June 2025

Pawtucket

Safe Streets and Roads for All Safety Action Plan

SS4A
SAFE STREETS FOR ALL

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Acronyms and Abbreviations

AADT Annual Average Daily Traffic

ADA Americans with Disability Act

BCA Baseline Crash Analysis

BMP Bicycle Mobility Plan

ETC Equitable Transportation Community

FHWA Federal Highway Administration

FI Fatal and All Injury Crash Severities

FSI Fatal and Serious Injury Crash Severities

HIN High Injury Network

HRN High-Risk Network

HSIP Highway Safety Improvement Plan

PDO Property Damage Only

RIDOT Rhode Island Department of Transportation

RIDSP Rhode Island Division of Statewide Planning

RIPTA Rhode Island Public Transit Authority

RRFB Rectangular Rapid Flash Beacons

SAP Safety Action Plan

SHSP Strategic Highway Safety Plan

SS4A Safe Streets and Roads for All Program

STIP Statewide Transportation Improvement Program

USDOT U.S. Department of Transportation

VRU Vulnerable Road Users (i.e., Pedestrians, Bicyclists, Scooter Riders)

Acknowledgments

This plan was developed for the City Council of Pawtucket in collaboration with the Safety Action Plan Task Force, with assistance from AECOM and Toole Design Group.

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Executive Summary

SS4A & Project Overview

Safety is a serious concern for all people traveling in Rhode Island. Through the U.S. Department of Transportation (USDOT) Safe Streets and Roads for All (SS4A) program, Rhode Island Public Transit Authority (RIPTA) secured funding in 2022 to support the state and participating municipalities in planning for infrastructure improvements that will prevent injuries and save lives. With the SS4A grant award and other statewide efforts through the Division of Statewide Planning (RIDSP) and the Rhode Island Department of Transportation (RIDOT), the state has been focusing on improving safety on all roadways.

The SS4A planning project created municipal Safety Action Plans (SAPs) for the City of Pawtucket and 31 other participating communities, as well as a statewide Safety Action Plan. The project established guidelines to effectively implement a tangible version of the SS4A program's mission, guided by the Safe System Approach. This approach encompasses shifting safety needs, promoting known and emerging areas of safety improvement, and identifying priority projects to help the State of Rhode Island and the city's position for further federal, state, and local implementation funding.

This project included a three-tier safety analysis to understand the current road safety conditions in each community, identify high-risk areas, and develop a predictive view of potential crash sites. However, data does not always tell the full story. The project team also attended community events and hosted pop-ups across Rhode Island where the community could engage in deeper discussion and learn more about the project. Team members encouraged the community to participate in a safety survey pertaining to the SS4A program.

Overview

Through the SS4A program, the City of Pawtucket received continued opportunity to make improvements to the transportation system that will help prevent injuries and save lives. Although this Safety Action Plan was part of the umbrella program discussed above, Pawtucket received a tailored Safety Action Plan with comprehensive analysis, public engagement, high-risk area identification, safety improvement recommendations, and future funding guidance. RIPTA's statewide plan outlines broader safety concerns and issues across Rhode Island.

The overarching process for developing the municipal Safety Action Plans includes these general scope and schedule items:

- Discuss community goals (April-May 2024)
- Collect community input (June-September 2024)
- Develop community Safety Action Plans (July 2024-June 2025), including:
    - Safety analysis (Baseline Crash Analysis, High-Risk Network, High Injury Network)
    - Policy discussion
    - Identification of priority locations/projects

Figure 1: Safety Action Plan Process and Timeline

Project Components

Safety Analysis

The safety analysis used data to identify key crash patterns and trends and the contributing factors that have led to fatal and serious injury crashes in the project area. This analysis was based on five years of crash data (2019 to 2023), collected by enforcement agencies using the State of Rhode Island Uniform Crash Report form, combined with roadway and land use data. Together, this information identified the types of infrastructure, behavior, and contexts that have the greatest impact on safety performance. Safety analyses inform policy, infrastructure, and programming improvements for all modes of travel.

In Pawtucket, the 2019 to 2023 crash dataset used for the Safety Action Plan, revealed that there were:

- **Total Crashes**: 14,148
- **Total Fatal and Injury (FI) Crashes**: 2,977 (21% of all crashes)
- **Total Fatal and Serious Injury (FSI) Crashes**: 115 (0.8% of all crashes)
  - 27 involving **vulnerable road users (VRU)** – 3 involving bicyclists; 24 involving pedestrians
  - **Pawtucket has the 6th-highest rate of pedestrian-involved fatal and serious injury-causing crashes per capita, of 39 municipalities in Rhode Island**
  - 25 involving **motorcyclists**
  - 63 involving **motorists only**

Engagement Summary

The plan involved an extensive stakeholder engagement and collaboration to ensure that the plan included diverse perspectives and insights, identified risks not apparent in the data, and provided concurrence for solutions. Engagement was held early and at key junctures throughout the project, including with already-engaged stakeholders and the public, as part of the decision-making process. The public engagement included an online survey, tableing at important events like the Empanada Festival, and meetings with the city.

Figure 2: Public Engagement at Pawtucket Arts Festival

Safety Action Plan

As part of the SS4A Safety Action Plan process, the city to adopted a resolution that outlines its vision for enhancing the safety of its citizens, sets clear goals to achieve that vision, and builds upon existing policies, supported by safety data analysis and community feedback.

The plan articulates recommended activities, such as new engineering standards, transportation infrastructure, and policy changes, to meet the plan's goals and objectives. For each action, the plan identifies responsible agencies or individuals to coordinate implementation. Additionally, benchmarks or metrics are also generated to provide a way for the city to target projects, timelines, and progress. These benchmarks and metrics also provide an important data point for maintaining the progress and transparency of implementation efforts.

The plan recommendations flow from five goals, listed below, to achieve its ***primary mission*** of achieving ***ZERO traffic related deaths and serious injuries by 2035.***

- **Goal 1**: Design a network of complete streets, through the lens of the Safe System Approach, that promotes safe travel for all road users.
- **Goal 2**: Encourage behavior and culture change that promotes a positive safety culture throughout Pawtucket.
- **Goal 3**: Make the needs of Pawtucket's most vulnerable, including youth and older adults front and center.
- **Goal 4**: Accelerate Pawtucket's progress toward zero traffic deaths and serious injuries by maximizing City resources and pursuing new funding opportunities.
- **Goal 5**: Establish a culture of accountability and transparency in Pawtucket's journey to reaching zero traffic deaths and serious injuries.

Future Grant Opportunities

A key aspect of the Safety Action Plan is that it not only provides the city with a roadmap to safety but also empowers the city to pursue future funding opportunities by prioritizing analysis, engagement, and developing time-based strategies. This plan sets a strong foundation to support ongoing implementation and construction efforts, enhance community safety, address areas of concern, and establish infrastructure for a healthier, happier community.

Introduction

Meeting the Challenge

Safety is a serious concern for all people traveling in Rhode Island. Through the U.S. Department of Transportation (USDOT), the Safe Streets and Roads for All (SS4A) program provides funding for communities to plan and implement improvements that will prevent injuries and save lives. In 2023, Rhode Island and 31 participating municipalities, including the City of Pawtucket (referenced as Pawtucket or the city), were awarded SS4A funding to develop comprehensive Safety Action Plans.

This Safety Action Plan provides strategies to enhance roadway safety, reduce fatalities, and prevent serious injuries for drivers, pedestrians, cyclists, and public transit users in Pawtucket. Pawtucket intends to use this Safety Action Plan to apply for implementation and supplemental planning grant funding under the SS4A Program and other grants available such as those through the Federal Highway Administration.

This Safety Action Plan analyzes overall crash patterns utilizing a baseline crash analysis (BCA). The baseline crash analysis assesses hot spots where crashes have occurred, and a systemic safety analysis (FHWA 2013) identifies common risk factors that contribute to crashes across the entire transportation network. This combined approach, based on recent crash history and systemic risk factors, allows Pawtucket to identify the high-injury network (roads where an elevated number of fatal and serious injury-causing crashes occur), and develop effective context-specific solutions. Combining these two approaches also allows Pawtucket to balance reactive measures that address locations where crashes are occurring with proactive measures that address areas of risk, during future project implementation. This Safety Action Plan is structured around the standard SS4A Action Plan Components, listed below:

1. Leadership Commitment and Goal Setting
2. Planning Structure
3. Safety Analysis
4. Engagement and Collaboration
5. Equity Considerations
6. Policy and Process Changes
7. Strategy and Project Selections
8. Progress and Transparency

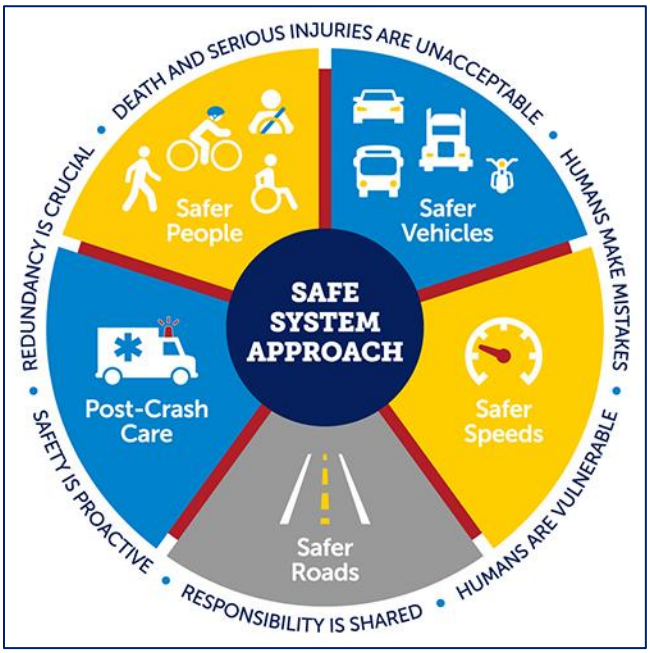
The Safety Action Plan details strategies that complement SS4A goals to eliminate fatal and serious injury crashes. The Safety Action Plan includes individual projects, safety countermeasure opportunities, and recommended policy changes to address safety and mobility challenges in an equitable and sustainable way.

Safe System Approach and Vision Zero

The USDOT and wider transportation community has adopted the Safe System Approach to identify and reduce risks found in the transportation system. This approach focuses on evaluating human mistakes and vulnerability, in addition to crash analysis to create a comprehensive plan to improve safety.

All materials and project guidelines in this Safety Action Plan prioritize the Safe System Approach (Figure 3). The Safe System Approach anticipates human mistakes, proactively designs infrastructure to reduce the risk of those mistakes occurring and seeks to reduce the crash severity when a mistake does occur.

Figure 3: Safe System Approach



Source: U.S. Department of Transportation

Principles of a Safe System Approach

Death and Serious Injuries are Unacceptable. The approach focuses on elimination of crashes that result in serious injury or death.

Humans Make Mistakes. People will unfortunately make mistakes or choices that lead to crashes of all types. This approach tries to anticipate the mistakes/choices that may be made to limit the number of serious crashes.

Humans Are Vulnerable. Human bodies have a threshold of injury during a crash before it results in death. It is of paramount importance to create a transportation system that accounts for human vulnerabilities in its design.

Responsibility is Shared. All Stakeholders are vital to mitigating crash fatalities and injuries.

Safety is Proactive. Utilizing proactive tools to address safety issues before crashes occur.

Redundancy is Crucial. Reducing risks requires that all aspects of transportation have an opportunity for improvement.

The Safe System Approach provides a framework for identifying and prioritizing projects. The approach was used to ensure this Safety Action Plan:

- Addresses the causes and context for fatal and serious injury crashes throughout the community.
- Prioritizes systemic change over individual behavioral change.
- Prioritizes system-wide risk mitigation over the causes of individual crashes.

By integrating these factors into this Safety Action Plan's recommendations and priorities, Pawtucket will achieve a balance between reactive strategies that tackle issues leading to fatal and serious injury crashes, and proactive strategies that address system risks before such crashes occur.

The balance between these strategies is addressed through the baseline crash analysis, which identifies high-level patterns of fatal and serious injury crashes, and the systemic safety analysis, which identifies risk factors that could lead to future fatal and serious injury crashes if left unaddressed.

What is Vision Zero?

Vision Zero is a strategy to eliminate deaths and serious injuries from traffic crashes. First implemented in Sweden, cities and towns across the United States are putting Vision Zero into practice to save lives. By committing to this goal, communities orient multiple departments and initiatives around life-saving transportation solutions.

City of Pawtucket Municipal Background

Figure 4: City of Pawtucket

The City of Pawtucket, located in Providence County of Rhode Island, it is the fourth largest city in the state by population with 75,321 people, living on over eight and a half square miles.[1] The city is situated along the Blackstone River. It is bordered by the City of Central Falls to the north, the City of Providence to the south and east, and the City of North Providence to the west. Given the dense nature of the community, the central portion of the city is primarily high-density residential housing with commercial districts concentrated near the east and west borders of the city. There are multiple schools located within the community; these schools serve as major community hubs and are important to consider when making transportation decisions. Additionally, the construction of a new soccer stadium on the east side of the city is expected to bring in more people in the city from surrounding communities and throughout the state.

Certain subsets of Pawtucket's population are more vulnerable to traffic crashes and rely more heavily on affordable, non-driving modes of transportation. According to the United States Census Bureau, 14 percent of the population in Pawtucket is classified as economically disadvantaged, which is higher than the Rhode Island State as a whole (11 percent). Furthermore, 10 percent of people in Pawtucket are disabled. It is important to note that 21 percent of the population in Pawtucket are children or young adults aged 18 or younger, which is similar to the statewide percentage. Additionally, 14 percent of the population is 65 and older.

Pawtucket is a multimodal community when it comes to transportation. Twelve percent of households have no motor vehicles, and 42 percent of households only have one available vehicle. Pawtucket's no- and low-vehicle household shares are well above the national average of 8 percent and 33 percent, respectively. Collectively, these groups are ones who must use non-driving modes of travel and therefore are at an increased risk of facing death or serious injury when traveling from place to place.

The transportation network in Pawtucket includes three state-owned arterial roads, Dexter Street, Broad Street, and Lonsdale Avenue, that pass through the heart of the city. These streets handle a high volume of traffic and three RIPTA bus routes. The recently constructed commuter rail station, located in Pawtucket on the southern edge of the city, provides greater regional transit connectivity to Boston Metro Area.

[1] U.S. Census Bureau

Municipal and State Coordination

Coordination between municipalities and the State is an important part of successful implementation of road safety projects, particularly in areas where roadway networks include a mix of local and state jurisdiction. The singular focus of the municipality is contrasted with the need for the Rhode Island Department of Transportation (RIDOT) to consider systemwide improvements. RIDOT is aligned with the SS4A program in both its current participation in developing the parallel Statewide Safety Action Plan and its recent development of roadway safety plans that advance the SS4A underlying mission of Vision Zero.

The Strategic Highway Safety Plan (SHSP), Highway Safety Improvement Plan (HSIP), Statewide Transportation Improvement Program (STIP), Bicycle Mobility Plan (BMP), and Rhode Island Vulnerable Road User Safety Assessment (VRU Safety Assessment), among other RIDOT plans, document the criteria and process involved in project prioritization, selection and funding determination. The following language from the VRU Safety Assessment is an example:

RIDOT works with municipalities to identify and mitigate crash issues on locally maintained roadways. RIDOT has developed a process for local agencies to request a safety improvement with the intent for local agencies to perform the 'planning' step from the HSIP process RIDOT will then determine if the improvement is eligible for HSIP funds and distribute the funds needed to the local agencies so they can administer the construction of the improvements.

In addition, the following language is included in the most recent SHSP:

RIDOT is not eligible for (the SS4A) competitive grant program: however, RIDOT can support cities, towns, tribal government and the MPO which are eligible…The success of the SHSP is dependent on implementation at the local level. SS4A will fund a wide array of activities addressing the priority safety concerns in Rhode Island.

RIDOT's participation in the Statewide Safety Action Plan, as well as its acknowledgements in previous plans as noted above, show its commitment to work with municipalities to advance local and regional safety priorities across all roadway jurisdictions.

1. Leadership Commitment and Goal Setting

1.1 Leadership Commitment

The City of Pawtucket leaders are committed to the goals set forth in this Safety Action Plan. The City of Pawtucket's Safe Streets for All Vision Zero Resolution is supported by the Mayor and City Council, as well as several municipal departments, including the Department of Commerce, which is leading the initiative in Pawtucket. The city adopted a resolution making a commitment to the goal to eliminate roadway fatalities and serious injuries on 11 June 2025.

1.2 Goal Setting

This Safety Action Plan is oriented around the City of Pawtucket's transportation vision:

The City of Pawtucket guided by the principles of Vision Zero, envisions a future where all traffic fatalities and severe injuries are eliminated through a safe, equitable, and people-centered transportation system.

The primary goal of this Safety Action Plan is to:

Achieve zero roadway fatalities and serious injuries by 2035.

The City of Pawtucket's Safety Action Plan addresses safety through both policy and process changes, as well as through physical design improvements. This approach is structured around five key goals, outlined below, to achieve the overarching objective described above.

- **Goal 1**: Design a network of complete streets, through the lens of the Safe System Approach, that promotes safe travel for all road users.
- **Goal 2**: Encourage behavior and culture change that promotes a positive safety culture throughout Pawtucket.
- **Goal 3**: Make the needs of Pawtucket's most vulnerable, including youth and older adults front and center.
- **Goal 4**: Accelerate Pawtucket's progress toward zero traffic deaths and serious injuries by maximizing City resources and pursuing new funding opportunities.
- **Goal 5**: Establish a culture of accountability and transparency in Pawtucket's journey to reaching zero traffic deaths and serious injuries.

2. Planning Structure

Numerous partners are essential to plan implementation. These partners include different levels of government that manage Pawtucket's roads. Across the state Rhode Island Department of Transportation controls 17 percent of the roadways, municipalities control 75 percent, private roads comprise 8 percent, and federal interstates make up less than 1 percent of Rhode Island's roadway infrastructure. This section describes the current and future roles these groups will play, related to transportation safety.

2.1 Current Planning Organizational Description

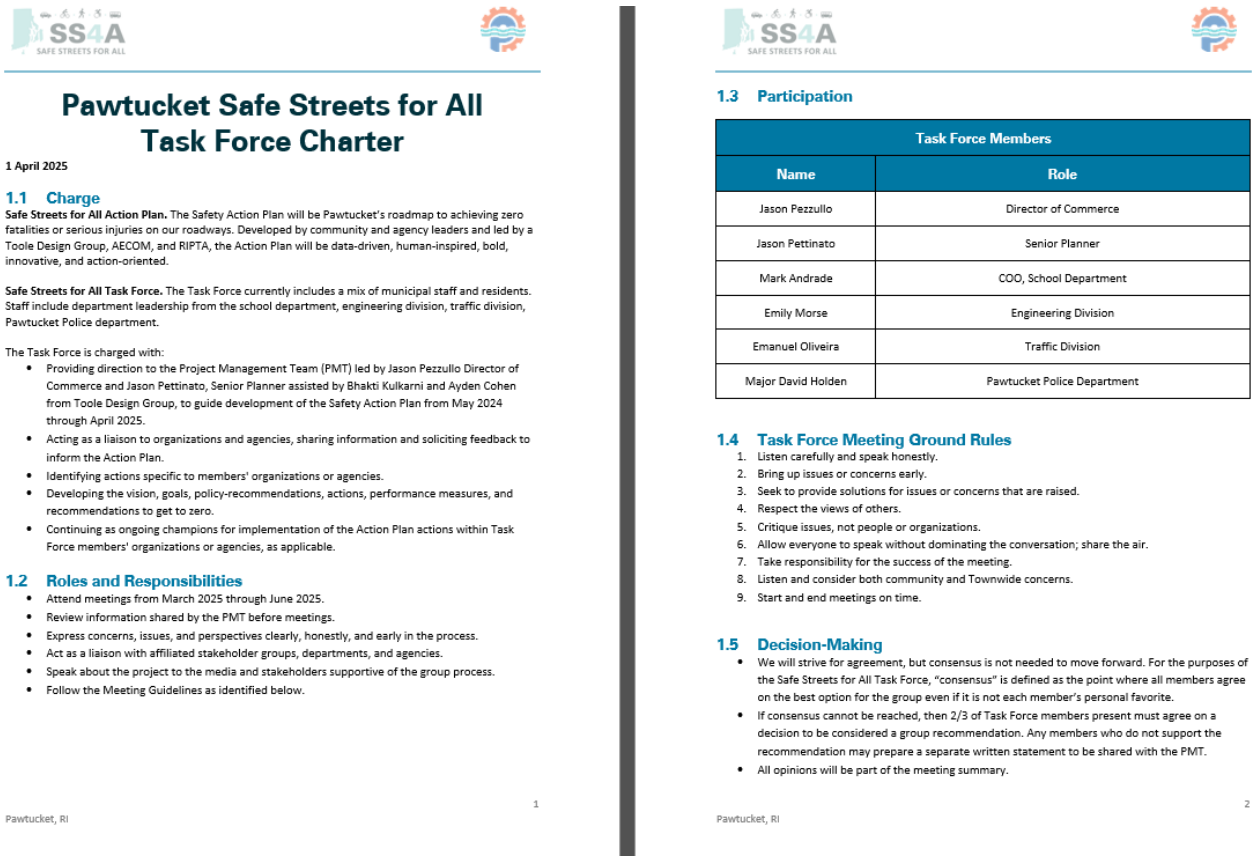
The Pawtucket Safety Action Plan Task Force was established to oversee the plan's development, implementation, and future updates. The Task Force consists of municipal staff from the Department of Commerce, Department of Planning, Pawtucket School Department and the Pawtucket Police Department.

A Task Force charter (Figure 5 and Appendix B) was adopted to guide the involvement of the Task Force in the plan preparation and implementation as detailed below. The Task Force's roles include:

- Leading and guiding the project team in the development of the Safety Action Plan.
- Serving as a liaison between organizations and agencies, sharing relevant information, and gathering feedback to inform the plan.
- Identifying specific actions for each member's organization or agency.
- Engaging with the community beyond plan preparation.
- Developing the vision, goals, policy recommendations, actions, performance measures, and strategies to achieve zero traffic fatalities and serious injuries.
- Continuing to advocate for and support the implementation of the Action Plan's actions within Task Force members' organizations or agencies, as appropriate.

The Pawtucket Safety Action Plan Task Force actively participated in regular input sessions, offering valuable feedback on the final plan.

Figure 5: Pawtucket Safety Action Plan Task Force Charter



Pawtucket Safe Streets for All Task Force Charter

1 April 2025

1.1 Charge

Safe Streets for All Action Plan. The Safety Action Plan will be Pawtucket's roadmap to achieving zero fatalities or serious injuries on our roadways. Developed by community and agency leaders and led by a Toole Design Group, AECOM, and RIPTA, the Action Plan will be data-driven, human-inspired, bold, innovative, and action-oriented.

Safe Streets for All Task Force. The Task Force currently includes a mix of municipal staff and residents. Staff include department leadership from the school department, engineering division, traffic division, Pawtucket Police department.

The Task Force is charged with:

- Providing direction to the Project Management Team (PMT) led by Jason Pezzullo Director of Commerce and Jason Pettinato, Senior Planner assisted by Bhakti Kulkarni and Ayden Cohen from Toole Design Group, to guide development of the Safety Action Plan from May 2024 through April 2025.
- Acting as a liaison to organizations and agencies, sharing information and soliciting feedback to inform the Action Plan.
- Identifying actions specific to members' organizations or agencies.
- Developing the vision, goals, policy-recommendations, actions, performance measures, and recommendations to get to zero.
- Continuing as ongoing champions for implementation of the Action Plan actions within Task Force members' organizations or agencies, as applicable.

1.2 Roles and Responsibilities

- Attend meetings from March 2025 through June 2025.
- Review information shared by the PMT before meetings.
- Express concerns, issues, and perspectives clearly, honestly, and early in the process.
- Act as a liaison with affiliated stakeholder groups, departments, and agencies.
- Speak about the project to the media and stakeholders supportive of the group process.
- Follow the Meeting Guidelines as identified below.

1

Pawtucket, RI

1.3 Participation

Task Force Members	
Name	**Role**
Jason Pezzullo	Director of Commerce
Jason Pettinato	Senior Planner
Mark Andrade	COO, School Department
Emily Morse	Engineering Division
Emanuel Oliveira	Traffic Division
Major David Holden	Pawtucket Police Department

1.4 Task Force Meeting Ground Rules

1. Listen carefully and speak honestly.
2. Bring up issues or concerns early.
3. Seek to provide solutions for issues or concerns that are raised.
4. Respect the views of others.
5. Critique issues, not people or organizations.
6. Allow everyone to speak without dominating the conversation; share the air.
7. Take responsibility for the success of the meeting.
8. Listen and consider both community and Townwide concerns.
9. Start and end meetings on time.

1.5 Decision-Making

- We will strive for agreement, but consensus is not needed to move forward. For the purposes of the Safe Streets for All Task Force, "consensus" is defined as the point where all members agree on the best option for the group even if it is not each member's personal favorite.
- If consensus cannot be reached, then 2/3 of Task Force members present must agree on a decision to be considered a group recommendation. Any members who do not support the recommendation may prepare a separate written statement to be shared with the PMT.
- All opinions will be part of the meeting summary.

2

Pawtucket, RI

2.2 Recommended Organizational Changes Post-Safety Action Plan

The Pawtucket Department of Commerce led the Safety Action Plan preparation and will continue to oversee the plan implementation in collaboration with the Department of Public Works and the Pawtucket Safety Action Task Force.

Once adopted, the Task Force will meet quarterly to review the progress of Safety Action Plan projects, evaluate the plan's effectiveness, and recommend revisions to actions, as necessary. Under this initiative, the Task Force will publish a yearly summary report documenting the progress for each year and any revisions made. The Task Force will continue to operate according to the charter outlined above and will update it as necessary to align with the Safe Streets for All Vision Zero Resolution adopted by the city.

3. Safety Analysis

3.1 Analysis Overview

The safety analysis uses data to identify key crash patterns, trends, and contributing factors that have led to fatal and serious injury crashes in the City of Pawtucket. This analysis is based on five years of crash data (2019 to 2023) collected by enforcement agencies using the State of Rhode Island Uniform Crash Report form combined with roadway and land use data. Together, this information identifies the types of infrastructure, behavior, and contexts that impact safety performance most. Safety analyses inform policy, infrastructure, and programming improvements for all modes of travel, as described in Chapter 7.

The key findings from the analysis are presented below. The methodology for the analysis is described in Appendix E.

Why focus on fatal and serious injury crashes?

In alignment with the Safe System Approach, the goal of the Safety Action Plan is to eliminate fatal and serious injuries on roads. To support that goal, the safety analysis focuses on crash patterns and factors of crashes where at least one person was killed or ***seriously*** *injured* (the person needed to be brought for medical attention). This focus excludes the most common type of crash, a property damage only crash, to focus instead on human safety impacts.

For less common crash types (e.g., crashes involving people walking), this analysis also highlights trends in crashes that led to ***any injury***. By considering crashes resulting in any injury, a pattern of critical safety needs within the community becomes more apparent, despite a lower sample size.

