WMPO

Safe Streets for All

Safety Action Plan

April 2026

Our vision

Our region will eliminate fatal and serious-injury crashes by 2050 through a collaborative, comprehensive, and evidence-based approach to ensure all people, regardless of mode or ability, can move freely and safely.

Acknowledgments

This Safety Action Plan is dedicated to those who have lost their lives in traffic crashes in the Cape Fear region.

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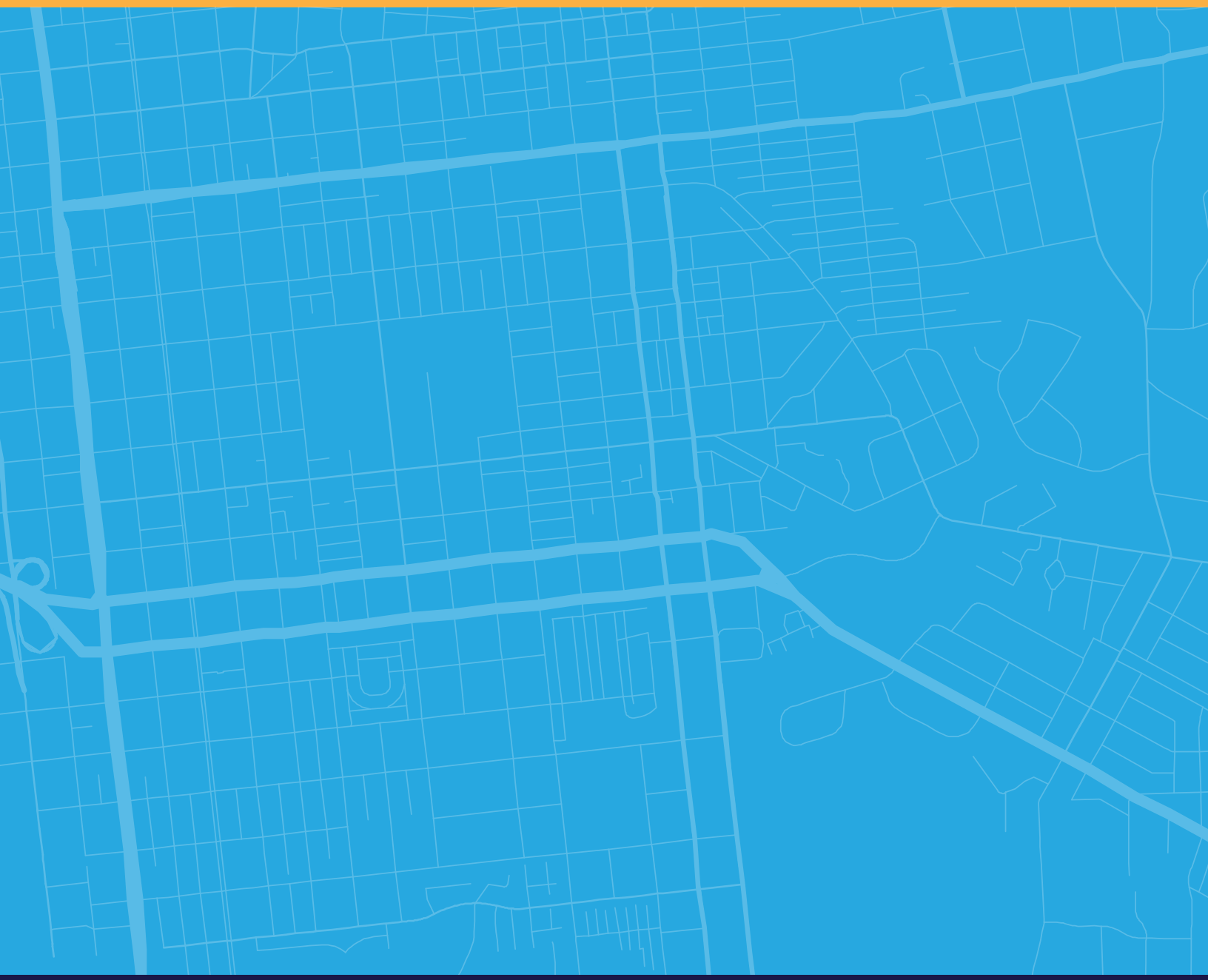
Table of Contents

Third Street in Downtown Wilmington

Acronyms

Acronym	Full Description
AADT	Annual Average Daily Traffic
ADA	Americans with Disabilities Act
CMP	Congestion Management Process
CTP	Comprehensive Transportation Plan
EAs	Emphasis Areas
EPDO	Equivalent Property Damage Only
HAWK	High Intensity Activated Crosswalk
HII	High-Injury Intersections
HIN	High-Injury Network
HRN	High-Risk Network
IMD	Integrated Mobility Division
IMP	Integrated Mobility Plan
KABCO	K=Fatality, A=Serious Injury, B=Minor Injury, C=Possible Injury, O=Property Damage Only
MPO	Metropolitan Planning Organization
MTP	Metropolitan Transportation Plan
MUP	Multi-Use Path
PBCAT	Pedestrian and Bicyclist Crash Analysis Tool
PSAP	Pedestrian Safety Action Plan
RRFB	Rectangular Rapid Flashing Beacons
SAP	Safety Action Plan
SHSP	Strategic Highway Safety Plan
SPOT	Strategic Prioritization Office of Transportation
SS4A	Safe Streets for All
SSA	Safe System Approach
STIP	State Transportation Improvement Program
TDM	Transportation Demand Management
UNCW	University of North Carolina Wilmington
VRU	Vulnerable Road User
WMPO	Wilmington Urban Area Metropolitan Planning Organization

Chapter 1: Introduction



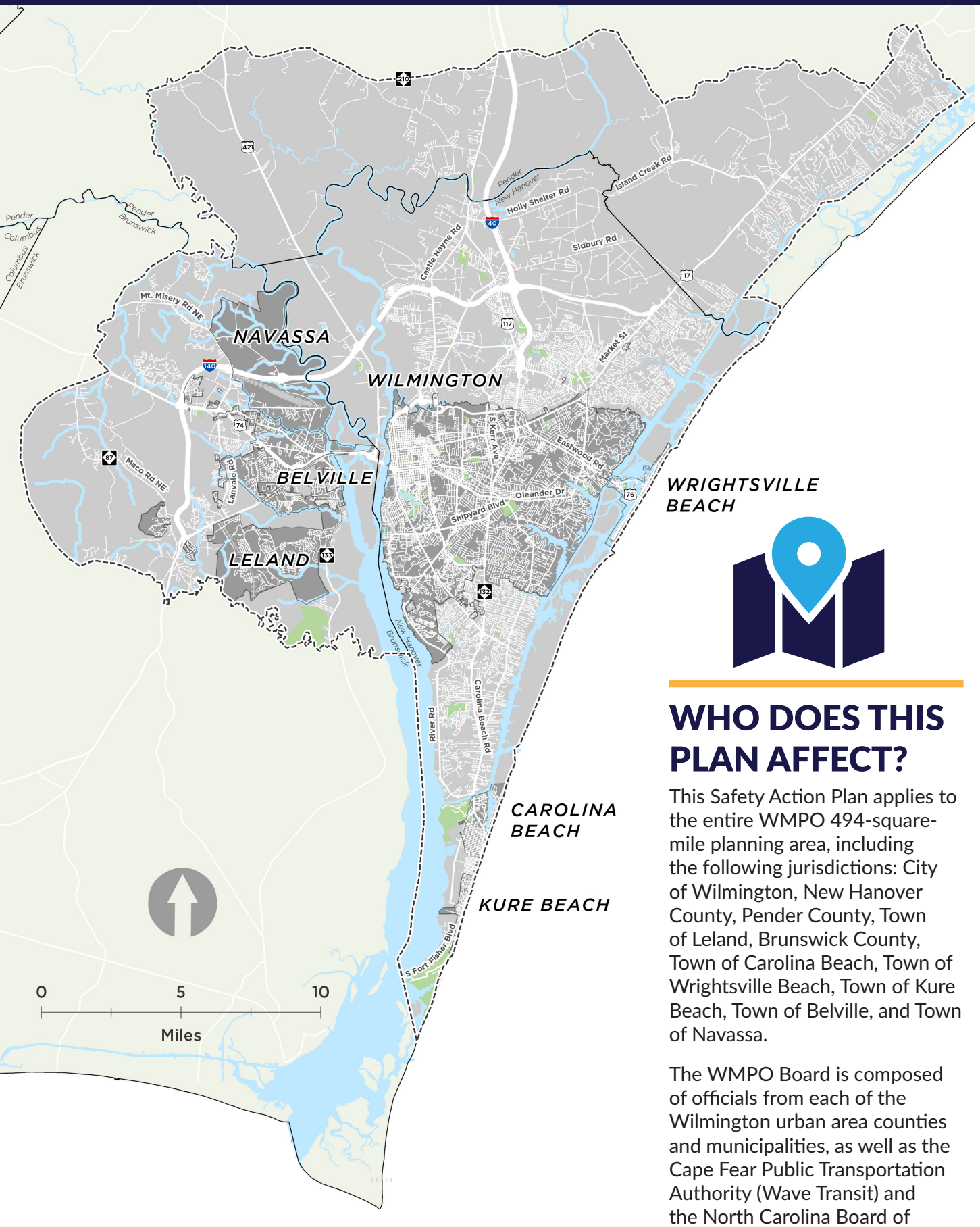


Figure 1. Study Area

WHO DOES THIS PLAN AFFECT?

This Safety Action Plan applies to the entire WMPO 494-square-mile planning area, including the following jurisdictions: City of Wilmington, New Hanover County, Pender County, Town of Leland, Brunswick County, Town of Carolina Beach, Town of Wrightsville Beach, Town of Kure Beach, Town of Belville, and Town of Navassa.

The WMPO Board is composed of officials from each of the Wilmington urban area counties and municipalities, as well as the Cape Fear Public Transportation Authority (Wave Transit) and the North Carolina Board of Transportation.

IMAGINE ZERO ROADWAY DEATHS BY 2050

WMPO is proud to launch our Safe Streets and Roads for All (SS4A) Safety Action Plan—a holistic multimodal strategy to improve roadway safety for all who travel within our region. The WMPO Safety Action Plan targets a goal of zero deaths and serious injuries on our roadways by 2050.

By creating this plan, WMPO joins the many other North Carolina communities that have made a commitment to reducing fatalities and serious injuries to zero. This "Vision Zero" represents a profound shift in safety culture, declaring that even one death or serious injury is unacceptable.

WHY DO WE NEED THIS PLAN?

Crashes are on the rise within WMPO's boundaries. In 2024, the region experienced 8,313 crashes—the highest total in the past eight years. Crashes have trended upward since the COVID-19 pandemic, mirroring regional population growth.

It is vitally important that WMPO understands where, how, and why severe crashes are happening in our region so we can prevent them in the future. Our community deserves to feel safe on our roads, whether they are walking, biking, using a mobility device, or driving.

Total Crashes are Trending Upward

63,252 total crashes

took place in our region between 2017 and 2024

823 crashes
resulted in fatalities
or serious injuries

Our Challenges

Crashes are Increasing

- In 2024, the region experienced 8,313 crashes—the highest total in the past eight years.
- Crash numbers have trended upward since COVID, mirroring regional growth.

Severe Crashes Remain a Concern

- In 2024, there were 113 fatal or serious injury (KA) crashes.
- KA crashes consistently represent about 1–1.5% of all crashes

Most Severe Crashes Occur on a Small Share of the Network

US, NC, and Secondary Routes make up only 37% of road miles but account for 84% of all crashes and 83% of KA crashes.

High risk locations drive outcomes

The top 5% of safety priority intersections account for 44% of KA crashes, including 70% of angle crashes and 56% of left-turn crashes.

WHAT IS A SAFETY ACTION PLAN?

Safe Streets for All (SS4A) Safety Action Plan is a comprehensive strategy that identifies safety issues and outlines actions to improve roadway safety for all users, including pedestrians, bicyclists, and drivers. This type of plan typically includes crash data analysis to identify trends and high-risk locations, community engagement to understand local concerns, identification of proven safety countermeasures, and a prioritized list of projects or strategies to eliminate serious crashes and fatalities on the transportation network.

The SS4A program is a federal initiative launched by the U.S. Department of Transportation (USDOT) to support efforts to enhance transportation network safety and to eliminate serious injuries and fatalities, particularly for people walking, using mobility devices, biking, and taking transit—not just those driving.

Photo credit: Adobe Stock

VISION AND GOALS

A clear vision and supporting goals establish the foundation for any Safety Action Plan. The vision is the community's long-term aspiration for road safety. It defines where we want to be and provides a unifying direction for all future actions. The goals translate that vision into actions designed to make it a reality, outlining specific focus areas that guide strategies, investments, and performance tracking. They were ultimately adopted by the WMPO Board.

The vision and goals for the WMPO Safety Action Plan were developed collaboratively by the Steering Committee for the planning effort, which includes representatives from WMPO, local jurisdictions, law enforcement, schools, and regional organizations.

Vision

Our region will eliminate fatal and serious-injury crashes by 2050 through a collaborative, comprehensive, and evidence-based approach to ensure all people, regardless of mode or ability, can move freely and safely.

Goals

Increase community awareness of and support for the SS4A action plan by promoting its vision, actions, and recommendations, while fostering a culture of roadway safety through education and engagement.

Enhance collaboration and partnership across a broad range of safety stakeholders.

Advance roadway safety by implementing proven countermeasures and multimodal designs, and by promoting innovative, low-cost, high-impact solutions.

Identify funding opportunities and resources for transportation safety projects.

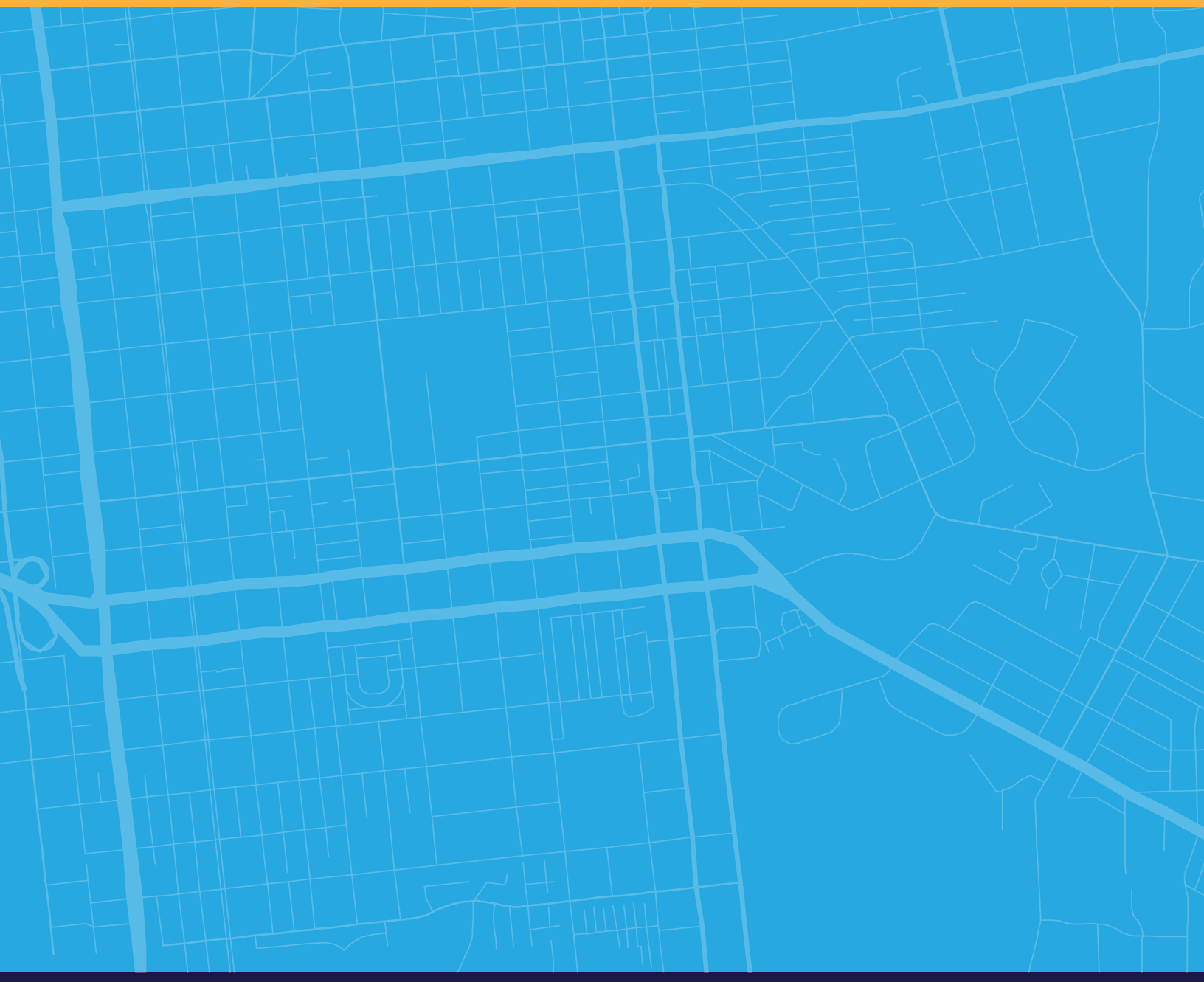
Commit to fostering safe mobility for all by carrying the plan's vision into the future.

“FATALITIES” ARE PEOPLE.

Walter Kenneth Hinds, Jr. was a familiar sight in his neighborhood, pedaling along on his bike with a ready smile and kind words for everyone he met. Last year, a hit-and-run driver on Independence Boulevard left him with spinal injuries that required two operations, a fractured skull, and a broken hand and nose. He soon died of his injuries. He was 74 years old.

Source: Wikimedia Commons/Robert S. Donovan

Chapter 2:
Safe System 101



CHANGING HOW WE THINK ABOUT TRANSPORTATION SAFETY

Too often, deaths and serious injuries on our roads are seen as isolated "accidents." In truth, most of these tragedies have similar causes and could be prevented. Recognizing these factors and addressing them can make our roadways safer for everyone.

This understanding is at the core of the USDOT Safe System Approach, which is the guiding ethos of this safety action plan.

The Safe System Approach

The Safe System Approach works by building and reinforcing multiple layers of protection to prevent crashes when possible and minimize harm when crashes can't be avoided. This approach has been embraced by transportation leaders around the world to address the risks built into our transportation systems over the years.

The Safe System Approach is a shift from the conventional safety approach because it focuses on both human mistakes AND human vulnerability. Transportation systems should have redundant safety measures. If all parts of the transportation system are designed to prevent risk, people are still protected, even when one safety measure fails. Under the Safe System Approach, safety actions are focused on infrastructure, human behavior, responsible oversight of the vehicle manufacturing and transportation industry, and emergency response.

PRINCIPLES OF A SAFE SYSTEM APPROACH

Death and serious injuries are unacceptable

A Safe System Approach prioritizes eliminating crashes that result in death and serious injuries; not necessarily all crashes.

Humans make mistakes

People make mistakes and decisions that can lead to crashes, but the transportation system can be designed to minimize impacts and avoid death and serious injuries when a crash occurs.

Humans are vulnerable

Human bodies don't tolerate crash forces well, and death or serious injury is a frequent outcome. Human-centric design and operation is critical to creating a transportation system that accommodates physical human vulnerabilities.

Responsibility is shared

Everyone has a part to play in preventing fatalities and serious injuries on our roadways, including government agencies, transportation professionals, industry leaders, non-profit/ advocacy groups, researchers, and the general public.

Safety is proactive

Instead of waiting for crashes to happen and reacting afterwards, proactive tools should be used to identify and address risks in the transportation system.

