

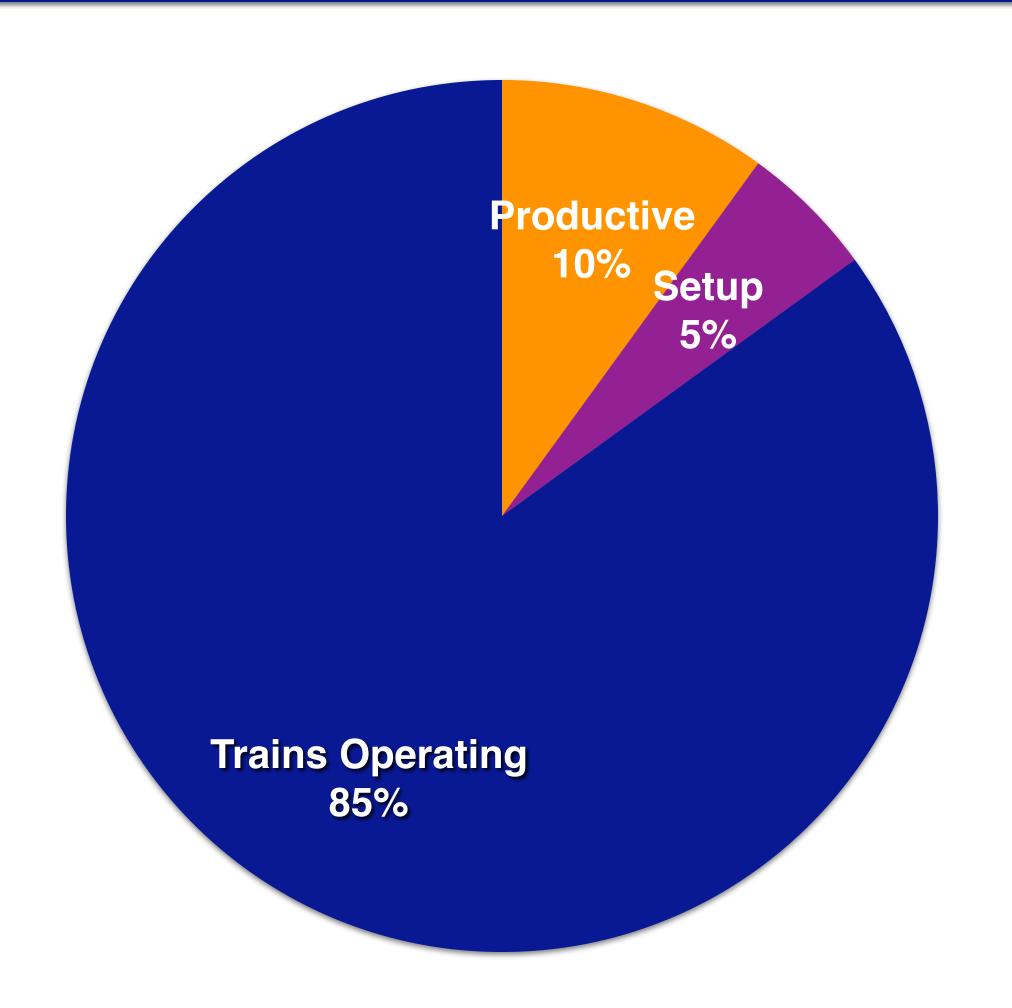
SafeTrack Plan

DRAFT May 6, 2016

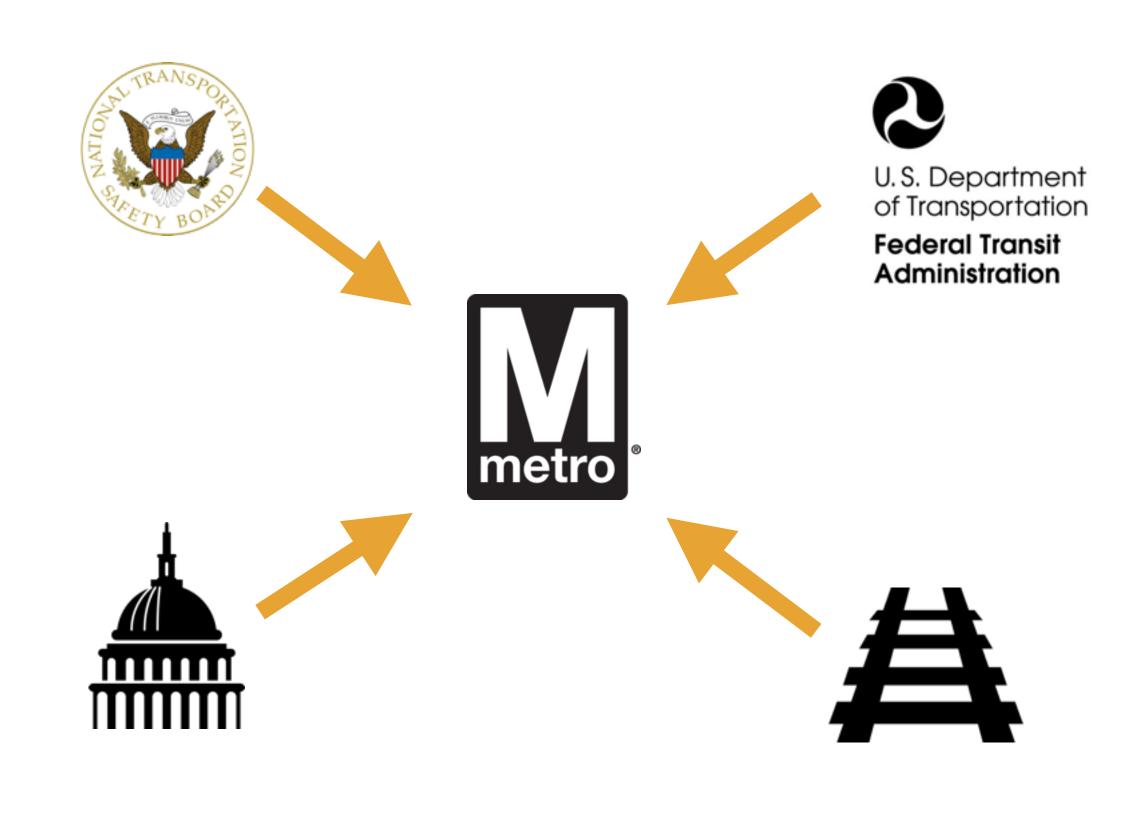
** UPDATED 4PM **

Track Access Demands Continue to Increase





Metrorail open 135 out of 168 hours/week



- NTSB Recommendations
- FTA Safety Directives
- Congressional Mandates

 (e.g. Radio System, Cellular Installation)

- Deferred Maintenance
- Routine Maintenance



SafeTrack Overview



- Massive effort to address safety recommendations and rehabilitate system on accelerated basis
- 3 years worth of work accelerated into approx. 1 year
- Includes expansion of track-work hours on weeknights, weekends and during certain rush hours — both above ground and in tunnels
- Achieves safety and state of good repair of basic track structure and advances critical NTSB/FTA work
- Includes line segment shutdowns of less than one month
- Uses contractors to augment existing workforce



SafeTrack: New Right-of-Way Access Plan



SafeTrack reallocates access to tracks for passenger trains and safety work:

- **WEEKNIGHT:** Maintenance crews start at 8PM on weeknights (adds 2 hours of productive time)
- **WEEKENDS:** Close system at **midnight** on Friday and Saturday (adds 6 hours/week).
 - Midnight closings will start Friday, June 3.
 (Last 3 a.m. closing Saturday, May 28.)
- MORATORIUM ON EXTENDED HOURS: No additional early openings or late closings during SafeTrack. Will reevaluate once system is in state of good repair
- SAFETY SURGES: Long-duration outages on selected line segments



