



## Metrobus Priority Corridor Network

Region-wide

### Key Findings:

This strategy was modeled with 2040 regional travel and development forecasts.<sup>1</sup>



- PCN routes carry 216,000 riders per weekday, which is 34% of all bus riders in the region.
- Increases overall bus ridership by 13%.
- Increases overall daily transit system ridership by 3%.



- Reduces overall Metrorail ridership by 1% but does not relieve crowded segments in core.
- Diverts 2,000 daily trips from crowded commuter rail lines to enhanced bus service.



Extends higher-quality transit service to 24 existing local bus corridors.



Provides insignificant relief for Metrorail parking capacity.

Colors indicate strategy performance:  
**Good**, **Mixed**, **Poor**, **Not Applicable**

### Recommended



Momentum Strategic Plan includes implementation of the Metrobus Priority Corridor Network by 2025.

The 2040 Plan also includes:



- Further improving service and roadways on 12 of the 24 PCN lines.
- Identifying 16 additional corridors for new high-capacity, high-frequency surface transit.
- These corridors were selected based on ridership, density, and service to Regional Activity Centers.

1. Ridership modeled with MWCOC Round 7.2A Cooperative Land Use Forecast.



## Metrobus Priority Corridor Network Plus

## Region-wide

### Proposed Strategy:

Expand the Priority Corridor Network by incorporating more corridors in northern Virginia and Montgomery County. This strategy provides better, more frequent bus service to more Regional Activity Centers. The purpose of this strategy is to further increase transit ridership, reduce travel times, and enhance customer service.

### Goals Addressed:



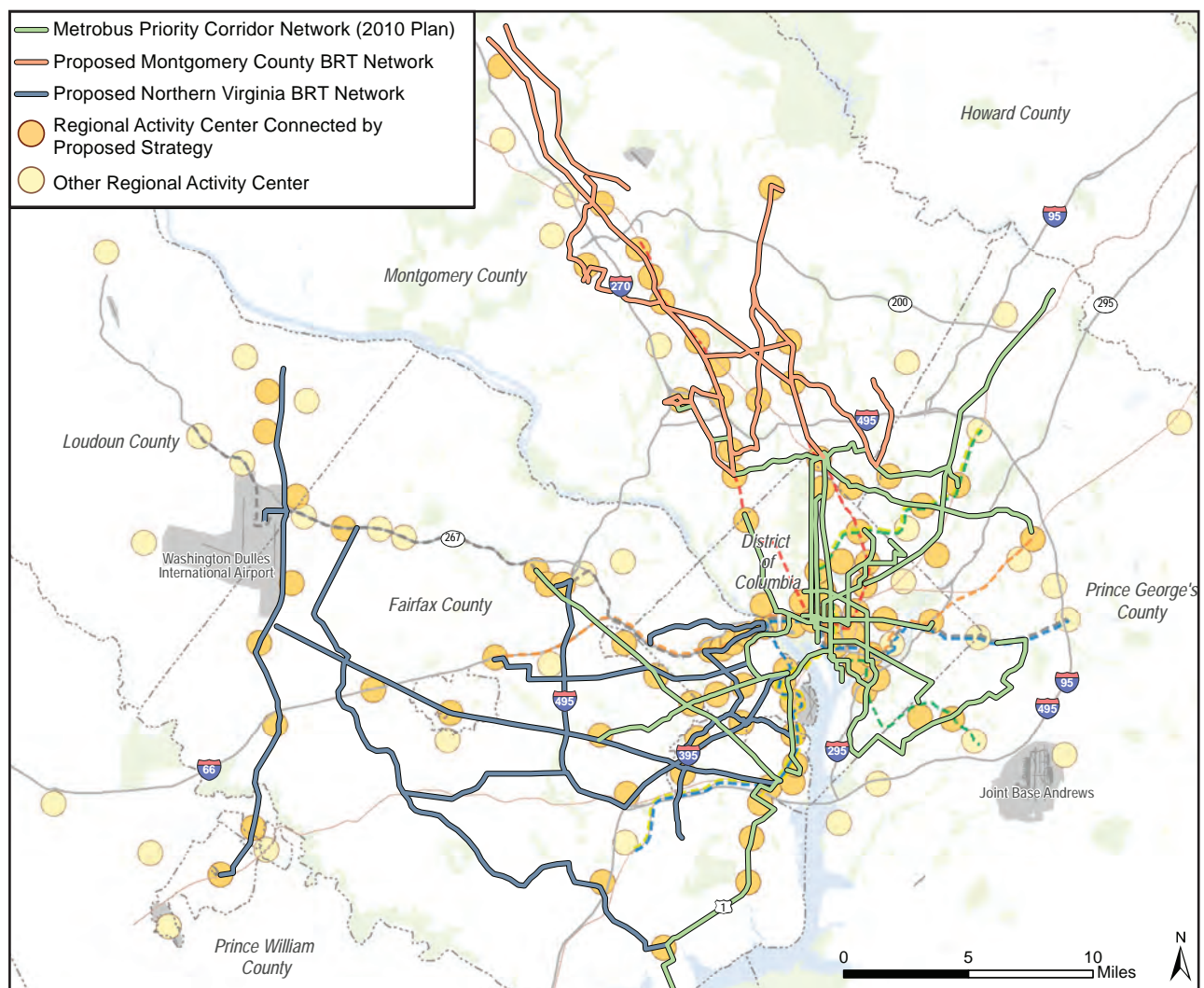
Maximize availability of and convenient access to integrated transit choices.



Provide a high-quality transit system that accommodates and encourages future ridership growth.

### Regional Activity Centers Connected:

- 90 of 141 Regional Activity Centers served.





## Metrobus Priority Corridor Network Plus

Region-wide

### Key Findings:

This strategy was modeled with 2040 regional travel and development forecasts.<sup>1</sup>



- PCN Plus routes carry 324,000 riders per weekday, which is 57% of all bus riders in the region.
- Increases overall bus ridership by 22%.
- Increases overall daily transit system ridership by 5.2% (tested with additional commuter rail enhancements).



- Reduces overall Metrorail ridership by 3% but does not relieve crowded segments in core.
- Diverts 5,000 daily trips from crowded commuter rail lines to enhanced bus service.



Extends higher-quality transit service to 43 existing local bus corridors (24 PCN lines and 19 additional corridors).



Provides modest increase in overall Metrorail Park & Ride availability.

Colors indicate strategy performance:

Good, Mixed, Poor, Not Applicable

### Partial Recommendation



The Momentum Strategic Plan includes full implementation of the Metrobus Priority Corridor Network (PCN).

The 2040 Plan includes similar strategy as PCN Plus with some changes to the corridors:



- Further improving service and roadways on 12 of the 24 PCN lines, 4 of the PCN Plus lines, and 12 additional regionally significant corridors.
- These corridors were selected based on ridership, density, and service to Regional Activity Centers.

Further improvements to other transit corridors in this strategy would require more jobs, housing, and walkable areas along their routes.





