
Performance Measures Technical Memorandum

North Carolina Department of Transportation
Strategic Transportation Corridor Vision Plans

Corridor X: Jacksonville to Greenville (U.S. 258/N.C. 11/U.S. 13)

U.S. 17 in Onslow County to U.S. 64E in Edgecombe County

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Table of Contents

- 1. Introduction 2
- 2. Goals and Objectives..... 2
 - 2.1. STC Goals and Objectives..... 2
 - 2.2. Corridor Segments 3
 - 2.3. Corridor Goals and Objectives 4
- 3. Performance Measures..... 9
 - 3.1. National Performance Measures 9
 - 3.2. Corridor Performance Measures 11
- Appendix A** 13
 - A.1. NCDOT Facility Type A-1
 - A.2. Highway Access Control..... A-2
- Appendix B** 16
 - B.1. Goal Areas..... B-1

Tables

- Table 1. STC Goals and Objectives 3
- Table 2. Corridor X: U.S. 258/N.C. 11/U.S. 13 Segments 4
- Table 3. Count of Goal Areas Established in the U.S. 258/N.C. 11/U.S. 13 Planning Area..... 5
- Table 4. Goals, Objectives, and Strategies Established in the U.S. 258/N.C. 11/U.S. 13 Planning Area.. 6
- Table 5. Federal Highway Administration and State Performance Measures 9
- Table 6. Federal Transit Administration and State Performance Measures 11
- Table 7. National and State Performance Measures Established in the U.S. 258/N.C. 11/U.S. 13 Planning Area 12
- Table A-1. Highway Functional Class Definitions.....A-1
- Table A-2. Control of Access DefinitionsA-2
- Table B.1. Goal Area DefinitionsB-1



1. Introduction

In 2015, the North Carolina Department of Transportation (NCDOT) identified a network of key multi-modal 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 plan visions.

The purpose of the master plan visions is to:

- identify high-level corridor mobility visions and associated improvement strategies,
- guide improvements and development in a manner that defines a long-term vision and performance level for the corridors, and
- help protect the corridor's key functions as defined in the corridor profiles.

NCDOT has initiated the development of a master plan for Corridor X (U.S. 258/N.C. 11/U.S. 13), which follows existing U.S. 258, N.C. 11, and U.S. 13 from Jacksonville to Greenville. This corridor runs from north of Bethel in Edgecombe County through Greenville, Winterville, Ayden, Kinston, and Richlands to Jacksonville.

To assist in developing a master plan vision for U.S. 258/N.C. 11/U.S. 13, goals and performance measures were collected from Comprehensive Transportation Plans (CTP), a Long Range Transportation Plan (LRTP), and a Metropolitan Transportation Plan (MTP) and catalogued in this memorandum. Accurate data will serve as the foundation for master plan vision development. The information available to define the corridors and their needs depends on the availability of complete, current, and reliable data.

2. Goals and Objectives

2.1. STC Goals and Objectives

At the outset of the STC program, NCDOT established overarching goals and objectives, as identified in **Table 1**. These goals were developed to guide the master plan visions in a cohesive direction across the corridors. This memorandum compiles the transportation goals of U.S. 258/N.C. 11/U.S. 13 to compare them with statewide and national goals, and incorporate them into the vision of the STC program.



Table 1. STC Goals and Objectives

Goals	Objectives
<p>System Connectivity: Provide essential connections to national transportation networks critical to interstate commerce and national defense.</p>	<p>Provide a continuous, consistent network of reliable, higher speed interstate, defense, and major freight routes. For system connectivity, corridors should provide functional classification and facility type consistent with those attributes; corridors should have high capacity consistent with speed and reliability objectives.</p>
<p>Mobility: Facilitate high volume inter-regional movements of people and goods across the state.</p>	<p>Serve major inter-regional travel corridors with high levels of service, moving higher volumes of passenger or freight traffic, and provide multiple transportation modes or routes for the opportunity of choice and flexibility in travel or shipping in the corridor.</p>
<p>Economic Prosperity: Support efficiency of transport logistics and economic development throughout the state for economic regions and clusters of existing and emerging activity centers.</p>	<p>Provide high-quality access to defined intrastate activity center clusters and to nearby critical activity centers in surrounding states and ensure access to at least one strategic corridor for each multi-county region of Tier 1 Economic Development counties.*</p>

*The North Carolina Department of Commerce annually ranks the state's counties based on economic well-being and assigns each a Tier designation. The 40 most distressed counties are designated as Tier 1, the next 40 as Tier 2 and the 20 least distressed as Tier 3.

