

Blueprint for Better Transportation in Northern Virginia

It is time for a more effective approach for achieving better transportation in Northern Virginia. Central to better transportation is creating mixed-use, walkable and bikeable, transit-oriented communities so that people have more affordable travel choices, reduce the burden on our roadways, and use our available assets more efficiently.

The *Blueprint for Better Transportation in Northern Virginia* provides a framework for expanding transportation choices, more effectively addressing our transportation challenges and creating better communities.

Guiding Principles

- Land use and transportation are completely interrelated. Focusing growth so that homes, stores, and offices are close by reduces trip lengths and auto trips and maximizes transportation assets.
- Mixed-use, walkable and bikeable, transit-oriented communities must be the priority approach to land use in order to leverage limited transportation funds, reduce demand on our roadways, and expand choices.
- Metro is the backbone of the regional transit system, and funding the capital rehabilitation of the system must be the first transportation priority.
- Improving connections to transit stations by foot, bike, and bus are relatively low-cost investments that have a regional impact on our transportation system. They also create better communities and strengthen local economies.
- A transit-oriented future is essential for sustainability, human health, and fighting climate change. Using land more efficiently, it contributes to preserving vital habitats and protecting wildlife corridors to maintain biodiversity. With parks, trails, community gardens, recreation spaces, and green buildings it enhances human health. With green stormwater practices and reduction in lane-miles of pavement it will help restore streams.
- Strategic expansions of road capacity should be chosen carefully to manage current stresses, such as through spot improvements and connecting the street grid, while recognizing that induced demand is a real problem that causes expanded roadways to fill up again in as little as five years.
- The most cost-effective approach to infrastructure is to focus on fixing it first: maintaining our existing road network rather than embarking on costly new capital investments.
- More effective than reliance on large arterial roads and costly interchanges is to improve the connectivity of the local street grid and roundabouts in lieu of signals and road expansion.

What is the Blueprint? Why now?

The region's elected leaders sitting on the Northern Virginia Transportation Authority (NVTa) are deciding how to spend more than \$1 billion in transportation funds during the next six years -- decisions that will shape the future of our communities. The *Blueprint for Better Transportation in Northern Virginia* provides a framework and illustrative range of investments for both the near term of 6 years and over a 20-year horizon in transportation. It takes the approach of tying most of our transportation investment to more efficient and competitive communities throughout the region.



NVTa identified \$43 billion in potential transportation projects, far beyond foreseeable revenues. In a similar exercise, the regional Transportation Planning Board (TPB) identified \$70 to \$100 billion in capital projects beyond the current regional Constrained Long Range Plan but showed it failed to have a substantial effect on congestion, while increasing commute distances and auto travel. The lesson of both studies is the need for a fundamentally different set of transportation projects.

In fact, a subsequent Long Range Transportation Plan study by the TPB showed that balanced land use (transit-oriented development and balanced jobs/housing), demand management, bus rapid transit networks, and Metro core capacity, were the four top performing approaches to addressing transportation, followed by High Occupancy Toll lanes to address peak hour delay.

Our *Blueprint for Better Transportation in Northern Virginia* draws from the findings of the long range transportation plan study and past scenario studies. The investments we have outlined will provide more transportation choices, so we can walk, bicycle and use transit for more everyday trips; reduce driving demand; promote economic development that benefits all parts of the region; and preserve green space and rural areas. The Blueprint focuses on expanding transportation choices through the following three goals:

Goal 1 - Prioritize Transit-Oriented Development and access to regional transit, including on foot and by bike. Revitalize activity centers by building walkable street grids.

Goal 2 - Expand transit capacity through investing in Metro, VRE, Bus Rapid Transit, and expanded express bus service, supporting a network of transit-oriented development.

Goal 3 - Make the road network more efficient, by improving street connections and strategically adding capacity at key areas.

Goal 1 - Prioritize Transit-Oriented Development and access to regional transit, including on foot and by bike. Revitalize activity centers by building walkable street grids.

Project/Program: Dulles Corridor

Jurisdiction(s): Arlington – Fairfax-Loudoun County

Objective: - Transit-oriented development and regional transit access, leveraging the region’s investment in the Silver Line.

