

May 2026

The City of Gastonia

SAFETY ACTION PLAN

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CITY COUNCIL

- Richard Franks, Mayor
- Demetrios Koutsoupas, Ward 1
- Glenn Silverman, Ward 2
- James Gallagher, Ward 3
- Angela Dreher, Ward 4
- Jennifer M. Stepp, Ward 5
- Donyel Barber, Ward 6

SAFETY TASK FORCE

- Sergeant Daniel Lane (Gastonia Police Department)
- LaVerne Partlow, Health Education Coordinator (Gaston County Department of Health and Human Services)
- Quentin McPhatter, Assistant City Manager (City of Gastonia)
- Sushil Nepal, Planning Director (City of Gastonia)
- Makenna Sturgis, Transportation Senior Planner (City of Gastonia)
- Dusty Wentz, Director of Public Services (City of Gastonia)

- Bessie Harvey/Eric Knupp (Gaston County Schools)

PROJECT LEADERSHIP

- Cory Steiss, City Traffic Engineer (City of Gastonia)
- Randi Gates, Director of Transportation (City of Gastonia)
- Kimley-Horn

COMMUNITY STAKEHOLDERS

- GCLMPO
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The Gastonia Safety Action Plan was prepared by:

The City of Gastonia

with

Kimley-Horn

DISCLAIMER

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23 United States Code Section 407

Discovery and admission as evidence of certain reports and surveys

Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

Prior to the implementation of any recommendations contained herein, which are conceptual in nature, a detailed analysis of specific local conditions should be conducted and reflected as appropriate in relevant design and construction documents.



ABBREVIATIONS

- AADT:** Average Annual Daily Traffic
- APS:** Accessible Pedestrian Signals
- ADA:** Americans with Disabilities Act
- BIL:** Bipartisan Infrastructure Law
- CIP:** Capital Improvement Plan
- EVP:** Emergency Vehicle Pre-emption
- FHWA:** Federal Highway Administration
- FSI:** Fatal or Serious Injury
- FY:** Fiscal Year
- GCLMPO:** Gaston-Cleveland-Lincoln Metropolitan Planning Organization
- GHSP:** Governor’s Highway Safety Program
- GIS:** Geographic Information System
- HIN:** High-Injury Network
- HOA:** Homeowners Association
- HSIP:** Highway Safety Improvement Program
- IJA:** Infrastructure Investment and Jobs Act
- IIP:** Intersection Improvement Program
- KABCO :** Injury Severity Scale
 - **K:** Fatal Injury
 - **A:** Serious (Incapacitating) Injury
 - **B:** Minor (Non-Incapacitating Injury)
 - **C:** Possible Injury
 - **O:** No Injury, Property Damage Only
 - **U:** Unknown Severity

- Gastonia LEARNS Project:** Library, Education, Art, Recreation, Nature, and Science
- LPI:** Leading Pedestrian Interval
- MTP:** Metropolitan Transportation Plan
- NCDOT:** North Carolina Department of Transportation
- NC SHSP:** North Carolina Strategic Highway Safety Plan
- PDO:** Property Damage Only
- PHB:** Pedestrian Hybrid Beacon
- ROW:** Right-of-Way
- SAP:** Safety Action Plan
- SoS:** State of Safety Report
- SRTS:** Safe Routes to School
- SS4A:** Safe Streets and Roads for All
- STF:** Safety Task Force
- TAP:** Transportation Alternatives Program
- TIA:** Transportation Impact Analysis
- TIP:** Transportation Improvement Program
- TWLTL:** Two-way Left-turn Lane
- UDO:** Unified Development Ordinance
- USDOT:** United States Department of Transportation
- VRU:** Vulnerable Road Users

CALL TO ACTION

Traffic safety is a shared responsibility and a defining measure of community well being. In Gastonia, traffic-related fatalities and serious injuries are not isolated incidents—they are preventable events that affect families, neighborhoods, and the community as a whole. Every life lost on our streets reflects a need for improvement in how the transportation system is planned, designed, and operated and underscores the urgent need for change.

This Safety Action Plan honors the individuals who have lost their lives or been seriously injured in traffic crashes on Gastonia’s streets, as well as the families, friends, and neighbors whose lives have been forever changed by these tragedies. It also recognizes the first responders and public servants who confront the consequences of traffic violence every day and remain dedicated to preventing future loss of life.

The City of Gastonia has adopted a clear and uncompromising vision: **The City of Gastonia commits to reducing the fatal and injury crash rate by 50% by 2038, with an eventual goal of zero fatal and serious injury crashes by 2050.** This commitment reflects the Vision Zero principle that traffic deaths are not inevitable, but preventable. Achieving this vision will require a fundamental shift in how streets are planned, designed, operated, and maintained, along with sustained commitment from City leadership, partner agencies, community stakeholders, and residents.

Guided by the Safe System Approach and rooted in the principles of Vision Zero, this Safety Action Plan serves as both a roadmap and a call to action. The plan recognizes that people make mistakes and that the transportation system must be designed to anticipate those mistakes and prevent them from resulting in severe injury or death. Speed management, safe roadway design, redundancy, and shared responsibility are central to this effort.

Meaningful progress toward zero traffic fatalities will not occur through isolated projects or short term solutions alone. It will require coordinated action through policy changes, infrastructure investments, data-driven decision making, and ongoing community engagement. This plan outlines the strategies and priority actions necessary to create safer streets for people of all ages, abilities, and travel modes.

The path forward is ambitious, but the cost of inaction is greater. By advancing this Safety Action Plan, the City of Gastonia affirms that traffic deaths and serious injuries are unacceptable—and that a safer future is possible. Together, Gastonia and its partners can build a transportation system that protects human life, today and for generations to come.

“Traffic safety is a shared responsibility...the City of Gastonia affirms that traffic deaths and serious injuries are unacceptable.”

CHAPTER 1

Introduction



Over the five-year period from 2020 to 2024, Gastonia experienced 52 crashes that resulted in a fatality and an additional 146 crashes involving serious injuries. Each of these individuals was a member of the Gastonia community—someone’s parent, child, sibling, friend, coworker, or neighbor. These outcomes are not inevitable and can be prevented through a safer, more intentional transportation system.

The City of Gastonia continues to make meaningful progress in creating a safe, connected, and reliable transportation system. Recent planning efforts, an established policy framework, and the passage of \$75 million in General Obligation (GO) Bonds for transportation infrastructure investments demonstrate the City’s commitment to a multimodal system that safely accommodates travel for all modes, ages, and abilities. As Gastonia continues to grow over the next five to ten years, the transportation system will remain central to the community’s quality of life, economic vitality, and long term success.

This SAP builds on the City’s momentum by establishing a comprehensive, data-driven framework to reduce traffic-related fatalities and serious injuries and to support safer, more reliable travel throughout the community. The SAP is intended to guide local policy decisions, investment priorities, and coordinated actions across City departments and partner agencies, while providing a clear path toward implementation and accountability.

PURPOSE

Across the United States, traffic-related fatalities and serious injuries remain a persistent public safety concern. National and statewide trends demonstrate that traditional, reactive approaches to roadway safety are not sufficient to address systemic risk factors. Many communities are experiencing increased exposure due to growth, changing travel patterns, and greater demand for multimodal transportation options.

North Carolina faces similar challenges, with urban and suburban communities seeing continued severe crash trends despite ongoing safety efforts. Locally, the City of Gastonia experiences these same pressures as it continues to grow and evolve. A diverse roadway network, varying land use contexts, and increasing multimodal activity highlight the need for a proactive, coordinated approach to transportation safety. The SAP provides a framework to address these challenges comprehensively and systemically, rather than through isolated or reactive improvements.

The purpose of the plan is to provide a roadmap for the City of Gastonia and its partnering agencies to prioritize, program, and implement safety improvement strategies to work toward the goal of zero roadway deaths and serious injuries.

GASTONIA’S COMMITMENT TO SAFER STREETS

As part of this SAP, the Gastonia City Council unanimously adopted a Vision Zero resolution, establishing a commitment to eliminate traffic-related fatalities and serious injuries. This commitment reflects the City’s recognition that traffic deaths and serious injuries are preventable and that achieving safer streets requires coordinated action across planning, design, operations, education, enforcement, and emergency response. To carry out its purpose, the City has adopted the following benchmark goals:

- » 50% reduction in fatal and serious injury crash rate by 2038
- » Eliminate all fatal and serious injury crashes by 2050

SAFE STREETS AND ROADS FOR ALL

In 2021, the Infrastructure Investment and Jobs Act (IIJA) established the \$5 billion Safe Streets and Roads for All (SS4A) competitive grant program through the United States Department of Transportation (USDOT) to assist communities in developing and implementing strategies and projects to prevent roadway deaths and serious injuries. The City of Gastonia secured an SS4A planning grant in 2023 to develop the SAP. The development of the Gastonia SAP was initiated Summer 2025 and completed Spring 2026.

Alignment with the USDOT SS4A Program

This SAP is consistent with the intent of the USDOT’s SS4A program, which supports local governments in reducing roadway fatal and serious injuries (FSI). While the SAP is grounded in Gastonia’s local priorities and policy objectives, it also positions the City to pursue future SS4A Implementation Grants by documenting a comprehensive safety framework, identifying priority needs, and outlining implementable strategies. Federal funding opportunities are intended to support and accelerate locally driven safety initiatives. Gastonia’s SAP follows the seven components of an SAP provided by the USDOT:

1. Leadership Commitment and Goal Setting

The governing body should make a public commitment to an eventual goal of eliminating roadway fatalities and serious injuries. This goal can establish a target date for achieving zero roadway fatalities and serious injuries or establish a target date for an ambitious reduction with an eventual goal of achieving zero roadway fatalities and serious injuries.

2. Planning Structure

A group of members committed to overseeing the development, implementation, and monitoring of the SAP.

3. Safety Analysis

An analysis of historical crash data and existing conditions to identify trends related to FSI crashes across the study area. This analysis considers contributing factors to crash events and detailed crash data elements, such as severity, sequence of events, road user type, and weather conditions. A location-specific and systemic crash analysis identifies specific safety needs by location and across the study area. The analysis results in a geospatial identification of a HIN that identifies locations with the highest number of FSI crashes.

4. Engagement and Collaboration

Engagement with the public and relevant stakeholders across public and private sectors is conducted to collect representative community input. Collaboration between involved stakeholders and the governing body is conducted to ensure effective coordination with existing plans and processes. Information received during this process is included in the SAP.

5. Policy and Process Changes

Existing policies and processes are assessed to identify potential improvements that would better prioritize roadway safety. New or revised policies or processes are proposed for implementation.

6. Strategy and Project Selections

A list of strategies and projects are identified by the preceding SAP Components. The strategies and projects are consistent with the USDOT’s Safe System Approach and prioritize multidisciplinary efforts to improve roadway safety. Prioritization of strategies and projects is conducted to provide strategic implementation timeframes.

7. Progress and Transparency

Outcome data is used to measure progress towards the project’s goal. At minimum, the SAP outline and resulting progress reports should be publicly posted each year.

Together, these components define the purpose of a Safety Action Plan, which is to develop a holistic, well-defined strategy to prevent roadway fatalities and serious injuries in a locality, Tribal area, or region.

PROCESS

The SAP was developed through a structured process that integrates technical analysis, stakeholder coordination, and community input. This process ensures safety strategies are informed by data, reflect community priorities, and align with best practices in transportation safety planning. The SAP Process, broken out by phases, highlights the relationship between data analysis, engagement, and strategy development.

1. Data-Driven Safety Analysis

Comprehensive crash data analysis was conducted to identify trends, patterns, and systemic risk factors across Gastonia’s roadway network.

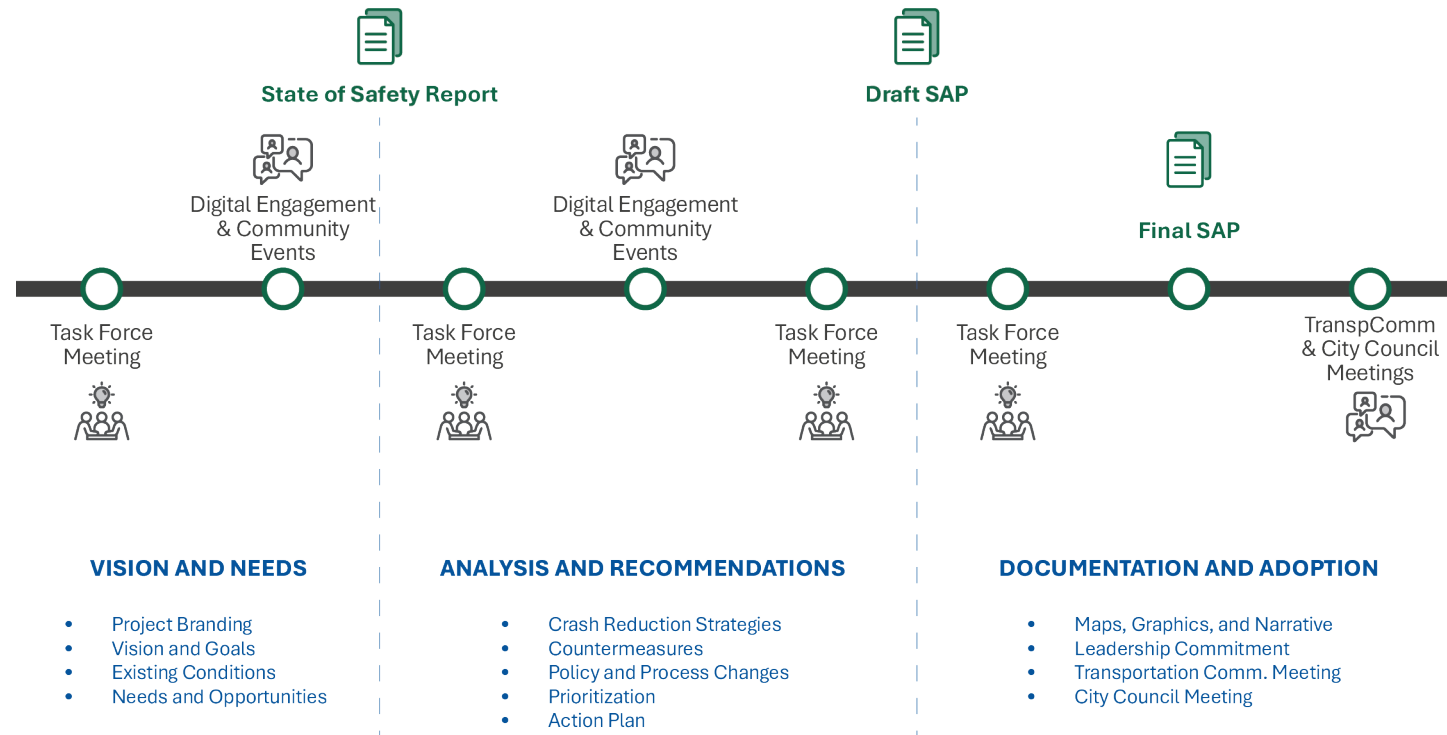
2. Robust Community and Stakeholder Engagement

Engagement activities gathered input from residents, stakeholders, and partner agencies to validate data findings and ensure the plan reflects local priorities and lived experiences.

3. Application of the Safe System Approach

The Safe System Approach was applied throughout the SAP to emphasize proactive, system-wide safety improvements and shared responsibility.

Together, these elements ensured that safety strategies were technically sound, community-informed, and implementable.

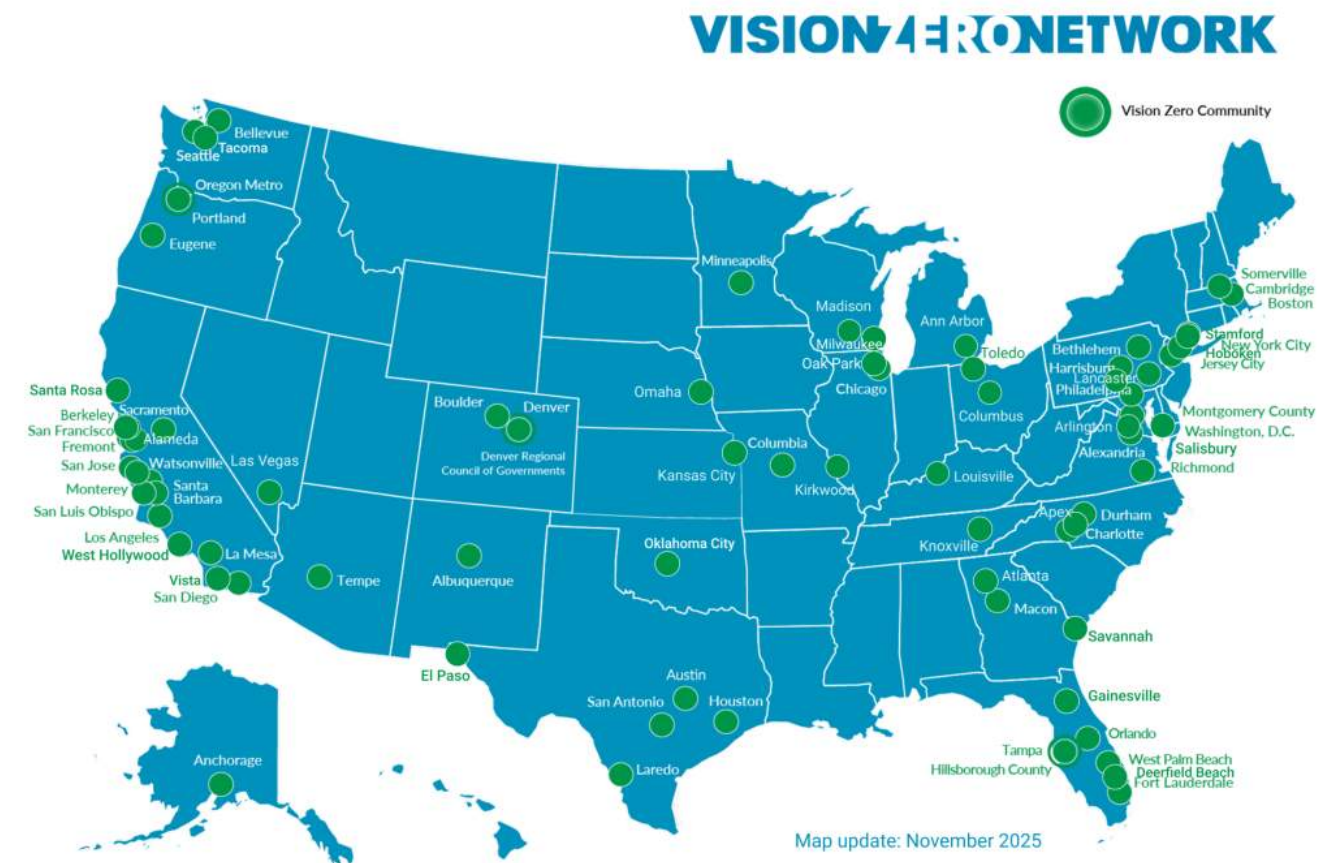


WHAT IS VISION ZERO?

Vision Zero is an international roadway safety framework centered on the goal of eliminating FSI crashes. Rather than placing the burden of safety solely on individual roadway users, Vision Zero promotes a transportation system that is designed to protect people of all ages and abilities, even when mistakes occur.

Since its adoption, Vision Zero has been widely adopted across the United States and has informed policy, design, and investment decisions focused on reducing traffic fatalities and serious injuries. Jurisdictions such as Mooresville, Waxhaw, Matthews, Davidson, Charlotte, and others have formally adopted Vision Zero policies.

At its core, Vision Zero represents a fundamental shift in how roadway safety is approached. It recognizes that traffic crashes are not inevitable and rejects the idea that loss of life is an acceptable tradeoff for mobility or convenience. Under Vision Zero, **any death or serious injury on the transportation system is considered unacceptable and preventable.** The approach prioritizes proactive, systemic solutions that reduce the likelihood and severity of crashes before they occur.



Map of Vision Zero communities across the United States (<https://visionzeronetwork.org/resources/vision-zero-communities/>)

TRADITIONAL APPROACH	VS	VISION ZERO APPROACH
<ul style="list-style-type: none"> Traffic deaths are INEVITABLE PERFECT human behavior Prevent COLLISIONS INDIVIDUAL responsibility Saving lives is EXPENSIVE 		<ul style="list-style-type: none"> Traffic deaths are PREVENTABLE Recognize HUMAN FAILING Prevent FATAL & SEVERE CRASHES SYSTEMS approach Saving lives is NOT EXPENSIVE

The Safe System Approach

Vision Zero is guided by the Safe System Approach, which seeks to build multiple layers of protection into the transportation network. This approach acknowledges that people will make mistakes and focuses on ensuring those mistakes do not result in fatal or life altering outcomes. Responsibility for safety is shared among roadway designers, policymakers, vehicle manufacturers, emergency responders, and system users.

The Safe System Approach is based on the following core principles:

- Death and Serious Injuries Are Unacceptable**
Preventing the most severe crashes is the highest priority of the transportation system.
- Humans Make Mistakes**
Streets and intersections should be designed with the expectation that human error will occur.
- Humans are Vulnerable**
The human body has limited tolerance for crash forces, particularly for people walking, biking, or using mobility devices. Transportation systems must account for these physical limits.
- Responsibility is Shared**
Engineers, planners, elected officials, advocates, and roadway users all play a role in improving safety outcomes.
- Safety is Proactive**
Risks should be identified and addressed through planning, design, and policy before severe crashes occur rather than in response to fatalities.
- Redundancy is Crucial**
The transportation system should include multiple safeguards so that if one element fails, others remain in place to prevent serious harm.



The Four E's of Road Safety

Successful programs look beyond just engineering solutions to address safety issues. Implementation of the Vision Statement and Safe System Approach in Gastonia is supported through the Four E's of Road Safety:

1	2	3	4
<p>ENGINEERING</p> <p>Designing and operating roadways to reduce crash risk and severity</p>	<p>EDUCATION</p> <p>Increasing awareness and understanding of safe travel behaviors</p>	<p>ENFORCEMENT</p> <p>Supporting compliance with traffic laws to reduce risky behaviors</p>	<p>EMERGENCY RESPONSE</p> <p>Ensuring timely and effective response to crashes</p>

Alignment with State and Regional Safety Initiatives

Gastonia's SAP is contextually aligned with broader safety efforts, including North Carolina Vision Zero initiatives, the NC SHSP, and GCLMPO safety targets. This alignment supports regional consistency while allowing Gastonia to address its unique local safety needs.

Statewide Alignment

Gastonia's SAP is intentionally structured to align with, while remaining locally tailored to, North Carolina's and the region's established safety frameworks. This plan uses the same emphasis area construct and comparative approach described in the NC SHSP, and that the emphasis area comparison will guide "future investments, policy decisions, and community engagement efforts." (NC SHSP, 2024)

This explicit emphasis area structure becomes the backbone of the SAP's policy framing: it links the City's recommended strategies and projects to the same categories used by the State, making it easier for decision makers to connect Gastonia's actions to statewide priorities and proven safety focus areas.

Regional Alignment

In addition to its focus areas, Gastonia's SAP is designed to align with GCLMPO's safety performance targets, which are integral to performance-based planning and programming. Safety performance targets serve as key statewide metrics, and the GCLMPO has consistently supported NCDOT's annual safety targets, ensuring that regional initiatives are coordinated with statewide objectives for reducing FSI crashes. This alignment is documented in GCLMPO's November 2025 safety target memorandum, where staff recommended adopting targets consistent with NCDOT across all five safety measures—fatalities, fatality rate, serious injuries, serious injury rate, and non-motorized fatalities/serious injuries—and provided the NCDOT 2025 target reductions alongside baseline and target values.

HOW TO USE THIS SAFETY ACTION PLAN?

The SAP is intended to serve as both a policy framework and an implementation-oriented guide for improving transportation safety across the City. This document is designed to support a wide range of audiences—including City staff, elected officials, partner agencies, stakeholders, and community members—by linking safety needs to data, strategies, and actionable outcomes.

The SAP is organized to move from understanding the problem to identifying solutions and guiding implementation:

1. **Introduction** establishes the purpose of the SAP, outlines Gastonia’s safety commitment, and describes the national, state, and regional context that informs the Plan.
2. **State of Safety** documents existing conditions, crash trends, and systemic risk factors, including identification of a HIN. These chapters provide the data foundation for all subsequent recommendations.
3. **Community and Stakeholder Engagement** summarizes input from residents, stakeholders, and partner agencies, ensuring that the SAP reflects lived experiences and community priorities in addition to technical analysis.
4. **Policy and Process Changes** translates data and engagement findings into recommended countermeasures, policy changes, and priority projects aligned with the Safe System Approach.
5. **Focus Locations and Emphasis Areas** outline locations of interests in need of systemic or targeted safety improvements.
6. **Countermeasures and Strategies** select measures based on the crash patterns at focus locations and address emphasis areas.
7. **Next Steps** outline how the City and its partners can advance safety improvements over time, track progress, and maintain transparency and accountability.

Readers are encouraged to use the SAP as a **living document**. While the SAP presents a comprehensive snapshot of current conditions and recommended actions, it is intended to be revisited and updated as conditions change, projects are implemented, and new data becomes available. Individual sections of the SAP may be referenced independently to support grant applications, inform capital programming decisions, or guide policy updates. However, the document as a whole provides an integrated framework for advancing safer streets citywide.

THE PRIORITY SAFETY ISSUES IDENTIFIED, AND PRELIMINARY STRATEGIES PROPOSED IN THE SAP CAN BE USED FOR THE FOLLOWING:

1. Coordinate with partner agencies such as NCDOT and GCLMPO to explore implementation opportunities
2. Develop grant applications such as FHWA’s SS4A Implementation Grants
3. Strengthen the City of Gastonia’s policies and processes to support the SAP
4. Increase community awareness of local safety issues and implement safety initiatives involving schools, HOAs, businesses, etc.

VISION AND GOALS

Gastonia’s Safety Vision Statement

“Gastonia envisions a safe, reliable, and connected transportation system that protects all travelers, promotes the efficient movement of people and goods, and enhances travel throughout the community.”

Gastonia’s Safety Goals

- **Growth Alignment**
Prioritize investments at locations that support future growth opportunities while meeting the needs of our current residents.
- **Multimodal Design**
Prioritize transportation safety on our bicycle and pedestrian facilities.
- **Vehicular Design**
Prioritize transportation safety for vehicles on our roadways.
- **Implementation and Funding**
Prioritize efforts to implement improvements through identification of funding, alignment with existing plans and policies, and public-private partnerships.
- **Safety Culture**
Prioritize building awareness and educating the community about transportation safety through engagement and enforcement.
- **Community Context**
Prioritize improvements to ensure all residents have access to safe transportation facilities.
- **Connectivity**
Prioritize safe, reliable connections to integral community destinations including: schools, parks, greenways, downtown, places of employment, and businesses.



CHAPTER 2

State of Safety



This chapter summarizes the most policy-relevant findings from the SoS Report and translates them into actionable insights for the SAP.

The SoS Report provides a comprehensive, data-driven assessment of transportation safety conditions in the City of Gastonia and serves as the technical foundation for the SAP. Using five years of crash data (2020–2024), supplemented by partial-year 2025 FSI information, the report identifies where, how, and why severe crashes occur across the transportation network. The findings establish a clear case for action, inform priority emphasis areas, and guide the development of strategies, projects, and policies aimed at reducing fatalities and serious injuries for all road users. Detailed methods, datasets, and supporting analyses are documented in the full State of Safety Report ([Appendix A](#)).

PURPOSE OF THE SOS REPORT

Gastonia is experiencing continued growth as part of the Charlotte metropolitan region, with increasing development pressure, higher traffic volumes, and expanding multimodal travel demand. These trends create new challenges for roadway safety, particularly on high-volume arterials, at complex intersections, and in areas where VRUs interact with faster moving traffic. The SoS Report highlights that safety challenges in Gastonia are systemic, not isolated, and that meaningful reductions in severe crashes will require coordinated, proactive investment rather than reactive spot fixes.



The SoS Report combines:

- **Crash Data Analysis** – A detailed review of crash trends and patterns
- **Transportation Conditions** – A review of crash history within the study area including existing and planned transportation facilities
- **Community Conditions** – An assessment of Gastonia’s current zoning along with demographic and socioeconomic characteristics that influence transportation safety
- **Plan, Program, and Policy Review** – A literature review of Gastonia’s existing policies, programs, and initiatives
- **Key Emphasis Areas** – Identification of priority safety improvement areas aligned with safety performance measures adopted by GCLMPO and the NC SHSP

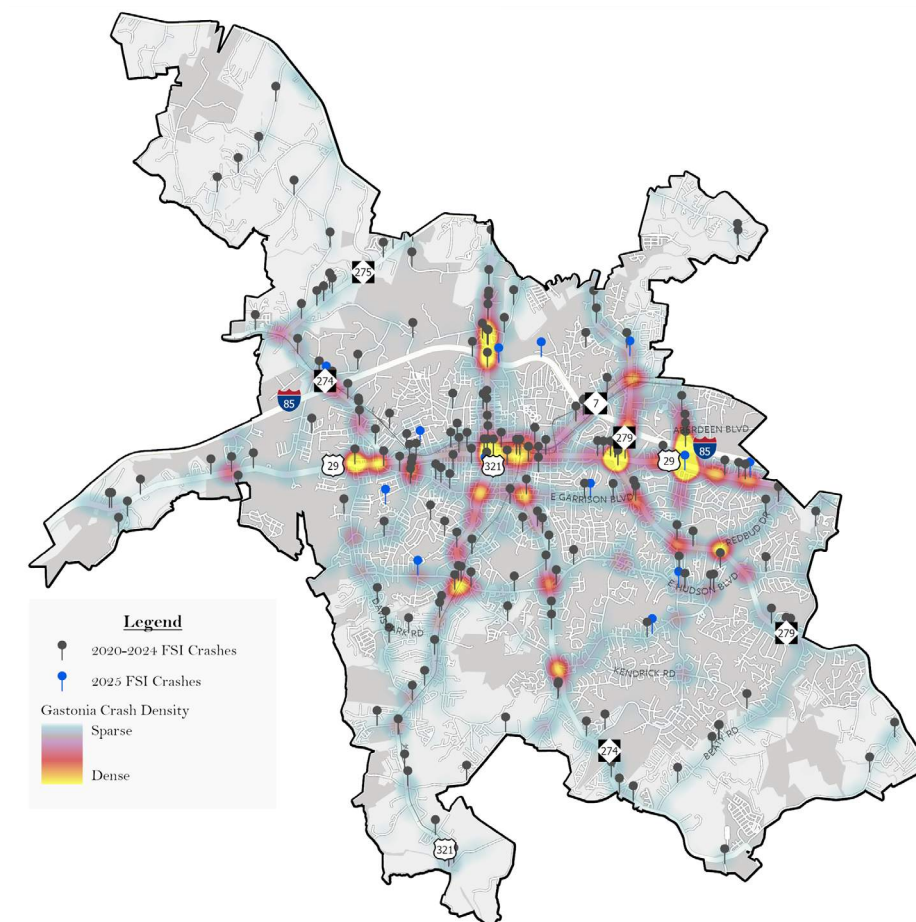
DATA SOURCES AND ANALYTICAL APPROACH

The SoS Report is grounded in multiple data sources, including NCDOT crash records, local GIS data, and supplemental FSI crash information provided by the Gastonia Police Department. The primary analysis period covers January 2020 through December 2024, providing a consistent, multi-year view of safety conditions across the City. Crashes along I-85 were excluded to ensure the analysis reflects non-freeway conditions more directly influenced by local design, operations, and policy decisions. Note that the Gastonia Police Department also provided supplemental 2025 fatal and serious injury (FSI) crash data that had occurred through September 8th, 2025; these crashes are reflected for mapping purposes, but are not reflected in the detailed analyses since they do not reflect a full calendar year.

This analytical approach outlined in the SoS Report emphasizes:

- Identification of FSI crashes as the primary measure of safety performance
- Evaluation of crash frequency and severity by mode, corridor, and intersection
- Assessment of contributing factors associated with severe outcomes
- Alignment with NC SHSP emphasis areas to support statewide and regional consistency

CRASH HISTORY



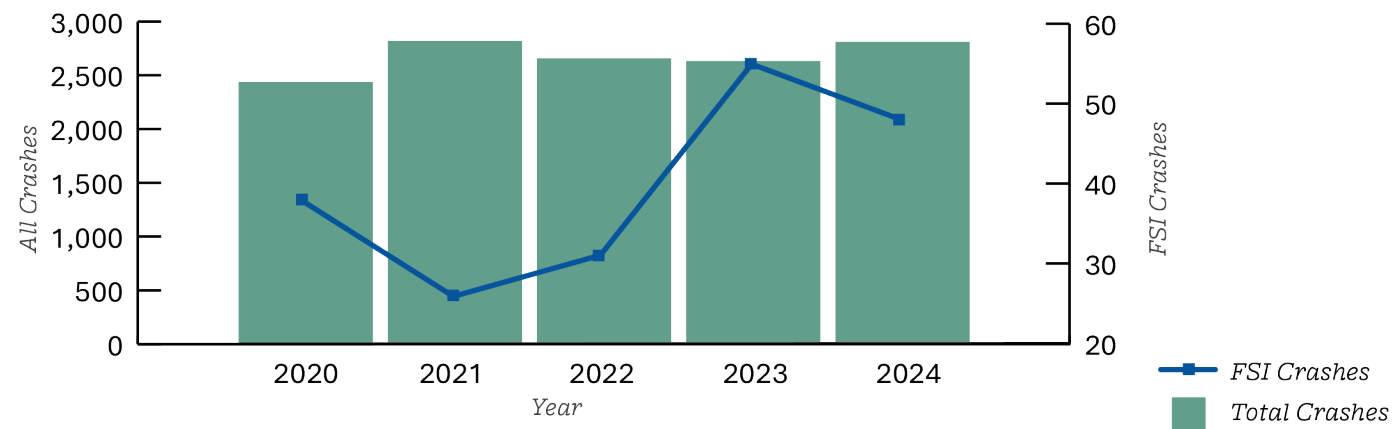
Several hot spots (in yellow) where a higher number of crashes occurred appear to be at or near major intersections throughout Gastonia. Specifically, the intersection of US 74 and Cox Road reflects a high number of total crashes, yet not reflective of a high number of FSI crashes.

KEY SAFETY TRENDS

Crash Trends and Severity

Between 2020 and 2024, Gastonia experienced over 13,000 reported crashes. While total crashes fluctuated during the pandemic period, FSI crashes increased significantly over the study period, with a notable rise beginning in 2023. From 2020 to 2024, Gastonia's FSI crashes increased by approximately 26 percent over the study period, a rate substantially higher than the statewide increase over the same period.

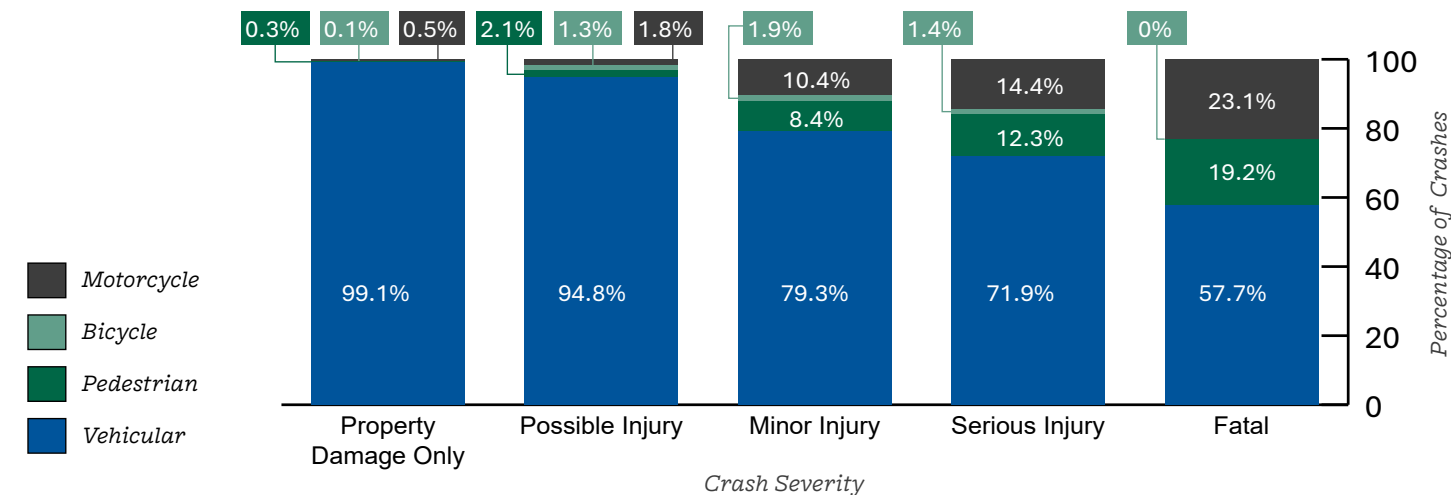
ALL CRASHES AND FSI CRASHES



Although vehicle-only crashes account for the majority of total crashes, crashes involving VRUs (pedestrians, bicyclists, and motorcyclists) are far more likely to result in severe outcomes. Pedestrians, bicyclists, and motorcyclists, face a disproportionate risk of fatal or serious injury when involved in a crash. These findings underscore the importance of prioritizing safety improvements that reduce speed, manage conflicts, and provide greater protection for non-motorized users.

FSI CRASHES BY MODE

Vulnerable road users, particularly pedestrians, are at higher risk of injury or death while using the City's transportation system, and future investments should prioritize improving safety for these users. The City is aware of several pedestrian and bicycle fatalities that occurred in 2025; however, analysis in the below chart reflects 2020-2024 crash data only.



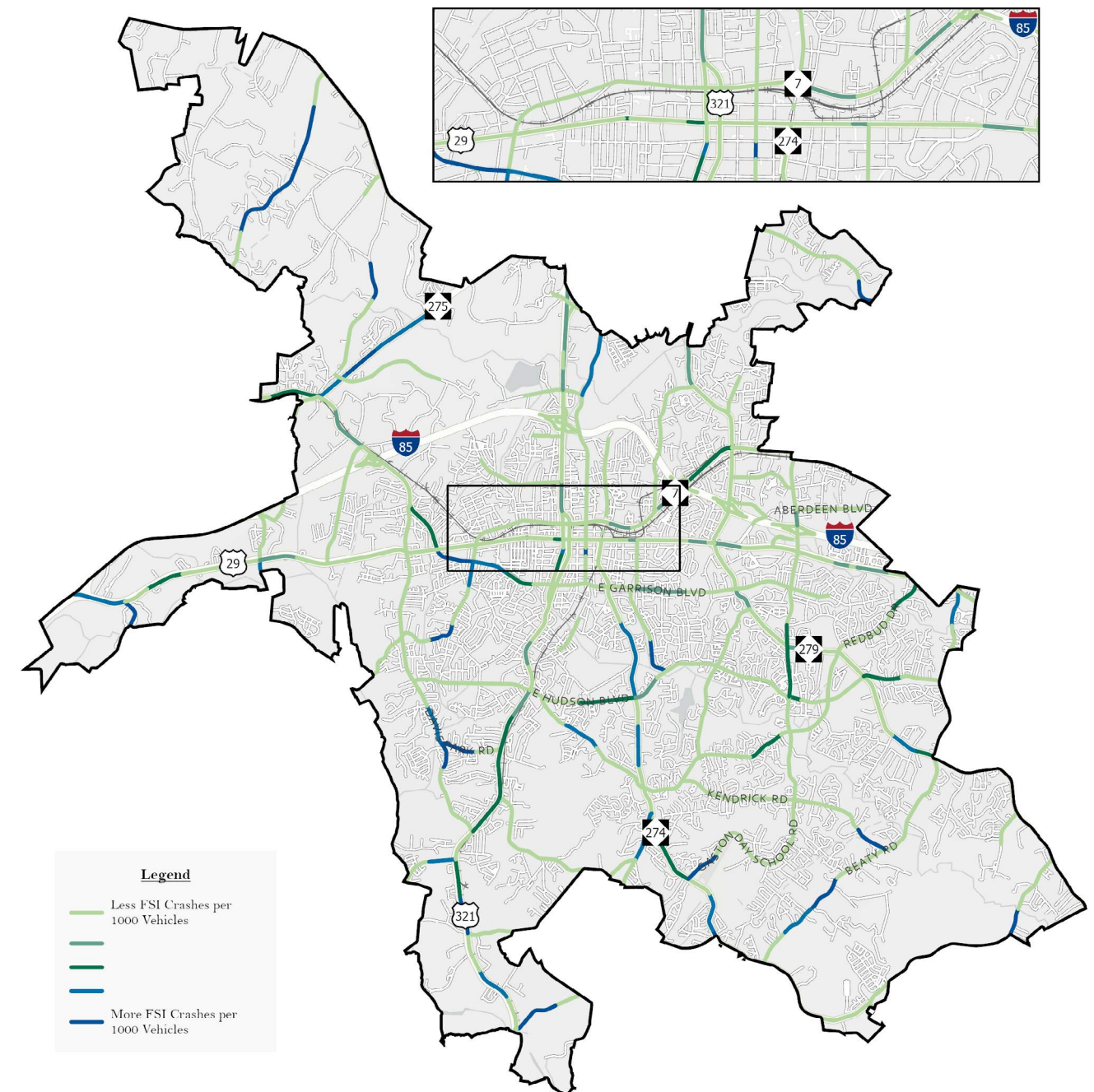
Spatial Distribution

High Risk Corridors

Severe crashes in Gastonia are concentrated along major arterial corridors, including US 74, US 321, and other high-volume routes that serve both local and regional traffic. These corridors often combine higher speeds, multiple access points, and limited multimodal accommodations—conditions that increase both the likelihood and severity of crashes.

FSI SEGMENT CRASH RATE MAP

Despite the lower volume of vehicles, Dallas Spencer Mountain Road saw the highest rate of fatal and serious injury crashes per 1,000 vehicles.

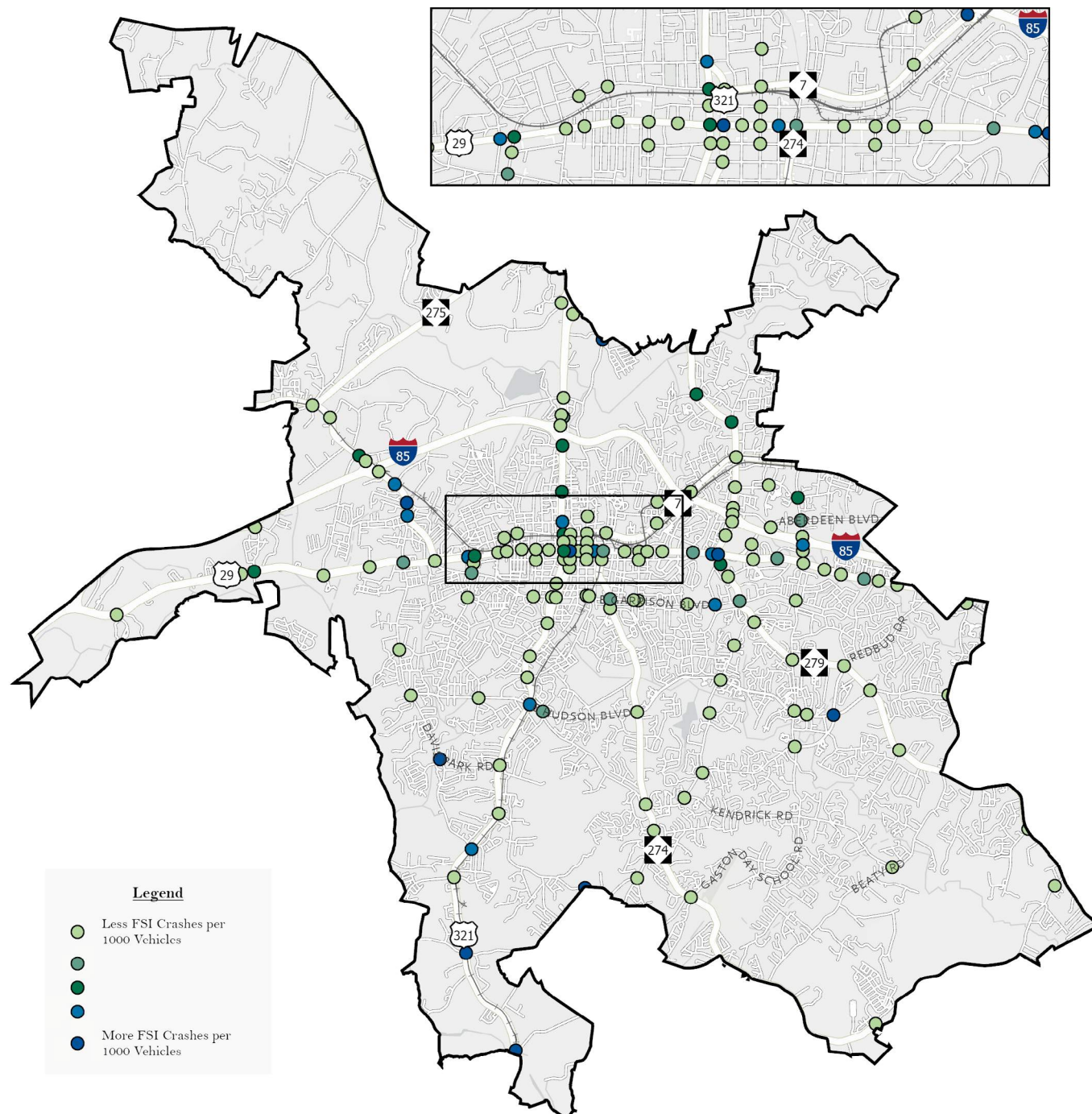


High Risk Intersections

A relatively small number of intersections account for a disproportionate share of FSI crashes. Many of these locations involve complex turning movements, high traffic volumes, or limited sight distance, indicating opportunities for targeted design and operational improvements.

FSI INTERSECTION CRASH RATE MAP

Intersections located along arterials such as Franklin Boulevard (US 74/US 29), Bessemer City Road (NC 274), and Garrison Boulevard (US 74) saw the highest rate of fatal and serious injury crashes per 1,000 vehicles.



Contributing Factors

The SoS Report identifies several recurring contributing factors associated with FSI crashes in Gastonia:

- **Unbelted vehicle occupants**, which represent a small share of total crashes but a disproportionately large share of severe outcomes
- **Substance impaired driving**, including both alcohol and drug involvement
- **Distracted driving**, which remains the most common contributing factor across all crashes
- **Speed**, particularly on arterial roadways where higher operating speeds increase crash severity

CONTRIBUTING FACTORS FOR FSI CRASHES

Crashes involving an unbelted driver or alcohol contributed to 5% of total crashes but account for 42% of all FSI crashes.

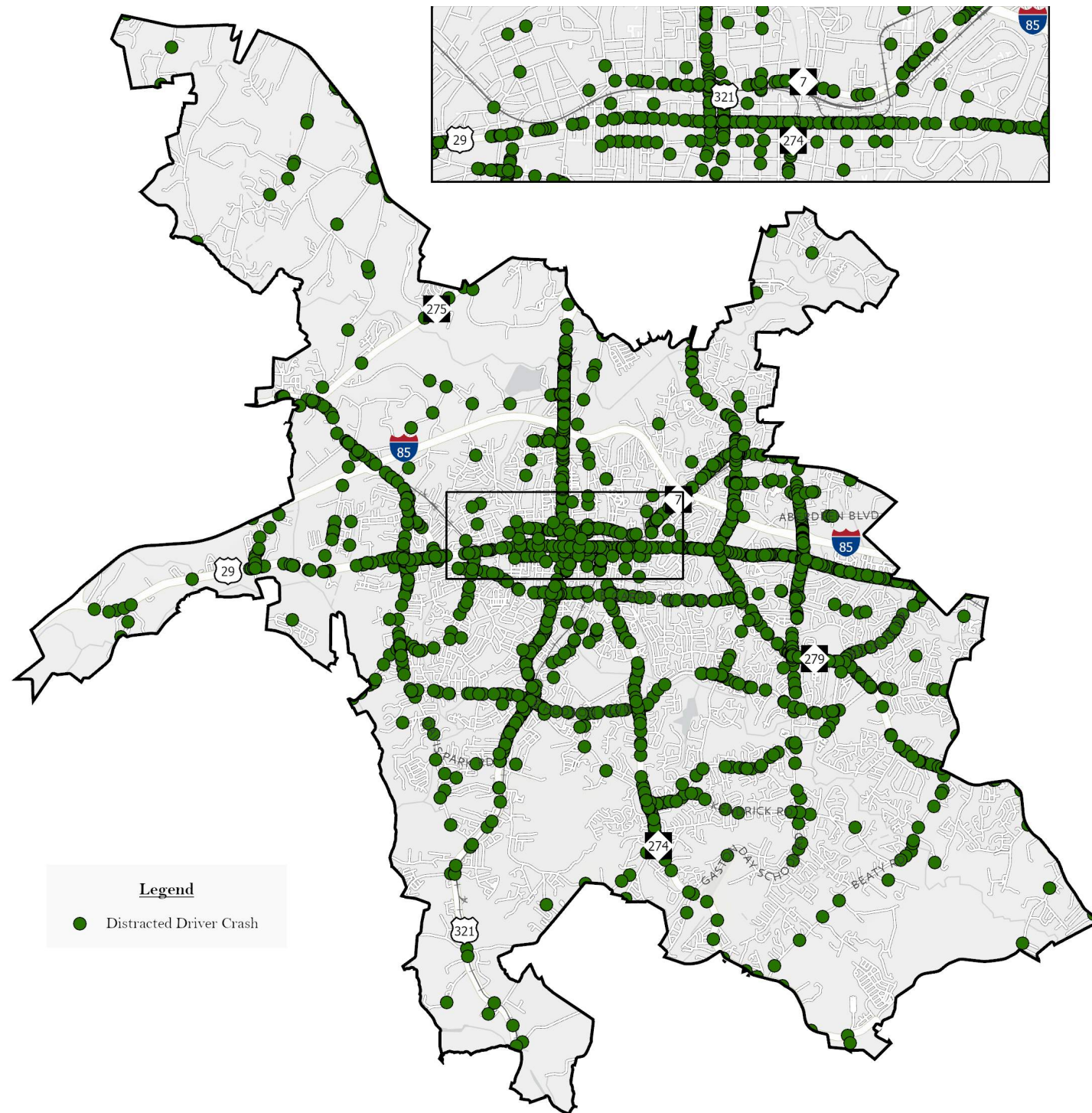
Contributing Factor	Number of Crashes
Unbelted Driver	46
Alcohol Presence	37
Distracted Driver	31
Older Driver (65+)	28
Speed	26
Teen Driver (15-19)	25
Drug Presence	21
Drowsy Driver	3
Animal	0

Together, crashes involving unbelted occupants or impairment account for a significant portion of FSI crashes, reinforcing the importance of education, enforcement, and engineering strategies that address risky behaviors while also reducing the consequences of inevitable human error.



Distracted Driving Crash Map

18% of crashes involving a distracted driver resulted in an outcome of possible injury, evident injury, disabling injury, or fatality.



NC SHSP EMPHASIS AREAS

To ensure consistency with statewide safety priorities, the analysis summarized in the SoS Report coincides with the NC SHSP emphasis areas, which identifies the most critical safety challenges on the state's roadways and outline targeted strategies to reduce FSI crashes. The NC SHSP identifies nine (9) emphasis areas, which represent crash categories with the greatest potential to reduce fatalities and serious injuries:



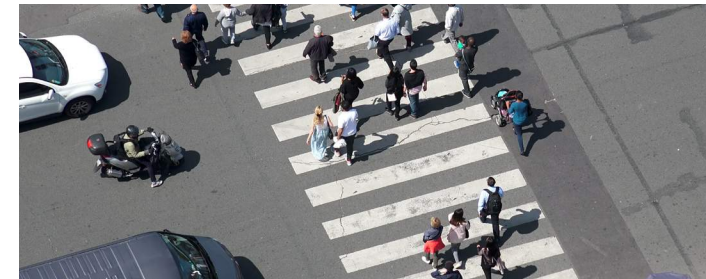
Lane Departures

Crashes resulting from a vehicle leaving its designated lane, including incidents such as run-off-road, collisions with fixed objects, head-on impacts, rollovers, and opposite-direction sideswipes.



Seat Belts and Car Seats

Crashes where improper or non-use of seat belts or child safety seats contributes to injury severity, emphasizing occupant protection measures.



Pedestrians, Bicyclists, and Personal Mobility

Crashes involving people walking, riding bicycles, or using personal mobility devices (such as scooters), whether on sidewalks, crosswalks, bike lanes, or shared roadways.



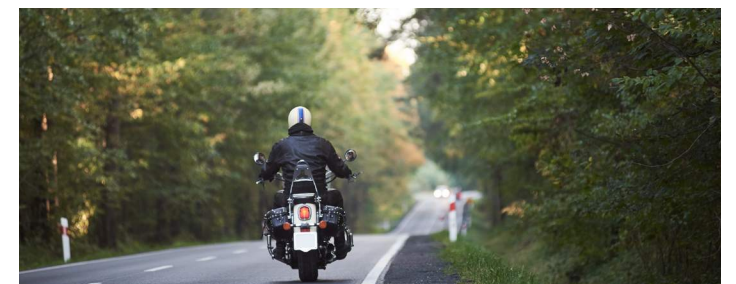
Speed management

Crashes where excessive speed or driving too fast for conditions is a contributing factor, increasing the likelihood and severity of collisions.



Intersections

Crashes occurring within the limits of intersections. Intersections can include driveways, alleyways, and on/off ramps.



Motorcyclists

Crashes involving individuals operating motorcycles, including single-vehicle and multi-vehicle incidents, often linked to visibility and vulnerability factors.



Substance Impaired Driving

Crashes involving drivers under the influence of alcohol, drugs, or other substances that impair judgment, reaction time, and overall driving ability.



Older Drivers

Crashes involving drivers typically aged 65 and older, often associated with age-related changes in vision, reaction time, and physical ability.



Younger drivers

Crashes involving drivers under a specified age threshold (ages 15 - 19), often related to inexperience and higher-risk behaviors.

Using a normalized comparison approach (percent of FSI crashes within each emphasis area), the SoS Report compares Gastonia's conditions to statewide patterns. This approach allows meaningful comparison despite differences in population and roadway mileage.

This comparison demonstrates that while Gastonia's emphasis area percentages are generally below statewide averages, FSI crashes remain concentrated in identifiable categories and locations, particularly on arterial corridors and at intersections. Lower relative percentages do not imply lower absolute risk, particularly on high-volume arterial corridors. The alignment with NC SHSP emphasis areas ensures that Gastonia's SAP strategies are consistent with proven statewide safety priorities while remaining responsive to local conditions.

Emphasis Area	North Carolina	Gastonia	Difference
Lane Departure	5.08%	4.11%	-0.97%
Seat Belts and Car Seats*	19.17%	17.49%	-1.68%
Substance Impaired Driver	10.89%	9.09%	-1.70%
Intersections	2.16%	0.81%	-1.35%
Safer Speeds	6.41%	6.23%	-0.18%
Older Drivers (65+)	2.30%	0.97%	-1.33%
Pedestrians	24.10%	17.50%	-6.60%
Motorcyclists	22.36%	17.55%	-4.81%
Younger Drivers (15-19)	1.93%	1.40%	-0.53%
Bicyclists	11.60%	4.76%	-6.84%

Source: 2024 NC SHSP Update

*Crash data acquired for Gastonia only depicts crashes where an unbelted driver was involved

SAFETY PERFORMANCE TARGETS

The SoS Report also supports performance-based planning by aligning Gastonia's safety assessment with targets adopted at the state and regional levels. The GCLMPO has historically supported NCDOT's annual safety targets, which aim to reduce fatalities and serious injuries by half by 2035 and ultimately reach zero by 2050.

By establishing a clear baseline of existing conditions, the SoS Report enables Gastonia to track progress toward these targets over time and coordinate investments with regional partners. This alignment strengthens the City's ability to integrate safety priorities into capital programming, policy decisions, and future grant applications.

Year/Area of Interest	Fatalities (5 Year Average)	Serious Injuries (5 Year Average)	Non-Motorized Fatalities and Serious Injuries (5 Year Average)
2020-2024/GCLMPO	61.4	207.0	27.6
2026 Target/GCLMPO	51.5	113.5	13.8
2020-2024/Gastonia Study Area	28.4	29.2	6.0
2026 Target/Gastonia Study Area	19.0	17.2	3.5

KEY TAKEAWAYS

The SoS Report highlights several overarching conclusions that directly inform the SAP:

1. Severe crashes are concentrated on **arterials and at intersections**, particularly where higher speeds and complex movements increase risk.
2. **Vulnerable road users** face a disproportionate risk of FSI crashes, reinforcing the need for multimodal safety investments.
3. **Behavioral factors** such as seat belt non-use, impairment, distraction, and speed drive severe outcomes, indicating the need for coordinated education, enforcement, and design strategies.
4. Gastonia's FSI crash rate is increasing faster than the statewide average, underscoring the **urgency of action**.
5. Alignment with NC SHSP emphasis areas and regional safety targets provides a strong, defensible framework for **prioritizing actions and measuring progress**.

HIGH-INJURY NETWORK

The SoS Report establishes a clear and compelling foundation for Gastonia's SAP. By identifying where FSI crashes occur, who is most affected, and which factors contribute to the most serious outcomes, the SoS Report ensures that the SAP is grounded in evidence and aligned with state and regional safety priorities. The findings presented in this executive summary directly inform the strategies, projects, and policies that follow in the SAP and position Gastonia to make measurable progress toward safer streets for all.

Building on the findings of the SoS Report, the City of Gastonia translated its system-wide crash analysis into a focused, actionable framework through development of a High-Injury Network (HIN). The SoS identified clear patterns where FSI crashes occur—particularly along major arterial corridors, at key intersections, and in locations with elevated risk for vulnerable road users. These findings directly informed the structure, scoring emphasis, and geographic focus of the HIN, ensuring that locations with the greatest safety need were prioritized using a transparent, data-driven process grounded in local crash severity trends.

Development of the Gastonia HIN

Gastonia’s HINs were developed as a quantitative, corridor-based tool to identify roadway segments and intersections with the highest concentration of FSI crashes across the City. The HINs are designed to depict systemic safety needs rather than isolated crash locations and are intended to serve as a repeatable, transparent basis for prioritization. The methodology reflects national best practices and SS4A guidance by focusing on crash severity and patterns over time, and by treating the HINs as “living” networks that can be updated regularly as new data becomes available. The final HINs represent consolidated networks that supports both near term investment decisions and long term safety planning.

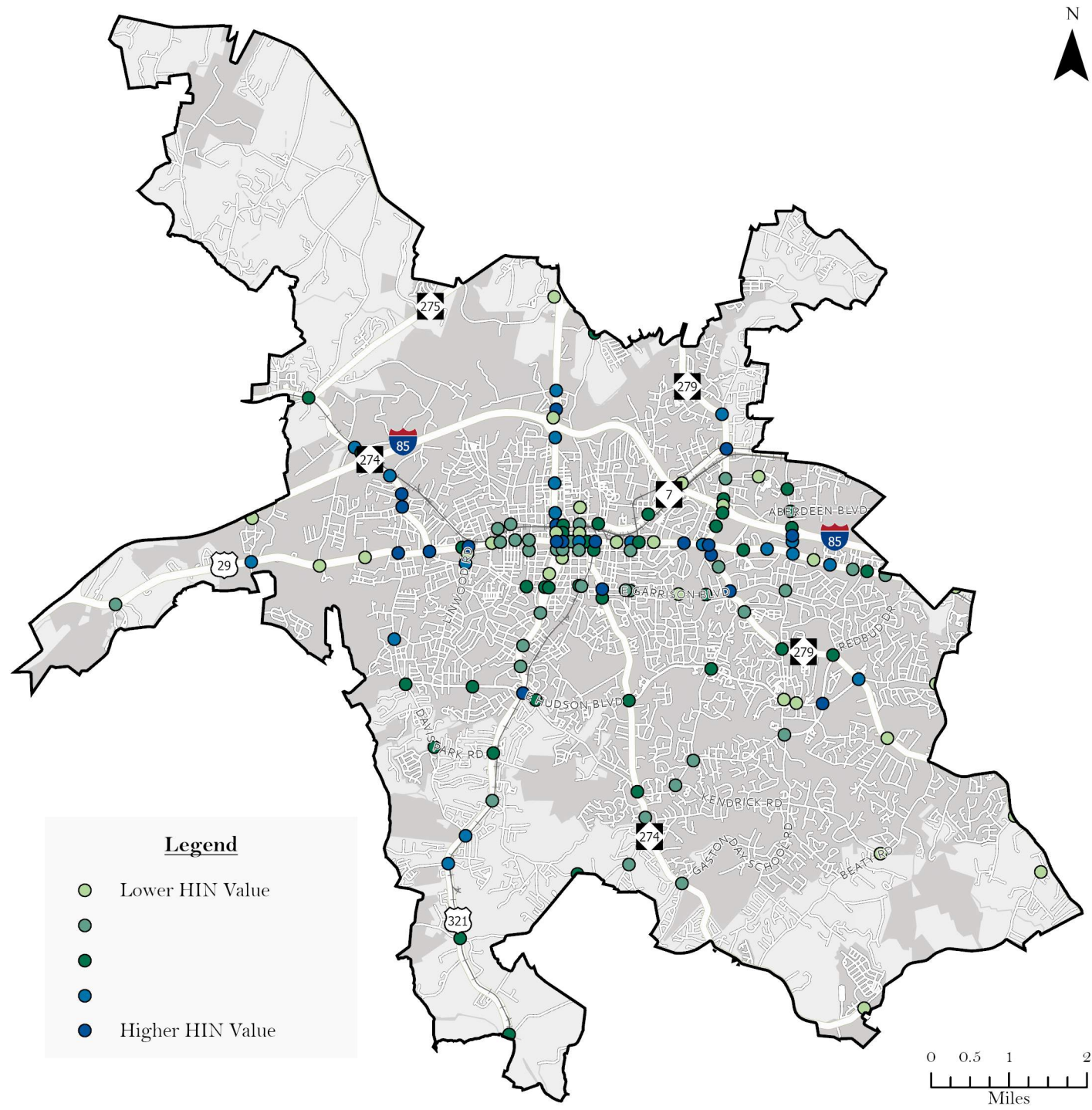
The HIN development followed a structured, multi-step process that included corridor segmentation, development of a scoring methodology, and coordinated review of the results. Roadways were segmented into consistent corridor units and intersections were analyzed separately to ensure that both linear and node-based crash patterns were captured. The finalized scoring methodology prioritized FSI crashes, with each FSI crash assigned a higher weight than other crash types. This approach also reflected feedback that a severity-focused metric better differentiates high-risk locations across both City and State maintained roadways.



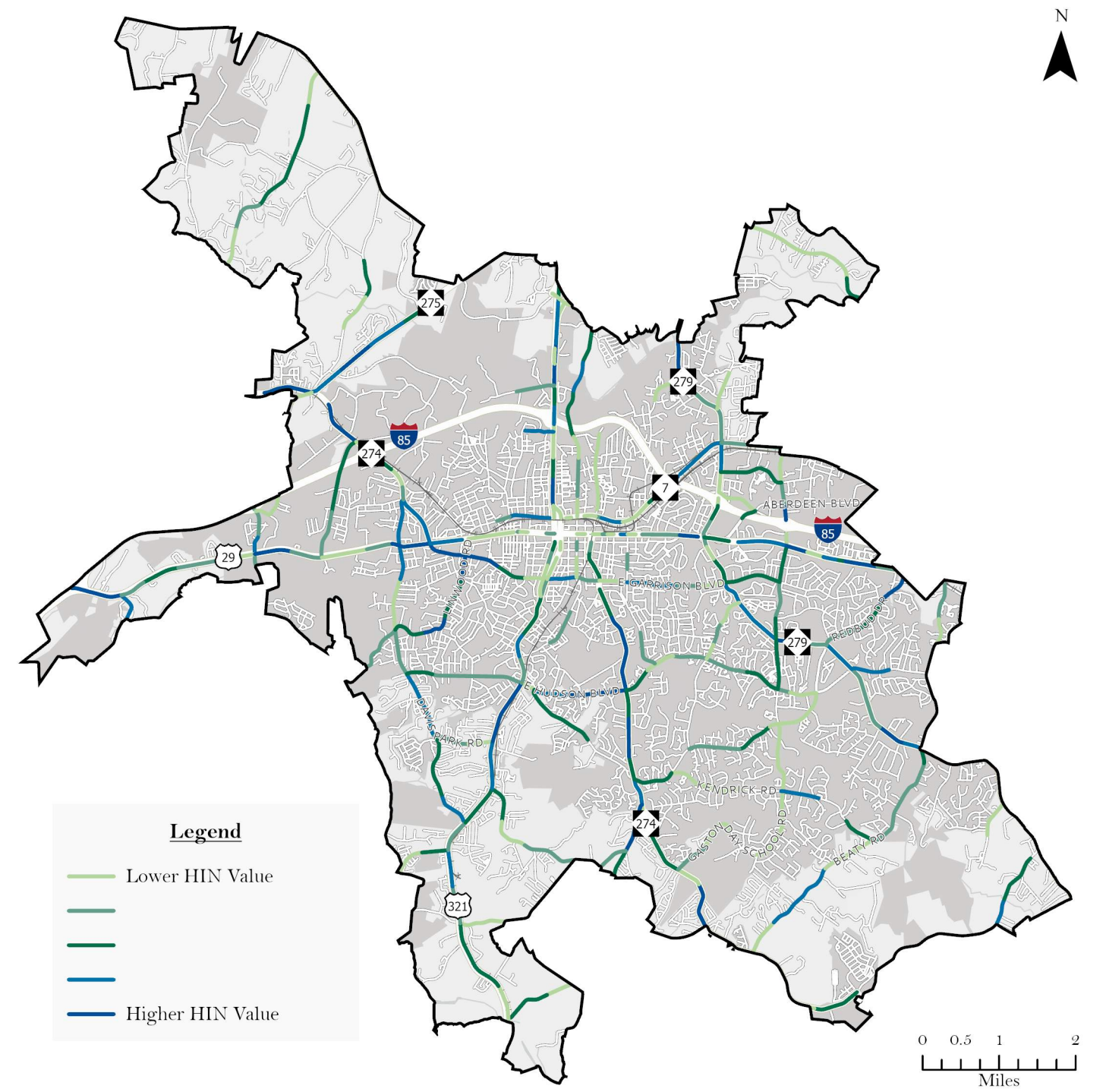
	Segments	Intersections
Fatal or Severe Injury (FSI) Crashes (Severity K or A)	Each FSI crash: 3 points	Each FSI crash: 3 points
Minor Injury Crashes (Severity B or C)	1 minor injury crashes: 1 point 2-3 minor injury crashes: 2 points 4-5 minor injury crashes: 3 points 6-8 minor injury crashes: 4 points 9+ minor injury crashes: 5 points	1-3 minor injury crashes: 1 point 4-6 minor injury crashes: 2 points 7-11 minor injury crashes: 3 points 12-16 minor injury crashes: 4 points 17+ minor injury crashes: 5 points
Vulnerable Road User (VRU) Crashes (Bicycle, Pedestrian, Motorcycle)	Each VRU crash: 2 points	Each VRU crash: 2 points

Using the finalized methodology, the project team generated HIN maps for roadway segments and intersections highlighting locations with the greatest safety need across Gastonia. These results revealed a concentration of high-injury locations along major arterials such as Garrison Boulevard, Hudson Boulevard, Cox Road, and other key corridors, as well as at intersections embedded within these routes. These HINs are explicitly intended to function as a decision support tool, it does not prescribe specific solutions, but rather informs the subsequent prioritization, gap analysis, and project identification steps of the SAP. By grounding future strategies in the HIN, Gastonia ensures that safety investments are data-driven, defensible, and aligned with the plan’s adopted goals and emphasis areas.

HIN: INTERSECTIONS



HIN: SEGMENTS



CHAPTER 3

Community and Stakeholder Engagement



Meaningful and sustained community engagement was a cornerstone of the City of Gastonia’s SAP. Engagement activities were designed to inform, listen, and collaborate. This ensures the SAP reflects lived experience, local priorities, and professional insight while remaining grounded in data-driven safety analysis. Engagement occurred throughout the planning process and directly influenced the identification of emphasis areas, development of focus locations, and prioritization of countermeasures and strategies.

OBJECTIVES

- » Inform the public about the goals, process, and benefits of the Gastonia SAP.
- » Gather diverse perspectives and input to identify safety concerns and priorities.
- » Build trust and foster collaboration between the community and local government.
- » Ensure transparency and accountability in decision-making.

These objectives shaped both the engagement methods selected and how input was incorporated into technical analysis and prioritization.

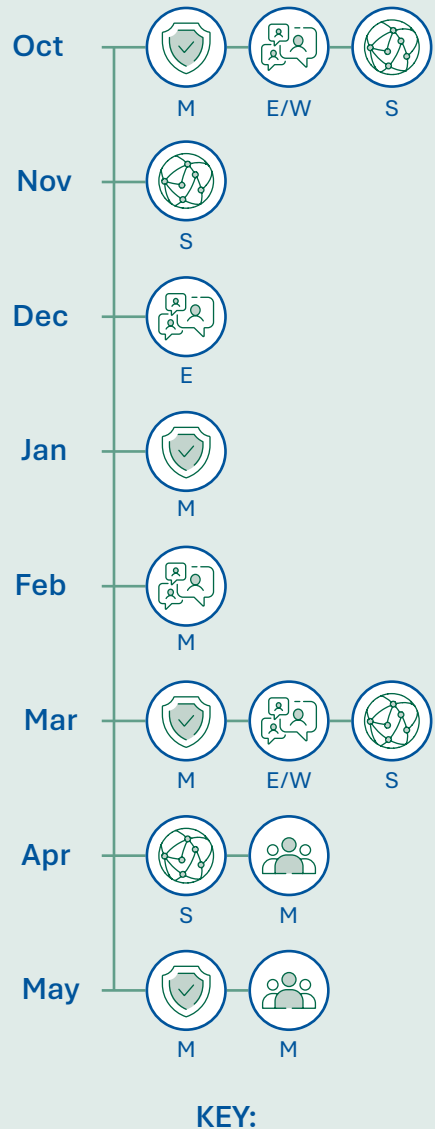
ENGAGEMENT APPROACH AND PROCESS

The Gastonia SAP followed a structured, phased engagement approach that aligned outreach activities with key stages of plan development. Early engagement (Fall 2025) focused on listening and needs identification, while later engagement (Spring 2026) emphasized validation of technical findings and refinement of priorities. This approach ensured that public and stakeholder input influenced the SAP at multiple decision points rather than being limited to a single outreach phase.

Engagement methods were intentionally varied to reach a broad cross section of the community and stakeholders. In-person events (both pre-scheduled and pop-up events), digital engagement platforms, targeted stakeholder meetings, and recurring Safety Task Force (STF) sessions created multiple points of access for participation. This layered approach allowed participants to engage at different levels—from high-level vision and concern-sharing to technical discussion of safety data and prioritization.

Engagement activities were implemented in accordance with the project’s Public Engagement Plan, which established objectives, audiences, and engagement methods consistent with SS4A requirements.

ENGAGEMENT SCHEDULE



KEY:

- Safety Task Force
- Public Engagement
- Digital Engagement
- Leadership Commitment

Meeting (M), Event (E), Workshop (W), Digital Map & Survey (S)

SAFETY TASK FORCE

The STF served as a central forum for structured stakeholder engagement throughout the SAP process. Modeled after best practices from peer communities, the STF included representatives from City departments, partner agencies, public safety professionals, and other key stakeholders. Their diverse expertise helped to review and identify safety concerns from unique perspectives, develop targeted strategies, and facilitate interagency coordination. The STF met at four critical points throughout the plan development process to establish overall project vision and goals, review findings and methodology, and provide feedback on major plan components, including the SoS analysis, development of the HIN, and prioritization framework.

STF meetings emphasized transparency and shared understanding. Materials were presented in an accessible format, and iterative feedback was incorporated between meetings. This process ensured that technical decisions—such as how crashes were analyzed or how severity was weighted—were informed not only by national best practices but also by local knowledge and professional judgment. The STF played a critical role in strengthening the defensibility and implementation of the SAP. STF meeting presentations are included in **Appendix B**. Below is a list of all STF participants:

- City of Gastonia (Planning, Engineering, Public Services, City Manager’s Office)
- Gastonia Police
- Gaston-Cleveland-Lincoln Metropolitan Planning Organization
- Gaston County (Health & Human Services)
- Gaston County Schools

Gastonia Focus Intersections							
Using the map for guidance, place a dot under the TWO safety countermeasures you believe would best improve safety at that specific location. If you place a dot under "Other," please write a brief written comment on a sticky note and clearly describe the specific countermeasure you would prefer to see implemented at that focus intersection. Written comments should focus on safety improvements, not general observations.							
Safety Improvements	Bicycle and Pedestrian Separation	Enforcement or Education	Lighting/Visibility	Safe Crossings	Signal or Stop Control Changes	Speed Management	Other (Please write comment on sticky note)
11 Bessemer City Road (NC 471) at Brown Street							
12 Bessemer City Road (NC 471) at Arkey Street							
13 W Franklin Boulevard (US 74) at N Myrtle School Road							
14 W Franklin Boulevard (US 74) at Bessemer City Road (NC 471)							
15 W Franklin Boulevard (US 74) at S Chester Street	●						
16 W Franklin Boulevard (US 74) at S York Road	●						
17 N Chester Street (US 811) at Rankin Lake Road							
18 N New Hope Road (NC 479) at E Oak Avenue							
19 S New Hope Road (NC 479) at Burnwood Drive	●	●			●		●
20 S New Hope Road (NC 479) at E Garrison Boulevard	●	●			●		●



COMMUNITY ENGAGEMENT ACTIVITIES

Community engagement activities were carried out through a coordinated set of public, stakeholder, and digital outreach efforts designed to meet community members where they are and at different stages of the planning process. Promotion of these events and digital surveys was conducted through social media and flyers to reach as much of the community as possible. These strategies aligned with the phased approach outlined in the project’s Public Engagement Plan. Activities were structured to ensure early listening and needs identification, followed by subsequent validation of technical findings and refinement of strategies and priorities. Together, these efforts created multiple, accessible opportunities for residents and stakeholders to share experiences, identify concerns, and help shape the direction of the Safety Action Plan. The following sections summarize the primary engagement activities conducted as part of the SAP and highlight key themes and insights gathered through each method.



DROP-IN COMMUNITY WORKSHOP
October 28th | 5pm to 7pm

Gaston County Library Main Branch
1555 East Garrison Blvd.
Gastonia



Public Workshops

Public workshops served as the primary venue for in depth, in-person engagement with community residents. Two major workshop rounds were held, one in the fall and one in the spring, to align with different stages of the SAP. Both were held at the Gaston County Library.

1. October 28, 2025 - Fall Public Workshop: The fall public workshop introduced the SS4A program and the Gastonia SAP, building early awareness and shared understanding of both the planning purpose and process. Participants reviewed an overview of the project schedule, the SAP Vision and Goals developed through the STF, and initial technical analysis, including a citywide crash heat map.

Around 10 community members were asked to identify perceived safety challenges, priority locations, and opportunities for improvement. Input from this workshop reinforced and expanded upon themes emerging from concurrent digital engagement efforts. Common issues raised across in-person activities included speeding, pedestrian safety in the downtown area, and safety concerns along corridors such as Franklin Boulevard, Garrison Boulevard, and New Hope Road.

2. March 16, 2026 – Spring Public Workshop: The spring public workshop shifted the focus from problem identification to validation and prioritization. Participants reviewed summaries of the SoS Report analysis, results from fall engagement activities, and the draft HIN, allowing residents to assess whether data-driven findings aligned with lived experience. The approximately eight attendees were asked to react to identified high injury corridors, discuss potential strategies and focus areas, and prioritize projects, programs, and resources. Feedback continued to emphasize recurring concerns—such as speeding, red-light running, missing sidewalks, and cut-through traffic in residential neighborhoods—and consistently highlighted a set of key corridors mentioned across multiple engagement activities, including Franklin Boulevard, Union Road, Gaston Day School Road, and Hudson Boulevard.

This two-stage structure allowed participants to first shape the understanding of safety needs and later confirm whether data-driven results reflected lived experience.

Community Pop-Up Events

Community pop-up events expanded beyond traditional planning settings and helped engage residents who may not traditionally participate in planning processes, such as public workshops or online surveys, aimed to reduce barriers to participation and ensure that feedback reflected the experiences of users most impacted by traffic safety risks. These events prioritized informal, location-specific conversations and increased visibility of the SAP within the community. Throughout all community events, informational cards containing QR codes were distributed to encourage community members to give any additional feedback through our digital engagement. Members were encouraged to take and distribute multiple cards to reach an audience outside of those who attended the community pop-up events.

1. October 18, 2025 – Fall Festival:

The project team participated in the Fall Festival in downtown Gastonia during the fall engagement phase, hosting a staffed booth where attendees could learn about the SAP process and Gastonia’s existing safety conditions, ask questions, and share transportation safety concerns. Conversations at Fall Fest tended to be informal and highly location specific, allowing residents to quickly identify corridors, intersections, and neighborhoods where they feel unsafe. Common issues raised during Fall Fest discussions included speeding, challenges for pedestrians in the downtown area, and safety concerns along major arterials such as Franklin Boulevard and Garrison Boulevard. Feedback reinforced patterns already emerging from the digital mapping activity and helped confirm that certain corridors were perceived as unsafe by a broad cross section of residents, not just frequent participants in planning processes.



FALL ENGAGEMENT SUMMARY

Fall engagement emphasized listening and needs identification. Participants consistently raised concerns related to:

- » Speeding and aggressive driving
- » Lack of sidewalks and safe crossings
- » Conditions along major corridors and downtown areas

Corridors such as Franklin Boulevard, Garrison Boulevard, New Hope Road, and US 321 were frequently mentioned.

2. December 7, 2025 – Christmas in the City:

The SAP team also engaged the public during Christmas in the City, a large seasonal event that attracts residents from across Gastonia and surrounding areas. This event provided access to families, seniors, and visitors who may not attend workshops or respond to online surveys, broadening the diversity of voices represented in the engagement process. Feedback gathered at Christmas in the City largely reinforced themes raised during Fall Fest, with additional emphasis on pedestrian visibility, lighting conditions, and speeding in high-activity areas. The event also served as an opportunity to build awareness of ongoing and upcoming engagement opportunities, encouraging continued participation into the spring phase of the SAP.



3. March 28, 2026 – Gaston MAX:

While smaller in scale than City-wide festivals, Gaston MAX engagement enabled more targeted conversations related to corridor function, multimodal safety, and the relationship between planned investments and observed crash trends.

Discussions at Gaston MAX often focused on arterial safety, bicycle and pedestrian accommodations, and the need to better manage speeds in areas experiencing growth and increased activity. This event served as the final push for digital engagement outreach, attempting to get as many responses as possible on the team’s digital platforms.



Together, these three events reinforced consistency across engagement methods and strengthened confidence in the SAP’s identification of priority corridors and issues.

SPRING ENGAGEMENT SUMMARY

Spring engagement emphasized validation, refinement, and prioritization. Participants reviewed HIN results and summaries of prior engagement and were asked to assess whether the data-driven findings reflected lived experience. Feedback largely affirmed the locations and patterns identified through technical analysis, reinforcing confidence in the HIN as an accurate representation of Gastonia’s most critical safety concerns.

Participants consistently emphasized:

- » Agreement with identified high injury corridors and intersections
- » The need to address speeding and high severity crashes along major arterials
- » Support for strategies targeting pedestrian safety, access management, and safer crossings
- » Interest in practical, near-term countermeasures that could be implemented citywide

Corridors such as Franklin Boulevard, Union Road, Gaston Day School Road, Hudson Boulevard, and Garrison Boulevard continued to be highlighted, indicating strong alignment between community input and the data supported priority network.

Stakeholder Meetings

In addition to broad public outreach, the SAP team conducted a series of targeted stakeholder meetings in February 2026 designed to capture professional, experiential, and operational perspectives on transportation safety. These meetings grouped participants by role and expertise to encourage focused discussion and to better understand how safety challenges manifest differently across sectors and daily experiences. Stakeholder input provided critical context for interpreting crash data, refining emphasis areas, and shaping realistic and implementable safety strategies. In total, over 30 stakeholders participated in these focused meetings, grouped in three categories.

Group 1: City Staff, Elected Officials, and Other Professionals

Meetings with City staff, elected officials, and transportation and planning professionals emphasized system-level conditions, policy alignment, and implementation feasibility. Participants in this group frequently discussed the challenge of balancing safety improvements with mobility, access, and economic activity.

Key themes raised by Group 1 included:

- The prevalence of intersection-related crashes, especially left-turn and angle conflicts, and the role of access management and signal timing in addressing these patterns
- The impact of lane departures and roadside conditions on crash severity, including fixed objects, clear zones, and lighting
- The importance of aligning safety recommendations with existing plans, capital programs, and corridor studies to support implementation
- Recognition that arterials function as both mobility corridors and community streets, requiring context-sensitive solutions

Input from this group strongly influenced the SAP’s emphasis on intersection safety, speed management, and coordination with ongoing City and NCDOT initiatives.

Group 2: First Responders, Safety, and Health Professionals

First responders, safety professionals, and health-oriented stakeholders brought an outcome-focused perspective grounded in lived experience responding to crashes and supporting affected individuals. Discussions with this group centered on crash severity, post-crash impacts, and conditions that contribute to fatal and serious injuries rather than near misses or PDO events.

Recurring themes from Group 2 included:

- The disproportionate severity of crashes involving speed, impairment, and lack of seat belt use
- The heightened vulnerability of pedestrians, bicyclists, and motorcyclists, especially along high-speed corridors and in low-visibility conditions
- Opportunities to reduce risk through speed management, lighting improvements, and roadway designs that reduce decision complexity
- The understanding that preventing severe crashes upstream is more effective than relying on emergency response alone

Feedback from this group encouraged emphasis on emergency response and post-crash care, reinforced the decision to weight FSI crashes heavily in the HIN methodology and to prioritize strategies that reduce crash severity as well as frequency.

Group 3: Community Members and Local Businesses

Meetings with community members and local business representatives focused on day-to-day usability of the transportation system and how safety conditions affect access, comfort, and economic activity. Participants frequently grounded comments in specific locations and personal experience, particularly along corridors that serve as neighborhood connectors or commercial frontages.