Expected Work Elements



- Tunnel lighting
- Third rail cables/boots
- Emergency signage
- Debris clearing
- Ventilation work & fan control
- Tunnel washing

- Insulator replacement
- Fastener replacement
- Rail renewal
- Radio system/cell phone installation
- Interlocking maintenance
- Third rail cover boards



SafeTrack Surges



- Requires continuous track outage for long duration
- Primarily above ground where longer-duration outages most needed
- Frees up resources for underground work on nights/weekends
- Type of work that cannot be achieved via weekends or "early outs" alone
- Impacts rush hour service many riders will be impacted; encouraged to use alternate travel options if possible
- Shuttle buses will serve closed stations; transit service maintained at all times, although service levels will be reduced significantly
- Will require regional coordination, resources, communication and shared pain

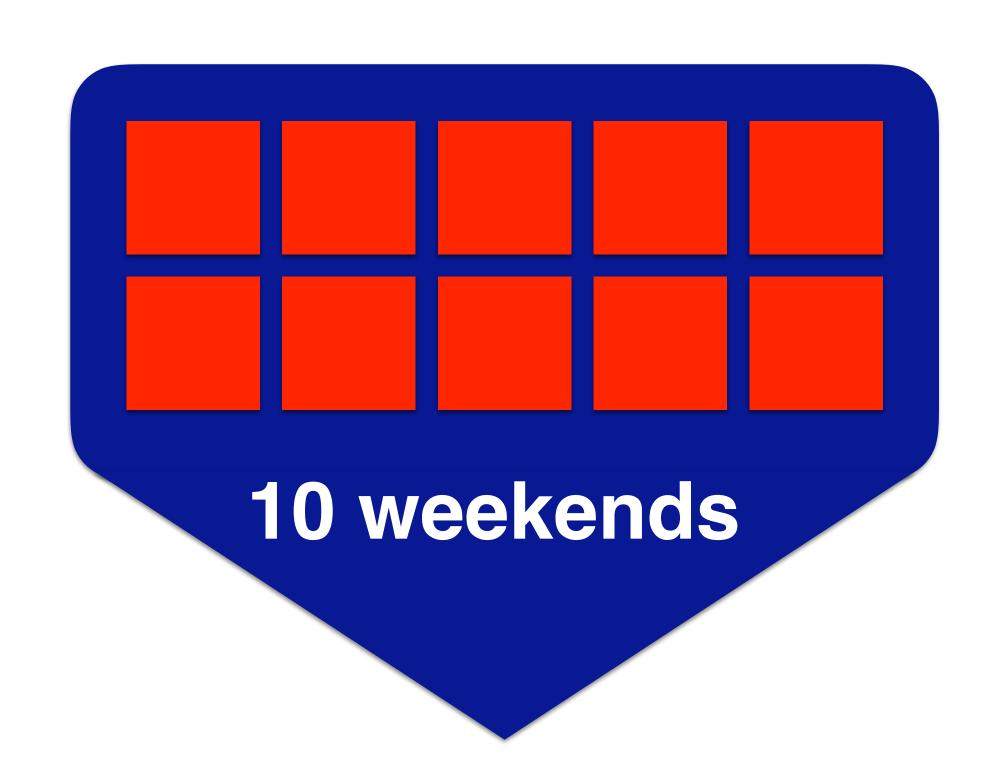
SafeTrack Results



- Installation of NTSB-recommended boots and seals on all 3rd rail cables by end of summer*
 - Note: All underground boots will be retrofitted by end of this month
- Replacement of 12,000 insulators
- Remove 3rd rail expansion joints in underground system, reducing risk
- Eliminate ALL temporary gauge bars that prevent spread of tracks
- Replacement of approx. 48,000 wooden ties (achieves state of good repair)
 - Will need to replace 11,000 ties/year to maintain steady state
- Replacement of approx 36,000 direct fixation fasteners (achieves state of good repair)
 - Will need to replace 18,000 fasteners/year to maintain steady state
- Clearing of 87,000 linear feet of drains
- Extensive tunnel leak mitigation



Surges Maximize Productivity



21 days

- Achieves safety results faster
- Shortens impact to customers
- More cost effective



Surge Projects



Surge Schedule

#	Type of Service Disruption	Stations	Start - Finish	# of Days	2016									2017			
					May	y Ju	n J	lul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
1	Continuous Single Track	Franconia-Springfield to Van Dorn	June 4 – June 19	15d		\mathcal{H}	2										
2	Continuous Single Track	College Park to Greenbelt (PG Plaza)	June 20 – July 3	13d													
3	Total Shutdown	National Airport to Braddock Road	July 5 – July 12	7d													
4	Total Shutdown	Pentagon City to National Airport	July 12 – July 19	7d													
5	Continuous Single Track	College Park to Greenbelt	July 20 -July 31	11d													
6	Continuous Single Track	Takoma to Silver Spring	Aug 1 – Aug 8	7d				2	%								
7	Continuous Single Track	Twinbrook to Shady Grove	Aug 9 – Aug 19	10d					8 2								
8	Total Shutdown	Eastern Market to Minnesota Ave; Benning Road	Aug 20 – Sept 6	16d													
9	Continuous Single Track	West Falls Church to Vienna	Sept 9 – Oct 21	42d						()())	1////						
10	Total Shutdown	NoMa to Ft. Totten	Oct 9 – Nov 2	23d													
11	Continuous Single Track	East Falls Church to West Falls Church	Nov 2 – Nov 12	10d								<u>//</u>					
12	Continuous Single Track	East Falls Church to Ballston	Nov 12 – Dec 5	23d									<u>//</u>				
13	Total Shutdown	Rosslyn to Pentagon	Dec 6 – Dec 24	18d													
14	Continuous Single Track	Braddock Road to Huntington; Van Dorn Street	Jan 2 – Jan 26	24d										71111			
15	Continuous Single Track	East Falls Church to West Falls Church	Mar 6 – Mar 20	14d													90

June 4 - 19 (15 days)



Continuous single tracking between Franconia-Springfield & Van Dorn St

REDUCED SERVICE AT FRANCONIA-SPRINGFIELD & VAN DORN ST ONLY

- Major impact to 18,000 weekday trips
- Trains from Franconia every 24 minutes
- Trains from Van Dorn Street every 12 minutes
- All other Blue Line stations will have near-normal service
- Some trains will run to/from Huntington instead
- Riders who use Franconia-Springfield or Van Dorn St stations should consider alternates, especially during rush hour
- Bus shuttles will be available during rush hour between Franconia and Pentagon





June 20 - July 3 (13 days)



Continuous single tracking between Greenbelt & College Park

REDUCED SERVICE AT GREENBELT ONLY

- Major impact to 12,400 weekday trips
- Trains from Greenbelt every 12 minutes
- Normal service levels at all other stations
- Buses on standby in the event of a service disruption in the single track zone
- Customers encouraged to use New Carrollton or College Park as alternates



