

VISUALIZE 2050

National Capital Region Transportation Plan

Agenda Item 5

UPDATES ON AIR QUALITY CONFORMITY ANALYSIS PROCESS, FINANCIAL PLAN & OTHER PROJECT INPUTS

Visualize 2050 & FY 2026-2029 TIP

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TPB Technical Committee
May 3, 2024



National Capital Region
Transportation Planning Board

Overview

- TPB Action in May
- Progress on the Financial Plan
- Call to Action: Not Regionally Significant Project Inputs for Visualize 2050
- Next Steps

TPB Action in May

Updated to Air Quality Conformity Project Inputs Table

PIT Project ID	Con ID	Project ID	Agency ID	Improvement	Facility	From	To	Fr	To	Lanes From	Lanes To	Completion Date	
181	CE3651 T3212	944	DP32	Reduce Capacity - bike lanes	17th Street NW	New Hampshire Avenue	K-66-NW, Massachusetts Ave.	3	3	2	1	2021 completed	
182	T3232	31534		Reduce Capacity - bike lanes	17th St NE/SE	Benning Rd NW	Potomac Ave SE			2	1	2023 completed	
183	T3232	31996		Reduce Capacity - bike lanes	19th St SE	Potomac Ave SE	East Capitol St NE			2	1	2024	
184	T3232 T3232	7823-11122	DS37	Reduce Capacity - bike lanes	20th St. NW Bike Lanes	G St.	Massachusetts Ave.	4	4	4	2	2022 completed	
185	T3232 T3232	7827-11118	DS38	Reduce Capacity - bike lanes	21st St. NW	Constitution Ave. C Street NW	Massachusetts Ave. G Street NW			3	2	2021 completed	
MDOT													
Interstate													
186	T3044	126	M12Q	M08391	Construct	I270 Interchange	at Watkins Mill Road		1	1	8	8	2020 completed
187	T6492- T11582 CE1186	125	M12U1	AW0734- AW0754	Construct/Widen	1270 Toll Lanes	I270Y on the entire western spur, and on the eastern spur from MD187 north to the main I-270	1	1	4 + 2 HOV	4 + 4 HOT	2025 2030	
188	T6492- T11582- CE1186- CE3281	125	M12U1	AW0734- AW0754	Construct/Widen-Convert	1270 Toll Lanes	I270Y on the entire western spur, and on the eastern spur from MD187 north to the main I-270	1	1	4 + 2 HOV	4 + 2-4- HOT	2025 2040	
189	T6492- T11582- CE1186- CE3281	892	M12U2	AW0734- AW0754	Construct	1270 Toll Lanes	I270Y	1	1	10 + 2 HOV	10 + 4 HOT	2025 2040	
190	T6492- CE1186 T11583	893	M12U3	AW0734- AW0754	Construct/Widen-Study	1270 Northbound Toll Lanes	I370	1	1	3 + 1 HOV NB	3 + 2 HOT NB	2030 not coded	
191	T6492- CE1186 T11583	893	M12U4	AW0734- AW0754	Construct/Widen-Study	1270 Southbound Toll Lanes	Middlebrook Road	1	1	4 SB	4 + 2 HOT SB	2030 not coded	
192	T6492- CE1186 T11583	894	M12U5	AW0734- AW0754	Construct/Widen-Study	1270 Northbound Toll Lanes	Middlebrook Road	1	1	2 + 1 HOV NB	2 + 2 HOT NB	2030 not coded	

- Changes since the March 2024 draft

Pink – technical corrections

- Highlighting indicates changes from the current Visualize 2045 plan

Blue – strikethrough, not continuing

Yellow – updates, new projects/segments

- Changes to completion date, improvement, cross-referencing to project entries in the Project InfoTrak (PIT) database
- To be approved by TPB in May 2024



April 3, 2024

**AIR QUALITY CONFORMITY ANALYSIS:
VISUALIZE 2050 & FY 2026-2029 TIP**

DRAFT SCOPE OF WORK

I. INTRODUCTION

The list of projects solicited for the Visualize 2050 National Capital Region Transportation Plan and the FY 2026-2029 Transportation Improvement Program (TIP) is scheduled to be finalized at the May 15, 2024 meeting of the National Capital Region Transportation Planning Board (TPB). This work effort addresses requirements associated with attainment of the ozone National Ambient Air Quality Standards (NAAQS). Volatile organic compounds (VOC) and nitrogen oxides (NOx) are ozone precursor pollutants.

