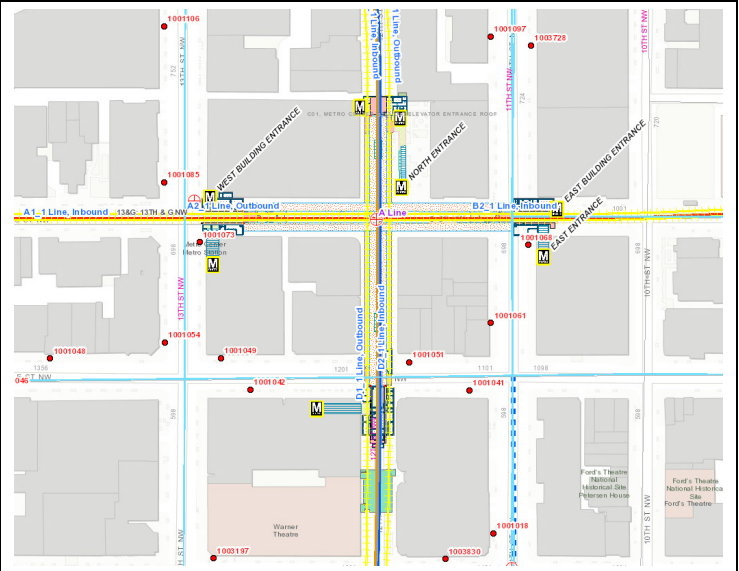
QICO Assessment Team	[REDACTED]		
Assessment Date/Time	July 3, 2017 11:30am – 1:30pm	Station Structure	Below Grade
Year of Construction	1976	Bus Bay	No
Area of Refuge (AOR)	No	Parking	No

Station Description

Metro Center station (Station ID: A01) is located in the District of Columbia. This station serves the Red, Orange, Silver, and Blue lines.

The station has four entrances. The east & west entrances connects to the east and west end of the upper platform. The north & south entrances connects to the north and south end of the lower platform. Elevator access is at the north entrance. Passengers from sidewalks and side street bus stop utilize one elevator and several escalators at the entrances to access the platforms. Metro Center station is a two level platform. Lower level is a center platform and upper level is an edge platform.

Station Map



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from the sidewalk and street bus stops to the station entrances. Easy access to the Automatic Fare Vending (AFV) and fare gates. Clear access to the station's bathroom and the inside of the bathroom is ADA compliant. Clear signage along the accessible route and the platform. Station accessibility signage is mounted on the tunnel's inside walls, platform columns, and on ceiling.
Maintenance	At the time of inspection, KIDS/ PIDS were working properly. At the time of inspection ELES were working properly. At the time of inspection train approach lightings were working. At the time of inspection all AFC equipment were working properly.

NOTEWORTHY OBSERVATIONS

Area of Review	Description
Train Boarding and Alighting	Both upper and lower platforms are in good condition. Horizontal and vertical gaps between the platform and cars are within tolerance.
Evacuation Plan	Station manager is aware that the station does not have an Area of Refuge.

AREAS FOR IMPROVEMENT

Area of Review	Description
Maintenance	At the time of inspection, several lights were out in the hallway at escalator entrance due to construction, however temporary lights are in place till construction is done.



4. COLUMBIA HEIGHTS

Station Assessment Overview

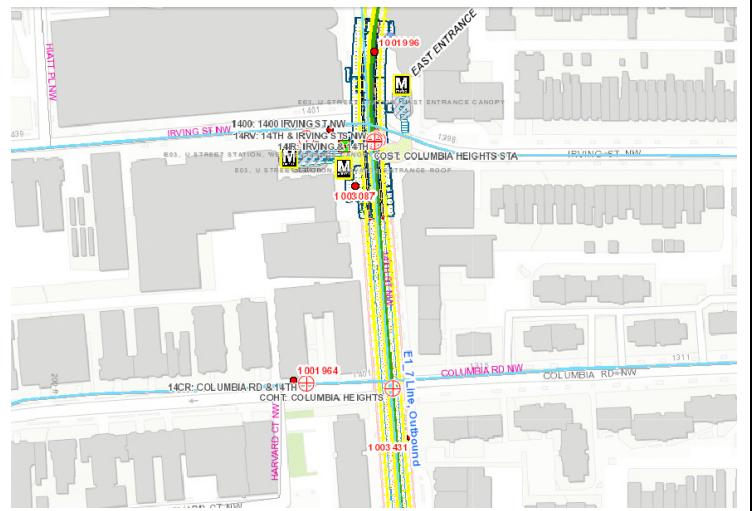
QICO Assessment Team	[REDACTED]		
Assessment Date/Time	July 5, 2017 10:00am – 12:30pm	Station Structure	Below Grade
Year of Construction	1999	Bus Bay	No
Area of Refuge (AOR)	Yes	Parking	No

Station Description

Station Map

Columbia Heights metro station (Station ID: E04) is located in the District of Columbia. This station serves the Green and Yellow lines.

The station has two entrances, an east entrance and a west entrance. Both entrances lead to a single entrance at the north end of the platform. The west entrance has elevator access. On street bus stop serves the station. Columbia Heights metro station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in state of good housekeeping.
Path of Travel	Clear path of travel from the street to the station's entrance. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the train platform. Customers' bathroom and hallway access to the customers' bathroom is accessibility compliant. Accessible signage inside the station is mounted on the platform columns and on tunnel walls.
Maintenance	At the time of inspection, elevator and escalator (ELES) equipment were well maintained and working. At the time of inspection KIDS/ PIDS were working properly. At the time of inspection all train approach lighting were working.
Evacuation Plan	Station manager knows where Area of Refuge is.
Train Boarding and Alighting	Train boarding areas are compliant with accessibility requirements. Horizontal and vertical gaps between the platform and cars are within tolerance.



5. BENNING RD

Station Assessment Overview

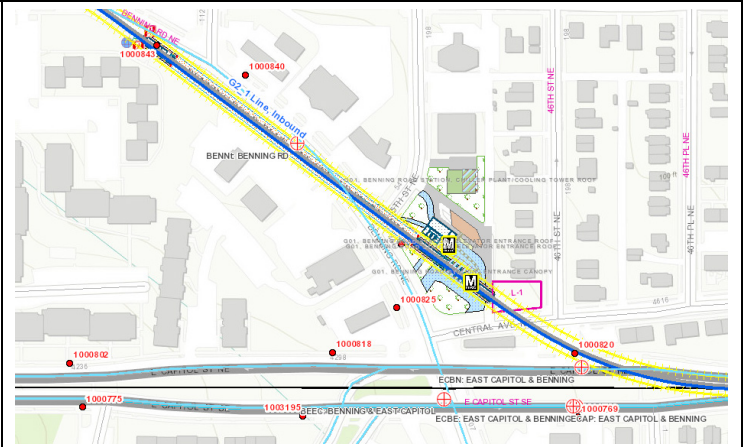
QICO Assessment Team	[REDACTED]		
Assesment Date/Time	July 05, 2017 11:30am – 2:00pm	Station Structure	Below Grade
Year of Construction	1980	Bus Bay	No
Area of Refuge (AOR)	No	Parking	No

Station Description

Station Map

Benning Road metro station (Station ID: G01) is located in the District of Columbia. This station serves the Blue and Silver lines.

The station has one entrance at the east end of the platform. Passengers from the passenger drop zone and the on street bus stop utilize outside elevator and escalators at the main entrance to access the platform. Benning Road metro station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in state of good housekeeping.
Path of Travel	Clear path of travel from the street to the station's entrance. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the train platform. Accessible route signage in the station is mounted on the platform's columns.
Maintenance	At the time of inspection, elevator and escalator (ELES) equipment were well maintained and working. At the time of inspection KIDS/ PIDS were working properly.
Train Boarding and Alighting	Train boarding areas are compliant with accessibility requirements. Horizontal and vertical gaps between the platform and cars are within tolerance.

AREAS FOR IMPROVEMENT

Area of Review	Description
Maintenance	At the time of inspection, track one train approach lights did not blink when trains arrive. Track two lights worked properly with only one light out. This issue has been addressed through repair work order 13750635.

6. PENTAGON CITY



Station Assessment Overview

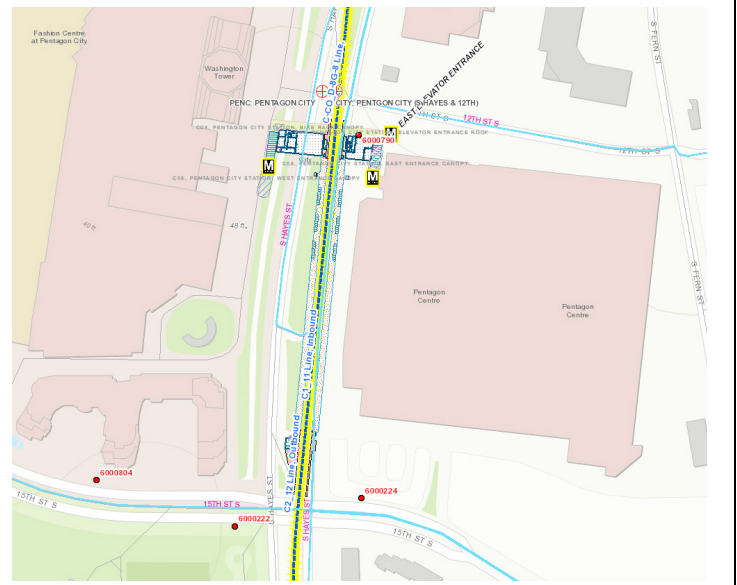
QICO Assessment Team	[REDACTED]		
Assesment Date/Time	July 05, 2017 1:00pm – 3:30pm	Station Structure	Below Grade
Year of Construction	1977	Bus Bay	No
Area of Refuge (AOR)	No	Parking	No

Station Description

Station Map

Pentagon City metro station (Station ID: C08) is located in the Arlington County, Virginia. This station serves the Blue and Yellow Lines.