Redundancy is crucial

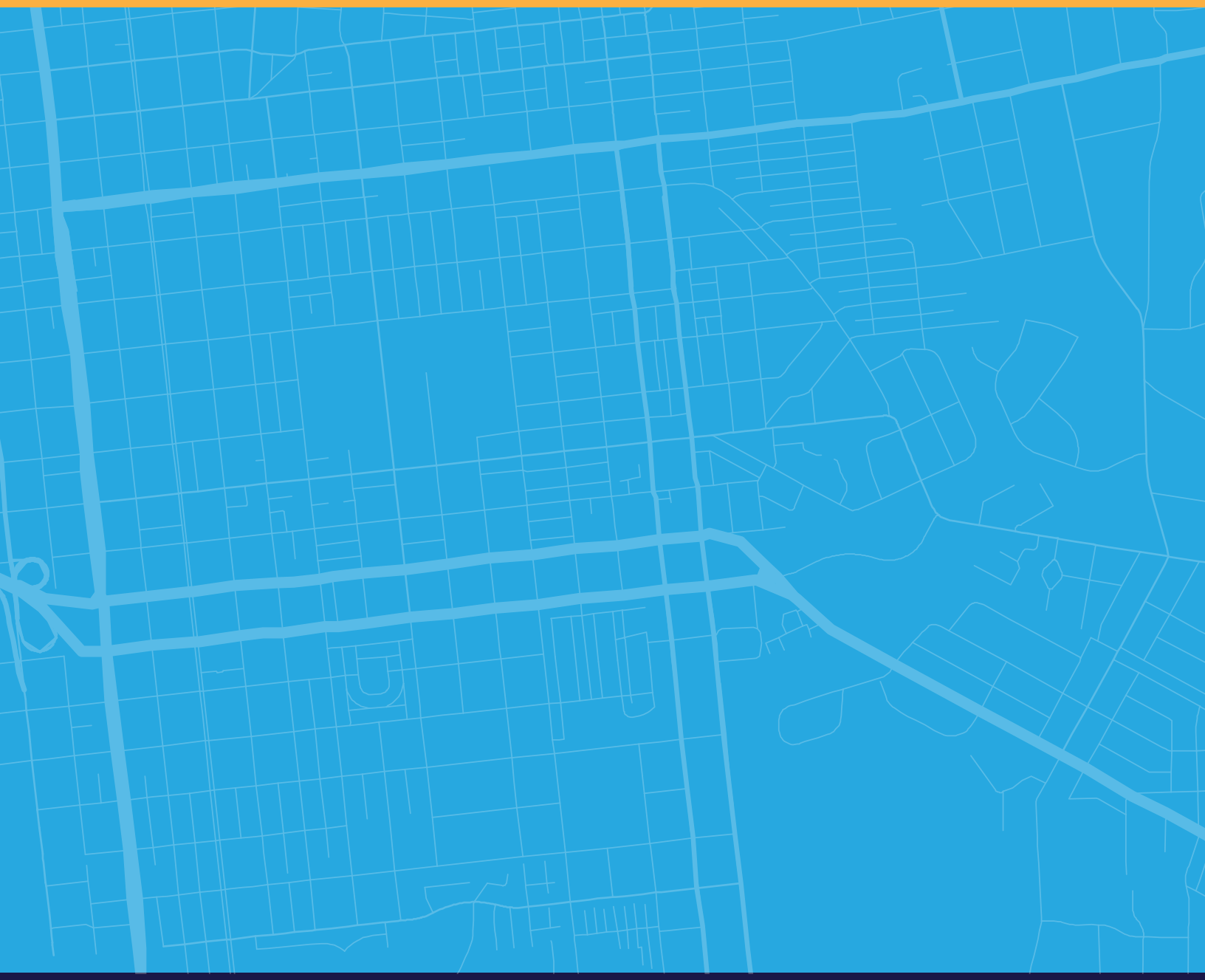
All parts of the transportation system need to be strengthened so that if one part fails, the others still protect people.

Source: U.S. Department of Transportation, https://www.transportation.gov/NRSS/SafeSystem

WHEN SOMEONE DOESN'T COME HOME

Source: https://www.wwaytv3.com/family-remember-15-year-old-killed-in-hit-and-run-as-sweet-gentle-kid/pic/3571397/
https://www.wwaytv3.com/15-year-old-skateboarder-killed-in-hit-and-run-on-south-college-road/

Chapter 3:
What causes crashes in our region?



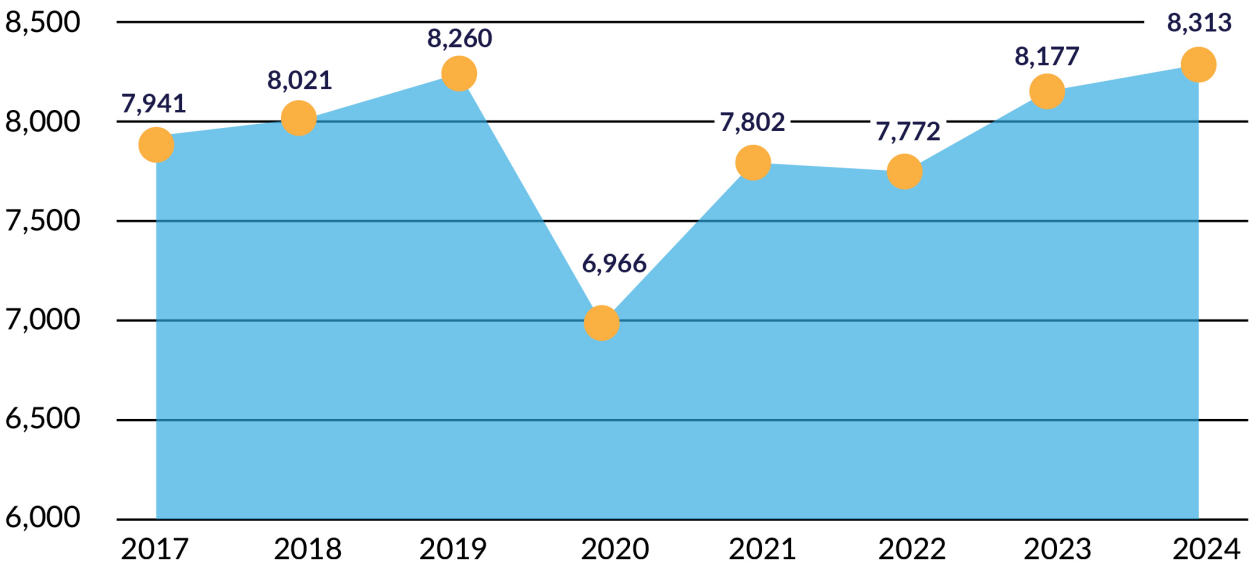
CRASHES, DEATHS, AND SERIOUS INJURIES ARE ON THE RISE

Crash numbers have been slowly rising in the WMPO region. Despite a noticeable dip in 2020 during the COVID-19 pandemic, crash totals rebounded, reaching a peak in 2024.

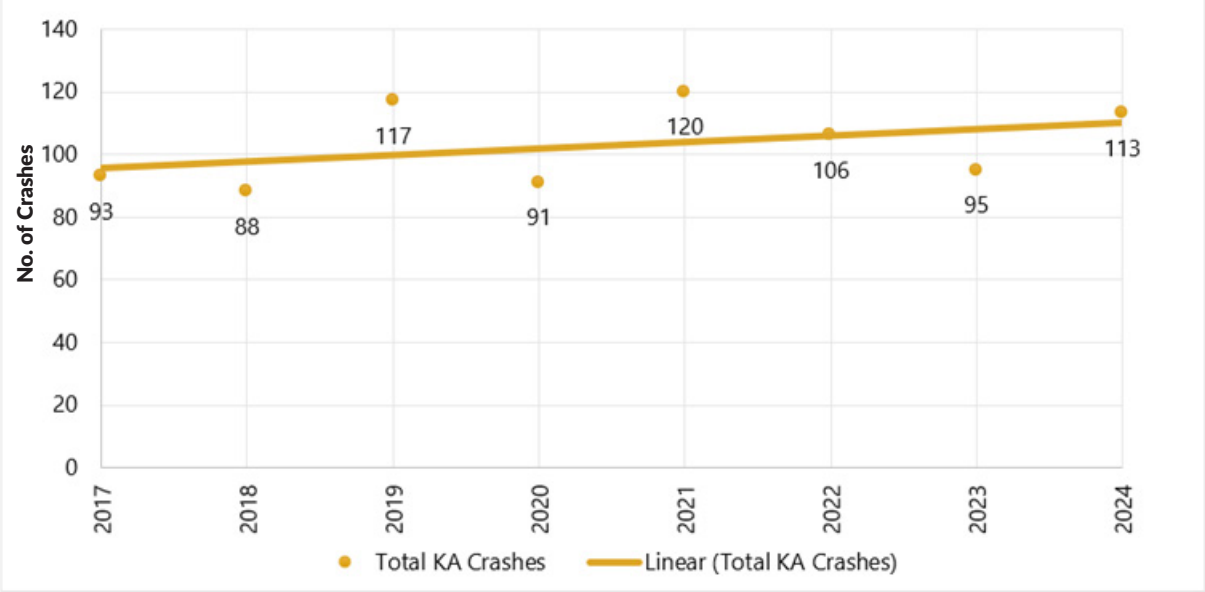
There were over 63,000 crashes reported within the WMPO planning area in the seven years between 2017 and 2024, including 823 that ended in death or serious injury for one or more of the people involved. Over a thousand people were killed or seriously injured in these crashes.

Fatal and serious-injury crashes make up a small percentage of total crashes, but the consequences are significant. Each crash represents someone's friend, loved one, coworker, child, or partner gone or forever changed.

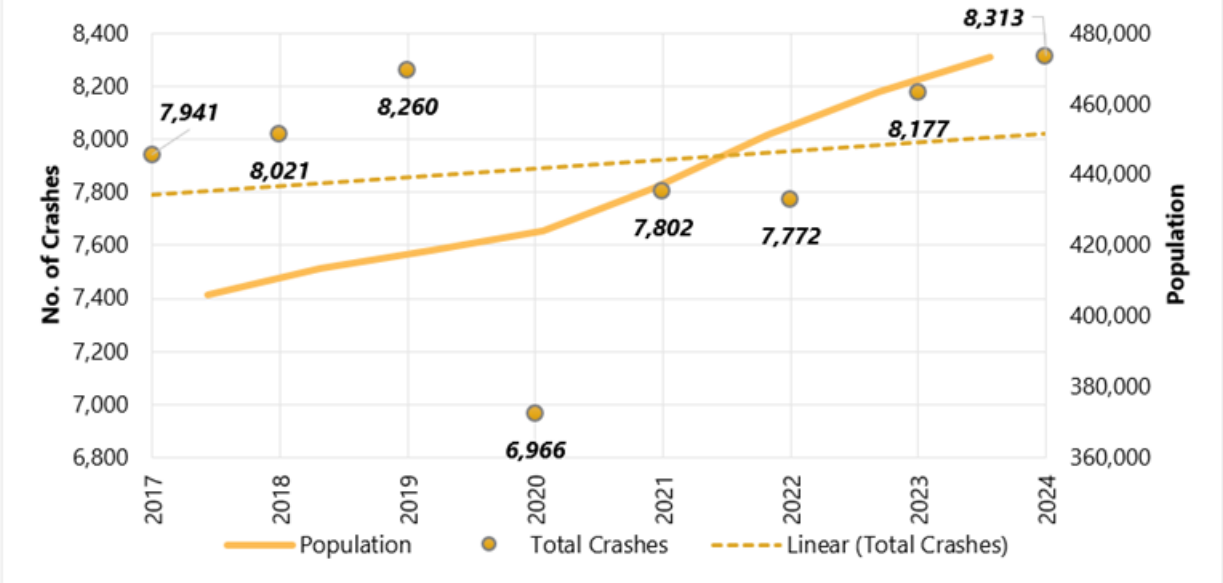
Total crash summary (2017 – 2024)



Total fatal and serious injury crashes (2017-2024)



Total crashes and population growth (2017-2024)



CRASH TRENDS IN OUR REGION

The following trends emerged during data analysis for the WMPO region:

- **Crashes, deaths, and serious injuries are trending upward:** Total crashes are trending updward slightly in recent years. Fatal and serious-injury crashes are also increasing modestly and consistently account for 1–1.5% of all crashes. Crashes involving bicyclists and pedestrians with fatal or serious injuries spiked noticably in 2024.
- **Some crash types are disproportionately severe:** Certain crash types, such as those involving pedestrians, motorcycles, bicycles, no seat belt or car seat use, and impaired driving, are disproportionately severe as a share of total crashes.
- **Crash patterns differ for urban and rural areas:** In New Hanover County, the most urbanized and densely populated county in the WMPO region, intersection crashes, impaired driving incidents, and pedestrian/bicycle crashes occur at higher rates. In contrast, the portions of Brunswick and Pender Counties within the WMPO boundary see more crashes related to lane departures, speeding, and no seat belt or car seat.
- **People on foot or riding bikes are at greater risk:** The share of fatal and serious-injury crashes involving people walking and biking is particularly high across the region, surpassing both statewide averages and those of other North Carolina MPOs.
- **North Carolina Routes have an elevated rate of severe crashes:** On NC Routes, fatal and serious-injury crashes make up 10% of incidents, a higher proportion than their share of all crashes (6%) or of roadway mileage (5%).
- **Minor Arterials also see disproportionately high rates of death and injury:** Minor Arterials see 21% of fatal and serious-injury crashes compared to 16% of overall crashes and only 6% of roadway mileage.

Photo credit: Adobe Stock

WHAT CONDITIONS ARE LINKED TO CRASH SEVERITY?

Certain conditions are overrepresented among severe crashes in the WMPO area. These conditions are known as “emphasis areas” and align with the ones identified in North Carolina’s State Highway Safety Plan.

Lane departure stands out as a prime example, making up 14.6% of all crashes but 38.1% of fatal and serious-injury crashes. Crashes involving occupants unrestrained by a seat belt or car seat and speeding also show substantial disparities, representing 23.8% and 15.5% of fatal and serious-injury crashes, respectively, despite making up much smaller shares of total crashes. Impaired driving and intersection-related crashes are also notably overrepresented, with fatal and serious-injury crash shares of 29.1% and 25.1%, respectively.

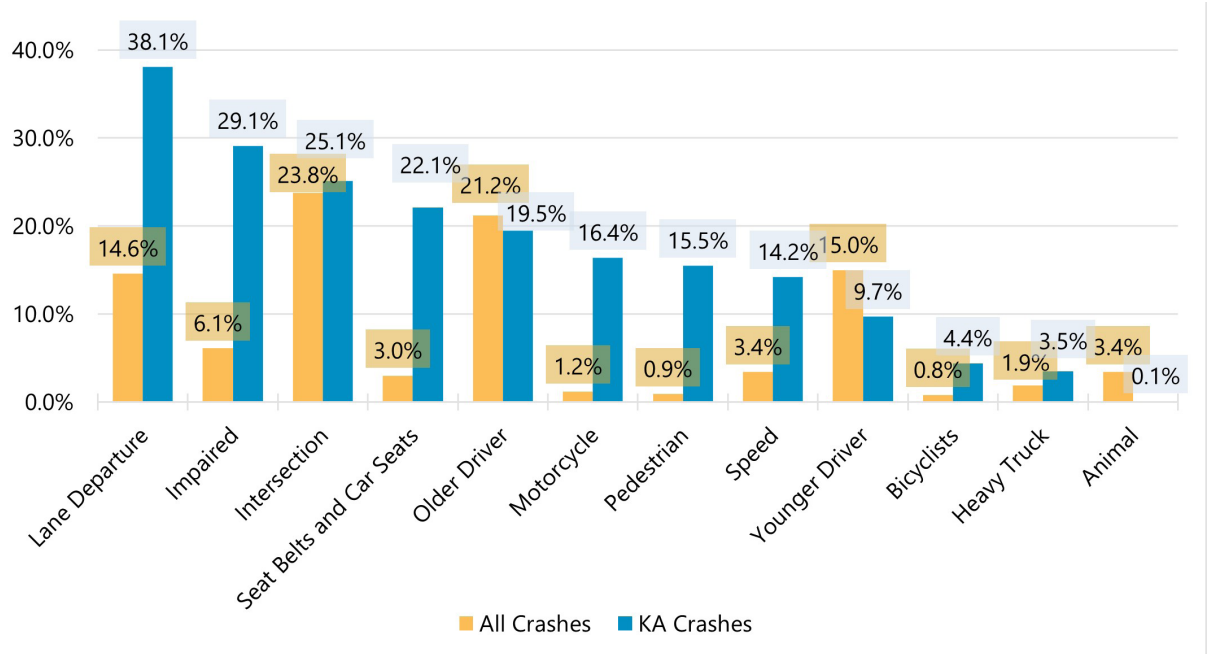
As shown in the chart, fatal and serious-injury crashes for all emphasis areas are disproportionately high except for the older driver, younger driver, and animal-related categories, suggesting a reduced likelihood of severe outcomes for those categories.

Downtown Wilmington Historic District

WHAT IS AN EMPHASIS AREA?

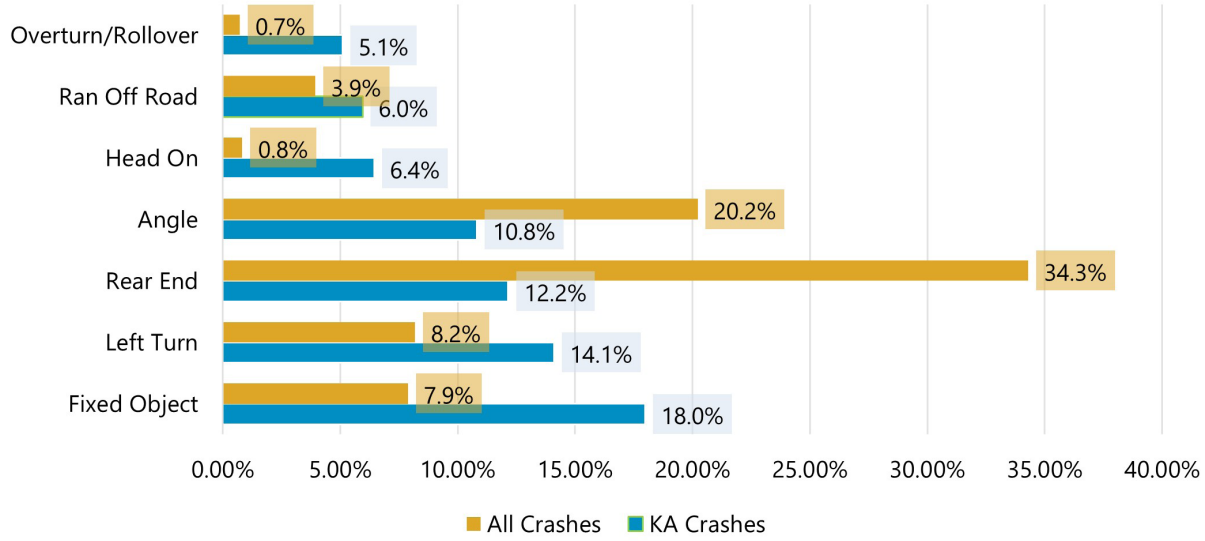
Emphasis areas are primary crash categories or contributing factors that account for a large share of fatal and serious-injury crashes. Typical emphasis areas include lane departure, impaired driving, and intersection-related collisions. These categories are used at both the state and regional level to focus safety analysis and the development of solutions.

Crashes by emphasis area



Crash types summarize the manner of collision and have varied severity risk. Rear-end and angle crashes were the most frequent crash types but constituted fewer fatal or serious injury crashes. Fixed object crashes, on the other hand, were more likely to result in death or serious injury. Though this crash type may not happen as frequently as others, the data indicates consequences are often more serious.

Crash rates by crash type



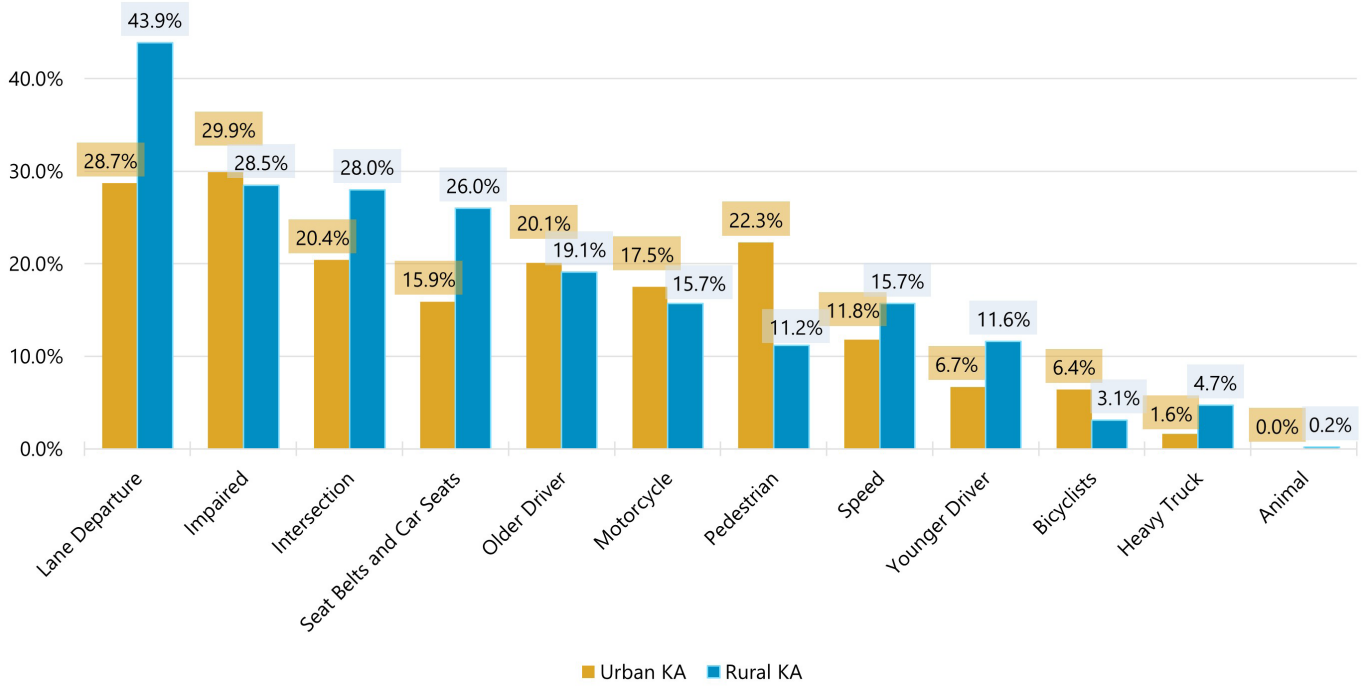
WHERE ARE CRASHES HAPPENING?

