



Station Access Management Plans

Reston Metrorail Access Group (RMAG)

Task Force

February 23, 2010



Dulles Corridor Metrorail Extension Station Access Plans

- **The Wiehle Avenue/Reston Parkway Station Access Management Plans study was initiated to:**
 - **Consider the current status and future needs in the vicinity of the two stations**
 - **Provide pedestrian and bicycle access, and effective bus feeder service, and**
 - **Manage traffic projected in the area of the stations.**



Dulles Corridor Metrorail Extension Station Access Plans

- A project team was headed by County staff
- Vanasse Hangen Brustlin (VHB), a consultant under contract to the County and,
- The Reston Metrorail Access Group (RMAG), a citizens group appointed by Supervisor Cathy Hudgins



Dulles Corridor Metrorail Extension Station Access Plans

- Public input was developed through the RMAG monthly meetings
- Four public meetings:
 - Initiation of the study
 - Existing conditions
 - Preliminary findings
 - Final recommendations





Dulles Corridor Metrorail Extension Station Access Plans

- The RMAG and the public worked with the project team to establish community priorities for improvements and how tradeoffs should be considered
- The ultimate decision on priorities received significant support from the community
- Priority at station areas was given to:
 - Pedestrians
 - Bicyclists
 - Transit Users (buses)
 - Private Vehicles (drivers and carpools)



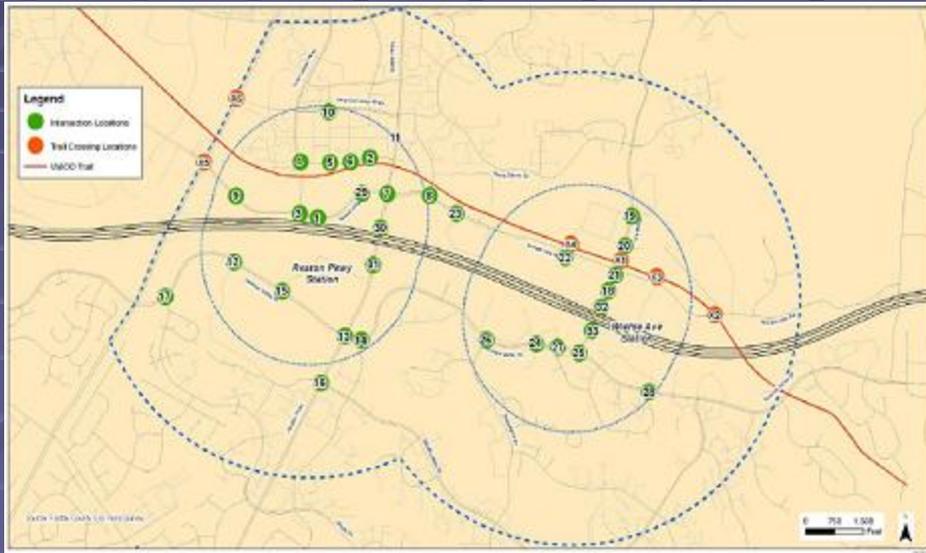
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- **Pedestrian and Bike Improvements**
 - Crosswalks
 - Countdown signal heads
 - Median refuges
 - Limits to 'right turn on red'
 - Shared use trails
 - On-street bike lanes