2.2. Corridor Segments

U.S. 258/N.C. 11/U.S. 13 is approximately 90 miles in length and spans from Jacksonville to Greenville. The portion of U.S. 258/N.C. 11/U.S. 13 north of the U.S. 258 and N.C. 24 junction is a Moving Ahead for Progress in the 21st Century Principal Arterial. The portion of the corridor just south of this junction is classified as a Non-Interstate Strategic Highway Network (STRAHNET) route. Most of the route is federally designated as a truck route, from the intersection of U.S. 13/U.S. 264 through to the southern terminus of the corridor in Jacksonville.

From a high-level perspective, U.S. 258/N.C. 11/U.S. 13 can be broken into four segments: 1) U.S. 13/U.S. 64 Interchange to U.S. 13/Third Street; 2) U.S. 13/Third Street to N.C. 11/Greenville SW Bypass; 3) N.C. 11/Greenville SW Bypass to N.C. 55/N.C. 11 Junction; and 4) N.C. 55/N.C. 11 Junction to U.S. 17/Piney Green Road Intersection. The first segment is identified as a freeway north of Greenville. Segment 2 is located in the urban area of Greenville and is classified as a boulevard and provides access to businesses in the area. The third segment is a freeway located between Ayden and Kinston. The final segment is the longest segment. This segment is a major thoroughfare in eastern North Carolina, connecting Kinston and Jacksonville. The U.S. 258/N.C. 11/U.S. 13 segments are shown in **Table 2**. The segments shown in this table were identified during the corridor inspection and will be further refined through the STC planning process. Segment definitions and specifications were drawn from the NCDOT Facility Types & Control of Access Definitions (2005), shown in Appendix A: Facility Type and Control of Access.



Table 2. Corridor X: U.S. 258/N.C. 11/U.S. 13 Segments

Segment No.	Segment	Segment Lengths	Existing Facility Type	Control of Access	Sidewalks/Trails
1	U.S. 13/U.S. 64 Interchange to U.S. 13/Third Street	15.8 miles	Freeway	Full	No
2	U.S. 13/Third Street to N.C. 11/Greenville SW Bypass	11.2 miles	Boulevard	Partial	Yes, segmented sidewalks through Greenville
3	N.C. 11/Greenville SW Bypass to N.C. 55/N.C. 11 Junction	14.9 Miles	Freeway	Partial	No
4	N.C. 55/N.C. 11 Junction to U.S. 17/Piney Green Road Intersection	53.9 Miles	Other Major Thoroughfare	None	Yes, segmented sidewalks through Kinston and Jacksonville and a Greenway through Jacksonville

2.3. Corridor Goals and Objectives

U.S. 258/N.C. 11/U.S. 13 traverses Edgecombe, Pitt, Jones, Lenoir, and Onslow counties; Highway Divisions 2, 3 and 4; and the Greenville Metropolitan Planning Organization (MPO), Jacksonville Urban Area MPO, Upper Coastal Plain Rural Planning Organization (RPO), Mid-East RPO, Eastern Carolina RPO, and Down-East RPO.

U.S. 258/N.C. 11/U.S. 13 is primarily used to transfer freight from Jacksonville to Greenville. The corridor provides rural connection to economic development centers in Jacksonville, Kinston, and Greenville, including Camp Lejeune, Global TransPark, and East Carolina University. The principal expectation of the corridor is to provide safe, reliable mobility to these activity centers.

To better understand priorities in the U.S. 258/N.C. 11/U.S. 13 planning area, goals were gathered from CTPs, a LRTP and a MTP that include U.S. 258/N.C. 11/U.S. 13. The project team targeted any CTP, LRTP, or MTP that had been collected within 10 years of March 2020 that included goals and performance measures, including the following (plans with asterisks (*) did not include goals and plans with crosses (†) did not include performance measures):

- 2011 Edgecombe County CTP†
- 2011 Kinston CTP*†
- 2016 Jones County CTP†
- 2018 Lenoir County CTP†
- 2019 Greenville Urban Area MPO MTP
- 2020 Jacksonville Urban Area MPO LRTP



The goals found in these plans are categorized into 12 Goal Areas found at the national, state, and county/MPO levels. The national goal areas, set by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), are defined in **Tables 5 and 6**, respectively. The state goal areas, determined by the NCDOT, match the national goal areas. The county/MPO goal areas were created by organizing plan goals that did not fit in a national goal area by similar topics. **Table 3** displays the number of goals that are categorized into a given goal area per plan and **Table 4** displays the goals per plan with their corresponding objectives or strategies and goal area(s).