The amended plan must meet air quality conformity regulations: (1) as originally published by the Environmental Protection Agency (EPA) in the November 24, 1993 Federal Register, and (2) as subsequently amended, most recently on March 14, 2012, and (3) as detailed in periodic Federal Highway Administration (FHWA) / Federal Transit Administration (FTA) and EPA guidance. These regulations specify both technical criteria and consultation procedures to follow in performing the assessment.

This scope of work provides a context in which to perform the conformity analyses and presents an outline of the work tasks required to address all regulations currently applicable.

II. FEDERAL REQUIREMENTS

As described in the 1990 Clean Air Act Amendments, conformity is demonstrated if transportation plans and programs:

1. Are consistent with most recent estimates of mobile source emissions budgets
2. Contribute to annual emissions reductions

A-1

Updates to Air Quality Conformity Scope of Work

- Removed unnecessary references to old information
- Attached the COG-approved Cooperative Forecasts Round 1
- To be approved by TPB in May 2024



Progress on the Financial Plan

Financial Plan Requirement

- Federal planning regulations require:
 - A financial plan that demonstrates how the adopted transportation plan can be implemented
 - Forecast revenues are reasonably expected to be available and must cover the estimated costs of adequately maintaining, operating, and expanding the region’s highway and transit systems
- TPB uses a two-pronged approach for the financial analysis:
 - “Top-down” high-level projections of revenue and expenditures by the funding agencies
 - “Bottom-up” estimated project costs from the Project Info Track (PIT) database



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Part III

Department of Transportation

Federal Highway Administration
23 CFR Parts 450 and 771

Federal Transit Administration
49 CFR Part 613
Statewide and Nonmetropolitan Transportation Planning; Metropolitan
Transportation Planning; Final Rule

Financial Plan Development

- High-level revenue/expenditure projections submitted in 2023
 - Tech Committee briefing in September 2023 on results
- Estimated costs from project inputs:
 - PIT project inputs to date include only regionally significant, capacity-impacting projects, typically ~20% of the pie
 - PIT project inputs due in June will complete the accounting of programmed and planned expenditures including:
 - Large, costly State of Good Repair projects
 - Other roadway, transit new construction and operational programs, not capacity related
 - More bicycle and pedestrian projects



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Financial Analysis of Project Inputs to Date

- The summary of the total costs of regionally significant projects submitted in the PIT is reasonable and within the bounds of the "high-level" projections for both transit and highway modes
 - Further refinements are likely, particularly between expansion and State of Good Repair investments
 - Funding agencies may also update their high-level projections
- As required by federal regulations, the financial analysis uses Year of Expenditure dollars (YOE \$)
 - Future project costs appear more expensive in "sticker" price

Financial Analysis to Date - Transit

High-level projection = \$9.90 Billion available

- Purple Line and overall transit costs are inflated by the total cost of that project, of which a considerable portion has already been expended

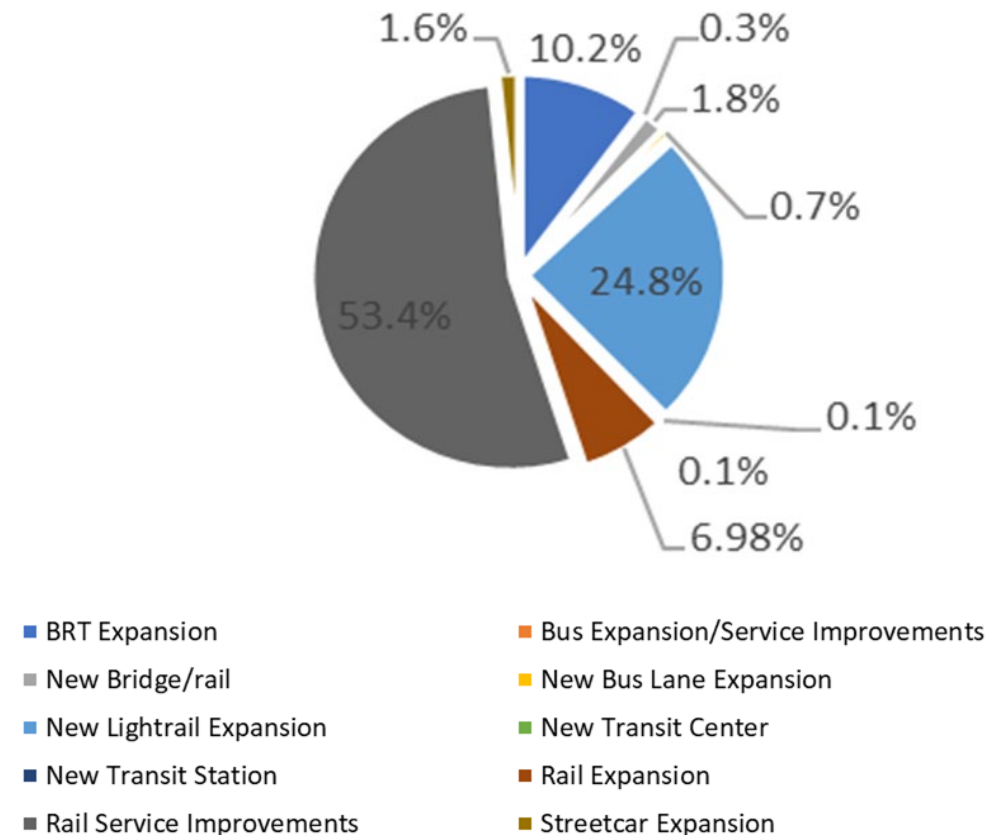
Total Transit expenditures = \$12.47 Billion

