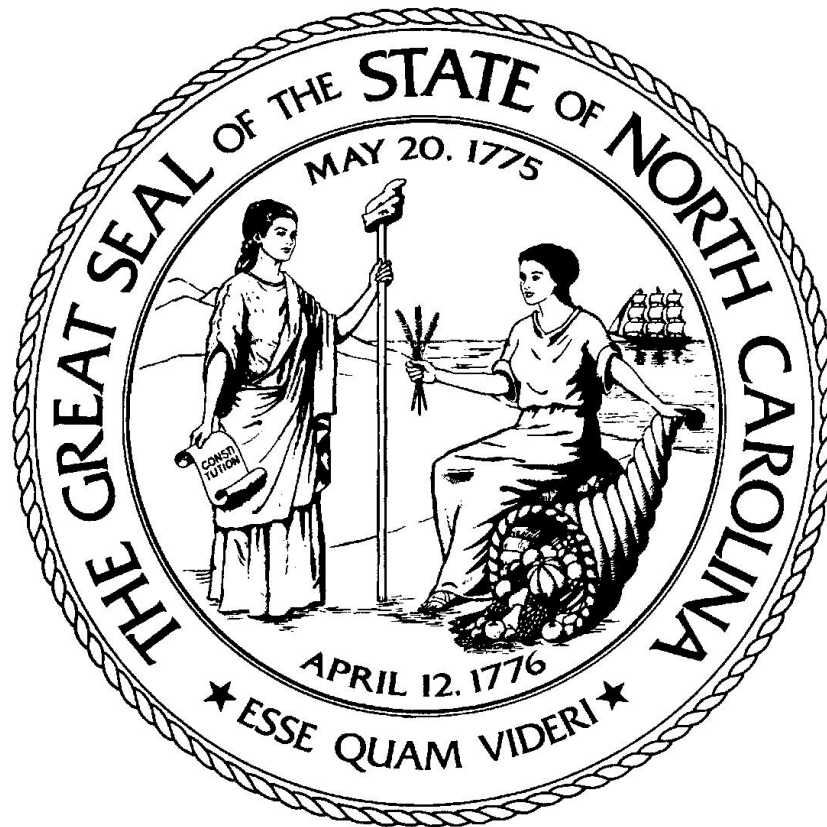


North Carolina
Department of Transportation
Strategic Plan
2023 – 2025



This page left blank intentionally.

Contents

- 1. Strategic Plan Executive Summary 2
- 2. Mission, Vision, and Values 3
- 3. Goals, Objectives, and Performance Measures 4
- 4. Highlights, Collaborative Opportunities, and Priority Questions 11

1. Strategic Plan Executive Summary

The North Carolina Department of Transportation (NCDOT) Strategic Plan clearly communicates to our customers and employees our long-term vision, core values, near-term mission statement, and eight strategic goals. Our strategic goals encompass our expected outcomes and what defines success.

NCDOT's goals are:

- Make transportation safer / Vision Zero.*
- Improve the reliability and connectivity of the transportation system.*
- Deliver and maintain our infrastructure effectively and efficiently.*
- Provide great customer service.*
- Be a great place to work.*
- Be a transparent and accountable organization.*
- Be a diverse and inclusive organization.*
- Be an innovative organization.*

NCDOT uses strategic planning to identify priorities and clearly document and communicate how it plans to achieve its goals. It is important to recognize that a strategic plan does not fully describe all the work activities an agency performs, but the critical strategic objectives to achieve its long-term vision and daily mission.

NCDOT uses a two-phase approach to refine, develop, and adopt its biennial strategic plan. The initial phase is a thorough review of the existing vision, values, mission statement, goals, and performance measures for the agency. NCDOT's senior leadership team (SLT) reviews the active mission, goal and value statements and works to refine the language of each to better reflect the current demands of our agency's services. Within the framework of this process, the SLT also identifies specific priority areas and performance measures aligned to the goals.

The next phase in the strategic planning process requires the agency to further clarify the expected results for each performance measure aligned to each goal and identify the targeted strategies that will be utilized to achieve success.

The final strategic plan provides guidance for all business units within NCDOT as they plan their work activities for the next two fiscal years. NCDOT's divisions and business units then ensure daily operations and efforts align with the overall priorities and strategies of the department. Furthermore, NCDOT's strategic planning efforts align to its employees' performance management system (NCVIP), ensuring what employees do each day is reflected in the agency's vision, values, mission, goals, and performance measures.

2. Mission, Vision, and Values

Agency Mission Statement

Connecting people, products, and places safely and efficiently with customer focus, accountability, and environmental sensitivity to enhance the economy and vitality of North Carolina.

