IX

NORTHERN VIRGINIA TRANSPORTATION AUTHORITY

M E M O R A N D U M

FOR: Members, Northern Virginia Transportation Authority

FROM: Chairman Martin E. Nohe, Planning and Programming Committee

DATE: October 6, 2017

SUBJECT: Adoption of TransAction Update

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1. **Purpose.** To seek Northern Virginia Transportation Authority (NVTA) adoption of the update to TransAction and the associated Project List.

2. **Suggested Motion:** *I move Authority adoption of the TransAction Update and associated Project List.*

3. **Background.** At its October 4, 2017 meeting, the NVTA's Planning and Programming Committee (PPC) received a briefing on the draft TransAction Plan Update and NVTA staff recommendations. The PPC also discussed the final draft version of the TransAction Plan and associated Project List.

4. **TransAction Context.**
   - **a.** Culminating the end of a three year update process, TransAction is the long range, multi-modal, regional transportation plan for Northern Virginia.
   - **b.** TransAction addresses regional transportation needs through 2040 focusing on eleven major travel corridors primarily in Northern Virginia.
   - **c.** TransAction considers travel conditions for the planning horizon year 2040 – population in Northern Virginia is expected to increase by 24 percent across the region and employment will increase by 37 percent;
   - **d.** If only current fully funded and committed projects are built, travel conditions are forecast to considerably worsen by 2040 (tripling of traffic congestion and doubling of transit crowding);
   - **e.** Northern Virginians consider the region's travel conditions to be the greatest factor influencing their quality of life;
   - **f.** Inclusion of all 352 candidate regional multimodal projects in TransAction provides transportation options for the Authority until the next update of TransAction in approximately five years;
   - **g.** TransAction does not commit the Authority to invest in any of the 352 projects it contains;

h. Inclusion of these projects in TransAction satisfies a legal requirement for use of HB2313 (2013) regional revenues, which can only be used for projects in the current version of TransAction;

i. As an 'unconstrained' long-range transportation plan with a 25-year horizon, TransAction (intentionally) includes more projects than can be funded using just regional revenues.

5. **TransAction Process.** TransAction 2040 was adopted by the Authority in November 2012. The current update commenced with a Listening Session in the fall of 2014 followed by a formal kick-off with the consultant team in August 2015. Technical analysis and continuous public engagement advanced along parallel and interconnected tracks, including specific outreach programs in the spring and fall of 2016.

   The approach to technical analysis focused on eleven regional multimodal corridors divided into 28 corridor segments. Technical analysis was driven by the TransAction vision and goals adopted by the Authority in December 2015. Subsequently, weighted performance measures were developed and extensively reviewed with all relevant Committees prior to Authority approval in December 2016 (performance measures) and February 2017 (weightings). In addition, the HB 599 (2012) process was integrated into the analytical approach for TransAction.

   Public comment was sought on the draft TransAction Plan and associated Project List between June 9, 2017 and July 23, 2017, including an Open House and Public Hearing on July 13, 2017. Numerous jurisdictional briefings and locally organized Town Hall meetings took place during the public comment period.

   Based on feedback provided to, and inputs from, the TransAction Subcommittee, comprising jurisdictional and agency staff, minor changes were made to the draft TransAction Plan and associated Project List. The final draft versions are attached to this memorandum.

6. **From Planning (TransAction) to Programming (Six Year Program).**
   a. All projects considered for regional revenues are subject to a comprehensive regional evaluation process during each update cycle (typically every two years) of the Authority's Six Year Program;

   b. This process commences with a Call for Regional Transportation Projects – effectively a funding request from the region's jurisdictions and transportation agencies;

   c. Each funding request must be accompanied by a resolution of support from the governing body of the jurisdiction or agency;

   d. Projects that are located in multiple jurisdictions must demonstrate multi-jurisdictional support in order to advance, e.g. resolutions of support from the governing body of each affected jurisdiction;

e. If jurisdictions and agencies do not submit funding requests to NVTA, or their applications are not approved for NVTA regional revenues, projects will only advance if funding sources other than NVTA's regional revenues are secured;

f. Projects are subject to all applicable engineering and environmental review processes, typically including a comprehensive public engagement process, prior to implementation.

7. Next steps. Subject to Authority adoption of the TransAction update, and subsequent approval of the Call for Regional Transportation Projects, NVTA staff will immediately commence the development of the Authority's FY2018-23 Six Year Program (SYP). The SYP is scheduled for adoption by the Authority in June 2018.

In-house development of the draft scope of work for the next TransAction update will begin in the second half of CY2018, with adoption by the Authority anticipated by the end of CY2022.

Attachments:

A. TransAction Plan
B. TransAction Plan Project List
C. Transportation Funding Timeline

NVTA's TransAction

Transportation Action Plan for Northern Virginia

TransAction Plan

October 2017



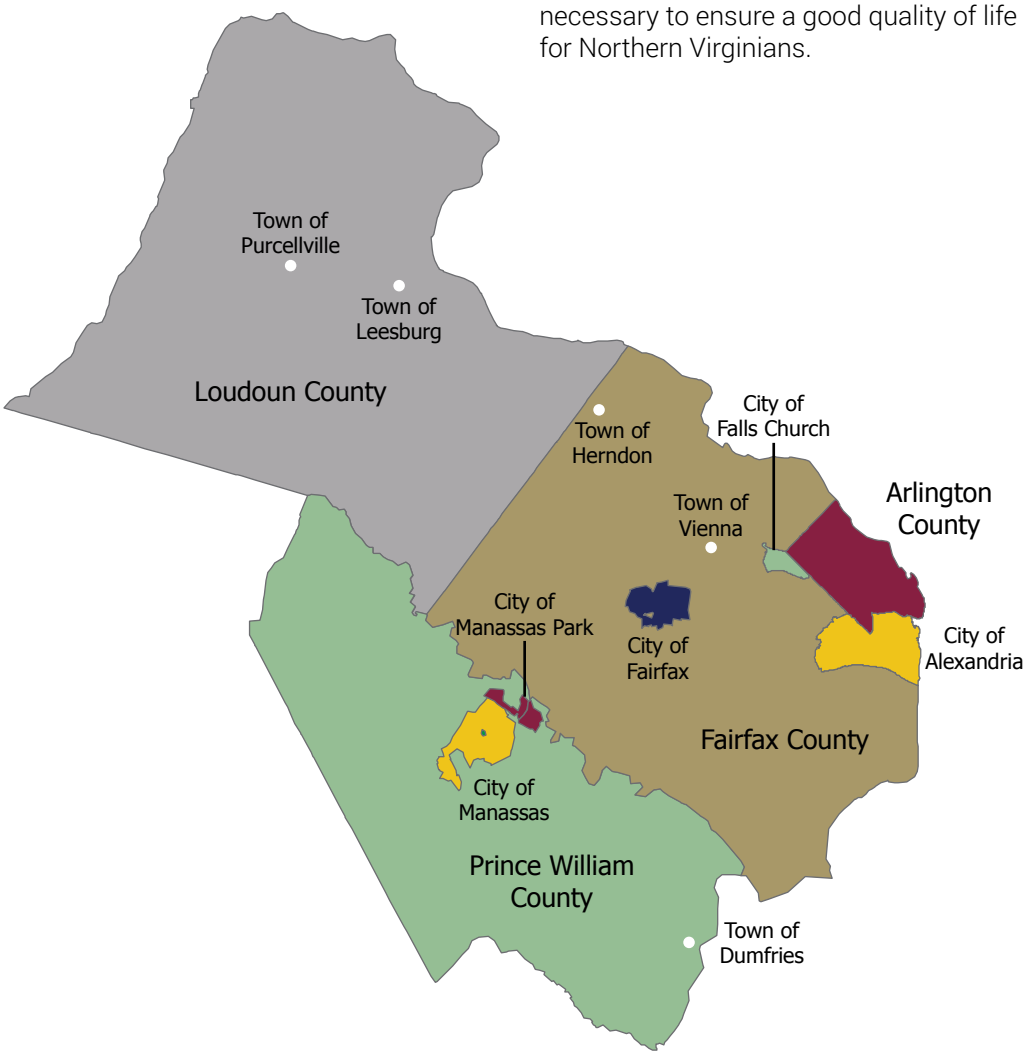


TransAction is developed and maintained by the Northern Virginia Transportation Authority ("NVTA" or "the Authority"). The NVTA is a regional body that is focused on delivering real transportation solutions and value for Northern Virginia's transportation dollars by bringing Northern Virginia jurisdictions and agencies together to prioritize projects and implement solutions.

For more info about the TransAction Plan including the TransAction Project List: nvtatransaction.org

TransAction is the multimodal transportation master plan for Northern Virginia. It is a long range plan addressing regional transportation needs through 2040. The Plan focuses on eleven major travel corridors in Northern Virginia, and identifies over 350 candidate regional projects for future transportation investments to improve travel throughout the region. TransAction is not bound to any budget, and proposes more projects than can realistically be funded. The results of TransAction are used to inform the NVTA's Six Year Program for capital funding, guiding decisions about which transportation improvements the NVTA should prioritize for investment.

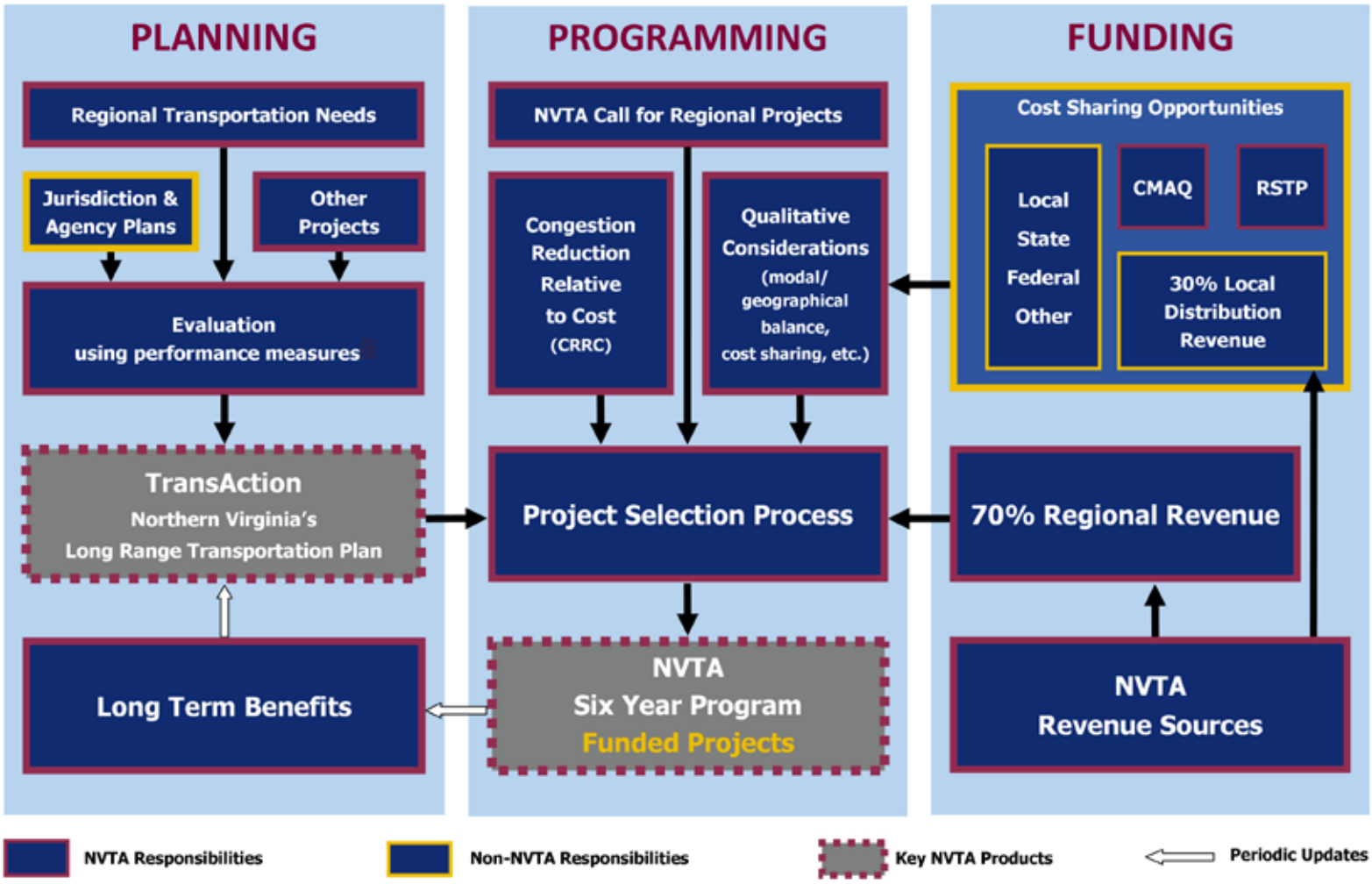
By 2040, population in Northern Virginia is forecast to increase by 24 percent, and employment by 37 percent. While this is great for the region's economic vitality, this growth is expected to increase traffic congestion and crowding on bus and rail services. Transportation investments, such as those included in TransAction, are necessary to ensure a good quality of life for Northern Virginians.



What Does The NVTA Do?

NVTA's Function

The NVTA's two key products are the TransAction Plan and the Six Year Program, which funds projects. This chart shows the many interrelated factors that go into creating those products.



TransAction is one of the NVTA's two key products. In addition to meeting various State mandates*, TransAction is an important input to the NVTA's other key product — the Six Year Program of funded projects. Subject to available revenues, the NVTA will decide in Spring 2018 which of the more than 350 projects included in TransAction will be selected for inclusion in the Six Year Program.

** Virginia Code mandates that the NVTA is responsible for developing and maintaining the long range transportation plan for Northern Virginia. Any project to be included in the NVTA Six Year Program must be evaluated in accordance with a state-mandated process referred to as HB 599, which takes its name from legislation enacted by the Virginia Assembly in 2012.*

How Was Performance Measured In TransAction?



"In the 21st century, Northern Virginia will develop and sustain a multimodal transportation system that enhances quality of life and supports economic growth. Investments in the system will provide effective transportation benefits, promote areas of concentrated growth, manage both demand and capacity, and employ the best technology, joining rail, roadway, bus, air, water, pedestrian, and bicycle facilities into an interconnected network that is fiscally sustainable."
- **TransAction Vision Statement**

Robust Process

TransAction uses a performance-based planning approach that allows policies and goals to be expressed in quantifiable terms, and creates an analytical framework to determine the degree to which different investment packages meet the goals. This approach is intended to lead to a more systematic and analytical selection process for investment priorities.

The table below outlines the goals, objectives, and performance measures that were developed to provide this analytical framework to guide the TransAction Plan.

Evaluation Using Performance Measures

In order to account for all 15 performance measures, an overall performance rating was developed. Each performance measure was assigned a weight of either five or ten percent, together totaling 100 percent. The score for each performance measure is multiplied by these weights to generate a total rating. These calculations were performed at a fine-level of geographic detail for comparisons between existing conditions and 2040 conditions with and without the TransAction Plan.

Vision: The vision statement articulates a preferred idealized state.

Goals focus on priorities and outcomes the region desires to move toward.

Objectives are measurable and targeted actions that result in incremental but tangible advancement toward the stated goals.

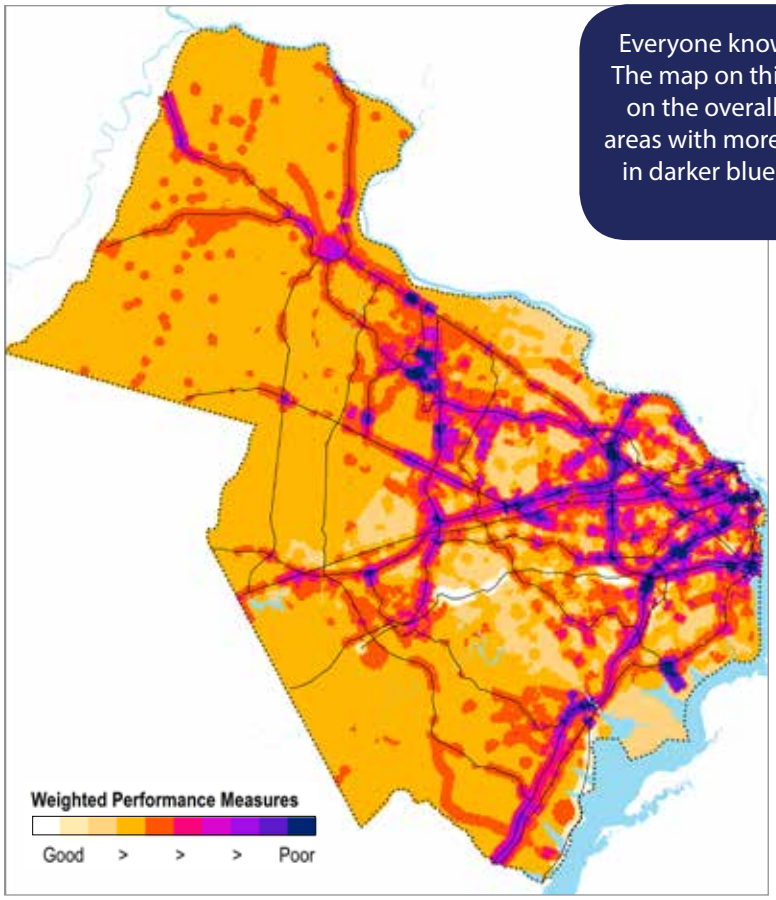
Performance Measures are used to evaluate potential performance of the transportation network. They derive from the stated objectives.

Goal	Objective	Performance Measure	Weight
Goal 1: Enhance quality of life and economic strength of Northern Virginia through transportation	Reduce congestion and crowding experienced by travelers in the region	Total person hours of delay*	10%
		Transit crowding*	5%
		Person hours of congested travel in automobiles*	5%
		Person hours of congested travel in transit vehicles*	5%
	Improve travel time reliability	Congestion severity: maximum travel time ratio	5%
		Congestion duration*	10%
	Increase access to jobs, employees, markets, and destinations	Percent of jobs/population within 1/2 mile of high frequency and/or high performance transit	5%
		Access to jobs within 45 minutes by auto or within 60 minutes by transit*	5%
	Improve connections among and within areas of concentrated growth	Average travel time per motorized trip between Regional Activity Centers	5%
		Walkable/bikeable environment within a Regional Activity Center	5%
Goal 2: Enable optimal use of the transportation network and leverage the existing network	Improve the safety of transportation network	Safety of the transportation system	5%
	Increase integration between modes and systems	First and last mile connections	10%
	Provide more route and mode options to expand travel choices and improve resiliency of the system	Share of travel by non-SOV modes	10%
	Sustain and improve operation of the regional system	Person hours of travel caused by 10% increase in PM peak hour demand*	5%
Goal 3: Reduce negative impacts of transportation on communities and the environment	Reduce transportation related emissions	Vehicle miles traveled (VMT) by speed	10%

** Measure included in HB 599 rating process.*

What Are Today's Transportation Conditions?

