



Metrorail and Metrobus: Planning for the Future

Presented to the
**Virginia General Assembly
SJ 122 Study Committee**

by

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Background

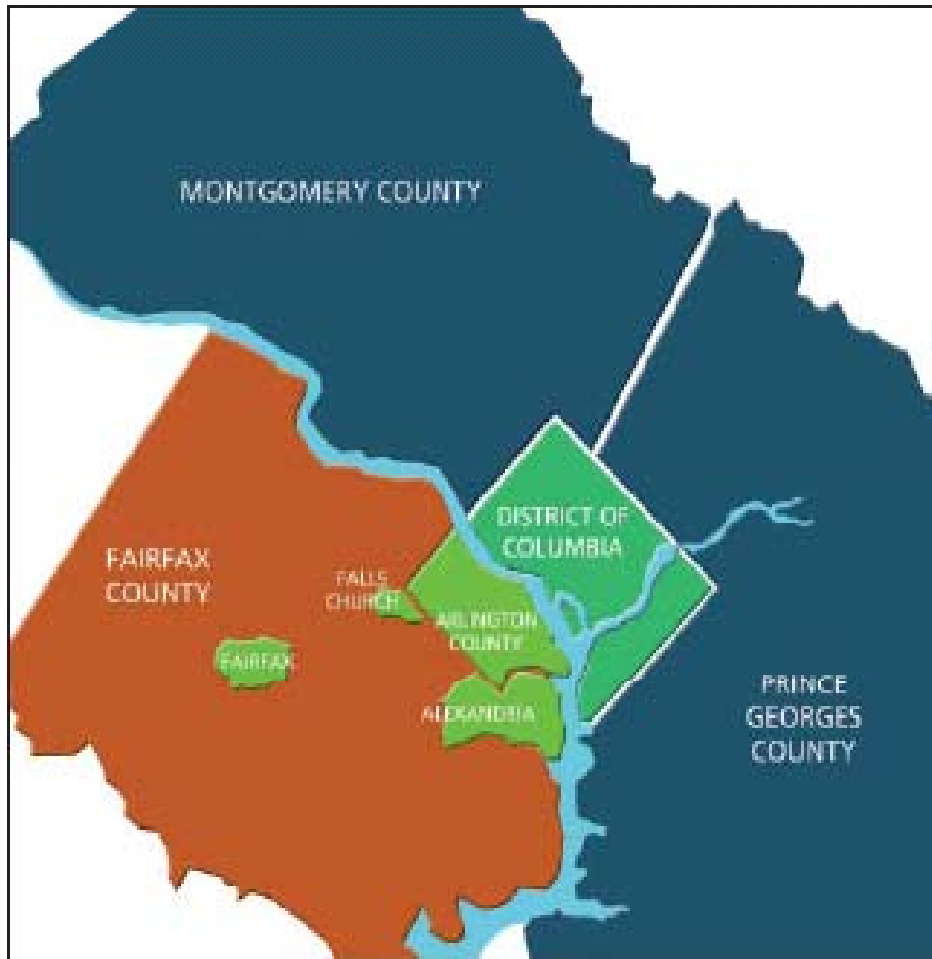
About Metro

- Second largest rail transit system in the nation
- Fifth largest bus network in the nation
- More than 347 million passenger trips in FY2008
- Averages roughly 1.2 million weekday passenger trips





WMATA Compact Jurisdictions



- Metro serves a geographic area covering 1,500 square miles and several political jurisdictions
- Service area population of over 3.5 million
- Metro has no dedicated source of funding; funding comes from a variety of federal, state and local sources.

