

BEYOND 77 MOBILIZATION DIGESTS

Prioritizing the
Solutions that Will
Benefit **You**



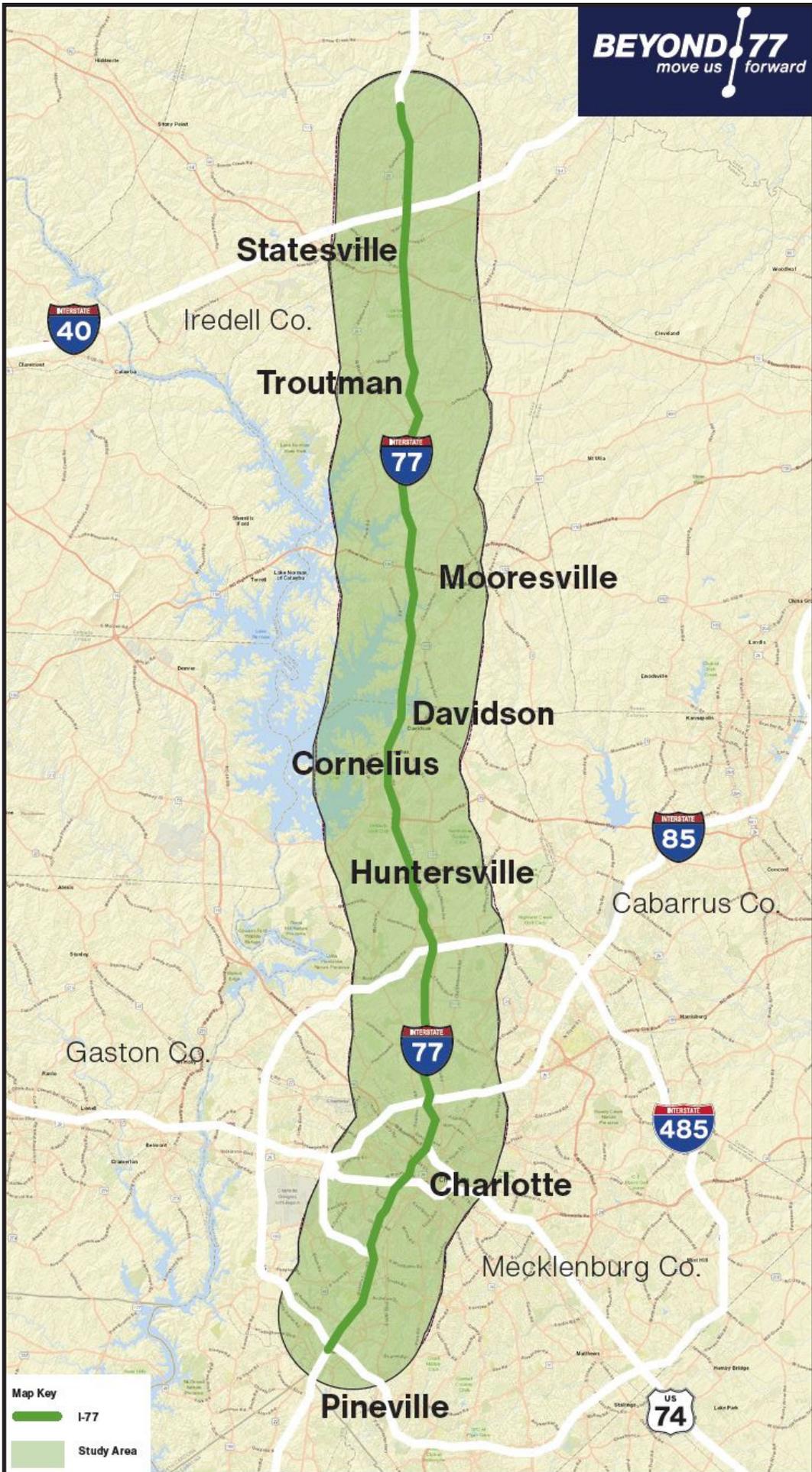


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INTRODUCTION

These Beyond 77 Mobilization Digests are designed to help familiarize you with the Strategies & Solutions (S&S) from the Beyond 77 Study. We have organized the 26 immediate and short-term S&S marked for prioritization by this Task Force into six themes:

Policy & Programming

These S&S are aimed at addressing transportation planning policy and programming deficiencies with a focus on supporting the implementation of plans such as Beyond 77 and CONNECT Beyond.

Technology: Connected/Autonomous Vehicles

These S&S examine policies and programs that will help prepare our regional transportation network for C/AVs.

Technology: Intelligent Transportation System Pilot Applications

These S&S propose a number of different strategies and techniques to be explored as pilot programs through the upcoming Charlotte Regional Intelligent Transportation Systems Planning Study.

Funding & Equity

These S&S focus on creating holistic policies to uphold equity in the land use and transportation planning processes as well as strategies for pursuing alternative funding sources.

Active Transportation

These S&S include physical implementation projects as well as policies and programs to enhance active transportation throughout the region, focusing on safety and innovative solutions.

Transit

These S&S examine opportunities to enhance the region's transit networks and improve accessibility with an aim towards increasing ridership and decreasing personal automobile dependence.

Throughout this document, you will see references to four *key areas* of transportation planning as defined in the Beyond 77 Study:

Policymaking

New systems of principles to guide decisions and achieve rational outcomes; statements of intent.

Programming

A plan or system under which action may be taken toward a goal.

Project Infrastructure / Implementation Methods

Specific project needs on the ground: includes definitive step(s) or action(s) to complete a specific task and reach a specific solution.

Emerging Technologies

New forms of technology to enhance mobility.