Urban crashes are more common, but rural crashes are more likely to be severe

While urban crashes are the majority of all reported crashes in the MPO area (59%), rural crashes are more likely to cause death or serious injury. Rural crashes make up 62% of all fatal and serious-injury crashes.

Crash characteristics differ between urban and rural contexts. Lane departure crashes make up 43% of rural fatal and serious-injury crashes, while pedestrian-involved crashes represent 22% of urban fatal and serious-injury crashes. Other crash types remain relatively consistent between urban and rural environments.

Urban vs. rural fatal and serious-injury crashes (2017-2024)



Crash trends by county

To identify unique safety concerns across the region, each county's share of fatal and serious-injury crashes by emphasis area was compared to the MPO-wide average. Understanding these localized trends helps the WMPO and its partners prioritize safety strategies that respond to each area's specific needs and roadway context.

- **Urban vs. Rural Patterns:** New Hanover County, the region's most urbanized area, has high rates of intersection-related, impaired driver, and pedestrian and bicyclist fatal and serious-injury crashes. By contrast, rural Brunswick and Pender Counties experienced a greater proportion of lane departure crashes and crashes where no seat belt was used—safety challenges more common to rural areas with higher speeds and longer travel distances.
- **Pedestrian and Bicyclist Safety:** Across the MPO region, fatal and serious-injury crash rates involving pedestrians and bicyclists are high compared to state and national averages, underscoring the importance of infrastructure and safety improvements for these vulnerable road users.

Proportion of fatal and serious-injury crashes by county relative to MPO fatal and serious-injury crashes by emphasis area (2017 – 2024)

Emphasis	Brunswick	New Hanover	Pender	MPO-wide
Animal	0.0%	0.2%	0.0%	0.1%
Bicyclists	2.1%	5.8%	1.4%	4.4%
Heavy Truck	6.8%	2.6%	3.6%	3.5%
Impaired	21.9%	31.4%	27.5%	29.1%
Intersection	21.9%	26.4%	23.2%	25.1%
Lane Departure	45.9%	33.8%	46.4%	38.1%
Motorcycle	17.1%	16.9%	13.8%	16.4%
Older Driver	17.8%	19.7%	20.3%	19.5%
Pedestrian	9.6%	19.3%	6.5%	15.5%
Seat Belts and Car Seats	24.0%	20.3%	27.5%	22.1%
Speed	17.8%	12.5%	17.4%	14.2%
Younger Driver	8.2%	8.4%	16.7%	9.7%

Orange highlighting indicates the emphasis area is over-represented in that county.

Not all roads are equal: crashes by route type and roadway function

Interstates, US Routes, NC Routes, Secondary Routes, and Non-System roads are all route types that correlate with ownership, maintenance, and often, crash characteristics. Some of these routes present elevated safety concerns.

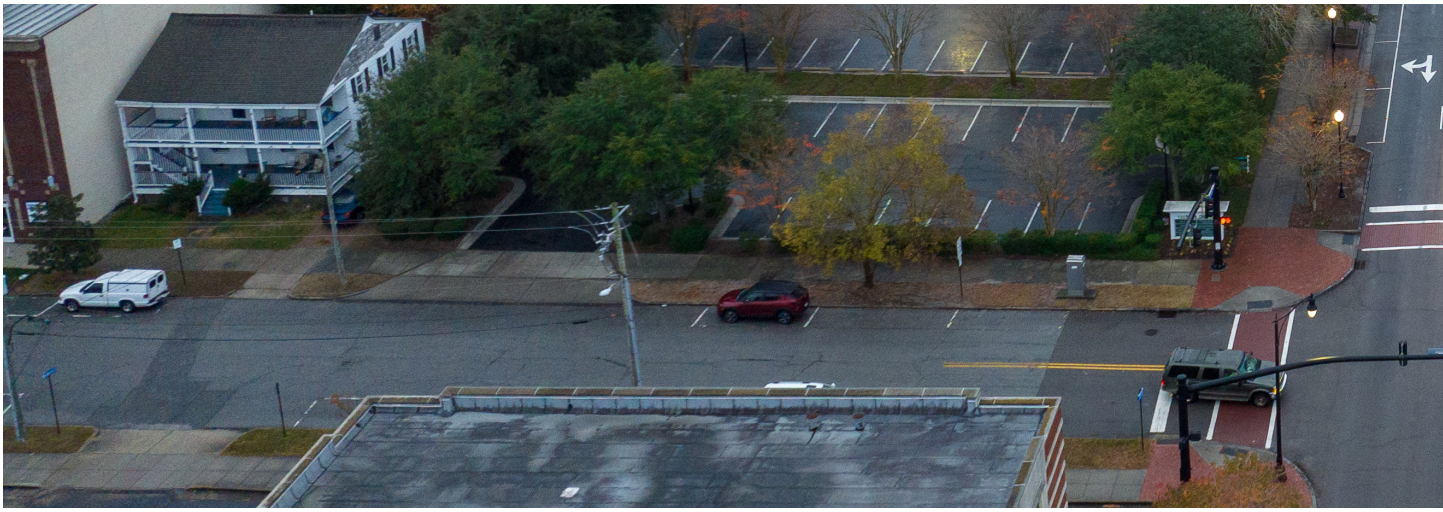
NC Routes (maintained by NCDOT) are overrepresented in serious crashes. While they make up only 5% of the total road mileage and **6% of all crashes within the WMPO**, they account for 10% of fatal and serious-injury crashes.

US Routes (maintained by NCDOT) experience the highest intensity of serious crashes when adjusted for mileage. They make up 6% of the network but account for **47% of fatal and serious-injury crashes**, nearly eight times their mileage share.

Non-System roads, typically maintained by municipalities or private entities, form the largest share of the roadway network at 56% but represent only **13% of fatal and serious-injury crashes**.

Although related to route classification, functional class captures more about roadway function than ownership, including role in the transportation network, design standards, and relationship to land use. These classifications range from high-capacity facilities like interstates and principal arterials to local roads and collectors. In the WMPO region, a review of fatal and serious-injury crashes, total crashes, and mileage by functional class reveals notable disparities.

- Arterial roads, including principal arterials, minor arterials, and expressways, make up only 10% of the roadway network but account for nearly 60% of fatal and serious-injury crashes. Principal arterials alone are significantly overrepresented, with crash rates nearly eight times higher than their mileage share.
- Minor arterials also show an imbalance, with a higher share of serious crashes compared to all crash types. Local roads, in contrast, make up over 80% of the network but account for only 17% of KA crashes, suggesting underrepresentation in severe crash data.



Downtown Wilmington Historic District

High Injury Networks (HINs)

A high injury network (HIN) shows where road deaths and serious injuries are happening. The WMPO developed a set of high injury networks to better understand where the most severe crashes are concentrated within our boundaries.

Each roadway segment and intersection were ranked based on the number and severity of crashes. Recommendations within this plan focused on addressing roadway segments within the top 10% in the ped/bike HIN and the top 5% in the vehicle HIN. Fatal and serious-injury crashes are most prevalent on a small proportion of the network: the top 5% HIN covers 50% of KA crashes and the 10% HIN captures 70% of KA crashes. This strategy will allow future roadway safety investments to be concentrated in the areas where they have the greatest impact.

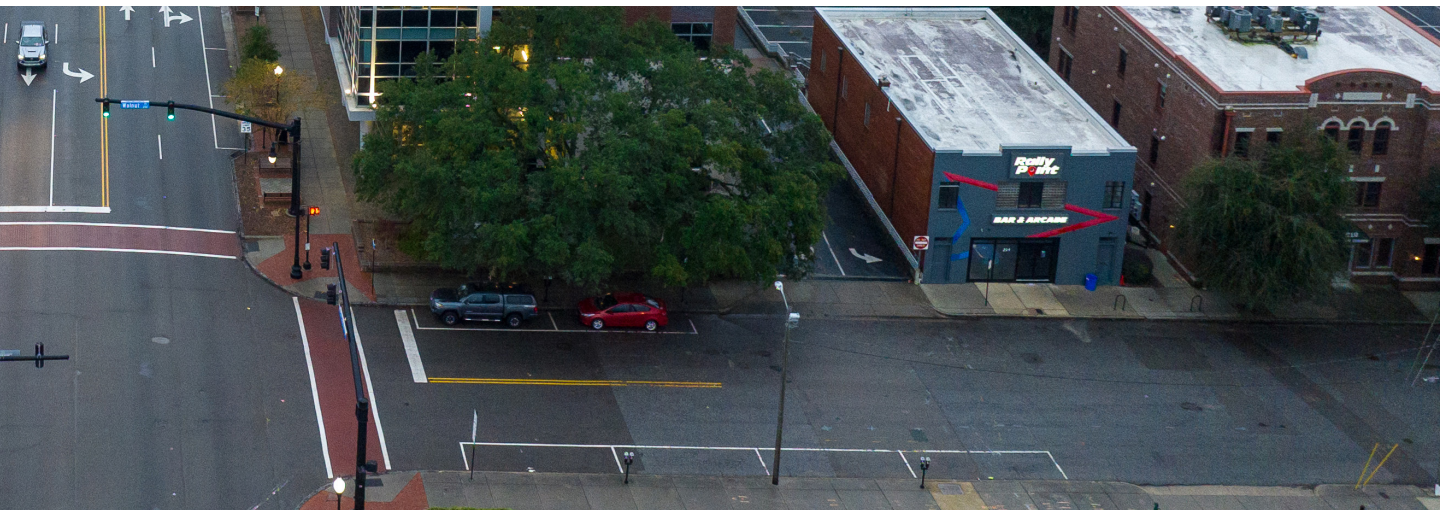
PEDESTRIAN AND BICYCLIST HIGH INJURY NETWORK

Figure 2 on page 22, highlights where the most severe pedestrian and bicyclist crashes occur within the WMPO region, primarily in urban Wilmington. These areas have higher residential density, key destinations, and a well-developed sidewalk network, which likely contributes to increased walking and biking activity.

MOTORIST HIGH INJURY NETWORK

Figure 3 on page 23, shows where the most severe vehicle crashes are concentrated, highlighting US 17, including US 17BUS and Market Street, as a key corridor for all modes. The NC 132/College Rd to Carolina Beach Rd corridor also stands out, reinforcing its importance in addressing multimodal safety across the region.

Note that the Town of Leland adopted its Safety Action Plan in 2025. The High Injury Networks within Leland have been carried over into the WMPO's High Injury Networks. Recommendations from the Town of Leland's Safety Action Plan will also be carried over into the WMPO Safety Action Plan recommendations presented later in this document.



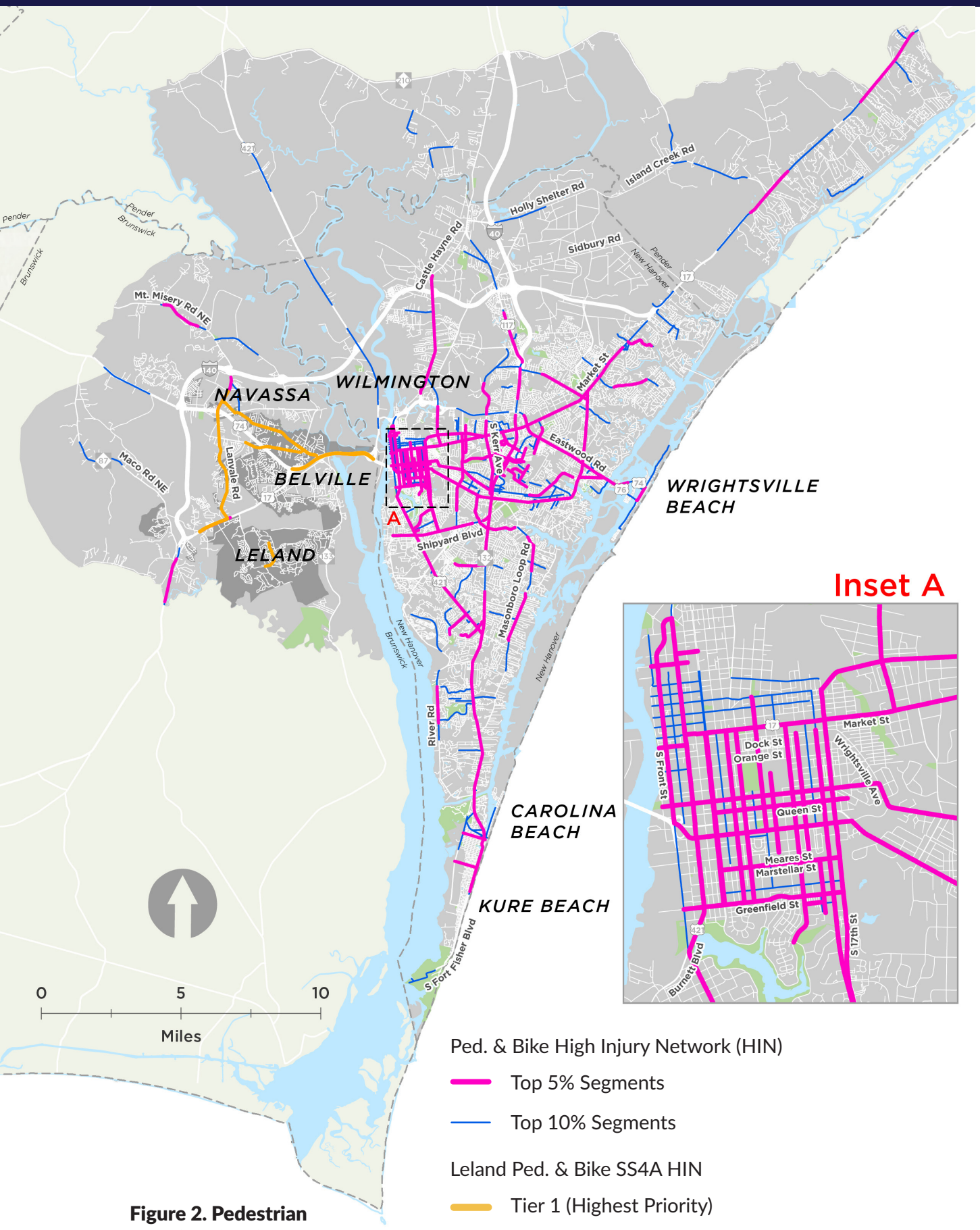
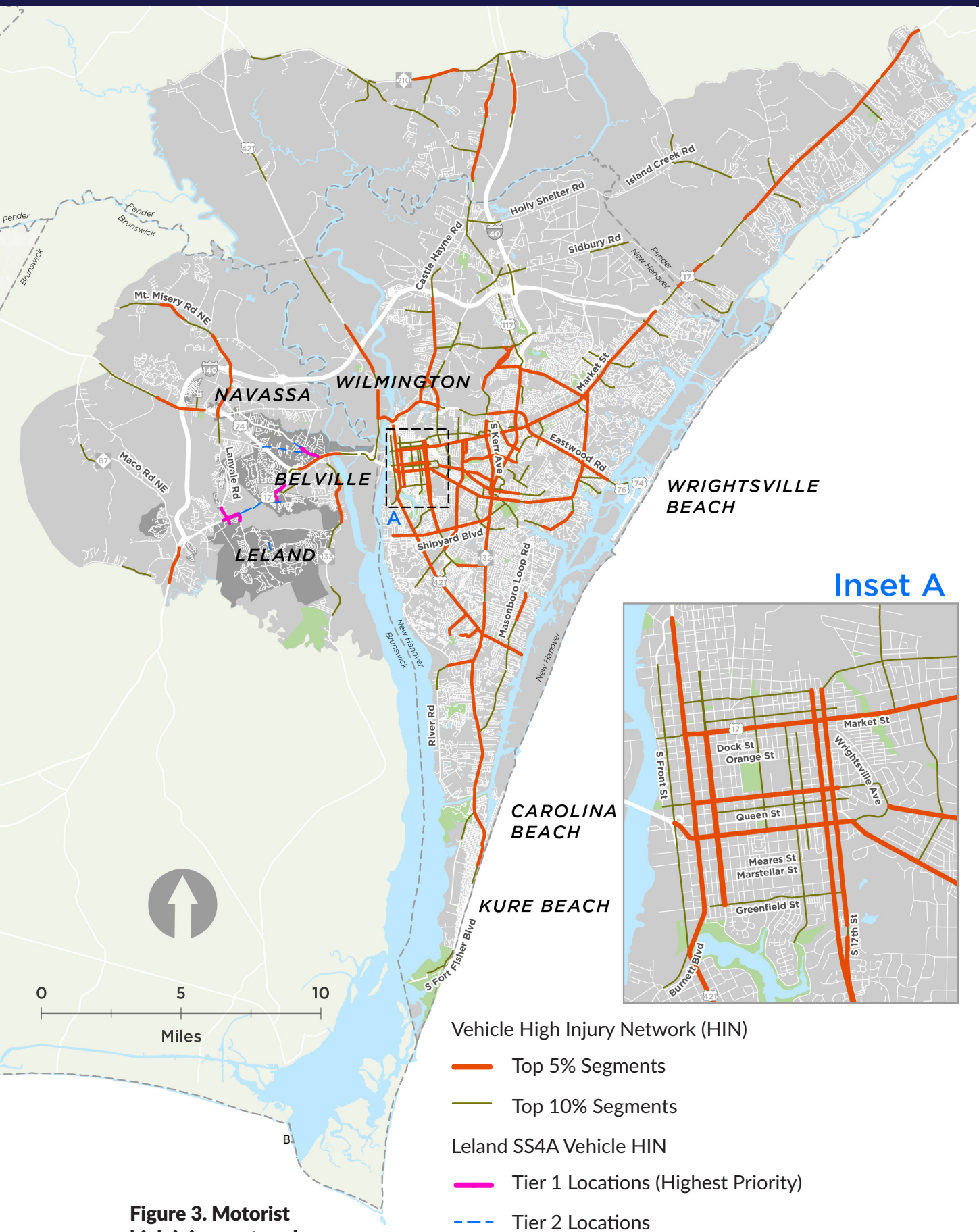


Figure 2. Pedestrian and bicyclist high injury network



Vehicle High Injury Network (HIN)

- Top 5% Segments
- Top 10% Segments

Leland SS4A Vehicle HIN

- Tier 1 Locations (Highest Priority)
- Tier 2 Locations
- Leland Town Limits

Figure 3. Motorist high injury network

The High-Risk Network

The High-Risk Network identifies specific corridors and intersections within the WMPO region where severe crashes are most likely to occur—this is different from the High Injury Network, which shows where high concentrations of severe crashes have happened. Risk is a proactive measure of transportation safety that does not rely on crash history. By focusing on locations that fall within the top proportion of crash risk for each crash type, this analysis helps prioritize where safety interventions are most urgently needed and what types of treatments may be most effective.

The risk assessment revealed that a small number of crash types and roadway conditions account for a disproportionate share of potential fatal and serious injury crashes in the WMPO region. Lane departure, intersection-related, and vulnerable road user crashes, especially those involving pedestrians and bicyclists, emerged as top priorities.

These high-risk areas are strongly concentrated on US, NC, and Secondary Routes, particularly on segments or at intersections with recurring patterns, such as high speeds, complex turning movements, or poor visibility.

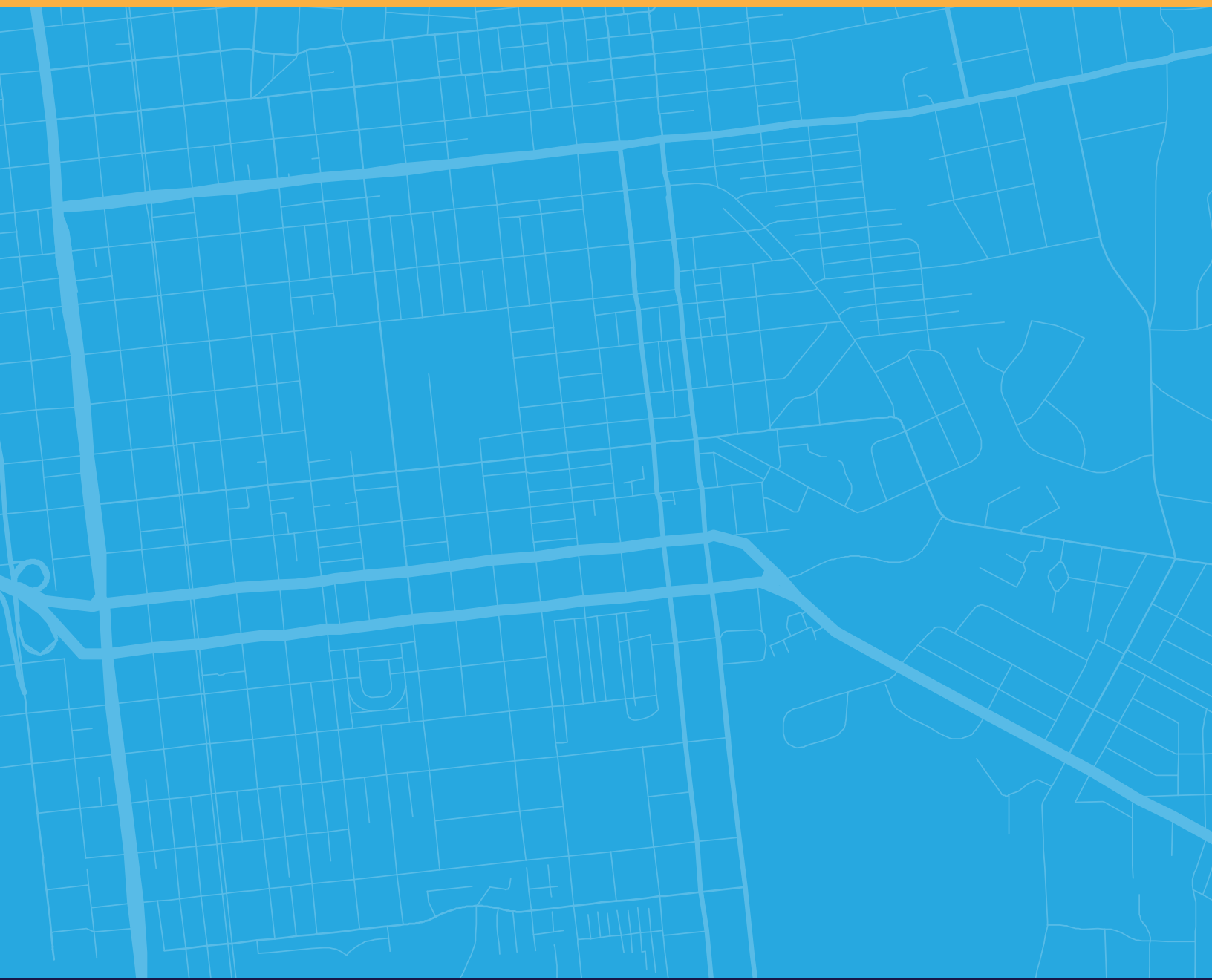
The findings confirmed that a targeted approach that focuses on key crash types, high-risk facility types, and top contributing factors, are essential to making meaningful safety improvements.

