



# Northern Virginia Transportation Authority

The Authority for Transportation in Northern Virginia

## TECHNICAL ADVISORY COMMITTEE

Wednesday, April 20, 2022, 7:00pm

3040 Williams Drive, Suite 200

Fairfax, Virginia 22031

(In-person meeting and livestreamed via [YouTube](#))

### AGENDA

- I. **Call to Order/Welcome** Chair Boice

#### Action

- II. **Summary Notes of March 16<sup>th</sup>, 2022 Meeting** Chair Boice  
*Recommended action: Approve meeting notes*

#### Discussion/Information

- III. **Status of FY2022-2027 Six Year Program Update** Dr. Nampootheri, Senior  
Transportation Planner
- IV. **Status of TransAction Plan Update** Dr. Nampootheri, Senior  
Transportation Planner
- V. **NVTA Updates** Ms. Monica Backmon,  
CEO

#### Adjournment

- VI. **Adjourn**

**Next Meeting**  
*May 18<sup>th</sup>, 2022*



**TECHNICAL ADVISORY COMMITTEE**  
**Wednesday, March 16th, 2022, 7:00 pm**  
**Northern Virginia Transportation Authority**  
**Live-streamed on [YouTube](#)**

**MEETING SUMMARY**

**I. Call to Order/Welcome**

- Chairman Boice called the meeting to order at 7:03 pm at the NVTA Office.
- Attendees:
  - **TAC Members:** Randy Boice, Karen Campblin, Armand Ciccarelli, Amy Morris, Frank Spielberg, and Dr. Shanjiang Zhu.
  - **NVTA Staff:** Keith Jasper, Principal, Transportation Planning and Programming; Dr. Sree Nampoothiri, Senior Transportation Planner; and Mackenzie Love, Regional Transportation Planner.
  - **Consultants:** Tom Harrington (Cambridge Systematics Inc.)

**II. Summary of November 22, 2021, Meeting**

- The motion to accept the meeting summary was approved unanimously.

**III. Approval of Meeting Schedule for Calendar Year 2022**

- Mr. Jasper noted that NVTA Staff intend to seek endorsements for the FY2022-2027 Six Year Program (SYP) during the June 15<sup>th</sup> meeting.
- The motion to accept the draft meeting schedule was approved unanimously.

**IV. Status of FY2022-2027 Six Year Program Update**

- Dr. Nampoothiri provided an update on the process that had been undertaken as of March 16<sup>th</sup>, 2022, to evaluate the 26 projects that had been submitted for consideration in NVTA's FY2022-2027 Six Year Program (SYP.) This included calculation of the TransAction Performance Measures and weightings, which can be found in Attachment A.

**TransAction Ratings.** These ratings represent the difference in each of the Performance Measures included in TransAction that NVTA's model anticipates would occur if the project were built. For each Performance Measure, the project that receives the best result is assigned a score of 100 and all other projects are assigned a score that is relatively proportionate. Once each project has been assigned a score for each Performance Measure, the weights previously approved by the Authority are applied to

those scores, which are summed to get an overall TransAction Rating for each project.

NVTA Staff have shared the preliminary TransAction Ratings for each project submitted by a jurisdiction, to ensure no errors were made in modeling any project.

**Congestion Reduction Relative to Cost (CRRC).** To calculate this, NVTA's model is used to assess potential congestion reduction in the region due to the project being built in 2030 and in 2045. This is reported in TransAction Performance Measures A1 and A2, and staff are able to use these results to extrapolate changes for each year between 2030 and 2045. The results for all years from the year of project completion are then summed for each project, and that is divided by the total cost of that project.

**Long Term Benefit (LTB).** Virginia Code states that over the long term, jurisdictions should receive a benefit from NVTA's investments that are approximately equal to the share of revenues that can be attributed to that jurisdiction, in the long term.

Mr. Jasper explained that the Code does not describe how to calculate this Long Term Benefit, so in 2014 NVTA worked with its committees to determine that "long term" would be considered to mean 10 years, and that LTB would be calculated on a rolling basis. They also worked to establish a methodology, which would use two factors to create a score. 50% of said score would be based on the amount of revenues allocated to projects by a jurisdiction, and the remaining 50% would be related to where the benefits of projects could be attributed. He went on to explain that because NVTA has recently allocated 10 years of funding, it is now time to begin calculating LTB. He cautioned that it is unlikely that all jurisdictions will be in perfect balance in regards to LTB at any point, and that corrections would take multiple SYP cycles. Despite this, LTB balance may inform project selection in a given SYP cycle, but would not be the primary factor in funding recommendations.

