Blue/Orange/Silver Corridor Capacity & Reliability Study

Progress Update

Metro Riders' Advisory Council

2022

Agenda

- Blue/Orange/Silver Corridor Capacity and Reliability Study (BOS Study) update
- Study purpose
- BOS corridor transit challenges
- Identifying range of alternatives
- Descriptions of current alternatives
- Next steps

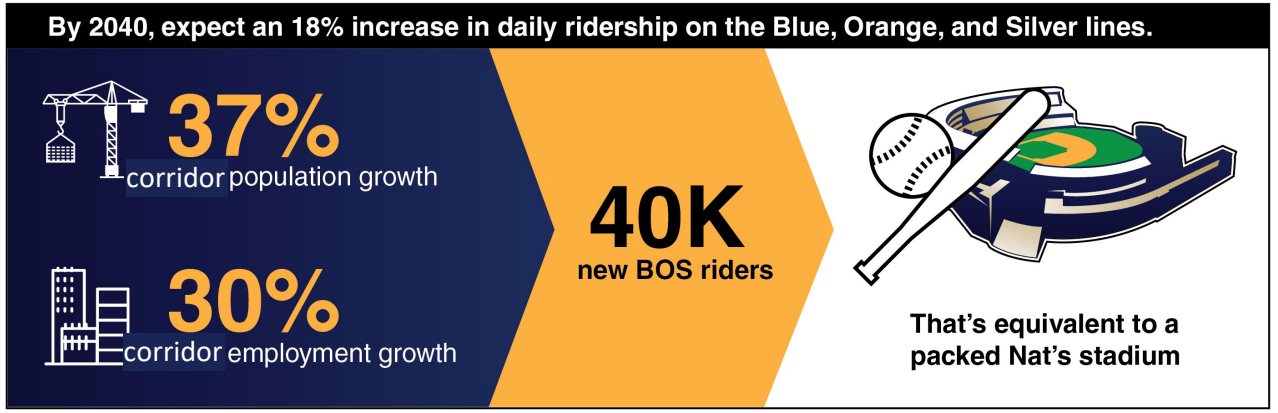
BOS Study Area

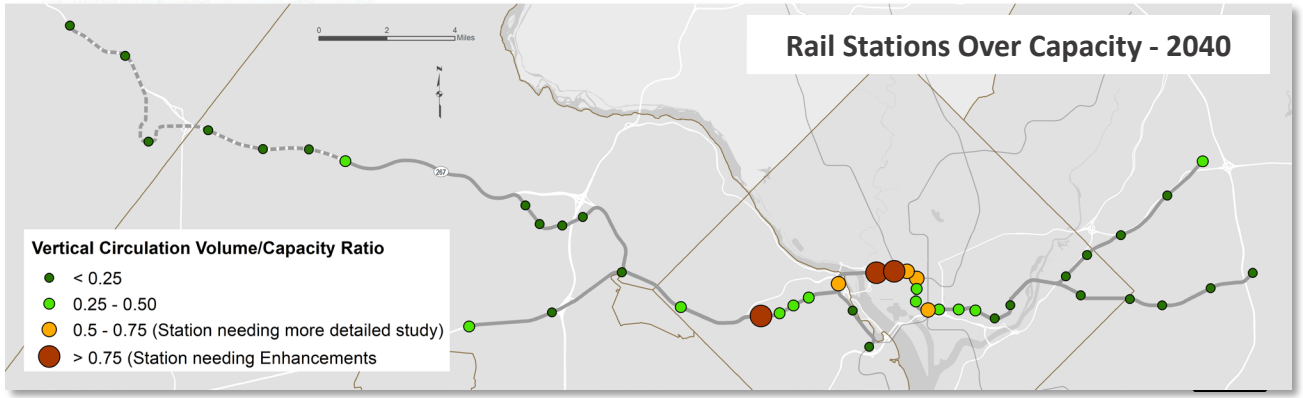
Study purpose

- Launched early 2019 to identify best and most cost-effective solutions to address:
  - Ridership
  - Capacity
  - Service
  - Reliability needs
- Identifies range of options to address corridor-wide concerns
- Study now ready for additional public engagement and input

Growth in jobs and households likely to increase crowding in trains and stations

- BOS lines experienced unsafe peak crowding for years before COVID
- Jurisdictions project substantial growth in the BOS corridor by 2040
- Models indicate that growth will increase the severity, duration, and locations of crowding

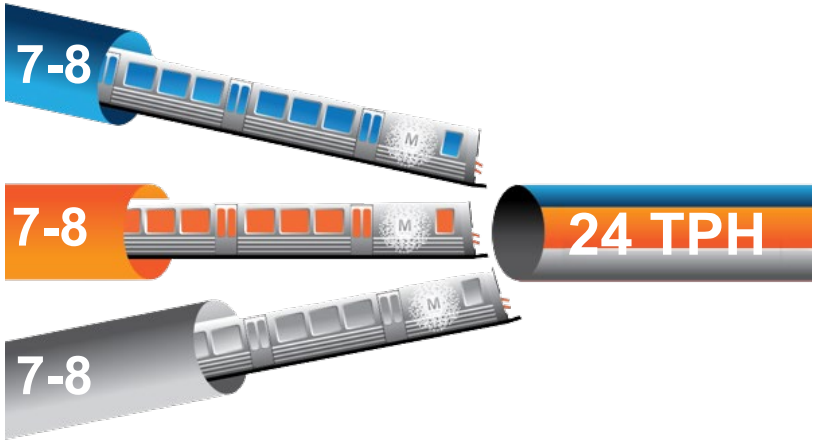




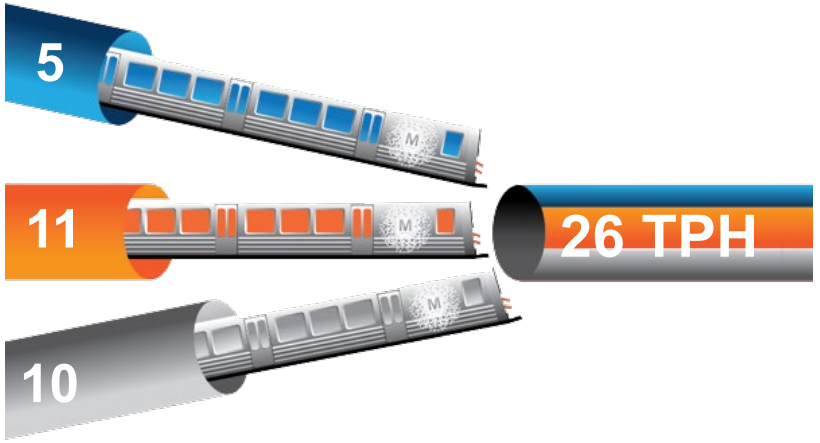
But the existing system can't meet that demand

