



Washington Metropolitan Area Transit Authority

Metrorail Station Access Investment Strategy Project

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WMATA, Office of Planning
APTA Rail Conference
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Today's Agenda

- Context & Scope
- Project Identification
- Prioritization Measures
- Jurisdictional Outreach
- Next Steps



Metro at a Glance

System Map

wmata.com
Customer Information Service: 202-637-7000
TTY Phone: 202-638-3780

Legend

- RD Red Line • Glenmont to Shady Grove
- OR Orange Line • New Carrollton to Vienna
- BL Blue Line • Franconia-Springfield to Largo Town Center
- GR Green Line • Branch Ave to Greenbelt
- YL Yellow Line • Huntington to Fort Totten
- SV Silver Line • Future Dulles Corridor Line

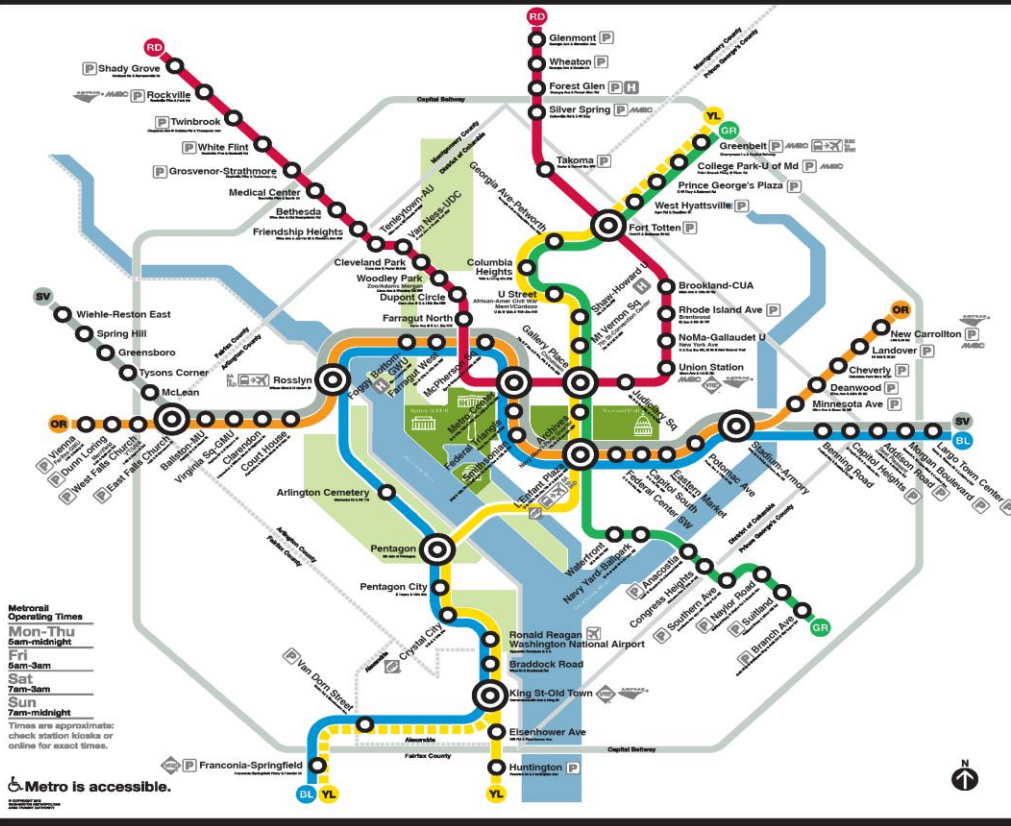
Station Features

- Bus to Airport
- Parking
- Hospital
- Airport

Connecting Rail Systems

- AMT
- MD

- Under Construction
- Full-Time Service
- Planned Station
- Rush-Only Service: Monday-Friday 6:30am - 9:00am 3:30pm - 6:00pm
- Station in Service



Metro Service Area:
1,500 square miles
3.9 million population
3 States/8 Localities