Table 3. Count of Goal Areas Established in the U.S. 258/N.C. 11/U.S. 13 Planning Area

Plan*	Goal Area**											
	National/State							County/MPO				
	Congestion Reduction	Environmental Sustainability	Freight Movement and Economic Vitality	Infrastructure Condition	Safety	System Reliability	Reduced Project Delivery Delays	Cohesive and Strategic Planning	Mobility	Multi-modal	Security	Socioeconomic and Quality of Life
Edgecombe County CTP	1		1						4			
Greenville Urban Area MPO MTP	1	1	1	1	1	1	1					
Lenoir County CTP	1	1	2		2	1		1	3	2		1
Jones County CTP	1	1	1	1		1		2	2	1		
Jacksonville Urban Area MPO LRTP	3	3	3	2	1	2	1	4	2	3	1	2

*The Kinston County CTP is not included because it does not identify goals

**The numbers indicate the number of goals that fell within the goal area from the identified plan



Table 4. Goals, Objectives, and Strategies Established in the U.S. 258/N.C. 11/U.S. 13 Planning Area

Plan*	Goal Area***										Goal	Objectives and Strategies**			
	National/State					County/MPO									
	Congestion Reduction	Environmental Sustainability	Freight Movement and Economic Vitality	Infrastructure Condition	Safety	System Reliability	Reduced Project Delivery Delays	Cohesive and Strategic Planning	Mobility	Multi-Modal			Security	Socioeconomic and Quality of Life	
Edgecombe County CTP			X										Improve Economic Development County Wide	N/A	
												X	Create Better Connectivity especially with the Northeastern Part of the County	N/A	
												X	Create Better Connectivity between the Northern Part of the County and US 64 between Rocky Mount and Tarboro	N/A	
												X	Create Better Connectivity between points in the County and Tarboro	N/A	
												X	Create Better Connectivity with Greenville by N.C. 33	N/A	
Greenville Urban Area MPO MTP	X	X	X	X	X	X	X						Remove Truck Traffic from Downtown Tarboro	N/A	
Lenoir County CTP													All goals match the national goals set by the Federal Highway Administration and Federal Transit Authority.	N/A	
	X					X	X					X	Provide an efficient transportation system through improved connectivity, capacity, and operations	Reduce crash rates, frequency, and severity of vehicle related crashes Create a robust network of bicycle and pedestrian facilities delineated from vehicle traffic to increase visual awareness and reduce conflict points for non-motorized travelers Protect rail crossings with awareness, vehicle sightlines, and gate controlled intersections	
												X	A transportation system that preserves and promotes the quality of life in Lenoir County	Promote reductions in congestion through capacity, access management, and policy Create a well maintained, more accommodating, network of roads with more connections to the various destinations throughout Lenoir County Increase travel flow through operational improvements such as additional turn lanes and superstreet designs, including signal removal	
												X	Support regional growth through a transportation network that serves inter- and intra- regional accessibility and mobility needs for both people and goods	Identify transportation recommendations that enable global competitiveness, productivity, and efficiency Increase the accessibility and mobility of people and freight within the region to and from the Global TransPark and to other areas in Lenoir County Continue to support the upgrade of Future Interstate 42 to interstate design standards Provide more transportation choices through the development and expansion of North Carolina's Strategic Transportation Corridors in Lenoir County	
												X	Promote a safer multi-modal transportation network through crash reduction, enhanced reliability and predictability, and clearer interaction between the various modes of transportation	Minimize transportation impacts to the natural, social, and historic environment Improve bicycle, pedestrian and waterways access opportunities Plan for alternative forms of transportation addressing the needs of citizens whose access to transportation is limited by health or economic constraints Leverage gateways and aesthetics to foster economic investment	
		X	X			X									

*The Kinston County CTP is not included because it does not identify goals

**Objectives and strategies are not targeted to individual goals in the Jacksonville Urban Area MPO LRTP

***An "X" indicates the goal outlined in the plan fits within the given goal area

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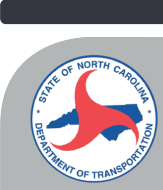


Table 4. Goals, Objectives, and Strategies Established in the U.S. 258/N.C. 11/U.S. 13 Planning Area (Continued)

Plan*	Goal Area***											Goal	Objectives and Strategies**	
	National/State						County/MPO							
	Congestion Reduction	Environmental Sustainability	Freight Movement and Economic Vitality	Infrastructure Condition	Safety	System Reliability	Reduced Project Delivery Delays	Cohesive and Strategic Planning	Mobility	Multi-Modal	Security			Socioeconomic and Quality of Life
Jones County CTP	X			X		X							Develop recommendations that capitalize on the use of existing infrastructure across traditional jurisdictions and add capacity strategically	N/A
		X											Make informed transportation decisions that are sensitive to the environment and existing development patterns	N/A
			X										Create land use and access management policy recommendations that optimize available transportation capacity for agriculture and economic development activities occurring within the County	N/A
									X				Develop recommendations that improve and upgrade the connections between local urban areas within the county by identifying major corridors and using access management techniques	N/A
								X		X			Establish a county-wide multi-modal transportation plan in conjunction with the county land use plan in cooperation with local and state organizations including but not limited to the Down East Rural Planning Organization, Town of Maysville, Town of Pollocksville, Town of Trenton, and neighboring communities	N/A
								X					Offer policy guidance to local governments so that they can ensure the protection of corridors for future transportation use	N/A
									X				Develop recommendations that create opportunities for better mobility from local areas within the county to regional activity centers outside the county	N/A

