



Charlotte Region *Fast Lanes* Study Phase III



Stakeholder Workshop #3

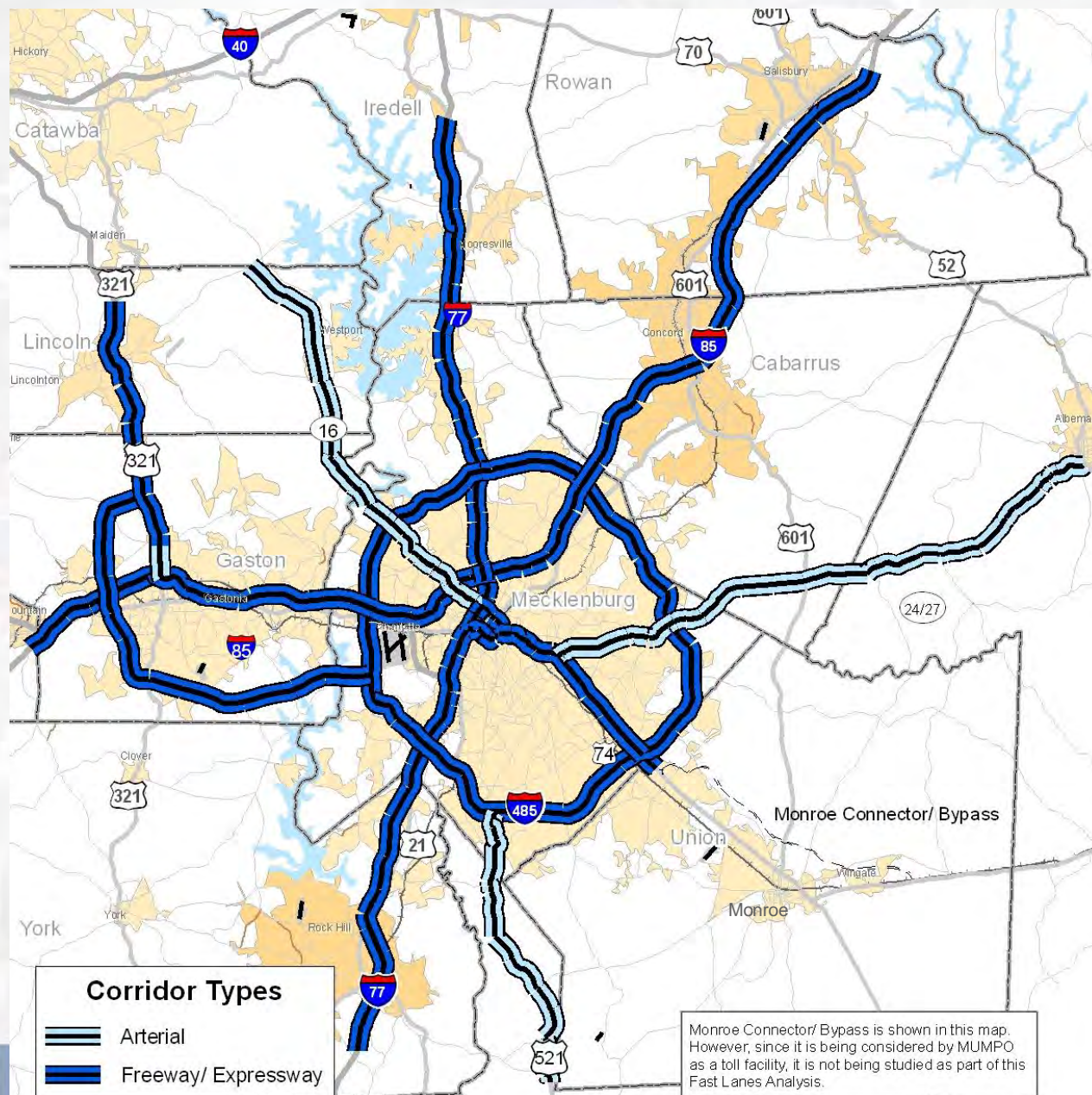
December 13, 2012

Fast Lanes Study, Phases I and II

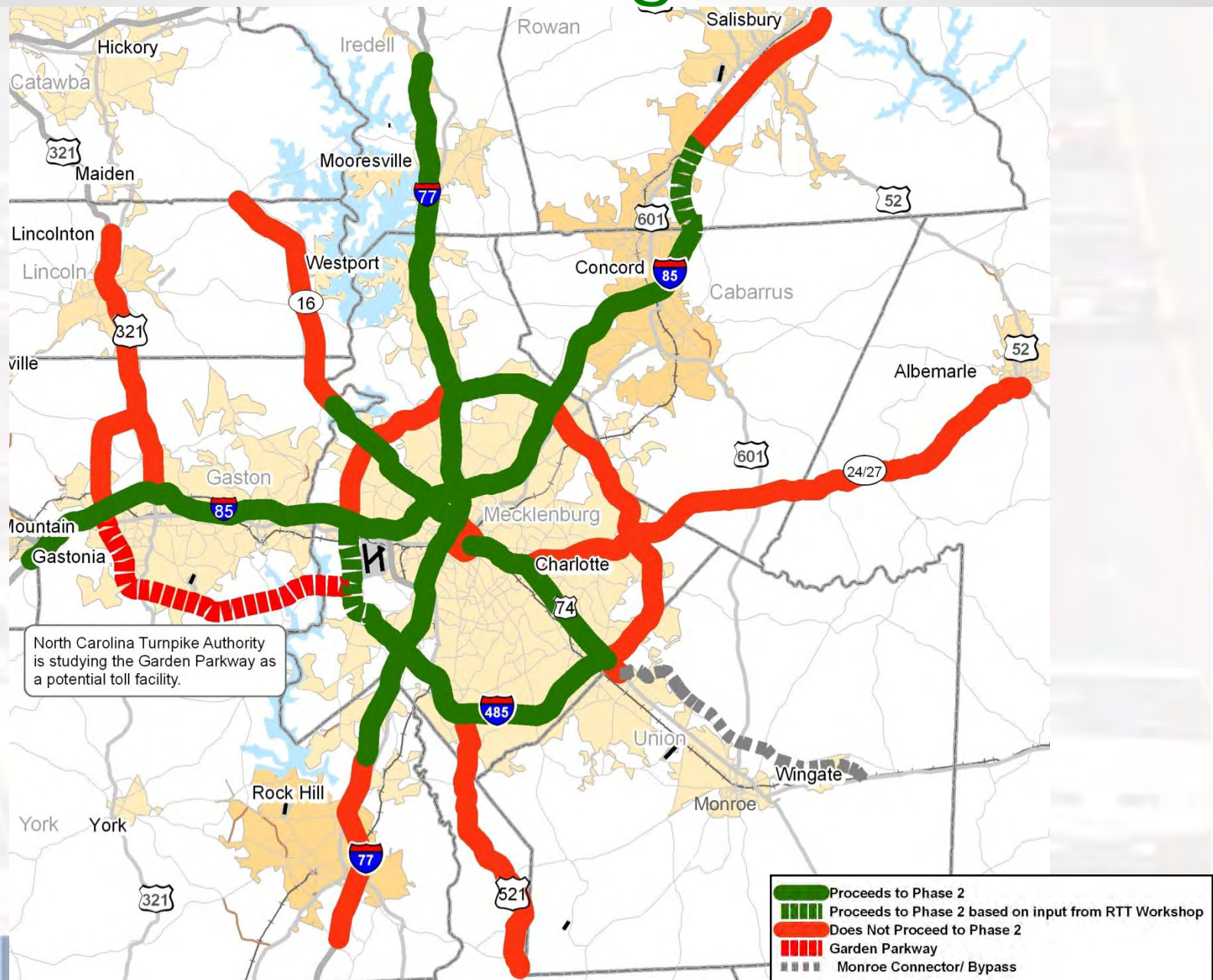


- ◆ Performed between 2007 and 2009
- ◆ Evaluated all types of managed lanes (HOV, HOT, truck-only toll)
- ◆ Co-managed by NCDOT and City of Charlotte
- ◆ Analyzed 12 freeway and arterial corridors (340 miles in 10 counties) for *Fast Lanes* feasibility
- ◆ Identified the corridors where *Fast Lanes* are most feasible

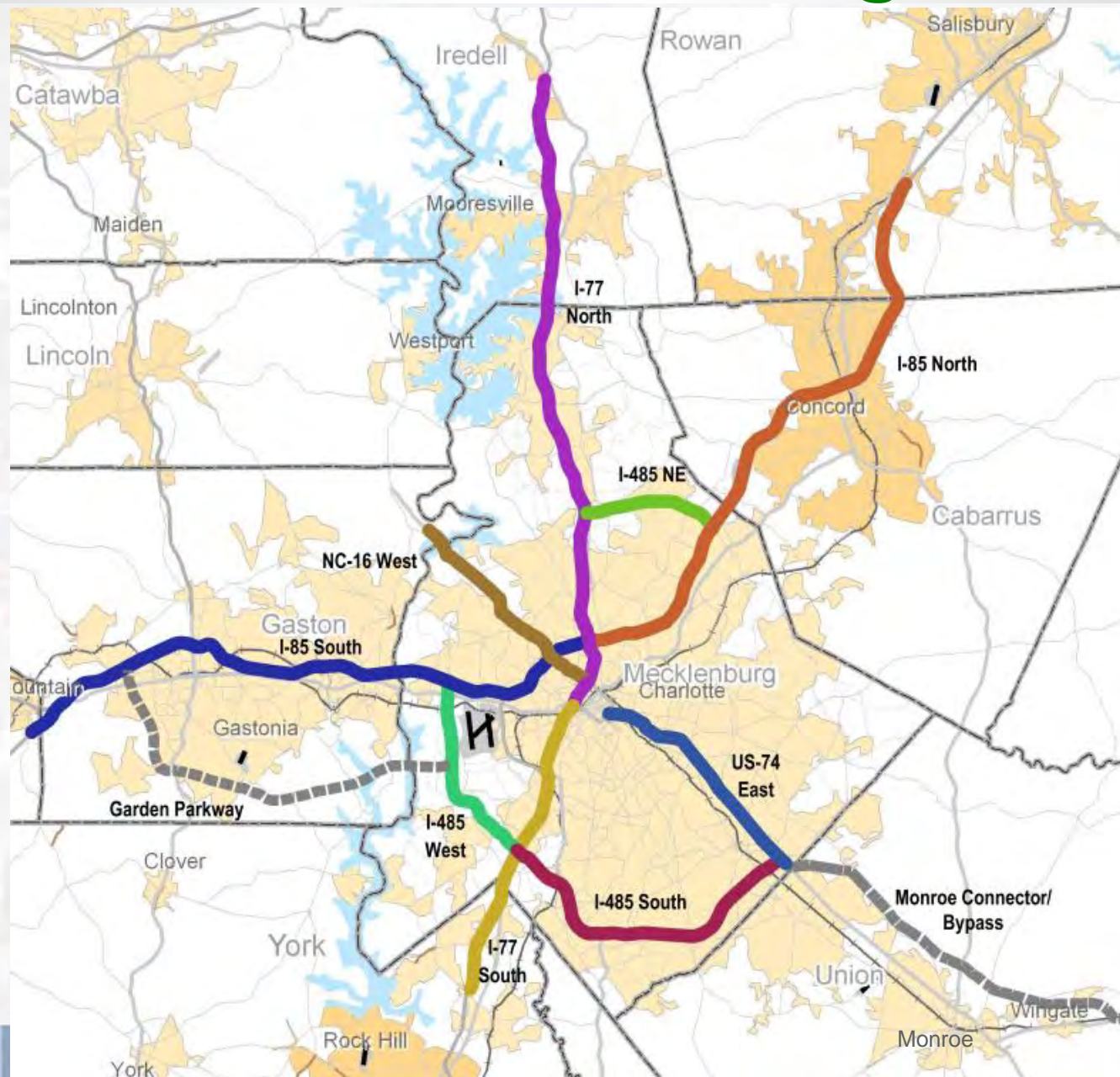
AI I Study Corridors (340 Miles)



Phase I Screening Results



Phase II Corridors/Segments



Phase III Study Corridors



Phase III Scope



- ◆ Identify transportation funding gaps & analyze potential revenue sources
- ◆ Analyze I-485 South and US-74 East corridors for *Fast Lanes* operations & conceptual design
- ◆ Collect data to assess public opinion on tolling & congestion pricing along US-74, I-485 and I-77 North corridors
- ◆ Identify next steps in implementing *Fast Lanes*

Phase III Goals



- ◆ Educate local stakeholders about opportunities
 - Use *Fast Lanes* to contribute to mobility in candidate corridors
 - Use *Fast Lanes* to deliver more capacity faster through alternative financing
- ◆ Assess public opinion
 - Approval, support, doubt, concern, opposition
 - Strength of interest for *Fast Lanes*

Workshop #1 (March 14th)



- ◆ Reviewed *Fast Lanes* concepts, local transportation funding and NCDOT/NCTA initiatives (everyone has same information moving forward)
- ◆ Identified technical issues to explore in concept development
- ◆ Identified public acceptance issues for testing in citizen involvement activities

Workshop #2 (June 7th)