Metrorail

- 91 stations
- 117 track miles
- ~650,000 daily trips

Metrobus

- >11,000 stops
- 307 routes
- ~450,000 daily trips

MetroAccess

- ~7,000 daily trips





Metro's Connecting Communities KPI

Grow Near Transit

- Transit-oriented development
- Zoning
- Planning



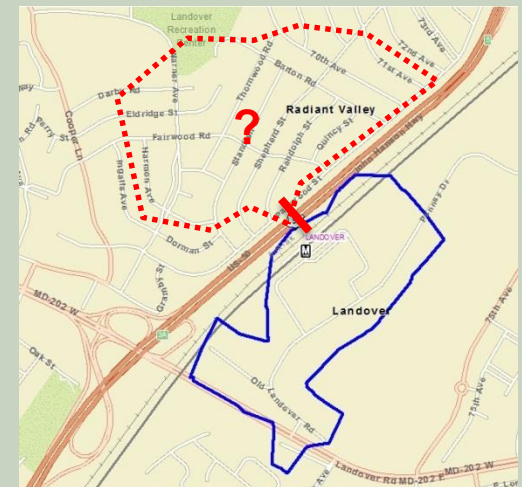
Expand Transit

- Expand bus routes
- Build new Metrorail lines and stations



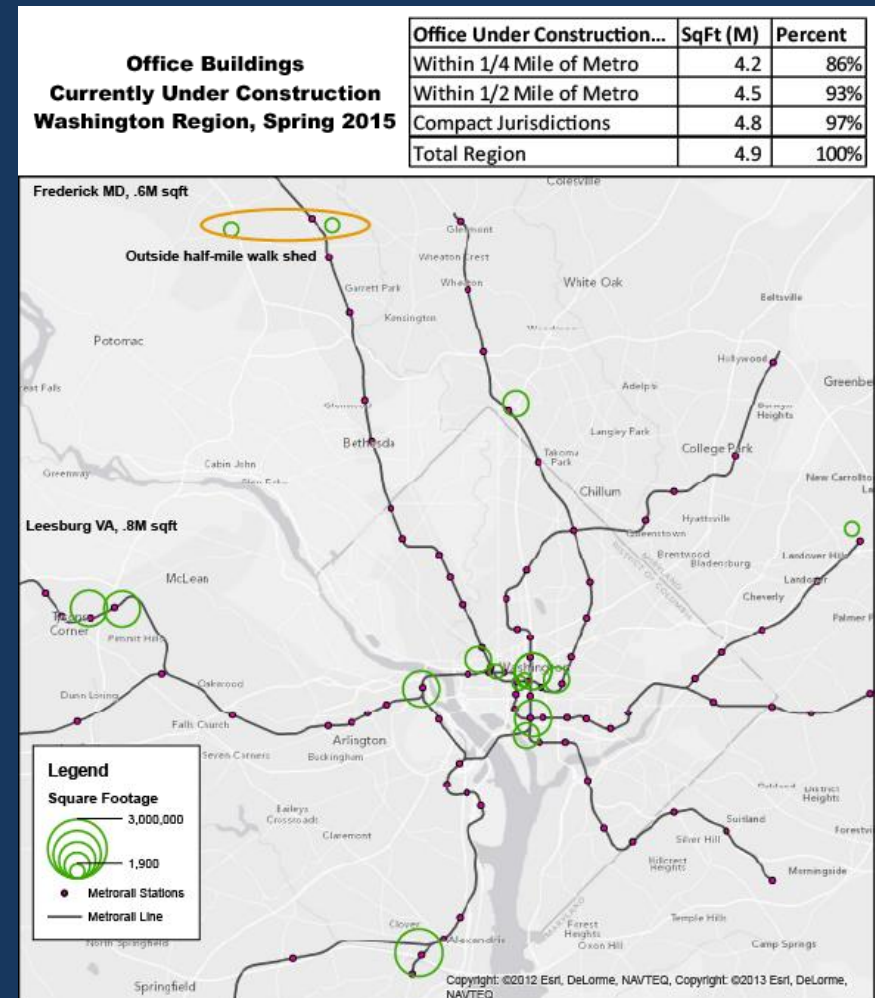
Improve Access to Stations

- Fix pedestrian barriers
- Build paths and sidewalks



Key Opportunities

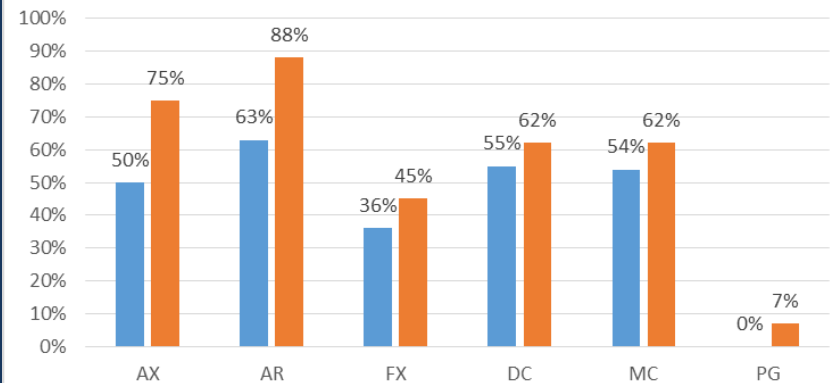
- Additional Ridership
- Safer & expanded non-motorized access
- Supporting new development



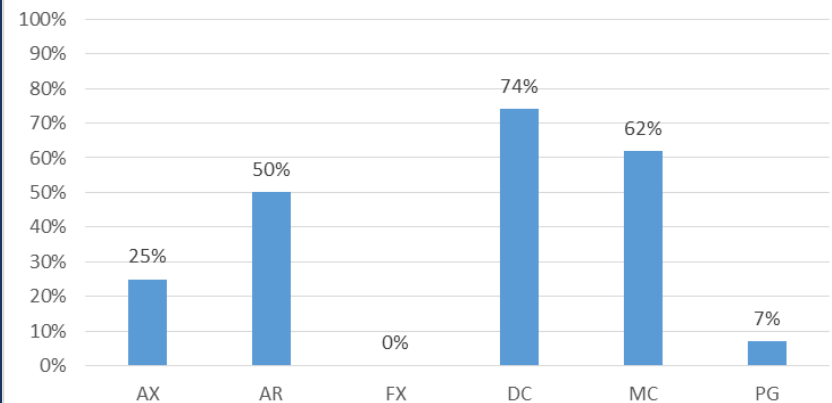
Land Use & Ridership Linkage

- The number of **households** and **jobs** located within **walking** distance of a station is a key driver of ridership
- More ridership contributes to higher overall efficiency of the system and lower subsidy
- Jurisdictions can make better transit-supportive land use decisions

