



Police at the Democratic National Convention in Uptown Charlotte.

6. Safety and Security

New transportation legislation, Moving Ahead for Progress in the 21st Century (MAP-21), enacted in 2012, continues the use of the same eight (8) planning factors from the previous Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). Safety and security are two of the eight factors identified as follows:

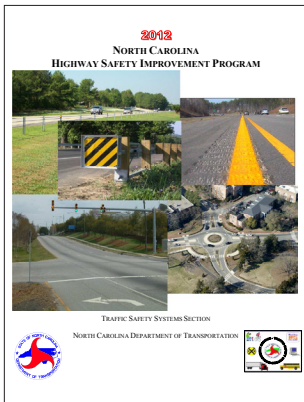
- Increase the safety of the transportation system for motorized and non-motorized users; and
- Increase the security of the transportation system for motorized and non-motorized users.

In addition, MAP-21 established seven national goals, one of which is safety. This Metropolitan Transportation Plan (MTP) specifically addresses each factor, but consolidates the safety and security components into a single chapter. The following chapter addresses safety and security within the Charlotte Regional Transportation Planning Organization (CRTPO) area.

Safety

Safety has previously been a primary concern of transportation system management, maintenance, and system expansion. MAP-21 places an emphasis on safety at the Metropolitan Planning Organization (MPO) level which makes it a priority for the CRTPO.

One way this emphasis is reflected is through linkages to the North Carolina Highway Safety Improvement Program (HSIP) and the North Carolina Strategic Highway Safety Plan (SHSP). North Carolina has found that regardless of the continuous enhancements made in the area of highway safety, there is still a need to better address the issues. To further reduce fatalities and better coordinate with agencies outside of North Carolina's Department of Transportation (NCDOT), the North Carolina Executive Committee for Highway Safety (ECHS) has been charged to identify, prioritize, promote, and support all emphasis areas in the American Association of State Highway and Transportation Officials (AASHTO) Strategic Highway Safety Plan. The ECHS is comprised of experts in all disciplines related to highway safety.



The ultimate goal of the ECHS is to develop and implement short and long term sustainable strategies that will reduce the number of fatalities and injuries on North Carolina highways. In 2008, the ECHS agreed to adopt a 2.5 percent reduction in annual fatalities each year over the next 20 years as the new goal (2012 HSIP Annual Report). North Carolina continues to make progress to achieve this goal.

In addition, a "5 Percent Report" has been developed to provide an overview of the intersections identified as potentially hazardous (for motorized and non-motorized transportation) by the HSIP. The higher ranked locations were listed in the 2012 North Carolina HSIP report which is available on the NCDOT website.

North Carolina's HSIP and the potentially hazardous locations identified are integrated into the SHSP. As noted in the SHSP report, the North Carolina ECHS has developed Working Groups to tackle such safety issues as lane departure, incident management, older driver safety, and bicycle and pedestrian safety. The Traffic Safety Systems Section of NCDOT has also developed location listings and safety data related to older driver crashes, utility pole crashes, closed loop signal systems, roadway departures and other key emphasis areas in support of the SHSP. Furthermore, as projects are developed, elements from the SHSP are incorporated by using "access management strategies" to preserve capacity and enhance safety. Some typical access management strategies include shared curb cuts, use of medians, and paved shoulders.

The CRTPO and its member governments are aware of the value of the strategies outlined in NCDOT's SHSP, and seek to include them in projects wherever possible. In addition, the CRTPO formally considers safety in its updated MTP highway project ranking methodology (approved March 2013) and in its amended bicycle and pedestrian ranking methodology (amended January 2013).

Highway Safety

The goal of the SHSP is to reduce the number of fatalities and to decrease the economic impact from highway-related accidents. This goal is incorporated in this 2040 MTP as highlighted in the following goals and objectives:

- Provide, manage, and maintain a **safe**, efficient, and sustainable **transportation system for all modes**, intended to serve all segments of the population;
- Encourage design features that minimize crash potential, severity and frequency; and
- Facilitate bicycle and pedestrian safety through public awareness programs.