High-Risk Network maps are included in the Existing Conditions Memorandum in Appendix C.

LESSONS TO PREVENT THE NEXT CRASH

Source: https://www.wect.com/2025/06/02/bicyclist-hospitalized-after-car-crash-mlk-parkway/

Chapter 4:
Who participated in this effort?



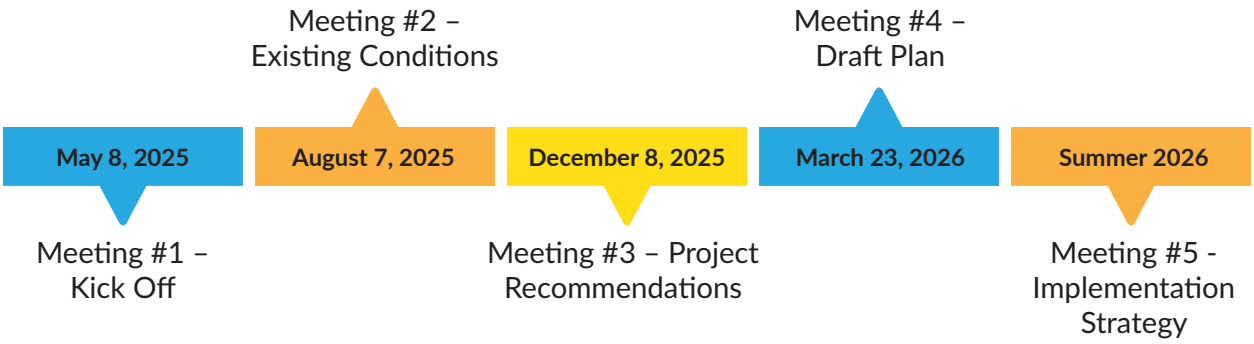
Many voices across the Cape Fear region influenced the creation of this plan. Because the Safety Action Plan will affect community members across New Hanover, Pender, and Brunswick Counties, WMPO and the consultant team worked closely with the Safety Action Plan Steering Committee throughout the planning process to share detailed progress updates, participate in interactive activities, and collect feedback.

THE SAFETY ACTION PLAN STEERING COMMITTEE

The Safety Action Plan Steering Committee included WMPO and member agency staff members and representatives of other organizations with an interest in transportation safety in the Cape Fear region. This group helped identify the plan's vision and goals, guided its development, and will coordinate implementation and monitoring activities now that it is completed.

The Steering Committee met a total of five times during the Safety Action Plan's development as shown below. In addition to reviewing key deliverables and meeting at key milestones for the plan, the Committee provided valuable feedback on draft materials for each round of community engagement. A complete list of Committee members is included in the Acknowledgments at the beginning of this document.

Steering Committee Meetings



COMMUNITY ENGAGEMENT

Community members played a vital role in the development of the Safety Action Plan. Their feedback helped the project team understand safety priorities across the region and develop strategies and countermeasures to address those priorities. A key consideration was to identify tools and develop recommendations that have proven successful elsewhere while also serving the community's vision.

There were three rounds of public engagement during the planning process:

- **Round 1 (August-September 2025)** introduced the Safety Action Plan goals, Safe Streets Approach, and current conditions. The project team gathered public input on safety concerns and priorities through surveys and mapping.
- **Round 2 (January-February 2026)** shared draft recommendations for infrastructure, policies, and programs and collected public feedback.
- **Round 3 (May 2026)** will present the draft Safety Action Plan recommendations and implementation strategies.

Engagement Timeline

Public outreach

To gather as diverse a range of community voices as possible, WMPO reached out to the public in a variety of ways, offering both in-person and virtual opportunities to provide input.

The following initial engagement strategies were used throughout all three engagement rounds, including broad engagement, geographically-focused engagement, additional strategies, and specific engagement tools.

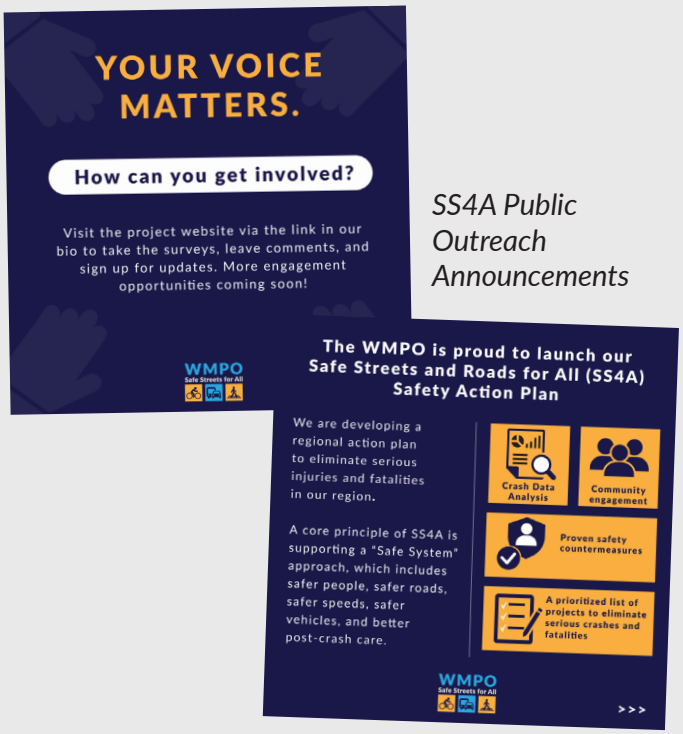
Outreach strategies

BROAD ENGAGEMENT

Website

Communications Toolkit:

- Social media
- Newsletter/ email list
- Printable one-page and quarter-page flyers
- Spanish translation
- Press releases
- Online maps
- Online surveys



SS4A Public Outreach Announcements

GEOGRAPHIC FOCUSED ENGAGEMENT

Pop-up at existing event

Open house

Focus groups or listening sessions

SPECIFIC TOOLS

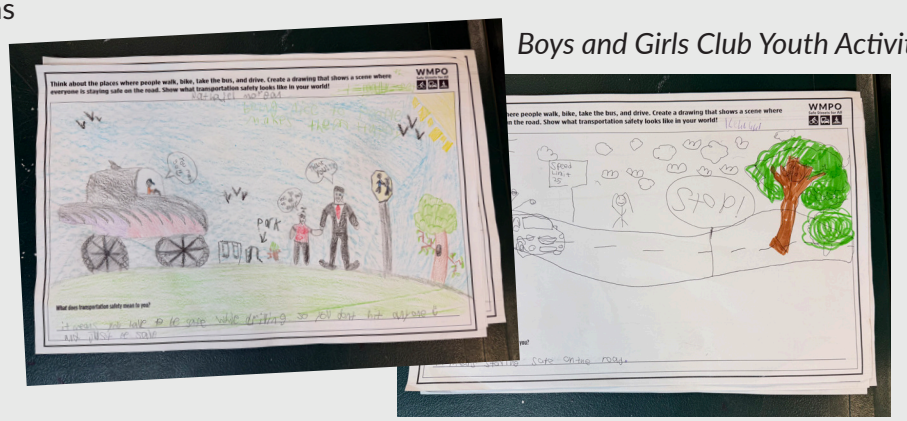
Boards

Paper comment cards

Paper surveys

In-person activity

Youth activity



Boys and Girls Club Youth Activity

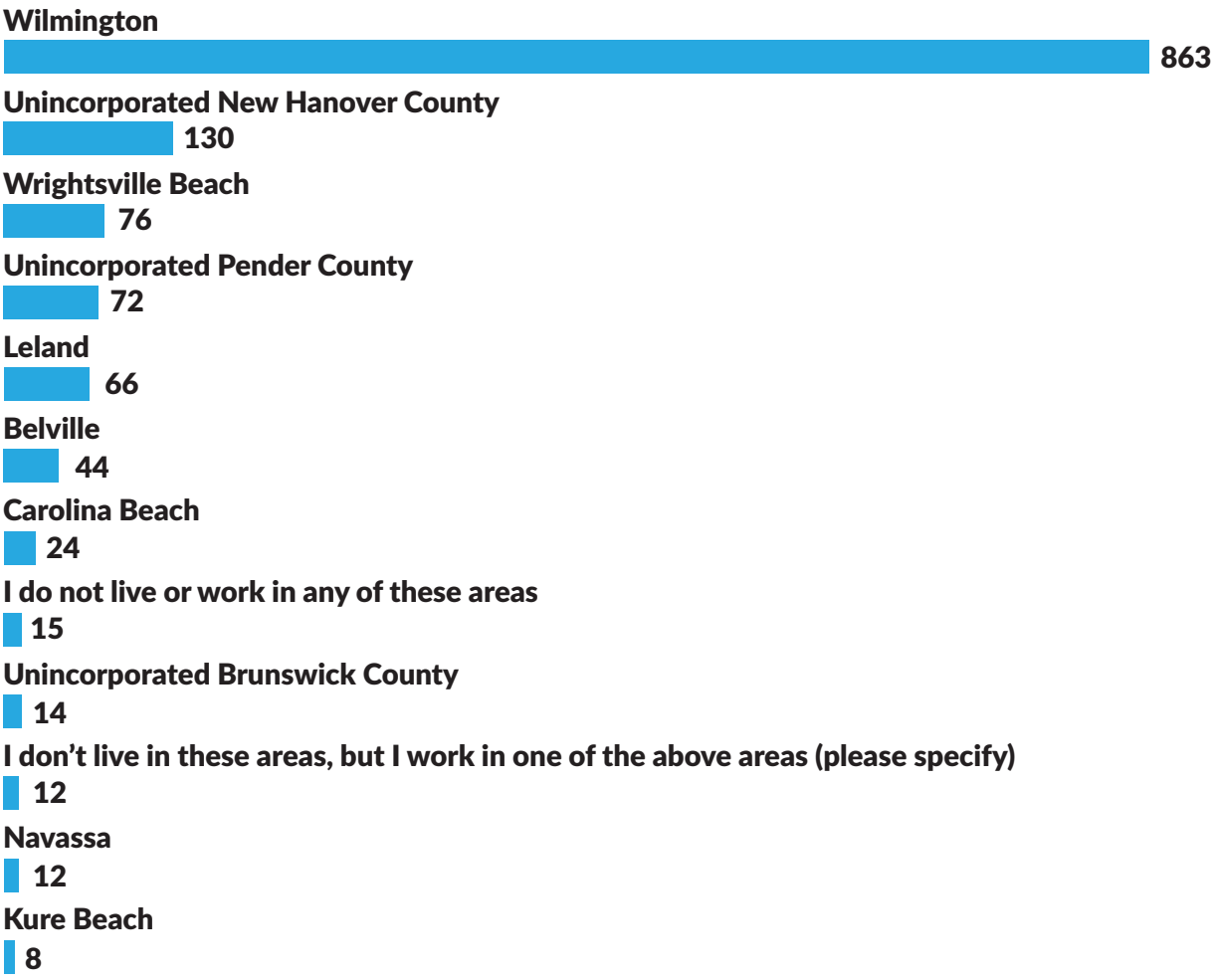
Community engagement by the numbers (Total of Round 1 and Round 2)

1,343
Survey Responses

936
Map Comments

340
Meaningful Conversations

Who responded?



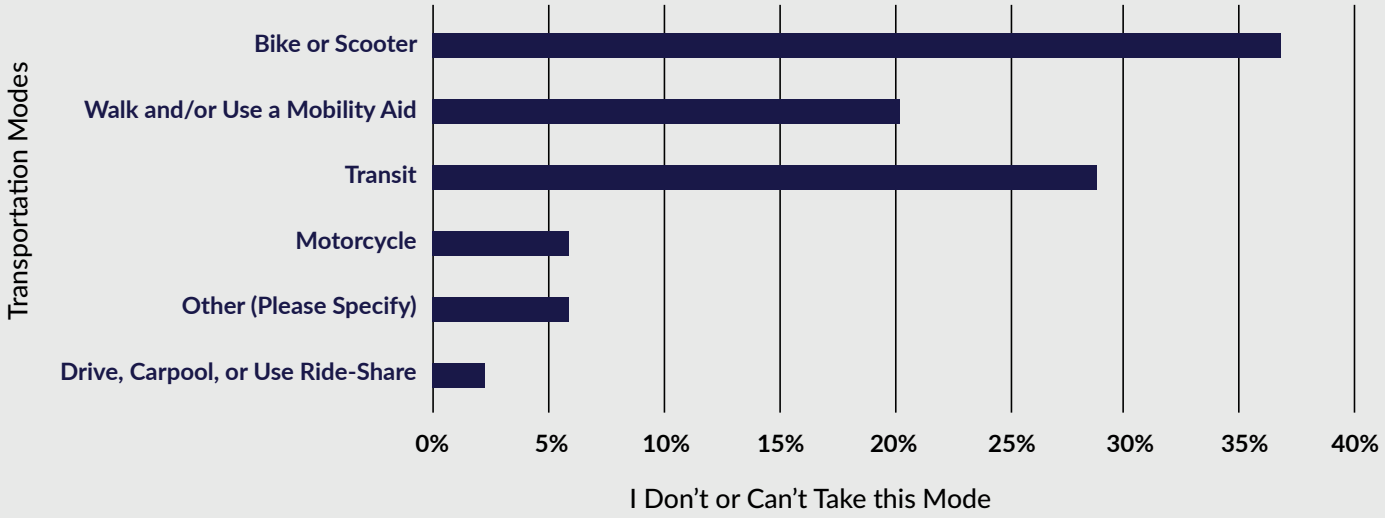
What we heard

This section summarizes the 1,343 survey responses from Rounds 1 and 2. Many of the responses described crashes, injuries, and near-misses as a daily reality—especially for people walking, biking, or using mobility devices.

Residents shared stories of pedestrians hit in crosswalks, bicyclists struck at intersections, and vulnerable roadway users injured on neighborhood streets. Respondents emphasized that risk extends beyond a few problem areas, prompting many to change when and where they travel due to speeding traffic, missing sidewalks, unsafe crossings, and poor driver yielding.

Overall, the community doesn't see safety as just a matter of being careful; it depends on road design, visibility, predictable traffic, and shared responsibility. These adaptations reveal suppressed demand: people would walk and bike more if the system felt safer.

Ways survey respondents would travel if they felt safer



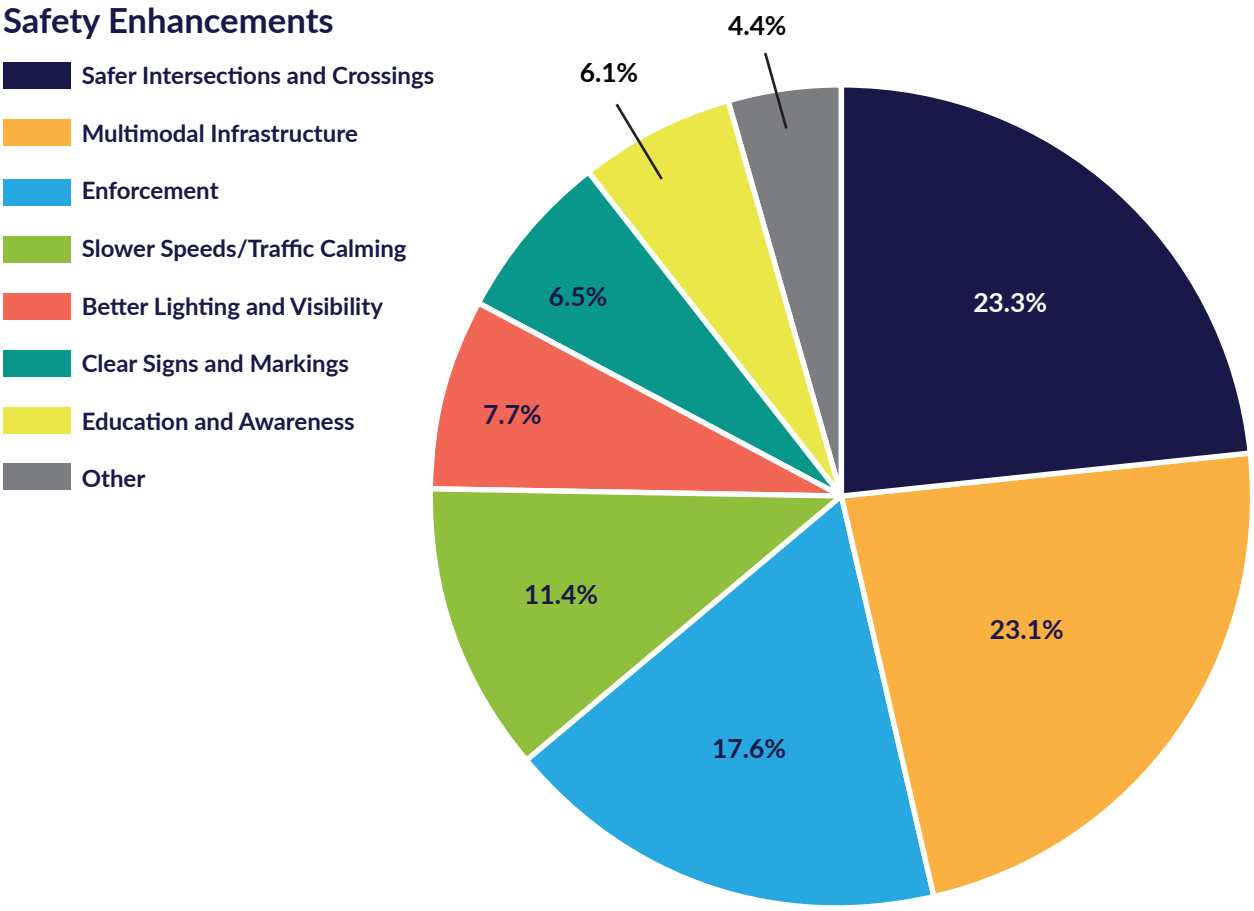
Respondents were asked to identify the top threats to transportation safety. Distracted driving and speeding were the biggest priorities. Infrastructure gaps—like missing sidewalks, crossings, and pedestrian safety features—also ranked high, spotlighting the need for safer options for walking and biking. Respondents frequently identified specific roadways and intersections as safety concerns:

- 3rd Street
- Oleander Drive
- Market Street
- College Road
- Eastwood Road
- Military Cutoff Road
- Carolina Beach Road
- River Road
- Shipyard Boulevard
- Greenville Loop Road
- Middle Sound Loop Road
- Porters Neck Road

Top safety enhancements

ENHANCING SAFETY IN THE REGION

Respondents selected safer intersections and crossings, expanded multimodal infrastructure, enforcement, and slower speeds/traffic calming as top enhancements they would like to see.



Pop-up Event in Navassa

Case studies

Round 2 of community engagement gathered public feedback on priority intersections and roads for safety improvements. People were asked what they think safety looks like, and what countermeasures they want to see built in their communities. To help gather feedback on what safety treatments the community can visualize in the local transportation system, community members were asked to view and answer questions about a series of four case study corridors. These corridors ranged from urban streets with existing crosswalks and sidewalks to high-speed two- and four-lane roadways. Each case study was selected as a familiar corridor that was archetypal of roadways around the region with a history of severe crashes. Consequently, the feedback gathered from this activity can be more widely applied to other priority locations around the WMPO.

Each of the four case studies included a different collection of potential roadway safety improvements for people to consider. Across all corridors, chosen countermeasures generally aligned with roadway functionality, lane configuration, multimodal activity, and surrounding land uses. Several trends emerged:

- Higher-volume, multi-lane roadways generated support for controlled crossings and access management
- Perceived pedestrian and bicyclist activity drove concerns about long crossings, turning conflicts, and balancing mobility with access
- Lower-volume or rural corridors generated support for visibility and speed management improvements

Participants were asked about the top investment to enhance safety in the region as an open-ended response. Several topic areas rose to the top from open-ended responses (shown to the right). For detailed findings from the case study survey, see Appendix A: Round 2 Engagement Summary.