% of Stations Meeting Density Thresholds, 2015 & 2040



% Stations Achieving Walkshed Coverage Target, 2015





Connecting Stations = More Ridership & Revenue



More than 4,000 jobs cut
off from the station -
Potential benefit:
500 entries/day
\$625,000 fares/year





Project Scope

- Compile inventory of un-met bike and pedestrian access needs at all 91 Metro stations
 - Ped Projects - ½ mile from station
 - Bike Projects – 1 mile from station
- Prioritize projects using 12 measures
- Recommend top scoring projects for funding & implementation

Compile Inventory

Plan Review: 4,500
Unique Projects

Remove “Completed”:
4,200 Projects

Scoring: 970 “grouped
projects”

Jurisdictional Review: 50 -
100 Projects Each

Identify Projects to
Advance



Summary - All Identified Projects

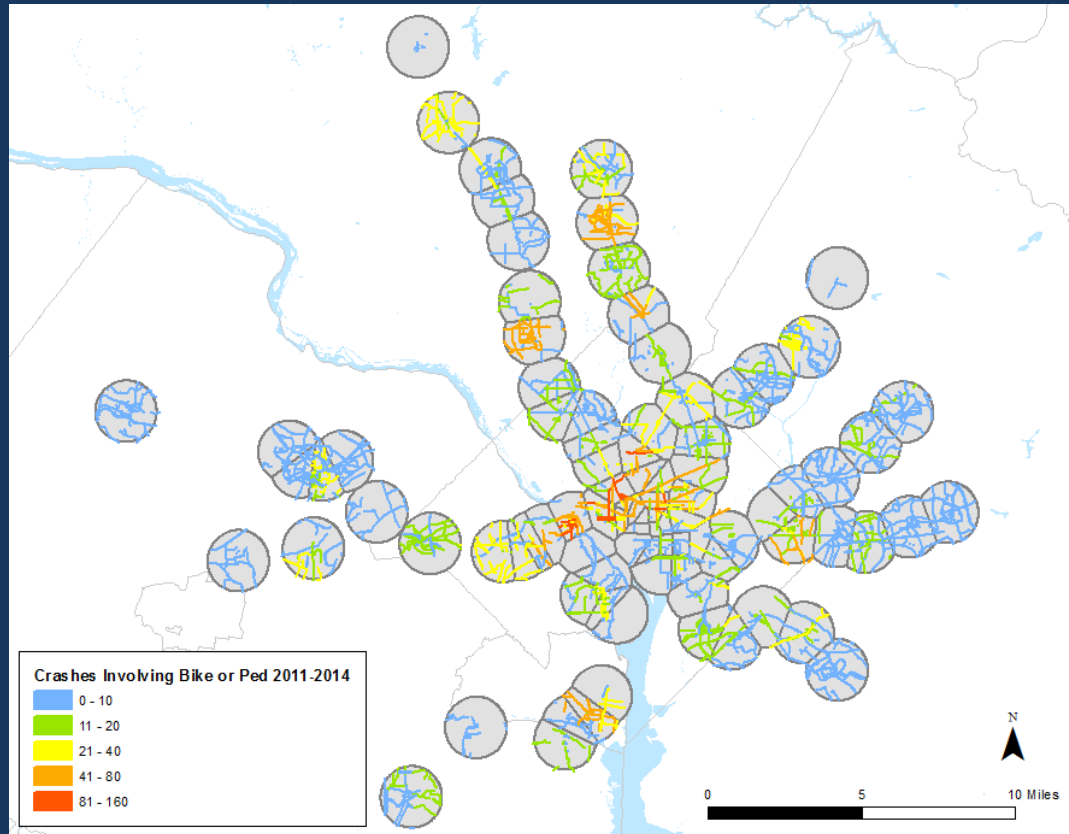
	Sidewalk/ Trail	Inter- section	On Street Bike	Other	Total	Cost
ALEXANDRIA	43	86	147	7	283	\$21 M
ARLINGTON COUNTY	68	26	86	55	235	\$44 M
DISTRICT OF COLUMBIA	355	305	350	84	1,094	\$166 M
FAIRFAX COUNTY	182	258	327	54	821	\$115 M
MONTGOMERY COUNTY	188	152	214	53	607	\$110 M
PRINCE GEORGE'S COUNTY	374	393	307	103	1,177	\$314 M
Total	1,210	1,220	1,431	356	4,217	\$770 M



Prioritization Measures

1. Safety
2. Ridership
3. Walkshed coverage
4. Shift MOA
5. Population & Employment Density – current and future
6. Walk score
7. Path to Services
8. Equity
9. Serving Paratransit trips
10. Neighborhood Parking
11. Proximity to Station
12. Ease of Implementation