*The Kinston County CTP is not included because it does not identify goals

**Objectives and strategies are not targeted to individual goals in the Jacksonville Urban Area MPO L RTP

***An "X" indicates the goal outlined in the plan fits within the given goal area

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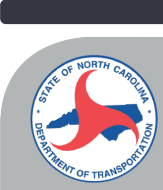


Table 4. Goals, Objectives, and Strategies Established in the U.S. 258/N.C. 11/U.S. 13 Planning Area (Continued)

Plan*	Goal Area***											Goal	Objectives and Strategies**	
	National/State						County/MPO							
	Congestion Reduction	Environmental Sustainability	Freight Movement and Economic Vitality	Infrastructure Condition	Safety	System Reliability	Reduced Project Delivery Delays	Cohesive and Strategic Planning	Mobility	Multi-Modal	Security			Socioeconomic and Quality of Life
Jacksonville Urban Area MPO LRTP	X						X		X				Promote reductions in congestion through transportation capacity, access management, and policy improvements.	<ul style="list-style-type: none"> • Address issues identified in the travel demand model • Advocate strategic capacity improvements • Implement operational improvements and access management on key corridors • Improve connectivity through collector streets • Improve road and rail connections to industrial assets • Enhance access to interstate highways • Address congestion on strategic corridors and nodes • Promote system management strategies • Minimize impacts to natural resources by enhancing current transportation infrastructure • Promote the active use of appropriate natural areas • Maximize existing roadway capacity by improving connectivity • Avoid disproportionate impacts to minority and low-income communities • Develop bicycle and pedestrian priorities with transit and roadways • Coordinate transit improvements and strategies for system maintenance • Expand passenger rail and intercity bus • Support economic vitality • Provide safety countermeasures for high risk locations • Improve conditions of bridges • Increase route choice during evacuations and when primary corridors are impassable • Promote systems management initiatives. • Improve bridges and critical infrastructure • Provide intersection-level improvements that increase the functionality of the larger corridor • Encourage systems management through access management and technology • Improve system connectivity
	X							X					Recognize savings (e.g. time and fuel consumption) by minimizing vehicle miles traveled through enhanced integration and connectivity of the transportation system, across and between modes, for people and freight	
	X					X							Promote efficient system management and operation, and support measures that reduce single occupant vehicle travel during peak demand hours	
		X						X					Identify transportation recommendations that enable global competitiveness, productivity, and efficiency	
		X							X				Increase the accessibility and mobility of people and freight, both civilian and military, within the region and to other areas	
		X									X		Leverage gateways and aesthetics to create an atmosphere that fosters economic investment	
	X												Protect and enhance the natural and social environment using context-sensitive transportation strategies	
	X												Minimize direct and indirect environmental impacts of the transportation system while planning and prioritizing transportation recommendations	
	X							X					Promote consistency between transportation improvements, land use decisions, and economic development patterns	
										X	X		Provide desirable and user-friendly transportation options for all user groups regardless of socioeconomic status or physical ability	
										X			Support a fully integrated multimodal network that advances the concept of complete streets	
										X			Expand and maintain a network of bicycle, pedestrian, and transit facilities that connects homes, activity centers, and complementary amenities	
						X							Improve the safety of the transportation system for all user groups regardless of socioeconomic status or physical ability.	
							X						Increase the reliability, predictability, and efficiency of the transportation experience through system improvements and enhanced communication.	
										X		Improve safety and security by enhancing the evacuation network for natural events and access to military assets.		
								X				Limit expansion of the roadway network to the most necessary projects that best address identified issues.		
		X										Increase the lifespan of existing infrastructure and ensure transportation facilities are used optimally.		
			X									Maintain the transportation network by identifying and prioritizing infrastructure preservation and rehabilitation projects such as pavement management and signal system upgrades.		

*The Kinston County CTP is not included because it does not identify goals

**Objectives and strategies are not targeted to individual goals in the Jacksonville Urban Area MPO LRTP

***An "X" indicates the goal outlined in the plan fits within the given goal area



3. Performance Measures

3.1. 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 is necessary to define expectations and measure performance. NCDOT is strongly aligned with recent rulemaking by the FHWA and FTA to adopt performance measures to assess system performance. National and state performance measures and their respective state targets are included in **Table 5**. Performance measures provided by the FTA are in **Table 6**.

