

# Summer of 2023 Capital Program Initiatives

Proposed Summer Outages to Increase  
Reliability and Advance Modernization

Riders' Advisory Council  
February 1, 2023



# Purpose

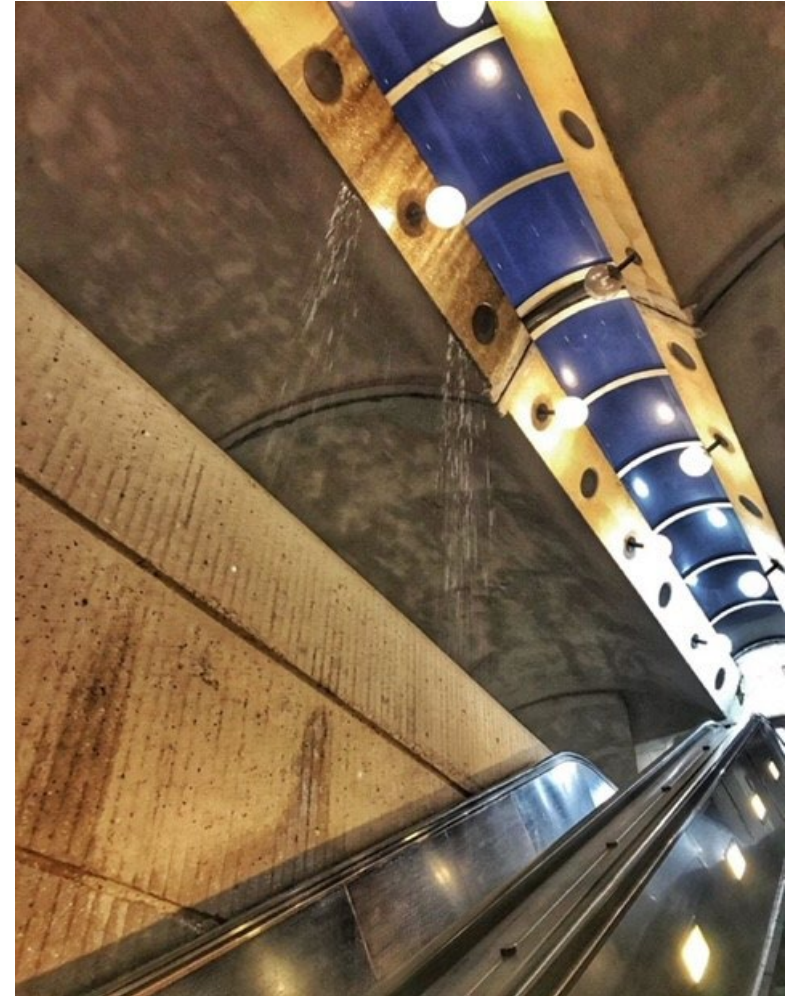
- To aggressively increase reliability and advance system modernization for customers with five major initiatives: roofing work on the Orange Line, fiber installation and rail replacement on the Orange Line, fiber installation on the Green Line, modernizing Passenger Displays in the downtown transfer stations and replacing vertical transportation at the Dupont Station North entrance

# Background

- Started major outages in 2016 to address safety challenges
- In 2017, continued major outage focus on safety matters and reliability
- In 2023, as the health of infrastructure has improved, focus on reliability and modernization
- Alternatives analysis: continue to balance speed / cost of delivery vs. customer impact vs. long term gains

# Orange Line – Minnesota Ave to Cheverly

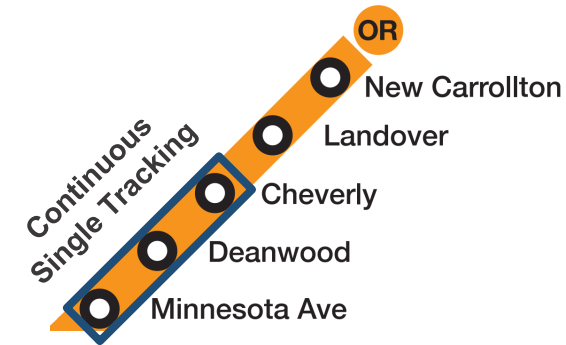
- Completion of roof waterproofing at Minnesota, Deanwood and Cheverly Stations
- Power transmission lines run above parts of these stations
- These lines can only be deenergized in the Spring / Fall due to the critical nature to PEPCO's mission
- During the Summer of 2022 shutdown, completed all work that could safely be done without deenergizing PEPCO's power lines



