United States Department of Transportation
Federal Transit Administration

Inspection Form

Form FTA-IR-1

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160703-WMATA-MRV-1		
	2016	07	03				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	TRST	**Sub- Department**	
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[redacted]		[redacted]		[redacted]		
Inspection Location	SafeTrack Surge 2-D&G Junction						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK – RWP – OBS	TRK – GEN - OBS				
Inspection Units	1	1				
Inspection Subunits	1	1				
Defects (Number)	0	17				
Recommended Finding	No	No				
Remedial Action Required	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Job Safety Briefing			**Activity Code**	TRK	RWP	OBS	
Job Briefing Employee Name/Title	RWIC		**Accompanied Inspector?**	Yes	**Out Brief Conducted**	No	**Time**	0800-0815	**Outside Shift**	No
Related Reports			**Related CAPS / Findings**							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference					
	RWPM									
	MSRPH									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X									X	
Line(s)	D-Line	**Track Number**	1 and 2	**Chain Marker and/or Station(s)**	From	To					
Vehicles	Head Car Number	Number of Cars	**Equipment**								
Description	The briefing was comprehensive and appropriate for this walking inspection. Inaccessible Track was our method of protection. WMATA established mobile command center for the entire work zone at Minnesota Avenue. WMATA established uniform job safety briefing checklist to ensure all details are covered and established a specific radio channel for work zone communications (Ops 12). WMATA established a briefing location for each work zone entry point. Upon						**Number of Defects**	0		
							Recommended Finding?	No		
							Remedial Action Required?	No		
							Recommended Reinspection?	No		

Inspector in Charge - Signature	TERRELL A WILLIAMS Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.07.21 14:35:01 -04'00'	**Date** 07/03/2016
Inspector in Charge – Name Terrell Williams	**Inspection Team** Mike Vitale, Rachael Wenger	

	receiving and signing off on briefing, all employees and contractors are issued a wristband to indicate their receipt of the safety briefing.		
Remedial Action	None		

Inspection Activity #	2	**Inspection Subject**	Work zone inspection – SafeTrack Surge #2 Work Zone			**Activity Code**		TRK	GEN	OBS
Job Briefing Employee Name/Title	TRST Units 634 and 677			**Accompanied Inspector?**	Yes	**Out Brief Conducted**	No	**Time**	0900-1300	**Outside Shift**	No
Related Reports				**Related CAPS / Findings**						

Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference
	TRST 1000				
	MSRPH				

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X								X	X	

Line(s)	D-Line	**Track Number**	1 and 2	**Chain Marker and/or Station(s)**	From	To
					159+50	308+00

Vehicles	Head Car Number	Number of Cars	**Equipment**	

Description			
	FWSO walked the SafeTrack Surge #2 work zone on the D Line tracks 1 and 2 from 302+00 to 159+50 WMATA completed a substantial amount of work in this area, including fastener renewal, third rail expansion joint elimination, and traction power cable, stub up, cable boot, grout pad, and communications cable replacement. All work in this area was not accomplished at the time of this inspection. FWSO was informed that additional work will be performed the week of July 4. While the FWSO team observed many instances of poor installation of stud bolts in both existing and new installations, the team did not note any track conditions warranting a speed restriction or greater required protection as per the WMATA's TRST 1000 manual. WMATA must do more to ensure that all installations are made to the required depth. FWSO continued to note clogged drains and mud in the tunnels. This includes a completely clogged drain at D1 220+50 and mud and debris accumulating under ATC equipment at D1 187+70. WMATA must ensure these drains are cleared to ensure that water and mud do not build up. Other Defects: • D1 278+00 Wheel burn on running rail • D1 278+00 Fastener nuts in need of torqueing • D1 265+00 Chain Marker Sign to be replaced • D1 264+00 Construction Debris on Right of Way • D1 263+20 Cover board missing • D1 244+50 Unsecured Emergency Guard Rail • D1 188+70 Obstacle on Safety Walk • D1 188+40 Obstacle on Safety Walk • D2 174+00 Improperly sealed cables • D2 192+30 Tunnel Light out • D2 262+50 Unsecured Emergency Guard Rail • D2 263+60 Missing Emergency Guard Rail • D2 264+20 Unsecured Emergency Guard Rail • D2 264+90 Unsecured Emergency Guard Rail • D2 269+10 Unsecured Emergency Guard Rail	**Number of Defects**	17
		Recommended Finding?	No
		Remedial Action Required?	Yes
		Recommended Reinspection?	Yes

Remedial Action	• WMATA must secure all emergency guard rails on aerial structure • WMATA must remove all obstructions from safety walk at D1 188+70 and D1 188+40 • WMATA must mitigate rail burn at D1 278+00 • WMATA to properly torque all rail fastener nuts throughout work zone. • WMATA to replace chain marker sign at D1 265+00 • WMATA to remove construction debris from work area • WMATA to replace Tunnel light at D1 192+00 • WMATA to replace cover board at D1 263+00 • WMATA to properly seal cables at D2 174+00

Photos:

Construction Debris on Right of Way

Missing Third Rail Coverboard

Unsecured Emergency Guard Rail

Obstacle on safety walk

Improperly Sealed Communications Cables

Wheel Burn on Running Rail

United States Department of Transportation
Federal Transit Administration

Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160707-WMATA-RPM-1		
	2016	07	07				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	TRST SMNT	**Sub- Department**	Production & Maintenance ATC & POWR

	Name	Email	Office Phone	Mobile Phone
Rail Agency Department Contact Information	[redacted]	[redacted]	[redacted]	[redacted]
Inspection Location	C-Line Tracks 1&2 – National Airport to Braddock Road			

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	TRK-GEN-OBS				
Inspection Units	1	1				
Inspection Subunits	3	1				
Defects (Number)	0	11				
Recommended Finding	No	No				
Remedial Action Required	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Roadway Worker Protection – Job Safety Briefing, Work Zone Set-up, Roadway Compliance			**Activity Code**	TRK	RWP	OBS	
Job Briefing Employee Name/Title	Track Unit 6014 provided the briefing accompanied by Track Unit 6216		**Accompanied Inspector?**	No	**Out Brief Conducted**	Yes – via email	**Time**	0530 – 1000	**Outside Shift**	No
Related Reports			**Related CAPS / Findings**							

Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference
	RWPM				
	MSRPH				

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X		X	

Line(s)	C-Line	**Track Number**	1 & 2	**Chain Marker and/or Station(s)**	From	To
					CM 375+00	CM 480+00

Vehicles	Head Car Number	Number of Cars	**Equipment**	

Inspector in Charge - Signature	TERRELL A WILLIAMS Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.07.12 09:37:39 -04'00'	**Date** **07/07/2016**
Inspector in Charge – Name **Terrell Williams**	**Inspection Team** **Robert Maniuszko**	

Description	Track Unit #6014 provided the briefing. The briefing is scripted and was very thorough. The topics covered are as follows: • Mobile Command Center (MCC), located at Alexandria Yard Facility, is the RWIC for the work zone. All requests for access must go through the MCC. • Safety Rule of the day was 4.18 – employees shall never walk backward • Due to expected temperatures employees and gang leaders were reminded to stay hydrated. If anyone did not feel well they should rest and hydrate. • Red Tag 2016187515A was in effect • All communication was to be on OPS #12 • MCC can be called at [redacted] • Inaccessible Track was the form of protection. Wood ties and shunts were located at the limits. • Review of the hot spots and blind spots was done • Hazards in the work zone include moving Roadway Maintenance Machines (RMM), Poor Lighting, Cables, tripping hazards • Closest Hospitals were Inova Alexandria and Mt. Vernon • Bathrooms were located within the work zone Roadway Observations: • WSAD's were in place. Several units were checked for proper calibration date. All were found in compliance. • RMM used movement alarms and operators were observed with flagman or in a position to observe direction of movement • One watchman was observed with a "W" disk and an operational air horn Set-Up: • At the National Airport end of the Work Zone an End of Work Mat, Shunts and Flashing strobes were observed. A wooden tie was observed as well.	**Number of Defects**	0
		Recommended Finding?	No
		Remedial Action Required?	No
		Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2	**Inspection Subject**	General Observations in the Work Zone				**Activity Code**	TRK	GEN	OBS	
Job Briefing Employee Name/Title	Track Unit 6014 provided the briefing accompanied by Track Unit 6216		**Accompanied Inspector?**	No	**Out Brief Conducted**	Yes – via email	**Time**	0530 – 1000	**Outside Shift**	No	
Related Reports			**Related CAPS / Findings**								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference						
	MSRPH										
	TRST 1000										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X		X	
Line(s)	C-Line	**Track Number**	1 & 2	**Chain Marker and/or Station(s)**	From	To					
					CM 375+00	CM 480+00					
Vehicles	Head Car Number	Number of Cars	**Equipment**								
Description	The following items were all observed within the work area. Some of the items are identified on the Surge 3 Work Scope Rev 00 provided by WMATA. FWSO has noted these items with the intent of verifying repair during follow-up inspections. FWSO was escorted by track unit #629 and TRST #5. On-going Activities:						**Number of Defects**	11			
							Recommended Finding?	No			
							Remedial Action Required?	Yes			
							Recommended Reinspection?	Yes			

	• Grout Pad Repairs • Fastener Replacement • Insulator Replacement • Tie Replacement • Chain Marker Sign Replacement • "Spongebob" tie replacement technique Observed Maintenance Items: • C1 CM 446+70 – ETS Box No Door • C2 CM424+00 – 3rd rail knocked off of insulator – several noted to be non-supporting as well • C2 CM408+20 – Loose Gage Rod • C2 CM407+90 – At the transition area from Direct Fixation to Ballasted Track the insulator is broken directly adjacent to a thrid rail joint • C2 CM406+50 and CM406+60 – grout pad under third rail insulators is crumbled. One insulator on its side, the other barely holding • C2 CM385+00 – ETS Box No Door • C2 CM376+30 – Right rail at rail joint no support – grout pad is crumbled • C1 CM388+55 – Rail joint at joint bar does not line up. (Scope indicates it will be renewed) • C1 CM391+60 3rd rail expansion joint cable has electrical tape wrapped around it. (Scope indicates these cables are to be replaced) • C2 CM424+00, CM439+70 and CM441+00 – heat kink areas – (TRST has just replaced ties in the area and will be making necessary repairs during tamping activities). • C2 CM445+00 – 3rd rail restraint needs repair • C2 CM462+00 – ETS box has No Door Three Items of question for WMATA: 1. On Track 2 there are new forms in place on the right rail beginning at CM 399+00. Indications are that a new grout pad will be poured in this area. The question pertains to the old forms on the left rail that start at CM397+00. This grout pad was never re-poured and appears to be deteriorated. Will this grout pad be repaired during this outage? 2. At approximately C2 CM409+00 the ballasted track begins a curve. During the inspection it was observed that none of the third rail insulator ties in the curve have sufficient shoulder ballast, the ends are exposed. Will ballast be added during this outage? 3. Many of the new ties had tie plates that covered the entire tie surface. When measured it appears that these ties are only 7 ¾" wide while other new ties are 9" wide. The narrower ties do not provide as much surface area where the screw spike go in as the wider ties. Is there a reason why the smaller width ties are used on main line track?		
Remedial Action	• WMATA to replace door on ETS Box at C1 CM 446+70. • WMATA to replace 3rd rail knocked off insulator at C2 CM424+00; several noted to be non-supporting as well. • WMATA to mitigate loose gage rod at C2 CM408+20. • WMATA to replace broken insulator directly adjacent to the third rail joint at C2 CM407+90. • WMATA to repair crumbling grout pad under third rail insulators at C2 CM406+50 and CM406+60. • WMATA to replace door at ETS Box at C2 CM385+00. • WMATA to repair crumbling grout pad and lack of support at right rail joint at C2 CM376+30. • WMATA to mitigate and follow up renewal of rail joint at joint bar that does not line up at C1 CM388+55. • WMATA to repair and follow up on 3rd rail expansion joint cables with electrical tape at C1 CM391+60. • WMATA to repair 3rd rail restraint at C2 CM445+00. • WMATA to replace door on ETS Box at C2 CM462+00.		