Community comments

I want to walk and bike around the entire town without fear of being struck by a vehicle.

Cars driving too fast, I can't turn out of Publix most the time.

Durham, Raleigh, and Chapel Hill have integrated Bus Rapid Transit systems and allow efficient travel for citizens. Wilmington is behind.

The new Causeway Dr with bike lanes is awesome! Thanks!!

Many pedestrians walk the sides of these major roads, often commuting to or from work (Walmart, Lowe's, Home Depot, soon to be Target, etc.) despite there being no sidewalks for long stretches. This is a major safety concern for our community.

Pedestrian traffic needs crosswalks across Market Street.

There are repeated accidents at 5th and Dock. You cannot see around parked cars on 5th.

At 55mph, the speed limit on NC Hwy 133 from US 117 to Hwy 210 needs to be reduced. Walking or biking on this road is dangerous. I don't feel safe checking my mail, or placing garbage/ recycle containers on the road, or trying to pull in or out of my driveway.

Taking a left turn onto Oleander is dangerous.

Why are there 4 lanes for cars?

Speeding, tailgating, aggressive driving, distracted driving is out of control on Hwy 17 through Hampstead.

We need designated bike paths, NOW!!! The River to Sea bike path is DEADLY! 2050 plans for the public transportation, pedestrian centered infrastructure, and bike lanes need to be happening now, efficiently and rapidly.

Love the traffic circles but drivers are not educated to or blatantly disregard right of way. Raising the speed limit to 45mph has only made this worse.

The entire cargo district has seen a huge influx of foot traffic, and there has been little done to address this.

Can't turn out of our park. Need a stop light!

River Road is becoming increasingly dangerous for drivers, cyclists, and pedestrians alike.

VISION ZERO SUCCESS STORY

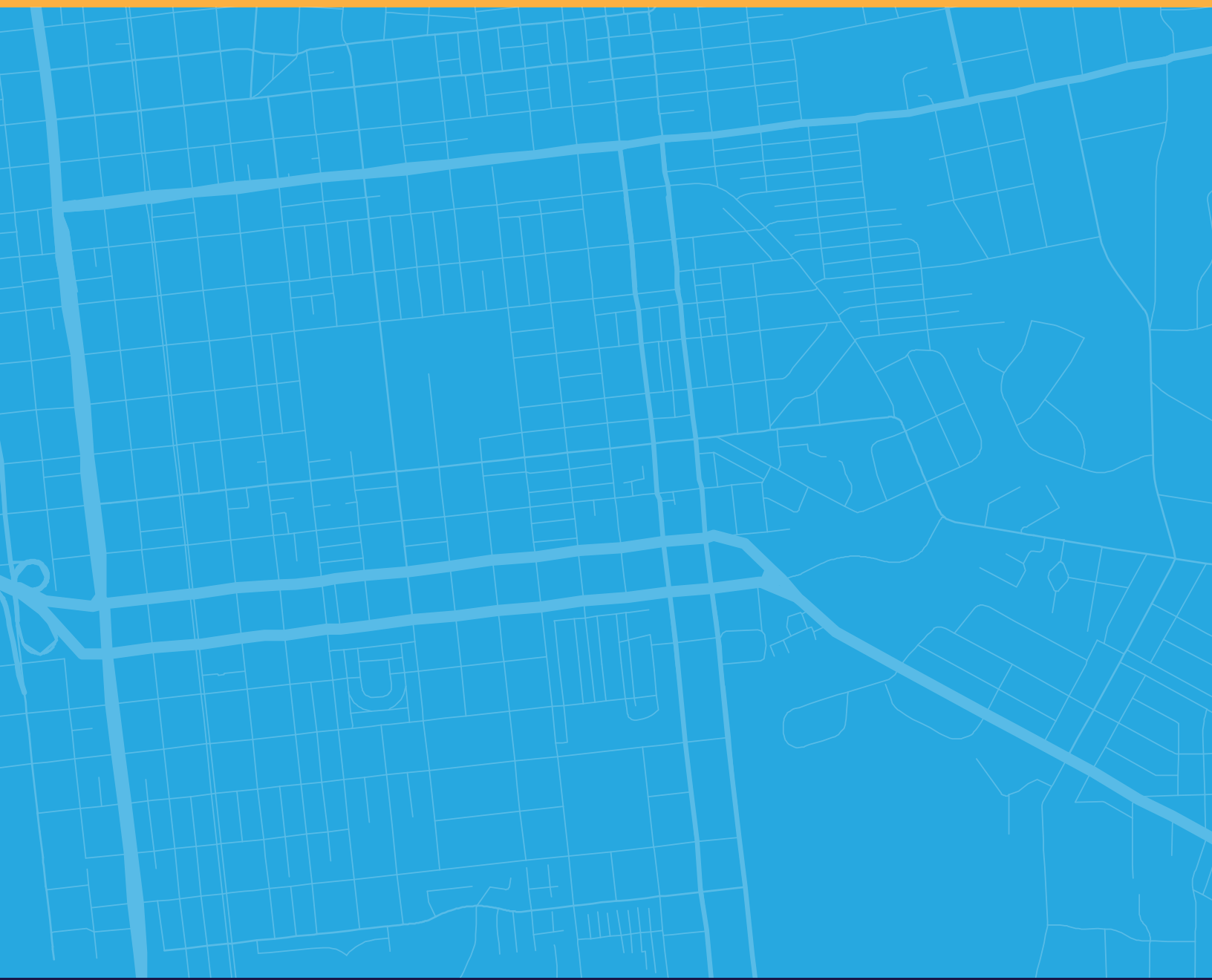
Vision Zero success stories do not just happen far away or through great expense and effort. Just a couple of hours north of Wilmington, the small community of Winterville, NC reduced speeding at three busy intersections near schools with a low-cost, quick-build intervention: installing painted bulb-outs and flex posts.

An evaluation five weeks after the project was installed showed reductions in both average speeds and the more dangerous high-end speeds, as well as signs that drivers were more likely to stop at stop signs and yield to people in crosswalks.

The project was well received by people walking, who reported feeling safer and more visible, and by drivers, who said the bulb-outs and flex posts made walkers more visible, causing them to slow down. Many expressed interest in more bulb-outs, and even wider ones.

Source: https://visionzeronetwork.org/small-wins-big-impact/#:~:text=Winterville%2C%20NC%2C%20a%20community%20of,more%20and%20wider%20bump%2Douts

Chapter 5:
Action plan and strategies: What's next?



This plan identifies high priority strategies, both non-infrastructure and infrastructure, to improve safety. Non-infrastructure strategies include recommendations related to policy, education, planning, or changes to agency operations. Infrastructure strategies include implementing treatments like speed management, pedestrian crossings, and traffic signals.

THE EMPHASIS AREAS

As noted in Chapter 3, the project team identified emphasis areas to address with strategies and treatments based on an analysis of the region's historical crash types, locations, behavioral factors, and risk factors associated with fatal and serious injury crashes.

WMPO's safety emphasis areas include:

- **Lane departure:** Motorist leaves their travel lane.
- **Impaired driver:** Motorist is under the influence of alcohol or drugs.
- **Intersection:** Crash takes place at the intersection of two roads.
- **Seat belts and car seats:** One or more passengers are not restrained by seat belts or car seats.
- **Older driver:** Crash involves a driver 65 or more years old.
- **Motorcycle:** Crash involves someone on a motorcycle
- **Pedestrian:** Crash involves a person traveling on foot.
- **Speed:** One or more motorists are traveling at high speeds.
- **Younger driver:** Crash involves a person between 16 and 19 years old.
- **Heavy truck:** A freight truck or other large vehicle is involved in the crash.
- **Animal:** Crash involves an animal on the roadway.

KEY NON-INFRASTRUCTURE STRATEGIES

There are several strategies focused on education, enforcement, agency coordination, and internal agency processes that WMPO, its member agencies, and other partners should implement. This section highlights high priority, non-infrastructure strategies. For each set of strategies presented, the table identifies the Safe System Approach criterion it addresses, strategy type, lead agency, priority, timeframe, cost range, and performance metrics.

STRATEGY TYPES

- **Agency coordination** engages member agencies to realize the strategy.
- **Education** strategies provide partners and community members with tools and knowledge to build a safer transportation network together.
- **Policy strategies** update and adjust existing transportation planning policies to align with the goals, findings, and recommendations in this SAP.
- **Enforcement and EMS (Emergency Medical Services)** strategies partner with first responders to prevent crashes and improve injury outcomes.

Non-infrastructure strategies

SAFER VEHICLES						
Strategy	**Category**	**Lead Agency**	**Priority**	**Timeframe**	**Cost**	**Performance Metric**
Incorporate transit operator experiences and knowledge during plan development for stops, access to stops and service/ routes additions or changes.	Agency Coordination	Wave Transit, WMPO	High	Years 0-1	$	Document transit operator consultation in planning efforts.
Integrate Safe Driver workplace incentives, fleet safety best practices, and traffic safety culture initiatives into the Go Coast Commuter Friendly Employer program.	Agency Coordination	WMPO	Low	Beyond Year 3	$	Incorporate Safe Driver and fleet safety components into the Go Coast Commuter Friendly Employer program

SAFER ROADS						
Strategy	**Category**	**Lead Agency**	**Priority**	**Timeframe**	**Cost**	**Performance Metric**
Develop and efficiently deliver systemic safety projects by using inventories, bundled project approaches, and coordination with the LAPP prioritization process to elevate safety-focused projects.	Agency Coordination	WMPO, member agencies	High	Years 0-1	$	% of LAPP and WMPO-sponsored projects that are safety-focused
Establish and facilitate a Regional Transportation Safety Working Group to review crash trends, coordinate safety project implementation, provide a forum for EMS and emergency response agencies to share insights on crash trends, and pursue bundled funding opportunities across WMPO member jurisdictions.	Agency Coordination	WMPO and member agencies	High	Years 0-1	$	# of meetings per year
Track, evaluate, and publicly report progress on Safety Action Plan implementation.	Agency Coordination	WMPO	High	Years 0-1	$	One publicly accessible SAP project tracker and/or annual report

SAFER ROADS						
Strategy	**Category**	**Lead Agency**	**Priority**	**Timeframe**	**Cost**	**Performance Metric**
Update TIP and MTP Prioritization to explicitly incorporate safety improvement, such as on the HIN with proven safety countermeasures.	Agency Coordination	WMPO (with NCDOT coordination)	High	Years 0-1	$	% of programmed projects located on or directly addressing identified High Injury Network corridors
Incorporate safety-oriented Vision, Goals, Performance Measures, and Targets into the Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP).	Agency Coordination	WMPO	High	Years 0-1	$	Adoption into MTP and TIP
Integrate Safe System principles, Road Safety Audits (RSAs), and consistent design guidance into maintenance, capital project development, and project scoping processes.	Agency Coordination	Local jurisdictions (with WMPO support)	High	Years 0-1	$$	% of capital or maintenance projects that undergo a Road Safety Audit (RSA) or documented safety review prior to final design
Develop a safe system assessment or framework for determining how well existing or proposed infrastructure align with Safe System objectives.	Agency Coordination	WMPO (with local jurisdictions)	High	Years 0-1	$$	% of projects modified to improve alignment with Safe System objectives following framework assessment

SAFER ROADS						
Strategy	**Category**	**Lead Agency**	**Priority**	**Timeframe**	**Cost**	**Performance Metric**
Advance downtown and corridor-level recommendation studies across the WMPO region to address systemic and network safety risks.	Agency Coordination	WMPO (with local jurisdictions)	High	Years 0-1	$$	% of High Injury Network corridors evaluated through corridor-level safety studies
Promote consistent regional implementation of Leading Pedestrian Intervals (LPIs) at signalized intersections with pedestrian signal heads across WMPO member jurisdictions.	Policy	Local jurisdictions & NCDOT (with WMPO coordination)	High	Years 0-1	$	% of signalized intersections with pedestrian signal heads that include LPIs
Evaluate and implement No Turn on Red (NTOR) restrictions at signalized intersections with elevated pedestrian crash risk or located along the High Injury Network.	Policy	Local jurisdictions & NCDOT (with WMPO support)	High	Years 0-1	$	% of eligible high-risk intersections where NTOR restrictions are implemented
Support New Hanover County Schools on passing ordinance to add stop sign running cameras to school bus Stop Arms.	Policy, Agency Coordination	School districts & local jurisdictions (WMPO advocacy)	High	Years 0-1	$$	Adoption of ordinance authorizing stop-arm camera enforcement

SAFER ROADS						
Strategy	**Category**	**Lead Agency**	**Priority**	**Timeframe**	**Cost**	**Performance Metric**
Coordinate local and regional safety plans to align priorities, goals, project lists, and performance measures.	Agency Coordination	WMPO, Leland staff, Wilmington Vision Zero staff	Medium	Years 2-3	$	# of WMPO member jurisdictions whose adopted safety-related plans align with the WMPO SAP priorities and performance measures.
Create a regional technical assistance program to provide ongoing support to local agencies for implementing safety strategies including grant support.	Agency Coordination	WMPO	Medium	Years 2-3	$$	# of agencies participating in technical assistance program
Publish regionwide collision reporting in an accessible, user-friendly format, including analysis of overrepresented crash trends and priority focus areas identified in the Safety Action Plan.	Agency Coordination	WMPO	Medium	Years 2-3	$	Publish an annual, publicly accessible regionwide collision report

SAFER ROADS						
Strategy	**Category**	**Lead Agency**	**Priority**	**Timeframe**	**Cost**	**Performance Metric**
Develop, in coordination with NCDOT and member jurisdictions, comprehensive safety-oriented intersection alternative selection guidance to improve consistency in intersection design decisions across the WMPO region.	Policy	WMPO (with NCDOT and local jurisdictions)	High	Years 2-3	$	% of intersection projects evaluated using adopted regional guidance prior to design selection
Develop and promote, with local coordination, local traffic calming programs, guidance/best practices, and toolkits for quick-build and systemic safety.	Policy	Local jurisdictions and WMPO	Medium	Years 2-3	$$	Develop and publish a regional traffic calming and quick-build toolkit
Establish a regional framework to guide when and how Complete Streets principles should be evaluated and incorporated into transportation projects across WMPO member jurisdictions.	Policy	WMPO (with local jurisdictions & NCDOT)	High	Years 2-3	$$	Develop and adopt a regional Complete Streets evaluation framework

SAFER ROADS						
Strategy	**Category**	**Lead Agency**	**Priority**	**Timeframe**	**Cost**	**Performance Metric**
Encourage and facilitate public use of self-reporting (via mobile app or survey) to capture collisions and other events falling outside the scope of traditional crash reporting (e.g., near misses, pedestrian and bicyclist falls).	Agency Coordination	WMPO	Low	Beyond Year 3	$$	One publicly accessible reporting mechanism for near-miss and non-reported incidents.
Partner with District Attorney offices and traffic courts to promote safety-focused adjudication of traffic offenses.	Agency Coordination	DA Offices/ Traffic Court with WMPO	Medium	Beyond Year 3	$	One annual coordination meeting with District Attorney offices and traffic courts.
Implement bike and ped data collection in priority locations.	Agency Coordination	WMPO and local jurisdictions	Low	Beyond Year 3	$$	Conduct targeted counts and crossing observations at three priority locations per year.
Update transit plans and develop guidance to incorporate existing crash, speed, and risk data into decisions about transit stop placement and safe access improvements.	Agency Coordination	Wave Transit, WMPO	Medium	Beyond Year 3	$	% of new or modified transit stops evaluated using documented crash and roadway risk data.

SAFER ROADS						
Strategy	**Category**	**Lead Agency**	**Priority**	**Timeframe**	**Cost**	**Performance Metric**
Reduce intersection blocking through targeted signage, public education, and coordination with local law enforcement at high-risk locations.	Education, Enforcement	Local jurisdictions (with law enforcement coordination)	Low	Beyond Year 3	$	# of high-risk intersections receiving targeted anti-blocking signage and public education efforts
Support deployment of signal preemption for EMS vehicles in Brunswick and Pender Counties.	EMS	Local jurisdictions & NCDOT (with WMPO support)	Medium	Beyond Year 3	$$	# of signalized intersections equipped with EMS signal preemption in Brunswick and Pender Counties
Develop, in coordination with NCDOT and member jurisdictions, regional safety analysis guidance for TIAs to support consistent review and decision-making across state- and locally-maintained roadways.	Policy	WMPO (with NCDOT and local jurisdictions)	Medium	Beyond Year 3	$	% of submitted TIAs reviewed using adopted regional safety analysis guidance
Conduct a regional transit service gap and feasibility assessment to evaluate opportunities for expanding or enhancing transit service in high-demand corridors across the WMPO region.	Policy	WMPO and Wave Transit	Low	Beyond Year 3	$$$	# of high-demand corridors identified for transit expansion or enhancement

SAFER PEOPLE						
Strategy	**Category**	**Lead Agency**	**Priority**	**Timeframe**	**Cost**	**Performance Metric**
Use temporary demonstration projects and events to engage the public on transportation safety (e.g., open streets, pop-up traffic garden)	Agency Coordination	Local jurisdictions	Medium	Years 2-3	$$	One open streets or pop-up traffic garden event.
Include questions in the MTP survey about public awareness of safety problems and understanding of proven countermeasures. Include intercept surveys of unrepresented populations such as transit riders.	Education	WMPO	Low	Years 2-3	$	Include safety awareness and countermeasure understanding questions in each MTP update survey
Support regional Safe Routes to School efforts, including walking route planning and youth safety education through schools, after-school programs, and community outreach.	Education	Local jurisdictions and School Districts (with WMPO support)	Medium	Years 2-3	$	# of walking route plans, youth education events, or outreach activities supported per year.
Promote work zone safety training for local agency staff across the WMPO region.	Education	Local jurisdictions (with WMPO support)	Low	Beyond Year 3	$	One annual work zone training across the region
Encourage member jurisdictions to participate in certifications/ classes for traffic safety.	Education	Local Jurisdictions	Low	Beyond Year 3	$	% of member jurisdictions with at least one staff member holding a traffic safety certification

SAFER PEOPLE						
Strategy	**Category**	**Lead Agency**	**Priority**	**Timeframe**	**Cost**	**Performance Metric**
Implement a public education campaign on how to safely respond to emergency vehicles using lights and sirens.	Education	WMPO (with EMS & law enforcement coordination)	Low	Beyond Year 3	$	Measure campaign reach or awareness though survey
Provide targeted public education and outreach when implementing new pedestrian or bicycle infrastructure to help users understand how to safely navigate new designs.	Education	Local jurisdictions (with WMPO support)	Low	Beyond Year 3	$	Create and distribute public education material with one pedestrian or bicycle infrastructure project
Coordinate with driver education partners to support voluntary integration of regional safety messaging into driver training programs.	Education	WMPO (partnership role)	Low	Beyond Year 3	$	# of driver education programs voluntarily incorporating regional safety messaging
Support regional organizations and local partners that host bicycle rodeos and Walking and Biking School Bus programs.	Education	Local jurisdictions & Community Orgs. (with WMPO support)	Low	Beyond Year 3	$	# of bicycle rodeos or Walking/ Biking School Bus programs supported annually
Support state-level adoption of a Vulnerable Road User law.	Policy	WMPO Board	Medium	Beyond Year 3	$	Adopt a resolution supporting a Vulnerable Road User Law

SAFER PEOPLE						
Strategy	**Category**	**Lead Agency**	**Priority**	**Timeframe**	**Cost**	**Performance Metric**
Use and promote existing educational materials and design guidance, such as Handbook for Designing Roadways for the Aging Population, to improve accessibility and safety for users of all ages across the WMPO region.	Policy	WMPO	Low	Beyond Year 3	$	# of outreach efforts, trainings, or technical assistance activities conducted annually promoting age-friendly and accessibility-focused design guidance
Advocate for in-person licensing renewals and Vision Test requirements.	Policy	WMPO advocacy	Low	Beyond Year 3	$	Submit formal position statements or policy recommendations supporting in-person renewals and vision

SAFER SPEEDS						
Strategy	**Category**	**Lead Agency**	**Priority**	**Timeframe**	**Cost**	**Performance Metric**
Support policy authorization and data-driven implementation of Automated Speed Enforcement in high-risk school zones across the WMPO region.	Enforcement	Local jurisdictions (with WMPO support)	High	Years 0-1	$	Adoption of policy enabling Automated Speed Enforcement in high-risk school zones
Support context-based speed setting and management, including lowering posted speed limits where supported by risk, roadway context, and user needs.	Policy	Local jurisdictions & NCDOT (with WMPO support)	High	Years 0-1	$	# of corridors evaluated for context-based speed setting using adopted criteria annually
Revisit vertical traffic calming and all-way stop control policies focusing on innovative practices throughout the region.	Policy	Local jurisdictions (with WMPO support)	High	Years 0-1	$	Complete review and update of regional guidance related to vertical traffic calming and all-way stop control
Encourage Safe System–Based training for Agency personnel (including all committees and MPO Board).	Agency Coordination	WMPO	Low	Years 2-3	$	One annual Safe System-Based training

SAFER SPEEDS						
Strategy	**Category**	**Lead Agency**	**Priority**	**Timeframe**	**Cost**	**Performance Metric**
Support local law enforcement agencies in prioritizing data-driven, targeted enforcement strategies (e.g., pedestrian ROW compliance, speeding, impaired driving) along the High Injury Network, particularly during high-risk periods such as holidays or major regional events.	Enforcement	Local law enforcement (WMPO data support)	Medium	Years 2-3	$	# of coordinated enforcement efforts conducted annually along High Injury Network corridors
Pilot an area-wide, context-based speed limit strategy in the downtown Historic District, with evaluation to inform potential expansion to other appropriate areas in the WMPO region.	Policy	Local jurisdictions & NCDOT (with WMPO support)	Medium	Years 2-3	$$	Implement area-wide context-based speed limit adjustments within the Downtown Historic District

POST-CRASH CARE						
Strategy	**Category**	**Lead Agency**	**Priority**	**Timeframe**	**Cost**	**Performance Metric**
Incorporate EMS coordination and emergency response considerations into the design and implementation of speed management projects.	Agency Coordination	Local jurisdictions (with WMPO support)	Low	Beyond Year 3	$	% of speed management projects that incorporate documented emergency response
Support deployment of signal preemption for EMS vehicles in Brunswick and Pender Counties.	Emergency Response	Local jurisdictions & NCDOT (with WMPO support)	Medium	Beyond Year 3	$$	# of signalized intersections equipped with EMS signal preemption in Brunswick and Pender Counties

Photo credit: Adobe Stock

KEY INFRASTRUCTURE STRATEGIES TO ADDRESS PRIORITY LOCATIONS

A toolbox of infrastructure strategies was developed to address the plan's emphasis areas. The toolbox and the way tools are applied at priority locations is intended as a guide to WMPO and its member agencies of where and how to apply safety treatments in their jurisdictions.