Agency Vision Statement

North Carolina Department of Transportation: A global leader in providing innovative transportation solutions (internal vision)

North Carolina has a robust interconnected and multimodal transportation network that enhances our quality of life (external vision)

Agency Values

Safety (and Health) – We are dedicated to providing a safe transportation network and work environment.*

Customer Service – We serve our customers in a respectful, professional and timely manner.

Diversity (and Inclusion) – We respect one another while drawing strength from our diverse opinions, ideas and experiences.*

Integrity (and Ethics) – We earn and maintain trust through data-driven decisions, accountability, and transparency.*

Quality – We pursue excellence in delivering our projects, programs, services and initiatives.

Teamwork (and Collaboration) – We work together using our diverse strengths and skills, collaborating to solve problems and serve our communities.*

Innovation (and Creativity) – We promote the development and use of new and better solutions.*

**Note: values included in parentheses denote the additional statewide values as defined by the Office of State Human Resources and included in the NCVIP.*

3. Goals, Objectives, and Performance Measures

Goal 1 – Make transportation safer / Vision Zero	
Objective 1.1 – Reduce transportation-related fatalities and serious injuries with a vision of zero.	Performance Measure or Milestone 1.1 <i>Fatality Count/Rate – Total statewide fatalities per 100 million vehicle miles traveled.</i> Target: 20% Reduction
	Performance Measure or Milestone 1.2 <i>Serious Injury Count/Rate – Total statewide serious injuries per 100 million vehicle miles traveled.</i> Target: 31% Reduction
	Performance Measure or Milestone 1.3 <i>Non-Motorized Safety – Number of non-motorized fatalities and serious injuries.</i> Target: 27% Reduction
Goal 2 – Improve the reliability and connectivity of the transportation system	
Objective 2.1 – Increase the dependability of transportation and services.	Performance Measure or Milestone 2.1 <i>Highway Reliability – Percentage of acceptable travel time reliability on North Carolina roadways.</i> Target: 80-100%
	Performance Measure or Milestone 2.2 <i>Interstate Travel – Interstate travel time index.</i> Target: 1.04-1.15
	Performance Measure or Milestone 2.3 <i>Ferry Service Reliability – Percentage of planned ferry runs completed as scheduled.</i> Target: 93-97%

	<p>Performance Measure or Milestone 2.4</p> <p><i>Rail Service Reliability – Percentage of planned passenger trains arriving on schedule (Carolinian and Piedmont only).</i></p> <p>Target: 70-80%</p>
	<p>Performance Measure or Milestone 2.5</p> <p><i>DMV Service Reliability – Average customer wait-times at DMV facilities (upon check in).</i></p> <p>Target: 15-30 Minutes</p>
<p>Goal 3 – Deliver and maintain our infrastructure efficiently and effectively</p>	
<p>Objective 3.1 – Deliver our projects on schedule and budget.</p>	<p>Performance Measure or Milestone 3.1</p> <p><i>Project Development on Schedule – Percentage of planned projects let to contract on schedule (STIP and Non STIP).</i></p> <p>Target: 80-90%</p>
	<p>Performance Measure or Milestone 3.2</p> <p><i>Project Development on Budget – Percentage of total STIP dollars let to contract on schedule.</i></p> <p>Target: 80-90%</p>
	<p>Performance Measure or Milestone 3.3</p> <p><i>Project Construction on Schedule – Percentage of construction projects completed on schedule.</i></p> <p>Target: 80-90%</p>
	<p>Performance Measure or Milestone 3.4</p> <p><i>Project Construction on Budget – Total budget overrun for completed construction projects.</i></p> <p>Target: 0-5%</p>
<p>Objective 3.2 – Maintain our infrastructure.</p>	<p>Performance Measure or Milestone 3.5</p> <p><i>Bridge Health – Percentage of bridges rated in good condition.</i></p> <p>Target: 70-80%</p>

	<p>Performance Measure or Milestone 3.6</p> <p><i>Structurally Deficient Bridges – Percentage of bridges that are rated as structurally deficient.</i></p> <p>Target: 8-12%</p>
	<p>Performance Measure or Milestone 3.7</p> <p><i>Pavement Health – Percentage of pavement miles rated in good condition.</i></p> <p>Target: 70-80%</p>
<p>Goal 4 – Provide GREAT customer service</p>	
<p>Objective 4.1 – Achieve acceptable customer satisfaction results.</p>	<p>Performance Measure or Milestone 4.1</p> <p><i>NCDOT Customer Satisfaction – Percentage of surveyed customers satisfied with transportation services in North Carolina.</i></p> <p>Target: 70-85%</p>
	<p>Performance Measure or Milestone 4.2</p> <p><i>DMV Customer Satisfaction – Satisfaction score of surveyed DMV customers.</i></p> <p>Target: 70-85%</p>
	<p>Performance Measure or Milestone 4.3</p> <p><i>Rail Customer Satisfaction – Satisfaction score of surveyed rail passengers on the Carolinian and Piedmont train services.</i></p> <p>Target: 82-87%</p>
	<p>Performance Measure or Milestone 4.4</p> <p><i>Ferry Customer Satisfaction – Satisfaction score of surveyed ferry passengers.</i></p> <p>Target: 82-87%</p>

