

ANALYSIS OF THE MERCATOR POLICY OPTIONS

***I-77 EXPRESS
LANES***

Local Advisory Group Meeting #3

February 22, 2018

Group Purpose

Advise and Provide Input for the NCDOT Secretary

- a) Analyze Mercator Report 'Options to Consider'*
- b) Assess potential changes for the I-77 Express Lanes Project's Scope and P3 Contract*



Introductions and Roles

- **Local Advisory Group**

Provides input; analyzes pros and cons of various options

- **NCTA Staff**

Liaison with NCDOT; point of contact for LAG information requests

- **Mercator / RS&H Team**

Researches and presents options; brings expertise with projects of this size and scope

- **Facilitators**

Helps group have productive discussion and use its time effectively

Purpose and Approach: Ground Rules

- **“Share the Air”**
- **Listen to Others’ Perspectives**
- **Focus on Interests Before Taking Positions**
- **Seek Common Ground and Action**
- **When Speaking to Press and Public, Share Your Own View; Avoid Attributions About What Others Said**
- **Report Back to Your Respective Appointing Organizations**



Agenda – Meeting #3

- **Introduction**
- **Discuss Details of the Project Scope**
- **Detailed Explanation of Each Mercator Policy Option**
- **Closing**

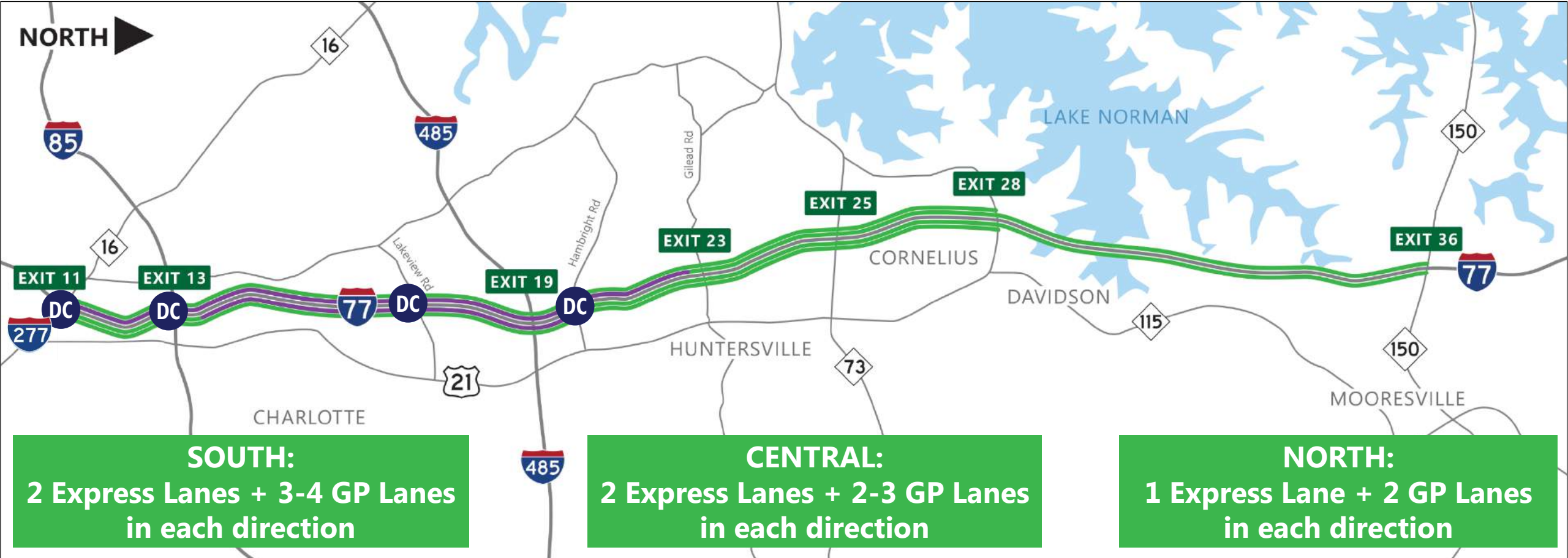


DETAILS OF THE PROJECT SCOPE

I-77 Express Lanes Project Scope

LEGEND

- Existing High Occupancy Vehicle (HOV) Lanes to be Converted to Express Lanes
- Express Lanes
- DC Direct Connector (DC)



