



Northern Virginia Transportation Authority
The Authority for Transportation in Northern Virginia

TECHNICAL ADVISORY COMMITTEE

Wednesday, May 18, 2016, 7:00pm

NVTA Office

3040 Williams Drive, Suite 200

Fairfax, Virginia 22031

AGENDA

- I. Call to Order/Welcome** Chairman Boice
- II. Meeting Summary of April 20, 2016 Meeting**
*Recommended Action: Approval [with abstentions
from those who were not present]*

Discussion/Information

- III. NVTA Update** Ms. Backmon, Executive Director
- IV. FY2017 Program Update:
Presentation on Project Evaluations** Mr. Jasper, Program Coordinator
- V. TransAction Update** Mr. Jasper, Program Coordinator

Adjournment

- VI. Adjourn**

Next Meeting: June 15, 2016

7:00pm

NVTA Office



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SUMMARY NOTES

I. Call to Order/Welcome Mr. Fahl

- Mr. Doug Fahl called the meeting to order at 7:03pm.
- Attendees:
 - Members: Agnes Artemel; Armand Ciccarelli; Doug Fahl; Kathy Ichter; Meredith Judy; Pat Turner; Shanjiang Zhu.
 - NVTA Staff: Monica Backmon (Executive Director); Keith Jasper (Program Coordinator); Sree Nampoothiri (Program Coordinator).
 - Other: Valerie Pardo (VDOT); James Davenport (Prince William County); David Roden (AECOM); Regina Herr (Whitman, Requardt & Associates).

II. Meeting Summary of March 16, 2016 Meeting Mr. Fahl

- Ms. Turner moved to approve the minutes of the March 16, 2016 meeting. The motion was seconded by Dr. Zhu. Motion carried unanimously.

Discussion/Information

III. NVTA Update Ms. Backmon

- Ms. Backmon noted that the April Authority meeting is scheduled for April 28th.
- Ms. Backmon provided a summary upcoming activities for the FY2017 Program:
 - May 4th NVTA's Planning and Programming Committee (PPC) will meet and receive a briefing of the quantitative scores and congestion reduction relative to cost ratios and associated rankings.
 - May 12th The Authority will receive the same scores/ranking briefing and is expected to release the candidate projects for the FY2017 program for public comments.
 - May 18th Technical Advisory Committee meeting will receive the briefing on scores and Authority actions.
 - May 25th Planning Coordination Advisory Committee (PCAC) meeting will receive the briefing on scores and Authority actions.

- June 9th Authority meeting will primarily be devoted to the public hearing.
- July 14th Authority meeting is expected to adopt the program.
- Ms. Backmon informed the TAC that the work session for the Authority's 5-Year Strategic Plan was held on April 11th and the NVTA staff will work to develop a draft plan based on the discussion and feedback received.

**IV. FY2017 Program Update
Presentation on Draft HB599 Evaluation Rating**

Mr. Jasper

- Mr. Jasper introduced Ms. Valerie Pardo, VDOT and Mr. Roden, AECOM, who are leading the HB599 evaluation process for the candidate projects of the FY2017 program.
- Mr. Roden presented the list of projects, modeling process, and the results.
- In response to Ms. Turner's question regarding why no projects in Loudoun County are on the candidate list of projects, Ms. Backmon mentioned that the candidate projects need to be in TransAction 2040. She added that Loudoun County did not have projects in TransAction 2040 for consideration in the FY 2017 Program. She also noted that the current TransAction update is an opportunity for localities and agencies to include regional projects in the Authority's long range transportation plan.
- In response to Mr. Fahl's question on the inclusion of Transform I-66 Outside the Beltway components for the analysis, Mr. Roden mentioned that the HOV3 conversion is assumed in 2020 and all the components in place by 2040.
- In response to Dr. Zhu's question on the performance measure for congestion, Mr. Roden affirmed that the HB599 evaluation looked at travel time index rather than volume to capacity ratio.
- In response to Dr. Zhu's question on impacts of one project on another, Mr. Roden noted that there were a few projects where local impacts were on the good side but created upstream/downstream issues. The model generally captured these impacts well.
- In response to Ms. Ichter's question on the use of HB599 ratings, Ms. Backmon mentioned that the HB599 ratings are parts of the inputs for calculating the NVTA quantitative scores and congestion reduction relative to cost ratios (CRRC).
- In response to Mr. Fahl on the overlap of FY2017 program candidates and HB2 list of draft recommended projects, Ms. Backmon noted that there are four projects in this candidate pool that are in the draft recommended list of projects for HB2 funding: Route 28 Widening (Fairfax County), Route 7 Widening (Fairfax County), Route 1 Widening (Prince William County), and Sudley Road Widening (City of Manassas).
- Ms. Ichter raised concern that the cost estimates submitted by different jurisdictions might be based on different assumptions and may not uniform.
- Mr. Fahl suggested to develop a process to deal with cost overruns for the future programs.