What's in the toolbox?

The following strategies were selected to address safety issues at priority locations:

- **Speed Management** aims to reduce vehicle speed and accompanying crash severity.
- **Signalized Crossing** seeks to improve pedestrian safety at signalized intersections.
- **Systemic Signals/Visibility** includes low-cost signalized intersection treatments.
- **Lane Modification** consists of road diets and lane reductions.
- **Bicycle Facility** seeks to provide safe bicycle routes.
- **Access Management** reduces driveway and turning conflicts.
- **Unsignalized Crossing** aims to provide safe crossings at currently unsignalized locations.
- **Unsignalized Intersection** treatments target crashes away from traffic signals.

Each safety strategy includes a range of possible safety treatments to suit the associated context. Further detail included in Appendix D: Strategies Toolbox.

Priority project list

The priority project list and the maps that follow are recommendations WMPO member agencies need to implement to reach the plan's goal of zero fatal and serious injury crashes. Meeting this goal will require continued investment by WMPO member agencies.

HOW THE PRIORITY PROJECT LIST WAS CREATED

The following criteria were used identify priority locations for safety countermeasures: 52 segments and 29 intersections.

Top 1% High Injury Network sites

- High Injury Network (Non-Access Controlled/Auto-Focused): 50% of priority project segment locations in top 1% of High Injury Network
- High Injury Network (Bike/Ped): 53% of priority project segment locations in top 1% of High Injury Network
- High Injury Intersections: 100% of intersections in top 1% of HII (excluding locations in Leland),
- 34% of priority project segment locations overlap with the top 1% of high injury intersections

Pedestrian & bicyclist risk

- Pedestrian: 55% of priority project segment locations overlap with the top 1% of Pedestrian Risk corridors
- Bicyclist: 54% of priority project segment locations overlap with the top 1% of Bicyclist Risk corridors

Public feedback focus areas

- 30% of corridors overlap with public comments related to key safety issues: "Crossings", "Separation", "Signage", "Speeding", "Turning", "Visibility".

Two safety countermeasure strategies were developed for each priority location to reduce fatal and serious-injury crashes. These candidate projects were scored by the safety need of their location, anticipated effectiveness, and ease of implementation to form the top 40 priority projects. The resulting priority projects are listed in the table on the following page. **Figure 4** through **13** document the recommended safety treatments at these locations (two per location). Appendix E provides the detailed project prioritization results.

Priority projects (top 40 locations)

Ranking	ID	Location Name	Extents	Jurisdiction	Recommendation	Total Score
1	SEG-32	Seg. #32 on Dawson St	Cape Fear Memorial Bridge Off Ramp to US 76 (Oleander Dr)	Wilmington	Speed Management	95
2	SEG-11	Seg. #11 on Carolina Beach Rd	Independence Blvd to Myrtle Grove Rd	New Hanover County	Systemic Signals/ Visibility	90
3	SEG-2	Seg. #2 on S College Rd	Market St to Oleander Dr	Wilmington	Systemic Signals/ Visibility	90
4	SEG-7	Seg. #7 on S 3rd St	Market St to Wooster St	Wilmington	Systemic Signals/ Visibility	90
5	SEG-33	Seg. #33 on Market St	Gordon Rd to Porter's Neck Rd	New Hanover County	Systemic Signals/ Visibility	90
6	SEG-41	Seg. #41 on Kerr Ave	Martin Luther King Jr Pkwy to Wrightsville Ave	Wilmington	Systemic Signals/ Visibility	90
7	SEG-43	Seg. #43 on Wooster St	S 3rd St to Dawson St	Wilmington	Speed Management	90
8	SEG-3	Seg. #3 on Shipyard Blvd	River Rd to Independence Blvd	Wilmington	Speed Management	90
9	SEG-40	Seg. #40 on Carolina Beach Rd	Carolina Beach Rd to N Dow Rd	New Hanover County	Speed Management	85
10	SEG-44	Seg. #44 on S17th St	Rankin St to Savannah Ct	Wilmington	Speed Management	85
11	SEG-9	Seg. #9 on Burnett Blvd	Wooster St to Carolina Beach Rd	Wilmington	Systemic Signals/ Visibility	85
12	SEG-5	Seg. #5 on Oleander Dr	Dawson St to S College Rd	Wilmington	Systemic Signals/ Visibility	85
13	SEG-10	Seg. #10 on Carolina Beach Rd	Burnett Blvd to Independence Blvd	Wilmington	Systemic Signals/ Visibility	85
14	SEG-6	Seg. #6 on Oleander Dr	S College Rd to Eastwood Rd	Wilmington	Speed Management	82

Ranking	ID	Location Name	Extents	Jurisdiction	Recommendation	Total Score
15	SEG-4	Seg. #4 on N College Rd	Gordon Rd to Market St	New Hanover County	Systemic Signals/ Visibility	82
16	INT-4	Int. #4 at Shipyard Blvd and Holbrooke Ave	N/A	Wilmington	Unsignalized Crossing	82
17	SEG-35	Seg. #35 on S 16th St	Market St to Savannah Ct	Wilmington	Speed Management	82
18	SEG-37	Seg. #37 on Randall Pkwy	Independence Blvd to Reynolds Dr	Wilmington	Lane Modification	80
19	SEG-52	Seg. #52 on Shipyard Blvd	Independence Blvd to US 76 (Oleander Dr)	Wilmington	Signalized Crossing	80
20	SEG-8	Seg. #8 on N Lake Park Blvd	N Dow Rd to Alabama Ave	Carolina Beach	Unsignalized Crossing	80
21	SEG-48	Seg. #48 on Market St	N 23rd St to Gordon Rd	Wilmington	Signalized Crossing	77
22	SEG-45	Seg. #45 on Gordon Rd	Avant Dr to Military Cutoff Rd	New Hanover County	Unsignalized Crossing	77
23	SEG-28	Seg. #28 on Princess St	N 3rd St to N 17th St	Wilmington	Speed Management	77
24	SEG-19	Seg. #19 on Independence Blvd	Randall Pkwy to Shipyard Blvd	Wilmington	Systemic Signals/ Visibility	75
25	SEG-51	Seg. #51 on Military Cutoff Rd	Market St to Cayman Ct	Wilmington	Systemic Signals/ Visibility	75
26	SEG-46	Seg. #46 on Covil Ave	Market St to Randall Pkwy	Wilmington	Speed Management	75
27	SEG-1	Seg. #1 on N College Rd	Prince George Creek to Murrayville Rd	New Hanover County	Speed Management	75
28	SEG-39	Seg. #39 on US 74/US 76	Maco Rd to Mercantile Dr	Brunswick County	Speed Management	75
29	SEG-34	Seg. #34 on Market St	S Water St to N 23rd St	Wilmington	Signalized Crossing	75

Ranking	ID	Location Name	Extents	Jurisdiction	Recommendation	Total Score
30	SEG-15	Seg. #15 on Martin Luther King Jr Pkwy	Kornegay Ave to S Cardinal Dr	Wilmington	Speed Management	75
31	SEG-17	Seg. #17 on S College Rd	Shipyard Blvd to Piner Rd	New Hanover County	Speed Management	75
32	INT-1	Int. #1 at Shipyard Blvd and Independence Blvd	N/A	Wilmington	Speed Management	72
33	SEG-42	Seg. #42 on N Kerr Ave/ Gordon Rd	Deer Creek Ln to Avant Dr	New Hanover County	Speed Management	72
34	SEG-26	Seg. #26 on Castle St	N 3rd St to N 17th St	Wilmington	Speed Management	72
35	SEG-49	Seg. #49 on Lanvale Rd	Leland School Rd to Old Fayetteville Rd	Brunswick County	Lane Modification	70
36	INT-15	Int. #15 at US-17 and Sloop Point Loop Rd	N/A	Pender County	Speed Management	70
37	SEG-38	Seg. #38 on Red Cross St/ Rankin St	N 3rd St to N 17th St	Wilmington	Speed Management	70
38	INT-20	Int. #20 at Covil Ave and Darlington Ave	N/A	Wilmington	Speed Management	67
39	INT-25	Int. #25 at River Rd and Old Towne Wynd Rd	N/A	Belville	Speed Management	65
40	SEG-30	Seg. #30 on Masonboro Loop Rd	Oleander Dr to Southwold Dr	Wilmington	Unsignalized Crossing	65

