TRANSPORTATION TECHNOLOGY COMMITTEE
Wednesday, September 11, 2019, 8:30am

Northern Virginia Transportation Authority
3040 Williams Drive, Suite 200
Fairfax, Virginia 22031

AGENDA

I.   **Call to Order/Welcome**   Chairman Snyder

Action

II.   **Approval of Meeting Summary of July 10, 2019 Meeting**

Discussion/Information

III.   **Introductions and Member Updates** (20 mins)

IV.   **Regional Multimodal Mobility Program Update** (10 mins)

V.   **TTC Workplan** (60 mins)

    A. **Recap**

    B. **First Thoughts on Deliverable #1 (Appropriate Role of Technology, Challenges/Opportunities)**

VI.   **Candidate Future TTC Briefings** (15 mins)

Adjournment

VII.   **Adjourn**

Next Meetings:
October 23, 2019 at 8:30am (tentative)
November/December TBD

Purpose of TTC Work Plan

- To advise the Northern Virginia Transportation Authority (NVTA) Executive Director on multi-modal transportation technologies and related transportation trends that support (or endanger) the vision of the Authority as stated in its current Five-Year Strategic Plan;
- 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. Such recommendations may include the use of transportation technologies to complement traditional transportation infrastructure and enhance the operation and performance of the regional transportation system; and
- 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.

TTC Scope and Horizons

While the TTC's advice shall be NoVA-focused, the TTC should consider broader regional, national and international trends while embracing local transportation preferences wherever possible. TTC's recommendations should reflect the likely uncertainty in the maturation schedules of future transportation technologies and related trends, while recognizing that pilot deployment initiatives could occur much sooner, e.g. automated shuttles and delivery services.

The TTC will address transportation technologies and related trends that are occurring on multiple, overlapping timelines:

- 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)
- Multi-decadal basis, e.g. Connected, Autonomous, Shared, Electric (CASE) vehicles

Proposed Deliverables

Four initial deliverables are proposed. Drafts will be developed by NVTA staff, in collaboration with staff from other entities where appropriate. Deliverable format will be white papers and/or presentations. Review and finalization of deliverables is expected to take up to three months for each deliverable. Deliverables will identify areas that can be directly addressed by NVTA, but will not be limited to these.

The deliverables will support the development of a Transportation Technology Strategic Plan, identifying strategies and actions that support the deployment of appropriate transportation technologies to address regional transportation needs.

Deliverables are categorized as either 'action-oriented' or 'supporting'. The former category incorporates initiatives related to how technologies will address the region's transportation needs,

identifying associated policy considerations that support the Authority's vision while mitigating any potentially negative impacts. The latter category of deliverables will provide relevant regional transportation context, and identify appropriate research and communications initiatives that support the Transportation Technology Strategic Plan.

Action-oriented deliverables

1. **Appropriate Role of Technology, Challenges/Opportunities (first draft September 2019)**
    o Define linkages between needs and technology, e.g.:
        ▪ Improve safety/enhance emergency management
        ▪ Reduce congestion, first/last mile options
        ▪ Improve access to labor, accessibility to jobs, healthcare, etc.
        ▪ Improve access for the mobility-impaired
        ▪ Reduce emissions/build resilience
    o Identify moral/ethical and other implications related to technology deployment, and identify options to address including:
        ▪ Equity for vulnerable populations
        ▪ Data ownership
        ▪ Privacy
        ▪ Cyber Security
    o Identify technology related scenarios (alternate futures) for analysis during TransAction development, e.g.:
        ▪ Impact of travel behavior changes arising from RM3P build-out
        ▪ Impact of travel behavior changes related to CASE vehicles
        ▪ Impact on business location decision-making process
    o Consider the operations and maintenance implications and costs of different types of technology deployments, and identify sustainable approaches to funding
    o Roles and responsibilities of the public and private sectors
        ▪ Explore opportunities for public/private partnerships, and barriers to entry for the private sector
        ▪ What are the implications for funding, deployment, etc.?
    o Adequately prepare for future technology disruptions, highlighting the need to adapt to changing circumstances and timelines
    o Consider future enhancements to RM3P, and interoperability with other tools

2. **Regional Technology Policy Development Needs (first draft October 2019)**
    o Identify regional policy development process;
    o Necessary institutional infrastructure;
    o Incentivize increased vehicle occupancy across all modes;
    o Variable use-based pricing for EVs/AVs;
    o Facilitate development of EV infrastructure;
    o Data (sharing/security/privacy) policies, where possible conducting scans to better understand current practices regarding approaches being considered/applied

throughout the Commonwealth and elsewhere, as well as any barriers to data collection;
- o Equitable distribution of technology benefits;
- o Guidelines for funding future technology deployments, recognizing the likely life cycles for technology development through obsolescence;
- o Mitigation of potentially negative impacts;
- o Curb and parking management strategies; and
- o CASE vehicle deployment stimulation strategies

Supporting deliverables

3. **NVTA/NoVA Transportation Primer (first draft November 2019)**
   - o Summarize regional transportation needs;
   - o Provide TTC members with a better understanding of TransAction vision, goals, performance measures, etc.;
   - o Summarize region's current transportation technology activities, e.g. Connected Corridor, RM3P, TSP, data-sharing, EV infrastructure and private sector initiatives[1];
   - o Identify future technology-related deployment opportunities, e.g. Bus Rapid Transit (BRT), AV-only boulevards, AV-Express Lanes;
   - o Identify potential funding sources for future technology ('soft infrastructure') deployments; and
   - o Identify existing and potential roles of public and private sectors, and opportunities for partnership.

4. **Research/Outreach/Education (first draft December 2019)**
   - o Better understand Northern Virginians' level of awareness, concerns, and desires with respect to technology;
   - o Using facts rather than 'hype', develop appropriate messaging for multiple target audiences:
     - ▪ Authority members; policy development, investment strategies
     - ▪ Member jurisdiction and agency staff; technical education, skill needs/gaps, encourage 'big thinking'
     - ▪ Regional stakeholders, including the business community; collaboration opportunities, synergies
     - ▪ Northern Virginians; technology awareness, safeguards, impacts, advantages, disadvantages, and value for money
     - ▪ Private sector; partnership opportunities
   - o Incorporate 'trigger points' into NVTA staff annual reports on transportation technologies and emerging trends. Trigger points could be when certain thresholds are

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[1] Could include regional initiatives in Maryland, The District or elsewhere that are of interest to NoVA

reached, such as market penetration levels, which may in turn 'trigger' a review of prior analyses or assumptions.

Role of TTC members

- Review draft deliverables and provide feedback;
- Where appropriate, suggest additional work plan deliverables; and
- Inform the TTC on matters relevant to the TTC Work Plan.