SOUTH:
2 Express Lanes + 3-4 GP Lanes
in each direction

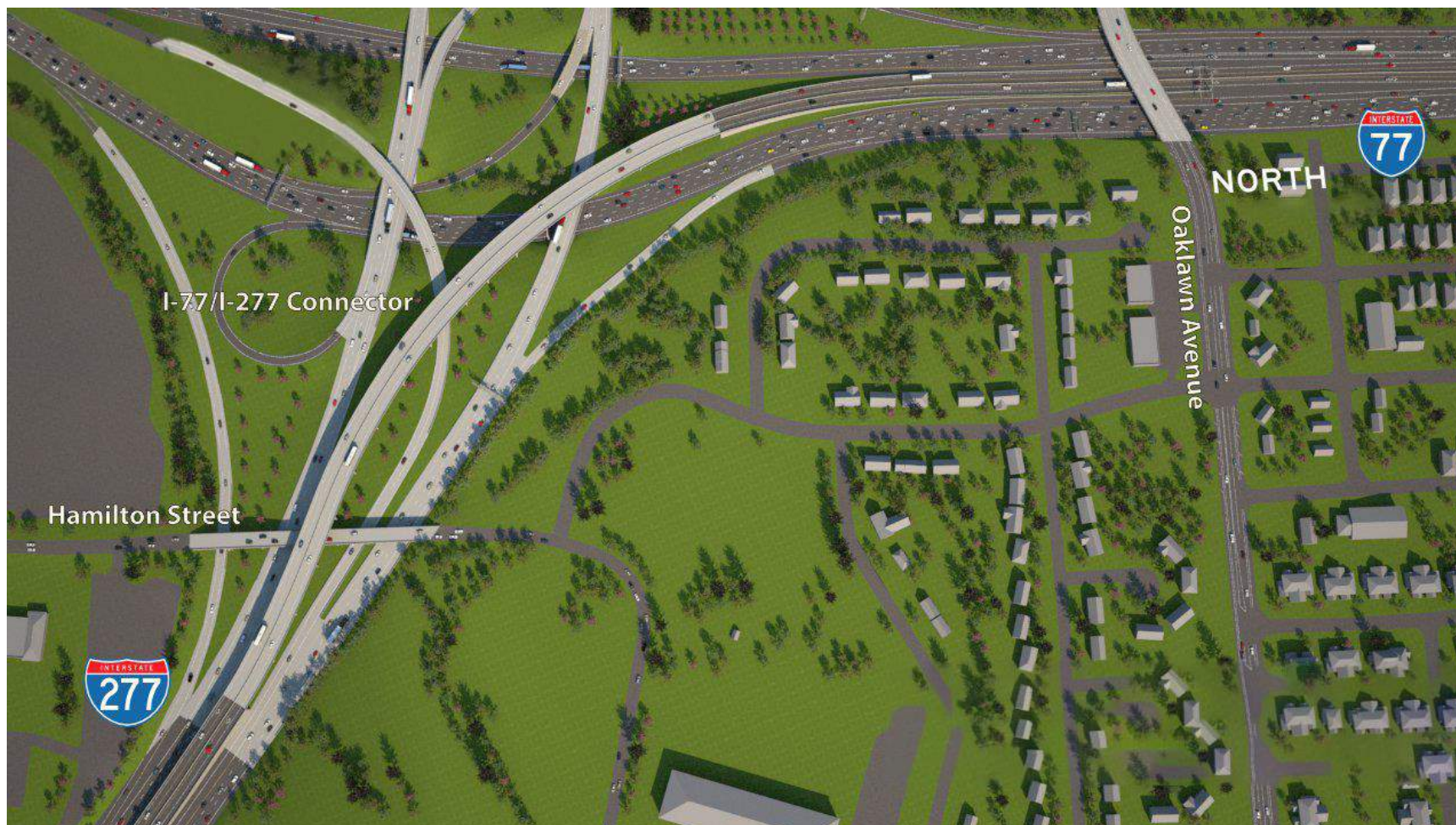
CENTRAL:
2 Express Lanes + 2-3 GP Lanes
in each direction

