

Monthly Report  
**SafeTrack Program**  
Washington Metropolitan Area Transit Authority (WMATA)

November 2016 Progress



CIP 0024 SafeTrack Project – “Construction of new grout pads just south of Rhode Island Avenue Station on Track 2 of the Red Line during Surge 10,” November 11, 2016.

Revised Final Report Submitted March 2, 2017

PMOC Contract Number: DTFT60-14-D-00011

Task Order Number: 006, Project Number: DC-27-5272, Work Order No. 01

OPs Referenced: 01, 25

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PMOC Lead: Michael E. Radbill, P.E. [REDACTED]  
Length of Time PMOC Assigned to Project under current Contract: 2 years, 3 months  
Length of Time PMOC Lead Assigned to Project: 4 Years, 7 months

## TABLE OF CONTENTS

EXECUTIVE SUMMARY .....	2
MAIN REPORT .....	9
APPENDICES .....	16
APPENDIX A – ACRONYMS AND ABBREVIATIONS .....	17
APPENDIX B – MAP OF WMATA’S RAIL TRANSIT SYSTEM .....	20
APPENDIX C – SAFETRACK WORK COMPLETED TO DATE .....	21
APPENDIX E – SAFETRACK QC / QA COORDINATION PROCESS .....	24
APPENDIX F – SUMMARY OF PRE-SURGE DEFICIENCIES – SURGE 10 .....	25
APPENDIX G – SURGE 10 QUALITY ASSURANCE TRACKING LOG .....	28
APPENDIX H – SAFETY AND SECURITY CHECKLIST    UPDATED 2/6/17 .....	29
APPENDIX I – ACTION ITEMS – SAFETRACK PROGRAM.....	34
APPENDIX J – SUMMARY SAFETRACK SCHEDULE .....	35

Cover Photo: Surge No. 10 Construction of new grout pads just south of Rhode Island Avenue Station on Track 2 of the Red Line (west side/inbound to Metro Center); November 11, 2016; photo courtesy Wes Albright.

## EXECUTIVE SUMMARY

This fourth monthly PMOC report for SafeTrack is based on information provided by WMATA at the oversight meeting held on December 20, 2016, and subsequent weekly updates. The PMOC concurs with WMATA's assessment of November progress as stated in its monthly report: <sup>1</sup>

November was another very productive month for SafeTrack, with significant work performed in the field and office. While Surge 10 was perhaps the most difficult surge to date from a planning and technical perspective, it was very successful in terms of work completed. In particular the structures group replaced over 5,700 linear feet of grout pad, more than Surges 1-9 combined, and ATC was able to complete critical work related to NTSB requirements to replace track circuit cables relating back to the 2009 Ft Totten accident. More track work was required than expected, necessitating 2 weekends of extending the work zone through Fort Totten station to replace deteriorating ties at Platform 2.

In addition to the physical work in the surge area, significant planning work was completed for Surge 11 and risk mitigations for winter. While only 1.5 miles long, Surge 11 will have an extraordinary impact on the system as it reduces service across the entire Orange, Silver and Blue lines. Significant planning effort was spent to mitigate the impact to ridership, resulting in a more complex work zone pattern, but one that ultimately served the best interest of WMATA and its stakeholders. Following significant discussion on contingency plans for a major snow event in a surge, it was determined that the best option is to delay the next surge until February 11, when the risk of a major snow event starts to reduce. The time in January and early February will be spent working "non-surge" areas in the outer core, between Farragut North and Grosvenor as well as McPherson to Rosslyn. The non-surge windows include single tracking mid-day from 10a-2:30p and evenings starting at 8p, in addition to weekend work. These areas have fallen behind due to resource constraints, and the ability to focus on them for 6 weeks will enable us to address the issues at these locations and be underground, out of the elements.

Here is a summary of the PMOC oversight activities for November 2016:

- November 1 – Attend the weekly SafeTrack Coordination meeting at Alexandria Yard.
- November 1 – Submitted draft SafeTrack oversight report of September progress to FTA.
- November 3 – Met with PM of the concrete repair project at the Rhode Island Avenue Station to observe the concrete repair work during Surge 10.
- November 3 – Developed/submitted SafeTrack PMP review comments to WMATA.
- November 9 – Conducted a site visit of SafeTrack Surge 10.
- November 11 – At Brentwood Yard, discussed with Yard 1 Construction Engineer coordination of Brentwood Yard site lighting work with SafeTrack work.
- November 14 – Discussion of SafeTrack program with AGM Rail.
- November 17 – Conduct monthly SafeTrack oversight meeting at WMATA.

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<sup>1</sup> WMATA's November SafeTrack Report to the PMOC dated December 19, 2016.

- November 18 – Participate in 2<sup>nd</sup> SafeTrack PMP development workshop at WMATA.
- November 28 – Met with PM for Rhode Island Avenue Station concrete repair project to discuss coordination with Surge 10 activities as well as confirm progress with repairs of the Station.

## **A. Program Description**

WMATA has indicated during the PMOC meetings that SafeTrack addresses FTA and NTSB safety recommendations, will eliminate the backlog of track work, and will enable Metro to return to a steady-state of annual track and systems renewal projects. SafeTrack will accomplish this work by these work surges as well as by closing the system at midnight on weekends and expanding weekday maintenance opportunities. In addition, SafeTrack intends to carry forward lessons learned and improvements in work efficiency and productivity to future maintenance and capital rehabilitation programs, after SafeTrack ends in mid-2017. The plan includes 15 "Safety Surges" that will utilize long-duration track outages through around-the-clock single tracking or line-segment shutdowns that will impact rush hour commutes."<sup>2</sup>

The majority of SafeTrack work is being performed by WMATA forces and is funded primarily through WMATA's Capital Improvement Plan CIP0024, Track Rehabilitation. Additional CIPs fund other related work during the SafeTrack surges. Federal funding sources include PRIIA (Passenger Rail Investment Improvement Act), §5307 Urbanized Area Formula, and §5337 State of Good Repair Formula. SafeTrack started on June 4, 2016; the present scope is scheduled to be completed in June 2017.

## **B. Program Status**

As of November 30, 2016, SafeTrack completed ten surges. These ten concentrated on bringing nearly 40 miles of track along with related systems to a state of good repair on the Orange/Blue, Yellow/Blue, and Red Lines. Through ten surges, WMATA's SafeTrack team has–

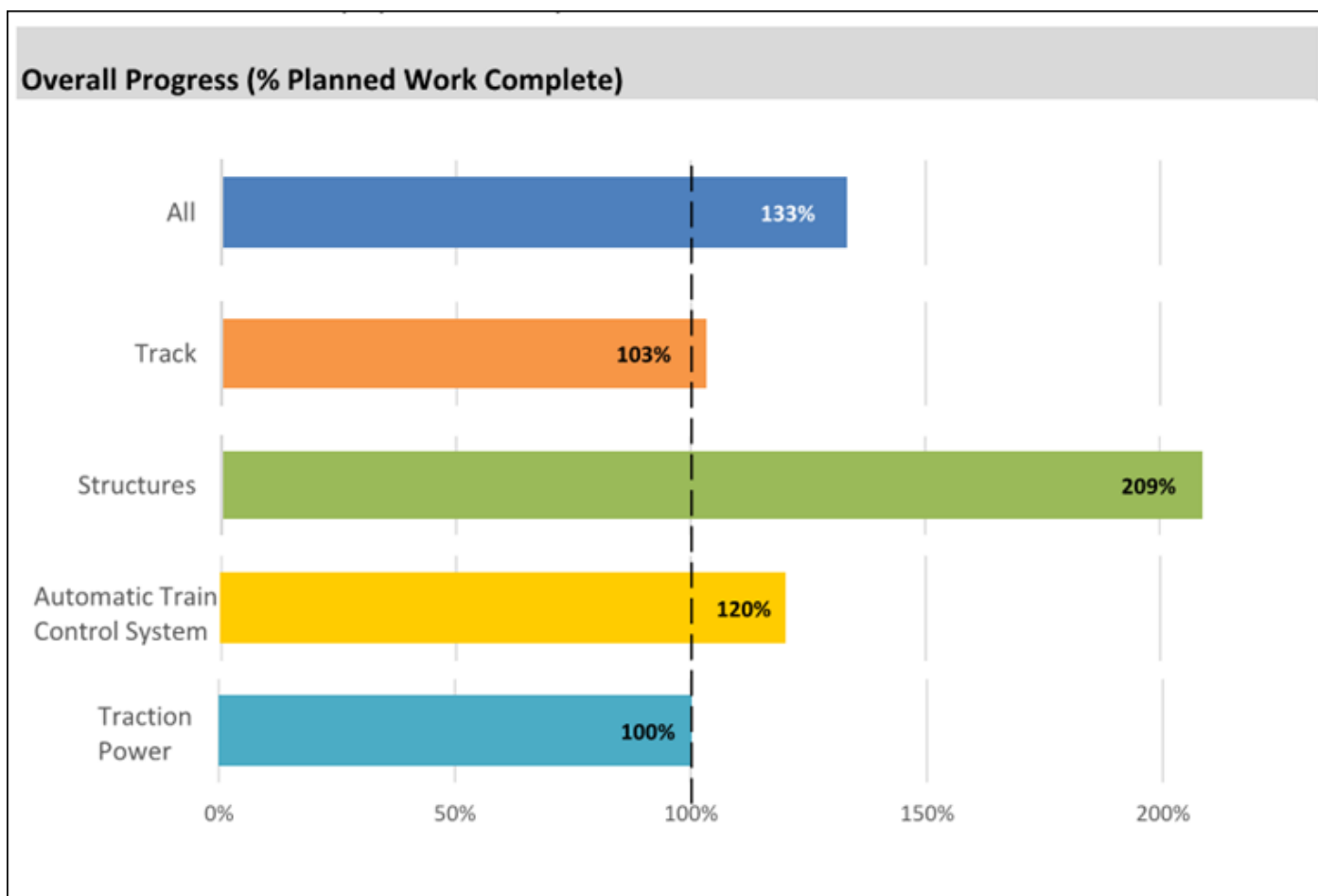
- Replaced 26,374 crossties
- Replaced 4,327 insulators
- Replaced 11,469 fasteners
- Replaced 19,225 linear feet of rail
- Welded 343 rail joints
- Installed 9,501 feet of new grout pads
- Repaired/replaced 932 tunnel lights
- Repaired/replaced 797 power cables
- Replaced 19,262 feet of third rail cover board
- Cleaned 108,996 linear feet of track bed
- Refurbished/replaced 2,265 IDW boxes
- Converted 71 wayside signals to use LEDs
- Repaired 32 emergency trip stations