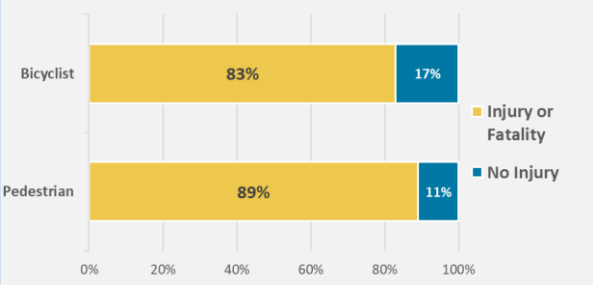
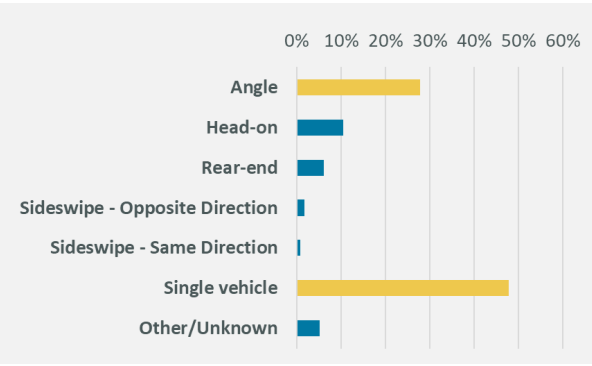
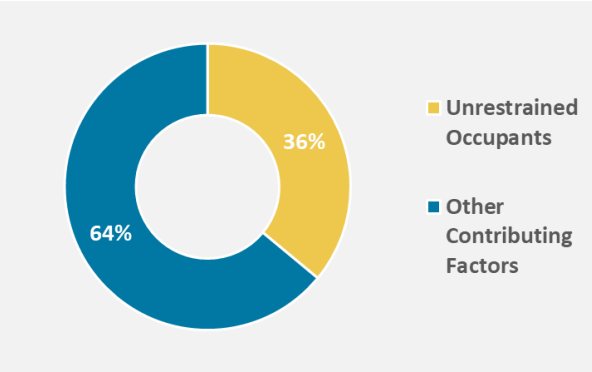
Why look at five years of crash data?

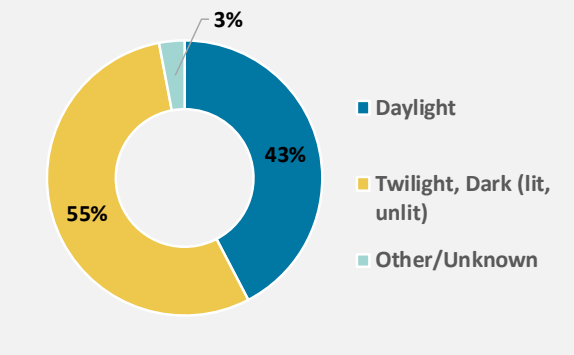
Crashes can fluctuate naturally from year-to-year based on road conditions, community circumstances, event reporting, and more. A five-year study period effectively balances changes in safety over time while capturing overall trends. The result is a safety analysis that is comprehensive and supports long-term decision-making.

3.2 What Types of Crashes Happened in Pawtucket from 2019 to 2023?

The five-year (2019 to 2023) crash dataset used for the analysis presents key takeaways in Table 1 below. Complete Baseline Crash Analysis results can be found in Appendix C.

Table 1: Baseline Crash Analysis Key Takeaways

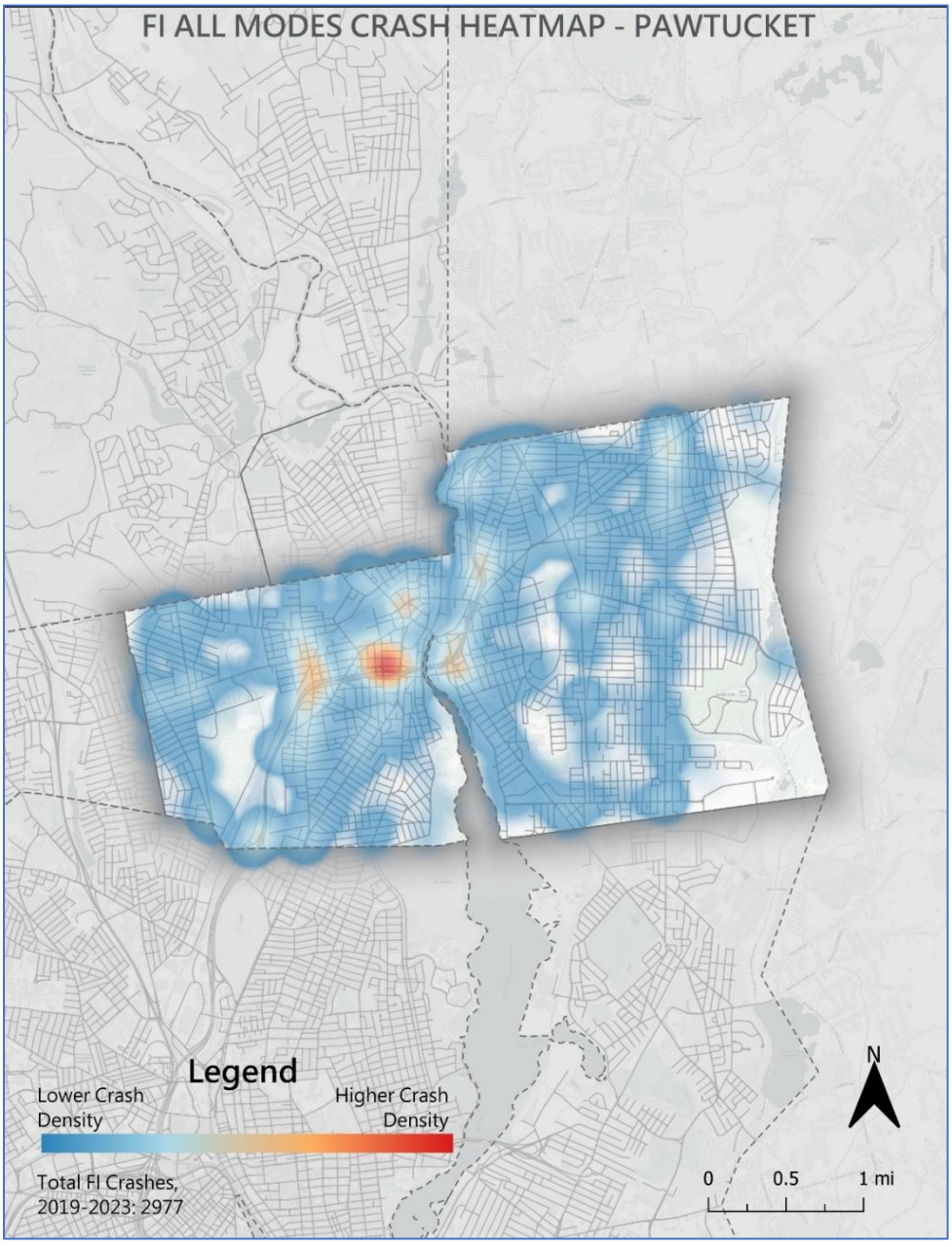
21% of all crashes led to someone being killed or injured (2,977 crashes). 115 (0.8%) of these crashes led to someone being killed or *seriously* injured.		
People Walking and Bicycling		**89% of pedestrian crashes and 83% of bicyclist crashes led to someone being killed or injured.** For this reason, people walking and bicycling are considered vulnerable road users. Vulnerable road users, including bicyclists, were involved in 263 crashes that led to an injury or fatality.
Crash Types		The most common types of crashes in Pawtucket that resulted in a serious injury or fatality, highlighted in yellow on the graph, were **angle** (vehicles colliding at an angle), and **single vehicle** (a vehicle crashing into a fixed object). Together these two types of account for 76% of crashes resulting in a serious injury or fatality.
Seatbelt Use		**Unrestrained occupants** (drivers and or passengers not wearing a seatbelt) were reported as contributing factors in 36% of fatal and serious-injury.

Lighting Conditions		**55%** of fatal and serious injury-causing crashes occurred during **dark-unlit, dark-lit and twilight conditions**. **53% of fatal and serious injury-causing crashes involving pedestrians and bicyclists** occurred in **dark-lit conditions**.

3.3 Where Did Crashes Occur in Pawtucket from 2019 to 2023?

The hot spot map in Figure 6 below shows the locations of the fatal and injury crashes that occurred in Pawtucket between 2019 and 2023. Most injury crashes in Pawtucket happen in and around the center of the city. The following sections of this plan define the high-crash locations in more detail.

Figure 6: All Fatal and Injury Crashes in Pawtucket



3.4 What Streets Have a Higher Future Crash Risk?

Rather than just focusing on locations where crashes have occurred in the past, the high-risk analysis allows city and state leaders to focus on places that are more likely to have future crashes – either because they have a trend of past crashes or because they are similar to other locations that have higher crash rates. The team used statewide data to identify risk factors that are common to places with more crashes. The high-risk factors vary depending on the context of land use (urban, suburban, and rural) and the crash type (all crashes vs. only crashes involving people walking and biking).

In all contexts and crash types, roads with higher traffic volumes, state-owned roads, streets close to schools, and areas with more zero-vehicle households have higher crash risk. Some risk factors vary by land use; for example, in suburban areas places with higher populations of people below age 18 have higher risk. Some risk factors vary depending on the type of crash; for example, streets close to parks have a higher risk of crashes involving people walking and biking. See Appendix D for all the risk factors evaluated.

The result of this analysis is the High Injury Network, which combines:

- A **reactive** look at where injury crashes have occurred in the past. The project team ranked all street segments based on past crashes (2019 to 2023) and included the top 15 percent of locations in the High-Injury Network
- A **proactive** look at where future crashes are more likely to occur. The project team included the top risk tiers (critical, high, and medium) in the High Injury Network.

Figure 7 shows the High Injury Network map for all modes whereas Figure 8 shows the maps for vulnerable road user modes. Table 2 exhibits the list on the High Injury Network.

Figure 7: High Injury Network All Modes- Pawtucket

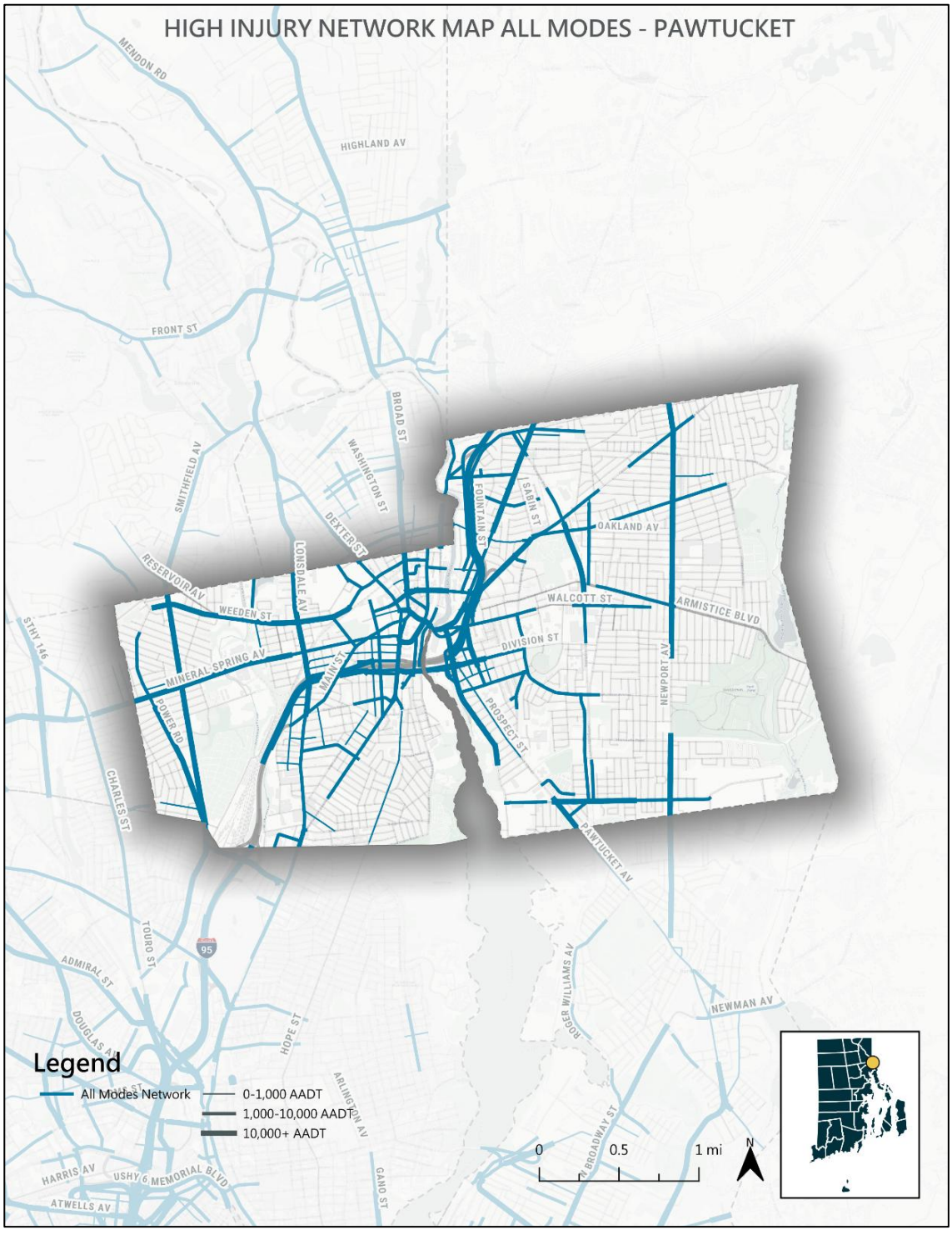


Figure 8: High Injury Network Vulnerable Road User Modes (people walking, bicycling, or otherwise travelling outside of a vehicle)- Pawtucket

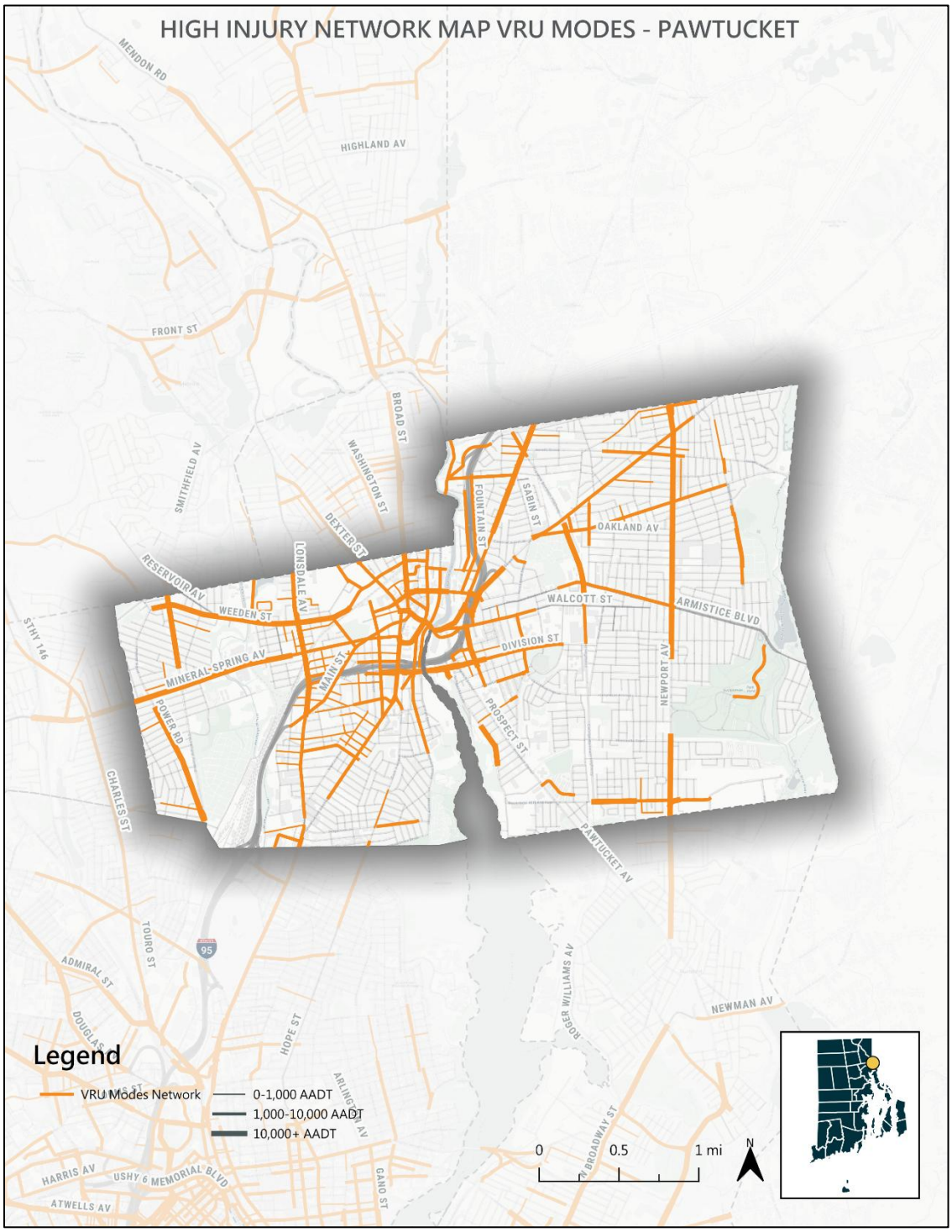


Table 2: List of Streets on High Injury Network

Jurisdiction	Roads	All Modes	Vulnerable Road User Modes
State	*Lonsdale Ave.*	●	●
	Dexter St.	●	●
	Broad St.	●	●
	Central Ave.	●	●
	Broadway St.	●	●
	Prospect St.	●	
	Smithfield Ave.	●	●
	Armistice Blvd.	●	●
	School St.	●	
	George St.	●	●
	Newport Ave.	●	●
	Vernon St.	●	●
	I - 95	●	
	Pawtucket Ave./US Route 1	●	●
Local	*Abbott St.*		●
	Alice St.		●
	Amey St.		●
	Andrew Ferland Wy.	●	●
	Ann Mary St.	●	
	Barton St.	●	●
	Bayley St.	●	●
	Beecher St.		●
	Beechwood Ave.		●
	Benefit St.		●
	Beverage Hill Ave.	●	●
	Blackstone Ave.	●	●
	Blake St.		●
	Bloodgood St.		●
	Boutwell St.		●
	Branch St.		●
	Brown St.		●
	Calder St.		●
	Cameron St.		●
	Capital St.	●	●
	Carson St.		●
	Carver St.	●	
	Cedar St.	●	●

Jurisdiction	Roads	All Modes	Vulnerable Road User Modes
	Centre St.		●
	Charpentier Ave.		●
	Church St.	●	●
	Clark Ave.		●
	Comstock St.	●	●
	Conant St.		●
	Cottage St.	●	●
	Daggett Ave.		●
	Davis St.	●	●
	Division St.	●	●
	Dunnell Ave.		●
	East Ave.	●	●
	East St.	●	●
	Exchange St.	●	●
	Fairview Ave.		●
	Fountain St.	●	●
	Fred St.	●	
	Freeman St.		●
	Garden St.	●	
	George R Bennett Hwy.	●	●
	Gloria St.		●
	Goff Ave.	●	●
	Grace St.	●	●
	Grenville St.		●
	Hancock St.		●
	Harrison St.	●	●
	Hayward St.	●	●
	Hicks St.		●
	High St.	●	●
	Hilton St.		●
	Hope St.		●
	Humes St.		●
	Johnson St.		●
	Kenyon Ave.		●
	Knowles St.	●	●
	Leonard Jenard Dr.		●
	Linden St.		●
	Magill St.	●	●
	Main St.	●	●

Jurisdiction	Roads	All Modes	Vulnerable Road User Modes
	Manchester St.		●
	Marrin St.	●	●
	Mason St.		●
	McCabe Ave.	●	●
	Meadow St.	●	
	Mendon Ave.	●	●
	Middle St.	●	
	Mill St.		●
	Mineral Spring Ave.	●	●
	Mulberry St.		●
	Newell Ave.	●	
	Norman Ave.		●
	Norton St.	●	
	Overland Ave.		●
	Park Pl.	●	
	Park Pl W.	●	●
	Pearl St.	●	
	Peckham St.		●
	Pine Grove St.		●
	Pine St.	●	●
	Pleasant St.		●
	Pleasant St.	●	●
	Power Rd.	●	●
	Prentice Ave.	●	●
	Privet St.		●
	Randall St.	●	●
	Ridge St.		●
	Roosevelt Ave.	●	●
	Roosevelt Avenue Ext.		●
	S Bend St.		●
	S Union St.	●	
	Sachem St.		●
	Senate St.	●	
	Slater St.		●
	South St.	●	●
	Spring St.		●
	Sterry St.		●
	Stuart St.		●
	Summer St.	●	●

Jurisdiction	Roads	All Modes	Vulnerable Road User Modes
	Summit St.	●	●
	Thomas Ave.		●
	Thurston St.	●	●
	Tingley St.	●	
	Toledo Ave.	●	●
	Vale St.		●
	Walcott St.	●	●
	Walnut St.		●
	Water St.	●	
	Webb St.		●
	Weeden St.	●	●
	West Ave.	●	●
	Whitman St.	●	
	Wilmarth Ct.		●

4. Engagement and Collaboration

Stakeholder engagement and collaboration ensure that this Safety Action Plan includes diverse perspectives and insights, identifies risks not apparent in the data, and provides local support for solutions. The team conducted engagement early and at key junctures throughout the plan development, including with stakeholders and the public as part of the decision-making process.

4.1 Stakeholders

Many stakeholders contributed to the creation of this Safety Action Plan. These individuals and organizations helped facilitate public engagement and encouraged feedback from the community.

When identifying key stakeholders for the Safety Action Plan, various organizations and individuals were considered, including those representing the following groups:

- Members of the Pawtucket City Council
- Public Works department staff
- Health and Constituents services
- Pawtucket Police Department
- Schools and universities
- Parks and recreation
- Pedestrian and bicycle advocacy organizations
- Local non-governmental organizations

While not all these groups were represented on the Task Force starting with this comprehensive list allowed the City of Pawtucket to consider the various needs and priorities that were considered during the development of the Safety Action Plan. The Task Force and the planning team reached out to the above-listed stakeholders at different stages to consult and receive feedback on aspects of the plan preparation. Detailed minutes of the Task Force meetings are attached in Appendix C of this report.

4.1.1 Stakeholder Feedback Summary

The task force group convened for this plan includes 6 individuals, representing the Department of Commerce, School Department, Department of Planning and Redevelopment and the Pawtucket Police Department. The project team consulted with the stakeholder group strategically throughout plan development. This includes touchpoints during the safety analysis, goal setting, community outreach, action plan development, and implementation strategy development. The following is a summary of key information provided from these stakeholder gatherings.

Stakeholders identified several streets and locations of concern within the community, including:

- Blackstone Boulevard
- North Main Street

- Kennedy Plaza

It is important to note that input from the Task Force and other stakeholders confirmed the street segments and intersections on the High Injury Network as areas of priority and concern within the city. The input from the stakeholders followed two main themes:

Framework, Program, and Policies: Stakeholders emphasized that the current frameworks, policies, and review processes do not adequately address specific safety considerations. The city would particularly benefit from creating policies around improving the bicycle infrastructure and Safe Routes to School to ensure the safety of students.

Physical Design: Stakeholders highlighted that the city needed immediate improvements to pedestrian and bicycle infrastructure, specifically integration of all new efforts with the new Americans with Disabilities Act (ADA) compliance the city has in place. The stakeholders expressed traffic calming to be of primary importance as speeding is a consistent issue on Pawtucket's streets.

4.2 Public Engagement

Public engagement can transform any planning study into a collaborative effort, resulting in a more practical and responsive plan. This Safety Action Plan is no different, and Pawtucket set out early on to identify junctures in the process to engage the public and gather feedback to guide findings and recommendations.

Public engagement opportunities during the development of the Safety Action Plan included:

- Community-wide survey, available both on paper and online
- Tabling and participation at community events in the Pawtucket-Central Falls area listed below.
  - Central Falls Salsa Night: August 30, 2024
  - Central Falls Annual Car Show: September 8, 2024
  - Pawtucket Empanada Festival: August 31, 2024
  - Pawtucket Arts Festival: September 7, 2024

Figure 9: Pawtucket Arts Festival Engagement

Through these engagement touchpoints, Pawtucket identified safety concerns broadly within the community, educated the public on transportation safety challenges, evaluated support for proposed safety improvements, and established partnerships for long-term improvements.

4.2.1 Public Engagement Summary

Through surveys, tabling at community events, and a public open house, Pawtucket gained insights from the community to inform this Safety Action Plan and its implementation.

Paper and online surveys were developed to solicit input from the community during the public engagement process. The survey included questions about travel patterns, important destinations in the community, safety concerns, infrastructure improvement strategies, and asked how the respondents would weigh various tradeoffs. Open-ended questions allowed respondents to provide thoughts, comments, or questions for Pawtucket leadership's consideration and inclusion in the Safety Action Plan.

Public input was also gathered by tabling at local community events. At each of these events, Pawtucket provided posters, maps, and informational flyers describing the process and findings of the Safety Action Plan.

Through these surveys and engagement events the community provided valuable input that was incorporated into the safety analysis, policy changes, safety project priorities, and implementation activities. Plan Engage (https://us.planengage.com/ri_safestreets/page/home) provided a single resource that incorporated information and feedback from all participating communities in a single statewide platform.

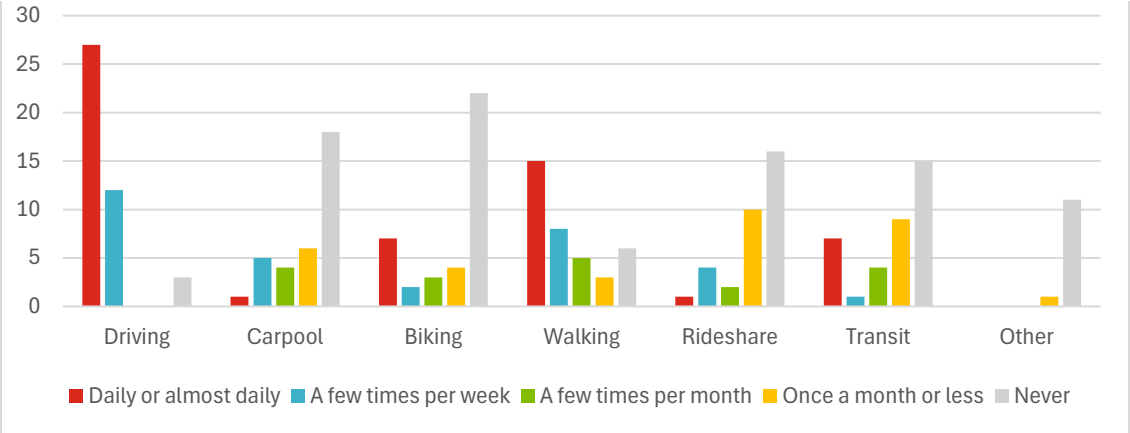
Additional details and records from the public engagement process are included in Appendix A.

Survey Response Statistics:

- **Total:** 50 survey responses
- **Pawtucket Resident:** 94 percent
- **Households with Car(s):** 84 percent
- **Primary Streets mentioned:** Blackstone Boulevard (3), North Main Street (2), Kennedy Plaza (2)
- **Primary Themes mentioned:** Transit quality, sidewalk and crossing quality, speeding, enforcement

Overall Summary: Pawtucket survey participants have lower rates of vehicle access, higher rates of daily transit use, and a higher level of interest in transit improvements than other Rhode Island communities. Transit service improvements, such as increased frequency and coverage are of greatest interest to participants, then transit stop shelter and signage. Public safety improvements, such as increased enforcement are discussed relatively frequently in comments. There are concerns related to both driver and pedestrian distraction, as well as issues with pedestrian crossings that may not be adequately designed for safety. The survey responses indicate that various factors like limited lighting, obstructions to visibility, a lack of clear signs or markings, make it difficult to navigate the roadways confusing pedestrians, drivers and bicyclists increasing possibility of crashes. Cycling in the city is perceived as high risk, and those who engage in cycling were to some degree critiqued for using sidewalks instead of roadways. The most frequently mentioned locations to be improved are North Main Street, Blackstone Boulevard, and Kennedy Plaza. Figure 10 below exhibits the current mode share in Pawtucket with driving being the most common mode.

Figure 10: Mode Share in Pawtucket



4.2.2 General Priorities

Table 3 lists the recurring themes presented in the open-ended responses on the interactive survey map and other comment boxes in the survey. Respondents identified issues nearly evenly across all modes of transportation. Specifically, respondents highlighted their desire for smoother pavement, an improved bicycle network, safer crossing, and bus shelters and signage.

