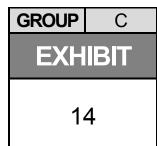


NATIONAL TRANSPORTATION SAFETY BOARD Investigative Hearing

Washington Metropolitan Area Transit Authority Metrorail train 302 that encountered heavy smoke in the tunnel between the L'Enfant Plaza Station and the Potomac River Bridge on January 12, 2015



Agency / Organization

WMATA

Title

Biennial Tunnel Structural Maintenance Inspection Report 2014, L'Enfant Plaza to L'Enfant Portal



L Line OB Track 2 (6,100 Ft)						
F03 L'Enfant Plaza to L'Enfar	nt Ins	t Inspected By: Donald Thomas*				
Portal OB (3,800 Ft)	Dat	te Inspected: 10/22/2014	Report Generated:			
N - Not ApplicableCondition Ra9 - Excellent Condition5 - Fair Condit9 - Excellent Condition4 - Poor Cond8 - Very Good Condition3 - Serious Condition7 - Good Condition2 - Critical Cond6 - Satisfactory Condition1 - Imminent	tion lition ondition ondition	0 - Failed Condition	Inspection Frequency Other			
ITEM	NO.	REMARKS	3			
TUNNEL		- Leak in the crown at joint is hardware at CM L2 88+20	- Leak in the crown at joint is leaking on to the rail and hardware at CM L2 88+20			
1) Tunnel Liner	6					
a. Concrete	5	- CM# 85+40 Overhead spall at joint (approx. 2-1/2"x 10"x 1"). There is also vertical cracking open to .030" on the East wall at the joint. See Photo(s): 4, 5, 6, 7, 8				
b. Steel / Iron Plates and / or Bolts	6					
c. Grab Rails, Handrails and Fasteners	5	L2 70+00 grab bar covered by wires. Grab rail needs to be extended past wires.CM# 84+60 See Photo(s): 9, 10				
3) Invert Slabs	6					
4) Drains / Troughs	4	- Main drain at the center of track bed is clogged at CM 90+60				
5) Safety Walk	5	 L2 57+30, delam 12"x 12" on center of safety walk. CM L2 56+15 nose plates missing on the top and center steps, nose plate raised 1 inch on the lower step and the t step is spalled (10"x8"x2") See Photo(s): 11, 12, 13, 14, 15 				
6) Lighting Equipment	6					
7) Communication Equipment	6					
8) Fire Line System	6					
9) Sign Age	6	Old CM signs at CM#56+00	to CM#100+00.			
10) Debris	6					
THINK SAFETY FIRST						



L Line OB Track 2 (6,100 Ft)						
F03 L'Enfant Plaza	Inspected By: Donald Thom		as*			
Portal OB (3,800 Ft)		Date Inspected:	10/22/2014	Report Generated:		
N - Not Applicable 9 - Excellent Condition 8 - Very Good Condition 7 - Good Condition 6 - Satisfactory Condition	Condition Rating 5 - Fair Condition 4 - Poor Conditio 3 - Serious Condi 2 - Critical Condit 1 - Imminent Failu	n 0 - Fail n ition tion	ed Condition	Inspection Frequency Other		
ITEM		0.	REMARK	S		
11) Floating Slab		6				
* List Unusual Conditions.			TIDOT			
THINK SAFETY FIRST						



L Line OB Track 2 (6,100 Ft)							
F03 L'Enfant Plaza to L'Enfant Inspected By: Donald Thomas*							
Portal OB		Report Generated:					
Condition RatingInspection FrequencyN - Not Applicable5 - Fair Condition0 - Failed Condition9 - Excellent Condition4 - Poor ConditionOther8 - Very Good Condition3 - Serious ConditionOther7 - Good Condition2 - Critical ConditionOther6 - Satisfactory Condition1 - Imminent Failure ConditionOther							
CHAIN MARKER	LOCATION	NO.		REMARKS	S		
L2 88+20	CRWN	4		t joint is dripping ioto(s): 2, 3	on to the rail and hardware		
				drain at center of hoto(s): 1	track is clogged		
THINK SAFETY FIRST							



L Line OB Track 2 (6,100 Ft)						
F03 L'Enfant Plaza to L'Enfant Inspected By: Donald Thomas*						
Portal OB		Date Inspected: 10/22/2014		10/22/2014	Report Generated:	
Condition RatingInspection FrequencyN - Not Applicable5 - Fair Condition0 - Failed Condition9 - Excellent Condition4 - Poor ConditionOther8 - Very Good Condition3 - Serious ConditionOther7 - Good Condition2 - Critical ConditionOther6 - Satisfactory Condition1 - Imminent Failure ConditionOther						
CHAIN MARKER	LOCATION	NO.		REMARK	S	
	IRST					
THINK SAFETY FIRST						



L Line OB Track 2 (6,100 Ft)						
F03 L'Enfant Pla	Inspected By: Donald Thon		Donald Thoma	3 S*		
Portal OB	Date Inspected: 10/22/2014		10/22/2014	Report Generated:		
Condition RatingInspection FrequenceN - Not Applicable5 - Fair Condition0 - Failed Condition9 - Excellent Condition4 - Poor ConditionOther8 - Very Good Condition3 - Serious ConditionOther7 - Good Condition2 - Critical Condition6 - Satisfactory Condition						
CHAIN MARKER	LOCATION	NO.		REMARK	S	
	IK SAF	ETY F	IRST			
THINK SAFETY FIRST						



