



CITY OF ATLANTA

VISION ZERO ACTION PLAN

visionZERO 

Atlanta's commitment to ending all traffic deaths

CITY OF ATLANTA



DEPARTMENT OF TRANSPORTATION



November 2023



The contents of the Atlanta Vision Zero Action Plan are for planning purposes and should not be used for final design of any project. All results, recommendations, concept drawings, cost opinions, and commentary contained in this document are based on limited data and information and on existing conditions that are subject to change. Further analysis and engineering design are necessary prior to implementing any of the recommendations in this document.



TABLE OF CONTENTS

ACRONYMS	IV	CHAPTER 4: SAFER STREETS CHECKLIST	39
DEDICATION	VI	Safety Countermeasures	42
LETTER FROM THE MAYOR	VII	Systemic Safety Countermeasures	44
ACKNOWLEDGMENTS	VIII	A Deeper Look	46
EXECUTIVE SUMMARY	X	CHAPTER 5: IMPLEMENTATION PLAN	49
CHAPTER 1: INTRODUCTION	1	Implementation Core Values	51
What Is the Safe System Approach?	3	Every Project Contributes to Vision Zero	52
The Safe System Approach in Atlanta	4	Near Term Actions	53
CHAPTER 2: ENGAGEMENT	7	Implementation Action Items	54
Equity-Based Engagement	10	CHAPTER 6: EVALUATION FRAMEWORK	67
Communications and Outreach	11	Program Monitoring	69
Engagement Opportunities	12	Project Evaluation	71
What We Heard from Atlantans	13		
CHAPTER 3: DATA ANALYSIS.	19		
The Situation Today	21		
High Injury Network	22		
Systemic Risk	24		
Combined Risk Network	30		
Combined Risk Network & Community			
Feedback Analysis	34		
Conclusions from the Data Analysis	36		

ACRONYMS

ADA: The Americans with Disabilities Act

ARC: Atlanta Regional Commission

ATL: City of Atlanta

ATLDOT: Atlanta Department of Transportation

CID: Community Improvement District

CMF: Crash Modification Factor

CTP: Comprehensive Transportation Plan

EPDO: Equivalent Property Damage Only Method

FHWA: Federal Highway Association

GDOT: Georgia Department of Transportation

HIN: High Injury Network

KPI: Key Performance Indicator(s)

LPI: Leading Pedestrian Interval

MARTA: Metropolitan Atlanta Rapid Transit Authority

NGO: Non-Governmental Organization

NPU: Neighborhood Planning Unit

PET: Post-Encroachment Time

PHB: Pedestrian Hybrid Beacon

RRFB: Rectangular Rapid Flashing Beacon

RTOR: Right Turn On Red

RwD: Roadway Departure

TIM: Transportation Infrastructure and Maintenance

TMP: Traffic Management Plans

TTC: Time-To-Collision

VZ: Vision Zero



DEDICATION

The City of Atlanta's Vision Zero Action Plan is dedicated to the memory of our colleague Kemberli Sargent, the City's first Vision Zero Manager. Each day we were fortunate to work alongside her and witness her genuine passion to secure safe streets for everyone. Kemberli was keenly aware that traffic fatalities constrain the potential of the "Beloved Community."

Tragically, while attending a transportation planning conference, Kemberli and several colleagues were struck by a speeding driver. After a courageous battle to recover, Kemberli succumbed to her injuries months later. In the wake of this profound loss, we honor her memory and will continue to advocate for change in policy, education, and engineering to prevent future tragedies. We are united in her memory, and with Kemberli's spirit as our north star, we will continue her work and preserve her legacy—because we are **#KemberliStrong!**

#VisionZeroATL #Drive25 #SaveLives





CITY OF ATLANTA

ANDRE DICKENS
MAYOR

Dear Fellow Atlantans,

I am pleased to share with you the City of Atlanta's first *Vision Zero Action Plan* – a detailed roadmap for eliminating fatal and serious injury crashes on our streets by 2040.

Vision Zero is a critical element in our Moving Atlanta Forward agenda:

One Safe City: This Action Plan states that traffic crashes are neither acceptable nor inevitable. We can and will do better.

A City of Opportunity for All: Equal opportunity and access only exists if everyone is safe walking, bicycling, or driving to work, school, an appointment, or the neighborhood store.

A City Built for the Future: Vision Zero encompasses safety, equity, and sustainability – the hallmarks of a future-oriented city that is continuously poised to compete on the world stage.

Effective and Ethical Government: This Action Plan lays out an ambitious agenda, specific actions, and clear benchmarks to measure our performance in the pursuit of our Vision Zero goals.

As a member of the Atlanta City Council, I joined my colleagues in legislating the City of Atlanta's Vision Zero commitment – reducing speed limits on all city-owned streets to 25 miles per hour, setting priorities on safer street design, and allocating resources in support of multimodal transportation options. In my mayoral administration, we have further reinforced that commitment with:

- More than 19,000 potholes repaired for safer roadways
- More than 16,000 linear feet/three (3) miles of sidewalk repaired/installed for improved pedestrian access
- More than 18,000 streetlights repaired/installed for better visibility and safer neighborhoods

The tactics outlined in the *Vision Zero Action Plan* are informed by extensive input from the community and data analysis. Each action is based on proven safety measures that ATLDOT and our partners are committed to implementing quickly and efficiently. More than numbers or words, however, this *Vision Zero Action Plan* is about saving lives. Every victim of traffic violence represents a loss to our community. This plan will help deliver our City's commitment to eliminating fatal and serious injury crashes on our roads.

We know how to prevent serious injury and fatal crashes from happening – the time to act is now.

Yours safely,

Mayor Andre Dickens
Atlanta, GA

ACKNOWLEDGMENTS

Andre Dickens, Mayor, City of Atlanta

Solomon Caviness, MBA, Commissioner

Marsha Anderson-Bomar, P.E., Former Interim Commissioner

CITY OF ATLANTA DEPARTMENT OF TRANSPORTATION

Allen Smith, Deputy Commissioner, Transportation Infrastructure Management
Betty Smoot-Madison, Deputy Commissioner, Strategy and Planning
Gregory Moore, PMP, Deputy Commissioner, Capital Delivery – Construction

Adrian Carver, Sr. Communications Manager/Content Developer
Andrew Lewis, Project Manager I
Ashley Finch, Shared Micromobility Coordinator
Calvin Watts, Transportation Director, On-Street Parking Management
Cathy Tyler, Director, Policy and Intergovernmental Affairs (Atkins)
Carla Smith, Program Management Officer
Chandra R. Tarver, Community Engagement Director, Senior
Chris McIntosh, Urban Planner III
Chris Rome, PE, PTOE, RSP1, Senior Director Multimodal Transportation Engineering
Corey Klawunder, EIT, Multimodal Transportation Engineer-in-Training
Currie Cole Smith, AICP, Vision Zero Manager
Desmond Cole, Transportation Engineering Director, Signals and Street Lights
Emily Aust, GIS Analyst
Ibrahim Abousaud, Pre-Construction Director
John Saxton, Assistant Director, Mobility Planning
Karen Bivens, Administrative Assistant

Lenor Bromberg, PE, F.ASCE, Deputy Commissioner, Capital Delivery – Engineering
Pierre Johnson, Chief of Administration

Kyethea Clark, AICP, Program Management Director, Strategic Partnership
Mark Tai, PE, Transportation Engineering Director
Michael Frierson, Public & Media Relations Manager
Michele Wynn, Director, Program Delivery
Morgan Brown, Graphic Design and Digital Content Specialist
Nursef Kedir, Transportation Engineering Director, Senior
Shontae Durrah, Director, Budget and Performance
Simeon Robinson, Construction Director
Sowmya N.V. Maya, Project Manager III
Subodha Khanal, PhD, Senior GIS Coordinator

Doug Nagy, AICP, CNU-A, Former Deputy Commissioner, Strategy and Planning (former employee)
Kia Osbourne, Former Executive Assistant to the Commissioner (former employee)
Jordan Dowdy, Former Director of Data and Analytics (former employee)

There are many more ATLDOT employees whose daily work and contributions helps us advance Vision Zero.
We thank you for your commitment and collaboration.

TASK FORCE MEMBERS

Atlanta Department of Transportation
Atlanta Department of City Planning
Atlanta Police Department
Atlanta Fire Rescue
Atlanta Public Schools
Atlanta Department of Public Works
Mayor's Office of Equity, Diversity
Inclusion
Mayor's Office of Communications
Mayor's Office of Technology
Atlanta Regional Commission
Fulton County Sheriff's Office
Fulton County Board of Health
Georgia Department of Transportation
MARTA
CobbLinc
SRTA/GRTA

The ATL Authority
Grady Memorial Hospital
Emory University Hospital
Shepherd Center
Wellstar Health System
Propel ATL
Partnership for Southern Equity
Atlanta BeltLine Inc. (ABI)
Statewide Independent Living Council of
Georgia
ATL Airport CID
Atlanta Downtown Improvement District
Buckhead CID
Little Five Points CID
Midtown Improvement District
West End CID
Upper Westside CID

COMMUNITY PARTNERS

Bearings Bike Works
ThreadATL
Safer Moreland Working Group

Cascade United Methodist Church
Community in Schools

SPECIAL THANKS TO

Ashley Bella and her team at ArtzyBella for capturing community feedback through art and facilitating an interactive Vision Zero art activity during Atlanta Streets Alive.

Hillside International Truth Center for hosting the in-person Atlanta Vision Zero Community Workshop.

CITY OF ATLANTA



DEPARTMENT OF TRANSPORTATION

visionZERO
Atlanta's commitment to ending all traffic deaths

Prepared by Toole Design Group

TOOLE
DESIGN

With support from:
VHB, Blue Cypress Consulting, and Street Simplified



EXECUTIVE SUMMARY

The City of Atlanta's goal is **zero** fatal or serious crashes on our city streets. This will require committed leadership, consistent resources, and community support. The Vision Zero Action Plan guides us toward achieving that goal by 2040.

In 2021, 100 people died on Atlanta's streets as a result of traffic crashes.¹ This Plan was launched in October 2022 to support the City's goal of achieving Vision Zero. The Plan includes a thorough data analysis – all crashes from 2017-2021 were mapped to identify the roads and roadway factors that contribute to reoccurring crash locations. The Plan incorporates thousands of comments from stakeholders – residents, neighborhood representatives, community organizations, and partner agencies – that helped determine places where people feel unsafe and bolster the data analysis.

The Plan uses data analysis and feedback from community engagement to determine safer street designs that address high-risk locations, achieve safer speeds, and help build a culture of safety throughout the City. Safety solutions are prioritized within Communities of Concern (CoC) which are areas identified by the Atlanta Department of Transportation (ATLDOT) as having the most transportation vulnerability in Atlanta. The Plan establishes implementation actions

The City of Atlanta's Vision Zero Action Plan contains actions and strategies to eliminate fatal and serious injuries on our City's streets;

Together we can reach Vision Zero by

2040

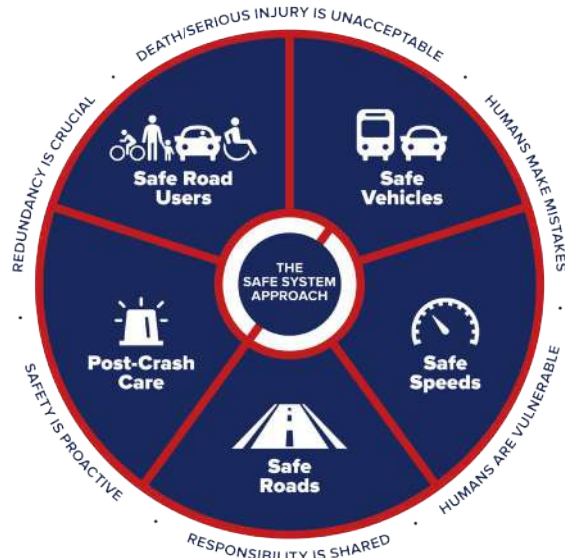
for short- and long-term strategies that are needed to build staff capacity and build safer streets. Finally, the Vision Zero Action Plan incorporates ongoing assessment and evaluation in order to track progress, share results, and change course if necessary.

¹ Georgia Department of Transportation's (GDOT) Numetric crash data for 2021 <https://www.dot.ga.gov/GDOT/Pages/CrashReporting.aspx>

SAFE SYSTEM APPROACH

Achieving Vision Zero requires a new approach to transportation safety. The **Safe System Approach** underlies the Action Plan's efforts to build a city and streets that are safer for people. The approach recognizes that safer roads, safer behaviors, and safer decisions together help save lives.

Figure 1: Safe System Approach



Source: FHWA. 2023. *Zero Deaths and Safe System*. Federal Highway Association.

The Safe System Approach incorporates a range of elements to improve transportation safety: safer people; safer roads; safer vehicles; safer speeds; and post-crash care. While these elements all contribute to better outcomes, this Plan recognizes that three elements are most within the City's control and best contribute to a safer, more vibrant city – building **safer streets** through infrastructure investments; supporting **safer people** through education and outreach; and achieving **safer speeds** through street designs.

This plan incorporates the Safe System Approach by using data analysis to identify which roadways and communities are most at risk for serious crashes, listening to communities describe where and when they don't feel safe or envision improvements to their streets, and recommending proven safety measures that will effectively increase safety on our city's streets. The approach will help the city achieve Vision Zero consistent with the U.S. Department of Transportation's National Roadway Safety Strategy which will help the City of Atlanta compete for regional and Federal funding programs.

COMMUNITY ENGAGEMENT

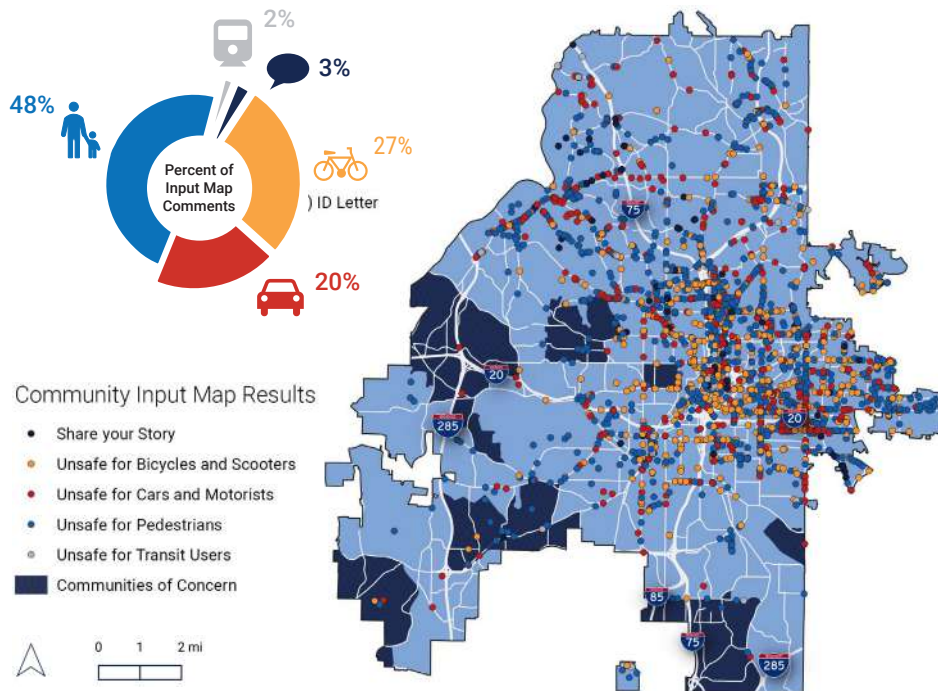
Atlanta's residents are the experts on our streets. Achieving Vision Zero requires listening their everyday experiences and learning from their perceptions of safety to inform and guide this Plan. The Action Plan incorporates the views of hundreds of Atlanta residents, visitors, business owners, elected officials, and community partners to understand the importance of traffic safety across the City, actions that need to be taken to achieve Vision Zero, and where actions should be focused.

Engagement by the Numbers

- 4** **POP-UP EVENTS**
throughout the City of Atlanta
- 3** **VIRTUAL INFO SESSIONS**
during the planning process
- 1** **IN-PERSON COMMUNITY WORKSHOP**
- 2,888** **COMMENTS SUBMITTED**
through the Online Community Input Map
- 100+** **COMMUNITY SIGNATURES**
on the Vision Zero Pledge

The development of the Plan prioritized **equitable community engagement** through in-person events, virtual tools, and conversations centered in Communities of Concern. The City hosted a two-hour long community workshop with a robust and impactful dialogue. People across the City contributed more than 2,800 points to an online map. The City conducted pop-up events, primarily in Communities of Concern, for one-on-one conversations with hundreds of Atlanta residents.

Figure 2: Online Community Input Map Results

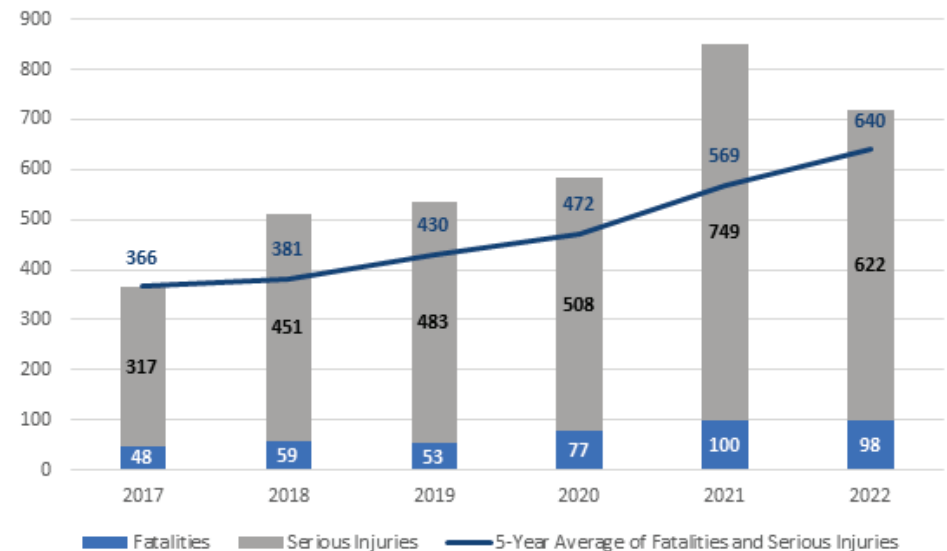


Community input bolsters and expands the data analysis by sharing missing locations, adding a human perspective to the statistics, and helping prioritize key locations. Public comments form the basis of many action items that will steer City investments and decisions and reinforce street designs and safety measures that will help achieve Vision Zero.

DATA ANALYSIS

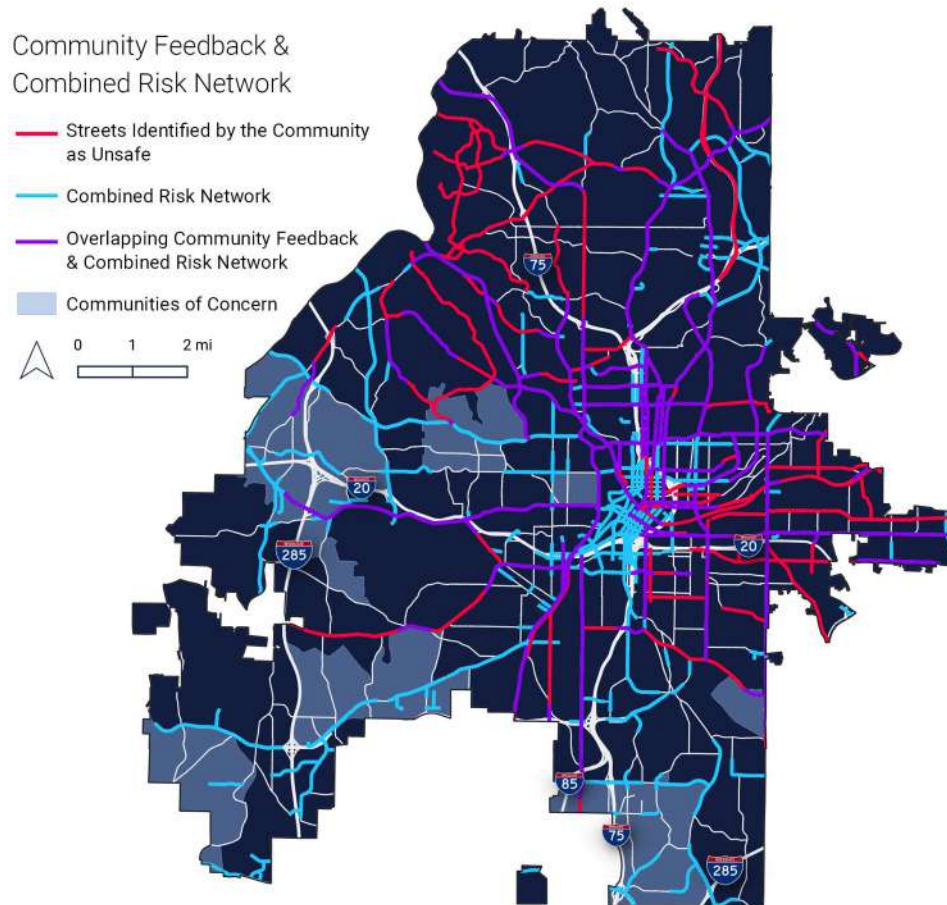
Achieving Vision Zero requires a thorough analysis of crash data to determine where risks are most likely, what communities are most affected by unsafe roads, and where strategic interventions can measurably improve safety. The Action Plan provides a clear, unbiased perspective of crashes and documents to whom, where, why, and how fatal and serious injury crashes are happening and will likely happen in the future.

Figure 3: Annual Fatalities and Serious Injuries Trends in Atlanta (2017-2022)



The data analysis assessed trends and reoccurring risk factors for five recent years (2017-2021) of traffic crash records. The analysis helped inform the City's **High Injury Network (HIN)** of roads that consistently account for more than 70% of serious crashes within the City; and identified **Systemic Risk** factors that routinely contribute to serious crashes. Together these form the **Combined Risk Network**.

Figure 4: Community Feedback & Combined Risk Network

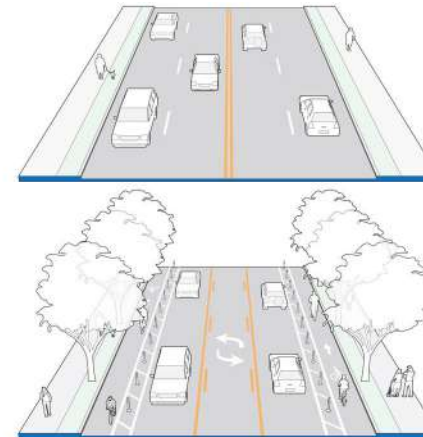


The data analysis provides the foundation for achieving Vision Zero. Strategic investments will be required to address the highest-risk and most complicated roads, deploy low-cost quick solutions where possible, and efficiently use City resources over the long-term. The Combined Risk analysis helps determine the locations and the tools that are needed to achieve Vision Zero.

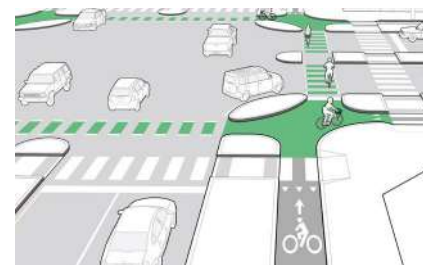
PROVEN SAFETY COUNTERMEASURES

Achieving Vision Zero requires safer street designs that prioritize the safety of the most vulnerable road users, reinforce safe travel speeds, and improve travel for all modes. The Action Plan's **Safer Streets Checklist** builds on the Plan's data analysis to identify proven safety countermeasures¹ that address the high-risk locations and roadway designs that most contribute to serious crashes. These countermeasures will be built into future roadway designs through new policies, design standards, and best practices.

ROAD DIETS



PROTECTED INTERSECTIONS



¹ Proven Safety Countermeasures are effective measures and strategies that reduce roadway fatalities and serious injuries. The term "countermeasures" is used throughout this Plan to align with the terminology adopted by the Federal Highway Administration (FHWA) and the National Association of City Transportation Officials (NACTO).

Safer roads and safer speeds are two of the most effective and long-lasting ways to achieve Vision Zero. As vehicle speeds increase above 25 miles per hour, they dramatically reduce the likelihood that someone will survive a traffic crash — especially if they are outside the vehicle on foot or on a bike. The most cost-effective infrastructure investments are those that reduce vehicle speeds or separate vulnerable road users with sidewalks, protected bike lanes, and safe and convenient crossings. Intersections can be redesigned to eliminate conflicting movements (e.g., right turn slip lanes and permissive left turn signals) and make them safer for all. These investments also contribute to a more livable, sustainable, and economically competitive city.



The City of Atlanta has a history of bold visions and transformative programs. Vision Zero requires world-class thinking and small, transformative steps that contribute to a better city. Achieving Vision Zero requires committed leadership, internal and external collaboration, data-informed planning, community involvement, a commitment to equity, and a focused implementation program.

IMPLEMENTATION

This Action Plan includes specific, measurable **Implementation Actions** that will guide the City's budgeting, programs, staff, partner agencies, and stakeholder organizations towards achieving Vision Zero.

While education, enforcement, and communication are elements of achieving Vision Zero, successful cities have shown that using infrastructure to build safer streets and reinforce safer speeds is most effective at eliminating safety risks. The Plan establishes an approach for building better projects that:

- Reduce risks along the High Injury Network
- Reduce risks within Communities of Concern
- Establish a modal hierarchy to prioritize the needs of pedestrians first, followed by bicyclists, transit riders, automobiles, or freight (determined by the City Comprehensive Transportation Plan)
- Increase separation or protection for Vulnerable Road Users
- Incorporate Proven Safety Countermeasures
- Establish and reinforce safe speeds
- Reflect the community's needs and perception of safety

The Plan incorporates a list of 92 actions that will inform City efforts over a decade, but **immediate action must start now**. Near term efforts will kick-start the City's Vision Zero program and help make immediate improvements in street safety:

- **Build Staff Capacity:** Hire additional staff to support the Vision Zero and Quick Build programs; train all City staff on their role in Vision Zero; deputize Department heads as champions of Vision Zero.
- **Quickly Deploy Low-Cost Solutions:** Establish a dedicated Quick Build team similar to the "pothole posse;" build and maintain an inventory of tactical and quick build materials; deploy Quick Build treatments at top locations from data and community input.

- **Advance Scoping and Projects Along the High Injury Network:** Assess currently funded projects (i.e., Moving Atlanta Forward) against HIN segments; select three HIN corridors (City-owned) for priority project funding; coordinate one new HIN corridor (GDOT-owned) for priority project funding; conduct Road Safety Audits and publish reports for all HIN corridors.

Current City streets are the result of decades of decision-making that often prioritized automobile travel, high speeds, and daily commute trips. Achieving Vision Zero will require a pivot in decision-making and investments that prioritize safety for everyone in the City.

EVALUATION

Achieving Vision Zero requires assessing progress, determining effective strategies, and changing course if necessary. The Action Plan has a robust evaluation framework to determine whether the Plan is achieving success and where changes need to be made.

The City of Atlanta's Vision Zero efforts will be tracked in two ways:

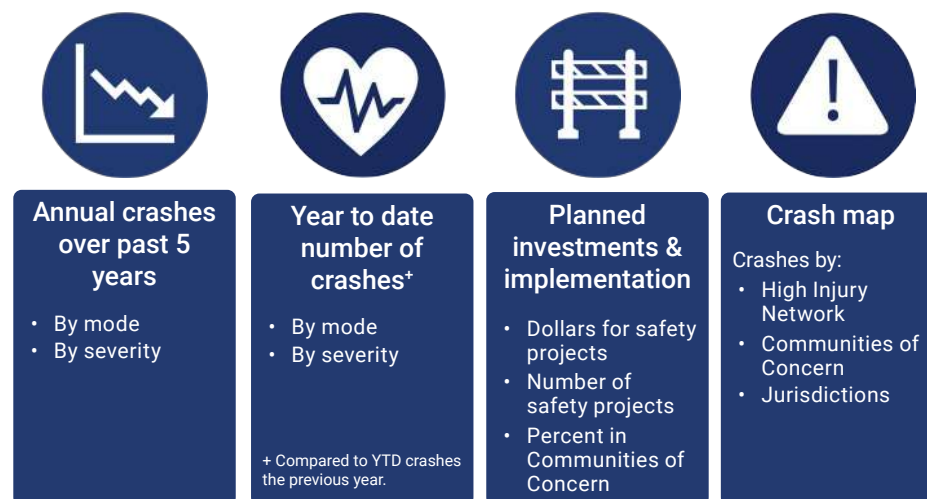
- Monitoring progress and success of the overall Vision Zero program
- Evaluating the impacts of individual projects

The City will use Key Performance Indicators (KPIs) to monitor and communicate program success, shown in Figure 5.

The steps that were used to develop this Plan – community engagement, data analysis, safe street designs, and implementation – can all be reassessed, adjusted, and updated as needed. If a strategy or design is not working, the City will pivot and try something else. Smaller, quickly built projects will allow the City to pilot and test ideas while larger, transformative projects are developed. Low-cost, systemic

investments will cover more locations more quickly, rather than waiting on enormous investments to be developed. Monitoring and sharing the effectiveness of these projects will help track progress, inform decisions, and allow accountability by City residents who demand safer streets.

Figure 5: Key performance indicators for Vision Zero dashboards



CONCLUSION

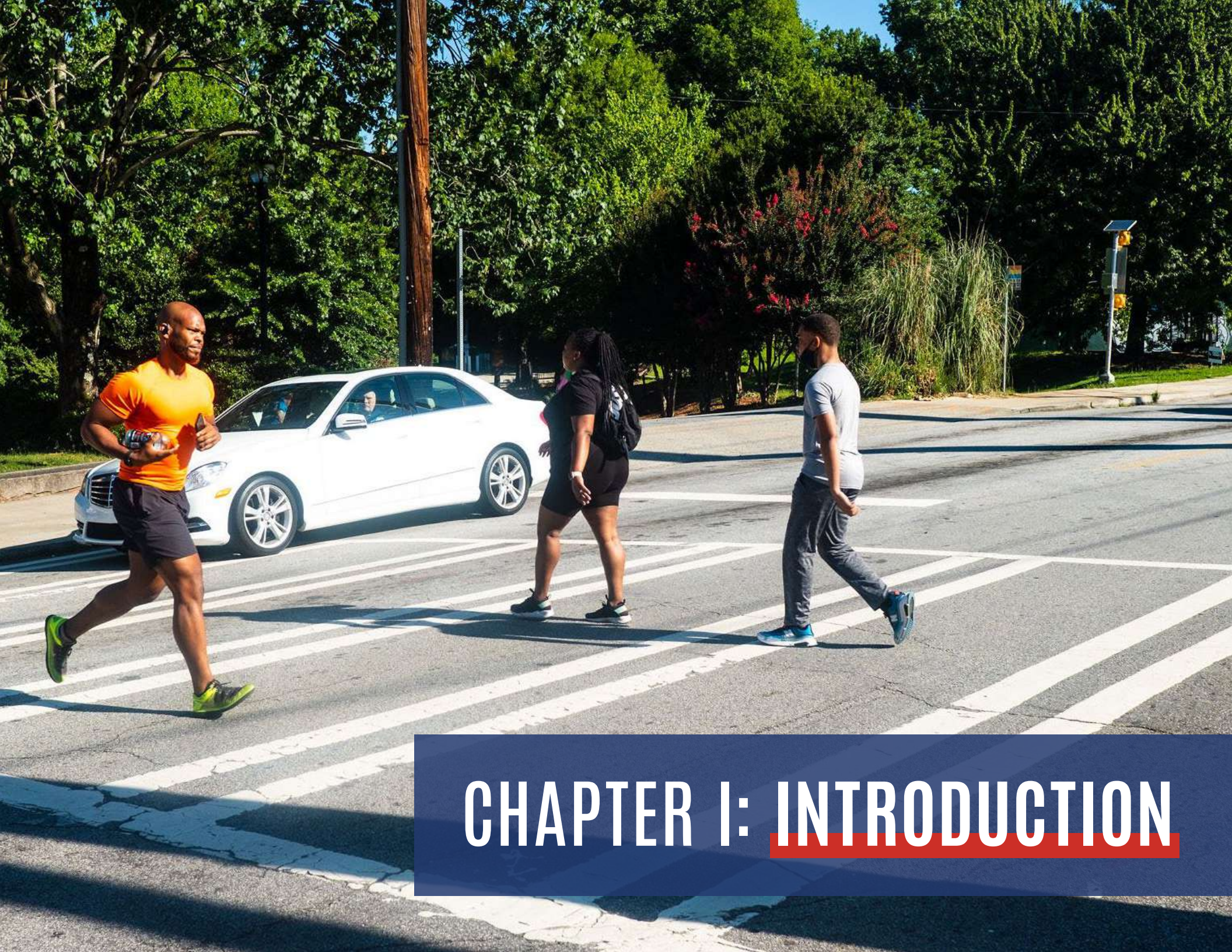
Traffic safety trends are the result of decades of decisions at the City, regional, and national level. Those decisions prioritized who could move through the City safely and who was most exposed to risk for traffic crashes. Making different decisions to build better, safer streets will take time, funding, and political support. An investment in safer streets will make the City of Atlanta safer, help provide more opportunities, be more competitive, and achieve the desires of our residents.



On February 13, 2023, I was struck by a car while using a crosswalk. The car was going over 35 miles per hour and my wheelchair saved my life.

-Community Input Map Participant





CHAPTER I: INTRODUCTION

INTRODUCTION

Vision Zero establishes the goal that everyone should be able to travel safely and not be killed or seriously injured on our streets while going about their daily business. Fatal and serious crashes are not the inevitable by-product of a modern transportation system; they are entirely preventable. We can design our streets and highways to eliminate the worst consequences of human error.

Vision Zero was developed in Sweden in the 1990s to focus efforts on eliminating traffic deaths and serious injuries. Since 1997, Sweden has reduced fatalities by two-thirds while traffic deaths in the United States are higher today than 25 years ago.

The goal of Vision Zero can be achieved by implementing the **Safe System Approach**. This comprehensive approach to traffic safety seeks to prevent crashes from happening at speeds that the human body can't tolerate. The more vulnerable a road user is, the greater the degree of separation is needed between them and vehicles. If separation can't be achieved, the speed of vehicles must be reduced so that people can survive a collision if one does occur.

In 2021, 100 people died on Atlanta's streets as a result of a traffic crash.² City streets must be designed to accommodate and protect the most vulnerable road users.



² Georgia Department of Transportation's (GDOT) Numetric crash data for 2021 <https://www.dot.ga.gov/GDOT/Pages/CrashReporting.aspx>

WHAT IS THE SAFE SYSTEM APPROACH?

The Safe System Approach (Figure 1), which has been adopted by the U.S. Department of Transportation as part of the National Roadway Safety Strategy, is built around five key objectives.

1. **Safer people:** Promoting safe, responsible driving behaviors and highlighting how speeding, impaired and distracted driving, and not buckling up, can endanger everyone on the road.
2. **Safer vehicles:** Making new and improved safety technologies that consider vehicle size and weight to help prevent crashes and mitigate injuries in the event of a crash available in more vehicles.
3. **Safer speeds:** Promoting safer speeds on all roadways through a combination of roadway design, appropriate speed-limit setting, targeted education, outreach campaigns and enforcement.
4. **Safer roads:** Designing roads to mitigate human error, such as providing physical separation between vehicles, bicycles, and pedestrians.
5. **Post-crash care:** Enhancing the survivability of crashes through faster access to emergency medical care, while creating a safe working environment for first responders and preventing secondary crashes using traffic incident management practices.

Figure 1: Safe System Approach



Source: FHWA. 2023. *Zero Deaths and Safe System*. Federal Highway Association.

HOW IS THIS APPROACH DIFFERENT?

The conventional approach to traffic safety accepts that some traffic deaths are inevitable and that most are caused by human errors that can be corrected through education and enforcement. The goal has been to prevent all collisions regardless of severity, which has over-emphasized crashes that result in relatively minor inconvenience to motorists rather than crashes that are most deadly, especially for people outside cars. There is an assumption that doing what it takes to eliminate fatal crashes is too expensive and disruptive.

By contrast, the Vision Zero approach holds that fatal and serious injury crashes are entirely preventable and that the value of saving a person's life easily outweighs the cost. The focus is on preventing the most serious crashes from happening, especially at higher speeds, by building a system that can tolerate the mistakes that people make without the consequences being fatal. The roadway and built environment should offer more protection and separation to the most vulnerable road users, e.g. people on foot or bike, as their bodies can't survive crashes with a motor vehicle at higher speeds.

THE SAFE SYSTEM APPROACH IN ATLANTA

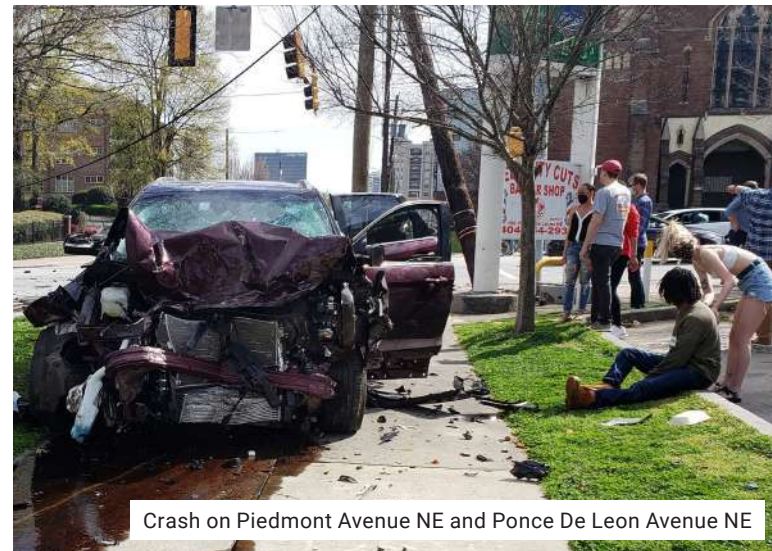
The Atlanta Vision Zero Action Plan uses the Safe System Approach to establish a clear path forward for the City of Atlanta to achieve the goal of Zero. An equity framework was applied throughout the planning process to reverse the disproportionate burden of traffic violence that falls on Communities of Concern.

The Action Plan includes:

- **Community Engagement** that sharpened the City's understanding of what actions need to be taken, where they should be focused, and how important this is to residents across Atlanta.
- **Data Analysis** of crashes that documents where, why, how, and to whom fatal and serious injury crashes are happening and will likely happen in the future.
- **A Safer Streets Checklist** with safety countermeasures³ that address high crash locations and fix the systemic roadway designs most associated with deadly crashes.
- **An Implementation Plan** with a comprehensive list of Atlanta-specific action items compiled by City staff, partner agencies and community organizations.
- **An Evaluation Framework** that tracks progress towards the goal of zero and establishes an evaluation process for individual roadway projects.

In addition to saving lives and preventing almost daily tragedies on City streets, the actions and strategies in the Action Plan seamlessly support the City of Atlanta's broader goals of creating a more vibrant, livable, world-class city in which walking, riding a bike, taking the bus or train, and driving a car are safer and more enjoyable. This Action Plan will reduce the danger and stress of auto-oriented streets and help people thrive.

Getting to zero is going to take time. The clock is ticking and many Atlantans' lives depend on the successful implementation of this Action Plan.

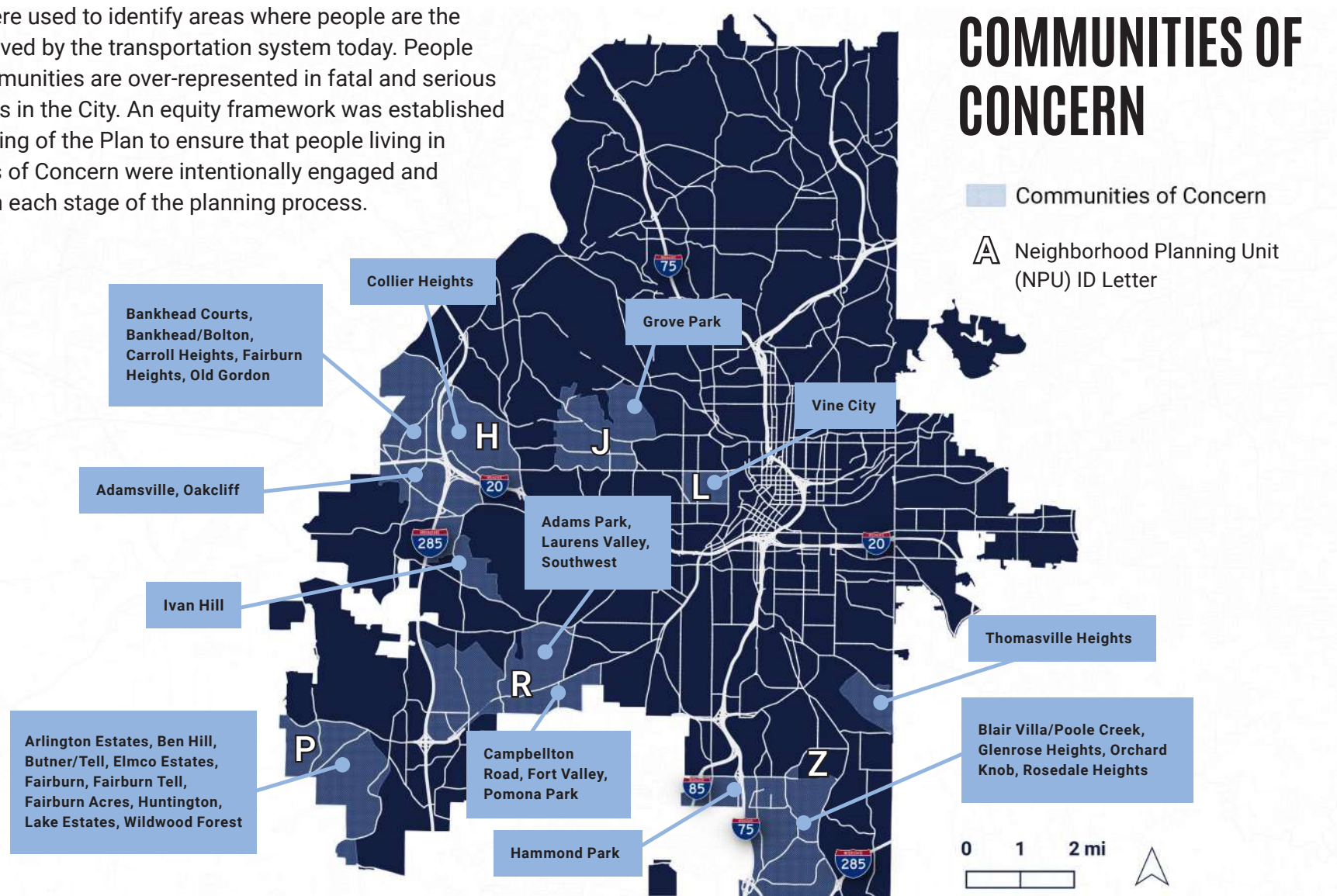


³ Proven Safety Countermeasures are effective measures and strategies that reduce roadway fatalities and serious injuries. The term "countermeasures" is used throughout this Plan to align with the terminology adopted by the Federal Highway Administration (FHWA) and the National Association of City Transportation Officials (NACTO).

AN EQUITY FRAMEWORK

At the start of the planning process, ATLDOT identified 23 neighborhoods in eight different Neighborhood Planning Units (NPU) as “Communities of Concern” (Figure 2). Nine socio-economic indicators were used to identify areas where people are the least well-served by the transportation system today. People in these communities are over-represented in fatal and serious traffic crashes in the City. An equity framework was established at the beginning of the Plan to ensure that people living in Communities of Concern were intentionally engaged and considered in each stage of the planning process.

Figure 2: Map of Atlanta's Communities of Concern





I was hit by a car as a pedestrian on 1/2/2017. I woke up lying in the middle of the street not knowing why I was there. While I ended up having hand surgery and a bad concussion, I know I was really fortunate.



-Community Input Map Participant





CHAPTER 2: ENGAGEMENT

ENGAGEMENT

Vision Zero is a data-driven program. However, there is also a powerful human story behind every data point that deserves to be told. We wanted to capture these stories and better understand how dangerous streets affect the daily lives of Atlantans. We built a community engagement process that offered people a variety of ways to share their experiences and to learn more about the Vision Zero initiative.

We wanted to:

1

Build awareness of Vision Zero in the community, using existing lines of communication where possible

2

Ensure the Vision Zero Action Plan is informed by input from a representative sample of community members

3

Empower communities to benefit from the Vision Zero goals, actions, and strategies

4

Build champions for the Vision Zero initiative throughout the City

5

Ensure the planning process results in equitable solutions and implementation

Details of the engagement process and outcomes of the outreach activities can be found in Appendix A.

"To me, safety on our streets means that anyone feels comfortable rolling, walking, or strolling to wherever they need to go, at any time, without fear for their life, health, or mental health."

-Virtual Info Session Participant



Pop-up event at MARTA Station



Pop-Up during Atlanta Streets Alive

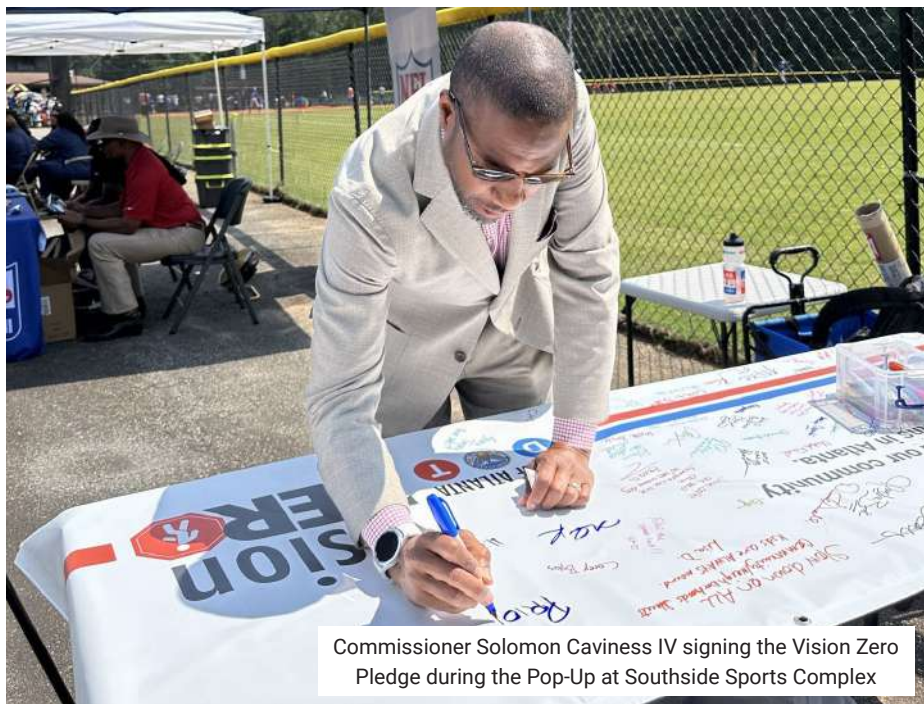
"My wife, daughter, and I almost got hit by a car while crossing the street. We were in the crosswalk, and he accelerated down Clifton. He then started yelling and swearing at us when we expressed concern."

-Community Input Map Participant

EQUITY-BASED ENGAGEMENT

The planning team's engagement approach centered on equity and inclusion by:

- Offering meeting times, venues, formats, and locations that accommodated a broad range of attendees
- Ensuring all locations and formats were accessible to people with disabilities
- Hosting focused engagement sessions for neighborhoods within Communities of Concern, as defined by ATLDOT
- Partnering with community organizations to connect with a wide range of Atlantans
- Creating materials that are easy to understand, using graphics and simple language to make complex data and engineering concepts accessible to all participants



Commissioner Solomon Caviness IV signing the Vision Zero Pledge during the Pop-Up at Southside Sports Complex

"I was the victim of an aggressive driving, hit-and-run car crash. A sports car changed lanes into my car at fast speed, knocking me off the road where I barely avoided a telephone pole. My car was totaled."

-Community Input Map Participant

ATLDOT identified 23 neighborhoods in eight different Neighborhood Planning Units (NPUs) as "Communities of Concern," as shown in Figure 2 in the Introduction. The following nine socioeconomic indicators were used to identify areas with the most transportation vulnerability and aggregately identify Atlanta's Communities of Concern:

1. Vehicle availability
2. Single parent households
3. Persons under 18
4. Persons over 65
5. Disability status
6. Poverty level
7. Health insurance coverage
8. Dependence on public transit to access primary employment
9. Race

Of the 25 NPUs in the City, NPU-P, NPU-R and NPU-Z are most impacted by vulnerabilities and lack of transportation access. Therefore, engagement was prioritized in and near these three NPUs.

COMMUNICATIONS AND OUTREACH

ONLINE COMMUNICATIONS

The project website, ATLVisionZero.com, shared information about the planning process, outreach events and other public participation activities, and an educational background on the Vision Zero approach and its success in other cities.

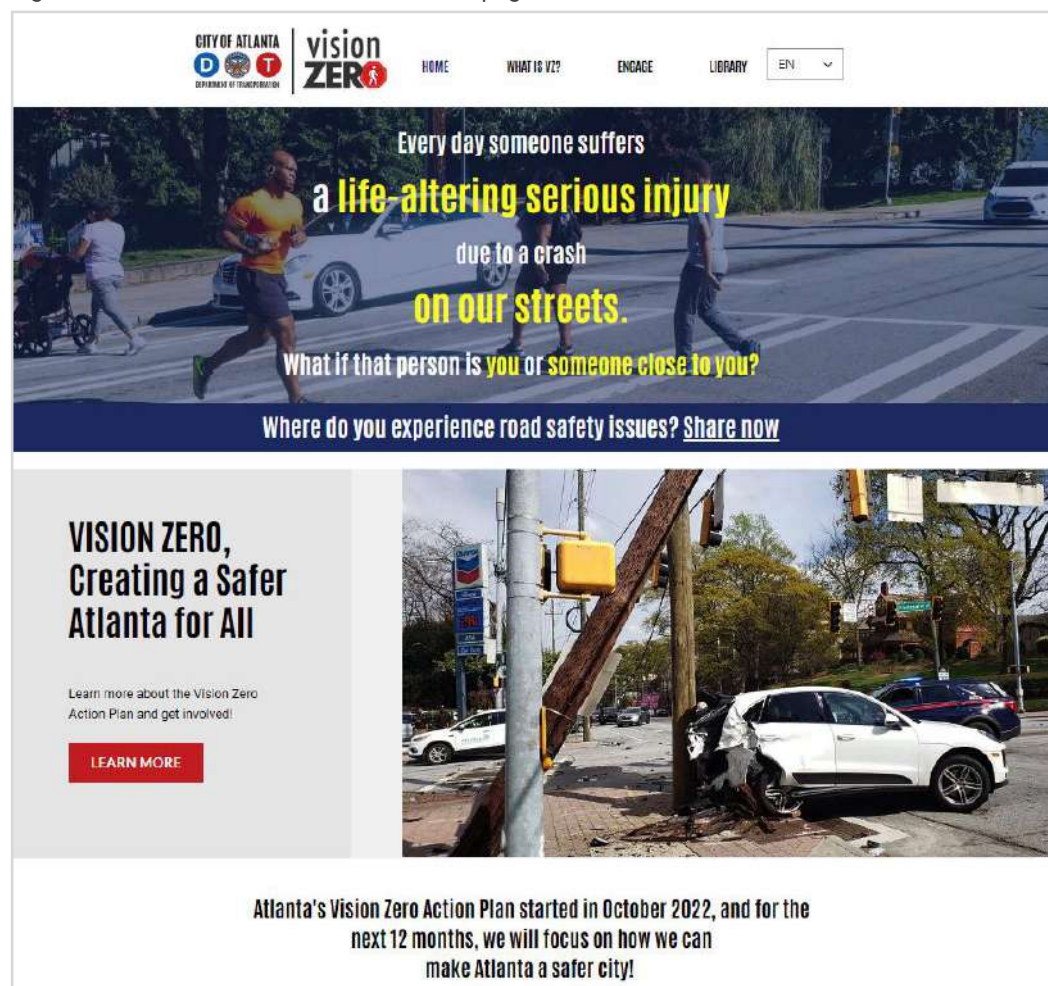
Briefing videos were posted to the website at key milestones in the Plan's development. The project team promoted the briefing videos through direct emails to the City's NPU contacts, particularly in the NPUs where Communities of Concern are present.

All public workshop and pop-up event summaries were also posted to the online library as a means of maintaining an open dialogue with the public. Over 2,000 unique visitors viewed the Action Plan website during the Plan's development.

COMMUNITY PARTNERSHIPS

Additionally, the planning team coordinated with community partners to leverage their connections with different segments of the Atlanta population. For example, the team promoted participation through neighborhood organizations, advocacy groups focused on pedestrian/bicycle/transit needs, faith-based organizations, schools, and more. In coordination with the Safe Routes to School program, ATLDOT's Vision Zero Manager provided education and collected input from families at a few school-hosted events. The Vision Zero-Safe Routes to School partnership

Figure 3: Atlanta Vision Zero Website Homepage



developed into an opportunity to work with a nonprofit partner called Communities in Schools of Atlanta. The project team supported this nonprofit with strengthening Safe Routes to School programming, projects, and curriculum in two schools located along the High Injury Network: Hollis Innovation Academy in Vine City and John Lewis Invictus Academy in Grove Park.

ENGAGEMENT OPPORTUNITIES

A series of virtual and in-person engagement activities added personal context to the safety issues that community members experience across the City. Through the following events and online forums, the public was invited to engage in the planning process and learn how everyone plays a role in helping the City get to zero deaths on our streets.

ENGAGEMENT BY THE NUMBERS

- 4** **POP-UP EVENTS**
throughout the City of Atlanta
- 3** **VIRTUAL INFO SESSIONS**
during the planning process
- 1** **IN-PERSON COMMUNITY WORKSHOP**
- 2,888** **COMMENTS SUBMITTED**
through the Online Community Input Map
- 100+** **COMMUNITY SIGNATURES**
on the Vision Zero Pledge

GUIDED BY THE TASK FORCE

A Vision Zero Task Force (see composition in the Acknowledgments on page ix) was established to help guide the development of the Action Plan. The multidisciplinary stakeholder group, which met five times over a 12-month period, provided advice on the planning process, reviewed key documents and drafts, developed many of the actions and strategies, and helped boost community involvement in the outreach activities.



Project Team and the Vision Zero Pledge



ArtzyBella illustrating community reflections during the In-Person Community Workshop at Hillside International Truth Center

COMMUNITY INPUT MAP

The Community Input Map collected responses from the Atlanta community from February 13, 2023, through July 31, 2023. During this period, **2,888 total comments** were submitted by **716 unique stakeholders**. Participants choose from five marker types when dropping a pin on a map of the City. Themes from comments for each marker type included:



UNSAFE FOR PEDESTRIANS

- Damaged or missing sidewalks
- Crosswalks that feel unsafe
- Feeling unseen due to roadway design, parked cars, and other obstacles



UNSAFE FOR BICYCLES & SCOOTERS

- Vehicles or construction activities blocking bike lanes
- Conflicts with pedestrians
- Cars making unsafe turns across bike lanes, running red lights, and ignoring stop signs
- Confusion over how cyclists and motorists are supposed to interact
- Lanes that are often too narrow or poorly maintained



UNSAFE FOR TRANSIT USERS

- Lack of crosswalks in front of bus stops
- Sidewalks that abruptly end, limiting safe pathways to MARTA
- Lack of ramps meeting standards of the Americans with Disabilities Act (ADA)
- Cars parking in bus or streetcar lanes
- Poor visibility bus stops



UNSAFE FOR CARS & MOTORISTS

- Poor visibility at intersections
- Dangerous “suicide lanes” (center lanes of a road where traffic may travel in either direction)
- Roadway designs which enable or encourage excessive speeding
- Poor maintenance of pavement and road markings
- Unclear signage
- Conflicts resulting from drivers exiting properties along busy thoroughfares



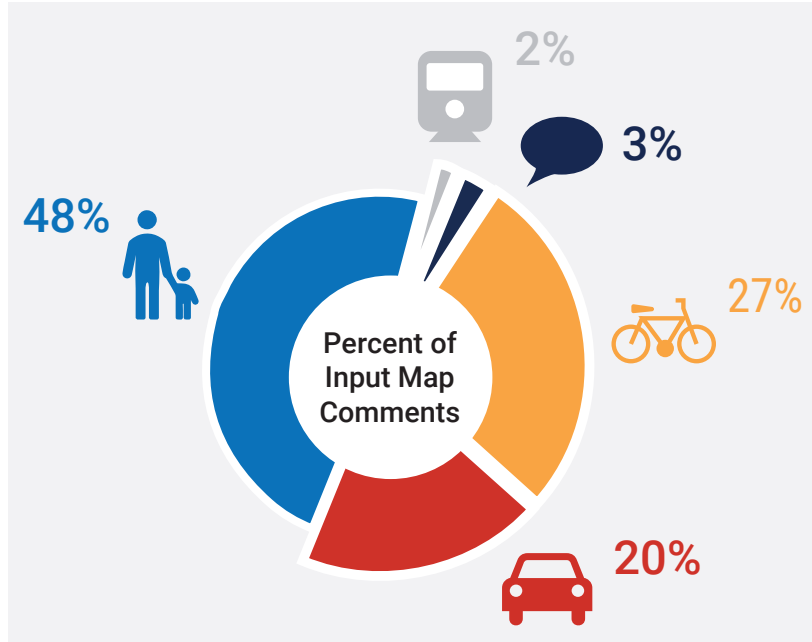
SHARE YOUR STORY

- 85 stories submitted via the marker
- 205 additional stories shared via the follow-up survey
- Most stories discuss the participants’ own experiences with traffic violence or the experiences of loved ones
- Some participants used this marker to share general observations about roadway behaviors and needs for safety improvements

Figure 5 displays the percent of each comment type submitted to the map. The map of all comments submitted to the Community Input Map is shown in Figure 6 along with Atlanta's Communities of Concern. Pedestrian concerns were the most common marker type within the communities of concern and city-wide. For a more in-depth Community Input Map Summary, including all stories that were submitted, see Appendix A.

Community Input Map Results

Figure 5: Graph of Online Community Input Map Comment Types



Community Input Map Results

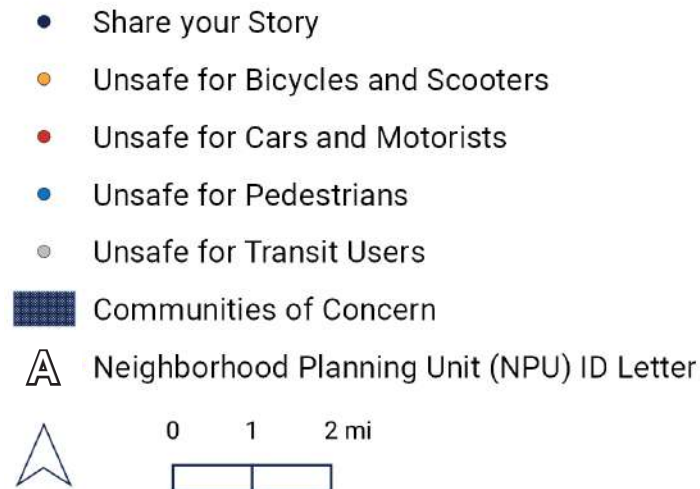
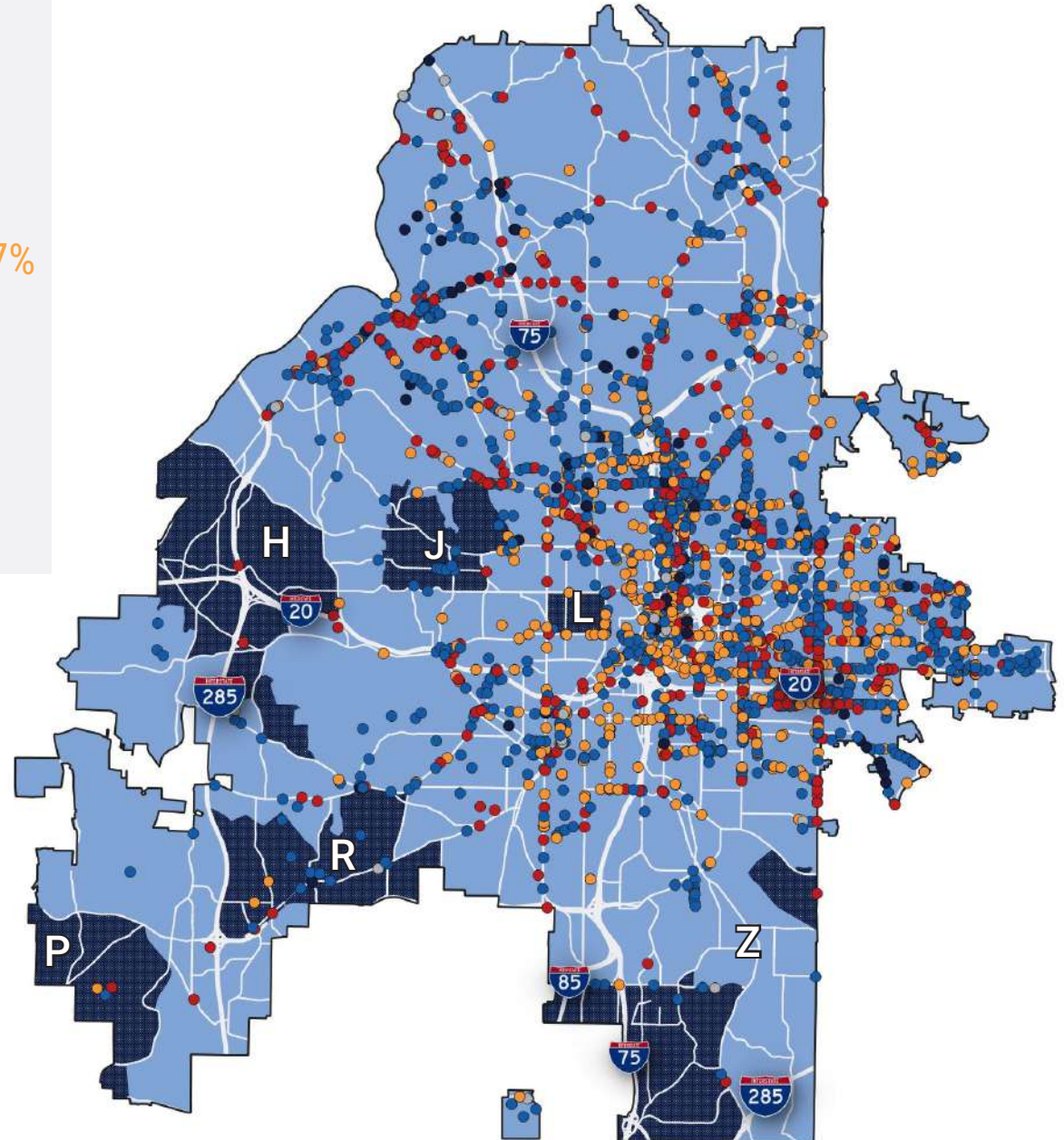


Figure 6: Community Input Map Results



STREETS IDENTIFIED AS UNSAFE BY THE COMMUNITY

The data collected from the Online Community Input Map (Figure 6) was analyzed and streets with moderate to high levels of input (eight or more comments per street) were identified to develop a Community Feedback Street Map, as shown in Figure 7. This map illustrates the streets identified by the community as unsafe.

The project team acknowledges the impacts that transportation vulnerability have had on residents of Atlanta, particularly those living in Communities of Concern. The nine socioeconomic indicators used to identify Communities of Concern likely have an impact on the amount of time and level of access people have to participate in engagement events. Therefore, engagement was tailored to **meet residents where they are**. Events were located at Westside Reservoir Park (adjacent to NPU-J), Hollis Innovation Academy (NPU-L), Hillside International Truth Center (NPU-R), Oakland City MARTA station (adjacent to, and serving, NPU-R), the Southside Sports Complex (NPU-Z), and at NPU meetings in NPU-H and NPU-P. Despite the targeted engagement to these neighborhoods, significantly more responses to the Community Input Map came from elsewhere in the City.

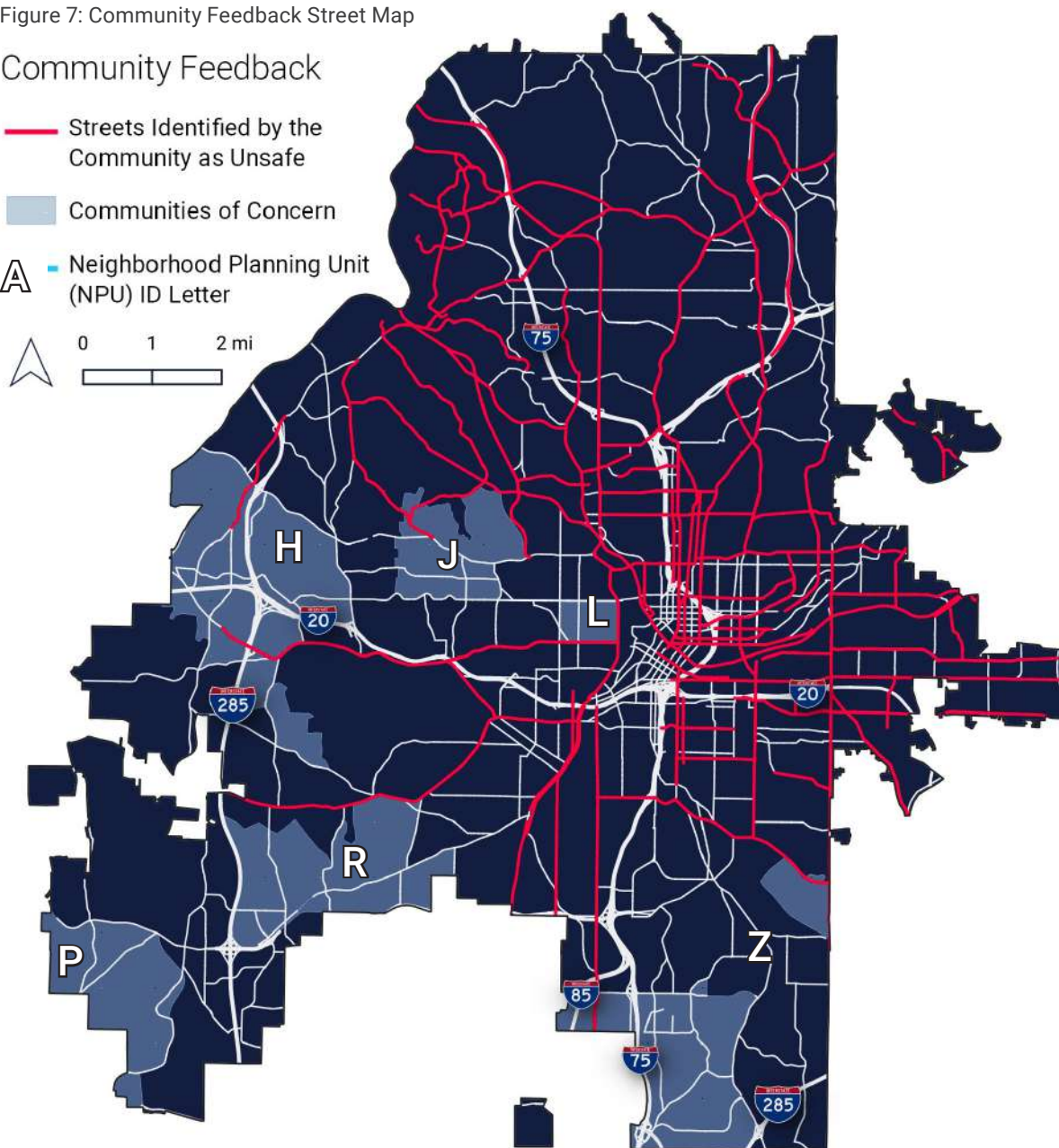
Community feedback is vital to achieving Vision Zero. ATLDOT will continue engaging people within Communities of Concern by using unique and intentional approaches to understand the experiences of those most impacted by fatal and serious-injury crashes in Atlanta.

Figure 7: Community Feedback Street Map

Community Feedback

- Streets Identified by the Community as Unsafe
- Communities of Concern
- A Neighborhood Planning Unit (NPU) ID Letter

0 1 2 mi





Pop-Up at Southside Sports Complex

"To me, safety on our streets means the ability for anyone (child, senior, disabled) to safely get around their neighborhood without the reliance on a personal vehicle."

-Virtual Info Session Participant

"Safety on our streets means everything to me. To make sure we are all safe. I will work on this until there is no breath left in my body. Kids can play outside; we should be able to ride our bikes and be safe."

-Virtual Info Session Participant



Pop-up event at Atlanta BeltLine After Dark



There is a lot of foot traffic but no sidewalks. Speed bumps are needed to slow the vehicle traffic on this busy route to the elementary school.

-Community Input Map Participant





CHAPTER 3: DATA ANALYSIS

DATA ANALYSIS

Vision Zero and the Safe System Approach is a data-driven process. A thorough understanding of where, why, and how severe traffic crashes are happening is essential to developing relevant safety countermeasures, actions, and strategies that are going to make a difference. The Atlanta Vision Zero Action Plan goes beyond the conventional "crash hot-spot" approach that responds to crashes based on historic crash history. The City has identified systemic roadway design and contextual factors that are associated with high crash locations and mapped those places where similar conditions exist across the City. This allows the City to adopt a proactive approach to preventing severe crashes from happening, rather than simply waiting for them to occur before responding.

This Action Plan improves upon the City's past efforts by incorporating several data-driven safety analyses:

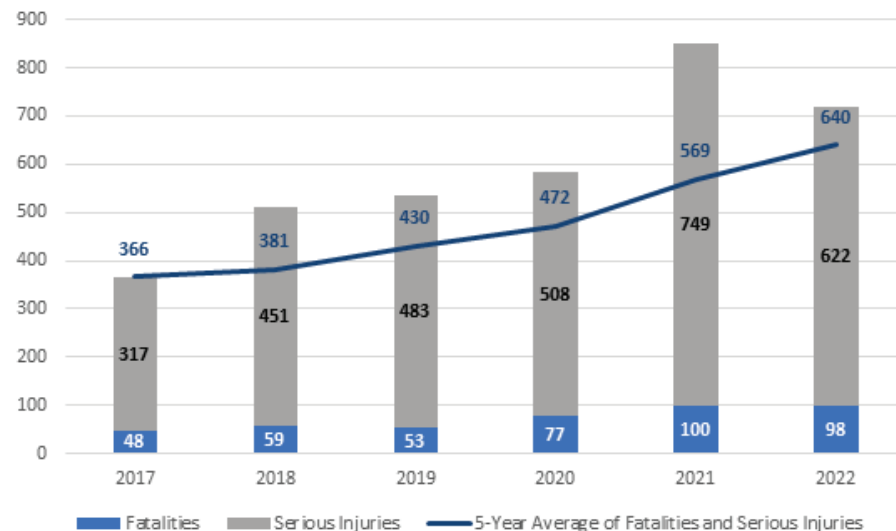
1. An update to the City's High Injury Network (HIN) reflects on recent crash history (the last 5 years of available data) to determine where safety issues may be present
2. A systemic analysis, built on crash history but focused on risk, identifies locations on the City's roads where crashes may not have occurred yet, but the conditions exist that match other high-density crash locations in the City
3. The combination of the HIN and systemic risk analysis creates the Combined Risk Network

The Action Plan uses these citywide analyses to focus on specific locations that fall into the Combined Risk Network. This deeper dive reviewed locations for specific conditions and countermeasures that could be applied elsewhere in Atlanta. This helped inform how the City will address Safer Streets and advance Vision Zero, which is covered in Chapters 4 and 5.

THE SITUATION TODAY

Atlanta is experiencing an increase in roadway fatalities and serious injuries (Figure 8) that is consistent with national trends.⁴ Crashes that involve vulnerable road users, such as bicyclists and pedestrians, tend to be more severe. For example, bicyclists and pedestrians account for less than 2 percent all crashes, but more than 12 percent of all fatal and serious injury crashes involve a bicyclist or pedestrian (Table 1). To address the increase in fatalities and serious injuries, the Vision Zero plan takes a holistic approach, focusing on both historical issues in the City, as well as a proactive look at risk. The combination of these two high-level views of the City's streets helps provide a more complete focus for site-specific fixes. The following section presents the HIN analysis results (historical issues) followed by a discussion of the systemic risk results (proactive perspective).

Figure 8: Annual Fatalities and Serious Injuries Trends in Atlanta (2017-2022)



⁴ <https://www.transportation.gov/sites/dot.gov/files/2023-02/2023-Progress-Report-National-Roadway-Safety-Strategy.pdf>

Table 1: Percent of Crashes compared to Percent of Fatalities & Serious Injuries

Traveler	Percent of Crashes	Percent of Fatalities and Serious Injuries
Pedestrians	1.3%	11.2%
Bicyclists	0.2%	1.7%



HIGH INJURY NETWORK

The HIN shows stretches of road and intersections within the City of Atlanta that have the highest concentration of fatal and serious injury crashes in the most recent 5 years of available crash data (2017-2021). The City obtained crash data from the Georgia Department of Transportation's (GDOT) Numetric crash data platform for this purpose.⁵

APPROACH

Severe crashes, those that result in a fatality or serious injury, are the focus of Vision Zero. The City of Atlanta prioritized the most serious crashes by applying a higher weight to crashes which resulted in a fatality or serious injury rather than a minor injury or property damage only. The priority and “weight” of these crashes is based on the societal costs of fatal, injury, and property damage-only crashes. Fatal crashes between 2017 and 2021 are shown in Figure 9.

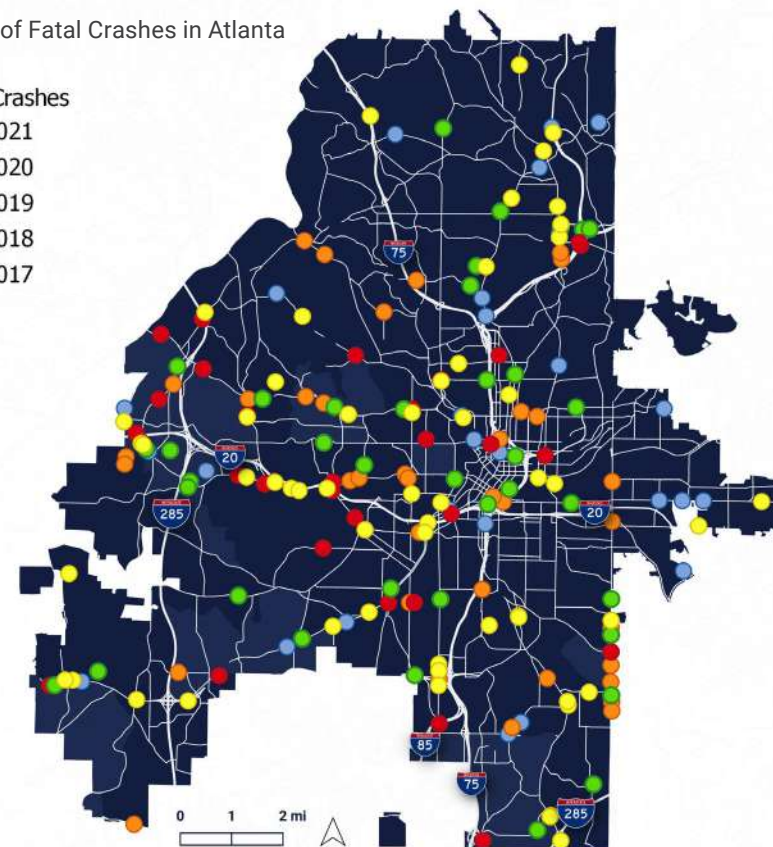
The HIN is calculated using all surface streets in the City. This means that freeways are not included in the analysis, but other roads owned by the Georgia Department of Transportation (GDOT) as well as all City of Atlanta-owned streets are included.

The HIN map shows where crashes are happening in Atlanta today. There are a number of safety countermeasures available to address these locations that are shown in Chapter 4: Safer Streets Checklist and many of the Actions and Strategies in Chapter 5: Implementation Plan are focused on a prompt response to these crashes. However, the HIN map also shows the limitations of this approach — severe crashes are happening all along certain corridors rather than in a small number of well-defined locations.

Figure 9: Map of Fatal Crashes in Atlanta

Fatal Crashes

- 2021
- 2020
- 2019
- 2018
- 2017



CHARACTERISTICS OF ATLANTA'S HIGH RISK ROADS

- 4 or more lanes of traffic in two directions
- Averages several thousand vehicles per day
- No separating median
- Signalized intersections with many turning conflicts and bicycle and pedestrian traffic
- Located in mixed land use contexts where users of all modes may be present and frequently cross

⁵ <https://www.dot.ga.gov/GDOT/Pages/CrashReporting.aspx>

RESULTS

The High Injury Network includes **less than 10 percent of the surface streets** in Atlanta and represents about **73 percent of fatal and serious injury crashes** for the 5 years of available data (Figure 10). The top 10 corridors where the most fatal and serious-injury crashes have occurred are listed in Table 2. (See Appendix B for the full list of ranked streets and intersections along the HIN.) The HIN is made up of City- and State-owned streets (Figure 11).

Figure 10: Comparison of HIN Mileage & Severe Crashes Covered (2017-2021)

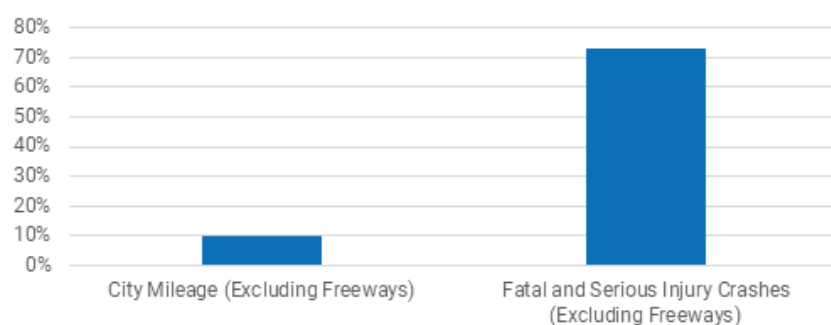


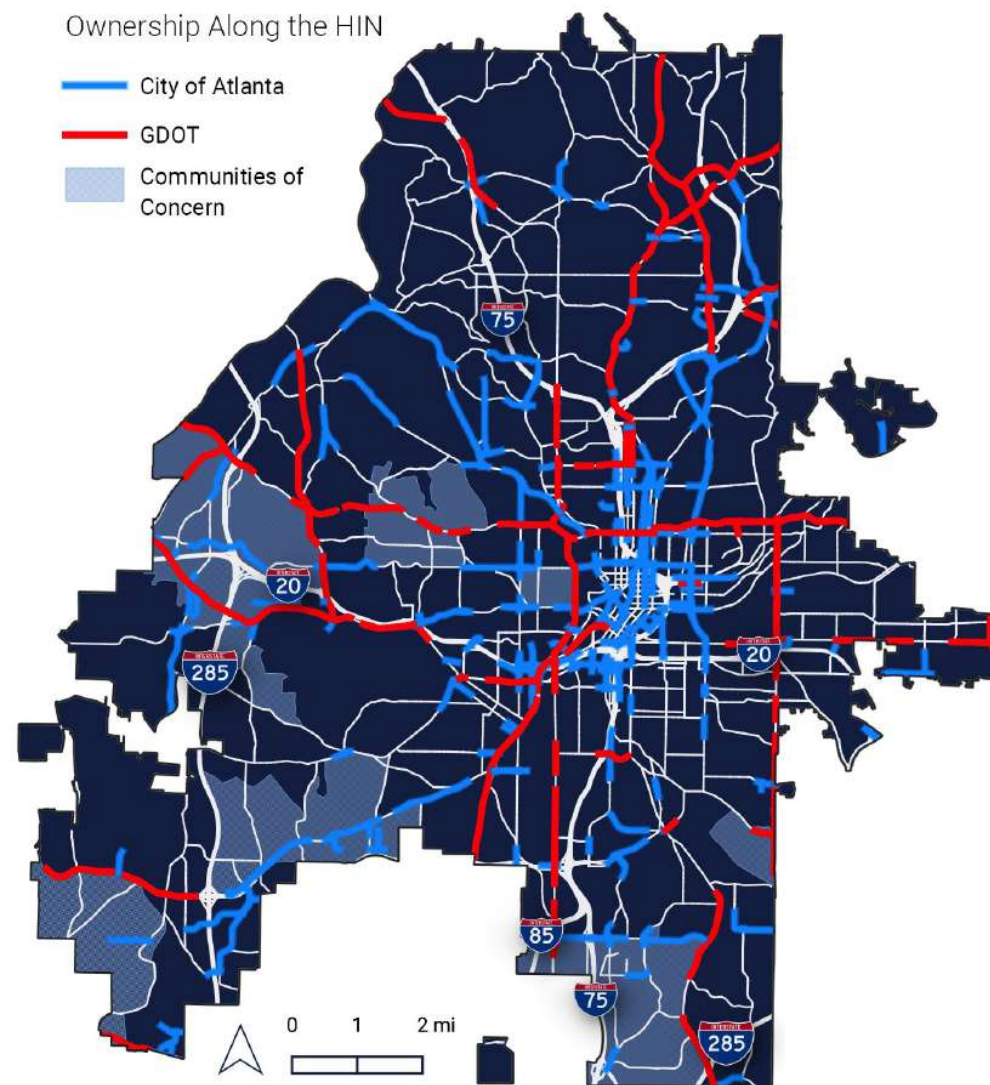
Table 2: Top 10 High Injury Corridors along the HIN

Rank	Street Name	Length (Miles)
1	Donald Lee Hollowell Pkwy NW	4.32
2	Martin L King Jr Dr SW	4.42
3	Moreland Ave SE	3.31
4	Metropolitan Pkwy SW	2.81
5	Northside Dr NW	3.21
6	Piedmont Rd NE	3.26
7	Ponce De Leon Ave NE	3.23
8	Campbellton Rd SW	2.45
9	Northside Dr SW	1.22
10	Jonesboro Rd SE	2.64

Figure 11: High Injury Network and Street Ownership Map

High Injury Network

Ownership Along the HIN



SYSTEMIC RISK

The HIN identifies locations with a high number of severe crashes and enables the City to react to those crashes with site-specific countermeasures. However, the HIN also allows the City to identify systemic risk factors, i.e., attributes related to roadway design, land use, and other elements that are associated with high-risk locations. This will reveal locations that may not have experienced severe crashes in the past five years but have similar characteristics to the places that have and might reasonably be expected to see them in the future.

