



Inspection Form

Form WMSC-IR-1

Washington Metrorail Safety Commission

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20200925-WMSC-MAL-1		
	2020	09	25				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	ELES	Sub- Department	Union Station
Rail Agency Department Contact Information	Name		Email	Office Phone		Mobile Phone	
	[REDACTED] [REDACTED]		[REDACTED] [REDACTED]	[REDACTED] [REDACTED]		[REDACTED] [REDACTED]	
Inspection Location	Union Station – BO3 701 First St NE, Washington, DC 20002						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	VT-WI-PI					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	1					
Recommended Finding	No					
Remedial Action Required¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject	Virtual Inspection				Activity Code		VT	WI	PI
Job Briefing Employee Name/Title		WMATA Inspection	Accompanied Inspector?	N/A	Out Brief Conducted	N/A	Time		Virtual	Outside Shift	No
Related Reports		N/A	Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	Metrorail Safety Rules and Procedures Handbook (MSRPH). Section 4– Safety Rules										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	WMSC Office	Track Type	At-grade	Tunnel	Elevated	N/A
			X								X
Line(s)	B03	Track Number	N/A	Chain Marker and/or Station(s)		From		To			
						N/A		N/A			
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	N/A		N/A								



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Description	<p>WMSC Inspector conducted a virtual rules compliance inspection of WMATA's Union Station on the Red Line. The inspector requested numerous documents from daily activities performed at this facility for compliance with Metrorail Safety Rules and Procedures Handbook (MSRPH), as well as equipment maintenance activities, incidents, and documentation.</p> <p>The following documents were reviewed:</p> <p><u>ELES Completed Housekeeping and Daily Check Sheets</u></p> <ul style="list-style-type: none"> ○ Completed Housekeeping and Daily Check Sheets were not provided, only a work order was provided stating that the Housekeeping and Daily Check Sheets were completed. ELES is requested to provide copies of completed Housekeeping and Daily Check Sheets from August 24 through 28, 2020 for Union Station, Congress Heights, and College Park Stations. <p><u>ELES Escalators Periodic Maintenance (PM) Check Sheets</u></p> <ul style="list-style-type: none"> ○ Escalators PM check Sheets were reviewed, and the following information is provided. See attachments #1 and #2. ○ The PM check sheets list deficiencies found during the escalator PM. The PM Check Sheets do not clearly reference which deficiency, by item number (i.e. Item # 3), was corrected or left open during the escalator PM cycle. See below a Checklist for Safety Inspections of Elevators and Escalators, which clearly references which deficiency, by item number, was corrected. <p><u>ELES Checklist for Safety Inspections of Elevators and Escalators</u></p> <ul style="list-style-type: none"> ○ Checklist for Safety Inspections of Elevators and Escalators was reviewed, and the following information is provided. ○ The Checklist for Safety Inspections of Elevators and Escalators state deficiencies found. The re-inspection checklist clearly references which deficiency, identified by Item # (i.e. Item # 1.6), was corrected or repaired on the elevator or escalator number during the re-inspection cycle. See attachments #3 and #4. 	Number of Defects	1
		Recommended Finding?	No
		Remedial Action Required?	No
		Recommended Reinspection?	No
Remedial Action	N/A		
Effective Practices	<p>Effective Practices</p> <ul style="list-style-type: none"> • ELES's team was very supportive. 		



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Attachments 1 and 2 – ELES Escalators PM Check Sheets



