# BRT Initiatives at the Northern Virginia Transportation Authority

TPB Technical Committee February 1, 2019

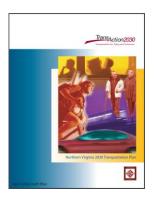


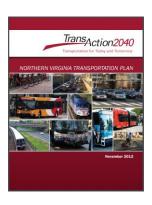
**Sree Nampoothiri, Transportation Planner, NVTA** 



#### **Two Primary Responsibilities**

1. Develop and update the long range, <u>multi-modal</u> Transportation Plan for Northern Virginia → **TransAction Plan** (adopted October 2017)







2. Prioritize and fund regional transportation projects  $\rightarrow$  Six Year **Program** (adopted June 2018)

















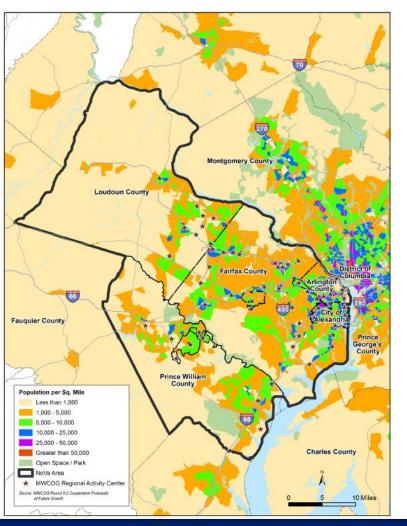


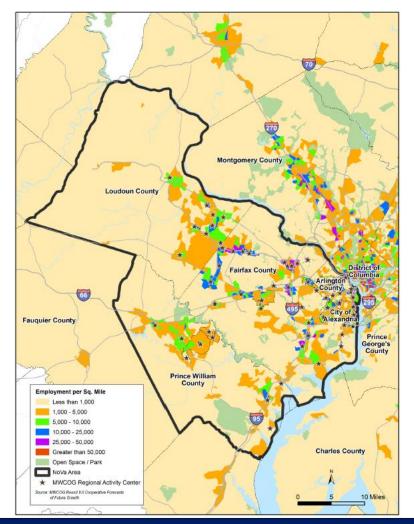
#### **Regional Collaboration**

#### **NVTA TPB/MWCOG Updates and implements** Federally designated MPO for TransAction, the long-range the region transportation plan for Maintains and updates **Northern Virginia** regional CLRP and travel **Dedicated source of funding** demand model for construction and Prepares plans and programs implementation required for region to receive transportation funding VDOT - NoVa **WMATA Compact** Oversees more than 17,000 lane-miles of **Develops Regional** roads in Northern Virginia **Transit System Plan** Responsible for Implements a Six-Year Capital evaluating significant **Improvement Program** regional transportation projects (HB599) Commonwealth of **Virginia** NVTC PRTC Focus on regional transit **Oversees VDOT and dictates** policy state-wide policy and funding priorities Plan, coordinate, and secure funding for transit Legislatively mandates in Northern Virginia evaluation and prioritization processes, including Ownership partners in **TransAction** VRE



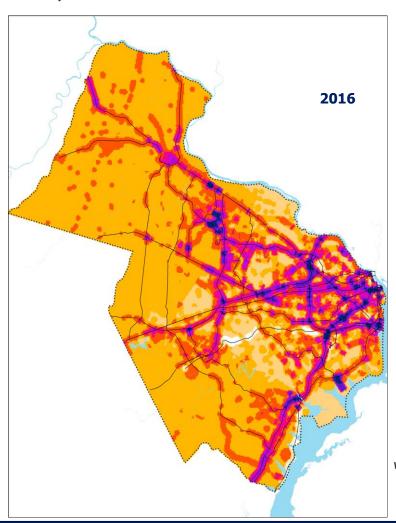
### Growth in Population (24%) and Jobs (37%)...

