TOWN OF SMYRNA

Safe Streets and Roads for All

Safety Action Plan

APRIL 2025

TOWN OF SMYRNA MAYOR AND COUNCIL

Town of Smyrna Administration Office

Mary Esther Reed

Town of Smyrna Mayor

Town of Smyrna City Hall
315 S. Lowry Street, Smyrna, TN 37167
Phone: (615) 267-5005 Fax (615) 355-5715

Re: Comprehensive Safety Action Plan

Elected Officials, Stakeholders, and Citizens:

In Smyrna, every life is invaluable, and every traffic incident that leads to a fatality or serious injury is one too many. Our roadways are the lifelines of our community, and it is our utmost responsibility to ensure that they are not only efficient but, above all, safe.

On behalf of the Smyrna Town Council, I am proud to express our strong support for initiatives to make our roadways safer for all users.

Between 2019 and 2023, our town experienced 5,875 reported roadway crashes, of which 29 resulted in fatalities and 127 in serious injuries. These events are more than statistics; they are tragedies for the victims, their families, and our community. We are committed to significantly reducing these heartbreaking events.

The Town of Smyrna proudly strives towards the long-term goal of zero traffic deaths and serious injuries. Between 2019 and 2023, our town had a lower rate of fatal and serious injury crashes than the State of Tennessee (2.7% town-wide versus 3% statewide), and we are committed to doing better. As an interim goal, we aim to achieve a 20% reduction in fatal and serious injury crash rates by 2035.

This Comprehensive Safety Action Plan is an essential first step in our commitment. This plan is an actionable document that includes engineering projects and driver-related strategies that can positively impact roadway safety by addressing the Four Es of traffic safety: Engineering, Education, Enforcement, and Emergency Response. This data-driven approach ensures that our efforts are targeted, effective, and measurable. Annual progress updates will be published on our project website, Smyrna Safety Action Plan, ensuring transparency and accountability.

As a lifelong resident of Smyrna, I have witnessed the growth and evolution of our town firsthand. My commitment to our community's well-being has always guided my efforts, both in my professional and public service roles. I believe that creating safer roads is an extension of this mission, ensuring that all members of our community, especially our youth, can thrive in a safe environment.

We cannot achieve this alone. Smyrna's success in making our roadways safer relies on the active participation of residents, local government, and advocacy organizations. Together, we can eliminate preventable crashes and fatalities, creating a community where safety is a shared responsibility and a shared success.

Sincerely,

Mary Esther Reed

Mary Esther Reed, Mayor

Town of Smyrna

Mayor and Council

Mary Esther Reed, Mayor | Mark Adkins, Vice Mayor | H.G. Cole, Council Member | Jerome Dempsey, Council Member | Racquel Peebles, Council Member | Gerry Short, Council Member | Steve Sullivan, Council Member

Project Steering Committee

Town of Smyrna Public Works

Town of Smyrna Public Information Office & Media Services

Smyrna Police Department

Smyrna Fire Department

City of Murfreesboro

City of La Vergne

Rutherford County

Rutherford County Schools

Tennessee Department of Transportation

Project Management Team

Tom Rose, Public Works Director

Town of Smyrna Public Works

Kevin Rigsby, Town Planner

Town of Smyrna Public Works

Charles King, Town Engineer

Town of Smyrna Public Works

Consultant Team

Kimley-Horn

CONTENTS

Appendix List

Introduction

Alignment with SS4A

The Bipartisan Infrastructure Law (BIL) established the Safe Streets and Roads for All (SS4A) discretionary program to fund regional, local, and Tribal initiatives through grants to prevent roadway deaths and serious injuries.

One of the initiatives funded by the SS4A program is the development of a Comprehensive Safety Action Plan. A Safety Action Plan is a planning document that prioritizes safety improvements and justifies investment decisions. A formal plan will help the Town of Smyrna communicate clearly with stakeholders and access funding opportunities.

SS4A Self-Certification Activity		Found in Chapter(s)
1	Leadership Commitment and Goal Setting	Introduction (pg. 5)
2	Planning Structure	Acknowledgments; Community Engagement (pg. 30)
3	Safety Analysis	Safety Analysis (pg. 10)
4	Engagement and Collaboration	Community Engagement (pg. 30)
5	Policy and Process Selections	Policy and Process Changes (pg. 42)
6	Identify Projects and Strategies	Identifying Projects and Strategies (pg. 35)
7	Progress and Transparency	Progress and Transparency (pg. 45)
8	Action Plan Date	Adopted on April X, 2025 (Appendix D)

Purpose of the SAP

The Town of Smyrna SS4A Comprehensive Safety Action Plan (Smyrna SAP) provides a framework for identifying and prioritizing safety improvements that can be implemented. The Smyrna SAP recommendations focus on transportation improvements that can reduce fatal and serious injury crashes for all roadway users, guided by the principles established in the Tennessee Strategic Highway Safety Plan (SHSP) 2025-2029 Update and a systemic data analysis conducted specifically for the Town of Smyrna.

