

NC Strategic Transportation Corridors: Vision Plan

Master Plan Vision Report

NCDOT

December 7 2020

Corridor U: U.S. 74/I-85/I-485



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Acronyms

AADT	Annual Average Daily Traffic
CRTPO	Charlotte Regional Transportation Planning Organization
CSC	Corridor Steering Committee
CTP	Comprehensive Transportation Plan
DCP	Data Collection Plan
FHWA	Federal Highway Administration
GCLMPO	Gaston-Cleveland-Lincoln Metropolitan Planning Organization
MAP-21	Moving Ahead for Progress in the 21 st Century Act
MPO	Metropolitan Planning Organization
MTP	Metropolitan Transportation Plan
NCDOT	North Carolina Department of Transportation
NCSTM	North Carolina Statewide Travel Demand Model
NHS	National Highway System
PHED	Peak Hours of Excessive Delay
RPO	Rural Planning Organization
SIP	Stakeholder Involvement Plan
SOV	Single Occupancy Vehicle
STC	Strategic Transportation Corridor(s)
STIP	Statewide Transportation Improvement Program
STRACNET	Strategic Rail Corridor Network
STRAHNET	Strategic Highway Network
V/C	Volume-to-Capacity Ratio
VHT	Vehicle Hours Traveled
VMT	Vehicle Miles Traveled
WMPO	Wilmington Metropolitan Planning Organization

Executive Summary

The North Carolina Department of Transportation (NCDOT) initiated the development of a master plan vision for Strategic Transportation Corridor (STC) U – U.S. 74/I-85/I-485, which runs from I-26 in Polk County to U.S. 117 in Wilmington. This report summarizes the corridor vision study process and recommendations to inform subsequent sub-corridor implementation studies and statewide and regional planning studies as well as next steps for the corridor.

During the development of the master plan vision, transportation recommendations and project data was collected from all jurisdictions along the corridor. Seventy current 2020-2029 State Transportation Improvement Plan (STIP) projects were identified along Corridor U, as well as six feasibility studies within the past ten years and thirty-seven traffic forecasts within the past five years. The following Comprehensive Transportation Plan (CTP) and Metropolitan Transportation Plan (MTP) reports and maps were collected along Corridor U:

- Polk County CTP
- Rutherford County CTP
- Gaston-Cleveland-Lincoln MPO (GCLMPO) CTP – maps and project sheets only
- Charlotte Regional Transportation Planning Organization (CRTPO) CTP – maps and project sheets only
- Anson County CTP
- Richmond County CTP – maps only
- Scotland County CTP
- Robeson County CTP
- Columbus County CTP
- Brunswick County CTP
- Wilmington MPO (WMPO) CTP – maps only
- GCLMPO MTP
- CRTPO MTP
- WMPO MTP

Transportation facilities data was also collected along the 292-mile-long Corridor U including access control, functional class, and number of travel lanes. With few exceptions, the corridor’s segments are either included in the National Highway System (NHS), classified as being a Congressional High Priority, or included in the Moving Ahead for Progress in the 21st Century Act (MAP-21). The entire route is federally designated as a truck route. Out of 304 bridges along the corridor, six bridges were classified as structurally deficient and 91 were classified as functionally obsolete.

National performance measures and the NCDOT targets for safety, infrastructure condition, system reliability, environmental sustainability, congestion reduction, freight movement, and economic vitality were reviewed to help track progress on the goals and objectives for Corridor U.

Freight mobility data for Corridor U was evaluated using the North Carolina Freight Flow tool. Freight flows to, from, and within the counties along the corridor totaled an estimated 168.3 million tons worth \$254.5 billion in 2015. Flows were projected to increase roughly 41 percent in volume and 92 percent in value in 2045. By mode, freight trucks accounted for over 82 percent of the volume and 72 percent of the total value for freight along Corridor U. Aggregates and energy products accounted for the largest volumes of commodities moving to, from, and within the corridor. Corridor U trades the largest volume and value of goods within the Southeast region of the U.S. compared to all other U.S. regions.

Highway mobility along Corridor U was analyzed for existing and future conditions based on travel speeds, congestion, and travel times. Future conditions analysis in 2040 was based on the NC Statewide Travel Model

(NCSTM), Regional and Small Area Travel Demand Models, the STIP, and Transportation Plans for communities throughout the corridor. Future scenarios included a scenario with fiscally constrained STIP projects, a scenario that also included all recommended MTP and CTP projects, and a scenario that also included all improvements to Corridor U based on the master plan vision. In 2040, based on the highway mobility analysis, the MTP/CTP recommended scenario serves more travelers at a higher speed with less delay compared to the fiscally constrained scenario. The vision scenario would allow a typical trip through the corridor to take less time than today – with a 64% increase over current Vehicle Miles Traveled (VMT). Resiliency along Corridor U was evaluated by assessing major incident data along the corridor. Fourteen flood events, most due to hurricanes in 2016 and 2018, were noted.

A survey was developed to ask the members of the public questions about the type of facility envisioned for the corridor, what features of the corridor should be preserved, what features should be improved, and whether there are any circumstances the study team should be aware of as they develop the master plan. The survey was active for two months and received 638 responses. Results from participants included:

- 99% drive their own vehicles as a primary means of transportation
- Most people typically use the facility for shopping and dining, the second most popular use is “other”, with responses specifying uses of travel, visiting family, and vacation
- 36% use the facility daily with 46% commuting 1-20 miles to work or school
- The most popular response to what changes respondents would like to see along Corridor U in the next 20 years was bypasses around cities and towns. To see the breakout of responses please refer to the Stakeholder Outreach Summary Report
- From I-26 to Gastonia, Gastonia to Monroe, and Monroe to Wilmington, most respondents support the preliminary vision of a freeway with 54%, 56%, and 70% strongly agreeing, respectively
- 47% responded that they have been impacted by flooding and 6% responded that they have been impacted rockslides/mudslides

After evaluation of the public responses and completing corridor analysis, the recommended vision for Corridor U states:

The corridor follows U.S. 74 from I-26 in Polk County to I-85 in Gaston County, where it follows I-85 to I-485 on the west side of Charlotte in Mecklenburg County. Corridor U then follows I-485 on the southwest side of Charlotte from I-85 to U.S. 74, where it continues briefly along U.S. 74 before following the Monroe Expressway in Union County. Corridor U follows U.S. 74 from the southeastern terminus of the Monroe Expressway in Union County to U.S. 117 in New Hanover County. The long-term corridor vision is a freeway cross-section with a minimum of 4 lanes, a median, and interchange-only access.

Several areas for additional study were identified along Corridor U to allow appropriate and effective recommendations to be selected. These areas included:

- Complete high-capacity, high-speed improvements for improved route continuity
- Increase reliability and capacity from Shelby to Monroe
- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Establish consistent route continuity for improved freight operations
- Park and Ride and Express Bus providing additional public transit options to address congestion
- Track improvements to facilitate rail freight/passenger flow based on rail and freight plans
- Wilmington area improvements

The two-page Vision Summary for Corridor U is shown on the following pages.

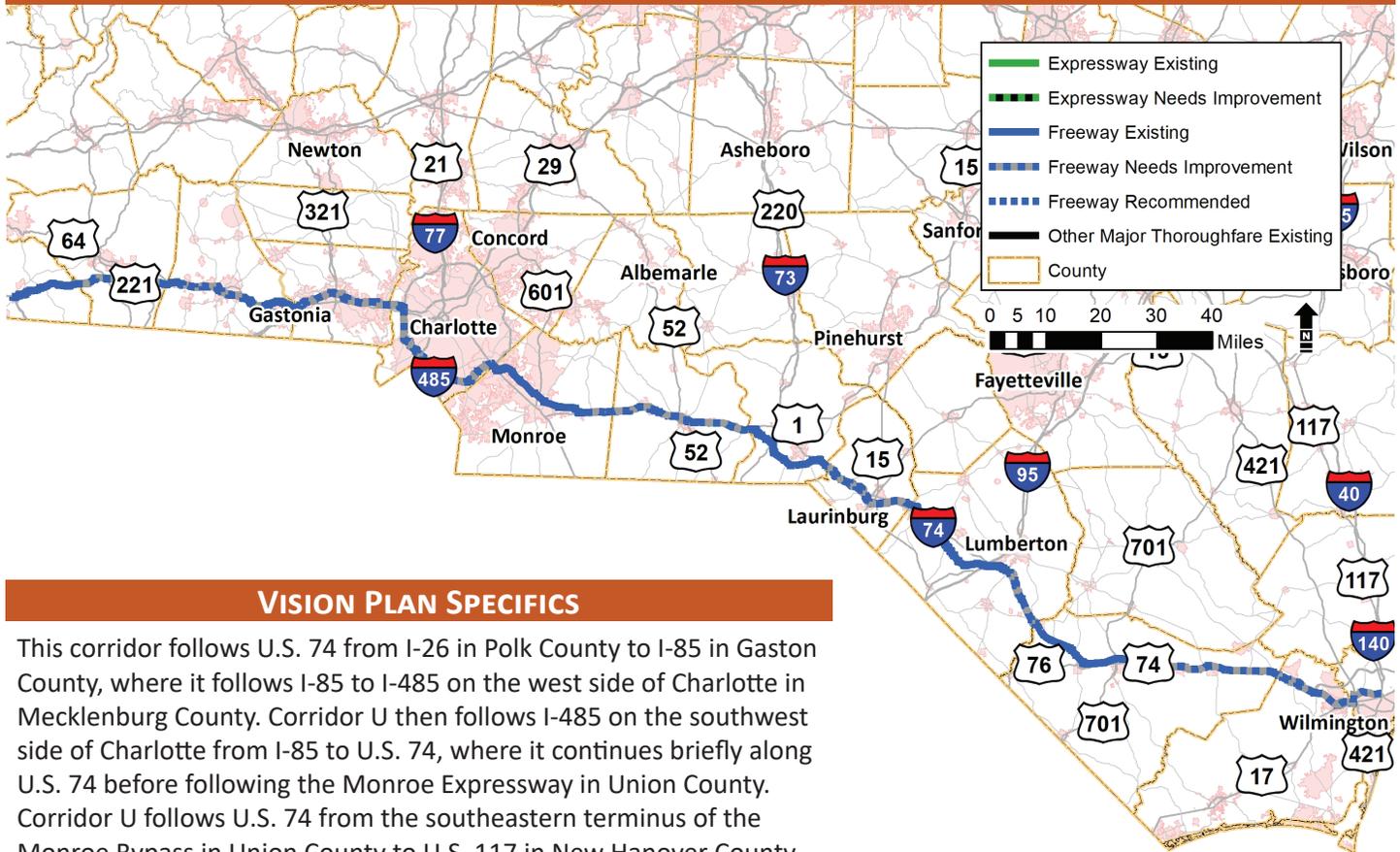
CORRIDOR U

U.S. 74/I-85/I-485 – I-26 in Polk County to U.S. 117 in Wilmington

GENERAL DESCRIPTION

The 292-mile Corridor U serves southwest North Carolina from I-26 in Polk County to U.S. 117 in Wilmington, the primary access to the Port at Wilmington, traversing the state's southern tier counties and the Charlotte metropolitan area. U.S. 74 carries high truck volumes for the entire length of the corridor and high passenger volumes from Shelby to Monroe. Corridor U overlaps Corridor H (Future I-74) for 91 miles from Rockingham to Columbus County. The corridor is used as both a regional and statewide connection to major employment centers, airports, and health centers.

GEOGRAPHIC LOCATION



VISION PLAN SPECIFICS

This corridor follows U.S. 74 from I-26 in Polk County to I-85 in Gaston County, where it follows I-85 to I-485 on the west side of Charlotte in Mecklenburg County. Corridor U then follows I-485 on the southwest side of Charlotte from I-85 to U.S. 74, where it continues briefly along U.S. 74 before following the Monroe Expressway in Union County. Corridor U follows U.S. 74 from the southeastern terminus of the Monroe Bypass in Union County to U.S. 117 in New Hanover County.

- Freeway cross-section
- AASHTO Design Classification of Interstate or Freeway
- Minimum 4 lanes with a median
- Connections provided only at interchanges
- Traffic signals and driveways not allowed

AREAS IDENTIFIED FOR ADDITIONAL STUDY

- Complete high-capacity, high-speed improvements for improved route continuity
- Increase reliability and capacity from Shelby to Monroe
- Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots
- Establish consistent route continuity for improved freight operations
- Park and Ride and Express Bus providing additional public transit options to address congestion
- Track improvements to facilitate rail freight/passenger flow based on rail and freight plans
- Wilmington area improvements

CORRIDOR U

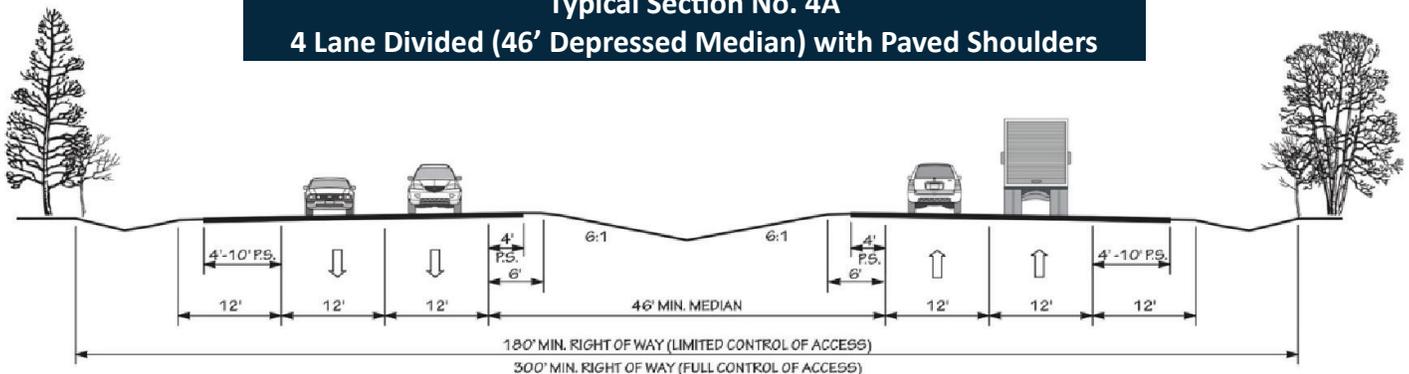
U.S. 74/I-85/I-485 – I-26 in Polk County to U.S. 117 in Wilmington

KEY FUNCTIONS AND EXPECTATIONS (FUNCTIONS OF CORRIDOR IN CONTEXT OF STC GOALS AND CRITERIA)

- **Connectivity:** Corridor U is a part of the STRAHNET and STRACNET military networks and is becoming part of the interstate system from Richmond County to Columbus County.
- **Mobility:** This corridor connects Charlotte, Wilmington, and other regional population centers with multiple interstates and major routes including I-26, I-85, and I-95 providing passenger and freight mobility across the state's southern tier.
- **Economic Prosperity:** U.S. 74 connects multiple statewide economic resources including two international airports, Carolinas Medical Center, and the Port of Wilmington.
- **Expectation:** Corridor U is expected to remain the principal east-west corridor through NC's southern tier of counties. The principal mobility expectations are safe, reliable transition through the greater Charlotte region and consistent, high-speed travel from the Port of Wilmington to the Charlotte metro region, in support of high-level economic activities.

CROSS-SECTION

Typical Section No. 4A 4 Lane Divided (46' Depressed Median) with Paved Shoulders



Posted Speed 45-70 mph

FACILITY INFORMATION

STIP Projects & CTP Recommendations	Connections and Freight	Primary Activity Centers
<ul style="list-style-type: none"> • R-2707, U.S. 74 Shelby Bypass • I-5507, I-485 Express Lanes • I-6016, I-85 and I-485 interchange improvements • R-5878, U.S. 74 Wadesboro Bypass • I-6055, Upgrade U.S. 74 corridor to interstate standards in Richmond and Scotland counties • I-6011, Upgrade U.S. 74 corridor to interstate standards in Columbus and Robeson counties 	<ul style="list-style-type: none"> • U.S. 74 carries high truck volumes along the entire length of the corridor • U.S. 74 carries high passenger volumes from Shelby to Monroe • Almost entire route is part of the National Highway System • Entire route is Federal designated truck route • 304 bridges along the corridor: 6 are structurally deficient, 91 are functionally obsolete 	<ul style="list-style-type: none"> • Charlotte Douglas International Airport • Wilmington International Airport • Port of Wilmington • Charlotte region employment centers • UNC Charlotte • UNC Pembroke • UNC Wilmington • New Hanover Regional Medical Center • Charlotte Inland Terminal

1. Introduction

In 2015, the North Carolina Department of Transportation (NCDOT) identified a network of key multimodal transportation corridors called Strategic Transportation Corridors (STC) to support smart planning, help set long-term investment decisions, and ensure that North Carolina’s economic prosperity goals are achieved. The STCs are intended to promote transportation system connectivity, provide high levels of mobility, and improve access to important state and regional activity centers. A key element in the advancement of the STCs is the development of corridor master plans, to identify a high-level corridor mobility vision and associated corridor improvement action strategies.

The purpose of the master plan is to:

- identify a mobility vision and broad improvement strategies for an entire corridor,
- guide improvements and development in a manner that defines a long-term vision and performance level for the corridor, and
- help protect the corridor’s key functions as defined in the corridor profiles

NCDOT has initiated the development of a master plan vision for STC U – U.S. 74/I-85/I-485 which runs from I-26 in Polk County to U.S. 117 in Wilmington as shown in **Figure 1**. This report summarizes the corridor vision study process and recommendations to inform subsequent sub-corridor implementation studies, statewide and regional planning studies, and next steps for the corridor.



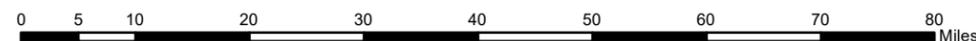
**NC STRATEGIC
TRANSPORTATION
CORRIDORS (STC)**

DECEMBER 2019

Source: NCOneMap, NCDOT GIS, ESRI

Legend

- STC Highway Corridor U (US 74W/US 74E)
- STC Rail Corridor U (CSX)
- Municipal Boundaries
- Interstate
- US Route
- NC Highway
- Rail
- Blue Ridge Pkwy
- State Parks
- Major Rivers/Streams
- Major Water Bodies
- Counties
- ⚓ NC Seaports
- ✈ NC Int'l or Major Freight Airports



**STRATEGIC
TRANSPORTATION CORRIDORS
VICINITY MAP**

CORRIDOR U (US 74)

FIGURE 1

2. Data Collection

2.1. Data Collection Plan

To serve as the foundation for master plan vision developments, the Data Collection Plan (DCP) was developed to identify available data, how it should be collected, and how it should be applied for Corridor U. The collected data was used to identify current infrastructure and future improvements to the corridor and to evaluate the conditions in the corridor as well as existing and future freight activity/demands on the corridor including origins and destinations, routes, modes, and commodity types.

Collection of 'Transportation Recommendations and Projects' data identifies anticipated improvements and expansion of the transportation system. 'Transportation Facilities Inventory' data allows for the evaluation of the current infrastructure in the corridor. Remaining datasets are used to assess the conditions in the corridor as well as evaluate recommendations during the master plan vision development.

2.2. Transportation Recommendations and Projects

To identify anticipated improvements and expansion of the transportation system, transportation plans and recommended projects from all jurisdictions and Metropolitan Planning Organizations (MPOs) along Corridor U were compiled including projects from the 2020-2029 Statewide Transportation Improvement Program (STIP), the most recently adopted Comprehensive Transportation Plans (CTPs) and Metropolitan Transportation Plans (MTPs), feasibility studies from within the last ten years, and traffic forecasts from within the last five years.

The seventy currently identified 2020-2029 STIP projects along Corridor U are shown in **Appendix A in Table A-1**, which includes right of way and construction status as well as a detailed project description. The six identified feasibility studies within the past ten years along Corridor U are shown in **Appendix A in Table A-2** including detailed descriptions of each study along with their recommendations. The thirty-seven identified traffic forecasts within the past five years along Corridor U are shown in **Appendix A in Table A-3** including detailed descriptions of each forecast along with their associated project. A comprehensive list of recommendations along Corridor U from the CTPs is shown in **Appendix A in Table A-4**. Recommendations from the MTPs along Corridor U, including bicycle/pedestrian and transit, are shown in **Appendix A in Table A-5**.

The following CTP and MTP reports and maps were collected along Corridor U:

- Polk County CTP
- Rutherford County CTP
- Gaston-Cleveland-Lincoln MPO (GCLMPO) CTP – maps and project sheets only
- Charlotte Regional Transportation Planning Organization (CRTPO) CTP – maps and project sheets only
- Anson County CTP
- Richmond County CTP – maps only
- Scotland County CTP
- Robeson County CTP
 - Lumberton CTP
 - Pembroke CTP
- Columbus County CTP
- Brunswick County CTP
- Wilmington MPO (WMPO) CTP – maps only
- GCLMPO MTP
- CRTPO MTP
- WMPO MTP

Recommendation maps as shown in **Appendix B** were created to summarize current project proposal recommendations from the CTPs along Corridor U. Most of the corridor is recommended to be classified as a freeway, with some segments in developed areas such as Shelby, Charlotte, Monroe, and Wadesboro classified as a boulevard (with current or planned bypasses).

2.3. Transportation Facilities Inventory

Transportation facilities inventory data was collected along Corridor U using NCDOT GIS layers and shapefiles. For Corridor U, the corridor is approximately 292 miles long. With few exceptions, the corridor’s segments are either included in the National Highway System (NHS), classified as being a Congressional High Priority, or included in the Moving Ahead for Progress in the 21st Century Act (MAP-21). The entire route is federally designated as a truck route.

Highway assets inventory data included the number of travel lanes, functional class, and access control for the corridor which were divided into logical segment breaks. The highway assets inventory for the corridor is shown below in **Table 1** for the eastbound direction and **Table 2** for the westbound direction. For functional class and access control definitions, refer to **Appendix C**.

Table 1. Corridor U Eastbound Highway Assets Inventory

County	Route	Length (mi)	Access Control	Functional Class	Travel Lanes
Polk	U.S. 74	12.7	Full	Other Freeway	2
Rutherford	U.S. 74	16.8	Full	Other Freeway	2
Cleveland	U.S. 74	4.1	Full	Other Freeway	2
	U.S. 74	15.4	Partial	Other Principal Arterial	2
	U.S. 74	5.3	Full	Other Freeway	2
Gaston	U.S. 74	0.2	Full	Other Freeway	2
	U.S. 74	0.4	Full	Other Freeway	3
	U.S. 74	1	Full	Other Principal Arterial	2
	I-85	16	Full	Interstate	3
	I-85	1.5	Full	Interstate	4
Mecklenburg	I-85	2.7	Full	Interstate	4
	I-485	0.7	Full	Interstate	3
	U.S. 74	0.1	Partial	Other Principal Arterial	3
	U.S. 74	0.8	Partial	Other Principal Arterial	2
	U.S. 74	4.9	Partial	Other Principal Arterial	3
	U.S. 74	0.3	Full	Interstate	2
	I-277	2.4	Full	Interstate	3
	U.S. 74	0.4	Full	Interstate	2
	U.S. 74	3.2	Full	Other Freeway	4
	U.S. 74	3.4	Partial	Other Freeway	3
	U.S. 74	3.5	Partial	Other Principal Arterial	2
	U.S. 74	0.5	Partial	Other Principal Arterial	3
	U.S. 74	1.2	Partial	Other Principal Arterial	4
Union	U.S. 74	9.4	Partial	Other Principal Arterial	2
	U.S. 74	4	Partial	Other Principal Arterial	3
	U.S. 74	12.2	Partial	Other Principal Arterial	2

County	Route	Length (mi)	Access Control	Functional Class	Travel Lanes
Anson	U.S. 74	25.6	Partial	Other Principal Arterial	2
Richmond	U.S. 74	16.5	Full	Other Freeway	2
	U.S. 74	1.3	Partial	Other Freeway	2
Scotland	U.S. 74	8.3	Partial	Other Freeway	2
	U.S. 74	10.3	Full	Other Freeway	2
Robeson	I-74	19.2	Full	Interstate	2
	U.S. 74	6.3	Full	Other Freeway	2
	U.S. 74	4.7	Partial	Other Freeway	2
Columbus	U.S. 74	11.8	Partial	Other Freeway	2
	U.S. 74	12.1	Full	Other Freeway	2
	U.S. 74	11.7	Partial	Other Freeway	2
	U.S. 74	11.9	Partial	Other Principal Arterial	2
Brunswick	U.S. 74	7.5	Partial	Other Principal Arterial	2
	U.S. 74	8.2	Full	Other Freeway	2
New Hanover	U.S. 74	1.5	Full	Other Principal Arterial	2
	U.S. 74	0.4	Full	Other Freeway	1
	U.S. 74	1.7	Full	Other Freeway	2
	U.S. 74	2.8	Partial	Other Principal Arterial	3

Table 2. Corridor U Westbound Highway Assets Inventory

County	Route	Length (mi)	Access Control	Functional Class	Travel Lanes
Polk	U.S. 74	12.7	Full	Other Freeway	2
Rutherford	U.S. 74	16.8	Full	Other Freeway	2
Cleveland	U.S. 74	3.9	Full	Other Freeway	2
	U.S. 74	15.6	Partial	Other Principal Arterial	2
	U.S. 74	5.3	Full	Other Freeway	2
Gaston	U.S. 74	0.2	Full	Other Freeway	2
	U.S. 74	1.1	Full	Other Principal Arterial	3
	U.S. 74	0.3	Full	Other Principal Arterial	2
	I-85	16.1	Full	Interstate	3
	I-85	1.4	Full	Interstate	4
Mecklenburg	I-85	2.7	Full	Interstate	4
	I-485	0.7	Full	Interstate	3
	U.S. 74	0.7	Partial	Other Principal Arterial	2
	U.S. 74	5.3	Full	Other Principal Arterial	3
	U.S. 74	0.2	Full	Other Freeway	2
	I-277	2.2	Full	Interstate	3
	U.S. 74	0.6	Full	Other Freeway	2
	U.S. 74	3.4	Full	Other Freeway	4

County	Route	Length (mi)	Access Control	Functional Class	Travel Lanes
Mecklenburg	U.S. 74	3.4	Partial	Other Principal Arterial	3
	U.S. 74	3.7	Partial	Other Principal Arterial	2
	U.S. 74	1.3	Partial	Other Principal Arterial	3
	U.S. 74	0.1	Partial	Other Principal Arterial	4
Union	U.S. 74	0.1	Partial	Other Principal Arterial	4
	U.S. 74	9.0	Partial	Other Principal Arterial	2
	U.S. 74	4.1	Partial	Other Principal Arterial	3
	U.S. 74	12.3	Partial	Other Principal Arterial	2
Anson	U.S. 74	25.2	Partial	Other Principal Arterial	2
Richmond	U.S. 74	16.3	Full	Other Freeway	2
	U.S. 74	1.5	Partial	Other Freeway	2
Scotland	U.S. 74	8.4	Partial	Other Freeway	2
	U.S. 74	10.2	Full	Other Freeway	2
Robeson	I-74	19.2	Full	Interstate	2
	U.S. 74	6.3	Full	Other Freeway	2
	U.S. 74	4.7	Partial	Other Freeway	2
Columbus	U.S. 74	11.8	Partial	Other Freeway	2
	U.S. 74	12.1	Full	Other Freeway	2
	U.S. 74	11.7	Partial	Other Freeway	2
	U.S. 74	11.9	Partial	Other Principal Arterial	2
Brunswick	U.S. 74	7.5	Partial	Other Principal Arterial	2
	U.S. 17	7.4	Full	Other Freeway	2
	U.S. 74	0.5	Full	Other Principal Arterial	2
New Hanover	U.S. 74	1.5	Full	Other Principal Arterial	2
	U.S. 74	1.9	Full	Other Freeway	2
	U.S. 74	2.9	Partial	Other Principal Arterial	3

Bridge inventory data included locations of all grade separations along the corridor as well as structurally deficient and functionally obsolete status. The bridges inventory for Corridor U is shown in **Appendix D** in **Table D-1**. There are 304 bridges along the corridor crossing other roadways, rail corridors, and bodies of water. Six bridges were classified as structurally deficient and 91 bridges were classified as functionally obsolete. For structurally deficient and functionally obsolete definitions, refer to **Appendix C**.

2.4. National Performance Measures

Consistent with the vision set for the STC network, it is in the public interest that the primary facilities on the STC network provide long-term, high-quality levels of service in terms of safety, travel speed, and reliability. To understand whether the STC goals and objectives are being met, it was necessary to define expectations and measure performance. NCDOT is strongly aligned with recent rulemaking by the Federal Highway Administration (FHWA) to adopt performance measures to assess system performance. National performance measures are included in **Table 3**.

Table 3. National Performance Measures

National Goal Area	Goal	Performance Measure	NCDOT Targets
Safety ¹	To achieve a significant reduction in traffic fatalities and serious injuries on all public roads	Number of Fatalities	1,207.3 (2018)
		Rate of Fatalities	1.114 (2018)
		Number of Serious Injuries	2,161.2 (2018)
		Rate of Serious Injuries	1.988 (2018)
	Cut the fatalities and serious injuries in North Carolina in half based on the 2013 figures, reducing the total annual fatalities by 630 fatalities and the total injuries by 1,055 serious injuries before 2030	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	In development
Infrastructure Condition	To maintain the highway infrastructure asset system in a state of good repair	Percentage of Pavements in Good Condition (Interstate)	>=37.0% (4 year)
		Percentage of Pavements in Poor Condition (Interstate)	<=2.2% (4 year)
		Percentage of Pavements in Good Condition (Non-Interstate National Highway System [NHS])	>=27.0% (2 year)
		Percentage of Pavements in Poor Condition (Non-Interstate NHS)	<=4.7% (4 year)
		Percentage of Bridges in Good Condition (NHS)	<=33.0% (2 year)
		Percentage of Bridges in Poor Condition (NHS)	<=9.0% (4 year)
System Reliability	To improve the efficiency of the surface transportation system	Percent of Reliable Person-Miles Traveled (Interstate)	>=80% (2 year) >=75.0% (4 year)
		Percent of Reliable Person-Miles Traveled (Non-Interstate NHS)	>=70.0% (4 year)
Environmental Sustainability	To enhance the performance of the transportation system while protecting and enhancing the natural environment	Total Emissions Reduction (Charlotte Urbanized Area)	2-year target: VOC: 0.252 kg/day NOx: 2.360 kg/day 4-year target: VOC: 0.504 kg/day NOx: 4.720 kg/day
Congestion Reduction	To achieve a significant reduction in congestion on the NHS	Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita on the NHS	<=34.0% (4 year)
		Percent of Non-Single Occupancy Vehicle (SOV) Travel	<=21.0% (4-year target)

National Goal Area	Goal	Performance Measure	NCDOT Targets
Freight Movement & Economic Vitality	To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development	Interstate Truck Travel Time Reliability	1.65 (2 year) 1.70 (4 year)

1. The NCDOT Targets for the Safety National Goal Area are five-year averages from 2014-2018. Performance measure evaluation for the Corridor U will be based on the national performance measures above.

2.5. Freight Mobility

Freight mobility into, out of, and within Corridor U was analyzed using freight flow data downloaded from the North Carolina Freight Flow tool. The freight flow data is presented as volume (tonnage) and value (dollars). It is based on the Federal Highway Administration’s (FHWA) Freight Analysis Framework Version 4.1 (FAF4.1) with county-level disaggregation processed by Cambridge Systematics for 2012, 2015, and 2045, and it was forecasted to 2045 using FHWA’s FAF4.1 origin-destination and commodity growth rates for rail flows¹.

Freight flow estimates for the corridor include county totals for the 18 counties within the Wilmington, Lumber River, Metrolina, Gastonia, and Southern Foothills regions. These counties included: Anson, Bladen, Brunswick, Cabarrus, Cleveland, Columbus, Gaston, Lincoln, Mecklenburg, New Hanover, Pender, Polk, Richmond, Robeson, Rutherford, Scotland, Stanly, and Union. Results are presented for 12 different commodity groups and associated trade partners. Results by trade partners are presented regionally for the United States, at the county level for trade between the corridor and the rest of North Carolina, and at the FAF regional level for all other trade which includes states, large metropolitan areas, the remainder of states with large metropolitan area(s), and international regions for foreign freight flows.

Freight flows to, from, and within the Corridor U counties (including domestic trade and the domestic leg of foreign trade) totaled an estimated 168.3 million tons worth \$254.5 billion in 2015, shown in **Figure 2**. Inbound flows represented roughly 42-43 percent of the corridor’s volume, while outbound flows accounted for a third of the total volume but almost half (45 percent) of the value. A quarter of the flows were internal to the corridor, but only accounted for 12 percent of the value. Flows were forecasted to increase to 237.6 million tons worth \$487.6 billion in 2045 (an increase of roughly 41 and 92 percent, respectively).

¹ North Carolina Statewide Multimodal Freight Plan, Freight Flow Tool Reference Guide:
https://connect.ncdot.gov/projects/planning/Statewide-Freight-Plan/Documents/Freight_Tool_User_Guide.pdf

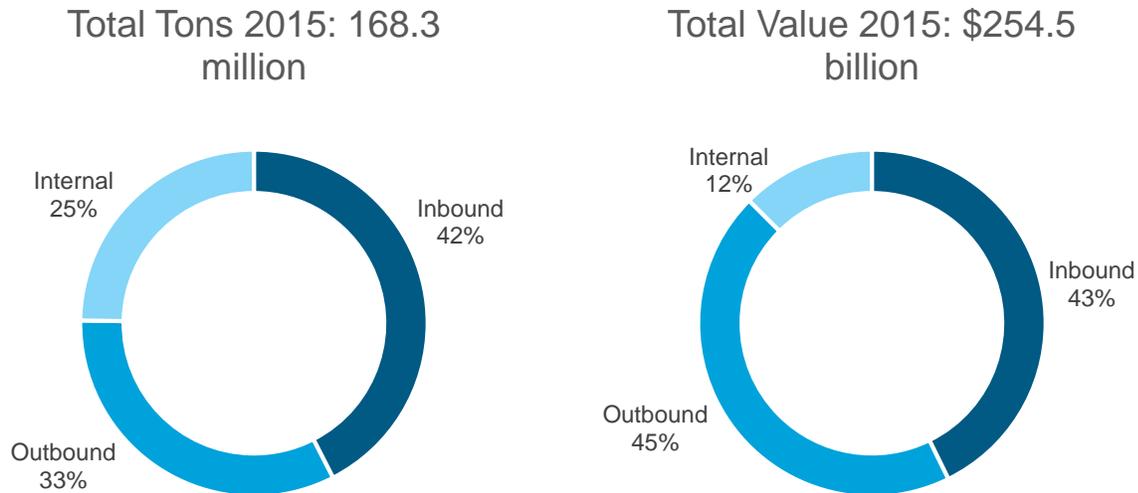


Figure 2. Freight Flow Totals, 2015

Trucking dominates the market, moving over 82 percent of the corridor’s freight and accounting for almost 72 percent of the total value, shown in **Figures 3** and **4**. Carload rail’s roughly nine percent of volume translated to two percent of the value in 2015, while pipelines carried five percent of the total volume. Air cargo’s minimal volume represented over three percent of the total value. Modal share forecasts for 2045 show little change in terms of volume, but trucking’s share of the total value decreasing to 67 percent and air cargo’s share increasing to eight percent.

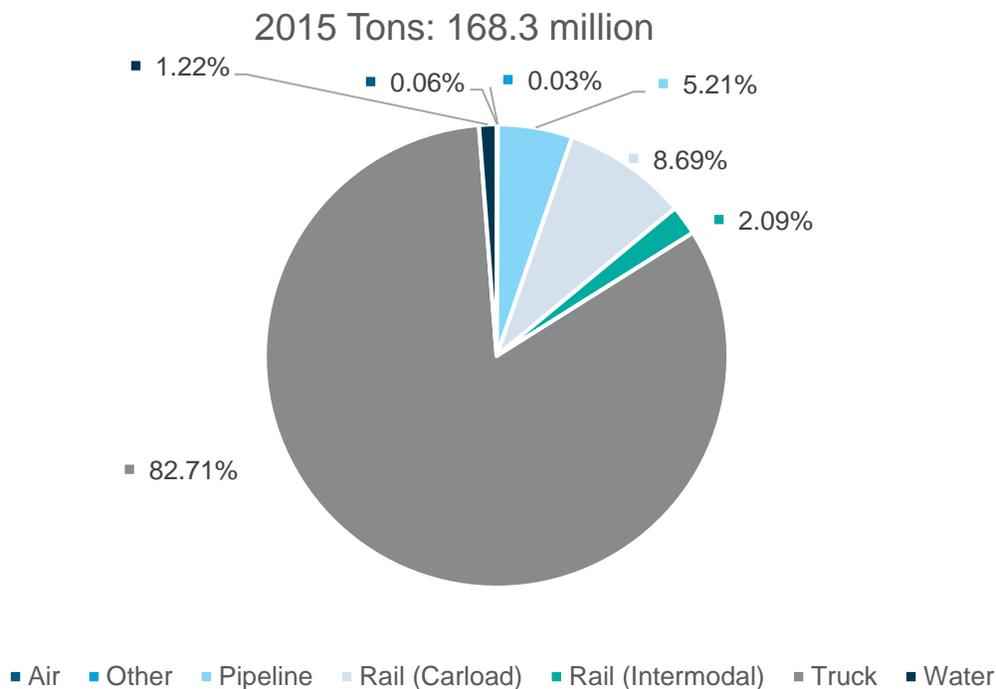


Figure 3. Modal Freight Flows by Volume, 2015

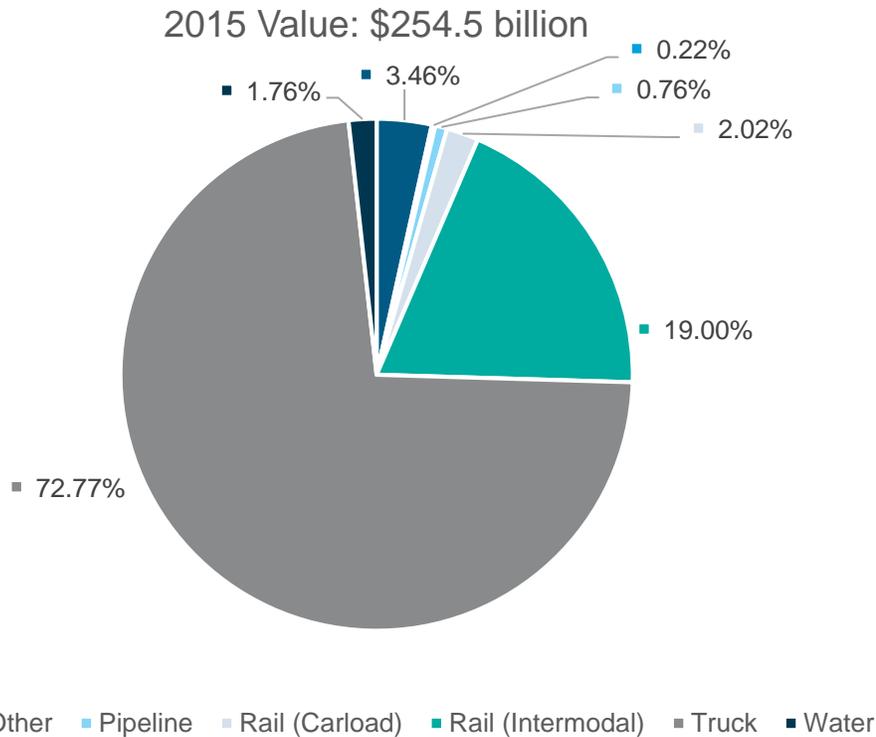


Figure 4. Modal Freight Flows by Value, 2015

Aggregates, with over 32 million tons, accounted for the largest volume of commodities moving to, from, and within the corridor, with roughly 42 percent moving internally within the region, shown in **Figure 5**. Energy Products, Raw and Finished Wood Products, and Nonmetallic Mineral and Base Metal Products all accounted for over 20 million tons in 2015. By 2045, flows of Machinery, Electric, and Precision Instruments are forecasted to increase by over 165 percent, growing from roughly 2.6 million tons to 7.06 million tons. Other commodity groups with high growth forecasts include Chemicals, Pharmaceuticals, Plastics, and Rubber (95 percent), Waste (86 percent), Mixed Freight (85 percent), and Food, Alcohol, and Tobacco (70 percent).