2016 Overall Performance Rating Map

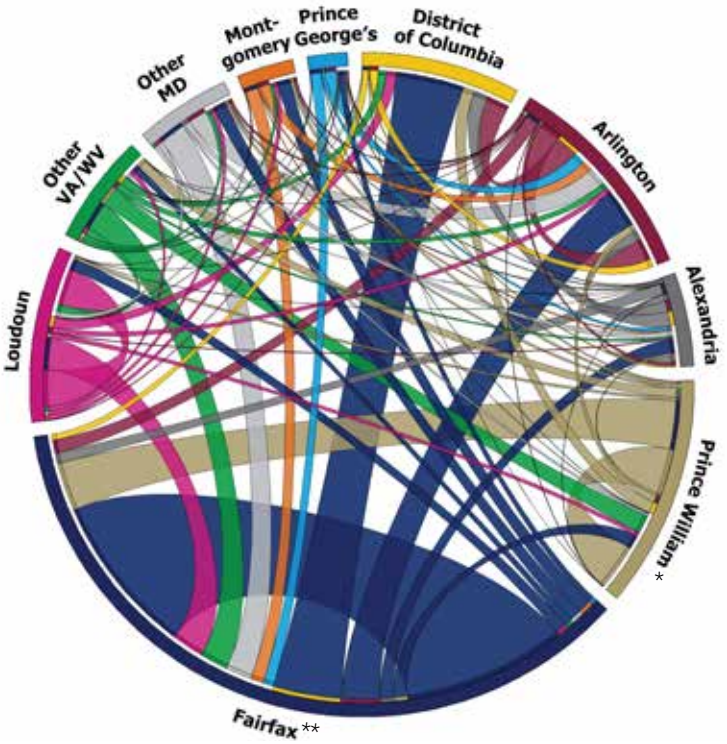


Everyone knows that transportation is a major concern in Northern Virginia today. The map on this page highlights some of the existing problems in the region based on the overall weighted performance rating. As expected, the analysis highlights areas with more severe issues along all of the major corridors in the region, as shown in darker blue. These locations correspond with areas of concern identified by the public during TransAction's outreach efforts.

2016 Origin-Destination Commute Travel Patterns

The focus of TransAction is on accommodating regional travel. The circular diagram to the right shows the proportion of people commuting between the jurisdictions in Northern Virginia each day. The graphic illustrates that the majority of regional travel in Northern Virginia tends to stay within the same jurisdiction. Travel for non-commute purposes is even more likely to stay within a single jurisdiction, as the average trip length for these types of trips is much shorter.

In order to address regional traffic problems, Northern Virginia must address both short and long-distance travel needs.



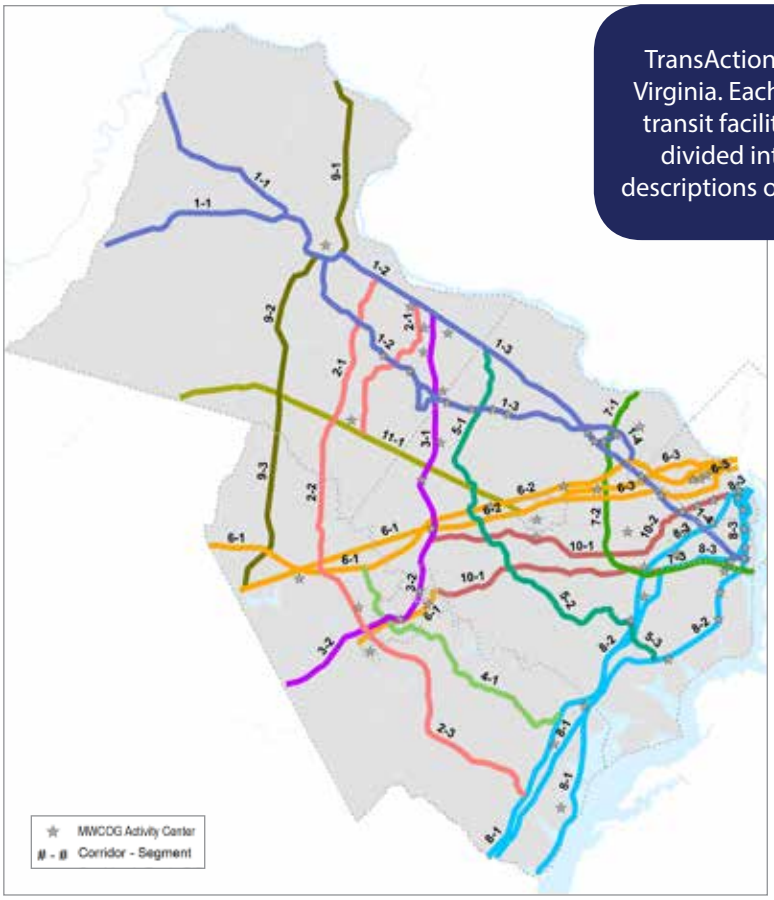
Average Trip Length



** Includes trips for the independent cities of Manassas and Manassas Park.*
*** Includes trips for the independent cities of Fairfax and Falls Church.*

What Is Included In The Plan?

TransAction Corridor Segments

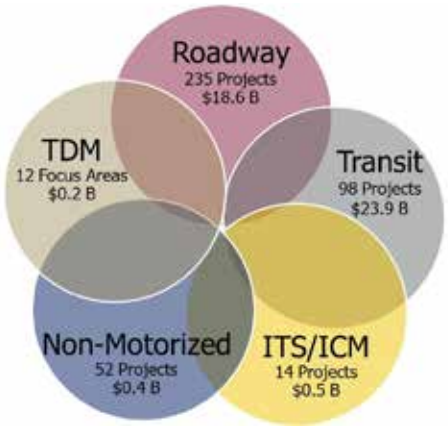


TransAction focuses much of its analysis on eleven major corridors in Northern Virginia. Each corridor is multimodal in nature and includes roadway and parallel transit facilities. Because conditions vary along these corridors, they are further divided into 28 Corridor Segments as shown in the map to the left. Detailed descriptions of the boundaries of each segment can be found in the table on page 10.

- Corridor 1: Route 7/Dulles Toll Road/Silver Line
- Corridor 2: Loudoun County Pkwy/Bi-County Pkwy/Route 234
- Corridor 3: Route 28
- Corridor 4: Prince William Pkwy
- Corridor 5: Fairfax County Pkwy
- Corridor 6: I-66/US 29/US 50 Inner/Orange-Silver Line//VRE Manassas
- Corridor 7: I-495 Beltway
- Corridor 8: I-95/I-395/US 1/VRE Fredericksburg/Blue-Yellow Line
- Corridor 9: US 15
- Corridor 10: Columbia Pike/Braddock Rd/VRE Manassas
- Corridor 11: US 50 Outer

The Plan

A balanced set of projects, programs, and policies will be needed to achieve the region's goals. The Plan includes 352 regionally significant transportation projects and programs, at an estimated cost of $43.2 billion. However, $10-13 billion of this cost estimate is associated with project components outside of Northern Virginia, and can only be funded and implemented in partnership with neighboring jurisdictions.



The projects vary in scope from targeted intersection and sidewalk improvements at specific locations to mega-projects involving the expansion of freeway facilities and extension of heavy rail transit lines. Transportation projects included in the Plan comprise a variety of multimodal elements including roadway, transit, TDM, non-motorized, ITS, and ICM improvements. The diagram above recognizes that some projects encompass more than one multimodal element.

TransAction: 352 projects
Estimated Cost: $43.2 billion

Roadway: Includes the construction of new roads, capacity improvements on existing roads, and/or reconfiguration of existing roads.

Transit: Includes Metrorail extensions, capacity and service enhancements for Virginia Railway Express (VRE), new Light Rail Transit (LRT) and Bus Rapid Transit (BRT) lines, improvements to existing bus and rail services, and station access improvements.

Transportation Demand Management (TDM): A set of services designed to provide commuters with alternative options to driving alone by providing information, programs, and incentives to encourage a shift in traveler mode.

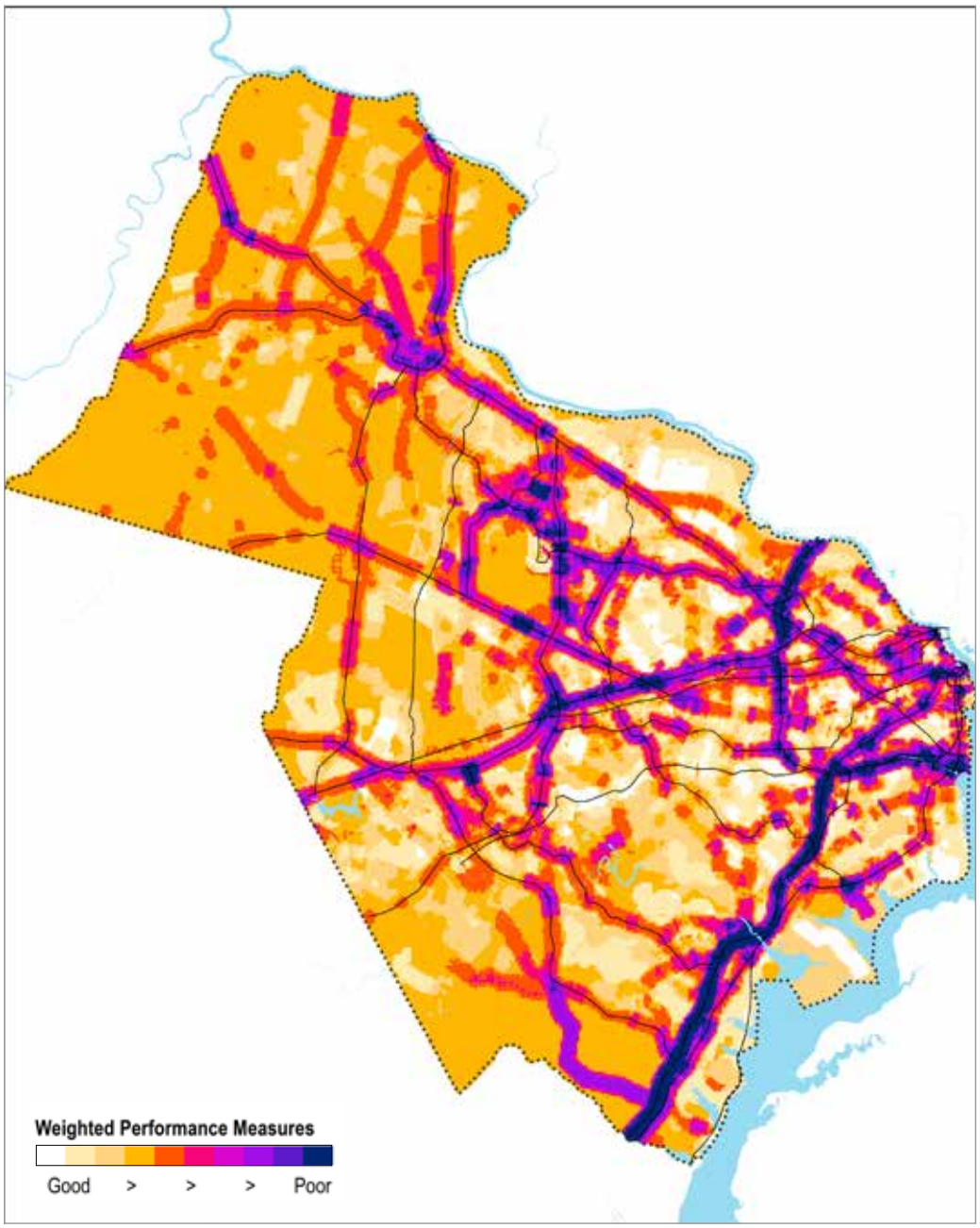
Non-Motorized: Includes bicycle and pedestrian improvements that address key connectivity in the region.

Intelligent Transportation Systems (ITS): Includes information and communication technologies to share traffic data, optimize system management and operations, provide information to travelers in real-time, and improve safety.

Integrated Corridor Management (ICM): Addresses congestion and mobility along a corridor by making more thorough use of all the available facilities in a corridor, including parallel roadways and transit.

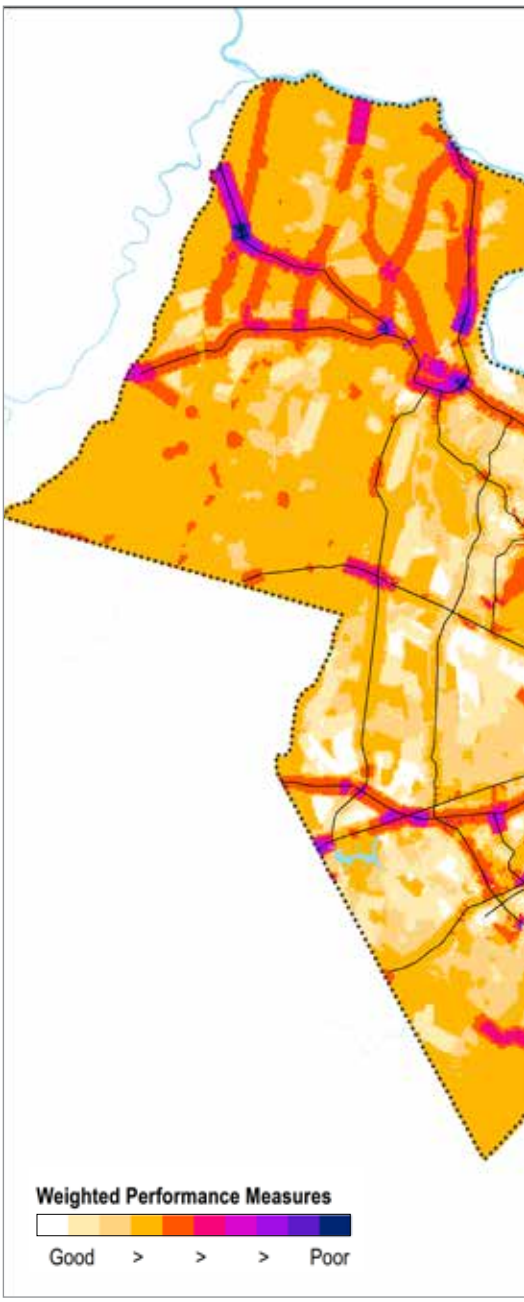
What Are The Benefits Of The Plan?

2040 'No Build' Overall Performance Rating



This map shows the overall performance rating for the Northern Virginia region under the 2040 'No Build' conditions. Areas shown in darker blue perform worse based on this rating, which combines the 15 performance measures. The 2040 'No Build' includes only projects that are already fully funded.

Plan Overall Performance Rating



This map shows the overall performance ra
the implementation of the 352 candidate
As shown, many of the major corridors in N
improvements in transportation conditions

Performance of the regional transportation system, measured across the 15 TransAction measures, shows significant improvement across most of Northern Virginia. These benefits are most apparent along I-66, I-495, I-95, Loudoun County Parkway, Route 28, and portions of Route 7.

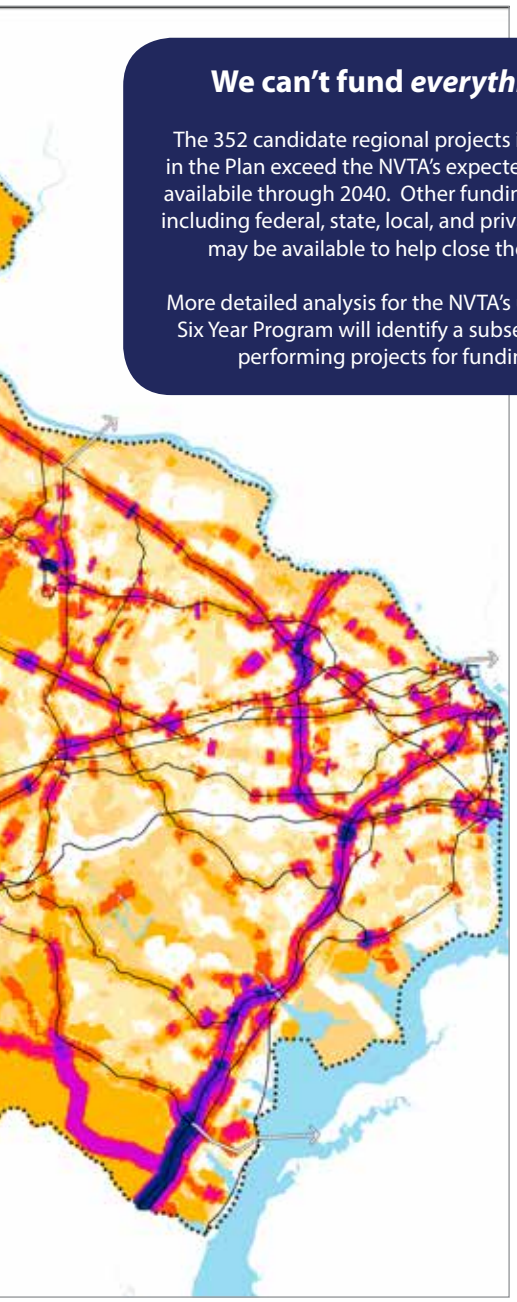


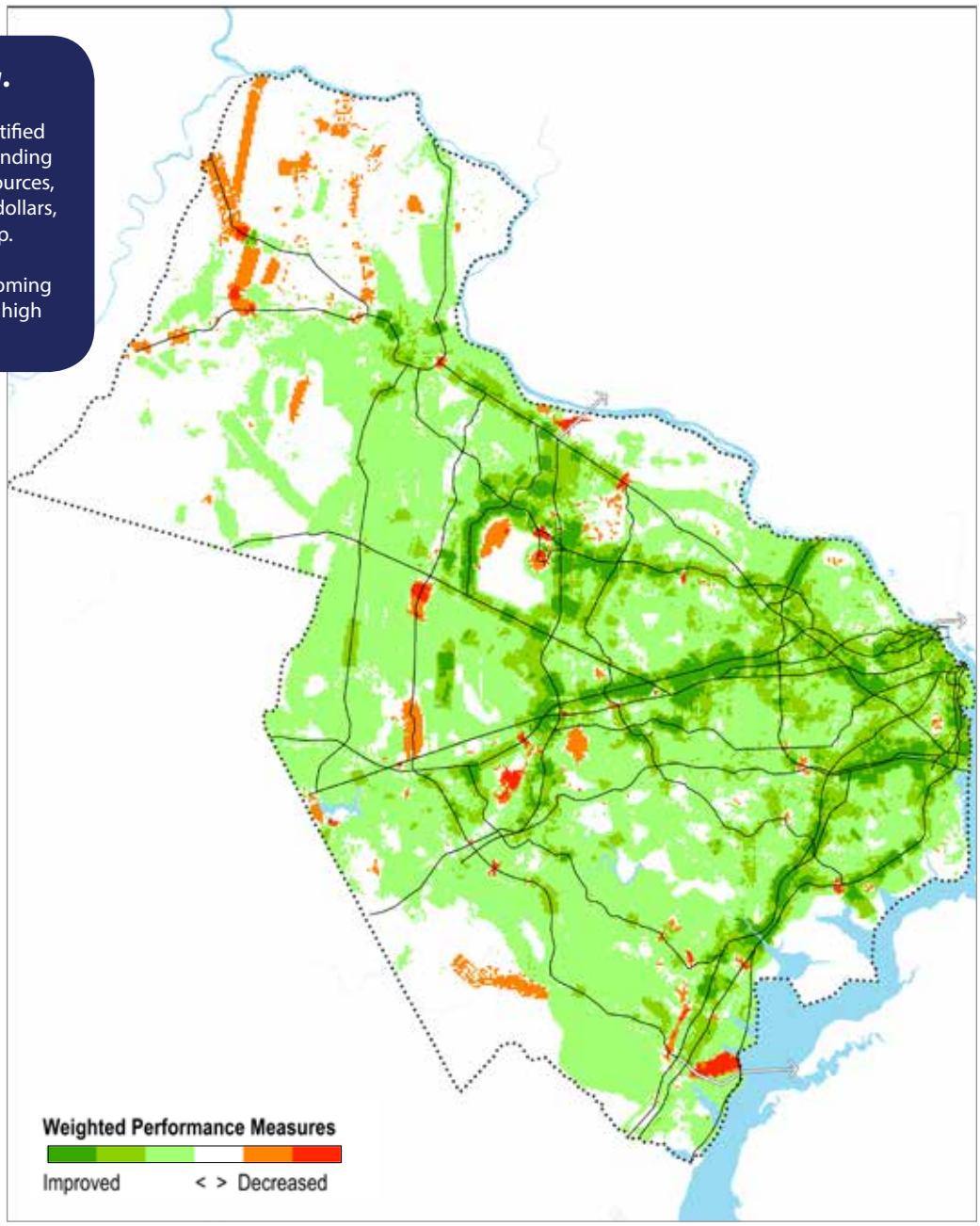
Plan Compared to 2040 'No Build' - Overall Performance Rating

We can't fund *everything*.

