

## NORTHERN VIRGINIA TRANSPORTATION AUTHORITY

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### MEMORANDUM

**FOR:** Chair Phyllis J. Randall and Members  
Northern Virginia Transportation Authority

**FROM:** Monica Backmon, CEO

**DATE:** November 10, 2021

**SUBJECT:** TransAction Update – Goals, Objectives, and Performance Measures

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1. **Purpose.** To seek Northern Virginia Transportation Authority (NVTA) approval of the proposed goals, objectives, and performance measures for the TransAction update.
2. **Suggested Motion:** *I move Authority approval of the proposed goals, objectives, and performance measures for the TransAction update.*
3. **Background.** The Authority adopted the current TransAction, the long-range transportation plan for Northern Virginia, on October 12, 2017. NVTA updates the plan every five years. TransAction will be updated in three phases, starting with a review of transportation needs and priorities. The consultant team will conduct much of the transportation planning and analytical work in the second of these phases, during winter 2021/2022. In the third phase, the public will have an opportunity to provide comment on the draft plan. Each phase includes differing planning and public engagement activities.

The Authority officially kicked off this update to TransAction at its January 9, 2020, meeting with a public listening session. During 2020, NVTA staff coordinated with relevant NVTA committees, and jurisdiction and agency staff to review and update the vision statement for TransAction. The three NVTA committees are:

- a. Technical Advisory Committee (TAC)
- b. Planning Coordination Advisory Committee (PCAC)
- c. Planning and Programming Committee (PPC)

TAC and PCAC are NVTA's Statutory Committees, while PPC is a Standing Committee, comprising five Authority members.

The Authority adopted the vision statement for the TransAction update in December 2020. The Authority subsequently awarded the contract for consultant services for the TransAction update to the Cambridge Systematics team at its meeting on March 11, 2021. Since early summer, NVTA staff, supported by the consultant team, have been working with

the TAC, PCAC, and PPC to develop goals, objectives, and measures that will measure progress towards accomplishing the region’s vision statement. Subject to Authority approval, these goals, objectives, and measures will advance the process of updating TransAction.

This memorandum describes the importance of, and the process leading up to, this action item.

4. **What is New?** While the overarching approach to updating TransAction is generally stable from cycle to cycle, each update provides an opportunity to reset the horizon year for the plan, incorporate updated planning forecasts, consider new or modified regional priorities, identify new transportation (and other) needs, and embrace emerging transportation technologies and innovative approaches.

For the first time, NVTa has explicitly established three core values for TransAction – equity, safety, and sustainability – as part of the current update. Unlike goals, which describe what the region is trying to achieve, core values describe how NVTa will accomplish the goals.

While congestion reduction continues to underpin the accomplishment of the TransAction vision and goals, three significant external factors provide added context for the update process during the current update cycle:

- a. **‘New Normal’** – the first external factor is the long-term transportation impact of the COVID-19 pandemic, commonly referred to as the ‘New Normal’. More than eighteen months since the pandemic changed our lives, the evolution of the New Normal is still ongoing. While the advent of effective vaccines has dented the spread and severity of the pandemic in Northern Virginia, the evolution of the New Normal may continue for several more years, at least. The largest uncertainty, from a transportation perspective, is the extent to which work-from-home (WFH) arrangements will persist. Increasingly, some sort of hybrid pattern, combining in-office and WFH arrangements, seems likely although not guaranteed. Pre-pandemic, WFH instead of driving alone would typically represent an integral part of any positive public policy focused on travel demand management. However, due to the DC-centric nature of rail and commuter transit services, WFH has resulted in a return to near-normal level of automobile travel, while rail and transit agencies continue to struggle to get ridership back to pre-COVID levels.
- b. **Climate Change** – the second external factor affecting TransAction is climate change. While climate change is not a new phenomenon, its transportation impacts are becoming more apparent and expected to worsen over time. Today in Northern Virginia, this is mostly in the form of more frequent and intense storms leading to inland flooding events. Over the next couple of decades, such events may increasingly combine with sea level rise and greater storm surge along the tidal Potomac, possibly leading to disruptive travel conditions affecting road and rail infrastructure. Sustained periods of high daytime and nighttime temperatures may

also become more commonplace, further disrupting travel conditions due to the effects of heat on road and rail infrastructure. Adapting to climate change will bring an increased focus on the resiliency of Northern Virginia's multimodal transportation system, and consequently on future investments in the system.

- c. **Transportation Technology** – the third and final external factor is transportation technology. While NVTA has invested in today's technologies, such as transit signal priority, to a modest extent, the private sector is making huge investments in information and communications technologies. Such investments, combined with new business models and alliances, will increasingly influence our travel options and the way we travel in the coming years and decades. This could be a change for the better, although there are also some reasons for concern. For example, there is currently a sustained push to improve the availability and affordability of electric vehicles. At the same time, there is widespread awareness and, increasingly, funding to address the necessary upgrades to the power grid and provide access for all to vehicle charging points. Conversely, as self-driving vehicles become more commonplace, there is a risk passenger vehicles with no occupants could add to vehicle miles traveled on our congested transportation system, exacerbating travel conditions for all. To address situations such as those described above, NVTA approved eight strategies as part of a Transportation Technology Strategic Plan earlier this year, for integration into TransAction.

