



**Transportation
Planning Division
(TPD)**

STRATEGIC PLAN

Advancing NC's Mobility Future

May 2025



Acknowledgments

On behalf of the Transportation Planning Division (TPD), I am thrilled to present our Strategic Plan for the next 5 years. This effort was supported by our colleagues throughout the North Carolina Department of Transportation, including our team here at the TPD, Division of Planning & Programming, Integrated Mobility Division, Office of Strategic Initiatives and Program Support, Transportation Mobility and Safety Division (TMSD), and our local Highway Division Offices. We are especially grateful for the input and collaboration with our partner agencies, including Metropolitan Planning Organizations (MPOs), Rural Planning Organizations (RPOs), and the Federal Highway Administration (FHWA).

The development of this Strategic Plan has re-emphasized the role long range or systems planning plays to envision and advance future mobility solutions throughout the state of North Carolina. This Plan focuses TPD on delivering high quality, timely plans, products, and services to inform project prioritization, programming, and delivery decisions. We are proud of the Comprehensive Transportation Plans, traffic surveys*, traffic forecasts and other deliverables produced by TPD that continue to help advance NCDOT's mission to be "a global leader in providing innovative transportation solutions." The adoption of this Strategic Plan will be followed by an implementation plan that will further detail the recommended actions. In addition, this Strategic Plan will be regularly reviewed and updated. It will be used as a basis to measure progress of proposed/recommended action items. TPD may continue to evolve in role and responsibility under new leadership, but its commitment to high-quality services will not. I look forward to seeing the continued momentum of TPD as we meet the goals laid out in this Strategic Plan.

Sincerely,

Alpesh Patel

*Director of Transportation Planning Division***

*Traffic Surveys are now under TMSD but work products are closely coordinated through TPD.

** This plan was developed in part under the leadership of Jamal Alavi, whose service to NCDOT is greatly appreciated.

Contents

Acknowledgments	2
Executive Summary	5
Introduction	8
Who is TPD?	10
Strategic Plan Development Process	17
A Collaborative Plan for the Future	17
Stakeholder Engagement	18
Peer Agency & Best Practice Review	21
TPD's Strategic Role at NCDOT	28
TPD's Strategic Goals, Objectives, and Actions	28
How Do We Get There?	41
The Future of TPD	41
Anticipating & Planning for Disruptions	42
Goals, Objectives, and Action Items	43
Appendices	
Acknowledgments & Stakeholders	57
Survey Results	58



Executive Summary

1

Executive Summary

The Transportation Planning Division (TPD) of the North Carolina Department of Transportation (NCDOT) plays an important role in long range planning, project planning, and ultimately the delivery of a top quality multimodal transportation system, across the state of North Carolina. TPD provides critical functions at the statewide, regional, and local levels by providing essential transportation planning services and products. These services include developing long range transportation plans, such as Comprehensive Transportation Plans (CTPs), and providing technical services such as traffic forecasting and travel demand model development. Each of these activities and products are guided by TPD's mission to deliver a premier planning process that is integral to a high-performing, multimodal transportation system in North Carolina.

The intent of TPD's Strategic Plan is to align the Division's activities and deliverables with its overarching vision, mission, and values. The Strategic Plan was developed through collaboration with TPD staff, NCDOT internal partners, and external partners who offered feedback on how TPD might best serve its customers. Additionally, a survey of peer agencies was conducted to understand trending industry topics and best practices

for TPD to consider. This diverse feedback helped TPD leadership determine the strategic goals, objectives, and action items it needs to advance the next evolution of transportation planning within NCDOT.

Advancing NC's Mobility Future



TPD STRATEGIC PLAN GOALS



GOAL 1: BE A NATIONAL LEADER IN PLANNING PRACTICES.

TPD aims to be a national leader in planning practices by engaging with partners and other agencies at various levels to explore, learn, and implement best-practice transportation planning and decision-making. Additionally, TPD will act as a leader in the planning practice by forging a cohesive relationship with federal partners to support federal programs and funding opportunities.



GOAL 2: STRENGTHEN TPD'S BRAND/IDENTITY.

TPD aspires to be seen as the steward of all products, services, and institutional knowledge related to planning within NCDOT. To strengthen brand and identity, TPD aims to clearly define its vision and priorities, act as a trusted partner for internal and external stakeholders, and bring awareness to its value as a resource for planning information.



GOAL 3: STRENGTHEN THE CONNECTION BETWEEN TRANSPORTATION PLANNING AND PROGRAMMING.

TPD aims to strengthen the role of planning in the project development process by consistently and thoughtfully linking planning to its succeeding steps. Improving this connection can be achieved by better integrating land use in transportation planning and decision-making, as well as by staying engaged with other state, division, and local programming and planning activities.



GOAL 4: BE THE NORTH CAROLINA LEADER IN EMERGING TECHNOLOGY PLANNING AND OTHER FUTURE DISRUPTIONS.

TPD will support NCDOT's plan for resiliency and sustainability, be at the forefront of statewide emerging technology initiatives, and proactively prepare for future disruptions to the transportation industry.



GOAL 5: PROVIDE PREMIER, TAILORED CUSTOMER SERVICE.

TPD will provide premier, tailored customer service to both its internal partners at NCDOT as well as its external partners. TPD is positioned to be a trusted statewide resource for transportation data and information and other planning resources needed across NCDOT, as well as by regional and local planning partners.



GOAL 6: BE AN ATTRACTIVE PLACE TO WORK.

Promoting a diverse, high-caliber staff; creating redundancy and resiliency of institutional knowledge; and ensuring transparent relationships between leadership and staff are all key components of making TPD an attractive place to work. TPD also aims to foster an environment where staff continually pursue professional development in technical skills as well as innovative planning practices.



Introduction

2



Introduction

This Strategic Plan aligns North Carolina Department of Transportation (NCDOT) Transportation Planning Division's (TPD) organizational priorities and activities with its vision, mission, and values, shown in Figure 5. This plan builds upon previous Strategic Plans of the Division and provides a roadmap for TPD business units as TPD continues to evolve to serve a rapidly changing state and industry.

WHAT IS PLANNING?

TPD plays critical roles in both long and short range components of transportation planning for the state of North Carolina. Long range systems planning focuses primarily on areawide or systemwide plans for a region or the state across a long timeline (typically 20-25 or more years). These plans act as a venue for local, regional, and statewide stakeholders to collaborate in the identification of long-term needs and opportunities and to prioritize these within the available agency, state, and federal resources. The analyses and decisions made and documented during the development of a long-range transportation plan ultimately support transportation project delivery. These plans inform downstream project development activities, including project

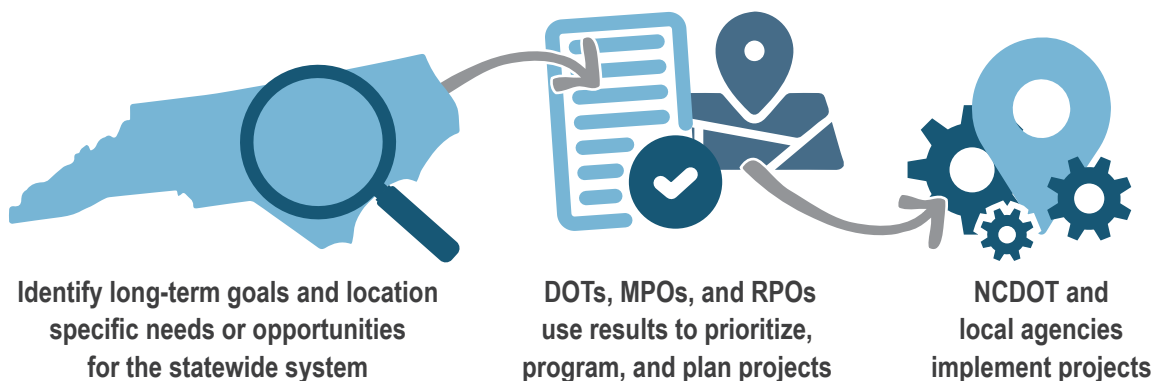
prioritization, programming, and project planning. These plans are developed in compliance with federal or state mandated statutes, and they enable DOTs, Metropolitan Planning Organizations (MPOs), and Rural Planning Organizations (RPOs) to utilize federal and state funding programs.

TPD performs planning for statewide, regional, and local transportation needs. This includes preparing Comprehensive Transportation Plans (CTPs), supporting MPO Metropolitan Transportation Plans (MTPs), and developing travel demand models and project-level forecasts to assess future demand, safety, and multimodal needs.

TPD also coordinates with the Office of Strategic Initiatives & Program Support (SIPS) on Strategic Transportation Corridors (STCs) and other initiatives such as Congestion Management and Air Quality (CMAQ) and Carbon Reduction Program (CRP).

Fundamentally, long range transportation planning is the identification of a future transportation system to meet the needs of users, with consideration of available statewide and regional resources. As such, comprehensive consideration of all transportation users and modes are key components of both short and long range transportation planning. These considerations

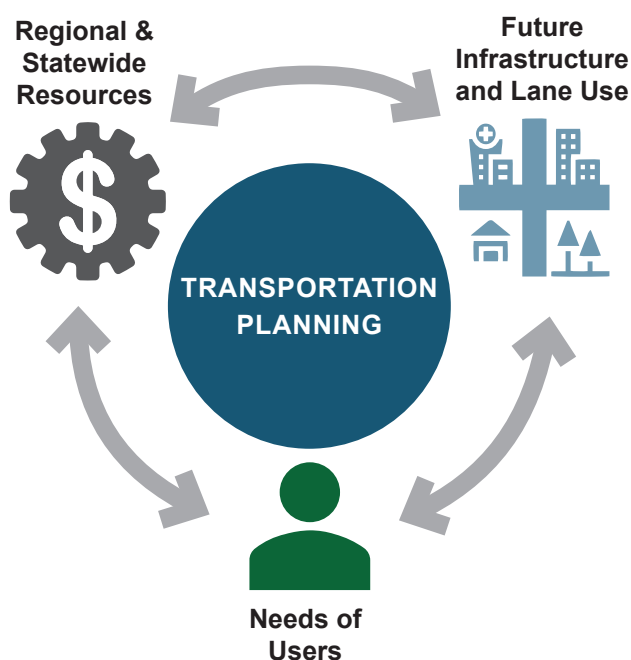
Figure 1. Long Range Transportation Planning Process



include existing and future needs based on population, employment, and land development patterns, as well as community vision, goals, and objectives. Emerging issues, such as rising e-commerce, extreme weather events, technology changes and disproportional community impacts, should also be considered. State DOT planning processes build on and reference federal and statewide policies and frameworks, including:

- **The Federal Aid Highway Act of 1962's 3C planning process** (continuing, cooperative, and comprehensive), which requires the development and adoption of an MTP for all urbanized areas in order to receive federal funding. The Infrastructure Investment and Jobs Act (IIJA), enacted in 2021, was the most current federal legislation establishing federal transportation funding for surface transportation modes during the development of this Strategic Plan.
- **North Carolina General Statutes** (G.S. Chapter 136), including Articles 136-210 through 213 which directed NCDOT to study and support RPOs. This state legislation was one of the first of its kind in the nation. Other articles include the development of CTPs for municipalities not located within an MPO and for all MPOs in North Carolina (Article 66.2). TPD provides the necessary resources and support to meet these federal and state mandates.
- **The National Environmental Policy Act**, or NEPA, provides a process and criteria for project-level planning.

Figure 2. State Dot Planning Processes



Who is TPD?