## Orange Line – Minnesota Ave to Cheverly

Preferred Option: Continuous Single Track between Stadium Armory to Cheverly from May 12, 2023, to May 22, 2023

	Continuous Single Track	Continuous Shutdown	Alternatives
Duration	10-day Single Track	10 day	<u>Weekend Single Tracking and Early Outs</u> : can't complete in restricted time frame
Estimated Cost	Setup/Restore: \$131K	Setup/Restore: \$131K	
	Support Cost: \$356K	Support Cost: \$356K	
	BUS Support: -	BUS Support: \$439K	
	Revenue Loss: (\$110K)	Revenue Loss: (\$110K)	
	<b>Total: \$597K</b>	<b>Total: \$1.04M</b>	
Customer Impact	Specific headways being developed, anticipated headways will be faster than express bus from New Carrollton to Stadium-Armory	30-35 minute increase in travel time between New Carrollton and Stadium Armory	





# Orange/Silver Line – Ballston to McLean/Vienna

- Completion of 30 miles of running rail replacement and installation of fiber
- Between Ballston and Vienna existing running rail is significantly less reliable and experiences more rail breaks than any other part of the system and is 40 years old

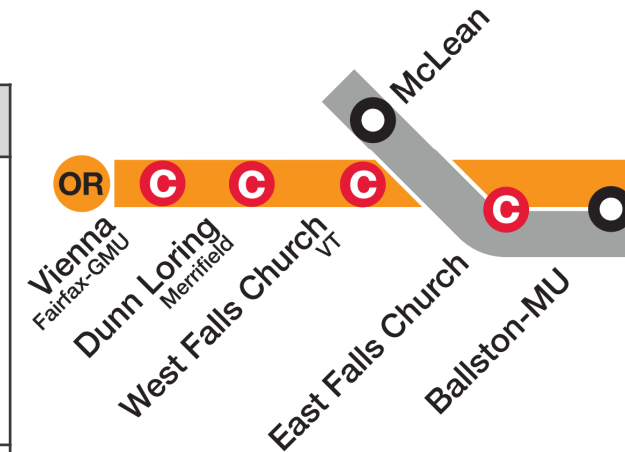


*Rail Break and Defect*

# Orange/Silver Line – Ballston to McLean/Vienna

Preferred Option: Continuous Shutdown between Ballston to Vienna/McLean from June 3, 2023, through June 26, 2023

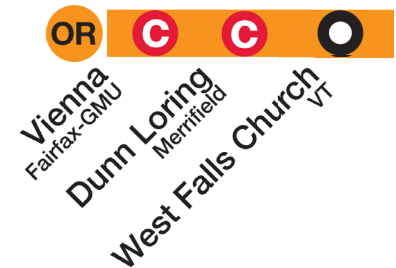
	Continuous Shutdown	Weekend Shutdown	Alternatives
Duration	23-day Shutdown	4 months of continuous weekend shutdowns (15 weekends)	<u>Single Tracking and Early Outs</u> : Single tracking not recommended as the old rail causes track circuit failures that significantly impact customers
Estimated Support Cost	Setup/Restore: \$131K	Setup/Restore: \$2.0M	
	Work Support: \$691K	Work Support: \$2.7M	
	BUS Support: \$1.4M	BUS Support: \$1.5M	
	Revenue Loss: (\$600K)	Revenue Loss: (\$260K)	
	<b>Total: \$2.8M</b>	<b>Total: \$6.4M</b>	
Customer Impact	Bus shuttle: Vienna to Ballston (Orange) and McLean to Ballston (Silver), other headways approximately normal	Bus shuttle: West Falls Church to Ballston (Orange) and McLean to Ballston (Silver), other headways approximately normal	



# Orange Line – West Falls Church to Vienna

Preferred Option: Continuous Shutdown between West Falls Church to Vienna from June 3, 2023, through July 17, 2023