THE BEYOND 77 TASK FORCE

This Task Force was assembled to serve as champions on Beyond 77 S&S priorities and funding preferences. Your work as a member of the Beyond 77 Task Force is vital to helping us keep the momentum of the Beyond 77 Study as we move towards implementation. Your input will directly shape how we prioritize these 26 S&S. The connections you can provide and your efforts as a champion in the community will drive public engagement – the more grassroots our approach, the more success we can realize together.

Scope of Work

- I. Input and approval for the marketing plan
- II. Advocate and help with the coordination process with the other major initiatives and their outcomes within the study area and/or the CRTPO planning area
- III. Evaluate, prioritize, and set the course of action for the shortlist of recommendations
- IV. Discussion and execution of a regional/county plan on funding alternative solution(s)

Your Role

As a member of this Task Force, you are being asked to:

- Provide input as a professional and representative of your organization
- Champion recommendations in your organization and your community
- Make introductions between Beyond 77 staff and key stakeholders / decision makers you know

TASK FORCE MISSION

Engage the region's governments, stakeholders, and residents to act on transportation opportunities and serve as the champions to guide the strategies and priorities from the Beyond 77 Study, to help transform opportunities into solutions that improve and enhance mobility, equity, quality of life, resiliency, and economic prosperity.

POLICY & PROGRAMMING

Overview

The Policy and Programming theme encompasses S&S that are aimed at addressing transportation planning policy and programming deficiencies throughout the region. These recommendations are focused on supporting the implementation of important regional plans, such as Beyond 77 and CONNECT Beyond.

Regional planning efforts require significant cross-jurisdictional collaboration and joint work. These S&S are geared towards strengthening regional organization relationships and establishing multi-jurisdictional coalitions for advancing key initiatives in the region.

The policies and programs identified by these S&S will provide platforms for discussion, prioritization, funding, and implementation of other recommendations from Beyond 77 and other key initiatives.

Strategies & Solutions

1. PM-1: Policy to Strengthen the Charlotte Regional Alliance for Transportation (CRAFT)
2. PM-2: Policy to Create the Beyond 77 Coalition
3. PR-2: Regional Program for Beyond 77 Solutions Implementation
4. PR-24: Staffing Needs Evaluation
5. PR-6: Incident Management Safety Summit

Key Acronyms, Concepts & Terms:

CRAFT - Charlotte Regional Alliance for Transportation

CRMPO - Cabarrus Rowan Urban Area MPO

CRC - Centralina Regional Council

RRRPO - Rocky River RPO

GCLMPO - Gaston-Cleveland-Lincoln MPO

Incident Management - describes the activities of an organization to identify, analyze, and correct hazards to prevent a future re-occurrence

LNTC - Lake Norman Transportation Commission

MOU - Memorandum of Understanding

Public-Public Partnership (PuP) - a partnership between a government body or public authority and another such body or a non-profit organization to provide services and/or facilities, sometimes with the goal of transferring technical skills and expertise

RRRPO - Rocky River RPO

PM-1: POLICY TO STRENGTHEN THE CHARLOTTE REGIONAL ALLIANCE FOR TRANSPORTATION (CRAFT)

THE BASICS

What is it?

Theme: Regional Partnerships

- CRAFT is made up of the MPOs and RPOs in the Charlotte region
- Created in 1999 to facilitate regional transportation planning in the greater Charlotte region.
- CRAFT facilitates the exchange of crucial information between the staff and leadership of each of the member organizations
- Helps to avoid conflicting planning initiatives and foster inclusion of peer agencies
- Formalize and codify the roles, responsibilities, and policy/ programmatic functions of CRAFT

Why is it important?

Key Area: Policymaking

- CRAFT's role is to:
 - enhance communication among jurisdictions
 - promote awareness of regional concerns, and
 - provide an educational forum in the Charlotte region that addresses significant common issues.
- A new policy is important to:
 - enable CRAFT to serve a more defined role in the regional planning process and
 - further encourage coordination and collaboration between the MPOs, the RPOs, and the local jurisdictions they serve.
- The goal of this recommendation is to strengthen regional planning efforts.

THE NEXT STEPS

How will this be accomplished?

Associated S&S:

1. Conduct research to determine the viability of such a policy, including looking for comparable organizations across the country and understanding their policies.
2. Coordinate with CRAFT leadership and member organizations' Boards to educate and collect input and feedback.
3. Develop a Memorandum of Understanding (MOU) to be adopted by CRAFT and its member jurisdictions based on peer research and discussions with CRAFT members.
4. Monitor and update the MOU as needed.

Who needs to be involved?

Associated Initiatives: None

CRAFT Member Organizations:

- CRTPO
- Cabarrus Rowan Urban Area MPO (CRMPO)
- Centralina Regional Council (CRC)
- Gaston-Cleveland-Lincoln MPO (GCLMPO)
- Lake Norman Transportation Commission (LNTC)
- Rocky River RPO (RRRPO)

PM-2: POLICY TO CREATE THE BEYOND 77 COALITION

THE
BASICS

What is it?

Theme: Regional Partnerships

- The Beyond 77 Coalition (name suggested as an example here)
- A formal partnership between the organizations with jurisdictions partner organizations
- An umbrella policy and a series of agreements
- Coordinate the implementation of Key Beyond 77 S&S

Why is it important?

Key Area: Policymaking

- Define roles and responsibilities and outline expectations around implementation efforts
- Maintain flexibility for future needs as implementation efforts evolve
- Help reduce conflicts and confusion during the implementation process by:
 - establishing channels of communication,
 - setting standards and expectations, and
 - creating a forum for discussion and collaboration.
- The Beyond 77 Coalition will serve as the central hub for coordinating implementation efforts

How will this be accomplished?

Associated S&S: PR-2

1. Identify key stakeholders and agencies throughout the Beyond 77 study area and the Charlotte region that should be members of this Coalition; entities to be considered should include transportation planning agencies as well as collaborators, ranging from non-profit organizations to private entities.
2. Assemble a steering committee with representatives from the above organizations to develop a mission, framework, and other details for the Coalition (such as what agency should serve as host for the Coalition).
3. Coordinate with elected officials to secure support.

