



# Northern Virginia Transportation Authority

*The Authority for Transportation in Northern Virginia*

## TRANSPORTATION TECHNOLOGY COMMITTEE

Wednesday, November 30, 2022, 8:30 am

Electronic meeting and livestreamed on [YouTube](#)

### MEETING SUMMARY

#### I. **Call to Order/Welcome**

- Chairman Snyder called the meeting to order at 8:30 am.
- Attendees:
  - **TTC Members:** Councilmember/Chairman David Snyder (City of Falls Church and Authority Member); Mayor Jeanette Rishell (City of Manassas Park and Authority Member); Dr. Richard (Dick) Mudge (Compass); Mike Garcia (FCDOT); Andrew Meese (Transportation Planning Board); Dr. Robert Schneider (Potomac and Rappahannock Transportation Commission); Reginald Viray (Virginia Tech Transportation Institute); Brad Stertz (Audi and PAVE); Mike Fontaine (Virginia Transportation Research Council); and Jim Kolb (Summit Strategies Government Affairs).
  - **NVTA Staff:** Monica Backmon (Chief Executive Officer); Keith Jasper (Transportation Planning and Programming Principal); Dr. Sree Nampoothiri (Senior Transportation Planner) and Mackenzie Love (Regional Transportation Planner).

### Action

#### II. **Summary Notes of July 6<sup>th</sup>, 2022, Meeting**

The meeting summary was approved unanimously, with abstention from members not present.

### Discussion/Information

#### III. **Transportation Technology Committee (TTC) Membership Update**

Due to several members of the TTC no longer being able to participate, this was the first committee meeting for four new members. For that reason, Mackenzie Love described the goals and brief history of the TTC and the Transportation Technology Strategic Plan (TTSP) along with its ongoing updates.

The following new members were introduced to the TTC:

- Brad Stertz – Audi and PAVE (Partners for Automated Vehicle Education)
- Chris Bast – Electrification Coalition
- Supervisor Waltor Alcorn – Fairfax County Board of Supervisors
- Mike Fontaine – Virginia Transportation Research Council

The history of the TTSP which included the following highlights over the past several years was shared:

- 2017: An update to TransAction was adopted, which contained the genesis of the TTC
- 2019: First meeting of the TTC
- 2020: Draft TTSP shared with TTC
- 2021: The Authority adopted the inaugural TTSP and Action Plan
- 2022: The TTC and Authority unanimously voted to endorse expansion of the scope of strategies 4 and 8, and to add a 9<sup>th</sup> strategy

Progress updates on TTSP implementation which included ongoing coordination with Virginia Department of Transportation (VDOT) Signal Operations group from NVTA staff was shared by Mackenzie Love. Next, the Federal Highway Administration (FHWA) is developing a framework for integrating Emerging Trends and Technologies (ETTs) into Transportation Systems Management and Operations (TSMO) efforts. Lastly, there was an announcement on the status of the new InNoVation Lunch and Learn series hosted by NVTA designed to provide opportunities to exchange pragmatic information that practitioners could find useful.

- October 20<sup>th</sup>, 2022 at 11am
  - Speaker: John Zarbo, Operations Section Chief, FCDOT
  - Topic: Lessons Learned from the Relay Shuttle in Merrifield
- November 17<sup>th</sup>, 2022 at 11am
  - Speaker: Joe Stainsby, Chief Development Officer, OmniRide
  - Topic: Lessons Learned in Preparing for the Launch of Microtransit
- December 15<sup>th</sup>, 2022 at 11am
  - Speaker: Alvaro Villagran, Director of Federal Programs, Shared Use Mobility Center
  - Topic: Best Practices for Mobility Hubs

Mayor Rishell pointed out that on the TTSP Technology Timeline under 2022 – Greenhouse Gas Inventory from Department of Environmental Quality (DEQ), there should be a call out for “cold fusion” as it is another source that could help reduce greenhouse gas emissions.

#### IV. **Transportation Technology Strategic Plan (TTSP) Progress Update**

Mackenzie Love shared that TTSP updates were approved by the Authority on November 10<sup>th</sup>, 2022. These updates included:

- Expansion of existing strategy #4, which originally focused on minimizing Zero Occupancy passenger Vehicles, and will now also address ways to maximize potential benefits of connected and Automated Vehicles.
  - The title of strategy #4 will be changed to “Enhance operations of the multimodal transportation system through connectivity and automation.”
- Expansion of existing strategy #8 which aims to advance decarbonization of the transportation system to include new technologies that could reduce Greenhouse Gas Emissions (GHGs), such as Hydrogen, and technologies that could help improve resiliency, like Vehicle to Grid (V2G).

- Addition of a 9th strategy titled “Enhanced mobility in the region through innovation and emerging technologies in transit.”

Input on potential topics for the 8<sup>th</sup> Annual Northern Virginia Transportation Roundtable was discussed. Brad Stertz offered that hydrogen is far behind electrification and should be held off being presented. He stated that Cellular Vehicle to Everything (CV-2X) has built momentum recently and could serve as a topic for the Roundtable. Michael Fontaine mentioned smart intersection technology that looks at lidar detection of pedestrians and cyclists to track their trajectories to make intersections safer for all users. VDOT is also deploying statewide automated traffic signal performance measures, which provides a more granular perspective of the performance of traffic signals.

V. **TransAction Update**

Mr. Jasper reviewed the purpose of TransAction (TA), Northern Virginia’s long-range transportation plan through horizon year 2045, updated every 5 years, which will hopefully be the point of adoption at NVTA’s December meeting. Projects in TA are evaluated as a group, not individually, and use 10 weighted performance measures. The plan includes projects that are fiscally and geographically unconstrained, with the intent to show the region’s transportation needs without any cost or geographical constraints. TA is not a funding document and does not commit NVTA to funding any project (NVTA’s Six Year program [SYP] selects projects for funding using Regional Revenues— or 70%).

With NVTA’s December meeting approaching, there is anticipation of adoption of TA after about three years of development. More information regarding TA is available at <https://nvtatransaction.org/resources/>. The final plan will be uploaded to the site when it is completed.

From a technology standpoint, there are 17 of 424 projects listed in TA that are primarily technology based. These projects vary in cost and include Intelligent Transportation Systems (ITS), transit signal priority (TSP), and Electric Vehicle (EV) infrastructure projects which would be important for decarbonization.

VI. **NVTA Update**

Mr. Jasper informed the committee that the anticipated adoption of TransAction (TA) Update will retire the previous version of the plan. The newly adopted TA will be used for project eligibility for funding during the upcoming SYP application period of May 1 through July 28 of 2023, as well as the FY2026-2031 and FY2028-2033 SYPs.

VII. **Member Updates**

One TTC member also provided an update:

- Dick Mudge gave a lecture to a transportation class at George Mason focused on the macro view of automated vehicles compared with other broad-based

technologies. He went on to share that his work with Robotic Research on autonomous buses has actually looked to Advanced Driver Assistance Systems (ADAS) rather than fully automated driving. ADAS includes features like lane tracking, platooning, and collision avoidance and is more cost effective and less challenging to implement than fully automated vehicle technology. Therefore, there is a stronger focus now on ADAS. He mentioned his preference for automated Bus Rapid Transit (BRT) to be included in the next TransAction Update. He followed up by stating that the federal procurement process lacks inclusion of innovative technology, so there is an opportunity for Public-Private Partnerships (PPPs) as a way to obtain private funding to speed the process for tech-based projects. Lastly, he highlighted AV technology within freight transportation and suggested that the next TransAction update include freight technology aspects.

### **Adjournment**

- The meeting adjourned at approximately 9:44 am.