TPD'S ROLE IN PLANNING & PROJECT DELIVERY IN NORTH CAROLINA

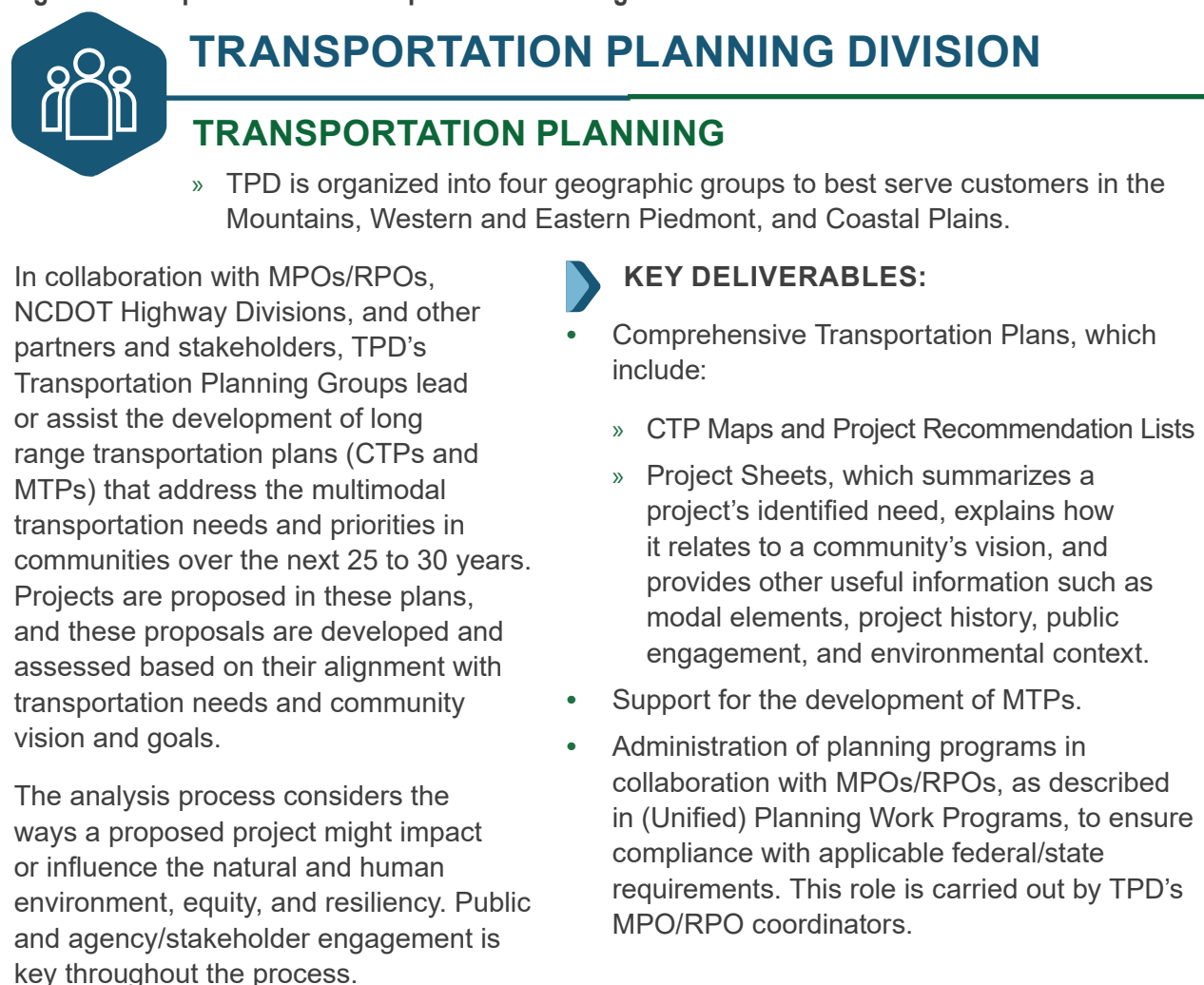
TPD carries out long range planning through the statewide, regional, and local services and products offered by its groups related to Transportation Planning and Technical Services.

Many key deliverables are collaboratively worked on by multiple groups within TPD. The key deliverables noted below indicate the unit or group that is primarily responsible for the product's delivery. We coordinate closely with our MPO/RPO planning partners to fulfill

state and federal requirements that keep NC in compliance with applicable laws and guidance. Our work to manage, coordinate, and communicate frequently with MPO/RPOs helps TPD stay up to date on local conditions, technical resources and data, and input from stakeholders and the public that would be difficult to achieve without these relationships.

NCDOT continues to evolve its organizational structure to meet its customers' needs. TPD is currently being reorganized, and will continue to collaborate internally and externally to support planning organizations and fulfill NCDOT's mission and vision. The Strategic Plan is based on the roles and responsibilities of TPD at the time of this document's development.

Figure 3. Groups within the Transportation Planning Division





TECHNICAL SERVICES

In support of both planning and project delivery functions, TPD provides a variety of technical services that include: travel demand model development and research and traffic forecasting.

MODEL RESEARCH AND DEVELOPMENT GROUP

TPD offers technical expertise in travel demand modeling, land use modeling, statistical analysis, and management of various planning data. TPD also conducts research on travel demand modeling techniques, multimodal travel analysis, data enhancement techniques, and model user interfaces. Travel Demand Modeling and Geographic Information Systems (GIS) tools developed by TPD's Model Research and Development Group are used by TPD and its MPO/RPO partners for analyzing multimodal alternatives, land use and transportation interactions, and air quality determinations.



Key Deliverables:

Statewide, Regional, and other Travel Demand Models

TRAFFIC FORECASTING GROUP

The Traffic Forecasting Group provides travel demand information to support project-level design decisions. Project-level traffic forecasts are key inputs into project design studies, roadway, and intersection design, pavement design, and any environmental studies that lead to the construction of transportation improvements.



Key Deliverables:

Project-Level and Other Traffic Forecasts

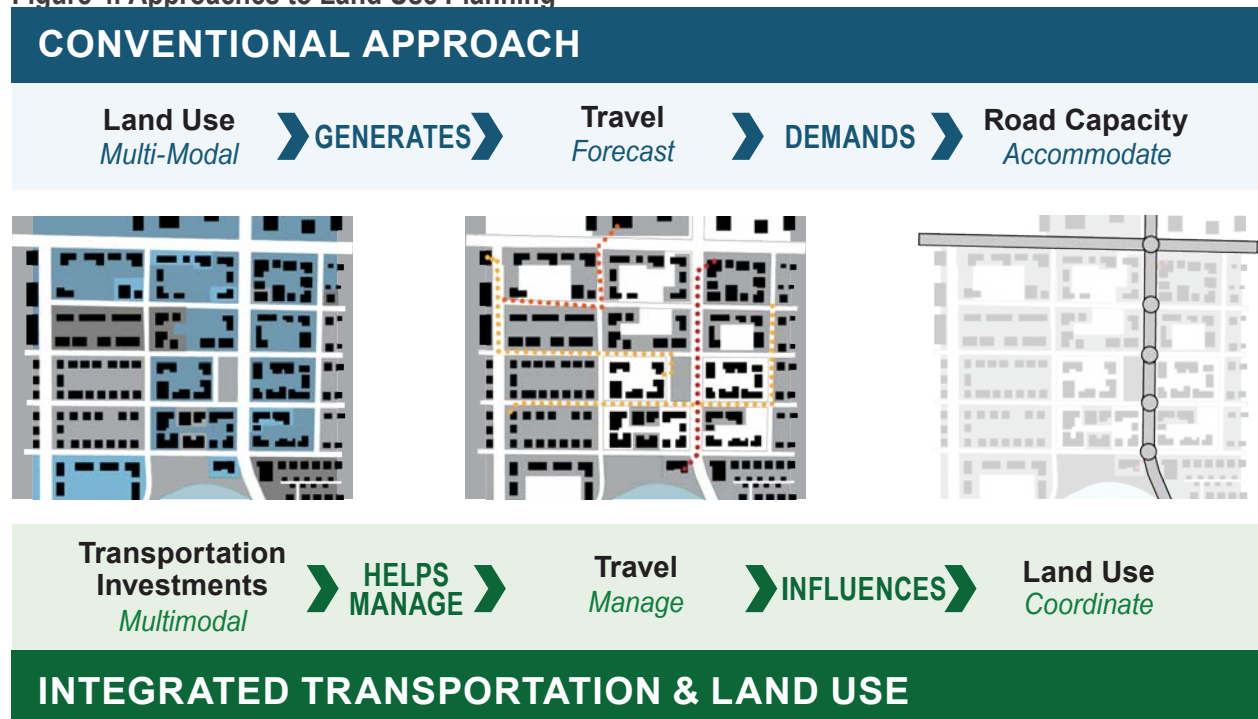
Integrating Land Use Decisions into Transportation Planning

Although NCDOT does not have direct jurisdiction over land use policies and decisions, land use and transportation are intrinsically linked and, as a result, influence each other. This relationship is at the core of long range transportation planning, making TPD's and other planning partners' collaboration with land use agencies essential. In the future, TPD will continue leveraging its strong partnerships with planning partners and emphasizing the positive influence of local land use planning on transportation decisions and investments.

While land use decisions are conventionally made separate from transportation and with an expectation that a DOT will accommodate any changes in demand they produce, an integrated approach allows the projected impacts, as shown in Figure 4, of transportation investments influence land use decisions,.

Land use is a critical component of the development of CTPs. Because of this, land development plans must be completed in advance of starting the CTP update process per GS 136-66.2 requirements.

Figure 4. Approaches to Land Use Planning



TPD'S VISION, MISSION, AND VALUES

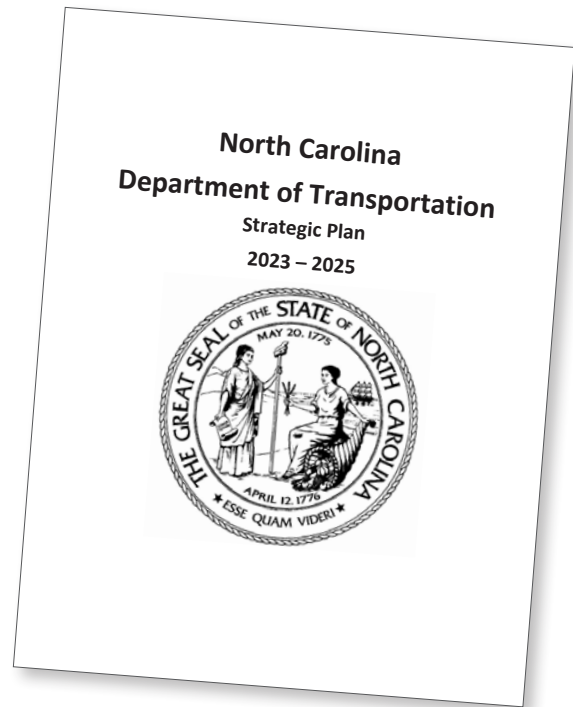
NCDOT TPD's Strategic Plan is guided by the Division's organizational mission, vision, and values (see Figure 5). These statements form the cornerstone for developing and implementing TPD's current and future initiatives.

Figure 5. Organizational Mission, Vision, and Values



TPD's organizational mission, vision, and values are in alignment with the NCDOT's 2023-2025 Strategic Plan goals:

- ✓ 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.





A Collaborative Plan for the Future

3



3

A Collaborative Plan for the Future

Strategic Plan Development Process

The Strategic Plan was developed through a multi-step process designed to collect information and stakeholder feedback that would help guide TPD's future actions. These steps were:

Advancing NC's Mobility Future

This update to TPD's Strategic Plan reflects two years of stakeholder and partner input. It establishes a new direction for TPD that aligns with NCDOT's broader vision to be a "global leader in providing innovative transportation solutions." Plan goals, objectives, and actions established in this update will advance TPD's focus to deliver multimodal planning activities and services that serve diverse communities across North Carolina.



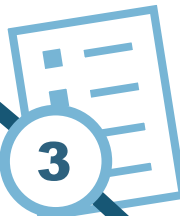
Internal and external engagement

1



A synthesis of national best practices in DOT planning

2



The development of vision, goals, and objectives built on the findings of the first two steps

3

Stakeholder Engagement

Internal and external engagement efforts were conducted between 2022 and 2024 as part of the development of this Strategic Plan to help TPD better understand the current and anticipated needs of TPD customers. Engagement also provides a venue for collaborative discussions, from which TPD can gather feedback about its current services and work products. This feedback can help build support from internal TPD staff, other NCDOT Divisions, and planning partners (MPOs/RPOs) on TPD's strategic goals and actions. TPD conducts specific engagement as part of each transportation plan or program/initiative on an ongoing basis. Corridor-level or project-specific engagement were not conducted as part of this outreach.