This Smyrna SAP aligns with the components required to apply for SS4A Implementation Grant funding. As such, it involves a community-informed and data-driven approach to roadway safety, with Smyrna leadership's commitment to reducing roadway fatalities and serious injuries for all roadway users.

Leadership Commitment and Goal Setting

Town of Smyrna leadership commits to making progress toward the long-term goal of zero traffic deaths and serious injuries with an interim goal of a 20-percent reduction in fatal and serious injury crash rates (expressed in crashes per million vehicle miles traveled [VMT]) by 2035 from the projected trend. **Figure 1** illustrates the five-year rolling averages of fatal/serious injury crash rates for the years 2019 to 2023. More detail is included in the Crash Data Analysis section of this document. The activities conducted during this study build upon the Federal Safe System Approach, the TN SHSP, and Town-specific data analysis findings and community feedback.

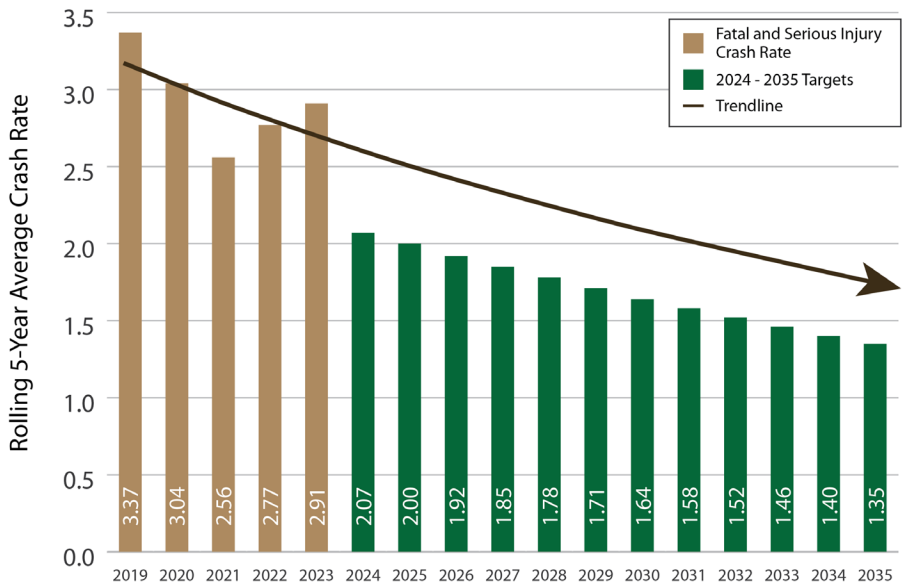


Figure 1: Smyrna Fatal + Serious Injury Crash Rate Trend

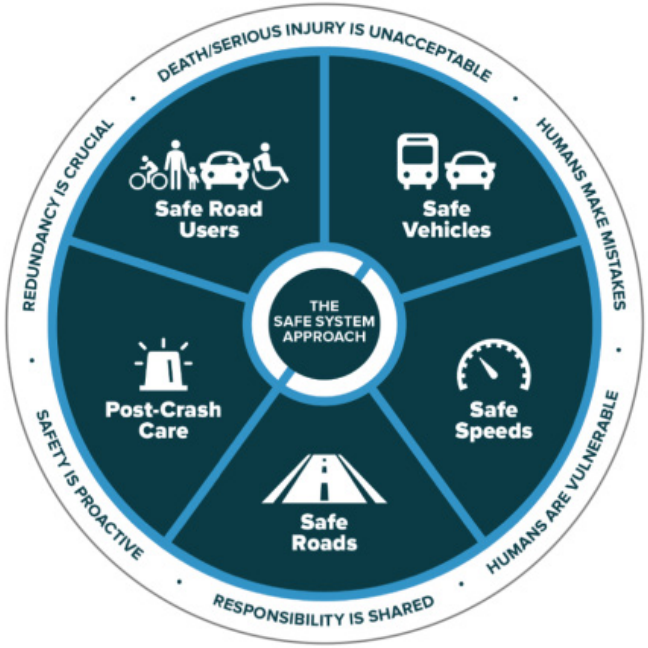


Figure 2: Guiding Paradigm of USDOT Safety (Source: FHWA)