## Streetcar Network Strategy

Region-wide

### Proposed Strategy:

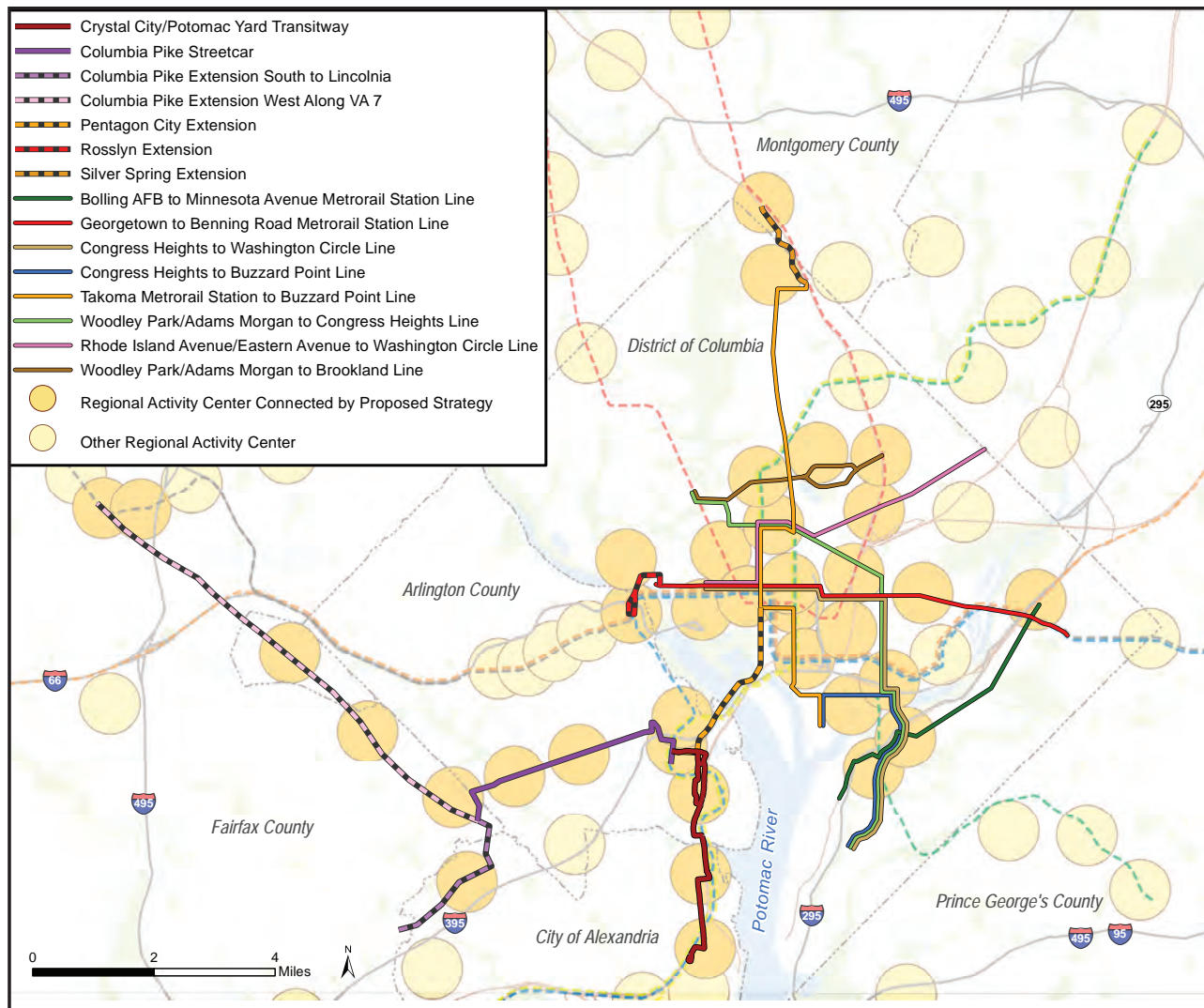
Build an integrated, multi-jurisdictional streetcar network. This includes the original 37-mile DC Streetcar System Plan, extensions from DC to adjacent jurisdictions, and extensions of the Columbia Pike and Crystal City streetcars. This strategy seeks to improve circulation among Regional Activity Centers in DC, Arlington, Alexandria, and Silver Spring, and extend high-capacity surface transit to Seven Corners, Falls Church, and Tysons Corner.

### Goals Addressed:

- Facilitate transit-oriented, mixed-use communities that capture employment and household growth, providing choices in where to live, work, and play.
- Maximize availability of and convenient access to integrated transit choices.

### Regional Activity Centers Connected:

- 36 of 141 Regional Activity Centers served.



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## Streetcar Network Strategy

Region-wide

### Key Findings:

This strategy was modeled with 2040 regional travel and development forecasts.<sup>1</sup>



- 205,000 daily riders on the expanded streetcar system, which is 23% of all surface transit riders.
- Longer trips require transfers, making streetcar a less attractive option than other modes.



53,000 riders are new public transit riders. The remainder are already public transit riders on either bus or Metrorail.



- Provides modest relief on the Metrorail Green Line south of L'Enfant Plaza but also draws riders from lines with spare capacity.
- Smaller vehicles and focus on local service limit the ability of streetcar to relieve Metrorail.



Does not significantly reduce passenger transfers (-5%) at congested Metrorail stations in the core.

Colors indicate strategy performance:

Good, Mixed, Poor, Not Applicable

### Partial Recommendation

Since this strategy was tested, a few local jurisdictions have shifted away from streetcars.

The 2014 National Capital Region Long-Range Transportation Plan includes:



- Alexandria West End Transitway.
- H St NE/Benning Rd Streetcar extended to Benning Road Metro.
- Georgetown to Union Station Streetcar.

The 2040 Plan also includes:



- Roadway and service improvements on 28 corridors across the region, some which were included in this strategy. The mode (streetcar, light rail, bus rapid transit, or enhanced bus) will be determined during future project development.
- Improving connections across jurisdictional boundaries, such as between Silver Spring and the District or Rosslyn and the District
- These corridors were selected based on ridership, job and population density, and connectivity of Regional Activity Centers.

1. Ridership modeled with MWCOC Round 7.2A Cooperative Land Use Forecast.



## Light Rail Transit Expansion

Montgomery County/Prince George's County, Maryland/City of Alexandria, Virginia

### Proposed Strategy:

Extend the planned Purple Line and build the planned Corridor Cities Transitway (CCT) as light rail transit (LRT). Expanding the Purple Line would extend LRT from New Carrollton along the Capital Beltway, through Prince George's County and across the Woodrow Wilson Bridge to Alexandria. A spur of the Purple Line would connect the Takoma Langley Transit Center to White Oak and Briggs Chaney. The CCT is currently planned as Bus Rapid Transit; this strategy would implement it as LRT. This strategy's purpose is to increase transit ridership and improve connectivity between activity centers within Maryland and to Virginia.

### Goals Addressed:



Maximize availability of and convenient access to integrated transit choices.



Provide a high-quality transit system that accommodates and encourages future ridership growth.