A broad range of engagement activities allowed for this Strategic Plan to reflect the needs and feedback of its staff and partners. In addition, robust engagement provides the necessary collaboration for TPD to meet the goals and advance the action items detailed in this Strategic Plan. A list of stakeholders is included in Appendix A.

Internal engagement included an online survey, an assessment of current activities to explore how TPD is evaluating multimodal transportation needs, and interviews with internal NCDOT partners. A wide range of individuals were interviewed and participated in the survey. These included staff internal to TPD and representatives from Transportation Mobility and Safety Division (TMSD), State Transportation Improvement Program (STIP), and each of the NCDOT 14 Highway



VIEWS

273



PARTICIPANTS

97



RESPONSES

1,439



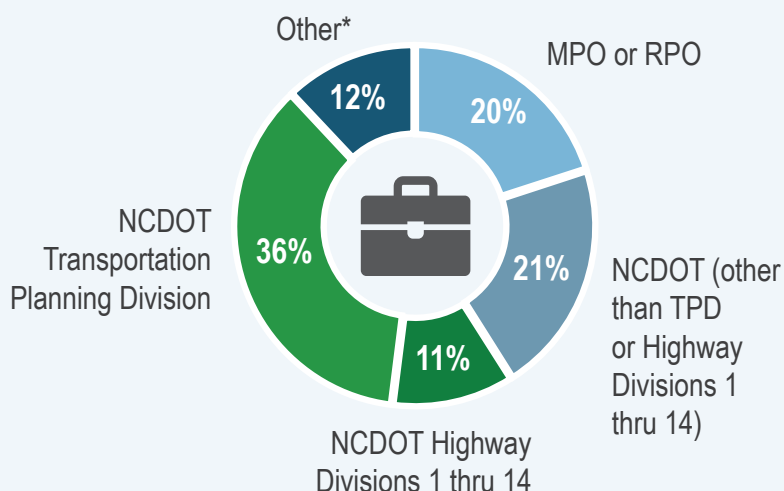
COMMENTS

182



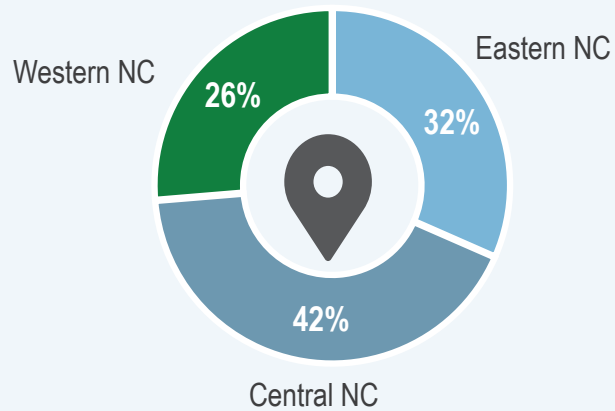
SURVEY PARTICIPANTS

What Agency do you work for?

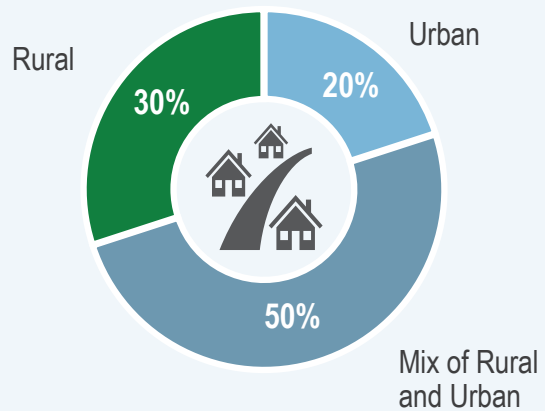


*Additional responses were provided by representatives of local governments, the Federal Highway Administration, and private consultants.

Which area of the state do you work in?*



What type of communities do you primarily work with?*



**Answers from MPO/RPO Respondents*

Divisions. External engagement included a survey to gauge the satisfaction level of TPD customers and one-on-one interviews with planning partners (MPOs/RPOs) to understand how TPD is meeting their needs and to identify future anticipated needs.

Interviews with both internal and external partners were exploratory in nature and gathered feedback on TPD-produced information, evolution of planning work, and thoughts on the CTP process.

SUMMARY OF KEY THEMES FROM STRATEGIC PLAN STAKEHOLDER INTERVIEWS AND SURVEY

Six overarching themes for TPD's Strategic Plan emerged from stakeholder interviews and the survey:



The TPD internal and external relationships are strong and continue to evolve.

Many interviewees and survey participants shared that they have a positive working relationship with TPD staff. However, the turnover, especially in TPD's MPO/RPO coordinator positions, creates some inconsistency in engagement between the TPD and MPO/RPO staff, which can delay CTP schedules and undervalue TPD as a partner.



TPD can support emerging transportation planning topics of sustainability and resiliency.

Sustainability and resiliency—and grant support in relation to these—were cited by many interviewees as key needs in planning within North Carolina. Interviewees see TPD as a natural leader for NCDOT in these domains given their support of SIPS with CMAQ funds and other clean transportation activities. These individuals cited that other states have dedicated staff

focused on sustainability and recommend that NCDOT find a person or persons to champion this in TPD or other business units.



There is a gap between long range planning and project-level planning and implementation.

Many interviewees cite the benefit of policy guidance provided by long range transportation plans. However, these interviewees also described discrepancies between the long range plans' recommendations and the projects that end up in the STIP or feasibility studies. There is an opportunity to further strengthen the understanding and the application of the CTP in guiding other central office and Division activities. Many encouraged TPD to consider initiating corridor management projects, areawide plans, and smaller or interim projects to help bridge these gaps. Interview participants also shared support for evaluating and considering non-capital transportation solutions or alternatives in planning, including operational improvements.



There is an opportunity to strengthen the function of "planning," especially at the project level in the Divisions.

Planning does not occur consistently, with different staff members owning the process in different Divisions. At times, this inconsistency can make effectively applying the CTP, leveraging TPD products, or effectively linking long range goals to project implementation difficult. The effects of these departmental asymmetries could be mitigated if TPD and the MPOs/RPOs play a larger role in scoping transportation projects.



TPD's identity is inconsistently understood within TPD and across different Divisions.

Other modal divisions within NCDOT view TPD as the best equipped to champion the entire state's long range and multimodal vision. However, these other divisions currently hold the impression that NCDOT planning is potentially more focused on roads and traffic.



Partners and NCDOT staff would benefit from more training and information sharing to better leverage TPD support and increase collaboration.

Many interviewees expressed interest in trainings for or from TPD staff. Recommended topics included GIS/TPD mapping tools, strategic prioritization/STIP processes, public engagement, planning-level cost estimates, and federal funding opportunities.



Peer Agency & Best Practice Review

A synthesis of national best practices in DOT planning was conducted to understand the state of practice of statewide transportation planning and the role that innovative transportation planning can play in North Carolina. In particular, the review also evaluated state DOTs that have defined entities and organizational structure that allow statewide planning to occur. In addition, the review, described in the tables below, considered state and regional agencies that have recently completed strategic plans to draw themes and best practice ideas.

Table 1. Best Practices on Organization & Execution of Statewide Planning

State Agency	How Planning is Carried Out	Best Practice
Florida Department of Transportation (FDOT)	<p>Within FDOT Central Office, the Assistant Secretary's Division for Strategic Development includes the Office of the Chief Planner (Planning). The Chief Planner oversees a team that includes Policy Planning, Systems Forecasting & Trends, and Systems Implementation.</p> <p>Each FDOT District also has a dedicated team of planners, referred to as the District Planning and Environmental Management Office or the Intermodal Systems Development Office.</p>	<p>Planning is elevated to and directly linked to Strategic Development arm within FDOT. FDOT Planning Office directly and regularly communicates with FDOT Executive Leadership, elevating planning's role within the state. Planning also carries out FDOT leadership and legislature initiatives, in collaboration with other FDOT Central Office departments.</p> <p>Strong relationship between Central Office planning department and district planning offices. Central Office planning meet with district representatives at least quarterly, aside from statewide conference on planning hosted by Central Office planning which is open to external partners. These meetings cover updates on policies, procedures, as well as best practices and timely topics from Districts.</p> <p>Central Office planning has a recognized statewide planning brand (internally and externally). The office executes legislative priorities to policy, including development of the state's strategic intermodal system and authoring the Florida Transportation Plan.</p>

State Agency	How Planning is Carried Out	Best Practice
<i>Continued: Florida Department of Transportation</i>		<p>Central Office planning provides resources for FDOT and partners' resource needs to conduct data-driven planning. The Planning Office leads federal and state required planning activities, but also drives strategic statewide planning including comprehensive data analytics, performance measurement, and trends tracking that support FDOT Districts and MPO partners. Additionally, FDOT provides needed resources for emerging tools and industry topics through conferences, training, and webinars.</p> <p>Central Office planning collaborates closely with other offices to drive and implement statewide priorities. For instance, FDOT's context classification system, (initiated by the Roadway Design office) and FDOT Target Zero (initiated by the State Safety Office) are fully integrated into and implemented through Planning Office-led policies and plans.</p>
Virginia Department of Transportation (VDOT)	Transportation and Mobility Planning Division , in coordination with each district's planning staff, conducts both corridor and feasibility studies throughout the state.	<p>The Pathways 4 Planning Dashboard provides a web-application system designed to provide planning-level GIS analysis and easy access to GIS data files.</p> <p>The STARS corridor program has a robust process for including district engineers in the planning process for the corridor studies they conduct. This approach builds agency support and preserves the intent of the project as it enters design and construction phases at the district level.</p> <p>Statewide Trails Office created in 2022 and focuses on implementing priority statewide trails.</p>

State Agency	How Planning is Carried Out	Best Practice
<i>Continued:</i> <i>Virginia</i> <i>Department of Transportation</i>	Statewide planning is conducted through this central office through the following programs: STARS, Arterial Preservation, Interstate Operations and Enhancement Program, Transportation Modeling, Pathways for Planning (P4P), Active Transportation Management and Statewide Trails office.	<p>Interstate Operations and Enhancement Program (IOEP) is intended to improve the safety, reliability, and travel flow along interstate highway corridors in the commonwealth through the development and funding of operational, transportation demand management and capital improvements.</p> <p>VTRANS is the statewide long-range plan for transportation, includes statewide performance measures for transportation. VDOT rigorously tracks these measures and has a high nationwide ranking on the level of detail they use for performance metrics and measuring progress.</p> <p>The SMART SCALE program allows each community in the state to apply for construction funding. IOEP selects projects based on data and previous planning work completed. The role VDOT's planning office has in allocating the funding typically ensures the project is carried out with it's original intention and purpose identified in the planning process.</p>
Texas Department of Transportation (TxDOT)	Within TxDOT Central Office, the Deputy Executive Director for Planning and Administration reports to the Executive Director. Under the Deputy Executive Director, there is a Director of Planning and Modal Programs. Under this Director, there is a Division Head for Transportation Planning and Programming.	Planning is incorporated at the highest levels of TxDOT. The Texas Transportation Commission establishes the mission, vision, values, and goals for the Department by working collaboratively with external parties like the Governor's Office, legislators, Metropolitan Planning Organizations, counties, cities, other transportation stakeholders, and the public. The mission, vision, values, and goals drive the development of several planning and programming processes, including the Department's Strategic Plan, Long Range Transportation Plan, Unified Transportation Program, and Statewide Transportation Improvement Program.