Traditional Approach	VS	Safe System Approach
Traffic Deaths and Serious Injuries are Inevitable		Traffic Deaths and Serious Injuries are Preventable
Improve human behavior		Integrate human error into approach
Individual responsibility		Shared responsibility
Prevent Collisions		Prevent Fatal And Serious Injury Crashes
React based on crash history		Proactively identify and address risks
Saving lives is Expensive		Saving lives is Not Expensive

Figure 3: Traditional Approach vs Safe Systems Approach (Source: FHWA)

The Federal Safe System Approach is a federal guiding paradigm for roadway safety which states that humans make mistakes and that human bodies have limited ability to tolerate crash impacts. It prioritizes the elimination of crashes that result in fatal or serious injury. **Figure 2** illustrates the Safe System Approach principles and elements. **Figure 3** shows a comparison between the traditional approach versus the Safe System Approach.

Planning Structure

The Town of Smyrna established a Steering Committee comprised of a diverse group of local representatives from the Town of Smyrna and partner agencies. The Steering Committee participated in key workshops to set safety-related goals for the Town and to determine the course of subsequent action plan development priorities and activities. The Steering Committee continued to meet regularly throughout the plan to direct the development of the Smyrna SAP and to review key deliverables.

DOCUMENT ORGANIZATION

The Smyrna SAP is organized into the following Chapters:

- Introduction: Presents the project background, goals, and purpose of the Smyrna SAP
- Safety Analysis: Provides an overview of crash trends and explains how community characteristics informed this plan
- Community Engagement: Provides a summary of the robust community engagement during the development of this plan
- Identifying Projects and Strategies: Describes data-driven solutions through engineering projects at high-risk locations and driver-related strategies
- Progress and Transparency: Summarizes findings and lays out next steps for implementation

Study Area

The Town of Smyrna, Tennessee, is in Rutherford County, within the Nashville Metropolitan area. It encompasses nearly 23 square miles of land and is home to approximately 55,000 residents. The Town of Smyrna operates under the Council-Manager form of government, where the elected Council Members create policies, and the appointed Town Manager leads the various departments to ensure the entire community is served. Smyrna shares its northwest border with the City of LaVergne and its southeast border with the City of Murfreesboro.

HISTORY

The Town of Smyrna was officially incorporated in 1915 after the first incorporation charter in 1869 was rescinded by the State of Tennessee. During World War II, Stewart Air Force Base was established in Smyrna as a B-17 Flying Fortress and B-24 advanced training facility. During the 1950s and 1960s, the military presence caused the Town population to exceed 10,000. After the closure of the base in the early 1970s, the population decreased significantly to approximately 3,000 residents, and the bulk of the property was divided between three different entities: Rutherford County, the State of Tennessee, and the Metropolitan Nashville Airport Authority. Rutherford County formed an Economic Development Committee that was instrumental in bringing in new industrial jobs to the area, such as Better Built Aluminum, Cumberland Swan, and Square D. The population in Smyrna saw rapid growth due to the influx of the new businesses, nearly tripling by 1980. The land granted to the Metropolitan Nashville Airport Authority was utilized by the Tennessee Army National Guard and Tennessee Rehabilitation Center. After roughly 20 years, the land was relinquished to the newly founded Smyrna/Rutherford County Airport Authority, which has since made significant strides in improving airport operations for the area.

LAND USES AND ATTRACTIONS

The Nissan Smyrna Assembly Plant is the largest automotive assembly plant under one roof in the U.S., employing the highest number of Smyrna residents, at over 5,700 workers. Production began in 1983 as the first Japanese automobile manufacturer to build a plant in the United States. The Great Tennessee Air Show has taken place in Smyrna since the 1970s, where aircraft of all types are shown off both in-flight and on the ground. Smyrna is home to several historical attractions, such as the Sam Davis Home and the Captain Jeff Kuss Memorial. A small area of Stewart Creek runs along the northeast border of the Town, providing access to recreational fishing and boating uses.