The station has two entrances. Both East and West entrances converge into a single hallway before the fare gates and connects to the north end of the platform. The east entrance has elevator access. On street bus stop serves the station. Pentagon City station is a single level edge platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in state of good housekeeping.
Path of Travel	<p>Clear path of travel from the entrances to the train platform. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the train platform.</p> <p>The elevator's entrance, south entrance, customers' bathroom and access to the customers' bathroom are compliant with the accessibility requirements.</p> <p>Clear signage along the accessible route and the platform. Station's accessibility signage is mounted on the ceiling.</p>
Maintenance	<p>At the time of inspection, KIDS/ PIDS were working properly.</p> <p>At the time of inspection, ELES were working properly.</p> <p>At the time of inspection, all train approach lights were operational.</p> <p>At the time of inspection, Automatic Fare Collection (AFC) equipment were working properly.</p>

NOTEWORTHY OBSERVATIONS

Area of Review	Description
Train Boarding And Alighting	Train boarding areas are compliant with the accessibility requirements. Horizontal and vertical gaps between the platform and cars are within tolerance.

AREAS FOR IMPROVEMENT

Area of Review	Description
Evacuation Plan	Station manager is not aware that the station does not have an Area of Refuge.

7. L'ENFANT PLAZA



Station Assessment Overview

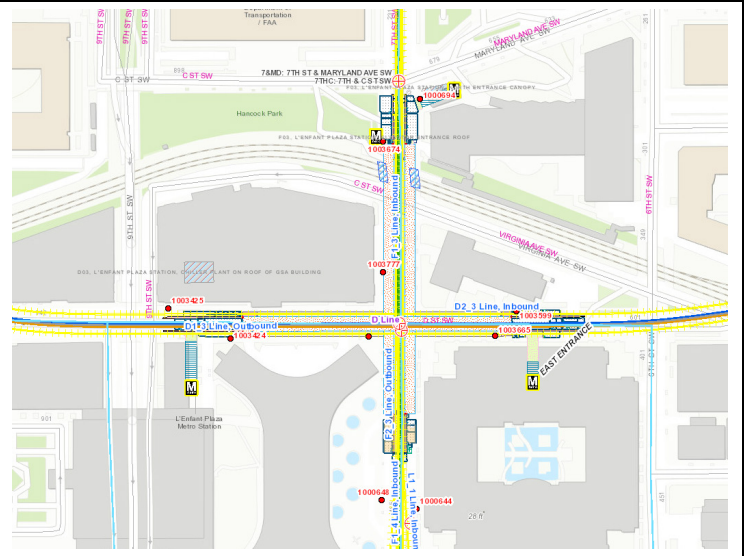
QICO Assessment Team	[REDACTED]		
Assessment Date/Time	July 6, 2017 8:00am – 10:00am	Station Structure	Below Grade
Year of Construction	1977	Bus Bay	No
Area of Refuge (AOR)	No	Parking	No

Station Description

L'Enfant Plaza metro station (Station ID: F03) is located in the District of Columbia. This station serves the Blue, Green, Orange, Silver, and Yellow lines.

The station has three entrances. The east & west entrances connects to the east and west corner of the lower platform. The north entrance connects to the north end of the upper platform. Elevator access is at the north entrance. Passengers from sidewalks and side street bus stop utilize one elevator and several escalators at the entrances to access the platform. L'Enfant Plaza station is a two level platform. Lower level is a center platform and upper level is an edge platform.

Station Map



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Customers' bathroom and hallway to the customers' bathroom are accessible. Accessible route and platform has clear signage. Station's accessibility signage is mounted on the tunnel's inside walls, on the platform's columns, and on the ceiling.
Maintenance	At the time of inspection KIDS/ PIDS were working properly. At the time of inspection, all elevators were working properly. At the time of inspection station lighting and train approach lighting were working properly. At the time of inspection all AFC equipment were working properly.
Train Boarding and Alighting	Both upper and lower platforms are in good condition. No horizontal or vertical gaps on platform.

AREAS FOR IMPROVEMENT	
Area of Review	Description
Maintenance	At the time of inspection, one escalator was out of service and have been addressed through repair work order number [REDACTED].
Evacuation Plan	At the time of inspection, station manager indicated that the Area of Refuge is beyond the platform gates at all platform ends. However, this station does not have an Area of Refuge.

8. EAST FALLS CHURCH



Station Assessment Overview

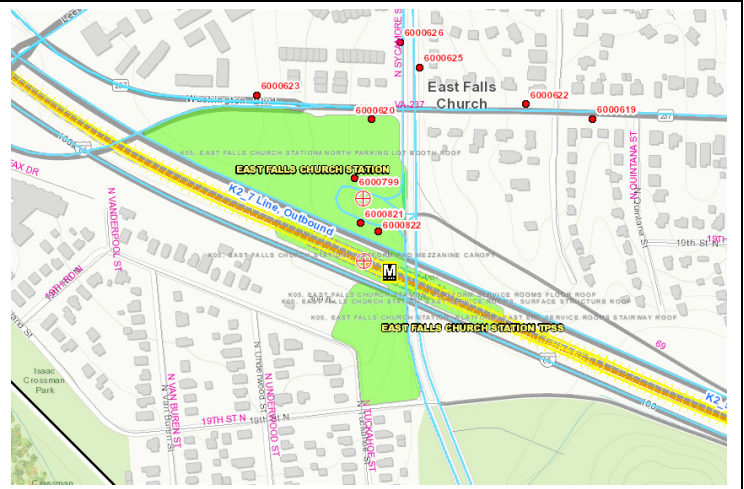
QICO Assessment Team	[REDACTED]		
Assessment Date/Time	July 06, 2017 9:30am – 11:30am	Station Structure	Above Grade
Year of Construction	1986	Bus Bay	Yes
Area of Refuge (AOR)	No	Parking	Yes

Station Description

Station Map

East Falls Church metro station (Station ID: K05) is located in Fairfax County, VA. This station serves the Orange and Silver lines.

The station has a single entrance that connects to the middle of the platform. The entrance has elevator access. Parking lot, Kiss & Ride, and bus bays serve the station. East Falls Church station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in state of good housekeeping.
Path of Travel	Clear path of travel from the kiss and ride lot to the station's entrance. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the train platform. Customers' bathroom and the access area to the customers' bathroom were compliant with accessibility requirements. Clear signage along the accessible route and the platform. Accessible signage is posted on the platform's columns and across tracks.
Maintenance	At the time of inspection, elevator and escalator (ELES) equipment's were well maintained and working. At the time of inspection KIDS/ PIDS were working properly.
Evacuation Plan	Station manager is aware that the station does not have a designated Area of Refuge.
Bus Boarding and Alighting	Bus bays and street side bus stop serve this station. Bus boarding and alighting areas are ADA compliant and have accessible route connecting bus boarding to the station's entrance.

NOTEWORTHY OBSERVATIONS

Area of Review	Description
Parking and Passenger Loading	ADA assigned parking is close to the station's entrance.

AREAS FOR IMPROVEMENT

Area of Review	Description
Maintenance	At the time of inspection, on track 1 every 3 rd light is not working, when the train arrives on the opposite track, every 3 rd light blinks. On Track 2, 12 lights were out. This issue has been addressed through repair work order [REDACTED].
Train Boarding and Alighting	<p>The platform edges exhibit minor corrugation. The detectable warning surface has several missing/loose/broken tiles.</p> <p>Tile grouts on detectable warning surfaces are deep.</p> <p>Platform joints has gaps both horizontal and vertical.</p> <p>Broken tiles are being addressed as they arise, platform joint gaps resulting from the platform condition have been addressed through Metrorail Structural Inspections internal review, CAP QICO-SIM-17-01.</p>

9. ROSSLYN



Station Assessment Overview

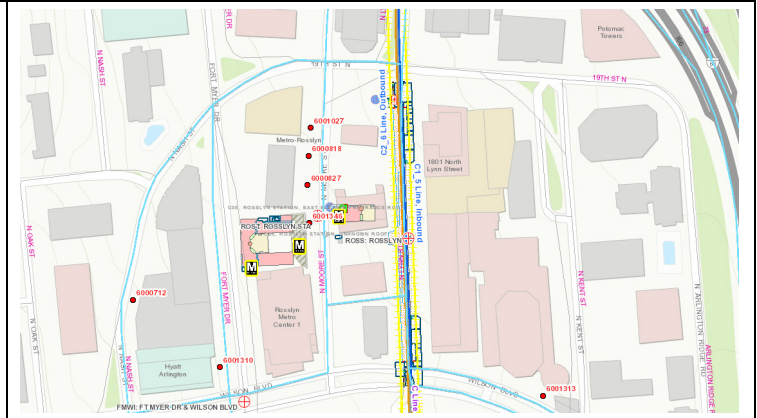
QICO Assessment Team	[REDACTED]		
Assesment Date/Time	July 6, 2017 10:00am – 11:30am	Station Structure	Below Grade
Year of Construction	1977	Bus Bay	No
Area of Refuge (AOR)	Yes	Parking	No

Station Description

Station Map

Rosslyn metro station (Station ID: C05) is located in Arlington County, Virginia. This station serves the Blue, Orange, and Silver.