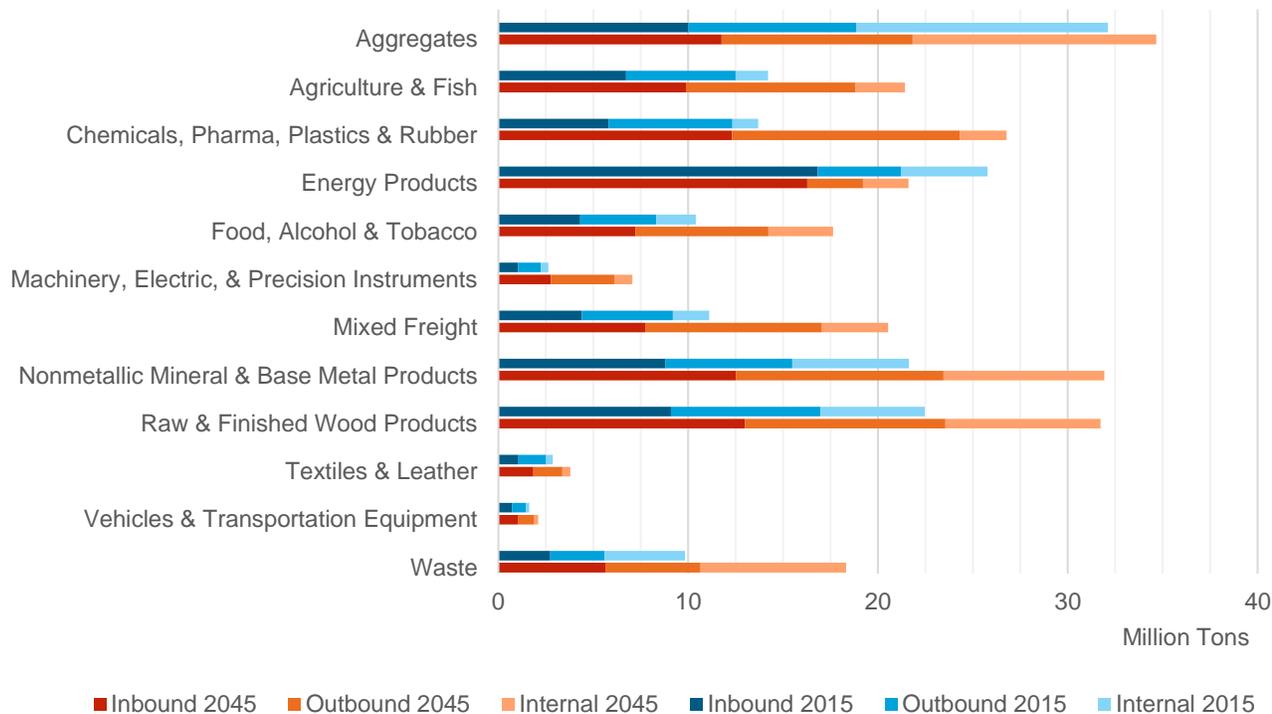


Figure 5. Commodity Volumes, 2015 and 2045

Mixed Freight’s almost \$75 billion accounted for the largest share of the flows by value in 2015, and its forecasted growth of 90 percent would increase its value to just under \$140 billion by 2045. Machinery, Electric, and Precision Instruments are forecasted to more than double from \$35 to \$100 billion by 2045. Chemicals, Pharmaceuticals, Plastics, and Rubber are also expected to more than double in trade value from \$40 billion in 2015 to \$94 billion in 2045, as shown in **Figure 6**.

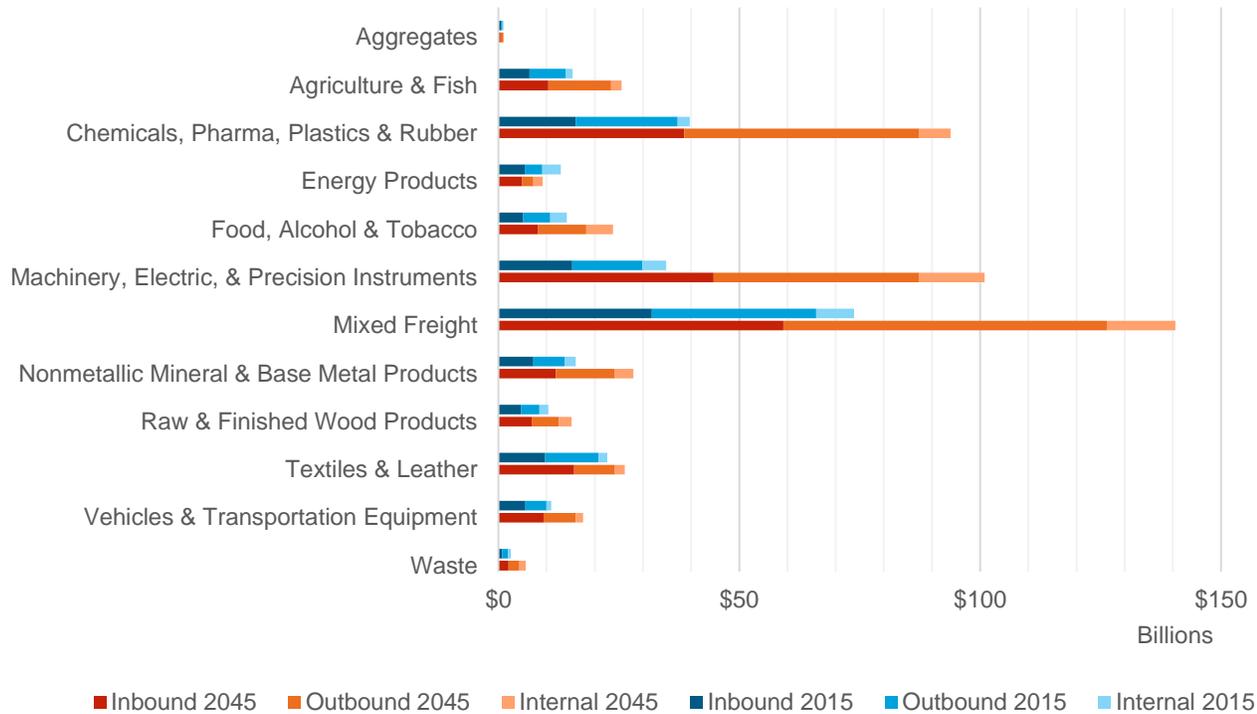


Figure 6. Commodity Values, 2015 and 2045

The counties within Corridor U ship and receive the largest volume and value of goods within the Southeast region of the U.S. compared to all other U.S. regions. In 2015, this was estimated to be over 97 million tons valued at over \$122 billion with forecasts showing more than 136 million tons worth \$233 billion by 2045, shown in **Table 4**. The counties within the corridor traded more than 41 million tons of goods with one another valued at over \$31 billion in 2015. By 2045, trade is forecasted to consist of more than 53 million tons worth more than \$55 billion. The combined volume of trade with all the states west of the Mississippi River totaled only seven million tons in 2015, less than all other regions except for New England/New York, but was valued at \$40 billion, more than all other regions besides the Southeast. These volumes are forecasted to almost double by 2045 while the value of those goods more than double.

Table 4. Top Regional Trading Partners

Region	Tonnage		Value	
	2015	2045	2015	2045
Internal (North Carolina)	41,646,994	53,100,798	\$31,802,259,521	\$55,478,372,844
Great Lakes	8,376,876	13,546,213	\$25,197,991,962	\$45,428,537,928
Mideast	12,005,378	17,050,147	\$24,890,183,763	\$46,420,231,325
New England/New York	1,794,373	3,695,702	\$8,595,276,002	\$19,929,308,150
Southeast	97,229,377	136,587,169	\$122,025,396,617	\$233,599,110,808
West of the Mississippi	7,275,107	13,574,304	\$41,983,447,391	\$86,779,208,312
TOTALS	168,328,105	237,554,333	\$254,494,555,257	\$487,634,769,366

2.6. Mobility Analysis

After compiling the necessary freight information for use in updating the North Carolina Statewide Travel Demand Model (NCSTM), highway mobility was analyzed for the corridor for existing and future conditions based on the relationship of travel speed, congestion, and travel time. Existing conditions data was based on NCDOT traffic count data, GIS data, and third-party data (Google Maps satellite and travel time data). Future conditions analysis was based on the NCSTM, Regional and Small Area Travel Demand Models, the STIP, and Transportation Plans for communities throughout the corridor.

To manage the analysis of the project corridor, the corridor was divided into mobility segments as shown in **Figure 7**. These segments represent sections that are generally homogenous and/or represent a uniform cross-section of roadway. The process of identifying segments included the review of the following attributes along the corridor:

- Major changes in roadway characteristics (cross-section, facility type, lanes)
- NCDOT Divisional Boundaries
- Interstate Crossings
- Metropolitan Planning Organization (MPO) Model boundaries
- Urban/rural transition

Segment breaks were not created for every occurrence of these characteristics; for example, small segments were avoided unless it was justified based on the uniqueness of the roadway attributes in that section. Although speed limits were a consideration, other factors were considered more heavily due to the frequency of speed limit changes.

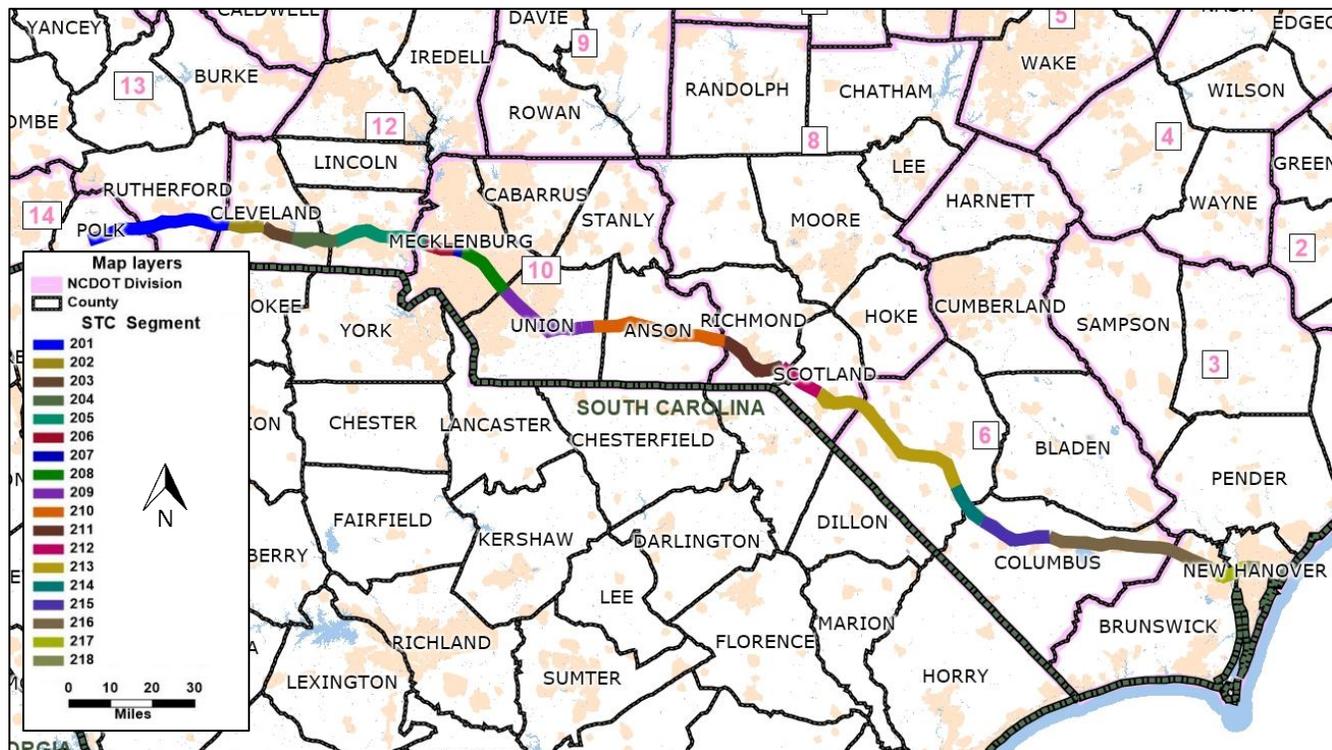


Figure 7. Corridor Segments

Note: Some mobility segments shown above were adjusted for the future vision scenario; these segments are shown in **Table 8**. This included rerouting Corridor U in Mecklenburg County to follow I-485 (segment 206a in the future vision scenario).

Typical planning-level highway capacity was developed for each segment along the corridor using the predominant cross-section representative of each segment. Capacities are based on NCDOT TPD's **Level of Service D**

Standards for Systems Level Planning, updated 10/14/2011, as shown in **Appendix E**. Segment facility type, typical number of lanes, area type, percent trucks, terrain, and travel speed were used to identify the daily planning-level capacity for comparison against existing traffic. Segment capacities are shown in **Table 5**.

Travel times were calculated based on a weighted average of posted speeds for each segment (by length), existing volume-to-capacity ratios, and a volume-delay curve like what is used in the NCSTM. **Table 5** presents the travel time needed to fully utilize each segment. As a point of comparison, Google Maps travel times were identified for each segment to provide “observed” ranges based on third party data.

Table 5. Segment Capacities and Travel Times

Segment	Facility Type	Typical Speed (miles per hour)	Lanes	Median Type	Area Type	Planning Capacity	2018 Travel Time (Estimated) (min.)	Travel Time (Google Maps) (min.)
201	Expressway	65	4	Divided	Rural	54,800	29	26-30
202	Expressway	55	4	Divided	Suburban	55,800	8	8-12
203	Boulevard	45	4	Divided	Suburban	36,600	12	9-18
204	Expressway	65	4	Divided	Suburban	57,100	9	10
205	Freeway	65	6	Divided	Urban	106,320	22	18-22
206	Boulevard	45	6	Divided	Urban	42,800	10	12-30
207	Freeway	55	6	Divided	Urban	92,900	3	4-12
208	Boulevard	45	6	Divided	Urban	52,800	37	16-35
209	Boulevard	45	4	Divided	Suburban	36,600	44	28-55
210	Boulevard	55	4	Divided	Rural	45,200	34	30-40
211	Expressway	65	4	Divided	Suburban	53,300	14	12-16
212	Expressway	55	4	Divided	Rural	54,800	11	14-18
213	Expressway	65	4	Divided	Rural	56,100	36	30-40
214	Expressway	55	4	Divided	Rural	56,100	10	8-10
215	Expressway	65	4	Divided	Rural	56,100	15	14
216	Boulevard	55	4	Divided	Rural	49,000	41	35-40
217	Expressway	55	4	Divided	Suburban	57,100	11	10-14
218	Boulevard	55	6	Divided	Urban	64,900	3	3-6

Future conditions analysis was completed using growth rates developed for the corridor based on historical count data, the NCSTM, and relevant regional, MPO, and small area models. Two initial future scenarios were analyzed:

- 2040 Existing plus Committed (E+C): Existing network plus committed (in the 2020-2029 STIP with either Right-of-Way/Construction funding) corridor projects
- 2040 Recommended (Metropolitan Transportation Plan [MTP]/Comprehensive Transportation Plan [CTP]): E+C plus recommended MTP/CTP projects

Typically, these projects are on the corridor itself; however, if the project is on a parallel facility and is of regional significance, it was included in the future conditions analysis. For each scenario, annual growth rates for each segment were prepared to project 2018 Annual Average Daily Traffic (AADT) to 2040. Using this information, future volume-to-capacity (V/C), travel time, average speed, vehicle-miles traveled (VMT), and vehicle-hours traveled (VHT) were calculated for each segment and the entire corridor.

For the 2040 E+C scenario, committed projects are those which were programmed in the 2020-2029 STIP that are regional in nature. **Table 6** shows projects included in the 2040 E+C evaluation. In the 2040 NCSTM, these projects were included in the analysis, along with other projects statewide that were included in the 2040 E+C network.

Table 6. 2040 E+C Scenario Projects

STIP ID	Segment	Counties	Roadway	Location/Description
I-5719	205	Gaston	I-85	From N.C. 273 to U.S. 321. Widen to 8 Lanes.
U-2509	208	Mecklenburg	U.S. 74 (Independence Blvd)	From Idlewild Rd to I-485. Widen and add Express Lanes.
R-3329 / R-2559	n/a	Union	Monroe Bypass	From I-485 to U.S. 74. New 4 Lane divided toll facility (project complete).
R-5713	n/a - bypass takes over	Cleveland	U.S. 74	From U.S. 74 Bus to N.C. 226. Placement of directional crossovers and access management.
R-2707D	202/203	Cleveland	Shelby Bypass	From East of N.C. 150 to existing U.S. 74 west of SR 2238 (Long Branch Rd). Construct freeway on new location.
R-2707E	202/203	Cleveland	Shelby Bypass	From existing U.S. 74 west of SR 2238 (Long Branch Rd) to west of SR 1001 (Stony Point Rd). Construct freeway on new location.
R-2707C, F, G	202/203	Cleveland	Shelby Bypass	Sections C, F, G. Construct freeway on new location.
R-5878B	210	Anson	Wadesboro Bypass	U.S. 52 north of Wadesboro to U.S. 74 east of Wadesboro. Construct freeway on new location.
R-3421	n/a	Richmond	Rockingham Bypass	U.S. 74 to U.S. 220. Construct freeway on new location.

For the 2040 Recommended scenario, projects from area MTPs and CTPs were included in the project analysis. **Table 7** shows projects included for the 2040 Recommended scenario.

Table 7. 2040 Recommended Scenario Projects

Plan	Segment	Counties	Roadway	Location/Description
MTP	210	Anson	Wadesboro Bypass	U.S. 74 west of Wadesboro to U.S. 52 N of Wadesboro. Construct freeway on new location.
MTP	202	Cleveland	U.S. 74	From Shelby Bypass to Mooresboro. Upgrade to controlled access from Shelby Bypass to Mooresboro with grade separation at SR 1168 (Lattimore Rd).
MTP	201	Cleveland	U.S. 74	From I-26 to U.S. 74 at Mooresboro. Upgrade freeway to interstate standards.
MTP	205	Gaston	I-85	From U.S. 321 to U.S. 74. Widen to 8 lanes.
MTP	205	Gaston	I-85	From Davison Ave/Tulip Dr to Fairview Dr. New interchange at I-85/Davidson Ave. New 2 lane alignment connecting Tulip Dr to Fairview Dr.
MTP	209	Union	U.S. 74	From Hanover Dr to Rocky River Rd. Widen from 4 lanes to 6 lanes with median, bike lanes, and sidewalks.

Plan	Segment	Counties	Roadway	Location/Description
MTP	n/a	Mecklenburg	I-485	From I-85 to U.S. 74. Widen from 6 to 8 lanes including express lanes.
MTP	205	Mecklenburg	I-85	From Gaston County Line to Sam Wilson Rd. Widen roadway to additional westbound lane.
MTP	207	Mecklenburg	I-277 (Belk Fwy)	From Mint St to Independence Blvd (U.S. 74).
MTP	208	Mecklenburg	U.S. 74 (Independence Blvd)	From I-277 to Albemarle Rd (N.C. 24/N.C. 27). Add additional express lane in median.
MTP	209	Mecklenburg	U.S. 74 (Wilkinson Blvd)	From I-485 to Little Rock Rd. Widen from 4 lanes to 6 lanes with median, bike lanes, and sidewalks.
MTP	217	New Hanover	U.S. 74	From Wilmington Metropolitan Planning Organization (WMPO) Boundary to U.S. 17/74/76. Upgrade Interchange.
MTP	217	New Hanover	U.S. 74	Old Fayetteville Rd. Convert Grade Separation to interchange.
CTP	201	Rutherford	U.S. 74	From Polk County Line to Cleveland County Line. Upgrade to Interstate standards throughout County and obtain Interstate classification.
CTP	204	Cleveland	U.S. 74 (E Dixon Blvd)	From Proposed U.S. 74 Bypass to U.S. 74 Bus (Shelby Rd). Upgrade to Interstate standards.
CTP	202	Cleveland	U.S. 74	From Ellenboro Rd to U.S. 74 (W Dixon Blvd). Upgrade to Interstate standards.
CTP	n/a	Gaston	I-85	Wolfe Ln Ext, new freeway bypass without Shannon Bradley Rd, Fairview Dr, Belmont-Mt Holly Loop. Proposed Interchange.
CTP	n/a	Gaston	Northwest Bypass	New freeway bypass from I-85 near Bessemer City to U.S. 321 north of Dallas.
CTP	n/a	Gaston	Gaston Parkway	New freeway bypass from I-85 near Bessemer City to N.C. 279 (S New Hope Rd).
CTP	208	Mecklenburg	U.S. 74	From I-277 to I-485. Widen, add managed lanes, convert existing intersections to interchanges.
CTP	209	Union	U.S. 74	I-485 to Roosevelt Blvd. Improvements and interchange conversions.
CTP	209	Union	U.S. 74	Proposed Marshville Bypass. New bypass.
CTP	210	Anson	U.S. 74	From Union County Line to Richmond County Line. Upgrade to interstate standards.
CTP	210	Anson	U.S. 74	Clinton Ave (Peachland), proposed N.C. 218 connector (Polkton), N.C. 145. Interchanges Recommended.
CTP	210	Anson	U.S. 74	From Old Prison Camp Rd (SR 1249) to west of Lilesville town limits. Upgrade to boulevard standards - convert from 5 lanes to 4-lane median divided.
CTP	210	Anson	U.S. 74	Proposed U.S. 52 Bypass. Interchange recommended.
CTP	211	Richmond	U.S. 74/Future I-74	From interchange of I-74/ U.S. 74 Bus to Scotland County Line. Upgrade to interstate standards.
CTP	211	Richmond	I-74	Proposed U.S. 220 Bypass, proposed U.S. 1 Bypass. Interchange recommended.
CTP	212	Scotland	U.S. 74/Future I-74	From Richmond County Line to Robeson County Line. Upgrade to interstate standards.
CTP	213	Robeson	U.S. 74	From N.C. 41 to east of Lumberton. Upgrade to interstate standards.

Plan	Segment	Counties	Roadway	Location/Description
CTP	214/215	Robeson	U.S. 74	From Lumberton/County Planning Area Boundary (PAB) (east of Lumberton) to Columbus County Line (interchange locations TBD). Upgrade to 4-lane divided freeway.
CTP	216	Columbus	U.S. 74/76	From west of N.C. 11 to Brunswick County Line. New freeway south of existing alignment.
CTP	216	Columbus	U.S. 74/76	Robeson County to Brunswick County. Upgrade to interstate standards.
CTP	217	Brunswick	U.S. 74/76	From Columbus County Line to Wilmington MPO planning boundary. Upgrade to expressway standards.

Note: Some projects are consolidated/summarized where a group of individual grade separations/interchanges serve to convert a boulevard/expressway to interstate freeway standards. Based on the previous scenarios analyzed, a total of 16 segments were identified for the future vision scenario, mostly on U.S. 74, as shown in **Table 8**. These segments varied in length from 2 miles to 39 miles. Analysis was completed for these segments based on Annual Average Daily Traffic (AADT) information, NCDOT systems level planning capacities, NCSTM analysis, and MPO model analysis.

Average 2018 AADT is based on NCDOT AADT segment data, which contains different segments than the mobility segments previously defined for Corridor U. To determine the weighted mobility segment's AADT, the 2018 NCDOT AADT data was averaged based on length of the AADT segments within each mobility segment. 2018 AADT are presented in **Table 8** for existing segments (Monroe Bypass opened in late 2018 but AADT is not available).

Table 8. Corridor U Mobility Segments – Vision Scenario

Segment	Roadway	From	To	Length (miles)	Average 2018 AADT (Weighted)
201	U.S. 74	I-26	SR 1168/Mooresboro	31	18,200
202a	U.S. 74	SR 1168/Mooresboro	U.S. 74 Business/Shelby Bypass	2	26,300
203	U.S. 74/Shelby Bypass	U.S. 74 Business/Shelby Bypass	U.S. 74 Bus at Buffalo Creek	14	-
204	U.S. 74	U.S. 74 Bus at Buffalo Creek	I-85/U.S. 29/U.S. 74 Bus	10	37,900
205	I-85	I-85/US 29/U.S. 74 Bus	I-85/I-485	21	105,500
206a	I-485	I-85/I-485	U.S. 74	25	112,500
207a	U.S. 74/Monroe Bypass	I-485	Marshville Bypass	19	-
209a	U.S. 74/Marshville Bypass	U.S. 74 Business/Monroe	Stegall Rd E of Marshville	6	-
210	U.S. 74	Stegall Rd E of Marshville	Bus 74/Rockingham W	29	18,800
211	U.S. 74	Bus 74/Rockingham W	Bus 74/Rockingham E	16	14,200
212	U.S. 74	Bus 74/Rockingham E	Bus 74 Laurinburg W	10	22,900
213	U.S. 74	Bus 74 Laurinburg W	SR 2220 Broadridge Road (E of I-95)	39	17,200

Segment	Roadway	From	To	Length (miles)	Average 2018 AADT (Weighted)
214	U.S. 74	SR 2220 Broadridge Road (E of I-95)	N.C. 242	9	16,900
215	U.S. 74	N.C. 242	Bus 74 E/Whiteville	16	16,700
216	U.S. 74	Bus 74 E/Whiteville	U.S. 74/I-140	36	16,500
218a	I-140	U.S. 74/I-140	U.S. 117/College Rd Wilmington	14	21,900

Future conditions analysis was completed using growth rates developed for the corridor based on historical count data, the NCSTM, and relevant regional, MPO, and small area models. For the vision scenario, corridors were reviewed using the NCSTM model for relevant CTP projects such as the Marshville, Shelby, Rockingham, and Wadesboro bypasses. Using this information, future AADT, volume-to-capacity (V/C), travel time, average speed, vehicle-miles traveled (VMT), and vehicle-hours traveled (VHT) were calculated for each segment and the entire corridor. **Table 7** lists all the MTP/CTP projects listed in the recommended scenario which are included in this analysis. **Table 9** presents the facility type, posted speed, lanes, and typical capacity for the vision scenario segments.

Table 9. Corridor U Mobility Segment Characteristics – Vision Scenario

Segment	Facility Type	Typical (Posted) Speed	Lanes	Typical Capacity
201	Freeway	70	4	59,300
202a	Freeway	65	4	58,500
203	Freeway	70	4	58,500
204	Freeway	70	4	58,500
205	Freeway	65	8	120,000
206a	Freeway	65	8	164,700
207a	Freeway	65	8	93,500
209a	Freeway	65	4	59,900
210	Freeway	65	4	59,300
211	Freeway	65	4	57,200
212	Freeway	65	4	59,300
213	Freeway	65	4	59,300
214	Freeway	65	4	64,700
215	Freeway	65	4	64,700
216	Freeway	65	4	64,700
218a	Freeway	60	4	64,700

While there are many mobility measures that can be considered for each corridor based on quantitative and qualitative data, this mobility analysis is based on the relationship of travel speed, congestion, and travel time. For the vision scenario, a projected volume was compared against available capacity to estimate the travel time. VMT, VHT, and average speed are also calculated based on the projected future volume.

Table 10 presents a summary of mobility analysis for the Corridor U vision scenario. Based on the projected 2040 volume, average volume-to-capacity (V/C), average speed and travel time, VMT and VHT are calculated.

Table 10. Corridor U Mobility Analysis – 2040 Vision Scenario

Segment	Average Volume, 2040	Typical Capacity	Average V/C	Typical (Posted) Speed	Average Travel Speed	Average Travel Time (min)	Vehicle Miles Traveled	Vehicle Hours Traveled
201	28,170	59,300	0.48	70	70	26.9	885,300	12,700
202a	40,610	58,500	0.69	65	65	1.9	81,200	1,300
203	37,000	58,500	0.63	70	70	12.0	518,000	7,400
204	47,140	58,500	0.81	70	68	8.8	471,400	6,900
205	134,210	120,000	1.12	65	48	26.1	2,821,800	58,400
206a	140,030	164,700	0.85	65	62	24.0	3,500,800	56,100
207a	67,700	93,500	0.72	65	64	17.7	1,286,300	20,000
209a	51,500	59,900	0.86	65	62	5.8	309,000	4,900
210	36,020	59,300	0.61	65	65	26.8	1,044,600	16,100
211	24,450	57,200	0.43	65	65	14.5	383,800	5,900
212	39,440	59,300	0.67	65	65	9.1	386,100	6,000
213	29,650	59,300	0.50	65	65	36.2	1,161,900	17,900
214	29,030	64,700	0.45	65	65	8.7	274,500	4,200
215	28,730	64,700	0.44	65	65	14.5	452,700	7,000
216	22,830	64,700	0.35	65	65	33.1	818,600	12,600
218a	37,700	64,700	0.58	60	60	14.0	527,800	8,800

Table 11 presents a summary of highway mobility for the entire corridor. The table shows that in 2040, the vision corridor projects serve more travellers at a higher speed with less delay. In the Vision Scenario, a typical trip through the corridor in 2040 would take less time than today – with a 64% increase over current VMT. **Figure 8** presents an infographic summary of key highway mobility measures.

Table 11. Highway Mobility Summary

Measure	2018 Existing	2040 E+C	2040 Recommended	2040 Vision
Average Travel Time (Hours)	5.8	6.3	5.8	4.7
Vehicle-Miles Traveled	9,065,000	12,084,000	13,641,700	14,923,800
Vehicle-Hours Traveled	205,700	302,200	290,400	246,200
Average Annual Daily Volume	31,500	41,400	46,600	50,200
Average Speed (Miles per hour)	44	40	47	61

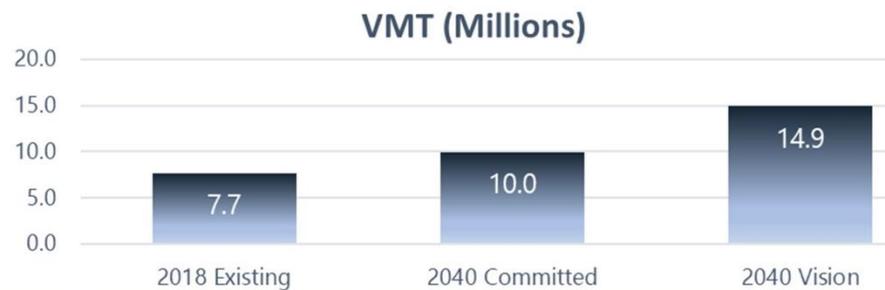
HIGHWAY MOBILITY BENEFITS STC CORRIDOR U

**U.S. 74 – FROM I-26 IN POLK COUNTY TO
I-40 IN WILMINGTON**

**AVERAGE
TRAVEL SPEED**



**VEHICLE-MILES
TRAVELED**



**210 ADDITIONAL MILES OF FREEWAY PROVIDE FASTER
TRAVEL TIMES WITH SUBSTANTIAL INCREASE IN TRAFFIC**

AVERAGE CORRIDOR TRAVEL TIME (HOURS)

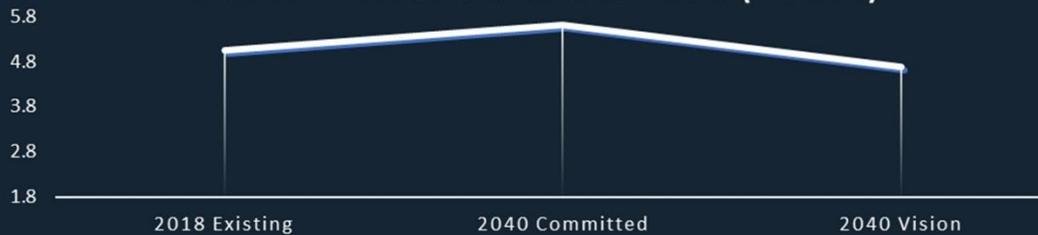


Figure 8. Highway Mobility Summary

2.7. Resiliency

To evaluate resiliency along Corridor U, major incident data along the corridor was assessed. Only events which were able to be categorized as floods, mudslides, or rockslides were included. Additionally, event locations were verified to ensure that they occurred along the corridor, and any duplicated events were combined. All incident data along Corridor U is summarized below in **Table 12** and depicted in **Figure 9**.

Table 12. Corridor U Incident Summary

Type	Date	Duration (days)	Cross Street	County	Reason
Flood	11/2018	4	USS North Carolina Road	New Hanover	The road is impassable near USS North Carolina Road, due to high water.
Flood	09/2018	37	S Creek Rd (SR 2225)	Robeson	The road is impassable between S Creek Rd (SR 2225) to the Columbus County line due to flooding.
Flood	09/2018	16	N.C. 87	Columbus	The road is closed between the Robeson County line to Brunswick County line, due to standing water.
Flood	09/2018	23	I-95	Robeson	U.S. 74 is closed from Exit 209, I-95, to Exit 233, N.C. 410
Flood	09/2018	1	Morgan Mill Road (N.C. 200)	Union	U.S. 74/West Roosevelt Boulevard is closed between N.C. 200/Morgan Mill Road and Stafford Street due to flooding.
Flood	09/2018	3	S Secrest Ave (SR 1941)	Union	U.S. 74 is reported to be impassable between Wingate and Monroe, near S Secrest Ave.
Flood	09/2018	15	Maco Road NE (N.C. 87)	Brunswick	U.S. 74/U.S. 76/Andrew Jackson Highway is closed near N.C. 87/Maco Road due to flooding.
Flood	09/2018	12	Old Fayetteville Rd (SR 1437)	Brunswick	This roadway is experiencing active flooding of running water. Not passable.
Flood	10/2016	20	N.C. 130	Robeson	Road Closed due to Highwater (Near Orrum)
Flood	10/2016	8	Macedonia Church (SR 1506)	Columbus	U.S. 74 is closed at the Lumber River, Robeson County Line due to the roadway being flooded
Flood	10/2016	22	N.C. 130	Robeson	The road is closed near Boardman due to high water.
Flood	10/2016	8	I-95	Robeson	The road is closed due to flooding near Hilly Branch Road.
Flood	10/2016	9	Red Hill Rd (SR 1700)	Columbus	The road is closed near Red Hill Road, due to flooding.
Flood	10/2016	2	U.S. 701	Columbus	The road is closed between U.S. 701 Bypass and U.S. 74 Business due to flooding.



South Carolina

During Hurricane Florence (Sept. 2018), U.S. 74 was closed between the Robeson County line to the Brunswick County line, due to standing water.



NC STRATEGIC TRANSPORTATION CORRIDORS (STC)

APRIL 2020

Source: NCOneMap, NCDOT GIS, ESRI

Legend	STC Highway Corridor U (US 74W/US 74E)	Flood - Hurricane Florence	Interstate	Major Rivers/Streams
	Municipal Boundaries	Flood - Hurricane Matthew	US Route	Major Water Bodies
	State Parks	Flood - Rain (Nov 2018)	NC Highway	Counties
			Rail	NC Int'l or Major Freight Airports



STRATEGIC TRANSPORTATION CORRIDORS RESILIENCY MAP

CORRIDOR U (US 74)

Figure 9

3. Stakeholder Involvement

3.1. Stakeholder Involvement Plan

Primary components of the Corridor U master plan were the stakeholder involvement activities, which were initiated in March 2018 and included the finalization of the Stakeholder Involvement Plan (SIP) by the NCDOT in September 2019. The first Corridor Steering Committee meeting was a joint meeting with Atkins and Kimley-Horn held on March 27, 2018 and included stakeholders for five different corridors for which visioning would begin: U.S. 321 (Corridor D), Future I-42 (Corridor P), Future I-795 (Corridor S), U.S. 74/I-85/I-485 (Corridor U), and Jacksonville to Greenville (Corridor X). Three subsequent Corridor Steering Committee meetings were conducted in March and June of 2020. This was an opportunity to share information with Metropolitan Planning Organizations (MPO), Rural Planning Organizations (RPO), and additional stakeholders.

3.2. Corridor Steering Committee

The consultant team asked representatives from the STC internal and external steering committees to help distribute information to help garner input to the master plan process. Meetings were conducted, as follows:

- March 27, 2020 – Full Steering Committee, comprise of identified NCDOT individuals, associated agencies, MPOs and RPOs
 - Purpose: To introduce the stakeholders to the STC process
- March 9, 2020 – Internal Steering Committee, comprised of identified NCDOT individuals, as well as associated agencies
 - Purpose: To review master plan development and stakeholder deliverables
- March 30, 2020 – Full Steering Committee, comprised of identified NCDOT individuals, associated agencies, MPOs and RPOs
 - Purpose: To review master plan development, stakeholder deliverables, and to encourage MPOs and RPOs to share information and surveys with their constituencies
- June 10, 2020 – Full Steering Committee
 - Purpose: To review the recommended vision of the corridor and survey outcomes and to identify additional areas of study

3.3. Public Survey

A survey was developed in March 2020 to ask questions about the type of facility envisioned for the corridors, what features of the corridor should be preserved, what features should be improved, and whether there are any circumstances the study team should be aware of as they develop the master plan. A link to the survey was distributed to MPOs and RPOs, who also were asked to distribute the link to customers, members, clients, employees, constituents and any others who would be interested from the public. An email with a survey link was developed by the consultant and distributed to the NCDOT for distribution to Corridor Steering Committee (CSC) members, as well as any additional stakeholders identified by NCDOT. In addition, a flier was developed for each corridor survey.

The survey was launched on April 6, 2020 and remained open through June 6, 2020, garnering 638 responses. Specific details are in **Appendix F**. The following information is based on the number of participants for each question:

- 99% drive their own vehicles as a primary means of transportation
- Most people typically use the facility for shopping and dining, the second most popular use is “other”, with responses specifying uses of travel, visiting family, and vacation
- 36% use the facility daily with 46% commuting 1-20 miles to work or school
- The most popular response to what changes respondents would like to see along Corridor U in the next 20 years was bypasses around cities and towns. To see the breakout of responses please refer to the Stakeholder Outreach Summary Report

- From I-26 to Gastonia, Gastonia to Monroe, and Monroe to Wilmington, most respondents support the preliminary vision of a freeway with 54%, 56%, and 70% strongly agreeing, respectively
- 47% responded that they have been impacted by flooding and 6% responded that they have been impacted rockslides/mudslides

3.4. Interagency Coordination

Resource Agency review of long-range transportation planning activities is essential to the success of the process. For the Strategic Transportation Corridors Master Plan Visions to be both comprehensive and fully vetted, the two-page vision for Corridor U was provided to the resource agencies listed in the Interagency Coordination Protocol. The resource agencies and the contacts are shown below:

- Audubon NC, Curtis Smalling
- NC Center for Geographic Information and Analysis, Tim Johnson
- NC Department of Agriculture and Consumer Services – Plant Industry Division Plant Conservation Program, Lesley Starke
- NC Department of Commerce – Labor and Economic Analysis Division, Joshua Levy
- NC Department of Cultural Resources – Historic Preservation Office / Office of State Archaeology, Renee Gledhill-Earley
- NC Division of Energy, Mineral, and Land Resources – Land Resources / Stormwater Permitting, Annette Lucas
- NC Department of Agriculture and Consumer Services – NC Forest Service, Christian Vose
- NC Wildlife Resources Commission – Habitat Conservation Program, Travis Wilson / Marla Chambers
- NC Department of Environmental Quality – Division of Marine Fisheries, Anne Deaton
- NC Department of Environmental Quality – Division of Water Resources, Amy Chapman
- NC Department of Environmental Quality – Division of Mitigation Services, Tim Baumgartner
- NC Department of Environmental Quality – Division of Coastal Management, Cathy Brittingham
- NC Department of Cultural Resources – Natural Heritage Program, Suzanne Mason
- NC Department of Environment and Natural Resources – Parks and Recreation, John Amoroso
- NC Division of Public Health – Community and Clinical Connections for Prevention and Health Branch, Melissa Rockett
- Regional Land Use Advisory Commission, Pete Campbell
- US Army Corps of Engineers – Regulatory Division, Monte Matthews
- US Department of Agriculture – Forest Service, Amy Mathis
- US Fish and Wildlife Service, Kathy Matthews / Claire Ellwanger
- US Environmental Protection Agency – Region 4, Amanetta Somerville

These agencies were provided the two-page visions on July 30, 2020 by email and given three weeks to provide any comments or questions. The team did not receive any comments from any resource agency.