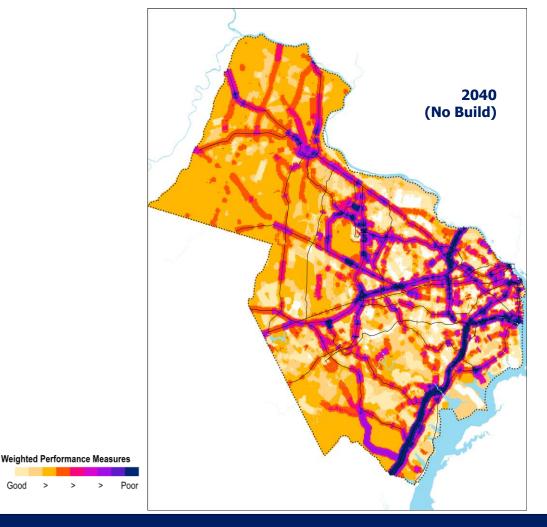






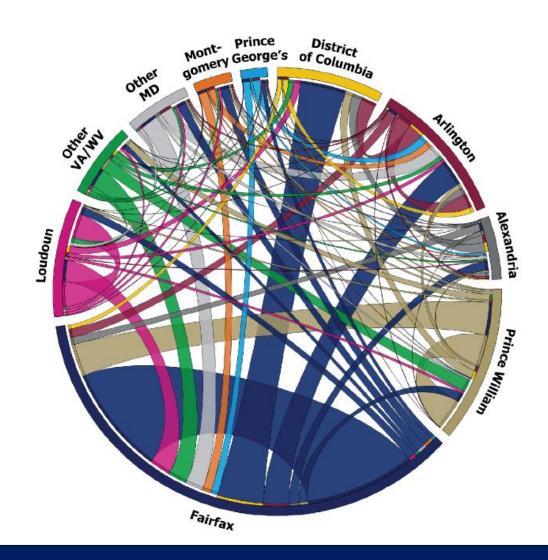
#### ... will lead to worsening travel conditions







#### **Vehicular Commute Trip Patterns**

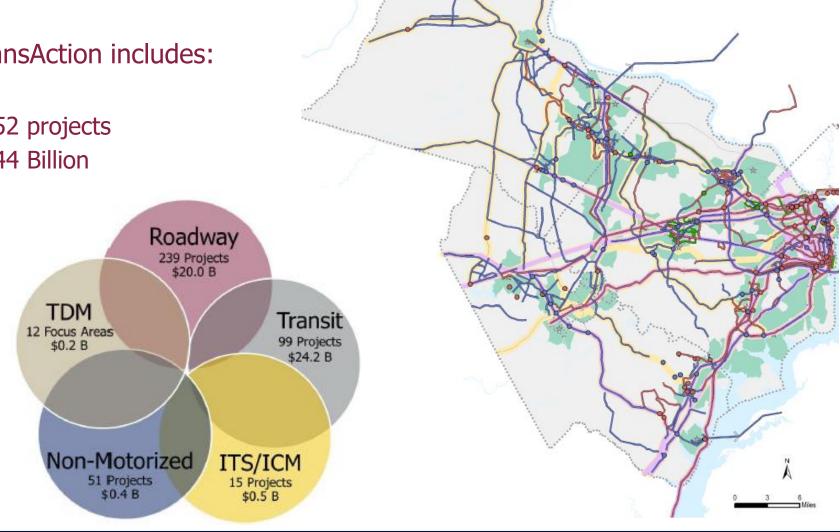




#### TransAction includes:

• 352 projects

• \$44 Billion



**TransAction Plan** 



#### **TransAction and Visualize 2045**

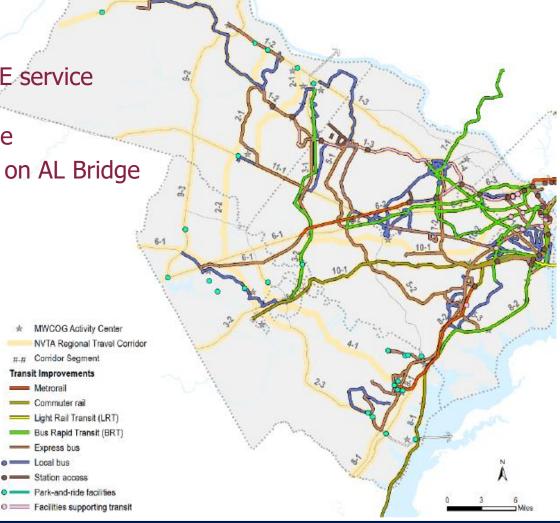
#### Common ground with aspirational elements