Table 3: Survey Feedback by Theme

Theme	Mentions
Walking and Bicycling Comfort	
Safer Crossing	17
Bicycle/Pedestrian Facility Maintenance	15
Sidewalk Network	14
Better Lighting	14
Driver Comfort	
Smoother Pavement	24
Better Striping	20
Visible Signage	17
Better Lighting	15
Lower Speeds	14
Transit Comfort	
More Frequent Service	21
Better Signage	17
Shelters & Seating	17
Better Lighting	10

Figure 11: Central Avenue and Dagget Street Intersection

Figure 13: Prospect Street and Beverage Hill Avenue

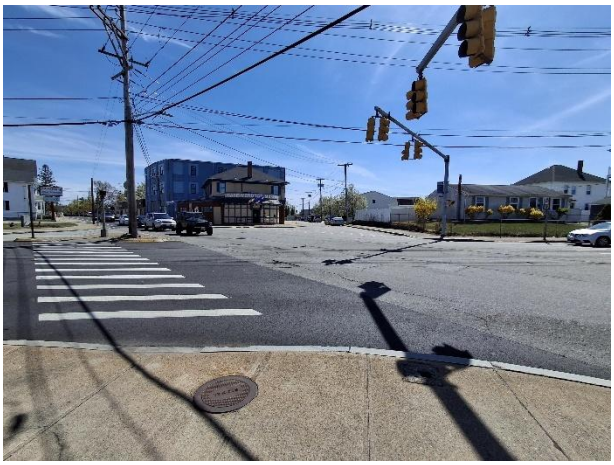
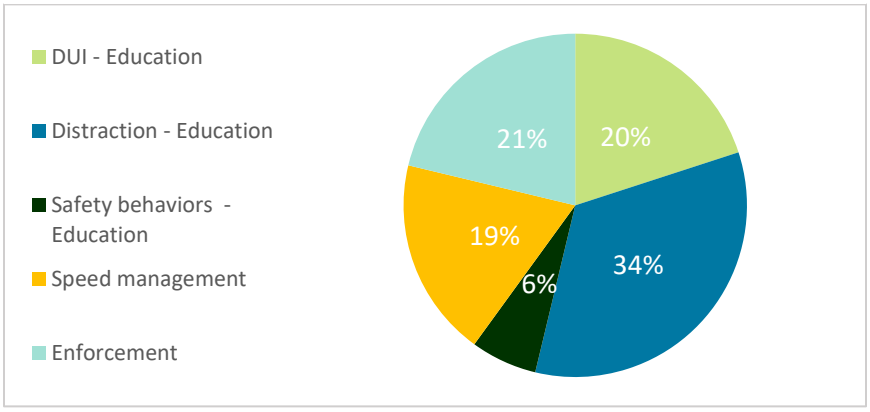


Figure 12: George Bennett Hwy and Monticello Road

Behavior Responses

When asked to identify behavioral programs that would be most effective, respondents indicated the greatest support for enforcement, followed by speed management (including setting appropriate speed limits for the context), and education for distracted drivers, shown in Figure 14.

Figure 14: Summary of Behavior Change Preferences in Pawtucket



4.2.1 Relevant Comments

Figure 15: Survey Comments

Note: Comments are quoted verbatim.

4.2.2 Engagement Team Takeaways

- Like other towns in Rhode Island, there is a perceived accepted culture of running stop signs and stop lights.
- Lighting improvements were requested across all modes.
- A higher proportion of participants do not have access to a vehicle compared to other communities in Rhode Island and would like bicycle and pedestrian facility maintenance improvements.
- Respondent highlighted the need for improved transit service in the community.
- The most frequently mentioned locations to be improved are North Main Street, Blackstone Boulevard, and Kennedy Plaza

5. Equity Considerations

5.1 Defining Equity

Equity was a key consideration during every aspect of this plan development. In line with best practices, equity is defined as meeting the needs of rural areas, economically disadvantaged communities, historically underserved residents, and vulnerable roadway users, including people walking and bicycling. Acknowledging the needs of these diverse groups, the City of Pawtucket evaluated strategies that encourage the fair sharing of resources, address external costs, promote equitable pricing, serve mobility-disadvantaged travelers, and enhance overall affordability and economic opportunity while protecting the safety of all travelers.

5.2 Equity Issues in Pawtucket

This Safety Action Plan includes an evaluation of how vulnerable and historically disadvantaged groups travel within the boundaries of Pawtucket and seeks, through engagement and data evaluation efforts, to understand the greatest barriers and safety challenges these groups face. Special efforts were made to reach out to stakeholders, members of the public, and disadvantaged groups to better understand their needs and priorities. Policies and project priorities were evaluated against those needs and priorities to appropriately balance recommendations in this Safety Action Plan.

5.2.1 Key Equity Findings in Pawtucket

The following are key points from the planning process that impact equity:

Utilizing U.S. Census data, between 2019 and 2023, Pawtucket experienced economic conditions that indicate notable equity challenges when compared to national averages:[2]

- **Median Household Income** in Pawtucket was $67,436, which is below the national median of approximately $75,000 during the same period. This gap suggests that many households in Pawtucket may face greater financial strain relative to the average American household.
- **Per Capita Income** in Pawtucket stood at $35,558, also trailing the U.S. average of around $41,000. This lower individual earning potential can reflect limited access to higher-wage jobs or educational and economic opportunities in the community.
- **Poverty Rate** in Pawtucket was 14 percent, slightly higher than the national rate of about 12 percent.

This elevated rate of poverty underscores systemic disparities and the importance of ensuring that investments—especially those related to infrastructure, safety, and access—prioritize historically underserved neighborhoods.

Youth: Approximately **21 percent** of Pawtucket's population is under the age of 18, indicating a significant youth demographic. **Children** in Pawtucket often experience transportation induced isolation,

[2] " U.S. Census Bureau QuickFacts: Pawtucket city, Rhode Island

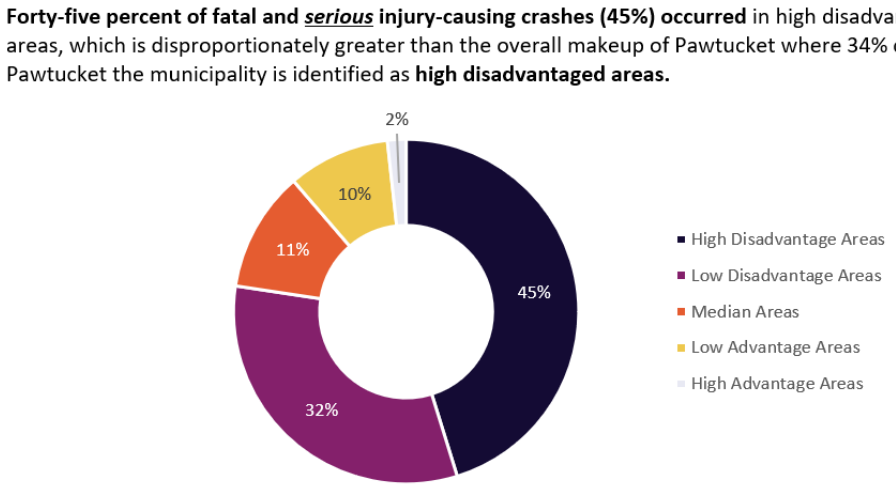
as their guardians are not comfortable allowing them to independently travel due to unsafe vehicle behaviors and a lack of continuous pedestrian infrastructure.

Older Adults: 14 percent of Pawtucket residents are age 65 or older. As this population continues to grow, ensuring safe, accessible, and age-friendly transportation infrastructure is critical. Older adults may face unique challenges such as limited mobility, reduced access to private vehicles, and increased vulnerability to serious injuries in traffic crashes.

People with disabilities: 11 percent of residents under age 65 in Pawtucket report having a disability. This population may encounter physical, sensory, and cognitive barriers in transportation systems. Ensuring compliance with ADA standards and improving universal design features are essential for equitable access for this population and others.

Disadvantaged Index: Fatal and injury crashes disproportionately take place in High Disadvantage areas in Pawtucket, defined using the Justice 40 framework (Figure 16). Forty-five percent of fatal and serious injury-causing crashes occurred in High Disadvantaged areas, which is disproportionately greater than the overall makeup of Pawtucket, where 34 percent of Pawtucket's land area is identified as High Disadvantaged areas.

Figure 16: Fatal and Serious Injury Crashes by Communities of Disadvantage



5.3 How Equity will Impact Planning in Pawtucket

The data on transportation crashes underscores the urgent need for targeted safety interventions, particularly in High Disadvantage areas, where almost half of fatal and serious injury crashes occur. These interventions should focus on enhancing road infrastructure, implementing traffic calming measures, right-sizing enforcement efforts, and promoting public awareness campaigns aimed at reducing high-risk behaviors. Ensuring an equitable distribution of resources to address the disparities in transportation safety will be crucial in mitigating fatal and serious injuries and improving overall community wellbeing.

Equity was a consideration used to develop the project selection matrix, described in Chapter 7.

6. Policy and Process Changes

6.1 Defining Policy and Process in Safety Action Planning

The City of Pawtucket has consistently worked to enhance the quality of its public realm and improve the experience of pedestrians, bicyclists, and commuters traveling to, from, and withing the city. Below is a list of existing relevant plans and policies aimed at increasing livability for Pawtucket residents and visitors alike.

Summary of Past Plans and Policies:

- **Walk Bike Pawtucket-Central Falls (Walk Bike PCF)**

  The Walk Bike PCF plan highlights that 14 percent of Pawtucket residents lack access to a vehicle. It also highlights that high-speed vehicular traffic is the main barrier experienced by people walking and bicycling in Pawtucket. The plan identified several safety related policy and process recommendations to enhance pedestrian and bicycle safety in Pawtucket. The plan provides a toolkit of traffic calming measures along with key projects which will meet the plan's safety goals.

- **Multimodal Transportation Safety and Efficiency Assessment**

  This assessment highlighted that pedestrian infrastructure is lacking or non-ADA-compliant in many areas, with missing or deteriorating sidewalks, inadequate crossings, and poor visibility. Additionally, it notes that Pawtucket has insufficient Bicycle facilities with few dedicated lanes, markings, or signage. It identified wide roadways, minimal striping, and confusing roadway designs including limited sight lines at intersections as the main contributing factors to the safety of vulnerable road users, driver confusion, and high vehicle speeds. It highlights the importance of a comprehensive strategy to ensure safe and accessible station access for pedestrians, cyclists, and drivers.

- **Downtown Design Plan**

  The Downtown Design Plan focuses on enhancing multimodal access, parking efficiency, and the public realm experience of Pawtucket residents and visitors. It highlights raised pedestrian crossings, improved lighting, dedicated bike lanes, curb extensions, and tree plantings as key actions to improve safety for pedestrians, bicyclists and drivers in the city.

- **Commuter Rail Station-Parking Management Study**

  This study consists of extensive discussions, analysis, and proposed strategies related to parking management for the Pawtucket/Central Falls Commuter Rail station area. This new station opened in 2023 and is located on the Providence/Stoughton line which provides service between Wickford, Rhode Island and Boston, Massachusetts. The strategies and recommendations focus on unbundling parking, shared parking, and parking maximums in place of parking minimums.

- **Tidewater Development: Multimodal Transportation Safety and Efficiency Assessment**

  This study was an assessment conducted for the future development planned at the Tidewater Site, which is intended to be redeveloped by a private developer and would include offices, restaurants, housing, and a soccer stadium with some onsite parking. The study was conducted in

collaboration with the Rhode Island Department of Transportation (RIDOT) and analyzes various transportation modes including trains, buses, bicyclists, pedestrians, and vehicles. Consistent with findings from other planning efforts it identifies gaps in current pedestrian and bicycle infrastructure in addition to lack of ADA compliance, confusing roadway design with obstructed sight lines at intersections, and inefficient signage as key issues.

Key Safety Themes:

- Pedestrian accessibility improvements and ADA compliance
- Multimodal connectivity
- Signage and wayfinding for all modes of transportation
- Speed management or traffic calming through speed humps, converting one-way streets to two-way streets, road diets, narrower corner radii, and crosswalk daylighting
- Dedicated bicycle infrastructure
- Lighting and streetscape improvements
- Parking management through reducing all day parking, parking maximums, designating primary off-street parking, installing bicycle parking, and establishing parking fees
- Street furnishing such as bus shelters, benches, and planters
- Planning processes that integrate equity, engagement, and collaboration

6.2 Key Policy and Process Change Recommendations in Pawtucket

Below are descriptions of the recommended policy and process changes in Pawtucket, including a description of the change, responsible parties, and metrics to evaluate the progress. Additionally, the table below outlines a proposed timeframe for implementing each strategy. This allows Pawtucket staff to prioritize and plan the implementation of the recommendations over the next 10 years. The timeframes are defined as follows:

- Short Term: 0-3 years
- Medium Term: 3-5 years
- Long Term: 5+ year

Policy Change 1: Review existing practices and policies to ensure that they promote accountability and behavior change in relation to road safety.				
Strategy #	**Description**	**Timeframe**	**Responsible Entities**	**Implementation Steps and Metrics**
1.1	Establish a program and set policy for conducting road safety audits (RSA) at fatal-crash locations to identify contributing factors and inform appropriate countermeasures within 48 hours of a fatal crash.	Short Term	Lead: Department of Public Works Supporting: Pawtucket Police Department	- Develop a framework for fatal crash review RSAs - Identify review team - Incorporate into standard operating procedures
1.2	As a policy adopt and update the language in public-facing documents to refer to "crashes," not "accidents." Ensure City staff refer to crashes instead of accidents.	Short Term	Lead: City Council Supporting: Department of Planning, Mayor's Office	- Identify city publications, social media templates to change language - Conduct yearly training to increase awareness of staff
1.3	Advocate for an increased radius beyond the current school locations that allows for Automated Traffic Safety Cameras. Review the existing Automated Traffic Safety Cameras locations and evaluate policy framework for expanding the deployment to reduce speeding and unsafe driving behaviors.	Medium Term	Lead: Pawtucket Police Department Supporting: Department of Public Works, Department of Planning	- Review best practices and peer city examples to review standard for Automated Traffic Safety Cameras - Collaborate with peer Rhode Island communities to advocate for increased radius for Automated Traffic Safety Cameras - Identify priority locations along the High Injury Network to add traffic cameras - Identify and pursue funding opportunities to implement
1.4	Incorporate the High Injury Network into transportation decisions to ensure a proactive approach to road safety.	Short Term	Lead: Department of Public Works Supporting: Department of Planning, City Council	- Identify at least 5 opportunities to incorporate HIN at a policy level

Policy Change 1: Review existing practices and policies to ensure that they promote accountability and behavior change in relation to road safety.				
Strategy #	**Description**	**Timeframe**	**Responsible Entities**	**Implementation Steps and Metrics**
1.5	Develop design guidance that encourages safe roads and how to avoid implementing potentially unsafe or inaccessible roadway design characteristics in future construction or reconstruction.	Medium Term	Lead: Department of Planning Supporting: Department of Public Works	- Draft design guide and adopt it as a policy

Policy Change 2: Establish policies and programs that enhance new and ongoing driver education.				
Strategy #	**Description**	**Timeframe**	**Responsible Entities**	**Implementation Steps and Metrics**
2.1	Collaborate with the Rhode Island Department of Motor Vehicles (DMV) on incorporating Safe Systems Approach concepts into their new driver manual and license renewal mailings.	Long Term	Lead: Pawtucket Police Department Supporting: RIDOT, Other municipalities	- Research best practices in roadway safety being incorporated in driver education - Collaborate with RI DMV to revise the new driver manual every 5 years

Policy Change 3: Incorporate the Safe System Approach into development practices and policies.				
Strategy #	**Description**	**Timeframe**	**Responsible Entities**	**Implementation Steps and Metrics**
3.1	Undertake a review of the City's zoning ordinance and land development and subdivision review regulations to identify changes that will improve safety. Adopt a policy to integrate safe and Complete Streets design standards into the ordinance and subdivision regulations through the Safe System Approach. Evaluate the development review process to potentially integrate multimodal traffic safety review.	Medium	Lead: Department of Planning Supporting: Department of Public Works	- Review best practices and peer city examples of incorporating safe and complete street design into zoning ordinances and development review - Draft revised policy - Adopt revised policy - Evaluate effectiveness through before and after study
3.2	Draft policy to incentivize infill and redevelopment of underutilized commercial land to increase walkable and bikeable places that reduce exposure to motor vehicle traffic.	Long Term	Lead: Department of Planning Supporting: City Council	- Review best practices in incentivizing infill development - Draft policy to incentivize - Adopt and implement policy - Evaluate effectiveness through tracking development
3.3	Institute a Safety Action Planning/Complete Streets checklist to institutionalize prioritizing safety first in all stages of capital project planning and development, and project review.	Short Term	Lead: Department of Planning Supporting: Department of Public Works	- Review peer city checklist and prepare a draft checklist - Evaluate effectiveness through pilot - Adopt and implement the policy

Policy Change 4: Implement policies and practices to protect and prioritize Pawtucket's youth travelers.				
Strategy #	**Description**	**Timeframe**	**Responsible Entities**	**Implementation Steps and Metrics**
4.1	Become a leader in Safe Routes to School in Rhode Island by adopting policies that promote and prioritize the program. Promote Safe Routes to School programming to all schools and integrate Safe System's Approach principles into school transportation policies and efforts. Develop school zone design guidelines through the lens of the Safe System Approach, recognizing the unique vulnerabilities of children.	Medium Term	Lead: City Council Supporting: Pawtucket School District and Department of Planning	- Review existing city policies and frameworks to incorporate youth safety - Prioritize policy changes with immediate and long-term impact - Adopt and implement the revised policies and frameworks - Identify and collaborate with public and charter schools to incorporate safety in schools' policies and curricula - Review school zone design guide in peer Rhode Island communities - Draft design guide and adopt it as a policy
4.4	Increase involvement of underrepresented community members in transportation activities beyond public engagement, giving a platform for them to voice their preferences. For example, mandate different committees have representation from elderly residents.	Short Term	Lead: Department of Planning	- Identify members from city departments and local community organizations to form a committee - Encourage representation of youth, elderly and disabled community members in city committees

Policy Change 5: Establish engineering policies and programs that will support efforts to reduce speeds and increase safety for all users.				
Strategy #	**Description**	**Timeframe**	**Responsible Entities**	**Implementation Steps and Metrics**
5.1	Adopt a policy that formalizes a speed limit selection in Pawtucket based on a desired safety outcome rather than existing speed.	Short Term	Lead: Department of Public Works Supporting: Department of Planning	- Conduct research and identify best practices in speed limit setting and roadway design standards - Pilot policy and evaluate before and after speeds - Implement policy
5.2	Update the existing construction traffic safety manuals to include provisions for vulnerable road users. Specify that facility closures that impact these users should be the last option available particularly in school zones and Pedestrian Safety Zones, and that accessible alternatives should be provided.	Short Term	Lead: Department of Planning Supporting: Department of Public Works	- Review best practices in construction safety - Draft policy for vulnerable road user facility closures - Approve and implement policy
5.3	Update Right-of-Way Design Manual and Traffic Control Handbook to reflect best practices in roadway design that prioritize the safety of the most at-risk road users, which includes those walking, biking, and rolling.	Medium Term	Lead: Department of Public Works Supporting: Department of Planning	- Review best practices in right-of-way design - Draft policy to prioritize vulnerable road users in the design - Approve and implement policy

Policy Change 5: Establish engineering policies and programs that will support efforts to reduce speeds and increase safety for all users.				
Strategy #	**Description**	**Timeframe**	**Responsible Entities**	**Implementation Steps and Metrics**
5.4	Evaluate and update the City's Americans with Disabilities Act (ADA) Transition Plan to bring all sidewalks, curb ramps, and crosswalks up to compliance with the ADA or related standards.	Medium Term	Lead: Department of Public Works Supporting: Department of Planning	- Prepare a priority list of non-compliant infrastructure, prioritize infrastructure along HIN

7. Action Plan

The Action Plan, detailed in this chapter, outlines the specific steps and strategies to address the safety challenges and goals in Pawtucket explored throughout this plan. Based on the goals and commitments established in Chapter 1, Pawtucket generated specific, measurable objectives that can be linked to actions and investments. Next, action plan activities, such as engineering design standardization, new infrastructure recommendations, are articulated in the table on the following pages, to meet Pawtucket's goals and objectives. Responsible agencies or individuals to lead and support each activity were identified. Finally, next steps and metrics were generated to enable Pawtucket to target projects, timelines, and progress. These benchmarks and metrics also provide an important data point for maintaining the progress and transparency of implementation efforts described in greater detail in Chapter 8.

The following are the goals outlined in Chapter 1,

- **Goal 1**: Design a network of complete streets, through the lens of the Safe System Approach, that promotes safe travel for all road users.
- **Goal 2**: Encourage behavior and culture change that promotes a positive safety culture throughout Pawtucket.
- **Goal 3**: Make the needs of Pawtucket's most vulnerable, including youth and older adults front and center.
- **Goal 4**: Accelerate Pawtucket's progress toward zero traffic deaths and serious injuries by maximizing City resources and pursuing new funding opportunities.
- **Goal 5**: Establish a culture of accountability and transparency in Pawtucket's journey to reaching zero traffic deaths and serious injuries.

Additionally, the action plan table below outlines a proposed timeframe for each strategy. This allows Pawtucket staff to prioritize and plan the implementation of the recommendations over the next 10 years. The timeframes are defined as follows:

- Short Term: 0-3 years
- Medium Term: 3-5 years
- Long Term: 5+ years

Further specifics on targeted project locations that flow from these recommendations are provided in Section 7.2.

Goal 1: Design a network of complete streets, through the lens of the Safe System Approach, that promotes safe travel for all road users.				
Action #	**Description**	**Timeframe**	**Responsible Entities**	**Progress Metrics**
1.1	Evaluate the City's traffic calming program and design a toolkit to prioritize safety and speeding countermeasures along the High Injury Network.	Short Term	Lead: Department of Public Works Supporting: Department of Planning	- Develop traffic calming design guidance that prioritizes safety - Identify pilot traffic calming locations - Pilot at least 10 locations and conduct before and after study - Implement citywide
1.2	Implement traffic calming features along corridors with the High Injury Network, considering interventions such as road diets, raised intersections, raised crosswalks, gateway treatments, intersection daylighting, speed humps, and curb extensions. Use the permitting process to coordinate with utility contractors to ensure that restorative work is consistent with the traffic calming program. Potentially augment restorative work with City resources to increase the "radius" of improvements.	Medium Term	Lead: Department of Public Works Supporting: Department of Planning, RIDOT	- Pilot changes on a priority corridor using temporary materials - Conduct before and after study revised corridor - Implement permanent changes in pilot corridor -Implement temporary or permanent changes at an additional four intersections per year
1.3	Evaluate clearance intervals and pedestrian crossing phase times at signalized intersections to ensure compliance with best practices, and consistency with City standards and land-use context.	Short Term	Lead: Department of Public Works Supporting: Department of Planning	- Update clearance intervals and pedestrian crossing phase times - Evaluate existing signalized intervals and identify locations to test pilots - Recalibrate the signalized intersections as necessary - Implement citywide

Goal 1: Design a network of complete streets, through the lens of the Safe System Approach, that promotes safe travel for all road users.				
Action #	**Description**	**Timeframe**	**Responsible Entities**	**Progress Metrics**
1.4	Evaluate clearance intervals and pedestrian crossing phase times at signalized intersections to ensure compliance with best practices, and consistency with City standards and land-use context.	Short Term	Lead: Department of Public Works Supporting: Department of Planning	- Update clearance intervals and pedestrian crossing phase times - Evaluate existing signalized intervals and identify locations to test pilots - Recalibrate the signalized intersections as necessary - Implement citywide
1.5	Implement systematic programming of countdown pedestrian signal (CPS) with push button implementation at City-controlled signalized intersections. Explore the implementation of lead pedestrian intervals (LPI) at signalized intersections.	Short Term	Lead: Department of Public Works Supporting: Department of Planning	- Evaluate best practices in the systematic programming of countdown pedestrian signal (CPS) - Pilot on priority segments - Evaluate existing signalized intervals and identify locations to test pilots - Recalibrate the signalized intersections - Implement at 2 locations - Complete before and after evaluation
1.6	Update traffic signals in high-traffic areas with technology to shorten red/extend green to move emergency vehicles through the intersections more quickly and safely (signal preemption).	Short Term	Lead: Department of Public Works Supporting: Department of Planning, City Council	- Identify priority locations to update signal technology - Test pilots - Implement citywide

Goal 1: Design a network of complete streets, through the lens of the Safe System Approach, that promotes safe travel for all road users.				
Action #	**Description**	**Timeframe**	**Responsible Entities**	**Progress Metrics**
1.7	Install pedestrian and bicycle-related pavement markings and warning and regulatory signage along corridors on the High Injury Network and identified in past planning efforts, like the Walk Bike PCF report, to facilitate safe and accessible bike facilities. Implement complementary measures at existing stop-controlled intersections, including wider stop bars (24 inch), word markings (i.e., STOP), consistent sign sizes, double posting, advance warning signs, and supplemental signs (i.e., Cross Traffic Does Not Stop, All Way, advisory speed).	Short Term	Lead: Department of Public Works Supporting: Department of Planning	- Review recommendations in the Walk Bike PCF - Pilot changes on priority locations - Implement changes at two locations per year
1.8	Evaluate criteria and pursue the installation of rectangular rapid flashing beacons (RRFB) or pedestrian hybrid beacons (PHB) at unsignalized crossings with notable traffic volumes and vulnerable road user demand	Medium Term	Lead: Department of Public Works Supporting: City Council	- Pilot changes on a priority location - Conduct before and after study of revised corridor - Implement changes at two locations per year
1.9	Evaluate corridors for the implementation of additional multiway stops that can be implemented within a thoughtful and strategic framework, prioritizing one-way streets.	Short Term	Lead: Department of Public Works Supporting: City Council	- Pilot the implementation of multiway stops in two corridors - Complete before and after evaluation -Take lessons learned and apply the practice to additional intersections

Goal 1: Design a network of complete streets, through the lens of the Safe System Approach, that promotes safe travel for all road users.				
Action #	**Description**	**Timeframe**	**Responsible Entities**	**Progress Metrics**
1.10	Evaluate planned and programmed infrastructure and resurfacing projects (i.e., Department of Public Works's Municipal Paving Program) to integrate multimodal (i.e., pedestrian, bicycle, transit, vehicular) traffic safety improvements. Identify prioritized maintenance actions to support state-of-good-repair of signage, sidewalks, lighting, crosswalks, pavement striping, and bicycle infrastructure.	Medium Term	Lead: Department of Public Works Supporting: Department of Planning	- Evaluate City's existing practice and update as necessary - Develop a prioritization framework for maintenance - Through the Task Force, establish work plan/schedule for annual review
1.11	Collaborate with RIDOT to perform road safety audits of State-maintained corridors and local corridors on the High Injury Network and develop multimodal safety improvements that may be pursued through a cost-sharing agreement. Develop multimodal safety improvements that may be pursued through a cost-sharing agreement.	Medium Term	Lead: Department of Public Works Supporting: Department of Planning, RIDOT	- Conduct four road safety audits a year (once a quarter), on RIDOT roads -Implement safety recommendations from RSAs

Goal 1: Design a network of complete streets, through the lens of the Safe System Approach, that promotes safe travel for all road users.				
Action #	**Description**	**Timeframe**	**Responsible Entities**	**Progress Metrics**
1.12	Conduct a lighting study and set lighting standards along the High Injury Network and other locations identified by vulnerable and underrepresented users.	Medium Term	Department of Public Works	-Conduct lighting study - Pilot changes on a priority corridor - Conduct before and after study of revised corridor - Implement changes at four locations a year
1.13	Identify and evaluate skewed and five-legged intersections for restriping and low-cost traffic control measures to reconfigure layout and manage conflicts.	Medium Term	Lead: Department of Public Works Supporting: City Council	- Pilot temporary changes on a priority intersection - Conduct before and after study of revised corridor - Implement permanent changes at priority intersection -Using temporary and/or permanent two intersections a year
1.14	Conduct near-miss analysis at high priority intersections and on high priority segments.	Medium Term	Lead: Department of Planning Supporting: Department of Public Works, Pawtucket Police Department	- Complete on one priority segment