Figure 4: Town of Smyrna in Nashville MPO

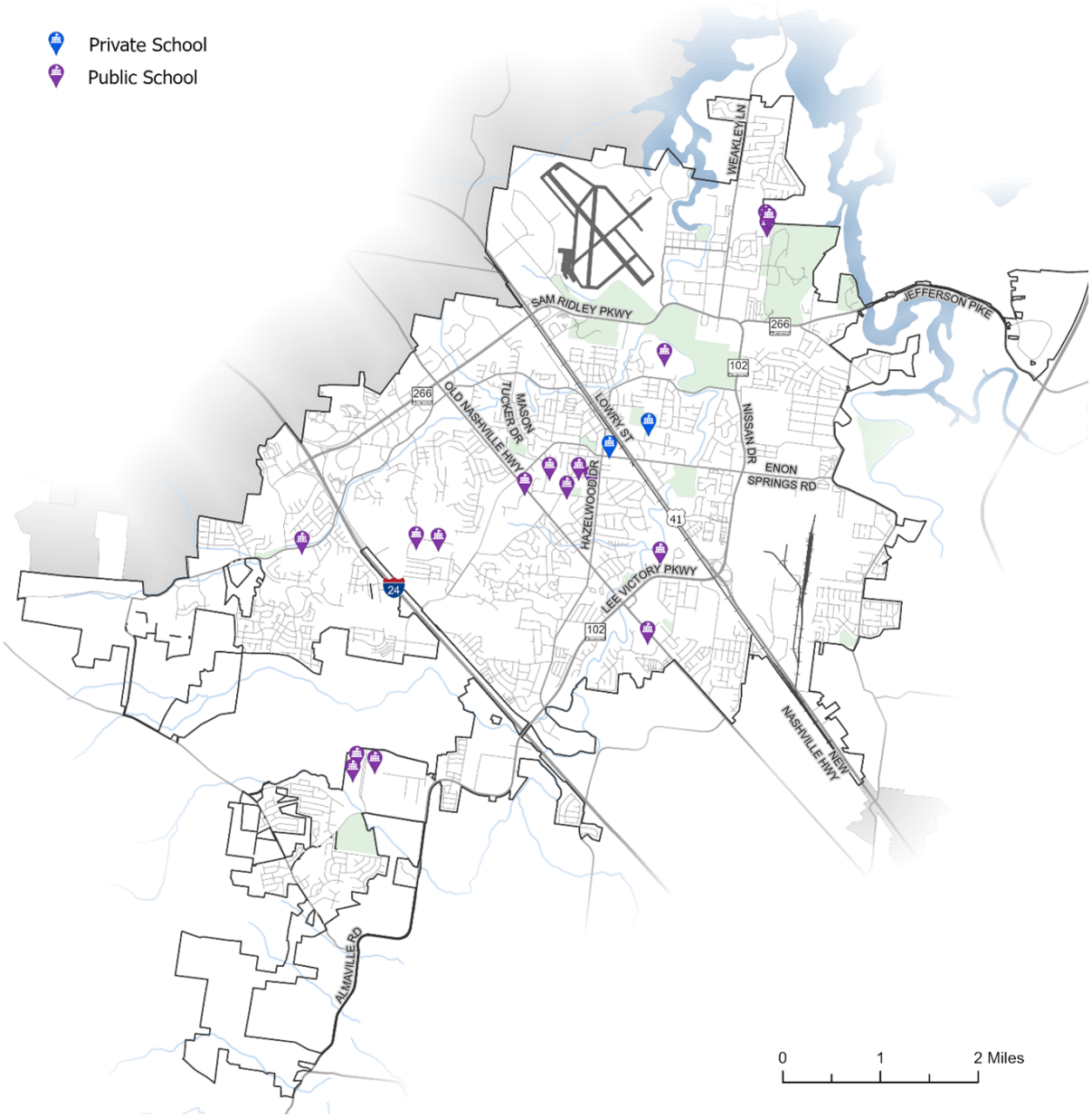


Figure 5: Schools within Smyrna

SCHOOLS

The Rutherford County School system operates the schools in the Town of Smyrna. The following schools are all located within the Town limits:

- Stewartsboro Elementary School
- John Coleman Elementary School
- David Youree Elementary School
- Smyrna Elementary School
- Stewarts Creek Elementary School
- Rocky Fork Elementary School
- Smyrna Middle School
- Rock Springs Middle School
- Stewarts Creek Middle School
- Rocky Fork Middle School
- Rutherford County Adult High School
- Smyrna High School
- Stewarts Creek High School
- Smyrna West Alternative School
- Smyrna Primary School
- Thurman Francis Arts Academy /Magnet School for the Arts
- Rutherford County Virtual School
- Community Christian Day School
- Lancaster Christian Elementary

Figure 6: Town of Smyrna Roadway Study Network

ROADWAY NETWORKS

Smyrna is located between Nashville and Murfreesboro, along the thoroughfares of I-24 and SR-41. The interchange of I-24 and I-840 is just southeast of the Town of Smyrna, carrying roughly 150,000 vehicles per day either through or near the study area. In Smyrna, N Lowry Street (US-41), Sam Ridley Parkway (TN-266), and Nissan Drive (TN-102) are the highest-volume roadways, excluding interstates, each carrying over 25,000 vehicles per day.