Photos:

Figure 1 - C2 CM407+90 - Broken insulator - 3rd rail joint

Figure 2 - C2 CM406+60 - broken insulator grout pad

Figure 3 - C2 CM376+30 - Right Rail Support - deteriorated grout pad

Figure 4 - C1 CM391+60 - 3rd Rail expansion joint cable with electrical tape

United States Department of Transportation
Federal Transit Administration

Inspection Form

Form FTA-IR-1

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160707-WMATA-TW-1		
	2016	07	07				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	Communications	**Sub- Department**	Training
Rail Agency Department Contact Information	Name	Email		Office Phone	Mobile Phone		
	[redacted]	[redacted]		[redacted]	[redacted]		
Inspection Location	Carmen Turner Facility 3500 Pennsy Drive Landover, MD 20785						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	COMM-TNG-OBS					
Inspection Units	1					
Inspection Subunits	0					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Radio Communication Training Pilot			**Activity Code**	COMM	TNG	OBS	
Job Briefing Employee Name/Title	[redacted], Director, Technical Skills & Maintenance Training		**Accompanied Inspector?**	Yes	**Out Brief Conducted**	Yes	**Time**	0900-1230	**Outside Shift**	No
Related Reports			**Related CAPS / Findings**	FTA-Rail-1-6-A Radio discipline is poor FTA-Rail-1-6-B Radio discipline is poor						

Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference
			N/A		

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
					X						X

Line(s)	N/A	**Track Number**	N/A	**Chain Marker and/or Station(s)**	From	To
					N/A	N/A
					N/A	N/A

Vehicles	Head Car Number	Number of Cars	**Equipment**	N/A
	N/A	N/A		

Description	FWSO Inspectors attended the WMATA pilot class titled 'WMATA Operations Radio Communication Training' at the Carmen Turner Facility. The Safety Management Inspections uncovered a lack of radio discipline. The training class was developed in response to WMATA Corrective Action Plan findings; FTA-Rail-1-6-A and FTA-Rail-1-6-B which cited poor radio discipline. The required action calls for WMATA to establish an approach for communicating and managing all speed	**Number of Defects**	0
		Recommended Finding?	No
		Remedial Action Required?	No
		Recommended Reinspection?	No

Inspector in Charge - Signature	TERRELL A WILLIAMS Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.07.12 09:15:57 -04'00'	**Date** 07/07/2016
Inspector in Charge – Name Terrell Williams	**Inspection Team** Terrell Williams, Medenia Dashiell, Patrick Richardson	

	restrictions that requires two-way communication between the Rail Operations Control Center and train operator and takes full advantage of available electronic Advanced Information Management system features. WMATA must establish and enforce a proper protocol for language and terminology that is used over the radio to include 100% word-for-word read back for safety-related instructions and unusual train movements. FWSO Inspectors debriefed [redacted] on the course providing him with some minor adjustments that will improve the course. The 3-hr course is designed for WMATA's 6,000 employees that use its digital radios.		
Remedial Action	None required.		

Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

FOIA Exemption: All (b)(6) -

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160708-WMATA-DG-1		
	2016	07	08				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	Track	**Sub- Department**	
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[redacted]						
Inspection Location	Navy Yard Metro Station						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-OBS					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	1					
Recommended Finding	Yes					
Remedial Action Required	Yes					
Recommended Reinspection	Yes					

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Walking Inspection				**Activity Code**	TRK	WI	OBS
Job Briefing Employee Name/Title	N/A		**Accompanied Inspector?**	No	**Out Brief Conducted**	No	**Time**	11:15	**Outside Shift**	
Related Reports			**Related CAPS / Findings**							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference					
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
			X								
Line(s)	F-Line	**Track Number**	2	**Chain Marker and/or Station(s)**	From	To				
Vehicles	Head Car Number	Number of Cars	**Equipment**							
Description	FWSO observed mud in the trackbed on track 2 at the Navy Yard Station.				**Number of Defects**	1				
					Recommended Finding?	Yes				
					Remedial Action Required?	Yes				
					Recommended Reinspection?	Yes				
Remedial Action	WMATA to remove mud found at Navy Yard Station.									

Inspector in Charge - Signature		**Date** 7/14/2016
Inspector in Charge – Name	**Inspection Team** **Dharm Guruswamy**	

United States Department of Transportation
Federal Transit Administration

Inspection Form

Form FTA-IR-1

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160708-WMATA-RPM-1		
	2016	07	08				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	TRST SMNT CPDO	**Sub- Department**	Maintenance Production POWR POWR

	Name	Email	Office Phone	Mobile Phone
Rail Agency Department Contact Information	[redacted]	[redacted]		

Inspection Location	Minnesota Ave. to Stadium Armory – Track 1 (Note: Visual observation of Track #2 as well)

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK – RWP – OBS	TRK – GEN - OBS				
Inspection Units	1	1				
Inspection Subunits	1	1				
Defects (Number)	0	5				
Recommended Finding	No	No				
Remedial Action Required	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Roadway Worker Protection – Job Safety Briefing			**Activity Code**	TRK	RWP	OBS	
Job Briefing Employee Name/Title	Track Unit #634		**Accompanied Inspector?**	Yes	**Out Brief Conducted**	Yes – via email	**Time**	1000 – 1330	**Outside Shift**	No
Related Reports			**Related CAPS / Findings**							

Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference
	RWPM				
	MSRPH				

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X	X	X	

					From	To
Line(s)	D-Line	**Track Number**	1 & visual of 2	**Chain Marker and/or Station(s)**	D1 CM321+80	D1 CM212+00

Vehicles	Head Car Number	Number of Cars	**Equipment**

Inspector in Charge - Signature	TERRELL A WILLIAMS Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.07.12 09:18:34 -04'00'	**Date** **07/08/2016**
Inspector in Charge – Name Terrell Williams	**Inspection Team** Robert Maniuszko	

Description	Track Unit #634 provided a comprehensive briefing. The briefing discussed the hazards and know close clearance, portals and restricted view areas. Train approach warning was our method of protection. ROCC made required announcements to the trains. All train operators acknowledge our presence and slowed accordingly.	**Number of Defects**	0
		Recommended Finding?	No
		Remedial Action Required?	No
		Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2	**Inspection Subject**	General Observations – Track #1				**Activity Code**	TRK	GEN	OBS	
Job Briefing Employee Name/Title	See above		**Accompanied Inspector?**		**Out Brief Conducted**		**Time**	1000 – 1330	**Outside Shift**	No	
Related Reports			**Related CAPS / Findings**								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference						
	TRST 1000										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X	X	X	
Line(s)	D-Line	**Track Number**	#1 with visual of track #2	**Chain Marker and/or Station(s)**	From		To				
					D1 CM321+80		D1 CM212+00				
Vehicles	Head Car Number	Number of Cars	**Equipment**								

Description	Observations: • PVC Conduit was repaired in numerous locations - This work is not completed. • New Chain Markers have been installed • 3rd Rail Expansion joint cables have been replaced and also removed from the gage side of the roadway. • D1 CM313+20 - third rail return cable has electrical tape wrapped around it. • ETS Box #D84 has no cover on the splice box located below it • New Switches have been installed at the D&G junction • New fasteners have been installed - This work is not completed. • New Stub Up boots and sleeves have been installed • Third rail cabling work is still on-going under the elevated track • Track two has numerous new grout pads poured but insulators have not been moved yet • From D1 CM294+30 to D1 CM288+50 - third rail forms are in place but work is not complete for new or repaired grout pads • D1 CM260+00 to D1 CM252+00 the left and right grout pad repairs were not completed • Numerous rail pieces were left in the tunnel from the portal to stadium armory Defects/Concerns: • On tracks 1 & 2 at CM308+00 and CM307+75 WMATA has cut out the 3rd rail expansion joints but did not complete the welds. The locations have a splice bracket installed for continuity. (Note: WMATA noted that these will be completed this weekend) • At CM305+00, directly above the ETS boxes a high tension transmission line is sagging very low. Observation was made of two trains and the line appears to be approximately 3-feet above the passing train. Maximo Ticket #12842085 was reported to MOC by Track Unit #634 • D1 CM278+30 - loose joint bar - one bolt fell off - this is right at the	**Number of Defects**	5
		Recommended Finding?	No
		Remedial Action Required?	Yes
		Recommended Reinspection?	Yes

	joint where new rail meets the old rail • D1 CM263+00 - Right rail - at least six (6) fasteners were tipped up enough to slide a ruler under the gage side base of the plate. Two of these fasteners did not have any bolts securing them to the grout pad. • Numerous stud bolts exceeded the 3" (7.9.2.5 (j) height from the base of rail. Some were pre-marked with orange spray paint some were not. Many were loose.		
Remedial Action	• WMATA to complete welds at CM308+00 and CM307+75. • WMATA to mitigate safety concern with low hanging tension transmission line at CM305+00. • WMATA to mitigate loose joint bar and missing bolt at D1 CM278+30. • WMATA to mitigate tipped up fasteners/missing bolts at D1 CM263+00. • WMATA to mitigate numerous stud bolts that are loose/exceeding the 3" height from the base between D1 CM321+80 and D1 CM212+00.		

Photos:

Figure 1 - Taped 3rd rail return cable at D1 CM313+20

Figure 2 - CM308+00 and CM307+75 Track 1&2 - 3rd rail incomplete weld

Figure 3 - CM305+00 - low hanging transmission line - (Photo courtesy of WMATA unit #634)

Figure 4 - D2 CM296+40 - New grout pad adjacent to crumbled one

United States Department of Transportation
Federal Transit Administration

Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160709-WMATA-WA-1		
	2016	07	09				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	TRST	**Sub- Department**	Production and Maintenance
Rail Agency Department Contact Information	Name	Email		Office Phone	Mobile Phone		
	[redacted]	[redacted]					
Inspection Location	C-Line – National Airport (C10) to Braddock Road (C12)						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	TRK-GEN-OBS				
Inspection Units	1	1				
Inspection Subunits	1	2				
Defects (Number)	0	10				
Recommended Finding	No	No				
Remedial Action Required	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Roadway Worker Protection – Job Safety Briefing		**Activity Code**	TRK	RWP	OBS	
Job Briefing Employee Name/Title	[redacted] (provided the briefing)		**Accompanied Inspector?**	No	**Out Brief Conducted**	Yes – via email	**Time**	0700 – 1100	**Outside Shift**	Yes
Related Reports	20160707-RPM-1		**Related CAPS / Findings**						

Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference
	RWPM				
	MSRPH				

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X	X	X	

Line(s)	C-Line	**Track Number**	1 & 2	**Chain Marker and/or Station(s)**	From	To
					CM 450+00	CM 370+00

Vehicles	Head Car Number	Number of Cars	**Equipment**

Description	Briefing was comprehensive and covered all required elements. There was a red tag in place and work limits were provided. Safety Rule 4.21 was the rule of the day.	**Number of Defects**	0
		Recommended Finding?	No
		Remedial Action Required?	No

Inspector in Charge - Signature	TERRELL A WILLIAMS Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.07.12 09:32:53 -04'00'	**Date** **07/09/2016**
Inspector in Charge – Name Terrell Williams	**Inspection Team** Wes Albright	

	FWSO inspector was escorted by TRST #5 and Engineering Representative [redacted]. No exceptions taken to RWP Briefing or Set-up.	**Recommended Reinspection?**	No
Remedial Action	N/A		

Inspection Activity #	2	**Inspection Subject**	Track – work area general observations and comments			**Activity Code**	TRK	GEN	OBS	
Job Briefing Employee Name/Title	[redacted]		**Accompanied Inspector?**	No	**Out Brief Conducted**	Yes – via email	**Time**	0700 – 1100	**Outside Shift**	Yes
Related Reports	20160707-WMATA-RPM-1		**Related CAPS / Findings**							

Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference
	TRST1000				
	MSRPH				

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X	X	X	

Line(s)	C-Line	**Track Number**	1 & 2	**Chain Marker and/or Station(s)**	From	To
					CM450+00	CM370+00

Vehicles	Head Car Number	Number of Cars	**Equipment**	

Description			

	Observations:
	(Note: Items in bold are considered defects)
	
	Track #2: 450+00 – 370+00
	• Work on tie replacement continues
	  o Punch list not practicable at the time of walkthrough, too much tie work to complete
	• 419+00-423+00 ties and plates laid out for future replacement
	• **408+50 Gauge rod needs to be removed**
	• **408+00 – 393+00 right rail (High rail of curve)**
	  o "Excessive" amount of loose fasteners
	  ▪ Lack torqueing
	  ▪ All thread anchor bolt replacement necessary
	  ▪ Very poor grout pad conditions
	  ▪ New grout pad forms installed during surge
	  • Grout pad replacement not planned for this area.
	  ▪ 405+00 Three consecutive fasteners are loose
	• 395+00 and 394+80 Temporary joint bars installed on field weld and ultrasonic tested.
	• **384+00 - 382+00 Fasteners marked for renewal – Replacement not planned during surge (defective fasteners are marked across aerial and not replaced)**
	• **380+60 New anchor bolts installed on fasteners with no supporting grout pad**
	
	Other observations noted
	• Chain marker and No Clearance signs not legible
	• **408+00 – 393+00 Left rail (Low rail of curve)**
	  o **Forms for grout pad renewal in place with no plans to replace grout pads**
	  ▪ **Forms appear old**
	• Tree limbs cut back
	• **384+80 ETS missing door**
	• G.W. Peoples (contractor) working with an electric hand grinder without a shield Brian Poston corrected
		Number of Defects	10

		Recommended Finding?	No
		Remedial Action Required?	Yes
		Recommended Reinspection?	Yes

	Track 1- 450+00 – 370+00
	• 370+00 – 384+00 New grout pad poured in place
	  o Anchor bolts not protected from grout,
	  o New Grout pad poured in place in tangent and spiral of curve.
	  ▪ Less of a priority then other areas noted
	  o No equipment on-site to complete anchor bolt and fastener replacement
	  ▪ Time spent on locating necessary equipment and material
	• 383+00 Work lanterns inoperative (Addressed by Brian Poston)
	• **383+50 Broken heat tape with exposed wiring laying on invert**
	• 390+00 – 395+00 New fasteners installed on tangent track
	• **395+00 – 405+00 Loose anchor bolts, poor grout pad conditions, defective fasteners identified and marked, not planned for replacement during surge**.
	
