

Transportation Staff Meeting

February 25, 2015

2:30 PM

CMGC CH-14 (basement)

AGENDA

1. I-485 South

Purpose:

Prepare a recommendation to be presented to the TCC regarding the use of unused pavement on I-485 between I-77 and Rea Road.

Background:

- In June 2012, the MPO requested that NCDOT do the following in regard to the proposed widening of I-485 from I-77 to Rea Road (TIP project R-4902):
 1. Amend the typical section for TIP project R-4902 between I-77 and Johnston Road to construct four additional feet of full depth paved shoulder on the median side of the travel lanes in each direction.
 2. This portion of roadway should be restriped and used in a later project to separate the general purpose lanes from managed lanes.
 3. The decision to implement managed lanes, the selection of type of managed lane, and the operational plan for those lanes will be based on a study of I-485 between I-77 and US 74.
- Planning and environmental studies are now underway for TIP project I-5507 which will add one express lane in each direction on I-485 between I-77 and US 74. This project will use the unused portion of the roadway noted in item #2 above.
- This topic was discussed at the February 2015 MPO meeting, at which time three options were presented for consideration. The MPO referred the topic to the TCC for a recommendation.

Attachment:

February 2015 MPO presentation

2. STP-DA Funds

Purpose:

Finalize the STP-DA project list for presentation to the TCC at its March 5 meeting.

The following issues will be addressed:

- a. How much is available to program?
- b. Will sponsoring agencies be able to complete the projects in a timely manner?
- c. Are local governments able to provide the 20% local match for bicycle and pedestrian projects?
- d. Old Monroe Road projects (U-4714A, B & C) funding and sequencing

3. Bonus Allocation Funds

Purpose:

- a. Finalize the Bonus Allocation project list for presentation to the TCC at its March 5 meeting.
- b. Discuss a direct connection from Hambright Rd to the I-77 HOT lanes instead of a direct connection at Stumptown Rd (rough estimate of \$7M more needed)
- c. Review the requests of Charlotte's MPO representative and determine a path forward to address them. The requests are as follows:
 - i. How does the Carolina Thread Trail overlay with the recommended greenway projects?*
 - ii. Request each responsible implementation agency provide a review and verification of the project qualifications with a focus on the 5 year project time line and cost.
 - iii. What is a recommended process for TCC and CRTPO review of the projects once approved, again with a focus on the time line for the 5 year expenditure of BA funds?*
 - iv. Are all of the direct connections to the I-77 managed lanes funded? And if not, how would those connections be constructed?
 - v. What is the comparison between the recommended BA and DA project lists to existing CRTPO approved project lists?
(Source: e-mail from Vi Lyles to Sarah McAulay dated 2-23-15)
- d. Discuss the BOT chairman's request to list the next several projects in priority order in the event some currently recommended projects are not able to advance.*

Attachment: STP-DA and Bonus Allocation project list

** Affects STP-DA project list.*

Phone Access Number: 704-432-5485

Go To Meeting Access: <https://global.gotomeeting.com/join/194298237>



CRTPO

I-485 Southeastern Loop

Update

Louis L. Mitchell

18 February 15

Presentation Overview

- I-485 project origin and evolution
- Operational considerations
- Options available