L Line OB Track 2 (6,100 Ft)						
F03 L'Enfant Plaza to	L'Enfant	Insp	pected By:	Donald Thoma	as*	
Portal OB (3,80			e Inspected:	10/22/2014	Report Generated:	
N - Not ApplicableC9 - Excellent Condition48 - Very Good Condition37 - Good Condition2	Condition Rating5 - Fair Condition0 - Failed Conditiontion4 - Poor Conditiondition3 - Serious Condition				Inspection Frequency Other	
	- Imminent Fa		ondition		-	
ITEM		NO.		REMARK	S	
<u>TUNNEL</u>			- Leak in the cruhardware at CN		eaking on to the rail and	
1) Tunnel Liner		6				
a. Spalls						
b. Cracks						
c. Delaminating Concrete						
d. Deteriorated Steel/Iron Pa and/or Bolts	nels					
e. Evidence of Squatting or T	wisting					
f. Grab Rails, Handrails and Fasteners		5	L2 70+00 grab Grab rail needs See Photo(s): 9	to be extended	wires. d past wires.CM# 84+60	
2) Invert						
a. Spalls						
b. Cracks						
c. Delaminating Concrete						
d. Invert Joints						
e. Accumulation of Debris						
THINK SAFETY FIRST						



L Line OB Track 2 (6,100 Ft)							
F03 L'Enfant Plaza Portal OB (3,8		· · ·	pected By: e Inspected:	Donald Thoma 10/22/2014	as* Report Generated:		
N - Not Applicable 9 - Excellent Condition 8 - Very Good Condition 7 - Good Condition 6 - Satisfactory Condition	Condition Rating5 - Fair Condition0 - Failed Condition4 - Poor Condition3 - Serious Condition2 - Critical Condition1 - Imminent Failure Condition				Inspection Frequency Other		
ITEM f. Ports in Invert		NO.		REMARKS	5		
3) Drains							
4) Safety Walk			 L2 57+30, delam 12"x 12" on center of safety walk. CM L2 56+15 nose plates missing on the top and center steps, nose plate raised 1 inch on the lower step and the top step is spalled (10"x8"x2") See Photo(s): 11, 12, 13, 14, 15 				
a. Spalls							
b. Cracks							
c. Delaminating Concrete							
d. Ports in Safety Walk							
5) Lighting System		6					
6) Communication System		6					
7) Fire System		6					
* List Unusual Conditions.		N					
THINK SAFETY FIRST							

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY L Line OB Track 2 (6,100 Ft) - F03 L'Enfant Plaza to L'Enfant Portal OB (3,800 Ft)



Photo 1

Large drain in center of track bed is clogged at CM L2 90+60



Photo 2 Leak in crown at construction joint, CM L2 88+20

L Line OB Track 2 (6,100 Ft) - F03 L'Enfant Plaza to L'Enfant Portal OB (3,800 Ft)



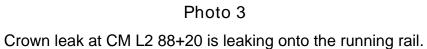




Photo 4

Cracking in the East wall near the construction joint at CM L2 85+40

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY L Line OB Track 2 (6,100 Ft) - F03 L'Enfant Plaza to L'Enfant Portal OB (3,800 Ft)



Photo 5

Spalling in the East wall at the construction joint at CM L2 85+40

Photo 6

Cracking in the East wall near the construction joint at CM L2 85+40

L Line OB Track 2 (6,100 Ft) - F03 L'Enfant Plaza to L'Enfant Portal OB (3,800 Ft)





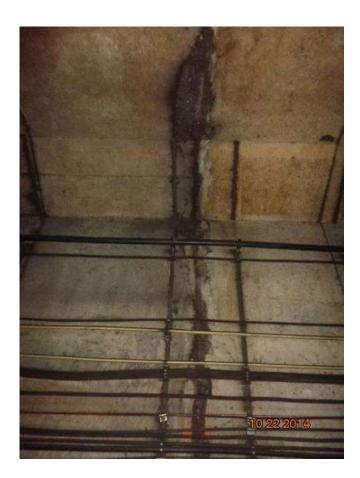


Photo 8

Overall of construction joint at CM L2 85+40

L Line OB Track 2 (6,100 Ft) - F03 L'Enfant Plaza to L'Enfant Portal OB (3,800 Ft)



Photo 9 Grab bar covered by wires at L2 70+00

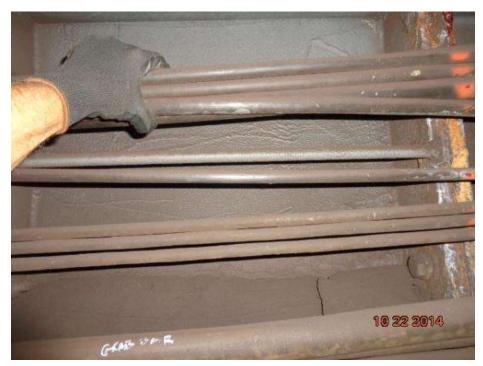


Photo 10 Grab bar covered by wires at L2 70+00

L Line OB Track 2 (6,100 Ft) - F03 L'Enfant Plaza to L'Enfant Portal OB (3,800 Ft)



Photo 11 Spall/Delam on safety walk at CM L2 57+30



Photo 12 Spall/Delam on safety walk at CM L2 57+30

L Line OB Track 2 (6,100 Ft) - F03 L'Enfant Plaza to L'Enfant Portal OB (3,800 Ft)



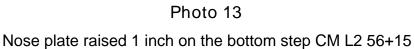




Photo 14 Top step spalled at CM L2 56+15

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY L Line OB Track 2 (6,100 Ft) - F03 L'Enfant Plaza to L'Enfant Portal OB (3,800 Ft)