	Continuous Shutdown	Weekend Shutdown	Alternatives
Duration	44-day Shutdown	6 months of continuous weekend shutdowns (25 weekends)	<u>Single Tracking and Early Outs</u> : Single tracking not recommended as the old rail causes track circuit failures that significantly impact customers
Estimated Support Cost	Setup/Restore: \$131K	Setup/Restore: \$3.3M	
	Work Support: \$1.2M	Work Support: \$4.5M	
	BUS Support: \$2.2M	BUS Support: \$1.9M	
	Revenue Loss: (\$900K)	Revenue Loss: (\$280K)	
	<b>Total: \$4.2M</b>	<b>Total: \$10.0M</b>	
Customer Impact	Bus shuttle: Vienna to Dunn Loring, other headways normal	Bus shuttle: Vienna to West Falls Church, other headways normal	





# Green Line – Fort Totten to Greenbelt

- Completion of fiber installation to advance many technologies that rely on fiber (radio and tagging relay)
- Primary goals are more aggressively completing the radio and tagging relay projects
- Work can only be done during shutdowns
- Fiber project not awarded until well after the Summer of 2021 shutdown



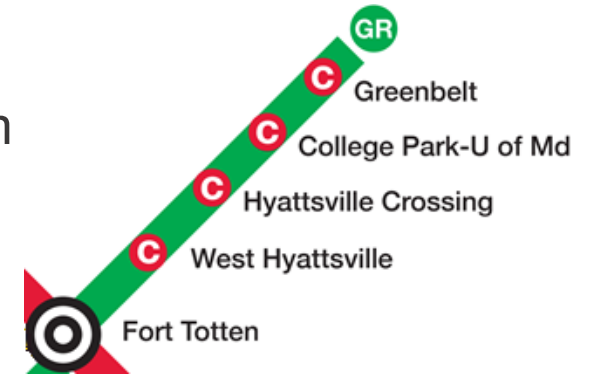
*Fiber Installation*



## Green Line – Fort Totten to Greenbelt

Preferred Option: Continuous Shutdown between Fort Totten to Greenbelt from July 22, 2023, to September 4, 2023

	Continuous Shutdown	Weekend Shutdown	Alternatives
Duration	44-day Shutdown	6 months of continuous weekend shutdowns (25 weekends)	<u>Single Tracking and Early Outs</u> : Not possible based on location of duct banks in middle of tracks
Estimated Support Cost	Setup/Restore: \$131K	Setup/Restore: \$3.3M	
	Work Support: \$1.2M	Work Support: \$4.5M	
	BUS Support: \$5.2M	BUS Support: \$5.3M	
	Revenue Loss: (\$1.6M)	Revenue Loss: (\$650K)	
	<b>Total: \$8.1M</b>	<b>Total: \$13.8M</b>	
Customer Impact	Bus Shuttle: Greenbelt to Fort Totten, other stations approximately normal headways	Bus Shuttle: Greenbelt to Fort Totten, other stations approximately normal headways	



# New Passenger Information Displays (PIDs)

## Three Downtown Transfer Stations

- PID Replacement at Metro Center, Gallery Place/Chinatown, L'Enfant Plaza:
  - Minimal impact to passenger service
  - Start in May 2023 and completed by September 2023
- Replace PIDs on 11 Mezzanines and 6 Platforms and add more PIDS
  - Total existing PIDS: 23
  - Total PIDs after Construction: 41
- Existing PIDs will remain operational for until the new infrastructure is installed and cut-over



