



Northern Virginia Transportation Authority
The Authority for Transportation in Northern Virginia

TECHNICAL ADVISORY COMMITTEE

Wednesday, January 18, 2017, 7:00pm

**NVTA Office
3040 Williams Drive, Suite 200
Fairfax, Virginia 22031**

AGENDA

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

Action

- II. Approve Summary Notes of November 16, 2016 Meeting**
*Recommended Action: Approval [with abstentions
from those who were not present]*
- III. CY2017 Meeting Schedule** Ms. Backmon, Executive Director
Recommended Action: Approval of Calendar
- IV. CY2017 Chair/Vice Chair Nominations** Ms. Backmon, Executive Director
Recommended Action: Approval of Chair/Vice Chair Nominees
- V. TransAction:
Weightings of Performance Measures** Mr. Jasper, Principal, Transportation
Planning & Programming
*Recommended Action: Approval of
Weightings of TransAction Performance Measures*

Discussion/Information

- VI. Development of Six Year Program
Framework** Mr. Jasper, Principal, Transportation
Planning & Programming
- VII. NVTA Update** Ms. Backmon, Executive Director

Adjournment

- VIII. Adjourn**

**Next Meeting: February 15, 2017
7:00pm
NVTA Office**



Northern Virginia Transportation Authority

The Authority for Transportation in Northern Virginia

TECHNICAL ADVISORY COMMITTEE
Wednesday, November 16, 2016, 7:00pm
NVTA Office
3040 Williams Drive, Suite 200
Fairfax, Virginia 22031

SUMMARY NOTES

I. Call to Order/Welcome Chairman Boice

- Chairman Boice called the meeting to order at 7:10pm.
- Attendees:
 - Members: Randy Boice; Agnes Artemel; Armand Ciccarelli; Bob Dunphy; Meredith Judy; Kathy Ichter; Pat Turner; Shanjiang Zhu.
 - NVTA Staff: Keith Jasper (Principal, Transportation Planning and Programming); Sree Nampoothiri (Transportation Planner).
 - Other: James Davenport (Prince William County); Noelle Dominguez (Fairfax County); Jason Mumford (AECOM); Douglas Stewart (Virginia Sierra Club).

Action

II. Meeting Summary of October 12, 2016 Chairman Boice

- Mr. Dunphy moved approval of the October 12, 2016 meeting summary; seconded by Ms. Turner. The motion carried unanimously with abstentions from those who were not present at the October meeting.

Discussion/Information

III. TransAction Update Mr. Jasper

- Mr. Jasper reported the recommendations developed by the Technical Advisory Committee (TAC) on candidate measures for Goal 1 at the October meeting:
 - Retain and consider combining: *Total person hours of delay, Transit crowding, Person hours of congested travel in automobiles, and Person hours of congested travel in transit vehicles.*
 - Retain: *Congestion severity (maximum travel time ratio) and Congestion duration.*
 - Retain: *Percent of jobs/population within 1/2 mile of transit, and Access to Jobs within 45 mins by auto and 60 mins by transit.*

- Add two new measures: *Aggregate travel time between MWCOG-defined Regional Activity Centers (RAC) and Lane miles and sidewalk miles within ½ mile radius RAC.*
 - Remove the measures: *Consistency with local planning efforts* and *Average cost per commute trip.*
- Mr. Jasper reported the recommendations developed by the Committee on candidate measures for Goal 2 at the October meeting:
 - The Committee recommended that the Authority keep the measurement of safety at a very broad level; consider assigning high/medium/low scores at the plan stage; and consider more detailed data-centered analysis during program development. For example, projects that directly address a specific safety issue would be assigned a high value. It was acknowledged that most projects would get the same score.
 - Retain: *Share of travel by non-SOV modes, Number of SOV trips during peak periods, and Person hours of travel caused by 10% increase in PM peak hour demand.*
 - Remove: *Last mile connections* and *PHT in congested/crowded conditions.*
 - The Committee recommended keeping the congestion reduction relative to cost ratio as the measure for cost-benefit analysis. This would not have a weight; rather, it would be a way to rank the results.
- Mr. Jasper reminded the Committee that the members had requested NVTA staff explore how Virginia Department of Transportation (VDOT) measures safety in its programs such as Smart Scale. He added that NVTA staff met with VDOT staff to discuss this. VDOT uses a measure called Equivalent Property Damage Only (EPDO) for individual road segments or intersections. The EPDO value weights each crash based on severity. It was apparent that the respective evaluation processes for the state programs probably require more project level detail than would likely be available.
- Ms. Ichter and Mr. Ciccarelli pointed out that all projects inherently should improve safety and suggested assigning high/medium/low scores, with high scores for projects that directly address a specific safety issue.
- Mr. Boice and Mr. Ciccarelli pointed out that the weight for safety would be low due to the large number of measures. They added that going into data-intensive analysis is unnecessary at the plan stage.
- The Committee recommended that the Authority keep the measurement of safety at a very broad level, consider assigning high/medium/low scores at the plan stage and consider more detailed data-centered analysis during program development. For example, projects that directly address a specific safety issue would be assigned a high value. It was acknowledged that most projects would get the same score.
- Mr. Jasper reported the recommendations developed by the Committee on candidate measures for Goal 3 at the October meeting:
 - Remove: *Amount of impervious area* and *Number of ROW expansions that impact resources* as they should be addressed at the project level and not at the plan level.