The 352 candidate regional projects identified in the Plan exceed the NVTA's expected funding availabile through 2040. Other funding sources, including federal, state, local, and private dollars, may be available to help close the gap.

More detailed analysis for the NVTA's upcoming Six Year Program will identify a subset of high performing projects for funding.





ating for the Northern Virginia region with regional projects of the TransAction Plan. orthern Virginia will experience significant s with the implementation of TransAction.

This map shows the change in the overall performance rating caused by the implementation of the Plan. Areas shown in green are forecast to experience an improvement in conditions with implementation of the Plan, while areas shown in orange are forecast to perform worse than without the Plan.

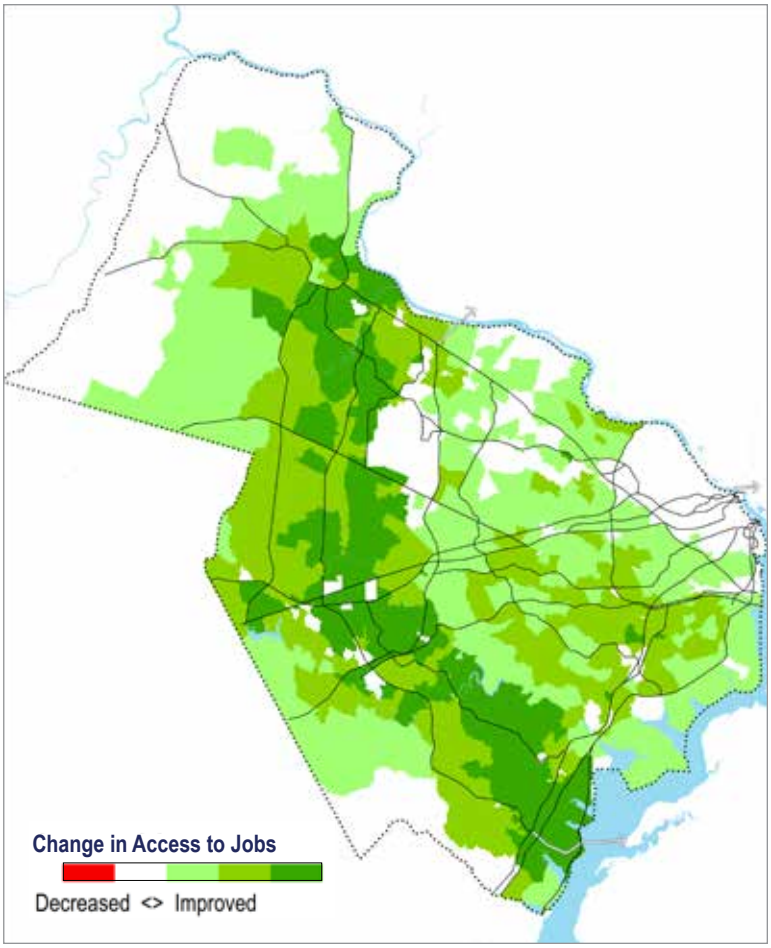
There are several locations where conditions get worse with the Plan. One reason for this is that new facilities carry no traffic and therefore experience no congestion before their construction, but do experience some afterwards. Another reason is the diversion of traffic onto facilities that cannot be widened for various reasons (designated scenic byways, right-of-way limitations, etc.). This is particularly the case in some of the outer suburbs, especially in western Loudoun County where increases in congestion are causing decreases in performance.

What Are The Benefits Of The Plan?

Plan - Northern Virginia Statistics

Daily Measures	2016	2040 'No Build'	Plan	Change from 'No Build'
Transit Boardings	1.0 M	1.4 M	1.6 M	14% increase
Person Trips in Motorized Vehicles	8.74 M	10.5 M	10.6 M	1% increase
Person-Miles of Travel	105 M	125 M	125 M	0.4% decrease
Person-Hours of Travel	3.30 M	5.81 M	4.45 M	24% decrease
Person-Hours of Delay	1.01 M	3.03 M	1.70 M	44% decrease
Person-Hours of Delay per Capita	0.42	1.01	0.57	44% decrease
Service Hours of Crowded Transit	10,800	20,100	7,200	64% decrease

Plan Compared to 'No Build' - 2040 Job Accessibility



Overall, the results of this analysis show that the improvements included in the Plan benefit the entire Northern Virginia region and improve travel conditions in all corridors when compared to the 2040 'No Build' conditions.

The Plan will save each Northern Virginian an average of 27 minutes each day.

Some of the major improvements noted on a regional level include:

- Improved travel conditions on all corridors.
- Noticeable reductions in person-hours of travel (24 percent) and person-hours of delay (44 percent), despite a slight increase in motorized trips in the region.
- Significant decrease in transit crowding (64 percent) to below 2016 levels, in part due to the inclusion of expansions to the regional transit network such as BRT and Metrorail expansions. This improvement is achieved with a simultaneous 14 percent increase in transit ridership.
- Marginal decrease in person-miles traveled.
- Job accessibility is noticeably improved for residents in a broad corridor from Leesburg to Dumfries because of improvements in the Plan. This means that more people will have access to more jobs.
- Improvements in walkability and bikeability in areas of high residential and employment density throughout Northern Virginia.
- Residual problem areas include I-95 and I-495.

Regional Totals	2016	2040	Change
Population	2.41 M	2.99 M	24%
Employment	1.36 M	1.87 M	37%

Benefits vary across the region, with different areas seeing varying levels of improvements in different performance measures. The improvements caused by the Plan are significant, but in most cases are not enough to bring the region back to 2016 conditions. This is primarily due to the 24 percent increase in population and the 37 percent increase in employment that are forecast for the region by 2040.

Improved Access to Jobs

Accessibility is an important consideration in the Plan. The performance measure that looks at the increase in the average number of regional jobs that are accessible from households in Northern Virginia, assuming a 45-minute commute via auto or a 60-minute commute via transit is shown in this graphic. The Plan results in widespread improvements in accessibility to jobs throughout the region with the greatest improvements in a wide swath of suburban communities in Loudoun and Prince William Counties, stretching from Leesburg in the north to Dumfries in the south. Improvement tends to be lower inside the Beltway, as jobs are already highly accessible in this area.

What Happens If The Future Is Different Than Expected?

TransAction is built on standard assumptions for the region about future growth and technology. But what if the future is different from what we've assumed? To test TransAction's resiliency against an unpredictable future, four Stress Tests were performed, each analyzing TransAction's performance against significantly different assumptions about land use, technology, and travel behavior.

Transportation is in the midst of a series of quiet but profound revolutions. Travelers in the future will have choices that go beyond private cars or bus and rail transit. Many of these changes will take advantage of new technology, with some of the most dramatic changes yet to come. Some of the factors that present a high degree of uncertainty in the long-term include:

- Demographic characteristics and preferences;
- Development patterns;
- Activity patterns;
- Connected and autonomous vehicles;
- Shared travel;
- Economics;
- Freight and goods movement;
- Climate change and world events;
- Information and management technologies; and
- Policy and legal evolution.

Four alternative future scenarios were analyzed as part of the TransAction planning process that investigated the impacts of these trends on transportation conditions in 2040. This range of possible futures was developed to test the resiliency of improvements. It does not attempt to identify or assess every possible future, nor does it try to establish one exact picture of the future. Instead, this scenario planning effort defines a limited number of futures that — between them — encompass a wide array of potential outcomes resulting from a number of changing factors.

Scenario A
- Technology such as connected and autonomous vehicles, focused on long distance travel
- Continued low cost of driving

Scenario B
- Changes in travel behavior result in fewer/shorter trips
- Increases in travel costs
- Technology focused on local travel

Scenario C
- Dispersed land use growth
- Population and job growth outside of higher density areas

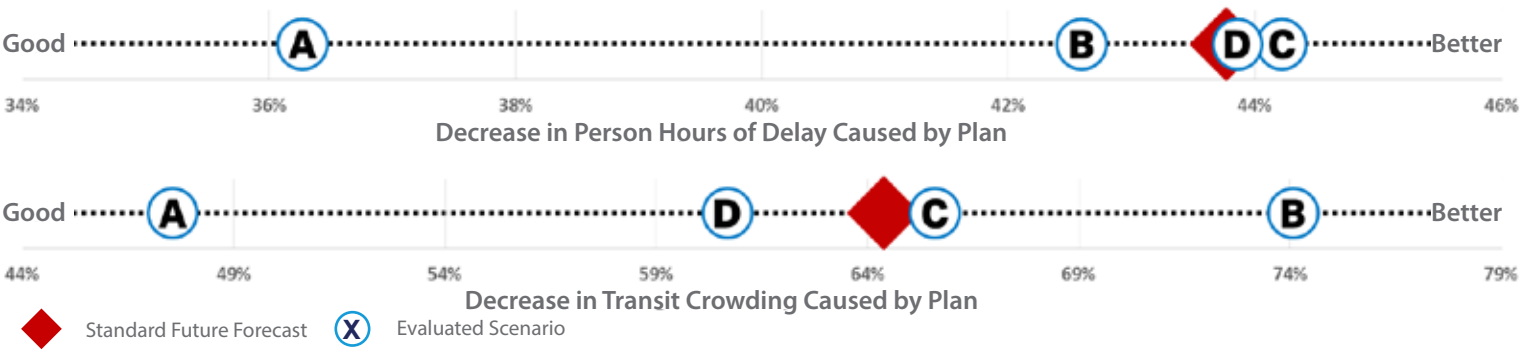
Scenario D
- Concentrated land use growth
- Population and job growth inside of higher density areas

Sensitivity Results

The results show that the Plan does provide significant benefits under each of the potential alternate futures, although the percent improvement varies by performance measure across the scenarios. The figures below show the percent improvement achieved for two key performance measures for each of the alternative scenarios, as compared to the standard future forecasts (as shown by the red diamond). For example, these graphics show that the Plan achieves a larger reduction in transit crowding under Scenarios C and B, than the standard future forecast. Benefits are forecast for most areas across the region under each of the alternate future scenarios tested.

These results indicate that the Plan is likely to provide benefits to Northern Virginia regardless of any of the major trends highlighted, but these trends should be monitored to identify potential future impacts.

Performance of Plan Under Alternative Future Assumptions



What Did We Learn?

The impact of the 352 projects included in the Plan was analyzed for each Corridor Segment. The overall performance rating for each Corridor Segment is shown in the table to the right. These performance ratings combine the 15 performance measures detailed on page 3, summed for each of the Corridor Segments. These scores quantify the improvement across these measures caused by the Plan, relative to each other. Therefore, the Corridor Segment with the highest rating will see the greatest improvement for the most travelers.

Findings

The major findings from this analysis include:

- Northern Virginia faces unprecedented levels of travel demand, delay, and transit crowding in 2040.
- No single project, program, or policy will address all of the region's transportation needs.
- Projected regional revenues through 2040 would only fund less than a quarter of the total estimated cost of the 352 candidate regional projects in the Plan.
- Emerging trends in technology and travel preferences may improve travel conditions in 2040.
- Segments with the highest performance ratings are generally those that include a combination of acute travel issues, high volumes, and major candidate regional projects. Segments with the lowest performance ratings generally have less acute travel conditions and/or serve fewer travelers.



Segment	Description	Performance Rating
8-3	I-395/US 1/VRE Fredericksburg/Blue Yellow Line — I-495 to Potomac River	65.8
7-3	I-495 — I-95 to Woodrow Wilson Bridge	59.2
6-2	I-66/US 29/US 50/Orange Silver Line — Rt. 28 to I-495	58.1
1-4	Rt. 7/Dulles Toll Road/Silver Line — Tysons to US 1	54.7
8-2	I-95/US 1/VRE Fredericksburg — Prince William County Line to I-495	54.6
6-3	I-66/US 29/US 50/Orange Silver Line — I-495 to Potomac River	49.5
8-1	I-95/US 1/VRE Fredericksburg — Stafford County Line to Fairfax County Line	48.5
10-1	Braddock Road/VRE Manassas — Rt. 28 to I-495	45.4
2-1	Loudoun County Parkway/Belmont Ridge Road — Rt. 7 to US 50	43.9
11-1	US 50 — Fauquier County Line to City of Fairfax	42.3
3-1	Rt. 28 — Rt. 7 to I-66	40.7
6-1	I-66/US 29/VRE Manassas — Prince William County Line to Rt. 28	40.5
1-3	Rt. 7/Dulles Toll Road/Silver Line — Rt. 28 to Tysons	39.9
7-1	I-495 — American Legion Bridge to I-66	39.6
10-2	Columbia Pike/Braddock Road — I-495 to Pentagon	35.8
1-2	Rt. 7/Dulles Greenway — Town of Leesburg to Rt. 28	34.5
4-1	Prince William Parkway — I-66 to I-95	34.2
7-2	I-495 — I-66 to I-395	33.0
5-2	Fairfax County Parkway — US 50 to Rolling Road	31.0
5-1	Fairfax County Parkway — Rt. 7 to US 50	27.0
5-3	Fairfax County Parkway — Rolling Road to US 1	26.4
3-2	Rt. 28 — I-66 to Fauquier County Line	24.9
2-3	Rt. 234 — I-66 to I-95	21.0
1-1	Rt. 7/Rt. 9 — West Virginia state line to Town of Leesburg	15.8
9-2	US 15 — Rt. 7 to I-66	13.6
9-1	US 15 — Potomac River to Rt. 7	11.8
2-2	North-South Corridor/Bi-County Parkway — US 50 to I-66	7.7
9-3	US 15 — US 50 to US 29	5.8

A larger map of the corridor segments is included on Page 5.

What Happens Next?

The NVTA will use TransAction to develop a Six Year Program, providing money to implement multimodal transportation projects across Northern Virginia.

TransAction Plan → Six Year Program → Implement Projects

At key decision points, the NVTA will:

Use TransAction to Develop the Six Year Program.

> Pursue targeted, multimodal, regionally-coherent strategies to address the region's transportation needs that are consistent with the region's priorities and the varying geographies of the region.

> Work with member jurisdictions and regional stakeholders to work across jurisdictional boundaries, wherever possible, to address the region's transportation needs.

> Work with member jurisdictions and regional stakeholders to consider the potential for near term approaches such as:

- New, improved, and expanded transit services;
- New regional TDM strategies that complement existing TDM programs;
- New and existing technology systems; and
- Completion of ongoing construction of roadway and multimodal projects.

> Emphasize the importance of maximizing use of additional funding sources as a factor during the development of the FY2018-23 Six Year Program.

> Assure that each project fully captures improvements for all applicable modes and users.

Monitor Emerging Trends.

Monitor emerging trends and report significant changes on an annual basis. Based on these trends, the NVTA will:

> Consider additional analysis to identify potential subsets of projects that complement emerging trends.

> Explore proactive policy guidance associated with emerging trends, such as:

- Public education regarding potential new transportation technologies.
- Integration of human-driven and Connected/Autonomous Vehicles in different geographies across the region.
- Development of complementary transit and shared mobility services.



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NVTA's TransAction

Transportation Action Plan for Northern Virginia

TransAction Plan Project List

October 2017

This project list includes a brief description of the 352 candidate regional transportation projects included in the TransAction Plan. The total cost of the Plan is **$43.2 billion**.







For more info about the TransAction Plan and access to the online mapping tool featuring candidate projects, please visit: nvtatransaction.org.

Transportation projects included in the Plan comprise a variety of multimodal elements including roadway, transit, travel demand management (TDM), non-motorized, intelligent transportation systems (ITS), and integrated corridor management (ICM) improvements. These and other related terms are explained in more detail below.

Roadway Projects: Includes the construction of new roads, capacity improvements on existing roads, and/or reconfiguration of existing roads.

Managed Lanes: Highway facilities where operational strategies are proactively implemented and managed in response to changing conditions. Lane management strategies include traditional tolled lanes or variable congestion pricing, vehicle eligibility requirements including high-occupancy vehicle and truck lane use restrictions, and access control measures such as reversible lanes and time-of-day lane use restrictions.

High Occupancy Vehicle (HOV) Facility: Facility or lane(s) designated for exclusive use by vehicles meeting the defined occupancy requirement (e.g., 2+ or 3+ occupants) for all or part of a day, typically free of charge.

High Occupancy / Toll (HOT) Facility: Similar to HOV facilities, allowing exclusive use by vehicles either meeting the defined occupancy requirement (free of charge) or by other vehicles paying a toll. In Northern Virginia, HOT facilities are typically signed as Express Lanes, with tolls varying based on traffic conditions

Intelligent Transportation Systems (ITS): Includes information and communication technologies to share traffic data, optimize system management and operations, provide information to travelers in real-time, and improve safety.

Integrated Corridor Management (ICM): Addresses congestion and mobility along a corridor by making more thorough use of all the available facilities in a corridor, including parallel roadways and transit.

Transit Projects: Includes Metrorail extensions, capacity and service enhancements for Virginia Railway Express (VRE), new Light Rail Transit (LRT) and Bus Rapid Transit (BRT) lines, improvements to existing bus and rail services, and station access improvements.

Bus Rapid Transit (BRT): High-quality bus-based transit system that delivers fast and efficient service that may include dedicated lanes, busways, traffic signal priority, off-board fare collection, elevated platforms and enhanced stations.

Enhanced Bus: Fixed-route bus service that provides frequent, all-day service. These services may have limited stops, bus shelter amenities, and traffic signal priority.

Express Bus: Fixed-route bus service providing longer-distance, limited-stop service. These services often serve commute markets and may operate between suburban park-and-ride lots and central urban locations during peak periods.