I-485 South Widening History

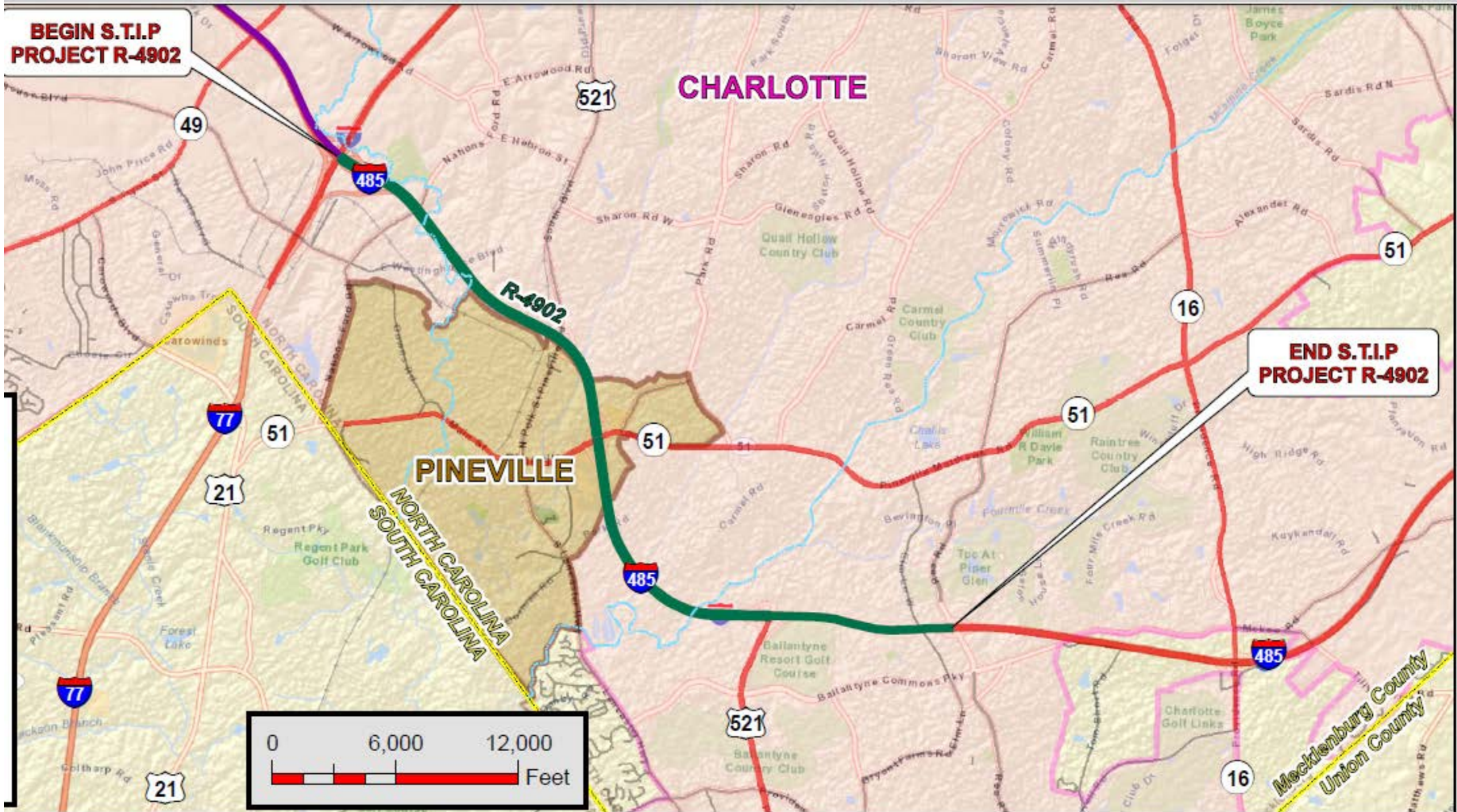
From I-77 to Rea Rd. 8 projects

1. Started May 1988
2. Finished April 1996

Current widening project

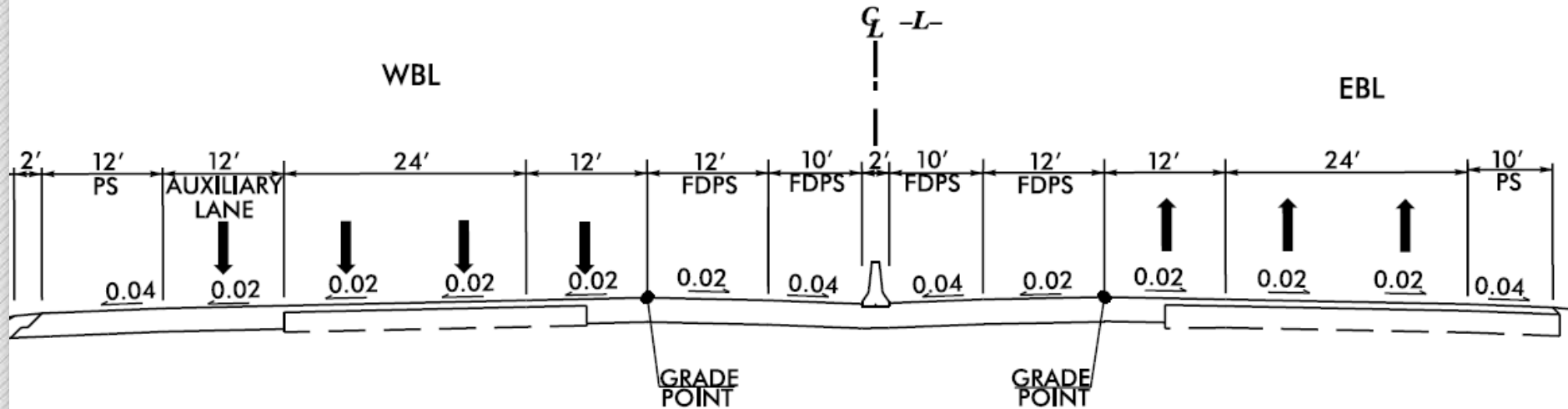
- July 2011 STIP modified both R/W & construction in FY 2012, design-build project. Cost \$66.5 M I-77 to Johnston Rd..
- Feb 2012 Board of Transportation meeting, modified so that the eastern terminus was Rea Road. The total cost grew to \$97 M
Bid \$83.3 M, 23 months ahead of schedule

I-485 South Widening I-77 to Rea Rd.



Travel Lane Configuration

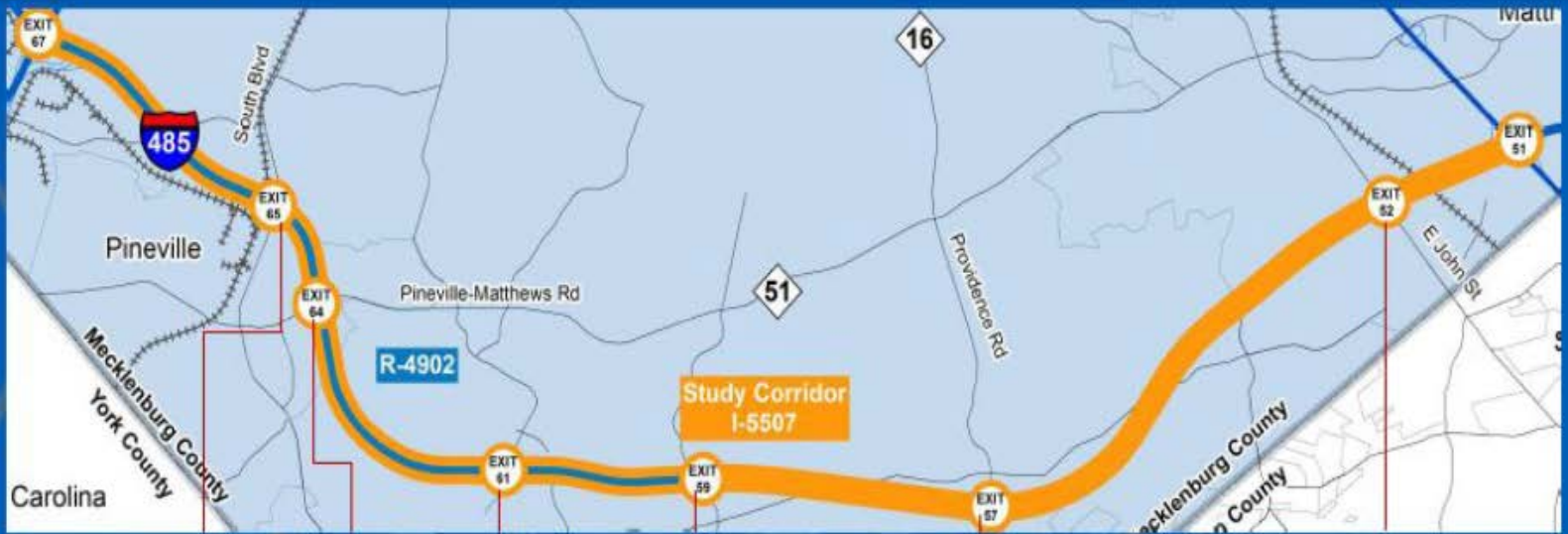
I-485 W/AUXILIARY LANE
FROM NC 51 TO US 521 (JOHNSTON RD.)