### November 2016 Activity

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<sup>2</sup> From WMATA's SafeTrack Project Management Plan, Revision Zero, dated 10/30/16.

- **Surge 10** – The tenth surge, NoMa-Gallaudet U Station to Fort Totten Station on the Red Line began October 29, 2016, and successfully concluded on November 22, 2016. This surge was a complete shutdown of both tracks and two stations, Rhode Island Avenue and Brookland. The work area is approximately three miles long. Work accomplished included crosstie replacement, grout pad installation, double crossover replacement, track circuit cable replacement, welding joints, insulator replacement, power cables and pigtails repair/replacement, upgrading signals to LED, upgrading IDW boxes, and removal of vegetation and trash. The bar chart below developed by the SafeTrack Coordination Team depicts the successes of Surge 10.
- **Surge 11** – Planning work was completed; work began November 28, 2016.
- **PMP Workshop** – FTA, PMOC, and the SafeTrack Team reviewed and discussed revisions to the SafeTrack PMP in a workshop on November 18. SafeTrack began revising the PMP following the workshop.



## C. Core Accountability Information (Note: Italics shows a change from previous report.)

### 1. Cost

### Cost – Current SafeTrack (as of November 30, 2016)

Approved (FY16-FY17) budget for SafeTrack:	\$ 133,226,892
Expended through November 30, 2016:	\$ 82,243,015
Percent expended:	62%
<i>Notes: The budget increase of \$14.4M from \$118.8M to the \$133.2M is based on updated estimates by the departments and the decision to add budget for potential added surges beyond Surge 15. It also reflects a budget increase approved by the Board in November 2016 to the FY17 portion of the SafeTrack budget.</i>	

### Cost – Forecast for SafeTrack

Cost Forecast Category	October 2016 Forecast	Nov 2016 Forecast
Estimated cost for SafeTrack work (Surges 1 thru 15):	\$ 80,067,892	\$ 110,548,464
Estimated cost for track rehabilitation work outside surge areas:	\$ 19,636,775	\$ 4,962,407
Subtotal Estimated Cost (Surge and non-surge work)	\$ 99,704,667	\$ 115,510,871
Contingency	\$ 19,093,317	\$ 17,661,436
Projected CIP0024 total cost during SafeTrack:	\$118,797,984	\$ 133,226,892

*Surge Work – The \$30.5M increase in the estimated cost for Surges 1 thru 15 (\$80M to \$110.5M) is the result of updated actual data through November 30, 2016 and new labor estimates for surges 10 -15. The \$80M amount was developed from original program assumptions and individual office estimates; then, in September and October 2016, the SafeTrack team created an updated labor forecast through a process that obtained and verified new office estimates. In November 2016, the updated estimates along with year-to-date actual data identified additional budget required for surge work through April 2016 for Surges 10 - 15, which increased the surge estimate to \$110.5M.*

*Non-Surge Work – Prior to November 2016, non-surge winter work had not been formally identified and scoped; however, in November 2016, with a more detailed scope of work and more detailed estimates of labor, material, and consultant costs, the forecast cost for the January-February 2017 non-surge work decreased \$14,674,368 (\$19.6M to \$4.9M).*

### Cost – Summary of SafeTrack Funding\*

Federal Fiscal Year	Funding Source	Amount
FFY15	PRIIA	\$37,243,759
FFY16	PRIIA	\$45,947,000
FFY16	\$5337	\$10,000,000
FFY16	\$5307	\$10,000,000
Subtotal	Federal Funding	\$103,190,759
Short-term borrowing by WMATA		\$ 30,036,133
Grand Total	All Sources	\$133,226,892

\*This table is updated from last month to include SafeTrack expenses incurred at the end of WMATA's FY16 that were not reflected in last month's table.

## 2. Schedule

- Original SafeTrack project completion date: June 2017
- Current forecast completion date: June 2017; Schedule of Surges 12 through 15 will be updated in January 2017
- Percent of time expended:
  - *As of October 31, 2016: 38% (This was mistakenly reported as 52% last month)*
  - *As of November 30, 2016: 46%*

## 3. Contingency & Expenditure

- Contingency – *The October SafeTrack report showed contingency as 20% of a \$118.8M budget. That percentage and the amount of contingency changed as a result of budget activity line adjustments following implementation of the most recent Board approved budget changes in November 2016. The revised budget established a \$17,661,436 contingency. This amount is 13.3% of the new \$133.2M budget*
- The latest Budget and Expenditure report shows 62% of the budget expended as of November 30, 2016.

## D. Major Problems/Issues

NOTE: Issues are shown in regular type and their latest status is in <i>italics</i> . When an issue is closed, it will be marked CLOSED for the month it was closed. The issue will not appear in the report for the following month.
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### 1. Status of Problems/Issues Identified in the PMOC's Previous Monthly Reports

- a. Lack of a decision protocol for times when other high-priority or high-dollar work conflicts with Surge work.

Specifics of this issue were reported in this section of the PMOC's report of September 2016 SafeTrack activities. Since then, the PMOC asked the SafeTrack team whether a protocol was being developed.

WMATA responded to the PMOC saying, it continues to address conflicts among various projects and departments vying for track rights to accomplish their work. The weekly Wednesday track rights meetings, chaired by the AGM-Rail, is where conflicts are de-conflicted.

Furthermore, according to the SafeTrack Team, "within the surge, the decision protocol is the rigorous work planning process that goes into creating the March Chart. The PMOC has observed WMATA's further attention to this communication issue in Revision 1 to the Project Management Plan, which the PMOC is reviewing. *The PMOC's monitoring of the coordination for track rights between other WMATA projects and SafeTrack shows that this issue has been effectively addressed; therefore, this issue is CLOSED.*

- b. Ability to segregate SafeTrack surge expenses from other concurrent maintenance expenses.

This issue was discussed again at the *December 20, 2016 oversight meetings*. SafeTrack team advised that they are still collecting data and developing analytical tools to address this issue.

- c. Lack of communication and coordination among the departments involved in a surge during the Lock-Out/Tag-Out (LOTO) process for electrical sources needs to be improved.

*We noted in our last report*, “SafeTrack has addressed this issue by creating and issuing a document entitled “SAFETRACK MCC/TRPM LOTO Guideline,” which the PMOC has reviewed and believes, if followed, resolves the issue. This Guideline includes detailed instructions for the LOTO process. It contains photos of completed sample forms, key labels, and labeled envelopes that contain keys. The Guideline also states responsibilities. This issue will remain open to give time for the PMOC to observe if the guideline is working.”

*The PMOC oversaw SafeTrack activities associated with Surge 10 in November 2016, and did not observe any problems with the LOTO process. This issue is CLOSED.*

- d. Tracking and Completion of Punch List Work

WMATA is developing a procedure for the collection, reporting, and managing of post-surge punch list work. The procedure is titled, “SafeTrack Work Documentation Protocols.” Revision 0 is dated 10/07/16. WMATA advised that it is working on revisions to this document and expects to issue Revision 1 by the end of January 2017.