Strategies for addressing highway safety issues are discussed in the following three categories.

Speed and Safety

Segments of roads identified as a result of higher-than-average accident rates may be included in CRTPO or NCDOT project development lists. The types of improvements implemented vary from small-scale steps, such as installation of signs and/or markings, to intersection improvements, and roadway corridor projects.

NCDOT also implements a safety program through coordination between Division 10 and Division 12, the Incident Management Assistance Patrols (IMAP), law enforcement, and CRTPO member communities. Improvements recommended as a result of these collaborative efforts are reflected in the Transportation Improvement Program (TIP), as well as in the day-to-day work of field forces.

At a local level, the Charlotte Department of Transportation (CDOT) conducts a Speeding Awareness Campaign. CDOT also identifies speed-related crash corridors and works to raise awareness of this initiative and the identified corridors.

The CRTPO and its member governments are aware of the value of the strategies outlined in NCDOT's SHSP, and seek to include them in projects wherever possible.

Congestion Management

The recently-approved CRTPO Congestion Management Process (CMP) examines the current and planned future roadway network, identifies causes of congestion, and explores options for reducing congestion. In addition to examining capacity constraints, it identifies methodologies for improving system efficiency and providing modal choices. Additional information about the Congestion Management Process is included in Chapter 12.

Traffic Safety Reporting

A Traffic Safety Report that summarizes collisions which occur within the Charlotte city limits is produced annually. The data that is collected is used to develop programs and projects to identify patterns and ultimately reduce crash rates. The report does not include collision data on the interstate highways (I-77, I-85, I-485 and I-277).

Bicycle and Pedestrian Safety

The CRTPO addresses the infrastructure and safety needs of bicyclists and pedestrians through several municipal bicycle, pedestrian, and greenway plans. In addition, the City of Charlotte completed a Pedestrian Safety Action Plan in May 2013, focused on reducing the citywide per capita rate of pedestrian crashes, injuries, and fatalities, while encouraging walkability.

Together, these plans analyze the area's needs and include recommendations and action steps to enhance the safety of bicyclists and pedestrians. Actions taken to date include:

- Implementation of prioritized sidewalk projects and bicycle routes;
- Establishment of engineering, education, enforcement and evaluation principles for Pedestrian projects;
- Bicycle and sidewalk improvements included in local and state roadway projects;
- Detailed recording and analysis of bicycle and pedestrian accidents;
- Local government/MPO participation in bicycle and pedestrian safety;
- Bicycle and pedestrian draft CTP maps; and
- Approval of a bicycle and pedestrian ranking methodology (amended as of January 2013), which considers safety as an evaluation criteria.

Several member jurisdictions of the CRTPO have approved bicycle and/or pedestrian plans to help implement the measures previously identified. A complete listing can be found in Tables 15-1, 15-2 and 15-3 in the Bicycle, Pedestrian, and Greenway chapter.

Transit Safety

Mecklenburg County

The Charlotte Area Transit System (CATS) Office of Safety and Security is committed to providing safe and secure transit service. Safety and security are primary concerns that affect all aspects of planning, design, construction, operation, and maintenance of the transit system. The CATS staff, contractors, and consultants are charged with the responsibility of ensuring the safety and security of passengers, employees, and the public.