Table 5. Federal Highway Administration and State Performance Measures

Goal Area	Goal	Performance Measure	NCDOT Targets
Safety*	To achieve a significant reduction in traffic fatalities and serious injuries on all public roads	Number of Fatalities	1,227.8 (2020)
		Rate of Fatalities	1.084 (2020)
		Number of Serious Injuries	2,812.8 (2020)
		Rate of Serious Injuries	2.462 (2020)
		Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	426.6 (2020)
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])	>=21.0% (4 year)
		Percentage of Pavements in Poor Condition (Non-Interstate NHS)	<=4.7% (4 year)
		Percentage of Bridges in Good Condition (NHS)	>=30.0% (4 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)	>=75.0% (4 year)
		Percent of Reliable Person-Miles Traveled (Non-Interstate NHS)	>=70.0% (4 year)

*NCDOT safety targets are established in the Highway Safety Improvement Program 2019 Annual Report. (Continued on next page)

**This performance measure only applies to the Charlotte maintenance area.

***This performance measure only applies to the Charlotte urbanized area.

†This performance measure is specific to NCDOT. High index values indicate unreliable truck travel times while low values indicate more reliable travel times.

††This performance measure is specific to NCDOT. FHWA does not have a defined performance measure for this goal.



Table 5. Federal Highway Administration and State Performance Measures (Continued)

Goal Area	Goal	Performance Measure	NCDOT Targets
Environmental Sustainability	To enhance the performance of the transportation system while protecting and enhancing the natural environment	Total Emissions Reduction**	4-year target: CO: 23.044 kg/day 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)
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 Index†	>=1.7 (4 year)
Reduced Project Delivery Delays	To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens	STIP and non-STIP planned projects that are let to contract on schedule††	<= 90%

*NCDOT safety targets are established in the Highway Safety Improvement Program 2019 Annual Report.

**This performance measure only applies to the Charlotte maintenance area.

***This performance measure only applies to the Charlotte urbanized area.

†This performance measure is specific to NCDOT. High index values indicate unreliable truck travel times while low values indicate more reliable travel times.

††This performance measure is specific to NCDOT. FHWA does not have a defined performance measure for this goal.



Table 6. Federal Transit Administration and State Performance Measures

Goal Area	Performance Measures	NCDOT Target
Safety*	Total number of reportable fatalities and rate per total vehicle revenue miles by mode	N/A
	Total number of reportable injuries and rate per total vehicle revenue miles by mode	N/A
	Total number of reportable events and rate per total vehicle revenue miles by mode	N/A
	Mean distance between major mechanical failures by mode	N/A
Infrastructure Condition	Percentage of vehicles that have met or exceeded their Useful Life Benchmark (ULB)**	20% (2020)
	Percentage of revenue vehicles within a particular asset class that have met or exceeded their ULB†	20% (2020)
	Percentage of facilities within an asset class rated below 3.0 on the FTA Transit Economic Requirements Model (TERM) scale	20% (2020)
	Percent of track segments under performance restriction	N/A

*The NCDOT Transit Asset Management Plan does not discuss FTA safety performance measures.

**The NCDOT identifies a ULB of 8 years for the following asset classes: non-revenue/service automobiles, steel wheel vehicles, and trucks and other rubber tire vehicles. For all other asset classes, the NCDOT has left it up to individual agencies to determine the ULB.

†The NCDOT identifies ULBs for each asset class as follows: 14 years for buses, 10 years for cutaway buses and mini-buses, and 8 years for automobiles, mini-vans, sport utility vehicles, vans, and others.

3.2. Corridor Performance Measures

The project team compiled performance measures that were developed in the CTPs, LRTP, and MTP along U.S. 258/N.C. 11/U.S. 13. **Table 7** identifies the plans that align with the performance measures that fall under the national goal areas.