NORTH:
1 Express Lane + 2 GP Lanes
in each direction

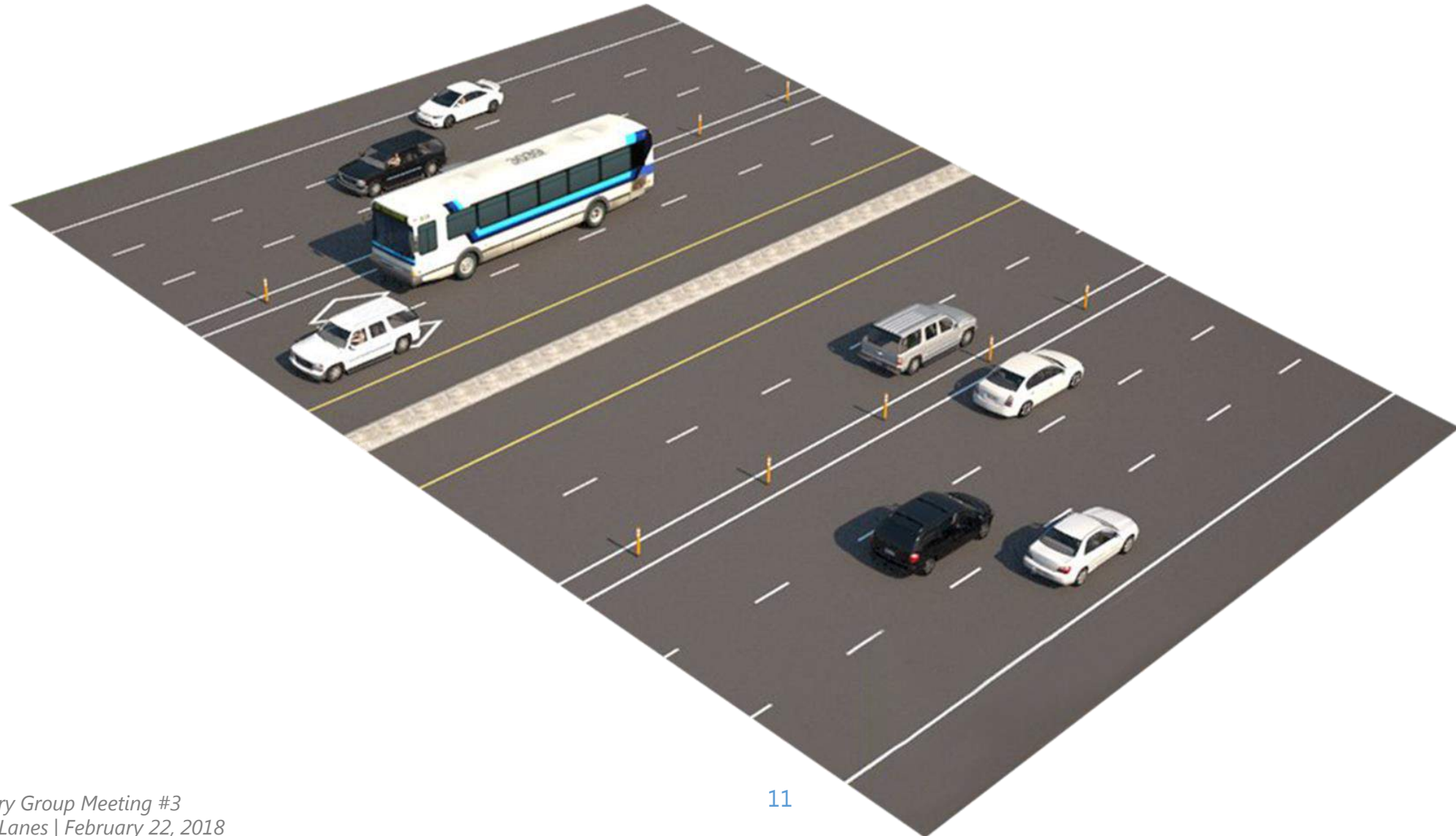
Southern Section



Direct Connectors at I-277



I-77 Express Lanes Separation



Central Section



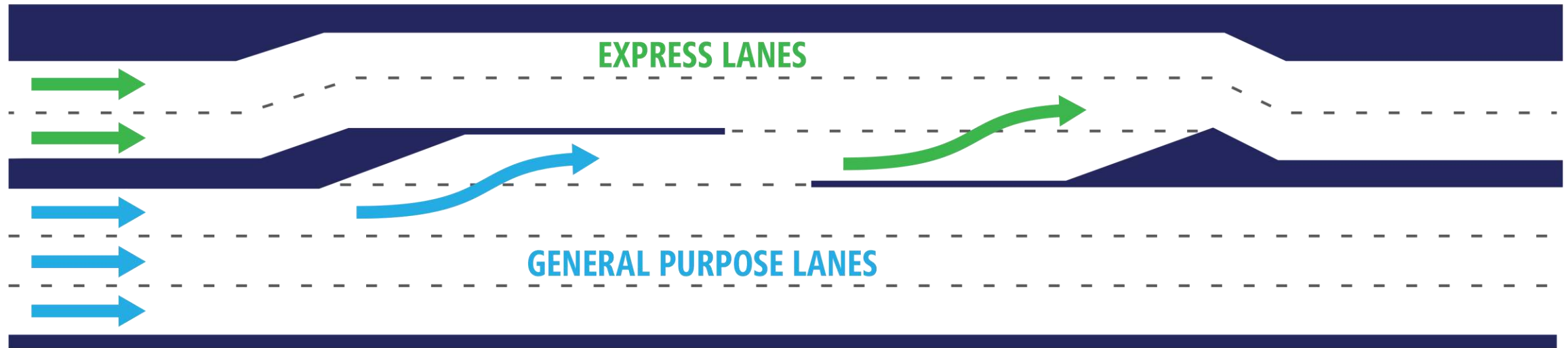
Northern Section



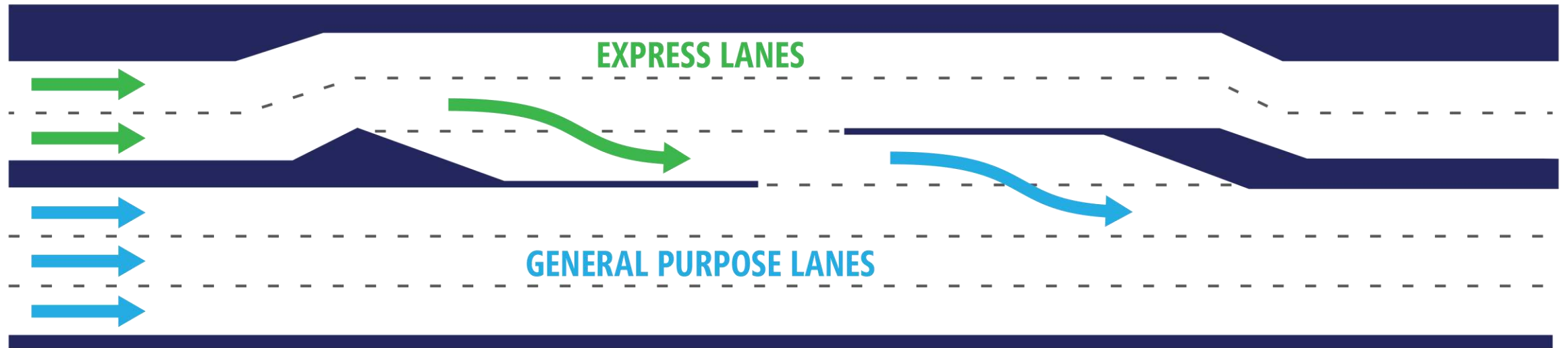
How and Where do We Access Express Lanes?

- **Direct Connectors**
- **Three Types of Access Points**
 - Ingress locations: One-way entry transition areas
 - Egress locations: One-way exit transition areas
 - Transfer locations: Two-way entry and exit weave areas