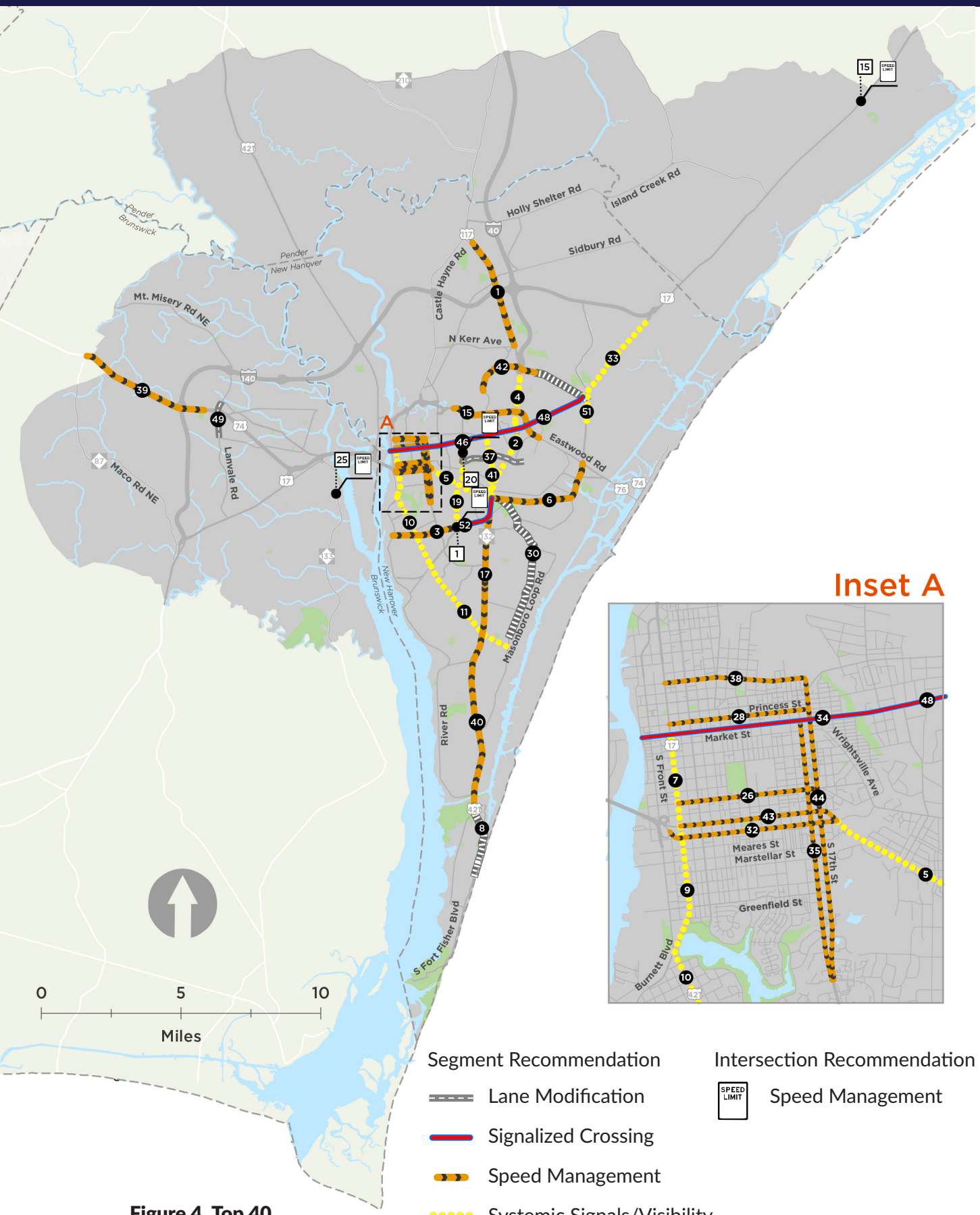


Figure 4. Top 40 locations

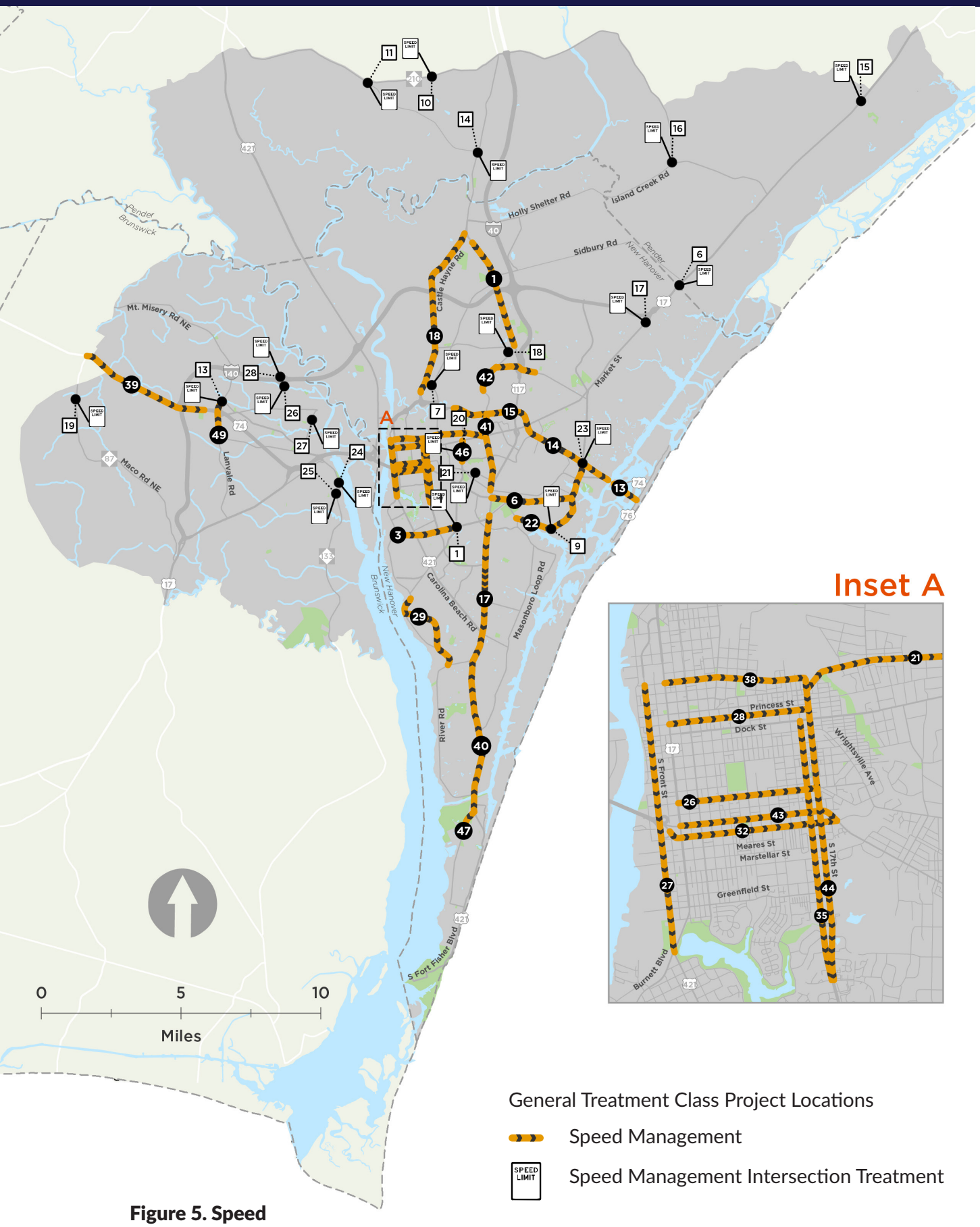


Figure 5. Speed management recommendations

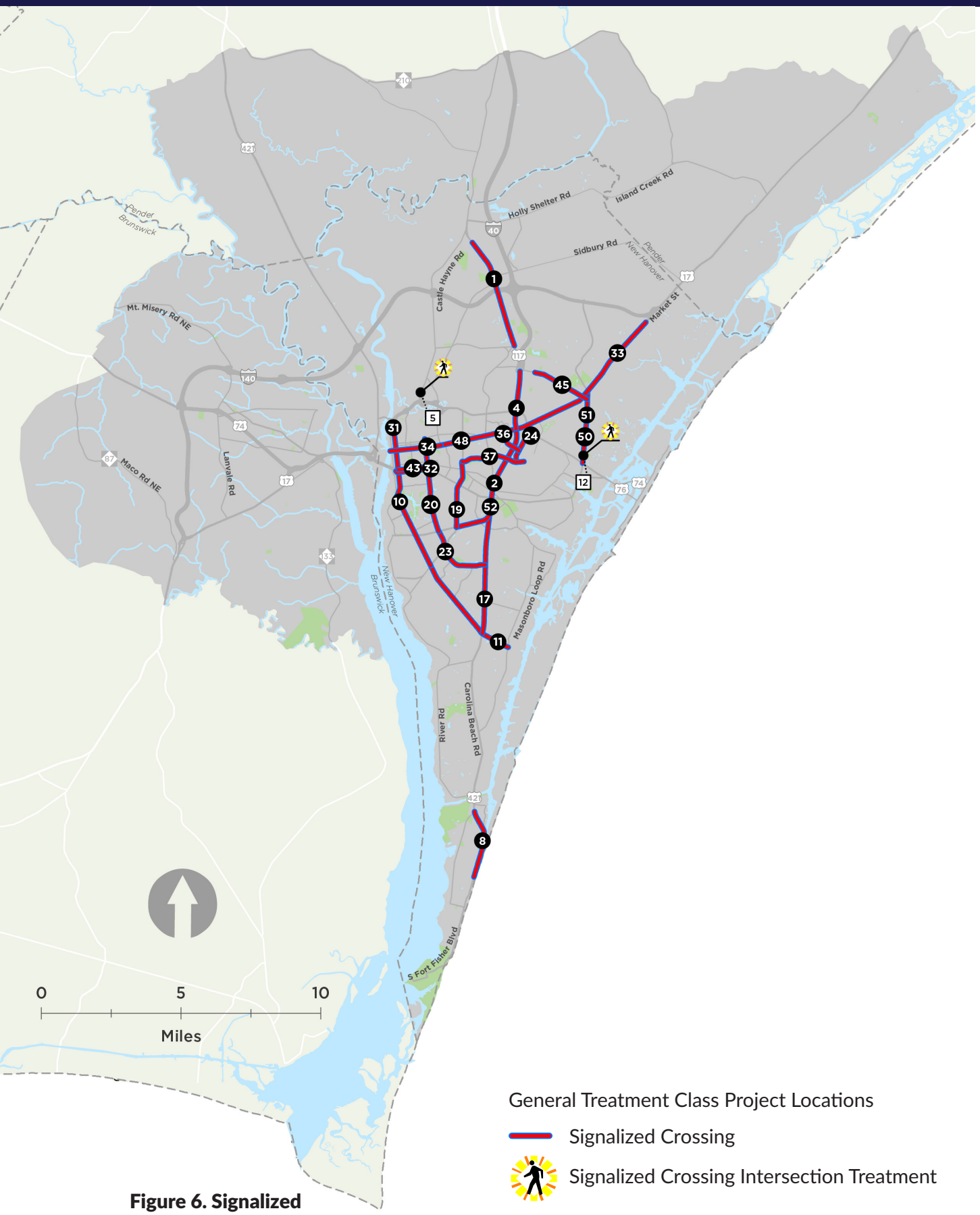


Figure 6. Signalized crossing recommendations

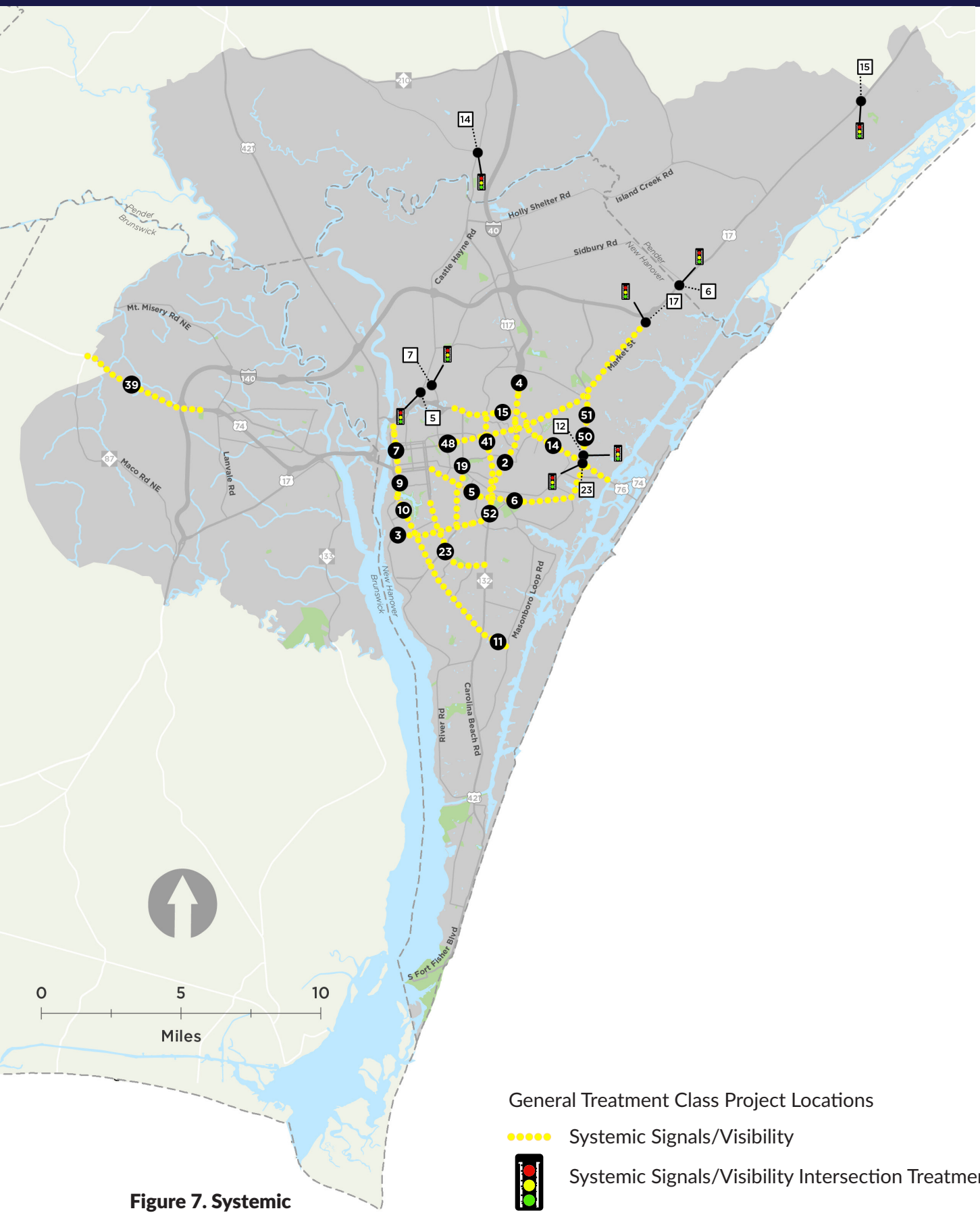


Figure 7. Systemic signals/visibility recommendations

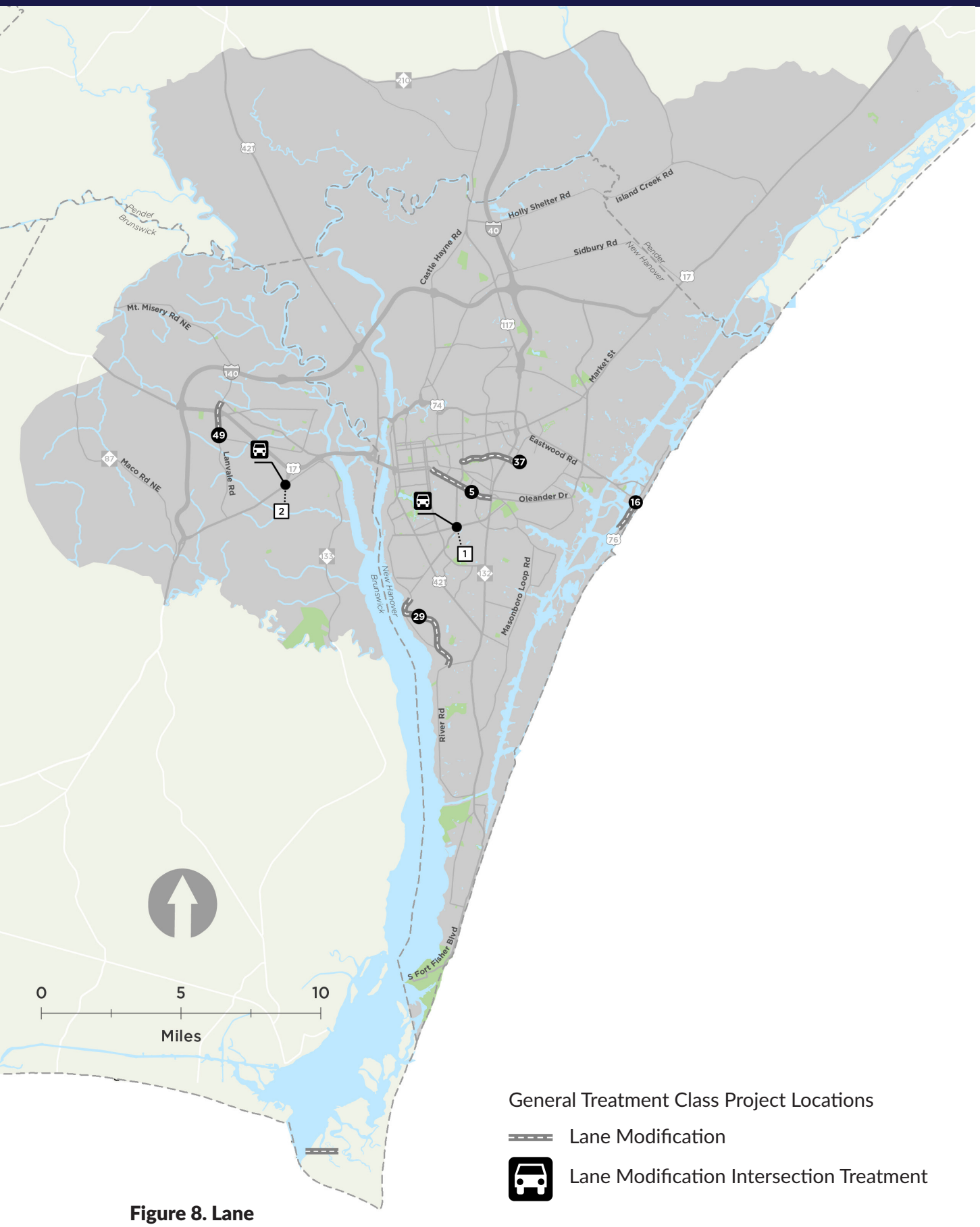
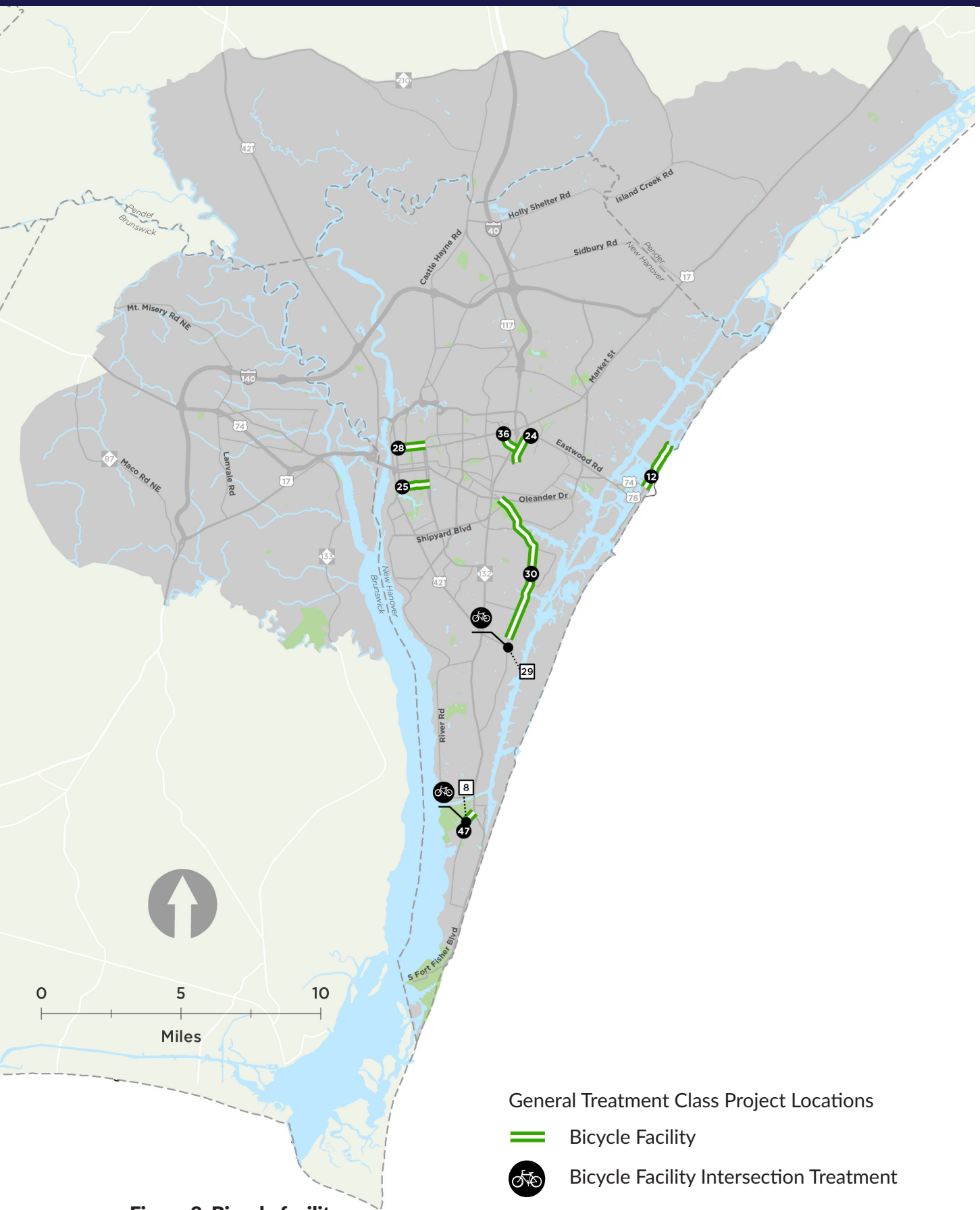


Figure 8. Lane modification recommendations



General Treatment Class Project Locations

Bicycle Facility

Bicycle Facility Intersection Treatment

Figure 9. Bicycle facility recommendations

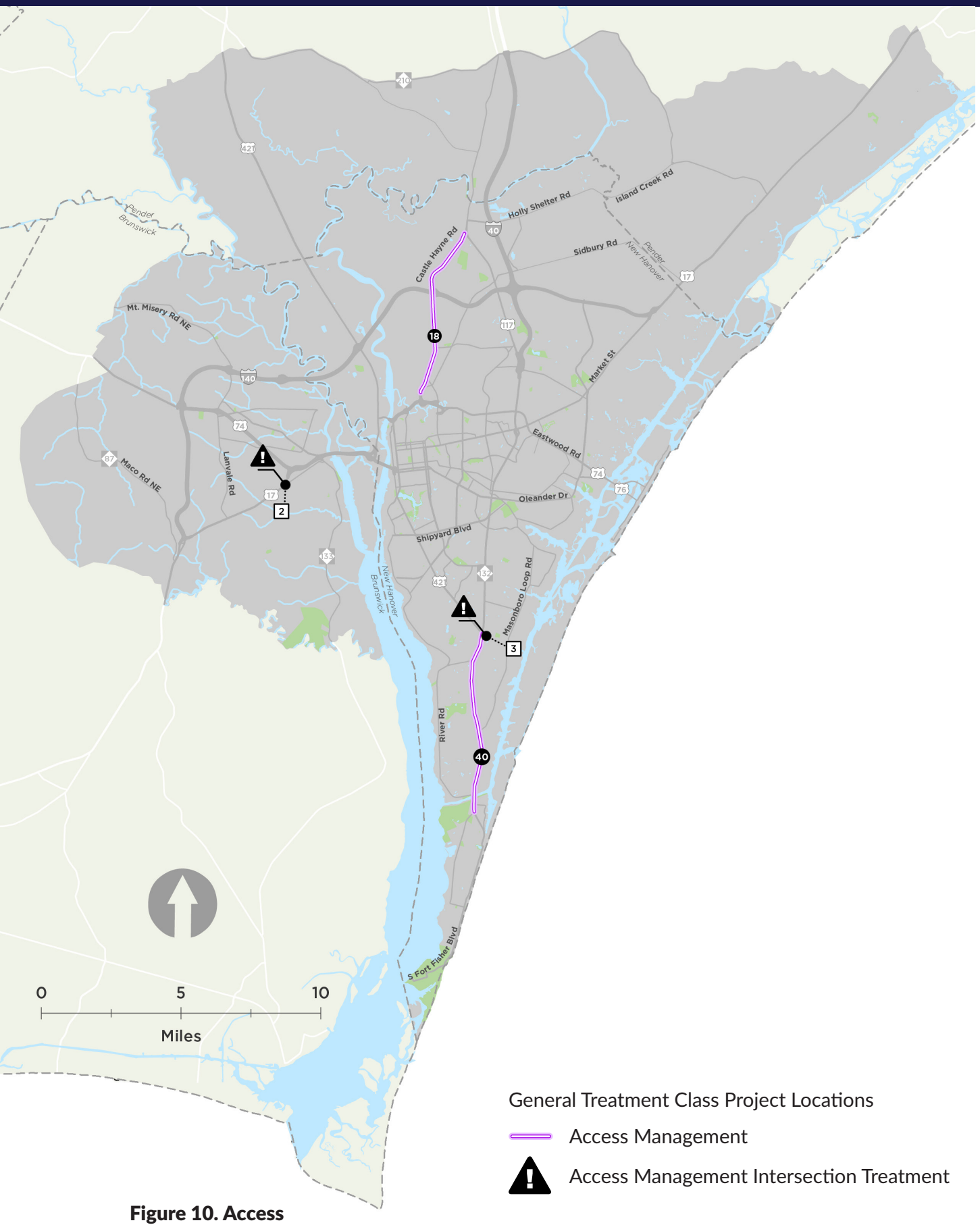


Figure 10. Access management recommendations

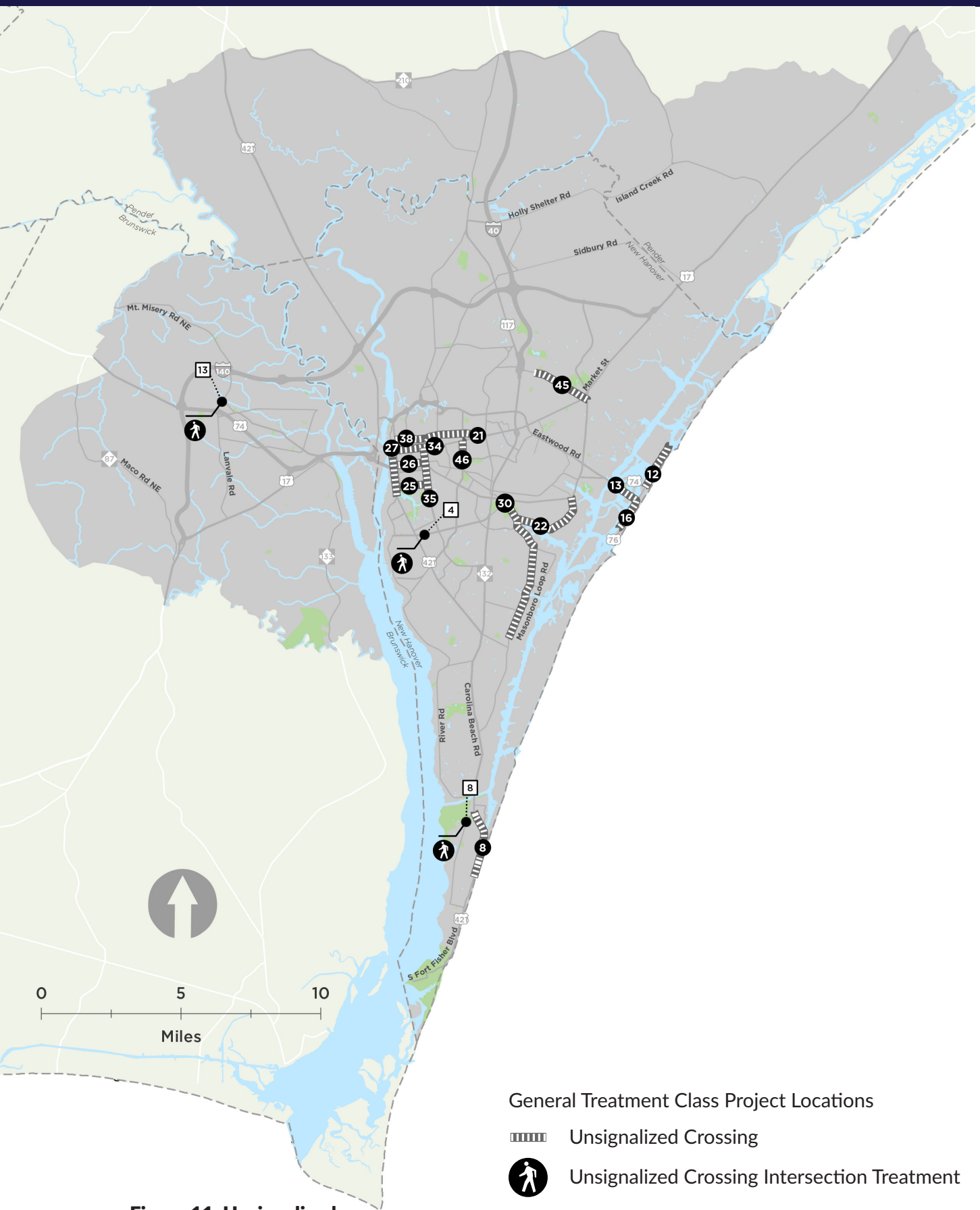


Figure 11. Unsignalized crossing recommendations

Selected implementation-ready projects

These 40 projects were subject to additional scrutiny to identify the 10 projects selected for further development to support implementation readiness. These projects score highly in need, effectiveness, and ease of implementation and also capture additional context to support adoption. The selected 10 projects do not have in-process roadway projects that may address the current safety conditions. The top-scoring projects in jurisdictions beyond Wilmington and New Hanover County were included to foster safety action and funding applications across the WMPO region. These projects are listed in the table below and shown in **Figure 13**.