State Agency	How Planning is Carried Out	Best Practice
<i>Continued:</i> Texas Department of Transportation	Each of the TxDOT 25 Districts has a dedicated Director of Advanced Transportation Planning.	<p>Additional transportation plans garner input from important stakeholders. TxDOT Divisions produce additional plans consistent with the TxDOT Long Range Transportation Plan and in coordination with special stakeholder groups. These plans include Texas Freight Mobility Plan, International Trade Corridor Plan, and Texas Rural Transportation Plan.</p> <p>Strong planning coordination between Division Offices (Central) and District planning staff. Each of the Districts work with the Divisions on planning and delivering transportation projects from the statewide plans.</p> <p>Public transparency aids the planning and project development process. Project Tracker is TxDOT's gateway to information for over 11,000 projects, providing 24/7-access to the public, employees, and elected officials. As a project develops, its status within the program will change from planning to design to construction. Project updates occur weekly and are retrieved from TxDOT systems daily.</p>

Table 2. Best Practices from Statewide Strategic Plans

Document	Year	Author	Best Practice	Relevancy to TPD
Caltrans 2020-2024 Strategic Plan	2021	California Department of Transportation	Cross-cut principles that guide decision-making for all goals.	Develops a Strategic Plan that is not siloed by individual goals and that is instead aligned with TPD's mission, vision, and values.

Document	Year	Author	Best Practice	Relevancy to TPD
Caltrans 2020-2024 Strategic Plan Cont.	2024	California Department of Transportation	Instead of developing a single goal focused on sustainability, integrate sustainability practices across all goals.	Develops goals, objectives, and action items that promote TPD as North Carolina's leader for planning for future disruptions.
Resilient Connecticut Planning Framework	2020	Connecticut Institute for Resilience and Climate Adaptation	Identify and define partnerships between stakeholders to both identify shared climate vulnerabilities and encourage regional adaptation.	Fosters new and well-established relationships with local governments and other state agencies to plan for resiliency and sustainability.
2045 Florida Transportation Plan Policy Element	2020	Florida Department of Transportation	Use a summary matrix to compare “where we are today” and “where we are headed” for each goal.	Develops Strategic Plan goals that clearly communicate existing and future goal status.
			Collaborated with internal and external industry partners and agencies through focus groups and steering committees	Engagement of MPOs and RPOs in gathering feedback on opportunities and challenges, as well as goal setting and development.
FDOT Resilience Quick Guide: Incorporating Resilience into the MPO LRTP	2020	Florida Department of Transportation	Integrate resiliency into long range planning by ensuring that the identified transportation needs include an assessment of climate impacts.	Plans for resiliency and sustainability by accounting for the impacts of climate change and natural disasters in transportation planning.
MDTA Strategic Plan for CAVs	2018	Maryland Transportation Authority	Develop a Connected and Automated Vehicle (CAV) Communications Plan that highlights the importance of internal awareness of CAVs, awareness of CAVs at MDOT, and communication with media and the public.	Promotes TPD as the North Carolina leader in planning for emerging technologies.

Document	Year	Author	Best Practice	Relevancy to TPD
ODOT Strategic Action Plan	2023	Oregon Transportation Commission and Oregon Department of Transportation	Establish an “Equity Priority” that outlines goals for increasing workforce diversity and promoting economic opportunity through transportation investments.	Promotes a diverse and knowledgeable staff through recruitment and retainment of talented staff.
Modeling 101: Bicycle Modeling Tool	2022	Metro (Portland, Oregon’s MPO)	Use a dedicated network to consider a range of attributes that are known to directly impact the cyclist’s route choice. More accurately measuring route experience improves the regional travel model’s and mode choice model’s ability to depict travel behavior.	Facilitates an understanding of best practices in multimodal travel demand forecasting.
2023-2027 Strategic Plan	2022	Texas Department of Transportation	Center customer-focused goals and perspectives in action items before and during construction; provide mechanisms for public feedback; and provide staff training on effective customer service.	Fosters collaborative relationships with local governments and other state agencies, engendering a holistic knowledge of state and federal opportunities for all levels of performance-based planning.
Active Transport (non-motorized) Modeling	2023	Travel Forecasting Resource	Generate walk and bicycle trips within a trip/tour mode choice model. Most activity-based models that include active mode trips do so within mode choice models.	Facilitates an understanding of best practices in multimodal travel demand forecasting.

The review revealed best practices on several topics, including strategies to enable regional planning to be linked to transportation projects, multimodal travel demand forecasting, and integrating emerging technologies, equity, and resiliency into long-range planning processes.



TPD's Strategic Role at NCDOT

4

4

TPD's Strategic Role at NCDOT

TPD aims to improve its operations to best serve its partners and communities in North Carolina. This Strategic Plan is one such effort to guide the Division to be the premier leader in planning innovative transportation solutions in the nation.

In the following sections, goals with specific objectives and action items are presented as opportunities for TPD's continued growth and progression through this dynamic environment. These goals, objectives, and actions provide the framework for TPD's strategic growth direction in next 10 years and support the Division's vision and mission. Many of the action items listed include recommendations for continued performance or increasing performance at existing opportunities and Division commitments.

TPD's Strategic Goals, Objectives, and Actions



GOAL 1 BE A NATIONAL LEADER IN PLANNING PRACTICES

Objective: Understand, apply, and exceed at best practices implementation

- Attend and present at national and other value-added conferences.
- Set interim milestones and updated performance metrics to meet and exceed, where appropriate, national requirements.
- Engage with peer DOTs and other agencies/partners to explore, share, and learn about best practices, including through local events, forums, and webinars.

- Continue to support the NCDOT's Research Program, particularly as it relates to long range planning, from ideation/ submittal stage, including research committees, and through implementation.

Objective: Create a cohesive relationship with our partners

- Support the SIPS with federal programs and funding opportunities (C/AV, NEVI, PROTECT, safety, etc.).

GOAL 1 CONTINUED

- Collaborate with FHWA and other business units to support federal programs and funding opportunities.
- Investigate how these programs can complement existing TPD programs/products.



GOAL 2 STRENGTHEN TPD'S BRAND/IDENTITY

Objective: Promote an environment where other NCDOT business units, Divisions, and external partners see TPD as an important resource for planning information related to transportation projects.

- Have clear transparent resources and channels for Divisions to access TPD support that would improve NCDOT collective planning effectiveness and efficiency.
- Bring awareness and understanding of TPD's value and identity through active support of NCDOT Highway Divisions, modal Divisions, and planning partners.

Objective: Define TPD's vision and priorities

- Communicate clearly to others who we are, what we produce through existing TPD activities and potential new communication channels.
- Work with NCDOT leadership in defining and communicating TPD's role with all staff.
- Review NCDOT Strategic Plan and ensure alignment of TPD goals and objectives with the department mission. TPD is uniquely positioned to support NCDOT's 2023-2025 goals of:

- » **“Improve the reliability and connectivity of the transportation system” and “deliver and maintain our infrastructure efficiently and effectively”** by initiating and advancing project planning to provide network connectivity.
- » **“Provide GREAT customer service”** by supporting municipalities, counties, and regional governments' planning support and services.
- » **“Be a great place to work” and to “be a diverse and inclusive organization”** by recruiting, supporting, and retaining staff of all races, genders, and demographics.
- » **“Be a transparent and accountable organization”** by being fiscally and environmentally responsible.
- » **“Be an innovative organization”** that initiates the planning of projects that include new technologies, products, and ideas and supports the development of new research within the field.

GOAL 2 CONTINUED

Objective: Be a steward of all products, services, and institutional knowledge related to planning

- Meaningfully engage in the project development process, including active collaboration with the Strategic Transportation Prioritization (SPOT) Office on prioritization.
- Continue to be the go-to statewide resource and develop timely and industry-leading planning tools (statewide models, knowledge of state and federal regulations, planning database, rural planning program, input to prioritization).

Objective: Be a trusted and reliable partner for NCDOT units and external partners

- Provide opportunities to facilitate conversations between MPO/RPOs as well as the Highway Divisions to share best practices and group discussions on lessons learned and approaches to common challenges.
- Provide training and education to internal and external partners related to long range planning.
- Create opportunities for targeted knowledge sharing through partnerships throughout the agency, including cross training, mentorship, and work in other departments/programs/units to provide holistic, practical training.

- Continue to support TPD staff's engagement at recurring organizational and professional meetings and events to share programmatic needs and initiatives and to develop working relationships. Promote attendance at events, such as NC AMPO, NCDOT Transportation Summit, NCDOT Preconstruction Workshop, ACEC-NCDOT, TRB, and AASHTO Conferences.

Objective: Elevate planning's stature and value through awareness and engagement in tracking of planning/TPD-led initiatives and their impacts on projects and on NCDOT's overall goals.

- Track and communicate results of TPD led initiatives and products and their impacts over short and long-term.
- Communicate with external and internal partners and report back on how these projects achieve CTP/NCDOT goals. Celebrate and communicate successes.
- Develop performance measures and targets of TPD led initiatives related to NCDOT goals.
- Be a collaborative partner by providing input on NCDOT's overall goals.



GOAL 3

STRENGTHEN THE CONNECTION BETWEEN TRANSPORTATION PLANNING AND PROGRAMMING

Objective: Better integrate land use and economic development issues in planning and decision making.

- Communicate and demonstrate how CTP and long range planning can benefit and be leveraged by downstream design and implementation teams. This may include a “TPD 101” PowerPoint, updated T-Basics materials, and updated training videos as well as updates to TPD’s Connect site and internal NCDOT Sharepoint site.
- Actively collaborate with other business units. Divisions, and planning organizations to stay engaged through project implementation (after prioritization) by being the stewards of the CTP vision and ideas.
- Support project development process through NEPA document development, including sharing long-range planning community and stakeholder engagement, tracking of project- implementation success.
- Continue to coordinate with partners to update travel demand models/traffic forecasts and share those changes to project teams if they impact project designs.
- Consider refinements to travel demand models/traffic forecasts based on new and real-time information where available.

Objective: Support NCDOT in defining the roles and responsibilities of Division Planning Engineers/Corridor Development Engineers (DPE/CDE) to bridge the gap between Central Office activities and on-the-ground staff knowledge.

- Meaningfully engage DPE/CDE in the CTP development.
- Provide training to DPE/CDE.
- Collaborate with DPE/CDEs to develop and support cross-Division/ department work to enhance real-time learning on how TPD can be the most effective partners to them.
- Conduct outreach and dialogue with DPE/ CDE on how transportation planning can complement and support DPE/CDE roles and activities.
- Actively coordinate with the Divisions and other NCDOT officials to identify DPE/CDE roles and responsibilities.

Objective: Continue to promote the use of CTP documentation, including Project Sheets.

- Regularly check-in with other business units to ensure that relevant information continues to be included as part of the project sheets and other CTP documentation.
- Continue to work with the other business units and local governments to find ways to make the information on the project sheets clear and easily understood and is easy to access and used at the appropriate points in the project initiation and project planning processes.

GOAL 3 CONTINUED

Objective: Continue to foster opportunities with the Prioritization/Programming business units.

- Continue to be a part of the prioritization/scoring criteria process.
- Track how projects are contributing to CTP goals/verify alignment with prioritization/SPOT criteria after project completion. Launch pilot/case studies and before/after studies to track progress towards meeting CTP goals.

Objective: Continue to actively participate in project meetings across the state.

- Continue to attend and support public engagement activities across the state as appropriate.
- Establish a process for determining what types of meetings and projects should TPD prioritize/strategically engage in and who will be assigned to cover these.
- Continue to stay engaged and be aware of project status after project planning phases through local government meetings and correspondence to provide input on CTP vision/goals, historical project information, and any necessary traffic information.
- Explore strategic engagement platforms to engage local governments/divisions such as online surveys, interactive maps, and other already scheduled forums

(e.g., MPO meetings) to gather timely feedback and be aware of current and relevant planning topics with planning partners and the community.

- Continue to develop staff for meeting facilitation to maximize role at meetings.

Objective: Continue to support the SIPS.

- Provide timely resources to support the SIPS's functions related to planning and support of MPOs and RPOs.
- Collaborate with SIPS and other business units that are also vested in the various projects and programs to be implemented based on the current transportation authorization (such as CMAQ, Carbon Reduction, NEVI, etc.) to explore active partnership roles throughout the project development process.
- Continue to support the current NCDOT strategic planning process and align TPD's performance measures and metrics with the broader NCDOT plan.