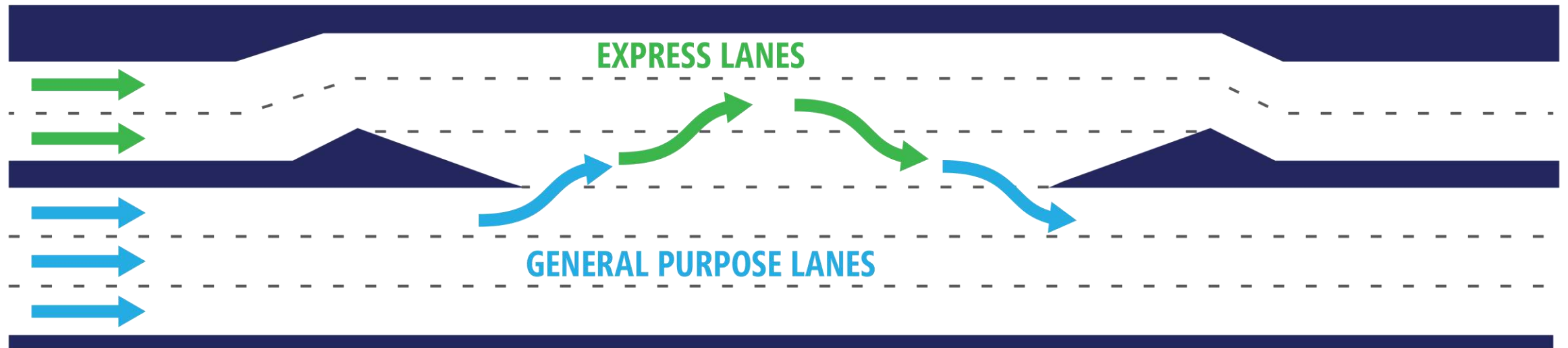
Access Points: Ingress Location



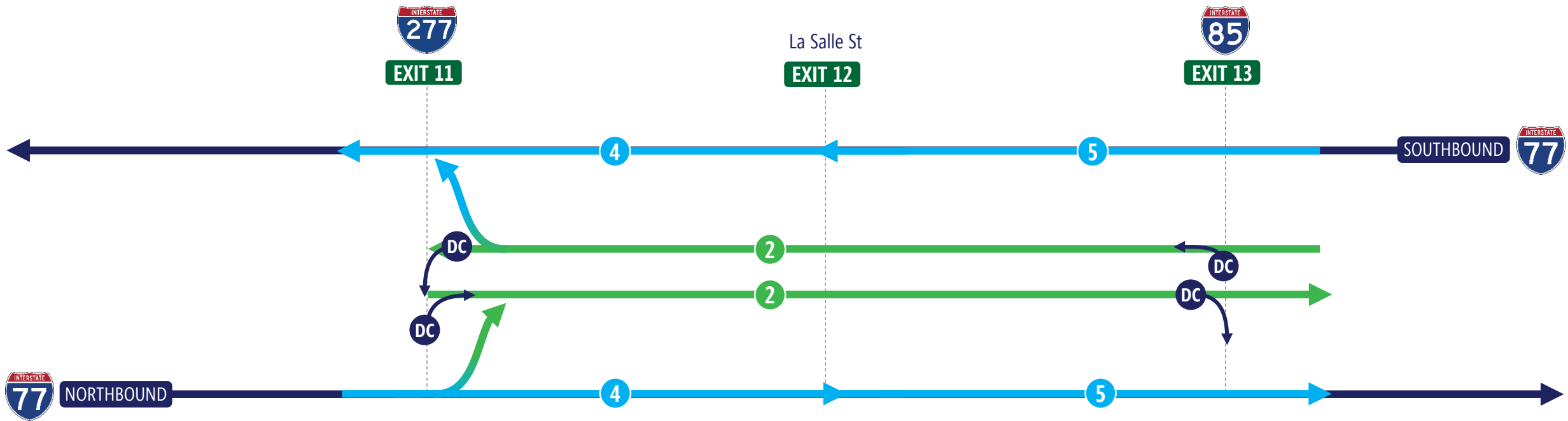
Access Points: Egress Location



Access Points: Transfer Area

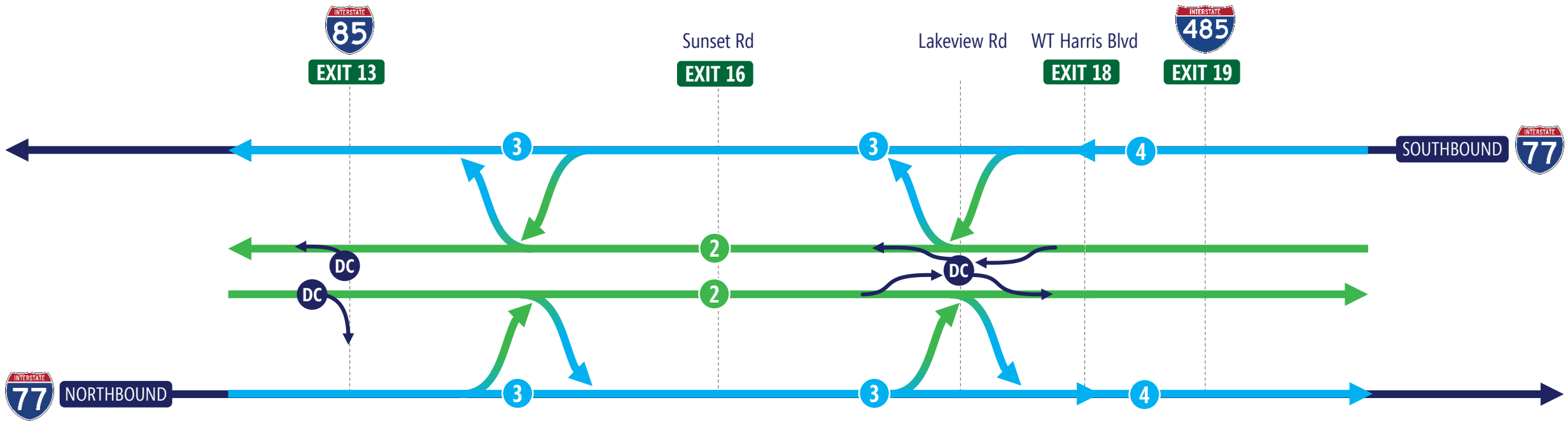


