

TransAction & Scenario Planning

March 30, 2022

presented to

*NoVA Transportation
Roundtable*



NVTA's
TransAction
*Transportation Action Plan
for Northern Virginia*



Introduction to TransAction

- » The long-range transportation plan for Northern Virginia
- » Performance-based evaluation of potential transportation improvements
 - Model-based analysis of future impacts:
 - Congestion
 - Accessibility
 - Resiliency
- » But...traditional modeling techniques only account for one version of the future





Uncertainty in TransAction

- » The TransAction process will include scenario analysis:
 - Three plausible futures, but not necessarily preferred or predicted
 - Assumptions-based using proxy metrics than can be modeled
- » Using the scenario analysis in planning to better understand the impacts of uncertainty by:
 - Highlighting transportation needs and opportunities if alternative futures come to pass
 - Identify improvements that will be necessary in all future scenarios – help NVTA avoid investment obsolescence

Post-Pandemic New Normal Scenario

- » What if trends observed during the pandemic continue into the long-term future?
- » Assumptions included:
 - Increased telework for some types of jobs
 - Replacement of some shopping trips with deliveries
 - Increases in non-motorized travel



2 Technology Scenario

- » What if Connected/ Automated/ Shared/ Electric vehicles (CASEs) are prevalent in Northern Virginia?
- » Assumptions included:
 - CASEs available across the region
 - Connected-Automated trucks
 - Automated shuttles provide first-mile/last-mile connections
 - Increased roadway capacity
 - Changes to travel patterns:
 - Additional car trips made by people who cannot drive
 - People willing to make longer trips
 - Zero-Occupancy (ZOV) trips caused by CASEs relocating to find parking or to pick up passengers



Pricing/Incentives Scenario

- » What if the region implements transportation pricing and incentive mechanisms to manage travel demand?
- » Assumptions included:
 - VMT pricing across the region
 - Changes to parking/curbside pricing regionally
 - Free transit
 - Incentives to shift travel time



Thank You



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