- ◆ Reviewed public involvement results
 - One-on-One interviews
 - Telephone survey
 - Focus groups
- ◆ Provided context on how Charlotte public involvement results compared to public opinion from similar surveys in other cities

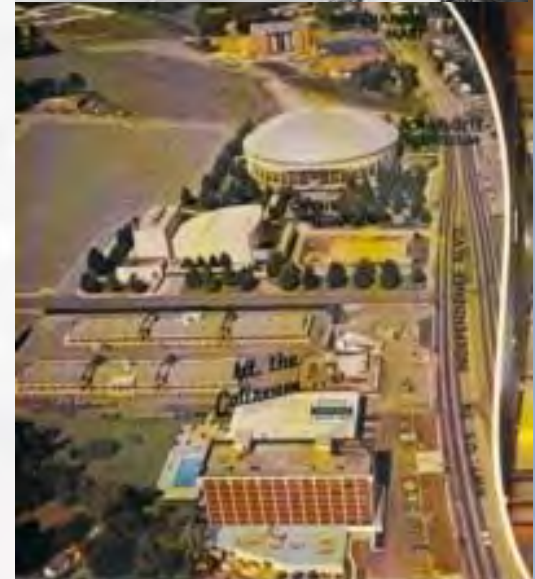
Workshop #3 Agenda



- ◆ Review results of second round of focus groups for I-485 and US-74 corridors
- ◆ Provide updates on express lanes projects along US-74, I-485 and I-77 corridors
- ◆ Discuss unresolved issues, policy decisions and next steps in implementing express lanes in the Charlotte region

Year	Plan/Study	Outcome
1966	Expressway Plan	Expressway
1977	DEIS	Freeway/Expressway
1986	Supplemental EIS	Expressway w/median HOV
1988	Supplemental FEIS	Expressway w/median HOV
2002	SE Corridor MIS	BRT median
2006	SE Corridor Rapid Transit & Hwy Project	BRT w/LRT option
2007	Land Use / Infrastructure Assessment	Market factors add to access barriers
2009	FastLanes Study	Priority corridor for managed lanes
2009	Area Plan	Reverse-frontage land use vision
2011	ULI Rose Center Fellowship	Shared Bus/HOT lanes

US-74 Plans and Studies

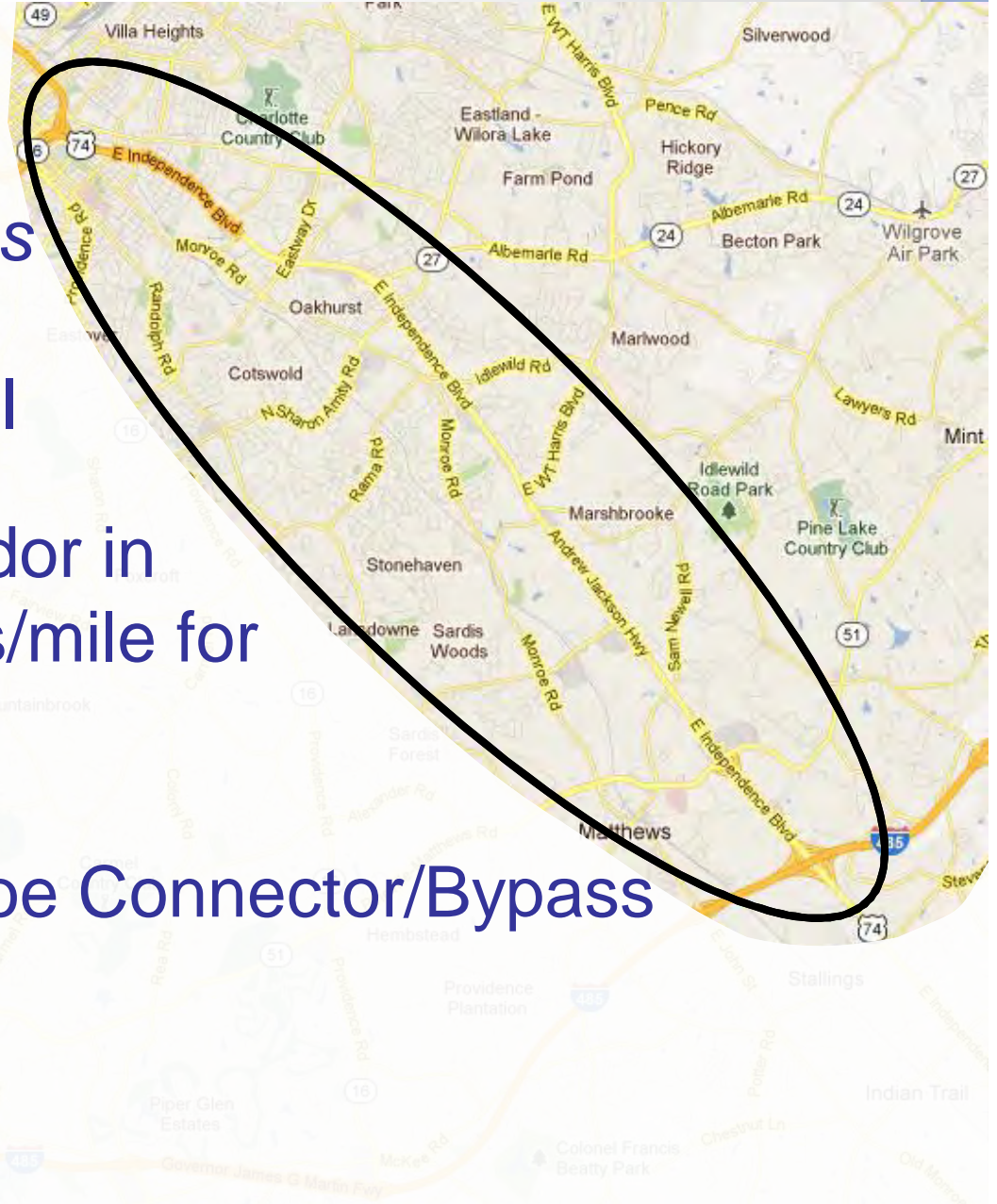


FastLanes
GET THERE!