Access Points: Southern Segment



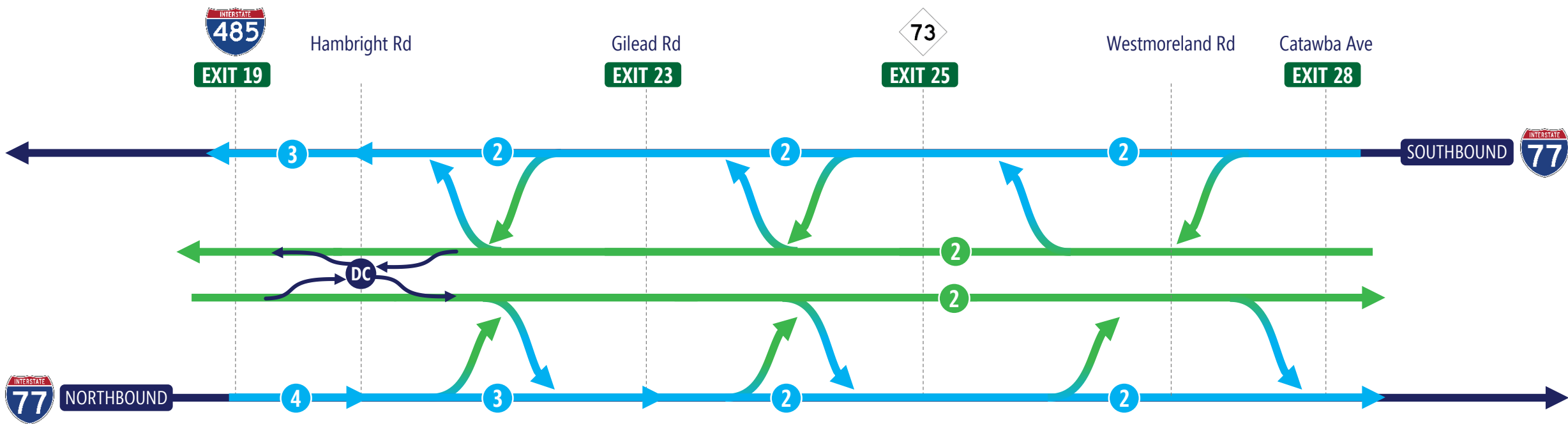
LEGEND	General Purpose Lanes	Enter to Express Lanes	Exit From Express Lanes	Number of Lanes	Direct Connector
	Express Lanes				