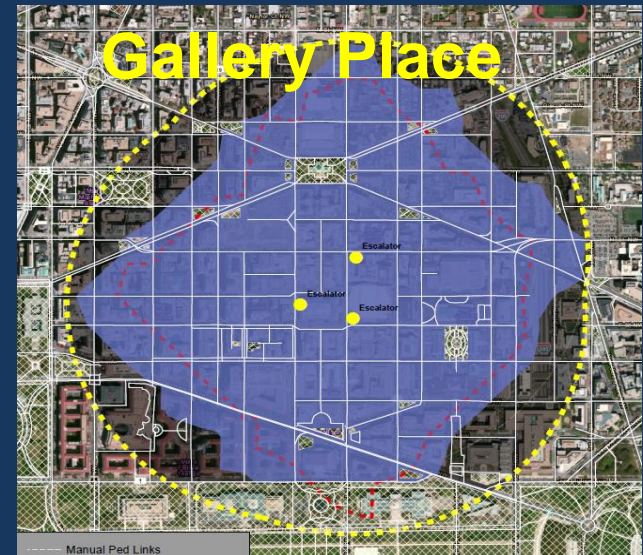
Safety Measure



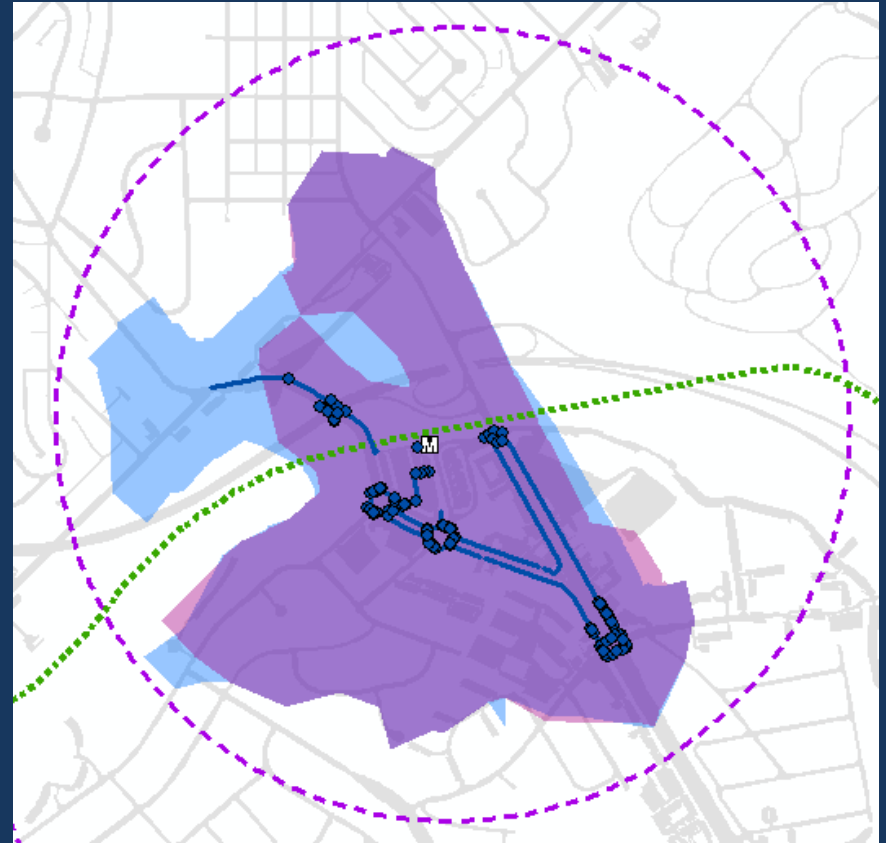
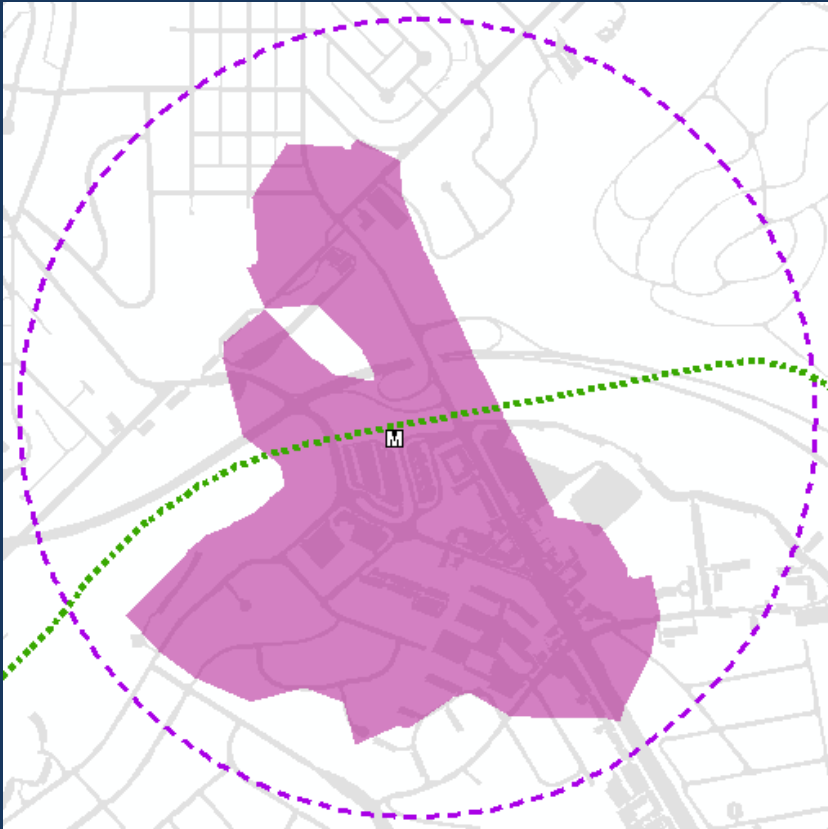
- Crashes involving bicyclists or pedestrians (2011-2014) within 500 feet
- More crash incidents = higher score (0-5)

Ridership Measure: Accessing more Riders

- Focus: 15 stations with lowest coverage ratios
- Analysis of 95 projects (of the 4,200)
- GIS network analysis of walk shed expansion
- Project must fall outside shed but inside 1/2 mile *and* be ped. focused (i.e. extend sidewalk)