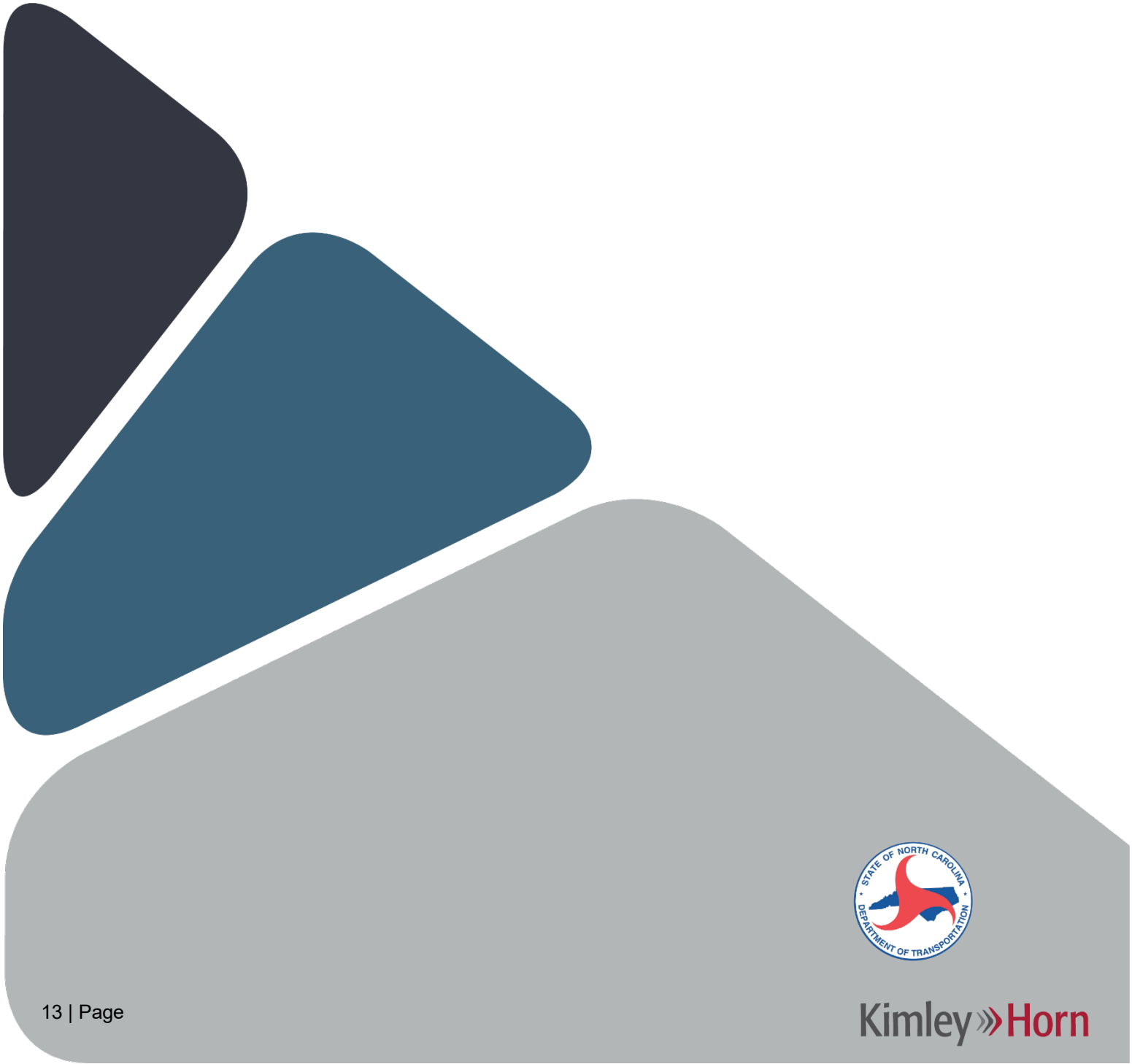
Table 7. National and State Performance Measures Established in the U.S. 258/N.C. 11/U.S. 13 Planning Area

National/State Goal Area	Performance Measure		Plan*	
			Greenville Urban Area MPO MTP**	Jacksonville Urban Area MPO LRTP**
Safety	National/State (Highway)	Number of Fatalities	X	X
		Rate of Fatalities	X	X
		Number of Serious Injuries	X	X
		Rate of Serious Injuries	X	X
		Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	X	X
	National/State (Transit)	Total number of reportable fatalities and rate per total vehicle revenue miles by mode	X	
		Total number of reportable injuries and rate per total vehicle revenue miles by mode	X	
		Total number of reportable events and rate per total vehicle revenue miles by mode	X	
Mean distance between major mechanical failures by mode		X		
Infrastructure Condition	National/State (Highway)	Percentage of Bridges in Good Condition (NHS)	X	X
		Percentage of Bridges in Poor Condition (NHS)	X	X
		Percentage of Pavements in Good Condition (Interstate)	X	X
		Percentage of Pavements in Poor Condition (Interstate)	X	X
		Percentage of Pavements in Good Condition (Non-Interstate NHS)	X	X
		Percentage of Pavements in Poor Condition (Non-Interstate NHS)	X	X
	National/State (Transit)	Percentage of vehicles that have met or exceeded their Useful Life Benchmark (ULB)	X	X
		Percentage of revenue vehicles within a particular asset class that have met or exceeded their ULB	X	X
		Percentage of facilities within an asset class rated below 3.0 on the FTA Transit Economic Requirements Model (TERM) scale	X	X
		Percent of track segments under performance restriction		
System Reliability	National/State (Highway)	Percent of Reliable Person-Miles Traveled (Interstate)	X	X
		Percent of Reliable Person-Miles Traveled (Non-Interstate NHS)	X	X
Environmental Sustainability	National/State (Highway)	Total Emissions Reduction	X	
Congestion Reduction	National/State (Highway)	Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita on the NHS	X	X
		Percent of Non-Single Occupancy Vehicle (SOV) Travel	X	X
Freight Movement & Economic Vitality	National/State (Highway)	Interstate Truck Travel Time Reliability Index	X	X
Reduced Project Delivery Delays	State (Highway)	STIP and non-STIP planned projects that are let to contract on schedule	X	