Who needs to be involved?

Associated Initiatives:

- Key organizations and jurisdictions within the primary study area boundaries of Beyond 77
- Any regional planning partners that want to benefit or participate in implementation efforts may join through additional agreements on a voluntary basis

THE
NEXT
STEPS

PR-2: REGIONAL PROGRAM FOR BEYOND 77 SOLUTIONS IMPLEMENTATION

THE BASICS

What is it?

Theme: Public–Public Partnerships

- Program to follow the establishment of the Beyond Coalition (see PM-2)
- New program geared directly towards the implementation of regional and cross-jurisdictional S&S
- Program should focus on the prioritization and funding of such larger-scale recommendations

Why is it important?

Key Area: Programming

- Program to include framework for enacting policy recommendations developed for PM-2
- Plans and projects that cross jurisdiction boundaries are inherently more complicated and require more coordination
- Facilitate collaboration and provide a system for delivering high-quality implementation efforts.

THE NEXT STEPS

How will this be accomplished?

Associated S&S: PM-2

1. Following the establishment of the Beyond 77 Coalition (PM-2), the Coalition should evaluate similar programs to identify best practices, including considering which agency should lead this program, which will remain a collaborative effort.
2. Develop policy and programmatic framework for this program.
3. Identify funding sources, including permanent sources and annual grants/ bonus allocations.

Who needs to be involved?

Associated Initiatives: None

PR-6: INCIDENT MANAGEMENT SAFETY SUMMIT

THE
BASICS

What is it?

Theme: Public–Public Partnerships

- Local agencies and organizations coordinate to host a safety summit
- Summit should focus on:
 - highlighting existing installations throughout the Charlotte region
 - educating the public on challenges and best practices
 - examining emerging tactics and technologies

Why is it important?

Key Area: Programming

- Collaboration will form a consensus on best practices and highlight tools and techniques for further research and future implementation
- A regional perspective will be critical to reducing incidents throughout area’s multi-modal transportation network

How will this be accomplished?

Associated S&S:

1. Compile best practices from across the county and a list of existing needs and resources within the region.
2. Identify a lead agency for training as well as delivering strategy (i.e., in-person or hybrid, small or large setting).
3. Develop supporting material, such as a training series, informative documents, and similar.
4. Hold the Incident Management Safety Summit.
5. Follow up Summit with continuing discourse, evaluation, and training.

Who needs to be involved?

Associated Initiatives:

- Centralina Regional Council
- NCDOT

THE
NEXT
STEPS

PR-24: STAFFING NEEDS EVALUATION

THE BASICS

What is it?

Theme: Special Planning Studies

- The evaluation of future staffing needs for implementing Beyond 77 and other major initiatives such as CONNECT Beyond by agencies within the region
- Staffing evaluations should focus on:
 - identifying/projecting appropriate staffing levels, personnel needs, and costs;
 - documenting and justifying resource needs; and
 - improving personnel effectiveness.
- Focus on next 5 to 10 years
- Identify budget changes needed to address identified needs

Why is it important?

Key Area: Programming

- Higher demand on existing staff
- Increased expectations to address new challenges
- Inform decision-makers and the public regarding budget development and approval

THE NEXT STEPS

How will this be accomplished?

Associated S&S:

1. Identify which agencies and jurisdictions should participate in this evaluation.
2. Determine region-wide project deployment timeline, scope of work, and potential funding sources for use by participating organizations.
3. Provide proposals to organizations' leaderships to secure funding to accomplish this evaluation.

Who needs to be involved?

Associated Initiatives:

TECHNOLOGY: CONNECTED / AUTONOMOUS VEHICLES

Overview

We have multiple technology-related themes to help address emerging technologies. This set of S&S are focused on addressing Connected/Autonomous Vehicles (C/AVs).

Autonomous vehicles use technology to steer, accelerate, and brake with little to no human input. Some vehicles still require a human to monitor the roadway, while other vehicles require no human intervention.

Connected vehicles use technology to either communicate with each other; connect with traffic signals, signs, and other road items; or obtain data from a cloud. This information exchange can help with safety and improve traffic flow.

C/AVs can have a number of benefits:

- Increased safety by eliminating human factors that lead to accidents and fatalities
- Greater mobility and equity by providing broader access to live, work, and play where one chooses
- Economic and workforce development as this technology provides an opportunity to compete in the movement of goods, services, and people
- C/AVs may improve a transportation network's efficiency by reducing traffic congestion and improving traffic flow

Strategies & Solutions

1. PM-13: Connected/Autonomous Vehicle (C/AV) & Emerging Technology Policy Development
2. PR-33: Connected/Autonomous Vehicle (C/AV) Technology Inventory Assessment
3. PR-47: Regional Intelligent Transportation System (ITS) Vision Workshop
4. PR-34: Concept of Operations Study

Key Acronyms, Concepts & Terms:

Autonomous Vehicle - A vehicle that uses technology to steer, accelerate, and brake with little to no human input.

C/AV - Connected/Autonomous Vehicle

Connected Vehicle - A vehicle that uses technology to either communicate with other connected vehicles; connect with traffic signals, signs, and other road items; or obtain data from a cloud.

EV - Electric Vehicle

FHWA - Federal Highway Administration

ICM - Integrated Corridor Management

ITS - Intelligent Transportation System

PM-13: CONNECTED/AUTONOMOUS VEHICLE (C/AV) & EMERGING TECHNOLOGY POLICY DEVELOPMENT

THE BASICS

What is it?

Theme: Regional Partnerships

- Development of policy(ies) for state, regional, and local agencies to effectively integrate C/AVs and other mobility-related technologies in existing and future planning and programmatic functions
- Such policies could include (but are not limited to):
 - Electric Vehicle (EV) charging stations
 - Vehicle-to-vehicle communications
 - Smart signalization
 - Advanced warning systems

Why is it important?