TOD areas within the Dulles Corridor: East Falls Church; Tysons East; Tysons Galleria; Tysons Greensboro; Tysons Spring Hill; Wiehle-Reston East; Reston Parkway/Reston Town Center; Herndon; Innovation Center; Loudoun Gateway; Ashburn

Long-Range Plan Compatibility/Listing: Arlington County East Falls Church plan, Fairfax County Tysons plan, Reston and Herndon TOD plans, Loudoun TOD plan and Comp Plan update

Strategies

1. East Falls Church Metrorail station second entrance (Transaction project #62, Arlington)
2. Falls Church Metro station access -- pedestrian, bike and bus access improvements for the East Falls Church and West Falls Church Metro stations (Transaction project #334, City of Falls Church)
3. Tysons Metro Stations access improvements -- street grid build-out, pedestrian, bus and bike improvements within 3-mile radius of each of the four stations in Tysons, per Tysons Station Area Metrorail Access Management Study (Fairfax County 6-year transportation priorities plan (TPP)).
4. Reston Metro Stations access improvements -- street grid build-out, pedestrian and bike improvements near the two stations in Reston, per Reston Station Metrorail Access Management Study (Fairfax County TPP)
5. Herndon Metrorail Station bike/pedestrian improvements. (Transaction project #12)
6. Innovation Station area grid of streets (Fairfax County TPP)
7. Loudoun Metrorail station bike/pedestrian improvements (Transaction project #288) -- at Loudoun Gateway and Ashburn Stations. (2016 Bicycle and Pedestrian Metrorail Access Study, Ashburn Station and Loudoun Gateway).



8. Roadway connectivity improvements:
 - a. Tysons Metro Station areas:
 - i. Greensboro Drive extension (Transaction #205)
 - ii. Grade-separated interchange at Boone Boulevard and Dulles Toll Road (Transaction #5);
 - b. Reston Metro Station areas:
 - i. Soapstone Drive Extension across Dulles Toll Road (Transaction #7)
 - ii. Town Center Parkway extension under Dulles Toll Road (Transaction #17)
 - c. Loudoun Metro Station areas:
 - i. Prentice Drive extension to Greenway (Transaction #150)
 - ii. Lockridge Road extension, Prentice Drive to Waxpool Road (Transaction #145)
 - iii. Shellhorn Road extension (Transaction #184)
 - iv. Transit connector bridge over Dulles Greenway--near Ashburn Metro station (Transaction #162)

Project/Program: Route 1 Corridor

Jurisdiction(s): Fairfax-Prince William County.

Objective: Implement Fairfax County’s plans for Bus Rapid Transit (BRT), and extend BRT through Route 1 in Prince William. Create walking, biking, and bus connections to BRT stations – and mixed-use, mixed-income walkable neighborhoods with a grid of streets.

Proposed BRT Stations: Route 1: Huntington, Penn Daw, Beacon Hill, Hybla Valley, South County Government Center, Woodlawn, Fort Belvoir, Pohick Rd, Lorton Station, Gunston Road, Woodbridge; also Route 1 North Gateway at the Beltway (Embark Richmond Highway)

Long-Range Plan Compatibility/Listing: See individual project listed below.

Strategies

1. BRT from Huntington Metro Station to South County Government Center, with stations at Penn Daw, Beacon Hill, Hybla Valley, South County Government Center, Woodlawn, Fort Belvoir, and Pohick Road, to Prince William line. (Transaction #39; DRPT Alternatives Analysis)
2. Widen Route 1 - Jeff Todd Way/Mount Vernon Highway to Napper Road, to provide space for BRT on dedicated lanes -- narrow the total cross-section to shorten pedestrian crossing times and reduce right-of-way costs and impervious surface. (Transaction #214; NVTA 6-year plan submission)
3. Huntington Metro Station pedestrian, bike and bus access improvements. (Fairfax County TPP)



A bus's frequency, reliability and destinations are important to ensure the services addresses the community's needs.