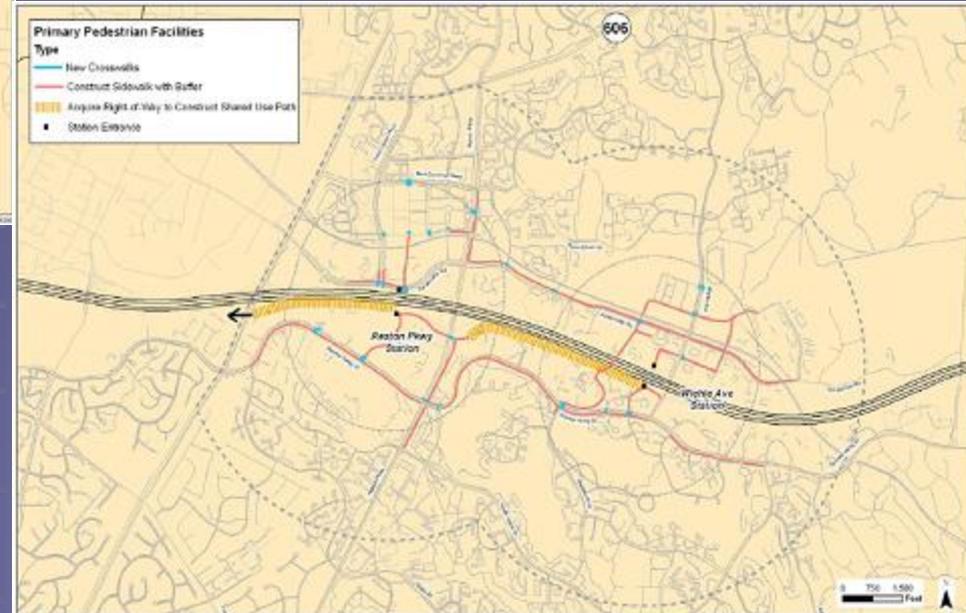


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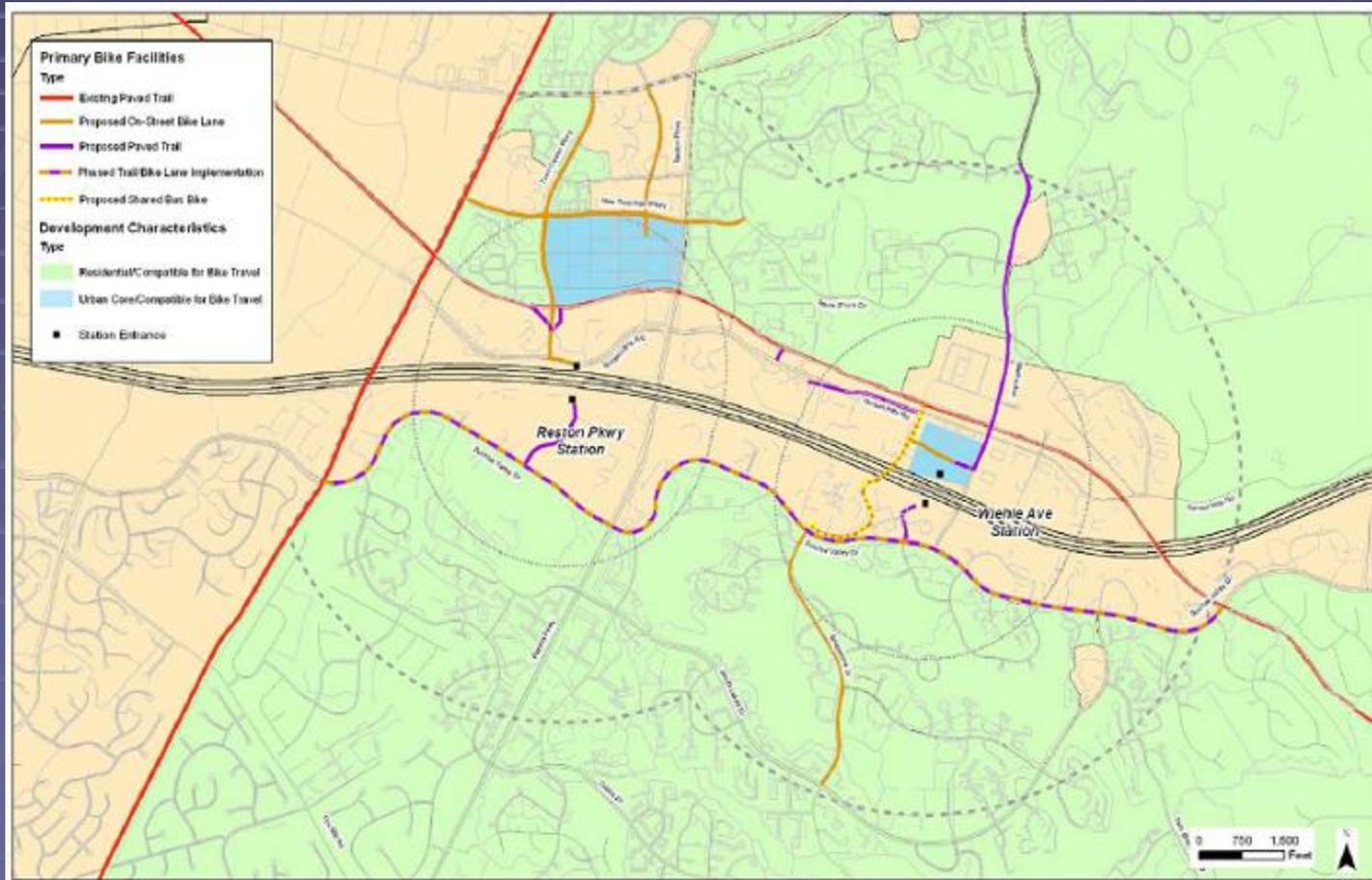
Pedestrian Facilities