- Metro can run 26 trains per hour (TPH) per track
- Increasing frequencies from 8 to 6 minutes on two lines would require reducing service on the other
  - Example: Under the previous 6-minute schedule, the BL Line ran every 12 minutes (5 TPH)
- Metro cannot improve headways *and* meet ridership demand on all three lines
- 8-car trains will help but not solve the problem

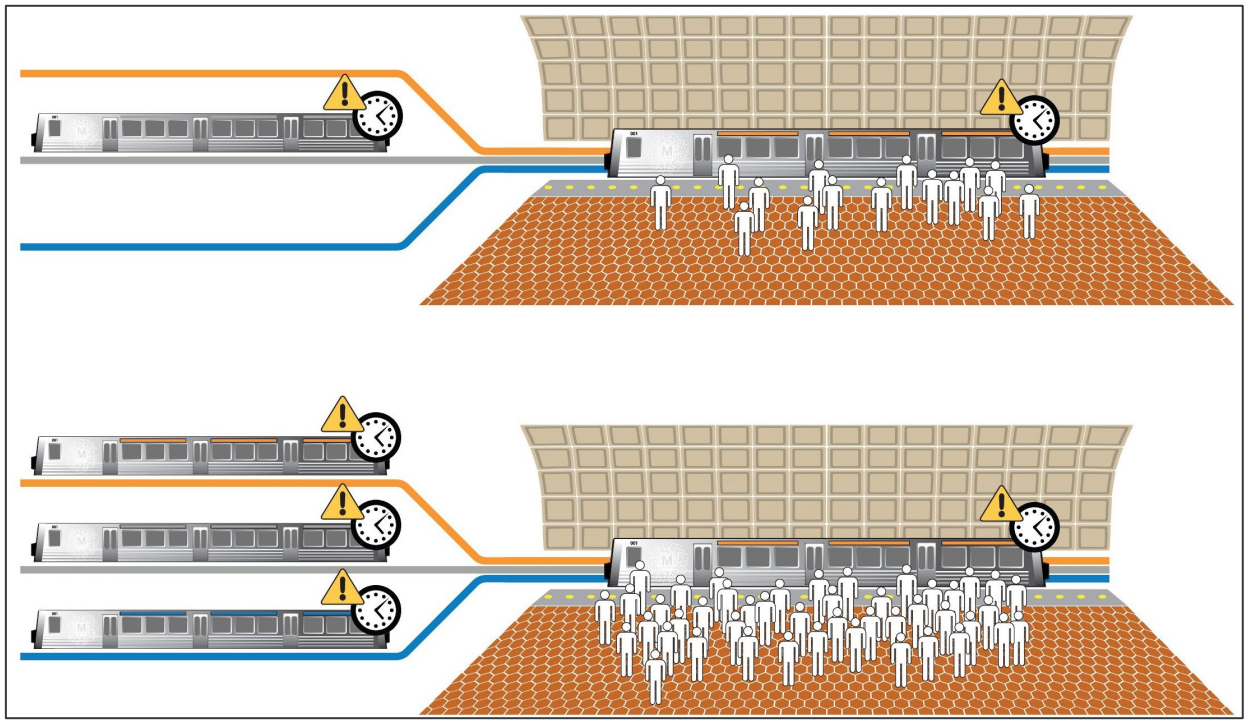
8-minute headways
26 TPH max / 24 TPH scheduled