Access Points: Central Segment (South of I-485)



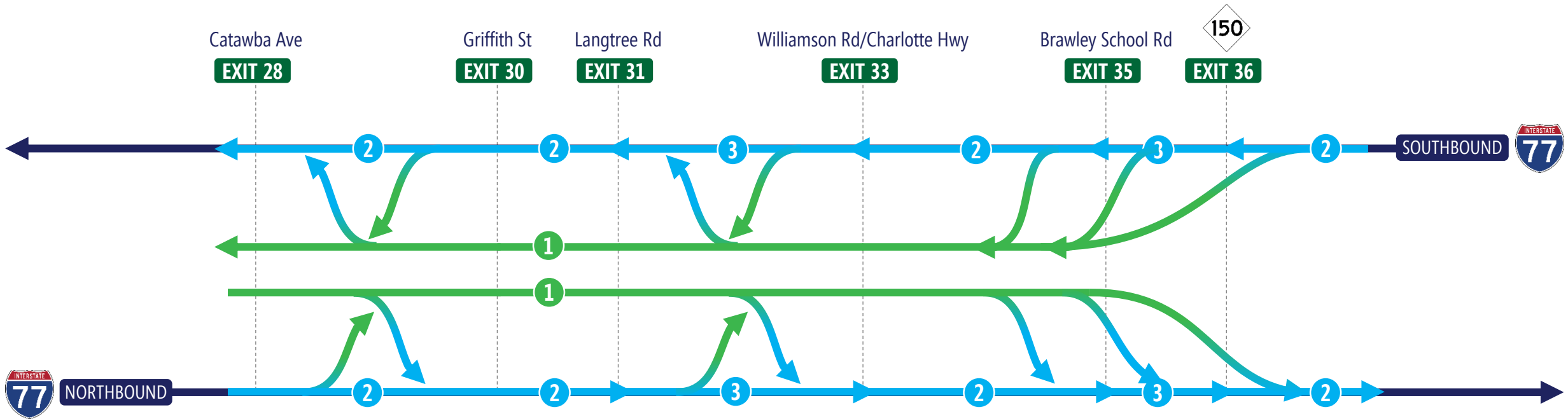
LEGEND	General Purpose Lanes	Enter to Express Lanes	Exit From Express Lanes	Number of Lanes	Direct Connector
	Express Lanes				

Access Points: Central Segment (North of I-485)



LEGEND	General Purpose Lanes	Enter to Express Lanes	Exit From Express Lanes	Number of Lanes	Direct Connector
	Express Lanes				

Access Points: Northern Segment



LEGEND

- General Purpose Lanes
- Express Lanes
- ↗ Enter to Express Lanes
- ↘ Exit From Express Lanes
- (X) Number of Lanes
- DC Direct Connector