- 1. Bring jobs and housing closer together (Scenarios)
- 2. Expand bus rapid transit regionwide
- 3. Move more people on Metrorail
- 4. Increase telework and other options for commuting
- 5. Expand express highway network
- 6. Improve walk/bike access to transit
- 7. Complete National Capital Trail



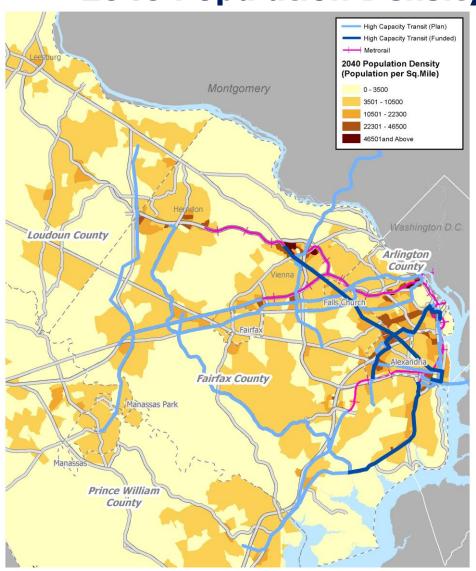
**Transit Elements in TransAction** 

- Metrorail (second tunnel)
- Commuter rail (increased VRE service + cross over)
- Light rail (LRT) on WW Bridge
- Bus Rapid Transit (BRT) incl. on AL Bridge
- Express bus
- Local bus
- Station access
- Park n Ride facilities
- TSP/ITS



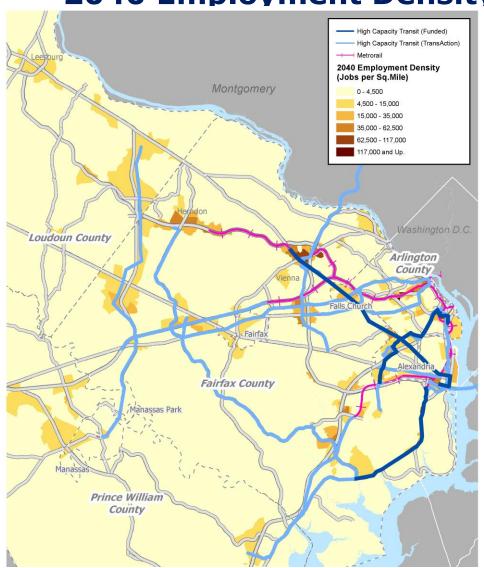


#### **2040 Population Density**





**2040 Employment Density** 





#### **Model Assumptions**

- Different speed, capacity, and frequency assumptions for
  - Metrorail
  - VRE
  - LRT
  - BRT dedicated lane (Richmond Highway)
  - BRT mixed traffic
  - Express bus
  - Local bus