6-minute headways
26 TPH max / 26 TPH scheduled

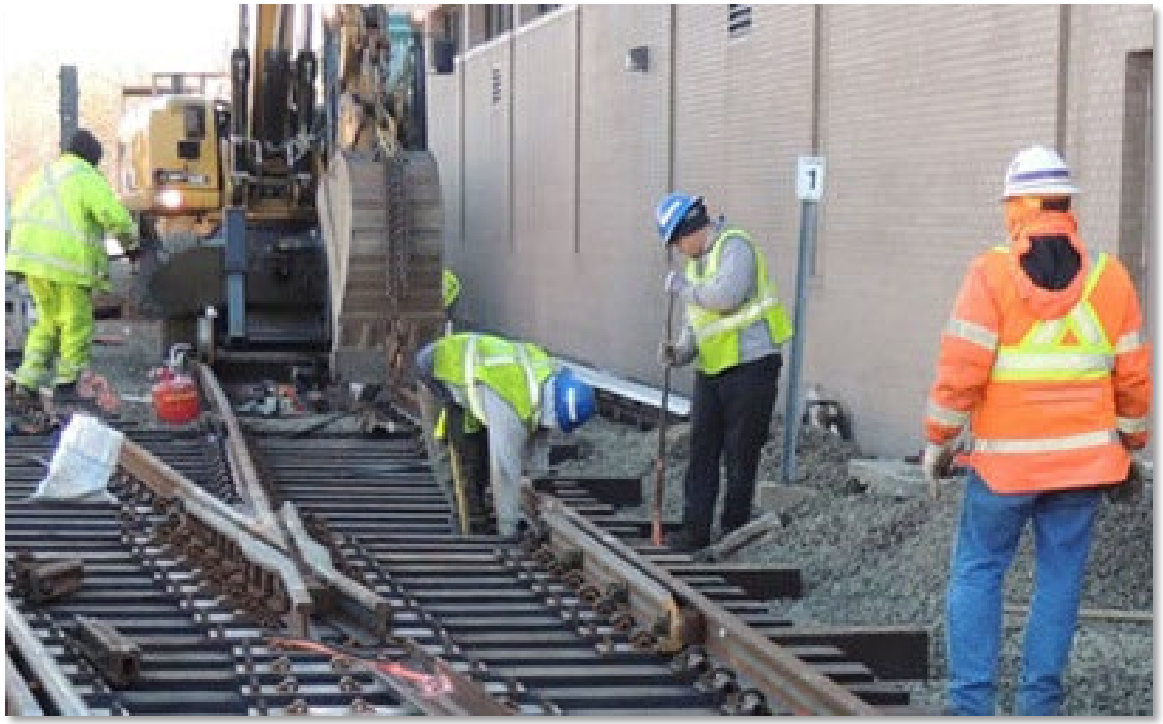


Interlining* creates (and compounds) the effects of delays and crowding



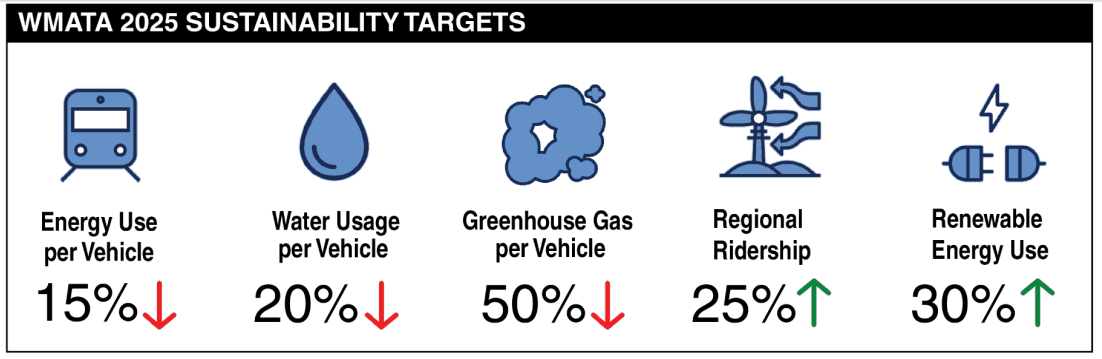
**Interlining: Operating more than one rail line along the same set of tracks.*

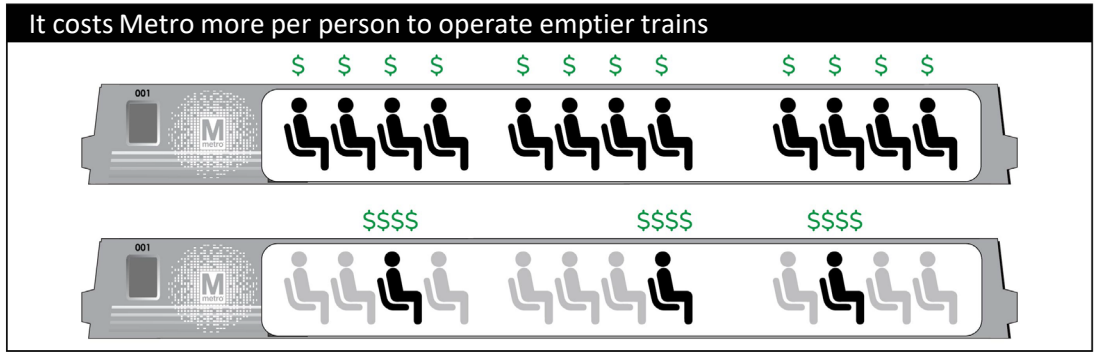
And Metro needs infrastructure to reduce the geographic extent and impacts of construction/disruption

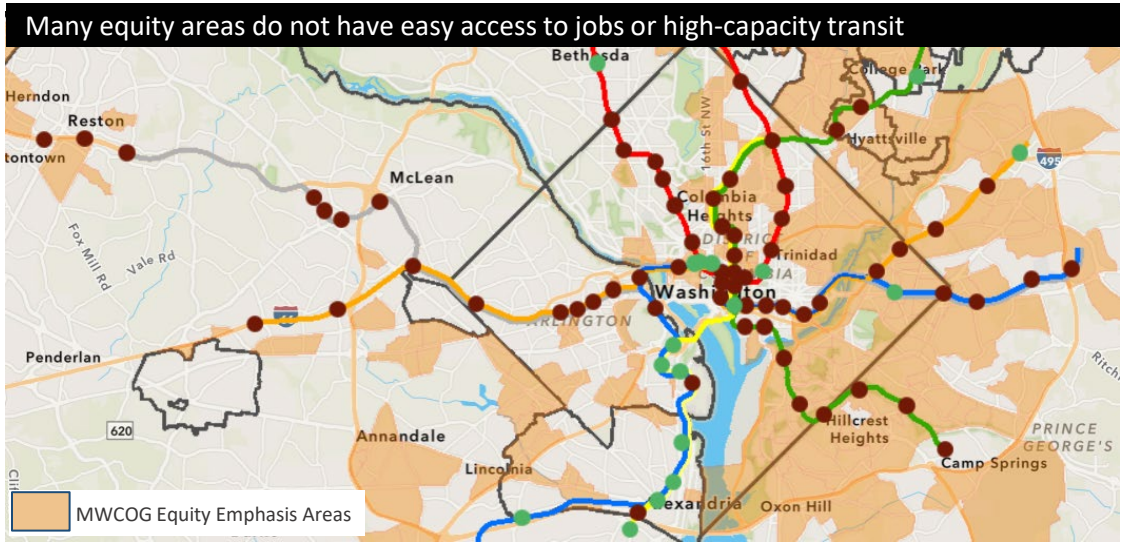


Metro also needs to explore strategies for long-term environmental and economic sustainability, such as:

- Attaining Metro's sustainability goals
- Increasing farebox recovery ratio
- Encouraging shift from cars to transit
- Supporting transit-oriented development
- Expanding access to high-capacity transit and economic opportunities, particularly in equity areas







Solution needs to further four goals

Goal 1:
Provide Sufficient Capacity to Serve Ridership Demand

Goal 2:
Improve Reliability & On-Time Performance

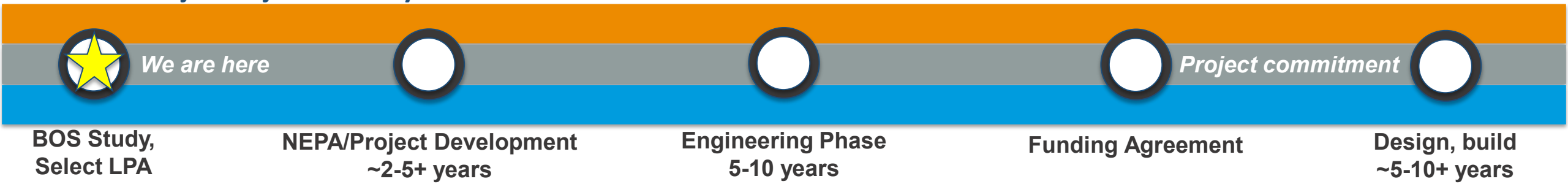
Goal 3:
Improve Operational Flexibility & Cost-Efficiency