### Regional Activity Centers Connected:

- New Carrollton
- Landover Mall
- Largo Town Center/ Morgan Blvd
- Branch Ave
- Oxon Hill
- National Harbor
- King Street/Old Town
- White Oak/FDA
- King Farm/Rockville Research Center/ Shady Grove
- Life Sciences Center/ Gaithersburg-Crown
- Gaithersburg-Kentlands
- Gaithersburg-Metropolitan Grove
- Germantown
- Clarksburg





## Light Rail Transit Expansion

Montgomery County/Prince George's County, Maryland/City of Alexandria, Virginia

### Key Findings:

This strategy was modeled with 2040 regional travel and development forecasts.<sup>1</sup>



- 56,000 new daily LRT riders.
- CCT has 30,000 riders (or 2,700 per mile), which meets the recommended thresholds for LRT.
- Purple Line extension from New Carrollton to Alexandria has 19,000 riders (or 750 per mile), below the recommended minimums for LRT and BRT.
- Segment from Branch Avenue to Alexandria has 12,000 riders (or 1,100 per mile), which is below the recommended minimum for LRT and BRT.
- Purple Line spur to Briggs Chaney has 5,500 riders (or 700 per mile), below the recommended minimums for LRT and BRT.



- Relieves congestion on the Green Line by facilitating circumferential trips that avoid the need to transfer in the core.
- Increases crowding on the Yellow Line.



Forecast households (5 per acre) and jobs (8-17 per acre) in developable areas along all tested corridors meet recommended minimums for LRT and BRT.



Segments of Purple Line spur and extension lack walkable areas and activity centers.



Frees up Park & Ride capacity along the Red Line between Shady Grove and Grosvenor and at Greenbelt, but not along other Metrorail lines in Maryland.



Provides new transit link between jurisdictions.

### Partial Recommendation



The 2014 National Capital Region Long-Range Transportation Plan includes the Corridor Cities Transitway as BRT, consistent with ongoing studies by the Maryland Transit Administration.



Momentum Strategic Plan includes implementation of Metrobus Priority Corridor Network lines to White Oak and Briggs Chaney.

Additionally, the 2040 Plan includes light rail, bus rapid transit, or enhanced bus in the following corridors:



- From Branch Avenue to Eisenhower Metro via the Woodrow Wilson Bridge.
- From Rockville to Clarksburg (via MD 355).

High-capacity surface transit in the other corridors of this strategy would require more jobs, housing, and walkable areas along the corridors.

Colors indicate strategy performance:

Good, Mixed, Poor, Not Applicable

1. Ridership modeled with MWCOC Round 7.2A Cooperative Land Use Forecast. Forecast 2040 density from MWCOC Round 8.1 Aspirations Scenario Land Use Forecast, net density within 0.5-mile of the corridor.





## BRT/LRT across Woodrow Wilson Bridge

Prince George's County, Maryland/City of Alexandria, Virginia

### Proposed Strategy:

Add high-capacity surface transit, either Bus Rapid Transit (BRT) or Light Rail Transit (LRT), along the Capital Beltway and across the Woodrow Wilson Bridge, connecting New Carrollton and Eisenhower Avenue Metrorail Stations. The purpose of this strategy is to provide an outer ring of transit service, extend the planned Purple Line, and improve connectivity in Prince George's County and to Alexandria.

### Goals Addressed:



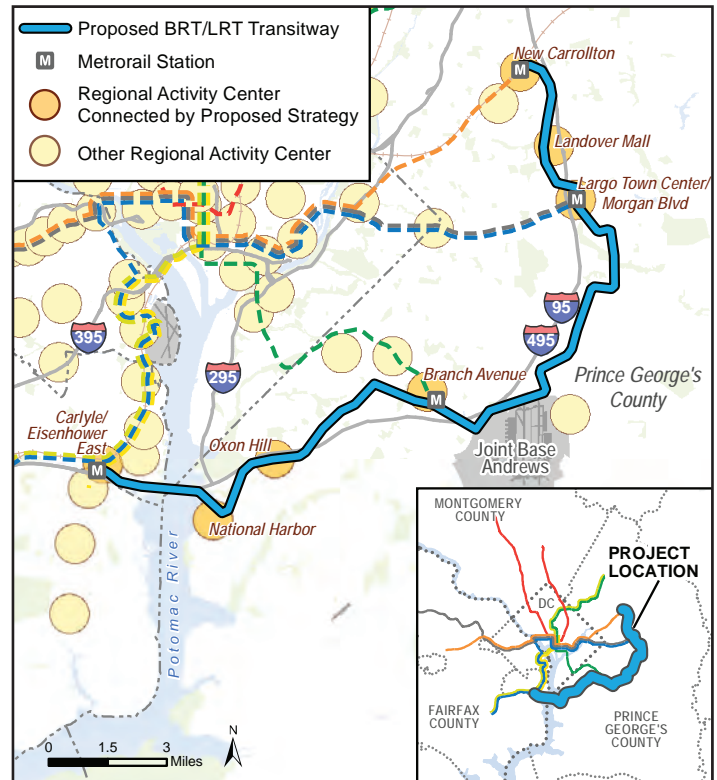
Maximize availability of and convenient access to integrated transit choices.



Provide a high-quality transit system that accommodates and encourages future ridership growth.

### Regional Activity Centers Connected:

- New Carrollton
- Landover Mall
- Largo Town Center/Morgan Blvd
- Branch Avenue
- Oxon Hill
- National Harbor
- Carlyle/Eisenhower East





## BRT/LRT across Woodrow Wilson Bridge

Prince George's County, Maryland/City of Alexandria, Virginia

### Key Findings:

This strategy was modeled with 2040 regional travel and development forecasts.<sup>1</sup>



- 19,000 daily riders (or 750 per mile) on the new BRT/LRT transit line between New Carrollton and Alexandria. This is below the minimums recommended for both BRT and LRT.
- 12,000 daily riders (or 1,100 per mile) on the new BRT/LRT transit line between Branch Avenue and Alexandria. This is below the minimums recommended for both BRT and LRT.



Relieves congestion on the Green Line by facilitating circumferential trips that avoid the need to transfer in the core.



Forecast households (5 per acre) and jobs (13 per acre) in developable areas along corridor meet recommended minimums for high-capacity surface transit.



Long segments of the corridor lack walkable areas and activity centers.



Frees up Park & Ride capacity at Branch Avenue and Largo Town Center Metro stations.



Provides new transit link between jurisdictions.

Colors indicate strategy performance:

Good, Mixed, Poor, Not Applicable

### Partial Recommendation



The 2040 Plan includes light rail, bus rapid transit, or enhanced bus along the segment between Branch Avenue and Eisenhower Avenue Metro via the Woodrow Wilson Bridge.

High-capacity transit on the segment between New Carrollton and Branch Avenue would require more jobs, housing, and walkable areas along the corridor.

1. Ridership modeled with MWCOG Round 7.2A Cooperative Land Use Forecast. Forecast 2040 density from MWCOG Round 8.1 Aspirations Scenario Land Use Forecast, net density within 0.5-mile of the corridor.