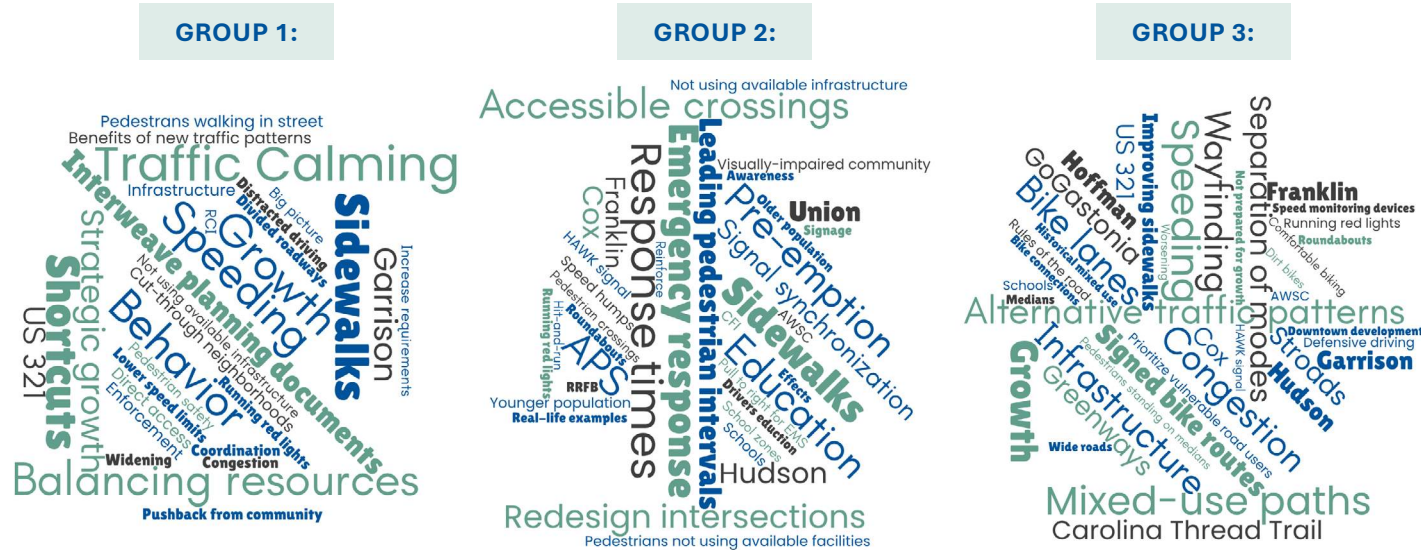
Key perspectives shared by Group 3 included:

- Concerns about speeding and aggressive driving near storefronts, schools, and residential areas
- Difficulties crossing wide arterials safely as a pedestrian or bicyclist, particularly for older adults, children, and people with mobility limitations
- The importance of lighting and visibility for both actual safety and perceived comfort
- The desire for improvements that enhance safety without undermining access to businesses

This input helped validate corridor priorities identified through crash analysis and reinforced the need for multimodal, business-aware safety solutions.

Role of Stakeholder Input in the SAP

Across all three stakeholder groups, a consistent finding emerged: while perspectives differed by role and experience, the same corridors, crash types, and contributing factors repeatedly surfaced. This convergence strengthened confidence that the SAP's emphasis areas, HIN, and priority corridors reflect both technical evidence and local knowledge. Stakeholder meetings ensured that the plan balances the data-driven findings with operational practicality and community awareness, supporting an implementable, defensible SAP.



Digital Engagement

Digital engagement complemented in-person outreach by expanding access to participation and allowing residents and stakeholders to engage at their convenience. Online tools were used throughout the planning process to gather geographically-specific input, validate technical findings, and increase transparency around safety conditions and priorities. These platforms enabled broader participation, reinforced themes identified through workshops and events, and provided an additional mechanism for residents to interact directly with safety data and proposed concepts. With the City posting these online engagements on their social media accounts: **the team was able to collectively engage with 100+ residents, generate 1,792+ mapped data points, and collect 272+ written comments.**

PublicCoordinate

The SAP used PublicCoordinate as a featured online platform to host interactive maps and a survey to allow the public to post geolocated comments. Participants were able to identify specific safety challenges, suggestions, and opportunities and provide written comments tied to specific locations.

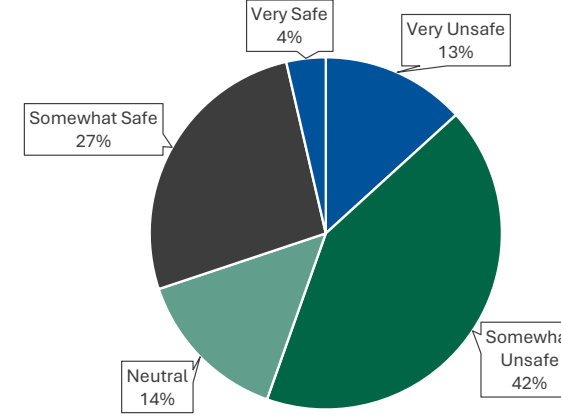
Documented results from the fall digital engagement included over 100 respondents, proving more than 1,700 mapped data points and hundreds of written comments, demonstrating strong community interest and providing geographically-specific insight into safety concerns.

The spring digital engagement included an additional mapping activity that presented a preliminary draft of Gastonia's safety priority intersections and roadways. Participants were invited to indicate which proposed countermeasure they believed would be most effective at the highlighted locations.

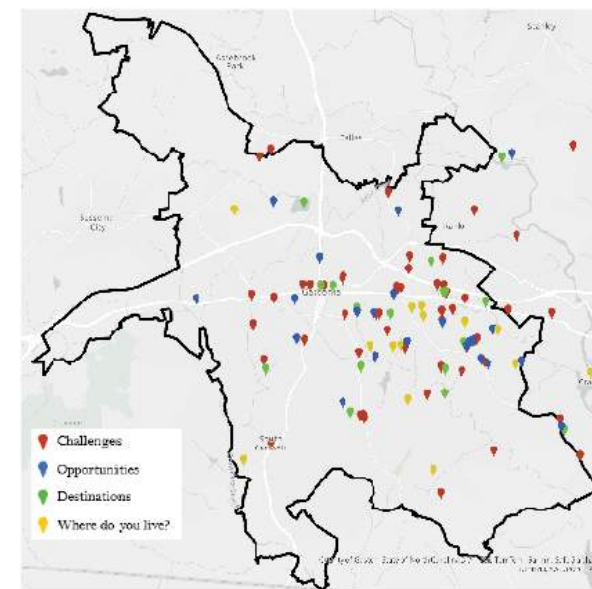
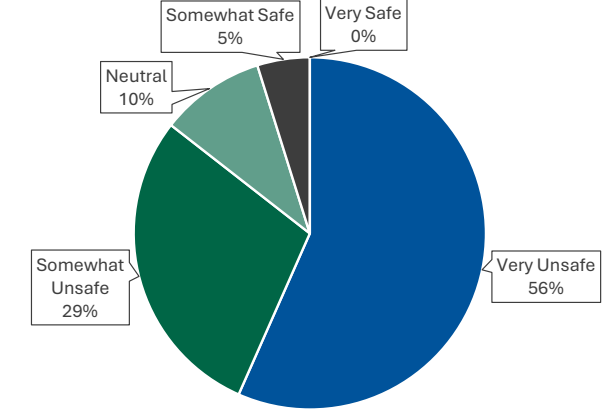
Digital surveys, through PublicCoordinate, collected both quantitative and qualitative feedback. Survey results documented strong concern about walking and biking safety, with a majority of respondents reporting that they feel unsafe or somewhat unsafe when walking or biking in Gastonia. Driving safety perceptions were more mixed but still highlighted concern with distracted driving, speeding, and aggressive driving behavior.

Digital Survey Results

How safe or unsafe do you feel driving a vehicle around the City of Gastonia?

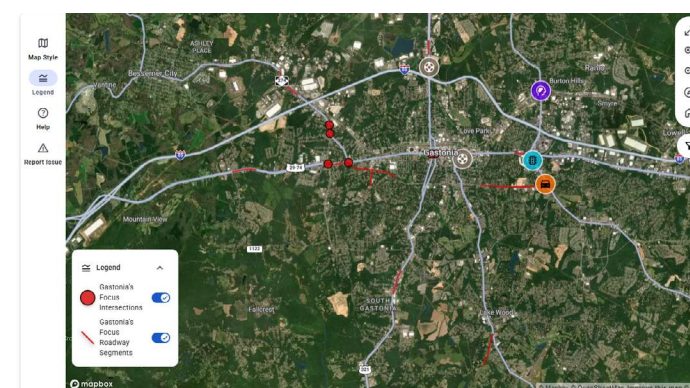


How safe do you feel walking or biking around the City of Gastonia?



Sentiment Category	Comments	Percentage
Challenges	70	56.45%
Opportunities	23	18.55%
Where do you live?	14	11.29%
Destinations	17	13.71%

Sentiment Category	Comments	Percentage
Positive	4	3.23%
Negative	40	32.26%
Neutral	77	62.1%
Mixed	3	2.42%



Project Overview and Updates

The Safety Action Plan is our city's foundation to improve roadway safety. Using recent crash data from the North Carolina Department of Transportation (NCDOT), it will include the development of a High-Injury Network to identify the road segments in our city most in need of safety improvements. We will also identify off-road and on-road pedestrian and bicycle projects for safe multimodal transportation. From there, we'll be able to prioritize safety improvement projects and develop strategies to help us achieve our vision for transportation safety in Gastonia. In addition, we plan to use definable actions and performance measures to track our progress.

Phase 1 of community engagement wrapped up in December, and we heard from a wide range of residents, stakeholders, and partners - thank you to everyone who participated. Summaries of what we heard during this first phase are available in the Project Files. Our team has also developed a **State of Safety Report** that highlights existing transportation conditions in Gastonia, which can be found on the City's website. As we move forward, we invite you to continue helping shape the Safety Action Plan by participating in our second round of engagement and sharing your priorities for making Gastonia's streets safer for everyone.

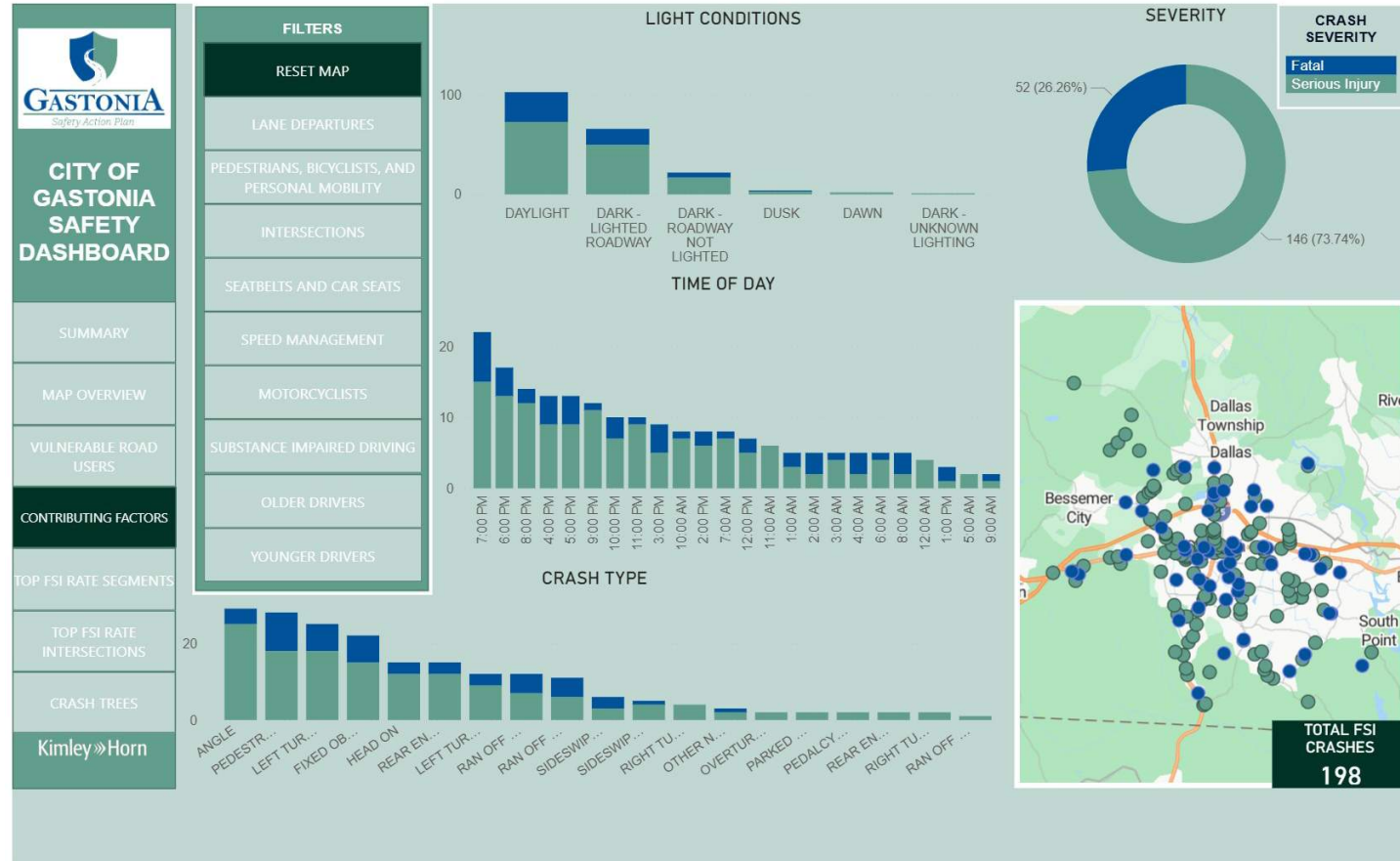
Get Involved

- Gastonia SAP Drop-in Community Workshop
March 16th from 5pm - 7pm
Gaston County Library Main Branch 1555 East Garrison Blvd. Gastonia
- Gaston MAX Festival
March 28th from 11am to 3pm

Fall/Winter Public Engagement Summary
Public Engagement Phase 1 Summary.pdf

Safety Dashboard

A public-facing Safety Dashboard complemented engagement efforts by improving transparency and education. While not an engagement tool in the traditional sense, the dashboard allowed residents and stakeholders to explore crash trends, severity patterns, and emphasis areas, supporting more informed discussion during meetings and workshops. The Safety Dashboard, developed using Power BI and published on the City of Gastonia’s website, also fulfills the Progress and Transparency component of the SS4A program and provides a long-term mechanism for monitoring outcomes beyond plan adoption. The dashboard will serve as a tool the City will continue to update with future years of crash data.



City of Gastonia Safe Streets and Roads for All Website: <https://gastoninc.gov/residents/transportation/ss4a.html>

Project Website and Social Media Engagement

Social media and digital outreach helped advertise events, promote surveys, and direct participants to the engagement site. Promotion through social media was used throughout the entire public engagement process. Flyers were posted on the City’s social media pages including Facebook and Instagram to advertise upcoming events and remind community members to complete the digital surveys. Reminders of upcoming events and ongoing public engagement efforts were posted on the City’s website as well. While metrics varied by platform, this outreach broadened awareness and reinforced participation across engagement phases.

From Input to Action

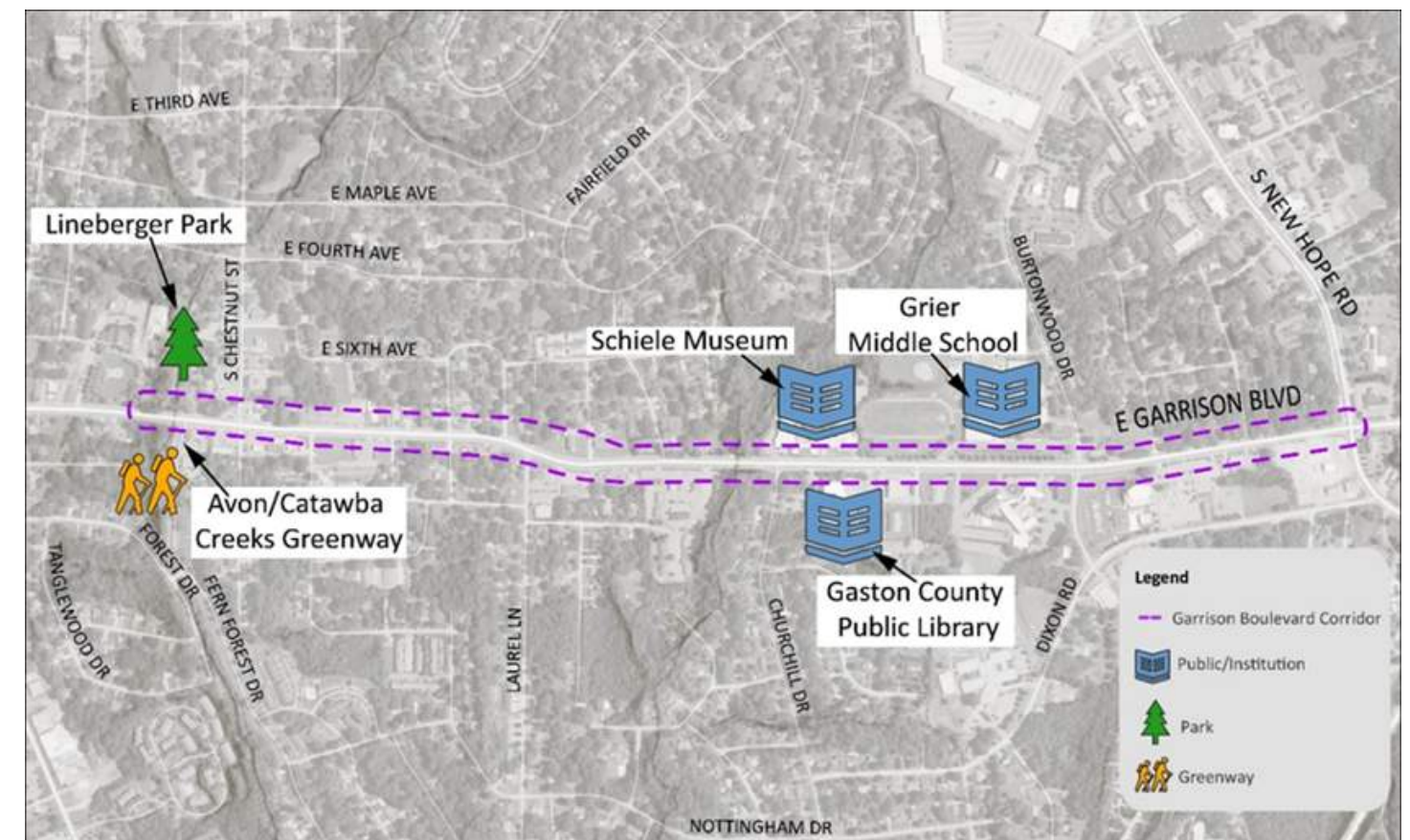
Across all engagement methods and stakeholder groups, a consistent pattern emerged: the same corridors, crash types, and contributing factors were repeatedly identified. This convergence strengthened confidence that the SAP’s emphasis areas, HIN, and priority corridors reflect both technical evidence and local knowledge. **Public and stakeholder input directly influenced the SAP by:**

- Validating emphasis areas identified through crash analysis
- Reinforcing corridor priorities reflected in the HIN
- Shaping strategy development related to speed management, intersections, and VRUs

Case Example: Garrison Boulevard

Garrison Boulevard emerged as one of the most frequently mentioned corridors during public engagement, with participants citing speeding, pedestrian safety challenges, and difficulty crossing as major concerns. These concerns closely mirrored crash history trends and were reflected in the HIN, where portions of W Garrison Boulevard appeared as high-priority locations based on FSI crash patterns.

On E Garrison Boulevard, engagement feedback intersected with planned and ongoing investments, including nearby schools, library facilities, and other civic anchors as part of the Garrison LEARNS project. These connectivity changes underscore the importance of coordinating safety improvements with growth and funding opportunities already underway. The SAP uses this combined input through community feedback, crash analysis, and future context, to elevate Garrison Boulevard as a priority corridor for safety strategies and implementation planning.



CHAPTER 4

Policy and Process Changes





The policies, processes, and City plans included in the City’s Comprehensive Plan (Gastonia2050), Unified Development Ordinance (UDO), City Engineering Standards, mode- and area-specific City plans, and other regional transportation plans were reviewed to identify existing safety-supportive policies and processes. This review helped to identify opportunities to expand or strengthen existing policies and processes to make strides toward the goal of Vision Zero. Documented existing safety-supportive policies and processes are shown in the table below. Additional context from the SoS Report, which provides a comprehensive review of Gastonia’s existing plan, policy, and program landscape as it relates to transportation safety, is referenced throughout.

EXISTING SAFETY-SUPPORTIVE POLICIES AND PROCESSES

Reference	Goals, Objectives, And Policies
Gastonia2050 Comprehensive Plan – Transportation & Mobility	<ul style="list-style-type: none"> ○ Vision Statement: Gastonia’s neighborhoods are conveniently accessible through a smartly designed, pedestrian-friendly road network and transit system augmented by greenway trails and cycle facilities, providing an equitable and safe city. ○ Supports safe, efficient multimodal transportation that balances economic growth with equitable access and a high quality of life. ○ Calls for a pedestrian-friendly road network, transit investment, and extensive greenway and bicycle facilities as pillars of livability. ○ Prioritizes connectivity to employment, health care, education, and recreation through multimodal infrastructure.
City of Gastonia UDO	<ul style="list-style-type: none"> ○ Addresses parking and circulation design, landscaping and open space, subdivision and development design. Providing regulatory hooks for safety-supportive standards. ○ Requires site plan review for all new commercial and multi-family construction, providing an opportunity to apply safety-focused design standards. ○ Contains subdivision design provisions that govern pedestrian connectivity and street layout within new development.

Reference	Goals, Objectives, And Policies
City Engineering Standards /Design Standards	<ul style="list-style-type: none"> ○ Govern the geometric design of City streets, including roadway cross-sections, sight distance, access management, and pavement markings. ○ Provide a baseline framework that can be enhanced to explicitly incorporate Safe System principles, design speed, and multimodal accommodations.
City of Gastonia Comprehensive Bicycle Plan (Adopted June 2023)	<ul style="list-style-type: none"> ○ Vision: The City of Gastonia is a welcoming place to safely and comfortably bike to local destinations such as downtown, jobs, neighborhoods, and parks and trails. Cycling in Gastonia is an equitable and viable transportation option that contributes to the overall quality of life for residents and visitors. ○ Safety Goal: Reduce the number and severity of crashes involving cyclists directly aligned with the SAP’s emphasis on vulnerable road user protection. ○ Comfort Goal: Support cycling as a safe, convenient, accessible, and desirable mode of transportation for people of all ages and abilities. Including design for lower-stress facilities that accommodate a broad range of users. ○ Connectivity Goal: Create an interconnected network of bicycle facilities, greenways, and trails throughout the city with links to regional trail facilities and other modes of transportation. ○ Equity Goal: Develop cycling infrastructure that connects all population types, including underrepresented groups. ○ Coordination Goal: Incorporate cyclists’ needs into development and redevelopment projects, including when retrofitting existing infrastructure. ○ The Plan identifies a prioritized bicycle network, a demonstration project along E. Garrison Boulevard, and program and policy recommendations including bicycle accommodation requirements for new development and reconstruction projects.
City of Gastonia Comprehensive Pedestrian Plan (2014)	<ul style="list-style-type: none"> ○ Vision: Gastonia is a city where walking is safe, convenient, and a desirable mode of transportation for residents and visitors of all ages and abilities. ○ Identifies safety improvement of pedestrian crashes as a primary goal; documents crash patterns and pedestrian network deficiencies across the City as of the plan’s adoption ○ Recommends policies and programs for education, encouragement, and enforcement to complement infrastructure improvements ○ Identifies preferred design standards and policies including ADA-compliant facilities, pedestrian crossing treatments, sidewalk buffer requirements, and sight distance standards. ○ Calls for enhanced coordination between the City of Gastonia, GCLMPO, and NCDOT on pedestrian safety improvements. ○ Recommends that new development contribute to pedestrian access and connectivity as a condition of approval. ○ Although adopted in 2014, the Plan’s infrastructure gap inventory and policy recommendations remain relevant and inform SAP focus locations and systemic countermeasure priorities; an update to this plan is identified as a recommended SAP action.
Gastonia IIP	<ul style="list-style-type: none"> ○ Has funded safety-focused projects including improvements near schools and parks, demonstrating the City’s commitment to addressing high-priority safety locations.

Reference	Goals, Objectives, And Policies
City of Gastonia Transportation General Obligation (GO) Bond Referendum — Project Prioritization (October 2024)	<ul style="list-style-type: none"> ○ In November 2024, Gastonia voters approved \$75 million in General Obligation Bond funding for transportation infrastructure investments. ○ The GO Bond project prioritization process, developed in coordination with City staff and McAdams, established a framework for evaluating and sequencing transportation capital projects based on safety, connectivity, equity, and community impact criteria. ○ Safety is a primary criterion in the GO Bond prioritization methodology, directly aligning bond-funded projects with the goals of the SAP and positioning the City to leverage GO Bond funds alongside federal HSIP, SS4A, and TAP funding for safety improvements. ○ The GO Bond program represents a critical near-term funding mechanism for implementing SAP engineering strategies identified through the HIN analysis. ○ The prioritization framework supports equity objectives by directing investment toward corridors and locations serving transportation-disadvantaged populations, consistent with SAP emphasis on vulnerable road user protection.
GCLMPO 2055 MTP	<ul style="list-style-type: none"> ○ Federal Planning Factor 2 – Safety: Identifies increasing the safety of the transportation system for motorized and non-motorized users as a core planning priority. ○ Includes safety metrics in the project prioritization process for roadway and bicycle/pedestrian projects. ○ Supports construction of sidewalks on non-freeway road projects, addition of bicycle facilities, median guardrails, and safety improvements at school crossings. ○ Promotes the SRTS program and the Transportation Alternatives Program to improve safety for all ages near schools and community destinations. ○ Endorses the NCDOT HSIP and Safe System approach, with emphasis on VRU protections. ○ Chapter 6 (Bicycle and Pedestrian) supports safety countermeasures including crossing islands, HAWK signals, improved lighting, and high-visibility markings.
NCDOT HSIP, GHSP, and SHSP	<ul style="list-style-type: none"> ○ NCDOT administers the statewide HSIP, producing annual inventories of high-crash locations and developing safety countermeasure projects. ○ GHSP administers education campaigns and supports driver education and public outreach as behavioral safety strategies. ○ NC SHSP provides a statewide framework for reducing fatalities and serious injuries that Gastonia’s SAP aligns with.

SUGGESTED SAFETY-SUPPORTIVE POLICIES AND PROCESSES

The policy and process recommendations outlined in the tables below are intended to guide daily decision-making and lead future transportation planning and land development/redevelopment in a direction that enhances the City’s efforts toward zero FSI crashes.

Focus	Recommendation
SAP Program Implementation	<ul style="list-style-type: none"> ○ Designate a Safety Action Plan Champion which is a City staff person knowledgeable of the SAP goals and initiatives who serves as the primary advocate for implementation, interdepartmental coordination, and stakeholder engagement. ○ Establish an SAP Oversight Committee with representation from Engineering, Planning, Police, GCLMPO, Gastonia City Schools, and community stakeholders to guide implementation and monitor progress. ○ Adopt a formal resolution reaffirming the City’s commitment to the goal of zero roadway FSI crashes as the overarching policy direction for the SAP.
VRUs	<ul style="list-style-type: none"> ○ Adopt a Complete Streets Policy requiring that all new and reconstructed City streets accommodate pedestrians, bicyclists, transit users, and people of all abilities as a matter of routine design. ○ Coordinate with NCDOT to install APS and/or passive pedestrian detection at signalized crosswalks near schools, senior centers, future transit stops, and high-pedestrian-volume locations. ○ Require crosswalk connections and ADA-compliant curb ramps at all residential street intersections through UDO amendments and City Engineering Standards. ○ Regularly inspect and proactively repair sidewalks and bicycle infrastructure; develop a prioritized ADA Transition Plan if not already in place to systematically eliminate nonconforming conditions. ○ Promote NCDOT’s Watch For Me NC campaign to educate the public on the safe use of crosswalks and signalized pedestrian crossings, as well as discouraging midblock crossing, particularly along high-speed multilane corridors. ○ Establish a VRU protection policy recognizing that pedestrians, bicyclists, motorcyclists, and older adults represent a disproportionate share of serious and fatal crashes in Gastonia and warrant prioritized countermeasure investment.
Speed Management	<ul style="list-style-type: none"> ○ Adopt a formal speed management policy aligned with Safe System principles, acknowledging that speed is a primary determinant of crash severity and that design speed governs roadway safety outcomes. ○ Coordinate with NCDOT to evaluate speed limits on City-maintained roadways and high-crash corridors; consider reduced speed limits in school zones and areas with high pedestrian activity. ○ Incorporate design speed explicitly into City Engineering Standards so that geometric design elements are calibrated to target operating speeds rather than maximum speeds.

Focus	Recommendation
Multilane Highway Safety	<ul style="list-style-type: none"> Develop a corridor safety program targeting Gastonia’s highest-risk multilane arterials with a focus on access management, median treatments, and VRU crossing improvements. Coordinate with NCDOT to evaluate median barrier or raised median installations on high-speed multilane corridors to reduce head-on and opposing-direction conflicts and deter unsafe midblock crossings at the City level. Incorporate access management standards into City Engineering Standards and UDO to reduce the number of conflict points between turning vehicles and through traffic on principal arterials at the City level. Evaluate and pursue driveway consolidation and shared-access agreements where feasible during development review to reduce curb-cut frequency on high-speed corridors.
Street Lighting	<ul style="list-style-type: none"> Implement a policy to expand the use of LED lighting for all new and retrofit streetlight projects throughout the City, replacing aging fixtures with energy-efficient, higher-visibility alternatives. Require at minimum one streetlight per residential street intersection and prioritize lighting improvements at locations with documented nighttime crash history. Require all future transit stop areas to include lighting improvements to create safe nighttime connections between adjacent crosswalks and waiting areas. Consider Smart Lighting Technology (adaptive lighting) at high-nighttime-crash locations to provide system alerts when fixtures are not functioning properly. Develop and enforce a maintenance protocol requiring property owners to maintain landscaping that may be blocking streetlight visibility along sidewalks and roadways.
Signal Upgrades and EMS Pre-Emption	<ul style="list-style-type: none"> Develop a phased Signal Upgrade Program to modernize Gastonia’s traffic signal infrastructure, prioritizing aging signals at high-crash intersections and those lacking pedestrian signal heads, countdown timers, or accessible push buttons. Expand EVP to all signalized intersections on primary emergency response corridors, ensuring that traffic signals can be cleared for approaching fire, EMS, and police vehicles. Coordinate with Gaston County EMS, Gastonia Fire Department, and Gastonia Police Department to identify gaps in EVP coverage and establish priority corridors for EVP installation or upgrade. Coordinate with NCDOT and GCLMPO to leverage HSIP funding and the TIP for signal modernization projects at high-crash intersections.
School Areas / Safe Routes to School	<ul style="list-style-type: none"> Provide additional coordination with Gaston County Schools, NCDOT, and GCLMPO to develop SRTS infrastructure grant applications to improve safety for students walking and biking near Gastonia schools. Incorporate school zone safety, including school crossing guard adequacy and locations, school speed zones, and lighting, into the SAP implementation priorities. Evaluate automated school zone speed enforcement options in coordination with Gastonia Police Department and NCDOT. Coordinate with law enforcement to identify road safety issues near specific schools and communicate findings to school administrators for educational awareness programs.

Focus	Recommendation
Distracted Driving Education	<ul style="list-style-type: none"> Develop and implement a targeted distracted driving education and awareness campaign in coordination with Gastonia Police Department, the GHSP, and local schools, with emphasis on handheld device use while driving. Incorporate distracted driving messaging into existing community outreach programs, City social media channels, and City communications. Coordinate with GHSP and NCDOT to align local campaigns with statewide education and enforcement initiatives. Coordinate with Gaston County Schools and Parent-Teacher Associations to integrate distracted and impaired driving awareness into student and parent education programs.
Neighborhood Streets	<ul style="list-style-type: none"> Mark centerlines on residential streets where appropriate based on roadway width and crash history to improve driver guidance and reduce head-on conflicts. Establish neighborhood speed limit review procedures to evaluate residential street speeds in coordination with NCDOT and Gastonia Police, with a focus on posted speed appropriateness relative to roadway design.
Micromobility and Emerging Modes	<ul style="list-style-type: none"> Develop a policy framework for micromobility addressing safe operation, infrastructure needs, and the relationship to the City’s bicycle network and Gaston County’s broader trail system. Promote safety messaging for micromobility users including proper helmet use, lane positioning, and interaction with motor vehicle traffic. Coordinate with GCLMPO and regional partners on the CONNECT Beyond Regional Mobility Plan as it relates to first/last mile connectivity and active transportation safety.



SUGGESTED SAFETY-SUPPORTIVE CHANGES TO THE UDO AND ENGINEERING STANDARDS

Focus/Reference	Recommendation
UDO – Development Review / Site Plan Application	<ul style="list-style-type: none"> Amend the site plan application and pre-application meeting process to explicitly require applicants to identify how proposed development accommodates pedestrians, bicyclists, and transit users, and to reference applicable safety standards. Incorporate a transportation safety checklist into the Technical Review Committee process to ensure that safety considerations are reviewed for all applicable projects.
UDO – Landscaping and Buffering Standards	<ul style="list-style-type: none"> Enhance landscaping standards to require that median plantings be continuous, low-growing, and dense to deter midblock crossings while maintaining driver sight lines. Amend landscaping standards to prohibit irrigation systems from discharging onto sidewalks, bicycle paths, or roadways, which creates slip hazards and surface deterioration. Enhance and enforce clear sight-distance triangle requirements at all street and driveway intersections, consistent with NCDOT and AASHTO standards, ensuring vegetation, structures, and signage do not obstruct cross-visibility between 2.5 and 7 feet above grade.
UDO – Parking and Loading	<ul style="list-style-type: none"> Emphasize and enforce the prohibition on parking configurations that require vehicles to back directly onto a public street (excluding alleys) from a parking or loading space. Require that all new parking lots above a minimum size include internal pedestrian circulation paths connecting building entrances to public sidewalks, reducing pedestrian exposure to vehicle conflicts.
UDO – Nonconformities	<ul style="list-style-type: none"> Leverage the nonconformity provisions of the UDO to bring existing sites into compliance with current safety standards when substantial redevelopment or expansion triggers review.
City Engineering Standards – Complete Streets / Multimodal Design	<ul style="list-style-type: none"> Formally adopt a Complete Streets policy and incorporate Complete Streets design guidance into the City Engineering Standards, requiring that all new and reconstructed streets include appropriate pedestrian and bicycle accommodations as a standard element of project design. Establish explicit design speed standards in City Engineering Standards to ensure geometric design elements are calibrated to the target operating speed of each roadway classification. Increase access management standards (re-evaluate minimum driveway spacing, corner clearance, and shared-access requirements) into City Engineering Standards for arterial and collector roadways to reduce conflict points. Establish pavement marking standards requiring centerline striping on residential streets of sufficient width and crosswalk markings at all collector and arterial intersections with pedestrian generators. Adopt LED streetlight design standards as the default specification for all new and replacement streetlight installations, with photometric requirements for pedestrian-scale illumination at crossings and intersections.
City Engineering Standards – Signal and ITS Standards	<ul style="list-style-type: none"> Amend signal design standards to require APS and pedestrian countdown timers as the default specification at all new or reconstructed signalized intersections. Incorporate EVP as a required element in the design standards for all new and reconstructed traffic signals on primary emergency response corridors. Establish a signal timing review cycle and coordination protocol with NCDOT to ensure signal timing plans are regularly updated to reflect current traffic volumes and pedestrian needs.



CHAPTER 5

Focus Locations and Emphasis Areas



Safety analysis was conducted to develop the HIN as discussed in Chapter 2. A targeted safety analysis was conducted to improve safety by identifying site-specific countermeasures at the highest crash locations throughout the study area. The targeted safety analysis was built upon the HIN with a focus on locations that have not yet been identified for improvement.

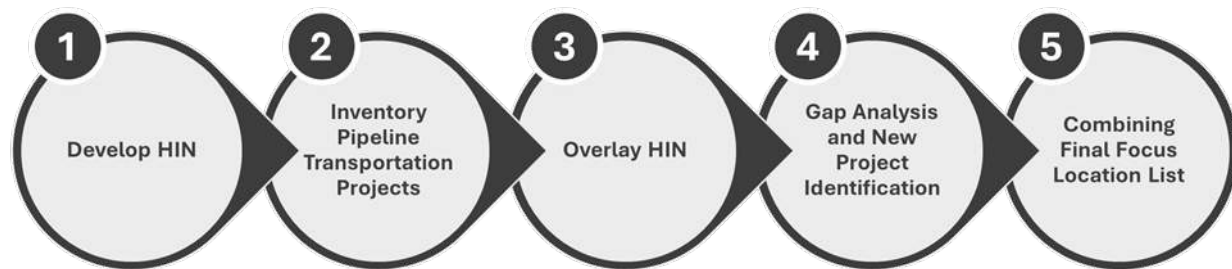
The goal of reviewing specific sites for targeted safety analysis and countermeasure identification is to recognize locations where installation of safety improvements will offer the greatest immediate impact to address safety concerns. Focus locations were identified through both data-driven metrics and public input. Locations with funded improvement projects through plans such as the NCDOT STIP, Gastonia IIP, and various committed TIA improvements have already been identified as places for improvement and therefore, were removed from the targeted safety analysis.

GAP ANALYSIS

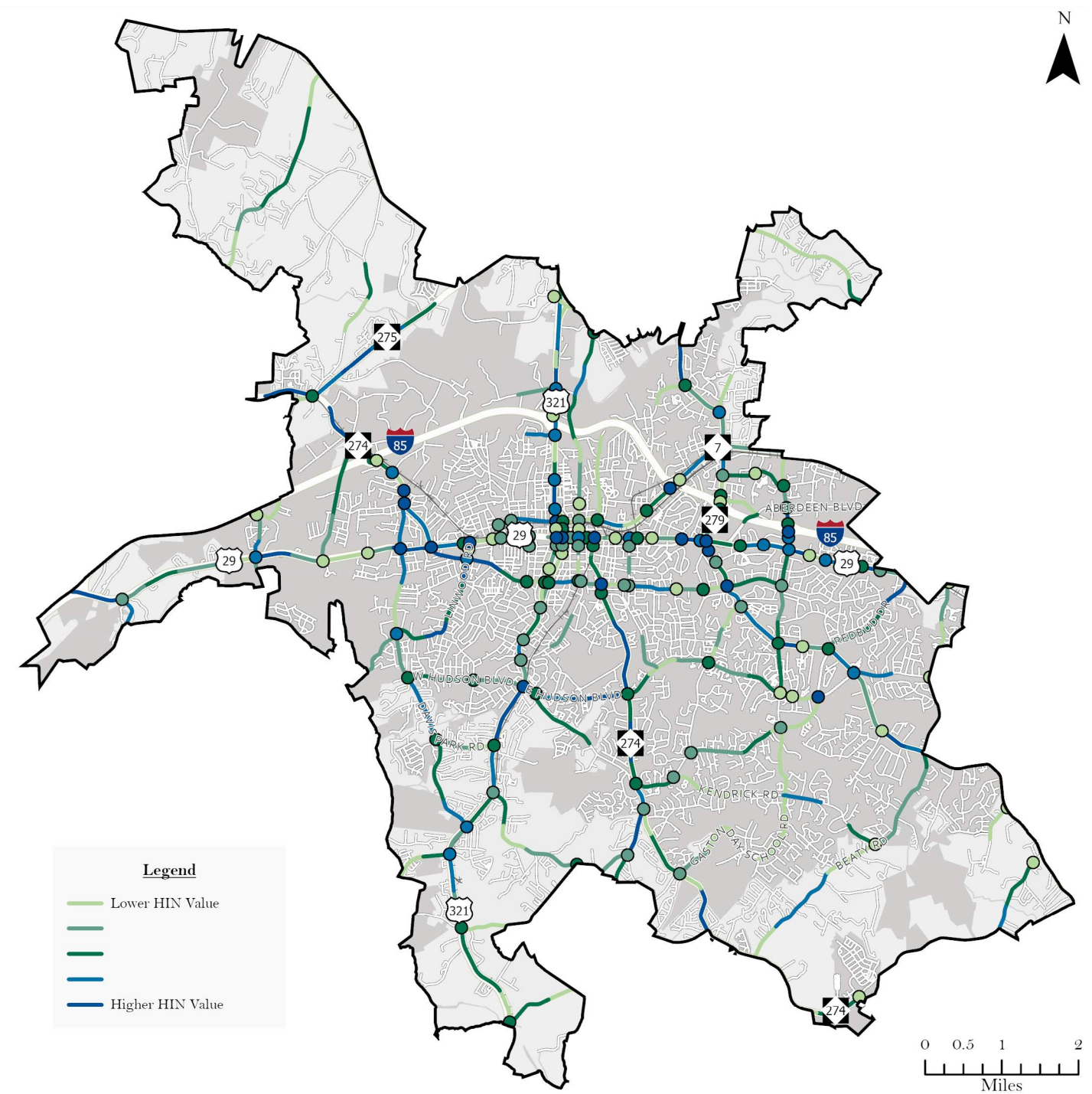
To determine locations for targeted safety analysis, the HIN was overlaid with a list of planned, funded projects. Locations with programmed and funded projects such as NCDOT STIP projects, TIA committed improvements, and Gastonia IIP projects were removed from consideration. The remaining intersections and segments were ranked based on HIN scoring and the top intersections and segments were chosen to represent the focus locations for Gastonia.

The process for identifying focus locations for inclusion in the SAP included the following steps:

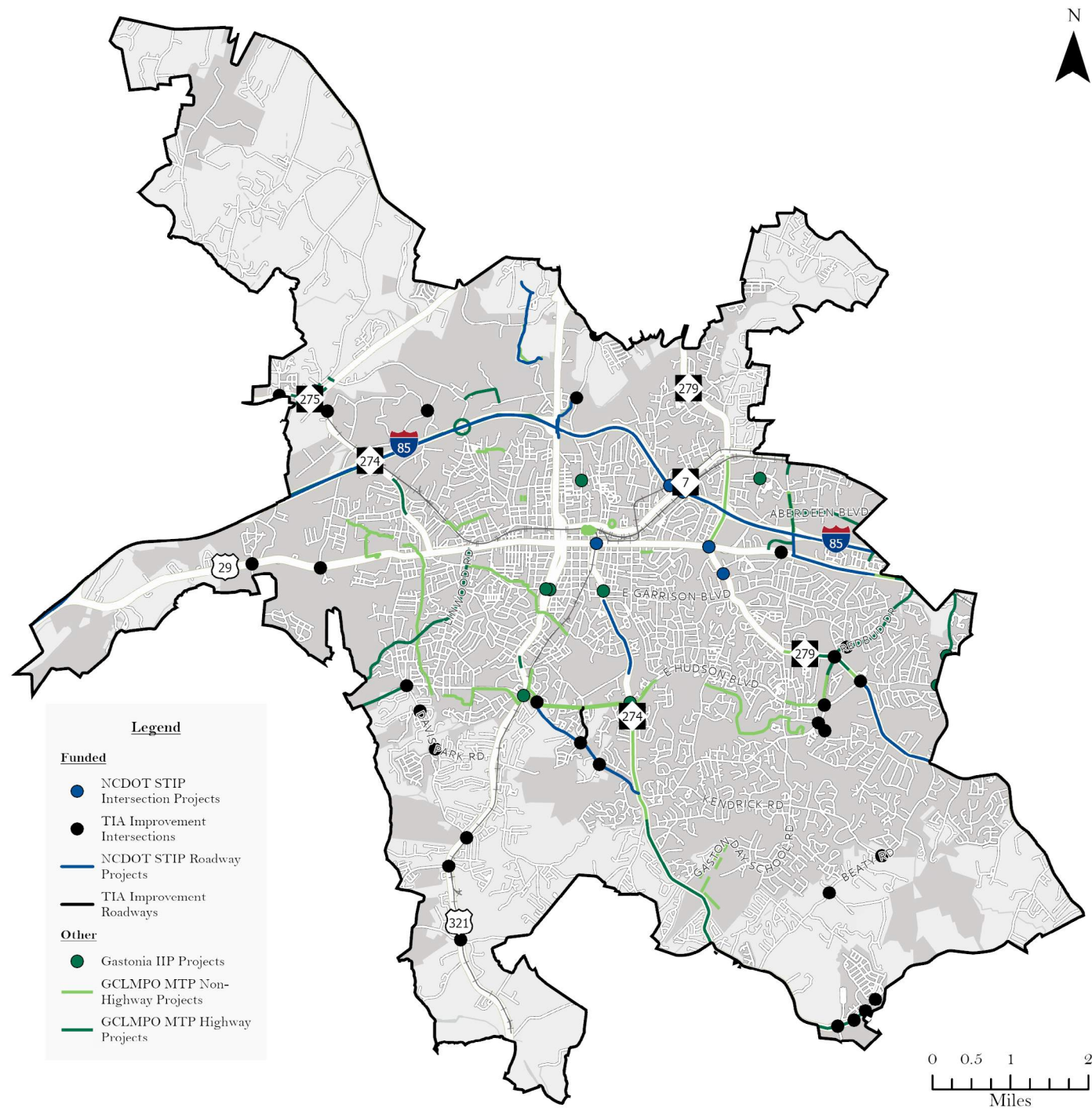
- Develop a HIN
- Identify funded projects planned within the study area
- Overlay previously identified, funded projects along the HIN
- Remove locations where funded projects overlap with the HIN
- Identify areas of the HIN that are not addressed by any previously identified, funded project and show a high safety need based on HIN scores



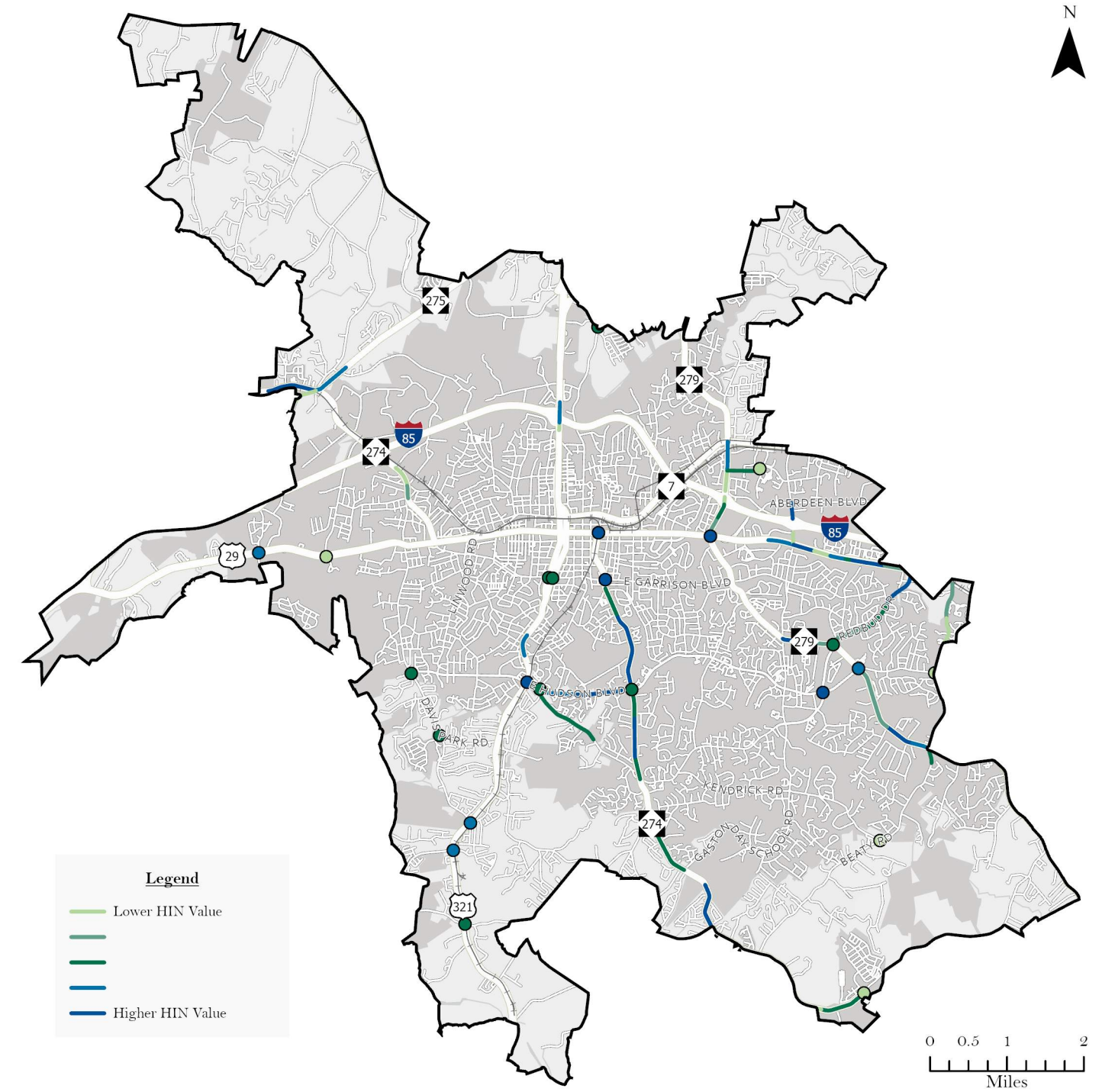
1. Develop HIN



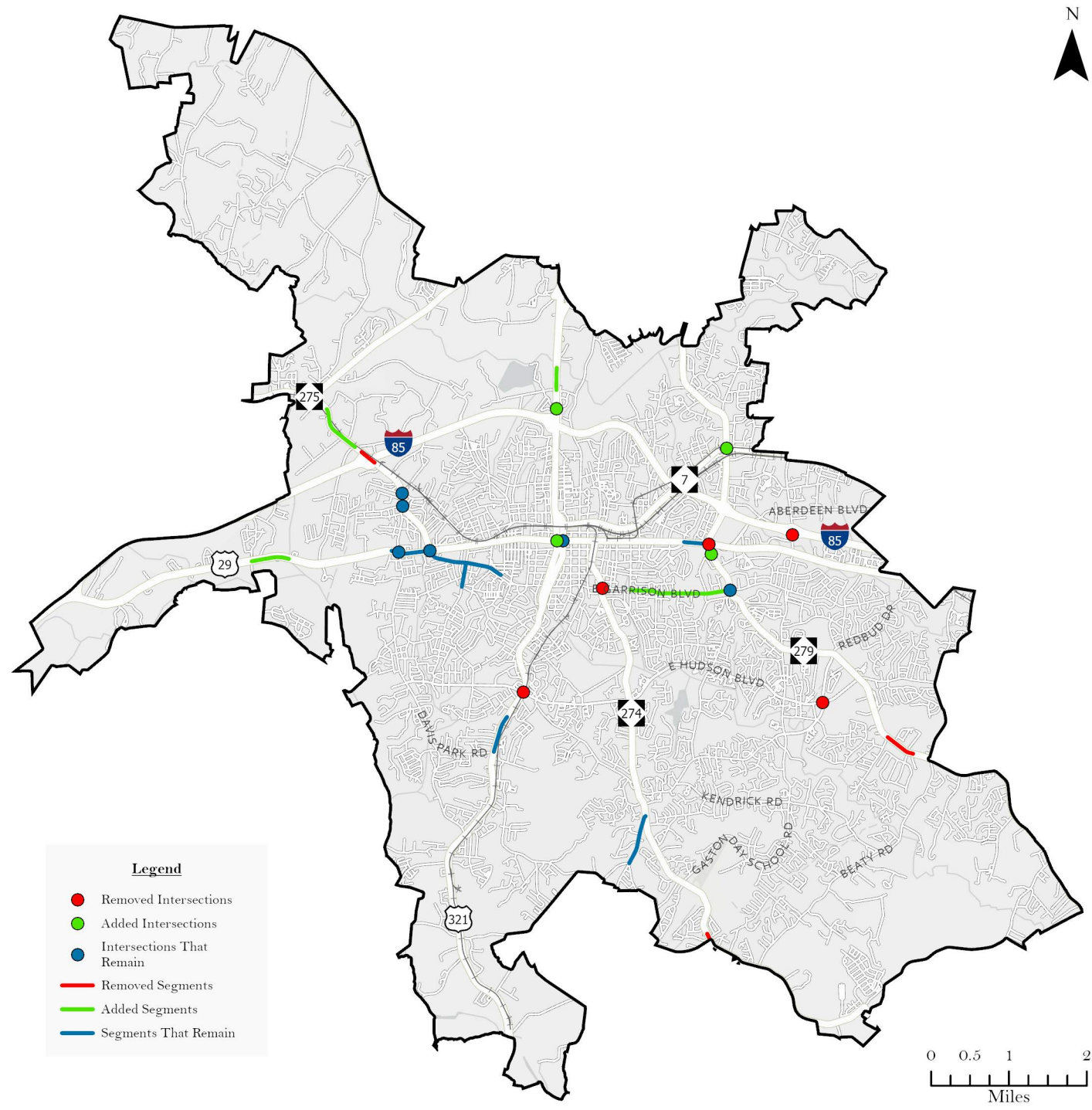
2. Inventory Pipeline Transportation Projects



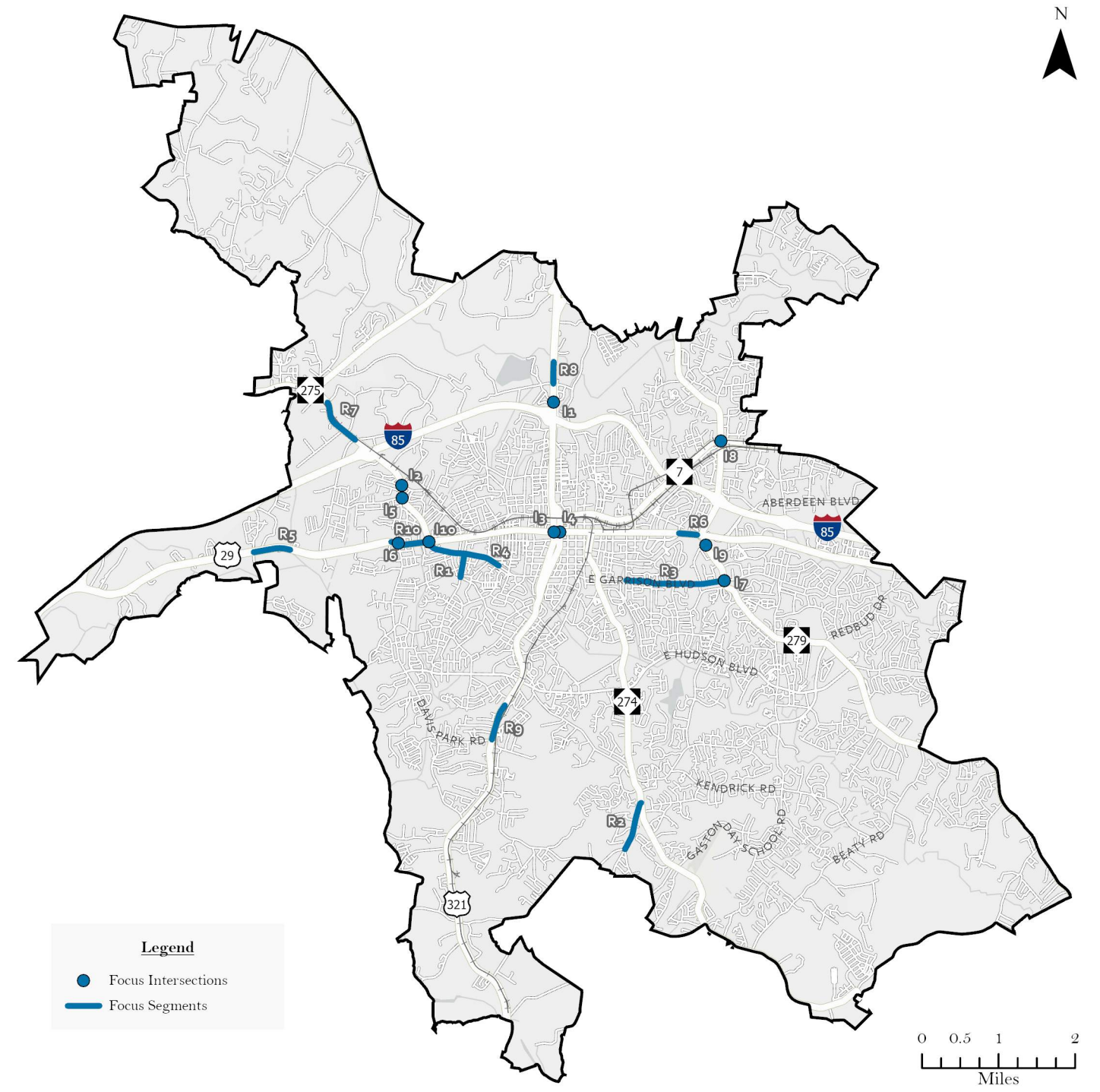
3. Overlay HIN with Funded Projects



4. Gap Analysis



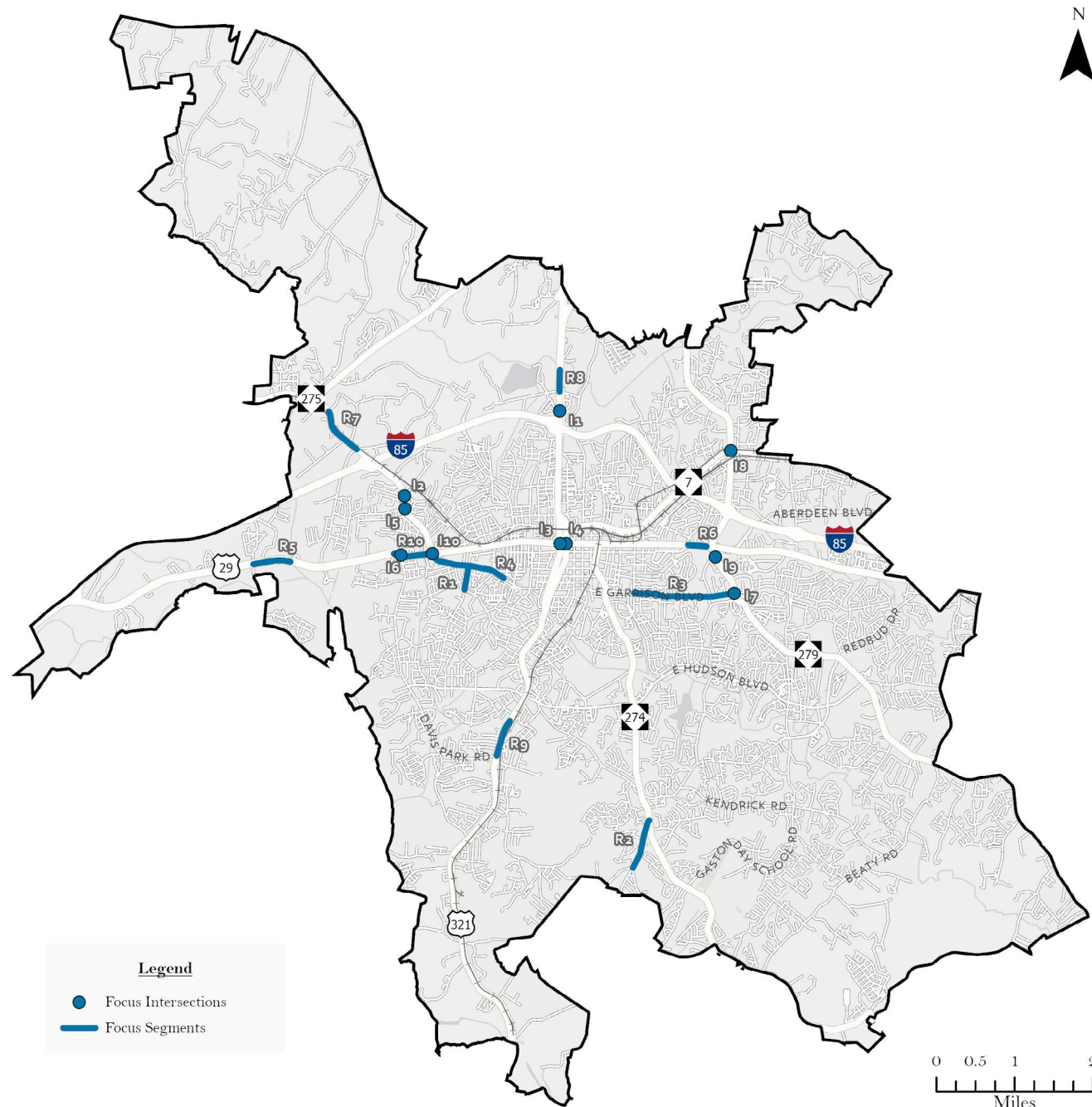
5. Focus Locations



FOCUS LOCATIONS

A list of the highest crash corridors and intersections on the HIN was determined based on crash history. Locations with programmed projects were removed, resulting in a list of focus locations with the highest crash rates and potential for crash reduction.

In addition to the data-driven selection process, the focus locations were informed by public input from the community and the Safety Task Force. Based on public input, the E Garrison Blvd corridor was included in the list of focus locations. This corridor connects multiple community destinations such as Grier Middle School, Gaston County Public Library, Schiele Museum, and Lineberger Park. Focus locations are not listed in order of priority and should be considered for implementation along with other safety projects to eliminate FSI crashes throughout Gastonia.



Intersections:

1. N Chester St (US 321) at Rankin Lake Rd
2. Bessemer City Rd (NC 274) at Brown St/Milton Ave
3. W Franklin Blvd (US 74) at S Chester St (US 321)
4. W Franklin Blvd (US 74) at S York Rd (US 321)
5. Bessemer City Rd (NC 274) at N Myrtle School Rd/Arkray St
6. W Franklin Blvd (US 74) at Myrtle School Rd
7. S New Hope Rd (NC 279) at E Garrison Blvd/Armstrong Park Dr
8. N New Hope Rd (NC 279) at E Ozark Ave (NC 7)
9. S New Hope Rd (NC 279) at Burtonwood Dr
10. W Franklin Blvd (US 74) at Bessemer City Rd (NC 274)/W Garrison Blvd (NC 274)

Segments:

1. Linwood Rd
2. Robinson Rd
3. E Garrison Blvd
4. W Garrison Blvd (NC 274)
5. W Franklin Blvd (US 74)
6. E Franklin Blvd (US 74)
7. Bessemer City Rd (NC 274)
8. N Chester St (US 321)
9. S York Rd (US 321)
10. W Franklin Blvd (US 74)

PRIORITIZATION

After identifying the focus locations which demonstrate the greatest need for safety improvements, a prioritization process was conducted to prioritize certain locations for near-term funding and implementation. Through this process, each segment and intersection was assigned a score out of 100 possible points based on crash types, crash severity, existing infrastructure, land use context, and alignment with future growth.

To further refine the prioritization of focus locations and ensure the prioritization aligns with the items of greatest importance to the City of Gastonia and the community, each prioritization goal was weighted based on input from the Safety Task Force and community.

Methodology and Criteria

To prioritize the focus locations, the project team developed context-sensitive prioritization scores which demonstrate what is most important to Gastonia. The prioritization process provides the City with guidance to understand where resources are most needed to address safety concerns.

Criteria	Max Points
Connectivity (20%)	20
○ Downtown (4%)	
○ Schools (4%)	
○ Greenways (4%)	
○ Parks (4%)	
○ Community Centers (4%)	
Community Context (10%)	10
○ Vehicle Ownership (5%)	
○ Income (5%)	
Multimodal Design (25%)	25
○ Bike/Pedestrian Crashes (9%)	
○ Presence of Pedestrian Facilities (8%)	
○ Presence of Bicycle Facilities (8%)	

Criteria	Max Points
Vehicular Design (15%)	15
○ Vehicular Crashes (3%)	
○ Motorcycle Crashes (3%)	
○ Speed (3%)	
○ HIN Score (3%)	
○ Traffic Volume (3%)	
Implementation and Funding (20%)	20
○ ROW Impact (10%)	
○ Cost (10%)	
Growth Alignment (10%)	10
○ Presence of New Developments (5%)	
○ Unfunded Projects (5%)	

Results

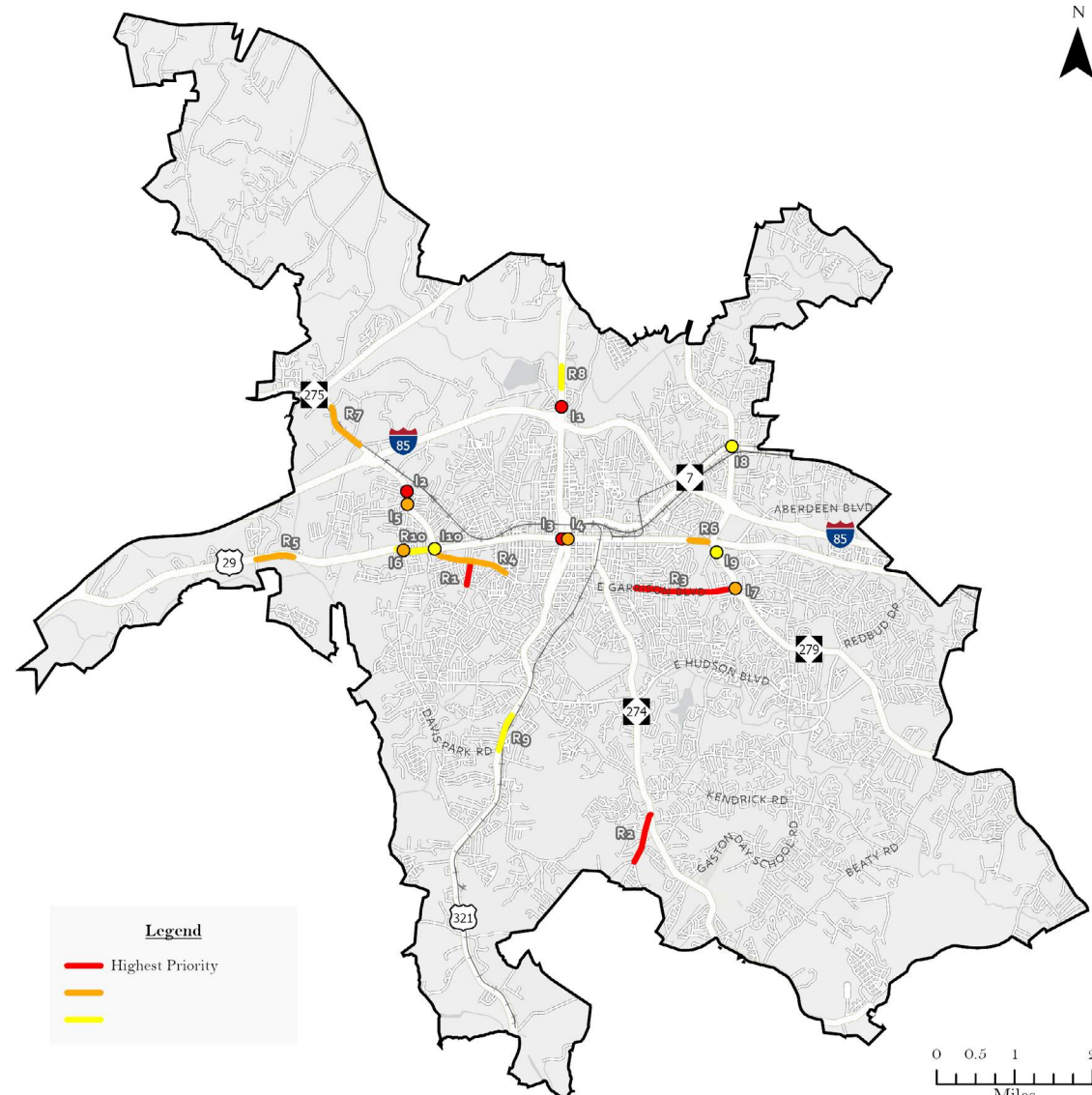
Intersections and segments were prioritized separately, resulting in two lists of focus locations ranked from the greatest need to lowest need for safety improvements based on the prioritization methodology described.

Intersections:

1. N Chester St (US 321) at Rankin Lake Rd
2. Bessemer City Rd (NC 274) at Brown St/Milton Ave
3. W Franklin Blvd (US 74) at S Chester St (US 321)
4. W Franklin Blvd (US 74) at S York St (US 321)
5. Bessemer City Rd (NC 274) at N Myrtle School Rd/Arkray St
6. W Franklin Blvd (US 74) at Myrtle School Rd
7. S New Hope Rd (NC 279) at E Garrison Blvd/Armstrong Park Dr
8. N New Hope Rd (NC 279) at E Ozark Ave (NC 7)
9. S New Hope Rd (NC 279) at Burtonwood Dr
10. W Franklin Blvd (US 74) at W Garrison Blvd/Bessemer City Rd (NC 274)

Segments:

1. Linwood Rd
2. Robinson Rd
3. E Garrison Blvd
4. W Garrison Blvd (NC 274)
5. W Franklin Blvd (US 74)
6. E Franklin Blvd (US 74)
7. Bessemer City Rd (NC 274)
8. N Chester St (US 321)
9. S York Rd (US 321)
10. W Franklin Blvd (US 74)



SYSTEMATIC ANALYSIS

NCDOT provides data for each crash about the type of crash and contributing circumstances. Certain crash factors stood out as contributing more frequently to FSI crashes or being a contributing circumstance for a higher number of total crashes.

The crash analysis revealed trends at specific locations, however, to address FSI crashes in a holistic way, the broader context of contributing factors must also be considered. To achieve this, the project team reviewed overarching themes and crash trends to identify six emphasis areas, through which to understand collision patterns and cohesively plan safety improvements. The emphasis areas represent specific areas of concern and opportunities to help guide the development of actionable strategies and safety countermeasures.

Emphasis areas were influenced by public input from the Safety Task Force and the community. A number of multilane roadways and intersections were pointed out frequently during public engagement events and activities. Additionally, as mentioned in Chapter 2, crash statistics used for the SAP were based on complete annual data from 2020 – 2024; however, the City recognized the community had been impacted by several FSI crashes that occurred in 2025, including several crashes involving pedestrians. Vulnerable road users were discussed during public engagement related to the 2025 crashes as well as the behavior of pedestrians and bicyclists throughout the Gastonia transportation network. Additionally, there were many discussions of speeding and distracted driving throughout the engagement process, including during public events and through online surveys and activities.

Gastonia’s six emphasis areas are as follows:

- Emphasis Area 1: Intersections
- Emphasis Area 2: Multilane Roads
- Emphasis Area 3: Vulnerable Road Users
- Emphasis Area 4: Speed Management
- Emphasis Area 5: Nighttime
- Emphasis Area 6: Distracted Driving

Each of the six emphasis areas encompasses several themes and crash types. In Chapter 6, each road safety countermeasure and systemic strategy targets at least one of the six emphasis areas to address safety risks throughout the transportation network.



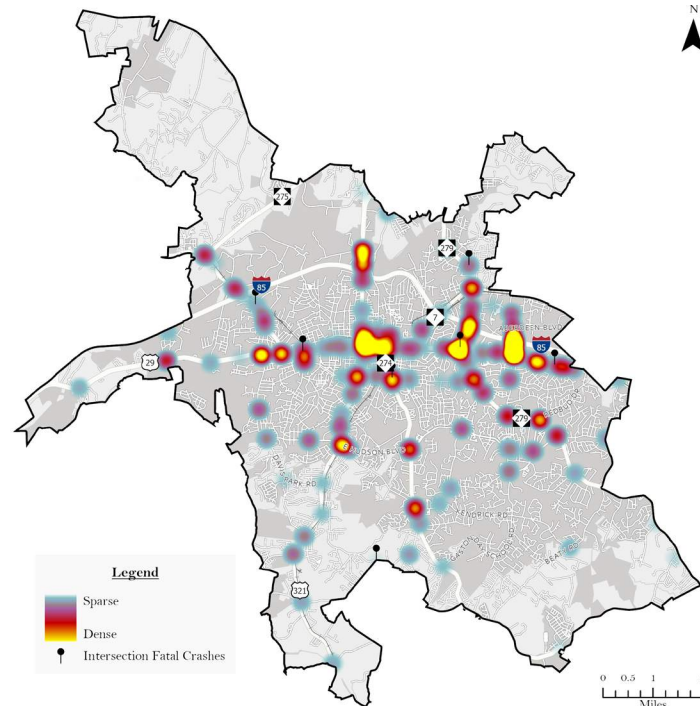
EMPHASIS AREA 1: INTERSECTIONS

Intersections lend themselves to higher crash rates since they are the locations where multiple roadways and travel modes interact and where capacity and safety often come into conflict. Intersections present conflict points where crashes can occur due to vehicles turning and moving through the intersection. Intersections also pose a safety risk for vulnerable road users as they interact with vehicles and motorists, making maneuvers through intersections more complex.



48%

of all crashes within the study area occurred at intersections.



Safety Factors:

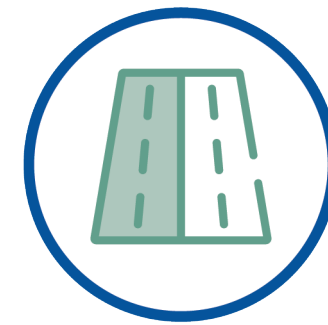
- Signal phasing and timing works to optimize efficient movement through the intersection while minimizing the chance of collisions.
- Intersections provide an opportunity for multimodal facilities to be implemented to aid pedestrians and bicyclists to travel through intersections safely through the implementation of crosswalks, pedestrian signals, bicycle lanes, bicycle signals, bike boxes, etc.
- Turning conflict points pose safety risks if not addressed appropriately. Protected and protected/permitted phasing offers increased safety for motorists but often can affect the green time available for other movements to clear the intersection. Turning movements often conflict with pedestrian and bicycle accommodations, which can affect the efficiency of the signal.

Measures of Countermeasure Effectiveness:

- Number of FSI crashes and FSI crash rates at intersections
- Number of FSI crashes and FSI crash rates due to left- and right-turning movements at intersections
- Number of FSI crashes and FSI crash rates due to angle crashes at intersections
- Number of crashes and crash rates involving vulnerable road users at intersections

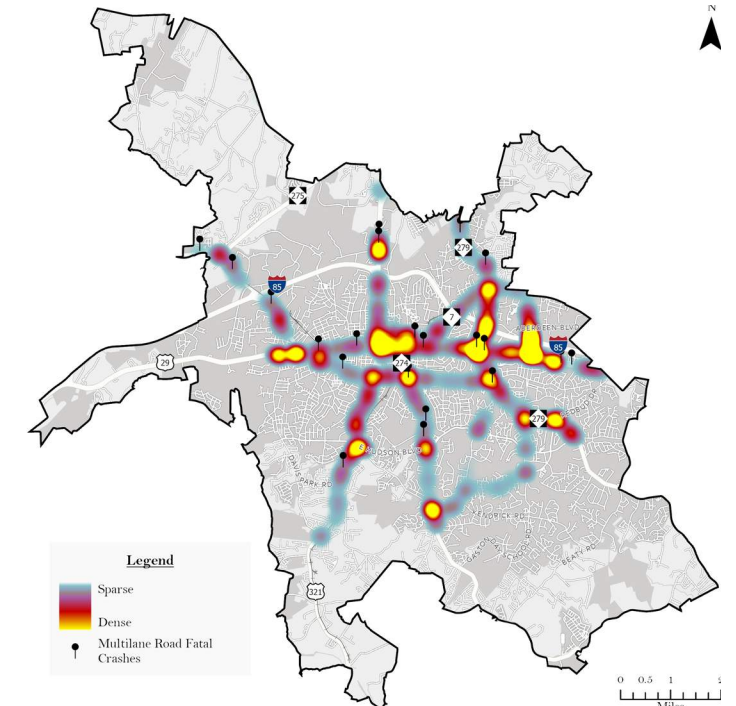
EMPHASIS AREA 2: MULTILANE ROADS

Multilane roadways pose many safety risks to motorists, bicyclists, and pedestrians. Access management and safety can come into conflict along multilane roadways as more travel lanes can lead to safety risks for all road users due to more conflict points, but it is important to maintain access to frequently accessed land uses. Additional travel lanes means bicyclists and pedestrians must cross more lanes and are more exposed at intersections.



50%

of all pedestrian and bicycle crashes occurred along multilane roadways.



Safety Factors:

- Divided roadways provide an opportunity for access management and implementation of reduced left-turn conflict intersections along a corridor.
- Divided roadways provide an opportunity for two-stage crossings and pedestrian refuge islands which allow motorists, bicyclists, and pedestrians to cross one direction of travel at a time.
- Unsignalized intersections pose safety risks as motorists must cross additional travel lanes.
- Multilane roadways with multiple through lanes traveling in the same direction pose increased chance of lane departure crashes.

Measures of Countermeasure Effectiveness:

- Number of FSI crashes and FSI crash rates along multilane roadways
- Number of FSI crashes and FSI crash rates related to lane departure crashes along multilane roadways
- Number of crashes and crash rates involving vulnerable road users along multilane roadways

EMPHASIS AREA 3: VULNERABLE ROAD USERS

Vulnerable road users have a disproportionate likelihood of serious injury or fatality when involved in a crash. Vulnerable road users are at risk along any transportation facility, however, the more travel lanes or turn lanes a pedestrian, bicyclist, or motorcyclist must traverse, the greater risk due to longer exposure time. Motorcyclists cannot be separated from other motorists as they share travel lanes with vehicles but safety measures can be taken to encourage safe practices and improve infrastructure to prioritize motorcyclist safety. In addition to infrastructure-related safety measures, behavior of pedestrians and bicyclists can contribute to safety risks if they are unpredictable.



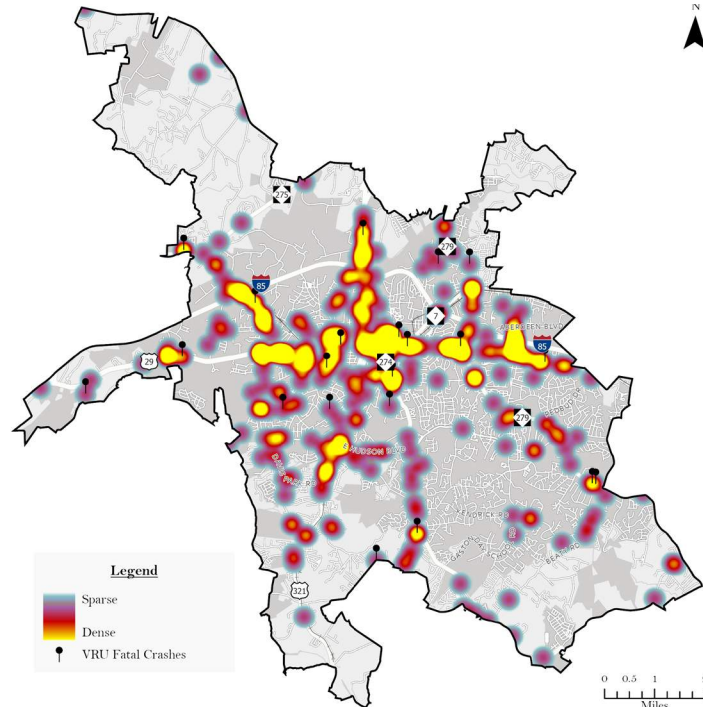
388

crashes involved a VRU



32%

of all FSI crashes in Gastonia involved a VRU



Safety Factors:

- Separation between vehicle travel lanes and bicycle lanes, sidewalks, and shared-use paths provide protection to bicyclists and pedestrians along corridors.
- Multimodal facilities can be implemented at intersections to aid pedestrians and bicyclists as they travel through an intersection.
- Leading pedestrian intervals can be used at signalized intersections to allow pedestrians to establish themselves in the crosswalk before green indications are given to vehicles.
- Midblock crossings with pedestrian hybrid beacons or rectangular rapid flashing beacons offer locations for pedestrians to cross with increased visibility or protected right-of-way.

Measures of Countermeasure Effectiveness:

- Number of FSI crashes and FSI crash rates involving vulnerable road users
- Number of crashes and crash rates involving vulnerable road users
- Number of FSI crashes and FSI crash rates involving vulnerable road users at intersections
- Number of FSI crashes and FSI crash rates involving vulnerable road users along segments

EMPHASIS AREA 4: SPEED MANAGEMENT

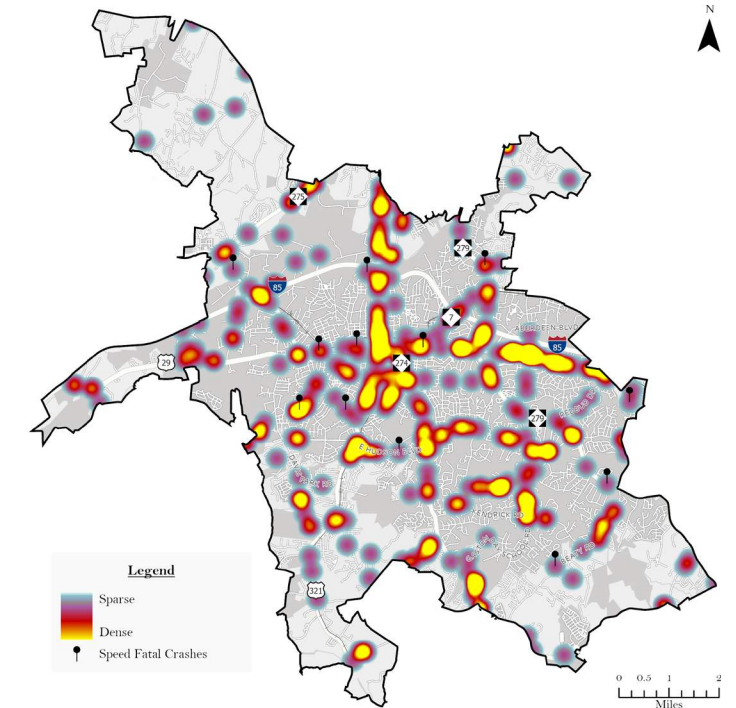
Speed as a contributing factor can increase the likelihood of serious injury or fatalities resulting from a crash. While speed is not the highest contributing factor in Gastonia, it contributes to creating an unsafe environment on roadways. High differentials in speed can increase the severity of a crash, which poses a safety risk for all travel modes. Speed was cited as a recurring issue throughout Gastonia during public engagement which makes drivers feel unsafe on the roadway network.