Estimated \$15-\$20 Million Savings

What's in the future?

Chart 1. Existing and Projected AADT and Volume-to-Capacity Ratios along I-485 Study Corridor

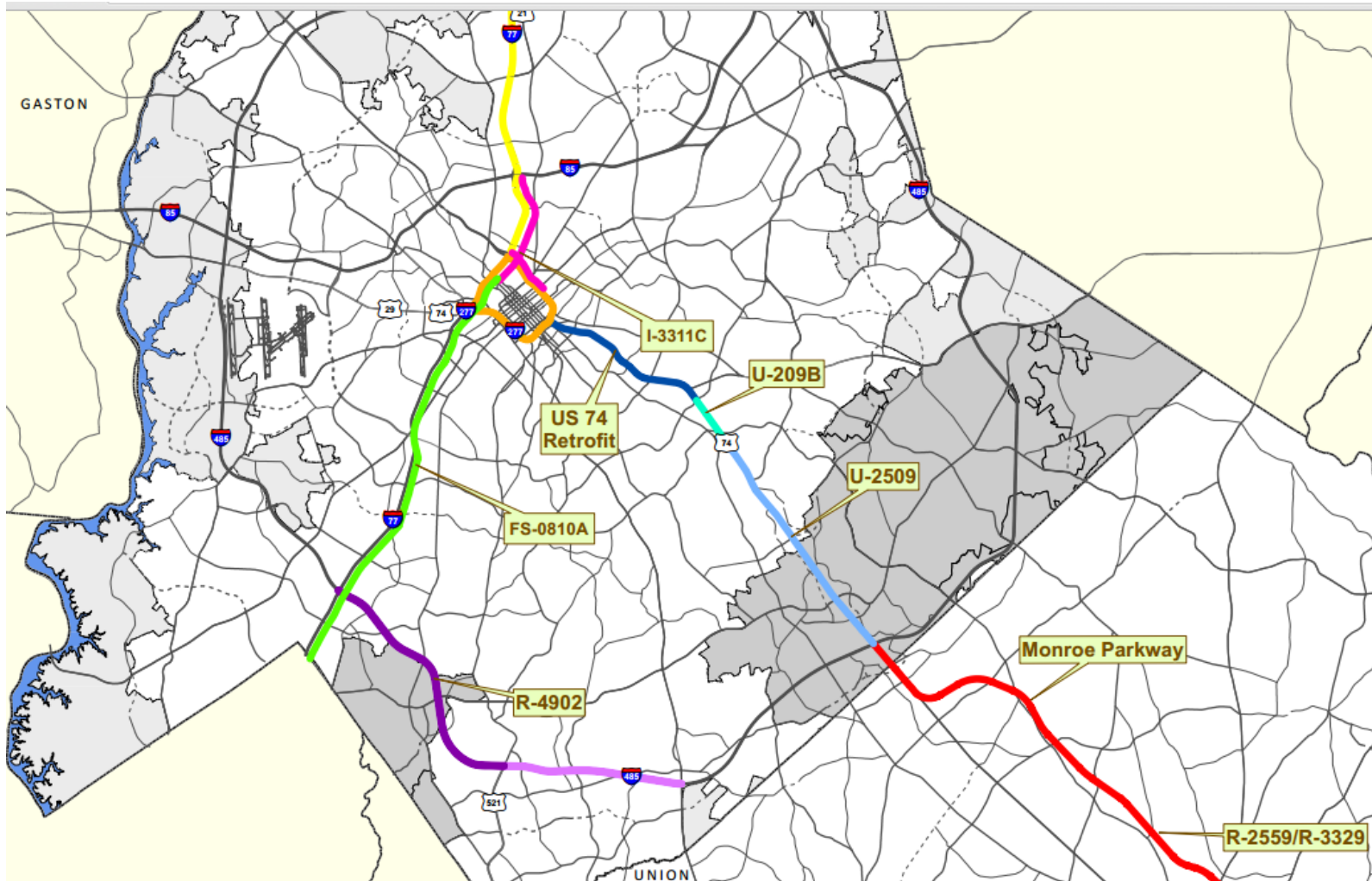


2012 AADT	108,000	112,000	89,000	78,000	69,000	67,000	65,000
2012 V/C	0.88	1.13	1.12	0.98	0.87	0.84	0.82
2035 AADT	151,000	157,000	125,000	109,000	97,000	94,000	91,000
2035 V/C	0.91*	1.1*	1.02*	1.37	1.22	1.18	1.15