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Escalator PM Check Sheet		FSVT			
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY		Office of Elevators & Escalators Services			
STATION NAME: UNION STATION		Mezz#: 24		UNIT ID#: B03504 Esc	
PM TYPE	WORK ORDER #	DATE/TIME STARTED	DATE / TIME COMPLETED	TOTAL HOURS	
E	15731505	8/20/20 0000	8/20/20 0500	5.0	
ITEM	PROCEDURE DETAILS	OK	NG	NA	COMMENTS
A-Level (Item 1-11)					
1	Perform/Review Job Hazard Analysis (JHA)	<input checked="" type="checkbox"/>			
2	Signage: (a) Inspect signage, replace as needed.	<input checked="" type="checkbox"/>			
3	Exterior Panel System: (a) Check/Correct gaps exceeding 1/8" on balustrades, light frames, H/R decking, skirt decking. Check if proper hardware installed and make sure all are right.	<input checked="" type="checkbox"/>			Decking missing hardware screws, one bent screw
4	Skirt Brushes: (a) Check if it is properly secured. Secure/Replace as needed.	<input checked="" type="checkbox"/>			
5	Lighting Fixtures: (a) Visually check for required illumination. (b) Clean lenses or re-lamp as needed.	<input checked="" type="checkbox"/>			
6	Key Switches: Check for proper operation. Key switches must return to neutral position when released. Repair/replace as needed.	<input checked="" type="checkbox"/>			
7	Bearing Plates: (a) Check for even fit, tripping hazards, missing screws, gaps. (b) Open PLNT ticket for non-skid material repair.	<input checked="" type="checkbox"/>			
8	Complate Assembly: Inspect and correct for (a) Proper penetration. (b) Damaged and/or sharp teeth. (c) Proper end cuts. (d) Clearance of end plate to skirt.	<input checked="" type="checkbox"/>			
9	Step Assembly: Walk steps. (a) Check for worn/broken demarcations. (b) Check for sharp/broken tread boards. Repair/replace as needed.	<input checked="" type="checkbox"/>			
10	Hand Rail: (a) Check for smooth operation, tension. (Ensure each handrail is moving at the same speed as the steps). (b) Check for excessive wear/damage.	<input checked="" type="checkbox"/>			
11	Brake(s): (a) Inspect for wear and ensure there is no oil. (b) Torque brakes (schedule replacements if below 90 ft-lbs, replace now if below 70 ft-lbs.)	<input checked="" type="checkbox"/>			180 ft lbs
B-Level (Item 1-22)					
12	Hand Rail Bell: Check/adjust for proper audible and shut off time. Repair/replace damaged parts as needed. Hand Rail Drive Assembly: (a) Visually inspect for wear/damage to drive, belt, chains. (b) Lubricate and clean rollers, chains and belts.	<input checked="" type="checkbox"/>			
	Hand Rail Tracking System: (a) Visually inspect for wear/damage to tracks, guides, newel ends, rollers. (b) Remove and clean out debris. (c) Replace snap on track as needed.	<input checked="" type="checkbox"/>			top left hr boot switch noisy recently replaced new
13	Comb Impact Device: (a) Verify settings are: 140 - 150 lbs. vertical. (b) 300 - 400 lbs. horizontal. and (c) 500 - 800 lbs. center horizontal. Document the readings.	<input checked="" type="checkbox"/>			Top vertical 150/140 adj 330a/360a 760 Bottom 140 340adj/375adj 470
14	Roller Tracking Assembly: (a) Visually Check all steps, axle, horizontal guide rollers. (b) Check turnaround for proper clearances. (c) Check track at landing areas for misalignment, broken welds and wears	<input checked="" type="checkbox"/>			
15	Step To Skirt Clearance: (a) Check/adjust the clearance not to exceed 3/16" on either side.	<input checked="" type="checkbox"/>			
16	Pit Area Equipment: (a) Visually inspect and clean pit area and equipment, including top/bottom truss pans. (b) Check pit receptacle and lights (proper guards and cover). (c) Check all hatch covers, railings and safety chains. (d) Check that drain is not obstructed by debris.	<input checked="" type="checkbox"/>			