Intersection Improvements





Dulles Corridor Metrorail Extension Station Access Plans



Proposed bicycle facilities



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Improvement	Length (ft)	Unit Cost	Unit Contingency & ROW (50%)	Total Estimated Cost
Sidewalks	49,100	\$150	\$75	\$11,047,500
Bike Paths	31,600	\$120	\$60	\$5,688,000
Bike Lanes	48,800	\$20	\$10	\$1,464,000
Bike Lanes- curb changes	24,400	\$50	\$25	\$1,830,000
Total				\$20,029,500

Pathway and Bike Improvements

Intersection Improvements

Improvement	Quantity	Cost per Unit	Contingency & ROW (50%) per Unit	Total Cost
Pedestrian Countdown Signal	77	\$ 8,000	\$ 4,000	\$ 924,000
Upgrade curb ramps	105	\$ 1,000	\$ 500	\$ 157,500
Construct Curb Ramps	32	\$ 2,000	\$ 1,000	\$ 96,000
Improved Crosswalk	58	\$ 1,200	\$ 600	\$ 104,400
Median Refuge	41	\$ 25,000	\$ 12,500	\$ 1,537,500
Channelized Right Turns	6	\$ 100,000	\$ 50,000	\$ 900,000
Warning Signage	14	\$ 300	\$ 150	\$ 6,300
Decrease Curb Radius	22	\$ 15,000	\$ 7,500	\$ 495,000
New Crosswalk	44	\$ 600	\$ 300	\$ 39,600
New Signal	1	\$ 300,000	\$ 150,000	\$ 450,000
Signal Timing	15	\$ 15,000	\$ 7,500	\$ 337,500
Automatic Flashers	1	\$ 20,000	\$ 10,000	\$ 30,000
Other Costs				\$ 306,000
Total				\$ 5,383,800



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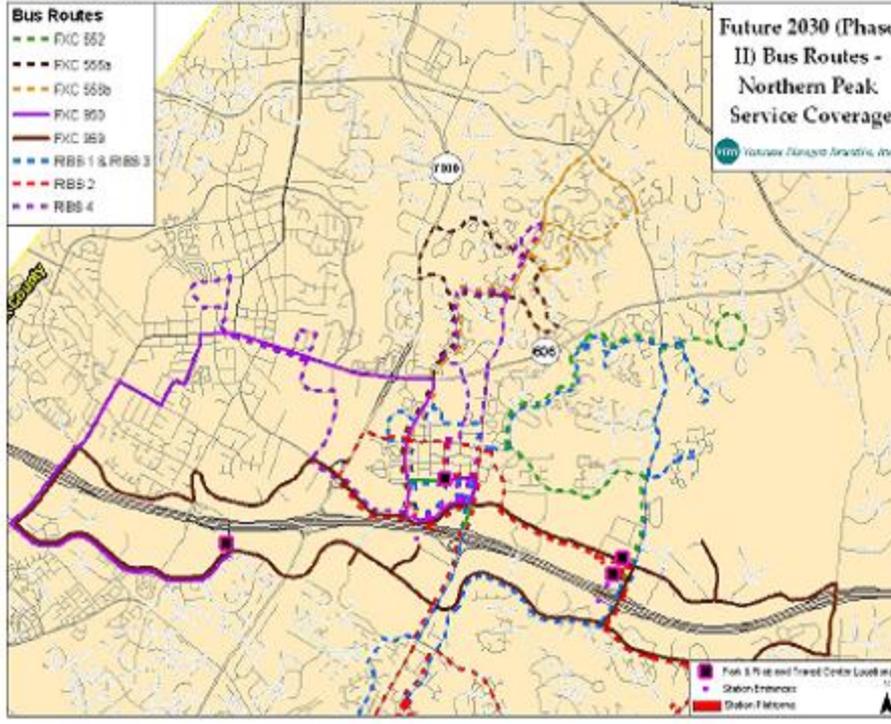
- **Transit Service Improvements**
 - Rerouting of all Reston bus service to nearest Metrorail station
 - Improved levels of service
 - Headways
 - Span of Service
 - Weekend service
 - Sunrise/Sunset Circulator
 - Additional buses and maintenance/storage capability