*The Edgecombe County, Jones County, Lenoir County, and Kinston CTPs are not listed because they do not identify performance measures

**An "X" indicates the performance measure is included in the plan

Appendix A





Appendix A. Facility Type and Control of Access

A.1. NCDOT Facility Type

Roadways can be categorized into facility types based on their purpose, design classification, speed limit, and control of access. These facility types are listed below in **Table A-1**.

Table A-1. Highway Functional Class Definitions

	Freeways	Expressways	Boulevards	Thoroughfares
Functional Purpose	High Mobility, Low Access	High Mobility, Low to Moderate Access	Moderate Mobility, Low to Moderate Access	Moderate to Low Mobility, High Access
AASHTO Design Classification	Interstate or Freeway	Arterial	Arterial or Collector	Collector or Local
Speed Limit	55 mph or greater	45 mph to 60 mph	30 mph to 55 mph	25 mph to 55 mph
Control of Access	Full	Limited or Partial	Limited or Partial	None
Traffic Signals	Not Allowed	Not Allowed	Allowed	Allowed
Driveways	Not Allowed	Limited Control of Access - Not Allowed Partial Control of Access - One Driveway Connection per Parcel; Consolidate and/or Share Driveways and Limit Access to Connecting Streets or Service Roads; Restrict to Right-in/Right-out	Limited Control of Access - Not Allowed Partial Control of Access - One Driveway Connection per Parcel; Consolidate and/or Share Driveways and Limit Access to Connecting Streets or Service Roads; Restrict to Right-in/Right-out	Allowed with Full Movements; Consolidate or Share Connections, if possible
Cross-Section	Minimum 4 Lanes with a Median	Minimum 4 Lanes with a Median	Minimum 2 Lanes with a Median	Minimum 2 Lanes; No Median; Includes Facilities with Two Way Left Turn Lane
Connections	Provided only at Interchanges; All Cross Streets are Grade-Separated	Provided only at Interchanges for Major Cross Streets and At-Grade Intersections for Minor Cross Streets; Use of Acceleration and Deceleration Lanes for At-Grade Intersections	At-Grade Intersections for most Major and Minor Cross Streets (Occasional Interchange at Major Crossing); Use of Acceleration and Deceleration Lanes	Primarily At-Grade Intersections
Median Crossovers	Public-use Crossovers Not Allowed; U-turn Median Openings for Use by Authorized Vehicles Only when Need is Justified	Allowed; Alternatives to All Movement Crossovers Encouraged; Minimum Spacing between All-Movement Crossovers is 2000 feet (posted speed limit of greater than 45 mph) or 1200 feet (posted speed limit of 45 mph or less)	Allowed; Minimum Spacing between All-Movement Crossovers is 2000 feet (posted speed limit of greater than 45 mph) or 1200 feet (posted speed limit of 45 mph or less)	Not Applicable

Information taken from NCDOT Facility Types & Control of Access Definitions (2005)