4. Vision

Corridor U is a part of the Strategic Highway Network (STRAHNET) and Strategic Rail Corridor Network (STRACNET) military networks and is becoming part of the interstate system from Richmond County to Columbus County. This corridor connects Charlotte, Wilmington, and other regional population centers with multiple interstates and major routes including I-26, I-85, and I-95 providing passenger and freight mobility across the state's southern tier. The corridor also connects multiple statewide economic resources including two international airports, Carolinas Medical Center, and the Port of Wilmington. Corridor U is expected to remain the principal east-west corridor through NC's southern tier of counties. The principal mobility expectations are safe, reliable transition through the greater Charlotte region and consistent, high-speed travel from the Port of Wilmington to the Charlotte metro region, in support of high-level economic activities. The vision for the corridor is below.

The corridor follows U.S. 74 from I-26 in Polk County to I-85 in Gaston County, where it follows I-85 to I-485 on the west side of Charlotte in Mecklenburg County. Corridor U then follows I-485 on the southwest side of Charlotte from I-85 to U.S. 74, where it continues briefly along U.S. 74 before following the Monroe Expressway in Union County. Corridor U follows U.S. 74 from the southeastern terminus of the Monroe Expressway in Union County to U.S. 117 in New Hanover County. The long-term corridor vision is a freeway cross-section with a minimum of 4 lanes, a median, and interchange-only access.

5. Next Steps

5.1. Sub-Corridor Areas for Additional Study

For long-range transportation planning and prioritization along the corridor, more detailed studies are crucial to ensure adequate review of the existing transportation system has been completed. An accurate picture of the existing facilities including evaluations of the challenges and opportunities related to safety, connectivity, operations, land use, multi-modal mobility, resiliency, and other barriers and constraints is needed to ensure the corridor will meet the needs of all types of users in the future.

Thorough analysis of the existing mobility needs and opportunities along the corridor including freight and multi-modal issues assisted in identifying potential additional areas for study. After discussion with NCDOT and external and internal stakeholders, several areas for additional study were identified along Corridor U.

5.1.1. Complete high-capacity, high-speed improvements for improved route continuity

Throughout the corridor, opportunities to increase capacity and route continuity by implementing freeway design standards such as interchanges, shoulders, medians, and higher design speeds should be considered, including bypass routes. Traffic signals and driveways should be removed if possible.

5.1.2. Increase reliability and capacity from Shelby to Monroe

This section of the corridor with the highest passenger volumes requires safe and reliable travel through the greater Charlotte region. Opportunities to increase capacity and reliability by implementing freeway design standards and addressing bottlenecks should be considered, including bypass routes.

5.1.3. Safety improvements on rural, uncontrolled access sections to address high crash sections or hot spots

Rural, uncontrolled access sections of the corridor that do not currently meet freeway design standards should consider shorter term safety improvements to address high crash segments and intersections, as well as longer term improvements such as implementing freeway design standards and providing bypass routes.

5.1.4. Establish consistent route continuity for improved freight operations

Due to high freight volumes throughout the corridor, opportunities to improve route continuity should be considered, such as implementing freeway design standards and providing bypass routes.

5.1.5. Park and Ride and Express Bus providing additional public transit options to address congestion

It is important to assess multimodal and transit connections throughout the corridor, especially within and between the urban areas and towns the corridor connects. Park and Ride and Express Bus options should be studied with public input and engagement to help inform current and future needs.

5.1.6. Track improvements to facilitate rail freight/passenger flow based on freight and rail plans

Due to high passenger and freight volumes and increasing demand, track improvements parallel to Corridor U should be implemented to allow better rail connection and capacity, particularly between Charlotte and Wilmington, where high-level economic activities take place and continue to grow.

5.1.7. Wilmington area improvements

Due to the developed character of this section of the corridor, various improvements should be studied to address congestion, capacity, and route continuity while being context-sensitive to the surrounding areas.

Appendices



Appendix A. Corridor U Projects

Table A-1. Corridor U: Current STIP Projects

TIP ID	County	Route	Description	Status
I-4729	Polk	I-26	U.S. 74/N.C. 108 interchange (Exit 67). Revise interchange and construct improvements to N.C. 108.	Seg A: Under construction
R-5873	Polk	U.S. 74	N.C. 108 interchange. Improve interchange.	ROW 2021; Construction 2022
R-5867	Polk	U.S. 74	Construct two bridges on U.S. 74 from the northwest quadrant of Exit 270 to John Shehan Rd.	Under construction
R-5756	Polk	SR 1326 (Pea Ridge Rd)	Realignment of SR 1326 (Pea Ridge Rd) and John Sheehan Rd and construction of a roundabout at the intersection with U.S. 74.	Under construction
R-5918	Rutherford	U.S. 74 BUS/U.S. 221 Alt	Kentucky St/Oakland Rd intersection in Rutherfordton. Improve intersection.	ROW 2029; Construction Unfunded
EB-5915	Rutherford	Thermal Belt Rail Trail	U.S. 64/74 Alt in Rutherfordton to Forrest Hunt Dr. Construct intersection improvements at selected locations along rail corridor.	Under construction
B-5876	Rutherford	U.S. 74	Replace bridge 800083 and bridge 800084 over Second Broad River.	ROW In Progress; Construction 2021
R-5713	Cleveland	U.S. 74	U.S. 74 Bus to N.C. 226. Construct access management improvements.	Under construction
U-2567	Cleveland	U.S. 74	N.C. 150 (Dekalb St) intersection. Construct interchange.	ROW 2022; Construction 2025
U-5929	Cleveland	U.S. 74	Intersection of U.S. 74 (Dixon Blvd) and N.C. 226 (Earl Rd). Construct improvements.	ROW 2022; Construction 2025
U-5775	Cleveland	U.S. 74 BUS (Marion St)	Intersection of U.S. 74 Bus (Marion St) and N.C. 150 (Cherryville Rd). Realign intersection.	Construction 2020
R-2707AA	Cleveland	U.S. 74 Shelby Bypass	West of SR 1162 (Peachtree Rd) to east of SR 1318 (Kimbrell Rd). Grading, structures, paving	Under construction
R-2707AB	Cleveland	U.S. 74 Shelby Bypass	East of SR 1318 (Kimbrell Rd) to east of SR 1315 (Plato Lee Rd). Grading and structures	Under construction
R-2707B	Cleveland	U.S. 74 Shelby Bypass	East of SR 1315 (Plato Lee Rd) to east of N.C. 226. Grading and structures	Under construction

Table A-1. Corridor U: Current STIP Projects

TIP ID	County	Route	Description	Status
R-2707C	Cleveland	U.S. 74 Shelby Bypass	East of N.C. 226 to east of N.C. 150. Grading and structures	Under construction
R-2707D	Cleveland	U.S. 74 Shelby Bypass	East of N.C. 150 to existing U.S. 74 west of SR 2238 (Long Branch Rd). Grading, structure, paving.	ROW In Progress; Construction 2024
R-2707E	Cleveland	U.S. 74 Shelby Bypass	U.S. 74 west of SR 2238 to west of SR 1001 (Stoney Point Rd). Grading, structures, paving.	ROW In Progress; Construction 2024
R-2707F	Cleveland	U.S. 74 Shelby Bypass	East of SR 1318 (Kimbrell Rd) to east of N.C. 226. Paving	Under construction
I-5921	Gaston	I-85	Cleveland County line to MM 14. Pavement rehabilitation.	Construction 2022
I-5958B	Gaston	I-85	U.S. 74 to U.S. 321	ROW 2025; Construction 2029
I-5893	Gaston	I-85	MM 14 to MM 22. Pavement rehabilitation.	Under construction
I-5000	Gaston	I-85	U.S. 321. Geometric safety improvements to interchange.	Under construction
I-5719	Gaston	I-85	U.S. 321 to N.C. 273. Widen to 8 lanes	ROW 2024; Construction 2024
U-5965 ¹	Gaston	U.S. 29	U.S. 29 (Franklin Blvd) and N.C. 274. Construct intersection improvements.	ROW 2020; Construction 2021
U-6138 ¹	Gaston	N.C. 279	U.S. 29/74 (Franklin Blvd) intersection. Add right turn lane from N.C. 279 (North New Hope Rd) to U.S. 29/74 (Franklin Blvd)	ROW 2025; Construction 2026
U-6043 ¹	Gaston	U.S. 29/U.S. 74	SR 2200 (Cox Rd) to 400 feet east of Lineberger Rd. Add lane in the eastbound direction.	ROW 2021; Construction 2023
EB-5701 ¹	Gaston	U.S. 29/74	SR 2200 (Cox Rd) to city limits. Construct missing sidewalk on north side.	ROW In Progress; Construction 2021
U-6141 ¹	Gaston	U.S. 29/74	SR 2329 (Redbud Dr) intersection. Improve intersection area including new grade-separated crossing of U.S. 29/74	ROW 2026; Construction 2029
U-6146 ¹	Gaston	U.S. 74	Market St to SR 2015 (Alberta Ave). Widen to six lanes.	ROW 2021; Construction 2022

1. STIP Project is along portion of U.S. 74 not considered part of Corridor U (Corridor U is designated along I-85)

Table A-1. Corridor U: Current STIP Projects

TIP ID	County	Route	Description	Status
U-6038 ¹	Gaston	U.S. 74	N.C. 7 (Catawba St) to SR 2209 (Wesleyan Dr). Implement adaptive signal system.	Under construction
U-5800 ¹	Gaston	N.C. 7	Intersection of N.C. 7/U.S. 74 and N.C. 7/U.S. 29. Construct northbound through lane and intersection improvements.	ROW 2024; Construction 2024
U-6143 ¹	Gaston	N.C. 7	U.S. 74 (Wilkinson Blvd) intersection. Construct northbound right-turn lane on N.C. 7 (East Catawba St) and extend existing westbound left-turn lane on U.S. 74 (Wilkinson Blvd).	ROW 2021; Construction 2022
U-5959 ¹	Gaston	U.S. 74	U.S. 74 (Wilkinson Blvd) at N.C. 273 (Park St). Construct intersection improvements.	ROW 2020; Construction 2021
B-6051 ¹	Gaston	U.S. 29 / U.S. 74	Replace bridge 350091 over Catawba River	ROW 2021; Construction 2022
I-5837	Mecklenburg	I-85	Gaston County line to 0.7 miles north of Gaston County line. Includes ramps from Gaston County line to Glenwood Ave. Pavement rehabilitation.	Construction 2021
I-5770	Mecklenburg	I-85	Concrete pavement joint 0.3 miles south of N.C. 16 to concrete pavement joint south of SR 1601 (Moores Chapel Rd). Pavement and bridge rehabilitation.	Under construction
I-6016	Mecklenburg	I-85	I-485 interchange west of Charlotte. Improve interchange.	ROW 2025; Construction 2026
I-5828	Mecklenburg	I-485	I-77 to N.C. 49. Pavement rehabilitation.	Construction 2022
P-5730	Mecklenburg	Clanton Rd	Extend Clanton Rd to U.S. 29/74 (Wilkinson Blvd) with a grade separation of Norfolk southern railroad and close the Donald Ross Rd crossing.	ROW 2023; Construction 2025
I-5718A	Mecklenburg	I-77	South Carolina state line to I-277/U.S. 74 (Belk Frwy). Widen existing freeway to ten lanes by constructing managed lanes, reconstruct I-77/I-277 (Belk Frwy) interchange, and install ramp meters	ROW 2025; Construction 2029
I-5746	Mecklenburg	I-277	I-77 to East 10th St. Resurfacing and bridge rehabilitation.	Construction 2020
I-6022A	Mecklenburg	I-277	Kenilworth Ave to Graham St. Upgrade interchanges.	ROW 2029; Construction Unfunded
U-6103	Mecklenburg	U.S. 74	I-277 to N.C. 27 (Albemarle Rd). Widen roadway to allow for two-way managed lanes operations.	ROW 2023; Construction 2023

1. STIP Project is along portion of U.S. 74 not considered part of Corridor U (Corridor U is designated along I-85)

Table A-1. Corridor U: Current STIP Projects

TIP ID	County	Route	Description	Status
U-0209	Mecklenburg	U.S. 74	Brookshire Frwy to Idlewild Rd in Charlotte. Add additional lanes and construct interchanges with Sharon Amity Rd and Idlewild Rd and safety improvements.	TRN B: Under construction; TRN BA: Work to be constructed by U-6103
U-2509A	Mecklenburg	U.S. 74	Independence Pointe Pkwy, Northeast Pkwy, Arequia Dr, and Krefeld Dr. Construct improvements on routes parallel to U.S. 74 to help minimize congestion during construction on U.S. 74.	ROW 2021; Construction 2022
U-2509B	Mecklenburg	U.S. 74	West of Idlewild Rd to I-485. Upgrade roadway to expressway with express lanes.	ROW 2023; Construction 2023
U-5808	Union	Chestnut Ln Connector	SR 1367 (Matthews Indian Trail Rd) to SR 1368 (Gribble Rd). Construct road on new location. Intersection of U.S. 74 and existing SR 1362 (Chestnut Ln Connector). Construct intersection improvements.	ROW In Progress; Construction 2021
W-5520	Union	U.S. 74	Fairview Rd to Wesley Chapel Stouts Rd in Indian Trail. Convert existing full movement signalized intersections to signalized superstreet design.	Under construction
EB-5723	Union	U.S. 74	SR 1520 (Indian Trail Fairview Rd) to SR 1367 (Unionville Indian Trail Rd). Construct a multi-use path. SR 1367 (Unionville Indian Trail Rd) to Oakwood Ln. Construct a multiuse greenway.	ROW 2020; Construction 2021
U-5764	Union	U.S. 74	N.C. 200 (Dickerson Blvd) to SR 1007 (Rocky River Rd). Widen existing roadway.	ROW In Progress; Construction 2024
U-5931	Union	U.S. 74	Intersection of U.S. 74 and Secrest Shortcut Rd. Construct improvements.	ROW 2020; Construction 2024
U-5723	Union	Existing U.S. 74	U.S. 601 interchange. Construct improvements.	ROW In Progress; Construction 2024
R-5878	Anson	Wadesboro Bypass New Route	U.S. 74 west of Wadesboro to U.S. 74 east of Wadesboro. Construct freeway on new location.	A: Unfunded B: ROW 2024; Construction 2027
R-5871	Anson	U.S. 74	N.C. 742 (Graham St) to Anson High School Rd. Construct access management improvements.	ROW 2025; Construction 2026
R-5798	Anson	U.S. 74	Graham St to SR 1749. Construct median.	ROW 2020; Construction 2024

Table A-1. Corridor U: Current STIP Projects

TIP ID	County	Route	Description	Status
R-3421A	Richmond	U.S. 220 Bypass / Future I-73 / Future I-74	Rockingham Bypass, U.S. 74 bypass west of Rockingham at SR 1109 (Zion Church Rd) interchange to south of SR 1140 (Old Charlotte Highway)	ROW in progress; Construction 2020
I-5979	Richmond	U.S. 74 / Future I-74	U.S. 1 (Exit 311). Interchange improvements.	ROW 2020; Construction 2022
I-6055	Richmond; Scotland	U.S. 74 / Future I-74	U.S. 74 BUS east of Hamlet to U.S. 74 BUS west of Laurinburg. Upgrade corridor to interstate standards.	ROW 2025; Construction 2029
I-5938B	Robeson	I-74	N.C. 710 to N.C. 41. Pavement and bridge rehabilitation.	Under construction
I-6011	Columbus; Robeson	U.S. 74	N.C. 41 near Lumberton to U.S. 76 near Chadbourn. Upgrade U.S. 74 to interstate standards.	ROW 2027; Construction Unfunded
R-5752	Robeson	U.S. 74	SR 2220 (Broad Bridge Rd). Upgrade intersection to interchange.	Under construction
R-5751	Robeson	U.S. 74	N.C. 72/N.C. 130. Upgrade at-grade intersection to interchange.	ROW 2020; Construction 2023
R-5797	Columbus	U.S. 74	SR 1506 (Boardman Rd). Upgrade at-grade intersection to an interchange.	Construction 2021
R-5749	Columbus	U.S. 74/U.S. 76	SR 1001 (Hallsboro Rd). Convert at-grade intersection to interchange.	Under construction
R-5820	Columbus	U.S. 74/U.S. 76	SR 1735 (Chauncey Town Rd). Convert at-grade intersection to interchange.	ROW 2020; Construction 2022
R-5819	Columbus	U.S. 74/U.S. 76	SR 1740 (Old Lake Rd). Convert at-grade intersection to overpass.	ROW 2020; Construction 2022
R-3601	Brunswick; New Hanover	U.S. 17/U.S. 74/U.S. 76	N.C. 133/SR 1472 (Village Rd) interchange to the U.S. 421/N.C. 133 interchange. Add additional lanes on north and southbound lanes and widen bridge 090107 and bridge 090108.	Under construction
U-5731	New Hanover	U.S. 74	U.S. 17/U.S. 421 in Wilmington. Construct a fly-over and free flow ramp at interchange.	ROW 2020; Construction 2024
U-3338C	New Hanover	SR 1175 (Kerr Ave)	SR 1175 (Kerr Ave) interchange at U.S. 74 (MLK, Jr. Pkwy).	Construction 2023
U-5792	New Hanover	U.S. 74	U.S. 117/N.C. 132 (College Rd) in Wilmington. Convert at-grade intersection to interchange.	ROW 2024; Construction 2026

Table A-2. Corridor U: Feasibility Studies

TIP ID	County	Route	Location	Recommendation	Year of Study
U-5316 ²	Gaston, Mecklenburg	U.S. 29/U.S. 74	Catawba River	Replacement of bridge and widening from 4 to 6 lanes	2009
R-4045	Polk, Rutherford, Cleveland, Gaston	U.S. 74	From I-26 to I-85	Upgrade to interstate standards from I-26 to I-85 (tying in to Shelby Bypass)	2019
U-6103 ³	Mecklenburg	U.S. 74	From I-277 to east of Albemarle Rd	Improvements/widening to allow for two-way managed lanes operations	2018
U-2509	Mecklenburg	U.S. 74	From Idlewild Rd to I-485	Various widening options with 6 or 8 GP lanes and 4 HOT lanes. Some options include parallel frontage roads on either side	2013
FS-1508A	Richmond, Scotland, Robeson	U.S. 74	From east of Hamlet to East of Maxton	Upgrade to interstate standards (includes potential bypass of Laurel Hill to south on new roadway)	2017
FS-1106B	Robeson, Columbus	U.S. 74	From N.C. 41 to Union Valley Rd	Upgrade to interstate standards (including intersection upgrades and possible service roads)	2014

2. Feasibility Study is along portion of U.S. 74 not considered part of Corridor U (Corridor U is designated along I-85)

3. Feasibility Study is an N.C. Turnpike Project

Table A-3. Corridor U: Traffic Forecasts

TIP ID	County	Route	Location	Associated Project Description	Year of Study
I-4729	Polk	U.S. 74	From I-26 to N.C. 108	I-26/U.S. 74/N.C. 108 interchange improvements and new directional ramps	2017
B-5876	Rutherford	U.S. 74	From Old Caroleen Rd to Ellenboro Henrietta Rd	Replace U.S. 74 bridges over Second Broad River	2016
BR-0099	Rutherford	U.S. 74	N.C. 120 interchange	Replace N.C. 120 bridge over U.S. 74	2019
BR-0012	Cleveland	U.S. 74	From E Main St (Mooresboro) to Helen McBrayer Dr	Replace U.S. 74 bridges over Sandy Run	2018
H184140	Rutherford	U.S. 74 BUS/U.S. 221 Alt	U.S. 74 Alt to Yarboro St	U.S. 74 Bus/U.S. 221 Alt traffic calming, upgrade to two lanes divided	2019
B-5855	Cleveland	U.S. 74 BUS	From east of N.C. 120 to west of Nesbitt St	Replace U.S. 74 Bus bridge over Seaboard Coast Line Railroad	2016
U-5965 ⁴	Gaston	U.S. 74/U.S. 29	S Broad St intersection	Intersection improvements via construction of turn lanes	2018
I-5719 ⁵	Gaston	I-85	From west of Edgewood Road interchange to east of McAdenville Rd interchange	I-85 widening	2017
		U.S. 74/U.S. 29	At New Hope Rd, Aberdeen Blvd ramps, Armstrong Park Rd, Redbud Dr, Main St/N.C. 7, and Park St intersections		
I-5000	Gaston	I-85	From west of Bessemer City Rd interchange to east of Ozark Ave interchange	Geometric safety improvements to the I-85 and U.S. 321 interchange	2015
U-6043 ⁴	Gaston	U.S. 74/U.S. 29	From Glenwood Dr to Neeley St	U.S. 74 improvements to reduce congestion	2018
B-5857 ⁴	Gaston	U.S. 74/U.S. 29	From Wesleyan Dr to west of Lakewood Rd	Replace U.S. 74 bridge over South Fork Catawba River	2016
BR-0020 ⁴	Gaston	U.S. 74/U.S. 29	From Hazeline Ave to Moores Chapel Loop	Replace U.S. 74 bridge over Catawba River	2018
FS-1610A	Mecklenburg	U.S. 74/U.S. 29/I-277	From east of Suttle Ave (Wilkinson) to east of Charlottetowne Ave ramps (Independence)	I-277 improvements	2017
I-5718	Mecklenburg	U.S. 74	From east of Suttle Ave to Carson Blvd ramp		In Prog

4. Forecast is along portion of U.S. 74 not considered part of Corridor U (Corridor U is designated along I-85)

5. Part of forecast is along portion of U.S. 74 not considered part of Corridor U (Corridor U is designated along I-85)

Table A-3. Corridor U: Traffic Forecasts

TIP ID	County	Route	Location	Associated Project Description	Year of Study
U-2509	Mecklenburg	U.S. 74	From Albemarle Rd to south of I-485	U.S. 74 express lanes from Idlewild Rd to I-485	2018
I-5507	Mecklenburg, Union	U.S. 74	Interchange with I-485	I-485 express lanes from I-77 to U.S. 74	2015
U-5764	Union	U.S. 74	From north of Rocky River Rd to south of Concord Ave	U.S. 74 widening from Rocky River Rd to Hanover Dr	2018
BR-0049	Union	U.S. 74	From Secret Shortcut Rd to Skyway Dr/U.S. 601 ramps	Replace Concord Ave bridge over U.S. 74	2018
U-5723	Union	U.S. 74	From west of Concord Ave to west of Boyte St	Improvements to U.S. 74/U.S. 601/N.C. 207 interchange	2014
R-5871	Anson	U.S. 74	From west of Walmart access to east of Washington St	U.S. 74 access management improvements from N.C. 109 to Anson High School Rd	2019
I-5979	Richmond	I-74	U.S. 1 interchange	U.S. 74/U.S. 1 interchange improvements	2018
U-5706	Richmond	U.S. 74 BUS	From west of S Long Dr to east of Clemmer Rd	New 2 or 4 lane construction connecting U.S. 74 BUS to U.S. 1 and Old Aberdeen Rd	2018
FS-1508B	Scotland	U.S. 74	Interchange with U.S. 15/U.S. 401/U.S. 501	U.S. 401 widening	2015
		U.S. 74 BUS	Interchange with U.S. 15/U.S. 401/U.S. 501		
C-5600BA	Scotland	U.S. 74 BUS	From east of Kiser Rd to west of U.S. 74 ramps	Dixie storage siding extension	2017
R-5751	Robeson	U.S. 74	From north of N.C. 72 to south of N.C. 130	Improve intersections of U.S. 74 with N.C. 130 and N.C. 72 by constructing interchange	2018
R-5020B	Columbus	U.S. 74/U.S. 76	U.S. 701 Byp interchange	U.S. 701 Byp widening	2017
		U.S. 74/U.S. 76 BUS	U.S. 701 Byp interchange		
R-5749	Columbus	U.S. 74/U.S. 76	From west of Hallsboro Rd to east of Hallsboro Rd	Construct interchange at U.S. 74/U.S. 76 and Hallsboro Rd	2015
R-5819/R-5820	Columbus	U.S. 74/U.S. 76	From west of Chauncey Town Rd to east of Old Lake Rd	Construct interchange at U.S. 74/U.S. 76 and Chauncey Town Rd, construct grade separation at U.S. 74/U.S. 76 and Old Lake Rd	2019
R-2561	Columbus	U.S. 74/U.S. 76	From west of Oscar Blanks Rd to east of Old N.C. 87 Hwy	N.C. 87 widening to multilanes	2018

Table A-3. Corridor U: Traffic Forecasts

TIP ID	County	Route	Location	Associated Project Description	Year of Study
R-4462	Brunswick	U.S. 74/U.S. 76	Maco Rd/Northwest Rd intersection	Upgrade intersection of U.S. 74/U.S. 76 and Maco Rd/N.C. 87 to interchange	2018
BR-0008	Brunswick	U.S. 74/U.S. 76	U.S. 17 BUS interchange	Replace flyover ramp over U.S. 17 BUS	2018
U-5731	Brunswick, New Hanover	U.S. 74	From east of U.S. 17 BUS interchange to north of N 3rd St interchange	Improve intersection of U.S. 74 and U.S. 17/U.S. 421	2017
U-6083	New Hanover	U.S. 74	N 23rd St interchange	N 23rd St widening	2018
U-5926	New Hanover	U.S. 74	From north of N 23rd St interchange to south of Kornegay Ave	New 2 lane construction connecting N 23rd St and Kornegay Ave, closing Kornegay Ave's intersection with U.S. 74	2019
U-3338C	New Hanover	U.S. 74	Kerr Ave intersection	Convert intersection of U.S. 74 and Kerr Ave to interchange	2015
U-4434	New Hanover	U.S. 74	From west of N 23rd St interchange to east of U.S. 117/College Rd	Extend Independence Blvd from Randall Pkwy to U.S. 74	2017
U-5702	New Hanover	U.S. 74	From west of Kerr Ave to east of Racine Dr (past STC limits of U.S. 117)	Access management and travel time improvements for U.S. 117/N.C. 132 and U.S. 421 corridors	2015

Table A-4. Corridor U: CTP Projects and Recommendations

County	Route	Location	Description
Highway Projects			
Rutherford	U.S. 74	From Polk County Line to Cleveland County Line	Upgrade to Interstate standards throughout County and obtain Interstate classification
Rutherford	U.S. 221 Alt / U.S. 74 BUS	From U.S. 221 Alt to Old U.S. 74 Hwy (SR 1595) (updated to extend improvements past U.S. 221 Alt to Westview St (SR 2183))	Improve to 3 lane facility with bicycle and ped improvements
Rutherford	U.S. 74 Alt (Railroad Ave)	From U.S. 221 Alt to U.S. 64	Improve to 3 lane facility
Rutherford	U.S. 64 / U.S. 74 Alt	From Bills Creek Rd (SR 1008) to U.S. 74 Alt	Modernization with passing lanes and turn lanes as needed
Rutherford	U.S. 74 Alt (Railroad Ave)	U.S. 221 Alt / N.C. 108 intersection	Intersection improvements with bicycle and ped improvements
Cleveland	U.S. 74 Bypass	From U.S. 74 (W Dixon Blvd) back to U.S. 74 (E Dixon Blvd) - around Shelby	New Freeway
Cleveland	U.S. 74	From Proposed U.S. 74 Bypass to U.S. 74 BUS (Shelby Rd)	Upgrade to Interstate standards
Cleveland	U.S. 74	From Proposed U.S. 74 Bypass to N.C. 18 (Lafayette St)	Improve cross section
Cleveland	U.S. 74	From Ellenboro Rd to U.S. 74 (W Dixon Blvd)	Upgrade to Interstate standards
Cleveland	U.S. 74	From N.C. 18 (Lafayette St) to Proposed U.S. 74 Bypass	Improve cross section
Cleveland	U.S. 74 BUS (E Marion St)	From N.C. 150 (Cherryville Rd) to N.C. 180 (S Post Rd)	Widen from 2 to 3 lanes
Cleveland	U.S. 74 BUS	Various locations in Cleveland County	Implement superstreet and grade separation projects
Gaston	I-85	From U.S. 74/U.S. 29 to U.S. 321	Widen from 6 lanes to 8 lanes
Gaston	I-85	From U.S. 321 to N.C. 273	Widen from 6 lanes to 8 lanes
Gaston	I-85	From N.C. 273 to Mecklenburg Co Line	Freeway needs improvement
Gaston	I-85	Wolfe Ln Ext, new freeway bypass w/o Shannon Bradley Rd, Fairview Dr, Belmont-Mt Holly Loop	Proposed Interchange
Gaston	I-85	Aberdeen Blvd Ext	Proposed Grade Separation
Gaston ⁶	U.S. 74	From Myrtle School Rd to N.C. 274 (Bessemer City Rd)	Upgrade access management
Gaston ⁶	U.S. 29/74	From Myrtle School Rd to U.S. 321	Road diet from 6 to 5 lanes
Gaston ⁶	U.S. 29/74	From U.S. 321 to N.C. 274 (S Broad St)	Improve cross section
Gaston ⁶	U.S. 29/74	From N.C. 274 (S Broad St) to S Belvedere Ave	Road diet from 6 to 5 lanes
Gaston ⁶	U.S. 29/74	From S Belvedere Ave to Cox Rd	Road diet from 6 to 5 lanes

6. Project is along portion of U.S. 74 not considered part of Corridor U (Corridor U is designated along I-85)

Table A-4. Corridor U: CTP Projects and Recommendations

County	Route	Location	Description
Gaston ⁶	U.S. 29/74	From Cox Rd to Linberger Rd	Widen from 5 to 6 lanes
Gaston ⁶	U.S. 29/74	From Linberger Rd to Market St	Improve cross section
Gaston ⁶	U.S. 74	South Fork River crossing	Upgrade bridge and adjacent sections of road - widen 4 to 6 lanes
Gaston ⁶	U.S. 29/74	From Lakewood Rd to N.C. 7 (Catawba St)	Multiway boulevard (4 to 6 lanes)
Gaston ⁶	U.S. 74	Catawba River crossing	Upgrade bridge and adjacent sections of road - widen 4 to 6 lanes
Mecklenburg	I-85	From Gaston County Line to I-485	Freeway needs improvement
Mecklenburg	I-485	From I-85 to U.S. 74	Freeway needs improvement
Mecklenburg	I-85	I-85 Interchange	Interchange needs improvement
Mecklenburg ⁶	U.S. 74	From Gaston County Line to Moores Chapel Loop	Needs Improvement
Mecklenburg	U.S. 74	From I-485 to Little Rock Rd	Needs Improvement
Mecklenburg	U.S. 74	Little Rock Rd Extension	Proposed Interchange
Mecklenburg	U.S. 74	Billy Graham Pkwy	Interchange needs Improvement
Mecklenburg	I-277	From I-77/U.S. 74 interchange to U.S. 74 (Independence Blvd) interchange	Needs Improvement
Mecklenburg	I-277	From McDowell St to Independence Blvd (U.S. 74)	Widening from 6 lanes to 9-10 lanes with interchange improvements
Mecklenburg	U.S. 74	I-77/I-277	Interchange needs Improvement - widening, reconstructing ramps
Mecklenburg	I-277	S Mint St	Proposed Interchange
Mecklenburg	I-277	S Church St	Interchange needs Improvement
Mecklenburg	I-277	Euclid Extension /Caldwell St	Proposed Grade Separation
Mecklenburg	I-277	3rd St	Interchange needs Improvement
Mecklenburg	I-277	4th St	Interchange needs Improvement
Mecklenburg	I-277	U.S. 74 (Independence Blvd)	Interchange needs Improvement
Mecklenburg	U.S. 74	From I-277 to Wallace Ln	Widening with managed lanes
Mecklenburg	U.S. 74	From Albemarle Rd to Idlewild Rd	Widening and functionality upgrades
Mecklenburg	U.S. 74	From Idlewild Rd to Sardis Rd	Widening from 4-6 lanes to 6-8 lanes with managed lanes, median
Mecklenburg	U.S. 74	From Sardis Rd to I-485	Widening from 4 to 6 lanes with managed lanes, median
Mecklenburg	U.S. 74	Wendover Rd/ Eastway Rd	Interchange needs Improvement
Mecklenburg	U.S. 74	Sharon Amity Rd	Proposed Interchange

6. Project is along portion of U.S. 74 not considered part of Corridor U (Corridor U is designated along I-85)

Table A-4. Corridor U: CTP Projects and Recommendations

County	Route	Location	Description
Mecklenburg	U.S. 74	E WT Harris Extension/ Village Lake Dr	Proposed Interchange
Mecklenburg	U.S. 74	Sardis Rd N / Eastern Circumferential Rd	Proposed Interchange
Mecklenburg	U.S. 74	Sam Newell Rd	Proposed Grade Separation
Mecklenburg	U.S. 74	Matthews-Mint Hill Rd	Proposed Grade Separation
Mecklenburg	U.S. 74	I-485	Interchange needs Improvement
Mecklenburg; Union	U.S. 74	From I-485 to Monroe Bypass	Freeway needs improvement
Union	U.S. 74	From Monroe Bypass to Rocky River Rd	Boulevard needs improvement
Union	U.S. 74	From Rocky River Rd to Hanover Dr	Widening from 4 to 6 lanes with median, bicycle lanes, sidewalks
Union	U.S. 74	From Skyway Dr to Pageland Hwy	Expressway needs improvement
Union	U.S. 74	From Edgewood Dr to Old Country Ln	Boulevard needs improvement
Union	U.S. 74	From near N Austin St to Stegall Rd	Boulevard needs improvement
Union	U.S. 74	From proposed Marshville Bypass to Anson County Line	Freeway needs improvement
Union	U.S. 74 Bypass	From Monroe Bypass to U.S. 74 east of Marshville	New Marshville Bypass recommended (freeway)
Union	U.S. 74	McKee Rd Ext	Proposed Grade Separation
Union	U.S. 74	Stallings Rd (SR 1365)	Proposed Interchange
Union	U.S. 74	South Fork Crooked Creek	Proposed Grade Separation
Union	U.S. 74	Concord Ave	Interchange needs Improvement
Union	U.S. 74	Skyway Dr	Interchange needs Improvement
Union	U.S. 74	Secrest Ave	Proposed Interchange
Union	U.S. 74	Proposed Marshville Bypass	Proposed Interchange
Union	Monroe Bypass	Monroe Bypass - all recommended freeway segments	Change to existing freeway (toll)
Union	Monroe Bypass	Secrest Ave Ext	Proposed Grade Separation
Union	Monroe Bypass	Old Williams Rd Ext	Proposed Grade Separation
Union	Monroe Bypass	Forest Hills School Rd	Proposed Interchange
Union	Monroe Bypass	All other recommended interchanges / grade separations	Change to existing
Union	U.S. 74 Bypass	U.S. 74 / U.S. 74 Bypass - Monroe	Update interchange
Union	U.S. 74 Bypass	Old Highway Rd (SR 1740)	Proposed Grade Separation
Union	U.S. 74 Bypass	Doctor Blair Rd (SR 1902)	Proposed Grade Separation
Union	U.S. 74 Bypass	Landsford Rd (SR 1005)	Proposed Interchange

Table A-4. Corridor U: CTP Projects and Recommendations

County	Route	Location	Description
Union	U.S. 74 Bypass	Hasty Rd (SR 1901)	Proposed Grade Separation
Anson	U.S. 74	From Union County Line to Old Prison Camp Rd (SR 1249)	Upgrade to interstate standards
Anson	U.S. 74	From west of Lilesville town limits to Richmond County Line	Upgrade to interstate standards
Anson	U.S. 74	Clinton Ave (Peachland), proposed N.C. 218 connector (Polkton), N.C. 145	Interchanges Recommended
Anson	U.S. 74	Rail crossing east of Lilesville	Grade separation recommended
Anson	Wadesboro Bypass	From Old Prison Camp Rd (SR 1249) to west of Lilesville town limits	New 4-lane freeway
Anson	Wadesboro Bypass	U.S. 74/Old Prison Camp Rd, N.C. 742, U.S. 52, N.C. 109, proposed U.S. 52 Bypass, U.S. 74 west of Lilesville town limits	Interchanges Recommended
Anson	Wadesboro Bypass	3 rail crossings, Brown Creek Church Rd, Airport Rd, Winfree Rd, Wall St	Grade separation recommended
Anson	U.S. 74	From Old Prison Camp Rd (SR 1249) to west of Lilesville town limits	Upgrade to boulevard standards - convert from 5 lanes to 4-lane median divided
Anson	U.S. 74	Proposed U.S. 52 Bypass	Interchange recommended
Richmond	U.S. 74/Future I-74	From interchange of I-74/ U.S. 74 BUS to Scotland County Line	Upgrade to interstate standards
Richmond	I-74	Proposed U.S. 220 Bypass, proposed U.S. 1 Bypass	Interchange recommended
Richmond	U.S. 74 BUS	Proposed U.S. 1 Bypass	Interchange recommended
Scotland	U.S. 74/Future I-74	From Richmond County Line to Robeson County Line	Upgrade to interstate standards
Scotland	U.S. 74/Future I-74	Old Wire Rd	Interchange recommended
Scotland	U.S. 74/Future I-74	St Johns Church Rd, Elmore Rd	Grade separation recommended
Scotland	U.S. 74 BUS (Church St)	From U.S. 15 (McColl Rd) to Caledonia Rd (SR 1438)	Widen to 3 lane major thoroughfare with continuous center turn lane
Scotland	U.S. 74 BUS (Andrew Jackson Hwy)	From 4th St to Robeson County Line	Needs Improvement
Robeson	U.S. 74	From N.C. 41 to Lumberton/County PAB (east of Lumberton)	Upgrade to interstate standards
Robeson	U.S. 74	From Lumberton/County PAB (east of Lumberton) to Columbus County Line (interchange locations TBD)	Upgrade to 4-lane divided freeway
Columbus	U.S. 74	From Robeson County Line to Chadbourn PAB (old)	Upgrade to interstate standards