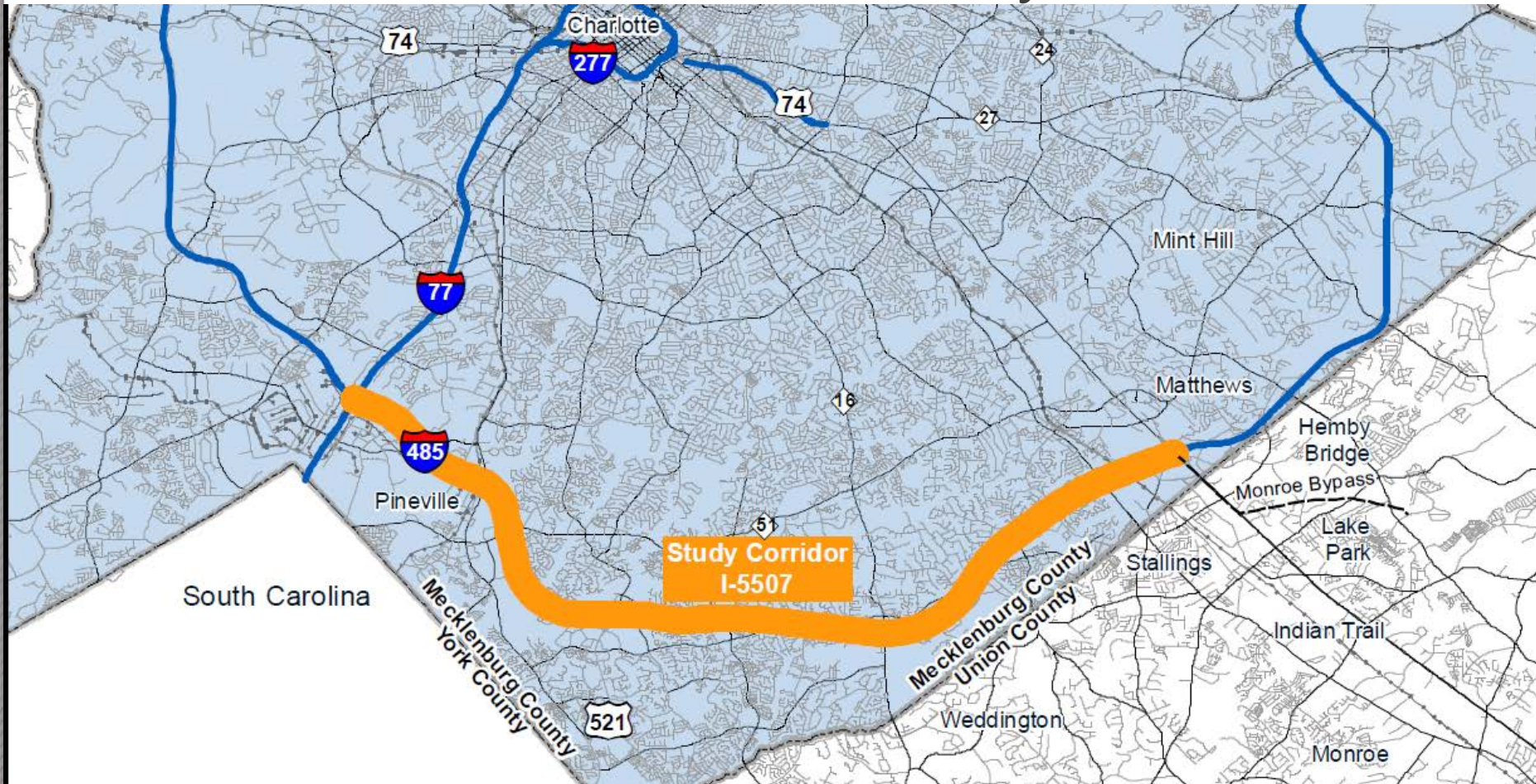


- 2007 CDOT, NCDOT, SCDOT) and other agencies in the Charlotte region began an examination of existing and planned major highways
- 10-county area
- Fast Lanes – high-occupancy vehicle (HOV), high-occupancy toll (HOT) or truck-only toll facilities – could help manage congestion during peak travel periods.

Fast Lanes Phase III June 2013

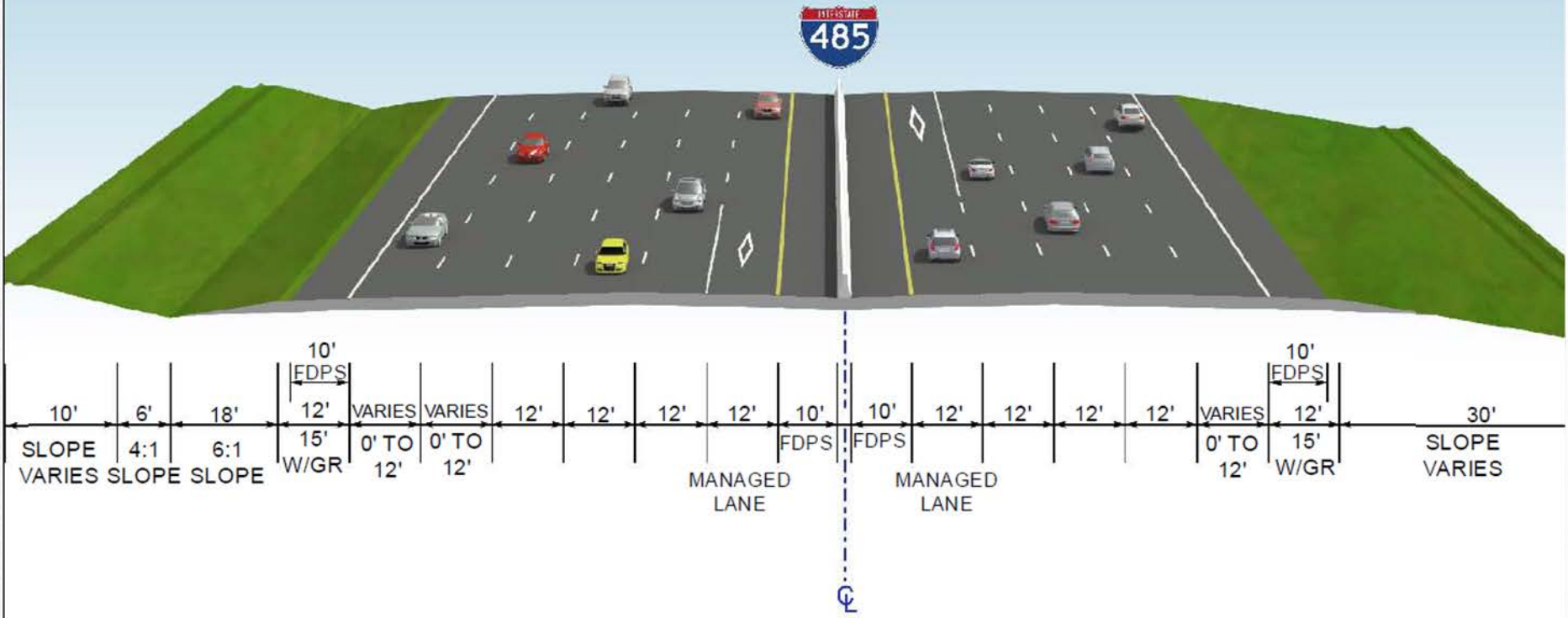


Future Managed Lane project I-77 to US 74 Independence Blvd 16.6 Miles \$203M- May 2016