- e. Project Management Plan

The PMOC identified areas for improvement in the first revision (Rev 0) of the PMP and sent its comments to SafeTrack on 11/3/16. *After a November 18, 2016 workshop with FTA, PMOC, and SafeTrack, the PMOC expects to receive Revision 1 of the SafeTrack PMP by December 19, 2016.*

- f. Safety

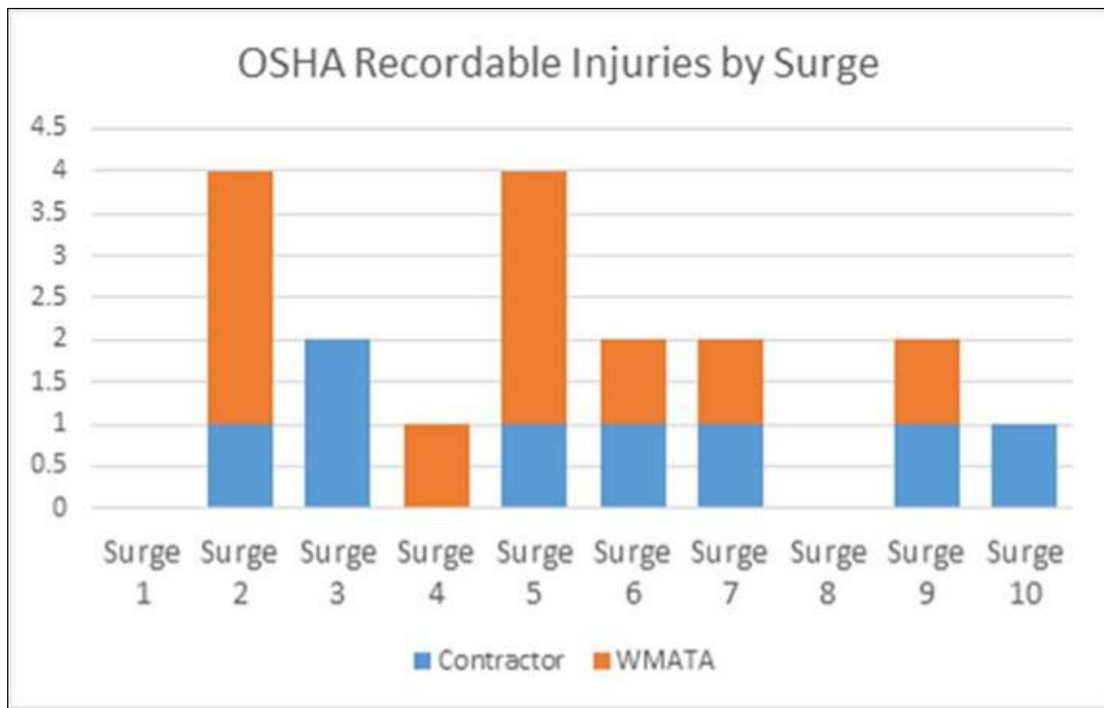
*In November 2016, there was one contractor injury but no WMATA OSHA recordable injuries in Surge 10. The injury resulted from improper use of a tool and use of PPE not suited to the task. The contractor conducted tool box safety briefings to inform workers on proper use of tools and PPE. The updated “OSHA Recordable Injuries by Surge” graph, shown below, is provided by SafeTrack. There were no OSHA recordable injuries during Surges 1 and 8.<sup>3</sup>*

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<sup>3</sup> An OSHA recordable injury is defined as:

*Any work related fatality; any work related injury or illness that results in loss of consciousness, days away from work, or transfer to another job; any work related injury or illness requiring medical treatment beyond first aid; any work related diagnosed case of cancer, chronic irreversible diseases, fractured or cracked bones or teeth, and punctured eardrums; and other special criteria. (Source: [www.osha.gov/recordkeeping](http://www.osha.gov/recordkeeping))*





## 2. New Problems/Issues

### a. Grout for Grout Pads

*This issue is the absence of field testing of newly installed grout for grout pads constructed during Surge 10. The issue was documented in a November 7, 2016 Daily Report. QICO followed up and addressed the issue in its Surge 10 Closeout Report dated December 12, 2016. According to the QICO report, “there is no reference to testing requirements for material poured for grout pad retrofitting in either the WMATA/TRST-1000 or Work Instructions for Track (WITK), two major documents that govern track maintenance and inspection.” Accordingly, QICO consulted with the Chief of Infrastructure Services (CENI), a Registered Professional Engineer. CENI along with the Chief of Track, Structures and Facilities deemed the grout issue not safety critical. Post Surge 10 testing was performed. The acoustic testing found that a small percentage (approximately 50 feet of the 5,737 linear feet of grout pads reported to be poured) had detectable integrity issues, but these issues are not an immediate safety concern. QICO noted that it will provide assurance that acoustical testing will be performed for future Metrorail grout pad activities until a full grout pad testing program is established.” The PMOC will monitor this issue and check on rework and punch list status of grout pads. The PMOC will also monitor future QICO testing of SafeTrack work with integrity issues.*

## MAIN REPORT

### 1. Program Status

The following table summarizes the status of the SafeTrack program as of November 30, 2016, based on reports submitted by WMATA.

SURGE No.	FROM – TO	TYPE	DAYS SURGING	APPROXIMATE TOTAL MILES		OVERALL % COMPLETE
				TRK 1	TRK 2	
1	East Falls Church to Ballston	Single Tracking	13	2.4	--	100%
2	Eastern Market & Minnesota Ave to Benning Road	Total Shutdown	16	2.0	2.0	100%
3	Natl. Airport to Braddock Rd.	Total Shutdown	7	0.7	0.7	97%
4	Pentagon City to Natl. Airport	Total Shutdown	7	1.3	1.3	100%
5	East Falls Church to Ballston	Single Tracking	12	--	2.4	108%
6	Single Spring to Takoma	Single Tracking	7	1.1	--	105%
7	Shady Grove to Twin Brook	Single Tracking & Wknd Shutdown	12	4.4	--	95%
8	Franconia-Springfield to Van Dorn Street	Single Tracking	17	3.7	3.7	140%
9	West Falls Church to Vienna	Single Tracking Wknd Shutdowns	42	5.2	5.2	111%
10	NoMa Gallaudet U to Fort Totten	Total Shutdown	29	1.3	1.3	100%
11	East Falls Church to West falls Church	Single Tracking	24	2.2	2.2	
12	TBD					
13	TBD					
14	TBD					
15	TBD					
	Totals to Date		184	24.3	16.6	106% <sup>1</sup>

*Note 1: Average of the 10 surges on which WMATA has reported.*

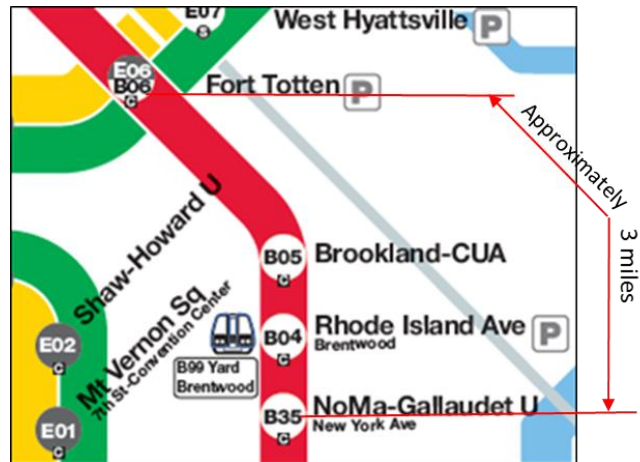
This next table shows the magnitude of the results of the ten surges completed over nearly 40 miles of track through November 30, 2016. See Appendix C for a more inclusive list of accomplishments for each surge.

ACTIVITY	MEASURE	QUANTITY TO DATE
Replace Crossties	each	26,374
Replace Fasteners	each	11,469
Replace Insulators	each	4,327
Weld Rail Joints	each	331
Replace Running Rail	linear feet	14,471
Rebuild Grout Pads	linear feet	9,709
Third Rail Cover Board	linear feet	19,262

## Work Completed in November 2016

Surge 10 and planning for Surge 11 were completed in November.

Surge 10, Red Line, No-Ma Gallaudet U to Fort Totten – This 25-day surge started Saturday, October 29, 2016 and finished Tuesday, November 22, 2016. The surge was a complete shutdown of the Red Line between Fort Totten and NoMa-Gallaudet Stations. During Surge 10, a separate contractor worked to demolish and rebuild sections of the concrete structure at Rhode Island Avenue Station. Planning and coordination for this surge started approximately one month before the surge was scheduled to begin. The following table shows the actual work WMATA accomplished during Surge 10.



	Task	unit	Completed During Surge
<b>Track</b>	Crosstie renewal	# crossties	2,028
	Insulator replacement	# insulators	795
	Ballast renewal	# tons	300
	Tamping	# linear feet	24,200
	Third Rail maintenance	# linear feet cover board	4,910
	Joint elimination	# joints welded	105
	Rail replacement	# linear feet	1,738
	Fastener renewal	# fasteners	1,245
	Switch renewal	# switches	6
<b>Structures</b>	Grout Pad renewal	# linear feet grout pad	5,737
	Track Bed cleaning	# linear feet	38,354
<b>Automatic Train Control System</b>	Intrusion Detection Warning System (IDW) refurbishment and replacement	# boxes	405
	Line Junction box repair/replacement	# boxes	26
	Track Junction box repair/replacement	# boxes	49
	Push Buttons box repair/replacement	# boxes	4
	Signals painted	# signals	32
	Signal conversion to LED lighting	# signals	15
<b>Traction Power System</b>	Power Cable repair/replacement	# cables	38

Surge 10 Punch List – At the end of Surge 10, each of the ten groups/departments working on the surge provided input to the consolidated punch list. The Surge 10 punch list contains 65 items. For each item, the punch list notes the chain marker location, a description of the item, the responsible department, and the Maximo work order number. The Maximo system enables WMATA to track progress completing the punch list work. The groups/departments will return to the area to complete work either during scheduled non-passenger service or through an additional weekend single tracking or shut down event.