Table A-4. Corridor U: CTP Projects and Recommendations

County	Route	Location	Description
Columbus	U.S. 74/76	From Red Hill Rd (SR 1700) to western PAB of Lake Waccamaw (old)	Upgrade to freeway standards
Columbus	U.S. 74/76	From eastern PAB of Lake Waccamaw to 0.5 mi west of N.C. 11 (old)	Upgrade to freeway standards
Columbus	U.S. 74/76	Macedonia Church Rd, N.C. 242, Hallsboro Rd (SR 1001), proposed I-74, N.C. 211, N.C. 214 (old)	Interchange recommended
Columbus	U.S. 74/76	From 0.5 mi west of N.C. 11 to Brunswick County Line (old)	New freeway south of existing alignment
Columbus	U.S. 74/76	Existing U.S. 74/76, Livingston Chapel Rd, Water Tank Rd, proposed N.C. 87 ext (old)	Interchange recommended on new alignment
Columbus	U.S. 74/76	Delco Prosper Rd (old)	Grade separation recommended on new alignment
Columbus	U.S. 74/76 BUS	From western PAB of Whiteville to U.S. 74/76 (old)	Improve to boulevard standards from 2-3 lanes to 4 lanes with partial access control
Columbus	U.S. 74	Immediately surrounding Macedonia Church Rd intersection	Freeway needs improvement
Columbus	U.S. 74/76	From Hallsboro Rd to west of N.C. 11	Freeway needs improvement
Columbus	U.S. 74/76	From west of N.C. 11 to Brunswick County Line	New freeway south of existing alignment
Columbus	U.S. 74/76	Macedonia Church Rd, Hallsboro Rd, Chauncey Town Rd, N.C. 214	Interchange recommended
Columbus	U.S. 74/76	Old Lake Rd, Blacksmith Rd	Grade separation recommended
Columbus	U.S. 74/76	Livingston Chapel Rd, N.C. 87 ext	Interchange recommended on new alignment
Columbus	U.S. 74/76	Water Tank Rd, Delco Prosper Rd	Grade separation recommended on new alignment
Columbus	U.S. 74/76 BUS	From Columbus Apparel Rd to Skip Ln	Needs Improvement (other major thoroughfare)
Brunswick	U.S. 74/76	From Columbus County Line to Wilmington MPO planning boundary	Upgrade to expressway standards
New Hanover	U.S. 74/76	From Columbus County PAB to U.S. 17	Freeway needs improvement
New Hanover	U.S. 74	From U.S. 17 BUS to U.S. 421	Boulevard needs improvement
New Hanover	U.S. 74	From N 23rd St to U.S. 117 (end of corridor limit)	Freeway needs improvement
New Hanover	U.S. 74/76	I-140, Lanvale Rd/Village Rd	Interchange recommended
New Hanover	U.S. 74	Evans St Ext, Kerr Ave, College Rd	Interchange recommended
New Hanover	U.S. 74	From U.S. 17/74/421 confluence to N.C. 133/River Rd	Causeway widening
Bicycle/Pedestrian Projects			
Polk	U.S. 74	Houston Rd (SR 1137) existing grade separation	Add wide paved shoulders (for bicycle route)

Table A-4. Corridor U: CTP Projects and Recommendations

County	Route	Location	Description
Polk	U.S. 74	Fox Mountain Rd (SR 1531) existing grade separation	Add wide paved shoulders (for bicycle route)
Rutherford	U.S. 74 BUS	From U.S. 221 Alt to Bostic Sunshine Highway (SR 1006)	Improve existing bicycle facilities
Rutherford	U.S. 74	Coxe Rd (SR 1005) existing grade separation	Improve existing bicycle facilities
Rutherford	U.S. 74	Cleghorn Mill Rd (SR 1148) existing grade separation	Improve existing bicycle facilities
Rutherford	U.S. 74	Bethany Church Rd (SR 2213) existing grade separation	Improve existing bicycle facilities
Rutherford	U.S. 74	Various existing grade separations - Coxe Rd, Cleghorn Mill Rd, Bethany Church Rd	Bicycle Facilities Recommended
Rutherford	U.S. 74	Various new crossings - rail alignment parallel N.C. 221 Alt, Morrow Creek, Second Broad River, Second Broad River tributary, near Ellenboro Henrietta Rd	New multi-use path recommended
Rutherford	U.S. 74 BUS	Various - in Spindale, Forest City, Rutherfordton	New multi-use paths crossings, new sidewalks, improvements to existing sidewalks
Rutherford	U.S. 74 Alt	Various - in Spindale, Rutherfordton	New multi-use path crossings
Cleveland	U.S. 74	From W Marion St to Carl Ln	New sidewalk recommended
Cleveland	U.S. 74	From S Lafayette St (N.C. 18) to Earl Rd (N.C. 226)	New sidewalk recommended
Cleveland	U.S. 74	From Grove St to recommended multi-use path	New sidewalk recommended
Cleveland	S side of W Dixon Blvd	From Hampton St to Morgan St	New multi-use path recommended
Cleveland	Recommended Shelby Bypass Multi-use Path	From Hickory Creek to Buffalo Creek	New multi-use path recommended
Cleveland	N side of E Dixon Blvd	From Hickory Creek to east of Groves St	New multi-use path recommended
Cleveland	U.S. 74	From Beams Lake to U.S. 74	New multi-use path recommended
Cleveland	N side of E Dixon Blvd	From U.S. 74 to sewer easement at Hampton Inn (Cleveland Mall)	New multi-use path recommended
Cleveland	E Marion St	From N Lafayette St (N.C. 18) to Cherryville Rd (N.C. 150)	Bicycle Facilities Recommended
Cleveland	W Marion St	From W Dixon Blvd (U.S. 74) to Springdale St	New sidewalk recommended
Cleveland	E Marion St	From Elizabeth Rd to S Post Rd (N.C. 180)	New sidewalk recommended
Cleveland	W Marion St	From Springdale St to Howie Dr (north side)	Existing sidewalk needs improvement

Table A-4. Corridor U: CTP Projects and Recommendations

County	Route	Location	Description
Cleveland	E Marion St	From Cline St to Elizabeth Rd (north side)	Existing sidewalk needs improvement
Cleveland	S side of Shelby Rd	From Countryside Rd to El Bethel Rd (CTT route)	New multi-use path recommended
Cleveland	W King St	From Country Club Rd to Edgemont Dr	Bicycle Facilities Recommended
Cleveland	W King St	From Phifer Rd to N Piedmont Ave (N.C. 216) (south side)	Existing sidewalk needs improvement
Cleveland	E King St	From N Piedmont Ave (N.C. 216) to Canterbury Rd (both sides)	Existing sidewalk needs improvement
Cleveland	U.S. 74	Various existing roadway crossings - Academy St/Lattimore Rd, Peachtree Rd, Westlee St	Bicycle Facilities Recommended
Cleveland	U.S. 74	Various existing grade separations - Lafayette St (N.C. 18), Stoney Point Rd, N Cansler St, N Piedmont Ave, Cleveland Ave	Bicycle Facilities Recommended
Cleveland	U.S. 74	Various new crossings - rail alignment between Mooresboro and Lattimore, rail alignment parallel to N.C. 18 in Shelby, Hickory Creek in Shelby, near sewer easement at Hampton Inn in Shelby, Potts Creek near Kings Mountain	New multi-use path recommended
Gaston	I-85	Across I-85 bridge at McAdenville Rd/Main St (N.C. 7)	New sidewalk recommended
Gaston	I-85	Various existing freeway crossings - Crowders Mountain Rd, Fairview Dr, MLK Jr Way, N Modena St, N.C. 7 (Ozark Ave), N.C. 279, Aberdeen Blvd, N.C. 7 (McAdenville Rd), N.C. 273	Bicycle Facilities Recommended
Gaston	I-85	Various new crossings - Oates Rd, South Fork Catawba River, creek e/o Hillcrest Dr, rail parallel to N.C. 273, Catawba River	New multi-use path recommended
Gaston ⁶	U.S. 29/74	From Mountainview Rd to Sparrow Springs Rd	Bicycle Facilities Recommended
Gaston ⁶	U.S. 29/74	From S Firestone St to N Belvedere Ave	Bicycle Facilities Recommended
Gaston ⁶	U.S. 29/74	From Armstrong Park Rd to Lineberger Rd	Bicycle Facilities Recommended
Gaston ⁶	U.S. 29/74	From Trakas Blvd to existing sidewalk	New sidewalk recommended
Gaston ⁶	U.S. 29/74	From Cox Rd to S Church St (both sides)	Existing sidewalk needs improvement
Gaston ⁶	U.S. 29/74	From S Webb St to S Linwood Rd	New multi-use path recommended
Gaston ⁶	U.S. 29/74	From Armstrong Park Rd to Lineberger connection to Duhart's creek	New multi-use path recommended

6. Project is along portion of U.S. 74 not considered part of Corridor U (Corridor U is designated along I-85)

Table A-4. Corridor U: CTP Projects and Recommendations

County	Route	Location	Description
Gaston ⁶	U.S. 29/74	From Wesleyan Dr to Catawba River (both sides of street)	New multi-use path recommended
Gaston ⁶	U.S. 29/74	Catawba River crossing	Bicycle Facilities Recommended
Gaston ⁶	U.S. 74	Various existing roadway crossings - Trenton St, South St, MK Jr Way, Broad St, New Hope Rd (N.C. 279), Wesleyan Dr, Peach Orchard Rd, Mason St, Main St (Belmont), Park St	Bicycle Facilities Recommended
Gaston ⁶	U.S. 74	Various new crossings - Crowders Creek in Gastonia, near Blackwood Creek in Gastonia, South St/MLK Jr Way, Duharts Creek in Gastonia, South Fork River, near Lakewood Road in Belmont, near Orchard St in Belmont, Catawba River	New multi-use path recommended
Mecklenburg	U.S. 74	From Gaston County Line to Freedom Drive	Bicycle Facilities Recommended
Union	U.S. 74	From Chestnut Ln Ext to Proposed Marshville Bypass	Bicycle Facilities Recommended
Union	U.S. 74	From Chestnut Ln Ext to Hayes Rd	Multi-use path recommended
Union	Monroe Bypass	From Rays Fork to Salem Creek	Multi-use path recommended
Mecklenburg	I-85	Various existing roadway crossings - Moores Chapel Rd, Sam Wilson Rd	Bicycle Facilities Recommended
Mecklenburg	I-85	Various new crossings - Paw Creek	New multi-use path recommended
Mecklenburg	U.S. 74	Various existing roadway crossings - Little Rock Ext, Clanton Rd Ext, Remount Rd	Bicycle Facilities Recommended
Mecklenburg	I-277	Various existing roadway crossings - Mint St, Church St, College St, Caldwell St, Euclid Ext, McDowell St, 3rd St, 4th St, 7th St	Bicycle Facilities Recommended
Mecklenburg; Union	U.S. 74	Various existing roadway crossings - Central Ave, Pecan Ave, Briar Creek Rd, Wendover Rd, Sharon Amity Rd, Idlewild Rd, Conference Dr, Village Lakes Dr, Sardis Rd, Matthews Township Pkwy, McKee Rd Ext, Stallings Rd, Chestnut Ln Ext, Indian Trail Fairview Rd	Bicycle Facilities Recommended
Union	U.S. 74	Various existing roadway crossings - Sardis Church Rd, Rocky River Rd	Bicycle Facilities Recommended
Union	U.S. 74	Various existing roadway crossings - Dickerson Blvd (N.C. 200), Concord Ave, Skyway Dr, Stafford St, Morgan Mill Rd, Walkup Ave, Sutherland Ave, Secrest Ave, Bivens Rd	Bicycle Facilities Recommended

6. Project is along portion of U.S. 74 not considered part of Corridor U (Corridor U is designated along I-85)

Table A-4. Corridor U: CTP Projects and Recommendations

County	Route	Location	Description
Union	U.S. 74	Various existing roadway crossings - S Main St, Summerlin Dairy Rd Ext, Forest Hills School Rd	Bicycle Facilities Recommended
Union	U.S. 74	Various existing roadway crossings - Elizabeth Ave, W Main St, Elm St, White St, Belk St/Olive Branch Rd Exd	Bicycle Facilities Recommended
Union	Monroe Bypass	Various existing roadway crossings - Indian Trail Fairview Rd, Secrest Shortcut Rd, Faith Church Rd, Unionville Indian Trail Rd, Rocky River Rd, Concord Highway (U.S. 601), Morgan Mill Rd (N.C. 200), Olive Branch Rd, Secrest Ave Ext, Walkup Ave, Austin Chaney Rd, Forest Hills School Rd	Bicycle Facilities Recommended
Union	U.S. 74 Bypass	Various proposed roadway crossings - Helms Efird Rd, Old Highway 74, Old Pageland Marshville Rd, Doctor Blair Rd, Landsford Rd	Bicycle Facilities Recommended
Mecklenburg	U.S. 74	Various new crossings - Marshall Dr, Billy Graham Pkwy, Irwin Creek	New multi-Use path recommended
Mecklenburg; Union	U.S. 74	Various new crossings - Central Ave, Briar Creek, Edwards Branch (creek), Irwin Creek, Sam Newell Rd, creek crossing north of Matthews Township Pkwy, Matthews-Mint Hill Rd, branch of North Fork Crooked Creek near McKee Rd Ext, South Fork Crooked Creek	New multi-Use path recommended
Union	U.S. 74	Various new crossings - Branch of South Fork Crooked Creek near Hayes Rd, Sutherland Ave, Richardson Creek, Rays Fork (creek), Presson Rd/Edgewood Dr	New multi-Use path recommended
Union	Monroe Bypass	Various new crossings - Stinson Hartis Rd, branch of North Fork Crooked Creek near Indian Trail Fairview Rd, power line ROW near Saratoga Blvd & Bonterra Village Way, Phifer Rd	New multi-Use path recommended
Mecklenburg	I-85	Various existing crossings - Moores Chapel Rd, Sam Wilson Rd	New sidewalk recommended
Mecklenburg	U.S. 74	From Gaston County Line to Old Dowd Rd	New sidewalk recommended
Mecklenburg	U.S. 74	From Old Dowd Rd to Huntlynn Rd	Existing sidewalk needs improvement
Mecklenburg	U.S. 74	From Huntlynn Rd to Marshall Dr	New sidewalk recommended
Mecklenburg	U.S. 74	From Marshall Dr to Eatonton St	Existing sidewalk needs improvement
Mecklenburg	U.S. 74	From Eatonton St to Boyer St	New sidewalk recommended
Mecklenburg	U.S. 74	From Boyer St to Hargrove Ave	Existing sidewalk needs improvement

Table A-4. Corridor U: CTP Projects and Recommendations

County	Route	Location	Description
Mecklenburg	U.S. 74	From John Crosland Jr Way to Old Steele Creek Rd	Existing sidewalk needs improvement
Mecklenburg	U.S. 74	From Weyland Ave to W Morehead St	Existing sidewalk needs improvement
Mecklenburg	U.S. 74	From Suttle Ave to Freedom Dr	Existing sidewalk needs improvement
Mecklenburg	U.S. 74	From Freedom Dr to I-77	New sidewalk recommended
Mecklenburg	U.S. 74	From Crownpoint Executive Dr/Hayden Way to south of Sam Newell Rd	Existing sidewalk needs improvement
Mecklenburg	U.S. 74	From south of Sam Newell Rd to Matthews Township Parkway	New sidewalk recommended
Union	U.S. 74	From Mecklenburg County Line to Novivian Ln	New sidewalk recommended
Union	U.S. 74	From Novivian Ln to Unionville Indian Trail Rd	Existing sidewalk needs improvement
Union	U.S. 74	From Unionville Indian Trail Rd to S Stewart St	New sidewalk recommended
Union	U.S. 74	From S Stewart St to S Camden Rd	Existing sidewalk needs improvement
Union	U.S. 74	From S Camden Rd to Hambrick St	New sidewalk recommended
Union	U.S. 74	From Hambrick St to W Main St	Existing sidewalk needs improvement
Union	U.S. 74	From W Main St to Proposed U.S. 74 Bypass	New sidewalk recommended
Richmond	U.S. 74 BUS (W Broad Ave)	From U.S. 220 to U.S. 1	Existing sidewalk needs improvement
Richmond	U.S. 74 BUS	From U.S. 1 to Clemmer Rd	New sidewalk recommended
Richmond	U.S. 74 BUS (W Hamlet Ave)	From College Dr W to Williams St	Existing sidewalk needs improvement
Scotland	U.S. 74/Future I-74	Existing roadway crossing - S Turnpike Rd (ST 1105)	Bicycle Facilities Recommended
Scotland	U.S. 74 BUS (Martin Luther King Jr Hwy)	From west of Maxton town limits to Robeson County Line	Bicycle Facilities Recommended
Scotland	U.S. 74/Future I-74	Various new crossings - West Blvd/X-Way Rd (widen bridge or install ped bridge), Caledonia Rd	New multi-Use path recommended
Scotland	U.S. 74 BUS (Church St)	Various new crossings - King St, Caledonia Rd	New multi-Use path recommended
Scotland	U.S. 74 BUS	From Turnpike Rd to U.S. 401/U.S. 1 ramps	New sidewalk recommended
Scotland	U.S. 74 BUS	From 1st St to 11th St	New sidewalk recommended

Table A-4. Corridor U: CTP Projects and Recommendations

County	Route	Location	Description
Scotland	U.S. 74/Future I-74	Various new crossings - Turnpike Rd, West Blvd/X-Way Rd, McColl Rd (U.S. 15)	New sidewalk recommended
Scotland	U.S. 74/Future I-74	S Main St crossing	Existing sidewalk needs improvement
Scotland	U.S. 74 BUS	From west of Maxton town limits to Robeson County Line	New sidewalk recommended
Robeson	U.S. 74 Alt	From N.C. 710 to Chicken Rd	Bicycle Facilities Recommended
Columbus	U.S. 74/76	Various existing roadway crossings - Lumber River, Old U.S. 74 (SR 1574), Pinckney St (U.S. 701 BUS), Old Lake Rd, N.C. 211, Blacksmith Rd, Cronley Dr (SR 1870), Water Tank Rd (on new alignment)	Bicycle Facilities Recommended
Columbus	U.S. 74/76 BUS	From U.S. 76 to N Brown St	Bicycle Facilities Recommended
Columbus	U.S. 74/76 BUS	From Peacock Rd to east of Georgia Pacific Rd	Bicycle Facilities Recommended
Columbus	U.S. 74/76 BUS	From Tram Rd to N.C. 214	Bicycle Facilities Recommended
Columbus	U.S. 74/76 BUS	Various existing roadway crossings - Legion Dr, N Lee St, N Madison St, N Franklin St, Tram Rd	Bicycle Facilities Recommended
Columbus	U.S. 74/76 BUS	Various new roadway crossings - Mollie Branch (creek), power line ROW near White Marsh	New multi-Use path recommended
Columbus	U.S. 74/76 BUS	From N Brown St to N Elm St	New sidewalk recommended
Columbus	U.S. 74/76 BUS	From west of Sunset Ave to west of JK Powell Blvd	New sidewalk recommended
Columbus	U.S. 74/76 BUS	From west of JK Powell Blvd to James St	Existing sidewalk needs improvement
Columbus	U.S. 74/76 BUS	From west of N Franklin St to Tram Rd	Existing sidewalk needs improvement
Columbus	U.S. 74/76 BUS	From Tram Rd to Davis Ave	New sidewalk recommended
New Hanover	U.S. 74/76	Various new crossings - Lanevale Rd, Village Rd, power line ROW near Willie Rd, Old Fayetteville Rd	New multi-Use path recommended
New Hanover	U.S. 74	From River Rd/Village Rd to 3rd St	New multi-Use path recommended
New Hanover	U.S. 74	Various existing crossings - McRae St, N 23rd St	Bicycle Facilities Recommended
New Hanover	U.S. 74	Old Fayetteville Rd	Bicycle/pedestrian facility improvements
New Hanover	U.S. 74	Mercantile Dr NE	Bicycle/pedestrian facility improvements

Table A-4. Corridor U: CTP Projects and Recommendations

County	Route	Location	Description
New Hanover	U.S. 74	Isabel Holmes Bridge	Bicycle/pedestrian facility improvements
New Hanover	U.S. 74	3rd St & Front St/Davis St	Bicycle/pedestrian facility improvements
New Hanover	U.S. 74	N 23rd St ramp	Bicycle/pedestrian facility improvements
New Hanover	U.S. 74	Kerr Ave	Bicycle/pedestrian facility improvements
New Hanover	U.S. 74	College Rd	Bicycle/pedestrian facility improvements
Transit Projects			
Rutherford	U.S. 74	at U.S. 221 in Forest City	Add park and ride lot
Rutherford	U.S. 74 Alt	at S Church St (SR 2213) in Forest City	Add park and ride lot
Cleveland; Gaston	U.S. 74	From recommended park and ride in Shelby to recommended park and ride in Kings Mountain to existing Gastonia Bus network	New recommended Bus route
Cleveland	U.S. 74 BUS	From existing Bus network in Shelby to N.C. 226 to north	New recommended Bus route
Mecklenburg	U.S. 74	From Stafford Dr/Harlee Ave to W Morehead St	Recommended Fixed Guideway Transit
Mecklenburg	U.S. 74	Stafford Dr/Harlee Ave, Morris Field Dr, Clanton Rd Ext, Remount Rd	Recommended Transit Stations
Mecklenburg	I-277	existing grade separations at 4th St, 5th St (crossings)	Recommended Fixed Guideway Transit
Mecklenburg	U.S. 74	From Charlottetown Ave to Sharon Forest Dr or Sam Newell Rd	Recommended Fixed Guideway Transit
Mecklenburg; Union	U.S. 74	From Albemarle Rd to Monroe Bypass	Operational Strategies Recommended
Mecklenburg	U.S. 74	The Plaza, Morningside Dr	Recommended Transit Stations
Mecklenburg	U.S. 74	Briar Creek Rd, near Seifert Cir, Sharon Amity Rd, Conference Dr	Recommended Park and Ride Transit Stations
Mecklenburg	U.S. 74	Sardis Rd	Recommended Park and Ride Lot (BUS)
Union	U.S. 74	Dickerson Blvd	Recommended Park and Ride Lot (BUS)
Robeson	U.S. 74	At N.C. 710, at Dew Rd (SR 1155)	Add park and ride lot and new Bus routes into Pembroke
Columbus	U.S. 74/76 BUS	From Southeastern Community College to JK Powell Blvd, from Madison St to Spivey Rd	Recommended Bus route(s)
Columbus	U.S. 74/76 BUS	Stadium, Aging Dept, Courthouse, Health Dept, Hospital	Potential Bus stops

Table A-5. Corridor U: MTP Projects and Recommendations

TIP ID	County (MPO)	Route	Project Name	Location	Description	Year
Highway Projects						
I-5000	Gaston (GCLMPO)	I-85	I-85 Interchange Upgrade	U.S. 321 Interchange	Modify Interchange	2025
I-5713	Gaston (GCLMPO)	I-85	Cox Road Interchange Improvements		Add 1 lane to each off ramp	2025
I-5719	Gaston (GCLMPO)	I-85	I-85 Widening	From N.C. 273 to U.S. 321	Widen to 8 lanes	2025
U-2567 ⁶	Gaston (GCLMPO)	U.S. 74	Dixon Blvd Interchange	N.C. 150 (DeKalb St)	Construct Interchange	2025
U-5929	Cleveland (GCLMPO)	U.S. 74	U.S. 74/N.C. 226 Intersection Improvements	N.C. 226 (Earl Rd)	Intersection improvements or grade separation	2025
R-4045	Cleveland (GCLMPO)	U.S. 74	U.S. 74 Upgrade	From Shelby Bypass to Mooresboro	Upgrade to controlled access from Shelby Bypass to Mooresboro with grade separation at SR 1168 (Lattimore Rd)	2025
	Cleveland (GCLMPO)	U.S. 74	U.S. 74 Upgrade	From I-26 to U.S. 74 at Mooresboro	Upgrade freeway to interstate standards	2045
R-5713	Cleveland (GCLMPO)	U.S. 74	Dixon Blvd Access Management	From U.S. 74 BUS to N.C. 226	Placement of Directional Crossovers and Management of Access Roads to increase Safety and Efficiency. Construct access management improvements.	2025
U-5775	Cleveland (GCLMPO)	U.S. 74 BUS	Marion Street Intersection	N.C. 150 (Cherryville Rd)	Realign intersection.	2025
U-5959 ⁶	Gaston (GCLMPO)	U.S. 74	U.S. 74/N.C. 273 Intersection Improvements	N.C. 273 (Park St)	Add turn lanes on N.C. 273 and pedestrian cross walk improvements on all approaches on N.C. 273 and U.S. 74.	2025
R-2707D	Cleveland (GCLMPO)	Shelby Bypass	Shelby Bypass/U.S. 74	From East of N.C. 150 to existing U.S. 74 west of SR 2238 (Long Branch Rd)	Construct freeway on new location.	2025

6. Project is along portion of U.S. 74 not considered part of Corridor U (Corridor U is designated along I-85)

Table A-5. Corridor U: MTP Projects and Recommendations

TIP ID	County (MPO)	Route	Project Name	Location	Description	Year
R-2707E	Cleveland (GCLMPO)	Shelby Bypass	Shelby Bypass/U.S. 74	From existing U.S. 74 west of SR 2238 (Long Branch Rd) to west of SR 1001 (Stony Point Rd)	Upgrade roadway to freeway	2025
R-2707 C, F, G	Cleveland (GCLMPO)	Shelby Bypass	Shelby Bypass/U.S. 74	Sections C, F, G	Construct freeway on new location.	2025
U-5965 ⁶	Gaston (GCLMPO)	U.S. 29/U.S. 74	Franklin Blvd Intersection Improvements	N.C. 274 (Broad St)	Intersection improvements. Crosswalks, pedheads, turn lanes on every approach.	2025
	Gaston (GCLMPO) ⁶	U.S. 74	U.S. 74/N.C. 7 Intersection Improvements	N.C. 7	This project reduces major queueing issues at the intersection of U.S. 74 (Wilkinson Blvd) at N.C. 7 (E Catawba St). Improvements include an additional northbound right-turn lane along N.C. 7, extension of the existing westbound left-turn lane along U.S. 74, and signal timing/phasing improvements.	2045
	Gaston (GCLMPO) ⁶	U.S. 29/U.S. 74	Wilkinson Blvd	From N.C. 7 (Catawba St) to East Bank of Catawba River	Widen existing four-lane bridge and cross section to six lanes. Widen road on both side of bridge to six lanes.	
	Gaston (GCLMPO) ⁶	U.S. 29/U.S. 74	Wilkinson Blvd	From Market St to SR 2015 (Alberta Ave)	Widen existing four-lane bridge and cross section to six lanes. Widen road on both side of bridge to six lanes.	
U-6043 ⁶	Gaston (GCLMPO)	U.S. 29/U.S. 74	Franklin Blvd	From SR 2200 (Cox Rd) to 400 ft east of Lineberger Rd	Add lane in the eastbound direction.	2025
U-6038 ⁶	Gaston (GCLMPO)	U.S. 74	Adaptive Signal System	From N.C. 7 (Catawba St) to SR 2209 (Wesleyan Dr)	Implement adaptive signal system to improve traffic flow and adjU.S.t timing to accommodate periodic traffic diversion from I-85	2025
	Gaston (GCLMPO)	I-85	I-85 Widening	From U.S. 321 to U.S. 74	Widen to 8 lanes	2045

6. Project is along portion of U.S. 74 not considered part of Corridor U (Corridor U is designated along I-85)

Table A-5. Corridor U: MTP Projects and Recommendations

TIP ID	County (MPO)	Route	Project Name	Location	Description	Year
I-5000	Gaston (GCLMPO)	I-85	I-85/New	From Davison Ave/Tulip Dr to Fairview Dr	New interchange at I-85/Davidson Ave. New 2 lane alignment connecting Tulip Dr to Fairview Dr	2045
U-5526A	Mecklenburg (CRTPO)	U.S. 74	Widening	From I-277 (Brookshire Fwy) to Wallace Ln	Convert Bus lanes to express lanes	2025
U-0209B	Mecklenburg (CRTPO)	U.S. 74	Widening	From Albemarle Rd (N.C. 24/N.C. 27) to Idlewild Rd	Construct roadway improvements	2025
U-2509	Mecklenburg (CRTPO)	U.S. 74	Widening	From Idlewild Rd to I-485	Widen from 4/6 to 6/8 lanes, with express lanes	2025
R-3329 R-2559	Union (CRTPO)	Monroe Bypass	New Roadway	From I-485 to U.S. 74	New 4 lane, divided toll facility	2025
U-5764	Union (CRTPO)	U.S. 74	Widening	From Hanover Dr to Rocky River Rd	Widen from 4 lanes to 6 lanes with median, bicycle lanes, and sidewalks	2025
U-5703	Union (CRTPO)	U.S. 74	Improve existing intersection	Rocky River Rd	Implement super street	2025
U-5931	Union (CRTPO)	U.S. 74	Improve existing intersection	Secret Shortcut Rd	Construct intersection improvements	2025
U-5723	Union (CRTPO)	U.S. 74	Improve existing intersection	U.S. 601	Construct intersection improvements	2025
I-5718D	Mecklenburg (CRTPO)	I-277	Improve existing interchange	I-77	Interchange improvements	2035
	Mecklenburg (CRTPO)	I-485	Widening	From I-85 to U.S. 74	Widen from 6 to 8 lanes including express lanes	2045
	Mecklenburg (CRTPO)	I-85	Widening	From Gaston County Line to Sam Wilson Rd	Widen roadway to additional westbound lane	2045
	Mecklenburg (CRTPO)	I-277	Widening	From Mint St to Independence Blvd (U.S. 74)	Improve interchanges along corridor to improve operations	2045

Table A-5. Corridor U: MTP Projects and Recommendations

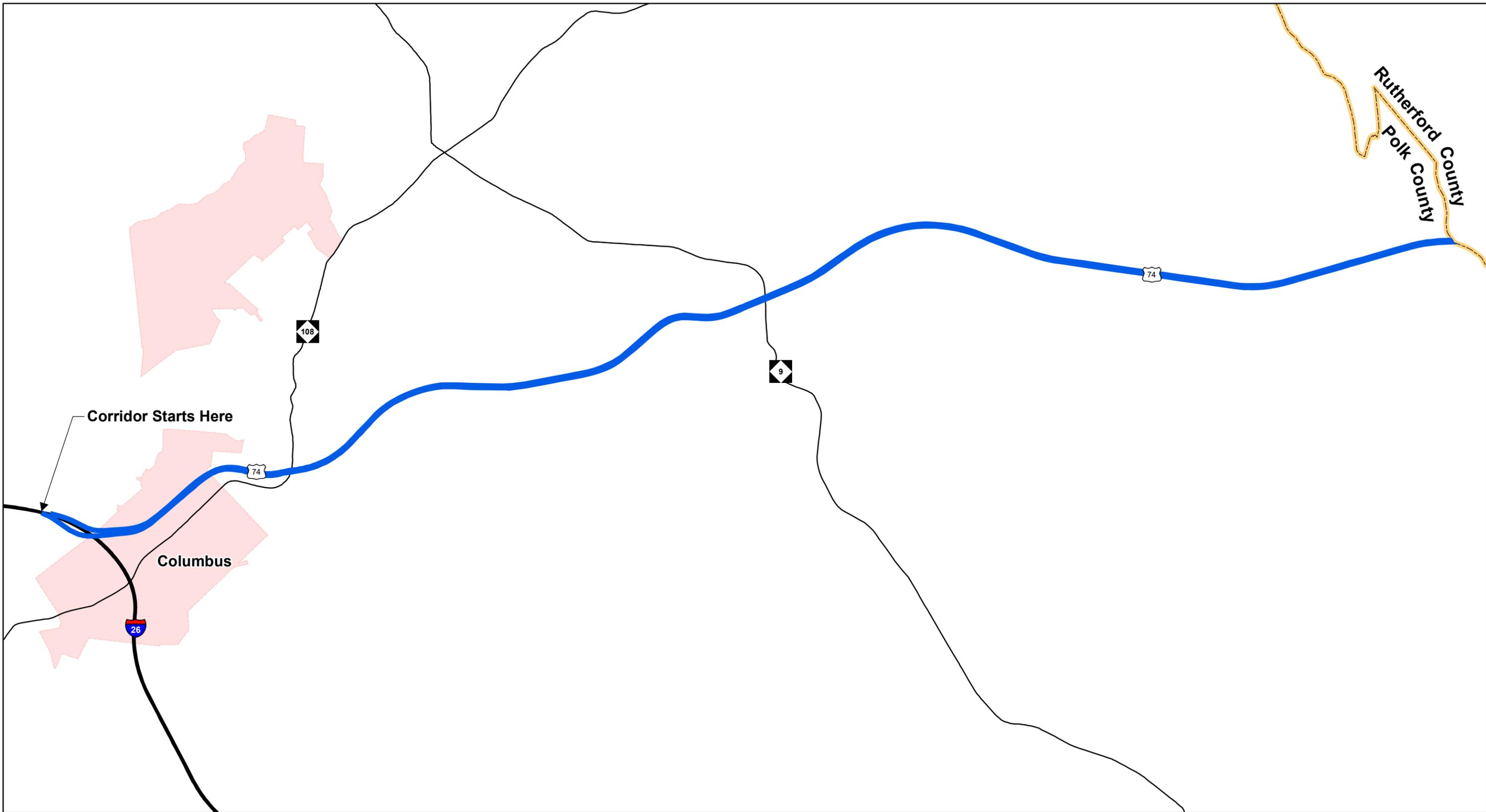
TIP ID	County (MPO)	Route	Project Name	Location	Description	Year
	Mecklenburg (CRTPO)	U.S. 74	Widening	From I-277 to Albemarle Rd (N.C. 24/N.C. 27)	Add additional express lane in median	2045
	Mecklenburg (CRTPO)	U.S. 74	Widening	From I-485 to Little Rock Rd	Widen from 4 lanes to 6 lanes with median, bicycle lanes, and sidewalks	2045
U-5792	New Hanover (WMPO)	U.S. 74	Intersection improvement	U.S. 117/N.C. 132/College Rd		
U-3338	New Hanover (WMPO)	U.S. 74	Intersection improvement	Kerr Avenue		
U-5731	New Hanover (WMPO)	U.S. 74	Isabel Holmes Bridge Flyovers	From U.S. 17 to U.S. 421		
R-4462	New Hanover (WMPO)	U.S. 74	I-74 Upgrade	From WMPO Boundary to U.S. 17/74/76		
U-3337	New Hanover (WMPO)	U.S. 74	Old Fayetteville Rd Interchange	Old Fayetteville Rd		
Bicycle/Pedestrian Projects						
EB-5701 ⁶	Gaston (GCLMPO)	U.S. 74	Sidewalk	From Cox Rd to Gastonia city limits	North side	2025
EB-5713 ⁶	Gaston (GCLMPO)	U.S. 74	Pedestrian intersection improvements	intersections with Lakewood Rd, Market St		2025
	Gaston (GCLMPO) ⁶	U.S. 74	Multiuse sidepath	Entire city of Belmont	Both sides	2045
EB-5723	Union (CRTPO)	U.S. 74	Independence Blvd Multi-Use Path	Construct a multi-Use path along Independence Blvd from Indian Trail Fairview Rd to Unionville-Indian Trail Rd, and construct a multi-Use greenway from Unionville-Indian Trail Rd to Oakwood Ln		2025
Transit Projects						
	Cleveland, Gaston (GCLMPO)	U.S. 74	Transit	From Shelby to Gastonia	Deviated Service	

6. Project is along portion of U.S. 74 not considered part of Corridor U (Corridor U is designated along I-85)

Table A-5. Corridor U: MTP Projects and Recommendations

TIP ID	County (MPO)	Route	Project Name	Location	Description	Year
	Rutherford, Cleveland (GCLMPO)	U.S. 74	Transit	From Rutherford County to Shelby	Van Pool	
	Cleveland (GCLMPO)	U.S. 74	Transit	east side of Shelby	Park and ride lot	
	Cleveland (GCLMPO)	U.S. 74	Transit	east side of Kings Mountain	Park and ride lot	
	Mecklenburg (CRTPO)	U.S. 74	Transit	From uptown Charlotte to CPCC in Matthews	LYNX silver line light rail, potential rail trail along Independence Blvd	
	Mecklenburg (CRTPO)	U.S. 74	Transit	From uptown Charlotte to CLT airport	West corridor fixed transit line - potentially street car or part of silver line light rail	
	New Hanover (WMPO)	U.S. 74/76	Transit	Mt Misery Rd	Park and ride lot	
	New Hanover (WMPO)	U.S. 17/74/76	Transit	River Rd (N.C. 133)	Park and ride lot	
	New Hanover (WMPO)	U.S. 74/76	Transit	I-140	Park and ride lot	

Appendix B. Corridor U Recommendation Maps



**NC STRATEGIC
TRANSPORTATION
CORRIDORS (STC)**

DECEMBER 2019

Source: NCOneMap, NCDOT GIS, ESRI

Legend

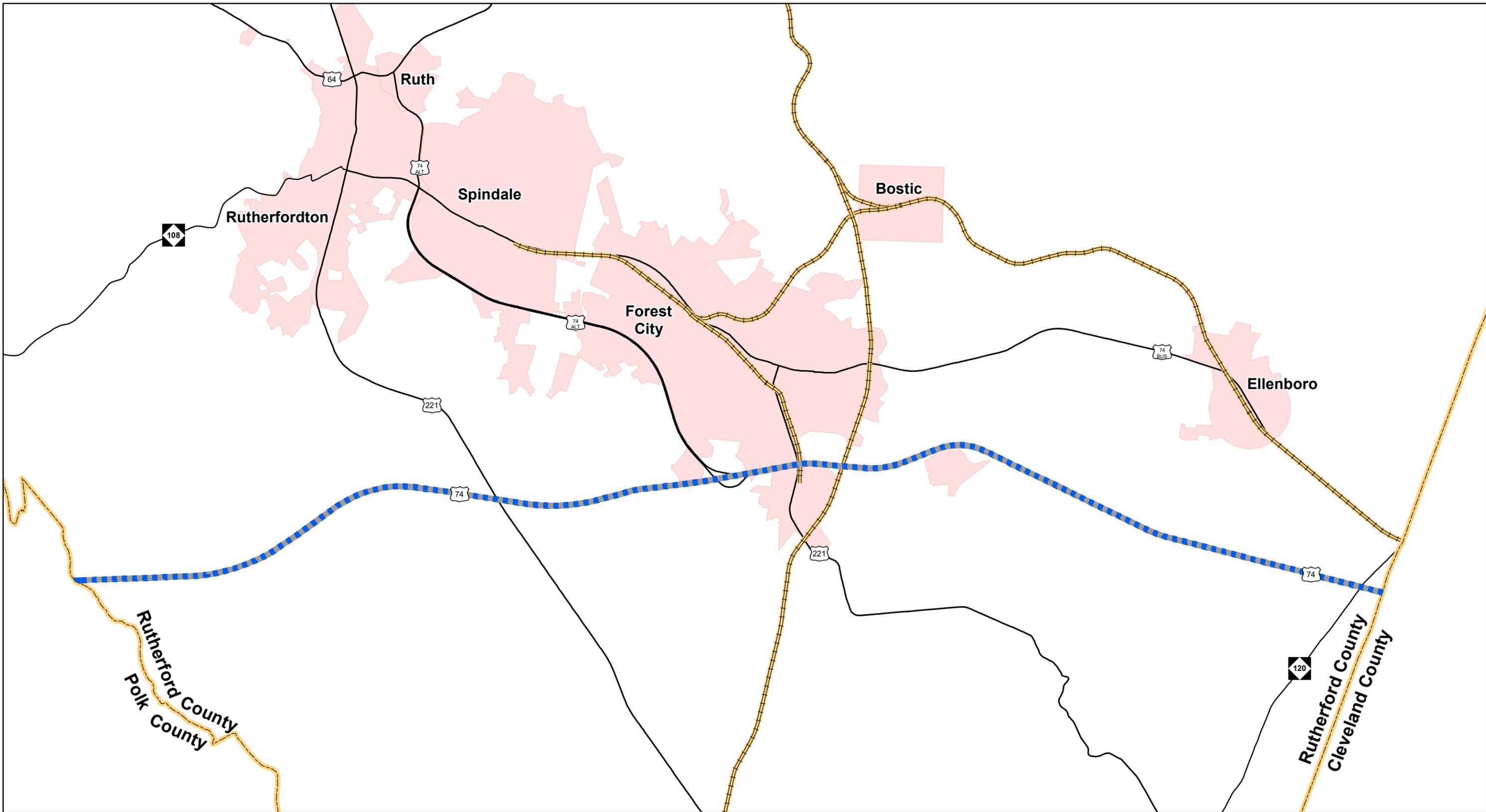
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| Freeway Existing | Expressway Needs Improvement | Interstate | Counties |
| Freeway Needs Improvement | Boulevard Existing | US Route | Municipal Boundaries |
| Freeway Recommended | Boulevard Needs Improvement | NC Highway | |
| Expressway Existing | Other Major Thoroughfare Existing | Rail | |



**EXISTING MTP / CTP
RECOMMENDATION MAP**

CORRIDOR U (US 74)

FIGURE 10



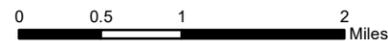
**NC STRATEGIC
TRANSPORTATION
CORRIDORS (STC)**