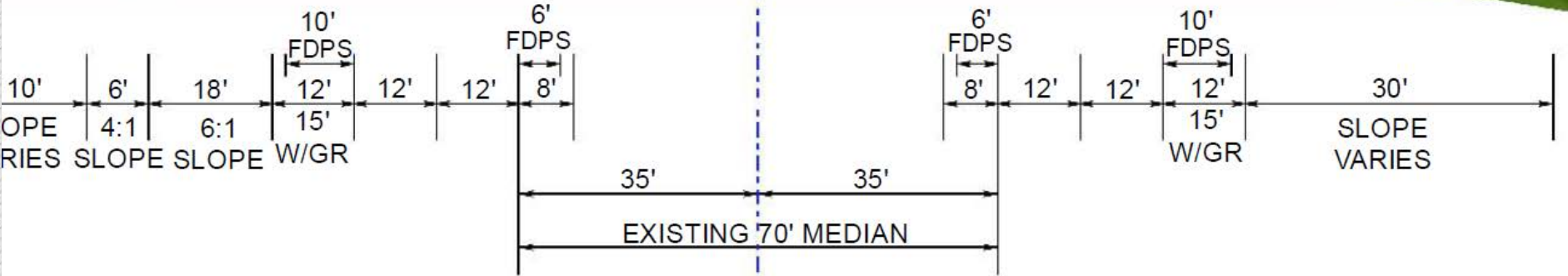
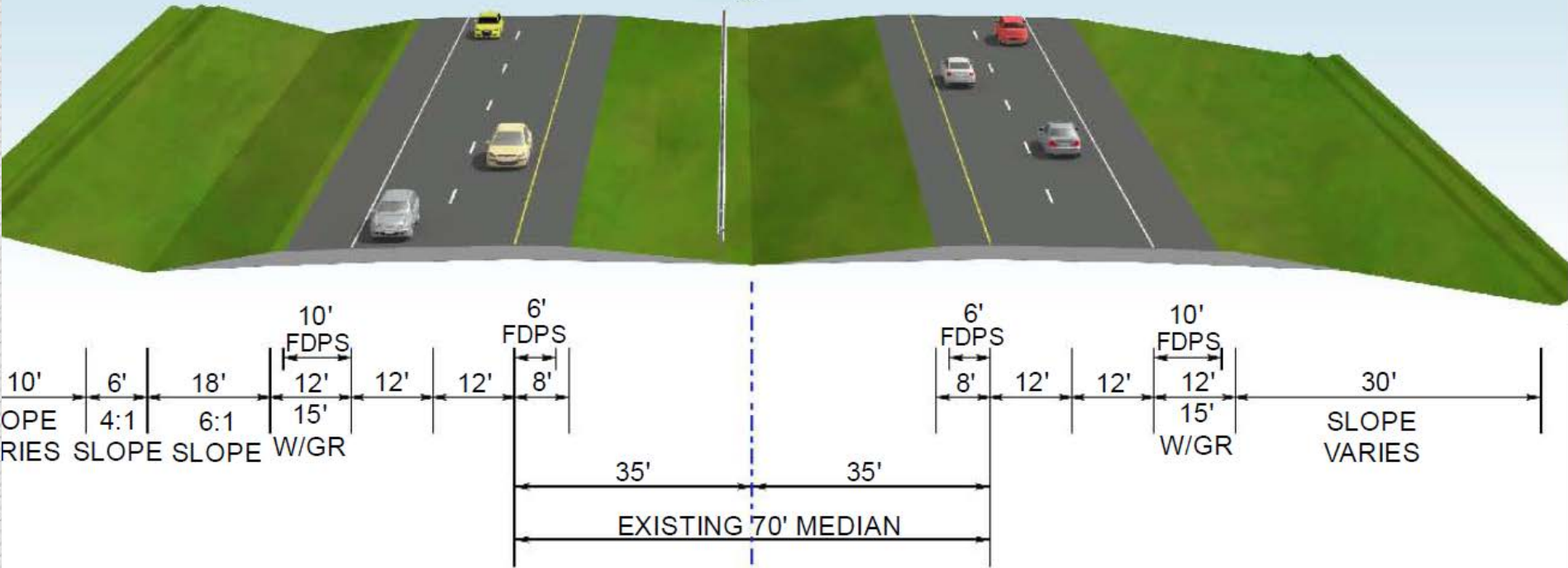
Draft Future Plan