Speeding was involved in

13%

of all FSI crashes



Safety Factors:

- Traffic calming measures can target speeding as a recurring safety issue, especially along residential roads.
- Signal timing can pose safety risks if not timed correctly. Adjustments to yellow and all red intervals can help prevent red-light running and allow time for the intersection to clear before green indications are given.
- Speed limits should be set appropriately based on the roadway characteristics, access management, and presence of pedestrian and bicyclist activity.

Measures of Countermeasure Effectiveness:

- Number of FSI crashes and FSI crash rates related to speeding
- Number of crashes and crash rates involving vulnerable road users where speed was a contributing factor

EMPHASIS AREA 5: NIGHTTIME

Nighttime conditions pose safety risks as visibility decreases under dark conditions. Visibility brings safety concerns as time to react to situations along the roadway network can decrease, leading to more fatal or serious injury crashes. Bicyclists and pedestrians are especially at risk during nighttime conditions as it becomes harder for motorists to identify bicyclists and pedestrians on the road or in crosswalks. It is noted that while dark conditions contribute to poor visibility, roadways which are oriented east or west face visibility issues during the morning and evening due to the sun. Additionally, age can increase as a contributing factor during nighttime as older drivers have trouble with visibility and teen drivers are not experienced with driving during dark conditions.



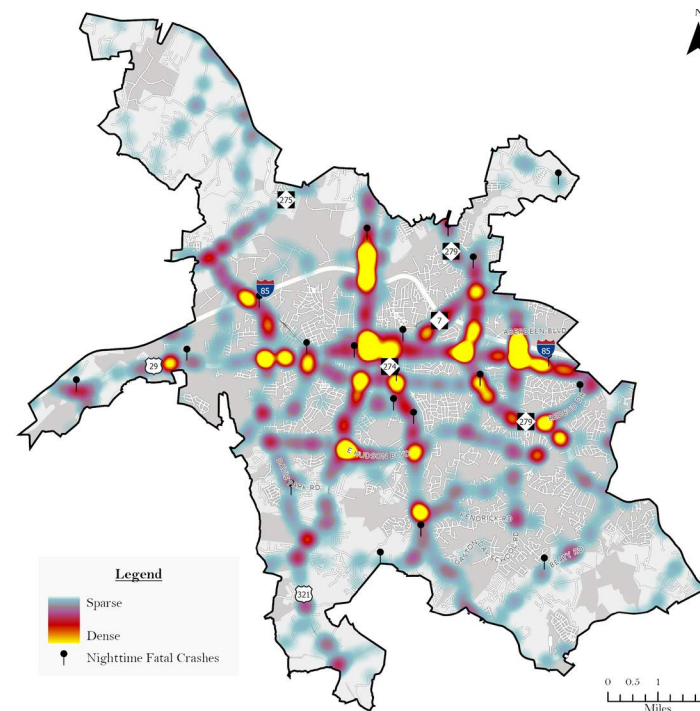
45%

of all FSI crashes occurred during dark conditions



25%

of nighttime crashes involved an older driver or teen driver



Safety Factors:

- Lighting increases visibility at intersections and along segments during nighttime conditions.
- Retroreflective signage, signal backplates, and sign posts can help motorists identify upcoming signals and signs.
- Pavement markings and signage can be used to increase visibility of upcoming crosswalks to motorists.
- Retroreflective backplates for signals increase visibility of upcoming signals even during times when the signal may be experiencing issues.

Measures of Countermeasure Effectiveness:

- Number of FSI crashes and FSI crash rates during nighttime or dark conditions
- Number of crashes and crash rates involving vulnerable road users during nighttime or dark conditions
- Number of FSI crashes and FSI crash rates at intersections during nighttime or dark conditions
- Number of FSI crashes and FSI crash rates along segments during nighttime or dark conditions

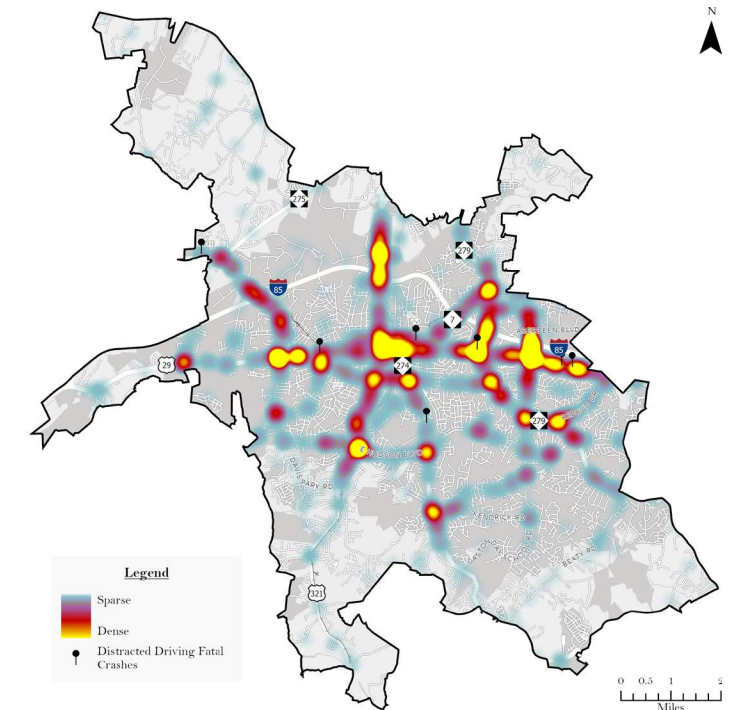
EMPHASIS AREA 6: DISTRACTED DRIVING

Behavioral choices that motorists make while operating vehicles are important to recognize for their contribution to crashes and unsafe roadway conditions. Motorists must understand the responsibility of being focused while operating a vehicle due to the implications that vehicles can pose danger to other motorists, pedestrians, and bicyclists. Distracted driving, similar to speeding, can also contribute to creating generally unsafe roadway conditions. Behavioral choices, since they are not infrastructure-related, are challenging to address; education becomes imperative to preventing safety risks.



27%

of all crashes in Gastonia involved a distracted driver



Safety Factors:

- Enforcement and education are at the forefront of targeting distracted driving behaviors.
- Developing a culture of safety among the community so motorists feel a responsibility to protect themselves and others when operating a vehicle helps build accountability and address behavioral safety risks.
- Targeting unsafe driving behaviors such as distracted driving and speeding can help mitigate the rate of fatal and serious injury crashes.

Measures of Countermeasure Effectiveness:

- Number of FSI crashes and FSI crash rates related to distracted driving
- Number of crashes and crash rates involving vulnerable road users where distracted driving was a contributing factor

CHAPTER 6

Countermeasures and Strategies



Safety countermeasures and strategies were developed based on the six identified emphasis areas which encompass the common themes and crash types in Gastonia. Specific countermeasures were selected based on the crash patterns at focus locations and were selected to address the emphasis areas. Countermeasures were selected from FHWA’s Proven Safety Countermeasures, the NC SHSP, and NHTSA’s Countermeasures That Work. In order to have a comprehensive approach to preventing fatalities and serious injuries, selected countermeasures include infrastructure-related engineering treatments and non-infrastructure-related strategic initiatives.

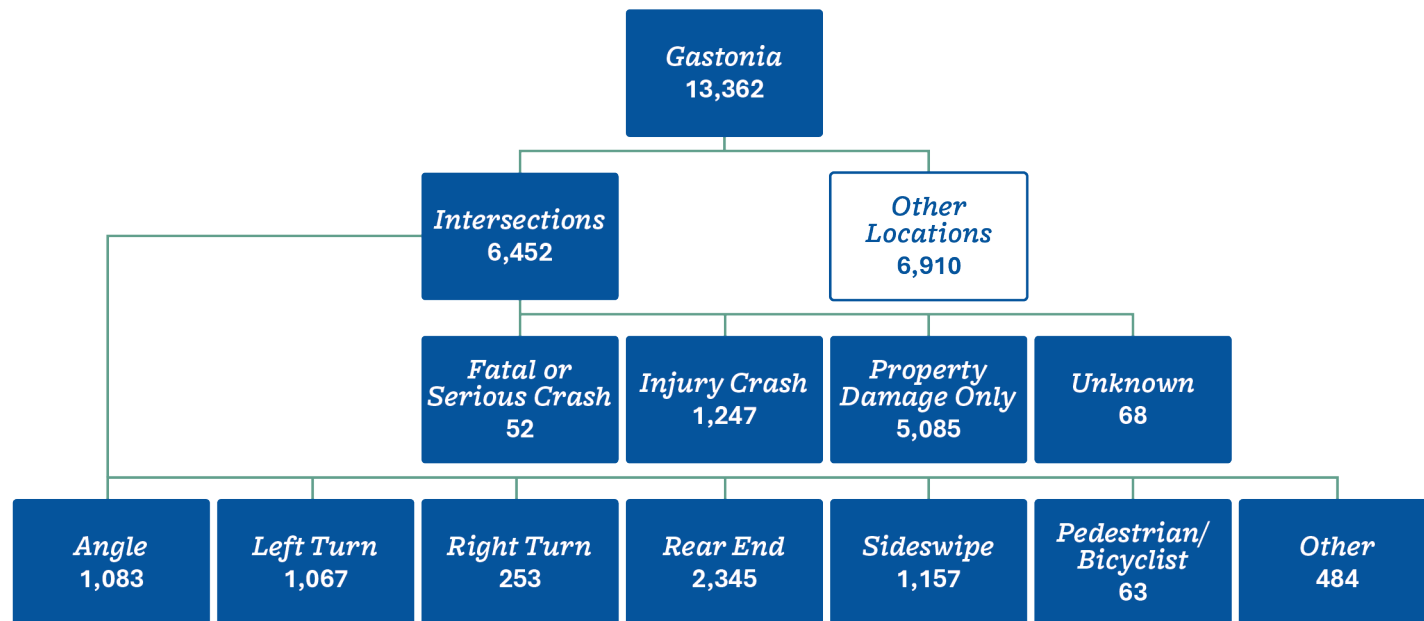
SYSTEMIC COUNTERMEASURES

Systemic countermeasures are engineering treatments or strategic initiatives which can be applied systemwide to reduce crashes. Engineering treatments target infrastructure-related safety risks while strategic initiatives target non-infrastructure-related safety risks such as behavior, education, and access to resources. Strategic initiatives work to neutralize contributing factors which can result in an FSI crash. Following a systemic approach identifies locations with similar roadway characteristics and risk factors, and applies low to moderate cost countermeasures. Systemic improvements target safety risks within specific emphasis areas throughout the City. **Systemic countermeasures were identified for the following six emphasis areas:**

- Intersections
- Multilane Roads
- Vulnerable Road Users
- Speed Management
- Nighttime Conditions
- Distracted Driving

Intersections

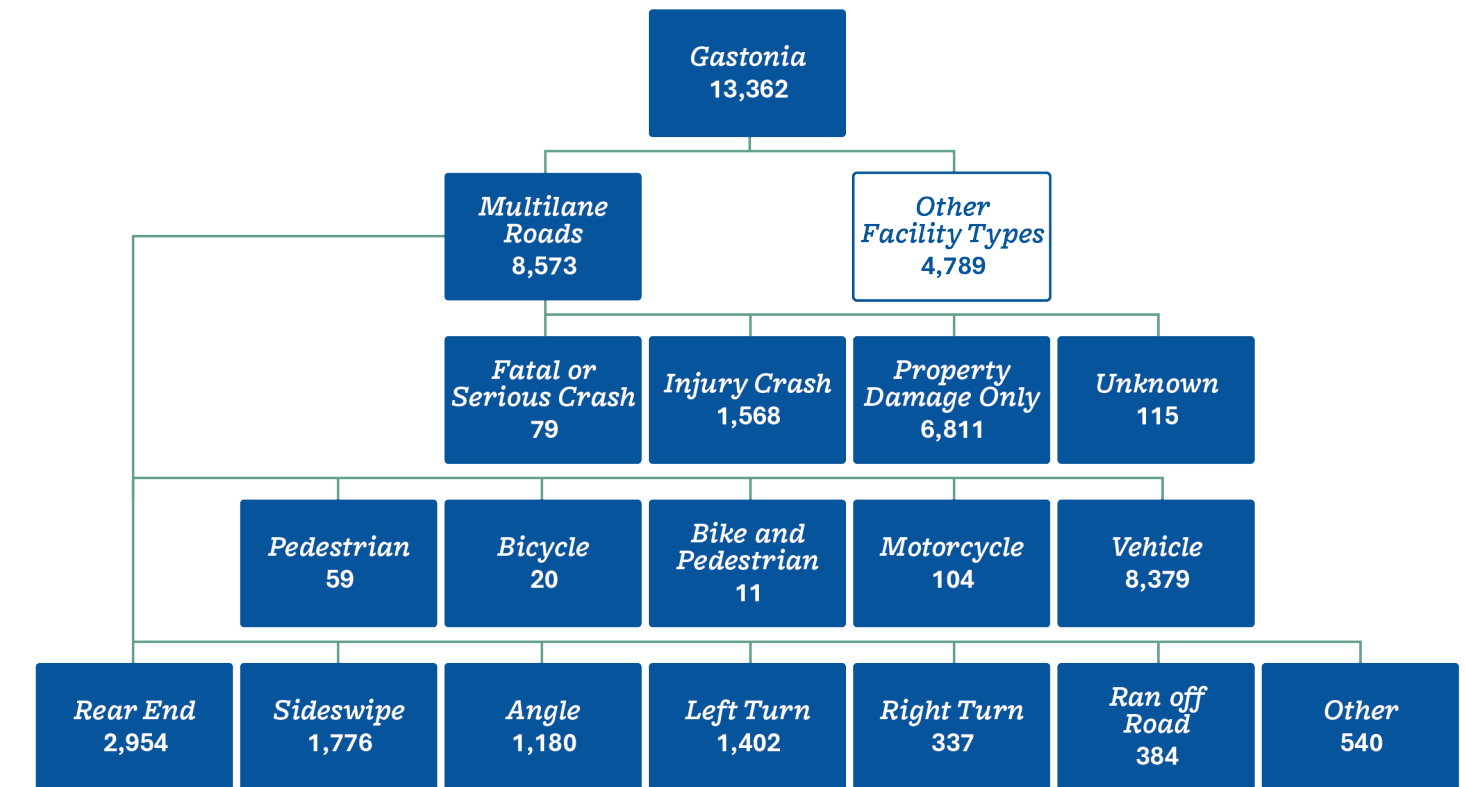
The crash tree below provides justification for identifying intersections as a key safety factor in Gastonia and the context used to develop systemic countermeasures for intersections. Overall, approximately **48% of the total crashes within the study area occurred at intersections**. Furthermore, approximately 26% of FSI crashes and 47% of other injury crashes occurred at intersections. The most common crash types that occurred at intersections include rear end, sideswipe, angle, and left turn. Approximately 32% of total pedestrian and bicycle crashes in Gastonia occurred at intersections.



Several countermeasures which can address safety risk factors at intersections include: retroreflective backplates for signal heads, restriping pavement markings and crosswalks, leading pedestrian intervals, updated signal phasing and timings, and dedicated left- and right-turn lanes, among others.

Multilane Roads

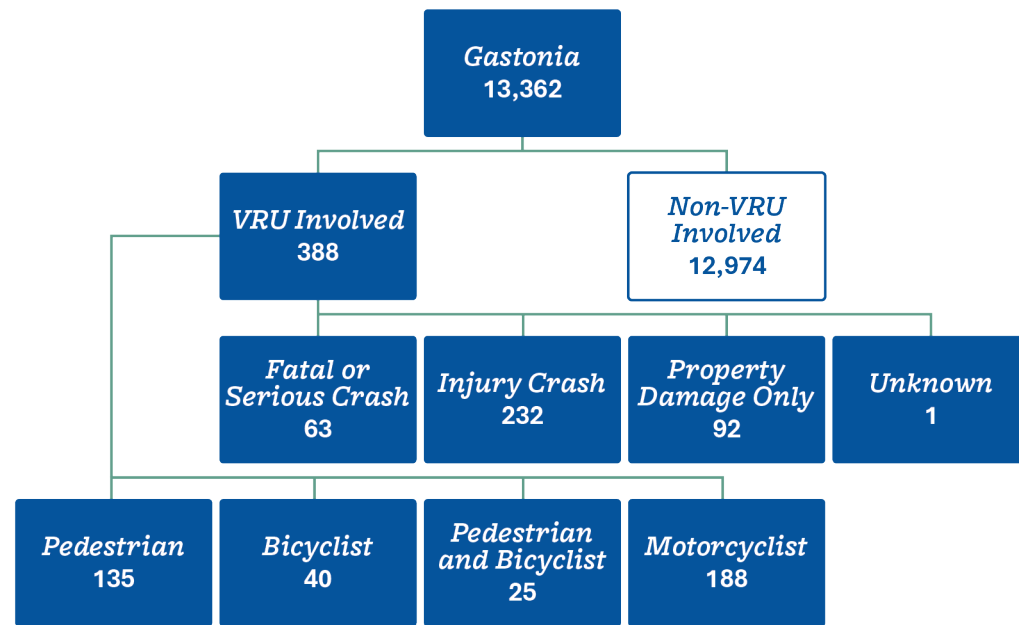
The crash tree below provides justification for identifying multilane roadways as a key safety factor in Gastonia and the context used to develop systemic countermeasures for multilane roadways. Overall, approximately 64% of the total crashes within the study area occurred along multilane roadways. Furthermore, approximately 40% of FSI crashes and 58% of other injury crashes occurred along multilane roadways. While a majority of crashes occurring along multilane roadways involve only vehicles, approximately **50% of all crashes involving a vulnerable road user occurred along a multilane road**. Multilane crashes also account for approximately 41% of all lane departure crashes, meaning approximately 41% of all lane departure crashes – which includes ran off road, fixed object, head-on, rollover, and sideswipe (opposite directions) crashes – occurred along multilane roadways.



Several countermeasures which can address safety risk factors along multilane roadways include: installation of medians and median barriers, corridor access management, and signage and pavement marking at unsignalized intersections, among others.

Vulnerable Road Users

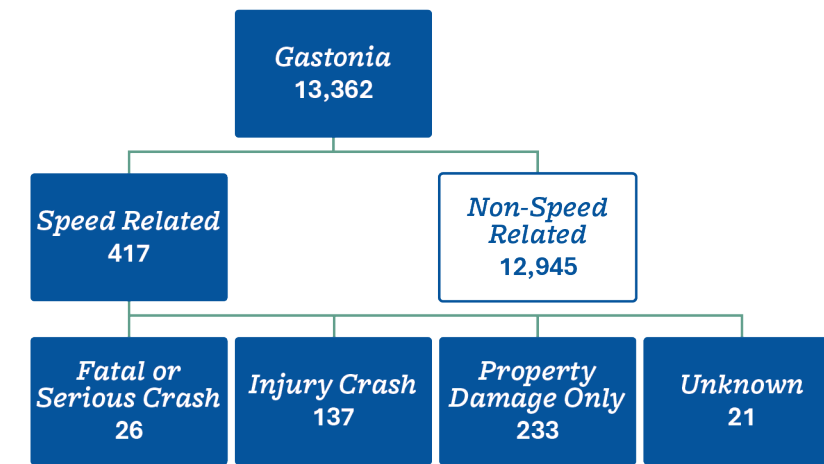
The crash tree below provides justification for identifying vulnerable road users as a key safety factor in Gastonia and the context used to develop systemic countermeasures for vulnerable road users. Overall, approximately 3% of the total crashes within the study area involved a vulnerable road user. However, approximately **32% of FSI crashes and 9% of other injury crashes involved a vulnerable road user**, highlighting the importance of designing safe facilities for vulnerable road users as they are more susceptible to be killed or suffering a serious injury when involved in a crash.



Several countermeasures which can address safety risk factors related to vulnerable road users include: pedestrian hybrid beacons, rectangular rapid flashing beacons, shared-use paths, bicycle lanes, and raised crosswalks, among others.

Speed Management

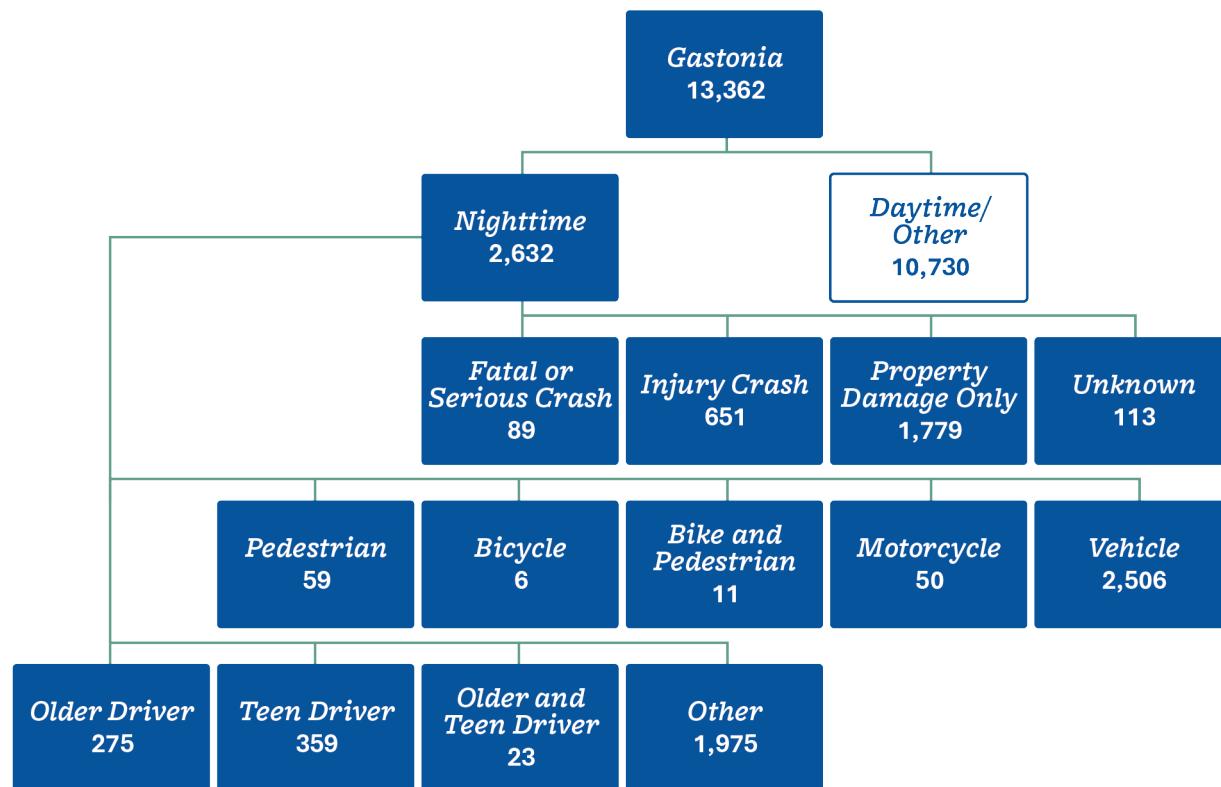
The crash tree below provides justification for identifying speed management as a key safety factor in Gastonia and the context used to develop systemic countermeasures for speed management. Overall, approximately 3% of the total crashes within the study area involved speeding. Furthermore, approximately 13% of FSI crashes and 5% of other injury crashes involved speeding. While speeding was not the highest contributing factor in crashes throughout Gastonia, speeding was documented as a recurring issue along Gastonia roadways, even if it did not result in a crash. Speeding as a contributing factor is often difficult to properly report by the responding officer. As a result, speeding is often underreported in crash data. The Gaston Police Department estimated speeding to be a factor in up to 45% of all crashes.



Several countermeasures which can address safety risk factors related to speeding include: determining appropriate speed limit for all road users, variable speed limits, dynamic speed feedback signs, and reconfiguring channelized right-turn lanes, among others.

Nighttime Conditions

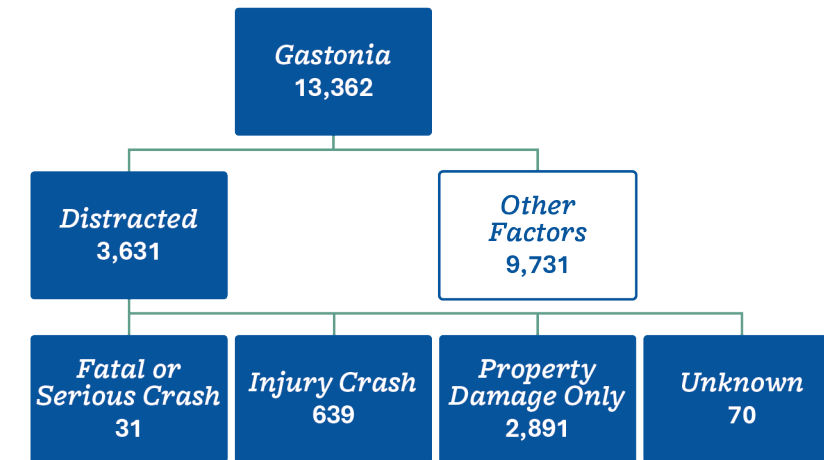
The crash tree below provides justification for identifying nighttime as a key safety factor in Gastonia and the context used to develop systemic countermeasures for nighttime crashes. Overall, approximately 20% of the total crashes within the study area occurred during dark, or nighttime, conditions. Furthermore, approximately **45% of FSI crashes and 24% of other injury crashes occurred during dark conditions**. Visibility often becomes a contributing factor in nighttime crashes, which greatly affects vulnerable road users and can often affect older and younger drivers. Approximately 32% of all vulnerable road user crashes occurred during dark conditions. Of the 2,632 crashes that occurred during dark conditions, approximately 25% crashes involved an older or teen driver. Additionally, nighttime crashes involving an older or teen driver account for approximately 15% of the total crashes involving an older or teen driver.



Several countermeasures which can address safety risk factors related to nighttime and dark conditions include: lighting, crosswalk visibility enhancements, and retroreflective backplates for signal heads, among others.

Distracted Driving

The crash tree below provides justification for identifying distracted driving as a key safety factor in Gastonia and the context used to develop systemic countermeasures for distracted driving. Overall, approximately **27% of the total crashes within the study area involved a distracted driver**. Furthermore, approximately 16% of FSI crashes and 24% of other injury crashes involved a distracted driver. While distracted driving does not always result in an FSI crash, it was noted during public engagement that the public has identified a growing trend of distracted driving along the roads in Gastonia.



While infrastructure-related countermeasures cannot often address distracted driving as a contributing factor in crashes, strategic initiatives targeting education and access to resources can be used to address behavioral choices of drivers.

COUNTERMEASURE TOOLBOX

Countermeasures and crash-reduction strategies were identified to address crash trends and serve as safety treatments for the transportation network in Gastonia. Each countermeasure aims to address at least one of the emphasis areas identified below. A full toolbox of countermeasures including additional information about each is provided in **Appendix C**.

- Speed Management
- Vulnerable Road Users
- Intersections
- Multilane Roads
- Nighttime Conditions
- Distracted Driving

These strategies are highly context-sensitive and factors such as physical constraints, operating conditions, and implementation and maintenance costs impact where each countermeasure or strategy could or should be implemented. As an action item of this plan, the City should review, update, or develop policies to guide the implementation of these strategies that will provide the best overall safety impact given the wide range of variables that must be considered for each type of treatment.

Speed Management

Countermeasure	Description	Emphasis Area
Appropriate Speed Limits for All Road Users	Consider factors such as pedestrian and bicyclist activity, land use context, intersection spacing, driveway density, etc. to determine a reasonable, safe, and consistent speed limit	Speed Management
Speed Safety Cameras	Stationary or mobile cameras which identify the speed of passing vehicles	Speed Management
Variable Speed Limits	Speed limits capable of adapting to changing circumstances of the road (traffic speed, volumes, weather, road surface conditions); can be applied to entire roadway segment or individual lanes	Speed Management
Reconfigure Channelized Right-Turn Lanes	Reconfigure channelized right-turn lanes to control speeds	Speed Management
Dynamic Speed Feedback Signs	Signs which display current vehicle speeds to motorists to encourage drivers to adjust speed	Speed Management

Pedestrian/Bicyclist

Countermeasure	Description	Emphasis Area
Bicycle Lanes	Dedicated lane for bicyclists to travel separate from motorized vehicles	Vulnerable Road Users
Crosswalk Visibility Enhancements	Pavement markings or signage to make pedestrians more visible to motorists (high-visibility crosswalks, lighting, signing and pavement markings)	Vulnerable Road Users Intersections
Leading Pedestrian Interval (LPI)	Signal timing which allows pedestrians to enter the crosswalk approx. 3-7 seconds before vehicles are given a green indication	Vulnerable Road Users Intersections
Medians and Pedestrian Refuge Islands	Allows pedestrians to cross one direction of traffic at a time	Vulnerable Road Users Intersections
Pedestrian Hybrid Beacon (PHB)	Signal which stops vehicles and provides right-of-way to pedestrians crossing the roadway; must include marked crosswalk and pedestrian signal heads	Vulnerable Road Users
Rectangular Rapid Flashing Beacon (RRFB)	Traffic control device which utilizes signage and flashing beacon to make motorists aware of upcoming crosswalk	Vulnerable Road Users
Road Diets/Roadway Reconfiguration	Reduces the number of travel lanes and allocates the space for alternative uses such as multimodal facilities or traffic calming	Vulnerable Road Users Speed Management
Walkways	Create connected network of walking routes to desired destinations without gaps or abrupt changes	Vulnerable Road Users
Shared-Use Path	Facility separated from travel lanes that is intended for both pedestrian and bicyclist use and commonly designed for two-way travel	Vulnerable Road Users
Bike Box	Designated area placed ahead of a travel lane at a signalized intersection in which bicyclists can position in advance of stopped traffic during a red light	Vulnerable Road Users Intersections
Bicycle Signals	Traffic signals that apply only to bicyclists; used in combination with traditional traffic signals heads	Vulnerable Road Users Intersections
Raised Crosswalk	Ramped speed table spanning the entire width of the roadway to slow motorists at crossing locations and increasing visibility of pedestrians	Vulnerable Road Users Intersections Speed Management
Curb Extension/Bulb Out	Extends the sidewalk into the roadway shoulder, reducing the effective street width	Vulnerable Road Users Intersections Speed Management
Safe Routes to School Program	Program that encourages and enables safer walking and biking routes for students	Vulnerable Road Users
Accessible Pedestrian Signals (APS)	Pedestrian signal push button that emits an audible tone when the pedestrian signal head shows a walk sign	Vulnerable Road Users Intersections

Roadway Departure

Countermeasure	Description	Emphasis Area
Enhanced Delineation for Horizontal Curves	Install measures to alert drivers to upcoming curves (pavement markings, retroreflective strips on sign posts, delineators, chevron signs, dynamic curve warning signs)	Speed Management Nighttime
Longitudinal Rumble Strips and Stripes on Two-Lane Roads	Milled or raised elements on pavement to alert drivers that the vehicle has left the travel lane through vibration and sound	Nighttime Distracted Driving
Median Barriers	Longitudinal barriers that separate opposing traffic and are designed to redirect vehicles striking either side of the barrier (cable barriers, metal-beam barriers, concrete barriers)	Distracted Driving
Roadside Design Improvements at Curves	Strategy encompassing improvements at curves that target the high-risk roadside environment along the outside of horizontal curves (clear zone, slope flattening, adding or widening shoulders, roadside barriers)	Speed Management Nighttime Distracted Driving
SafetyEdge	Shapes the edge of pavement at 30 degrees from the pavement cross slope to eliminate potential for vertical drop-off at pavement edge; provides opportunity for driver to return to travel lane while maintaining control	Speed Management Nighttime Distracted Driving
Wider Edge Lines	Enhance visibility of travel lane boundaries	Speed Management Nighttime Distracted Driving
Shoulder Widening	Widen shoulder to aid drivers in returning to the travel lane provide space for vehicles to pull onto during break-downs or during object avoidance	Nighttime
Improve Superelevation of Horizontal Curve	Adjust the banking angle of a roadway's curvature to better align with vehicle speeds, enhance traction, and reduce the likelihood of skidding or rollover	Speed Management
Remove or Relocate Fixed Objects Out of Clear Zone	Widen clear zones and remove obstacles from the roadside to provide safer recovery area for vehicles	Speed Management Distracted Driving

Intersections

Countermeasure	Description	Emphasis Area
Backplates with Retroreflective Borders	Backplates added to traffic signal head to improve visibility of illuminated face of the signal using controlled-contrast background; even more conspicuous with yellow retroreflective border	Intersections
Corridor Access Management	Implement strategies to control access along a roadway; balance overall safety and mobility for all users with the needs of adjacent land uses (driveway closure/consolidation/relocation, spacing of intersection and access points, limit allowable movements, place driveways on approach corner, raised medians, roundabouts, reduced left-turn conflict intersections, turn lanes, lower speed)	Intersections Vulnerable Road Users
Dedicated Left- and Right-Turn Lanes at Intersections	Auxiliary turn lanes which provide physical separation between turning traffic and adjacent through traffic	Intersections
Reduced Left-Turn Conflict Intersections	Geometric designs which alter how left-turn movements occur (RCI, Median U-Turn, Quadrant Roadway, DDI)	Intersections
Roundabouts	Circular configuration that utilizes circulated traffic flow to lower speeds and reduces conflict points	Intersections Vulnerable Road Users Speed Management
Systemic Application of Multiple Low-Cost Countermeasures at Stop-Controlled Intersections	Implement countermeasures on the through approach and stop approach to increase driver awareness and recognition of intersections and potential conflicts (enhanced signing and pavement markings)	Intersections
Yellow Change Intervals	Ensure yellow interval is appropriately timed to prevent red-light running	Intersections
All-Way Stop-Control (AWSC)	Install all-way stop-control as an interim countermeasure	Intersections
Right Turn on Red Restrictions	Restrict right turn on red to minimize potential conflicts between right-turning vehicles and bicyclists or pedestrians	Intersections Vulnerable Road Users
Dynamic All Red Extension	System which detects the potential for red-light running events and stops signal timing events in the all red phase to provide time for the vehicle to clear the intersection before the minor street receives a green indication	Intersections
Positive Offset of Turn Lanes	Left turn lanes are shifted outward from the centerline of the road which allows motorists to have a less obstructed view of oncoming traffic	Intersections

Crosscutting

Countermeasure	Description	Emphasis Area
Lighting	Improve visibility for all modes of travel	Intersections Vulnerable Road Users
Local Road Safety Plans	Plan that provides a framework for identifying, analyzing, and prioritizing roadway safety improvements on local roads	All
Pavement Friction Management	Apply friction treatments or measurements to roadways (continuous pavement friction measurement, high friction surface treatment)	Intersections Multilane Roads
Road Safety Audit (RSA)	Multidisciplinary team independent of the project who analyze the project considering all road users; can be performed in any phase of project development and can be focused on motorized vehicles, pedestrians, bicyclists, motorcyclists, or a combination of these roadway users	All
Educate Law Enforcement	Educate law enforcement officers on transportation laws related to safety, new traffic control devices, and alternative/innovative intersections so they are equipped to enforce traffic laws	Intersections
Develop Comprehensive Education Program	Develop education program that teaches walking, bicycling, and bus safety skills	Vulnerable Road Users
Update Driver Education Curriculum	Incorporate intersections with alternative/innovative configurations, pedestrians, and bicyclists in the driver education curriculum	Vulnerable Road Users Intersections
Alternative Transportation Options Education	Develop marketing materials to advertise alternative transportation options to older population including how to use ride share and distribute to community destinations (doctor offices, senior centers, DMV)	Distracted Driving Nighttime
Address Motorcyclist Vulnerabilities	Update design, construction, and maintenance policies and practices to address motorcyclist vulnerabilities (warning signs, motorcyclist-safe barriers)	Vulnerable Road Users
Motorcyclist Vulnerabilities Education	Develop and distribute educational materials to raise awareness of motorcyclist vulnerabilities and the challenges construction and maintenance practices present for motorcyclists (grooved pavements, temporary lane markings, gravel/sand, metal plates)	Vulnerable Road Users
Younger Driver Education	Develop and disseminate educational materials for younger drivers and their parents/guardians to promote safe driving habits and address the issue of speed and distraction	Distracted Driving Speed Management
Motorcycle Rub Rail	Install protective rail below traditional W-beam guardrail to reduce injury and severity for motorcyclists in crashes	Vulnerable Road Users
Improve Horizontal Alignment	Improve horizontal alignments along a curve or reconfigure a skewed intersection	Intersections Multilane Roads

Countermeasure	Description	Emphasis Area
Alcohol Ignition Interlocks	Device installed in vehicles that prevents the vehicle from starting before a motorist provides a breath sample that is below a pre-set level	All
Sobriety Checkpoints	High-visibility, enforced checkpoints to deter and catch impaired motorists	All
Car Seat Checks	Checks sponsored by health agencies and fire departments where car seats are inspected for proper installation	All
Safer Community Programs	Local initiatives that promote traffic safety through community involvement and education	All



TARGETED COUNTERMEASURES

Targeted countermeasures and strategies were identified for each of the focus locations to address safety issues, specifically targeting locations where fatal and serious injury crashes occurred. Targeted countermeasure recommendations are provided for each of the focus locations:

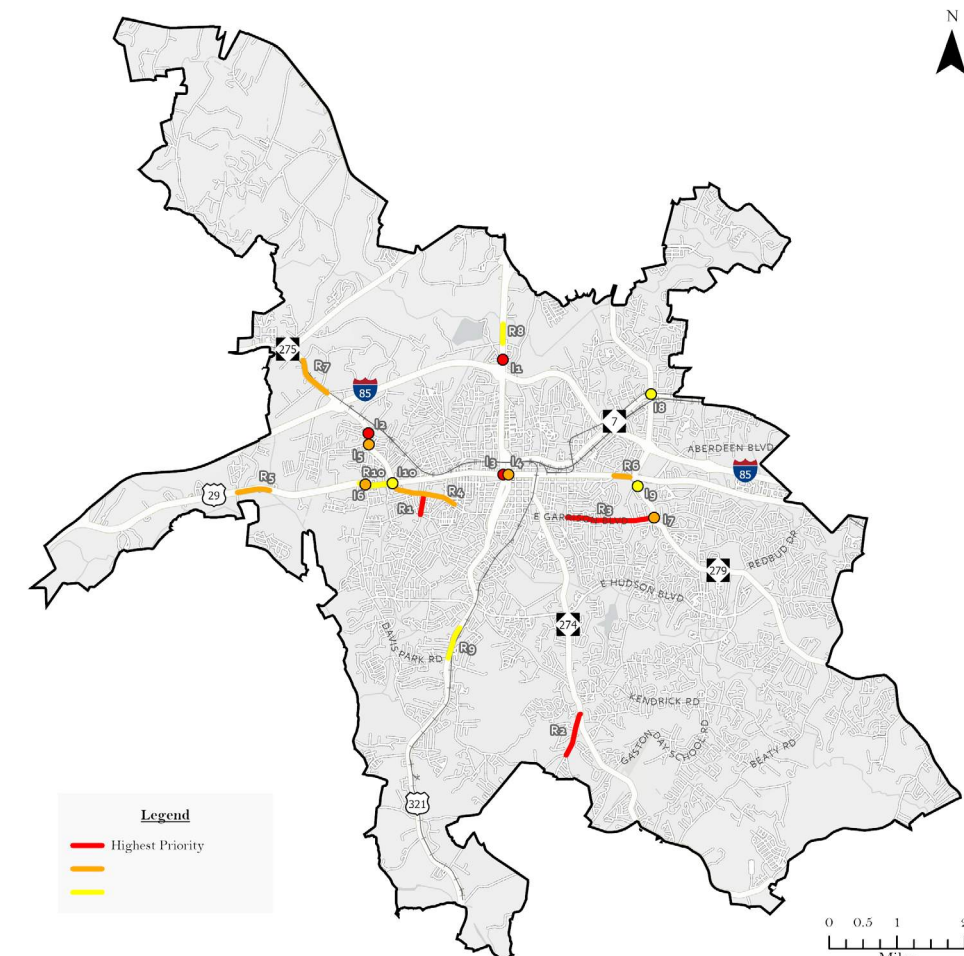
Intersections:

1. N Chester St (US 321) at Rankin Lake Rd
2. Bessemer City Rd (NC 274) at Brown St/Milton Ave
3. W Franklin Blvd (US 74) at S Chester St (US 321)
4. W Franklin Blvd (US 74) at S York St (US 321)
5. Bessemer City Rd (NC 274) at N Myrtle School Rd/Arkray St
6. W Franklin Blvd (US 74) at Myrtle School Rd
7. S New Hope Rd (NC 279) at E Garrison Blvd/Armstrong Park Dr
8. N New Hope Rd (NC 279) at E Ozark Ave (NC 7)
9. S New Hope Rd (NC 279) at Burtonwood Dr
10. W Franklin Blvd (US 74) at W Garrison Blvd/Bessemer City Rd (NC 274)

Segments:

1. Linwood Rd
2. Robinson Rd
3. E Garrison Blvd
4. W Garrison Blvd (NC 274)
5. W Franklin Blvd (US 74)
6. E Franklin Blvd (US 74)
7. Bessemer City Rd (NC 274)
8. N Chester St (US 321)
9. S York Rd (US 321)
10. W Franklin Blvd (US 74)

On the following pages, a summary sheet is provided for each of the focus locations which details existing conditions (infrastructure, signal phasing, road alignment, and multimodal facilities), crash data, and potential countermeasures to address the existing safety issues at these focus locations.



I1. N Chester Street (US 321) at Rankin Lake Road

Cross-Intersection (four legs)

ROADWAY CHARACTERISTICS

CONTROL TYPE: Signalized

SPEED LIMITS:

- West leg: Not posted
- East leg: 35 mph
- North leg: 45 mph
- South leg: 45 mph

ROADWAY SECTION:

- 4-lane divided along US 321
- 4-lane divided along I-85 Ramps
- 2-lane undivided along Rankin Lake Road

ROADWAY ALIGNMENT:

- No apparent offset with approach and receiving lanes

AVERAGE TOTAL ENTERING VOLUME:

- 46,000 vpd

EXISTING CONDITIONS

SIGHT DISTANCE: No apparent issues

SIDEWALKS:

- None

PAVEMENT MARKINGS:

- Crosswalk markings
- Stop bars
- Lane striping

SIGNAL PHASING:

- US 321: protected
- Rankin Lake Road: restricted lefts

PEDESTRIAN SIGNAL EQUIPMENT:

- None

OTHER:

- Intersection was reconfigured to a reduced-conflict intersection in 2021 as part of the I-85 and US 321 interchange reconstruction
- Eastern leg serves as an interstate ramp to I-85

CRASH DATA

NO APPARENT INJURY:

- 71 total crashes

POSSIBLE INJURY:

- 10 total crashes

SUSPECTED MINOR INJURY:

- 0 total crashes

SUSPECTED SERIOUS INJURY:

- 2 total crashes (rear end, turn, rear end, slow or stop)
- 1 motorcycle crash

FATALITY:

- 0 total crashes

TOP CRASH TYPES:

- Angle
- Rear end, slow or stop
- Sideswipe, same direction

TOP CONTRIBUTING FACTORS:

- Older Driver
- Distracted Driver
- Teen Driver

CRASH MAP



POTENTIAL COUNTERMEASURES

- Yellow Change Interval
- Education
- Right Turn on Red Restrictions

PRIORITIZATION RANKING

- 1

SAFETY CONCERN RAISED BY THE PUBLIC

I2. Bessemer City Road (NC 274) at Brown Street/Milton Avenue

Cross-Intersection (four legs)

ROADWAY CHARACTERISTICS

CONTROL TYPE: Signalized

SPEED LIMITS:

- West leg: 25 mph
- East leg: 35 mph
- North leg: 45 mph
- South leg: 45 mph

ROADWAY SECTION:

- 5-lane (TWLTL) along NC 274
- 2-lane undivided along Brown Street

ROADWAY ALIGNMENT:

- East leg curves into intersection, no apparent offset with approach and receiving lanes

AVERAGE TOTAL ENTERING VOLUME:

- 16,100 vpd

EXISTING CONDITIONS

SIGHT DISTANCE: No apparent issues

SIDEWALKS:

- Present along Bessemer City Road (NC 274)

PAVEMENT MARKINGS:

- Crosswalk markings
- Stop bars
- Lane striping

SIGNAL PHASING:

- NC 274: permitted-protected
- Brown Street/Milton Ave: permitted

PEDESTRIAN SIGNAL EQUIPMENT:

- Pedestrian signal heads
- Push buttons
- Diagonal curb ramps

OTHER

- Jenkins Rd connects to Brown St approximately 55 feet from the intersection
- Small raised median along Brown St which restricts left-turn movements onto Jenkins Rd
- Multiple full-movement driveways located north and south of the intersection

CRASH DATA

NO APPARENT INJURY:

- **26 total crashes**
- 1 bicycle crash

POSSIBLE INJURY:

- **8 total crashes**

SUSPECTED MINOR INJURY:

- **2 total crashes**
- 1 motorcycle crash

SUSPECTED SERIOUS INJURY:

- **2 total crashes (left-turn, same roadway)**
- 1 motorcycle crash

FATALITY:

- **0 total crashes**

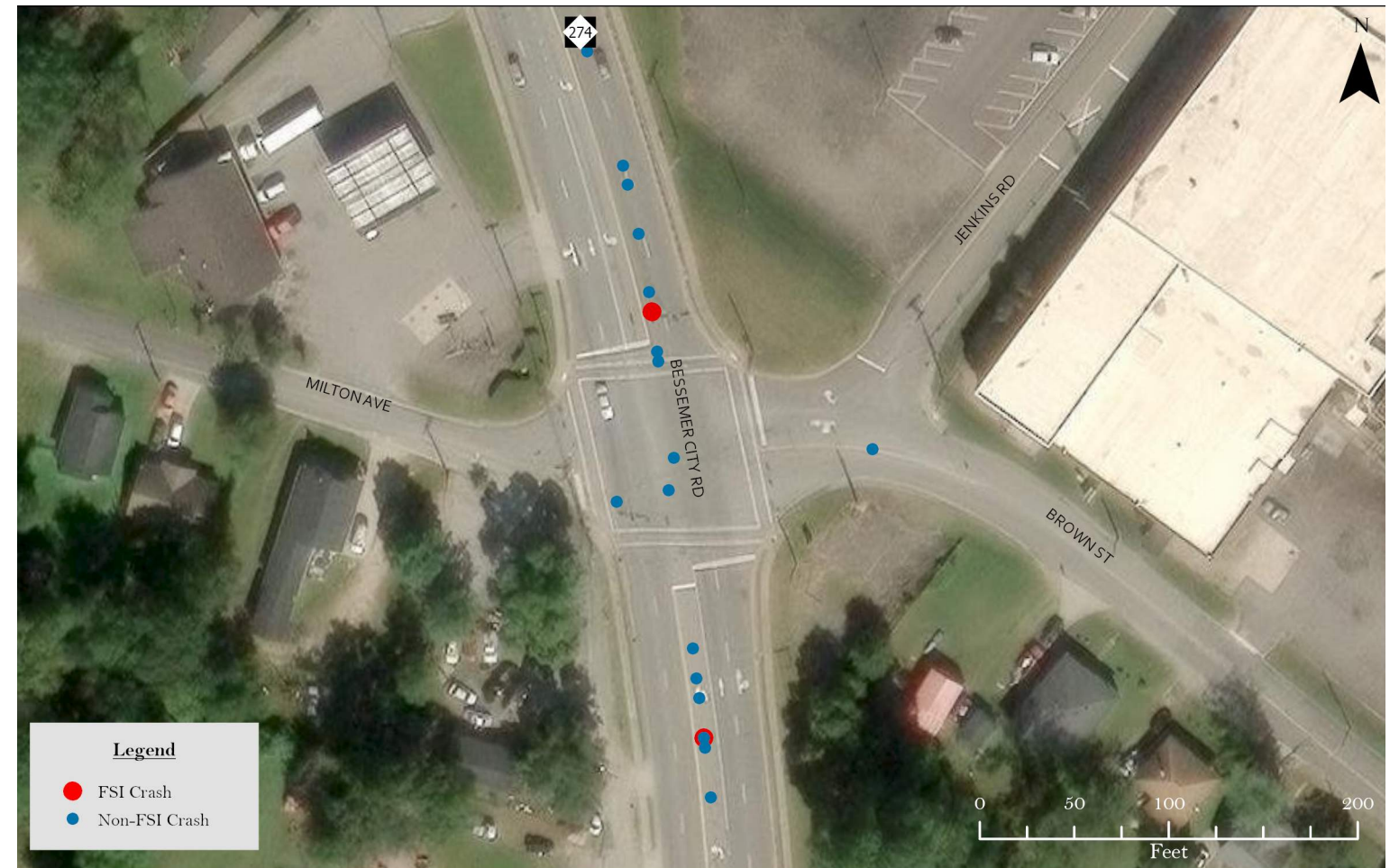
TOP CRASH TYPES:

- **Angle**
- **Rear end, slow or stop**
- **Sideswipe, same direction,**

TOP CONTRIBUTING FACTORS:

- Distracted Driver
- Older Driver
- Seatbelt

CRASH MAP



POTENTIAL COUNTERMEASURES

- Backplates with Retroreflective Borders
- Dedicated Right-Turn Lanes
- Access Management

PRIORITIZATION RANKING

- 2

I3. W Franklin Boulevard (US 74) at S Chester Street (US 321)

Cross-Intersection (four legs)

ROADWAY CHARACTERISTICS

CONTROL TYPE: Signalized

SPEED LIMITS:

- West leg: 35 mph
- East leg: 35 mph
- North leg: 35 mph
- South leg: 35 mph

ROADWAY SECTION:

- 5-lane (TWLTL) along US 74
- 3-lane one-way (SB only) along US 321

ROADWAY ALIGNMENT:

- No apparent offset with approach and receiving lanes

AVERAGE TOTAL ENTERING VOLUME:

- 20,200 vpd

EXISTING CONDITIONS

SIGHT DISTANCE: No apparent issues

SIDEWALKS:

- Present along each leg

PAVEMENT MARKINGS:

- Crosswalk markings
- Stop bars
- Lane striping

SIGNAL PHASING:

- US 74: permitted-protected

PEDESTRIAN SIGNAL EQUIPMENT:

- Pedestrian signal heads
- Push buttons
- Diagonal curb ramps

CRASH DATA

NO APPARENT INJURY:

- 68 total crashes
- 1 motorcycle crash

POSSIBLE INJURY:

- 19 total crashes
- 1 motorcycle crash

SUSPECTED MINOR INJURY:

- 2 total crashes

SUSPECTED SERIOUS INJURY:

- 1 total crash (angle)

FATALITY:

- 0 total crashes

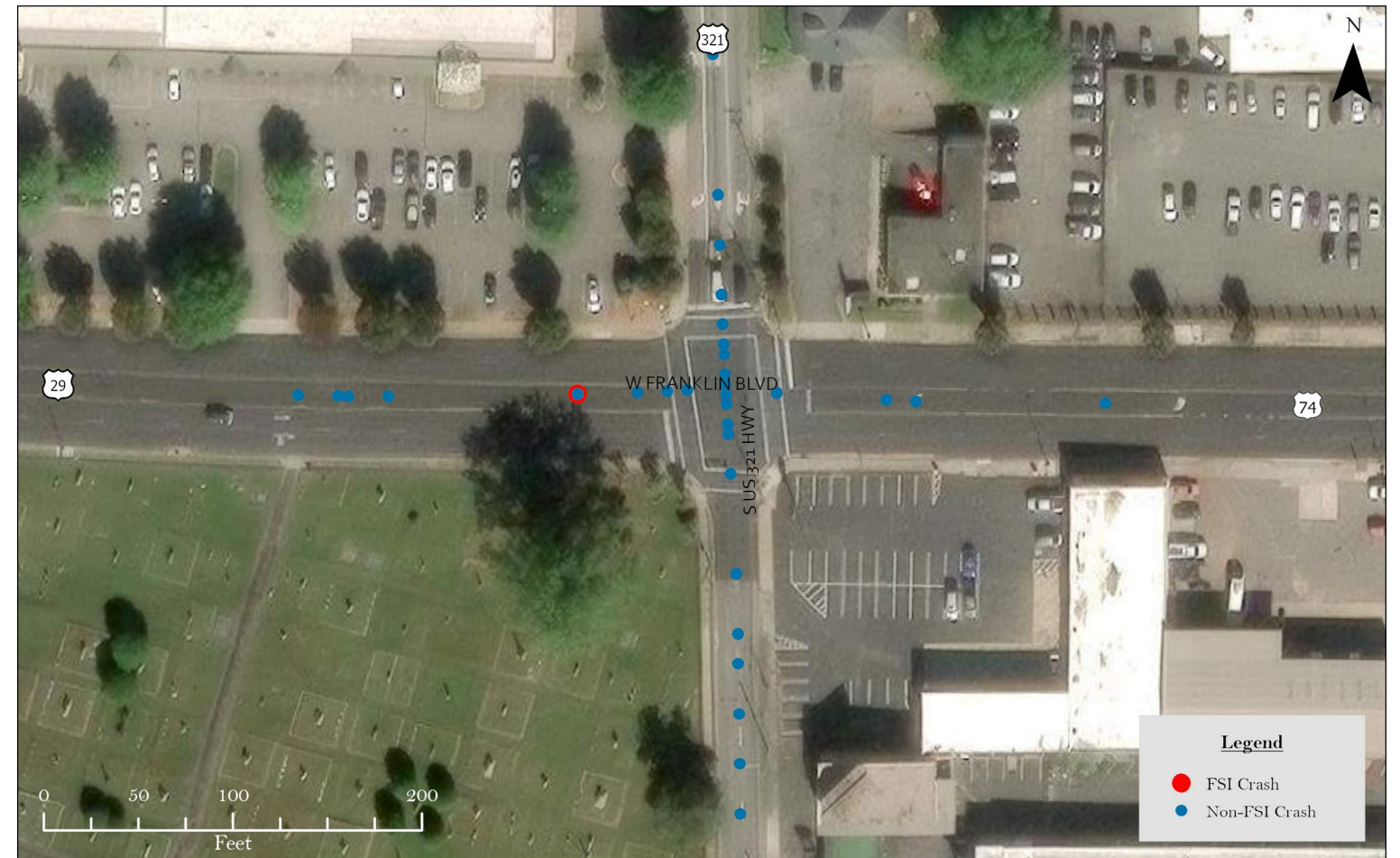
TOP CRASH TYPES:

- Angle
- Rear end, slow or stop
- Sideswipe, same direction

TOP CONTRIBUTING FACTORS:

- Older Driver
- Distracted Driver
- Alcohol Presence

CRASH MAP



POTENTIAL COUNTERMEASURES

- Reduced Left-Turn Conflict Intersections
- Yellow Change Intervals
- Dynamic All Red Extension
- Leading Pedestrian Interval

PRIORITIZATION RANKING

➤ 3

SAFETY CONCERN RAISED BY THE PUBLIC

I4. W Franklin Boulevard (US 74) at S York Street (US 321)

Cross-Intersection (four legs)

ROADWAY CHARACTERISTICS

CONTROL TYPE: Signalized

SPEED LIMITS:

- West leg: 35 mph
- East leg: 35 mph
- North leg: 35 mph
- South leg: 35 mph

ROADWAY SECTION:

- 5-lane (TWLTL) along US 74
- 3-lane one-way (NB only) along US 321

ROADWAY ALIGNMENT:

- No apparent offset with approach and receiving lanes

AVERAGE TOTAL ENTERING VOLUME:

- 22,400 vpd

EXISTING CONDITIONS

SIGHT DISTANCE: No apparent issues

SIDEWALKS:

- Present along each leg

PAVEMENT MARKINGS:

- Crosswalk markings
- Stop bars

SIGNAL PHASING:

- US 74: permitted-protected

PEDESTRIAN SIGNAL EQUIPMENT:

- Pedestrian signal heads, push buttons

CRASH DATA

NO APPARENT INJURY:

- 61 total crashes

POSSIBLE INJURY:

- 13 total crashes

SUSPECTED MINOR INJURY:

- 4 total crashes
- 1 pedestrian crash

SUSPECTED SERIOUS INJURY:

- 3 total crashes (angle, fixed object)
- 1 motorcycle crash

FATALITY:

- 0 total crashes

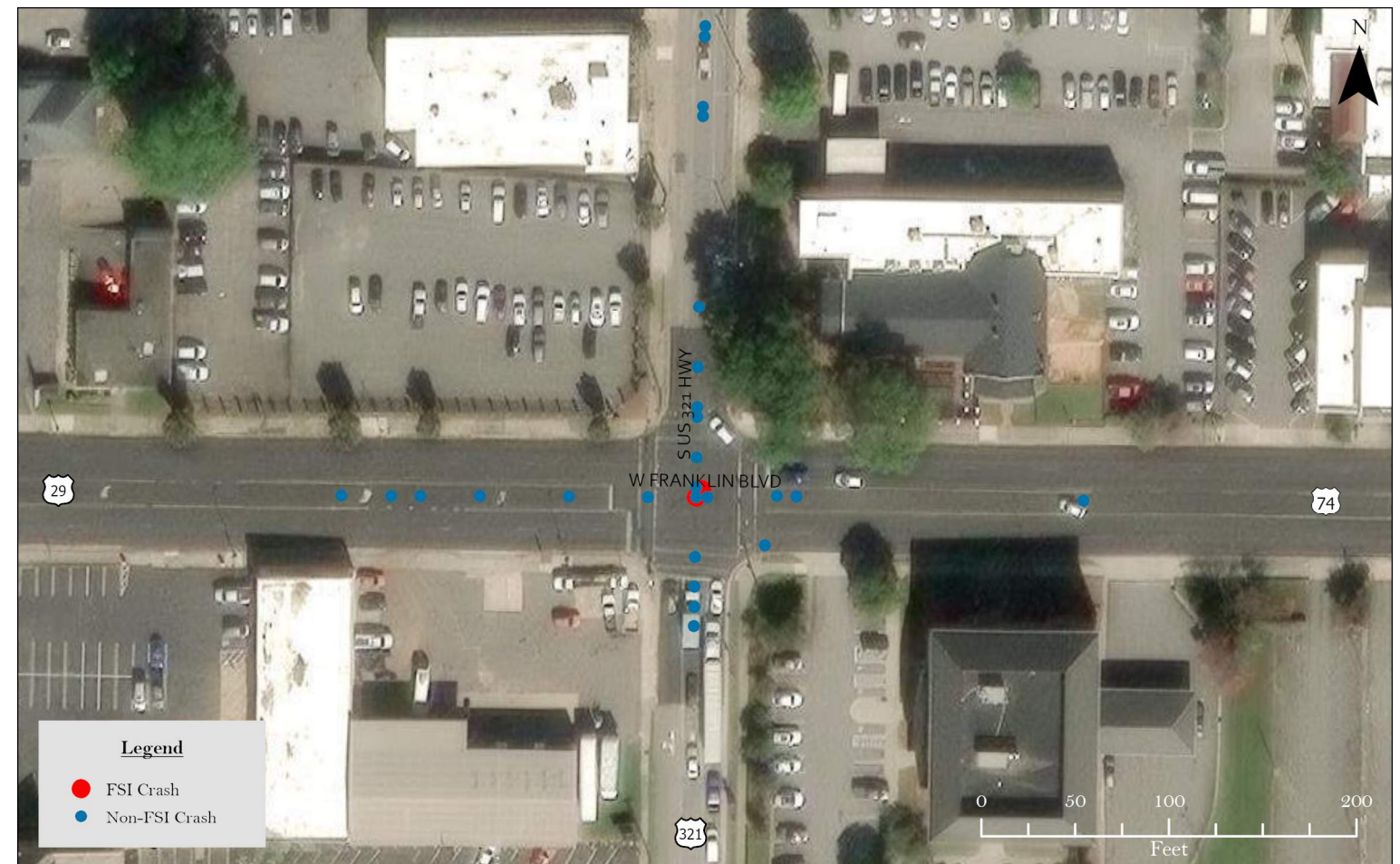
TOP CRASH TYPES:

- Angle
- Left turn, same roadway
- Sideswipe, same direction

TOP CONTRIBUTING FACTORS:

- Distracted Driver
- Older Driver
- Teen Driver

CRASH MAP



POTENTIAL COUNTERMEASURES

- Leading Pedestrian Interval
- Reduced Left-Turn Conflict Intersections
- Signal Phasing Modifications
- Backplates with Retroreflective Borders

PRIORITIZATION RANKING

- 4

15. Bessemer City Road (NC 274) at N Myrtle School Road/Arkray Street

Cross-Intersection (four legs)

ROADWAY CHARACTERISTICS

CONTROL TYPE: Signalized

SPEED LIMITS:

- ➔ West leg: 35 mph
- ➔ East leg: 35 mph
- ➔ North leg: 45 mph
- ➔ South leg: 45 mph

ROADWAY SECTION:

- ➔ 5-lane (TWLTL) along NC 274
- ➔ 2-lane unstriped along Arkray Street
- ➔ 2-lane divided along N Myrtle School Road

ROADWAY ALIGNMENT:

- ➔ West leg curves into intersection, no apparent offset with approach and receiving lanes

AVERAGE TOTAL ENTERING VOLUME:

- ➔ 14,500 vpd

EXISTING CONDITIONS

SIGHT DISTANCE: No apparent issues

SIDEWALKS:

- ➔ Present along Bessemer City Road (NC 274)
- ➔ Present along N Myrtle School Road

PAVEMENT MARKINGS:

- ➔ Crosswalk markings
- ➔ Stop bars
- ➔ Lane striping

SIGNAL PHASING:

- ➔ NC 274: permitted-protected
- ➔ N Myrtle School Road/Arkray Street: permitted-protected

PEDESTRIAN SIGNAL EQUIPMENT:

- ➔ Pedestrian signal heads, push buttons, directional curb ramps and diagonal curb ramp on northwest corner

OTHER:

- ➔ Crescent Ln connects to N Myrtle School Rd approximately 95 feet from the intersection
- ➔ Small raised median along N Myrtle School Rd which restricts left-turn movements onto Crescent Ln
- ➔ Multiple full-movement driveways located north of the intersection

CRASH DATA

NO APPARENT INJURY:

- ➔ 20 total crashes

POSSIBLE INJURY:

- ➔ 8 total crashes
- ➔ 2 motorcycle crashes

SUSPECTED MINOR INJURY:

- ➔ 3 total crashes
- ➔ 1 motorcycle crash

SUSPECTED SERIOUS INJURY:

- ➔ 1 total crash (left-turn, different roadways)

FATALITY:

- ➔ 0 total crashes

TOP CRASH TYPES:

- ➔ Angle
- ➔ Left turn, different roadways
- ➔ Rear end, slow or stop

TOP CONTRIBUTING FACTORS:

- ➔ Distracted Driver
- ➔ Older Driver
- ➔ Teen Driver

CRASH MAP



POTENTIAL COUNTERMEASURES

- ➔ Backplates with Retroreflective Borders
- ➔ Reduced Left-Turn Conflict Intersections
- ➔ Dynamic All Red Extension
- ➔ Access Management

PRIORITIZATION RANKING

- ➔ 5

I6. W Franklin Boulevard (US 74) at Myrtle School Road

Cross-Intersection (four legs)

ROADWAY CHARACTERISTICS

CONTROL TYPE: Signalized

SPEED LIMITS:

- ➔ West leg: 45 mph
- ➔ East leg: 45 mph
- ➔ North leg: 35 mph
- ➔ South leg: 35 mph

ROADWAY SECTION:

- ➔ 5-lane (TWLTL) along US 74 (east leg)
- ➔ 4-lane divided along US 74 (west leg)
- ➔ 3-lane (TWLTL) along Myrtle School Road

ROADWAY ALIGNMENT:

- ➔ No apparent offset with approach and receiving lanes

AVERAGE TOTAL ENTERING VOLUME:

- ➔ 26,900 vpd

EXISTING CONDITIONS

SIGHT DISTANCE: No apparent issues

SIDEWALKS:

- ➔ Present along each leg

PAVEMENT MARKINGS:

- ➔ Crosswalk markings
- ➔ Stop bars
- ➔ Lane striping

SIGNAL PHASING:

- ➔ US 74: permitted-protected
- ➔ Myrtle School Road: permitted-protected

PEDESTRIAN SIGNAL EQUIPMENT:

- ➔ Pedestrian signal heads
- ➔ Push buttons
- ➔ Directional curb ramps and diagonal curb ramp on northwest corner

CRASH DATA

NO APPARENT INJURY:

- ➔ 116 total crashes
- ➔ 2 pedestrian crashes

POSSIBLE INJURY:

- ➔ 29 total crashes
- ➔ 3 motorcycle crashes

SUSPECTED MINOR INJURY:

- ➔ 2 total crashes

SUSPECTED SERIOUS INJURY:

- ➔ 1 total crash (left-turn, same roadway)

FATALITY:

- ➔ 0 total crashes

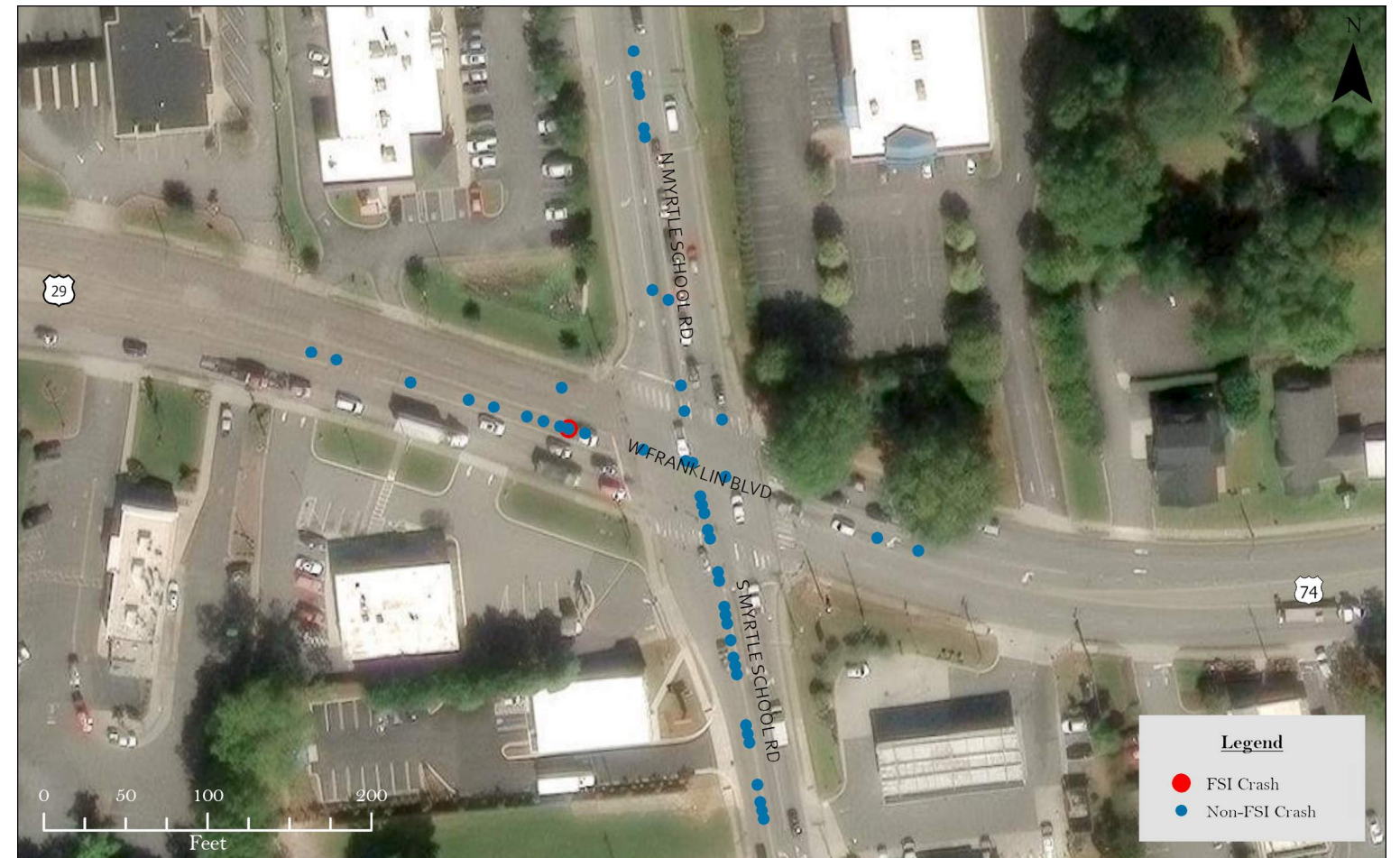
TOP CRASH TYPES:

- ➔ Left turn, same roadway
- ➔ Rear end, slow or stop
- ➔ Sideswipe, same direction

TOP CONTRIBUTING FACTORS:

- ➔ Distracted Driver
- ➔ Older Driver
- ➔ Teen Driver

CRASH MAP



POTENTIAL COUNTERMEASURES

- ➔ Dedicated Right-Turn Lanes
- ➔ Yellow Change Intervals
- ➔ Crosswalk Restriping
- ➔ Backplates with Retroreflective Borders
- ➔ Leading Pedestrian Interval
- ➔ Accessible Pedestrian Signals

PRIORITIZATION RANKING

- ➔ 6

SAFETY CONCERN RAISED BY THE PUBLIC

17. S New Hope Road (NC 279) at E Garrison Boulevard/Armstrong Park Dr

Cross-Intersection (four legs)

ROADWAY CHARACTERISTICS

CONTROL TYPE: Signalized

SPEED LIMITS:

- ➔ West leg: 45 mph
- ➔ East leg: 45 mph
- ➔ North leg: 45 mph
- ➔ South leg: 45 mph

ROADWAY SECTION:

- ➔ 5-lane (TWLTL) along NC 279
- ➔ 5-lane (TWLTL) along E Garrison Boulevard
- ➔ 3-lane (TWLTL) along Armstrong Park Drive

ROADWAY ALIGNMENT:

- ➔ No apparent offset with approach and receiving lanes

AVERAGE TOTAL ENTERING VOLUME:

- ➔ 29,300 vpd

EXISTING CONDITIONS

SIGHT DISTANCE: No apparent issues

SIDEWALKS:

- ➔ Present along each leg

PAVEMENT MARKINGS:

- ➔ Crosswalk markings
- ➔ Stop bars
- ➔ Lane striping

SIGNAL PHASING:

- ➔ NC 279: protected
- ➔ E Garrison Boulevard: protected
- ➔ Armstrong Park Drive: protected

PEDESTRIAN SIGNAL EQUIPMENT:

- ➔ Pedestrian signal heads
- ➔ Push buttons
- ➔ Diagonal curb ramps on SE and NW corner and directional curb ramps on NE and SW corner

OTHER

- ➔ Intersection is included in the Garrison LEARNS Corridor

CRASH DATA

NO APPARENT INJURY:

- ➔ **83 total crashes**
- ➔ 1 motorcycle crash
- ➔ 1 bicycle crash

POSSIBLE INJURY:

- ➔ **17 total crashes**
- ➔ 1 bicycle crash

SUSPECTED MINOR INJURY:

- ➔ **3 total crashes**

SUSPECTED SERIOUS INJURY:

- ➔ **1 total crash (angle)**

FATALITY:

- ➔ **0 total crashes**

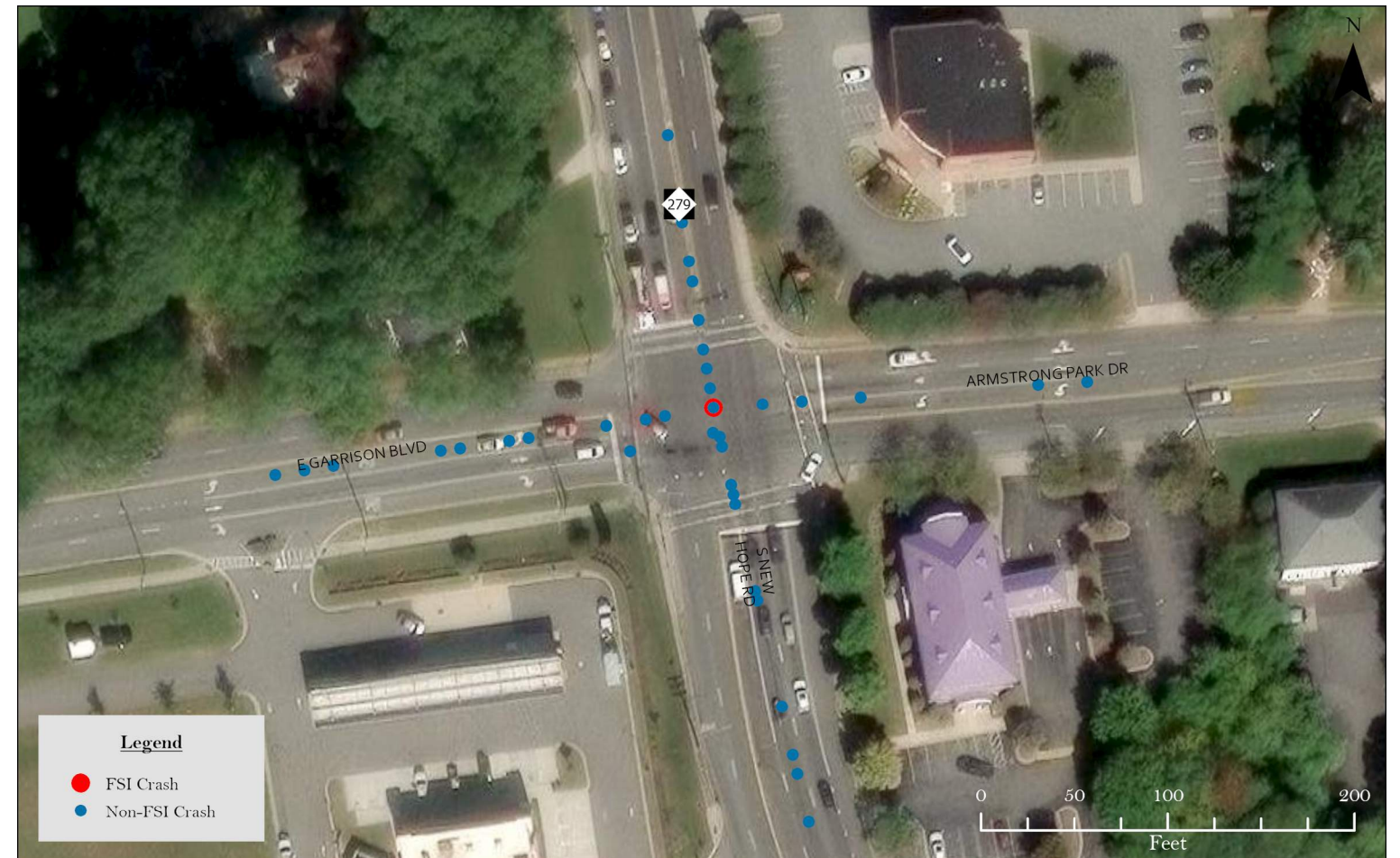
TOP CRASH TYPES:

- ➔ **Angle**
- ➔ **Rear end, slow or stop**
- ➔ **Sideswipe, same direction**

TOP CONTRIBUTING FACTORS:

- ➔ Distracted Driver
- ➔ Older Driver
- ➔ Teen Driver

CRASH MAP



POTENTIAL COUNTERMEASURES

- ➔ Dedicated Right-Turn Lanes
- ➔ Yellow Change Intervals
- ➔ Dynamic All Red Extension
- ➔ Bike Box
- ➔ Bicycle Lanes
- ➔ Leading Pedestrian Interval
- ➔ Backplates with Retroreflective Borders

PRIORITIZATION RANKING

➔ 7

SAFETY CONCERN RAISED BY THE PUBLIC

18. N New Hope Road (NC 279) at E Ozark Avenue (NC 7)

Cross-Intersection (four legs)

ROADWAY CHARACTERISTICS

CONTROL TYPE: Signalized

SPEED LIMITS:

- ➔ West leg: 45 mph
- ➔ East leg: 45 mph
- ➔ North leg: 45 mph
- ➔ South leg: 45 mph

ROADWAY SECTION:

- ➔ 5-lane (TWLTL) along NC 279
- ➔ 4-lane undivided along E Ozark Avenue

ROADWAY ALIGNMENT:

- ➔ No apparent offset with approach and receiving lanes

AVERAGE TOTAL ENTERING VOLUME:

- ➔ 30,900 vpd

EXISTING CONDITIONS

SIGHT DISTANCE: No apparent issues

SIDEWALKS:

- ➔ Present along NC 279
- ➔ Present along south side of E Ozark Avenue
- ➔ present along north side of E Ozark Avenue west of NC 279

PAVEMENT MARKINGS:

- ➔ Crosswalk markings
- ➔ Stop bars
- ➔ Lane striping

SIGNAL PHASING:

- ➔ NC 279: protected
- ➔ E Ozark Avenue: protected

PEDESTRIAN SIGNAL EQUIPMENT:

- ➔ Pedestrian signal heads
- ➔ Push buttons
- ➔ Diagonal curb ramps

CRASH DATA

NO APPARENT INJURY:

- ➔ 93 total crashes
- ➔ 2 motorcycle crashes

POSSIBLE INJURY:

- ➔ 19 total crashes

SUSPECTED MINOR INJURY:

- ➔ 2 total crashes
- ➔ 1 motorcycle crash

SUSPECTED SERIOUS INJURY:

- ➔ 0 total crashes

FATALITY:

- ➔ 0 total crashes

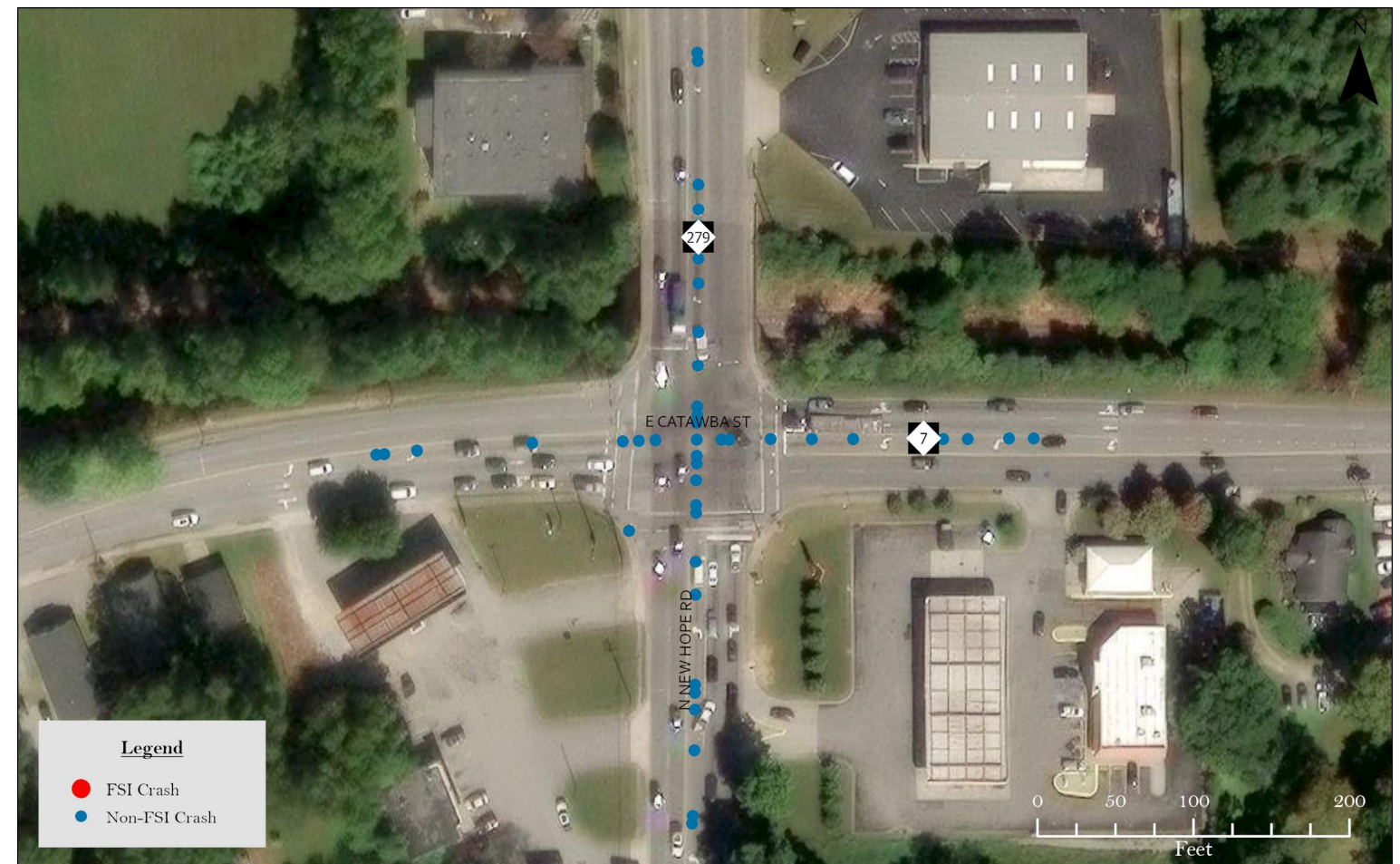
TOP CRASH TYPES:

- ➔ Angle
- ➔ Rear end, slow or stop
- ➔ Sideswipe, same direction

TOP CONTRIBUTING FACTORS:

- ➔ Distracted Driver
- ➔ Older Driver
- ➔ Teen Driver

CRASH MAP



POTENTIAL COUNTERMEASURES

- ➔ Yellow Change Interval
- ➔ Dynamic All Red Extension
- ➔ Backplates with Retroreflective Borders

PRIORITIZATION RANKING

➔ 8

SAFETY CONCERN RAISED BY THE PUBLIC

I9. S New Hope Road (NC 279) at Burtonwood Drive

Cross-Intersection (four legs)

ROADWAY CHARACTERISTICS

CONTROL TYPE: Signalized

SPEED LIMITS:

- ➔ West leg: 35 mph
- ➔ East leg: Not posted
- ➔ North leg: 45 mph
- ➔ South leg: 45 mph

ROADWAY SECTION:

- ➔ 4-lane divided along NC 279 (north leg)
- ➔ 5-lane (TWLTL) along NC 279 (south leg)
- ➔ 2-lane undivided along Burtonwood Drive

ROADWAY ALIGNMENT:

- ➔ No apparent offset with approach and receiving lanes

AVERAGE TOTAL ENTERING VOLUME:

- ➔ 21,100 vpd

EXISTING CONDITIONS

SIGHT DISTANCE: No apparent issues

SIDEWALKS:

- ➔ Present along west side of NC 279 south of Burtonwood Drive

PAVEMENT MARKINGS:

- ➔ Stop bars
- ➔ Lane striping

SIGNAL PHASING:

- ➔ NC 279: protected
- ➔ Burtonwood Drive: protected

PEDESTRIAN SIGNAL EQUIPMENT:

- ➔ None

OTHER

- ➔ East leg serves as an access to the existing shopping center and has a short internal protected stem
- ➔ Westbound right-turn movement is channelized and operates under yield control
- ➔ Existing bike lanes along Burtonwood Drive
- ➔ New Hope Drive intersects with S New Hope Road approximately 125 feet north of the intersection

CRASH DATA

NO APPARENT INJURY:

- ➔ 39 total crashes

POSSIBLE INJURY:

- ➔ 3 total crashes
- ➔ 1 motorcycle crash

SUSPECTED MINOR INJURY:

- ➔ 3 total crashes
- ➔ 1 motorcycle crash

SUSPECTED SERIOUS INJURY:

- ➔ 1 total crash (sideswipe, same direction)
- ➔ 1 motorcycle crash

FATALITY:

- ➔ 0 total crashes

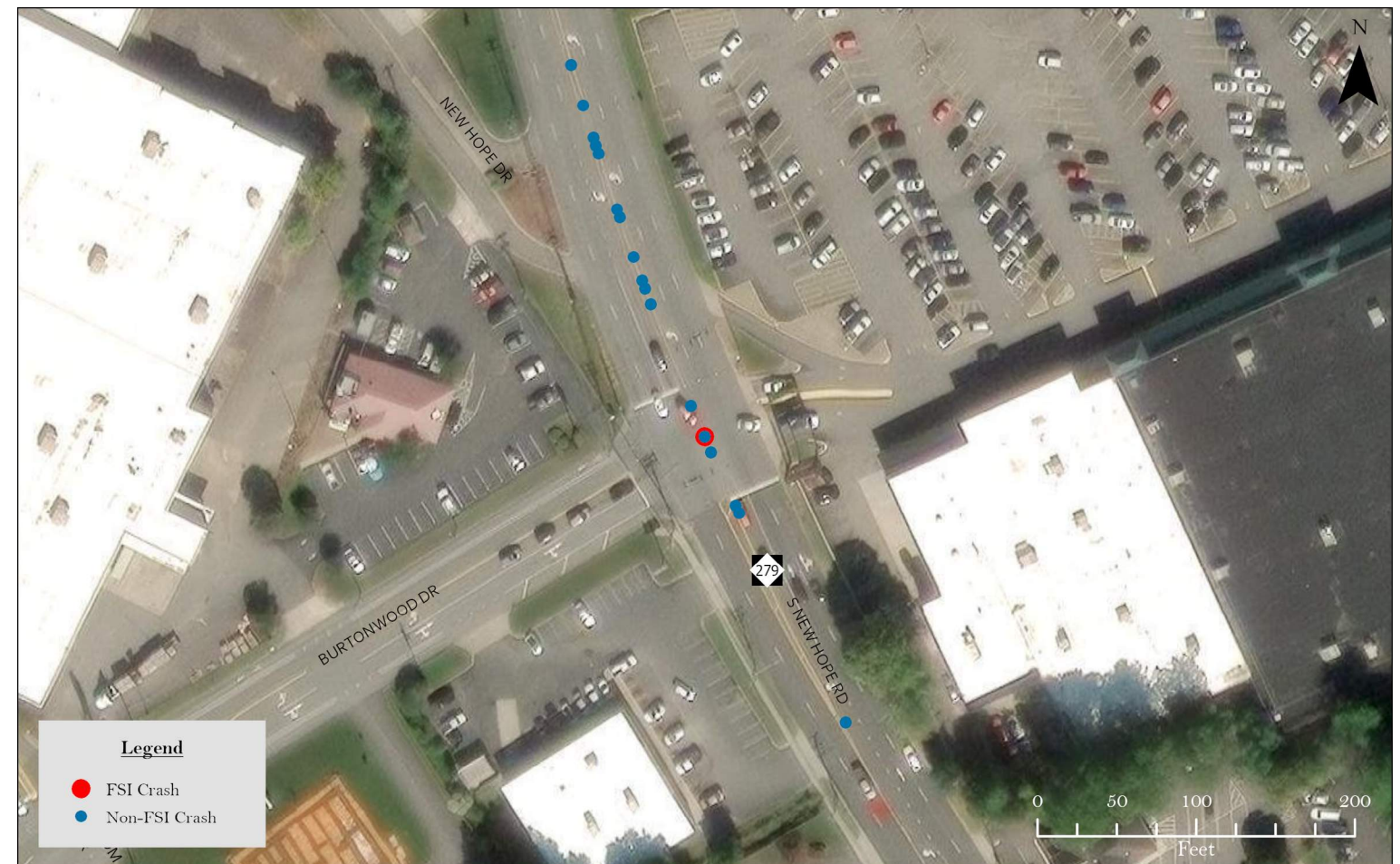
TOP CRASH TYPES:

- ➔ Left turn, same roadway
- ➔ Rear end, slow or stop
- ➔ Sideswipe, same direction

TOP CONTRIBUTING FACTORS:

- ➔ Older Driver
- ➔ Distracted Driver
- ➔ Teen Driver

CRASH MAP



POTENTIAL COUNTERMEASURES

- ➔ Reduced Left-Turn Conflict Intersection
- ➔ Signal Phasing Modifications
- ➔ Bike Box
- ➔ Access Management

PRIORITIZATION RANKING

- ➔ 9

SAFETY CONCERN RAISED BY THE PUBLIC

I10. W Franklin Boulevard (US 74) at Bessemer City Rd/W Garrison Blvd (NC 274)

Cross-Intersection (four legs)

ROADWAY CHARACTERISTICS

CONTROL TYPE: Signalized

SPEED LIMITS:

- ➔ West leg: 45 mph
- ➔ East leg: 45 mph
- ➔ North leg: 45 mph
- ➔ South leg: 45 mph

ROADWAY SECTION:

- ➔ 5-lane (TWLTL) along US 74
- ➔ 5-lane (TWLTL) along NC 274

ROADWAY ALIGNMENT:

- ➔ No apparent offset with approach and receiving lanes

AVERAGE TOTAL ENTERING VOLUME:

- ➔ 29,250 vpd

EXISTING CONDITIONS

SIGHT DISTANCE: No apparent issues

SIDEWALKS:

- ➔ Present along US 74
- ➔ Present along east side of NC 274
- ➔ Present along west side of NC 274 north of US 74

PAVEMENT MARKINGS:

- ➔ Crosswalk markings
- ➔ Stop bars
- ➔ Lane striping

SIGNAL PHASING:

- ➔ Eastbound left along US 74: protected
- ➔ Westbound left along US 74: permitted-protected
- ➔ NC 274: protected

PEDESTRIAN SIGNAL EQUIPMENT:

- ➔ Pedestrian signal heads
- ➔ Push buttons
- ➔ Diagonal curb ramps

CRASH DATA

NO APPARENT INJURY:

- ➔ 107 total crashes
- ➔ 2 motorcycle crashes
- ➔ 1 bicycle crash

POSSIBLE INJURY:

- ➔ 14 total crashes
- ➔ 1 pedestrian crash

SUSPECTED MINOR INJURY:

- ➔ 5 total crashes
- ➔ 1 motorcycle crash

SUSPECTED SERIOUS INJURY:

- ➔ 0 total crashes

FATALITY:

- ➔ 0 total crashes

TOP CRASH TYPES:

- ➔ Angle
- ➔ Rear end, slow or stop
- ➔ Sideswipe, same direction

TOP CONTRIBUTING FACTORS:

- ➔ Distracted Driver
- ➔ Older Driver
- ➔ Teen Driver

CRASH MAP



POTENTIAL COUNTERMEASURES

- ➔ Reduced Left-Turn Conflict Intersections
- ➔ Yellow Change Intervals
- ➔ Medians and Pedestrian Refuge Islands
- ➔ Leading Pedestrian Interval
- ➔ Backplates with Retroreflective Borders

PRIORITIZATION RANKING

➔ 10

SAFETY CONCERN RAISED BY THE PUBLIC

R1. Linwood Road

From W Garrison Boulevard (NC 274) to Spencer Avenue

ROADWAY CHARACTERISTICS

FUNCTIONAL CLASS:

- ➔ Minor Arterial

SPEED LIMIT:

- ➔ 35 mph

NUMBER OF LANES:

- ➔ 2

ROADWAY SECTION:

- ➔ Undivided

ROADWAY ALIGNMENT:

- ➔ Straight

PRESENCE OF SIDEWALKS:

- ➔ Along east side of Linwood Road

AVERAGE DAILY TRAFFIC:

- ➔ 9,600 (2024)

EXISTING CONDITIONS

ACCESS MANAGEMENT:

- ➔ Full-movement

SIDEWALKS CONDITION:

- ➔ Poor

LIGHTING:

- ➔ Yes

PEDESTRIAN SIGNALS:

- ➔ None

CRASH DATA

NO APPARENT INJURY:

- ➔ 17 total crashes

POSSIBLE INJURY:

- ➔ 4 total crashes

SUSPECTED MINOR INJURY:

- ➔ 2 total crashes
- ➔ 1 pedestrian crash

SUSPECTED SERIOUS INJURY:

- ➔ 2 total crashes (angle, pedestrian)
- ➔ 1 pedestrian and bicycle crash

FATALITY:

- ➔ 0 total crashes

TOP CRASH TYPES:

- ➔ Angle
- ➔ Left turn, different roadways
- ➔ Rear end, slow or stop

TOP CONTRIBUTING FACTORS:

- ➔ Distracted Driver
- ➔ Drug Presence
- ➔ Older Driver

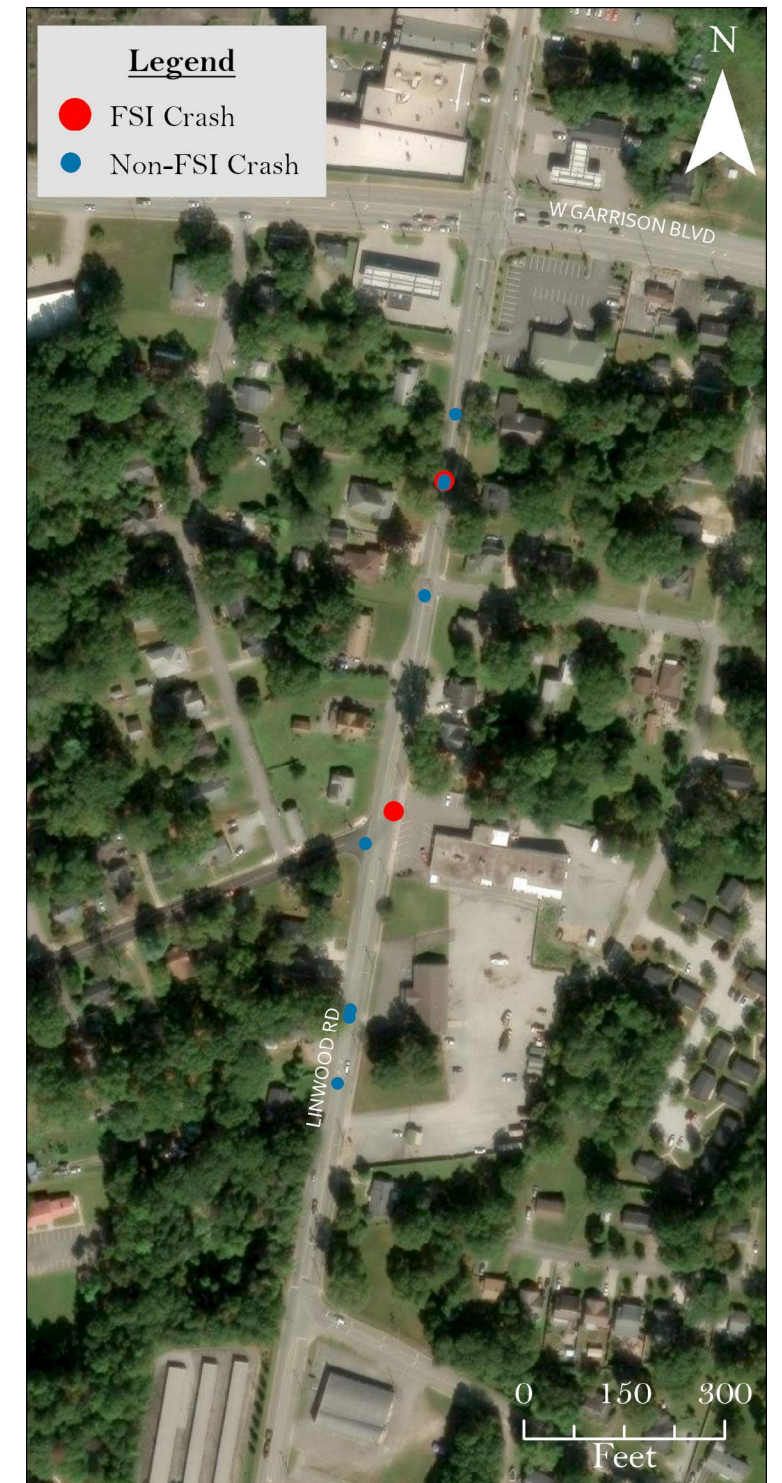
POTENTIAL COUNTERMEASURES

- ➔ Longitudinal Rumble Strips and Stripes
- ➔ Walkways
- ➔ Crosswalk
- ➔ Rectangular Rapid Flashing Beacon
- ➔ Enhanced Signing and Pavement Markings at Stop-Controlled Intersections

PRIORITIZATION RANKING

- ➔ 1

CRASH MAP



R2. Robinson Road

From Union Road (NC 274) to Little Mountain Road

ROADWAY CHARACTERISTICS

FUNCTIONAL CLASS:

- ➔ Minor Arterial

SPEED LIMIT:

- ➔ 45 mph

NUMBER OF LANES:

- ➔ 2

ROADWAY SECTION:

- ➔ Undivided

ROADWAY ALIGNMENT:

- ➔ Slight curve

PRESENCE OF SIDEWALKS:

- ➔ None

AVERAGE DAILY TRAFFIC:

- ➔ 11,300 (2024)

EXISTING CONDITIONS

ACCESS MANAGEMENT:

- ➔ Full-movement

SIDEWALKS CONDITION:

- ➔ N/A

LIGHTING:

- ➔ No

PEDESTRIAN SIGNALS:

- ➔ None

CRASH DATA

NO APPARENT INJURY:

- ➔ 14 total crashes
- ➔ 1 bicycle crash

POSSIBLE INJURY:

- ➔ 2 total crashes

SUSPECTED MINOR INJURY:

- ➔ 4 total crashes
- ➔ 1 pedestrian crash

SUSPECTED SERIOUS INJURY:

- ➔ 1 total crash (sideswipe, same direction)
- ➔ 1 motorcycle crash

FATALITY:

- ➔ 1 total crash (pedestrian)
- ➔ 1 pedestrian crash

TOP CRASH TYPES:

- ➔ Fixed object
- ➔ Pedestrian
- ➔ Rear end, slow or stop

TOP CONTRIBUTING FACTORS:

- ➔ Older Driver
- ➔ Speed
- ➔ Teen Driver

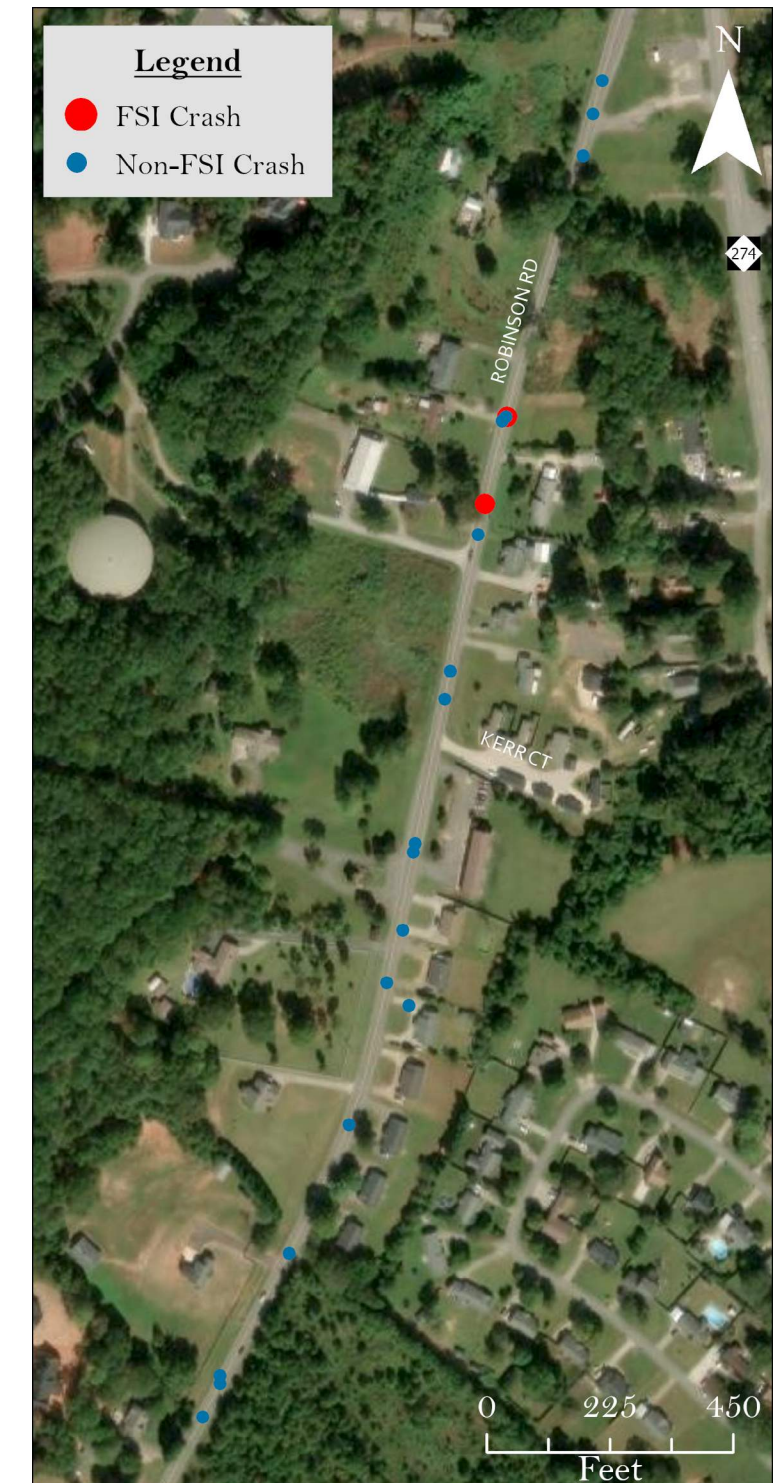
POTENTIAL COUNTERMEASURES

- ➔ Longitudinal Rumble Strips and Stripes
- ➔ Lighting

PRIORITIZATION RANKING

- ➔ 2

CRASH MAP



R3. E Garrison Boulevard

From S Chestnut Street to S New Hope Road (NC 279)

ROADWAY CHARACTERISTICS

FUNCTIONAL CLASS:

- ➔ Principal Arterial

SPEED LIMIT:

- ➔ 45 mph

NUMBER OF LANES:

- ➔ 5-lane (TWLTL)

ROADWAY SECTION:

- ➔ Undivided

ROADWAY ALIGNMENT:

- ➔ Slight curve

PRESENCE OF SIDEWALKS:

- ➔ Along north side of E Garrison Boulevard
- ➔ Along south side of E Garrison Boulevard between Churchill Drive and NC 279

AVERAGE DAILY TRAFFIC:

- ➔ 13,200 (2024)

EXISTING CONDITIONS

ACCESS MANAGEMENT:

- ➔ Full-movement

SIDEWALKS CONDITION:

- ➔ Good

LIGHTING:

- ➔ Yes

PEDESTRIAN SIGNALS:

- ➔ None

CRASH DATA

NO APPARENT INJURY:

- ➔ 54 total crashes

POSSIBLE INJURY:

- ➔ 11 total crashes

SUSPECTED MINOR INJURY:

- ➔ 1 total crash

SUSPECTED SERIOUS INJURY:

- ➔ 1 total crash (left-turn, different roadways)
- ➔ 1 motorcycle crash

FATALITY:

- ➔ 0 total crashes

TOP CRASH TYPES:

- ➔ Left turn, different roadways
- ➔ Ran off road
- ➔ Rear end, slow or stop

TOP CONTRIBUTING FACTORS:

- ➔ Distracted Driver
- ➔ Older Driver
- ➔ Teen Driver

POTENTIAL COUNTERMEASURES

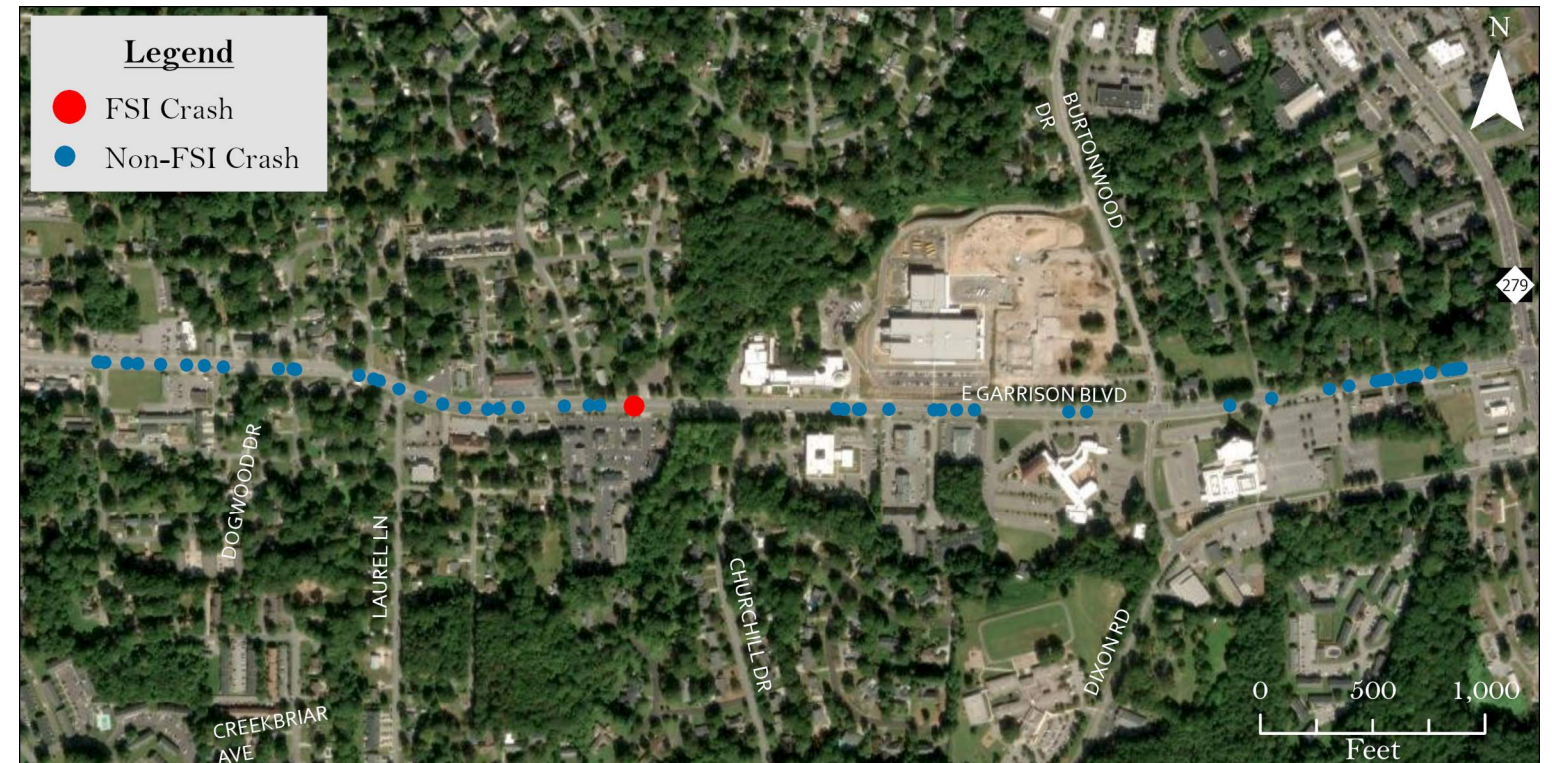
- ➔ Safe Routes to School Program
- ➔ Median
- ➔ Pedestrian Refuge Islands
- ➔ Pedestrian Hybrid Beacon

PRIORITIZATION RANKING

- ➔ 3

SAFETY CONCERN RAISED BY THE PUBLIC

CRASH MAP



R4. W Garrison Boulevard (NC 274)

From W Franklin Blvd (US 74) to Overhill Street/S Dalton Street

ROADWAY CHARACTERISTICS

FUNCTIONAL CLASS:

- ➔ Principal Arterial

SPEED LIMIT:

- ➔ 45 mph

NUMBER OF LANES:

- ➔ 5-lane (TWLTL)

ROADWAY SECTION:

- ➔ Undivided

ROADWAY ALIGNMENT:

- ➔ curved

PRESENCE OF SIDEWALKS:

- ➔ Along north side of W Garrison Boulevard between US 74 and Linwood Road
- ➔ Along south side of W Garrison Boulevard between US W 3rd Avenue and S Dalton Street

AVERAGE DAILY TRAFFIC:

- ➔ 13,900 (2024)

EXISTING CONDITIONS

ACCESS MANAGEMENT:

- ➔ Full-movement

SIDEWALKS CONDITION:

- ➔ Okay

LIGHTING:

- ➔ Yes

PEDESTRIAN SIGNALS:

- ➔ None

CRASH DATA

NO APPARENT INJURY:

- ➔ **43 total crashes**
- ➔ 1 motorcycle crash

POSSIBLE INJURY:

- ➔ **13 total crashes**
- ➔ 1 pedestrian and bicycle crash

SUSPECTED MINOR INJURY:

- ➔ **7 total crashes**
- ➔ 2 motorcycle crashes

SUSPECTED SERIOUS INJURY:

- ➔ **4 total crashes (left-turn, same roadway, ran off road, pedestrian)**
- ➔ 1 motorcycle crash
- ➔ 1 pedestrian crash

FATALITY:

- ➔ **1 total crash (left-turn, same roadway)**
- ➔ 1 motorcycle crash

TOP CRASH TYPES:

- ➔ Angle
- ➔ Left turn, different roadways
- ➔ Rear end, slow or stop

TOP CONTRIBUTING FACTORS:

- ➔ Distracted Driver
- ➔ Older Driver
- ➔ Teen Driver

POTENTIAL COUNTERMEASURES

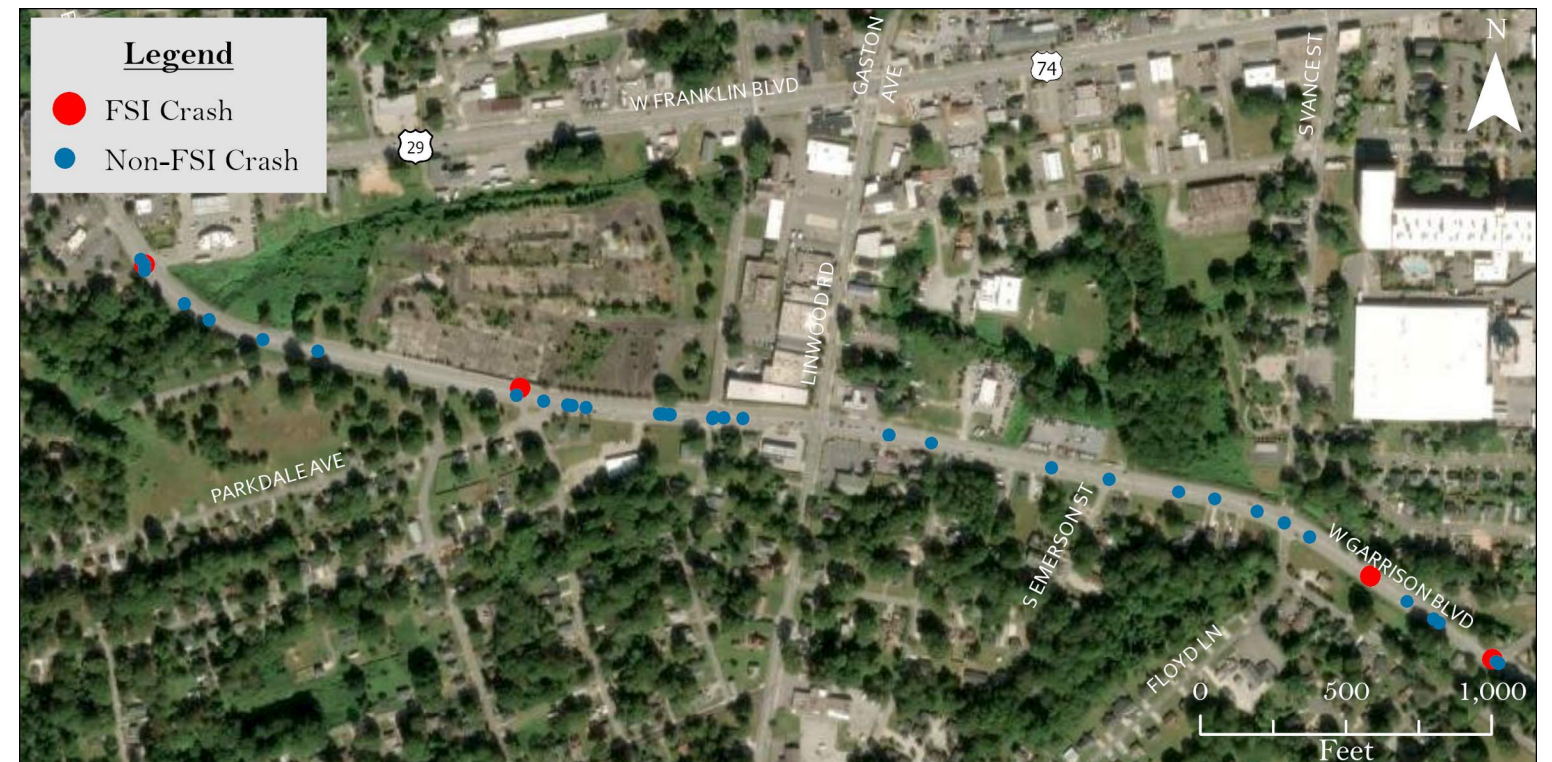
- ➔ Reduced Left-Turn Conflict Intersections
- ➔ Corridor Access Management
- ➔ Enhanced Signing and Pavement Markings at Stop-Controlled Intersections

PRIORITIZATION RANKING

- ➔ 4

SAFETY CONCERN RAISED BY THE PUBLIC

CRASH MAP



R5. W Franklin Boulevard (US 74)

From Edgewood Rd/Archie Whitesides Road to Sante Circle

ROADWAY CHARACTERISTICS

FUNCTIONAL CLASS:

- ➔ Principal Arterial

SPEED LIMIT:

- ➔ 45 mph

NUMBER OF LANES:

- ➔ 4

ROADWAY SECTION:

- ➔ Divided

ROADWAY ALIGNMENT:

- ➔ Slight curve

PRESENCE OF SIDEWALKS:

- ➔ None

AVERAGE DAILY TRAFFIC:

- ➔ 14,900 (2024)

EXISTING CONDITIONS

ACCESS MANAGEMENT:

- ➔ RIRO

SIDEWALKS CONDITION:

- ➔ N/A

LIGHTING:

- ➔ Yes

PEDESTRIAN SIGNALS:

- ➔ None

CRASH DATA

NO APPARENT INJURY:

- ➔ **12 total crashes**
- ➔ 1 motorcycle crash
- ➔ 1 bicycle crash

POSSIBLE INJURY:

- ➔ **7 total crashes**

SUSPECTED MINOR INJURY:

- ➔ **2 total crashes**

SUSPECTED SERIOUS INJURY:

- ➔ **0 total crashes**

FATALITY:

- ➔ **1 total crash (pedestrian)**
- ➔ 1 pedestrian crash

TOP CRASH TYPES:

- ➔ **Angle**
- ➔ **Left turn, different roadways**
- ➔ **Rear end, slow or stop**

TOP CONTRIBUTING FACTORS:

- ➔ Distracted Driver
- ➔ Older Driver
- ➔ Speed

POTENTIAL COUNTERMEASURES

- ➔ Median Barriers
- ➔ Wider Edge Lines
- ➔ Positive Offset of Turn Lanes
- ➔ Shared-Use Path
- ➔ Dynamic Speed Feedback Signs

PRIORITIZATION RANKING

- ➔ 5

SAFETY CONCERN RAISED BY THE PUBLIC

CRASH MAP



R6. E Franklin Boulevard (US 74)

From S Belvedere Avenue to Beverly Drive

ROADWAY CHARACTERISTICS

FUNCTIONAL CLASS:

- ➔ Principal Arterial

SPEED LIMIT:

- ➔ 45 mph

NUMBER OF LANES:

- ➔ 7-lane (TWLTL)

ROADWAY SECTION:

- ➔ Undivided

ROADWAY ALIGNMENT:

- ➔ Straight

PRESENCE OF SIDEWALKS:

- ➔ Along both sides of US 74

AVERAGE DAILY TRAFFIC:

- ➔ 29,300 (2024)

EXISTING CONDITIONS

ACCESS MANAGEMENT:

- ➔ Full-movement

SIDEWALKS CONDITION:

- ➔ Good

LIGHTING:

- ➔ Yes

PEDESTRIAN SIGNALS:

- ➔ None

CRASH DATA

NO APPARENT INJURY:

- ➔ 35 total crashes
- ➔ 1 motorcycle crash
- ➔ 1 pedestrian crash

POSSIBLE INJURY:

- ➔ 9 total crashes
- ➔ 1 pedestrian crash
- ➔ 1 bicycle crash

SUSPECTED MINOR INJURY:

- ➔ 2 total crashes
- ➔ 1 pedestrian crash

SUSPECTED SERIOUS INJURY:

- ➔ 1 total crash (pedestrian)
- ➔ 1 pedestrian and bicycle crash

FATALITY:

- ➔ 0 total crashes

TOP CRASH TYPES:

- ➔ Left turn, same roadway
- ➔ Rear end, slow or stop
- ➔ Sideswipe, same direction

TOP CONTRIBUTING FACTORS:

- ➔ Older Driver
- ➔ Distracted Driver
- ➔ Teen Driver

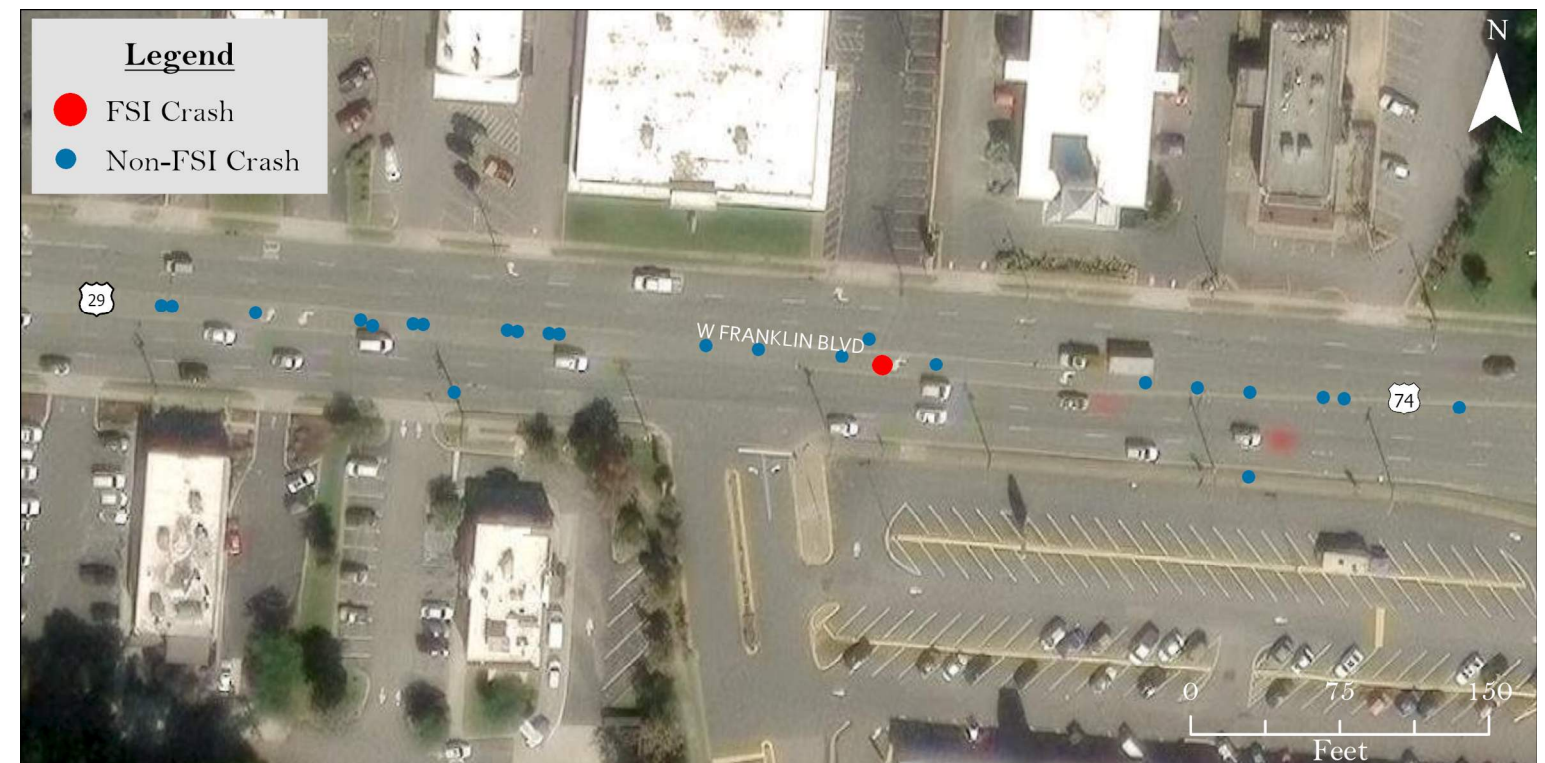
POTENTIAL COUNTERMEASURES

- ➔ Corridor Access Management
- ➔ Median

PRIORITIZATION RANKING

- ➔ 6

CRASH MAP



R7. Bessemer City Road (NC 274)

From Isley Drive to Shannon Bradley Road/Jenkins Dairy Road

ROADWAY CHARACTERISTICS

FUNCTIONAL CLASS:

- ➔ Principal Arterial

SPEED LIMIT:

- ➔ 45mph

NUMBER OF LANES:

- ➔ 5-lane (TWLTL)

ROADWAY SECTION:

- ➔ Undivided

ROADWAY ALIGNMENT:

- ➔ Slight curve

PRESENCE OF SIDEWALKS:

- ➔ Along east side of NC 274
- ➔ Along west side of NC 274 from Pioneer Lane to Bradley Road/Jenkins Dairy Road

AVERAGE DAILY TRAFFIC:

- ➔ 16,400 (2025)

EXISTING CONDITIONS

ACCESS MANAGEMENT:

- ➔ Full-movement

SIDEWALKS CONDITION:

- ➔ Good

LIGHTING:

- ➔ Yes

PEDESTRIAN SIGNALS:

- ➔ None

CRASH DATA

NO APPARENT INJURY:

- ➔ 34 total crashes

POSSIBLE INJURY:

- ➔ 7 total crashes
- ➔ 1 motorcycle crash

SUSPECTED MINOR INJURY:

- ➔ 8 total crashes
- ➔ 1 motorcycle crash
- ➔ 1 bicycle crash

SUSPECTED SERIOUS INJURY:

- ➔ 0 total crashes

FATALITY:

- ➔ 1 total crash 1 total crash (sideswipe, opposite direction)

TOP CRASH TYPES:

- ➔ Ran off road
- ➔ Rear end, slow or stop
- ➔ Sideswipe, same direction

TOP CONTRIBUTING FACTORS:

- ➔ Distracted Driver
- ➔ Alcohol Presence
- ➔ Older Driver

POTENTIAL COUNTERMEASURES

- ➔ Enhanced Delineation for Horizontal Curves
- ➔ Wider Edge Lines
- ➔ Bicycle Lanes
- ➔ Motorcycle Rub Rail

PRIORITIZATION RANKING

- ➔ 7

CRASH MAP



R8. N Chester Street (US 321)

From Precious Comb Works Inc to Bulb Avenue/Tulip Drive

ROADWAY CHARACTERISTICS

FUNCTIONAL CLASS:

- ➔ Principal Arterial

SPEED LIMIT:

- ➔ 45 mph

NUMBER OF LANES:

- ➔ 5-lane (TWLTL)

ROADWAY SECTION:

- ➔ Undivided

ROADWAY ALIGNMENT:

- ➔ Straight

PRESENCE OF SIDEWALKS:

- ➔ Segments along the west side of US 321

AVERAGE DAILY TRAFFIC:

- ➔ 41,700 (2025)

EXISTING CONDITIONS

ACCESS MANAGEMENT:

- ➔ Full-movement

SIDEWALKS CONDITION:

- ➔ Excellent

LIGHTING:

- ➔ No

PEDESTRIAN SIGNALS:

- ➔ None

CRASH DATA

NO APPARENT INJURY:

- ➔ 70 total crashes

POSSIBLE INJURY:

- ➔ 6 total crashes

SUSPECTED MINOR INJURY:

- ➔ 4 total crashes
- ➔ 1 pedestrian crash

SUSPECTED SERIOUS INJURY:

- ➔ 0 total crashes

FATALITY:

- ➔ 2 total crashes (left-turn, same roadway, pedestrian)
- ➔ 1 pedestrian crash

TOP CRASH TYPES:

- ➔ Left turn, same roadway
- ➔ Rear end, slow or stop
- ➔ Sideswipe, same direction

TOP CONTRIBUTING FACTORS:

- ➔ Distracted Driver
- ➔ Older Driver
- ➔ Teen Driver

POTENTIAL COUNTERMEASURES

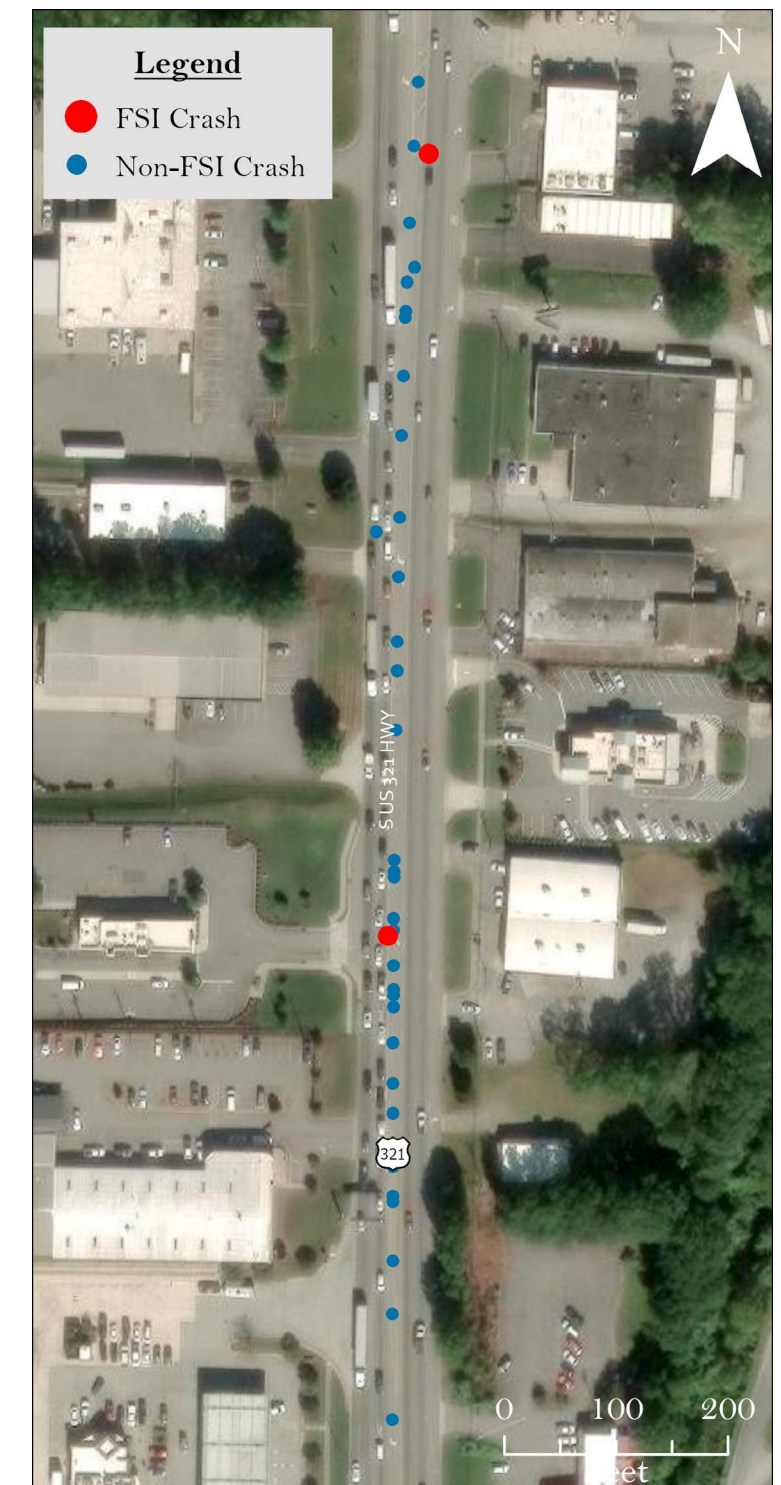
- ➔ Corridor Access Management
- ➔ Dedicated Left- and Right-Turn Lanes
- ➔ Lighting

PRIORITIZATION RANKING

- ➔ 8

SAFETY CONCERN RAISED BY THE PUBLIC

CRASH MAP



R9. S York Road (US 321)

From Clayton Homes to Davis Park Road

ROADWAY CHARACTERISTICS

FUNCTIONAL CLASS:

- ➔ Principal Arterial

SPEED LIMIT:

- ➔ 45 mph

NUMBER OF LANES:

- ➔ 5-lane (TWLTL)

ROADWAY SECTION:

- ➔ Undivided

ROADWAY ALIGNMENT:

- ➔ Slight curve

PRESENCE OF SIDEWALKS:

- ➔ Along west side of S York Road

AVERAGE DAILY TRAFFIC:

- ➔ 15,200 (2024)

EXISTING CONDITIONS

ACCESS MANAGEMENT:

- ➔ Full-movement

SIDEWALKS CONDITION:

- ➔ Good

LIGHTING:

- ➔ Yes

PEDESTRIAN SIGNALS:

- ➔ None

CRASH DATA

NO APPARENT INJURY:

- ➔ 29 total crashes

POSSIBLE INJURY:

- ➔ 19 total crashes
- ➔ 2 pedestrian crashes

SUSPECTED MINOR INJURY:

- ➔ 7 total crashes
- ➔ 1 pedestrian crash

SUSPECTED SERIOUS INJURY:

- ➔ 1 total crash (pedestrian)
- ➔ 1 pedestrian crash

FATALITY:

- ➔ 1 total crash (left-turn, different roadways)

TOP CRASH TYPES:

- ➔ Left turn, different roadways
- ➔ Rear end, slow or stop
- ➔ Sideswipe, same direction

TOP CONTRIBUTING FACTORS:

- ➔ Distracted Driver
- ➔ Older Driver
- ➔ Teen Driver

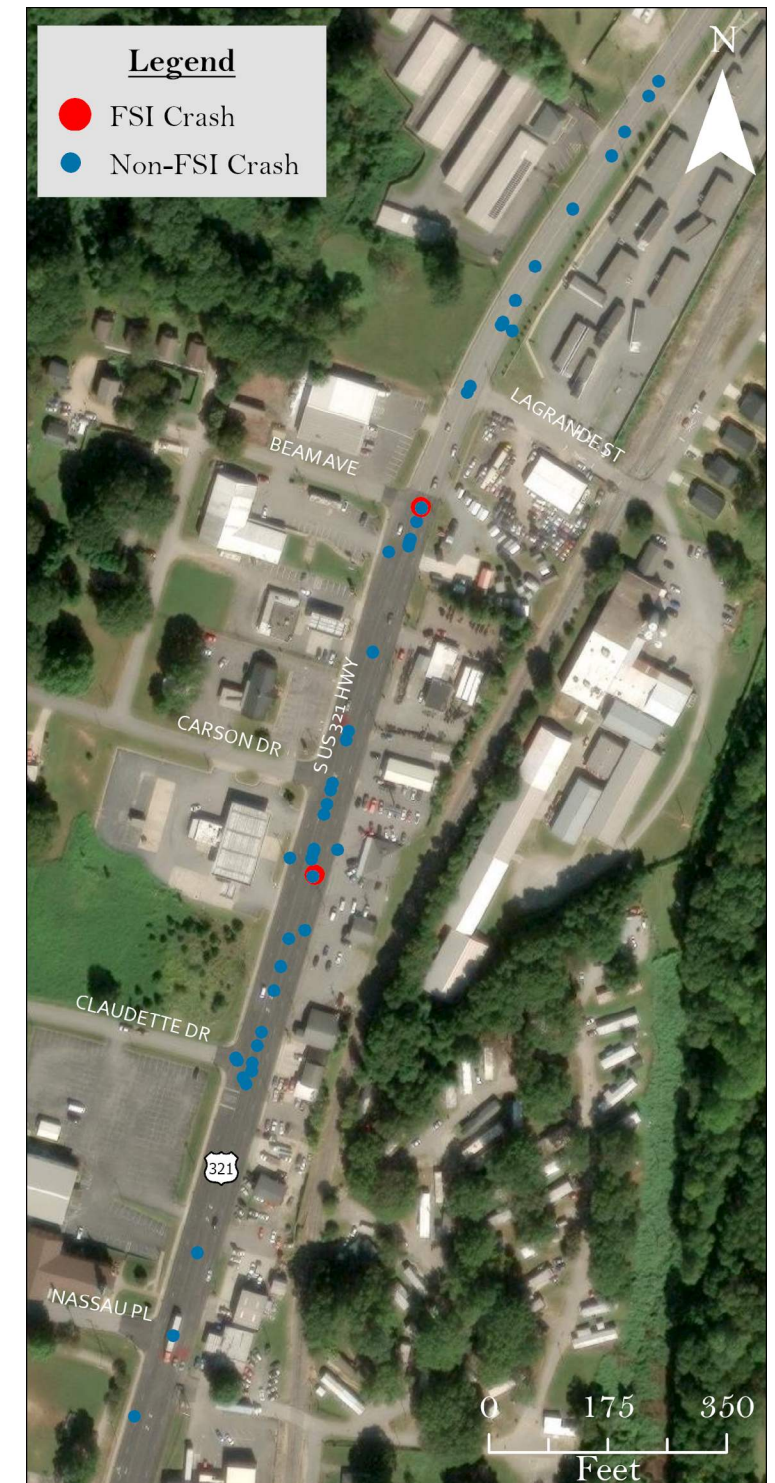
POTENTIAL COUNTERMEASURES

- ➔ Lighting
- ➔ Corridor Access Management
- ➔ Walkways
- ➔ Pedestrian Hybrid Beacon

PRIORITIZATION RANKING

- ➔ 9

CRASH MAP



R10. W Franklin Boulevard (US 74)

From Bolding Street to Bessemer City Road/W Garrison Boulevard (NC 274)

ROADWAY CHARACTERISTICS

FUNCTIONAL CLASS:

- ➔ Principal Arterial

SPEED LIMIT:

- ➔ 45 mph

NUMBER OF LANES:

- ➔ 5-lane (TWLTL)

ROADWAY SECTION:

- ➔ Undivided

ROADWAY ALIGNMENT:

- ➔ Slight curve

PRESENCE OF SIDEWALKS:

- ➔ Along both sides of US 74

AVERAGE DAILY TRAFFIC:

- ➔ 17,600 (2024)

EXISTING CONDITIONS

ACCESS MANAGEMENT:

- ➔ Full-movement

SIDEWALKS CONDITION:

- ➔ Okay

LIGHTING:

- ➔ Yes

PEDESTRIAN SIGNALS:

- ➔ None

CRASH DATA

NO APPARENT INJURY:

- ➔ **70 total crashes**
- ➔ 2 motorcycle crashes
- ➔ 1 bicycle crash

POSSIBLE INJURY:

- ➔ **12 total crashes**

SUSPECTED MINOR INJURY:

- ➔ **6 total crashes**
- ➔ 1 motorcycle crash
- ➔ 1 pedestrian crash
- ➔ 1 pedestrian and bicycle crash

SUSPECTED SERIOUS INJURY:

- ➔ **0 total crashes**

FATALITY:

- ➔ **0 total crashes**

TOP CRASH TYPES:

- ➔ Left turn, different roadways
- ➔ Rear end, slow or stop
- ➔ Sideswipe, same direction

TOP CONTRIBUTING FACTORS:

- ➔ Distracted Driver
- ➔ Older Driver
- ➔ Younger Driver

POTENTIAL COUNTERMEASURES

- ➔ Corridor Access Management
- ➔ Reduced Left-Turn Conflict Intersections
- ➔ Restriping

PRIORITIZATION RANKING

- ➔ 10

SAFETY CONCERN RAISED BY THE PUBLIC

CRASH MAP



CHAPTER 7

Next Steps



Every year, traffic crashes on Gastonia’s roadways result in FSI crashes, and lasting harm to families and communities across our city. The strategies in this chapter represent Gastonia’s commitment to changing that reality. Organized around the Four E’s of road safety these action tables translate the findings of Gastonia’s crash analysis and SoS Report into concrete, measurable steps the City and its partners will take to make our streets safer for everyone who uses them. No single strategy works in isolation; it is the coordinated application of safer road design, targeted enforcement, community education, and effective emergency response that creates a transportation system built to protect human life. Each action identifies what success looks like, how long implementation is expected to take, a rough estimate of cost, and which emphasis area the action targets. This enables progress to be trackable, reported, and built upon year after year. Together, these strategies reflect Gastonia’s resolve that traffic FSI crashes are not an inevitable cost of a growing city, but preventable outcomes that demand our sustained attention and action.

ACTION PLAN

Engineering

Engineering strategies address the physical design and infrastructure of Gastonia’s transportation network. These actions focus on building a road system that is forgiving towards human error through design, reducing crash frequency and severity. Many strategies below are eligible for HSIP, TAP, and SS4A Implementation Grant funding.

SAFETY STRATEGY	SUCCESS METRIC(S)	TIMEFRAME	COST	EMPHASIS AREAS
Develop and adopt a Complete Streets Policy requiring all new and reconstructed City streets to accommodate pedestrians, bicyclists, and transit users as a routine element of design.	<ul style="list-style-type: none"> Complete Streets Policy adopted by City Council # of projects designed to Complete Streets standards annually Policy presented to Council within 1 year 	Immediate	\$	VRU INT MLR
Conduct an ADA curb ramp and pedestrian infrastructure audit on arterial and collector roadways; develop a prioritized retrofit program.	<ul style="list-style-type: none"> Audit completed and documented Prioritized retrofit list developed # of ADA-compliant curb ramps installed annually % of audited intersections brought into compliance 	Immediate– Short-Term	\$\$	VRU INT
Install or upgrade pedestrian crossing infrastructure (high-visibility markings, refuge islands, raised crosswalks, median treatments) on multilane arterials with documented pedestrian crash history.	<ul style="list-style-type: none"> # of enhanced crossings installed on multilane arterials Before/after pedestrian crash rate at treated locations # of HSIP/SS4A grant applications submitted for crossing improvements 	Short-Term	\$\$\$	VRU MLR INT

SAFETY STRATEGY	SUCCESS METRIC(S)	TIMEFRAME	COST	EMPHASIS AREAS
Implement a phased signal modernization program to upgrade aging equipment at high-crash intersections; include pedestrian signal heads, countdown timers, and APS as standard elements.	<ul style="list-style-type: none"> # of signals upgraded annually % of signalized intersections with APS and countdown timers # of HSIP applications submitted for signal upgrades 	Short-Term– Long-Term	\$\$\$	INT VRU NTC
Expand EVP to all signalized intersections on primary emergency response corridors in coordination with Gaston County EMS, Gastonia Fire, and GPD.	<ul style="list-style-type: none"> # of intersections equipped with operational EVP EVP gap analysis completed Documented change in emergency vehicle response times on primary corridors 	Short-Term	\$\$	INT
Amend City Engineering Standards to require EVP and APS as standard design specifications for all new and reconstructed traffic signals.	<ul style="list-style-type: none"> Updated Engineering Standards adopted % of new signals constructed to updated standard 	Immediate	\$	INT VRU
Install and maintain pedestrian-scale LED street lighting at intersections, crosswalks, and transit stops with documented nighttime crash history; establish a proactive outage reporting protocol.	<ul style="list-style-type: none"> # of lighting upgrades installed at priority locations Before/after nighttime crash rate at treated locations Streetlight outage reporting protocol established 	Short-Term	\$\$	NTC VRU INT
Close priority sidewalk network gaps on arterial and collector corridors, focusing on routes connecting schools, senior facilities, and community/commercial centers.	<ul style="list-style-type: none"> Linear feet of sidewalk constructed annually # of priority network gaps closed # of SRTS or TAP grant applications submitted 	Short-Term– Long-Term	\$\$\$	VRU MLR
Implement access management improvements on multilane arterial corridors (driveway consolidation, raised medians, and turn lane channelization) to reduce vehicle conflict points.	<ul style="list-style-type: none"> # of access management improvements implemented Before/after angle and turning crash rate on treated corridors # of driveway consolidations achieved through development review 	Short-Term– Long-Term	\$\$\$	MLR INT SPD
Evaluate and implement geometric safety improvements (turn lanes, sight distance corrections, signal timing, and pavement markings) at the City’s highest-crash intersections identified in the SoS Report.	<ul style="list-style-type: none"> # of high-crash intersections receiving targeted geometric improvements Before/after total and severe crash counts at treated intersections # of locations programmed for improvement in TIP/CIP 	Long-Term	\$\$\$	INT SPD VRU

SAFETY STRATEGY	SUCCESS METRIC(S)	TIMEFRAME	COST	EMPHASIS AREAS
Install RRFBs or HAWK signals at uncontrolled mid-block and high-pedestrian-volume crossings on multilane roadways.	<ul style="list-style-type: none"> # of RRFBs/HAWKs installed Before/after pedestrian crash rate at treated crossings # of grant applications submitted for beacon installations 	Short-Term	\$\$	VRU MLR INT
Coordinate with NCDOT to evaluate and install rumble strips, enhanced delineation, and curve warning treatments on high-speed multilane roadways with documented lane departure and head-on crash patterns.	<ul style="list-style-type: none"> # of miles of multilane roadway receiving enhanced safety treatments Before/after lane departure crash rate on treated segments 	Short-Term– Long-Term	\$\$	MLR SPD

Emphasis Area Key: INT = Intersections | MLR = Multilane Roadways | VRU = Vulnerable Road Users | SPD = Speed Management | NTC = Nighttime Crashes | DD = Distracted Driving

Enforcement

Enforcement strategies leverage GPD’s capabilities and existing technology such as RTCC. RTCC launched in September 2025 with 144 downtown cameras, 22 Flock live cameras, and 21 license plate readers to deter unsafe driving behaviors. Enforcement is most effective when deployed in a targeted, data-driven manner at locations and times where crash risk is highest.

SAFETY STRATEGY	SUCCESS METRIC(S)	TIMEFRAME	COST	EMPHASIS AREAS
Establish a data-driven traffic safety enforcement program within GPD using crash data, speed data, and RTCC intelligence to identify and target high-risk corridors and time periods for proactive patrol deployment.	<ul style="list-style-type: none"> Data-driven enforcement program established # of targeted enforcement operations conducted annually Annual crash trend report produced for enforcement corridors 	Immediate	\$	SPD DD MLR INT
Expand use of GPD’s RTCC and Flock camera network to support traffic safety monitoring (identification of reckless driving, wrong-way movements, and high-speed events) in coordination with field units.	<ul style="list-style-type: none"> RTCC traffic safety monitoring protocol established # of traffic safety incidents identified and responded to via RTCC Officer response time to RTCC-identified events tracked 	Immediate	\$	SPD DD NTC MLR

SAFETY STRATEGY	SUCCESS METRIC(S)	TIMEFRAME	COST	EMPHASIS AREAS
Conduct targeted speed enforcement operations on multilane arterials and residential corridors identified as high-speed crash locations in the SoS Report, in coordination with NCDOT and GHSP.	<ul style="list-style-type: none"> # of speed enforcement operations conducted annually # of citations issued for speed violations at targeted locations Before/after speed-related crash rate at priority corridors 	Immediate– Short-Term	\$	SPD MLR
Implement high-visibility nighttime enforcement operations at locations with documented nighttime crash concentrations, including DWI checkpoints and saturation patrols on high-risk corridors.	<ul style="list-style-type: none"> # of nighttime enforcement operations conducted annually # of DWI arrests per year Before/after nighttime fatal and serious injury crash counts 	Immediate	\$	NTC DD MLR
Conduct targeted distracted driving enforcement operations aligned with statewide GHSP campaign periods and deploy high-visibility enforcement at intersections with documented distracted driving crash history.	<ul style="list-style-type: none"> # of distracted driving citations issued annually # of enforcement operations aligned with GHSP campaign calendar Engagement with GHSP campaign posts and materials 	Immediate– Short-Term	\$	DD INT
Support passage of North Carolina’s statewide hands-free driving legislation through formal City advocacy; prepare for implementation by developing an enforcement protocol and public communications plan prior to enactment.	<ul style="list-style-type: none"> City Council resolution supporting hands-free legislation adopted GPD enforcement protocol developed prior to enactment Public communications plan completed prior to enactment 	Immediate	\$	DD SPD
Strengthen school zone speed enforcement during arrival and dismissal periods at schools with documented pedestrian safety concerns, in coordination with Gaston County Schools and GPD school resource officers.	<ul style="list-style-type: none"> # of school zone enforcement operations per year # of citations issued in school zones annually # of documented pedestrian incidents near targeted schools 	Immediate	\$	SPD VRU
Coordinate with NCDOT and GHSP to evaluate automated enforcement options (e.g., automated school zone speed cameras) at qualifying school zones where traditional enforcement coverage is limited.	<ul style="list-style-type: none"> Feasibility evaluation completed and documented Legislative and policy review completed # of locations considered for automated enforcement 	Short-Term	\$\$	SPD VRU

SAFETY STRATEGY	SUCCESS METRIC(S)	TIMEFRAME	COST	EMPHASIS AREAS
Establish a formal data-sharing protocol between GPD and the City Engineering/Planning Department to ensure crash data is regularly incorporated into safety analysis and infrastructure planning.	<ul style="list-style-type: none"> Data-sharing agreement executed Crash data integrated into City GIS/planning tools on defined update cycle # of annual planning meetings using shared crash data 	Immediate	\$	INT MLR VRU SPD NTC DD
Coordinate with GPD and Gaston County Sheriff's Office on joint impaired driving enforcement including DWI task force participation, checkpoint programs, and coordination with GHSP Booze It & Lose It campaigns.	<ul style="list-style-type: none"> # of joint enforcement operations per year # of DWI arrests at joint operations # of GHSP campaigns supported with coordinated local enforcement 	Immediate	\$	NTC DD MLR

Education

Education strategies build community awareness and promote safe behaviors among all road users. Gastonia benefits from an existing foundation through Safe Kids Gaston County which implements evidence-based programs including car-seat checkups, safety workshops, and sports clinics. Statewide platforms such as Watch for Me NC and GHSP behavioral safety campaigns provide additional vehicles for coordinated local outreach.

SAFETY STRATEGY	SUCCESS METRIC(S)	TIMEFRAME	COST	EMPHASIS AREAS
Develop a Gastonia-branded traffic safety awareness campaign targeting identified emphasis areas coordinated with GPD, the Fire Department, and City communications staff.	<ul style="list-style-type: none"> Campaign launched within 1 year of SAP adoption # of campaign impressions/social media reach annually # of community events featuring safety messaging Pre/post community awareness survey results 	Immediate-Short-Term	\$	INT MLR SPD DD NTC VRU
Expand Safe Kids Gaston County programming to include pedestrian and bicycle safety education for school-age children, targeting schools near high-crash corridors in coordination with Gaston County Schools and Gastonia Fire Department.	<ul style="list-style-type: none"> # of schools reached by Safe Kids programming annually # of students participating in pedestrian/bicycle safety programs # of Safe Kids events held per year 	Immediate-Short-Term	\$	VRU INT

SAFETY STRATEGY	SUCCESS METRIC(S)	TIMEFRAME	COST	EMPHASIS AREAS
Participate in and promote NCDOT's Watch for Me NC statewide pedestrian and bicycle safety program, conducting coordinated public education events at high-pedestrian-activity locations in Gastonia.	<ul style="list-style-type: none"> # of Watch for Me NC events hosted or co-sponsored annually Estimated community reach per event cycle Watch for Me NC campaign promoted through City channels 	Immediate	\$	VRU INT MLR
Develop and deliver distracted driving education programming for high school students in Gaston County Schools (classroom presentations and simulation activities) emphasizing the dangers of handheld device use while driving.	<ul style="list-style-type: none"> # of Gaston County schools reached annually # of students participating in distracted driving programs # of training sessions delivered per school year 	Immediate-Short-Term	\$	DD
Launch a public education campaign supporting North Carolina's upcoming hands-free driving legislation through City social media, transit communications, and community events.	<ul style="list-style-type: none"> Campaign materials developed and distributed prior to enactment # of social media posts/engagements # of community events featuring hands-free messaging 	Immediate	\$	DD
Develop multilingual traffic safety outreach materials targeting Gastonia's Spanish-speaking and limited-English-proficiency communities at locations with documented safety concerns, in coordination with housing and community engagement staff.	<ul style="list-style-type: none"> # of multilingual materials developed # of community outreach events conducted in target communities # of languages represented in outreach materials 	Short-Term	\$	VRU INT MLR
Coordinate with Gaston County EMS, Gastonia Fire, and area hospitals to promote post-crash data and community awareness of the human cost of traffic fatalities including participation in National Traffic Safety Month.	<ul style="list-style-type: none"> # of awareness events participated in annually # of media placements achieved Zero Fatalities campaign promoted through City channels annually 	Immediate	\$	INT MLR VRU NTC DD SPD

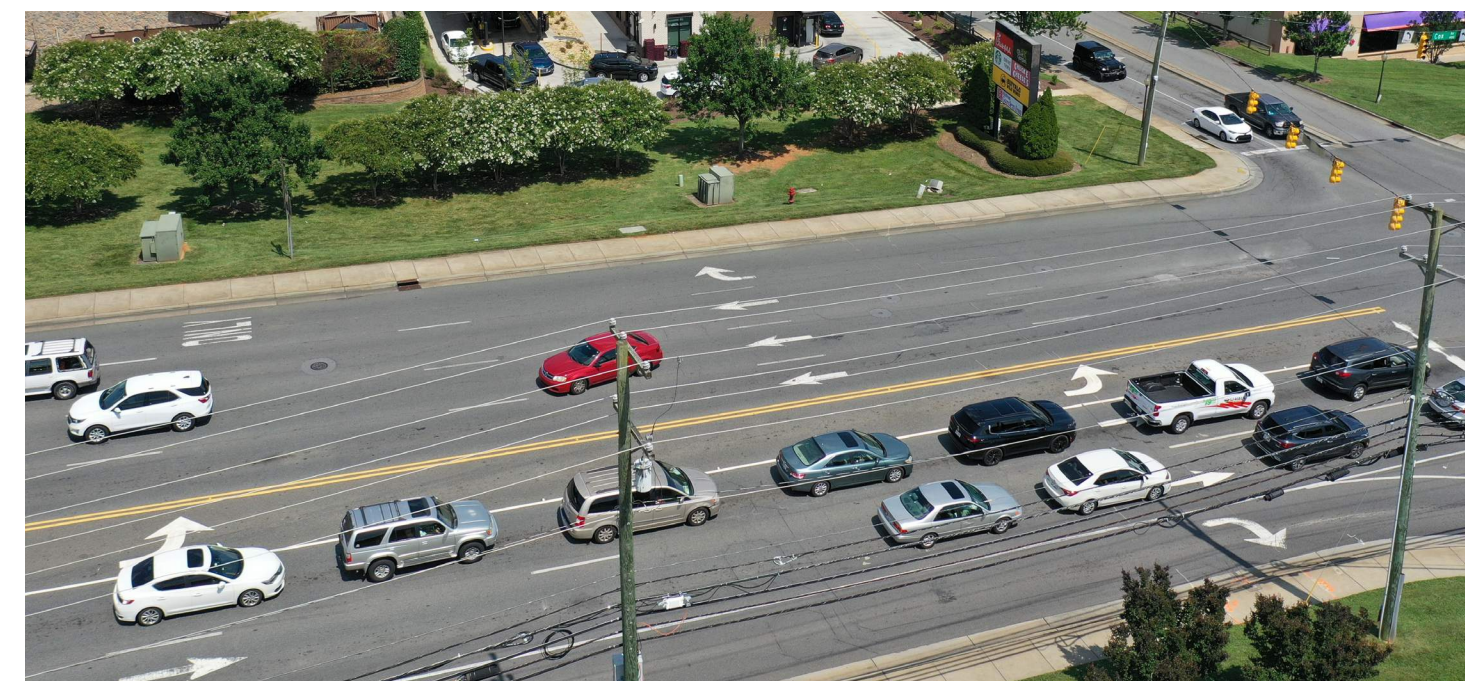
SAFETY STRATEGY	SUCCESS METRIC(S)	TIMEFRAME	COST	EMPHASIS AREAS
Develop and implement a senior driver and older pedestrian safety education program in coordination with local senior centers, faith communities, and health care providers.	<ul style="list-style-type: none"> # of senior-focused outreach events per year # of participants in senior safety programs annually # of partner organizations engaged 	Short-Term	\$	VRU INT
Promote SRTS walking and biking programs at Gaston County Schools near priority safety corridors.	<ul style="list-style-type: none"> # of schools with active SRTS programs # of Walk to School Day events held annually # of SRTS grant applications submitted 	Immediate– Short-Term	\$	VRU SPD

Emergency Response

Emergency response strategies improve the City’s ability to respond to crashes quickly and effectively, reducing the time between crash occurrence and medical care. GPD’s existing RTCC, Flock camera network, and planned first-responder drone provide a technology foundation that can be extended to support crash notification and emergency dispatch coordination. These strategies also address post-crash data quality and the signal pre-emption infrastructure that enables faster and safer emergency vehicle movements through Gastonia’s signalized network.

SAFETY STRATEGY	SUCCESS METRIC(S)	TIMEFRAME	COST	EMPHASIS AREAS
Expand EVP infrastructure to all signalized intersections on primary emergency response corridors, ensuring Gaston County EMS, Gastonia Fire, and GPD vehicles can clear signal phases on approach.	<ul style="list-style-type: none"> # of intersections equipped with operational EVP EVP coverage map completed Documented change in emergency vehicle response times on primary corridors 	Short-Term	\$\$	INT
Amend City Engineering Standards to require EVP as a mandatory design element for all new and reconstructed traffic signals, ensuring future installations are pre-emption ready.	<ul style="list-style-type: none"> Updated Engineering Standards adopted with EVP requirement % of new signals constructed with EVP capability 	Immediate	\$	INT
Integrate GPD’s RTCC camera network and Flock license plate reader data into Gaston County EMS and Gastonia Fire Department dispatch protocols to support real-time incident awareness and unit routing during major crash events.	<ul style="list-style-type: none"> Integration protocol established and operational # of crash incidents where RTCC data supported dispatch or response Inter-agency data sharing agreement executed 	Immediate– Short-Term	\$	INT MLR NTC

SAFETY STRATEGY	SUCCESS METRIC(S)	TIMEFRAME	COST	EMPHASIS AREAS
Coordinate with NCDOT and GCLMPO to evaluate and develop incident management signal timing plans that can be activated during major crash events to minimize secondary crashes and improve emergency access on affected corridors.	<ul style="list-style-type: none"> Incident management timing plans developed for primary corridors # of plan activations per year Documented corridor clearance time before/after plan implementation 	Short-Term	\$	INT MLR
Evaluate the use of GPD’s first-responder drone in a traffic safety support role (aerial crash documentation, scene management, and real-time situational awareness for responding units).	<ul style="list-style-type: none"> Drone deployment protocol for crash/incident response developed # of traffic incidents where drone support was utilized After-action report documenting drone value in traffic response 	Immediate– Short-Term	\$	INT MLR NTC
Pursue HSIP and SS4A grant funding for EVP and signal modernization improvements at qualifying high-crash intersections on primary emergency response corridors, coordinating with NCDOT and GCLMPO on TIP programming.	<ul style="list-style-type: none"> # of grant applications submitted for EVP/signal improvements # of intersections funded through HSIP/SS4A for EVP or signal upgrade Total grant funding secured for EVP program 	Immediate	\$	INT



FUNDING OPPORTUNITIES

Implementing the strategies identified in this chapter will require sustained investment from a combination of local, state, and federal funding sources. A full inventory of funding programs relevant to Gastonia’s safety priorities is provided in **Appendix D** and is intended to serve as a practical reference tool for City staff as they advance the actions described above.

At the federal level, the HSIP and the SS4A Implementation Grant program represent the most direct funding pathways for engineering improvements, signal upgrades, pedestrian infrastructure, and program delivery. The TAP and SRTS program provide additional avenues for active transportation and school safety investments.

At the state level, the GHSP supports behavioral safety initiatives including enforcement operations, education campaigns, and equipment for law enforcement. Together, these programs align closely with Gastonia’s emphasis areas and the Four-E strategies outlined in this chapter. City staff are encouraged to use the funding appendix proactively to match specific action items with available grant opportunities as application cycles open.

PROGRESS AND TRANSPARENCY

Adopting this SAP is the beginning of Gastonia’s commitment to safer streets. Measuring progress, reporting results, and updating strategies based on real outcomes are essential to the long-term success of the plan. They are also a core requirement of the SS4A program, which calls on grant recipients to track and publicly report implementation progress on an ongoing basis.

To meet this commitment, the City of Gastonia will maintain a publicly accessible traffic safety dashboard hosted on the City’s website through Microsoft Power BI . The dashboard will allow residents, City staff, elected officials, and partner agencies to track progress on the success metrics identified in this chapter, and monitor crash trends across Gastonia’s emphasis areas over time. By making this data visible and accessible, the City affirms that accountability for roadway safety belongs not just to staff and leadership, but to the broader Gastonia community. Progress reports will be presented to City Council on an annual basis, and the SAP itself will be reviewed and updated on a regular cycle to reflect changing conditions, new data, and lessons learned from implementation.

CONCLUSION

The Gastonia SAP represents a pivotal commitment by the City of Gastonia and its partners to fundamentally change how traffic safety is approached, prioritized, and resourced across our community. Over the five-year period from 2020 to 2024, Gastonia experienced 52 fatal crashes and 146 crashes involving serious injuries, a sobering reminder that the human cost of roadway incidents is real, ongoing, and preventable. Making it clear that the status quo is not acceptable and that meaningful, sustained action is required.

This plan was built from the ground up to reflect Gastonia’s specific safety challenges, community priorities, and policy landscape. The SoS Report established the technical foundation, revealing that FSI crashes in Gastonia reflect systemic patterns concentrated across six emphasis areas: intersections, multilane roadways, VRUs, speed management, nighttime conditions, and distracted driving. These emphasis areas became the backbone of the SAP and shaped every subsequent chapter’s findings of this plan.

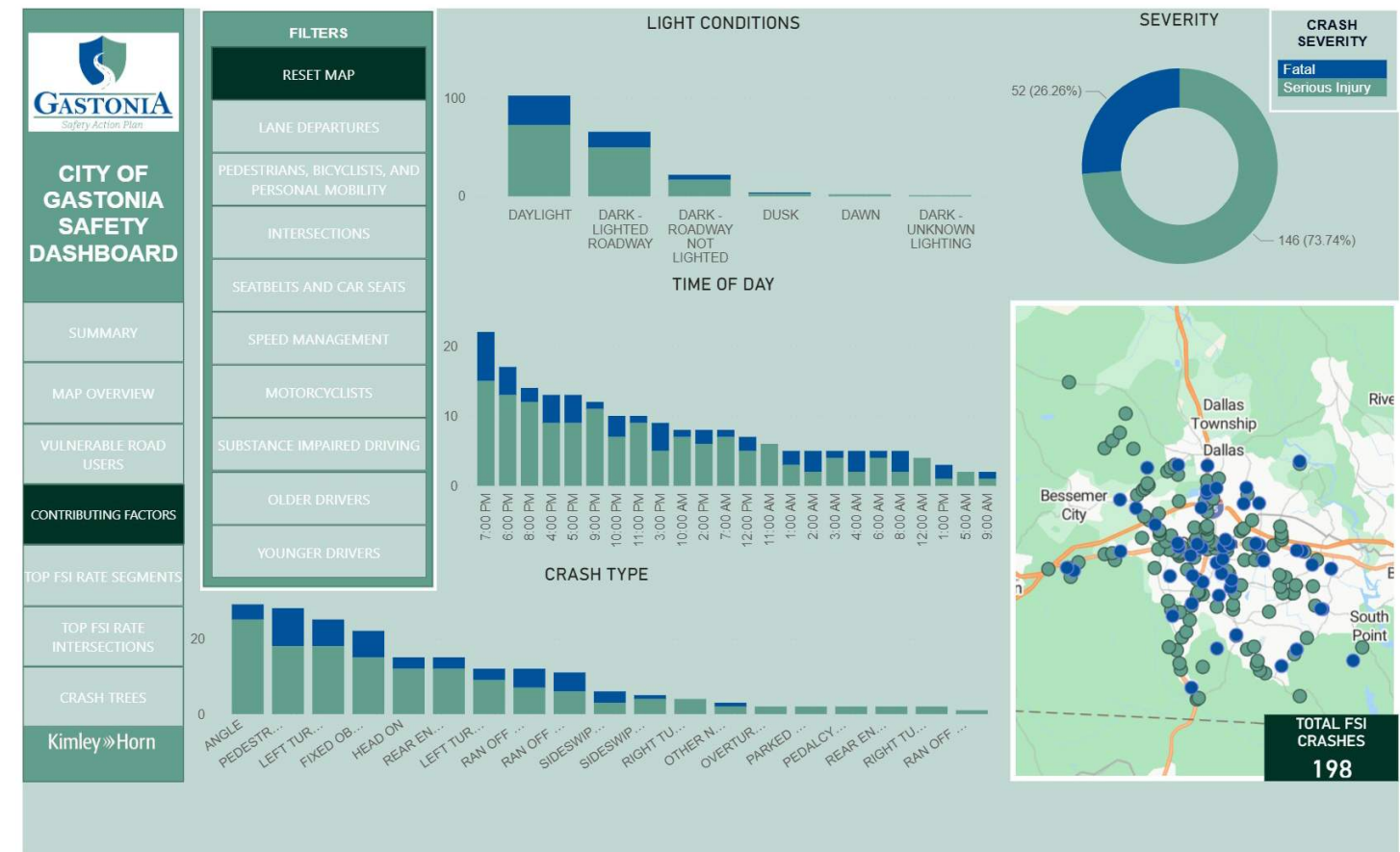
Community and stakeholder voices were equally central to this process. Through STF meetings, public workshops, pop-up events, and digital engagement, Gastonia residents and agency partners helped define what safety means in their neighborhoods, which corridors and intersections feel most dangerous, and what kinds of investments would make the greatest difference. The inclusion of East Garrison Boulevard as a focus location was driven by community input identifying

its importance to schools, parks, and everyday life. This is a concrete example of how public engagement directly shaped technical outcomes. The result is an SAP that is both defensible and deeply local: grounded in data, anchored in lived experience, and owned by the community it is designed to serve.

The strategies, policies, and actions assembled across this plan span all Four Es of road safety because no single approach is sufficient on its own. Safer intersections and pedestrian crossings must be paired with targeted enforcement and community education. Signal modernization and EVP must be complemented by post-crash data review and transparent reporting. The \$75 million in General Obligation Bond funding already committed by the City, combined with the federal funding pathways identified in this plan, positions Gastonia to move from planning to implementation with meaningful momentum.

Adopting this Safety Action Plan is the beginning of that implementation journey. The City of Gastonia commits to tracking progress transparently through the publicly accessible Power BI dashboard hosted on the City’s website, reporting outcomes to City Council and the community on a regular basis, and updating this plan as conditions evolve, projects are delivered, and new data becomes available. These commitments are not only consistent with the requirements of the SS4A program, but they reflect Gastonia’s conviction that accountability is inseparable from progress.

Gastonia is a growing city. More residents, more trips, and more demand on the transportation network are certainties. But growth and safety are not in conflict; they can and must advance together. The strategies in this plan, implemented with urgency and sustained over time, will build a transportation system in which every person can travel safely. That is Gastonia’s goal; zero is the only acceptable number.



APPENDIX A

State of Safety Report



January 2026

The City of Gastonia

STATE OF SAFETY REPORT

APPENDIX A

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The State of Safety Report was prepared by:

The City of Gastonia

with

Kimley-Horn

APPENDIX A

INTRODUCTION

The City of Gastonia is committed to creating safer, more accessible streets for all users. As part of the **Safe Streets and Roads for All (SS4A)** initiative, this State of Safety Report provides a comprehensive, data-driven overview of current crash trends, community context, and current plans and policies in place related to transportation safety. It serves as a foundation for the City's **Safety Action Plan (SAP)**, aligning with the U.S. Department of Transportation's Vision Zero goal to reduce fatalities and serious injuries on Gastonia's roadways.

WHY THIS REPORT MATTERS

The Charlotte Metro region has seen tremendous growth over recent years as it has regularly been known as one of the best areas to live; and the City of Gastonia will likely experience even more development and growth pressures for years to come as I-85 is widened between Gastonia and Charlotte, reducing the daily strain currently experienced traveling between these economic centers. With the increased projection in development and traffic volumes, the need for proactive safety measures has never been greater; safety must be prioritized in the City's future vision. This report highlights systemic issues contributing to crashes, reports vulnerable road user statistics, and identifies key emphasis areas.