Goal 5 – Be a great place to work

Objective 5.1 – *Focus on the safety and well-being of our workforce.*

Performance Measure or Milestone 5.1

Employee Retention – Percentage of critical career-point employees retained (with 10-25 years of service).

Target: 70-80%

Performance Measure or Milestone 5.2

Position Vacancy – Percentage of positions that are vacant.

Target: 15-18%

Performance Measure or Milestone 5.3

Employee Safety – Weighted index score for employee injury rates, equipment accident rates, and workers compensation claim rates.

Target: 5.07-6.16

Performance Measure or Milestone 5.4

Employee Engagement – Employee engagement survey score.

Target: 5.00-5.50

Performance Measure or Milestone 5.5

Workforce Development – Percentage of assigned employee LMS training completed.

Target: 80-95%

Performance Measure or Milestone 5.6

Workplace Conditions – Facility condition scores.

Target: 65-85

Performance Measure or Milestone 5.7

Payroll – Employee absenteeism rate (use of paid unplanned leave).

Target: 2.5-4.0

Goal 6 – Be a transparent and accountable organization

Objective 6.1 – Maintain our fiscal responsibility.

Performance Measure or Milestone 6.1

Fiscal Management – End days of cash on hand.

Target: 90-143 Days

Performance Measure or Milestone 6.2

Fiscal Management – Percentage of cash to commitments.

Target: 26-33%

Performance Measure or Milestone 6.3

Fiscal Spend Planning – Percentage of planned costs compared to actual costs.

Target: 90-105%

Performance Measure or Milestone 6.4

Purchasing – Percentage of NCDOT’s total budget expended on external goods, materials, and services.

Target: 70-85%

Performance Measure or Milestone 6.5

Internal Costs – Percentage of the overall budget for administrative costs.

Target: 6.0-7.6%

Performance Measure or Milestone 6.6

Agreements – Average turnaround time for encroachment agreements.

Target: 20-30 Days

Performance Measure or Milestone 6.7

Asset Utilization – Equipment utilization rate.

Target: 45-55%

<p>Objective 6.2 – <i>Maintain our environmental responsibility.</i></p>	<p>Performance Measure or Milestone 6.8</p> <p><i>Energy – Percentage reduction in building energy consumption (excluding GTP and NCSPA).</i></p> <p>Target: 35-45%</p>
	<p>Performance Measure or Milestone 6.9</p> <p><i>Natural Environment – Average statewide environmental compliance score on construction and maintenance projects.</i></p> <p>Target: 7.5-8.5</p>
	<p>Performance Measure or Milestone 6.10</p> <p><i>Climate – Percentage of NC registered vehicles that are zero emission vehicles (ZEVs).</i></p> <p>Target: 5-10%</p>
	<p>Performance Measure or Milestone 6.11</p> <p><i>Resiliency – Percentage of predictive surge for coastal bridges with T-SAPP (Transportation Surge Analysis Prediction Program).</i></p> <p>Target: 80-90%</p>
<p>Goal 7 – <i>Be a diverse and inclusive organization</i></p>	
<p>Objective 7.1 – <i>Enhance the diversity of our workforce and partnerships.</i></p>	<p>Performance Measure or Milestone 7.1</p> <p><i>Minority Representation – Percentage of employees whose ethnicity is identified as a minority.</i></p> <p>Target: 22-31%</p>
	<p>Performance Measure or Milestone 7.2</p> <p><i>Gender Representation – Percentage of employees whose gender is identified as female.</i></p> <p>Target: 23-48%</p>