- 36% of total expansion project cost

Transit Expenditures Breakdown:

- 53% Commuter Rail Service Improvements
- 7% Commuter Rail Track Expansion Projects
- 24% Purple Line
- 10% BRT projects
- <2% for all others

Transit Projects by Type
(% of Transit Expenditures)



Financial Analysis to Date - Highway

High-level projection = \$33.61 Billion available

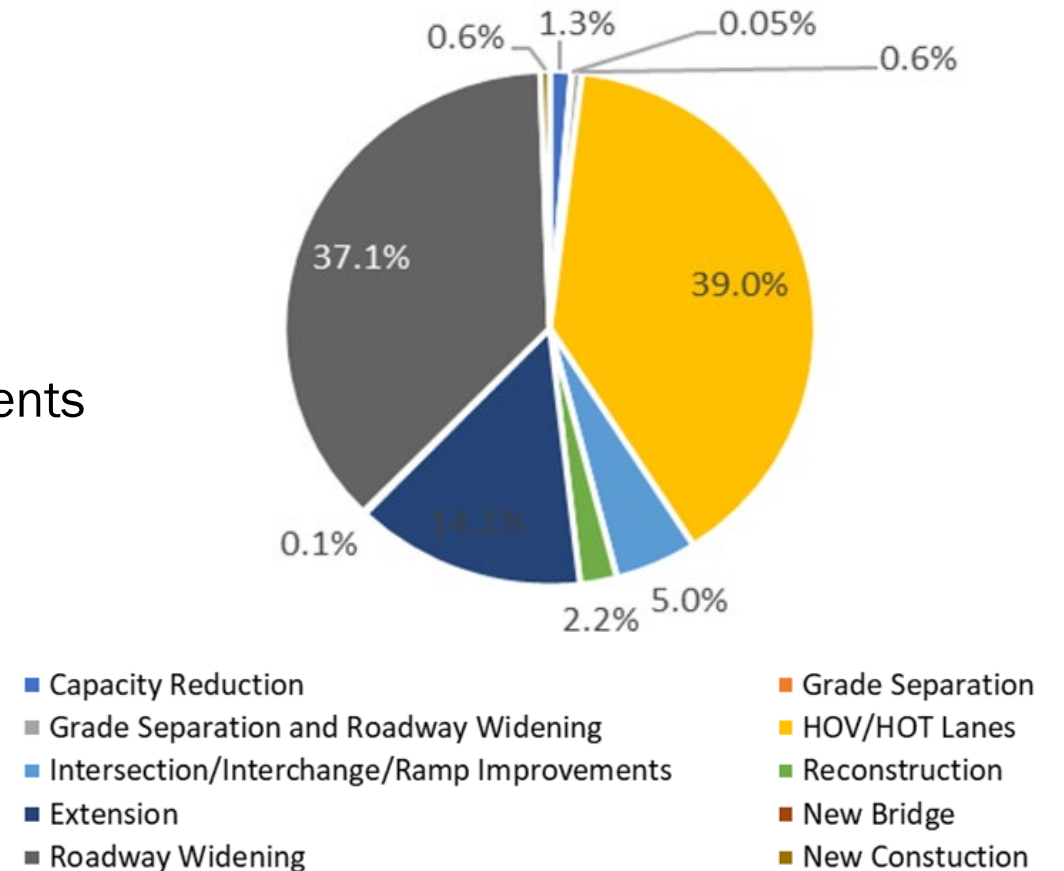
Total Highway Expenditures = \$23.5 Billion