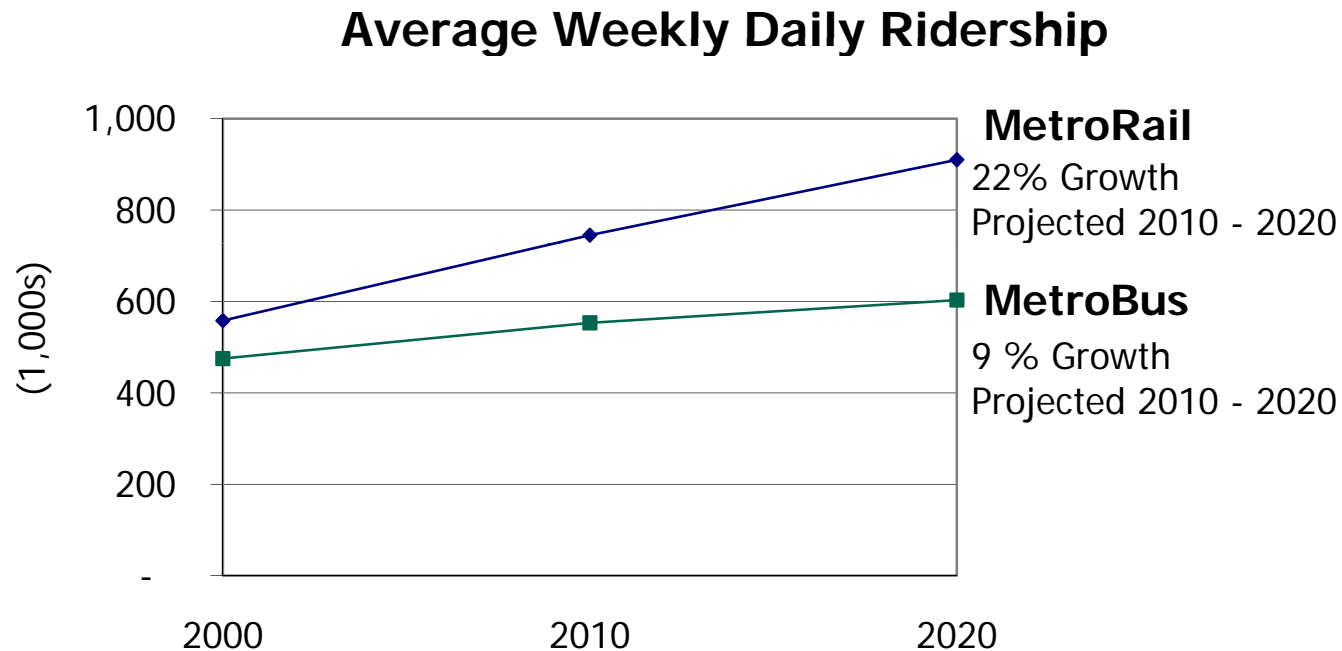


Metrorail Ridership by Jurisdiction of Residence

	Weekday Trips	
	May 2007	Percent of System Total
System Total	717,800	100.0%
Compact Jurisdictions	633,100	88.2%
District of Columbia	192,500	27%
Maryland Compact	249,900	35%
Virginia Compact	190,700	27%
Other Regional Areas	57,700	8%
Other Maryland	38,500	5%
Other Virginia	19,300	3%
Outside the Region	27,000	4%



Ridership Growth Trends



- Metrorail ridership is expected to grow from about 800,000 trips daily in 2008 to about 950,000 in 2020.
- Metrobus ridership is expected to grow from about 475,000 trips daily in 2008 to about 550,000 in 2020.



Metro Planning Approach

- Maximize capacity of existing system
- Balance system maintenance needs with system expansion
- Develop an integrated, multimodal transit system:
 - Metrobus (Local)
 - MetroExtra (Rapid)
 - Bus Rapid Transit (BRT)
 - Light Rail / Streetcar
 - Metrorail
 - Commuter Rail





Rail System Capacity

- **If we do not expand the fleet after 2009:**

Line	2005	2010	2015	2020	2025	2030
Red	Green	Green	Green	Green	Green	Yellow
Blue (Rosslyn)	Green	Green	Green	Green	Green	Green
Orange/Dulles Rail	Yellow	Green	Yellow	Red	Red	Red
Yellow/Blue (14th Bridge)	Green	Green	Green	Yellow	Yellow	Yellow
Green	Green	Green	Green	Yellow	Yellow	Yellow

- **If we expand the fleet for 100% 8-car train service:**

Line	2005	2010	2015	2020	2025	2030
Red	Green	Green	Green	Green	Green	Green
Blue (Rosslyn)	Green	Green	Green	Green	Green	Green
Orange/Dulles Rail	Yellow	Green	Yellow	Yellow	Red	Red
Yellow/Blue (14th Bridge)	Green	Green	Green	Green	Green	Yellow
Green	Green	Green	Green	Green	Green	Yellow