Goal 1: Design a network of complete streets, through the lens of the Safe System Approach, that promotes safe travel for all road users.				
Action #	**Description**	**Timeframe**	**Responsible Entities**	**Progress Metrics**
1.15	Evaluate signalized intersections for the implementation of protected left turn phasing.	Medium Term	Lead: Department of Public Works Supporting: Department of Planning	- Evaluate existing signal timing and phasing and prioritize locations based on crash data - Implement traffic signal modifications based on provision of protected left turn phasing
1.16	Evaluate corridors for the installation of additional traffic signals based on applicable traffic signal warrants.	Medium Term	Lead: Department of Public Works Supporting: Department of Planning	- Collect traffic and crash data and evaluate traffic signal warrants - Model proposed traffic signal operations - Develop an "ongoing" priority list for programmed traffic signal installations
1.17	Expand automated enforcement efforts, including red light enforcement, speed enforcement, and truck height restriction enforcement.	Medium Term	Lead: Department of Public Works Supporting: Department of Planning	- Coordinate with local law enforcement agency - Pursue legislation to expand the existing program - Establish a priority list of locations based on crash data and public input - Coordinate with the selected vendor to install at prioritized locations

Goal 1: Design a network of complete streets, through the lens of the Safe System Approach, that promotes safe travel for all road users.				
Action #	**Description**	**Timeframe**	**Responsible Entities**	**Progress Metrics**
1.18	Evaluate railroad crossing locations along George Bennett Highway for safety improvements related to crossing for pedestrians and cyclists.	Medium Term	Lead: Department of Public Works Supporting: Department of Planning	- Coordinate with railroad owners and stakeholders - Implement crossing safety improvements
1.19	Evaluate narrow two-way corridors for conversion to one-way operation to provide additional right-of-way for bike facilities.	Medium Term	Lead: Department of Public Works Supporting: City Council	- Perform evaluation of existing corridor geometrics - Evaluate traffic operations for a proposed one-way operation, including network capacity and traffic circulation analyses - Implement one-way operations along with bike facilities - Conduct before and after study of revised corridor
1.20	Create an inventory of existing crosswalks, stop bars, bicycle markings, and signage. Then program and prioritize resources to address missing and degraded markings based on the determination of the level of crossing stress in the Walk Bike PCF report. Prioritize the High Injury Network for vulnerable road users. Perform sidewalk gap analysis and develop a multi-factor analysis to develop prioritization.	Long Term	Lead: Department of Public Works Supporting: Department of Planning	- Conduct sidewalk gap analysis and identify priority locations for Community Development Block Grant funds to fill the gaps

Goal 2: Encourage behavior and culture change that promotes a positive safety culture throughout Pawtucket.				
Action #	**Description**	**Timeframe**	**Responsible Entities**	**Progress Metrics**
2.1	Establish a fatal crash internal response team to identify and implement safety countermeasures and resources to fatal crash locations.	Short Term	Lead: Department of Public Works Supporting: Health and Constituent Services	- Identify key members of internal fatal crash response team - Develop a response guide - Train relevant staff
2.2	Encourage transit and bicycle use in youth by developing programs training youth to ride bicycles, teaching urban bicycle safety, and through bike and walk buses to school. Perform a Safe Routes to School audit of all schools to re-establish school zone boundaries and institute comprehensive school-related transportation safety measures within the zone or walkshed. Prioritize the new location of the unified high school. Include an evaluation of circulation, pedestrian and bicycle facilities, and transportation infrastructure. Partner with local schools to increase transportation safety education and pilot a program. Align messaging and goals from Rhode Island's Safe Routes to School (SRTS) efforts and the Safety Action Plan.	Short Term	Lead: Department of Planning Supporting: Pawtucket School District	- Identify and collaborate with local and state organizations to develop a youth focused program - Identify and collaborate with public and charter schools to incorporate safety in schools' policies - Implement one program or event per year - Collaborate with the state program - Conduct two yearly meetings to align goals

Goal 2: Encourage behavior and culture change that promotes a positive safety culture throughout Pawtucket.				
Action #	**Description**	**Timeframe**	**Responsible Entities**	**Progress Metrics**
2.3	Develop training for communications staff, interacting with the public on how to best communicate about traffic crashes and roadway safety. Collaborate with regional partners to execute combined safety campaigns that have clear messaging, respond to crash data trends, and communicate road safety goals.	Short Term	Lead: City Council Supporting: Department of Planning	- Develop media training - Pilot training and update materials based on feedback - Evaluate training to include in regular onboarding and periodic refresher trainings; update annually
2.4	Launch a media campaign designed to achieve the goal of zero deaths from traffic crashes among the public.	Short Term	Lead: City Council Supporting: Department of Planning	- Develop a public campaign about the Vision Zero resolution - Utilize the city newsletter, social media, and other channels to raise awareness, events to encourage safe behaviors - Utilizing the NHTSA Communications calendar for monthly themes (e.g., Youth Traffic Safety month in October) have one post per week for education and awareness - Hold bi-annual “train the trainer” events for community members to learn how to engage their neighborhoods and organizations about specific traffic safety activities and to learn from one another about how to make their neighborhoods safer

Goal 2: Encourage behavior and culture change that promotes a positive safety culture throughout Pawtucket.				
Action #	**Description**	**Timeframe**	**Responsible Entities**	**Progress Metrics**
2.5	Collaborate with RIDOT or other agencies to conduct Complete Streets and Safe System design trainings for planners, engineers, and other relevant staff working on designing, building, and working with contractors on transportation projects. Provide funding for two staff or Task Force members to attend one relevant conference or event per year, to share experiences and learn from other communities' best practices.	Medium Term	Lead: Department of Planning Supporting: Department of Public Works	- Identify at least two potential training courses and funding sources - Secure funding and send staff to conferences - Highlight takeaways and lessons learned
2.6	Develop programs to encourage transit and bicycle use in Pawtucket residents. For example, walk and bike to workdays or car free street days.	Medium Term	Lead: Department of Planning Supporting: RIPTA	- Identify and collaborate with local and state organizations to plan events -Implement one program per year

Goal 2: Encourage behavior and culture change that promotes a positive safety culture throughout Pawtucket.				
Action #	**Description**	**Timeframe**	**Responsible Entities**	**Progress Metrics**
2.7	Provide enhanced training for law enforcement and emergency services personnel responsible for crash reporting to address the unique attributes required to accurately report crash circumstances involving people walking and bicycling.	Medium Term	Lead: City Council Supporting: Department of Planning	- Send two staff to relevant training courses at least once a year
2.8	Include a review of traffic crash data, equity data, and traffic safety performance at monthly Traffic Division meetings.	Medium Term	Lead: Pawtucket Police Department Supporting: Pawtucket Communications Staff, Department of Planning	- Include traffic crash review as a part of the Task Force meeting agenda - Include updates in yearly reports

Goal 3: Make the needs of Pawtucket's most vulnerable, including youth and older adults front and center.				
Action #	**Description**	**Timeframe**	**Responsible Entities**	**Progress Metrics**
3.1	Establish pedestrian safety zones in areas with significant pedestrian activity.	Short Term	Lead: Department of Planning Supporting: Department of Public Works, RIDOT	- Identify pilot events/locations - Implement pilot - Conduct before and after study of the pilot - If successful, implement in other appropriate zones across the city

Goal 4: Accelerate Pawtucket's progress toward zero traffic deaths and serious injuries by maximizing City resources and pursuing new funding opportunities.				
Action #	**Description**	**Timeframe**	**Responsible Entities**	**Progress Metrics**
4.1	Create a specific line item and dedicate funding under Transportation & Circulation in the city's Capital Improvement Program budget for capital expenditures that implement the Safety Action Plan. Prioritize development and administration of grant applications through various state and federal funding sources.	Short Term	Lead: Department of Public Works Supporting: Department of Planning	- Develop job description for grant coordinator - Hire grant coordinator - Apply for at least 1 grant per year- Projects funded in a year - Preferably 5 per year depending on the scale
4.3	Evaluate existing procurement contracts to identify whether contracts include requisite traffic safety items (e.g., flex posts). Collaborate with the City's procurement division to establish blanket purchase agreements that consist of items that constitute a variety of multimodal safety controls and devices.	Short Term	Lead: Department of Public Works Supporting: City Clerk, Purchasing Agent	- Identify items to be included in evaluation - Conduct review of procurement contracts - Identify changes with procurement division - Implement changes

Goal 5: Establish a culture of accountability and transparency in Pawtucket's journey to reaching zero traffic deaths and serious injuries.				
Action #	**Description**	**Timeframe**	**Responsible Entities**	**Progress Metrics**
5.1	Make the Safety Action Task Force permanent and hold quarterly status update meetings. Ensure voices of underrepresented groups and diverse community are included on the task force.	Short Term	Lead: Department of Planning Supporting: Department of Public Works	- Four review meetings a year
5.2	Create an annual report of the progress of the Safety Action Plan. Improve and centralize city crash data through a publicly accessible dashboard which includes the number of fatal and severe injury crashes by mode.	Short Term	Lead: Department of Planning Supporting: Department of Public Works	- Completion of dashboard - Through the Task Force, establish work plan and schedule for the annual report - Annually create report, including updated annual fatality and serious injury data
5.3	Meet annually with RIDOT and RIPTA to identify how improvements to state roads, transit facilities, and bus stops can advance safety in Pawtucket and align with the state policies and practices. Coordinate with RIPTA to perform an assessment of existing bus stops, and for maintenance of existing bus stops, the installation of new bus shelters, and updates to static or real-time route information.	Medium Term	Lead: Department of Planning Supporting: Department of Public Works	- Identify priorities for collaboration with RIDOT and RIPTA - Meet annually and report back takeaways and action items

Goal 5: Establish a culture of accountability and transparency in Pawtucket's journey to reaching zero traffic deaths and serious injuries.				
Action #	**Description**	**Timeframe**	**Responsible Entities**	**Progress Metrics**
5.4	Partner with trauma centers and hospitals to better understand gaps and opportunities between police crash reports and hospital serious injury and fatality datasets (i.e., ICD-10 codes). Establish a post-crash evaluation and response process to determine whether infrastructure upgrades reduce potential for future crashes and incorporate the lessons learned into future projects and design manuals.	Medium Term	Lead: Pawtucket Police Department Supporting: Department of Public Works, Department of Planning	- Develop a post-crash evaluation methodology - Train relevant staff to conduct evaluation and generate monthly reports
5.5	Review and update the High Injury and High-Risk Network every five years.	Medium Term	Lead: Department of Planning Supporting: Pawtucket Police Department, Department of Public Works	- Train staff to complete High Injury Network analysis
5.6	Implement long-term street redesign projects within six to ten years of conducting road safety audits (see actions 1.12 and 1.13).	Long Term	Lead: Department of Public Works Supporting: Department of Planning, City Council	- Implement 1-2 long-term improvements a year

7.1 Proven Safety Countermeasures

Under the FHWA's Proven Safety Countermeasures Initiative (PSCi), a series of 28 countermeasures and strategies to effectively reduce fatal and serious injury crashes was introduced in 2024 to stakeholders and the public during plan development. Each countermeasure provides a focused way to address at least one of the following safety areas:

- Speed management
- Intersection safety
- Roadway departures
- Pedestrians and bicyclists

Some of the countermeasures are also crosscutting, addressing several safety areas. The safety countermeasures are applicable across a wide spectrum of road types with applications for dense urban road networks, rural roads, less traveled two-lane state and county roads, signalized and unsignalized crossings, and horizontal curves, just to name a few. Considerations, applications, and expected safety benefits are provided for each countermeasure.

Pawtucket used these FHWA Proven Safety Countermeasures (see link under References at the end of this plan) as a starting point to generate the recommendations provided in this Safety Action Plan.

7.2 Strategy and Project Selection

During the development of this Safety Action Plan, initial projects and strategies were identified and prioritized to provide an effective and transparent approach to improve safety within the transportation system.

The prioritization matrix (Table 4) provides a strategic tool for Pawtucket to evaluate and rank safety projects based on their impact and feasibility. The matrix helps the City assess each project's potential to address critical safety issues and its alignment with overall safety goals. By assigning scores for various criteria (such as severity of risk, cost, and implementation timeline), the matrix will help the city identify high-priority projects that balance reactive and proactive strategies. The score for each criterion was determined by local needs and priorities. Incorporating all these elements into this Safety Action Plan's priorities will allow projects to meet the greatest safety challenges while meeting the priorities of the SS4A program.

The Task Force, in collaboration with the project team, identified 20 key project locations to focus on through the action plan. Table 4 outlines the priority locations that the city aims to prioritize to ensure the safety of students, particularly along streets where schools are located.

Table 4: Pawtucket Safety Action Plan Project Prioritization Matrix

Criteria	P1- Lonsdale Ave.	P2- Dexter St.	P3- Broad St.	P4-Main St.	P5- Bayley St.	P6- Pleasant St.	P7- Newport Ave.	P8-Prospect St.	P9- Cottage St.	P10- S Bend St.	P11-Division St.	P12- Armistice Blvd	P13- Mineral Springs Ave.	P14-School St.	P15-Weeden St.	P16-East Ave.	P17- Pawtucket Ave.	P18- Walcott St.	P19- George BH d.	P20- Columbus Ave.
Total for All Criteria	**16**	**15**	**15**	**15**	**12**	**13**	**15**	**13**	**13**	**14**	**13**	**14**	**16**	**15**	**13**	**16**	**14**	**14**	**12**	**13**
Safety																				
Total Safety Criteria Met	**7**	**7**	**7**	**7**	**6**	**6**	**7**	**6**	**6**	**6**	**6**	**7**	**7**	**7**	**6**	**7**	**7**	**7**	**6**	**6**
Is segment or intersection on the High-Injury Network?	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Is segment or intersection on corridor with high-predictive-crash score?	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Will project improve safety for drivers?	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Will project improve safety for pedestrians or bicyclists?	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	0
Will project improve safety for transit users?	1	1	1	1	0	0	1	1	0	0	0	1	1	1	0	1	1	1	0	1
Is project likely to reduce speeds along corridor or intersection.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Will project improve visibility of other motorists, pedestrians, and bicyclists?	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Has project been identified in road safety audit or similar evaluation?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Equity Impacts																				
Total Equity Criteria Met	**5**	**5**	**5**	**5**	**4**	**3**	**5**	**5**	**4**	**4**	**4**	**5**	**5**	**5**	**4**	**5**	**5**	**5**	**4**	**5**
Will the project improve fairness in resource distribution?	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Will project improve fairness in external cost distribution?	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Will the project incorporate or improve Universal Design?	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Will project improve travel affordability?	1	1	1	1	0	0	1	1	0	0	0	1	1	1	0	1	1	1	0	1
Will project improve connectivity to goods and services in the area?	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Context																				
Total Context Criteria Met	**4**	**3**	**3**	**3**	**2**	**4**	**3**	**2**	**3**	**4**	**3**	**2**	**4**	**3**	**3**	**3**	**2**	**2**	**2**	**2**
Is the project located near a school/school zone or other facility serving large numbers of vulnerable individuals?	1	0	0	0	0	1	1	0	1	1	1	0	1	0	0	1	0	0	0	0
Is the project located downtown or in a dense commercial or residential area?	1	1	1	1	1	1	0	0	0	1	0	0	1	1	1	1	0	1	0	0
Does project have demonstrated public support?	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Was the project identified in a prior comprehensive plan or transportation plan?	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1
Cost/Timeline																				
Total Cost/Timeline Criteria Met	**2**	**2**	**2**	**3**	**3**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**3**	**2**	**2**	**2**	**2**	**2**	**2**
Is project part of STIP/CIP or local funded priority?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Can the project be implemented using existing local resources?	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Can the project be implemented in the short term (first 5 years after plan completion)?	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
If not feasible in the short term, can the project be implemented in the mid-term (less than 10 years after plan completion)?	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Have partnerships been identified to support project implementation?	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

8. Progress and Transparency

The process and tools for measuring progress and providing transparency were established with residents and other relevant stakeholders. Progress and transparency methods were developed for both the Safety Action Plan and for future use during implementation.

Biweekly team meetings and 2 Task Force meetings at key stages allowed progress to be tracked and reported to the broader group of stakeholders. Regular touchpoints were established with community leadership, who were invited to be involved in all major decisions. The project team also maintained quarterly and annual reporting on project progress throughout plan development in accordance with FHWA requirements for the SS4A grant.

To deliver progress and transparency goals during implementation, Pawtucket is committed to providing the following on an ongoing basis:

- **Progress Measures**
  - **Annual Reporting**: Regularly assess the progress made toward reducing roadway fatalities and serious injuries. This involves annual public and accessible reporting on the outcomes achieved through the action plan.
  - **Impact Data**: Provide relevant data or information measuring the impact of implemented strategies. This data-driven approach helps track improvements over time.
- **Transparency Measures**
  - **Public Posting**: Make the action plan available to the public by posting it online. Transparency ensures that residents, stakeholders, and interested parties can access this Safety Action Plan's details, including all regular updates.
  - **Ongoing Communication**: Maintain an open line of communication with the community and Stakeholders during updates, city hall meetings, and engagement sessions to foster transparency and build trust.
  - **Regular Task Force Updates**: Regular updates will keep the Task Force current on activities and progress to share at public meetings. The city plans to hold quarterly Task Force meetings to ensure continued momentum in the implementation of the plan.

These progress and transparency measures provide a platform for ongoing accountability as this Safety Action Plan is implemented. These reports should capture the activities and progress from the previous reporting period. They should also be related directly to the recommendations, priority projects, and strategies provided in Chapter 7. Progress under each of these recommendations should be addressed in these reports, ensuring that project success builds on previous activities and reporting.

8.1 Summary of Key Timeline and Actions

Goal 1: Design a network of complete streets, through the lens of the Safe System Approach, that promotes safe travel for all road users.

Short Term (0-3 Years): Develop new design standards, practices, and policies to ensure that roadway designs are aligned with the Safe Systems Approach and changes are being made during the reconstruction of roadways.

Medium Term (3-5 Years): Develop a uniform traffic calming program and design toolkit to prioritize safety countermeasures.

Long Term (5+ years): Evaluate ongoing efforts to align with actions highlighted in the short- and medium-term actions and conduct a gap assessment for infrastructure.

Goal 2: Encourage behavior and culture change that promotes a positive safety culture throughout Pawtucket.

Short Term (0-3 Years): Initiate the culture shift by updating language in the City's public-facing documents, developing media campaigns encouraging safe and active transportation modes, and training the necessary staff in implementing the Safe System Approach.

Medium Term (3-5 Years): Continue collaborating with RIDOT and other municipal partners to conduct training for external partners, this includes contractors and developers. Additionally, continue to evaluate the effectiveness of public education campaigns and shifts in behavior. Adapt as necessary over time.

Long Term (5+ years): Identify shifts in safety behavior concerns and make the appropriate adjustments to actions listed under short- and medium-term timeframes.

Goal 3: Make the needs of Pawtucket's most vulnerable, including youth and older adults front and center.

Short Term (0-3 Years): Establish pedestrian safety zones specifically near schools, inventory existing infrastructure to identify gaps and opportunities for improvement.

Medium Term (3-5 Years): Solidify the presence of a Safe Routes to School program. Collaborate with neighboring jurisdictions to leverage opportunities to encourage active transportation modes.

Goal 4: Accelerate Pawtucket's progress toward zero traffic deaths and serious injuries by maximizing City resources and pursuing new funding opportunities.

Short Term (0-3 Years): Complete a comprehensive review of current city staff responsibilities and budgetary items to identify opportunities to incorporate safety practices into their day-to-day responsibilities and budget decisions.

Medium Term (3-5 Years): Evaluate city processes and regulations to identify opportunities to fund safety improvements.

Long Term (5+ years): Leverage Community Development Block Grant funds and other state local cost-sharing initiatives to improve citywide ADA compliance and construct pedestrian and bicycle safety projects.

Goal 5: Establish a culture of accountability and transparency in Pawtucket's journey to reaching zero traffic deaths and serious injuries.

Short Term (0-3 Years): Develop the framework for annual reporting and make the Task Force permanent. Pilot reporting and performance metrics in year one, then review and refine for the following years.

Medium Term (3-5 Years): Begin implementing quick build and collaborate with state agencies to improve safety along state owned roads and align with state policies and programs.

Long Term (5+ years): Implement long term recommendations from road safety audits and collaborate with Trauma Centers to improve crash data reporting and datasets.

References

DOT. 2024. Comprehensive Safety Action Plans. U.S. Department of Transportation. Last updated: Tuesday, February 20, 2024. https://www.transportation.gov/grants/ss4a/comprehensive-safety-action-plans.

FHWA. 2013. *Systemic Safety Project Selection Tool*. Federal Highway Administration. July 2013. https://safety.fhwa.dot.gov/systemic/fhwasa13019/.

FHWA. 2024. Proven Safety Countermeasures. Federal Highway Administration. https://highways.dot.gov/safety/proven-safety-countermeasures.

NHTSA. 2007. State of Rhode Island Uniform Crash Report. National Highway Traffic Safety Administration. https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/ri_par_rev_12_06_sub_02_08_07.pdf.

RIDOT. 2023. *Rhode Island Strategic Highway Safety Plan 2023-2027*. Rhode Island Department of Transportation. https://www.dot.ri.gov/Safety/reports/docs/Strategic_Highway_Safety_Plan.pdf.

Appendix A: Public Engagement Materials

Survey Flyer


SAFE STREETS FOR ALL!
Please share your thoughts about transportation safety by completing this survey!
¡Por favor, comparta sus opiniones sobre la seguridad en el transporte completando esta encuesta!
Por favor, compartilhe sua opinião sobre segurança no transporte respondendo a esta pesquisa!
Tanpri pataje panse w sou sekirite transpò lè w ranpli sondaj sa a!
请填写本调查问卷，
分享您对交通安全的看法!
សូមចែករំលែកគំនិតរបស់អ្នកអំពីសុវត្ថិភាព ដឹកជញ្ជូនដោយបំពេញការស្ទង់មតិនេះ!
Veuillez partager vos réflexions sur la sécurité des transports en répondant à ce sondage!
Condividi le tue opinioni sulla sicurezza dei trasporti completando questo sondaggio!
กรุณาแบ่งปันความคิดของคุณเกี่ยวกับความปลอดภัยในการขนส่งโดยทำแบบสำรวจนี้ !
ກະລຸນາແບ່ງປັນຄວາມຄິດຂອງທ່ານກ່ຽວກັບຄວາມປອດໄພໃນການຂົນສົ່ງໂດຍການເຮັດສຳຫຼວດນີ !
يُرجى مشاركة رأيك حول سلامة النقل من خلال استكمال هذا الاستطلاع !
SS4A SAFE STREETS FOR ALL
RIPTA RHODE ISLAND PUBLIC TRANSIT AUTHORITY
https://tinyurl.com/4xtzk6ct

Appendix B: Project Engagement Summary & Stakeholder List

Survey Summary

The survey distribution period was open from 7/11-10/18 2024. Surveys were distributed online, through social media, newsletters, and municipal websites, and in person at engagement events.

Total: 50
Resident: 94%
Car Households: 84%

Primary Locations: Blackstone Blvd (3), North Main St (2), Kennedy Plaza (2)
Primary Themes: Behavior (12), Walking (7), Transit (6), Enforcement (4)

Overall Summary: Pawtucket survey participants have lower rates of vehicle access, higher rates of daily transit use, and a higher level of interest in transit improvements than other communities. Service improvements, such as increased frequency and coverage are of greatest interest to participants, then shelter and signage. Public safety improvements, such as increased security are discussed relatively frequently in comments. There seems to be conflict between pedestrians and drivers, citing both driver and pedestrian distraction, and unsafe pedestrian crossings. It is possible that the intended road use is not easily interpreted through limited lighting, a lack of clear signs/markings, and an inability for vehicles to understand traffic patterns while travelling at high speeds. Cycling in the city is perceived as high risk, and those who engage in cycling were to some degree critiqued for using sidewalks instead of roadways. The most frequently mentioned locations to be improved are North Main St, Blackstone Blvd, and Kennedy Plaza, though there is a relatively low response rate that makes it difficult to identify a front runner.

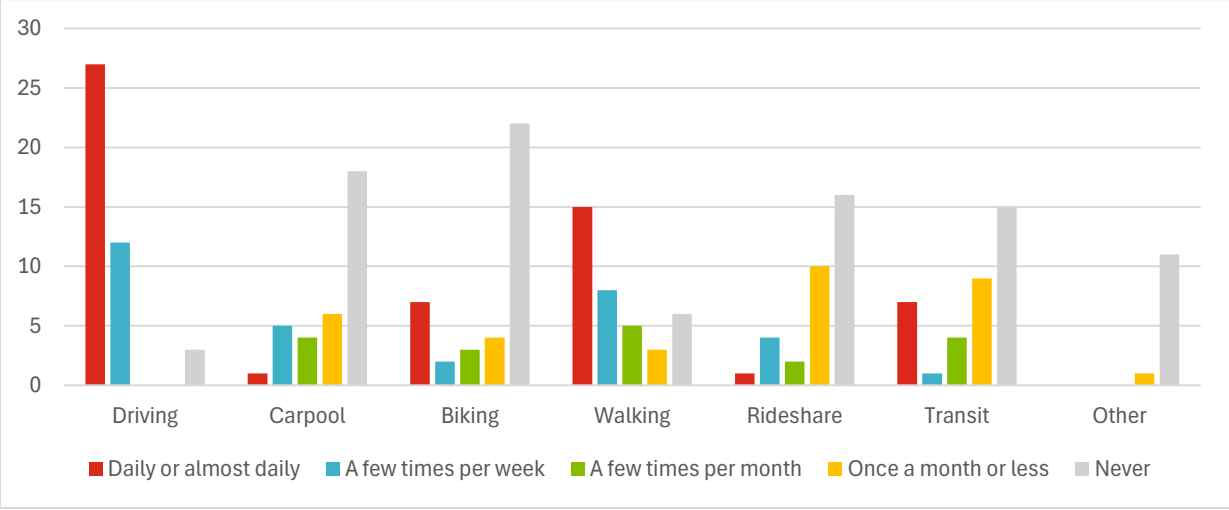


Figure 17 Existing mode preference

General

Driver comfort:
Smoother pavement (24), Better striping (20), More visible signs (17), Better lighting (15), Lower speeds (14)
Bike/Ped comfort:
Safer crossings (17), Bike/ped maintenance (15), Sidewalk network (14), Better Lighting (14)
Transit comfort:
More frequent service (21), Signage (17), Shelters and seating (17), Better lighting (10)

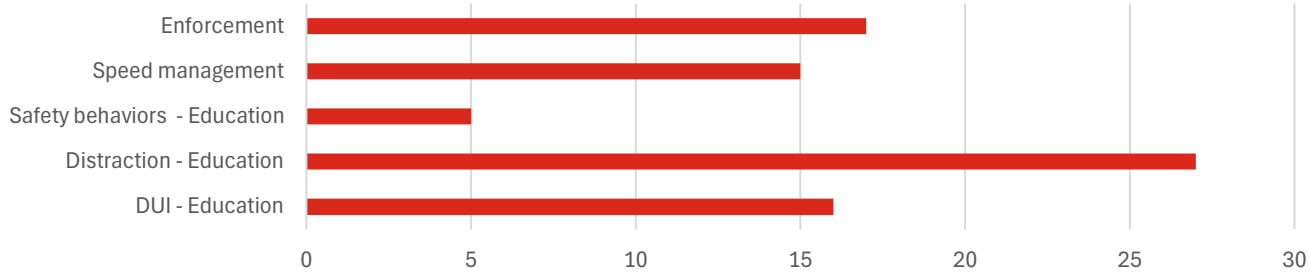


Figure 18 Behavioral actions

Relevant Comments

"I can't emphasize enough how dangerous cyclist behavior has become over the past 5 years. Generally, there seems to be a complete disregard for traffic signs--I've lost count on how many times I've had to slam on my brakes because of a cyclist speeding through a stop sign.
Cyclists seem to use sidewalks like roadways and I've had to dodge quite a few on sidewalks in areas with clear bike lanes (Blackstone Blvd, for example). A cyclist-responsibilities-on-the-road education campaign could be super useful.
Additionally, distracted pedestrians can created unsafe road conditions. I've noticed so many pedestrians cross streets and crosswalks while not looking both ways, distracted by their phones. In addition to a distracted driving campaign, a distracted walking campaign could be useful, too."