This systemic analysis enables the City to proactively implement safety countermeasures in high-risk locations without waiting for a severe crash to happen. It also helps the City identify roadway design features that increase risk (which it should stop using) and those that decrease risk (which it should use as a default treatment moving forwards).

APPROACH

The systemic analysis follows a three-step process to identify:

1. Crash types (Focus Crash Types) that are over-represented in the data
2. Roadway characteristics (Facility Types) that are over-represented in the Focus Crash Types
3. Additional roadway design attributes, land use, and equity factors (Risk Factors) that are over-represented in focus crash types that occur on the focus facilities

This process gradually narrows down the severe crash locations and circumstances to identify the places where the City has the greatest potential to reduce fatal and serious injury crashes in the near term.

Step 1: Focus Crash Types

State and Regional studies have previously documented a dozen crash types that are the most common in the Atlanta region. The City used this same data to identify six of these crash types where a substantially higher percentage of fatal and serious injury crashes are occurring compared to less serious and property-damage-only crashes. For example, as we saw earlier, pedestrians and bicyclists are involved in just 2% of all crashes, but 12% of fatal or serious injury crashes.

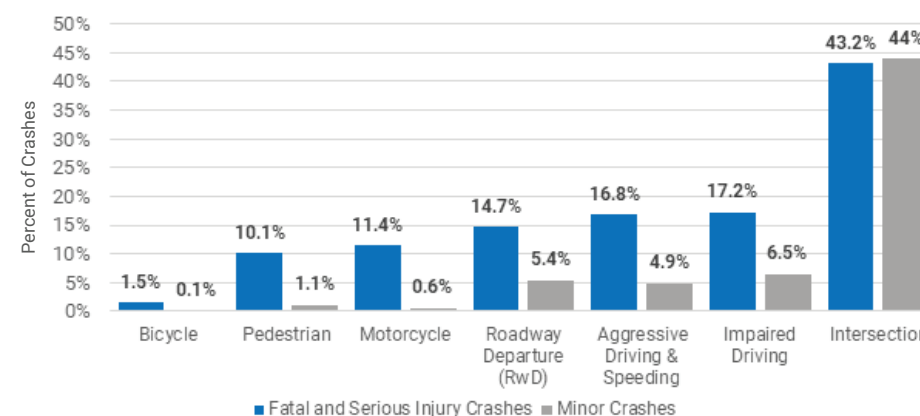
In addition, intersection-related crashes are included as the seventh Focus Crash Type due to the high number of all crashes at intersections (more than 40% of all crashes) even though there isn't a significant difference in the percentage of crashes that are serious compared to less serious.

The Focus Crash Types used for further analysis are:

1. Bicycle
2. Pedestrian
3. Motorcycle
4. Roadway Departure (RwD)
5. Aggressive Driving & Speeding
6. Impaired Driving
7. Intersection

Maps of Focus Crash Type Risk Factors are included in Appendix B.

Figure 12: Selected Emphasis Areas for Focus Crash Types



Step 2: Focus Facility Types

The second stage of the analysis is to identify those roadway characteristics that are over-represented, when compared to some measure of exposure, in the seven Focus Crash Types from Step 1.

The City's analysis compared the proportion of each Focus Crash Type to the proportion of lane miles on Atlanta roads. Two critical roadway characteristics were used in the analysis:

1. The number of through travel lanes on the roadway
2. The functional classification of the roadway (e.g., arterial, collector, local road)

If the proportion of crashes exceeded the proportion of lane miles associated with that characteristic, then that characteristic is considered overrepresented. These are opportunities for the City to make the biggest impact. **Figure 13 shows how a much greater proportion of fatal and serious injury bicycle crashes (69 percent) occur on arterials relative to the proportion of the overall street network in the City (21 percent).**

Figure 13: Example Focus Facility Type Analysis Comparison – Bicycle Fatal and Serious Injury Crashes by Functional Class

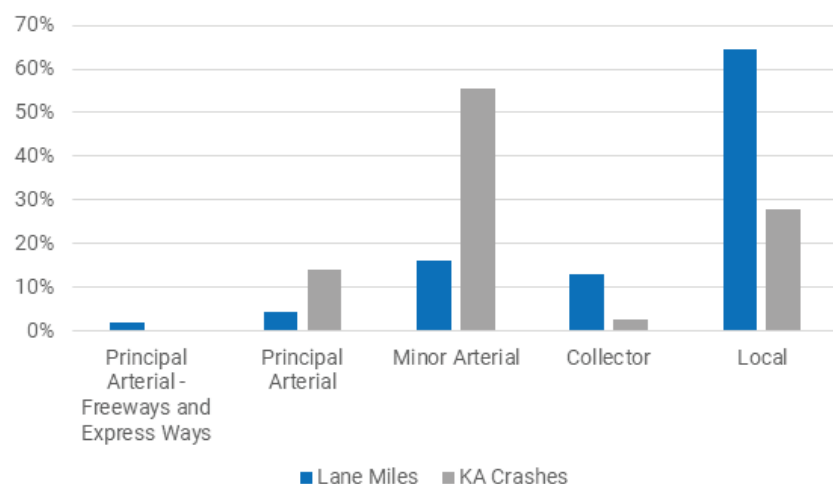


Table 3: Focus Facility Types by Crash Type

Crash Severity Category	Facility Type: Through Lanes				Facility Type: Functional Class		
	3	4	5	6+	Principal Arterials	Minor Arterials	Collectors
Bicycle Related							
Pedestrian Related							
Motorcycle Related							
Roadway Departure Related							
Aggressive Driving & Speeding Related							
Impaired Driving Related							
Intersection Related							

The analysis in Table 3 shows that 4-lane arterial roadways are over-represented across all focus crash types. In addition, 3-lane arterials are an issue in bicyclist-related crashes, and pedestrian-related crashes are over-represented on 4-, 5-, and 6-lane arterials. Roadway departure crashes are over-represented on collector roads as well as 4-lane arterials.

Step 3. Risk Factors

The final stage of the analysis identified sources of risk that are over-represented on the Focus Facility Types from Step 2. The City used factors including:

- Higher traffic volumes
- Higher speeds
- Zoning and land use ⁶
- Proximity to schools
- Proximity to transit
- Location of employment and jobs
- Socioeconomic and demographic characteristics of the neighborhood, including Communities of Concern

Table 3 shows that 4-lane arterial roadways are an issue in all crash types. This additional analysis isolates more nuanced risk factors and thresholds that make these arterial roadways more dangerous for particular road users and more likely to result in speeding and aggressive driving, impaired driving, or roadway departure-type crashes.

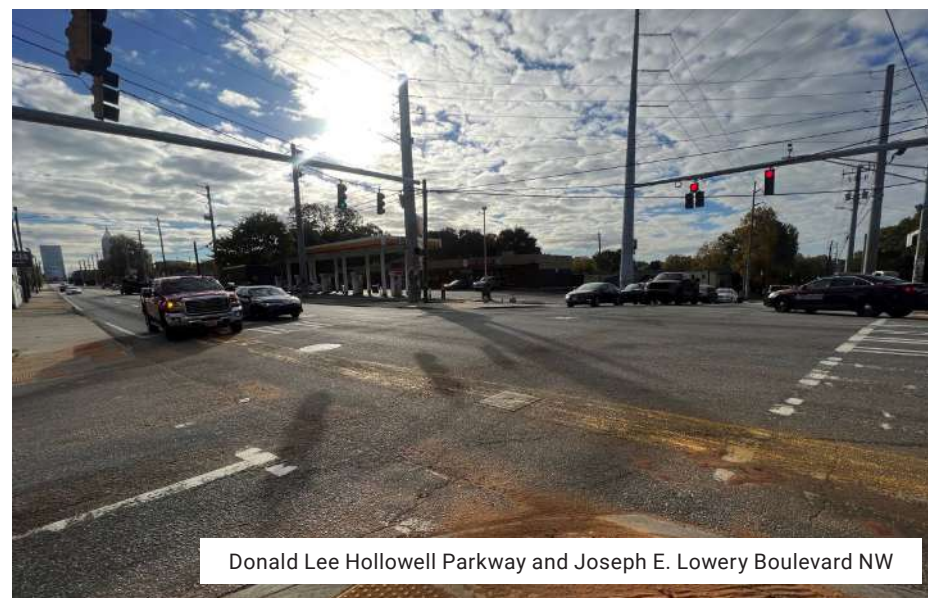
Table 4, for example, indicates that traffic volumes of more than 10,000 vehicles a day is a risk factor for each of the crash types that most affect drivers (speeding and aggressive driving, impaired driving, or roadway departures) while bicycling and walking on 4-lane arterials is only a risk factor for crashes involving speeding and aggressive driving.

Table 5 demonstrates several risk factors that most affect vulnerable road users on arterial streets.

Intersection-related risk factors consider all roadway users and show considerable similarities with the other six focus crash types. For example, high volume roadways and wide streets increase risk at intersections just as they do for speeding and aggressive driving-related crashes and pedestrian-related crashes.

The following risk factors were present at intersections

- Higher AADTs on both major and minor legs
- Traffic control is signalized intersection
- Number of through lanes on minor approach > 2
- Proportion of bicycle and walking commuters < 0.2
- Presence of a bus stop within intersection influence area



Donald Lee Hollowell Parkway and Joseph E. Lowery Boulevard NW

⁶ Based on the City of Atlanta's Zoning Code (March 2023)

Table 4: Risk Factors for People in Motor Vehicles

Risk Factor	Aggressive Driving and Speeding	Impaired Driving	Roadway Departure (RWD)
Annual average daily traffic (AADT) > 10,000			
Signalized intersection present on segment			
85th percentile speed on segment > 40 mph			
Within a Community of Concern			
Proportion of bicycle and walking commuters < 0.15			
Proportion of Limited English Proficiency Households > 0.03			
Distance to nearest first responder facility > 0.25 miles			



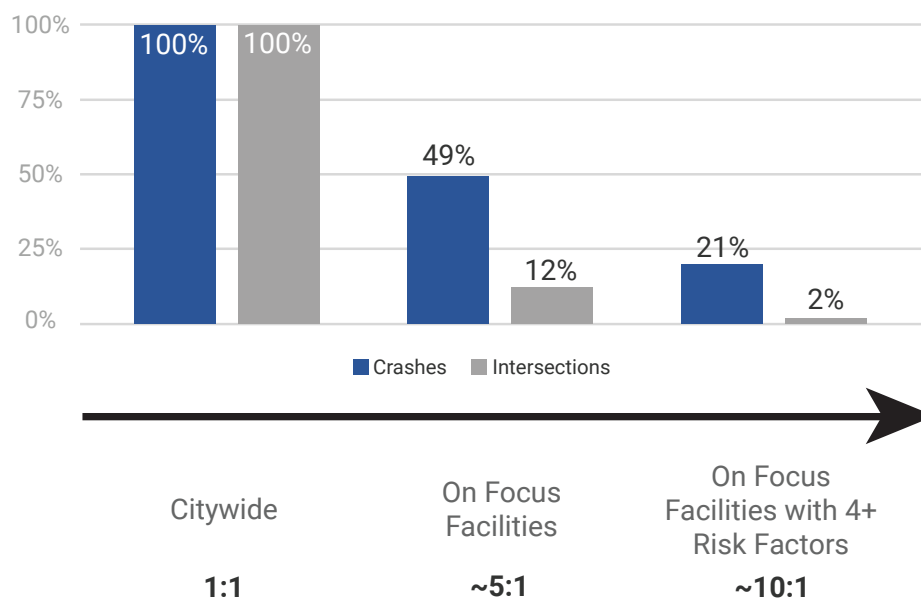
North Avenue on the High Injury Network

Table 5: Risk Factors for Vulnerable Road Users

Risk Factor	Pedestrians	Bicyclists	Motorcycles
AADT > 35,000			
AADT > 5,000			
AADT < 20,000			
Signalized intersection present on segment			
Within a Community of Concern			
Public school present within 0.25 miles			
Private school present within 0.25 miles			
Proportion of transit commuters > 0.2 ⁷			
Proportion of transit commuters > 0.25 ⁷			
Top 20 percent rank for median household income			
Mixed use zoning surrounding segment ⁸			
Institutional zoning surrounding segment ⁹			
Presence bicycle facility on segment			
Employment density > 5,000 jobs per sq. mi.			
Employment density 2,000 to 5,000 jobs per sq. mi			
85th percentile speed on segment > 40 mph			

Figure 14 shows the benefit of focusing initially on intersections that are on Focus Facility Types (e.g., 4-lane roadways) and then even more closely on those intersections with four or more risk factors present. At this point of the analysis, **we are able to identify the 2% of intersections in the City where 21% of fatal and serious crashes are likely.**

Figure 14: Proportion of Intersection-Related Crashes at Focus Facilities and with Several Risk Factors



⁷ Proportion of commuters residing in the census block group that use public transit

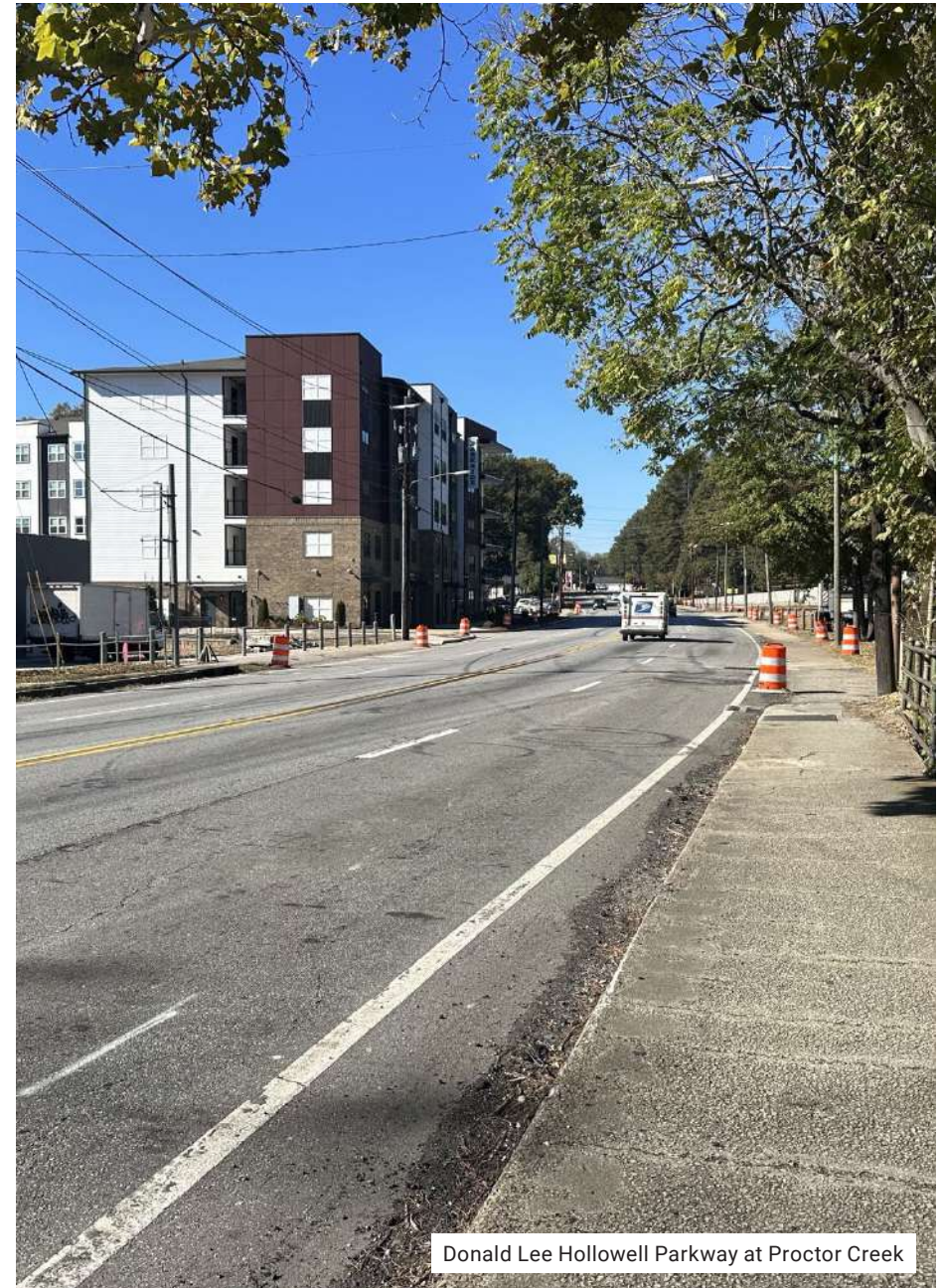
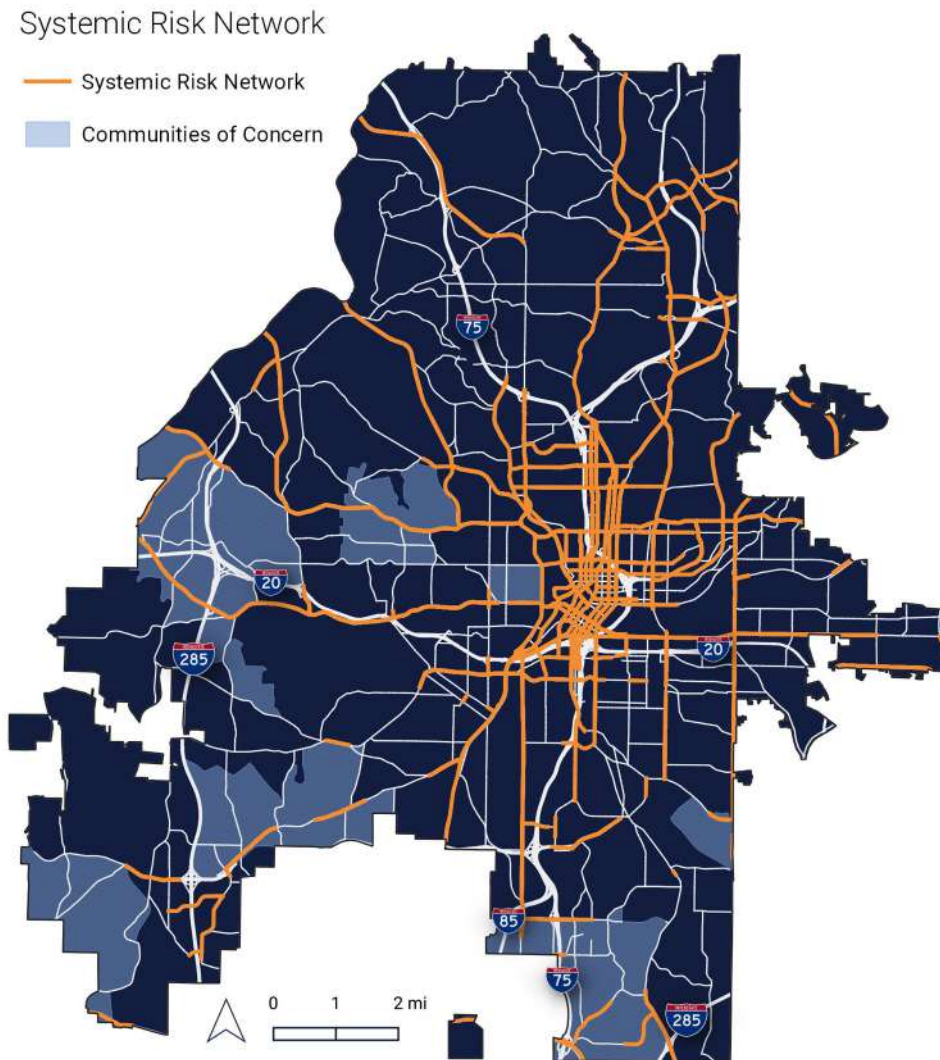
⁸ Includes Community Districts, Landmark Districts, Planned Developments, Poncey-Highland Historic District, and Special Public Interest Districts

⁹ Includes Office-Institutional Districts

SYSTEMIC RISK MAP

Like the HIN, risk factors can be mapped on Atlanta's streets to form a priority network. The Systemic Risk Network map (Figure 15) shows all streets affected by systemic risk factors.

Figure 15: Systemic Risk Network Map



Donald Lee Hollowell Parkway at Proctor Creek

COMBINED RISK NETWORK

The High Injury Network and the Systemic Risk Network identify the corridors where the City has the greatest opportunity to reduce fatal and serious injury crashes in the near term. The following maps combine the two networks into a Combined Risk Network to highlight locations where the City of Atlanta can focus projects to have the maximum potential return on investment. For an interactive view of the map, visit the Atlanta Vision Zero website at www.atlvisionzero.com/library.

Figure 16: Combined Risk Network Map - Northwest Quadrant

Combined Risk Network

- Combined Risk Network
- Communities of Concern

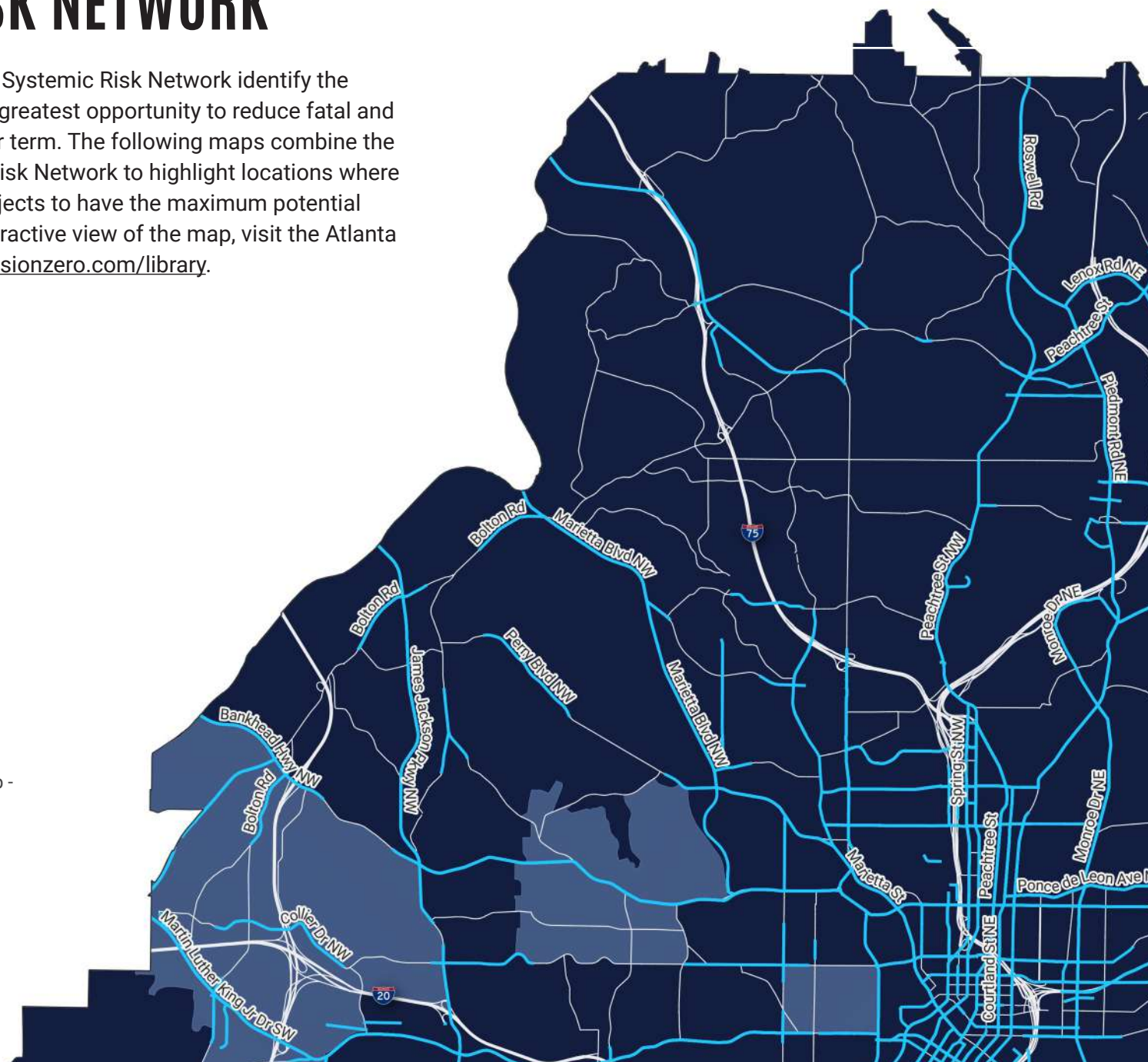
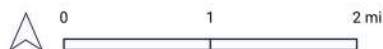
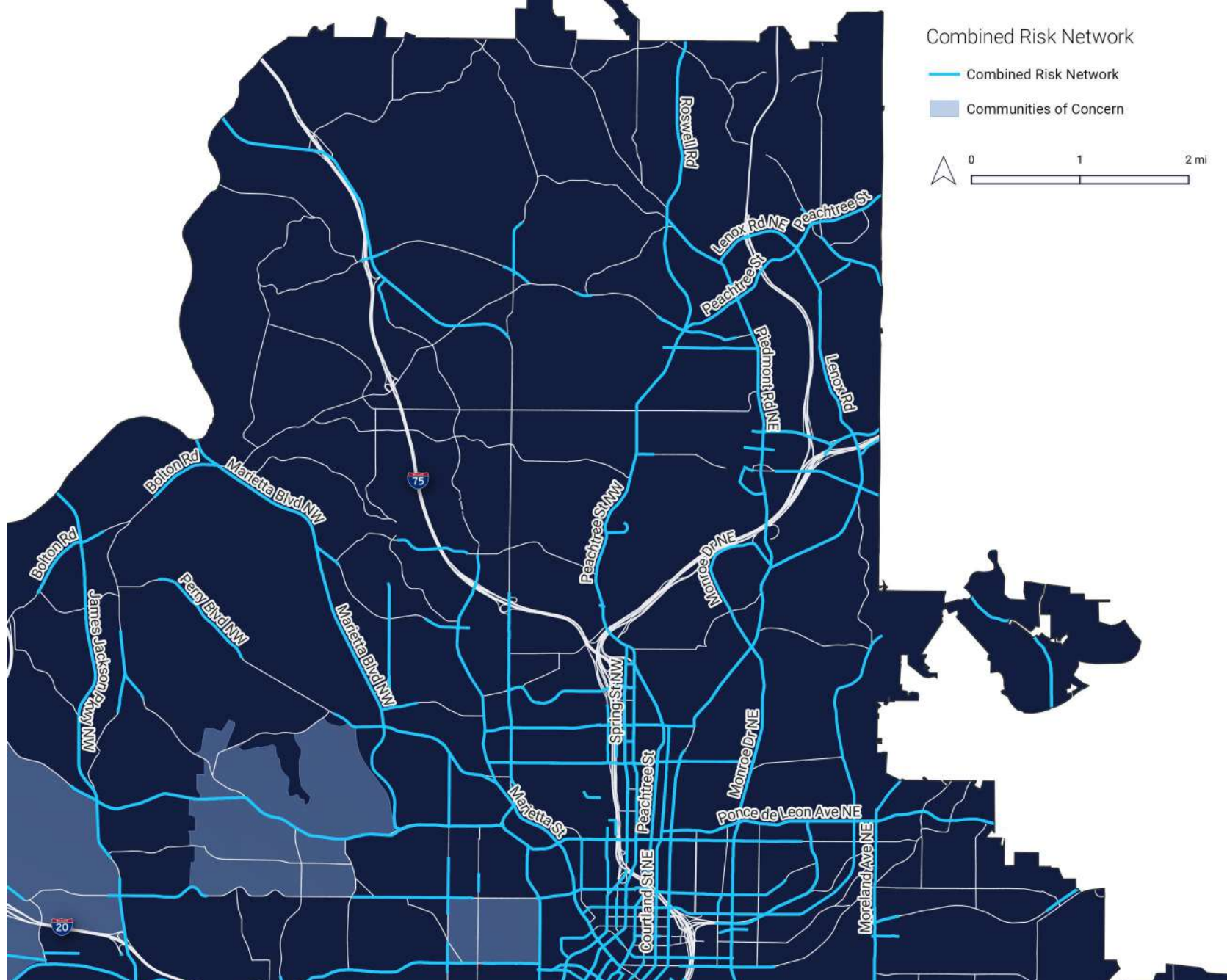
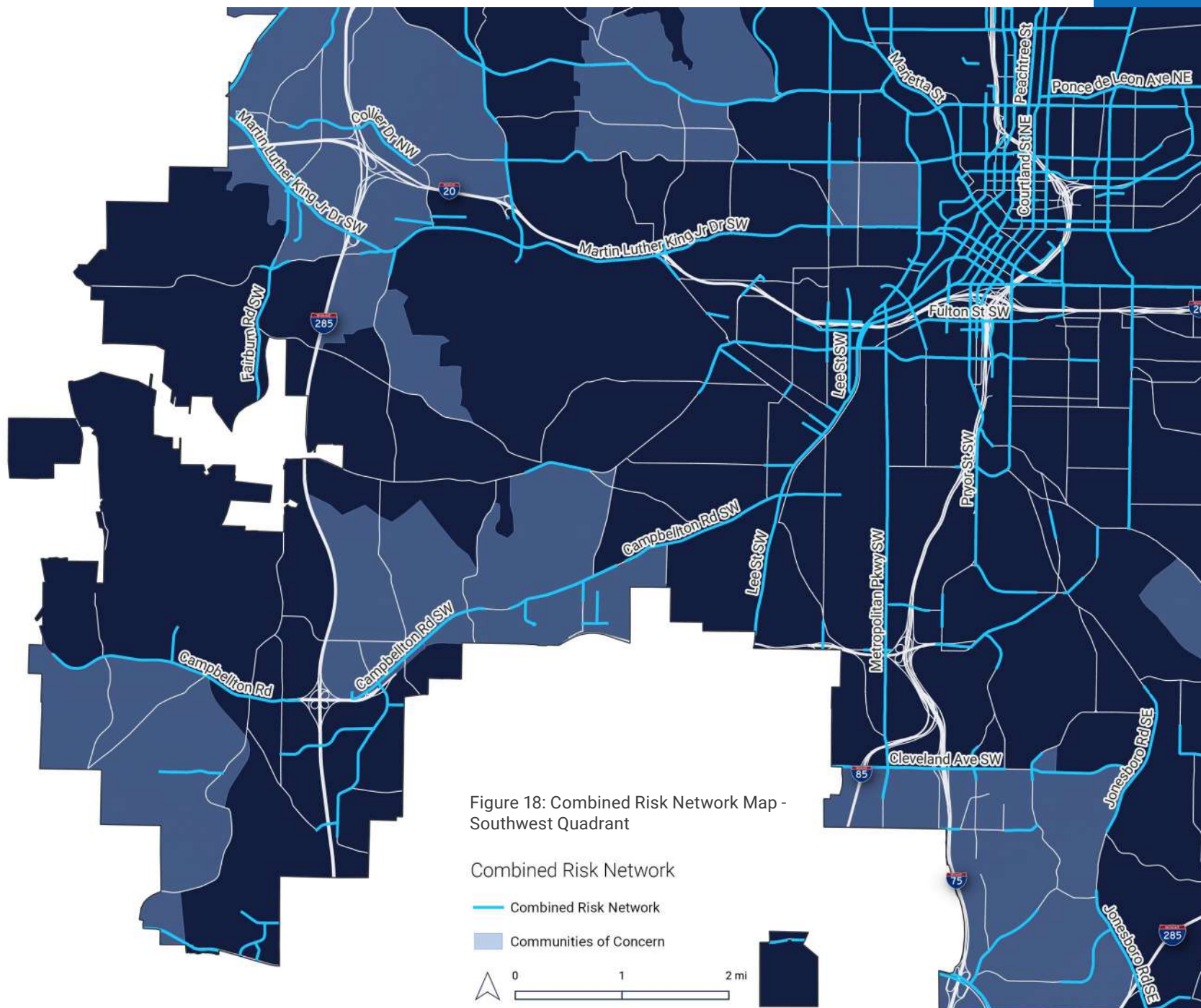
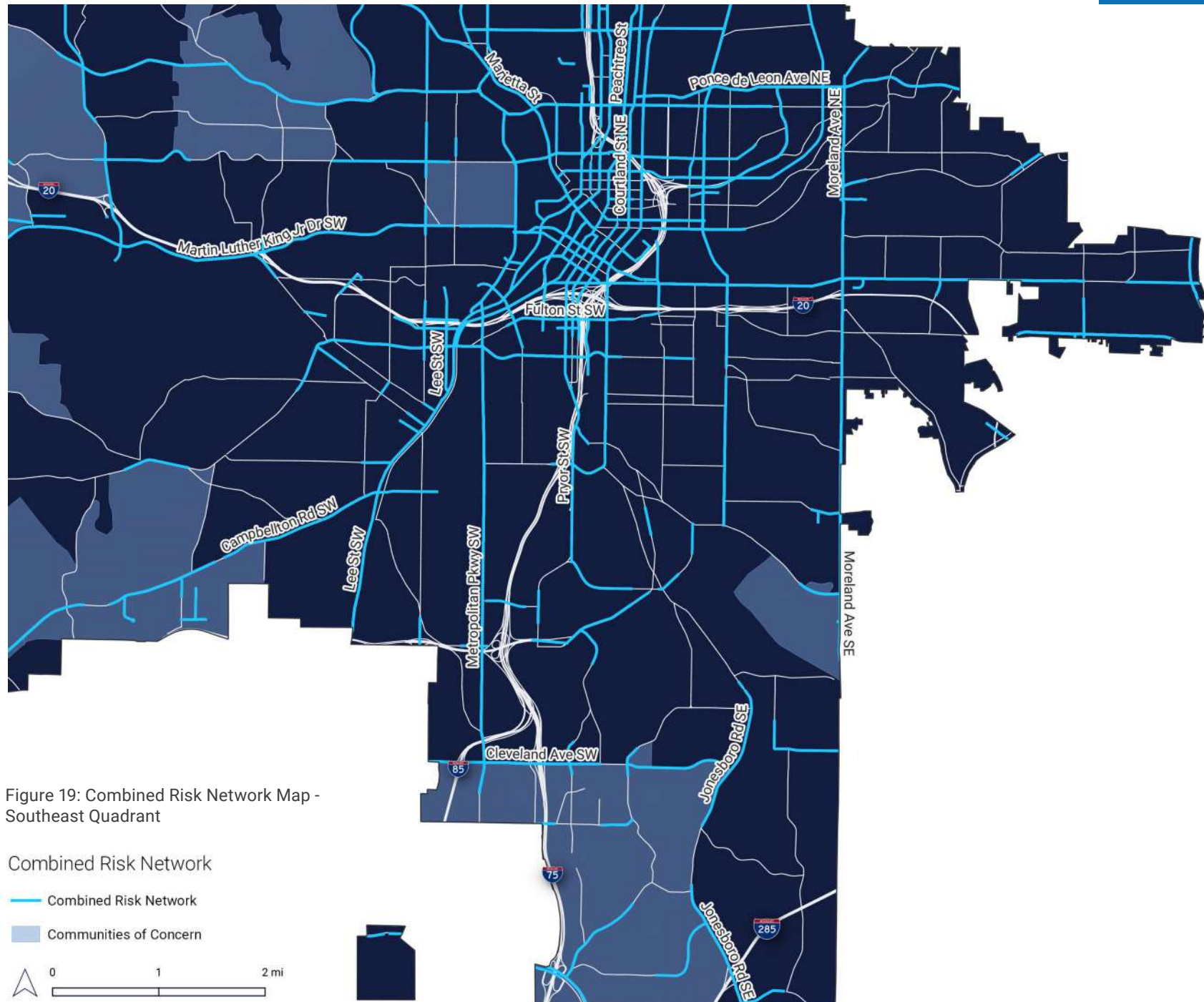


Figure 17: Combined Risk Network Map - Northeast Quadrant





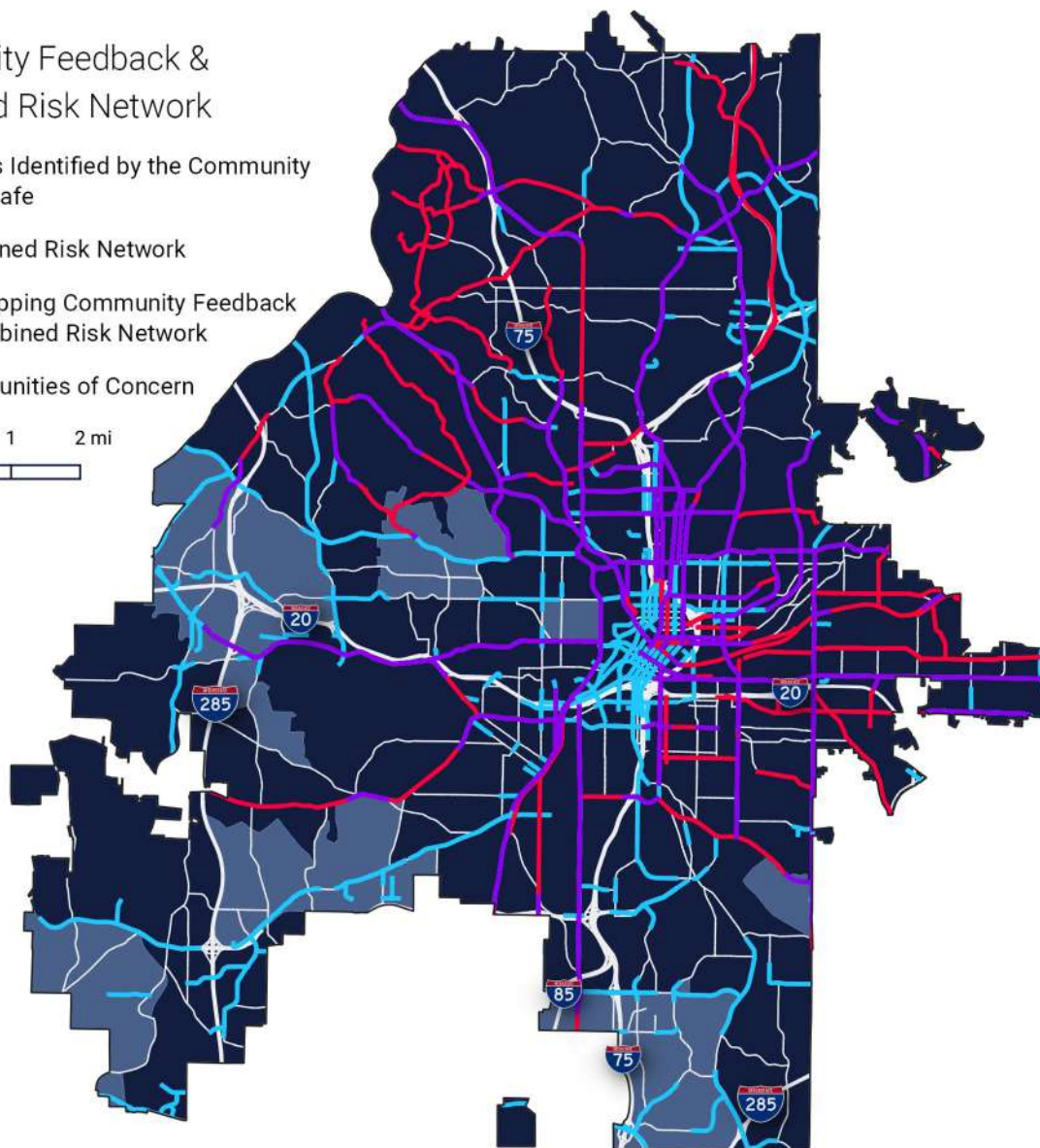
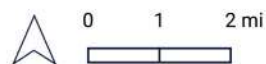


COMBINED RISK NETWORK & COMMUNITY FEEDBACK ANALYSIS

Figure 20: Community Feedback & Combined Risk Network Street Map

Community Feedback & Combined Risk Network

- Streets Identified by the Community as Unsafe
- Combined Risk Network
- Overlapping Community Feedback & Combined Risk Network
- Communities of Concern



Addressing community input and perception of risk is vital to building a safer, more equitable City. Both community input and data analysis will guide implementation of the Vision Zero Action Plan. The City will use both datasets to allocate resources and make decisions for future studies and improvements.

The Combined Risk Network & Community Feedback Map (Figure 20) shows three layers:

- Streets identified as unsafe by the community
- Streets identified as historically and systemically unsafe through data analysis (Combined Risk Network)
- Streets where community feedback overlaps with the Combined Risk Network.

The overlapping streets should be prioritized during implementation as they have been identified as unsafe through data analysis and Atlantans' lived experience.

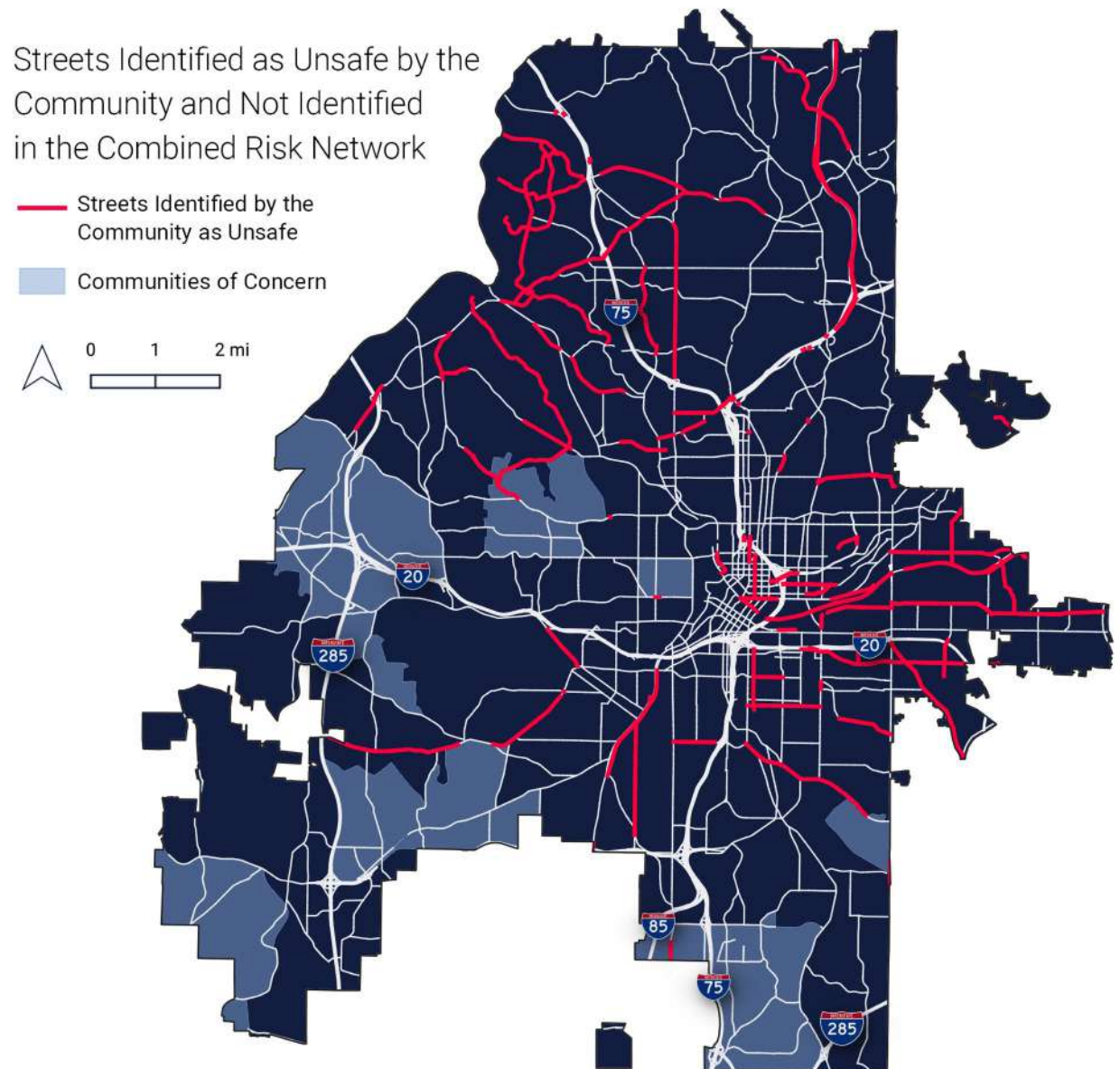
Community-identified streets that were not included in the Combined Risk Analysis (Figure 21) reveal additional streets where the people of Atlanta experience unsafe conditions. These are worthy of additional study.

Table 6 shows the top 10 streets identified by the community as unsafe with the highest levels of feedback that are not included in the Combined Risk Network. A complete list of these streets are in Appendix B.

Table 6: Top 10 Streets Identified as Unsafe by the Community and Not Identified in the Combined Risk Network

Number of Comments	Street Name
21	Deering Road NW
21	Spring Street NW
20	Glenwood Avenue SE
16	Edgewood Avenue
16	Euclid Avenue NE
15	Boulevard SE
15	Luckie Street NW
15	Park Avenue West NW
15	Peachtree Center Avenue NE
14	Bouldercrest Drive SE

Figure 21: Streets Identified as Unsafe by the Community and Not Identified in the Combined Risk Network



CONCLUSIONS FROM THE DATA ANALYSIS

The extensive data analysis creates a clear road map for the City to follow in eliminating fatal and serious injury crashes by 2040. The Combined Risk Network map identifies the highest priority corridors and intersections for intervention by the City (as well as GDOT and other implementation partners). The Combined Risk Network & Community Input map connects data analysis with lived experience and identifies which streets are unsafe according to data analysis alone, data and lived experience together, and lived experience alone.

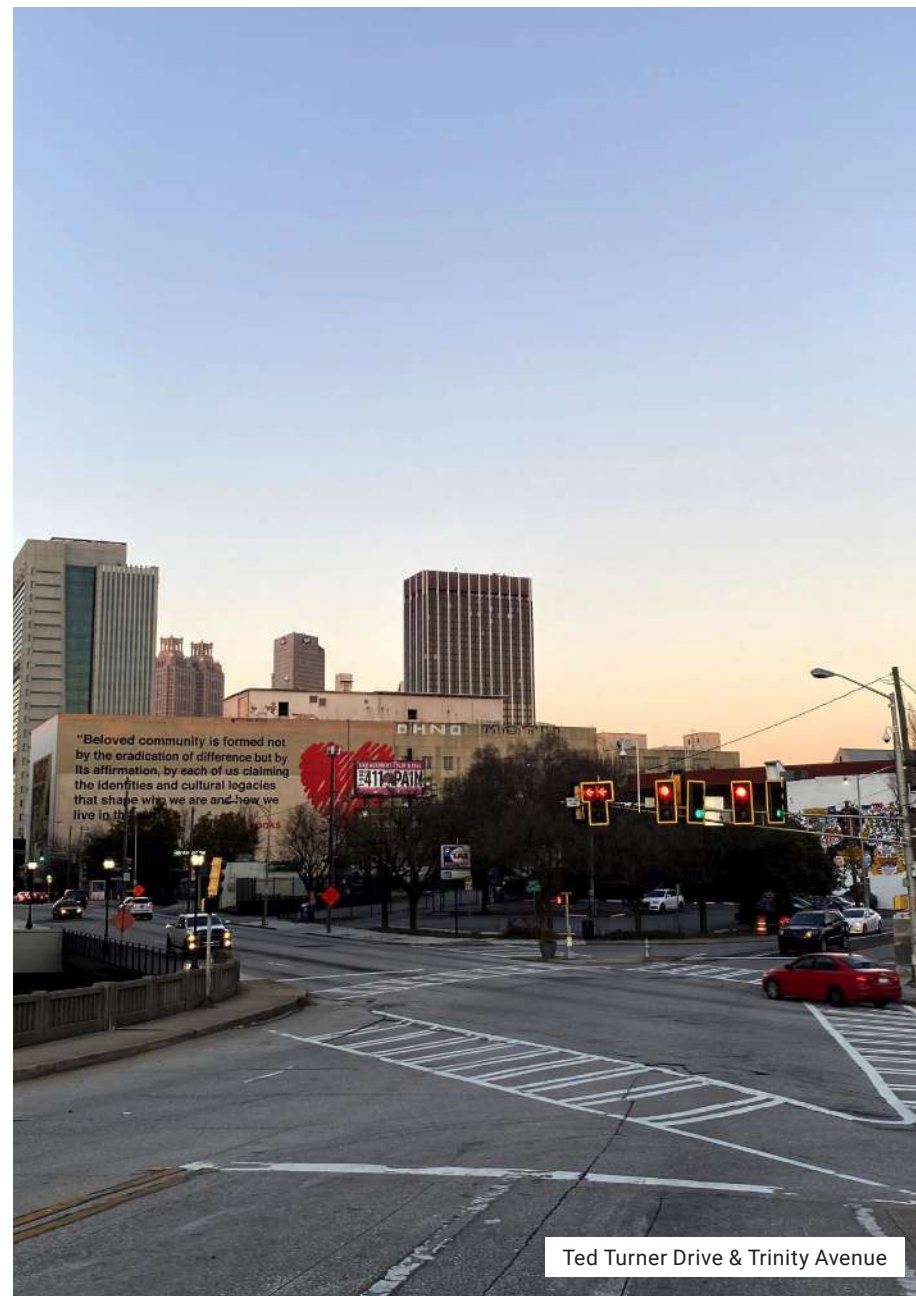
One of most important takeaways is that streets with the following characteristics pose a significant safety problem for everybody:

CHARACTERISTICS OF ATLANTA'S HIGH RISK ROADS

- 4 or more lanes of traffic in two directions
- Averages several thousand vehicles per day
- No separating median
- Signalized intersections with many turning conflicts and bicycle and pedestrian traffic
- Located in mixed land use contexts where users of all modes may be present and frequently cross

These streets are a particular challenge for the most vulnerable road users (i.e., people on foot, bike, or motorcycle) and in neighborhoods in the City with the most vulnerable populations.

The analysis – which is presented in greater detail in Appendix B – goes further and identifies the specific risk factors and contributing causes that make these locations more dangerous. This in turn enables the City to identify appropriate safety countermeasures that are proven to address these specific design and operational factors.



Ted Turner Drive & Trinity Avenue



Four-Lane Street along Trinity Avenue SW at Broad Street SW



I primarily navigate the City by bike. Often, I feel that cycling is the “wrong” choice, even when there is dedicated infrastructure. Maintenance of that infrastructure often doesn’t feel like a priority, the lanes are not always reliably usable (i.e., a car parked in a bike lane), and drivers’ behavior can feel hostile.



- *Community Workshop Participant*





CHAPTER 4: SAFER STREETS CHECKLIST

SAFER STREETS CHECKLIST

Priority locations and issues have been identified through engagement and data analysis. Each of these issues can be addressed with **proven safety countermeasures**. The **Safe Streets Education Guide** and **Safer Streets Selection Tool** were developed as part of the Atlanta Vision Zero Action Plan for the City to employ the Safe System Approach as a checklist to select, design, and incorporate safety countermeasures into every street project in Atlanta.

EDUCATION GUIDE AND SELECTION TOOL

The *Safe Streets Education Guide* presents safety countermeasures known to reduce crashes involving people walking, rolling, bicycling, or driving. The safety countermeasures presented in the Education Guide were selected based on stakeholder and community feedback gathered during the Vision Zero Action Plan development, as well as an understanding of the leading crash types and risk factors for fatal and serious injury crashes in Atlanta. The City will use the Education Guide to develop a shared understanding among stakeholders and the greater Atlanta community about road safety countermeasures and their appropriate uses and contexts. It will facilitate the decision-making process among City staff, contractors, developers, and community members when selecting safety countermeasures.

City staff will use the *Safer Streets Selection Tool* as a companion to the Education Guide to assist in identifying the most appropriate safety countermeasures based on the crash history and context of a location (including traffic volume and roadway geometry). The Selection Tool includes the design elements of the safety countermeasures described in the Education Guide.

A total of 51 safety countermeasures are presented in the Education Guide and the Safer Streets Selection Tool. Several of the safety countermeasures are from the FHWA Proven Safety Countermeasures initiative, which documents specific design or operational changes to roads that have been shown to improve safety nationally when implemented.

The 51 safety countermeasures address the City's common crash types:

- Bicycle
- Pedestrian
- Motorcycle
- Roadway Departure (RwD)
- Aggressive Driving & Speeding
- Impaired Driving
- Intersection

The Guide includes educational information about each countermeasure including what they are, how they function, and where they should be applied. Additional information is provided on typical costs, documented crash reductions associated with their use, and links to more resources. An example is shown in Figure 22; the complete Guide is in Appendix C.

Figure 22: Countermeasure Excerpt from Appendix C

AUTOMATIC PEDESTRIAN RECALLS/DETECTORS

Automatic pedestrian recall systems provide a pedestrian interval during each traffic cycle and eliminate the need for people to push a pedestrian button. Automatic pedestrian detector devices detect people waiting to cross and automatically trigger a WALK signal. They reduce pedestrian crossing delay which can reduce unsafe crossing behavior.

Safe System Framework

- Separate users in time
- Increase visibility
- Increase attentiveness

Crash Types

Motorist/pedestrian

Modes

Relevant Roadway Type & Application

- All locations with signalized intersections.

Considerations

- Provide longer walk intervals and shorter cycle lengths (less than 90 seconds).
- Consider initially implemented during non-peak hours for drivers
- Consider concurrent signal phasing which give pedestrians more frequent crossing opportunities and less delay compared to exclusive signal phasing.

These safety countermeasures will require varying levels of resources to be implemented by the City. Therefore, to help support decision-making when creating safer streets, the Education Guide lists cost ranges for each safety countermeasure to indicate cost estimates for planning, engineering, and installation of the safety countermeasure at a single typical location. The cost categories and symbols used in the Education Guide are as follows in Table 7:

Table 7: Range of Costs for Safety Countermeasures

\$	Low – typically \$5,000 or less
\$\$	Medium – typically \$5,000 to \$100,000
\$\$\$	Moderate – typically \$100,000 to \$300,000
\$\$\$\$	High – typically \$300,000 or more

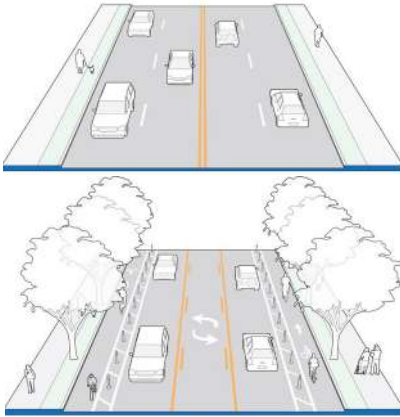


Atlanta Park(ING) Day

SAFETY COUNTERMEASURES

The Safe Streets Education Guide and Safer Streets Selection Tool identify proven safety countermeasures that respond to some of the most common severe crash types and locations in Atlanta. For example, one of the well-documented ways to reduce the number of severe crashes on four-lane arterials is to implement a road diet.

RECOMMENDED SAFETY COUNTERMEASURES



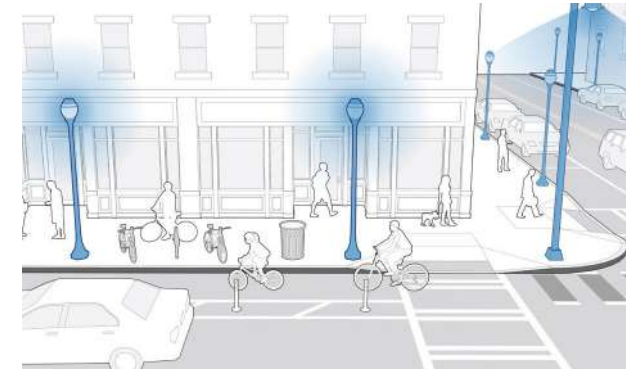
ROAD DIETS

4-lane streets are over-represented across all focus crash types, including for motorists, pedestrians, and bicyclists. To improve safety along 4-lane streets, road diets reduce motorist speeds, increase attentiveness, allow for the repurpose of roadway space, and reduce street crossing distances.



SIDEWALKS

Pedestrian crashes are a concern on City of Atlanta streets. Providing adequate sidewalks along streets is critical to improve the safety and comfort of people walking or rolling alongside traffic. They should be wide enough to accommodate two people side-by-side, minimal bumps and cracks, and clear of debris and overgrown vegetation in accordance with the Americans with Disabilities Act (ADA).

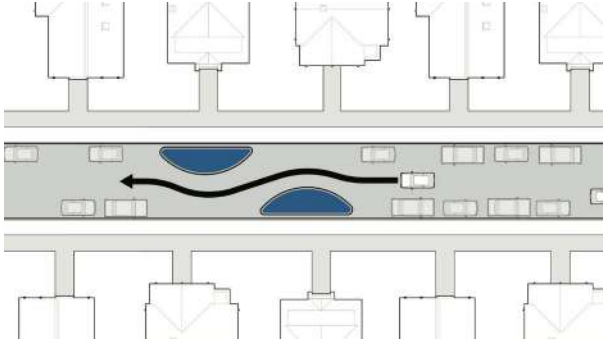


LIGHTING

Evaluate lighting conditions at all crossings and mid-block locations, starting along the HIN. Require land use developers to include adequate lighting on corridors and intersections adjacent to their new developments.

Speed Management

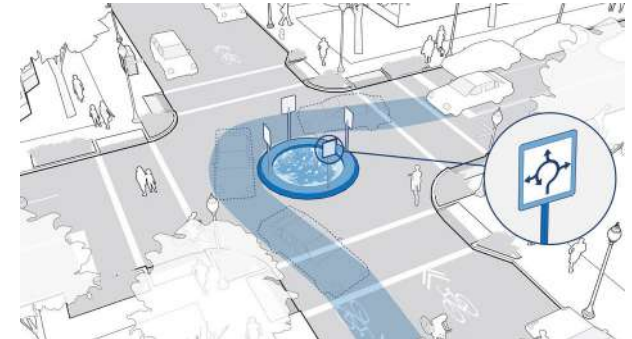
Speeding-related crashes are a concern on City of Atlanta streets. Speed management tactics can be deployed along appropriate HIN corridors (local streets and collectors) to physically constrain speed. Examples include **Chicanes**, which force motorists to alter their vehicle movements and reduce speed, **Speed Tables**, which employs vertical deflection to slow driver speeds, and **Traffic Circles**, which reduce speeds through neighborhood intersections as well as reduce conflict points. Other speed management safety countermeasures can be found in Appendix C.



CHICANES



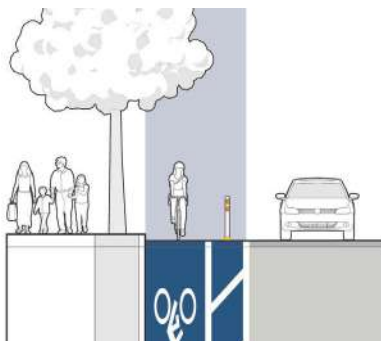
SPEED TABLES



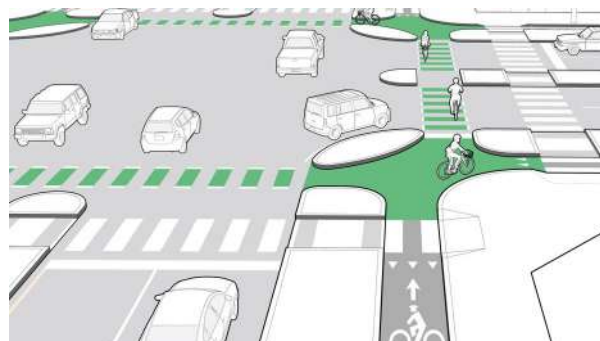
TRAFFIC CIRCLES

Bicycle Infrastructure

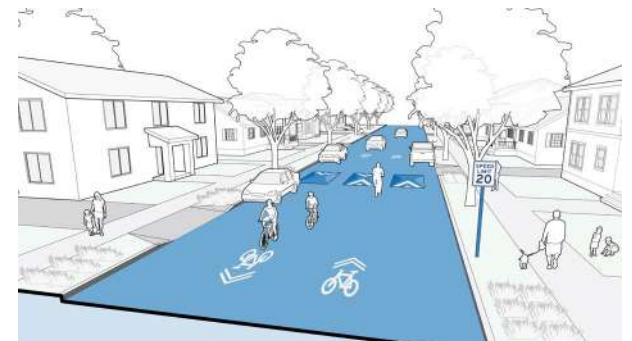
Bicycle crashes are a concern on the City of Atlanta streets. Providing adequate bicycle facilities is critical to improving the safety and comfort of people biking in Atlanta. **Protected bicycle lanes** provide physical separation between bicyclists and drivers critical on high speed and high volume roadways. **Protected intersections** prioritize people on foot and bike across an intersection, reduce conflicts, reduce turning vehicle speeds, and improve visibility. **Neighborhood Greenways** provide convenient, low-stress access to local destinations, including transit stops. Other bicycle-related safety countermeasures can be found in Appendix C.



PROTECTED BICYCLE LANE



PROTECTED INTERSECTION

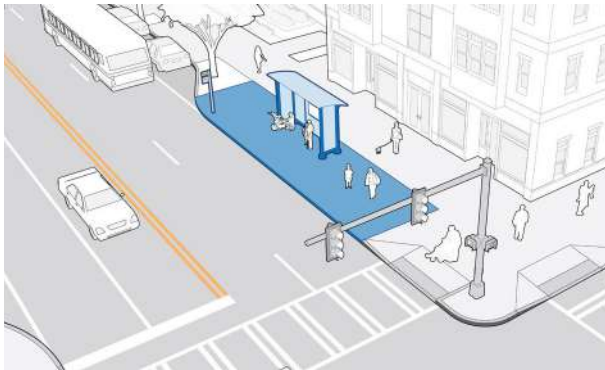


NEIGHBORHOOD GREENWAYS

SYSTEMIC SAFETY COUNTERMEASURES

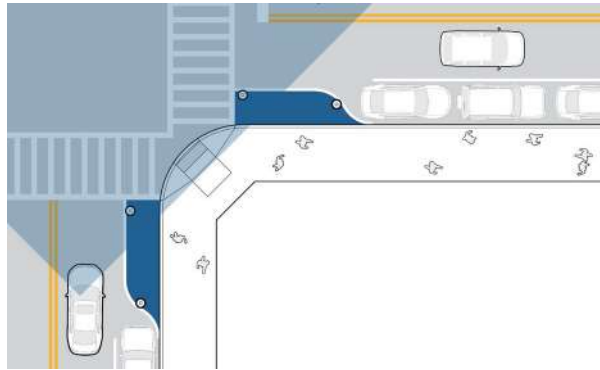
The Safe Streets Education Guide and Safe Streets Selection Tool also recommend systemic safety countermeasures that proactively address the most common roadway designs that are associated with higher risks of severe crashes in Atlanta. These measures can be installed citywide or as standalone projects. These systemic safety countermeasures are generally good for the safety of all road users and should be considered citywide with minimal additional study. For example, rather than study Right Turn on Red (RTOR) prohibition for each approach to each intersection, perform a study on the effect of RTOR prohibition once and establish a citywide policy on where RTOR prohibition should be implemented and perform a citywide rollout.

RECOMMENDED SYSTEMIC SAFETY COUNTERMEASURES



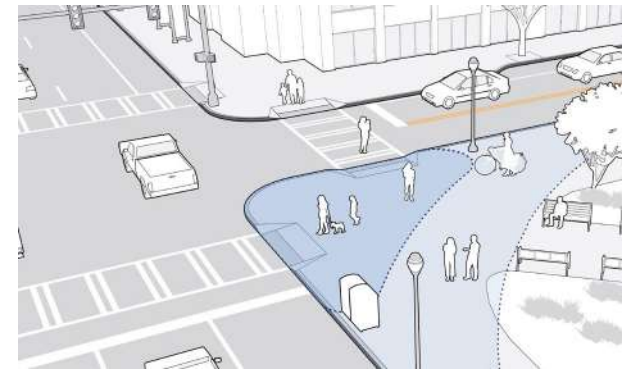
BUS STOP IMPROVEMENTS

Improve bus stops to ensure safe access, crossing, and adequate space for transit riders waiting for buses. Require land use developers to improve bus stops adjacent to new developments and make connections between the development and bus stops.



DAYLIGHTING/PARKING RESTRICTIONS AT CROSSINGS

Implement parking restrictions and/or bump-outs at crossings to reduce pedestrian crossing distance and increase attentiveness and awareness of pedestrians. Require land use developers to restrict on-street parking at intersections adjacent to new developments.



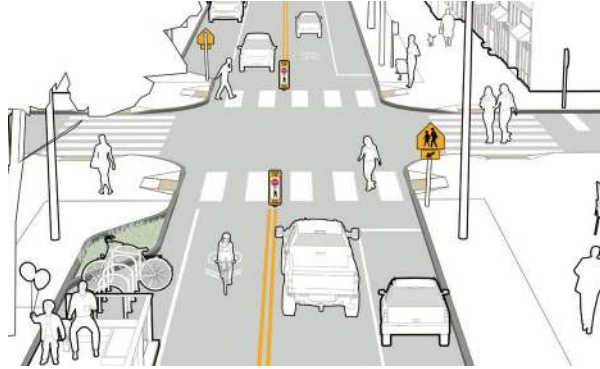
SLIP LANE CLOSURES

Close existing slip lanes and limit the installation of new ones to intersections with skewed geometry that would otherwise result in significantly longer pedestrian crossing distances. Raised crosswalks and/or truck aprons should be considered to control the speeds of turning vehicles.



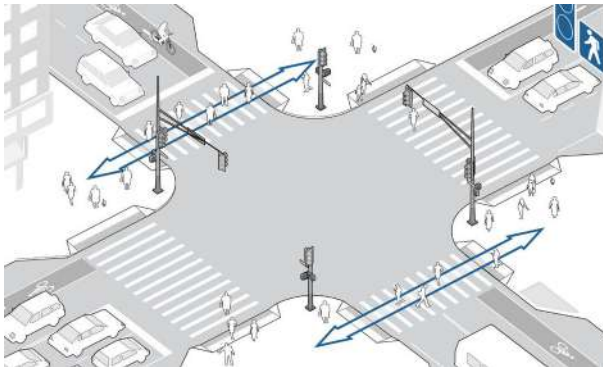
CORNER/TURN WEDGES

Corner/Turn wedges guide drivers around a wider turn angle reducing turn speed and improving visibility for people walking or bicycling to the right or left of turning vehicles.



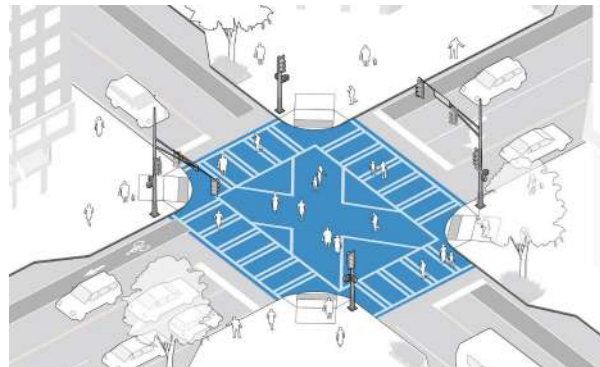
HIGH-VISIBILITY CROSSWALKS

High visibility painted crosswalks should be installed at all signalized and unsignalized intersections, and at mid-block crossing locations. They provide visibility and increase driver awareness of people crossing the road.



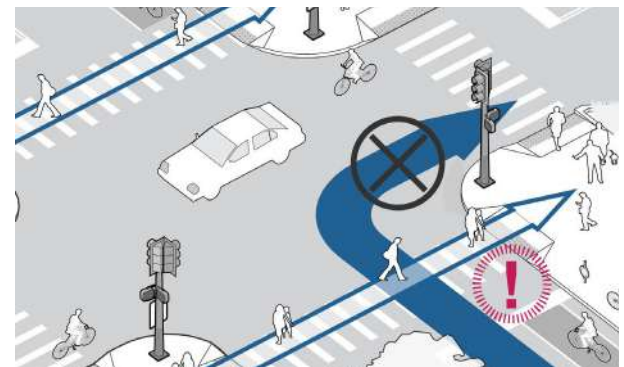
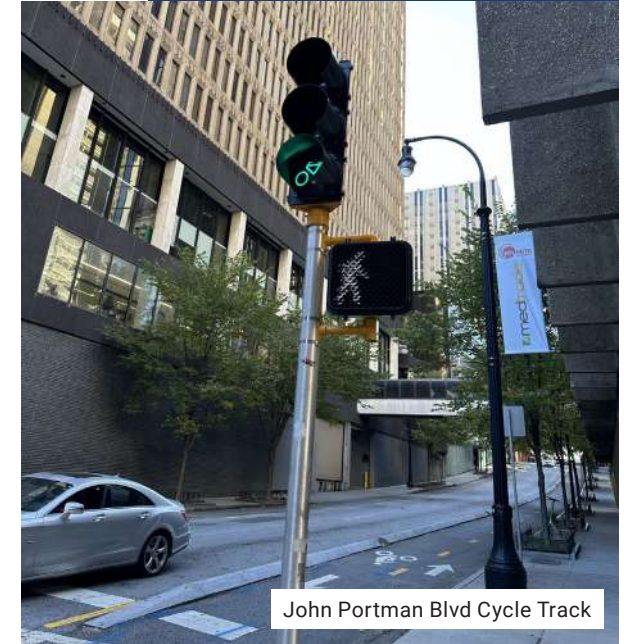
LEADING PEDESTRIAN INTERVALS (LPIs)

LPIs prioritize pedestrians over vehicles at signalized intersections by giving them a 3-7 second head start. Add LPIs at signalized intersections, starting with locations on the HIN first.



EXCLUSIVE PEDESTRIAN SIGNAL PHASES

Improves safety for people walking by eliminating conflict between turning vehicles and pedestrians. Ideal at locations with high volume of turning vehicles and large number of people walking.



RIGHT-TURN-ON-RED (RTOR) PROHIBITION

Improves safety at intersections with a high volumes of people walking or bicycling. They reduce potential conflict points between turning drivers and other drivers, and people walking and bicycling at signalized intersections. RTOR prohibitions should always accompany LPIs and Exclusive Pedestrian Signal phases.

A DEEPER LOOK

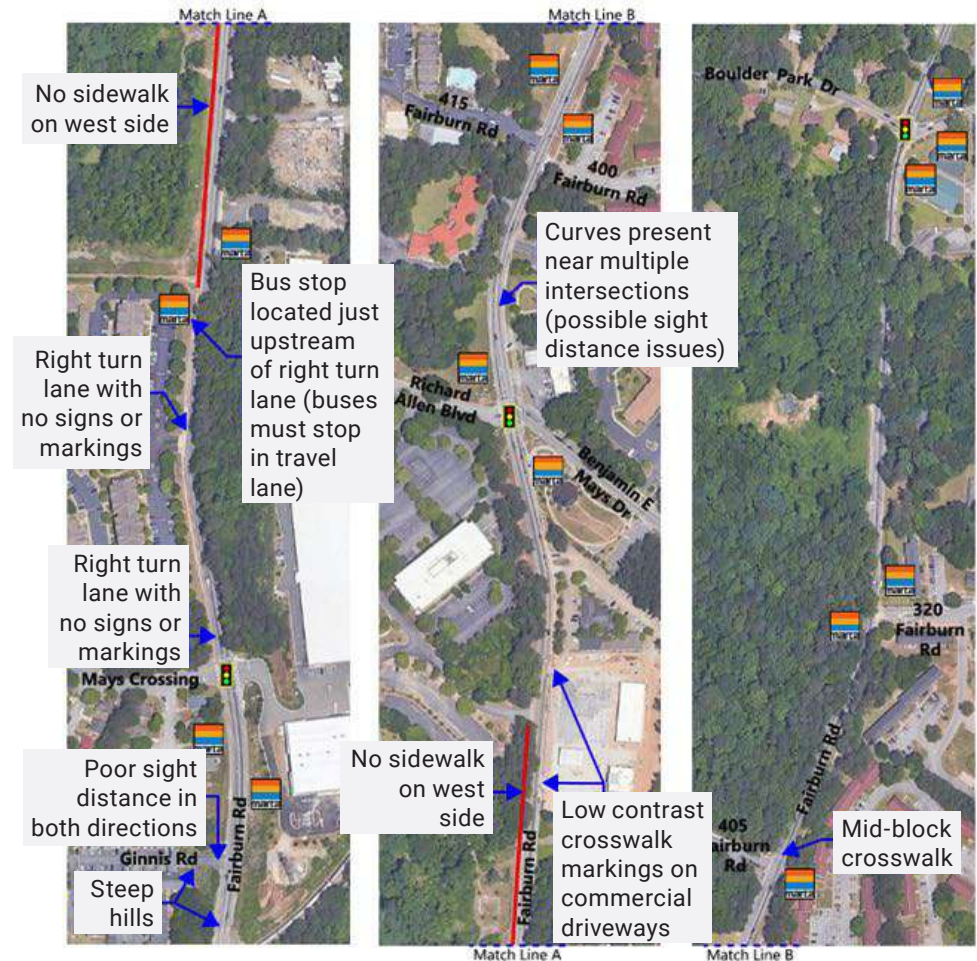
After developing priority locations, representative locations, or case studies, on the HIN and systemic risk networks were identified for deeper review. These were a mix of State- and City-owned streets. Specific issues on these case study corridors and intersections were investigated and recommendations that could apply elsewhere at similar locations were developed. The Federal Highway Administration's (FHWA) Proven Safety Countermeasures is an important resource for implementing countermeasures that work on the City's streets. Public input obtained from the interactive Community Input Map to assess suggested improvements and note issues that may not have been captured in previous crash history were also applied. This deeper look provides guidance on how corridors and intersections should be investigated and proven safety countermeasures applied.

CORRIDORS

Five corridors and detailed crash summaries were reviewed and corridors were compared to similar facilities in the City. Notable safety issues (Figure 23) and recommended potential countermeasures were then summarized. In many locations, speed was a notable contributing factor for safety concerns. Many recommendations at these locations can apply elsewhere in the City, including: ¹⁰

- **Road Diets:** Four lane arterials are high risk streets in the City, and reducing the number of lanes (road diet) help make crossing distances manageable for pedestrians and moderate vehicle speeds.
- **Bicycle and Pedestrian Facilities:** Sidewalks, protected bike lanes, crosswalks, lighting, pedestrian hybrid beacons (PHBs) at mid-block crossings with a refuge island all provide a safer environment for vulnerable road users.
- **Improving Sight Distance:** Vegetation, curves, and objects can

Figure 23: Noteworthy Observations on Fairburn Road in West Atlanta



obscure turning vehicles, signs, signals, or pedestrians.

- **Access Management:** Controlling or merging driveways where bikes and pedestrians may conflict with vehicles.

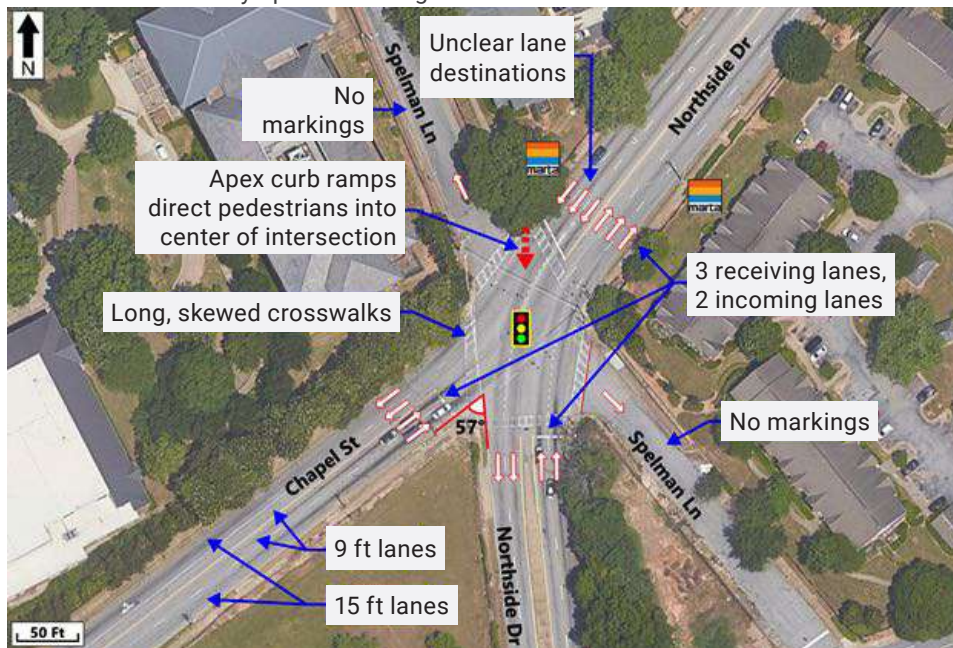
¹⁰ <https://highways.dot.gov/safety/proven-safety-countermeasures>

INTERSECTIONS

Four intersections and detailed crash summaries were reviewed and compared to similar facilities in the City. Notable safety issues (Figure 24), and recommended potential countermeasures were summarized. Many recommendations at these locations can apply elsewhere in the City, including:¹¹

- **Pedestrian Crossing Facilities:** Like mid-block locations, lighting, crosswalks, pavement markings and refuges can increase pedestrian safety at intersections.
- **Protected Left Turns:** Angle and head on crashes tend to be more severe, and these occur more frequently when turning movements are uncontrolled or vehicles cannot find gaps in on-coming traffic.
- **Right Turn on Red Prohibitions:** Angle crashes can be common where vehicles attempt to turn on red frequently – this can be compounded by sight distance issues, frequent driveway access near intersections, and speed of oncoming traffic.
- **Roundabouts:** While not directly applicable to all case study intersections, roundabouts support the Safe System Approach by reducing conflict points, controlling impact angles, and managing speeds.
- **Retroreflective Backplates:** Backplates improve signal head visibility in both daytime and nighttime conditions.

Figure 24: Noteworthy Observations at the Intersection of Chapel Street, Spelman Lane, and Northside Drive by Spelman College.



¹¹ <https://highways.dot.gov/safety/proven-safety-countermeasures/backplates-retroreflective-borders>



There is a lot of foot traffic to the Marta bus stop headed in both directions to the north and south. Sidewalks are needed on this street desperately. Several small children live in the community and there is a lot of traffic.



-Community Input Map Participant





CHAPTER 5: IMPLEMENTATION PLAN

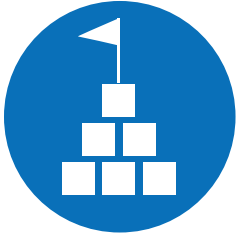
IMPLEMENTATION PLAN

The City of Atlanta believes that traffic safety starts with safer street designs, reinforced by education, coordination, and evaluation. This Action Plan uses the Safe System Approach to achieve Vision Zero through designing streets, achieving safer speeds, protecting vulnerable road users, and encouraging safer roadway behaviors. Effective implementation comes from coordinating various agencies and people to take action focused on safety so that **every project on Atlanta's streets prioritizes safety and equity.**



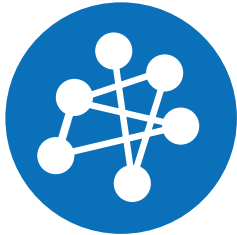
Park(ing) Day on Broad Street

IMPLEMENTATION CORE VALUES



Leadership and Commitment

Authentic engagement, strategic planning, project delivery, and consistent results are foundations of how the City of Atlanta approaches safety decisions.



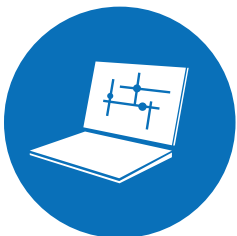
Interdepartmental Collaboration

Many City departments have a role in project delivery and shaping the City. The City of Atlanta ensures collaboration between all City decision makers.



Systemic Approach

Safe streets require proactive, consistent, and routine incorporation of safety countermeasures. The City of Atlanta routinely incorporates safer designs into every project.



Data-Informed Planning

Years of crash data illustrate the common, recurring factors that contribute to severe crashes. The City of Atlanta uses data analysis to proactively address the highest risks.



Community Perception

Community vision and input is vital to prioritizing safer streets. The City of Atlanta incorporates community engagement into every project.



Equity

A safe city is a fair city. The City of Atlanta engages with citizens and neighborhoods to ensure diverse input and safer streets, especially in neighborhoods that have been disproportionately exposed to traffic risks or are historically underrepresented.



Safer Speeds

Vehicle speeds contribute to both the frequency and severity of crashes. The City of Atlanta prioritizes travel speeds that are safe for all street users.



Safer Street Designs

Safe street designs are foundational to building a safer, more equitable city. The City of Atlanta's street designs anticipate human mistakes, mitigate crash severity, and encourage safe behaviors.

EVERY PROJECT CONTRIBUTES TO VISION ZERO

Street projects in the City of Atlanta...

1.

PRIORITIZE THE HIGHEST NEEDS WITHIN THE CITY

Reduce risks on the most dangerous roads

Projects should be prioritized along the City's Combined Risk Network (Figure 16-Figure 19), or streets identified through Community Input (Figure 7).

Reduce risks within a Community of Concern

Projects should be prioritized within socially or politically disadvantaged neighborhoods, those most likely to suffer from higher traffic crash rates.

Address systemic risk factors along a City street

Projects on streets within the City, regardless of location or ownership, should address crash risk factors, improve multimodal travel, and reinforce safe travel speeds.

2.

USE SAFER STREET DESIGNS

Support the street's modal hierarchy

Street designs in the City of Atlanta prioritize the needs of pedestrians first, followed by bicyclists, transit riders, automobiles, or freight (determined by City Comprehensive Transportation Plan).

Increase separation and protection for people walking or bicycling

Projects should create convenient crossing locations and safe crossing distances, build protected and connected bikeways, improve transit stops and access, and support comfortable multimodal travel.

Reinforce safe speeds

Street designs should reduce speeds to 25 MPH or less on City streets.

Incorporate Proven Safety Countermeasures

The Safer Streets Checklist identifies 51 Proven Safety Countermeasures that are standard design elements to improve safety on City streets.

Increase the feeling of safety

Designs must incorporate community needs, account for latent demand for multimodal travel, and improve perceptions of safety to foster more multimodal travel.

NEAR TERM ACTIONS

Achieving Vision Zero will take consistent, intentional effort. This chapter identifies dozens of actions that will be taken by the City of Atlanta's Vision Zero program over several years, but several immediate efforts will increase staff capacity, deploy low-cost solutions, and advance safer street designs along the City's highest-risk roadways.