GOAL 4

BE THE NORTH CAROLINA LEADER FOR PLANNING FOR EMERGING TECHNOLOGY AND OTHER FUTURE DISRUPTIONS

Objective: Collaborate with the Office of Strategic Initiatives and Program Support to advance statewide plans and corridors studies.

- Continue to facilitate relationships between TPD and other business units by bringing long-range planning information for statewide planning initiatives.
- Seek and facilitate training regarding the role of emerging technology in planning such as CAVs and system operations.
- Support staff by providing training to other business units about statewide initiatives, such as CAVs and funding opportunities for all modes.
- Stay current with CLEAR program survey, training, and opportunities to incorporate an innovation culture within TPD actions.

Objective: Be aware of and proactively prepare for future technology's uncertainties and impact on transportation needs in North Carolina.

- Continue to incorporate scenario planning in future efforts of CTP and statewide initiatives.
- Provide input and insights to NCDOT leadership resulting from scenario planning to support decision making.
- Lead actions that may come out of NCDOT leadership decisions related to emerging technology as it relates to long range planning.

- Continue to support staff attending conferences and training to stay engaged with best practices.
- Continue to participate in conversations with peer state agencies about best practices.
- Explore opportunities for Artificial Intelligence (AI) and other new technologies to enhance TPD processes and deliverables.

Objective: Plan for resiliency and sustainability.

- Coordinate with NCDOT partners in accounting for the impacts of extreme weather events and natural disasters in transportation planning and decision making.
- Coordinate with NCDOT partners and other appropriate business units in considering resilient design principles, such as elevating infrastructure, planning for flood-prone areas, and enhancing system redundancy, to mitigate potential disruptions and ensure long-term infrastructure resilience in plans and project proposals, as appropriate.
- Continue to support the NCDOT Resiliency Improvement Plan (RIP) and its implementation by identifying opportunities to apply and implement TPD's Resiliency Guidance.



GOAL 5

PROVIDE PREMIER, TAILORED CUSTOMER SERVICE

Objective: Be a collaborative partner across NCDOT and with other state/local agencies.

- Use products and input from other business units to provide consistency in results/conclusions and support overall NCDOT goals.
- Continue to use and communicate schedules/milestones for the CTP process to ensure timely delivery of final product, including proactive scheduling of model requests and reviews.
- Work with other business units to find ways to address the impacts from inflation and other cost changes.
- Determine ways to better integrate land use into TPD products through education or partnerships with other business units and local agencies.
- Highlight funding opportunities for NCDOT and other state/local agencies in TPD products.

Objective: Continue to foster well-established, collaborative relationships with local governments and other state agencies and improve relationships with Divisions.

- Continue to uphold professional relationships with the Highway Divisions and local governments, including proactive and responsive communication.

- Provide training to support the roles and responsibilities of MPO/RPO staff and equip them with information and tools to enable them to more effectively carry out planning activities.
- Foster stronger relationships with Department of Commerce, Health, and Human Services and Natural Environment to understand how the strategic plans and mission of those agencies intersect with TPD.
- Support CDEs to bridge the gap between Divisions and TPD for corridor planning.

Objective: Further increase knowledge of state and federal opportunities. Be the stewards of state and federal opportunities for all levels of planning.

- Stay abreast of current and forthcoming federal funding programs and how these can impact/benefit NCDOT and planning partners' needs.
- Provide regular and timely training on state and federal regulations and opportunities in collaboration with FHWA and other NCDOT business units.
- Further foster direct relationships with FHWA and TPD staff who support planning coordination.

GOAL 5 CONTINUED

Objective: Be a holistic and trusted statewide resource for transportation data and information needed for performance-based planning across NCDOT and for planning partners.

- Support the Traffic Data Collection program through TMSD to stay current with truck count analyses which support statewide travel demand models.
- Through TMSD, support the development of traffic data collection practices that meet federally mandated requirements, i.e., traffic counts on every roadway.
- Continue to find opportunities to incorporate non-vehicular modes of transportation data, information, and analyses in CTPs and other products.
- Allocate sufficient staff and resources to support statewide traffic data collection needs and to maintain statewide models.
- Work with other business units, such as the Traffic Management Unit, to continue to refine measures and incorporate best practices related to vehicular level-of-service, travel time reliability, and volume-to-capacity analyses.
- Determine various audiences and customers (other NCDOT units, planning partners, public) and tailor approaches to data sharing, including making data readily, spatially and publicly available, as allowed by contracts and confidentiality agreements.
- Develop ways to include populations that are not able to or that prefer not to travel by personal vehicle due to environmental, health, economic, and quality of life reasons in models/analysis. Micromobility and ride sharing should also be appropriately considered.
- Work with other business units, such as the Integrated Mobility Division (IMD), to support industry-leading approaches for non-motorized modes, including continued best practices for incorporation of bike-ped analysis in planning.
- Work with other business units in support of safety initiatives, such as Vision Zero. Continue to prioritize and refine the consideration of safety, such as prioritizing corridors with safety concerns, evaluating, and implementing appropriate use of safety data, and implementing preventative countermeasures into TPD products.
- Work with other business units to host all statewide dashboards in one location to allow for data sharing.
- Explore the potential of intelligent transportation systems, data analytics, and real-time information to improve traffic management, optimize operations, and enhance user experience in TPD products.



GOAL 6 BE AN ATTRACTIVE PLACE TO WORK

Objective: Continue to promote diverse high-caliber staff through recruitment and staff development.

- Work with other business units to address existing challenges and needs in hiring practices and processes.
- Target potential hires with existing transportation planning skills/expertise and those with relevant skills and backgrounds (e.g., programming and modeling) to support in-house modeling efforts.
- Conduct targeted recruiting/marketing at universities.
- Support and promote participation in NCDOT Trainee/Transportation Engineering Associates (TEA) program and other internship programs including providing an engaging experience when hosting a program member.

Objective: Create redundancy and resiliency of institutional knowledge.


- Address staff turnover and provide consistent “on the job” training.
- Continue to develop and update documented guidance for key processes and products.
- Provide staff focused and meaningful development opportunities and training.
- Provide opportunities for staff to be cross-trained on skills and/or activities that have historically been limited to a small number of staff.

Objective: Create a transparent relationship between leadership and staff.

- Provide and maintain clear expectations of roles and responsibilities.
- Share vision, forthcoming activities, announcements/information from leadership, and budgets with staff.
- Provide timely and recurring opportunities for feedback.
- Link TPD vision, mission, goals with staff performance expectations.

Objective: Continue to foster an environment for ongoing staff professional development.

- Provide training to internal and external staff on timely and timeless topics such as GIS (ArcPro), travel demand modeling, leveraging traffic analysis to inform planning, active transportation, CTP 2.0, traffic operations, guidelines, and best practices, SPOT/prioritization results and scoring, public speaking and meeting facilitation, emerging transportation trends, innovative practices, linking land use and transportation, and current and future federal and state funding programs.
- Provide opportunities for staff knowledge sharing, mentoring, and leadership development to provide a broader range and greater redundancy of skills within staff.



***These goals, objectives,
and action items
serve as the guiding
framework for NCDOT's
strategic growth over
the next decade.***



RESOURCE NEEDS TO ADVANCE STRATEGIC PLAN

To meet these goals, TPD anticipates needing additional staff who have unique skills that supplement the skills of the existing team. Below is a list of desired needs and skills:

- **Planning Staff:** TPD will need to add general staff to allocate the right level of resources to support the growing NCDOT planning needs, requirements, and responsibilities. This includes TPD staff who will work with external partners to develop CTPs, enabling greater support for MPOs and RPOs. Further, a focus on entry and mid-level staff should be given in order to develop the skill sets needed for the complex work completed by TPD.
- **Travel Demand Modelers:** As TPD seeks to develop complete coverage of North Carolina in its Travel Demand Models, additional staff with this type of expertise will be needed to support the existing models and develop the new ones. In addition, this team would benefit from additional staff that could respond to CTP requests and needed coordination with the TMSD.
- **Traffic Forecasters:** TPD will need additional capacity to provide customers with timely traffic forecasts that are inclusive of different growth scenarios and modal shifts in travel behavior. A wide range of expertise is needed, including understanding of probe data, big data, and other state-of-the-art technologies.
- **Multidisciplinary Resource Unit:** As the industry continues to advance TPD has the need for a multidisciplinary Resource Unit within NCDOT with cross section of expertise in resilience, sustainability, GIS, funding opportunities, equity/ environmental planning. This Resource Unit would be able to support the various planning groups within TPD as well as to collaborate effectively with TPD's partners. The Resource Unit staff should have skills in GIS and data analysis. This specialized expertise is needed to support the delivery of planning products, including CTPs using the NC Planning Geo database. Other



needs include the analysis of various data sets, various mapping products, and ongoing maintenance of tools.

- **Environmental Planning and Resiliency Experts:** TPD continues to support NCDOT's effort to meet Air Quality Conformity, CMAQ, and Carbon Reduction requirements. In addition, the definition of a resilient network varies across the state, as each region faces unique challenges related to its topography. Additional staff can help TPD to continue supporting these efforts.
- **Multimodal and Equity-Focused Planners:** TPD has the responsibility to develop projects and plans for all modes used in North Carolina, including bike, pedestrians, transit, and freight. In addition, they have collaborative relationships with the IMD, Aviation Division, Rail Division, and Ports. To continue positive and collaborative relationships with these Divisions and to meet the needs of state residents and visitors, the inclusion of multimodal planning will need to be further integrated into TPD's staff skill set.
- **Public Engagement Specialists:** TPD's role in long range plans and project delivery across the state requires robust public engagement. As a result, TPD staff would likely benefit from public engagement specialists and tools to support equitable engagement on all plans and projects across the state.
- **Local Government Funding, Claims and/or Federal Funding Expert:** In addition to the many roles that TPD serves as it coordinates with local governments, MPOs, and RPO's, it is also responsible for managing financial requirements and claims of projects, especially at the RPO level. Many routine and new funding opportunities have applications that require information developed by TPD. A staff member dedicated to knowing how TPD can support funding applications would enhance the Division's customer service.
- **Sustainability Subject Matter Experts:** TPD is in a unique position to champion sustainability within NCDOT given its position in project delivery. This would require subject matter experts in this topic to effectively deliver these types of initiatives to TPD's customers.



**How Do We
Get There?**

5

How Do We Get There?

The Future of TPD

Proactive and productive partnerships

TPD will use the framework established in this Strategic Plan to continue providing positive, frequent, constructive, and critical support to its partners, including MPOs, RPOs, and other NCDOT business units.

Consistent, impactful planning to support project delivery

TPD will elevate transportation planning to consistently provide the needed clarity and foundation for projects going through the prioritization and development process. TPD will continue to set projects up for success by helping staff and partners kick off projects with a dedicated planning step and CTP linkage. The strategic actions outlined in this plan will not only allow TPD to leverage data and information produced by TPD for downstream project development activities,

they will also support other NCDOT business units and Divisions in connecting community and stakeholder visions and goals with project solutions and outcomes. Projects will be clearly described and understood by stakeholders. TPD will actively impart its knowledge through training and other forms of engagement that elevates overall planning skills and expertise and provides a consistent and meaningful conception of the role of planning in project delivery.

Lead NCDOT into the new era of transportation planning

TPD will continue to be the statewide leader in new emphasis areas impacting the transportation industry, including emerging technology, resiliency, and equity. TPD will be the clearinghouse for data, information, and best practice research, and will provide timely highlights of these topics to NCDOT staff and leadership.