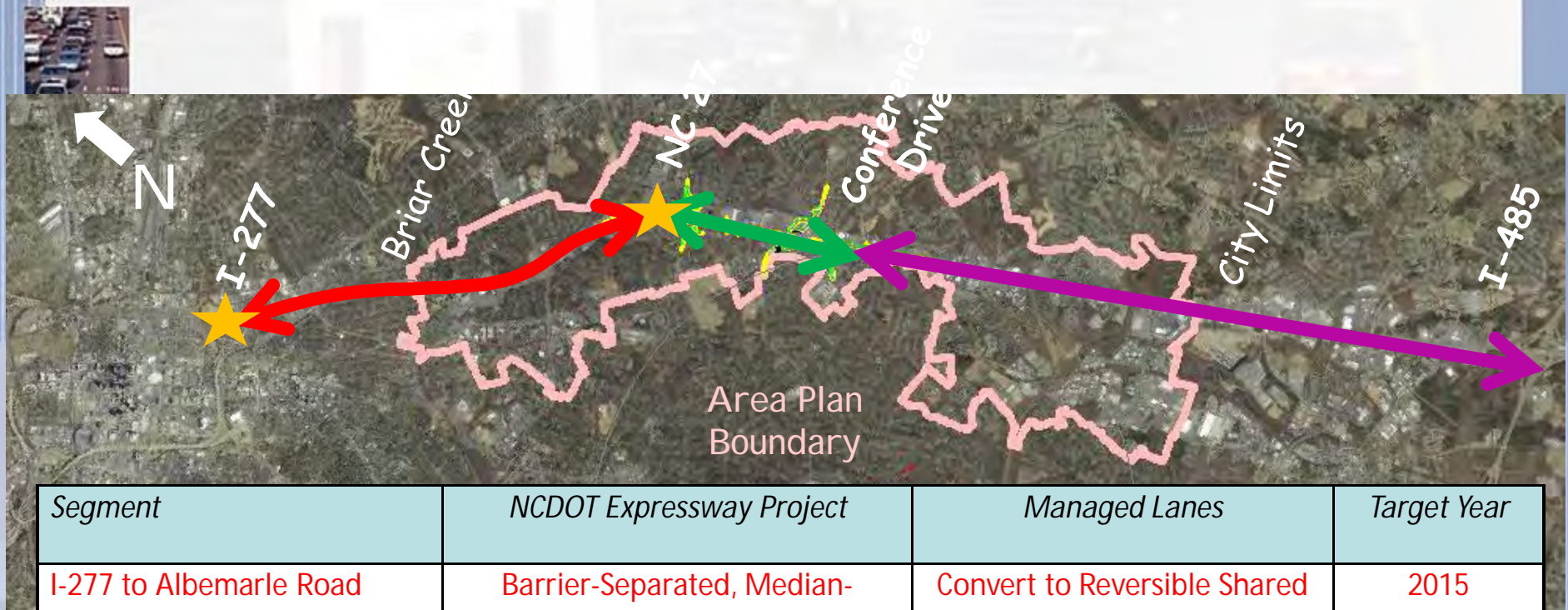
US-74 East Corridor



- Highest *Fast Lanes* demand in 2013 & 2030 from Phase II
- High-ranking corridor in travel time savings/mile for *Fast Lanes* users
- Connects to Monroe Connector/Bypass



Managed Lane Segments



Segment	NCDOT Expressway Project	Managed Lanes	Target Year
I-277 to Albemarle Road	Barrier-Separated, Median-Running Bus-Only Lanes	Convert to Reversible Shared Lane within Barrier-Separated Median	2015
Albemarle Road to Conference Drive	Paint-Separated, Shared Bus/HOV Lanes	Included in NCDOT Project (Re-Design of U-209-B)	2015
Conference Drive to I-485	Unfunded	To be studied	Before 2025



Gates for Reversible Lanes

US-74 (I-277 to Alameda)



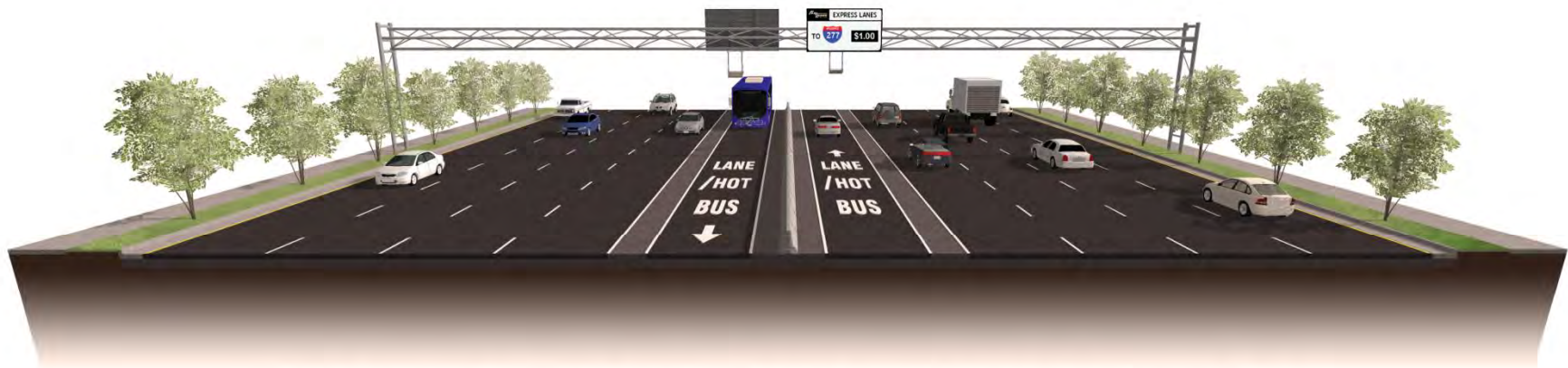
- ◆ Two-way busway currently used by 33 CATS buses each peak period
- ◆ Implement managed lanes starter segment through conversion to reversible shared lane within existing barriers
- ◆ Estimated construction cost of conversion to express lanes of \$11 million
- ◆ To be completed by 2015 with Project U-209B
- ◆ Estimated use by 1800 toll-paying vehicles in 2015

US-74 East Corridor



US 74 Proposed Typical Cross-Section | I-277 to Albemarle Road

Morning Peak Hour



US 74 Proposed Typical Cross-Section | Albemarle Road to Conference Drive

US-74 (AI bema r l e to Conference)



- ◆ NCDOT modified plans in 2012 at City's request to build paint-separated shared lanes (for buses and HOT lanes users)
- ◆ Construction will begin in January 2013 with expected completion by 2015
- ◆ Additional construction cost of \$3 million to implement technology/modifications for managed lanes
- ◆ Annual operating & maintenance costs for 6-mile starter project estimated at \$650,000 to \$750,000

US-74



- 21-mile “Monroe Parkway” (R-2559 & R-3329) from I-485 to Marshville
- 6-mile gap (U-2509) between funded expressway project on Independence (U-209B) & Monroe Parkway