DECEMBER 2019

Source: NCOneMap, NCDOT GIS, ESRI

Legend

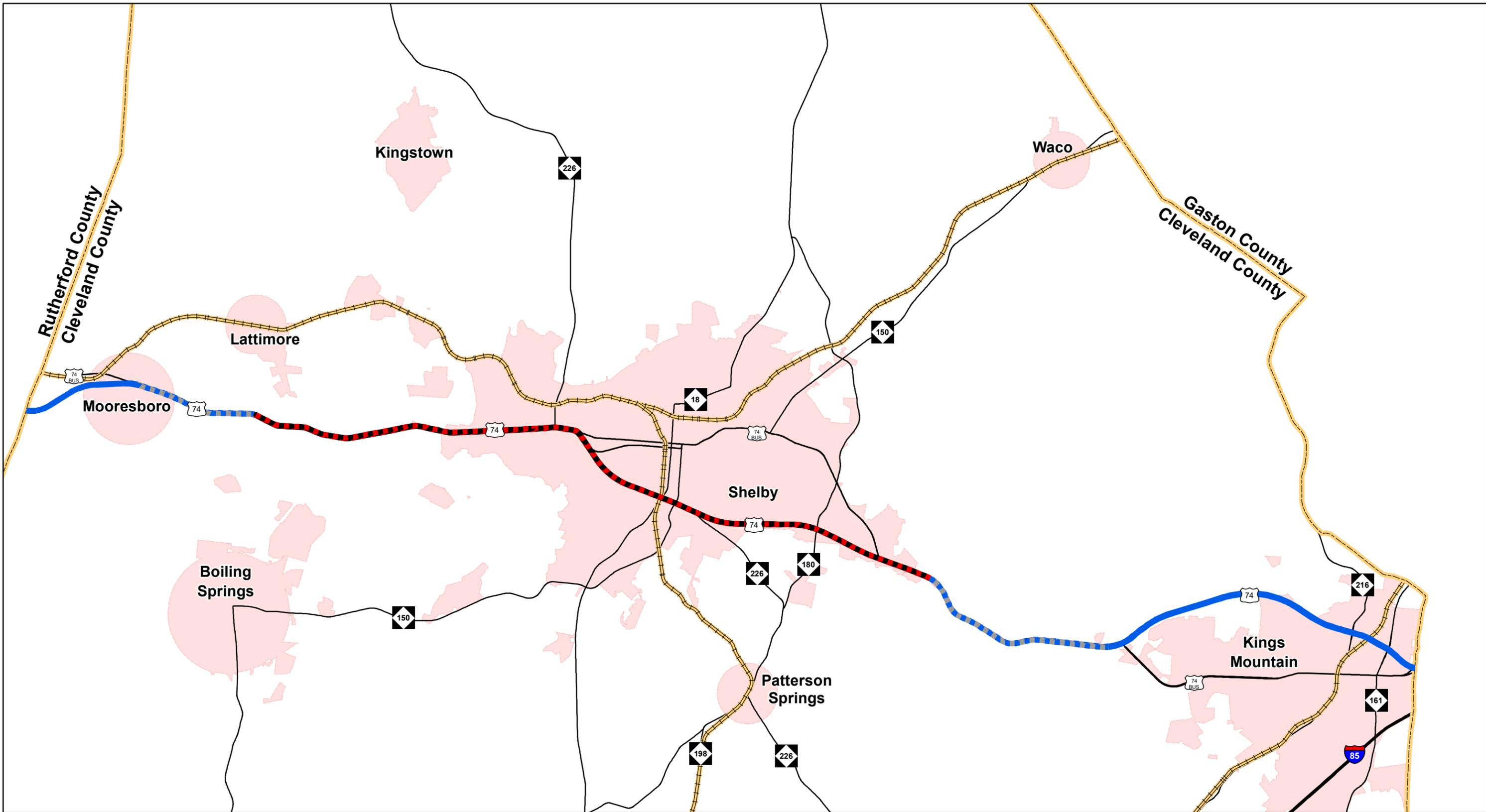
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| Freeway Existing | Expressway Needs Improvement | Interstate | Counties |
| Freeway Needs Improvement | Boulevard Existing | US Route | Municipal Boundaries |
| Freeway Recommended | Boulevard Needs Improvement | NC Highway | |
| Expressway Existing | Other Major Thoroughfare Existing | Rail | |



**EXISTING MTP / CTP
RECOMMENDATION MAP**

CORRIDOR U (US 74)

FIGURE 11



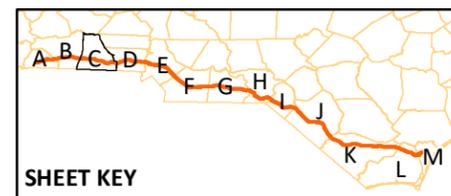
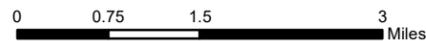
**NC STRATEGIC
TRANSPORTATION
CORRIDORS (STC)**

DECEMBER 2019

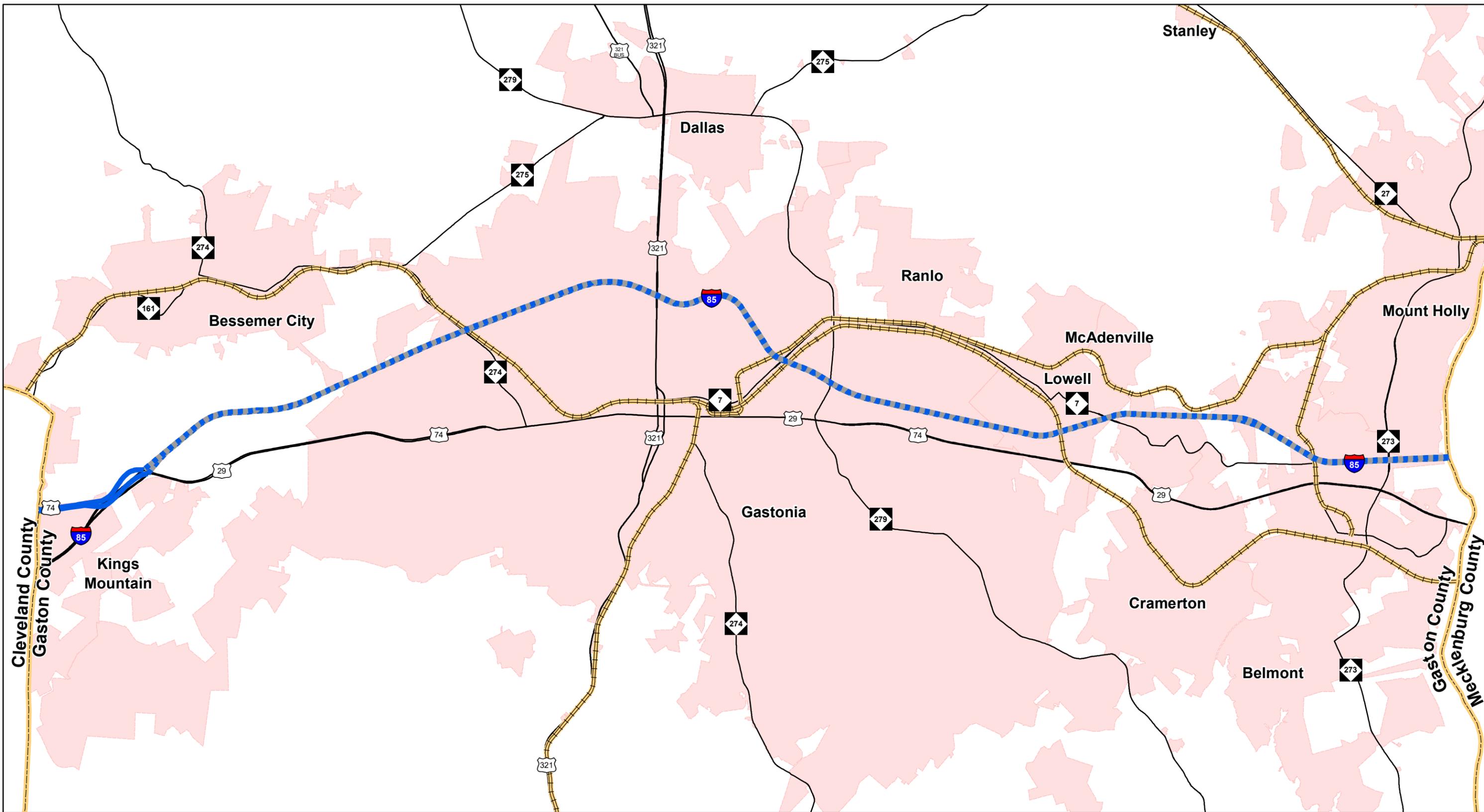
Source: NCOneMap, NCDOT GIS, ESRI

Legend

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|---------------------------|-----------------------------------|------------|----------------------|
| Freeway Existing | Expressway Needs Improvement | Interstate | Counties |
| Freeway Needs Improvement | Boulevard Existing | US Route | Municipal Boundaries |
| Freeway Recommended | Boulevard Needs Improvement | NC Highway | |
| Expressway Existing | Other Major Thoroughfare Existing | Rail | |



**EXISTING MTP / CTP
RECOMMENDATION MAP**
CORRIDOR U (US 74)
FIGURE 12



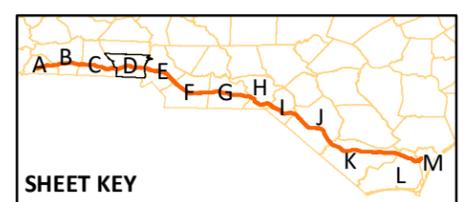
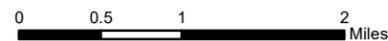
**NC STRATEGIC
TRANSPORTATION
CORRIDORS (STC)**

DECEMBER 2019

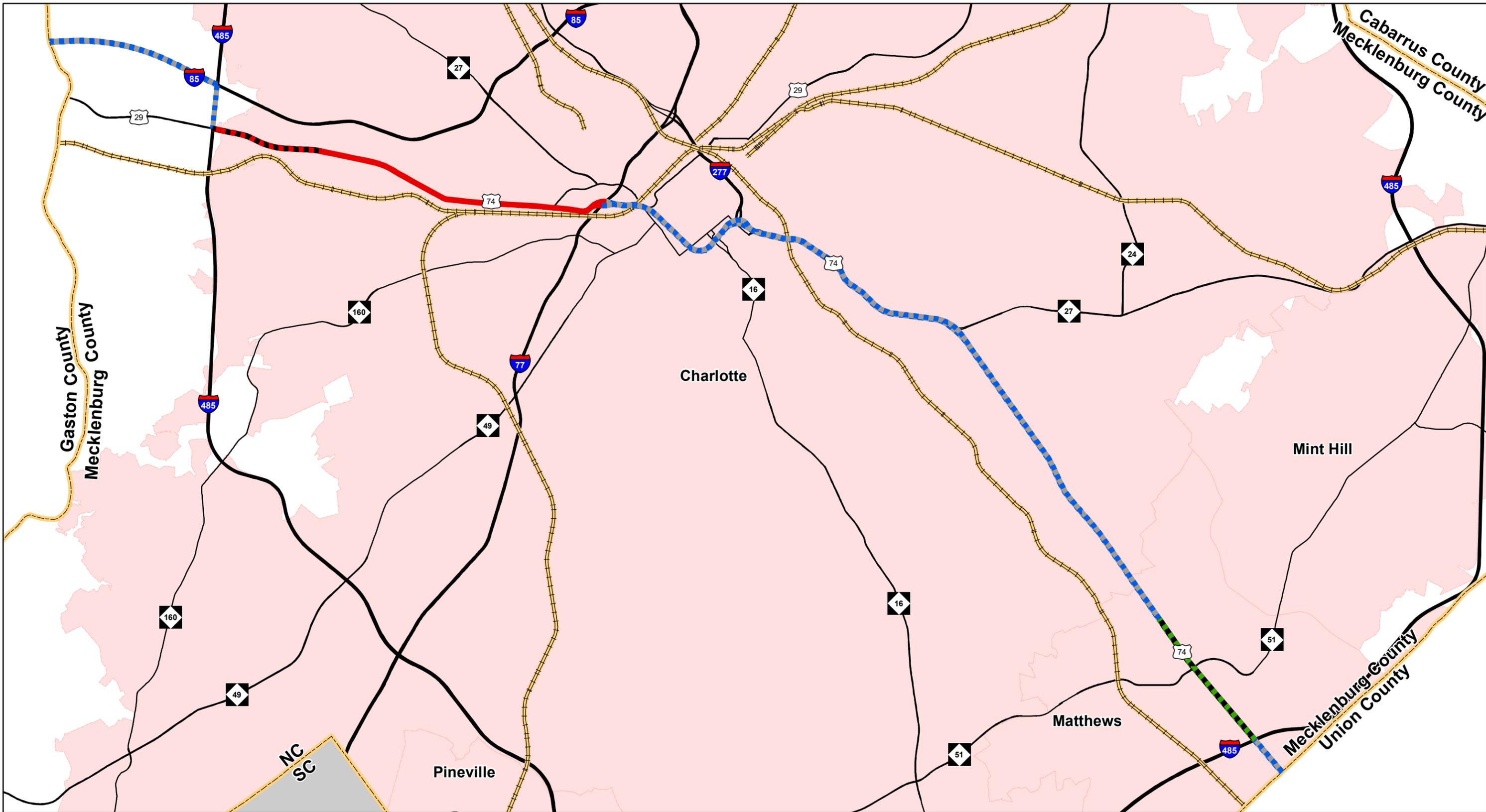
Source: NCOneMap, NCDOT GIS, ESRI

Legend

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|---------------------------|-----------------------------------|------------|----------------------|
| Freeway Existing | Expressway Needs Improvement | Interstate | Counties |
| Freeway Needs Improvement | Boulevard Existing | US Route | Municipal Boundaries |
| Freeway Recommended | Boulevard Needs Improvement | NC Highway | |
| Expressway Existing | Other Major Thoroughfare Existing | Rail | |



**EXISTING MTP / CTP
RECOMMENDATION MAP**
CORRIDOR U (US 74)
FIGURE 13



**NC STRATEGIC
TRANSPORTATION
CORRIDORS (STC)**

DECEMBER 2019

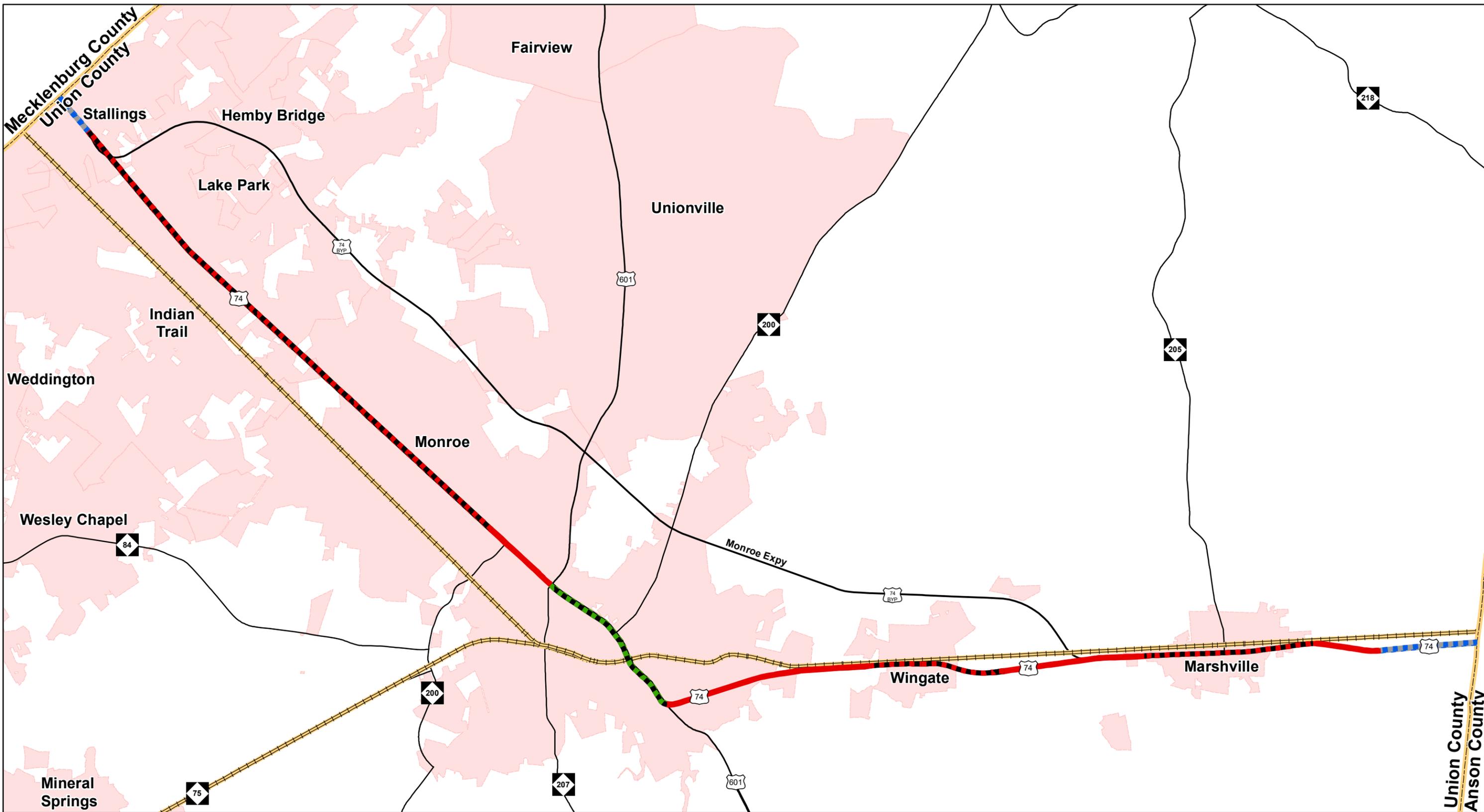
Source: NCOneMap, NCDOT GIS, ESRI

Legend

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|---------------------------|-----------------------------------|------------|----------------------|
| Freeway Existing | Expressway Needs Improvement | Interstate | Counties |
| Freeway Needs Improvement | Boulevard Existing | US Route | Municipal Boundaries |
| Freeway Recommended | Boulevard Needs Improvement | NC Highway | |
| Expressway Existing | Other Major Thoroughfare Existing | Rail | |



**EXISTING MTP / CTP
RECOMMENDATION MAP**
CORRIDOR U (US 74)
FIGURE 14



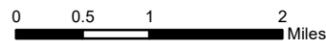
**NC STRATEGIC
TRANSPORTATION
CORRIDORS (STC)**

DECEMBER 2019

Source: NCOneMap, NCDOT GIS, ESRI

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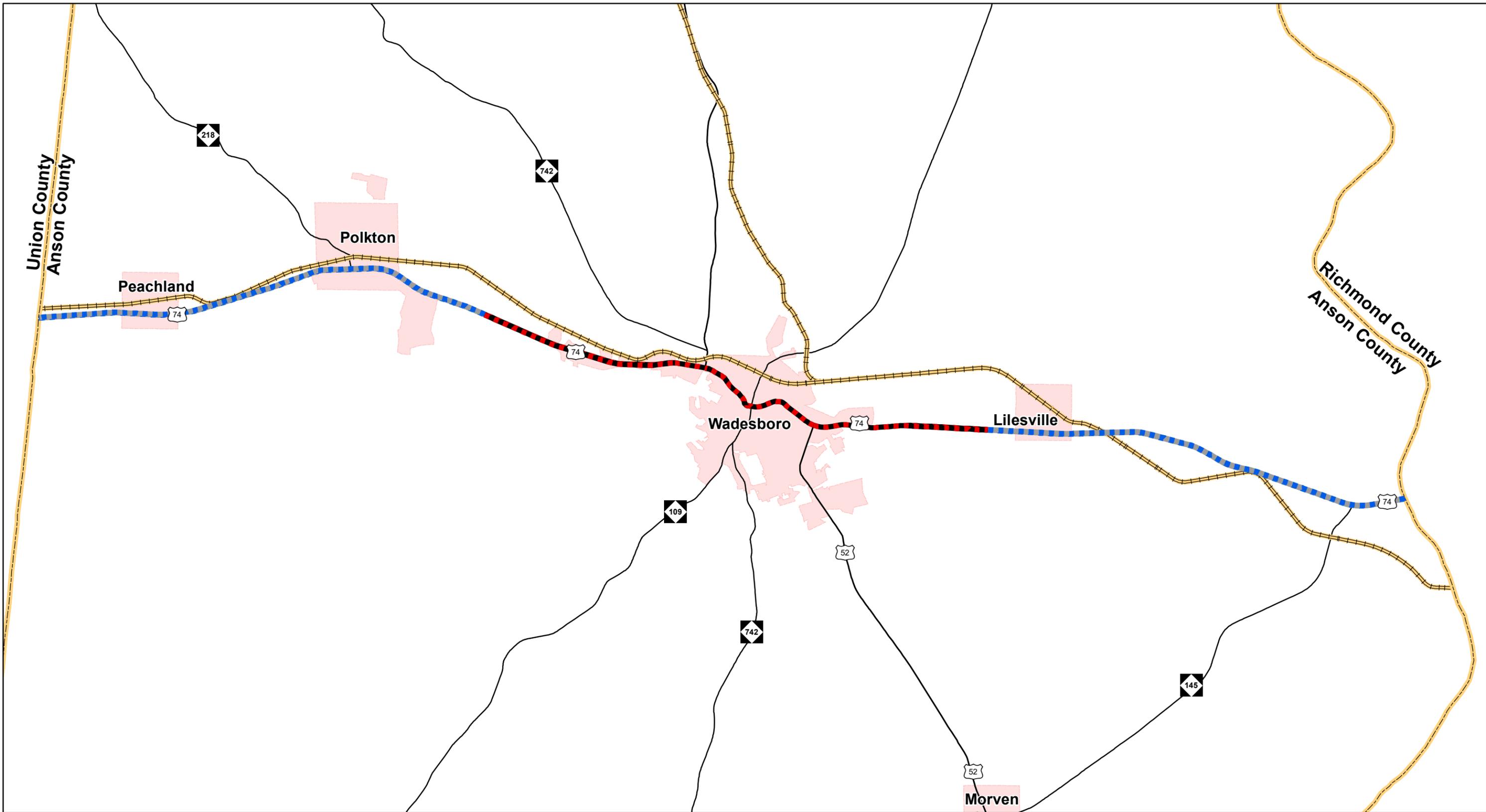
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| Freeway Existing | Expressway Needs Improvement | Interstate | Counties |
| Freeway Needs Improvement | Boulevard Existing | US Route | Municipal Boundaries |
| Freeway Recommended | Boulevard Needs Improvement | NC Highway | |
| Expressway Existing | Other Major Thoroughfare Existing | Rail | |



**EXISTING MTP / CTP
RECOMMENDATION MAP**

CORRIDOR U (US 74)

FIGURE 15



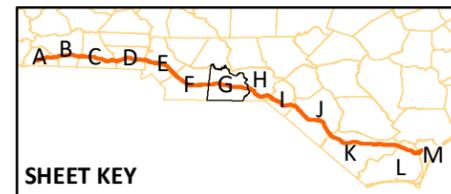
**NC STRATEGIC
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CORRIDORS (STC)**

DECEMBER 2019

Source: NCOneMap, NCDOT GIS, ESRI

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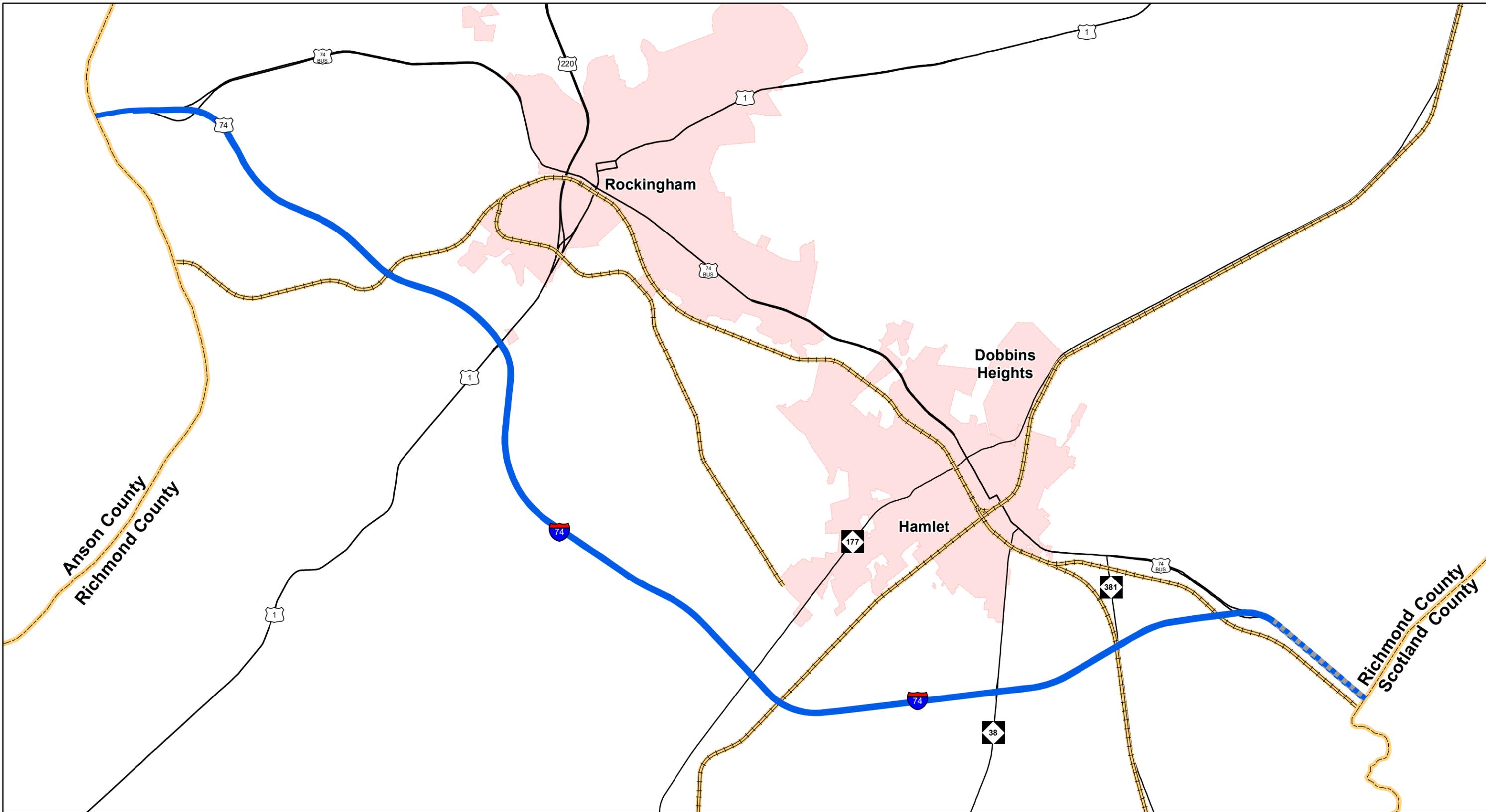
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| Freeway Existing | Expressway Needs Improvement | Interstate | Counties |
| Freeway Needs Improvement | Boulevard Existing | US Route | Municipal Boundaries |
| Freeway Recommended | Boulevard Needs Improvement | NC Highway | |
| Expressway Existing | Other Major Thoroughfare Existing | Rail | |



**EXISTING MTP / CTP
RECOMMENDATION MAP**

CORRIDOR U (US 74)

FIGURE 16



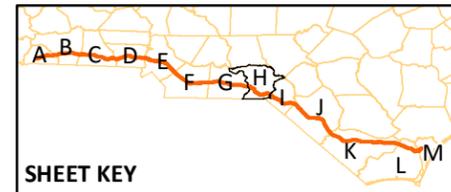
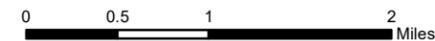
**NC STRATEGIC
TRANSPORTATION
CORRIDORS (STC)**

DECEMBER 2019

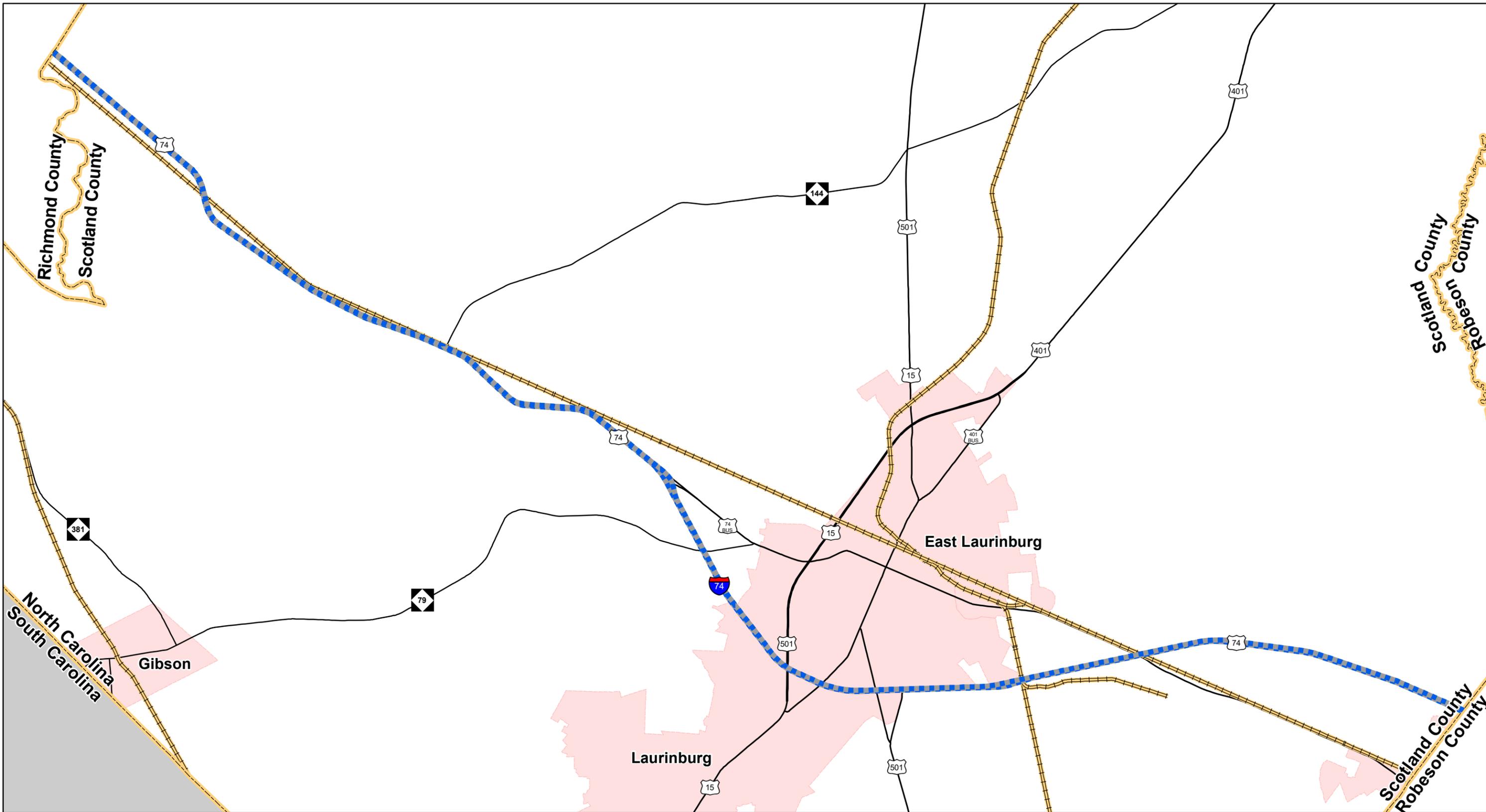
Source: NCOneMap, NCDOT GIS, ESRI

Legend

- | | | | |
|---------------------------|-----------------------------------|------------|----------------------|
| Freeway Existing | Expressway Needs Improvement | Interstate | Counties |
| Freeway Needs Improvement | Boulevard Existing | US Route | Municipal Boundaries |
| Freeway Recommended | Boulevard Needs Improvement | NC Highway | |
| Expressway Existing | Other Major Thoroughfare Existing | Rail | |



**EXISTING MTP / CTP
RECOMMENDATION MAP**
CORRIDOR U (US 74)
FIGURE 17



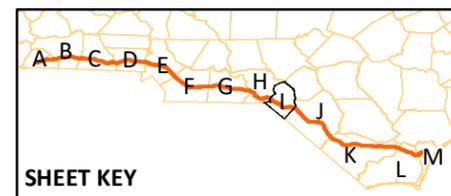
**NC STRATEGIC
TRANSPORTATION
CORRIDORS (STC)**

DECEMBER 2019

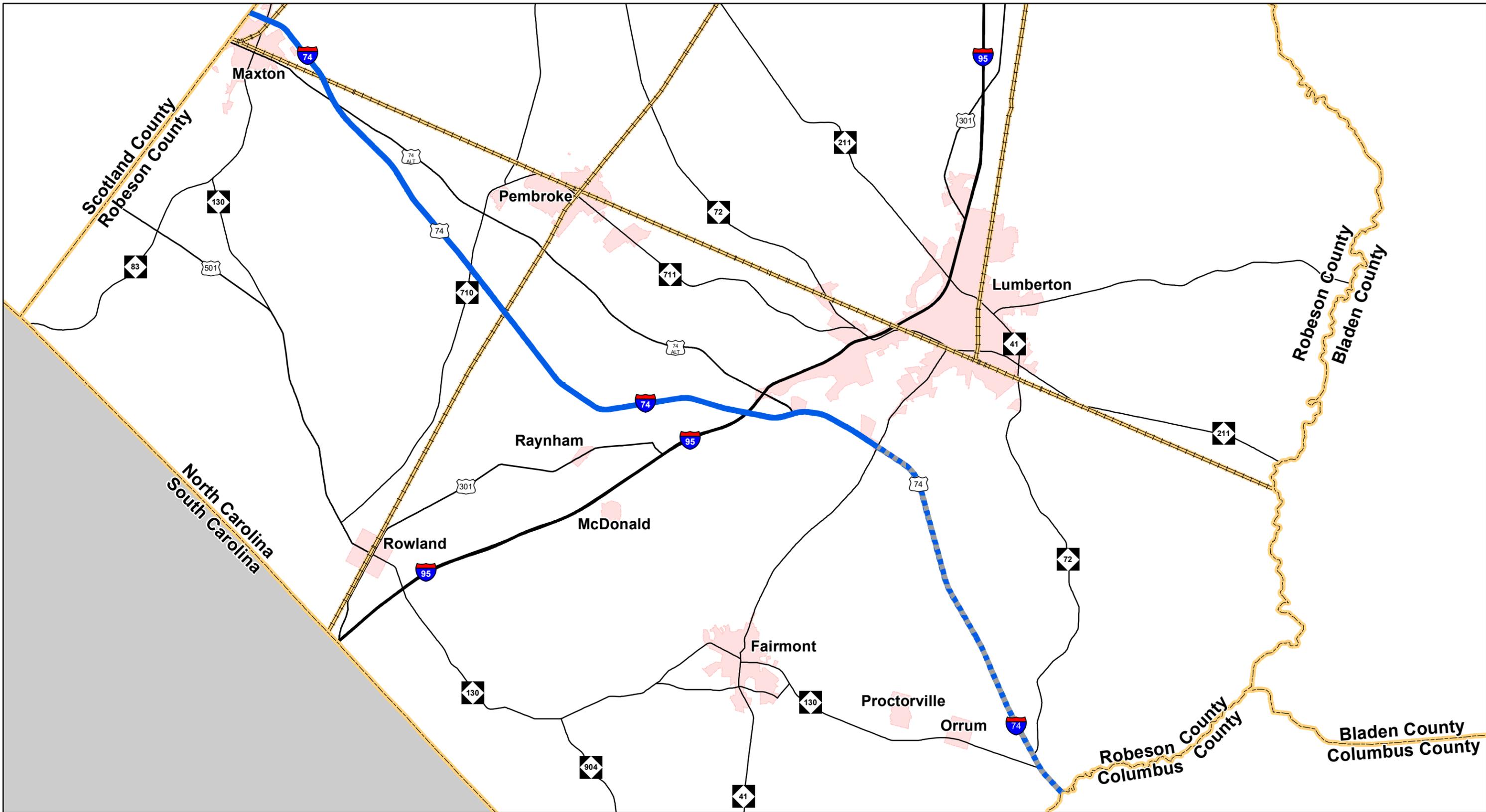
Source: NCOneMap, NCDOT GIS, ESRI

Legend

- | | | | |
|---------------------------|-----------------------------------|------------|----------------------|
| Freeway Existing | Expressway Needs Improvement | Interstate | Counties |
| Freeway Needs Improvement | Boulevard Existing | US Route | Municipal Boundaries |
| Freeway Recommended | Boulevard Needs Improvement | NC Highway | Rail |
| Expressway Existing | Other Major Thoroughfare Existing | | |



**EXISTING MTP / CTP
RECOMMENDATION MAP**
CORRIDOR U (US 74)
FIGURE 18



**NC STRATEGIC
TRANSPORTATION
CORRIDORS (STC)**

DECEMBER 2019

Source: NCOneMap, NCDOT GIS, ESRI

Legend

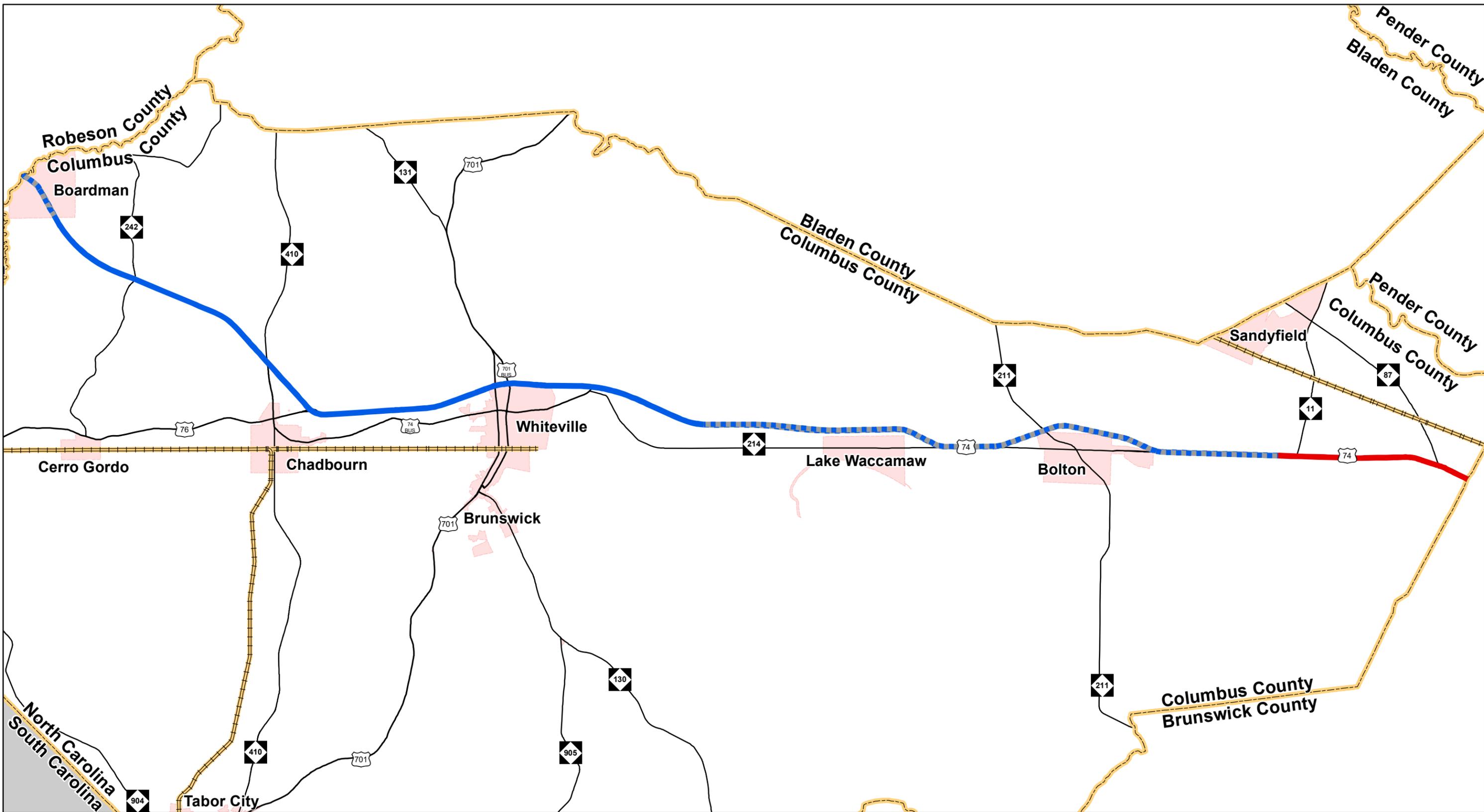
- | | | | |
|---------------------------|-----------------------------------|------------|----------------------|
| Freeway Existing | Expressway Needs Improvement | Interstate | Counties |
| Freeway Needs Improvement | Boulevard Existing | US Route | Municipal Boundaries |
| Freeway Recommended | Boulevard Needs Improvement | NC Highway | |
| Expressway Existing | Other Major Thoroughfare Existing | Rail | |