4. Pedestrian and bicycle improvements along Route 1 within 1/2 mile of 4 targeted station areas -- Penn Daw, Beacon/Groveton, Hybla Valley/Gum Springs, and Woodlawn (Fairfax County comprehensive plan amendment for Embark Richmond Highway, approved by Board of Supervisors, March 20 2018).
<https://www.fairfaxcounty.gov/planning-zoning/embark-richmond-highway>
5. Extend transit line to Woodbridge VRE, in mixed traffic within the Prince William County portion. (DRPT Alternatives Analysis)
6. Extend transit line from Woodbridge VRE to Quantico. (Conceptual, no approved alternatives analysis, engineering or design plans)
7. Pedestrian and bicycle improvements within 1 mile of future station areas at Pohick Road, Lorton Station, Gunston Road, Woodbridge, Dale Boulevard, and Quantico. (All but last two Station areas based on DRPT Alternatives Analysis)
8. Road expansion and streetscape improvements on Route 1, South County Government Center to Quantico. (Conceptual)
9. Extend BRT from Penn Daw to Alexandria along Route 1 to connect with Metroway (Conceptual)
10. Improve local bike/ped connectivity with "Safe Streets to Schools" (and Open Space/Parks) program

Project/Program: Blue Line Corridor

Jurisdiction(s): Arlington County-City of Alexandria-Fairfax County

Objective: To improve walking/bicycling access and build out Transit-Oriented Development on existing transit line, and extend key local transit and road connections to create more connected, walkable communities.

TOD areas along the Blue Line: Rosslyn, Pentagon City, Crystal City, Potomac Yard, Braddock Road, King Street, Eisenhower Avenue, Van Dorn, Franconia Springfield/Springfield Mall.

Long-Range Plan Compatibility/Listing: See individual project listed below.



Simple solutions like adding bike lanes, improving sidewalks can provide more transportation options.

Strategies

1. Arlandia-Del Ray-Potomac Yard bike/pedestrian improvements -- (Arlington and Alexandria, Transaction project #196.)

2. Metro station improvements within Alexandria -- Improve access to Eisenhower Avenue and King Street stations; redesign Van Dorn Street Station for West End Transitway (Transaction #203).
3. Crystal City bike/ped network (Arlington, Transaction # 112).
4. Metroway BRT extension along Route 1 to Pentagon City-Arlington (Transaction # 117).
5. West End Transitway, Alexandria. Construct a four-mile segment of the dedicated bus lanes between the Van Dorn Metro station and Arlington County (Transaction # 42).
6. Frontier Drive extension-Franconia Springfield Parkway to Loisdale Road (Transaction #84 and NVT A 6-year plan submission)
7. Construct new Metro station at Potomac Yard
8. Construct an improved grid network of streets in Crystal City, Pentagon City, and Potomac Yard (Transaction #83)

Project/Program: VRE Corridor

Jurisdiction(s): Fredericksburg Line, Alexandria-Arlington-Fairfax-Prince William

Objective: Support emerging walkable, mixed-use communities in Prince William and Fairfax Counties through expanded VRE service, including reverse-peak service.

TOD areas along the VRE corridor: VRE Fredericksburg Line: Crystal City, Alexandria, Franconia Springfield/Springfield Mall, Lorton, Woodbridge; VRE Manassas Line - Manassas Park, Manassas, Innovation/Broad Run

Long-Range Plan Compatibility/Listing: See individual project listed below.

Strategies

1. Station access improvements at Crystal City, Alexandria, Franconia-Springfield, Lorton, Woodbridge; Crystal City includes improved connectivity to both Crystal City and National Airport Metro stations. (Transaction projects #298-303)
2. VRE capacity improvements: Increase peak period frequencies to 15 minutes; institute express service; institute reverse peak service -- with associated capital improvements (Transaction project 324); Long Bridge expansion to Eisenhower Valley 4 tracks (Transaction #297)

Project/Program: Route 7

Jurisdiction(s): Alexandria – Fairfax

Objective: Revitalize communities as mixed-use, walkable centers in Alexandria and Fairfax and connect to Fairfax’s new downtown at Tysons through building Bus Rapid Transit.

TOD areas along Route 7: Mark Center, Baileys Crossroads, Seven Corners, downtown Falls Church, Pimmit Hills, Tysons Corner

Long-Range Plan Compatibility/Listing: See individual project listed below.