- Use: *Criteria pollutant emissions based on VMT by speed.*
- In response to Ms. Judy's query on transit being given fair consideration, Mr. Jasper pointed out that multiple measures consider transit along with auto, in addition to some measures that specifically look at transit.
- Mr. Boice opined that considering the Authority might move measures around, the Committee need not give weightings for each measure but provide weightings at the goal level. The Committee agreed to provide weightings for individual measures at its January meeting.
- The Committee recommended that the congestion reduction related measures (TransAction Goal 1) should receive 60% weighting, measures that enhance the reliability of the network (TransAction Goal 2) should receive 30% weighting, and measures that reduce negative impact of transportation (TransAction Goal 3) should receive 10% weighting.

IV. NVTA Update

Mr. Jasper

- Mr. Jasper informed the Committee members that the Authority met on November 10, 2016 and approved the execution of four Standard Project Agreements (SPAs) from the FY2017 Program. Three other SPAs are expected to be approved for execution at the December meeting, followed by another three at the January meeting. He also added that the I-66/Route 28 SPA may not be needed, depending on the final Transform 66 project agreement between the Commonwealth and the private concessionaire.
- Mr. Jasper informed the Committee that the Planning Coordination Advisory Committee (PCAC) will meet on November 17, 2016 and the Planning and Programming Committee (PPC) on December 5, 2016. Both committees will develop their own recommendation on the TransAction performance measures to be presented to the Authority at its December 8, 2016 meeting.
- Mr. Jasper informed the TAC that the TransAction public engagement process is progressing well with an online survey, stakeholder workshop and focus groups.

Adjournment

V. Adjourn

Chairman Boice

- Meeting adjourned at 8:30pm.



Northern Virginia Transportation Authority
The Authority for Transportation in Northern Virginia

TECHNICAL ADVISORY COMMITTEE
Wednesday, January 18, 2017, 7:00pm
NVTA Office
3040 Williams Drive, Suite 200
Fairfax, Virginia 22031