Project U-2509 Overview

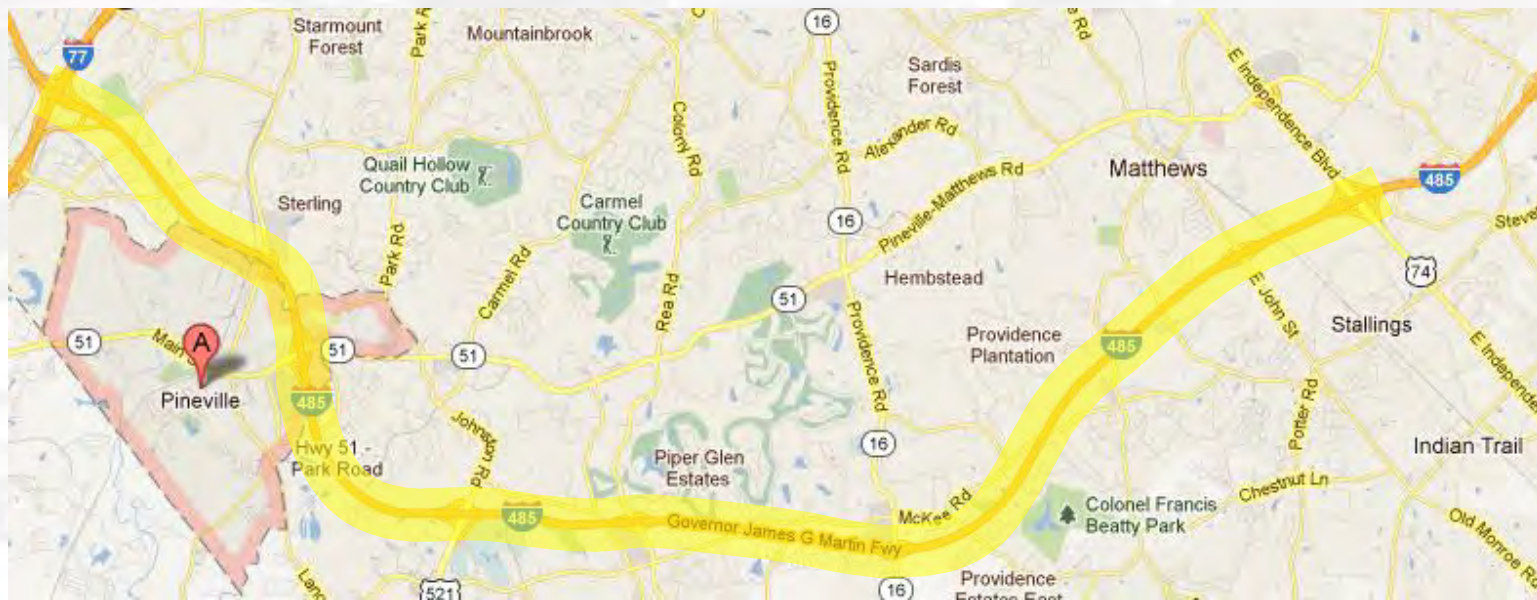


- ◆ 6 miles remain to be designed & built (Conference Dr to I-485)
- ◆ Pre-construction activities to be conducted by NCDOT (PDEA)
- ◆ Coordination with Town of Matthews

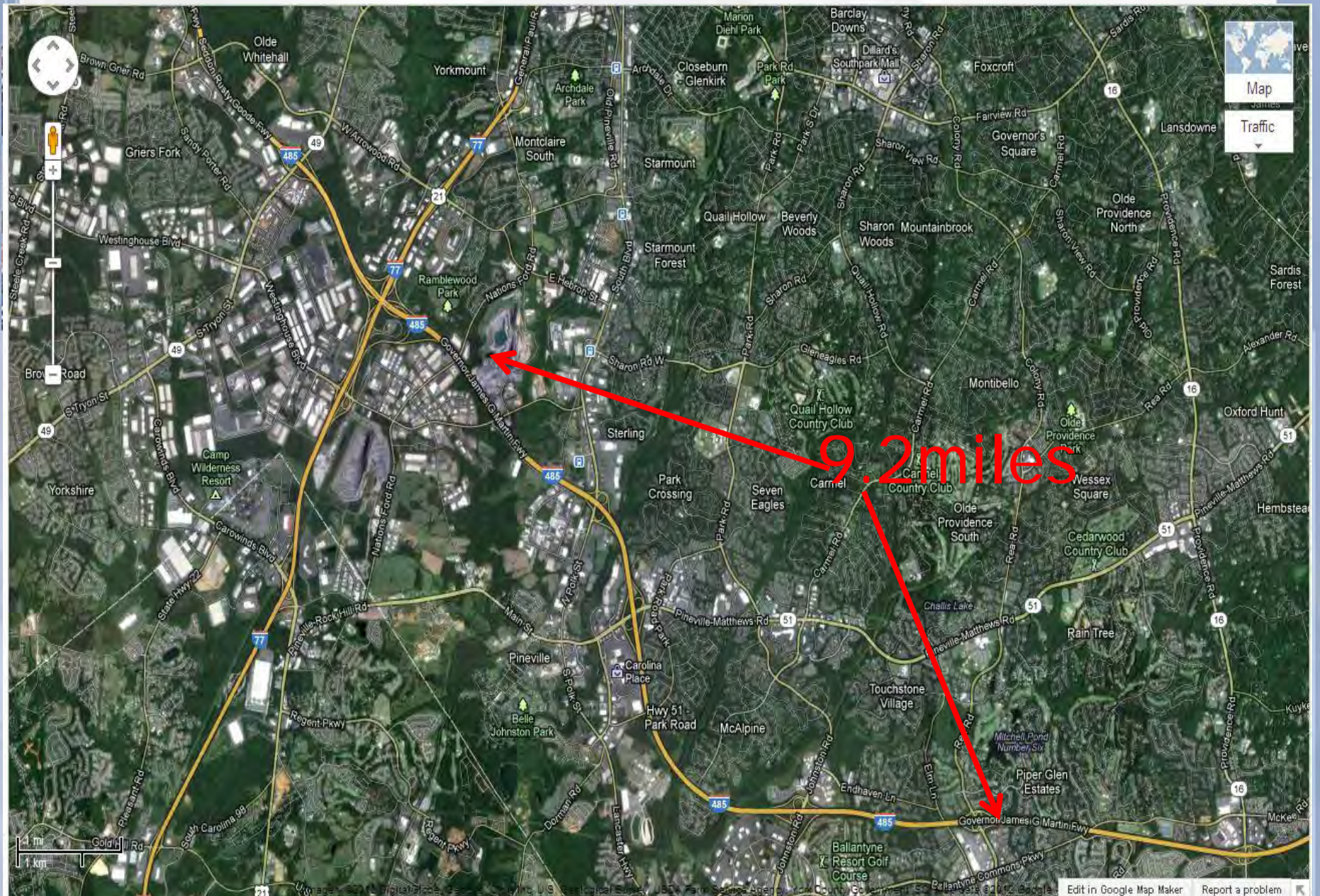


I-485 South Corridor

- Opportunity to analyze potential for managed or express lanes as part of NCDOT's widening project between I-77 and Rea Road
- Opportunity to assess feasibility of *Fast Lanes* extension east to US-74