Goal 4:
Support Sustainable Development & Expand Access to Opportunity

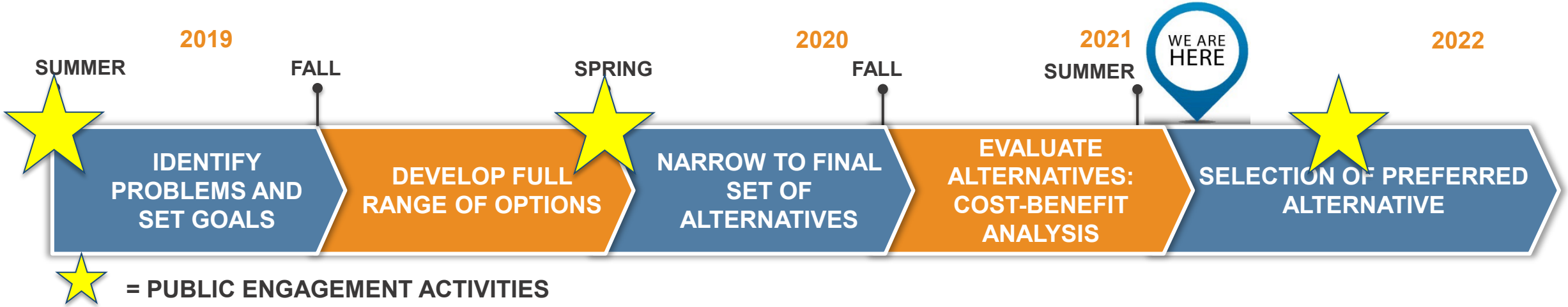
Study aligns with federal project planning requirements

- Major capital projects can take 20+ years to deliver (e.g., Silver Line expansion)
- Following federal requirements to be eligible for Federal funding
- No commitment to build until funding agreement

Illustrative Major Project Delivery Timeline



Study process

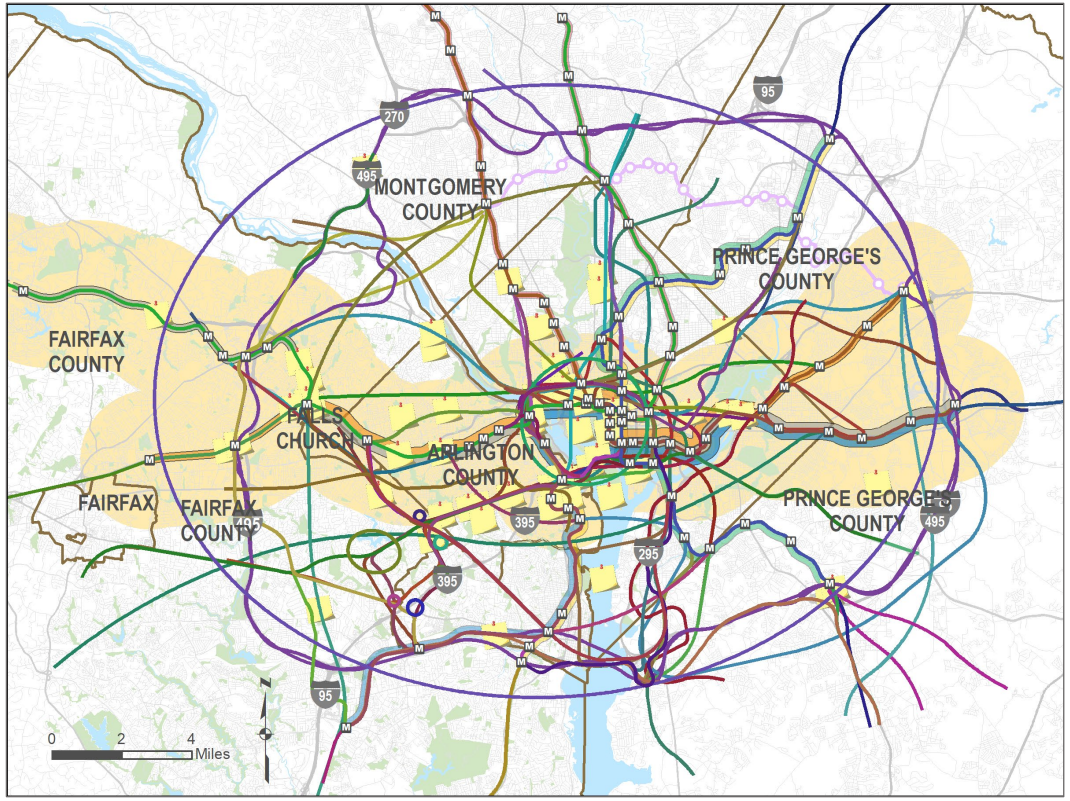


- Process based on Federal guidelines for NEPA alternatives analysis
- Continued engagement with customers, public, stakeholders, and elected officials

Public & stakeholder input to date

- Six meetings each:
  - Metro leadership and technical advisory committees
  - Jurisdictional leadership and technical advisory committees
- Two meetings of corridor elected officials
- Workshop for community-based organizations
- 13 pop-up events at Metro stations
- 4 public open houses
- 2,000+ online surveys
- 275 project “concepts” submitted
- Project website and email

Over 275 Ideas Submitted



Identifying the Locally-Preferred Alternative

- **Six preliminary alternatives developed:**
  - Solution may be one of the six alternatives shown, or a combination of components from different alternatives
  - Recommendation to be made following public participation process and engagement with stakeholders and elected officials
  - **Presentation is not an LPA recommendation**

Range of current alternatives

No Build

- Today's Services
- State of Good Repair
- Silver Line Phase 2
- Potomac Yard
- Funded Jurisdictional Projects (e.g., Purple Line)

Higher costs/ benefits

Lower Capital Cost Alternative

- Enhanced bus service
- Dynamic rail scheduling
- Railcar capacity
- Rail turnbacks
- Core station expansions