## BRT/LRT across American Legion Bridge

Montgomery County, Maryland/Fairfax County, Virginia

### Proposed Strategy:

Add high-capacity surface transit, either Bus Rapid Transit (BRT) or Light Rail Transit (LRT) along the Capital Beltway and across the American Legion Bridge, connecting White Flint, Tysons Corner, and Dunn Loring-Merrifield. The purpose of this strategy is to provide an outer ring of transit service and transit connectivity between activity centers in Fairfax County and Montgomery County.

### Goals Addressed:



Maximize availability of and convenient access to integrated transit choices.



Provide a high-quality transit system that accommodates and encourages future ridership growth.

### Regional Activity Centers Connected:

- White Flint
- Rock Spring
- Tysons East
- Tysons Central 123
- Merrifield/Dunn Loring

### Key Findings:

This strategy was modeled with 2040 regional travel and development forecasts.<sup>1</sup>



20,000 daily riders (or 1,700 per mile) on the new BRT/LRT transit line. This is above the minimum recommended for BRT corridors but not for LRT corridors.



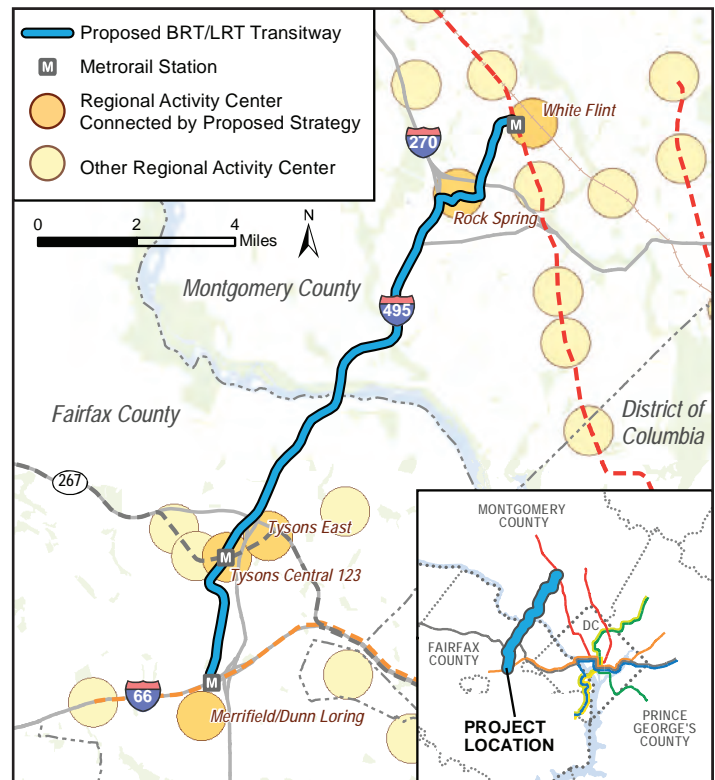
Forecast households (4 per acre) and jobs (23 per acre) in developable areas along corridor meet recommended minimums for BRT and LRT.



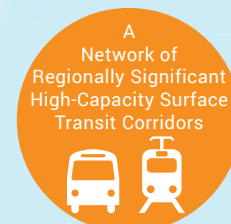
The portion of the corridor between Rock Spring and Tysons Corner lacks sufficient housing, jobs, activity centers, and walkable areas.



Provides new transit link between jurisdictions.



### Recommended



The 2040 Plan includes light rail, bus rapid transit, or enhanced bus in this corridor from White Flint to Dunn Loring-Merrifield Metro via Tysons Corner.

Colors indicate strategy performance:

Good, Mixed, Poor, Not Applicable

1. Ridership modeled with MWCOG Round 7.2A Cooperative Land Use Forecast. Forecast 2040 density from MWCOG Round 8.1 Aspirations Scenario Land Use Forecast, net density within 0.5-mile of corridor.



## Charles County Transitway

Prince George's County/Charles County, Maryland

### Proposed Strategy:

Add high-capacity surface transit along MD Route 5 and U.S. Route 301 connecting the Branch Avenue Metrorail Station to Waldorf in Charles County, MD. The planned transitway was modeled as BRT with exclusive right-of-way, stops about ½ mile apart, enhanced stop facilities, and traffic signal priority for transit vehicles. The purpose of this strategy is to provide a high-capacity transit service that feeds into Branch Avenue Metrorail station.

### Goals Addressed:



Maximize availability of and convenient access to integrated transit choices.



Provide a high-quality transit system that accommodates and encourages future ridership growth.

### Regional Activity Centers Connected:

- Branch Avenue
- Waldorf

### Key Findings:

This strategy was modeled with 2040 regional travel and development forecasts.<sup>1</sup>



1,900 daily riders (or 100 per mile) on the new transitway line. This is below the minimum recommended for new high-capacity surface transit.



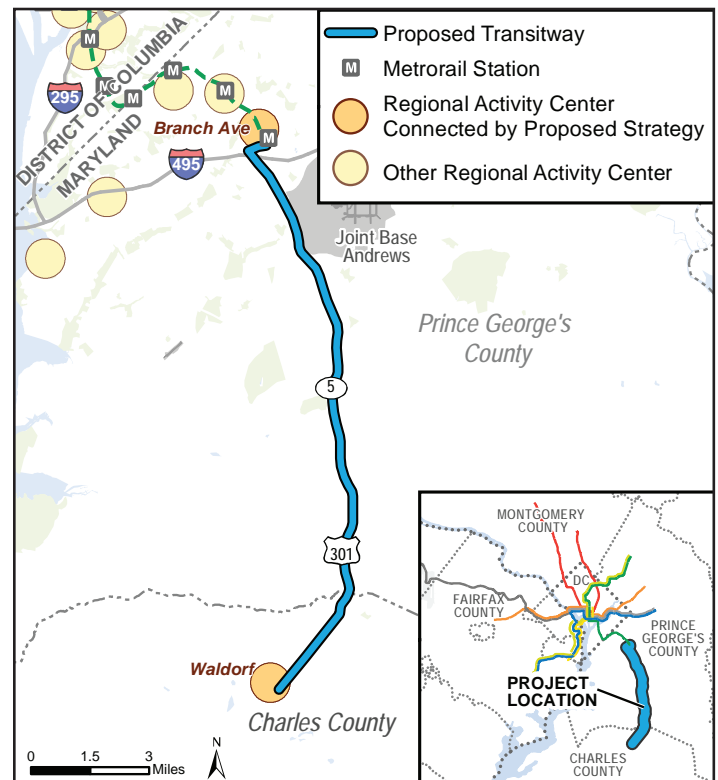
Increases crowding on the Metrorail Green Line.



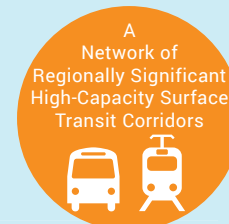
- Forecast households (2 per acre) in developable areas along the corridor meet the minimums recommended for high-capacity surface transit.
- Forecast jobs (5 per acre) in developable areas along the corridor do not meet recommended minimums for high-capacity surface transit.