This combination of new approaches and external factors has resulted in numerous in-depth discussions with all three committees over a period of months, highlighting their significance and importance to the development of TransAction goals, objectives, and measures.

In preparation for Authority action on TransAction goals, objectives, and performance measures at this meeting, and on weightings for the measures at the Authority's meeting on December 9, 2021, NVTA staff organized an Authority work-session on October 28, 2021. This was only the third work session held by the Authority since the passage of NVTA's funding legislation (HB 2313) in 2013, signifying the importance of this topic.

The purpose of the work-session was to bring Authority members to a common level of understanding of the TransAction update process in general, and for the upcoming action items in particular. In so doing, the discussion at the work-session highlighted some areas of concern related to priorities and future approaches.

5. **Discussion.** The proposed TransAction goals, objectives, and measures identify a pathway to accomplish the Authority's vision for transportation Northern Virginia. As such, the measures will be weighted, and then used to evaluate, at an aggregate level, the performance of regional projects included in the TransAction project list. This evaluation will be based on a comparison of the performance of the regional transportation system with (build) and without (no-build) the projects in the TransAction project list. This evaluation will be conducted for horizon year 2045, using cooperative growth forecasts

prepared by MWCOG/TPB in conjunction with localities across the region.

A value will be calculated for each measure in the build and no-build conditions. The differences between the values of each measure under the build and no-build conditions will be weighted using the approved weights. Weighted measures will be combined to provide an overall numerical assessment of each build condition.

The weights associated with measures are effectively a reflection of NVTA's priorities for transportation system improvements in the region. Consequently, it is anticipated that the best performing build networks will be those with positive impacts related to the highest weighted measures. The impact of weighted measures may be diminished if either of the following apply:

- a. If the individual weights are in a narrow range, e.g. 5-15 percent there will be little differentiation between the measures;
- b. If the project list for the build conditions does not include projects that address NVTA's highest priorities, then the weighting process will be ineffective. It is noted that the draft TransAction project list mostly includes unfunded projects from the current TransAction project list (adopted in October 2017) with a small number of new projects suggested by member jurisdictions and agencies.

Put differently, while the goals, objectives, and measures are critical to the TransAction update process, so too are the weightings associated with the measures, and the candidate regional project list to which they will be applied. The action for this meeting is limited to the approval of proposed goals, objectives, and measures. These will determine what can be measured. Subsequently, Authority action on weightings for measures will be requested at the Authority's December 2021 meeting. These weightings will set the relative priorities for each measure. Development of the TransAction project list is an ongoing task coordinated by NVTA staff in conjunction with jurisdiction and agency staff.














- 6. Recent Committee Action.** The Authority's Statutory Committees (TAC and PCAC) unanimously endorsed the goals, objectives, and measures at their respective meetings in October 2021. At its meeting in early November 2021, the Authority's relevant Standing Committee (PPC) also endorsed the goals, objectives, and measures with one abstention.
- 7. Next Steps.** Subject to Authority action on TransAction goals, objectives, and measures, NVTA's committees will take action on weightings for measures during the November committee meeting cycle, prior to Authority action at its December 2021 meeting.

The Authority will adopt the final TransAction Plan in November 2022.

**Attachment** – Proposed Goals, Objectives, and Performance Measures

**Attachment:**

**Goals, Objectives, and Performance Measures Recommended by the Technical Advisory Committee**

Goal	Objective	Performance Measure	Alignment with Core Values
<b>Mobility:</b> Enhance quality of life of Northern Virginians by improving performance of the multimodal transportation system	A. Reduce congestion and delay*	A1. Total Person-Hours of Delay in autos	
	B. Improve travel time reliability*	A2. Total Person-Hours of Delay on Transit	
		B1. Duration of Severe Congestion	 
		B2. Transit person-miles in dedicated/priority ROW	 
<b>Accessibility:</b> Strengthen the region's economy by increasing access to jobs, employees, markets, and destinations for all communities	C. Improve access to jobs*	C1. Access to jobs by car, transit, and bike	
		C2. Access to jobs by car, transit, and bike for EEA populations	
	D. Reduce dependence on driving alone by improving conditions for people accessing transit and using other modes	D1. Quality of access to transit and the walk/bike network	  
		<b>Resiliency:</b> Improve the transportation system's ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions.	E. Improve safety and security of the multimodal transportation system
F. Reduce transportation related emissions	F1. Vehicle Emissions		 
G. Maintain operations of the regional transportation system during extreme conditions*	G1. Transportation System Redundancy		