OUR APPROACH

The State of Safety Report combines:

- **Crash Data Analysis** – A detailed review of crash trends and patterns
- **Transportation Conditions** – A review of crash history within the study area including existing and planned transportation facilities
- **Community Conditions** – An examination of Gastonia's current zoning along with demographic and socioeconomic characteristics that influence transportation safety
- **Plan, Program, and Policy Review** – A literature review of Gastonia's existing policies, programs, and initiatives
- **Key Emphasis Areas** – Identification of priority safety improvement areas aligned with safety performance measures adopted by Gaston-Cleveland-Lincoln Metropolitan Planning Organization (GCLMPO) and the North Carolina Strategic Highway Safety Plan (NC SHSP)

By leveraging federal SS4A funding and local partnerships, Gastonia is advancing a comprehensive safety strategy to create a transportation network that significantly reduces roadway fatalities and serious injuries for all users.

DATA SOURCES

The State of Safety Report showcases the information and trends most relevant for identifying safety needs in Gastonia. This report uses a variety of data sources that provide unique and foundational data related to transportation safety in Gastonia. The sources that provided the bulk of the data in this report are identified and described below.

US Census American Community Survey (ACS)

The ACS is an ongoing survey by the US Census Bureau that collects detailed population and housing information on a yearly basis down to block group level.

2024 North Carolina Strategic Highway Safety Plan Update (NC SHSP Update)

The NC SHSP Update is a statewide, data-driven strategy that aims to cut roadway fatalities and serious injuries in half by 2035 and ultimately eliminate them by 2050 through a collaborative, Safe System Approach focused on engineering, education, enforcement, and equity.

Connect NCDOT Mapping Resources

The North Carolina Department of Transportation (NCDOT) maintains these mapping resources to help with planning and mapping characteristics like traffic volumes, safety scores, speed limits, planned projects, and other transportation network data.

NCDOT Crash Data

NCDOT maintains a crash database for planning-level analysis. Due to differences in recording methods, not all crashes are captured within the location-based data; however, those recorded act as a strong high-level representation of crashes in the area.

The analysis in this report reflects five (5) years of crash data from January 2020 through December 2024, and excludes crashes along I-85 (to avoid skewing the data along non-freeway facilities). Note that the Gastonia Police Department also provided supplemental 2025 fatal and serious injury (FSI) crash data that had occurred through September 8th, 2025; these crashes are reflected for mapping purposes, but are not reflected in the detailed analyses since they do not reflect a full calendar year.

NC OneMap, Gaston County, and Gaston-Cleveland-Lincoln Metropolitan Planning Organization (GCLMPO) GIS

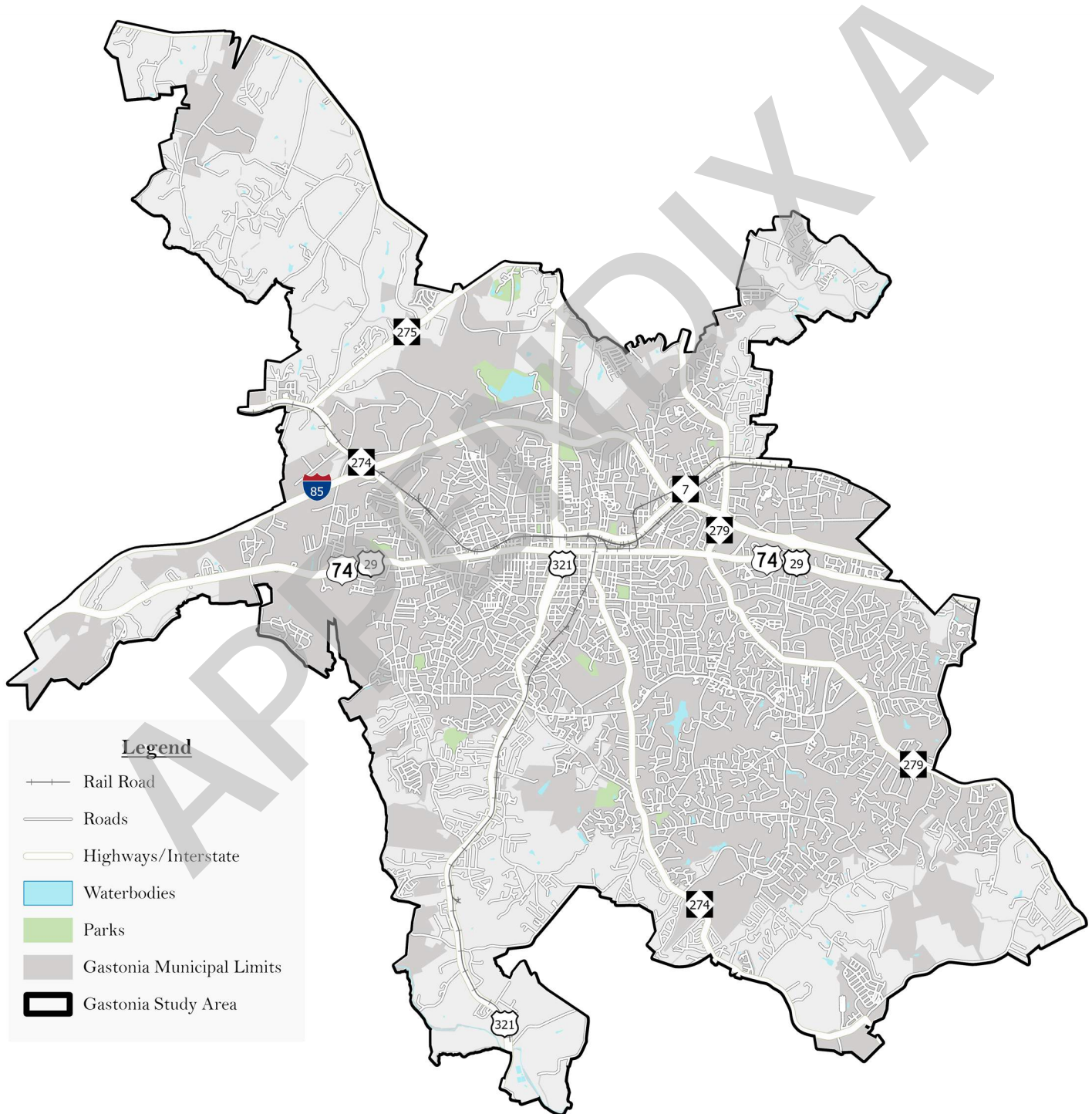
NC OneMap is North Carolina's open data portal with mapping layers for the entire state. Similarly, Gaston County and GCLMPO maintain a similar open data portal with county-specific data.

City of Gastonia

The City of Gastonia maintains the City's data and a public data portal with mapping layers.

STUDY AREA

The study area for the City of Gastonia SAP encompasses everything within Gastonia’s municipal boundaries including areas of annexation and strategic growth. Through coordination with City staff, areas outside the municipal boundary were identified using the Gastonia 2050 Comprehensive Plan excluding areas designated as “Rural Residential”. As part of the planning process, the project team will review and analyze transportation safety data within the study area to help ensure a comprehensive approach to transportation safety planning.

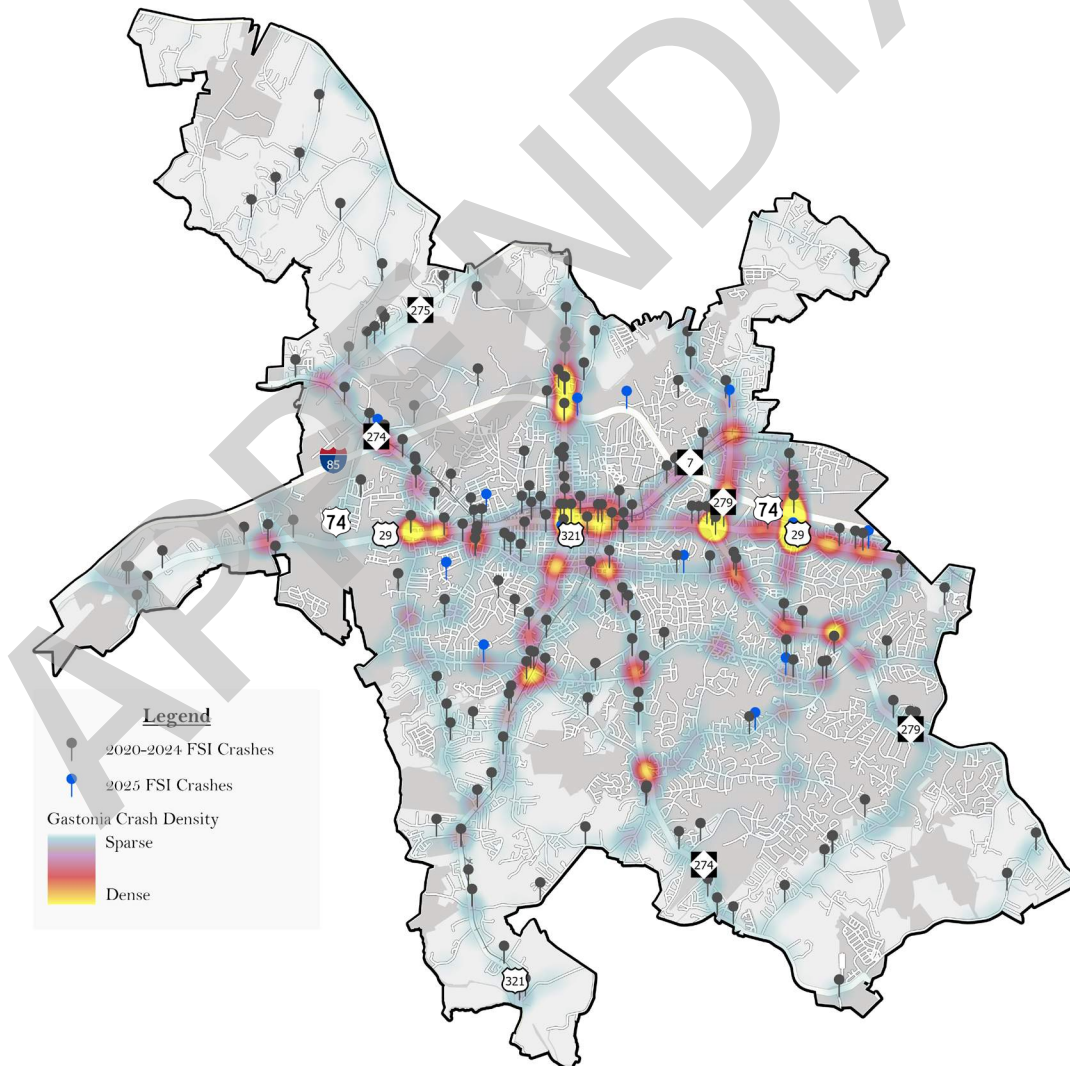




TRANSPORTATION CONDITIONS

CRASH HISTORY

From 2020-2024, Gastonia experienced over 13,300 reported crashes. The majority of reported, mappable crashes are heavily concentrated along major corridors, particularly US 74 and its key intersections. Downtown Gastonia exhibits multiple hotspots, indicating frequent crashes in areas with mixed land use and higher pedestrian activity. Significant clusters also appear near I-85 interchanges and US 321, where high traffic volumes and complex merging patterns contribute to increased risk. Peripheral neighborhoods show more dispersed crashes (both injury/fatal and non-injury crashes), with occasional hotspots near major connectors. The map below highlights crash density for all reported crashes, while also showing pins for FSI crashes. As shown below, severe crashes are most common along high-speed arterials and busy intersections, underscoring the need for both systemic countermeasures and targeted safety improvements. For the purposes of this study, crashes along I-85 were not included.



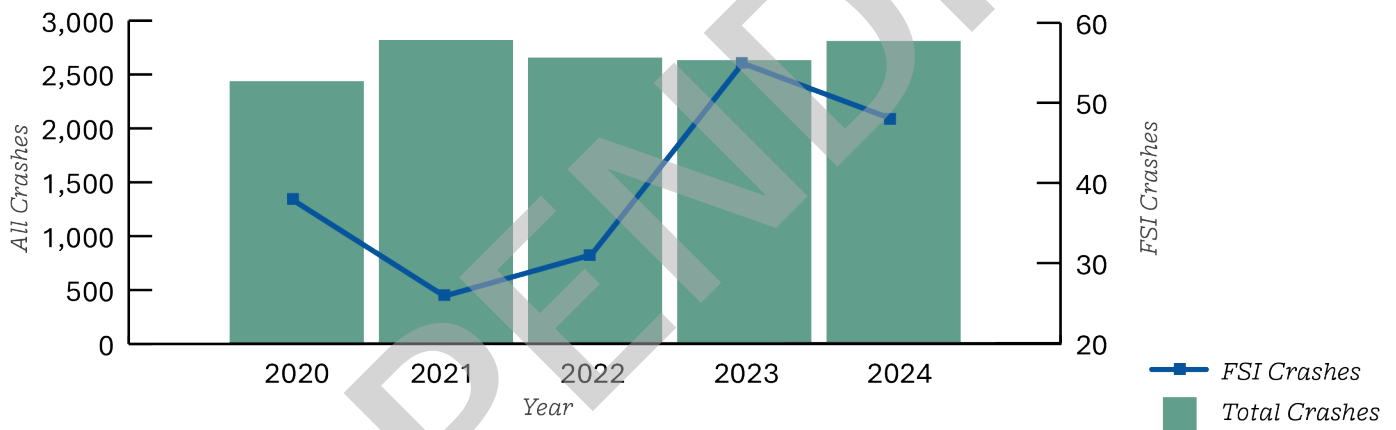
Several hot spots (in yellow) where a higher number of crashes occurred appear to be at or near major intersections throughout Gastonia. Specifically, the intersection of US 74 and Cox Road reflects a high number of total crashes, yet not reflective of a high number of FSI crashes.

For the purposes of creating the City of Gastonia SAP, the crash statistics used for this plan are based on complete annual data from 2020–2024. The City recognizes that the community has been recently impacted by FSI crashes that occurred in 2025. The Gastonia Police Department provided FSI crashes that had occurred in 2025 as of September 8th, 2025, and have been added to the crash map on the previous page (however, note that 2025 data is not included in the statistical analyses since it does not represent a full calendar year).

All Crashes and FSI Crashes

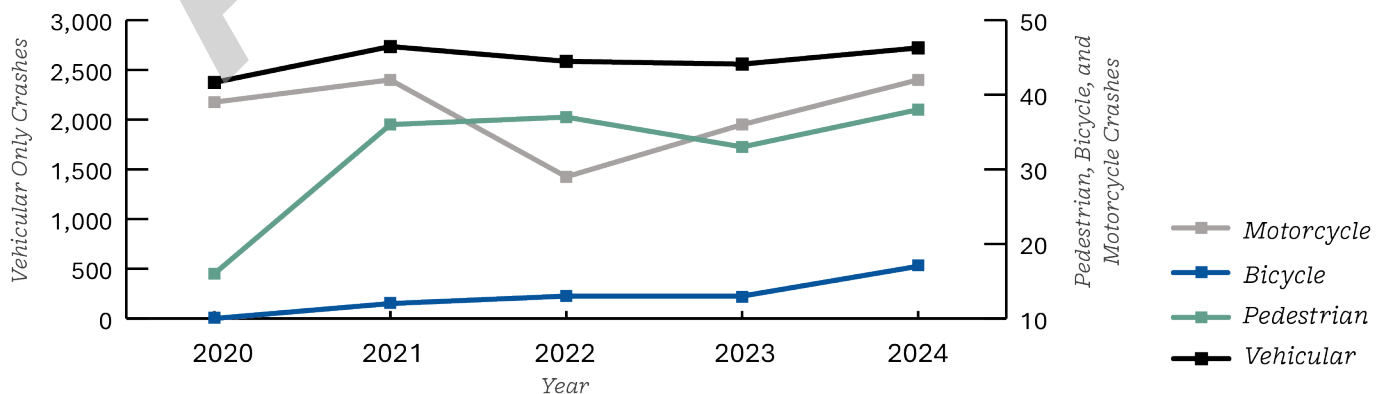
Total crashes dipped in 2020, consistent with pandemic-related travel reductions, and then rebounded, remaining relatively high from 2021–2024.

FSI crashes (fatal and serious injuries) were comparatively low in 2021–2022, followed by a sharp increase in 2023. Although FSI crashes eased slightly in 2024, they remained elevated relative to earlier years.



Total Crashes by Mode

Vehicular-only crashes remain the highest category throughout 2020–2024, with a modest rise overall and a peak in 2024. Motorcycle crashes fluctuate—rising in 2021, dipping in 2022, and then climbing again through 2023–2024. Pedestrian crashes spike sharply in 2021, decline in 2022, and recover with steady increases in 2023–2024. Bicycle crashes show a gradual, continuous increase across the period, reaching their highest level in 2024.



CONTRIBUTING FACTORS FOR ALL CRASHES

Across all recorded crashes, distracted driving was the most common contributing factor, leading to over 27% of all total crashes between 2020 and 2024. Two population age groups, older drivers (22%) and teen drivers (13%), were also major contributing factors.

Contributing Factors

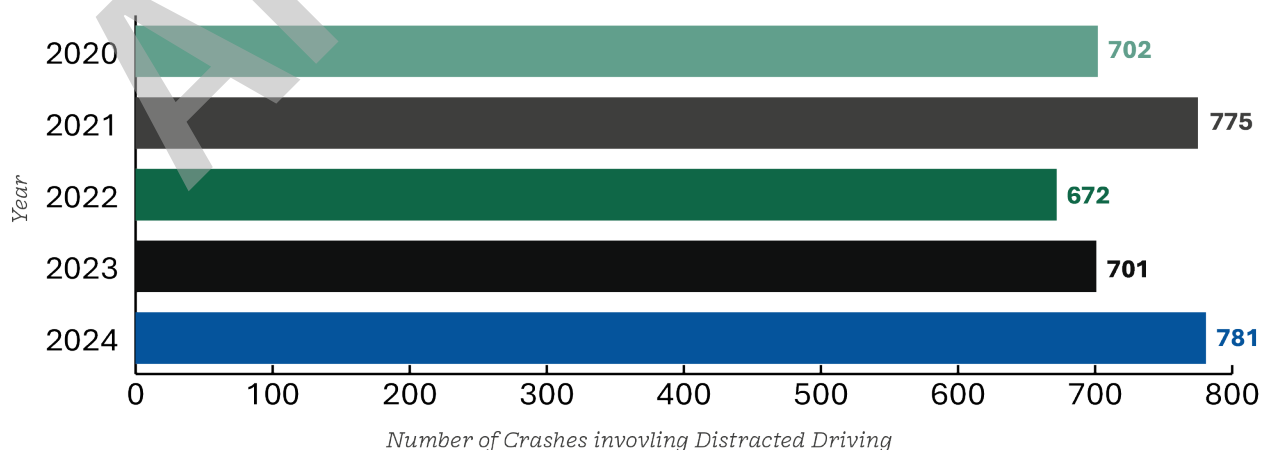
Contributing Factor	Number of Crashes
Distracted Driver	3,631
Older Driver (65+)	2,899
Teen Driver (15-19)	1,790
Alcohol Presence	423
Speed	417
Animal	273
Unbelted Driver	270
Drug Presence	208
Drowsy Driver	96

Graphic above excludes crashes classified with an “Unknown” crash severity

CRASHES INVOLVING DISTRACTED DRIVING

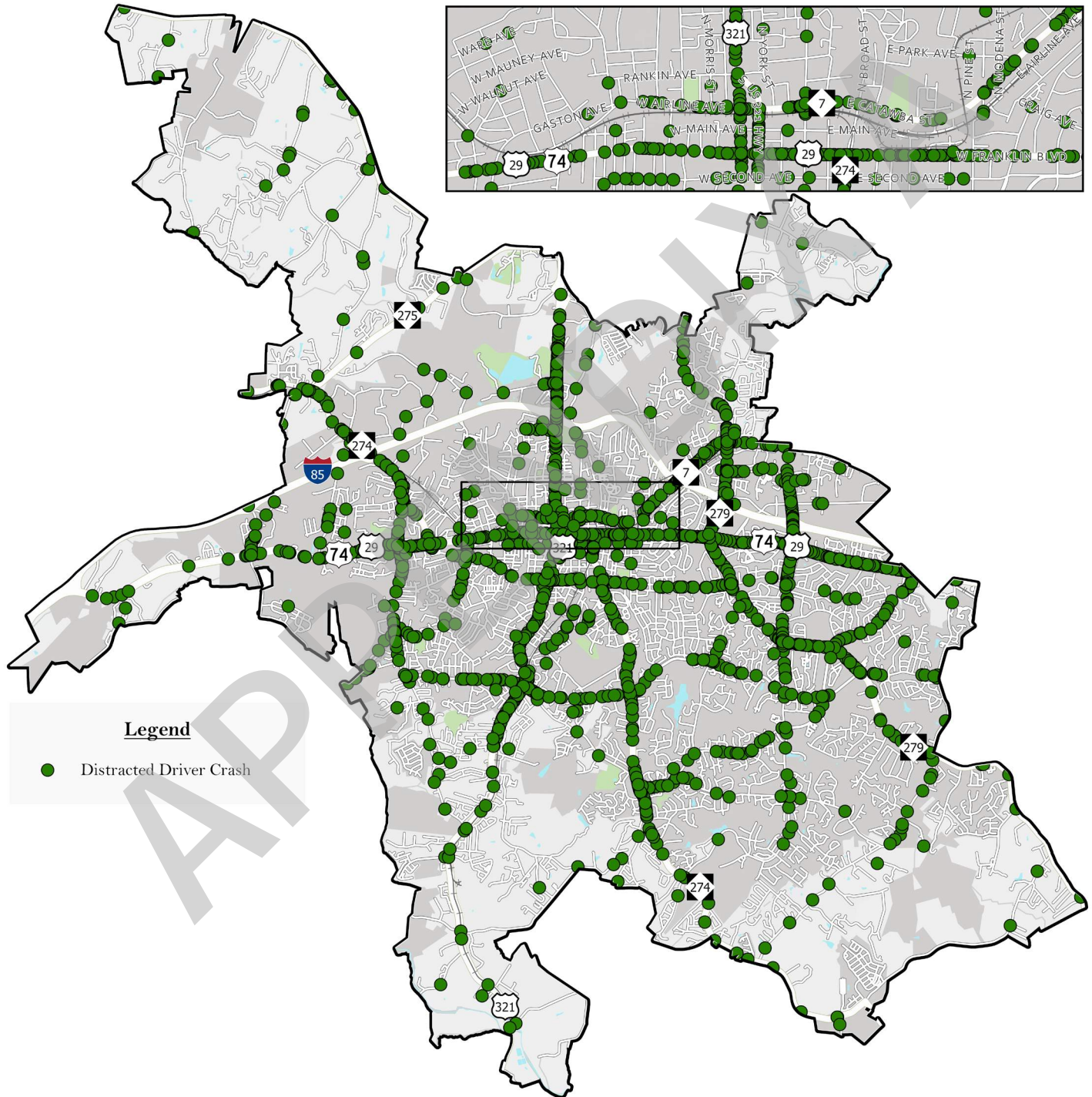
Distracted driving is a significant contributor to roadway crashes and greatly impacts crash severity. When a driver’s attention is diverted from the road whether by mobile devices, passengers, or other distractions, the likelihood of a collision increases. These crashes often occur suddenly, leaving little time for corrective action, which can lead to more severe outcomes. The risk is especially pronounced when pedestrians or cyclists are involved, as the lack of driver focus reduces reaction time and amplifies the potential for serious injury or fatality.

Distracted Driving Crashes by Year



Distracted Driving Crash Map

18% of crashes involving a distracted driver resulted in an outcome of possible injury, evident injury, disabling injury, or fatality.



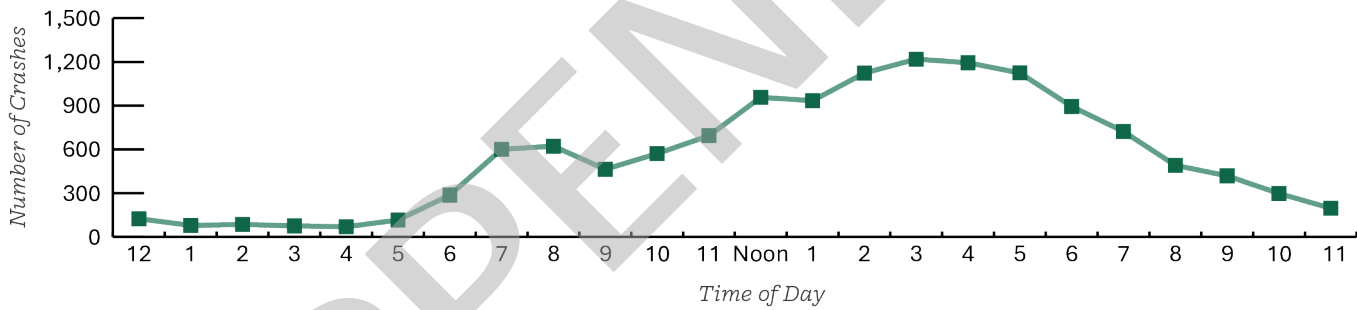
ENVIRONMENTAL FACTORS FOR ALL CRASHES

Beyond driver behavior, environmental factors outside the vehicle also play a significant role in crash occurrence and severity. Time of day influences visibility and driver alertness, with nighttime and early morning hours often associated with higher risks due to reduced lighting and fatigue. Lighting conditions, such as poorly illuminated intersections or stretches of roadway without adequate streetlights, can make it harder for drivers to detect hazards in time. Weather conditions—like rain, fog, or icy surfaces—further compound these challenges by reducing traction, impairing visibility, and increasing stopping distances. Understanding how these external factors interact with roadway design and traffic patterns is essential for developing targeted safety strategies that address both human and environmental elements.

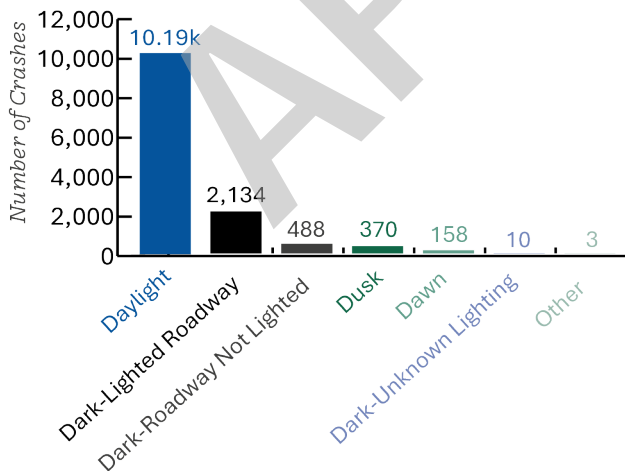
Summary of Patterns

The data suggest clear temporal and environmental concentrations of risk in Gastonia. Crashes peak in the late morning and early afternoon (around noon–3 PM), with notable FSI (fatal/serious injury) counts between 3–7 PM when volume stays high and severity rises (e.g., 5–7 PM show double digit FSIs). While the vast majority of crashes occur in daylight (≈10.19K total; 103 FSI), the dark-lighted roadway category stands out for severity with 2,134 crashes and 66 FSIs—indicating nighttime risks remain disproportionately severe even when street lighting is present. Weather-wise, clear conditions dominate overall volume (~10.3K crashes) but also account for the highest number of FSIs (167), underscoring that most serious outcomes happen under “normal” conditions rather than storms.

Time of Day

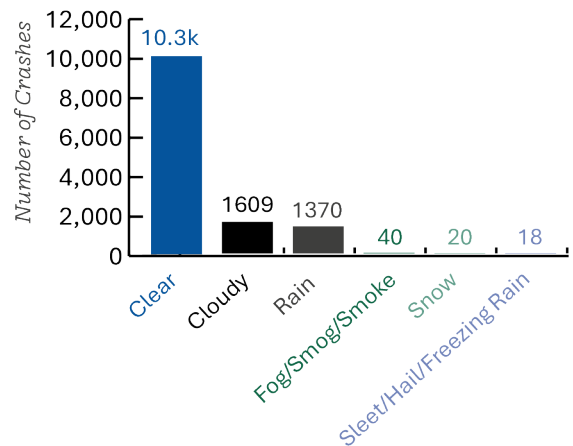


Lighting Conditions



Lighting Conditions

Weather Conditions



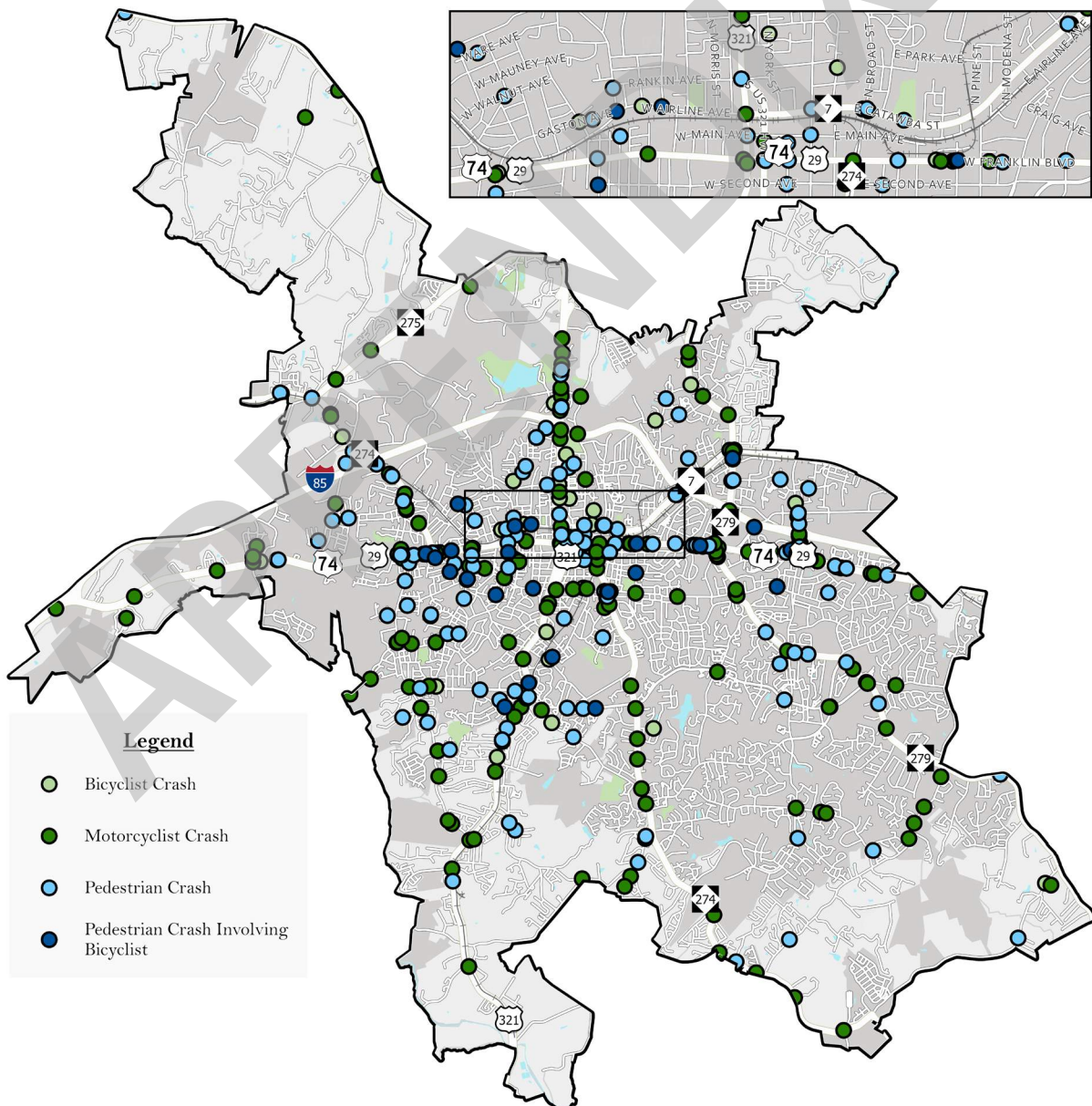
Weather Conditions

PEDESTRIAN, BICYCLE, AND MOTORCYCLE CRASHES

Building on the previous discussion of overall crash patterns, this section turns the spotlight to vulnerable road users including pedestrians, cyclists, and motorcyclists whose exposure and risk demand special attention. The map below illustrates all crashes involving at least one of these users, revealing concentrations that align with high activity corridors such as Downtown and central areas of Gastonia. Unlike vehicle only incidents, crashes involving vulnerable road users carry a disproportionate likelihood of serious injury or fatality, making their safety a critical measure of system performance. By focusing on these groups within the broader safety picture, we underscore the need for targeted strategies that protect those most at risk and advance a transportation network that prioritizes human life above all else.

Pedestrian, Bicycle, Motorcycle Crash Map

Gastonia's most critical safety challenges for vulnerable road users are clustered in the downtown and adjacent arterial areas



TOTAL CRASH RATES (ROADWAY SEGMENTS)

A practical way to identify roadways with greater safety concerns is by analyzing locations where crash rates are disproportionately high compared to the traffic volumes they carry. Screening for all crashes per 1,000 daily vehicles (2020-2024), the following segments had some of the highest crash rates:

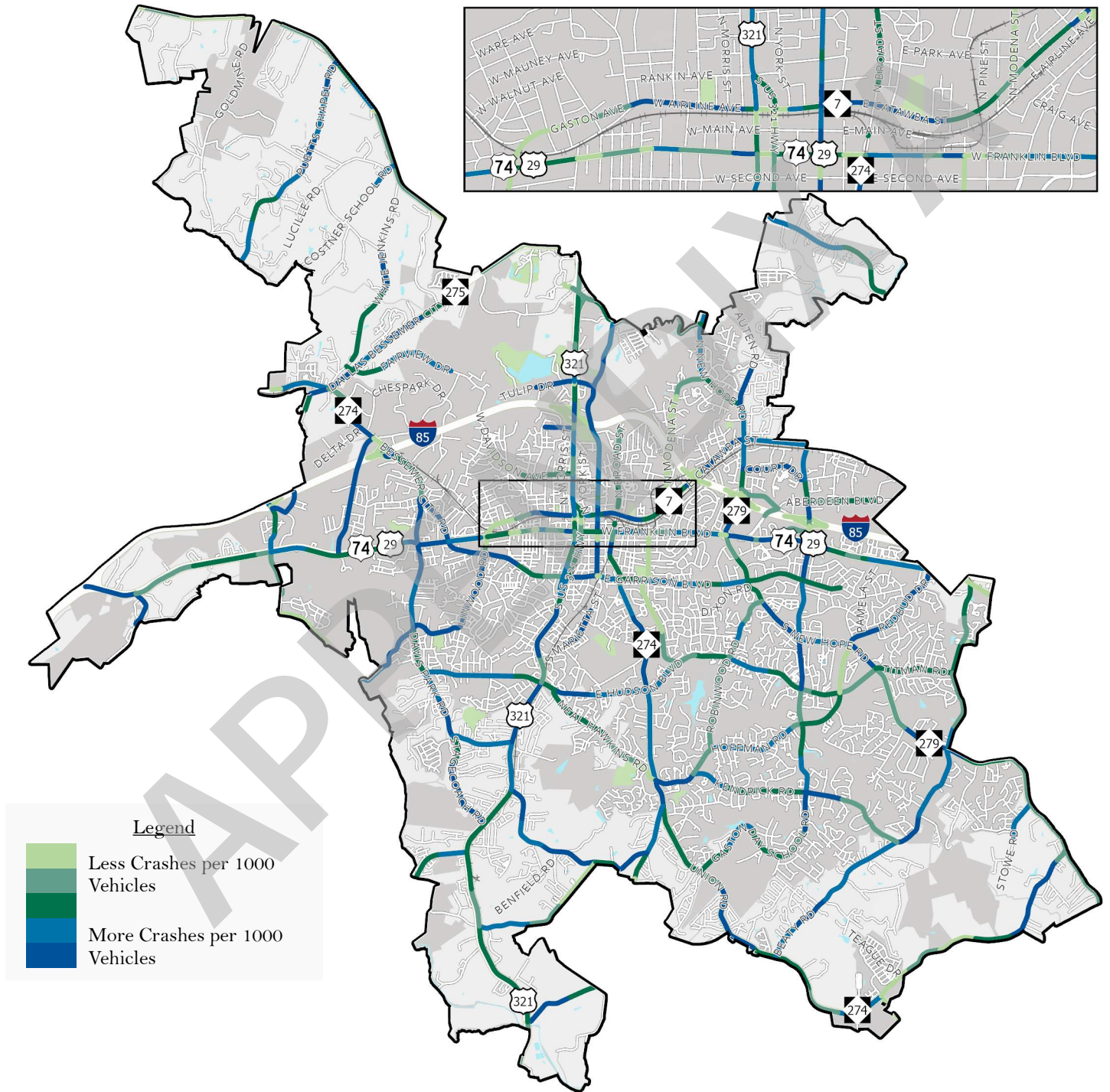
- S Marietta Street
- Court Drive
- Radio Street
- N Chester Street
- Kendrick Road

Some of highest rates of crashes by volume primarily occur along arterials throughout Gastonia, including US 321, Armstrong Park Road, Ozark Avenue, and Bessemer City Road.



Segment Crash Rate Map

Although the highest traffic volumes are seen along US 321, roads near Downtown observed higher crash rates per volume.



TOTAL CRASH RATES (INTERSECTIONS)

In addition to roadway segments, intersections can also be assessed to see where there are disproportionately high crashes as compared to traffic volumes passing through the intersection. Screening for all crashes per 1,000 daily vehicles (2020-2024), the following intersections have the some of highest crash rates within the Gastonia study area:

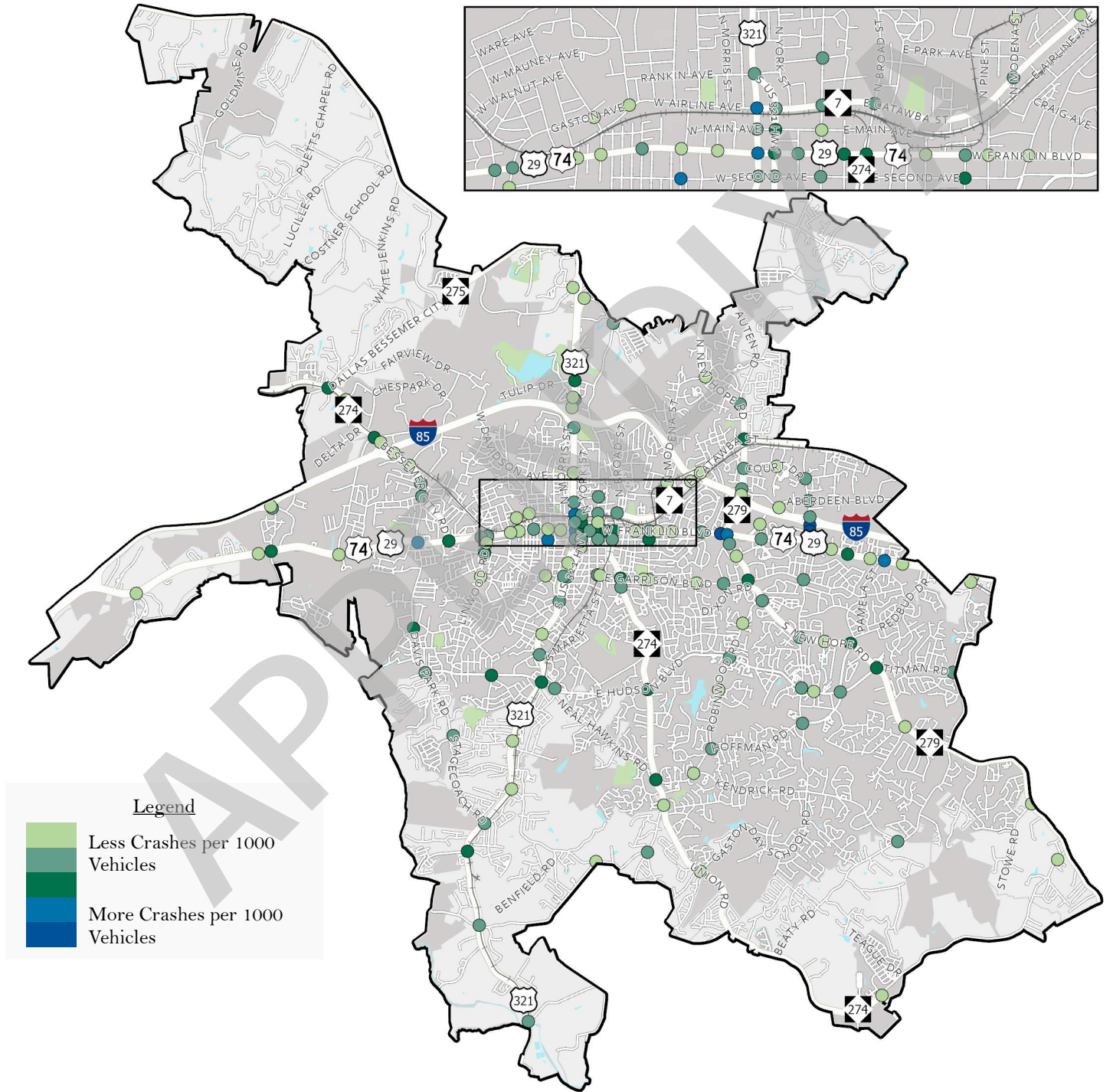
- Cox Road at I-85 Northbound Ramps
- N New Hope Road (NC 279) at I-85 Northbound Ramps
- Cox Road at Gaston Mall Drive
- E Franklin Boulevard (US 74-29) at Beverly Drive
- E Franklin Boulevard (US 74-29) at Cox Road/Armstrong Park Road

Intersections located near Downtown and along Franklin Boulevard (US 74-29) had some of the highest intersection crash rates.



Intersection Crash Rate Map

Intersections located along arterials such as New Hope Road (NC 279), Franklin Boulevard (US 74/US 29), and US 321 saw the highest intersection crash rates.

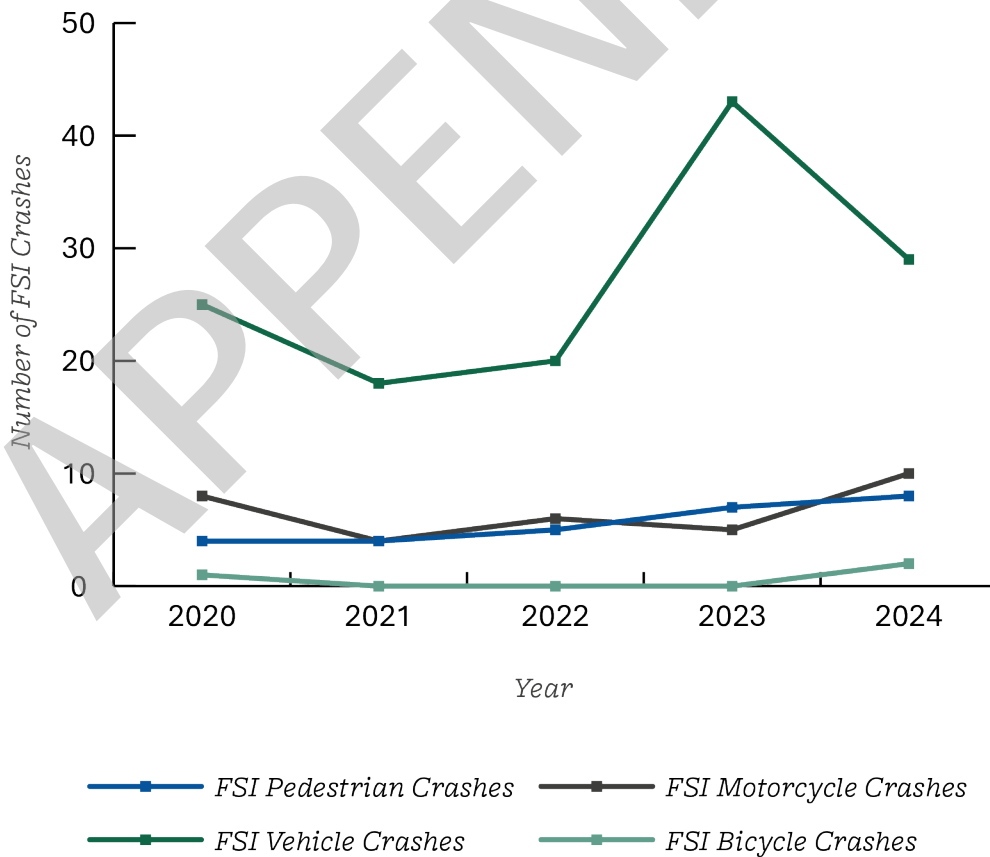


FSI CRASHES BY YEAR, BY MODE

As the preceding section established the full landscape of crash activity across our network, this State of Safety Report now pivots to the subset of **FSI crashes**—the incidents with the greatest human and community cost. While total crashes reveal where conflicts and exposure are highest, FSI crashes illuminate patterns of severity and systemic weaknesses that demand urgent action. Accordingly, the analyses, priorities, and countermeasures that follow are **anchored to FSI trends and risk factors**; they will guide emphasis areas, inform corridor selection, and shape programmatic investments. By elevating FSI crashes as the backbone of the SAP, we sharpen our focus on saving lives and preventing life altering injuries, ensuring every recommendation is measurable against the outcomes that matter most. Gastonia experienced a notably high volume of crashes overall, underscoring the complexity of its roadway safety challenges. Within that total, a significant share involved severe outcomes: **135 FSI vehicle crashes, 28 FSI pedestrian crashes, and 37 FSI bicycle or motorcycle crashes**. While these figures represent a smaller percentage compared to all crashes, each one reflects a life-altering event with profound consequences for individuals and the community. These numbers highlight why addressing FSI incidents remains a top priority in shaping effective safety strategies for Gastonia.

FSI by Year, by Mode

Total FSI crashes in Gastonia increased by 26.32% over the 2020-2024 period, compared to the 5.86% increase reported for the state of North Carolina.



CONTRIBUTING FACTORS FOR FSI CRASHES

Across recorded FSI crashes, presence of an unbelted driver was the most common contributing factor, leading to just over 23% of FSI crashes between 2020 and 2024. Alcohol presence (19%) and distracted driving (15%) were also major contributing factors. These leading factors—unbelted driving, alcohol use, and distracted behavior—are all conscious decisions made by drivers. They reflect choices that directly impact safety. Because these behaviors account for the highest share of severe crashes, it’s critical for every driver to recognize that safety starts with personal responsibility. Buckling up, staying sober, and keeping full attention on the road are simple actions that can prevent tragedies and save lives every single time someone gets behind the wheel.

Contributing Factors for FSI Crashes

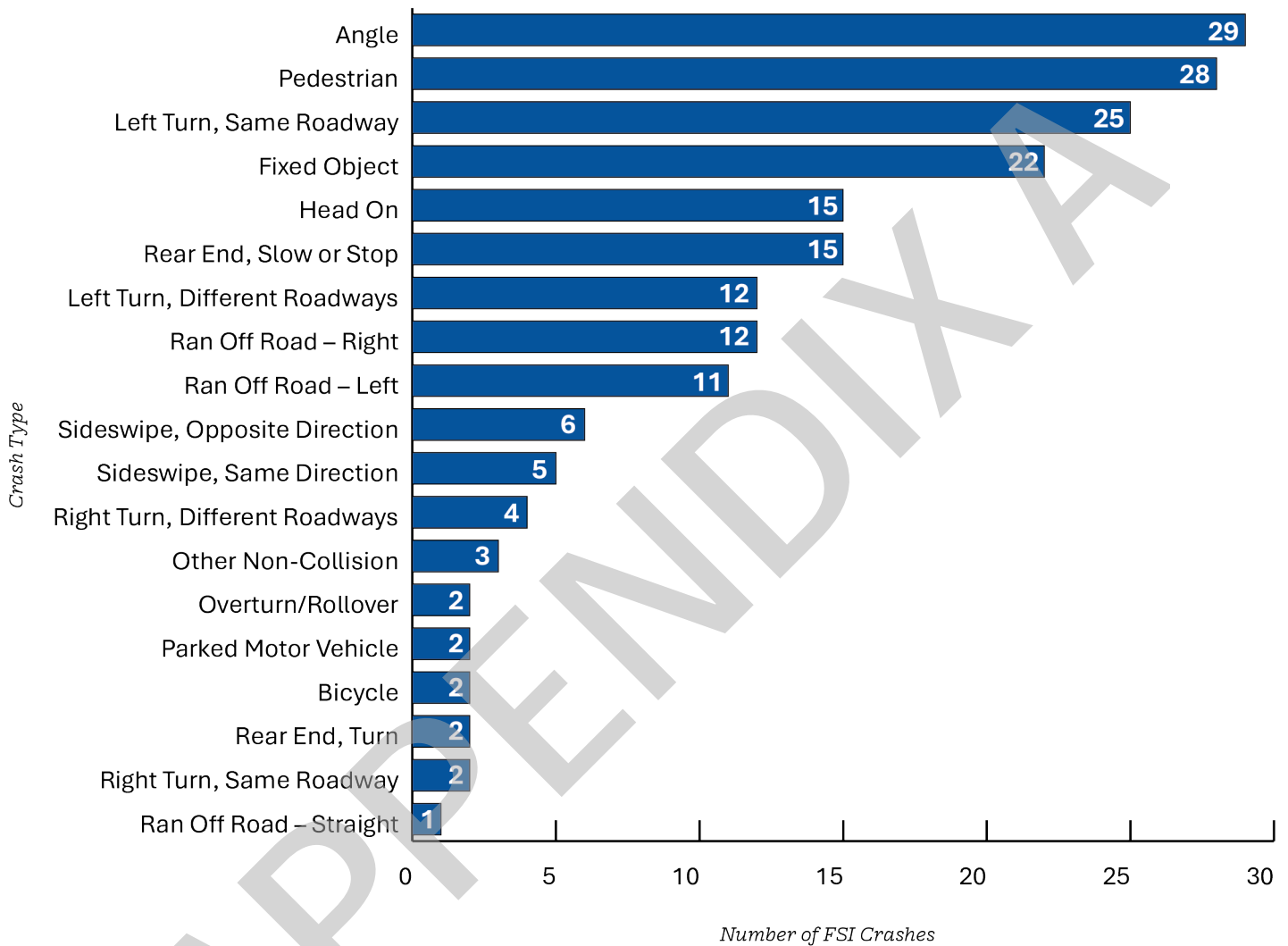
Crashes involving an unbelted driver or alcohol contributed to 5% of all crashes but account for 42% of all FSI crashes

Contributing Factor	Number of Crashes
Unbelted Driver	46
Alcohol Presence	37
Distracted Driver	31
Older Driver (65+)	28
Speed	26
Teen Driver (15–19)	25
Drug Presence	21
Drowsy Driver	3
Animal	0



Number of FSI Crashes By Type

Among the 198 recorded fatal and serious injury crashes between 2020 and 2024, most were a result of angle crashes (14.6%), followed by pedestrian (14.1%), and left turn, same roadway (12.6%).

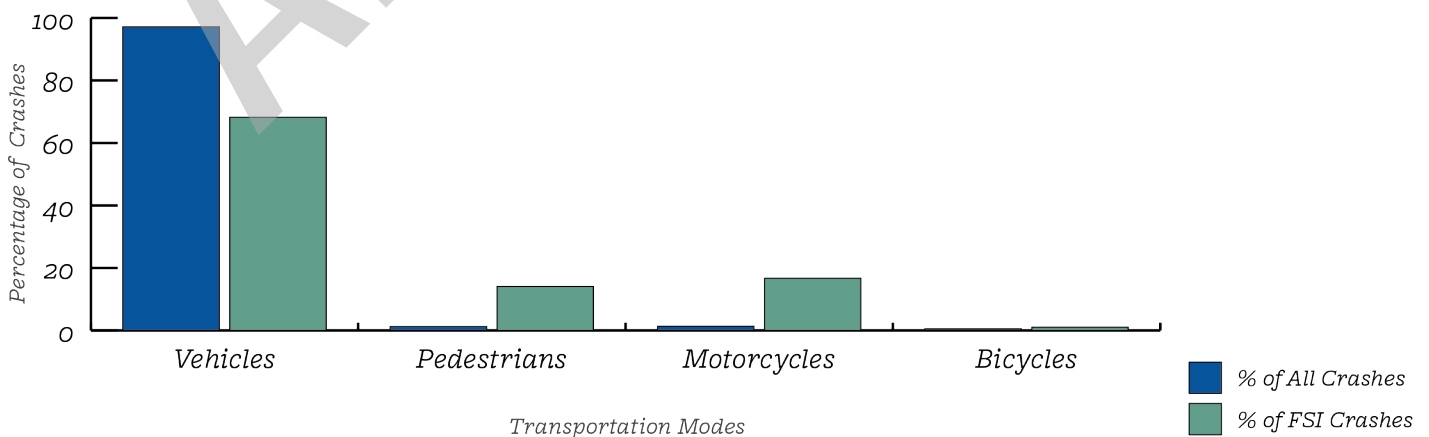
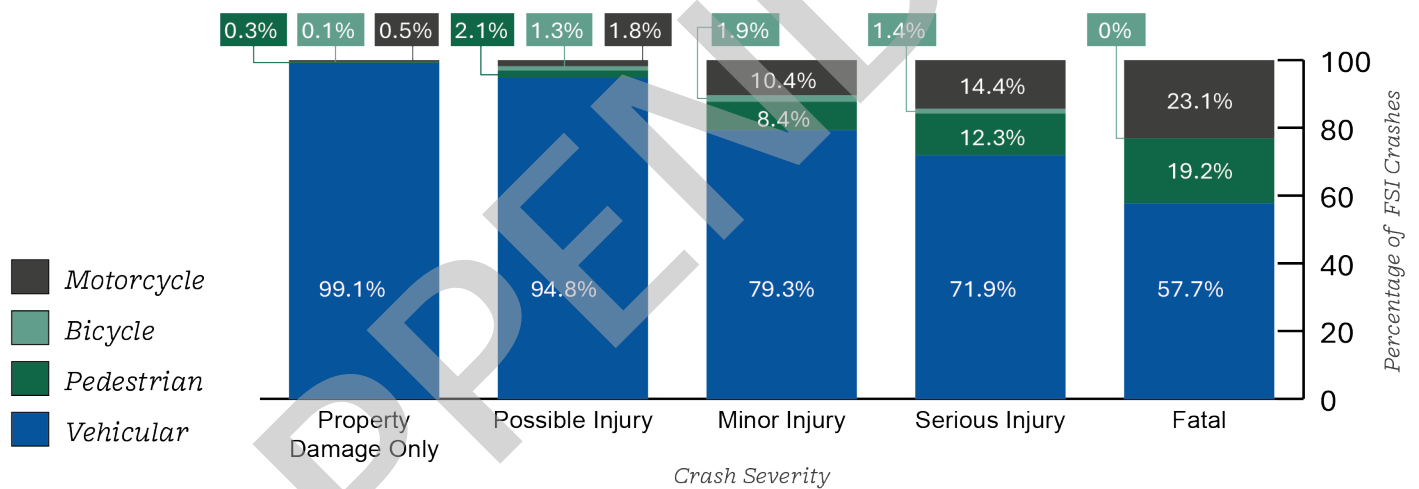


LIKELIHOOD OF FSI IN CRASHES INVOLVING EACH MODE

Vulnerable road users in Gastonia are at a significantly higher risk of sustaining injuries or fatalities compared to occupants in vehicle-only crashes. The data shows that crashes involving only vehicles result in property damage only, with around 99% falling into this category, while pedestrians, bicyclists, and motorcyclists combined account for less than 1%. When injuries are possible, vehicles still dominate at around 95%, but the share of vulnerable road users begins to rise, with pedestrians at ~2%, bicycles at ~1%, and motorcycles at ~2%. For minor injuries, the disparity narrows further: vehicles account for about 79%, while pedestrians represent ~8%, bicycles ~2%, and motorcycles ~10%. Serious injuries show an even greater shift, with vehicles at around 73%, pedestrians at ~12%, bicycles at ~1%, and motorcycles at ~14%. Fatal crashes highlight the greatest risk for vulnerable road users—pedestrians make up around 19% and motorcycles ~23%, compared to ~58% percent for vehicles, while bicycles account for none. These figures underscore that injury or fatality is common in crashes involving vulnerable road users, with pedestrians and motorcyclists facing particularly severe outcomes.

FSI Crashes by Mode

Vulnerable road users, particularly pedestrians, are at higher risk of injury or death while using the City’s transportation system, and future investments should prioritize improving safety for these users.



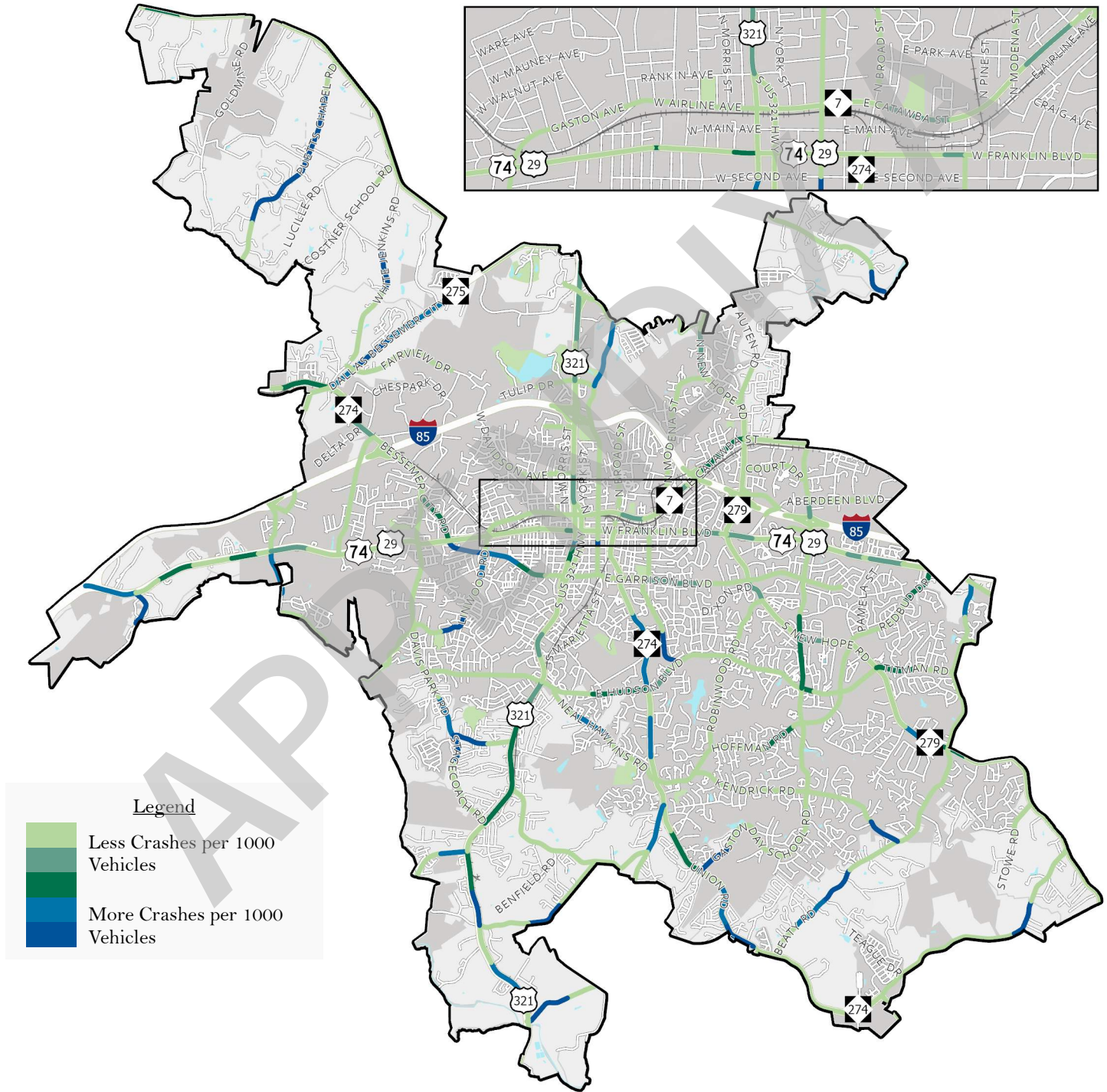
FSI CRASH RATES (ROADWAY SEGMENTS)

From 2020 to 2024, Dallas Spencer Mountain Road recorded the highest rate of FSI crashes per 1,000 daily vehicles, largely due to its low AADT of around 3,000 combined with severe incidents, including one fatal crash and one serious injury crash. US 321, though carrying a higher AADT of about 9,200, still exhibited a high crash rate because it had one serious injury crash, underscoring the severity of incidents even on busier roads. Fern Forest Drive, with an AADT of roughly 1,600, had fewer crashes overall but still recorded one serious injury crash, which significantly impacts its rate given the low traffic volume. Puetts Chapel Road also showed a high crash rate because of its low AADT of about 1,800, yet it experienced one serious injury crash and one motorcycle crash.



FSI Segment Crash Rate Map

Despite the lower volume of vehicles, Dallas Spencer Mountain Road saw the highest rate of fatal and serious injury crashes per 1,000 vehicles.



FSI CRASH RATES (INTERSECTIONS)

Among intersections analyzed for FSI (Fatal and Serious Injury) crashes per 1,000 daily vehicles from 2020 to 2024, the following had some of the highest crash rates:

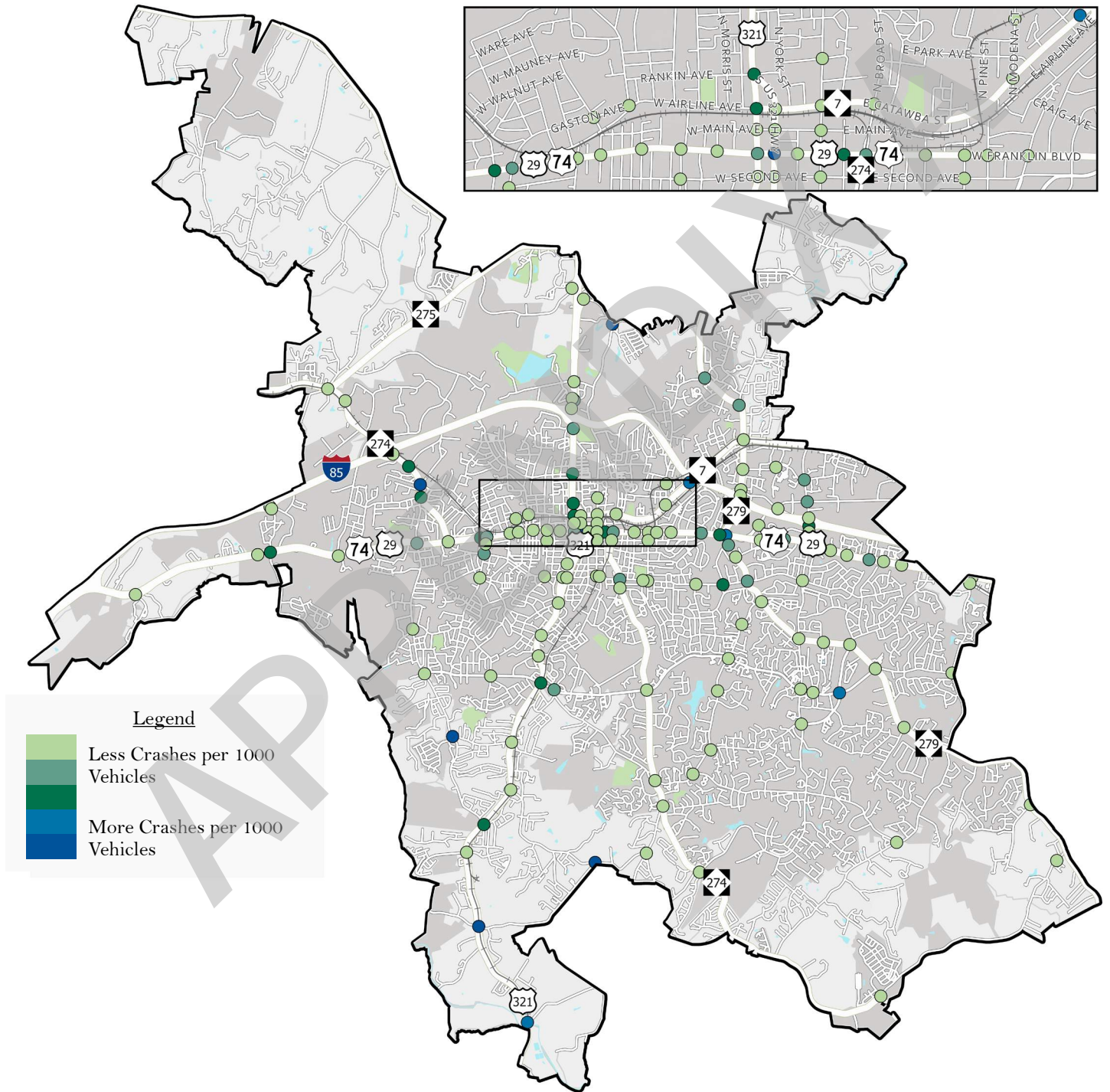
- Forbes Road at Little Mountain Road
- Stagecoach Road at Davis Park Road
- S York Street at W Franklin Boulevard
- Bessemer City Road at Milton Avenue/Brown Street
- US 321 at Superior Stainless Road/Forbes Road

Intersections with disproportionately high FSI crash rates often signal critical safety concerns, whether due to complex traffic movements, visibility issues, or design challenges. Identifying these high-risk intersections is essential for targeting improvements that can significantly reduce severe crashes and enhance overall roadway safety.



FSI Intersection Crash Rate Map

Intersections located along arterials such as Franklin Boulevard (US 74/US 29), Bessemer City Road (NC 274), and US 321 saw the highest rate of fatal and serious injury crashes per 1,000 vehicles.



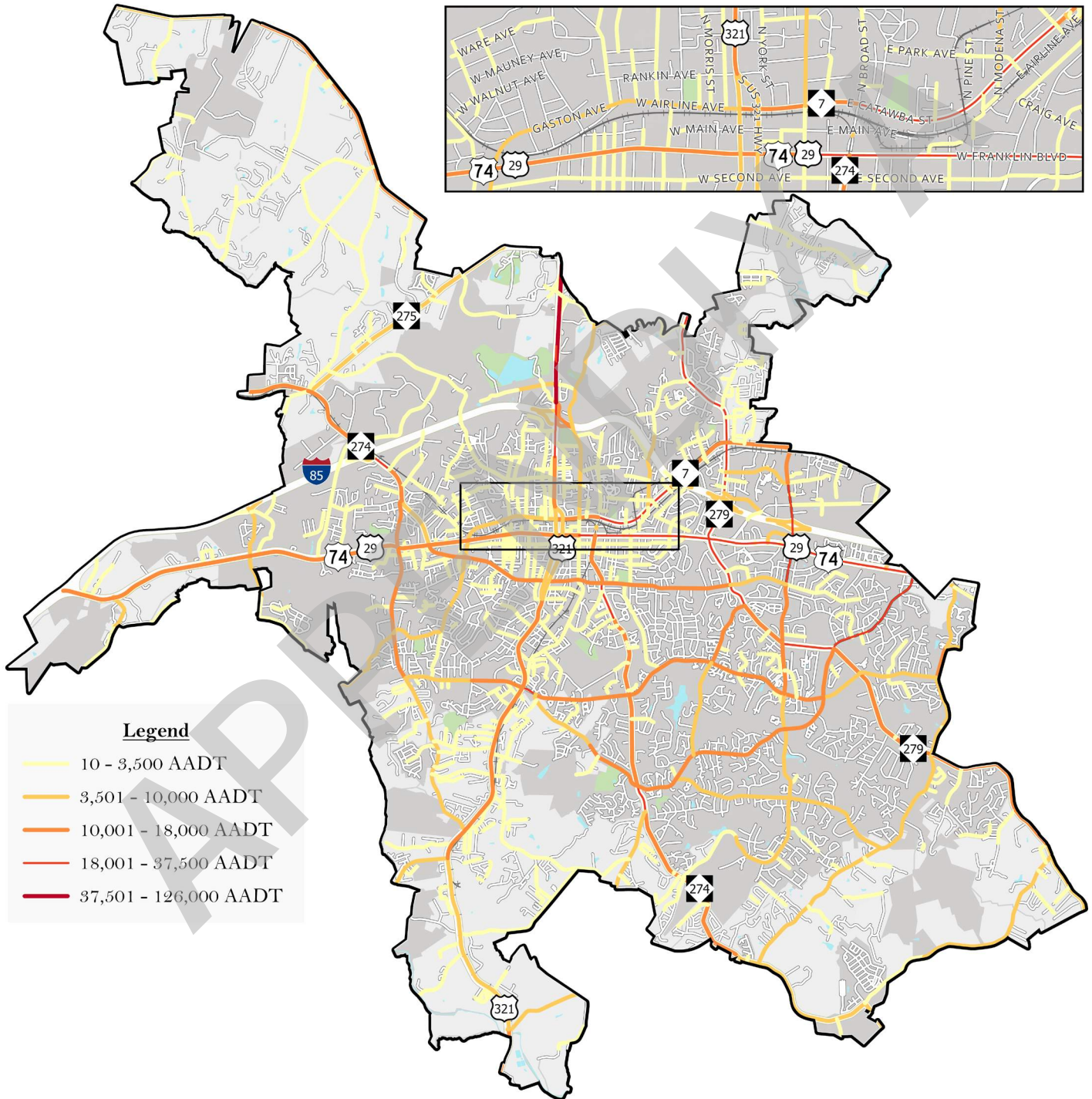
TRAFFIC VOLUMES

Traffic volumes in Gastonia are highest along major corridors such as US 74 and US 321, which serve as primary regional connectors. These routes experience significant daily traffic, reflecting their role in accommodating both local and through movements. Secondary streets and neighborhood roads show moderate volumes, with noticeable reductions away from commercial and industrial centers. Overall, traffic patterns indicate concentrated demand along east-west and north-south arterials, underscoring the importance of managing congestion and improving safety on these high-volume corridors.



AADT Map

Gastonia's highest annual average daily traffic (AADT) volumes are along US 321 with more than 41,000 vehicles per day (vpd) in 2024.

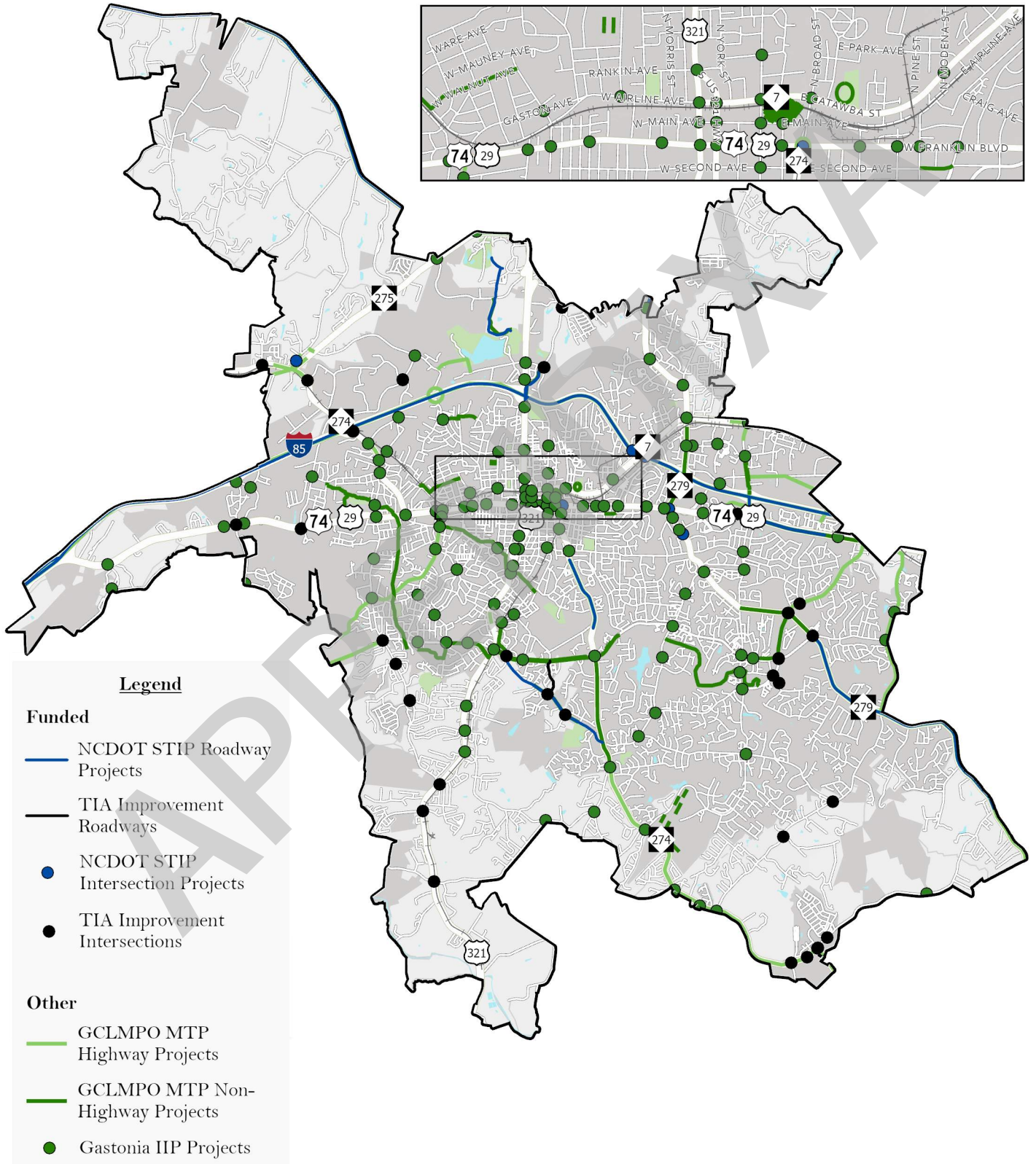


PROGRAMMED TRANSPORTATION IMPROVEMENTS

NCDOT, through the Statewide Transportation Improvement Program (STIP), has programmed key upgrades to improve safety and efficiency such as an intersection improvement project in downtown at Franklin Boulevard and Broad Street. Beyond the State's STIP-funded projects, the City of Gastonia has identified, through its Gastonia Intersection Improvement Program (IIP), additional targeted upgrades at critical intersections to address congestion and crash patterns. These improvements are designed to enhance traffic flow and reduce severe crashes along high-volume corridors. Developer-driven projects identified through Traffic Impact Analyses (TIAs) will also play a role in mitigating transportation impacts from new developments, ensuring that growth aligns with safety and capacity needs. TIAs typically recommend measures such as turn lanes, signal modifications, and access management strategies to maintain roadway performance as development intensifies. The Gaston-Cleveland-Lincoln MPO's Metropolitan Transportation Plan (MTP) further identifies corridors requiring attention, including US 321, US 74, Garrison Boulevard, and Hudson Boulevard. These plans emphasize not only roadway upgrades but also sidewalk and trail improvements to support multimodal connectivity discussed in the following section. While the Comprehensive Transportation Plan (CTP) outlines long-term strategies for integrated mobility, it was excluded from the maps below. Together, these initiatives reflect a layered approach: state projects, local intersection improvements, developer-funded enhancements, and MPO-led multimodal investments all working toward a safer, more connected Gastonia.

APPENDIX

Programmed Transportation Projects Map



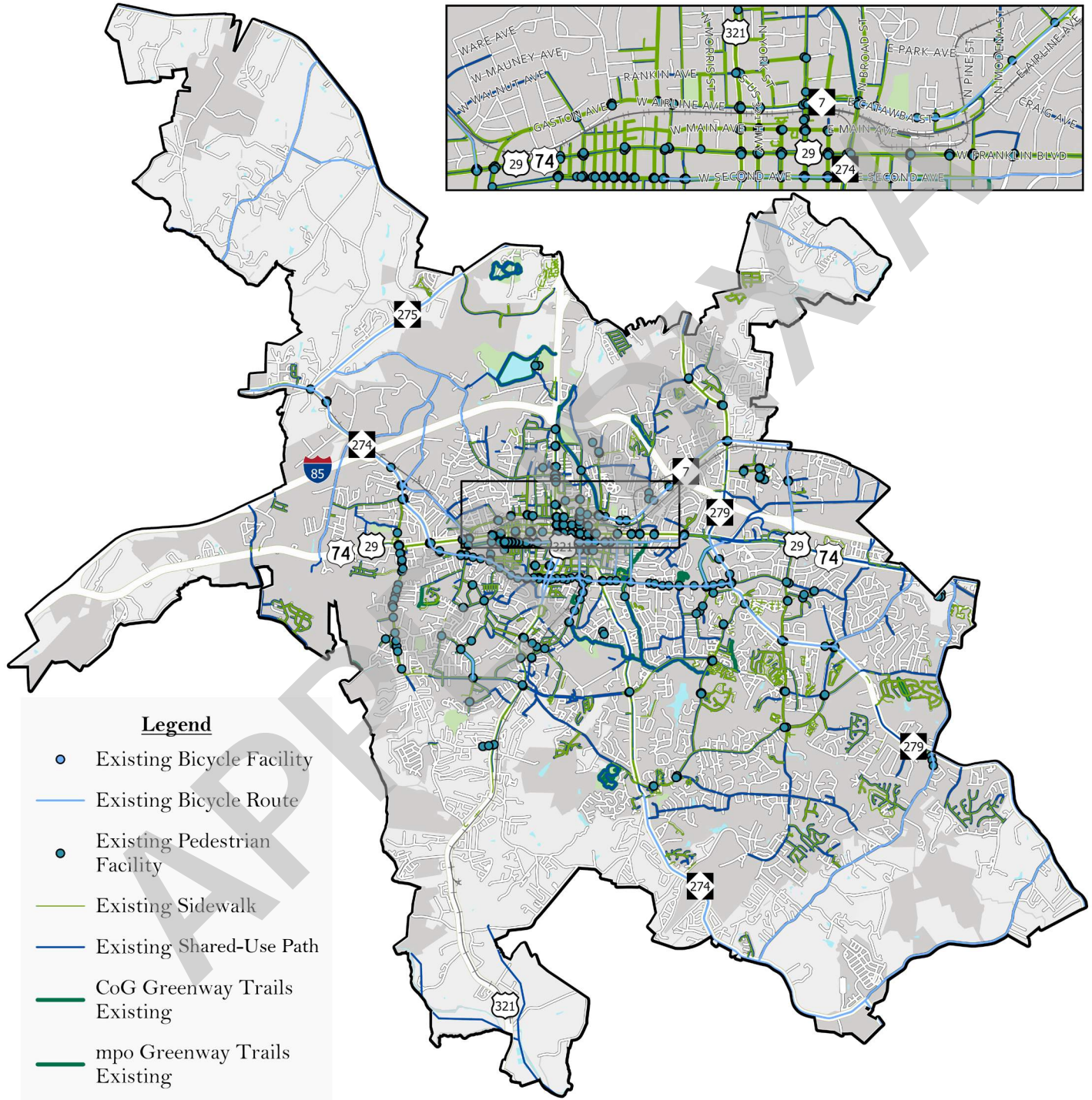
EXISTING AND PLANNED MULTIMODAL FACILITIES

Gastonia currently has a relatively disconnected network of multimodal facilities, with most existing sidewalks concentrated in the downtown core. To address these gaps, the Comprehensive Pedestrian Plan identifies 62 intersection improvements and 124 corridor projects, including sidewalks, multiuse paths, pedestrian bridges, and greenways, aimed at improving walkability and connectivity across the City. Complementing this, the Comprehensive Bicycle Plan seeks to create a safe and connected bike network linking neighborhoods, commercial areas, and parks. These plans emphasize reducing crashes, enhancing access to downtown, and promoting health and equity through active transportation. Additionally, the Gastonia 2050 Comprehensive Plan and the GCLMPO MTP propose several greenways, trails, and parks to expand recreational and transportation options. However, the GCLMPO CTP was excluded from the maps below.

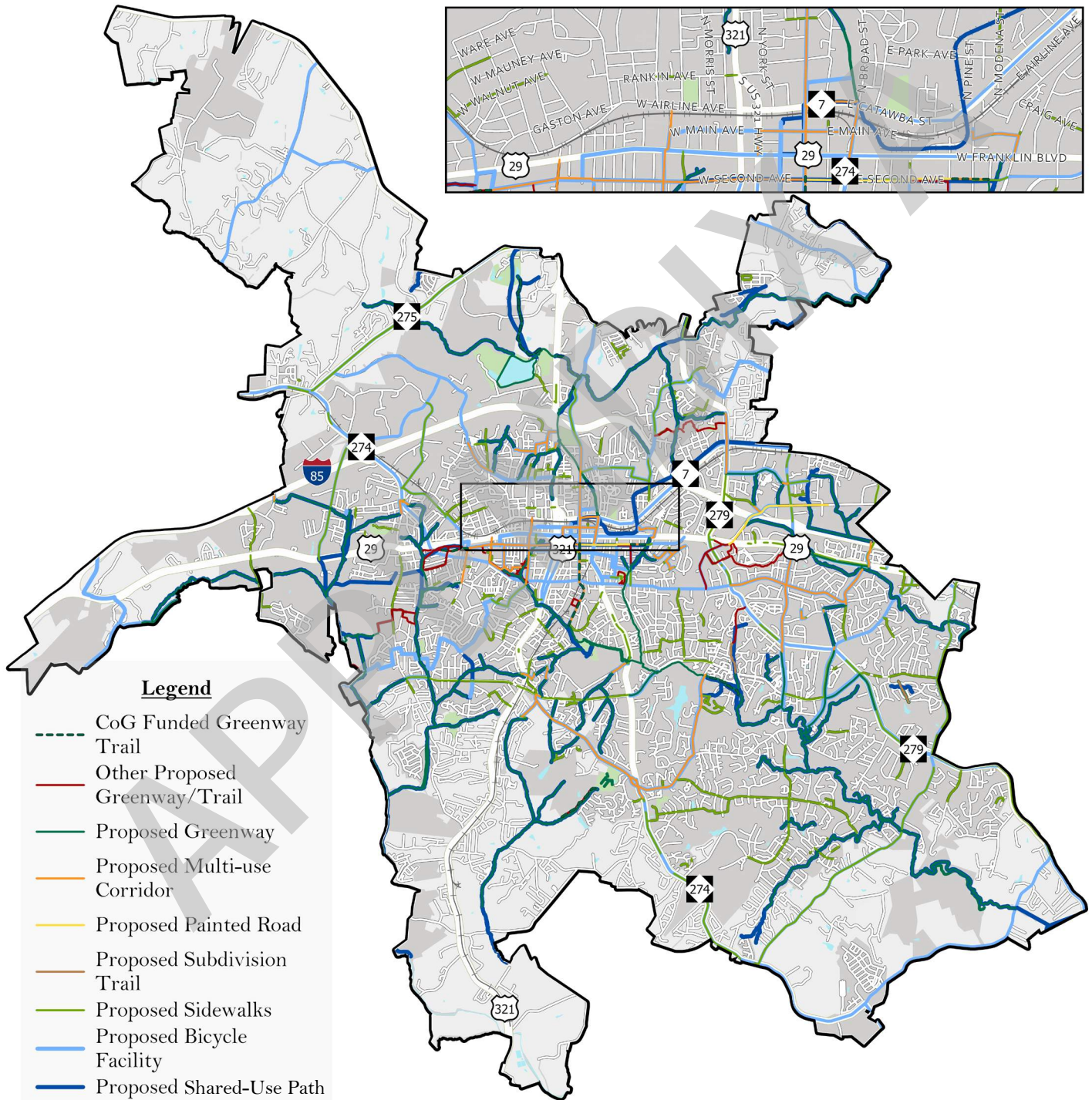
Transit and Community Enhancements

In Summer 2024, Gastonia launched its GoGastonia microtransit service, replacing the traditional fixed-route bus system with a more flexible, on-demand model to improve mobility and access for residents. This service complements ongoing efforts to create a more integrated transportation network. Beyond transit, the City's transportation bond projects will deliver new recreational spaces and connectivity improvements, reinforcing multimodal goals. Together with developer-driven enhancements and local initiatives, these investments reflect a commitment to building a safer, more accessible, vibrant Gastonia for all users.