	<p>Performance Measure or Milestone 7.3</p> <p><i>Diversity Spending – Percentage of the total program budget paid to minority- and women-owned businesses.</i></p> <p>Target: 10-12%</p>
	<p>Performance Measure or Milestone 7.4</p> <p><i>Personnel Actions – Percentage of minority and female new hires and promotions.</i></p> <p>Target: 25-30%</p>
<p>Goal 8 – Be an innovative organization</p>	
<p>Objective 8.1 – Embrace modernization and new ideas.</p>	<p>Performance Measure or Milestone 8.1</p> <p><i>Research & Development – Percentage of planned State Planning and Research Program (SPR Part B) projects implemented after completion.</i></p> <p>Target: 70-80%</p>
	<p>Performance Measure or Milestone 8.2</p> <p><i>New Technology/Products – Number of annual lessons-learned and best practices submitted to the Internal Knowledge Management Program (CLEAR).</i></p> <p>Target: 20-50</p>
	<p>Performance Measure or Milestone 8.3</p> <p><i>Policy Innovation – Review internal policies biennially to ensure relevant and up to date technology and processes are embedded at NCDOT.</i></p> <p>Target: Biennially</p>
	<p>Performance Measure or Milestone 8.4</p> <p><i>National Research – Number of national research projects NCDOT is participating in.</i></p> <p>Target: 50-75</p>

4. Highlights, Collaborative Opportunities, and Priority Questions

Agency Highlights

Division of Highways: The Division of Highways is responsible for all aspects of the nearly 81,000-mile State maintained highway system, including the safe and efficient movement of traffic. It includes 14 regional offices, referred to as division offices, across the state that are comprised of multiple counties within a region. NCDOT's Incident Management Assistance Patrol, sponsored by GEICO, made 54,000 stops last year alone. Through the Adopt-a-Highway program, about 4,500 volunteer groups adopted about 9,000 miles of highway and 11,641,695 pounds of litter was collected statewide in fiscal year 2022. In October 2021, the Salem Parkway project from Division 9 was announced as the grand prize winner of the 2021 AASHTO America's Transportation Award. The project rose to the top in a competition that featured 80 nominees from 35 state transportation departments at the regional level and 12 national finalists. In February 2022, more than 1,100 tons of damaged concrete pipe were donated and used to help shore up two artificial reefs off the Brunswick County coast. Staff with the department's maintenance yards in Bladen and Columbus counties hauled the material to the Port of Wilmington. The discarded culverts accumulated over the past several years as the result of an aggressive pipe replacement program. Several of the pipes that required replacing were damaged by Hurricanes Matthew and Florence. A new, half-mile training course opened in Raleigh, allowing Incident Management Assistance Patrol and other emergency responders to train in a controlled setting for incidents that could happen on North Carolina's highways. The track has been in operation since the pandemic but celebrated its opening in June 2022.

BridgeWatch Public Safety Through Real-Time Structure Monitoring: NCDOT implemented a 3-year pilot using the BridgeWatch solution by U.S. Engineering Solutions. BridgeWatch is a bridge-monitoring application service that enables transportation professionals to proactively monitor infrastructure to prevent and protect against hazardous conditions. NCDOT professionals are tasked with protecting, maintaining, and replacing over 15,000 bridges along over 80,000 miles of roadway across North Carolina. BridgeWatch collects and processes real-time data from meteorologic, hydrologic, oceanographic, and seismologic sources, gauges, and various sensing devices. The datasets collected from BridgeWatch are being used to implement the first in the nation thresholds for rainfall alerts, storm surge alerts, freeboard alerts, low chord alerts and road overtopping.

North Carolina Clean Transportation Plan: The North Carolina Clean Transportation Plan was created in response to Governor Cooper's January 2022 Executive Order 246. Executive Order 246 ensures "North Carolina's Transformation to a Clean, Equitable Economy," setting the course for North Carolina's continued work to reduce economy-wide greenhouse gas emissions, advance environmental justice and create good paying jobs throughout the state. This executive order builds upon 2018's Executive Order 80, which established a goal to reduce greenhouse gas emissions by 40 percent and increase zero-emission vehicle (ZEV) adoption to 80,000 vehicles by 2025. The N.C. Clean Transportation Plan identifies near-term strategies and actions organized around four focus areas: governance, funding / finance, infrastructure, and communications and engagement.

Vehicle Miles Traveled Reduction Study and Toolkit: The goal of the Vehicle Miles Traveled (VMT) Reduction Study was to identify transportation demand management (TDM) measures or strategies to reduce (VMT) in urban, rural, and regional areas of North Carolina. The study was guided by a technical advisory committee, comprised of members from both NCDOT and local planning organizations, that gave direction to the study and provided both important input and insights. The research phase involved a review of VMT trends in N.C. and the U.S. The testing phase involved working with the Technical Advisory Committee to rank the TDM measures defined in the research phase and developing TDM “packages” that a consultant tested using the French Broad River Metropolitan Planning Organization (FBRMPO) and Triangle area travel demand models in the Asheville and Raleigh/Durham/Chapel Hill areas.