"I am regularly terrified that I will be hit by a car crossing streets. The cities are completely cut up by highways that are congested. Where I live in Pawtucket, many of the crossing lights are out of date and I am not able to see them due to visual impairment. There are few accessible crossings with sounds and many of the current hand signals are not high contrast. There are no signs indicating that street crossings are scramble-style. I have raised this concern to the City and have been told that there is no money.
RIPTA is fine, but the region is FAR behind where it needs to be. The R line has far too many stops and needs to be in a separate lane to be rapid. The 1 doesn't run in the afternoons, which again - makes no sense. Times are not frequent, buses are almost always late, bus stops are not covered or protected in many areas (the East Side of Providence has great shelters though....), buses are frequently full. Bus drivers are cranky and rude. It's a miserable experience for everyone. There needs to be rapid transit options - light rail preferably. Turn Blackstone Blvd into light rail.
Rhode Island has so much potential - a focus on walkability, mass transit, and reducing congestion would make it an incredible and climate-resilient place to live."

"North Main Street - too dangerous to bike, feels hazardous even walking with my toddler child."

"Every (other) Wednesday, when I have jury duty, I have never seen any police presence in the Kennedy Plaza area. Cars fly by on the streets, some running red lights. It feels like you are taking your life in your hands when attempting to cross the street. I never realized how bad it truly is until earlier this year. You could earn lots of funding for the city and state if you had someone in the area to ticket them. If I could, I would give them a citizen arrest!! All kidding aside, I wish you the best with this project and hope that you receive the input that were hoping for."

"Driving in RI is unlike other states I've driven in- unpredictable, drivers trying to be "nice" (e.g., waving another car into incoming traffic, waving others through even though they have right-of-way), disregard for pedestrians/bikers, etc. The state needs lots of transportation infrastructure improvements, but behavioral changes will be just as difficult."

"Some bicyclists think they have the right of way when they don't and yell at drivers. Some pedestrians purposefully walk in front of cars that have a green light and they do so very slowly. Also, too many drivers are holding a phone in one hand, looking up and down while texting and either driving well below the speed limit or not driving for an extended period of time when light turns green."

"El horario de salida de los buses en ocasiones es a horas no establecidas en el horario y precipita a la gente al desorden y la frustración."

"Better security at the Paw/CF station--one man sitting in a car sulking is not security."

Detailed Themes

Theme	*Mentions*
transit quality	6
sidewalk/crossing quality	6
speeding	4
enforcement	4
stop signs/stop lights	3
education	3
bike/ped education	3
bike quality	2

*Cut-off mentions, comments may be part of multiple categories, participants with multiple comments might be overrepresented in counts.

Team Insights

- Participants in Pawtucket show a stronger focus on transit quality compared to other communities, expressing interest in more frequent service and enhanced public safety, including better lighting and security at transit stops.
- A smaller percentage of responding households have access to a vehicle, highlighting the need for improvements in sidewalks, crossings, and bicycle facilities.

- Speeding, combined with poor visibility and unclear markings, creates hazardous conditions for both drivers and pedestrians.
- Cyclists riding on sidewalks, while frustrating for pedestrians, may indicate that the streets are not safe for cyclists.

Additional Charts

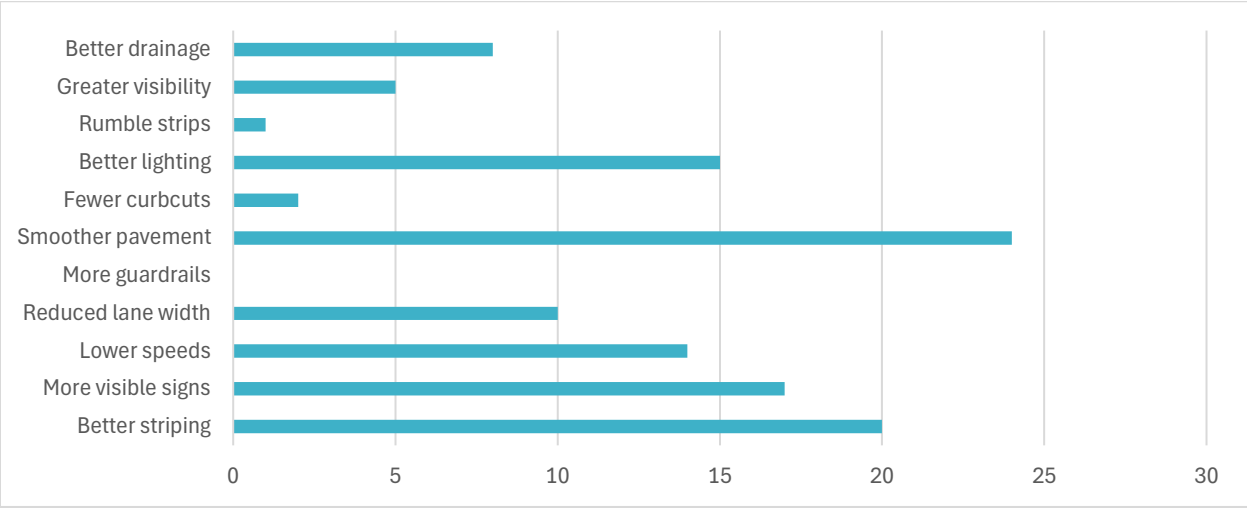


Figure 3: Driver priorities

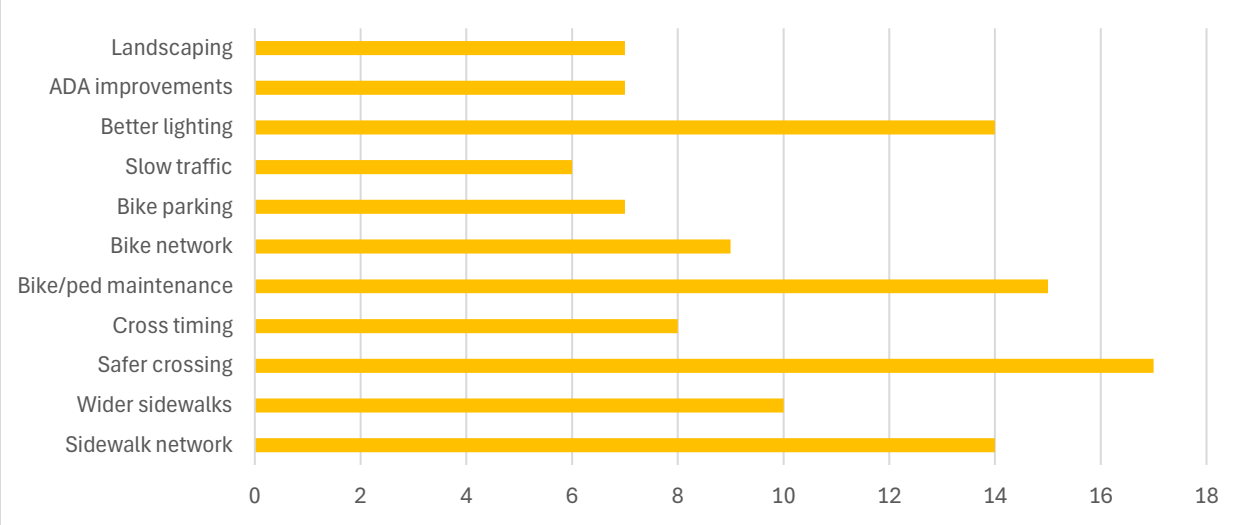


Figure 4: Bike/Ped priorities

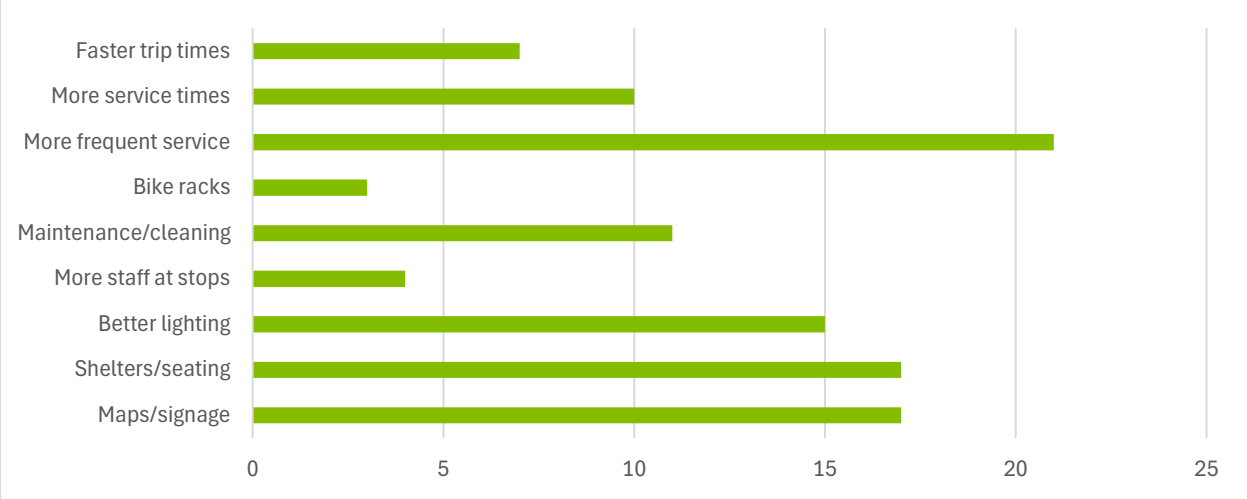


Figure 5: Transit priorities

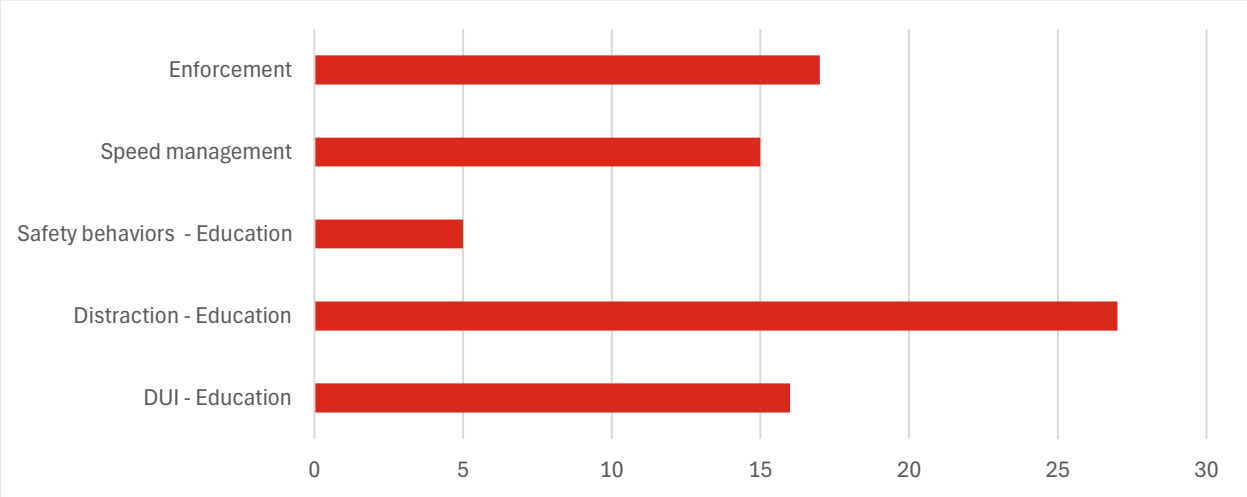


Figure 6: Behavioral priorities

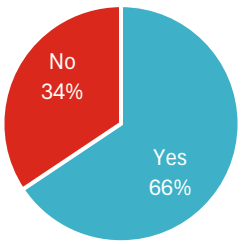


Figure 7: Vehicle Access

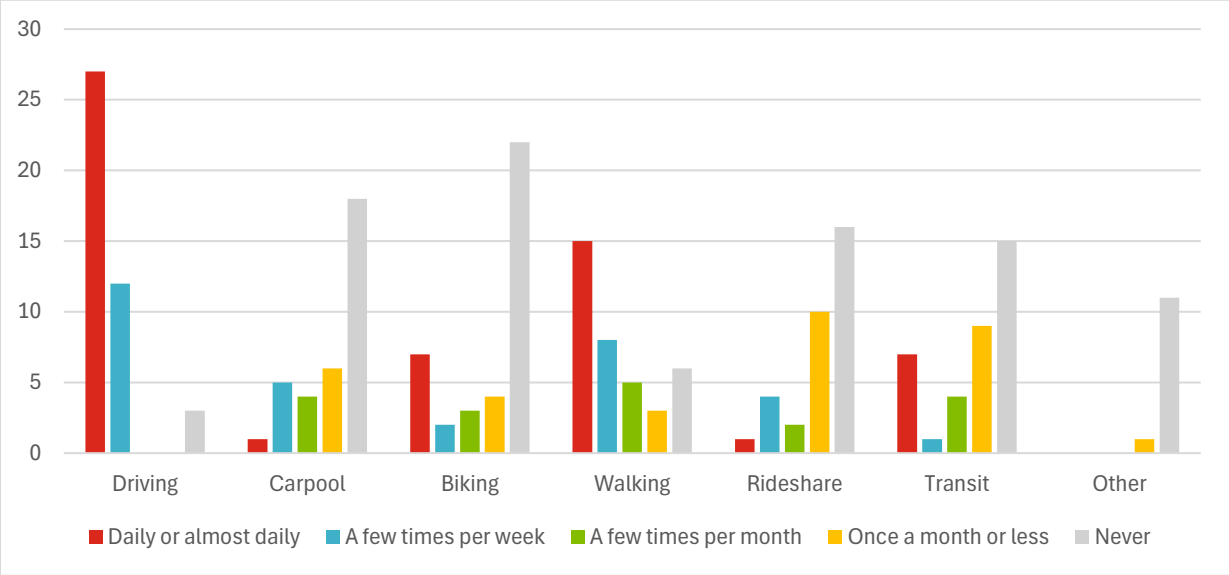


Figure 8: Mode Use

Pawtucket Safety Action Plan Task Force Kickoff

Logistics

- Tuesday April 1, 2025, 9:00 am -10:00 am
- Microsoft Teams meeting

Participants

- Jason Pezzullo, Director of Commerce
- Jason Pettinato, Senior Urban Planner
- ST. Mathew Braga, Pawtucket Police Department
- Emmanuel Oliveira, Traffic Supervisor
- Emily Morse, GIS Coordinator
- Mark Andrade, PSD Chief Operating Office
- Bhakti Kulkarni, PM, Toole Design
- Moctar Fall, Project Planner, Toole Design

Meeting Notes:

General

The Toole team gave an overview of the SS4A program.

Charter/Resolution and Task Force Focus:

- Charter Review: The team requested the task force to review the charter/resolution.

Data Queries:

- Requested data on how many of the 115 fatalities and serious injuries occurred on Pawtucket streets.
- Noted that the crash data collected by PD does not include I-95 corridors.
- Task force expressed interest in analyzing data related to speed camera usage and patterns, specifically how often cameras are deactivated
-

Development and Infrastructure Changes:

- **New Stadium**: A new stadium is planned at 11 Tidewater and is expected to open by May 3rd, 2025. This will affect traffic patterns, especially around Roosevelt Ave.
- **Traffic and Development Near Train Station**: Anticipated changes in traffic and development around the train station (Dexter and Weeden) as new residential development is planned in the coming years.
- **Parking Minimums**: There are parking minimums in residential zones, but not near the train station.
- **Unified Schools**: The city is unifying its schools and relocating them to the old McCoy Stadium location by 2028. This will change the traffic patterns which should be accounted for in the safety action plan.

Speeding and Infrastructure:

- Acknowledged that speeding is a major concern. The baseline speed limit is 25 mph, with 30 mph on Newport Ave. Newport Ave was highlighted as being particularly problematic, though it has school-enforced cameras.
- Prospect Street and School Street also have speeding concerns.
- The police department uses radar enforcement.
- The task force informed that there could be potential pushback on efforts to reduce all speed limits to 25 mph.
- The task force acknowledged that speed limits alone may not solve the speeding issue and proposed that more signage could be less effective as drivers often ignore them.
- The taskforce noted that the cameras may be shutdown at certain times.
- The task force highlighted that street lighting and ADA-compliance needs to be evaluated.
- The task force noted that residents have raised concerns about the dangerous median on Daggett Avenue.
- The task force reported that there are no significant bike lanes, though there is a bike path and that not many bike issues were reported.
- The task force noted that many students bike, especially along Pawtucket Ave, often on sidewalks. A prior initiative before the pandemic showed a push for more bike lanes and infrastructure.
- Parking Requirements: Parking minimums are applicable in certain zones, especially near the train station.
- Pawtucket School Department Bussing Policy:
    - **Elementary (K-5)**: 0.75 miles
    - **Middle School (6-8)**: 1 mile
    - **High School (9-12)**: 1.75 miles

Specific Areas of Concern:

- New Stadium and Unified High School
- Train Station Area: Increased residential development near the train station.
- Newport Avenue Speeding: Concerns regarding the speed limit of 30 mph on Newport Avenue, a state-owned road.
- Biking Infrastructure: Increase bicycle lanes and multi-modal options for safer travel.
- Daggett Avenue: Residents have raised concerns about the dangerous median on Daggett Avenue.
- ADA Sidewalk Conditions: Also raised concerns about sidewalk conditions and the need for improvement in ADA accessibility.

Policy Recommendations:

- Increase ADA-compliant sidewalks.
- Add bike lanes and pedestrian lanes to improve access to city amenities.
- Consider future developments, including the unified high school and the new stadium, in planning for traffic flow, parking, and safety.

- Highlighted that Pawtucket currently lacks a Safe Routes to School program. The school committee is exploring this. Plans for a unified high school in 2028 at the old McCoy stadium should be taken into consideration.
- The task force suggested residents would appreciate a campaign to address traffic issues and data.

Next Steps:

- **Toole Team**: To send copies of maps to the group.
- **Next Task Force Meeting**: April 23rd, 2025, from 9-11 AM in person at the Planning Department Conference room
- **Task Force Action**: Provide feedback on the plan and proposed actions.

Pawtucket Safe Streets for All Task Force Charter

1 April 2025

1.1 Charge

Safe Streets for All Action Plan. The Safety Action Plan will be Pawtucket's roadmap to achieving zero fatalities or serious injuries on our roadways. Developed by community and agency leaders and led by a Toole Design Group, AECOM, and RIPTA, the Action Plan will be data-driven, human-inspired, bold, innovative, and action-oriented.

Safe Streets for All Task Force. The Task Force currently includes a mix of municipal staff and residents. Staff include department leadership from the school department, engineering division, traffic division, Pawtucket Police department.

The Task Force is charged with:

- Providing direction to the Project Management Team (PMT) led by Jason Pezzullo Director of Commerce and Jason Pettinato, Senior Planner assisted by Bhakti Kulkarni and Ayden Cohen from Toole Design Group, to guide development of the Safety Action Plan from May 2024 through April 2025.
- Acting as a liaison to organizations and agencies, sharing information and soliciting feedback to inform the Action Plan.
- Identifying actions specific to members' organizations or agencies.
- Developing the vision, goals, policy-recommendations, actions, performance measures, and recommendations to get to zero.
- Continuing as ongoing champions for implementation of the Action Plan actions within Task Force members' organizations or agencies, as applicable.

1.2 Roles and Responsibilities

- Attend meetings from March 2025 through June 2025.
- Review information shared by the PMT before meetings.
- Express concerns, issues, and perspectives clearly, honestly, and early in the process.
- Act as a liaison with affiliated stakeholder groups, departments, and agencies.
- Speak about the project to the media and stakeholders supportive of the group process.
- Follow the Meeting Guidelines as identified below.

1.3 Participation

Task Force Members	
Name	**Role**
Jason Pezzullo	Director of Commerce
Jason Pettinato	Senior Planner
Mark Andrade	COO, School Department
Emily Morse	Engineering Division
Emanuel Oliveira	Traffic Division
Major David Holden	Pawtucket Police Department

1.4 Task Force Meeting Ground Rules

1. Listen carefully and speak honestly.
2. Bring up issues or concerns early.
3. Seek to provide solutions for issues or concerns that are raised.
4. Respect the views of others.
5. Critique issues, not people or organizations.
6. Allow everyone to speak without dominating the conversation; share the air.
7. Take responsibility for the success of the meeting.
8. Listen and consider both community and Townwide concerns.
9. Start and end meetings on time.

1.5 Decision-Making

- We will strive for agreement, but consensus is not needed to move forward. For the purposes of the Safe Streets for All Task Force, "consensus" is defined as the point where all members agree on the best option for the group even if it is not each member's personal favorite.
- If consensus cannot be reached, then 2/3 of Task Force members present must agree on a decision to be considered a group recommendation. Any members who do not support the recommendation may prepare a separate written statement to be shared with the PMT.
- All opinions will be part of the meeting summary.

Pawtucket Safety Action Plan Task Force Meeting 2

Logistics

- Tuesday April 24, 2025, 9:00 am -11:00 am
- Microsoft Teams meeting

Participants

- Jason Pettinato, Senior Urban Planner, City of Pawtucket
- Emily Morse, GIS Coordinator, City of Pawtucket
- Dino Giorgio, Captain, Pawtucket Police Department
- Bhakti Kulkarni, PM, Toole Design
- Ayden Cohen, Project Planner, Toole Design
- Moctar Fall, Project Planner, Toole Design

Meeting Notes:

General

- A quick round of introductions with each participant's roles on the project were conducted.
- The Toole team delved into the process overview timeline, explaining the proposed schedule for the project and impending deadline for the FY25 SS4A grant application
    - Bhakti described the two different types of grants available to apply for (Planning and Demonstration Grants or Implementation Grants) and detailed possibilities for both.
- The full team discussed the status of the project, and set forth a plan to make progress on the adoption of the town resolution by the mayor, and the adoption of the plan by the city council, prior to the 26th of June (S54A grant application NOFO deadline)
    - Task Force team to push forward resolution adoption with Mayor, based on draft developed by Toole team, and to add STIP projects to signify the city's commitment towards safe streets
    - Task Force curious as to the possibility of matching state funds with state funds
- The Toole team presented maps showcasing priority corridors derived from the analysis process.
    - The city to follow up with DPW director to narrow down priority corridors and intersections to top 10
- The full team emphasized the importance of accounting for changes in travel patterns with new developments underway (Central High School and Centreville Bank Stadium)

- The full team further discussed priority corridors and intersections:
    - Priority Intersections
        - There was consensus on the top intersections shown, with 2 key additions to the chart, and 5 specific intersections highlighted as top 10
            - Additions and Top 10 Mentions:
                - Monticello Rd & George Bennett Hwy
                    - Cpt. Dino Giorgio: “Top 10 intersections. Particularly at night because of the railroad’s lower depth and lack of visibility, drivers get stuck…the roadway is wide, and the railroad is active, so there isn’t a bar or anything”
                    - Emily Morse: “Making changes to this intersection and George Bennett Hwy (in general) might be a bit difficult because it is the railroad’s right of way”
                    - Cpt. Dino Giorgio and Emily Morse: “there needs to be more lighting, reflectors and markings at that intersection”
                    - Jason Pettinato: “Yeah that intersection is pretty bad, George Bennett Hwy and the railroad intersect at many points, I have to drive over the railroad twice to get [to City Hall]”
                    - **Toole team to chat with William about this specific intersection**
                - Pond St & Columbus Ave
                    - Noted by Jason as a vital intersection to add to the priority list
                - Cottage St & Central Ave
                    - Cpt. Dino Giorgio: “This is really horrible”
                - Dexter St & Bayley St
                    - Noted by consensus as an important intersection to add in top 10
                - Broad St & Exchange St
                    - Noted by consensus as an important intersection to add in top 10
    - Priority Corridors
        - There was consensus on the top corridors shown with 2 key additions. Further analysis to lock down the top 10 corridors, based on discussion with DPW director is pending
            - General mentions
                - From the Task Force team: Top 12 corridors are pretty accurate, with schools and future development being on all these corridors
            - Additions
                - Tidewater Corridor
                    - Noted by Emily as necessary to add within top 20 corridors

    - Daggett Avenue
        - On high injury network map for bicyclists and pedestrians (VRU)
        - Emily Morse: "Important corridor to add, there is currently a plan to connect this corridor to a bike path that runs through Slater Memorial Park and a current bike path that runs south to Providence"
        - Jason Pettinato: "This corridor is another project that we applied for STIP funds for"
        - **Toole team to check Walk Bike PCF Plan to see if there are precedents for Daggett Avenue**
- The Toole team provided overview of recommended policy changes
    - There is interest from the Task Force in funding staff role through the implementation grant
    - The city has a new ADA transition plan that is being finalized – **Task Force to share with Toole team, Toole team to rework the policy recommendation to align with transition plan**
- The Toole Team provided an overview of performance goals and actions to the Task Force, and discussed potential edits, additions and omissions based on feasibility
    - The Task Force mentioned that the city is working on a new resurfacing program with the firm BETA Group, have identified priority corridors, and will share existing web map and data with Toole team
    - Infrastructure mentions:
        - Lighting has been mentioned as a huge recommendation; Task Force mentioned the need to connect with a lighting agency to resolve these issues
        - Leading Pedestrian Intervals
            - The task force is unsure if the city will be open to these improvements
        - Pedestrian Signals
            - They are currently not on auto recall
            - There are currently no RRFBs in Pawtucket, Toole noted that they can be at unsignalized locations
        - Protected Lefts
            - Jason Pettinato: "There is a good coverage of protected lefts along Newport Ave"
        - Signage and Cameras
            - The Task Force team mentioned that the city has consistent signage (green and white for regular streets, in TOD (Cone of Red) district, black and white)
            - Emily Morse: An inventory of all current city signage (street signs, wayfinding) is underway, and there will be a cohesive signage plan by the end of the year
            - Cpt. Dino Giorgio: "DPW has a signage department, the PD goes through them when requesting, but typical signs they can make or have in stock -- there should have some type of ordinance, all the cameras are pole mounted…all municipalities are transitioning to the pole mounted ones"

        - Chicanes
            - A bit against these, Cpt. Dino Giorgio says he avoids these in Central Falls
    - Crash pattern data and place mentions:
        - Crash Pattern Data
            - Cpt. Dino Giogio: Mentioned that the PD gives all their crash info to the RIDOT, but finds accessing them difficult so an internal monitor on **crash patterns within the PD could be a great recommendation to add to these actions and strategies**
        - Place Mentions
            - Freight traffic is prevalent on these streets:
                - Lonsdale Ave
                - Newport Ave
                - Smithfield Ave
            - Railroad crossings were a key topic of conversation
                - Especially George Bennett Hwy & Monticello Rd
                - Task Force mentioned need for an education campaign for drivers
            - George Bennett Hwy was a key topic of discussion
                - Jason Pettinato: Emphasized the need for more driver's education, gave an anecdote of drive that overtook car turning right on Columbus Ave from George Bennett Hwy, by driving to the left, leading to an angle collision
                - Emily Morse: "Train tracks on George Bennett are a big impediment/issue for people... people try to drive on the tracks (mentioned they could prioritize this corridor and have a quick build for this)"
                - The Task Force team showed interest in the planning and demonstration grant for George Bennett Hwy
    - Walk Bike PCF plan
        - Discussed current usage of this plan. The city uses it for grant applications but do not actively work through its recommended actions and strategies, Task Force and Toole team to reference it
    - Media coverage
        - The Task Force are interested in the gifs highlighting the current situation in Pawtucket, Emily Morse and Cpt. Dino Giorgio agreed to put them on the City and PD social media platforms, respectively
    - Future meetings/reports
        - Cpt. Dino Giorgio mentioned that there isn't a current review of crashes unless it is requested (action number 2.20), believes that a **quarterly meeting** for crash reviews and High-Injury and High-Risk network would be sufficient, PD can use its own data (action number 5.13)
        - Emily Morse mentioned that writing reports for every single project (action number 5.10) might not be feasible but believes this is a good action so we should keep it

  - EJ communities
    - Task Force says it depends on the grants (Urban Forestry grant, CDBG) that they are applying for and where it requires the funds to be spent, but most of the city classifies as LMI according to Emily so everyone will benefit
    - Possible term instead of equity area from Cpt. Dino Giorgio – "High Stressed Area"
  - Grant administrator
    - Revise this recommendation, the city already has a grant administrator
  - Sidewalk gap analysis
    - Revise this recommendation, the city is already utilizing CDBG to perform sidewalk gap analysis
  - Other points
    - The new high school will be on two priority corridors, Cottage Street and Division Street
    - The Task Force is unsure of the bussing policy for schools, assumes it is like Central Falls in that kids that live more than ½ mile from school gets bussed in
    - There is no bike/e-bike/e-scooter share program in Pawtucket
- The Toole team explained the next steps, and proposed schedule for follow up
-

Next Steps:

- Toole team to prepare draft of the Safety Action Plan and send to Task Force by end of May for the review and approval prior to the SS4A grant deadline
- Toole team to send draft resolution to Task Force for their edits and push for adoption
- Task Force members to push forward resolution to Mayor's office for adoption
- Toole team to develop educational GIFs to share with Task Force staff
- Toole team to review Walk Bike PCF and integrate its recommended actions and strategies to current plan

Appendix C: Baseline Crash Analysis

Introduction

The Descriptive Crash Analysis Summary is a key input to Pawtucket's Safety Action Plan. This memorandum summarizes the findings from a review of data on the most recent five years of crashes that occurred in Pawtucket.