Existing Multimodal Facilities/Projects Map



Planned Multimodal Facilities/Projects Map



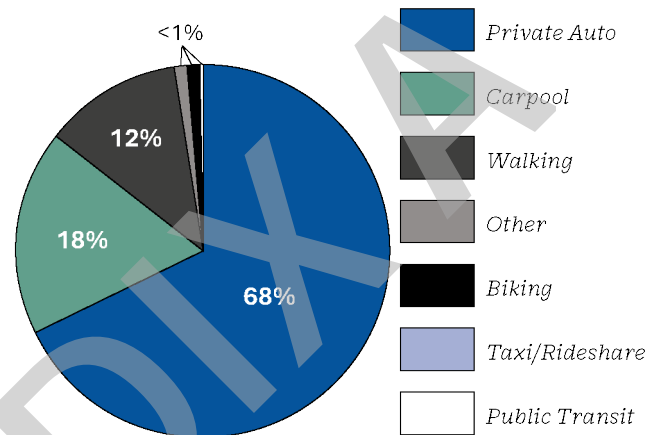
APPENDIX A

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COMMUNITY CONDITIONS

COMMUTE MODES

When commuting to and from work, 68% of all trips by Gastonia residents are generated by driving alone. Carpooling is the second most common mode at 18%, followed by walking at 12%, which reflects a significant share of multimodal commuting. It is important to note that this data is from 2023, predating the creation of Gastonia’s microtransit system, GoGastonia. GoGastonia replaced the traditional fixed-route bus system with a more flexible, on-demand model to improve mobility and access for residents. With the implementation of GoGastonia, reported transit usage is subjected to change when updated information becomes available. Overall, the data highlights a strong dependence on private auto, with relatively low adoption of public transit and active transportation options.

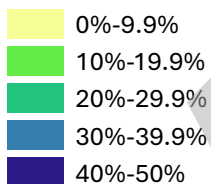


68% of Gastonia’s residents use private auto to commute to and from work.

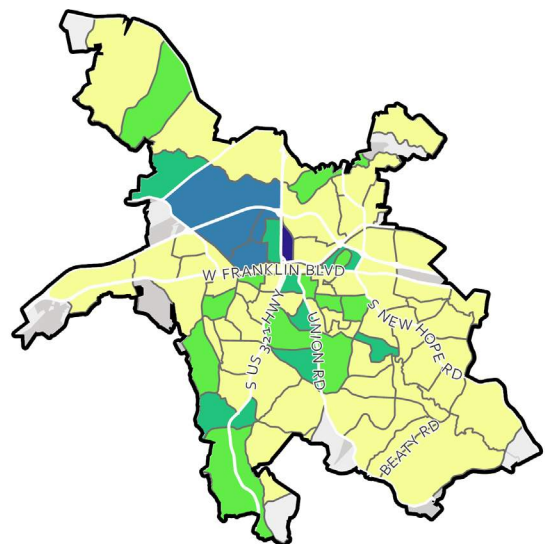
VEHICLE ACCESS

Areas with limited vehicle access are more likely to need safe, reliable transportation alternatives compared to other areas of the community. Note that the northwest corner of the study area is comprised of industrial parks and sparse residential areas.

Percentage of Households with No Vehicle:

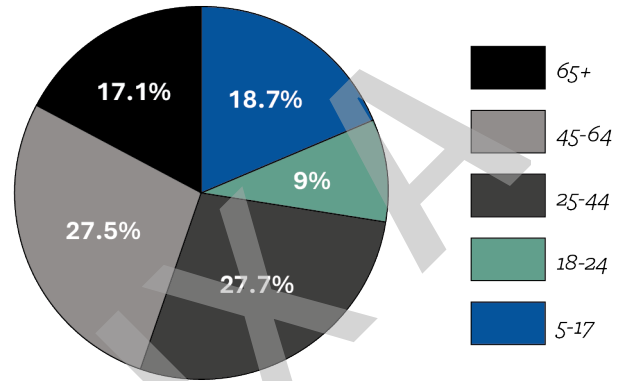


An estimated 8% of households in Gastonia do not have access to a vehicle.



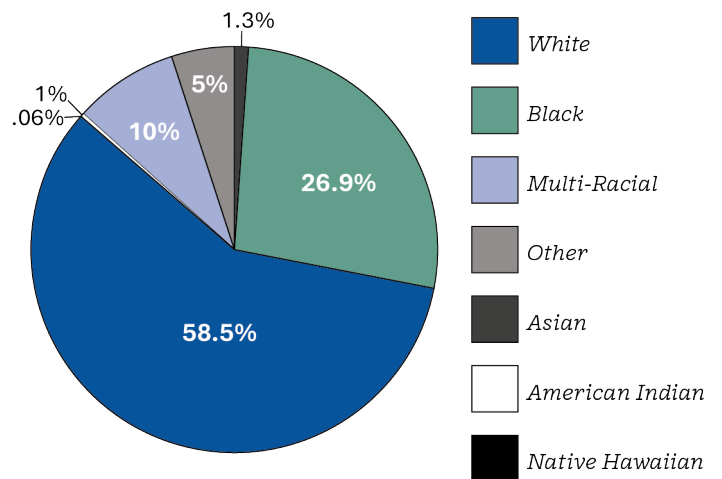
AGE OF POPULATION

More than half of Gastonia’s residents fall within the 25 to 64 age range, and over 80% of the population is old enough to drive. Among those eligible drivers, roughly 11% have held driving privileges for less than a decade. Drivers aged 65 and older are categorized as “older” and make up approximately 17% of Gastonia’s population. This group is listed as a contributing factor in more than 21% of all crashes in the City.



RACIAL DISTRIBUTION

More than half of Gastonia’s population identifies as White, while approximately 42% identify as Non-White. Among Non-White residents, the largest group is Black or African American, followed by individuals identifying as two or more races. Additionally, about 11% of residents reported being Hispanic or Latino. Because the U.S. Census Bureau classifies Hispanic/Latino as an ethnicity rather than a race, this category is not included in the racial breakdown chart.



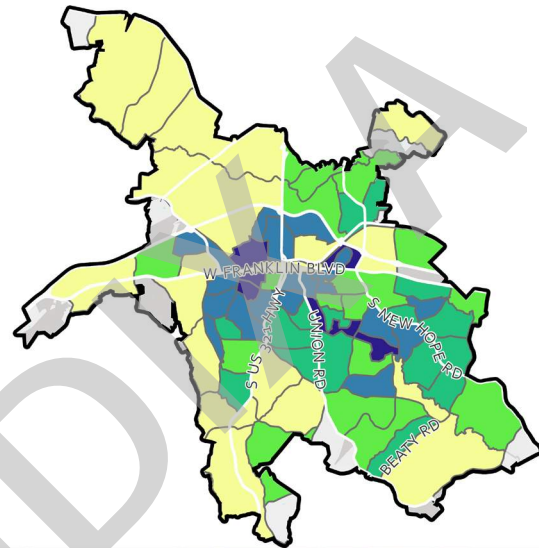
Population Density

Southeast portions of the City currently show the highest population densities along Union Road and S New Hope Road. In addition, there are some pockets around Downtown which contain other high population density areas due to growth from residential subdivisions surrounding the historic City center. Based on input from City staff, proposed residential developments will likely increase population densities near the outer edges of Gastonia. There is an increased demand for multimodal transportation in areas with high population density.

Population Total:

- 366-651
- 652-989
- 990-1346
- 1347-1823
- 1824-2935

Areas with high population density require increased design attention to the safety of non-motorists.



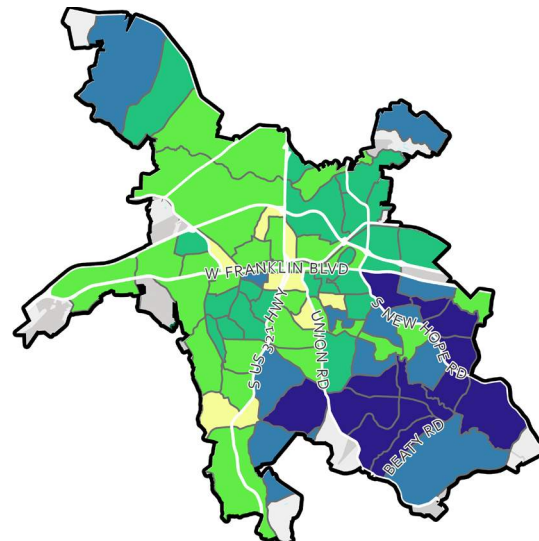
Median Household Income

Lower-income areas are clustered in the northwest part of the City where the median incomes fall below the City's median income of \$50,000. Higher-income households tend to be located in southeast Gastonia where more established neighborhoods are located, which includes Gaston Country Club. The median household income in this area is typically higher than \$100,000.

Income Total:

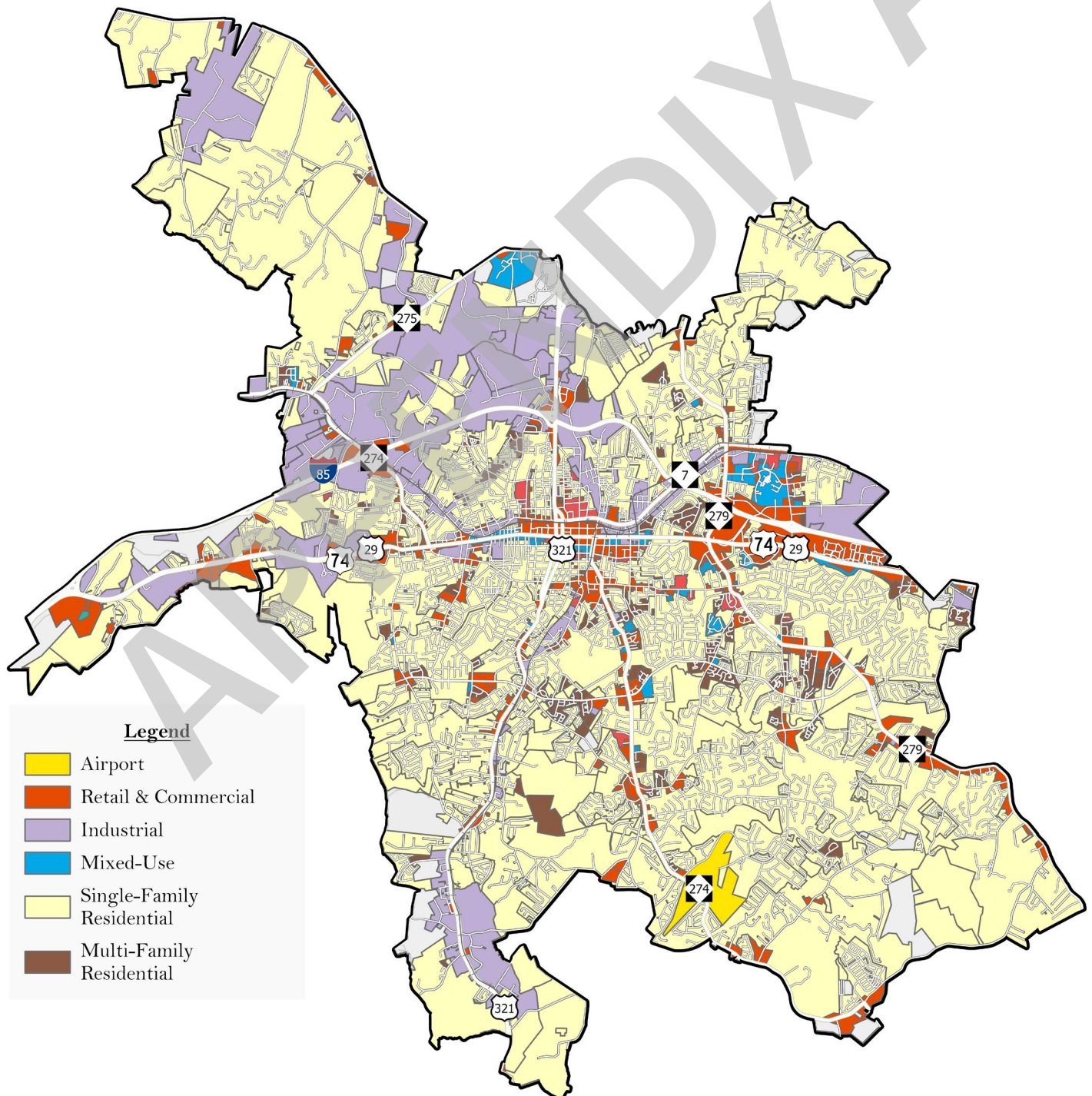
- \$0 - \$18,411
- \$18,412 - \$47,596
- \$47,597 - \$67,813
- \$67,814 - \$98,056
- \$98,057 - \$143,036

The overall Median Household Income in Gastonia is \$50,000



Current Zoning Map

The zoning map, containing a mix of Gaston County and Gastonia zoning data, displays a well-defined mix of land uses that support residential, commercial, industrial, and institutional development. The Central Business District (CBD) serves as the City's core, with concentrated commercial and mixed-use zones. Surrounding this core are multi-family residential areas, transitioning outward to predominantly single-family neighborhoods interspersed with parks and green spaces. Industrial and heavy commercial zones, supporting manufacturing and logistics, are primarily located along major transportation corridors and in the northwest section of the City. Key arterial routes such as US 74 and US 321 influence adjacent zoning, with commercial nodes and employment centers positioned for accessibility. Overall, the zoning layout reflects Gastonia's goal of balancing growth, mobility, and community character.



PLAN, POLICY, AND PROGRAM REVIEW



City Specifications

2019
SECTION 1.0 DEFINITIONS
SECTION 2.0 GENERAL
SECTION 3.0 STORM
SECTION 4.0 ASPHALT
SECTION 5.0 CONCRETE
SECTION 6.0 DRAINAGE EXCAVATION
SECTION 7.0 DRAINAGE STRUCTURES
SECTION 8.0 SANITARY SEWER
SECTION 9.0 WATER
SECTION 10.0 PIPE EXCAVATION

PRIOR TO 2019
SECTION 1.0 DEFINITIONS AND ABBREVIATIONS
SECTION 2.0 GENERAL PROVISIONS
SECTION 3.0 STORM
SECTION 4.0 ENHANCED ASPHALT
SECTION 5.0 RETARDING CONCRETE PAVEMENT
SECTION 6.0 CONCRETE AND ASPHALT CONSTRUCTION FOR CURB AND GUTTER, DRIVEWAYS AND SIDEWALKS
SECTION 7.0 ADJUSTMENT OF STORM DRAINAGE AND UTILITY STRUCTURES
SECTION 8.0 CLEARING AND GRUBBING

SECTION 9.0 OMITTED
SECTION 10.0 DRAINAGE EXCAVATION
SECTION 11.0 DRAINAGE STRUCTURES
SECTION 12.0 BLOW PROTECTION

City of Gastonia's Engineering Standards and Standard Details

The City Specifications and Standard Details document provides the official construction and design standards for public infrastructure in Gastonia. It serves as a guide for developers, engineers, and contractors to ensure consistency and quality in projects involving streets, sidewalks, utilities, drainage systems, and other public facilities. These specifications help maintain safety, durability, and compliance with city requirements for all development and improvement projects.

Objectives:

- Establish uniform standards for public infrastructure design and construction
- Ensure safety, durability, and long-term performance of city facilities
- Provide clear guidance for developers and contractors to streamline project approvals

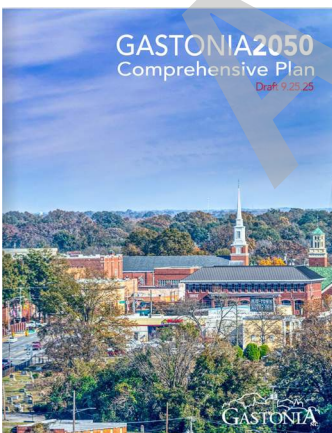


Unified Development Ordinance

The Unified Development Ordinance is Gastonia's consolidated framework for land use regulations, combining zoning and subdivision ordinances into a single document. Adopted in 2009, it establishes standards for property use, building design, parking, landscaping, signage, and subdivision development, while addressing environmental considerations like floodplain construction. The UDO was developed collaboratively with local municipalities, schools, and planning organizations to ensure consistency and inclusivity.

Objectives:

- Streamline the development review process
- Make regulations more understandable and user-friendly
- Promote quality, uniformity, and consistency in development standards across the city



Gastonia 2050 Comprehensive Plan

The Gastonia 2050 plan is the City's blueprint for growth over the next 25 years. It uses community ideas to create a vision for sustainable growth. The plan aims to guide growth and development to leverage positive outcomes for Gastonia and surrounding areas.

Objectives:

- Balance new development with preserving the environment
- Improve connection throughout the study area
- Make Gastonia more vibrant and livable
- Enhance transportation safety by prioritizing complete streets, multimodal networks, and traffic-calming strategies that reduce crashes and improve accessibility for all users

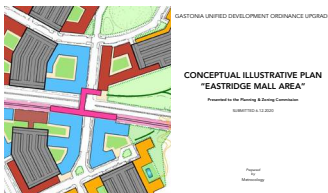


Gastonia 2025 Comprehensive Plan Audit (2018)

Gastonia’s 2025 Comprehensive Plan Audit is a strategic roadmap that combines ideals with practical steps. It includes community input to guide the city’s long-term growth and development, builds on past successes, and adds new goals to meet changing social, economic, and environmental needs.

Objectives:

- Develop a balanced strategy for city growth considering social, economic, and environmental factors
- Improve infrastructure for better multimodal connectivity
- Advocate for environmental sustainability and preservation in city development plans
- Promote transportation safety by incorporating design standards and traffic-calming measures that reduce crashes and improve pedestrian and cyclist safety



Eastridge Small Area Plan (2021)

Eastridge Mall was the first major shopping center to move from downtown Gastonia to the suburbs, becoming the City’s second main hub by the late 1980s. The small area plan envisions the mall and surrounding properties redeveloped into a high-density urban center.

Objectives:

- Improve mobility with the Gastonia Planning Department’s Connectivity Plan, linking key spots like -Eastridge Mall and CaroMont Regional Medical Center
- Plan for mixed-use development, accommodating both large national retailers and small local businesses to make the area more attractive
- Create walkable neighborhoods with streets and open spaces, aligning future growth with modern urban planning principles
- Enhance transportation safety by designing pedestrian-friendly streets and integrating traffic-calming features

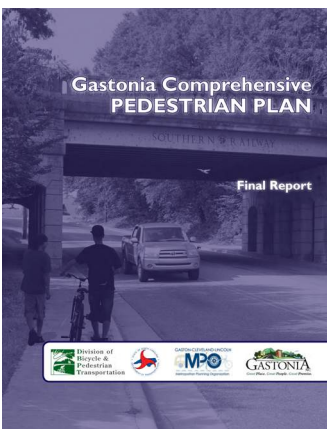


Highland – Sims Park Small Area Plan (2021)

The Highland-Sims Park Small Area Plan aims to connect Downtown Gastonia with Downtown Dallas via Marietta Street (Martin Luther King St), highlighting its importance as a north-south corridor intersecting the Carolina Thread Trail. This plan envisions redeveloping the area into a mixed-use center. Aiming to integrate existing industrial zones with residential and commercial properties, enhance accessibility, and promote sustainable growth within the community.

Objectives:

- Strengthen Marietta Street (Martin Luther King St) as a key north-south route in Gastonia
- Transform the Highland/Sims Park area into a modern mixed-use center
- Enhance pedestrian and cycling infrastructure to increase access to the Carolina Thread Trail
- Improve transportation safety by incorporating traffic-calming measures, safe crossings, and protected bike lanes along key corridors

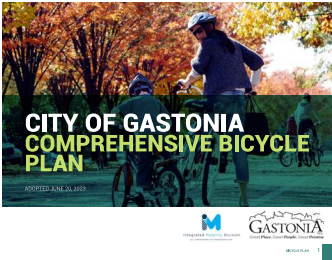


Comprehensive Pedestrian Plan (2014)

The Gastonia Comprehensive Pedestrian Plan aims to make walking safe, convenient, and appealing for everyone. The plan aims to ensure that residents and visitors of all ages and abilities can enjoy walking as a part of their daily lives regardless of the destination.

Objectives:

- Reduce pedestrian crashes with enforcement, education, and infrastructure improvements
- Boost downtown pedestrian access to support businesses and economic growth
- Improve neighborhood connectivity and ensure new developments promote social equity and health
- Promote transportation safety by prioritizing well-designed crosswalks, traffic-calming features, and ADA-compliant sidewalks to protect pedestrians and reduce conflicts with vehicles

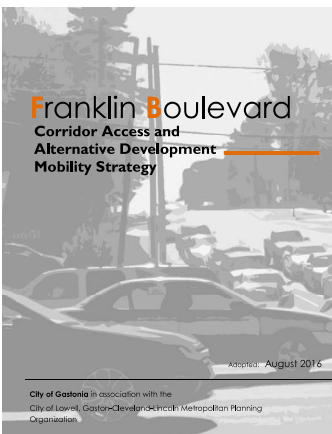


Comprehensive Bicycle Plan (2023)

The City of Gastonia Comprehensive Bicycle Plan is designed to make bicycling a safe, convenient, and enjoyable transportation and recreation option for all residents and visitors. Whether riding to work, school, local businesses, or parks, the plan ensures that cyclists of all ages and abilities have access to a connected and secure network.

Objectives:

- Reduce bicycle crashes through education, enforcement, and infrastructure improvements
- Expand bike access to downtown and commercial areas to support economic vitality and active transportation
- Improve neighborhood and regional connectivity with bike-friendly routes that promote health and equity
- Collaborate with local agencies to integrate bicycle facilities into roadway projects and address high-risk corridors and intersections



Franklin Boulevard Corridor Access and Alternative Development Mobility Strategy (2016)

The Franklin Boulevard Corridor Strategy aims to improve operations and capacity for Franklin Boulevard and surrounding streets in Gastonia and Lowell. It includes a phased implementation plan, focusing on multi-modal corridors, improved mobility, and quality of life. The study assesses mobility needs, proposes strategic improvements, and serves as a planning tool to manage growth, attract economic opportunities, and enhance infrastructure both short-term and long-term.

Objectives:

- Determine existing transportation challenges and needs in the corridor
- Develop and implement strategic solutions to enhance mobility, support economic development, and maintain quality of life
- Improve accessibility through expanded roadway capacity
- Promote transportation safety by incorporating intersection upgrades, signal timing improvements, and dedicated facilities for pedestrians and cyclists to reduce crash risks and improve corridor safety

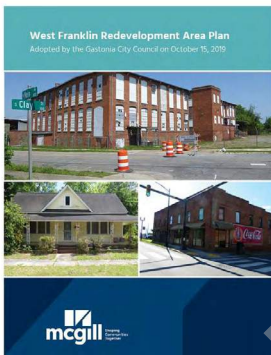


Downtown Gastonia East Small Area Plan (2023)

The Downtown Gastonia East Small Area Plan will convert 90 acres of underutilized properties along E. Franklin Blvd into a vibrant, mixed-use area serving as the eastern gateway to the central City. The plan includes enhancing pedestrian connectivity, repurposing historical structures like Avon Mill, and adding new streets and pedestrian links to improve accessibility. This redevelopment aims to boost the City’s tax base, create jobs, attract residents, and foster a walkable, sustainable community hub.

Objectives and Relevant Recommendations:

- Redevelop 90 acres of underused properties into a lively, mixed-use district
- Enhance walkability with new streets and pedestrian paths for better access and circulation
- Create a sustainable community with green spaces and balanced development
- Transform the abandoned Charlotte Western Railroad rail corridor into a dedicated pedestrian and public realm corridor - enhancing pedestrian connectivity, safety, and accessibility across the Downtown East area
- Reimagines E Franklin Blvd shifting away from car-dominant design standards in favor of a more pedestrian- and mixed-use-focused streetscape, aiming to “rebalance” the corridor by reducing highway-level traffic prioritization and improving safety for non-drivers

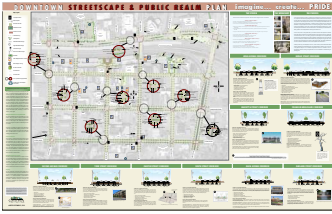


West Franklin Redevelopment Area Plan (2019)

The West Franklin Redevelopment Area Plan has goals to stimulate private investment, promote economic growth, eliminate blight, and improve quality of life. This collaborative effort involves elected officials, City staff, residents, businesses, and organizations working together to upgrade and sustain areas along West Franklin Boulevard. The plan aims to transform blighted areas into vibrant, sustainable communities, ultimately becoming a focal point for Gastonia’s future.

Objectives:

- Encourage private sector investment to drive economic growth and development
- Address and remove blighted properties to improve the overall image and livability
- Upgrade public spaces and infrastructure to boost the quality of life for residents
- Promote transportation safety by improving street design, adding pedestrian-friendly features, and implementing traffic-calming measures to create safer, more accessible corridors



Downtown Streetscape and Public Realm Plan (2014)

The Downtown Streetscape & Public Realm Plan for Gastonia emphasizes sustainability and green practices, aiming to enhance residents’ quality of life through recommendations such as on-street bike lanes, green spaces, and pedestrian enhancements. The plan also supports the potential for LEED certification by focusing on energy conservation, stormwater management, and recycling initiatives.

Objectives:

- Increase vegetation and create parks
- Use methods like rain gardens and permeable pavements
- Encourage and provide the means to help businesses recycle more materials
- Promote transportation safety by integrating traffic-calming features, safe crosswalks, and protected bike lanes to reduce conflicts and enhance mobility for all users

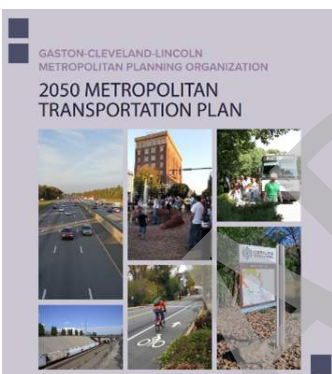


“Hand-Wilson Area” Conceptual Illustrative Plan (2020)

The Hand-Wilson Area Conceptual Illustrative Plan envisions a vibrant, connected community that balances residential, commercial, and recreational spaces surrounding the intersection of E Hudson Boulevard and Redbud Drive. Through thoughtful design, the plan aims to enhance livability, improve access to local amenities, and foster economic development.

Objectives:

- Promote mixed-use redevelopment
- Improve pedestrian and bicycle connectivity and accessibility
- Incorporate green spaces and community gathering areas

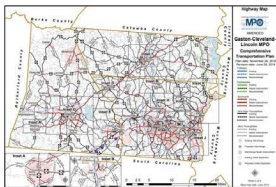


2050 Metropolitan Transportation Plan (2025)

The Gaston-Cleveland-Lincoln Metropolitan Planning Organization (GCLMPO) Metropolitan Transportation Plan establishes a long-range vision for transportation improvements that meet the region’s mobility, safety, and economic development needs. Covering a 25-year horizon, the plan ensures that roadway, transit, bicycle, and pedestrian projects are coordinated to support sustainable growth and regional connectivity.

Objectives:

- Identify and prioritize transportation investments that enhance safety and reduce congestion
- Expand multimodal options
- Support economic vitality by improving freight movement and regional connectivity
- Enhance transportation safety by integrating traffic-calming measures, safe crossings, and protected bike lanes to create a secure environment for all users

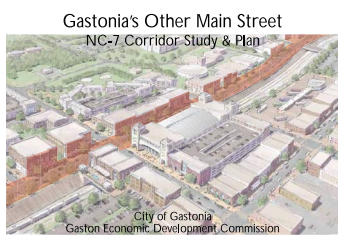


GCLMPO Comprehensive Transportation Plan (CTP)

The GCLMPO Comprehensive Transportation Plan (CTP) is a long-range, multimodal strategy developed to guide transportation investments and policies for Gastonia and the surrounding region. The plan identifies future needs for roadways, bicycle and pedestrian facilities, public transit, and freight movement, ensuring that the transportation network supports anticipated growth and enhances quality of life. The CTP is a collaborative effort involving NCDOT, local governments, stakeholders, and the public to create a unified vision for mobility.

Objectives

- Plan for a safe, efficient, and connected transportation system
- Support economic development and regional growth
- Expand multimodal options for all users
- Promote transportation safety by prioritizing roadway design improvements, integrated bike/pedestrian facilities, and intersection upgrades to reduce crashes and protect all travelers

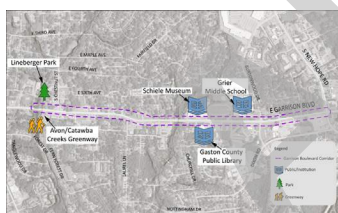


NC-7 Corridor Study and Plan (2018)

The NC-7 Corridor Study and Plan aims to transform NC-7 into “Gastonia’s Other Main Street” through three key interventions: New Connections, Street Improvements, and Redevelopment Plans. The vision seeks to bridge the economic and social divide between northern and southern Gastonia caused by the Norfolk Southern rail corridor.

Objectives:

- Enhance links between the NC-7 Corridor, downtown Gastonia, and nearby neighborhoods
- Improve streets and redevelop areas to strengthen the corridor’s economic and social resilience
- Transform the NC-7 Corridor into a thriving area with more jobs, businesses, and improved quality of life



Garrison Boulevard LEARNS Corridor Study (2024)

The Garrison Boulevard project is a major transportation improvement initiative aimed at reducing congestion and improving safety along one of Gastonia’s key corridors. The project includes changes the roadway cross-section, upgrading intersections, and enhancing pedestrian and bicycle accommodations to support multimodal travel. These improvements are designed to improve traffic flow, reduce crash risks, and provide better connectivity for residents and businesses along the corridor.

Objectives:

- Improve intersection safety and efficiency
- Add sidewalks and bike facilities to support multimodal transportation
- Promote transportation safety by incorporating complete street designs, safe pedestrian crossings, and traffic-calming strategies to reduce crashes and improve accessibility for all users

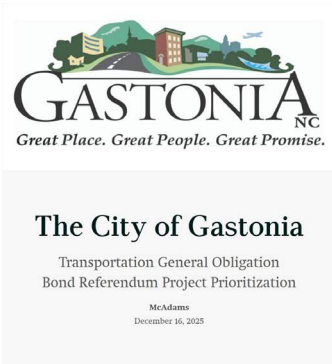


GoGastonia

GoGastonia is an on-demand microtransit service launched in July 2024 to replace the City’s public bus system. It functions as a public rideshare, allowing residents to book trips anywhere within Gastonia’s city limits using a smartphone app or by phone.

Objectives:

- Allow residents to easily book a ride instead of following a fixed bus schedule
- Provide transportation to all areas within Gastonia, including those previously underserved by the old bus routes
- Offer reliable and consistent service with short wait times for passengers

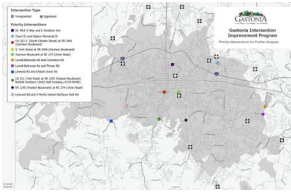


School and Park Safety Improvements

The City of Gastonia is committed to advancing roadway safety and reducing fatalities and serious injuries for all road users. This commitment is highlighted through the usage of Gastonia’s \$75 million transportation bond program passed by voters in 2022 for safer streets through major investments in intersection improvements, repairing infrastructure, and improving pedestrian visibility. The City is expanding connectivity with greenways, school access projects, and neighborhood upgrades while securing federal grants to enhance safety and accessibility. With nearly half of the funds already allocated, these initiatives reflect a proactive approach to creating a safer, more connected transportation network. The School and Park Safety Improvements initiative is funded by Gastonia’s 2022 Transportation Bond Referendum. This program focuses on enhancing safety and accessibility around schools and parks throughout the city. Improvements include upgraded crosswalks, new sidewalks, better lighting, and traffic calming measures to create safer environments for students, families, and park visitors.

Objectives:

- Improve pedestrian and bicycle safety near schools and parks
- Enhance accessibility and connectivity for all users
- Create safer, more welcoming community spaces

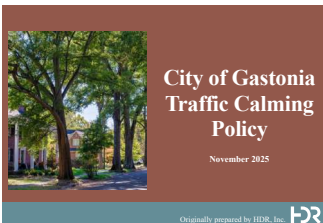


Gastonia Intersection Improvement Program

Similar to the School and Park Safety Program, the Intersection Improvement Program (IIP) is funded through Gastonia's transportation bond program. Gastonia's IIP targeted initiative is to enhance safety, reduce congestion, and support future growth at key intersections across the city. Developed in coordination with City staff, NCDOT, and GCLMPO, the program uses data-driven analysis and community input to prioritize intersection upgrades. The process included inventorying 151 intersections, screening for congestion, safety, opportunity, equity, and context, and conducting detailed analysis for the highest-priority locations. Preferred alternatives and conceptual designs were developed for the top-ranked intersections, with cost estimates and scoring criteria guiding final selections.

Objectives:

- Improve safety and reduce crash rates at critical intersections
- Alleviate congestion and enhance traffic flow
- Support equitable access and future development opportunities
- Coordinate improvements with community priorities and growth areas



Gastonia Traffic Calming Policy

The City of Gastonia Traffic Calming Policy adopted in November 2025 provides a structured approach for implementing traffic calming measures on City-maintained streets in both new and existing neighborhoods. The policy aims to enhance safety for all road users by managing vehicle speeds and promoting a high quality of life through safer, more efficient local transportation networks. It outlines clear processes for residents and developers to request or plan traffic calming interventions, supported by a toolkit of proven design strategies and objective scoring criteria for project selection.

Objectives:

- Guide the consistent selection, design, and application of effective traffic calming measures
- Improve safety and reduce vehicle speeds to protect vulnerable road users
- Provide clear processes for both existing neighborhoods and new developments to request/implement traffic calming measures



2024 North Carolina Strategic Highway Safety Plan Update

The 2024 North Carolina Strategic Highway Safety Plan Update (NC SHSP Update) is a statewide, data-driven framework designed to significantly reduce fatalities and serious injuries on all public roads. The plan adopts a “Vision Zero” approach, aiming to cut these numbers in half by 2035 and ultimately eliminate them by 2050. The NC SHSP Update is built on collaboration among state, regional, and local partners, and emphasizes a Safe System Approach to protect all road users. The NC SHSP Update is the primary source for establishing Emphasis Areas when analyzing crash data.

Objectives:

- Reduce roadway fatalities and serious injuries through targeted strategies, engineering, education, enforcement, and emergency response
- Address key emphasis areas
- Promote equity and accessibility by considering social, demographic, and geographic factors in safety planning
- Integrate safety into all aspects of transportation planning, project development, and policy decisions statewide

APPENDIX A

EMPHASIS AREAS AND SAFETY TARGETS

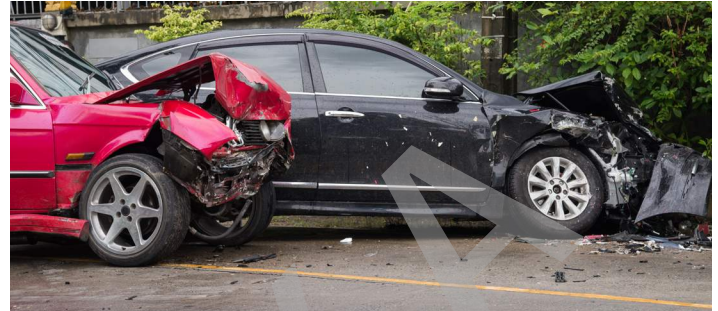
EMPHASIS AREAS

Gastonia's SAP statistical analysis will coincide with the methods discussed in the [North Carolina Strategic Highway Safety Plan \(NC SHSP\) Update](#) Emphasis Areas. The NC SHSP Emphasis Areas chapter is designed to identify the most critical safety challenges on the state's roadways and outline targeted strategies to reduce FSI crashes. Similarly, this chapter discusses Gastonia's current crash trends and how they compare to the State's 2024 emphasis areas identified in the NC SHSP Update. This analysis will guide future investments, policy decisions, and community engagement efforts.

The emphasis areas within Gastonia discussed here are based on five years of crash data (2020–2024) and reflect both the frequency and severity of crashes.

NORTH CAROLINA'S SAFETY PRIORITIES

The NC SHSP Update identifies nine (9) emphasis areas which are roadway safety elements or concerns that have the greatest potential for reducing fatalities and serious injuries. The nine emphasis areas are the following:



Lane Departures

Crashes resulting from a vehicle leaving its designated lane, including incidents such as run-off-road, collisions with fixed objects, head-on impacts, rollovers, and opposite-direction sideswipes.



Pedestrians, Bicyclists, and Personal Mobility

Crashes involving people walking, riding bicycles, or using personal mobility devices (such as scooters), whether on sidewalks, crosswalks, bike lanes, or shared roadways.



Intersections

Crashes occurring within the limits of intersections. Intersections can include driveways, alleyways, and on/off ramps.



Seat Belts and Car Seats

Crashes where improper or non-use of seat belts or child safety seats contributes to injury severity, emphasizing occupant protection measures.



Substance Impaired Driving

Crashes involving drivers under the influence of alcohol, drugs, or other substances that impair judgment, reaction time, and overall driving ability.



Speed management

Crashes where excessive speed or driving too fast for conditions is a contributing factor, increasing the likelihood and severity of collisions.



Older Drivers

Crashes involving drivers typically aged 65 and older, often associated with age-related changes in vision, reaction time, and physical ability.



Motorcyclists

Crashes involving individuals operating motorcycles, including single-vehicle and multi-vehicle incidents, often linked to visibility and vulnerability factors.



Younger drivers

Crashes involving drivers under a specified age threshold (ages 15 - 19), often related to inexperience and higher-risk behaviors.

All statistics referenced below are in the NC SHSP Update unless otherwise stated and accompanied by the appropriate source.

When comparing Gastonia’s crash data to statewide figures, it is essential to use **percentages of crashes within each emphasis area rather than raw numbers**. This approach accounts for the significant difference in study area size and population between Gastonia and the entire state of North Carolina. Using percentages normalizes the data, allowing for a fair comparison of relative risk and emphasis area priorities. Without this adjustment, raw numbers would disproportionately reflect the larger scale of statewide data and obscure meaningful trends at the local level. When comparing crash percentages, Gastonia **consistently falls below the State average in all categories** listed in the 2024 NC SHSP Update.

The table below shows the statewide and Gastonia’s percentage of FSI crashes out of total crashes attributed to emphasis area:

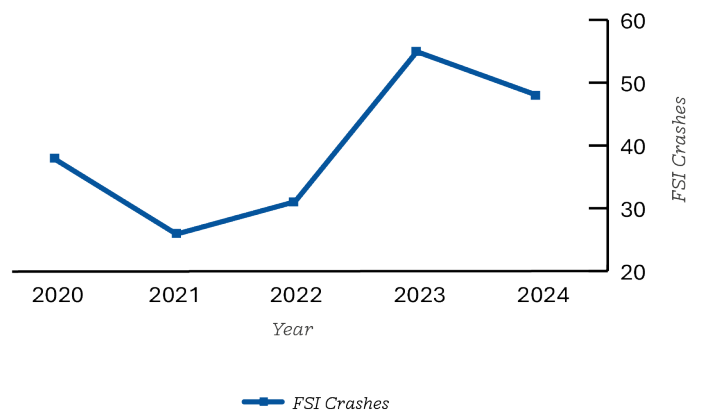
Emphasis Area	North Carolina	Gastonia	Difference
Lane Departure	5.08%	4.11%	-0.97%
Seat Belts and Car Seats*	19.17%	17.49%	-1.68%
Substance Impaired Driver	10.89%	9.09%	-1.70%
Intersections	2.16%	0.81%	-1.35%
Safer Speeds	6.41%	6.23%	-0.18%
Older Drivers (65+)	2.30%	0.97%	-1.33%
Pedestrians	24.10%	17.50%	-6.60%
Motorcyclists	22.36%	17.55%	-4.81%
Younger Drivers (15–19)	1.93%	1.40%	-0.53%
Bicyclists	11.60%	4.76%	-6.84%

Source: 2024 NC SHSP Update

*Crash data acquired for Gastonia only depicts crashes where an unbelted driver was involved

Number of Emphasis Area FSI Crashes in Gastonia

	2020	2021	2022	2023	2024
Lane Departure	17	8	13	15	14
Unbelted Drive	15	7	4	8	12
Substance Impaired Driver	16	4	12	11	10
Intersections	7	5	6	21	13
Safer Speeds	6	3	4	9	4
Older Drivers	0	4	6	8	10
Pedestrians	4	4	5	7	8
Motorcyclists	8	4	6	5	10
Younger Drivers	8	2	0	9	6
Bicyclists	1	0	0	0	1
Total	82	41	56	93	88



DETAILED ANALYSIS FOR TOP THREE EMPHASIS AREAS

Vulnerable Road Users (Pedestrians, Motorcyclists, and Bicyclists)

Nearly **46% of fatal or serious injury crashes involving pedestrians and bicyclists in North Carolina occur on arterial roadways**, even though these roads make up only **8% of the state's total mileage**. This disproportionate risk underscores a critical safety concern: arterials, designed for high-speed traffic, often lack adequate pedestrian and bicyclist infrastructure such as sidewalks, crosswalks, and protected bike lanes. The issue is even more pronounced in **Gastonia**, where **64% of fatal or serious injury pedestrian and bicyclist crashes occur on arterials**, despite these roads representing just **7% of local road miles**. This comparison suggests that both statewide and City-level strategies must prioritize arterial corridors for safety improvements, with Gastonia requiring particularly aggressive interventions to address its higher concentration of severe crashes.

Seat Belts and Car Seats

As cited in the [2024 North Carolina Observational Survey of Seat Belt Use](#), the 2024 weighted statewide seat belt use rate for drivers is **93.1%**, an increase from **91.9% in 2023**. These figures indicate that overall seat belt compliance across North Carolina remains high and has improved for drivers year-over-year.

Gastonia reflects similar positive trends in seat belt usage, aligning with statewide improvements. However, despite these encouraging averages, crash data reveals that **in Gastonia approximately 17% of crashes involving an unbelted driver result in an FSI and 19% statewide involved an unbelted driver or occupant**. This statistic underscores a critical safety concern: even with high compliance rates, the minority who fail to buckle up contribute disproportionately to severe outcomes.

The data demonstrates that simply wearing a seat belt can significantly reduce the risk of fatalities and serious injuries. Continued emphasis on public education, enforcement campaigns, and community outreach is essential to close the remaining gap and ensure that every driver and passenger adopts this life-saving habit.

Substance Impaired Driver

In North Carolina, alcohol is the dominant factor in substance-impaired crashes. Of those crashes, 84% of those were attributed to alcohol and 85% to substance-impaired FSI crashes. Drugs were involved in 23% of substance-impaired crashes and 26% of substance-impaired FSI crashes. In comparison, Gastonia shows a lower proportion of alcohol-related crashes (**67% in all substance-impaired crashes and 64% in FSI cases**) but a higher share of drug involvement (**33% in all substance-impaired crashes and 36% of fatalities or serious injuries**). Additionally as previously stated, crashes involving an unbelted driver or alcohol contributed to 5% of all crashes but account for 42% of all FSI crashes. These figures highlight a critical message: whether impairment comes from alcohol or drugs, the risk of devastating consequences is significant. Staying sober behind the wheel is essential to protect lives and reduce the alarming impact of impaired driving across the state and in communities like Gastonia.

Summary and Next Steps

Gastonia's emphasis areas will guide the development of targeted safety strategies and infrastructure improvements. By comparing local data to statewide benchmarks, the City can prioritize interventions where risk is greatest. These findings will influence Gastonia's SAP and support applications for federal and state funding, including SS4A grants.

NORTH CAROLINA SAFETY PERFORMANCE TARGETS

In addition to emphasis areas, another vital metric for measuring transportation safety throughout the state is the [North Carolina Safety Performance Targets](#). Earlier this year, the Federal Highway Administration (FHWA) assessed the NCDOT’s progress toward its calendar year 2022 safety targets, using five-year averages from 2018 to 2022 for each measure. According to federal regulations (23 CFR 490.211(c)(2)), a state is considered to have met or made significant progress toward its safety performance targets if at least four of the established targets are achieved or if actual outcomes surpass baseline performance. FHWA’s review found that North Carolina did not meet these criteria. As a result, NCDOT is now required to ensure that all Highway Safety Improvement Program (HSIP) safety funds are used to develop an HSIP Implementation Plan, detailing the actions the state will take to achieve or make significant progress toward its safety targets. Given this, it is important for the City of Gastonia, alongside GCLMPO, to acknowledge these findings and take decisive action. The GCLMPO has historically demonstrated its commitment by supporting NCDOT’s annual safety targets, aligning local efforts with statewide goals for reducing fatalities and serious injuries.

Below is a table representing the GCLMPO 5-year rate from 2020-2024 for fatalities, serious injuries and non-motorized fatalities and serious injuries. Additionally, the table includes the recommended GCLMPO 2026 Safety Performance Target using the NCDOT’s methodology of reducing FSI crashes by half by 2035. As a comparison, the table also includes Gastonia’s existing crash data and Gastonia’s ideal target with the 2026 NCDOT’s Safety Performance Target applied.

Year/Area of Interest	Fatalities (5 Year Average)	Serious Injuries (5 Year Average)	Non-Motorized Fatalities and Serious Injuries (5 Year Average)
2020-2024/GCLMPO	61.4	207.0	27.6
2026 Target/GCLMPO	51.5	113.5	13.8
2020-2024/Gastonia Study Area	28.4	29.2	6.0
2026 Target/Gastonia Study Area	19.0	17.2	3.5

Developing the Gastonia SAP is a critical and timely step that not only addresses local safety challenges but also reinforces the City’s dedication to the broader objectives outlined by the State and FHWA and supported by the GCLMPO. By proactively planning and implementing targeted safety strategies, Gastonia positions itself as a leader in North Carolina’s journey toward safer roadways, helping to drive progress toward the goal of reducing traffic-related fatalities and serious injuries by half by 2035, and ultimately moving toward zero by 2050.

APPENDIX A

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KEY TAKEAWAYS

1. FSI Crashes Are Concentrated on Major Arterials and Intersections, Especially for Vulnerable Road Users

In Gastonia, the majority of fatal and serious injury crashes are clustered along major corridors such as US 74 and US 321, as well as at key intersections and downtown hotspots. Vulnerable road users, including pedestrians, bicyclists, and motorcyclists, face a particularly high risk, with a disproportionate number of serious crashes occurring on high-speed arterials that lack adequate infrastructure. This pattern is even more pronounced in Gastonia than statewide, highlighting the urgent need for targeted safety improvements on these corridors and intersections to better protect those most at risk.

2. Gastonia's FSI Crash Rate is Rising Faster Than the State Average, with Distracted Driving and Unbelted Occupants as Key Factors

The City has experienced a 26% increase in FSI crashes from 2020 to 2024, a rate much higher than the statewide increase. This troubling trend is driven largely by distracted driving, which is the leading contributing factor, as well as significant involvement from older and teen drivers. Additionally, while seat belt usage is generally high, unbelted occupants still account for a substantial portion of severe crashes, underscoring the need for ongoing education and enforcement to address these persistent risks.

3. Gastonia is Investing in Safety but Faces Gaps in Multimodal Connectivity and Must Prioritize High-Risk Areas

Gastonia is making substantial investments in transportation safety, including a \$75 million bond program, federal grants, and alignment with state and federal safety priorities. These efforts are focused on infrastructure upgrades, resurfacing, and improving pedestrian visibility. However, the City's multimodal network remains fragmented, with many sidewalks and connectivity improvements still needed. To achieve meaningful progress, Gastonia must focus its future safety strategies on closing these gaps and prioritizing high-risk corridors and intersections, especially to protect vulnerable road users and reduce the rising rate of severe crashes.

APPENDIX A

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APPENDIX B

STF Meeting Presentations





Safety Task Force Meeting #1

City of Gastonia
Safe Streets and Roads for All (SS4A)
Safety Action Plan


October 9th, 2025

Introductions

Task Force Members

Kimley-Horn Project Team

APPENDIX B

A large, faint, light-green graphic of two hands shaking is positioned in the background, centered behind the "APPENDIX B" text.

SS4A Funded

- Applied for and awarded funding through **Safe Streets and Roads for All (SS4A)** program through Federal Highway Administration

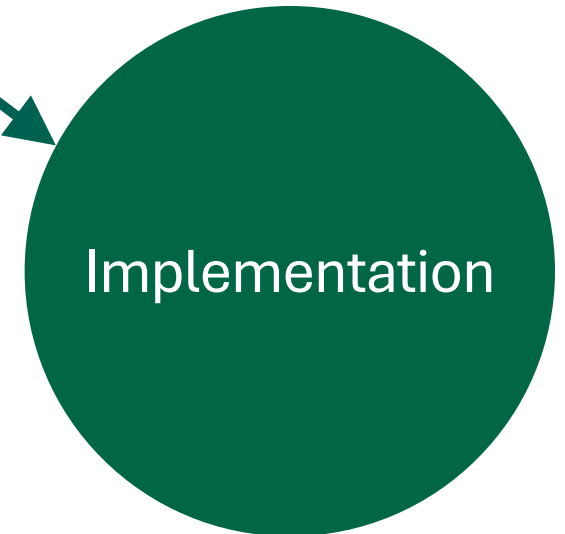


\$

Supports the creation of a Safety Action Plan or other supplemental planning/demonstration

\$\$\$\$

Supports design and construction of large-scale transportation improvements that address safety



Purpose



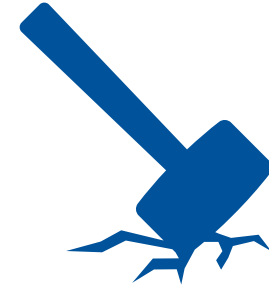
Shared Vision

Supports the identified needs and safety vision



Investment Guidance

Provides guidance on future investment and decision-making for improving transportation safety



Action

Plan should be realistic and actionable, while making Gastonia more competitive for funding opportunities

SS4A Safety Action Plan Requirements

Leadership Commitment and Goal Setting

Planning Structure

Safety Analysis

Engagement and Collaboration

Policy and Process Changes

Strategy and Project Selections

Progress and Transparency

Finalized and Adopted by the City

Existing Conditions

APPENDIX B

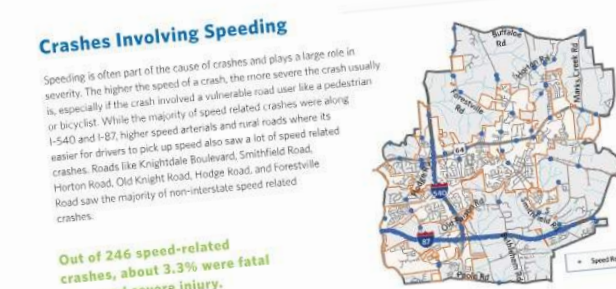
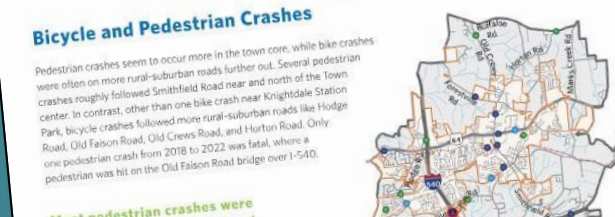
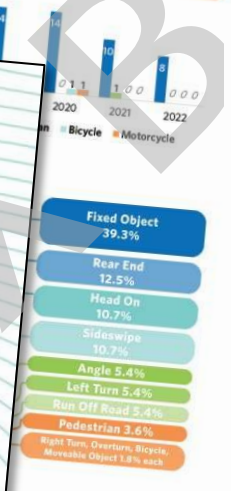
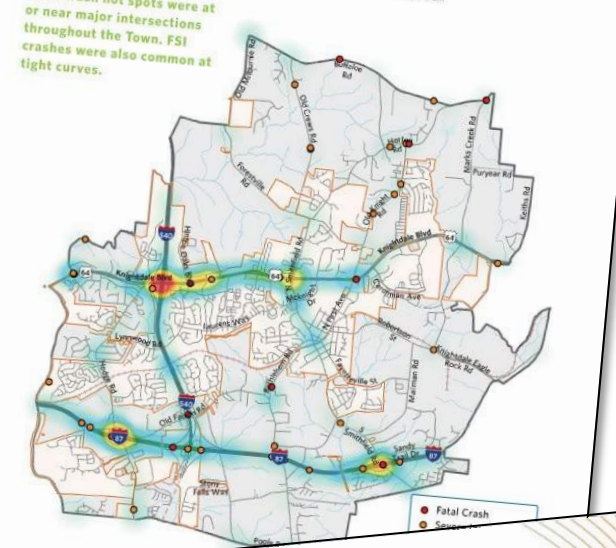
Analysis

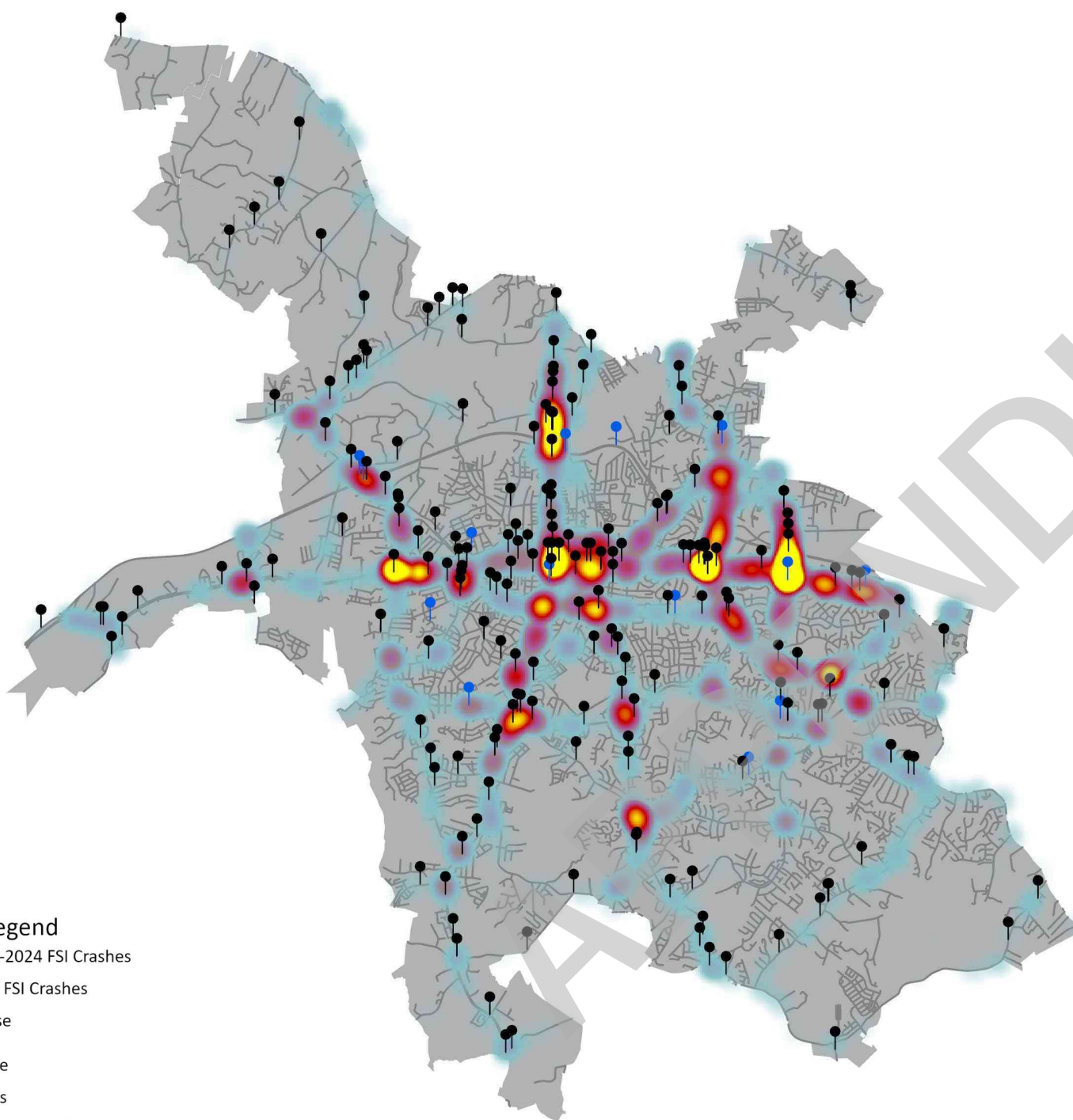
- Crash data (FSI vs all crashes)
- Transportation Conditions
- Demographics/Community Need
- Relevant Plans/Policy Documents
- State of Safety Report



Crash History

From 2018 to 2022, the overall majority of spatially mappable crashes happened on Knightdale Boulevard (Business US 64), I-540, I-87, or Smithfield Road. Hodge Road, Poole Road, and Bethlehem Road also saw some crash hotspots. However, many of the smaller roads in the north with less overall crashes had a larger share of the fatal and severe injury crashes, such as Old Knight Road, Horton Road, and Old Crews Road. Some tight curves and uncontrolled exurban intersections also tended to have a higher number of crashes. Knightdale Boulevard and I-87 saw the most fatal and severe crashes overall.





What We Have Learned So Far

Crash History
(2020-2025)

What We Have Learned So Far



14.1k

Total crashes since 2020



208

Crashes that resulted in fatal or serious injury (FSI) (1.47%)



14%

FSI crashes involving bikes, pedestrians, and motorcycles



REAR END, SLOW OR STOP
SIDESWIPE, SAME DIRECTION
ANGLE

Most frequent crash types

1.5 M

Total crashes since 2019

28.6k

Crashes that resulted in fatal or serious injury (FSI) (1.91%)

27%

FSI crashes involving bikes, pedestrians, and motorcycles

FAILURE TO REDUCE SPEED
FAILURE TO YIELD RIGHT OF WAY
INATTENTION

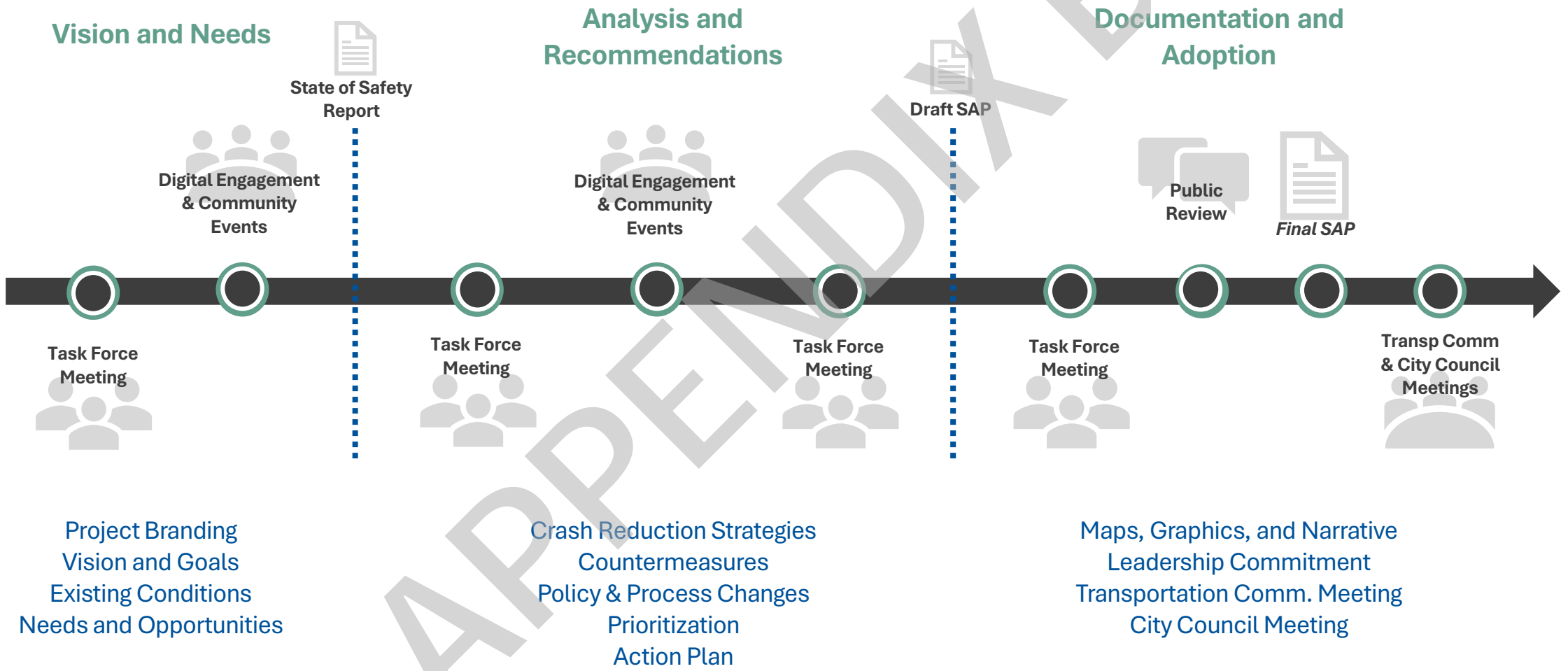
Most frequent crash types

*Data provided by NCDOT, represents Gastonia from 2020 – 2024 and North Carolina 2019 – 2023

Engagement

APPENDIX B

Engagement Phases



Safety Task Force and Stakeholders

The Gastonia SAP Task Force will:

- Act as conduits to the community
- Guide the planning process
- Provide technical oversight

Other Stakeholders engaged in planning process could include:

- Individuals/agencies that may need direct engagement (but don't warrant membership on STF)
- Other City Departments
- Partner Agencies
- Neighborhood/HOA Associations
- Other Community Groups/Leaders

Phase 1 Engagement

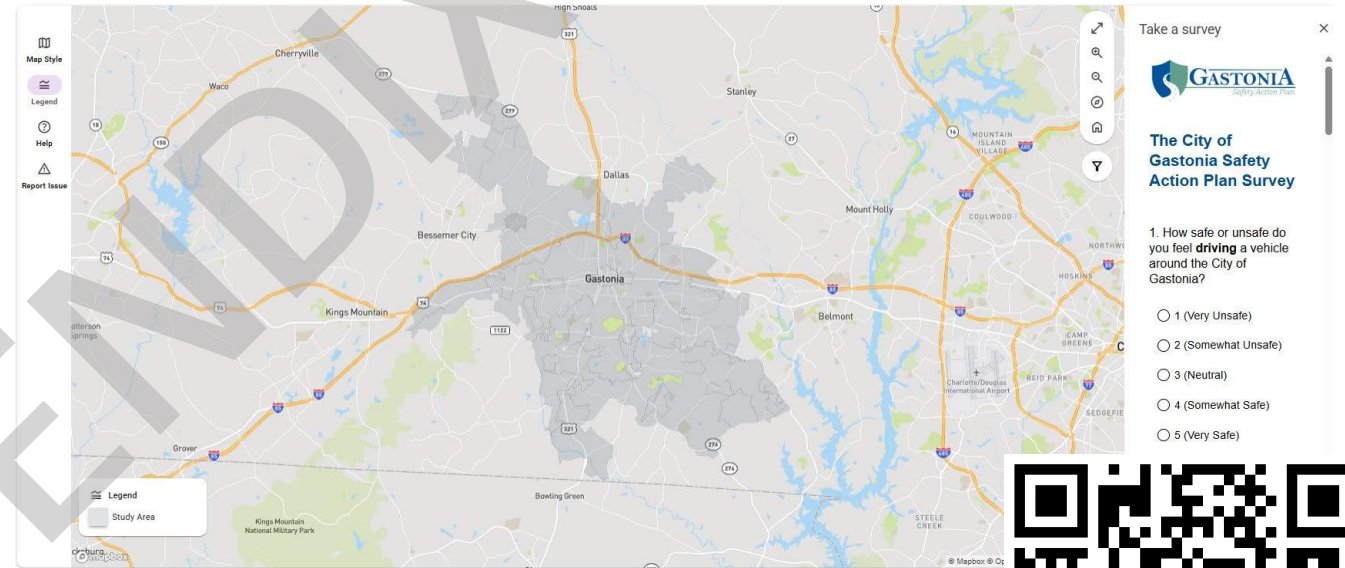
Focused on building awareness about the plan, educating on current safety conditions, gathering feedback on vision and needs.

In-Person Activities

- Fall Fest (10/18)
- Public Workshop (10/28)

Digital Engagement

- Interactive Mapping (*destinations, challenges, and opportunities*)
- Survey
- Engagement Site



Recommendations and Strategies

APPENDIX B

Key Elements of the Plan

Crash Reduction Strategies

Identify strategies & countermeasures, comprising of design-focused best practices & programmatic strategies effective in improving safety

Policy and Process Changes

Based on Four “E’s” of Road Safety
Education
Engineering
Enforcement
Emergency Response

Prioritization

Guidance for how Gastonia prioritizes transportation safety investment

Actions

Actions, strategies, & policies that support the established shared vision, including general timeframes & planning-level cost-ranges

Schedule and Adoption

~8-9-month process with goal to adopt by **May 2026**

Gastonia SS4A SAP



DRAFT Project Schedule		2025					2026					
Task		August	September	October	November	December	January	February	March	April	May	
1	PM & Leadership/Task Force Meetings											
	Kickoff Meeting & Tour											
	Safety Task Force Established											
	Safety Task Force Meetings											
	Development of Vision Statement & Goals											
	Development of Official Public Commitment											
	Transportation Committee Meeting											
	City Council Meeting											
	Monthly Project Team Coordination Meetings											
2	Safety Analysis											
	Crash Data Collection											
	Develop GIS Base Mapping											
	Crash Analysis											
	State of Safety Report											
	Develop HIN(s)											
	Perform Gap Analysis											
Identify Emphasis Areas												
3	Public Engagement											
	Develop Public Engagement Plan											
	Project Branding Themes											
	Launch Digital Project Hub											
	Interactive Map & Digital Surveys for Public Input											
Conduct Public Engagement Events												
4	Recommendations & Strategies											
	Crash Reduction Strategies											
	Review Policy and Process Changes											
	Prioritization											
	Identify Funding Opportunities											
Develop Progress Tracking Framework												
5	Reporting & Documentation											
	Draft SAP Report Outline											
	Draft SAP Report											
	Final SAP Report											

Vision Statement

Gastonia envisions a safe and connected transportation system that protects all travelers, promotes the efficient movement of people and goods, and enhances mobility throughout the community.

Growth Alignment

Prioritize investments at locations that support future growth opportunities while meeting the needs of our current residents.

Multimodal Design

Prioritize transportation safety on our bicycle and pedestrian facilities.

Vehicular Design

Prioritize transportation safety for vehicles on our roadways.

Implementation and Funding

Prioritize efforts to implement improvements through identification of funding, alignment with existing plans and policies, and public-private partnerships.

Safety Culture

Prioritize building awareness and educating the community about transportation safety through engagement and enforcement.

Community Context

Prioritize improvements to ensure all residents have access to safe transportation facilities.

Connectivity

Prioritize safe connections to integral community destinations incl.: schools, parks, Downtown, places of employment, & businesses.

**How is transportation
safety perceived today?**

APPENDIX B

What are the tradeoffs we need to consider to make improvements?

APPENDIX B

What are the biggest challenges this process may face?

APPENDIX B

**What do successful
outcomes look like for this
planning process?**

APPENDIX B

Next Steps

Complete Crash Analysis

- State of Safety Report
- Develop HIN

Public Engagement (1st Round)

- 10/18 Fall Fest
- 10/28 Public Workshop
- Digital Engagement

2nd Safety Task Force Meeting

- Schedule

APPENDIX B



Safety Task Force Meeting #2

City of Gastonia
Safe Streets and Roads for All (SS4A)
Safety Action Plan

January 8th, 2026

(Re)Introductions

Task Force Members

Kimley-Horn Project Team

Vision Statement & Goals

Gastonia envisions a safe, reliable, and connected transportation system that protects all travelers, promotes the efficient movement of people and goods, and enhances travel throughout the community.

Goals

Growth Alignment

Prioritize investments at locations that support future growth opportunities while meeting the needs of our current residents.

Multimodal Design

Prioritize transportation safety on our bicycle and pedestrian facilities.

Vehicular Design

Prioritize transportation safety for vehicles on our roadways.

Implementation and Funding

Prioritize efforts to implement improvements through identification of funding, alignment with existing plans and policies, and public-private partnerships.

Safety Culture

Prioritize building awareness and educating the community about transportation safety through engagement and enforcement.

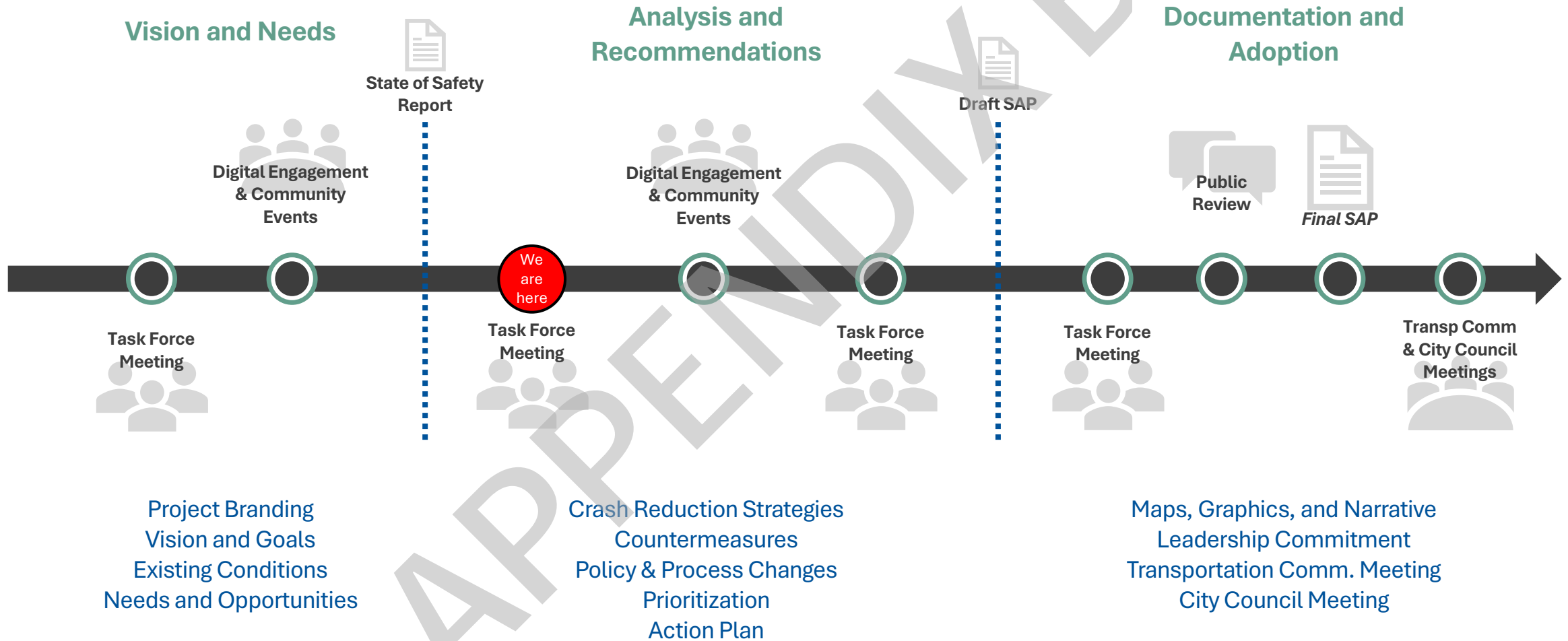
Community Context

Prioritize improvements to ensure all residents have access to safe transportation facilities.

Connectivity

Prioritize safe, reliable connections to integral community destinations including: schools, parks, greenways, downtown, places of employment, and businesses.

Project Status



Project Branding
 Vision and Goals
 Existing Conditions
 Needs and Opportunities

Crash Reduction Strategies
 Countermeasures
 Policy & Process Changes
 Prioritization
 Action Plan

Maps, Graphics, and Narrative
 Leadership Commitment
 Transportation Comm. Meeting
 City Council Meeting

Engagement

APPENDIX B

Engagement Activities

Fall Fest

(October 18)

Public Workshop

(October 28)

Christmas in the City

(December 7)

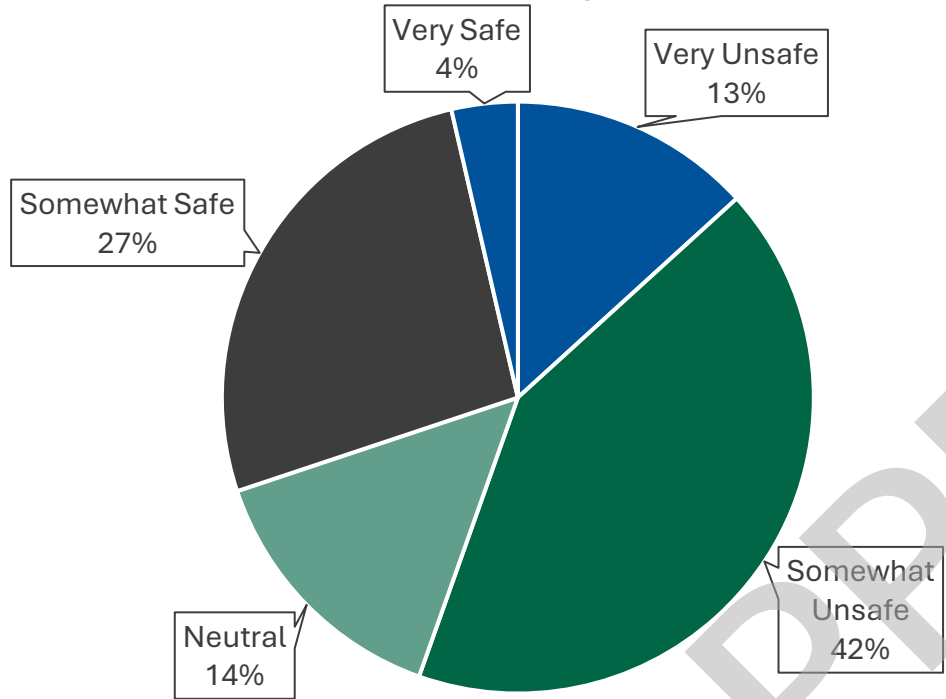
Digital Survey

(Closed December 31)

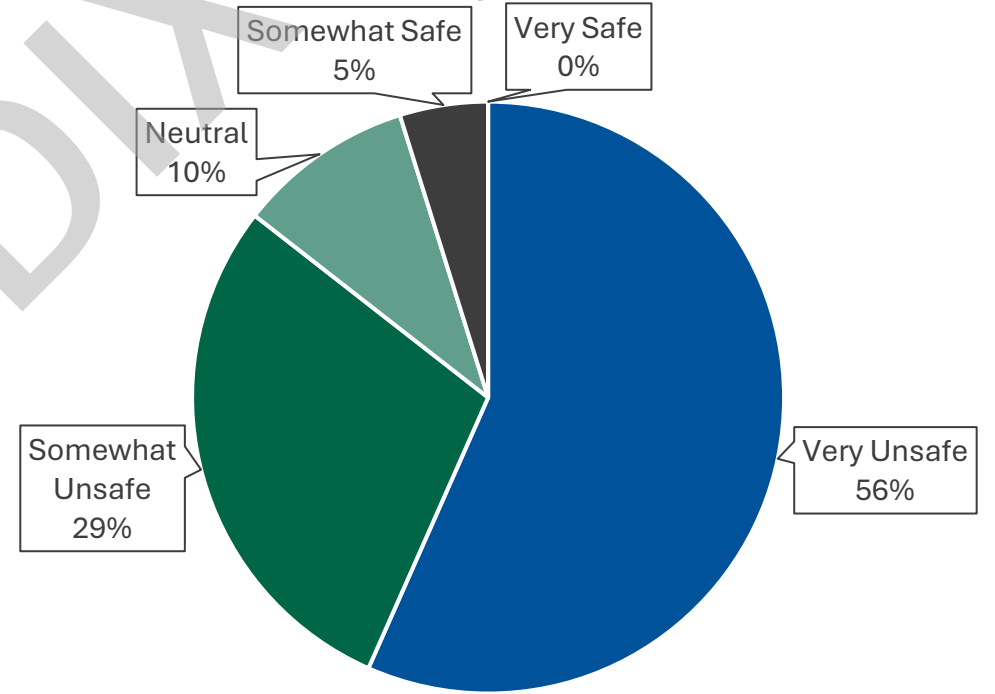


Digital Survey Results

How safe or unsafe do you feel driving a vehicle around the City of Gastonia?



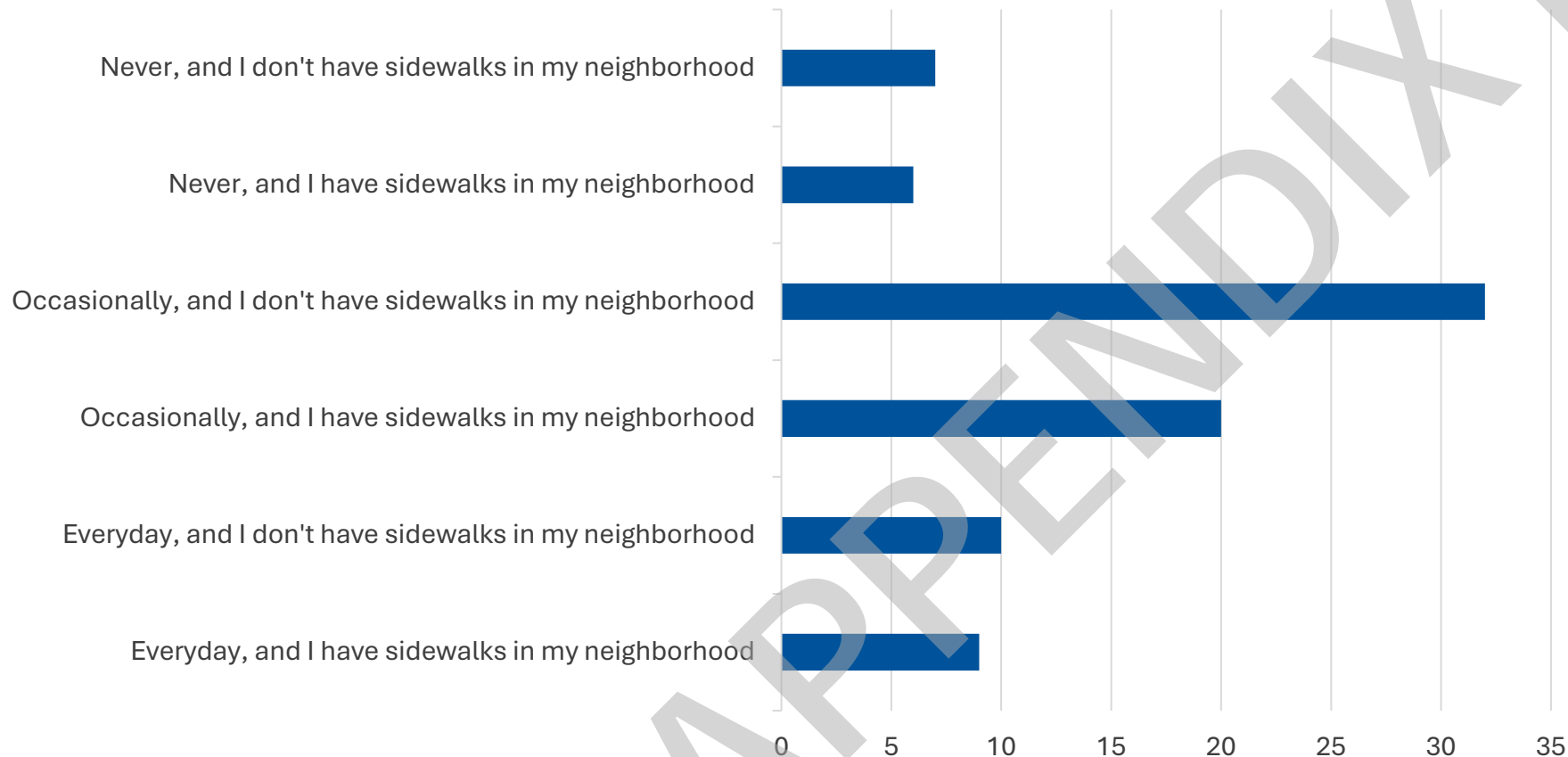
How safe do you feel walkin or biking around the City of Gastonia?



Digital Survey Results

How often do you walk or bike in your neighborhood?