Additional Features

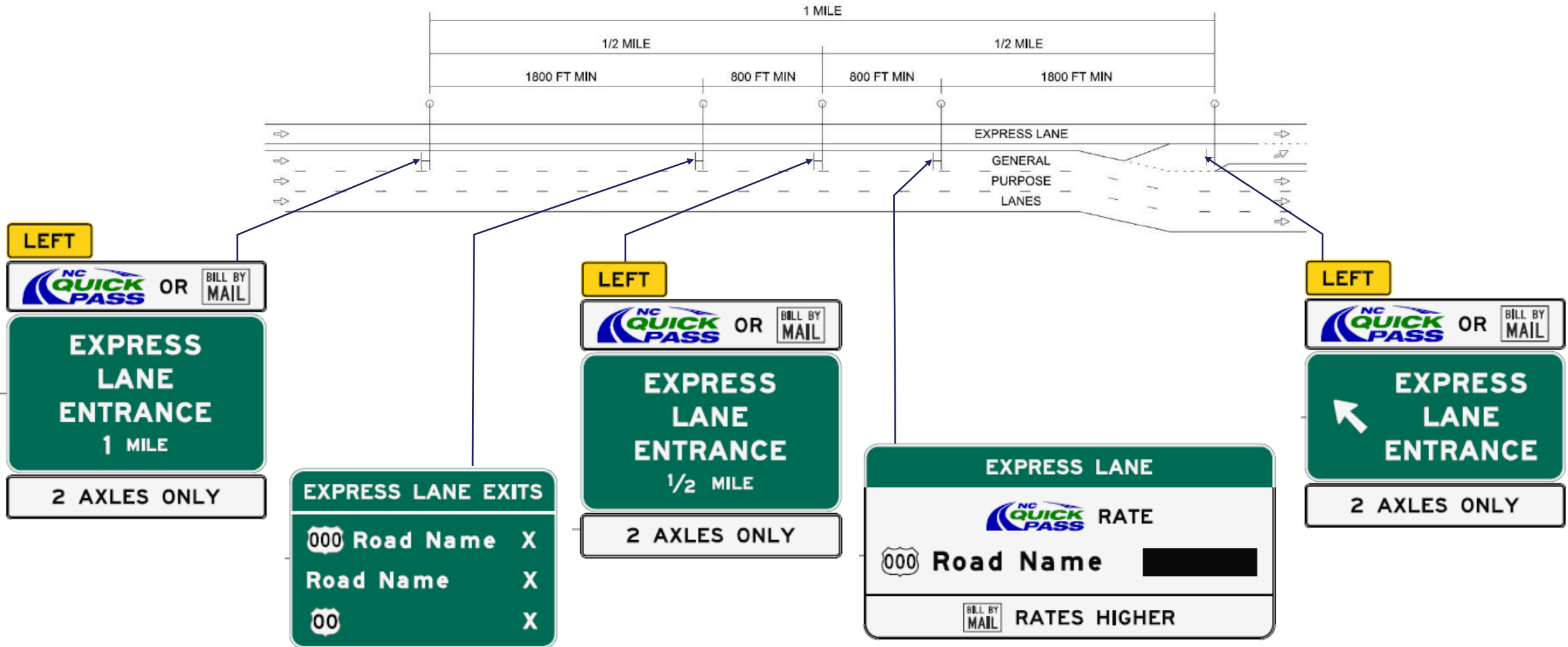
- **16 Noise Walls**
 - Includes various aesthetic treatments per input from local jurisdictions
- **Landscaping - Large/Small Trees, Shrubs and Wildflowers Along I-77**
- **Corridor Landscaping and Aesthetics Plan**
 - Includes \$2M allowance prioritized amongst local jurisdictions
- **Pavement Rehabilitation**
- **Bridge Rehabilitation**
- **Upgrades to Street Lighting and Interchange Lighting**

Tolling - Congestion Pricing

- **Segment-Based Tolling**
- **Dynamic Pricing Based Upon Corridor Demand and Maintaining a Reliable Travel Time**
- **Toll Rate is Displayed on Signs in Advance of Each Entry**
- **Option for Entry/Exit for Each Segment**



Tolling- Signing Approach to Express Lanes



Toll Collection Approach

- **NCTA will Facilitate Toll Collection**

- **Options For Toll Payment**

- NC Quick Pass prepaid account
- Bill by Mail post paid billing



- **Toll Approach**

- Customers, who declare HOV3+ with a transponder ride free
- Transit vehicles, emergency vehicles and motorcycles ride free

DISCUSSION OF MERCATOR OPTIONS

Mercator Policy Options

Option A: Terminate the CA and Complete the Express Lanes Project Using Public Funding or Financing as it Becomes Available

Option B: Terminate the CA and Allow CRTPO to Determine Whether Express Lanes Should Remain in the Transportation Plan or be Replaced or Supplemented with Other Improvements Based on Available Resources

Option C: Negotiate Modifications to the Project Scope and/or the Terms of the CA, Such as:

C.1 - Deferring or eliminating tolling of certain lanes

C.2 - Reduce the financial impact on local residents by establishing frequent user discounts or toll credits

C.3 - Revising the truck restrictions to allow larger vehicles that can use the express lanes safely

C.4 - Encouraging greater use of new capacity by allowing HOT2+ for some period of time

C.5 - Modifying the compensation provisions for unplanned revenue impacting facilities

Option D: Work with CRTPO to Identify and Advance Additional Improvements to Address Mobility Issues in the Corridor

Option E: Develop Preliminary Plans to Negotiate and Finance the Purchase of the Express Lanes Project After Completion

Option F: Complete and Delete

A: Terminate the CA and Complete the Express Lanes Project Using Public Funding or Financing as it Becomes Available

- **Contract is Terminated During Construction**
- **NCDOT Completes the Construction with No Change to the Scope**
- **NCDOT Completes the Project, without the Developer, Using Public Funding or Financing as it Becomes Available**
- **NCDOT will Maintain and Operate the Entire Facility Including the Tolled Express Lanes**

B: Terminate the CA and Allow CRTPO to Determine Whether Express Lanes Should Remain in the Transportation Plan or be Replaced or Supplemented with Other Improvements Based on Available Resources