NCDOT Project R-4902



NCDOT Project R-4902

I-77

US 74

NC 51

US 521

Rea Rd

Build 1 general purpose lane in each direction

Build auxiliary lane

Build flyover

Build full depth paved shoulder

Build full depth paved shoulder

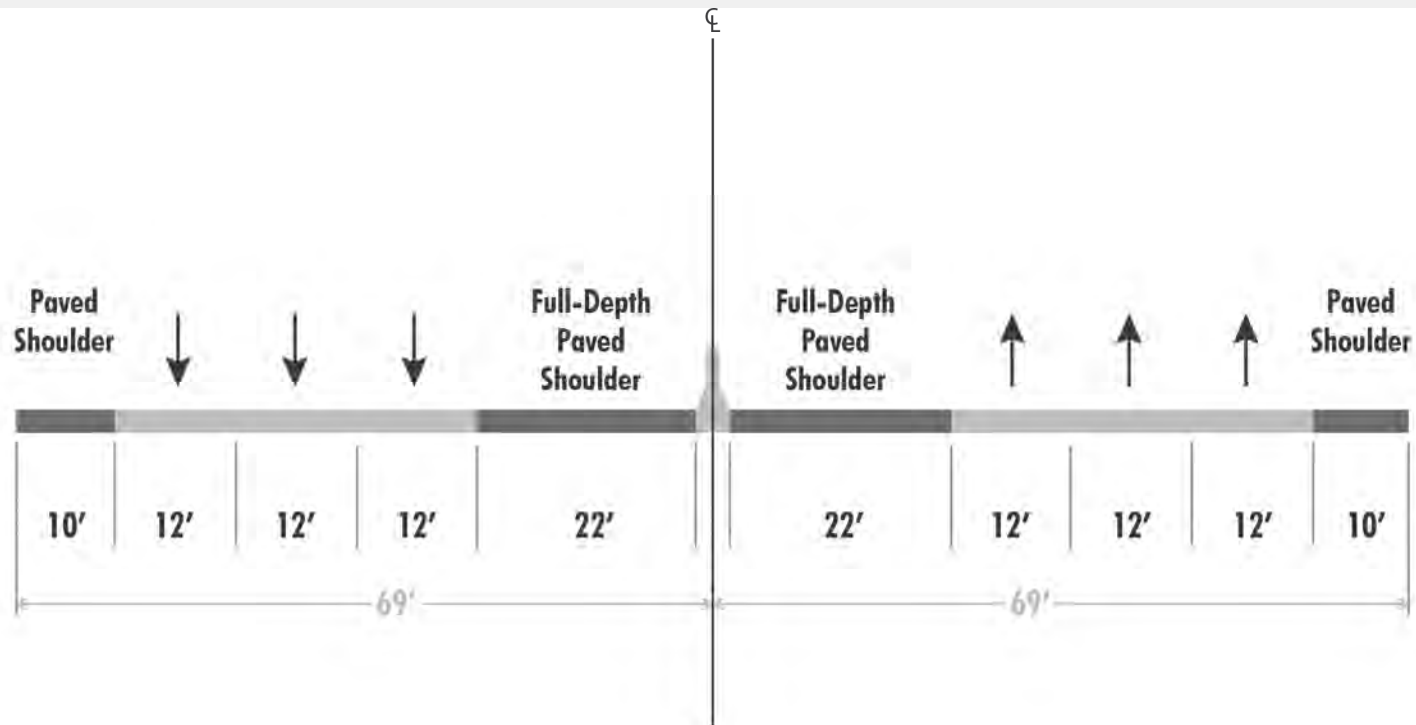


Existing I-485 Typical Section





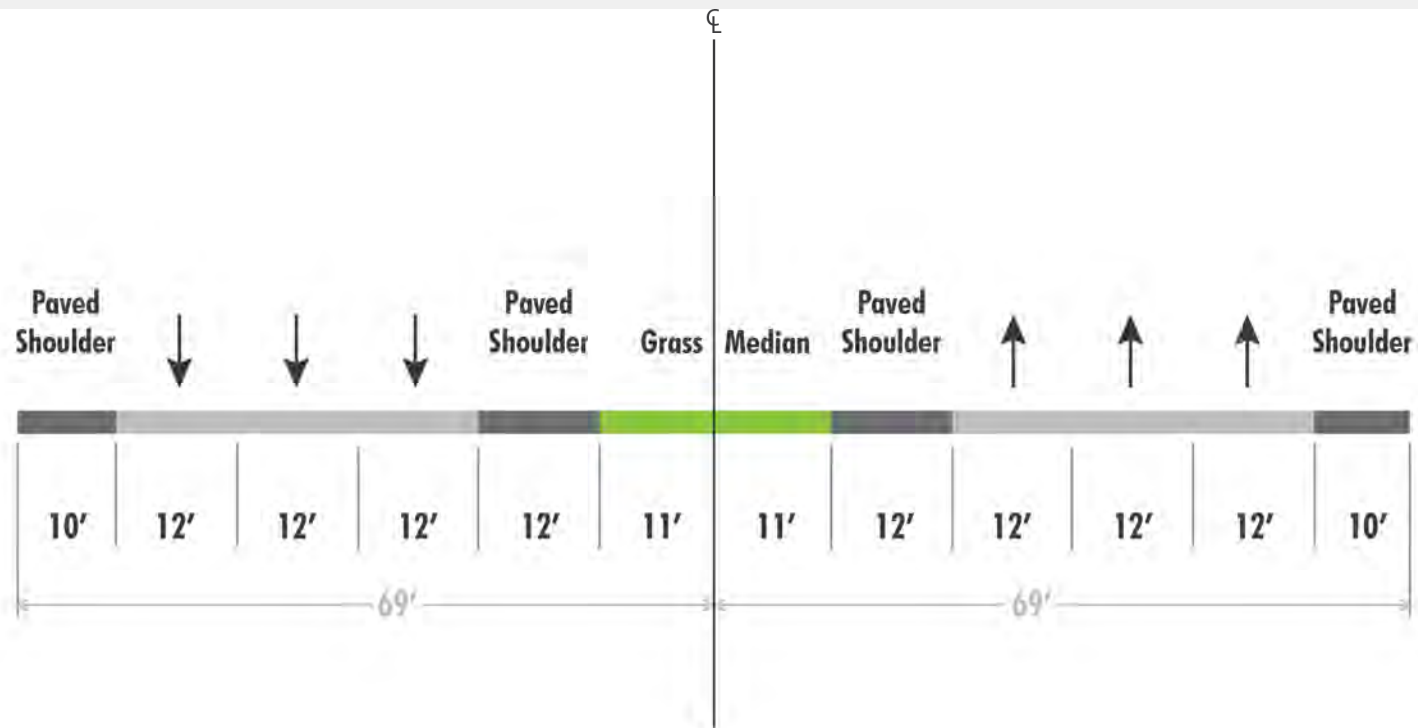
TIP Project R-4902 (I-77 to Johnston Rd) Typical Section



