Strategic Planning for Transportation Technologies

March 11, 2020
NoVA Transportation Roundtable
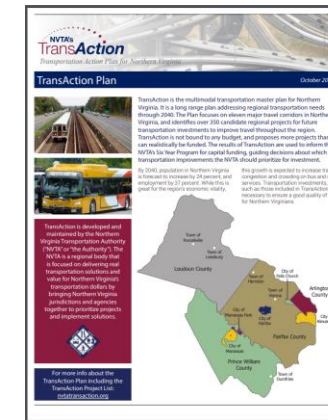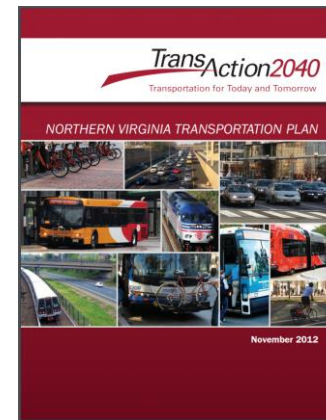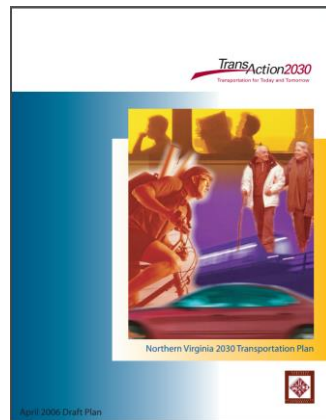
Presented by:

Councilmember David Snyder, City of Falls Church

Member, Northern Virginia Transportation Authority

Chair, Transportation Technology Committee

NVTA Context:
Two Primary Responsibilities

1. Develop and update the long-range, multimodal Transportation Plan for Northern Virginia → TransAction (updated every five years, last adopted October 2017, **update underway**)

2. Prioritize and fund regional transportation projects → Six Year Program (updated every two years, FY2018-FY2023 Six Year Program adopted June 2018, **update underway**)

Note: NVTA cannot use its regional revenues to fund projects that are not included in the current version of TransAction

Role of Transportation Technology Committee (TTC)

The TTC was established in October 2018 and held its inaugural meeting in January 2019. The TTC has three roles:

1. To advise the NVTA Executive Director on multimodal transportation technologies and related transportation trends that support (or endanger) the vision of the Authority as stated in its current Five-Year Strategic Plan;

2. To make specific recommendations for consideration by the NVTA Executive Director related to the development of TransAction, the regional, multi-modal, long-range transportation plan for Northern Virginia, and the development of updates to the Authority's Six Year Program; and

3. To develop an evidence-based body of knowledge that will educate and inform regional policy makers on multi-modal transportation technologies and related transportation trends.

The TTC is currently focused on supporting the development of NVTA's first ever Transportation Technology Strategic Plan, a draft of which will be available for review in April 2020.

Purpose of Transportation Technology Strategic Plan (TTSP)

- Support NVTA's ongoing activities to stay current on transportation technologies and emerging trends, e.g. *Driven by Innovation* eblast;

- Identify strategies and associated roles for NVTA regarding transportation technologies in Northern Virginia and the DC Metro area;

- Integrate into the current TransAction update, and inform how TransAction should address transportation technologies on multiple time horizons
  - Today, e.g. Intelligent Transportation Systems (ITS) technologies, shared mobility
  - During the next couple of years, e.g. enhanced ITS technologies, Mobility as a Service (MaaS), Micromobility
  - Multi-decadal basis, e.g. Connected, Autonomous, Shared, Electric (CASE) vehicles

- Guide future project investment decisions.

TTSP Approach

- Needs-driven; what are the transportation needs and priorities that NVTA desires to accomplish?

- Which technologies have the potential to support (or hinder) these needs and priorities?

- What strategies and associated roles should NVTA consider?

- How well does each strategy address core values?
  - Safety
  - Equity
  - Sustainability
  - Accessibility

- Other considerations for each strategy:
  - Data
  - Transitional effects, i.e. how will technologies evolve in coming years and decades?

Preliminary Strategies

TransAction Goal	Preliminary Strategy
Goal 1: Enhance quality of life and economic strength of Northern Virginia through transportation	Reduce congestion
	Maximize access to jobs, employees and housing
	Maximize cybersecurity and maximize privacy for members of the public
Goal 2: Enable optimal use of the transportation network and leverage the existing network	Increase person miles traveled at a rate faster than vehicle miles traveled and minimize potential for Zero Occupancy Vehicles
	Develop pricing mechanisms that manage travel demand and provide sustainable travel options
	Maximize the potential of physical and communication infrastructure to serve existing and emerging modes
	Enhance regional coordination and encourage interoperability in all systems
Goal 3: Reduce negative impacts of transportation on communities and the environment	Create a network of charging infrastructure, for use by private and fleet vehicles

Potential Roles for NVTA

Authority Roles

- Funding: allocate regional revenues through NVTA's established project selection process for the Six Year Program (candidate projects must be included in TransAction);

- Policy: lead the development of regional policies to ensure a consistent regional approach in policy areas not currently addressed;

- Advocate: add language to NVTA's legislative agenda (federal and state) in support of transportation technology-related positions;

Coordinating Roles

- Champion: adopt a leadership (non-funding) position on relevant initiatives, e.g. RM3P;

- Facilitate: enable partners and stakeholders to interact and develop common positions;

- Stakeholder: contribute to the discussion without taking a leadership position;

Staff Roles

- Planning: Incorporate technology trends/impacts into transportation planning responsibilities;

- Outreach/Education: Inform Authority members on relevant technologies and emerging trends;

- Observer: Report back on status of specific topics that are of interest to Authority members.

Next Steps

- April: Review draft TTSP with TTC
- May: Review draft TTSP with other NVTA committees
- June: Incorporate comments; update TTSP
- July: Authority approves TTSP
- Fall: TransAction consultant selected
- By December 2022: Authority approves TransAction update