- 64% of total expansion project costs

Highway Expenditures Breakdown:

- 39% HOV/HOT Lanes
- 37% Roadway Widening
- 14% Road Extensions
- 5% Intersection/Interchange/Ramp Improvements
- <3% each for all other categories

Highway Projects by Type
(% of Highway Expenditures)



Next Phase of Project Inputs

Project Inputs – Regionally Significant vs. Not

- Regionally Significant – vehicle/transit capacity-related projects, ~20% financial plan, DONE!
- Need the remaining that are Not Regionally Significant - [due June 28, 2024](#)
 - Smaller-scale roadway, transit, bike, and pedestrian projects
 - Maintenance projects, ongoing programs (e.g. “Clean Air Partners”), administrative records (GARVEE debt service payments)
 - “T” records for FY 26-29 TIP programmed projects and “CE” records for FY 30-50 reasonably anticipated to be programmed for
 - a) Projects
 - b) Project groupings
 - c) Ongoing program projections

Remaining Project Inputs Considerations

- Sources of projects:
 - State, Locality or Transit Agency Plans or Studies
 - Regional Plans like the Bike/Pedestrian Plan or TRIP
- Upcoming grant applications, particularly within the next four years
 - SMART SCALE, HSIP, PROTECT, RSTP, CMAQ, Carbon Reduction Program, Transportation Alternatives, etc.
- **MUST HAVE: Defined scope, project limits, and reasonably anticipated funding sources**

Not Regionally Significant for Air Quality Projects

Current Focus

Primary Record Type - Regionally Significant for Air Quality
Infrastructure
Bicycle/Pedestrian - Bike/Travel lane reduction
Road - Add Capacity/Widening
Road - HOV/Managed Lanes
Road - New Construction
Bridge - New Construction
Bridge - Rehab + Add Cap
Bridge - Replace + Add Cap
Bus/BRT - Capital/Expansion
Rail/Fixed Guideways - Capital/Expansion
Rail/Fixed Guideways - Metrorail/Commuter Rail
Rail/Fixed Guideways - Streetcar/Light rail
Road - Interchange improvements
Other - Federal Lands Highway Program

Primary Record Type - Not Regionally Significant for Air Quality	
Infrastructure	
Bicycle/Pedestrian - Bike/Ped	Bus/BRT - Passenger facilities
Road - Access Mgmt	Bus/BRT - Regional Fare collection
Road - Intersection improvements	Rail/Fixed Guideways - At-Grade Crossing
Road - ITS/Technology	Rail/Fixed Guideways - Capital/SGR
Road - Recons/Rehab/Maintenance/Resurface	Rail/Fixed Guideways - Grade Separation
Road - Signal/Signs	Rail/Fixed Guideways - Maintenance
Bridge - Prev. Maint	Freight - Freight Movements
Bridge - Rehab	TDM/Micromobility - Park and Ride
Bridge - Replace	Other - Alt Fuel Infrastructure
Bus/BRT - Capital/SGR	Other - Intermodal Facilities
Bus/BRT - Maintenance	Other - Regional Fare Collection
Program/Service	Administrative
Bus/BRT - Operating	Debt Service
Rail/Fixed Guideways - Operating	Training
TDM/Micromobility - Ridesharing	Grouping Category
TDM/Micromobility - Vanpool	
Study	Other
Study/Planning/Research	Other

Project Inputs Schedule

Projects in V2050 Financial Plan	Currently Programmed Through FY29	For Future Programming In FY30-50
Regionally Significant for Air Quality	Highway or Transit Projects Project Details & Total Cost Estimate DONE! due 12/29/23	
	Financial Details due 1/26/25	Financial Details due 12/29/23 DONE!
Not Regionally Significant for Air Quality	Highway, Transit, Bike, Pedestrian, etc. Projects, Phases, or Project Grouping Categories Project Details & Total Cost Estimate due 6/28/24 Current Focus	
	Financial Details due 1/26/25	Financial Details due 6/28/24

Next Steps

- May TPB action on Air Quality Conformity Scope of Work and Project Inputs
TPB staff begin performance and air quality analysis of Visualize 2050 and the FY 2026-2029 TIP; Hold Q&A project input sessions
- June Deadline to submit remaining transportation projects, not significant for air quality analysis due via the Project InfoTrak Database **by June 28**
- Summer TPB staff review/clarify with agencies not regionally significant projects
Transfer data to PIT 2.0 platform
Work with agencies to update mapping in off-road records
- Fall Finalize full project list and analyze takeaways for Visualize 2050

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