- Mr. Fahl and Ms. Ichter suggested to have a more proactive role for this committee that will allow the members more opportunities to weigh in on processes.
- Ms. Backmon mentioned that this committee is already providing the objective critic of the process and looking forward to more contribution. She stated that the TAC would be most useful in providing evaluations, feedback, inputs and recommendations to the Authority based on the technical analysis and data.

Adjournment

V. Adjourn

Mr. Fahl

- Meeting adjourned at 8:08pm.

FY2017 Program

Interim Project Evaluations

Presentation to the Technical Advisory Committee
May 18, 2016



Northern Virginia
Transportation Authority
The Authority for Transportation in Northern Virginia

Agenda

- i. Overview
- ii. Interim Project Evaluations
 - a. NVTa Quantitative Scores
 - b. Congestion Reduction Relative to Cost Ratios
 - c. Qualitative Considerations
- iii. NVTa Staff Recommendations
- iv. Next Steps



Overview

- FY2017 Program is a one-year program;
- Last program based on TransAction 2040;
- First program in which all projects are subject to the HB 599 process
- First program that coincides with the HB 2 process;
- Congestion reduction impacts based on completed projects;
- 24 Candidate Projects;
- \$667,843,951 requested;
- \$266,700,000 est. available (PayGo).



Interim Project Evaluations

- NVTA Quantitative Scores
 - Incorporates HB 599 rating for 2040 (weighting: 45%)
 - Eight other criteria (weighting: 55%)
- Congestion Reduction Relative to Cost (CRRC) Ratios
 - Uses selected HB 599 outputs for 2020 and 2040
 - Total project cost
 - ‘NVTA Share’
- Qualitative Considerations
 - Continuity of Project Funding
 - Cost Sharing
 - Geographic and Modal Balance
 - Other



NVTA Quantitative Scores

Criteria	Weighting
• Congestion Reduction:	45%
• Project Readiness: 15%	55%
• Reduce VMT: 5%	
• Safety: 5%	
• Connectivity*: 10%	
• Improved Bike/Ped: 10%	
• Management/Ops: 5%	
• Cost Sharing: 5%	