Highest costs/ benefits

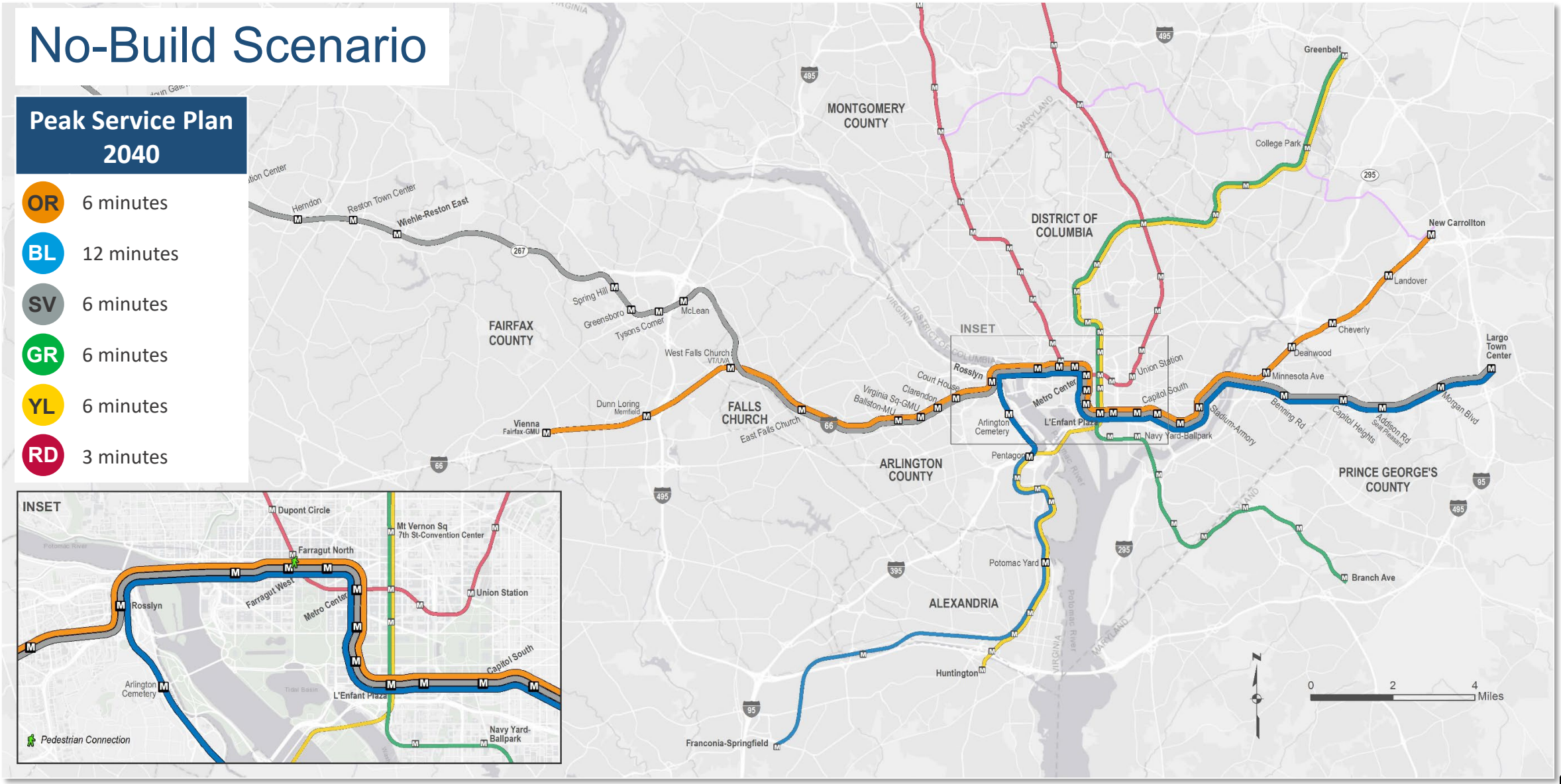
New Metrorail Lines

- 4 potential corridors
- New rail lines
- New rail stations
- Expanded capacity
- Expanded rail access