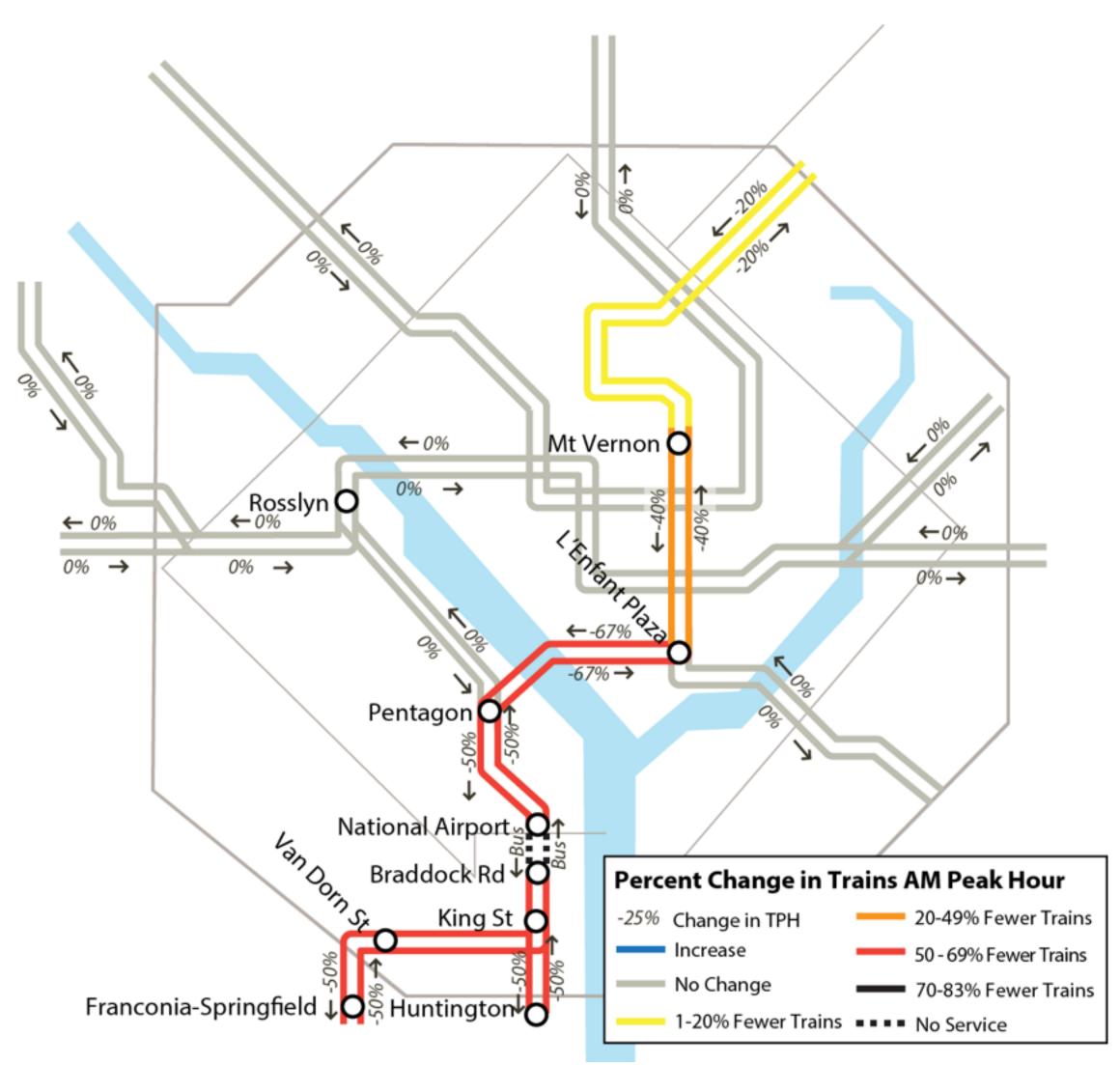
July 5 10PM - July 12 (7 days)



Line segment shutdown between National Airport & Braddock Road

REDUCED SERVICE AT ALL TIMES AT MANY STATIONS, PRIMARILY YELLOW/BLUE IN VIRGINIA

- Major impact to **50,000** weekday trips
- 50% reduction in rail service south of Pentagon (trains every 12 minutes/line)
- Blue/Yellow customers encouraged to consider alternate travel options during this time
- Shuttle buses operate via Metroway between Braddock Road, Crystal City and Pentagon City
- Service between DC and National Airport available via train





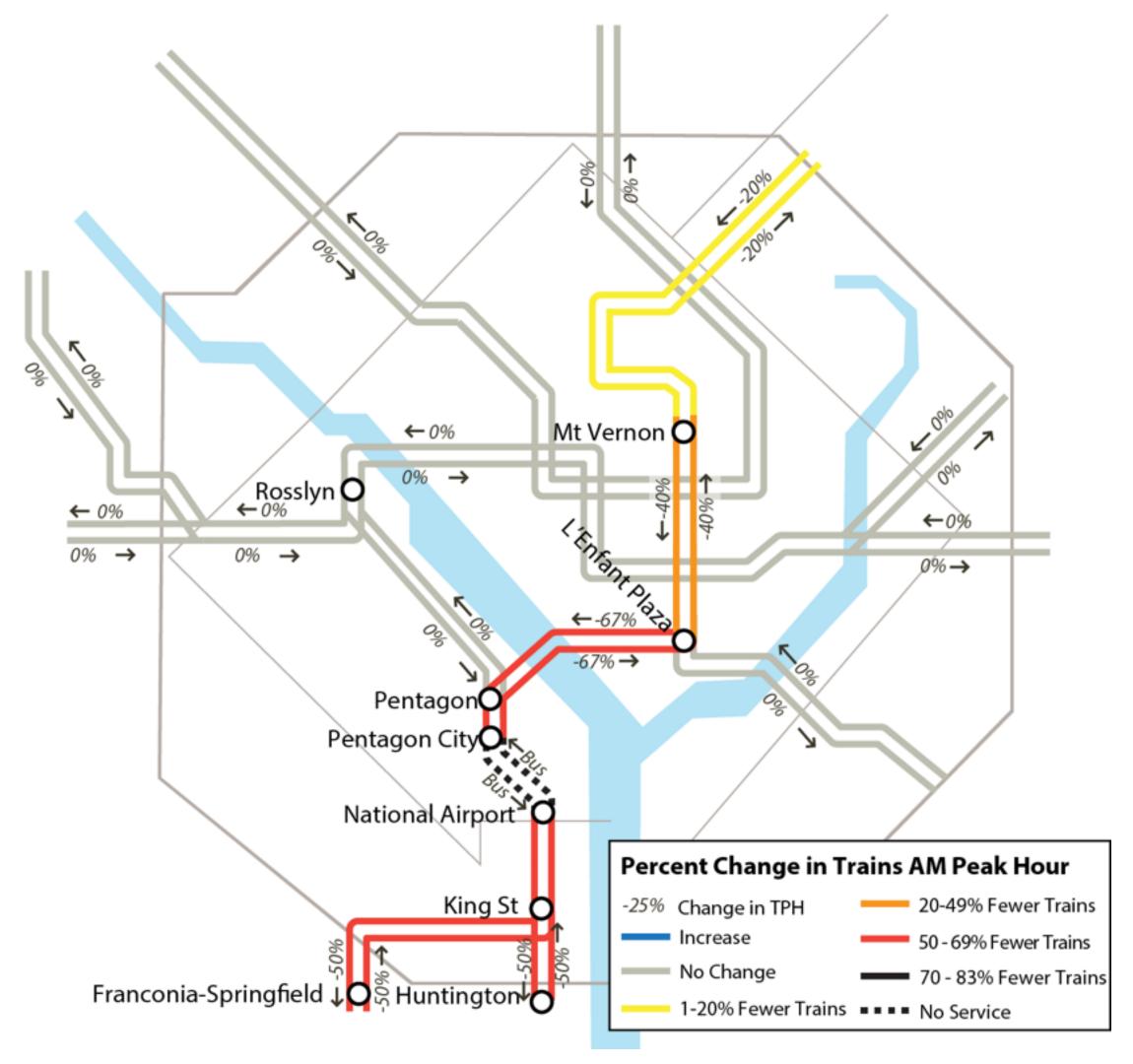
July 12 - 19 (7 days)



