



Washington Metropolitan Area Transit Authority

Complete Streets & Transit An Operator's Perspective

Kristin Haldeman
Office of Long Range Planning

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Metro Moves People – Lots of People



Metro Service Area:
1,500 square miles
3.9 million population

Rail:

- 86 stations
- 106 miles of track
- Avg weekday
750,000 trips

Bus:

- 1,500 buses
- Avg weekday
450,000 trips**

Paratransit

- >8,000 trips/day





The Transit Interest in Complete Streets

- Access to Transit
 - Bus & Surface Running Transit
 - Rail
- Transit Operation
 - Safety
 - Travel time
 - Reliability



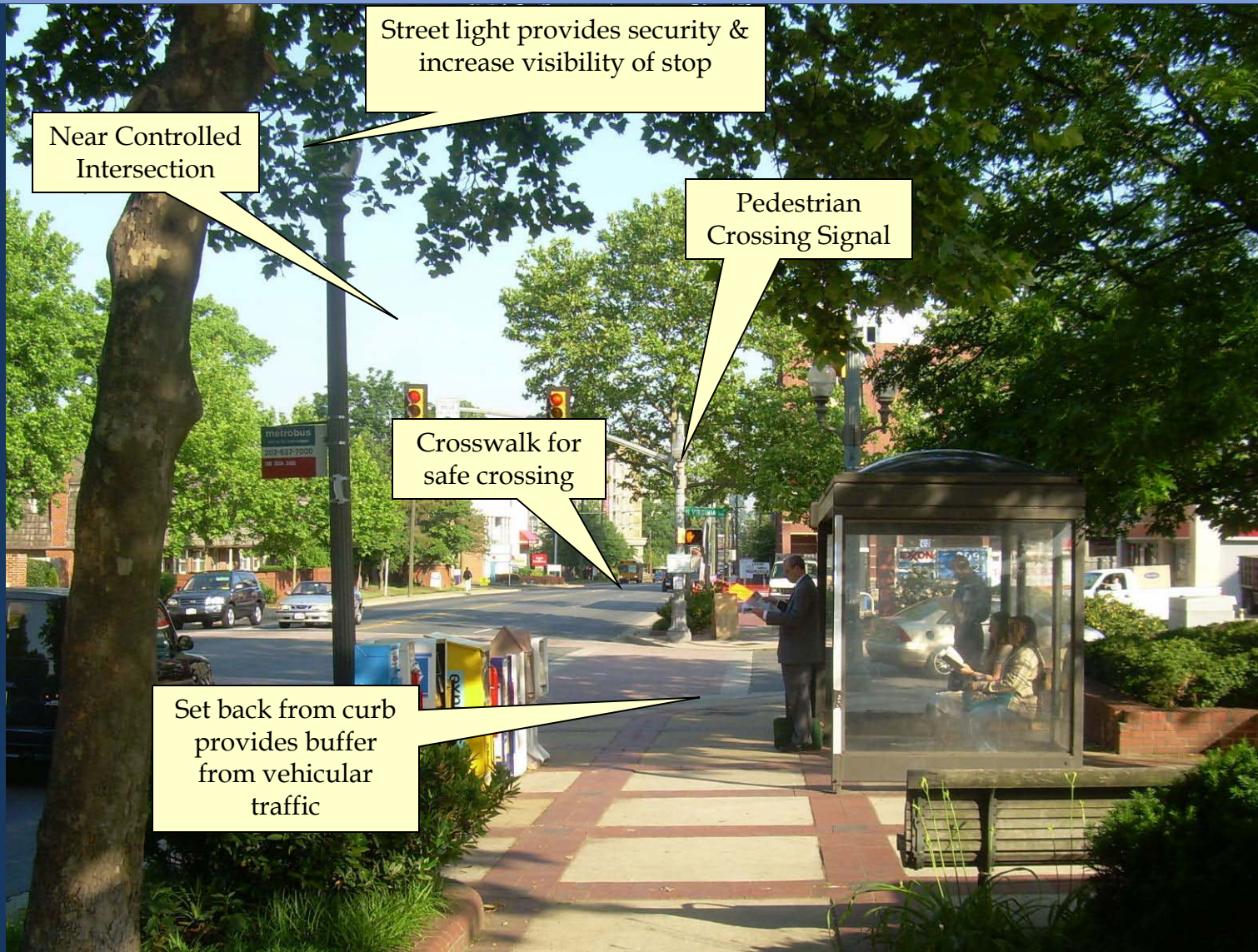
Access To Transit: Bus & Surface Running Transit