Corridor lacks walkable areas and activity centers along most of its length.



### Not Recommended



Instead, the 2040 Plan recommends increasing frequency of commuter bus and local bus service in this corridor.

Higher-capacity transit would require more jobs, housing, and walkable areas along the corridor.





## Commuter Rail Enhancements

Region-wide

### Proposed Strategy:

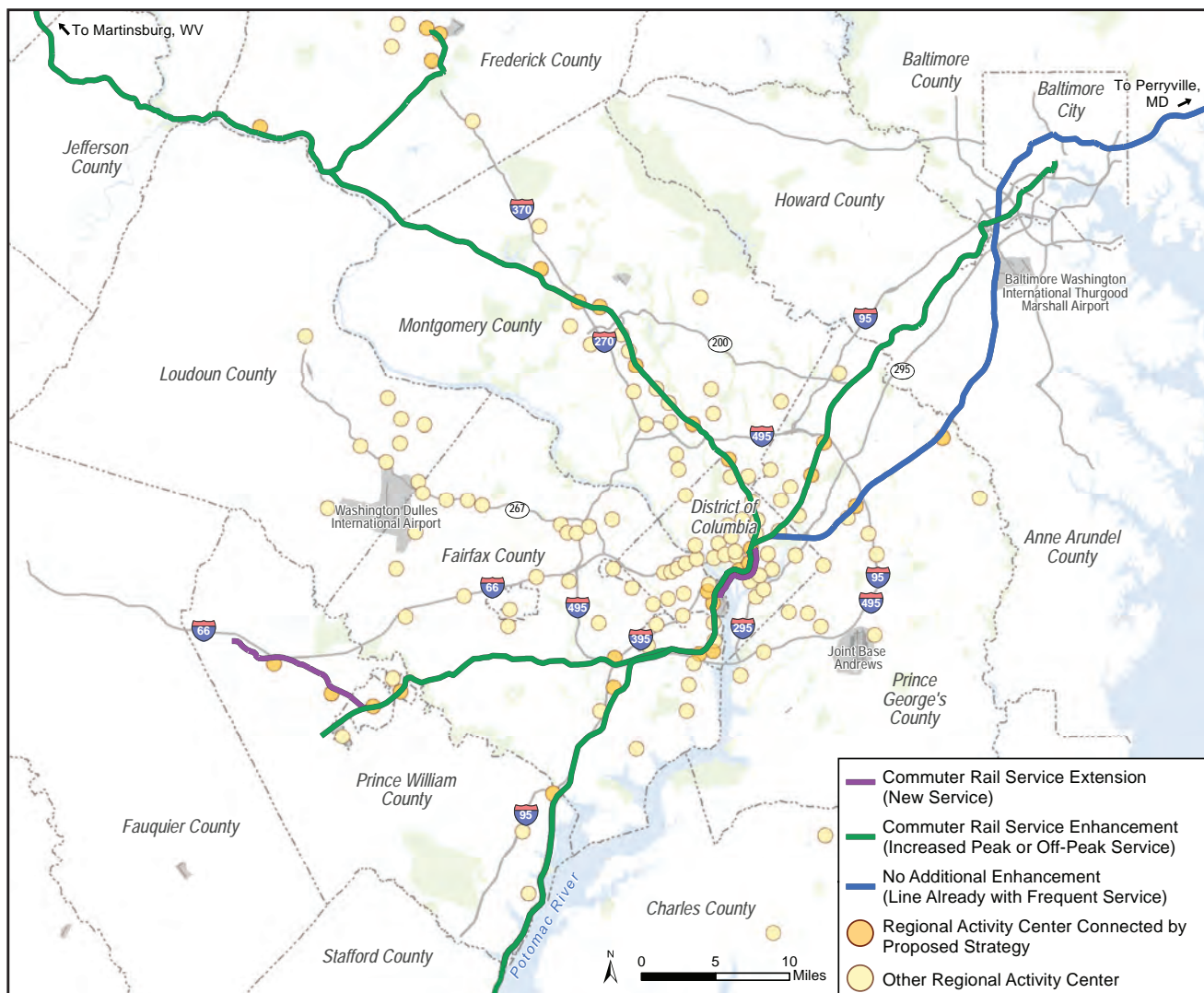
Increase VRE and MARC frequencies, expand non-peak period service, extend VRE service to Haymarket, and enable MARC service across the Potomac River to Crystal City. Improvements to these direct long-distance routes between the urban core and outlying activity centers can help to relieve crowded Metrorail lines and better utilize existing commuter rail infrastructure.

### Goals Addressed:

- Provide a high-quality transit system that accommodates and encourages future ridership growth.
- Provide a financially viable and sustainable transit system that is efficient and effective for the region.

### Regional Activity Centers Connected:

- 28 of 141 Regional Activity Centers served.





## Commuter Rail Enhancements

Region-wide

### Key Findings:

This strategy was modeled with 2040 regional travel and development forecasts.<sup>1</sup>



Increases commuter rail ridership by 61%.



Provides high-quality transit service to outlying employment centers.



Uses existing right-of-way and infrastructure to extend high-quality transit to accommodate long-distance commutes.

Colors indicate strategy performance:

Good, Mixed, Poor, Not Applicable

### Recommended

The 2040 Plan includes:



- Extending VRE service to Haymarket, VA.
- Extending MARC service to Crystal City, VA.
- Increasing frequent peak-period and expanded off-peak period service along VRE and MARC lines.