Line segment shutdown between National Airport & Pentagon City

REDUCED SERVICE AT ALL TIMES AT MANY STATIONS, PRIMARILY YL/BL IN VIRGINIA

- Major impact to 86,000 weekday trips
- 50% reduction in rail service south of Pentagon
- Shuttle buses operate via Metroway between Braddock Road, Crystal City and Pentagon City
- Reagan National Airport served via shuttle bus to/ from Pentagon City & Braddock Road
- Blue/Yellow customers encouraged to consider alternate travel options during this time
- Blue Line every 12 minutes
- Yellow Line every 12 minutes
- No Rush+ Yellow





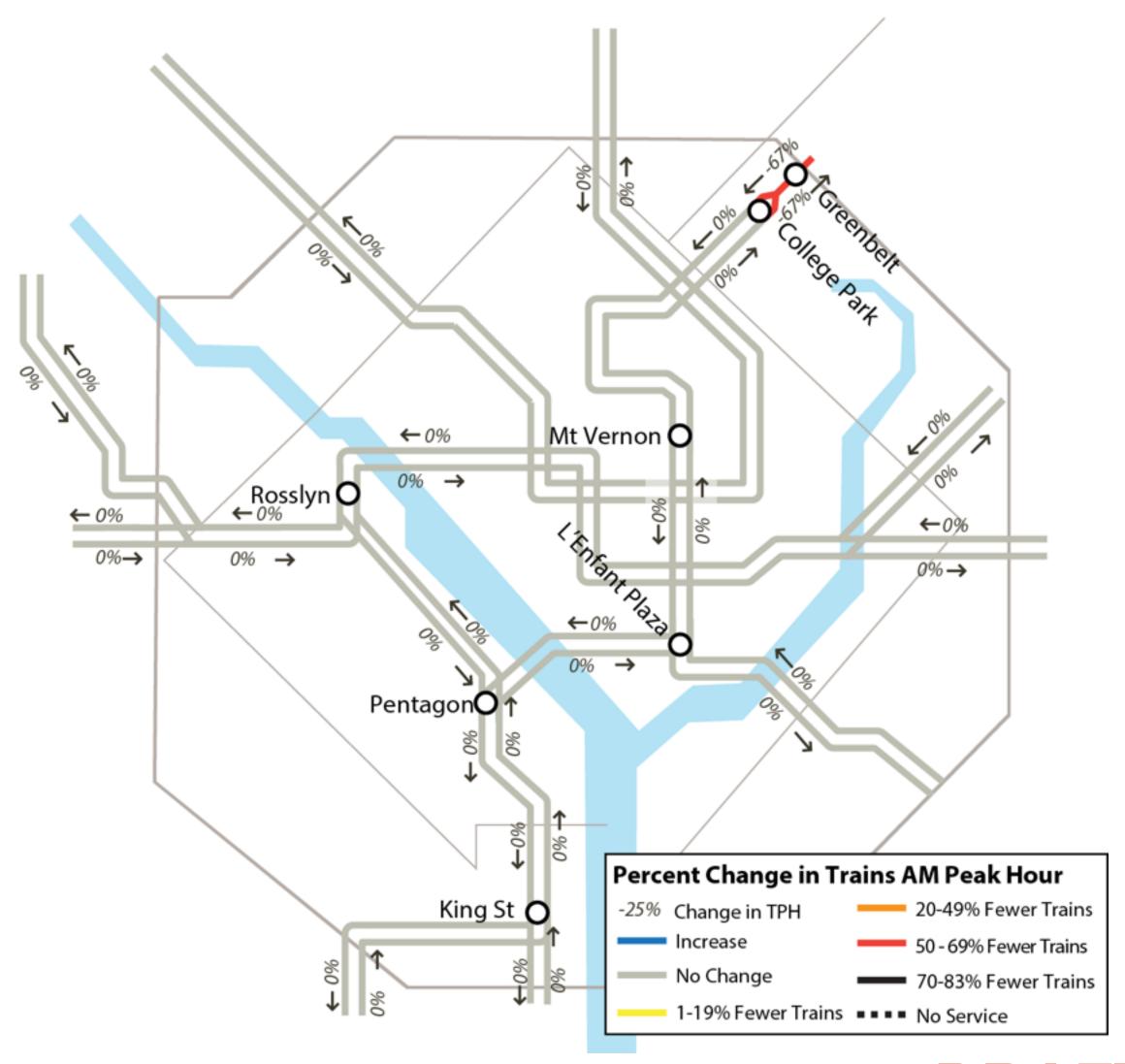
July 20 - July 31 (11 days)



Continuous single tracking between Greenbelt & College Park

REDUCED SERVICE AT GREENBELT

- Major impact to 12,400 weekday trips
- Trains from Greenbelt every 12 minutes
- Normal service levels at all other stations
- Buses on standby in the event of a service disruption in the single track zone
- Customers encouraged to use New Carrollton or College Park as alternates



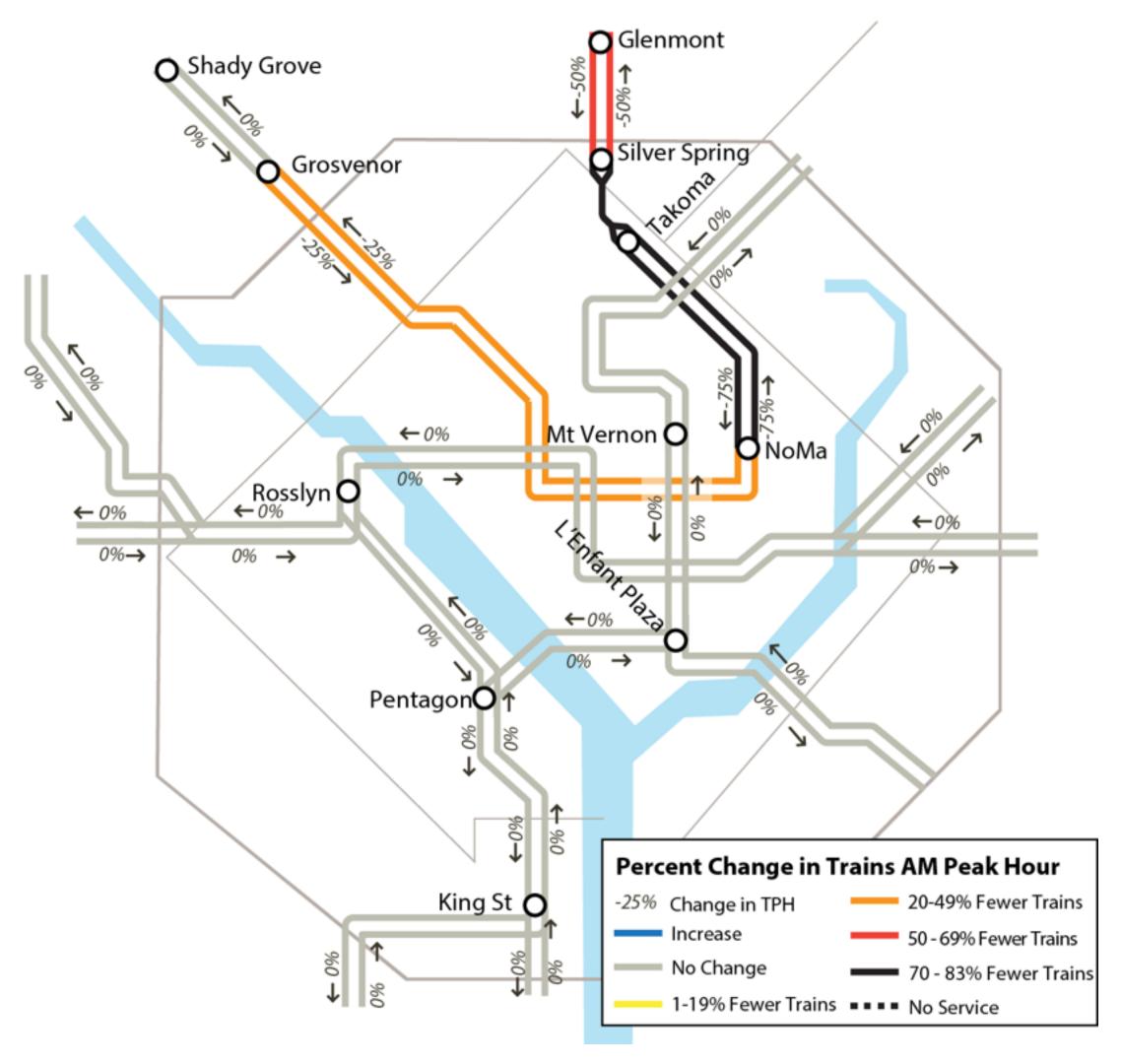
August 1 - 8 (7 days)