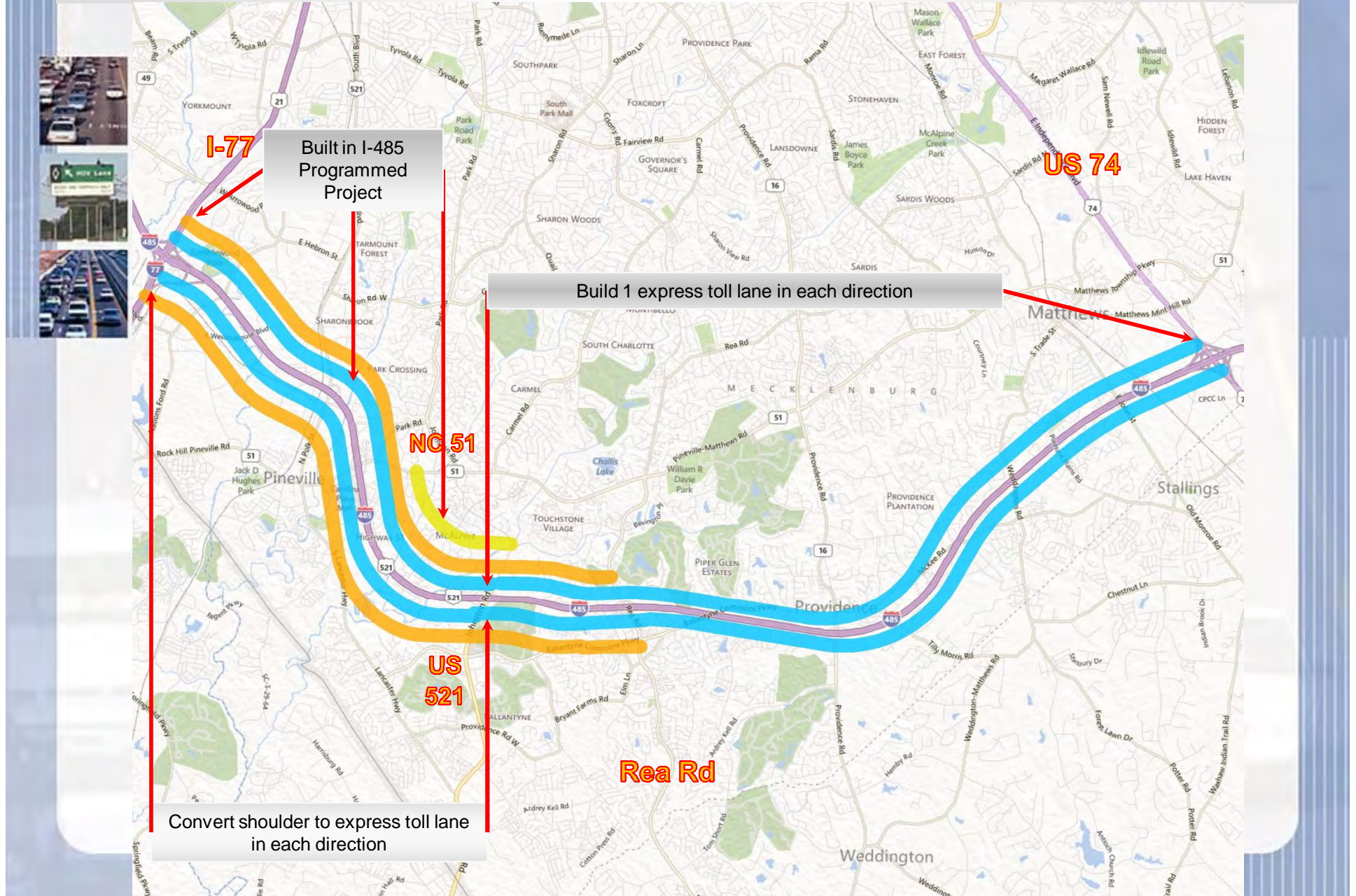


Design-Build Typical Section (Johnston Rd to Rea Rd)