Typical Section W1 - I-485 from I-77 to Johnston Road

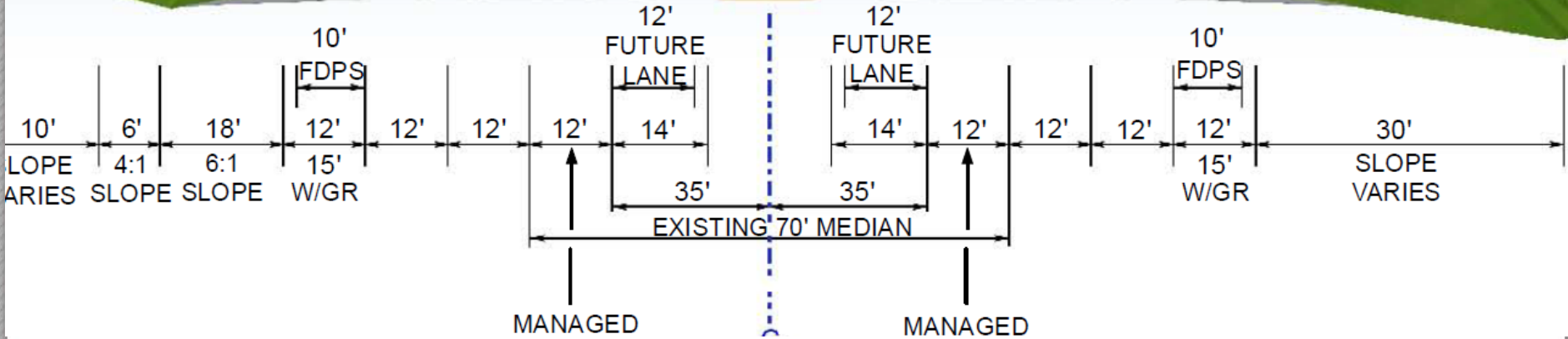
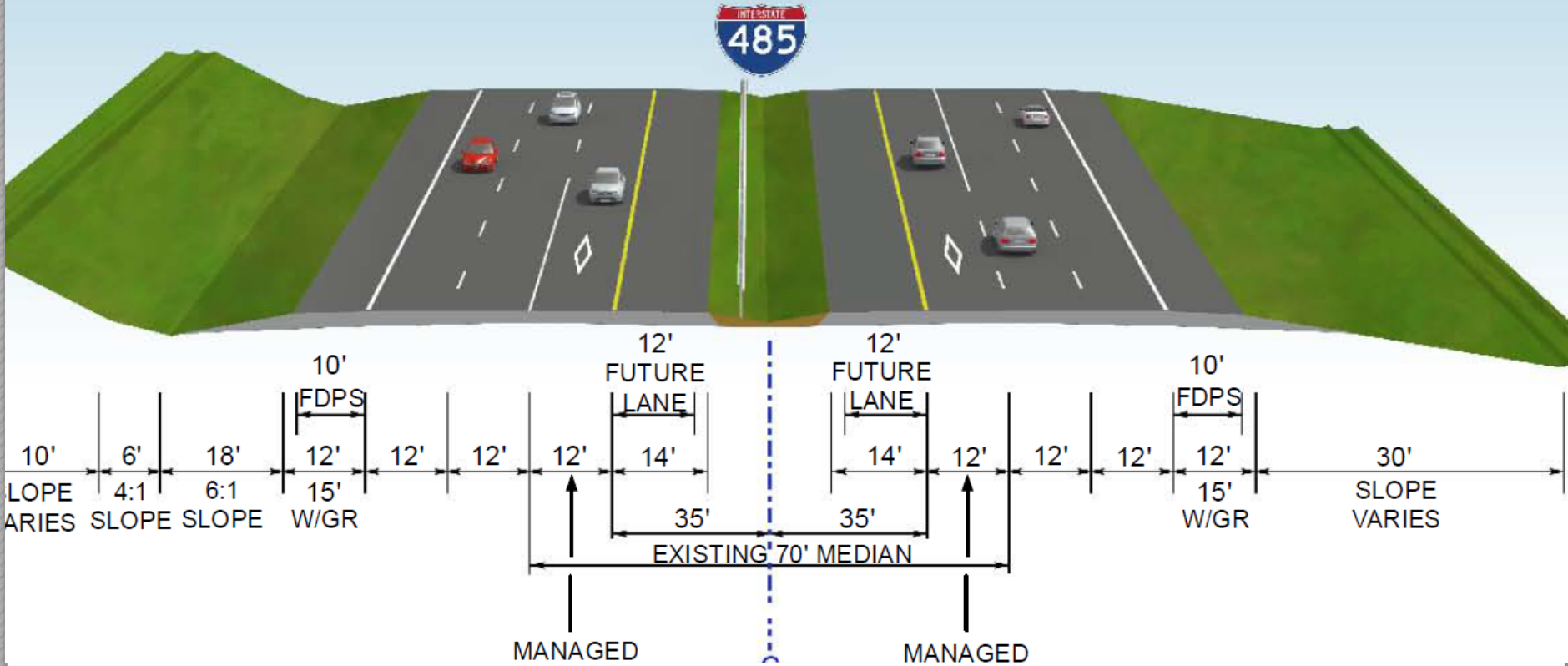


Preliminary

Typical Section for Existing I-485 from Johnston Road to US 74



Typical Section E1 - I-485 from Johnston Road to US 74



Preliminary

Path Forward



3 Options

Option A – Continue with Current Plan

- Leave “extra” lane as currently designated
- Start new project as soon as possible (scheduled for May 2016 in draft STIP)
- Allows traffic to stabilize with current weaving and lane change movements