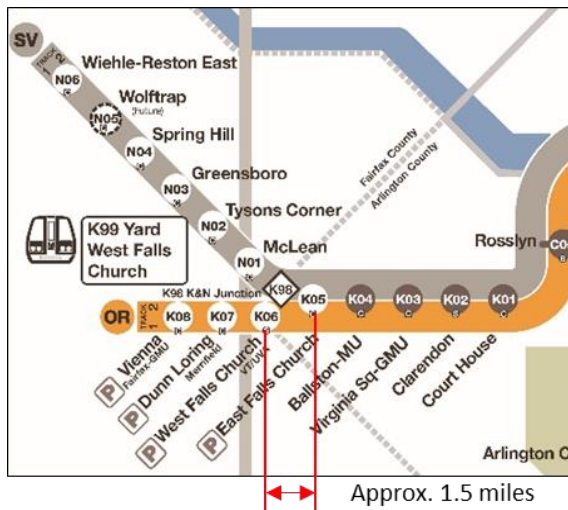
QICO conducts sampling when work groups advise them that the work is complete. Typically, QICO samples about 25% of the scheduled surge work. If QICO finds items within scope that the departments missed, these items are either corrected prior to the end of the surge, if possible, or added to the punch lists. QICO noted that they analyze the items captured in their tracking logs

looking for trends and recurring deficiencies, and provide that information back to the departments for corrective action.

The PMOC reported in the September 2016 SafeTrack report that WMATA is developing a procedure titled, “SafeTrack Work Documentation Protocols.” Revision 0, dated 10/07/2016, was provided to the FTA on 10/07/2016. The document is being refined with further input from SafeTrack, the working departments, and QICO. SafeTrack reported that WMATA continues to review the procedure. *The procedure is expected to be published on January 31, 2017.*

## **Work Planned for December 2016**

Surge 11, Orange Line, East Falls Church to West Falls Church – also a 25-day surge, is scheduled to start November 28, 2016, and end on December 22, 2016. Surge 11 will be a continuous single tracking. SafeTrack issued its pre-surge Coordinated Work Plan (CWP) on November 24, 2016. This nine-page CWP defines the protected and actual work limits, barrier locations, phases of the work, lock-out-tag-out instructions, and location of mobile command, local hospitals, parking for workers and essential phone numbers, among other information. Also published on November 24, 2016 were the seven final Scope of Work documents for each department/group working on the Surge 11. That scope of work can be summarized as follows:



- Replace approximately 1,400 crossties
- Replace 110 insulators
- Replace approximately 8,200 feet of rail
- Convert 4 Signals to use of LEDs
- Replace 20 pigtails and 8 transition cables
- Refurbish 320 IDW boxes
- Reset drain covers
- Inspect, repair, and secure telephone and fiber optic cabling

## **2. Program Cost**

### **SafeTrack Program CIP0024**

Preliminary Estimated Budget	Board Approved CIP0024 FY16-FY17 Budget	Expenditures Thru November 30, 2016	Percent Approved Budget Expended
\$118, 797,984	\$133,226,892	\$82,243,015	62%
Discussion of Variances	<i>There are no variances.</i>		
Discussion of Funding sources	Funding for SafeTrack is from Passenger Rail Investment and Improvement Act (PRIIA), §5307 & §5337 formula funds, and <i>short-term borrowing</i> .		
Contingency	\$17,661,436	<i>This is 15% of the revised estimated cost.</i>	

### 3. Program Schedule

For surges 1 through 10, the bar chart in Appendix “J” reflects actual dates the work was accomplished. The schedule also shows WMATA’s plan for Surge 11. The dates for Surges 12, 13, 14, and 15 are to be announced in early January 2017.

### 4. Environmental Mitigation Measures

During each surge, WMATA continues to perform maintenance on drainage facilities and clean up trash along the track right of way. *During Surge 10, WMATA cleaned 38,354 linear feet of track bed of trash and vegetation.*

### 5. Program Management Capacity and Capability

At the *December 20, 2016* monthly PMOC oversight meeting, the Director for SafeTrack introduced the Reports Engineer, Ms. Diane Mitchell. WMATA will include a description of the duties and responsibilities of the Reports Engineer in *Revision 1 to the PMP*. WMATA and SafeTrack organization charts are shown in Appendix D of this report.

### 6. Quality Assurance/Quality Control (QA/QC)

Quality Plan – Rather than have a separate Quality Plan, PMP Section 9, Quality Control and Quality Assurance, will reference existing WMATA quality documents and describe the process by which the various responsible WMATA departments control and QICO assures the quality of the work. *In brief, the PMP states:*

- *Maintenance Management [the departments] are responsible for quality control; they*
  - *Perform quality inspections*
  - *Complete, sign, and maintain QC records*
- *QICO is responsible for quality assurance by*
  - *Verifying quality of the work*
  - *Auditing and verifying the effectiveness of the quality control program*
  - *Performing sample inspections*
  - *Analyzing trends and recommending corrective actions*

The PMP included a chart of QA/QC activities performed by both the maintenance groups and the Office of Quality and Internal Compliance (QICO). The maintenance groups involved in SafeTrack are listed in the table below. The QA/QC chart is included again in this month’s report in Appendix E. It provides a picture of the comprehensiveness of QICO’s pre-surge inspection.

<i>WMATA Maintenance Department</i>	<i>Four Letter Reference</i>
<i>Automatic Train Control</i>	<i>ATCM</i>
<i>Track</i>	<i>TRST</i>
<i>Structures</i>	<i>TRST</i>
<i>Communications</i>	<i>COM</i>
<i>Traction Power Maintenance</i>	<i>TRPM</i>
<i>Information Technology</i>	<i>IT</i>
<i>Plant Maintenance</i>	<i>PLNT</i>
<i>Material &amp; Inventory Planning</i>	<i>MIPN</i>

Quality Reference Standards – The following documents, listed by department, provide WMATA’s standards for the quality of maintenance work performed on SafeTrack work.

*TRST*

- *WMATA 1000 – Maintenance and Inspection Manual*
- *WMATA 2000 – Track Structure Maintenance Control Policy*

*ATCM*

- *ATC 1000 – Automatic Train Control Instructions for Testing and Inspection of ATC Apparatus and Systems*
- *ATC 2000 – System Integrity Maintenance Practices*
- *ATC 3000 – Preventive Maintenance Instructions and technical Procedures Manual*

*IT-NCS*

- *Information Technology SOP – IT-NCS-OPS-001*
- *Emergency Trip Station*
- *Preventive Maintenance Inspection*

*TRPM*

- *SMNT POWR ETS – 1092 Day Preventive Maintenance Inspection*
- *SMNT POWR Lighting Inspection and Relamping of WMATA Owned or Operated Facilities, Revision 4*

Pre-Surge Inspection for Surge 10 – In accordance with established procedures, QICO performs pre-surge inspections during which it identifies defects in the surge areas. *The Surge 10 Quality Pre-Surge Inspection took place on October 20, 2016.* QICO provided its findings to the departments to aid them in the development of their scopes of work for Surge 10. QICO’s report of its pre-surge inspection is dated *November 11, 2016.* Section 3 of the “Quality Pre-Surge Report” for Surge 10 contains a table that summarizes the deficiencies noted during QICO’s pre-surge inspection. This table *was* included in Appendix F of the *October* report.

During the Surge – Through daily surge inspections, QICO compiles a log with condition(s) noted as site condition, safety, and quality of work; these item(s) are then tracked daily for status change. A portion of the tracking log for Surge 10 is located in Appendix G of this report.

Post-Surge – According to the SafeTrack Coordination Team, after each surge,

[T]hree reports are generated: SafeTrack generates the “Punch List Report.” This is a compilation of the punch lists generated by each work group. QICO generates the final “QICO Sampling and Verification Report.” Any defects captured during sampling is added to the compiled Punch List Report. QICO then generates [a] “Closeout Report” which includes a summary of what happened during the surge, wins/losses and a set of recommendations, discrepancies tracked during the surge, and all daily reports from QICO field team inspectors. The Punch List Report is a report of in-scope work not accomplished in each surge and any defects in the work performed found by QICO after the completion of the surge (also noted in the Sampling and Verification Report).

This Punch List is turned over to the maintenance departments, which prioritize the work items by:

- Speed Restrictions / Emergency Services
- Punch list items prioritized by risk, safety, & track access

The SafeTrack coordination team has developed SafeTrack Work Documentation Protocols, Revision 0, and dated 10/07/2016. This document describes the process for documenting the work delivered by the SafeTrack Surges. It references the use of the “Maximo Asset Management Module” for tracking surge punch list items. Documentation is discussed further in Revision 1 to the SafeTrack PMP in Section 10.1.1.

QICO Closeout Report for Surge 10 – In accordance with established procedures, QICO performed a post-surge quality assurance inspection of the Surge 10 work zone. The Surge 10 final walk-through took place on November 22, 2016. As a result of that walk-thru and other quality inspections, Section 6.5 of its Closeout Report dated December 12, 2016, states:

*QICO concluded that the Surge 10 work area was safe to return to revenue service. However, QICO leaves open the option to conduct follow-up verification on the status of “Open” Surge 10 QA Tracking Log items and maintenance group punch list items.*

Project Audit – *QICO reported that it will publish the project/program audit schedule early in 2017. The SafeTrack audit will measure how well the SafeTrack Coordination Team and WMATA departments follow the project management plan and the various WMATA procedures regarding contract administration, procurement, safety, security and quality.*

## **7. Safety and Security**

- Safety and security are addressed in WMATA’s procedures for performance of track work. The PMOC has received this document and will review it in the coming month. However, the PMOC and FWSO have reviewed available documents and completed the FTA’s Safety and Security Checklist shown in Appendix H of this report.
- As a part of its safety and security program, WMATA has developed an outreach program to keep the public apprised of the plans for each surge. As a part of the outreach program, the WMATA public outreach team continues to inform riders about the upcoming surges and the impact to their commute. Informational material is provided to explain safety risks, train delays, bus schedules, and contact information available to the riders.