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ESCALATOR PM CHECK SHEET

STATION NAME: UNION STATION		Mezz#: 24		UNIT ID#: B03S04 Esc	
PM TYPE	WORK ORDER #	DATE/TIME STARTED	DATE / TIME COMPLETED	TOTAL HOURS	
	15731505	8/20/20 0000	8/20/20 0500	5.0	
ITEM	PROCEDURE DETAILS	FINDING		COMMENTS	
17	Safety Circuit: (a) Manually activate all safety devices to verify proper operation. (b) Verify proper gap Top Step Level actuators.	Intermittent safety circuit fault and does not trip all the time with run box			
18	Drive Assembly: (a) Visually inspect all components, belts, chains, liquid-tight conduit. (b) Lubricate idler/drive sprocket, bearings, and chains. (c) Adjust drive for smooth ride.				
19	Gear Reducer: (a) Visually inspect reducer. (b) Verify oil level and check for leaks. (c) Ensure there is no side to side movement on output shaft. Tighten all screws.				
20	Step-Chain Assembly: (a) Oil the step-chain or rack/axle. (b) Visually Check for damage and excessive wear.				
21	Controller Equipment: (a) Inspect equipment for proper operation. (b) Check mainline disconnects for proper operation and loose connections. (c) Check fault Indicator operation. (d) Check for water intrusion.				
22	Fire Extinguisher: (a) Check gauge (In green area), pin, seal, and inspection tag (initial and date).				
E-Level (Item 1-28)					
23	Pit Area Equipment: (a) Completely clean pits, pans, walkways and machine rooms.			L Ticket Clean Down	
24	Drive Assembly: (a) Change reducer oil. Check service drive operation. (b) Inspect in detail all drive components and adjust when needed.				
25	Roller Tracking System: Check entire track system for misadjustments, broken welds, wear.				
26	Truss Assembly: Perform random check for loose fittings & fastenings.				
27	Junction Boxes: (a) Inspect junction boxes for water intrusion. (b) Tighten loose connections. (c) Fix damaged liquid-tight conduits.				
28	Controller Equipment: (a) Clean, check transformer, fuses, disconnects. (b) Check for cabinet damage or water intrusion.				
Comments: Repaired/Replaced Items During PM					
ADJUSTED ALL COMB IMPACT SWITCHES TO WITHIN SPEC					
ITEM NUMBER	WORK ORDER TICKET NUMBER	TICKET TYPE	ITEMS IDENTIFIED FOR CORRECTIVE ACTION		
Call MOC (x 2-1920) to open PLNT work orders for items associated with escalator structure and flooring problems.					
Call (x 2-1058) to open Power Department work orders for related failure problems.					
Call EOC (x 8-7587), (x 8-7588) or (x 8-7589) to open (C or L) work orders for escalator deficiencies. Document all actions above.					
MECHANIC (SIGNATURE, ID#)		MECHANIC (SIGNATURE, ID#)		SUPERVISOR (SIGNATURE, ID#)	
Bryan R. E008873				Hart, Alonzo	

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Attachments 3 and 4 – Checklist for Safety Inspections of Elevators and Escalators



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Station Name	Union Station	QEI #/Certification:	C-5404				
Rated Load/Rated Speed	2500 lbs / 75 fpm	Type Of Inspection:	Re-inspection				
ID Number:	B03N02	Last Maintenance:					
Code Year:	A17.1-2000	Last Cat 5 Test	Due 2021				
MAXIMO #	15457003	Re Inspection Date	2/17/2020				
Requirement/Inspection Area	OK	NG	N/A	Requirement/Inspection Area	OK	NG	N/A
1. Elevator - Inside of Car				3.11 Hoistway Smoke Control			
1.1 Door Reopening device	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.12 Pipes, Wiring & Ducts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Stop Switches	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.13 Windows, Projections, Recesses & Setbacks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Operating Control Devices	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.14 Hoistway Clearances	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Sills and Car Floor	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.15 Multiple Hoistways	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Car Lighting and Receptacles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.16 Traveling Cables and Junction Boxes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Car Emergency Signal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.17 Door & Gate Equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.7 Car Door or Gate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.18 Car Frame & Stiles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.8 Door Closing Force	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.19 Guide Rails, Fastenings & Equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.9 Power Closing of Doors or Gates	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.20 Governor Rope	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.10 Power Opening of Doors or Gates	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.21 Governor Releasing Carrier	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.11 Car Vision Panels and Glass Car Doors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.22 Wire Rope Fastening & Hitch Plate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.12 Car Enclosure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.23 Suspension Rope	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.13 Emergency Exit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.30 Speed Test	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.14 Ventilation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.31 Slack Rope Device- Hydro A17.1b-1989	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.15 Signs & Operating Device Symbols	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.32 Traveling Sheave- Hydro A17.1b-1989	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.16 Rated Load, Platform Area & Data Plate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.33 Counterweight	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1.17 Standby Power Operation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
1.18 Restricted Opening of Car or Hoistway Dr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
1.19 Car Ride	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
2. Elevator - Machine Room				4. Elevator - Outside Hoistway			
2.1 Access to Machine Space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.1 Car Platform Guard	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2 Headroom	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.2 Hoistway Doors	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2.3 Lighting and Receptacles	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.3 Vision Panels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.4 Machine Space	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.4 Hoistway Door Locking Device	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.5 Housekeeping	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4.5 Access to Hoistway	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.6 Ventilation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.6 Power Closing of Hoistway Doors	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.7 Fire Extinguisher	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.7 Sequence Operation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.8 Pipes, Wiring and Ducts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.8 Hoistway Enclosure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.9 Guarding of exposed Auxiliary Equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.9 Elevator Parking Device	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.10 Numbering of Elevators, Machines, Disconnects	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.10 Emergency Doors in Blind Hoistways	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.11 Disconnecting Means and Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.12 Standby Power Selector Switch	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2.12 Controller Wiring, Fuses, Grounding, Etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
2.13 Governor, Overspeed Switch & Seal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
2.14 Code Data Plate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
2.30 Hydraulic Power Unit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
2.31 Relief Valves	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
2.32 Control Valve	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
2.33 Tanks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
2.34 Flexible Hydraulic Hose & Fittings	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
2.35 Supply Line & Shutoff Valves	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
2.36 Hydraulic Cylinders	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
2.37 Pressure Switch	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				
2.38 Roped Water Hydraulic Elevators	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>				