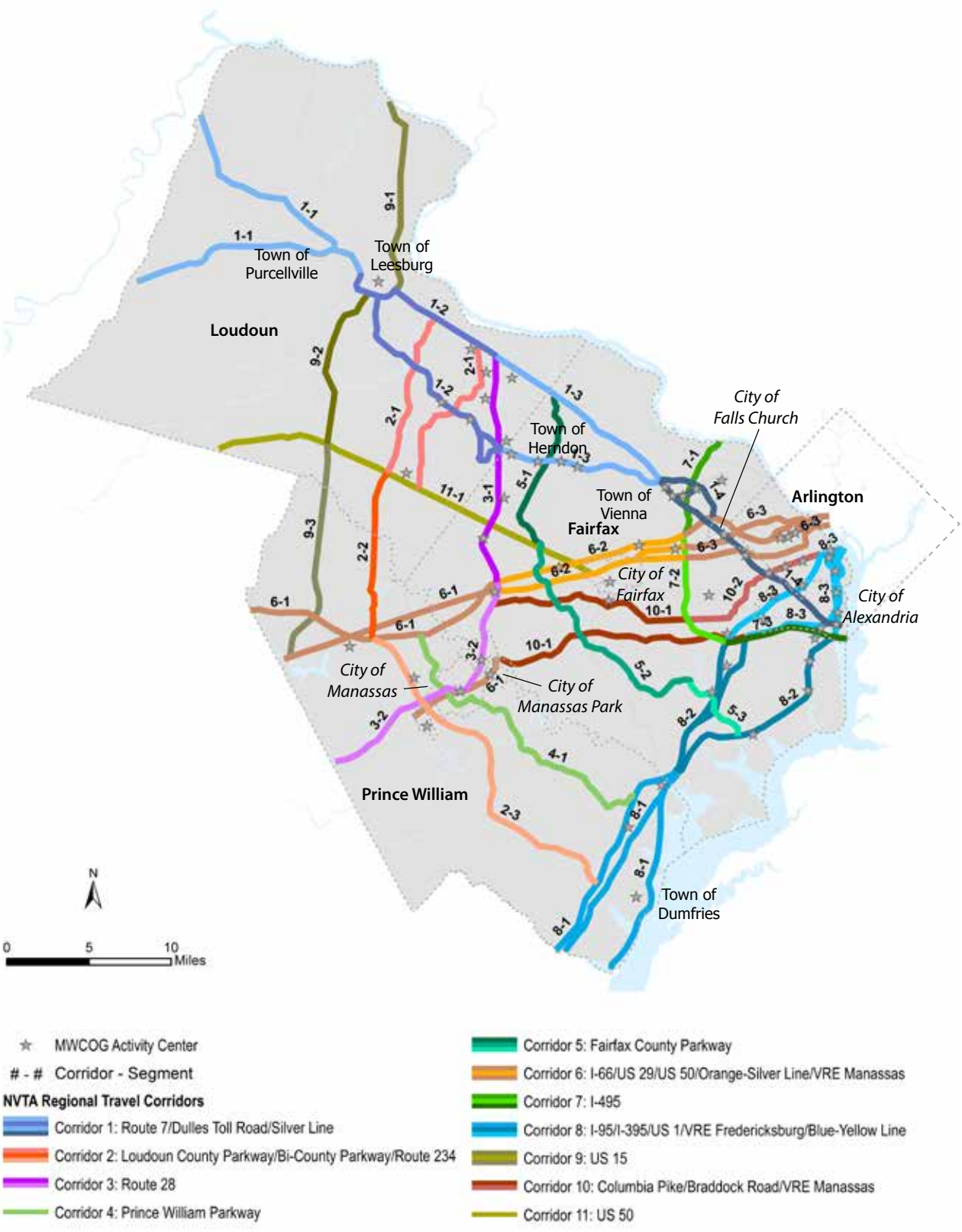
Transportation Demand Management (TDM): A set of services designed to provide commuters with alternative options to driving alone by providing information, programs, and incentives to encourage a shift in traveler mode.

Non-Motorized Projects: Includes bicycle and pedestrian improvements that address key connectivity in the region.

Starting on page 5, The Project List provides a unique project ID, name, and a short description for each project. The project ID was also used to track each project throughout the planning process.

TransAction Corridors

This map depicts the 11 TransAction Corridors and 28 TransAction Corridor Segments, and provides a geographical reference for the Project List Index on Pages 3-4, and the Project List, which begins on Page 5.



TransAction Plan Project List

TransAction Project List Index

Due to their regional nature, many of the 352 projects included in the TransAction Plan Project List affect multiple Corridors and Corridor Segments. This index identifies which projects overlap significantly with each of the 28 Corridor Segments shown in the map on the previous page. Each project is listed by its unique TransAction Project ID number, and is shown under any Corridor Segment with which it overlaps significantly. The Project List, which begins on page 5, lists each project in numerical order and provides a brief description of each.

TransAction Corridor	TransAction Corridor Segment	TransAction Project ID
1. Rt. 7/Dulles Toll Road/Silver Line	**1-1** Rt. 7/Rt. 9 — West Virginia State Line to Town of Leesburg	10, 165, 168, 173, 306, 309, 310, 312, 327, 342
	1-2 Rt. 7/Dulles Greenway — Town of Leesburg to Rt. 28	9, 13, 15, 16, 19, 23, 26, 32, 47, 108, 121, 129, 130, 131, 145, 147, 148, 149, 150, 151, 154, 155, 156, 158, 159, 162, 163, 164, 167, 168, 172, 174, 175, 176, 177, 180, 181, 183, 184, 185, 186, 189, 192, 193, 201, 202, 213, 233, 234, 288, 306, 307, 311, 313, 317, 340, 342, 343, 344
	1-3 Rt. 7/Dulles Toll Road/Silver Line — Rt. 28 to Tysons	5, 7, 9, 12, 13, 17, 19, 20, 22, 23, 28, 51, 56, 108, 124, 153, 159, 163, 167, 172, 213, 223, 226, 228, 231, 317, 330, 332, 340, 345, 351, 352
	1-4 Rt. 7/Dulles Toll Road/Silver Line — Tysons to US 1	1, 2, 3, 4, 6, 8, 14, 18, 21, 31, 35, 36, 37, 39, 40, 41, 42, 44, 45, 46, 60, 62, 66, 67, 70, 72, 73, 74, 77, 78, 85, 87, 90, 94, 100, 102, 103, 104, 107, 108, 113, 114, 115, 116, 118, 128, 133, 134, 194, 196, 197, 199, 200, 203, 205, 206, 207, 208, 209, 210, 212, 220, 226, 231, 232, 289, 290, 291, 292, 295, 298, 299, 300, 303, 304, 305, 322, 331, 333, 334, 335, 339, 340
2 Loudoun County Parkway/ Bi-County Parkway/Rt. 234	**2-1** Loudoun County Parkway/ Belmont Ridge Road — Rt. 7 to US 50	9, 13, 16, 23, 108, 109, 119, 120, 121, 132, 144, 145, 149, 150, 151, 152, 153, 154, 157, 159, 160, 161, 162, 164, 166, 169, 170, 175, 176, 177, 179, 180, 182, 183, 184, 186, 187, 188, 190, 234, 288, 314, 315, 317, 340
	2-2 North-South Corridor/Bi-County Parkway — US 50 to I-66	119, 132, 166, 178, 188, 202, 215, 227, 254, 267, 268, 314
	2-3 Rt. 234 — I-66 to I-95	24, 25, 48, 91, 92, 94, 202, 221, 222, 235, 238, 240, 242, 243, 248, 251, 258, 263, 266, 267, 269, 273, 274, 276, 283, 284, 295, 300, 303, 305, 319, 320, 324, 325, 328, 338, 341
3 Rt. 28	**3-1** Rt. 28 — Rt. 7 to I-66	9, 11, 19, 23, 26, 28, 32, 33, 47, 108, 120, 145, 146, 147, 148, 149, 153, 155, 159, 163, 167, 172, 174, 175, 182, 189, 192, 201, 213, 233, 308, 340, 343, 344, 349
	3-2 Rt. 28 — I-66 to Fauquier County Line	24, 25, 27, 29, 30, 33, 48, 64, 202, 217, 230, 248, 258, 261, 263, 275, 276, 277, 278, 319, 324, 340, 350
4 Prince William Parkway	**4-1** Prince William Parkway — I-66 to I-95	38, 48, 49, 50, 201, 202, 238, 258, 262, 264, 269, 270, 271, 276, 277, 279, 280, 296, 300, 303, 305, 319, 320, 326, 328, 338, 350
5 Fairfax County Parkway	**5-1** Fairfax County Parkway — Rt. 7 to US 50	11, 12, 17, 20, 22, 28, 51, 124, 213, 223, 228, 332
	5-2 Fairfax County Parkway — US 50 to Rolling Road	33, 45, 52, 54, 55, 56, 57, 58, 59, 99, 217, 219, 223, 224, 225, 300, 303, 305, 330, 345
	5-3 Fairfax County Parkway — Rolling Road to US 1	38, 39, 53, 81, 82, 94, 110, 125, 200, 295, 304, 338

TransAction Project List Index (Cont.)

TransAction Corridor	TransAction Corridor Segment	TransAction Project ID
6 I-66/US 29/US 50/Orange-Silver Line/VRE Manassas	**6-1** I-66/US 29/VRE Manassas — Prince William County Line to Rt. 28	24, 27, 29, 30, 33, 47, 48, 50, 64, 202, 215, 221, 227, 230, 235, 238, 239, 240, 247, 248, 249, 250, 252, 253, 255, 260, 261, 266, 267, 268, 269, 272, 276, 277, 278, 284, 319, 329, 340, 349, 350
	6-2 I-66/US 29/US 50/Orange Silver Line — Rt. 28 to I-495	26, 30, 32, 33, 37, 44, 45, 46, 47, 52, 57, 58, 60, 67, 68, 99, 100, 105, 108, 127, 135, 136, 137, 138, 139, 140, 141, 142, 143, 199, 201, 211, 216, 217, 223, 289, 331, 340, 344, 345, 349
	6-3 I-66/US 29/US 50/Orange Silver Line — I-495 to Potomac River	2, 3, 18, 21, 31, 34, 37, 40, 44, 46, 60, 61, 62, 63, 65, 66, 69, 70, 71, 72, 102, 103, 104, 105, 107, 108, 111, 114, 118, 122, 126, 128, 133, 134, 204, 211, 213, 216, 289, 290, 291, 292, 293, 331, 333, 334, 335, 340, 346, 348
7 I-495	**7-1** I-495 — American Legion Bridge to I-66	1, 2, 8, 11, 14, 31, 36, 37, 40, 77, 100, 106, 107, 199, 206, 207, 208, 209, 210, 212, 213, 220, 231, 232, 331, 337
	7-2 I-495 — I-66 to I-395	37, 43, 44, 45, 46, 60, 67, 73, 76, 106, 108, 211, 216, 289, 300, 303, 305, 331, 336
	7-3 I-495 — I-95 to Woodrow Wilson Bridge	11, 21, 35, 39, 41, 42, 75, 78, 85, 87, 90, 94, 108, 113, 116, 128, 194, 197, 200, 203, 229, 236, 295, 298, 299, 340, 347
8 I-95/I-395/US 1/ VRE Fredericksburg/Blue-Yellow Line	**8-1** I-95/US 1/VRE Fredericksburg — Stafford County Line to Fairfax County Line	39, 49, 79, 91, 92, 218, 237, 241, 244, 246, 251, 256, 257, 259, 262, 265, 270, 271, 273, 274, 281, 282, 286, 287, 296, 320, 325, 328, 338, 341
	8-2 I-95/US 1/VRE Fredericksburg — Prince William County Line to I-495	35, 38, 39, 53, 75, 78, 80, 81, 82, 84, 108, 110, 125, 128, 214, 224, 225, 229, 282, 330, 331, 340, 348
	8-3 I-395/US 1/VRE Fredericksburg/ Blue Yellow Line — I-495 to Potomac River	6, 31, 35, 40, 41, 42, 43, 72, 75, 76, 78, 83, 85, 86, 87, 88, 89, 90, 102, 103, 104, 105, 108, 112, 113, 116, 117, 122, 123, 128, 194, 195, 196, 197, 203, 229, 236, 290, 291, 294, 297, 298, 299, 321, 322, 323, 339, 340, 347, 348
9 US 15	**9-1** US 15 — Potomac River to Rt. 7	10, 96, 130, 131, 158, 163, 191, 193, 285, 307, 313
	9-2 US 15 — Rt. 7 to I-66	129, 156, 158, 180, 181, 183, 193, 306, 307, 311, 313, 342
	9-3 US 15 — US 50 to US 29	95, 247, 249, 250, 252, 253, 260, 268, 272, 296, 311, 318, 319, 329
10 Columbia Pike/Braddock Road/ VRE Manassas	**10-1** Braddock Road/VRE Manassas — Rt. 28 to I-495	27, 30, 32, 33, 42, 47, 54, 55, 57, 58, 64, 78, 85, 93, 97, 98, 99, 100, 101, 115, 137, 139, 143, 197, 200, 201, 202, 211, 217, 230, 236, 295, 300, 301, 302, 303, 304, 305, 336
	10-2 Columbia Pike/Braddock Road — I-495 to Pentagon	3, 11, 21, 31, 40, 42, 43, 44, 46, 72, 73, 76, 83, 86, 88, 89, 102, 103, 104, 105, 112, 117, 122, 128, 200, 211, 290, 291, 321, 323, 331, 336, 339, 340
11 US 50	**11-1** US 50 — Fauquier County Line to City of Fairfax	26, 28, 32, 33, 47, 59, 67, 68, 100, 119, 132, 135, 136, 137, 140, 142, 157, 160, 161, 166, 169, 170, 179, 188, 201, 202, 217, 227, 311, 314, 318, 344