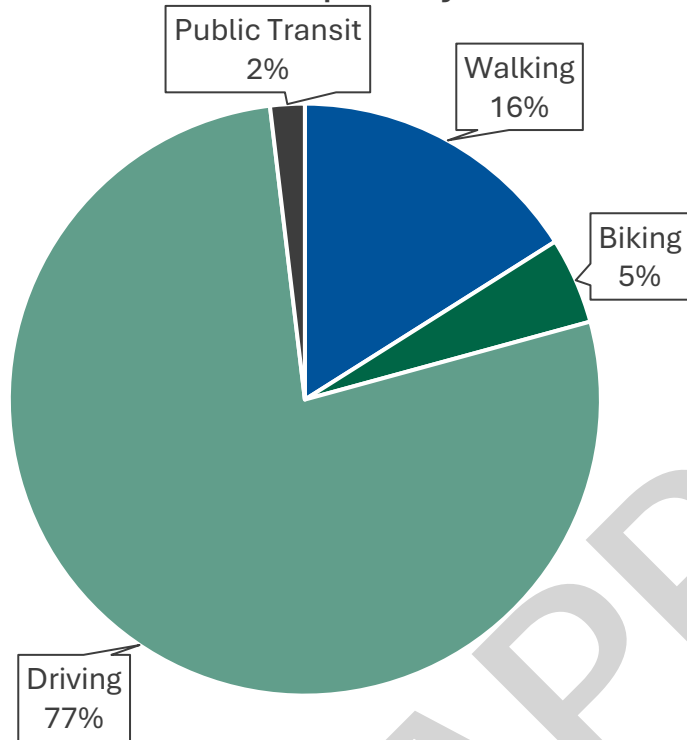
What prevents you from walking or biking more?



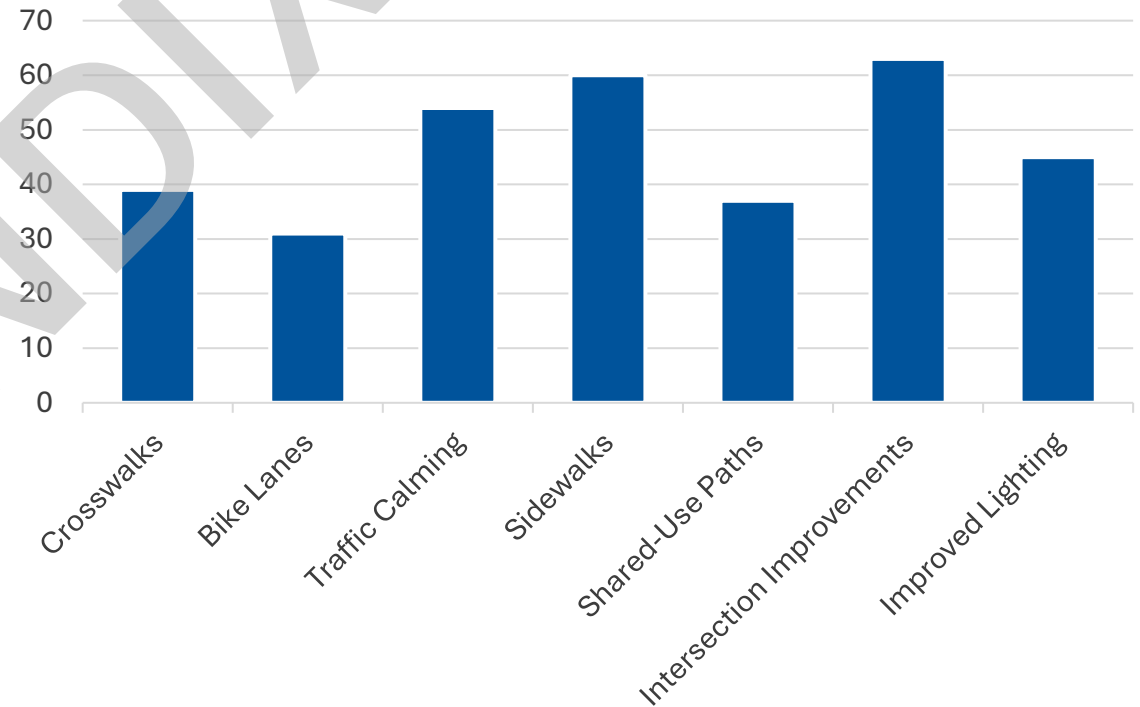
- Feeling unsafe
- Lack of sidewalks
- Lack of bike lanes
- Speeding
- Congestion/traffic
- Lack of signals and crosswalks
- Reckless drivers
- Not walkable areas

Digital Survey Results

What modes of transportation do you use most frequently?

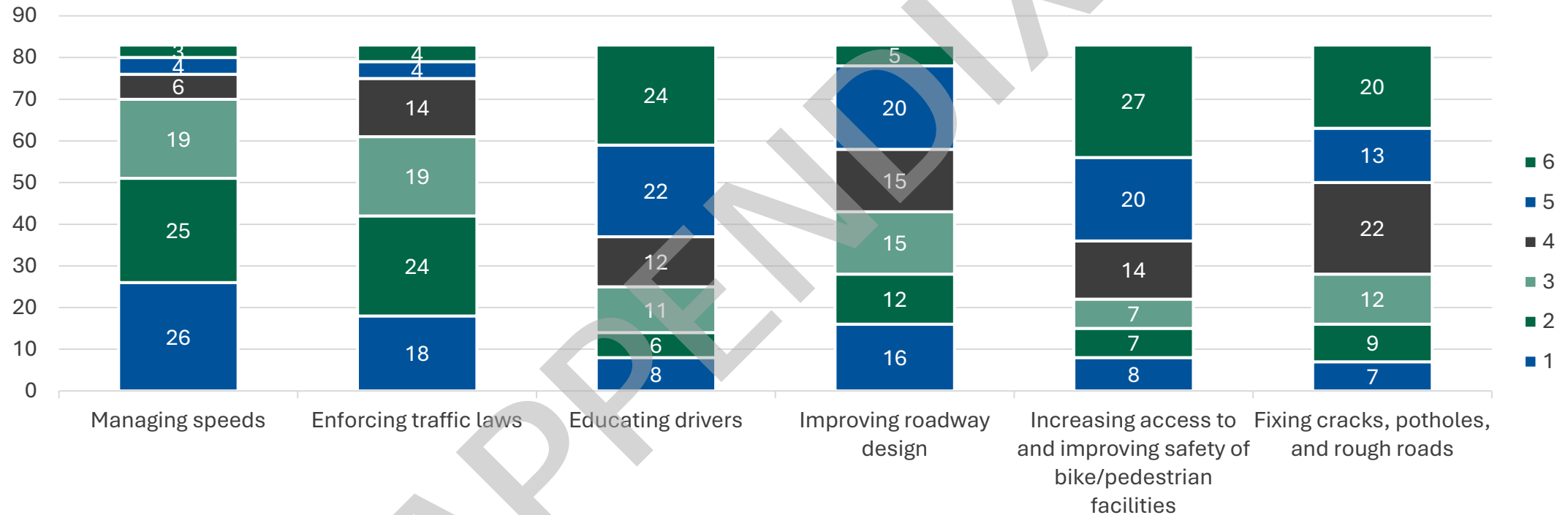


What types of safety improvement projects would you support?



Digital Survey Results

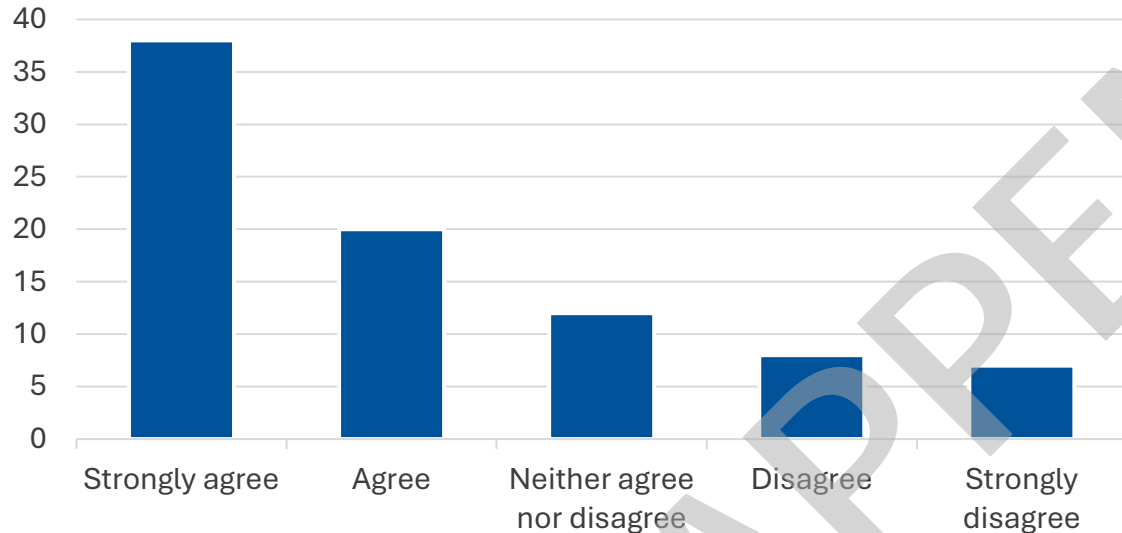
Rank the following from most to least important for what safety improvements are most important and pressing throughout the City of Gastonia.



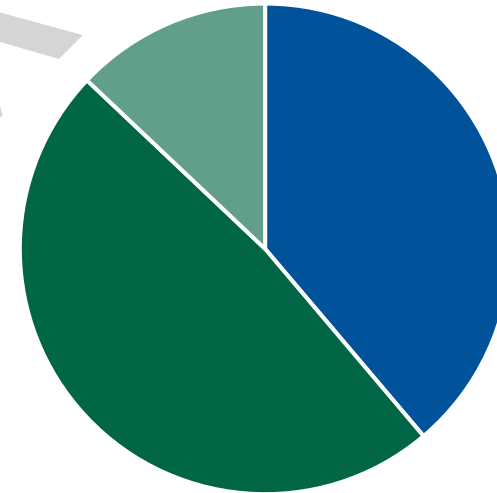
Digital Survey Results

To what extent do you agree with the following statement:

"Prioritizing safety on our streets and reducing traffic deaths is more important to me than addressing congestion."

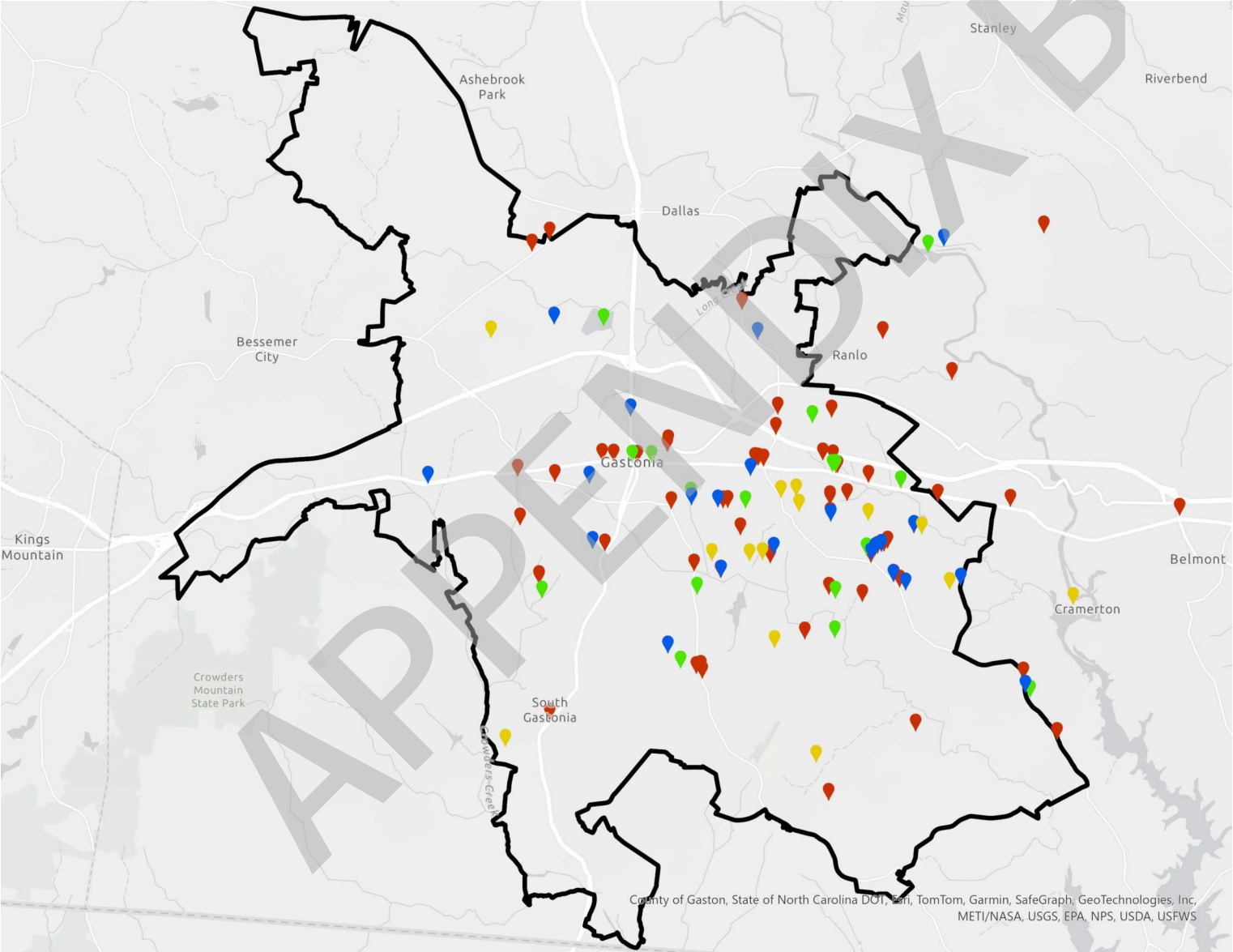


Which statement do you agree with more?



- Making street somewhat safer for pedestrians seems more important than making them somewhat safer for car travel
- Making streets somewhat safer for car travel seems more important than making them somewhat safer for pedestrians
- Not sure

Interactive Mapping Results



- Challenges
- Opportunities
- Destinations
- Where do you live?

Public Engagement Takeaways

Key Corridors:

- Franklin Blvd
- New Hope Rd
- Redbud Dr
- Cox Rd
- Garrison Blvd
- Union Rd
- US 321
- Laurel Ln
- Hoffman Rd
- Hudson Blvd
- Robinwood Rd
- Beaty Rd
- Armstrong Park Rd

Common Themes:

- Speeding
- Running red lights
- Lack of sidewalks
- Passing in center left-turn lanes
- Neighborhoods being used as cut-throughs

State of Safety Report

APPENDIX B

Overview

- Crash data (FSI vs all crashes)
- Transportation Conditions
- Demographics/Community Need
- Relevant Plans/Policy Documents

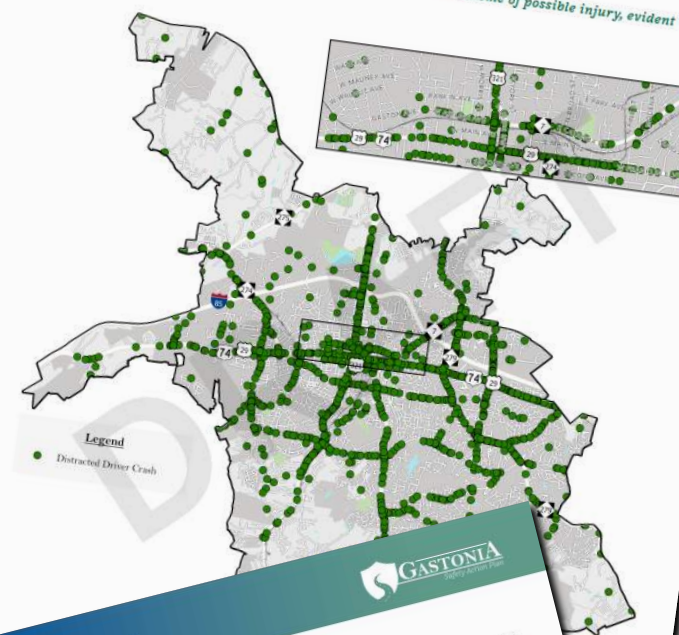
CONTRIBUTING FACTORS FOR ALL CRASHES

Across all recorded crashes, distracted driving was the most common contributing factor, leading to over 27% of all total crashes between 2020 and 2024. Two population age groups, older drivers (22%) and teen drivers (13%), were also major contributing factors.

Contributing Factor	Number of Crashes
Distracted Driver	3,631
Older Driver	2,899
Teen Driver	1,790
Alcohol Presence	423
Speed	417
	273
	270
	208
	96

Transportation Conditions

Distracted Driving Crash Map
18% of crashes involving a distracted driver resulted in an outcome of possible injury, evident injury, disabling injury, or fatality.



December 2025

The City of Gastonia

STATE OF SAFETY REPORT

GASTONIA
Safety Action Plan

When a driver's attention is diverted, the likelihood of a collision increases. The more severe the outcomes. The faster reaction time and...

702	775
672	701
781	800

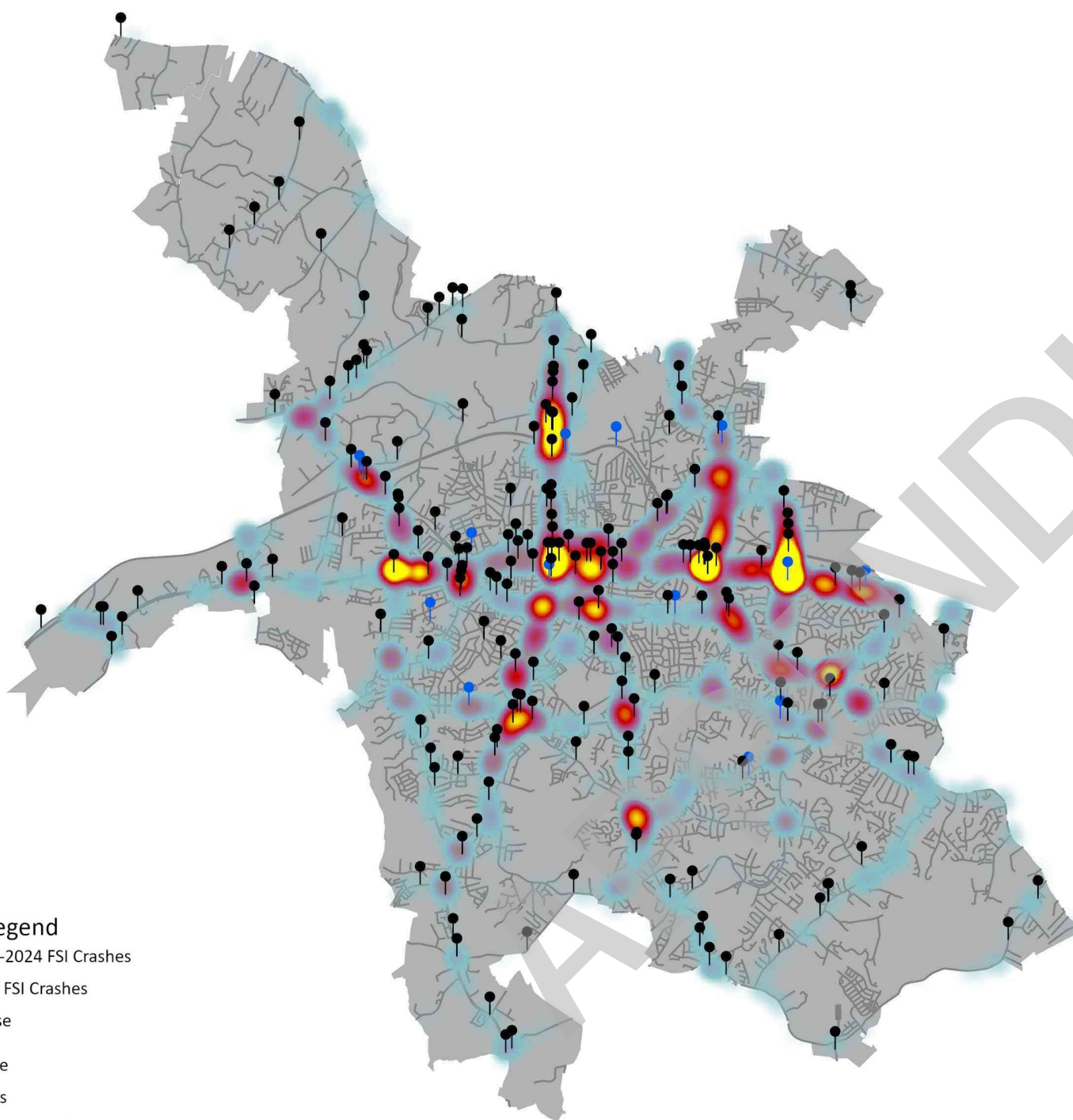
CONTRIBUTING FACTORS FOR FSI CRASHES

Across recorded FSI crashes, presence of an unbelted driver was the most common contributing factor, leading to just over 23% of FSI crashes between 2020 and 2024. Alcohol presence (15%) and distracted driving (15%) were also major contributing factors. These leading factors—unbelted driving, alcohol use, and distracted behavior—are all conscious decisions made by drivers. They reflect choices that directly impact safety. Because these behaviors account for the highest share of severe crashes, it's critical for every driver to recognize that safety starts with personal responsibility. Buckling up, staying sober, and keeping full attention on the road are simple actions that can prevent tragedies and save lives every single time someone gets behind the wheel.

Crashes involving an unbelted driver or alcohol contributed to 5% of all crashes but account for 42% of all FSI crashes

Contributing Factor	Number of Crashes
Unbelted Driver	46
Alcohol Presence	37
Distracted Driver	31
Older Driver	26
Speed	26
Teen Driver	25
Drug Presence	21
Drowsy Driver	3
Animal	0





What We Have Learned So Far

Crash History
(2020-2025)

Chapters

Introduction

Transportation Conditions

- A detailed review of crash trends and patterns
- A review of crash history within the study area including existing and planned transportation facilities

Community Conditions

- An examination of Gastonia's current zoning along with demographic and socioeconomic characteristics that influence transportation safety

Plan, Policy, and Program Review

- A literature review of Gastonia's existing policies, programs, and initiatives

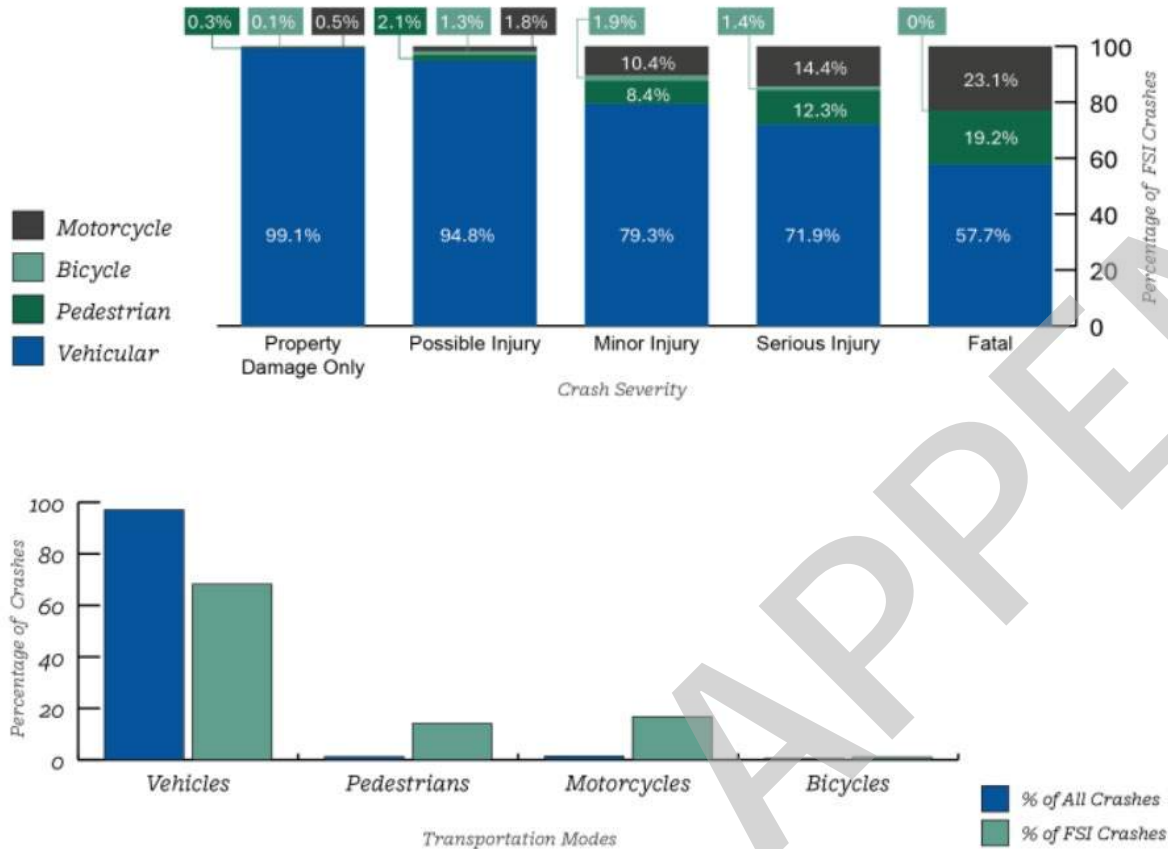
Emphasis Areas and Targets

- Identification of priority safety improvement areas aligned with safety performance measures adopted by GCLMPO and the NC SHSP

Key Takeaways

- The three largest takeaways from examining the 2020 – 2024 crash data

Transportation Conditions – Fast Facts



- Over **13,300** reported crashes
- **Distracted driving** is the top contributor (27% of crashes); **older drivers** (22%) and **teen drivers** (13%)
- **Vulnerable road users** (pedestrians, cyclists, motorcyclists) face highest risk in downtown and arterial corridors
- **198 FSI crashes:** 135 vehicle, 28 pedestrian, 37 bicycle/motorcycle
- Leading FSI contributing factors: **Unbelted driver** (46), **Alcohol presence** (37), **Distracted driver** (31)

Emphasis Areas

- *Compares Gastonia to North Carolina's 2024 Strategic Highway Safety Plan Update*
- Emphasis Area's include
 - Lane Departures
 - Pedestrians, Bicyclists and Person Mobility
 - Intersections
 - Seat Belts and Cat Seats
 - Speed Management
 - Motorcyclists
 - Substance Impaired Driving
 - Older Drivers
 - Younger Drivers
- Gastonia excels in every Emphasis Area when compared to NC

North Carolina's and Gastonia's percentage of FSI crashes out of total crashes attributed to each Emphasis Area:

Emphasis Area	North Carolina	Gastonia	Difference
Lane Departure	5.08%	4.11%	-0.97%
Seat Belts and Car Seats*	19.17%	17.49%	-1.68%
Substance Impaired Driver	10.89%	9.09%	-1.70%
Intersections	2.16%	0.81%	-1.35%
Safer Speeds	6.41%	6.23%	-0.18%
Older Drivers	2.30%	0.97%	-1.33%
Pedestrians	24.10%	17.50%	-6.60%
Motorcyclists	22.36%	17.55%	-4.81%
Younger Drivers	1.93%	1.40%	-0.53%
Bicyclists	11.60%	4.76%	-6.84%

Source: 2024 NC SHSP Update

**Crash data acquired for Gastonia only depicts crashes where an unbelted driver was involved*

Key Takeaways



FSI Crashes are concentrated on major arterials and intersections, especially for vulnerable road users



Gastonia's FSI crash rate is rising faster than the state average, with distracted driving and unbelted occupants as key factors



Gastonia is investing in safety but faces gaps in multimodal connectivity and must prioritize high-risk areas

High-Injury Network (HIN)

APPENDIX B

Developing the HIN



Scoring Segments and Intersections

**Fatal or Severe Injury (FSI)
Crashes**
(Severity K or A)

Each FSI crash: 3 points



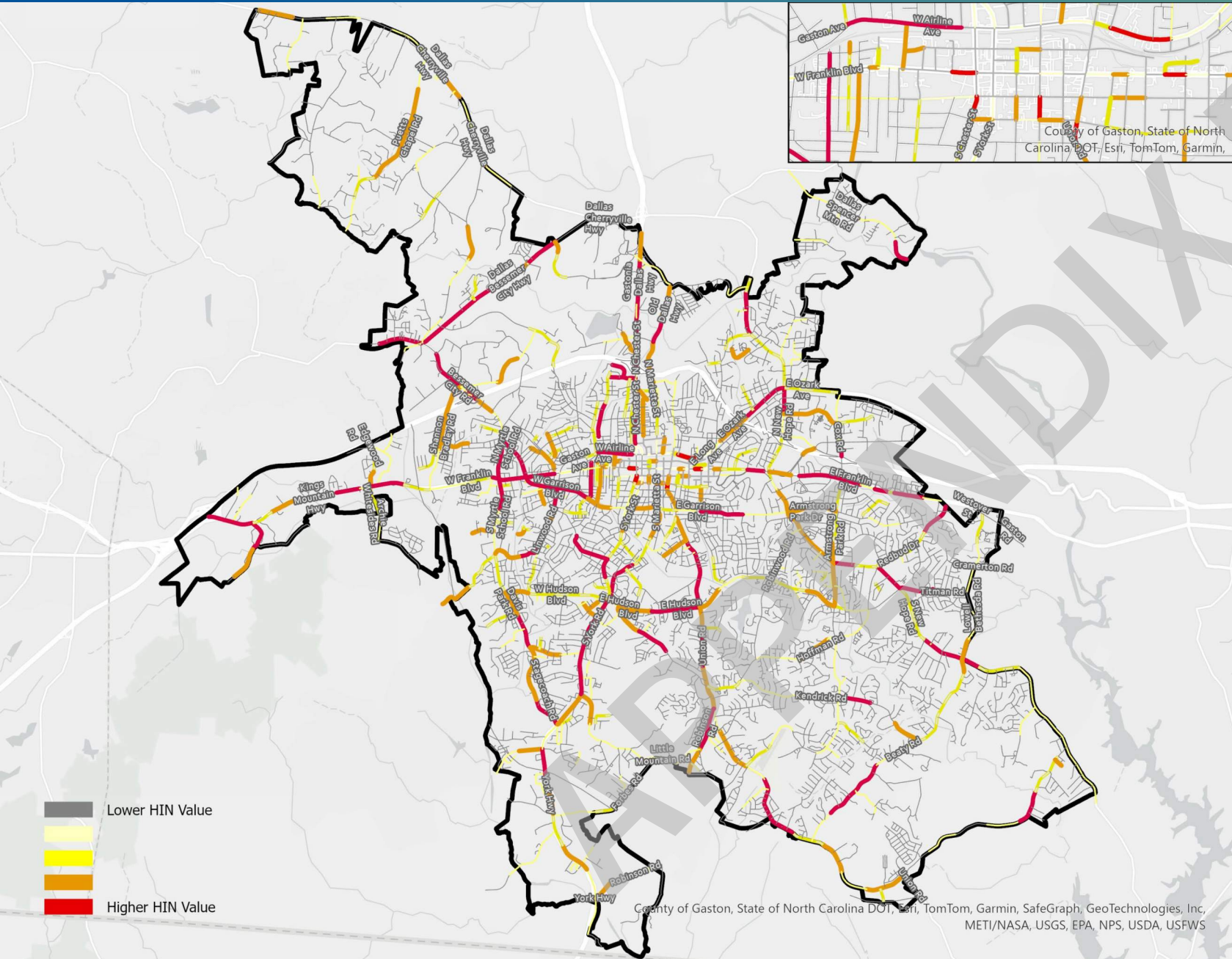
Minor Injury Crashes
(Severity B or C)

1-4 minor injury crashes: 1 point
5-8 minor injury crashes: 2 points
9-12 minor injury crashes: 3 points
13-16 minor injury crashes: 4 points
17-20 minor injury crashes: 5 points



Vulnerable User Crashes
(Bicycle, Pedestrian, Motorcycle)

Each vulnerable user crash: 2 points



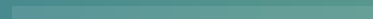
Gastonia

HIN

DRAFT

Prioritization

APPENDIX B



Goals

Growth Alignment

Prioritize investments at locations that support future growth opportunities while meeting the needs of our current residents.

Multimodal Design

Prioritize transportation safety on our bicycle and pedestrian facilities.

Vehicular Design

Prioritize transportation safety for vehicles on our roadways.

Implementation and Funding

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Safety Culture*

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Community Context

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Prioritization

- Guides future decision-making
- Defensible and easily replicable process
- Organized around the goals of this plan

GOAL

Criteria 1 = X
Criteria 2 = $\frac{X}{Y}$

+

GOAL

Criteria 1 = X
Criteria 2 = $\frac{X}{Y}$

+

GOAL

Criteria 1 = X
Criteria 2 = $\frac{X}{Y}$

+

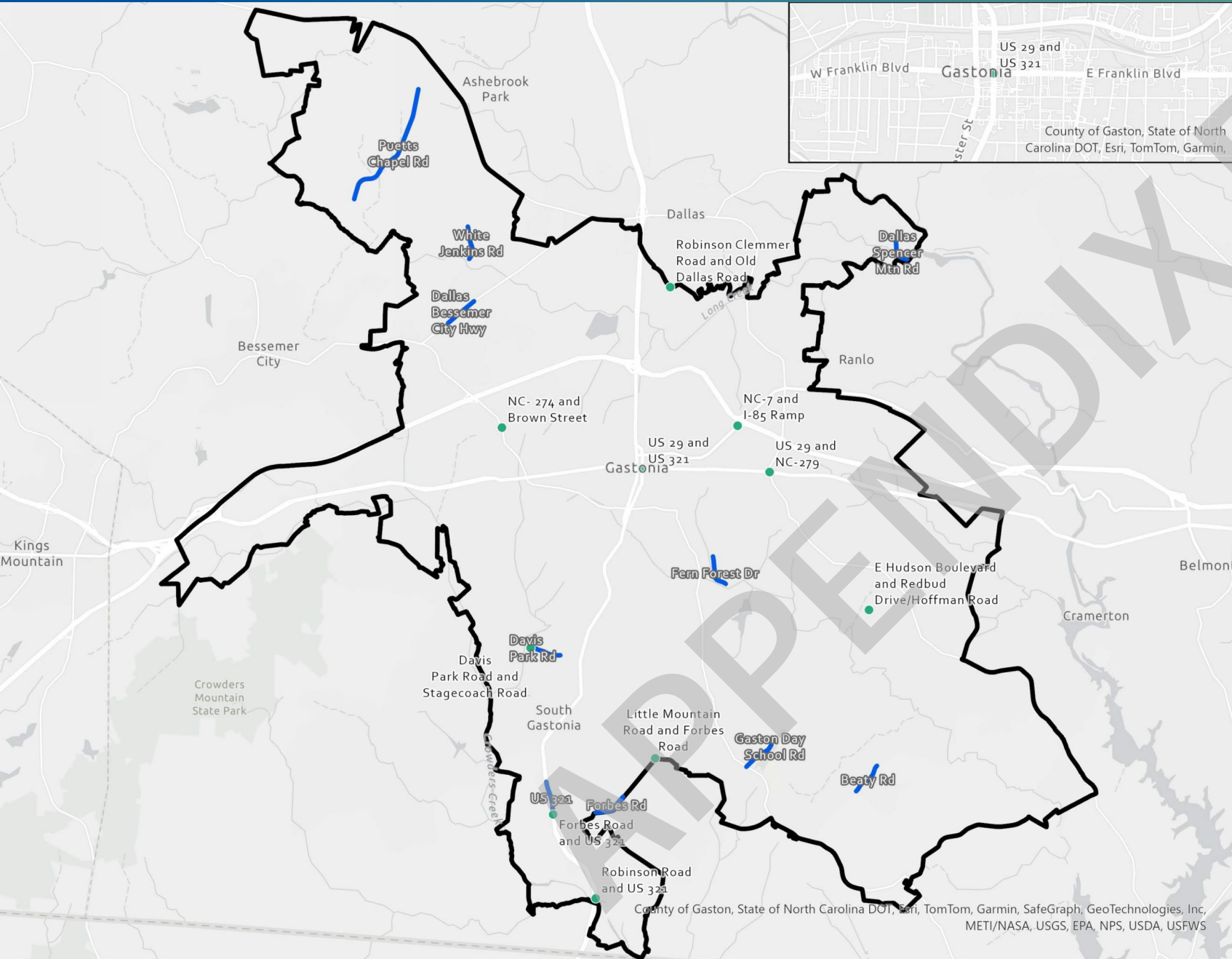
GOAL

Criteria 1 = X
Criteria 2 = $\frac{X}{Y}$

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Prioritization Activity

APPENDIX B



Top Corridors and Intersections



Next Steps

Publish State of Safety Report

Solidify High-Injury Network

Project Identification and Prioritization

Public Engagement (2nd Round)

Schedule 3rd Safety Task Force Meeting

APPENDIX B



Safety Task Force

Meeting #3

City of Gastonia
Safe Streets and Roads for All (SS4A)
Safety Action Plan

March 12th, 2026

(Re)Introductions

Task Force Members

Kimley-Horn Project Team



Vision Statement & Goals

Gastonia envisions a safe, reliable, and connected transportation system that protects all travelers, promotes the efficient movement of people and goods, and enhances travel throughout the community.

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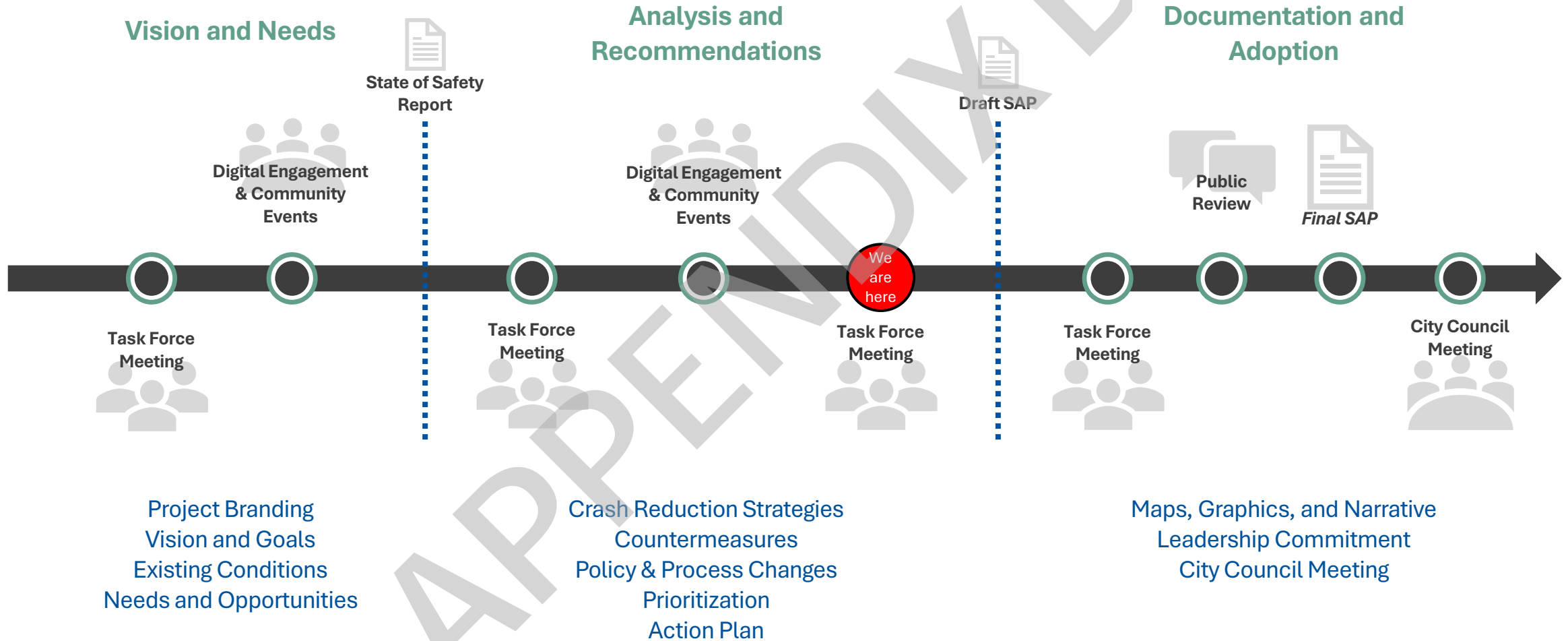
Community Context

Prioritize improvements to ensure all residents have access to safe transportation facilities.

Connectivity

Prioritize safe, reliable connections to integral community destinations including: schools, parks, greenways, downtown, places of employment, and businesses.

Project Status



STF Meeting #2 Follow-up

APPENDIX B

Stakeholder Meetings

- 3 virtual meetings
 - Group 1: Staff, Elected Officials, and Other Professionals
 - Group 2: First Responders, Safety, and Health Positions
 - Group 3: Community Members and Local Business
- Common questions
 - What is your perception of transportation safety in Gastonia?
 - What are some short-term and long-term improvements you would like to see related to transportation safety in Gastonia?
 - What are tradeoffs we need to consider when improving transportation safety?
- Questions specific to each group



Group 1: Staff, Elected Officials, and Other Professionals

Accessible crossings

Not using available infrastructure



Group 2: First Responders, Safety, and Health Positions

Redesign intersections
Pedestrians not using available facilities



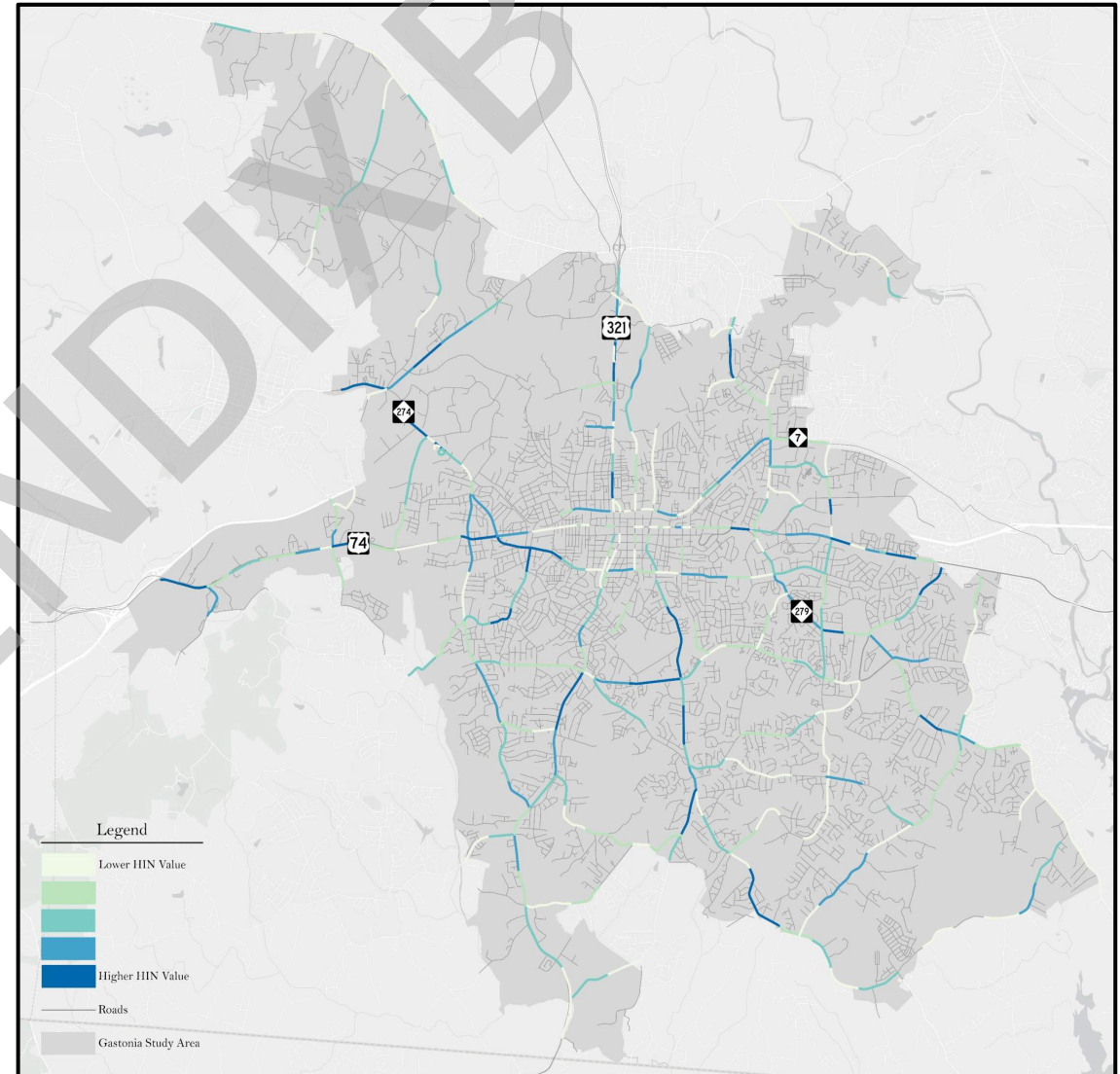
Group 3: Community Members and Local Business

High-Injury Network (HIN)

APPENDIX B

HIN Process

- Quantitative process
- Corridor-based depiction of highest safety needs in community
- Used as a tool for prioritization
- “Living” network – updated regularly
- **Consolidated HIN**



Developing the HIN

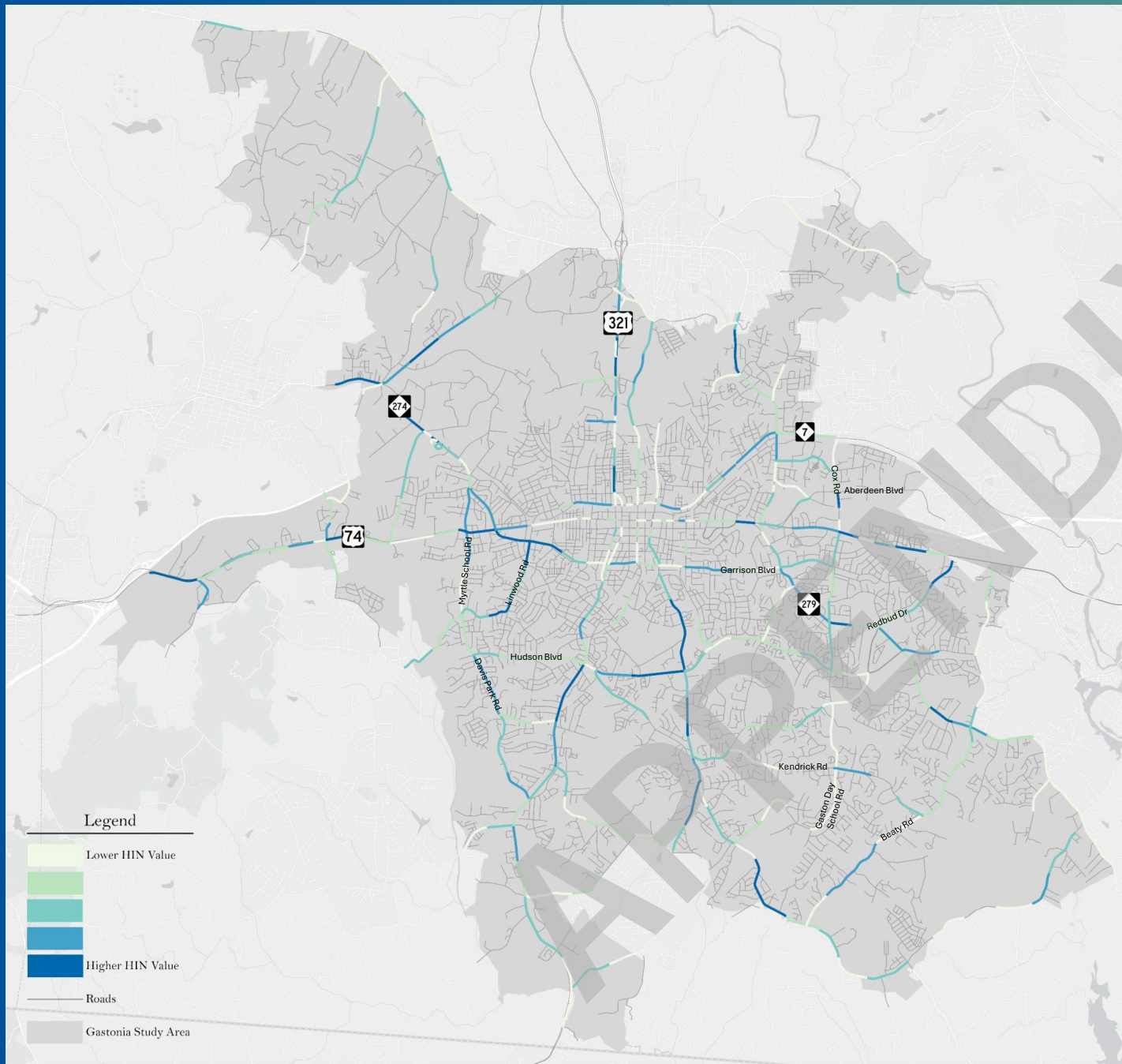
Corridor
Segmentation

Develop
Scoring
Methodology

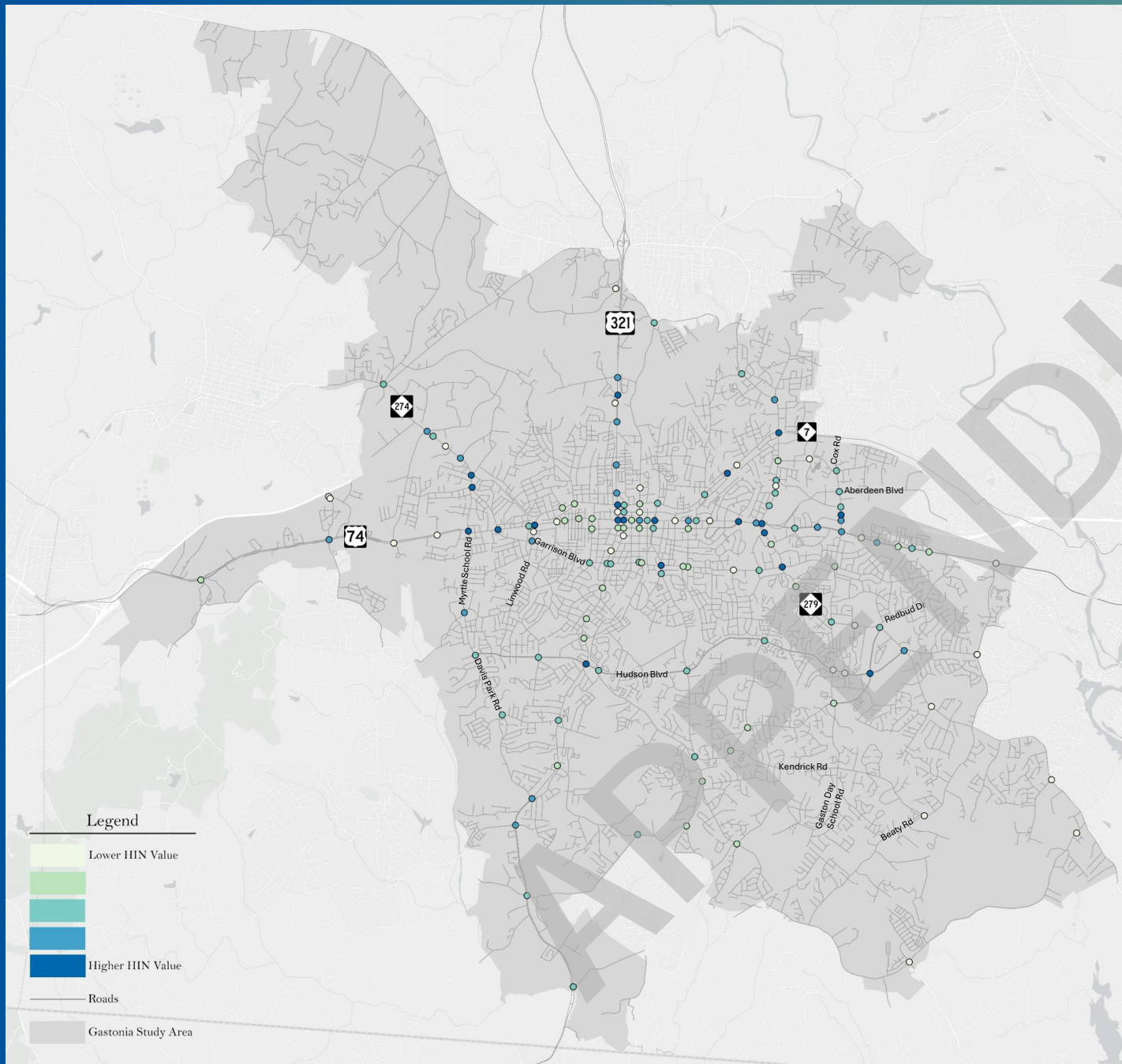
Review
Results

Scoring Criteria

	Segments	Intersections
Fatal or Severe Injury (FSI) Crashes (Severity K or A)	Each FSI crash: 3 points	Each FSI crash: 3 points
Minor Injury Crashes (Severity B or C)	1 minor injury crashes: 1 point 2-3 minor injury crashes: 2 points 4-5 minor injury crashes: 3 points 6-8 minor injury crashes: 4 points 9+ minor injury crashes: 5 points	1-3 minor injury crashes: 1 point 4-6 minor injury crashes: 2 points 7-11 minor injury crashes: 3 points 12-16 minor injury crashes: 4 points 17+ minor injury crashes: 5 points
Vulnerable Road User (VRU) Crashes (Bicycle, Pedestrian, Motorcycle)	Each VRU crash: 2 points	Each VRU crash: 2 points



Gastonia HIN SEGMENTS



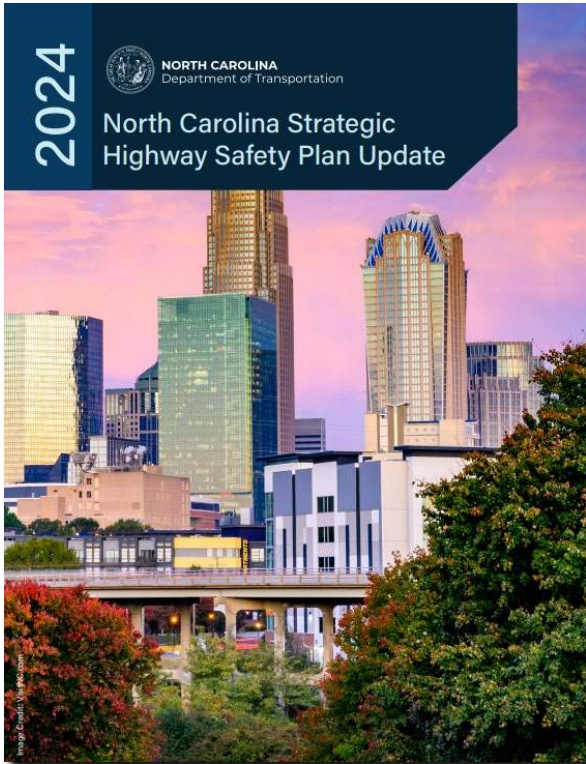
Gastonia HIN INTERSECTIONS

Gastonia's Emphasis Areas



North Carolina Strategic Highway Safety Plan (SHSP)

Emphasis Areas



Lane Departures

Pedestrians, Bicyclists, and Personal Mobility

Intersections

Seat Belts and Car Seats

Speed Management

Motorcyclists

Substance Impaired Driving

Older Drivers

Younger Drivers

Gastonia's Emphasis Areas

Intersections

Crashes occurring within the limits of intersections. Intersections can include driveways, alleyways, and on/off ramps.

Lane Departures

Crashes resulting from a vehicle leaving its designated lane, including incidents such as run-off-road, collisions with fixed objects, head-on impacts, rollovers, and opposite-direction sideswipes

Vulnerable Road Users

Crashes involving people walking, riding bicycles/motorcycles, or using personal mobility devices (such as scooters), whether on sidewalks, crosswalks, bike lanes, or shared roadways.

Speed Management

Crashes where excessive speed or driving too fast for conditions is a contributing factor, increasing the likelihood and severity of collisions.

Age of Driver

Crashes involving drivers under or over a specific age threshold, either ages 15 - 19 or aged 65 or older. Age can often be associated with inexperience, higher-risks behaviors, changes in vision, reaction time or physical ability.

Seat Belts

Crashes where improper or non-use of seat belts contributes to injury severity, emphasizing occupant protection measures.

Focus Area Identification

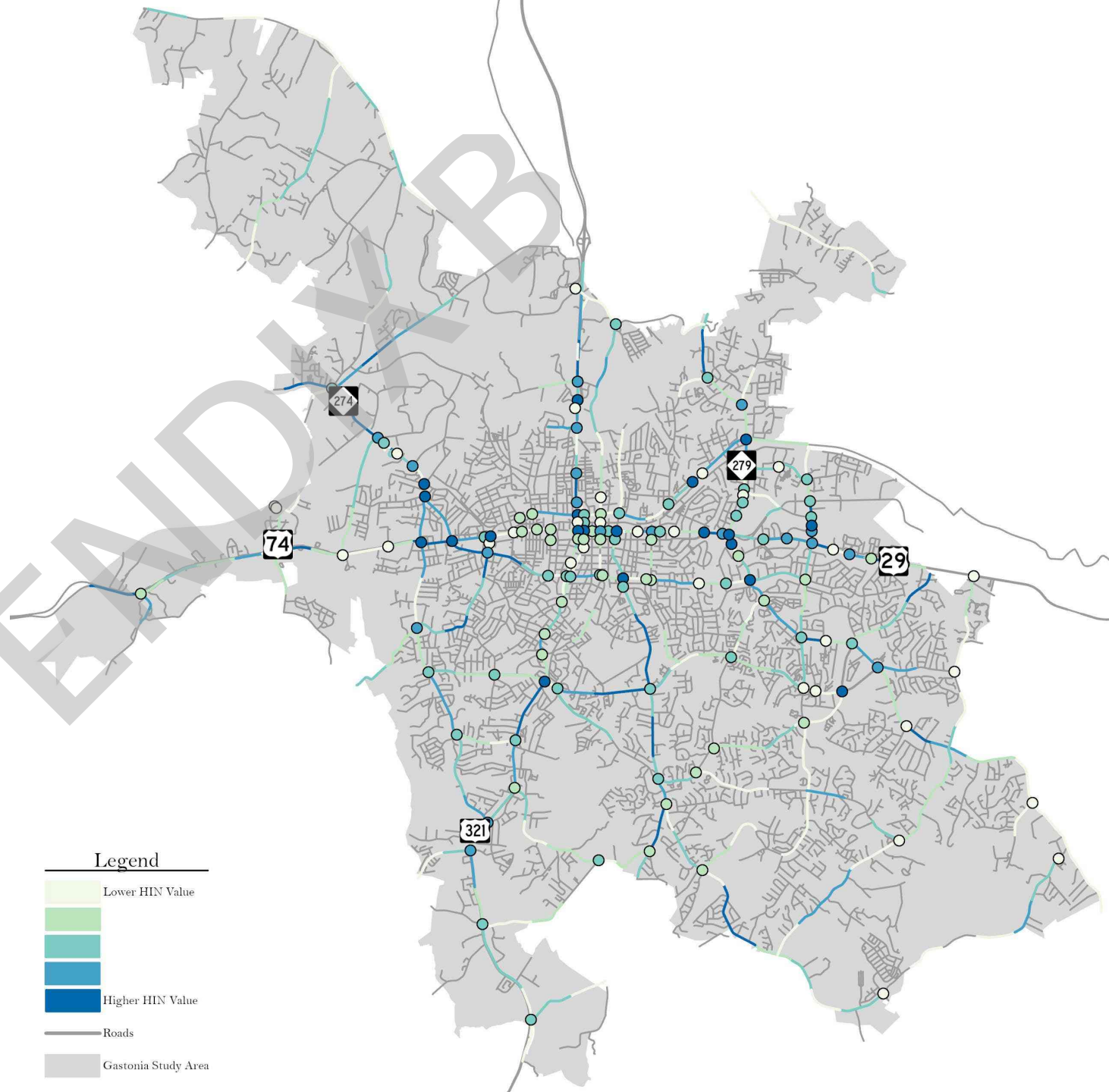
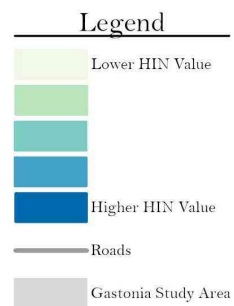
APPENDIX B

Focus Area Identification Process



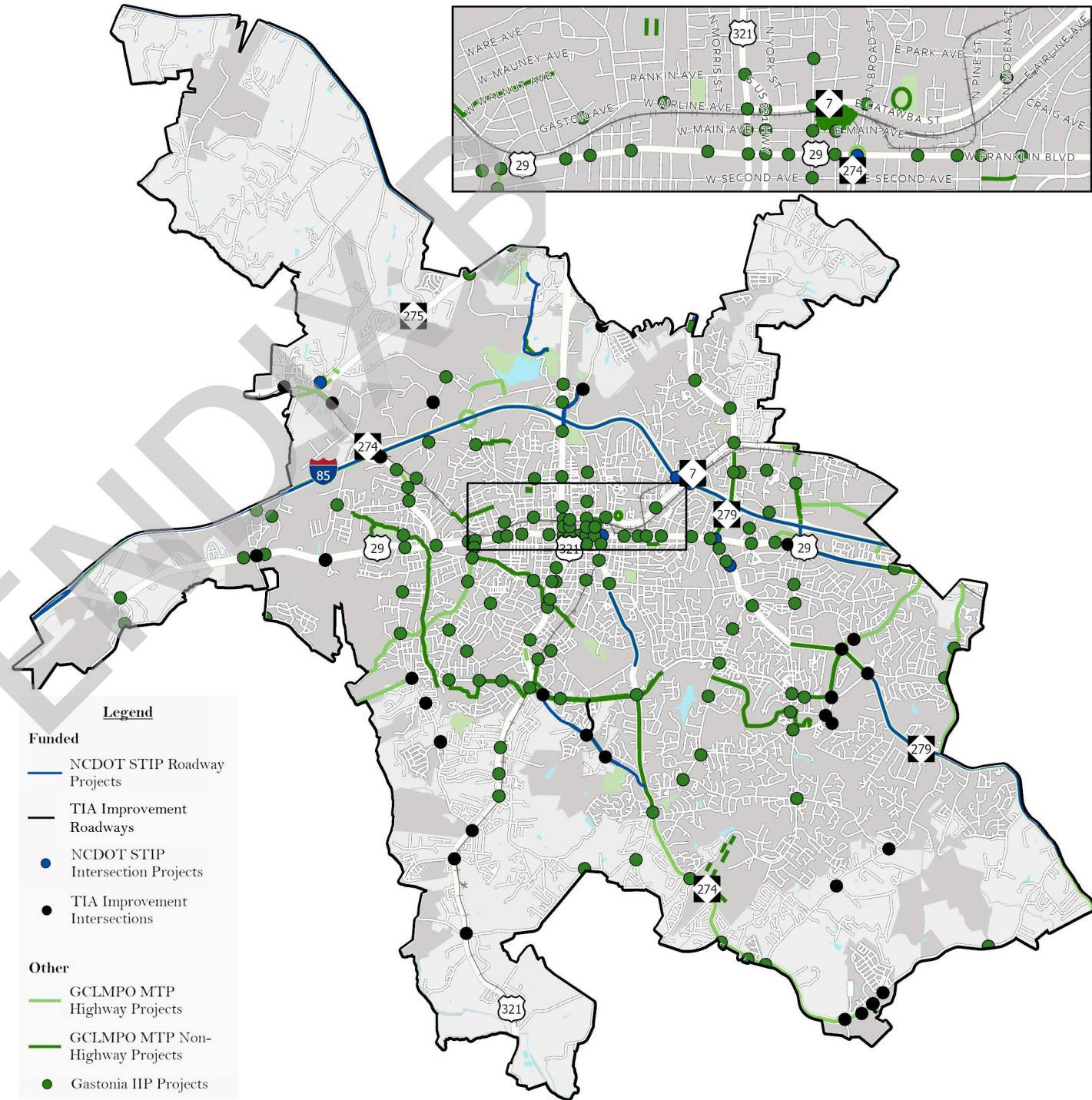
1

Develop HIN



2

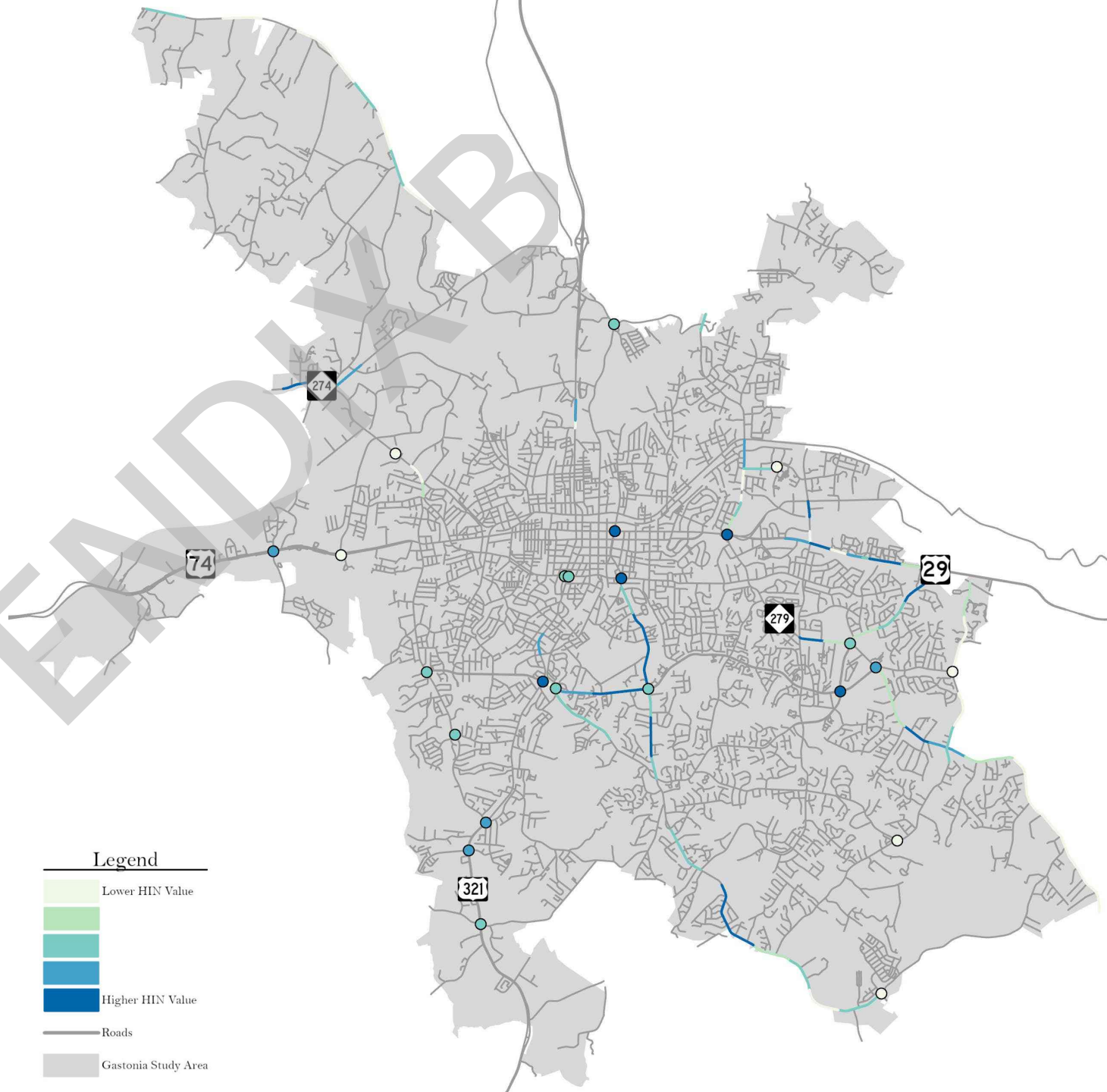
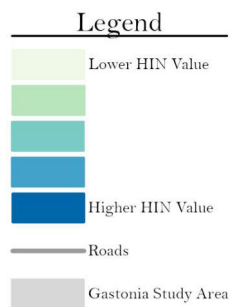
Inventory Pipeline Transportation Projects





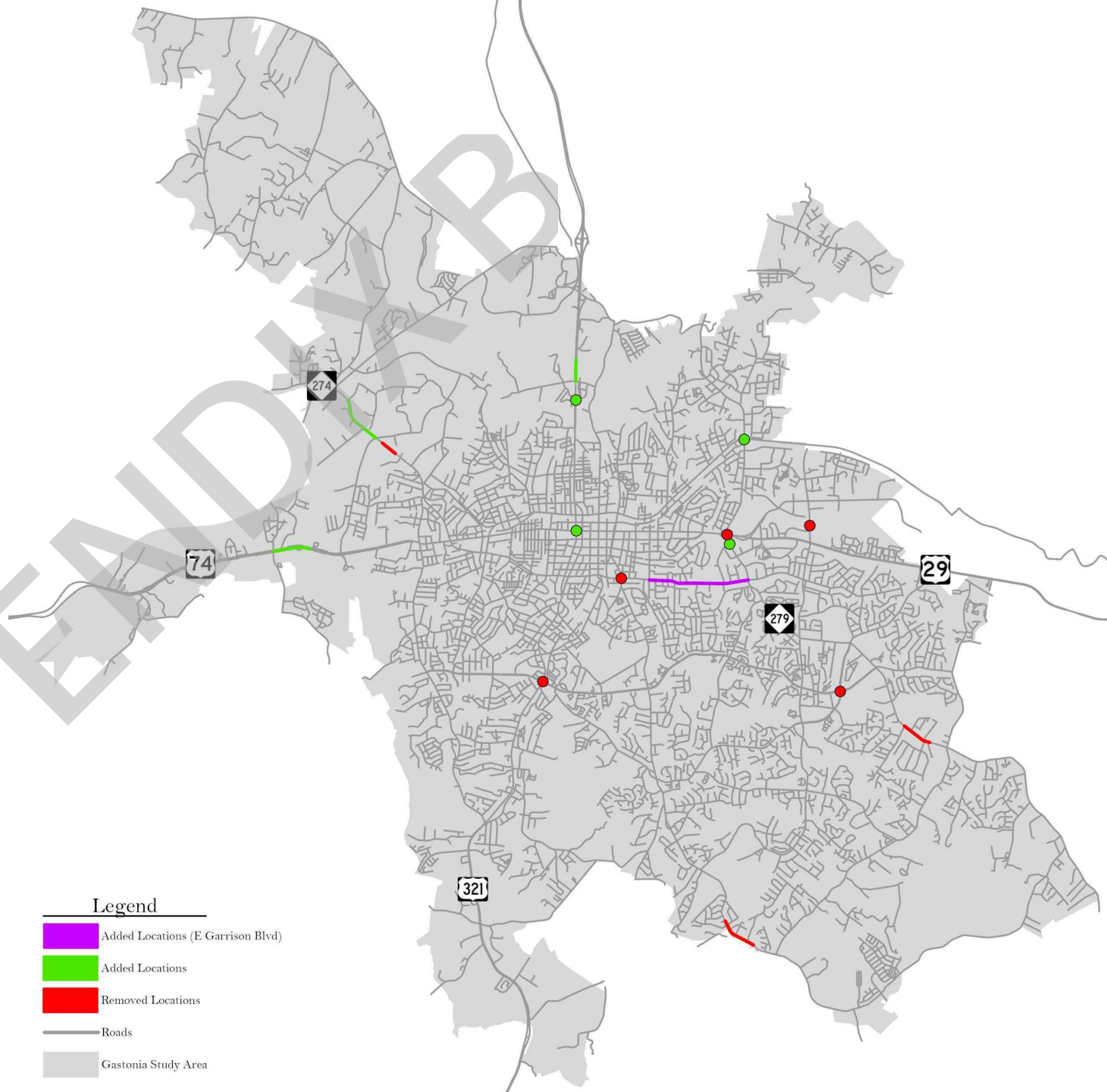
Overlay HIN

APPENDIX B



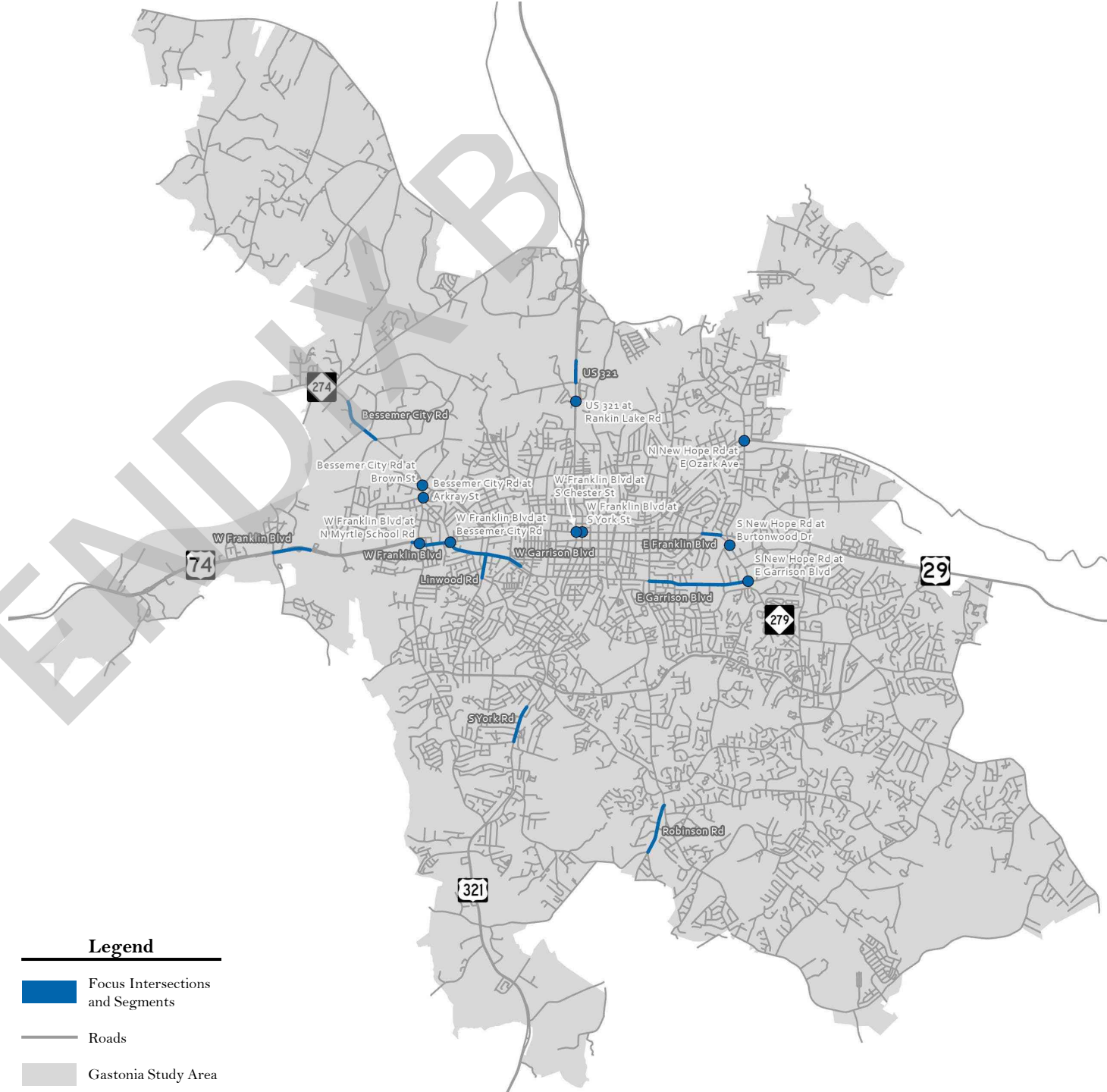
4

Gap Analysis



5

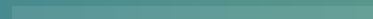
Focus Intersection and Segment Locations



- Legend**
- Focus Intersections and Segments
 - Roads
 - Gastonia Study Area

Prioritization

APPENDIX B



Goals

Growth Alignment

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Prioritization

- Guides future decision-making
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+

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Prioritization Activity

APPENDIX B

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Next Steps

APPENDIX B

Next Steps

Schedule Final Safety Task Force Meeting

Public Engagement (2nd Round)

Finalize Area Identification and Prioritization

Leadership Commitment (Next STF Meeting)

APPENDIX B

Phase 2 Engagement

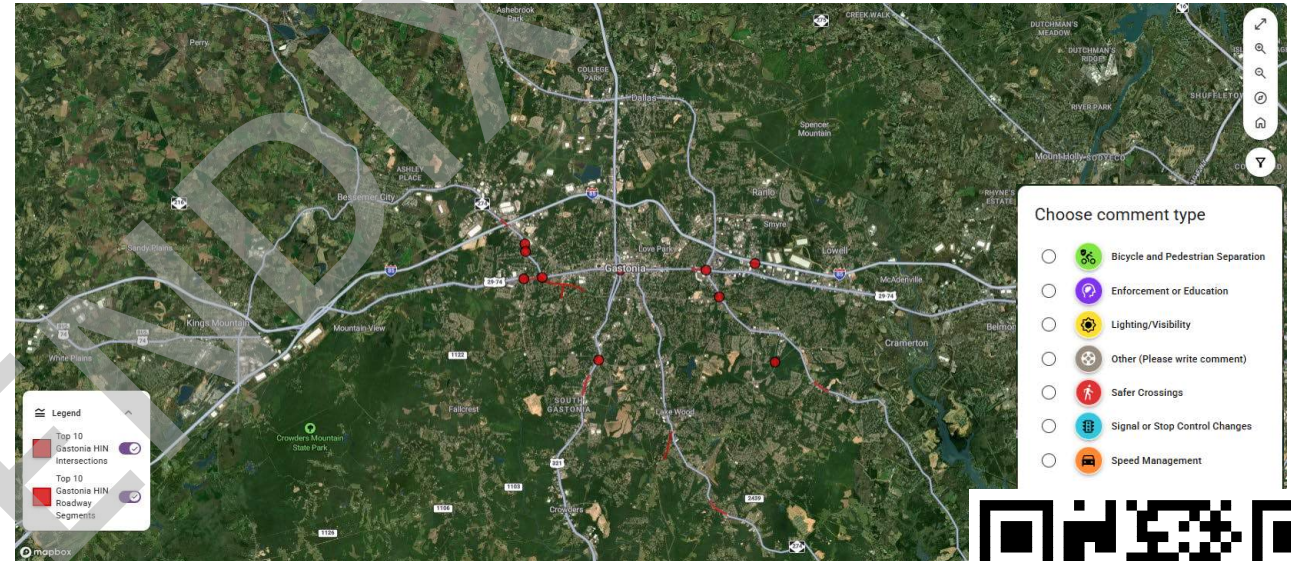
Continue building awareness about the plan, verify current findings, and educate on current safety conditions.

In-Person Activities

- Public Workshop #2 (3/16)
- Gaston MAX (3/28)

Digital Engagement

- Interactive Mapping (*HIN countermeasures*)
- Engagement Site
- Public Engagement Summary for download





Safety Task Force

Meeting #4

City of Gastonia
Safe Streets and Roads for All (SS4A)
Safety Action Plan


May 5th, 2026

(Re)Introductions

Task Force Members

Kimley-Horn Project Team

APPENDIX B

A large, faint, light green graphic of two hands shaking, positioned diagonally across the right side of the slide.

Vision Statement & Goals

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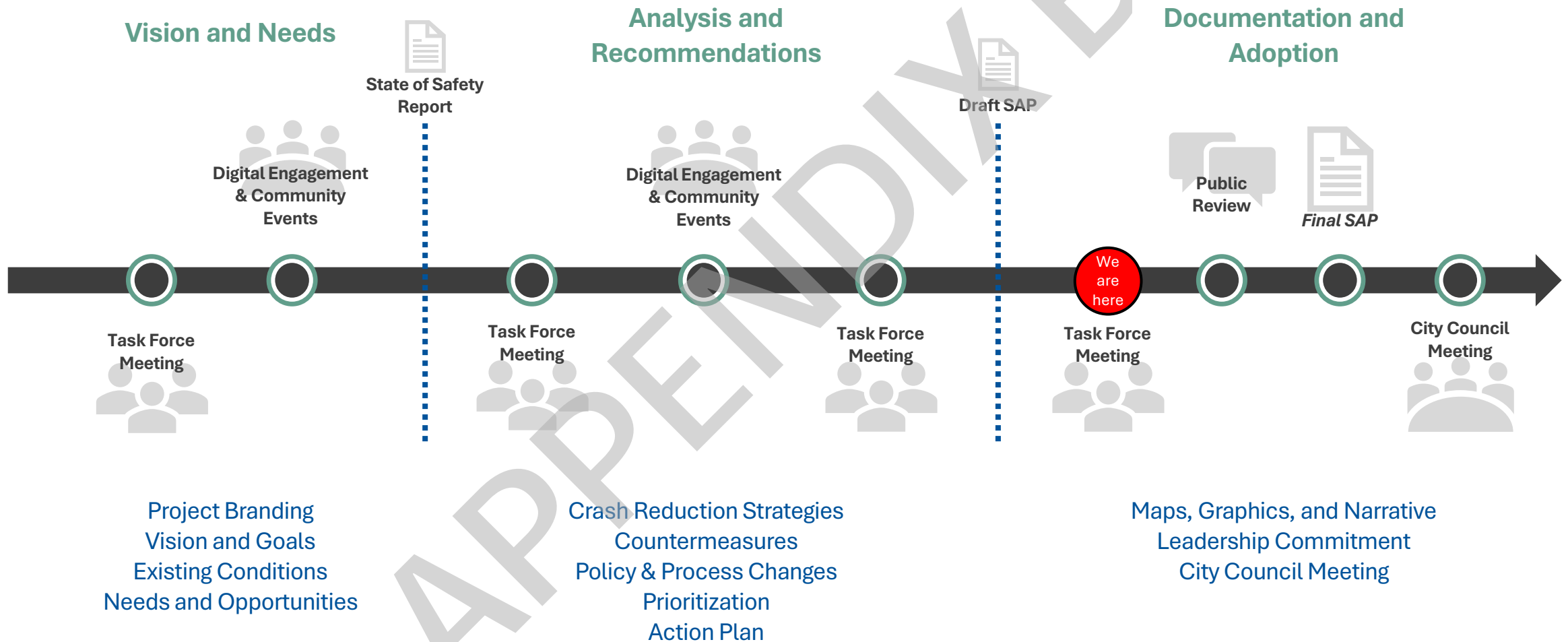
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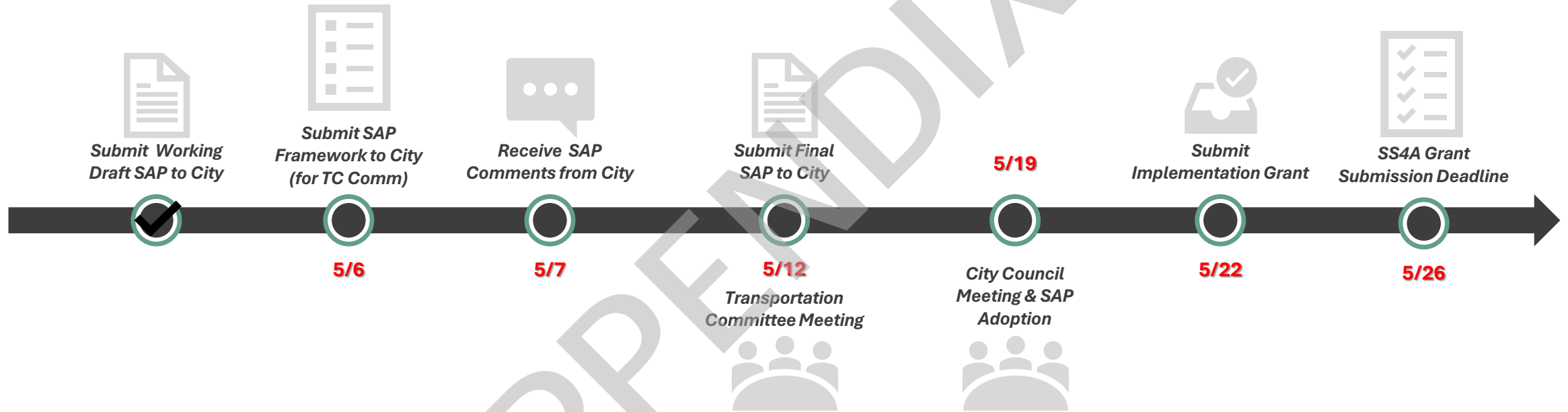
Connectivity

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Project Status



Timeline – Home Stretch



Leadership Commitment

APPENDIX B

USDOT Requirement

1. Leadership Commitment and Goal Setting

Leadership commitment and goal setting is an official public commitment (e.g., resolution, policy, ordinance) by a high-ranking official and/or governing body (e.g., mayor, city council, Tribal council, metropolitan planning organization [MPO] policy board) to an eventual goal of zero roadway fatalities and serious injuries.