The station has one entrance that connects to the middle of the platform. Elevator access is located at the main entrance. Passengers from sidewalks and side street bus stop utilize one elevator and several escalators at the entrances to access the platform. Rosslyn station is a two level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from the main entrance to the train platform. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the train platform. Accessible route and platform has clear signage. Station's accessibility signage is mounted on the tunnel inside walls and on ceiling.
Maintenance	At the time of inspection KIDS/ PIDS were working properly. At the time of inspection, all escalators were working properly. At the time of inspection station lighting and train approach lighting were working. At the time of inspection all AFC equipment were working properly.
Train Boarding and Alighting	Platform is in good condition. No horizontal or vertical gaps on the platform. Platform/car horizontal and vertical gaps are compliant.

AREAS FOR IMPROVEMENT

Area of Review	Description
Out of Service	An elevator was out of service during the observation, addressed through repair work order [REDACTED], closed on 7/7/2017.

10. PENTAGON



Station Assessment Overview

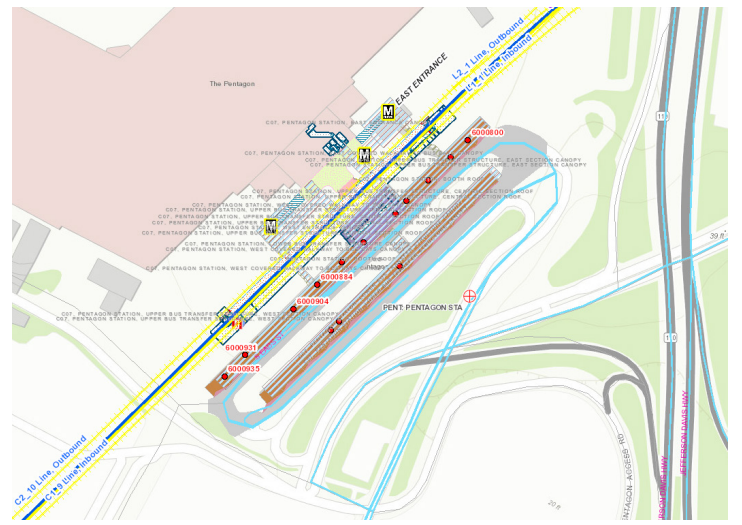
QICO Assessment Team	[REDACTED]		
Assesment Date/Time	July 6, 2017 10:30am – 12:30pm	Station Structure	Below Grade
Year of Construction	1977	Bus Bay	Yes
Area of Refuge (AOR)	No	Parking	No

Station Description

Station Map

Pentagon metro station (Station ID: C07) is located in Arlington County, Virginia. This station serves the Blue and Yellow lines.

The station has two entrances, an east entrance and a south entrance. The east entrance has elevator access. Bus bays serves the station.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from the entrances to the train platform. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the train platform. Clear signage along the accessible route and the platform. Station's accessibility signage is mounted on the ceiling and walls.
Maintenance	At the time of inspection, KIDS/ PIDS were working properly. At the time of inspection, station lighting and train approach lights were operational.
Evacuation Plan	Station manager is aware that the station does not have an Area of Refuge.
Train Boarding And Alighting	Train boarding areas are compliant with the accessibility requirements. Horizontal and vertical gaps between the platform and cars are within tolerance.

AREAS FOR IMPROVEMENT

Area of Review	Description
Maintenance	Escalator out of service – addressed through repair work order [REDACTED], closed on 7/10/2017.



11. KING ST-OLD TOWN

Station Assessment Overview

QICO Assessment Team	[REDACTED]		
Assesment Date/Time	July 06, 2017 11:00am – 2:00pm	Station Structure	Above Grade
Year of Construction	1983	Bus Bay	Yes
Area of Refuge (AOR)	No	Parking	Yes

Station Description

Station Map

King Street-Old Town metro station (Station ID: C13) is located in city of Alexandria, VA. This station serves the Blue and Yellow lines.

The station has three entrances; main, middle, and north entrances. The main and middle entrances connect to a single mezzanine that connects to the middle of the platform. The north entrance connects to the north end of the platform. Street level elevator is available at both the main and the north entrances. Parking lot, Kiss & Ride, and bus bays serve the station. King Street-Old Town station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from the kiss and ride lot to station's entrance. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the train platform. Customers' bathroom and the area of access to customers' bathroom were compliant with accessibility requirements. Clear signage along the accessible route and the platform.
Maintenance	At the time of inspection, elevator and escalator (ELES) equipment were well maintained and working. At the time of inspection KIDS/PIDS were working properly.
Evacuation Plan	Station manager is aware that the station does not have a designated Area of Refuge.
Bus Boarding and Alighting	Bus bays and street side bus stop serve this station. Bus boarding and alighting areas are ADA compliant and have accessible route connecting bus boarding to the station's entrance.

NOTEWORTHY OBSERVATIONS

Area of Review	Description
Parking and Passenger Loading	ADA assigned parking is close to the station's entrance.

AREAS FOR IMPROVEMENT

Area of Review	Description
Maintenance	<p>At the time of inspection, on track one, 10 lights were not working and when the train arrives the lights does not blink. On Track two, 11 lights were not working.</p> <p>This issue has been addressed through repair work order [REDACTED].</p>
Train Boarding and Alighting	<p>The platform edges exhibit minor corrugation. The detectable warning surface has several missing/ loose/broken tiles. Tile grouts on detectable warning surfaces are relatively deep.</p> <p>Platform joints have gaps, both horizontal and vertical.</p> <p>Broken tiles are being addressed as they arise, platform joint gaps resulting from the platform condition have been addressed through Metrorail Structural Inspections internal review, CAP QICO-SIM-17-01.</p>

12. STADIUM-ARMORY



Station Assessment Overview

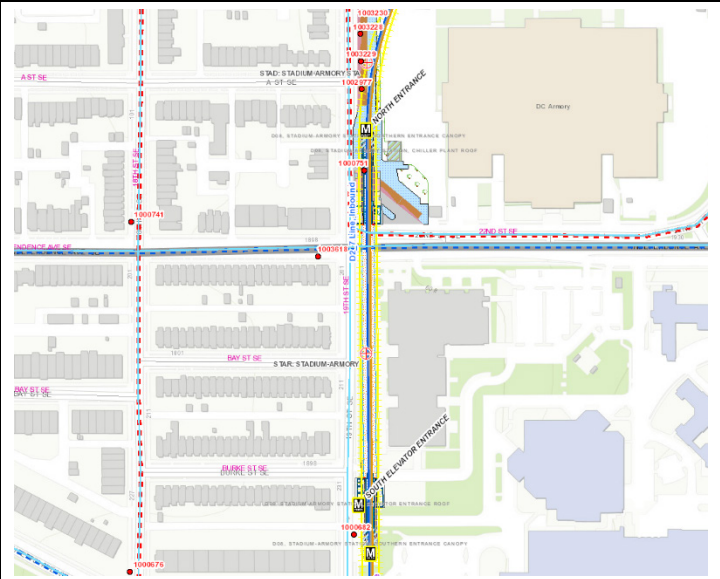
QICO Assessment Team	[REDACTED]		
Assesment Date/Time	July 07, 2017 10:00am – 1:00pm	Station Structure	Below Grade
Year of Construction	1977	Bus Bay	Yes
Area of Refuge (AOR)	No	Parking	No

Station Description

Station Map

Stadium Armory metro station (Station ID: D08) is located in the District of Columbia. This station serves the Orange, Silver, and Blue lines.

The station has two entrances. The north entrance connects to the north end of the platform. The south entrance connects to the south end of the platform. The south entrance has an elevator access. On street bus stop and bus bays serves the station. Stadium Armory station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	<p>Clear path of travel from the north entrance to the train platform. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the train platform.</p> <p>North entrance customers' bathroom and the area of access to the customers' bathroom are compliant with the accessibility requirements.</p> <p>Clear signage along the accessible route and the platform. Station's accessibility signage is mounted on the platform's columns.</p>
Maintenance	<p>At the time of inspection, KIDS/ PIDS were working properly.</p> <p>At the time of inspection, AFC equipment were working properly.</p>
Train Boarding and Alighting	<p>Train boarding areas are compliant with accessibility requirements.</p> <p>Horizontal and vertical gaps between the platform and cars are within tolerance.</p>

NOTEWORTHY OBSERVATIONS

Area of Review	Description
Bus Boarding and Alighting	Transit center and street side bus stop serve this station. Bus boarding and alighting areas are ADA compliant and have accessible route connecting bus boarding to station entrance.