TransAction Plan Project List

TransAction Plan Project List

TransAction Project ID	Project Name	Project Description
1	Route 7 Widening: Chain Bridge Road (Route 123) to I-495	Widen Route 7 from six to eight lanes from Chain Bridge Road (Route 123) to I-495.
2	Route 7 Widening: I-495 to I-66	Widen Route 7 from four to six lanes from I-495 to I-66.
3	Route 7 Widening: Seven Corners to Bailey's Crossroads	Widen Route 7 from four to six lanes between Seven Corners and Bailey's Crossroads.
4	Construct Interchange at Route 267 and Greensboro Drive	Construct partial grade-separated interchange at Route 267 and Greensboro Drive / Tyco Drive.
5	Construct Interchange at Route 267 and Boone Boulevard	Construct partial grade-separated interchange at Route 267 and Boone Boulevard.
6	King Street, North Quaker Lane, and West Braddock Road Intersection Improvements	Construct intersection improvements at King Street, North Quaker Lane, and West Braddock Road. Project includes replacement of the span wire traffic signals with mast arm signals, which will allow for the placement of much needed directional signs, precise placement of signal heads and the installation of vehicle detection. These improvements will mitigate driver confusion and allow for a more efficient conveyance of vehicles and pedestrians through the intersection. Also included in this project are modifications to the slip ramp between King Street and the service road, as well as modifying the entrance to the service road at North Quaker Lane.
7	Soapstone Drive Extension	Extend Soapstone Drive over Route 267 (Dulles Toll Road) to Sunset Hills Road.
8	Tysons Circulator	Implement Tysons Circulator system.
9	East Loudoun Park-and-Ride	Construct new park-and-ride lots along Route 7 corridor at Dulles Town Center and near intersection of Route 7 and Route 659.
10	West Loudoun "Gateway" Park-and-Ride	Construct three new park-and-ride lots in western Loudoun County (Hillsboro, Round Hill, and Lucketts).
11	Leesburg-Alexandria Route 7 Trail	Construct trail along Route 7 from Leesburg to Alexandria.
12	Herndon Metrorail Multimodal Improvements	Implement roadway, bicycle, and pedestrian improvements to improve access to the Herndon Metrorail Station, including: a. Construct an extension to the Folly Lick Trail from Van Buren Street to future Herndon Metrorail Station; b. Continue improvements of the W&OD Trail on select sections within Herndon town limits; c. Construct extension of Sugarland Run Trail from existing terminus to pedestrian access pavilion at future Herndon Metrorail Station; d. Construct missing regional links in Folly Lick Regional Trail between Wiehle Avenue and connection with W&OD Trail and Herndon Metrorail Station; e. Reconstruct Herndon Parkway with 'Complete Street' improvements to include new intersection signalization, cycle tracks, wide sidewalks and bus stop enhancements (between Van Buren Street and W&OD Regional Trail) to connect with Herndon Metrorail Station; f. Reconstruct Van Buren Street between New Spring Street and Herndon town limits with 'Complete Streets' improvements to include new intersection signalization, expand and enhance on- and off-street bicycle / pedestrian facilities from the downtown area to access Herndon Metrorail Station.
13	Transit Connections to Silver Line Phase II Stations	Expand bus service and connections to Silver Line Phase II stations. Provide feeder bus service between Metrorail and park-and-ride lots. Purchase buses for new service.
14	Chain Bridge Road (Route 123) Widening: Leesburg Pike (Route 7) to Old Courthouse Road	Widen Chain Bridge Road (Route 123) from four to six lanes between Leesburg Pike (Route 7) to Old Courthouse Road.
15	Leesburg North Park-and-Ride	Construct 300-space Leesburg North park-and-ride Lot at Crosstrail Boulevard.
16	One Loudoun Park-and-Ride	Construct 200-space park-and-ride lot at One Loudoun near the corner of Route 7 and Loudoun County Parkway.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
17	Dulles Toll Road - Town Center Parkway Underpass	Construct four-lane divided roadway under the Dulles Toll Road from Sunrise Valley Drive to Sunset Hills Road.
18	Seven Corners Ring Road Improvements	Construct ring road and improve interchange at Seven Corners to reduce congestion on Route 7, improve access between Seven Corners, Falls Church, and Bailey's Crossroads, and facilitate redevelopment of the area. Improve safety, navigation of vehicles and cyclists/ pedestrians in and throughout the area.
19	Davis Drive Extension and Dulles Toll Road: Rock Hill Overpass	Extend Davis Drive (Route 868) from Glenn Drive (Route 864) to Fairfax County line at the future bridge over Dulles Toll Road (Route 267). Realign Rock Hill Road with Davis Drive. Construct a four-lane roadway over the Dulles Toll Road from Sunrise Valley Drive on the south side to Davis Drive extension in Loudoun County on the north side. The project would include pedestrian and bicycle facilities.
20	Hunter Mill Road and Sunset Hills Road Improvements	Widen Hunter Mill Road to four lanes between Crowell Road and Route 267 (Dulles Toll Road). Widen Sunset Hills Road to four lanes between Wiehle Avenue and Hunter Mill Road, realigned with Crowell Road.
21	Bike Lanes on Route 7: Alexandria to Seven Corners	Construct protected bike lanes on both sides of Route 7 between Alexandria and Seven Corners. Connect with City of Falls Church's bicycle network.
22	Herndon Bikesharing Services	Introduce and expand bikesharing services in Herndon in coordination with County regional system.
23	Outer Potomac River Crossing	Construct a roadway crossing the Potomac River from the VA Route 7 corridor into the state of Maryland, east of Goose Creek in Loudoun County.
24	Reconstruct Interchange at Route 28 and Prince William Parkway	Reconstruct interchange at Route 28 and Prince William Parkway.
25	Route 234 Arterial Operations Improvements	Deployment of intelligent signal monitoring/control technology to improve travel on Route 234.
26	Route 28 Widening: I-66 to Loudoun County line	Widen Route 28 to ten lanes between I-66 and Loudoun County (eight general purpose lanes and two HOV lanes).
27	Construct Interchange at Route 28 and New Braddock Road	Construct an interchange at Route 28 and New Braddock Road.
28	Centreville Road Widening: Herndon Parkway to Walney Road	Widen Route 657 (Centreville Road) to six lanes between Herndon Parkway and Walney Road..
29	Route 28 Widening: Conner Drive to Old Centreville Road	Widen Route 28 to six lanes between Conner Drive and Old Centreville Road.
30	Route 28 Widening: Route 29 to Prince William County Line	Widen Route 28 to six lanes between Prince William County Line and Route 29.
31	Route 7 Transit: Tysons to Mark Center	Construct Bus Rapid Transit line along Route 7 between Tysons and Mark Center with a connection to East Falls Church Metrorail Station.
32	Route 28 High Capacity Transit	Construct High Capacity Transit along Route 28 corridor and implement service between Dulles Town Center and the City of Manassas. Alternative modes for further study include BRT and LRT.
33	High Capacity Transit Extension from Vienna Metrorail station to Centreville	Extend High Capacity Transit from Vienna to Centreville. Potential modes include Metrorail, LRT, BRT, or improved bus service on corridor between stations. Construction of stations and park-and-ride lots at Centreville, Stringfellow, and Government Center / Fair Oaks, and a station serving the City of Fairfax.
34	Metrorail Blue Line Core Realignment	Construct a new alignment for the Metrorail Blue Line between Rosslyn in Northern Virginia and Union Station in the District of Columbia via Georgetown and M Street. Includes construction of a second rail tunnel beneath the Potomac River and a second Rosslyn Metrorail Station with an underground passageway to transfer to the Orange and Silver lines.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
35	Wilson Bridge High Capacity Transit	Construct High Capacity Transit service along I-495 between the Metrorail Yellow Line in the City of Alexandria and the Metrorail Green Line in Prince George's County, Maryland. Alternative High Capacity Transit modes include LRT, BRT and Enhanced Bus service.
36	American Legion Bridge High Capacity Transit	Construct High Capacity Transit service between Tysons in Fairfax County and White Flint Metrorail Station in Montgomery County, Maryland via I-495 and the American Legion Bridge. Alternative High Capacity Transit modes include LRT, BRT, and Enhanced Bus service
37	Merrifield-Tysons High Capacity Transit	Implement High Capacity Transit service on Gallows Road and Annandale Road between Tysons and Annandale via Fairfax Hospital in Merrifield. Includes widening of Gallows Road to six lanes with two lanes dedicated for transit. Alternative High Capacity Transit modes for this corridor include LRT, BRT, or Enhanced Bus service.
38	High Capacity Transit Extension to Potomac Mills	Extend High Capacity Transit from Franconia/Springfield Metrorail Station to Potomac Mills. Construct park-and-ride lots along extension to provide commuter parking. High Capacity Transit modes for this corridor include Metrorail, LRT, BRT, or Enhanced Bus service.
39	Route 1 BRT	Implement BRT service on Route 1 between Woodbridge and Huntington Metrorail Station, with additional branch service to Pentagon City Metrorail Station via Metroway alignment. Includes widening of portions of Route 1 between Route 235 (Mt. Vernon Highway) and I-495.
40	Columbia Pike Express Transit Network (PrTN)	Provide enhanced bus transit 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.
41	Alexandria Duke Street Transitway	Construct a four-mile segment of the high-capacity transitway on Duke Street within City of Alexandria. Reconstruct Duke Street from Wheeler Avenue to Jordan Street with a center left-turn lane. Construct bicycle and pedestrian improvements along corridor. The first phase would create dedicated transit lanes in existing six-lane sections of Duke Street between Landmark Mall and Jordan Street and between Roth Street and Diagonal Road. Between Jordan Street and Roth Street, transit would operate in mixed flow.
42	West End Transitway	Implement BRT service between the Pentagon and Kingstowne via Mark Center and Van Dorn Metrorail Station. Includes construction of a four-mile segment of dedicated bus lanes between Van Dorn Metrorail Station and King Street. The project also provides pedestrian and bicycle facilities within the corridor.
43	Route 236 Enhanced Bus Service in Fairfax County	Implement enhanced bus service on Route 236 between Fair Oaks and the Fairfax County-City of Alexandria boundary.
44	Route 50 BRT	Implement BRT Service on Route 50 in dedicated lanes.
45	Route 29 BRT	Implement BRT service on Route 29 in a dedicated lane where facility is six lanes.
46	Route 29 and Route 50 Enhanced Bus	Implement Route 29 and Route 50 Express Bus and Enhanced Bus improvements.
47	Route 28 Trail	Construct a shared used path on both sides of Route 28 from Prince William County line to Dulles Toll Road.
48	Godwin Drive Widening: Sudley Road to Route 28	Widen Godwin Drive from four to six lanes between Sudley Road and Route 28.
49	Prince William Parkway Widening at I-95	Widen Route 294 (Prince William Parkway) to six lanes across I-95 between the northbound and southbound on/off-ramps.
50	Sudley Road Widening: I-66 to Balls Ford Road	Widen Sudley Road from four to six lanes from I-66 to Balls Ford Road.
51	Fairfax County Parkway Widening: Dulles Toll Road to Route 7	Widen Fairfax County Parkway to six lanes from Dulles Toll Road to Route 7. New lanes could potentially be designated as HOV lanes.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
52	Fairfax County Parkway Widening: Franconia-Springfield Parkway to I-66	Widen Fairfax County Parkway to six lanes from Franconia-Springfield Parkway to I-66. New lanes could potentially be designated as HOV lanes.
53	Construct Interchange at Fairfax County Parkway and Route 1	Construct interchange at Fairfax County Parkway and Route 1.
54	Rolling Road Widening: Hunter Village Drive to Old Keene Mill Road	Widen Rolling Road to four lanes between Hunter Village Drive and Old Keene Mill Road.
55	Fairfax County Parkway Widening: Route 123 to Sydenstricker Road	Widen Fairfax County Parkway to six lanes from Ox Road (Route 123) to Sydenstricker Road.
56	Fairfax County Parkway Priority Express Bus Service	Implement enhanced bus service on Fairfax County Parkway between Herndon Metrorail Station and Fort Belvoir.
57	Fairfax County Parkway Widening: Ox Road (Route 123) to Lee Highway (Route 29)	Widen Fairfax County Parkway from Ox Road (Route 123) to Lee Highway (Route 29) from four lanes to six lanes. Construct a grade-separated interchange at the intersection of Fairfax County Parkway and Popes Head Road, with shared used paths on both sides.
58	Shirley Gate Road Extension: Braddock Road to Fairfax County Parkway	Extend Shirley Gate Road from Braddock Road to Fairfax County Parkway.
59	Vienna Metrorail Station Feeder Bus Service Expansion	Add new routes and improve service levels on existing routes that serve the Vienna Metrorail Station.
60	Route 50 Widening: City of Fairfax to Arlington County	Widen Arlington Boulevard (Route 50) to six lanes between the City of Fairfax and Arlington County. The project would include intersection improvements, including signalization improvements, and pedestrian and bicycle facilities.
61	Clarendon Circle Multimodal Improvements	Construct multimodal improvements at the intersection of Wilson Boulevard, Washington Boulevard, and Clarendon Boulevard. Widen Washington Boulevard from three to four lanes from Wilson Boulevard to Kirkwood Road.
62	East Falls Church Metrorail Station Second Entrance	Planning, design and construction of a full second entrance to East Falls Church Metrorail Station, including new bus bays, a western mezzanine, and bicycle and pedestrian connections.
63	Ballston-MU Additional Entrance	Construct new entrance and pedestrian access on the western side of the Ballston-MU Metrorail Station. Project includes expanded bus bays and passenger facilities.
64	Stone Road Overpass over I-66: Route 29 to Route 28	Construct four-lane divided road between Stone Road at Route 29 and New Braddock Road, including bridges over I-66 and Big Rocky Run and a shared use path.
65	Courthouse Metrorail Station Access	Improve vertical access to Courthouse Metrorail station.
66	Falls Church Multimodal Improvements	Multimodal improvements in Falls Church revitalization areas: West Broad Street, Washington Street Corridor, and East End. Improvements will include improved intersection geometry and signalization, improved pedestrian connectivity and accessibility, improved transit stops, and improved bicycle access.
67	Route 29 Trail	Construct a trail along Route 29 from Dixie Hill Road to East Falls Church Metrorail Station.
68	Route 123 Widening: City of Fairfax to Town of Vienna	Widen Chain Bridge Road (Route 123) to six lanes between City of Fairfax and Town of Vienna.
69	Ballston Multimodal Improvements	Construct improvements to bus shelters, bus bays, sidewalks, landscaping, and bicycle parking.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
70	East Falls Church Metrorail Station Multimodal Improvements	Construct multimodal improvements, including new or restructured bus bays at the current station, bicycle and pedestrian connections, improve access and signalization on North Sycamore Street and Washington Boulevard, and install bikesharing stations. Improvements per the East Falls Church Vision Plan.
71	Lee Highway Bus Improvements	Improved local ART bus service on Lee Highway (Route 29) between Rosslyn and East Falls Church.
72	Arlington Regional Trail Network	Provide dedicated bicycle facilities, bikesharing and key sidewalk improvements on north-south corridors in Arlington to connect major east-west corridors with each other. Example corridors includes Carlin Springs Road, Walter Reed Drive/Fillmore Street, Harrison Street, Washington Boulevard, Route 110, and others. Network also includes: a. Trail parallel to Washington Boulevard between Arlington Boulevard and Columbia Pike; b. Rehab of Custis Trail to current VDOT shared used path design and construction specifications in Rosslyn; c. Extension of Custis Trail north of I-66 between North Kennebec Street and North Quantico Street; d. Long Bridge Park Esplanade extension to Mount Vernon Trail; e. Arlington Boulevard trail; f. Theodore Roosevelt Bridge connection to Mount Vernon Trail and Marine Corps War Memorial; g. Dedicated cycling facility along the Route 50 service road (southside), between North Rhodes Street and North Meade Street; h. Expansion of Arlington bicycle commuter routes: Bluemont Junction Trail, Custis Trail, Four Mile Run Trail, Mount Vernon Trail, W&OD Trail; i. Improve connections between the County trail network and activity centers, as well as inter-jurisdictional connections.
73	East-West ICM Program: Parallel Arterial Operations Improvements	Deployment of intelligent signal monitoring/control technology to improve travel on parallel routes in the I-66 corridor, including the deployment of intelligent signal monitoring/control technology to improve travel on east-west arterial facilities, including: Route 29, Route 50, Route 7, and Route 236.
74	Connected Vehicle/Traffic Signal Integration Deployment	Traffic signal software integration to support future connected vehicle applications on multiple corridors including: I-66, I-495, Route 29, Route 50, and Route 7.
75	Construct Interchange at Van Dorn Street and Franconia Road	Construct interchange at Van Dorn Street (Route 613) and Franconia Road (Route 644).
76	Little River Turnpike Widening: City of Fairfax to I-395	Widen Little River Turnpike (Route 236) from four to six lanes between City of Fairfax and I-395.
77	I-495 HOT Lanes: Route 267 to George Washington Memorial Parkway	Implement HOT lanes on I-495 between Route 267 and the George Washington Memorial Parkway.
78	I-95/I-495 Managed Lanes from I-395 into Maryland via Woodrow Wilson Bridge	Construct and implement Managed Lanes, including HOV or HOT lanes, on I-95/I-495 between I-395 near Springfield and a location east of I-295 near Indian Head Highway in Maryland.
79	Route 1 Widening: Joplin Road to Russell Road	Widen Route 1 from four to six lanes from Joplin Road to Russell Road.
80	I-95 Improvements at Franconia-Springfield Parkway	Build an entrance to the I-95 general purpose lanes at Franconia-Springfield Parkway.
81	I-95 Flyover Ramp at Fairfax County Parkway	Construct a flyover ramp from northbound I-95 to northbound Fairfax County Parkway and make other interchange improvements.
82	Construct Interchange at Route 1 and Telegraph Road	Construct interchange at Route 1 and Telegraph Road (Route 611).