**EXISTING MTP / CTP
RECOMMENDATION MAP**

CORRIDOR U (US 74)

FIGURE 19



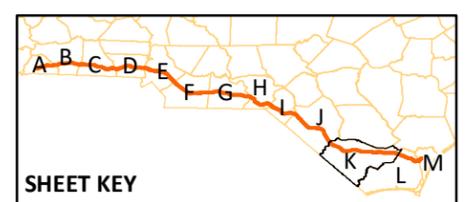
**NC STRATEGIC
TRANSPORTATION
CORRIDORS (STC)**

DECEMBER 2019

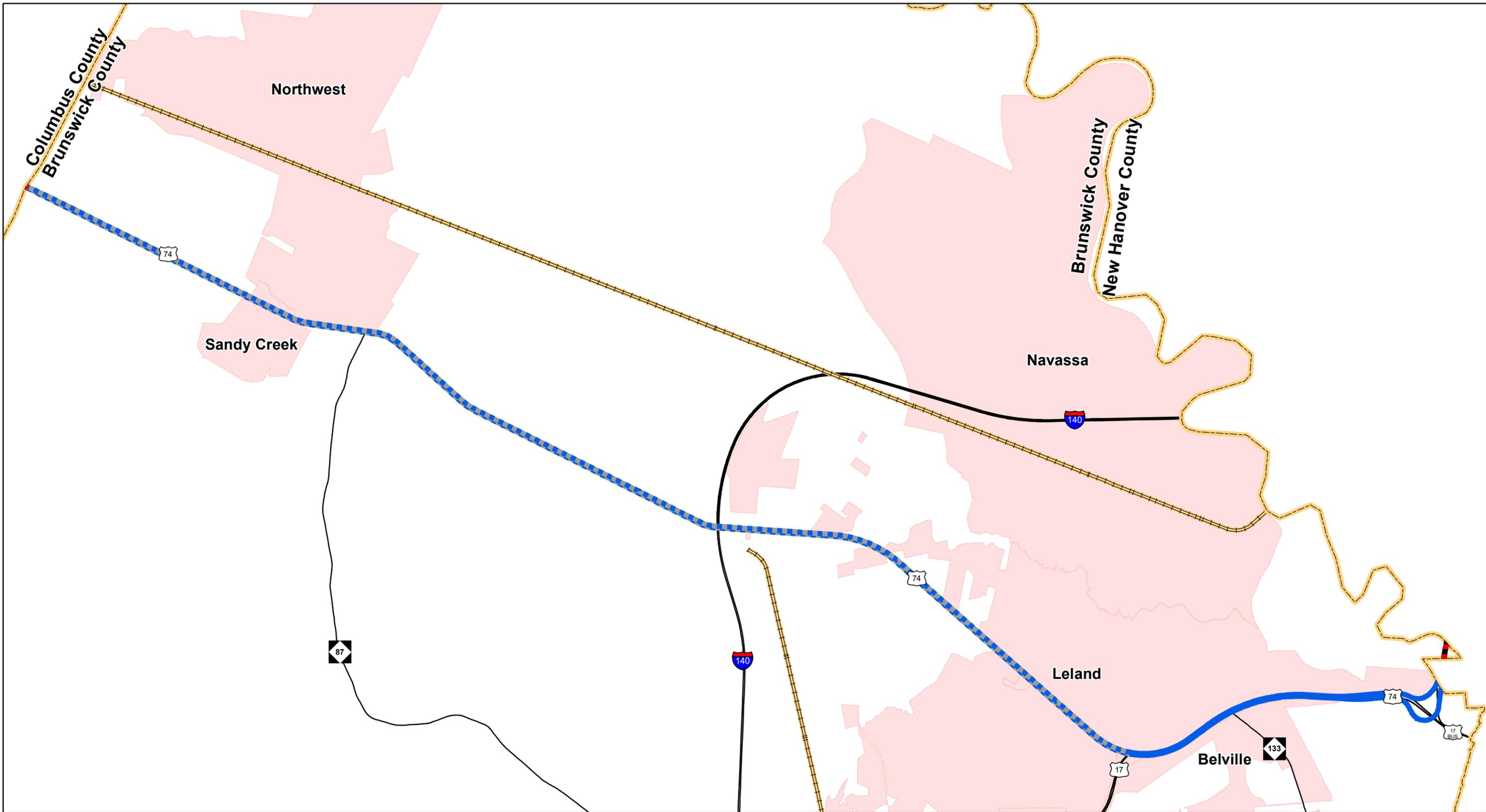
Source: NCOneMap, NCDOT GIS, ESRI

Legend

- | | | | |
|---------------------------|-----------------------------------|------------|----------------------|
| Freeway Existing | Expressway Needs Improvement | Interstate | Counties |
| Freeway Needs Improvement | Boulevard Existing | US Route | Municipal Boundaries |
| Freeway Recommended | Boulevard Needs Improvement | NC Highway | |
| Expressway Existing | Other Major Thoroughfare Existing | Rail | |



**EXISTING MTP / CTP
RECOMMENDATION MAP**
CORRIDOR U (US 74)
FIGURE 20



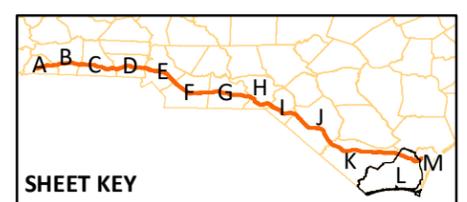
**NC STRATEGIC
TRANSPORTATION
CORRIDORS (STC)**

DECEMBER 2019

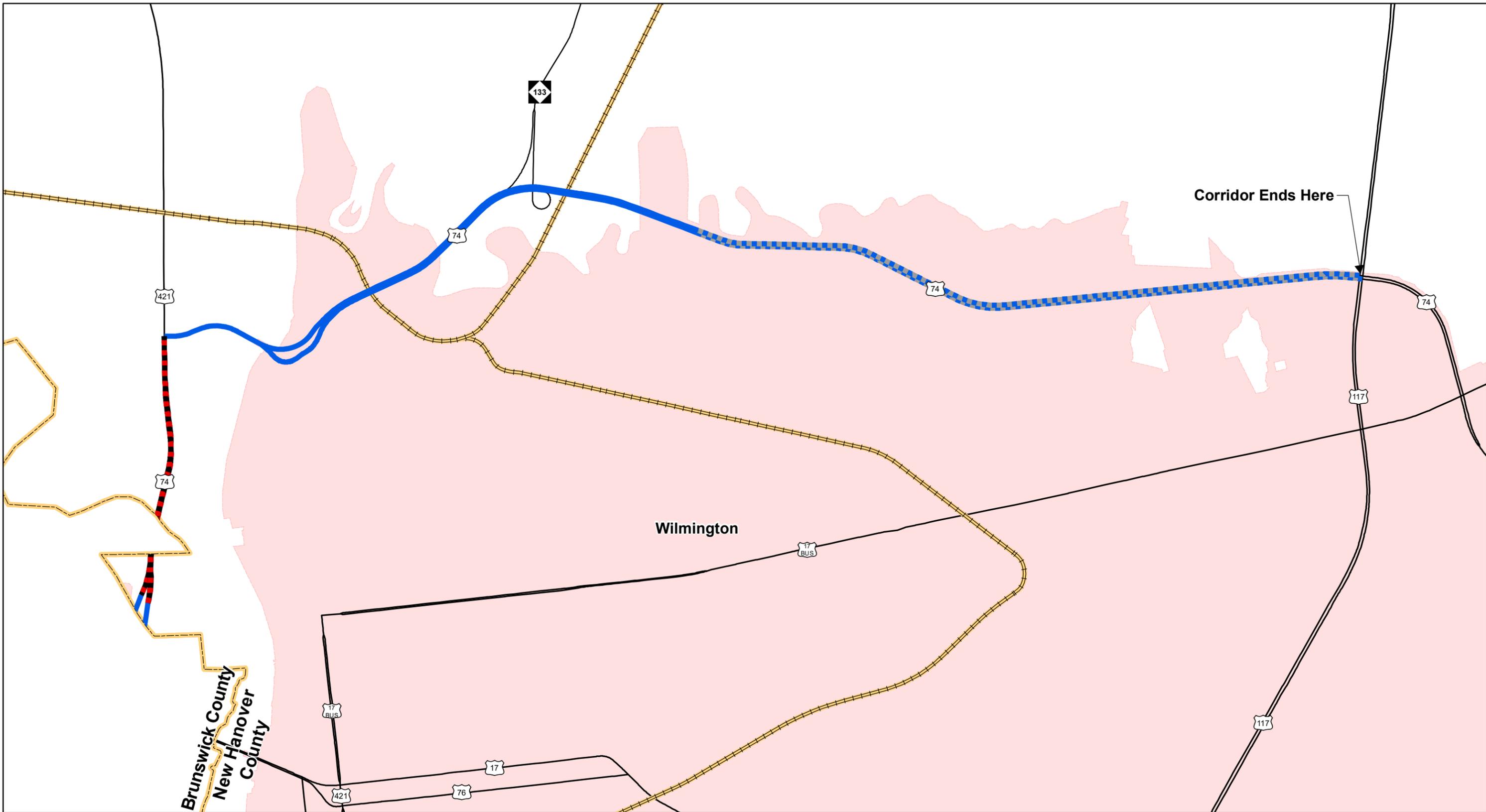
Source: NCOneMap, NCDOT GIS, ESRI

Legend

- | | | | |
|---------------------------|-----------------------------------|------------|----------------------|
| Freeway Existing | Expressway Needs Improvement | Interstate | Counties |
| Freeway Needs Improvement | Boulevard Existing | US Route | Municipal Boundaries |
| Freeway Recommended | Boulevard Needs Improvement | NC Highway | |
| Expressway Existing | Other Major Thoroughfare Existing | Rail | |



**EXISTING MTP / CTP
RECOMMENDATION MAP**
CORRIDOR U (US 74)
FIGURE 21



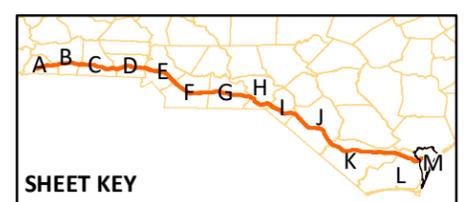
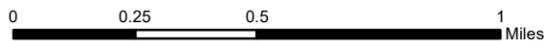
**NC STRATEGIC
TRANSPORTATION
CORRIDORS (STC)**

DECEMBER 2019

Source: NCOneMap, NCDOT GIS, ESRI

Legend

- | | | | |
|---------------------------|-----------------------------------|------------|----------------------|
| Freeway Existing | Expressway Needs Improvement | Interstate | Counties |
| Freeway Needs Improvement | Boulevard Existing | US Route | Municipal Boundaries |
| Freeway Recommended | Boulevard Needs Improvement | NC Highway | |
| Expressway Existing | Other Major Thoroughfare Existing | Rail | |



**EXISTING MTP / CTP
RECOMMENDATION MAP**
CORRIDOR U (US 74)
FIGURE 22

Appendix C. Transportation Facilities Inventory Terminology

Roadways are broken down into Federal functional classification categories to stratify the range of mobility and access functions that they can serve. These functional classes are listed below in **Table C-1**.

Table C-1. Highway Functional Class Definitions

Classification	Description	Access	Mobility
Interstate	Officially designated by the Secretary of Transportation, includes all routes that comprise the Dwight D. Eisenhower National System of Interstate and Defense Highways. Divided highways with access provided at on- and off-ramp locations. Designed and constructed with mobility and long-distance travel in mind, linking the major urban areas of the United States.	Low	High
Other Freeway (Expressway)	Very similar to Interstates. Directional travel lanes usually separated by a physical barrier, access and egress points are limited to on- and off-ramp locations or a very limited number of at-grade intersections. Designed and constructed to maximize mobility, abutting land uses not directly served.	Low	High
Other Principal Arterial	Provide a high degree of mobility while also providing access to adjacent land uses including driveways and at-grade intersections with other roadways. Serve major centers of metropolitan areas as well as major rural corridors.	Medium	High
Minor Arterial	Provide service for trips of moderate length, serve geographic areas smaller than higher Arterial classifications and offer connectivity to the higher arterial system. Provide intra-community continuity and may carry local bus routes. Provide more land access than Principal Arterials.	Medium	Medium
Major Collector	Gather traffic from Local Road network to funnel into Arterial network. Generally, longer in length, less land access, higher speeds, higher volumes, greater spacing, and more travel lanes than Minor Collectors.	Medium	Medium
Minor Collector	Gather traffic from Local Road network to funnel into Arterial network. Generally shorter in length, more land access, lower speeds, lower volumes, less spacing, and less travel lanes than Major Collectors.	Medium	Medium
Local Road	Account for the largest percentage of all roadways in terms of mileage. Not intended for long distance travel and often designed to discourage traffic, provide direct access to abutting land. Generally, do not carry bus routes. All roadways not classified as Arterials or Collectors are classified as Local Roads by default.	High	Low

Information taken from FHWA Highway Classification Concepts, Criteria, and Procedures
https://www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classifications/section03.cfm

Roadways are categorized into different levels of control of access describing the amount of connectivity provided to adjacent land uses and other roadways. These levels are listed below in **Table C-2** in order of mobility function.

Table C-2. Control of Access Definitions

Classification	Description
Full Control	Connectivity provided only via ramps at interchanges. All cross-streets are grade separated and no driveway connections are allowed. A control of access fence is placed along the entire length of the facility and at a minimum of 1000 feet beyond the ramp intersections on the minor facility at interchanges if possible.
Limited Control	Connectivity provided only via ramps at interchanges for major crossings and at-grade intersections for minor crossings and service roads. No driveway connections allowed. A control of access fence is placed along the entire length of the facility, except at intersections, and at a minimum of 1000 feet beyond the ramp intersections on the minor facility at interchanges if possible.
Partial Control	Connectivity provided via ramps at interchanges, at-grade intersections, and driveways. Private driveway connections are generally at a maximum of one per parcel. The use of shared or consolidated connections is highly encouraged, and connections may be restricted or prohibited if alternate access is available through adjacent public facilities. A control of access fence is placed along the entire length of the facility, except at intersections and driveways, and at a minimum of 1000 feet beyond the ramp terminals on the minor facility at interchanges if possible.
No Control	Connectivity provided via ramps at interchanges, at-grade intersections, and driveways. No physical restrictions (i.e., a control of access fence) exist. Private driveway connections are generally at a maximum of one per parcel. Additional connections may be considered if they are justified and if such connections do not negatively impact traffic operations and public safety.

Information taken from NCDOT Facility Type & Control of Access Definitions
<https://connect.ncdot.gov/projects/planning/TPB%20Documents/NCDOT%20Facility%20Types%20-%20Control%20of%20Access%20Definitions.pdf>

A bridge is considered deficient if it is either Structurally Deficient or Functionally Obsolete. To be classified as Structurally Deficient or Functionally Obsolete, a bridge must be at least 10 years old and must be a highway bridge. A bridge cannot be classified as both categories – Structurally Deficient trumps Functionally Obsolete. These concepts are described below in **Table C-3**.

Table C-3. Structurally Deficient & Functionally Obsolete Definitions

Classification	Description	Required Condition (one or more)	Required Rating
Structurally Deficient	Bridge is in relatively poor condition or has insufficient load-carrying capacity due to original design or deterioration.	Deck Condition	4 or less
		Superstructure Condition	4 or less
		Substructure Condition	4 or less
		Culvert Condition	4 or less
		Structural Evaluation	2 or less
		Waterway Adequacy	2 or less
Functionally Obsolete	Bridge is narrow, has inadequate under-clearances, has insufficient load-carrying capacity, is poorly aligned with the roadway, and can no longer adequately service today's traffic.	Structural Evaluation	3
		Deck Geometry	3 or less
		Under-clearance, vertical & horizontal	3 or less
		Waterway Adequacy	3
		Approach Roadway Alignment	3 or less

Information taken from NCDOT Structurally Deficient and Functionally Obsolete Definitions
<https://connect.ncdot.gov/resources/Environmental/PDEA%20Consultants/Structural%20Deficient%20and%20Functionally%20Obsolete%20Definitions.doc>

Appendix D. Corridor U Bridges Inventory

Table D-1. Corridor U Bridges Inventory

County	Bridge ID	Feature Below	Feature Above	Structurally Deficient	Functionally Obsolete
Polk	740039	Ramp I-26	U.S. 74 EB	No	No
Polk	740040	Ramp I-26 WB	U.S. 74 WB	No	No
Polk	740042	SR 1137	U.S. 74 EB	No	No
Polk	740046	SR 1137	U.S. 74 WB	No	No
Polk	740082	I-26	I-26 (Ramp A)	No	No
Polk	740103	U.S. 74	SR 1531	No	No
Polk	740218	U.S. 74	N.C. 9	No	No
Polk	740219	SR 1526	U.S. 74 EB	No	No
Polk	740220	SR 1526	U.S. 74 WB	No	No
Polk	740221	N.C. 108	U.S. 74 EB	No	No
Polk	740222	N.C. 108	U.S. 74 WB	No	No
Polk	740223	U.S. 74	SR 1326	No	No
Polk	740224	Green River; Private Rd	U.S. 74 EB	No	No
Polk	740225	Green River; Private Rd	U.S. 74 WB	No	No
Polk	740226	SR 1330	U.S. 74 EB	No	No
Polk	740227	SR 1330	U.S. 74 WB	No	Yes
Rutherford	800012	U.S. 74 Byp	N.C. 120	Yes	Yes
Rutherford	800044	Clinchfield RR	U.S. 74 Byp	No	No
Rutherford	800047	Clinchfield RR	U.S. 74 Byp	No	Yes
Rutherford	800081	U.S. 74 Byp	SR 1901	No	No
Rutherford	800084	Second Broad River	U.S. 74 Byp WB	No	Yes
Rutherford	800091	U.S. 74 Byp	U.S. 221A	No	No
Rutherford	800092	Webbs Creek	U.S. 74 EB Byp	No	No
Rutherford	800093	Webbs Creek	U.S. 74 WB Byp	No	No
Rutherford	800119	U.S. 74 Byp	SR 1920	No	Yes
Rutherford	800123	U.S. 74 Byp	SR 1921	No	No
Rutherford	800630	U.S. 74	SR 2159	No	No
Rutherford	800631	U.S. 74	U.S. 221	No	No
Rutherford	800632	U.S. 74	SR 2213	No	No
Rutherford	800633	U.S. 74 Alt	U.S. 74 EB	No	No
Rutherford	800634	U.S. 74 Alt	U.S. 74 WB	No	No
Rutherford	800635	SR 2169	U.S. 74 EB	No	No
Rutherford	800636	SR 2169	U.S. 74 WB	No	No
Rutherford	800637	U.S. 74	SR 1004	No	No

Table D-1. Corridor U Bridges Inventory

County	Bridge ID	Feature Below	Feature Above	Structurally Deficient	Functionally Obsolete
Rutherford	800638	SR 1153	U.S. 74	No	No
Rutherford	800639	SR 1153	U.S. 74	No	No
Rutherford	800646	French Broad River, SR 1005	U.S. 74	No	No
Rutherford	800647	French Broad River, SR 1005	U.S. 74 EB	No	No
Rutherford	800648	SR 1148	U.S. 74 WB	No	No
Rutherford	800649	SR 1148	U.S. 74 EB	No	No
Rutherford	800083	Second Broad River	U.S. 74 Byp EB	No	Yes
Cleveland	220006	RR (Abandoned)	U.S. 74 EB	No	No
Cleveland	220008	RR (Abandoned)	U.S. 74 WB	No	No
Cleveland	220021	U.S. 74	SR 1167	No	No
Cleveland	220032	U.S. 74, N.C. 226	NC18	No	No
Cleveland	220048	Sandy Run Creek	U.S. 74 EB	Yes	Yes
Cleveland	220049	Sandy Run Creek	U.S. 74 WB	Yes	Yes
Cleveland	220060	Beaverdam Creek	U.S. 74 WB	No	Yes
Cleveland	220073	Brushy Creek	U.S. 74 EB	No	Yes
Cleveland	220074	Brushy Creek	U.S. 74 WB	No	Yes
Cleveland	220079	First Broad River	U.S. 74 EB	No	Yes
Cleveland	220080	First Broad River	U.S. 74 WB	No	Yes
Cleveland	220088	U.S. 74	Morgan St	No	No
Cleveland	220101	Buffalo Creek	U.S. 74 EB	No	Yes
Cleveland	220102	Buffalo Creek	U.S. 74 WB	No	Yes
Cleveland	220107	U.S. 74	U.S. 74 Bus	No	Yes
Cleveland	220424	U.S. 74	SR 2026	No	No
Cleveland	220425	U.S. 74	SR 2034	No	No
Cleveland	220432	SR 2025	U.S. 74 EB	No	No
Cleveland	220433	SR 2025	U.S. 74 WB	No	No
Cleveland	220435	NC161	U.S. 74 EB	No	No
Cleveland	220436	NC161	U.S. 74 WB	No	No
Cleveland	220438	U.S. 74	N.C. 216	No	No
Cleveland	220451	U.S. 74	SR 1162	No	No
Gaston	350002	I-85	N.C. 279	No	Yes
Gaston	350034	I-85	N.C. 273	No	No
Gaston	350038	I-85	N.C. 274	No	No
Gaston	350046	I-85 NB	U.S. 29 & U.S. 74	No	No
Gaston	350053	U.S. 74 EB	I-85/U.S. 29 SB	No	No
Gaston	350059	I-85	N.C. 7	No	Yes

Table D-1. Corridor U Bridges Inventory

County	Bridge ID	Feature Below	Feature Above	Structurally Deficient	Functionally Obsolete
Gaston	350073	I-85	N.C. 7	No	Yes
Gaston	350086	I-85 NB	U.S. 74 EB	No	Yes
Gaston	350096	I-85	SR 1302	No	No
Gaston	350101	I-85	SR 1307	No	Yes
Gaston	350103	SR 1312	I-85	No	No
Gaston	350107	I-85	SR 1135	No	Yes
Gaston	350118	I-85	SR 1327	No	Yes
Gaston	350125	I-85	SR 2278	No	No
Gaston	350126	I-85	N Modena St	No	Yes
Gaston	350134	I-85	SR 2200	No	Yes
Gaston	350136	I-85	SR 2339	No	Yes
Gaston	350137	I-85	SR 2329	No	No
Gaston	350142	I-85	SR 2213	No	Yes
Gaston	350143	South Fork Catawba River	I-85	No	No
Gaston	350146	I-85	SR 2000	No	No
Gaston	350149	I-85	SR 2093	No	Yes
Gaston	350159	Catawba River	I-85	No	No
Gaston	350314	I-85 SB	U.S. 29 & U.S. 74 SB	No	No
Gaston	350325	U.S. 74	U.S. 74 BU.S. WB	No	Yes
Gaston	350117	I-85	Northwest Blvd	No	Yes
Gaston	350133	I-85	Aberdeen Blvd	No	Yes
Mecklenburg	590028	I-85	SR 1601	No	No
Mecklenburg	590044	I-77, U.S. 21	I-277 NB, U.S. 74 EB	No	Yes
Mecklenburg	590047	I-277 NB	I-277 Ramp	No	Yes
Mecklenburg	590048	I-77, U.S. 21	I-277 SB, U.S. 74 WB	No	Yes
Mecklenburg	590067	I-85	SR 1625	No	No
Mecklenburg	590078	Clarkson St	I-277	No	No
Mecklenburg	590122	U.S. 74	SR 4886	No	Yes
Mecklenburg	590173	U.S. 74	N.C. 27 WB	No	Yes
Mecklenburg	590175	Seaboard Coastline RR	U.S. 74, N.C. 27	No	No
Mecklenburg	590182	U.S. 74	SR 2940	No	Yes
Mecklenburg	590187	McAlpine Creek	U.S. 74 EB	No	Yes
Mecklenburg	590188	McAlpine Creek	U.S. 74 WB	No	Yes
Mecklenburg	590309	I-277, N.C. 16, N.C. 27, U.S. 74 SB	U.S. 74 WB	No	No

Table D-1. Corridor U Bridges Inventory

County	Bridge ID	Feature Below	Feature Above	Structurally Deficient	Functionally Obsolete
Mecklenburg	590404	I-277 & N.C. 16, U.S. 74 EB, Ramp	N.C. 27	No	No
Mecklenburg	590448	N.C. 16 SB	I277, U.S. 74	No	No
Mecklenburg	590449	N.C. 16 NB	I277 & U.S. 74	No	No
Mecklenburg	590450	Elizabeth Ave	I277 & U.S. 74	No	No
Mecklenburg	590451	5th St	U.S. 74 WB Ramp	No	Yes
Mecklenburg	590452	5th St	I-277	No	No
Mecklenburg	590459	U.S. 29 & U.S. 74	SR 5901 NB	No	No
Mecklenburg	590460	U.S. 29 & U.S. 74	SR 5901 SB	No	No
Mecklenburg	590478	Stonewall St	I-277 & U.S. 74 NB	No	No
Mecklenburg	590479	Stonewall St	I-277 & U.S. 74 SB	No	No
Mecklenburg	590487	N.C. 27 (S McDowell St)	I-277 NB	No	No
Mecklenburg	590488	N.C. 27 (S McDowell St)	I-277 SB, U.S. 74 WB	No	No
Mecklenburg	590489	I-277 & U.S. 74	SR 3998	No	Yes
Mecklenburg	590505	Southern Railroad	I-277 NB	No	No
Mecklenburg	590506	Southern Railroad	I-277 SB	No	No
Mecklenburg	590507	U.S. 29 & N.C. 27	I-277 NB	No	No
Mecklenburg	590508	U.S. 29 & N.C. 27	I-277 SB	No	No
Mecklenburg	590509	U.S. 29 & N.C. 49	I-277 NB	No	Yes
Mecklenburg	590510	U.S. 29 & N.C. 49	I-277 SB	No	Yes
Mecklenburg	590515	I-277, U.S. 74	Church St	No	Yes
Mecklenburg	590516	I-277, U.S. 74	Tryon St	No	Yes
Mecklenburg	590517	I-277	College St	No	Yes
Mecklenburg	590619	U.S. 74 & Edwards Branch	Briar Creek Rd	No	Yes
Mecklenburg	590668	U.S. 74	N.C. 51 NB	No	No
Mecklenburg	590669	U.S. 74	N.C. 51 SB	No	No
Mecklenburg	590742	Pecan Ave	U.S. 74 & N.C. 27	No	No
Mecklenburg	590746	I-485	U.S. 74	No	No
Mecklenburg	590748	U.S. 74 Ramp	U.S. 74	No	No
Mecklenburg	590808	U.S. 74	Hawthorne Ln	No	Yes
Mecklenburg	590403	U.S. 74, I-277 Ramp	Central Ave	No	Yes
Mecklenburg	590819	I-485	I-85	No	No
Mecklenburg	590831	U.S. 29, U.S. 74	I-485 NB Collector	No	No
Mecklenburg	590832	U.S. 29, U.S. 74	I-485 NB	No	No

Table D-1. Corridor U Bridges Inventory

County	Bridge ID	Feature Below	Feature Above	Structurally Deficient	Functionally Obsolete
Mecklenburg	590833	U.S. 29, U.S. 74	I-485 SB	No	No
Mecklenburg	590834	U.S. 29, U.S. 74	I-485 SB Collector	No	No
Mecklenburg	590981	Pierson Dr	U.S. 74 WB, N.C. 27 NB	No	No
Mecklenburg	590982	Pierson Dr	U.S. 74 EB, N.C. 27 SB	No	No
Mecklenburg	590983	N.C. 27 NB, HOV	U.S. 74 WB, HOV	No	Yes
Mecklenburg	591173	U.S. 74	Conference Dr	No	Yes
Mecklenburg	591172	U.S. 74	Idlewild Rd	No	No
Mecklenburg	591171	U.S. 74	N Sharon Amity Rd	No	Yes
Union	890034	U.S. 74, N.C. 200	Concord Ave	Yes	Yes
Union	890038	U.S. 74, N.C. 200, U.S. 601	U.S. 601 & N.C. 207	No	Yes
Union	890042	Bearskin Creek	U.S. 74 EB, U.S. 601 SB, N.C. 200 NB	No	No
Union	890043	Bearskin Creek	U.S. 74 WB, U.S. 601 NB, N.C. 200 SB	No	No
Union	890065	Seaboard Coastline RR	U.S. 74 EB, U.S. 601 SB	No	No
Union	890068	Seaboard Coastline RR	U.S. 74 WB	No	No
Union	890085	Richardson Creek	U.S. 74 EB	No	Yes
Union	890086	Richardson Creek	U.S. 74 WB	No	No
Anson	30003	Lanes Creek	U.S. 74 EB	No	No
Anson	30004	Lanes Creek	U.S. 74 WB	No	No
Anson	30028	U.S. 74	SR 1240	No	Yes
Anson	30032	Brown Creek	U.S. 74 EB	No	No
Anson	30033	Brown Creek	U.S. 74 WB	No	No
Anson	30049	Goulds Fork Creek	U.S. 74 EB	No	No
Anson	30050	Goulds Fork Creek	U.S. 74 WB	No	Yes
Anson	30064	Relief	U.S. 74	No	No
Anson	30072	U.S. 74	SR 1734	No	No
Anson	30073	Seaboard Coastline RR	U.S. 74 EB	No	No
Anson	30074	Seaboard Coastline RR	U.S. 74 WB	No	No
Anson	30078	Pee Dee River	U.S. 74 EB	No	Yes
Anson	30081	Pee Dee River	U.S. 74 WB	No	No
Richmond	760178	U.S. 74	SR 1108	No	No
Richmond	760179	U.S. 74	SR 1103	No	No

Table D-1. Corridor U Bridges Inventory

County	Bridge ID	Feature Below	Feature Above	Structurally Deficient	Functionally Obsolete
Richmond	760187	U.S. 74	SR 1109	No	No
Richmond	760188	U.S. 74	N.C. 177	No	No
Richmond	760189	U.S. 74	SR 1615	No	No
Richmond	760190	N.C. 38	U.S. 74 EB	No	No
Richmond	760191	N.C. 38	U.S. 74 WB	No	No
Richmond	760194	U.S. 74	U.S. 1	No	No
Richmond	760195	U.S. 74	U.S. 74 BU.S. EB	No	No
Richmond	760202	U.S. 74	SR 1900	No	No
Richmond	760203	CSX Railroad	U.S. 74 WB	No	No
Richmond	760204	CSX Railroad	U.S. 74 EB	No	No
Richmond	760205	SR 1825	U.S. 74 WB	No	No
Richmond	760206	SR 1825	U.S. 74 EB	No	No
Richmond	760207	Marks Creek	U.S. 74 WB	No	No
Richmond	760208	Marks Creek	U.S. 74 EB	No	No
Richmond	760209	N.C. 381, CSX RR	U.S. 74 WB	No	No
Richmond	760210	N.C. 381 & CSX RR	U.S. 74 EB	No	No
Richmond	760211	CSX RR	U.S. 74 WB	No	No
Richmond	760212	CSX RR	U.S. 74 E	No	No
Richmond	760213	U.S. 74 BU.S. EB Connector	U.S. 74 WB	No	No
Richmond	760214	U.S. 74 BU.S. EB Connector	U.S. 74 EB	No	No
Richmond	760215	CSX RR, Hitchcock Cr	U.S. 74 W	No	No
Richmond	760216	CSX RR, Hitchcock Cr	U.S. 74 EB	No	No
Richmond	760221	U.S. 74	U.S. 74 EB BU.S. Ramp	No	Yes
Scotland	820009	CSX RR	U.S. 74 EB	No	No
Scotland	820015	U.S. 74 WB	U.S. 74 BU.S. EB	No	Yes
Scotland	820016	SCLRR	U.S. 74 WB	No	No
Scotland	820022	Gum Swamp Creek	U.S. 74 EB	No	No
Scotland	820023	Gum Swamp Creek	U.S. 74 W	No	No
Scotland	820024	U.S. 74, U.S. 501	U.S. 501 Bus	No	Yes
Scotland	820026	U.S. 74	N.C. 79	No	Yes
Scotland	820035	U.S. 74	SR 1105	No	Yes
Scotland	820040	U.S. 74	SR 1108	No	Yes
Scotland	820042	U.S. 15/ U.S. 401/ U.S. 501	U.S. 74 EB	No	Yes
Scotland	820045	U.S. 15/ U.S. 401/ U.S. 501	U.S. 74/ U.S. 501 WB	No	Yes

Table D-1. Corridor U Bridges Inventory

County	Bridge ID	Feature Below	Feature Above	Structurally Deficient	Functionally Obsolete
Scotland	820049	U.S. 15 Bus/ U.S. 401 Bus	U.S. 74 EB	No	Yes
Scotland	820051	U.S. 15 Bus/ U.S. 401 Bus	U.S. 74 WB	No	Yes
Scotland	820055	U.S. 74	U.S. 501	No	Yes
Scotland	820056	U.S. 74	SR 1601	No	Yes
Scotland	820057	Southern Railroad	U.S. 74 EB	No	Yes
Scotland	820060	Southern Railroad	U.S. 74 WB	No	Yes
Scotland	820068	U.S. 74	SR 1323	No	No
Scotland	820071	Little Creek	U.S. 74 EB	No	No
Scotland	820072	Little Creek	U.S. 74 WB	No	No
Scotland	820073	U.S. 74 BU.S. & CSX Railroad	U.S. 74 WB	No	No
Scotland	820093	U.S. 74	SR 1369	No	No
Scotland	820094	U.S. 74 BU.S. & CSX Railroad	U.S. 74 EB	No	No
Scotland	820095	Big Shoe Heel Creek	U.S. 74 EB	No	No
Scotland	820096	Big Shoe Heel Creek	U.S. 74 WB	No	No
Scotland	820097	SR 1436 & CSX Railroad	U.S. 74 EB	No	No
Scotland	820098	SR 1436 & CSX Railroad	U.S. 74 WB	No	No
Robeson	770070	N.C. 41	U.S. 74 EB	No	No
Robeson	770072	N.C. 41	U.S. 74 WB	No	No
Robeson	770110	Lumber River Overflow	U.S. 74 WB, N.C. 130 WB	No	No
Robeson	770118	Lumber River	U.S. 74 WB	No	No
Robeson	770447	U.S. 74 EB	SR 1303	No	No
Robeson	770452	N.C. 71	U.S. 74 Byp EB	No	No
Robeson	770453	N.C. 71	U.S. 74 Byp WB	No	No
Robeson	770454	CSX RR	U.S. 74 Byp EB	No	No
Robeson	770455	CSX RR	U.S. 74 Byp WB	No	No
Robeson	770456	CSX RR	U.S. 74 Byp EB	No	No
Robeson	770457	CSX RR	U.S. 74 Byp WB	No	No
Robeson	770465	Lumber River Overflow	U.S. 74 EB/ N.C. 130 EB	No	No
Robeson	770466	Lumber River	U.S. 74 EB, N.C. 130 EB	No	No
Robeson	770482	I-74, U.S. 74	SR 1155	No	Yes
Robeson	770483	I-74	SR 1003	No	Yes

Table D-1. Corridor U Bridges Inventory

County	Bridge ID	Feature Below	Feature Above	Structurally Deficient	Functionally Obsolete
Robeson	770484	I-74, U.S. 74	SR 1164	No	No
Robeson	770488	I-74	SR 2418	No	No
Robeson	770487	I-95	I-74 EB	No	Yes
Robeson	770480	CSX RR	I-74 WB, U.S. 74 WB	No	No
Robeson	770481	CSX RR	I-74 EB, U.S. 74 EB	No	No
Robeson	770485	U.S. 74	SR 1207	No	No
Robeson	770490	U.S. 74	SR 2210	No	No
Robeson	770476	U.S. 74	U.S. 74 Bus	No	Yes
Robeson	770477	I-74	SR 1166	No	No
Robeson	770478	N.C. 710	I-74 WB	No	No
Robeson	770479	N.C. 710	I-74, U.S. 74	No	No
Robeson	770486	I-95	I-74, U.S. 74	No	Yes
Robeson	770489	I-74	SR 2505	No	No
Columbus	230017	U.S. 74 Byp, U.S. 76 Byp	U.S. 701 Bus	No	No
Columbus	230018	Lumber River Overflow	U.S. 74 WB	No	No
Columbus	230030	U.S. 74/ 76 Byp	SR 1005	No	No
Columbus	230034	U.S. 74/ 76 Byp	SR 1585	No	No
Columbus	230050	U.S. 74/ 76 Byp	SR 1552	No	No
Columbus	230051	U.S. 701 Byp	U.S. 74/ 76 Byp EB	No	No
Columbus	230052	U.S. 701 Byp	U.S. 74/ 76 Byp WB	No	Yes
Columbus	230053	White Marsh Swamp	U.S. 74/ 76 EB	No	No
Columbus	230054	White Marsh Swamp	U.S. 74/ 76 WB	No	No
Columbus	230056	U.S. 74	U.S. 76 WB	No	No
Columbus	230083	Livingston Creek	U.S. 74/ 76 EB	No	Yes
Columbus	230086	Livingston Creek	U.S. 74/ 76 WB	No	No
Columbus	230381	SR 1700	U.S. 74/ 76 EB	No	No
Columbus	230382	SR 1700	U.S. 74/ 76 WB	No	No
Columbus	230397	Lumber River	U.S. 74 EB	No	No
Columbus	230398	Lumber River	U.S. 74 EB, N.C. 130 EB	No	No
Columbus	230400	U.S. 74/ N.C. 130	N.C. 410	No	Yes
Columbus	230004	Lumber River Overflow	U.S. 74 WB, N.C. 130	No	No
Columbus	230383	Friar Swamp	U.S. 74, U.S. 76 EB	No	No

Table D-1. Corridor U Bridges Inventory

County	Bridge ID	Feature Below	Feature Above	Structurally Deficient	Functionally Obsolete
Columbus	230384	Friar Swamp	U.S. 74, U.S. 76 EB	No	No
Columbus	230385	Friar Swamp	U.S. 74, U.S. 76 WB	No	No
Columbus	230386	Friar Swamp	U.S. 74, U.S. 76 EB	No	No
Columbus	230387	Friar Swamp	U.S. 74, U.S. 76 WB	No	No
Columbus	230388	Friar Swamp	U.S. 74, U.S. 76 EB	No	No
Columbus	230408	U.S. 74/ 76	N.C. 211	No	No
Columbus	230411	U.S. 74/ N.C. 130	N.C. 242	No	No
Columbus	230412	U.S. 74/ N.C. 130	SR 1574	No	No
Brunswick	90004	Hoods Creek	U.S. 74, U.S. 76 EB	No	No
Brunswick	90005	Hoods Creek	U.S. 74, U.S. 76 WB	No	Yes
Brunswick	90007	U.S. 76	U.S. 17	Yes	Yes
Brunswick	90018	U.S. 74/ U.S. 76	SR 1426	No	No
Brunswick	90029	SR 1472, CSX RR	U.S. 74, U.S. 76 EB	No	No
Brunswick	90036	SR 1472, CSX RR	U.S. 74, U.S. 76 WB	No	No
Brunswick	90043	U.S. 74/ U.S. 76	SR 1437	No	No
Brunswick	90096	U.S. 74/ U.S. 76	U.S. 17	No	Yes
Brunswick	90098	N.C. 133, SR 1472	U.S. 17, U.S. 74, U.S. 76	No	No
Brunswick	90099	SR 1472	U.S. 17/ U.S. 74/ U.S. 76	No	No
Brunswick	90103	Brunswick River	U.S. 17, U.S. 64, U.S. 76, N.C. 133	No	No
Brunswick	90107	Alligator Creek	U.S. 17/ U.S. 74/ U.S. 76 NB	No	No
Brunswick	90108	Alligator Creek	U.S. 17, U.S. 64, U.S. 76, N.C. 133	No	No
Brunswick	90248	CSX RR, U.S. 74, U.S. 76	I-140 WB	No	No
Brunswick	90247	CSX RR, U.S. 74, U.S. 76	I-140	No	No
New Hanover	640011	NE Cape Fear River & Ramp	U.S. 74	Yes	No

Table D-1. Corridor U Bridges Inventory

County	Bridge ID	Feature Below	Feature Above	Structurally Deficient	Functionally Obsolete
New Hanover	640027	Cape Fear River	U.S. 17, U.S. 74, U.S. 421, N.C. 133	No	No
New Hanover	640108	Ramp (U.S. 74)	U.S. 74 (Smith Creek)	No	Yes
New Hanover	640109	Wetlands	N.C. 133, Ramp A	No	No
New Hanover	640110	Wetlands	U.S. 74 Ramp	No	No
New Hanover	640111	U.S. 74, N.C. 133	SR 1627 Ramp B	No	Yes
New Hanover	640112	McRae St, CSX RR, Smith Cr	U.S. 74 EB, N.C. 133	No	Yes
New Hanover	640113	McRae St, CSX RR, Smith Cr	U.S. 74 WB, N.C. 133 WB	No	Yes
New Hanover	640126	U.S. 74 (Ramp D)	U.S. 74 WB	No	Yes
New Hanover	640127	U.S. 74 (Ramp D)	U.S. 74 EB	No	Yes
New Hanover	640128	CSX RR	U.S. 74 WB	No	No
New Hanover	640129	CSX RR	U.S. 74 EB	No	No
New Hanover	640131	SR 1302, Smith Creek	U.S. 74 WB	No	Yes
New Hanover	640132	SR 1302, Smith Creek	U.S. 74 EB	No	No
New Hanover	640133	Wetlands	U.S. 74 Ramp B WB	No	Yes
New Hanover	640134	Wetlands	U.S. 74 Ramp Loop B	No	No

Appendix E. NCDOT Level of Service D Standards for Systems Level Planning



Level of Service D Standards for Systems Level Planning

Level of Service A



Driver Comfort: High

Maximum Density:

12 passenger cars per mile per lane

Level of Service B



Driver Comfort: High

Maximum Density:

20 passenger cars per mile per lane

Level of Service C



Driver Comfort: Some Tension

Maximum Density:

30 passenger cars per mile per lane

Level of Service D



Driver Comfort: Poor

Maximum Density:

42 passenger cars per mile per lane

Level of Service E



Driver Comfort: Extremely Poor

Maximum Density:

67 passenger cars per mile per lane

Level of Service F



Driver Comfort: The lowest

Maximum Density:

More than 67 passenger cars per mile per lane

General Disclaimer

The Level of Service D Standards for Systems Level Planning was derived from the 2005 North Carolina Level of Service (NCLOS) Version 2.1 Program developed by the Institute for Transportation Research and Education (ITRE) at North Carolina State University. The NCLOS Program is based on the 2000 Highway Capacity Manual, published by the Transportation Research Board (TRB).