Typical Section



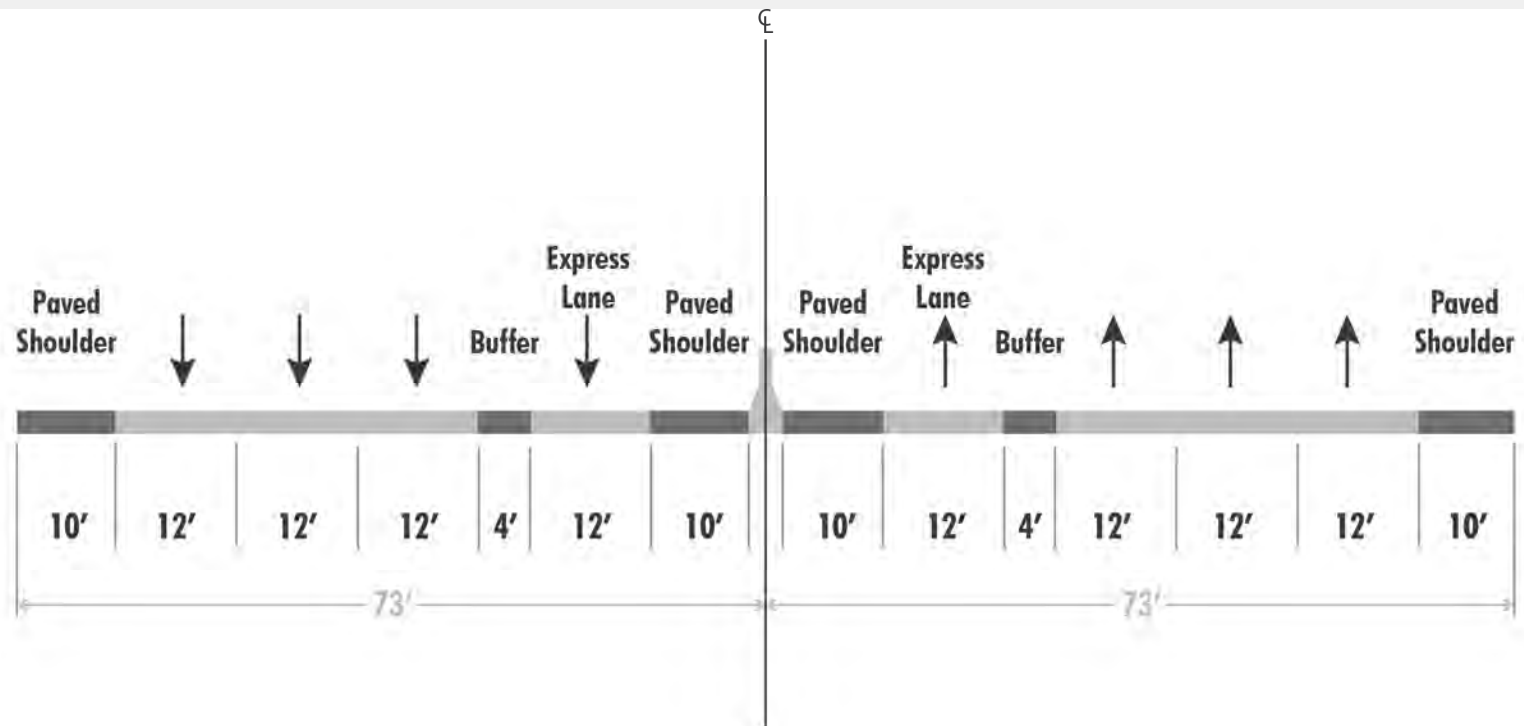
NCDOT Project I-5507



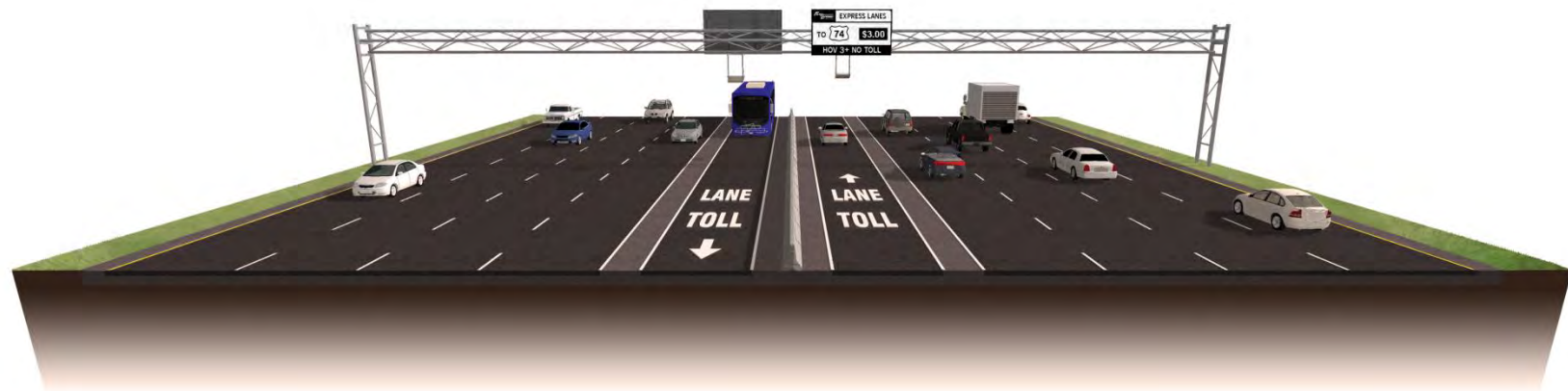


Proposed Managed Lanes

Typical Section with 4' Buffer



I-485 with Express Toll Lanes



Proposed Typical Cross-Section | NC 51 to Johnston Road

Reassessing *Fast Lanes* Goals



- ◆ Ultimately, what is the purpose of managed lanes?
- ◆ How does the purpose get reflected in policy choices?
- ◆ How are these choices communicated to the public?
- ◆ What is “on the table” for refinement, and what is not?

Understanding the Options for Development will depend upon How tolls are Viewed



- ◇ Tolls serve two primary purposes on managed lanes
 - Metering traffic on the managed lanes
 - Generating revenue
- ◇ Not mutually exclusive, and public will not understand distinctions
 - Articulation of purpose of tolls helps understanding
 - Don't try to be all things to all people – it doesn't work

Depending on the Implementation of Managed Lanes, New Seats Are Added to the Table



- ◆ General purpose lanes on freeways
 - Primary partners are NCDOT, FHWA & MUMPO
- ◆ HOV lanes
 - Additional roles for CDOT & CATS, but largely same partnership
- ◆ HOT or express lanes
 - Add toll and lane operators (NCDOT/NCTA)
- ◆ P3 HOT or express lanes
 - Add concessionaires, bond holders & investors

Key Issues Affecting Implementation



- ◆ Not technical topics, but governance questions
- ◆ Who decides which corridors for managed lanes?
- ◆ Who decides user-eligibility for managed lanes? Corridor-by-corridor?
- ◆ Who decides financing or operating mechanism (P3, DBOM)?
- ◆ Who decides toll rates? Corridor-by-corridor?

Who Sets Policy for Managed Lanes?



- ◆ Who leads policy? NCDOT? MUMPO?
- ◆ What are the policy parameters?
 - Multi-modal use of managed lanes
 - Use of toll revenues
 - Business terms for use of tolling
 - Access & eligibility policies for managed lanes
 - Changing managed lanes terms and policies over time

Who Operates the Managed Lanes?



- ◆ NCDOT/NCTA
- ◆ Concessionaires
- ◆ New regional toll agency?
- ◆ Multiple operators?

Who Funds the Managed Lanes?



- ◆ Users
- ◆ NCDOT
- ◆ FHWA/FTA
- ◆ Private entities (developers, investors, etc.)

Why Is This Important Now?



- ◆ Public has strong opinions & desires about managed lanes network
 - Local control of toll revenues
 - Provision of HOV benefits
 - Coupling managed lanes with improvements to general-purpose lanes (such as I-485) helps perception of fairness
- ◆ Ability to achieve these desires depends on answers to previous questions

Next Steps in Implementation



- ◆ Consolidated regional concept of operations for managed lanes network
 - Define tiers of managed lanes – one size does not fit all
 - Articulate business terms
 - Define plan for network development
- ◆ Regional policy for managed lanes development
 - Example: Dallas/Fort Worth regional managed lanes policy

Next Steps in Implementation (cont.)



- ◆ Organizational development options for managed lanes
 - Regional operators
 - SANDAG (as division of MPO)
 - ACTA, VTA, LA Metro, NCTA (as division of County)
 - CTRMA (new regionally controlled toll authority)
 - State operator (MnDOT, WSDOT)
 - Private operator (I-495 in Northern Virginia)
 - Hybrid alternatives (combination of above)