Key Area: Policymaking

- Inform future planning and implementation of smart and connected infrastructure for the safe operation of C/AVs and other forms of mobility
- C/AVs rely on networks of supporting infrastructure
- Installation of such infrastructure needs to be addressed in a system-wide manner

THE NEXT STEPS

How will this be accomplished?

Associated S&S: PR-33, PR-34

1. Evaluate existing and ongoing C/AV federal and state guidelines as a foundation for regional policy.
2. Coordinate with stakeholders, partners, and decision-makers to develop a regional vision for how C/AVs and other emerging technologies should be integrated into the regional networks; these efforts should include a public education and input campaign.
3. Develop policy based on regional vision and public input.
4. Policy adoption should occur at the regional level, and focus on planning and implementation of C/AV infrastructure, safety targets, and future emerging technologies.

Who needs to be involved?

Associated Initiatives:

- Federal Highway Administration (FHWA)
- NCDOT

PR-33: CONNECTED/AUTONOMOUS VEHICLE (C/AV) TECHNOLOGY INVENTORY ASSESSMENT

THE BASICS

What is it?

Theme: Special Planning Studies

- A comprehensive assessment of all existing and programmed solutions related to C/AV technologies across state, regional, and local agencies
 - Condition
 - Location
 - Impact
- To include the mapping of public accessible resources, such as electric vehicle (EV) charging stations
- Such assessment should be conducted on a regular cycle, especially public infrastructure

Why is it important?

Key Area: Programming

- Highlight opportunities to fill gaps in the existing network
- Establish needs throughout the system
- Identify other systems that may be needed to accommodate C/AV users as they begin to become more prevalent on the network

How will this be accomplished?

Associated S&S: PM-13

1. Identify and catalog existing and programmed C/AV solutions.
2. Identify and evaluate C/AV-related needs and deficiencies.
3. Identify revenue and cost for implementing and maintaining any existing and future C/AV, as well as identifying alternative scenarios and tradeoffs.

Who needs to be involved?

Associated Initiatives: Charlotte ITS Plan

THE NEXT STEPS

PR-34: CONCEPT OF OPERATIONS STUDY

THE BASICS

What is it?

Theme: Special Planning Studies

- A study to inform the integration of emerging technologies from both a user and manager/operator perspective
 - Such as C/AV and all other technological functions of a smart and connected mobility network
- Document national best practices
- Examine local opportunities for pilot applications.

Why is it important?

Key Area: Programming

- Builds on existing ITS/Mobility Infrastructure Asset Management Program
- Leads to the development of a fully Integrated Corridor Management (ICM) program

THE NEXT STEPS

How will this be accomplished?

Associated S&S: PM-13, PR-33

1. Determine which agency should lead this study.
2. Coordinate with stakeholders, partners, and member jurisdictions to develop a scope of work and goals for this study.
3. Identify best practices and guidelines for emerging technologies, ITS, and ICM focused on safety, equity, funding sources, operations, and maintenance.

Who needs to be involved?

Associated Initiatives:

PR-47: REGIONAL INTELLIGENT TRANSPORTATION SYSTEM (ITS) VISION WORKSHOP

THE
BASICS

What is it?

Theme: Toolkits & Campaigns

- A kickoff event to begin the upcoming/pending Charlotte Regional Intelligent Transportation Systems Planning Study
- Highlight the current state of ITS in the Charlotte metropolitan area
- Showcase opportunities that could inform next steps for implementation and inclusion in the ITS study
- Event to focus on educating the public and soliciting their input on what they desire for the future.

Why is it important?

Key Area: Programming

- Educate the public
- Encourage active participation through small groups of diverse perspectives on how ITS can enable improved safety and effective functions of mobility across the regional network

How will this be accomplished?

Associated S&S:

1. Identify a list of needs and resources within the region.
2. Conduct research on national trends and emerging technologies related to intelligent transportation systems.
3. Develop a program for the event and supporting materials.
4. Hold the workshop.
5. Follow up workshop with continuing education opportunities for transportation planning professionals and the general public.

Who needs to be involved?

Associated Initiatives:

- Centralina Regional Council
- City of Charlotte
- NCDOT

THE
NEXT
STEPS

TECHNOLOGY: INTELLIGENT TRANSPORTATION SYSTEM PILOT STUDIES

Overview

We have multiple technology-related themes to help address emerging technologies. These S&S propose a number of pilot studies that should be conducted as part of a regional Intelligent Transportation System (ITS) study.

There are a number of emerging technologies that can improve our transportation network. These pilot studies will allow local staff to evaluate each technology's efficacy and impact on the transportation network. Specifically, the below S&S are concerned with managing congestion and safety.

Strategies & Solutions

1. ET-11: Ramp Metering
2. ET-17: Weather Response Traffic Information (WxTINFO)
3. ET-19: Smart Truck Parking
4. ET-34: Work Zone Management / Smart Work Zones

Key Acronyms, Concepts & Terms:

FEMA - Federal Emergency Management Agency

IMD - Integrated Mobility Division of NCDOT

NCEM - North Carolina Emergency Management

TMS - Transportation & Mobility Safety Unit of NCDOT

WxTINFO - Weather Response Traffic Information

ET-11: RAMP METERING

What is it?

Theme: Freeway Specific Solutions

- Traffic signals installed on freeway on-ramps to control the frequency at which vehicles enter the flow of traffic on the freeway
 - Prevents the freeway from becoming oversaturated
- Opportunities to scale ramp metering solutions include creating an additional lane to allow for a user to electronically pay-to-not-stop
 - Others would still adhere to signals
 - Users who enter the pay-to-not-stop lane would trigger the signal timing for users waiting at the ramp meter to delay entry

Why is it important?