1. Ridership modeled with MWCOC Round 8.2 Cooperative Land Use Forecast.





## Commuter Bus Enhancements

Region-wide

### Proposed Strategy:

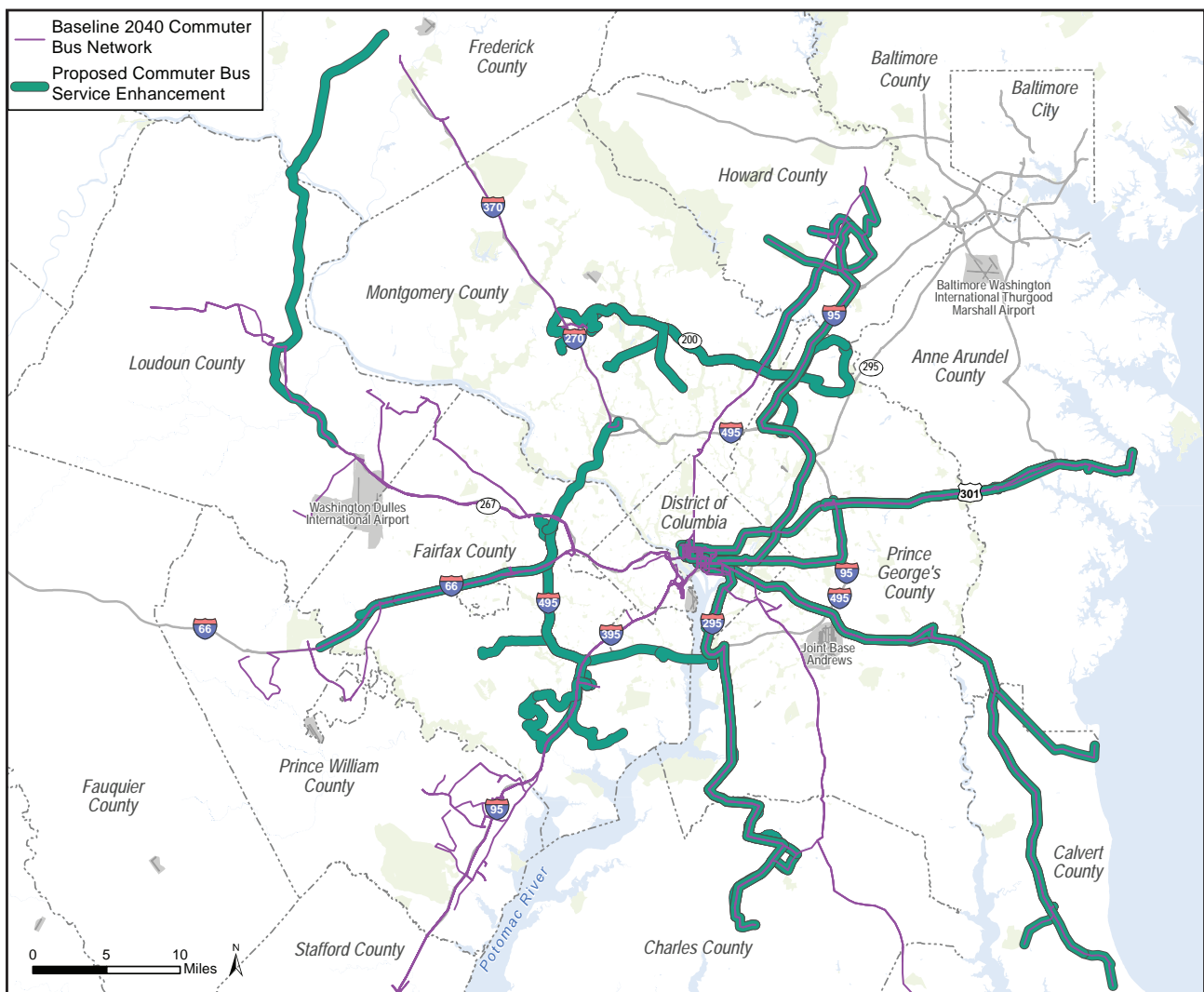
Improve commuter bus frequencies, expand off-peak service, and add new bus routes and extensions using the I-495 express lane. Improvements to these direct long-distance bus routes can help relieve crowding on Metrorail lines, provide alternatives to driving for those who live in the outer suburbs, extend the reach of transit by providing end-of-line feeder bus services, and reduce demand at Metrorail Park & Rides.

### Goals Addressed:

-  Provide a high-quality transit system that accommodates and encourages future ridership growth.
-  Provide a financially viable and sustainable transit system that is efficient and effective for the region.

### Regional Activity Centers Connected:

- Primarily serves core and central jurisdiction employment centers.





## Commuter Bus Enhancements

Region-wide

### Key Findings:

This strategy was modeled with 2040 regional travel and development forecasts.<sup>1</sup>



Increases commuter bus ridership by 24%.



Helps relieve some longer Metrorail trips and commuter rail lines, but also feeds passengers into end-of-line Metrorail stations.



Uses existing express and HOV lanes to extend high-quality transit to accommodate long-distance commutes.

Colors indicate strategy performance:

Good, Mixed, Poor, Not Applicable

### Recommended

The 2040 Plan includes:



Expanding commuter bus routes, increasing frequencies, and enhancing off-peak service.

1. Ridership modeled with MWCOC Round 8.2 Cooperative Land Use Forecast.





## Metrorail Parking Capacity Relief

Region-wide

### Proposed Strategy:

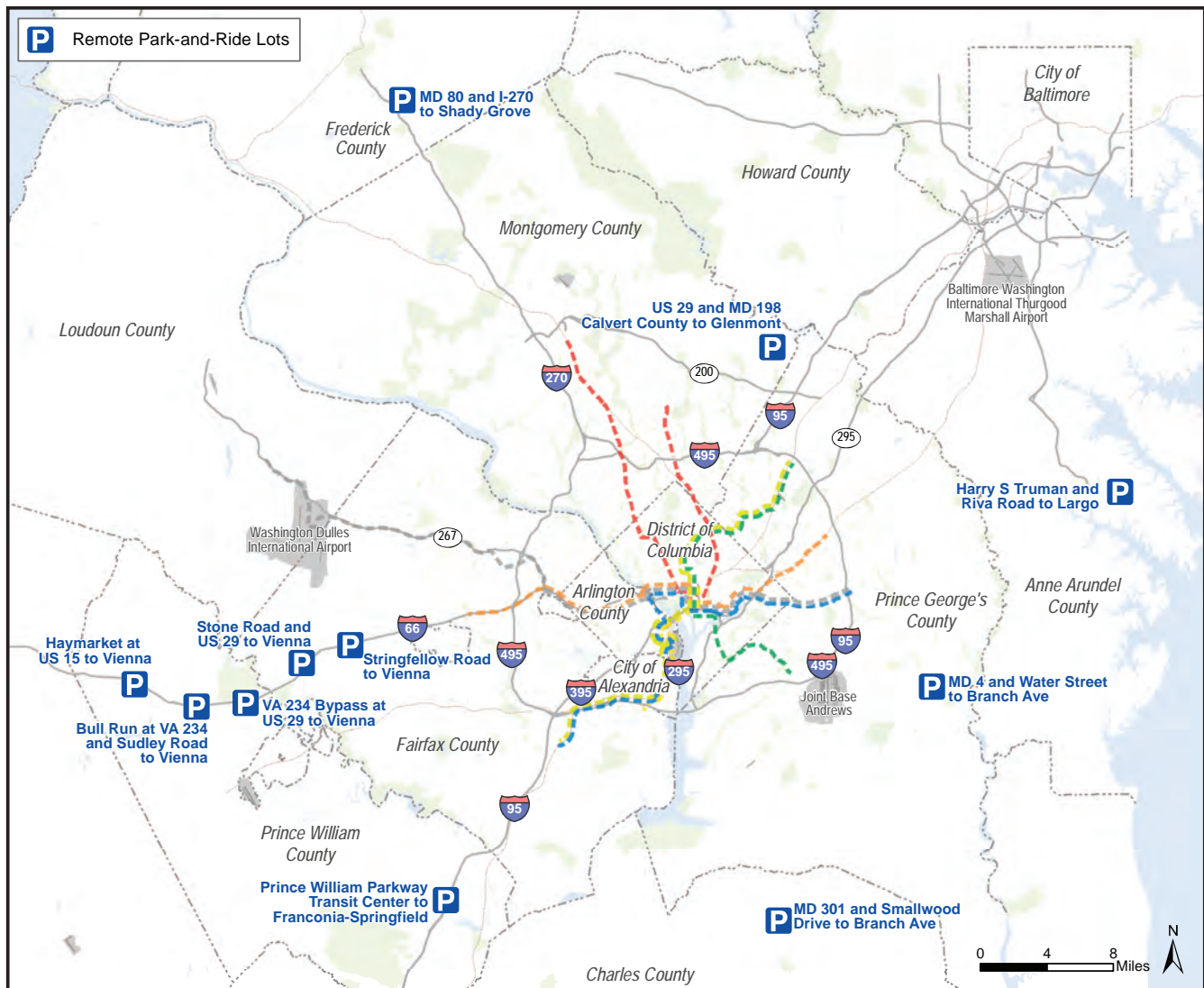
Build additional park-and-ride capacity off-site from Metrorail and operate shuttle services to accommodate future parking demand at Metrorail stations. The purpose of this strategy is to enhance the accessibility of the existing Metrorail system without adding additional parking at stations.

