# **COMPARING THE ALTERNATIVES**



Five alternatives were identified and compared using 14 measures relative to the No-Build Alternative. The measures were grouped under the four project goals shown in the graphic below.	ALTERNATIVE 1 No-Build	Rail Optimization & Bus Service	ALTERNATIVE 3 BL to Greenbelt	ALTERNATIVE 4  BL  to National Harbor	SV Express in VA	ALTERNATIVE 6  SV  to New Carrollton
Capacity: Provide sufficient rail capacity to serve ridership demand		0	0		•	0
Reliability: Improve reliability and on-time performance		0	•		0	
Flexibility: Improve operational flexibility and cost-efficiency		0	•		<b>(</b> )	0
Sustainability & Equity: Provide transportation options to support sustainable development & expand access to opportunity		0	0		•	0
			o alternative meets goal alternative performs better than some alternatives		the best-performing alternative for this goal	

#### **About the Study**

Metro identified long-standing issues and opportunities on the Blue, Orange, and Silver lines including crowding, capacity, reliability, equity, and long-term sustainability. To address these needs, the Blue/Orange/Silver Corridor Capacity & Reliability Study used deep data analysis and intensive engagement with community partners to identify alternatives to address the issues. The study concludes when Metro's Board of Directors selects a locally-preferred alternative.

### What Happens After the Study?

Selecting the preferred alternative is the first step in a process that could take 10-20 years. The goal is to have the project operational by 2040, but no funding is committed yet.

Select Preferred Alternative and Phasing	Environmental Study and Project Development	Engineering Phase	Design and Construction
(8 months)	(2 to 5 years)	(5 to 10 years)	(10+ years)



The No-Build Alternative assumes that the transportation network would be as it is planned and funded today with no new investments. It is used as a baseline to compare benefits and costs of the New Metrorail Alternatives and the Lower Capital Cost (LCC) Alternative.

#### How would this alternative perform?

(Performance estimates are relative to the No-Build Alternative.)

This alternative does not meet the four goals established for this study.







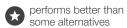


Capacity

Reliability

Flexibility Sustainability & Equity







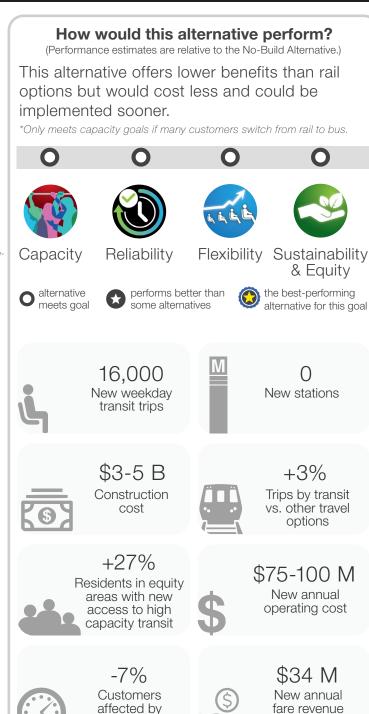
The No-Build Alternative includes the existing regional transportation system plus the projects the region has already committed to fund and deliver by 2045, such as:

- Metro's Capital Improvement Program Projects, including:
  - · Station systems and modernizations
  - · Rail systems state of good repair
  - · Rail car and bus fleet acquisition
  - · Track and structures rehabilitation
- Transportation Planning Board (TPB)'s fiscallyconstrained long-range transportation projects from Visualize 2045, including:
  - · Purple Line; DC Circulator Expansion; DC Streetcar
  - · US-1 Bus Rapid Transit; West End Transitway
  - · Montgomery County BRT Corridors

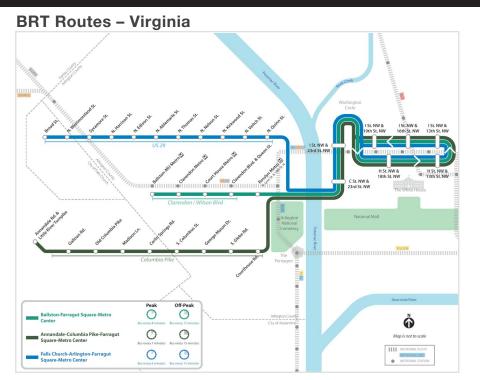


This alternative includes a variety of changes that do not require building a new Metrorail line, some of which are already underway:

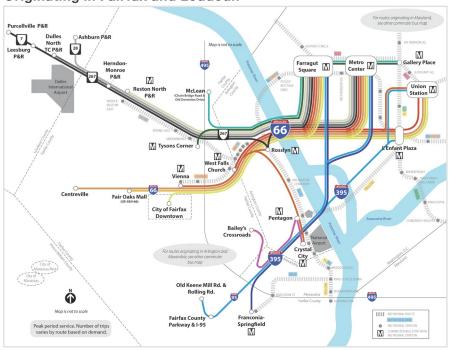
- Improvements to Bus Rapid Rransit (BRT) and commuter bus service (see next page)
- Adjusting railcar seating to increase capacity
- Introduction of dynamic rail scheduling to improve reliability
- Expanding core Metro stations to reduce crowding
- Updating rail infrastructure to provide operational flexibility using "turnbacks"