- Dr. Nampoothiri distributed copies of a table that detailed the factors that will be considered in evaluating projects for the FY2022-2027 SYP. It included columns for CRRC rating and rank, which will be used to order candidate projects in the table; TransAction rating and rank; and LTB scores. The remaining factors are qualitative and include:

- Amount and type of external funding already committed to the project
  - Past performance of the applicant in using NVTA funds, and, if applicable, past performance of that particular project in using NVTA funds
  - Project readiness.
- Dr. Nampoothiri also noted that public comment will also be considered. Mr. Jasper noted that NVTA is also interested in geographic and modal balance, but that assessment of these factors can only be done at the end of the process.
    - Mr. Spielberg asked if this approach favors adding highway capacity? Chairman Boice highlighted that in one year, Virginia Railway Express (VRE) and an Intelligent Transportation System (ITS) were actually the top two highest performing projects. Mr. Jasper added that the Consultant team working on TransAction does a good job addressing all modes.

Dr. Nampoothiri shared upcoming opportunities for the public to provide input:

- A Public Comment Period will begin on April 15<sup>th</sup> and end on May 22<sup>nd</sup>;
  - A Public Hearing will be held on May 12<sup>th</sup>, on the same evening as the Authority meeting; and
  - An Open House will be held as part of the Joint Transportation Agency meeting, that will take place on May 4<sup>th</sup> at the Virginia Department of Transportation offices.
- NVTA Staff hope to seek Authority adoption of the SYP 2022-20227 at its July meeting.

## **V. Status of TransAction Plan Update**

- Dr. Nampoothiri informed the Committee that the model being developed for TransAction is now ready and has been used to create a baseline to which projects will be compared. The team is now working to finalize top-down project lists, based on gaps identified in the region. Once that list is finalized, NVTA Staff will share the full TransAction project list (including both top-down and those contributed by jurisdictions) with the Committee. After that, the model will be run to evaluate the projects. Next, work will begin on the TransAction scenario analysis process.

Dr. Nampoothiri also provided an update on TransAction public engagement, indicating that NVTA Staff intend to ask the Authority to approve a date for a Public Hearing, likely in September, on the same evening they are asked to adopt

the SYP. This timing would align with hopeful adoption of TransAction by the end of this calendar year. Other recent engagement activities included the 4<sup>th</sup> iteration of the NVTA Perceptions survey; creation of “micro-moments” on NVTA’s social media; and publishing a series of monthly blog posts about the TransAction process.

- Mr. Spielberg asked two questions about the TransAction Technical Memo, which had been shared with the Committee before the meeting:
  - How would free-flow be calculated for use in evaluation of Person Hours of Delay, or PHD, a TransAction Performance Measure? Mr. Harrington indicated that this would be calculated based on the speed limit of a road.
  - What are the origins of the Crash Mitigation Factors (CMFs) utilized in the TransAction Performance Measures around safety? Mr. Harrington explained that most of the CMFs are standard from SmartScale, which is the Commonwealth’s competitive grant program for transportation projects. Chairman Boice added that the CMFs are based on the national Highway Safety Manual.

## **VI. NVTA Updates**

- Mr. Jasper reminded the Committee that NVTA would be hosting the 7<sup>th</sup> Annual Northern Virginia Transportation Roundtable on Wednesday, March 30<sup>th</sup>, and invited them to register.
- Mr. Jasper informed the Committee that the Authority meeting scheduled for April 14<sup>th</sup> was being rescheduled, and that April 21<sup>st</sup> was the most likely option.

## **VII. Adjournment**

- The meeting adjourned at 8:53 pm.

### **Attachment:**

#### **A. Weights for the Ten Performance Measures Recommended by the Authority**

**Weights for the Ten Performance Measures Recommended by the Authority**

<b>Approved by the Authority</b>			
<b>Goal</b>		<b>Performance Measure</b>	<b>Weight</b>
<b>Mobility</b>	A1	Total Person-Hours of Delay in autos*	<b>10</b>
	A2	Total Person-Hours of Delay on Transit*	<b>10</b>
	B1	Duration of Severe Congestion*	<b>10</b>
	B2	Transit person-miles in dedicated/priority ROW*	<b>10</b>
<b>Accessibility</b>	C1	Access to jobs by car, transit, and bike*	<b>10</b>
	C2	Access to jobs by car, transit, and bike for EEA populations	<b>10</b>
	D1	Quality of access to transit and the walk/bike network	<b>15</b>
<b>Resiliency</b>	E1	Potential for safety and security improvements	<b>10</b>
	F1	Vehicle Emissions	<b>10</b>
	G1	Transportation System Redundancy*	<b>5</b>

\* HB599 measures