- Safe Crossings, Stop locations and Amenities
- Accessible Paths to Stops





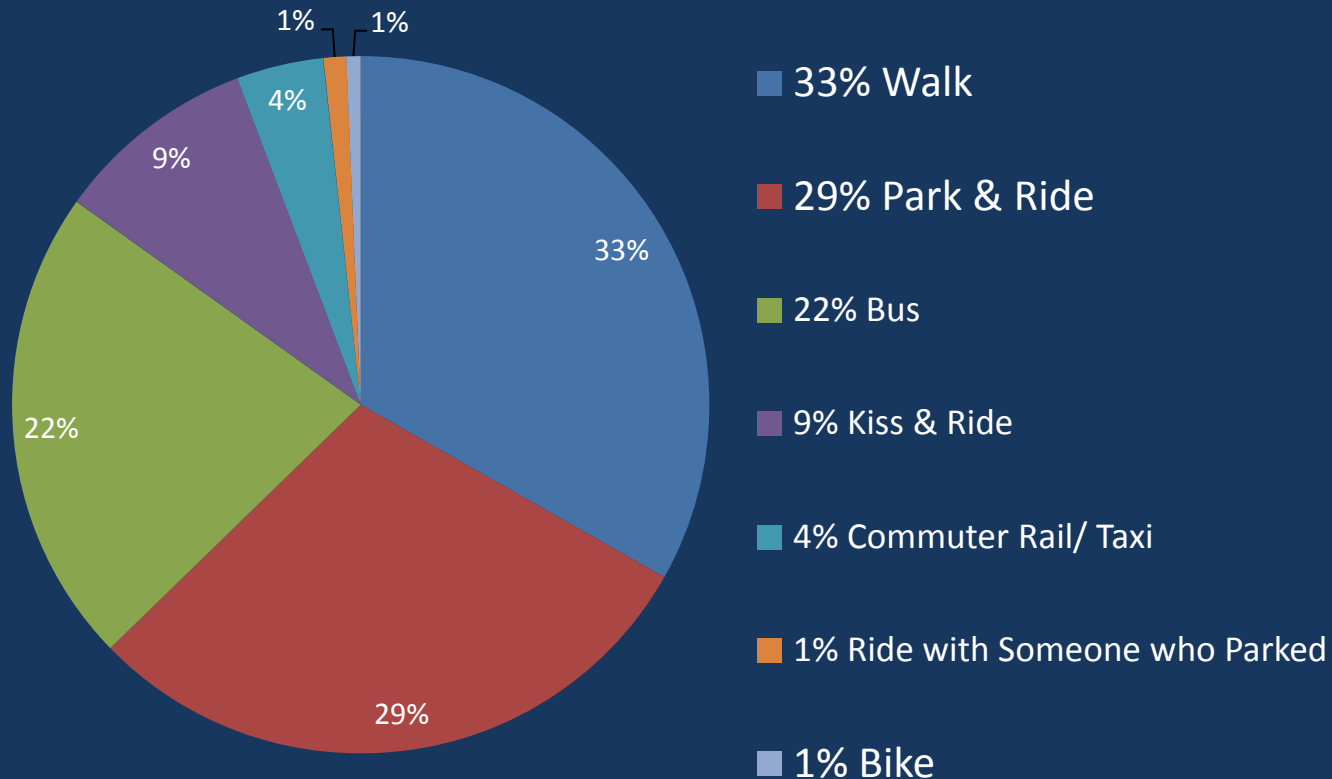
Bus Stop Design Guidelines: Elements of a Quality Stop