Note: * two criteria

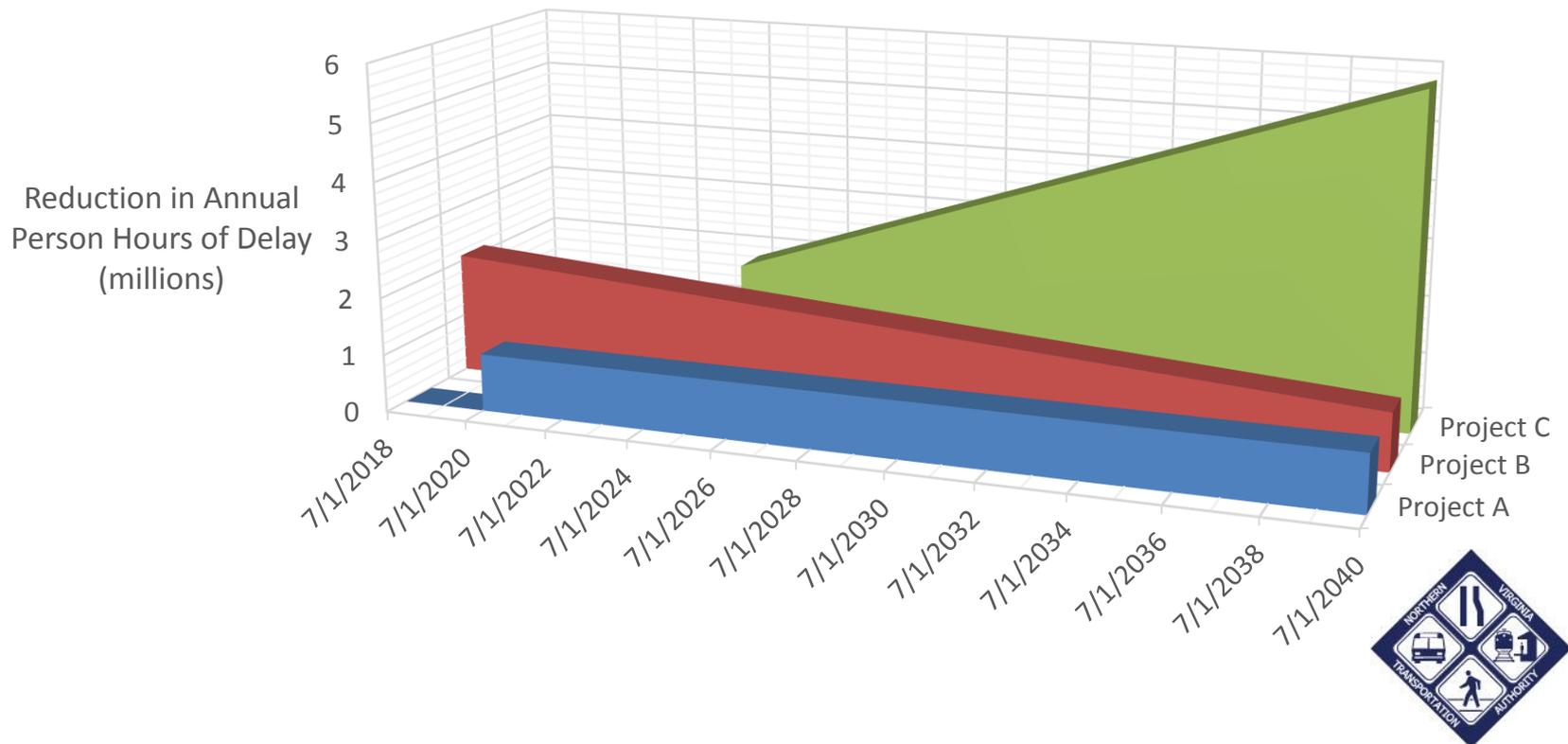


NVTA Quantitative Scores

CANDIDATE PROJECTS				HB599 (2020) Project reduces roadway congestion	HB599 (2040) Project reduces roadway congestion	Project will be advanced as a result of FY17 Program funding	Project reduces vehicle-miles traveled	Project improves the safety of the transportation system	Project improves connections between multiple Activity Centers	Project connects jurisdictions and modes	Project supports multiple use development patterns in a walkable/bikeable environment	Project improves the management and operation of existing facilities through technology applications	Project leverages private or other outside funding	Weighted Score	Rank
Item #	Map Ref #	Jurisdiction/Agency	Project Description	0	45	15	5	5	5	5	10	5	5	100	
7	6T	Fairfax	I-66/Route 28 Interchange Improvements	77.4	78.3		1		1	1				73.57	1
9	1S	Fairfax	Route 7 Widening Phase I (Colvin Forest Dr to Jarrett Valley Dr); VDOT UPC - 99478	22.2	54.6		1			1		1		66.24	2
17	8DD	Alexandria	Potomac Yard Metrorail Station	28.5	36.0							1		66.20	3
24	8FF	WMATA	Metrorail Blue Line Traction Power Upgrades	43.8	45.8						1			65.61	4
10	3M	Fairfax	Route 28 Widening (PWC Line to Route 29)	60.9	56.3		1					1	1	65.34	5
14	8BB	Prince William	Widen Route 1 to Six Lanes (Featherstone Road to Mary's Way)	24.3	33.4		1			1				58.36	6
1	6R	Arlington	Lee Highway Corridor ITS Enhancements	7.4	9.8		1						1	51.08	7
3	6S	Arlington	East Falls Church Regional Connections and Access Project	2.2	2.2								1	49.32	8
11	5D	Fairfax	Route 286 Fairfax County Parkway Widening (Route 123 to Route 29)	42.9	42.7		1			1		1	1	49.22	9
16	8CC	Alexandria	West End Transitway	13.4	16.3	1								49.00	10
2	8Y	Arlington	Crystal City Streets: 12th St Transitway, Clark/Bell Realignment, and Intersection Improvements	4.0	4.6								1	48.74	11
18	6W	Falls Church	Bikeshare Connections to Orange and Silver Line Metrorail Stations, Falls Church	2.2	2.2							1	1	47.66	12
20	8EE	Dumfries	Widen Route 1 to Six Lanes (Brady's Hill Road to RT234)	22.3	27.7		1		1				1	47.47	13