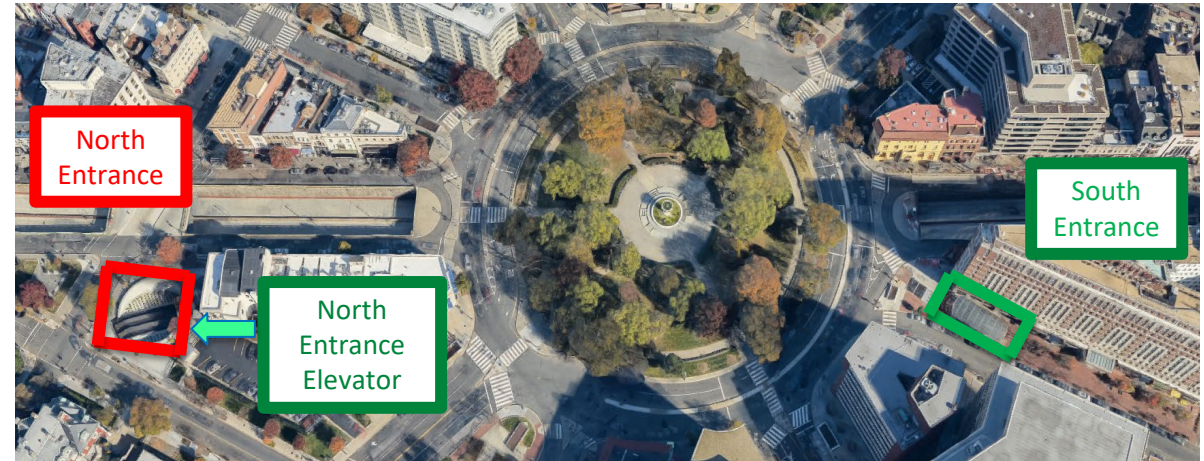
*L'Enfant Plaza Upper-Level  
Platform Existing PID*



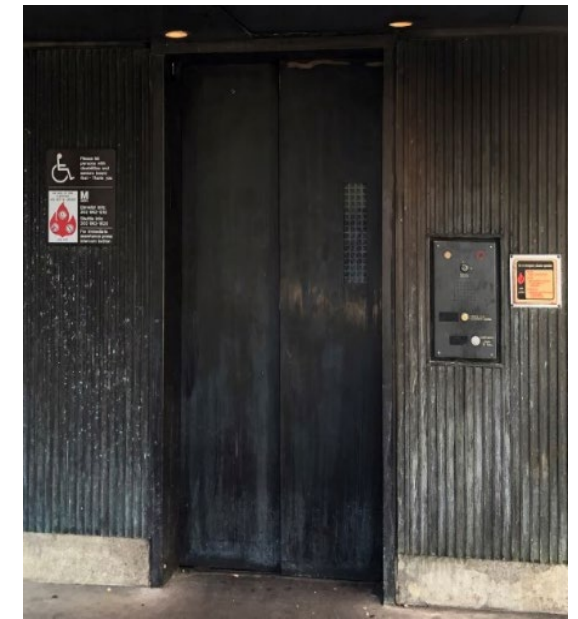
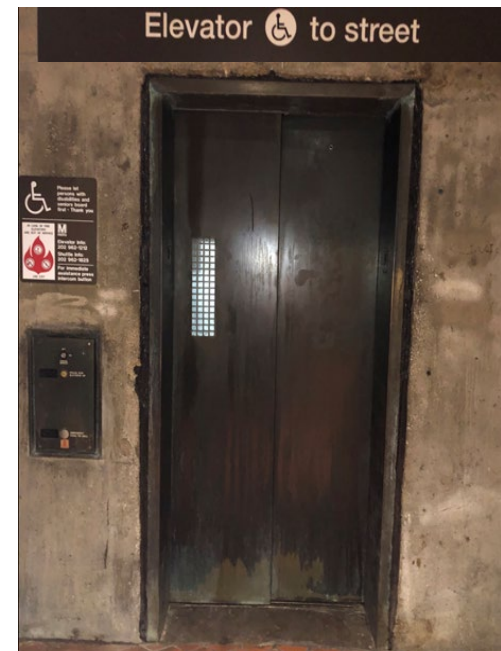
*West Hyattsville Platform  
New PID*

# Dupont Circle Escalator Replacements

- Three escalators at Dupont Circle station's north entrance:
  - 45 years old, exposed to the elements prior to Summer of 2022
  - 95' rise (sixth longest in system), bottom 10% for reliability
- Preferred option:
  - Phase 1: July 27 – January 10, 2024; replace one escalator and elevator (solid alternatives for mobility customers, entrance open with two escalators – one up, one down)
  - Phase 2: mid-January through July 2024; replace two remaining escalators (from Phase 1 have 2.5 times faster elevator and one new, reliable up-running escalator)