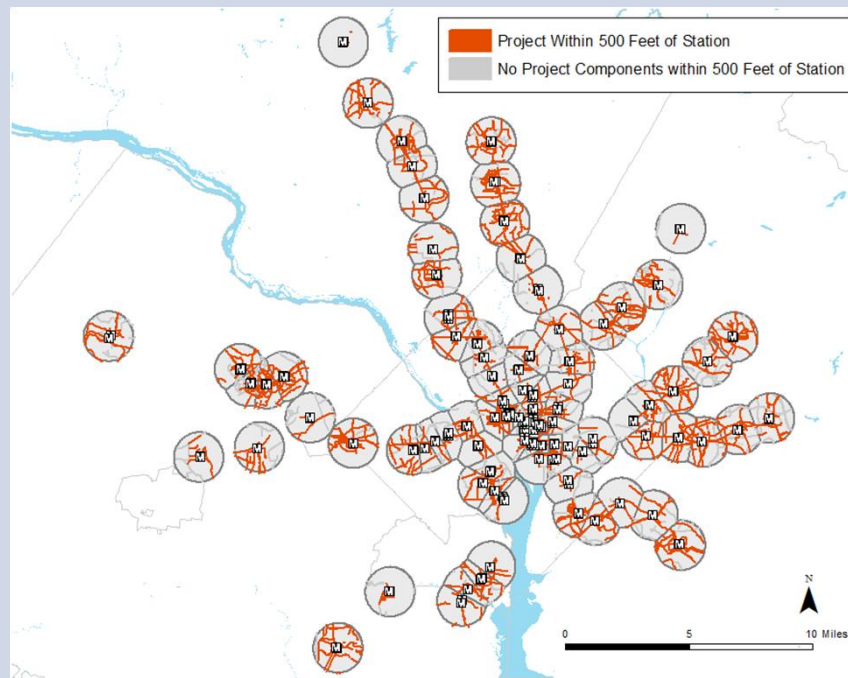
More Ridership - Naylor Road Station



Walkshed of Naylor Road Metrorail Station before (left) and after trail project (right)

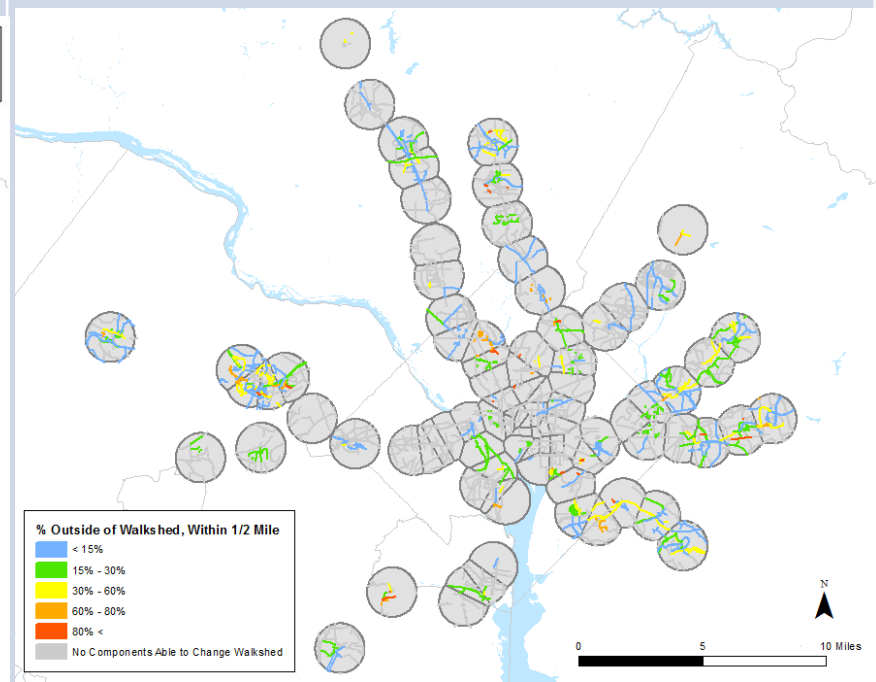
Proximity & Walkshed Coverage Measures

Proximity to Station Entrances



Projects less than 500 feet from station entrance considered to have strong proximity

Walkshed Coverage

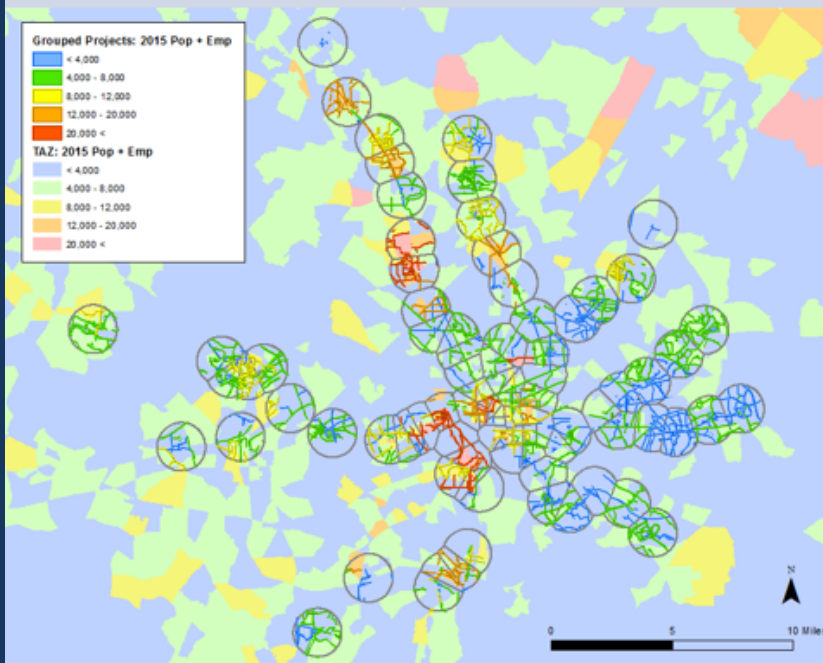


Measured the length of project components that were:

- Within ½ mile of station entrance
- Outside of current walkshed
- Had ability to change the walkshed (new pedestrian infrastructure)

HH & Jobs Density Measure

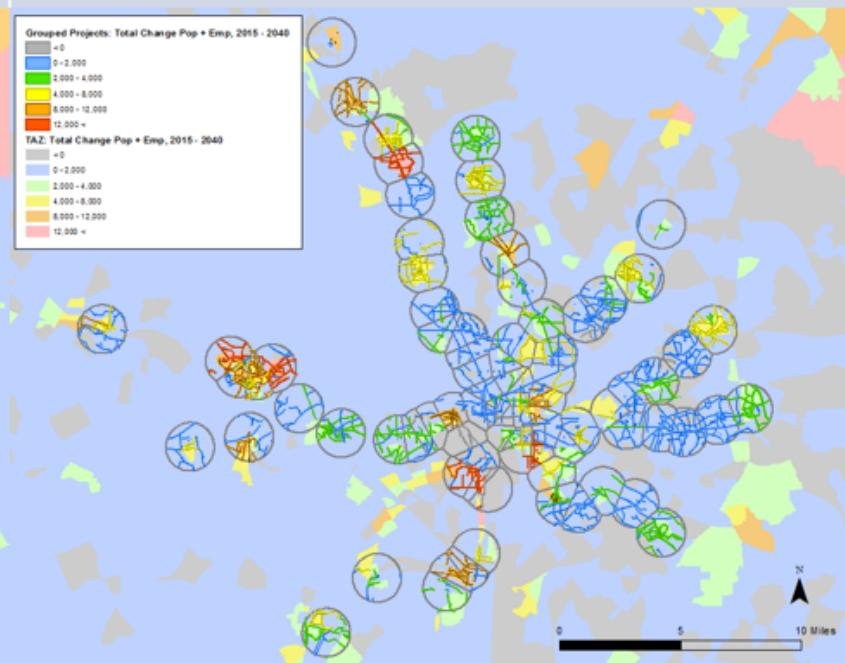
Overlap with Density
(2015)



2015 Population and employment from MWCOC Land Use Forecast 8.3

Highest number of people and jobs of TAZs that a project passes through

Overlap with Density
(Total Change 2015-2040)

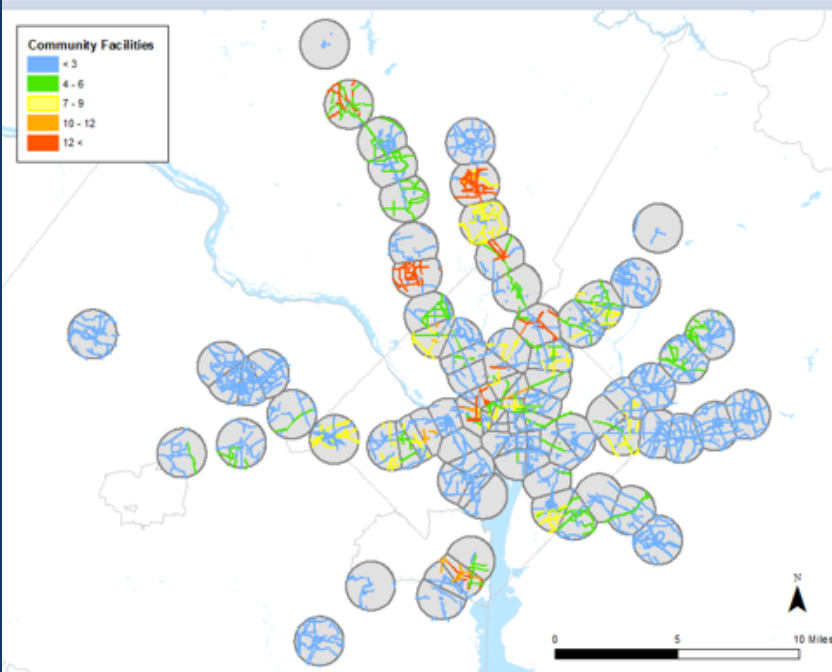


2015-2040 change in population and employment from MWCOC Land Use Forecast 8.3

Largest change in the number of people and jobs in TAZs that a project passes through