AREAS FOR IMPROVEMENT

Area of Review	Description
Maintenance	<p>At the time of inspection, 10 lights at the north kiosk area and above the escalator were not working. This issue has been added to the ADA tracking log, to track the action's closure.</p> <p>At the time of inspection, several train approach lights were not working. This issue has been addressed through work order [REDACTED].</p>
Evacuation Plan	At the time of inspection, station manager indicated that the Area of Refuge is beyond the platform gates. However, this station does not have an Area of Refuge.

13. CONGRESS HEIGHTS

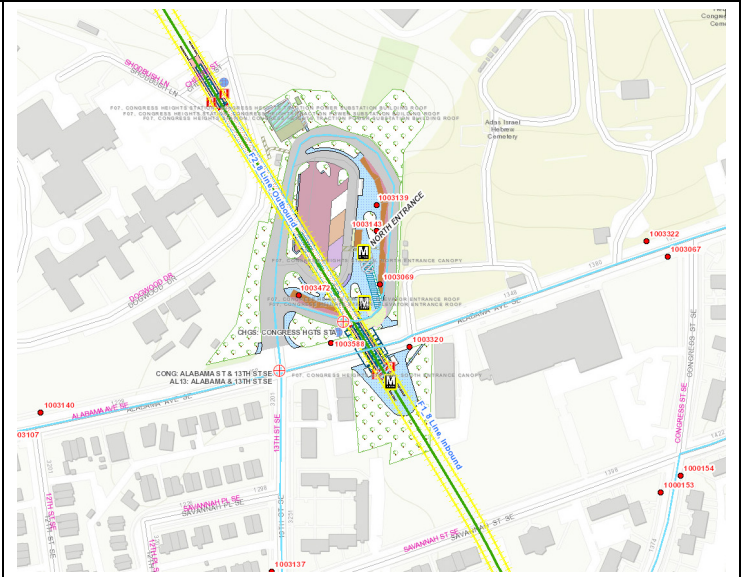
Station Assessment Overview

QICO Assessment Team	[REDACTED]		
Assesment Date/Time	July 10, 2017 8:30am – 10:00am	Station Structure	Below Grade
Year of Construction	2001	Bus Bay	Yes
Area of Refuge (AOR)	Yes	Parking	Yes

Station Description

Station Map

Congress Heights metro station (Station ID: F07) is located in the District of Columbia. This station serves the Green line. The station has two entrances, a north entrance and a south entrance. Both entrances lead to a single entrance at the south end of the platform. The north entrance has an elevator access. Parking lot, Kiss & Ride, and bus bays serves the station. Congress heights station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from the street/parking lot to the station's entrance. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the train platform. Clear signage along the accessible route and the platform. Station's accessibility signage is mounted on the platform's columns and across tracks in the platform area and on the ceiling and on the walls in the kiosk area
Maintenance	At the time of inspection, elevator and escalator (ELES) equipment were well maintained and working. At the time of inspection, KIDS/ PIDS were working properly. At the time of inspection, all train approach lights were working.
Train Boarding and Alighting	Train boarding areas are compliant with the accessibility requirements. Horizontal and vertical gaps between the platform and cars are within tolerance.

NOTEWORTHY OBSERVATIONS

Area of Review	Description
Bus Boarding and Alighting	Bus bays and street side bus stop serve this station. Bus boarding and alighting areas are ADA compliant and have accessible route connecting bus boarding to the station's entrance.
Parking and Passenger Loading	Parking is available at this station. ADA assigned parking is closer to the north entrance with no obstruction to the accessible route.

14. ANACOSTIA

GR

Station Assessment Overview

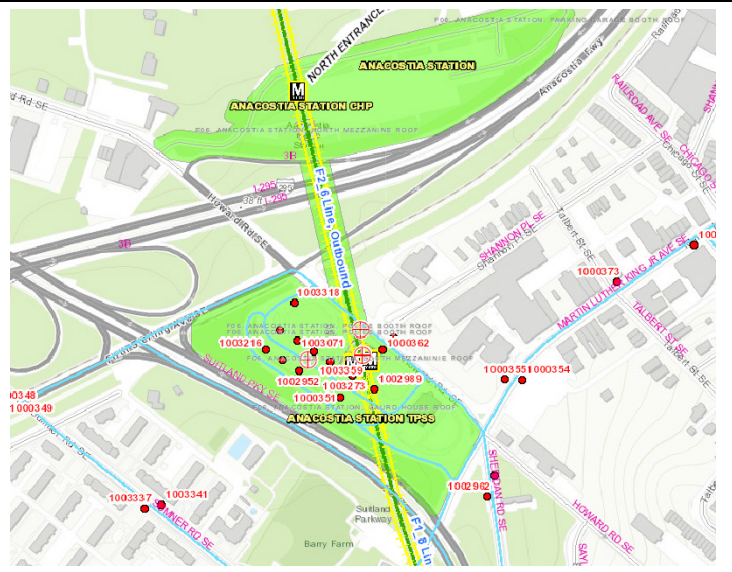
QICO Assessment Team	[REDACTED]		
Assesment Date/Time	July 10, 2017 9:30am – 10:30am	Station Structure	Below Grade
Year of Construction	1991	Bus Bay	Yes
Area of Refuge (AOR)	No	Parking	Yes

Station Description

Station Map

Anacostia metro station (Station ID: F06) is located in Prince George’s County, MD. This station serves the Green line.

The station has two entrances, one at each end of the platform. Passengers from parking, kiss and ride, and bus bays utilize elevators and escalators located at the each entrance to access the platform. Anacostia station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from the street, bus bay and parking garage to the station’s entrance. Easy access to The AFV and fare gates. Direct access from the fare gates to the train platform. Accessible signage is present on tunnel walls across tracks.
Maintenance	All elevators and escalators were functional. Kiosk Information Display System (KIDS), Passenger Information Display System (PIDS) and Automatic Fare Collection (AFC) equipment are working.
Train Boarding and Alighting	Train boarding areas are compliant with the accessibility requirements. Horizontal and vertical gaps between the platform and the cars are within tolerance.
Bus Boarding and Alighting	Bus bays and street side bus stop serves this station. Bus boarding and alighting areas are ADA compliant and have accessible route connecting bus boarding to station entrance.

NOTEWORTHY OBSERVATIONS

Area of Review	Description
Parking and Passenger Loading	Parking is available at this station. ADA assigned parking is close to the north entrance with no obstruction to the accessible route.

AREAS FOR IMPROVEMENT

Area of Review	Description
Maintenance	At the time of inspection, a number of the observed platform edge lights were not functioning. This has been addressed through repair work order 13750436.
Evacuation Plan	At the time of inspection, station manager indicated that the Area of Refuge is beyond the platform gates. However, this station does not have an Area of Refuge.

15. NOMA-GALLAUDET U



Station Assessment Overview

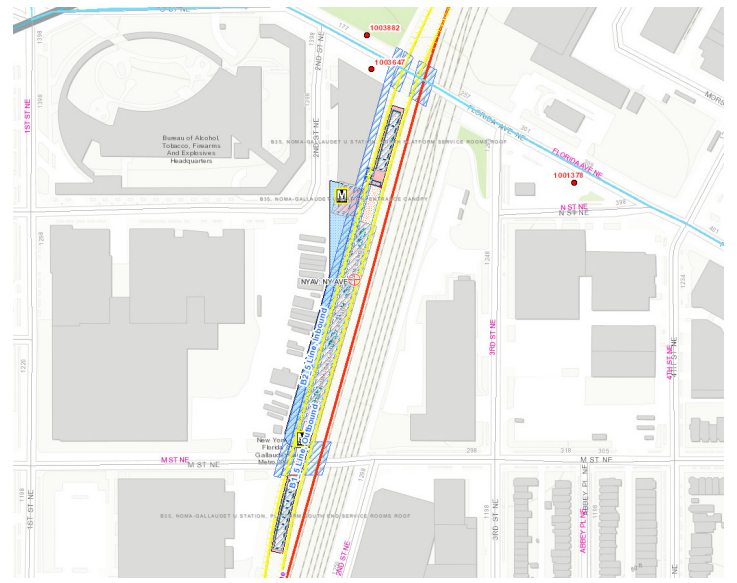
QICO Assessment Team	[REDACTED]		
Assesment Date/Time	July 10, 2017 9:30am – 12:30pm	Station Structure	Above Grade
Year of Construction	2004	Bus Bay	No
Area of Refuge (AOR)	Yes	Parking	No

Station Description

Station Map

NoMa-Gallaudet metro station (Station ID: B35) is located in the District of Columbia. This station serves the Red line.

The station has two entrances. The north entrance connects to the north end of the platform, while the south entrance connects to the south end of the platform. Elevator access is mid-way inside the station. On street bus stop serves the station. NoMa-Gallaudet station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from the entrances to the train platform. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the train platform. Elevator entrance, south entrance, customers' bathroom and the access area to the customers' bathroom are compliant with accessibility requirements. Clear signage along the accessible route and the platform. Station accessibility signage is mounted across the train tracks, on platform columns, and on ceiling.
Maintenance	At the time of inspection, Elevators and Passenger Information Display System (PIDS) were working properly. At the time of inspection, station lights and train approach lights were operational. At the time of inspection, Automatic fare collection (AFC) equipment were working properly.
Train Boarding And Alighting	Train boarding areas are compliant with the accessibility requirements. Horizontal and vertical gaps between the platform and cars are within tolerance.