Key Area: Emerging Technology

- Reduces overall freeway congestion by:
 - managing the amount of traffic entering the freeway
 - breaking up platoons that make it difficult to merge onto the freeway
- Utilizing a pay-to-not-stop lane would help account for costs

How will this be accomplished?

Associated S&S: ET-34

1. Evaluate other state DOTs' Ramp Metering programs, such as Georgia DOT, for lessons learned and best practices.
2. Conduct a series of internal meetings with NCDOT to identify feasibility and potential locations for a pilot project, similar to the 4 pilot sites in the Raleigh-Durham area.
3. Upon identifying pilot location(s), coordination with local jurisdiction(s) will be required to evaluate the impact on local roads.

Who needs to be involved?

Associated Initiatives:

- NCDOT
 - Division 10
 - Division 12
 - Integrated Mobility Division (IMD)
 - Transportation & Mobility Safety Unit (TMS)

ET-17: WEATHER RESPONSE TRAFFIC INFORMATION (WxTINFO)

THE BASICS

What is it?

Theme: Information Dissemination Systems Solutions

- An application that uses fixed and mobile weather data to provide weather notifications through
 - dynamic message signs,
 - a public-facing website, and
 - other forms of public communication (i.e., directly to connected vehicles through alert systems)
- Leverage varied channels of communication to distribute information that can:
 - increase situational awareness,
 - improve roadway levels of service, and
 - optimize the use of resources and materials

Why is it important?

Key Area: Programming

- Inform road user decisions
- Increase the ability to respond quickly and appropriately to adverse weather and roadway surface conditions in order to reduce or eliminate weather-related crashes and delays

THE NEXT STEPS

How will this be accomplished?

Associated S&S: ET-19, ET-34

1. Identify a list of direct stakeholders, including media networks (TV, online, radio), emergency response agencies (e.g., FEMA, NCEM), and transportation agencies.
2. Coordinate with interested private and public agencies to develop a framework that includes the logistics, implementation, maintenance, operation, and funding.
3. Develop and test pilot application to test framework and gather feedback.
4. Deploy final application and maintain regularly.

Who needs to be involved?

Associated Initiatives:

- Emergency Response Agencies
 - Federal Emergency Management Agency (FEMA)
 - North Carolina Emergency Management (NCEM)
- NCDOT

ET-19: SMART TRUCK PARKING APP

What is it?

Theme: Toolkits & Campaigns

- A mobile application to inform freight-truck operators of available truck parking facilities along a route
 - Includes associated amenities for optimal trip-planning when on delivery routes

Why is it important?

Key Area: Programming

- The safe and efficient movement of freight is critical to the economy, and freight vehicles use local/regional roadways every day
- Keeping truck drivers alert and informed is important to the safety of all road users
- Aid freight companies and truck operators to optimally plan local and regional freight routes as well as operational constraints (i.e., where to park, deliver, and rest)

How will this be accomplished?

Associated S&S: ET-17, ET-34

1. Identify a list of direct stakeholders, including major freight companies and suppliers.
2. Coordinate with interested private entities and public sector agencies to develop a framework that includes the logistics, implementation, maintenance, and operation, and funding.
3. Consider integration of other similar applications to create a more comprehensive app.
4. Develop and test pilot application to test framework and gather feedback.
5. Deploy final application and maintain regularly.

Who needs to be involved?

Associated Initiatives:

ET-34: WORK ZONE MANAGEMENT / SMART WORK ZONES

THE BASICS

What is it?

Theme: Smart/Detection Systems Solutions

- Smart work zones leverage new technologies to improve safety for drivers and workers in work zones
- Management solutions include items such as (but not limited to):
 - work zone warnings,
 - dynamic lane merge systems,
 - variable speed limit systems,
 - automated speed enforcement systems, and
 - warnings about hazards in a work zone.

Why is it important?

Key Area: Programming

- Better inform motorists and reduce their frustrations
- Encourage motorists to take alternative routes
- Reduce congestion and allow more freely flowing traffic
- Clear incidents more quickly
 - Reduce secondary incidents
- Make work zones safer for highway workers and motorists.

THE NEXT STEPS

How will this be accomplished?

Associated S&S: ET-11, ET-17, ET-19

1. Assemble steering committee or working group to evaluate and prioritize various opportunities offered by smart work zones.
2. Identify funding sources and agencies that will implement pilot projects for prioritized management solutions.
3. Collaborate to implement regional projects based on most successful pilots.

Who needs to be involved?

Associated Initiatives:

FUNDING & EQUITY

Overview

The Funding and Equity theme looks at S&S centered on expanding funding opportunities and integrating equity into planning and programming efforts.

Given funding limitations, it is always prudent for public agencies to evaluate any and all opportunities to expand viable funding sources.

Equity in planning and project funding is an important topic for transportation planning.

Strategies & Solutions

1. PR-4: Regional Strategy for Funding Alternatives
2. PM-9: Policy to Define Equitable Mobility
3. PM-16: Regional Public-Private Partnership (P3) Policy Development
4. PM-34: Policies for Equity Factors in Planning
5. PM-38: Policies Defining Equity in Performance Measures

Key Acronyms, Concepts & Terms:

CRAFT - Charlotte Regional Alliance for Transportation

CRMPO - Cabarrus Rowan Urban Area MPO

CRC - Centralina Regional Council

GCLMPO - Gaston-Cleveland-Lincoln MPO

NCDOT - North Carolina Department of Transportation

P3 - Public-Private Partnership

PuP - Public-Public Partnership

PR-4: REGIONAL STRATEGY FOR FUNDING ALTERNATIVES

THE BASICS

What is it?

Theme: Public-Public Partnerships

- A public-public partnership (PuP) is a partnership between a government body or public authority and another such body or a non-profit organization to provide services and/or facilities
 - Employing PuPs will lead to a collaborative, regional focus on implementing funding alternatives
- A region-wide shared vision and strategy that diversifies funding sources for critical needs and reduces reliance on state and federal programs
- Through a regional, unified strategy on which the public would have a more direct say
 - Residents could have greater ownership on local/regional infrastructure systems for the future

Why is it important?