DMV Online Registration: The N.C. Division of Motor Vehicles continues to implement projects to improve the experience of its customers. During the summer of 2022, the division launched its latest endeavor, the Q-Anywhere project. Q-Anywhere enables customers to check in by scanning a QR code and texting a short message to get and hold their place in line. Customers are then free to queue anywhere –they can wait in their vehicle, or they can run other errands in the immediate area to pass the time. Customers are alerted via text to enter the lobby when the staff is ready to serve them. For customers without a cellphone, DMV is working to implement a mobile paging system like those used in the restaurant industry. Q-Anywhere builds on previous DMV initiatives, including an ever-increasing number of services being offered online at [MyNCDMV.gov](https://www.ncdmv.gov) and online appointment scheduling available at [SkipTheLine.ncdot.gov](https://www.ncdot.gov/SkipTheLine).

North Carolina Department of Transportation Mentoring: NCDOT’s biennial mentoring program was relaunched in 2022 following a hold initiated in 2015. The 2022 season begun with five protégés and five mentors. In October 2023, registration will open for the 2024 season. The year-long partnership between a mentor and a protégé allows NCDOT employees an opportunity for career development and professional growth. The program is designed to complement and not take priority over an employee’s regular job duties and responsibilities. The program challenges employees to explore personal career development objectives with the Department. Based on employees’ individual career aspirations, the mentoring coordinator strives to identify and match the protégé to a mentor capable of guiding, improving, and fulfilling the protégé’s needs. Protégés will then work with their mentor to write a Mentoring Agreement Plan, which defines the scope and developmental objectives for this partnership. The NCDOT Mentoring Program is a proven way to exchange knowledge, network, and develop talent. Mentors typically enjoy the personal growth and intrinsic rewards from helping someone in this manner, while ensuring NCDOT is building a thriving talent pipeline for the future.

Emerging Technologies: Advanced Air Mobility: Unmanned aviation will transform the way we live and work and is already creating an entirely new economy. Projections are that the total global market for unmanned aviation will be \$1 trillion by 2040; \$9 trillion by 2050.

North Carolina has been a national leader in paving the way in aviation’s new frontier to capture both the operational and economic benefits it will provide. NCDOT achieved more national firsts and completed more missions than all other states combined in the Federal Aviation Administration’s three-year Unmanned Aircraft Systems (UAS) Integration Pilot Program (IPP). That included working with innovative companies and the FAA to:

- Launch the nation’s first commercial medical package delivery operation;
- Launch the nation’s first backyard drone deliveries of food and retail products;
- Facilitate certification of the first, and three of the first five, U.S. drone delivery companies;
- Propose the first statewide unmanned traffic management (UTM) system;
- Conduct the first FAA-approved DOT drone bridge inspection; and
- Deploy the first U.S. tethered drones to support incident response on statewide Incident Management Assistance Patrol (IMAP) trucks.

Those achievements prompted FAA to select NCDOT as one of eight teams for its follow-on program, called BEYOND, which refers to “beyond visual line of sight,” or BVLOS. For drone flight to reach its full potential, FAA will need to allow drones to routinely fly BVLOS and for fleets of drones to be managed autonomously.

NCDOT is helping FAA test and demonstrate how to accomplish these operations safely and successfully. It is working with companies to move beyond the small UAS operations accomplished in the IPP to test much larger platforms that can transport both cargo and, ultimately, passengers, in both rural and urban areas – referred to as advanced air mobility.

In addition, NCDOT Aviation, Freight & Logistics and Integrated Mobility have embarked on a strategic planning process to develop a comprehensive framework for interconnected and shared autonomous multimodal deployments, building on the innovations already accomplished within those NCDOT units.

Strengthening Public Airport Operations, Management, and Impact: North Carolina has a robust public airport system that provides passenger, cargo, and a range of other services to companies and communities. N.C. public airports contribute more than \$72 billion and 330,000 jobs to the state’s economy each year and return more than \$3.7 billion in local tax revenues.

NCDOT supports the state’s public airports with infrastructure development grants, airport pavement and equipment maintenance, engineering and planning assistance, professional development, and business development services.

In recent years, the Department has pursued a range of strategies to enhance its collaboration with airports to strengthen airport management and operations, expand airport economic impacts and ensure compliant and responsible use of public investment in airport development.

Integrated Mobility Division: In the past three years, the Integrated Mobility Division has won 10 federal discretionary grants totaling over \$72 Million. The Bipartisan Infrastructure Law significantly expands federal discretionary grant programs, presenting a great opportunity for NCDOT to continue competing and winning additional funds to expedite delivery of important projects across the state. Federal discretionary grants typically require a non-federal match, often provided through a combination of state and local funding. Through the Integrated Mobility Division’s multimodal planning grant program and feasibility studies program, NCDOT is creating a pipeline of multimodal projects by helping local communities plan, study and develop project ideas.