Build Staff Capacity

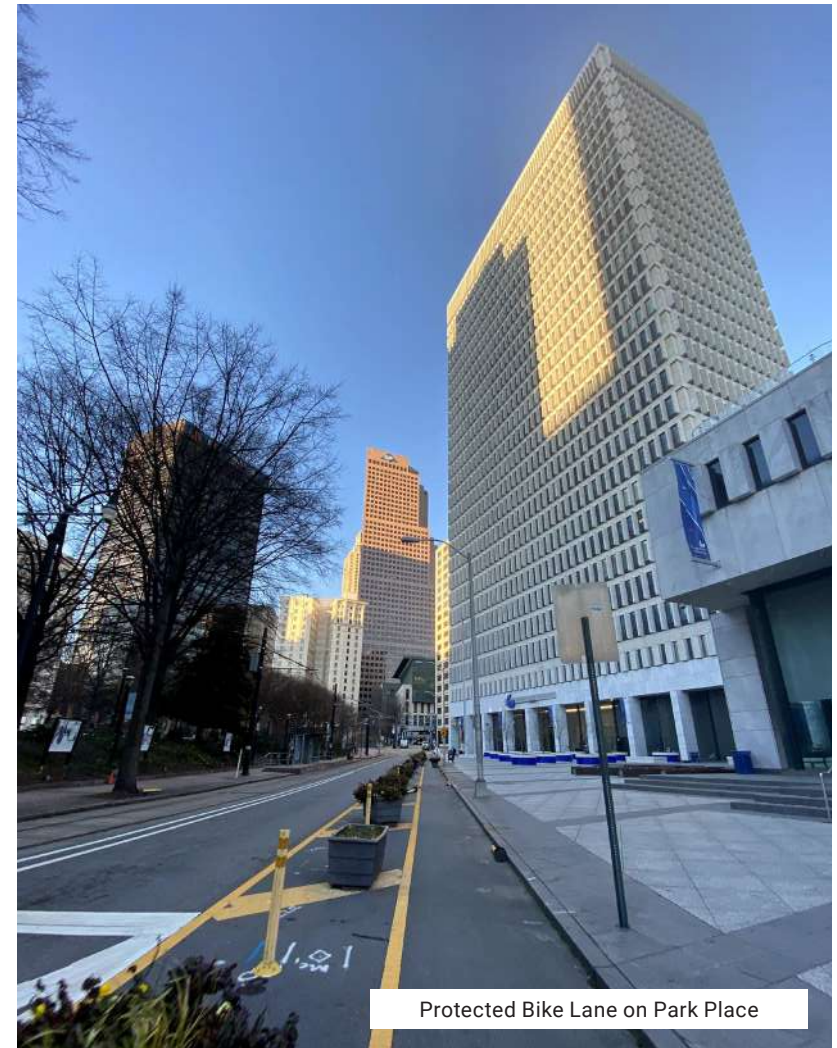
- Hire additional staff to support Vision Zero and Quick Build programs.
- Train all City staff on their role in Vision Zero.
- Deputize Department heads as champions of Vision Zero.

Quickly Deploy Low-Cost Solutions

- Establish dedicated Quick Build and Striping Squad teams (similar to the "Pothole Posse").
- Build and maintain an inventory of tactical and quick build materials.
- Deploy Quick Build treatments at top locations from data and community input
- Develop design standards and details for quick build elements for rapid deployment to reduce or eliminate the need for detailed design and engineering

Advance Scoping and Projects Along the High Injury Network

- Assess City funding programs (i.e. Moving Atlanta Forward) against HIN segments.
- Conduct Road Safety Audits and publish reports for all HIN corridors.
- Select 3 City-owned HIN corridors for priority project funding.
- Select 1 GDOT-owned HIN corridor for priority project coordination.



Protected Bike Lane on Park Place

IMPLEMENTATION ACTION ITEMS

The following tables detail specific actions that form the Vision Zero Action Plan. The actions were drawn from Vision Zero Task Force discussions, community engagement conversations, needs identified by City staff and leadership, and national peer practices. Each action includes a brief description, identifies a lead agency and supporting partners, and an anticipated timeline for starting each action. The Implementation actions will guide the ongoing work on of the City staff and decision makers, inform future budget conversations, and shape conversations with partners outside of the City. The actions will be reflected in ongoing reporting and evaluation and will be updated regularly to reflect progress towards achieving Vision Zero.

VISION ZERO PROGRAM

A sustainable Vision Zero Program requires a commitment of leadership, staffing, and resources. These actions support institutional efforts to build a program that can achieve the multi-year goal of Vision Zero.

Timeline Legend

Ongoing

0-1 years

1-5 years

5-10 years

Short-term

Medium-term

Long-term

Table 8: Implementation Plan: Vision Zero Program Actions

ID	ACTION	LEAD AGENCY	SUPPORT AGENCY	TIMELINE
T1	Document and track projects that support Vision Zero; identify successful practices that can be included in future projects; publish successes or challenges learned.	ATLDOT	GDOT, Atlanta Regional Commission	Ongoing
T2	Benchmark City of Atlanta Vision Zero program budget, capacity, and progress against peer and aspirational cities.	ATLDOT		Ongoing
T3	Develop an annual program budget to support the City of Atlanta's Vision Zero Program: staffing, capacity building, ongoing updates to City data and plans, and other institutional tasks.	City Council	ATLDOT	0-1 years
T4	Increase departmental capacity by hiring additional staffing dedicated to planning, designing and implementing Vision Zero and safety projects.	ATLDOT		0-1 years
T5	Empower City department heads to be champions of the Vision Zero program through ongoing education and integration/coordination of projects.	City of Atlanta	ATLDOT	0-1 years
T6	Establish a permanent Vision Zero Task Force or Road Safety Advisory Committee to provide input to the City of Atlanta and support Vision Zero implementation.	ATLDOT	GDOT, Atlanta Regional Commission, NPUs, NGOs, PropelATL	0-1 years
T7	Partner with ATL311 to create effective way for community to submit safety issues for ATLDOT staff to review and respond accordingly.	ATLDOT	ATL 311	0-1 years
T8	Establish a "Striping Squad" (ala the Pothole Posse) to quickly address locations with faded, illegible markings, with a focus on crosswalks and bicycle lanes.	ATLDOT	CIDs, GDOT	1-5 years
T9	Establish a "Quick Build" team to identify and deploy low-cost safety solutions at high-need locations throughout the City.	ATLDOT	CIDs, GDOT, PropelATL	1-5 years

HIGH-INJURY NETWORK

The City's High Injury Network accounts for the majority of serious crashes within the City. These actions focus time, effort, and resources on the roadways that need immediate and sustained attention.

Table 9: Implementation Plan: High-Injury Network Actions

ID	ACTION	LEAD AGENCY	SUPPORT AGENCY	TIMELINE
H1	Conduct multimodal road safety audits along HIN corridors.	ATLDOT	GDOT, CIDs, Atlanta Regional Commission, NPU, PropelATL, corridor stakeholders	1-5 years
H2	Develop Vision Zero scoping studies for HIN corridors - determine safer street designs and address frequent crash types, systemic risk factors, travel speeds, multimodal facilities, crossing frequencies and distances, and lighting.	ATLDOT	CIDs, GDOT, Atlanta Regional Commission	1-5 years
H3	Develop cost estimates and funding strategies for projects identified through Vision Zero scoping studies to inform City, Transportation Special Purpose Local Option Sales Tax (TSPLOST), and grant funding.	ATLDOT	GDOT	1-5 years
H4	Use the HIN to inform transit planning and investments - bus route and network organization, bus stop replacements, and transit station access.	MARTA	ATLDOT, GDOT	1-5 years
H5	Assess pavement and striping conditions along the HIN roadways; identify locations to use repaving and restriping to implement safer road designs; coordinate with resurfacing and restriping programs (i.e., Local Maintenance and Improvement Grant) to prioritize and implement necessary locations.	ATLDOT	CIDs, GDOT	1-5 years
H6	Prohibit Right Turns on Red in the City; install signage, starting with intersections along the HIN.	ATLDOT	CIDs, GDOT	1-5 years
H7	Upgrade, replace, or install lighting along the length of the HIN, especially at pedestrian crossing locations.	ATLDOT	CIDs, GDOT	1-5 years
H8	Add leading pedestrian intervals (LPIs) at intersections on the HIN.	ATLDOT	GDOT	1-5 years
H9	Assess travel speeds along the HIN, using signal timing, signage, or enforcement to reinforce citywide 25 MPH speed limit (or applicable) and reduce speeding.	ATLDOT	GDOT, CIDs	1-5 years
H10	Build complete walkway and bikeway networks along the HIN, consistent with City plans.	ATLDOT	GDOT, CIDs, PropelATL	5-10 years

POLICY & PLANNING

Safe street designs arise from regulatory and policy decisions. These actions address legislation, regulations, and guidance to guide City decision making towards Vision Zero.

Table 10: Implementation Plan: Policy & Planning Actions

ID	ACTION	LEAD AGENCY	SUPPORT AGENCY	TIMELINE
R1	Support the Fatal Crash Review Commission as a multi-disciplinary team of experts to review every fatal and serious injury collision and make recommendations for site-specific and systemic changes to eliminate future risk.	ATLDOT	Atlanta Police Department, PropelATL, GDOT	Ongoing
R2	Implement Health Impact Assessments for City zoning and planning reviews.	Atlanta Department of City Planning	Fulton County Board of Health, Georgia Department of Public Health, Centers for Disease Control and Prevention, Universities	Ongoing
R3	Use systemic safety results to proactively target traffic studies.	ATLDOT		Ongoing
R4	Review street design standards to ensure consistency with Complete Street guidelines and incorporation of FHWA Proven Safety Countermeasures.	ATLDOT	GDOT, CIDs	0-1 years
R5	Advocate for changes to state code to define responsibility for sidewalk maintenance.	City of Atlanta	GDOT, CIDs	0-1 years
R6	Revise requirements for Traffic Management Plans (TMP).	ATLDOT	CIDs, GDOT	0-1 years
R7	Establish an access management ordinance which applies to new construction and limits curb cuts per block (i.e. two per 0.25 miles or min distance 440 feet)	City Council	ATLDOT	0-1 years
R8	Identify streets with high bicycle level-of-stress that are located on the Combined Risk Network; prioritize bicycle network improvements.	ATLDOT		0-1 years
R9	Ensure that Asset Management programs reflect Vision Zero priorities.	ATLDOT		0-1 years
R10	Adopt curbside management policies that prioritize multimodal access and support Vision Zero goals.	ATLDOT	CIDs	1-5 years
R11	Revise standard details for roadway projects to include Leading Pedestrian Interval (LPI) as the default condition at intersections/signal replacements.	ATLDOT	GDOT	1-5 years
R12	Evaluate warrant requirements for signal installations (Intersection Control Evaluation and local policy).	ATLDOT	GDOT	1-5 years
R13	Evaluate distances between intersections and crossings with a goal of routinely reducing distances through mid-block crossings or new streets.	ATLDOT	GDOT, CIDs	1-5 years
R14	Evaluating speed limit change process, revisions to state enabling legislation, setting up a positive feedback loop (moving away from 85th percentile).	GDOT	ATLDOT, CIDs	5-10 years

EQUITY

Many of the City's Communities of Concern disproportionately suffer from traffic safety issues and have been underrepresented in City decision making for decades. While the entire Vision Zero Action Plan should help create a more fair and equitable city, these actions are focused efforts for safe and accessible streets that acknowledge the needs and desires of all people in the City of Atlanta.

Table 11: Implementation Plan: Equity Actions

ID	ACTION	LEAD AGENCY	SUPPORT AGENCY	TIMELINE
E1	Prioritize Vision Zero investments in Communities of Concern (low-income communities, communities of color, immigrant communities, and communities with fewer transportation options), i.e. capital projects, transportation infrastructure and maintenance, and safer street designs.	ATLDOT	GDOT, CIDs, Atlanta Regional Commission	Ongoing
E2	Develop processes and funding to support community-based organization participation in the development of safety efforts.	ATLDOT		Ongoing
E3	Ensure City streets are maintained to accommodate vulnerable road users.	ATLDOT	GDOT, Atlanta Department of Public Works	Ongoing
E4	Support diverse participation within the City's Vision Zero Task Force or Road Safety Advisory Committee.	ATLDOT		0-1 years
E5	Develop and implement community outreach materials to educate, inform, and incorporate community input on Vision Zero projects.	ATLDOT	GDOT, Mayor's Office of Communications	1-5 years



Broad Street Plaza

CITYWIDE SAFETY

Beyond the High Injury Network, the City of Atlanta has many streets with traffic safety risks. These actions address routine or systemic improvements for safer, complete streets and slow speeds citywide.

Table 12: Implementation Plan: Citywide / Systemic Safety Actions

ID	ACTION	LEAD AGENCY	SUPPORT AGENCY	TIMELINE
S1	Ensure that bus stop access is maintained during roadway or site construction; coordinate with developers and construction contractors to provide safe, convenient access to bus stops and around construction.	MARTA	CIDs, GDOT, developers	Ongoing
S2	Develop criteria for removing slip lanes within the City; analyze slip lanes in the City for feasibility of removal or closure.	ATLDOT	GDOT, CIDs	0-1 years
S3	Develop criteria for a citywide No Right Turn on Red policy.	ATLDOT		0-1 years
S4	Develop criteria for a Far-Side Bus Stop Policy.	MARTA	ATLDOT	0-1 years
S5	Develop criteria for assessing and installing protected intersections.	ATLDOT	GDOT	0-1 years
S6	Build inventory of tactical and quick response materials.	ATLDOT		0-1 years
S7	Assess on-street parking near bus stops to ensure visibility for crossings.	ATLDOT	MARTA, CIDs	1-5 years
S8	Provide high visibility, protected crossings at bus stops.	ATLDOT	GDOT, MARTA	1-5 years
S9	Ensure that bus stops are placed near or adjacent to safe crossings; place mid-block crossings at bus stop locations.	ATLDOT	MARTA	1-5 years
S10	Assess RRFB locations for compliance and upgrade to PHBs if needed.	ATLDOT	CIDs	1-5 years
S11	Replace Share the Road signs in the City with Bikes May Use Full Lane signs; mark new sharrows, where applicable.	ATLDOT	GDOT	1-5 years
S12	Add protection to buffered bike lanes in the City.	ATLDOT	GDOT	1-5 years
S13	Identify flush crosswalks to convert to raised crosswalks in the City.	ATLDOT	NPU, CIDs, GDOT	1-5 years
S14	Identify priority locations and daylight intersections to maximize visibility and crossing safety.	ATLDOT	GDOT	1-5 years
S15	Install speed limiters on City fleet vehicles.	Mayor's Office	ATLDOT	1-5 years
S16	Establish a Safe Routes to School planning program and conduct several (i.e. 3-5) school travel and safety action plans per year.	ATLDOT	Atlanta Public Schools	1-5 years

CITYWIDE SAFETY, CONTINUED

Table 12. Implementation Plan: Citywide / Systemic Safety Actions, continued

ID	ACTION	LEAD AGENCY	SUPPORT AGENCY	TIMELINE
S17	Establish localized slow zones for hospitals, parks/recreation and senior areas with appropriate treatments (signs, markings, speed tables, etc).	City Council	ATLDOT, Atlanta Department of Parks and Recreation	1-5 years
S18	Evaluate interstate off-ramps to reduce speeding at transitions to City streets.	GDOT	ATLDOT	1-5 years
S19	Plan, design, and install and/or repair sidewalks that meet ADA standards on 90% of road-mileage in the City of Atlanta.	ATLDOT	CIDs, GDOT	5-10 years
S20	Build a citywide bike network, using quick build projects where available, and complete the Cycle Atlanta plans.	ATLDOT	GDOT, CIDs	5-10 years



CULTURE CHANGE

Safer streets rely on education, encouragement, and understanding from both street designers and users. These actions help inform anyone making decisions about Atlanta's streets and promotional efforts that contribute to safer outcomes.

Table 13: Implementation Plan: Culture Change Actions

ID	ACTION	LEAD AGENCY	SUPPORT AGENCY	TIMELINE
C1	Conduct walking and bicycling safety education sessions at elementary schools.	Atlanta Public Schools	ATLDOT, County Boards of Health, Atlanta Police Department, Atlanta Fire Department, Safe Kids Coalition, non-profits and community members	Ongoing
C2	Reconvene / reestablish an active Families for Safe Streets organization in the Atlanta area.	PropelATL		0-1 years
C3	Assess laws that govern the legal status and protection for people in crosswalks; update local codes and advocate for updates in the State of Georgia.	City Council	Propel ATL, GDOT, Georgia Chamber of Commerce, Atlanta Regional Commission, ATL Authority	0-1 years
C4	Publish guidance and model language for the way City agencies and staff will report on and discuss traffic crashes to eliminate bias and victim-blaming.	Mayor's Office of Communications	ATLDOT, Propel ATL	0-1 years
C5	Identify short and long term communication strategies to inform community members - especially Communities of Concern - on Vision Zero progress, applicable laws, and City priorities.	ATLDOT	CIDs	0-1 years
C6	Coordinate with sports teams and large event venues to prioritize safe multimodal access and parking; ensure safe event traffic patterns, before and after events; promote transportation safety messaging at events.	ATLDOT	Teams: Hawks, Falcons, United, Dream, colleges and universities	0-1 years
C7	Develop communication or education campaign on traffic speeding, i.e. Slowing Down / Drive 25.	ATLDOT	Mayor's Office of Communications	0-1 years
C8	Develop Vision Zero orientation or training program for City staff.	ATLDOT	City of Atlanta	0-1 years
C9	Develop Vision Zero training program for NPU university, Transportation Safety Leaders Academy, and other citizen learning programs.	ATLDOT	Atlanta Department of City Planning, Atlanta Department of Public Works	0-1 years
C10	Embed Vision Zero education in ATLDOT presentations.	ATLDOT		0-1 years

CULTURE CHANGE, CONTINUED

Table 13. Implementation Plan: Culture Change Actions, continued

ID	ACTION	LEAD AGENCY	SUPPORT AGENCY	TIMELINE
C11	Conduct bike ride events (i.e., bike buses, bike trains) to foster bicycle commuting, recreation, and engagement around safety.	ATLDOT	Atlanta Public Schools	0-1 years
C12	Develop media campaigns for relevant laws, including yielding to pedestrians and bicyclists, obeying posted speeds, crossing outside of marked crosswalks, etc.	ATLDOT	Propel ATL	1-5 years
C13	Communicate Vision Zero messages via languages and means accessible to City residents and visitors.	ATLDOT	Mayor's Office of International Affairs	1-5 years
C14	Provide driver education in high schools to increase awareness about young driver safety.	Atlanta Public Schools	ATLDOT, private schools	1-5 years
C15	Work with ASAP and Atlanta Public Schools to develop youth-focused programming for Vision Zero.	Atlanta Public Schools	ATLDOT, GDOT	1-5 years
C16	Advocate for drivers license reform - update to reflect current issues or concerns, require a recertification, etc.	ATLDOT	GDOT, Georgia Department of Driver Services	5-10 years



Atlanta Streets Alive on Peachtree Street

ENFORCEMENT

Traffic laws ultimately rely on enforcement. This Vision Zero Action Plan acknowledges that many of the communities in the City disproportionately suffer from both traffic safety and over policing. These actions help ensure that citywide traffic enforcement is fair, consistent, and informed by relevant data.

Table 14: Implementation Plan: Enforcement Actions

ID	ACTION	LEAD AGENCY	SUPPORT AGENCY	TIMELINE
L1	Use systemic safety results to proactively target traffic enforcement.	Atlanta Police Department	ATLDOT, GDOT, NPUs	Ongoing
L2	Identify roadway risk factors to include within crash reports to assist with Vision Zero tracking and reporting.	ATLDOT	Atlanta Police Department, Georgia State Patrol, GDOT	0-1 years
L3	Analyze priority locations for automated speed enforcement.	ATLDOT	Atlanta Public Schools, Atlanta Police Department	0-1 years
L4	Make bike lane parking a civil (non-criminal) offense and allow non-sworn officers (i.e. parking management company) to enforce bike lane parking and curbside management infractions; deputize ATLDOT staff to support bike lane enforcement to ensure lanes remain safe and unobstructed.	ATLDOT	Atlanta Police Department, CIDs	0-1 years
L5	Revise Atlanta Police Department policy and advocate for state policy change to end high speed pursuits.	Atlanta Police Department	City of Atlanta, GDOT, Georgia State Patrol, Georgia State Legislature	1-5 years
L6	Assess and publish metrics on automated speed camera enforcement to ensure enforcement does not cause additional harm to marginalized communities.	Atlanta Police Department	ATLDOT, GDOT, NPUs, NGOs	1-5 years
L7	Hire additional staff for City's parking management team; support Atlanta Police Department to allocate officers on bike to conduct routine bike lane parking enforcement.	Atlanta Police Department	ATLDOT, CIDs	1-5 years

DATA

Vision Zero outcomes require a clear understanding of relevant data, routine evaluation of successes or failures, and transparent accountability for City decision makers. These actions improve the quality, analysis, use, and sharing of crash data so that City decision makers and citizens can be fully informed when creating safer streets.

Table 15: Implementation Plan: Data Actions

ID	ACTION	LEAD AGENCY	SUPPORT AGENCY	TIMELINE
D1	Publish annual reports for measuring progress with Vision Zero implementation.	ATLDOT	Vision Zero Task Force	Ongoing
D2	Track and report the mode shift goals identified in Atlanta's Transportation Plan; reflect mode shift as a key outcome of safety efforts.	ATLDOT	GDOT, ARC	Ongoing
D3	Update HIN map every 3 years.	ATLDOT		Ongoing
D4	Establish recurring meetings with Atlanta Police Department, hospitals, emergency rooms, trauma centers, public health departments, universities, and coroners office to review crashes initially labeled as "Serious Injury" and "Unknown."	ATLDOT	Atlanta Police Department, Hospitals, Fulton and Dekalb Counties, GDOT	0-1 years
D5	Establish a process for data sharing, communications, and funding from Automated Enforcement Program.	ATLDOT	Atlanta Public Schools, Atlanta Police Department	1-5 years
D6	Improve data collection efforts to better account for underreported crashes/events.	Atlanta Police Department	ATLDOT, GDOT	1-5 years
D7	Conduct before and after studies of safety improvements to assess effectiveness and refine future applications.	ATLDOT	GDOT	1-5 years

PARTNERSHIPS

Many decisions that effect the City of Atlanta's traffic safety are made outside of the City's geographic or political boundaries. These actions help inform conversations with state, regional, and neighboring jurisdictions' efforts so that the City of Atlanta can advocated for changes and support partner agencies.

Table 16: Implementation Plan: Partnership Actions

ID	ACTION	LEAD AGENCY	SUPPORT AGENCY	TIMELINE
P1	Meet routinely with the Georgia Department of Transportation to share data, identify streets of concern, develop consistent policies, and advance joint projects.	ATLDOT	GDOT	Ongoing
P2	Advocate to the Georgia Department of Transportation for proactive changes to City streets to improve safety, multimodal transportation, and slow speeds.	ATLDOT	GDOT	Ongoing
P3	Conduct Vision Zero safety assessments as part of Comprehensive Transportation Plans (CTPs), Livable Centers Initiative (LCI), and corridor studies	Atlanta Regional Commission	City of Atlanta, CIDs	Ongoing
P4	Host Complete Streets design trainings/workshops for local government staff, elected officials, GDOT project managers, consultants, etc	Atlanta Regional Commission	City of Atlanta, CIDs, GDOT	Ongoing
P5	Collaborate with neighboring jurisdictions on safety strategies, projects, plans, and campaigns.	ATLDOT	Neighboring cities (i.e., Decatur, Sandy Springs, South Fulton) and counties (i.e., Dekalb, Cobb), GDOT	Ongoing
P6	Add a Regional Excellence Award for Safe Streets	Atlanta Regional Commission		0-1 years
P7	Work with planning and funding partners (i.e. transit agencies, regional organizations, state agencies, etc) to adopt Vision Zero goals, integrate the Safe System Approach, and support the City of Atlanta's Vision Zero Plan.	City of Atlanta	MARTA, GDOT, Atlanta-Region Transit Link Authority, Atlanta Regional Commission, CIDs	0-1 years
P8	Update regional Project Evaluation Framework to exclude undivided multi-lane highways from regional funding. Every multi-lane road must have median (preferred) or turn lane (at a minimum).	Atlanta Regional Commission	Georgia Regional Transportation Authority, GDOT	1-5 years
P9	Conduct more detailed design review of regionally-funded projects for FHWA Proven Safety Countermeasures throughout project development process	Atlanta Regional Commission	ATLDOT, GDOT, CIDs, consultants, engineers	1-5 years



Installation of Shared Space Phase 1 Pilot on Peachtree Street



Cars make illegal turns here because they don't want to wait in line to exit. Also dangerous for anyone not in a car. Needs sidewalks, bike protected bike lanes, and traffic control.

-Pop-Up Event Participant





CHAPTER 6: EVALUATION FRAMEWORK

EVALUATION FRAMEWORK

To move the needle on traffic safety, it is critical to understand which interventions are effective to reduce crashes and what traffic safety threats remain as Vision Zero actions are implemented in Atlanta. This information can direct investment decisions and project selection for the City towards continually reducing and eliminating traffic deaths by 2040.

The City of Atlanta's Vision Zero efforts will be tracked in two ways:

- Monitoring progress and success of the overall Vision Zero program
- Evaluating the impacts of individual projects



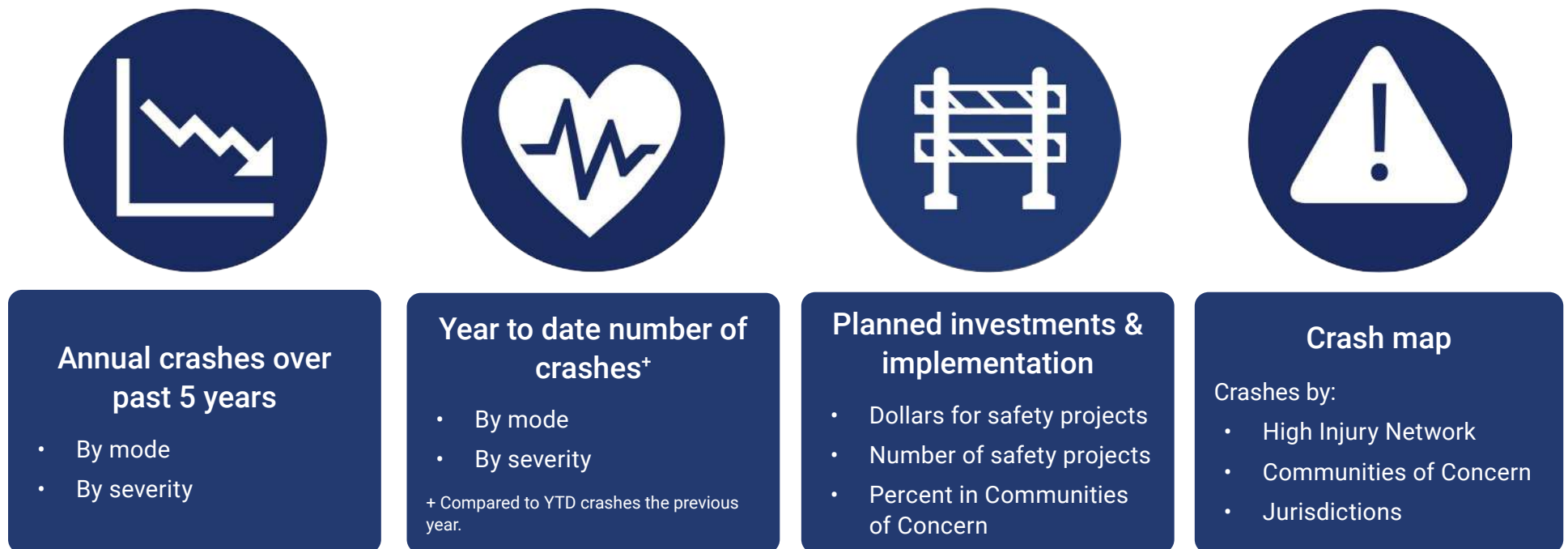
10th Street Cycle Track at Piedmont Park

PROGRAM MONITORING

As represented in the City's overall goal to eliminate fatal and serious injury crashes by 2040, program outcomes will occur over time. Over this period, ATLDOT will track these outcomes internally, and also present key performance indicators (KPIs) to the public via a public dashboard.

ATLDOT is developing an online dashboard to regularly communicate progress towards a safer transportation system publicly. This dashboard will track safety outcomes, report them to the public and other stakeholders, and inform decision making. Figure 25 shows the anticipated KPIs for the dashboard. The KPIs can be used both internally and externally to monitor and communicate on the program progress.

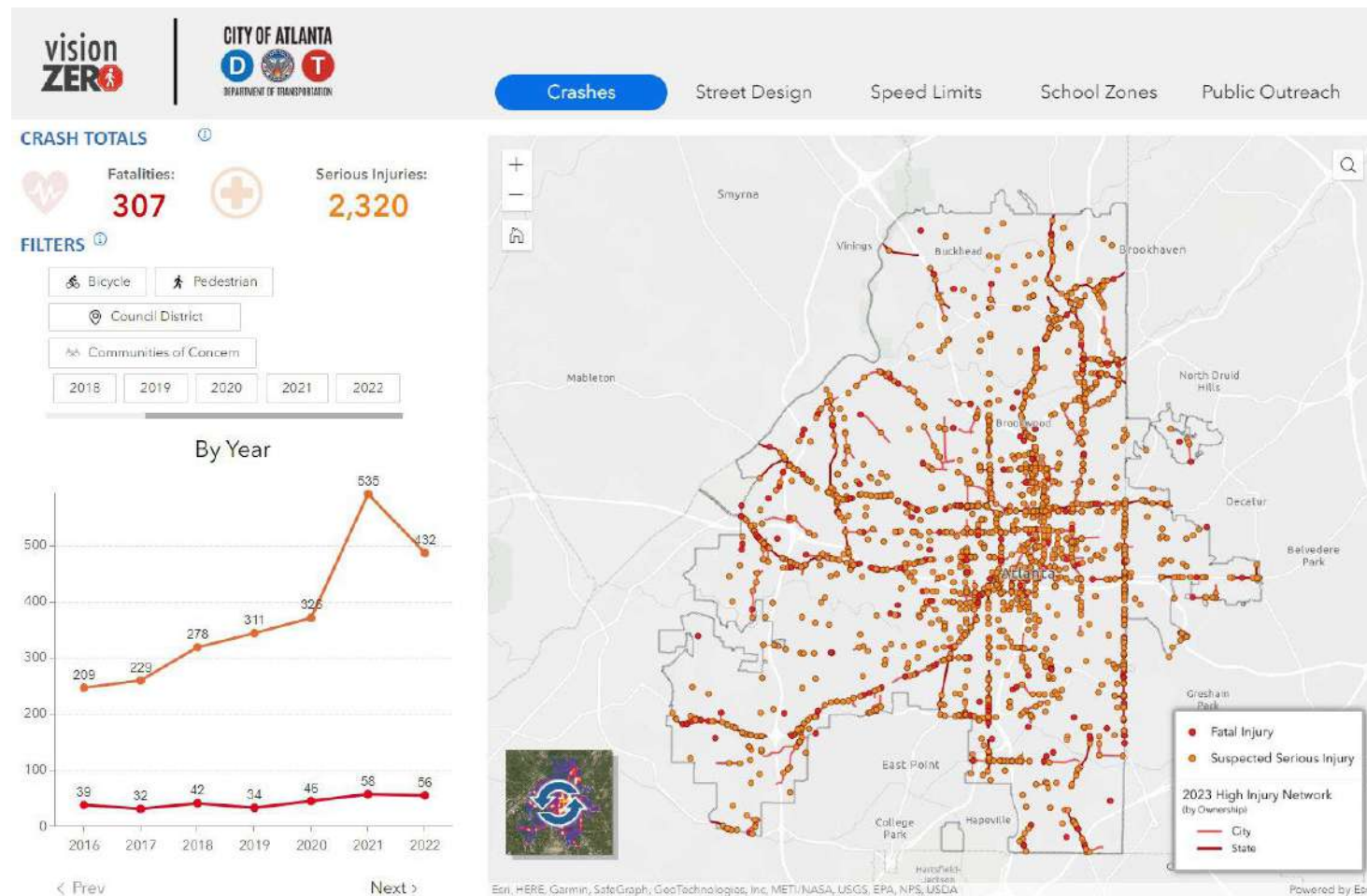
Figure 25: Key performance indicators for Vision Zero dashboards



PUBLIC DASHBOARD

The dashboard can be updated monthly based on crash data from the Atlanta Police Department and reconciled annually using state data from Numetrics. Additional project data can be added as available, including planned and completed projects, engagement tracking, and project evaluation results. The dashboard, shown in Figure 26, includes fatal and serious injury crash statistics and where these crashes occur on a map of Atlanta. The dashboard also has filters to examine the data by severity, mode, year, and council district, with the ability to add more as needed.

Figure 26: Screenshot of ATLDOT Vision Zero Dashboard



PROJECT EVALUATION

An evaluation program should be founded upon overarching goals. The City has established a set of goals in the Moving Atlanta Forward Agenda, including transportation goals for safety, equity, and mobility.

Over the last year, Atlanta developed and piloted a project evaluation framework to assess the success of projects. Based on the One Atlanta Strategic Transportation Plan goals and the Downtown Resurfacing Project, the evaluation assessed the following goals:

GOALS

- Reduce crashes involving vulnerable road users
- Reduce serious injury and fatal crashes for all users
- Increase mileage of protected bike lanes
- Maintain operating speeds at or below the 25-mph speed limit
- Improve multimodal accessibility to land uses
- Increase the total person-capacity of the roadway to provide opportunity for multimodal transportation
- Minimize impact to existing corridor travel times and reliability/variability
- Reduce level of traffic stress for bicyclists
- Increase/decrease lane widths, as applicable, to meet City standards.
- Increase compliance with traffic signal indications and parking regulations

These goals helped identify KPIs and their relative importance, or weighting. Safety performance (both observed and predicted using Safety Performance Functions) is most heavily weighted followed by multimodal access. These reflect the safety-focused and multimodal goals from the guiding documents and establish a basis for evaluating Vision Zero and other safety projects.



Ormewood Avenue SE from the Southside BeltLine Trail

KEY PERFORMANCE INDICATORS

FHWA recommends guidance for robust before/after analyses to assess the effectiveness of safety interventions and develop CMFs. ATLDOT's before/after studies have a broader scope for "success;" however, including additional information to crash data, such as observed travel speeds and vehicles and active transportation user volumes, can strengthen the results. Conducting safety surrogate video analysis is one source for this additional data.

Safety surrogates, or factors that indicate the potential of a crash such as near misses, can be measured by observational studies, video analytics, and machine learning algorithms. These surrogates detect situations that could potentially lead to severe crashes, even if these situations did not result in a crash at the time. Analyzing safety surrogates can be used to examine crash contributing factors, such as speeding and red light running, and evaluate the efficacy of treatments that target and address these and other conflict points. These analyses provide important information to deploy the lessons throughout the entire City.

Before/After studies of safety surrogates can focus on a host of KPIs – not crashes, but characteristics or situations that are related to the potential for a crash. The following KPIs can help the City of Atlanta demonstrate project effectiveness without a crash occurring that potentially results in a serious injury or fatality:

- Near misses based on distribution (15th percentile, median, and 85th percentile) of Post-Encroachment Time (PET)¹² and Time-To-Collision (TTC)¹³
- Instances of red light running
- Distribution (15th percentile, median, and 85th percentile) of speeds
- Instances of pedestrian crossings on opposing green light phases

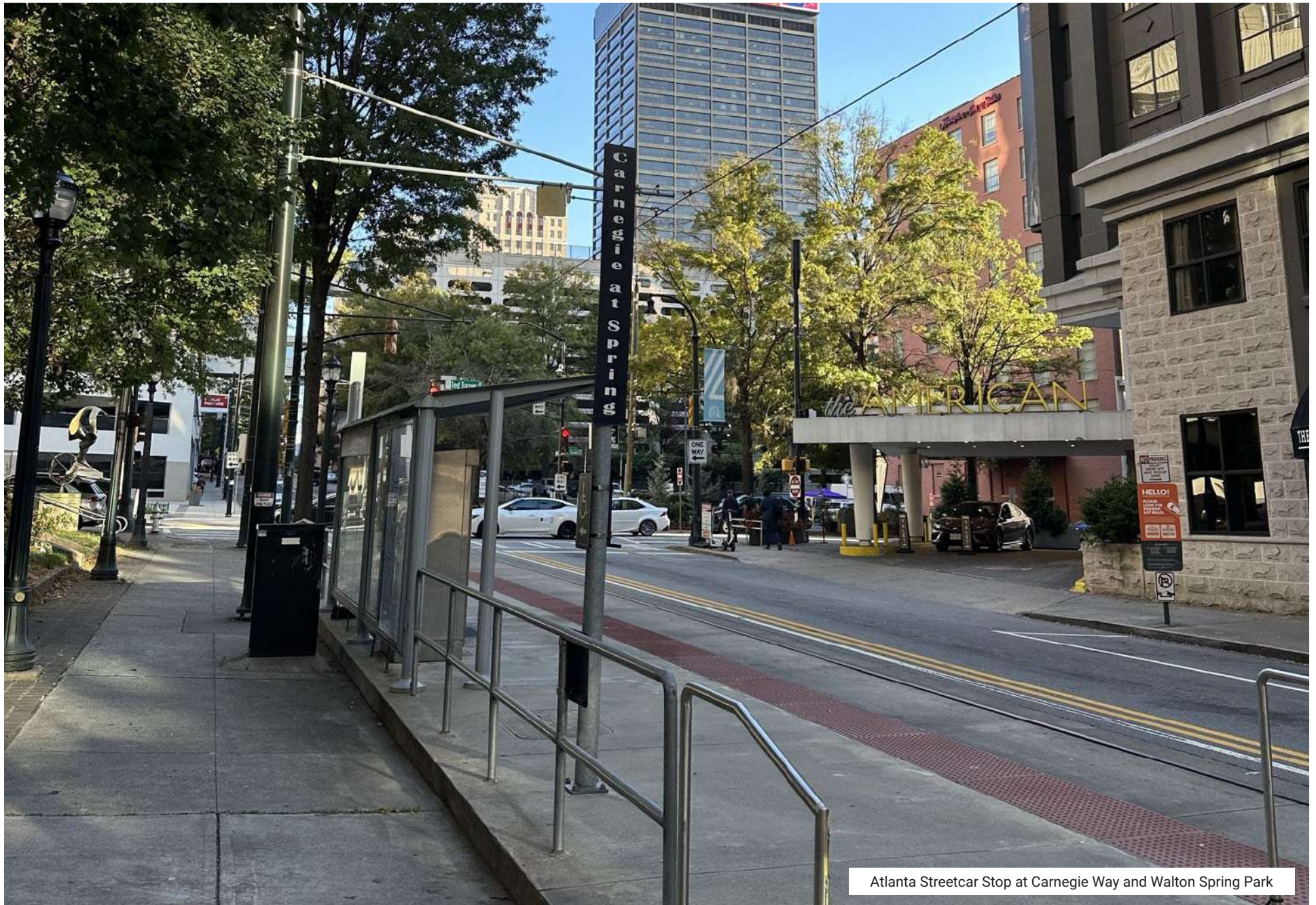
RECOMMENDATIONS

In addition to expanding data beyond crashes, several more actions are recommended to enhance and establish ATLDOT's project evaluation approach:

- Create a program that evaluates each project and examines trends across project types and implementation
- Allot funding for project evaluation, including data collection
- Identify priority projects for evaluation
- Assess evaluation outcomes in aggregate
- Conduct sensitivity testing for the weights used to score projects
- Consider the context of each project, such as adjacent land uses, and how it might impact the results

¹² Post-Encroachment Time (PET) is the time from when one road user leaves a specific location (or conflict point) to the time another user arrives at that same location.

¹³ Time-To-Collision (TTC) is the time remaining before the paths of two crossing road users would intersect (and a crash would occur) if their directions and speeds are maintained.



Atlanta Streetcar Stop at Carnegie Way and Walton Spring Park



Some motorists speed through this area and this intersection is difficult to navigate at times with the blind spot from the hill and increased traffic from the child care facility.

-Community Input Map Participant





APPENDICES



A vertical photograph on the left side of the page shows a silver SUV driving on a road at dusk. The car's headlights are on, and the background is dark with some greenery visible.

LIST OF APPENDICES

APPENDIX A: COMMUNITY ENGAGEMENT SUMMARIES

APPENDIX B: SUPPORTING DATA ANALYSIS MATERIALS

APPENDIX C: ATLANTA SAFER STREETS EDUCATION GUIDE



VISION ZERO ACTION PLAN
Public Input on Roadway Safety Issues
What road improvement projects matter most to you?
What road safety issues are most important to you?

CITY OF ATLANTA
DEPARTMENT OF TRANSPORTATION
Vision
Creating
[QR Code]

CITY OF ATLANTA
DEPARTMENT OF TRANSPORTATION



APPENDIX A:

COMMUNITY ENGAGEMENT SUMMARIES

COMMUNITY WORKSHOPS & INFO SESSION SUMMARIES	A1
March Virtual Community Workshop	A1
June Virtual Information Session	A12
June In-Person Community Workshop	A19
October Virtual Information Session	A26
POP-UP EVENT SUMMARIES	A36
Pop-Up #1: Oakland City MARTA Station	A36
Pop-Up #2: No Tables No Chairs BeltLine After Dark	A40
Pop-Up #3: Southside Sports Complex	A44
Pop-Up #4: Atlanta Streets Alive	A48
TASK FORCE MEETING MINUTES	A54
Task Force Meeting #1	A54
Task Force Meeting #2	A60
Task Force Meeting #3	A66
Task Force Meeting #4	A72
Task Force Meeting #5	A76
COMMUNITY INPUT MAP SUMMARY	A82

This page intentionally left blank.

COMMUNITY WORKSHOPS & INFO SESSION SUMMARIES

MARCH VIRTUAL COMMUNITY WORKSHOP



ATL Vision Zero Community Workshop #1 - Interactive Polling Results

Hosted on March 7 from 12-1pm and March 9 from 6-7pm

52 people participated in answering questions and providing feedback in real-time during the webinar-style community workshop. Questions were asked and feedback was collected through an interactive online presentation and survey platform. Below are the combined results from both lunch and evening workshop sessions. Participants answered a wide variety of questions about themselves, their experiences with traffic violence, and their thoughts on responsible parties, Vision Zero goal setting, and safety. In this summary, you will find a narrative overview followed by detailed graphs of the responses.

Who Attended? What is their Experience with Traffic Violence?

The majority of people in attendance live and work within the City of Atlanta. Almost 50% of people have been injured in a traffic crash and 80% have a family member or close friend who has died or been seriously injured in a traffic crash.

Perspectives of Safety and Vision Zero

Four key themes were identified when people were asked, "What does safety on our streets look like to you?" These themes include:

1. New designs and infrastructure prioritizing people walking and rolling
2. Equity
3. Safe for people walking and bicycling
4. No longer afraid of walking, bicycling, or driving

88% of people are somewhat or very familiar with Vision Zero. When asked, "What does Vision Zero mean to you?" the responses provided valuable guidance to the specific needs and goals of the Atlanta community. 5 themes were identified and include:

1. Prioritizing the safety of people walking, rolling, and driving
2. Eliminating traffic deaths
3. Infrastructure and design for safe & connected transportation options
4. Guided by collaboration and community-led solutions
5. I am new to Vision Zero!

People believe the greatest causes of traffic danger in Atlanta include following:

- Speed and speeding
- Roadway design
- Distracted drivers
- Cars

When asked, "Who bears the greatest responsibility for reducing traffic danger in the future?" people identified the following groups of people:

-
- Everyone
 - ATL Department of Transportation
 - Drivers
 - Planners

People believe the biggest barriers to eliminating traffic fatalities and serious injuries in Atlanta include:

- Georgia Department of Transportation
- Car culture
- Political will
- Funding and cost
- Cell phones and distracted driving

*Over 40% of people believe the City of Atlanta can achieve Vision Zero and **eliminate traffic fatalities and serious injuries by 2030.***

Reactions to Before and After Traffic Calming Projects

People were shown pictures of different streets and intersections throughout Atlanta and asked what safety improvements should be made in each location. They were then shown a picture of the same location after traffic calming techniques were implemented and asked if the new conditions feel safer. Overall, people felt that the following adaptations increased safety:

- Increased separation between cars and people walking and bicycling, especially vertical separation.
- More space for people walking, bicycling, and gathering, including separated bike lanes, curb extensions, and parklets.
- Removing and narrowing travel lanes to slow down traffic.

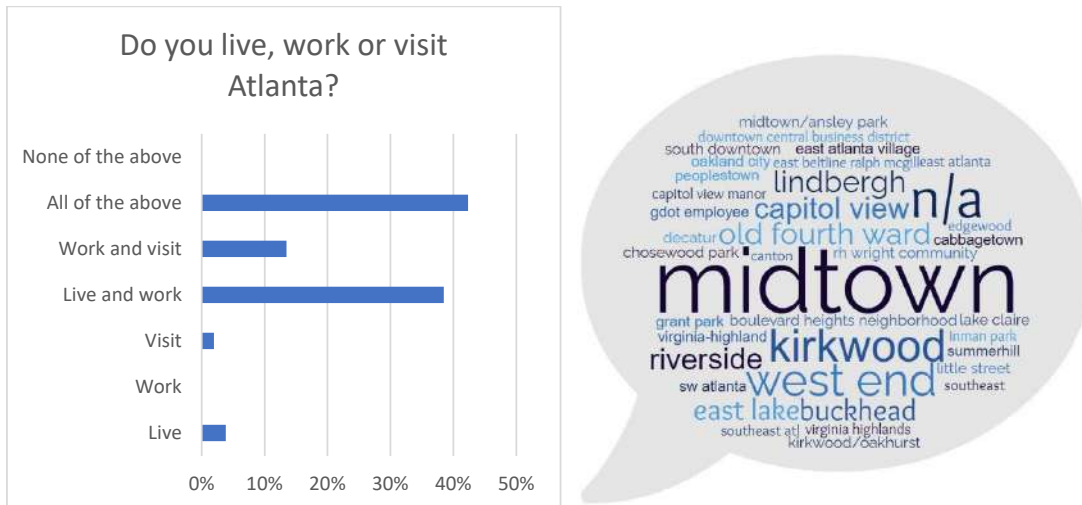
Details of these responses are included in the following pages.



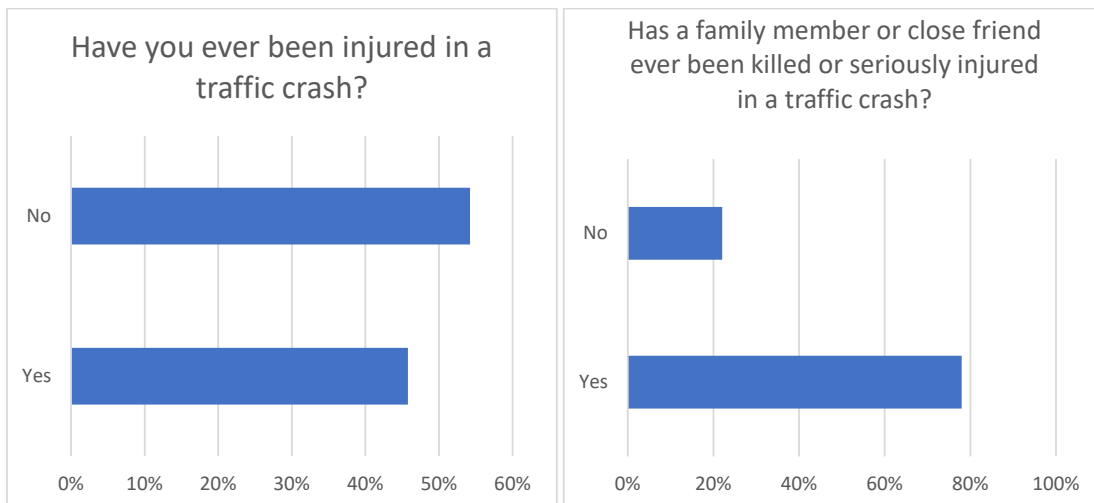
Who Attended? What is their Experience with Traffic Violence?

Question 1

Do you live, work, or visit Atlanta? If you live in Atlanta, what neighborhood or area of the City do you reside?



Question 2



Perspectives of Safety and Vision Zero

Question 3

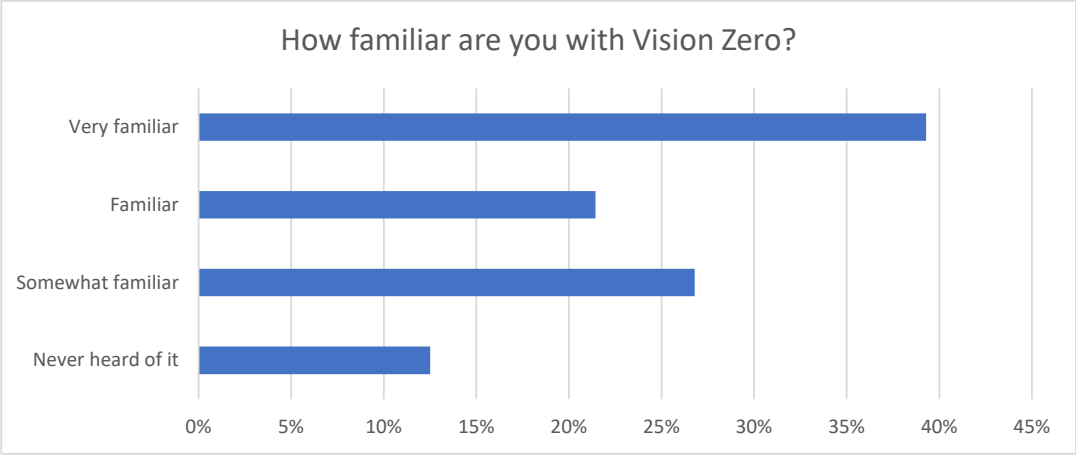
What does safety on our streets mean to you? (Responses organized by theme)

New designs and infrastructure prioritizing people walking and rolling	Equity	Safe for people walking and bicycling	No longer afraid of walking, bicycling, or driving
Speed tables	Equity - everyone can get where they're going safely and efficiently.	Ability to walk and cycle safely	No fear
Pedestrian-centered streets.	Anyone can comfortably walk and bike	It means a safe place to walk, good streetlights, roads in good enough condition that it is safe to drive	being able to move around town without fear of serious injury or death.
More Complete Streets with more sidewalks, more crosswalks, more protected bike paths.	Neighbors of all ages and abilities enjoying our streets- walking, biking, rolling and driving!	Walkers and bikers protected	Being comfortable walking and cycling on and along all streets in my neighborhood
+ Protected Bike Lanes, Traffic Calming, functional and wide sidewalks.	The ability for anyone (child, senior, disabled) to safely get around their neighborhood without the reliance on a personal vehicle.	It means everything to me. To make sure we are all safe. I will work on this until there is no breath left in my body. Kids can play outside, we should be able to ride our bikes and be safe.	Nobody fears using the street - pedestrians, bicyclists, and drivers
More bike lanes, more sidewalks, and actively maintained infrastructure.	For all ages and ability, to move through the city without a car.	Ability to arrive at my destination safely.	Freedom to move without a car without risk of harm
Streets NOT designed for drag racing	Streets for everyone	Safety on sidewalks	Able to move around the city without danger of injury or death.
Slow speeds that consistently but safely move traffic, equal priority for walkers/runners/bikers/those who live nearby to cars, connected bike & sidewalks	Being able to choose the safest transportation mode.	Safety is a shared responsibility among the users and the city. First of all, it's up to me to exercise caution and awareness, being proactive to achieve max safety.	Anyone feels comfortable rolling, walking, or strolling to wherever they need to go, at any time without fear for their life, health, or mental health.
Slower speeds and safe intersections.	Making the health choice the easy choice	little to no risk of injury for all users / modes of transport	Being able to walk on the street without fear of injury/death



New designs and infrastructure prioritizing people walking and rolling	Equity	Safe for people walking and bicycling	No longer afraid of walking, bicycling, or driving
Eliminate right turns	Improved access	I won't be killed or hurt	Comfort and freedom to bike and walk without anxiety of being hit by a car
Good connectivity	Promoting safer means to drive, walk, or ride in the community.	Walkability, my kids can play outside, biking	
walk and bike safely. Thorough fares that are efficient. traffic circles	All users being able to use the street.	Safer for pedestrians. Less cars on the roads.	
Truly ADA and stroller friendly sidewalks and crossings	Serving all modes of transportation safely	Cars don't terrorize each other or those of us on bike or foot	
Cars third, pedestrian & bikes first	Being comfortable as a pedestrian and cyclist, no matter your age or ability.		
Slow speeds			
Prioritizing people, not cars.			
Lively, lots of people on foot/wheels			
Forcing drivers to pay attention by adding complexity to road design. Netherlands knows how to do it			
1 Pedestrians have right of way on STREETS 2 Cars have right of way on ROADS 3 No stroads			

Question 4



Question 5

What does Vision Zero mean to you? (Responses organized by theme)

Prioritizing the safety of people walking, rolling, and driving	Eliminating traffic deaths	Infrastructure and design for safe & connected transportation options	Guided by collaboration and community-led solutions	I am new to Vision Zero!
Taking speed and hazard from cars/trucks and choosing people	Zero fatalities. Safety for all.	Mobility choice	Civic collaboration	I am new to this Vision Zero and now I want to learn everything about it...
City prioritizes pedestrians, cyclists, etc over cars	Not getting killed crossing the street.	Creating a functional city for non car users	Community input to bring residents need to action	not sure
For the PEOPLE Prioritizing people, not cars	It means LIFE No more traffic deaths.	Proactive urban design Safe, effective, connected bike lanes and sidewalks Dense, transit-oriented residential and commercial developments connected by streets that are low-speed for people using all modes of transportation.		
I interpret "equity" to chiefly apply to the most vulnerable. ADA accommodation is my big focus.	0 deaths or serious injuries while moving around the city (as a cyclist / pedestrian / etc)	Eliminating conflict points as much as possible		
Designing safe streets for all users of all ages and all abilities.	No more vehicular murder in our streets	Progress toward good urbanism and an end to the suburban fabric of Atlanta		
Feeling comfortable with my kid riding her bike on the road.	Common sense decisions to get traffic fatalities to zero			

Prioritizing the safety of people walking, rolling, and driving	Eliminating traffic deaths	Infrastructure and design for safe & connected transportation options	Guided by collaboration and community-led solutions	I am new to Vision Zero!
Providing the safety measures to make sure we can freely walk bike and play in our neighborhoods	Addressing a variety of crash and conflict points to reduce fatalities for all modes of transportation	improving infrastructure that works with the growth of atlanta and quality of life for the residents		
Safer streets fir everyone - - pedestrians and drivers.	Eliminating traffic deaths and significantly reducing injuries	More investment into Transportation. ATL is wayyyyy behind.		
Feeling safe and knowing I can get around without fear	zero injuries or deaths due to car-related accidents	Equitable infrastructure.		
A city less focused on cars and drivers	Reduced traffic fatalities.	Focus on High injury report		
Safer drivers on our roads				
Putting a focus on everything safety				
no risk from harm on our streets				
feeling safe walking and biking.				
I teach drivers ed and defensive driving. I am amazed by how many adults don't know the basics for safe driving or understand that when they choose to do something other than the driving task it increases the risk.				

Question 6

What's the greatest cause of traffic danger on Atlanta's streets today?



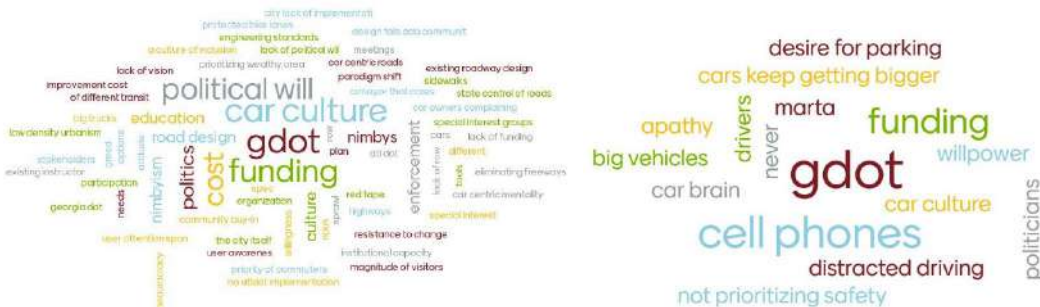
Question 7

Who bears the greatest responsibility for reducing traffic danger in the future?



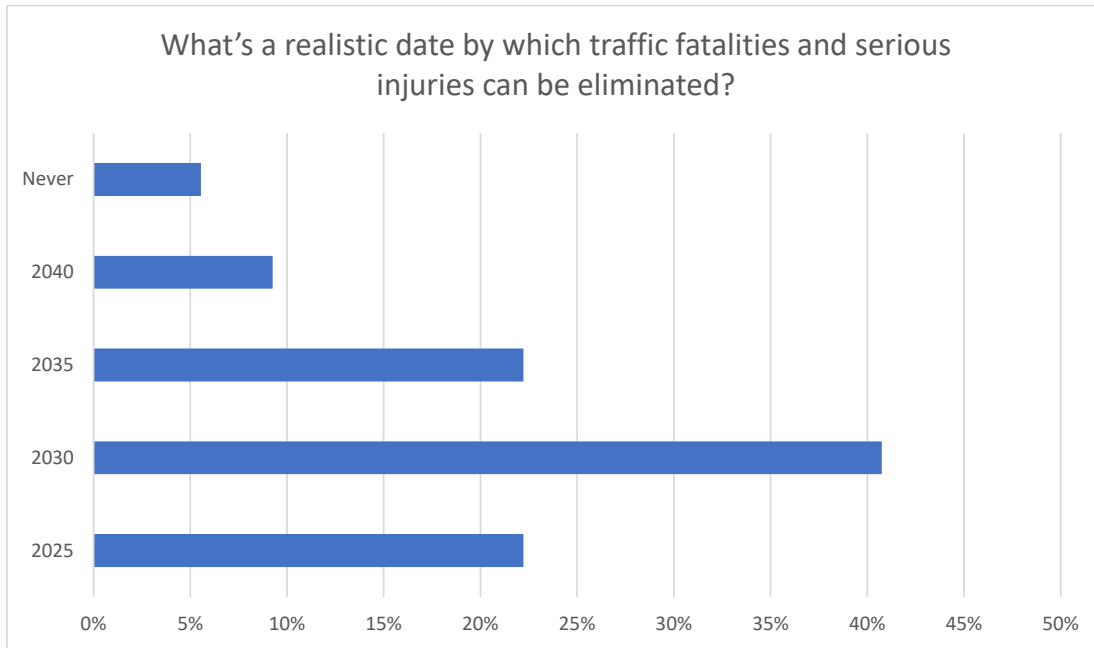
Question 8

What's the biggest barrier to eliminating traffic fatalities and serious injuries in Atlanta?





Question 9

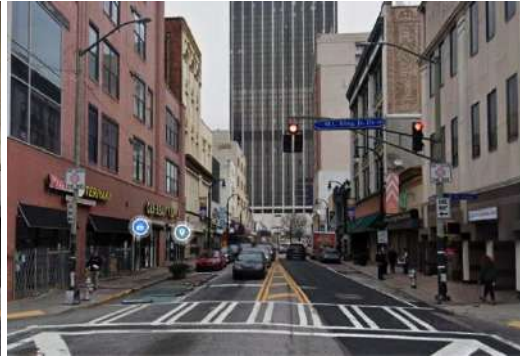


Reactions to Before and After Traffic Calming Projects

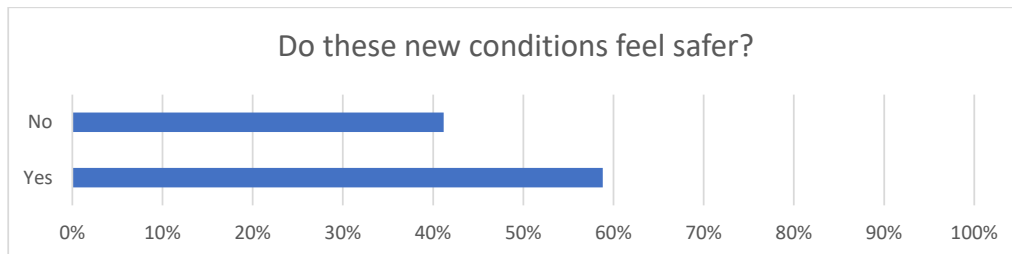
Question 10



Before



After



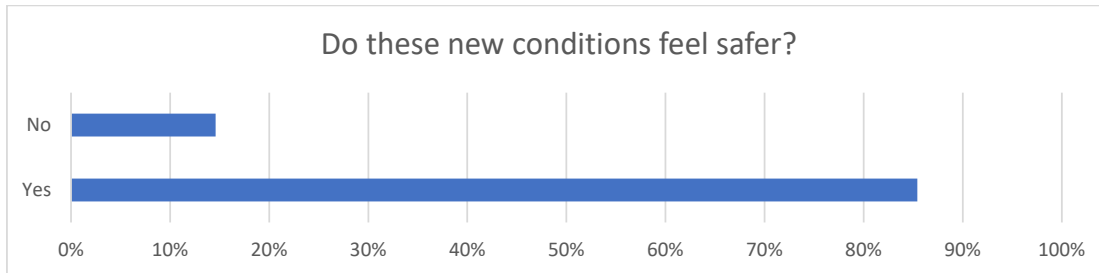


Question 11



Before

After

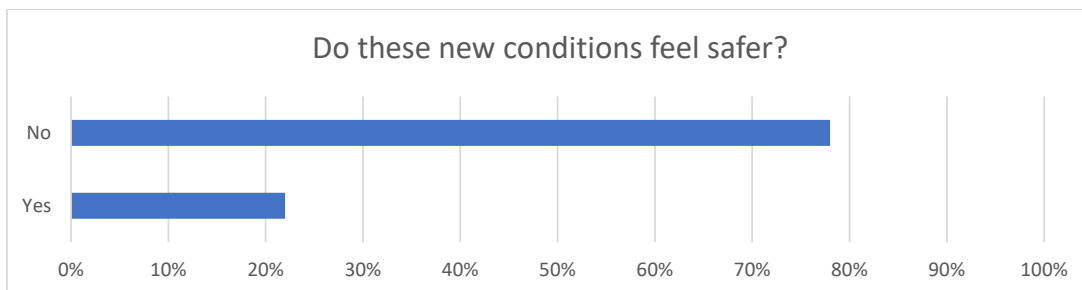


Question 12



Before

After



JUNE VIRTUAL INFORMATION SESSION



Atlanta Vision Zero Action Plan June Virtual Information Session

Date and Time: June 20, 2023, 12:00 PM – 1:00 PM
Location: Zoom

I. Session Overview

The virtual Information Session was a one-hour meeting held via Zoom. The meeting was hosted by the Atlanta Department of Transportation (ATLDOT) and the Action Plan consultant team: Toole Design Group (Toole), VHB, and Blue Cypress Consulting. The goal of this Information Session was to provide updates on the Action Plan progress to date and next steps. A total of 32 people joined the Zoom webinar.

Agenda

1. Welcome
2. Vision Zero Action Plan Status Presentation
3. Q & A
4. Action Step

II. Minutes

Welcome and Introductory Remarks

Chris Puglisi (Toole) welcomed the audience and provided an overview of the agenda. He mentioned that the meeting is being recorded and that the video will be posted to the project website. He then introduced the project team and gave Cole Smith the floor to introduce himself as the new ATLDOT Vision Zero Manager. Cole shared remarks about his background and his excitement to serve in his new role.

Vision Zero Action Plan Status Presentation

Task Force

Andy Clarke (Toole) provided additional context about the planning process and the Vision Zero Task Force.

Communities of Concern Analysis

Betty Smoot-Madison (ATLDOT) explained the City's methodology for identifying Communities of Concern. She discussed that this is the framework for the Action Plan's equity-based



engagement approach, and it will also be used during the project prioritization and selection process.

High Level Data Analysis

Ian Hamilton (VHB) provided an overview of the safety analysis conducted to date. He also discussed how proven countermeasures can be a part of the solution.

Community Engagement

Amanda Hatton (Blue Cypress Consulting) discussed the overall engagement approach and key engagement statistics from the website traffic and community input map participation. She mentioned that the planning team targeted in-person outreach to NPUs/neighborhood organizations that touch Communities of Concern. She also shared highlights from the engagement events that have taken place to date.

Chris Puglisi discussed next steps in the planning process and then opened the floor for a Q & A session.

Q & A

Ian provided answers to a couple of questions from the Zoom Q & A during the safety analysis overview. He noted that slide 16 was only showing bike data, but it is representative of the types of issues on Atlanta's streets. He also shared additional context about the focus facility types discussed on slide 17 and 18.

Betty explained that the Action Plan will help ATLDOT determine options and strategies for funding projects. She also noted that implementation partners are key.

Betty also noted that hospitals and navigability for emergency service vehicles are important components of the Vision Zero network. She said that ATLDOT plans to partner with hospitals and medical facilities such as the Shepherd Center to host community engagement events, either through the Action Plan process or after this planning process ends.

Amanda mentioned that there will be one more virtual workshop and one additional pop-up during the Action Plan process. The pop-up is tentatively planned for September at the Atlanta Streets Alive Event on Peachtree Street.

Betty discussed the state list of roads and how the City is working with GDOT to align improvements with Vision Zero principles. Traffic Engineering Studies are often needed.

Betty and Cole chimed in about some recent ATLDOT projects and current initiatives that ATLDOT has underway. They also made note that the Action Plan is helping to shape future implementation projects based on the safety analysis that Ian shared today.

- The proposed Fatality Review Commission is being introduced as legislation at tonight's City Council meeting.
- The City's Sidewalk Inventory helped identify gaps and needs for repairs. The ATLDOT Commissioner has proposed a large budget for sidewalk projects.

Ian noted that it is too soon to tell from the data whether the City's lowering of speed limits to 25 mph on all city streets has made a difference in the number of fatal or serious injury crashes; however, Andy stated that Seattle had a sharp reduction in their number of fatal and serious injury crashes after the speed limits were lowered, so Atlanta might have similar outcomes.

Action Steps

Chris shared some final remarks and pointed out that the pledge can be signed via a link on the project website (<https://www.atlvisionzero.com/engage>). He thanked participants for joining the Information Session, encouraged people to attend the upcoming In-Person Community Workshop, and closed the meeting.



Appendix A: Question and Answer Transcript

The following questions are a transcript of those submitted during the Zoom meeting. Minor spelling corrections have been made. The project team's responses are recorded in the "answer" column. *Individual names have been removed from questions for privacy purposes.*

#	Question	Answer
1	Are captions available?	<i>Participant enabled automated closed captions.</i>
2	Please introduce all speakers so we know the capacity in which they speak.	live answered
2	Please introduce all speakers so we know the capacity in which they speak.	Betty Smoot-Madison is Director of Mobility Planning at ATLDOT. Andy Clarke is Director of Strategy at Toole Design and is Principal-in-Charge of the consultant team of the action plan. Chris Puglisi is a senior Transportation Engineer at Toole Design and is Project Manager of the consultant team. Ian Hamilton is a Transportation Planner at VHB and has been performing the safety data analysis. Amanda Hatton is a Community Planner at Blue Cypress and has been leading engagement efforts on behalf of the consultant team.
3	I just joined so this may have already been answered, but how do we receive a copy of this presentation?	A recording will be posted on ATLDOT's YouTube channel and linked on the vision zero webpage, www.atlvisionzero.com
4	Does your outreach include the NPU's and neighborhood associations? I would like to invite you to do outreach to these groups.	live answered
5	As I review your list of partners, I may have missed it, but I did not see neighborhoods and NPUs as partners in your taskforce. Can you add neighborhood representatives to your community of partners?	Hi Debra. Good question. We have been reaching out community partners and NPUs as an additional outreach mechanism. I'll speak to this a little later in the presentation.
5	As I review your list of partners, I may have missed it, but I did not see neighborhoods and NPUs as partners in your taskforce. Can you add neighborhood representatives to your community of partners?	Buckhead CID is part of the task force and Livable Buckhead has been a community partner. We would love for Buckhead Council of Neighborhoods to also be a community partner. Is the email address you registered with a good contact for you to follow up after the meeting?
6	90% of fatal crashes are on HIN or on other city streets?	90% of recent fatal crashes (excluding the interstate highways) are on the HIN
7	How do we obtain a copy of today's slide deck, not just a recording of the presentation?	The slide deck will be posted to the website as well.
8	Is this slide only bicycle data?	live answered

#	Question	Answer
9	Heartis is located across the street from Shepherd Center. In February, I was struck by a car in a crosswalk in front of Heartis. It is Georgia law for cars to stop for pedestrian traffic in a crosswalk. Anyway, I live in a hospital zone that needs to be a complete street. Traffic needs to slow down. It is horrifying for pedestrians.	Thank you for sharing your experience.
9	Heartis is located across the street from Shepherd Center. In February, I was struck by a car in a crosswalk in front of Heartis. It is Georgia law for cars to stop for pedestrian traffic in a crosswalk. Anyway, I live in a hospital zone that needs to be a complete street. Traffic needs to slow down. It is horrifying for pedestrians.	Really sorry to hear about your crash -- you'll see that speed is an issue across the board that the plan will try to address.
10	When - and for how long - will 10th & Monroe close and traffic diverted around Midtown High School?	Thanks for this question! We will not be able to provide project specific information during this session, however, please send an email with this inquiry to ATLDOT@AtlantaGA.gov and we will have the project manager provide the requested information.
11	Do the data investigating these risk factors include citations issued by the City for vehicles (including large trucks) parked in a bike lane?	Not at this time, however, the city can take the known crashes and risk factors and use the citation data from APD and local parking enforcement to supplement those findings and help identify the most appropriate treatments
12	What do the dots mean on the slide?	live answered
13	the print on the map is too small to see	Please use the following link to see detailed input collected to date and to provide additional input: https://atl.mysocialpinpoint.com/vision-zero/#/
14	Thanks! Also, what is your email address, Amanda?	amanda.hatton@bluecypress-consulting.com
15	There needs to be a vision zero workshop at Shepherd Center. www.shepherd.org	live answered
16	Are there members of the public on the task force or just consultants and groups?	https://www.atlvisionzero.com/vz-task-force
17	How will the Vision Zero projects be funded?	live answered



#	Question	Answer
18	yes	live answered
19	The interactive map shows many dots of participation in the NPU A B C areas but the information sessions seems to be lacking in those areas. Will you be doing any information sessions in those areas and or reaching out to those particular NPU's?	live answered
21	Your focus is not on 2 lane streets?	All surface streets are part of the plan, but in terms of prioritizing action, we see a much greater share of severe crashes on those 3 and 4 lane arterials. They will tend to be the focus to prevent those fatal and serious injury crashes in the city
22	No Neighborhoods!	Not applicable
23	how do you submit a street for the default 25mph?	live answered
24	Understood, thanks!	Not applicable
25	We have a neighborhood group in Home Park actively engaging Atlanta DOT and GDOT on safety improvements for 14th St NW on the west side. Who would be a good contact at Vision Zero to share our efforts and gain support/guidance?	Feel free to reach out to Cole or myself. cusmith@atlantaga.gov or bsmoot-madison@atlantaga.gov
26	Was the installation of jersey barriers on Edgewood and installation of bollards on 10th between Juniper and Peachtree Street part of Vision Zero work?	live answered
27	What about the questions that were mailed in	live answered
28	Has city-wide crash data shown that the 25 mph default speed limit has been effective at reducing serious crashes?	live answered
29	I found the mapping tool was very hard to use so I'm wondering if it really is a suitable tool to collect info from everybody.	Thanks for the feedback, Jennifer. This is the first time we received this type of feedback on the map tool. We will keep this in mind as we move forward. Please come to the meeting on Thursday, if possible, or reach out to us via email if you have additional input to provide.
30	Wieuca was initially reduced to 25, then taken back up to 30. Why was the speed limit taken back up?	We can look into this for you.
31	me again: I emailed a couple of questions ahead of this meeting. Will they and any others be addressed?	live answered

#	Question	Answer
32	Peachtree Center Ave cycle rack needs some maintenance/love.	Not applicable
33	Where are start dates for Monroe Drive phasing posted?	Design is anticipated to be complete in October 2024, and construction is anticipated to be complete in 2025.
34	Wieuca Rd has a primary school located on it. It is a 2-lane road, however, the speeding is outrageous and a school child was hit. I realize your emphasis is on 4 lane roads, but we need some assistance!	Not applicable
35	Awesome! Thanks.	Not applicable
36	Has Vision Zero had an impact on ATL311 requests for the filling of potholes and general road repair? Not necessarily just time frame, but more so if there's any extra consideration for requests made in the HIN	We will be working with our maintenance team to address and prioritize HIN corridors. At this time, there is a service time for when any repairs are made in response to ATL311.
37	Thank you	Not applicable
38	Thank you for presentation	Not applicable

JUNE IN-PERSON COMMUNITY WORKSHOP



Atlanta Vision Zero Action Plan June In-Person Community Workshop

Date and Time: June 22, 2023, 5:30 PM – 7:30 PM

Location: Hillside International Truth Center
450 Cascade Road, SW, Atlanta, GA 30311

I. Workshop Overview

The In-Person Community Workshop was held at the Hillside International Truth Center, located in NPU S. The Workshop was hosted by the Atlanta Department of Transportation (ATLDOT) and the Action Plan consultant team: Toole Design Group (Toole), VHB, and Blue Cypress Consulting. The goals of the Workshop were: 1) to provide updates on the Action Plan progress to date, 2) to collect testimonials from community members, 3) to discuss desires for safer streets, and 4) to promote accountability through a safety pledge. Fifteen community members attended the workshop.

Meeting Flow

1. Sign-In Table
2. Participate in Self-Paced Input Activities and Review Data (15 minutes)
3. Presentation (15 minutes)
4. Group Discussion (45 minutes)
5. Action Steps

II. Workshop Summary

Self-Paced Input Activities

1) Where do you live and work?

As shown in Figure 1, the workshop brought participants who live and work in different parts of the city. Four red dots (denoting places of employment) were concentrated on Cascade Road.

2) How do you travel around Atlanta?

This input activity (illustrated in Figure 2) asked participants to respond to the following questions. The answer choices and responses are listed below:

- How did you get here today?
 - I walked or rolled (0)
 - I biked, scooted, or skateboarded (1)
 - I took public transit (3)
 - I drove a car or motor vehicle (7)
- How do you usually get around?
 - I walk or roll (4)
 - I bike, scoot, or skateboard (4)
 - I take public transit (4)
 - I drive a car or motor vehicle (6)
- How do you use Atlanta's streets?
 - Gathering with friends and neighbors (6)
 - Traveling (9)
 - Exercising (4)
 - Playing (1)

Figure 1. Where do you live and work?

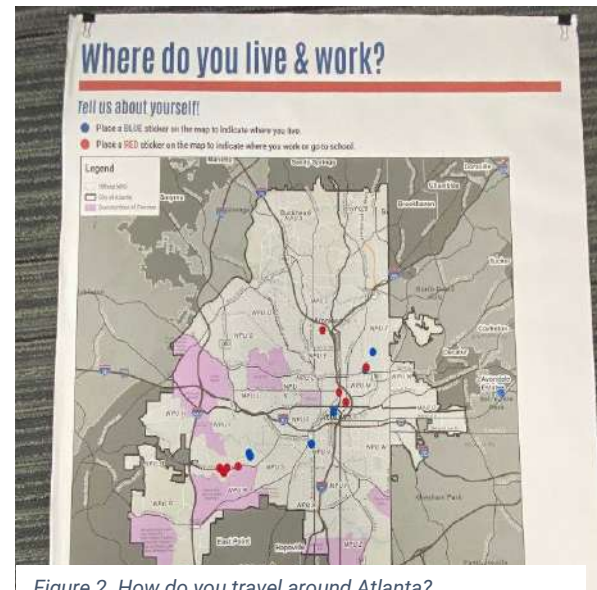
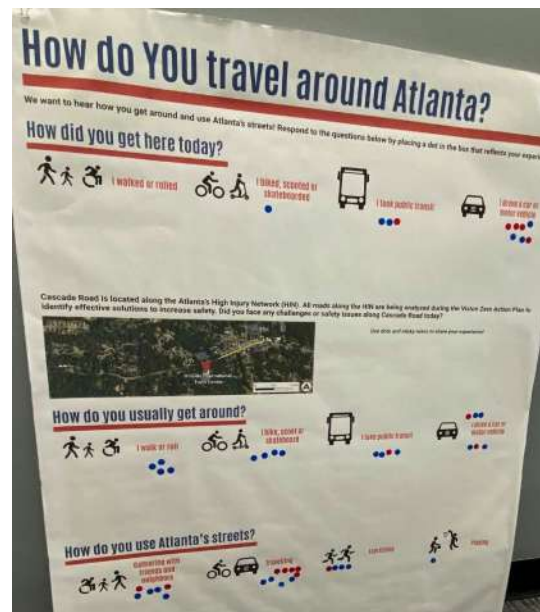


Figure 2. How do you travel around Atlanta?





3) Community Input Map

An online Community Input Map has been open since February 2023 to solicit community feedback on unsafe roadway conditions in Atlanta. Four boards (one for each quadrant of Atlanta) highlighted locations where survey respondents to date have been hit or know someone who was hit by a vehicle. A few pictures submitted through the online map, along with their associated comments, were also included on these boards.

Workshop participants were encouraged to share additional input either by adding a pin to the physical boards or by using the provided tablets to participate via the online Community Input Map. On the southwest Atlanta board, one participant added a note that pointed to the location on Cascade Road where Hillside International Truth Center is located. The comment stated: “blind curve, steep slope, transit corridor.”

4) Testimonial Cards

Four testimonial cards were submitted, and one participant recorded a video testimonial. These stories are transcribed below. The project team did not make any content adjustments; the text is copied directly from the original testimonial cards aside from a couple minor spelling corrections.

- a) Story 1: At the corner of Cascade Rd + Beecher Rd, cars speed through the intersection to make the light or to bypass another car. In doing so the intersection bears an elevated number of car accidents. Our fear is that some swerve their car to avoid an accident and hits a pedestrian or a building. We request at minimum a 4 way stop or poles to protect those on standing on sidewalks.
- b) Story 2: 2 Fatality on Cascade Rd at Spring Park Subdivision. Dates: Feb 10, 2016, 1:07 p.m. and Dec 22, 2018, 1:38 a.m. Both fatalities involved collisions w/ Marta Busses.
- c) Story 3: #1 – Safety for citizens – communities of northwest and southwest Atlanta. Hedgewood Drive + Linkwood – speeders through the Westhaven Community; at Burton Road, the new speed humps has shifted Hedgewood as a cut-through; dangerous. The intergenerational culture of Grand Theft Auto Drivers vs. Traditionalists needs to be studied regarding driving. Behaviors and patterns to support safety. During major traffic delays; after major events the community is used as a “cut through” – “short cuts” – bottlenecks our streets. Biggest challenges to Vision Zero: regulation of tractor trailers. Moving through communities – side streets. Making arteries and neighborhood streets walking friendly with sidewalks and bike lanes. Speed humps in communities off major arteries. Get cameras! Issue tickets – attach to getting tags in GA. Have major companies (CSX) contribute to safety and beautification of spaces. Keep America Beautiful Campaign – re-establish. Incorporate more plans similar to the MLKing Corridor project – from Westlake moving towards downtown. Tell the true narrative of our “walking” community. {not just invisible communities}
- d) Story 4: I primarily navigate the city by bike, both for personal reasons and for work. Often, I feel that cycling is the “wrong” choice, even when there is dedicated LIT infrastructure. Maintenance of that infrastructure often doesn’t feel like a priority, the lanes are not always reliably useable (i.e., a car parked in a bike lane), and drivers’

behavior can feel hostile. I've seen the years of planning and can see so many folks truly do care, but the City as a civic institution has to start caring.

5) Data Boards

The project team shared information analyzed through the Action Plan process to date. These boards covered the following:

1. Communities of Concern
2. High Injury Network
3. Systemic Analysis – Vulnerable Road Users and Intersections
4. Systemic Analysis – Motor Vehicle Related

Vision Zero Action Plan Status Presentation

Chris Puglisi (Toole) welcomed the audience and provided an overview of the agenda. He then introduced the project team and gave Cole Smith the floor to introduce himself as the new ATLDOT Vision Zero Manager. Cole discussed his excitement to serve in his new role.

Betty Smoot-Madison (ATLDOT) explained the City's methodology for identifying Communities of Concern. She discussed that this is the framework for the Action Plan's equity-based engagement approach, and it will also be used during the project prioritization and selection process.

Group Discussion

Andy Clarke (Toole) facilitated a group discussion about the impacts of traffic violence and how we can accomplish Vision Zero among all community members and members of the project team in attendance. Community members passed around a microphone to share their stories and ideas, and the project team recorded notes on flipcharts.

Discussion Prompts

Where are we now?

- How has traffic violence impacted your life, harmed you, or harmed a loved one?
- What do you think is the biggest challenge, or what is your biggest idea, to achieve Vision Zero?

Where are we going?

- What about our culture needs to change to achieve Vision Zero?
- What do you want to see in the future?



Discussion Summary

Topics brought forth during the discussion are summarized below.

Biggest Challenges

- The intersection of Cascade Road, Beecher Road, and Benjamin E. Mays is viewed as a nuisance. Cars typically fly through the intersection, and there are near misses two to three times per day. The intersection desperately needs a four-way stop. One person asked, “Does someone have to die there before the City takes action?”
- State roads and city roads co-existing and coordinating.
- Betty spoke about change needing time. We’re not going to reach zero overnight.
- On-street parking doesn’t work with Vision Zero. Cars are always parked in bike lanes and are never cited or fined.
- How can we expect people to begin traveling by foot or bike?
- Through-traffic (cars and trains) and its impact on keeping communities clean and respected.

Culture Today

- Crashes occur every day.
- Bike lanes are new to this side of town.
- Need to address the needs of intergenerational population. Also need to do something about the “Grand Theft Auto” mindset of youths.
- Cars keep getting larger. Commercials also encourage speed and misbehavior.
- How can we ensure that traffic enforcement does not have racial biases? There is a lot of over policing and escalation in our culture. WE need to identify when enforcement is required and by whom to prevent it from disproportionately impacting Black and Brown community members.
- Deprived of pedestrian space – we don’t think about people walking and biking.
- People don’t like to stop or be bottlenecked. This happens constantly on Cascade near Firehouse Café.