The following is a list of activities in which CATS is involved to ensure the safety of the transit system. This list includes the most important safety activities, but is not inclusive of every safety measure currently in place:

- Creation of safety standards (which are updated annually) for implementing safety and security throughout the transit system;
- Oversight and review of safety standards for major capital improvements including the LYNX Blue Line Extension (BLE), the LYNX Blue Line Capacity Expansion (BLCE), the CityLYNX Gold Line, as well as other capital projects;
- Participation in a safety and security certification process required by the Federal Transit Administration (FTA) and NCDOT;
- Compliance with the NCDOT State Rail Oversight Rule for rail incidents / accidents (49 CFR 659) and the US Department of Homeland Security Rule that affects transit systems (49 CFR 1580);
- Creation of a comprehensive Emergency Response Plan (ERP) to guide activity and response during a system emergency or community event. Two emergency drills are held annually;
- Adoption of the Incident Command System (ICS) structure and National Incident Management System (NIMS) to respond to and manage an emergency event; and
- Cooperation with law enforcement and municipal safety committees throughout the CRTPO planning area.

Union County

The Union County Public Transportation System (UCPTS) is the public transit system in Union County primarily involved in human-services delivery, with passengers picked up on a demand-response basis. In 2012, the UCPTS adopted the Union County Transportation Safety and Security Program Plan (SSPP), which was an update to its previous safety plan in order to comply with state and federal regulations.

Comprised of multiple sections that address policies and procedures of the department and the county, the SSPP addresses the following:

- Driver and employee selection;
- Driver and employee training;
- Safety and data acquisition;
- Drug and alcohol abuse program; and
- Vehicle maintenance program.

Iredell County

The Iredell County Area Transportation System (ICATS) is a ridesharing public transportation system that enables routes and schedules to be structured to transport multiple passengers to multiple destinations. Service is provided curb-to-curb unless door-to-door service is requested for special populations. Providing safe, efficient transportation services to the citizens of Iredell County is one of the goals of ICATS.

Rail Safety

At the state and local levels, rail safety is a concern due to the many active passenger and freight rail lines throughout the state of North Carolina. The NCDOT maintains a statewide rail safety program called BeRailSafe that provides information and education to inform the public about rail safety. Highlights of the program include crossing safely, walking safely, sports and recreation safety, and child safety initiatives. A Rail Safety Facts brochure is also published on the website.

Specifically, in the CRTPO planning area, rail traffic is significant and there are many at-grade crossings. The Charlotte Railroad Improvement and Safety Program (CRISP) is a partnership among freight and transit providers and state and local agencies that are involved with freight and passenger rail transportation planning and implementation. Some of the objectives of CRISP include modernizing existing track infrastructure, improving safety and efficiency, and improving the environment and local quality of life.



Security

The CRTPO has an extensive network of important infrastructure facilities, utilities, and population and employment centers and security planning is essential. Securing and managing incidents at these identified sites is addressed collaboratively by a range of organizations throughout the region, including transportation and law enforcement agencies. Their relevant plans and responsibilities are described in detail in the following sections.

Highways

The Strategic Highway Network (STRAHNET) system of public highways provides access, continuity, and emergency transportation of military personnel and equipment. The 61,000 mile system, designated by the Federal Highway Administration in partnership with the Department of Defense, comprises about 45,400 miles of Interstate and defense highways and 15,600 miles of other highways. STRAHNET is complemented by about 1,700 miles of connectors — additional highway routes linking more than 200 military installations and ports to the network. Most large military convoys use the Strategic Highway Network.

STRAHNET roadways are designated for use in times of rapid mobilization and deployment of armed forces. In the CRTPO planning area, there are six (6) STRAHNET routes and no connectors. The STRAHNET routes include I-77, I-85, I-485, I-40, I-277 and US 74 from Center City Charlotte east into Union County. Any incident response strategies for these facilities are covered in the NCDOT SHSP, although these incident response strategies are not specific to STRAHNET facilities.

Disaster Preparedness

Mecklenburg County Emergency Management Office

Charlotte-Mecklenburg Emergency Management Office (CMEMO) is a local governmental agency which coordinates large-scale emergency situations in Charlotte and Mecklenburg County. The agency assists emergency response departments with specialized needs and provides detailed planning procedures for incidents requiring multi-agency participation.



The CMEMO operates as a division of the Charlotte Fire Department, and develops and maintains disaster plans for the area. It also works to prepare residents, businesses, industries, and governmental agencies for all types of hazards and emergencies.