	General comments
	• No comprehensive plan for grout, fastener and anchor bolt replacement. Fastener, grout and anchor bolt replacement completed in areas of less priority, when areas of high priority not addressed.
	• Extremely warm weather may have reduced tie replacement production
	  o Not enough workers when walkthrough was conducted
	  o 424+00 - 429+00 Track buckles noted on track #1
	• **409+00 – 419+00 Unsecure fence (not in tie replacement area)**
	• G.W. Peoples opted to remove ties toward the walls instead of removing from under third rail. This method required more work and reduced production
	• Ballast placement necessary in tie renewal area prior to tamping operations. (Mike Brown stated that ballast cars are loaded and ready for dispatching)
	• **Missing cover board and other third rail work throughout surge area**
	• Improper work methods and procedures may have reduced production goals
	• Lack of TRST management present during walkthrough
	  o Poor coordination of fastener, grout and anchor bolt replacement
	  o Track equipment secured throughout work area prevented equipment movement that could resupply areas of need
	• Man-hours wasted to install new forms for grout pads when grout pad conditions are critical in other areas across aerial structure?		

Remedial Action	• **WMATA to remove gauge rod at 408+50.** • **WMATA to mitigate excessive amount of loose fasteners at 408+00 – 393+00 right rail (high rail of curve); which lack torqueing, require replacement of all thread anchor bolt, and have poor grout pad conditions.** • **WMATA to address fasteners marked for replacement but are not planned during surge at 384+00 through 382+00.** • **WMATA to repair new anchor bolts installed on fasteners with no supporting grout pad at 380+60.** • **WMATA to address old forms for grout pad renewal found at 408+00 – 393+00 left rail (low rail of curve).** • **WMATA to replace missing ETS door at 384+80.** • **WMATA to replace broken heat tape at 383+50.** • **WMATA to mitigate loose anchor bolts, poor grout pad conditions, defective fasteners identified and marked, not planned for replacement during surge** at **395+00 – 405+00.** • **WMATA to address unsecure fence at 409+00 – 419+00.** • **WMATA to replace missing cover board.**		

United States Department of Transportation
Federal Transit Administration

Inspection Form

Form FTA-IR-1

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160711-WMATA-TW-1		
	2016	07	11				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	RTTO	**Sub- Department**	
Rail Agency Department Contact Information	Name	Email		Office Phone		Mobile Phone	
	[redacted]	[redacted]		[redacted]			
Inspection Location	Surge #3 Reagan National Airport Station & Braddock Station Platforms						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	OPS – GEN – OBS					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Platform Inspection at Reagan National Airport			**Activity Code**	OPS	GEN	OBS	
Job Briefing Employee Name/Title			**Accompanied Inspector?**	No	**Out Brief Conducted**	No	**Time**	0900 - 1100	**Outside Shift**	No
Related Reports			**Related CAPS / Findings**							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference					

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
			X							X	

Line(s)	Yellow Line C10	**Track Number**	1 and 2	**Chain Marker and/or Station(s)**	From	To
					Reagan National Airport Station	Reagan National Airport Station

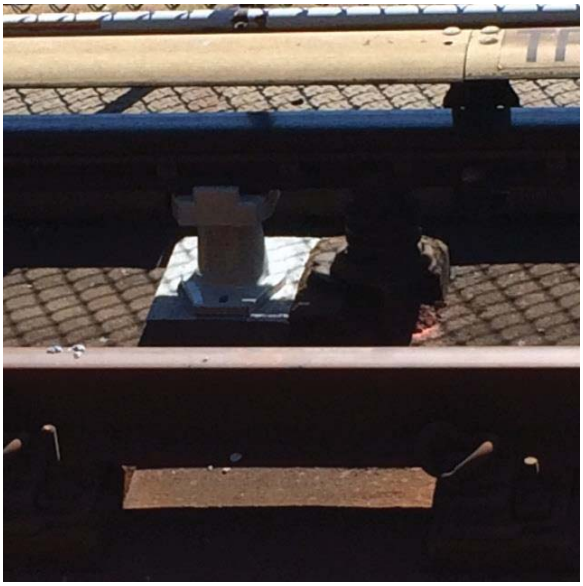
Vehicles	Head Car Number	Number of Cars	**Equipment**

Description			
	FWSO Inspectors investigated SafeTrack operations at the Reagan National Airport and Braddock Road station platforms during this last full day of Surge #3 which is a complete line segment shutdown. The schedule calls for a shutdown from July 5 thru July 11. Observations from the visit at the Reagan National Airport Station;	**Number of Defects**	0
		Recommended Finding?	No
		Remedial Action Required?	No
		Recommended Reinspection?	No

Inspector in Charge - Signature	TERRELL A WILLIAMS Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.07.11 11:31:46 -04'00'	**Date** **7/11/2016**
Inspector in Charge – Name Terrell Williams	**Inspection Team** Terrell Williams	

	• SafeTrack signage was visible in the airport concourse describing the service interruptions. • WMATA personnel were on-site early with shuttle buses, Station Managers, MTPD, WMATA Operations staff and the college students providing SafeTrack pamphlets to customers outside the station. • WMATA personnel were available at the shuttle buses to answer questions • Two WMATA Ambassadors in purple vest were very effective on the platforms with blow horns directing passengers • WMATA Station Managers were more effective in assisting passenger traffic at the mezzanine level kiosks. Observations from the National Airport platform: • Three grout pads and corresponding insulators were replaced on Track #1 along the platform. This was in response to a passenger complaint made via Twitter before Surge #3 started.		
Remedial Action	none		

Grout pad and insulator replaced at three locations along the Reagan National Airport platform.



United States Department of Transportation
Federal Transit Administration

Inspection Form

Form FTA-IR-1

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160712-WMATA–PSR-1		
	2016	07	12				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	Rail Station	**Sub- Department**	RSTO
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[redacted]		[redacted]				[redacted]
Inspection Location	Pentagon City Station						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	OPS-GEN-OBS					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	0					
Recommended Finding	**0**					
Remedial Action Required	**0**					
Recommend Reinspection	**0**					

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Safe Track Single Track Operational Inspection				**Activity Code**	OPS	GEN	OBS
Job Briefing Employee Name/Title	None		**Accompanied Inspector?**	**N/A**	**Out Brief Conducted**	**N/A**	**Time**	0800-1200	**Outside Shift**	**Yes**
Related Reports			**Related CAPS / Findings**							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference					
	Safe Track									

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	x			☐		☐		☐	☐	☐	X

Line(s)		**Track Number**		**Chain Marker**	From	To
					Pentagon City	Pentagon City

Vehicles	Head Car Number	Number of Cars	**Equipment**

Description			
	FWSO was on-site at the Pentagon City Station from 0800 to 1200 to observe operations while Metro is Shut down from Pentagon City to Ronald Reagan Airport. • Several WMATA employees were on-site to assist passengers including; several station managers, operations staff on the platforms, and 1 person at each platform in purple vest's to answer questions. • There was some confusion through the day since there were no postings stating which side had yellow trains and which had blue trains. • Signage about safe track was placed on the mezzanine level outside the	**Number of Defects**	0
		Recommended Finding?	**No**
		Remedial Action Required?	**No**
		Recommend Re-inspection?	**YES**

Inspector in Charge - Signature	**Date**
PATRICK SHANE RICHARDSON Digitally signed by PATRICK SHANE RICHARDSON DN: c=US, o=U.S. Government, ou=DOT FMCSABaltimoreMD, ou=FRA FMCSABaltimoreMD, cn=PATRICK SHANE RICHARDSON Date: 2016.07.13 16:48:59 -04'00'	**July 12, 2016**

Inspector in Charge – Name	**Inspection Team**
P. Shane Richardson	**P. Shane Richardson**

	station but not was posted inside the station where passengers cross over. • WMATA would do well to strategically place operational personnel on the mezzanine level beyond the Station Managers kiosk, a lot of questions were being asked at the top of the escalators between the tracks and most of the WMATA personnel were either at the Station Managers kiosk or on the station platforms. • WMATA did have a clear pattern of where trains were going today, all blue trains were on one side and all yellow trains were on the other side. With better signage passengers would have been able to figure out where they needed to be quickly.		
Remedial Action	Recommend WMATA staff at Pentagon City Station place better signage inside the terminal, they have plenty of information outside the station but passenger that enter the station on a train have no signage to direct them if they are getting on another train. Need better communication between WMATA employees and passengers at the station, there was no blow horns in use and after 9:00am most of the help left even though the station remained very busy.		

United States Department of Transportation
Federal Transit Administration

Inspection Form

Form FTA-IR-1

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160713-WMATA–PSR-1		
	2016	07	13				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	Rail Station	**Sub- Department**	RSTO
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[redacted]		[redacted]				[redacted]
Inspection Location	Pentagon City Station						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	OPS-GEN-OBS					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	0					
Recommended Finding	**0**					
Remedial Action Required	**0**					
Recommend Reinspection	**0**					

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Safe Track Single Track Operational Inspection				**Activity Code**	OPS	GEN	OBS
Job Briefing Employee Name/Title	None		**Accompanied Inspector?**	**N/A**	**Out Brief Conducted**	**N/A**	**Time**	1200-1530	**Outside Shift**	**Yes**
Related Reports			**Related CAPS / Findings**							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference					
	Safe Track									

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	x			☐		☐		☐	☐	☐	X

Line(s)		**Track Number**		**Chain Marker**	From	To
					Pentagon City	Pentagon City

Vehicles	Head Car Number	Number of Cars	**Equipment**

Description			
	FWSO was on-site at the Pentagon City Station from 1200 to 1530 to observe operations while Metro is Shut down from Pentagon City to Ronald Reagan Airport. • Several WMATA employees were on-site to assist passengers including; several station managers, operations staff on the platforms, and 1 person at each platform in purple vest's arrived at 1500 to assist with evening rush. • There was signage stating which side had yellow trains and which had blue trains today.	**Number of Defects**	0
		Recommended Finding?	**No**
		Remedial Action Required?	**No**
		Recommend Re-inspection?	**YES**

Inspector in Charge - Signature	**Date**
PATRICK SHANE RICHARDSON Digitally signed by PATRICK SHANE RICHARDSON DN: c=US, o=U.S. Government, ou=DOT FMCSABaltimoreMD, ou=FRA FMCSABaltimoreMD, cn=PATRICK SHANE RICHARDSON Date: 2016.07.13 16:49:47 -04'00'	**July 13, 2016**

Inspector in Charge – Name	**Inspection Team**
P. Shane Richardson	**P. Shane Richardson**

	• Signage about safe track was placed on the mezzanine level outside the station and inside the station. • WMATA would do well to strategically place operational personnel on the mezzanine level beyond the Station Managers kiosk, a lot of questions were being asked at the top of the escalators between the tracks and most of the WMATA personnel were either at the Station Managers kiosk or on the station platforms. • WMATA did have a clear pattern of where trains were going today, all blue trains were on one side and all yellow trains were on the other side.		
Remedial Action	Recommend WMATA staff at Pentagon City Station place an employee at the top of the mezzanine between the escalators to answer questions for passengers crossing over.		

Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160714-WMATA–PSR-1		
	2016	07	14				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	Rail Station	**Sub- Department**	RSTO
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[redacted]		[redacted]				[redacted]
Inspection Location	Dunn Loring Station						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	OPS-GEN-OBS					
Inspection Units	1					
Inspection Subunits	10					
Defects (Number)	0					
Recommended Finding	**0**					
Remedial Action Required	**0**					
Recommend Reinspection	**0**					

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	SOP #40				**Activity Code**	OPS	GEN	OBS
Job Briefing Employee Name/Title	None		**Accompanied Inspector?**	**N/A**	**Out Brief Conducted**	**N/A**	**Time**	1030-1230	**Outside Shift**	**Yes**
Related Reports			**Related CAPS / Findings**							

Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference
	Safety Directive 16-09	SOP #40			

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	x			☐		☐		☐	☐	☐	X

Line(s)		**Track Number**		**Chain Marker**	From	To
					Dunn Loring	Dunn Loring

Vehicles	Head Car Number	Number of Cars	**Equipment**

Description			
	FWSO performed an inspection of the rear car on the Orange line at Dunn Loring station. FWSO inspected a total of 10 rear cars on tracks 1 and 2, observing the following: Rear Car 3145, 4055, 5052, and 6083- Rear door left in the wrong position, blocking access to emergency intercom system. These trains were not in compliance with Permanent Order T-16-09 and SOP #40 Rear Car 3020, 3000, 6121, 3014, 3038, and 6042- Rear door was left in the correct position to allow passengers access to the emergency intercom system.	**Number of Defects**	4
		Recommended Finding?	**No**
		Remedial Action Required?	**No**
		Recommend Re-inspection?	**YES**

Inspector in Charge - Signature	**Date**
PATRICK SHANE RICHARDSON Digitally signed by PATRICK SHANE RICHARDSON DN: c=US, o=U.S. Government, ou=DOT FMCSABaltimoreMD, ou=FRA FMCSABaltimoreMD, cn=PATRICK SHANE RICHARDSON Date: 2016.07.14 19:16:51 -04'00'	**July 14, 2016**

Inspector in Charge – Name	**Inspection Team**
P. Shane Richardson	**P. Shane Richardson**

Remedial Action	Recommend WMATA Supervision perform more inspections of trains to ensure compliance with Permanent Order T-16-09 and SOP #40. 40% of rear cars inspected were not in compliance.

Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160714-WMATA-RPM-1		
	2016	07	14				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	TRST SMNT	**Sub- Department**	Production POWR

	Name	Email	Office Phone	Mobile Phone
Rail Agency Department Contact Information	[redacted]	[redacted]	[redacted]	[redacted]
Inspection Location	C-Line, Tracks 1&2 – National Airport to Pentagon City			

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	TRK-GEN-OBS				
Inspection Units	1	1				
Inspection Subunits	3	2				
Defects (Number)	0	7				
Recommended Finding	No	No				
Remedial Action Required	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Roadway Worker Protection – Job Safety Briefing, On-track implementation, Work Zone Set-up			**Activity Code**	TRK	RWP	OBS	
Job Briefing Employee Name/Title	Track Unit #6198 provided the briefing		**Accompanied Inspector?**	No	**Out Brief Conducted**	Yes – via email	**Time**	0715-1015	**Outside Shift**	No
Related Reports			**Related CAPS / Findings**							

Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference
	RWPM				
	MSRPH				

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X	X	X	

Line(s)	C-Line	**Track Number**	1 & 2	**Chain Marker and/or Station(s)**	From	To
					359+24	303+00

Vehicles	Head Car Number	Number of Cars	**Equipment**

Description	Job Safety Briefing:	**Number of Defects**	0
		Recommended Finding?	No

Inspector in Charge - Signature	TERRELL A WILLIAMS Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.07.18 06:59:38 -04'00'	**Date** **07/14/2016**
Inspector in Charge – Name Terrell Williams	**Inspection Team** Robert Maniuszko	

	• The briefing was comprehensive and covered all aspects of the on-going work efforts in the Surge area. • Mobile Command, located at Alexandria Yard is the RWIC. All communication with MCC is via OPS #12 or phone [redacted] • Red Tag is in place #2016194522A • Inaccessible Track (IT) is the form of protection – protected by wooden ties, lanterns and shunts. • Temps expected to be high so hydration is important • Safety Rule 3.150 was in effect – basically discussed that flagman and watchman control vehicle movement in the work zone via red flags or lanterns. • Site hazards included poor lighting, poor footing, numerous roadway maintenance machines in the area. • Vehicle securement was discussed – chocks and handbrakes are required if equipment is stationary • WSADS and eFlares are required. • ID's and PPE was checked and a yellow wrist band was provided to those that had the briefing. • FWSO inspector was escorted by track unit #6392 during the walk. On-Track Observations: • WSADs were in use • PPE was in use on the majority of employees in the work area • Flag persons were in-place on the RMM's. • A watchman was assigned to a work gang. He possessed an orange disk and an audible device to provide warning Work Zone Set-up: • FWSO inspector observed the end of work zone wooden ties and strobes. • End of Work Mats were also observed.	**Remedial Action Required?**	No
		Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2	**Inspection Subject**	Working Limits – General Observations				**Activity Code**	TRK	GEN	OBS	
Job Briefing Employee Name/Title	Track Unit #6198		**Accompanied Inspector?**	No	**Out Brief Conducted**	Yes – via email	**Time**	0715-1015	**Outside Shift**	No	
Related Reports			**Related CAPS / Findings**								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference						
	TRST 1000										
	MSRPH										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X	X	X	
Line(s)	C-Line	**Track Number**	1 & 2	**Chain Marker and/or Station(s)**	From	To					
					359+24	303+00					
Vehicles	Head Car Number	Number of Cars	**Equipment**								
Description	General Observations: • There are numerous activities ongoing within the working limits of this surge • On track #1 leading into Crystal City station, WMATA is replacing 1000 feet of grout pad on the right rail • Noted that every stud bolt is covered with oil to prevent the grout from fouling the treads • WSADs were observed throughout the work area						**Number of Defects**	7			
							Recommended Finding?	No			
							Remedial Action Required?	Yes			
							Recommended Reinspection?	Yes			

	• On track #2 from CM302 to CM326 the right rail has been replaced. The removed rail had signs of significant side wear. • Employees from C3M were observed working on 3rd rail expansion joint cables and boots within the tunnel Noted Defects: Note – the inspector does not have a scope of items to be addressed during this surge – some items listed below may be in the list of task items. 1. C1 CM341+10 – the 3rd rail insulator grout pad is crumbling 2. C1 CM354+80 – 3rd rail stub up boots have exposed conductors and no sleeves 3. C1 CM355+00 – missing insulator under the approach 4. C2 CM349+20 & C2 CM348+35 – gage rods should be removed they are not connected 5. From C2 CM345+80 to portal the right rail has what appears to be a surface condition 6. C2 CM330+20 drain cover is mostly clogged 7. C2 CM323+00 there is 56" between the fasteners – while not a condition per the TRST 1000 inspection guide – this should be considered to have a grout pad and fastener installed.		
Remedial Action	• WMATA should repair crumbling 3rd rail insulator grout pad at C1 CM341+10. • WMATA should address 3rd rail stub up boots with exposed conductors and no sleeves at C1 CM354+80. • WMATA should replace missing insulator under the approach at C1 CM355+00. • WMATA should remove gage rods at C2 CM349+20 & C2 CM348+35. • WMATA should address surface condition found from C2 CM345+80 to portal on the right rail. • WMATA should unclog drain cover at C2 CM330+20. • WMATA should review 56" between fasteners at C2 CM323+00.		

Photos:

Figure 1 - new grout pad with oiled stud bolts

Figure 2 - New grout pad

Figure 3 - C1 CM354+80 exposed third rail boot, no sleeves

Figure 4 - C2 CM345+80 - surface condition

Figure 5 - removed rail - note right side side-wear

United States Department of Transportation
Federal Transit Administration

Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160715-WMATA-TS-1		
	2016	07	15				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	TRST	**Sub- Department**	Production and Maintenance
Rail Agency Department Contact Information	Name	Email		Office Phone	Mobile Phone		
	[redacted]	[redacted]		[redacted]	[redacted]		
Inspection Location	C-Line Tracks 1&2 – Pentagon City to National Airport						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	TRK-GEN-OBS				
Inspection Units	1	1				
Inspection Subunits	1	3				
Defects (Number)	0	26				
Recommended Finding	No	No				
Remedial Action Required	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Roadway Worker Protection – Job Safety Briefing, Work Zone Set-up, Roadway Compliance	**Activity Code**	TRK	RWP	OBS	
Job Briefing Employee Name/Title	Track Unit provided the briefing accompanied by Track Unit RWIC-4	**Accompanied Inspector?**	No	**Out Brief Conducted**	Yes – via email	**Time**	1000 – 1615	**Outside Shift**	No
Related Reports		**Related CAPS / Findings**						

Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference
	RWPM				
	MSRPH				

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X	X	X	

Line(s)	C-Line	**Track Number**	1 & 2	**Chain Marker and/or Station(s)**	From	To
					CM 302+50	CM 359+24

Vehicles	Head Car Number	Number of Cars	**Equipment**	

Description		**Number of Defects**	0

Inspector in Charge - Signature	TERRELL A WILLIAMS Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.07.21 14:52:58 -04'00'	**Date** 07/15/2016
Inspector in Charge – Name Terrell Williams	**Inspection Team** Tino Sahoo	

	Track Unit of unknown number provided the briefing. The briefing is scripted and was very thorough. The topics covered are as follows: • Mobile Command Center (MCC), located at Alexandria Yard Facility, is the RWIC for the work zone. All requests for access must go through the MCC. • Due to expected temperatures employees and gang leaders were reminded to stay hydrated. If anyone did not feel well they should rest and hydrate. • Red Tag 2016-194-522A was in effect • MCC can be called at [redacted] • Inaccessible Track was the form of protection. Wood ties and shunts were located at the limits. • Review of the hot spots and blind spots was done • Hazards in the work zone include moving Roadway Maintenance Machines (RMM), Poor Lighting, Cables, tripping hazards • Closest Hospitals were Inova Alexandria and Mt. Vernon • Bathrooms were located within the work zone Roadway Observations: • WSAD's were in place. Several units were checked for proper calibration date. All were found in compliance. • RMM used movement alarms and operators were observed with flagman or in a position to observe direction of movement • One watchman was observed with a "W" disk and an operational air horn Set-Up: • At the National Airport end of the Work Zone an End of Work Mat, Shunts and Flashing strobes were observed. A wooden tie was observed as well.	**Recommended Finding?**	No
		Remedial Action Required?	No
		Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2	**Inspection Subject**	General Observations in the Work Zone				**Activity Code**	TRK	GEN	OBS	
Job Briefing Employee Name/Title	[redacted] Track Inspector		**Accompanied Inspector?**	No	**Out Brief Conducted**	Yes- via email	**Time**	1000 – 1615	**Outside Shift**	No	
Related Reports			**Related CAPS / Findings**								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference						
	MSRPH										
	TRST 1000										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X	X	X	
Line(s)	C-Line		1 & 2	**Chain Marker and/or Station(s)**	From		To				
					CM 302+50		CM 359+24				
Vehicles	Head Car Number	Number of Cars	**Equipment**								

Description	The following items were all observed within the work area. Some of the items are identified on the Surge 4 Work Scope Rev 00 provided by WMATA. FWSO has noted these items with the intent of verifying repair during follow-up inspections. FWSO was escorted by Inspector Nelson. On-going Activities: • Grout Pad Repairs • Fastener Replacement • Insulator Replacement • Tie Replacement	**Number of Defects**	26
		Recommended Finding?	No
		Remedial Action Required?	Yes
		Recommended Reinspection?	Yes