Key Area: Programming

- A new approach to seek new funding alternatives
- A regional, unified strategy - which has never holistically been done before in the Charlotte metropolitan area
- The recommendation seeks to engage counties and jurisdictions across boundaries to leverage coordinated funding mechanisms to support future investment needs

THE NEXT STEPS

How will this be accomplished?

Associated S&S:

1. Establish a forum for discussing regional funding priorities; this could take the form of a steering committee or be assigned under the umbrella of an existing working group or similar entity.
2. Convene a group with stakeholder representatives to meet on a regular interval and serve as a point of information distribution and consensus building for alternative funding strategies and opportunities.

Who needs to be involved?

Associated Initiatives: CONNECT Beyond

PM-9: POLICY TO DEFINE EQUITABLE MOBILITY

What is it?

Theme: Regional Partnerships

- Equity continues to be a critical aspect of the planning process, including through directives from the Federal government such as the Justice40 Initiative
- The development of dynamic and effective policies that incorporate equity in all planning practices
 - A collaborative process between local and regional leadership, elected officials, and the general public.

Why is it important?

Key Area: Policymaking

- Ensure that all planned infrastructure and service programs help to offer the same opportunity/outcome to all users

How will this be accomplished?

Associated S&S: PM-34, PM-38

1. Research similar efforts and identify best practices to enact equitable mobility policy from across the nation.
2. Establish a focus group, steering committee, or similar assembly of stakeholders to help draft policies for adoption.
3. Conduct an extensive public input campaign focusing on engaging transportation disadvantaged and environmental justice communities.
4. Draft policies based on best practices and public input that include performance measures for regular monitoring.

Who needs to be involved?

Associated Initiatives:

PM-16: REGIONAL PUBLIC-PRIVATE PARTNERSHIP (P3) POLICY DEVELOPMENT

THE BASICS

What is it?

Theme: Financial/Incentive Mobility Policy

- Public-private partnerships (P3s) are contractual agreements between a public agency and a private entity that allow for greater private participation in the delivery of projects
 - Typically involves the private sector taking on additional project risks such as design, construction, finance, long-term operation, and traffic revenue
- The development of one or more new policies that enable, encourage, and incentivize the use of public-private partnerships for regional and local project implementation
 - Policy development should rely on state enabling legislation as peer documentation

Why is it important?

Key Area: Policymaking

- Financing a project through a P3 can allow a project to be completed sooner or make it a possibility in the first place.

THE NEXT STEPS

How will this be accomplished?

Associated S&S:

1. Conduct research for P3 best practices across North Carolina and the country.
2. Hold a series of meetings with key stakeholders to develop a consensus and united message for discussions with state officials.
3. In parallel or after initial discussions, develop a scope of work to serve as a foundation for a new P3 Regional Policy.
4. In the scope creation, key chapters will need to be explored and detailed, such as type of projects, targets, entities, terms, and general pros and cons.

Who needs to be involved?

Associated Initiatives:

- NC Board of Transportation
- North Carolina Department of Transportation (NCDOT)

PM-34: POLICIES FOR EQUITY FACTORS IN PLANNING

What is it?

Theme: Policies Enhancing Land-Mobility Connection

- Development of new, optional policy language for jurisdictions and organizations to adopt into local planning and project work
 - Language should seek to effectively define what equity means across the region
 - Language should be useful for and integrated into various planning processes
- Policy language should define key terminology and include recommendations for use in planning processes based on best practices and local input/context

Why is it important?

Key Area: Policymaking

- Equity is a critical element to consider with all planning functions
 - We should strive to exceed the standard requirements as defined by Federal or State agencies
- Opportunity to ultimately pair equity needs between land use and transportation planning
- By defining this early on in implementation, a new language can be incorporated to benefit numerous S&S in the later timeframes

How will this be accomplished?

Associated S&S: PM-9, PM-38

1. Research similar efforts and identify best practices to enact equitable mobility policy from across the nation.
2. Establish a focus group, steering committee, or similar assembly of stakeholders to help draft policies for adoption.
3. Conduct an extensive public input campaign focusing on engaging transportation disadvantaged and environmental justice communities.
4. Draft policies based on best practices and public input that include performance measures for regular monitoring.

Who needs to be involved?

Associated Initiatives:

PM-38: POLICIES DEFINING EQUITY IN PERFORMANCE MEASURES

THE BASICS

What is it?

Theme: Policies Enhancing Land-Mobility Connection

- Performance measurement is the process of collecting, analyzing, and/or reporting of something.
 - Would be applied to various aspects of the planning process, from public input to project development
- Establish performance measures to inform the future success of equity policy additions.

Why is it important?

Key Area: Policymaking

- Performance measurement provides the feedback that keeps plans on target
- Provides the necessary inputs to continually improve the planning process

THE NEXT STEPS

How will this be accomplished?

Associated S&S: PM-9, PM-34

1. Research similar efforts and identify best practices to enact equitable mobility policy from across the nation.
2. Establish a focus group, steering committee, or similar assembly of stakeholders to help draft policies for adoption.
3. Conduct an extensive public input campaign focusing on engaging transportation disadvantaged and environmental justice communities.
4. Draft policies based on best practices and public input that include performance measures for regular monitoring.

Who needs to be involved?

Associated Initiatives:

ACTIVE TRANSPORTATION

Overview

The Policy and Programming theme encompasses S&S that are aimed at addressing transportation planning policy and programming deficiencies throughout the region. These recommendations are focused on supporting the implementation of important regional plans, such as Beyond 77 and CONNECT Beyond.

Regional planning efforts require significant cross-jurisdictional collaboration and joint work. These S&S are geared towards strengthening regional organization relationships and establishing multi-jurisdictional coalitions for advancing key initiatives in the region.