Analysis Overview

Crashes, especially serious crashes are not randomly occurring nor evenly distributed. The safety analysis, described on the following pages, uses data to identify key crash patterns, trends, and contributing factors in Pawtucket, with a specific focus on crashes where someone died or was seriously injured. This analysis is based on five years of crash data (2019 to 2023) collected by enforcement agencies using the State of Rhode Island Uniform Crash Report form, paired with roadway and demographics data using spatial analysis. Together, this information identifies the types of infrastructure, behavior, and contexts that most impact safety performance.

Why focus on fatal and serious injury crashes?

In alignment with the Safe System Approach, the goal of the Safety Action Plan is to eliminate fatal and serious injuries on roads. To support that goal, the safety analysis focuses on crash patterns and factors of crashes where at least one person was killed or ***seriously*** *injured* (the person needed to be brought for medical attention). This excludes the most common type of crash, a property damage only crash, to focus instead on human safety impacts.

For less common crash types (e.g., crashes involving people walking), this analysis also highlights trends in crashes that led to ***any injury***. By considering crashes resulting in any injury, a pattern of critical safety needs within the community becomes more apparent, despite a lower sample size.

Why look at five years of crash data?

Crashes can fluctuate naturally from year-to-year based on road conditions, community circumstances, and more. A five-year study period effectively balances changes in safety over time while capturing overall trends. The result is a safety analysis that is comprehensive and supports long-term decision-making.

Descriptive Crash Analysis Findings

The Descriptive Crash Analysis presents an overview of the state of road safety within Pawtucket, to pinpoint the regional and local factors that contribute to frequent and serious crashes. This analysis aims to create a shared understanding of the greatest needs and opportunities for safety improvement within the community.

This analysis answers questions like:

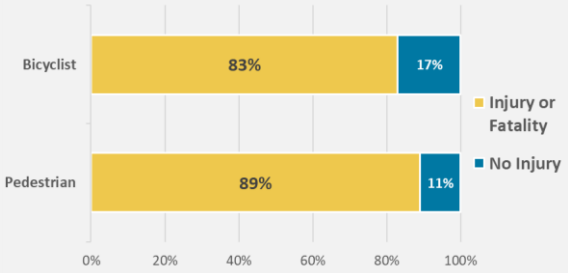
- How has crash frequency changed in recent years?
- How do crash patterns vary by road users' modes of travel?
- What behaviors and environmental factors are most prevalent among severe crashes?
- How do safety outcomes correlate with factors such as poverty or transportation access?
- What roadway and environmental attributes influence safety outcomes?

Key Takeaways

In **Pawtucket**, according to the five-year (2019 to 2023) crash dataset used for the Safety Action Plan:

21% of all crashes led to someone being killed or injured (2,977 crashes).
115 (0.8%) of these crashes led to someone being killed or ***seriously*** injured.

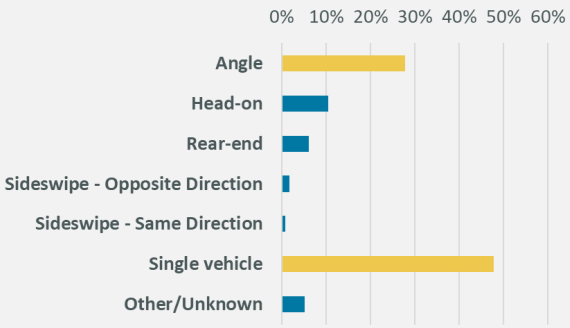
People Walking and Bicycling



89% of pedestrian crashes and 83% of bicyclist crashes led to someone being killed or injured.

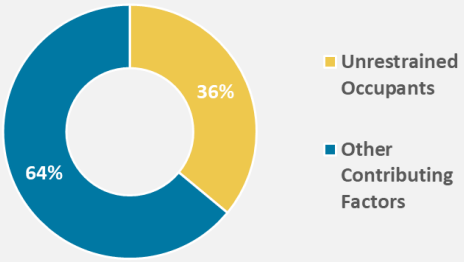
For this reason, people walking and bicycling are considered vulnerable road users. Vulnerable road users, including bicyclists, were involved in 263 crashes that led to an injury or fatality.

Crash Types



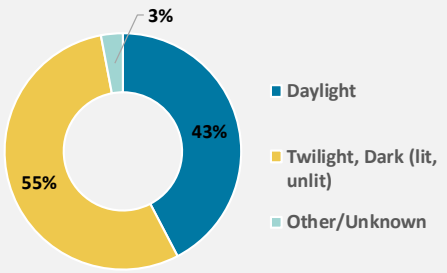
The most common types of crashes in Pawtucket that resulted in a serious injury or fatality were **angle** (vehicles colliding at an angle), and **single-vehicle** (a vehicle crashing into a fixed object).
Together these three types account for 76% of crashes resulting in a serious injury or fatality.

Seatbelt Use



Unrestrained occupants (drivers and or passengers not wearing a seatbelt) were reported as contributing factors in 36% of fatal and serious-injury.

Lighting Conditions



55% of fatal and serious injury-causing crashes occurred during **dark-unlit, dark-lit and twilight conditions**.

53% of fatal and serious injury-causing crashes involving pedestrians and bicyclists occurred in **dark-lit conditions**.

Overall Crash Statistics

In Pawtucket, in the five-year crash dataset used for the Safety Action Plan, there were:

- **Total Crashes**: 14,148
- **Total Fatal and Injury (FI) Crashes**: 2,977 (21% of all crashes)
- **Total Fatal and Serious Injury (FSI) Crashes**: 115 (0.8% of all crashes)
  - 27 involving **vulnerable road users (VRU)** – 3 involving bicyclists; 24 involving pedestrians (Pawtucket has the 6th-highest rate of pedestrian-involved fatal and serious injury-causing crashes per capita of 39 municipalities in Rhode Island)
  - 25 involving **motorcyclists**
  - 63 involving **motorists only**

Figure 1 illustrates the number of crashes resulting in a fatality or ***serious*** injury, per year, in Pawtucket compared to statewide. Compared to other municipalities, Pawtucket has a higher number of fatalities and ***serious*** injury-causing crashes. The number of crashes fluctuated between 19 and 29 per year and generally matched statewide patterns over the past five years. Pawtucket experienced the highest number of crashes leading to a fatality or ***serious*** injury in 2020, with 29 crashes, and an increase of 8 crashes, from 17 crashes in 2022 to 25 crashes in 2023.

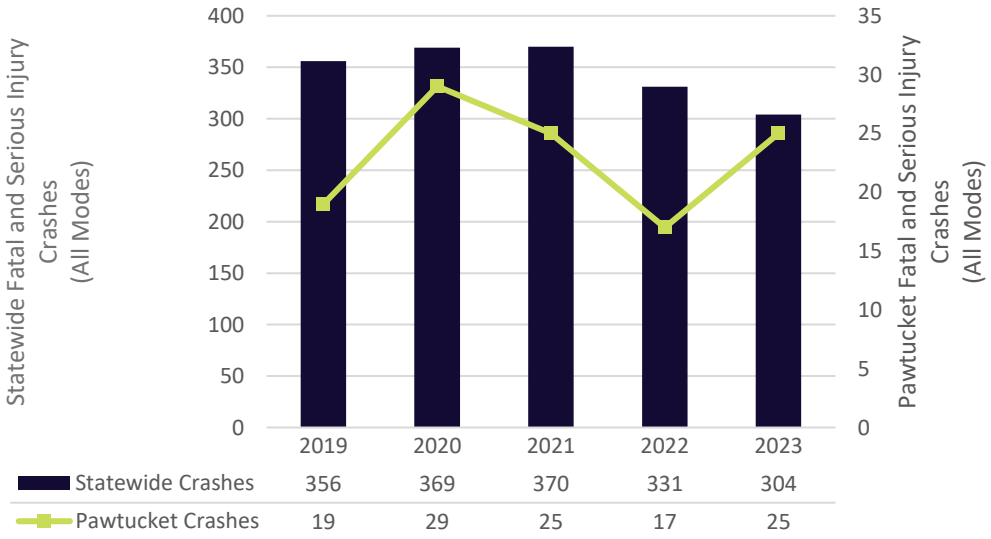


Figure 1: Pawtucket vs. Statewide Crashes Resulting in a Serious Injury or Fatality, by Year, All Modes (2019 to 2023)

Figure 2 illustrates the number of crashes resulting in ***any injury*** or fatality, per year, in Pawtucket compared to statewide. These types of crashes in Pawtucket increased in recent years (2020-2023), from 515 crashes in 2020 to 634 crashes in 2023, likely due to the effects of the pandemic. 2019 was an outlier year, with a total of 684 crashes. The pattern in Pawtucket generally followed the statewide pattern over the past five years

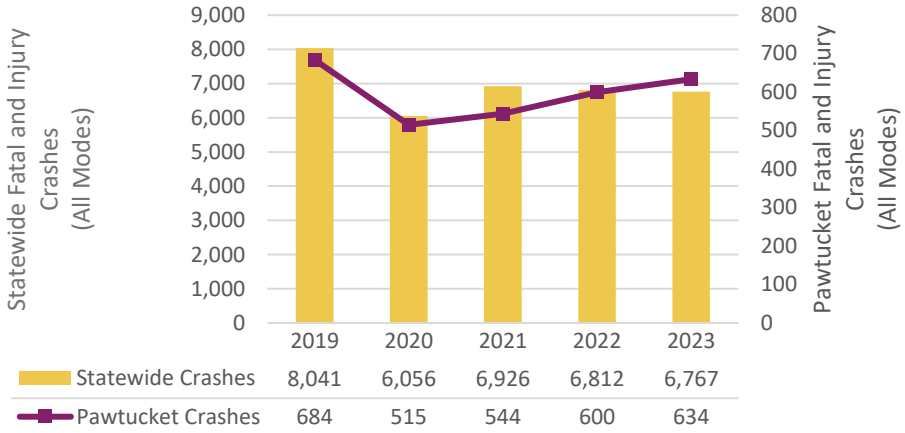


Figure 2: Pawtucket vs. Statewide Crashes Resulting in an Injury or Fatality, by Year, All Modes (2019 to 2023)

There were between 4 and 8 fatal and ***serious*** injury-causing crashes involving **someone walking or bicycling** (vulnerable road users) in Pawtucket. However, when analyzing pedestrian-involved and bicyclist-involved crashes resulting in ***any injury*** or fatality to see trends over a larger sample of crashes, there was a peak of 74 crashes resulting in any injury or fatality involving vulnerable road users in 2019, and a sequent dip in 2020-2023, to 41 to 58 crashes per year (Figure 3).

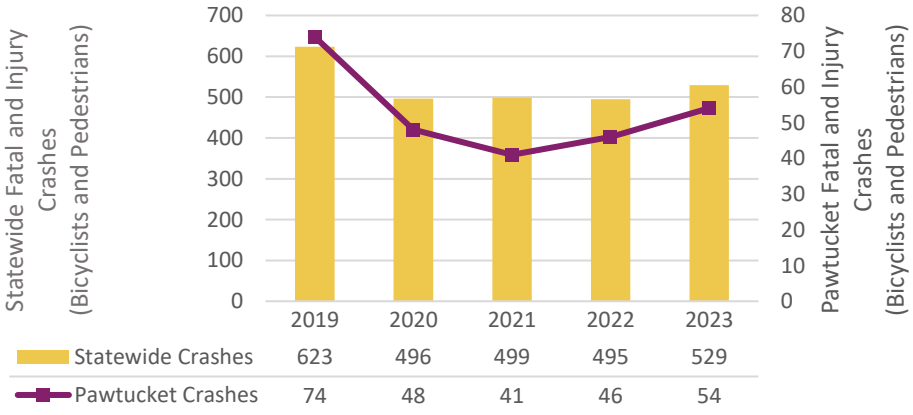


Figure 3: Pawtucket vs Statewide Crashes Resulting in an Injury or Fatality, by Year, Walking and Bicycling (2019 to 2023

Figure illustrates the severity of crashes by road user modes. Road users are differently susceptible to being killed or injured when they are involved in a crash. **Eighty-nine percent (89%) of pedestrian crashes** and **83% of bicyclist crashes** led to someone being killed or injured (Figure 4).

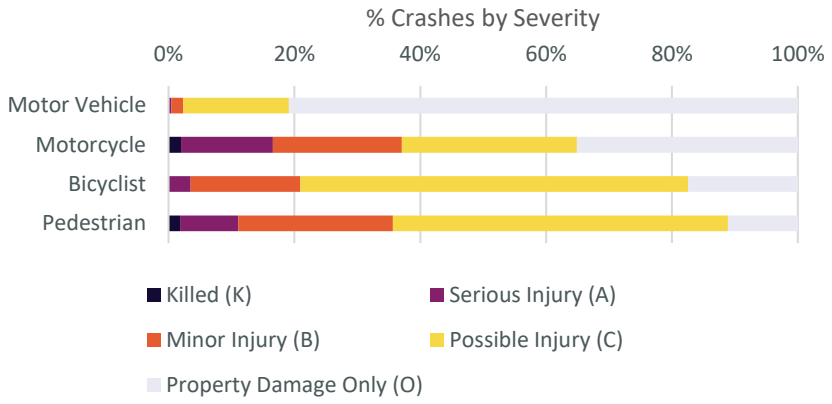


Figure 4: Pawtucket Crashes, by Mode and Severity (2019 to 2023)

What Types of Crashes Occur?

Figure 5 illustrates fatal and injury crashes in Pawtucket by type, meaning how the vehicles or road users involved collided. The top crash types that resulted in injuries and fatalities were **angle**, and **single-vehicle** crashes – which accounted for 76% of fatal and ***serious*** injury-causing crashes and 56% of crashes resulting in any injury or fatality. **Rear-end** crashes were also a top crash type in crashes resulting in any injury or fatality, representing 29% of crashes resulting in any injury or fatality.

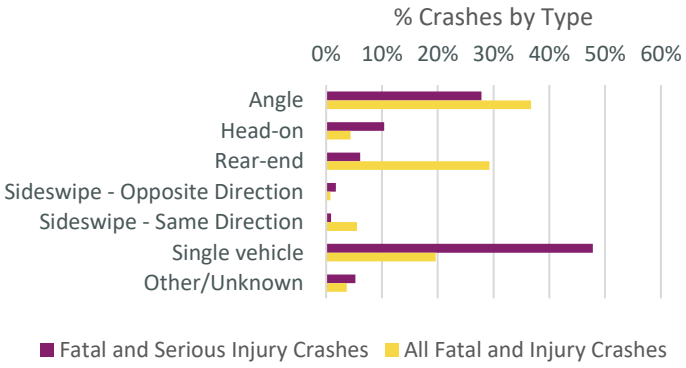


Figure 5: Pawtucket Crashes, by Type and Severity, All Modes (2019 to 2023)

Figure 6 illustrates that in Pawtucket the top reported contributing factors in fatal and ***serious*** injury-causing crashes were **unrestrained**, **out-of-state**, and **senior drivers**. These were potential contributing factors in 72% of crashes that led to a fatality or ***serious*** injury. These factors are based on police reports and give insight as to what may have influenced the severity of crashes.

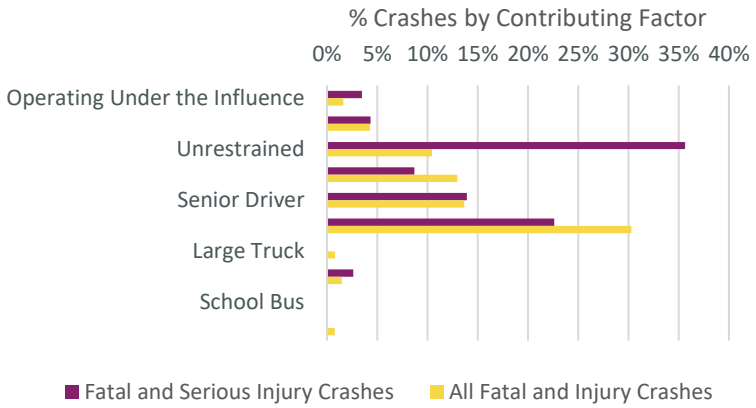
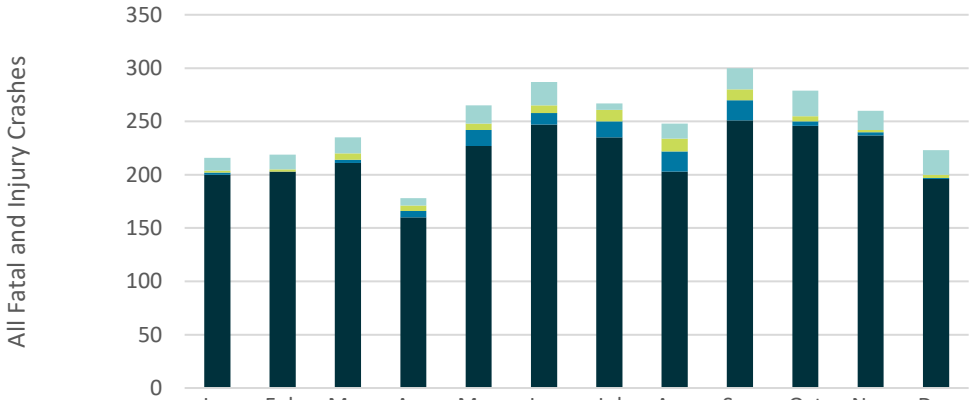


Figure 6: Pawtucket Crashes, by Contributing Factor and Severity, All Modes (2019 to 2023)

When Do Crashes Occur?

In Pawtucket, fatal and ***serious*** injury-causing crashes were **more frequent and peaked in August and September** when there were greater number of motorcyclist-involved crashes. Also, fatal and ***serious*** injury-causing crashes were more **frequent on Friday afternoons (3 PM to 6 PM) and nights (9 PM to 12 AM)**.

Crashes resulting in ***any injury*** or fatality were **more frequent in warmer months and fall (May to November)** when 1,906 crashes resulting in any injury or fatality (64%) occurred. **September experienced the highest number of crashes resulting in any injury or fatality,** with 300 crashes (Figure 7).



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Pedestrian	12	14	15	7	17	22	6	14	20	24	18	23
Bicyclist	2	2	6	5	6	7	11	12	10	5	2	3
Motorcycle	2	0	3	6	15	11	15	19	19	4	3	1
Motor Vehicle	200	203	211	160	227	247	235	203	251	246	237	196

Figure 7: Pawtucket Crashes Resulting in an Injury or Fatality, by Month by Mode (2019 to 2023)

Figure 8 illustrated that crashes resulting in any injury or fatality were more frequent from **3 PM to 6 PM on weekdays**–reflecting afternoons when a large number of people are traveling.

		Time of Day								
	From	*12 AM*	*3 AM*	*6 AM*	*9 AM*	*12 PM*	*3 PM*	*6 PM*	*9 PM*	
	To	*3 AM*	*6 AM*	*9 AM*	*12 PM*	*3 PM*	*6 PM*	*9 PM*	*12 AM*	
Day of Week	*Mon*	27	10	50	64	**92**	**92**	58	34	All Fatal and Injury Crashes All Modes
	Tues	13	10	57	52	76	**105**	65	47	
	Wed	11	9	60	44	76	**116**	80	33	
	Thu	12	13	60	38	75	**102**	73	40	
	Fri	30	9	36	47	86	**136**	71	54	
	Sat	41	20	26	49	74	75	67	75	
	Sun	58	17	27	40	66	86	57	36	
		Dark Conditions		AM Peak	Light Conditions		PM Peak	Dark Conditions		

Figure 8: Pawtucket Crashes Resulting in an Injury or Fatality, by Time of Day and Day of Week, All Modes (2019 to 2023)

Figure 9 illustrates that the largest share **of all fatal and *serious* injury-causing crashes** occurred during **dark-unlit**, **dark-lit and twilight conditions (55%).** This trend indicates a need to evaluate roadway lighting conditions in Pawtucket to ensure roads are appropriately lit during dark and twilight conditions. It is important to note that data on lit versus unlit conditions comes from police reports and reflects the presence of streetlights, not the adequacy of lighting conditions for visibility.

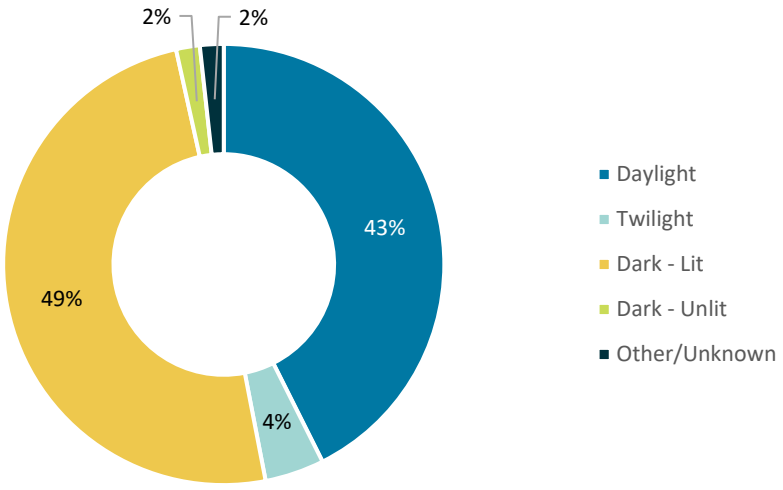


Figure 9: Pawtucket Crashes Resulting in a Serious Injury or Fatality, by Lighting Condition, All Modes (2019 to 2023)

Similarly, a majority of **fatal and *serious* injury-causing crashes involving pedestrians and bicyclists** occurred in **dark-lit conditions** (53%). This trend similarly indicates a need to evaluate roadway lighting conditions in Pawtucket to ensure roads are appropriately lit during dark and twilight conditions for pedestrians and bicyclists. It is important to note that data on lit versus unlit conditions comes from police reports and reflects the presence of streetlights, not the adequacy of lighting conditions for visibility.

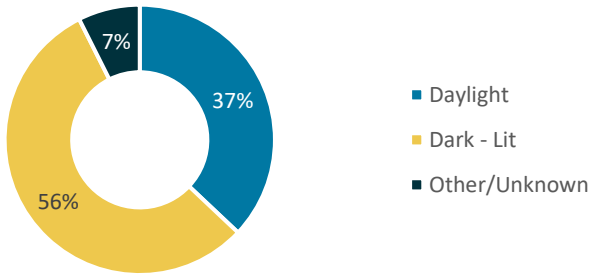


Figure 10: Pawtucket Crashes Resulting in a Serious Injury or Fatality, by Lighting Condition, Walking and Bicycling (2019 to 2023)

Figure 11 highlights that a large share of all fatal and ***serious*** injury-causing crashes occurred during **clear weather conditions (85%)**. Ten percent (10%) occurred during rain or winter weather. This trend does not mean that inclement weather conditions are somehow safer; rather, likely most travel occurs during clear or dry conditions.

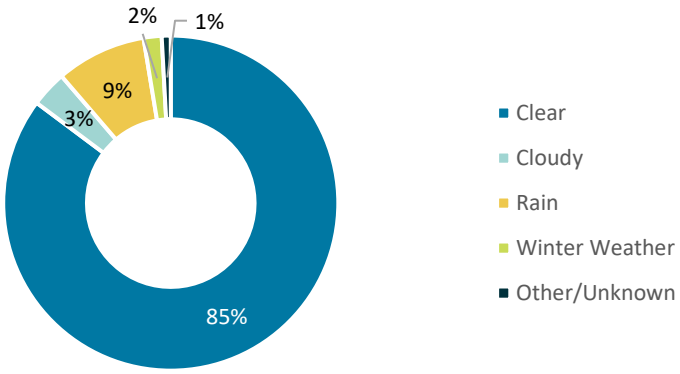


Figure 11: Pawtucket Crashes Resulting in a Serious Injury or Fatality, by Weather Condition, All Modes (2019 to 2023)

Where Do Crashes Occur?

In Pawtucket, **local roads** had a higher number of fatal and **serious** injury-causing crashes compared to other road types in Pawtucket (78 crashes; or 68% of all fatal and serious injury-causing crashes), with these roads accounting for a majority of roads in Pawtucket (87% of Pawtucket's roadway mileage). **State-owned roads** account for 24 fatal and ***serious*** injury-causing crashes (21%) and make up a smaller amount of the total roadway mileage in Pawtucket (8%).

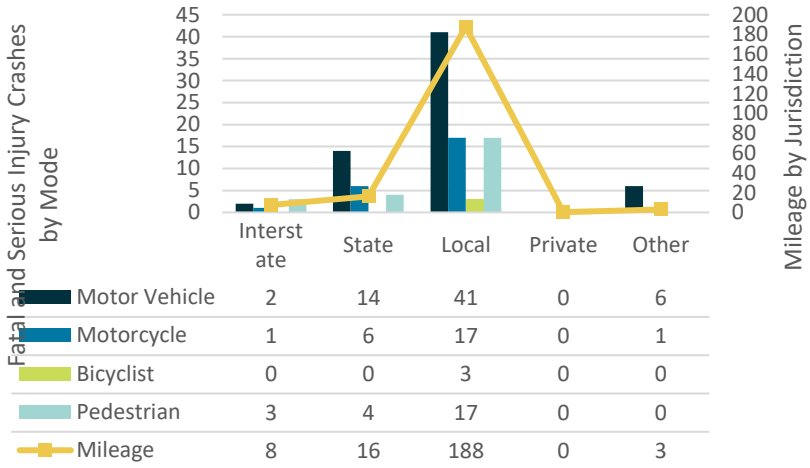


Figure 12: Pawtucket Crashes Resulting in a Serious Injury or Fatality, by Mode and Road Owner (2019 to 2023)

Road owner information based on Highway Performance Monitoring System (HPMS) data for 2023

Overall, a **large share of fatal and *serious* injury-causing crashes occurred at mid-block locations** (between intersections) across all modes. Eighty-one percent (81%) of motorist-involved and 84% of motorcyclist-involved fatal and serious injury-causing crashes occurred at mid-block locations (Figure 13).