Strategies

1. BRT along Route 7, from Mark Center in Alexandria to Spring Hill Metro Station in Tysons. Dogleg along 29, Fairfax Drive and Sycamore Street to East Falls Church Metro. Dedicated bus lanes most of the route, but in mixed traffic in areas with right-of-way constraints. (Transaction #31). Stations include Mark Center, Baileys Crossroads, Seven Corners, East Falls Church Metro, Broad Street in downtown Falls Church, Tysons Spring Hill Metro station.
2. City of Falls Church Multimodal Improvements. (Transaction Project #66)
3. Install on-road bicycle lanes on Route 7 from Fairfax County boundary to Seven Corners (Transaction #21)
4. Roadway improvements:
 - a. Seven Corners interchange improvements-create Ring Road with pedestrian/bicycle facilities (Transaction project #18 ; NVTA 6-year plan submission)

Project/Program: Columbia Pike

Jurisdiction(s): Arlington-Fairfax

Objective: Revitalize communities as mixed-use, walkable centers in Annandale and along Columbia Pike, and connect to Tysons through Gallows Road

TOD areas along Columbia Pike: Columbia Pike, Bailey’s Crossroads

Long-Range Plan Compatibility/Listing: See individual project listed below.

Strategies

1. Columbia Pike express transit network: Provide enhanced bus service from Annandale to Crystal City via Pentagon City, including limited-stop bus service, improved headways, related bus fleet and facility requirements, and transit stations (Transaction project #40).
2. Columbia Pike urban bike/pedestrian network (Transaction project #102).
3. High-capacity transit on Annandale and Gallows Road, Annandale to Tysons. (Transaction #37).



Transit stations, when properly designed at a human scale, can also serve as a vital community gathering place.

Project/Program: Orange Line Corridor/Route 50/I-66

Jurisdiction(s): Arlington County, Fairfax County, Prince William County

Objective: Revitalize communities as mixed-use, walkable centers centers along the Orange Line corridor (Route 50/I-66)

TOD areas along Orange Line Corridor/Route 50/I-66: West Falls Church, Merrifield/Dunn Loring, Vienna, Government Center/Fair Oaks

Long-Range Plan Compatibility/Listing: See individual project listed below.

Strategies

1. Merrifield bike improvements (Fairfax County TPP)
2. Install bike/pedestrian bridge on north side of Route 50 over 495 from Fairview Park Drive to Gallows Road (Fairfax County TPP)
3. Northfax street network improvements, City of Fairfax, at Routes 50 and 123. (Transaction #140)
4. Implement priority bus service along US 29 and US 50 between Fair Oaks and Washington DC. (Transaction #46)
5. Government Center area bike/pedestrian improvements (Fairfax County TPP)
6. Fairfax County I-66 parallel bikeway (included but not fully funded in I-66 Outside the Beltway project)
7. Prince William bike/ped path parallel to I-66 and crossing Bull Run, connecting with Fairfax County parallel bikeway. (conceptual plans)
8. Arlington Boulevard (Rte. 50) trail, Potomac River to Fairfax City eastern border (WABA 2014 report, <http://www.waba.org/advocacy/priorities/arlington-boulevard-trail/>)
9. Construct shared-use path on Route 28 from Prince William/Fauquier border to interchange with Dulles Toll Road. (Transaction #47)

Project/Program: Route 236

Jurisdiction(s): Alexandria-Fairfax County-Fairfax City

Objective: Revitalize communities as mixed-use, walkable centers centers along Route 236 in Alexandria, Fairfax City and Annandale.

TOD areas along Route 236: Old Town Alexandria, Landmark Mall, Lincolnia, Downtown Fairfax City; with connection to NOVA Community College

Long-Range Plan Compatibility/Listing: See individual project listed below.

1. Duke Street BRT and bike/pedestrian improvements, Alexandria to Landmark Mall, 4 miles (Transaction #41)
2. VA 236 priority bus, Fairfax, Alexandria to Fairfax City (Transaction #43)

3. VA 236 bike/pedestrian improvements, Alexandria border to Fairfax City. 7 miles (Fairfax County Route 236 study, 2016)
4. On-road bike facilities (cycletracks) in Annandale business district (Fairfax County Bicycle Master Plan)

Project/Program: Manassas and Manassas Park downtowns and VRE station area

Jurisdiction(s): Manassas, Manassas Park, Prince William County

Objective: Revitalize communities as mixed-use, walkable centers in Manassas; develop activity centers

TOD areas within the area: Downtown Manassas, Manassas Park

1. VRE station access improvements, including expanded parking (including Manassas Park garage), improved walking and bicycling connections, PRTC bus connections

Goal 2 - Expand transit capacity through investing in Metro, VRE, Bus Rapid Transit, and expanded express bus service, supporting a network of transit-oriented development