Anticipating & Planning for Disruptions

Transportation planning involves planning for the future in spite of its uncertainty. Historically, this uncertainty has primarily dealt with the unknowns about how and when different communities would make transportation investments that would help them adapt to change. Today's transportation agencies must think beyond these traditional uncertainties and focus on a broad array of disruptors and uncertainties. NC Moves 2050, North Carolina's long range multimodal transportation plan, identified several opportunities that could shape North Carolina's future. These include demographic change, new technologies, environmental hazards and resiliency, unexpected events, impacts from extreme weather events, and economic growth and partnerships. While NC Moves 2050 is a statewide long-range transportation plan for the state, it mirrors the long range strategic mindset that is ingrained in the work of TPD, and which positions it as a leader in preparing for the future. The following list provides actionable strategies that TPD can use to anticipate and mitigate disruptors:

- Create internal work groups focused on:
 - » Cultivating a deep understanding of existing business practices and identifying the skills and tools needed to become more adaptable.
 - » Identifying potential disruptors and evaluating them with respect to impact.
 - » Scanning the environment for unexpected disruptors and the driving forces that could impact TPD and/or its partners and customers.
- Develop strategies to reward and encourage collaboration, including:
 - » Nurturing a culture of transparency and trust.
 - » Implementing effective procedures for sharing information and seeking feedback/collaborating.
 - » Sharing research and becoming conversant with economic, supply chain, mobility as a service and travel behavioral shifts that inform future demand and travel patterns.
- Be strategic about partnerships by:
 - » Nurturing existing partnerships.
 - » Developing new strategic partnerships.
 - » Continuing to expand partnerships that are internal to TPD, internal to NCDOT, and in the private sector, academia, and industry.
- Regularly discuss and plan for workforce development by:
 - » Identifying practices and procedures that are critical to TPD's success, now and in the future.
 - » Evaluating the knowledge base needed at different levels of the organization and providing training/other resources as needed to develop this knowledge base.
 - » Assessing the technology that is critical to TPD's mission and providing or obtaining appropriate training to ensure access to and competencies in this technology.
- Leverage existing staff expertise to prepare for changes to traditional roles and responsibilities.



Goals, Objectives, and Action Items

This section lists the Goals, Objectives, and Action Items identified in this Strategic Plan. Initial recommendations on short, mid, and long term action items are listed for consideration. This will enable TPD to progress with next steps of implementation, which include identifying specific priorities for implementation, developing implementation plans/strategies including defining performance measures, and tracking progress. These steps are crucial so that the Division may hold itself accountable, effectively assess the extent it is achieving the goals of the Strategic Plan, and communicate clearly with others. Many of these are ongoing actions that TPD should continue doing, while others will be new ones that TPD will be initiating. Regular review of progress will help TPD verify success and adjust and refine action items as needed.

Goal	Objective	Action Item	Next Steps
Goal 1: Be a national leader in planning practices.	Understand, apply, and exceed at best practices implementation.	Short-Term: Attend and present at national conferences and other value-added conferences/webinars/events.	Continue to encourage staff to attend/present at conferences as determined valuable and appropriate.
		Short-Term: Set interim milestones and updated performance metrics to meet and exceed, where appropriate, national requirements.	Develop updated performance metrics to measure performance against national requirements.
		Mid-Term: Engage with peer DOTs and other agencies/partners to explore, share, and learn about best practices, including through local events, forums, and webinars.	Continue and enhance coordination with NCDOT's Research Program to support opportunities.
		Mid-Term: Continue to support the NCDOT's Research Program, particularly as it relates to long range planning, from ideation/submittal stage, including research committees, and through implementation.	Create peer DOT contact database and identify potential recurring NCDOT events to engage peers.

GOAL	Objective	Action Item	Next Steps
Goal 1: Be a national leader in planning practices.	Create a cohesive relationship with our partners.	Short-Term: Support the SIPS with federal programs and funding opportunities (C/AV, NEVI, PROTECT, safety, etc.).	Refine and enhance approach to collaborate and leverage programs.
		Short-Term: Collaborate with FHWA and other business units to support federal programs and funding opportunities.	
		Mid-Term: Investigate how these programs can complement existing TPD programs/products.	
Goal 2: Strengthen TPD's brand/identity.	Promote an environment where other NCDOT business units, Divisions, and external partners see TPD as the resource for planning information related to transportation projects.	Short-Term: Have clear transparent resources and channels for Divisions to access TPD support that would improve NCDOT collective planning effectiveness and efficiency.	Develop and distribute/post quick guide on TPD resources (who to call list) to internal and external partners.
		Mid-Term: Bring awareness and understanding of TPD's value and identity through active support of NCDOT Highway Divisions, modal Divisions, and planning partners.	Develop implementation plan.
	Define TPD's vision and priorities	Short-Term: Communicate clearly to others who we are, what we produce through existing TPD activities and potential new communication channels.	Develop branding and communication plan/strategy.
		Short-Term: Work with NCDOT leadership in defining and communicating TPD's role with all staff.	Develop implementation plan.
		Short-Term: Review NCDOT Strategic Plan and ensure alignment of TPD goals and objectives with the department's mission. TPD is uniquely positioned to support NCDOT's 2023-2025 goals.	Set up maintenance plan including resources to support this.

GOAL	Objective	Action Item	Next Steps
Goal 2: Strengthen TPD's brand/identity.	Be a steward of all products, services, and institutional knowledge related to planning.	Short-Term: Meaningfully engage in the project development process, including active collaboration with SPOT office on prioritization.	Develop implementation plan and performance metrics to track progress.
		Short-Term: Continue to be the go-to statewide resource and develop timely and industry-leading planning tools (statewide models, knowledge of state and federal regulations, planning database, rural planning program, input to prioritization).	
	Be a trusted and reliable partner for NCDOT units and external partners.	Mid-Term: Provide opportunities to facilitate conversations between MPO/RPOs as well as the Highway Divisions to share best practices and group discussions on lessons learned and approaches to common challenges.	Identify implementation plan/next steps, including resources needed to complete.
		Mid-Term: Provide training and education to internal and external partners related to long range planning.	
		Mid-Term: Create opportunities for targeted knowledge sharing through partnerships throughout the agency, including cross training, mentorship, and work in other departments/programs/units to provide holistic, practical training.	
		Long-Term: Continue to support TPD staff's engagement at recurring organizational and professional meetings and events to share programmatic needs and initiatives and to develop working relationships. Promote attendance at events, such as NC AMPO, NCDOT Transportation Summit, and ACEC-NCDOT Conferences.	Continue to encourage staff to attend/present at conferences as determined valuable and appropriate.

GOAL	Objective	Action Item	Next Steps
Goal 2: Strengthen TPD's brand/identity.	Elevate planning statute and value through awareness and engagement in tracking of planning/TPD-led initiatives and projects and their impacts on projects and on NCDOT's overall goals.	Short-Term: Track and communicate results of TPD led initiatives and products and their impacts over short and long-term.	Identify resources and data collection needed to complete.
		Mid-Term: Communicate with external and internal partners and report back on how these projects achieve CTP/ NCDOT goals. Celebrate and communicate successes.	Develop reporting mechanism or strategy to share results.
		Mid-Term: Develop performance measures and targets of TPD led initiatives related to NCDOT goals.	Establish internal work group to discuss performance measures.
		Long-Term: Be a collaborative partner by providing input on NCDOT's overall goals.	Address as part of implementation plan.
Goal 3: Strengthen the connection between transportation planning and programming.	Better integrate land use and economic development issues in planning and decision making.	Short-Term: Communicate and demonstrate how CTP and long range planning can benefit and be leveraged by downstream design and implementation teams.	Develop a public-facing one-pager on this topic to share with MPOs/ RPOs and Divisions.
		Mid-Term: Actively collaborate with other business units and Divisions to stay engaged through project implementation (after prioritization) by being the stewards of the CTP vision and ideas.	Meet with project managers at the Divisions to confirm the best way to participate in the project development process.
		Long-Term: Continue to coordinate with partners to update travel demand models/ traffic forecasts and share those changes to project teams if they impact project designs.	
		Long-Term: Consider refinements to travel demand models/traffic forecasts based on new and real-time information where available.	Brainstorm opportunities for updating process with current travel demand model staff.
		Long-Term: Support project development process through NEPA document development, including sharing community and stakeholder engagement, tracking of project-specific performance targets.	Continue to coordinate with Division project managers to confirm assumptions while scoping future projects and confirm assumptions on existing projects.

GOAL	Objective	Action Item	Next Steps
Goal 3: Strengthen the connection between transportation planning and programming.	Support NCDOT in defining the roles and responsibilities of Division Planning Engineers/Corridor Development Engineers (DPE/CDE).	Short-Term: Meaningfully engage DPE/CDE in the CTP development.	Coordinate with CDE/ DPEs and NCDOT leadership to brainstorm ideas and develop implementation plan/next steps.
		Mid-Term: Provide training to DPE/CDE.	
		Mid-Term: Collaborate with DPE/ CDEs to develop and support cross-Division/department work to enhance real-time learning on how TPD can be the most effective partners to them.	
		Mid-Term: Conduct outreach and dialogue with DPE/CDE on how transportation planning can complement and support DPE/CDE roles and activities.	
		Mid-Term: Actively coordinate with the Divisions and other NCDOT officials to identify CDE/ DPE roles and responsibilities.	
	Continue to promote the use of CTP documentation, including Project Sheets.	Short-Term: Regularly check-in with other business units and planning organizations to ensure that relevant information continues to be included as part of the project sheets and other CTP documentation.	Identify next steps and most appropriate method to accomplish this.
		Short-Term: Continue to work with the other business units and local governments to find ways to make the information on the project sheets clear and easily understood and is easy to access and used at the appropriate points in the project initiation and project planning processes.	
	Continue to foster opportunities with the Prioritization/ Programming business units.	Short-Term: Continue to be a part of the prioritization/ scoring criteria process.	Continue to participate appropriately in the prioritization process and confirm or enhance participation methods.
		Mid-Term: Track how projects are contributing to CTP goals/verify alignment with prioritization/SPOT criteria after project completion. Launch pilot/case before/ after studies to track progress towards meeting CTP goals.	Develop approach/ implementation plan to regularly confirm and/or adjust how prioritization is considered/ reflected in planning.

GOAL	Objective	Action Item	Next Steps
Goal 3: Strengthen the connection between transportation planning and programming.	Continue to actively participate in project meetings across the state.	Short-Term: Continue to attend and support public engagement activities across the state as appropriate.	Confirm notification process for public engagement activities and provide guidance on appropriate attendance.
		Mid-Term: Establish a process for determining what types of meetings and projects should TPD prioritize/strategically engage in and who will be assigned to cover these.	Identify resources and set up internal task force to complete this.
		Long-Term: Continue to stay engaged with project statuses through local government meetings and email correspondence to provide historical project information.	Confirm participation in meetings for current projects.
		Long-Term: Explore strategic engagement platforms to engage local governments/divisions such as online surveys, interactive maps, and other already scheduled forums (e.g., MPO meetings) to gather timely feedback and be aware of current and relevant planning topics with planning partners and the community.	Identify resources and set up internal task force to complete this. Consider the use of surveys to gather feedback and recommendations for platforms. Coordinate with NCDOT's Office of Communication.
		Long-Term: Continue to develop staff for meeting facilitation to maximize role at meetings.	Develop or identify a training focused on meeting facilitation.
	Continue to support the SIPS.	Short-Term: Provide timely resources to support the SIPS's functions related to planning and support of MPOs and RPOs.	Schedule recurring meetings with the SIPS staff to proactively discuss needs.
		Mid-Term: Collaborate with SIPS and other business units that are also vested in the various projects and programs to be implemented based on the current transportation authorization (such as CMAQ, Carbon Reduction, NEVI, etc.) to explore active partnership roles throughout the project development process.	