## **8. Contract Administration**

- Administration of third-party contracts related to SafeTrack is the responsibility of WMATA’s Track and Structures Department (TRST). In November 2016, the PMOC will review the roles and responsibilities for contract administration activities. Currently, according to the budget report, there are three contractors working on SafeTrack: G.W. Peoples Construction Company, Inc., Crane Services Company, Inc., and Crane Masters, Inc.
- DBE Participation – The PMOC has requested a summary of the DBE goals for the SafeTrack program. They are to be provided in December.

## **9. Program Risk**

- *The SafeTrack management team has published a risk register in Revision 1 to its draft PMP. The SafeTrack Risk Register includes a mitigation/response plan for each risk identified. This risk register will be reviewed by the PMOC as a part of the review of the entire Revision 1 PMP.*

#### **10. Action Items**

- Action Items are shown in Appendix I of this report.



## APPENDICES

APPENDIX A – ACRONYMS AND ABBREVIATIONS .....	17
APPENDIX B – MAP OF WMATA’S RAIL TRANSIT SYSTEM .....	20
APPENDIX C – SAFETRACK WORK COMPLETED TO DATE .....	21
APPENDIX E – SAFETRACK QC / QA COORDINATION PROCESS .....	24
APPENDIX F – SUMMARY OF PRE-SURGE DEFICIENCIES – SURGE 10.....	25
APPENDIX G – SURGE 10 QUALITY ASSURANCE TRACKING LOG .....	28
APPENDIX H – SAFETY AND SECURITY CHECKLIST .....	29
APPENDIX I – ACTION ITEMS – SAFETRACK PROGRAM.....	34
APPENDIX J – SUMMARY SAFETRACK SCHEDULE .....	35

## APPENDIX A – ACRONYMS AND ABBREVIATIONS

ACC	Air Conditioner Condenser (a rooftop or a ground-mounted unit)
ADA	Americans with Disabilities Act
AGT	Aboveground Storage Tank
AHU	Air Handling Unit
APM	Assistant Project Manager
ARF	Authority Representative's Facility
ARRA	American Recovery and Reinvestment Act
AST	Aboveground Storage Tank
ATC	Automatic Train Control
ATO	Automatic Train Operation
BAFO	Best and Final Offer
BFMP	Bus Fleet Management Plan
BMNT	Office of Bus Maintenance
BMP	Best Management Practice for storm water (by Maryland Dept. of Environment)
BOM	Bill of Materials
BOMF	Bus Operations and Maintenance Facility
C-35A	WMATA Form for Work Authorization
CA	Conditional Acceptance
CCB	Car Control Building at New Carrollton Rail yard
CCTV	Closed Circuit Television
CENI	Chief Engineer Infrastructure
CIP	Capital Improvement Program
CMF	Car Maintenance Facility (a building in a rail yard)
CMB	Car Maintenance Building
CNG	Compressed Natural Gas
COUN	WMATA's Office of General Counsel
CPM	Critical Path Method (Schedule)
CPDO	Capital Project Delivery Office (office responsible for the SIRP)
CPMO	Capital Project Management Office
CPN	Contractor Proposal Number
CSP	Construction Safety Program
CSX	The name of a Class 1 Freight Railroad
CWP	<i>Coordinated Work Plan</i>
D-B	Design-Builder
DAS	Distributed Antenna System
DDOE	District of Columbia Department of the Environment
DEF	Diesel Exhaust Fluid
ENSS	WMATA Engineering Support Services
ETS	Emergency Trip Station
FA	Force Account
FACP	Force Account Capital Projects
FTA	Federal Transit Administration
FWSO	FTA's WMATA Safety Oversight Office
FY	Fiscal Year
GOTRS	General Orders/Track Rights System

HAZMAT	Hazardous Materials
HVAC	Heating, Ventilating, and Air Conditioning
IDW	Intrusion Detection Warning
ICE	Independent Cost Estimate
IEEE	Institute of Electrical and Electronic Engineers
IFC	Issued for Construction
IRPG	Infrastructure Rehabilitation Program
JOC	Job Order Contract
LEED	Leadership in Energy and Environmental Design
MAXIMO	WMATA's Enterprise Maintenance Management System
MCAP	Major Capital Project (as defined by WMATA)
MCX	Medical Center Crossover
MOW	Maintenance of Way, a personnel qualification by CSX
NCN	Non-conformance Notice
NTP	Notice to Proceed
OMBS	WMATA's Office of Management and Budget Services
O&M	Operation and Maintenance
OFS	Order for Services
NOV	Notice of Violation
O/B 1	Orange/Blue Lines 1 Contract
PA	Public Address
PCCI	Potomac Construction Company, Inc.
PCN	Proposed Change Notice (from the contractor)
PCO	Pending Change Order
Pepco	Potomac Electric Power Company
PG	Prince George's (County)
PLNT	Office of Plant Maintenance
PM	Project Manager
PMOC	Project Management Oversight Consultant
PMP	Project Management Plan
PPLE	Program, Planning and Energy
PRMT	WMATA's Office of Procurement
QA	Quality Assurance
QAP	Quality Assurance Plan
QICO	WMATA's Department of Quality and Internal Compliance Operations
QPRM	Quarterly Progress Review Meeting
RAMP	Real Estate Acquisition Management Plan
RF	Radio Frequency
RFMP	Rail Fleet Management Plan
RFP	Request for Proposal
RFQ	Request for Qualifications
RSA	Rail Service Adjustment
RTU	Remote Terminal Unit
SCADA	Supervisory Control and Data Acquisition
S&I	Service and Inspection
SCI	Substantial Completion Inspection
SCWG	Safety Certification Working Group

SOW	Scope of Work
SHPO	State Historical Preservation Office
SIRP	Systemwide Infrastructure Rehabilitation Program
S/O	Switch Order (needed for removal of AC power)
SOA	State Oversight Agency (for Safety and Security) [formerly SSOA]
SPM	Senior Program Manager (Most senior WMATA manager on a project)
SSCP	Safety and Security Certification Plan
SSCMP	Safety and Security Certification Management Plan
SSMP	Safety and Security Management Plan
SSP	System Security Plan
SSPP	System Safety Program Plan
SSPS	System Safety Program Standards
SSWP	Site Specific Work Plan
T&E	Trainman and Engineman, a personnel qualification by CSX
TAES	Track Allocation & Escort Support Office at WMATA
TAMS	Transit Asset Management System
TASS	Track Access Support Services
TBS	Tiebreaker Station
TCR	Train Control Room
TPSS	Traction Power Substation
TRST	WMATA's Department of Track and Structures
TSSM	Track and Structures – System Maintenance
TTCF	Test Track and Commissioning Facility
TUN	Temporary Use Notice
TVA	Threat Vulnerability Analysis
UPS	Uninterrupted Power Supply
UST	Underground Storage Tank
VEF	Ventilation & Exhaust Fans
WMATA	Washington Metropolitan Area Transit Authority
WSSC	Washington Suburban Sanitary Commission
YOB	Yard Operations Building