These standards are intended for **systems level planning only**. Many assumptions are made and documented in the development of these standards.

CTP FACILITY TYPES

FREEWAYS represent a multi-lane divided facility with complete access control (interchanges only and no traffic signals).

EXPRESSWAYS represent a multi-lane divided facility with a high level of access control (interchanges, limited at-grade intersections, right-in/right out access, and no traffic signals).

BOULEVARDS represent a typically divided facility with moderate access control (at-grade intersections, right-in/right out access, and traffic signals at major intersections).

OTHER MAJOR THOROUGHFARES represent undivided facilities with four or more lanes (US and NC routes may have less than 4 lanes). These facilities typically have low access control (at-grade intersections, access to development, and traffic signals at major and some minor intersections).

MINOR THOROUGHFARES represent a 2-to-3 lane undivided facility that is not signed as a US or NC route. These facilities typically have low access control (at-grade intersections, access to development, and traffic signals at major and minor intersections).

NCLOS (HCM) FACILITY TYPES

FREEWAYS (Freeways) represent a multi-lane divided facility with complete access control (interchanges only and no traffic signals).

EXPRESSWAYS (Multi-lane Highways) represent a multi-lane divided facility with a high level of access control (interchanges, limited at-grade intersections, right-in/right out access, and no traffic signals).

BOULEVARDS (Arterials, 25-55 MPH) represent a typically divided facility with moderate access control (at-grade intersections, right-in/right out access, and traffic signals at major intersections).

OTHER MAJOR THOROUGHFARES (Arterials, 25-55 MPH) represent undivided facilities with four or more lanes (US and NC routes may have less than 4 lanes). These facilities typically have low access control (at-grade intersections, access to development, and traffic signals at major and some minor intersections). These facilities are typically within an urban or suburban area (e.g. within a municipality or ETJ).

MINOR THOROUGHFARES (Arterials 25-55 MPH) represent a 2-to-3 lane undivided facility that is not signed as a US or NC route. These facilities typically have low access control (at-grade intersections, access to development, and traffic signals at major and minor intersections). These facilities are typically within an urban or suburban area (e.g. within a municipality or ETJ).

RURAL 2-LANE HIGHWAY (Two-Lane Highway, 55 MPH ONLY) represents a 2-lane undivided facility outside of a municipality or ETJ. These facilities have a 55 MPH posted speed limit, have low access control with numerous driveways and no traffic signals. These facilities are classified in a CTP as **other major thoroughfares** if they are a **US or NC route** or **minor thoroughfares** if they are a **secondary or local** route.

AREA TYPE

RURAL represents an area outside a municipality or Extraterritorial Jurisdiction (ETJ).

SUBURBAN represents an area within a municipality or ETJ that is not within a Central Business District (CBD) or areas immediately surrounding a CBD.

URBAN represents an area that is within a CBD or areas immediately surrounding a CBD.

LEVEL OF SERVICE D VALUES

MINIMUM CAPACITY VALUES represents conditions/inputs that result in a worst-case Level of Service D for a given facility. This lower value represents worst-case conditions in available data for a given region (Higher K/D Factors, Lower Peak Hour Factor, poor road conditions, etc.).

STANDARD CAPACITY VALUES represents an average Level of Service D for a given facility. This default value is an average of available data for a given region.

MAXIMUM CAPACITY VALUES represents conditions/inputs that result in a best-case Level of Service D for a given facility. This higher value represents best-case conditions in available data for a given region (Lower K/D Factors, Higher Peak Hour Factor, etc.).

These assumptions may not pertain to all systems level planning work; therefore, separate analysis may need to be conducted on a case-by-case basis.

These standards are **not** intended for project specific or corridor analysis. Separate analysis would be required for these types of projects.

Volumes shown represent the point at which traffic transitions from LOS D to LOS E.

Level of Service D Standards for Freeways *

COASTAL	2 Lanes Per Direction			3 Lanes Per Direction			4 Lanes Per Direction		
	Urban	Suburban	Rural	Urban	Suburban	Rural	Urban	Suburban	Rural
0-5% Trucks	67400	66900	67900	102000	101300	101800	137300	136200	135700
6-10% Trucks	65700	65400	66200	99600	98900	99400	134000	133000	132500
11-15% Trucks	64200	63800	64700	97300	96600	97100	130900	129900	129400
16-20% Trucks	62800	62400	63200	95100	94400	94900	127900	126900	126500
21-25% Trucks	61400	61000	61800	9300	92300	92700	125100	124100	123700
26-30% Trucks	60000	59700	60500	90900	90300	90700	122400	121400	121000
31-35% Trucks	58800	58400	59200	89000	88400	88800	119800	118800	118400

PIEDMONT	2 Lanes Per Direction			3 Lanes Per Direction			4 Lanes Per Direction		
	Urban	Suburban	Rural	Urban	Suburban	Rural	Urban	Suburban	Rural
0-5% Trucks	61700	61400	62200	93500	92900	93300	125800	124900	124400
6-10% Trucks	60300	59900	60700	91300	90700	91100	122800	121900	121500
11-15% Trucks	58900	58500	59300	89200	88600	89000	120000	119100	118600
16-20% Trucks	57500	57200	58000	87100	86500	87000	117300	116400	115900
21-25% Trucks	56300	55900	56700	85200	84600	85000	114700	113800	113400
26-30% Trucks	55000	54700	55400	83400	82800	83200	112200	111300	110900
31-35% Trucks	53900	53500	54300	81600	81000	81400	109800	108900	108500

MOUNTAIN (Level Terrain)	2 Lanes Per Direction			3 Lanes Per Direction			4 Lanes Per Direction		
	Urban	Suburban	Rural	Urban	Suburban	Rural	Urban	Suburban	Rural
0-5% Trucks	56100	61400	62200	85000	92900	93300	114400	124900	124400
6-10% Trucks	54800	59900	60700	83000	90700	91100	111700	121900	121500
11-15% Trucks	53500	58500	59300	81100	88600	89000	109100	119100	118600
16-20% Trucks	52300	57200	58000	79200	86500	87000	106600	116400	115900
21-25% Trucks	51100	55900	56700	77500	84600	85000	104200	113800	113400
26-30% Trucks	50000	54700	55400	75800	82800	83200	102000	111300	110900
31-35% Trucks	49000	53500	54300	74200	81000	81400	99800	108900	108500

MOUNTAIN (Rolling Terrain)	2 Lanes Per Direction			3 Lanes Per Direction			4 Lanes Per Direction		
	Urban	Suburban	Rural	Urban	Suburban	Rural	Urban	Suburban	Rural
0-5% Trucks	53500	58500	59300	81100	88600	89000	109100	119100	118600
6-10% Trucks	50000	54700	55400	75800	82800	83200	102000	111300	110900
11-15% Trucks	47000	51400	52100	71100	77700	78100	95700	104500	104100
16-20% Trucks	44300	48400	49000	67000	73200	73600	90200	98500	98100
21-25% Trucks	41800	45700	46400	63400	69200	69600	85300	93100	92700
26-30% Trucks	39700	43400	44000	60100	65700	66000	80900	88300	87900
31-35% Trucks	37700	41200	41800	57100	62400	62700	76900	83900	83600

Uses "Freeways" Facility Type in NCLOS

* Assumes Regional K and D Factor Averages

See Appendix A1 for HCM 2000 Freeway Equations

Use Appendix A2: Coastal Freeway Inputs for adjustments

Use Appendix A3: Piedmont Freeway Inputs for adjustments

Use Appendix A4: Mountain (Level) Freeway Inputs for adjustments

Use Appendix A5: Mountain (Rolling) Freeway Inputs for adjustments

NOTE: Truck percentage occurs within the peak hour, not a daily truck percentage

Level of Service D Standards for Expressways *

COASTAL	2 Lanes Per Direction			3 Lanes Per Direction			4 Lanes Per Direction		
	Urban	Suburban	Rural	Urban	Suburban	Rural	Urban	Suburban	Rural
0-5% Trucks	47500	58500	58800	71200	87700	88300	95000	117000	117700
6-10% Trucks	46400	57100	57400	69500	85600	86200	92700	114200	114900
11-15% Trucks	45300	55800	56100	67900	83700	84200	90600	111500	112200
16-20% Trucks	44200	54500	54800	66400	81800	82200	88500	109000	109700
21-25% Trucks	43300	53300	53600	64900	79900	80400	86500	106600	107200
26-30% Trucks	42300	52100	52400	63500	78200	78700	84700	104300	104900
31-35% Trucks	41400	51000	51300	62100	76500	77000	82900	102100	102700

PIEDMONT	2 Lanes Per Direction			3 Lanes Per Direction			4 Lanes Per Direction		
	Urban	Suburban	Rural	Urban	Suburban	Rural	Urban	Suburban	Rural
0-5% Trucks	47500	58500	58800	71200	87700	88300	95000	117000	117700
6-10% Trucks	46400	57100	57400	69500	85600	86200	92700	114200	114900
11-15% Trucks	45300	55800	56100	67900	83700	84200	90600	111500	112200
16-20% Trucks	44200	54500	54800	66400	81800	82200	88500	109000	109700
21-25% Trucks	43300	53300	53600	64900	79900	80400	86500	106600	107200
26-30% Trucks	42300	52100	52400	63500	78200	78700	84700	104300	104900
31-35% Trucks	41400	51000	51300	62100	76500	77000	82900	102100	102700

MOUNTAIN (Level Terrain)	2 Lanes Per Direction			3 Lanes Per Direction			4 Lanes Per Direction		
	Urban	Suburban	Rural	Urban	Suburban	Rural	Urban	Suburban	Rural
0-5% Trucks	47500	53200	58800	71200	79800	88300	95000	106400	117700
6-10% Trucks	46400	51900	57400	69500	77900	86200	92700	103800	114900
11-15% Trucks	45300	50700	56100	67900	76100	84200	90600	101400	112200
16-20% Trucks	44200	49500	54800	66400	74300	82200	88500	99100	109700
21-25% Trucks	43300	48400	53600	64900	72700	80400	86500	96900	107200
26-30% Trucks	42300	47400	52400	63500	71100	78700	84700	94800	104900
31-35% Trucks	41400	46400	51300	62100	69600	77000	82900	92800	102700

MOUNTAIN (Rolling Terrain)	2 Lanes Per Direction			3 Lanes Per Direction			4 Lanes Per Direction		
	Urban	Suburban	Rural	Urban	Suburban	Rural	Urban	Suburban	Rural
0-5% Trucks	41200	50700	56100	61700	76100	84200	82300	101400	112200
6-10% Trucks	38500	47400	52400	57700	71100	78700	77000	94800	110400
11-15% Trucks	36100	44500	49200	54200	66700	73900	72200	89000	98500
16-20% Trucks	34000	41900	46400	51100	62900	69600	68100	83900	92800
21-25% Trucks	32200	39600	43900	48300	59500	65800	64400	79300	87700
26-30% Trucks	30500	37600	41600	45800	56400	62400	61000	75200	83200
31-35% Trucks	29000	35700	39600	43500	53600	59300	58000	71500	79100

Uses "Multi-lane Highways" Facility Type in NCLOS

* Assumes Regional K and D Factor Averages

See Appendix B1 for HCM 2000 Multi-lane Highway Equations

Use Appendix B2: Coastal Expressway Inputs for adjustments

Use Appendix B3: Piedmont Expressway Inputs for adjustments

Use Appendix B4: Mountain (Level) Expressway Inputs for adjustments

Use Appendix B5: Mountain (Rolling) Expressway Inputs for adjustments

NOTE: Truck percentage occurs within the peak hour, not a daily truck percentage

Level of Service D Standards for Boulevards *

COASTAL	1 Lane Per Direction			2 Lanes Per Direction			3 Lanes Per Direction		
	Urban	Suburban	Rural	Urban	Suburban	Rural	Urban	Suburban	Rural
55 MPH	21600	21900	24500	43300	43900	49000	64900	65800	73500
45 MPH	18900	19800	23600	38100	39700	47200	57200	59600	70800
35 MPH	14000	16900		28100	34300		42200	51700	
25 MPH	12500			25400			38400		

PIEDMONT	1 Lane Per Direction			2 Lanes Per Direction			3 Lanes Per Direction		
	Urban	Suburban	Rural	Urban	Suburban	Rural	Urban	Suburban	Rural
55 MPH	19900	20200	22600	40000	40500	45200	59900	60700	67900
45 MPH	17500	18300	21800	35100	36600	43600	52800	55000	65400
35 MPH	14000	15600		28100	31600		42200	47700	
25 MPH	12500			25400			38400		

MOUNTAIN	1 Lane Per Direction			2 Lanes Per Direction			3 Lanes Per Direction		
	Urban	Suburban	Rural	Urban	Suburban	Rural	Urban	Suburban	Rural
55 MPH	21600	21900	22300	43300	43900	44500	64900	65800	66800
45 MPH	18900	20700	21400	38100	41400	42900	57200	62100	64400
35 MPH	14000	18500		28100	37400		42200	56400	
25 MPH	12500			25400			38400		

Uses "Principal Arterials" Facility Type in NCLOS

* Assumes Regional K and D Factor Averages

See Appendix C1 for HCM Urban Arterial Equations

Use Appendix C2: Coastal Boulevard Inputs for adjustments

Use Appendix C3: Piedmont Boulevard Inputs for adjustments

Use Appendix C4: Mountain Boulevard Inputs for adjustments

NOTE: Inputs assume 12-foot lanes. To adjust lane-width downward, subtract 3.33% per foot of pavement and round to the nearest hundred

Coastal Level of Service D Standards for Other Major Thoroughfares *

55 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	15100	15800	16400	16600	17200	17800
11 foot lanes	14600	15300	15900	16100	16600	17200
10 foot lanes	14100	14700	15300	15500	16100	16600
9 foot lanes	13600	14200	14800	15000	15500	16000
45 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	13200	13800	14600	14500	14900	16000
11 foot lanes	12800	13300	14100	14000	14400	15500
10 foot lanes	12300	12900	13600	13500	13900	15000
9 foot lanes	11900	12420	13140	13050	13400	14400
35 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	11100	12600		12700	14000	
11 foot lanes	10700	12200		12300	13500	
10 foot lanes	10400	11800		11900	13100	
9 foot lanes	10000	11300		11400	12600	
25 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	11000			12700		
11 foot lanes	10600			12300		
10 foot lanes	10300			11900		
9 foot lanes	9900			11400		

Uses "Principal Arterials" Facility Type in NCLOS

* Decrease in Lane Width Capacity calculated via 2000 Highway Capacity Manual lane-width adjustment factor for saturation flow rate

See Appendix D1 for HCM 2000 Urban Arterial Equations

Use Appendix D2: Coastal Major Thoroughfare Inputs for adjustments

NOTE: Lane Width is adjusted downward by 3.33% per less foot of pavement and rounded to the nearest hundred

Coastal Level of Service D Standards for Other Major Thoroughfares *

55 MPH	2 Lanes Per Direction			2 Lanes Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	30400	31600	32800	33300	34500	35700
11 foot lanes	29400	30600	31700	32200	33400	34500
10 foot lanes	29400	29500	30600	31100	32200	33300
9 foot lanes	27400	28400	29500	30000	31100	32100
45 MPH	2 Lanes Per Direction			2 Lanes Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	26700	27600	29300	29000	29900	32000
11 foot lanes	25900	26700	28300	28000	28900	30900
10 foot lanes	25000	25800	27300	27100	27900	29900
9 foot lanes	24000	24800	26400	26100	26900	29000
35 MPH	2 Lanes Per Direction			2 Lanes Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	22200	25500		24300	28100	
11 foot lanes	21500	24700		23500	27200	
10 foot lanes	20700	23800		22700	26200	
9 foot lanes	20000	23000		21900	25300	
25 MPH	2 Lanes Per Direction			2 Lanes Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	22100			24200		
11 foot lanes	21400			23400		
10 foot lanes	20500			22600		
9 foot lanes	19900			21800		

Uses "Principal Arterials" Facility Type in NCLOS

* Decrease in Lane Width Capacity calculated via 2000 Highway Capacity Manual lane-width adjustment factor for saturation flow rate

See Appendix D1 for HCM 2000 Urban Arterial Equations

Use Appendix D2: Coastal Major Thoroughfare Inputs for adjustments

NOTE: Lane Width is adjusted downward by 3.33% per less foot of pavement and rounded to the nearest hundred

Piedmont Level of Service D Standards for Other Major Thoroughfares *

55 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	12900	14600	15100	14200	15900	16500
11 foot lanes	12500	14100	14600	13700	15400	16000
10 foot lanes	12000	13600	14100	13300	14800	15400
9 foot lanes	11600	13100	13600	12800	14300	14900
45 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	12200	12700	14600	13300	13800	16000
11 foot lanes	11800	12300	14100	12900	13300	15500
10 foot lanes	11400	11900	13600	12400	12900	14900
9 foot lanes	11000	11400	13100	12000	12400	14400
35 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	11100	11600		12700	12900	
11 foot lanes	10700	11200		12300	12500	
10 foot lanes	10400	10800		11900	12000	
9 foot lanes	10000	10400		11400	11600	
25 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	11000			12700		
11 foot lanes	10600			12300		
10 foot lanes	10300			11900		
9 foot lanes	9900			11400		

Uses "Principal Arterials" Facility Type in NCLOS

* Decrease in Lane Width Capacity calculated via 2000 Highway Capacity Manual lane-width adjustment factor for saturation flow rate

See Appendix D1 for HCM 2000 Urban Arterial Equations

Use Appendix D3: Piedmont Major Thoroughfare Inputs for adjustments

NOTE: Lane Width is adjusted downward by 3.33% per less foot of pavement

Piedmont Level of Service D Standards for Other Major Thoroughfares *

55 MPH	2 Lanes Per Direction			2 Lanes Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	25800	29100	30200	28400	31800	33000
11 foot lanes	24900	28100	29200	27500	30800	31900
10 foot lanes	24100	27200	28200	26500	29700	30800
9 foot lanes	23200	26200	27200	25600	28600	29700
45 MPH	2 Lanes Per Direction			2 Lanes Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	24600	25500	29300	26800	27600	32000
11 foot lanes	23800	24700	28300	25900	26700	31000
10 foot lanes	23000	23800	27300	25000	25800	29900
9 foot lanes	22100	23000	26400	24100	24800	28800
35 MPH	2 Lanes Per Direction			2 Lanes Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	22200	23500		24300	26000	
11 foot lanes	21500	22700		23500	25100	
10 foot lanes	20700	21900		22700	24300	
9 foot lanes	20000	21200		21900	23400	
25 MPH	2 Lanes Per Direction			2 Lanes Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	22100			24200		
11 foot lanes	21400			23400		
10 foot lanes	20600			22600		
9 foot lanes	19900			21800		

Uses "Principal Arterials" Facility Type in NCLOS

* Decrease in Lane Width Capacity calculated via 2000 Highway Capacity Manual lane-width adjustment factor for saturation flow rate

See Appendix D1 for HCM 2000 Urban Arterial Equations

Use Appendix D3: Piedmont Major Thoroughfare Inputs for adjustments

NOTE: Lane Width is adjusted downward by 3.33% per less foot of pavement and rounded to the nearest hundred

Mountain Level of Service D Standards for Other Major Thoroughfares *

55 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	14000	14600	15100	15300	15900	16500
11 foot lanes	13500	14100	14600	14800	15400	16000
10 foot lanes	13100	13600	14100	14300	14800	15400
9 foot lanes	12600	13100	13600	13800	14300	14900
45 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	12200	12700	14600	13300	13800	16000
11 foot lanes	11800	12300	14100	12900	13300	15500
10 foot lanes	11400	11900	13600	12400	12900	14900
9 foot lanes	11000	11400	13100	12000	12400	14400
35 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	11000	11600		12700	12900	
11 foot lanes	10600	11200		12300	12500	
10 foot lanes	10300	10800		11900	12000	
9 foot lanes	9900	10400		11400	11600	
25 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	11000			12700		
11 foot lanes	10600			12300		
10 foot lanes	10300			11900		
9 foot lanes	9900			11400		

Uses "Principal Arterials" Facility Type in NCLOS

* Decrease in Lane Width Capacity calculated via 2000 Highway Capacity Manual lane-width adjustment factor for saturation flow rate

See Appendix D1 for HCM 2000 Urban Arterial Equations

Use Appendix D4: Mountains Major Thoroughfare Inputs for adjustments

NOTE: Lane Width is adjusted downward by 3.33% per less foot of pavement and rounded to the nearest hundred

Mountain Level of Service D Standards for Other Major Thoroughfares *

55 MPH	2 Lanes Per Direction			2 Lanes Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	28000	29100	30200	30800	31800	33000
11 foot lanes	27100	28100	29200	29800	30800	31900
10 foot lanes	26100	27200	28200	28700	29700	30800
9 foot lanes	25200	26200	27200	27700	28600	29700
45 MPH	2 Lanes Per Direction			2 Lanes Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	24600	25500	29300	26800	27600	32000
11 foot lanes	23800	24700	28300	25900	26700	30900
10 foot lanes	23000	23800	27300	25000	25800	29900
9 foot lanes	22100	23000	26400	24100	24800	28800
35 MPH	2 Lanes Per Direction			2 Lanes Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	22200	23500		24300	26000	
11 foot lanes	21500	22700		23500	25400	
10 foot lanes	20700	21900		22700	24300	
9 foot lanes	20000	21200		21900	23400	
25 MPH	2 Lanes Per Direction			2 Lanes Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	22100			24200		
11 foot lanes	21400			23400		
10 foot lanes	20600			22600		
9 foot lanes	19900			21800		

Uses "Principal Arterials" Facility Type in NCLOS

* Decrease in Lane Width Capacity calculated via 2000 Highway Capacity Manual lane-width adjustment factor for saturation flow rate

See Appendix D1 for HCM 2000 Urban Arterial Equations

Use Appendix D4: Mountains Major Thoroughfare Inputs for adjustments

NOTE: Lane Width is adjusted downward by 3.33% per less foot of pavement

Coastal Level of Service D Standards for Minor Thoroughfares *

55 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	15100	15800	16400	16600	17200	17800
11 foot lanes	14600	15300	15900	16100	16600	17200
10 foot lanes	14100	14700	15300	15500	16100	16600
9 foot lanes	13600	14200	14800	14900	15500	16000

45 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	12700	13300	14600	14200	14300	16000
11 foot lanes	12300	12900	14100	13700	13800	15500
10 foot lanes	11900	12400	13600	13300	13300	14900
9 foot lanes	11400	12000	13100	12800	12900	14400

35 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	10500	11000		11500	13700	
11 foot lanes	10200	10600		11100	13300	
10 foot lanes	9800	10300		10700	12800	
9 foot lanes	9500	9900		10400	12300	

25 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	10000			11300		
11 foot lanes	9700			10900		
10 foot lanes	9300			10500		
9 foot lanes	9000			10200		

Uses "Principal Arterials" and "Minor Arterials" Facility Types in NCLOS

* Decrease in Lane Width Capacity calculated via 2000 Highway Capacity Manual lane-width adjustment factor for saturation flow rate

See Appendix E1 for HCM 2000 Urban Arterial Equations

Use Appendix E2: Coastal Minor Thoroughfare Inputs for adjustments

NOTE: Lane Width is adjusted downward by 3.33% per less foot of pavement

Piedmont Level of Service D Standards for Minor Thoroughfares *

55 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	12900	14600	15100	14200	15900	16500
11 foot lanes	12500	14100	14600	13700	15400	16000
10 foot lanes	12000	13600	14100	13300	14800	15400
9 foot lanes	11600	13100	13600	12800	14300	14900

45 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	11700	12200	14600	13100	13200	16000
11 foot lanes	11300	11800	14100	12700	12800	15500
10 foot lanes	10900	11400	13600	12200	12300	14900
9 foot lanes	10500	11000	13100	11800	11900	14400

35 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	10200	10200		11700	12700	
11 foot lanes	9900	9900		11300	12300	
10 foot lanes	9500	9500		10900	11900	
9 foot lanes	9200	9200		10500	11400	

25 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	10000			11300		
11 foot lanes	9700			10900		
10 foot lanes	9300			10500		
9 foot lanes	9000			10200		

Uses "Principal Arterials" and "Minor Arterials" Facility Types in NCLOS

* Decrease in Lane Width Capacity calculated via 2000 Highway Capacity Manual lane-width adjustment factor for saturation flow rate

See Appendix E1 for HCM 2000 Urban Arterial Equations

Use Appendix E3: Piedmont Minor Thoroughfare Inputs for adjustments

NOTE: Lane Width is adjusted downward by 3.33% per less foot of pavement

Mountain Level of Service D Standards for Minor Thoroughfares *

55 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	14000	14600	15100	15300	15900	16500
11 foot lanes	13500	14100	14600	14800	15400	16000
10 foot lanes	13100	13600	14100	14300	14800	15400
9 foot lanes	12600	13100	13600	13800	14300	14900

45 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	11700	12200	14600	13100	13200	16000
11 foot lanes	11300	11800	14100	12700	12800	15500
10 foot lanes	10900	11400	13600	12200	12300	14900
9 foot lanes	10500	11000	13100	11800	11900	14400

35 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	10200	10200		11500	12700	
11 foot lanes	9900	9900		11100	12300	
10 foot lanes	9500	9500		10700	11900	
9 foot lanes	9200	9200		10400	11400	

25 MPH	1 Lane Per Direction			1 Lane Per Direction WCLTL		
	Urban	Suburban	Rural	Urban	Suburban	Rural
12 foot lanes	10000			11300		
11 foot lanes	9700			10900		
10 foot lanes	9300			10500		
9 foot lanes	9000			10200		

Uses "Principal Arterials" and "Minor Arterials" Facility Types in NCLOS

* Decrease in Lane Width Capacity calculated via 2000 Highway Capacity Manual lane-width adjustment factor for saturation flow rate

See Appendix E1 for HCM 2000 Urban Arterial Equations

Use Appendix E4: Mountain Minor Thoroughfare Inputs for adjustments

NOTE: Lane Width is adjusted downward by 3.33% per less foot of pavement

Level of Service D Standards for Rural 2-Lane Highways

Coastal 2-Lane Highway Standard	COASTAL		
	Minimum	Standard	Maximum
12-Foot Lanes	10500	12700*	14700*#
11-Foot Lanes	10000		
10-Foot Lanes	9200	12000	
9-Foot Lanes	7700	10700	

Piedmont 2-Lane Highway Standard	PIEDMONT		
	Minimum	Standard	Maximum
12-Foot Lanes	10300	12400*	14300*#
11-Foot Lanes	9900		
10-Foot Lanes	9000	11800	
9-Foot Lanes	7500	10500	

Mountain 2-Lane Highway Standard	MOUNTAINS (Level)		
	Minimum	Standard	Maximum
12-Foot Lanes	10200	12100*	14000*#
11-Foot Lanes	9800		
10-Foot Lanes	8800	11700	
9-Foot Lanes	7400	10300	

Mountain 2-Lane Highway Standard	MOUNTAINS (Rolling)		
	Minimum	Standard	Maximum
12-Foot Lanes	9600	12100*	14000*#
11-Foot Lanes	9100		
10-Foot Lanes	8200	11100	
9-Foot Lanes	6300	9800	

Uses "2-Lane Highways" Facility Type in NCLOS

* All capacities calculated based on HCM 2000 procedures using HCS software. Under some conditions, two-lane highway capacity is not affected by lane width. This occurs where capacity is governed by Percent Time Spent Following rather than by Average Travel Speed.

Best-case/Maximum conditions are less likely to occur where lane widths are below 11 feet. Use caution before selecting "Maximum" values for 9-ft or 10-ft lanes.

See Appendix F1 for HCM 2000 2-Lane Highway Equations

Use Appendix F2: Coastal Rural 2-Lane Highway Inputs for adjustments

Use Appendix F3: Piedmont Rural 2-Lane Highway Inputs for adjustments

Use Appendix F4: Mountain (Level) Rural 2-Lane Highway Inputs for adjustments

Use Appendix F5: Mountain (Rolling) Rural 2-Lane Highway Inputs for adjustments

Appendix F. Corridor U Survey Results

U.S. 74 – Public Survey Results

Views 1,524	Participants 638	Responses 8,260	Comments 155
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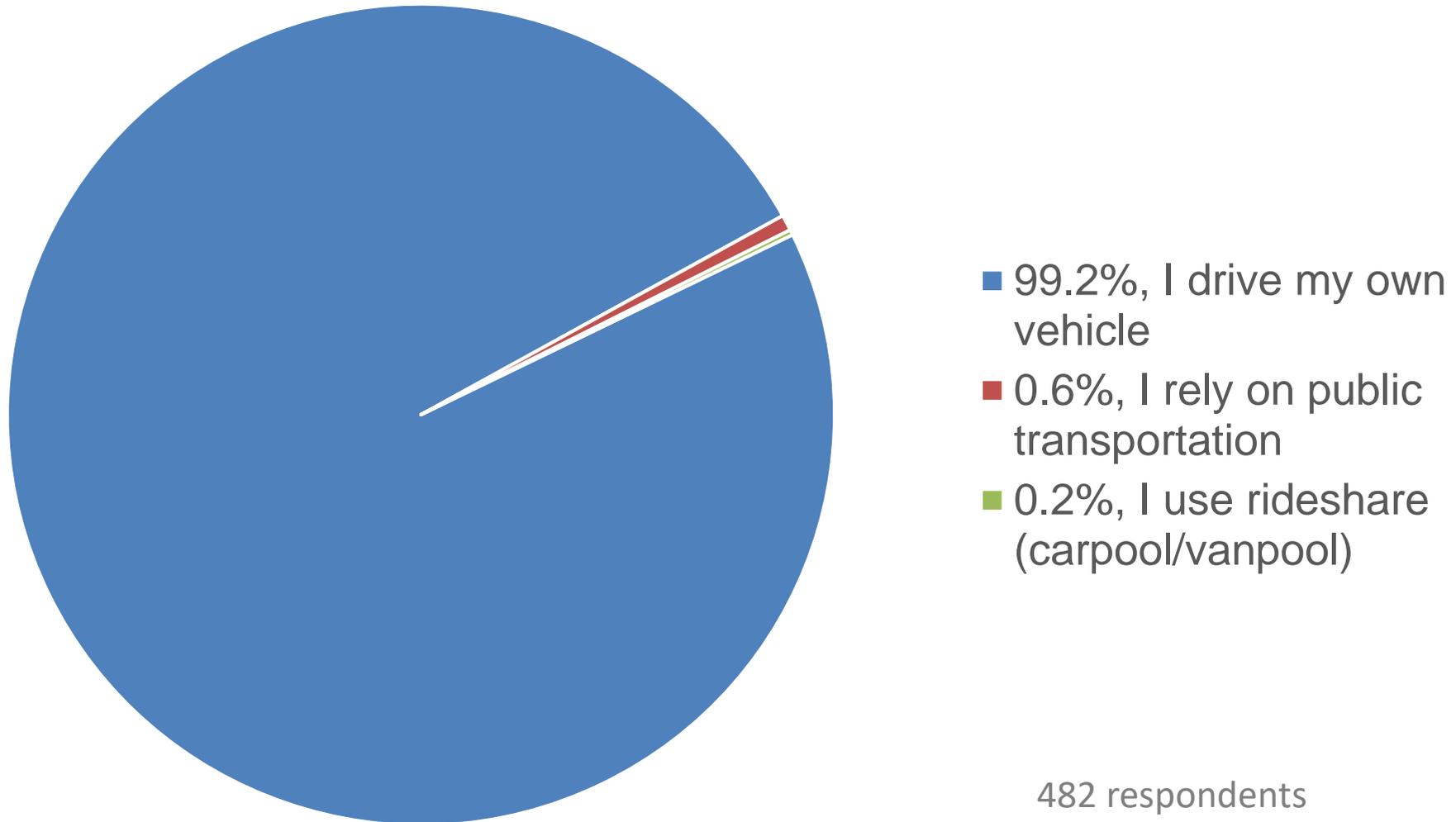
U.S. 74 – Public Survey Results



- Percentage of respondents providing zip codes
- 344 respondents provided zip codes

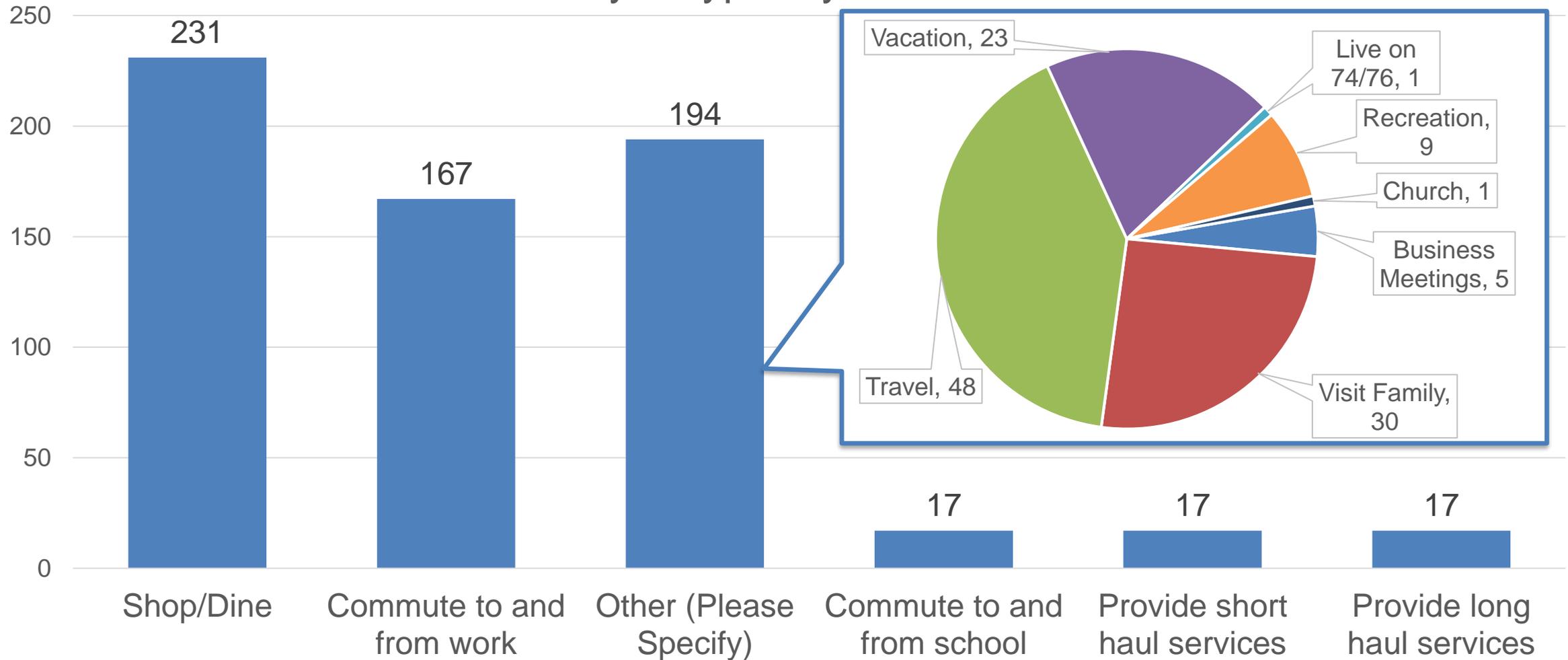
U.S. 74 – Public Survey Results

What is your primary mode of transportation?