A.2. Highway Access Control

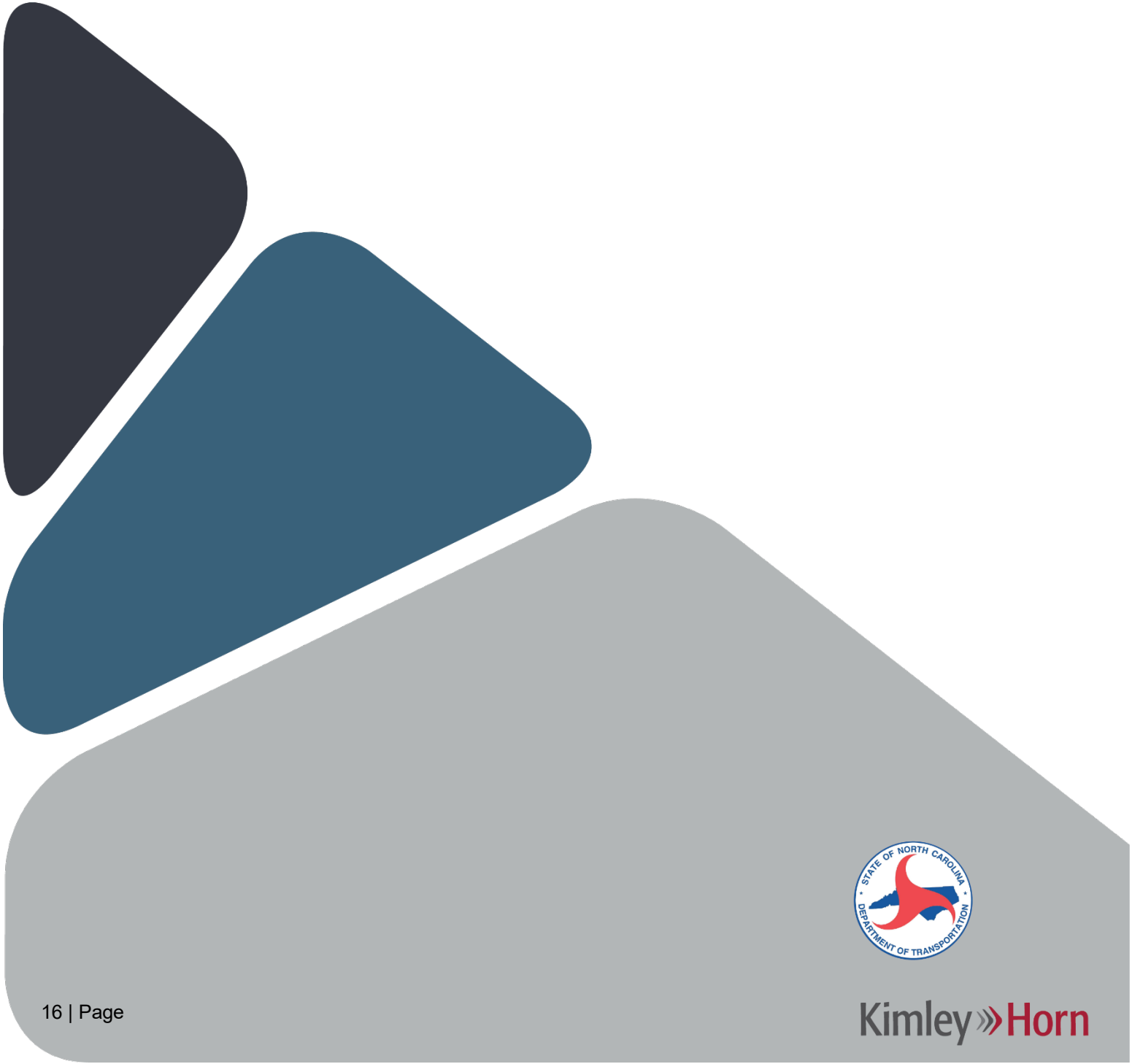
Roadways are categorized into different levels of control of access describing the amount of connectivity provided to adjacent land uses and other roadways. These levels are listed below in **Table A-2** in order of mobility function.

Table A-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>

Appendix B





Appendix B. Goal Areas

B.1. Goal Areas

The goals in this report are found at the national, state, and county/MPO levels. The national goal areas are set and defined by the FHWA and FTA. The county/MPO goal areas represent additional goals found in the MTPs and CTPs included this document that did not fit in a national goal area. The county/MPO goal areas are defined by NCDOT for the purposes of the STC Vision Plan development. These definitions of the goal areas are listed below in **Table B-1**.

Table B-1. Goal Area Definitions

Goal Area	Definition
National	
Congestion Reduction	To achieve a significant reduction in congestion on the National Highway System.
Environmental Sustainability	To enhance the performance of the transportation system while protecting and enhancing the natural environment.
Freight Movement and 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.
Infrastructure Condition	FHWA: To maintain the highway infrastructure asset system in a state of good repair.
	FTA: The strategic and systematic practice of procuring, operating, inspecting, maintaining, rehabilitating, and replacing transit capital assets to manage their performance, risks, and costs over their life cycles, for the purpose of providing safe, cost-effective, and reliable public transportation.
Safety	FHWA: To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
	FTA: To improve the safety of all public transportation systems that receive Federal financial assistance.
System Reliability	To improve the efficiency of the surface transportation system.
Reduced Project Delivery Delays	To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.
County/MPO	
Cohesive and Strategic Planning	To promote the integration of transportation, land use, and policy planning through the cooperation and communication between local and regional agencies.
Mobility	To increase the transportation network's ability to move people and goods locally and regionally.
Multi-Modal	Promote the ability to travel using a variety of transportation methods, such as walking, biking, and using transit, in addition to personal vehicle.
Security	To enhance a transportation system that provides access to evacuation routes, facilitates disaster response, and protects access to military bases.
Socioeconomic and Quality of Life	To provide transportation options and access to destinations for all user groups regardless of socioeconomic status or physical ability.