DRAFT CY2017 MEETING SCHEDULE

Meetings are on the third Wednesday of each month at the NVTA offices

January 18, 2017; 7:00 PM

February 15, 2017; 7:00 PM

March 15, 2017; 7:00 PM

April 19, 2017; 7:00 PM

May 17, 2017; 7:00 PM

June 21, 2017; 7:00 PM

July 19, 2017; 7:00 PM

August: NO MEETING

September 20, 2017; 7:00 PM

October 18, 2017; 7:00 PM

November 15, 2017; 7:00 PM

December 20, 2017; 7:00 PM

TransAction Measures: Distribution of HB 599 Weightings

Vision ^[1]							
In the 21st century, Northern Virginia will develop and sustain a multimodal transportation system that enhances quality of life and supports economic growth.							
Investments in the system will provide effective transportation benefits, promote areas of concentrated growth, manage both demand and capacity, and employ the best technology, joining rail, roadway, bus, air, water, pedestrian, and bicycle facilities into an interconnected network that is fiscally sustainable.							
Goals	Objectives	Recommended Measures ^[2] / Definitions / Weightings ^[3]					
Goal 1: Enhance quality of life and economic strength of Northern Virginia through transportation	1.1 Reduce congestion and crowding experienced by travelers in the region	1.1.1	Total Person Hours of Delay (HB599)	Daily number of person-hours of travel above free-flow travel time for motorized trips (automobile and transit).	9.1		
		1.1.2	Transit Crowding (HB599)	Daily number of transit route-miles experiencing crowded conditions (local bus > 1.0 seating capacity; express bus and commuter rail > 0.9 seating capacity; Metrorail > 100 passengers/car).	5.2		
		1.1.3	Person Hours of Congested Travel in Automobiles (HB599)	Daily number of person-hours of travel in congested conditions, where "congested" is travel time in excess of 2.0 times the free-flow travel time.	6.9		
		1.1.4	Person Hours of Congested Travel in Transit Vehicles (HB599)	Daily number of person-hours of travel in congested conditions (buses on roadways), where "congested" is travel time in excess of 2.0 times the free-flow travel time.	5.3		
	1.2 Improve Travel Time Reliability	1.2.1	Congestion Severity: Maximum Travel Time Ratio	Maximum ratio of congested travel time to free-flow travel time during the AM and PM peak period.			
		1.2.2	Congestion Duration (HB599)	Number of hours of the day auto and transit passengers experience heavily congested travel conditions (travel time ratio greater than 2.0) times the number of facility miles.	12.6		
	1.3 Increase access to jobs, employees, markets, and destinations	1.3.1	Percent of jobs/population within 1/2 mile of high frequency and/or high performance transit	Percent of activity (population + 2 * employment) within 1/2 mile of Metrorail, commuter rail, or high capacity bus service (at least 500 seats per hour)			
		1.3.2	Access to Jobs within 45 mins by auto or within 60 mins by transit (HB599)	Average number of regional jobs that households in Northern Virginia can reach within 45 minutes by auto or 60 minutes by transit in the AM Peak Period.	4.3		
	1.4 Improve connections among and within areas of concentrated growth	1.4.1	Average travel time per motorized trip between Regional Activity Centers	Average travel time per trip for motorized trips between and among zones within one mile of Regional Activity Center centroids.			
		1.4.2	Walkable/bikeable environment within a Regional Activity Center	Qualitative: High, Med, Low, None thresholds to be defined based on facilities within one mile of the RAC centroid: <ul style="list-style-type: none"> • High: Dense grid of arterial streets with wide sidewalks and signal timing plans that favor pedestrian movements; bike lanes on most major arterials and bike rental stations at 0.25 mile intervals; taxi and/or rideshare service with 5 minute wait or less; and transit circulator or shuttle bus routes connecting most activity locations and regional transit services within the RAC. • Medium – 50% of the high amenities • Low – 25% of the high amenities • None – less than 10% of the high amenities 			
Goal 2: Enable optimal use of the transportation network and leverage the existing network	2.1 Improve the safety of transportation network	2.1.1	Safety of the transportation system	Qualitative: Use VDOT Equivalent Property Damage Only (EPDO) value at the corridor segment level: <ul style="list-style-type: none"> • High – project specifically targets a high EPDO issue • Medium – project may mitigate a high EPDO issue • Low – project may have marginal impact on any EPDO issues • None – safety improvements are not included in the project or no EPDO issues exist 			
		2.2.1	First and last mile connections	Qualitative: High, Med, Low, None thresholds to be defined based on access facilities within one mile of high capacity transit stations: <ul style="list-style-type: none"> • High: all day shuttle bus or feeder bus services with at least 10 minute headways in the peak and 20 minute headways in the offpeak, good taxi and/or rideshare service with 5 minute wait time or less, sidewalks on all arterials and bike lanes on major arterials • Medium – 50% of high • Low – 25% of high • None – less than 10% of high 			
	2.3	Provide more route and mode options to expand travel choices and improve resiliency of the system	2.3.1	Share of travel by non-SOV modes	Non-SOV trips + Trips less than 0.5 mile long (–non-motorized)		
	2.4	Sustain and improve operation of the regional system	2.4.1	Person hours of travel caused by 10% increase in PM peak hour demand (HB599)	Change in PM peak period person-hours of travel resulting from a 10 percent increase in PM peak hour (5-6pm) trip-making.	1.6	
Goal 3: Reduce negative impacts of transportation on communities and the environment	3.1 Reduce transportation-related emissions	3.1.1	Vehicle miles traveled (VMT) by speed	VMT by speed class in AM and PM peak and off-peak periods. (VMT < 15 mph/hour or > 65 mph/hour = high emission rates)			

[1] Vision and Goals were adopted in December 2015
 [2] 'HB599' indicates measure used by VDOT during the HB599 Evaluation and Rating process for the FY2015-16 and FY2017 Programs.
 [3] Recommendations for weightings of individual measures will be considered in January 2017