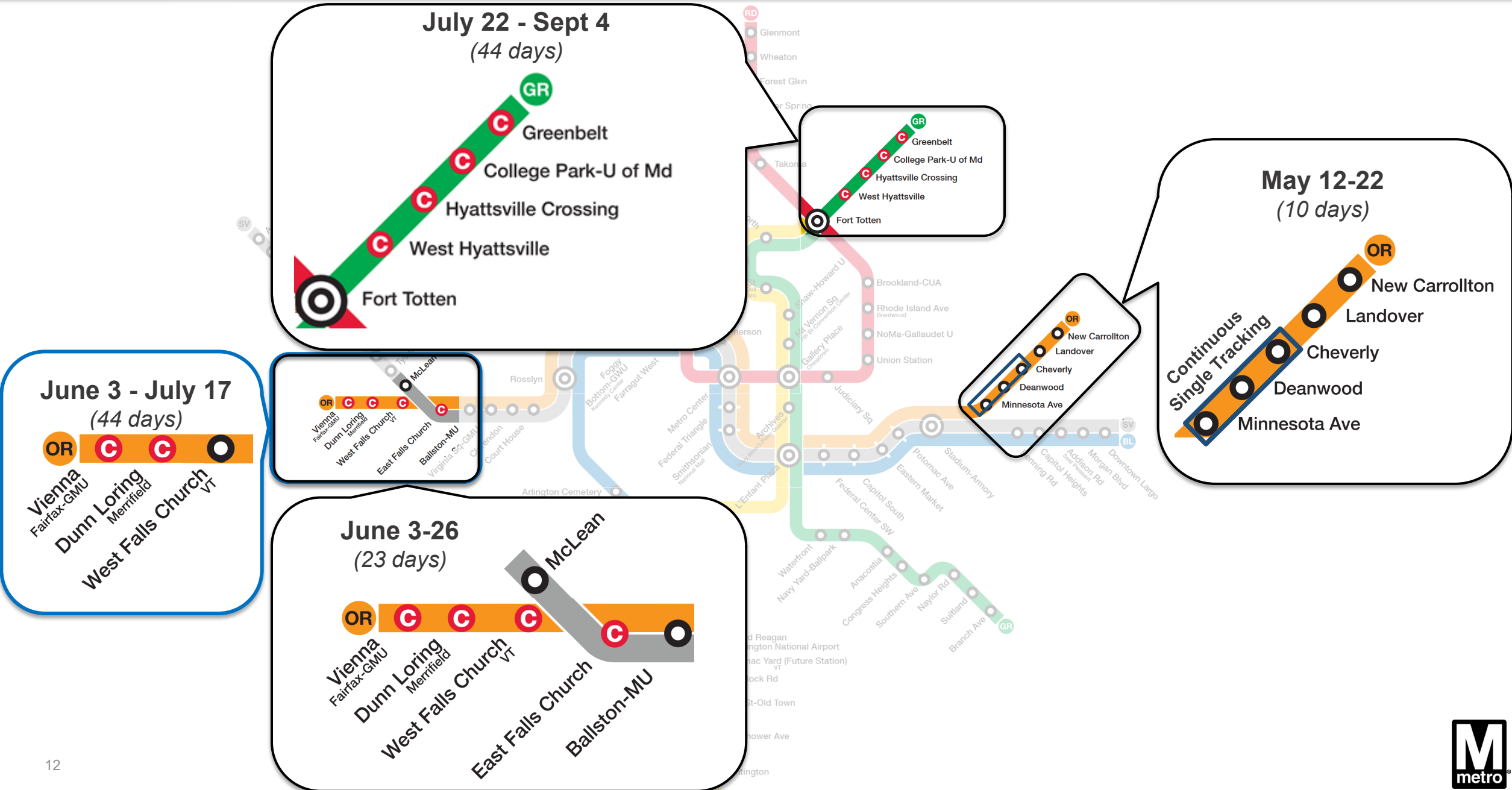
*DuPont Circle Entrances*



*North Entrance Elevator Platform and Street Level Facades*



# Summer 2023 Outages



# Future Outages

- Red Line – Dupont Circle to Union Station
  - Required for major structural work at Farragut North and switch replacement at Judiciary Square
  - Estimated Date – Holiday Season: December 2023 – January 2024

# Next Steps

- Begin extensive coordination with impacted stakeholders and local officials to develop alternative service plans
- Deliver detailed service plan ~ 90 days prior to start of each event
- Brief Board within next few months on longer term capital work plan