Tethered Drones on IMAP Trucks: Two North Carolina Department of Transportation programs partnered to be the first in the nation to launch an innovative technology pilot with their safety service patrol, that would improve road safety in the state. The statewide Incident Management Assistance

Patrol (IMAP) program and the Division of Aviation's Unmanned Aircraft System (UAS) program recently assisted with the creation and implementation of tethered drone operations from select IMAP vehicles. This aids responders in assessing incidents, providing situational awareness to the NCDOT Statewide Transportation Operations Center (STOC) and Traffic Management Centers (TMCs), and assisting with overall incident traffic management. The deployment of this technology was made possible by a federal innovation grant awarded in 2020.

Disadvantaged Business Enterprise Program: The Disadvantaged Business Enterprise (DBE) Program is a legislatively-mandated United States Department of Transportation program. The DBE program ensures disadvantaged businesses have the opportunity to conduct business with the N.C. Department of Transportation. NCDOT administers several programs that certify businesses as small and or disadvantaged. NCDOT advertises and awards numerous contracts each year and encourages businesses to apply for the numerous contracting opportunities in state transportation. In June 2021, the N.C. Department of Transportation's Division of Highways, in partnership with the department's Office of Civil Rights, began hosting DBE outreach events for all 14 highway divisions. The statewide outreach events help our small, minority- and women-owned businesses learn how to they can compete for state contracting opportunities. Since June 2021, more than 500 participants representing hundreds of firms have attended these outreach workshops.

Collaborative Opportunities

NC Emergency Response Exercise on State Ferry: State, federal and local law enforcement agencies trained on how to respond effectively to an emergency aboard a state ferry in Cherry Branch. The training included a simulation of law enforcement and emergency response to an active shooter incident on board a ferry as it cruised along the Neuse River near the Cherry Branch terminal. The training was part of a series of required trainings aimed at ensuring emergency response teams know how to conduct a coordinated and timely response to a major incident on a ferry.

Participating in the training were officials with the U.S. Coast Guard, North Carolina State Highway Patrol, NCDOT's Ferry Division, the New Bern Police Department, the Pamlico County Sheriff's Office, the Craven County Sheriff's Office, the Atlantic Beach Police Department, and the North Carolina Marine Patrol.

Workforce Development for Future Generations: The North Carolina Department of Transportation and Women's Transportation Seminars (WTS) "Introduce a Girl to Engineering Day" program promotes engineering as a desirable career option for young students participate in hands-on activities related to transportation as well as question-and-answer sessions with female engineers who work at NCDOT in various disciplines. Engineers also share the daily duties and skills necessary for their jobs while encouraging young women to maintain their math and science skills, which are necessary to enter programs in college.

The NC STEM Policy Fellowships provide graduate students from North Carolina colleges and universities with opportunities to serve full-time for a year in high-level state government offices, focusing on policy topics related to science, technology, engineering, and mathematics. The STEM

Policy Fellowship offers five placement options in the N.C. Department of Transportation. Through a partnership with Sigma Xi, the international honor society of science and engineering, fellows receive additional professional development.

Aviation Workforce Development Strategic Plan: NCDOT’s Division of Aviation will launch a collaborative strategic planning initiative in 2023 to develop a vision and role for the Department to help build a strong talent pipeline for the state’s aviation sector. The planning process will convene stakeholders representing leading agencies and STEM partners to identify gaps in aviation workforce development and how NCDOT can help fill them.

The plan will complement the North Carolina Aviation Business Development Plan, developed by the Division and launched in 2020, in collaboration with the N.C. Department of Commerce, Economic Development Partnership of North Carolina and airports, economic and workforce development, universities, community colleges, companies and sector support organizations.

The Division already offers workforce development services such as an airport Aviation Career Education (ACE) Academy grant program, a professional development program for airport managers and staff, and support for STEM and career outreach across the state.

Integrated Mobility Healthcare Access and Microtransit: NCDOT’s Integrated Mobility Division collaborates with the healthcare community to enhance non-emergency medical transportation services to healthcare for elderly, disabled and other transportation disadvantaged residents. IMD also collaborates with local governments to expand on-demand microtransit services. Microtransit is a technology-enabled transit service that typically uses shuttles or vans to provide pooled on-demand transportation with dynamic routing. While it uses similar technology such as a mobile app for requesting and scheduling rides, microtransit is different than a rideshare like Uber or Lyft. Microtransit is typically subsidized, operates in defined service zones, combines trips rather than serving single trips, provides lower fares, employs professional drivers and dedicated vehicles. Microtransit will enhance quality, coverage, and reliability of high-quality public transportation.