No-Build Scenario

Peak Service Plan 2040

OR	6 minutes
BL	12 minutes
SV	6 minutes
GR	6 minutes
YL	6 minutes
RD	3 minutes

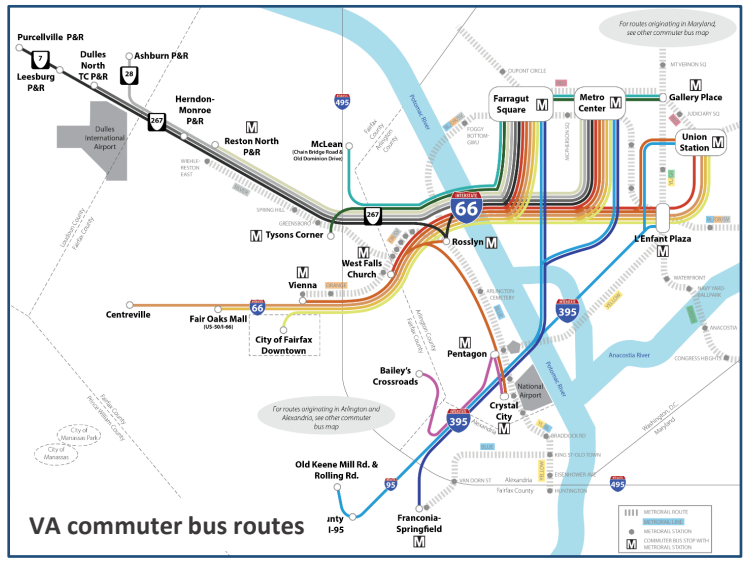


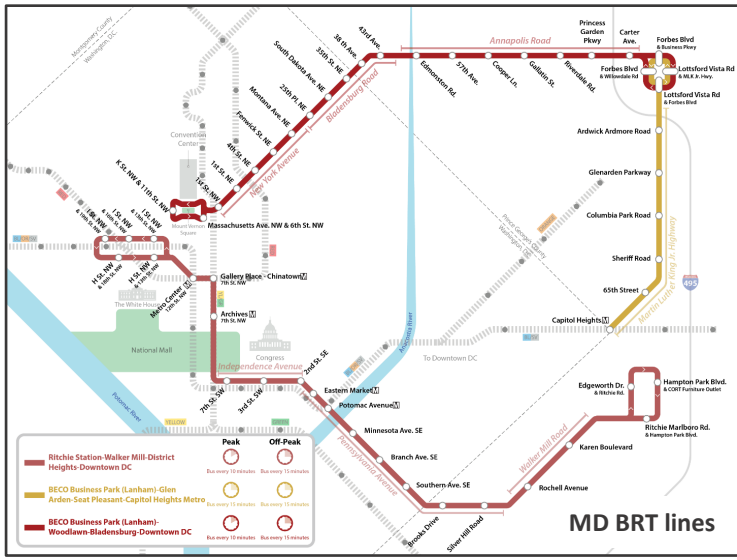
BL OR SV www.wmata.com/BOSstudy

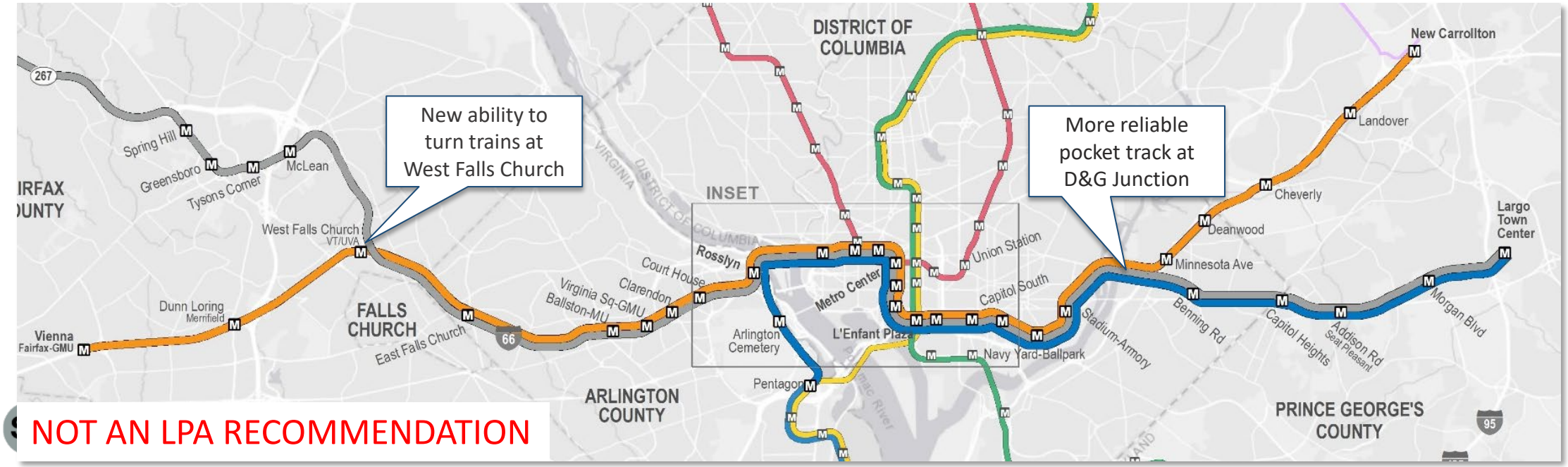
NOT AN LPA RECOMMENDATION

Lower Capital Cost Alternative

- **Enhanced bus service (6 BRT + 54 commuter routes)**
- Dynamic rail scheduling
- Railcar capacity
- Rail turnbacks
- Core station capacity improvements







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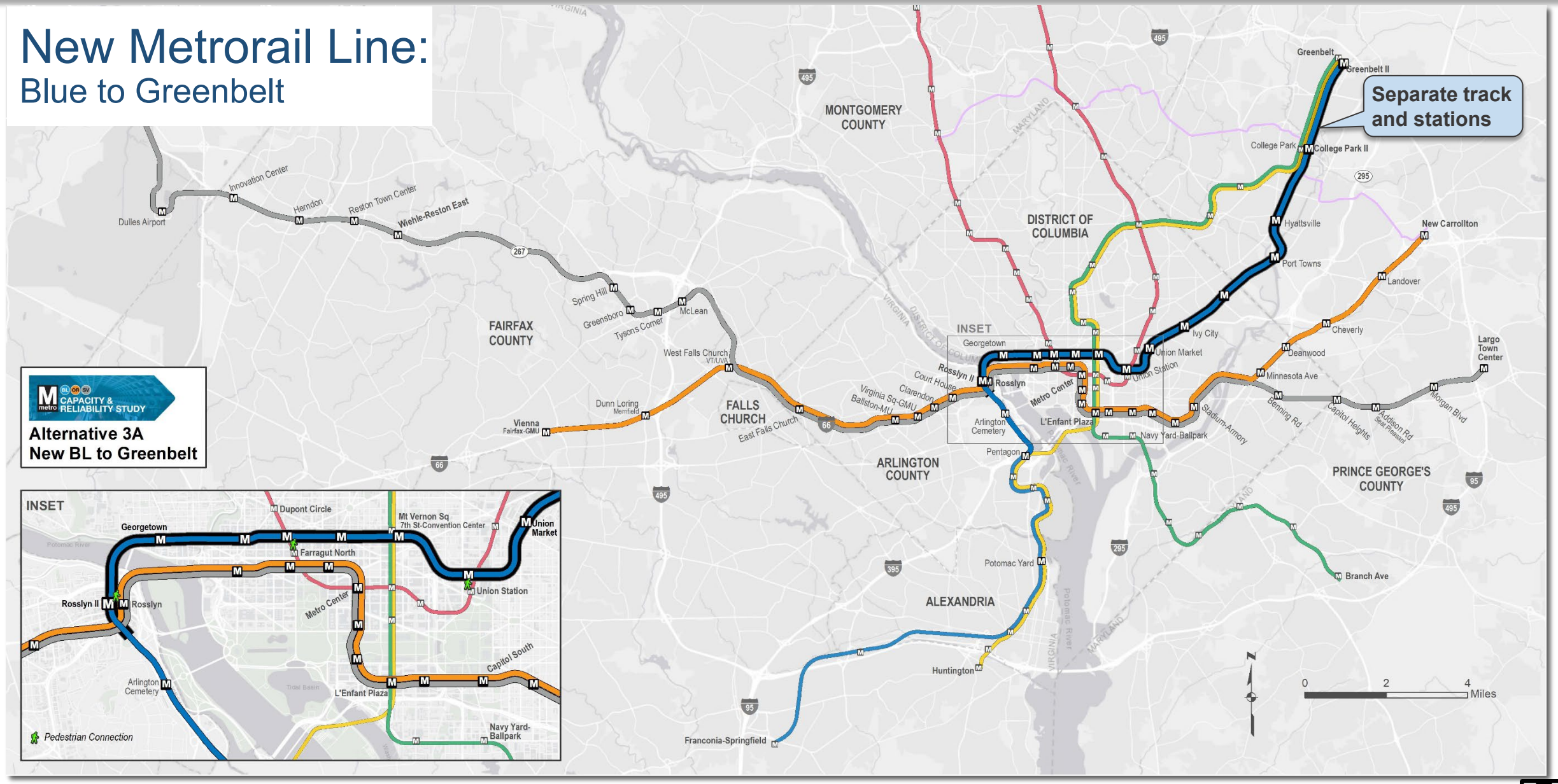
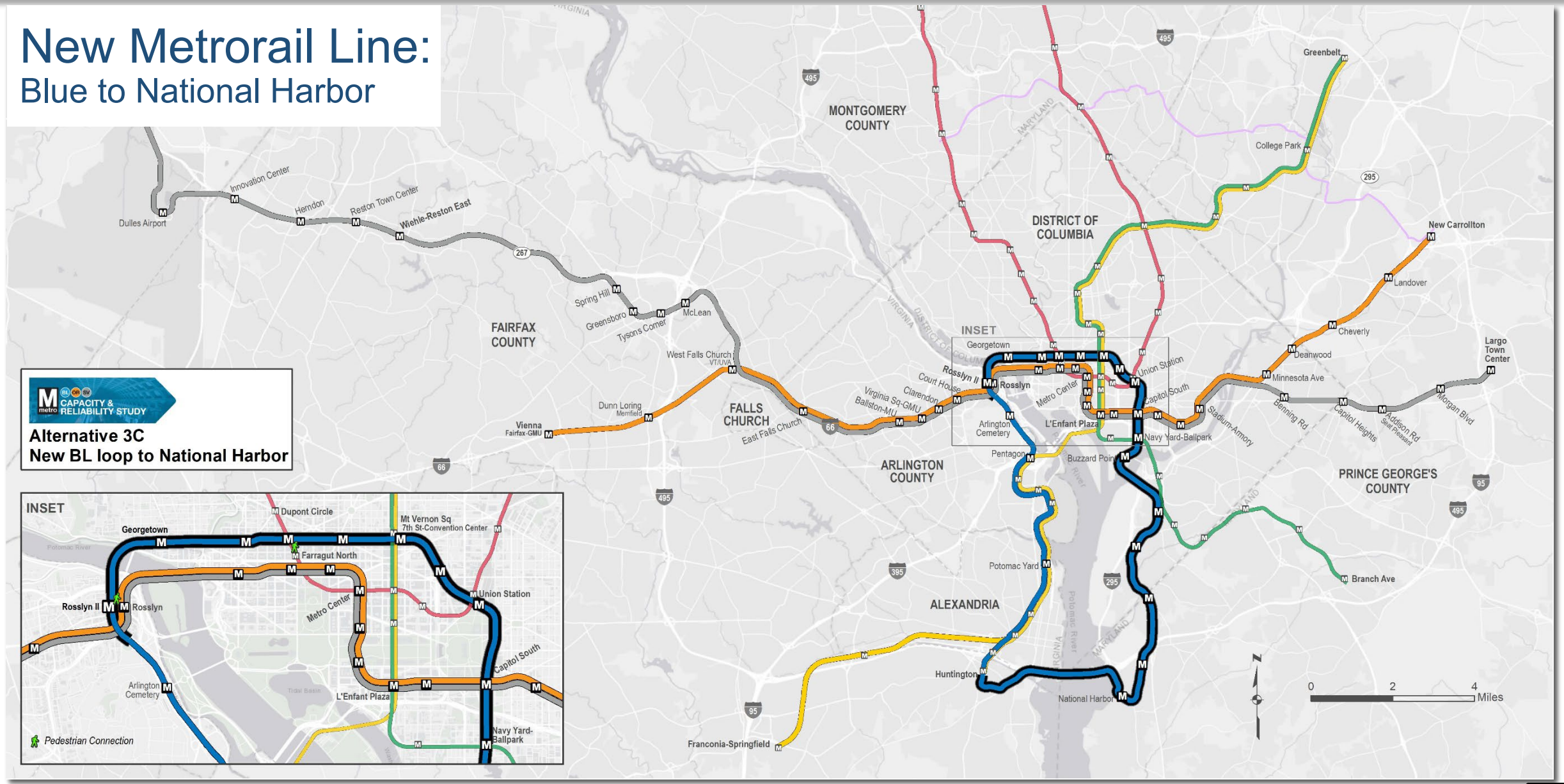
New Metrorail Line:
Blue to Greenbelt