Continuous single tracking between Takoma & Silver Spring

REDUCED SERVICE AT MOST RED LINE STATIONS

- Major impact to **94,000** weekday trips
- All Red Line customers should consider alternates
- Trains Shady Grove to NoMa every 6 minutes
- Trains Glenmont to Grosvenor every 12 minutes
- Additional bus trips on regular route services (e.g. S9, 79, 80, 60/62)



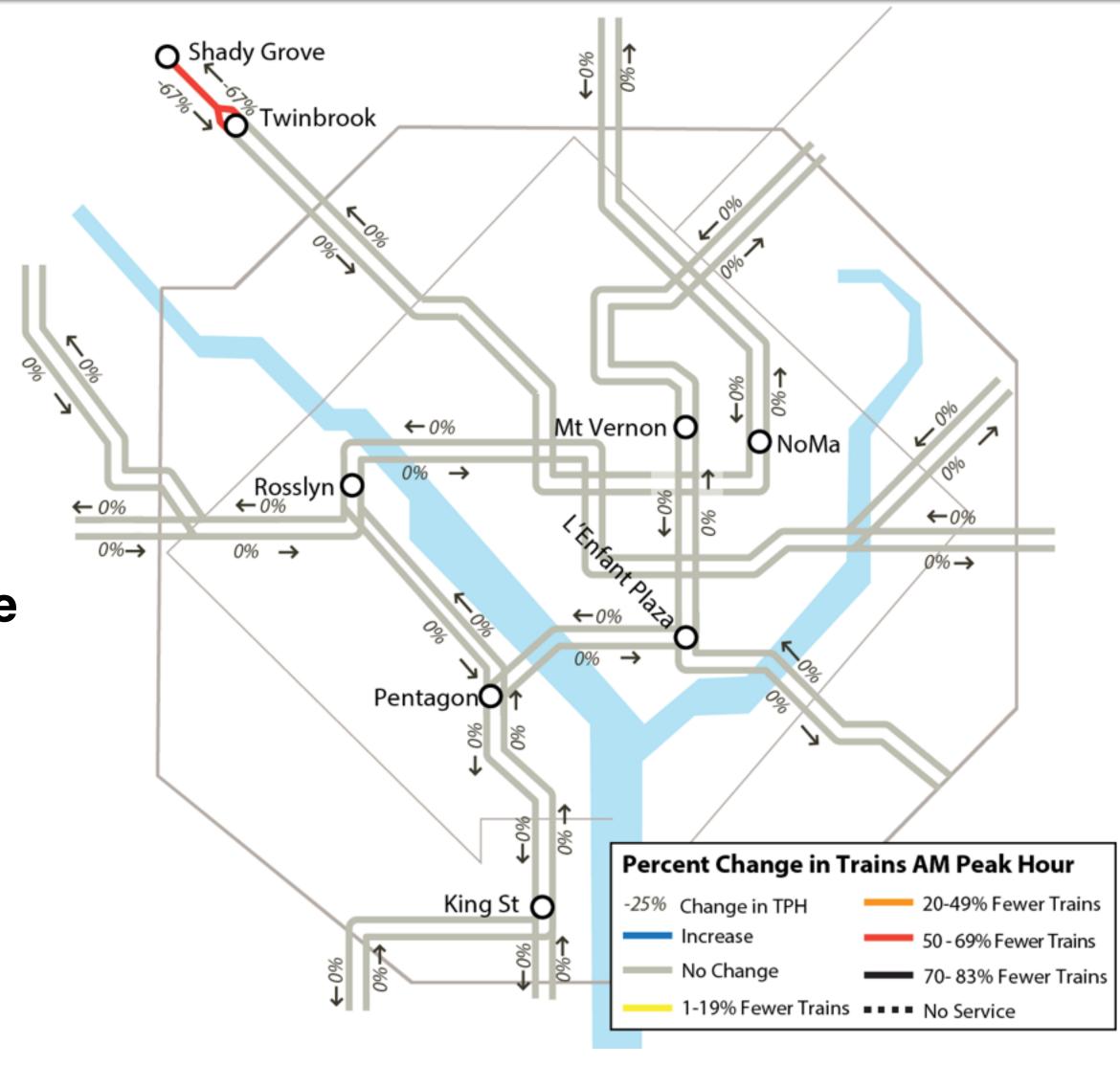
August 9 - 19 (10 days)



Continuous single tracking between Shady Grove & Twinbrook

REDUCED SERVICE AT SHADY GROVE & ROCKVILLE

- Major impact to 32,200 weekday trips
- Trains from Shady Grove & Rockville every **18 minute** (regularly every 6 minutes)
- All other stations with regular service
- Customers encouraged to use Twinbrook as alternate during this time
- Buses on standby in the event of a service disruption in the single track zone





August 20 - September 6 (16 days)



Line segment shutdown between Eastern Market & Minnesota/Benning

REDUCED SERVICE AT ALL OR/SV/BL STATIONS

- Major impact to **61,000** weekday trips
- All Blue, Orange and Silver customers encouraged to consider alternate travel options
- Stadium-Armory & Potomac Ave stations closed
- Orange every 10 minutes outside shutdown
- Silver every 10 minutes outside shutdown
- Blue every 12 minutes between Franconia & Arlington Cemetery only
- Yellow Rush+ runs all day between Franconia & Mt Vernon Square