Disaster plans for the area are developed in coordination with transportation, law enforcement, and operational agencies. These plans address issues such as evacuation, containment, and first-responder actions, and are grouped under the heading of the Mecklenburg County Multi-Jurisdictional Hazard Mitigation Plan.

This plan has identified critical facilities and transportation system elements for inclusion in the plan and its strategies for appropriate response to incidents.

The CMEMO does not have an evacuation plan covering the entire county with designated routes and operational control of the designated routes. The CMEMO has analyzed its transportation network and other evacuation plans and determined that an evacuation is not adversely affected if citizens simply use all available routes to vacate an area. The CMEMO approach is to close off the affected area and instruct citizens to leave the area.

The specific section of the Hazard Mitigation Plan most relevant to this MTP is the Mitigation Action Plans, several of which are focused on transportation-related initiatives, such as marking detours during hazard events, coordinating efforts to minimize roadway closures, and developing evacuation routes that are not adversely impacted by flooding. CDOT is identified as the Lead Agency responsible for the aforementioned mitigation measures.

Union County Office of Emergency Management

The Office of Emergency Management (OEM) has many of the same roles and responsibilities as the Charlotte-Mecklenburg Emergency Management Office. They conduct regular disaster exercises with area emergency management agencies, in coordination with the Federal Emergency Management Agency (FEMA). An Emergency Operations Center (EOC), equipped with the necessary apparatuses is located within the agency.



Union County has an Emergency Operations Plan, adopted in 2004. This plan is maintained by the OEM and includes checklists for media contacts, inter-agency coordination, and command and control. It is tested at least tri-annually through table top or practical exercises, and is currently in the process of being updated.

Emergency situations may require evacuation of all or part of the County. Small-scale, localized evacuations may be needed as a result of a hazardous materials incident, major fire or other incident. Large-scale evacuation may be needed in the event of an impending hurricane. The OEM evaluation process has identified several highway routes allowing evacuation from various parts of the county, including US 74, US 601, NC 16, NC 84, NC 200 and NC 218, among others. The OEM expects the majority of residents to drive private vehicles during an evacuation, but Union County Transportation and Union County Public Schools will provide limited public transportation during emergency incidents.

Union County also serves as a “host” county to the Catawba Nuclear Site, located in York County, South Carolina. Should an accident occur at the Catawba Site, residents within a 10-mile radius of the site would be evacuated to “host” areas.

Union County also adopted a Multi-Jurisdictional Hazard Mitigation Plan in 2013, focused on minimizing the impact of hazards upon the built environment. The Plan recommends specific actions to combat the forces of nature and protect its

residents from losses to those hazards that pose the greatest risk. It considers mitigation actions, local policies on community growth and development, incentives for natural resource protection, and public awareness and outreach activities, including transportation planning and improvements.

Iredell County Office of Emergency Management

The Iredell County Office of Emergency Management (OEM), was established in 1975 primarily to promote community preparedness and disaster management by creating and delivering various projects and programs with special emphasis placed upon disaster preparedness, prevention, response, and recovery. Iredell County OEM's role is to promote emergency preparedness and planning as a way to reduce the impact of a disaster if one occurs.



Coordination with local, regional, state and federal response agencies is practiced in order to provide necessary response and recovery efforts. The office is staffed by an Emergency Management Coordinator, a Deputy Emergency Management Coordinator, and a Program Assistant during normal business hours. In addition, on-call personnel are available during nights, weekends, and holidays; and, Assistant Emergency Management Coordinators from other Emergency Services divisions such as Animal Control, Emergency Communications (ECOM), Emergency Medical Services (EMS), and the Fire Marshal's Office have also been appointed to supplement disaster response and recovery capability.