National Electric Vehicle Infrastructure (NEVI) Program: The North Carolina Electric Vehicle Infrastructure Deployment Plan is part of the federal National Electric Vehicle Infrastructure (NEVI) program. The program’s purpose is to expand access to convenient, reliable, affordable, and equitable electric vehicle charging. The program will:

- Accelerate equitable adoption of EVs, including for those who cannot reliably charge at home;
- Reduce transportation-related greenhouse gas emissions and help put the U.S. on a path to 50 percent reduction in economy-wide net greenhouse gas pollution by 2030 (compared to a 2005 baseline) and net zero emissions by 2050; and
- Position U.S. industries to lead global transportation electrification efforts and help create family-sustaining jobs that cannot be outsourced.

NEVI program funds are apportioned from the Infrastructure Investment and Jobs Act. NEVI will provide nearly \$5 billion from July 2022 through June 2027 to help states create a network of 500,000 electric vehicle charging stations along designated alternative fuel corridors. North Carolina expects to receive up to \$109 million to build out EV infrastructure along its approved corridors.

NCDOT is operating under the following guidance and requirements set by the FHWA. EV charging station deployment must be prioritized along approved alternative fuel corridors.

Charging stations will be installed every 50 miles along the state’s portion of the interstate highway system. The stations will include at least 150 kilowatts Direct Current Fast Chargers with Combined Charging System ports capable of simultaneously charging four EVs (600kW minimum station power capability). NEVI funds can be used both to construct new EV charging infrastructure and upgrade existing charging infrastructure. The Justice40 Initiative aims to deliver 40 percent of the overall benefits of federal investments in climate and clean energy, including sustainable transportation, to disadvantaged communities. States should prioritize rural, underserved, and disadvantaged communities for EV charging infrastructure.

Renewable energy generation and storage can be considered if it leads to lower overall construction and operating costs.

Corridor Identification and Development Program: The Corridor Identification and Development program is a comprehensive intercity passenger rail planning and development program that will help guide intercity passenger rail development throughout the country and create a pipeline of intercity passenger rail projects ready for implementation. The Corridor ID Program aims to both support a sustained long-term development effort, and to set forth a capital project pipeline ready for Federal funding. The Corridor ID Program is intended to become the primary means for directing Federal financial support and technical assistance toward the development of proposals for new or improved intercity passenger rail services throughout the United States.

S-Line Local Government Engagement: Led by the Rail and Integrated Mobility Divisions, NCDOT is collaborating with local governments along the CSX S-line rail corridor from the Virginia state line to Sanford, N.C. This portion of the S-Line is targeted for additional investment as part of the ongoing Southeast Corridor development, including the possibility of significant infrastructure enhancements for intercity passenger rail from Raleigh to Richmond, V.A. Through the S-Line Transit Oriented Development Study, NCDOT is helping S-Line communities develop strategies to maximize the positive benefits of rail service, including plans for economic development, land use and zoning changes, affordable housing considerations, and enhanced multimodal connectivity. Following completion of the TOD study in Spring 2023, NCDOT will lead mobility hub feasibility studies and preliminary design in seven S-Line communities. The mobility hubs will include the traditional rail platform and amenities but also bring together other transportation modes, community services, businesses, and event space. As the S-Line project moves forward, NCDOT will continue providing guidance and technical support to help S-Line communities leverage future rail service for enhanced access, mobility, and economic vitality.

Priority Questions

1. **Is NCDOT providing adequate transportation alternatives?** The North Carolina Department of Transportation is providing adequate transportation alternatives through various initiatives, such as Microtransit, S-line, mobility as a service (MaaS), connected autonomous shuttle

supporting innovation, and the National Electric Vehicle Infrastructure program. NCDOT also manages programs such as the Carbon Reduction Program and the Congestion and Mitigation Program that allow municipalities to provide additional modes of transportation, but some communities may lack the funding matching requirements. Microtransit services will provide North Carolinians with pooled on demand transportation services using shuttles and vans. The service operates in defined service zones. Microtransit will improve the standard, reach, and dependability of excellent public transportation. NCDOT's Rail and Integrated Mobility Divisions are leading NCDOT's collaboration with local governments along the CSX S-Line rail line. S-Line services will provide future high performance passenger rail services connecting communities from Raleigh to Richmond. Mobility as a service allows travelers to access their transportation modes using a single digital interface. The Connected Autonomous Shuttle Supporting Innovation (CASSI) project focuses on educating the public on the use of autonomous vehicles. CASSI has several goals, including preparing for the future deployment of AVs, improved mobility and safety for residents, development of best practices for long term AV planning, and launching AV shuttles for transportation into multiple locations. The National Electric Vehicle Infrastructure or NEVI Program established by the infrastructure law provides nearly \$5 billion from June 2022 – June 2027 to establish a network of 500,000 electric vehicle charging stations. North Carolina is projected to receive up to \$109 million to build EV infrastructure. The program will expand access to convenient, reliable, affordable, and equitable electric vehicle charging for residents who cannot reliably charge at home.