## APPENDIX B – MAP OF WMATA's RAIL TRANSIT SYSTEM



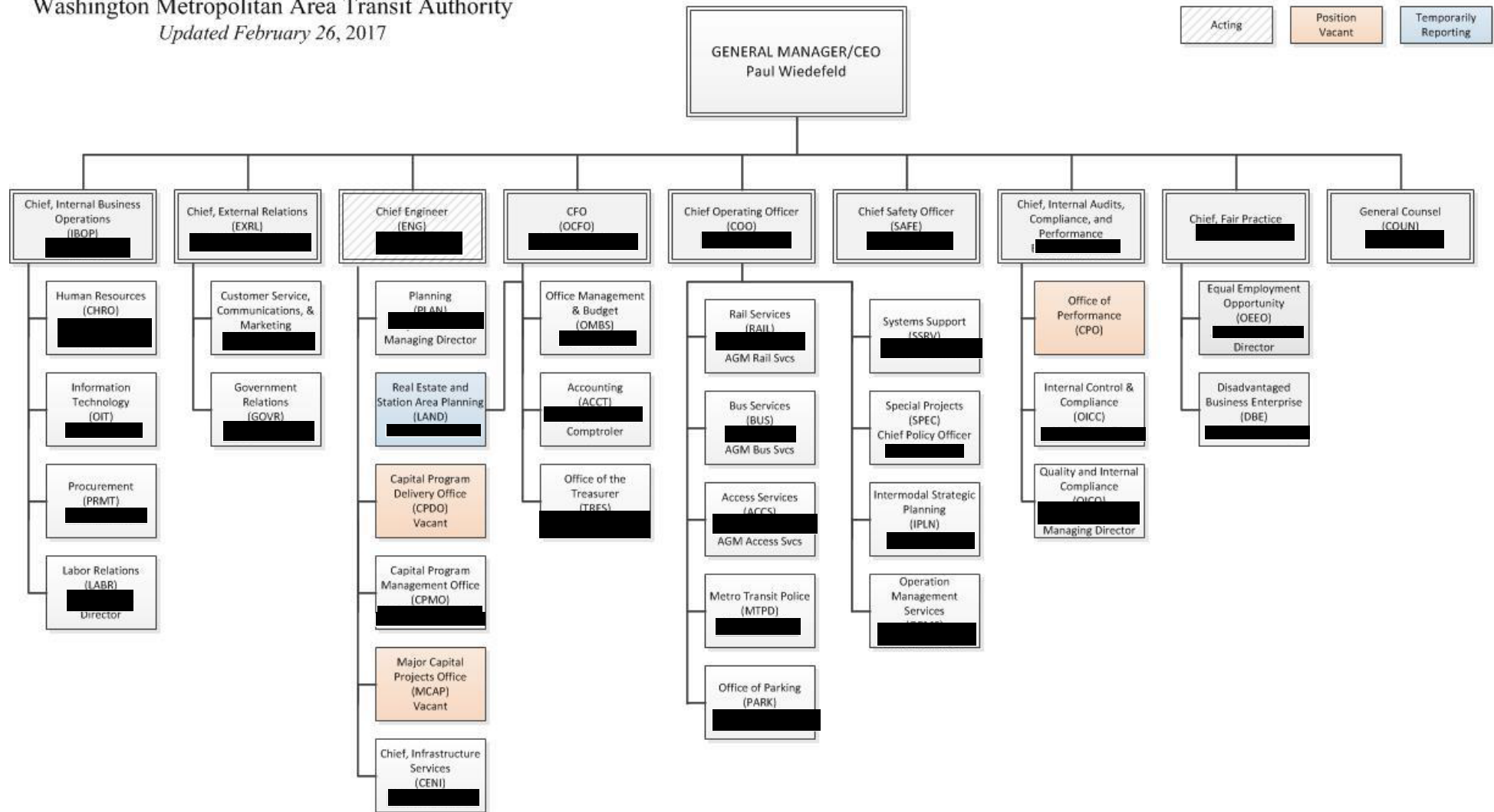
## APPENDIX C – SAFETRACK WORK COMPLETED TO DATE

As of November 30, 2016

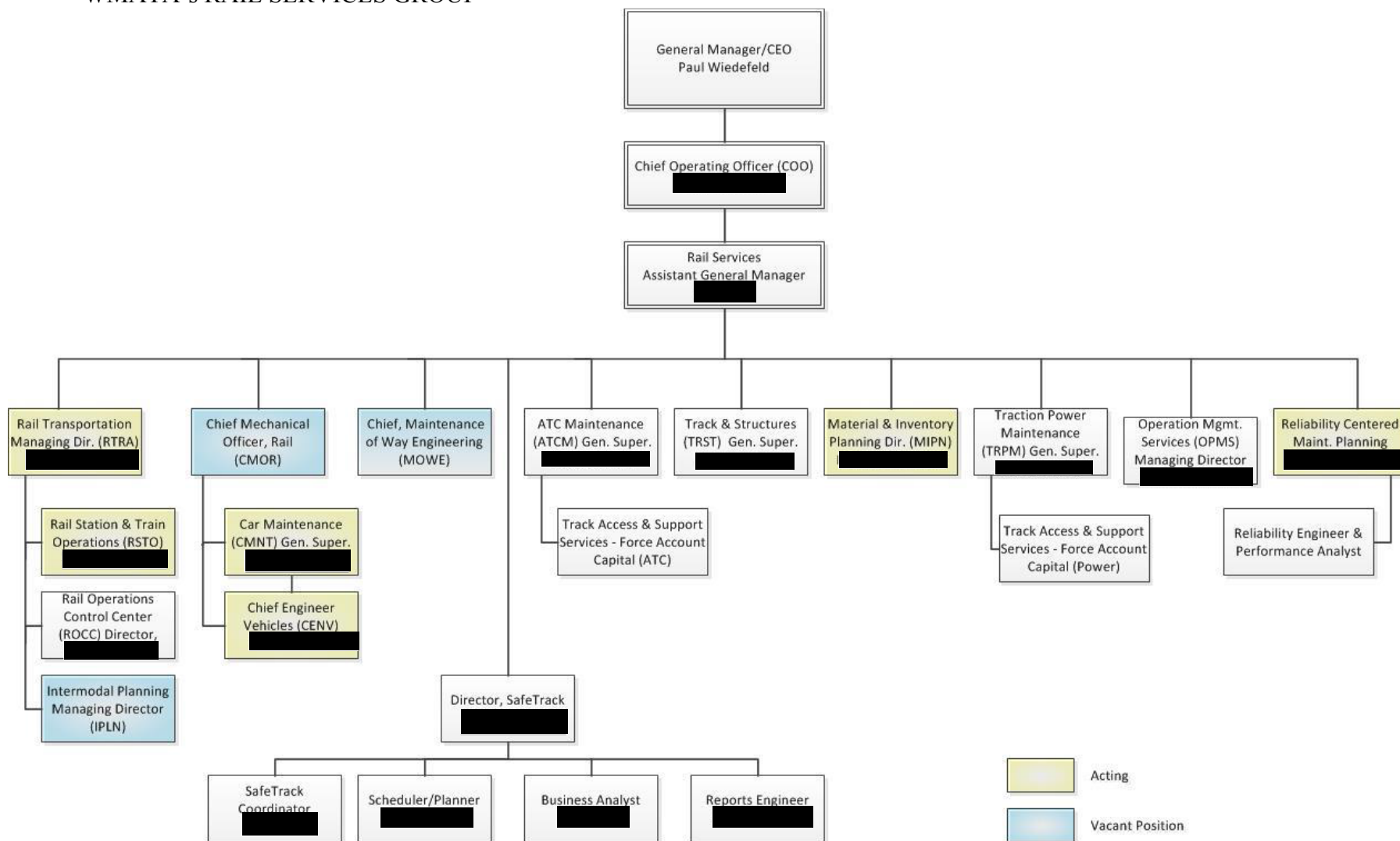
Surge No.	Crosstie Renewal (each)	Insulator Renewal (each)	Fastener Renewal (each)	Stringer Rail Renewal (feet)	Joints Welded (each)	Grout Pad Renewal (feet)	Tunnel Light Repair (each)	Power Cables (each)	Third Rail Cover Board (feet)	IDW Boxes (each)	Signal Conversion to LED (each)	Track Bed Cleaning (feet)	Emergency Trip Station Repair (each)
1	1,856	541	2,214	3,184	16	208	17	54	410	208	0	3,150	0
2	533	235	2,116	1,745	10	2,005	140	183	642	0	12	3,160	13
3	1,327	233	1,062	78	6	800	355	20	170	0	0	0	19
4	81	31	2,463	2,734	26	959	178	54	310	0	0	3,200	0
5	1,405	121	2,369	4,680	24	0	242	79	820	0	0	5,110	0
6	1,311	496	0	312	14	0	0	20	1,280	0	0	8,129	0
7	3,572	1,120	0	0	6	0	0	72	2,000	62	12	1,692	0
8	7,102	353	0	0	27	0	0	52	230	500	16	16,180	0
9	7,159	402	0	0	97	0	0	225	8,490	1,090	16	30,021	0
10	2,028	795	1,245	1,738	105	5,737	0	38	4,910	405	15	38,354	4
11													
12													
13													
14													
15													
Totals	26,374	4,327	11,469	14,471	331	9,709	932	797	19,262	2,265	71	108,996	36