Hazards

- Trash receptacles are important to keep hazards out of the roadway.
- Potholes
- Cars in the bike lane
- Blind turns
- High speeds
- Cars that do not follow new road patterns (stop signs)
- Lack of visibility (yellow/green road signs)
- Cars interfering with sidewalks

Impacts

- There is a lot of green space in this area (near Cascade Road), but there are no sidewalks to access these green spaces.
- Dislocated shoulders
- Change routines

- Health Insurance and workers' comp
- Deaths – people and cars hit by bus
- Property damage: vehicles, signs, mailboxes
- Trauma

Opportunities and Future Vision

- Everyone plays a role. Safe streets also help meet other goals.
- Walking Tours: get people on the streets to experience speed, sidewalks, amenities, and comfort.
- Encourage the people we know to change and be aware.
- Design streets differently for the size of vehicles to increase visibility.
- Communities where people slow down and see us.
- Connectivity to neighborhoods and schools! Sidewalks to greenspaces. Equitable prioritization of community investments to improve historically derived areas of the city.
- See all people on the streets (not just men). Improved safety so people can live how they want.
- Need more awareness, such as blinking lights
- Change roadways so that vehicles cannot speed. Narrow roads (reduce number of lanes), add speed humps, etc.
- Where an intervention is working, let us repeat it elsewhere. MLK Drive is a great example of a successful project. It improved safety by reducing the number of lanes from four to two.

Sketch Artist

Ashley Bella of Artzy Bella Studio, located in East Point, joined the workshop to provide an artistic representation of the themes that were expressed in the group discussion. She produced two sketches, depicting many of the key discussion points: feeling invisible, the need for community investment, the vital components of safer streets such as bike lanes and stop signs, and more.



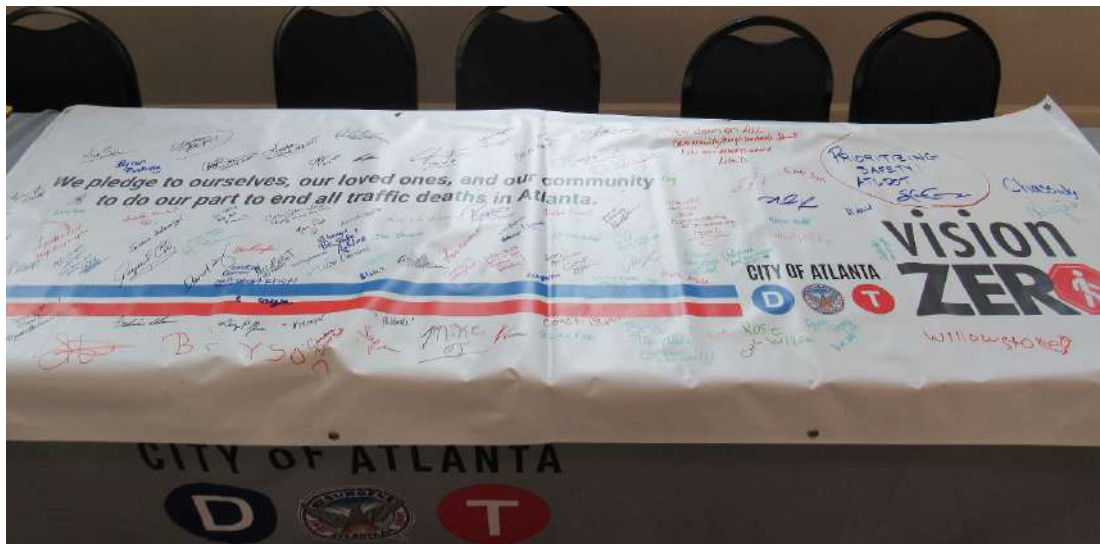
Ashley Bella sketched during the group discussion, and she shared the themes that inspired her.



Action Step: Safety Pledge

Community members signed the pledge banner to commit to doing their part to contribute to safer streets.

Figure 3. Pledge Banner



OCTOBER VIRTUAL INFORMATION SESSION



Atlanta Vision Zero Action Plan October Virtual Information Session

Date and Time: October 4, 2023, 6:00 PM – 7:00 PM
Location: Zoom

I. Session Overview

The Virtual Information Session was a one-hour meeting held via Zoom. The meeting was hosted by the Atlanta Department of Transportation (ATLDOT) and the Action Plan consultant team, Toole Design Group (Toole), VHB, and Blue Cypress Consulting. The Information Session provided updates on the Action Plan outcomes and steps to finalization. A total of 45 people joined the Zoom webinar (which does not include the consultants and ATLDOT staff on the call).

Agenda

1. Welcome
2. Vision Zero Action Plan Status Update
3. Overview of the Action Plan
4. Q & A
5. How can you help achieve Vision Zero?

II. Minutes

Welcome

Cole Smith (ATLDOT Vision Zero Manager) welcomed the meeting participants, walked through the agenda, and introduced the planning team. He invited participants to share feedback or questions through the chat function on Zoom.

Vision Zero Action Plan Status Update

Betty Smoot-Madison (ATLDOT Deputy Commissioner of Strategy and Planning) shared the history of Vision Zero in Atlanta and the impetus for the Action Plan. She announced that the Action Plan will be published at the end of October.

Cole discussed the key elements of the Action Plan, including the High Injury Network, the Safer Streets Network, and the Implementation Plan. He explained that many stakeholders were involved in developing the Action Plan, including the Vision Zero Task Force, various community partner organizations, and the public.

Cole announced the City's commitment to getting to zero fatalities by 2040. A feasibility analysis and capacity analysis helped ATLDOT decide on this target year for Vision Zero. The



Mayor's Office is focused on the Year of the Youth this year. Cole explained that Vision Zero means that children today will be driving on drastically different streets when they reach driving age in 2040.

Overview of the Action Plan

Chris Puglisi (Toole Project Manager) provided an overview of the Action Plan. He mentioned that there will be a letter from the Mayor at the beginning of the plan, which is an important endorsement. The plan's introduction will set the stage for implementation and ways of measuring progress. Chris summarized several ways that Action Plan team heard from the Atlanta community throughout the plan's development. Chris also highlighted various data analyses and deliverables produced as a part of this plan, including the High Injury Network and the Predictive Risk Network.

Safer Streets Checklist

Omar Peters (Toole) discussed the purpose and contents of the Safer Streets Checklist, which will be an appendix in the Action Plan. This checklist includes 50 proven safety countermeasures.

Implementation Plan

Byron Rushing (Toole) spoke to the reason why 2040 was selected as the target year to reach Vision Zero. While there are some ways that ATLDOT can implement "quick fixes" for safety, there are other projects that are going to require more time due to engineering design and approvals from different entities, such as the Georgia Department of Transportation. Byron also explained that much of Vision Zero relies on cultural shifts; getting people to change their driving behaviors will require extensive education over time.

Implementation Plan

- **Near Term Efforts:**
 - Build Staff Capacity
 - Quickly Deploy Low-Cost Solutions
 - Advance Scoping & Projects along the High Injury Network
- **Implementation Categories:**
 - Transformative Actions
 - High-Injury Network
 - Policy & Planning
 - Citywide (systemic) Safety
 - Equity
 - Enforcement
 - Culture Change
 - Data & Transparency
 - Partnerships



ATL
001

IMPLEMENTATION



IMPLEMENTATION CORE VALUES



Leadership and Commitment

Authentic engagement, strategic planning, project delivery, and consistent results are foundations of how the City of Atlanta approaches safety decisions.



Community Perception

Community vision and input is vital to prioritizing safer streets. The City of Atlanta incorporates community engagement into every project.



Interdepartmental Collaboration

Many city departments have a roll in project delivery and shaping the city. The City of Atlanta ensures collaborative work between all city decision makers.



Equity

A safe city is a fair city. The City of Atlanta engages with citizens and neighborhoods to ensure diverse input and safer streets built throughout the city, especially in neighborhoods that have been disproportionately exposed to traffic risks or historically underrepresented.



Systematic Approach

Safe streets require proactive and consistent routine incorporation of proven safety measures. The City of Atlanta routinely incorporates safer designs into every project.



Safer Speeds

Vehicle speeds contribute to both the occurrence and severity of most crashes. The City of Atlanta prioritizes travel speeds that are safe for all street users.



Data-Informed Planning

Years of crash data illustrate the common, reoccurring factors that contribute to severe crashes. The City of Atlanta uses data analysis to proactively address the highest risks.



Safer Street Designs

Safe street designs are foundational to building a safer, more equitable city. The City of Atlanta's street designs anticipate human mistakes, mitigate crash severity, and encourage safe behaviors.

47






ELEMENTS OF SAFER PROJECTS: IMPLEMENTATION RUBRIC

Does the Project...

	Reduce risks along the High Injury Network?	Projects should be prioritized along the city's High Injury Network to address the greatest needs and ability to reduce serious crashes.
	Reduce risks within a Community of Concern?	Projects should be prioritized within socially or politically disadvantaged neighborhoods, those most likely to suffer from higher traffic crash rates.
	Establish a modal hierarchy?	Street designs in the City of Atlanta prioritize the needs of pedestrians first, followed by bicyclists, transit riders, and cars or trucks.
	Increase separation or protection for Vulnerable Road Users?	Projects should create safe crossing locations at comfortable distances, build separated bikeways, and provide convenient transit stops and access.
	Incorporate Proven Safety Countermeasures?	The City's Vision Zero Action Plan identifies prevalent crash risks within the city. Evidence-based tools applied consistently and broadly will measurably reduce severe collisions.
	Reinforce safe speeds?	Street designs should reduce speeds to 25 MPH on all city streets or reinforce travel speeds that are appropriate to the street design and adjacent contexts.
	Reflect the community's perception of safety?	People choose modes and routes of travel based on their feelings of comfort. Projects must consider the community's needs and account for diversity of perspectives.
YES	The City will fund or recognize the project as a "Vision Zero" compliant project	
NO	The City may not fund or support the project OR the City will request changes to the project to align with Vision Zero	

48 City of Atlanta Vision Zero Action Plan

Key Performance Indicators

Stefanie Brodie (Toole) discussed the Project Evaluation Framework and Program Monitoring. This information will help the City make future investment decisions. She explained that the City will review before and after videos at safety project locations to evaluate the efficacy of the intervention.

EVALUATION FRAMEWORK



PROJECT EVALUATION Project Performance

Atlanta Strategic Transportation Plan & Downtown Resurfacing Project

GOALS

- Reduce crashes involving vulnerable road users
- Reduce serious injury and fatal crashes for all users
- Increase mileage of protected bike lanes
- Maintain operating speeds at or below the 25 mph speed limit
- Improve multimodal accessibility to land uses
- Increase the total person-capacity of the roadway to provide opportunity for multimodal transportation
- Minimize impact to existing corridor travel times and reliability/variability
- Reduce level of traffic stress for bicyclists
- Increase travel lane widths to meet City's minimum standards and reduce sideswipe crashes
- Increase compliance with traffic signal indications and parking regulations

Performance Measure	Weighted Performance Score		
	Before Construction	During Construction	After Construction
Safety Performance	9.0	9.3	9.6
Multimodal Access	2.0	4.0	5.0
Design Standard Compliance	1.0	4.0	5.0
Multimodal Traffic Volumes	5.0	4.0	4.5
Street Capacity	5.0	3.0	4.0
Vehicle Travel Time / Corridor Speed	3.0	2.5	2.9
Bicycle Level of Traffic Stress (LTS)	1.0	3.0	5.0
Observational Measures	3.0	1.0	2.0
Total Weighted Performance Score	29.0	31.1	38.0

64

City of Atlanta Vision Zero Action Plan

EVALUATION FRAMEWORK



Key Performance Indicators



Annual crashes over past 5 years

By mode
By severity



Year to date number of crashes

By mode
By severity



Planned investments & implementation

Dollars for safety projects
Number of safety projects
Percent in CoCs



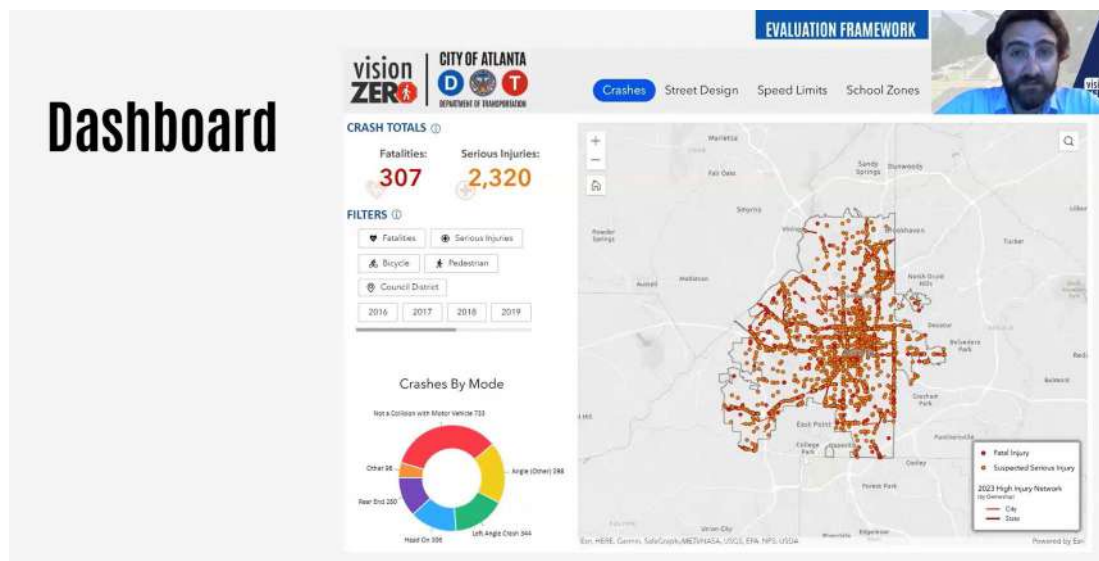
Mapping

High Injury Network
Communities of Concern
Jurisdictions



Data Dashboard

Cole discussed that the ATLDOT Vision Zero program will share its status on key performance indicators through a dashboard. The dashboard will likely continue to evolve, so Cole welcomed feedback on data points that community members would like to see.



Q & A

All questions submitted throughout the Zoom meeting and responses from the planning team are available in Appendix A.

How can you help achieve Vision Zero?

Chris shared some final remarks about how community members can be champions for Vision Zero, including: signing the pledge via the link on the project website (<https://www.atlvisionzero.com/engage>), attending public meetings for safety projects, and staying engaged with ATLDOT's future events. He thanked participants for joining the Information Session and closed the meeting.

Appendix A: Question and Answer Transcript

The following questions are a transcript of those submitted during the Zoom meeting. Minor spelling corrections have been made. The project team's responses are recorded in the "answer" column. *Individual names have been removed from questions for privacy purposes.*

#	Question	Answer
1	Is there a link to the slides we can look at now? I missed a few of the first slides.	The slides from tonight's presentation will be shared via our website, ATLVisionZero.com , after the meeting. The meeting recording will also be made available on ATLDOT's YouTube channel.
2	I look forward to seeing the questions and comments from attendees. Please let us know how many people are on the call.	33 current attendees (at the time that this question was submitted)
3	Are there plans to add more speed tables and roundabouts to the streets, or plans to increase the number of roads that could get speed tables?	Yes, we will look for opportunities to align countermeasures such as roundabouts and speed tables with appropriate locations to slow speeds and make it safer for people walking, biking, and using our City streets. Fortunately, many of you voted on our Moving Atlanta Forward T-SPLOST and Bond Program, which includes funding for neighborhood traffic calming. This funding will help us implement projects based on the updated High Injury Network and the input collected during this process. Over the last few years, we have made adjustments to the City's Code to enable and authorize certain strategic traffic calming measures on all of our roadways instead of being limited to neighborhood streets and minor collectors.
4	How many community attendees (non-staff/consultants)?	11 consultants, 37 attendees from community (at the time that this question was submitted)
5	I love the vision of drastically different streets! We need this!!	<i>Not applicable</i>
5	What are the hard limitations that set the goal for 17 years in the future? What would speed things up? It shouldn't take an entire generation to solve this	We envision that we will have drastically different streets in 2040, which will require time to make these cultural shifts occur. However, ATLDOT is committed to making quick fixes wherever possible.
6	How will you involve GDOT for unsafe state roads?	GDOT has been involved on the Vision Zero Task Force, so they have been part of the conversations related to the development of the Action Plan. They have weighed in on the strategies and actions within the plan. ATLDOT regularly coordinates with GDOT on various levels, including leadership coordination meetings as well as district-level, engineering-level, and safety team coordination. We have made a lot of strides



#	Question	Answer
		in building our relationship and making sure that GDOT understands our priorities related to Vision Zero, and we look forward to continuing to work with them.
7	Once the Vision Zero strategy is released, how will these wonderful ideas be implemented and resourced? Do we have money already set aside in the Vision Zero budget? And is that adequate?	The City's Moving Atlanta Forward T-SPLIST and Bond Program is a major funding source that is already planned for several safety projects. However, Vision Zero is going to become fundamental to how we design all our projects; it does not rely on additional funding sources to move forward.
8	Will you explain the High Injury Network update that was mentioned?	The City looked at crashes over the most recent 5 year period at the time of analysis - 2017 to 2021 - and located them on the City's road network. Crashes were weighted by severity, and segments and intersections with a high crash frequency in close proximity were connected together to form the overall network. You can view the High Injury Network here: https://vhb.maps.arcgis.com/apps/mapviewer/index.html?webmap=b3c5b6b5f16a4b0eba7b1b989703fafd .
9	Including these street changes into the Comprehensive Development Plan can create a funding path for the projects in the NPU's?	We are collaborating with the Department of City Planning for future engagement. Vision Zero principles will be tied in with the Comprehensive Development Plan's goals.
9	Hi! This is exciting! Will roadways that are on the docket for repaving incorporate these strategies moving forward?	Yes, this will be implemented through our LMIG program, which is our street resurfacing program. If you've been downtown in the past few months, we've been incorporating safe streets and Vision Zero into resurfacing projects already. We have an internal engineering design team that designed improvements such as the MLK Cycleway, which was implemented in partnership with Central Atlanta Progress. We're going to continue building capacity to do these types of projects.
10	Very glad to see LPIs and the closing of slip lanes in the recommendations. Were leading intervals for bicycle signals also considered?	Leading intervals for bicycle signals will be considered. We will have updated policies for signal timing.
11	To second the last question: can these be required for all resurfacings? To make certain that they actually happen? Thank you!	As capital projects are designed, we will ensure that Vision Zero principles are addressed. Our engineering teams will make design changes in projects as we see fit.
12	Are projects prioritized so the most dangerous spots are fixed asap?	Yes and no. We definitely want to address the most dangerous spots, but sometimes the engineering and implementation takes time. Our approach is to prioritize the communities that are

#	Question	Answer
		most vulnerable and disadvantaged, based on the communities of concern methodology introduced early in the Action Plan process.
13	When will the 25-mph default speed limit on many city streets be put in place?	As a part of our Vision Zero ordinance in 2020, there was language in the legislation to make 25 mph the default speed limit on our city streets. In coordination with GDOT, we realized that we need to do more studies for some of the major streets and those streets on the state list of roads (LOR). We submitted over 100 engineering traffic studies for GDOT's approval to change the speed limits on those streets. This is an active process, and we're hoping by the end of the year, we will be able to start changing the speed limits on many of these streets.
14	Are school streets that limit automobile traffic directly near schools under consideration? Or just generally are safe routes to school for children who may be biking or walking alone being thought about	Yes, we are looking not only on the routes, but also working on making streets near schools as safe as possible. This also ties in with the coordination with GDOT's List of Roads policies. ATLDOT has a dedicated staff person who works on Safe Routes to School.
15	Will there be any social measurement of success, such as surveying residents near High Injury Network roadways to get a sense of their comfort with the street, their perception of its safety before and after improvements?	Qualitative feedback for perceptions of safety is definitely important. Engagement is always a part of our process. We will continue to seek to hear from those impacted by traffic violence.
16	How often will the dashboard be updated?	The dashboard will likely be updated on a monthly basis, but ATLDOT is still in the midst of determining its capacity to update the dashboard possibly more frequently. Fatal crashes are reported to ATLDOT on a weekly basis.
17	I understand the data and calculation of the benefit based on the data. However, I know and have discussed with my commissioner the incorrect data assimilation. IE I took pictures of many of my witnessed crashes, not including near misses. After seeing these they are not recorded correctly. How do we improve this. This intersection is huge and without a light. Marietta Blvd and Bolton Drive recorded as Coronet. This misinterprets where the crash occurs	This can be a problem for a lot of crashes. However, this was part of the reason that the Action Plan team also considered predictive risk factors. Regarding the specific intersection, ATLDOT encourages sharing more particulars so that it can be investigated further.
18	How will the dashboard and where fatalities take place inform the Vision Zero implementation plan or is this provided for	Yes, pedestrian deaths are at a 40-year high. However, the City's year-to-year data shows that the number of fatalities is trending lower than this



#	Question	Answer
	information only? Thanks for your efforts. Pedestrian deaths are at a 40 year high, and this can not come soon enough.	time last year. ATLDOT is leading an effort to coordinate with the Department of City Planning and the Police Department to study locations where fatalities occurred and identify quick fix solutions.
19	What is an LOR?	The LOR is the State List of Roads, which is a pre-approved list of streets which speed limits have been set by GDOT through engineering studies and enables local law enforcement to run radar enforcement on those streets.
21	Is planning for bikes off the streets part of the plan	Separation of bikes is a key strategy for safer street design. There are different ways to do so, and it depends on the context.
22	Is there a Vision Zero or ATLDOT staff member that works with Propel to visit crash sites, fatal or non-fatal, to evaluate visible issues and quick fixes? If so, could they reconcile incorrectly geotagged crashes?	ATLDOT has a great partnership with Propel. We are also coordinating with the Department of City Planning and the Police Department to visit crash sites and identify potential roadway modifications for safety.
23	Looking forward to reviewing the presentation video and deck online, presumably in a project or vision zero website. Thanks!	Yes, the presentation recording and slide deck will be posted at AtlVisionZero.com/engage .

POP-UP EVENT SUMMARIES

POP-UP #1: OAKLAND CITY MARTA STATION



Atlanta Vision Zero Action Plan - Pop-Up Summary #1

Location: Oakland City MARTA Station

Date: February 13, 2023

Time: 3:00 PM – 6:00 PM

Event Overview

The first pop-up event took place **Monday, February 13, 2023, from 3:00 pm to 6:00 pm** at the Oakland City MARTA station, which is located in NPU S, serves the identified communities of concern in NPU R. The event was hosted by the Atlanta Department of Transportation (ATLDOT), with support from Toole Design Group and Blue Cypress Consulting. Members of the planning team set up an informational table, displays, and activities for interactive input. During the event, the team shared information about Vision Zero goals and the planning process, distributed project handouts, collected safety testimonials, and answered questions.

The goals of this pop-up event were to build awareness of the Atlanta Vision Zero Action Plan process and expected outcomes, collect testimonials and input on safety improvements, and promote upcoming/current engagement opportunities.

Booth Set-Up

The project team set up a booth in the courtyard located directly outside of the paid area of the Oakland City MARTA station that is attached to the parking lot. The booth included the following materials as well as the activities described in the next section:

- Project banners to draw attention to the event and the project,
- Call-to-action cards for people unable to participate on the spot, and
- Candy, water, and ATLDOT giveaways.

Activities

The following activities were employed at the pop-up event to collect input and build project awareness:

1. Sign up to be added to the project outreach list or to share testimonials at a later date.
2. Provide a testimonial/safety story via feedback card or via a quick phone video.
3. Provide response to an open-ended prompt on a white board.
4. Participate in a drawing activity. (This is the kid-version of the testimonial/safety story activity.)
5. Participate in a safety priorities exercise.
6. Give feedback directly on the Community Input Map using tablets provided by the project team.



Project Outreach List

A sign-up sheet was provided for people to be added to the project outreach list to receive updates or share testimonials at a later date. Thirteen people signed up for the outreach list.

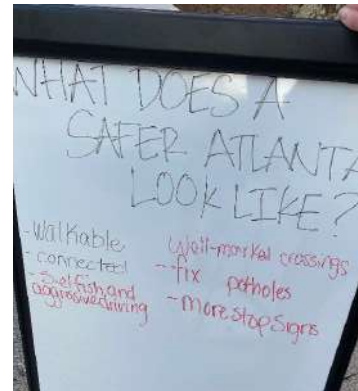
Testimonial/Safety Story

People passing the booth had the opportunity to share their stories by completing a testimonial card, recording a quick video with a project team member, or providing a longer story by emailing the project team. One testimonial card was completed regarding a young man who was hit and injured two years ago as a pedestrian on Campbellton Rd.

Open-Ended Prompt on a White Board

A prompt was written on a white board and asked, “What does a safer street look like to you? Use words or draw a picture to tell us!” The following answers were given by two participants:

- Walkable
- Connected
- Selfish and aggressive driving
- Well-marked crossings
- Fixed potholes
- More stop signs



Input from White Board Activity

Drawing Activity

Printed sheets of paper with the prompt “What is your favorite way to get around Atlanta?” were placed on a small table with drawing materials to encourage children to provide input. There were no participants in this exercise. A few parents with young kids passed by but they did not have enough time to participate in between bus and rail changes.

Community Input Map

The project’s Community Input Map was installed on tablets. The Community Input Map allows people to place pins in specific locations that may exhibit unsafe traffic conditions and provide additional comments and testimonials. This is one of the key sources through which the planning team is collecting localized information regarding roadway safety concerns. A couple bus riders participated, but only a few were completed prior to their buses departing. Those that were unable to complete the survey on-site were encouraged to complete it using the QR code on the call-to-action handout.

Safety Priorities Exercise

Participants were given two ping pong balls and asked to place them into the containers representing their top two safety improvements. Below are safety improvements ranked from highest to lowest priority based on total participation in the activity.

1. Better sidewalks - 13
2. Less aggressive drivers - 13
3. More bike dedicated areas - 12
4. Well-marked crossings - 8
5. Better street lighting - 6
6. Lower speed limits - 5
7. Better traffic enforcement - 4



Planning Team Engaging with Participants

Key Takeaways

The planning team distributed approximately 77 call-to-action handouts to MARTA users largely given to people as they left the paid area to enter the bus bays or the parking lot. The planning team split up to cover the bus bays and the booth.

The team members covering the bus bays distributed call-to-action handouts and spoke briefly about project information. Most participants did not have time to participate in the Community Input Map, as their buses were loading and departing the station.

Several bus riders shared that the Oakland City MARTA station is their home station. Those that were approached by team members were interested in the project and generally expressed positive input. Almost everyone expressed concern for speeding and aggressive driving along Campbellton Road.

The team members hosting the booth were able to capture the most input from the safety priorities exercise. Due to the transient nature of a MARTA station, it was difficult to engage participants in the remaining activities. Most interactions were estimated to be 30 seconds to 1 minute. Participants that spent more time participating were waiting for their car rides, or less frequently, buses to arrive.



Planning Team Engaging with Participants

This page intentionally left blank

POP-UP #2: NO TABLES NO CHAIRS BELTLINE AFTER DARK



Atlanta Vision Zero Action Plan - Pop-Up Summary #2

Location: Westside Park

Event: No Tables No Chairs (Beltline After Dark)

Date: June 3, 2023

Time: 12:30 PM – 5:30 PM

Event Overview

The second pop-up event took place **Saturday, June 3, 2023, from 12:30 pm to 5:30 pm** at Westside Park, which is located in NPU J and G. The Grove Park neighborhood, which overlaps with Westside Park, has been identified as a community of concern by the City of Atlanta.

The event was hosted by the Atlanta Department of Transportation (ATLDOT), with support from Toole Design Group and Blue Cypress Consulting. Members of the planning team set up an informational table, displays, and activities for interactive input. During the event, the team shared information about Vision Zero goals and the planning process, distributed project handouts, collected safety testimonials, and answered questions.

The goal of this pop-up event was to build awareness of the Atlanta Vision Zero Action Plan process and expected outcomes. To accomplish this, the project team collected testimonials and input on safety improvements, obtained commitments to the Vision Zero pledge, and promoted upcoming engagement opportunities.

Booth Set-Up

The project team set up a booth in the Meadow at Westside Park, as part of the No Tables No Chairs/Beltline After Dark event. The booth included the following materials as well as the activities described in the next section:

- Project banners including the safety pledge,
- A kids' drawing activity,
- A display board that highlighted the public input collected to date,
- Call-to-action cards,
- Candy, stickers, and ATLDOT giveaways.



Planning Team Members and Booth Setup



Activities

The following activities were employed to collect input and build project awareness:

1. Sign up to be added to the project outreach list or to share testimonials at a later date.
2. Provide a testimonial/safety story via feedback card or via a quick phone video.
3. Participate in a drawing activity. (Testimonial activity adapted for kids.)
4. Participate in a safety priorities exercise.
5. Provide feedback on the Community Input Map by using tablets provided at the booth.
6. Sign the Vision Zero pledge banner or provided pledge cards.

Project Outreach List

A sign-up sheet was provided for people to sign up to be added to the project outreach list. Nine people signed up for the outreach list.

Testimonial/Safety Story

People passing the booth had the opportunity to share their stories by completing a testimonial card, recording a quick video with a project team member, or provide a longer story by emailing the project team. Three testimonials and comments were collected via the feedback cards, documented below:

1. Preventative transport/road redesign/markings in SW ATL near Beltline before Enota Park is developed.
2. Dekalb Ave x Moreland – So. Many. Potholes. I've seen bikers crash/have to weave or go into a center lane and risk being hit to avoid them.
3. Partner was hit 3x in a crosswalk, 2x on a bike, 1x on a motorcycle.

Safety Priorities Exercise

Participants were given two ping pong balls and asked to place them into the containers representing their top two safety improvements. Below are the safety improvements ranked from highest to lowest priority based on total participation in the activity.

1. Better sidewalks - 15
2. More bike dedicated areas - 15
3. Better traffic enforcement - 7
4. Less aggressive drivers - 6
5. Well-marked crossings - 5
6. Lower speed limits - 5
7. Better street lighting - 4

Vision Zero Pledge

Taking the Vision Zero pledge was another activity that was promoted at the event. Upon signing the banner, community members were given an, “I signed the pledge!” sticker. Approximately 20 people signed the pledge banner. In addition to the banner, two pledge cards were submitted. The pledge cards state, “I pledge to myself, my loved ones, and my community to #Drive25 to #SaveLives,” and also include the following commitments:

1. I will slow down and obey speed limits.
2. I will stay alert.
3. I will give extra space to people walking, biking, and rolling.

Drawing Activity

Printed sheets of paper with the prompt “What is your favorite way to get around Atlanta?” were placed on a small table with drawing materials to encourage children to provide input. Six participants submitted drawings—cars, a bicycle, and an airplane were depicted.



Vision Zero Pledge Banner and Drawings

Community Input Map

The Community Input Map allowed people to place pins in specific locations that may exhibit unsafe traffic conditions and provide additional comments and testimonials. This is one of the key sources through which the planning team is collecting localized information regarding roadway safety concerns.

A board was displayed at the booth to show the input points that community members have shared via the Community Input Map to date. The planning team talked to community members about the importance of hearing from a wider cross-section of the community, noting that the southwest quadrant of the city has received substantially fewer comments than the other quadrants of the city.



Tablets were available at the booth for visitors to participate in the Community Input Map. Those that were unable to complete the survey on-site were encouraged to complete it using the QR code on the call-to-action handout and display board. During the event, 20 comments were added to the Community Input Map.

Key Takeaways

The Beltline After Dark pop-up was successful in raising awareness about the Vision Zero Action Plan and building commitment and accountability to the Vision Zero principles. Most community members who visited the booth said that they were not aware of the ongoing planning effort.

The planning team enjoyed conversing with the community about the planning process and upcoming engagement activities. Kids and adults alike were attracted to the booth—not only for the giveaways, but also for the chance to participate and let their voices be heard. Many community members shared their appreciation that the City is focused on Vision Zero.



Planning Team Engaging with Participants

POP-UP #3: SOUTHSIDE SPORTS COMPLEX



Atlanta Vision Zero Action Plan - Pop-Up Summary #3

Location: Southside Sports Complex

Date: June 17, 2023

Time: 9:00 AM – 12:00 PM

Event Overview

The third pop-up event took place **Saturday, June 17, 2023, from 9:00 am to 12:00 pm** at Southside Sports Complex, which is located in NPU Z.

The event was hosted by the Atlanta Department of Transportation (ATLDOT), with support from Toole Design Group and Blue Cypress Consulting. Members of the planning team set up an informational table, displays, and activities for interactive input. During the event, the team shared information about Vision Zero goals and the planning process, distributed project handouts, collected safety testimonials, and answered questions.

The goal of this pop-up event was to build awareness of the Atlanta Vision Zero Action Plan process and expected outcomes. To accomplish this, the project team collected testimonials and input on safety improvements, obtained commitments to the Vision Zero pledge, and promoted upcoming engagement opportunities.

Booth Set-Up

The planning team set up a booth near the little league entrance at Southside Sports Complex. The booth included the following materials as well as the activities described in the next section:

- Project banners including the safety pledge,
- A kids' baseball card activity,
- A display board that highlighted the public input collected to date,
- Call-to-action cards for people unable to participate on the spot, and
- Giveaways, including Atlanta Braves merchandise, ATLDOT swag, and flavored ice pops.



Activities

The planning team collected input and built project awareness via the following activities:

1. Sign up to be added to the project outreach list or to share testimonials at a later date.
2. Provide a testimonial/safety story via feedback card or a quick phone video.
3. Create a personalized baseball card.
4. Participate in a safety priorities exercise.
5. Provide feedback on the Community Input Map using tablets provided at the booth.
6. Sign the Vision Zero pledge banner or provided pledge cards.



Planning Team Members and Booth Setup

Project Outreach List

A sign-up sheet gave people the option to be added to the project outreach list, receive project updates, and/or share testimonials at a later date. Forty-three people signed up for the outreach list.

Testimonial/Safety Story

People passing the booth had the opportunity to share their stories by completing a testimonial card, recording a quick video with a planning team member, or emailing the planning team if they had a longer story. While no one submitted a testimonial card, the planning team had many good conversations with community members about their needs and desires for safer streets.

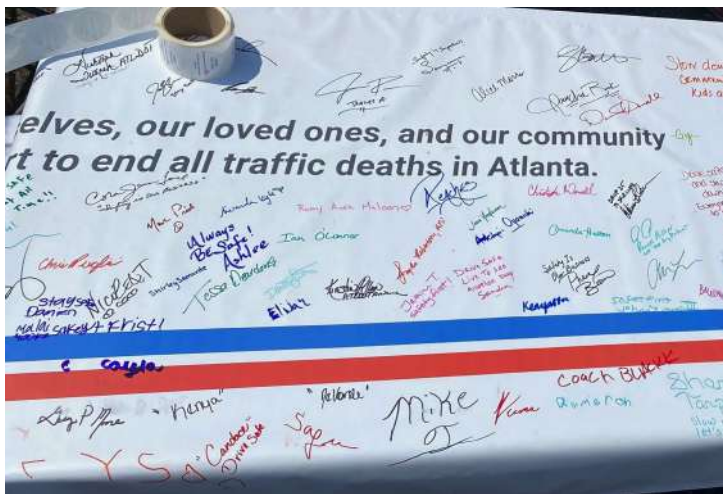
Safety Priorities Exercise

The planning team gave participants two ping pong balls and asked them to place them into containers representing their top two safety improvements. Below are the safety improvements ranked from highest to lowest priority based on total participation in the activity.

1. Less aggressive drivers - 38
2. Better sidewalks - 33
3. Better street lighting - 25
4. Lower speed limits - 17
5. Better traffic enforcement - 16
6. More bike dedicated areas - 15
7. Well-marked crossings - 13

Vision Zero Pledge

The planning team also encouraged community members to take the Vision Zero pledge at the event. Upon signing the banner, community members received an, "I signed the pledge!" sticker. Approximately 50 people signed the pledge banner, including ATLDOT Commissioner Solomon Caviness IV, who visited the booth.



Vision Zero Pledge Banner



Commissioner Solomon Caviness IV
Signing the Pledge

Community Input Map

The Community Input Map allowed people to place pins in specific locations that may exhibit unsafe traffic conditions and provide additional comments and testimonials. This is a key source through which the planning team is collecting localized information regarding roadway safety concerns.

A board on display at the booth showed the specific locations flagged by community members via the Community Input Map to date. The planning team spoke with community members about the importance of hearing from a wider cross-section of the community, noting that the southwest quadrant of the city has received a disproportionately low number of comments on the input map.

Tablets were available at the booth for visitors to participate in the Community Input Map. The planning team encouraged people who were unable to complete the survey on-site to access it using the QR code on the call-to-action handout and display board.



Key Takeaways

The Southside Sports Complex pop-up was successful in raising awareness about the Vision Zero Action Plan and building commitment and accountability to the Vision Zero principles. Most community members who visited the booth said that they were not aware of the ongoing planning effort. Many kids enjoyed the opportunity to create their own baseball cards; meanwhile, parents were able to learn about the project, provide input, and sign the pledge.



Planning Team Engaging with Participants

POP-UP #4: ATLANTA STREETS ALIVE



Atlanta Vision Zero Action Plan - Pop-Up Summary #4

Location: Peachtree Street near Underground Atlanta

Atlanta Streets Alive

Date: September 24, 2023

Time: 1:00 PM – 5:00 PM

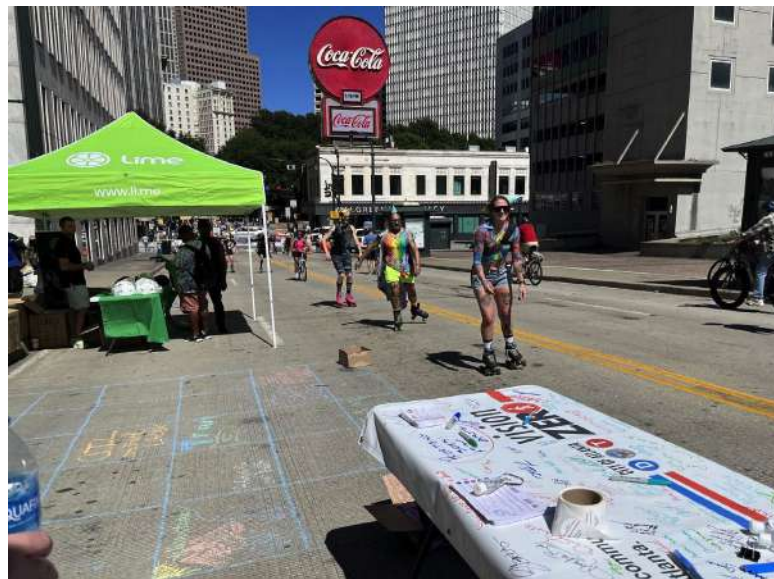
Event Overview

The fourth pop-up event for the Vision Zero Action Plan took place **Sunday, September 24, 2023, from 1:00 pm to 5:00 pm** at Atlanta Streets Alive on Peachtree Street near Underground Atlanta within NPU M.

The Atlanta Department of Transportation (ATLDOT) hosted the event with support from Toole Design Group and Blue Cypress Consulting. Members of the planning team set up an informational table, displays, and activities for interactive input.

During the event, the team shared information about Vision Zero goals and the planning process, distributed project handouts, collected safety testimonials, and answered questions.

The goal of the event was to build awareness of the Atlanta Vision Zero Action Plan process and expected outcomes. To accomplish this, the project team collected testimonials, obtained commitments to the Vision Zero pledge, and promoted the upcoming public information session.





Booth Set-Up

The planning team's booth and related activities were located near Underground Atlanta on Peachtree Street. The booth included the following materials as well as the activities described in the next section:

- Project banners, including the safety pledge,
- A community painting wall,
- A chalk drawing area,
- Handouts with information about the upcoming Virtual Information Session,
- Testimonial and pledge cards, and
- Giveaways, including ATLDOT swag.

Activities

The planning team raised project awareness via the following activities:

1. Chat with the Vision Zero planning team
2. Sign up to be added to the project outreach list or to share testimonials at a later date.
3. Provide a testimonial/safety story via feedback card or a quick phone video.
4. Participate in the community painting wall.
5. Draw your bucket list items in the chalk squares.
6. Sign the Vision Zero pledge banner or provided pledge cards.

Project Outreach List

The sign-up sheet gave people the option to be added to the project outreach list, receive project updates, and/or share testimonials at a later date. Seventeen people signed up for the outreach list.

Testimonial/Safety Story

People passing the booth had the opportunity to share their stories by completing a testimonial card, recording a quick video with a planning team member, or emailing the planning team if they had a longer story. The following testimonials and general comments were shared:

1. Bike lane violation compensation plan
2. When are the liner going to be put back on the street at the intersection of Dekalb Ave and Moreland (the lines on Dekalb, that is)? When is the work to be completed at the intersection of Edgewood and Euclid?
3. Hi! Traffic cameras! Hold red light runners responsible! Please – but now.
4. On a commute in 2010, in Buckhead to my office, I was hit and the driver never stopped. This was just before many of the bike lanes were put in. I received breaks in my pelvis, a broken wrist, and a pin in a smashed elbow. This was in front of the Buckhead MARTA

station. No one should have this happen to them. I was extremely fortunate to return to full health. Thank you for keeping Atlanta safe for the next generation.

Bucket List Chalk Squares

Along the street, the planning team created a grid for the Bucket List Chalk Squares activity. The intent of this activity was to encourage creativity and draw more people to the booth.





Community Painting Wall

As shown in the following photos, the community painting wall was a large canvas that stood up vertically featuring a rendering created by local artist Ashley Bella (Artzy Bella Studio) during the June Vision Zero in-person workshop. The original sketch was created in black and white, so the community painting wall enabled community members to help finalize the artwork by adding splashes of color. This opportunity allowed children and adults alike to imagine what the future in Atlanta may look like when we reach zero.



Vision Zero Pledge

The planning team also encouraged community members to take the Vision Zero pledge at the event. Upon signing the banner, community members received an, "I signed the pledge!" sticker. Approximately 30 additional people signed the pledge banner.



Key Takeaways

Atlanta Streets Alive was a successful pop-up for Vision Zero in that it allowed community members to experience the possibilities of shared streets. The community painting wall was a major attractor for capturing the attention of people who may have walked by the booth otherwise. The pledge banner and handouts for the upcoming Virtual Information Session were also effective tools for raising awareness.

This page intentionally left blank

TASK FORCE MEETING MINUTES

TASK FORCE MEETING #1



Atlanta Vision Zero Action Plan Task Force Meeting #1

Date: December 8, 2022
Time: 9:30 AM – 11:00 AM

Meeting Participants

Project Team Attendees

- Betty Smoot-Madison – City of Atlanta
- Andy Clarke – Toole
- Chris Puglisi – Toole
- Rachel Brunner – Toole
- Kristoff Devastey – Toole
- Caroline Evans – Blue Cypress Consulting
- Selena Xayavong – Blue Cypress Consulting

Task Force Attendees

- Alfred Wiggins – City of Atlanta's Department of Public Works
- Ashley Finch – Atlanta Department of Transportation (ATLDOT)
- Bryon Rushing – Atlanta Regional Commission
- Cathy Tyler – Atkins North American
- Christopher Rome – ATLDOT
- Dan Hourigan – Midtown Improvement District
- Darren (Sam) Harris – Georgia Department of Transportation (GDOT)
- David Pickworth - VHB
- Douglas Nagy – ATLDOT
- Emma Harrington – The Shepard Center
- Jasmine Moore – Grady Memorial Hospital
- Jim Durrett – Buckhead CID
- John Saxton – City of Atlanta's Office of Mobility Planning
- Jordan Dowdy – ATLDOT
- Josh Rowan - MARTA
- Kristen Dixon – Fulton County Board of Health
- Krystal Harris – ATL Airport CID
- LaShawn Dudley – City of Atlanta's Mayor's Office of Equity, Diversity, and Inclusion
- Nicole McGhee – West End CID
- Rebecca Serna – Propel ATL
- Roberto Morales – Partnership for Southern Equity
- Stacy Grolimund – Central Atlanta Progress



Meeting Agenda

- I. Introductions
- II. Overview of Project
- III. Role of Task Force
- IV. Next Steps

I. Introductions

The project team introduced themselves. Members of the task force were asked to introduce themselves in the chat box. Andy Clarke introduced Mentimeter, an interactive polling tool to help facilitate input from the group and initiated the first polling exercise. For open-ended polling questions, answers with the most votes and/or biggest emphasis are listed in this document. All answers are available in the meeting recording.

Polling - Block 1

Participants were asked six questions, the results are included below, including the most-listed responses to open-ended questions.

1. Have you ever been injured in a car crash?
 - a. Yes-68%
 - b. No-32%
2. Has a family member or close ever been killed or seriously injured in a traffic crash?
 - a. Yes-76%
 - b. No-24%
3. What does safety mean to you?
 - a. Harm reduction
 - b. To not feel threatened when traveling on the roadway
 - c. Moving freely with no risk of harm
 - d. No stress
 - e. Go about daily lives without risk of harm
 - f. Kids' freedom of movement
4. How familiar are you with VZ?
 - a. Very-62%
 - b. Familiar-29%
 - c. Somewhat-10%
 - d. Never heard of it
5. What does Vision Zero mean to you?
 - a. Zero traffic fatalities
 - b. Focus on engineering safe streets
 - c. All are equitably protected from injury
6. What is your primary role/perspective on task force?

- a. Engineer - 23%
- b. Planner - 29%
- c. Advocate - 24%
- d. Educator - 6%
- e. Other - 18%
- f. Business representatives - 4%

II. Overview of the Project

History/Background of Vision Zero in Atlanta

Betty Smoot-Madison started the meeting with introducing the Vision Zero Action Plan's history and background. Below are key points from this slide:

- Commitment in 2019 from City of Atlanta's transportation plan to establish a vision zero goal
- Ordinance passed in 2020
- Nearly 1000 signs to be replaced or installed, still an active effort
- Social media campaigns will be coming back as plan is developed
- Equity is central piece, communities of concern were identified
- Passed off to Andy

What is Vision Zero/Safe System Approach

Andy presented slides covering the key points listed below:

Principles

- Safe System Approach
- Not an individual system, part of an entire ecosystem
 - Atlanta has not committed to a date to achieve Vision Zero, and Betty added that a date would be set during this project
 - What's different?
 - Language and philosophy
 - "Traffic deaths are inevitable" vs. "traffic deaths are preventable"
 - Identify and eliminate the causes of fatal and severe crashes

Fact Sheet from Vision Zero Network

Andy spoke to the 9 components of a strong vision zero commitment, which include the following:

- Political commitment
- Multi-disciplinary leadership
- Action plan
- Equity
- Cooperation and collaboration
- Systems-based approach
- Community engagement



- Data-driven
- Transparency

One member suggested using Canada and Australia as best benchmarks due to being spatially similar to the United States. They also noted that Australia has made major traffic safety improvements compared to the United States.

Team overview

Chris Puglisi reviewed the roles of each member of the project team.

Tasks and schedule

Chris reviewed the tasks and project schedule.

Engagement Plan

Caroline Evans presented the Community Engagement Plan, which includes an emphasis on equity-centered engagement, focusing on the following:

- Targeted in person meetings and events
- Focusing public outreach and input in communities of concern by using the City of Atlanta's vulnerability metrics, which include access to a vehicle, dependency on public transit, race demographics, etc.

One member suggested utilizing the new City of Atlanta's interactive kiosks to disseminate information. Caroline replied that the project team will discuss this idea with ATLDOT. Another member commented about the concern of community members who do not have access to technology. Other members emphasized the importance of leveraging in-person events to ensure equitable participation.

Primary Action Plan Products

Chris presented the primary products of this project. An updated High Injury Network (HIN) will include:

- Priority projects and actions for Atlanta Department of Transportation (ATLDOT)
- Recommendations for Georgia Department of Transportation (GDOT)
- Recommendations for culture change strategies

One member made a comment for this updated HIN is comparable to previous HIN data and reviewing trends over time are important for data analysis. Also, they suggested utilizing a broader risk-factors scan to balance the HIN.

Polling - Block 2

Participants answered four questions. The results are below.

1. What's the greatest cause of traffic danger?
 - Speeding car and drivers
 - Bad road design
 - Aggressive driving behavior
2. Who has greatest responsibility?
 - Elected officials-58%
 - Drivers-32%
 - Engineers-11%
3. What's the biggest barrier to eliminating traffic fatalities?
 - Political will
 - Funding
 - Changing driving behavior
 - Poor culture
4. What is a realistic date for achieving Vision Zero?
 - 2035 - 12
 - 2040 - 2
 - 2030 - 1
 - 2025 - 1

III. Role of the Task Force

Andy presented the following information about the role of the Task Force:

- Input, review, comment
- Commit to act, do things differently
- Champion the issue/approach
- Sequence/content of future meetings
 - #1 Introduction and overview
 - #2 Recap data analysis, outreach, HIN, potential countermeasures, and actions
 - #3 Detailed development of actions and strategies
 - #4 Finalize actions and strategies
 - #5 Review draft action plan

Polling - Block 3

Participants answered two final questions. The results are below.

1. Preference in future format?
 - Virtual - 56
 - In-person - 44
 - One member suggested a mixture of both virtual and in-person.



2. Is there a person or organization missing from the Task force who should be included?
 - Elected Officials
 - Public Health members

IV. Next Steps

Andy closed out the meeting with next steps for Task Force members and the project team.

- For Task Force members:
 - Help us push out engagement info
 - Begin identifying potential actions and strategies
 - Collaboration with others
- For consultant team:
 - Data analysis
 - Update HIN
 - Outreach and engagement
 - Identify countermeasures

TASK FORCE MEETING #2



Atlanta Vision Zero Action Plan Task Force Meeting #2

May 18, 2023
1:00 PM – 2:30 PM

ATTENDEES

ATLDOT:

- Betty Smoot-Madison

Toole:

- Chris Puglisi
- Rachel Brunner
- Andy Clarke
- Byron Rushing
- Addie Weber
- Stefanie Brodie

VHB:

- Frank Gross
- Ian Hamilton

Blue Cypress:

- Amanda Hatton

Task Force Members

- Jim Durrett, Buckhead CID
- Betty Willis, Emory University & Clifton Corridor TMA
- Lynnette Reid, Atlanta BeltLine
- Emma Harrington, Shepherd Center
- Assistant Chief Chad Thomas, Atlanta Fire Department
- Lawrence Blair, Grady Memorial Hospital
- Theo Letman, Cobb County DOT
- Tejas Kotak, ARC
- Dan Hourigan, Midtown Alliance
- Rebecca Serna, Propel ATL (formerly Atlanta Bicycle Coalition)
- Coentín Auguín, MARTA
- Chris Pierre, West End CID
- Amy Goodwin, ARC
- Ansley Goddard, ARC
- Stacy Grolimund, CAP/ADID
- Kristin Dixon, Fulton County Board of Health
- Jordan Hall, The Statewide Independent Living Council of GA



AGENDA

Welcome!

Analysis: Equity, Safety, & Engagement

How can YOU help achieve Vision Zero?

Next Steps

WELCOME!

Chris Puglisi, the project manager, welcomed everyone to the second task force meeting. Chris noted it had been five months since the last meeting. He went on to detail what would be reviewed during the meeting including ATL's communities of concerns, safety analysis, and engagement as well as the future task force meetings and how the task force input will inform the planning process. Chris briefly introduced the meeting speakers; Betty, Chris, Amanda, and Ian, and then asked the task force members to introduce themselves in the chat.

Before handing off the presentation to the first speaker, Chris noted the following planning highlights:

- The addition of the Statewide Independent Living Council of Georgia to the Atlanta Vision Zero Task Force.
- Completion of the safer streets checklist.
- The summer months will be key to developing the action plan.

ANALYSIS: EQUITY, SAFETY, & ENGAGEMENT

Equity Analysis

Betty Smoot-Madison, the Mobility Director for the ATLDOT, introduced herself and noted she looked forward to hearing the Task Force's thoughts and input on the action plan. Betty noted the importance of being data-focused but also equity-focused. She emphasized the need to hear from everyone and to design for our most vulnerable users. Betty reviewed the factors incorporated into identifying Communities of Concern (Figure 1).

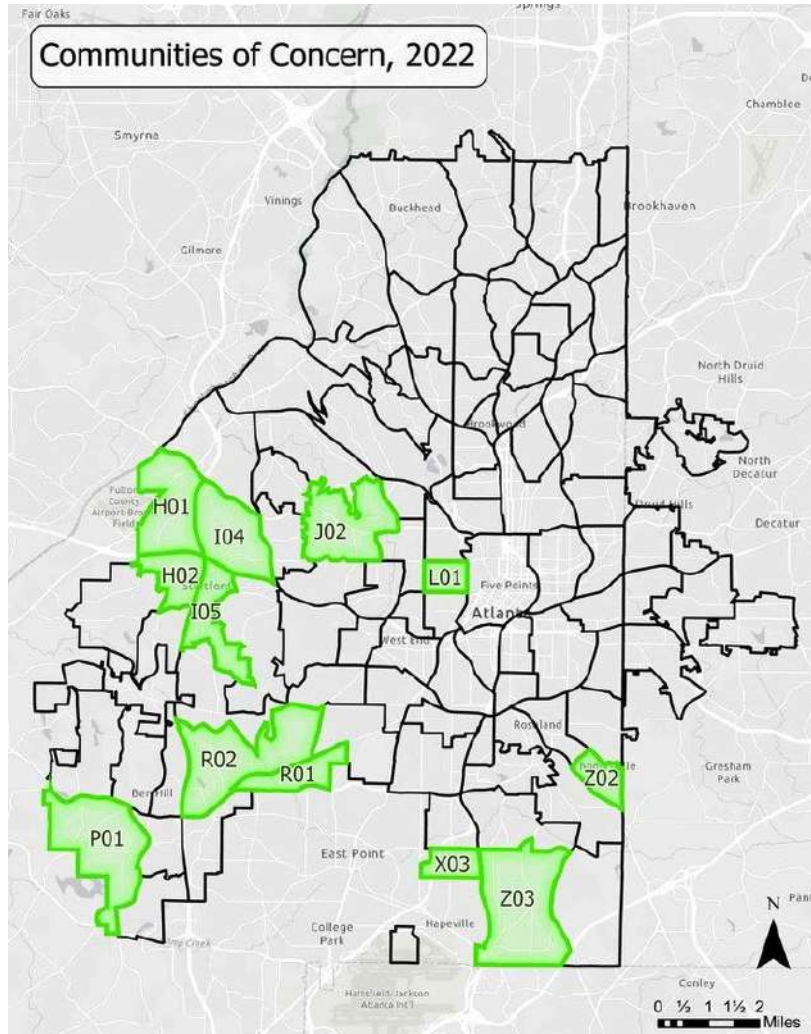
Figure 1. Data Indicators for Identifying Communities of Concern

Data Indicators (abv)	Equity Justifications
No Vehicle Access	Reliance on walking, transit, and bicycling
Children under 18	School age, most vulnerable populations, more susceptible to severe injuries or death in crashes
People 65 and over	Most vulnerable populations, more susceptible to severe injuries or death in crashes, likely to have mobility issues and greatest need for accessibility
Race	African-Americans have history of being disadvantaged, underserved and/or displaced
Single-Parent Households	Single income, most burdened by housing and transportation costs
Income	Shows availability or lack of disposable income, cost burdens
No Health Insurance	Most burdened by costs associated with traffic crashes
Travel Time to Work	Could be job-threatening, access to opportunities, work-life-health balance is jeopardized, transit reliability and frequency is critical
Use Public Transportation	Transit access, comfortability, reliability and frequency are essential

Betty then discussed how Communities of Concern (Figure 2) are being used in the planning process to tailor community engagement and project prioritization and selection.



Figure 2. Communities of Concern Map



Safety Analysis

Ian Hamilton, with VHB, gave a brief overview of historical and potential safety issues gathered from updating the High Injury Network (HIN) data for the City of Atlanta. Ian next walked through the Safe System Approach that was used to conduct a systemic analysis and proactively address safety issues based on the high-risk characteristics resulting from the analysis. These high-risk characteristics included the type of crash, type of road, and type of community characteristics found around the roads. Ian reviewed the seven key crash emphasis areas found for Atlanta (aggressive driving/speeding, bicycles, impaired driving, intersections,

motorcycles, pedestrians, and roadway departure) followed by the key roadway characteristics (through lanes and functional class).

Ian detailed the risk factors used to determine high-risk locations within the City of Atlanta over several slides. Ian noted that there is a strong correlation between the communities of concern and aggressive driving and speeding and impaired driving. He explained how the project team combined maps of the HIN (reactive approach) and the Systemic (proactive approach) findings to provide a more complete picture.

Ian explained how the project team created site profiles for priority high-risk locations within the City of Atlanta 's corridors and intersections using the analysis findings. Priority sites included intersections and corridors in urban transitioning areas, particularly when transitioning from urban to suburban. Priority sites also included intersections with no signalized left turn lanes and several curb cuts. Ian then noted that the project team investigated and recommended countermeasures from the FHWA's list of proven safety countermeasures that would best reduce high-risk safety issues in priority sites.

Engagement Analysis

Amanda Hatton, with Blue Cypress Consulting, summarized Atlanta Vision Zero's past and upcoming engagement opportunities highlighting the projects team's commitment to equity. Engagement opportunities include the following:

- Online community input map (open through end of June)
- Three pop-ups in Atlanta's neighborhoods
- Four community workshops (virtual and in-person), two of which are coming up on June 20 and June 22.
- NPU briefings, the 2nd of which is coming soon
- Outreach list
- Community and task force partnerships

Amanda provided a quadrant-by-quadrant update on the community input collected via the community input map, overlayed with the High Injury Network, as of May 11, 2023. Amanda noted that we have received more input from Atlanta's core and eastern areas then elsewhere. We are working to collect more input from southwest and southeast Atlanta, as well as the northern area of the city, through upcoming events and NPU/community partner outreach and additional support from the Vision Zero Task Force.

HOW CAN YOU HELP ACHIEVE VISION ZERO?

Andy Clarke, with Toole, explored how each member of the Task Force can help achieve Vision Zero. Andy noted how important it is for all Task Force members to have a shared vision to jointly drive the action plan moving forward.

Andy asked the task force, "Where does your work intersect with the HIN and priority corridors/locations? Is there anything that you can do to focus your work in the next two years



on those places?” He used schools as an example and suggested picking five schools each year to add sidewalks and crosswalks too. Andy also asked, “Where might your work help to implement or include relevant countermeasures that address the most common crash causes regardless of the specific location?”

Andy emphasized the importance of using countermeasures and asked, “What proactive programmatic safety initiatives can you take? Are they within your control? Are they proven to be effective?” Andy explained how organizations can impact the safe systems approach and influence things under their control. He provided the example of a company buying or requiring fleet/rental vehicles to have the latest safety technology.

Andy finally spoke to SMART Goal Setting, highlighting the need for setting measurable, action-oriented, relevant, and time-bound goals. He ended his presentation with a homework request to the task force detailed in Figure 3 below.

Figure 3. Task Force Homework

Homework

To achieve Vision Zero, the Task Force needs to identify goals and actions each person will take to make real change happen across the System.



Start to develop actions and strategies that are specific, measurable, action-oriented, relevant, and time-bound

Identify ways your already-committed work for 2023 and 2024 can be focused on and respond to the HIN and public input analyses

Come to the June 15th meeting with a preliminary list of SMART Goals to workshop with the group

NEXT STEPS

Chris concluded the meeting by briefly reviewing the upcoming and ongoing engagement activities. He reminded the task force members of the upcoming Meeting #3 scheduled for Thursday, June 15, 2023, which will include small group discussions to help develop goals. Chris shared the presentation slide pictured below with all the upcoming engagement events and the project URL. Chris finally thanked all attending task force Members for participating and ended the meeting.

QUESTIONS/CHAT FROM TEAMS MEETING

- **Chris Puglisi** noted that a PDF of the slide deck will be sent out to the Task Force Members

TASK FORCE MEETING #3



Atlanta Vision Zero Action Plan Task Force Meeting #3

June 15, 2023
1:00 PM – 2:30 PM

ATTENDEES

ATLDOT

- Betty Smoot-Madison
- Cole Smith
- Jordan Dowdy
- Michele Wynn
- Chris Rome
- Cathy Tyler
- Mark Tai

Toole

- Chris Puglisi
- Rachel Brunner
- Andy Clarke
- Byron Rushing
- Omar Peters
- Stefanie Brodie

VHB

- Ian Hamilton
- Michael Corwin

Blue Cypress

- Amanda Hatton
- Ansley Jones

Task Force Members

- Assistant Chief Carven Tyus, Atlanta Police
- Rebecca Serna, Propel ATL (formerly Atlanta Bicycle Coalition)
- Corentin Auguin, MARTA
- Adeline Collot, Upper Westside CID
- Amy Goodwin, ARC
- Ansley Goddard, ARC
- Candace Stanciel, City of Atlanta Chief Equity Officer
- Dan Hourigan, Midtown Alliance



- Lauren Welsh, Little 5 Points CID & Alliance
- Stacy Grolimund, Central Atlanta Progress
- Meredith Brash, City of Atlanta's Mayor's Office of Communications
- Jahnee Prince, City of Atlanta Commissioner of City Planning
- Kelli Roberts, GDOT
- Kristin Dixon, Fulton County Board of Health

AGENDA

Welcome!

Small Group Discussions

Report-Outs

Next Steps

WELCOME!

Chris Puglisi (Toole) went over the agenda, introduced the project team (including new Vision Zero Manager at the City of Atlanta, Cole Currie Smith), and provided a recap of the tasks completed to date as part of the planning process.

Recent Findings

Omar Peters (Toole) presented the team's research on countermeasures, which will inform the Safe Streets Checklist and Countermeasures Toolkit Report. The team will also produce a decision framework tool.

Task Force Overview

Andy Clarke (Toole) reminded the task force that everyone plays a role in getting to zero. He presented a proposed timeline for action, with 2035 as the target year to get to zero. Then, Andy introduced guiding questions for breakout groups and provided context about how different organizations can be involved in safety initiatives. In cases where the particular program or initiative is not in a particular organization's control, there are still ways to help facilitate, advance, and champion these initiatives.

SMARTIE goals are key. Andy reminded the group what the acronym stands for, which is illustrated in Figure 1.

Figure 1. Smartie Goals

SMARTIE Goals		
S	Specific	Who is going to do it? What will they do? Who do they need to help them/coordinate?
M	Measurable	How many things are going to be done? What are the measurable outcomes and outputs? How will we know if the action has been completed?

SMARTIE Goals		
A	Action-Oriented	Avoid goals that use language such as “review” or “consider.” Use actionable language that focuses on “adopting” and “doing.”
R	Relevant	Tie each action and strategy back to a specific problem and appropriate countermeasure.
T	Time-Bound	Assign each action and strategy a clear end date or interim step so that we can identify them as short term (up to 2-years), medium term (2-4 years), or long term (4 or more years). This creates accountability to complete each goal.
I	Inclusive	How does the action item relate to Communities of Concern
E	Equitable	How are underserved populations included in the development or implementation?

Small Group Discussions and Report-Outs

The project team facilitated the small group discussions using Miro boards. These boards can be reviewed here: https://miro.com/app/board/uXjVMAZylvU=

Group 1 (Primary Responsible Parties, ATLDOT and GDOT)

Facilitator: Betty Smoot-Madison and Cole Smith

Participants:

- Kelli Roberts, GDOT
- Stacy Grolimund, Central Atlanta
- Dan Hourigan, Midtown Alliance
- Adeline Collot, Upper Westside CID
- Lauren Welsh, Little 5 Points CID & Alliance
- Mark Tai, ATLDOT
- Jordan Dowdy, ATLDOT
- Jahnee Prince, City of Atlanta

Report-Out: Betty and Cole shared that their group had several great ideas. It is important to consider Vision Zero in every aspect of transportation.

Group 2 (Secondary Involvement in Street Use/Programming, APS, MARTA)

Facilitator: Byron Rushing

Participants:

- Cathy Tyler, City of Atlanta
- Meredith Brasher, City of Atlanta
- Corentin Auguin, MARTA



Report-Out: Byron discussed the importance of collaboration among the City, CIDs, and other entities (like MARTA).

Group 3 (Community-Based Organizations Concerned about Traffic Safety)

Facilitator: Andy Clarke

Participants: Rebecca Serna (Propel ATL)

Report-Out: Andy and Rebecca talked a lot about the importance of transit. They discussed bus frequency, reliability, accessibility, etc.

Group 4 (Planning, policy, and procurement agency - e.g., ARC, Commissioner-level, Health Dept)

Facilitator: Chris Puglisi

Participants:

- Candace Staniel, City of Atlanta Chief Equity Officer
- Amy Goodwin, ARC
- Ansley Goddard, ARC

Prior to beginning the SMARTIE Goals discussion, Candace Staniel asked how the Communities of Concern (CoC) were defined. This is the first Taskforce Meeting she has attended. Chris explained the factors that were involved in the CoC assessment, and he shared how it has informed our engagement approach. Candace said that she'll contact Betty to compare their equity methodologies.

Report-Out: Chris shared some of the highlights from the regional conversation, such as the idea of implementing a Regional Excellence Award for Safe Streets. This would help showcase great examples for other localities to emulate.

Group 5 (Emergency Services, First Responders - APD, Emory, EMS)

Facilitator: Ian Hamilton

Participants:

- Kristin Dixon, Fulton County Board of Health
- Assistant Chief Carven Tyus, Atlanta Police

Report-Out: Ian reported there was a lot of good discussion about what is already happening and ways that the City/partners can be proactive. The group also discussed the importance of education.

NEXT STEPS

Chris concluded the meeting by briefly reviewing the upcoming and ongoing engagement activities. He reminded the task force members of the upcoming Meeting #4 scheduled for Thursday, July 20, 2023, which will include small group discussions to help finalize goals. The homework assignment for the Task Force is covered on the slide reproduced below. Chris thanked all attending task force Members for participating and ended the meeting.

Figure 2. Homework Assignment

Homework

To achieve Vision Zero, the Task Force needs to identify goals and actions each person will take to make real change happen across the System.



1

Take your proposed actions and strategies and get them approved (to the extent possible) prior to the July meeting.

2

Come to the July 20th meeting prepared to share your list of approved projects!

3

If any projects were denied/not yet approved, come with a strategy for next steps toward approval.

This page intentionally left blank.

TASK FORCE MEETING #4



Atlanta Vision Zero Action Plan Task Force Meeting #4

July 20, 2023
1:00 PM – 2:30 PM

ATTENDEES

ATLDOT

- Betty Smoot-Madison
- Cole Smith
- Commissioner Solomon Caviness

Toole

- Rachel Brunner
- Andy Clarke
- Byron Rushing
- Omar Peters
- Stefanie Brodie
- Addie Weber

VHB

- Ian Hamilton

Blue Cypress

- Amanda Hatton
- Ansley Jones

Task Force Members

- Assistant Chief Carven Tyus, Atlanta Police
- Lieutenant Desmond Floyd, Atlanta Police
- Rebecca Serna, Propel ATL (formerly Atlanta Bicycle Coalition)
- Corentin Auguin, MARTA
- Ansley Goddard, ARC
- Dan Hourigan, Midtown Alliance
- Lauren Welsh, Little 5 Points CID & Alliance
- Stacy Grolimund, Central Atlanta Progress
- Jahnee Prince, City of Atlanta Commissioner of City Planning
- LaJoyce Lewis, Fulton County Board of Health
- Betty Willis, Emory University Hospital
- Shaun Green, Atlanta Beltline Inc.
- Lawrence Blair, Grady Memorial Hospital



- Tejas Kotak, ARC
- December Weir, ATL/SRTA
- Ron Knezevich, GDOT
- Krystal Harris, Atlanta Airport CID
- Jim Durrett, Buckhead CID
- Suzanne Burnes, Partnership for Southern Equity

AGENDA

Welcome!

Overview of Past Meetings

Small Group Discussions: Review Actions to Achieve Vision Zero

Report-Outs

Next Steps

WELCOME!

Byron Rushing (Toole) provided welcoming remarks and introduced the team members in attendance.

OVERVIEW OF PAST MEETINGS

Byron reviewed the Task Force meetings that have occurred to date. He discussed the key goals of each meeting and shared that today's meeting is an important milestone for the Task Force to craft and refine the action items to be included in the plan. The draft plan will be presented at the fifth Task Force meeting in September or October 2023.

Cole Smith (ATLDOT) shared information about recent Vision Zero engagement activities, including the following:

- June 17: Southside Sports Complex Pop-Up
- June 20: Virtual information session
- June 22: In-person workshop in Cascade Heights
- July 6: NPU Corner Conversations lunch at Broad Street Boardwalk
- July: Multiple NPU briefings

SMALL GROUP DISCUSSIONS

Before breaking out into groups, Byron reminded the Task Force of the SMARTIE (Specific, Measurable, Action-Oriented, Relevant, Time-Bound, Inclusive, Equitable) goal framework. Byron then gave an overview of the actions spreadsheet that was initially developed at the June Task Force meeting. Task Force members were then asked to join breakout discussions and continue refining the actions so that they meet the SMARTIE goal criteria.

REPORT-OUTS

Group 1

Facilitator: Omar Peters (Toole)

Participants:

- LaJoyce Lewis, Fulton County Board of Health
- Rebecca Serna, Propel ATL
- Jahnee Prince, City of Atlanta Commissioner of City Planning
- Assistant Chief Carven Tyus, APD
- Lieutenant Desmond Floyd, APD

Report-Out: Omar shared that the group discussed that many actions have MARTA listed as a Lead Agency, so it will be important to have their buy-in. He also described a gap that the group brought up around adjusting the City and State police pursuits policy.

Group 2

Facilitator: Ian Hamilton (VHB)

Participants:

- Corentin Auguin, MARTA
- Lauren Welsh, L5P CID/Alliance
- Lawrence Blair, Grady Memorial Hospital
- Suzanne Burnes, Partnership for Southern Equity
- Tejas Kotak, ARC

Report-Out: Ian shared that there are a lot of good planning and policy discussions already going on, and partnerships and collaboration are key to advancing vision zero.

Group 3

Facilitator: Cole Smith and Betty Smoot-Madison (ATLDOT)

Participants:

- Ansley Goddard, ARC
- Shaun Green, Atlanta BeltLine Inc.
- Lynette Reid, Atlanta BeltLine Inc.
- Stacy Grolimund, Central Atlanta Progress

Report-Out: Cole mentioned that the timeline on some actions may be too aggressive or ambitious, as all actions currently indicate 6 months to 1 year as the timeframe. He said that the Governor's Office of Highway Safety will be an important partner for embedding Vision Zero in all transportation policies and plans as the goals are the same, but scale may be different.



Group 4

Facilitator: Andy Clarke (Toole)

Participants:

- Betty Willis, Emory University Hospital
- Dan Hourigan, Midtown Alliance
- December Weir, The ATL/SRTA
- Krystal Harris, Atlanta Airport CID
- Ron Knezevich, GDOT

Report-Out: Andy shared the group's discussion about curbside management and studies and policies that CAP and Midtown Alliance are implementing. He also discussed the group's desire for more legal protection for pedestrians not only in crosswalks but intending to enter crosswalks.

NEXT STEPS

Byron discussed the next steps for the Task Force. These include:

- 1) Continue to champion Vision Zero in Atlanta,
- 2) Participate in the final Task Force meeting (which will be scheduled in September or October), and
- 3) Help spread the word about engagement opportunities.

Amanda Hatton (Blue Cypress) shared the status of current and upcoming engagement activities, including the following:

- Community Input Map – closing July 31
- Community Partnerships – Planning is underway to co-host events in partnership with a few organizations that have a nexus with Vision Zero.
- Pop-Ups
 - Hollis Innovation Academy – July 31
 - Atlanta Streets Alive – September 24
- NPU Briefings – ongoing
- Final virtual workshop – September (date TBD)

Byron and Cole thanked the Task Force for their participation and offered to stay on the call for a few more minutes if any members were interested in sharing additional thoughts. Byron also encouraged the Task Force to send comments via email if anyone has additional feedback.

TASK FORCE MEETING #5



Atlanta Vision Zero Action Plan Task Force Meeting #5

September 26, 2023
10:30 AM – 12:00 PM

ATTENDEES

ATLDOT

- Cole Smith, Vision Zero Manager
- Kyethea Clarke, Director of Strategic Partnerships
- John Saxton, Assistant Director of Mobility Planning
- Marsha Anderson-Bomar, Interim Deputy Commissioner for Engineering
- Solomon Caviness, Commissioner

Toole Design Group

- Addie Weber
- Andy Clarke
- Byron Rushing
- Chris Puglisi
- Omar Peters
- Rachel Brunner

VHB

- Ian Hamilton

Blue Cypress

- Amanda Hatton

Task Force Members

- Brian Dorelus, Senior Project Manager for Aerotropolis Atlanta Alliance
- Danny Housley, Shepherd Center
- Elizabeth Hollister, Executive Director of Upper Westside CID
- Emma Harrington, Director of Injury Prevention at Shepherd Center
- Kristin Dixon, Fulton County Board of Health
- Krystal Harris, Atlanta Airport CID
- Lauren Welsh, Little 5 Points CID & Alliance
- Micshall D Patrick
- Rebecca Serna, Propel ATL
- Shayna Pollock, Managing Director of Transportation for Central Atlanta Progress
- Tejas Kotak, ARC Senior Transportation Planner
- Dr. Valencia Hildreth, Atlanta Public Schools Health Services Director



AGENDA

Welcome!
 Progress Report
 Review of Draft Vision Zero Action Plan
 Next Steps

WELCOME!

Cole Smith, Vision Zero Manager, welcomed everyone to the meeting and introduced ATLDOT staff on the call, including special guests. He handed meeting facilitation over to Andy Clarke with Toole.

Andy reviewed the agenda for the meeting, noting that this is Task Force Meeting #5. The primary meeting goal is to do a page turn of the draft Vision Zero Action Plan and to collect feedback. Cole noted that the draft Action Plan was put together as a collaborative effort with others on the call. The team is looking for feedback on the clarity of the plan and usefulness to the Group.

PROGRESS REPORT

Andy provided a brief recap of Task Force meetings to date and how that led us to today. Andy noted that the Task Force is encouraged to stay engaged through implementation.

Andy provided an overview of the planning process. Work included an update to the High Injury Network (HIN) and Safer Streets Checklist followed by development of the Action and Implementation Plan, Evaluation Framework, and the Final Report.

At the first Task Force meeting, the group chimed in on when we can reach zero fatalities. We ran an analysis related to this and arrived at the goal to reach zero by 2040. Cole added that the 2040 goal is feasible and aligns well with the Year of the Youth (a current initiative of Mayor Dickens' and the City). Any child born now will be 16 by 2040.

REVIEW OF DRAFT VISION ZERO ACTION PLAN

Andy asked Task Force members to get out and open the Draft Action Plan. He highlighted key components of the plan, stopping for questions and clarifications from Task Force members along the way.

Mayor's Welcome: The City cares about Vision Zero from the top of the organization and throughout the city. The Mayor's welcome at the beginning of the document speaks to the importance of the initiative.

Philosophy (Vision Zero vs. Conventional Approach): Vision Zero is a non-conventional approach to tackling safety. This allows us to focus on the corridors that are most dangerous and where people are the most vulnerable.

Engagement & Communities of Concern: The engagement chapter highlights community engagement activities and what we heard. Outreach efforts focused on Communities of Concern, which are highlighted in Figure 2. Community input is reflected and elevated throughout the report in the form of photos and quotes.

- Shayna Pollock (Central Atlanta Progress) asked about the imperative to research every fatality and serious crash. Is there a recommendation in the report of who tracks this information and how much time this will take? Shana noted that we have often seen this recommendation in similar plan documents, but it runs into issue of who will collect and maintain the data.
 - Cole responded that there are two important initiatives related to data collection that ATLDOT has been working on since he came on board. ATLDOT is tasked with managing this process.
 1. First, they have been working with the police department on how to best track data.
 2. Second, City Council adopted legislation to establish the Fatal Crash Review Commission (FCRC) will review each crash.
 - The ATLDOT will look for additional funding/staffing to pursue these two needs, both of which are documented in the plan. It could take about 30 to 40 percent of Cole's time as Vision Zero Manager to manage crashes with fatalities.

Crash Analysis: This chapter is roughly 20 pages, but the data is used throughout the Action Plan to help target and focus Vision Zero efforts.

- Reactive Approach - Andy featured the HIN map with road ownership data. It helps inform the responsive approach to where accidents are happening to address crashes in the moment. Sometimes the crash is the result of the design of the road, but this approach also has its limitations.
- Combined Risk Network – Considers both the HIN and the systemic risk networks, the latter of which is more proactive. This is where we can prevent accidents moving forward. Four lane roads with 35+ speed limits, poor lighting, inadequate bike/pedestrian facilities are where highest risks are located.

Proactive Systemic Safety Countermeasures: There are 50 countermeasures that are discussed to reduce risk factors. They are presented in two different ways: 1) Seven are featured in the main document as proactive measures that the City should pursue throughout the city. 2) The remaining 47 are featured in the Appendix.

- John Saxton (ATLDOT) noted that highlighting where funded projects are already happening along the HIN would be helpful. Moving Atlanta Forward is already pointing to and addressing some of these projects. There's an opportunity to reflect that some of these actions are already underway. For example, the Campbellton Road project is already addressing this.
 - Cole responded that doing this depends on how ATLDOT wants to align on our projects and plans. The key point is that some Moving Atlanta Forward projects are already moving forward Don E. Hollowell and Campbellton, and Moreland



- pedestrian crossing are good projects. Midtown and Downtown also have many projects that address these.
- Chris noted that the Combined Risk Network should be updated regularly to show progress and improvement. While construction crews are engaged, there may be opportunities to intervene and correct things to follow the safe system approach.
- Rebecca Serna (Propel Atl) asked about the proactive systemic safety countermeasures. She noted that she did not see road diets or lane reductions listed as countermeasures.
 - Omar noted that there are seven proactive measures that are to be deployed across the city with no further study needed. Road diets are listed as part of the other safety countermeasures included in the Appendix.
 - Rebecca asked if this is low hanging fruit or data driven.
 - Omar Peters (Toole) noted that it is a combination of both.
 - Rebecca concluded her remarks by stating that the seven countermeasures that are listed, such as leading pedestrian intervals, etc., feel unambitious. GDOT's multimodal safety plan was very focused on lane reconfigurations, signalized pedestrian crossings, and bike/pedestrian lanes as top countermeasures.

Implementation Core Values: Andy briefly described each of the eight core implementation values below listed below.

1. Leadership and Commitment
2. Interdepartmental Collaboration
3. Systematic Approach
4. Data-informed Planning
5. Community Perception
6. Equity
7. Safe Speeds
8. Safer Street Designs

Elements of Safer Projects: Implementation Rubric: This list of questions, shown below, can help guide any decision about a project to help check that actions are being achieved. Byron Rushing (Toole) noted that this rubric can be adjusted; the project team welcomes feedback.

Does the Project..		
	Reduce risks along the High Injury Network?	Projects should be prioritized along the city's High Injury Network to address the greatest needs and ability to reduce serious crashes.
	Reduce risks within a Community of Concern?	Projects should be prioritized within socially or politically disadvantaged neighborhoods, those most likely to suffer from higher traffic crash rates.
	Establish a modal hierarchy?	Street designs in the City of Atlanta prioritize the needs of pedestrians first, followed by bicyclists, transit riders, and cars or trucks.
	Increase separation or protection for Vulnerable Road Users?	Projects should create safe crossing locations at comfortable distances, build separated bikeways, and provide convenient transit stops and access.
	Incorporate Proven Safety Countermeasures?	The City's Vision Zero Action Plan identifies prevalent crash risks within the city. Evidence-based tools applied consistently and broadly will measurably reduce severe collisions.
	Reinforce safe speeds?	Street designs should reduce speeds to 25 MPH on all city streets or reinforce travel speeds that are appropriate to the street design and adjacent contexts.
	Reflect the community's perception of safety?	People choose modes and routes of travel based on their feelings of comfort. Projects must consider the community's needs and account for diversity of perspectives.
YES NO		
The City will fund or recognize the project as a "Vision Zero" compliant project The City may not fund or support the project OR the City will request changes to the project to align with Vision Zero		

- Tejas Kotak (ARC) – There is nothing on this page about money or costs associated with projects. Are there going to be cost filters? Similarly, there is no discussion of the next five to ten years and what money is available as well as how that can be leveraged to make streets safer. He would like to hear more discussion about the money we have and how we can use it better.
- Andy stated that the countermeasures have an associated cost element. Omar confirmed that there are a range of costs for countermeasures; however, it's not specific to any specific location.
 - In the chat, Tejas noted that Cost Effectiveness is a useful measure, but real dollar estimates would still help. I don't know what \$\$ implies.
- Andy noted that the action items do discuss budget and the need to institutionalize this approach to all projects. The Action Plan should influence and change every project that the City is doing.
- Cole noted that this is a good point. Project alignment with grants and other funding is important. The Comprehensive Transportation Plan is about to kick off. The Vision Zero Plan is to serve as part of the goal-setting to make sure that the CTP is goal-focused. The CTP may be a better document to prioritize projects and funding sources.
- John S – Countermeasures need to inform City processes. We need to do it as expeditiously as possible. How does the City refine its process as quickly as possible?
- Cole – Yes! How can we cut the red tape quicker.
- Byron noted that the plan does not define more projects. The Vision Zero Plan provides the justification for the project.

Policy and Planning: There is an Implementation Plan (Table 8) that notes who is responsible for what action and in what timeframe. This is a critical piece of the plan.

Project Evaluation: There are a series of goals listed. This is the final part of the plan that builds in accountability and transparency.

Cole noted that the City has already started on a dashboard with Dr. Broddie. The dashboard will have an internal facing arm and an external facing arm. Cole noted that there are sometimes gaps in data that will have an impact on how the dashboard is maintained and updated. ATLDOT is working through the dashboard now. Cole noted that the dashboard will be geo-spatially based.

NEXT STEPS

Chris noted that we would like comments by Tuesday, October 3, which is one week from today. There is a spreadsheet in which the comments should be submitted. Chris asked that people let him know if he/she could not access the plan.

Appendices were not included in the plan transfer. Cole asked that the team share those with the Task Force. Chris confirmed that they will be sent following the meeting.

ATLDOT Commissioner Caviness was invited to give remarks. He noted that he was happy to see everyone on the call. He looks forward to the possibilities ahead for the City. This Action



Plan is a draft. The City has a lot more work to do [to achieve Vision Zero]. Let's keep the energy going. Thank you for your thoughts.