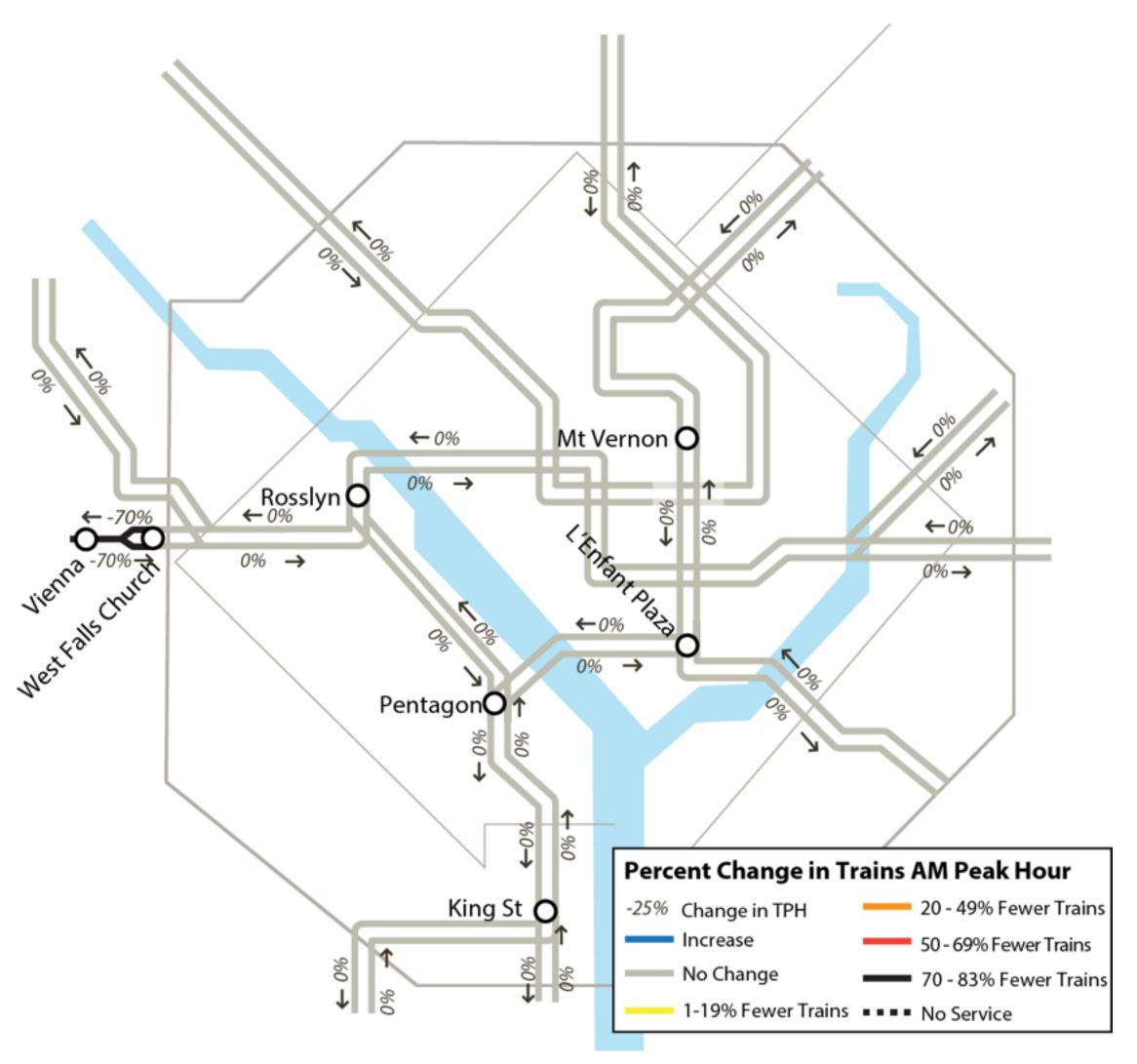
September 9 - October 21 (42 days)



Continuous single tracking between Vienna & West Falls Church

REDUCED SERVICE AT VIENNA & DUNN LORING

- Major impact to 30,000 weekday trips
- At Vienna & Dunn Loring, trains every 18 minutes (regularly every 6 minutes)
- Expect trains to/from Vienna to be extremely crowded
- Normal service levels at other Orange Line stations





October 9 - November 2 (23 days)



Line segment shutdown between NoMa & Fort Totten

REDUCED SERVICE AT MOST RED LINE STATIONS

- Major impact to 108,000 weekday trips
- Trains in two segments:
 - Shady Grove Noma every 5 minutes
 - Glenmont Fort Totten every 10 minutes
- Less frequent Red Line service; expect crowding
- Green Line provides alternate path for thru travel



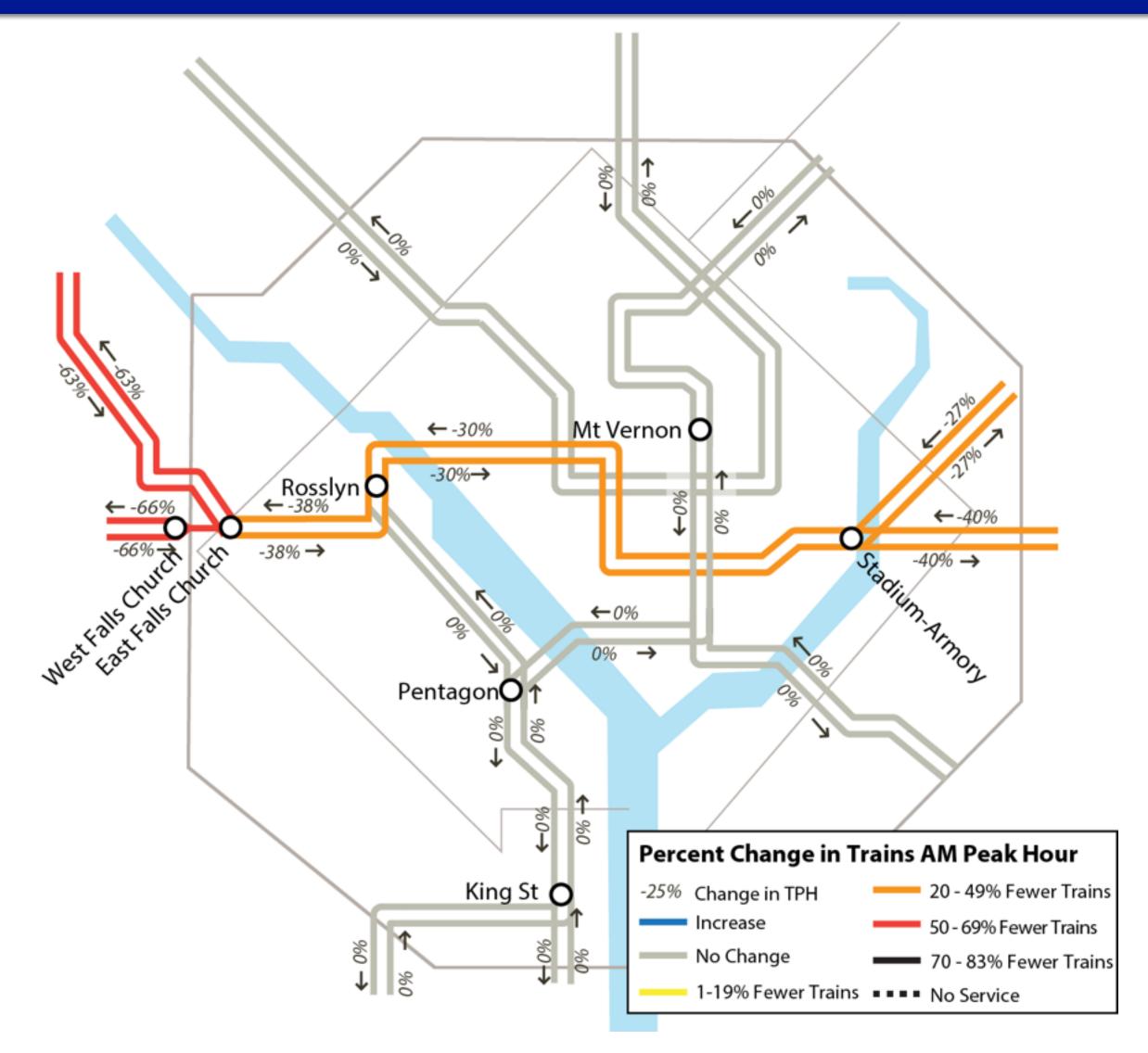
November 2 - 12 (10 days)