## APPENDIX D – ORGANIZATION CHARTS & DESCRIPTION

Washington Metropolitan Area Transit Authority  
Updated February 26, 2017

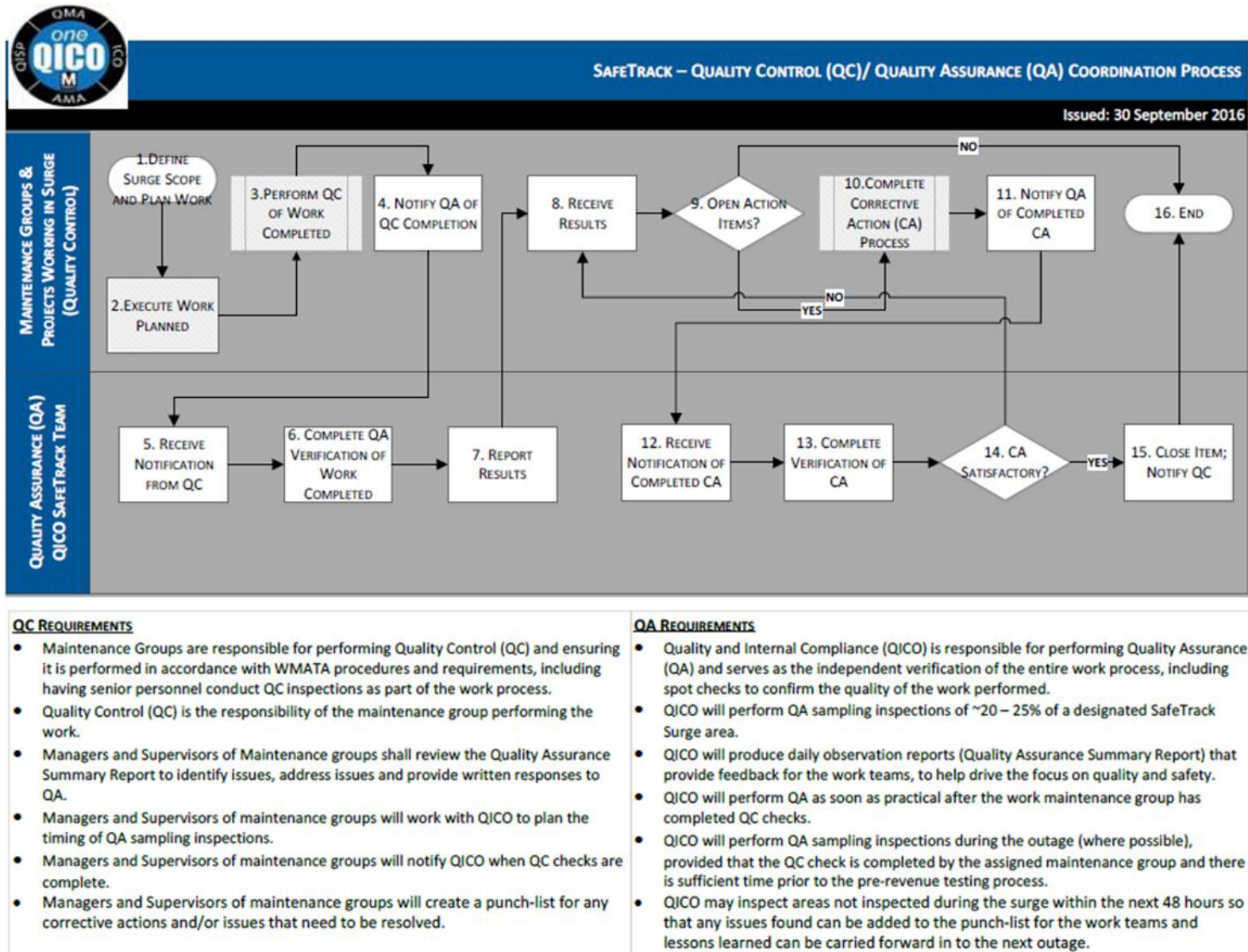


## WMATA's RAIL SERVICES GROUP






## APPENDIX E – SAFETRACK QC / QA COORDINATION PROCESS



## APPENDIX F – SUMMARY OF PRE-SURGE DEFICIENCIES – SURGE 10

(Dated 11/11/2016)

<div>  <h3>Summary of Deficiencies Noted During Pre-Surge Inspection</h3> </div>						
Item	Deficiencies, Track B1	Deficiencies, Track B2	Deficiencies at B&E Connector	Maximo Number	Within Scope of Work (Y/N)	Asset Owner
Defective Cross Ties	547	1364	176	Track 1 WO# 12712916, Track 2 WO# 12750191	Y	TRST
In-Operative Broken or Cracked Insulators	11	10	0	Track 1 WO # 13002282, Track 2 WO # 13002290	Y	TRST
Missing or Broken Cover Boards	41	39	1	Track 1 WO# 12166908, Track 2 WO# 12177503	Information not Available	TRST
In-Operative Tunnel Lights	2	0	21	Not Available	Information not Available	TRPM
Broken or Missing Tunnel Light Covers	4	1	0	Not Available	Information not Available	TRPM
Missing Chain Marker Sign	13	10	0	Track 1 WO# 12576288	Information not Available	TRST

Missing, Broken Spike	4	10	0	Track 2 WO# 13042285	Information not Available	TRST
Missing Clips	0	34	0	Not Available	Information not Available	TRST
ETS Box Label (Int. or Ext.)	2	2	3	Not Available	Information not Available	TRPM
Defective/Missing ETS Box Door	1	1	0	Not Available	Information not Available	TRPM
Non-operational ETS Light	1	2	1	Not Available	Information not Available	TRPM
ETS Phone (No Dial Tone)	2	2	0	N/A	Y	IT/NCS
ETS Fire Extinguisher (Tunnel Only)	0	0	0	N/A	N/A	
Missing or Broken Anchor Arm	9	7	0	Track 1 WO# 11111546, Track 2 WO# 12177501	Information not Available	TRST
Missing Insulator Bolts	0	0	0	Track 2 WO# 11907369	Information not Available	TRST
Broken/Cracked Grout Pad	7	6	0	Track 1 WO # 13002282, Track 2 WO # 13002290	Y	TRST
Rail Head Chip	2	0	0	Track 1 WO# 12985843, Track 2 WO# 12444038	Information not Available	TRST

Low Ballast (shoulder/crib)	2	1	0	Track 1 WO# 10570213, Track 2 WO# 10501859	Information not Available	TRST
Broken/Loose Studs	7	18	0	Track 1 WO# 12978972, Track 2 WO# 12684200	Information not Available	TRST
Rail Head Checking	1	4	0	Track 1 WO# 12985855, Track 2 WO# 9198265	Information not Available	TRST
End Approach Worn Third Rail	1	1	0	Track 1 WO# 10961025,	Information not Available	TRST
Cable Insulation Stripped	0	1	0	Track 2 WO# 12615274	Information not Available	
Miscellaneous	1	1	0	Not Available	Information not Available	TRST









## APPENDIX G – SURGE 10 QUALITY ASSURANCE TRACKING LOG



### METRO SAFETRACK ASSURANCE QUALITY ASSURANCE TRACKING LOG

Observations According to Priority and Status				
Priority	Total Observations	Open	Closed	% Closed
Low	25	16	9	36%
Medium	6	6	0	0%
High	2	0	2	100%
<b>Total</b>	<b>33</b>	<b>22</b>	<b>11</b>	<b>33%</b>

Surge Information						Priority and Status					First Line of Defense	
QICO Report Date	Surge Day#	Track	Start Chainage (Without the + Sign)	Type	Subtype	Priority*	Status	Description of Discrepancy	Before Picture (Objective Evidence)	After Picture (Resolution)	Asset Owner	Action
11/23/16	25	B2	22400	Quality	Pre-Surge Defect	Low	Closed	Joint Bar Should Be UT Tested and Removed		Closed during 11-22-2016 Closeout walkthrough	TRST	(none)
11/22/16	22	B2	22300	Quality	Pre-Surge Defect	Low	Closed	High Ballast Around Impedance Bonds			TRST	(none)
11/17/16	19	B2	20075	Quality	Pre-Surge Defect	Low	Closed	Track Junction Box not Connected			TRST	(none)
11/08/16	10	B1	19500	Quality	Surge Defect	Low	Closed	Broken Contact Rail Longitudinal Anchor		Closed during 11-22-2016 Closeout walkthrough	TRST	(none)

**APPENDIX H – SAFETY AND SECURITY CHECKLIST**
**Updated 2/6/17**

Project Overview	SafeTrack Program		
Project Mode	Rail		
Project Phase	Construction		
Project Delivery Method	Force Account & Third Party Contractor		
Project Plans	Version	Review By FTA	Status
Safety and Security Management Plan (SSMP)		N/A	SSMP not required for SafeTrack, FTA C 5800.1 4. Applicability.
Safety and Security Certification Plan (SSCPP)	March 2015	Pending	The March 2015 SSCP or a project specific SSCP was not issued to FTA.
System Safety Program Plan (SSPP)	January 2017	Yes FWSO	Draft SSPP submitted to FWSO and currently under review.
Security and Emergency Preparedness Plan (SEPP)	2014	Pending	This SSI document must be reviewed on site. The last TOC Letter dated September 3, 2014 approved WMATA’s 2014 SEPP. .
Construction Safety and Security Plan (CSSP)	March 2013	Y	WMATA “Construction Safety and Environmental Manual” provides guidelines for WMATA construction, maintenance, and rehabilitation projects. Contractors are required to submit individual plans. WMATA employees follow safety rules outlined in their MSRPH.

<b>AREA OF FOCUS</b>	<b>Y/N</b>	<b>NOTES/STATUS</b>
<b>Safety and Security Authority</b>		
Is the Project Sponsor subject to 49 CFR Part 659 State Safety Oversight Requirements?	Y	FTA WMATA Safety Oversight (FWSO) has temporary direct responsibility and oversees any TOC activities. FTA "Oversight and Surveillance Plan" Version 1.7, September 2, 2016, defines responsibilities, requirements, processes, and activities to implement FTA's direct safety oversight of the WMATA Metrorail system and to ensure that these goals are achieved.
Has the State designated an oversight agency as per Part 659.9?	Y	TOC was designated per 659.9, and performs oversight responsibilities as directed by FWSO. See notes/status above.