- **Contract is Terminated and Construction Stops**
- **CRTPO to Determine Whether Express Lanes Should:**
 - Remain in the transportation plan or
 - Be replaced or supplemented with other improvements based on available resources
- **Prepare a New Environmental Document with a New Purpose and Need Statement**
- **Implement the New Project Through STI Prioritization Process**

C: Negotiate Modifications to the Project Scope and/or the Terms of the CA

C.1 - Deferring or Eliminating Tolling of Certain Lanes

C.2 - Reducing the Financial Impact on Frequent Users

C.3 - Revising the Truck Restrictions to Allow Larger Vehicles That Can Use the Express Lanes Safely

C.4 - Encouraging Greater Use of the Express Lanes by Allowing HOT2+ for Some Period of Time

C.5 - Modifying the Compensation Provisions for Unplanned Revenue Impacting Facilities

C.1 - Deferring or Eliminating Tolling of Certain Lanes

- **Mercator Report Referenced Elimination of One Express Lane in Each Direction Between Exits 23 and 28**
 - Results in a conversion from two express lanes and two general purpose lanes to one express lane and three general purpose lanes in each direction
 - Usage of third general purpose lane would be restricted for heavy trucks
- **Developer Completes the Construction**
- **Developer will Maintain the Entire Facility**
- **Additional Considerations:**
 - Are there additional variations that should be developed and evaluated?

C.2 - Reduce the Financial Impact on Local Residents by Establishing Frequent User Discounts or Toll Credits

- **Mercator Report Referenced Providing Discounts or Toll Credits Based on the Number of Trips Over a Certain Time Period**
 - Mercator report did not specify a specific discount method or process
- **Additional Considerations:**
 - Does the Group want to consider a toll cap as a part of this Option?

C.3 - Revising the Truck Restrictions to Allow Larger Vehicles That Can Use the Express Lanes Safely

- **Current Contract does not Allow:**

- Vehicles with more than two axles
- Vehicles >20' long or >8.5' wide or >12' high

- **Transit and Emergency Vehicles are Exempt from this Restriction**

- **Mercator Report Referenced Modifying or Replacing that Standard with**

- A standard based on gross vehicle weight or other criteria that would permit access to box trucks and other large vehicles that can use the express lanes safely

- **Additional Considerations:**

- Specific vehicle types would need to be defined

C.4 - Encouraging Greater Use of New Capacity by Allowing HOT2+ for Some Period of Time

- **Current Contract Allows Usage of Express Lanes for Free for HOV3+ Vehicles**
- **Mercator Report Referenced Allowing HOT2+ Vehicles to use the Express Lanes During the Initial Period of Operation**
 - Ease the transition to HOT3+ and encourage more drivers to obtain transponders and use the express lanes

C.5 - Modifying the Compensation Provisions for Unplanned Revenue Impacting Facilities

- **Contract Allows the Developer to Seek Compensation if:**
 - A main lane within the right-of-way airspace of the project is added and adversely affects toll revenue
- **Planned Facilities at the Time of Contract Execution are not Subject to Compensation Provisions, Except for:**
 - An additional general purpose lane between exits 28 and 36
- **Contract Modification Could Evaluate a Time Period Prior to Implementing Such Improvements**
- **Additional Considerations:**
 - Are there any variations to the exempt project that should be considered?

D: Work with CRTPO to Identify and Advance Additional Improvements to Address Mobility Issues in the Corridor

- **Developer Completes the Project with Current Scope, Including Tolled Express Lanes**
- **Contract Allows Other Projects to be Advanced**
- **This Option Focuses on Additional Improvements in the I-77 Corridor**

E: Develop Preliminary Plans to Negotiate and Finance the Purchase of the Express Lanes Project After Completion

- **Developer Completes the Project with Current Scope, Including Tolled Express Lanes**
 - Developer operates and maintains the entire facility for some period of time
- **NCDOT Purchases the Contract After Opening the Facility**
 - NCDOT takes over the operations and maintenance of the entire facility including the tolled express lanes
 - Timing of the transition has not been defined

F: Complete and Delete

- **Developer Completes the Construction of Additional Lanes**
- **Modify the Contract to “Delete” the Electronic Toll Collection System**
 - Essentially converting the express lanes to general purpose lanes
- **Contract would be Terminated After Construction is Complete**
- **NCDOT would Operate and Maintain the New Lanes**
 - Which would be open to all traffic except heavy trucks
 - Existing HOV lane limits would be retained
- **Additional Considerations:**
 - Overpass bridge structures conflict with expanding new lanes adjacent to current general purpose lanes in south and central sections
 - Maintain current ingress/egress access and direct connectors vs. reduced/limited access

Closing / Questions / Next Steps

- **Summarize Additional Information Requested**
- **Proposed Topics for Meeting #4**
- **Meeting Evaluation**

THANK YOU!