Objective | Action



### Advance channel deepening and technology related operational improvements for the NC State Ports Authority.

Coordinate with ports officials to identify short- and long-term strategic investments to plan for, streamline and enhance higher levels of cargo movement.

Invest in infrastructure capacity and connectivity to relieve freight bottlenecks and disperse freight demand, enhancing network efficiency.

Implement and prioritize state and regional plan recommendations, that address gaps, improve travel time and complete first/last mile connections to and from ports facilities.

Establish partnerships and resources to prepare, equip and build a 21st century ready transportation workforce.

Assess workforce competencies and needs to identify, develop and promote transportation career curriculum and skill-based programs, that evolve and adapt to industry change.

Support development and growth of dual enrollment programs to facilitate entry into specialized transportation skills and careers.

Coordinate with the North Carolina high schools and technical colleges to establish, fund and promote transportation workforce centers of excellence.



Incorporate and integrate risk and resiliency considerations across transportation activities - from long-range planning through operations.

Develop a unified framework of policies, protocols and standards to help NCDOT and its partners plan, prepare and adapt to natural and man-made hazards and events.

Identify and prioritize multimodal transportation improvements that enhance system performance and reliability.

Conduct a vulnerability assessment of Strategic Transportation Corridors (STCs) to evaluate infrastructure, climate and other external stressors; develop resilience-based scoring criteria and methodology for NCDOT Strategic Prioritization process.

Standardize, measure and report asset management practices that advance transportation infrastructure resilience.

Track activities and investments, that extend life-cycle operations and harden critical infrastructure assets.

Support community-based resiliency approaches that inform NCDOT practices.

Work with local partners to coordinate land use, comprehensive and environmental planning activities with transportation decisions.

## **Implementation**

NCDOT will work closely with partners and stakeholders to identify resources and staff that make the actions real and effective. As with any planning endeavor, these changes will not occur overnight but require steady, disciplined progress and accountability to achieve and realize results. NCDOT can employ a number of options to advance the strategies and actions while maintaining plan momentum through a structured implementation approach. Learn more about NC Moves 2050 Plan implementation at www.ncmoves.gov.





# **EXECUTIVE SUMMARY**

FINAL RECOMMENDED PLAN ACTIONS

NC Moves 2050 is a strategic multimodal transportation plan aimed at planning for our future, connecting communities and supporting North Carolina's economy and quality of life. The plan is focused on creating a more responsive, diverse and inclusive transportation system to keep people and freight moving safely and efficiently.

As North Carolina grows and changes, so do the state's transportation needs. By 2050, North Carolina's population is anticipated to grow from 10 million to 14 million people.

Current trends make now a great time to produce a policy-based transportation plan to guide future investments and performance goals, making the state more reactive to change.

NC Moves 2050's planning process was done in four phases, each answering key questions about the state's transportation system:

**PHASE** 

### **State of the System**

What is the current state of our transportation system?

PHASE

### **Alternative Futures**

What future scenarios might arise and impact transportation?



### **Drivers and Opportunities**

What factors will impact the future of our state?

**Priorities, Needs and Solutions** 

What policies and strategies will prepare NCDOT for the future?

PHASE



# Public Engagement

A robust public engagement strategy was implemented to ensure a wide range of participants across the state were able to help shape this plan.

Over 3 million people were engaged across North Carolina online and through tabling events, presentations, workshops and other activities.

For information about the NC Moves 2050 Plan: Transportation Planning Division

(919) 707-0900 1554 Mail Service Center Raleigh, NC 27699-1554



### Alternative Futures

Using research on emerging trends that could affect North Carolina's future, the NC Moves 2050 Plan explored four alternative future scenarios. These scenarios help us understand what could happen and provide us an understanding of future transportation needs to develop modern strategies.

Technology in Transportation



### **RENEWED**

Community Growth in Transportation



#### **UNSTABLE**

**Uncertainties in Transportation** 



### **GLOBALLY CONNECTED**

**Economic Growth in Transportation** 



# Strategies

To prepare NCDOT for the potential opportunities and uncertainties in the alternative futures, the plan proposes eight strategies, each aligning with five plan objectives, for providing a responsive, diverse and inclusive transportation system.