8	8AA	Fairfax	Widening US1 Richmond Highway (Mt Vernon Hwy to Napper Rd)	30.1	35.1		1		1	1		1		47.46	14
15	3N	Prince William	Widen Route 28 to Six Lanes (Route 234 to Linton Hall Road)	14.0	19.7		1		1			1	1	47.20	15
22	1U	Leesburg	Route 7 (East Market Street) / Battlefield Parkway Interchange	6.7	14.2		1		1			1	1	43.06	16
21	1T	Herrndon	East Elden Street Improvements and Widening Project	1.1	2.5		1						1	42.79	17
4	7D	Fairfax	Braddock Road HOV Widening (Burke Lake to I-495)	29.6	23.6				1	1		1	1	40.62	18
5	9P	Fairfax	Fairfax Connector Bus Purchases (11 buses) for Service Expansion	3.7	4.1					1	1		1	40.18	19
13	6V	Prince William	Widen Route 15 to Four Lanes (Route 55 to south of RR tracks) & Construct RR Overpass	2.6	3.5		1		1	1		1	1	39.91	20
12	6U	Fairfax	Seven Corners Ring Road Improvements	3.6	9.0		1					1	1	39.05	21
6	8Z	Fairfax	Frontier Drive Extension and Braided Ramps	5.9	9.9		1		1	1		1		37.79	22
19	3P	Manassas	Sudley Road Westbound Third Lane (Godwin Dr to Dorsey Cir)	4.3	8.3		1		1	1		1	1	37.07	23
23	3Q	VRE	VRE Manassas Park Station Parking Expansion	7.3	7.4	1					1	1	1	33.33	24

Congestion Reduction Relative to Cost (CRRC) ratios

Total Congestion Reduction = Area Under the Graph



Congestion Reduction Relative to Cost (CRRC) ratios

- Total Project Cost
 - Provides ‘apples to apples’ comparison of each project’s congestion reduction impacts, regardless of funding sources.
- ‘NVRTA Share’
 - Provides an understanding of the relative ‘return’ of each project, using NVRTA regional revenues.



Congestion Reduction Relative to Cost (CRRC) ratios

- Assumptions
 - ‘NVRTA Share’ includes:
 - FY2017 Program request
 - Planned future funding requests to NVRTA
 - 100% of identified funding gaps
 - ‘NVRTA Share’ does not include:
 - Funding from NVRTA FY2014 and FY2015-16 Programs
 - Project costs are accurate, consistent, and undiscounted;
 - No future cost overruns;
 - 100% of operational costs through 2040 are met by project sponsors, including bus replacements.