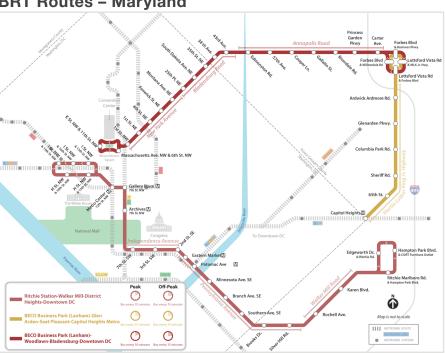
service delays



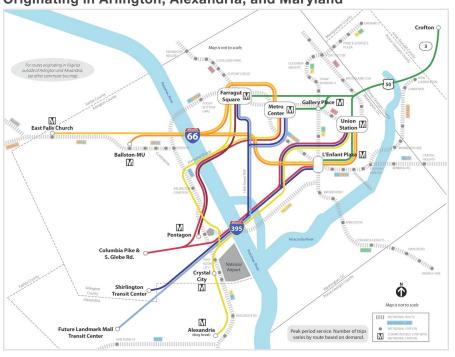
## **Commuter Bus Routes -**Originating in Fairfax and Loudoun



**BRT Routes - Maryland** 



#### Commuter Bus Routes -Originating in Arlington, Alexandria, and Maryland





- Downtown DC
- Union Market
- Ivy City
- Hyattsville

Transfers would be available at the following stations:

- GR Greenbelt
- © College Park-U of Md
- Mt Vernon Sa
- or sv Rosslyn II RD OR SV Farragut Station

Union Station

#### How would this alternative perform?

(Performance estimates are relative to the No-Build Alternative.)

This alternative would reduce potential trip delays at a lower construction cost than the other rail options.



Capacity

Reliability

Flexibility Sustainability & Equity

O alternative meets goal



performs better than some alternatives



the best-performing alternative for this goal



92,000

New weekday transit trips



14 New stations



\$25-30 B

Construction cost



+3% Trips by transit vs. other travel options



\$125-150 M

New annual operating cost



-13% Customers affected by service delays



\$79 M New annual fare revenue







- Georgetown
- Downtown DC
- Navy Yard
- Buzzard Point
- Forest Heights
- Oxon Hill
- Alexandria

Transfers would be available at the following stations:

 Navy Yard-Ballpark Mt Vernon Sq

OR SV Rosslyn II OR SV Capitol South

RD OR SV Farragut Station

Union Station

#### How would this alternative perform?

(Performance estimates are relative to the No-Build Alternative.)

This alternative would perform best at reducing crowding, growing ridership, and providing access to transit and jobs in equity areas.





Flexibility Sustainability Reliability & Equity

O alternative meets goal



performs better than some alternatives



the best-performing alternative for this goal



180,000 New weekday transit trips



16 New stations



\$30-35 B Construction

cost



+11% Trips by transit vs. other travel options





\$175-200 M

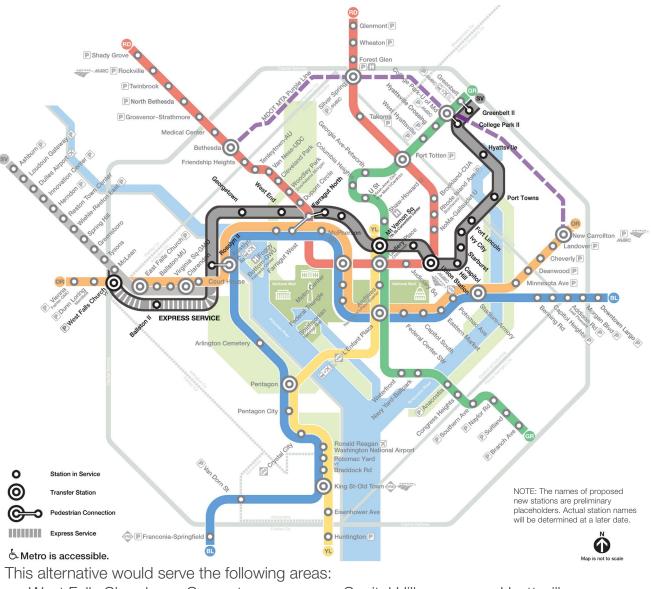
New annual operating cost



-15% Customers affected by service delays



\$154 M New annual fare revenue



- West Falls Church Georgetown
- Ballston Rosslyn

- Downtown DC
- Union Station
- Capitol Hill
- Ivy City
- Port Towns
- Hyattsville
- College Park
- Greenbelt

Transfers would be available at the following stations:

Greenbelt

© College Park-U of Md

Mt Vernon Sa

West Falls Church



RD B OR Farragut Station

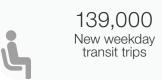


#### How would this alternative perform?

(Performance estimates are relative to the No-Build Alternative.)

This alternative would maximize train throughput, increase operational flexibility, and provide customers with multiple route options.











+3% Trips by transit vs. other travel options





\$175-200 M New annual operating cost





\$119 M New annual fare revenue



# How would this alternative perform?

(Performance estimates are relative to the No-Build Alternative.)

This alternative would perform best at reducing travel times between Downtown DC and areas near the eastern Orange Line.



access to high capacity transit

operating cost



\$80 M New annual

-34% Customers affected by service delays

fare revenue

Transfers would be available at the following stations:

Mt Vernon Sq

New Carrollton

B Rosslyn

RD BD OR Farragut Station



Union Station