Cole noted that the Task Force will continue forward. ATLDOT is determining how frequently (bimonthly or quarterly) the group will meet. New partners will be invited to join as needed.

Cole highlighted two upcoming activities:

1. The final Action Plan public meeting will occur on October 4. Community members need to register to attend the event.
2. The team is also planning an announcement about World Day of Remembrance on November 19 at 5pm at Rodney Cook Park. The event will take place in one of the Communities of Concern. It will help remember those we have lost over the past few years. There is a dedication page. Cole acknowledged Kimberly's loss as the heart of the work we do and this plan. The event will celebrate her life.

Cole spoke about the relationship and timing of the ATLDOT Comprehensive Transportation Plan startup and Plan A, the Department of City Planning's Plan A (Comprehensive Plan). ATLDOT and Department of City Planning will be working together to do public outreach for and coordinate on alignment of both plans. The Comprehensive Transportation Plan will be starting soon.

Amanda Hatton (Blue Cypress) asked the group to help get the word out about the October 4 public meeting. Task Force members should have received an eblast about this already and a repeat eblast today. She noted that the project website is another resource that Task Force members can point community members to. The site will live on, and people can continue to use it to seek information about Vision Zero.

ADJOURN

Andy thanked everyone for their participation on the Task Force. Cole thanked the consultant team for their support and concluded the meeting by noting that he looks forward to incorporating Task Force input and finishing up the Action Plan document soon.

Reminders about Action Plan dates:

- October 3 – Comments due back on Action Plan document
- October 4 – Public Information Session (Public Meeting)
- November 19 – World Day of Remembrance

COMMUNITY INPUT MAP SUMMARY



Atlanta Vision Zero Action Plan Community Input Map Summary

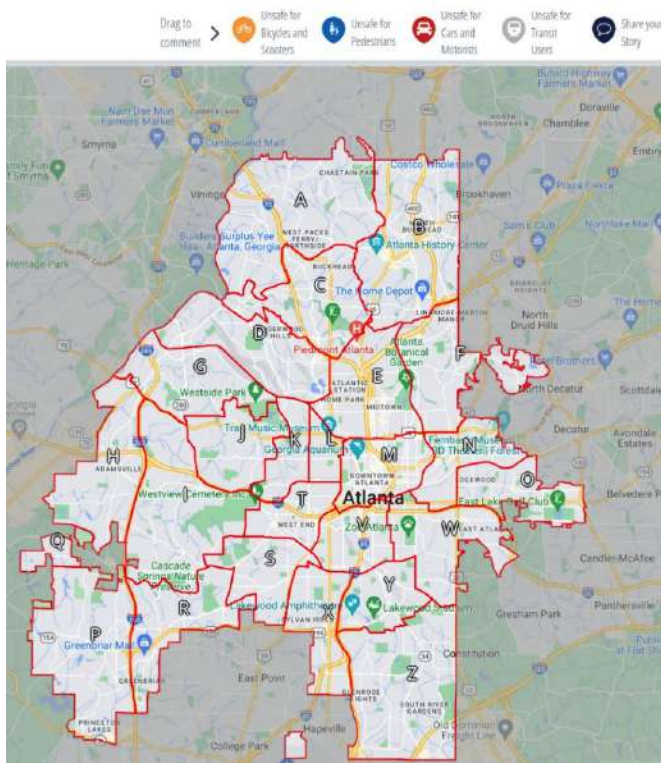
Overview

The Community Input Map collected input from the Atlanta community from February 13, 2023, through July 31, 2023. During this period, **2,888 total comments** were submitted by **716 unique stakeholders**.

Community Input Map Design

A simple map interface allowed participants to share locations where they have felt unsafe using different travel modes. A marker called “Share your Story” also allowed more general comments and testimonials. After dropping a marker on the map, participants were prompted to leave a comment and answer a couple follow-up survey questions. Participants had an option to provide photos in addition to comments; 153 photos were collected in this way.

Figure 1. Community Input Map Interface





Marker Types

- Unsafe for Pedestrians
- Unsafe for Bicycles and Scooters
- Unsafe for Transit Users
- Unsafe for Cars and Motorists
- Share your Story

Survey Questions

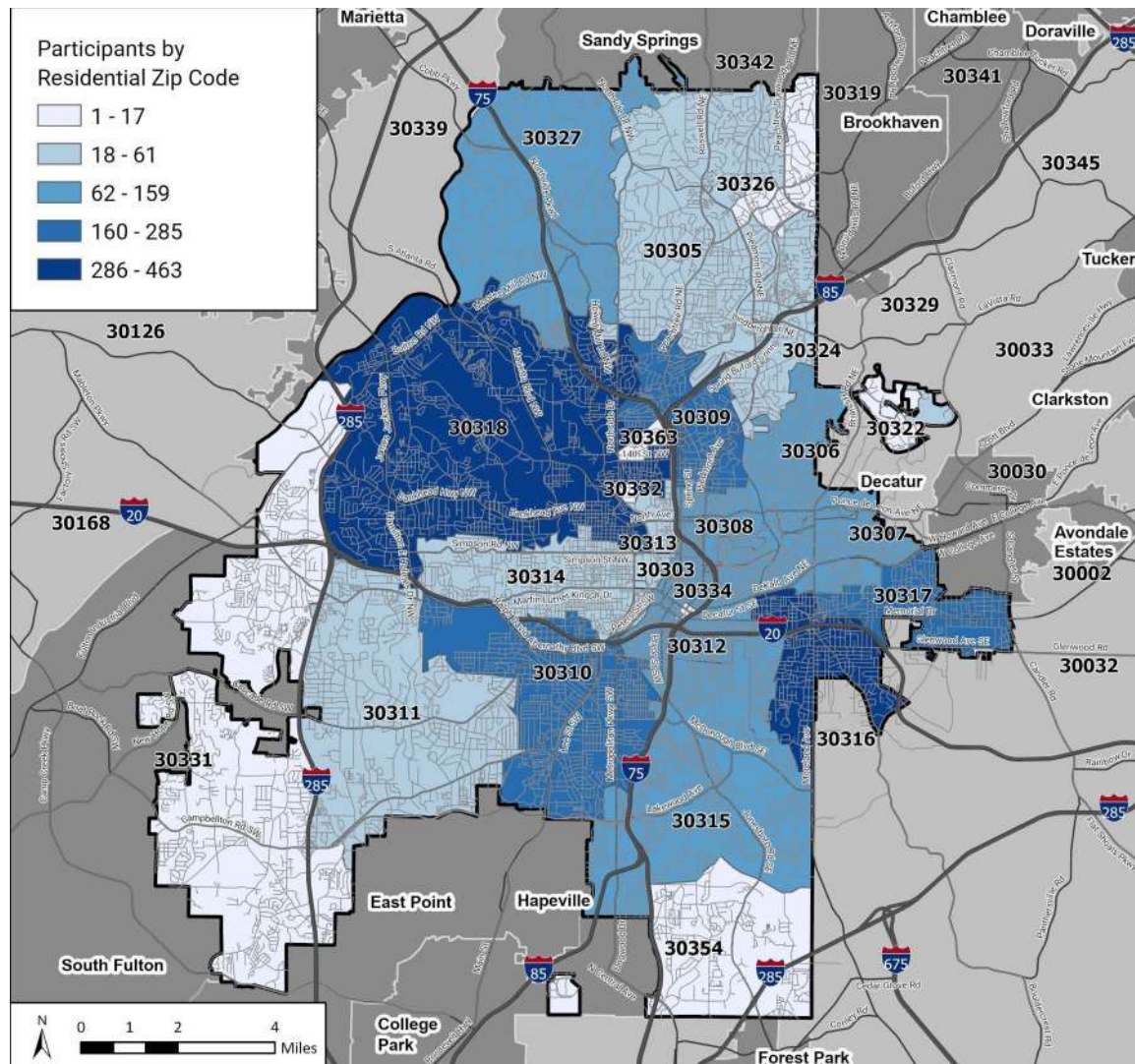
After dropping a pin on the map and including a comment, participants were prompted to answer a follow-up survey, which included the following questions:

1. Have you experienced any of the following at this location? (Select all that apply.)
 - I was hit or know someone that was hit here
 - Lack of crosswalk
 - Lack of sidewalk
 - Too many lanes for pedestrians to cross
 - Lack of bike facilities (bike lanes, bike parking, etc.)
 - Cars drive too fast
 - Cars make unsafe turns
 - Cars and/or trucks double park
 - Cars run red lights
 - Not enough lighting
 - I feel comfortable and safe here
 - None of the above
 - Other (describe)
2. The goal of Vision Zero is to end all traffic deaths and serious injuries. Have you or someone you know experienced traffic violence? Please share your story.

Who Did We Hear From?

All participants were required to enter their residential zip code with their comments. A heat map of where the participants live is shown in Figure 2.

Figure 2. Participants by Residential Zip Code





Total Comments Summarized by Different Geographies

Table 1 displays the number of comments received within each NPU, ranging from 505 in NPU E to just 4 in NPU H.

Table 1. Number of Comments by NPU

NPU	Number of Comments
E	505
M	346
W	320
N	303
O	228
D	201
F	157
B	147
V	120
C	108
T	86
A	78
K	47
X	38
G	36
S	30
I	29
R	26
L	24
Y	20
J	17
Z	11
P	7
H	4

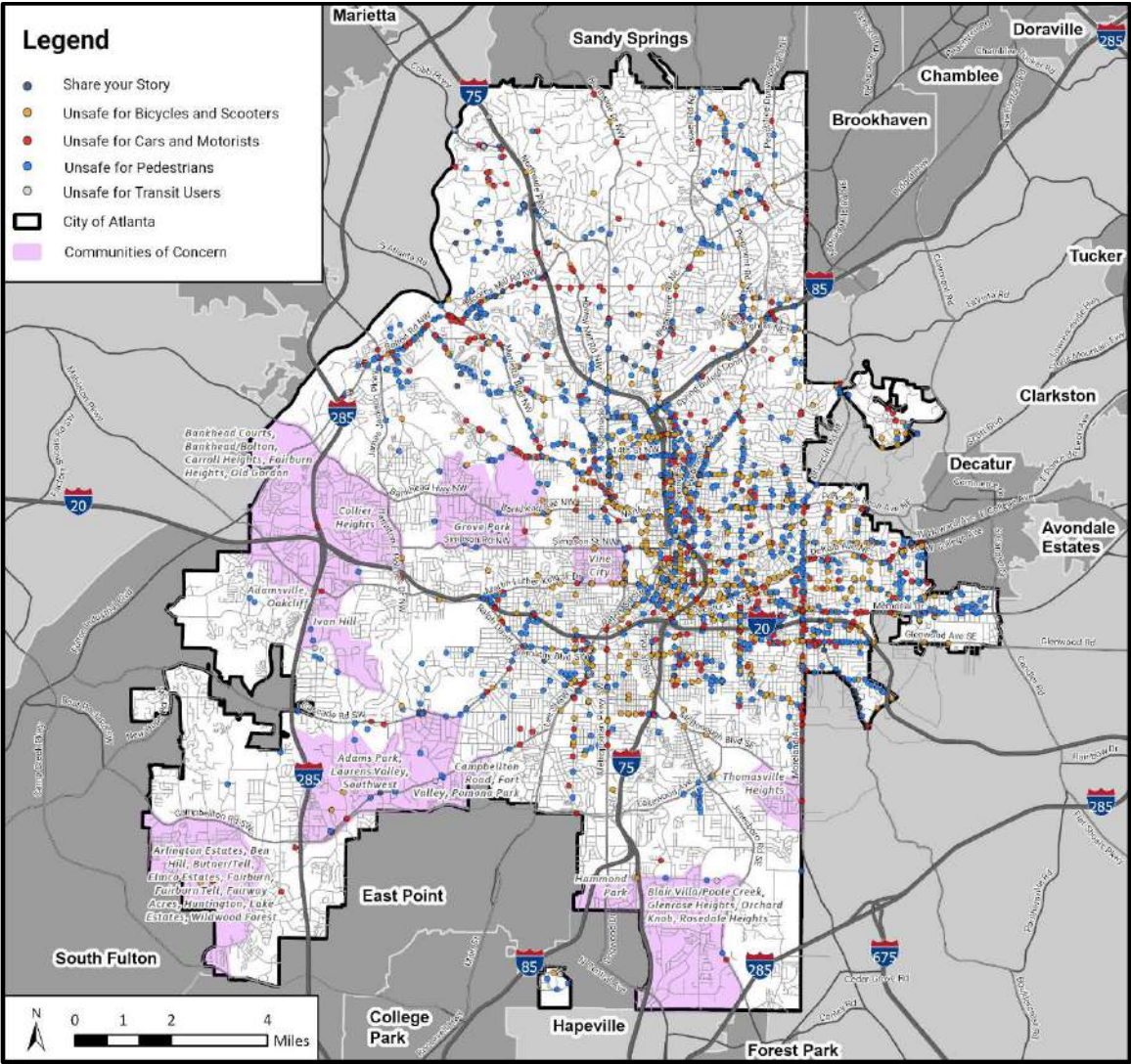
The Communities of Concern were identified by ATLDOT based on nine indicators of socioeconomic and transportation disadvantages, listed below:

1. Vehicle Availability
2. Single Parent households
3. Persons under 18
4. Persons over 65
5. Disability Status
6. Poverty Level
7. Health Insurance Coverage
8. Dependence on Public Transit to access primary employment
9. Race

Within or near these Communities of Concern, concentrated input was provided along the following corridors:

- Cascade Road
- Campbellton Road
- Brownlee Road
- North Ave NW
- Perry Blvd NW

Figure 3. Input Points in Relation to Community of Concern

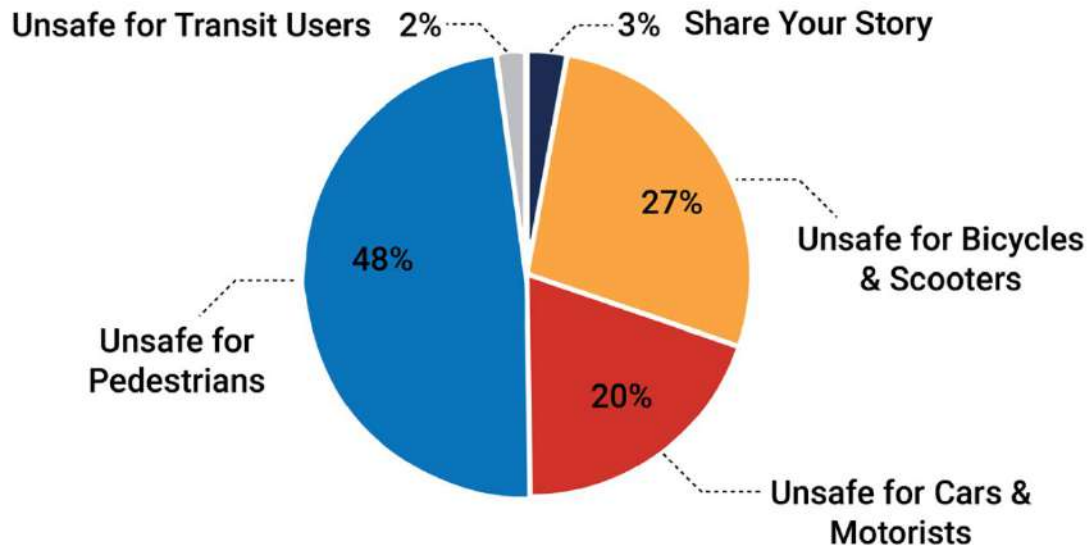


Input Summary

Key Findings

Pedestrian safety was the most common concern shared on the Community Input Map. Of the 2,888 comments, 48 percent were about pedestrian experiences. Many of these comments discuss damaged or missing sidewalks, crosswalks that feel unsafe, and locations where pedestrians feel unseen due to roadway design, parked cars, and other obstacles. Figure 4 displays the breakdown of all types of comments submitted.

Figure 4. Total Comments by Marker Type



Twenty-seven percent of comments highlighted unsafe conditions for bicycle and scooter users. One common theme among responses is the prevalence of vehicles or construction activities blocking bike lanes, forcing people to choose between riding in the road or on the sidewalk. Both of these actions can be dangerous, and riding on the sidewalk is illegal and introduces potential conflicts with pedestrians. Cars making unsafe turns across bike lanes, running red lights, and ignoring stop signs are also frequently cited in the responses. In many locations, the design of bike lanes and infrastructure results in confusion over how cyclists and motorists are supposed to interact. Furthermore, much of the existing bike infrastructure is inadequate to ensure the safety of users, with lanes that are often too narrow or poorly maintained.

Twenty percent of comments identified locations unsafe for cars and motorists. These comments largely focus on roadway and intersection design. Widely shared concerns include

poor visibility at intersections, dangerous “suicide lanes,”¹ roadway designs that enable or encourage excessive speeding, poor maintenance of pavement and road markings, unclear signage, and traffic conflicts that result from drivers exiting properties along busy thoroughfares.

Two percent of comments expressed concerns for transit users. Hotspots for transit concerns, based on Community Input Map comments, were the areas surrounding the following MARTA stations: North Avenue, Midtown, Civic Center, Peachtree Center, Five Points, and West End. Concentrations of comments focused on transit concerns are also found near the following bus stops: Peachtree Street and Deering Road, Peachtree Street and 26th Street, 17th Street and Fowler Street, Northside Drive and Deering Road, Marietta Street and Marietta Boulevard, and Perry Boulevard and Habershal Drive. Many of the transit comments noted locations where there are inadequate crossings and sidewalks, particularly near bus stops. In some areas, bus stops have poor visibility, which can make it dangerous to access them. Participants shared that some MARTA stations lack ramps meeting the standards of the Americans with Disabilities Act (ADA). Lastly, several comments discussed that vehicles often block the bus or streetcar lanes.

Three percent of comments were submitted using the “Share Your Story” marker type. Testimonials provide personal perspectives, giving more evidence and support for why Vision Zero matters. Most of the participants’ stories discuss their own experiences with traffic violence or the experiences of loved ones. Some participants used this marker to share general observations about roadway behaviors and needs for safety improvements.

Participation in the Community Input Map was skewed toward the north and eastern parts of the city. Table 2 provides the breakdown by comment type within the four quadrants of the city.

Table 2. Total Comments by Marker Type and City Quadrant

Total Comments					
	Northwest	Northeast	Southwest	Southeast	Total Comments
<i>Unsafe for Pedestrians</i>	408	480	165	335	1388
<i>Unsafe for Bicycles and Scooters</i>	189	296	100	205	790
<i>Unsafe for Transit Users</i>	21	25	11	6	63
<i>Unsafe for Cars and Motorists</i>	194	170	69	129	562
<i>Share your Story</i>	42	18	6	19	85
Total Comments	854	989	351	694	2888

Figures 5 through 8 show the distribution of all comments throughout the four quadrants of the City, overlaid with Communities of Concern.

¹ Suicide lanes refer to center lanes of a road where traffic may travel in either direction.

Figure 5. Northwest Quadrant Comment Distribution

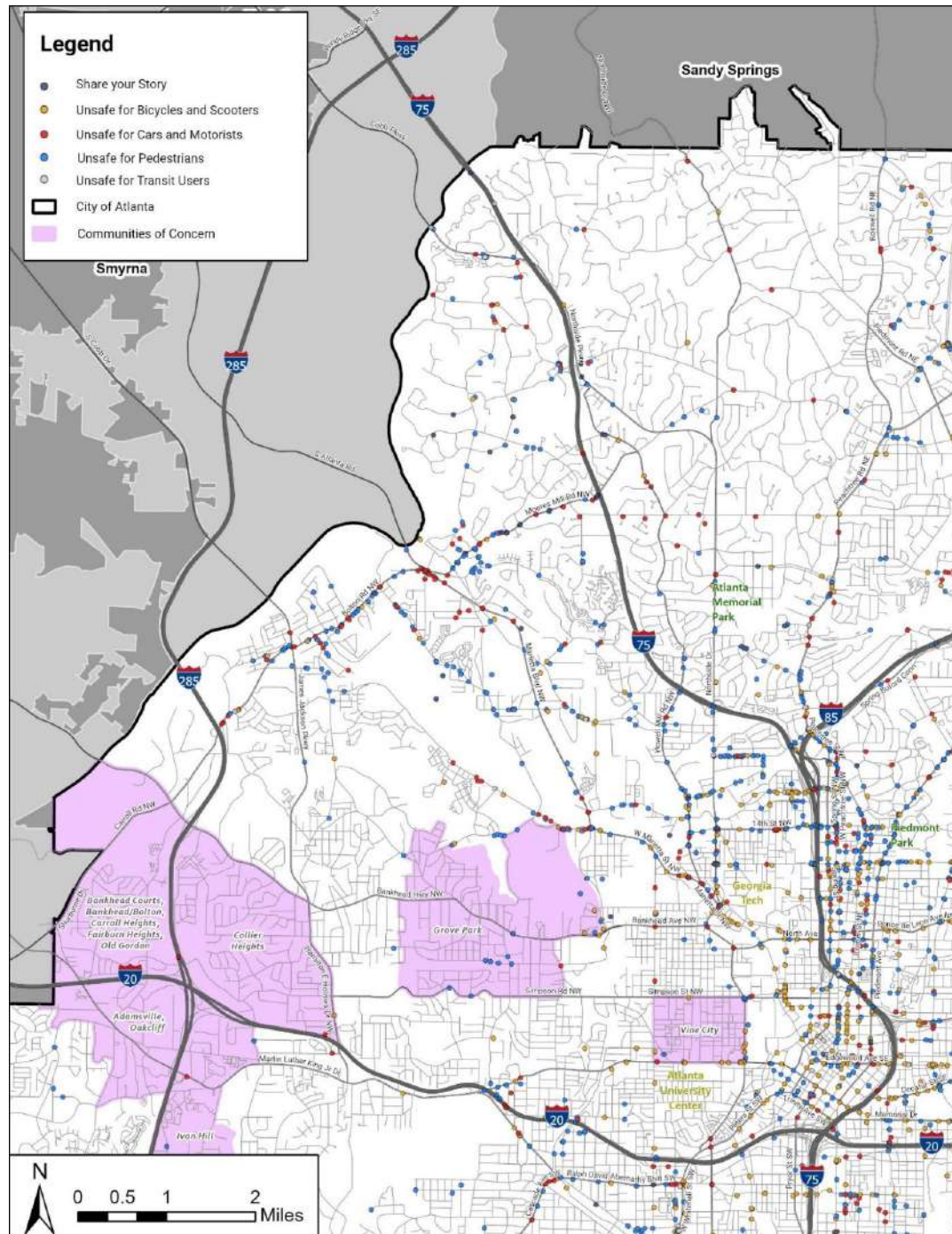


Figure 6. Northeast Quadrant Comment Distribution

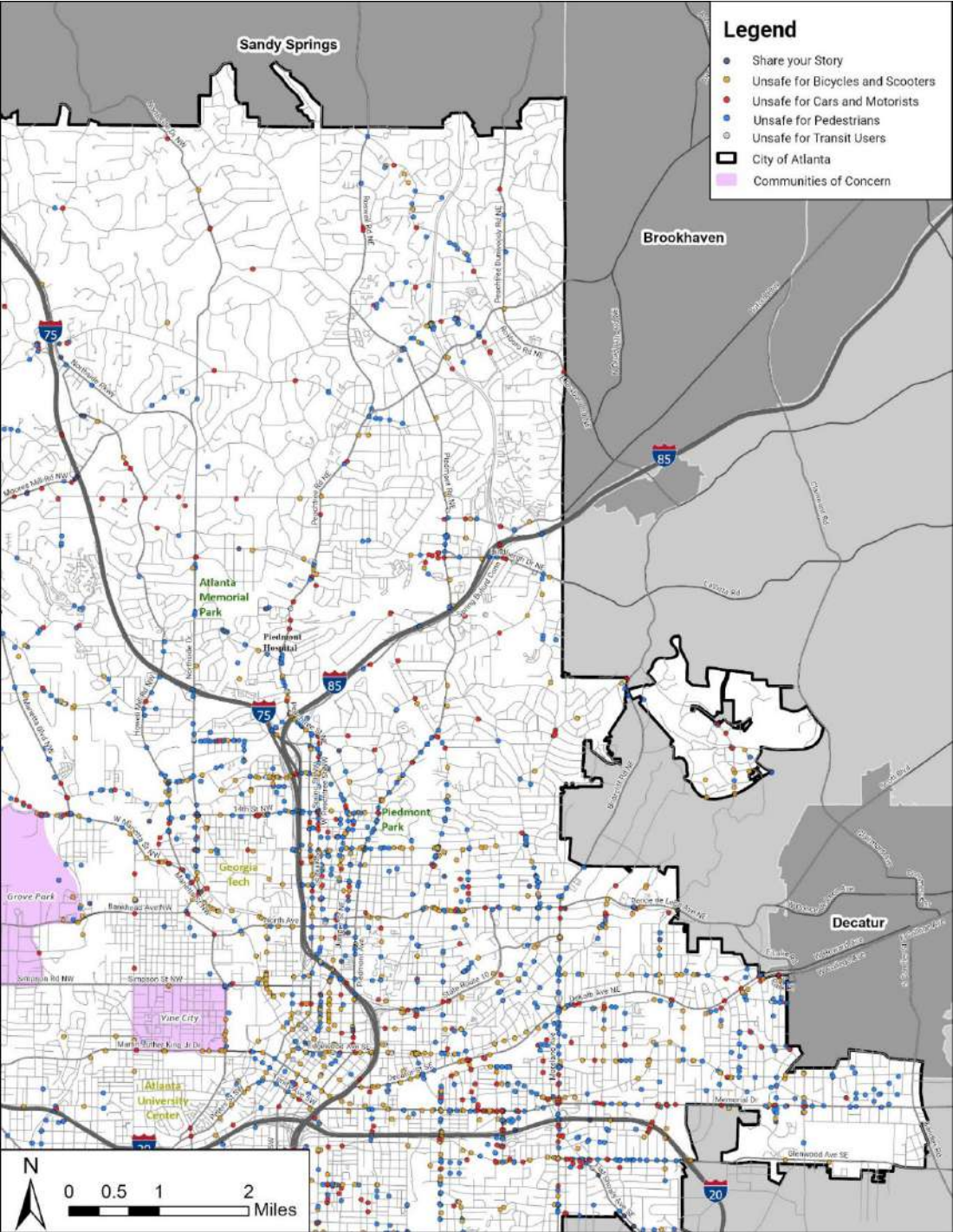


Figure 7. Southwest Quadrant Comment Distribution

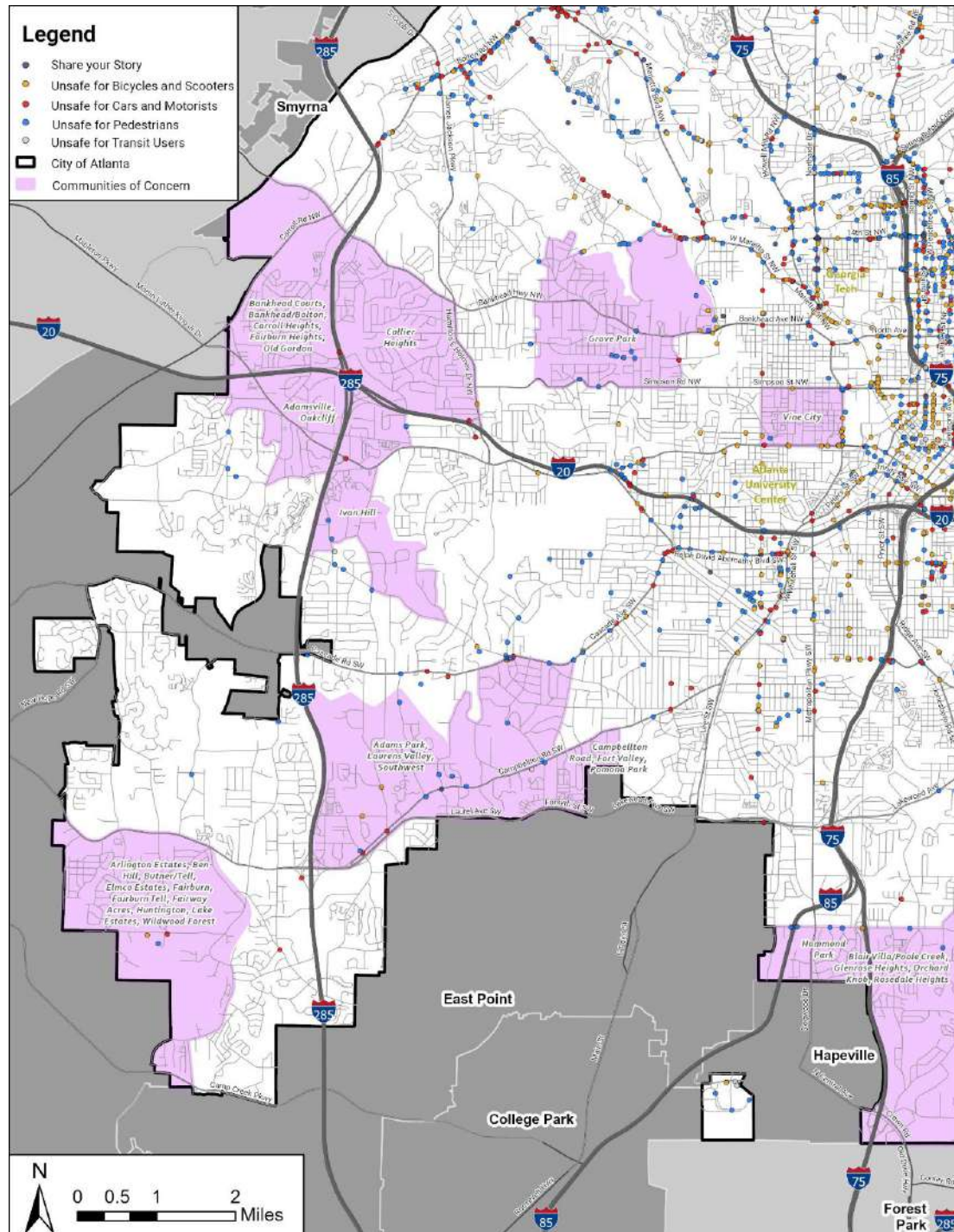
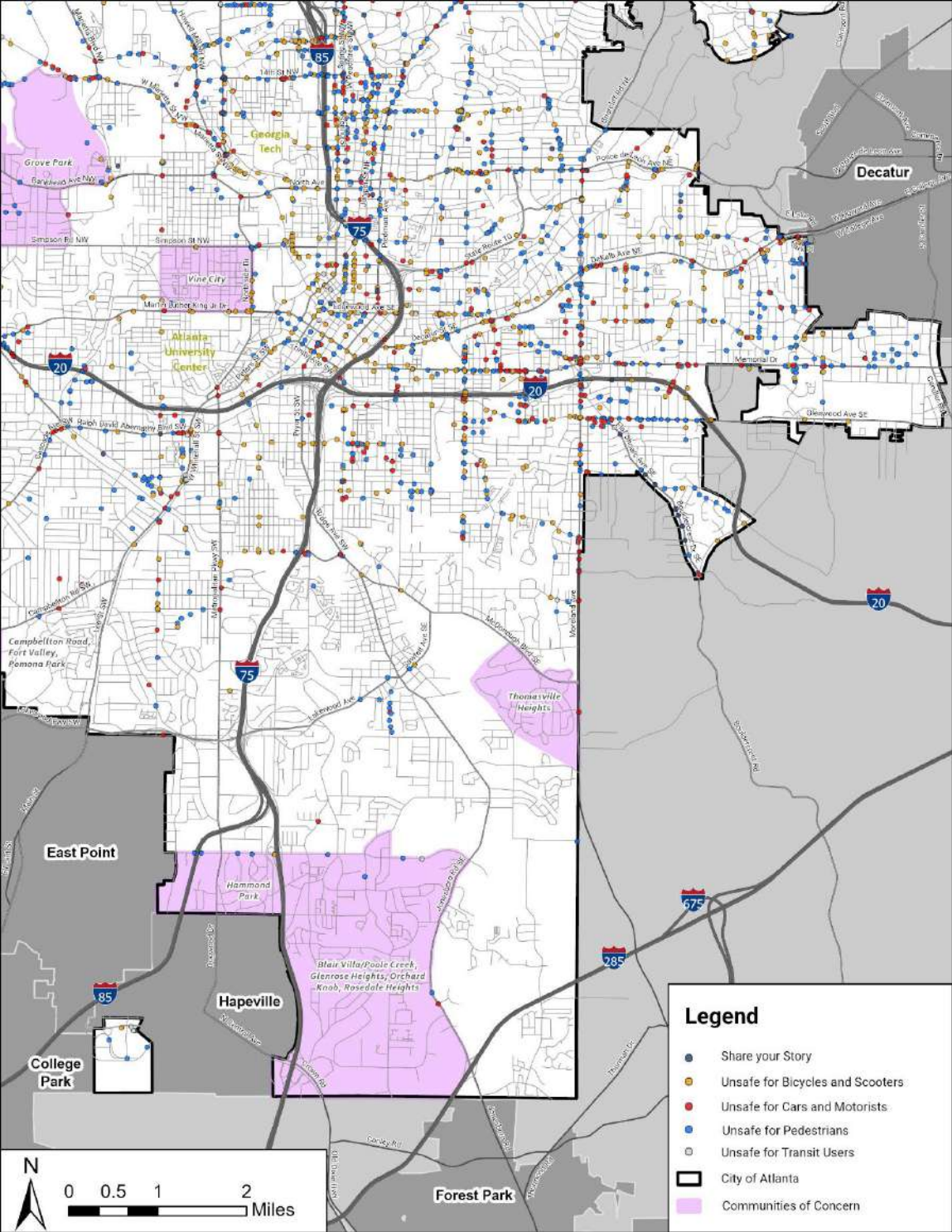


Figure 8. Southeast Quadrant Comment Distribution





Locations and Topics with Most Engagement

Roadways that received the most comments, based on the concentration of pins dropped within 250 feet, are listed in Table 3.

Table 3. Roadway Corridors with Greatest Density of Comments (Top 20)

Name	Total Comments
Memorial Dr SE	79
Boulevard SE	46
Piedmont Ave NE	45
Peachtree St	44
Glenwood Ave SE	42
Bolton Rd	39
Moore Mill Rd	37
Moreland Ave SE	37
Ponce de Leon Ave NE	37
Northside Pkwy NW	35
Peachtree St NW	33
Edgewood Ave NE	31
Monroe Dr NE	31
14th St NW	30
Marietta St	30
N Highland Ave NE	30
Perry Blvd NW	30
US Hwy 19	30
Spring St NW	29
10th St NE	27

The comments with the highest count of “up votes” (Social Pinpoint’s terminology for “likes”) are shown in Table 4. The top five comments shown were all provided in the NPU C geography.

Table 4. Comments with the Most “Up Votes”

Comment	Number of Up Votes	Latitude	Longitude
There is no sidewalk over the damaged Ridgewood Rd bridge over Peachtree Creek, so Ridgewood Heights and other nearby residents cannot safely access Standing Peachtree Park and the coming Chattahoochee Paddle Trail trailhead.	56	33.82664	-84.4499
There is a pedestrian crossing here, but nobody stops, and the cars are racing by. Tons of people crossing here. Families, dog walkers, runners, etc...	49	33.82407	-84.4466
The bridge has been damaged for over a year and only allows for one car to travel across safely at a time. Requiring other cars to wait, turning it into a one lane bridge.	41	33.82554	-84.4492
No sidewalk in this area to connect neighborhood to retail core. Current sidewalk ends abruptly with no crosswalk to other side.	33	33.82156	-84.4503
This is a very dangerous intersection. Vehicles rarely stop at the flashing yellow crosswalk. It's very scary to cross with children and dogs let alone as an individual walker.	33	33.82418	-84.4468

**Note: These comments are listed exactly as provided. The planning team has not made any adjustments for grammar or spelling. The latitude and longitude coordinates are provided so that the location can be searched in tools such as Google Maps.*

Hotspots by Marker Type

The following maps, Figures 9 through 12, highlight areas around the city with concentrations of the same marker types. Overall, there were significantly more markers dropped in the northern section of the city compared to south of I-20. As shown in each of the following figures, the downtown and midtown areas received the most comments. Pedestrian comments were the most prevalent type overall; these comments were also predominant in more locations distributed across the city, as shown in Figure 9.

Figure 9. Pedestrian Comments Heat Map

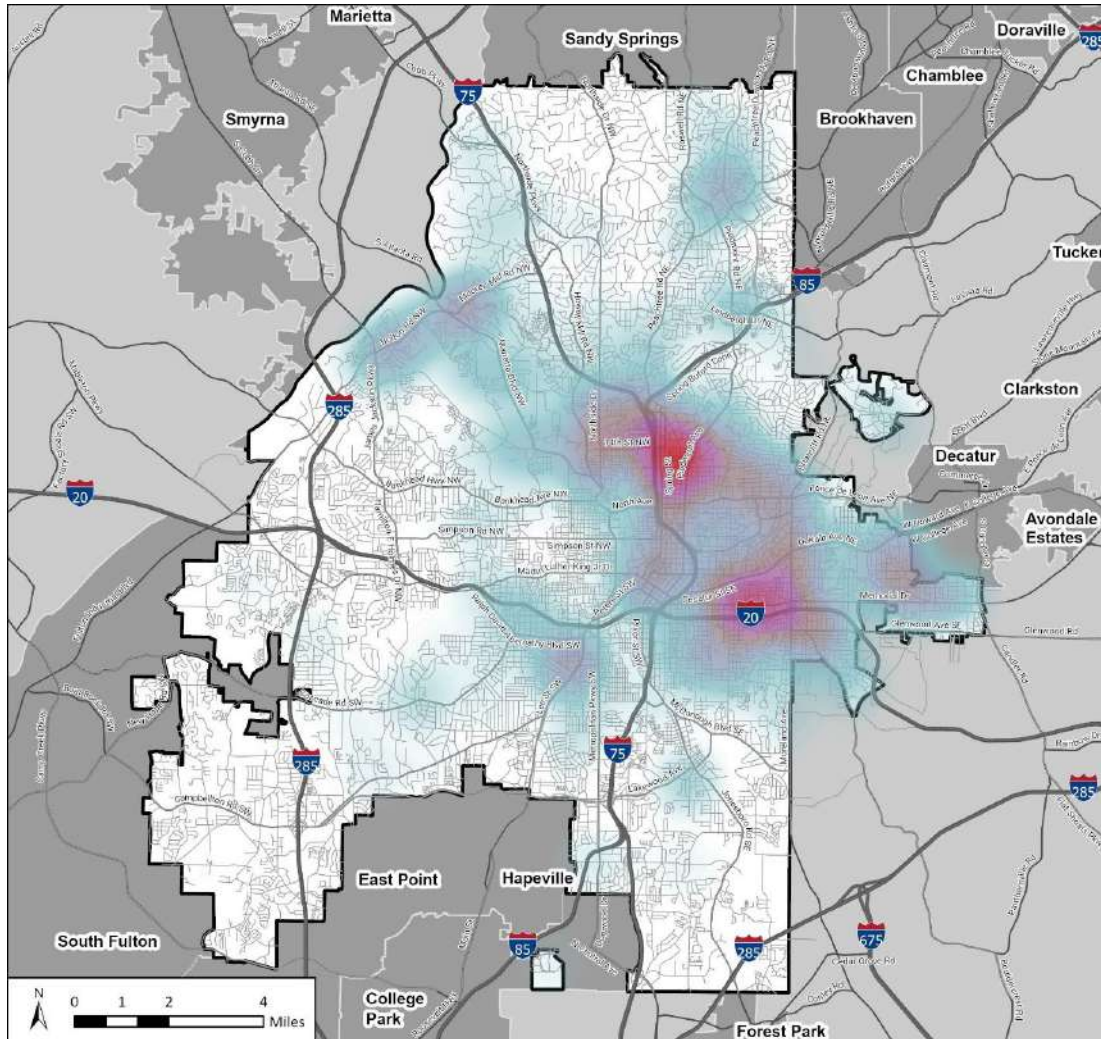


Figure 11. Cars and Motorists Comments Heat Map

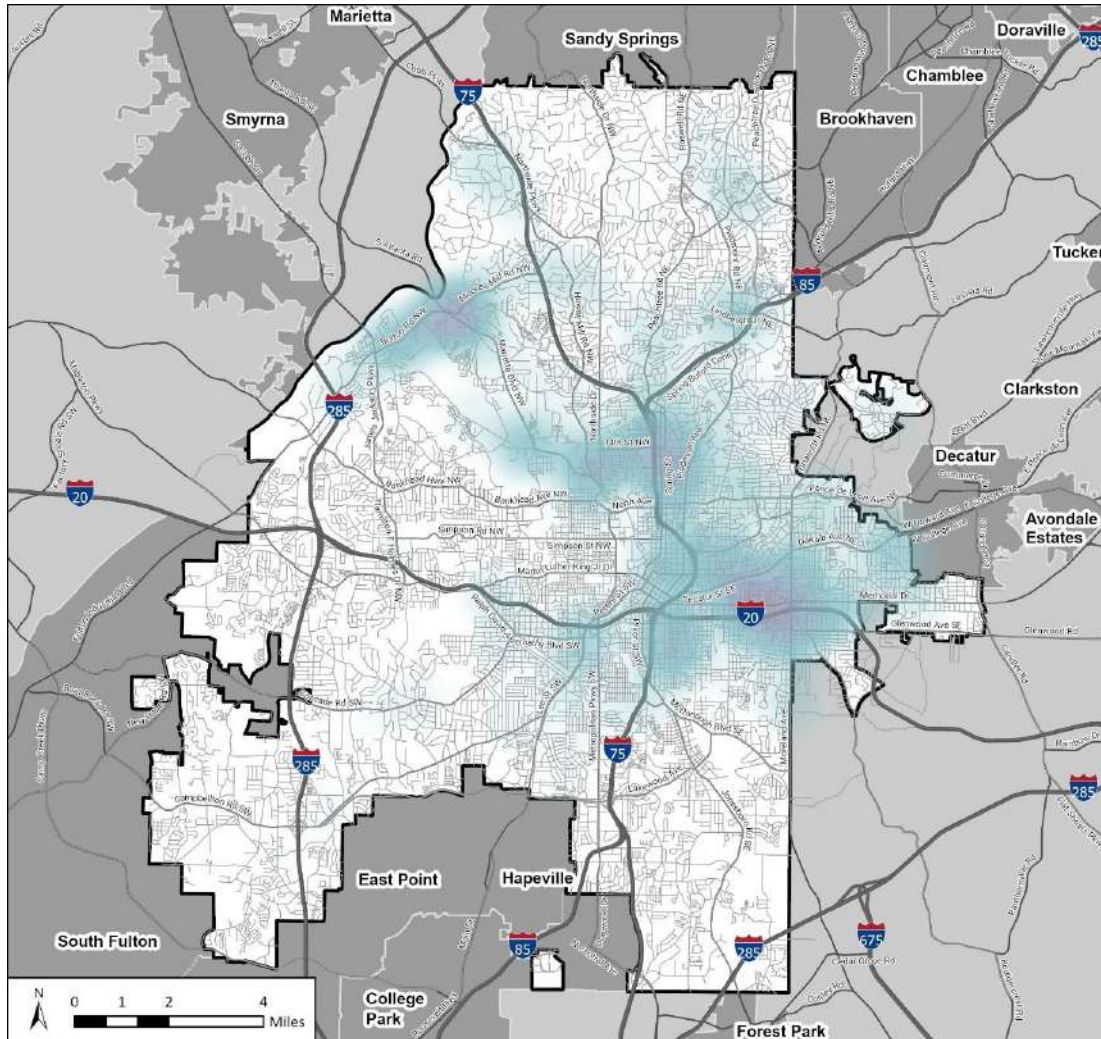
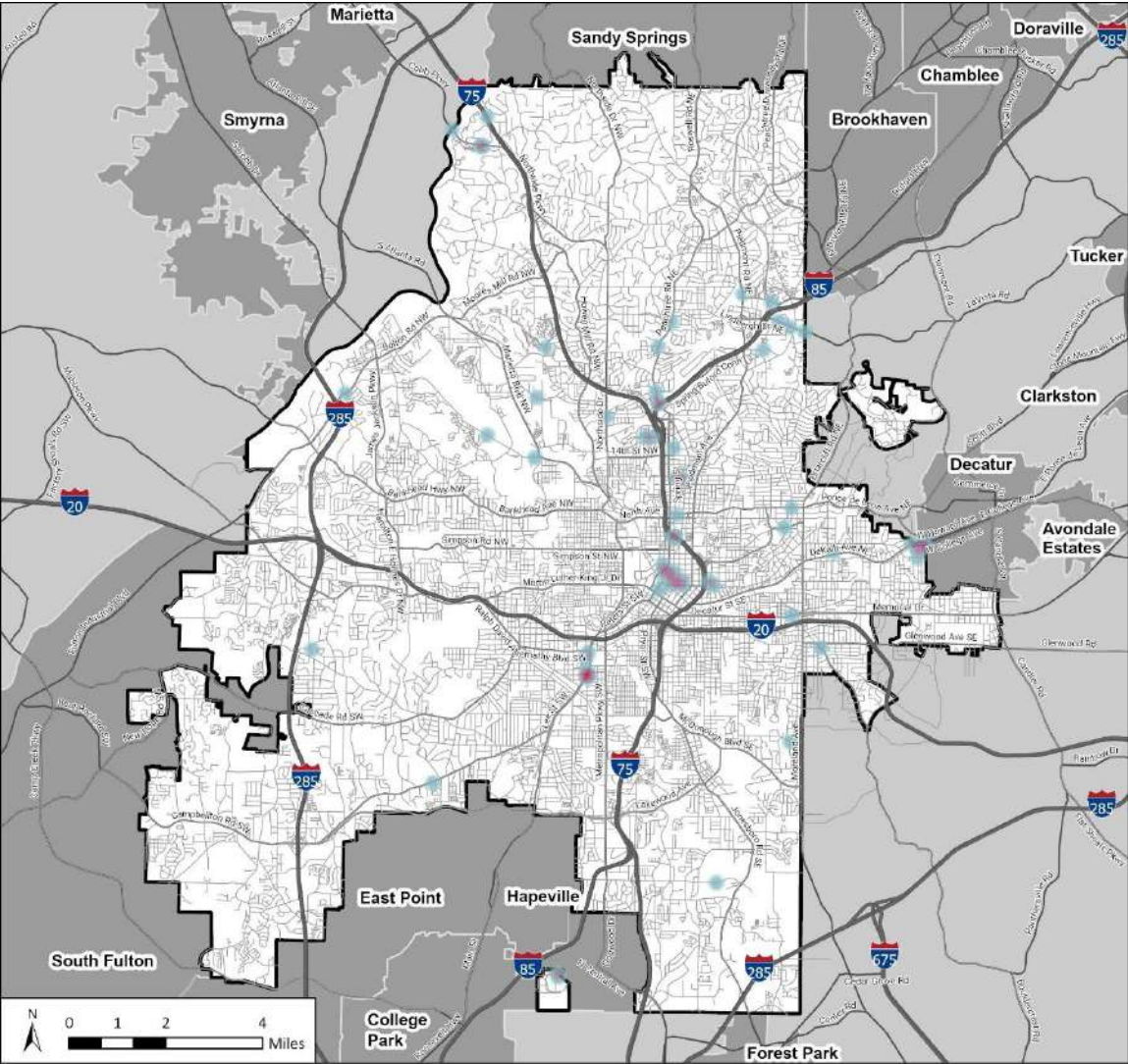


Figure 12. Transit Users Comments Heat Map

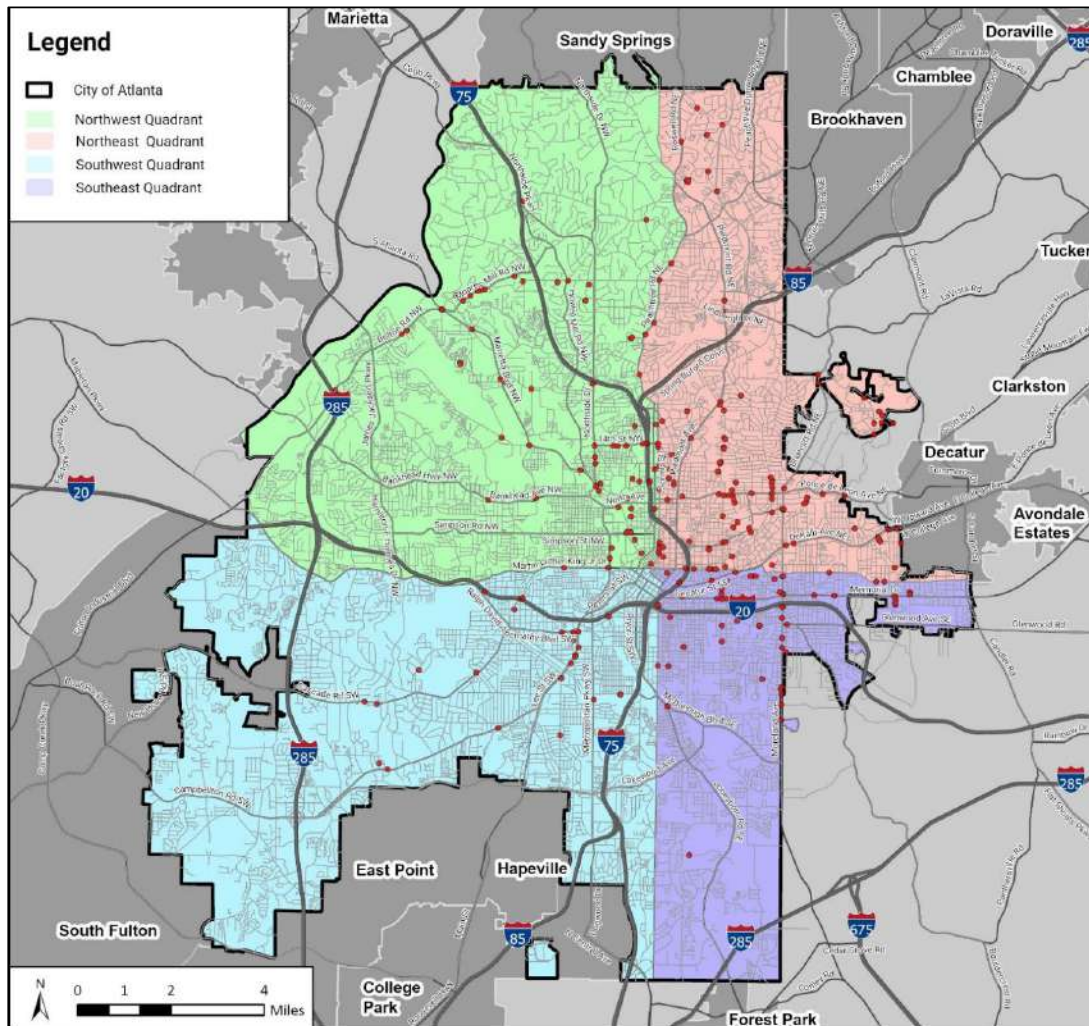


Survey Response Maps

As shown in Figure 13, participants indicated that they experienced a crash or know someone that was hit by a vehicle on several major roadways, including but not limited to:

- Ponce de Leon Ave NE
- Memorial Drive
- Moreland Ave
- 14th St
- Moores Mill Rd
- Northside Drive

Figure 13. "I was hit or know someone that was hit here" Responses



Figures 14 through 22 highlight the remainder of the unsafe or uncomfortable conditions that participants identified as issues on Atlanta’s streets based on the follow-up survey. Figure 23 shows locations where people identified that they feel comfortable and safe. Table 5 shows the breakdown of input points by each survey response option.

Table 5. Total Survey Responses to Question 1 by Answer Choice

Survey Option	Total Survey Responses
I was hit or know someone that was hit here	293
Lack of crosswalk	741
Lack of sidewalk	664
Too many lanes for pedestrians to cross	568
Lack of bike facilities (bike lanes, bike parking, etc.)	969
Cars drive too fast	1,854
Cars make unsafe turns	1,347
Cars and/or trucks double park	255
Cars run red lights	631
Not enough lighting	288
I feel comfortable and safe here	85

**The survey allowed participants to select as many responses as applicable for the marked location.*

Figure 14. "Lack of crosswalk" Responses

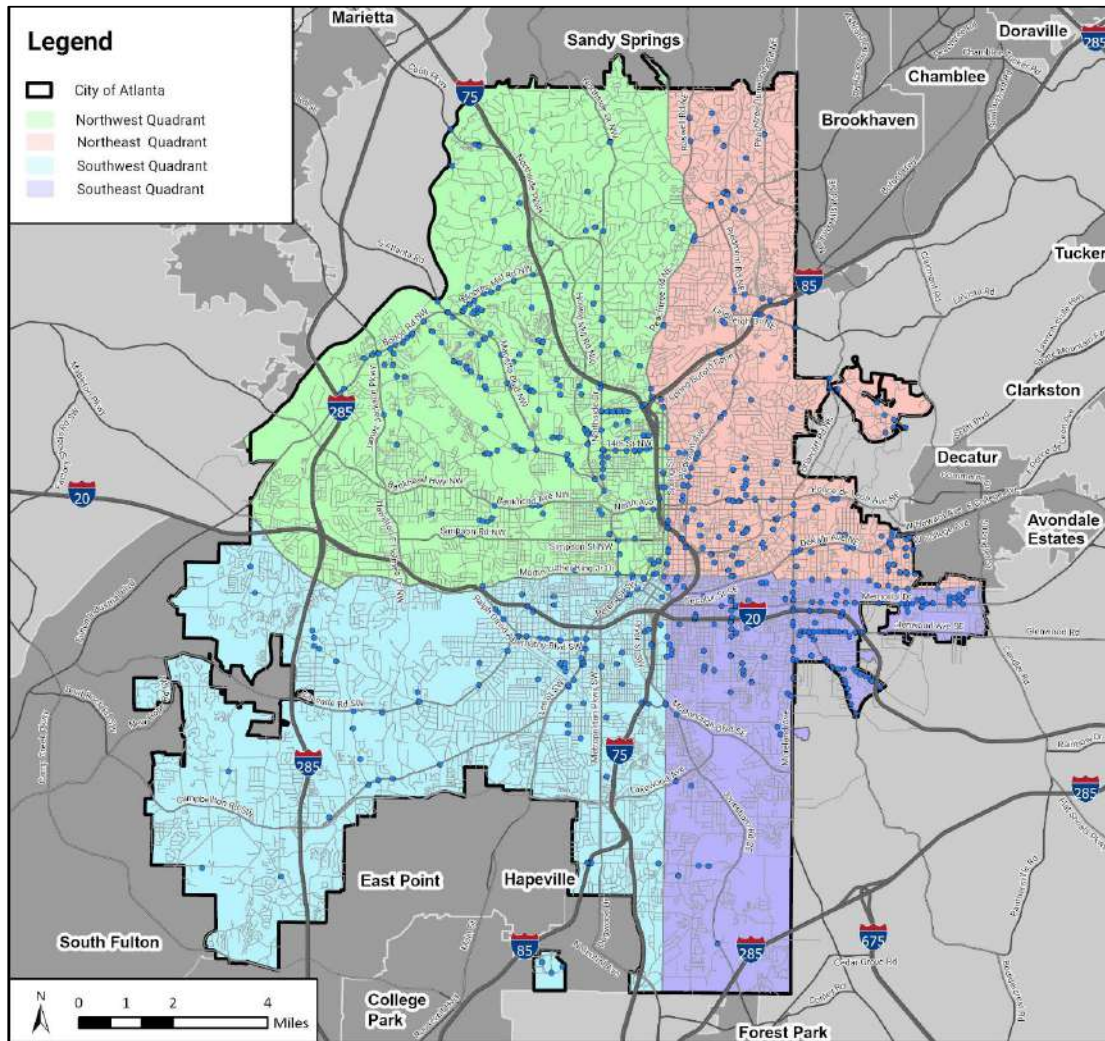


Figure 15. “Lack of sidewalk” Responses

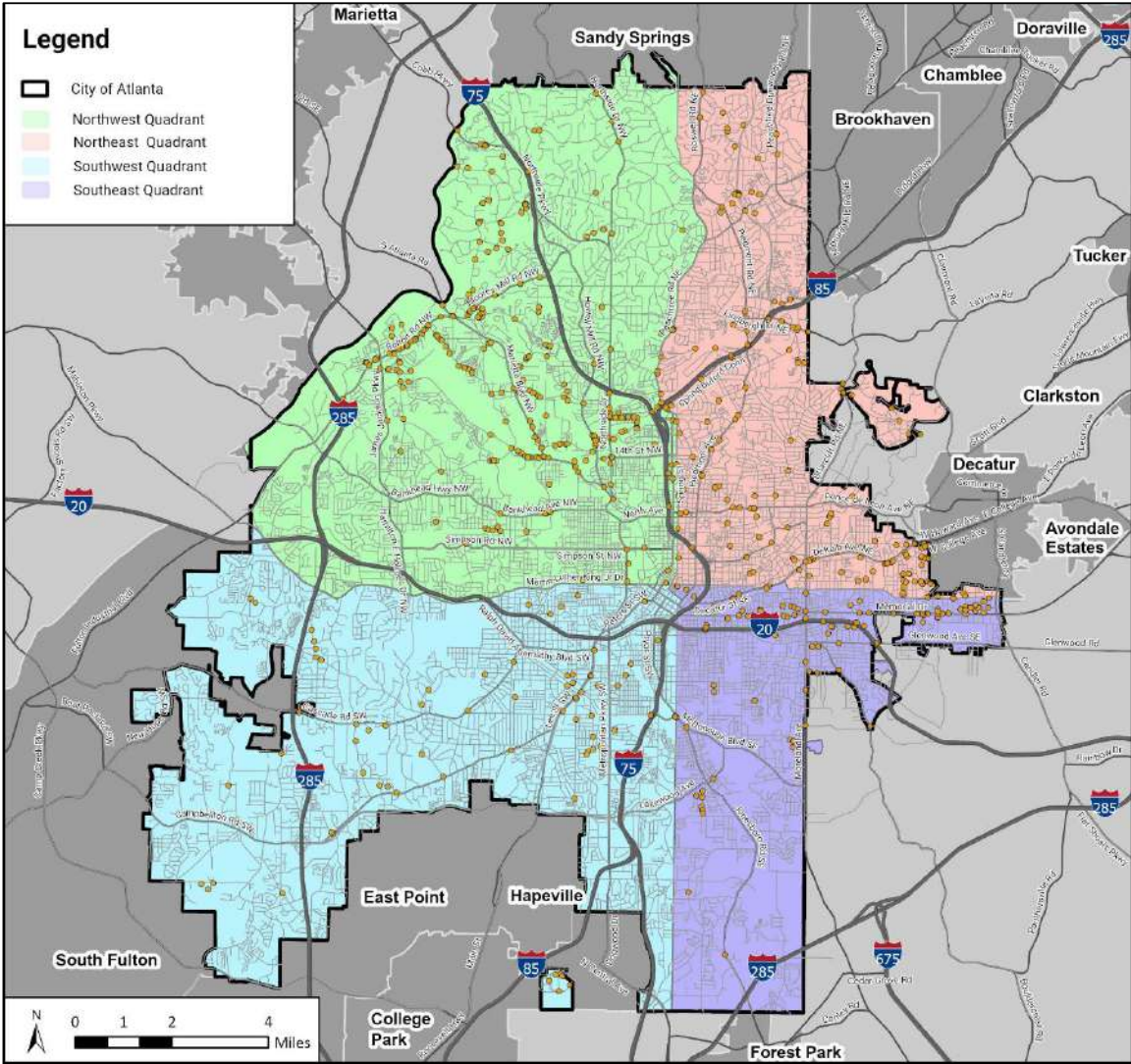


Figure 16 shows that many north-south corridors are challenging for pedestrians to cross due to having many lanes to cross. The major east-west corridors with these challenges were: Memorial Drive, Ralph David Abernathy Boulevard, Ponce de Leon Avenue, 14th Street, and Lindbergh Drive.

Figure 16. "Too many lanes for pedestrians to cross" Responses

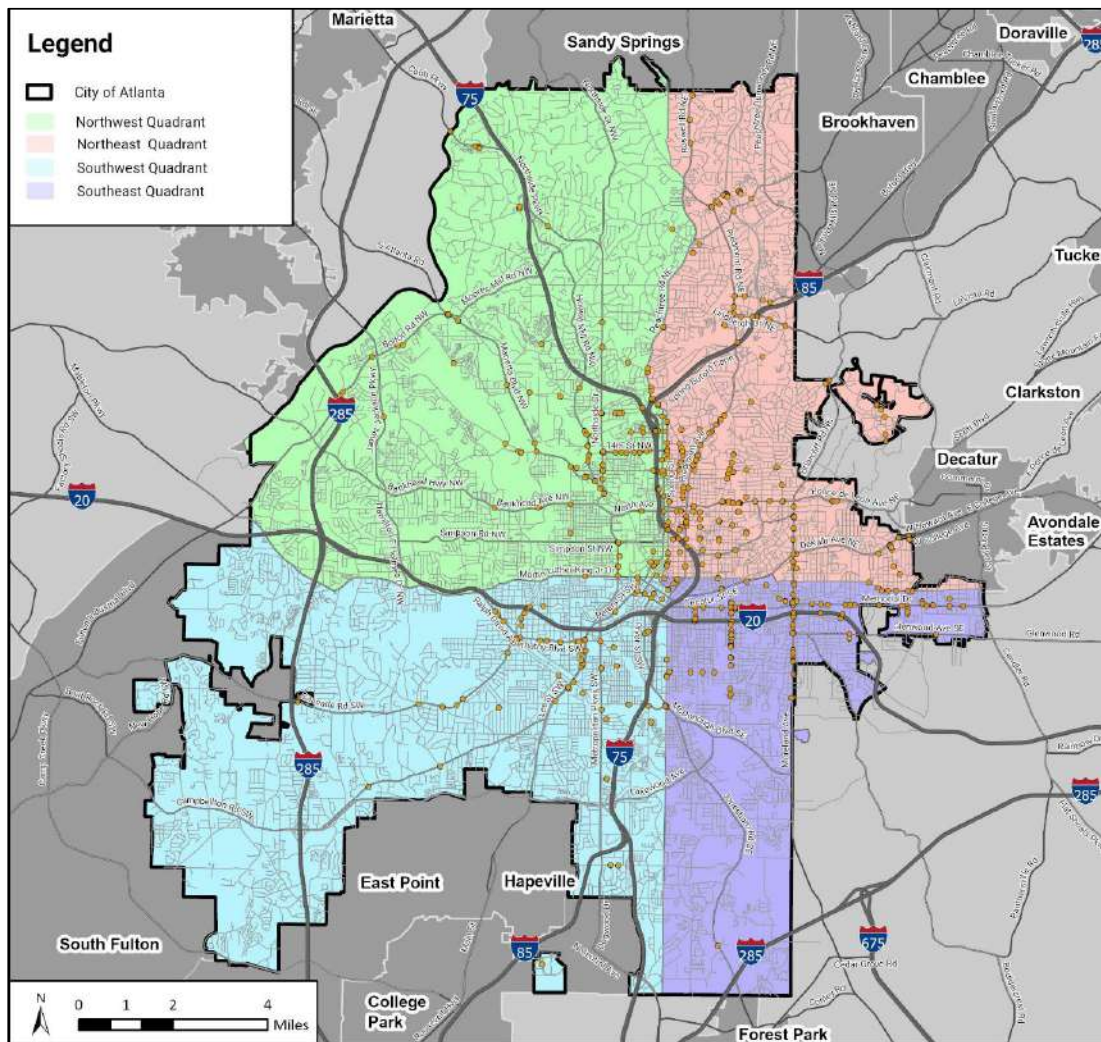


Figure 17. “Lack of bike facilities (bike lanes, bike parking, etc.)” Responses

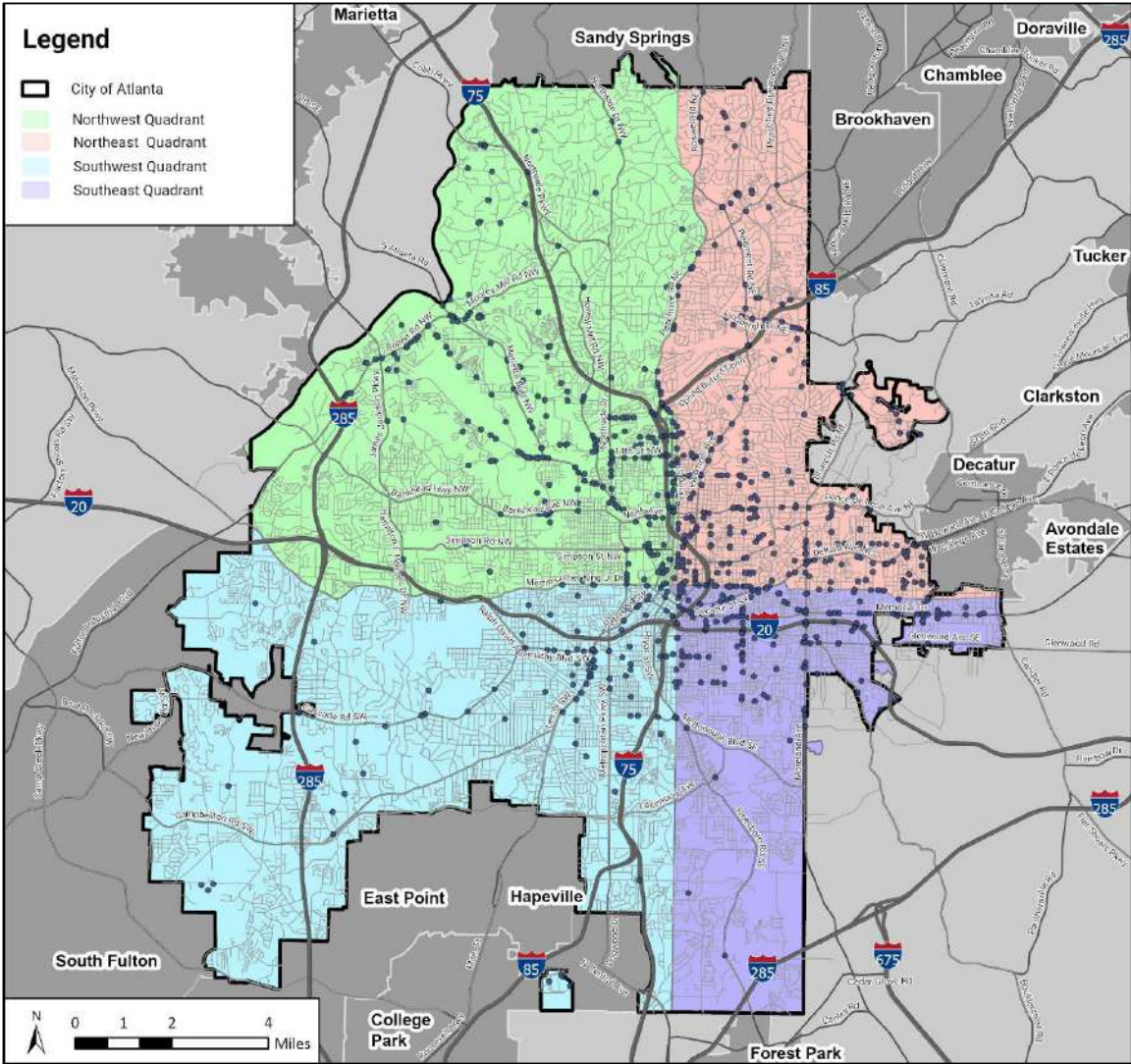


Figure 18. "Cars drive too fast" Responses

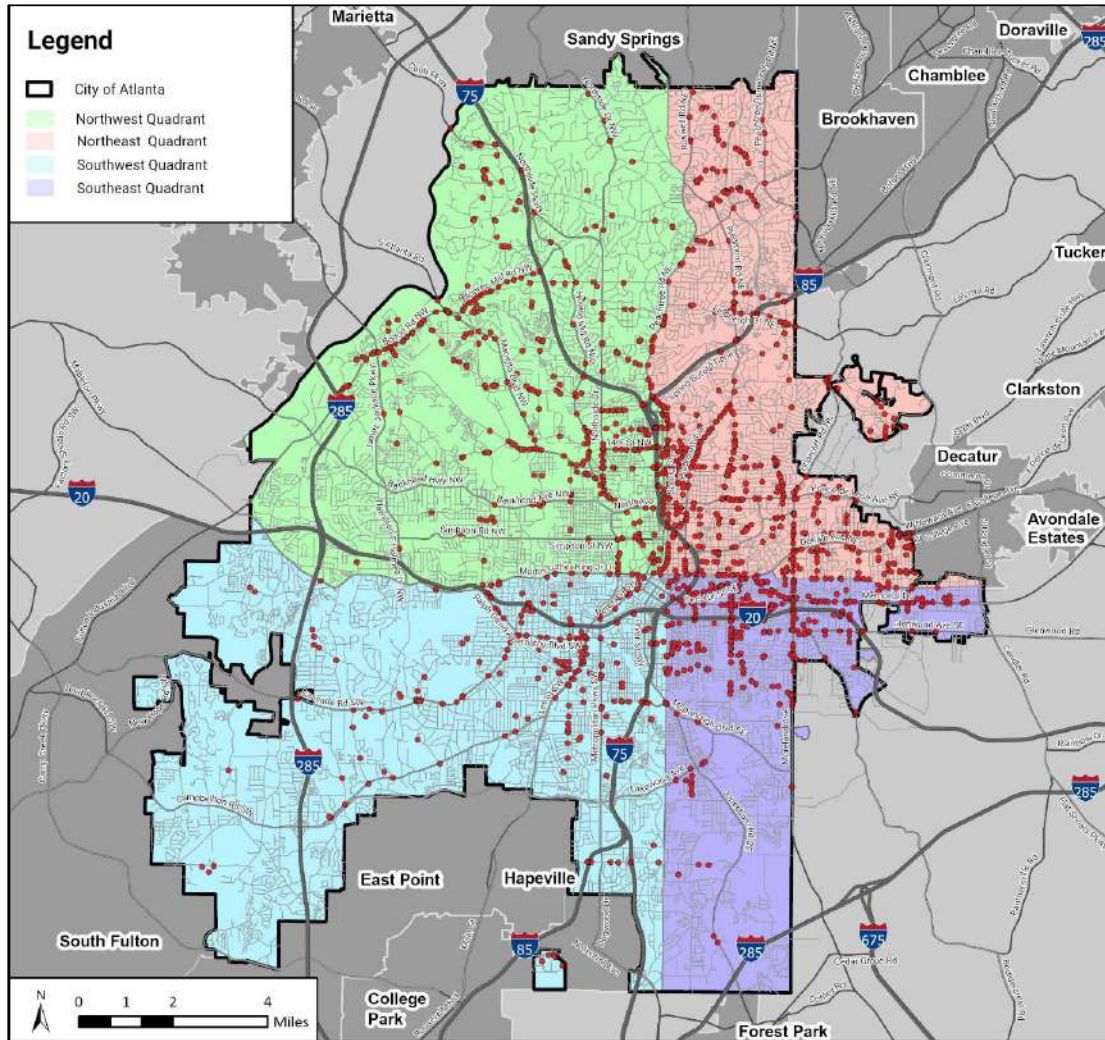


Figure 19. “Cars make unsafe turns” Responses

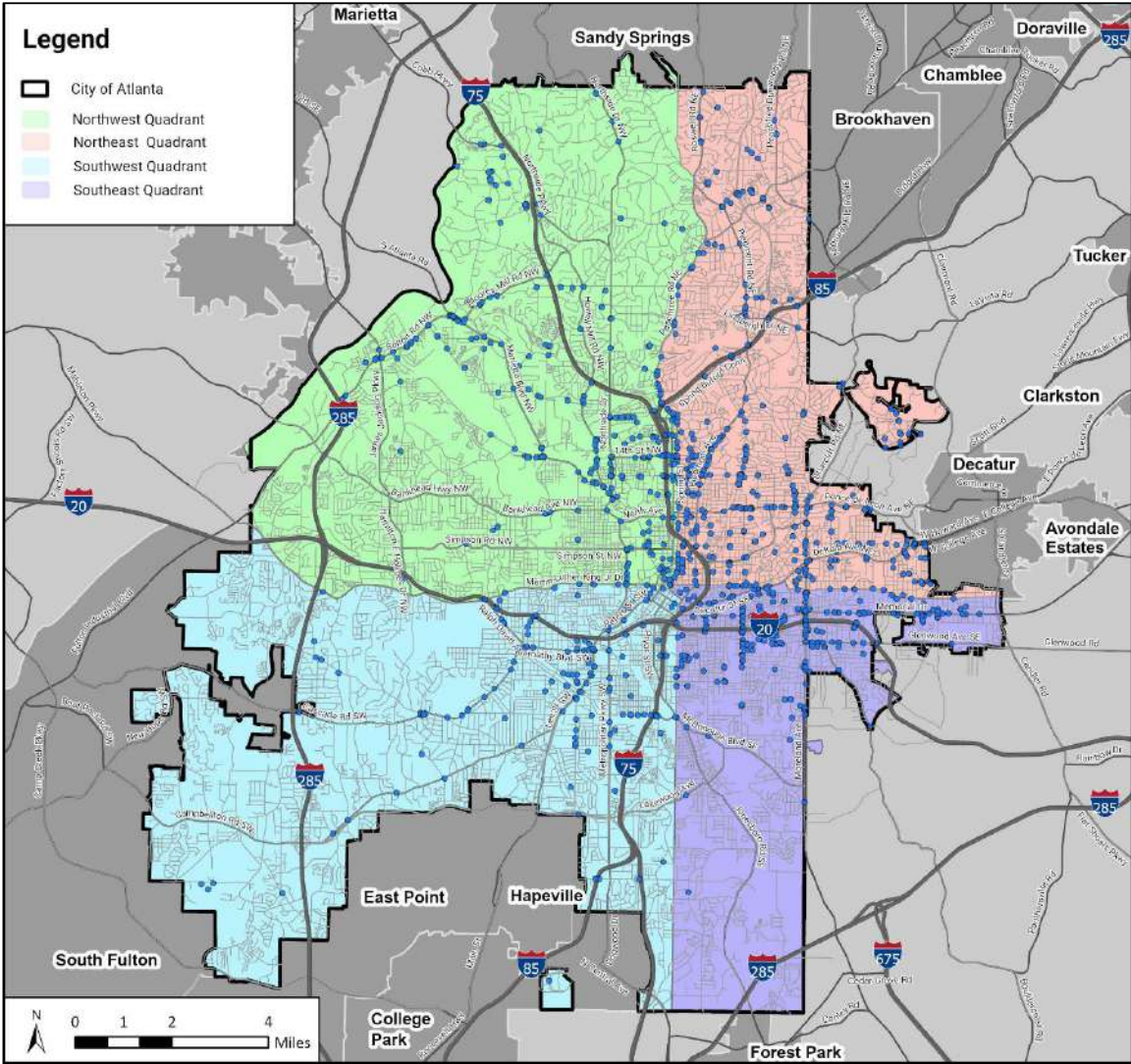


Figure 20. "Cars and/or trucks double park" Responses

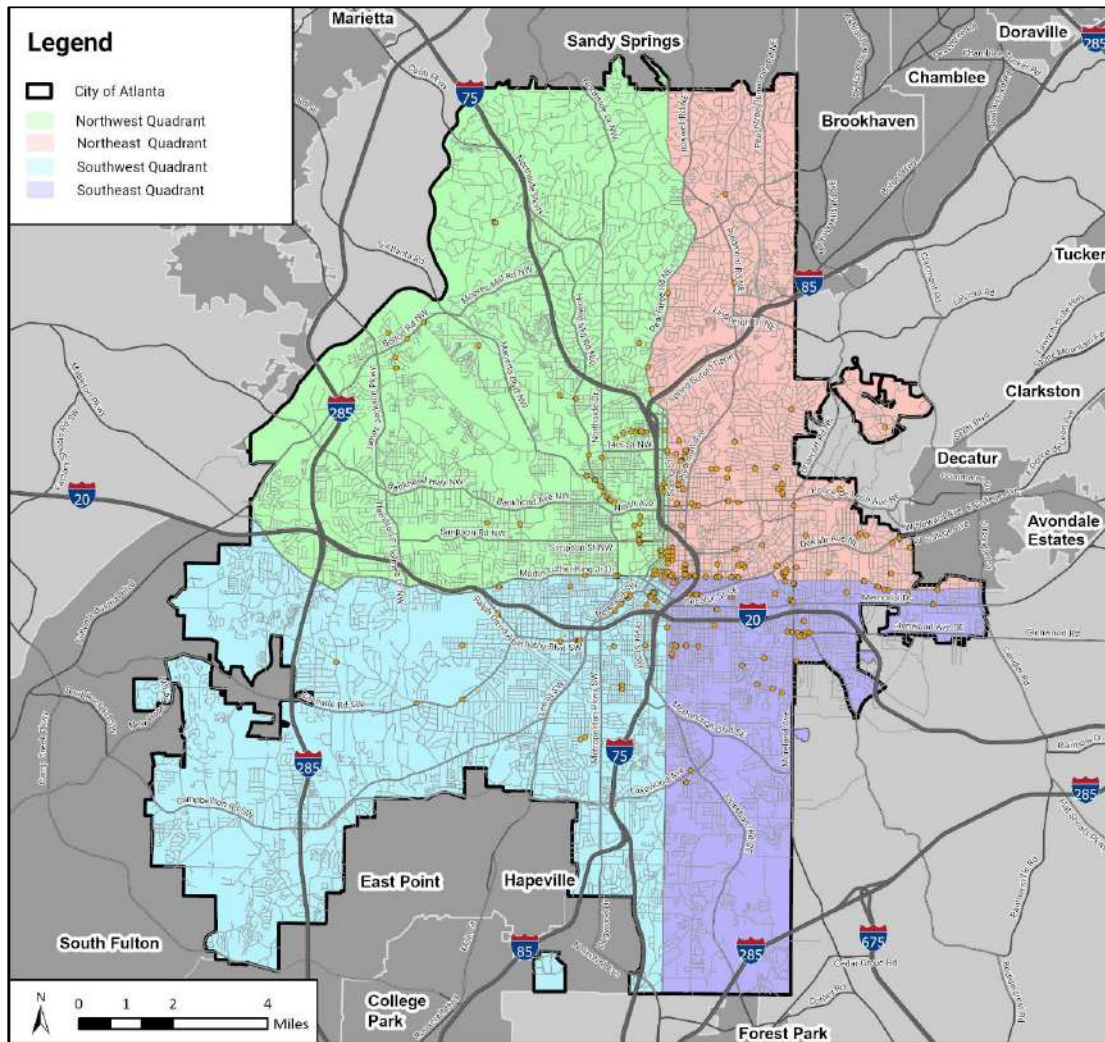


Figure 21. “Cars run red lights” Responses

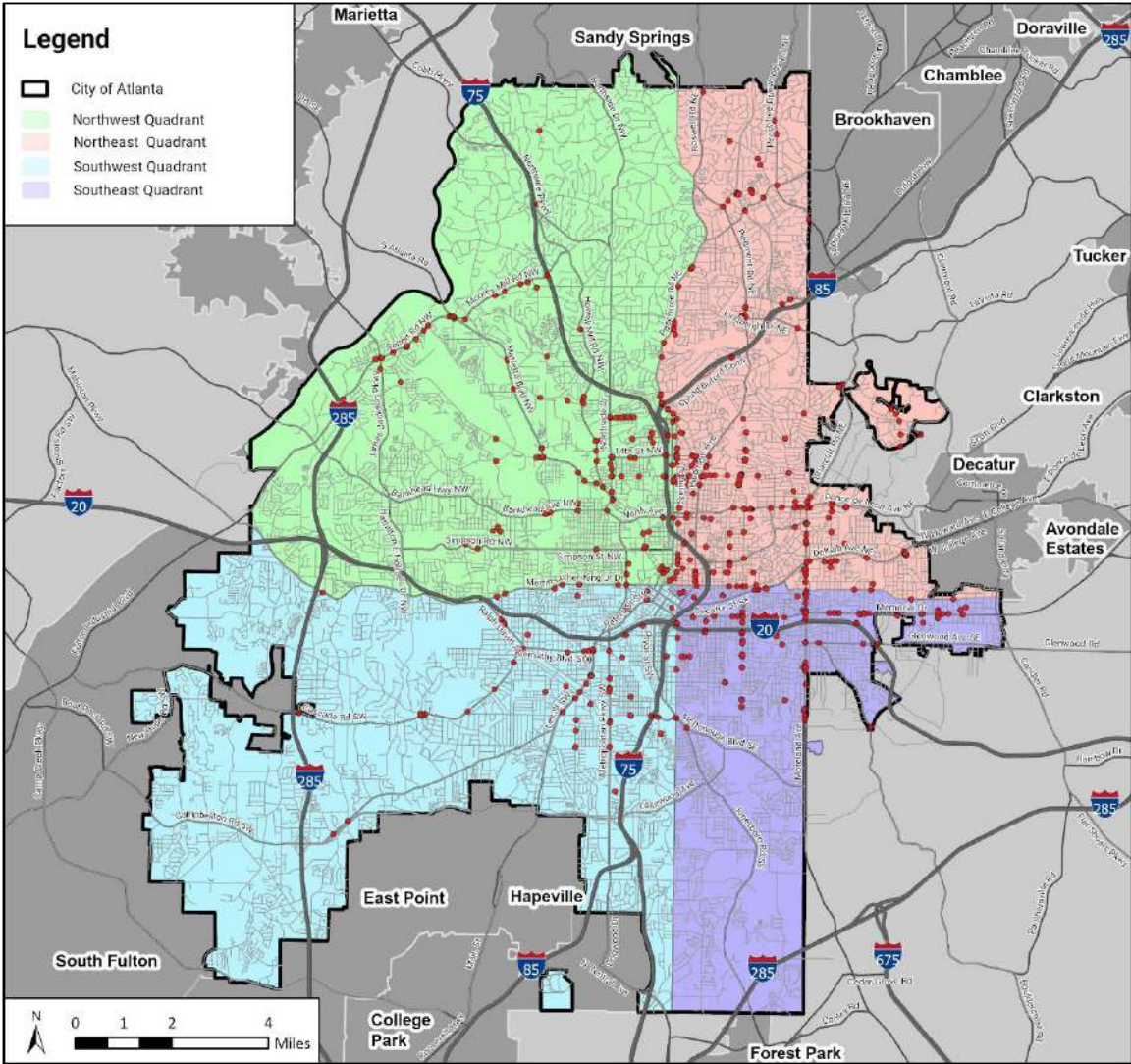


Figure 22. "Not enough lighting" Responses

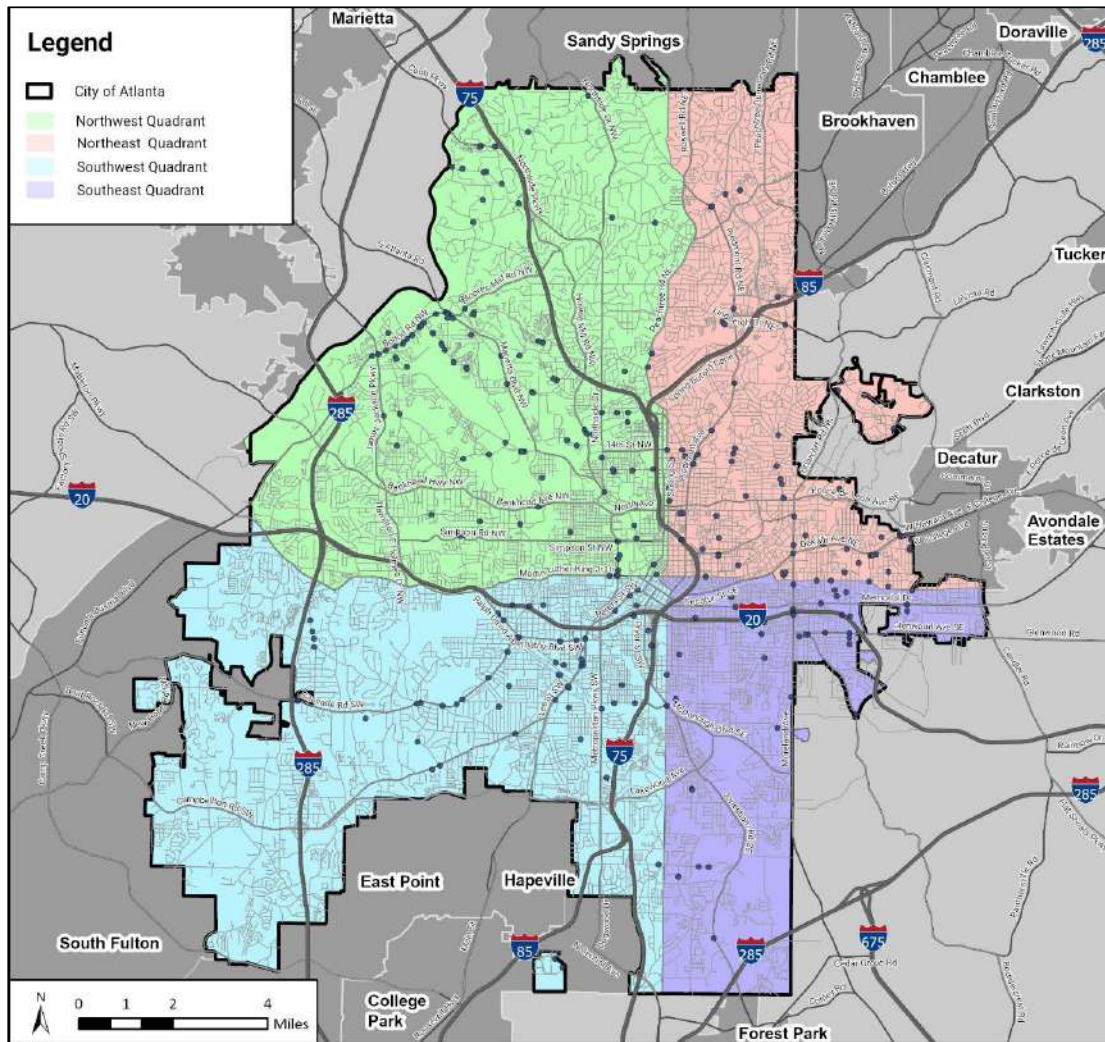
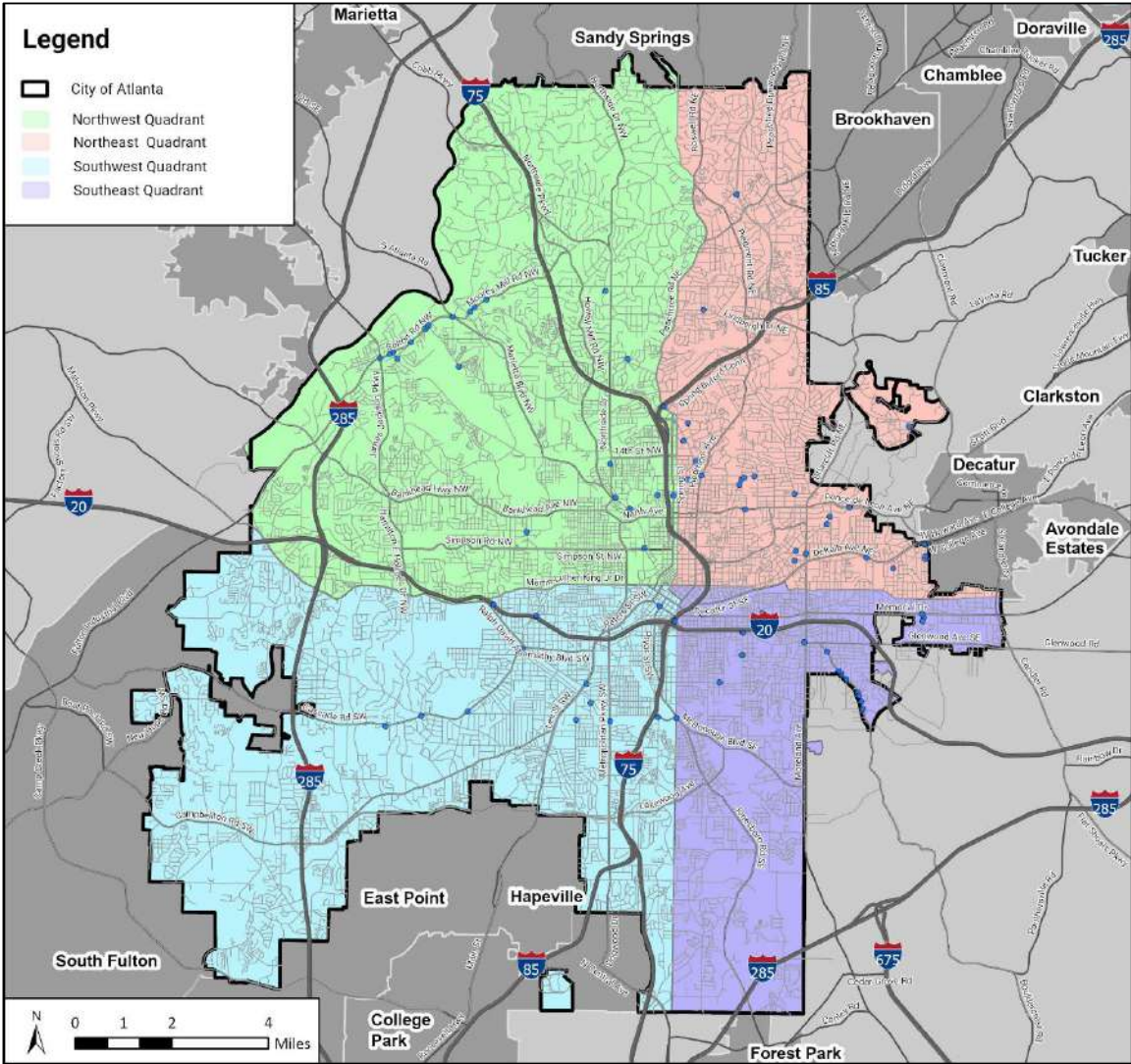


Figure 23. "I feel comfortable and safe here" Responses



This page intentionally left blank.