Continuous single tracking between West Falls Church & East Falls Church

REDUCED SERVICE AT ALL OR/SV STATIONS

- Major impact to 65,000 weekday trips
- Vienna-New Carrollton trains every 16 minutes
- Silver Line every 16 minutes
- Expect crowding on Orange/Silver line trains
- Orange/Silver customers should consider alternate travel options
- Additional trains East Falls Church New Carrollton



November 12 - December 5 (23 days)



Continuous single tracking between East Falls Church & Ballston

REDUCED SERVICE AT ALL OR/SV STATIONS

- Major impact to 73,000 weekday trips
- Trains every 18 minutes from Vienna Ballston
- Silver Line every 18 minutes
- Expect crowding on Orange/Silver line trains
- Orange/Silver customers should consider alternate travel options
- Additional trains Ballston New Carrollton



December 6 - 24 (18 days)

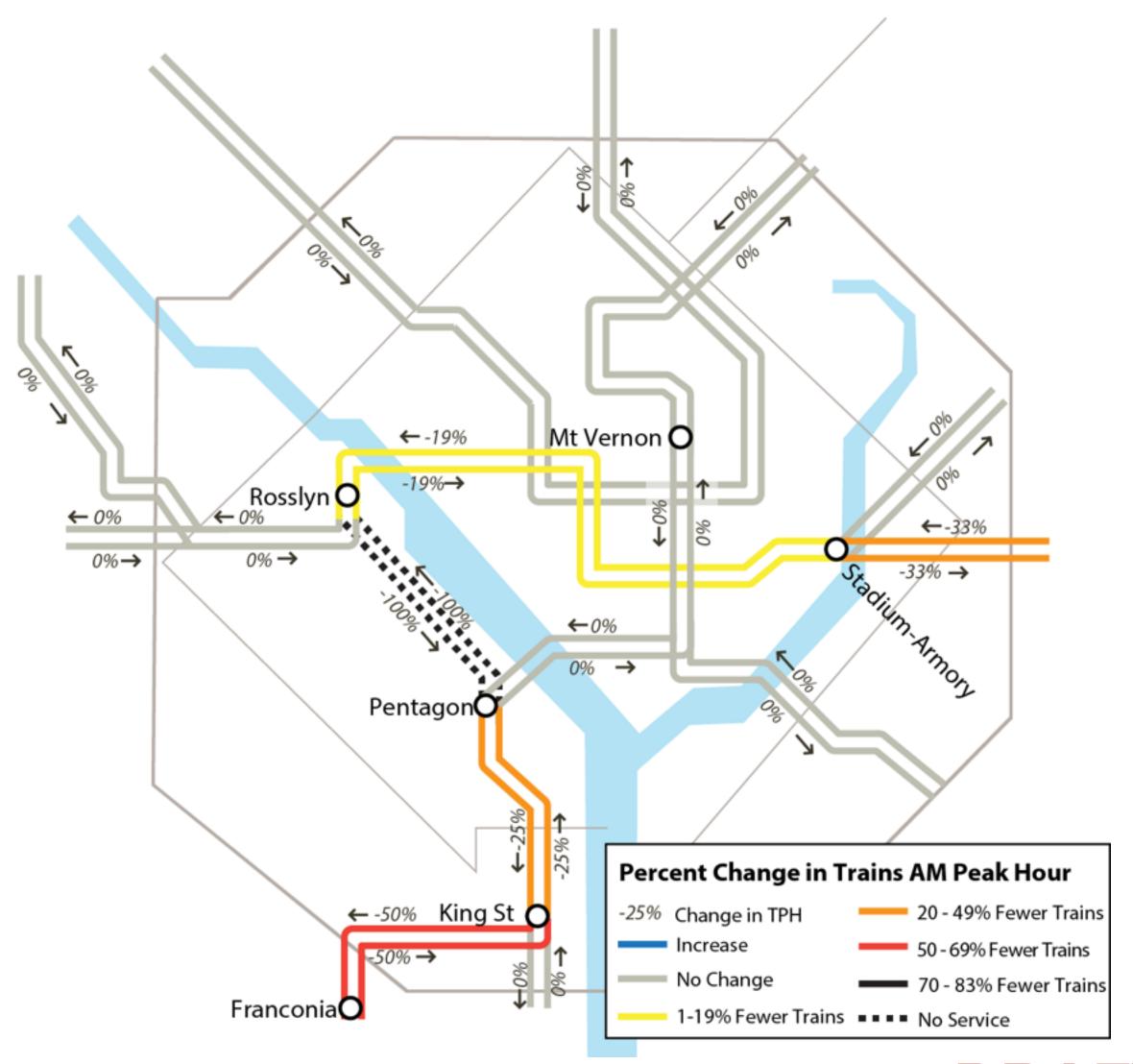


Line segment shutdown between Pentagon & Rosslyn

REDUCED SERVICE AT ALL BLUE LINE STATIONS

NOTE: Blue Line service will run on Saturday, Dec. 17 for Wreaths Across America at Arlington National Cemetery

- Major impact to 12,000 weekday trips
- Arlington Cemetery Station closed
- Shuttle buses between Pentagon & Arlington Cemetery
- Yellow Line Rush+ will run all day



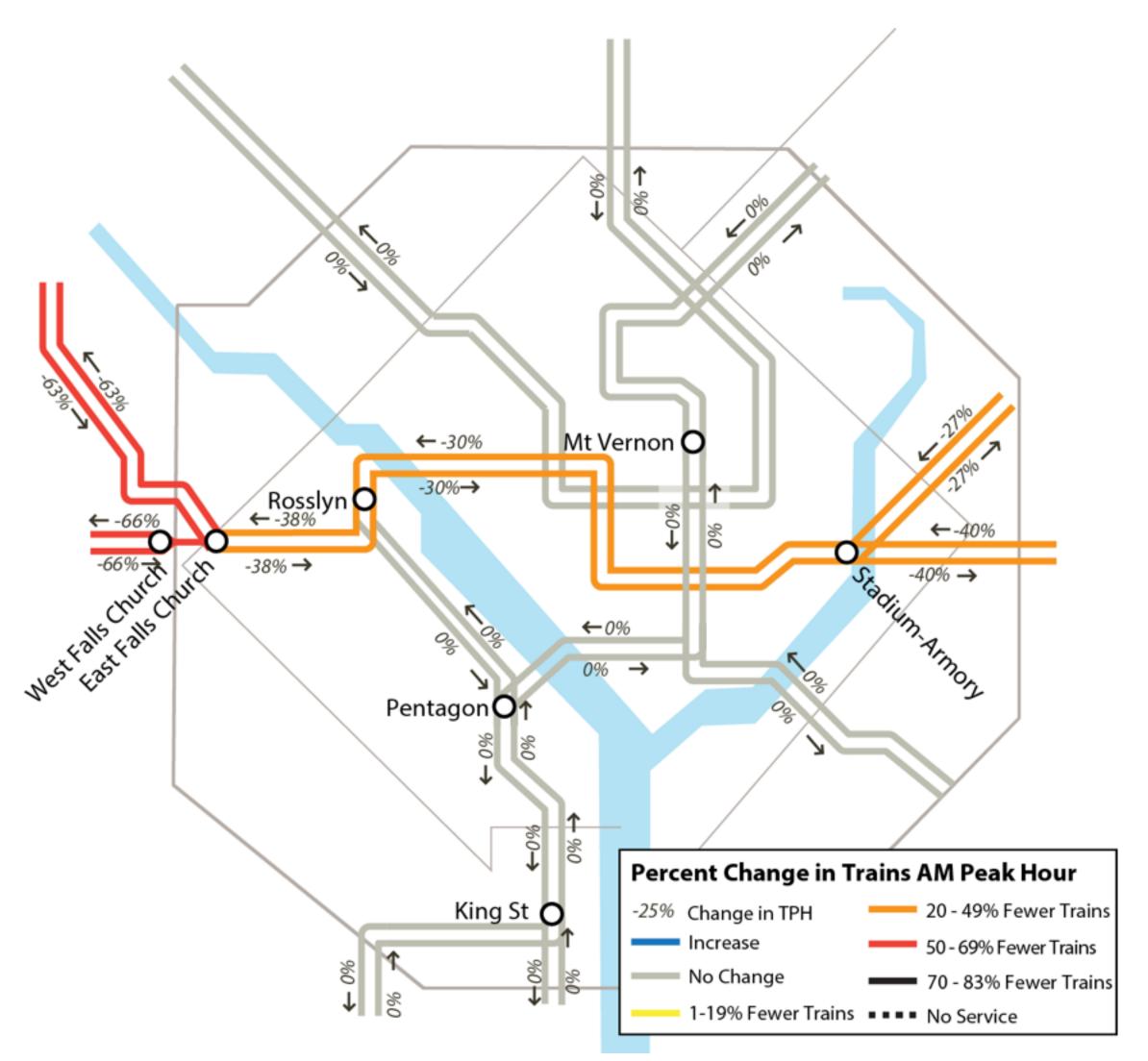
March 6 - 20 (14 days)