AREAS FOR IMPROVEMENT	
Area of Review	Description
Maintenance	<p>At the time of inspection, M street entrance Kiosk Information Display System (KIDS) was not working. This issue has been addressed and KIDS working condition has been verified.</p> <p>At the time of inspection, Escalator S02 was not working. This issue has been addressed through repair work order [REDACTED]</p>

16. UNION STATION



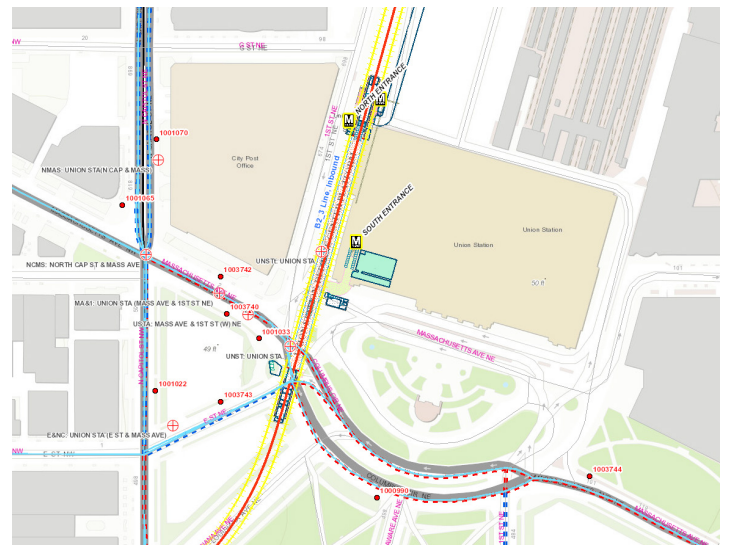
Station Assessment Overview

QICO Assessment Team	[REDACTED]		
Assesment Date/Time	July 10, 2017 12:30pm – 3:00pm	Station Structure	Below Grade
Year of Construction	1976	Bus Bay	No
Area of Refuge (AOR)	No	Parking	No

Station Description

Station Map

Union Station metro station (Station ID: B03) is located in the District of Columbia. This station serves the Red line. The station has two entrances. The south entrance connects to the middle of the platform, while the north entrance connects to the north end of the platform. The north entrance has ramps to access the elevator. Union station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from the street to the station's entrance. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the train platform. Platform has clear signage. Station accessibility signage is mounted on the ceiling.
Maintenance	At the time of inspection, all elevators and escalators were functional. At the time of inspection, Automatic Fare Collection (AFC) equipment were working properly. At the time of inspection, the Kiosk Information Display System (KIDS) and the Passenger Information Display System (PIDS) were working properly.
Train Boarding and Alighting	Train boarding areas comply with the ADA requirements. The platform edges and detectable warning surfaces are in good condition. Horizontal and vertical gaps between the platform and cars are within tolerance.

AREAS FOR IMPROVEMENT	
Area of Review	Description
Maintenance	At the time of inspection, elevator had no audio notification from platform to mezzanine. Two beeps were audible when the elevator were called at the mezzanine, however nothing was heard when arriving at the platform.
Evacuation Plan	Station manager is not aware that there is no Area of Refuge at this station. Station manager (SM) showed a door in the mezzanine area connected to a tunnel as an Area of Refuge.

17. RHODE ISLAND AVE



Station Assessment Overview

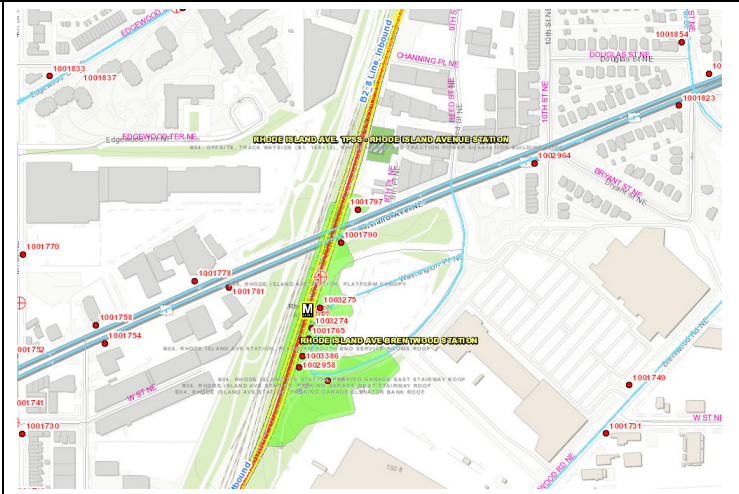
QICO Assessment Team	[REDACTED]		
Assessment Date/Time	July 11, 2017 8:30am – 11:30am	Station Structure	Above Grade
Year of Construction	1976	Bus Bay	Yes
Area of Refuge (AOR)	No	Parking	Yes

Station Description

Station Map

Rhode Island Ave-Brentwood metro station (Station ID: B04) is located in the District of Columbia. This station serves the Red line.

The station has one entrance. This entrance has three public accesses. East access from parking and bus bays, west access from the pedestrian bridge over Rhode Island Avenue and railroad and north access from the pedestrian bridge over Rhode Island Avenue. The main entrance connects to the middle of the platform. The main entrance has elevator access. Rhode Island Ave-Brentwood station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Path of Travel	Clear path of travel to the station's entrance. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to train platform. Accessible route signage.
Maintenance	At the time of inspection, all elevators and escalators were functional. At the time of inspection, Automatic Fare Collection (AFC) equipment were working properly. Kiosk Information Display System (KIDS) and Passenger Information Display System (PIDS) were working properly.
Evacuation Plan	Station manager knows that there is no Area of Refuge at this station.

AREAS FOR IMPROVEMENT

Area of Review	Description
Cleanliness of Facility	Pedestrian bridge on the east side of the station is not clean. This issue has been added to the ADA tracking log, to track the action's closure.
Maintenance	At the time of inspection, some train approach lights were not working. This issue has been addressed through repair work order [REDACTED]

18. BROOKLAND-CUA



Station Assessment Overview

QICO Assessment Team	[REDACTED]		
Assesment Date/Time	July 11, 2017 11:30am – 1:30pm	Station Structure	Above Grade
Year of Construction	1978	Bus Bay	Yes
Area of Refuge (AOR)	No	Parking	Yes

Station Description

Station Map

Brookland-CUA metro station (Station ID: B05) is located in the District of Columbia. This station serves the Red line.

The station has two entrances on either side of the station, both entrances lead to a single entrance that connects to the middle of the platform. The east entrance has elevator access. Passengers from parking, kiss and ride and bus bays utilize one elevator and two escalators at the east entrance. West entrance provide escalator access only. Brookland-CUA station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from the street to the station's entrance. Easy access to AFV and fare gates. Direct access from the fare gates to train platform. Bathroom is ADA compliant. Accessible route signage inside the station is mounted on the platform's columns and across tracks.
Maintenance	At the time of inspection, ELES equipment was well maintained and working. At the time of inspection KIDS/PIDS were working properly. At the time of inspection, Automatic Fare Collection (AFC) equipment were working properly.
Evacuation Plan	Station manager knows that there is no Area of Refuge at this station.
Train Boarding and Alighting	Train boarding areas comply with ADA requirement. The platform edges and detectable warning surfaces are in good condition.

NOTEWORTHY OBSERVATIONS

Area of Review	Description
Bus Boarding and Alighting	Bus bays and street side bus stop serve this station. Bus boarding and alighting areas are ADA compliant and have accessible route connecting bus boarding to station entrance.

AREAS FOR IMPROVEMENT

Area of Review	Description
Maintenance	<p>At the time of inspection, some train approach lights were not working. This has been addressed through repair work order [REDACTED]</p> <p>At the time of inspection, the station PA system was not working, this has been fixed and its working condition has been tested and verified.</p>

19. SOUTHERN AVE

Station Assessment Overview

QICO Assessment Team	[REDACTED]		
Assesment Date/Time	July 12, 2017 9:00am – 10:30am	Station Structure	Above Grade
Year of Construction	2001	Bus Bay	Yes
Area of Refuge (AOR)	Yes	Parking	Yes

Station Description

Station Map

Southern Avenue metro station (Station ID: F08) is located in Prince George’s County, MD. This station serves the Green line.

Station has a single entrance that connects to the south end of the platform. Passengers from parking, kiss and ride and bus bays utilize elevators and escalators located at the main entrance to access the platform. Southern Avenue station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from the street/bus bay to the station’s entrance. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the train platform. Clear signage along the accessible route and the platform. Station’s accessibility signage are mounted on retaining walls across tracks and on the platform’s columns.
Maintenance	All elevators and escalators (ELES) were functional. Kiosk Information Display System (KIDS), Passenger Information Display System (PIDS) and Automatic Fare Collection (AFC) equipment are working.
Evacuation Plan	Station manager is aware of the location of the Area of Refuge.
Train Boarding and Alighting	Horizontal and vertical gaps between the platform and cars are within tolerance.

