



NC Toll Policy Handbook Update NC ARPO Workshop

Meeting Details

Date: February 26, 2026

Location: Lumber River COG /
Microsoft Teams

Time: 10:00 AM – 11:30 AM

Attendees

Name	Company
Alpesh Patel	NCDOT / NCTA
Jennifer Harris, Garth Lynch, Michael Lodes	HNTB

Agenda

1. Introductions and Workshop Objectives – 5 minutes (*Alpesh Patel*)
2. Handbook Overview – 20 minutes (*Alpesh Patel, Garth Lynch*)
 - Current PSA Process
3. Feasibility Tool Overview – 15 minutes (*Garth Lynch, Michael Lodes*)
4. FFST Functionality and Enhancements Discussion– 40 minutes (*Alpesh Patel, Garth Lynch*)
 - Data Inputs and Sources
 - Required Inputs
 - Additional Inputs
 - Data Sources
5. Workshop Recap and Action Items – 10 minutes (*Jennifer Harris*)



NC Toll Policy Handbook Update

NC ARPO Workshop (Feb 26, 2026)

As part of the development of the Toll Policy handbook, a Financial Feasibility Screening Tool (FFST) was developed to assist MPOs and RPOs with high-level traffic and revenue (T&R) estimates along with the capital and operations and maintenance (O&M) costs to collect toll along a facility.

The FFST allows users to assess four types of transportation improvements:

1. New alignment highways with full access control
2. Improvement of existing full access control highways by addition of express lanes
3. Conversion of other highways to tolled, full access control highways
4. New bridges or major bridge replacements

During this workshop we will focus on enhancements to the FFST including its functionality, inputs, outputs and reporting features.

Current Tool Inputs

The table below provides the input fields in the current Excel-based FFST. Further details on these inputs are provided in the Toll Policy Handbook located here:

https://connect.ncdot.gov/projects/planning/Planning%20Document%20Library/NCTollProjDevtPolicyHandbook_FINAL.pdf

		User Inputs			Suggested Values with Supersede Capabilities
		Express Lanes	Toll Bridge	Toll Road	
Project Information	Project Identification Number	✓	✓	✓	
	Corridor/Bridge Name	✓	✓	✓	
	Corridor/Bridge Length (centerline miles)	✓	✓	✓	
	Total No. of General Purpose (GP) lanes (both directions)	✓	✓	✓	
	Total No. of Proposed Express Lanes (both directions)	✓			
	Project Location (county)	✓	✓	✓	
Traffic Characteristics	Opening Year	✓	✓	✓	
	Opening Year AADT	✓	✓	✓	
	Design Year	✓	✓	✓	
	Design Year AADT	✓	✓	✓	
	AADT Average Annual Growth Rate (%)	(1)	(1)	(1)	
	Truck Percentage	✓	✓	✓	
	Share of Toll-Exempt Vehicles	✓			
	Peak Period Characteristics	v			
	Average Time Savings Compared to Alternate Route (minutes)		✓	✓	
	Intermediate Access Control Points?	v		v	
	Average Trip Length (%)	v		v	
Value of Time (VOT) (\$/hour)				✓	
Toll Pricing	Electronic Toll Collection (ETC), Car Toll Rate (\$/mile)				✓
	ETC, Truck Toll Rate (\$/mile)				✓
	Bill by Mail (BBM), Car Toll Rate (\$/mile)				✓
	BBM, Truck Toll Rate (\$/mile)				✓
	Annual Rate Increase (%)				✓
	Indexation Base Year				✓
Cost Data	Indexation Base Year	✓	✓	✓	
	Construction Duration (years)	✓	✓	✓	
	Roadway/Bridge Capital Improvement Costs	✓	✓	✓	
	Toll System Implementation Capital Costs				✓
	Roadway O&M (\$/lane-mile)				✓
	Bridge O&M (\$/deck area)				✓

Notes:

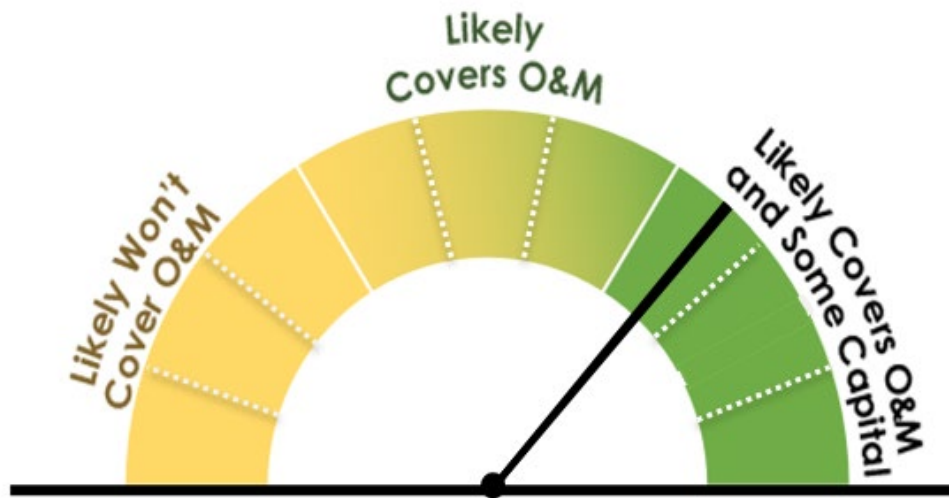
✓ - User specified entry

v - User selection via drop-down menu

(1) - Automatically calculated based on user inputs

Current Tool Outputs

The current Financial Feasibility Tool focused on a qualitative barometer to indicate a project's estimated ability to cover operation and maintenance (O&M) costs as indicated in the figure below:

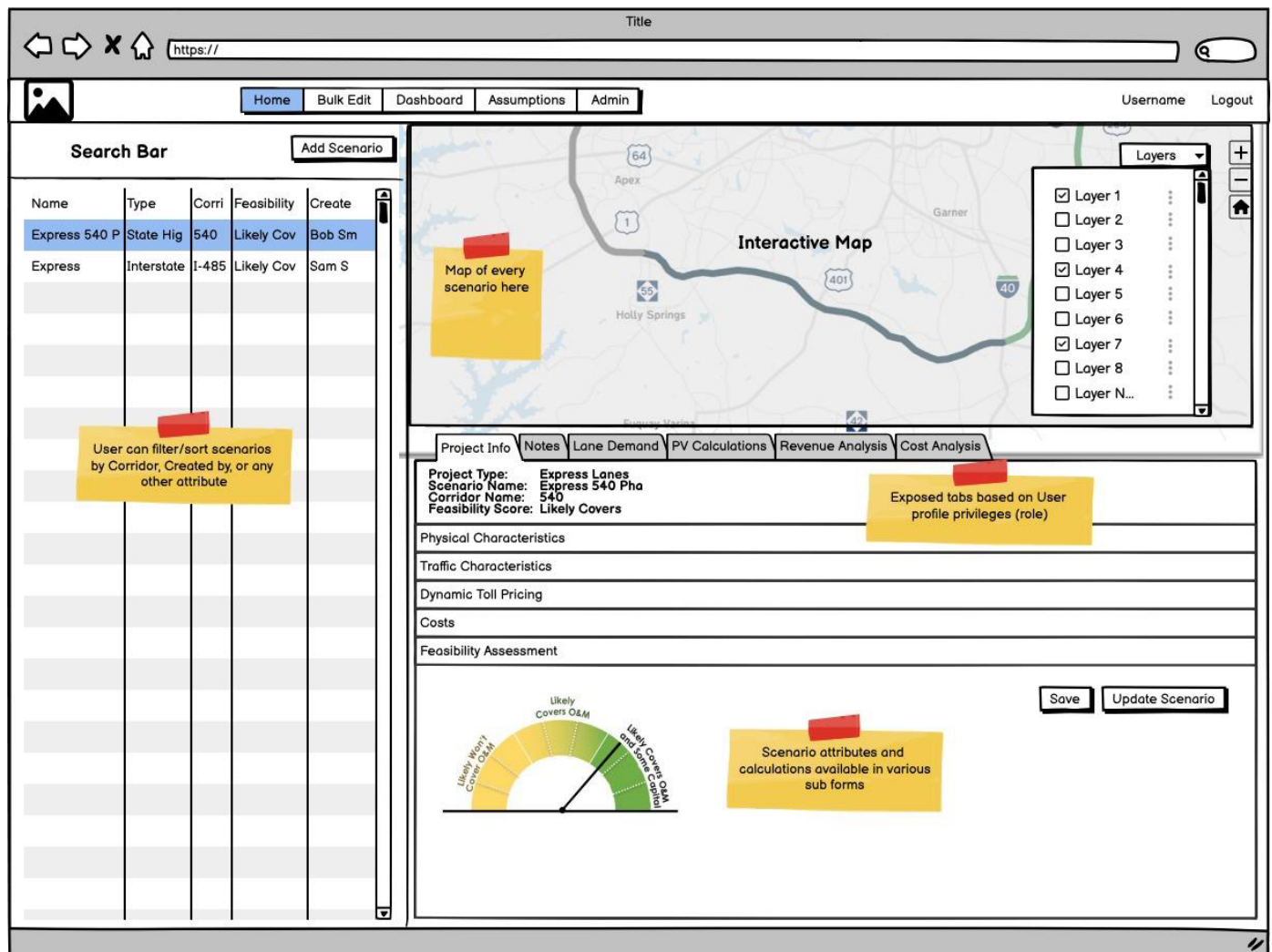


Details on these indicators are described as:

- **Likely covers O&M and some portion of Capital** – If the pointer falls in this region, it means the project presents positive financial flexibility, that is, future toll revenues will likely cover not only operating and maintenance costs, but also the ability to contribute upfront funding towards construction costs through financing.
- **Likely covers O&M only** – If the pointer falls in this region, it means the project has potential financial flexibility, that is, future toll revenues will likely cover operating and maintenance costs but are not enough to contribute upfront funding towards construction costs through financing.
- **Likely won't cover O&M** – If the pointer falls in this region, it means the project will likely require additional funding sources to operate and maintain.

Enhanced FFST - We Want Your Feedback

We will break-out into small groups and solicitate your input on how we can enhance the FFST. Below is a sample wireframe of how the enhanced FFST could be laid out and function.



Below are a series of questions that we will use for small group discussions during the workshop. Please come prepared to discuss.

- What features and functionality are you looking for in the Feasibility Tool?
- What inputs and data sources do you expect to use?
- What datasets do you expect to import into or export from the tool?
- What outputs would be helpful to you, your Technical Coordinating Committee, Board or other stakeholders?
- Any other Reporting needs?

We met with NC AMPO in early December 2025 and below is a summary of what we heard from the questions:

- What features and functionality are you looking for in the Feasibility Tool?
 - Browser-based interface for easy access
 - Continue qualitative assessment for financial feasibility determination
 - Batch evaluation and scalability
 - Run scenarios iteratively with on-the-fly adjustments
 - Sensitivity analysis on growth rates and value of time
 - *Potential Enhancements*
 - *Compatibility with other NCDOT tools and travel demand models*
 - *Quantify transportation network and economic benefits*
- What inputs and data sources do you expect to use?
 - Ability to update and maintain inputs
 - Value of time based on revealed preferences from NC toll facilities
 - Dataset options for estimating through trips (Streetlight O-D data)
 - Incorporate project scoping data (HOV, operational improvements)
- What datasets do you expect to import into or export from the tool?
 - Import
 - Shapefiles (MTPs, studies, TDMs)
 - Roadway history (safety incidents, congestion trends)
 - Export
 - Toll rate projections
 - Diversion impacts
 - Travel time reliability
 - Ramp-up forecasts
 - *Future Goal*
 - *Statewide geodatabase for TDM and FFST data for consistency and scenario analysis*
- What outputs would be helpful to you, your Technical Coordinating Committee, Board or other stakeholders?
 - One-pager and scenario comparisons
 - Revenue projections and potential bonus allocations
 - Communicate ROI and long-term transportation/ economic benefits
 - Metrics to compare to non-tolled options
 - Translate benefits beyond addressing congestion (Safety)
 - Phase implementation options and sensitivity testing for connectors
 - *Potential Enhancements*
 - *Transit benefits*
- Any other Reporting needs?
 - Enhancements for smaller MPOs / Rural Areas
 - Adapt FFST to test conditions where recurring congestion is not the main issue
 - Focus on cost-effective mobility solutions for these regions
 - Reliability and Communication

- Ensure confidence in inputs and outputs for trustworthy results
- Create clear, simple communication tools for local staff to share with stakeholders and boards
- Security and Data Sharing
 - Address visibility of other areas' data
 - Helpful for understanding other projects and comparisons
 - Possible sensitivities around sharing project-specific data