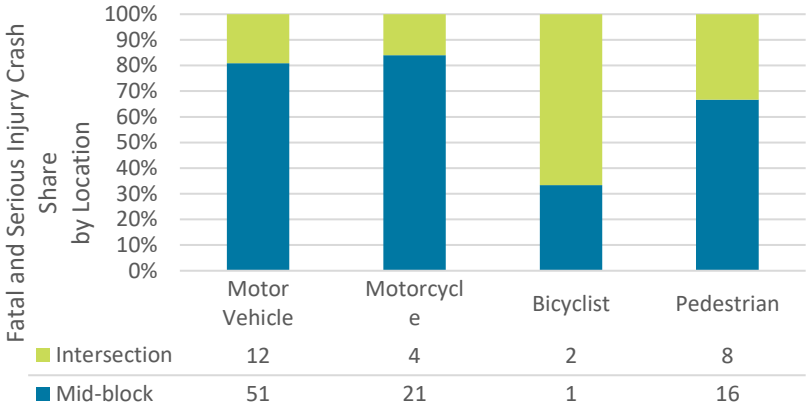


Figure 13: Pawtucket Crashes Resulting in a Serious Injury or Fatality, by Location and Mode (2019 to 2023)

High-volume roads (10,000+ average daily vehicles) accounted for **58% of pedestrian- and 40% motorist-involved fatal and *serious* injury-causing crashes** (Figure 14).

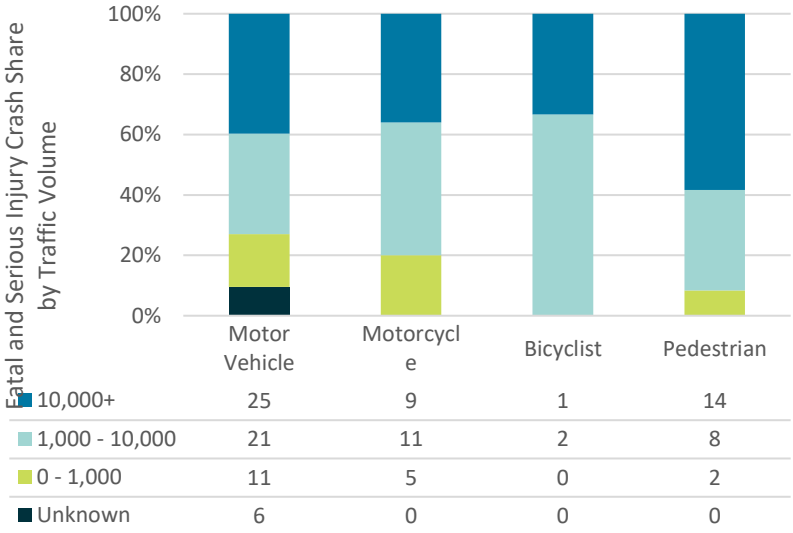


Figure 14: Pawtucket Crashes Resulting in a Serious Injury or Fatality, by Traffic Volume and Mode

Figure 15 illustrates the injury or fatality-causing crashes by mode and roadway lane type**. Two lane roads accounted for 76% of fatal and *serious* injury-causing crashes** and 93% of the total road miles in Pawtucket. While **multilane roads accounted for 10% of the fatal and *serious* injury-causing crashes, 2% of the roads** in Pawtucket are multilane.

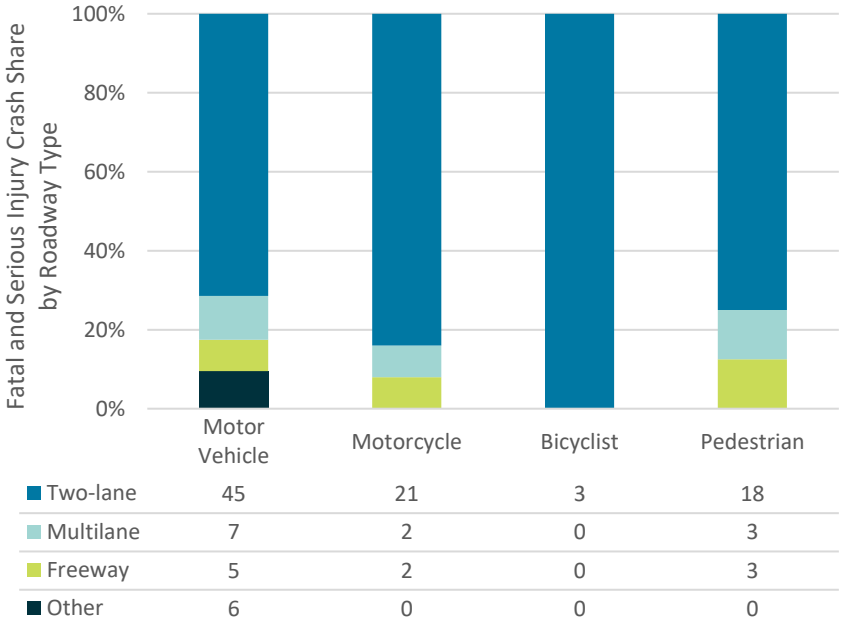


Figure 15: Pawtucket Crashes Resulting in an Injury or Fatality, by Roadway Type and Mode (2019 to 2023)

Forty-five percent of fatal and *serious* injury-causing crashes (45%) occurred in high disadvantaged areas, which is disproportionately greater than the overall makeup of Pawtucket where 34% of Pawtucket is identified as **high disadvantaged areas.**

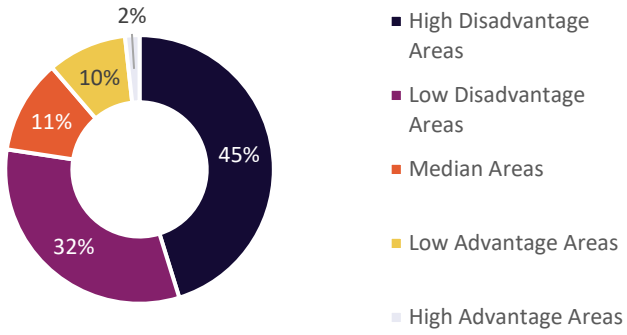


Figure 17: Pawtucket Crashes Resulting in a Serious Injury or Fatality, by Communities of Disadvantage (2019 to 2023) Communities of Disadvantage information based on Justice 40

Who Are Involved in Crashes?

The age and gender distribution of people involved in fatal and ***serious*** injury-causing crashes in Pawtucket is skewed higher towards the population of males in Pawtucket. A high proportion of **males ages 25 to 34** were involved in fatal and ***serious*** injury-causing crashes compared to other age and gender groups. Males ages 25 to 34 were involved in 19% of fatal and serious injury-causing crashes.

Note, crash reports only collect demographic information that covers the road users' age and gender. Insights into additional demographic information such as race and ethnicity can be gathered through other types of analysis that look at the demographics in the place the crash took place.

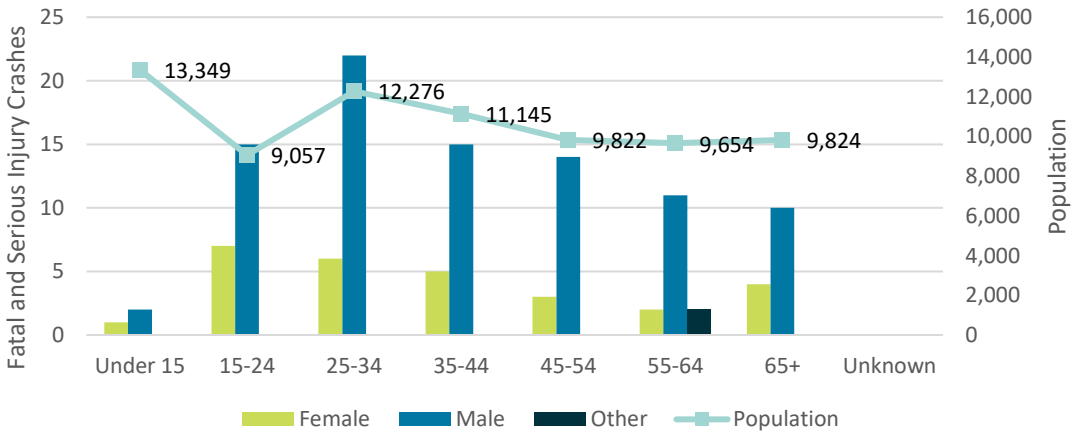


Figure 18: Pawtucket Crashes Resulting in a Serious Injury or Fatality, by Age Group and Gender (2019 to 2023)

Demographics information based on U.S. Census 2022 American Community Survey 5-Year Estimates

It is however important to note that for all crashes that resulted in ***any injury*** and fatality, it skewed towards the female population in Pawtucket, with **a high proportion of females ages 15-24 and 25-34** resulting in any injury or fatality (Figure 19).

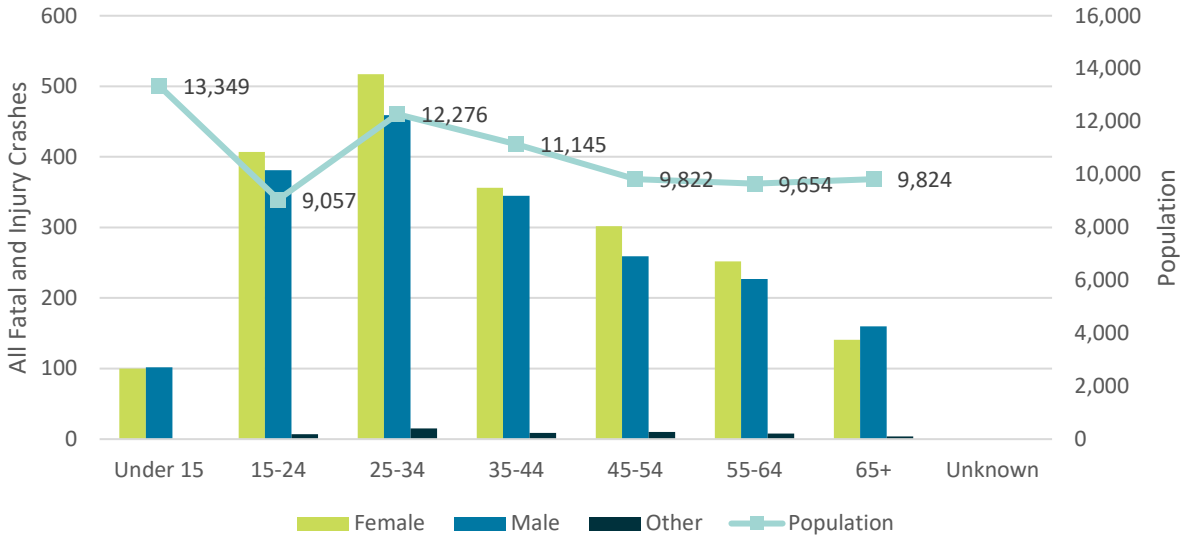


Figure 19: Pawtucket All Crashes Resulting in an Injury or Fatality, by Age Group and Gender (2019 to 2023)

Demographics information based on U.S. Census 2022 American Community Survey 5-Year Estimates

Next Steps

In the next steps of the Plan, the key takeaways from this analysis will be explored through additional spatial analyses to understand the roads where crashes that lead to fatalities or serious injuries are most frequent, and identification of potential safety countermeasures, policies, and strategies that could reduce roadway fatalities and serious injuries.

Appendix D: High Injury and High-Risk Network Analysis and Methodology

Safety Analysis Methods

This document provides an overview of the technical approaches used to perform the key data analyses in support of the Rhode Island Public Transit Authority (RIPTA) Safer Streets and Roads for All (SS4A) municipal safety action plans. Draft analysis methods were determined collectively with AECOM and RIPTA at the onset of the project and were executed and refined over the course of the project, responding to changing data, timelines, and project needs. Results of analyses are detailed in the main body of municipal safety action planning documents.

Analysis Data

Key datasets from Rhode Island Department of Transportation (RIDOT), U.S. Department of Transportation (USDOT), and others provided the basis for all safety analyses. These are summarized in the table below.

Table 1: Key Datasets

Category	Dataset	Source	Version	Description	Application
Safety	Historical Crash Data	RIDOT	2016-2023	Crash, vehicle, person tables	Underlying crash dataset for entire project
Infrastructure	Roadway Inventory	RI E911 Centerlines	2016	Roadway network for RI	Underlying roadway network and attributes for entire project
Operational	Functional Classification	RI E911 Centerlines	2016	Roadway functional classification	Functional classification used for baseline crash analysis
	Motor Vehicle Volume (primary)	Highway Performance Monitoring System (HPMS)	2023	Rhode Island HPMS dataset	Roadway volumes for baseline crash and risk-based analysis
	Motor Vehicle Volume (secondary)	Replica	2023	Modeled Average Annual Daily Traffic (AADT) values	Roadway volumes for baseline crash and risk-based analysis
	Ownership	HPMS	2023	Rhode Island HPMS dataset	Roadway ownership for baseline crash and risk-based analysis

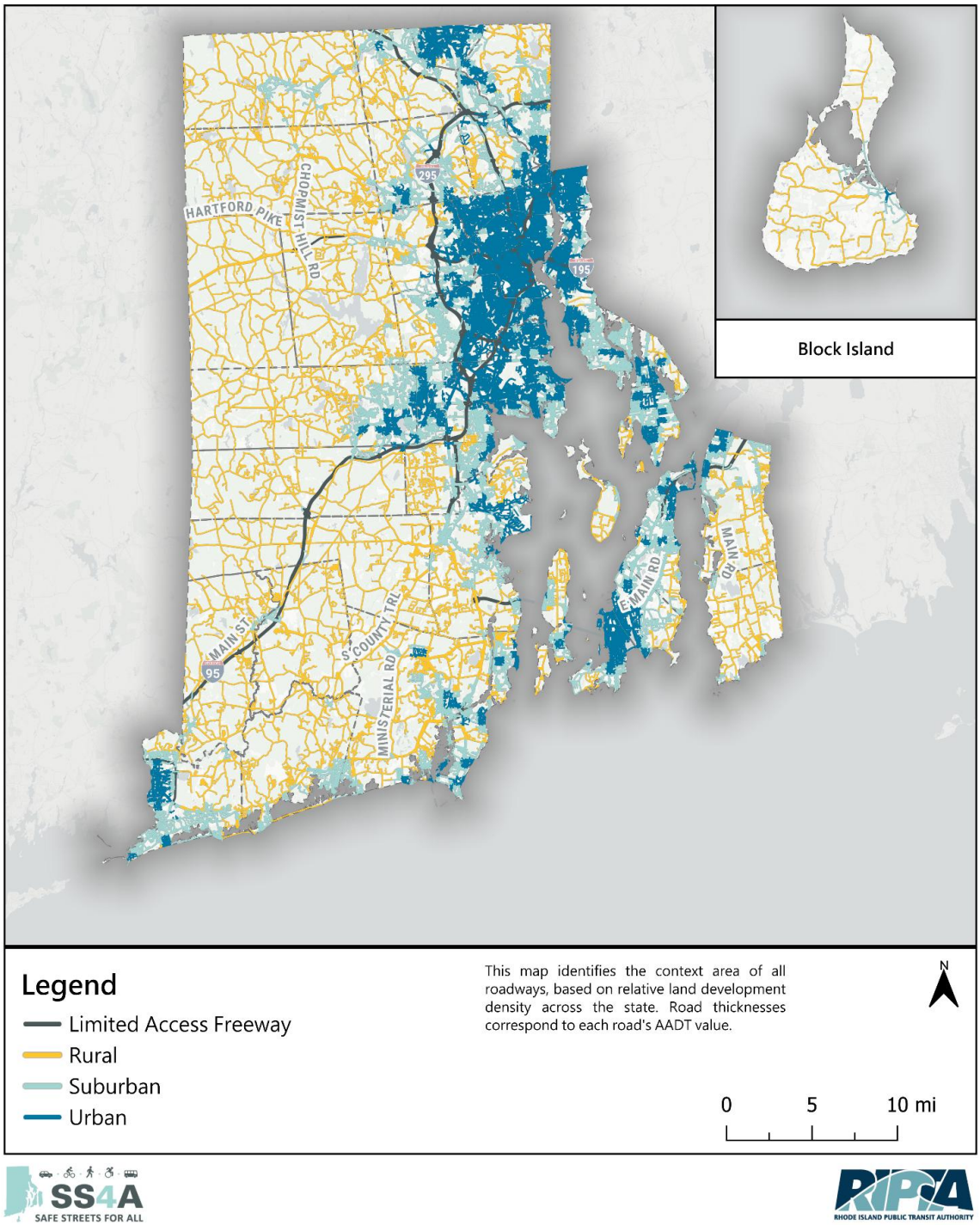
Category	Dataset	Source	Version	Description	Application
Land Use	Land Cover	U.S. Geological Survey (USGS)	2021	Land cover as categorized by USGS	Used to delineate urban, suburban, and rural context based on density of development
Demographics	U.S. Census Demographic Data	U.S. Census Bureau	2022, 5-year estimates	Various demographic attributes by census block group	Comparative values in baseline crash analysis, and inputs to risk-based analysis
	Justice 40 Equitable Transportation Communities Data	U.S. Department of Transportation	v1.0	Dataset that assesses transportation-burdened communities across multiple categories	Equity dataset for baseline crash analysis

Land Use Context

Given the nuances involved in defining land use context and the impact of these distinctions on safety performance, the project team used the National Land Cover Database from the U.S. Geological Survey (USGS) to produce project-specific definitions for urban, suburban, and rural context areas. To produce context-sensitive analyses and inform interpretation of results, crashes and roadway networks were assigned a land use context definition. The data's half-mile tiles were analyzed to determine relative coverage of various development densities, identifying medium- and high-intensity development areas and calculating an urban percentage metric. Based on this, each half-mile tile was categorized as rural, suburban, or urban when the urban percentage metric is between 0-15%, 15-50%, or 50-100%, respectively.

This analysis identifies urban cores in and around Providence, Warwick, Newport, and more, which are surrounded by strips of suburban areas. The resulting context-area definition assignments were validated based on internal review, comparison to similar context area studies in the United States, and local knowledge. The context results were also tested during later analysis stages to ensure the distinctions served to further understanding of existing conditions.
Roadway segments often intersect with multiple context areas; in these instances, spatial relationships served to determine the context assignment: the context area category with the largest overlap is assigned to the roadway segment, as shown in **Figure 1**. Crashes are assigned to the context area category with which the crash point intersects.

Figure 1: Context Area Assignment on Roadway Network



Crash Geocoding

Rhode Island crash data was geocoded to improve location accuracy and ensure consistency, addressing issues in the original data caused by imprecise coordinates and incomplete datasets. Crashes were categorized by location type—address-based, intersection-based, or intersection-offset—and processed using standardized methods to achieve reliable spatial positioning. In the original data, approximately 69% of crashes were geolocated using latitude and longitude information, though some crash locations proved to be unreliable. After the re-geocoding process, approximately 89% of crashes were successfully geolocated and provided a reliable foundation for later analyses.

The re-geocoding effort enabled a more precise understanding of where crashes occur, allowing detailed analysis and serving to better-inform the decision-making processes inherent to transportation safety planning. By ensuring accurate location data, the project helps to identify high-risk areas, assess trends, and develop targeted interventions to improve roadway safety as part of the Safe Streets Action Plan.

Crash Density Heatmaps

The crash density heatmaps serve to represent the concentrations of crashes in the 2019 through 2023 study period at the municipal and statewide levels. Standard QGIS symbology was used to depict areas of higher relative density within each municipality; a search radius of 1,000 feet produced meaningful insights that were also legible on the maps. The crash density heatmaps provide context on crash distribution in future analyses conducted for this project and preserve the anonymity of the crash data. Crash density heatmaps are available for all modes of crashes with severities of fatal and serious injury (FSI) and fatal and injury (FI), as well as for vulnerable road user crashes with severities of FSI and FI.

Baseline Crash Analysis Exhibits

The baseline crash analysis is the starting point for all downstream analyses, providing an overview of study area-wide safety performance characteristics during the 2019 through 2023 study period. This analysis evaluates historical crash data, summarizing it using several different crash data attributes, such as crash mode, causation, temporal patterns, and more. The results are captured in large spreadsheet files. Within each municipality's spreadsheet file, a tab provides an overview of the content, with additional analysis results tabs that feature multiple tables and figures on a selection of analysis topics. These results are summarized in Table 2 below, listing the topic areas covered, the key crash and other data attributes analyzed under each topic, and the data sources used for the analyses.

Table 2. Baseline Crash Analysis Exhibits Content Overview

Topic Area	Crash Attributes	Other Data	Data Sources
Z. Statewide Comparison	Severity, Mode, Municipality	Municipal Population	RIDOT municipal boundaries
A. Crash Trends	Severity, Mode, Year		RIDOT crash data
B. Crash Mode	Severity, Mode		RIDOT crash data
C. Crash Causation	Severity, Mode, Manner of Impact, Contributing Factors		RIDOT crash data
D. Roadway Characteristics	Severity, Mode, Roadway Jurisdiction, Relation to Junction, Roadway Type, Traffic Volume		RIDOT crash data, HPMS, Replica
E. Temporal Patterns	Severity, Mode, Month of Year, Day of Week, Time of Day		RIDOT crash data
F. Vehicle Characteristics	Severity, Mode, Vehicle Registration State		RIDOT crash data
G. Environmental Characteristics	Severity, Mode, Lighting Condition, Weather Condition, Road Surface Condition, Land Use Context		RIDOT crash data
H. Demographics	Severity, Mode, Road User Age, Road User Gender	Population by Age and Gender	RIDOT crash data, U.S. Census Demographic Data
I. Equity	Severity, Mode, Justice40 Equity Metric Scores (Climate, Environmental, Health, Social, Transportation, Overall)		RIDOT crash data, Justice 40 Equitable Transportation Communities Data

Baseline Crash Analysis Maps

The baseline crash analysis maps are the result of a reactive, crash density-based analysis of roadways. This analysis, based on a modified sliding window analysis approach, smooths crash data across corridors, clearly depicting roadway network segments with relatively high densities of crashes during the 2019 through 2023 study period, with a particular emphasis on higher severity crashes. This is achieved through a sequence of analysis steps:

- Roadway Re-segmentation
- Crash Assignment and Segment Scoring
- Percentile Ranking and Selection
- Post-processing of Minor Roads

Crashes from the 2019 through 2023 study period were successfully geolocated and assigned to a roadway location. The analysis was conducted first across all crash modes, namely motor vehicles, motorcycles, bicyclists, and pedestrians, and then repeated for exclusively vulnerable road users, including all crashes which involved at least one pedestrian or bicyclist.

Roadway Re-segmentation

First, all roadways across the state of Rhode Island were re-segmented to achieve consistent segment lengths within each context area of *urban*, *suburban*, *rural*, and *access-controlled freeways*. This was done by first dissolving all roadway geometries by street name, municipality, and context area. These corridors were then segmented using standard lengths, which differed depending on the context area, summarized in **Table 3**, to produce context-sensitive results during later analysis steps.

Table 3. Roadway Re-segmentation Lengths by Context Area

Context Area	Segment Length	Purpose
Urban	0.25 miles	Short segments reflect the dynamic, dense environments of urban areas
Suburban	0.50 miles	Medium segments reflect the hybrid context of suburban areas
Rural	1.00 miles	Long segments reflect the sparser networks of rural areas and more effectively capture sparse crash patterns
Access-Controlled Freeways	1.00 miles	Long segments better capture crash patterns along higher-speed freeways

Crash Assignment and Segment Scoring

Once roadways were re-segmented, all study period crashes were assigned to roadway segments. To capture patterns that continued through intersections, and to account for inaccuracies in exact crash geolocations, each crash was assigned to all segments within 100 feet of the crash's geocoded location. To focus the analysis on patterns of high severity crashes, crashes were assigned a score based on the highest severity injury in the crash. Both fatal (K) and incapacitating injury (A) crashes were assigned a score of 3, minor injury (B) crashes were assigned a score of 2, and possible injury (C) crashes were

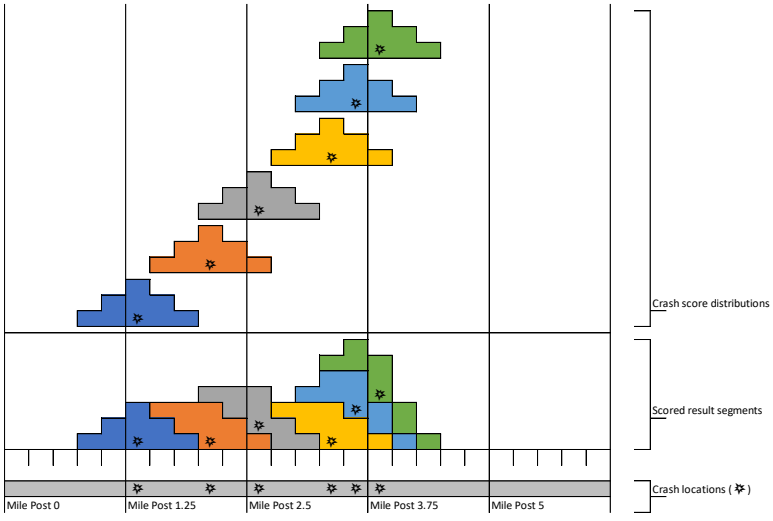
assigned a score of 1, while property damage only (O) crashes were excluded from the analysis. This scoring is summarized in Table 4.

Table 4. Crash severity scores

Severity Level	Description	Score
K	Fatal	3
A	Incapacitating Injury	3
B	Minor Injury	2
C	Possible Injury	1
O	Property Damage Only	0

To generalize patterns of discrete crash locations across continuous roadway corridors, the project team applied a modified sliding window analysis, smoothing data across adjacent segments. This approach distributed the score associated with each crash between the segment the crash was assigned to as well as two segments on either side. The relative portion of the crash score assigned to each segment varies by its distance from the center segment and decreases linearly. This creates a pyramid-shaped distribution of each crash's score across up to five adjacent segments, as visualized in Figure 2. These distributed crash scores are then totaled and used as the final crash score for the given segment.

Figure 2. Sliding Window Analysis and Crash Distribution Schematic

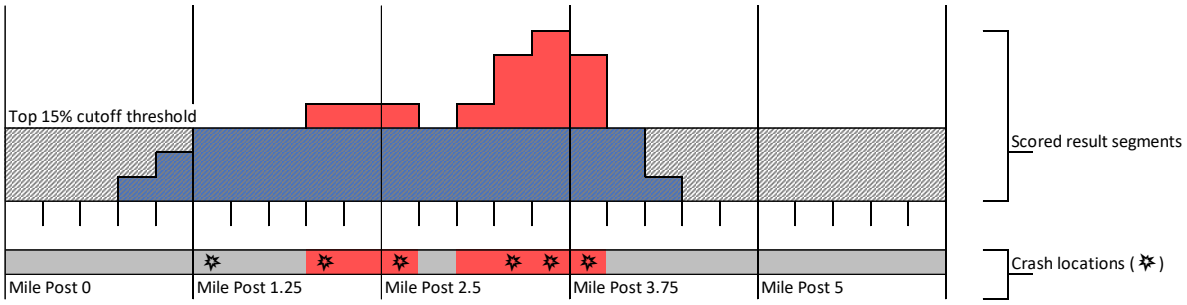


Percentile Ranking and Selection

Once the sliding window analysis process was complete, the results were analyzed based on distributed crash scores to identify the top scoring roadway segments based on the distributed crash scores within

each municipality. A percentile ranking is computed for each segment within each context area and each municipality, then the top 15% of all roads are selected, as visualized in Figure 3. Breaking the ranking process out by municipality and context area ensures that every municipality is compared only against itself to determine the final target roadways, rather than comparing roadways in different context areas. Approximately 15% of each municipality's roadway network was selected as the final target roads, including 15% within each context area where adequate crash data exists (e.g., municipal networks in a context with zero crashes resulted in no target roads).

Figure 3: Percentile Ranking of Distributed Crash Scores



Post-processing of Minor Roads

Because a crash is assigned to all roadway segments within 100 feet of the crash point, minor streets that branch off from major corridors tend to receive higher scores than they would otherwise, due to the high number of severe crashes at intersections with the major corridor. These minor streets can be removed from the target networks to make the major corridor the focus of the recommendations and treatments. For this reason, a post-processing step was added to remove minor streets that score in the top 85th percentile due to intersection clusters of severe crashes. This process was not performed in municipalities with fewer than 10 crashes involving vulnerable road users.

Risk-based Analysis

This section documents the methodology and results of the risk-based network analysis process conducted to supplement the baseline crash analysis and mapping process outlined above. This systemic analysis builds on the reactive, crash-based approach to identify roadway facilities with the greatest potential for safety improvements by identifying combinations of roadway attributes that are associated with higher frequencies of severe crashes. The results of this analysis, combined with the baseline crash analysis mapping results produce the final High Injury Network.