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
83	Crystal City, Pentagon City, and Potomac Yard Street Grid Improvements	Construct an improved grid network of streets in Crystal City, Pentagon City, and Potomac Yard.
84	Frontier Drive Extension and Intersection Improvements	Construct Frontier Drive extension from Franconia-Springfield Parkway to Loisdale Road, included access to Franconia-Springfield Metrorail Station and braided ramps to and from the Parkway.
85	DASH Transit Service Enhancements and Expansion	DASH Transit Service Enhancements including: a. New cross-town services and funding for additional buses to expand service on existing and new routes, circulators and trolleys within and between activity centers; b. Expand bus storage and maintenance facilities; c. Transit stop improvements (bus shelters, real time information signs, bus stop benches, pads for ADA); d. Upgrade to new and/or upgraded regional fare system including new fare collection technology; e. Provide transit service connection between Eisenhower Metrorail Station and Old Town/ King Street Metrorail Station; f. Provide transit service connection between Van Dorn Metrorail Station and the Landmark Mall vicinity; and g. Provide east-west transit service between Braddock Road Metrorail Station and Old Town / King Street Metrorail Station.
86	I-395 Bus Lanes	Construct bus lanes between Pentagon Transit Center and 14th Street in DC using inside shoulders of the Rochambeau Bridge (I-395).
87	King Street Metrorail and Alexandria Union Station Improvements	Implement multimodal improvements at the King Street Metrorail station including improved access to parking lot and bus facilities, construction of new shelters, construction of additional bus bays, and a planned transit store. Construction of a new pedestrian tunnel between Alexandria Union Station and the King Street Metrorail Station to include elevators and elimination of existing at-grade crossing. Pedestrian tunnel project also includes improvements to the east platform including lengthening the platform, ADA improvements, a new canopy, and a stairway and elevator connection to the pedestrian tunnel. Improvements to the east platform will increase freight, commuter, and passenger rail operations within and through the City of Alexandria and allow for VRE to utilize the east platform for revenue service. Project also includes other improvements at Alexandria Union Station and modifications to existing tracks, modification to or additional signals, bridges, structures to support access to and operations at the station.
88	Crystal City Metrorail Station Multimodal Improvements	Enhance bus docking capacity and passenger facilities at the Crystal City Metrorail Station.
89	Crystal City Metrorail Station Second Entrance	Construct a second entrance to the Crystal City Metrorail Station (near Crystal Drive and 18th Street South) and provide connections to Crystal City VRE Station and Ronald Reagan Washington National Airport (DCA).
90	Alexandria Bike and Pedestrian Trails Construction and Reconstruction	a. Reconstruct Holmes Run Trail from North Ripley Street to I-395; b. Construct trails along local streets in the Beauregard Street and Van Dorn Street corridor. This facility will provide a north-south connection to the City's Holmes Run Trail, running east-west, and connecting bicycle users to Mark Center corridor; c. Construct pedestrian and bicycle bridge over Holmes Run at Morgan Street; d. Implement and construct projects in the City's Pedestrian/Bicycle Plan; and e. Construct bicycle improvements along Royal Street between Jones Point and Bashford Street, including signage and traffic calming.
91	East Potomac River Crossing	Construct Eastern Potomac River Crossing from I-95 to Route 301 in Maryland.
92	Widen/Relocate Route 1: Brady's Hill Road to Dumfries Road (Route 234)	Widen Route 1 (Fraley Boulevard) to six lanes between Brady's Hill Road and Dumfries Road (Route 234). Phase I includes widening to four lanes along current northbound alignment.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
93	Fredericksburg Line Rail Capacity Improvements	Add a third track between AF (near the junction of the VRE Fredericksburg and Manassas Lines in Alexandria) and the VRE Crossroads Yard south of Fredericksburg. Related improvements include modifications to existing tracks, modification to or additional signals, bridges, structures.
94	I-95/I-395 ICM Program	I-95/I-395 ICM Program: a. Multimodal Traveler Information: Integration of roadway, transit, and parking information; b. Dynamic Ramp Metering: Upgrade of existing ramp metering system; c. Parallel Arterial Operations Improvements: Deployment of intelligent signal monitoring/ control technology to improve travel on parallel routes in the I-95 corridor (including Route 1 and Telegraph Road); d. Parking Management: Expansion of pilot program for additional park-and-ride lots; and e. Decision Support System: Software system to support corridor management activities across multiple facilities and modes.
95	Route 15 Widening: Route 234 to Loudoun County line	Widen Route 15 from two to four lanes between Route 234 and the Loudoun County line.
96	Construct Interchange at Route 15 Bypass and Battlefield Parkway	Construct grade-separated interchange at Route 15 Leesburg Bypass and Battlefield Parkway.
97	Construct Interchange at Route 123 and Braddock Road	Construct an interchange at Route 123 and Braddock Road.
98	Route 123 Widening: Braddock Road to City of Fairfax	Widen Route 123 to six lanes between City of Fairfax and Braddock Road.
99	Braddock Road Widening: Ox Road to Fairfax County Parkway	Widen Braddock Road to six lanes from Ox Road to Fairfax County Parkway (Route 286).
100	Route 123 Enhanced Bus Service	Implement enhanced bus service on Route 123 between Tysons and George Mason University in Fairfax.
101	Metrorail Fleet Expansion	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.
102	Columbia Pike Corridor Urban Bicycle/Pedestrian Network	Improve bicycle and pedestrian infrastructure in and around the Columbia Pike corridor, including bikeways, bikesharing, and key sidewalk improvements, to convert SOV trips to, within, and between activity center areas from car to bicycle/pedestrian. Includes parallel bike routes along 9th Street, 11th Street, and 12th Street in the vicinity of Columbia Pike.
103	Arlington TDM Package	Improve and expand the commuter assistance and other programs provided by Arlington County Commuter Services. Includes new commuter stores and next generation IT services, implementation of transportation system management and communication upgrade throughout the County, and improvements to traveler information via creation or expansion of informational, wayfinding, alert, or real-time signs providing information on multimodal transportation options. Develop a system of coordinated mobility hubs along major corridors to fully integrate transit, bikesharing, carsharing, ridesharing, pedestrians, bicycling, ride hailing, and other shared use services. Develop, coordinate, implement, and/or expand ridesharing and ride-hailing services for first-mile/last-mile connections to transit and mobility hubs, as well as to activity centers, parking, and pick-up hotspots. Includes support for autonomous vehicles, casual carpooling, on-demand services.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
104	Arlington ITS Projects	Implement intelligent transportation systems and adaptive traffic control system on regional corridors within Arlington County, including: a. Enhancement of Traffic System and Technology to a Smart Traffic Signal system; b. Installation of Intelligent Transportation System (ITS) and corresponding Adaptive Traffic Control System program on Route 29 (Lee Highway) to better manage traffic flow. Includes additional Bluetooth devices, count stations, CCTV cameras, and FLIR detectors and upgraded signals for better-timed connection with I-66; and c. Reconstruction of traffic signals to meet current standards, including upgrade from span wire to mast arm.
105	Metrorail Station Access and Capacity Improvements	Construction of station access and capacity improvements at: Rosslyn, Pentagon, Vienna, Foggy Bottom, Farragut West, McPherson Square, Metro Center, L'Enfant Plaza, and Union Station. Also includes station area lighting and customer amenities.
106	Metrobus Priority Corridor Network (PCN) Plan	PCN improvements will include improved transit signal priority, exclusive bus lanes, increased frequency and span of service, improved customer information, expanded fare payment options, and enhanced bus stops and facilities. Metrobus service improvements on these routes: CC-PY (9A, E, S, X); Leesburg Pike (28A, 28X, 28F, G, T); Little River Turnpike/Duke Street (29K, N, 29C, E, H).
107	Expansion of Metrobus and Fairfax Connector Bus Services	Increase bus frequency and service during off-peak periods and weekends; add new routes.
108	Metrorail Real-Time Parking Information	Deployment of real-time parking information signage at WMATA Metrorail stations.
109	Loudoun County Phase III Bus Service	Implement Phase III bus service in Loudoun County, including local, express, inter-county, commuter, and demand-response services.
110	South Fairfax County Feeder Bus Service	Improve service levels on bus routes serving Richmond Highway, Kingstowne, and Springfield.
111	Rosslyn-Ballston Corridor Urban Pedestrian/Bicycle Network	Improve bicycle and pedestrian infrastructure in and around the Rosslyn-Ballston Corridor, including bikeways, bikesharing, and key sidewalk improvements, to convert SOV trips to, within, and between Metrorail station areas from car to bicycle/pedestrian, and to enable access to/from Metrorail stations to high-density housing and job centers. Includes a designated bicycle lane along North Lynn Street and along Fort Myer Drive between Lee Highway at Rosslyn Circle and Fairfax Drive south of Arlington Boulevard.
112	Crystal City Corridor Urban Pedestrian/Bicycle Network	Improve bicycle and pedestrian infrastructure in and around Arlington's Blue/Yellow Metrorail corridor, including bikeways, bikesharing, and key sidewalk improvements, to convert SOV trips to, within, and between Metrorail station areas from car to bicycle/pedestrian, and to enable access to/from Metrorail stations to high-density housing and job centers.
113	Alexandria ITS Projects	Funding for transportation technologies to improve system efficiencies in the City of Alexandria, Real-Time Adaptive Control and Data Management System. Build out and improve Traffic Signal System with fiber-optics; transit signal priority.
114	Metrorail Pocket Track Improvements	Construct new Orange and Silver Line junction infrastructure and pocket track at East Falls Church or West Falls Church. Improve or add pocket tracks to provide flexibility for short-lining, maintenance and crossovers.
115	VRE Fredericksburg and Manassas Line Off-peak Service	Run bi-hourly trains during midday period between peaks on both Manassas and Fredericksburg Lines.
116	Implement Integrated Regional Rail Service: VRE-MARC Run-through Service	Implement run-through service by integrating intercity rail service with MARC and AMTRAK. Additional rolling stock or infrastructure improvements including modifications to tracks, signals, bridges, structures, and stations may also be needed to support run-through service.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
117	Metroway: Pentagon City Extension	Construct extension of Metroway to Pentagon City, which includes reconfiguration of 12th Street South between South Eads Street and South Clark Street for exclusive transit lanes. Removal of obsolete section of Clark Street and realignment of Clark Street with Bell Street to improve street network. Intersection improvements around 23rd Street South and Route 1. Implement 'Complete Street' improvements to Army Navy Drive.
118	East Falls Church Bikeshare Connections	Install up to 24 bikesharing stations along Route 29, Route 7, Sycamore Street, Roosevelt Street, and W&OD Trail in the City of Falls Church.
119	Construct Northstar Boulevard: Shreveport Drive to Route 50	Construct four-lane Northstar Boulevard facility from Shreveport Drive to Route 50.
120	Intersection Improvements at Waxpool Road and Loudoun County Parkway	Improve intersection at Waxpool Road and Loudoun County Parkway to include three westbound left-turn lanes on Waxpool Road and a new free-flow right turn lane on Loudoun County Parkway.
121	Westwind Drive Extension	Construct Westwind Drive / Ladbrook Drive (Route 645) to be four lanes across Broad Run between Loudoun County Parkway (Route 607) and Old Ox Road (Route 606). Construct a new grade-separated interchange at Old Ox Road (Route 606).
122	ART Service Expansion	Purchase of buses in support of Arlington Transit (ART) service restructuring and expansion. Includes implementation of Enhanced Bus service on Glebe Road between Marymount University and Potomac Yard Metrorail Station via Ballston.
123	ART Service Improvements and Bus Maintenance Facilities	Increase Arlington Transit (ART) service on corridors in Arlington County, supported by necessary enhanced heavy maintenance and/or bus parking facilities.
124	Interchange Improvements at Fairfax County Parkway and Sunrise Valley Drive	Construct a grade-separated interchange at Fairfax County Parkway and Sunrise Valley Drive.
125	New Bus Garage in Northern Virginia	Construct a new bus garage in Northern Virginia. Location and size to be determined by service improvements in Northern Virginia transit network.
126	Rosslyn Bus Transit Center	Expand capacity at existing Rosslyn Transit Center.
127	I-66 / Orange Line Bus Facility Improvements	Expand and improve bus bays, passenger facilities, and bus circulation and access paths at all Orange Line stations and bus centers in the I-66 corridor.
128	Metrorail Blue and Yellow Line Bus Facility Improvements	Expand and improve bus bays, passenger facilities, and bus circulation and access paths at all Yellow and Blue Line stations and transit centers in the I-395/ Route 1 corridor.
129	Route 15 Widening: Harmony Church Road to Mason Lane	Widen Route 15 to four lanes from Harmony Church Road to Mason Lane.
130	Route 7 Widening: Battlefield Parkway to Leesburg Eastern Town Limit	Widen Route 7 from six to eight lanes between Battlefield Parkway and Leesburg eastern town limits.
131	Interchange Improvements at Route 15 Leesburg Bypass and Edwards Ferry Road	Construct a grade-separated interchange at Route 15 Leesburg Bypass and Edwards Ferry Road in Leesburg. Includes grade-separated interchange at Fort Evans Road intersection..
132	Route 50 Dulles Park-and-Ride Lot	Construct/expand Route 50 Dulles park-and-ride lot east of Loudoun County Parkway. Anticipated capacity is 250 spaces.
133	Falls Church Enhanced Bus Service	Enhance bus service along Route 29 and Route 7 in the City of Falls Church, including all day service, 15 minute frequency, and bus shelters with real-time information.
134	Falls Church Enhanced Regional Bike Routes (W&OD)	Enhance regional bike routes (W&OD), including separate trails for walking and bicycling, updated crossings to increase safety, and lighting to keep trail open all year.
135	Fairfax Boulevard Multimodal Improvements	Implement multimodal improvements and improve local connections along Fairfax Boulevard. Enhance transit, pedestrian/bicycle, and roadway facilities and infrastructure.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
136	Jermantown Road Multimodal Improvements	Implement multimodal improvements and improve local connections along Jermantown Road. Enhance transit, pedestrian/bicycle, and roadway facilities and infrastructure. Includes widening of Jermantown Road to four lanes south of the I-66 bridge as well as extension of Government Center Parkway. May include participation with Fairfax County on widening of bridge over I-66.
137	Route 123 Multimodal Improvements	Implement multimodal improvements, improve intersections and local connections, and improve transit service along Route 123. Enhance transit, pedestrian/bicycle, and roadway facilities and infrastructure.
138	Old Lee Highway Multimodal Improvements	Implement multimodal improvements along Old Lee Highway. Enhance transit, pedestrian/bicycle, and roadway facilities and infrastructure.
139	Fairfax Citywide Pedestrian/ Bicycle Access	Improve on- and off-road bicycle and pedestrian facilities, routes, and infrastructure along and adjacent to City of Fairfax corridors to provide better access to Metrorail and regional trails. Expand bikesharing, bike storage, and signage. Includes the extension of the George Snyder Trail.
140	Northfax Network Improvements	Improved connections and circulation for all modes near the Northfax intersection. Improvements to and along Fairfax Boulevard in the vicinity of the Northfax intersection including pedestrian/bicycle safety, local access, upgraded infrastructure and new routes. Improve vehicular circulation, access and movements in proximity to the Northfax intersection (Route 29, Route 50, and Route 123). Includes extension of University Drive.
141	Fairfax Circle Intersection Improvements	Intersection improvements at Fairfax Circle to improve vehicular and pedestrian/bicycle mobility and safety.
142	Northfax Intersection Improvements	Geometric improvements to intersection including extension of a third northbound lane on Route 123 from Route 29/Route 50 to Eaton Place, the addition of a dual left-turn from southbound Route 123 to eastbound Route 29/Route 50, the correction of substandard existing lane shifts within the project limits, the extension of turn lanes, and access management improvements, where feasible. Also includes a new drainage system, including a major culvert.
143	City of Fairfax Transit Enhancements	Upgrade and construct transit stops and shelters on CUE routes with improved facilities, design, technology, and/or pedestrian/bicycle access. Expand transit service and purchase additional buses.
144	Ryan Road Widening: Northstar Boulevard (Route 659) to Evergreen Mills Road (Route 621)	Widen Ryan Road (Route 772) from two to four lanes from Northstar Boulevard (Route 659) to Evergreen Mills Road (Route 621).
145	Lockridge Road Widening and Extension: Old Ox Road (Route 606) to Waxpool Road (Route 640)	Widen Lockridge Road (Route 789) to four lanes from Old Ox Road (Route 606) to Prentice Drive (Route 1071). Provides access for Loudoun Gateway Metrorail Station. Extend Lockridge Road (Route 789) by constructing four lanes from Prentice Drive (Route 1071) to Waxpool Road (Route 640).
146	Sterling Boulevard Widening: Sully Road (Route 28) to Davis Drive (Route 868)	Widen Sterling Boulevard (Route 846) from Sully Road (Route 28) to Davis Drive (Route 868) from four to six lanes.
147	Sterling Boulevard Extension: Randolph Drive (Route 1072) to Pacific Boulevard (Route 1036)	Extend Sterling Boulevard (Route 846) by constructing four lanes from Randolph Drive (Route 1072) to Pacific Boulevard (Route 1036).
148	Pacific Boulevard Extension: Old Ox Road (Route 606) to Innovation Avenue (Route 209)	Extend Pacific Boulevard (Route 28 West Collector Road) from Old Ox Road (Route 606) to Innovation Avenue (Route 209). Widen and construct six-lane roadway. Potential modification to existing interchange Route 28 and Innovation Avenue.
149	Russell Branch Parkway Widening: Pacific Boulevard (Route 1036) to Claiborne Parkway (Route 901)	Widen Russell Branch Parkway (Route 7 South Collector Road) between Pacific Boulevard (Route 1036) and Claiborne Parkway (Route 901). Widen and construct a six-lane roadway.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
150	Prentice Drive Extension: Lockridge Road (Route 789) to Shellhorn Road (Route 643)	Extend Prentice Drive west by constructing four lanes from Lockridge Road (Route 789) to Shellhorn Road (Route 643).
151	Prentice Drive Extension to Greenway Transit	Construct Prentice Drive extension (new connection) to Greenway transit (Phase II Metrorail station).
152	Smith Switch Road Widening: Waxpool Road (Route 625) and Gloucester Parkway (Route 2150)	Widen Smith Switch Road (Route 1950) from two to four lanes between Waxpool Road (Route 625) and Gloucester Parkway (Route 2150).
153	Gloucester Parkway Widening: Sully Road (Route 28) to Loudoun County Parkway (Route 607)	Widen Gloucester Parkway (Route 2150) from four to six lanes between Sully Road (Route 28) and Loudoun County Parkway (Route 607).
154	Riverside Parkway Widening/ Extension: Loudoun County Parkway (Route 607) to Belmont Ridge Road (Route 659)	Widen and complete Riverside Parkway (Route 2401) from four to six lanes between Loudoun County Parkway (Route 607) and Belmont Ridge Road (Route 659).
155	Route 28 Widening: Fairfax County line to Old Ox Road (Route 606)	Widen Route 28 from six to ten lanes between Fairfax County line and Old Ox Road (Route 606). Study of alternative uses, such as HOV or bus lanes, to be considered.
156	Construct Airport Area Connector: Battlefield Parkway to Crosstrail Boulevard (Route 653)	Construct four lanes to serve as Airport Area Connector between Battlefield Parkway and Crosstrail Boulevard (Route 653) just east of Route 267.
157	Construct Arcola Boulevard: Loudoun County Parkway (Route 607) to Route 50	Construct Arcola Boulevard between Loudoun County Parkway (Route 607) (near intersection of Arcola Road and Old Ox Road) and Route 50. Construct six lanes. Construct grade-separated interchanges at Loudoun County Parkway and Route 50.
158	Battlefield Parkway Widening/ Extension: Edwards Ferry Road to Route 15	Widen Battlefield Parkway to six lanes from Edwards Ferry Road to Route 15 (South King Street opposite Meade Drive).
159	Route 28 Widening: Route 7 to Old Ox Road (Route 606)	Widen Route 28 (Sully Road) from six to eight lanes between Old Ox Road (Route 606) and Route 7 (Harry Byrd Highway). Study of alternative uses, such as HOV or bus lanes, to be considered.
160	Dulles West Boulevard Widening: Loudoun County Parkway (Route 606) to Northstar Boulevard (Route 659)	Widen Dulles West Boulevard (formerly Glascock Boulevard) from four to six lanes between Loudoun County Parkway (Route 606) and Arcola Boulevard. Construct a four-lane facility between Arcola Boulevard and Northstar Boulevard (Route 659 relocated).
161	Dulles West Boulevard Extension: Northstar Boulevard (Route 659) to Lenah Loop Road	Construct Dulles West Boulevard (formerly Glascock Boulevard) between Northstar Boulevard (Route 659 relocated) and Lenah Loop Road. Construct a two-lane roadway.
162	Construct Greenway Loop Road (Barrister Street): State Street/ Landmark Court to Prentice Drive (Route 1071/Route 789 Extended)	Construct Greenway Loop Road (Barrister Street) between State Street/Landmark Court and Prentice Drive (Route 1071/Route 789 Extended). Construct a four-lane roadway, including a bridge over Route 267.
163	Route 7 Widening: Route 15 (Leesburg Bypass) to Atlantic Boulevard (Route 1902)	Widen Route 7 (Harry Byrd Highway) to eight lanes between Route 15 (Leesburg Bypass) and Atlantic Boulevard (Route 1902). Study of alternative uses (bus lanes, HOV) to be considered for segment between Route 28 and Leesburg Bypass.
164	Construct Moorefield Boulevard: Mooreview Parkway (Route 772) to Loudoun County Parkway (Route 607)	Construct Moorefield Boulevard between Mooreview Parkway (Route 772) and Loudoun County Parkway (Route 607). Construct three lanes between Beth St and Centergate Drive. Construct four lanes between Mooreview Parkway and Beth Street and between Centergate Drive and Loudoun County Parkway.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
165	Construct Purcellville Route 7 North Collector Road: Eastern Purcellville JLMA Boundary (East of Route 287/Berlin Turnpike) to Hillsboro Road (Route 690)	Construct Purcellville Route 7 North Collector Road between the eastern Purcellville JLMA boundary (east of Route 287/Berlin Turnpike) and Hillsboro Road (Route 690). Construct a four-lane roadway.
166	Route 50 Widening: Northstar Boulevard (Route 659) to Lenah Loop Road	Widen Route 50 (John Mosby Highway) to four lanes between Northstar Boulevard (Route 659 relocated) and Lenah Loop Road. Construct a new interchange at relocated Route 659 (Northstar Boulevard).
167	Innovation Avenue Widening: Route 28 (Sully Road) to Fairfax County Line	Widen Innovation Avenue (Route 209) between Route 28 (Sully Road) and Fairfax County line from four to six lanes. Road to be realigned along northern boundary of Dulles World Center site. Includes connection to Rock Hill Road (Route 605). Potential future modification to existing interchange at Route 28 and Innovation Avenue.
168	Route 7 Widening: West Market Street (Route 7 Business) to Charles Town Pike (Route 9)	Widen Route 7 (Harry Byrd Highway) from four to eight lanes between West Market Street (Route 7 Business) and Charles Town Pike (Route 9). Construct grade-separated interchange at White Gate Place and remove all remaining at-grade access.
169	Loudoun County Parkway Widening: Old Ox Road (Route 606) to Route 50	Widen Loudoun County Parkway to eight lanes between Old Ox Road (Route 606) and Route 50 (John Mosby Highway). Construct grade-separated interchanges at Old Ox Road and Route 50 and explore other grade-separated interchanges. Study alternative uses (bus lanes, HOV) along the corridor.
170	Loudoun County Parkway Widening: Route 50 to Braddock Road (Route 620)	Widen Loudoun County Parkway from four to six lanes between Route 50 (John Mosby Highway) and Braddock Road (Route 620) and construct grade-separated interchange at Route 50.
171	Construct Loudoun County Parkway: Braddock Road (Route 620) to Fairfax County Line	Construct Loudoun County Parkway to six lanes between Braddock Road (Route 620) and Fairfax County line.
172	Old Ox Road Widening: Route 28 to Fairfax County Line	Widen Old Ox Road (Route 606) to six lanes between Route 28 (Sully Road) and Fairfax County line / Herndon town limits.
173	Route 7 Bypass Widening: Route 9 (Charles Town Pike) to Route 7 Business (West Loudoun Street)	Widen Route 7 Bypass (Harry Byrd Highway) from four to six lanes between Route 9 (Charles Town Pike) and Route 7 Business (West Loudoun Street). Construct grade-separated interchanges at Hillsboro Road (Route 690) and west of Round Hill at Route 7 Business (West Loudoun Street).
174	Old Ox Road Widening: Route 28 to Dulles Greenway (Route 267)	Widen Old Ox Road (Route 606) to six lanes between Route 28 (Sully Road) and Dulles Greenway (Route 267).
175	Loudoun County Parkway Widening: George Washington Boulevard (Route 1050) to Waxpool Road (Route 625)	Widen Loudoun County Parkway (Route 607) to six lanes from George Washington Boulevard (Route 1050) to Waxpool Road (Route 625).
176	Loudoun County Parkway Widening: Waxpool Road (Route 625) to Dulles Greenway (Route 267)	Widen Loudoun County Parkway (Route 607) to six lanes from Waxpool Road (Route 625) to Dulles Greenway (Route 267).
177	Loudoun County Parkway Widening: Old Ox Road (Route 606) to Dulles Greenway (Route 267)	Widen Loudoun County Parkway from four to six lanes between Dulles Greenway (Route 267) and Old Ox Road (Route 606), near existing Arcola Boulevard.
178	Braddock Road Widening: Northstar Boulevard to Fairfax County Line	Widen Braddock Road (Route 620) from two to four lanes between Northstar Boulevard and Fairfax County line.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
179	Evergreen Mills Road Widening: Loudoun County Parkway (Route 606) to Northstar Boulevard (Route 659)	Widen Evergreen Mills Road (Route 621) from two to four lanes between Loudoun County Parkway (Route 606) and Northstar Boulevard (Route 659).
180	Evergreen Mills Road Widening: Shreveport Drive to Battlefield Parkway	Widen Evergreen Mills Road (Route 621) from two to four lanes between Shreveport Drive (Relocated Route 621) and Battlefield Parkway.
181	Evergreen Mills Road Widening: Battlefield Parkway to Route 15	Widen Evergreen Mills Road (Route 621) from two to four lanes between Battlefield Parkway and Route 15 (South King Street).
182	Waxpool Road Widening: Church Road to Ashburn Road (Route 641)	Widen Waxpool Road (Route 625) to six lanes between Church Road and Ashburn Road (Route 641).
183	Sycolin Road Widening: Belmont Ridge Road (Route 659) to Battlefield Parkway	Widen Sycolin Road (Route 625) to four lanes between Belmont Ridge Road (Route 659) and Battlefield Parkway. Realign Sycolin Road to accommodate expansion of Leesburg Airport.
184	Extend Shellhorn Road: Loudoun County Parkway (Route 607) to Randolph Drive (Route 1072)	Extend Shellhorn Road (Route 643) between Loudoun County Parkway (Route 607) and Randolph Drive (Route 1072). Construct four lanes.
185	Construct Crosstrail Boulevard (Route 653): Route 7 to Dulles Greenway (Route 267)	Construct missing segments and widen Crosstrail Boulevard (Route 653) to six lanes between East Market Street (Route 7) and the Dulles Greenway (Route 267), and extend Crosstrail Boulevard from the Greenway to Evergreen Mills Road.
186	Belmont Ridge Road Widening: Riverside Parkway (Route 2401) to Route 7	Widen Belmont Ridge Road (Route 659) from four lanes to six lanes between Riverside Parkway (Route 2401) and Route 7 (Harry Byrd Highway).
187	Belmont Ridge Road Widening: Croson Lane (Route 645) to Northstar Boulevard (Route 659)	Widen Belmont Ridge Road (Route 659) from four to six lanes between Croson Lane (Route 645) and Northstar Boulevard / Route 659 split.
188	Northstar Boulevard Widening: Belmont Ridge Road (Route 659) to Braddock Road (Route 620)	Widen/Construct Northstar Boulevard (Route 659) to six lanes from Belmont Ridge Road (Route 659) to Braddock Road (Route 620). Construct grade-separated interchange at Route 50. Potential grade separation at Evergreen Mills Road.
189	Relocation Drive Widening: Old Ox Road (Route 606) to Pacific Boulevard (Route 1036)	Widen Relocation Drive (Route 775) from two to four lanes between Old Ox Road (Route 606) and Pacific Boulevard (Route 1036).
190	Construct Interchange at Loudoun County Parkway and Arcola Boulevard	Construct grade-separated interchange at Loudoun County Parkway and Arcola Boulevard.
191	Route 15 Bypass Widening: Battlefield Parkway to Montresor Road.	Widen Route 15 Bypass to four lanes from Battlefield Parkway interchange to Montresor Road.
192	Improve Interchange at Route 28 and Old Ox Road (Route 606)	Improve grade-separated intersection at Route 28 and Old Ox Road (Route 606).
193	Construct Interchange at Route 7 and Battlefield Parkway	Construct grade-separated interchange at Route 7 and Battlefield Parkway.
194	Alexandria Bus Network ITS	Install Automatic Vehicle Location (AVL) technology on DASH bus to provide real-time arrival info, computer-aided dispatch, automated passenger counters (APC) and automated garage mapping system.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
195	Landmark Transit Station Improvements	Construct a transit center on the Landmark Mall site. Construct transit commuter hub or kiosk at the future West End Transit Center.
196	Arlandria/Del Ray/Lynhaven/ Potomac Yard Roadway and Bicycle/Pedestrian Improvements	Traffic improvements for the intersection of Mount Vernon Avenue and Glebe Road, including signalization, accommodation for pedestrians, and turn lane channelization. Construct improvements at Mount Vernon Avenue and Four Mile Road intersection, including pedestrian/bicycle improvements. Construct pedestrian/bicycle bridge over Four Mile Run between Commonwealth Avenue and Eads Street. Construct Mount Vernon Avenue and Russell Road intersection safety improvements to accommodate pedestrian and bicyclists, which may entail intersection and parking configuration redesign. Construct a pedestrian/ bicycle link from the Potomac Yard Trail to connect to the Four Mile Run Trail on the south side of Four Mile Run, and to the Mount Vernon Trail. Construct Oakville Triangle improvement projects.
197	West End Alexandria Roadway Improvements	Construct a multimodal bridge from Van Dorn Metrorail Station to Pickett Street. Extend Library Lane north to connect Van Dorn Street. Construct ellipse at Beauregard Street and Seminary Road. Replace shared left/thru-turn lanes along Van Dorn Street with separate left-turn lanes. Add protected, permissive left-turn lane along Van Dorn Street. Widen Van Dorn Street Bridge over Duke Street to accommodate pedestrians. Replace shared left/ thru-turn lanes along Van Dorn Street with separate left-turn lanes. Construct new roadway along Fairfax County line to connect Edsall Road, South Pickett Street, Farrington Avenue. Intersection improvements along Van Dorn Street at Eisenhower Avenue, Edsall Road, and Pickett Street. Straighten Eisenhower Avenue. Construct new High Street addition and bridge as part of Alexandria's Landmark Van Dorn Area Plan.
198	Vienna Regional Bikesharing	Implement bike rental stations in Town of Vienna in coordination with wider County and regional system.
199	Vienna Metrorail Access Improvements	Improve access to Metrorail and encourage mass transit use by completing all sidewalks within a half-mile of Vienna and Tysons Metrorail Stations. Also, provide a trolley or circulator bus along Maple Avenue (Route 123) to connect with Vienna Metrorail Station and Metrorail Silver Line in Tysons. A parking garage would be provided along the route. Includes "Walk to Metro" and "Commercial Transit, Metro Access, and Parking" projects.
200	New Central and East Prince William County to Pentagon and DC OmniRide	Implement new transit route between Central and East Prince William County, Pentagon, and downtown DC via the I-95 HOV lanes. Requires four additional buses.
201	New Manassas to Dulles OmniRide	Implement new transit service from Manassas to Dulles Airport via Route 28. Requires additional four buses.
202	New Gainesville and Haymarket to Dulles OmniRide	Implement new transit service from Gainesville and Haymarket to Dulles Airport via I-66 HOV lanes and Route 28. Requires two additional buses.
203	Metrorail Station Improvements within the City of Alexandria	Redesign kiss-and-ride and reconfigure bus loading area to accommodate West End Transitway at the Van Dorn Metrorail Station and existing and future developments within the Eisenhower West Small Area Plan. Improvements to the Eisenhower Avenue Metrorail Station to accommodate East Eisenhower development, including renovation of existing bus loop, new pedestrian plaza, new bus shelter canopies, and real-time bus arrival info displays.
204	I-66 Spot Improvements - Spot 3	Construct an auxiliary lane connecting on-ramp from Lee Highway to off-ramp on North Glebe Road on westbound I-66.
205	Greensboro Drive Extension: Spring Hill Road to Tyco Road	Extend Greensboro Drive from Spring Hill Road to Tyco Road.
206	I-495 Overpass at Tysons Corner Center	Construct new bridge crossing over Capital Beltway between Tysons Corner Center ring road and Old Meadow Road to facilitate travel within Tysons.
207	Interchange Improvements at Route 267 and Route 123	Reconstruct interchange at Route 267 and Route 123 to provide connections to a new street grid.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
208	Underpass at Intersection of Route 123, Lewinsville Road, and Great Falls Street	Construct a grade-separated underpass at the intersection of Route 123, Lewinsville Road, and Great Falls Street.
209	Interchange Improvements at Route 123 and Route 7	Reconstruct interchange between Route 7 and Route 123 in Tysons.
210	Modified Intersections on Route 123: International Drive to Dulles Toll Road	Modify intersections and construct displaced left turns on Route 123 from International Drive to Dulles Toll Road.
211	Widen Auxiliary Lanes on I-495: Heming Avenue to Georgetown Pike	Widen auxiliary lanes along various segments of I-495 from north of Heming Avenue underpass to Georgetown Pike. Reconstruct the I-495 auxiliary lane from Route 7 to I-66.
212	Reconstruct Interchange at I-495 and Route 267	Relocate Interchange Flyover Ramp at I-495 and Route 267, connecting eastbound Dulles Airport Access Highway to northbound general purpose lanes. Provide southbound HOT to eastbound HOV and eastbound Dulles Toll Road to northbound HOT movements. Widen eastbound Dulles Toll Road ramp to two lanes. Construct interchange ramp at I-495 and Route 267 from southbound I-495 to westbound Dulles Airport Access Highway.
213	Dulles Airport Access Road Widening: Dulles Airport to Route 123	Widen Dulles Airport Access Road from Dulles Airport to Route 123.
214	Route 1 Widening: Route 235 North to Route 235 South	Widen Route 1 from four to six lanes from Route 235 North to Route 235 South.
215	Add Northbound Lane on Route 29: I-66 to Conway Robinson Memorial State Forest	Add northbound lane to Route 29 from I-66 to the entrance to Conway Robinson Memorial State Forest.
216	Route 29 Widening: City of Fairfax to I-495	Widen Route 29 from four to six lanes from the City of Fairfax eastern limit to I-495.
217	Route 29 Widening: Waples Mill Road (Route 665) to Pickwick Road	Widen Route 29 from four to six lanes from Waples Mill Road (Route 665) to Pickwick Road.
218	Route 123 Widening: Annapolis Way to Route 1	Widen Route 123 from four to six lanes from Route 1 to Annapolis Way. Construct interchange at Route 1 and Route 123. Construct extension of Belmont Bay Drive from Route 1 to Heron's View Way.
219	Route 123 Widening: Hooes Road to Braddock Road	Widen Route 123 from four to six lanes between Hooes Road and Braddock Road.
220	Chain Bridge Road Widening: Route 7 to I-495	Widen Chain Bridge Road (Route 123) from six to eight lanes from Route 7 to I-495.
221	Construct Interchange at Route 234 Bypass and Balls Ford Road	Project will provide a new grade-separated interchange proposed at Route 234 and relocated Balls Ford Road (Route 621). In addition, a new four-lane facility with raised median will be constructed between Devlin Road and Doane Road.
222	Construct Interchange at Route 234 and Sudley Manor Drive	Construct interchange at Route 234 and Sudley Manor Drive (Route 1566).
223	Widen/Upgrade/Convert Fairfax County Parkway to Include HOV Lanes: Dulles Toll Road to I-66	Widen, upgrade, or convert Fairfax County Parkway (Route 286) to include HOV lanes from Dulles Toll Road (Route 267) to I-66.
224	Construct HOV interchange at Franconia-Springfield Parkway and Neuman Street	Construct HOV interchange at Franconia-Springfield Parkway (Route 289) and Neuman Street.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
225	Upgrade Franconia-Springfield Parkway to Include HOV lanes: Rolling Road to Backlick Road	Upgrade Franconia-Springfield Parkway (Route 289) to include HOV lanes from Rolling Road to Backlick Road.
226	Construct Collector-Distributor Road Parallel to Dulles Toll Road: Wiehle Avenue to Spring Hill Road	Construct Collector-Distributor Road that parallels Dulles Toll Road from Wiehle Avenue to Spring Hill Road.
227	Construct Route 234 Bypass North: I-66 to Route 50	Construct Route 234 Bypass North (Bi-County Parkway) from I-66 to Route 50.
228	Reston Parkway Widening: South Lakes Drive to Dulles Toll Road (Route 267)	Widen Reston Parkway from four to six lanes between South Lakes Drive and Dulles Toll Road (Route 267).
229	Telegraph Road Widening: Beulah Street to Franconia Road	Widen Telegraph Road from two lanes to three and four lanes at various segments between Beulah Street and Franconia Road.
230	Construct/Widen New Braddock Road: Route 28 to Stone Road	Construct/widen New Braddock Road to four lanes from Route 28 to Route 29 at Stone Road (Route 662).
231	Boone Boulevard Extension: Chain Bridge Road (Route 123) to Ashgrove Lane	Construct Boone Boulevard Extension as four lanes from Chain Bridge Road (Route 123) to Ashgrove Lane.
232	Magarity Road Widening: Route 7 to Great Falls Street	Widen Magarity Road from two to four lanes from Route 7 to Great Falls Street.
233	Construct Eastbound Route 606 Ramp	Construct Route 606 ramp from Route 606 Eastbound to Lockridge Road northbound.
234	Construct Western Segment of Russell Branch Parkway: Belmont Ridge Road to Tournament Parkway	Construct four lanes of western segment of Russell Branch Parkway from Belmont Ridge Road to Tournament Parkway.
235	Construct University Boulevard: Progress Court to Sudley Manor Drive	Construct four-lane University Boulevard from Progress Court to Sudley Manor Drive.
236	Reconstruct Interchange at I-95 and Van Dorn Street (Route 613)	Reconstruct interchange at I-95 and Van Dorn Street (Route 613).
237	Eastbound Joplin Road Widening: I-95 to Route 1	Widen eastbound Joplin Road (Route 619) from two to four lanes from the I-95 ramp to Route 1.
238	Balls Ford Road Widening: Wellington Road to Coppermine Drive	Widen Balls Ford Road to four lanes from Wellington Road to Coppermine Drive.
239	Catharpin Road Widening: Heathcote Boulevard to John Marshall Highway	Widen Catharpin Road to four lanes from Heathcote Boulevard to John Marshall Highway.
240	Cushing Road Widening: Balls Ford Road to I-66	Widen Cushing Road to four lanes from Balls Ford Road to I-66.
241	Dale Boulevard Widening: Route 1 to Benita Fitzgerald Drive	Widen Dale Boulevard to six lanes from Route 1 to Benita Fitzgerald Drive.
242	Devlin Road Widening: Wellington Road to Linton Hall Road	Widen Devlin Road to four lanes from Wellington Road to Linton Hall Road.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
243	Dumfries Road Widening: Brentsville Road to Country Club Drive	Widen Dumfries Road to six lanes from Brentsville Road to Country Club Drive.
244	Gordon Boulevard Widening: Fairfax County Line to Express Drive/Belmont Bay Drive	Widen Gordon Boulevard to six lanes from Fairfax County line to Express Drive/Belmont Bay Drive.
245	Gum Spring Road Widening: Loudoun County Line to Sudley Road	Widen Gum Spring Road to four lanes from Loudoun County line to Sudley Road.
246	Extend Potomac Shores Parkway: Route 1 to Cherry Hill Road	Construct six lane road between Route 1 and River Heritage Boulevard. Extend Potomac Shores Parkway as a four lane facility from Dunnington Place to Cherry Hill Road.
247	Construct Haymarket Bypass: Old Carolina Road to Route 15	Construct Prince William County portion of Haymarket Bypass from Old Carolina Road to Route 15.
248	Hornbaker Road Widening: Wellington Road to Nokesville Road	Widen Hornbaker Road to four lanes from Wellington Road to Nokesville Road.
249	I-66 Widening: Fauquier County Line to Antioch Bridge Road	Widen I-66 to eight lanes between Fauquier County line and Antioch Bridge Road.
250	Route 15 Widening: Haymarket Town Limits to Route 29	Widen Route 15 to four lanes from Haymarket town limit at John Marhsall Highway to Route 29. Project improvements implemented in conjunction with railroad overpass.
251	Route 1 Widening: Dumfries Road (Route 234) to Cardinal Drive	Widen Route 1 to six lanes between Dumfries Road (Route 234) and Cardinal Drive / Neabsco Road.
252	John Marshall Highway Widening: Thoroughfare Road to Route 29	Widen John Marshall Highway from two to four lanes between Thoroughfare Road (excluding Town of Haymarket) and Catharpin Road and from four to six lanes between Catharpin Road and Route 29.
253	Route 29 Widening: Route 15 to Virginia Oaks Drive	Widen Route 29 to six lanes between Route 15 and Virginia Oaks Drive.
254	Construct Manassas Battlefield Bypass	Construct a bypass around Manassas Battlefield National Park in Prince William County between Rt. 234 and Fairfax County line
255	McGraws Corner Drive Widening: Thoroughfare Road to Route 29	Widen McGraws Corner Drive to four lanes between Thoroughfare Road and Route 29.
256	Neabsco Road Widening: Route 1 to Daniel Ludwig Drive	Widen Neabsco Road to four lanes between Route 1 and Daniel Ludwig Drive.
257	Neabsco Mills Road Widening: Smoke Court to Route 1	Widen Neabsco Mills Road to four lanes between Smoke Court and Route 1.
258	Construct North South Road: University Boulevard to Wellington Road	Construct four-lane North South Road from University Boulevard to Wellington Road.
259	Old Bridge Road Widening: Colby Drive to Minnieville Road	Widen Old Bridge Road to six lanes from Colby Drive to Minnieville Road.
260	Old Carolina Road Widening: Heathcote Boulevard to Route 29	Widen Old Carolina Road to four lanes from Heathcote Boulevard to Route 29.
261	Old Centreville Road Widening: Fairfax County Line to Route 28	Widen Old Centreville Road to four lanes between Fairfax County line and Centreville Road (Route 28).