Congestion Reduction Relative to Cost (CRRC) ratios

Map Ref #	Jurisdiction/ Agency	Project	Total Project Cost	Rank	NVTA Share	Rank	
1	6R	Arlington	Lee Highway Corridor ITS Enhancements	1.56	1	1.56	2
10	3M	Fairfax	Route 28 Widening (PWC Line to Route 29)	0.52	2	0.56	5
19	3P	Manassas	Sudley Road Westbound Third Lane (Godwin Dr to Dorsey Cir)	0.40	3	0.40	7
23	3Q	VRE	VRE Manassas Park Station Parking Expansion	0.40	3	0.41	6
18	6W	Falls Church	Bikeshare Connections to Orange and Silver Line Metrorail Stations, Falls Church	0.36	5	0.36	9
11	5D	Fairfax	Route 286 Fairfax County Parkway Widening (Route 123 to Route 29)	0.33	6	0.37	8
15	3N	Prince William	Widen Route 28 to Six Lanes (Route 234 to Linton Hall Road)	0.32	7	0.75	4
5	9P	Fairfax	Fairfax Connector Bus Purchases (11 buses) for Service Expansion	0.30	8	0.30	11
14	8BB	Prince William	Widen Route 1 to Six Lanes (Featherstone Road to Mary's Way)	0.26	9	1.88	1
24	8FF	WMATA	Metrorail Blue Line Traction Power Upgrades	0.25	10	1.29	3
9	1S	Fairfax	Route 7 Widening Phase I (Colvin Forest Dr to Jarrett Valley Dr)	0.18	11	0.21	12
7	6T	Fairfax	I-66/Route 28 Interchange Improvements	0.16	12	0.17	13
4	7D	Fairfax	Braddock Road HOV Widening (Burke Lake to I-495)	0.14	13	0.14	14
2	8Y	Arlington	Crystal City Streets: 12th St Transitway, Clark/Bell Realignment, and Intersection Improvements	0.13	14	0.13	15
20	8EE	Dumfries	Widen Route 1 to Six Lanes (Brady's Hill Road to RT234)	0.13	14	0.13	15
3	6S	Arlington	East Falls Church Regional Connections and Access Project	0.12	16	0.12	17
17	8DD	Alexandria	Potomac Yard Metrorail Station	0.08	17	0.33	10
16	8CC	Alexandria	West End Transitway	0.05	18	0.07	18
22	1U	Leesburg	Route 7 (East Market Street) / Battlefield Parkway Interchange	0.05	18	0.07	18
12	6U	Fairfax	Seven Corners Ring Road Improvements	0.03	20	0.03	20
6	8Z	Fairfax	Frontier Drive Extension and Braided Ramps; VDOT UPC 106742	0.03	20	0.03	20
8	8AA	Fairfax	Widening US1 Richmond Highway (Mt Vernon Hwy to Napper Rd)	0.03	20	0.03	20
13	6V	Prince William	Widen Route 15 to Four Lanes (Route 55 to south of RR tracks) & Construct RR Overpass	0.03	20	0.03	20
21	1T	Herndon	East Elden Street Improvements and Widening Project	0.01	24	0.01	24

Qualitative Considerations

- 12 projects requesting continuation funds
 - No obligation, but a logical expectation
 - Invoicing history and current status not supportive of immediate need for FY2017 Program funds
 - 2 projects with apparent cost overruns
- 10 projects subject to HB2 or ‘Transform66 Multimodal Project’ project selection processes