	• Chain Marker Sign Replacement • "Spongebob" tie replacement technique • TRST Inspector [redacted] very thorough during track inspection. Inspector noted all defects and showstoppers and created a punchlist to enter into work repair system. • Electrification System (3rd Rail, 3rd Rail Insulators, Feeder Cables) in good condition throughout the whole work area. • Tunnel enviorment very dry in most cases • Repairs that were documented from previous day's inspection were being repaired (visually inspected) Observed Maintenance Items: • C1 330+35-317+75-Compromised grout pads left and right running rails as well as 3rd rail insulators. • C1 312+10-303+98-Compromised grout pads left and right running rails as well as 3rd rail insulators. • C1 CM 330+10-325+32 – Broken/Missing Pandrol Clips • C1 CM 325+12 – Fastener Right Rail Broken • C1 CM 324+60 – Broken Washer on Fastener Right Rail • C1 CM 324+40 – Pandrol Clip Right Rail Missing • C1 CM 323+99 – Washer needs Torqueing Right Rail • C1 CM 321+50 – Pandrol Clip Left Rail Missing • C1 CM 321+12 – Stud for Fastener Right Rail Broken • C1 CM 319+59 – Drain needs to be cleaned and new cover provided • C1 CM 318+55 – Pandrol Clip Left Rail Missing • C1 CM 318+22 – Control Joint in Track Bed Slab/Deck cracked • C1 CM 317+38 – 3rd Rail Insulator sitting crooked, needs replacement • C1 CM 317+20 – Stud Bolt Right Rail, Field Side, Sitting too High • C1 CM 313+40-313+50 – 3 Pandrol Clips Missing Left Rail • C1 CM 313+25 – 3rd Rail Cover board needs replacement • C1 CM 313+18 – Pandrol Clips Right Rail Missing • C1 CM 312+90 – Feeder Cables need to be on fiberglass standoffs using Kindorf • C1 CM 312+40-311+00 - Clean Trench for drainage of water • C1 CM 307+80 – 3 Pandrol Clips Right Rail Missing • C1 CM 303+90 – Pandrol Clips Missing • C1 CM 303+78 – Two Stud Bolts Missing • C1 CM 303+55 – Stud Bolt Right Rail Missing • C1 CM 302+97 to 302+85 – 3rd Rail Compromised • C2 CM 313+30 – Feeder Cables need to be on standoffs • C2 CM 341+80 – 3rd Insulator sitting crooked		
Remedial Action	• Repair compromised grout pads from C1 330+35-317+75. • Repair compromised grout pads from C1 312+10-303+98. • Replace Pandrol Clips C1 CM 330+10-325+32. • Repair right rail fastener at C1 CM 325+12. • Replace broken washer on fastener on the right rail at C1 CM 324+60. • Replace missing pandrol clip on the right rail at C1 CM 324+40. • Torque washer on the right rail at C1 CM 323+99. • Replace missing pandrol clip on the left rail at C1 CM 321+50. • Replace broken stud for fastener found at C1 CM 321+12. • Clean drain and replace cover at C1 CM 319+59. • Replace missing pandrol clip missing on the left rail at C1 CM 318+55. • Replace cracked control joint at C1 CM 318+22. • Replace third rail insulator at C1 CM 317+38. • Mitigate stud bold on the right rail sitting too high at C1 CM 317+20. • Replace 3 missing pandrol clips on the left rail at C1 CM 313+40-313+50. • Replace third rail coverboard at C1 CM 313+25. • Replace missing pandrol clips on the right rail at C1 CM 313+18. • Mitigate feeder cables need to be on fiberglass standoffs using Kindorf at C1 CM 312+90. • Clean trench for drainage of water at C1 CM 312+40-311+00. • Replace 3 missing pandrol clips on the right rail at C1 CM 307+80. • Replace missing pandrol clips at C1 CM 303+90. • Replace 2 missing stud bolts at C1 CM 303+78. • Replace missing stud bolt at C1 CM 303+55.		

	• Mitigate compromised third rail at C1 CM 302+97 to 302+85. • Place feeder cables on standoffs at C2 CM 313+30. • Repair third insulator found sitting crooked at C2 CM 341+80.

United States Department of Transportation
Federal Transit Administration

Inspection Form

Form FTA-IR-1

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160716-WMATA-RPM-1		
	2016	07	16				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	TRST	**Sub- Department**	Production
Rail Agency Department Contact Information	Name	Email		Office Phone	Mobile Phone		
	[redacted]	[redacted]		[redacted]	[redacted]		
Inspection Location	C-Line – National Airport to Braddock Road – Track 1 and visual of #2						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	TRK-GEN-OBS				
Inspection Units	1	1				
Inspection Subunits	1	3				
Defects (Number)	0	12				
Recommended Finding	No	No				
Remedial Action Required	Yes	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Roadway Worker Protection – Job Safety Briefing			**Activity Code**	TRK	RWP	OBS	
Job Briefing Employee Name/Title	Track Unit #634		**Accompanied Inspector?**	Yes	**Out Brief Conducted**	Yes – via email	**Time**	0700 – 1115	**Outside Shift**	Yes
Related Reports			**Related CAPS / Findings**							

Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference
	RWPM				
	MSRPH				

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X	X	X	

Line(s)	C-Line	**Track Number**	1 & visual on #2	**Chain Marker and/or Station(s)**	From	To
					362+47	453+30

Vehicles	Head Car Number	Number of Cars	**Equipment**

Description		**Number of Defects**	0
		Recommended Finding?	No

Inspector in Charge - Signature	TERRELL A WILLIAMS Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.07.21 11:13:37 -04'00'	**Date** **07/16/2016**
Inspector in Charge – Name Terrell Williams	**Inspection Team** Robert Maniuszko	

	FWSO inspector received a job safety briefing from track unit #634. The briefing highlighted the form of protection, hazards, and hot spots. PPE was checked prior to the walk. Contact was made to the ROCC via radio for permission and properly repeated back by track unit #634. Announcements were made to all trains to be on the lookout for workers on the roadway. Trains were instructed to dim their lights, sound the horn and pass the workers at no more than 10 mph. All but two of the passing trains slowed as required. Due to the speed of the non-compliant trains we were unable to get a car number. Follow-up will be made with WMATA to establish whether the 10 mph speed is a rule change within the MSRPH or RWPM.	**Remedial Action Required?**	Yes
		Recommended Reinspection?	No
Remedial Action	FWSO team will follow up with WMATA to clarify the rule change to 10 mph.		

Inspection Activity #	2	**Inspection Subject**	General Observations of track #1 and visual spot check on track #2 through Surge area #3			**Activity Code**		TRK	GEN	OBS	
Job Briefing Employee Name/Title	Track Unit #634		**Accompanied Inspector?**	Yes	**Out Brief Conducted**	Yes – via email	**Time**	0700 – 1115	**Outside Shift**	Yes	
Related Reports			**Related CAPS / Findings**								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference						
	TRST 1000										
	MSRPH										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X	X	X	
Line(s)	C-Line	**Track Number**	#1 with visual of #2	**Chain Marker and/or Station(s)**	From	To					
					CM362+47	CM453+30					
Vehicles	Head Car Number	Number of Cars	**Equipment**								
Description	Noted Defects: 1. Track 1 & 2 – CM371+00 – no cover boards 2. C1 CM376+70 – 3-fasteners on the left rail are not secured to the grout pad. There is 130" between non-defective fasteners. (See WMATA-1000 Track Maintenance & Inspection Manual Table 7-1) (Note: ERT team responded to the area and resecured one fastener – this eliminated the need for a restriction) 3. C1 CM377+00 – Incorrect shim placed under new insulator. 4. C1 CM378+30 – Left rail has 90" between non-defective fasteners. 5. C1 CM380+30 to C1 CM380+80 – Deteriorated fasteners previously identified with orange paint by WMATA, not addressed on the right rail 6. C1 CM399+00 – Five (5) third rail grout pads crumbling or broken 7. C2 CM406+50, 60, 70 – 3rd rail grout pads broken 8. C1 CM417+70 – 3rd rail anchor is not connected 9. C1 CM422+50 – Expansion joint cables are not attched to the kindorf 10. C1 CM424+00 – Access gate is damaged and open – unit #634 reported to MOC desk 11. C1 CM475+00 – 3rd rail anchor is not connected 12. C1 CM501+00 – ETS has no door General Observations: • In the area of the newly installed grout pad from C1 CM376+00 through C1 CM 379+00 there are a number of fasteners that have not been secured to the grout pad or that have been improerly secured to the grout pad. • At C2 CM399+00 – C2 CM404+00 the grout pad was formed out during the surge but never poured. WMATA removed the older forms noted on prior report in this area as well.							**Number of Defects**	12		
							Recommended Finding?	No		
							Remedial Action Required?	Yes		
							Recommended Reinspection?	Yes		

	• C1 CM375+00 – gage rod left in, not attached (Note: ERT team removed the gage rod during the repair effort noted above.) • Cover boards throughout the work area are missing and should be replaced.		
Remedial Action	• WMATA to replace coverboards on Track 1 and 2 at CM371+00. • WMATA to secure fasteners on the left rail at C1 CM376+70. • WMATA to replace shim at C1 CM377+00. • WMATA to mitigate 90" found between non-defective fasteners on the left rail at C1 CM378+30. • WMATA to replace deteriorated fasteners on right rail from C1 CM380+30 to C1 CM380+80. • WMATA to replace 5 third rail grout pads at C1 CM399+00. • WMATA to replace broken third rail grout pads at C2 CM406+50, 60, 70. • WMATA to mitigate disconnected third rail anchor at C1 CM417+70. • WMATA to attach expansion joint cables to the kindorf at C1 CM422+50. • WMATA to mitigate damaged/open access gate at C1 CM424+00. • WMATA to repair disconnected third rail anchor at C1 CM475+00. • WMATA to replace ETS door at C1 CM501+00.		

Photos:

Figure 1 - short stud bolts securing fastener. Also noted stud bolts in excess of 3-inches above base of rail. CM376+00 through CM379+00

Figure 2 - Incorrect shim - C1 CM377+00 (Noted in other areas as well)

Figure 3 - Ground off stud bolts - observed throughout the new grout pad area from CM376+00 - CM379+00

Figure 4 - Missing cover boards CM371+00 track 1 & 2

Figure 5 - Stud bolt in excess of 3" above base of rail - signs of having been cut

Figure 6 - Third rail anchor not attached - C1 CM417+00 and C1 CM475+00

Figure 7 - Open Gate - C1 CM424+00

Figure 8 - ETS Box No Door - C1 CM501+00

United States Department of Transportation
Federal Transit Administration

Inspection Form

Form FTA-IR-1

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160718-WMATA-TW-1		
	2016	07	18				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	RTTO	**Sub- Department**	
Rail Agency Department Contact Information	Name	Email		Office Phone		Mobile Phone	
	[redacted]	[redacted]		[redacted]			
Inspection Location	Surge #4 Pentagon City Station Platform						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	OPS – GEN – OBS					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	3					
Recommended Finding	No					
Remedial Action Required	Yes					
Recommended Reinspection	Yes					

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Platform Inspection at Pentagon City Station			**Activity Code**	OPS	GEN	OBS	
Job Briefing Employee Name/Title			**Accompanied Inspector?**	No	**Out Brief Conducted**	No	**Time**	0800 - 1000	**Outside Shift**	No
Related Reports			**Related CAPS / Findings**							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference					
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
			X							X	
Line(s)	Yellow Line C08	**Track Number**	1 and 2	**Chain Marker and/or Station(s)**	From	To					
					Pentagon City Station						
Vehicles	Head Car Number	Number of Cars	**Equipment**								
Description	FWSO Inspectors investigated SafeTrack operations at the Pentagon City station platform during this last full day of Surge #4 which is a complete line segment shutdown. The schedule calls for a shutdown from July 12 thru July 18. Observations from the visit at the Pentagon City Station;						**Number of Defects**	3		
							Recommended Finding?	No		
							Remedial Action Required?	Yes		
							Recommended Reinspection?	Yes		

Inspector in Charge - Signature	TERRELL A WILLIAMS Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.07.19 09:52:03 -04'00'	**Date** **7/18/2016**
Inspector in Charge – Name Terrell Williams	**Inspection Team** Terrell Williams	