GOAL	Objective	Action Item	Next Steps
Goal 4: Be the North Carolina leader for planning for emerging technology and other future disruptions.	Continue to be the champion for statewide planning initiatives.	Short-Term: Provide adequate staff with the right skill sets to support statewide planning initiatives.	Inventory staff skill sets and develop hiring needs list.
		Short-Term: Continue to facilitate relationships between TPD and other business units to successfully deliver these plans/activities.	Build on current relationships through task force(s) set up in Goal 3.
		Mid-Term: Support staff by providing/attending training with other business units about statewide initiatives, such as CAVs and funding opportunities for all modes.	Deliver and/or attend appropriate training opportunities, including those recommended as part of this Strategic Plan.
		Mid-Term: Stay current with CLEAR program survey, training, and opportunities to incorporate an innovation culture within TPD actions.	Confirm Culture Survey has been reviewed by appropriate parties. Schedule discussion to brainstorm opportunities.
	Be aware of and proactively prepare for future technology's uncertainties and impact on transportation needs in North Carolina.	Short-Term: Continue to incorporate scenario planning in future efforts of CTP and statewide initiatives.	Facilitate discussions between TPD's MPO/ RPO coordinators to share statewide best practices.
		Short-Term: Provide input and insights to NCDOT leadership resulting from scenario planning to support decision making.	Support the development and implementation of NCDOT's Strategic Plan and encourage scenario planning to be included.
		Short-Term: Lead actions that may come out of NCDOT leadership decisions related to emerging technology as it relates to long range planning.	Meet with NCDOT leadership to confirm and discuss current policies and practices.
		Long-Term: Continue to support staff attending conferences and training to stay engaged with best practices.	Continue to encourage staff to attend/present at conferences as determined valuable and appropriate.
		Long-Term: Continue to participate in conversations with peer state agencies about best practices.	Create peer DOT contact database and identify potential recurring NCDOT events to engage peers.
		Long-Term: Explore opportunities for Artificial Intelligence (AI) and other new technologies to enhance TPD processes and deliverables.	Coordinate with NCDOT's Research Program to identify opportunities.

GOAL	Objective	Action Item	Next Steps
Goal 4: Be the North Carolina leader for planning for emerging technology and other future disruptions.	Plan for resiliency and sustainability.	Short-Term: Coordinate with NCDOT partners in accounting for the impacts of extreme weather events and natural disasters in transportation planning and decision making.	Continue to support development and implementation of best practices and identify next steps and resources to enhance practices.
		Long-Term: Coordinate with NCDOT partners and other appropriate business units in considering resilient design principles, such as elevating infrastructure, planning for flood-prone areas, and enhancing system redundancy, to mitigate potential disruptions and ensure long-term infrastructure resilience in plans and project proposals, as appropriate.	
		Long-Term: Continue to support NCDOT RIP and its implementation.	
Goal 5: Provide premier, tailored customer service.	Be a collaborative partner across NCDOT and with other state/local agencies.	Short-Term: Use products and input from other business units to provide consistency in results/conclusions and support overall NCDOT goals.	Continue current coordination and communication activities.
		Short-Term: Continue to use and communicate schedule/milestones for the CTP process to ensure timely delivery of final product, including proactive scheduling of model requests and reviews.	
		Mid-Term: Work with other business units to find ways to address the impacts from inflation and other cost changes.	Continue to participate in discussions about funding opportunities and cost changes.
		Mid-Term: Determine ways to better integrate land use into TPD products through education or partnerships with other business units and local agencies.	Identify TPD staff to enhance the understanding of best practices for incorporating land use into TPD products. Identify resources to support staff development for this.
		Mid-Term: Highlight funding opportunities for NCDOT and other state/local agencies in TPD products.	Facilitate discussions with appropriate agencies about funding opportunities or contacts.

GOAL	Objective	Action Item	Next Steps
Goal 5: Provide premier, tailored customer service.	Continue to foster well-established, collaborative relationships with local governments and other state agencies and improve relationships with Divisions.	Short-Term: Continue to uphold professional relationships with the Highway Divisions and local governments, including proactive and responsive communication.	Continue to foster relationships with Highway Divisions and local governments.
		Short-Term: Provide training to support the roles and responsibilities of MPO/RPO staff and equip them with information and tools to enable them to more effectively carry out planning activities.	Deliver appropriate training opportunities, including those recommended as part of this Strategic Plan.
		Mid-Term: Support CDEs enhance coordination and alignment between Divisions and TPD for corridor planning.	Continue to support CDEs through project coordination and seek enhancement opportunities.
	Further increase knowledge of state and federal opportunities. Be the stewards of state and federal opportunities for all levels of planning.	Short-Term: Stay abreast of current and forthcoming federal funding programs and how these can impact/benefit NCDOT and planning partners' needs.	Continue to work with partner agencies and others as appropriate to understand current and future funding opportunities.
		Short-Term: Further foster direct relationships with FHWA and TPD staff who support planning coordination.	Continue to foster relationships between FHWA and TPD staff.
		Mid-Term: Provide regular and timely training on state and federal regulations and opportunities in collaboration with FHWA and other NCDOT business units.	Deliver appropriate training opportunities, including those recommended as part of this Strategic Plan.

GOAL	Objective	Action Item	Next Steps
Goal 5: Provide premier, tailored customer service.	Be a holistic and trusted statewide resource for transportation data and information needed for performance-based planning across NCDOT and for planning partners.	Short-Term: Support Traffic Data Collection program and statewide models, including the completion of truck count analyses.	Continue to support the Traffic Data Collection program.
		Short-Term: Through TMSD support the Traffic Data Collection program through TMSD to stay current with truck count analyses which support statewide travel demand models.	
		Short-Term: Allocate sufficient staff and resources to support statewide traffic data collection needs and to maintain statewide models.	Confirm sufficient staffing or identify and communicate needs and resources.
		Short-Term: Continue to find opportunities to incorporate non-vehicular modes of transportation data, information, and analyses in CTPs and other products.	Continue to identify opportunities.
		Short-Term: Work with other business units, such as the Traffic Management Unit, to continue to refine measures and incorporate best practices related to vehicular level-of-service, travel time reliability, and volume-to-capacity analyses.	Set up internal task force to facilitate discussions.
		Mid-Term: Determine various audiences and customers (other NCDOT units, planning partners, public) and tailor approaches to data sharing, including making data readily, spatially and publicly available, as allowed by contracts and confidentiality agreements.	
		Mid-Term: Develop ways to include populations that are not able to or that choose/prefer not to travel by personal vehicle due to environmental, health, economic, and quality of life reasons in models/analysis. Micromobility and ride sharing should also be appropriately considered.	Identify TPD staff to enhance understanding of best practices on this subject and identify resources to support staff development for this.

GOAL	Objective	Action Item	Next Steps
Goal 5: Provide premier, tailored customer service.	Be a holistic and trusted statewide resource for transportation data and information needed for performance-based planning across NCDOT and for planning partners.	Mid-Term: Work with other business units, such as the Integrated Mobility Division (IMD), to support industry-leading approaches for non-motorized modes, including best practices for incorporation of bike-ped analysis in planning.	Schedule discussion(s) with the Integrated Mobility Division to brainstorm opportunities.
		Mid-Term: Work with other business units in support of safety initiatives, such as Vision Zero. Continue to prioritize and refine the consideration of safety, such as prioritizing corridors with safety concerns, evaluating, and implementing appropriate use of safety data, and implementing preventative countermeasures into TPD products.	Schedule discussion(s) with the Traffic Safety Unit to brainstorm opportunities.
		Long-Term: Work with other business units to host all statewide dashboards in one location to allow for data sharing.	Schedule discussion(s) with IT and other appropriate business units.
		Long-Term: Explore the potential of intelligent transportation systems, data analytics, and real-time information to improve traffic management, optimize operations, and enhance user experience in TPD products.	Continue to coordinate with NCDOT's Research Program and others as appropriate to identify and explore opportunities.
Goal 6: Be an attractive place to work.	Continue to promote diverse high-caliber staff through recruitment and staff development.	Short-Term: Work with other business units to address existing challenges and needs in hiring practices and processes.	Inventory staff skill sets and develop hiring needs list.
		Short-Term: Target potential hires with existing transportation planning skills/expertise and those with relevant skills and backgrounds (e.g., programming and modeling) to support in-house modeling efforts.	
		Short-Term: Conduct targeted recruiting/marketing at universities.	Support NCDOT outreach to universities. Determine opportunities for meaningful staff engagement with program participants.

GOAL	Objective	Action Item	Next Steps
Goal 6: Be an attractive place to work.	Continue to promote diverse high-caliber staff through recruitment and staff development.	Short-Term: Support and promote participation in NCDOT Trainee/Transportation Engineering Associates (TEA) program and other internship programs including providing an engaging experience when hosting a program member.	Support NCDOT outreach to universities. Determine opportunities for meaningful staff engagement with program participants.
	Create redundancy and resiliency of institutional knowledge.	Short-Term: Address staff turnover and provide consistent “on the job” training.	Deliver appropriate training opportunities, including those recommended as part of this Strategic Plan.
		Short-Term: Continue to develop and update documented guidance for key processes and products.	Continue to develop and maintain documented guidance.
		Mid-Term: Provide staff focused and meaningful development opportunities and training.	Deliver appropriate training opportunities, including those recommended as part of this Strategic Plan.
		Mid-Term: Provide opportunities for staff to be cross-trained on skills and/or activities that have historically been limited to a small number of staff.	
	Create a transparent relationship between leadership and staff.	Short-Term: Provide and maintain clear expectations of roles and responsibilities.	Develop summary of roles and responsibilities to be shared with staff.
		Mid-Term: Share vision, forthcoming activities, announcements/information from leadership, and budgets with staff.	Provide updates on these activities during staff meetings.
		Mid-Term: Provide timely and recurring opportunities for feedback.	Incorporate ways for more robust feedback into existing review processes.
		Mid-Term: Link TPD vision, mission, goals with staff performance expectations.	Share Strategic Plan with staff.

GOAL	Objective	Action Item	Next Steps
Goal 6: Be an attractive place to work.	Continue to foster an environment for ongoing staff professional development.	Mid-Term: Provide training to internal and external staff on timely and timeless topics such as GIS (ArcPro), travel demand modeling, leveraging traffic analysis to inform planning, active transportation, CTP 2.0, traffic operations, guidelines, and best practices, SPOT/prioritization results and scoring, public speaking and meeting facilitation, emerging transportation trends, innovative practices, linking land use and transportation, and current and future federal and state funding programs.	Deliver appropriate training opportunities, including those recommended as part of this Strategic Plan.

An aerial photograph of a dense forest with trees in various shades of green, yellow, and orange, suggesting autumn. A dark asphalt road with yellow lane markings curves through the lower right portion of the image. A large, light grey, semi-transparent shape with a white border covers the left side and bottom of the image, containing the word 'Appendices'.

Appendices



Acknowledgments & Stakeholders*

We thank our staff and partners who participated as stakeholders during the development of this Strategic Plan.

Project Management Team

- Jamal Alavi, Former Transportation Planning Division (TPD) Director
- Alena Cook, Transportation Planning Unit Head
- Travis Marshall, Technical Services Unit Head
- Andy Bailey, TPD Group Supervisor
- Chris Connolly, TPD Staff Engineer

Stakeholders

- Ryan Brumfield, Office of Strategic Initiatives & Program Support
- Joseph Furstenburg, Integrated Mobility Division
- J. Kevin Lacy, PE, CPM, Former Planning and Programming Director of Strategic Planning
- Daryl Vreeland, AICP, TPD—Transportation Planning Unit
- Julie E. Bogle, PE, TPD—Transportation Planning Unit
- Roger I. Castillo Santamaria, PE, TPD—Transportation Planning Unit
- Heather J. Hildebrandt, TPD—Statewide Initiatives Supervisor
- Nastasha Earle-Young, Office of Strategic Initiatives & Program Support
- Keith G. Dixon, TPD—Traffic Forecasting Group
- Tae-Gyu Kim, Ph.D, TPD—Model Research & Development Group

- Kerry Morrow, TPD—Traffic Survey Group
- Van Argabright, PE, Former Division of Planning & Programming Director
- Stephen Piotrowski, TPD—Traffic Survey Group
- H.A. "Burt" Tasaico, PE, Former Office of Strategic Initiatives & Program Support Director
- Amna Cameron, Office of Strategic Initiatives & Program Support
- Terry Arellano, PE, Corridor Development Unit
- Ray McIntyre, STIP, Former Feasibility Studies, and Strategic Prioritization
- Derrick Lewis, PE, Feasibility Studies Unit
- Brian M. Wert, PE, STIP, Central Region Office
- Brian Mayhew, PE, Transportation Mobility and Safety Director
- Jason Schronce, Division of Aviation
- Katie Hite, Division 3
- Brandon H. Jones, PE, Former Division 5 Engineer
- David Keilson, PE, Division 5
- Darrius D Sturdivant, Former Division 6
- Wanda Austin, PE, Former Division 14 Engineer
- Jennifer A. Evans, PE, Project Management Unit
- Joe Hummer, PhD, PE, Traffic Management Unit
- George Hoops, PE, FHWA - NC Division
- Mike Kozlosky, Wilmington MPO

* These stakeholders were identified during the development of this Strategic Plan. Some may have retired or transitioned to a new position within NCDOT.