NOTEWORTHY OBSERVATIONS	
Area of Review	Description
Bus Boarding and Alighting	Bus bays and street side bus stop serve this station. Bus boarding and alighting areas are ADA compliant and have accessible route connecting bus boarding to station entrance.
Parking and Passenger Loading	Covered parking is available at this station. ADA assigned parking is close to the station.

AREAS FOR IMPROVEMENT	
Area of Review	Description
Maintenance	At the time of inspection several station lights were not working. At the time of inspection, on both tracks 1 and 2, every 3 rd train approach light is not working. This has been addressed through repair work order number [REDACTED].
Bus Boarding and Alighting	Several bus bays are missing bus route signage, this issue has been added to the ADA actions tracking log to track the action closure.
Parking and Passenger Loading	Accessible signage missing at the ADA assigned parking spaces. Some accessible marking is starting to fade, this issue has been added to the ADA actions tracking log to track the action closure.

20. SUITLAND



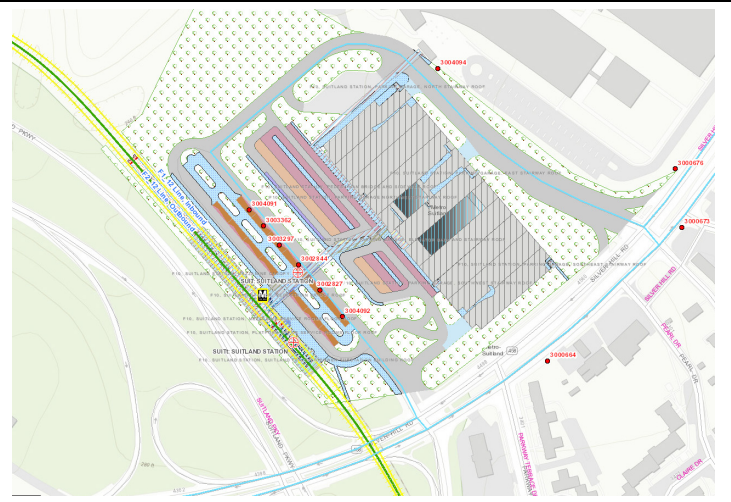
Station Assessment Overview

QICO Assessment Team	[REDACTED]		
Assessment Date/Time	July 12, 2017 9:30am – 10:30am	Station Structure	Above Grade
Year of Construction	2001	Bus Bay	Yes
Area of Refuge (AOR)	Yes	Parking	Yes

Station Description

Station Map

Suitland metro station (Station ID: F10) is located in Prince George’s County, MD. This station serves the Green line. The station has a single entrance that connects to the south end of the platform. Passengers from parking, kiss and ride and bus bays utilize elevators and escalators located at the main entrance to access the platform. Suitland station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from the street, bus bay and parking garage to the station’s entrance. Easy access to AFV and fare gates. Direct access from the fare gates to the train platform. Customers’ bathroom and the access area to the customers’ bathroom are compliant with the accessibility requirements. Clear signage along the accessible route and the platform. Accessible signage posted on the platform’s columns and across tracks.
Maintenance	All elevators and escalators (ELES) were functional. Kiosk Information Display System (KIDS), Passenger Information Display System (PIDS) and Automatic Fare Collection (AFC) equipment are working.
Evacuation Plan	Station manager is aware of the Area of Refuge.

NOTEWORTHY OBSERVATIONS	
Area of Review	Description
Train Boarding and Alighting	Horizontal and vertical gaps between the platform and cars are within tolerance.
Bus Boarding and Alighting	Bus bays and street side bus stop serves this station. Bus boarding and alighting areas are ADA compliant and have accessible route connecting bus boarding to station's entrance.
Parking and Passenger Loading	Covered parking is available at this station. ADA assigned parking is close to the north entrance with no obstruction on the accessible route.

AREAS FOR IMPROVEMENT	
Area of Review	Description
Maintenance	At the time of inspection, several train approach lights were out. This has been addressed through repair work order [REDACTED]
Train Boarding and Alighting	Train boarding area has missing tiles, broken tiles, and loose tiles from detectable warning surface. This issue has been added to the ADA tracking log to track the action closure.

21. BRADDOCK RD



Station Assessment Overview

QICO Assessment Team	[REDACTED]		
Assesment Date/Time	July 12, 2017 11:00am – 1:00pm	Station Structure	Above Grade
Year of Construction	1983	Bus Bay	Yes
Area of Refuge (AOR)	No	Parking	Yes

Station Description

Station Map

Braddock Road metro station (Station ID: C12) is located in Fairfax County, VA. This station serves the Blue and Yellow lines.

The station has a single entrance that connects to the middle of the platform. Passengers from parking, kiss and ride and bus bay utilize one elevator and two escalators at the main entrance to access the platform. Braddock Road station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from the street to the station’s entrance. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to train platform. The hallway leading to the inside of the customers’ bathroom is accessible. Accessible route signage in the station is mounted on the platform’s columns.
Maintenance	At the time of inspection, all elevators and escalators (ELES) were functional. Kiosk Information Display System (KIDS) and Passenger Information Display System (PIDS) are working properly. All Automatic Fare Collection (AFC) equipment are working properly.
Train Boarding and Alighting	Plant Maintenance (PLNT) has put visible warning signs on the platform and identified optimal boarding areas. Announcements advising riders about platform condition are made frequently.

NOTEWORTHY OBSERVATIONS

Area of Review	Description
Bus Boarding and Alighting	Bus bays and street side bus stop serves this station. Bus boarding and alighting areas are ADA compliant and have accessible route connecting bus boarding to the station's entrance.

AREAS FOR IMPROVEMENT

Area of Review	Description
Path of Travel	Vertical gap at the entrance of the customers' bathroom. This issue has been added to the ADA tracking log to track its action closure.
Maintenance	At the time of inspection 17 lights were out in the kiosk area. At platform edges, several train approach lights were out on track one and track two sides respectively. The above two issues have been added to the ADA tracking log to track actions closure.
Evacuation Plan	At the time of inspection station manager indicated that the Area of Refuge is beyond the platform gates. However, this station does not have an Area of Refuge (AOR).
Train Boarding and Alighting	Platform edge has cracks, joint separation, and corrugation. Platform edge cracks, joint separation, and corrugation resulting from the platform condition have been addressed through Metrorail Structural Inspections internal review, CAP QICO-SIM-17-01.

22. FOGGY BOTTOM-GWU



Station Assessment Overview

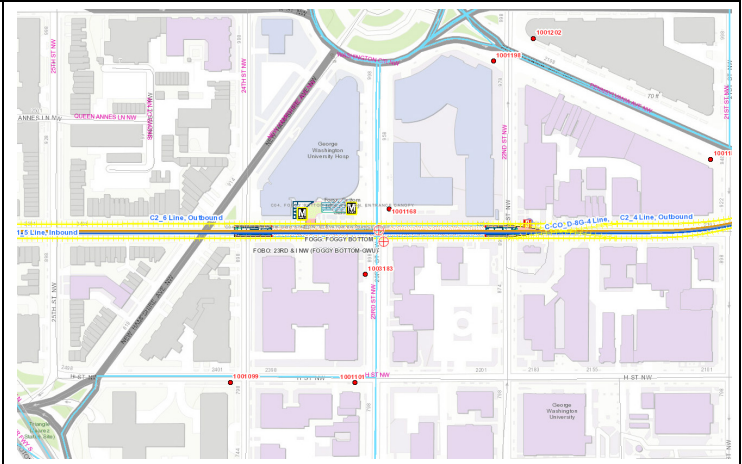
QICO Assessment Team	[REDACTED]		
Assessment Date/Time	July 13, 2017 10:00am – 12:30pm	Station Structure	Below Grade
Year of Construction	1977	Bus Bay	No
Area of Refuge (AOR)	No	Parking	No

Station Description

Station Map

Foggy Bottom - GWU metro station (Station ID: C04) is located in the District of Columbia. This station serves the Orange, Silver, and Blue lines.

The station has one entrance at the west side of the station. The entrance connects to the west end of the platform. The entrance has an elevator access. On street bus stop serves the station. Foggy Bottom – GWU station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from the station's entrance to the train platform. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the elevator and train platform. Clear signage along the accessible route and the platform. Station accessibility signage is mounted on the platform's columns in the platform area and on the walls in the kiosk area.
Maintenance	At the time of inspection, no elevator or escalator (ELES) outages were found. At the time of Inspection, no Kiosk Information Display System (KIDS), Passenger Information Display System (PIDS) or Automatic Fare Collection (AFC) equipment outages were found.
Train Boarding And Alighting	Train boarding areas are compliant with accessibility requirements. Horizontal and vertical gaps between the platform and cars are within tolerance.

AREAS FOR IMPROVEMENT	
Area of Review	Description
Path of Travel	Customer bathroom's door width is less than 32" and wall inside the bathroom is directly in front of the entrance door. These issues have been added to the ADA tracking log to track their actions closure.
Maintenance	At the time of inspection, track 1 had eight (8) lights out and track 2 had sixteen (16) lights out. This issue has been addressed through repair work order number [REDACTED].
Evacuation Plan	At the time of inspection, station manager indicated that Area of Refuge is beyond the platform, however there is no Area of Refuge in this station.