Selected implementation-ready projects (top 10 selected projects)

Location Name	Recommendation	Location
Seg. #11 on Carolina Beach Rd	Systemic Signals/Visibility	Wilmington
Seg. #2 on S College Rd	Systemic Signals/Visibility	Wilmington
Seg. #7 on S 3rd St	Systemic Signals/Visibility	Wilmington
Seg. #33 on Market St	Systemic Signals/Visibility	New Hanover County
Seg. #4 on N College Rd	Systemic Signals/Visibility	Wilmington
Seg. #52 on Shipyard Blvd/College Rd	Signalized Crossing	Wilmington
Seg. #8 on N Lake Park Blvd	Unsignalized Crossing	Carolina Beach
Seg. #49 on Lanvale Rd	Lane Modification	Brunswick County
Int. #15 at US 17 and Sloop Point Loop Rd	Speed Management	Pender County
Int. #25 at River Rd and Old Town Wynd Rd	Speed Management	Belville

Photo credit: Adobe Stock

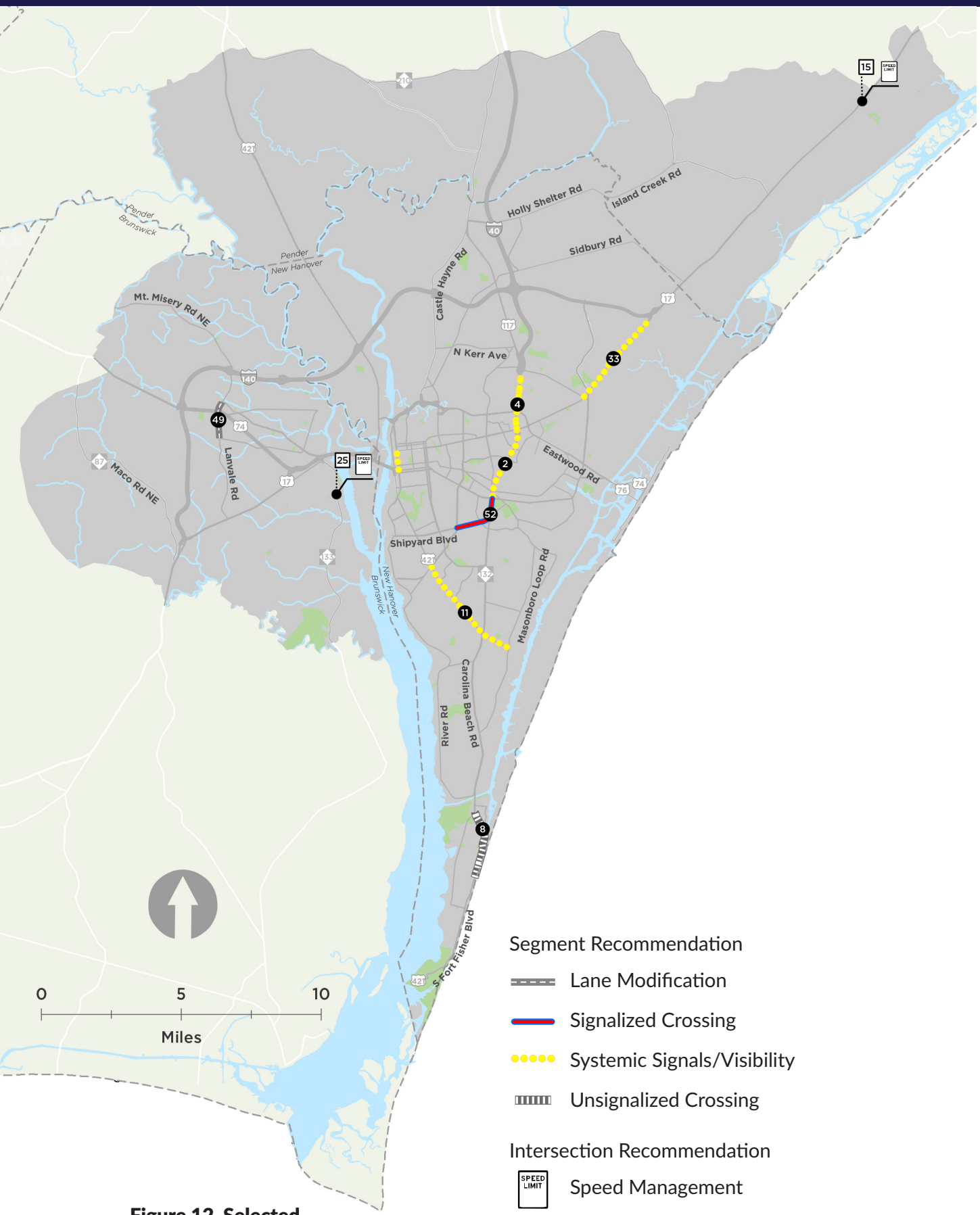


Figure 12. Selected implementation-ready projects

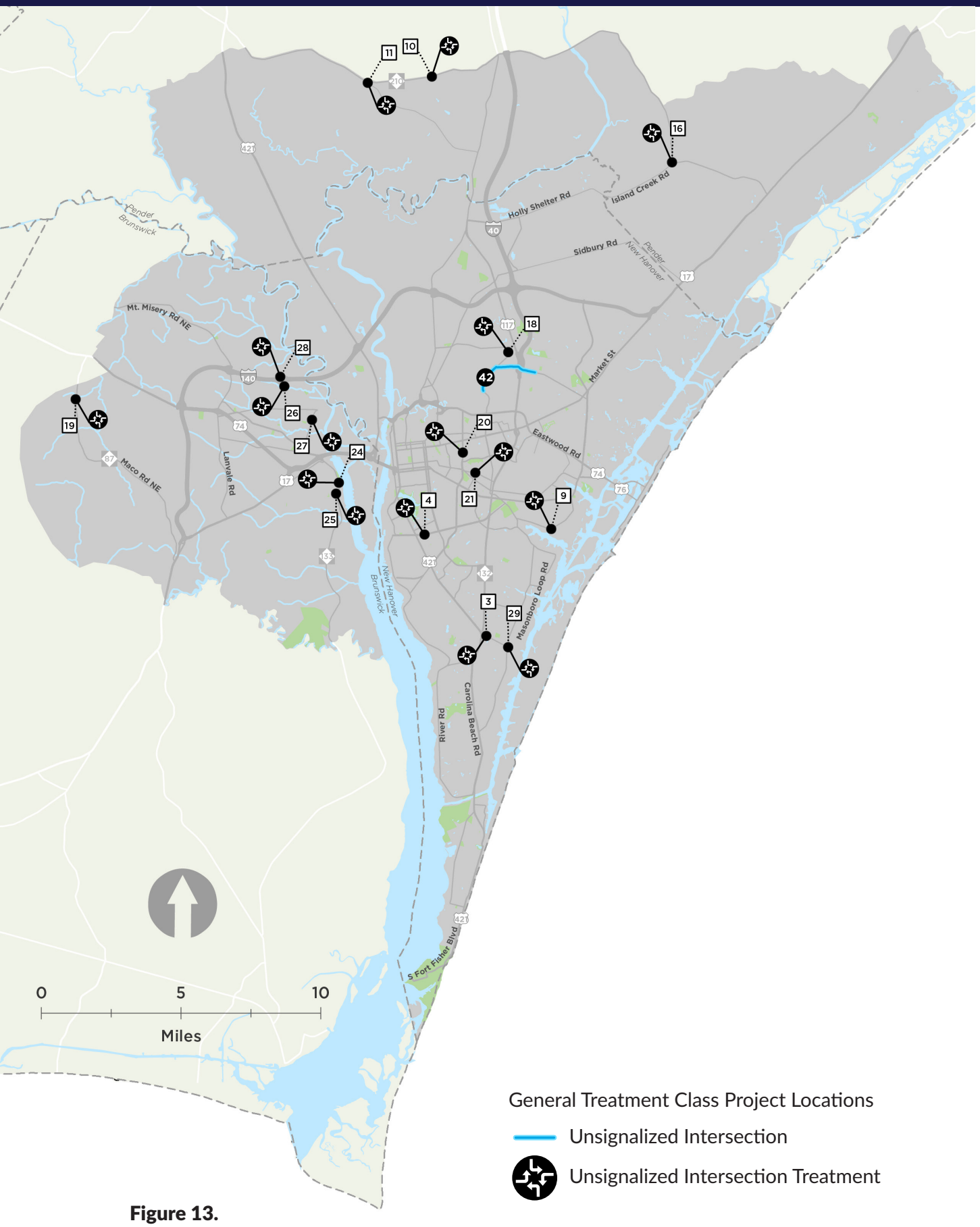


Figure 13.
Unsignalized intersection recommendations

FUNDING

Public agencies have limited resources that need to stretch across numerous competing transportation priorities—maintenance, congestion reduction, managing growth, and more. Finding the funds to begin safety initiatives or implement safety projects will be challenging, but WMPO and its member and partner agencies need to prioritize safety to reach this plan's vision and goals. This may require both reallocating existing funds and finding new funding sources. Relevant federal, state, and local funding sources are listed below. Member agencies should also use WMPO as a resource for help identifying potential funding sources for safety projects.

The project identification and scoring methodology for this Safety Action Plan were carefully constructed to align with state and local priorities and performance measures in order to maximize the probability of securing funding and ongoing community support. The following sections describe a suite of possible funding sources for transportation safety projects. Specific funding sources will be identified after more detailed project feasibility analysis and cost estimation.

Federal funding

Safe Streets and Roads for All (SS4A): Funds initiatives through grants to prevent roadway deaths and serious injuries. Provides two types of grants (described below). Requires a local match of 20%.

- **Planning and Demonstration Grants:** May be used to develop, complete, or supplement a Safety Action Plan (such as this plan). May also be used for supplementary planning activities (such as road safety audits, safety planning for a corridor or subarea, or community engagement) and demonstration activities, such as quick-build projects.
- **Implementation Grants:** May be used to implement projects and strategies identified in a Safety Action Plan. Includes infrastructural, behavioral, and operational activities. May also include supplemental planning and demonstration activities.

Road to Zero Community Traffic Safety Grant Program: Supports local and state efforts to reduce roadway fatalities and serious injuries by funding innovative and evidence-based traffic safety initiatives that align with the Safe System approach. Eligible projects may include demonstration programs, safety education and outreach campaigns, data analysis and research, or community-based initiatives to improve roadway safety for all users.

OTHER FEDERAL PROGRAMS

- Better Utilizing Investments to Leverage Development (BUILD) Grant Program
- Infrastructure for Rebuilding America (INFRA) Grant Program
- Active Transportation Infrastructure Investment Program (ATIIP)
- Bridge Investment Program (BIP)
- Advanced Transportation Technologies and Innovative Mobility Deployment Program (ATTIMD / ATCMTD)
- Strengthening Mobility and Revolutionizing Transportation (SMART) Grant Program and Accelerating Innovative Mobility Program (AIM)

FEDERAL FORMULA PROGRAMS

Locally Administered Projects Program (LAPP): The WMPO's funding program for distributing the annual allocation of Surface Transportation Block Grant (STBG), Transportation Alternatives (TA), and Carbon Reduction (CR) funds. A 20% local match is required for all.

- **Surface Transportation Block Grant – Direct Attributable (STBG-DA):** Federal formula program that provides flexible funding for a wide range of surface transportation projects including roadway improvements, intersection upgrades, pedestrian and bicycle infrastructure, transit capital, and safety improvements. Funds can be used for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel; pedestrian and bicycle infrastructure; and transit capital projects, including intercity bus terminals.
- **Transportation Alternatives Program:** Provides federal funding for projects that improve pedestrian, bicycle, and other non-motorized transportation options and enhance community connectivity within the WMPO planning area. The program supports infrastructure that improves safety and accessibility for people walking and biking. Eligible projects include sidewalks, multi-use paths and greenways, bicycle lanes, pedestrian crossings, streetscape improvements, trail connections, and Safe Routes to School infrastructure. Proposals are evaluated based on criteria such as safety benefits, connectivity to key destinations, project readiness, and consistency with regional transportation plans.
- **Carbon Reduction Plan:** Provides federal funding for transportation projects that reduce greenhouse gas emissions and improve the efficiency of the transportation system within the WMPO planning area. Eligible projects include traffic signal optimization, bicycle and pedestrian infrastructure, transit improvements, transportation demand management programs, intelligent transportation systems, and other strategies that reduce vehicle emissions or congestion. Projects are evaluated based on factors such as emission reduction potential, safety benefits, connectivity, and project readiness.

North Carolina state funding

State Transportation Improvement Program (STIP): The state's 10-year capital planning and programming document that identifies transportation projects to receive federal and state funding for planning, design, right-of-way acquisition, and construction. The STIP includes projects across multiple modes—including highways, bridges, aviation, rail, transit, bicycle, and pedestrian improvements—and serves as the mechanism through which transportation investments are scheduled and funded statewide. Projects are primarily selected through NC's Strategic Transportation Investments (STI) prioritization process, which evaluates candidate projects using quantitative metrics such as congestion, safety, infrastructure condition, economic competitiveness, and regional needs. Once selected, projects are assigned funding and implementation schedules and incorporated into the STIP. While the STIP itself is not a grant program, it is the primary vehicle through which major transportation projects—including roadway safety improvements—receive state and federal funding for implementation.

Highway Safety Improvement Program (HSIP): Local Highway Safety Improvement Program is a funding program administered by the Federal Highway Administration through NCDOT to support safety improvements on locally owned roadways. The program provides federal funds for projects that reduce traffic fatalities and serious injuries on public roads, particularly on local roads that are not part of the state highway system. Eligible projects include intersection improvements, roadway lighting, traffic signal upgrades, pedestrian crossings, rumble strips, guardrails, signage and pavement markings, speed management measures, and other proven safety countermeasures identified through crash data analysis. Projects are typically selected based on their ability to address documented safety problems and deliver measurable reductions in crashes. No local match is required.

Photo credit: Adobe Stock

NCDOT Spot Safety Funds: State-funded program designed to quickly implement small, targeted roadway improvements that address specific safety and operational problems on public roads. Its primary purpose is to reduce crashes, injuries, and fatalities by correcting identifiable safety issues at particular locations, especially intersections or roadway segments with documented crash patterns. The program emphasizes rapid delivery and cost-effective solutions, typically funding projects up to $400,000 using approximately $12 million annually statewide. No match is required.

The goals of the program center on improving traffic safety, reducing crash frequency and severity, and quickly correcting high-risk conditions, often within a short implementation timeframe. It focuses on deploying proven countermeasures such as traffic signals, turn lanes, signage, pavement markings, lighting, and pedestrian safety improvements to address both safety and operational deficiencies.

NCDOT High Impact/Low Cost (HILC) Funds: HILC funds are a specific allocation within the Mobility/Modernization Fund of the North Carolina Highway Fund. Established in 2017, these funds are designed to complete projects that significantly improve the transportation system with relatively low capital investment. Funds are primarily used for construction projects that enhance safety and operations without the massive scope of major highway expansions. Common examples include intersection improvements (e.g., signal upgrades, adding turn lanes); minor widening projects; operational improvements; and safety enhancements, such as pedestrian improvements or clearing vegetation at busy intersections. HILC funds are typically managed directly by NCDOT divisions; no grants are awarded to local subrecipients, though local governments/MPOs often collaborate on identifying needs.

NCDOT Small Construction Fund: The goal of the program is to address localized transportation needs quickly and efficiently without the longer timelines associated with major capital projects. It funds small projects in and around cities and towns that could not be funded in the STIP. It supports small-scale roadway improvements requested by local governments or legislators (to be implemented by NCDOT's construction or maintenance program) that improve mobility, safety, and access on state-maintained roads. Eligible projects typically include intersection improvements, turn lanes, traffic signals, sidewalk connections, roadway widening, and other localized safety or operational improvements. Funds are allocated equally to each NCDOT division and can be used on a variety of transportation projects for municipalities, counties, businesses, schools, and industries in NC. The program funds projects up to $250,000 per fiscal year, unless otherwise approved by the Secretary of Transportation. Right-of-way and utility relocations should be provided and accomplished at no cost to NCDOT. Funding requests should be submitted to the Division Engineer providing technical information such as location, improvements being requested, and project timeline.

Governors' Highway Safety Program: This program helps fund the efforts of law enforcement agencies, local governments, community organizations, schools and nonprofits to reduce traffic crashes in North Carolina. GHSP funds projects/programs that address the following areas of highway safety: drunken driving, seat belt safety, police traffic services, young drivers, motorcycle safety, and traffic record-keeping. GHSP also provides funds to address distracted driving and to make roads safer for older drivers, pedestrians, bicyclists, commercial motor vehicles and school buses.

NC's Safe Routes to School (SRTS) Non-Infrastructure Program: Provides an opportunity for communities to improve conditions for bicycling and walking to school. Projects can range up to three years. Grant amounts range from $50,000 - $500,000 per project. Funding may be requested to support activities for community-wide, regional or statewide programs. Proposed projects need to be education, encouragement, or evaluation based.

Local funding sources

Powell Bill Program: The Powell Bill program, also known as the State Street Aid program, is administered by NCDOT to provide state funding to eligible municipalities for street maintenance and improvements. The funds are derived from a percentage of the state's gasoline tax revenue. Municipalities can use the funds to maintain, repair, reconstruct, or improve streets, sidewalks, bikeways, greenways, and public thoroughfares; build or widen streets, bridges, and drainage areas; and plan, build, and maintain bicycle paths. Each municipality manages Powell Bill funds differently as they own/maintain different roads.

Local Government Capital Improvement Programs (CIP): Cities and counties often fund roadway safety improvements through their Capital Improvement Programs, which allocate local tax revenues to infrastructure projects. CIP funding is commonly used for sidewalks, intersection improvements, traffic calming measures, pedestrian crossings, roadway lighting, and signal upgrades. Local funding from CIP programs is also frequently used as the required match for state or federal grants.

Additional local funding sources:

- Local transportation sales tax
- Local bond measures
- Special assessment districts
- Developer contributions and impact fees

QUICK-BUILD PROJECTS: TEST DRIVING YOUR OPTIONS

A quick-build project is a temporary installation used to test changes to a roadway's design or operation that improve safety and accessibility.

Quick-build projects generally have the following characteristics:

- Low-cost materials.
- Materials can be installed quickly.
- Materials can be easily changed, adapted, or replaced with more durable materials as needed.

Why is quick-build useful?

Agencies can use quick-build projects and processes to implement safety projects with limited budgets and on a compressed timeframe, compared to traditional capital projects. This method can be used to try out experimental countermeasures or pilot programs before investing in permanent installation.

What can WMPO and its partner agencies do to improve quick-build practices?

Develop or improve internal agency processes that enable effective and efficient quick-build implementation. This may include dedicating agency staff to coordinating quick-build projects, developing a formal process, inventorying available resources, and identifying key partners for implementation (like maintenance staff, emergency service providers, and members of the public).

Involve agency staff, community members, and other partners in conversations in all stages of the process. This can build buy-in before installation, set expectations for roadway users and members of the public, and allow agencies to learn lessons from project implementation.

Maintenance should be a focus in the planning, design, and implementation stages. This includes monitoring of annual maintenance costs post-implementation.

PERFORMANCE MEASURES

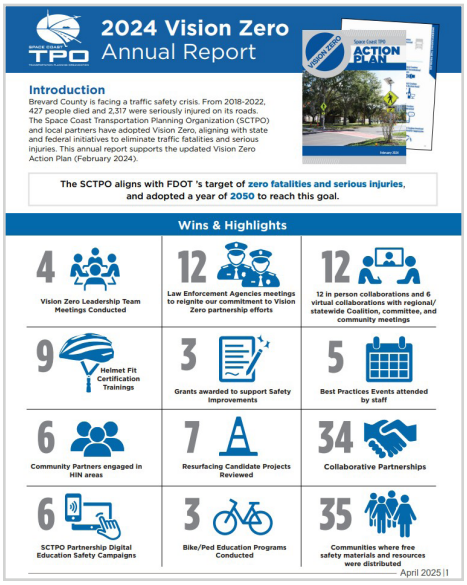
This section describes performance measures and program outcomes that can be used to help evaluate and understand the changes that implementing this plan has on roadway safety in the Cape Fear region. The performance measures are generally used to evaluate progress made in implementing the strategies recommended in this plan. The program outcomes measure the success of the plan in achieving its goals (e.g., reducing fatalities and serious injuries).

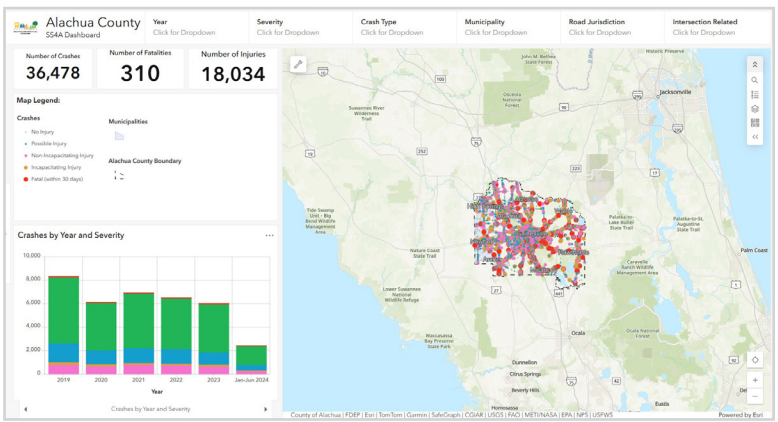
Progress and transparency

Program outcome measures provide quantitative metrics to evaluate the success of the program in eliminating fatalities and serious injuries. The change in crashes should be measured over 5-year rolling averages and broken out by different categories such as emphasis areas, land-use context, or roadway ownership. Breaking out crashes by different agencies can help indicate which strategies are most effective and which areas might require a greater focus in the future.

The total amount of fatal and serious injury crashes should be summarized on an annual basis to see if the number of crashes is trending towards the goal identified in this plan. Alternatively, program outcomes can be measured by the number of crash fatalities and serious injuries per total population instead of crash frequency. To encourage member agencies to continue implementation of the strategies presented in this plan, it is recommended that WMPO take the following actions:

- **Annual Safety Reporting:** Present performance measures and program outcomes to the WMPO Board and the Safety Action Plan Steering Committee every year. This can inform them of progress towards reaching the plan's goals, provide an opportunity to share regional safety practices, and hold member agencies accountable for implementing high-priority strategies.
- **Public Facing Dashboard:** Create and maintain an online, public-facing dashboard that displays WMPO and member agencies' progress on performance measures and program outcomes.





Appendices

Appendix A: Community Engagement Plan and Summaries

Appendix B: Steering Committee Minutes

Appendix C: Existing Conditions Memorandum

Appendix D: Strategies Toolbox

Appendix E: Detailed Project Prioritization

Appendix F: Leland Safe Streets and Roads for All Safety Action Plan