New Metrorail Line:
Blue to National Harbor



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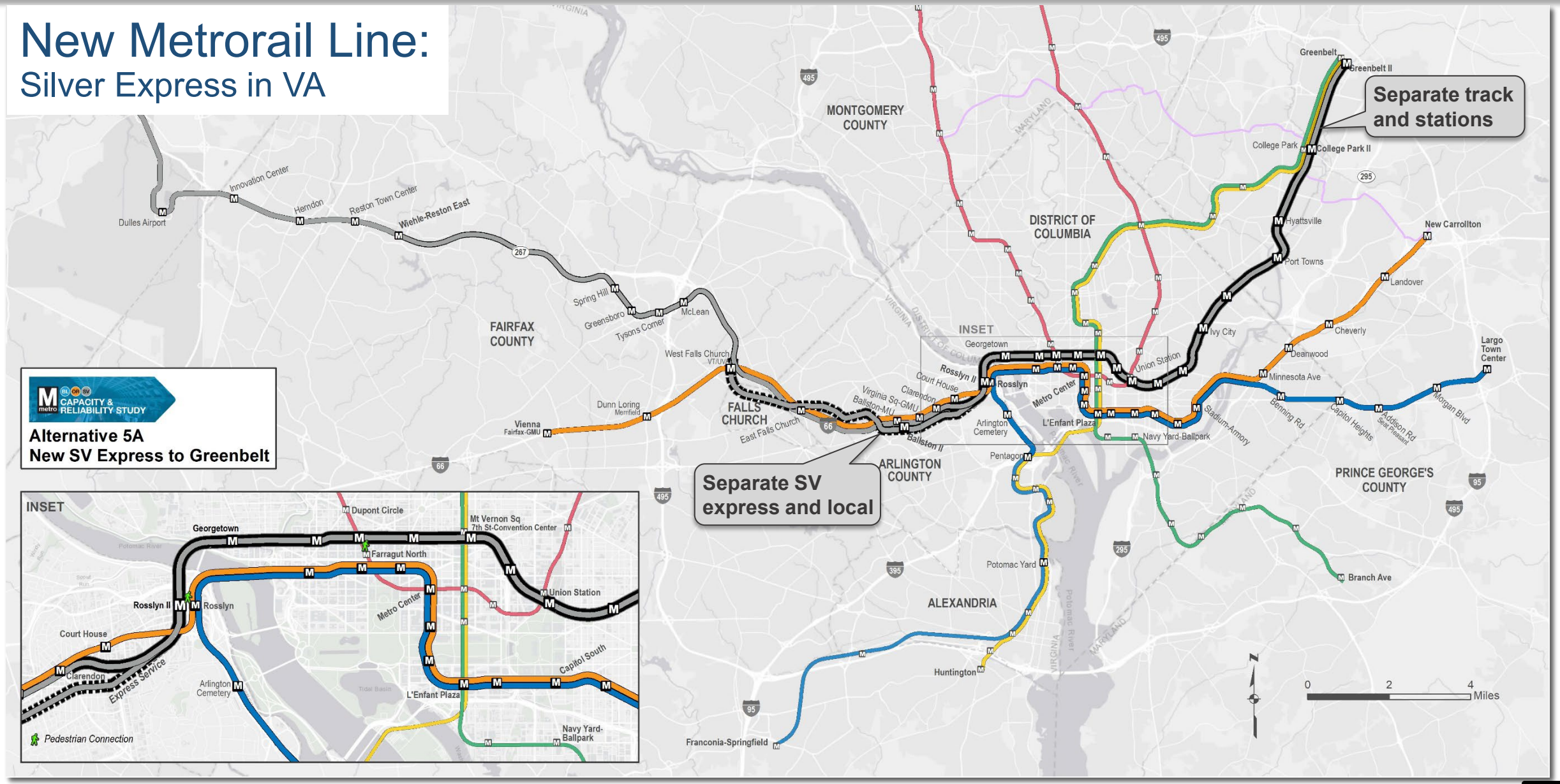
New Metrorail Line:
Silver Express in VA