Dulles Corridor Metrorail Extension Station Access Plans

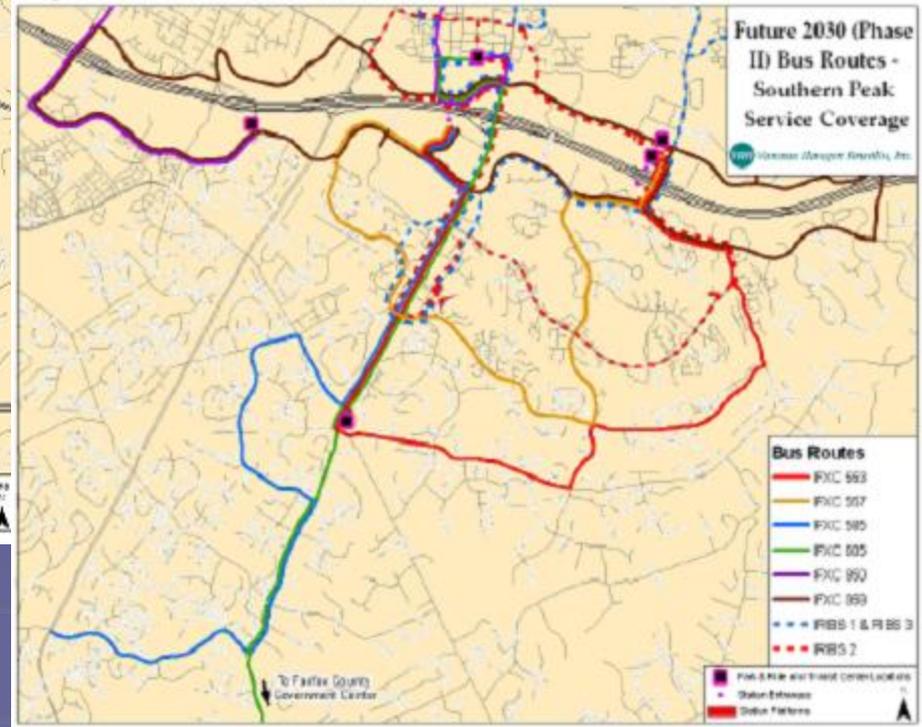
Figure ES-2: Recommended Peak Period Transit Route Structure - North



Northside bus routing

Southside bus routing

Figure ES-3: Recommended Peak Period Transit Route Structure - South





Dulles Corridor Metrorail Extension Station Access Plans

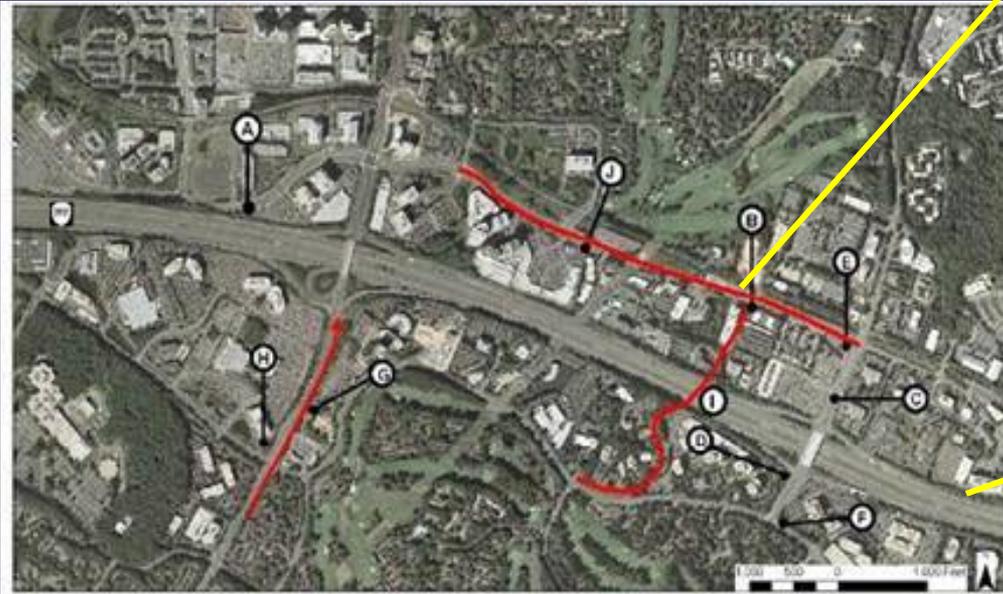
- Roadway Improvements
 - Signalization
 - Turn lanes
 - New Roads