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
262	Opitz Boulevard Widening: Gideon Drive to Route 1	Widen Opitz Boulevard to six lanes from Gideon Drive to Route 1.
263	Prince William Parkway Widening: I-66 to Brentsville Road	Widen Prince William Parkway to six lanes from I-66 to Brentsville Road.
264	Prince William Parkway Widening: Liberia Avenue to Hoadly Road	Widen Prince William Parkway to six lanes from Liberia Avenue to Hoadly Road.
265	Construct River Heritage Boulevard: Potomac Shores to Patriot Circle	Construct four-lane River Heritage Boulevard from Potomac Shores to Patriot Circle.
266	Complete Rollins Ford Road: Vint Hill Road to Wellington Road	Complete four-lane Rollins Ford Road, Linton Hall Road to Wellington Road.
267	Construct Station Road: University Boulevard to Balls Ford Road	Construct four-lane Station Road from University Boulevard to Balls Ford Road.
268	Sudley Road Widening: Route 15 to Route 29	Widen Sudley Road to four lanes from Route 15 to Route 29.
269	Sudley Manor Drive Widening: Prince William Parkway to Sudley Road	Widen Sudley Manor Drive to six lanes from Prince William Parkway to Sudley Road.
270	Summit School Road Extension and Widening: Minnieville Road to Telegraph Road	Extend Summit School Road from Minnieville Road to Telegraph Road as a six-lane road.
271	Telegraph Road Widening: Minnieville Road to Prince William Parkway	Widen Telegraph Road to four lanes between Minnieville Road and Summit School Road. Widen Telegraph Road to six lanes between Summit School Road and Caton Hill Road. Widen Telegraph Road to four lanes between Caton Hill Road and Prince William Parkway (Route 294).
272	Thoroughfare Road Widening: Route 15 to McGraws Corner Drive	Widen Thoroughfare Road to four lanes from Route 15 to McGraws Corner Drive.
273	Construct Van Buren North Road: Cardinal Drive to Dumfries Road	Construct four-lane Van Buren North Road from Cardinal Drive to Dumfries Road.
274	Construct Van Buren South Road: Dumfries Road to Mine Road	Construct four-lane Van Buren South Road from Dumfries Road to Mine Road.
275	Vint Hill Road Widening: Fauquier County Line to Schaeffer Lane	Widen Vint Hill Road to four lanes from the Fauquier County line to Schaeffer Lane.
276	Wellington Road Widening: Limestone Drive to Godwin Drive	Widen Wellington Road from two to four lanes between Godwin Drive and Prince William Parkway and widen from two to six lanes between Prince William Parkway and Limestone Drive.
277	Liberia Avenue Widening: Prince William Parkway to Route 28	Widen Liberia Avenue to six lanes from Prince William Parkway to Centreville Road (Route 28).
278	Route 28 Widening: Liberia Avenue to Manassas Park Northern City Line	Widen Route 28 to six lanes from Liberia Avenue to Manassas Park northern city limit.
279	Construct Interchange at Prince William Parkway and Minnieville Road	Construct interchange at Prince William Parkway and Minnieville Road.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
280	Construct Interchange at Prince William Parkway and Smoketown Road	Construct interchange at Prince William Parkway and Smoketown Road.
281	Annapolis Way Connector	Construct four-lane facility to connect Annapolis Way East with Annapolis Way West near I-95 on-ramp.
282	Route 1 Widening: Occoquan River Bridge to Telegraph Road (Route 235 North)	Widen Route 1 to six lanes from Occoquan River Bridge/ Fairfax County line to Telegraph Road (Route 235 North).
283	Construct Interchange at Route 234 and Brentsville Road	Construct interchange at Route 234 and Brentsville Road.
284	Construct Interchange at Prince William Parkway and Clover Hill Road	Construct a grade-separated interchange at Prince William Parkway (Route 234) and Clover Hill Road.
285	Route 15 Congestion Mitigation Improvements	Implement congestion mitigation improvements, including roundabouts and reduction of left turning movements, on Route 15 north of Leesburg.
286	Construct Interchange Route 1 and Dale Boulevard	Construct an interchange at Route 1 and Dale Boulevard.
287	Construct Roundabout at Route 1 and Joplin Road/Fuller Road	Construct a grade-separated roundabout at Route 1 and Joplin Road/Fuller Road.
288	Loudoun Metrorail Station Pedestrian Improvements	Construct sidewalks, crosswalks, shared-use trails, and intersection improvements to improve pedestrian access to Silver Line Metrorail stations (Ashburn and Loudoun Gateway) in Loudoun County.
289	Dunn Loring to Ballston Enhanced Bus	Provide frequent service on Lee Highway and Washington Boulevard from Dunn Loring Metrorail Station in Fairfax County through the City of Falls Church, East Falls Church Metrorail Station, and Washington Boulevard to Ballston Metrorail Station. Includes enhancements on Metrobus 2A route.
290	Arlington Mobility Hubs	Develop a system of coordinated mobility hubs along major corridors to fully integrate transit, bikesharing, carsharing, ridesharing, pedestrians, bicycling, ride hailing, and other shared use services.
291	Off-vehicle Fare Collection	Develop a system of off-board fare collection for ART and WMATA buses.
292	Lee Highway (Route 29) Multimodal Improvements	Expand multimodal transportation capacity and safety in the Lee Highway corridor, providing viable options to move more people without increasing the volume of single-occupant vehicles. Includes addition of bicycle facilities along Route 29 corridor and reconstruction of Route 29 from North Quincy Street to North Kenmore Street.
293	Theodore Roosevelt Bridge HOT lanes	DC project to implement HOT lanes on Theodore Roosevelt Bridge.
294	14th Street Bridge HOT lanes	DC project to implement HOT lanes on 14th Street Bridge.
295	Increase Off-peak Transit Service on I-95 Corridor	Add bus trips to the existing service: Lake Ridge-DC, Lake Ridge-Pentagon/Crystal City; Dale City/Potomac Mills-Pentagon/Crystal City; Dale City/Potomac-Mills/Rosslyn/Ballston; Montclair/Dumfries-Pentagon/DC; Montclair/Dumfries-Pentagon; Dale City/Potomac Mills-Mark Center.
296	Implement New OmniLink Service	Implement new OmniLink routes: Innovation-to-Gainesville/Haymarket; Innovation-to-Manassas; Montclair local.
297	Widen Long Bridge	Widen the Long Bridge to four tracks to accommodate additional rail capacity for commuter (VRE), intercity (Amtrak, DC2RVA), and freight (CSXT) services. Related improvements include modifications to existing tracks, modification to or additional signals, bridges, structures.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
298	VRE Alexandria-DC Rail Capacity Improvements	a. Construct fourth track LE (L'Enfant) to VA (Virginia interlocking in DC); b. Construct fourth track RO (Rosslyn interlocking) to AF (Alexandria interlocking); c. Alexandria track 1 access/ Slater's Lane crossover; d. Construct Washington Union Station station/access improvements; e. Construct VRE L'Enfant station/access improvements. f. Construct VRE Crystal City station/access improvements; and g. Improvements relating to above including modifications to existing tracks, modification to or additional signals, bridges, structures.
299	VRE Alexandria Station Improvements	Improve multimodal connectivity and accessibility at the Alexandria Union Station - King Street Metrorail Station through construction of a pedestrian tunnel between the two stations; platform expansion and access improvements at VRE station.
300	VRE Manassas Line Rail Capacity Enhancements	Phase 1: Increase frequencies to 20 min in peak period. In support of this improvement: a. Construct track capacity enhancements (including modification or expansion of track, signals, bridges, structures, etc.) from Alexandria/AF to Manassas Line terminus, including existing Broad Run VRE station; b. Purchase additional rolling stock in support of eight-car trains and peak service improvements (TIP reflects purchases for eight-car trains in peak hour, additional needed beyond CLRP commitment); c. Construct/expand VRE equipment storage and maintenance facilities in Manassas and midday storage in Washington, DC; d. Construct station/platform, parking and multimodal access improvements at VRE Manassas Line stations, including expansion of existing Broad Run VRE station/parking/ mulitmodal access; e. Improve information sharing through ITS/TSM enhancements for improved communications; and f. Rail improvements in support of I-81 / Route 29 Intercity Passenger Rail (DRPT/AMTRAK).
301	Fredericksburg Line Service Expansion	Implement VRE service improvements on the Fredericksburg line to reduce headways to 20 minutes in peak period. In support of this improvement: a. Purchase additional rolling stock in support of eight-car trains and peak service improvements; b. Construct/expand VRE equipment storage and maintenance facilities in Fredericksburg and midday storage in Washington, DC; c. Construct station/platform, parking, and access improvements at VRE Fredericksburg Line stations; and d. Improve information sharing through ITS/TSM enhancements for improved communications.
302	Fredericksburg Line Peak Period Service Expansion	Improve frequencies to 15-minute peak period and new reverse peak period service. In support of this improvement: a. Purchase additional rolling stock; b. Construct/expand VRE equipment storage and maintenance facilities; c. Rail line capacity improvements (including modification or expansion of track, signals, bridges, structures, etc.); d. Station/parking access improvements; and e. ITS/TSM improvements.
303	Manassas Line Peak Period Service Expansion	Improve frequencies to 15-minute peak period and new reverse peak period service. In support of this improvement: a. Purchase additional rolling stock; b. Construct/expand VRE equipment storage and maintenance facilities; c. Rail line capacity improvements (including modification or expansion of track, signals, bridges, structures, etc.); d. Station/parking access improvements; and e. ITS/TSM improvements.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
304	VRE Express Service - Fredericksburg Line	Implement peak period express service on VRE Fredericksburg Line: a. One express train and three local trains per hour during AM and PM peak periods; and b. Stops at Spotsylvania, Leeland Road, Woodbridge, Alexandria, Crystal City, L'Enfant, and Union Station. c. Additional rolling stock and/or infrastructure improvements including modifications to tracks, signals, bridges, structures, and stations may also be needed to support express service.
305	VRE Express Service - Manassas Line	Implement peak period express service on VRE Manassas Line: a. One express train and three local trains per hour during AM and PM peak periods; and b. Stops at Broad Run, Manassas Park, Burke Centre, Alexandria, Crystal City, L'Enfant, and Union Station. c. Additional rolling stock and/or infrastructure improvements including modifications to tracks, signals, bridges, structures, and stations may also be needed to support express service.
306	Leesburg Bypass Widening: Route 15 to West Market Street	Widen Route 7 to a six-lane limited access facility from Route 15 to West Market Street interchange.
307	Leesburg Bypass Widening: East Market Street to Route 15	Widen Route 7 / Route 15 to a six-lane limited access facility from the East Market Street interchange to the Route 15 interchange.
308	Route 7 Hot Spot and Safety Improvements: Fairfax County Line to Clark County Line	Hot spot and safety improvements on Route 7 from the Fairfax County line to the Clarke County line.
309	Route 7 Business Hot Spot and Safety Improvements: Route 9 to Round Hill	Hot spot and safety improvements on Route 7 Business from Route 9 at Clark's Gap to Route 7 west of Round Hill.
310	Route 9 Hot Spot and Safety Improvements: West Virginia State Line to Route 7	Hot spot and safety improvements on Route 9 from the West Virginia state line to Route 7.
311	Route 15 Hot Spot and Safety Improvements: Prince William County Line to Maryland State Line	Hot spot and safety improvements on Route 15 from the Prince William County line to the Maryland state line.
312	Route 287 Hot Spot and Safety Improvements: Route 7 Business to Maryland State Line	Hot spot and safety improvements on Route 287 from Route 7 Business to the Maryland state line.
313	Extend Russell Branch Parkway (Leesburg): Cochran Mill Road (Route 653) to Trailview Boulevard	Extend Russell Branch Parkway (Leesburg) from Cochran Mill Road (Route 653) to Trailview Boulevard. Construct a four-lane roadway.
314	Route 50 Widening and Interchanges: Poland Road to Northstar Boulevard	Widen Route 50 (John Mosby Highway) to six lanes from Poland Road to Northstar Boulevard. Construct new interchanges at/near Tall Cedars Parkway (Route 2200), Route South Riding Boulevard (Route 2201), Loudoun County Parkway (Route 606), Arcola Boulevard/West Spine Road (Route 606 Extended), and Northstar Boulevard (relocated Route 659). Potential grade separation (interchange or overpass) at Pleasant Valley Road (Route 609).
315	Belmont Ridge Road Widening: Shreveport Drive to Evergreen Mills Road (Route 621)	Widen Belmont Ridge Road (Route 659) to four lanes from Shreveport Drive to Evergreen Mills Road (Route 621).
316	Gum Spring Road Widening: Dawsons Corner Boulevard to Prince William County Line	Widen Gum Spring Road (Route 606 Extended/West Spine Road) to four lanes from Dawsons Corner Boulevard (Route 3326) to the Prince William County line.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
317	Purchase Loudoun County Transit Buses	Purchase of buses in support of Loudoun County's transit services.
318	Route 50 Improvements: Fairfax County Line to Fauquier County Line	Improvements along Route 50 from the Fairfax County Line to the Fauquier County Line.
319	I-66 Corridor Park-and-Ride in Prince William County	Construct new park-and-ride lots along the I-66 corridor in Prince William County at Innovation, James Madison Arrowleaf, Linton Hall School, and Yorkshire in county-owned lots and Dominion in a privately-owned lot. Expand existing park-and-ride capacity at Limestone Drive and Manassas Mall/Sears in privately-owned lots.
320	I-95 Corridor Park-and-Ride in Prince William County	Expand park-and-ride capacity at Brittany Park, Hillendale, Montclair, Old Bridge/Minnieville Road in VDOT-owned lots; Old Bridge Festival, Potomac Mills, Prince William Square, Tacketts Mill Shopping Center in privately-owned lots; Old Bridge/Route 1, PRTC Transit Center, Route 234/ Route 1, in county-owned lots. Construct a new park-and-ride lot at Cherry Hill and a new park-and-ride garage at Potomac Center.
321	Pentagon City Metrorail Second Entrance	Construct second elevator entrance adjacent to Fashion Center Mall.
322	Shirlington Bus Station Expansion	Addition of new bus bays at the Shirlington bus station.
323	Crystal City Bus Improvements	Improving bus circulation, operations, and safety in the Crystal City area.
324	Construct Interchange at Prince William Parkway and University Boulevard.	Construct an interchange at Prince William Parkway (Route 234) and University Boulevard.
325	Construct Interchange at Route 1, Dumfries Road (Route 234), and Potomac Shores Parkway.	Construct a "quadrant at-grade" interchange at Route 1, Dumfries Road (Route 234) and Potomac Shores Parkway.
326	Construct Interchange at Prince William Parkway (Route 294) and Old Bridge Road	Construct an interchange at Prince William Parkway (Route 294) and Old Bridge Road.
327	Route 9 Traffic Calming	Construct safety improvements, traffic calming, and lane widening on Route 9, including in the Town of Hillsboro. Project may include roundabouts and other pedestrian safety improvements.
328	I-95 General Purpose Lanes Widening: Occoquan River Bridge to Dumfries Road (Route 234)	Widen southbound I-95 to four lanes between the Occoquan River Bridge and Dumfries Road (Route 234) at Exit 152.
329	Route 15 Improvements with Railroad Overpass	Project will widen Route 15 from two to four lanes and build an overpass over the existing Norfolk Southern Railway B-Line tracks. The project extends about 1000' north of the tracks and extends approximately 1200' south of the tracks.
330	Fairfax County Express Bus: Reston to Franconia-Springfield	Implement express bus service along Fairfax County Parkway (Route 286) between Reston Metrorail station and Franconia-Springfield Metrorail Station.
331	Tysons Express Bus	Implement express bus service between Tysons and Huntington Metrorail Station, and betweenTysons and Franconia-Springfield Metrorail Station.
332	Construct Lanes on Reston Parkway: Sunrise Valley Drive to Baron Cameron Avenue	Construct lanes on Reston Parkway from Sunrise Valley Drive to Baron Cameron Avenue.
333	Transit Boulevard along Sycamore Street and Roosevelt Street: East Falls Church Metrorail to Seven Corners	Transit and pedestrian/bicycle connections along Sycamore Street and Roosevelt Street with a bridge overpass connecting to planned redevelopment in Seven Corners.