Has the oversight agency reviewed and approved the Project Sponsor's Security Plan or SSPP as per 49 CFR Part 659.17?	Y	WMATA SSPP January 2015 was reviewed and approved by TOC. WMATA SSPP DRAFT 2017 has been received by FWSO and is currently under review.
Did the oversight agency participate in the last Quarterly Program Review Meeting?	Y	The FWSO did attend the QPRM held on November 14, 2016.
Has the Project Sponsor submitted its safety certification plan to the oversight agency?	No	The SSCP of March 20, 2012, was accepted by TOC on April 2012, however a March 2015 version is noted in the DRAFT 2017 SSPP that has not been provided to FTA.
Has the Project Sponsor implemented security directives issued by the Department Homeland Security, Transportation Security Administration?	N/A	DHS Coordination is to be addressed in Section 11 of the SSMP. A SSMP is not required for SafeTrack, FTA C 5800.1 4. Applicability.
<b>SSMP Monitoring</b>		
Is the SSMP project-specific, clearly demonstrating the scope of safety and security activities for this project?	N/A	WMATA's SSPP applies to this work instead of a separate SSMP.
Does the Project Sponsor review the SSMP and related project plans to determine if updates are necessary?	Open	PMOC coordination with and input from FWSO will determine this.
Does the Project Sponsor implement a process through which the Designated Function (DF) for Safety and DF for Security are integrated into the overall project management team? Please specify.	Open	PMOC working with FWSO is reviewing this.
Does the Project Sponsor maintain a regularly scheduled report on the status of safety and security activities?	Y	SafeTrack Monthly Reports issued to FWSO include a safety section with trends of increased RWP, personnel PPE compliance, OSHA recordable injuries by surge, etc.
Has the Project Sponsor established staffing requirements, procedures and authority for safety and security activities throughout all project phases?	Y	SSPP Section 3.0 and Appendix E.
Does the Project Sponsor update the safety and security responsibility matrix/organizational chart as necessary?	Y	SSPP is updated annually.
Has the Project Sponsor allocated sufficient resources to oversee or carry out safety and security activities?	Y	Two safety officers are assigned to construction safety by SAFE. The conduct field observations, inspections of work area, and compliance checks.

Has the Project Sponsor developed hazard and vulnerability analysis techniques, including specific types of analyses to be performed during different project phases?	Y	Section 6 of SSPP defines Hazard Management Program.
Does the Project Sponsor implement regularly scheduled meetings to track resolution of any identified hazards and/or vulnerabilities?	Y	FWSO holds weekly meetings with WMATA staff to address safety events, corrective action implementation, and other hazards.
Does the Project Sponsor monitor the progress of safety and security activities throughout all project phases? Please describe briefly.	Y	Two safety officers are assigned to construction safety by SAFE. The conduct field observations, inspections of work area, and compliance checks.
Does the Project Sponsor ensure the conduct of preliminary hazard and vulnerability analyses? Please specify analyses conducted.	N/A	SafeTrack is a maintenance activity with an existing system.
Has the Project Sponsor ensured the development of <u>safety design criteria</u> ?	Y	WMATA Manual of Design Criteria for Maintaining and Continued Operation of Facilities and Systems.
Has the Project Sponsor ensured the development of <u>security design criteria</u> ?	Y	Incorporated into WMATA Manual of Design Criteria for Maintaining and Continued Operation of Facilities and Systems.
Has the Project Sponsor ensured conformance with safety and security requirements in design?	Y	Materials are physically received by each Department's Materials Controls Group. The Materials Controls Group, briefed by the COTR regarding contract requirements, performs a physical inspection for accuracy and quality of the delivered order.
Has the Project Sponsor verified conformance with safety and security requirements in equipment and materials procurement?	Y	QICO performs quality inspections.
Has the Project Sponsor verified construction specification conformance?	Y	QICO tracks and reports on the results of maintenance and repair activities by the SafeTrack crews.
Has the Project Sponsor identified safety and security critical tests to be performed prior to passenger operations?	Y	WMATA runs a test train through the area. ATC uses ATC 1000, Track and Structures uses WMATA 1000 and WMATA 2000, and POWR uses SMNT POWR.
Has the Project Sponsor verified conformance with safety and security requirements during testing, inspection and start-up phases?	Y	The various departments working on SafeTrack under the Rail Services Group are responsible for verification. QICO verifies this.



Has the Project Sponsor evaluated change orders, design waivers, or test variances for potential hazards and /or vulnerabilities?	N/A	Work is being conducted by WMATA or under direct WMATA supervision. There are no change orders or waivers.		
Has the Project Sponsor ensured the performance of safety and security analyses for proposed work-arounds?	Y	SAFE has the responsibility for hazard mitigation with SafeTrack work and ensures mitigation with WMATA’s MSRPH and RWPM.		
Has the Project Sponsor demonstrated through meetings or other methods, the integration of safety and security in the following: <ul style="list-style-type: none"><li>• Activation Plan and Procedures</li><li>• Integrated Test Plan and Procedures</li><li>• Operations and Maintenance Plan</li><li>• Emergency Operations Plan?</li></ul>	N/A	SafeTrack is a maintenance activity. All work is being conducted with existing standards/procedures. Plans listed with this element are associated with new starts and system extensions.		
Has the Project Sponsor issued final safety and security certification?	N/A	Safety and Security Certification is not done with this work. SafeTrack is a maintenance activity. All work is being conducted with existing standards/ procedures. No new designs have been introduced and there are no system modifications.		
Has the Project Sponsor issued the final safety and security verification report?	N/A	Safety and Security Certification is not done with this work. SafeTrack is a maintenance activity. All work is being conducted with existing standards/procedures. No new designs have been introduced and there are no system modifications.		
Construction Safety				
Does the Project Sponsor have a documented/implemented Contractor Safety Program with which it expects contractors to comply?	Y	WMATA “Construction Safety and Environmental Manual” provides guidelines for WMATA construction, maintenance, and rehabilitation projects. Contractors are required to submit individual plans.		
Do the Project Sponsor’s contractor(s) have a documented company-wide safety and security program plan?	Open	Check G.W. Peoples, Crane Masters, and Crane Services Company, Inc. The PMOC is in the process of evaluating this.		
Do the Project Sponsor’s contractor(s) have a site-specific safety and security program plan?	Open	PMOC in coordination with and input from FWSO will determine this.		
Provide the Project Sponsor’s OSHA statistics compared to the national average for the same type of work.	Open	All SafeTrack Contracts	WMATA Recordable Rate	National Average
		WMATA	PMOC Verifying	PMOC Verifying
If the comparison is not favorable, what actions are being taken by the Project Sponsor to improve its safety record?	Open	PMOC coordination with and input from FWSO will determine this.		

Does the Project Sponsor conduct site audits of the contractor's performance versus required safety/security procedures?	Y	WMATA's QICO group monitors work quality and site safety and performs QC inspection consistent with Section 9 of the SafeTrack PMP.
<b>Federal Railroad Administration</b>		
If shared track: has Project Sponsor submitted its waiver request application to FRA? (Please identify specific regulations for which waivers are being requested)	N/A	No shared track. This is a heavy rail transit project. There is no FRA involvement.
If shared corridor: has Project Sponsor specified specific measures to address shared corridor safety concerns?		
Is the Collision Hazard Analysis underway?		
Other FRA required Hazard Analysis – Fencing, etc.?		
Does the project have Quiet Zones?		
Does FRA attend the Quarterly Review Meetings?		

## APPENDIX I – ACTION ITEMS – SAFETRACK PROGRAM

PR	ITEM	IDENTIFICATION	NATURE OF PROBLEM	D	A	I	COMMENTS	PMOC STATUS
2	2A	Incorporate PMOC comments on PMP Rev 0 and issue Revision 1.	No plan was developed before this project began.	Y	N	N	FTA & PMOC have discussed development of the PMP with the SafeTrack management team on several occasions. The SafeTrack team submitted Revision 0 of its PMP to the PMOC and FTA on 9/30/16. PMOC furnished review comments to FTA on 10/26/16. A PMP workshop with SafeTrack and PMOC was held on November 18, 2016.	R

### ITEM KEY

Subtask 2A CLIN 0002A – PMP Review      Subtask 2B CLIN 0002B – On-Site Monitoring

### LEGEND

#### PRIORITY (PR)

- 1- Most Critical
- 2- Critical
- 3- Least Critical

#### PROJECT SPONSOR ACTION

- D – Remedial Action Developed
- A – Remedial Action Approved
- I – Action Implemented

#### PMO CONTRACTOR STATUS

- R – Review On-going
- C – Completed – No further review required

**Note** – Items marked with a ‘C’ in the ‘PMO Contractor Status’ column will be dropped from future reports.

## APPENDIX J – SUMMARY SAFETRACK SCHEDULE

Surge	Start	Finish	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Surge 1 — Ballston - East Falls Church	4-Jun-16	16-Jun-16												
Surge 2 — Eastern Market - Benning Rd & Minn. Av	18-Jun-16	3-Jul-16												
Surge 3 — Natl. Airport - Braddock Rd	5-Jul-16	11-Jul-16												
Surge 4 — Natl. Airport-Crystal City-Pentagon City	12-Jul-16	18-Jul-16												
Surge 5 — Ballston - East Falls Church	20-Jul-16	31-Jul-16												
Surge 6 — Takoma - Silver Spring	1-Aug-16	7-Aug-16												
Surge 7 — Shady Grove - Twinbrook	9-Aug-16	21-Aug-16												
Surge 8 — Franconia-Springfield - Van Dorn St	27-Aug-16	11-Sep-16												
Surge 9 — Vienna - West Falls Church	15-Sep-16	26-Oct-16												
Surge 10 — NoMa - Fort Totten	29-Oct-16	22-Nov-16												
Surge 11 — East Falls Church - Vienna	28-Nov-16	21-Dec-16												
Surge 12 — Braddock Rd - Huntington/Van Dorn St	TBD													
Surge 13 — Rosslyn - Pentagon	TBD													
Surge 14 — Braddock Rd - Huntington/Van Dorn St	TBD													
Surge 15 — College Park - Greenbelt	TBD													
Cherry Blossom Festival	20-Mar-17	17-Apr-17												

Inauguration Week

To be announced in  
early January 2017