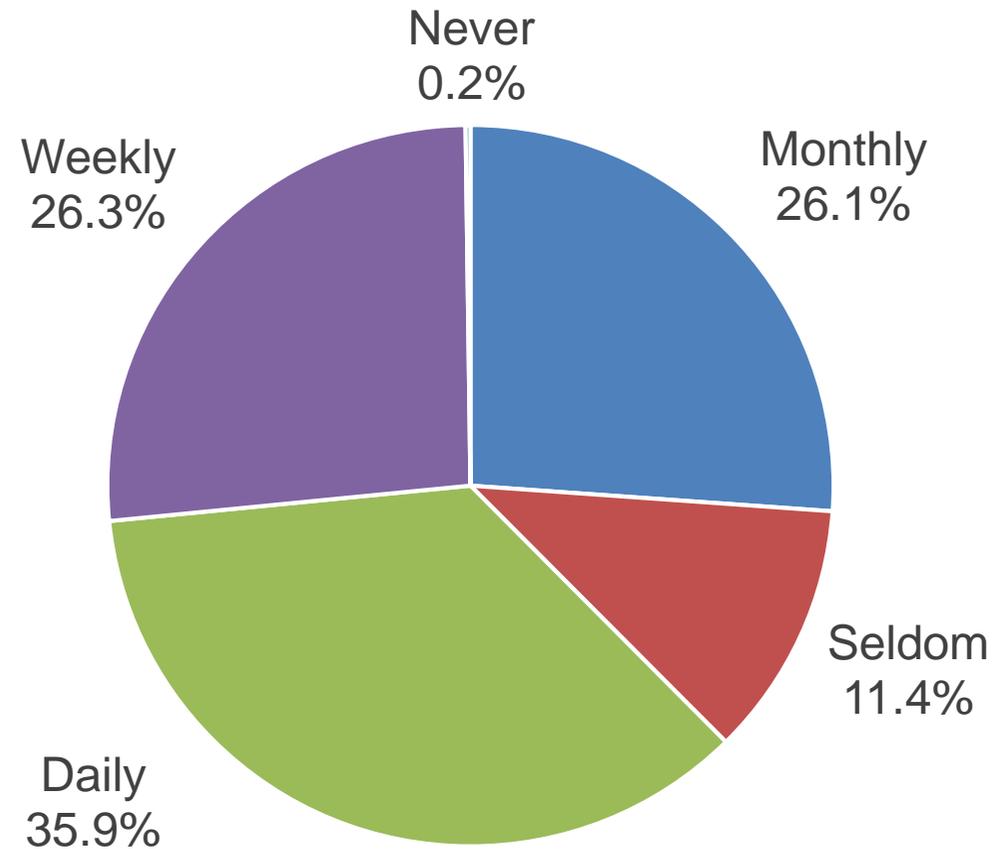
U.S. 74 – Public Survey Results

How do you typically use U.S. 74?



U.S. 74 – Public Survey Results

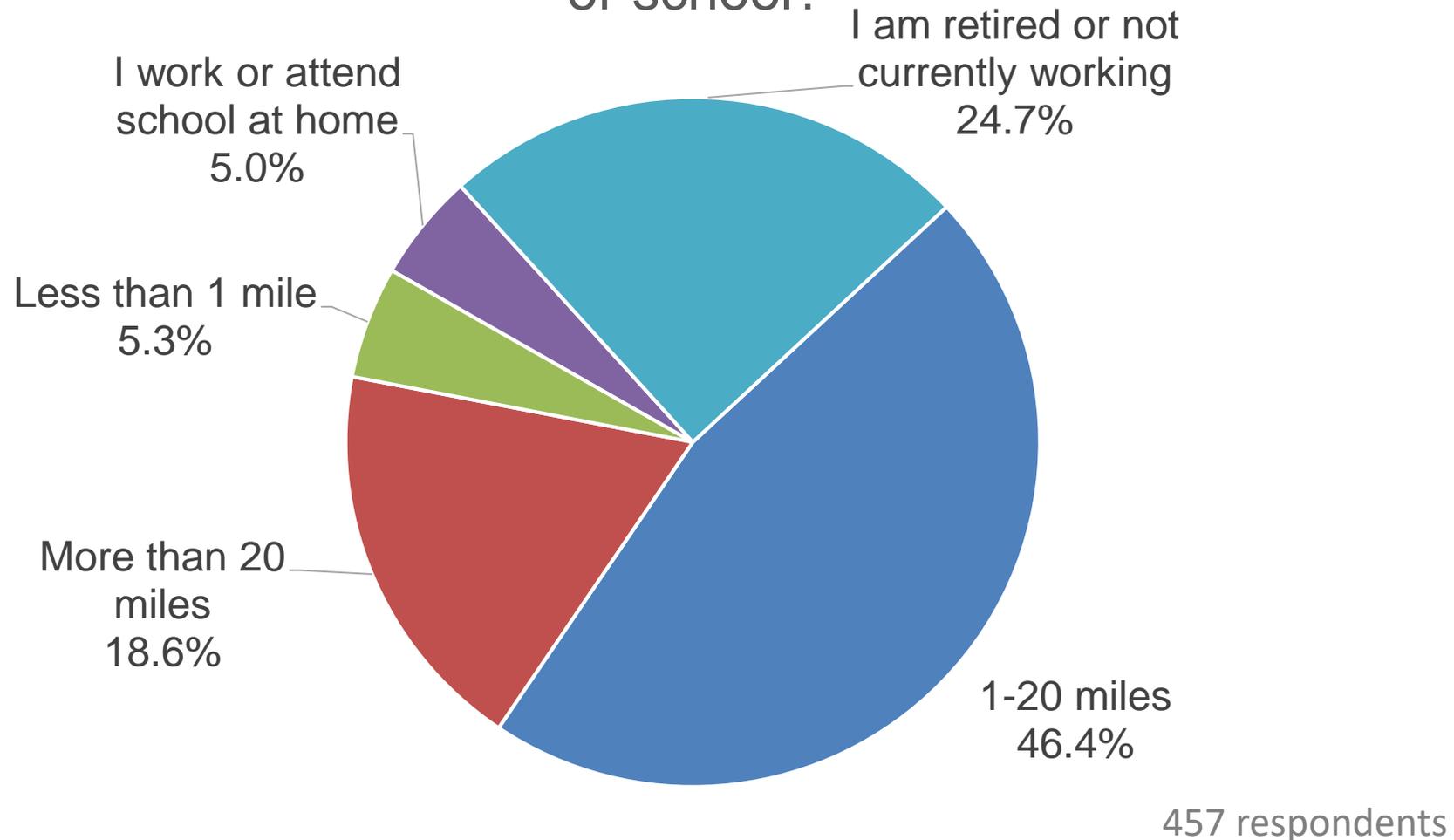
How often do you typically use U.S. 74?



463 respondents

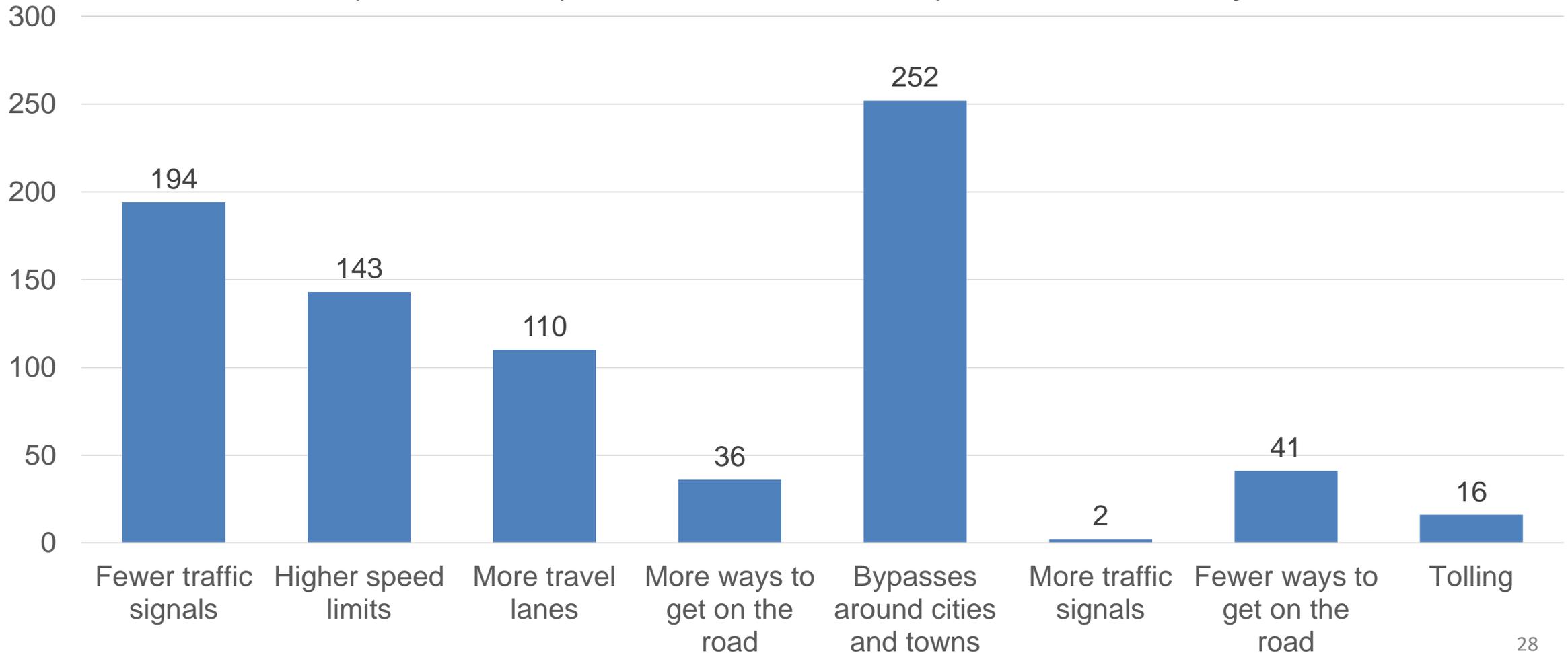
U.S. 74 – Public Survey Results

How far do you typically commute to your place of work or school?



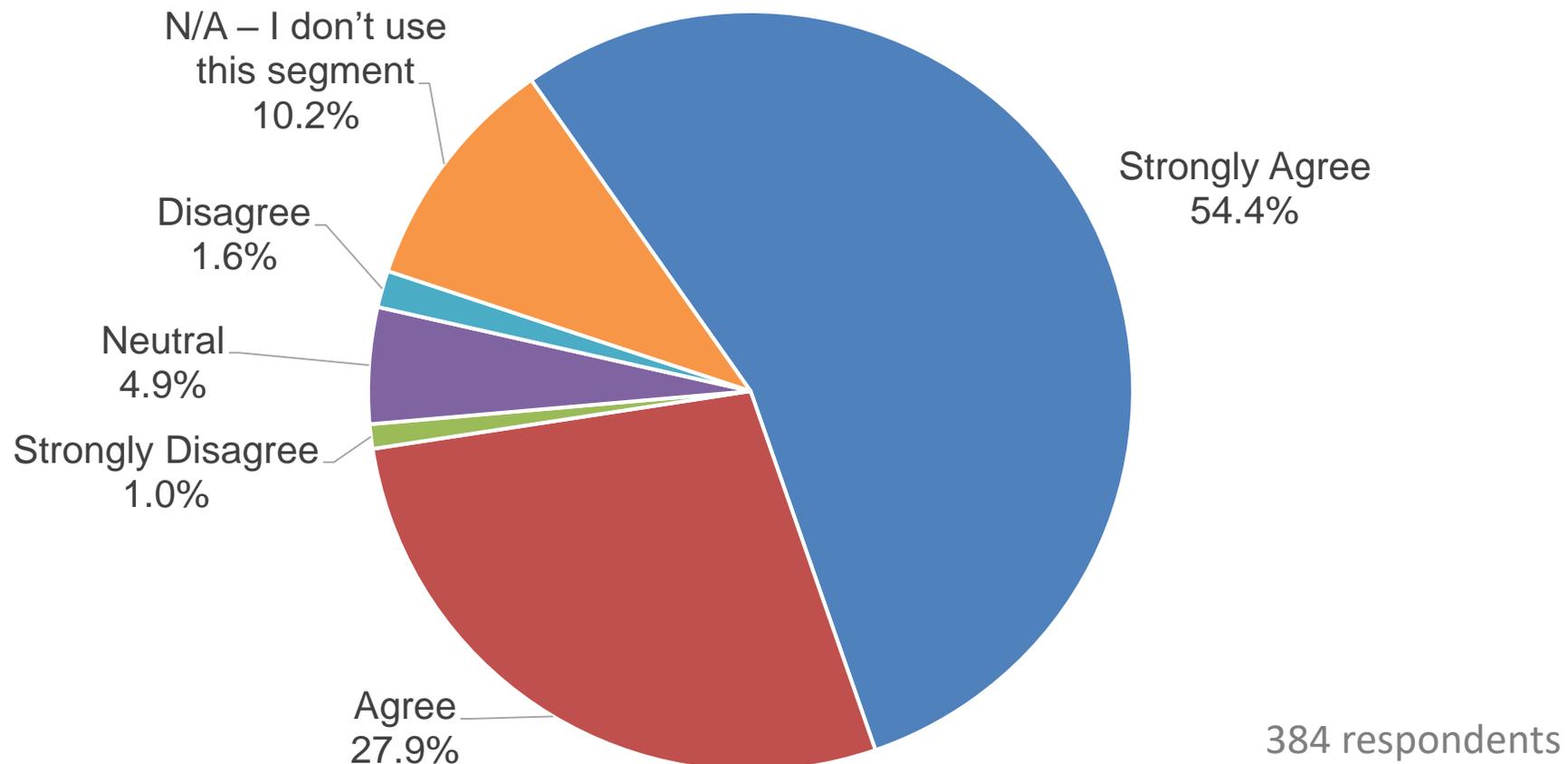
U.S. 74 – Public Survey Results

From I-26 to Gastonia, what changes would you like to see on U.S. 74 (I-26 to I-85) and I-85 (U.S. 74 to U.S. 321) in the next 20 years?



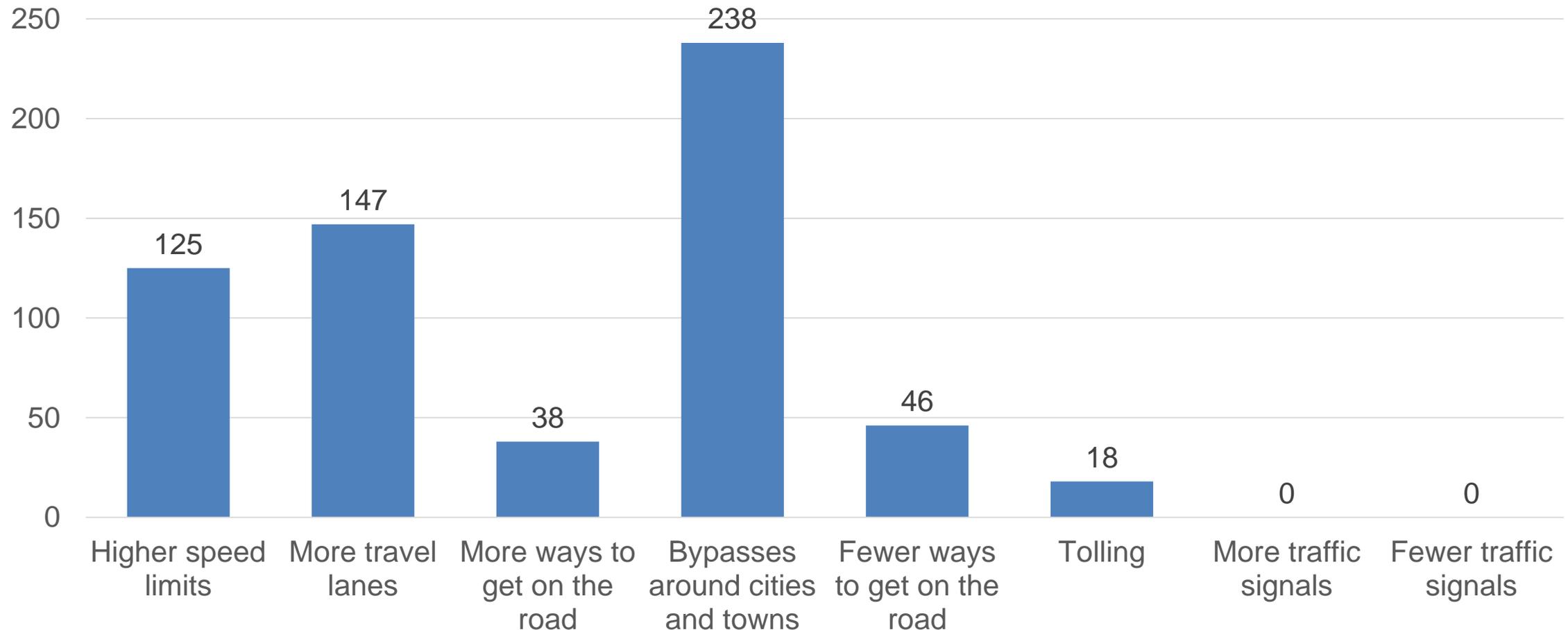
U.S. 74 – Public Survey Results

From I-26 to Gastonia, do you support the preliminary vision of a freeway (access only at interchanges/ramps, speed limit 55 or greater, no traffic signals) on U.S. 74 (I-26 to I-85) and I-85 (U.S. 74 to U.S. 321)?



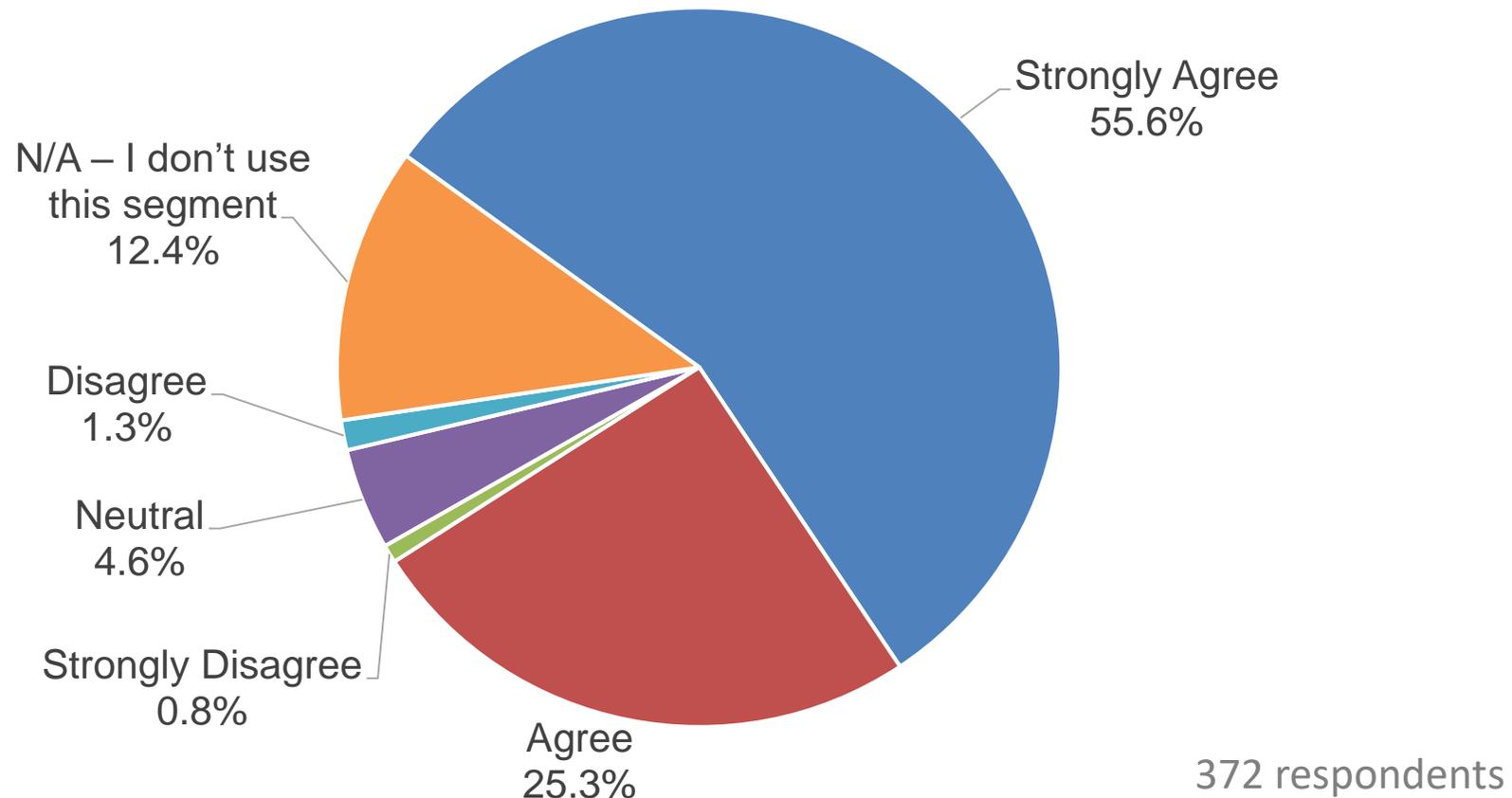
U.S. 74 – Public Survey Results

From Gastonia to Monroe, what changes would you like to see on the corridor I-85 (U.S. 321 to I-485) and I-485 (I-85 to U.S. 74) in the next 20 years?



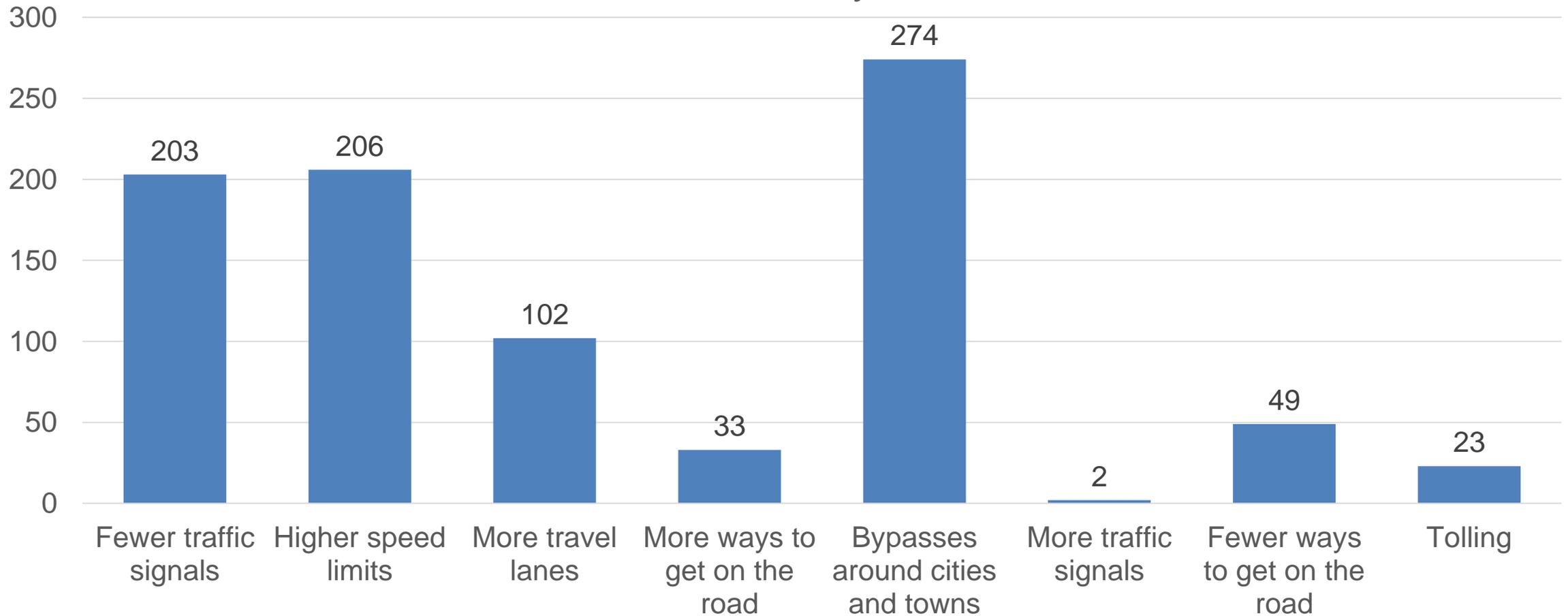
U.S. 74 – Public Survey Results

From Gastonia to Monroe, do you support the preliminary vision of a freeway (access only at interchanges/ramps, speed limit 55 or greater, no traffic signals) on I-85 (U.S. 321 to I-485) and I-485 (I-85 to U.S. 74)?



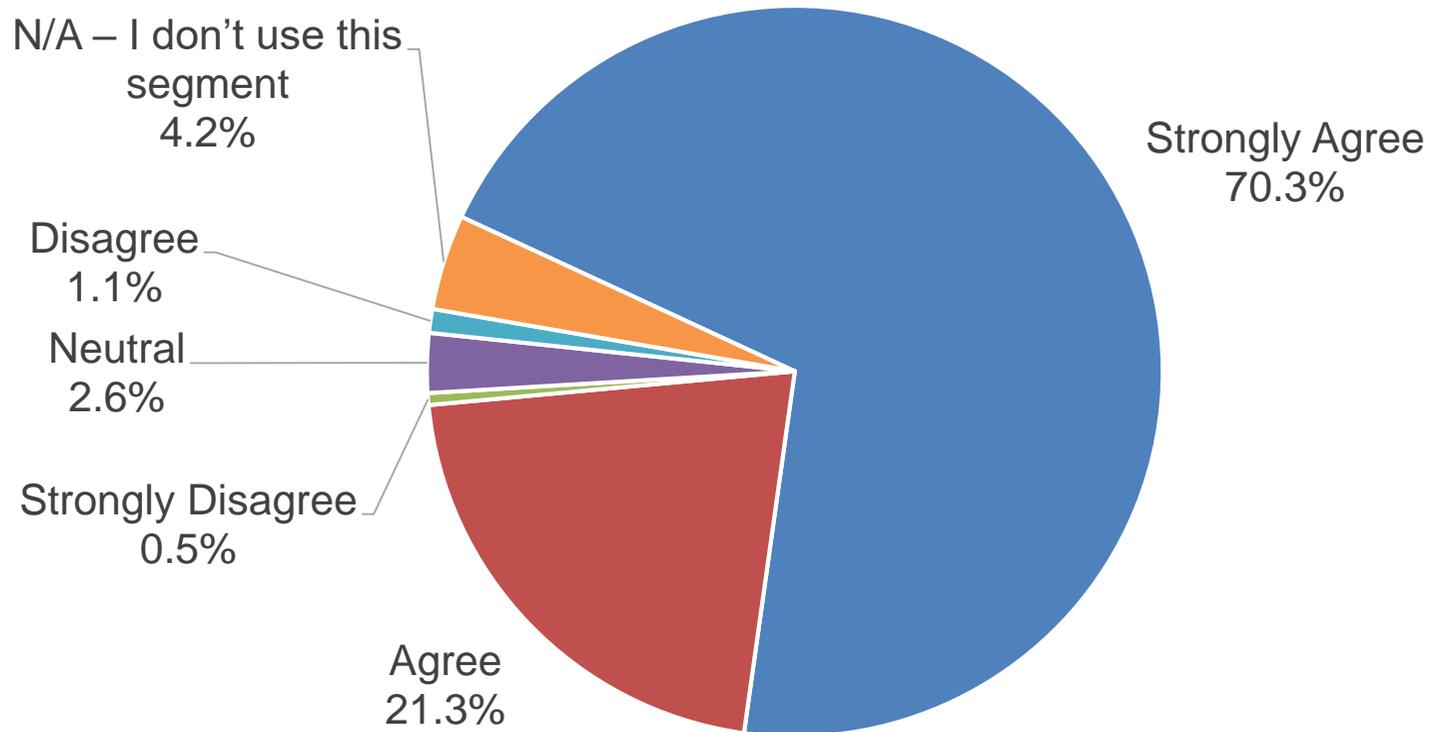
U.S. 74 – Public Survey Results

From Monroe to Wilmington, what changes would you like to see on U.S. 74 in the next 20 years?



U.S. 74 – Public Survey Results

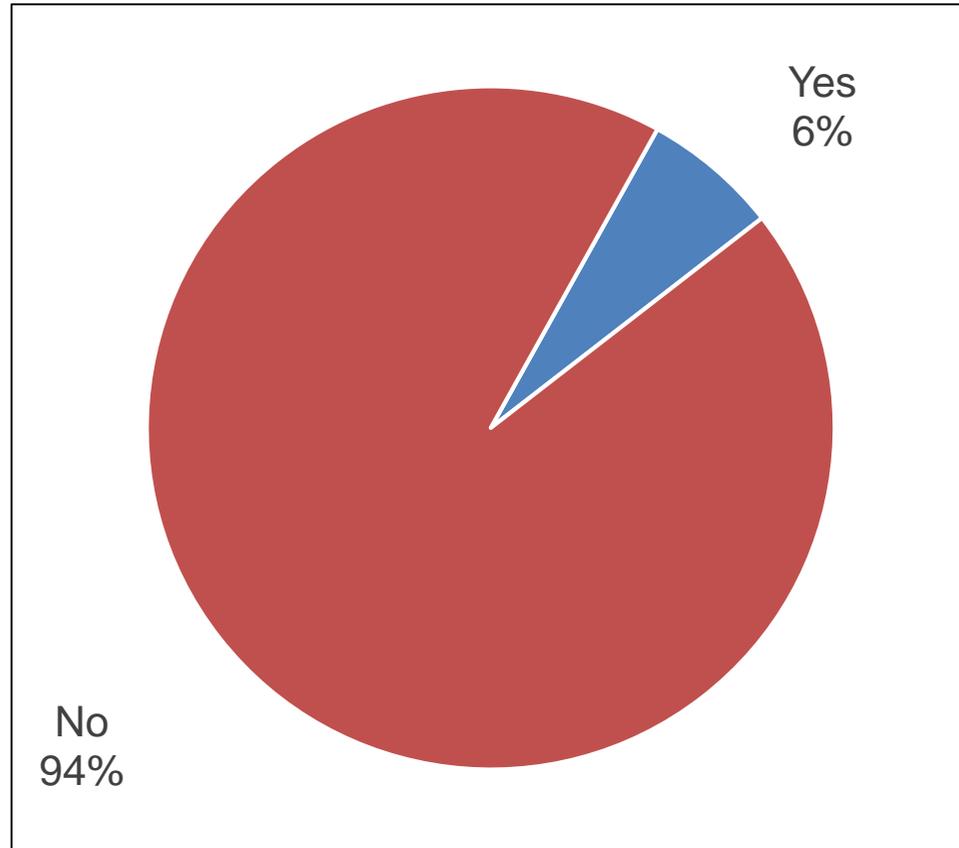
From Monroe to Wilmington, do you support the preliminary vision of a freeway (access only at interchanges/ramps, speed limit 55 mph or greater, no traffic signals)?



380 respondents

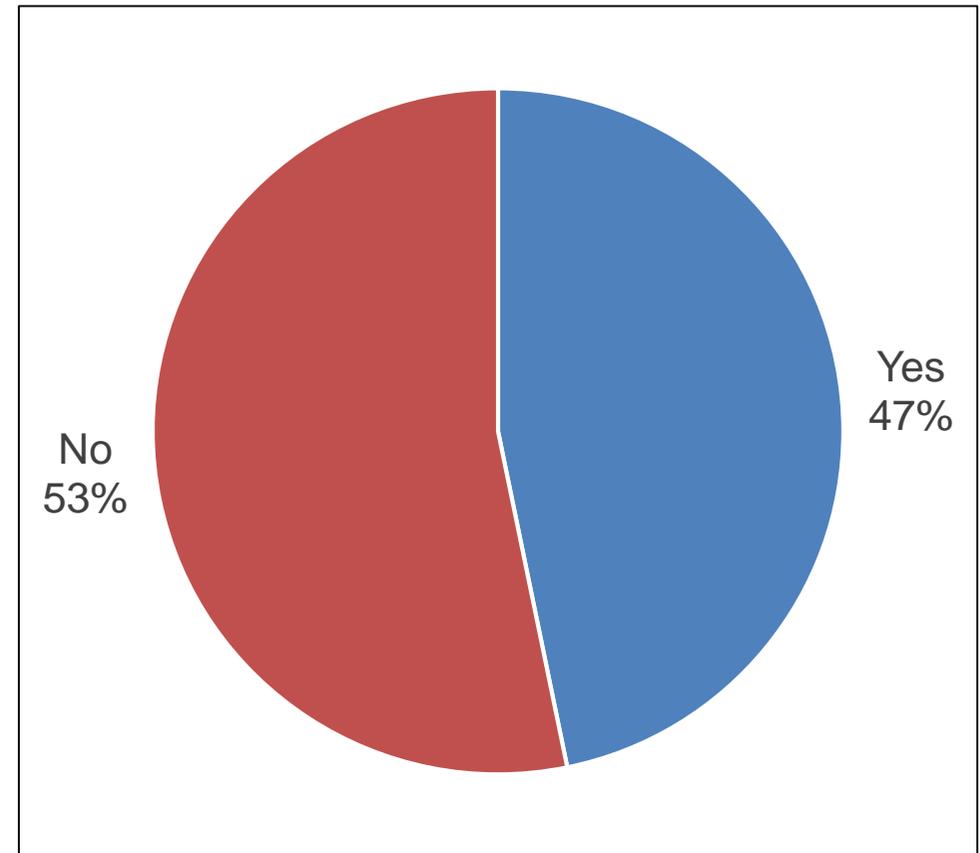
U.S. 74 – Public Survey Results

Have you ever been impacted by rockslides/mudslides on U.S. 74?



390 respondents

Have you ever been impacted by flooding on U.S. 74?



389 respondents

U.S. 74 – Public Survey Results

These are additional comments:

- Need to have access to bridge opening info in Wilmington!
- It is too dangerous the way it is. High speeds with cross traffic in some spots is a formula for disaster.
- US 74 is our Primary route anytime that we are traveling East/West from the Southport area.
- 70 mph. Roads over 74
- Thought I would be surveyed about the Wilmington, Leland area.
- Annual improvements [paving] to road
- Need more lanes between Reiglewood and Wilmington.
- I would like to see US 74 become I-74 from Wilmington to Charlotte with limited access and 4 lanes the entire way
- Get er done!
- Changing speed limits on 74 to CLT are frustrating.
- Lumber River frequently floods and washes out the road. Also, 74 should not go through Laurel Hill. It is ridiculous to drop the speed to 45 mph. Generally, speed limits change too much from Rockingham to Wilmington.
- I would like to see completion of interstate 74.
- I am a Casket Salesman and sometimes have to go up to Spindale, NC to our Main Office. This is on the other side of Shelby, NC. I live in Leland, NC and once you get past Laurel Hill, NC, it is slow until you get to Rockingham and the Speed Limit is 70. Once you get past Rockingham, it is slow and go until you get to Charlotte, NC. I know now they have a Toll Road that goes around Monroe, But this is no right. Years ago there should have been a plan to begin at Laurinburg and continue on with a Four Lane Highway that goes to Charlotte. I have to say that was Poor Planning. You now have an Interstate 40 that goes from Wilmington all the way to Asheville and beyond, so why couldn't this have been done in the lower part of the State. As I say Poor Planning. Maybe this will happen before I past away, like we need a New Bridge across the Cape Fear River in Wilmington to replace the 50 Year Old Bridge we have now.
- Mostly an easy ride except for through towns
- Important to focus on improving access to I-95 from southeast NC, connecting Carolina Bays Parkway (SC 31) to US 74. Please refer to STIP Number R-5876
- In the eastern portion of US 74 - Make US 74 a limited access facility and then connect to I-140 to go north and then to Myrtle Beach via SC 31 to the south.
- Increasing the speed limit would not be better because it might increase the chances for more accidents.
- Where applicable, I would like to see options available for lane reversal so that all lanes can head away from the coast during hurricane evacuations.
- Common flooding areas around the lumber river basin and east of whiteville should be addressed.
- Very difficult to get out of Compass Pointe neighborhood in Leland onto 74. We need a light here and slower speed limit as well as slower speed to enter bypass.

U.S. 74 – Public Survey Results

- Make I-26/US 74 eastbound Exit 67 (shouldn't it be 66 now?) a two-lane exit (option-lane) in Columbus.
- Make I-85 SB/US 74 westbound Exit 10B a two-lane exit (option-lane). I-85 widening is still a long ways off.
- Announce road construction delays on more than just the NCDOT website.
- Consideration should be given to having a limited access facility on new alignment that would connect from a TBD point along US 74 east of Monroe to I-77 in York Co., SC.
- I'm not sure how to answer without being more aware of the towns and their interactions with the roadways.
- Create Interstate 30 from Rockingham south of Monroe into South Carolina, south of Rock Hill re-enter North Carolina on 74 near Kings Mountain and continue to I-26. We cannot continue to funnel East/west traffic through Gastonia and Charlotte.
- The long-term, US-74 should be a freeway between I-26 and US-117. Consider eliminating the I-74 designation (as it will never leave NC), and designating the entire US-74 corridor from I-26 to US-117 as an I-30, I-32, I-34, I-36, or I-38. The other segment of I-74 that would be deleted, between I-73 and I-77, could become an I-273, I-473, I-673, I-477 or I-677. I-74 is a confusing route as it is, and each segment has its own warrants for its own designation. As mentioned above, an I-30, I-32, I-34, I-36, or I-38 along the entire US-74 corridor, the existing I-73 on the "overlap" portion, and an I-x73 or I-x77 along the I-73 to I-77 portion.
- One month ago
- Flooding of Briar Creek in the eastbound lanes; Police need to close off those lanes but most people don't know to preemptively move over to avoid it. Has been better the past two years.
- There should be definite dates assigned to upgrade the remaining segments along the US 74 corridor to interstate specifications.
- The area west of Wilmington is rapidly changing from less densely populated rural to much more densely populated suburban. Expansion of the Port of Wilmington to accommodate neo-Panamax ships is necessitating a more efficient transport of a larger volume of goods. Please consider more communication about long term transportation plans and their location which is necessary for the area communities' strategic planning.
- Re-add the travel lane that was removed from US 74 east in Columbus during project I-4729A to accommodate the new on-ramp from I-26 west. The lane reduction has reduced the capacity and level of service for that segment of US 74.

SUPPLEMENTAL MASTER PLAN COMMENTS

U.S. 74 COMMENT 1 of 1

From: Tracy Hamm

Sent: Monday, April 6, 2020 9:06 PM

To: Earle-Young, Nastasha B

Subject: [External] RE: Help Preserve and Improve U.S. 74! Survey: Action Requested

Nastasha, great hearing from you, thank you for including me and for engaging from time to time on the U.S. 74 corridor. I have taken the survey, which was very well done, and I see from the results there appears to be alignment on the long-term vision for the corridor.

I remain focused on long-overdue improvements to upgrade the section of U.S. 74 across eastern Union and Anson counties, or between the eastern terminus of the Monroe Expressway in Marshville and the I-74 bypass south of Rockingham. I've written the CRTPO asking that it submit the southern bypass of Marshville in P6.0 planning. They have cited this Corridor U study in not doing so for the next cycle, but indicated the completion of the study would better inform considering the bypass in 2022 for P7.0. My concern is that U.S. 74 in Marshville is quickly becoming the only section of the corridor between Charlotte and Wilmington without planned improvements in the next decade. With the Wadesboro Bypass included in the next STIP and with the Shelby Bypass fully funded, Marshville will also have the distinction of having the only stoplights along U.S. 74 from the mountains to the sea unless its bypass aligns with corridor improvements as a whole.

My two cents for the Union/Anson segments: I would like to see the tolled Monroe Expressway extended to Rockingham. I also have suggested a 3-digit interstate designation for this corridor from I-485 in Charlotte/Matthews to I-74 in Rockingham. Perhaps I-174, for example? Just last month, the Rutherford County Board of Commissioners voted in favor of an interstate designation for U.S. 74 from I-26 to I-85, so it is logical for the Union-Anson section of U.S. 74 to have its own interstate designation as well given that this corridor also stretches between two existing interstates.

I also am extremely frustrated that the I-74 project in western Scotland County, or between the Rockingham and Laurinburg bypasses, continues to languish. I'm hopeful this project might advance before its current 2029 start date, especially now that the western bypass of Rockingham (dual I-74/I-73) is under construction. Surely someone will see the benefit of not leaving a single traffic signal along the corridor until the mid-2030s.

Thank as always and look forward to connecting from time to time.

Tracy

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