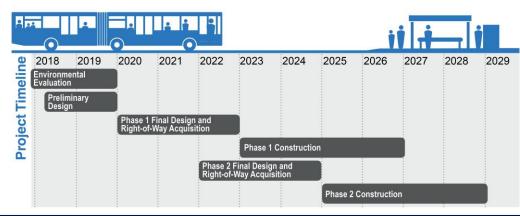
## Richmond Highway BRT Fairfax County

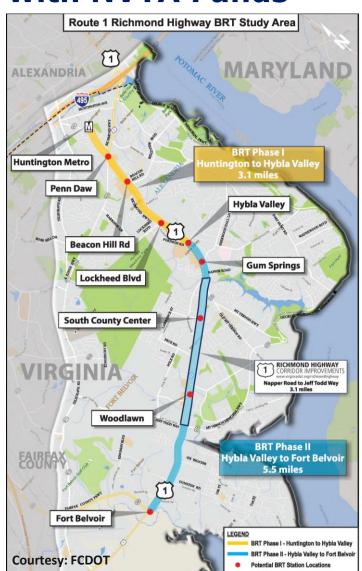
Type: Median running

Length: 10.4 miles

Total Cost: \$730 million

NVTA Funds: \$250 million







## Pentagon City Transitway Extension Arlington County

Type: Median/curbside exclusive lanes and mixed traffic

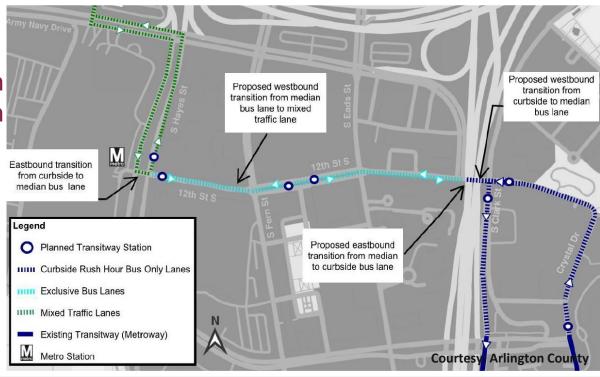
Length: 1.5 mile

Total Cost: \$47 million

NVTA Funds: \$29 million

Design: 2017-2019

Construction: 2019-2021





West End Transitway Phase 1 (Landmark Mall to Pentagon)

**City of Alexandria** 

Type: Exclusive lanes/mixed traffic

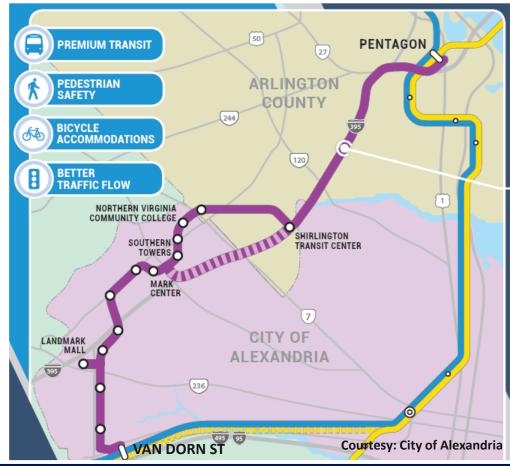
Length: 5.3 miles

Total Cost: \$128 million

NVTA Funds: \$4.6 million

Design: 2017-2019

Construction: 2020-2023





#### **Route 7 BRT**

**Fairfax Co-Arlington Co-Falls Church-Alexandria** 

Type: Exclusive lanes/mixed traffic

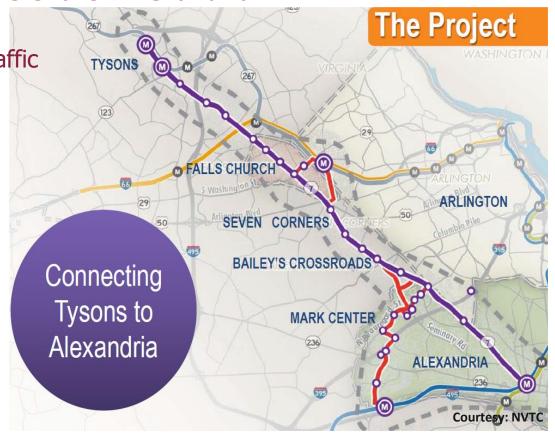
Length: 12 miles

Total Cost: \$300 million

NVTA Funds: \$800,000

Current status:

Conceptual engineering study





#### Conclusion

NVTA's TransAction Plan developed a vision for high capacity transit corridors in Northern Virginia including connections to the District of Columbia and Maryland.

NVTA's SYP is already moving multiple BRT projects in the region.

Common ground between Visualize 2045 and NVTA's TransAction Plan and SYP projects.

NVTA continue to collaborate with regional agencies in Moving Region Forward.



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in Northern Virginia Transportation Authority