23. SILVER SPRING



Station Assessment Overview

QICO Assessment Team	[REDACTED]		
Assesment Date/Time	July 14, 2017 9:00am – 11:30am	Station Structure	Above Grade
Year of Construction	1978	Bus Bay	Yes
Area of Refuge (AOR)	No	Parking	Yes

Station Description

Station Map

Silver Spring metro station (Station ID: B08) is located in Montgomery County, MD. This station serves the Red line.

The station has two entrances. The north side connects to the middle of the north end of the platform, while the south side connects to the middle of the platform. Passengers from parking, kiss and ride and bus bays utilize elevators and escalators located at the south entrance to access the platform. Silver Spring station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from the street, bus bay and parking garage to the station entrance. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the train platform. Compliant Bathroom. Clear signage from the bus bay to the station's entrance and train platform. Station signage is on the platform column and on supports across the tracks.
Maintenance	All elevators and escalators (ELES) were functional. Kiosk Information Display System (KIDS), Passenger Information Display System (PIDS) and Automatic Fare Collection (AFC) equipment are working.
Evacuation Plan	Station manager is aware that there is no Area of Refuge at this station.
Train Boarding and Alighting	Train boarding areas are compliant with accessibility requirements. Horizontal and vertical gaps between the platform and cars are within tolerance.

NOTEWORTHY OBSERVATIONS	
Area of Review	Description
Bus Boarding and Alighting	Transit center and street side bus stop serves this station. Bus boarding and alighting areas are ADA compliant and have accessible route connecting bus boarding to the station entrance.
Parking and Passenger Loading	ADA assigned parking is close to the elevator in the parking garage. Accessibility compliant passenger loading zone.

AREAS FOR IMPROVEMENT	
Area of Review	Description
Maintenance	At the time of inspection, seven lights were out in the kiosk area, this issue has been added to the ADA tracking log, to track the action's closure. At the time of inspection, several train approaching lights were out on tracks one and two. This issue is addressed through repair work order number [REDACTED]

24. GEORGIA AVE-PETWORTH



Station Assessment Overview

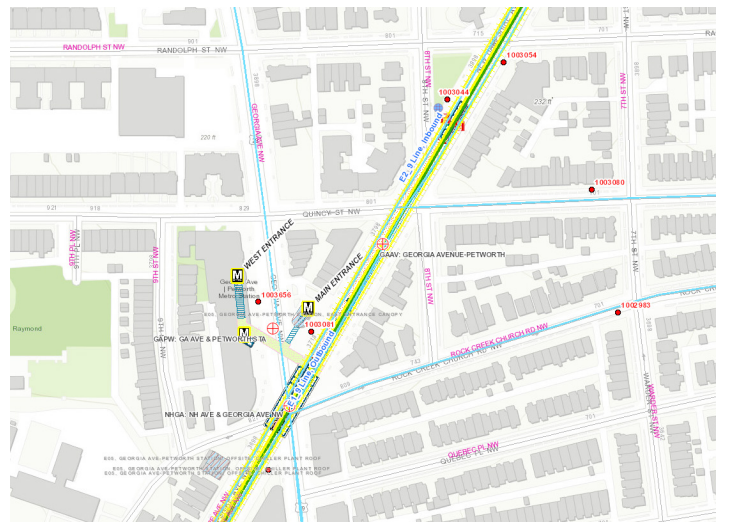
QICO Assessment Team	[REDACTED]		
Assessment Date/Time	July 14, 2017 1:00pm – 2:30pm	Station Structure	Below Grade
Year of Construction	1999	Bus Bay	No
Area of Refuge (AOR)	Yes	Parking	No

Station Description

Station Map

Georgia Ave-Petworth metro station (Station ID: F05) is located in the District of Columbia. This station serves the Green and Yellow lines.

The station has two entrances, a main entrance and a west entrance. The entrances converge together into a single hallway that leads to the fare gates. The hallway connects to the south end of the platform. On street bus stop serves the station. Georgia Ave-Petworth station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from the main and west entrances to the train platform. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the train platform. Customers' bathroom and the area of access to the customers' bathroom are compliant with accessibility requirements. Clear signage inside the station. Station accessibility signage is mounted on columns in the middle of the platform and on the tunnel walls across tracks.
Maintenance	Kiosk Information Display System (KIDS) and Passenger Information Display System (PIDS) are working properly. At the time of inspection, elevator and escalator (ELES) equipment were working properly. At the time of inspection station lighting and train approach lighting were working. At the time of inspection all Automatic Fare Collection (AFC) equipment were working properly.

NOTEWORTHY OBSERVATIONS

Area of Review	Description
Train Boarding And Alighting	Train boarding areas are compliant with the accessibility requirements. Horizontal and vertical gaps between the platform and cars are within tolerance.

AREAS FOR IMPROVEMENT

Area of Review	Description
Path of Travel	Faded accessible signage at the street access elevator and no signage at west escalator entrance. These issues have been added to the ADA tracking log to track the action closure.
Evacuation Plan	At the time of inspection, station manager was not fully aware of the location of the Area of Refuge.

25. NAVY YARD-BALLPARK

GR

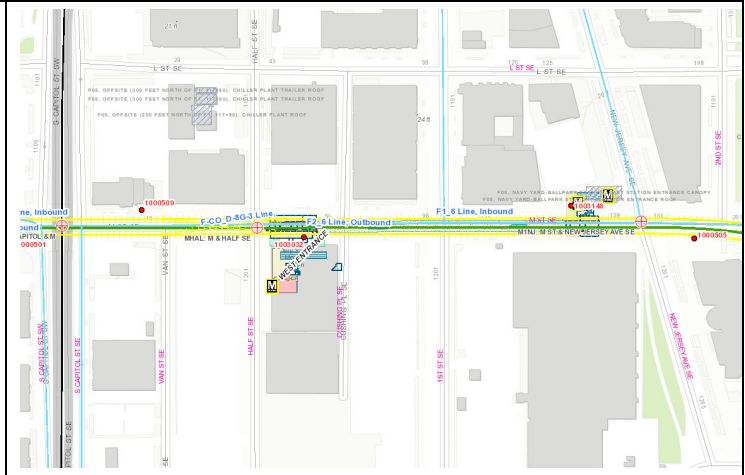
Station Assessment Overview

QICO Assessment Team	[REDACTED]		
Assesment Date/Time	July 18, 2017 9:00am – 12:00pm	Station Structure	Below Grade
Year of Construction	1991	Bus Bay	No
Area of Refuge (AOR)	Yes	Parking	No

Station Description

Station Map

Navy Yard - Ballpark metro station (Station ID: F05) is located in the District of Columbia. This station serves the Green Line. The station has two entrances, the east entrance connects to the east end of the platform while the west entrance connects to the west end of the platform. Elevator access is present at both west and east entrances. On street bus stop serves the station. Navy Yard - Ballpark station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from both east and west entrances to the train platform. Easy access to the Automatic Fare Vending (AFV) machines and fare gates. Direct access from the fare gates to the train platform. Customers' bathroom and the area of access to the customers' bathroom are compliant with the accessibility requirements. Clear signage along the accessible route and the platform. Station accessibility signage is mounted on the tunnel's walls across the tracks.
Maintenance	Passenger Information Display System (PIDS) is working properly. Elevators and escalators (ELES) are working properly. Automatic Fare Collection (AFC) equipment are working properly.
Evacuation Plan	Station manager is aware of the station Area of Refuge.
Train Boarding And Alighting	Train boarding areas are compliant with accessibility requirements. Horizontal and vertical gaps between the platform and cars are within tolerance.

AREAS FOR IMPROVEMENT	
Area of Review	Description
Out of Service	At the time of inspection, Kiosk Information Display System (KIDS) at the east entrance was not working. This issue has been resolved and the display's working condition has been verified.
Maintenance	At the time of inspection, station lighting in the west entrance area were not working. Several train approach lights were not working sporadically. These issues have been added to the ADA tracking log, to track actions closure. At the time of inspection, AFV () display not working. Malfunction recorded from July 05, 2017. This issue had been resolved and the AFV machine's working condition has been verified.

26. FARRAGUT NORTH



Station Assessment Overview

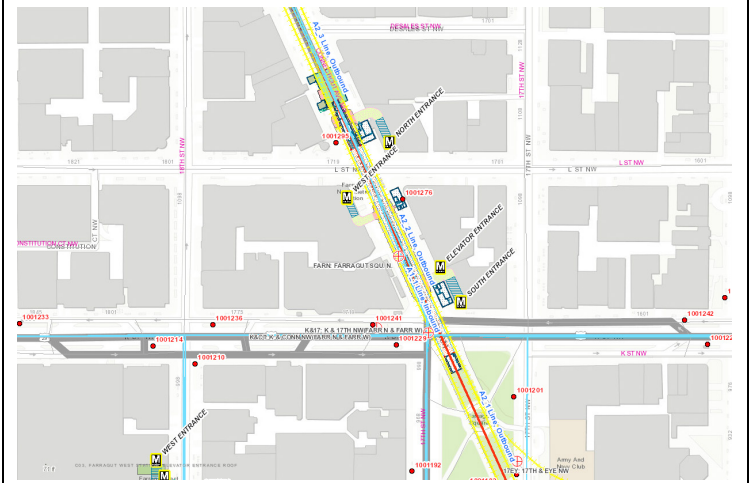
QICO Assessment Team	[REDACTED]		
Assesment Date/Time	July 18, 2017 1:00Pm – 3:30pm	Station Structure	Below Grade
Year of Construction	1976	Bus Bay	No
Area of Refuge (AOR)	No	Parking	No

Station Description

Station Map

Farragut North metro station (Station ID: A02) is located in the District of Columbia. This station serves the Red line.