Green	Congested (<100 people per car)
Yellow	Highly Congested (100-120 people per car)
Red	Exceeds Capacity (> 120 people per car)



System Capacity Challenges

- Deployment of 8-car trains will likely handle system capacity needs thru 2025
- Highest priority stations for capacity improvement are largely in the Core
- System extensions require expansion of core capacity





Station Access Challenges

- Demand for parking will likely continue to outpace WMATA's ability to provide it - at least 36,000 station parking spaces would need to be added by 2030
- Parking could be provided by both WMATA and the private sector, AND/OR
 - Intensified, transit-oriented development at stations could reduce the demand for parking
 - Satellite parking served by frequent, feeder bus may prove to be most cost-effective way to serve outer suburbs



Maintaining System Performance



Bus mid-life rehab & replacements



Railcar rehab & replacement



Rail system rehab



Rehab rail maintenance facilities



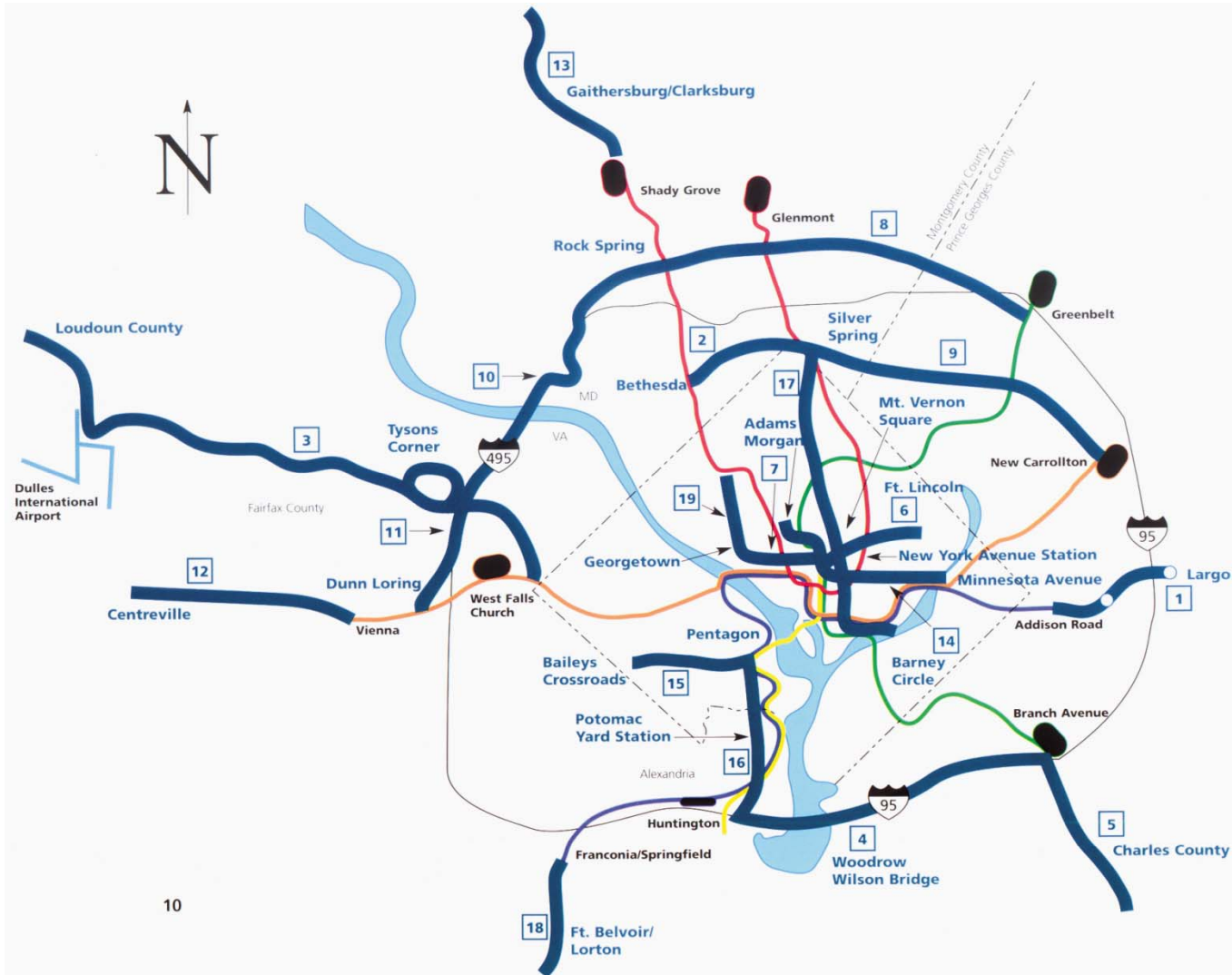
Replace obsolete bus garages



IT – Software, security and data centers

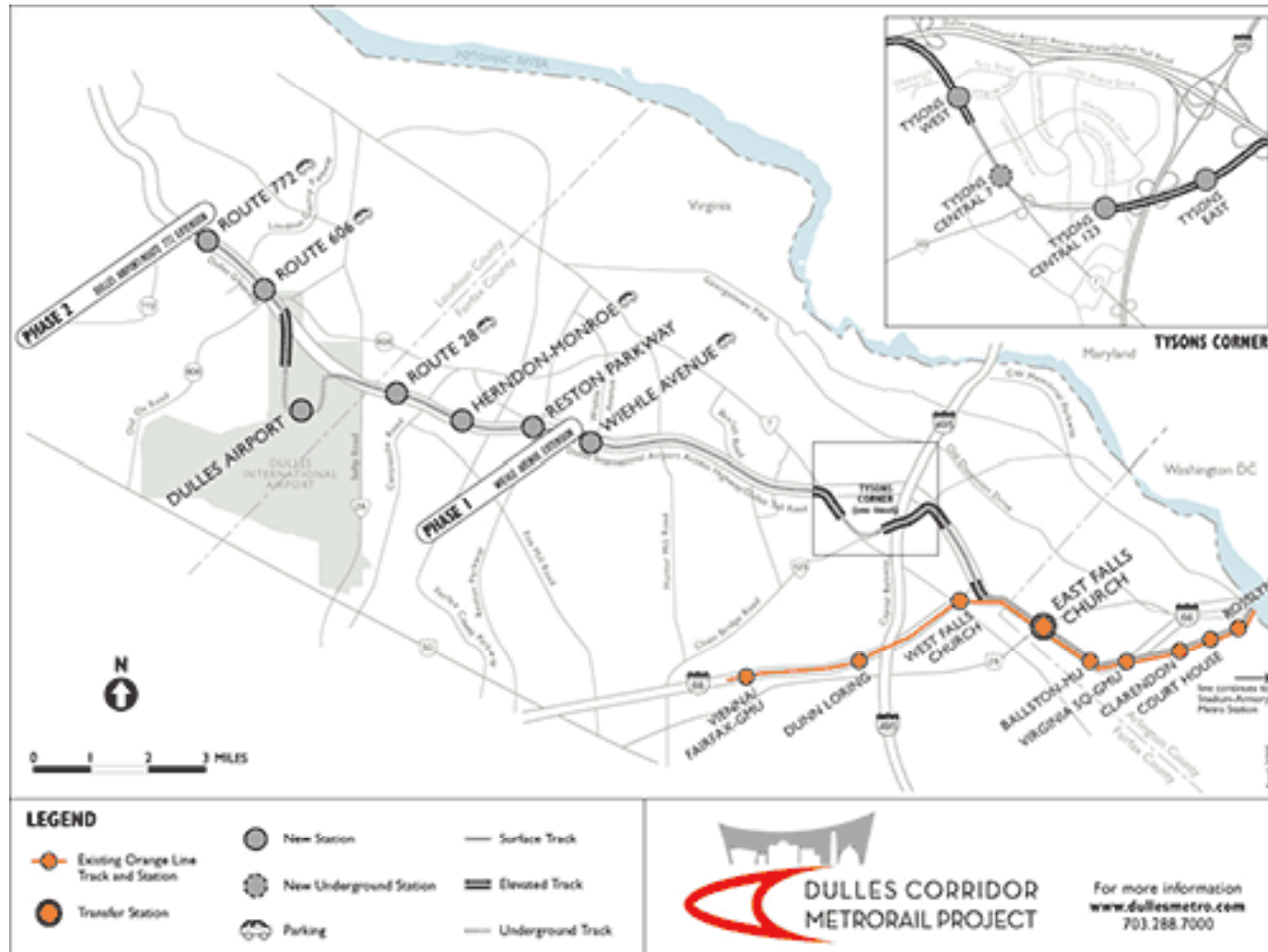


1999 System Expansion Plan





Dulles Corridor Extension

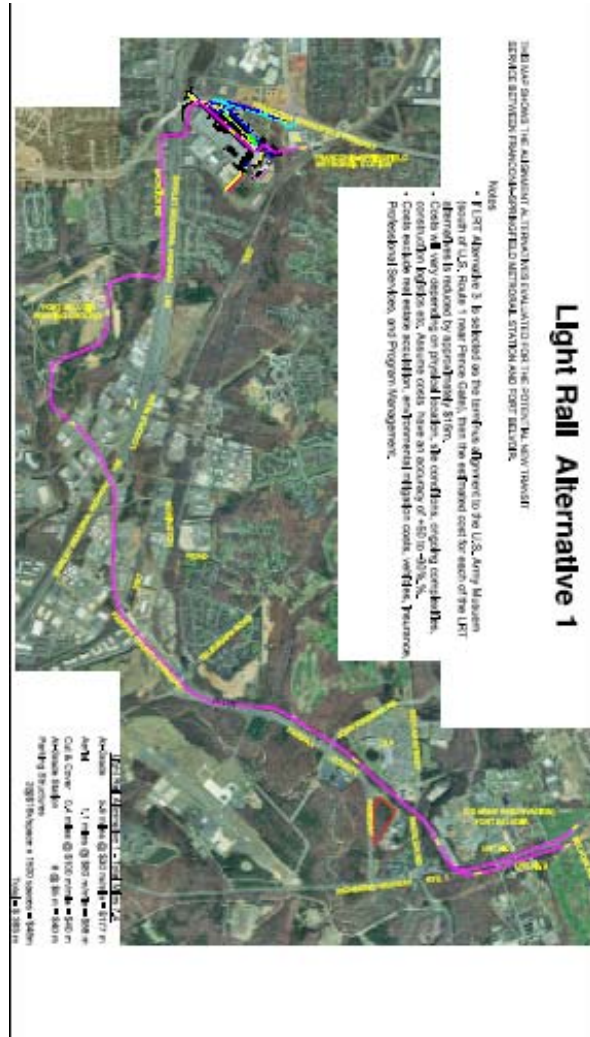




Options for Serving the I-95 and I-66 Corridors

- Potential options:
 - Metrorail Extensions of Orange, Blue, or Yellow lines
 - VRE Expansion – add additional tracks or spurs
 - LRT / BRT Connections to Vienna, Franconia-Springfield, or Huntington
 - I-95 HOV/HOT lanes – express bus
- Considerations:
 - Capital and operating costs
 - Funding sources, especially federal funds
 - Support for land use
 - Travel time savings
 - Travel markets

Fort Belvoir Fixed Guideway Transit Study



- Connect Franconia-Springfield Metro with growing Ft. Belvoir center and EPG

Alternative Alignment Options

- Heavy Rail Extension (4.5 miles, 2 stations)
- Light Rail Transit (7.4 miles, 8 stations)
- HOV Ramps from I-95 to Fairfax County Pkwy
- \$400-500 Million cost estimate (2005 \$)