APPENDIX B:

SUPPORTING DATA ANALYSIS MATERIALS

HIGH-INJURY NETWORK (HIN) METHODOLOGY	B1
SYSTEMIC ANALYSIS RESULTS	B6
HIGH INJURY NETWORK STREET EPDO SCORES	B12
FOCUS CRASH TYPE RISK FACTOR MAPS	B22
COMBINED RISK NETWORK MAP	B30
GAP ANALYSIS METHODOLOGY AND FINDINGS	B32
Quadrant Maps	B34
Triple Threat Streets	B38
Single Data Source Streets	B41
Sorted Community Feedback Map Streets	B46

This page intentionally left blank.

HIGH-INJURY NETWORK (HIN) METHODOLOGY

PURPOSE

The purpose of this memorandum is to define the methodology that VHB will use for the update to the City of Atlanta's High Injury Network (HIN). The HIN will define stretches of road, or corridors, and intersections within the City of Atlanta's jurisdiction that have the highest concentration of severe crashes. The HIN will highlight locations that have experienced a high number of severe crashes in the past 5 years (2017-2021). This analysis will complement a systemic analysis approach that will focus on crash risk, rather than crash history alone.

METHOD

VHB proposes the equivalent property damage only (EPDO) method (also known as crash severity weighted frequency) to create the HIN. The EPDO method refers to the societal costs of fatal, injury, and property damage-only crash severities. VHB recommends a blended crash cost and weight for fatal (K) and suspected serious injury (A) severity crashes, which is consistent with the Atlanta Regional Commission (ARC) Regional Safety Strategy. This method would use crash costs updated as part of the recent ARC Regional Safety Strategy and shown below in Table 1. These costs would allow VHB to use a single average crash cost (and associated weight) for both K and A crashes. This weighted average for K and A crashes is computed as follows:

BLENDED KA EPDO WEIGHT

$$\frac{(\text{Blended KA Crash Cost})}{(\text{PDO Crash Cost})} = \frac{\$3,600,000}{\$18,816} = 191$$

Table 1: Average Crash Costs from ARC Regional Safety Strategy

Crash Severity Category	Average Crash Cost	EPDO Weight
KA: fatal and serious injury	\$3,600,900	191
B: suspected minor injury	\$326,938	17
C: possible injury	\$184,435	10
O: property damage only	\$18,816	1

Although this approach differs slightly from the Georgia Department of Transportation's (GDOT's) EPDO calculations in terms of costs associated with each injury severity level, it would follow State and national guidance and policy related to the Highway Safety Improvement Program (HSIP), focusing the HIN on both K and A crashes. VHB can also develop a blended weight for suspected minor injury (B) and possible injury (C) crashes if desired instead of using separate weights. The City could consider this merger of B and C weights if there are concerns with police reported crashes and the accuracy of lower severity injuries in the crash data, as well as providing greater emphasis on KA crashes in the HIN. As a result, VHB recommends blending B and C crashes into a BC weight. Assuming the City prefers a blended KA crash weight and a blended BC crash weight, the following equation will determine the EPDO score of a corridor or intersection:

$$\begin{aligned}
 \text{EPDO SCORE} = & \quad (\text{Blended KA Weight} * \text{Number of KA Crashes}) \\
 & + (\text{Blended BC Weight} * \text{Number of BC Crashes}) \\
 & + (\text{PDO Weight} * \text{Number of PDO Crashes})
 \end{aligned}$$

Other Considerations

VHB will apply these scores to all corridors and intersections within Atlanta's city limits. The highest-ranking corridors will be used to generate an HIN for the City; if the HIN output produces small gaps in the network along a contiguous corridor, VHB will aggregate these segments into contiguous corridors based on a general quarter-mile proximity buffer, professional judgment, and feedback from the City (Figure 1).

Figure 1: Example of short gaps in the HIN along Memorial Drive



VHB will also exclude short crossroad segments as entries in the HIN. These locations are indicative of high crash intersections, and these will not be treated as segment-related crashes for the purposes of generating HIN corridors (Figure 2).

Figure 2: Example of crossroads aggregated to the HIN based on high crash intersections



DATA

VHB will use segments from GDOT's road inventory for Atlanta. VHB will aggregate high crash segment and intersection locations to generate contiguous corridors throughout the road inventory. VHB will use categories (i.e., bins) to determine general intersection influence areas for data aggregation. This will be best on the typical block length within a Census block group (Table 2).

Table 2: Assumed Intersection Influence Area by Average Block Length

Average Block Length in GIS (Feet)	Assumed Intersection Influence Area (Feet)
<400	75
400-650	100
>650	150

This will help to discern the top 10 HIN corridors from top intersections and address the issue noted in Figure 2. VHB recommends using 5 years of the most recent available crash data (2017-2021). This data will represent crashes occurring both before and during the COVID pandemic. A map of street ownership along the HIN is shown in Figure 3. The top 20 high injury intersections along the HIN are shown in Table 3.

ELIGIBLE STREETS

VHB recommends excluding access-controlled roads from the HIN analysis (although at-grade ramp terminals will be included). This is generally consistent with the prior HIN analysis, and it reflects differences between these facility types. The network of eligible streets reflect the strategies available to the City and its partners to achieve its Vision Zero goals.

Figure 3: High Injury Network and Street Ownership Map

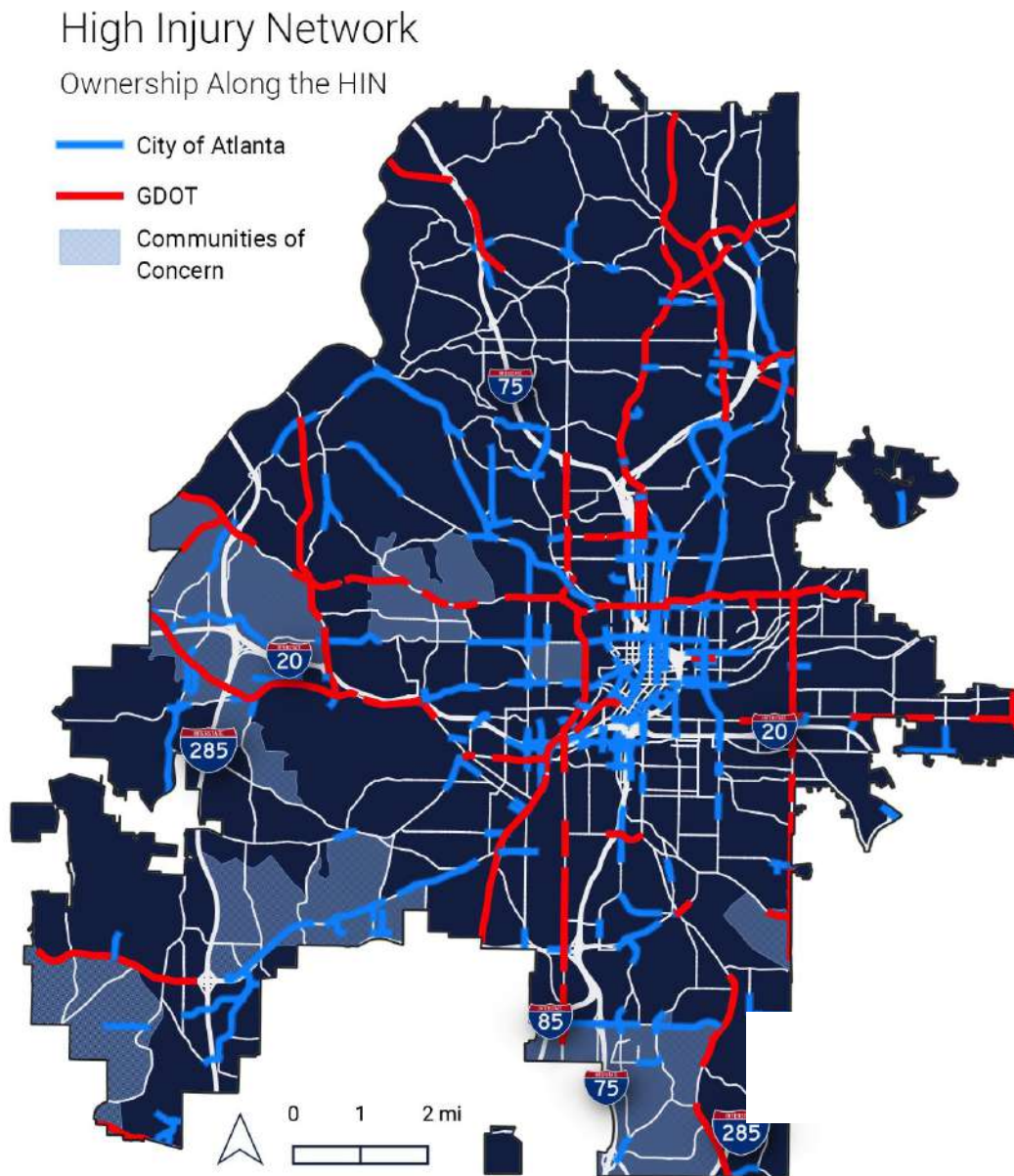


Table 3: Top 20 High Injury Intersections along the HIN

Rank	Intersection	Rank	Intersection
1	Northside Dr @ Marietta St	11	Piedmont Rd @ Pharr Rd
2	Northside Dr @ 10th St	12	Piedmont Rd @ Lakeshore Crossing
3	Joseph E Lowery @ Donald Lee Hollowell	13	Northside Dr @ McDaniel St
4	Campbellton Rd @ Barge Rd	14	Northside Dr @ 14th St
5	Metropolitan Pkwy @ Cleveland Ave	15	MLK Jr Dr @ Fairburn Rd
6	Piedmont Rd @ Morosgo Dr	16	Boulevard @ John Lewis Freedom Pkwy
7	Williams St @ 10th St	17	Buford Hwy @ Lenox Rd
8	North Ave @ Spring St	18	North Ave @ Peachtree St NE
9	Piedmont Rd @ Lindbergh Way	19	Metropolitan Pkwy @ University Ave
10	Donald Lee Hollowell @ Fulton Industrial Blvd	20	Moreland Ave @ McDonough Blvd

This page intentionally left blank.

SYSTEMIC ANALYSIS RESULTS

PURPOSE

The purpose of this memorandum is to document the risk factor analysis process conducted as part of Task 3C of the Atlanta Vision Zero Plan update. The systemic analysis followed a three-step process:

1. Identify focus crash types
2. Identify focus facility types for focus crash types
3. Identify risk factors related to focus crashes on focus facilities

This three-step approach is also consistent with the Atlanta Regional Commission's (ARC's) 2022 Regional Safety Strategy (RSS). The results of this analysis will allow the Atlanta Department of Transportation (ATLDOT) to map and target high risk locations, particularly locations where a fatal or serious injury crash may not have occurred in recent years.

SYSTEMIC ANALYSIS PROCESS

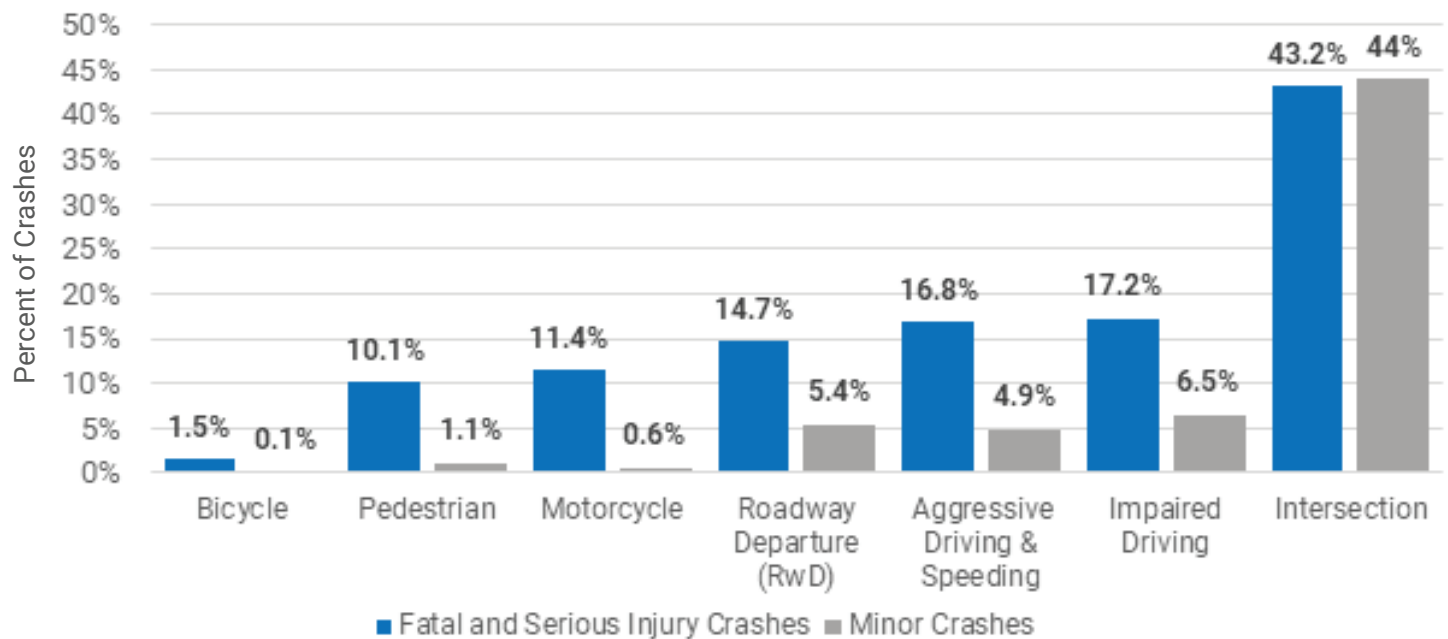
Focus Crash Types

The project team obtained the most recent five years of crash data (2017-2021) from the Georgia Department of Transportation's (GDOT's) Numetric crash data platform. These data contain "flags" indicating that a crash involves key circumstances related to emphasis areas in Georgia's most recent Strategic Highway Safety Plan (SHSP), including:

- Aggressive Driving Related
- Speeding
- Impaired Driving Related
- Commercial Vehicle Related
- Distracted Driving Related
- Intersection Related
- Motorcycle Related
- Older Driver Related (65+)
- Bicycle Related
- Pedestrian Related
- Roadway Departure Related
- Young Driver (Age 15-19) Related

The project team used the Federal Highway Administration's Crash Summary Template to identify overrepresented crash types. An overrepresented crash type represents a greater share of fatal (K) and serious injury (A) crashes than minor injury (B), potential injury (C), and property damage only (O) crashes. Figure 1 summarizes this comparison for the City of Atlanta for focus crash types.

Figure 1: Selected Emphasis Areas for Focus Crash Types



All selected crash types with the exception of intersection-related crashes represent a substantially higher proportion of KA crashes than BCO crashes. Intersection crashes were included as a focus crash type for further analysis due to the high proportion of overall crashes related to this emphasis area (both KA and BCO). The final set of focus crashes for further analysis included:

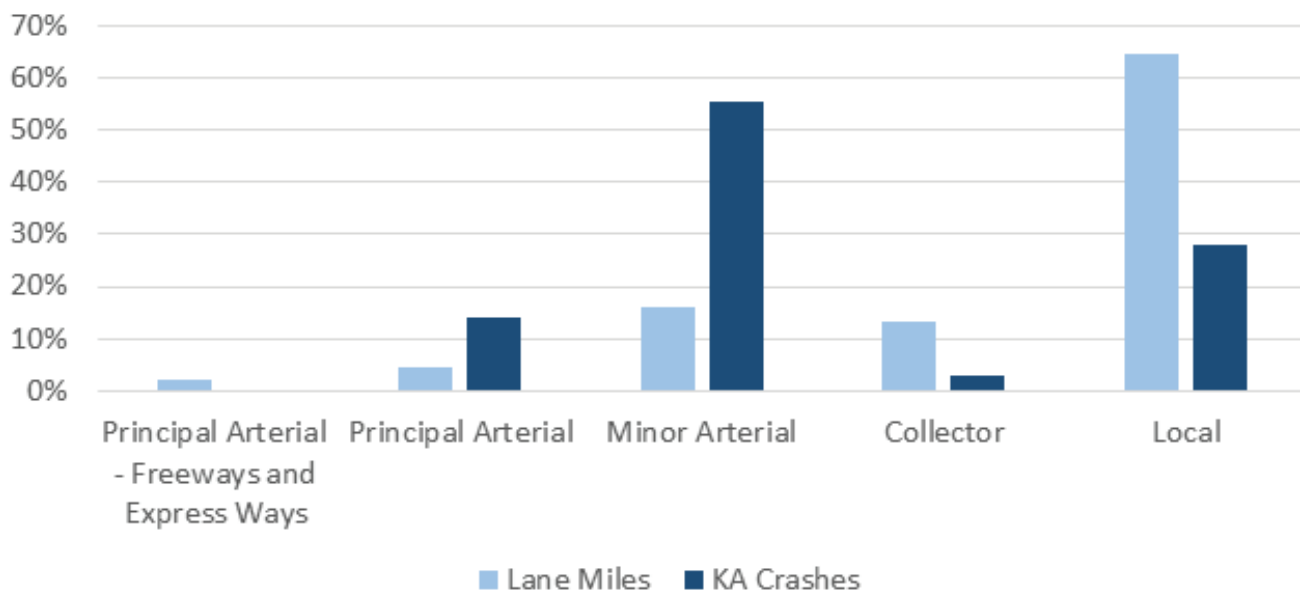
- Bicycle Related
- Pedestrian Related
- Motorcycle Related
- Roadway Departure Related
- Aggressive Driving & Speeding Related
- Impaired Driving Related
- Intersection Related

Focus Facility Types

The purpose of identifying focus facility types in systemic analysis is to identify priority study areas within the street network. A focus facility type includes locations with similar characteristics where severe (e.g., KA) crashes are overrepresented relative to some measure of exposure (e.g., roadway centerline miles or vehicle miles traveled). The focus facility type analysis for the Atlanta Vision Zero plan compared the proportion of each focus crash type to the proportion of lane miles on Atlanta roads. The project team considered two roadway characteristics as part of the focus facility type analysis:

1. Number of through lanes.
2. Functional class (example in Figure 2).

Figure 2: Selected Emphasis Areas for Focus Crash Types



Like the High Injury Network (HIN) analysis from Task 3A, access-controlled highways were removed from the analysis. Table 4 summarizes the characteristics of focus facility types for each focus crash type, which primarily indicates 4-lane principal arterials and 4-lane minor arterials across all focus crash types. For pedestrian and bicycle crashes, the focus facility types included different lane configurations for principal arterials and minor arterials, but generally focused on multi-lane facilities. For roadway departure crashes, the focus facility type included collector roads. Results were highly consistent between crash types, as well as being consistent with ARC's RSS. These characteristics defined the study area for risk factor analysis associated with each focus crash type.

Table 4: Focus Facility Types by Crash Type

Crash Severity Category	Facility Type: Through Lanes				Facility Type: Functional Class		
	3	4	5	6+	Principal Arterials	Minor Arterials	Collectors
Bicycle Related							
Pedestrian Related							
Motorcycle Related							
Roadway Departure Related							
Aggressive Driving & Speeding Related							
Impaired Driving Related							
Intersection Related							

RISK FACTOR ANALYSIS

The project team used binary logistic regression to assess each of the seven focus crash types on their respective focus facility. Binary logistic regression is a popular method to analyze binary data where a binary outcome is modeled using predictors; it represents the odds of an event occurring, in this case a KA crash on a segment. An “odds ratio” greater than one indicates a positive correlation between an independent variable (i.e., risk factor) and the dependent variable (a KA crash occurring on a segment); in other words, an increase or presence in a variable is associated with an increase in crash likelihood. Conversely, an odds ratio less than one indicates a negative correlation; in other words, a decrease or absence of a variable is associated with an increase in crash likelihood.

The project team segmented focus facilities into individual blocks (i.e., between two intersecting roads) and the segments were only further segmented if road characteristics or census data changed mid-block; for intersections, a 150 foot influence area was created. For some focus crashes (pedestrians, bicyclists, and motorcyclists), there was a limited sample of KA crashes on focus facilities. To increase the sample size and improve the statistical reliability of the models, the following crash severities were included for these three focus crash types:

- Pedestrian: KAB
- Bicyclist: KABCO
- Motorcycle: KAB

The project team checked input variables in the final models using summary statistics and a correlation matrix. This helped screen for outlier observations, low sample sizes, and correlations between inputs that could lead to issues in statistical models. The following sections summarize risk factor results by focus crash type.

SEGMENT EMPHASIS AREAS

Table 5: Motorized Emphasis Area Risk Factors

Risk Factor	Aggressive Driving and Speeding	Impaired Driving	Roadway Departure
Annual average daily traffic (AADT) > 10,000			
Signalized intersection present on segment			
85th percentile speed on segment > 40 mph ¹			
Within a Community of Concern ²			
Proportion of bicycle and walking commuters < 0.15			
Proportion of Limited English Proficiency Households > 0.03			
Distance to nearest first responder facility > 0.25 miles ³			

Table 6: Vulnerable Road User Emphasis Area Risk Factors

Risk Factor	Pedestrians	Bicyclists	Motorcycles
AADT > 35,000			
AADT > 5,000			
AADT < 20,000			
Signalized intersection present on segment			
Within a Community of Concern			
Public school present within 0.25 miles			
Private school present within 0.25 miles			
Proportion of transit commuters > 0.2			
Proportion of transit commuters > 0.25			
Top 20 percent rank for median household income			
Mixed use zoning surrounding segment ⁵			
Institutional zoning surrounding segment ⁶			
Presence bicycle facility on segment			
Employment density > 5,000 jobs per sq. mi. ⁷			
Employment density 2,000 to 5,000 jobs per sq. mi			
85th percentile speed on segment > 40 mph			

INTERSECTION EMPHASIS AREA

- Higher AADTs on both major and minor legs.
- Traffic control is signalized intersection.
- Number of through lanes on minor approach > 2.
- Proportion of bicycle and walking commuters < 0.2.
- Presence of a bus stop within intersection influence area.

CONCLUSIONS AND NEXT STEPS

The risk factors captured in the statistical analysis can be used to map risk on Atlanta roads. Segments with a greater number of risk factors could be targeted for safety improvements, regardless of crash history (i.e., a proactive approach as opposed to a reactive approach represented by the HIN). Furthermore, the project team will develop detailed corridor scenarios as part of Task 3B based on selected high-risk corridors mapped through this risk analysis.

¹ Atlanta DOT probe speed data is highly correlated with Communities of Concern. Speed and Communities of Concern could be its own focus in the Vision Zero plan

² Alternatively, household income and limited English proficiency households can replace communities of concern – interchangeable models

³ Refers to EMS, law enforcement, and fire station locations

⁴ Homeless shelter proximity highly significant in KA models; highly insignificant in KAB models

⁵ Note both high and low socioeconomic variables significant, potential dichotomy between lower socioeconomic residential areas and wealthier central business districts?

⁶ Marginal significance in KA models, highly significant in KAB models

⁷ Alternatively, proportion of commuters biking and walking can replace employment density – interchangeable models

HIGH INJURY NETWORK STREET EPDO SCORES

Table 1: High Injury Network Street EPDO Scores

#	Ownership*	Street Name	Fatal Crashes (K)	Suspected Serious Injury Crashes (A)	Suspected Minor Injury Crashes (B)	Possible Injury Crashes (C)	Property Damage Only Crashes (D)	EPDO Weighted Average	Length (Miles)
1	G	DONALD LEE HOLLOWELL PKWY NW	7	58	151	506	1668	21710	4.32
2	G	MARTIN L KING JR DR SW	13	44	164	456	1271	19506	4.42
3	G	MORELAND AVE SE	11	35	130	499	1789	17775	3.31
4	G	METROPOLITAN PKWY SW	4	39	125	380	927	15065	2.81
5	G	NORTHSIDE DR NW	2	31	102	493	1781	14748	3.21
6	G	PIEDMONT RD NE	5	25	80	448	2316	13886	3.26
7	G	PONCE DE LEON AVE NE	2	21	107	346	1694	11366	3.23
8	G	CAMPBELLTON RD SW	6	22	43	215	506	8735	2.45
9	G	NORTHSIDE DR SW	1	14	71	226	696	7028	1.22
10	G	JONESBORO RD SE	5	19	45	127	385	7004	2.64
11	A	PEACHTREE ST NE	0	18	41	145	976	6561	2.02
12	A	MONROE DR NE	1	13	69	133	916	6093	2.72
13	G	PEACHTREE RD NW	2	9	61	172	965	5823	1.48
14	G	MORELAND AVE NE	1	10	46	189	900	5673	1.48
15	G	HAMILTON E HOLMES DR NW	2	11	46	185	385	5500	1.54
16	G	NORTH AVE NW	0	14	41	124	827	5438	0.79
17	A	MARIETTA ST NW	1	13	40	154	541	5435	1.29
18	A	COURTLAND ST NE	0	10	33	168	1239	5390	1.12
19	A	CAMPBELLTON RD SW	3	12	45	144	303	5373	3.65
20	A	CLEVELAND AVE SW	0	12	34	184	563	5273	1.46
21	G	LEE ST SW	1	13	43	150	346	5251	2.50
22	A	MARTIN L KING JR DR SW	4	15	37	74	235	5233	1.37
23	A	BOULEVARD NE	0	10	42	162	858	5102	0.95

*Ownership: A = City of Atlanta, G = Georgia Department of Transportation (GDOT)

Table 1: High Injury Network Street EPDO Scores, continued

#	Ownership*	Street Name	Fatal Crashes (K)	Suspected Serious Injury Crashes (A)	Suspected Minor Injury Crashes (B)	Possible Injury Crashes (C)	Property Damage Only Crashes (O)	EPDO Weighted Average	Length (Miles)
24	G	MEMORIAL DR SE	3	8	34	159	545	4814	2.50
25	G	RALPH D ABERNATHY BLVD SW	4	7	42	148	442	4737	1.15
26	A	LENOX RD NE	0	10	42	137	702	4696	1.72
27	G	PEACHTREE ST NW	2	9	23	126	734	4486	0.81
28	A	CHESHIRE BRIDGE RD NE	0	7	40	115	785	3952	1.25
29	G	ROSWELL RD NE	1	8	30	111	535	3874	1.98
30	G	PEACHTREE RD NE	0	9	33	83	571	3681	0.95
31	G	PEACHTREE RD NE	2	6	31	100	578	3633	1.98
32	A	BOULEVARD SE	0	6	30	131	640	3606	1.39
33	G	JAMES JACKSON PKWY NW	0	11	30	79	163	3564	2.50
34	A	10TH ST NW	1	6	19	103	713	3403	0.37
35	G	PETERS ST SW	2	10	18	56	212	3370	0.80
36	A	MARIETTA BLVD NW	2	8	29	72	226	3349	2.68
37	G	NORTH AVE NE	0	9	22	72	403	3216	0.32
38	A	HOWELL MILL RD NW	0	4	23	113	854	3139	0.73
39	A	MARIETTA ST NW	0	6	30	96	269	2885	0.79
40	A	JOSEPH E BOONE BLVD NW	0	10	17	45	115	2764	1.96
41	A	LEE ST SW	0	6	25	90	289	2760	0.99
42	G	NORTHSIDE PKWY NW	1	4	38	74	414	2755	2.13
43	A	JOSEPH E LOWERY BLVD NW	1	6	24	68	224	2649	1.32
44	A	GREENBRIAR PKWY SW	0	5	17	104	264	2548	0.49
45	A	SPRING ST NW	0	4	6	96	708	2534	0.69
46	G	W PEACHTREE ST NW	1	5	10	70	510	2526	0.46

*Ownership: A = City of Atlanta, G = Georgia Department of Transportation (GDOT)

Table 1: High Injury Network Street EPDO Scores, continued

#	Ownership*	Street Name	Fatal Crashes (K)	Suspected Serious Injury Crashes (A)	Suspected Minor Injury Crashes (B)	Possible Injury Crashes (C)	Property Damage Only Crashes (O)	EPDO Weighted Average	Length (Miles)
47	G	14TH ST NW	1	4	23	75	380	2476	0.72
48	A	FULTON ST SW	0	7	20	55	197	2424	0.94
49	A	NORTH AVE NE	0	7	14	58	221	2376	0.66
50	A	IVAN ALLEN JR BLVD NW	1	3	16	86	437	2333	0.48
51	A	MCDANIEL ST SW	0	6	23	52	188	2245	0.41
52	A	SIDNEY MARCUS BLVD NE	1	5	10	55	327	2193	0.76
53	A	FAIRBURN RD SW	0	5	10	92	146	2191	1.76
54	A	PIEDMONT AVE NE	1	4	15	64	339	2189	0.60
55	A	PIEDMONT AVE NE	0	2	27	80	522	2163	1.23
56	A	JUNIPER ST NE	1	5	7	46	295	2020	0.51
57	A	PRYOR RD SW	1	3	17	67	177	1900	0.37
58	A	BOLTON RD NW	0	5	15	53	127	1867	1.50
59	A	DILL AVE SW	2	4	13	40	61	1828	0.55
60	G	LENOX RD NE	0	2	15	72	446	1803	0.87
61	A	CAPITOL AVE SE	0	5	11	40	242	1784	0.33
62	A	JOSEPH E LOWERY BLVD SW	0	3	18	67	193	1742	0.59
63	A	PEACHTREE ST NW	1	3	13	40	351	1736	0.49
64	G	SPRING ST NW	0	3	9	55	427	1703	0.61
65	A	CENTRAL AVE SW	0	3	21	62	135	1685	0.14
66	A	CASCADE AVE SW	0	4	15	44	174	1633	0.57
67	G	BUFORD HIGHWAY CONN NE	0	4	10	48	174	1588	0.33
68	A	MARTIN L KING JR DR NW	0	4	17	36	155	1568	0.26
69	A	WASHINGTON ST SW	2	2	12	41	185	1563	0.34

*Ownership: A = City of Atlanta, G = Georgia Department of Transportation (GDOT)

Table 1: High Injury Network Street EPDO Scores, continued

#	Ownership*	Street Name	Fatal Crashes (K)	Suspected Serious Injury Crashes (A)	Suspected Minor Injury Crashes (B)	Possible Injury Crashes (C)	Property Damage Only Crashes (O)	EPDO Weighted Average	Length (Miles)
70	A	HILL ST SE	0	4	10	45	172	1556	0.62
71	A	PHARR RD NE	0	3	20	46	179	1552	0.47
72	A	10TH ST NE	0	2	17	56	298	1529	0.66
73	A	HIGHLAND AVE NE	0	4	9	43	176	1523	0.91
74	A	PRYOR ST SW	0	5	7	33	109	1513	0.48
75	G	CANDLER RD SE	0	4	12	41	129	1507	0.54
76	A	GLENWOOD AVE SE	1	3	10	35	130	1414	0.71
77	A	PIEDMONT RD NE	0	4	7	30	219	1402	0.29
78	G	UNIVERSITY AVE SW	0	2	10	56	271	1383	0.49
79	A	MOROSGO DR NE	1	3	14	27	108	1380	0.26
80	A	PARK ST SW	0	5	4	27	81	1374	0.31
81	A	COLLIER DR NW	1	3	15	24	54	1313	1.45
82	A	FLAT SHOALS RD SE	1	3	7	27	114	1267	0.26
83	A	CHATTAHOOCHEE AVE NW	0	3	10	39	134	1267	0.57
84	A	ELLSWORTH INDUSTRIAL BLVD NW	1	2	13	33	138	1262	1.14
85	A	WHITEHALL ST SW	1	3	9	22	86	1223	0.40
86	G	CAMP CREEK PKWY SW	0	4	7	26	60	1203	0.76
87	A	LAKEWOOD AVE SE	2	3	1	11	53	1135	0.77
88	A	EDGEWOOD AVE NE	0	2	11	35	190	1109	0.56
89	A	TECHWOOD DR NW	0	1	10	56	183	1104	0.53
90	A	14TH ST NW	0	3	4	26	121	1022	0.25
91	A	TED TURNER DR SW	0	3	3	27	107	1001	0.52
92	A	W PACES FERRY RD NW	0	2	12	24	151	977	0.51

*Ownership: A = City of Atlanta, G = Georgia Department of Transportation (GDOT)

Table 1: High Injury Network Street EPDO Scores, continued

#	Ownership*	Street Name	Fatal Crashes (K)	Suspected Serious Injury Crashes (A)	Suspected Minor Injury Crashes (B)	Possible Injury Crashes (C)	Property Damage Only Crashes (O)	EPDO Weighted Average	Length (Miles)
93	A	OAK ST SW	0	1	5	52	177	973	0.63
94	A	S RIVER INDUSTRIAL BLVD SE	0	4	6	7	25	961	0.88
95	G	JOHN LEWIS FREEDOM PKWY NE	1	1	6	30	166	950	0.44
96	A	LANGHORN ST SW	0	3	8	17	56	935	0.30
97	A	LINDBERGH DR NE	0	4	2	9	42	930	0.15
98	A	RALPH MCGILL BLVD NE	0	1	11	35	165	893	0.80
99	A	PRYOR RD SW	0	4	0	7	30	864	0.16
100	A	MACON DR SW	0	4	0	6	33	857	0.39
101	G	W WHITEHALL ST SW	0	1	8	43	72	829	0.45
102	A	MEMORIAL DR SW	0	1	7	37	143	823	0.34
103	A	DECATUR ST SE	1	1	7	22	93	814	0.17
104	G	SAWTELL AVE SE	0	2	7	26	52	813	0.20
105	A	WINDSOR ST SW	0	3	5	10	52	810	0.29
106	G	LINDBERGH DR NE	0	2	2	29	102	808	0.34
107	A	W PEACHTREE ST NW	0	2	7	19	115	806	0.16
108	A	PRATT ST SE	1	1	7	21	85	796	0.18
109	A	ALISON CT SW	0	3	4	11	31	782	0.23
110	A	DELOWE DR SW	0	2	8	19	35	743	0.18
111	A	CLAIRE DR SW	0	3	4	7	29	740	0.66
112	A	DONNELLY AVE SW	0	3	1	12	29	739	0.55
113	A	PRINCETON LAKES PKWY SW	0	1	8	31	86	723	0.45
114	A	W MARIETTA ST NW	0	2	5	18	70	717	0.42
115	A	PRYOR ST SW	0	2	6	14	91	715	0.25

*Ownership: A = City of Atlanta, G = Georgia Department of Transportation (GDOT)

Table 1: High Injury Network Street EPDO Scores, continued

#	Ownership*	Street Name	Fatal Crashes (K)	Suspected Serious Injury Crashes (A)	Suspected Minor Injury Crashes (B)	Possible Injury Crashes (C)	Property Damage Only Crashes (O)	EPDO Weighted Average	Length (Miles)
116	A	CUSTER AVE SE	0	3	1	9	26	706	0.27
117	A	14TH ST NE	0	2	2	17	108	694	0.23
118	A	BOLTON RD NW	2	1	3	4	18	682	0.81
119	A	PERRY BLVD NW	2	1	2	6	10	677	1.07
120	A	PIEDMONT CIR NE	0	1	7	22	136	666	0.27
121	A	BOULDER PARK DR SW	1	1	3	19	26	649	0.47
122	A	CASCADE RD SW	0	2	3	16	55	648	0.25
123	A	HANK AARON DR SW	0	2	5	14	38	645	0.20
124	A	CLIFTON RD NE	0	1	7	23	96	636	0.45
125	A	W LAKE AVE SW	1	1	5	14	27	634	0.12
126	A	COLLIER RD NW	1	1	5	12	41	628	0.67
127	A	CENTENNIAL OLYMPIC P DR NW	0	3	1	1	19	619	0.15
128	A	SYLVAN RD SW	0	1	3	29	83	615	0.26
129	A	AVON AVE SW	1	1	2	17	27	613	0.27
130	A	JAMES P BRAWLEY DR NW	1	2	1	1	5	605	0.15
131	A	AUBURN AVE NE	0	2	4	11	44	604	0.29
132	A	BROWNS MILL RD SW	0	2	4	9	57	597	0.33
133	A	HIGHTOWER RD NW	0	3	0	1	11	594	0.35
134	A	HOLLYWOOD RD NW	0	3	0	1	9	592	0.66
135	A	RICHARDSON ST SW	1	1	1	14	40	579	0.20
136	A	GARSON DR NE	0	2	3	9	55	578	0.38
137	A	W PACES FERRY RD NW	0	2	1	12	56	575	0.13
138	G	TRINITY AVE SW	0	2	3	6	53	546	0.14

*Ownership: A = City of Atlanta, G = Georgia Department of Transportation (GDOT)

Table 1: High Injury Network Street EPDO Scores, continued

#	Ownership*	Street Name	Fatal Crashes (K)	Suspected Serious Injury Crashes (A)	Suspected Minor Injury Crashes (B)	Possible Injury Crashes (C)	Property Damage Only Crashes (O)	EPDO Weighted Average	Length (Miles)
139	A	BROWNS MILL RD SE	2	0	5	5	14	531	0.28
140	A	POLLARD BLVD SW	0	2	0	12	27	529	0.51
141	A	BURTON RD NW	0	2	2	9	21	527	0.32
142	A	CONLEY RD SE	0	2	5	5	10	527	0.43
143	A	5TH ST NW	0	2	6	2	21	525	0.02
144	A	GREENBRIAR PKWY SW	0	1	9	13	42	516	0.94
145	A	BENT CREEK WAY SW	0	2	4	4	19	509	0.31
146	A	PIEDMONT AVE SE	0	1	1	19	107	505	0.28
147	A	CONTINENTAL COLONY PKWY SW	0	0	13	22	49	490	0.99
148	A	NORTHSIDE DR NW	1	1	2	5	21	487	0.47
149	A	14TH ST NE	0	1	5	11	88	474	0.31
150	A	MAYNARD TER SE	1	0	4	13	59	448	0.15
151	A	REDWINE RD SW	0	2	0	4	16	438	0.37
152	A	FORSYTH ST SW	0	1	3	14	54	436	0.09
153	A	CLEVELAND AVE SE	0	1	4	13	35	424	0.95
154	A	PEACHTREE PARK DR NE	0	2	1	1	13	422	0.27
155	A	MURPHY AVE SW	0	1	3	13	41	413	0.40
156	A	MOUNT ZION RD SE	0	2	1	0	5	404	0.31
157	A	2ND AVE SE	0	1	3	11	39	391	0.37
158	A	RALPH D ABERNATHY BLVD SW	0	0	8	19	63	389	0.25
159	A	W MARIETTA ST NW	0	1	4	9	29	378	0.27
160	A	EDGEWOOD AVE NE	0	1	0	12	64	375	0.07
161	A	IVAN ALLEN JR BLVD NW	0	1	4	8	34	373	0.34

*Ownership: A = City of Atlanta, G = Georgia Department of Transportation (GDOT)

Table 1: High Injury Network Street EPDO Scores, continued

#	Ownership*	Street Name	Fatal Crashes (K)	Suspected Serious Injury Crashes (A)	Suspected Minor Injury Crashes (B)	Possible Injury Crashes (C)	Property Damage Only Crashes (O)	EPDO Weighted Average	Length (Miles)
162	A	LUCILE AVE SW	0	1	3	10	30	372	0.20
163	A	IVAN ALLEN JR BLVD NE	1	0	0	9	87	368	0.19
164	A	N CAMP CREEK PKWY SW	0	1	3	9	35	367	0.20
165	G	BUFORD HWY NE	0	1	2	7	65	360	0.28
166	A	PEACHTREE ST NE	0	1	2	5	70	345	0.09
167	A	LAKEWOOD AVE SW	0	1	1	10	36	344	0.15
168	A	LYNHURST DR SW	0	0	4	19	40	298	0.24
169	G	FULTON INDUSTRIAL BLVD NW	0	1	1	6	24	292	0.78
170	A	HEADLAND DR SW	0	0	3	15	85	286	0.16
171	G	MCDONOUGH BLVD SE	0	1	1	5	19	277	0.32
172	A	CENTENNIAL OLYMPIC P DR NW	0	1	1	3	27	265	0.01
173	A	DELMAR LN NW	1	0	1	4	12	260	0.35
174	A	OLD HAPEVILLE RD SW	0	1	0	5	15	256	0.32
175	A	TELL RD SW	0	1	2	2	10	255	0.59
176	A	HUFF RD NW	0	0	6	10	42	244	0.33
177	A	HOWELL DR SW	0	1	0	5	3	244	0.42
178	A	BOLTON RD NW	0	1	0	4	8	239	0.15
179	A	PEYTON RD SW	0	1	0	4	4	235	0.15
180	A	JOHN WESLEY DOBBS AVE NE	0	1	0	2	18	229	0.25
181	A	N MARTIN L KING JR DR SW	0	1	0	1	20	221	0.27
182	A	CAROLINE ST NE	0	0	2	10	77	211	0.21
183	A	GREENSFERRY AVE SW	1	0	0	1	7	208	0.14
184	A	WOODLAND AVE SE	0	1	0	1	3	204	0.10

*Ownership: A = City of Atlanta, G = Georgia Department of Transportation (GDOT)

Table 1: High Injury Network Street EPDO Scores, continued

#	Ownership*	Street Name	Fatal Crashes (K)	Suspected Serious Injury Crashes (A)	Suspected Minor Injury Crashes (B)	Possible Injury Crashes (C)	Property Damage Only Crashes (O)	EPDO Weighted Average	Length (Miles)
185	A	KIMBERLY RD SW	1	0	0	1	3	204	0.33
186	A	PRYOR ST SW	0	0	3	12	31	202	0.36
187	A	PEACHTREE ST SW	0	0	2	12	46	200	0.05
188	A	WALL ST SE	0	0	2	12	46	200	0.05
189	A	DIMMOCK ST SW	0	1	0	0	2	193	0.21
190	G	ROSWELL RD NW	0	0	6	6	30	192	0.39
191	A	MORELAND DR SE	0	1	0	0	1	192	0.01
192	G	LAVISTA RD NE	0	0	3	8	43	174	0.20
193	A	LAKEWOOD AVE SW	0	0	1	10	53	170	0.24
194	A	TED TURNER DR NW	0	0	3	5	67	168	0.11
195	A	WILLIAMS ST NW	0	0	1	9	57	164	0.23
196	A	MITCHELL ST SW	0	0	2	8	40	154	0.17
197	A	CENTENNIAL OLYMPIC P DR NW	0	0	2	7	43	147	0.31
198	A	HOWELL MILL RD NW	0	0	6	1	18	130	0.40
199	A	19TH ST NW	0	0	2	7	18	122	0.06
200	A	SEABOARD AVE NE	0	0	2	7	18	122	0.02
201	A	CARMIA DR SW	0	0	1	8	22	119	0.18
202	A	MARIETTA BLVD NW	0	0	1	5	26	93	0.02
203	A	PHARR RD NW	0	0	3	3	7	88	0.10
204	A	RALPH D ABERNATHY BLVD SW	0	0	1	3	28	75	0.03
205	A	FAIRBURN RD NW	0	0	2	2	21	75	0.15
206	A	FERST DR NW	0	0	3	2	3	74	0.14
207	A	MYRTLE DR SW	0	0	2	3	8	72	0.29

*Ownership: A = City of Atlanta, G = Georgia Department of Transportation (GDOT)

Table 1: High Injury Network Street EPDO Scores, continued

#	Ownership*	Street Name	Fatal Crashes (K)	Suspected Serious Injury Crashes (A)	Suspected Minor Injury Crashes (B)	Possible Injury Crashes (C)	Property Damage Only Crashes (O)	EPDO Weighted Average	Length (Miles)
208	A	STONEWALL ST SW	0	0	1	4	12	69	0.18
209	A	CLAIRE DR SE	0	0	0	6	5	65	0.03
210	A	CHANTILLY DR NE	0	0	2	2	11	65	0.22
211	A	OLD GORDON RD NW	0	0	2	2	0	54	0.16
212	G	BRIARCLIFF RD NE	0	0	0	2	23	43	0.05
213	A	TRENTON ST SE	0	0	0	4	3	43	0.15
214	A	ARMSTRONG ST SE	0	0	1	2	5	42	0.08
215	A	OAK VALLEY RD NE	0	0	0	2	14	34	0.00
216	A	TECHWOOD DR NW	0	0	1	0	11	28	0.11
217	A	BAKERS FERRY RD SW	0	0	1	1	1	28	0.01
218	A	26TH ST NW	0	0	1	0	4	21	0.02
219	A	CUSTER AVE SE	0	0	1	0	0	17	0.01
220	A	12TH ST NW	0	0	0	1	3	13	0.08
221	A	ALICE ST SW	0	0	0	1	3	13	0.06
222	A	ISA DR SE	0	0	0	1	2	12	0.02
223	A	HUNTINGTON RD NE	0	0	0	1	0	10	0.01
224	A	HOLMES ST NW	0	0	0	0	5	5	0.10
225	A	NORTHSIDE DR NW	0	0	0	0	1	1	0.03

*Ownership: A = City of Atlanta, G = Georgia Department of Transportation (GDOT)

FOCUS CRASH TYPE RISK FACTOR MAPS

Like the HIN, systemic risk factors can be mapped on the City streets to form a priority network. Figure 1 through Figure 7 on the following pages illustrate the high risk roads for each focus crash type.

Figure 1: Map of Aggressive Speeding Risk Factors

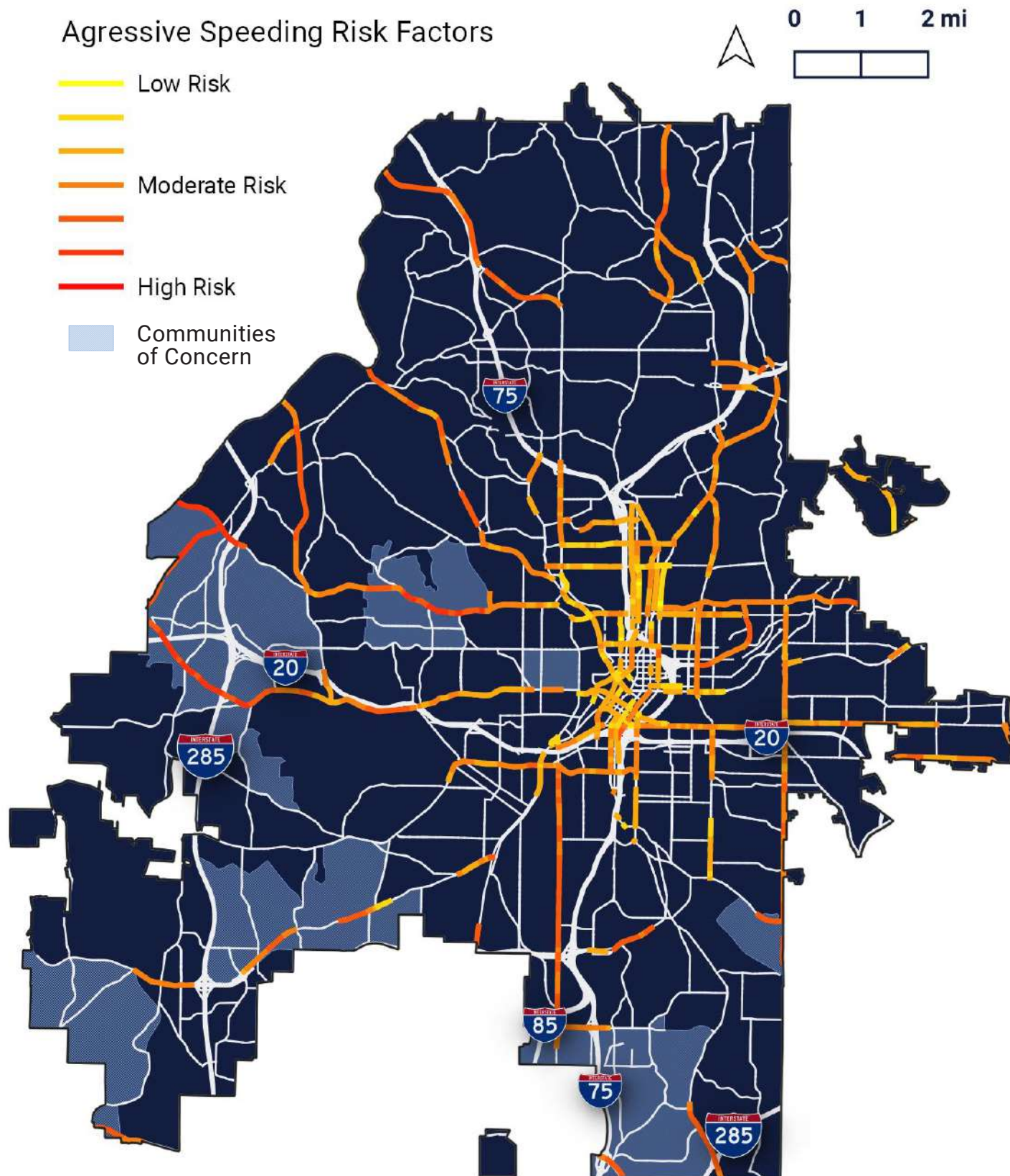


Figure 2: Map of Impaired Driver Risk Factors

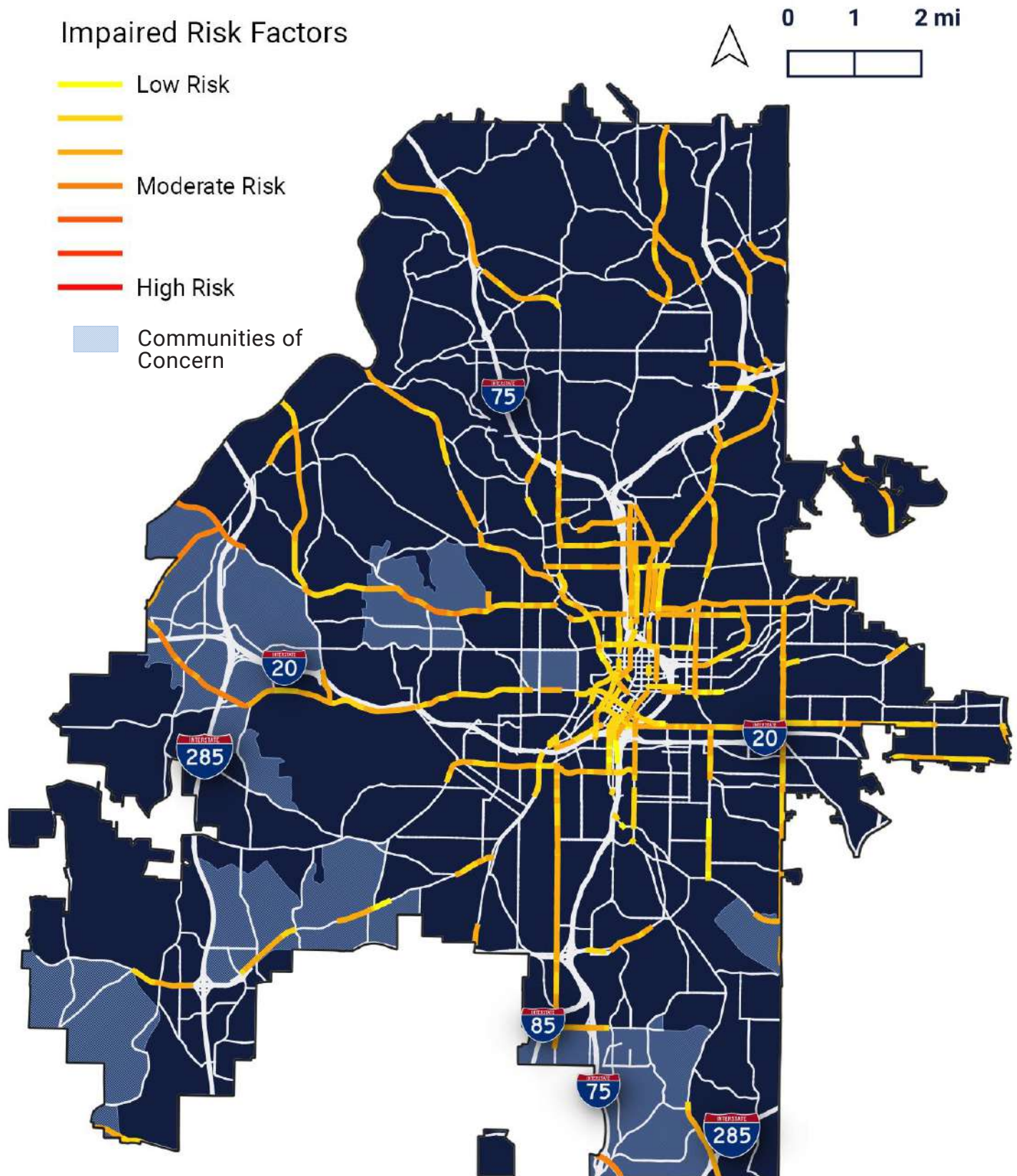


Figure 3: Map of Roadway Departure Risk Factors

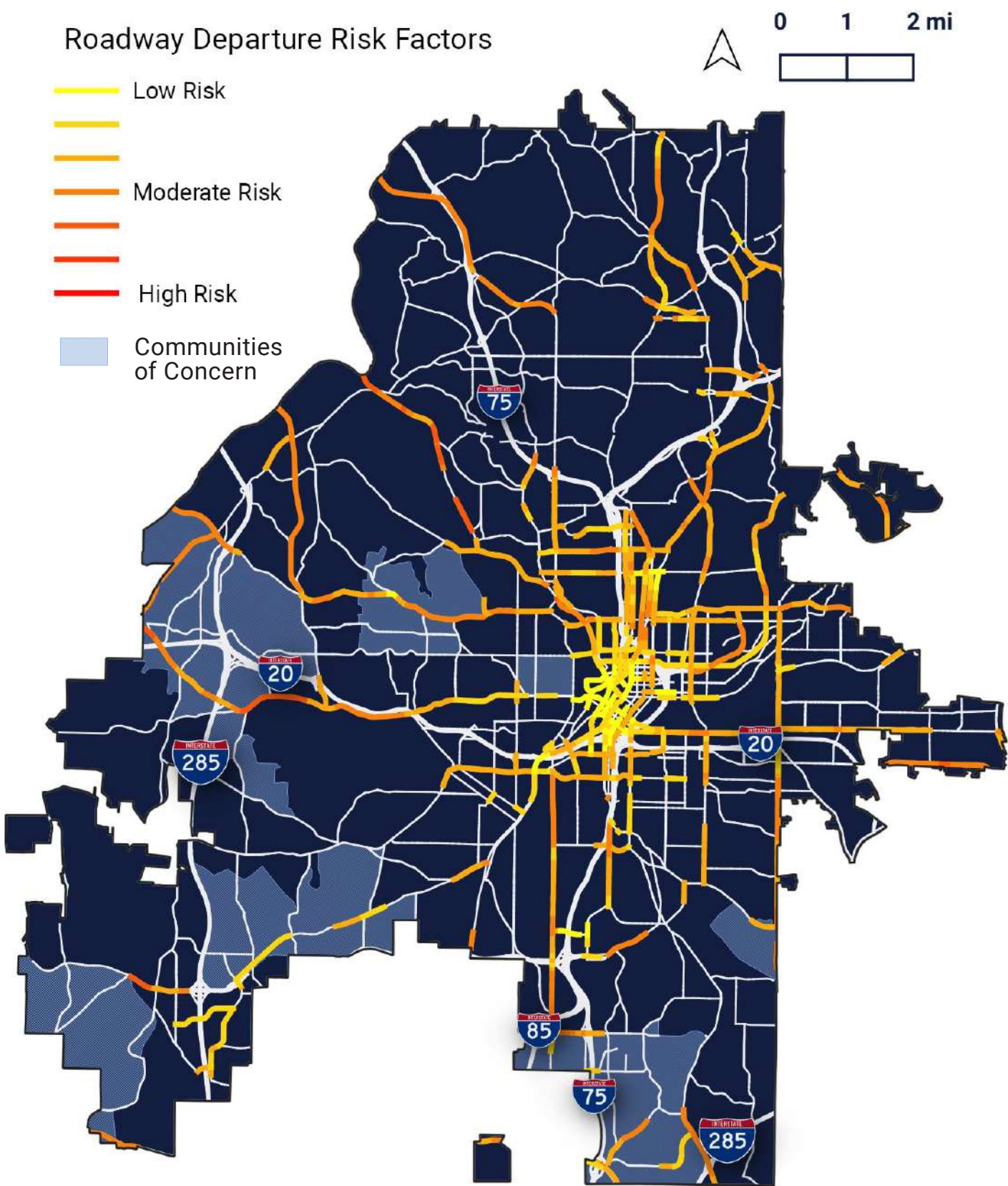


Figure 4: Map of Intersection Risk Factors

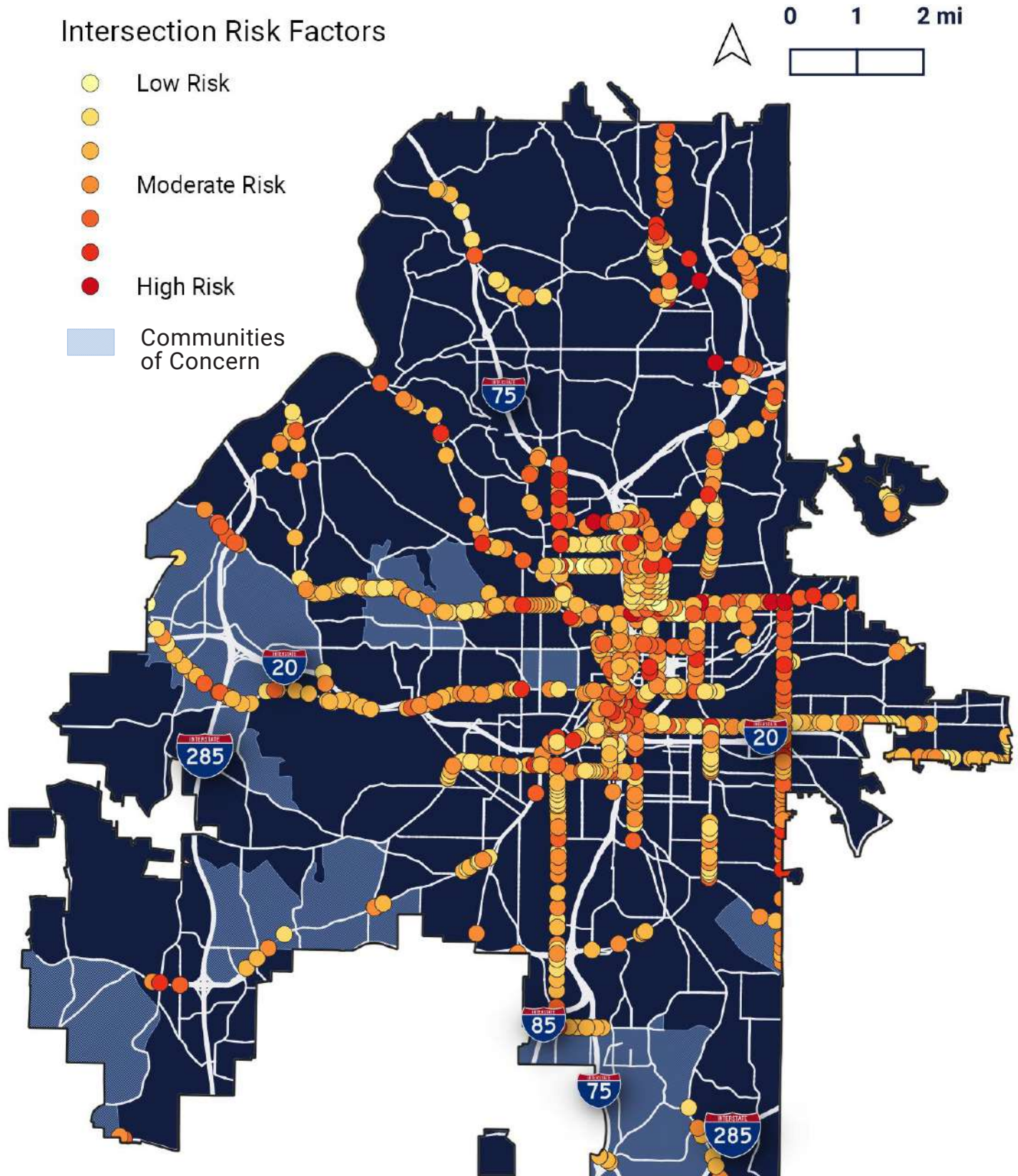


Figure 5: Map of Pedestrian Risk Factors

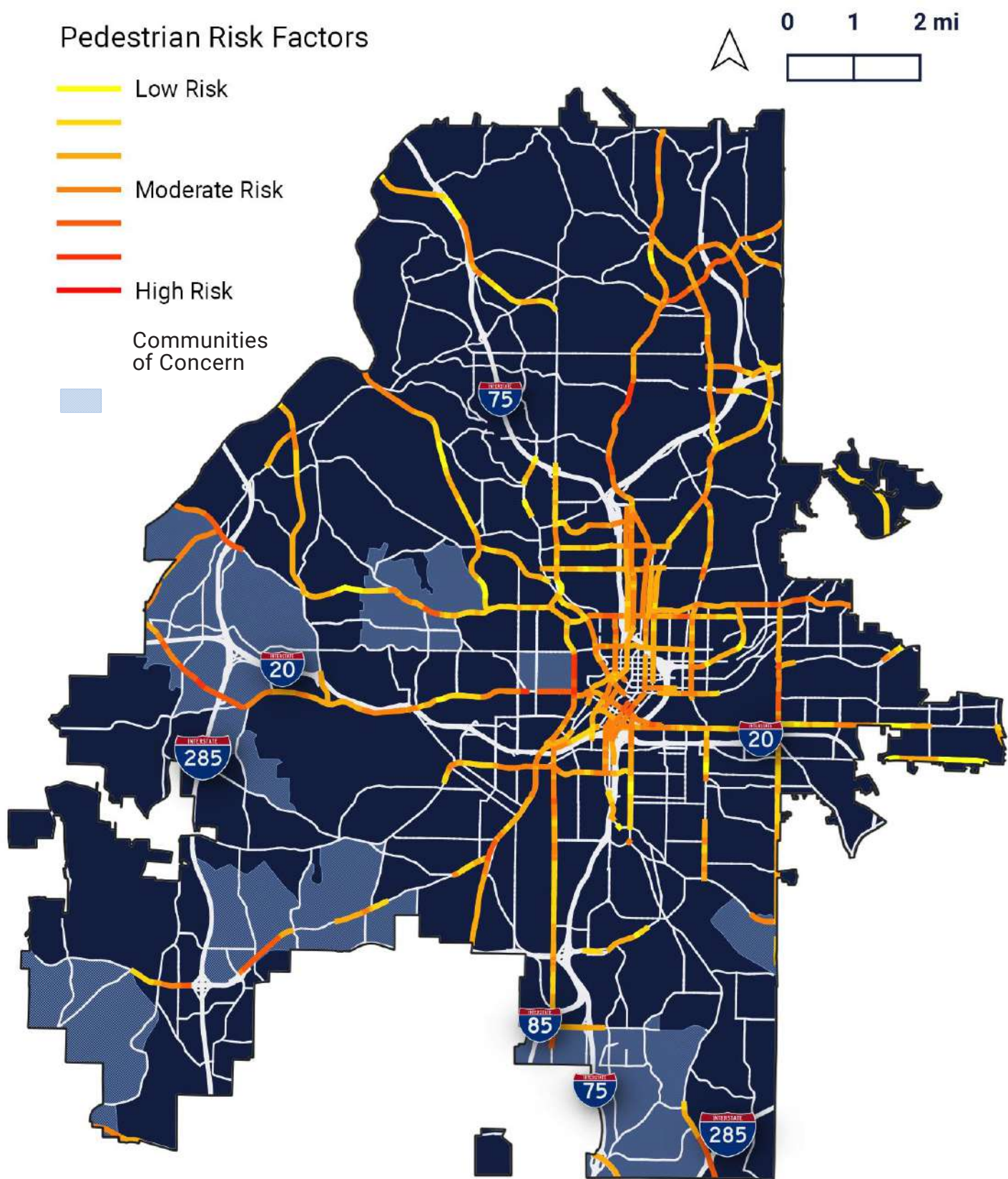


Figure 6: Map of Bicycle Risk Factors

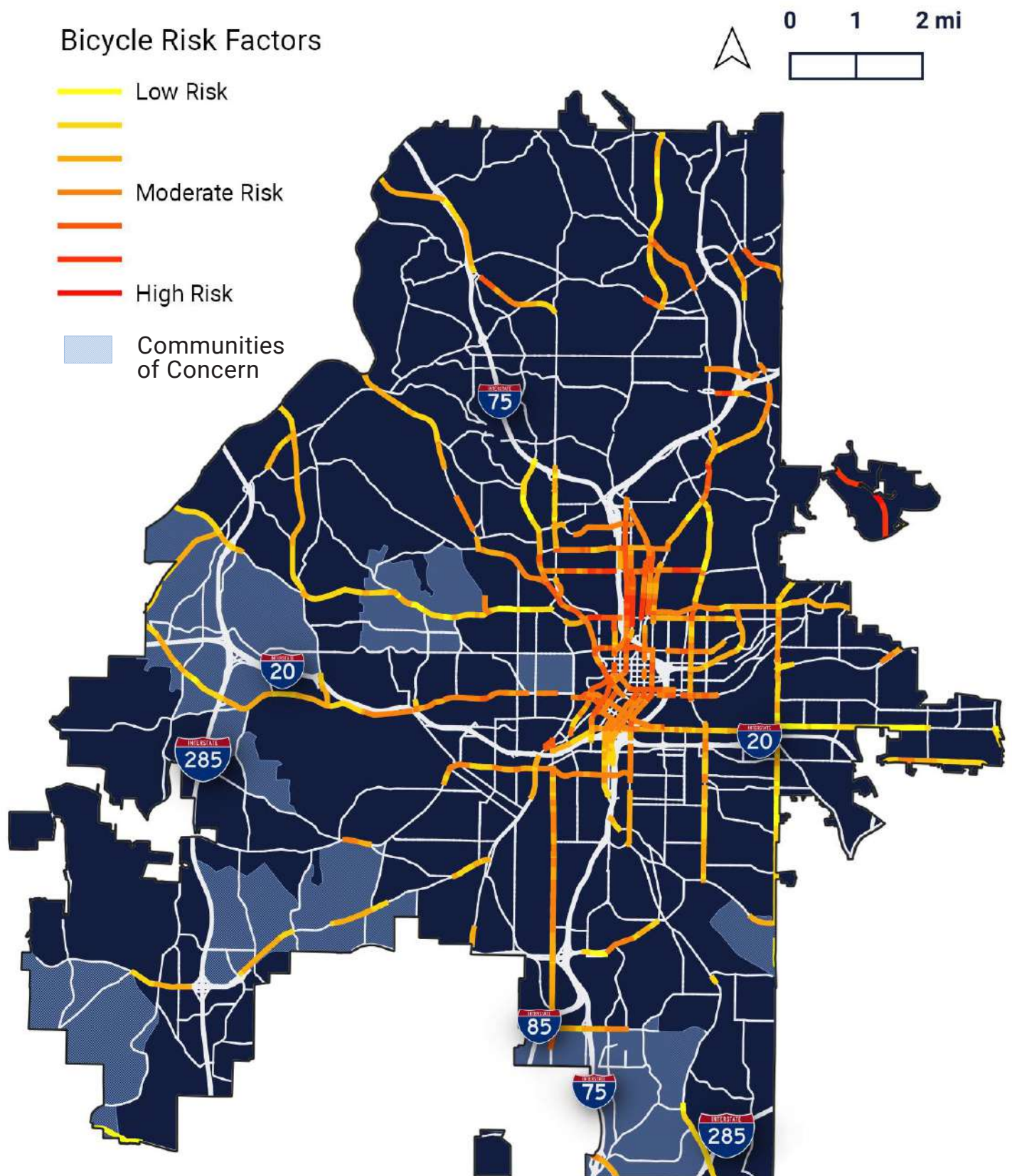
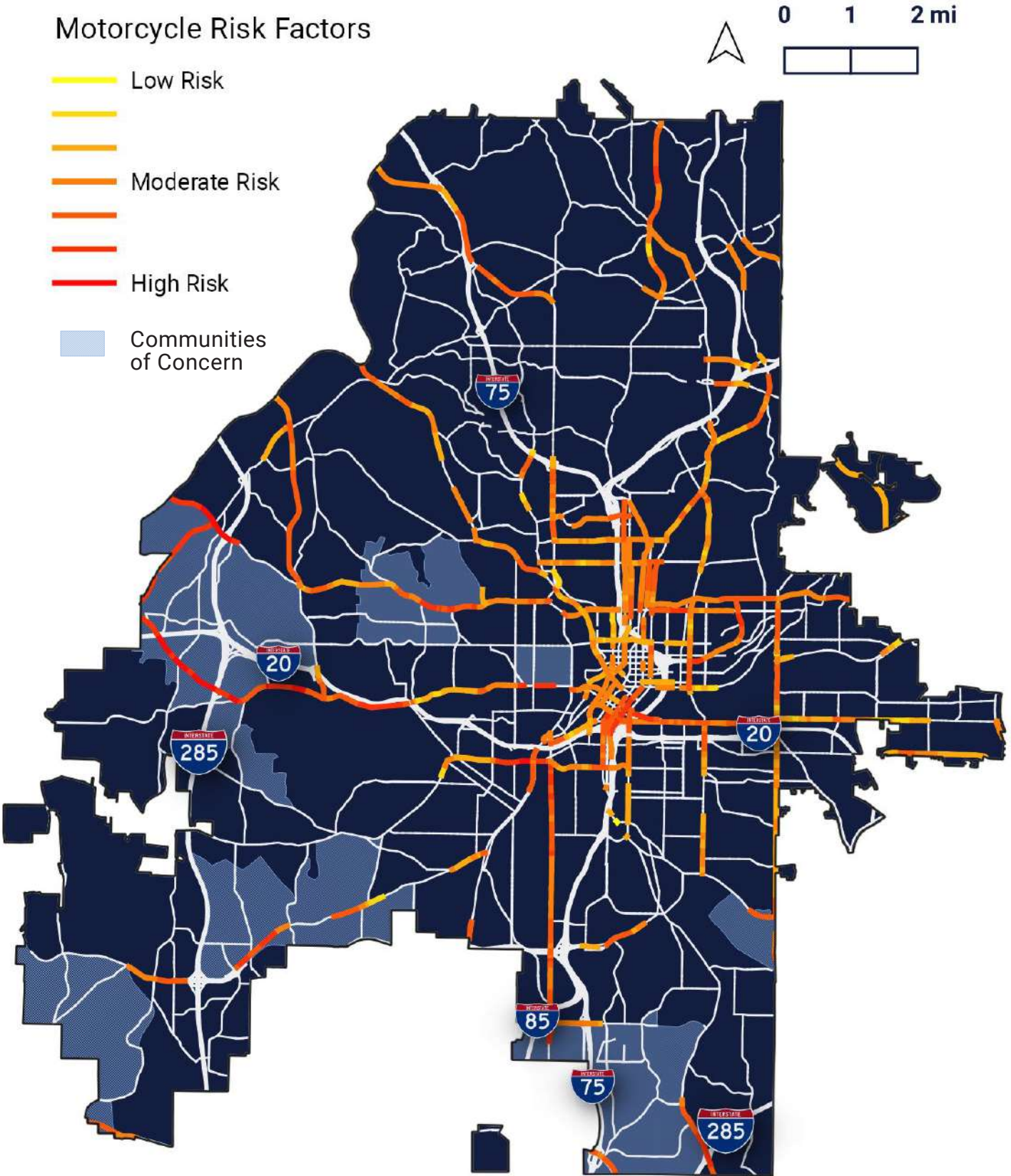


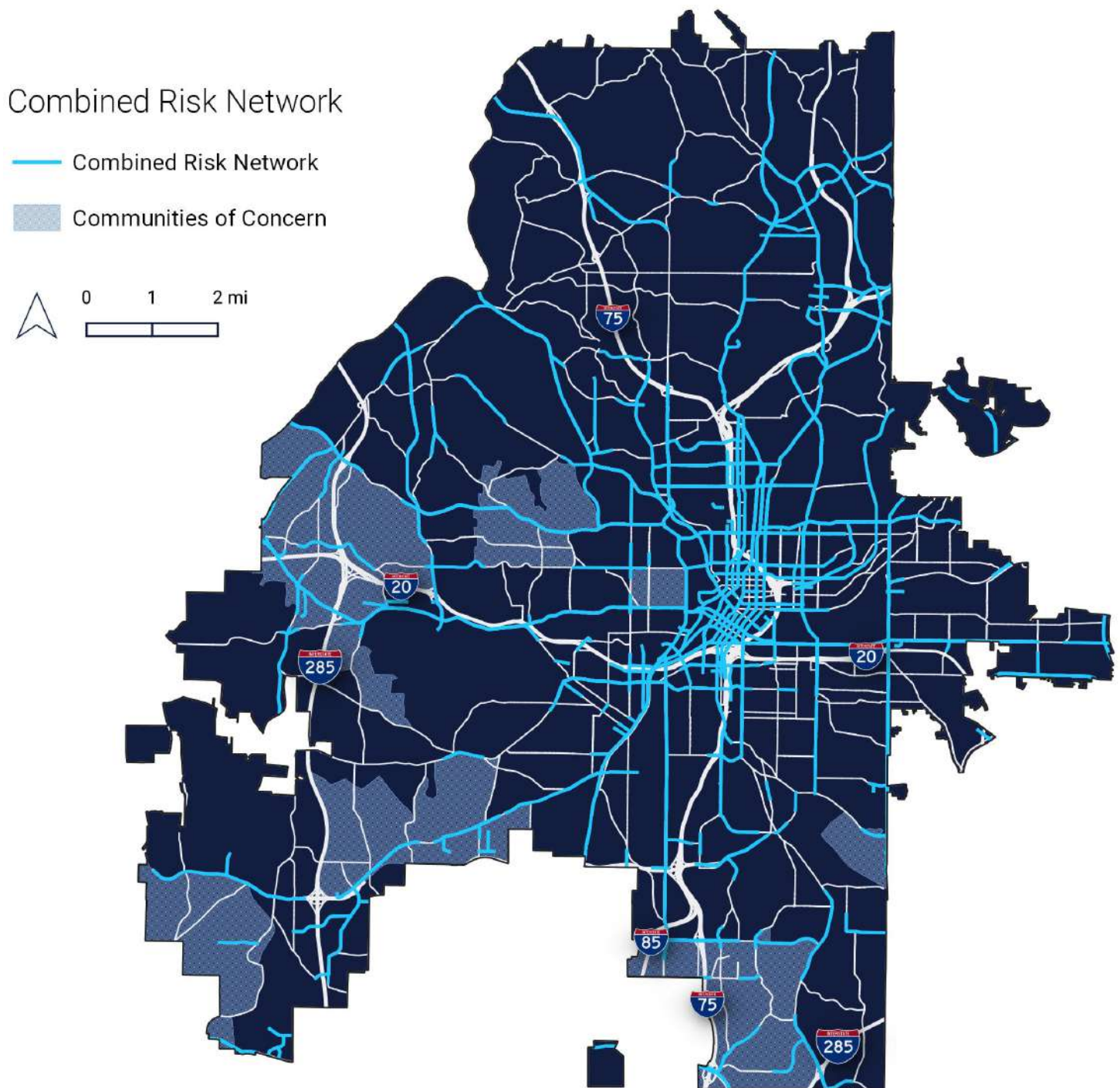
Figure 7: Map of Motorcycle Risk Factors



This page intentionally left blank.