The station has three entrances. The north entrance connects to the north end of the platform, the south entrance connects to the south end of the platform and the west entrance connects to the middle of the platform. The south entrance has elevator access. On street bus stop serves the station. Farragut North station is a single level center platform.



NOTEWORTHY OBSERVATIONS

Area of Review	Description
Cleanliness of Facility	The station is in a state of good housekeeping.
Path of Travel	Clear path of travel from north, west, and elevator entrance to the train platform. Easy access to the Automatic Fare Vending (AFV) and fare gates. Direct access from the fare gates to the train platform. Elevator entrance, south entrance, customers' bathroom and the access area to the customers' bathroom are compliant with the accessibility requirements. Clear signage along the accessible route and the platform. Station accessibility signage is mounted on the ceiling.
Maintenance	Kiosk Information Display System (KIDS) and Passenger Information Display System (PIDS) are working properly. Automatic Fare Collection (AFC) equipment are working properly. At the time of inspection, all train approach lights were operational. At the time of inspection, very few lights were out in the south kiosk area, however outages does not create dark/ low visibility areas.

NOTEWORTHY OBSERVATIONS

Area of Review	Description
Train Boarding And Alighting	Train boarding areas are compliant with the accessibility requirements. Horizontal and vertical gaps between the platform and cars are within tolerance.

AREAS FOR IMPROVEMENT

Area of Review	Description
Maintenance	At the time of inspection, at all the three entrances 1 out of 3 escalator were not working. This issue has been addressed through repair work orders [REDACTED]
Evacuation Plan	At the time of inspection, station manager is not aware of the location of the Area of Refuge. Station manager assumed the Area of Refuge is beyond the end gates.

APPENDIX E: TRAIN OPERATOR ASSESSMENT SUMMARY



QICO INTERNAL REVIEW

Train Operator Assessments Summary

SUBJECT Train Operator Announcements, Door Operations and Radio Protocols Assessment Summary

ASSESSMENTS Radio Protocol Assessments 8/1/2017 – 8/5/2017

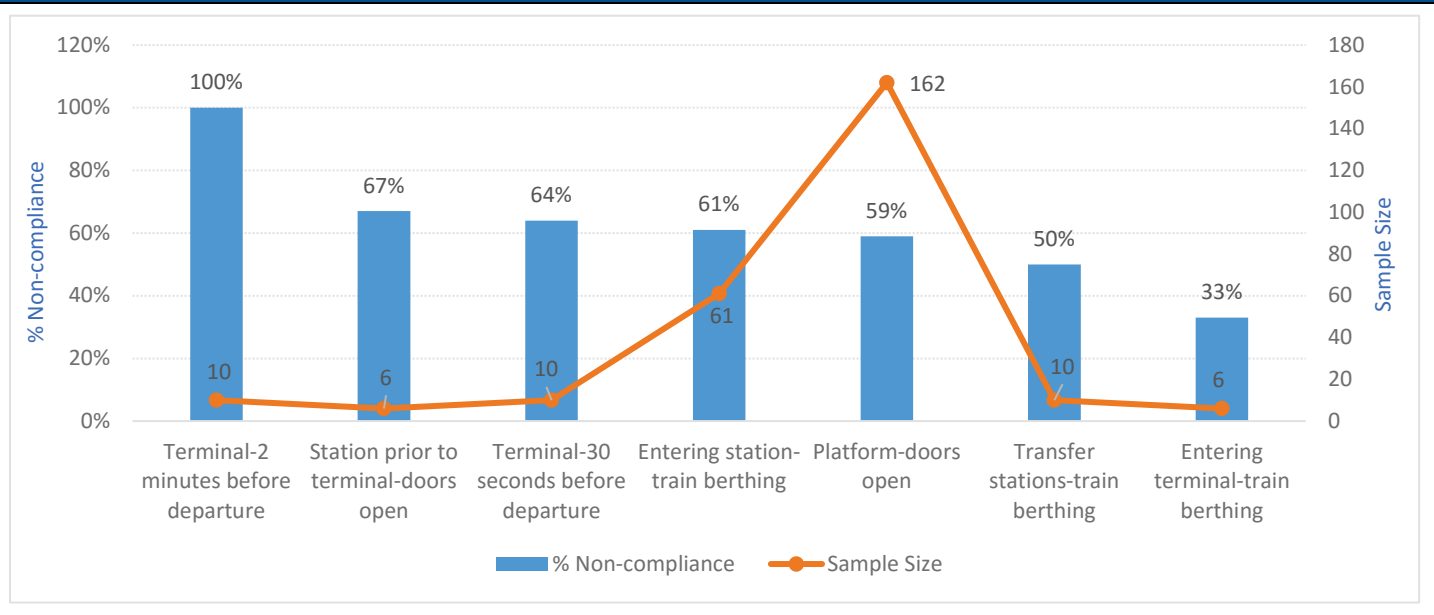
DATE Platform & Ride-along Assessments 9/19/2017 – 9/28/2017

OVERVIEW

Category	Description
QICO Assessment Team	- Rolling Stock Assurance
Assessment Objective	Assess the train operators' compliance to the following: - MSRPH SOP 50; Train Operator Standard Baseline Announcements - MSRPH SOP 40; Door Operations / Station Servicing Procedures - Permanent Order T-6-10; Radio Protocols
Assessment Criteria	- MSRPH SOP 40, SOP 50 and Permanent Order T-6-10 - Total sample size analyzed represents 0.11% of the total trips during the month of September 2017

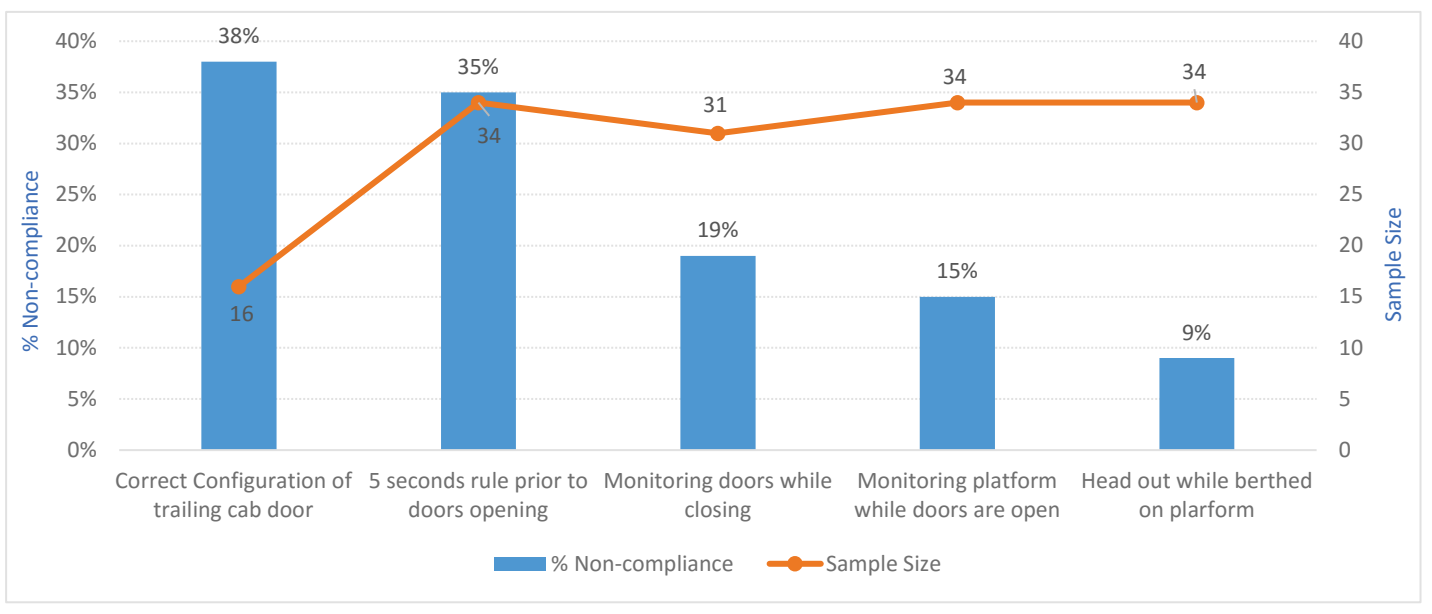
Graphical Representation of the Percentage Non-compliance

Train operator Standard Baseline Announcements



Graphical Representation of the Percentage Non-compliance

Door Operations / Station Servicing Procedures



Graphical Representation of the Percentage Non-compliance

Permanent Order T-6-10 Radio Protocols