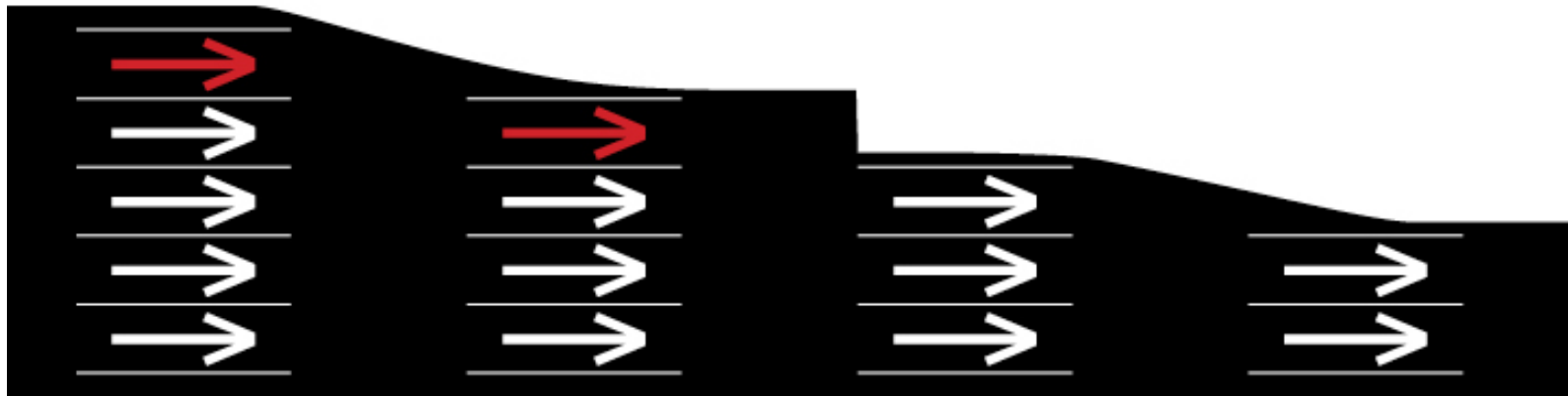
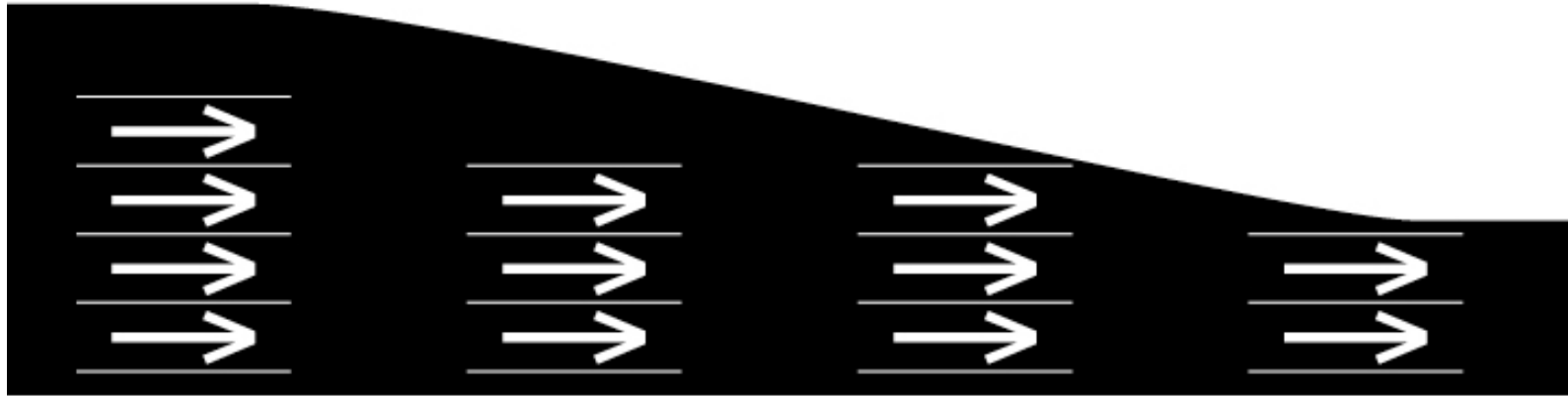
Option B – Open as HOV Lane

- Not available as an option until environmental document released for next phase (estimated August).
- Does not alleviate current lane reduction issue.
- Introduces additional lane change/merge (modeled 6 second travel time benefit)
- Preserves ability to follow MPO preference for using added capacity as managed lanes.

Option C – Open as General Purpose

- Not available until final asphalt in place (April) on current project.
- Does not alleviate current lane reduction – in fact, compounds it by allowing eastbound traffic to spread from 5 lanes to 4 lanes to 3 down to two lanes.
- Removes ability to follow MPO preference for using added capacity as managed lanes.

I-485 Eastbound



LEGEND

→ Shoulder Lane

Questions/Comments/Feedback

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DRAFT CRTPO Bonus Allocation and STP-DA Project List