COMBINED RISK NETWORK MAP

Figure 1: Map of Aggressive Speeding Risk Factors



This page intentionally left blank.

GAP ANALYSIS METHODOLOGY AND FINDINGS

OVERVIEW

The High Injury Network (HIN) and Systemic Risk Factor Network (SRFN) are based on quantitative analysis conducted early in the Vision Zero Action Plan process. The planning team also collected qualitative data through a Community Input Map, which was open for public input from early February through the end of July 2023. The Input Map allowed community members to provide geocoded comments by pinpointing locations of concern (the survey drilled down into the types of concerns that the user has experienced at the particular location). This Gap Analysis compares the quantitative and qualitative data to provide another criterion for decision-makers to consider when justifying project investments.

METHODOLOGY

The analysis described below was conducted within ESRI ArcGIS Pro.

1. All of the risk factor layers were merged into one layer called Systemic Risk Factor Network (SRFN).
2. The Summarize Incident Count analysis tool counts all input points within 250 feet of Atlanta Roads layer. The output is a feature class of line features (roadway segments) with an attribute for total count of input points.
3. The new line feature class, symbolized using graduated colors, conveys the range of the total number of input points by roadway segment. A natural breaking point in the data (using the Jenks natural breaks classification method) is 8 or more input points, so that metric is used to define “community-identified corridors.”
4. Using Select by Location queries, the overlaps between the Community-Identified Corridor layer and the HIN and SRFN were identified.
5. Community-Identified Corridors with no overlap (or at least a segment with no overlap) were identified without analysis tools, but rather by visual inspection of the map.

FINDINGS

There are significant overlaps between the qualitative data and quantitative data, as illustrated on the maps included in the Appendix. The respective overlaps and gaps were categorized by the following buckets:

- **Category 1:** Community-Identified Corridors that Overlap with Combined Risk Network (HIN and SRFN)
- **Category 2:** Community-Identified Corridors that Overlap with HIN Only
- **Category 3:** Community-Identified Corridor that Overlap with SRFN Only
- **Category 4:** Community-Identified Corridors (or Segments Thereof) that Do Not Overlap with Quantitative Data

The following tables list the top ten corridors (by number of input points) for Categories 1, 3, and 4. There were fewer roads that met the criteria for Category 2, so only those that met the criteria are listed in the table.

In some cases, certain segments do or do not overlap, so locational information is provided in parentheses to specify a particular segment.

Table 1: Community-Identified Corridors that Overlap with the Combined Risk Network (HIN and SRFN)

Roadway Corridor	Total Input Points on Overlap Segment
Memorial Dr SE	68
Boulevard SE	44
Moreland Ave SE	37
Northside Pkwy NW (south of I-75)	35
Monroe Dr NE	31
Edgewood Ave NE	31
Marietta St	30
10th St NE	27
Ponce de Leon Ave NE	26
14th St NW	26

Table 3: Community-Identified Corridors that Overlap with SRFN Only

Roadway Corridor	Total Input Points on Overlap Segment
N Highland Ave	30
Memorial Dr SE (approximately from Hill St to Pearl St)	24
Howell Mill Rd	22
Dekalb Ave (Two segments: approximately from Candler St NE to Moreland Ave NE, and approximately from Howard Cir NE to Ridgecrest Rd NE)	18
17th St	17
Piedmont Ave (approximately from 12th St to Westminster Dr NE)	17
Luckie St NW	15
Martin Luther King Jr Dr SW	14
W Peachtree St NW	14
Spring St SW (approximately from 5th St NW to Linden Ave NW)	10

Table 2: Community-Identified Corridors that Overlap with HIN Only

Roadway Corridor	Total Input Points on Overlap Segment
Cascade Rd (approximately from Fontaine Ave SW to Venetian Dr SW)	12
Lee St SW	12

Table 4: Community-Identified Corridors (or Segments Thereof) With No Overlap with Quantitative Data

Roadway Corridor	Total Input Points on Overlap Segment
Glenwood Ave SE (south of I-20)	42
Moores Mill Rd	37
Bouldercrest Dr SE	27
Marietta Rd NW	25
Clifton Rd NE	22
Deering Rd NW	21
Boulevard Dr NE	20
State Route 154 (spur)	20
Bolton Rd (approximately from Spink St NW to Collins Dr NW)	18
Northside Pkwy NW (north of I-75)	15

QUADRANT MAPS

Figure 1: Map of Community-Identified Unsafe Corridors by Number of Comments, Northwest Quadrant

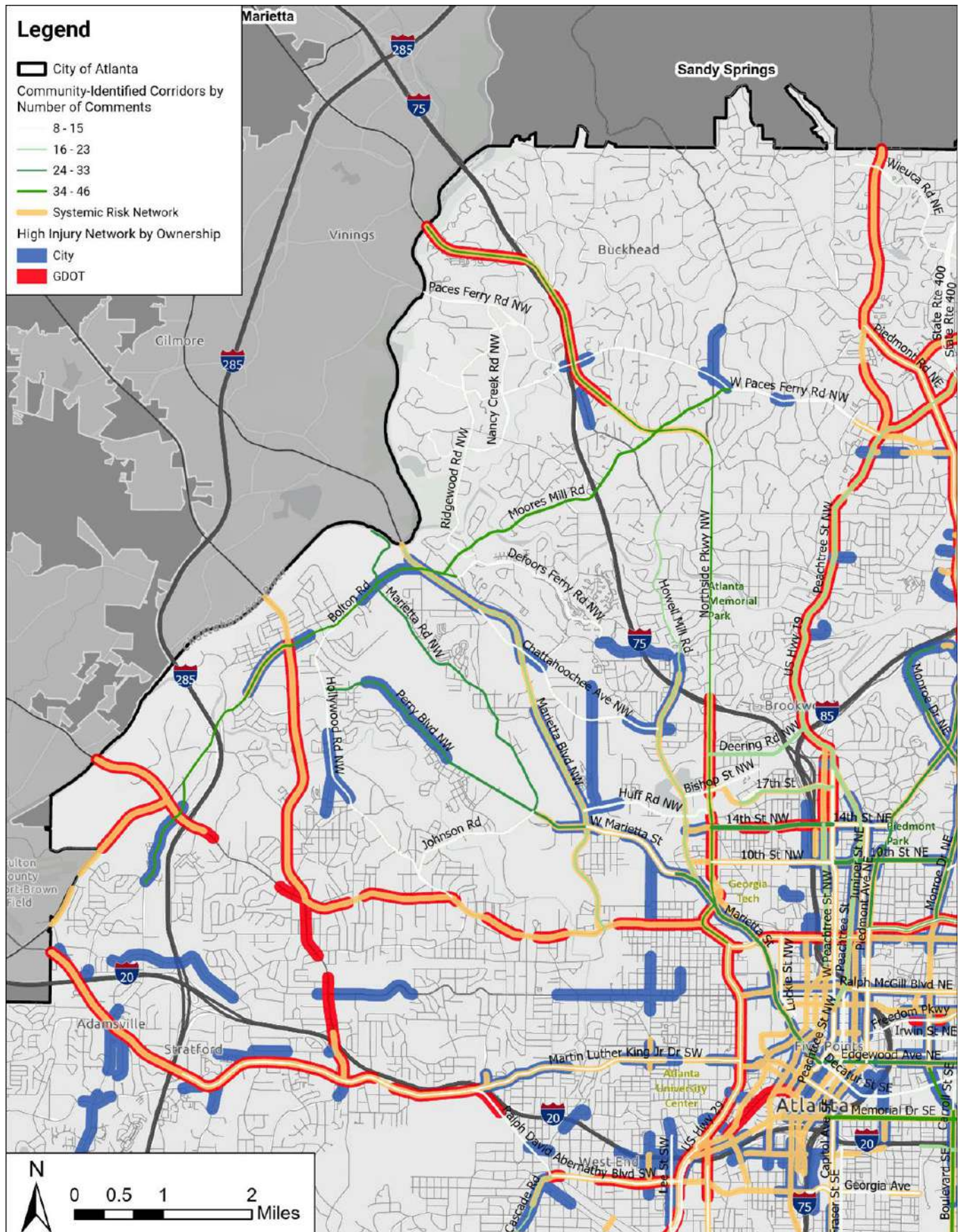


Figure 2: Map of Community-Identified Unsafe Corridors by Number of Comments, Northeast Quadrant

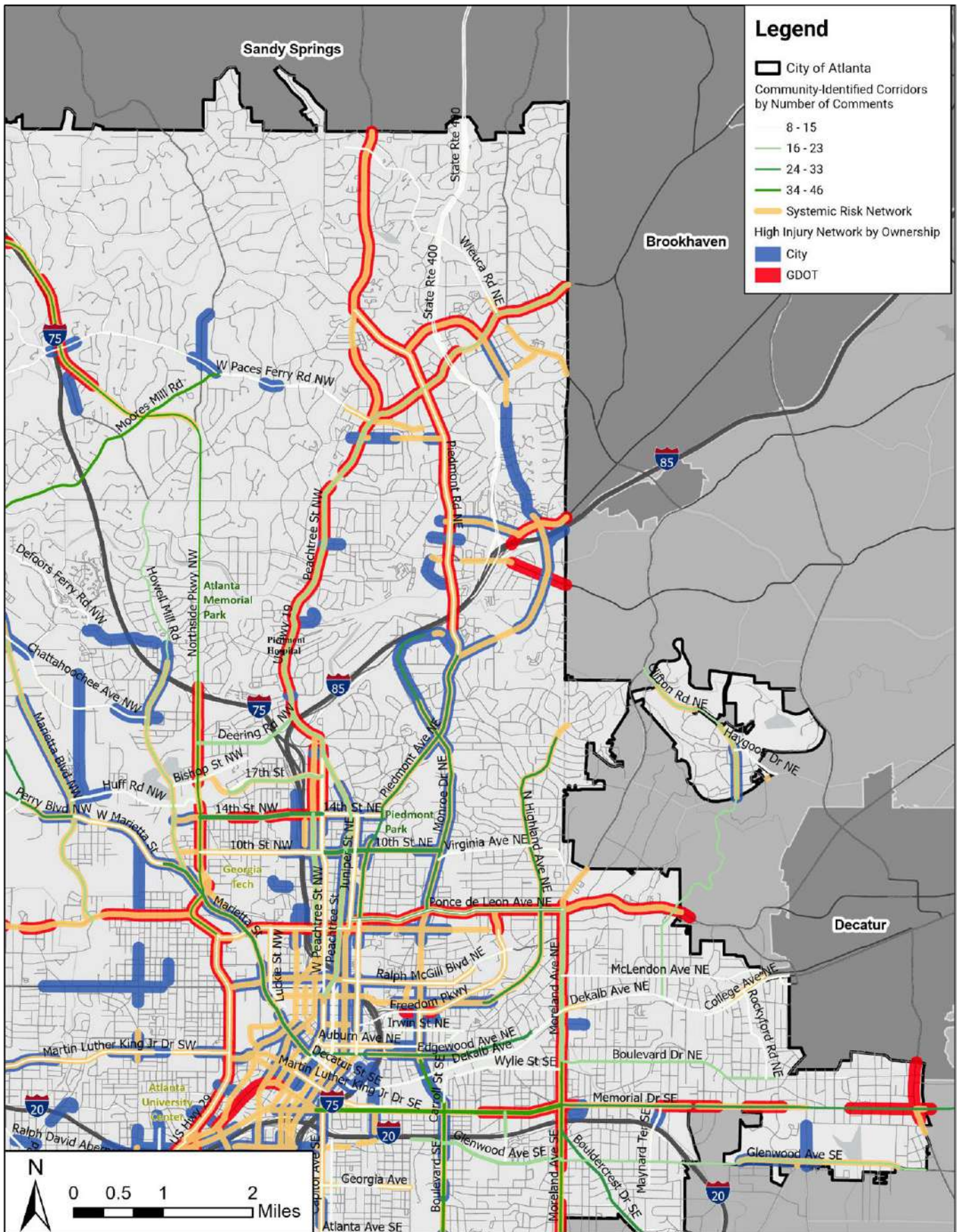


Figure 3: Map of Community-Identified Unsafe Corridors by Number of Comments, Southwest Quadrant

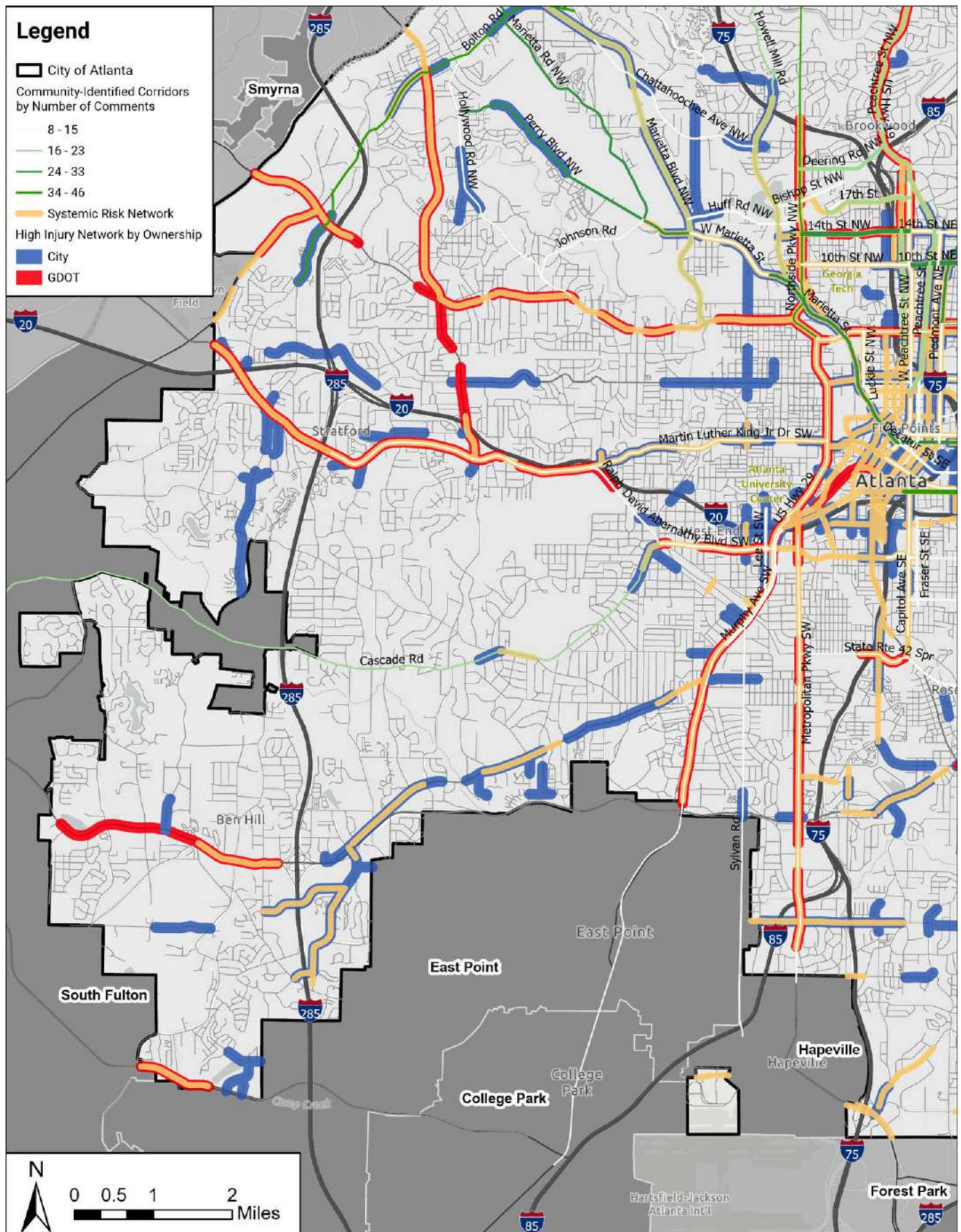
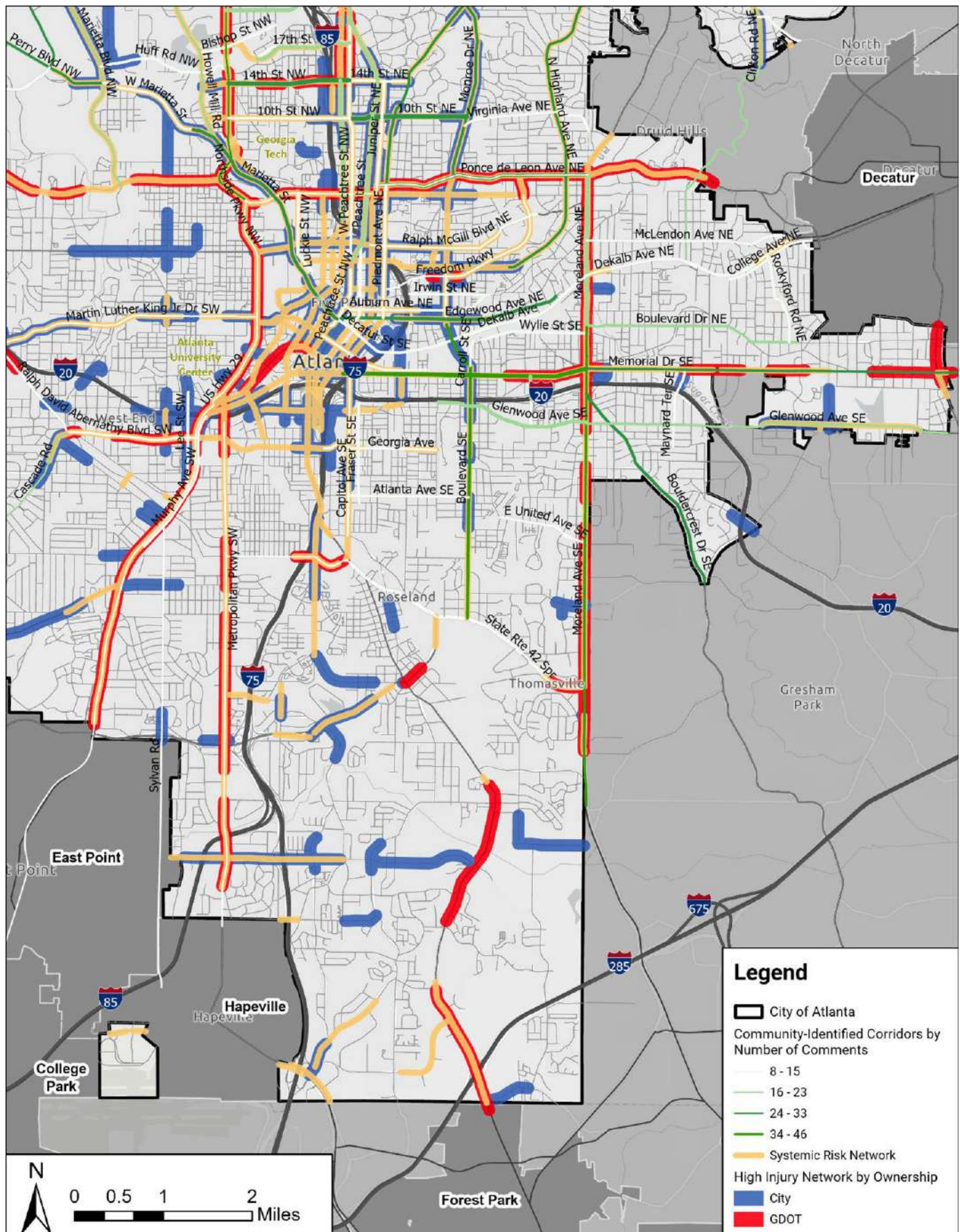


Figure 4: Map of Community-Identified Unsafe Corridors by Number of Comments, Southeast Quadrant



TRIPLE THREAT STREETS

The following streets (FULL ROAD NAME) contain segments that fall on ALL of the three major data analysis maps (i.e., the “Triple Threat” roads) within the Atlanta Vision Zero Action Plan – **Combined Risk Network** (High Injury Network + Systemic Risk Network); and **Community Feedback** segments:

Table 5: Streets that fall on the High Injury Network, Systemic Risk Network, and Community Feedback Map

Triple Threat Streets in Atlanta		
10TH ST	BUFORD HIGHWAY CONN	DONNELLY AVE
12TH ST	BURTON RD	E BEECHWOOD DR
16TH ST	CAMPBELLTON RD	E CLEVELAND A
17TH ST	CANDLER RD	E PACES FERRY RD
19TH ST	CAROLINE ST	EDGEWOOD AVE
2ND AVE	CASCADE AVE	ELAINE AVE
ALEXANDER ST	CASCADE CIR	ELLIOTT ST
ALICE ST	CASCADE RD	ELLIS RAMP
ALISON CT	CATO ST	ELLIS ST
ANDREW YOUNG INTERNATIONAL BLVD	CENTENNIAL OLYMPIC P DR	ELLSWORTH INDUSTRIAL BLVD
ANNIE ST	CENTRAL AVE	EPWORTH ST
ARMOUR DR	CHANTILLY DR	EUCLID AVE
ARMSTRONG ST	CHATAHOOCHEE AVE	FAIR DR
ARTHUR LANGFORD EB PKWY	CLAIRE DR	FAIRBURN RD
ATLANTA AVE	CLEVELAND AVE	FAYETTEVILLE RD
AUBURN AVE	CLIFTON RD	FERNLEAF CT
AVERY DR	CNN CTR	FERST DR
AVON AVE	COLLEGE AVE	FISHER AVE
BAKER HIGHLAND CONN	COLLIER DR	FLAT SHOALS AVE
BAKER ST	COLLIER RD	FLAT SHOALS RD
BAKERS FERRY RD	CONSTITUTION RD	FORSYTH ST
BEECHER ST	CONTINENTAL COLONY PKWY	FRASER ST
BELL ST	COUNTRY CLUB DR	FULTON INDUSTRIAL BLVD
BELTLINE	COURTLAND ST	FULTON ST EXT
BENT CREEK WAY	CUSTER AVE	FULTON ST
BISHOP ST	DECATUR ST	GA 400 NB EXPY
BOBBY DODD WAY	DEERING RD	GA 400 NB RA
BOLTON RD	DEFOORS FERRY RD	GA 400 NB RAMP
BOULDER PARK DR	DEKALB AVE	GA 400 SB EXPY
BOULDERCREST DR	DEKALB PL	GA 400 SB RAMP
BOULEVARD	DELOWE DR	GARRAUX RD
BRIARCLIFF RD	DILL AVE	GARSON DR
BROWNS MILL RD	DIMMOCK ST	GEORGIA AVE
	DONALD LEE HOLLOWELL PKWY	GLENWOOD AVE

Table 5: Streets that fall on the High Injury Network, Systemic Risk Network, and Community Feedback Map, continued

Triple Threat Streets in Atlanta

GREENBRIAR PKWY	IRWIN ST	MAYNARD TER
GREENSFERRY AVE	IVAN ALLEN JR BLVD	MCDANIEL ST
GUN CLUB RD	JACKSON ST	MCDONOUGH BLVD
HALL ST	JAMES P BRAWLEY DR	MCLENDON AVE
HAMILTON E HOLMES DR	JOHN LEWIS FREEDOM PKWY	MEMORIAL DR
HANK AARON DR	JOHN WESLEY DOBBS AVE	METROPOLITAN PKWY
HEADLAND DR	JOHNSON RD	MILTON AVE
HIGH POINT AVE	JONESBORO RD	MITCHELL ST
HIGHTOWER RD	JOSEPH E BOONE BLVD	MONROE DR
HILL ST	JOSEPH E LOWERY BLVD	MOORES MILL RD
HOLLYWOOD RD	KIMBERLY RD	MORELAND AVE
HOLMES ST	LA DAWN LN	MOROSGO DR
HOSEA L WILLIAMS DR	LAKEWOOD AVE	MOUNT PARAN RD
HOWELL DR	LANGHORN ST	MOUNT ZION RD
HOWELL MILL RD	LANGSTON AVE	MURPHY AVE
HUFF RD	LANIER BLVD	MYRTLE DR
I 20 EB EXPY	LAVISTA RD	N EVELYN PL
I 20 EB RAMP	LAWTON ST	N HIGHLAND AVE
I 20 WB RAMP	LEE ST	N LOOP
I 285 SB EXPY	LENOX RD	NANCY CREEK RD
I 285 SB RAMP	LINDBERGH DR	NELSON ST
I 75 85 NB EXPY	LINDBERGH WAY	NORFLEET RD
I 75 85 NB RAMP	LUCILE AVE	NORTHSIDE DR
I 75 85 SB EXPY	LUCKIE ST	NORTHSIDE PKWY
I 75 85 SB RAMP	LYNHURST DR	OAK ST
I 75 NB EXPY	MACON DR	OAK VALLEY RD
I 75 NB RAMP	MADDOX PARK DR	OLD GORDON RD
I 75 SB EXPY	MAIN	OLD HAPEVILLE RD
I 75 SB RAMP	MANGUM ST	OLD HOLLYWOOD RD
I 85 NB EXPY	MARIETTA BLVD	OLD MARIETTA RD
I 85 NB RA	MARIETTA RD	OLD WHEAT ST
I 85 NB RAMP	MARTIN L KING JR DR	PACES FERRY RD
I 85 SB EXPY	MARTINA DR	PARK AVENUE WEST
I 85 SB RAMP	MARY GEORGE AVE	PARK ST

Table 5: Streets that fall on the High Injury Network, Systemic Risk Network, and Community Feedback Map, continued

Triple Threat Streets in Atlanta		
PARKWAY DR	RICE ST	TED TURNER DR
PEACHTREE CENTER AVE	RICHARDSON ST	TRENTON ST
PEACHTREE PARK DR	RIDGE AVE	TRINITY AVE
PEACHTREE ST	RIDGEWOOD RD	UNITED AVE
PERKERSON RD	ROCKFORD ROUTE RD	UNIVERSITY AVE
PERRY BLVD	ROCKY FORD RD	VENETIAN DR
PETERS ST	ROSWELL RD	VIRGINIA AVE
PEYTON RD	ROXBORO RD	W LAKE AVE
PHARR RD	S RIVER INDUSTRIAL BLVD	W MARIETTA ST
PHIPPS BLVD	SAINT CHARLES PL	W PACES FERRY RD
PIEDMONT AVE	SAINT LOUIS PL	W PEACHTREE ST
PIEDMONT CIR	SAWTELL AVE	WALKER ST
PIEDMONT RD	SEABOARD AVE	WALL ST
POLLARD BLVD	SIDNEY MARCUS BLVD	WASHINGTON ST
PRATT ST	SOUTHSIDE INDUSTRIAL PKWY	WESTVIEW DR
PRYOR CIR	SPRING ST	WHITE ST
PRYOR RD	SPRING TECHWOOD CONN	WHITEHALL ST
PRYOR ST	STONE HOGAN CONN	WIEUCA RD
PULLIAM RAMP	STONE RD	WILLIAMS ST
PULLIAM ST	STONEWALL ST	WINDSOR ST
RALPH D ABERNATHY BLVD	SYLVAN RD	WOODLAND AVE
RALPH MCGILL BLVD	TECH PKWY	WYLIE ST
RAWSON ST	TECHWOOD DR	

SINGLE DATA SOURCE STREETS

The following roads (FULL ROAD NAME) contain segments that fall on ONE of the three major data analysis maps within the Atlanta Vision Zero Action Plan – Combined Risk Network (High Injury Network + Systemic Risk Network); and Community Feedback segments. In some cases, different segments of the same street may have been identified in the different data sources; these street names will appear in multiple tables.

HIGH INJURY NETWORK STREETS

Table 6: Streets that fall on the High Injury Network, but not the Systemic Risk Network or Community Feedback Map

High Injury Network Streets		
12TH ST	DELOWE DR	JOHN WESLEY DOBBS AVE
16TH ST	DILL AVE	JONESBORO RD
19TH ST	DIMMOCK ST	JOSEPH E BOONE BLVD
2ND AVE	DONALD LEE HOLLOWELL PKWY	JOSEPH E LOWERY BLVD
ALICE ST	DONNELLY AVE	KIMBERLY RD
ALISON CT	ELAINE AVE	LAKEWOOD AVE
ARMSTRONG ST	ELLSWORTH INDUSTRIAL BLVD	LANGHORN ST
AVON AVE	FAIRBURN RD	LAVISTA RD
BAKERS FERRY RD	FERST DR	LEE ST
BELL ST	FLAT SHOALS RD	LENOX RD
BELTLINE	FULTON ST	LINDBERGH DR
BENT CREEK WAY	GARSON DR	LUCILE AVE
BOBBY DODD WAY	GREENBRIAR PKWY	LYNHURST DR
BOLTON RD	GREENSFERRY AVE	MACON DR
BOULDER PARK DR	HAMILTON E HOLMES DR	MCDANIEL ST
BROWNS MILL RD	HEADLAND DR	MITCHELL ST
BUFORD HIGHWAY CONN	HIGHTOWER RD	MONROE DR
BURTON RD	HILL ST	MOROSGO DR
CAMPBELLTON RD	HOLLYWOOD RD	MOUNT ZION RD
CANDLER RD	HOLMES ST	MYRTLE DR
CAROLINE ST	HOWELL DR	OAK ST
CHANTILLY DR	HOWELL MILL RD	OAK VALLEY RD
CLAIRE DR	I 20 EB RAMP	OLD GORDON RD
CLEVELAND AVE	I 20 WB RAMP	OLD HAPEVILLE RD
COLLIER DR	I 75 85 SB RAMP	PARK ST
COLLIER DR	I 85 NB RAMP	PEACHTREE PARK DR
CONTINENTAL COLONY PKWY	I 85 SB EXPY	PETERS ST
COUNTRY CLUB DR	I 85 SB RAMP	PEYTON RD
CUSTER AVE	JAMES P BRAWLEY DR	PHARR RD

Table 6: Streets that fall on the High Injury Network, but not the Systemic Risk Network or Community Feedback Map, continued

High Injury Network Streets		
PIEDMONT CIR	SAWTELL AVE	VENETIAN DR
POLLARD BLVD	SEABOARD AVE	WALL ST
PRATT ST	SIDNEY MARCUS BLVD	WESTVIEW DR
PRYOR ST	STONEWALL ST	WILLIAMS ST
RICHARDSON ST	TECHWOOD DR	WINDSOR ST
S RIVER INDUSTRIAL BLVD	TRENTON ST	WOODLAND AVE

SYSTEMIC RISK NETWORK STREETS

Table 7: Streets that fall on the Systemic Risk Network, but not the High Injury Network or Community Feedback Map

Systemic Risk Network Streets		
10TH ST	I 75 85 SB RAMP	RAWSON ST
17TH ST	I 85 SB RAMP	RICE ST
ALEXANDER ST	IVAN ALLEN JR BLVD	RIDGE AVE
ANDREW YOUNG INTERNATIONAL BLVD	JACKSON ST	ROSWELL RD
ARTHUR LANGFORD EB PKWY	JOHN LEWIS FREEDOM PKWY	ROXBORO RD
BAKER HIGHLAND CONN	JOHNSON RD	SAINT CHARLES PL
BAKER ST	JONESBORO RD	SAINT LOUIS PL
BELTLINE	JOSEPH E LOWERY BLVD	SAWTELL AVE
BRIARCLIFF RD	LAKEWOOD AVE	SOUTHSIDE INDUSTRIAL PKWY
BROWNS MILL RD	LAWTON ST	SPRING ST
BUFORD HIGHWAY CONN	LEE ST	SPRING TECHWOOD CONN
CAMPBELLTON RD	LINDBERGH DR	STONE HOGAN CONN
CANDLER RD	LINDBERGH WAY	STONE RD
CENTENNIAL OLYMPIC P DR	LUCKIE ST	TECH PKWY
CENTRAL AVE	MANGUM ST	TED TURNER DR
CLEVELAND AVE	MARIETTA BLVD	TRINITY AVE
CNN CTR	MARTIN L KING JR DR	W LAKE AVE
COURTLAND ST	MCDONOUGH BLVD	WALKER ST
DONALD LEE HOLLOWELL PKWY	MEMORIAL DR	WASHINGTON ST
E CLEVELAND A	MITCHELL ST	WHITE ST
E PACES FERRY RD	MOUNT ZION RD	WHITEHALL ST
ELLIOTT ST	N EVELYN PL	WILLIAMS ST
ELLIS ST	N LOOP	WINDSOR ST
EPWORTH ST	NELSON ST	
FAIR DR	NORTHSIDE DR	
FAYETTEVILLE RD	PARKWAY DR	
FORSYTH ST	PEACHTREE ST	
FULTON INDUSTRIAL BLVD	PETERS ST	
FULTON ST EXT	PHARR RD	
FULTON ST	PIEDMONT AVE	
GLENWOOD AVE	PIEDMONT RD	
HALL ST	PRYOR CIR	
HANK AARON DR	PRYOR RD	
HIGH POINT AVE	PRYOR ST	
I 75 85 NB EXPY	PULLIAM RAMP	
I 75 85 NB RAMP	PULLIAM ST	
I 75 85 SB EXPY	RALPH D ABERNATHY BLVD	

COMMUNITY FEEDBACK MAP STREETS

Table 8: Streets that fall on the Community Feedback Map, but not the High Injury Network or Systemic Risk Network

Community Feedback Map Streets		
17TH ST	GA 400 NB EXPY	LEE ST
ANNIE ST	GA 400 NB RA	LINDBERGH DR
ARMOUR DR	GA 400 NB RAMP	LUCKIE ST
ATLANTA AVE	GA 400 SB EXPY	MADDOX PARK DR
AUBURN AVE	GA 400 SB RAMP	MAIN
AVERY DR	GARRAUX RD	MARIETTA RD
BEECHER ST	GEORGIA AVE	MARTIN L KING JR DR
BELTLINE	GLENWOOD AVE	MARTINA DR
BISHOP ST	GUN CLUB RD	MARY GEORGE AVE
BOLTON RD	HANK AARON DR	MAYNARD TER
BOULDERCREST DR	HOLLYWOOD RD	MCDONOUGH BLVD
BOULEVARD	HOSEA L WILLIAMS DR	MCLENDON AVE
BUFORD HIGHWAY CONN	HOWELL MILL RD	METROPOLITAN PKWY
CASCADE AVE	HUFF RD	MILTON AVE
CASCADE CIR	I 20 EB EXPY	MONROE DR
CASCADE RD	I 20 EB RAMP	MOORES MILL RD
CATO ST	I 285 SB EXPY	MORELAND AVE
CHATTAHOOCHEE AVE	I 285 SB RAMP	MOUNT PARAN RD
CLAIRE DR	I 75 85 NB EXPY	MURPHY AVE
CLIFTON RD	I 75 85 NB RAMP	N HIGHLAND AVE
COLLEGE AVE	I 75 85 SB RAMP	NANCY CREEK RD
CONSTITUTION RD	I 75 NB EXPY	NORFLEET RD
DECATUR ST	I 75 NB RAMP	NORTHSIDE DR
DEERING RD	I 75 SB EXPY	NORTHSIDE PKWY
DEFOORS FERRY RD	I 75 SB RAMP	OLD HOLLYWOOD RD
DEKALB AVE	I 85 NB EXPY	OLD MARIETTA RD
DEKALB PL	I 85 NB RA	OLD WHEAT ST
E BEECHWOOD DR	I 85 NB RAMP	PACES FERRY RD
EDGEWOOD AVE	I 85 SB EXPY	PARK AVENUE WEST
ELLIS RAMP	I 85 SB RAMP	PEACHTREE CENTER AVE
ELLIS ST	IRWIN ST	PERKERSON RD
EUCLID AVE	JOHN LEWIS FREEDOM PKWY	PERRY BLVD
FERNLEAF CT	JOHNSON RD	PHIPPS BLVD
FISHER AVE	LA DAWN LN	PIEDMONT AVE
FLAT SHOALS AVE	LANGSTON AVE	RALPH D ABERNATHY BLVD
FRASER ST	LANIER BLVD	RALPH MCGILL BLVD

Table 8: Streets that fall on the Community Feedback Map, but not the High Injury Network or Systemic Risk Network, continued

Community Feedback Map Streets		
RIDGEWOOD RD	SYLVAN RD	W PACES FERRY RD
ROCKFORD ROUTE RD	UNITED AVE	W PEACHTREE ST
ROCKY FORD RD	UNIVERSITY AVE	WIEUCA RD
SPRING ST	VIRGINIA AVE	WYLIE ST
SPRING TECHWOOD CONN	W MARIETTA ST	

SORTED COMMUNITY FEEDBACK MAP STREETS

Table 9: Sorted streets on the Community Feedback Map, but not the High Injury Network or Systemic Risk Network

ID #	Street Name	Comment Count	Functional Class
1	DEERING RD NW	21	Major Collector
2	I 75 85 NB EXPY NW	21	Minor Arterial
3	I 75 85 NB RAMP NW	21	Interstate
4	SPRING ST NW	21	Interstate
5	SPRING TECHWOOD CONN NW	21	Interstate
6	GLENWOOD AVE SE	20	Major Collector
7	I 20 EB EXPY SE	20	Interstate
8	I 20 EB RAMP SE	20	Interstate
9	EDGEWOOD AVE NE	16	Minor Arterial
10	EDGEWOOD AVE SE	16	Minor Arterial
11	EUCLID AVE NE	16	Minor Arterial
12	BOULEVARD SE	15	Minor Arterial
13	LUCKIE ST NW	15	Local
14	PARK AVENUE WEST NW	15	Local
15	PEACHTREE CENTER AVE NE	15	Major Collector
16	BOULDERCREST DR SE	14	Minor Arterial
17	FLAT SHOALS AVE SE	14	Minor Arterial
18	MORELAND AVE SE	14	Interstate
19	BELTLINE SE	12	Local
20	DECATUR ST SE	12	Minor Arterial
21	DEKALB PL NE	12	Major Collector
22	I 75 85 SB RAMP SE	12	Minor Arterial
23	I 75 SB EXPY NW	12	Interstate
24	I 75 SB RAMP NW	12	Minor Arterial
25	LEE ST SW	12	Local
26	MOORES MILL RD NW	12	Minor Arterial
27	ROCKY FORD RD NE	12	Local
28	WYLIE ST SE	12	Local

Table 9: Ranked streets on the Community Feedback Map, but not the High Injury Network or Systemic Risk Network, continued

ID #	Street Name	Comment Count	Functional Class
29	17TH ST NW	11	Minor Arterial
30	AVERY DR NE	11	Local
31	BELTLINE NE	11	Minor Arterial
32	BISHOP ST NW	11	Major Collector
33	DEKALB AVE NE	11	Minor Arterial
34	DEKALB AVE SE	11	Minor Arterial
35	HUFF RD NW	11	Major Collector
36	MURPHY AVE SW	11	Major Collector
37	PIEDMONT AVE NE	11	Minor Arterial
38	ARMOUR DR NE	10	Local
39	ATLANTA AVE SE	10	Major Collector
40	BUFORD HIGHWAY CONN NE	10	Interstate
41	FRASER ST SE	10	Local
42	GEORGIA AVE SE	10	Major Collector
43	HOSEA L WILLIAMS DR NE	10	Major Collector
44	HOSEA L WILLIAMS DR SE	10	Major Collector
45	I 85 NB RAMP NE	10	Interstate
46	IRWIN ST NE	10	Local
47	MARY GEORGE AVE NW	10	Major Collector
48	MAYNARD TER SE	10	Local
49	N HIGHLAND AVE NE	10	Local
50	PERRY BLVD NW	10	Major Collector
51	VIRGINIA AVE NE	10	Major Collector
52	W MARIETTA ST NW	10	Major Collector
53	W PEACHTREE ST NE	10	Local
54	W PEACHTREE ST NW	10	Local
55	COLLEGE AVE NE	9	Major Collector
56	CONSTITUTION RD SE	9	Other Principal Arterial

Table 9: Ranked streets on the Community Feedback Map, but not the High Injury Network or Systemic Risk Network, continued

ID #	Street Name	Comment Count	Functional Class
57	LANIER BLVD NE	9	Local
58	MONROE DR NE	9	Major Collector
59	UNITED AVE SE	9	Major Collector
60	VIRGINIA RAMP	9	Local
61	17TH ST NE	8	Local
62	ANNIE ST NW	8	Local
63	AUBURN AVE NE	8	Local
64	BOLTON RD NW	8	Minor Arterial
65	FISHER AVE NW	8	Local
66	I 285 SB EXPY NW	8	Minor Arterial
67	I 285 SB RAMP NW	8	Interstate
68	JOHNSON RD NW	8	Minor Collector
69	LA DAWN LN NW	8	Local
70	MARIETTA RD NW	8	Local
71	MARTIN L KING JR DR SE	8	Local
72	OLD MARIETTA RD NW	8	Local
73	OLD WHEAT ST NE	8	Local
74	RALPH D ABERNATHY BLVD SW	8	Minor Arterial
75	ROCKFORD ROUTE RD NW	8	Local
76	PHIPPS BLVD NE	7	Major Collector
77	WIEUCA RD NE	7	Major Collector
78	CHATTAHOOCHEE AVE NW	6	Major Collector
79	CLAIRE DR NE	6	Major Collector
80	CLIFTON RD NE	6	Local
81	JOHN LEWIS FREEDOM PKWY NE	6	Minor Arterial
82	MADDOX PARK DR NW	6	Local
83	MCLENDON AVE NE	6	Major Collector
84	RALPH MCGILL BLVD NE	6	Minor Arterial

Table 9: Ranked streets on the Community Feedback Map, but not the High Injury Network or Systemic Risk Network, continued

ID #	Street Name	Comment Count	Functional Class
85	HOWELL MILL RD NW	5	Major Collector
86	NORFLEET RD NW	5	Local
87	PACES FERRY RD NW	5	Major Collector
88	DEFOORS FERRY RD NW	4	Major Collector
89	E BEECHWOOD DR NW	4	Local
90	ELLIS RAMP NE	4	Local
91	ELLIS ST NE	4	Local
92	FERNLEAF CT NW	4	Major Collector
93	GARRAUX RD NW	4	Major Collector
94	I 75 85 NB RAMP NE	4	Local
95	I 75 NB EXPY NW	4	Interstate
96	I 75 NB RAMP NW	4	Interstate
97	MOUNT PARAN RD NW	4	Minor Arterial
98	NANCY CREEK RD NW	4	Local
99	NORTHSIDE DR NW	4	Minor Arterial
100	NORTHSIDE PKWY NW	4	Local
101	RIDGEWOOD RD NW	4	Major Collector
102	CATO ST NW	3	Major Collector
103	GUN CLUB RD NW	3	Local
104	HANK AARON DR SW	3	Minor Arterial
105	HOLLYWOOD RD NW	3	Major Collector
106	I 85 NB EXPY NE	3	Interstate
107	I 85 SB EXPY NE	3	Other FWY OR EXPWY
108	I 85 SB EXPY NW	3	Interstate
109	MARTIN L KING JR DR NW	3	Minor Arterial
110	MARTIN L KING JR DR SW	3	Minor Arterial
111	MCDONOUGH BLVD SE	3	Minor Arterial
112	MCDONOUGH BLVD SW	3	Minor Arterial

Table 9: Ranked streets on the Community Feedback Map, but not the High Injury Network or Systemic Risk Network, continued

ID #	Street Name	Comment Count	Functional Class
113	MILTON AVE SE	3	Minor Arterial
114	OLD HOLLYWOOD RD NW	3	Local
115	UNIVERSITY AVE SW	3	Major Collector
116	BEECHER ST SW	2	Major Collector
117	CASCADE AVE SW	2	Minor Arterial
118	CASCADE CIR SW	2	Minor Arterial
119	CASCADE RD SW	2	Minor Arterial
120	LANGSTON AVE SW	2	Minor Arterial
121	METROPOLITAN PKWY SW	2	Minor Arterial
122	PERKERSON RD SW	2	Minor Arterial
123	SYLVAN RD SW	2	Minor Arterial
124	W PACES FERRY RD NW	2	Major Collector
125	MAIN ST	1	Minor Arterial

This page intentionally left blank.





APPENDIX C:

ATLANTA SAFER STREETS EDUCATION GUIDE

ATLANTA SAFER STREETS EDUCATION GUIDE.	C1
--	----

This page intentionally left blank.

ATLANTA SAFER STREETS EDUCATION GUIDE

October 25, 2023

INTRODUCTION

WHAT IS VISION ZERO?

Vision Zero is a goal of no deaths or serious injuries on roadways. Vision Zero is the goal and the Safe System Approach is how we go about prioritizing safety in decision-making processes. The Safe System Approach is different from conventional ways of addressing traffic safety because it recognizes that while people make mistakes when using our streets, death and serious injury are not acceptable outcomes. Responsibility for a safe street system should be shared, proactive, and redundant to prevent people from being killed or seriously injured on roadways. Under Vision Zero, City leadership, policymakers, traffic engineers, designers, planners, local enforcement, and road users are all responsible for preventing roadway deaths and serious injuries.

The Safe System Approach is a holistic road safety strategy that recognizes humans make mistakes and aims to create a forgiving road system that reduces risk and eliminates fatal and serious injury crashes. The Safe System Approach is based on six foundational principles: deaths and serious injuries are unacceptable, humans make mistakes, humans are vulnerable, responsibility is shared, safety is proactive, and redundancy is crucial. Additionally, the Safe System Approach involves five key elements to achieve zero fatal and serious injury crashes: safe roads, safe speeds, safe vehicles, safe road users, and post-crash care.

The Federal Highway Administration (FHWA) has adopted the Safe System Approach to eliminate fatal and serious injuries for all road users. Similarly, the Institute of Transportation Engineers (ITE) promotes the advancement of the Safe System Approach to road system owners and operators to design, build, and operate safer roads. The framework for the Safe System Approach, its principles and key elements are summarized in Figure 1.

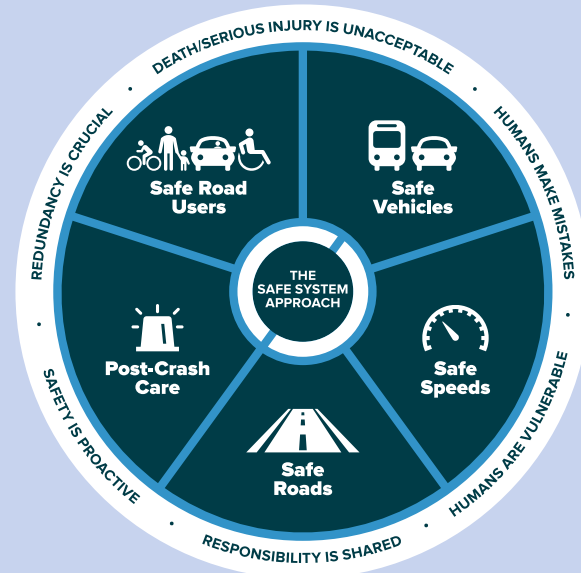


Figure 1: The Safe System Approach. Source: FHWA

ATLANTA'S COMMITMENT TO VISION ZERO

In April 2020, the City of Atlanta made a commitment to Vision Zero to eliminate roadway deaths and serious injuries. The Atlanta Vision Zero Action Plan (the Action Plan) lays out steps that the City, working with the community and agency partners, will take to make its streets safer for all users and eliminate roadway deaths and serious injuries. The Atlanta Safer Streets Education Guide (the Education Guide) will support the Action Plan and the City's efforts to create safer streets. The Education Guide provides a menu of techniques that draw from proven safety countermeasures and national guidelines for the City to incorporate into the scoping, planning, design, and implementation of all roadway projects.

PURPOSE OF THE EDUCATION GUIDE

The Education Guide presents safety countermeasures known to reduce crashes involving people walking, bicycling, rolling, or driving. The objectives of the Education Guide are to:

1. Inform stakeholders and the greater Atlanta community about road safety countermeasures and their appropriate uses and contexts.
2. Facilitate a shared understanding of these safety countermeasures among City staff, contractors, developers, and community members when discussing transportation safety improvements.
3. Assist in the decision-making process to identify the most appropriate safety countermeasures for a location based on the location's crash history and context.

The safety countermeasures presented in the Education Guide were selected based on stakeholder and community feedback gathered during the Vision Zero Action Plan development, as well as an understanding of the leading crash types and risk factors for fatal and serious injury crashes in Atlanta. Crash data from 2017 to 2021 was analyzed to identify a High-Injury Network (HIN) where there is a greater risk for fatal and serious injury crashes and identify leading crash types, and crash risk factors. The leading crash types that lead to a fatality or serious injury on Atlanta's streets were¹:

- Angle (other)
- Left angle
- Head-on
- Rear-end
- Motorist/pedestrian
- Sideswipe
- Right angle
- Motorist/bicyclist

A total of 51 safety countermeasures are presented in the Education Guide. Several of the safety countermeasures are from the FHWA Proven Safety Countermeasures initiative (PSCi) which documents specific design or operational changes to roads that have been shown to improve safety.² The remaining safety countermeasures are known to improve roadway conditions for the types of crashes or crash risk factors that Atlanta has experienced.

¹ Crash types are listed in descending order by the percent of the crash type that led to a fatality or serious injury.

² FHWA Proven Safety Countermeasures. <https://highways.dot.gov/safety/proven-safety-countermeasures>

HOW TO READ THE EDUCATION GUIDE

The Education Guide presents a collection of roadway design safety countermeasures and outlines how each of them addresses safety and the expected reduction in crashes. The Education Guide also describes the applicable locations for each safety countermeasure and the relative estimated cost for implementation. The elements presented for each safety countermeasure are summarized below.

Categories

The safety countermeasures are categorized into the five categories below based on FHWA Proven Safety Countermeasures:

- **Pedestrian/Bicyclist**
- **Intersections**
- **Speed Management**
- **Roadway Departure**
- **Other Road Designs (Crosscutting)**

Within each category, the safety countermeasures are listed alphabetically, and each safety countermeasure is depicted in an illustration. Note the graphics are illustrative only and are not meant to depict fully engineered solutions specific for any location in the City of Atlanta.

Crash Type

The safety countermeasures in the Education Guide were selected based on the leading types of crashes that lead to a fatality or serious injury on Atlanta's streets. The crash type(s) that the safety countermeasure is known to address is indicated for each countermeasure.



Angle (Other)



Left angle



Head-on



Rear-end



Motorist/pedestrian



Sideswipe



Right angle



Motorist/bicyclist

Modes

The transportation mode that the safety countermeasure applies to is indicated throughout the Education Guide. The modes are categorized as follows:

	Bicyclist
	Pedestrian
	Motorist
	Motorcyclist

Safe System Framework

The safety countermeasures presented in the Education Guide were selected through the Safe System Approach framework. The Education Guide lists the related Safe System Approach framework for each safety countermeasure as follows:

- **Separate Users in Space**
- **Separate Users in Time**
- **Increase Visibility**
- **Increase Attentiveness**
- **Reduce Speeds**
- **Reduce Impact Force**

Relevant Roadway Type & Application

Roadways throughout the City of Atlanta have different characteristics based on the number of lanes, daily vehicles, travel speeds, and other factors. Therefore, different safety countermeasures may be appropriate on different roadways. In addition, some countermeasures are generally applied along segments, while others improve safety at intersections or address speeding motorists. The Education Guide indicates the type of location most appropriate to apply each safety countermeasure. Most safety countermeasures can be applied to several different types of locations. Based on the Safe System principle that *redundancy is critical*, it is important to consider implementing multiple safety countermeasures at one location.³

Locations for applying the safety countermeasures are categorized in the Education Guide based on the roadway classification of the corridor as follows:

- **Arterials (principal and minor arterials)**
- **Collectors**
- **Local streets**

Note, the land use context of the roadway is also a consideration for identifying the appropriate location for a safety countermeasure. The Atlanta Multimodal Street Guide categorizes Character Areas based on land use context and is an additional resource to understand appropriate street design by location.⁴

The relevant location(s) in the roadway corridor for the safety countermeasure to be applied are indicated as follows:

- **Signalized intersection**
- **Unsignalized intersection**
- **Midblock crossing**
- **Segment along corridor**

When planning and designing changes to the road network, the City of Atlanta will select the appropriate safety countermeasure for specific location and application only after an evaluation of the appropriateness of the countermeasure for the location's context.

There are some safety countermeasures that are recommended as proactive systemic safety countermeasures. These safety countermeasures can be installed on the HIN or proactively citywide wherever similar crash risk factors from the HIN exist that could lead to crashes. These safety countermeasures are indicated with a "systemic" label:

Systemic

See *Proactive Systemic Safety Countermeasures* section below for more information.

³ U.S. DOT. 2023 Safe System Approach. <https://www.transportation.gov/NRSS/SafeSystem>

⁴ Streets Atlanta: A Design Manual for Multimodal Streets, City of Atlanta. 2018. <https://atl.dot.atlantaga.gov/design-resources>

Cost & Effectiveness

Cost ranges are listed for each safety countermeasure to indicate estimates for planning, engineering, and installation of the safety countermeasure at a single typical location. If the safety countermeasure is linear, the cost assumes cost per mile. The assumptions on cost for each safety countermeasure are general and are not specific to a single location or area.

The cost categories and symbols used in the Education Guide are as follows:

\$	Low – typically \$5,000 or less
\$\$	Medium – typically \$5,000 to \$100,000
\$\$\$	Moderate – typically \$100,000 to \$300,000
\$\$\$\$	High – typically \$300,000 or more

The level of effectiveness is presented as a crash reduction factor, which is the estimated percent reduction in crashes. This percent is usually presented in a range based on findings from different research or different crash types and contexts. Most of the information on crash reduction is from the FHWA Crash Modification Factors Clearinghouse.⁵

Although researchers have estimated the reduction in crashes that can be achieved by implementing many safety countermeasures, crash reduction estimates do not exist for all countermeasures. When research has shown a reduction in crashes for a given safety countermeasure, it is noted in the Education Guide. The FHWA cautions that 1) crash reduction estimates should be regarded as general effectiveness and are not specific to any road or community, and 2) engineers must exercise judgment and consider site-specific factors when considering which safety countermeasures to apply.⁶

As the City of Atlanta plans and designs roadway projects, the effectiveness of these safety countermeasures will help in the decision-making process to identify which ones are best for different locations. The City can consult national research about the safety countermeasure's effectiveness to understand how the countermeasure may perform in the specific context of the location and the city's transportation network.

If a reduction has not yet been estimated for a safety countermeasure, it is noted in the Education Guide. Other research or qualitative findings were used in selecting the safety countermeasure, and the City should evaluate the effectiveness of these safety countermeasures in Atlanta. As the City deploys all of the safety countermeasures presented in the Education Guide, before and after data and analyses will help inform how well the countermeasures are working in Atlanta and allow the City to understand the effectiveness of these countermeasures in Atlanta's context. The City should develop an Atlanta-specific database of the effectiveness of each safety countermeasure.

⁵ US DOT. 2023. Crash Modification Factors Clearinghouse. <http://www.cmfclearinghouse.org/>

⁶ US DOT. 2008. Toolbox of Countermeasures and Their Potential Effectiveness for Roadway Departure Crashes. https://safety.fhwa.dot.gov/ped_bike/tools_solve/fhwasa18041/

Safety countermeasures from the FHWA PSCi are included in the Education Guide to demonstrate safety countermeasures that are backed by national best practices and research demonstrating their effectiveness. These safety countermeasures are highlighted in the Education Guide with a “PSCi” label:

PSCi

Resources

Additional information can be found for each safety countermeasure by visiting the resources provided in the Education Guide. These resources include both local/regional resources from organizations such as the Atlanta Regional Commission (ARC), and national resources and guidelines such as the FHWA, and National Association of City Transportation Officials (NACTO). In addition to these resources statewide resources should be consulted, including from the Georgia Department of Transportation (GDOT), such as the GDOT Design Policy Manual.⁷ The specific resources for each safety countermeasure is listed on the individual pages below.

This Education Guide was developed based on information, goals, and strategies in existing City resources, plans, or guidelines, such as Streets Atlanta, and City Design.^{8 9} The Education Guide is not meant to replace these guidelines but be a dedicated resource that outlines specific ways the City can implement design changes to Atlanta’s roads to improve safety.

⁷ GDOT Design Policy Manual. <https://www.dot.ga.gov/PartnerSmart/DesignManuals/DesignPolicy/GDOT-DPM.pdf>

⁸ Streets Atlanta: A Design Manual for Multimodal Streets. 2018. <https://atldot.atlantaga.gov/design-resources>

⁹ The Atlanta City Design: Aspiring to the Beloved Community. 2017. <https://www.atlcitydesign.com/>

LIST OF SAFETY COUNTERMEASURES

Safety Countermeasure	Page Number click to go to page
Pedestrian/Bicyclist	
Automatic Pedestrian Recalls/Automatic Pedestrian Detectors	12
Bicycle Boxes	13
Buffered Bicycle Lanes	14
Conventional Bicycle Lanes	15
Curb Extensions and Bulb Outs	16
Daylighting/Parking Restrictions at Crossings	17
Exclusive Pedestrian Signal Phases	18
Gateway Treatments	19
Green Pavement Markings	20
High Visibility Crosswalks	21
Leading Pedestrian Intervals (LPIs)	22
Neighborhood Greenways	23
Pedestrian Hybrid Beacons (PHBs)	24
Protected Intersections	25
Raised Refuge Islands	26
Rectangular Rapid Flashing Beacons (RRFBs)	27
Road Diets	28
Separated Bicycle Facilities	29
Sidewalks	30
Slip Lane Closures	31
Two-Stage Turn Bicycle Boxes	32
Intersections	
Assess Management	34
Corner/Turn Wedges	35
Dedicated Turn Lanes	36
Hardened Centerlines	37
Intersection Geometry Improvements	38
No Left Turn/U-Turn Restrictions	39
Protected Turn Phases	40

Safety Countermeasure	Page Number click to go to page
Raised Intersections/Crossings	<u>41</u>
Retroreflective Signal Backplates	<u>42</u>
Right Turn On Red Prohibitions	<u>43</u>
Roundabouts	<u>44</u>
Signal Clearances	<u>45</u>
Stop Control	<u>46</u>
Yellow Change Intervals	<u>47</u>
Speed Management	
Chicanes	<u>49</u>
Speed Humps/Speed Tables	<u>50</u>
Speed Limit Reduction and Polices	<u>51</u>
Speed Safety Cameras	<u>52</u>
Traffic Circles	<u>53</u>
Variable Speed Limits	<u>54</u>
Roadway Departure	
Enhanced Delineation for Horizontal Curves	<u>56</u>
Longitudinal Rumble Strips	<u>57</u>
Pavement Friction Management	<u>58</u>
Roadside Design Improvements at Curves	<u>59</u>
Safety Edges	<u>60</u>
Wider Edge Lines	<u>61</u>
Other Road Designs (Crosscutting)	
Bus Stop Improvements	<u>63</u>
Floating Bus Stop/Bus Islands	<u>64</u>
Lighting	<u>65</u>
Raised Medians	<u>66</u>

PEDESTRIAN/BICYCLIST

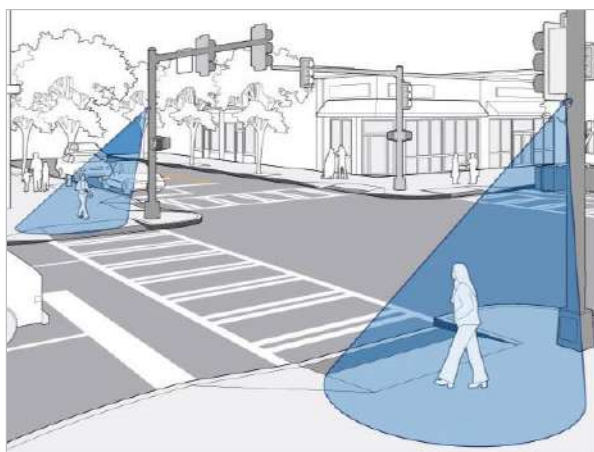
The Pedestrian/Bicyclist category presents design safety countermeasures known to create safer spaces for people walking, bicycling, rolling, or taking transit by separating them from drivers, or improving visibility and attentiveness of all road users.

The safety countermeasures in this category are:

- Automatic Pedestrian Recalls/Automatic Pedestrian Detectors
- Bicycle Boxes
- Buffered Bicycle Lanes
- Conventional Bicycle Lanes
- Curb Extensions and Bulb Outs
- Daylighting/Parking Restrictions at Crossings
- Exclusive Pedestrian Signal Phases
- Gateway Treatments
- Green Pavement Markings
- High Visibility Crosswalks
- Leading Pedestrian Intervals (LPIs)
- Neighborhood Greenways
- Pedestrian Hybrid Beacons (PHBs)
- Protected Intersections
- Raised Refuge Islands
- Rectangular Rapid Flashing Beacons (RRFBs)
- Road Diets
- Separated Bicycle Facilities
- Sidewalks
- Slip Lane Closures
- Two-Stage Turn Bicycle Boxes

AUTOMATIC PEDESTRIAN RECALLS/DETECTORS

Automatic pedestrian recall systems provide a pedestrian interval during each traffic cycle and eliminate the need for people to push a pedestrian button. Automatic pedestrian detector devices detect people waiting to cross and automatically trigger a WALK signal. They reduce pedestrian crossing delay which can reduce unsafe crossing behavior.



Safe System Framework

- Separate users in time
- Increase visibility
- Increase attentiveness

Crash Types



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- All locations with signalized intersections.

Considerations

- Provide longer walk intervals and shorter cycle lengths (less than 90 seconds).
- Consider initially implemented during non-peak hours for drivers
- Consider concurrent signal phasing which give pedestrians more frequent crossing opportunities and less delay compared to exclusive signal phasing.

Cost & Effectiveness

Cost per Site

\$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

50% (Elvik, R. and Vaa, T., 2004)

Additional Resources

- [FHWA Traffic Signal Timing Manual](#)
- [GDOT Pedestrian and Streetscape Guide](#)
- [Manual on Uniform Traffic Control Devices \(MUTCD\)](#)
- [PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System](#)

BICYCLE BOXES

Bicycle boxes are green-colored areas located at the head of a traffic lane at an intersection between the stop bar and the crosswalk, providing a designated space for bicyclists to prepare for and make a two-stage turn without needing to “take a lane” to make a left turn. They increase visibility of people on bicycles and can help prevent motorists from encroaching into crosswalks.



Safe System Framework

- Increasing visibility
- Increasing attentiveness

Crash Types



Motorist/bicyclist

Modes



Relevant Roadway Type & Application

- Signalized and unsignalized intersections.
- All collectors and arterials.

Cost & Effectiveness

Cost per Site

\$ \$\$\$ \$\$\$\$ \$\$\$\$\$

Crash Reduction Factor

A crash reduction rate has not yet been determined.

Considerations

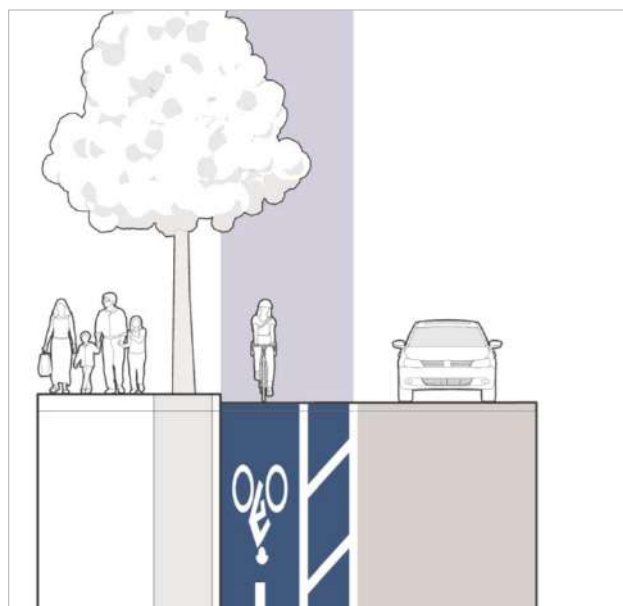
- Consider bicycle boxes use with an authorized request for interim approval per FHWA Interim Approval IA-18.
- Use with “no right turn on red” restrictions to ensure no vehicle movements conflict with the location of the bike box, as required per MUTCD.
- Use green-colored pavement as a background color for bicycle boxes to increase visibility and highlight potential conflicts. However, it can increase maintenance costs.

Additional Resources

- [NACTO Urban Bikeway Design Guide](#)
- [Evaluation of Bicycle-Related Roadway Measures: A Summary of Available Research](#)

BUFFERED BICYCLE LANES

Buffered bicycle lanes are bicycle lanes that include a buffered space that separates people bicycling from vehicular traffic or parking. The buffer consists of hashed or parallel pavement markings between the bicycle and general travel lanes, typically providing an additional 1 to 3 feet of space between the bicycle lane and the general-purpose travel lane. They allow for wider passing distances between bicyclists and motorists.



Safe System Framework

- Separate users in space

Crash Types



Motorist/bicyclist

Modes



Relevant Roadway Type & Application

- Along higher speed and higher volume corridors
- Collectors, and minor arterials with posted speed limits below 35 mph.

Cost & Effectiveness

Cost per Mile

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

50%

(Burbidge and Shea, 2018)

Considerations

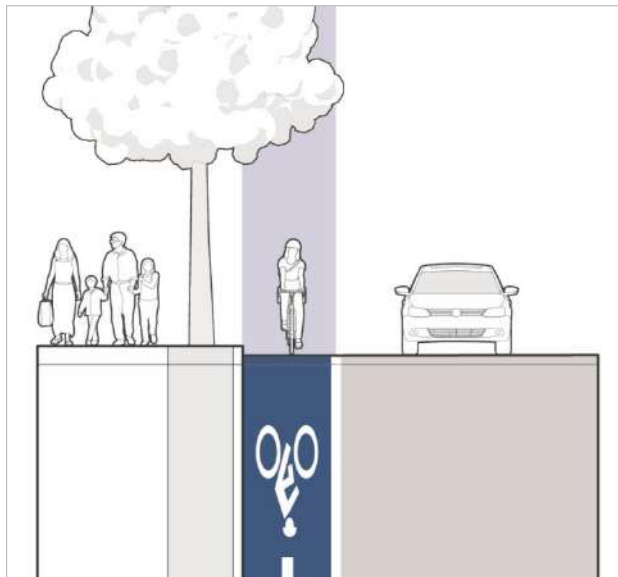
- Consider buffer between parked cars and the bicycle lane to decrease door zone conflicts.
- Consider transit stop locations to ensure that bicycle and transit user interactions are manageable.

Additional Resources

- [FHWA Bikeway Selection Guide](#)
- [NACTO Urban Bikeway Design Guide](#)
- [AASHTO Guide for the Development of Bicycle Facilities](#)

CONVENTIONAL BICYCLE LANES

Conventional bicycle lanes are designated sections of the road with signage, striping, and bicycle symbols, typically positioned along the curb. They channel bicyclists' movements and remind motorists of the presence of bicyclists. Because little separation is provided between drivers and people in the bicycle lane, conventional bicycle lanes are not typically recommended for streets with high automobile volumes. They can also reduce motorist speeding when implemented with a reduction in the number or width of vehicle travel lanes



Safe System Framework

- Separate users in space

Crash Types



Motorist/bicyclist

Modes



Relevant Roadway Type & Application

- Along low-volume corridors.
- Local and collector streets with posted speed limits below 35 mph.

Considerations

- Consider deploying bicycle lanes as part of street maintenance/repaving projects.

Cost & Effectiveness

Cost per Mile

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

5% to 53%

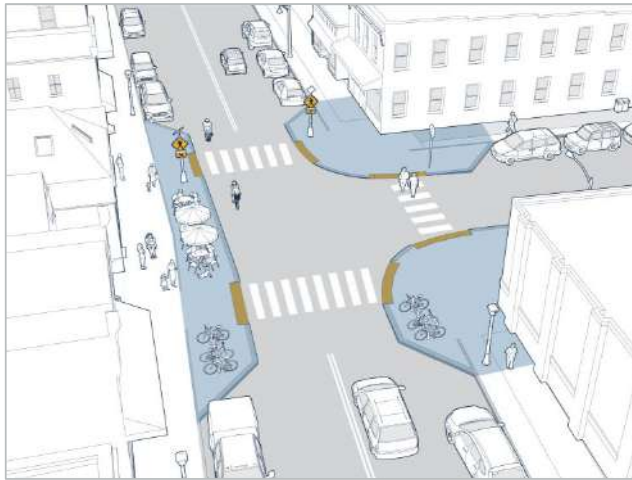
(Fehr & Peers, et. al., 2018; Abdek-Aty et. al., 2014)

Additional Resources

- [FHWA Bikeway Selection Guide](#)
- [NACTO Urban Bikeway Design Guide](#)
- [AASHTO Guide for the Development of Bicycle Facilities](#)
- [BIKESAFE Bicycle Safety Guide and Countermeasure Selection System](#)

CURB EXTENSIONS & BULBOUTS

Extensions to a section of sidewalk into the roadway at intersections and other crossing locations. They shorten the crossing distance for people walking, reduce turning speeds, and improve sight distance between drivers and people crossing. Curb extensions/bulb outs can be installed as permanent curb reconfigurations, or through paint and post bulb outs.



Safe System Framework

- Separate users in space
- Increase visibility
- Increase attentiveness

Crash Types



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- Midblock crossings.
- Signalized intersections and unsignalized intersections.
- All locals, collectors, and arterials.

Cost & Effectiveness

Cost per Site

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

A crash reduction rate has not yet been determined.

Additional Resources

- [NACTO Urban Street Design Guide](#)
- [FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations](#)
- [PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System](#)

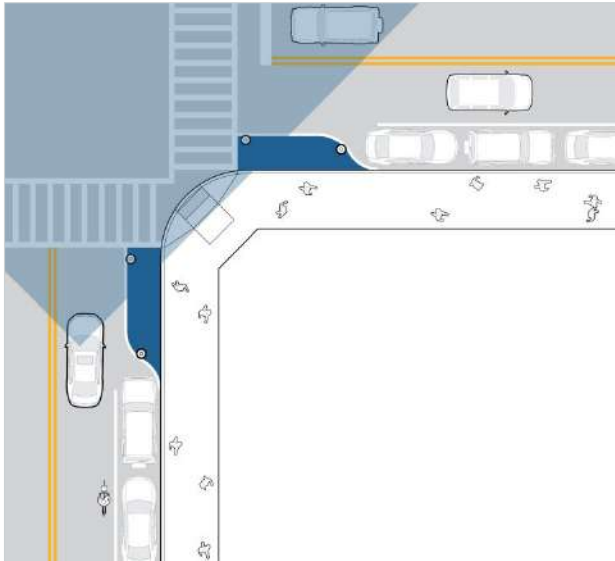
Considerations

- Consider installation in parking lanes or wide shoulders.
- Use lower cost alternatives, such as bollards, temporary curbs, planters, or paint and striping.
- Limit planting and street furniture height within curb extensions to preserve sight lines.
- Consider expanding curb extensions at bus stops to produce bus bulbs.
- Consider curb extension installation on the one side of roadway even when conditions make installation infeasible or inappropriate on the other side (e.g., no parking lane).

Systemic

DAYLIGHTING/PARKING RESTRICTIONS AT CROSSINGS

Signs, pavement markings, curb extensions, planters, or vertical delineators that restrict on-street parking near a crossing or intersection. They improve sightlines between motorists and people crossing the street, that would otherwise be blocked by parked cars.



Safe System Framework

- Separate users in space

Crash Types



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- Midblock crossings.
- Signalized and unsignalized intersections.
- All street types with on-street parking.

Considerations

- Consider a physical barrier that prevents drivers from parking their cars too close to the crosswalk or markings that indicate the space is restricted from parking.
- Consider factors such as vehicle speeds, expected crossing road users, and other location-specific engineering factors when deciding the length of parking restrictions.
- Consider relocating roadside obstructions (signal cabinets, trees, etc.) to improve sight distance.

Cost & Effectiveness

Cost per Site

\$ \$\$\$ \$\$\$\$ \$\$\$\$\$

Crash Reduction Factor

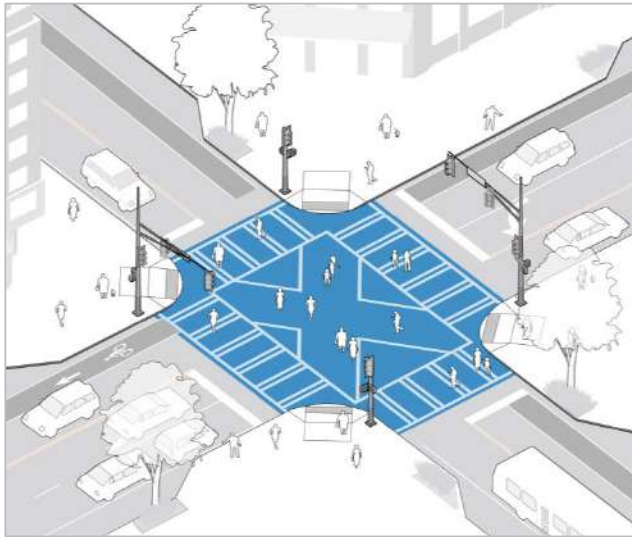
30% (Gan et. al., 2005)

Additional Resources

- [Unsignalized Intersection Improvement Guide](#)
- [PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System](#)

EXCLUSIVE PEDESTRIAN SIGNAL PHASES

Intersections where the signal cycle includes a phase in which all drivers are stopped in all directions, and people walking can cross in all directions at the same time, including diagonally. They can help increase the visibility of people walking, reduce conflicts between drivers and pedestrians, and decrease waiting time for people wishing to cross in multiple directions. Also referred to as "Barnes Dance" or "Pedestrian Scramble".



Safe System Framework

- Separate users in space
- Separate users in time
- Increase visibility

Crash Types



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- Signalized intersections.
- All locals, collectors, and arterials.

Considerations

- Consider at locations with high volumes of drivers wishing to turn and large numbers of people walking.
- Include audible pedestrian signals that create noise to let visually impaired pedestrians know when to cross.
- Install adequate signage and pavement markings to communicate how to use the intersection.

Cost & Effectiveness

Cost per Site

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

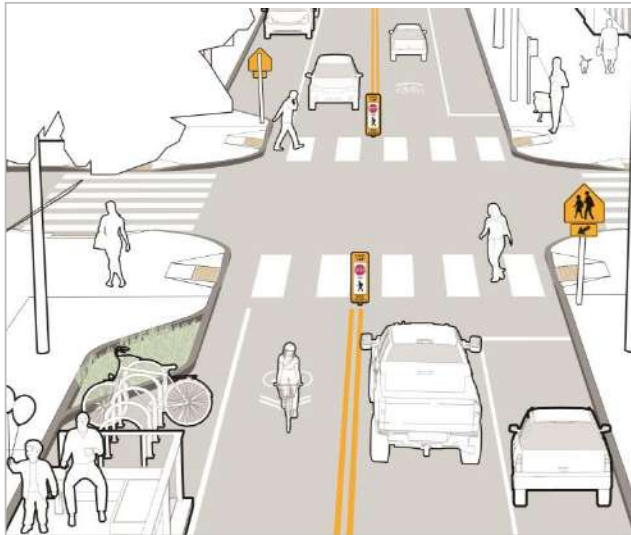
35% (Chen, L. et. al., 2013)

Additional Resources

- [FHWA Highway History – Where was the First Walk/Don't Walk Sign Installed? Addendum: The Barnes Dance](#)

GATEWAY TREATMENTS

“Stop for Pedestrian” signs (MUTCD R1-6a) are placed on in the center or left and right sides of all the roadway approaching a crosswalk to improve motorists’ awareness of pedestrians crossing. They reduce drivers’ speeds and increase drivers yielding at uncontrolled crosswalks. They may also reduce delay for pedestrian crossings due to increased motorist yielding and can reduce motorist speeds whether or not pedestrians are crossing.



Safe System Framework

- Increase visibility
- Increase attentiveness

Crash Types



Rear-end



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- Midblock crossings.
- All locals, and some collectors (lower speeds and vehicle volumes).

Considerations

- Install signs with curb ramps and high-visibility crosswalk markings.
- Consider double-sided signs because they increase the likelihood that drivers will see a sign in heavy traffic.

Cost & Effectiveness

Cost per Site

\$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

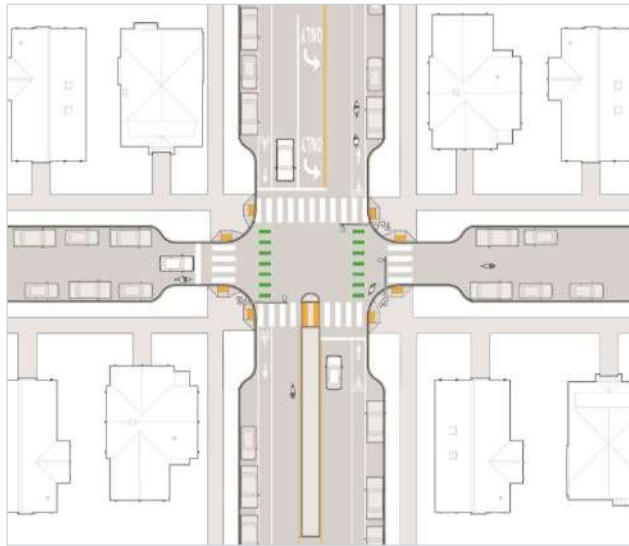
A crash reduction rate has not yet been determined.

Additional Resources

- [Manual on Uniform Traffic Control Devices \(MUTCD\)](#)

GREEN PAVEMENT MARKINGS

Green pavement markings placed at specific locations such as bicycle boxes, intersection crossings, driveways, and other potential conflict areas along on-street bikeways. The color green is not easily confused with other standard traffic control roadway markings.



Safe System Framework

- Increase visibility
- Increase attentiveness

Crash Types



Motorist/bicyclist

Modes



Relevant Roadway Type & Application

- Anywhere within on-road bikeways.
- At conflict areas such as intersections and driveways.
- All locals, collectors, and arterials

Cost & Effectiveness

Cost per Site

\$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

10% to 12% (Fehr & Peers, 2018)

Considerations

- Reduce turning conflicts between bicyclists and drivers and increase driver yield behaviors.
- Consider green pavement markings require varying levels of maintenance and are generally more costly to maintain depending on the material used.

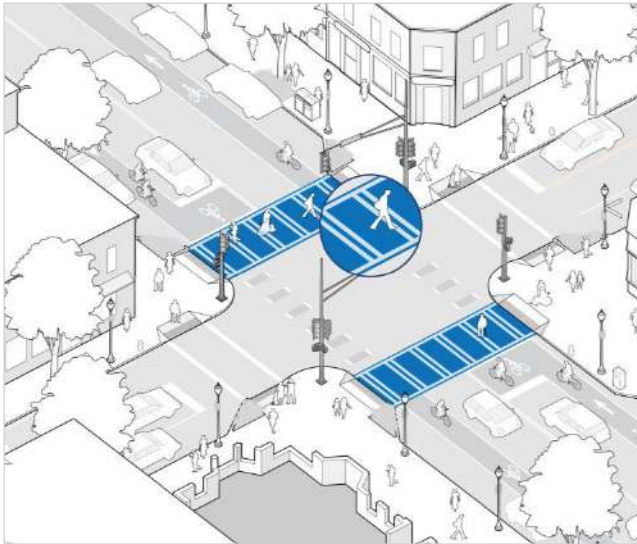
Additional Resources

- [NACTO Urban Bikeway Design Guide](#)
- [NACTO Baltimore Bicycle Facilities Education Guide](#)
- [Evaluation of Bicycle-Related Roadway Measures: A Summary of Available Research](#)
- [AASHTO Guide for the Development of Bicycle Facilities](#)

Systemic

HIGH VISIBILITY CROSSWALKS

High visibility crosswalks include painted patterns (i.e., bar pairs, continental, ladder) that are visible to both the driver and pedestrian from farther away compared to traditional transverse line crosswalks. They help improve the visibility of people in crosswalks to approaching motorists and increase awareness of crosswalk locations. They also designate pedestrian right-of-way and may reduce pedestrian crossings at unmarked locations.



Safe System Framework

- Increase visibility
- Increase attentiveness

Crash Types



Rear-end



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- Midblock crossings.
- Signalized intersections and unsignalized intersections.
- All local, collectors, and arterials.

Considerations

- Ensure the locations of high visibility crosswalks are convenient for pedestrian access.
- Consider crosswalk wider than 10 feet if placed in an area with high pedestrian or bicycling demand.
- Consider artistic crosswalks in the center of the intersection to add a unique design feature as a tactical change.

Cost & Effectiveness

Cost per Site

\$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

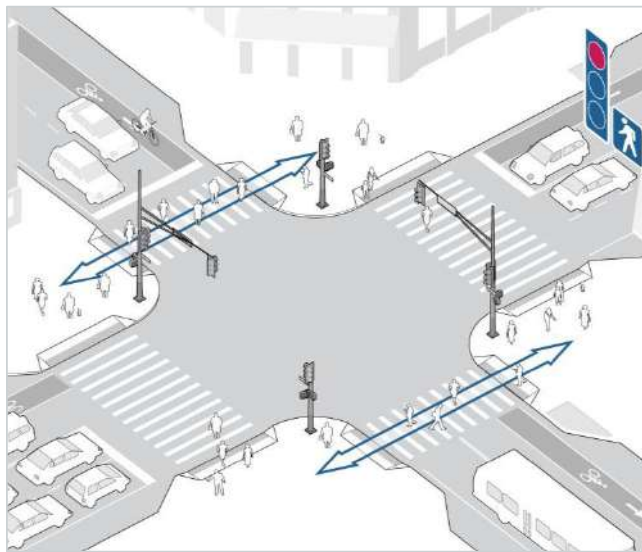
40% (Chen, L. et. al., 2012)

Additional Resources

- [Manual on Uniform Traffic Control Devices \(MUTCD\)](#)
- [FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations](#)
- [City of Atlanta Tactical Urbanism Guide](#)

LEADING PEDESTRIAN INTERVALS (LPIs)

Programmed traffic signals that give people a 3-7 second head start to enter crosswalks. They give pedestrians priority within the intersection and allow them to enter an intersection first to establish presence before drivers begin moving. They increase visibility of crossing pedestrians and reduce potential conflicts between pedestrians and turning motorists.