3. Elevator - Top of Car		6. Elevator - FireFighter's Service	
3.1 Top-of-Car Stop Switch	<input checked="" type="checkbox"/>	6.1 A17.1b-1973 through A17.1b-1980	<input type="checkbox"/>
3.2 Car Top Light & Outlet	<input checked="" type="checkbox"/>	6.2 A17.1-1981 through A17.1b-1983	<input type="checkbox"/>
3.3 Top-of-Car Operating Device	<input checked="" type="checkbox"/>	6.3 A17.1-1984 through A17.1a-1988 & A17.3	<input type="checkbox"/>
3.4 Top-of-Car Clearance & Refuge Space	<input checked="" type="checkbox"/>	6.4 A17.1b-1989 through A17.1d-2000	<input type="checkbox"/>
3.5 Normal Terminal Stopping Device	<input checked="" type="checkbox"/>		
3.6 Final & Emergency Terminal Stopping Device	<input checked="" type="checkbox"/>		
3.7 Car Leveling & Anticreep Devices	<input checked="" type="checkbox"/>		
3.8 Top Emergency Exits	<input checked="" type="checkbox"/>		
3.9 Floor & Emergency Identification #s	<input checked="" type="checkbox"/>		
3.10 Hoistway Construction	<input checked="" type="checkbox"/>		

COMMENTS: PASSED All Items Complete

1. Provide 5fc illumination in cab 2.14.7.1.3 (LM) Complete

2. Replace missing screws in COP and Provide it be flush with cab 2.14.1.2.4(a) (LM) Complete

3. Clean pit and hoistway rails, brackets etc A17.2.5.1 (LM) Complete

4. Provide all hoistway doors be self closing A17.2.4.2 (LM) Complete

5. Provide all fans in car ventilation fan assembly to work A17.2.1.14 (LM) Complete

6. Provide battery back up for car ventilation fan to work 2.14.2.3.2 (LM) Complete

7. Adjust top car guide rollers A17.2.3.18 (LM) Complete

8. Replace belt on rear car door operator A17.2.3.17 (LM) Complete

9. Clean up machine room and remove all unrelated items A17.2.2.5 (LM) Complete

10. Provide compliant fire extinguisher (LM) Complete

11. Provide updated fire service log 8.6.10.1 (LM) Complete

Pressures: Working/Full, Empty, Static, Relief



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¹ The rail transit agency must provide WMSC with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing WMSC verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
		09/25/2020
Inspector in Charge – Name	Inspection Team	
Manuel Lopez	Manuel Lopez	