### PROVIDE TRANSPORTATION ACCESS FOR ALL

**IMPROVE** quality of life and multimodal access to regional jobs and services

**CONNECT** communities to statewide opportunities



# IMPROVE TRANSPORTATION THROUGH TECHNOLOGY

**ENABLE** smart and innovative statewide technology solutions



### ENSURE SAFETY AND SECURITY

**PROMOTE** more multimodal safety and behavioral-based programs, policies and tools



### SUPPORT A STRONG ECONOMY

**PROVIDE** connections to new industry clusters and transportation terminals

**ADDRESS** air, sea, and inland port capacity to handle freight demand

**IDENTIFY** future transportation workforce supply and demand



### MAINTAIN A HIGH-QUALITY SYSTEM

**DEVELOP** and mainstream risk / resiliency Practices

**Each of the eight strategies** includes four actions that help carry out the plan objectives for a total of 32 actions. The actions propose specific planning, policy and partnership recommendations to prepare North Carolina's transportation system for future change.

While all 32 actions are equally important to implement, it is likely that full-scale implementation and the resulting benefits may not be realized until after the next 10 years. To identify the most likely time frame for implementation, the actions are arranged into three tiers covering the next 30 years.

### TIER 1: NEXT 10+ YEARS

There are 16 Tier 1 actions representing those with the highest potential for implementation with measurable benefits over the next 10 years. Beyond then, both resources and needs are very difficult to predict.

### TIER 2: NEXT 20+ YEARS

Six Tier 2 actions look toward 2040 and consider what NCDOT and its partners could reasonably plan to implement in the face of uncertainty and available resources.

#### TIER 3: NEXT 30 YEARS

10 Tier 3 actions look out even further, to 2050, to prepare for substantial and more complex changes to manage and deliver transportation services. NC Moves 2050 - Executive Summary

# Tier 1 Actions

Each of the 32 actions brings unique opportunities and challenges when it comes to implementation. The Tier 1 Actions generally share the following characteristics:

- Already being implemented –
  A number of these actions
  extend and enhance current
  NCDOT programs and policies.
- ▶ Planning or strategy development underway – These actions are consistent with policy priorities for NCDOT and are in the initial planning steps.
- ➤ Minor resources required –

  These actions are low cost and have broad implementation support.
- ➤ Commitment within recent plans —
  The Statewide Multimodal Freight Plan
  and Public Transportation Strategic
  Plan identified key steps NCDOT and
  partners should take to enhance
  operations of the freight system and
  expand access to alternative modes.

Objective Action



### Conduct a statewide vulnerability assessment of transportation users with mobility challenges.

Collaborate with partners to define and identify vulnerable populations and develop and institute new programming and performance measures that support multimodal investment in these communities.

Accelerate demand response and flexible multimodal strategies to meet the needs of an aging population and residents with disabilities.

Revise design standards and policies to accommodate emergency vehicle access and expand coordination and funding partnerships with demand response and medical transportation services.

Implement multimodal solutions that improve connections to major transportation terminals, destinations and distribution centers.

Expand safe and reliable multimodal connections to these locations and deploy emerging technologies and new partnerships while prioritizing low emissions technologies.



Promote internal and external innovation within NCDOT and build partnerships with academia and the private sector to research, pilot and implement emerging technology.

Continue and expend partnerships to research, pilot and implement emerging transportation, low-emissions transportation, communications and information technologies.

Utilize the existing Strategic Transportation Corridors (STCs) as priority "smart" corridors.

The STCs will represent the backbone of emerging transportation management and operations technology, including electric vehicle charging locations, connected/autonomous vehicle infrastructure and broadband infrastructure.



Enhance collaboration and partnerships with agencies and stakeholders that foster safety awareness and law enforcement.

Coordinate with partners and build regional safety coalitions to enhance campaigns and education, better tailor systemic and behavioral strategies for all system users to meet local and regional needs.

Develop and implement new multimodal safety policy and standards that focus on public safety.

Advance safety solutions in all environments and for all modes, especially in underserved communities and multimodal locations and corridors.

Research and invest in technology that can be used to reduce crashes, enhance crash data, monitor risky driver behaviors and promote safety for all users.

Develop programs and partnerships to deploy both vehicle and infrastructure safety technologies to identify and mitigate high-risk crash locations and improve transportation system user behavior.