Forwarded to the MPO by the TCC for review and consideration

February 5, 2015

Jurisdiction/Sponsor	TIP ID	Project	Project Type	Mode	STI Tier	Proposed Funding Source	Preliminary Cost Estimate (in millions of \$)
Charlotte		I-77 and Oaklawn Avenue overpass modifications	Bridge modification to allow for greenway crossing under Oaklawn Avenue bridge.	Bike/Ped	Statewide	Bonus Allocation	\$1.0
		I-77 and Sunset Road Interchange Improvements	Interchange Improvements	Highway	Statewide	Bonus Allocation	\$12.0
		US 21 Widening (Sunset Road to Harris Blvd)	Environmental Document	Highway	Regional	Bonus Allocation	\$1.0
		Lakeview Road "farm-to-market" Upgrade (US 21 - NC 115)	Upgrade roadway from a rural ditch cross section to a curb and gutter section with sidewalks and bicycle lanes on both sides of roadway.	Highway	Division	Bonus Allocation	\$9.0
		N.University Research Park I-85 Overpass	Overpass on new location	Highway	Division	STP-DA	\$7.4
CATS		Replacement of Fareboxes on CATS buses	Transit Maintenance/Replacement	Transit	Division	STP-DA	\$3.5
Cornelius	C-5621	US 21 & Catawba Avenue Roundabout	Intersection Improvements	Highway	Regional	Bonus Allocation	\$6.7
	U-5767	US 21 Widening (Northcross Center Ct to Westmoreland Rd)	Arterial Widening	Highway	Regional	Bonus Allocation	\$23.0
		NC 115 & Potts Street Intersection Improvement	Intersection Improvements	Highway	Regional	Bonus Allocation	\$6.0
	U-5108	Northcross Drive Extension	New Road on New Location	Highway	Division	Bonus Allocation	\$2.0
		Torrence Chapel Rd & W. Catawba Avenue Intersection Improvements	Intersection Improvements	Highway	Division	Bonus Allocation	\$5.0
		S. Prong Rocky River Greenway (South St-Main Street)	Construct new Greenway	Bike/Ped	Division	STP-DA	\$0.7
		NC 115 Sidewalk and Bike Lane Modernization (Smith Road - Potts St)	Sidewalk and bicycle lane modernization	Bike/Ped	Division	STP-DA	\$0.2
	McDowell Creek Trib. Greenway (Catawba Ave to Washam Potts Road)	Construct new Greenway	Bike/Ped	Division	STP-DA	\$1.4	
Davidson		I-77 Exit 30 (Griffith St) Northbound and Southbound Ramps Roundabouts Project	Construct Roundabouts at the North and Southbound Ramp Termini	Highway	Statewide	Bonus Allocation	\$3.0
		Potts-Sloan-Beatty Connector	Construct Roadway on new location	Highway	Division	Bonus Allocation	\$2.2
Huntersville		I-77 & Stumptown Road HOT Lane Interchange	Convert grade separation to HOT Lane Direct Connection interchange	Highway	Statewide	Bonus Allocation	\$30.0
		Torrence Creek Tributary Greenway Underpass of I-77 between Exits 23 and 25	Freeway Widening	Highway	Statewide	Bonus Allocation	\$6.0
		NC 115 Two-Way Pair (Main Street Upgrade)	Upgrade Main Street corridor to effectively handle additional traffic volume from NC 115 corridor.	Highway	Regional	Bonus Allocation	\$5.0
	U-5114	US 21 & Gilead Road Intersection Improvement	Intersection Improvements	Highway	Regional	Bonus Allocation	\$3.5
Indian Trail	U-4714C	Old Monroe Road (Indian Trail Rd - Wesley Chapel-Stouts Rd)	Arterial Widening	Highway	Division	STP-DA	\$7.0
	EB-5723	US 74 Multi-Use Path Indian Trail Western Limit - Sardis Church Road)	Construct new Greenway	Bike/Ped	Division	STP-DA	\$0.9
		S. Fork Crooked Creek Greenway (Indian Trail-Fairview Rd - US 74)	Construct new Greenway	Bike/Ped	Division	STP-DA	\$1.0
Iredell County Area Transit System		Purchase two replacement buses per year over four years (eight buses total)	Replacement of transit rolling stock	Transit	Division	STP-DA	\$0.4
		ICATS office expansion (Feasibility Study/Preliminary Engineering)	Feasibility Study	Transit	Division	STP-DA	\$60k
Matthews	U-4714A	John St (Trade St - I-485)	Arterial Widening	Highway	Division	STP-DA	\$12.3
	R-211EC	I-485 & Weddington Road Interchange	Convert grade separation to interchange	Highway	Division	STP-DA	\$20.0
		Pleasant Plains Road Bicycle Lanes (Trade St - McKee Road)	Construct Bicycle Lanes	Bike/Ped	Division	STP-DA	\$0.2
Monroe	U-2549	Monroe Northern Loop (US 74 to Walkup Av)	New Road on New Location	Highway	Division	STP-DA	\$4.0
Mecklenburg County		Mallard Creek Greenway Connector to CATS Park and Ride in Charlotte	Construct new Greenway	Bike/Ped	Division	STP-DA	\$0.1
		Stewart Creek Greenway (State St - Rozzelles Ferry Rd) in Charlotte	Construct new Greenway	Bike/Ped	Division	STP-DA	\$0.4
		McAlpine Creek Greenway (Green Rea Rd - Johnston Road) in Charlotte	Construct new Greenway	Bike/Ped	Division	STP-DA	\$1.1
		Sam Newell Road Multi-Use Path (Rice Rd - Crown Pt Elementary School) in Matthews	Construct new Greenway	Bike/Ped	Division	STP-DA	\$0.3
		Irvin Creek Greenway (Idlewild Road - Lakeview Circle) in Charlotte	Construct new Greenway	Bike/Ped	Division	STP-DA	\$0.9
		McDowell Creek Greenway (NC 73-Torrence Creek Greenway) in Huntersville	Construct new Greenway	Bike/Ped	Division	STP-DA	\$1.6
Mooresville		NC 801 and NC 150 Intersection Improvements	Intersection Improvements	Highway	Regional	Bonus Allocation	\$0.6
	U-5817	Fairview Flyover Transportation Network	Construction of additional transportation facilities to support new I-77 overpass.	Highway	Division	Bonus Allocation	\$8.0
	R-2307	NC 150 Widening (Harvel to Perth) [Mooresville portion of local match for bike/ped enhancements]	Municipal portion of participation in Bike/Ped portion of the widening.	Highway	Regional	Bonus Allocation	\$3.2

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Mooresville	R-2307	NC 150 Widening (Harvel to Perth) [Division 12 portion of NCDOT match for bike/ped enhancements]	NCDOT portion of participation in Bike/Ped portion of the widening.	Highway	Regional	Bonus Allocation	\$3.9
		Bellingham Park Greenway Extension to Johnson Dairy Road	Construct new Greenway	Bike/Ped	Division	STP-DA	\$0.5
Stallings	U-4913	Idlewild Road (I-485 to Stevens Mill Rd)	Arterial Widening	Highway	Division	STP-DA	\$7.0
Statesville		I-77 and Broad Street Improvements	Bridge Replacement and Corridor Improvement	Highway	Statewide	Bonus Allocation	\$30.0
		Shelton Avenue Multi-Use Path (Garner Bagnal Blvd - Amity Hill Road)	Construct new Greenway	Bike/Ped	Division	STP-DA	\$0.6
Various		Statesville/Charlotte/Rock Hill Corridor Study	Planning Study	Highway	Statewide	Bonus Allocation	\$2.5
		Additional I-77 Direct Access HOT lane interchanges Feasibility Study	Feasibility Study	Highway	Statewide	Bonus Allocation	\$3.0
Wesley Chapel		Weddington Road Sidewalk (Waxhaw-Indian Trail Road to Lester Davis Road)	Construct new Sidewalk	Bike/Ped	Division	STP-DA	\$0.1