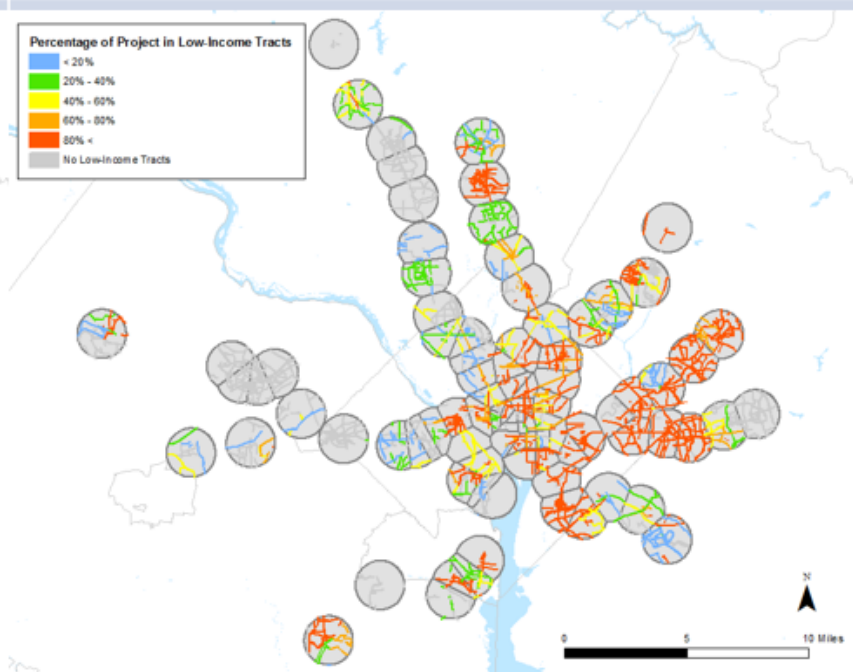
Equity Measures

Path to Services



Number of grocery stores, schools, hospitals, libraries, and other community-based organizations within 500 feet of a project

Equity (Low-Income Populations)

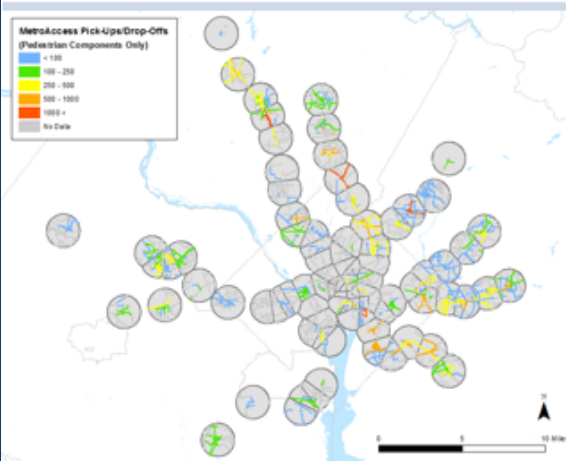


Percentage of the length of a project that falls within a census tract (2010) that has a larger share of low-income households than the WMATA systemwide average



MetroAccess, Parking & Walk Score Measures

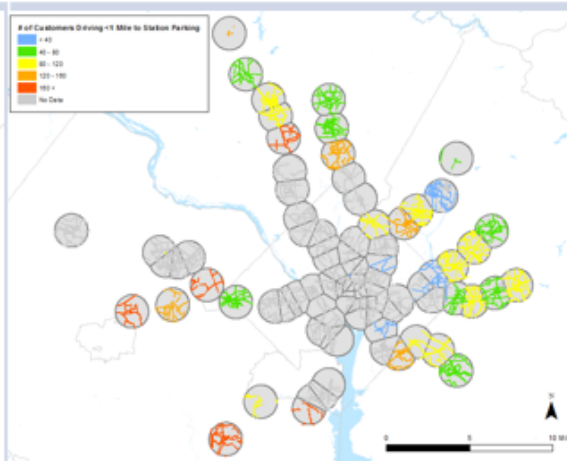
MetroAccess Trips



Number of conditional MetroAccess trips taken to or from within 500 feet of pedestrian project components

Projects with more MetroAccess trips have a better likelihood of improving access and reducing the need for MetroAccess trips

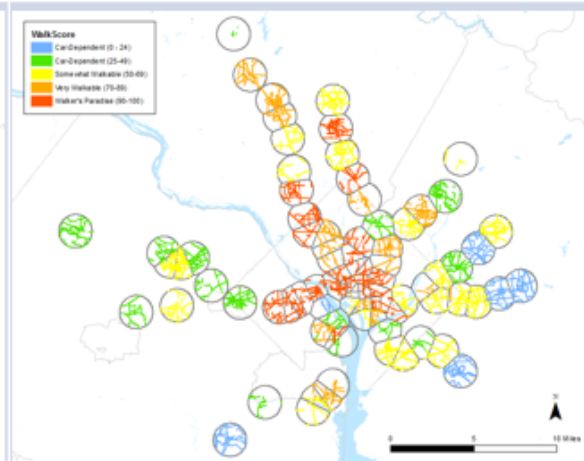
Neighborhood Parking



Customers driving from less than a mile away to station parking might switch to biking or walking if they could

Projects in station areas with more customers driving from less than a mile away score higher

Walk Score



Developed by WalkScore.com

Describes both pedestrian network (block length, intersection density) and land use mix (availability of restaurants, shopping, parks, etc.)