CRRC Ratios/Quantitative Scores

Map Ref #	Jurisdiction/ Agency	Project	CRRC Ratio	Rank	Quant. Score	Rank	
1	6R	Arlington	Lee Highway Corridor ITS Enhancements	1.56	1	51.08	7
10	3M	Fairfax	Route 28 Widening (PWC Line to Route 29)	0.52	2	65.34	5
19	3P	Manassas	Sudley Road Westbound Third Lane (Godwin Dr to Dorsey Cir)	0.40	3	37.07	23
23	3Q	VRE	VRE Manassas Park Station Parking Expansion	0.40	3	33.33	24
18	6W	Falls Church	Bikeshare Connections to Orange and Silver Line Metrorail Stations, Falls Church	0.36	5	47.66	12
11	5D	Fairfax	Route 286 Fairfax County Parkway Widening (Route 123 to Route 29)	0.33	6	49.22	9
15	3N	Prince William	Widen Route 28 to Six Lanes (Route 234 to Linton Hall Road)	0.32	7	47.20	15
5	9P	Fairfax	Fairfax Connector Bus Purchases (11 buses) for Service Expansion	0.30	8	40.18	19
14	8BB	Prince William	Widen Route 1 to Six Lanes (Featherstone Road to Mary's Way)	0.26	9	58.36	6
24	8FF	WMATA	Metrorail Blue Line Traction Power Upgrades	0.25	10	65.61	4
9	1S	Fairfax	Route 7 Widening Phase I (Colvin Forest Dr to Jarrett Valley Dr)	0.18	11	66.24	2
7	6T	Fairfax	I-66/Route 28 Interchange Improvements	0.16	12	73.57	1
4	7D	Fairfax	Braddock Road HOV Widening (Burke Lake to I-495)	0.14	13	40.62	18
2	8Y	Arlington	Crystal City Streets: 12th St Transitway, Clark/Bell Realignment, and Intersection Improvements	0.13	14	48.74	11
20	8EE	Dumfries	Widen Route 1 to Six Lanes (Brady's Hill Road to RT234)	0.13	14	47.47	13
3	6S	Arlington	East Falls Church Regional Connections and Access Project	0.12	16	49.32	8
17	8DD	Alexandria	Potomac Yard Metrorail Station	0.08	17	66.20	3
16	8CC	Alexandria	West End Transitway	0.05	18	49.00	10
22	1U	Leesburg	Route 7 (East Market Street) / Battlefield Parkway Interchange	0.05	18	43.06	16
12	6U	Fairfax	Seven Corners Ring Road Improvements	0.03	20	39.05	21
6	8Z	Fairfax	Frontier Drive Extension and Braided Ramps; VDOT UPC 106742	0.03	20	37.79	22
8	8AA	Fairfax	Widening US1 Richmond Highway (Mt Vernon Hwy to Napper Rd)	0.03	20	47.46	14
13	6V	Prince William	Widen Route 15 to Four Lanes (Route 55 to south of RR tracks) & Construct RR Overpass	0.03	20	39.91	20
21	1T	Herndon	East Elden Street Improvements and Widening Project	0.01	24	42.79	17

NVTA Staff Recommendations

	Map Ref #	Jurisdiction	Project (Continuation/New)	Phases Funded	FY2017 Program Request
1	6R	Arlington	Lee Highway Corridor ITS Enhancements (New)	Des, Eng, ROW, Con	\$3,000,000
10	3M	Fairfax	Route 28 Widening (PWC Line to Route 29) (Continuation)	Des, Eng, Env, ROW, Con	\$5,000,000
23	3Q	VRE	VRE Manassas Park Station Parking Expansion (Continuation)	Des, Eng, Env	\$2,000,000
11	5D	Fairfax	Route 286 Fairfax County Parkway Widening (Route 123 to Route 29) (Continuation/New)	ROW	\$10,000,000
15	3N	Prince William	Widen Route 28 to Six Lanes (Route 234 to Linton Hall Road) (Continuation)	Con	\$10,000,000
24	8FF	WMATA	Metrorail Blue Line Traction Power Upgrades (New)	Eng, Con	\$17,443,951
9	1S	Fairfax	Route 7 Widening Phase I (Colvin Forest Dr to Jarrett Valley Dr) (New)	ROW	\$10,000,000
7	6T	Fairfax	I-66/Route 28 Interchange Improvements (New)	Des, Eng, Env, ROW, Con	\$370,000,000
17	8DD	Alexandria	Potomac Yard Metrorail Station (Continuation)	Des, Con (Des-Build)	\$66,000,000
					\$493,443,951

NVTA Staff Recommendations

- At this time, NVTA staff recommends 9 projects be included in the draft FY2017 Program (total request \$493,443,951)
- \$226,743,951 million greater than estimated available PayGo funds
- All 24 projects included on project list for public comment
- NVTA staff recommendations may subsequently change arising from:
 - New data and/or revised evaluation
 - Public comments and/or Public Hearing testimony
 - CTB and/or NVTC project selection decisions
- Two projects that scored well for CRRC are not recommended at this time as they are currently recommended under HB 2--may need to revisit once FY2017-FY2022 Six Year Improvement Program is adopted.



Next Steps

- **May:**
 - Public comment period (5/13 – 6/17);
 - Jurisdictions host Town Hall meetings (optional);
 - Finance Committee receives initial briefing on PayGo and debt capacity (5/19)
- **June:**
 - Public Hearing (6/9);
 - CTB adopts Six Year Improvement Program (6/14);
 - Finance Committee (6/16).
- **July:**
 - NVTA staff present updated project evaluations to PPC (7/1);
 - NVTA adopts FY2017 Program (7/14).