The commitment must include a goal and timeline for eliminating roadway fatalities and serious injuries achieved through one, or both, of the following:

1. The target date for achieving zero roadway fatalities and serious injuries, or
2. A percentage reduction of roadway fatalities and serious injuries by a specific date with an eventual goal of eliminating roadway fatalities and serious injuries.

Draft Vision Zero Statement

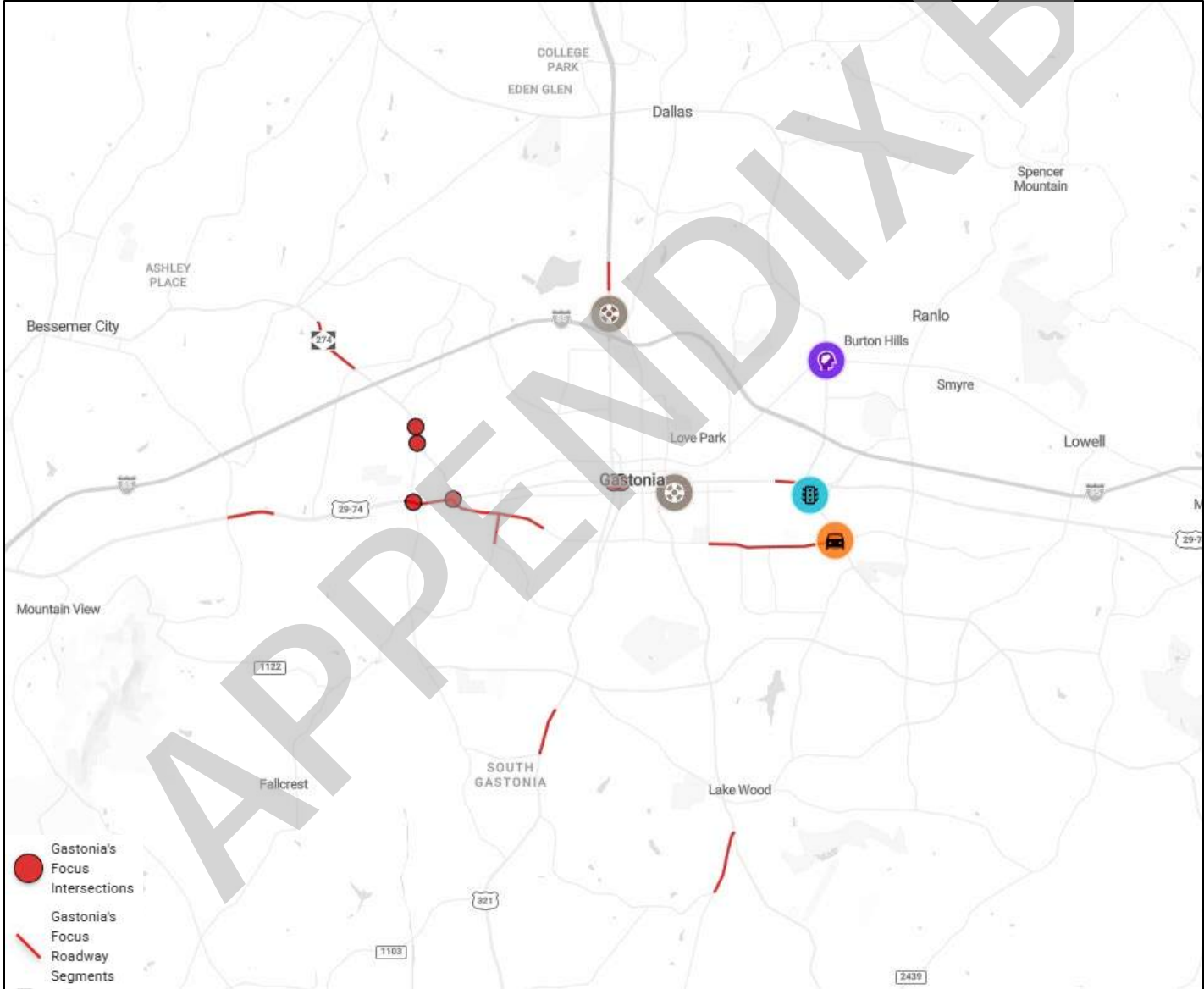
The City of Gastonia commits to a goal of 50% reduction in fatal and serious injury crash rate by 2038.

The City of Gastonia commits to a goal of zero fatal and serious injury crashes by 2050.

Engagement

APPENDIX B

Interactive Mapping Results



- Category
- Bicycle and Pedestrian Separation
 - Enforcement or Education
 - Lighting/Visibility
 - Other (Please write comment)
 - Safer Crossings
 - Signal or Stop Control Changes
 - Speed Management

Engagement Activities

Public Workshop #2

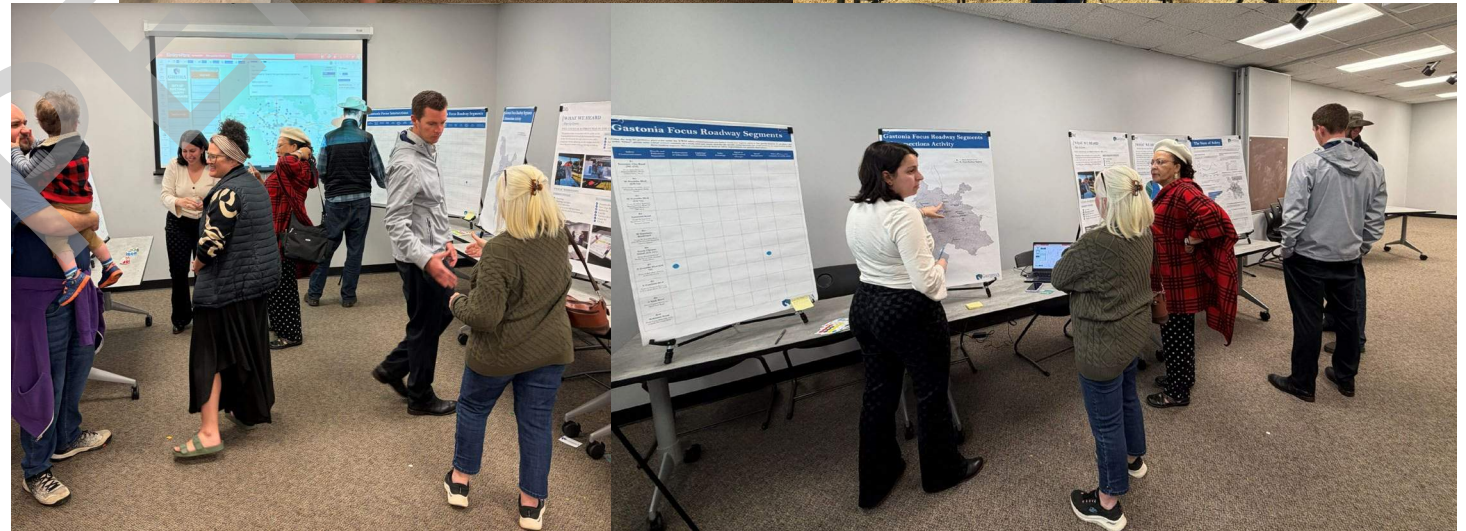
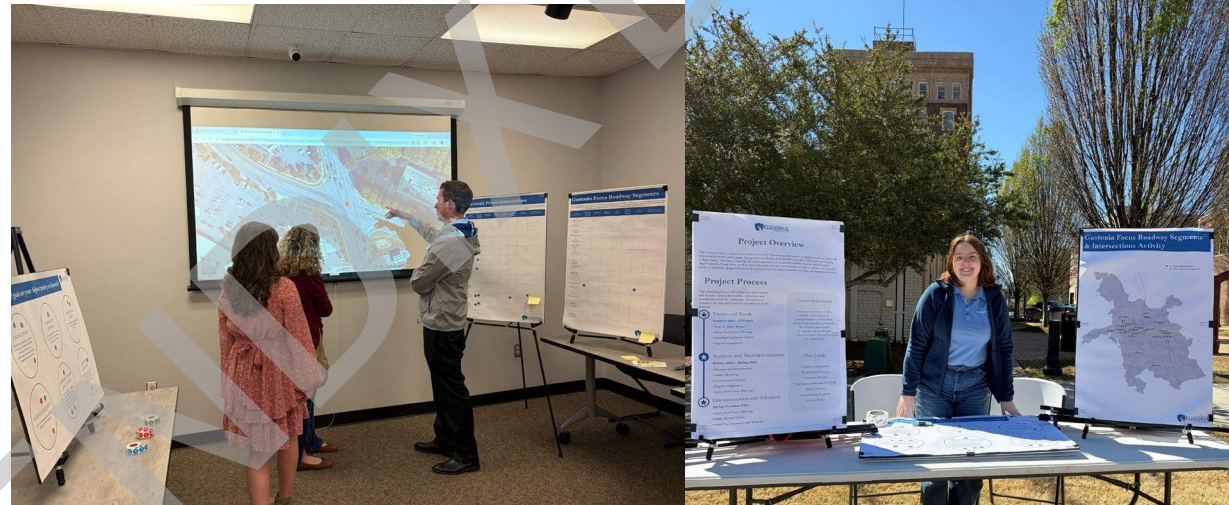
(March 16)

Gaston MAX

(March 28)

Digital Survey

(Closed April 17)



Prioritization

APPENDIX B



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+

GOAL

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=

Criteria and Scoring

Connectivity (20%)

- Downtown (4%)
- Schools (4%)
- Greenways (4%)
- Parks (4%)
- Community Centers (4%)

Community Context (10%)

- Vehicle Ownership (5%)
- Income (5%)

Multimodal Design (25%)

- Bike/Ped Crashes (9%)
- Presence of Pedestrian Facilities (8%)
- Presence of Bicycle Facilities (8%)

Vehicular Design (15%)

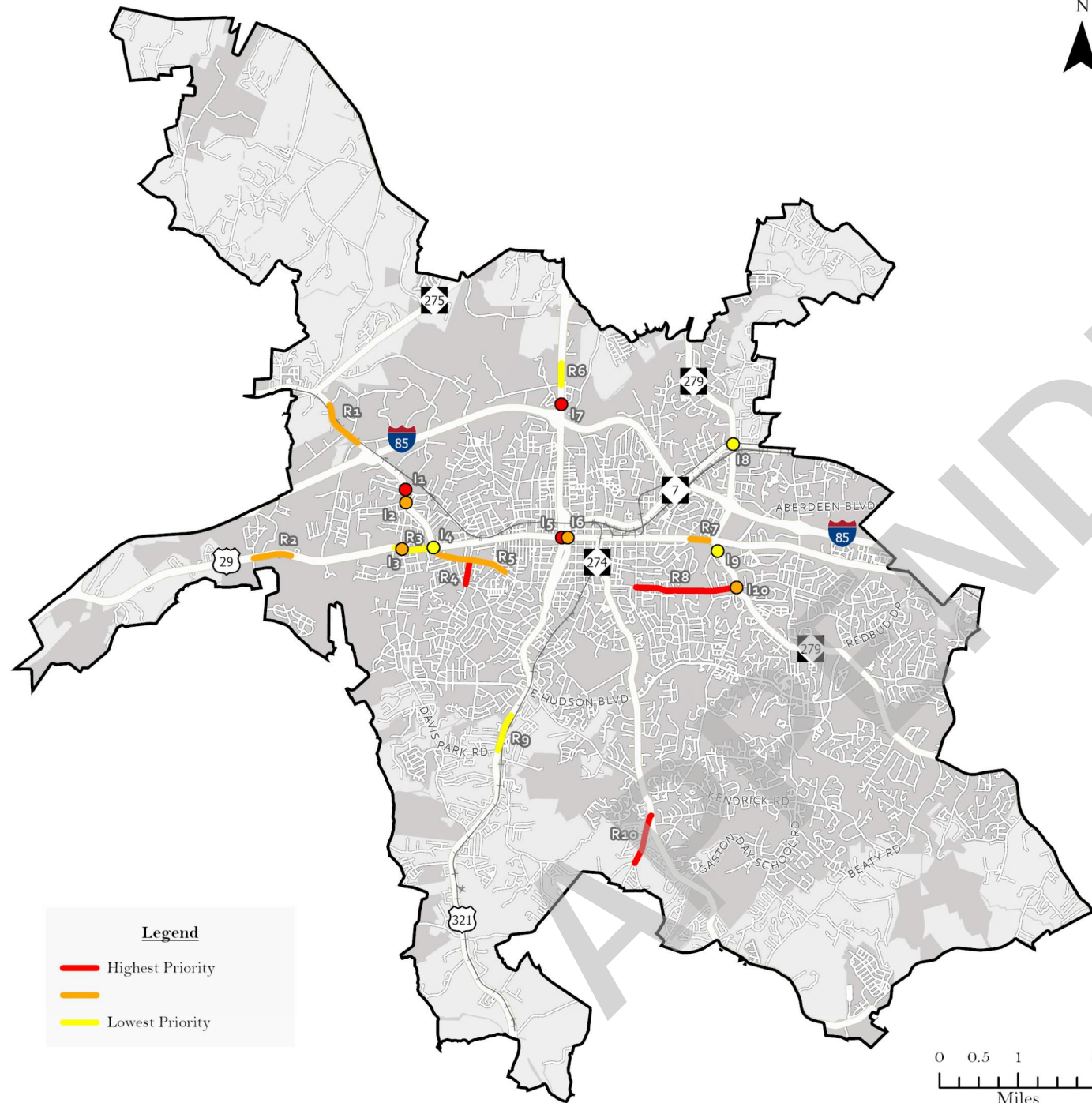
- Vehicular Crashes (3%)
- Motorcycle Crashes (3%)
- Speed (3%)
- HIN Score (3%)
- Traffic Volume (3%)

Implementation and Funding (20%)

- ROW Impact (10%)
- Cost (10%)

Growth Alignment (10%)

- Presence of New Developments (5%)
- Unfunded Projects (5%)



Legend

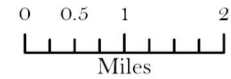
- Highest Priority
- —
- Lowest Priority

Intersections:

- 1** I7. N Chester St (US 321) at Rankin Lake Rd
- 2** I1. Bessemer City Rd (NC 274) at Brown St
- 3** I5. W Franklin Blvd (US 74) at S Chester St
- 4** I6. W Franklin Blvd (US 74) at S York Rd
- 5** I2. Bessemer City Rd (NC 274) at Arkray St
- 6** I3. W Frankling Blvd (US 74) at N Myrtle School Rd
- 7** I10. S New Hope Rd (NC 279) at E Garrison Blvd
- 8** I8. N New Hope Rd (NC 279) at E Ozark Ave
- 9** I9. S New Hope Rd (NC 279) at Burtonwood Dr
- 10** I4. W Franklin Blvd (US 74) at Bessemer City Rd (NC 274)

Segments:

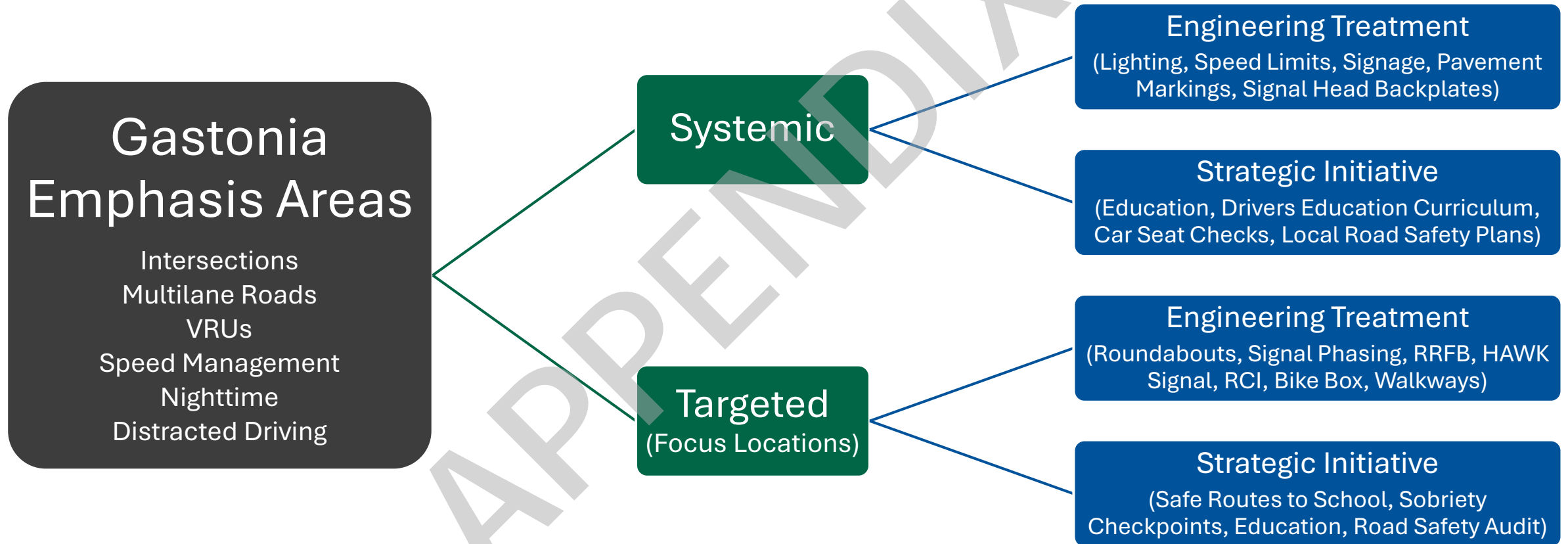
- 1** R4. Linwood Rd
- 2** R10. Robinson Rd
- 3** R8. E Garrison Blvd
- 4** R5. W Garrison Blvd
- 5** R2. W Franklin Blvd (US 74)
- 6** R7. E Franklin Blvd (US 74)
- 7** R1. Bessemer City Rd (NC 284)
- 8** R6. N Chester St (US 321)
- 9** R9. S York Rd
- 10** R3. W Franklin Blvd (US 74)



Actions and Strategies

APPENDIX B

Potential Countermeasures & Strategies



Policy and Process Changes

Safety Strategy	Success Metric(s)	Timeframe	Cost	Emphasis Areas
Evaluate and implement geometric safety improvements (turn lanes, sight distance corrections, signal timing, and pavement markings) at the City's highest-crash intersections identified in the SoS Report.	<ul style="list-style-type: none"> • # of high-crash intersections receiving targeted geometric improvements • Before/after total and severe crash counts at treated intersections • # of locations programmed for improvement in TIP/CIP 	Long-Term	\$\$\$	INT SPD VRU
Establish a data-driven traffic safety enforcement program within GPD using crash data, speed data, and RTCC intelligence to identify and target high-risk corridors and time periods for proactive patrol deployment.	<ul style="list-style-type: none"> • Data-driven enforcement program established • # of targeted enforcement operations conducted annually • Annual crash trend report produced for enforcement corridors 	Immediate	\$	SPD DD MLR INT
Develop a Gastonia-branded traffic safety awareness campaign targeting identified emphasis areas coordinated with GPD, the Fire Department, and City communications staff.	<ul style="list-style-type: none"> • Campaign launched within 1 year of SAP adoption • # of campaign impressions/social media reach annually • # of community events featuring safety messaging • Pre/post community awareness survey results 	Immediate– Short-Term	\$	INT MLR SPD DD NTC VRU
Expand EVP infrastructure to all signalized intersections on primary emergency response corridors, ensuring Gaston County EMS, Gastonia Fire, and GPD vehicles can clear signal phases on approach.	<ul style="list-style-type: none"> • # of intersections equipped with operational EVP • EVP coverage map completed • Documented change in emergency vehicle response times on primary corridors 	Short-Term	\$\$	INT

Safety Action Plan

APPENDIX B

Chapters

Introduction

State of Safety

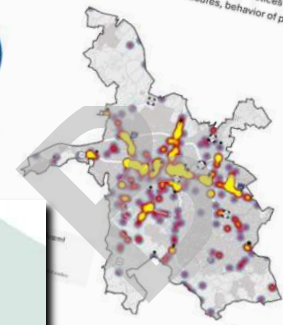
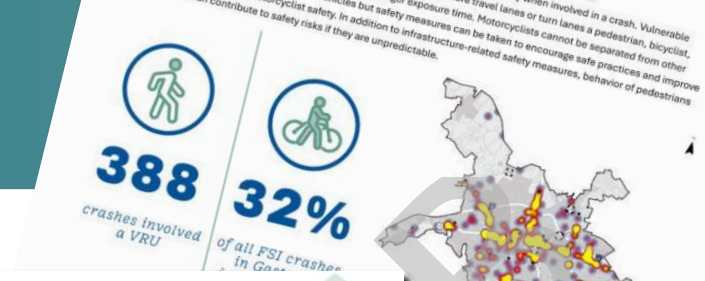
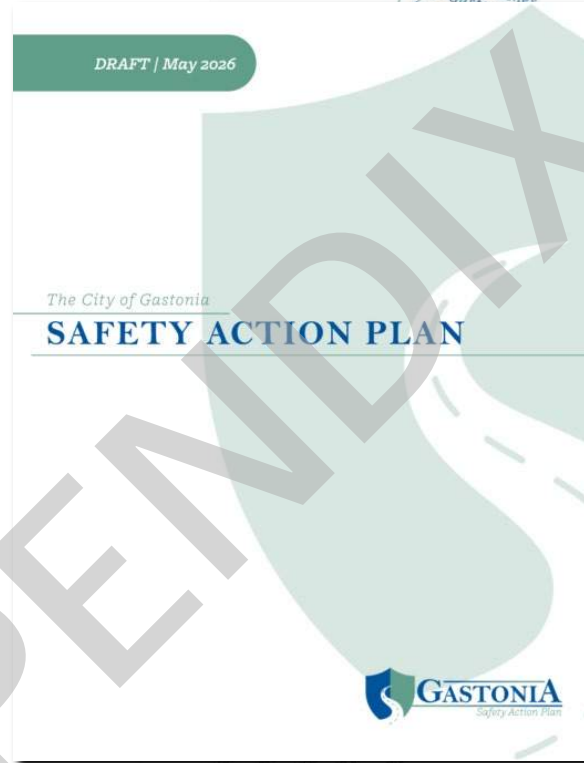
Community and Stakeholder
Engagement

Policy and Process Changes

Focus Locations and Emphasis
Areas

Countermeasures and
Strategies

Next Steps



SYSTEMIC COUNTERMEASURES

Systemic countermeasures are engineering treatments or strategic initiatives which can be applied systemwide to reduce crashes. Engineering treatments target infrastructure-related safety risks while strategic initiatives target non-infrastructure-related safety risks such as behavior, education, and access to resources. Strategic initiatives work to neutralize contributing factors which can result in an FSI crash. Following a systemic approach identifies locations with similar roadway characteristics and risk factors, and applies low to moderate cost countermeasures. Systemic improvements target safety risks within specific emphasis areas throughout the City. Systemic countermeasures were identified for the following six emphasis areas:

- Intersections
- Multilane Roads
- Vulnerable Road Users

Intersections

The crash tree below provides justification for identifying intersections as a key safety factor in Gastonia and the context used to develop systemic countermeasures for intersections. Furthermore, approximately 26% of FSI crashes and 47% of other injury crashes occurred at intersections. The most common crash types that occurred at intersections include rear end, sideswipe, angle, and left turn. Approximately 32% of total pedestrian and bicycle crashes in Gastonia occurred at intersections.

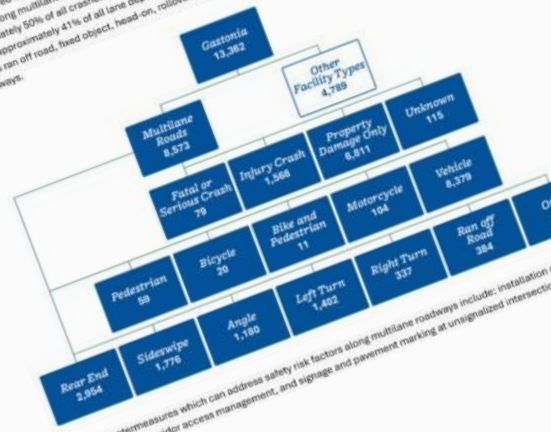
- Speed Management
- Nighttime Conditions
- Distraction Driving



Multilane Roads

Several countermeasures which can address safety risk factors at intersections include: retroreflective backplates for signal heads, re-striping pavement markings and crosswalks, leading pedestrian intervals, updated signal phasing and timings, and dedicated left- and right-turn lanes, among others.

The crash tree below provides justification for identifying multilane roadways as a key safety factor in Gastonia and the context used to develop systemic countermeasures for multilane roadways. Furthermore, approximately 40% of FSI crashes and 58% of other injury crashes occurred along multilane roadways. While a majority of crashes occurring along multilane roadways involve only vehicles, approximately 50% of all crashes involving a vulnerable road user occurred along a multilane road. Multilane crashes also account for approximately 41% of all lane departure crashes, meaning approximately 41% of all lane departure crashes - which includes ran off road, fixed object, head-on, rollover, and sideswipe (opposite directions) crashes - occurred along multilane roadways.



City Website



Safe Streets and Roads for All (SS4A)

Safe Streets and Roads for All (SS4A)

The City of Gastonia was awarded a Safe Streets and Roads 4 All grant through the US Department of Transportation Federal Highway Administration to fund the development of a comprehensive Safety Action Plan. Gastonia seeks to develop a Safety Action Plan focused on reducing the number of crashes, particularly those resulting in fatality or serious injury. As part of this Action Plan, the City has undertaken a safety analysis that will provide not just a one-time list of potential improvements, but also a framework for ongoing, annual review. Please feel free to read through the resources created so far below, along with providing feedback via the QR code or at any planned public meetings.

Planned Public Meetings:

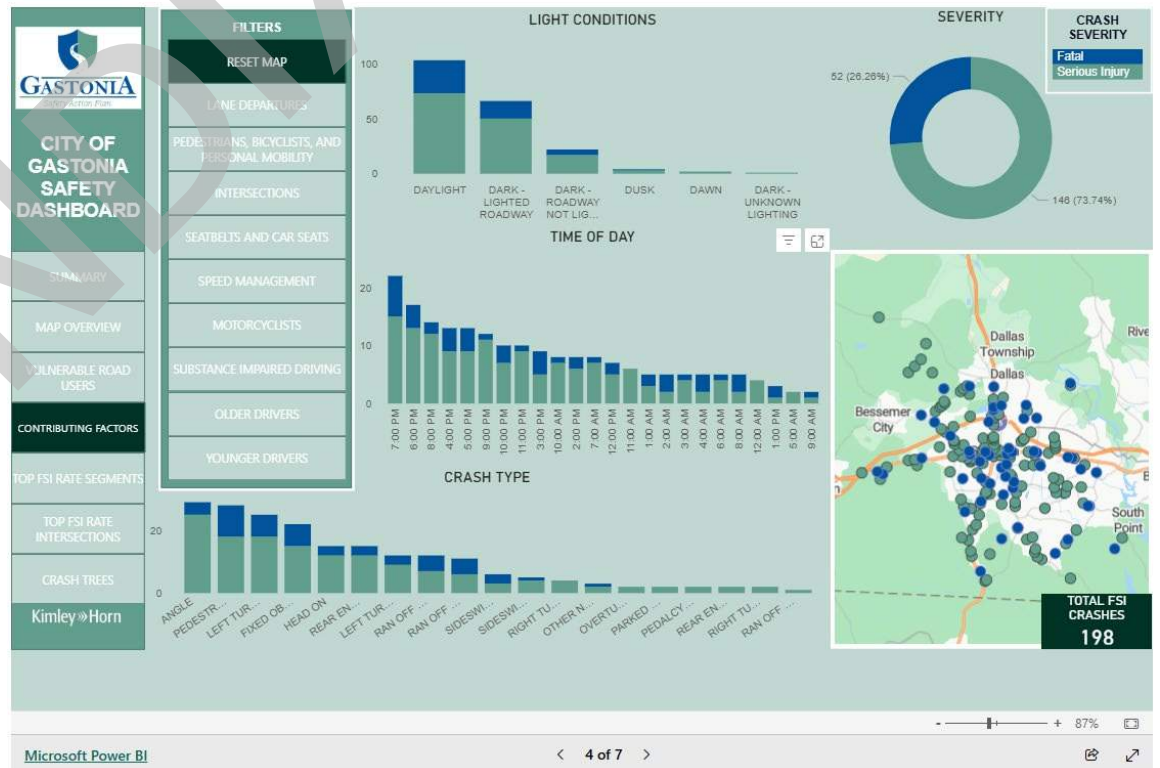
- Booth at Fall Festival - October 18th, 2025 from 3-7pm
- Public Engagement Meeting at Gaston County Library on Garrison Boulevard - October 28th, 2025 from 5-7pm
- Booth at Christmas in the City - December 7th, 2025 from 5-8pm
- Public Engagement Meeting at Gaston County Library on Garrison Boulevard - March 16th, 2026 from 5-7pm
- Booth at Gaston MAX Festival - March 28th, 2026 from 11am-3pm

Please click the link to review the City's SS4A State of Safety report: [SS4A State of Safety Report](#)

Public Feedback

Leave feedback at the following website, with responses closing on April 17th: <https://engage.publiccoordinate.com/en/project/gastonia-ss4a-sap>

CRASH DASHBOARD



Thank You

APPENDIX B

Next Steps

APPENDIX B

Next Steps

Finalize SAP (5/12)

Transportation Committee Meeting (5/12)

Council Meeting & SAP Adoption (5/19)

SS4A Implementation Grant Application (5/22)

APPENDIX B

SS4A Implementation Grant

- 60-day application window
- USDOT expects to award 40-70 implementation grants
- No more than 15% of available funds can be awarded to projects in a single state
- 67 implementation grants were awarded last year (~15% selection rate)

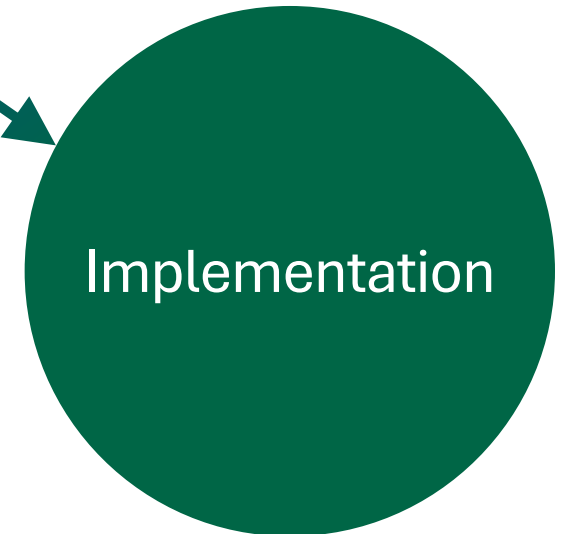


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Supports the creation of a Safety Action Plan or other supplemental planning/demonstration

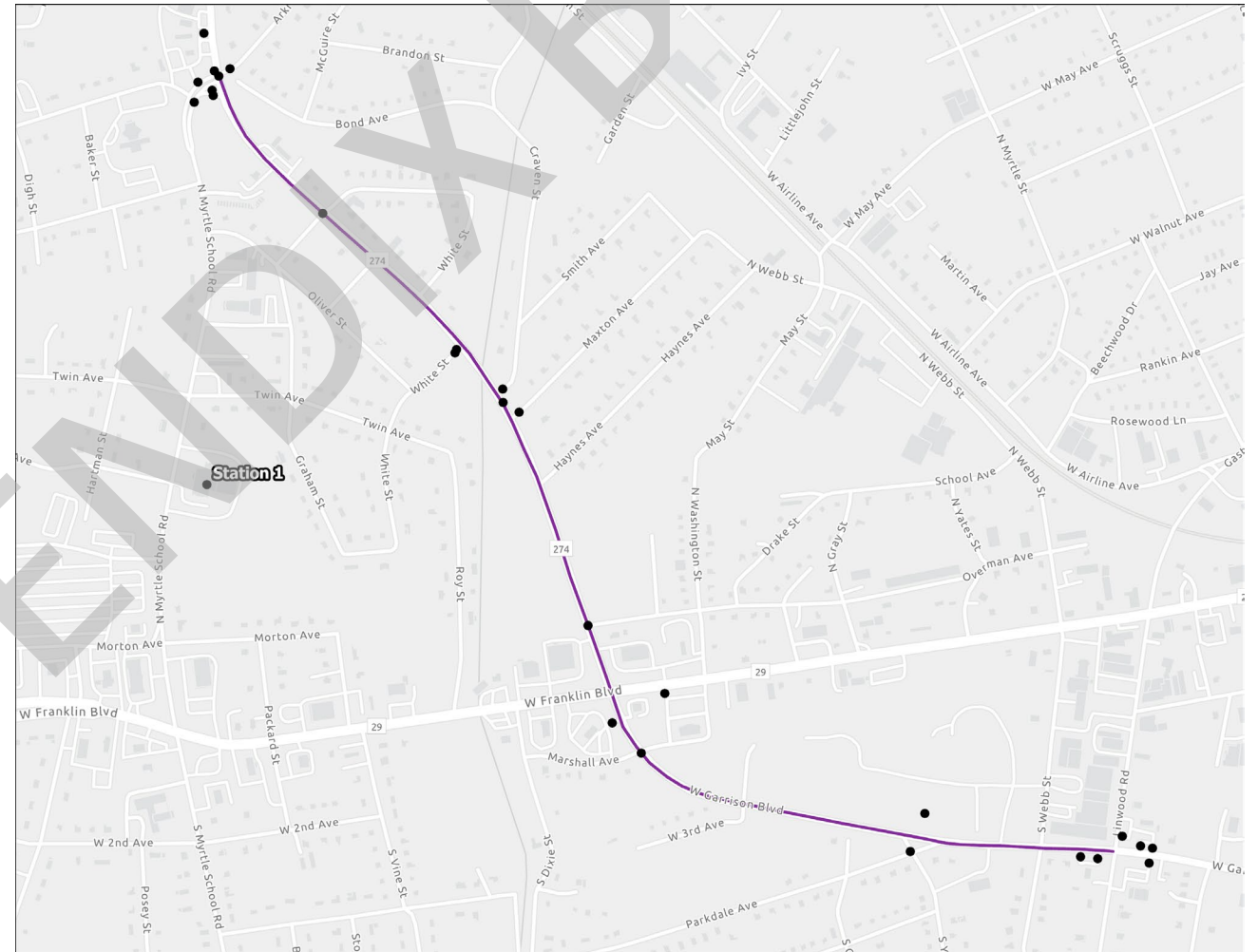
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Supports design and construction of large-scale transportation improvements that address safety

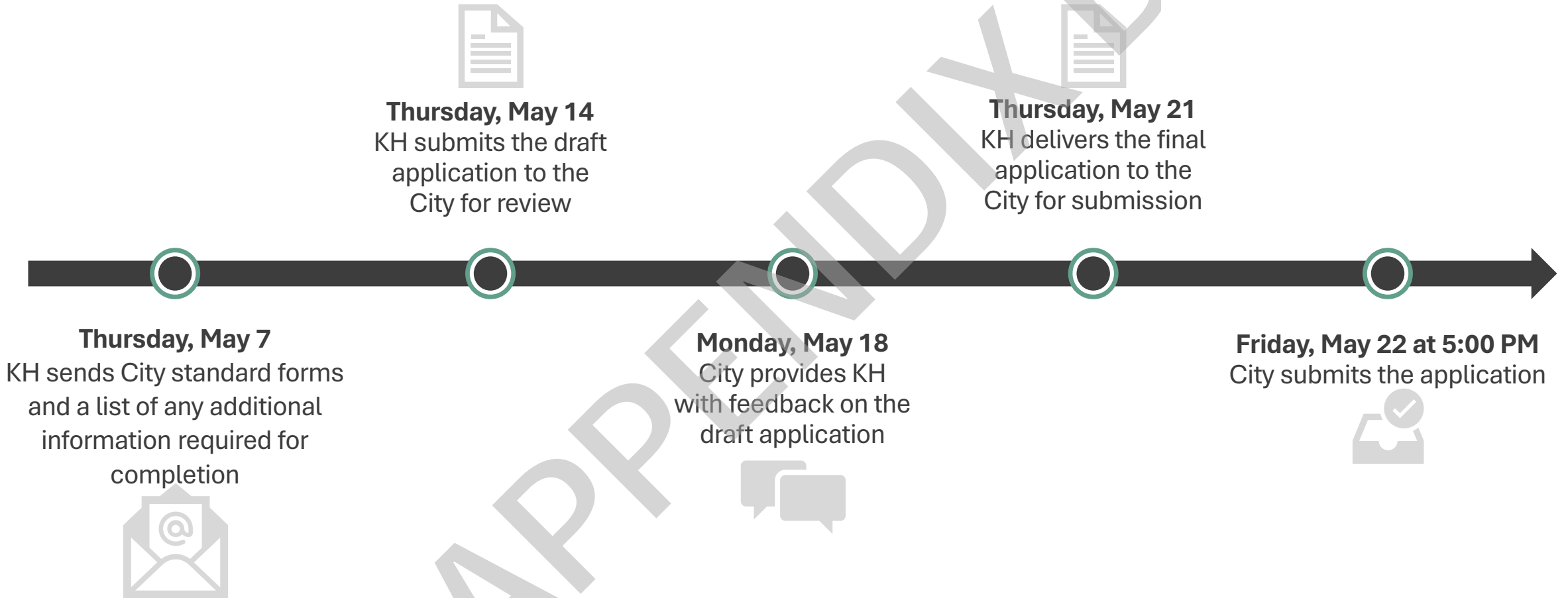


Gastonia Implementation Grant Project

- Garrison Blvd corridor
- 9 EV truck units
- EVP signals near Fire Station 1
- Educational Campaign



Grant Schedule



Continuing After SAP

- **Continue STF meetings**
- **Safety Dashboard – regular monitoring of crash data**
- **Coordinate with internal and external stakeholders/agencies throughout implementation**
- **Implement safety education and awareness**

Thank You

APPENDIX B

APPENDIX C

Countermeasures Toolbox



	COUNTERMEASURE	DESCRIPTION	LOCATION	EMPHASIS AREA	ADDITIONAL CONSIDERATIONS	SOURCE
Speed Management						
Engineering Treatment	Appropriate Speed Limits for All Road Users	Consider factors such as pedestrian and bicyclist activity, land use context, intersection spacing, driveway density, etc. to determine a reasonable, safe, and consistent speed limit	Roadway segments	Speed Management	Non-statutory speed limits must be based on engineering study conducted in accordance with MUTCD	FHWA Proven Safety Countermeasures
Engineering Treatment	Speed Safety Cameras	Stationary or mobile cameras which identify the speed of passing vehicles; Three types: fixed, point-to-point, and mobile	Locations with high speeds, additional considerations will need to be made to determine the type of SSC appropriate for each location	Speed Management	Should conduct regular evaluations to determine if SSCs are accomplishing safety goals	FHWA Proven Safety Countermeasures
Engineering Treatment	Variable Speed Limits	Speed limits capable of adapting to changing circumstances of the road (traffic speed, volumes, weather, road surface conditions); can be applied to entire roadway segment or individual lanes	Urban and rural freeways and high-speed arterials with speed limit greater than 40 mph	Speed Management	Agencies can implement for congestion, incidents, work zones, and inclement weather	FHWA Proven Safety Countermeasures
Engineering Treatment	Reconfigure Channelized Right-Turn Lanes	Reconfigure channelized right-turn lanes to control speeds	Channelized right-turn lanes	Speed Management		NC SHSP
Engineering Treatment	Dynamic Speed Feedback Signs	Signs which display current vehicle speeds to motorists to encourage drivers to adjust speed	Roadway segments with high speeds	Speed Management	Placement of signs is most effective in targeted and short-distance areas, such as school zones	NCDOT Safety Countermeasure Glossary
Pedestrian/Bicyclist						
Engineering Treatment	Bicycle Lanes	Dedicated lane for bicyclists to travel separate from motorized vehicles	Roadways with higher volumes and speeds, such as arterials	Vulnerable Road Users	Should vary according to roadway characteristics, user needs, and land-use context; rumble strips can negatively impact bicyclist's ability to ride if not installed properly	FHWA Proven Safety Countermeasures
Engineering Treatment	Crosswalk Visibility Enhancements	Pavement markings or signage to make pedestrians more visible to motorists (high-visibility crosswalks, lighting, signing and pavement markings)	Marked crosswalks, midblock crossings	"Vulnerable Road Users Intersections"	Should use inlay or thermoplastic tape for reflective markings; luminaires should be placed in forward locations to avoid silhouette effect	FHWA Proven Safety Countermeasures
Engineering Treatment	Leading Pedestrian Interval (LPI)	Signal timing which allows pedestrians to enter the crosswalk approx. 3-7 seconds before vehicles are given a green indication	Intersections with high turning volumes	"Vulnerable Road Users Intersections"	Enhanced safety for pedestrians who may be slower to start into the intersection	FHWA Proven Safety Countermeasures
Engineering Treatment	Medians and Pedestrian Refuge Islands	Allows pedestrians to cross one direction of traffic at a time	Locations with significant mix of pedestrian and vehicle traffic, mid-block crossings, approaches to multilane intersections, areas near transit stops or other pedestrian-focused sites	"Vulnerable Road Users Intersections"		FHWA Proven Safety Countermeasures
Engineering Treatment	Pedestrian Hybrid Beacon (PHB)	Signal which stops vehicles and provides right-of-way to pedestrians crossing the roadway; must include marked crosswalk and pedestrian signal heads	Midblock crossings and uncontrolled intersections; use where difficult for pedestrians to cross (speed limits greater than 35 mph, 3 or more lanes, gaps in traffic not sufficient)	Vulnerable Road Users	Allows motorists to proceed once pedestrian has cleared, reducing vehicle delay; may require education on how PHB work	FHWA Proven Safety Countermeasures

	COUNTERMEASURE	DESCRIPTION	LOCATION	EMPHASIS AREA	ADDITIONAL CONSIDERATIONS	SOURCE
Engineering Treatment	Rectangular Rapid Flashing Beacon (RRFB)	Traffic control device which utilizes signage and flashing beacon to make motorists aware of upcoming crosswalk	Uncontrolled, marked crosswalks; multilane crossings with speed limit less than 40 mph	Vulnerable Road Users	Over-use can diminish effectiveness	FHWA Proven Safety Countermeasures
Engineering Treatment	Road Diets/Roadway Reconfiguration	Reduces the number of travel lanes and allocates the space for alternative uses such as multimodal facilities or traffic calming	Roadways with current or future AADT of 25,000 or less	“Vulnerable Road Users Speed Management”	Can be low-cost when planned in conjunction with pavement overlay	FHWA Proven Safety Countermeasures
Engineering Treatment	Walkways	Create connected network of walking routes to desired destinations without gaps or abrupt changes	Urban areas especially near schools and where there is a large amount of pedestrian activity	Vulnerable Road Users	Agencies should work towards incorporating pedestrian facilities into all roadway projects; walkable shoulders can be considered along rural highways routinely used by pedestrians	FHWA Proven Safety Countermeasures
Engineering Treatment	Shared-Use Path	Facility separated from travel lanes that is intended for both pedestrian and bicyclist use and commonly designed for two-way travel	Roadways with speed limit greater than 35 mph in place of an on-street bicycle facility	Vulnerable Road Users	Avoid along routes where sight distance is limited at intersections or where driveway access points are frequent	NC SHSP
Engineering Treatment	Bike Box	Designated area placed ahead of a travel lane at a signalized intersection in which bicyclists can position in advance of stopped traffic during a red light	Signalized intersections, typically with high volumes of both vehicles and bicycles	“Vulnerable Road Users Intersections”	Do not extend a bike box across multiple left-turn lanes; do not use if designated bicycle lanes do not approach the intersection; No Turn on Red signs shall be installed	NC SHSP
Engineering Treatment	Bicycle Signals	Traffic signals that apply only to bicyclists; used in combination with traditional traffic signals heads	Signalized intersections	“Vulnerable Road Users Intersections”	Avoid use at unsignalized intersections or crossings, or with a hybrid beacon	NC SHSP
Engineering Treatment	Raised Crosswalk	Ramped speed table spanning the entire width of the roadway to slow motorists at crossing locations and increasing visibility of pedestrians	Intersections, mid-block crossings	“Vulnerable Road Users Intersections Speed Management”		NCDOT Safety Countermeasure Glossary
Engineering Treatment	Curb Extension/Bulb Out	Extends the sidewalk into the roadway shoulder, reducing the effective street width	Intersections, mid-block crossings	“Vulnerable Road Users Intersections Speed Management”	Reduces pedestrian crossing distances and enhances pedestrian visibility	NCDOT Safety Countermeasure Glossary
Strategic Initiatives	Safe Routes to School Program	Program that encourages and enables safer walking and biking routes for students	Systemic	Vulnerable Road Users	Important to educate children at a young age to instill safe practices	NCDOT Safety Countermeasure Glossary
Engineering Treatment	Accessible Pedestrian Signals (APS)	Pedestrian signal push button that emits an audible tone when the pedestrian signal head shows a walk sign	Signalized intersections with pedestrian accommodations	“Vulnerable Road Users Intersections”		FHWA MUTCD
Roadway Departure						
Engineering Treatment	Enhanced Delineation for Horizontal Curves	Install measures to alert drivers to upcoming curves (pavement markings, retroreflective strips on sign posts, delineators, chevron signs, dynamic curve warning signs)	In advance or within horizontal curves	Lane Departures	Agencies should comply with MUTCD signing practices and policies, be consistent across similar curves for driver expectations, and use systemic approach to identify and treat problem curves	FHWA Proven Safety Countermeasures
Engineering Treatment	Longitudinal Rumble Strips and Stripes on Two-Lane Roads	Milled or raised elements on pavement to alert drivers that the vehicle has left the travel lane through vibration and sound	Shoulder edge, edge line, centerline of undivided roadway	Lane Departures	Most effective when deployed systematically; agencies should consider with corridor safety improvement, reconstruction, or resurfacing projects	FHWA Proven Safety Countermeasures

	COUNTERMEASURE	DESCRIPTION	LOCATION	EMPHASIS AREA	ADDITIONAL CONSIDERATIONS	SOURCE
Engineering Treatment	Median Barriers	Longitudinal barriers that separate opposing traffic and are designed to redirect vehicles striking either side of the barrier (cable barriers, metal-beam barriers, concrete barriers)	High-speed, fully controlled-access roadways where the median width is 30 ft or less and AADT is greater than 20,000	Lane Departures	Agencies should review head-on crash history to identify hot spots; agencies should also consider implementing systemic approach to median barrier placement based on cross-median crash risk factors	FHWA Proven Safety Countermeasures
Engineering Treatment	Roadside Design Improvements at Curves	Strategy encompassing improvements at curves that target the high-risk roadside environment along the outside of horizontal curves (clear zone, slope flattening, adding or widening shoulders, roadside barriers)	Horizontal curves where data indicated a higher risk for roadway departure fatalities and serious injuries	Lane Departures	Improvements can be implemented along or in combination	FHWA Proven Safety Countermeasures
Engineering Treatment	SafetyEdge	Shapes the edge of pavement at 30 degrees from the pavement cross slope to eliminate potential for vertical drop-off at pavement edge; provides opportunity for driver to return to travel lane while maintaining control	Rural road edges	Lane Departures	Can improve pavement durability; agencies should develop standards for implementing SafetyEdge systemwide on all new asphalt paving or resurfacing projects and encourage standard application for concrete pavements	FHWA Proven Safety Countermeasures
Engineering Treatment	Wider Edge Lines	Enhance visibility of travel lane boundaries	Rural two-lane highways	Lane Departures	Can be implemented using existing equipment during maintenance procedures; wider lines may provide better guidance for automated vehicle sensors	FHWA Proven Safety Countermeasures
Engineering Treatment	Shoulder Widening	Widen shoulder to aid drivers in returning to the travel lane provide space for vehicles to pull onto during break-downs or during object avoidance	Roadway segments	Lane Departures		NCDOT Safety Countermeasure Glossary
Engineering Treatment	Improve Superelevation of Horizontal Curve	Adjust the banking angle of a roadway's curvature to better align with vehicle speeds, enhance traction, and reduce the likelihood of skidding or rollover	Horizontal curves	Lane Departures		NCDOT Safety Countermeasure Glossary
Engineering Treatment	Remove or Relocate Fixed Objects Out of Clear Zone	Widen clear zones and remove obstacles from the roadside to provide safer recovery area for vehicles	Roadway segments	Lane Departures	A widened clear zone can also improve stopping sight distance	NCDOT Safety Countermeasure Glossary
Intersections						
Engineering Treatment	Backplates with Retroreflective Borders	Backplates added to traffic signal head to improve visibility of illuminated face of the signal using controlled-contrast background; even more conspicuous with yellow retroreflective border	Signalized intersections	Intersections	Advantageous during power outages; most efficient implementation is to adopt as a standard treatment across jurisdiction; need to consider structural limitations due to wind load from backplate	FHWA Proven Safety Countermeasures
Engineering Treatment	Corridor Access Management	Implement strategies to control access along a roadway; balance overall safety and mobility for all users with the needs of adjacent land uses (driveway closure/consolidation/relocation, spacing of intersection and access points, limit allowable movements, place driveways on approach corner, raised medians, roundabouts, reduced left-turn conflict intersections, turn lanes, lower speed)	Roadway corridors	"Intersections Vulnerable Road Users"	Strategies can be used individually or in combination with one another	FHWA Proven Safety Countermeasures

	COUNTERMEASURE	DESCRIPTION	LOCATION	EMPHASIS AREA	ADDITIONAL CONSIDERATIONS	SOURCE
Engineering Treatment	Dedicated Left- and Right-Turn Lanes at Intersections	Auxiliary turn lanes which provide physical separation between turning traffic and adjacent through traffic	Major road approaches at 3-leg or 4-leg stop-controlled intersections	Intersections	Offset turn lanes will lengthen crossing distances for pedestrians; turn lanes with zero or negative offset can block sightlines	FHWA Proven Safety Countermeasures
Engineering Treatment	Reduced Left-Turn Conflict Intersections	Geometric designs which alter how left-turn movements occur (RCI, Median U-Turn, Quadrant Roadway, DDI)	Adaptable for variety of circumstances including rural high speed locations, urban/suburban high volume corridors, intersections with heavy through traffic and moderate left-turn volumes	Intersections	RCI works well when used along a corridor; median U-turn two-phase signal can reduce delay, improve travel times, and create more crossing opportunities for pedestrians/bicyclists	“FHWA Proven Safety Countermeasures NC SHSP”
Engineering Treatment	Roundabouts	Circular configuration that utilizes circulated traffic flow to lower speeds and reduces conflict points	Urban and rural areas; can replace signals, AWSC, and TWSC	“Intersections Vulnerable Road Users Speed Management”	Creates more suitable environment for walking and biking; effective for managing speed and transitioning traffic from high-speed to low-speed environments	FHWA Proven Safety Countermeasures
Engineering Treatment	Systemic Application of Multiple Low-Cost Countermeasures at Stop-Controlled Intersections	Implement countermeasures on the through approach and stop approach to increase driver awareness and recognition of intersections and potential conflicts (enhanced signing and pavement markings)	Stop-controlled intersections	Intersections	Resources can be maximized since treatments are low-cost; a high number of intersections can receive treatment	FHWA Proven Safety Countermeasures
Engineering Treatment	Yellow Change Intervals	Ensure yellow interval is appropriately timed to prevent red-light running	Signalized intersections	Intersections	Agencies can update policies and procedures to institute regular evaluation and adjustment for existing signal timings; automated traffic signal performance measures (ATSPM) can provide continuous performance monitoring and can modify timing based on performance	FHWA Proven Safety Countermeasures
Engineering Treatment	All-Way Stop-Control (AWSC)	Install all-way stop-control as an interim countermeasure	Two-way stop-control intersections with crash history	Intersections		NC SHSP
Engineering Treatment	Right Turn on Red Restrictions	Restrict right turn on red to minimize potential conflicts between right-turning vehicles and bicyclists or pedestrians	Signalized intersections	“Intersections Vulnerable Road Users”		NC SHSP
Engineering Treatment	Dynamic All Red Extension	System which detects the potential for red-light running events and stops signal timing events in the all red phase to provide time for the vehicle to clear the intersection before the minor street receives a green indication	Signalized intersections	Intersections		NCDOT Safety Countermeasure Glossary
Engineering Treatment	Positive Offset of Turn Lanes	Left turn lanes are shifted outward from the centerline of the road which allows motorists to have a less obstructed view of oncoming traffic	Intersections with neutral or negative offset	Intersection		NCDOT Safety Countermeasure Glossary
Crosscutting						
Engineering Treatment	Lighting	Improve visibility for all modes of travel	Roadway segments, intersections, pedestrian crossings	“Intersections Vulnerable Road Users”		FHWA Proven Safety Countermeasures

	COUNTERMEASURE	DESCRIPTION	LOCATION	EMPHASIS AREA	ADDITIONAL CONSIDERATIONS	SOURCE
Strategic Initiatives	Local Road Safety Plans	Plan that provides a framework for identifying, analyzing, and prioritizing roadway safety improvements on local roads	Systemic	All	Can be used to create a prioritized list of improvements	FHWA Proven Safety Countermeasures
Engineering Treatment	Pavement Friction Management	Apply friction treatments or measurements to roadways (continuous pavement friction measurement, high friction surface treatment)	Horizontal curves, interchange ramps, intersection approaches, crosswalk approaches, locations with history of rear-end, failure to yield, wet weather, or red-light running crashes	“Intersections Lane Departures”	CPFM can be used to better understand and predict where friction-related crashes will occur, HFST can be applied to existing pavement	FHWA Proven Safety Countermeasures
Strategic Initiatives	Road Safety Audit (RSA)	Multidisciplinary team independent of the project who analyze the project considering all road users; can be performed in any phase of project development and can be focused on motorized vehicles, pedestrians, bicyclists, motorcyclists, or a combination of these roadway users	Systemic	All	RSA can reduce costs due to early identification and mitigation of safety issues; increased communication and collaboration among stakeholders	FHWA Proven Safety Countermeasures
Strategic Initiatives	Educate Law Enforcement	Educate law enforcement officers on transportation laws related to safety, new traffic control devices, and alternative/innovative intersections so they are equipped to enforce traffic laws	Systemic	Intersections		NC SHSP
Strategic Initiatives	Develop Comprehensive Education Program	Develop education program that teaches walking, bicycling, and bus safety skills	Systemic	Vulnerable Road Users	Can conduct a pilot program to conduct at a few schools prior to developing a full education program	NC SHSP
Strategic Initiatives	Update Driver Education Curriculum	Incorporate intersections with alternative/innovative configurations, pedestrians, and bicyclists in the driver education curriculum	Systemic	“Vulnerable Road Users Intersections Age of Driver”		NC SHSP
Strategic Initiatives	Alternative Transportation Options Education	Develop marketing materials to advertise alternative transportation options to older population including how to use ride share and distribute to community destinations (doctor offices, senior centers, DMV)	Systemic	Age of Driver		NC SHSP
Engineering Treatment	Address Motorcyclist Vulnerabilities	Update design, construction, and maintenance policies and practices to address motorcyclist vulnerabilities (warning signs, motorcyclist-safe barriers)	Systemic	Vulnerable Road Users		NC SHSP
Strategic Initiatives	Motorcyclist Vulnerabilities Education	Develop and distribute educational materials to raise awareness of motorcyclist vulnerabilities and the challenges construction and maintenance practices present for motorcyclists (grooved pavements, temporary lane markings, gravel/sand, metal plates)	Systemic	Vulnerable Road Users		NC SHSP
Strategic Initiatives	Younger Driver Education	Develop and disseminate educational materials for younger drivers and their parents/guardians to promote safe driving habits and address the issue of speed and distraction	Systemic	Age of Driver		NC SHSP

	COUNTERMEASURE	DESCRIPTION	LOCATION	EMPHASIS AREA	ADDITIONAL CONSIDERATIONS	SOURCE
Engineering Treatment	Motorcycle Rub Rail	Install protective rail below traditional W-beam guardrail to reduce injury and severity for motorcyclists in crashes	Roadway segments	Vulnerable Road Users	Can be installed on new guardrail projects or retrofitted to existing guardrails; protects motorcyclists from pylons supporting the traditional guardrail	NCDOT Safety Countermeasure Glossary
Engineering Treatment	Improve Horizontal Alignment	Improve horizontal alignments along a curve or reconfigure a skewed intersection	Roadway segments, intersections	“Intersections Lane Departures”		NCDOT Safety Countermeasure Glossary
Strategic Initiatives	Alcohol Ignition Interlocks	Device installed in vehicles that prevents the vehicle from starting before a motorist provides a breath sample that is below a pre-set level	Systemic	All	Typically installed for individuals during probationary period related to a prior alcohol-related incident	NCDOT Safety Countermeasure Glossary
Strategic Initiatives	Sobriety Checkpoints	High-visibility, enforced checkpoints to deter and catch impaired motorists	Systemic	All	Checkpoints can be implemented in conjunction with holidays or regional events that are prone to higher motorist impairment	NCDOT Safety Countermeasure Glossary
Strategic Initiatives	Car Seat Checks	Checks sponsored by health agencies and fire departments where car seats are inspected for proper installation	Systemic	All		NCDOT Safety Countermeasure Glossary
Strategic Initiatives	Safer Community Programs	Local initiatives that promote traffic safety through community involvement and education	Systemic	All	Can partner with public health, social services, schools, or community organizations	NCDOT Safety Countermeasure Glossary

APPENDIX D

Funding Opportunities Table



FUNDING OPPORTUNITY	ISSUING AGENCY	DESCRIPTION	FUND AVAILABILITY DETAILS	ELIGIBLE PROJECT TYPES/LOCATIONS	GRANT APPLICATION REQUIREMENTS	EVALUATION CRITERIA	TYPICAL AWARD AMOUNTS	MATCH REQUIREMENT	LOCAL APPLICABILITY / WHO CAN APPLY	LINK FOR MORE INFO
Safe Streets and Roads for All (SS4A) - Planning and Demonstration Grant	USDOT	Used to develop a Safety Action Plan, conduct supplemental safety planning to enhance an Action Plan, and/or carry out demonstration activities to inform the development of, or an update to, an Action Plan	\$200-700M per year through 2026	<ul style="list-style-type: none"> - Action Plan - Safety plans focused on speed, vulnerable users, ADA, health equity, ITS, etc. - Road safety audits - Equity assessments - Follow up stakeholder engagement - Demonstration activities including education/enforcement/quick build safety focused designs” 	<ul style="list-style-type: none"> - Standard forms - Key information table - Narrative - Eligibility worksheet - Map - Estimated budget” 	<ul style="list-style-type: none"> “1. Safety Impact (# of Fatalities and Fatality Rate) 2. Equity (% population in underserved communities) 3. Additional Safety Context (from narrative)” 	\$100K-10M	20% local match	Subdivisions of a state may apply, including MPOs, COGs, cities, and counties. Entities may use the Central Texas Roadway Safety Action Plan as a starting point in identifying additional safety planning activities or demonstration activities to conduct.	https://www.transportation.gov/grants/ss4a/fy24-nofo
Safe Streets and Roads for All (SS4A) - Implementation Grant	USDOT	Implementation Grants fund projects and strategies identified in an Action Plan that address roadway safety problems. Implementation Grants may also fund supplemental planning and demonstration activities. Applicants must have an existing Action Plan to apply for Implementation Grants or have an existing plan that is substantially similar and meets the eligibility requirements of an Action Plan.	\$500-800M per yer through 2026	<ul style="list-style-type: none"> “- Design and construction for safety-focused projects - Deployment of technology, education, or enforcement to support roadway safety (as part of larger design and construction efforts) - Projects that include FHWA Proven Safety Countermeasures” 	<ul style="list-style-type: none"> - Standard forms - Key information table - Narrative - Eligibility worksheet - Map - Estimated budget” 	<ul style="list-style-type: none"> “1. Safety Impact (based upon narrative) 2. Equity, Engagement, and Collaboration (based upon narrative) 3. Effective Practices and Strategies (from narrative) 4. Other DOT Priorities (Climate Sustainability, Economic Competitiveness, Workforce)” 	\$2.5M-25M	20% local match	Subdivisions of a state may apply, including MPOs, COGs, cities, and counties. Entities may use the Central Texas Roadway Safety Action Plan as a starting point in identifying additional safety Implementation activities to conduct. Projects may be conducted on-system with TxDOT’s buy-in, as long as a subdivision of a state is the project applicant.	https://www.transportation.gov/grants/ss4a/fy24-nofo
TxDOT Highway Safety Improvement Program (HSIP) Funding	TxDOT (via USDOT)	HSIP grants fund safety engineering improvements on Texas roadways. TxDOT reserves 10% of the funding for use on off-system roadway improvement projects that include countermeasures preapproved by TxDOT.	Varies by year at state discretion	<ul style="list-style-type: none"> - Projects that include FHWA and TxDOT safety countermeasures shown to reduce KAB crashes 	<ul style="list-style-type: none"> - Standard forms - Location Map - Narrative - Safety Improvement Index (SII) Reports - Cost estimate - Existing and proposed typical sections/intersection layouts/signal warrants” 	Districts select projects based on their own criteria. Safety Improvement Index and Benefit Cost Ratio are key criteria, and alignment with local safety priorities and focus areas is also generally important.	\$100K-2M	10% local match for most projects (0% match for some)	Cities and counties may apply for off-system funding at off-system roadway locations. TxDOT Districts will review off-system applications. TxDOT maintains lists of approved countermeasures considered eligible for project funding.	https://ftp.dot.state.tx.us/pub/txdot-info/trf/hsip/hsip-guidance.pdf

FUNDING OPPORTUNITY	ISSUING AGENCY	DESCRIPTION	FUND AVAILABILITY DETAILS	ELIGIBLE PROJECT TYPES/LOCATIONS	GRANT APPLICATION REQUIREMENTS	EVALUATION CRITERIA	TYPICAL AWARD AMOUNTS	MATCH REQUIREMENT	LOCAL APPLICABILITY / WHO CAN APPLY	LINK FOR MORE INFO
TxDOT Transportation Alternatives Set-Aside (TA) - Active Transportation Non-Infrastructure Funding	TxDOT	TA grants funds for development of planning documents to assist communities of any size in developing non-motorized transportation networks.	\$250M total for 2022 - 2025	<ul style="list-style-type: none"> -Planning documents -SRTS Plan -Safety action plan for pedestrians or bicyclists” 	<ul style="list-style-type: none"> - Standard forms - Public outreach and support - MPO TIP Letter - Project sponsor resolution - Maps - Project timeline - Estimated budget” 	<ol style="list-style-type: none"> 1. Safety (based upon narrative and map analysis) 2. Connectivity & Accessibility 3. Project Readiness 4. Geographic Equity 5. Community Support & Planning” 	\$100K minimum	20% local match	Cities and census designated places may apply for off-system funding at off-system roadway locations. TxDOT Districts will review off-system applications. TxDOT maintains lists of approved countermeasures considered eligible for project funding.	https://ftp.txdot.gov/pub/txdot/ptn/bicycle/2023-ta-program-guide.pdf
TxDOT Transportation Alternatives Set-Aside (TA) - Active Transportation Network Enhancements Funding	TxDOT	TA grants funds for construction and engineering costs to assist communities of any size in developing non-motorized transportation networks.	\$250M total for 2022 - 2025	<ul style="list-style-type: none"> - Quick construction or installation activities -Projects that can be completed in a year -Infrastructure projects with limited or no design and no ROW acquisition activities” 	<ul style="list-style-type: none"> - Standard forms - Public outreach and support - MPO TIP Letter - Project sponsor resolution - Maps - Project timeline - Estimates budget” 	<ol style="list-style-type: none"> 1. Safety (based upon narrative and map analysis) 2. Connectivity & Accessibility 3. Project Readiness 4. Geographic Equity 5. Community Support & Planning” 	“\$250K min < 200,000 population \$1M min >200,000”	20% local match	Cities and census designated places may apply for off-system funding at off-system roadway locations. TxDOT Districts will review off-system applications. TxDOT maintains lists of approved countermeasures considered eligible for project funding.	https://ftp.txdot.gov/pub/txdot/ptn/bicycle/2023-ta-program-guide.pdf
TxDOT Transportation Alternatives Set-Aside (TA) - Large Scale Active Transportation Infrastructure Funding	TxDOT	TA grants funds for construction and engineering costs to assist communities of any size in developing non-motorized transportation networks.	\$250M total for 2022 - 2025	<ul style="list-style-type: none"> -Preliminary Engineering and construction -Infrastructure-related projects to improve safety for non-motorized transportation -Construction of boulevards and other roadways that are located primarily in the right of way of divided highways and that improve access for bicyclists, pedestrians, and transit users and do not reduce on-system roadway capacity unless such a reduction has the prior approval of the department “ 	<ul style="list-style-type: none"> - Standard forms - Public outreach and support - MPO TIP Letter - Project sponsor resolution - Maps - Project timeline - Estimates budget” 	<ol style="list-style-type: none"> 1. Safety (based upon narrative and map analysis) 2. Connectivity & Accessibility 3. Project Readiness 4. Geographic Equity (% population in underserved communities) 5. Community Support & Planning 6. Transformational Elements” 	\$5M-25M	20% local match	Cities and census designated places may apply for off-system funding at off-system roadway locations. TxDOT Districts will review off-system applications. TxDOT maintains lists of approved countermeasures considered eligible for project funding.	https://ftp.txdot.gov/pub/txdot/ptn/bicycle/2023-ta-program-guide.pdf
TxDOT Transportation Alternatives Set-Aside (TA)-Community Based Funding	TxDOT	TA grants funds for construction and engineering costs to assist communities of 200,000 or less outside of Transportation Management Areas (TMAs) developing non-motorized transportation networks.for construction and engineering costs	\$250M total for 2022 - 2025	<ul style="list-style-type: none"> -Preliminary engineering and construction -Infrastructure-related projects to improve safety for non-motorized transportation” 	<ul style="list-style-type: none"> - Standard forms - Public outreach and support - MPO TIP Letter - Project sponsor resolution - Maps - Project timeline - Estimates budget” 	<ol style="list-style-type: none"> 1. Safety (based upon narrative and map analysis) 2. Connectivity & Accessibility 3. Project Readiness 4. Geographic Equity(% population in underserved communities) 5. Community Support & Planning” 	\$250K-5M	20% local match	Cities and census designated places may apply for off-system funding at off-system roadway locations. TxDOT Districts will review off-system applications. TxDOT maintains lists of approved countermeasures considered eligible for project funding.	https://ftp.txdot.gov/pub/txdot/ptn/bicycle/2023-ta-program-guide.pdf

FUNDING OPPORTUNITY	ISSUING AGENCY	DESCRIPTION	FUND AVAILABILITY DETAILS	ELIGIBLE PROJECT TYPES/LOCATIONS	GRANT APPLICATION REQUIREMENTS	EVALUATION CRITERIA	TYPICAL AWARD AMOUNTS	MATCH REQUIREMENT	LOCAL APPLICABILITY / WHO CAN APPLY	LINK FOR MORE INFO
FHWA Safe Routes to School (SRTS) Funding	FHWA (via TxDOT)	SRTS grants funds for bicycle and pedestrian mobility and safety infrastructure as well as non-infrastructure approaches including bicycle and pedestrian safety education, awareness of the opportunities to safely bike and walk to school, and by addressing safety concerns through law enforcement activities.	\$2M total until funding runs out	<ul style="list-style-type: none"> - Design and construction for safety-focused projects - Deployment of technology, education, or enforcement to support roadway safety - Non-infrastructure activities such as enforcement, education, encouragement, and program evaluation activities 	<ul style="list-style-type: none"> - Standard forms - Public outreach and support - MPO TIP Letter - Project sponsor resolution - Maps - Project timeline - Estimates budget 	<ol style="list-style-type: none"> 1. Safety (based upon narrative and map analysis) 2. Connectivity & Accessibility 3. Quality of Life 4. Encouragement 5. Community support 6. Project readiness 7. Planning 	Max \$500K	0% local match	“Eligible applicants for infrastructure projects include state agencies and political subdivisions (a city or county within the State of Texas).”	https://ftp.txdot.gov/pub/txdot-info/ptn/programs/tasa-2017/2019-program-guide.pdf
Texas General Traffic Safety Grants	TxDOT	TxDOT funding supports the targets and strategies of traffic safety programs to reduce the number of motor vehicle related crashes, injuries, and fatalities in Texas. These targets and strategies form the basis for the Federal Fiscal Year 2023 Texas Highway Safety Plan (HSP), which is submitted to the National Highway Traffic Safety Administration (NHTSA) for approval and funding. Each year, TxDOT’s Behavioral Traffic Safety Section (TRF-BTS) requests proposals for Texas HSP projects.	Varies by year at state discretion	<ul style="list-style-type: none"> - Planning and administration - Education - Training 	<ul style="list-style-type: none"> - Proposal - Map - Crash data - Budget 	<ol style="list-style-type: none"> 1. Crash Data 2. Cost eligibility 3. Quality of plan 4. Percent of matching funding proposed 5. Strength of problem 	unknown	20% local match	Local governments are eligible to apply for funding	https://www.txdot.gov/apps/egrants/eGrantsHelp/RFP/2025/RFP2025.pdf
Texas Selective Traffic Enforcement Program (STEP)- Comprehensive Grants	TxDOT	“STEP funding supports projects that reduce crashes by creating safer driving environments on Texas roadways through high-visibility engagement (HVE)”	Varies by year at state discretion	<ul style="list-style-type: none"> - Overtime enforcement activities 	<ul style="list-style-type: none"> - Baseline enforcement information - Baseline KA crash Data - Operational plan - Public information and education 	<ol style="list-style-type: none"> 1. Safety 2. Quality of operational plan 	unknown	0% local match	“Organizations eligible for STEP funds include the Texas Department of Public Safety (TxDPS), sheriff’s offices, constable’s offices, and local police departments.”	https://www.txdot.gov/apps/egrants/eGrantsHelp/RFP/2025/STEPRFP2025.pdf

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Texas Selective Traffic Enforcement Program (STEP) - Commercial Motor Vehicle (CMV) Grants	TxDOT	STEP funding supports projects, specifically for CMV enforcement, that reduce crashes by creating safer driving environments on Texas roadways through high-visibility engagement (HVE). Officers conducting enforcement on a STEP-CMV grant should make enforcement of Intersection Traffic Control, Impaired Driving, Occupant Protection, Speed and Distracted Driving their top priority during enforcement, although any traffic-related probable cause can be used to initiate a CMV stop	Varies by year at state discretion	“- Overtime enforcement activities “	“- Baseline enforcement information - Operational plan - Public information and education”	“1. Safety 2. Quality of operational plan”	unknown	0% local match	“Organizations eligible for STEP funds include the Texas Department of Public Safety (TxDPS), sheriff’s offices, constable’s offices, and local police departments.”	https://www.txdot.gov/apps/egrants/eGrantsHelp/RFP/2025/STEPRFP2025.pdf
SMART Grant Program	OST-R	SMART grants funds to conduct demonstration projects focused on advanced smart city or community technologies and systems to improve transportation efficiency and safety.	Varies by year at state discretion	- Projects must demonstrate at least one technology area (coordinated automation, connected vehicles, intelligent, sensor-based infrastructure, systems integration, commerce delivery and logistics, leveraging use of innovation aviation technology, smart grid, or smart technology traffic signals)	“- Standard forms - Key information table - Narrative - budget Narrative - Letter of commitment - project team resumes”	“1. Feasibility of workplan 2. Community engagement and partnerships 3. Leadership and Qualifications 4. Benefit to disadvantaged communities”	\$250K - 2M	0% local match	Eligible applicants for funding include state agencies, a political subdivision of a state, and metropolitan planning organizations.	https://www.transportation.gov/grants/smart/illustrative-use-cases
Active Transportation Infrastructure Investment Program (ATIIP) Grant Program:	FHWA (via TxDOT)	The ATIIP grant funds plans or implementation of active transportation networks that connect destinations within or between communities or the creation plans or implementation of an active transportation spine connecting two or more communities, metropolitan regions, or States.	\$44.5M total	“- Design and construction of active transportation networks - Planning documents”	“- Standard forms - Narrative - Basic project information - Budget narrative - Merit criteria - Project readiness - Environmental risk - Detailed project schedule - Required approvals”	“1. Mobility and community connectivity 2. Community support 3. Commitment to increasing walking, biking, and other types of active transportation 4. Financial completeness 5. Equitable development 6. Other DOT goals and priorities”	\$100K - 15M	0 - 20% local match depending on project type	Local or regional governmental organizations including a metropolitan planning organization (MPO) or regional planning organization or council are eligible for funding.	https://www.fhwa.dot.gov/environment/bicycle_pedestrian/atiip/

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Motor Carrier Safety Assistance Program (MCSAP) Grant	FMCSA (Via USDOT)	The MCSAP is a Federal grant program that provides financial assistance to States to reduce the number and severity of crashes and hazardous materials incidents involving commercial motor vehicles (CMVs). The goal of the MCSAP is to reduce CMV-involved crashes, fatalities, and injuries through consistent, uniform, and effective CMV safety programs.	Varies by year at congressional discretion	<ul style="list-style-type: none"> - Enforcement activities - Public education and awareness 	<ul style="list-style-type: none"> - Standard forms - Narrative 	<ol style="list-style-type: none"> 1. Application review 2. Programmatic review (feasibility) 3. Financial review 4. Suitability review 	\$350K - 30M	15% state match	Lead MCSAP Agencies for States and Territories may apply.	https://www.fmcsa.dot.gov/grants/mcsap-basic-incentive-grant/motor-carrier-safety-assistance-program-mcsap-grant
Commercial Driver's License Implementation (CDLPI) Grant	FMCSA (Via USDOT)	"The CDLPI provides financial assistance to carry out and improve the national CDL program. The national CDL program focuses on the concept that each driver has only one driving record and only one licensing document, commonly referred to as "One Driver — One License — One Record."	Varies by year at congressional discretion	- Implementation of Projects that improve National CDL Program	<ul style="list-style-type: none"> - Standard forms - Narrative - Project details - Budget narrative - IDC agreement 	<ol style="list-style-type: none"> 1. Merit Evaluation 2. Technical merit 3. Budget management review 4. Past performance 5. Racial equity 6. Climate change 7. Sustainability 	unknown	0% local match	Agencies responsible for implementing all or part of a State CDL program or that have an effect on improving the National CDL Program are eligible to apply.	https://ai.fmcsa.dot.gov/Grants/CDLPI.aspx
Commercial Motor Vehicle Operator Training (CMVOST) Grant	FMCSA (Via USDOT)	The CMVOST grant funds the training of individuals in the safe operation of commercial motor vehicles.	Varies by year at congressional discretion	<ul style="list-style-type: none"> - Training - Education 	<ul style="list-style-type: none"> - Standard forms - Narrative - Project details - Budget narrative - IDC agreement 	<ol style="list-style-type: none"> 1. Merit Evaluation 2. Technical merit 3. Budget management review 4. Past performance 5. Safety 6. Economic strength and modernization 7. Equity 8. Climate & sustainability 9. Transformation 	max \$3.5M	0% local match	Entities that provide commercial motor vehicle (CMV) operator safety training are eligible for funding.	https://ai.fmcsa.dot.gov/Grants/CMVOST.aspx

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Advanced Transportation Technologies and Innovative Mobility Deployment (ATTIMD) Program	FHWA	The Advanced Transportation Technologies and Innovative Mobility Deployment program, supports the implementation and operation of mobility-focused transportation technologies.	\$60M annually	<ul style="list-style-type: none"> - Advanced transportation technologies - Integrated corridor management - Advanced parking reservation - Shared-use mobility applications - on-demand transportation services” 	<ul style="list-style-type: none"> - Standard forms - Project narrative - Management structure - Cost share information - Budget narrative - Staffing description” 	<ol style="list-style-type: none"> 1. Improve mobility of good and people 2. Protect the environment 3. Optimization 4. Incentivize travellers 5. facilitate account-based payments for transportation access” 	unknown	20 - 50% local match	State and local governments as well as Metropolitan Planning Organizations are eligible to apply. Partnership with the private sector or public agencies, including multimodal and multijurisdictional entities, research institutions, organizations representing transportation and technology leaders, or other transportation stakeholders, applicants are required to include a partnership plan in the technical application.	https://www.transportation.gov/rural/grant-toolkit/advanced-transportation-technologies-and-innovative-mobility-deployment
Railroad Crossing Elimination (RCE) Grant Program	FRA	The Railroad Crossing Elimination (RCE) Grant Program funds safety-focused highway-rail or pathway-rail grade improvement, relocation, and installation projects.	\$600M total	<ul style="list-style-type: none"> - Track relocation - The improvement or installation of protective devices, signals, signs, or other measures the improve safety, provided that such activities are related to a separation or relocation project - Other means to improve the safety and mobility of people and goods at highway-rail grade crossings (including technological solutions) -The planning, environmental review, and design of an eligible project” 	<ul style="list-style-type: none"> - Project narrative - Statement of work - Environmental Compliance - Standard forms - Budget Narrative” 	<ol style="list-style-type: none"> 1. Safety impacts 2. Project readiness 3. Economic vitality 4. Equity and Barriers to opportunity 5. Transformation of our nations transportation infrastructure 6. Risk assessment 7. Eliminating crossings 8. Geographic diversity” 	unknown	20% local match	County governments are eligible to apply for funding	https://www.transportation.gov/rural/grant-toolkit/railroad-crossing-elimination-rce-grant-program

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Multimodal Project Discretionary Grant (MPDG)	OST	<p>“Includes 3 programs: Mega, INFRA, and Rural.</p> <p>The National Infrastructure Project Assistance (Mega) Program provides funding for large, complex projects that are difficult to fund by other means and likely to generate national or regional economic, mobility, or safety benefits.</p> <p>The INFRA program awards competitive grants to multimodal freight and highway projects of national or regional significance to improve the safety, accessibility, efficiency, and reliability of the movement of freight and people in and across rural and urban areas.</p> <p>Eligible projects for Rural grants include highway, bridge, and tunnel projects that help improve freight, safety, and provide or increase access to agricultural, commercial, energy, or transportation facilities that support the economy of a rural area. “</p>	\$5B+ annually	<p>“- Highway or bridge project</p> <ul style="list-style-type: none"> - Intercity passenger rail - a public transportation project that is eligible - Planning - Construction - A project to develop, establish, or maintain an integrated mobility management system, a transportation demand management system, or on-demand mobility services “ 	<p>“-Standard forms</p> <ul style="list-style-type: none"> -Project description - Project budget - Funding documentation - Project readiness - Project requirements” 	<p>“1. Safety</p> <ol style="list-style-type: none"> 2. State of good repair 3. Economic impacts 4. Climate change, resilience, and the environment 5. Equity, multimodal options, and quality of life 6. Innovation areas: technology, project delivery, and financing” 	\$0-25M (\$100M+ for Mega)	20% local match	A state, metropolitan planning organization, or unit of local government are eligible to apply for funding.	https://www.transportation.gov/grants/mpdg-program
Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program	OST	The Rebuilding American Infrastructure with Sustainability and Equity (or RAISE) program funds capital investments in surface transportation that will have a significant local or regional impact, especially in areas of persistent poverty or historically disadvantaged, overburdened, or underserved communities.	\$1B+ annually	<p>“- Highway or bridge project</p> <ul style="list-style-type: none"> - Intercity passenger rail - a public transportation project that is eligible - Planning - Construction - A project to develop, establish, or maintain an integrated mobility management system, a transportation demand management system, or on-demand mobility services “ 	<p>“- Standard forms</p> <ul style="list-style-type: none"> - Project description - Project location - Project budget - Merit criteria - Project readiness - Benefit-cost analysis “ 	<p>“1. Merit criteria</p> <ol style="list-style-type: none"> 2. Project readiness 3. Benefit-cost analysis 4. Safety 5. Environmental sustainability 6. Quality of life 7. Mobility and community connectivity 8. State of good repair 9. Economic impacts 10. Innovation 11. Partnership and collaboration” 	\$0-25M	20% local match	A state, or unit of local government are eligible to apply for funding.	https://www.transportation.gov/rural/grant-toolkit/rebuilding-american-infrastructure-sustainability-and-equity-raise