Based on Walk Score of the station



Prioritization Results

	Sidewalk/ Trail	Inter- section	On Street Bike	Other	Total	Cost
ALEXANDRIA	0	0	101	1	102	\$0.6 M
ARLINGTON COUNTY	6	2	28	14	50	\$6.4 M
DISTRICT OF COLUMBIA	13	14	45	0	72	\$3.5 M
FAIRFAX COUNTY	16	9	23	2	50	\$7.5 M
MONTGOMERY COUNTY	1	13	55	1	70	\$1.4 M
PRINCE GEORGE'S COUNTY	27	2	21	0	50	\$14.0 M
TOTAL	63	40	273	18	394	\$33.5 M



Results: Southern Ave. Station Connections



Total Score: 89

A Top Priority For Prince George's County

Criteria	Result	Score	Weighted Score
Safety	0 crashes	1	4
Ridership Impacts	275 new daily riders	5	20
Proximity to Station Entrances	Within 500 ft	5	15
Walkshed Coverage	0%	0	0
Population and Employment (2015)	2,246	1	2
Population and Employment Growth (2015-2040)	615	1	1
Path to Services	0 facilities	1	3
Low-Income Populations	100%	5	15
Changing Mode Access	6% Walk Mode Share	4	8
Ease of Implementation/Cost	\$72,960	5	10
MetroAccess Trips	510 trips	4	4
Neighborhood Parking	128 customers	4	4
Walk Score	52	3	3



Results: Foggy Bottom Station Bike Lanes

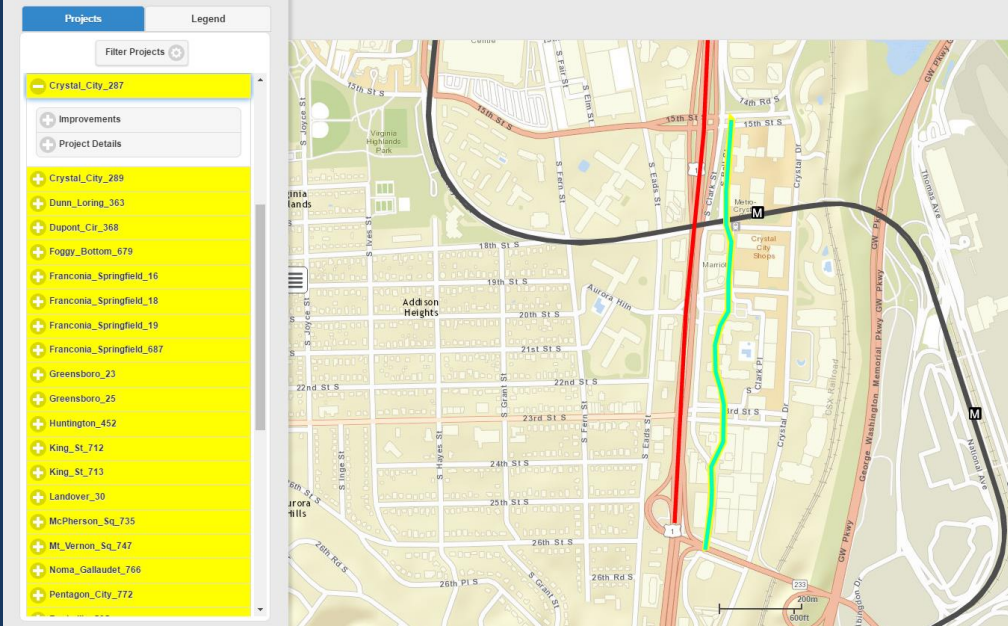


Total Score: 88
A Top Priority for DC

Criteria	Result	Score	Weighted Score
Safety	88 crashes	5	20
Ridership Impacts			
Proximity to Station Entrances	Within 500 ft	5	15
Walkshed Coverage	0%	0	0
Population and Employment (2015)	14,129	4	8
Population and Employment Growth (2015-2040)	1,411	1	1
Path to Services	17 facilities	5	15
Low-Income Populations	79%	4	12
Changing Mode Access	71% Walk Mode Share	1	3
Ease of Implementation/Cost	\$145,496	5	15
MetroAccess Trips	0 trips	0	0
Neighborhood Parking	0 customers	0	0
Walk Score	97	5	5

Ground-truthing with the Locals

WMATA Metrorail Station Investment Strategy



- Meet with staff from all six regional jurisdictions
- Presented findings and requested updates
- Database application



Final Results

	Active, Requires Funding			Funded/ Completed/ Not Active			Total
	Needs More Study	Designed/ Not Funded	Partial Funding/ Completion	Designed*/ Funding Identified	Completed	No Longer Under Consideration	
Alexandria	1			8	67	26	102
Arlington County	9	17	14	1	2	7	50
District of Columbia	61				9	2	72
Fairfax County	24		2	3	9	12	50
Montgomery County	49			1	3	17	70
Prince George's County	18	5		1	17	9	50
Total	162	22	16	14	107	73	394

*Includes three Alex. projects currently in design



Active Projects by Type

	Sidewalk/ Trail	Intersec- tion	On Street Bike	Other*	Total	Cost (\$1,000)
Alexandria				1	1	\$202
Arlington	6	1	20	13	40	\$6,274
District of Columbia	12	4	45		61	\$3,471
Fairfax County	9	2	14	1	26	\$5,782
Montgomery County	1	5	42	1	49	\$1,275
Prince George's County	20		3		23	\$13,570
Total	48	12	124	16	200	\$30,574

*Other: signage, spot improvements, ped/ bike portion of new streets



Advancing Projects for Funding

- MPO Long Range Planning Process
 - Project lists by station to provide “non-motorized” needs where Activity Center = Metro Station
- MPO – TLC Grant Program
 - DDOT’s Metro Walk Shed TLC grant
- MPO/State – TAP programs
- Local CIPs

Thank you!

www.planitmetro.com