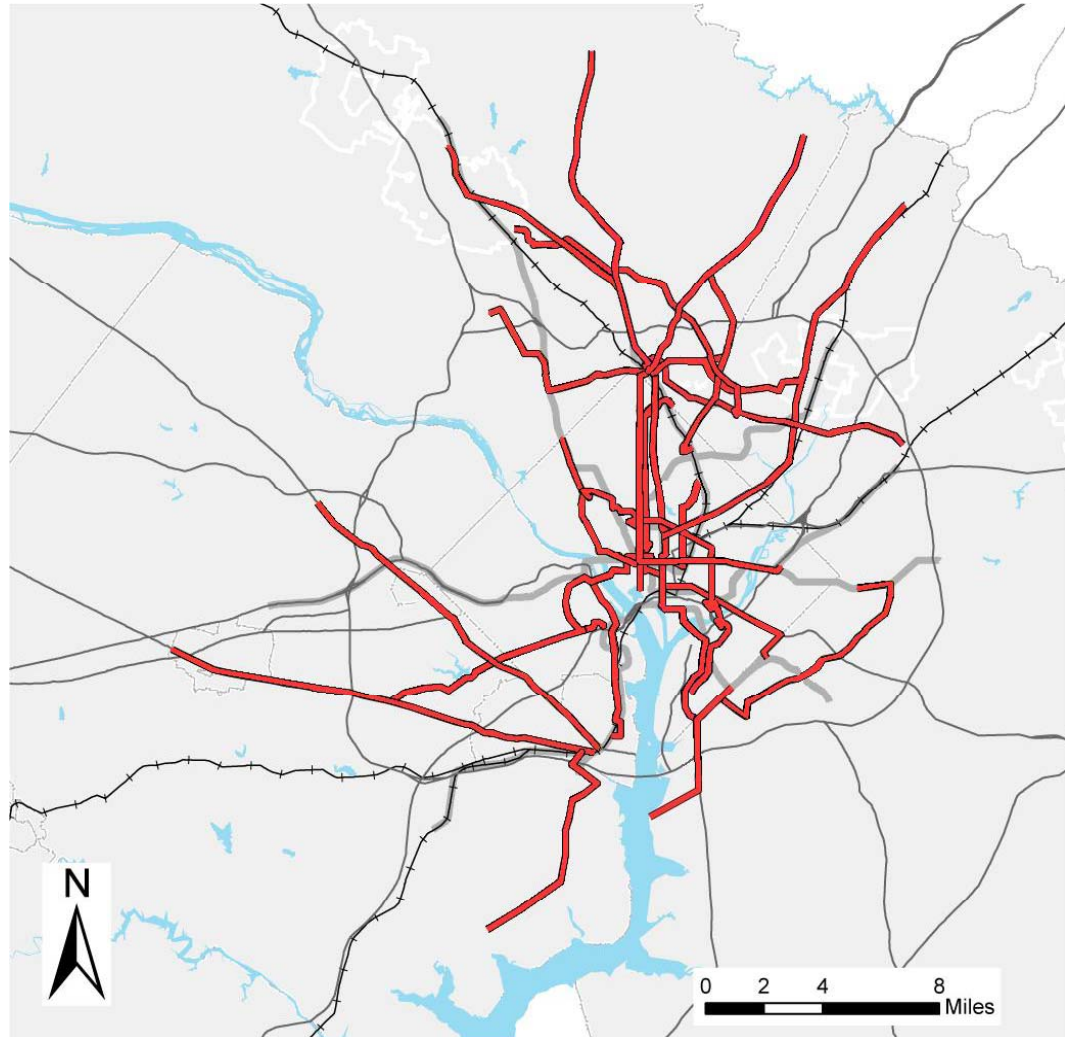
Enhancing the Role of the Bus System





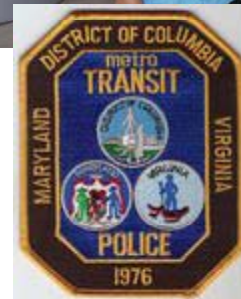
Metrobus Priority Corridor Network Plan

1. Columbia Pike (Pike Ride)
2. Richmond Highway Express (REX)
3. Georgia Ave./7th St.
4. Crystal City–Potomac Yard
5. Southern Ave. Metro – National Harbor
6. Wisconsin Ave./Pennsylvania Ave.
7. University Blvd./East-West Highway
8. Sixteenth St. (DC)
9. Leesburg Pike
10. Veirs Mill Rd.
11. New Hampshire Ave.
12. H St./Benning Rd.
13. Georgia Ave. (MD)
14. Greenbelt-Twinbrook
15. East-West Highway (Prince George's)
16. Anacostia-Congress Heights
17. Little River Tpke./Duke St.
18. Rhode Island Ave. Metro to Laurel
19. Mass Ave./U St./Florida Ave./8th St./MLK Ave.
20. Rhode Island Ave.
21. Eastover-Addison Road Metro
22. Colesville Rd./Columbia Pike - MD US 29
23. Fourteenth St. (DC)
24. North Capitol St.