Safety Analysis

The safety analysis for the Smyrna SS4A Action Plan explored town-wide historical trends to understand where crashes occurred, crash severities, and their contributing factors. This safety analysis section summarizes data sources, safety emphasis areas, town-wide crash trends, input received from community outreach, community characteristics, and the identification of a high-injury network. The safety analysis findings helped inform the development of engineering projects and strategies identified in this plan.

KABCO Crash Severity: The KABCO scale measures the injury severity for any person involved in the crash and is defined as K for fatal injury, A for suspected serious injury, B for suspected minor injury, C for possible injury, and O for no apparent injury. From January 2019 to December 2023, there were 5,875 reported crashes on roadways in the Town of Smyrna, of which 156 resulted in fatalities or serious injuries.

DATA GATHERING

Historical crashes were obtained from TDOT's AASHTOWare Safety[1] online crash database for crashes reported from 2019 to 2023. Individual crash records contain location data as well as characteristics information provided by local law enforcement personnel. Note, that these findings intend to represent historical trends for the study area and absolute values may not identically match different statewide crash data reporting sources. Data cleaning was conducted to exclude crash records along the I-24 general-purpose lanes, duplicate crashes, erroneous crash information, and geographically inaccurate crash data. The analysis also included roadway characteristics information such as functional classification, number of lanes, and road ownership.

Figure 7: Crashes in Smyrna by KABCO Scale

[1]TDOT, AASHTOWare Safety
https://tdot.aashtowaresafety.com

EMPHASIS AREAS

State DOTs develop Strategic Highway Safety Plans under the Federal Highway Administration's (FHWA) direction to identify safety emphasis areas based on historical crash trends and severities. Crashes resulting in fatalities and suspected serious injuries were evaluated in the TN SHSP to identify the top statewide safety emphasis areas. These results help inform how transportation safety funding should be directed to reduce statewide fatal and serious injury crashes for all road users.