Safe System Framework

- Separate users in space
- Separate users in time
- Increase visibility

Crash Types



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- Signalized intersections.
- All locals, collectors, and arterials.

Considerations

- Include audible pedestrian signals that create noise to let visually impaired pedestrians know when to cross.
- Consider installation with curb extensions to increase the effectiveness of LPIs and visibility of pedestrians.
- Consider head starts of up to 10 seconds could at intersections with higher pedestrian traffic volumes.
- Consider Leading Bicycle Intervals (LBIs) in locations in high-volume bicycle facilities and/or bicycle signals.

Cost & Effectiveness

Cost per Site

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

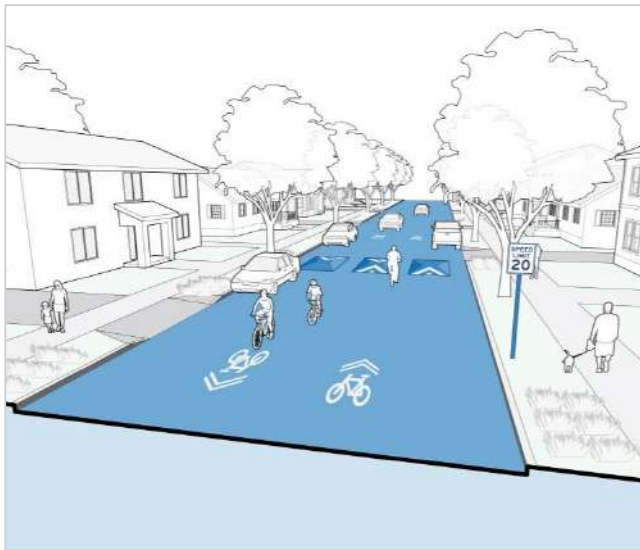
60% (Fayish & Gross, 2010)

Additional Resources

- [FHWA Proven Safety Countermeasures](#)
- [GDOT Pedestrian and Streetscape Guide](#)
- [NACTO Urban Street Design Guide](#)
- [PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System](#)

NEIGHBORHOOD GREENWAYS

Neighborhood greenways, also known as “bicycle boulevards,” are designated bicycle-priority routes along low-speed, low-traffic residential streets. The traffic calming elements typically slow motorist speeds to a target of 22 mph (85th percentile speed). They are designed to offer convenient, low-stress access to local destinations, including transit stops and schools.



Safe System Framework

- Separate users in space
- Reduce speeds
- Reduce impact force

Crash Types



Motorist/pedestrian



Motorist/bicyclist

Modes



Relevant Roadway Type & Application

- Along corridors.
- Local streets.

Considerations

- Consider lower cost and quick implementation by relying on relatively simple modifications to existing streets such as pavement markings, flexible bollards, traffic calming devices, access management, and crossing treatments.
- Implement traffic calming measures throughout the street to self-enforce speed limits, including Chicanes, Corner/Turn Wedges, Traffic Circles, and Speed Humps/Speed Tables.

Cost & Effectiveness

Cost per Mile

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

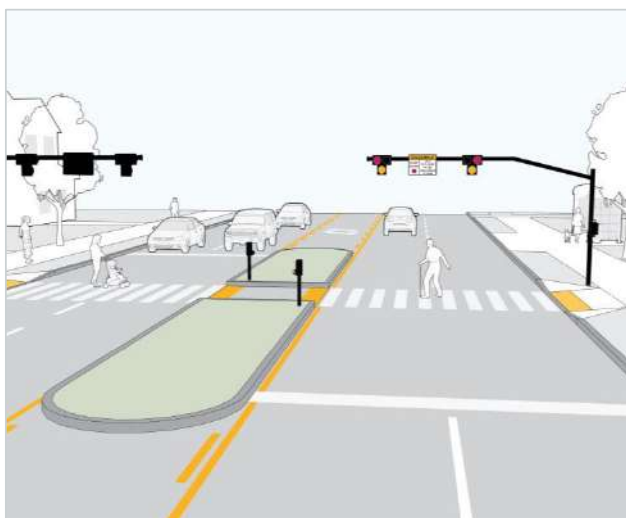
A crash reduction rate has not yet been determined.

Additional Resources

- [Atlanta Regional Commission Bike to Ride](#)
- [NACTO Urban Bikeway Design Guide](#)

PEDESTRIAN HYBRID BEACONS (PHBs)

A PHB is a traffic signal activated when someone walking, rolling, or bicycling presses the push button. When activated, the beacon turns from yellow to red, signaling drivers to stop and give people crossing the right of way. PHBs are also known as High intensity Activated crossWalk (HAWK) signals. They provide safe opportunities for crossing busy roads between signalized intersections, and are particularly useful where motorist speeds are too high, or gaps in traffic are too infrequent for pedestrians to cross safely.



Safe System Framework

- Increase visibility
- Increase attentiveness

Crash Types



Angle (other)



Rear-end



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- Midblock crossings.
- All collectors and arterials.

Considerations

- Consider implementing PHBs at transit stop locations that do not have an intersection within 200 feet.
- Consider outreach efforts to educate pedestrians, bicyclists, and drivers when implementing a PHB.

Cost & Effectiveness

Cost per Mile

\$ \$ \$ \$\$\$ \$\$\$\$

Crash Reduction Factor

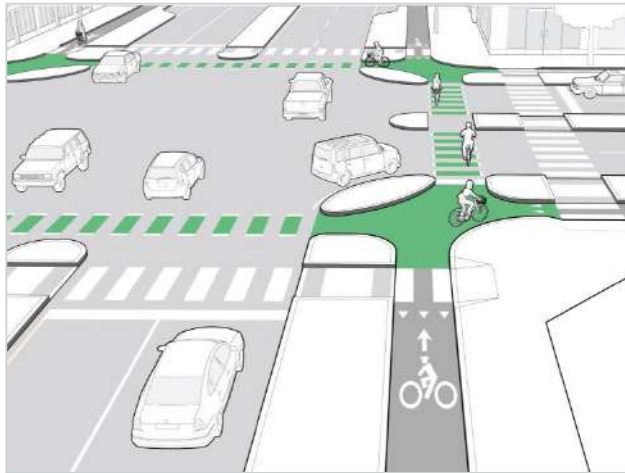
18% to 76% (Zegeer et. al., 2017)

Additional Resources

- [FHWA Proven Safety Countermeasures](#)
- [Manual on Uniform Traffic Control Devices \(MUTCD\)](#)
- [FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations](#)
- [Pedestrian Hybrid Beacon Guide, Recommendations, and Case Study](#)
- [Safety Effectiveness of the HAWK Pedestrian Crossing Treatment](#)

PROTECTED INTERSECTIONS

Intersections where the bikeway is offset from the parallel general purpose lane to give people bicycling a dedicated path through the intersection and the right of way over motorists turning. They improve the safety of people bicycling through intersections and reduces conflict points between pedestrians, bicyclists, and motorists.



Safe System Framework

- Separate users in space
- Increase visibility
- Reduce speeds

Crash Types



Motorist/bicyclist



Relevant Roadway Type & Application

- Signalized and unsignalized intersections.
- Collectors and arterials

Considerations

- Consider accessible paths for people with disabilities in the protected intersection.
- Separate bicycle crossings from pedestrian crossings and supplement bicycle crossings with green pavement to improve contrast.

Cost & Effectiveness

Cost per Site

\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

A crash reduction rate has not yet been determined.

Additional Resources

- [NACTO Don't Give Up at the Intersection](#)
- [Lessons Learned: Evolution of the Protected Intersection](#)

RAISED REFUGE ISLANDS

Raised refuge islands are curbed sections in the center of a roadway that separate opposing directions of general-purpose lanes. They are particularly useful where motorist speeds are above 30 mph, and traffic volumes are above 9,000 vehicles per day.



Safe System Framework

- Separate users in space

Crash Types



Motorist/pedestrian



Motorist/bicyclist

Modes



Relevant Roadway Type & Application

- Midblock crossings.
- Signalized intersections and unsignalized intersections.
- Collector and arterial streets.

Considerations

- Ensure landscaping does not obstruct visibility.
- Allow assurances for emergency vehicles to navigate around refuge islands by including mountable curbs or allowing travel in lanes of opposing directions of travel.

Cost & Effectiveness

Cost per Site

\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

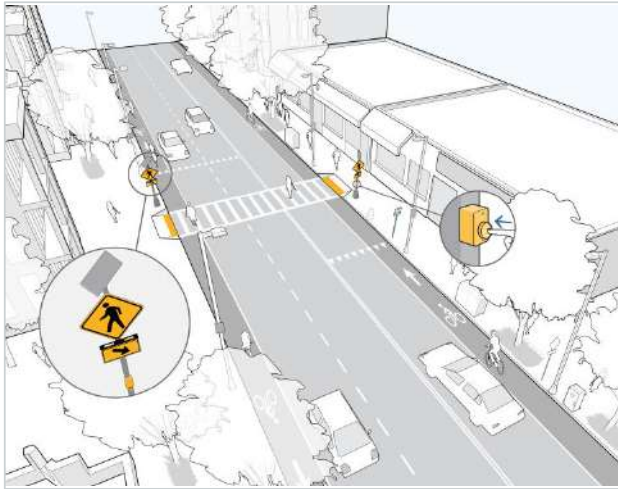
46% (Bahar, G. et. al., 2007)

Additional Resources

- [FHWA Proven Safety Countermeasures](#)
- [FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations](#)
- [Chapter 8 of Designing Sidewalks and Trails for Access: Part II of II: Best Practices Design Guide](#)

RECTANGULAR RAPID FLASHING BEACON (RRFBs)

RRFBs are bright, irregularly flashing LEDs mounted with pedestrian crossing signs that activate when a person waiting to cross presses the push button. They can help increase driver yielding to people at uncontrolled crossings, and pedestrian/bicyclist visibility.



Safe System Framework

- Increase visibility
- Increase attentiveness

Crash Types



Vehicle/pedestrian

Modes



Relevant Roadway Type & Application

- Midblock crossings.
- Unsignalized intersections.
- Collectors where there are two or more lanes in one direction and all arterials.

Cost & Effectiveness

Cost per Site

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

47% (Zegeer et. al., 2017)

Considerations

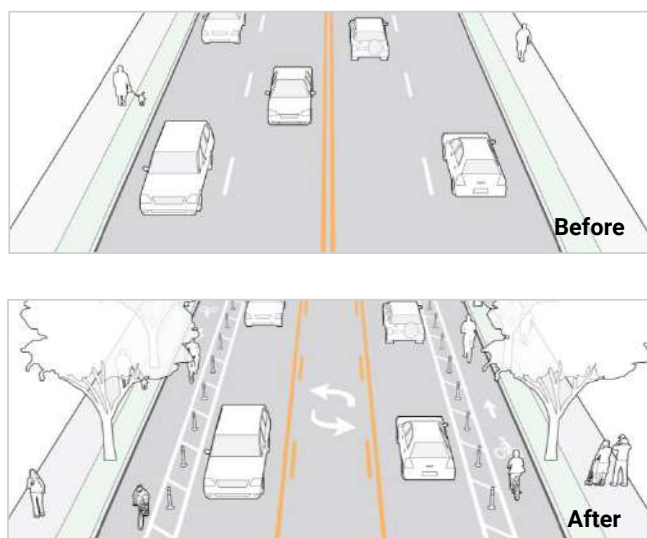
- Consider RRFBs on roads where driver speeds are below 35 mph.
- Consider redesigning the roadway to address systemic safety challenges if multiple RRFBs are needed near each other.

Additional Resources

- [Arlington County Marked Crosswalk Guidelines](#)
- [FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations](#)
- [PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System](#)

ROAD DIETS

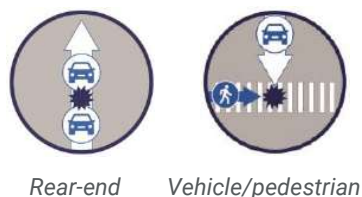
A reduction in the number of lanes or general purpose lane width in order to reduce motorist speeds and/or repurpose roadway space. Roads may be a candidate for a road diet based on the daily traffic volume. They increase available space for pedestrian, bicycle, transit, or other infrastructure needs, and may reduce crossing distances by eliminating a lane or through provision of a pedestrian median island.



Safe System Framework

- Increase attentiveness
- Reduce speeds

Crash Types



Rear-end

Vehicle/pedestrian

Modes



Relevant Roadway Type & Application

- Along corridors.
- Collectors and arterials.

Considerations

- Consider implementing as part of the City's programmatic roadway resurfacing efforts.
- Consider public engagement that leads with the safety need for the road diet.

Cost & Effectiveness

Cost per Mile

\$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

29% to 47%

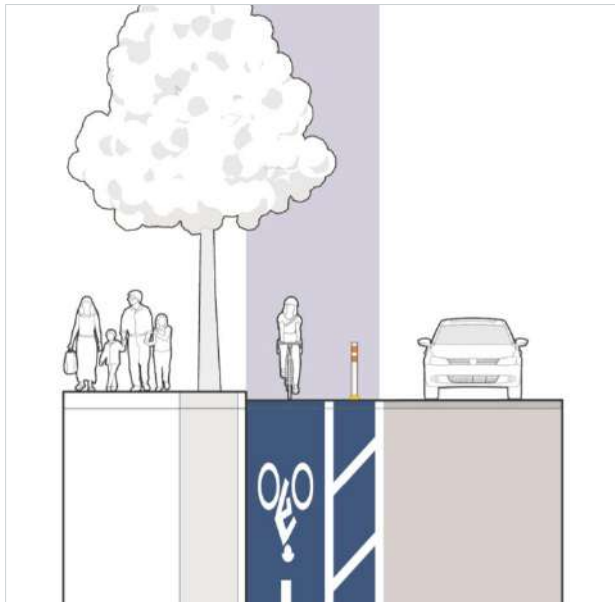
(Persaud, et. al., 2010; Pawlovich, et. al. 2006)

Additional Resources

- [Atlanta Regional Commission Regional Workbook for Complete Streets](#)
- [GDOT Pedestrian and Streetscape Guide](#)
- [FHWA Proven Safety Countermeasures](#)
- [Evaluation of Lane Reduction "Road Diet" Measures on Crashes](#)
- [USDOT Road Diet Informational Guide](#)

SEPARATED BICYCLE LANES

Also referred to as protected bicycle lanes, separated bicycle lanes provide physical separation between bicyclists and drivers using objects like flex posts, parking stops, planters, curbs, or concrete barriers. These lanes are generally located along corridors with few driveways or conflict points. They provide physical separation between the bicycle lane and travel lane and are preferred over conventional bicycle lanes for roads with high travel speeds, traffic volumes, and/or high transit or truck volumes.



Safe System Framework

- Separate users in space
- Reduce impact forces

Crash Types



Motorist/bicyclist

Modes



Relevant Roadway Type & Application

- Along higher speed and higher volume corridors.
- Collectors based on speed and volume and arterials.

Cost & Effectiveness

Cost per Mile

\$ \$\$\$ \$\$\$\$ \$\$\$\$\$

Crash Reduction Factor

44% to 64%

(Developing Crash Modification Factors for Separated Bicycle Lanes, FHWA, 2023)

Considerations

- Consider the utility of separated bicycle lanes on corridors with multiple driveways, on-street parking, and other conflict points.

Additional Resources

- [NACTO Urban Bikeway Design Guide](#)
- [AASHTO Guide for the Development of Bicycle Facilities](#)
- [BIKESAFE Bicycle Safety Guide and Countermeasure Selection System](#)

SIDEWALKS

Sidewalks provide space along the street for pedestrian travel that is separated from moving vehicles. They should be wide enough for two people to walk or roll side-by-side, maintained in good condition with minimal to no bumps or cracks (and with no cracks or bumps of 1/4 inch height or greater, per ADA Standards), kept clear of debris and overgrowing plants, and are built with curbs. They improve the safety and comfort of people walking or rolling by separating them from faster moving road users such as bicyclists and drivers.



Safe System Framework

- Separate users in space
- Reduce impact forces

Crash Types



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- All locals, collectors, and arterials.

Considerations

- Include a buffer zone between roadway and sidewalk to separate drivers from pedestrians, e.g., with trees and furniture

Cost & Effectiveness

Cost per Mile

\$ \$ \$ \$\$\$ \$\$\$\$

Varies due to material and topography

Crash Reduction Factor

75% (Gan et al., 2005)

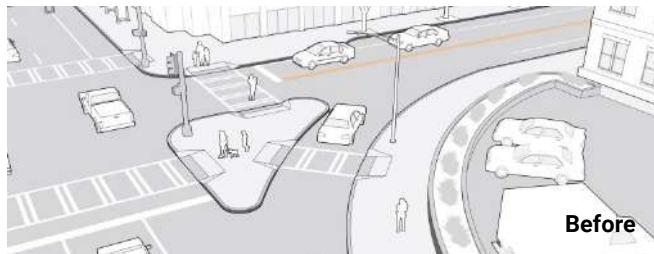
Additional Resources

- [FHWA Proven Safety Countermeasures](#)
- [PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System](#)
- [United States Access Board Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way \(PROWAG\)](#)

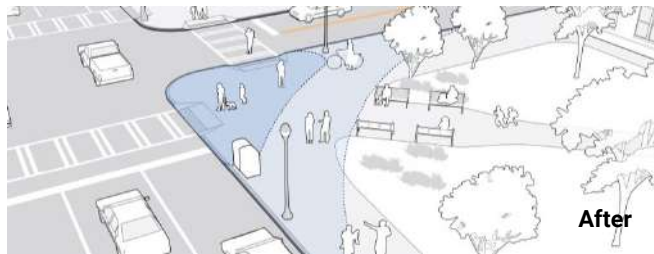
Systemic

SLIP LANE CLOSURES

Slip lanes are typically designed to allow motorists to make right turns without stopping at intersections. Closing or modifying slip lanes can make them safer by reducing motorists' speeding, increasing attentiveness and visibility, and shortening crossing distances for people walking.



Before



After

Safe System Framework

- Increase visibility
- Increase attentiveness
- Reduce speeds

Crash Types



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- Signalized intersections.
- Unsignalized intersections.
- All locals, collectors, and arterials with existing slip lanes.

Considerations

- Seek opportunities to repurpose previous slip lane area for landscaping and other streetscape amenities.
- Limit the installation of new slip lanes to intersections with skewed geometry that would otherwise result in significantly longer pedestrian crossing distances.
- Consider raised crosswalks and/or truck aprons to control the speed of turning drivers where slip lanes are necessary.

Cost & Effectiveness

Cost per Site

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

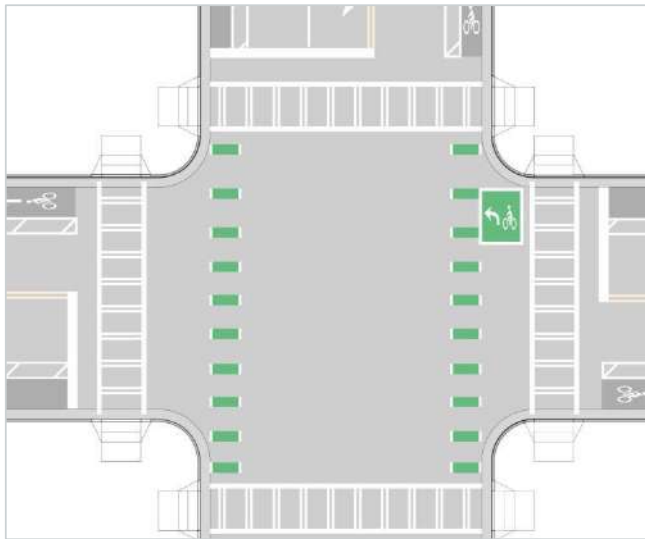
A crash reduction rate has not yet been determined.

Additional Resources

- [PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System](#)
- [FHWA: Well Designed Right-Turn Slip Lanes](#)

TWO-STAGE TURN BICYCLE BOX

Two-stage turn bicycle boxes are green-painted boxes on the far right of an intersection that designate a dedicated space for people riding a bicycle to make left turns. These features allow people bicycling to split the left-turn maneuver into two stages by first proceeding straight to the far side of the intersection and then using the turn box to position themselves for a left turn when the signal changes to green. They allow for greater visibility between motorists and bicyclists.



Safe System Framework

- Increase visibility
- Increase attentiveness

Crash Types



Motorist/bicyclist

Modes



Relevant Roadway Type & Application

- Primarily at signalized intersections, however, can be added to unsignalized intersections where there is a high volume of people on bicycles making a left turn.
- Where a left turn is required to follow a bikeway.
- All collectors and arterials.

Considerations

- Consider two-stage turn bicycle boxes use with an authorized request for interim approval per FHWA Interim Approval IA-18.

Cost & Effectiveness

Cost per Site

\$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

A crash reduction rate has not yet been determined.

Additional Resources

- [NACTO Urban Bikeway Design Guide](#)
- [AASHTO Guide for the Development of Bicycle Facilities](#)
- [BIKESAFE Bicycle Safety Guide and Countermeasure Selection System](#)

INTERSECTIONS

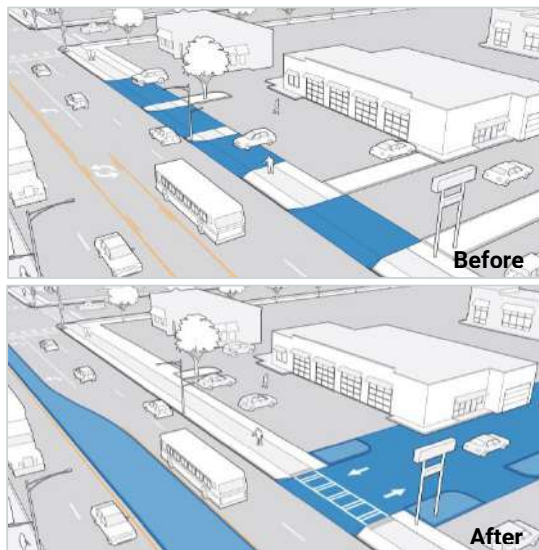
The Crossings and Signals category presents design safety countermeasures that address all road user types by separating users in space and time.

The safety countermeasures in this category are:

- Assess Management
- Corner/Turn Wedges
- Dedicated Turn Lanes
- Hardened Centerlines
- Intersection Geometry Improvements
- No Left Turn/U-Turn Restrictions
- Protected Turn Phases
- Raised Intersections/Crossings
- Retroreflective Signal Backplates
- Right Turn On Red Prohibitions
- Roundabouts
- Signal Clearances
- Stop Control
- Yellow Change Intervals

ACCESS MANAGEMENT

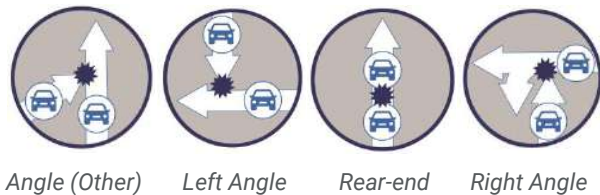
Access management refers to the design, application, and control of entry and exit points along a roadway, including intersections and driveways that serve properties. They reduce driveway density to create fewer conflict points among road users and beneficial for people walking, bicycling, rolling, or driving while also reducing trip delay and congestion.



Safe System Framework

- Separate users in space

Crash Types



Modes



Relevant Roadway Type & Application

- Along corridors.
- All locals, collectors, and arterials.

Considerations

- Consider including limits to allowable turning movements such as right-in/right-out only.
- Implement designs such as raised medians to limit across-roadway movements.
- Consider relocating driveways to parcels located at corners on the side road instead of mainline roads.
- Consider an access management ordinance which applies to all new construction and limits curb cuts per block (i.e. two per 0.25 miles or min distance 440 feet).

Cost & Effectiveness

Cost per Site

\$ \$\$ \$\$\$ \$\$\$\$ \$\$\$\$\$

Crash Reduction Factor

25% to 31% (Elvik, R. and Vaa, T., 2004)

Additional Resources

- [FHWA Proven Safety Countermeasures](#)

Systemic

CORNER/TURN WEDGES

Raised curbs or flexible delineators and pavement markings on both sides of a crosswalk at an intersection. Corner/turn wedges guide drivers to make wider turning angle for slower and more predictable turns without reducing traffic capacity. They reduce drivers' turning speed, increase visibility of pedestrians in crosswalk to turning drivers, and increase drivers yielding to people in the crosswalk.



Safe System Framework

- Increase visibility
- Reduce speeds

Crash Types



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- Signalized and unsignalized intersection.
- All locals, collectors, and arterials.

Considerations

- Can be constructed rapidly and inexpensively using markings and flexible delineators.

Cost & Effectiveness

Cost per Site

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

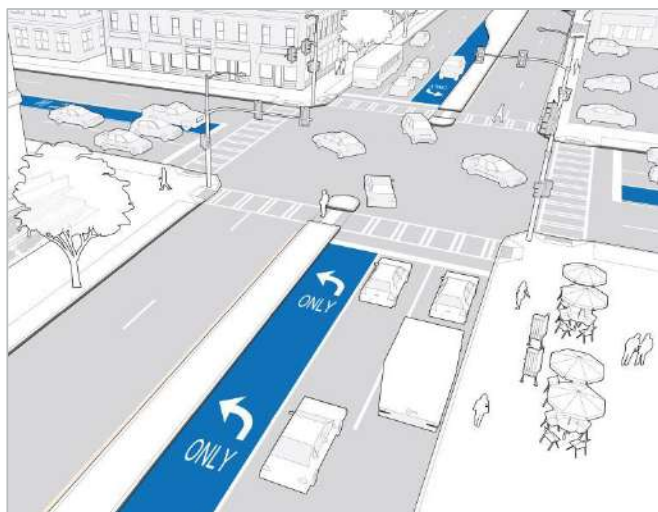
A crash reduction rate has not yet been determined.

Additional Resources

- [American Disabilities Act Accessibility Guidelines for Buildings and Facilities](#)
- [Chapter 8 of Designing Sidewalks and Trails for Access: Part II of II: Best Practices Design Guide](#)
- [FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations](#)

DEDICATED TURN LANES

Auxiliary turn lanes—either for left turns or right turns—dedicated for drivers making turns designed to provide deceleration prior to a turn, and for storage of vehicles that are stopped and waiting to complete a turn. They provide physical separation between drivers turning and adjacent through traffic, and can reduce left-angle and rear-end crashes.



Safe System Framework

- Increase attentiveness

Crash Types



Left Angle

Modes



Relevant Roadway Type & Application

- Signalized and unsignalized intersection.
- Collectors and arterials.

Considerations

- Consider installation on the major road approaches at three- and four-leg intersections with stop control on the minor road where significant turning volumes exist.
- Consider offset turn lanes which can increase visibility, particularly at higher speeds locations.
- Balance the needs of drivers and pedestrians by realizing left- and right-turn lanes lengthen crossing distances for pedestrians.

Cost & Effectiveness

Cost per Site

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

14% to 30%

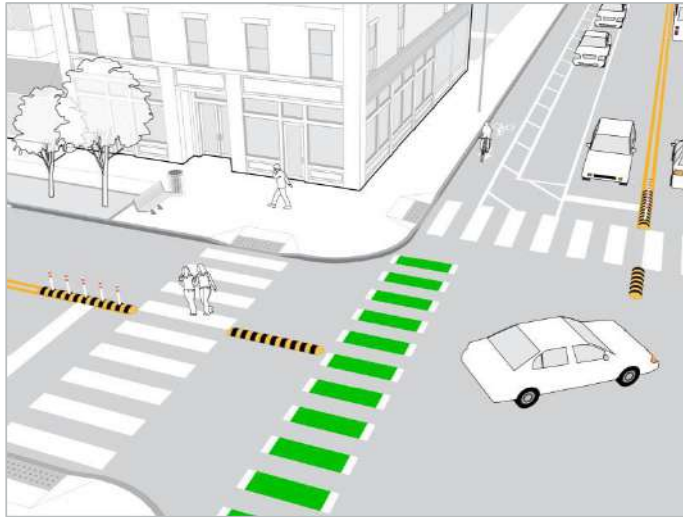
(Harwood et. al., 2002; Persaud et. al., 2009)

Additional Resources

- [FHWA Proven Safety Countermeasures](#)

HARDENED CENTERLINES

Flexible delineators placed between opposing travel lanes that guide drivers to make wider turns angle for safer and more predictable turns. They reduce the speed of drivers making left-turns without reducing traffic capacity and increase yielding drivers to people in the crosswalk.



Safe System Framework

- Increase visibility
- Reduce speeds

Crash Types



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- Signalized and unsignalized intersection.
- Collectors and arterials.

Considerations

- Construct rapidly and inexpensively using markings and flexible delineators as an alternative or initial safety countermeasure before raised medians.

Cost & Effectiveness

Cost per Mile

\$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

46% (Bahar, G., et. al., 2007)

Additional Resources

- [FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations](#)
- [Chapter 8 of Designing Sidewalks and Trails for Access: Part II of II: Best Practices Design Guide](#)

INTERSECTION GEOMETRY IMPROVEMENTS

Realignment of at least one leg of an intersection approach to reduce or eliminate a skewed angle and create perpendicular angle at the intersection. Skewed intersections occur when streets intersect at angles other than 90 degrees which create complicated scenarios for pedestrians, bicyclists, and drivers. They improve visibility and reduce conflict points for all road users.



Safe System Framework

- Increase visibility

Crash Types



Angle (Other)



Head On



Motorist/pedestrian



Right Angle



Motorist/bicyclist

Modes



Relevant Roadway Type & Application

- Signalized and unsignalized intersection.
- All locals, collectors, and arterials.

Cost & Effectiveness

Cost per Site

\$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

A crash reduction rate has not yet been determined.

Considerations

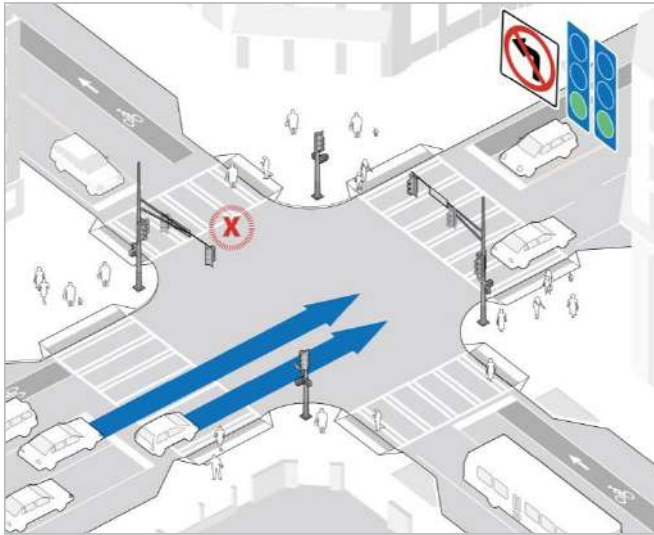
- Can reduce crossing distances for pedestrians and reduce exposure based on new geometry.
- May require additional right-of-way and impact neighboring property.
- Consider less impactful strategies at the location before considering intersection redesign.

Additional Resources

- [PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System](#)
- AASHTO Green Book
- [AASHTO A Policy on Geometry Design of Highways and Streets](#)

NO LEFT TURN/U-TURN RESTRICTIONS

Signs, signals, or geometric designs such as diverters with raised medians that prohibit drivers from making left-turn or U-turn movement. They reduce potential conflict points between turning drivers and other drivers and people walking and bicycling at intersections. Most appropriate at locations with frequent left-turn movement crashes at minor streets.



Safe System Framework

- Separate users in space
- Separate users in time

Crash Types



Left Angle

Modes



Relevant Roadway Type & Application

- Signalized intersections.
- Some collectors based on traffic volume and arterials.

Cost & Effectiveness

Cost per Site

\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

64% to 77% (Brich and Cottrell, 1994)

Considerations

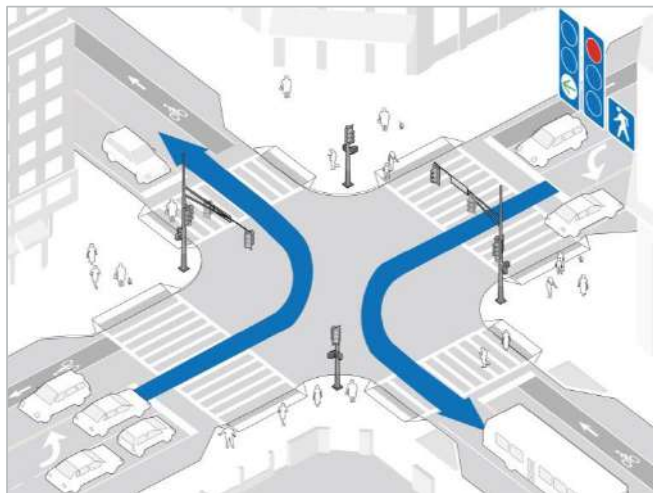
- May reduce through traffic on neighborhood streets to create a more comfortable street for people walking or bicycling.
- Ensure geometric designs used to physically prohibit driver left-turns allow for easy access by people walking or bicycling.
- Evaluate traffic patterns to determine whether other streets would be adversely affected due to an increase in right turns.
- Ensure strong community outreach and engagement before implementing the prohibitions.

Additional Resources

- [PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System](#)

PROTECTED TURN PHASES

Green or red-arrow signal phases used to provide dedicated turning movements for drivers and restrict turning movements at other times. They reduce conflict points between turning drivers from other drivers and people walking and bicycling.



Safe System Framework

- Separate users in time

Crash Types



Angle (Other)



Left Angle



Head On



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- Signalized intersections.
- Collectors and arterials.

Cost & Effectiveness

Cost per Site

\$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

41% to 48% (FHWA, 2020)

Additional Resources

- [FHWA Low-Cost Safety Enhancements for Stop-Controlled and Signalized Intersections](#)
- [FHWA Traffic Signal Timing Manual, Chapter 4](#)

Considerations

- Consider concurrent signal phasing to keep cycle lengths low and decrease delay compared to exclusive or split signal phasing. Lower cycle lengths are especially beneficial for minimizing vehicular queuing and pedestrian delays.
- Evaluate the need for specific lane configurations and designations when implementing protected turn phases.

RAISED INTERSECTIONS/CROSSINGS

Raised crosswalks or raised intersections are ramped speed tables spanning the entire width of the roadway or intersection. Crossings are elevated at least three inches above the roadway, and up to the sidewalk level. They reduce drivers' speeds, increase driver yielding, and improve crossing safety for people walking or bicycling.



Safe System Framework

- Increase visibility
- Increase attentiveness
- Reduce speeds

Crash Types



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- Midblock crossings.
- Signalized and unsignalized intersections.
- Local streets, collectors, and some minor arterials.

Considerations

- Evaluate whether the raised crossing design require modifications to existing drainage.
- Place the raised crossings at sidewalk level to provide a continuous travel path for pedestrians with disabilities.

Cost & Effectiveness

Cost per Site

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

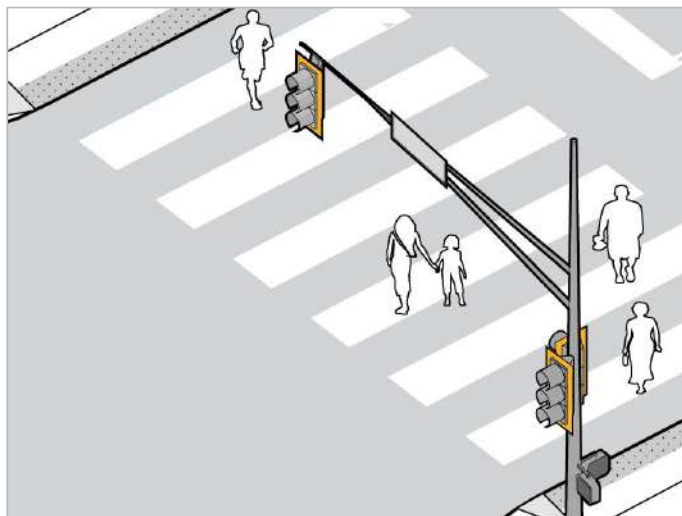
45% to 51% (Schepers, J.P., et. al., 2011; Bahar, G., et. al., 2007)

Additional Resources

- [FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations](#)
- [PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System](#)

RETROREFLECTIVE TRAFFIC SIGNAL BACKPLATES

Traffic signals are framed with a 1 to 3-inch wide retroreflective border. They improve the visibility of the illuminated face of the traffic signal in both day and nighttime conditions. Backplates help reduce risk of crashes caused by driver inattentiveness and poor visibility conditions such as at night, heavy fog, or heavy precipitation.



Safe System Framework

- Increase attentiveness

Crash Types



Rear-end

Modes



Relevant Roadway Type & Application

- Signalized intersections.
- All locals, collectors, and arterials.

Considerations

- Consider implementing backplates with retroreflective borders systematically improve safety at all signalized intersections.
- Evaluate whether the design of the existing signal support structure is sufficient to support the added wind load.

Cost & Effectiveness

Cost per Site

\$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

15% (Sayed et. al., 2005)

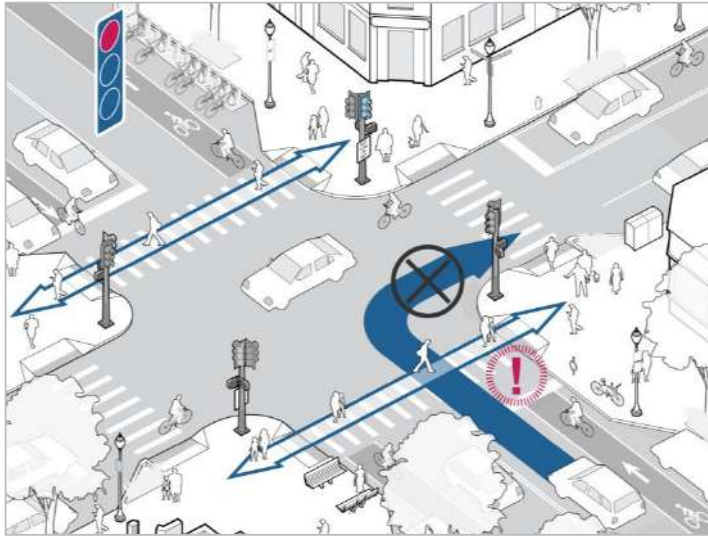
Additional Resources

- [FHWA Proven Safety Countermeasures](#)
- [NHTSA Countermeasures that Work](#)

Systemic

RIGHT TURN ON RED PROHIBITION

Signs or signals that prohibit drivers from making a right turn. Most appropriate at locations with high volumes of people walking or bicycling. They reduce potential conflict points between turning drivers and other drivers, and people walking and bicycling at signalized intersections.



Safe System Framework

- Separate users in space
- Separate users in time

Crash Types



Motorist/pedestrian



Right Angle

Modes



Relevant Roadway Type & Application

- Signalized intersections.
- All locals, collectors, and arterials.

Considerations

- Consider right turn on red restrictions particularly in locations where sight distance may be restricted.
- Consider dynamic electronic signs to restrict right turns only during certain times of day or during certain signal phases.
- Use with LPI to address the increase in numbers of drivers turning right on green.

Cost & Effectiveness

Cost per Site

\$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

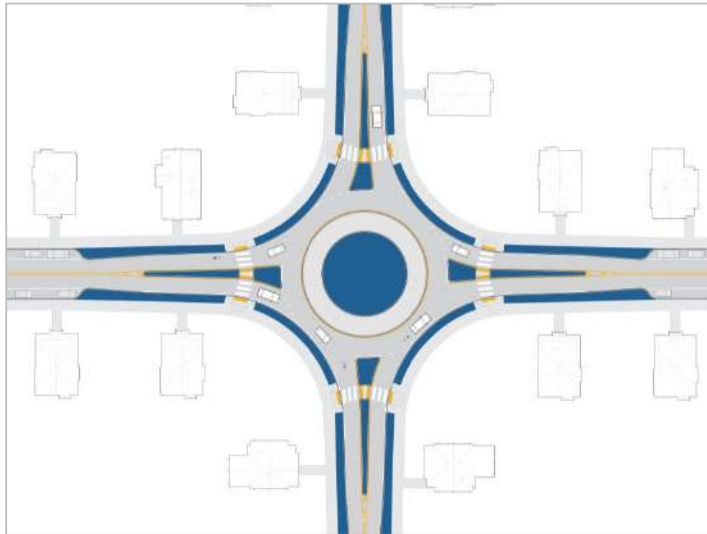
A crash reduction rate has not yet been determined.

Additional Resources

- [Manual on Uniform Traffic Control Devices \(MUTCD\)](#)
- [PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System](#)
- [AASHTO Highway Safety Manual](#)

ROUNDBABOUTS

An intersection treatment in which all approaches must yield to traffic already within the roundabout. After yielding, drivers must circulate the center island before exiting to turn or continue straight. They reduce speeds and the number of conflict points at intersections while maintaining efficient traffic operations and continuous flow.



Safe System Framework

- Increase attentiveness
- Reduce speed

Crash Types



Motorist/bicycle



Head-on

Modes



Relevant Roadway Type & Application

- Signalized and unsignalized intersections
- All locals, collectors, and arterials.

Considerations

- Install signage that direct traffic flow and create awareness of roundabout rules.
- May include landscape with low shrubs or vegetation that does not impede visibility.
- Accommodate large vehicles such as emergency vehicles or school buses with mountable truck aprons.

Cost & Effectiveness

Cost per Site

\$ \$\$\$ \$\$\$\$ \$\$\$\$\$

Crash Reduction Factor

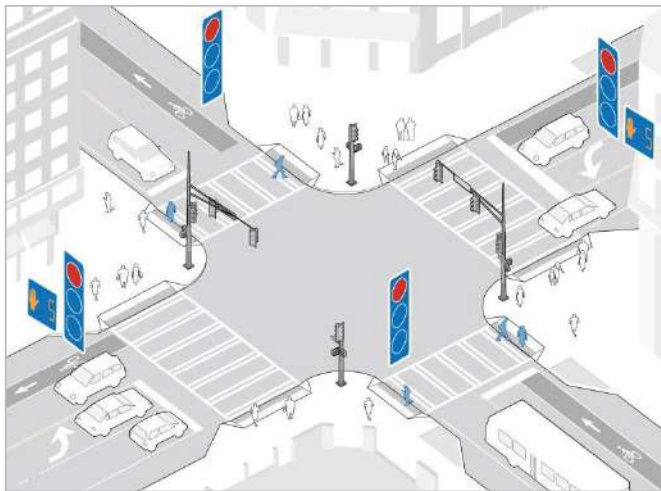
78% to 82% (*Highway Safety Manual, 2010*)

Additional Resources

- [FHWA Proven Safety Countermeasures](#)
- [PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System](#)

SIGNAL CLEARANCES

Signal clearances or all-red phase is time when one direction of travel gets the red phase signal and the opposing direction get the green phase signal. The signal clearance is achieved by having an all-red phase where all directions rest on red. The all-red phase increases the time for intersections to be cleared before the opposing traffic is allowed to go and help minimize the chances of conflicting movements within the intersection.



Safe System Framework

- Separate users in time

Crash Types



Angle (Other)



Left Angle



Head On



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- Signalized intersections
- All locals, collectors, and arterials.

Cost & Effectiveness

Cost per Site

\$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

3% to 20% (Srinivasan, et. al., 2011)

Additional Resources

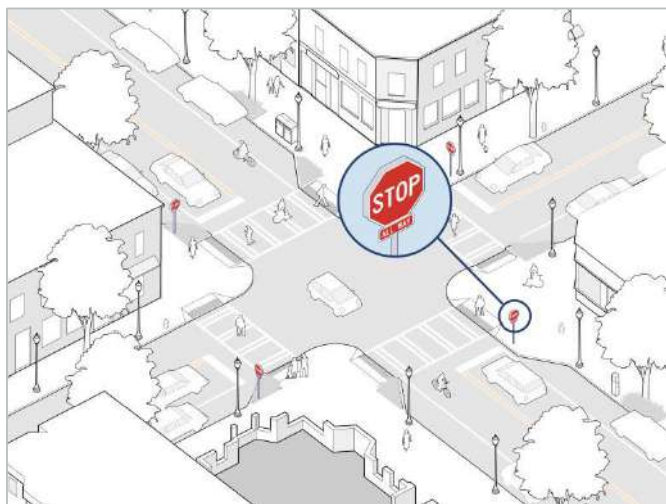
- [FHWA Traffic Signal Timing Manual](#)
- [Manual on Uniform Traffic Control Devices \(MUTCD\)](#)

Considerations

- Provide time to facilitate clearing of drivers turning at intersections and pedestrian crossing.
- Consider factors such as the number of lanes, presence of turn lanes, pedestrian crossings, speed limits, geometric features, and traffic volume to determine length of clearance time. The yellow signal phase duration leading up to the signal clearance time is critical. It should be long enough to alert drivers of the upcoming signal change and provide them with adequate time to respond

STOP CONTROL

A type of traffic control using STOP signs and pavement markings. Minor intersections can be upgraded to all-way stop control. Enhanced signing and pavement markings stop-controlled intersections can increase driver awareness and recognition of the intersections and potential conflicts.



Safe System Framework

- Increase visibility
- Increase attentiveness
- Reduce speeds
- Reduce impact forces

Crash Types



Angle (Other)



Left Angle



Motorist/pedestrian



Right Angle

Modes



Relevant Roadway Type & Application

- Unsignalized intersections.
- All locals, and collectors.

Cost & Effectiveness

Cost per Site

\$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

22% (Haleem and Abdel-Aty, 2010)

Additional Resources

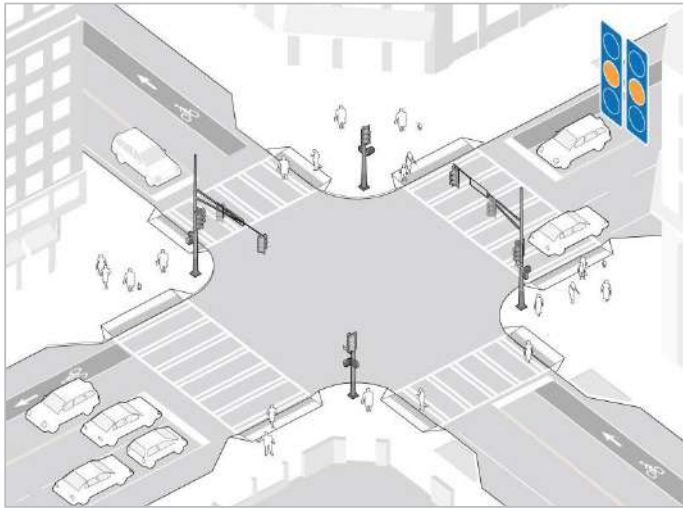
- [FHWA Proven Safety Countermeasures](#)

Considerations

- Consider on the additional signage on approach to the intersection – doubled-up (left and right) signs, oversized advance intersection warning signs, with supplemental street name plaques.
- Consider retroreflective sheeting on signposts to increase contrast.

YELLOW CHANGE INTERVALS

The yellow change interval is the length of time that the yellow signal indication is displayed before a green signal. They help improve driver compliance to signals and reduce red-light running. Properly timing the length of the yellow phase following MUTCD requirements is important to provide drivers enough time to safely stop in preparation for the red phase.



Safe System Framework

- Separate users in time

Crash Types



Angle (Other)



Left Angle

Modes



Relevant Roadway Type & Application

- Signalized intersections.
- All locals, collectors, and arterials.

Cost & Effectiveness

Cost per Site

\$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

8% to 50% (NCHRP Report 731, 2011)

Considerations

- Review and update traffic signal timing policies and procedures concerning yellow change interval.
- Consider factors such as the speed of approaching and turning vehicles, driver perception-reaction time, vehicle deceleration, and intersection geometry when retiming. Intervals that are too short may result in drivers being unable to stop safely and cause unintentional red-light running. Intervals too long may result in drivers treating the yellow as an extension of the green phase and invite intentional red-light running.

Additional Resources

- [FHWA Proven Safety Countermeasures](#)
- [Manual on Uniform Traffic Control Devices \(MUTCD\)](#)

SPEED MANAGEMENT

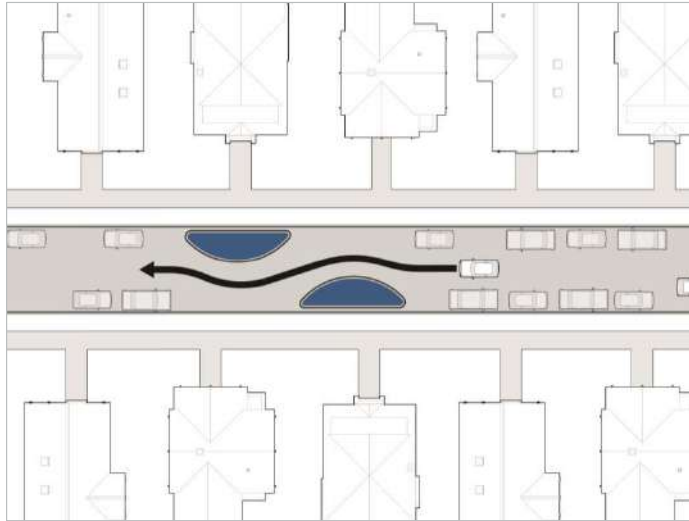
The Speed Management category presents design safety countermeasures known to create roadways where drivers operate at safe speeds.

The safety countermeasures in this category are:

- Chicanes
- Speed Humps/Speed Tables
- Speed Limit Reduction and Polices
- Speed Safety Cameras
- Traffic Circles
- Variable Speed Limits

CHICANES

Horizontal treatments that force drivers to alter the vehicle movement and reduce speeds. Chicanes are often made of curb extensions or islands that create “S” curves along a roadway. They help improve driver attention to the roadway as they must navigate shifts in the lane.



Safe System Framework

- Increase attentiveness
- Reduce speeds

Crash Types



Head On



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- Along corridors.
- Local streets, and some collectors.

Considerations

- Include signage and striping around chicanes that help ensure that drivers are aware of a shift in the lane.
- Consider landscaping within chicanes that are low vegetation or trees with high canopies to maintain visibility.
- Consider the effect on drainage along the roadway. If there is a concern, chicanes may be designed as edge islands with a 1–2-foot gap from the curb.
- Deploy on streets where speed limits are 35 mph or less.

Cost & Effectiveness

Cost per Site

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

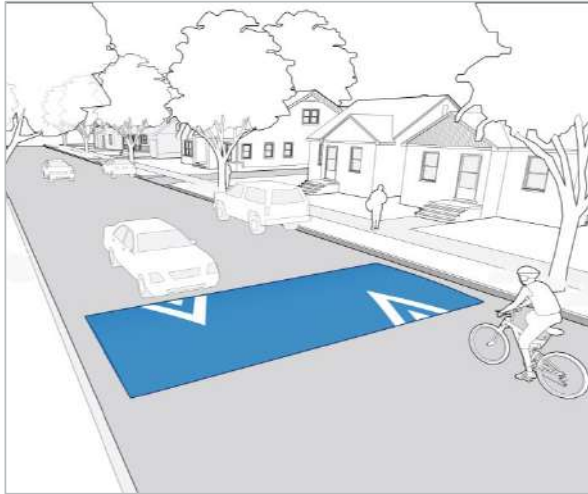
A crash reduction rate has not yet been determined.

Additional Resources

- [GDOT Pedestrian and Streetscape Guide](#)
- [PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System](#)
- [NACTO Urban Street Design Guide](#)

SPEED HUMPS/SPEED TABLES

A raised pavement area for vertical deflection to slow drivers. Speed tables have a flat top to limit disturbances to larger vehicles such as emergency response or transit vehicles. These are best used on streets with lower vehicle speeds (25 mph and under).



Safe System Framework

- Reduce speeds

Crash Types



Head On



Rear-end



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- Along corridors.
- Local streets, and some collectors.

Considerations

- Consider priority and delay of emergency response vehicles, buses, or heavy vehicles by including breaks in the speed humps/speed tables.
- Investigate feasibility of other traffic calming measures first.

Cost & Effectiveness

Cost per Site

\$ \$\$\$ \$\$\$\$ \$\$\$\$\$

Crash Reduction Factor

45% to 51%

(Elvik et. al., 2004; Schepers et. al., 2011)

Additional Resources

- [AASHTO Guide for the Development of Bicycle Facilities](#)
- [GDOT Pedestrian and Streetscape Guide](#)
- [FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations](#)
- [PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System](#)
- [Manual on Uniform Traffic Control Devices \(MUTCD\)](#)

SPEED LIMIT REDUCTION AND POLICIES

Set appropriate speed limits for all road users to reduce the significant risks drivers impose on others and themselves. In the event of a crash, fatalities, and serious injuries are much less likely if speeds are reduced. As a designated authority to set speed limits, the City of Atlanta can establish non-statutory speed limits or designate reduced speed zones.



Safe System Framework

- Reduce speeds

Crash Types



Head On



Rear-end



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- All streets and contexts.

Cost & Effectiveness

Cost per Site

\$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

A crash reduction rate has not yet been determined.

Considerations

- Consider factors such as pedestrian and bicyclist volumes, land use context, intersection and driveway spacing, roadway geometry, roadway functional classification, and traffic volume.
- Deploy 20 mph (or lower) speed zones or speed limits in the urban core and other areas (e.g., schools, parks, or trails) with a high volume of people walking and/or bicycling.
- Implement other speed management strategies concurrently with setting speed limits, such as self-enforcing roadways, traffic calming, and speed safety cameras.

Additional Resources

- [FHWA Proven Safety Countermeasures](#)
- [FHWA Speed Management](#)
- [NACTO City Limits: Setting Safe Speed Limits on Urban Streets](#)

SPEED SAFETY CAMERA

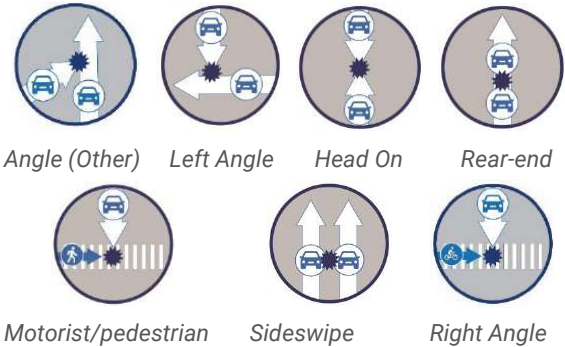
A type of automated enforcement technology that detects and records images of drivers traveling faster than the posted speed limit. The footage is then reviewed by the Police Department to issue a citation for the violation. They can help increase driver compliance to safe speeds.



Safe System Framework

- Increase attentiveness
- Reduce speeds

Crash Types



Modes



Relevant Roadway Type & Application

- All streets in school zones (based on current Georgia State law).

Considerations

- Replace speed enforcement by physical policing and operates 24/7.
- Install signage warning drivers in advance of the first speed camera on a corridor.

Cost & Effectiveness

Cost per Site

\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

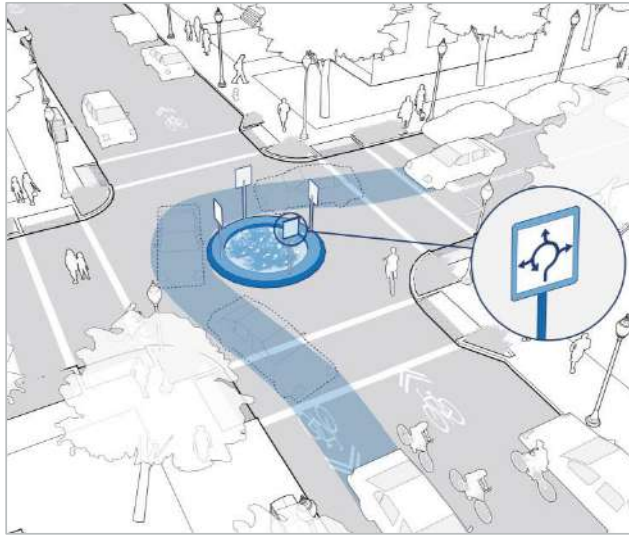
19% to 28% (Li, et. al., 2013)

Additional Resources

- [GDOT Rules of Permitted Automated Traffic Enforcement Safety Devices in School Zones](#)
- [FHWA Red Light Camera Systems Operational Guidelines](#)
- [NHTSA Countermeasures that Work](#)

TRAFFIC CIRCLES

Circular raised islands in the center of intersections. They are best used on neighborhood streets where a full-sized roundabout is not appropriate. They reduce driver speeds at uncontrolled intersections. Sometimes referred to as neighborhood traffic circles or mini circles.



Safe System Framework

- Increase attentiveness
- Reduce speeds

Crash Types



Head On



Motorist/pedestrian

Modes



Relevant Roadway Type & Application

- Unsignalized intersections.
- Local and some collectors.

Considerations

- Install signage that direct traffic flow and make islands visible to drivers.
- Consider landscaping with low shrubs or vegetation that does not impede visibility.
- Restrict parking on approaches to the traffic circle and/or create mountable curbs on the outside of the traffic circle to allow for large vehicle access.

Cost & Effectiveness

Cost per Site

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

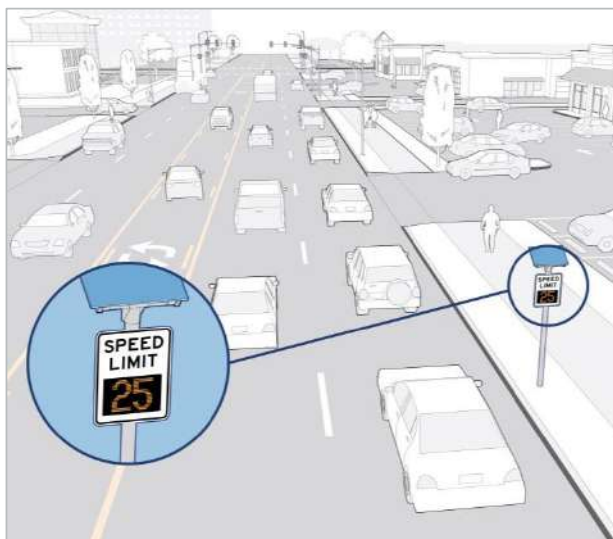
A crash reduction rate has not yet been determined.

Additional Resources

- [PEDSAFE: Pedestrian Safety Guide and Countermeasure Selection System](#)
- [NACTO Mini-Roundabouts Technical Summary](#)

VARIABLE SPEED LIMITS

Variable speed limit signs use current information on the roadway conditions, like traffic speed, volumes, weather, and road surface conditions, to determine appropriate speed limits and display them in real-time using electronic signs. They are particularly effective on high-speed arterials with posted speed limits greater than 40 mph.



Safe System Framework

- Increase attentiveness
- Reduce speeds

Crash Types



Rear-end

Modes



Relevant Roadway Type & Application

- Along corridors.
- Arterials.

Considerations

- Can be applied to an entire roadway segment or individual lanes.

Cost & Effectiveness

Cost per Site

\$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

34% to 65% (Avelar, et. al., 2020)

Additional Resources

- [FHWA Proven Safety Countermeasures](#)

ROADWAY DEPARTURE

The Roadway Departure category presents design safety countermeasures known to help prevent drivers from driving off roadways.

The safety countermeasures in this category are:

- Enhanced Delineation for Horizontal Curves
- Longitudinal Rumble Strips
- Pavement Friction Management
- Roadside Design Improvements at Curves
- Safety Edges
- Wider Edge Lines

ENHANCED DELINEATION FOR HORIZONTAL CURVES

Enhanced delineation at horizontal curves includes a variety of design strategies and roadway features that can be implemented in advance of or within curves, in combination, or individually, including chevron signs, and pavement markings. They alert drivers to upcoming curves, the direction and sharpness of the curve, and appropriate operating speed. This safety countermeasure demonstrates the Safe System Approach that redundancy is crucial by layering on additional signs and markings at a single location.



Safe System Framework

- Increase visibility
- Increase attentiveness

Crash Types



Head On



Rear-end



Sideswipe

Modes



Relevant Roadway Type & Application

- Along corridors with curves.
- All locals, collectors, and arterials.

Considerations

- Consider adding roadway features in advance of curves as well as within the curves.

Cost & Effectiveness

Cost per Site

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

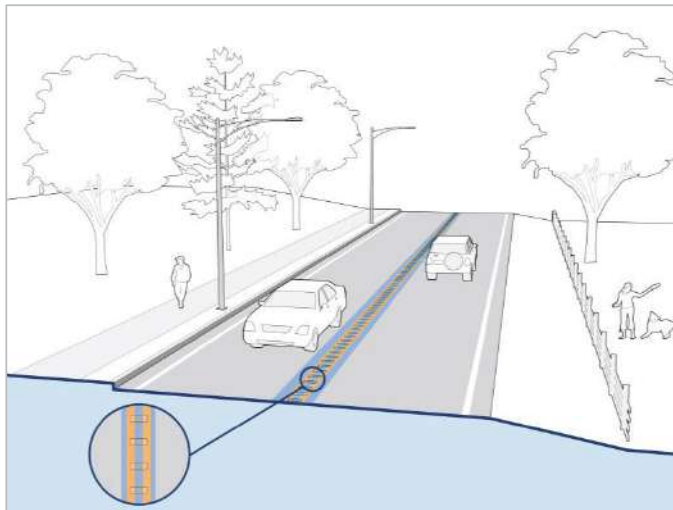
15% to 60% (Lyon et. al., 2017)

Additional Resources

- **Error! Hyperlink reference not valid.**
- [FHWA Horizontal Curve Safety](#)
- [Manual on Uniform Traffic Control Devices \(MUTCD\)](#)

LONGITUDINAL RUMBLE STRIPS

Longitudinal rumble strips are milled or raised elements on the pavement that create vibration and sound when driven over in an automobile. They alert drivers that they have traveled outside of the lane or roadway. They can be installed on the shoulder, edge line, or at or on the center line of an undivided roadway.



Safe System Framework

- Increase attentiveness

Crash Types



Angle (other)



Sideswipe

Modes



Relevant Roadway Type & Application

- Along corridors.
- Suburban and Rural/Production collectors or minor arterials.

Considerations

- Can increase the visibility and durability of the pavement marking during wet, nighttime conditions when pavement markings are placed over the rumble strips.
- Consider using an oscillating sine wave pattern that reduces noise outside of the vehicle (also known as "mumble strips") in areas where rumble strips cannot be placed due to noise concerns.
- Consider rumble strips with gaps for people riding bicycles.

Cost & Effectiveness

Cost per Mile

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

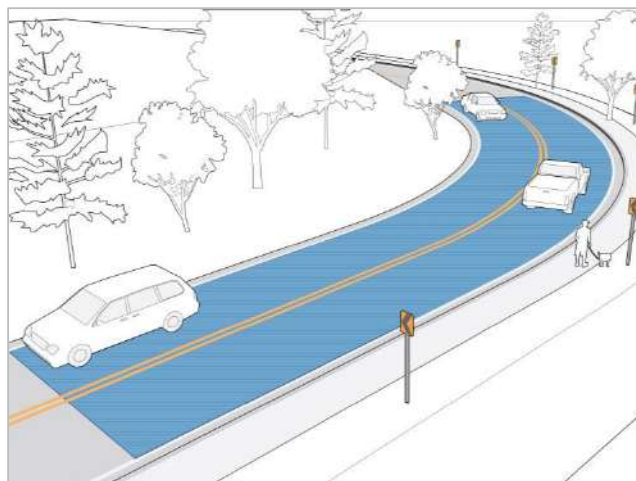
13% to 64% (NCHRP Report 641, 2009)

Additional Resources

- [FHWA Proven Safety Countermeasures](#)

PAVEMENT FRICTION MANAGEMENT

Targeting enhanced pavement friction treatments at locations where drivers are frequently turning, slowing, and/or stopping. High Friction Surface Treatment (HFST) is one treatment type that consists of a layer of durable, anti-abrasion aggregate over the roadway surface. They can help prevent many roadway departure, intersection, and pedestrian-related crashes.



Safe System Framework

- Increase attentiveness

Crash Types



Head On



Motorist/pedestrian



Sideswipe

Modes



Relevant Roadway Type & Application

- Near signalized and unsignalized intersections, and curves.
- Collectors and arterials.

Considerations

- Use Continuous Pavement Friction Measurement (CPFM) equipment to measure friction continuously to provide both network and segment level data. HFST is applied on existing pavement, so no new pavement is added.

Cost & Effectiveness

Cost per Site

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

20% to 63%

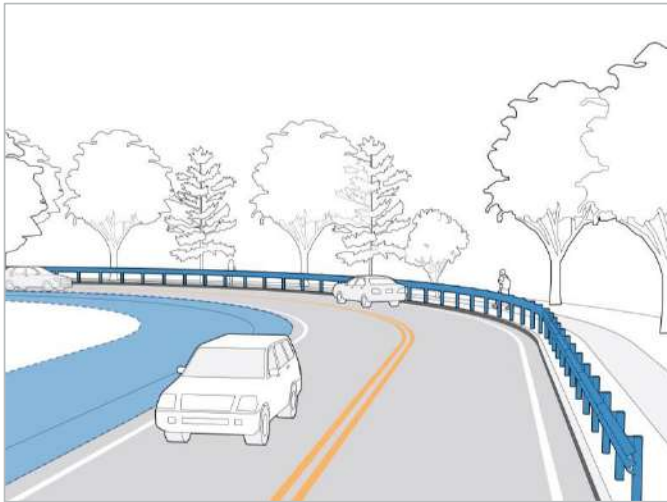
(NCHRP Report 617, 2008; Merritt et. Al, 2020)

Additional Resources

- [FHWA Proven Safety Countermeasures](#)
- [FHWA High Friction Surface Treatment](#)

ROADSIDE DESIGN IMPROVEMENTS AT CURVES

Several design improvements at curves that include widened shoulders, flattened side slopes, and expanded clear zones that provide safe recovery. Additionally, roadside barriers such as cable barriers, metal-beam guardrails, or concrete barriers can help mitigate crash severity. They provide drivers with a safer opportunity to regain control and re-enter the roadway and/or protect against unmovable objects or steep embankments.



Safe System Framework

- Separate users in space

Crash Types



Sideswipe

Modes



Relevant Roadway Type & Application

- Along corridors with curves.
- All locals, collectors, and arterials.

Considerations

- Place longitudinal barriers between pedestrian or bicyclist facilities and the motor vehicle travel lanes.
- Provide a fence between pedestrian and bicyclist facilities and steep side slopes.

Cost & Effectiveness

Cost per Site

\$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

8% to 44%

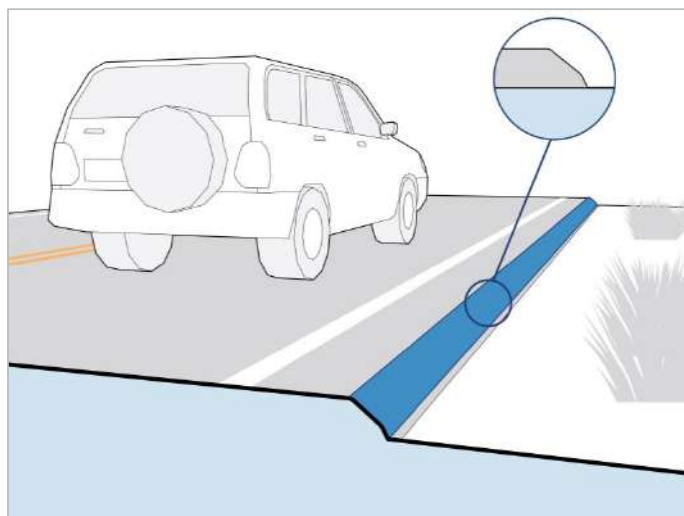
(NCHRP Report 617, 2008; Elvik, R., and Vaa, T., 2004)

Additional Resources

- [FHWA Proven Safety Countermeasures](#)
- [FHWA Low-Cost Treatments for Horizontal Curve Safety, 2016](#)
- [AASHTO Roadside Design Guide](#)

SAFETY EDGES

The SafetyEdge technology shapes the edge of the pavement to a gradual angle to eliminate the potential for a vertical drop-off at the pavement edge on curb-less roads. During construction of new roads or resurfacing of existing roads. They help allow drivers to safely return to the roadway after they veer off. They can also improve pavement durability by reducing edge raveling.



Safe System Framework

- Separate users in space

Crash Types



Head On

Modes



Relevant Roadway Type & Application

- Along corridors.
- Suburban and Rural/Production roads without curbs.

Considerations

- Develop standards for implementing the SafetyEdge systemwide on all new asphalt paving and resurfacing projects where curbs and/or guardrail are not present.

Cost & Effectiveness

Cost per Mile

\$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

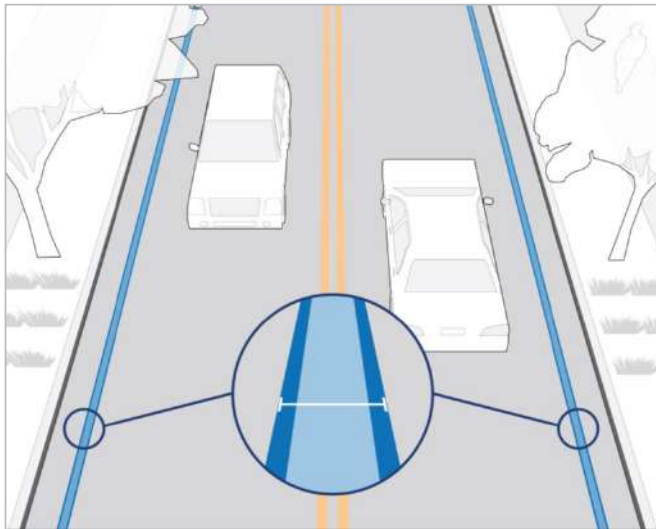
11% to 21% (Donnell et. al., 2017)

Additional Resources

- [FHWA Proven Safety Countermeasures](#)
- [FHWA SafetyEdge](#)

WIDER EDGE LINES

Wider edge lines enhance the visibility of travel lane boundaries compared to traditional edge lines. Wider markings widths are 6 inches, up from the minimum normal line width of 4 inches. They help increase drivers' perception of the edge of the travel lane.



Safe System Framework

- Increase visibility
- Increase attentiveness

Crash Types



Head On

Modes



Relevant Roadway Type & Application

- Along corridors
- Suburban and Rural/Production roads without curbs.

Considerations

- Consider implementing during maintenance procedures like re-striping and resurfacing, with the only cost increase being the additional material.

Cost & Effectiveness

Cost per Mile

\$ \$ \$ \$ \$ \$ \$ \$ \$ \$

Crash Reduction Factor

22% to 37%

(Park et. al., 2012; Abdel-Rahim et. al., 2018)

Additional Resources

- [FHWA Proven Safety Countermeasures](#)

OTHER ROAD DESIGNS (CROSSCUTTING)

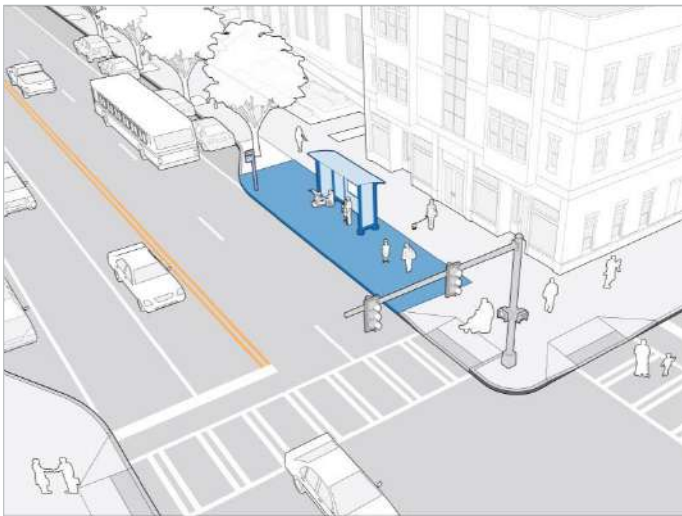
The Other Road Designs (Crosscutting) category presents additional safety countermeasures that are cover multiple types of modes and categories and cover multiple objectives.

The safety countermeasures in this category are:

- Bus Stop Improvements
- Floating Bus Stop/Bus Islands
- Lighting
- Raised Medians

BUS STOP IMPROVEMENTS

An area used for the waiting, boarding, and alighting of bus passengers and includes associated amenities for bus passengers, including a clear curb area and roadway area needed for the bus to safely service the stop. They create a safe, accessible, easily identifiable, and comfortable area for waiting, boarding, and alighting of bus passengers. They may also encourage the use of transit by improving access, safety, navigation, convenience, and comfort.



Safe System Framework

- Separate users in space
- Increase visibility

Crash Types



Motorist/pedestrian



Sideswipe

Modes



Relevant Roadway Type & Application

- Along corridors.
- Midblock crossings, signalized and unsignalized intersections
- All locals, collectors, and arterials with bus service.

Cost & Effectiveness

Cost per Site

\$ \$\$ \$\$\$ \$\$\$\$ *Varies due right-of-way and features*

Crash Reduction Factor

A crash reduction rate has not yet been determined.

Considerations

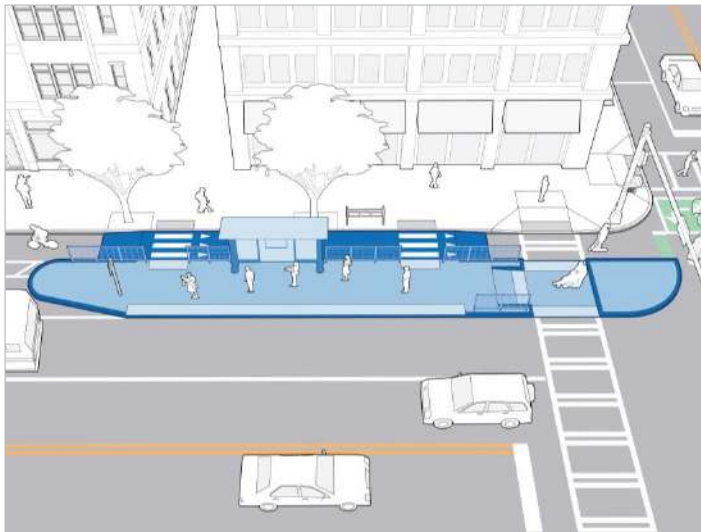
- Provide ADA accessible street crossings including crosswalks and curb ramps.
- Consider ridership and other criteria to a variety of other passenger amenities, such as static and real-time bus information, lighting, benches, shelters, trash receptacles, micro transportation hubs, and bus bulbs.
- Provide a bus bulb, a curb extension with a bus stop, to allow buses to stop in the travel lane, eliminating the need for buses to merge in and out of traffic at the stop, and providing more space for waiting passengers and people walking on the sidewalk.

Additional Resources

- [American Disabilities Act Accessibility Standards](#)
- [NACTO Transit Street Design Guide](#)

FLOATING BUS STOPS

Waiting island located between travel lanes and bicycle lanes where transit passengers board and alight transit vehicles. Transit passengers cross the bicycle lane when traveling to or from the platform. They eliminate the conflict between people traveling in bicycle lanes and transit vehicles. Also called side boarding island bus stop.



Safe System Framework

- Separate users in space
- Increase visibility

Crash Types



Sideswipe



Motorist/bicyclist

Modes



Relevant Roadway Type & Application

- Along corridors.
- Midblock crossings.
- Signalized and unsignalized intersections
- All locals, collectors, and arterials with bus service.

Considerations

- Consider traffic control such as "Yield" or "Stop" along the bicycle lane before the bus stop to ensure people bicycling are aware of pedestrians may cross the bicycle lane.
- Provide easily navigable and safe access for visually impaired persons to access the bus stop.

Cost & Effectiveness

Cost per Site

\$ \$\$\$ \$\$\$\$

Varies due right-of-way and features

Crash Reduction Factor

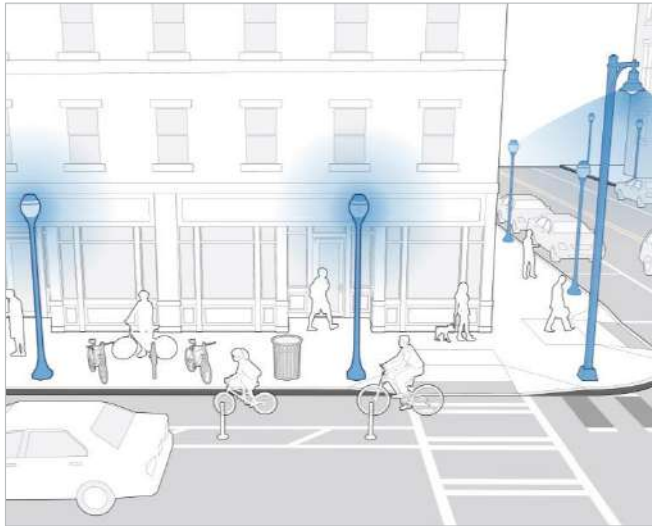
A crash reduction rate has not yet been determined.

Additional Resources

- [Atlanta Regional Commission Bike to Ride](#)
- [NACTO Transit Street Design Guide](#)

LIGHTING

Overhead lighting to increase visibility for all road users, especially at crossings. Pedestrian-scale lighting illuminates sidewalks and crossings where light fixtures are shorter than roadway-scale light fixtures. They may increase yielding and compliance when used in conjunction with traffic control devices.



Safe System Framework

- Increase visibility

Crash Types



Angle (Other)



Head On



Rear-end



Motorist/ pedestrian



Motorist/bicyclist

Modes



Relevant Roadway Type & Application

- Systemic
- Along corridors, intersections, and midblock crossings.
- All locals, collectors, and arterials.

Considerations

- Provide lighting on crosswalk approaches. If a crossing has a crossing island, additional lighting may be provided.
- Consider adjustments in brightness or bulb type to existing street lighting.

Cost & Effectiveness

Cost per Site

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

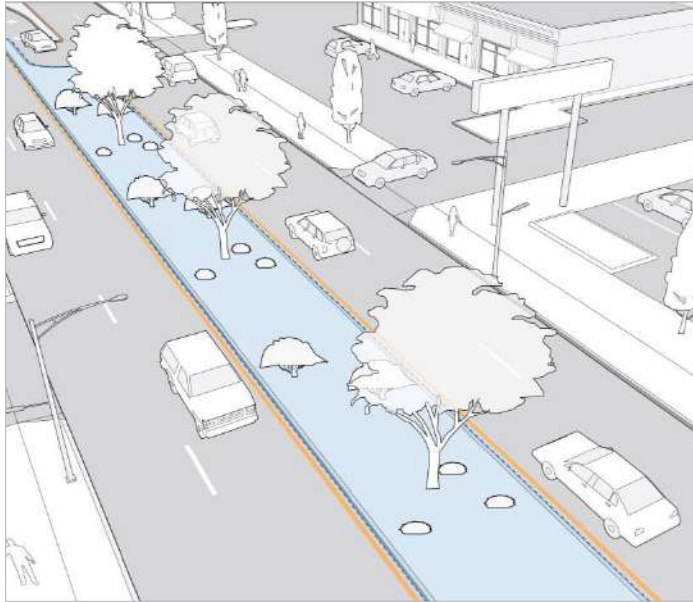
23% (Harkey, et. al., 2008)

Additional Resources

- [FHWA Proven Safety Countermeasures](#)

RAISED MEDIANS

Curbed sections of the roadway in the median that separate opposing directions of travel lanes. They restrict motor vehicle turn movements and increase separation between drivers traveling in opposing directions.



Safe System Framework

- Separate users in space

Crash Types



Angle (Other)



Left Angle



Motorist/pedestrian



Sideswipe

Modes



Relevant Roadway Type & Application

- Midblock crossings.
- Signalized and unsignalized intersections.
- Along corridors.
- All locals, collectors, and arterials

Cost & Effectiveness

Cost per Mile

\$ \$\$ \$\$\$ \$\$\$\$

Crash Reduction Factor

46% (Bahar, et. al, 2007)

Additional Resources

- [FHWA Proven Safety Countermeasures](#)
- [FHWA Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations](#)

Considerations

- Reduce potential conflict points by minimizing drivers' potential turning movements.
- Can improve driver safety where a continuous raised median replaces continuous two-way center turn lanes.
- Medians may be landscaped or paved with a material different to that of the roadway.
- Can be combined with raised refuge islands to provide safer crossings for people walking.

NEXT STEPS

The Education Guide is intended to be used as a reference by the City of Atlanta's engineers, planners, elected officials, and the overall Atlanta community. This Education Guide helps create a shared understanding of different roadway design elements that the City can implement to eliminate roadway fatalities and serious injuries.

As the City observes and evaluates the types of crashes that are occurring on its streets, it can select safety countermeasures from this Education Guide to deploy at the appropriate locations. Safety countermeasures will be selected for specific locations in the city only after an evaluation of the appropriateness of the countermeasure for the location's context. Safety countermeasures may be first deployed on the HIN where there is a disproportionate number of crashes that led to a fatality or serious injury, and/or incorporated systemically across the city as other projects arise. Realizing that City resources are limited, projects can be deployed in a variety of ways including the development of an annual program budget for Vision Zero implementation, programming capital improvement funds, through land use development projects, or as part of roadway resurfacing/rehabilitation projects.

The City will use this Education Guide as a companion to the **Safer Streets Selection Tool** to assist in identifying the most appropriate safety countermeasures based on a location's crash history and context (including traffic volume and roadway geometry). The Selection Tool includes the design elements of the 51 safety countermeasures described in this Education Guide.

As the City deploys these safety countermeasures, a database of what countermeasures are deployed and where they are deployed will be kept by the City to track before-and-after data and evaluate the effectiveness of the countermeasures in the context of the city's roads and conditions. The City may adjust the safety countermeasures included in this Education Guide based on an evaluation of the countermeasure's effectiveness.

PROACTIVE SYSTEMIC SAFETY COUNTERMEASURES

There are some safety countermeasures in the Education Guide that are recommended as proactive systemic safety countermeasures. The proactive systemic safety countermeasures would be installed first on the HIN, then in similar conditions where crashes could occur, and eventually citywide as budget and staff resources allow. These systemic safety countermeasures could also be implemented proactively as part of other street improvements, such as street reconstruction or as part of new land use development projects.

The proactive systemic safety countermeasures for Atlanta are:

- **Bus Stop Improvements***
- **Corner/Turn Wedges**
- **Daylighting/Parking Restrictions at Crossings***
- **Exclusive Pedestrian Signal Phases**
- **High Visibility Crosswalks**
- **Leading Pedestrian Intervals (LPIs)**
- **Right Turn on Red Prohibitions**
- **Slip Lane Closure**

** Safety countermeasures that are usually requested as part of new land use development projects*