- 2. Which NCDOT strategies are projected to be most effective in reducing transportation greenhouse gas (GHG) emissions?** The North Carolina Department of Transportation strategies projected to be the most effective in reducing greenhouse gas emissions are the National Electric Vehicle Infrastructure Program (NEVI), Carbon Reduction Program, Clean Transportation Plan and Vehicle Miles Traveled Reduction Study and Toolkit. The first phase of NEVI focuses on the build out compliant charging stations along North Carolinas Alternative Fuel Corridors. Phase two will focus on community-based public electric vehicle charging and other critical infrastructure needs. The North Carolina Clean Transportation Plan focuses on meeting the goal to reduce greenhouse gas emissions by 40 percent and increase zero emission vehicle adoption to 80,000 vehicles. Between 2003 and 2019, vehicle miles traveled in North Carolina grew from 93.7 billion to 123.1 billion, an overall increase of 31 percent. The Vehicle Miles Traveled Reduction Study and Toolkit will identify strategies to reduce vehicle miles traveled in urban, rural, and regional areas of North Carolina. NCDOT is currently in the developmental stages of setting a VMT reduction target. Additional efforts to reduce greenhouse gas emissions are being spearheaded by the Federal Highway Administration. In July 2022, FHWA announced a Notice of Proposed Rulemaking for states and municipalities to track and reduce greenhouse gas emissions. President Biden's Bipartisan Infrastructure Law allocates more than \$27 billion in federal funding to assist state departments of transportation and metropolitan planning organizations meet their declining GHG targets. The new rule would take two important steps to combat climate change. The rule establishes a national framework for tracking state by state progress by adding a new GHG performance management measure to current FHWA measures.

The rule also establishes a flexible system under which state DOTs and MPOs would set their own reduction targets for GHG emissions from roadway travel on the National Highway System.

3. Can we maintain and recruit an adequate and diverse workforce to achieve our goals?

NCDOT is retaining and recruiting a diverse workforce through various strategies and programs, including the Transportation Engineering Associates Program, Historically Black Colleges and Universities, Minority Serving Institutions Fellowship Program, Historically Black Colleges and Universities Internship Program, employee resource groups (ERG), and the Legacy Leadership Program. The Transportation Engineering Associates Program is offered to qualified recent graduates seeking entry-level work in civil, environmental, electrical, mechanical, chemical, aerospace or biological engineering. The program provides NCDOT with a pool of professionally trained and experienced engineers who can assume management responsibilities with confidence, while giving associates the opportunity to develop a career through a training program that provides them with a broad background and practical application of highway engineering. The HBCU/MIS fellowship offers workplace experience and learning opportunities to recent graduates of HBCUs and MSIs. Fellows serve a 2-year commitment in an NCDOT unit/division where they learn about the department and participate in professional certification and development opportunities. Fellows are placed in positions and gain knowledge and experience to prepare them for permanent employment. The Office of Historically Black Colleges and Universities Outreach Internship Program is a 10-week summer internship program. The program allows graduate and undergraduate students to gain valuable work experience at NCDOT and learn what a career in the transportation industry can offer. Essential components of the internship include professional development workshops on resume building, business writing and networking. Both programs are open to students of all majors and demonstrations. NCDOT's commitment to hire individuals of various educational backgrounds. NCDOT is the developmental stages of two different initiatives to assist with retention. NCDOT is creating its first two Employee Resource Groups (a women's group and HBCU alumni group). These groups will allow NCDOT to better meet the needs of employees and other stakeholders. ERGs foster inclusion by allowing employees to feel a sense of community. Belonging to an ERG helps employees feel authentic at work and derives more meaning and purpose from their work. Although on hiatus since August 2019, there is an intended effort to relaunch the Legacy Leadership training program. It is an innovative development program offered through NCDOT's Office of Human Resources. The program works with participants from the early stages of their professional development by combining experiential learning, independent reading, 360-degree assessments, self-reflection, and intensive team workshops to develop and improve critical leadership skills. The program has four levels: Level 1 Team Building, Level 2 Leading Others, Level 3 Leading Managers, and Level 4 Leading at the Executive Level.