Access To Transit: Rail

Metrorail AM Peak Arrivals – 250,000





Access To Transit: Rail

Improving Access to Rail – Survey Findings

- 52% **walk** - Top 3 ways to improve their walk trip:
 1. Improve crossing conditions and intersections
 2. Decrease traffic volume and speed
 3. Improve sidewalks
- 16% **bike** - Top 3 ways to improve their bike trip:
 1. More on-road bike facilities leading to/from stations;
 2. More connections to off-road facilities such as trails in the vicinity of stations
 3. Improve intersections & crossings on routes leading to stations
- 16% **drive** - Greatest barriers for drivers to bike or walk:
 1. Distance to station from home;
 2. Uncomfortable crossing distances at intersections; and
 3. High traffic volume and speed.
- 25% of drivers said they drive because they do not know a safe walk or bike route to stations.



Improvements to Metro property

MEDICAL CENTER BEFORE AND AFTER, REPLACING OLD RACKS



VIENNA STATION BEFORE AND AFTER, NEW ACCESS POINT



FRANCONIA – SPRINGFIELD BEFORE AND AFTER, NEW SIDEWALK TO IMPROVE SAFETY





Transit Operations

Sharing the Road with Transit

Safety

- Safely accommodating transit & other modes
 - Bikes
 - On the same streets
 - Separated facilities vs. shared facilities
 - On parallel streets
 - Pedestrians
 - Safe intersection design
 - Safe crossing design
- Autos & other vehicles