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Proposed Street Grid at Wiehle Avenue Station





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Table 2-9: Estimated Roadway Improvement Costs

Road Actions	Units	Quantity	Unit Cost	Contingency Per Unit	TOTAL
New Signal Installation	EA.	4	\$319,500	\$431,300	\$3,003,200
Install new, or improve existing turn bay	EA.	8	\$213,000	\$287,600	\$4,004,800
New travel lane on Reston Parkway	mile	0.38	\$1,863,800	\$2,516,100	\$1,659,100
Add internal roadway links	mile	1.28	\$3,727,500	\$5,032,100	\$11,212,300
Improve/Widen roadway from 2 to 4 lanes	mile	0.66	\$8,413,500	\$6,478,400	\$9,871,500
New bridge over DIAAH	sq ft	56,000	\$320	\$250	\$31,920,000
Bus Lanes on Sunset Hills Rd	mile	1.86	\$1,863,800	\$2,516,100	\$8,146,600
TOTAL					\$69,817,500

Projected Roadway Costs



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Estimated Total Project Cost Thru 2030 (2007 \$)

Capital Costs			
	Roadways		\$69,817,500
	Pedestrian/Bicyclist		
		Intersections	\$5,383,800
		Paths & Bike Lanes	\$22,029,500
	Transit		
		Vehicles	\$4,400,000
		Facilities	\$3,500,000
	TOTAL		\$105,130,800
Operating Costs			
	Feeder Bus System	\$15,248,575	annually



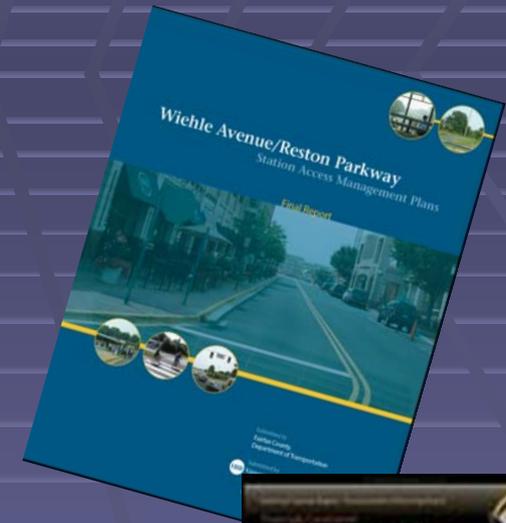
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- **Other Community Actions**
 - Encourage transit oriented development (TOD) in station areas
 - Promote travel demand management strategies to reduce dependence on the SOV
 - Work with VDOT to implement Context Sensitive Design Solutions on area roadways
 - Examine feasibility of residential parking permit programs near station areas



Dulles Corridor Metrorail Extension Station Access Plans

- **Completed Actions**
 - **Established project priorities**
 - Station opening dates
 - Integration of projects
 - **Developed a program of projects**
 - Projects, budget, schedule, & funding
 - **Funding Needs**
 - Approximately \$12.7 m needed by 2013
 - \$4.0m CMAQ funds secured
 - **Implementation**
 - Design, engineering, property acquisition construction





Dulles Corridor Metrorail Extension Station Access Plans

■ Funded Projects

■ Intersection Improvements

- Wiehle Ave & station entry
- Sunset Hills & Isaac Newton Sq (south)
- Wiehle Ave & Sunrise Valley Dr

■ Sidewalk Improvements

- Soapstone Dr from Sunrise Valley to Hunters Green
- Sunset Hills from Wiehle to Isaac Newton Sq (south)

■ Bike & MSUP

- Soapstone Dr from Sunrise Valley to South Lakes Dr (new)
- SUP from Wiehle @ Isaac Newton Sq to station entry (new)
- SUP Sunset Hills Rd from station entry to Plaza America widen



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- **Improvements Required by Record of Decision**
 - **Improvements that must be implemented by the rail project:**
 - Additional left turn lane from Wiehle Ave NB at station entry
 - Additional left turn lane from EB DTR ramp at Wiehle Ave and the addition of interim bus bays
 - Widen Sunset Hills Rd from Wiehle Ave to Isaac Newton Sq and install left turn lane from WB Sunset Hills Rd to Isaac Newton Sq (south)
 - Provide a new entry from Isaac Newton Sq (south) into station area