### Goals Addressed:

- Maximize availability of and convenient access to integrated transit choices.
- Provide a high-quality transit system that accommodates and encourages future ridership growth.

### Regional Activity Centers Connected:

- Expands access to Regional Activity Centers served by the Metrorail system.





## Metrorail Parking Capacity Relief

Region-wide

### Key Findings:

This strategy was modeled with 2040 regional travel and development forecasts.<sup>1</sup>



Small increase in Metrorail ridership of 6,000 daily passengers (<1% of total ridership).



Minor increase in crowding in Metrorail core.



New Metrorail riders are all existing commuter rail and bus riders.



Minor overall improvement (< 5%) in availability of parking spaces at Metrorail stations served by remote lots.

Colors indicate strategy performance:

Good, Mixed, Poor, Not Applicable

### Partial Recommendation

The 2040 Plan includes:



- Implementing the remote Park & Ride strategy only where other options for Metrorail station access are limited.
- Enhancing pedestrian and bicycle access and feeder bus service to reduce Park & Ride demand.



Improving frequency of commuter rail and commuter bus services to accommodate long trips into the region's core and other employment centers.

1. Ridership modeled with MWCOC Round 7.2A Cooperative Land Use Forecast.



## Walkability Region-wide

### Proposed Strategy:

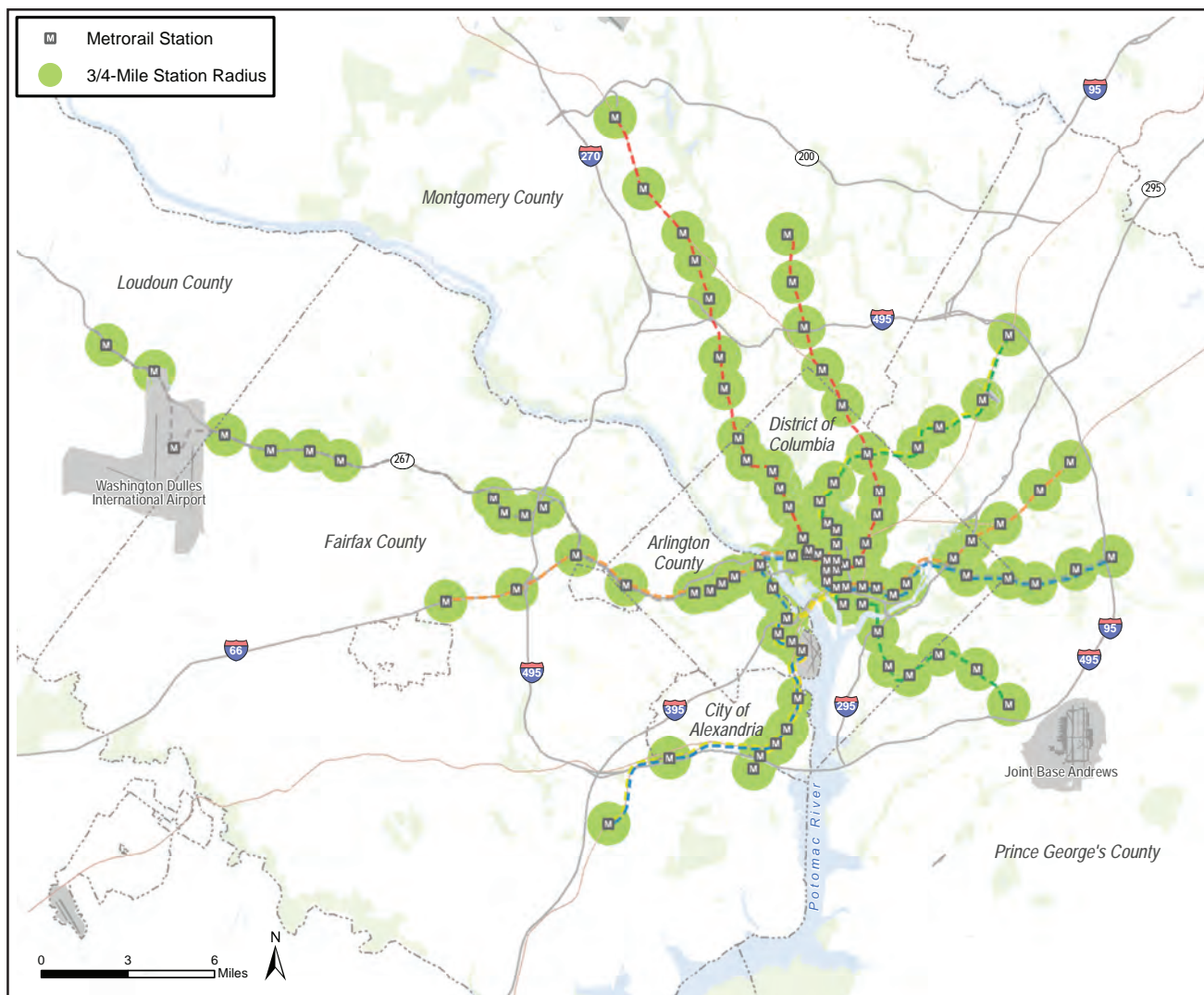
Improve pedestrian networks within  $\frac{3}{4}$  mile of Metrorail stations by creating small walkable blocks and adding sidewalks, crosswalks, and other pedestrian amenities. The purpose of this strategy is to enhance the accessibility of the existing Metrorail system for those who live within walking distance, thereby increasing ridership while reducing the number of short car trips to stations.

### Goals Addressed:

- Maximize availability of and convenient access to integrated transit choices.
- Facilitate transit-oriented, mixed-use communities that capture employment and household growth, providing choices in where to live, work, and play.

### Regional Activity Centers Connected:

- 75 of 141 Regional Activity Centers are served by the existing Metrorail System and Silver Line extension to Dulles.





## Walkability

Region-wide

### Key Findings:

This strategy was modeled with 2040 regional travel and development forecasts.<sup>1</sup>



- 211,000 additional daily Metrorail riders (11% of total ridership).
- Increased Metrorail ridership in reverse peak direction.
- Increases regional bus ridership by 18%.