Continuous single tracking between West Falls Church & East Falls Church

REDUCED SERVICE AT ALL OR/SV STATIONS

- Major impact to 65,000 weekday trips
- Vienna-New Carrollton trains every 16 minutes
- Silver Line every 16 minutes
- Additional trains East Falls Church New Carrollton



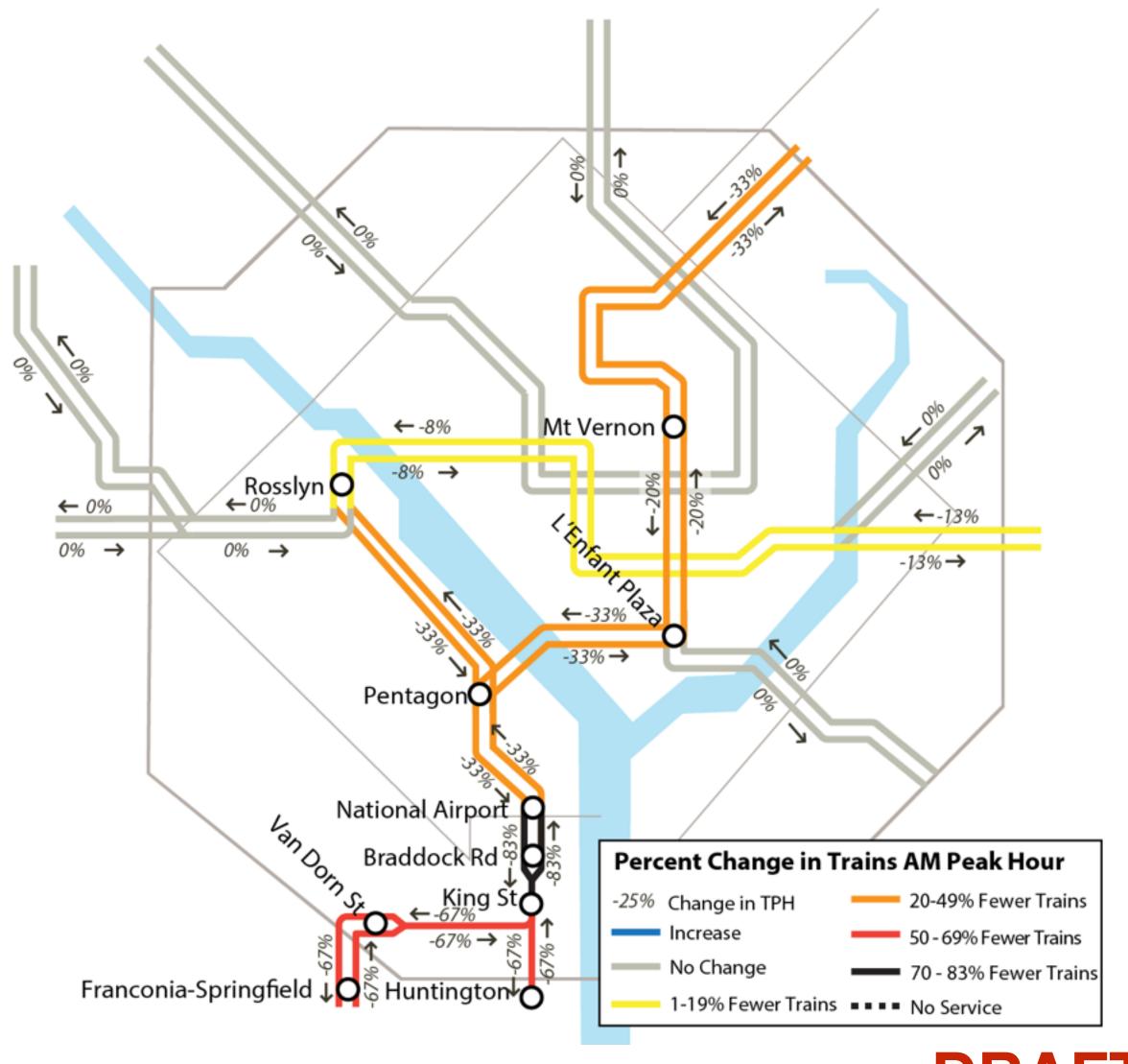
Jan 2 - 26 (24 days)



Continuous single tracking between Braddock Rd & Huntington/Van Dorn

REDUCED SERVICE AT ALL BL/YL STATIONS NORMAL SERVICE JAN. 16-22 FOR INAUGURATION

- Major impact to 50,000 weekday trips
- Blue Line every 18 minutes
- Shuttle train Huntington King Street
- Yellow Line every 6 minutes between National Airport & Mt Vernon Square
- All Blue/Yellow customers should consider alternate travel options



Early Outs





Red Line I January 2 — March 7, 2017

- Single tracking starting at 8 p.m. each night EXCEPT Inauguration Week
- Friendship Heights Medical Center
- Trains every 15-20 minutes

Mitigation



- Most Safety Surges will have 40-50 buses dedicated to providing alternate service
- Additional 8-car trains on lines where capacity reduced
- Additional customer support staff at selected stations
- Requesting jurisdictional input/support for Safety Surges (e.g. traffic control, parking restrictions, bus support, HOV restrictions, etc.)
- Robust public outreach effort
- Requesting OPM/business community support (e.g. telework)
- Strategically positioned extra trains & personnel to respond quickly to issues

Public Outreach

- Informational website and brochures in English and Spanish
- In-station signage and announcements
- Customer information pop-ups
- Street teams
- Paid newspaper and radio advertising
- Direct mail to riders in impacted zip codes
- Email notifications to registered SmarTrip users
- Community group outreach
- MetroAlerts (sign up at wmata.com/metroalerts)
- Open house briefings for business community
- News conferences



Next Steps



- Coordinate with jurisdictions on mitigation strategies
- Final version for customers ready May 16
- First Safety Surge begins June 4
- Independent verification and inspection of work