Systemic Screening Factors

One of the key outcomes of the systemic safety analysis process is the identification of roadway facility attributes that correlate with high crash frequency. These attributes are also known as systemic screening factors. Combinations of these factors can help flag roadway facility profiles associated with higher crash frequencies. Notably, the presence of these factors does not necessarily indicate a causal relationship, nor that individual factors must be the target of treatments. For example, though the presence of nearby vulnerable road user (VRU) generators may be a factor that correlates with elevated VRU crash frequencies, this does not mean that these generators should be removed. Instead, facilities near such generators may require additional support through safety investments.
Screening factors and roadway facility profiles should be studied from a practical and policy-driven perspective to determine what components may be reasonable targets of safety improvements and which should be viewed primarily as non-causal correlations.

Table 5 includes all roadway segment attributes that were identified as candidate factors for consideration in the analysis. Factors considered in the final analysis were limited by data quality and availability.

Table 5: Systemic Screening Factors Analyzed

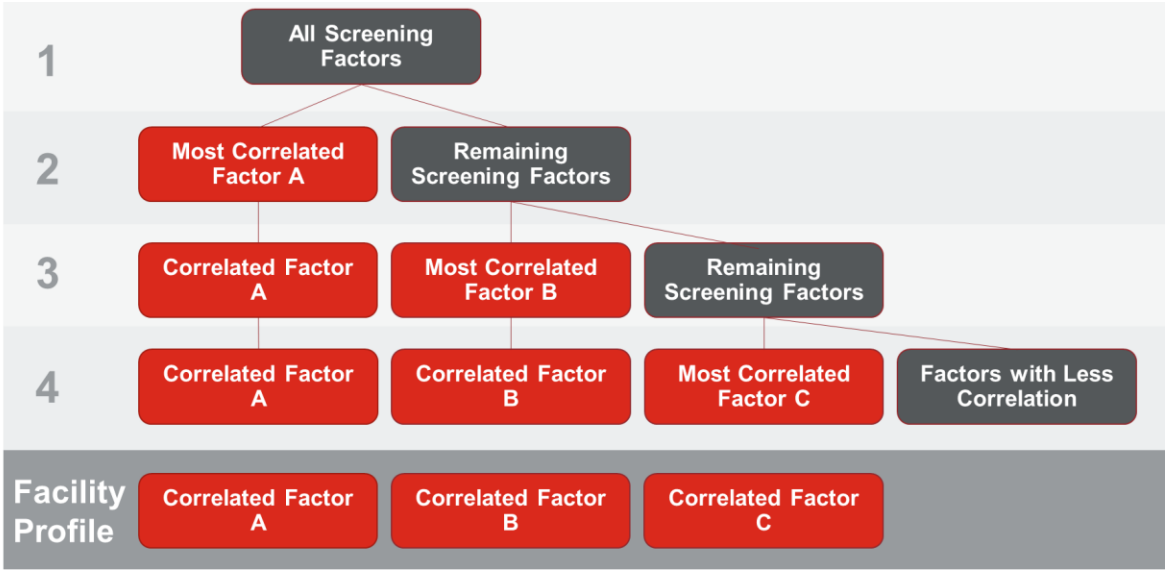
Screening Factor	Description
Roadway Jurisdiction	State, Local, or Other (Unknown or Private)
Lane Configuration	Two-lane, Multilane
Traffic Volume Range (Average Annual Daily Traffic)	0 – 1,000, 1,000 – 10,000, 10,000+
Proximity to a School	Within ¼ Mile, Not Within ¼ Mile
Proximity to a Public Park	Within ¼ Mile, Not Within ¼ Mile
Percent of Population with Income Below 2x of the Poverty Level	Under 20%, 20-40%, Over 40%
Percent of Households with Zero Vehicles	Below 10%, 10-20%, Over 20%
Percent of Population Aged 65 or Older	Below 10%, 10-20%, Over 20%
Percent of Population Aged Below 18	Below 10%, 10-20%, Over 20%

Analysis Process

As with the baseline crash analysis the systemic analysis focused on the study period of 2019 through 2023. The target study roadway facilities include public roadways in the state of Rhode Island, excluding access-controlled freeways and related ramps. The analysis used the same crash scoring system as the baseline crash analysis, as summarized in Table 4 above.

The systemic analysis screening process is based on a decision tree machine learning algorithm in which each factor is screened individually to determine whether it can distinguish between locations with relatively high or low average crash densities per mile. For categorical factors such as roadway jurisdiction, the algorithm considers each unique classification individually. The algorithm screens all factors recursively to identify the most correlated, mutually exclusive sets of risk factors, resulting in several decision tree leaves, known in this analysis as facility profiles. Figure 4 illustrates the decision tree algorithm where multiple correlated factors define a facility profile.

Figure 4: Illustration of the Decision Tree Process for Screening Combinations of Risk Factors



Analysis Results

The following pages include risk-based analysis results which are organized by context classification, first by all modes and then by VRUs. Tables and figures outline the unique risk factors and priority rankings associated with each facility profile. Each subsection provides definitions of unique facility profiles identified by the analysis and their associated risk factors and statewide crash score and mileage metrics associated with these profiles. Profiles are grouped into five tiers, including Critical, High, Medium, Low, and Minimal, highlighting the facilities that are associated with the highest to lowest risk for severe crashes based on combinations of risk factors. Based on these profiles and their tiers, the project team was able to identify which roadway segments were associated with higher levels of crash risk for each mode.

All Modes – Urban Context

This section presents risk-based facility profile analysis models for crashes of all modes on all roadways within an urban context in Rhode Island, excluding access-controlled freeways and ramps. The analysis was conducted using severity-weighted fatal and injury crashes.

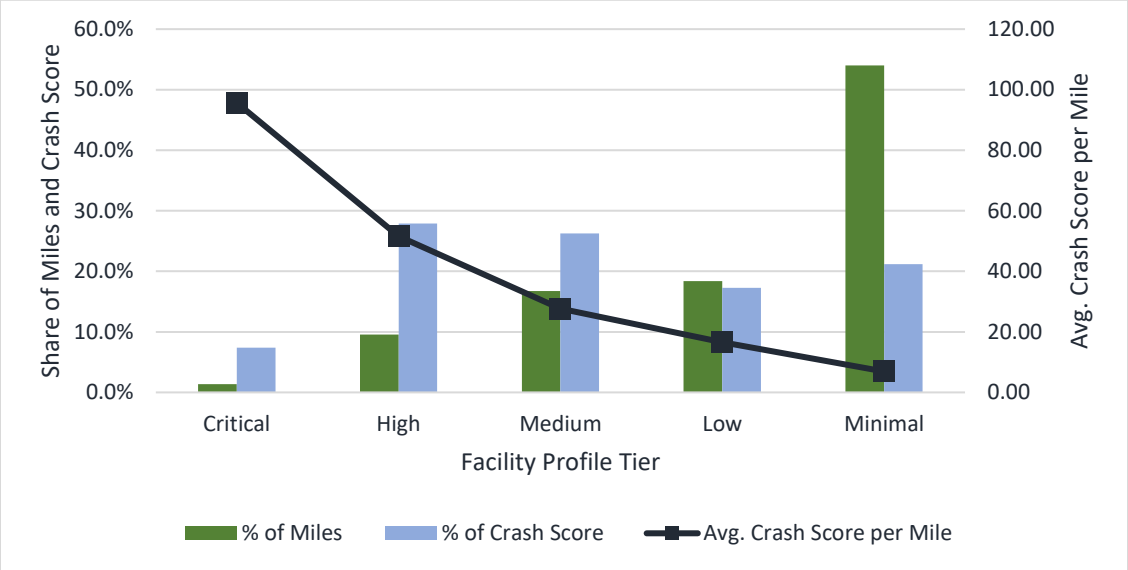
Table 6: All modes facility profile tier definitions, urban context

Facility Profile Tier	Facility Profile Definition				
	Traffic Volume Range (AADT)	% Zero Vehicle Households	Roadway Jurisdiction	% Population Below 2x Poverty Level	Within 1/4 Mile of School
Critical	10,000+	Over 20%	Non-State		
High	1,000+	10-20%		Over 40%	
	10,000+	Over 20%	State		
	1,000-10,000	Over 20%			
Medium	10,000+	Under 20%		Under 40%	
	1,000+	Under 10%		Over 40%	
	0-1,000			Over 40%	Yes
Low	1,000-10,000	Under 20%		Under 40%	
	0-1,000			Over 40%	No
Minimal	0-1,000			Below 40%	

Table 7: All modes facility profile tier metrics, urban context

Facility Profile Tier	Facility Profile Metrics				
	Avg. Crash Score per Mile	Miles	Crash Score	Miles Share	Crash Score Share
Critical	95.69	34.9	3,336.0	1.4%	7.4%
High	51.51	244.0	12,570.0	9.5%	27.9%
Medium	27.64	428.9	11,852.0	16.7%	26.3%
Low	16.54	470.5	7,784.0	18.4%	17.3%
Minimal	6.91	1,382.7	9,560.0	54.0%	21.2%

Figure 5: All modes facility profile tier summary, urban context



All Modes – Suburban Context

This section presents risk-based facility profile analysis models for crashes of all modes on all roadways within a suburban context in Rhode Island, excluding access-controlled freeways and ramps. The analysis was conducted using severity-weighted fatal and injury crashes.

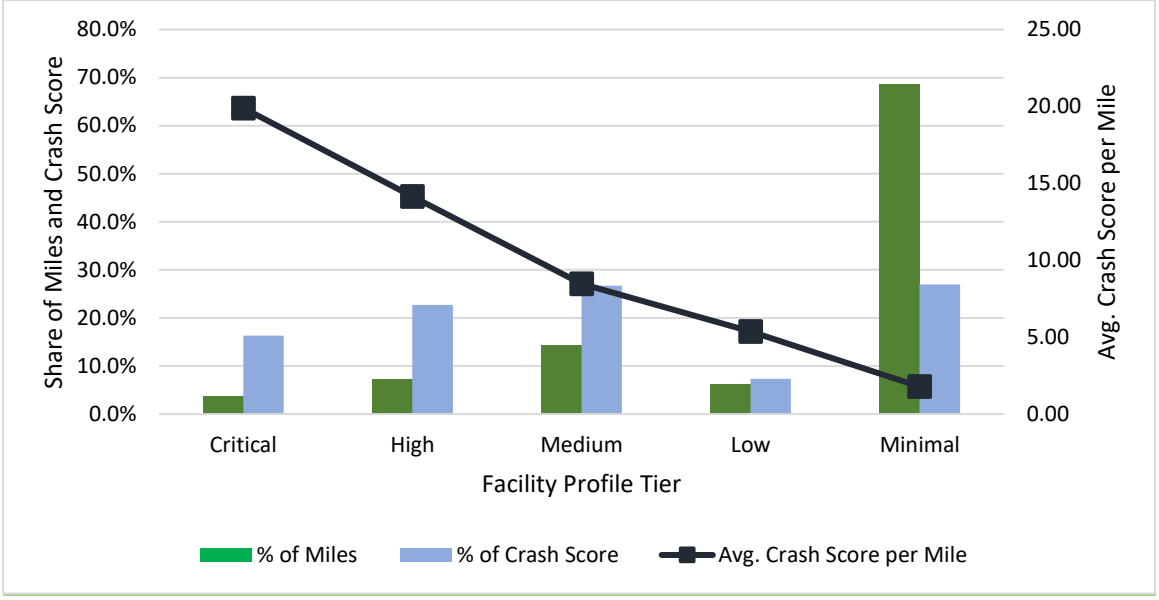
Table 8: All modes facility profile tier definitions, suburban context

Facility Profile Tier	Facility Profile Definition					
	Roadway Jurisdiction	Traffic Volume Range (AADT)	Within 1/4 Mile of School	Lane Configuration	% Zero Vehicle Households	% Population Below 18
Critical	State	10,000+	Yes			
	State	10,000+	No	Multilane		
High	State	10,000+	No	Two-lane		
	State	0-10,000			Over 10%	
Medium	State	0-10,000			Under 10%	
	Non-State	1,000+			Over 10%	
	Non-State	1,000+			Under 10%	Under 20%
Low	Non-State	1,000+			Under 10%	Over 20%
Minimal	Non-State	0-1,000				Over 10%
	Non-State	0-1,000				Under 10%

Table 9: All modes facility profile tier metrics, suburban context

Facility Profile Tier	Facility Profile Metrics				
	Avg. Crash Score per Mile	Miles	Crash Score	Miles Share	Crash Score Share
Critical	19.89	69.0	1,372.0	3.7%	16.3%
High	14.14	134.8	1,906.0	7.3%	22.7%
Medium	8.47	264.8	2,243.0	14.3%	26.7%
Low	5.37	114.7	616.0	6.2%	7.3%
Minimal	1.78	1,270.2	2,265.0	68.5%	27.0%

Figure 6: All modes facility profile tier summary, suburban context



All Modes – Rural Context

This section presents risk-based facility profile analysis models for crashes of all modes on all roadways within a rural context in Rhode Island, excluding access-controlled freeways and ramps. The analysis was conducted using severity-weighted fatal and injury crashes.

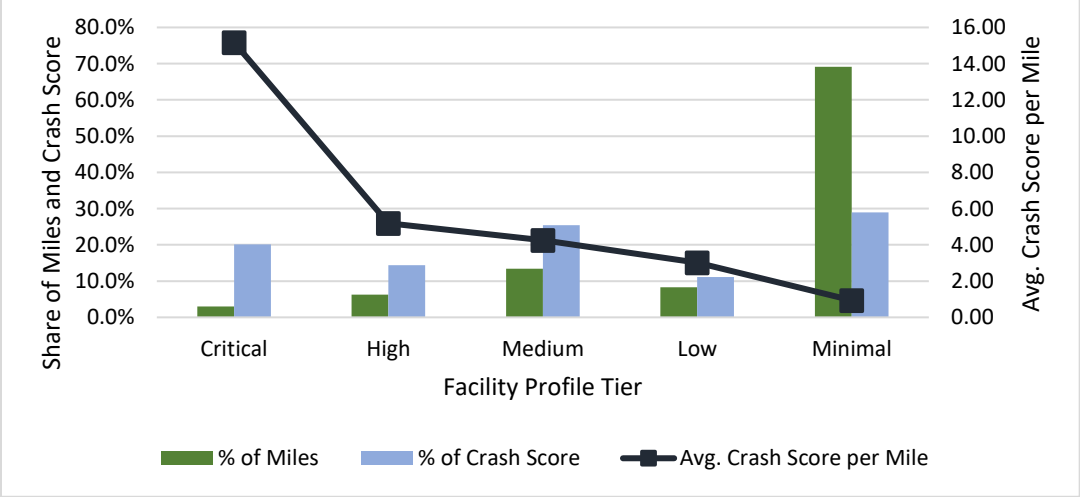
Table 10: All modes facility profile tier definitions, rural context

Facility Profile Tier	Facility Profile Definition		
	Traffic Volume Range (AADT)	Roadway Jurisdiction	% Population Below 2x Poverty Level
Critical	10,000+		
High	0-10,000	State	Over 20%
Medium	0-10,000	State	Under 20%
Low	1,000-10,000	Non-State	
Minimal	0-1,000	Non-State	

Table 11: All modes facility profile tier metrics, rural context

Facility Profile Tier	Facility Profile Metrics				
	Avg. Crash Score per Mile	Miles	Crash Score	Miles Share	Crash Score Share
Critical	15.18	65.1	988.0	3.0%	20.1%
High	5.19	136.3	707.0	6.2%	14.4%
Medium	4.26	293.0	1,247.0	13.4%	25.4%
Low	3.02	181.0	546.0	8.3%	11.1%
Minimal	0.94	1,512.1	1,422.0	69.1%	29.0%

Figure 7: All modes facility profile tier summary, rural context



Vulnerable Road User Modes – Urban Context

This section presents risk-based facility profile analysis models for crashes of vulnerable road user modes on all roadways within an urban context in Rhode Island, excluding access-controlled freeways and ramps. The analysis was conducted using severity-weighted fatal and injury crashes.

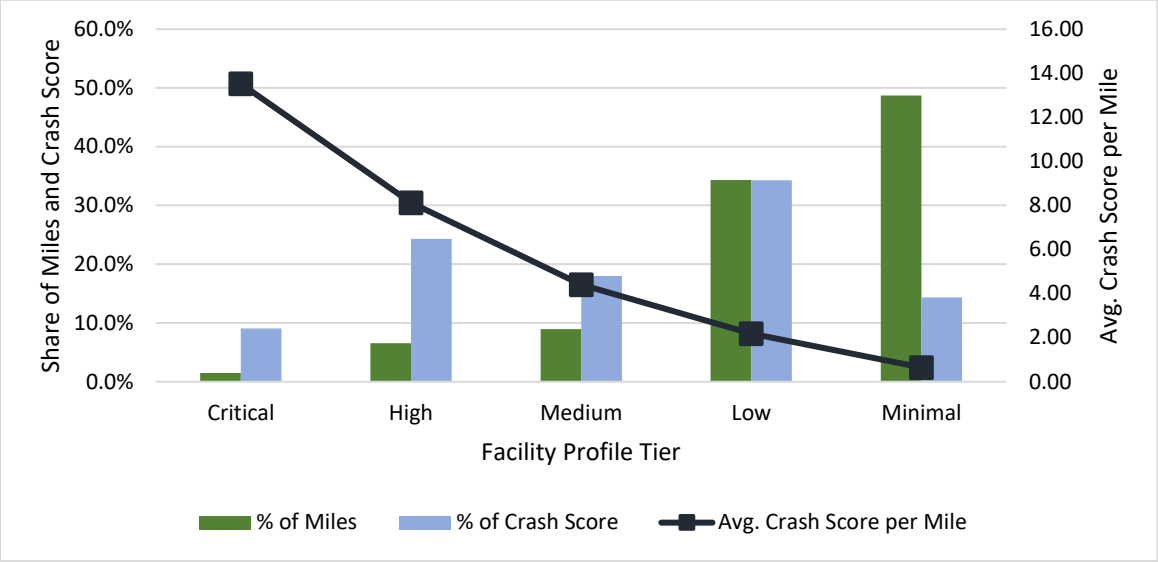
Table 12. Vulnerable road user modes facility profile tier definitions, urban context

	Facility Profile Definition					
Facility Profile Tier	**% Zero Vehicle Households**	**Traffic Volume Range (AADT)**	**% Population Below 18**	**Within 1/4 Mile of School**	**% Population Below 2x Poverty Level**	**Within 1/4 Mile of Public Park**
Critical	Over 20%	1,000+	Below 10%			
High	Over 20%	1,000+	Over 10%	Yes		
	10-20%	1,000+			Over 40%	
Medium	Over 20%	0-1,000				Yes
	Over 20%	1,000+	Over 10%	No		
Low	Under 10%	1,000+			Over 40%	
	Under 20%	0-1,000			Over 40%	
	Under 20%	1,000+			Under 40%	
	Over 20%	0-1,000				No
Minimal	Under 20%	0-1,000			Under 40%	

Table 13: Vulnerable Road user modes facility profile tier metrics, urban context

	Facility Profile Metrics				
Facility Profile Tier	**Avg. Crash Score per Mile**	**Miles**	**Crash Score**	**Miles Share**	**Crash Score Share**
Critical	13.52	37.4	506.0	1.5%	9.0%
High	8.13	167.5	1,361.0	6.6%	24.3%
Medium	4.41	228.1	1,006.0	8.9%	18.0%
Low	2.19	875.7	1,917.0	34.3%	34.3%
Minimal	0.65	1,241.7	803.0	48.7%	14.4%

Figure 8: Vulnerable road user modes facility profile tier summary, urban context



Vulnerable Road User Modes – Suburban Context

This section presents risk-based facility profile analysis models for crashes of vulnerable road user modes on all roadways within a suburban context in Rhode Island, excluding access-controlled freeways and ramps. The analysis was conducted using severity-weighted fatal and injury crashes.

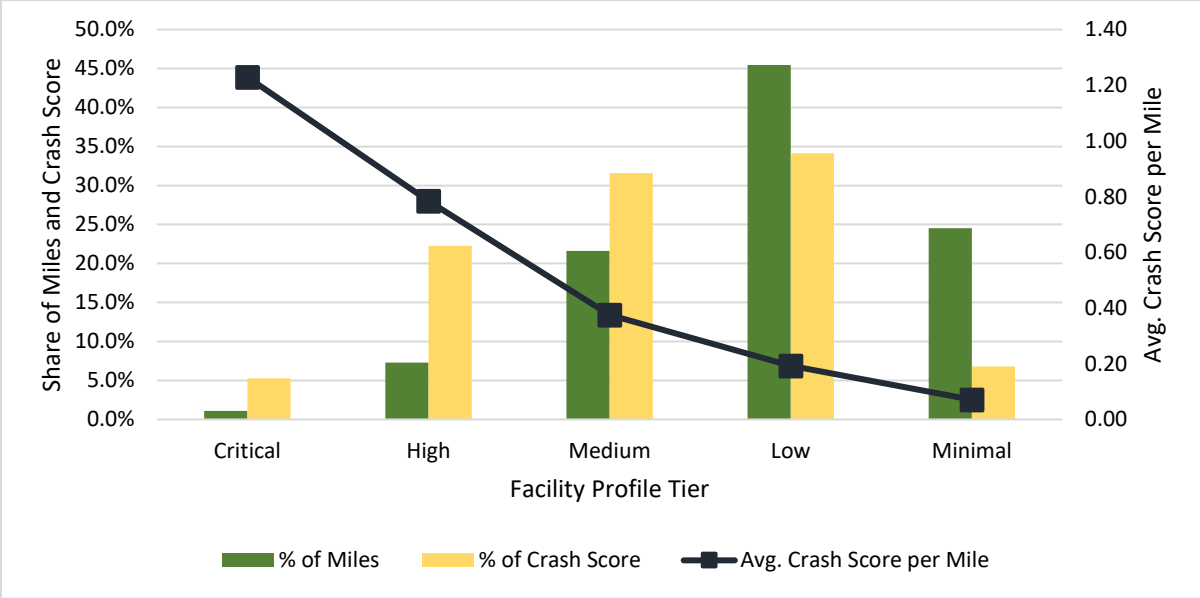
Table 14: Vulnerable road user modes facility profile tier definitions, suburban context

Facility Profile Tier	Facility Profile Definition						
	Traffic Volume Range (AADT)	% Zero Vehicle Households	Within 1/4 Mile of School	Roadway Jurisdiction	Within 1/4 Mile of Public Park	% Population Below 18	% Population Below 2x Poverty Level
Critical	1,000+	Over 20%					
High	1,000+	Under 20%	Yes	Non-Local			
	1,000+	Under 20%	No		Yes		
Medium	1,000+	Under 20%	Yes	Local			
	1,000+	Under 20%	No		No		
Low	0-1,000	Over 10%	No			Over 10%	
	0-1,000	Under 10%				Over 10%	Under 20%
Minimal	0-1,000	Over 10%	Yes			Over 10%	
	0-1,000	Under 10%				Over 10%	Over 20%
	0-1,000					Under 10%	

Table 15: Vulnerable road user modes facility profile tier metrics, suburban context

Facility Profile Tier	Facility Profile Metrics				
	Avg. Crash Score per Mile	Miles	Crash Score	Miles Share	Crash Score Share
Critical	1.23	20.3	25.0	1.1%	5.3%
High	0.78	133.9	105.0	7.3%	22.2%
Medium	0.38	397.6	149.0	21.6%	31.6%
Low	0.19	835.7	161.0	45.5%	34.1%
Minimal	0.07	451.0	32.0	24.5%	6.8%

Figure 9: Vulnerable road user modes facility profile tier summary, suburban context



Top Tier Identification

Typically, Critical, High, and Medium risk tiers are automatically included in the development of a High Injury Network (HIN). However, due to the varying mileage of different tiers of roads within each municipality, analysis results for each were reviewed individually to identify the number of tiers to include in each municipality's HIN. The review aimed to capture approximately 10-20% of each municipality's mileage within the top selected tiers, for both all modes and VRU modes models. The selection of risk tiers per model by municipality are summarized in Table 16.

Table 16: Top risk tiers by municipality and mode group

Municipality	Selected All Mode Tiers	Selected VRU Mode Tiers
Barrington	Critical, High, Medium	Critical, High, Medium
Bristol	Critical, High	Critical, High, Medium
Burrillville	Critical, High	Critical, High, Medium
Central Falls	Critical	Critical
Charlestown	Critical, High	Critical, High, Medium
Coventry	Critical, High, Medium	Critical, High, Medium
Cranston	Critical, High	Critical, High, Medium
Cumberland	Critical, High, Medium	Critical, High, Medium
East Greenwich	Critical, High, Medium	Critical, High, Medium
East Providence	Critical, High	Critical, High
Exeter	Critical, High, Medium	Critical, High, Medium
Foster	Critical, High, Medium	Critical, High, Medium
Gloucester	Critical, High, Medium	Critical, High, Medium
Hopkinton	Critical, High, Medium	Critical, High, Medium
Jamestown	Critical, High, Medium	Critical, High, Medium
Johnston	Critical, High, Medium	Critical, High, Medium
Lincoln	Critical, High	Critical, High, Medium
Little Compton	Critical, High, Medium	Critical, High, Medium
Middletown	Critical, High, Medium	Critical, High, Medium
Narragansett	Critical, High, Medium	Critical, High, Medium
New Shoreham	Critical, High	Critical, High, Medium
Newport	Critical, High, Medium	Critical, High
North Kingstown	Critical, High, Medium	Critical, High, Medium
North Providence	Critical, High	Critical, High, Medium
North Smithfield	Critical, High	Critical, High, Medium
Pawtucket	Critical, High	Critical, High
Portsmouth	Critical, High, Medium	Critical, High, Medium
Providence	Critical	Critical
Richmond	Critical, High, Medium	Critical, High, Medium
Scituate	Critical, High	Critical, High, Medium
Smithfield	Critical, High, Medium	Critical, High, Medium
South Kingstown	Critical, High	Critical, High, Medium
Tiverton	Critical, High, Medium	Critical, High, Medium
Warren	Critical, High, Medium	Critical, High
Warwick	Critical, High, Medium	Critical, High, Medium
West Greenwich	Critical, High, Medium	Critical, High, Medium
West Warwick	Critical, High, Medium	Critical, High, Medium
Westerly	Critical, High, Medium	Critical, High, Medium
Woonsocket	Critical	Critical

High Injury Network

The final component of the safety analysis is the creation of the High Injury Network (HIN), which combines the results of both the sliding window analysis and the risk analysis. The HIN uses the same segmentation as the sliding window analysis, with 0.25-mile segments for urban roads, 0.5-mile segments for suburban roads, and 1.0-mile segments for rural roads and access-controlled freeways. By combining the two analyses into one final roadway layer, the HIN communicates a holistic assessment of the need for intervention, based on final crash scores and risk tiers of each segment.
Final designation of inclusion in the HIN depends on the results of the sliding window analysis and risk-based analysis for both all modes and VRU modes analyses. Each roadway segment falls into one of four categories:

- Reactive: Segments which appear on the baseline crash analysis maps based on a top 15% crash score for the given mode and municipality.
- Proactive: Segments which appear in the top risk tiers for the given mode and municipality.
- Reactive & Proactive: Segments which satisfy both the reactive and proactive categories.
- None: Segments which satisfy neither the reactive nor proactive categories.

These designations were made for both all modes and VRU modes analyses, resulting in a set of HIN maps for each municipality. Maps were developed for both the all modes and VRU modes results, as well as a combination of both in a single map.

Appendix E: Disclaimer

The information contained in this document is for planning purposes and should not be used for the final design of any project. All results, recommendations, concept drawings, cost opinions, and commentary contained herein 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 contained herein. Geographic and mapping information presented in this document is for informational purposes only, and is not suitable for legal, engineering, or surveying purposes. Data products presented herein are based on information collected at the time of preparation. Toole Design Group, LLC makes no warranties, expressed or implied, concerning the accuracy, completeness, or suitability of the underlying source data used in this analysis, or recommendations and conclusions derived therefrom.