The policies and programs identified by these S&S will provide platforms for discussion, prioritization, funding, and implementation of other recommendations from Beyond 77 and other key initiatives.

Strategies & Solutions

1. PI-27 (A-G): Bike Route Improvements (Various Locations)
2. PI-27 (J-K): Green Pavement Markings (Various Locations)
3. PR-37: Shared Space Intersection Study
4. PR-52: Sidewalks, Greenways, & Trails Safety Campaign

Key Acronyms, Concepts & Terms:

AADT - Average Annual Daily Traffic

FHWA - Federal Highway Administration

ROW - Right-of-Way

SRTS - Safe Routes to School

Vision Zero - a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all

PI-27 (A-G): BIKE ROUTE IMPROVEMENTS (VARIOUS LOCATIONS)

THE BASICS

What is it?

Theme: General Connectivity Enhancements

- Suite of solutions to enhance connectivity
- Provide additional multimodal infrastructure across and parallel to I-77 between Uptown Charlotte and the NC/SC line
- New crossings will provide safe access along and across one of the most significant north-south corridors in the region

Why is it important?

Key Area: Project Implementation Methods/Infrastructure Solutions

- Give users access to more destinations and improve cyclist safety

THE NEXT STEPS

How will this be accomplished?

Associated S&S:

1. Convene agencies with jurisdiction throughout the Beyond 77 study area to analyze the proposed list of projects.
2. Identify gaps and deficiencies in prioritized corridors.
3. Develop project (right-of-way, Design, Construction) recommendations to address gaps.
4. Identify funding strategy for local matching funds for applicable active transportation projects.

Who needs to be involved?

Associated Initiatives:

PI-27 (J-K): GREEN PAVEMENT MARKINGS (VARIOUS LOCATIONS)

What is it?

Theme: General Connectivity Enhancements

- Suite of solutions to enhance connectivity
- Provide additional multimodal infrastructure across and parallel to I-77 between Uptown Charlotte and the NC/SC line
- Green-colored bike lane surfacing is a safety feature that communicates to road users that a portion of the roadway has been set aside for preferential or dedicated use by bicyclists
 - Painted bike lanes serve as a continuous reminder to drivers of the possibility of the presence of bicyclists as they merge or change lanes

Why is it important?

Key Area: Project Implementation Methods/Infrastructure Solutions

- Increase pedestrian and cyclist visibility
- Improve safety
- Reduce the likelihood of collisions

How will this be accomplished?

Associated S&S:

1. Identify key bicycling connections / corridors across and parallel to I-77.
2. Identify safety concerns along key bicycling corridors, such as:
 - High average annual daily traffic (AADT)
 - Bicycle and pedestrian accidents
 - High conflict intersections
3. Develop a suite of green pavement solutions for the applications.
4. Coordinate with NCDOT and jurisdictions on resurfacing and intersection project schedules and designs.

Who needs to be involved?

Associated Initiatives:

PR-37: SHARED SPACE INTERSECTION STUDY

THE BASICS

What is it?

Theme: Special Planning Studies

- A shared space intersection is an urban design approach that minimizes the segregation between modes of road user
 - Accomplished by removing features such as road surface markings, traffic signs, and traffic lights
 - Causes drivers to reduce their speed and behave more cautiously
 - Creates a greater sense of uncertainty and by makes it unclear who has priority
- This study would examine the potential of using shared space intersections in select locations in the Charlotte region

Why is it important?

Key Area: Programming

- Reduces the dominance of motorized vehicles
 - Reduces crash incident and fatality rates
 - Improves safety for all road users
- Is effective in downtowns, urban cores and main street areas due to the vertical design of the streetscape, which serves as a distraction and automatically encourages drivers to slow down
- Allow for free movement and fluid negotiation between all modes
- One shortfall is how to accommodate those with disabilities and/or special needs
 - Would need to be carefully studied

THE NEXT STEPS

How will this be accomplished?

Associated S&S:

1. Identify feasibility and requirements for Federal Highway Administration (FHWA) experimental approval.
2. Determine legal liability of not using traffic control devices and other potential limitations.
3. Develop criteria for the Shared Space Intersection Concept (AADT, crossing distances, pedestrian traffic, posted speeds, land uses, etc.).
4. Coordinate with local agencies to identify potential intersection for pilot Shared Space Intersection.

Who needs to be involved?

Associated Initiatives:

PR-52: SIDEWALKS, GREENWAYS, & TRAILS SAFETY CAMPAIGN

What is it?

Theme: Toolkits & Campaigns

- Development of a public awareness campaign to heighten recognition of safe methods of travel when using sidewalks, greenways, or multi-use trails.
- Should be designed to improve user confidence and encourage more frequent users
- Focus on simple strategies for addressing potential concerns

Why is it important?

Key Area: Programming

- Help build confidence with all mode-type users allowed to use these facilities
- Encourage safe interactions between users throughout the specified networks

How will this be accomplished?

Associated S&S:

1. Identify best practices for active transportation safety.
2. Develop a strategy for a public awareness campaign.
3. Coordinate with local Vision Zero and Safe Routes to School (SRTS) initiatives.
4. Identify funding sources for public awareness, promotions, and communications initiatives.

Who needs to be involved?

Associated Initiatives:

TRANSIT

Overview

The Transit theme highlights S&S for addressing transit needs throughout the Charlotte region. These recommendations are focused on improving the transit user's experience as they travel through the region.

Regional planning efforts require significant cross-jurisdictional collaboration and joint work. These S&S are geared towards strengthening regional organization relationships and establishing multi-jurisdictional coalitions for advancing key initiatives in the region.

The policies and programs identified by these S&S will provide platforms for discussion, prioritization, funding, and implementation of other recommendations from Beyond 77 and other key initiatives.