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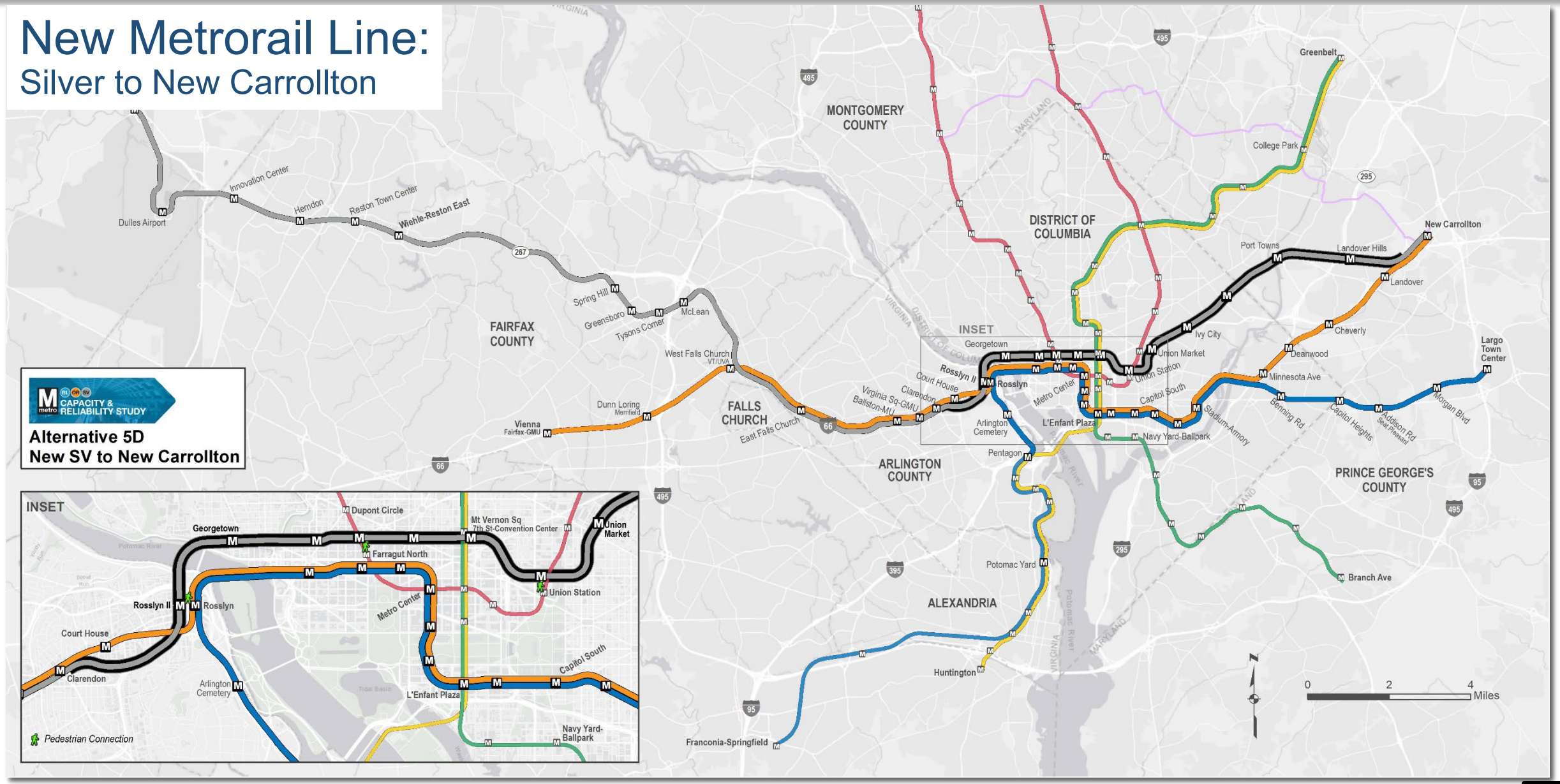
New Metrorail Line:
Silver to New Carrollton



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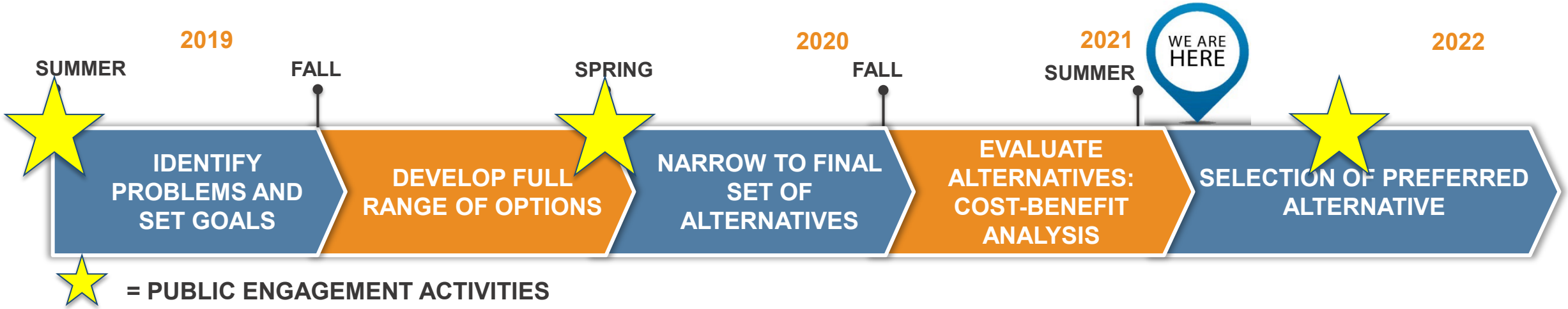
Results of cost-benefit analysis

Selected Metrics				
Alternative	New weekday trips	New annual fare revenue ($M)	Capital cost ($B)	Annual O&M cost ($M)
Blue Line to Natl. Harbor	180K	$154.2	$20-25	$175-200
Silver Line Express in VA	139K	$119.4	$20-25	$150-175
Silver Line to New Carrollton	94K	$80.4	$15-20	$100-125
Blue Line to Greenbelt	92K	$79.1	$15-20	$100-125
Lower Capital Cost	16K	$33.9	$0-5	$75-100

Next steps



- Briefings to elected officials and boards – Fall 2021
- Third round of public engagement – Winter/Spring 2022 (tentative)
- Board selection of LPA – 2022 (tentative)