Specific responsibilities of the Iredell County OEM include:

- Serving as a warning point for citizens and visitors of Iredell County;
- Reporting hazardous chemical incidents that may occur during transportation or at fixed facilities;
- Providing a radiological response program in support of the McGuire Nuclear Station;
- Serving as a clearinghouse for grants that address specific emergency management issues such as Homeland Security, hazardous materials response, hazard identification and planning, etc.; and
- Maintaining a current and comprehensive Emergency Operations Plan (EOP) that describes agency roles and responsibilities (most recently updated in 2012).

City of Charlotte

The City of Charlotte restricts access to design drawing plans, aerial photography, and similar documentation of public infrastructure to only those individuals and organizations that require this information in the conduct of their business with the City and upon demonstration of such need. Public infrastructure includes water and sanitary sewer systems, storm water systems, public buildings, roadways and roadway bridges, telecommunication and data communication networks, and public security plans. The NCDOT observes a similar infrastructure data policy.

Charlotte-Mecklenburg Police Department

The Charlotte-Mecklenburg Police Department (CMPD) has developed a Charlotte Center City Evacuation Plan (CCCEP) for the Charlotte Central Business District (CBD). This plan was created in 2004, and is currently being updated to reflect the recent addition of the CATS light-rail line. CATS and CDOT are both participating in the update. This plan currently identifies routes to use for an evacuation out of Center City. Evacuees may drive or walk out of Center City. There are identified assembly areas on the perimeter of the CBD for pick-up by CATS and Charlotte-Mecklenburg Schools' (CMS) buses. The buses would then deliver evacuees to designated shelters.

Disaster Preparedness Recommendations

1. Continue use of incident management patrols, coordination with law enforcement agencies, and implementation of safety and mobility projects by the City of Charlotte, Iredell County, Mecklenburg County, Union County and the NCDOT to respond to safety trends and issues.
2. Address roadway operational issues on routes receiving significant freight movement, including roadway geometry, intersection configurations and capacity.
3. Encourage appropriate agency participation in any disaster exercises to strengthen communication and coordination protocols.
4. Work closely with the NCDOT Rail Division on planning studies and project development activities for rail safety projects, including rail grade separations at targeted locations.
5. Transportation and operational agencies should continue to coordinate consistently with the recommendations of the Mecklenburg County Multi-Jurisdictional Hazard Mitigation Plan, Union County Emergency Operations Plan, Iredell County Emergency Operations Plan, and Charlotte Center City Evacuation Plan.
6. Transportation agencies should ensure evacuation signage is consistent with current plan recommendations.

Sources:

North Carolina Department of Transportation Rail Division Rail Safety Brochure
http://files.berailsafe.gethifi.com/resources/BeRailSafe_brochure_single_d06.pdf

North Carolina Department of Transportation Highway Safety Improvement Program, 2012 <http://www.ncdot.gov/doh/preconstruct/traffic/safety/programs/data/phreports/2012/2012HSIP.pdf>)

North Carolina Department of Transportation Strategic Highway Safety Plan, 2007
https://www.ite.org/safety/stateprograms/NorthCarolina_SHSP.pdf

North Carolina Department of Transportation BeRailSafe, 2012
<http://www.berailsafe.org/>

Charlotte Regional Transportation Planning Organization Metropolitan Transportation Plan,
Roadway Ranking Methodology, 2013

Charlotte Regional Transportation Planning Organization Congestion Management Process, 2013

Charlotte Area Transit System – System Safety Program Plan, 2009

Charlotte-Mecklenburg Police Department Center City Evacuation Plan, undated

Mecklenburg County Multi-Jurisdictional Hazard Mitigation Plan, 2010

Iredell County Emergency Operations Plan, 2012

Union County Emergency Operations Plan, 2004

Union County General Operations Guidelines in Support of the Catawba Nuclear Site, 2004

Union County Transportation Emergency and Security Plan for Transit Vehicles, 2009

Union County Transportation Safety and Security Program Plan, 2012

Union County Multi-Jurisdictional Hazard Mitigation Plan, 2013

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