Strategies & Solutions

1. ET-23: Unified Parking Payment System
2. PM-10: Policy(ies) to Allow for First-Mile/ Last-Mile Transit Connections
3. PM-6: Policy to Engage Integrated Transit Services
4. PR-61: Transit Frequency Mapping

Key Acronyms, Concepts & Terms:

CATS - Charlotte Area Transit System

CRC - Centralina Regional Council

MOU - Memorandum of Understanding

ET-23: UNIFIED PARKING PAYMENT SYSTEM

What is it?

Theme: Payment Systems Solutions

- A unified parking payment system integrates a variety of technologies to form a common data platform for parking solutions
 - System would focus on parking that directly supports transit services and transportation demand management policies
- The development of appropriate policies and procedures for data collection, sharing, and utilization among relevant agencies

Why is it important?

Key Area: Emerging Technologies

- Improve accessibility for users across various transit services, first-mile/last-mile providers, and similar
- Encourage residents to use alternative modes to access transit

How will this be accomplished?

Associated S&S:

1. Coordinate with Centralina Regional Council (CRC) to integrate this recommendation with the development of the Parking Policies Toolkit from CONNECT Beyond.
2. Educate local governments on the impacts of minimum and maximum parking requirements on creating mobility-friendly places.
3. Identify best practices and develop model ordinances for member jurisdictions to adopt.

Who needs to be involved?

Associated Initiatives: Connect Beyond

- Centralina Regional Council (CRC)
- Charlotte Area Transit System (CATS)

PM-6: POLICY TO ENGAGE INTEGRATED TRANSIT SERVICES

THE BASICS

What is it?

Theme: Regional Partnerships

- An integrated transit network permits users to make trips that use services from multiple providers in a seamless experience
 - Will require coordination of services between the region's transit providers
- The development of new policies or agreements that formalize partnerships between independently operated transit services
 - Could include considerations for a unified ticketing system or similar strategy for simplifying the user experience

Why is it important?

Key Area: Policymaking

- Capture processes such as ensuring county transit services to make full trips possible
- Encourage improved funding opportunities
- This policy does **not** include the recommendation of merging transit/transportation services agency organizations

THE NEXT STEPS

How will this be accomplished?

Associated S&S:

1. Develop policies to help increase/promote service frequencies, expand hours of service, and reach new markets for existing bus routes.
2. Optimize routing to improve efficiency and prove opportunities to route along CONNECT Beyond's recommended emerging Mobility corridors.
3. Develop regional transit standards and performance measures so all agencies can strive to implement consistent service levels by service type.
4. Explore the development of the Regional Fare Integration and Implementation Study as detailed in recommendations D-31, D-54, and D-65 of CONNECT Beyond.

Who needs to be involved?

Associated Initiatives: CONNECT Beyond (recommendations B-11, D-31, D-54, D-65, D-72)

- Centralina Regional Council
- Charlotte Area Transit System
- Service planning staff of other public transit operators

PM-10: POLICY(IES) TO ALLOW FOR FIRST-MILE/LAST-MILE TRANSIT CONNECTIONS

What is it?

Theme: Regional Partnerships

- First-mile mobility services get transit users from their start point (e.g., home) to a transit stop
- Last-mile mobility services get transit users from a transit stop to their final destination (e.g., workplace)
- The development of new policies or agreements that formalize partnerships with first-mile/last-mile mobility services (i.e., Uber/Lyft, e-scooters, etc.)
 - Enable public subsidies of such services

Why is it important?

Key Area: Policymaking

- CATS already has an agreement with Lyft (2019)
 - Contributes a portion of the trip fee when a user rides Lyft within a certain area to catch the LYNX Blue Line
- Expand existing agreement to include all types of mobility-as-a-service solutions to higher capacity transit services
- Design policy to evolve over time as services change and enhance each other
- Incentives like these should encourage residents across a larger area to consider using alternative modes (out of their cars) to access transit

How will this be accomplished?

Associated S&S: None

1. Refine mobility hub locations and inventory of all active transportation facilities.
2. Identify priority locations and associated service options in each jurisdiction based on Emerging Mobility Suitability Assessment, and identify participating funding partners.
3. Establish Memoranda of Understanding (MOUs)/funding agreements with mobility solution partners.
4. Set performance measures and a process for evaluating pilot outcomes for a data-driven approach to making permanent investments.

Who needs to be involved?

Associated Initiatives: CONNECT Beyond (recommendations A-12, B-12)

- Centralina Regional Council
- E-scooter/bike-share service providers
- Regional public transportation operators
- Rideshare service providers (i.e., Uber, Lyft)

PR-61: TRANSIT FREQUENCY MAPS

THE BASICS

What is it?

Theme: Toolkits & Campaigns

- A transit frequency map is an online, interactive mapping tool that displays transit routes and the frequency of service for those routes
 - Platform could be expanded to be used for public education purposes by including information that indicates a desired system build-out of desired frequencies
- Help the public understand:
 - the existing conditions of the transit network,
 - the anticipated future status of the transit network, and
 - the costs needed to deliver higher levels of service than what exist today.

Why is it important?

Key Area: Programming

- Educate the public on what transit services are currently available
- Educate the public and interested parties on how different levels of service impact different communities and areas of the Charlotte metropolitan area

THE NEXT STEPS

How will this be accomplished?

Associated S&S: None

1. Identify and evaluate available software and examples of peer system implementation of similar software.
2. CONNECT Beyond team to complete a Regional Fixed-route Scheduling Integration and Implementation Study and present recommendations for appropriate next steps.
3. Leverage shared purchasing agreements to buy software for regional agencies.
4. Fixed-route providers to collectively adopt a shared scheduling software platform.

Who needs to be involved?

Associated Initiatives: CONNECT Beyond (recommendations D-08, D-70)

- CATS service planning staff
- Centralina Regional Council
- Regional public transportation operators