	• SafeTrack signage was visible inside the station just outside the Station Managers kiosk describing the service interruptions. • WMATA personnel were on-site directing passengers to shuttle buses to the Reagan National Airport and Crystal City stations. • WMATA personnel were also on-site directing passengers to shuttle buses to Braddock Road Station. • Three MTPD Officers were seen outside the station near shuttle buses to Reagan National Airport. • Some WMATA Operations staff were effective in directing passengers. • College students were effective providing SafeTrack pamphlets to customers outside the station. • WMATA personnel were available at the shuttle buses to answer questions and did a great job ushering passengers to the correct bus. • Four WMATA Ambassadors in purple vest were very effective on the platforms directing passengers Recommendations and observations from the Pentagon City platform: • WMATA Station Manager needed assistance as she was overwhelmed by passengers seeking information. Recommend at least 2 Station Managers be present at the kiosk during SafeTrack events. • WMATA Operations staff should be disbursed throughout the station with blow horns, especially on the mezzanine level to assist passengers. FWSO Inspector assisted dozens from the mezzanine level. • Several track fasteners were unsecured on track #2. It appeared that track fasteners were being replaced but on at least 3 occurrences there were three fasteners in a row that were not secure.		
Remedial Action	none		

United States Department of Transportation
Federal Transit Administration

Inspection Form

Form FTA-IR-1

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160720-WMATA-TW-1		
	2016	07	20				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	RTTO	**Sub- Department**	
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[redacted]		[redacted]		[redacted]		
Inspection Location	Surge #5 Ballston and East Falls Church Station Platforms						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	OPS – GEN – OBS					
Inspection Units	1					
Inspection Subunits	2					
Defects (Number)	0					
Recommended Finding	Yes					
Remedial Action Required	Yes					
Recommended Reinspection	Yes					

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Platform Inspection at Ballston & East Falls Church Station			**Activity Code**	OPS	GEN	OBS	
Job Briefing Employee Name/Title			**Accompanied Inspector?**	No	**Out Brief Conducted**	No	**Time**	0600 - 1000	**Outside Shift**	No
Related Reports			**Related CAPS / Findings**							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference					
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
			X							X	
Line(s)	Orange Line K04-K05	**Track Number**		**Chain Marker and/or Station(s)**	From		To			
					East Falls Church Station		Ballston Station			
Vehicles	Head Car Number	Number of Cars	**Equipment**							

Inspector in Charge - Signature	TERRELL A WILLIAMS Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.07.21 13:23:34 -04'00'	**Date** **7/20/2016**
Inspector in Charge – Name Terrell Williams	**Inspection Team** Terrell Williams	

Description	FWSO Inspectors investigated SafeTrack operations at the East Falls Church and Ballston station platforms during this first day of Surge #5 which is a continuous single tracking segment between the stations. The schedule calls for single tracking from July 20 thru July 31. Observations from the East Falls Church Station platform; • SafeTrack signage was visible inside the station and just outside the Station Managers kiosk describing the service interruptions and dates. • WMATA personnel were on-site directing passengers to shuttle buses from East Falls Church stations. • Two MTPD Officers were seen inside the station and roving about the station. • No Purple vested WMATA staff were seen directing passengers at EFC. • College students were effective providing SafeTrack pamphlets to customers outside the station. Observations from the Ballston Station platform; • WMATA continues to struggle with strategically placing staff on the mezzanine level to assist passengers. • Two WMATA Supervisors used tablets to help assist with determining train movement into Ballston station, but it appeared to be ineffective most times. • Four WMATA Ambassadors in purple vest were very effective on the platforms directing passengers. • Most times WMATA Operations staff were effective in directing passengers. • FWSO stood on the mezzanine level and assisted dozens of passengers looking for direction. Some were entirely frustrated at the conflicting information fed to them by WMATA staff. • WMATA's [redacted] and Washington Post reporter [redacted] were on the scene observing and reporting. Recommendations and observations from the Ballston platform: • WMATA Operations staff should be disbursed throughout the station with blow horns, especially on the mezzanine level to assist passengers. FWSO Inspector assisted dozens from the mezzanine level. • WMATA should better utilize tablets and communications with the Rail Operations Control Center to determine the movement of trains so they might better aid frustrated passengers.	**Number of Defects**	0
		Recommended Finding?	Yes
		Remedial Action Required?	Yes
		Recommended Reinspection?	Yes
Remedial Action	WMATA should strategically place staff on the mezzanine level at all times to assist passengers at Ballston Station. WMATA should better utilize tablets and communications with the Rail Operations Control Center to determine the movement of trains so they might better aid frustrated passengers.		

United States Department of Transportation
Federal Transit Administration

Inspection Form

Form FTA-IR-1

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160721-WMATA–PSR-1		
	2016	07	21				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	Rail Station	**Sub- Department**	RSTO
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[redacted]		[redacted]				[redacted]
Inspection Location	Ballston Station						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	OPS-GEN-OBS					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	0					
Recommended Finding	**0**					
Remedial Action Required	**0**					
Recommend Reinspection	**0**					

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Safe Track Single Track Operational Inspection				**Activity Code**	OPS	GEN	OBS
Job Briefing Employee Name/Title	None		**Accompanied Inspector?**	**N/A**	**Out Brief Conducted**	**N/A**	**Time**	1500-1830	**Outside Shift**	**Yes**
Related Reports			**Related CAPS / Findings**							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference					
	Safe Track									

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	x			☐		☐		☐	☐	☐	X

Line(s)	K-Line	**Track Number**	2	**Chain Marker**	From	To
					Ballston Station	Ballston Station

Vehicles	Head Car Number	Number of Cars	**Equipment**

Description		
FWSO was on-site at the Ballston Station from 1500 to 1830 to observed evening rush operations while Metro is single tracking from East Falls Church to Ballston. • Several WMATA employees were on-site to assist passengers including; several station managers, operations staff on the platforms, 1 person at each platform in purple vest's to answer questions, and 1 car maintenance staff. • There was no traffic pattern for trains like there was the last time WMATA single tracked at Ballston but with the increased WMATA staff	**Number of Defects**	0
	Recommended Finding?	**No**
	Remedial Action Required?	**No**
	Recommend Reinspection?	**YES**

Inspector in Charge - Signature	**Date**
PATRICK SHANE RICHARDSON Digitally signed by PATRICK SHANE RICHARDSON DN: c=US, o=U.S. Government, ou=DOT FMCSABaltimoreMD, ou=FRA FMCSABaltimoreMD, cn=PATRICK SHANE RICHARDSON Date: 2016.07.21 19:47:53 -04'00'	**July 21, 2016**

Inspector in Charge – Name	**Inspection Team**
P. Shane Richardson	**P. Shane Richardson**

	and several tablets in use, passengers were being directed to the correct side efficiently. • Signage about safe track was placed on the mezzanine level and platforms. • WMATA did place operational personnel on the mezzanine level beyond the Station Managers kiosk to answer questions and direct traffic and it worked well.		
Remedial Action	Recommend WMATA establish a steady pattern for trains like was used the last time they single tracked at Ballston. During the last single track at Ballston the ROCC was running a pattern of 2 trains turning back to DC on side that was shut down, 2 trains going out of town, and then the 2 trains that went out of town came back and went to DC.		

United States Department of Transportation
Federal Transit Administration

Inspection Form

Form FTA-IR-1

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160722-WMATA-WA-1		
	2016	07	22				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	TRST	**Sub- Department**	Production
Rail Agency Department Contact Information	Name	Email		Office Phone	Mobile Phone		
	[redacted]	[redacted]		[redacted]	[redacted]		
Inspection Location	Surge #5 Area – Ballston to East Falls Church Stations – Track #2						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	TRK-GEN-OBS				
Inspection Units	1	1				
Inspection Subunits	1	1				
Defects (Number)	0	2				
Recommended Finding	No	No				
Remedial Action Required	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Roadway worker protection – Job Safety Briefing			**Activity Code**	TRK	RWP	OBS	
Job Briefing Employee Name/Title	Track Unit #6324 Escorted by Track Unit #679		**Accompanied Inspector?**	No	**Out Brief Conducted**	Yes – via email	**Time**	0700 – 1130	**Outside Shift**	No
Related Reports			**Related CAPS / Findings**							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference					
	RWPM									
	MSRPH									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X	X		
Line(s)	K-Line	**Track Number**	2	**Chain Marker and/or Station(s)**	From	To				
					K2 CM283+55	K2 CM400+00				
Vehicles	Head Car Number	Number of Cars	**Equipment**							
Description	Safety Rule of the day was 3.18 – "Employees shall not operate any vehicle in a reckless or unsafe manner."			**Number of Defects**	0					
				Recommended Finding?	No					

Inspector in Charge - Signature	TERRELL A WILLIAMS Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.07.28 12:52:13 -04'00'	**Date** **07/22/2016**
Inspector in Charge – Name Terrell Williams	**Inspection Team** Wes Albright	

	The briefing was good. The Red Tag and work limits were provided. Roadway workers were informed of an ATC Medium Restriction that was placed on the active adjacent track (Track #1). No exceptions were taken of the briefing.	**Remedial Action Required?**	No
		Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2	**Inspection Subject**	Surge area on-site walkthrough				**Activity Code**	TRK	GEN	OBS	
Job Briefing Employee Name/Title	Track Unit #6324 Escorted by Track Unit #679		**Accompanied Inspector?**		**Out Brief Conducted**		**Time**		**Outside Shift**		
Related Reports			**Related CAPS / Findings**								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	TRST 1000										
	MSRPH										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X	X		
Line(s)	K-Line	**Track Number**	2	**Chain Marker and/or Station(s)**			From		To		
							K2 CM283+55		K2 CM400+00		
Vehicles	Head Car Number		Number of Cars		**Equipment**						

Description	Noted Safety Concerns:
	• K2- 341+00 A four person ATC crew conducting IDW work on wayside fence were observed not wearing required PPE. Safety Glasses were not being worn. Unit #679 corrected PPE requirements with the ATC crew.
	• TRST Structure crew working on exterior wayside fence standing on top of Jersey Barrier for Route 66 without highway protection. (See Photo #1)
	• K2-290+00, K2-291+50, K2-303+00, J2305+00 Broken Florescent tunnel light bulbs, shattered along tunnel invert. Unit #679 initiated immediate clean-up.
	• Contractor (G.W. Peoples) tie replacement crew working without accessible drinking water. On-site WMATA escort resupplied work crew with drinking water.
	<u>Work Observed:</u>
	• Tie renewal
	• Rail fastener renewal
	• Fence repair
	• IDW installation
	• Grout pad repair
	<u>Other Observations:</u>
	• 312+00 Grout pad repair
	• Vegetation along exterior wayside fence had been cut
	• Rail joint cad-welds (C-bonds) are loose or missing. Until #679 stated that rail welding is scheduled in the Surge
	• Tie crews working second pass of four
	  • Numerous track alignment errors throughout tie replacement areas. Tamping operations scheduled to correct
	• Fastener replacement crews nearing completion.
	  • Minimal anchor bolt and grout pad replacement necessary in this surge
		Number of Defects	2

		Recommended Finding?	No
		Remedial Action Required?	Yes
		Recommended Reinspection?	Yes

	• K2-382+40 Third rail displace from third insulators (See Photo #2)		
Remedial Action	WMATA should address the following noted items that were not previously addressed: • WMATA to specify protection requirements for working in close proximity to highway and ensure those protections are in place. • WMATA to ensure employees have access to water		

Photos:

Figure 1 - TRST personnel working on exterior wayside fence adjacent to travel lane of route 66

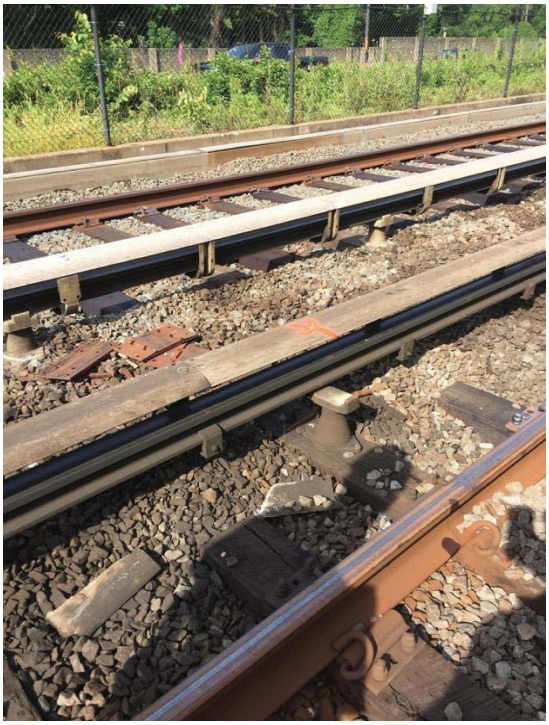


Figure 2 - K2 CM382+40 - Third Rail displaced from insulators

United States Department of Transportation
Federal Transit Administration

Inspection Form

Form FTA-IR-1

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160726-WMATA–PSR-1		
	2016	07	26				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	Rail Station	**Sub- Department**	RSTO
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[redacted]		[redacted]				[redacted]
Inspection Location	Ballston Station						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	OPS-GEN-OBS					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	0					
Recommended Finding	**0**					
Remedial Action Required	**0**					
Recommend Reinspection	**0**					