1. Expand Metrorail fleet to enable operations of 100 percent eight-car trains during peak period. Expansion, upgrades, and replacements of the rail car fleet, traction power substations, power cabling, third rail, train control systems, and storage facilities.
2. Expand capacity of VRE Fredericksburg line through following phased activities:
 - a. Increase frequencies to 20 minutes in peak period. In support of this improvement:
 - i. Construct/expand VRE equipment storage and maintenance facilities in Fredericksburg and midday storage in Washington, D.C.;
 - ii. Construct station/platform, parking and access improvements at VRE Fredericksburg Line stations;
 - iii. Purchase additional rolling stock in support of 8-car trains and peak service improvements.
 - b. Improve frequencies to 15-min. peak period and new reverse peak period service. In support of this improvement:
 - i. Purchase additional rolling stock
 - ii. Construct/expand VRE equipment storage and maintenance facilities
 - iii. Rail Line capacity improvements
 - iv. Station/Parking Access improvements
 - v. ITS/TSM improvements
 - c. Implement peak period express service on VRE Fredericksburg Line:
 - i. One express train and three local trains per hour during AM and PM peak periods
 - ii. Stops at Spotsylvania, Leeland Rd, Woodbridge, Alexandria, Crystal City, L'Enfant, and Union Station. Assumes construction of Long Bridge expansion to 4 tracks, a DC Dept. of Transportation project.
3. Implement or expand peak-period express bus service on 66, 95, 495, Rte. 28, and Fairfax County Parkway, for commuters to employment centers in Dulles Corridor, Tysons, Washington DC. Expand access to regional bus service through improved parking access, including:
 - a. Construct new park-and-ride lots along Route 7 corridor at Dulles Town Center and near intersection of Route 7 and Route 659. (Transaction #9)
 - b. Construct 300-space Leesburg North park-and-ride Lot at Crosstrail Boulevard. (Transaction #15)
 - c. Construct 200-space park-and-ride lot at One Loudoun near the corner of Route 7 and Loudoun County Parkway. (Transaction #16)

- d. Construct 50 Dulles park and ride east of Loudoun County Parkway. (Transaction #132)
- 4. Construct high capacity transit service on 495 and American Legion Bridge from Tysons to Maryland side of Potomac, with connections to the Red Line and job centers at Bethesda, Rock Spring, White Flint, etc. Near term can be express bus, but planning should begin for a Metrorail or Light Rail connection, extending the Purple Line. (Transaction #36)
- 5. Expand Potomac Regional Transportation Commission intra-county routes between Woodbridge/Occoquan, Quantico, Manassas/Manassas Park, Innovation, and Gainesville.

Goal 3 - Make the road network more efficient, by improving street connections and strategically adding capacity at key areas.

Priority Corridor Improvement(s): Route 28

Jurisdiction(s): Prince William County– Fairfax County–Loudoun County

1. Route 28 / New Braddock Road interchange (Transaction #27)
2. Create grade-separated interchange at 28 and I-66 (included in I-66 Outside the Beltway project)

Priority Corridor Improvement(s): Route 234

Jurisdiction(s): Prince William County

1. Route 234 interchange at Balls Ford Road (funded by I-66 Outside the Beltway concession)
2. Route 234 interchange at Sudley Manor Drive, Wellington Road (6-year plan submission)
3. Widen 234 to six lanes, from Route 28 to I-66

Priority Corridor Improvement: Route 15

Jurisdiction(s): Prince William County, Loudoun County

1. Rte. 15 traffic calming, north of Leesburg to Point of Rocks- preserve as 2 lanes while adding roundabouts at key intersections (proposed alternative to Transaction #285)

Priority Corridor Improvement(s): Route 7

Jurisdiction(s): Loudoun County, Fairfax County

1. Route 7 hot-spot and safety improvements in Loudoun
2. Route 9 traffic calming improvements, Loudoun County border to Rte. 7

Priority Corridor Improvement(s): Improvements to Loudoun road network

1. Construct four lanes of western segment of Russell Branch Parkway from Belmont Ridge Road to Tournament Parkway. (Transaction #234)
2. Widen Evergreen Mills Road from 2 to 4 lanes from Northstar Boulevard to Loudoun County Parkway. (Transaction #179)

Please visit our website for more information, to view a copy of the Northern Virginia Blueprint map, or get contact information at VASierra.club/blueprint.

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