Increases crowding on already congested Metrorail lines.



Increases the number of transfers at crowded stations in the core by 8%.



Minor reduction (<5%) in Park & Ride overflow by reducing short driving trips.



Facilitates transit-oriented development in areas served by Metrorail and supports the establishment of a more sustainable development pattern for the region.

Colors indicate strategy performance:

Good, Mixed, Poor, Not Applicable

### Recommended



The strategy is included in the 2040 plan and has the potential to result in significant increases in transit ridership for both Metrorail and Metrobus.

- Requires Metrorail core capacity and surface transit improvements to accommodate increased ridership.
- Implementation for most of the pedestrian improvements must be undertaken by local jurisdictions as they own and operate the streets.

1. Ridership modeled with MWCOC Round 7.2A Cooperative Land Use Forecast.





## Aspirations Land Use

Region-wide

### Proposed Strategy:

Tested an alternative future land use that increases the number of jobs and households within designated Regional Activity Centers, rather than in areas outside activity centers. The proposed land use, developed by the Metropolitan Washington Council of Governments (MWCOCG), does not alter the total number of jobs and households in the Washington metropolitan area and adjacent counties, but rather reallocates them to more transit-supportive areas.

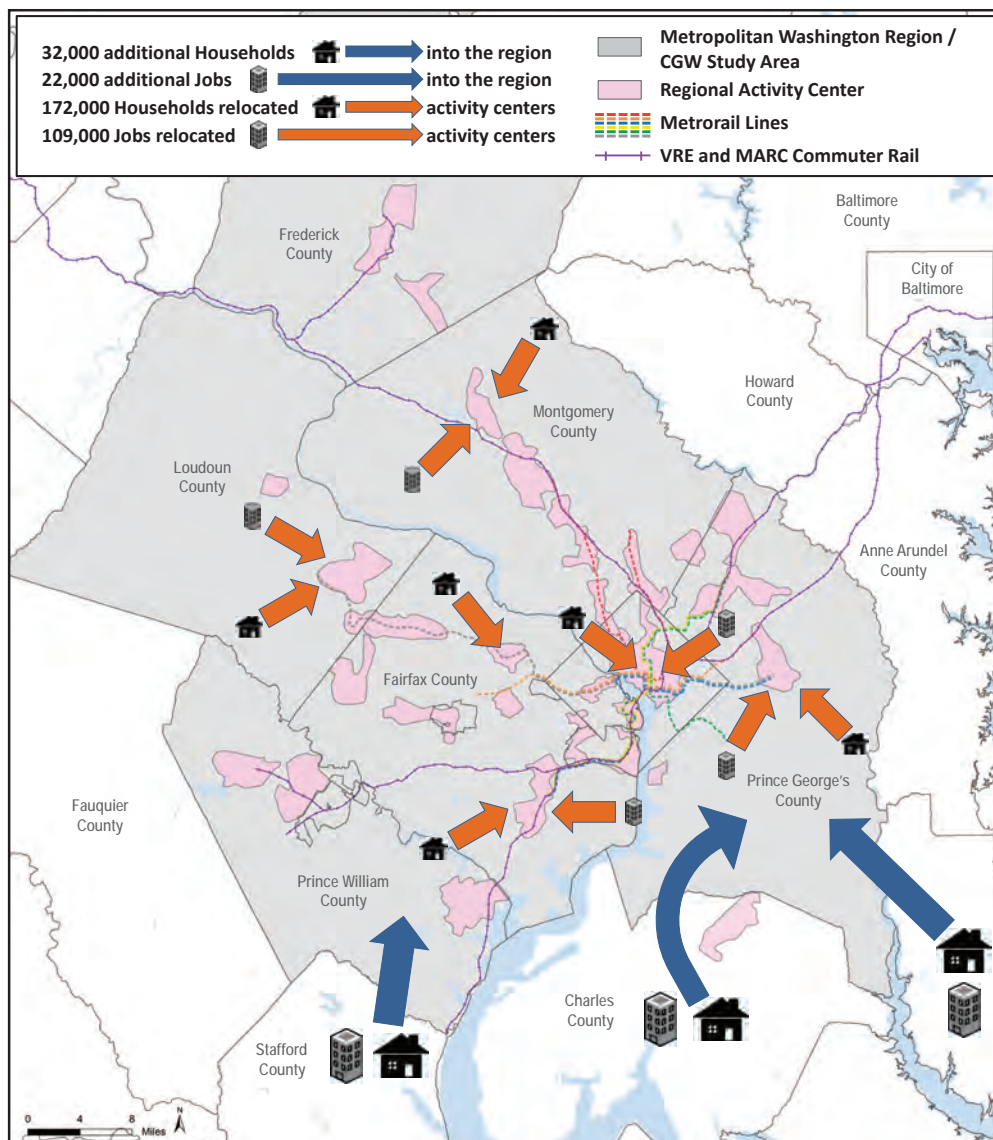
### Goals Addressed:



Facilitate transit-oriented, mixed-use communities that capture employment and household growth, providing choices in where to live, work, and play.



Provide a financially viable and sustainable transit system that is efficient and effective for the region.



Source: MWCOCG Round 8.1 Aspirations Land Use (2012), showing the scenario's changes compared to the 2040 baseline forecast.

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## Aspirations Land Use

Region-wide

### Regional Activity Centers Connected:

- All 141 Regional Activity Centers would be included in this strategy.

### Key Findings:

This strategy was modeled with 2040 regional travel and development forecasts, based on the Aspirations Land Use scenario.<sup>1</sup>



Reduces the number of daily work trips in the region by 418,000 or about 7%.



- Increases daily transit ridership by 162,000 or about 9%.
- Increases transit trips to activity centers outside the urban core.



- Reduces peak-hour crowding throughout the Metrorail system.
- Increases reverse-peak direction travel, which better utilizes excess Metrorail capacity.
- Does not fully relieve the peak-period, peak-direction crowding on Orange Line near Rosslyn or Green and Yellow Lines south of L'Enfant Plaza.



Results in denser land uses near many Metrorail stations and other transit services.



Reduces parking demand and the need for overflow lots at several Metrorail stations.

Colors indicate strategy performance:

Good, Mixed, Poor, Not Applicable

### Recommended



The strategy is included in the 2040 plan and has the potential to result in significant increases in transit ridership for both Metrorail and Metrobus.

Evaluation of the alternative Aspirations Land Use Scenario was conducted to explore how changes in land use affect the performance of the regional transit system. This information is made available to local jurisdictions for their consideration in preparing future updates to land use and zoning plans.

However, jurisdictions have control over land use, so further consideration is needed by localities to advance this strategy. Continued coordination and information sharing with local member jurisdictions is recommended regarding the relationship between land use planning and transit infrastructure investment.

1. Ridership modeled with MWCOC Round 8.1 Cooperative Land Use Forecast with Aspirations Scenario and 2007 Regional Activity Centers.