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Safe Track Single Track Operational Inspection				**Activity Code**	OPS	GEN	OBS
Job Briefing Employee Name/Title	None		**Accompanied Inspector?**	**N/A**	**Out Brief Conducted**	**N/A**	**Time**	1030-1200	**Outside Shift**	**Yes**
Related Reports			**Related CAPS / Findings**							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference					
	Safe Track									

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	x			☐		☐		☐	☐	☐	X

Line(s)	K-Line	**Track Number**	2	**Chain Marker**	From	To
					Ballston Station	Ballston Station

Vehicles	Head Car Number	Number of Cars	**Equipment**

Description			
	FWSO was on-site at the Ballston Station from 1030 to 1200 to observe safe track operations while Metro is single tracking from East Falls Church to Ballston. • WMATA employees were on-site at the kiosk to assist passengers including; several station managers and one supervisor. • There was no traffic pattern for trains like there was the last time WMATA single tracked at Ballston. • Signage about safe track was placed on the mezzanine level and platforms.	**Number of Defects**	0
		Recommended Finding?	**No**
		Remedial Action Required?	**No**
		Recommend Reinspection?	[redacted]

Inspector in Charge - Signature	**Date**
PATRICK SHANE RICHARDSON Digitally signed by PATRICK SHANE RICHARDSON DN: c=US, o=U.S. Government, ou=DOT FMCSABaltimoreMD, ou=FRA FMCSABaltimoreMD, cn=PATRICK SHANE RICHARDSON Date: 2016.07.26 20:14:10 -04'00'	**July 26, 2016**

Inspector in Charge – Name	**Inspection Team**
P. Shane Richardson	**P. Shane Richardson, T. Williams**

	• WMATA did not have any operational personnel on the mezzanine level beyond the Station Managers kiosk to answer questions and direct traffic. • WMATA did not have any operational personnel on either platform to assist passengers.		
Remedial Action	Recommend WMATA keep personnel between the morning and evening rush to assist passengers on the platforms. Traffic was light between rushes but there was still a lot of confusion for the passengers. FWSO inspectors were being asked several questions regarding which side passengers needed to be on. At 9:00am all purple vest help and most WMATA personnel leave since rush is over but I feel each platform needs a WMATA employee between the rushes to assist since there is still service running and customers confused. There was several station managers on site but they were all around the kiosk while we were on site.		

Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160727-WMATA-TW-1		
	2016	07	27				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	ROQT	**Sub- Department**	
Rail Agency Department Contact Information	Name	Email		Office Phone		Mobile Phone	
	[redacted]	[redacted]		[redacted]		[redacted]	
Inspection Location	Carmen Turner Facility 3500 Pennsy Drive Landover, MD 20785 Room B-221						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	OPS –TNG – OBS					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Observation of Rail Train Operators training class			**Activity Code**	OPS	TNG	OBS	
Job Briefing Employee Name/Title			**Accompanied Inspector?**	No	**Out Brief Conducted**	No	**Time**	0900 - 1300	**Outside Shift**	No
Related Reports			**Related CAPS / Findings**		Rail 2-16-B Training/Testing/Rules Compliance Rail 2-16-D Training/Testing/Rules Compliance Rail 2-22-B Training/Testing/Rules Compliance					
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference					
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
					X						X
Line(s)		**Track Number**		**Chain Marker and/or Station(s)**	From	To					
Vehicles	Head Car Number	Number of Cars	**Equipment**								

Inspector in Charge - Signature	TERRELL A WILLIAMS Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.07.28 11:10:34 -04'00'	**Date** **7/27/2016**
Inspector in Charge – Name Terrell Williams	**Inspection Team** Terrell Williams, Patrick Robinson	

Description	FWSO Inspectors observed the WMATA's Rail Operators Training class at the Carmen Turner Facility. FTA has issued Corrective Action Plan (CAP) findings related to training – testing and rules compliance, namely; • **FTA-Rail 2-16-B** Technical Training for operations and maintenance departments is under-resourced and fractured, currently provided by five different departments and IT, is insufficiently directed and resourced, and relies significantly on on-the-job training which is informal and lacks oversight. • **FTA- Rail-2-22-B** WMATA must ensure that two-year re-certifications are being performed for Train Operators. WMATA commenced its 17 week Rail Operators training course on July 18, 2016 that will prepare approximately 28 employees to operate its rail fleet of 1000 thru 7000 series vehicles. The course provides comprehensive classroom, field and on the job training and testing for new Rail Operators before being allowed to control trains in revenue service. Periodically, FWSO Inspectors will observe classroom activities to monitor progress. The Rail Training Instructor was an experienced WMATA professional who exhibited outstanding knowledge of rail vehicles manufactured by Rohr, Breda, CAF and Alstom. During our observation he provided instruction on the differences of 1000, 2000, 3000, 4000, 5000 & 6000 series fleets in the areas of Automatic Train Protection, Automatic Train Control, Platform Detection System, Emergency Door Operations, Brake Cylinder Cut-out Valves, Emergency Handbrakes and a host of other critical elements. The Instructor had command of the classroom, materials and the ability to convey his knowledge and experiences to the students. There was excellent feedback from the students and it appeared the students were eager to comprehend the materials. FWSO Inspectors also observed a 3 hour unit titled 'Cultivating Diversity and Inclusion'. This course was taught by a Contractor with the purpose of helping people recognize the importance, both personally and organizationally, of diversity and inclusion. The Instructor did a great job encouraging students to actively participate in the course.	**Number of Defects**	0
		Recommended Finding?	No
		Remedial Action Required?	No
		Recommended Reinspection?	No
Remedial Action			

United States Department of Transportation
Federal Transit Administration

Inspection Form

Form FTA-IR-1

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160729-WMATA-RPM-1		
	2016	07	29				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	SAFE	**Sub- Department**	
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[redacted]		[redacted]		[redacted]		
Inspection Location	K05 Interlocking – Derailment Site – Event E16213						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	EVT-WI-PI					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required	No					
Recommended Reinspection	Yes					

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Post-Event Follow-up Inspection of Event E16213 with FTA, FWSO, NTSB and WMATA			**Activity Code**	EVT	WI	PI	
Job Briefing Employee Name/Title	TRST Employee		**Accompanied Inspector?**	No	**Out Brief Conducted**	No	**Time**	2115 – 0000	**Outside Shift**	Yes
Related Reports	20160729-WMATA-PH-1		**Related CAPS / Findings**							

Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X			

Line(s)	K-Line	**Track Number**	K05 Interlocking	**Chain Marker and/or Station(s)**	From	To

Vehicles	Head Car Number	Number of Cars	**Equipment**	Train #602 - Lead 3006/07, 3239/**3238**, **5134**/5135 Note: Bold Underline indicates derailed car numbers.
	3006	6		

Description	FWSO responded to East Falls Church Interlocking to witness the removal of the railcars from the site of the derailment. FWSO also participated in the discussion pertaining to the root cause and possible contributing causes of the incident. FWSO witnessed WMATA investigatory efforts on-site as well as the NTSB site activities.	**Number of Defects**	0
		Recommended Finding?	No
		Remedial Action Required?	No
		Recommended Reinspection?	Yes

Inspector in Charge - Signature	TERRELL A WILLIAMS Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.08.03 14:26:56 -04'00'	**Date** 07/29/2016
Inspector in Charge – Name Terrell Williams	**Inspection Team** Angela Dluger, Patrick "Shane" Richardson, Robert Maniuszko	

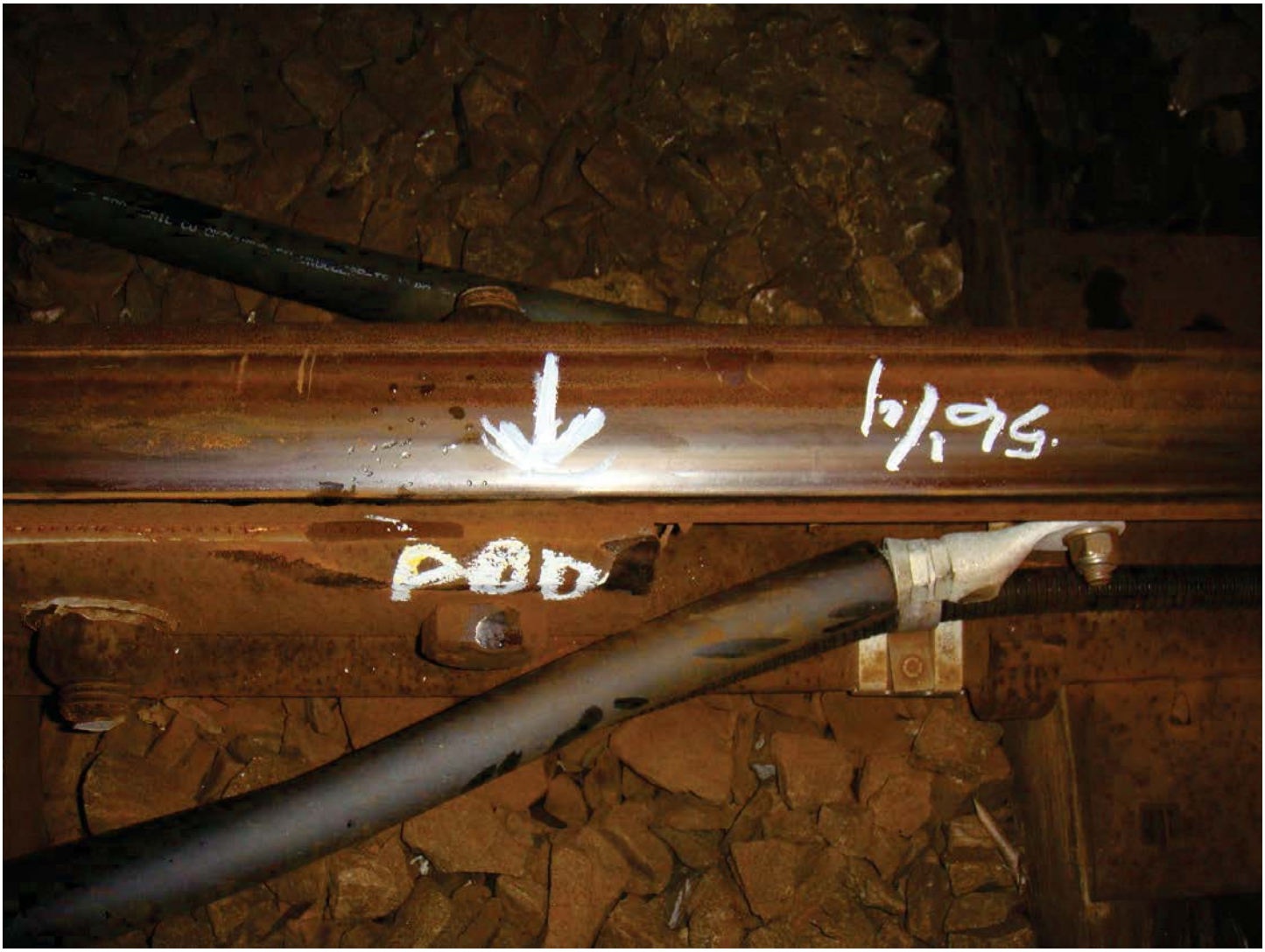
	FTA/FWSO personnel on-site were Angela Dluger and Patrick "Shane" Richardson. NTSB personnel on-site were Mr. Joe Gordon and Ruben Payan. WMATA Officials onsite were [redacted]. WMATA Contractors on-site were [redacted] from Harsco. The root cause of the derailment was determined to be Wide Gage. One established contributing factor was poor crosstie conditions throughout the interlocking. NTSB determined that in the 39-foot section leading into the point of derailment, there were only two good crossties. WMATA standard states that there must be a "Maximum of 10 well distributed ties per 40 ft. of Rail." WMATA will also be reviewing the downloaded railcar information, the maintenance records, and perform a physical inspection of the railcars involved in the incident for additional contributing factors.		
Remedial Action	WMATA should correct the poor crossties found at the site of the derailment as part of the recovery efforts. This should be addressed prior to allowing revenue service. Recommend that WMATA conduct inspections at all other crosstie interlockings to determine if similar conditions are present and make needed repairs.		