What is a Priority Corridor?





What is Meant by “Dedicated” or “Prioritized” Right-of-Way?





Practical Challenges to Confront

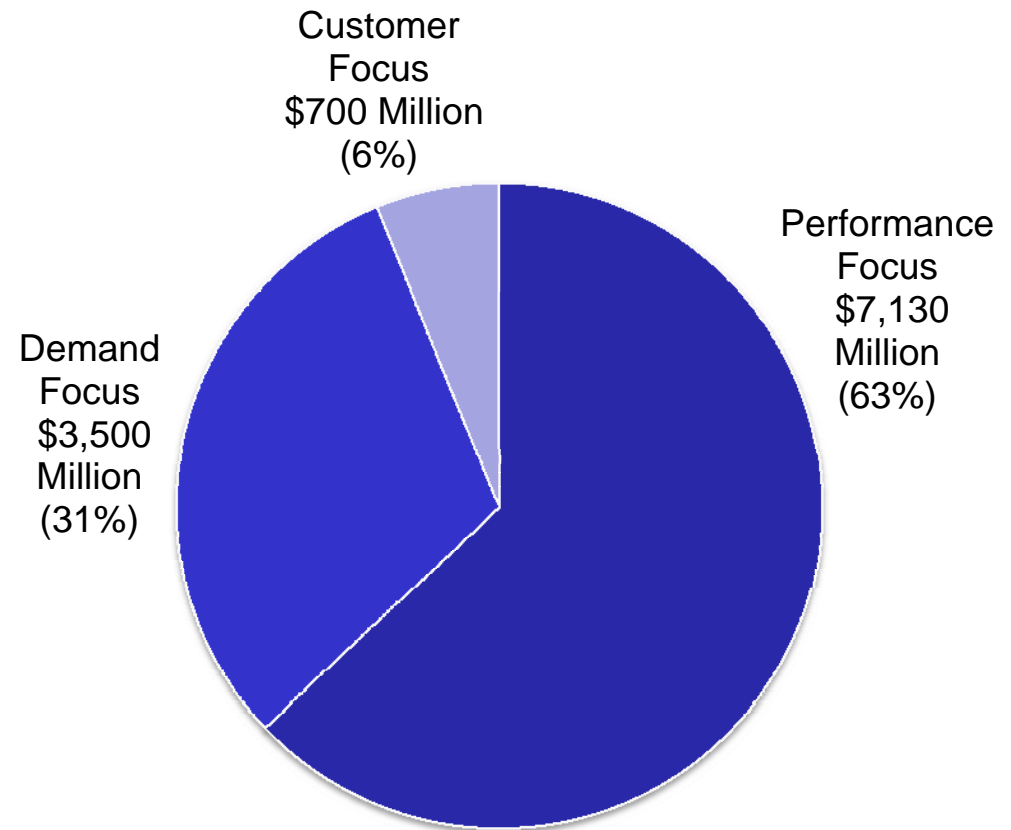
- Capital funding for buses, garages, and other facilities
- Operating funds for increased service
- Define situations that justify transit prioritization and tools highway departments will use
- Change perceptions and culture
 - Bus network an equal partner to rail network
 - Net benefits of prioritizing transit widely understood
 - Drivers today seeing themselves using faster transit tomorrow
 - Road owners as transit providers too
 - Person throughput, not vehicle throughput





Capital Improvement Needs: FY 2011 – FY 2020

Metro's total capital needs for FY 2011- FY 2020 are \$11.3 billion, or roughly \$1.1 billion per year



Capital Needs in 2008 dollars: \$9.2 billion



Metro's Next Steps for Funding



- **Prioritize Metro's capital needs**
- **Work with federal and jurisdiction partners to secure dedicated funding**
 - Enact dedicated funding legislation in each jurisdiction
 - Coordinate efforts of jurisdiction partners to amend the Compact
 - Secure federal appropriations



For more information...



www.wmata.com

About Metro / Planning & Development