TransAction Plan Project List (Cont.)

TransAction Project ID	Project Name	Project Description
334	Falls Church Metro Station Access	Multimodal access improvements for the East Falls Church and West Falls Church Metrorail Stations, including pedestrian access, bicycle access and bikesharing stations, and bus access.
335	Falls Church Regional Bicycle Connections	On-street bicycle facilities to connect Falls Church's bicycle network to the W&OD, Arlington County's network and Fairfax County's network.
336	Braddock Road Intersection Improvements: Guinea Road to Ravensworth Road	Improvements include access management, intersection improvements, signalization, and pedestrian improvements from Guinea Road to Ravensworth Road.
337	I-495 HOT Lanes: American Legion Bridge to I-270	Extend I-495 Capital Beltway HOT lanes into Maryland via the American Legion Bridge to the I-270 spur.
338	I-95 ITS/ICM Improvements	Implement intelligent transportation systems, adaptive traffic control, and hard shoulder lanes on I-95.
339	Northern Virginia ITS/ICM Improvements	Implement ITS and integrated corridor management strategies on key regional corridors and parallel facilities in Northern Virginia.
340	Northern Virginia TDM Strategies	Implement and expand TDM initiatives and programs in major employment centers within Northern Virginia.
341	Joplin Road Improvements	Implement speed limit adjustments on Joplin Road (Route 619).
342	Route 7 Reversible Lanes: Dulles Toll Road to Route 9	Construct reversible lanes on Route 7 between Dulles Toll Road and Route 9.
343	Dulles Greenway Merge Lanes	Construct additional capacity on Dulles Greenway at merges, particularly at the connections with the Dulles Toll Road, to allow for better operation and weave movements.
344	Route 28 Reversible HOV Lanes: I-66 to Dulles Toll Road	Implement reversible HOV lanes on Route 28 between I-66 and the Dulles Toll Road during AM and PM peak periods.
345	Reston Town Center Express Bus	Implement Express bus service between Reston Town Center and Fairfax Center via Reston Parkway and West Ox Road.
346	Rosslyn-Ballston Corridor Express Bus	Implement enhanced bus service on Fairfax Drive and Wilson Boulevard between Ballston and Rosslyn.
347	Van Dorn Intermodal Facility	Construct intermodal facility in the vicinity of Van Dorn Metrorail Station to facilitate transfers between Metrorail, West End Transitway, and local transit service.
348	I-495 / I-395 Lane Restrictions	Implement lane restrictions for commercial trucks on I-495 and I-395 in Virginia.
349	Braddock Road Widening: Route 28 to Fairfax County Line	Widen Braddock Road to four lanes between Route 28 and the Fairfax County line.
350	Construct Route 28 Corridor Roadway Improvements	Construct Route 28 corridor roadway improvements connecting Prince WIlliam County, City of Manassas, City of Manassas Park, and Fairfax County.
351	South Elden St Reconstruction	Reconstruct South Elden Street between Herndon Parkway and Sterling Road. Project includes signalization and capacity improvements at each intersection as well as streetscape, bike, pedestrian and transit access improvements.
352	Sterling Road Reconstruction	Reconstruct Sterling Road between Elden Street and Rock Hill Road. Project includes signalization and capacity improvements at each intersection as well as streetscape, bike, pedestrian and transit access improvements.



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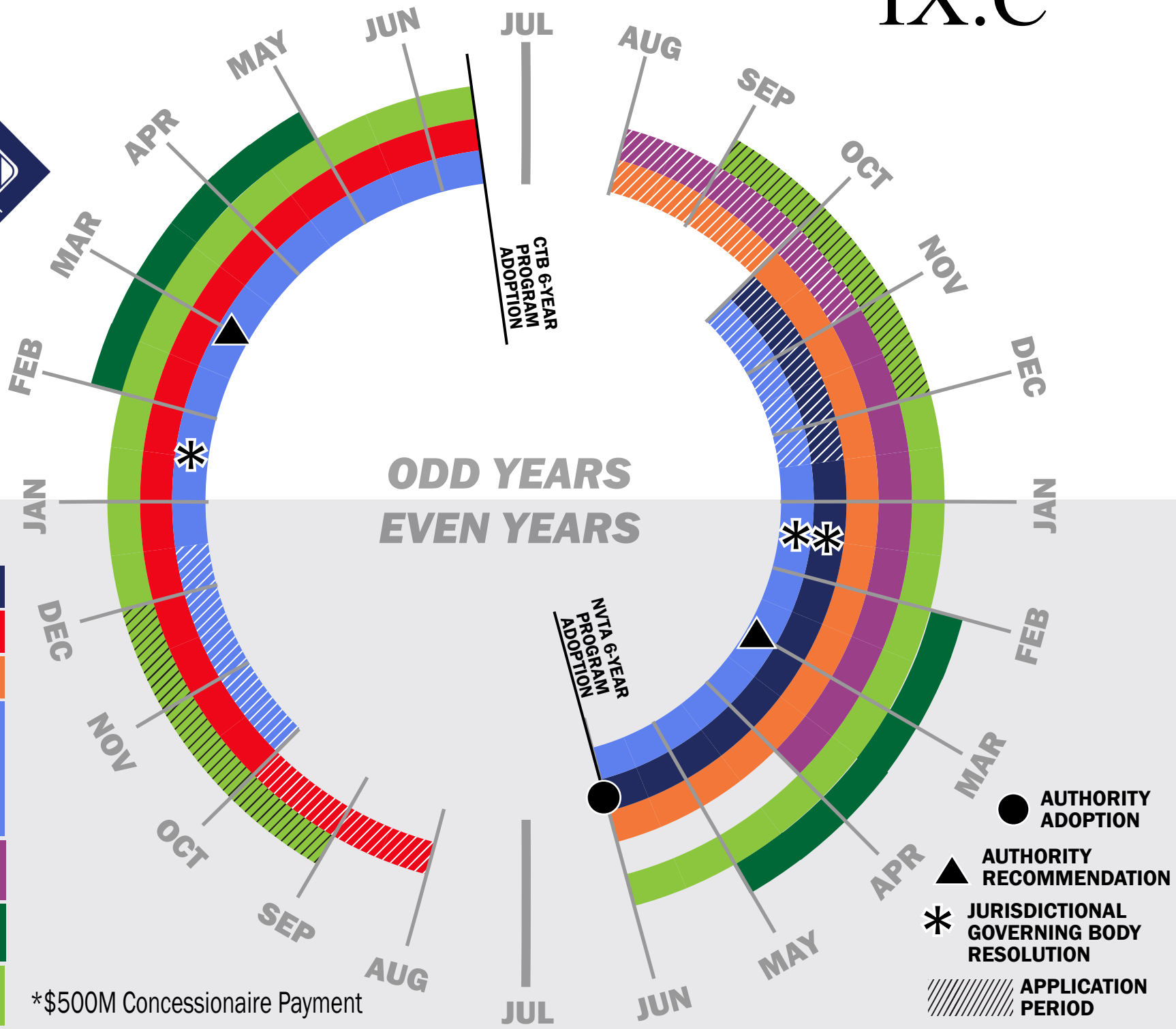
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TRANSPORTATION PROGRAMMING TIMELINE (FY2017-18)

IX.C



LEGEND

- NVTA 70% Funds
- Smart Scale
- Revenue Sharing
- Congestion Mitigation and Air Quality (CMAQ)
- Regional Surface Transportation Program (RSTP)
- Transportation Alternatives Program (TAP)
- Transportation/Land-Use Connections (TLC)
- I-66 Inside the Beltway Toll Revenue

*$500M Concessionaire Payment

- AUTHORITY ADOPTION
- AUTHORITY RECOMMENDATION
- * JURISDICTIONAL GOVERNING BODY RESOLUTION
- APPLICATION PERIOD