Photos:

Photo shows that the tie plate moved approximately 3-inches laterally.

Photo taken at POD of 56 ¼" – when combined with lateral movement the gage would be 59 ¼"

The tie condition is also evident in this photo. The center is completely rotted.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United States Department of Transportation
Federal Transit Administration

Inspection Form

Form FTA-IR-1

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160731-WMATA-RPM-1		
	2016	07	31				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	TRST CPDO	**Sub- Department**	Production Power
Rail Agency Department Contact Information	Name	Email		Office Phone		Mobile Phone	
	[redacted]	[redacted]		[redacted]		[redacted]	
Inspection Location	K-Line – Ballston to EFC – Surge #5 area – Track 2 K05 Interlocking – Derailment site						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	TRK-GEN-OBS				
Inspection Units	1	1				
Inspection Subunits	2	1				
Defects (Number)	0	3				
Recommended Finding	No	No				
Remedial Action Required	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Roadway Worker Protection – Job Safety Briefing and Field Implementation			**Activity Code**	TRK	RWP	OBS	
Job Briefing Employee Name/Title	Track Unit #6014		**Accompanied Inspector?**	No	**Out Brief Conducted**	Yes – met with Brian Poston	**Time**	0600 – 1100	**Outside Shift**	Yes
Related Reports			**Related CAPS / Findings**							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference					
	RWPM									
	MSRPH									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X	X		
Line(s)	K-Line	**Track Number**	2	**Chain Marker and/or Station(s)**	From	To					
					K2 CM276+43	K2 CM402+10					
Vehicles	Head Car Number	Number of Cars	**Equipment**								

Inspector in Charge - Signature	TERRELL A WILLIAMS Digitally signed by TERRELL A WILLIAMS DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=TERRELL A WILLIAMS Date: 2016.08.02 13:32:04 -04'00'	**Date** **07/31/2016**
Inspector in Charge – Name Terrell Williams	**Inspection Team** Robert Maniuszko	

Description	Track Unit 6014 provided a detailed briefing. The topics covered were: • RWIC is Mobile Command Center – located at EFC Kiss and Ride. Contact via radio on OPS #12 or call at [redacted] • Red Tag 2016202517A is in place • Work limits are K2 CM276+43 to K2 CM402+10 – end of work mats located at K2 CM276+93 and K2 CM402+60 • Safety Rule is 3.29 – rule pertained to cutting out ATP in railcars • Weather – expected to be fair – between 80 and 90 degrees • Hydration – keep hydrated • Overview was provided for the work in the area • Hots Spots, Portals, Close Clearance and crossovers were discussed • Hazards include poor lighting, poor footing, cables • All unattended equipment is to be secured	**Number of Defects**	0
		Recommended Finding?	No	
		Remedial Action Required?	No	
		Recommended Reinspection?	No	
Remedial Action	N/A			

Inspection Activity #	2	**Inspection Subject**	General Observations through the surge area on track #2 and within the derailment area at K05				**Activity Code**	TRK	GEN	OBS	
Job Briefing Employee Name/Title	See above		**Accompanied Inspector?**	No	**Out Brief Conducted**	Yes – with Brian Poston	**Time**	0600 – 1100	**Outside Shift**		
Related Reports			**Related CAPS / Findings**								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	TRST 1000										
	MSRPH										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	X							X			
Line(s)	K-Line	**Track Number**	2	**Chain Marker and/or Station(s)**	From		To				
					K2 CM276+43		K2 CM402+10				
Vehicles	Head Car Number		Number of Cars		**Equipment**						
Description	Noted Safety Concerns: • K2 CM355+30 – Two Oxygen cylinders (CGC) standing on cable trough without being secured. There were also two propane cylinders standing unsecured. • K2 CM383+00 – One Yellow Oxygen (CGC) standing without being secured • K2 CM397+20 – 3 diesel fuel canisters thrown next to a pile of crossties between tracks 1 & 2 • Work vehicles in the derailment area were observed to move without a dedicated flagperson. The SAFE representative in the area actively engaged the TRST staff to correct the practice. Follow-up observation indicated that the issue was corrected. Work Observed: • All work in the surge area appeared to be completed • ATC crew was performing shunt testing in the surge area • WMATA crews observed cleaning refuse from the work area • WMATA was performing a final QC check of the surge area • Observed recovery efforts in the derailment area at K05 interlocking Other Observations:											**Number of Defects**	3
											Recommended Finding?	No
											Remedial Action Required?	Yes
											Recommended Reinspection?	Yes

	• K2 CM301+00 – third rail return cable that runs between track 1 & 2 Wee-z bonds has no standoffs or supports. The cable is lying directly on the concrete. • K2 CM318+60, K2 CM330+50 and K2 287+30 – joint bar on the third rail end approach is missing hardware or has improperly sized hardware installed. • K2 – throughout the surge area numerous pieces of rail needs to be removed from the field side of the right rail • K2 CM355+70 – On the right rail the jumper across the joint is so tight that the bolts are cutting into the insulation. The bolts are not serviceable to track personnel • From K2 CM351+00 through K2 CM363+00 there are third rail crossties that have no ballast support on the ends. Some cribs were also observed to be low on ballast. • K2 CM355+50 – Third rail anchor is not connected to the crosstie • K2 CM392+00 – 3rd rail expansion joint has one cable left on the track side of the expansion joint		
Remedial Actions	WMATA should correct the following safety concerns: 1. WMATA to secure Two Oxygen cylinders (CGC) standing on cable trough found without being secured at K2 CM355+30. There were also two propane cylinders standing unsecured. 2. WMATA to secure One Yellow Oxygen (CGC) standing without being secured at K2 CM383+00. 3. WMATA to remove 3 diesel fuel canisters thrown next to a pile of crossties between tracks 1 & 2 at K2 CM397+20.		

Photos:

Figure 1 - Unsupported third rail return cable

Figure 2 - Condition identified in three locations as indicated above

Figure 3 - No ballast support under third rail ties

Figure 4 - Un-secure CGC Cylinders adjacent to Rt. 66

Figure 5 - Discarded diesel fuel cans

United States Department of Transportation
Federal Transit Administration

Inspection Form

Form FTA-IR-1

FOIA Exemption: All (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	**Report Number**	20160705-WMATA-MKD-1		
	2016	07	05				
Rail Agency Name	Washington Metropolitan Area Transit Authority			**Rail Agency Department**	Track & Structures	**Sub- Department**	TRST
Rail Agency Department Contact Information	Name	Email		Office Phone	Mobile Phone		
	[redacted]	[redacted]		[redacted]	[redacted]		
Inspection Location	Alexandria Yard – TRST HQ						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-GEN-RR					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	0					
Recommended Finding	**No**					
Remedial Action Required	**No**					
Recommended Reinspection	**Yes**					

Activity Summaries

Inspection Activity #	1	**Inspection Subject**	Records Review			**Activity Code**		TRK	GEN	RR
Job Briefing Employee Name/Title	[redacted] Superintendent, TRST		**Accompanied Inspector?**	**Yes**	**Out Brief Conducted**	**Yes**	**Time**	11:30 to 1330	**Outside Shift**	**No**
Related Reports			**Related CAPS / Findings**							

Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title	Checklist Reference
	TRST 1000				
	Safe Track				

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	**Track Type**	At-grade	Tunnel	Elevated	N/A
	☐	☐	☐	☐	x	☐		☐	☐	☐	☐

Line(s)	N/A	**Track Number**		**Chain Marker and/or Station(s)**	From	To

Vehicles	Head Car Number	Number of Cars	**Equipment**

Description			
	A meeting was held on July 5, 2016 with Medenia K. Dashiell and Frank S. Borris II (FWSO) and [redacted] from WMATA's SAFE, Track and Structures (TRST), and Office of Civil Engineering, Infrastructure (CENI/TSFA/TGV) divisions to discuss the Ultrasonic Test (UT) and Geometry test survey goals, procedures and remedial actions as prescribed by the by the TRST for its Track Geometry Vehicle (TGV). The TGV has the capabilities to operate both UT and Geometry features at the same time; however, in most cases these tests are conducted separately.	**Number of Defects**	0
		Recommended Finding?	**No**
		Remedial Action Required?	**No**
		Recommended Reinspection?	**Yes**

Inspector in Charge - Signature	MEDENIA DASHIELL Digitally signed by MEDENIA DASHIELL DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FRAHQ, cn=MEDENIA DASHIELL Date: 2016.07.08 10:53:59 -04'00'	**Date** 07/08/2016
Inspector in Charge – Name Medenia K. Dashiell	**Inspection Team** Medenia K. Dashiell, Frank S. Borris II	

	The TGV is utilized as an enhanced inspection tool to supplement track inspections. The UT feature provides ultrasonic rail surveys for the purpose of citing inner rail deficiencies which cannot be seen by visual inspections. Below are highlights: • The goal is to UT test the entire system two (2) times per year; WMATA will meet that goal by year's end. • Test data results are accessed within 72 hours of the survey; black and red defects are accessed immediately and the appropriate remedial actions are taken. • Ultrasonic calibrations are conducted prior to each test on a separate test track with built in defects. • UT defects found are field verified by the crew during the survey. When defects are found, the crew notifies ROCC and places a restriction on the rail area. A chase crew follows all UT survey and is on hand to change out the rail if a defect is cited within hours of being identified. • The most recent defect cited was a crack in the rail base that grew to the web of the rail. ROCC was notified, the track was taken out of service and the chase crew changed the rail out; however, no was defects were noted on the June 22/23, 2016 survey. On June 22/23, 2016, FWSO observed the UT and Geometry surveys conducted on the Safe Track area between East Falls Church Ballston-MU; each test was conducted separately. The TGV was initially scheduled to test this area at the completion of the surge on June 17, 2016; however, due a breakdown of the TGV, the survey was delayed. Preliminary results noted from WMATA's Track Geometry Inspection Report conveyed a significant number of Excessive Elevation and Narrow Gage conditions. Below are the final results per our meeting on July 5, 2016: • The TGV crew field verified each narrow gage deficiency, cited on June 23, 2016, and found only one (1) black defect was actually absolute; ROCC was notified and a restriction was place at the location. The chase crew corrected the condition that night. • The three (3) black defects identified at Vienna Station were absolute. The ROCC was notified, a restriction was placed within the area and the chase crew performed remedial action that night. • Other field verified deficiencies noted were found to be within the criteria of the TRST standards. • A data comparison conducted against previous surveys conducted (January, 2016, November, 2015) revealed that no other were noted within these areas prior to this survey. • Ensco training recently held provided acknowledgement of an additional feature of the geometry data base that will provide a more exact detection of the defective condition location for field verification that the crew was unaware of. Lessons Learned and process changes resulting from Safe Track Surge #1 • Although several narrow gage locations identified by the survey were not within the approximant Safe Track limits; Quality Assurance (QA) failed to identify locations close to the gage requirements per the TRST standards criteria that could be defective and/or identify narrow gage conditions that were in the track prior to Safe Track. Field verifications of every tie has been implemented instead of at sporadic location checks during track rehabilitation • The TGV will operate over a Safe Track area before and after track rehabilitation as a part of QA • Re-evaluation of TRST 1000 standards to make it more consistent with accepted industry practice and incorporate lessons learned to date. FWSO is not aware of evidence showing WMATA has allowed any known and/or egregious risks to exist in track placed back in service as a result of Safe Track. Though narrow gage may be a defective condition in accordance to the TRST standards, TRST management assure that it would not be a causal factor of a derailment especially per the perimeters cited resulting from the TGV survey. FWSO will continue to monitor the quality of Safe Track rehabilitations and records throughout the process.		

Remedial Action	Continue periodic inspections as warranted.		