Survey Results



VIEWS

273



PARTICIPANTS

97



RESPONSES

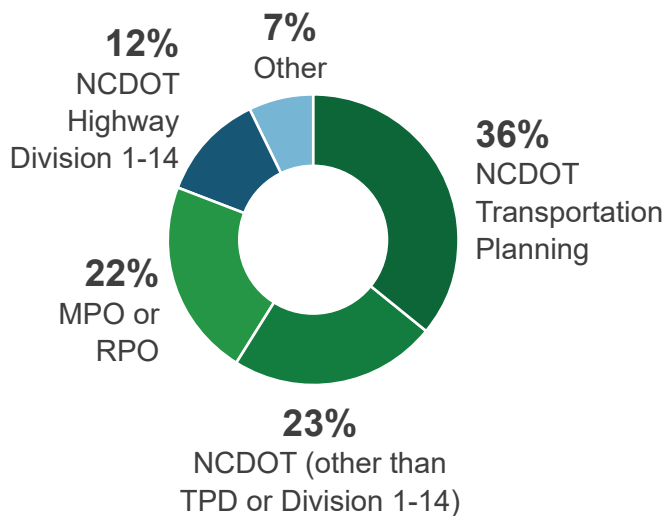
1,439



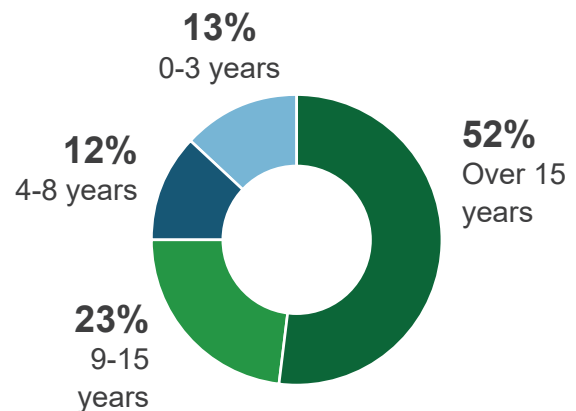
COMMENTS

182

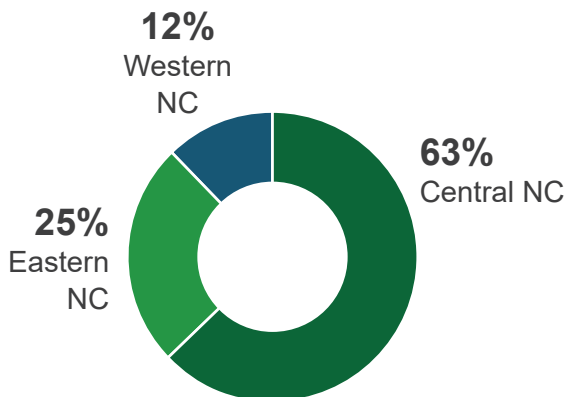
**ALL RESPONDENTS:
WHAT AGENCY DO YOU
WORK FOR?**



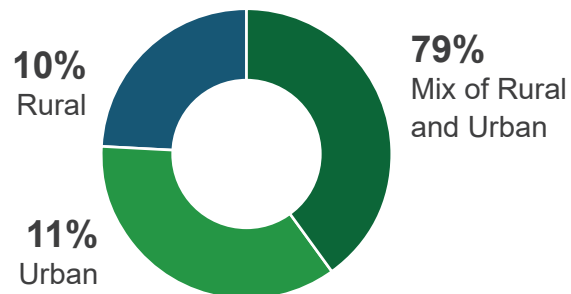
**ALL RESPONDENTS:
HOW MANY YEARS OF
TRANSPORTATION AND/OR
PLANNING EXPERIENCE DO
YOU HAVE?**



**ALL RESPONDENTS:
WHERE ARE YOU LOCATED?**



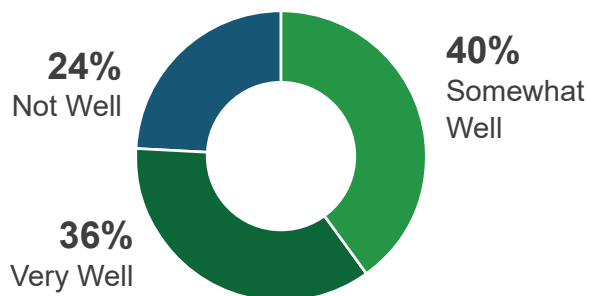
**ALL RESPONDENTS:
WHAT TYPE OF
COMMUNITIES DO YOU
PRIMARYLY WORK WITH?**



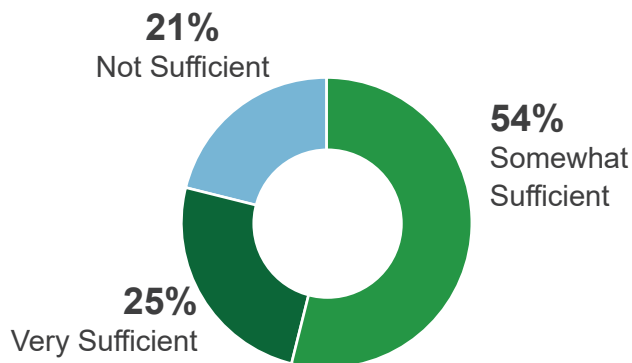
**ALL RESPONDENTS: HAVE
YOU WORKED WITH TPD IN
THE PAST?**



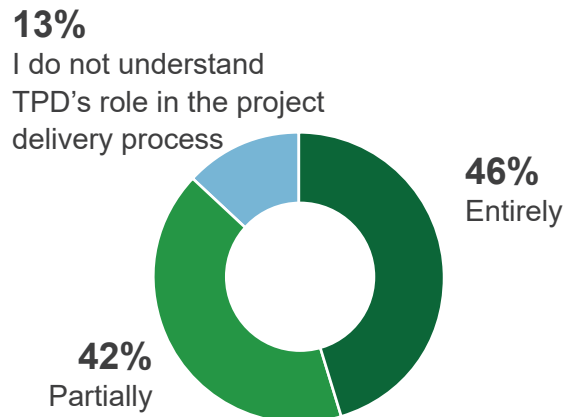
**TPD RESPONDENTS: DO
YOU FEEL TRAINED ON HOW
TO USE TPD PRODUCTS?**



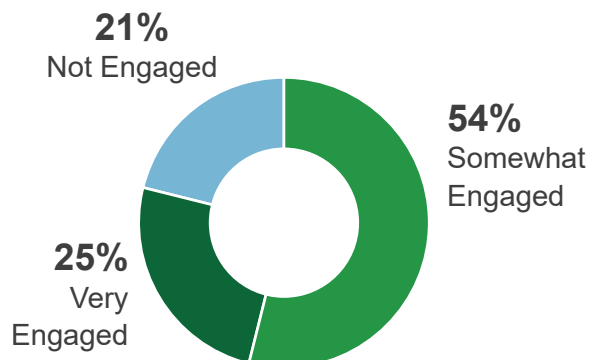
TPD RESPONDENTS: HOW SUFFICIENT OF TRAINING DO YOU FEEL YOU HAVE TO PROVIDE TRANSPORTATION PLANNING SERVICES AND SUPPORT TO NCDOT DIVISIONS OR MPOS/RPOS?



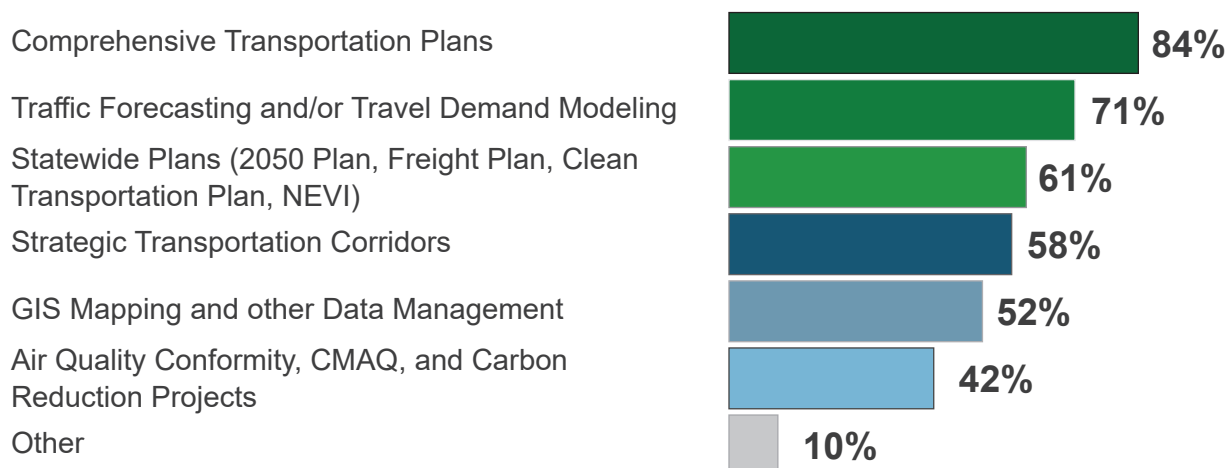
TPD RESPONDENTS: HOW WELL DO YOU UNDERSTAND TPD'S ROLE IN THE PROJECT DELIVERY PROCESS?



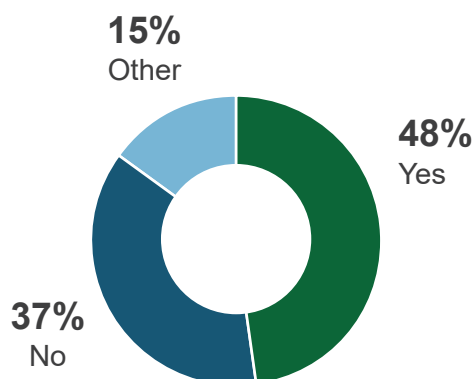
TPD RESPONDENTS: HOW WELL DO YOU FEEL TPD IS ENGAGED WITH PROJECTS FROM THEIR INITIAL PLANNING TO CONSTRUCTION?



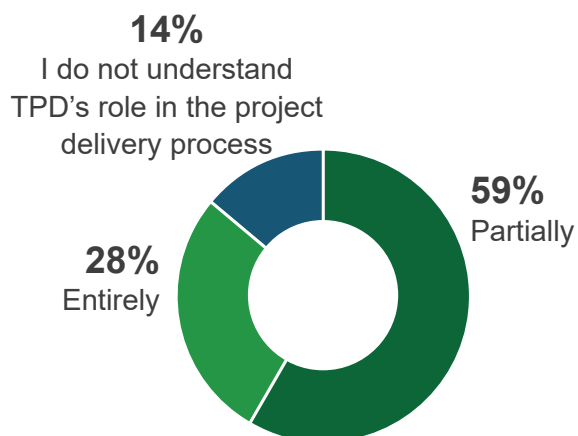
NON-TPD RESPONDENTS: WHAT PRODUCTS OR PROCESSES DO YOU USE?



NON-TPD RESPONDENTS: DO YOU FEEL TRAINED ON HOW TO USE TPD PRODUCTS?



NON-TPD RESPONDENTS: HOW WELL DO YOU UNDERSTAND TPD'S ROLE IN THE PROJECT DELIVERY PROCESS?



Advancing NC's Mobility Future



**Transportation
Planning Division
(TPD)**