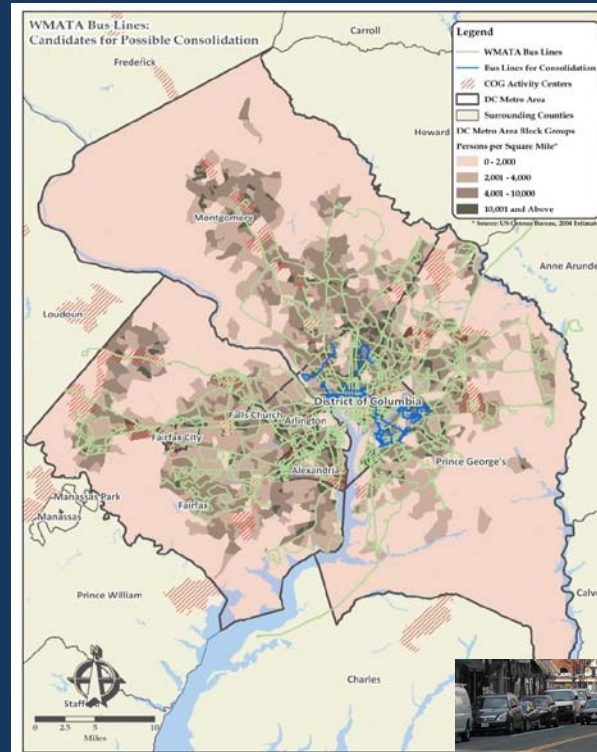


Transit Operations

Sharing the Road with Transit

Travel time & Reliability

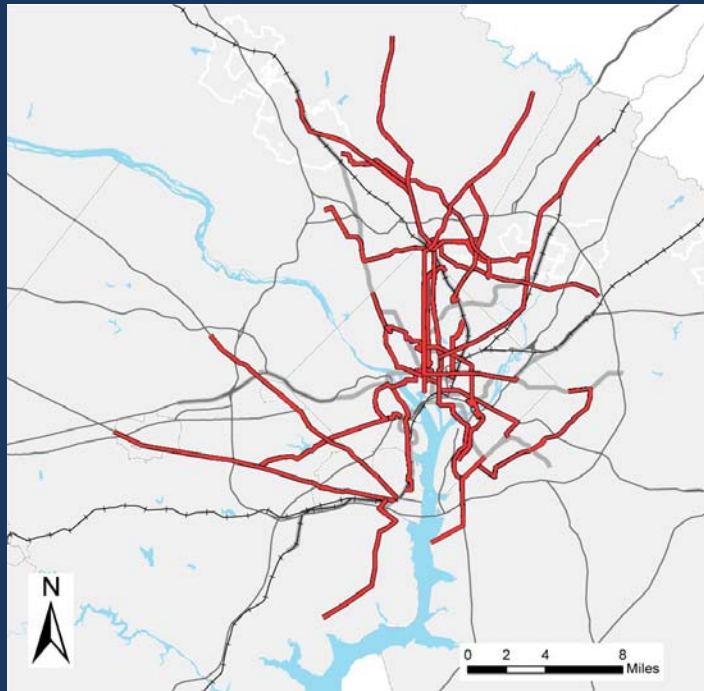
- Travel lanes and sufficient 'room to move'
- Priority treatments for transit vehicles
 - Dedicated Lanes
 - Transit Signal Priority or Pre-emption
- Stop spacing
- Maintaining bus access to stops



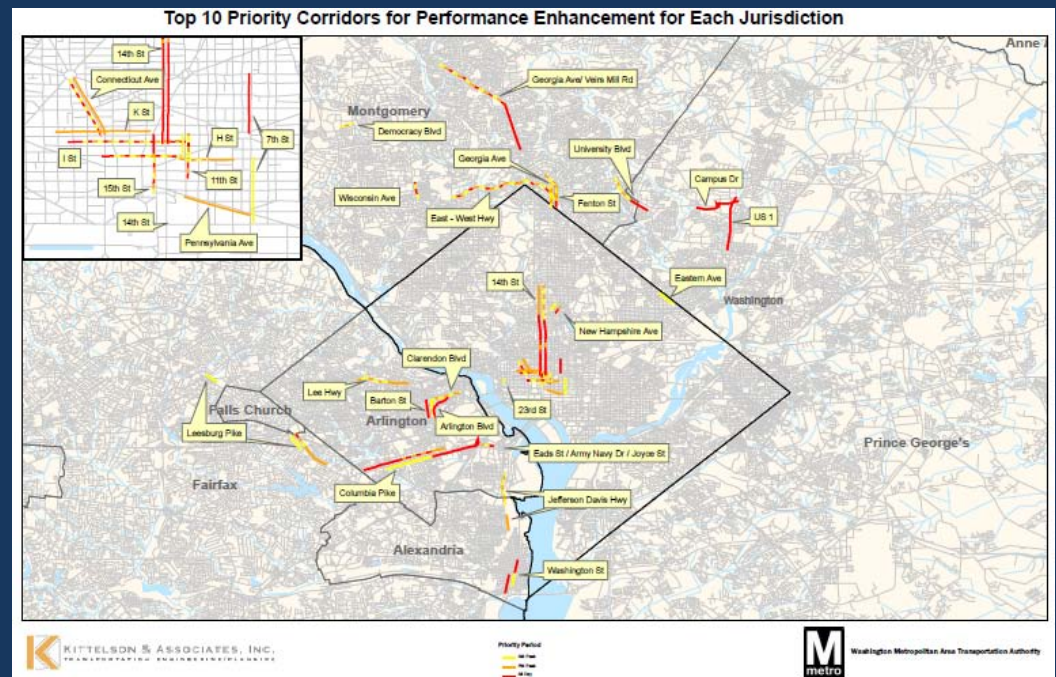


Priority Corridor Networks & Hot Spots Analysis

23 Top Performing Corridors



Correlated high WMATA bus frequency with slow average bus speeds





Parting Thoughts

Collaboration

- Involve transit operators early & often

Design

- Seek solutions that help optimize transit operations, making transit a desirable transportation option

Monitor

- Use performance measures to monitor transportation networks, and adjust if needed