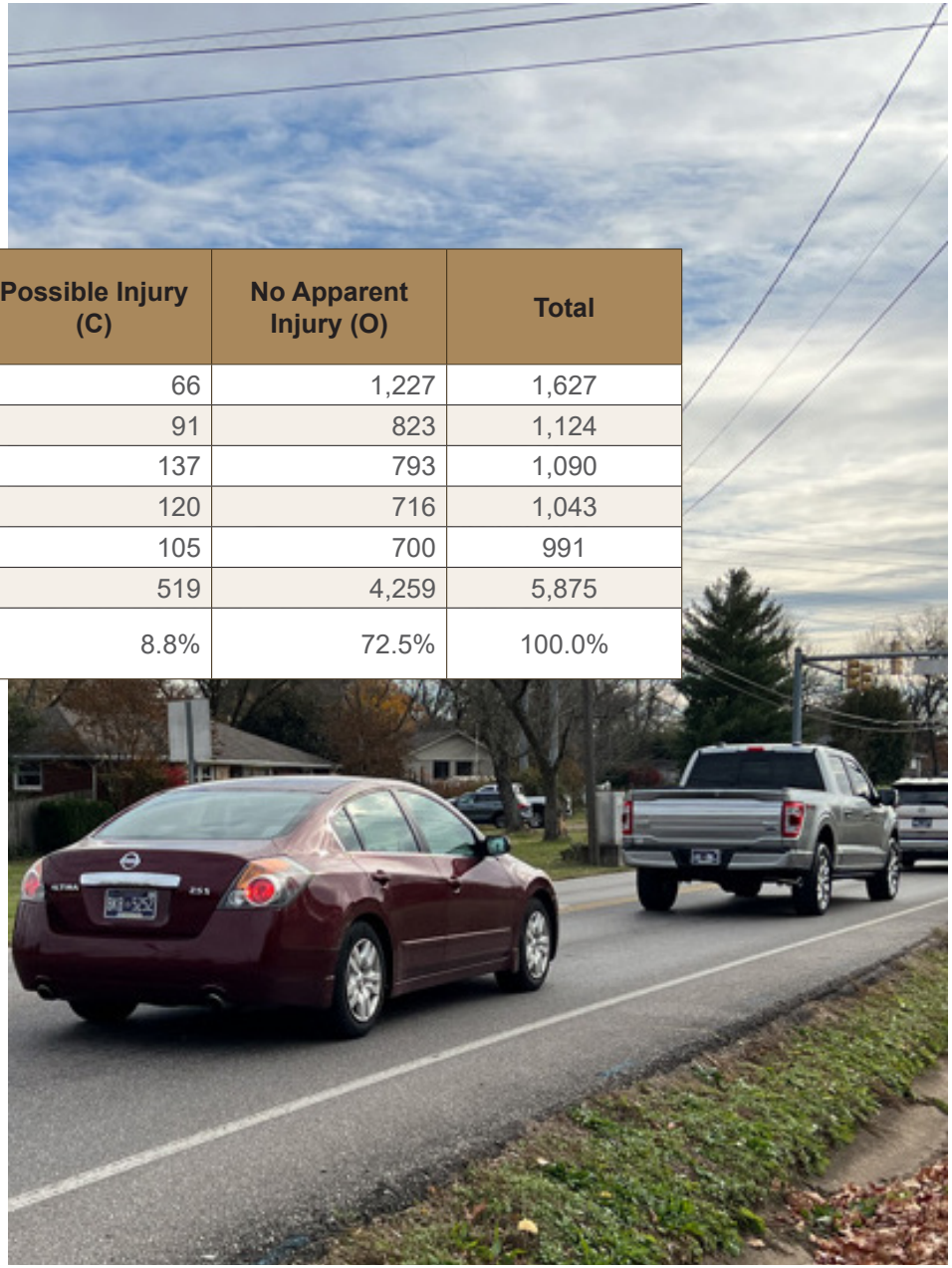
Table 1 shows a comparison of the Town of Smyrna's fatal and serious injury crashes to statewide totals for crashes reported between 2019 and 2023. Table 1 is formatted to emulate the emphasis areas documented in the TN SHSP and intends to highlight how the emphasis areas in Smyrna compare to statewide trends. Smyrna experienced higher percentages for several emphasis areas, including crashes involving intersections, unrestrained occupants, aggressive driving/ speeding, and motorcycles. Note, that individual crash events may be associated with more than one emphasis area. For example, a roadway departure crash could have involved an impaired young driver. As such, the values in the columns may not sum to equal the exact totals.

Category	Emphasis Areas	Town of Smyrna (2019-2023)				State of Tennessee (2019-2023)			
		# of Fatal Crashes	# of Serious Injury Crashes	Total	% Fatal & Serious Injury Crashes	# of Fatal Crashes	# of Serious Injury Crashes	Total	% Fatal & Serious Injury Crashes
All Severe Crashes		29	127	156	100.0%	5,344	25,731	31,075	100.0%
Roadway	Roadway Departure	15	24	39	25.0%	2,892	10,046	12,938	41.6%
	Intersections	6	60	66	42.3%	1,241	8,267	9,508	30.6%
Drivers	Unrestrained Occupants	15	33	48	30.8%	1,659	4,242	5,901	19.0%
	Senior Drivers (65+)	3	20	23	14.7%	1,155	4,893	6,048	19.5%
	Teen Drivers (13-19)	3	25	28	17.9%	941	5,673	6,614	21.3%
	Impaired Drivers	8	14	22	14.1%	1,418	3,495	4,913	15.8%
	Inattentive, Distracted, and Drowsy Drivers	1	4	5	3.2%	341	2,609	2,950	9.5%
	Aggressive Drivers / Speeding	9	29	38	24.4%	916	2,770	3,686	11.9%
Vehicles	Motorcycles	5	22	27	17.3%	782	3,558	4,340	14.0%
	Large Trucks (Truck/Bus)	2	9	11	7.1%	474	1,331	1,805	5.8%
Special Users	Pedestrians	3	5	8	5.1%	754	1,753	2,507	8.1%
	Bicycles	0	3	3	1.9%	49	286	335	1.1%
	Train-Vehicle Crash	1	0	1	1.9%	20	23	335	1.1%

Table 1: Town of Smyrna Fatal and Serious Injury Crashes by Safety Emphasis Areas

CRASH DATA ANALYSIS

Crashes reported between 2019-2023 in the Town of Smyrna are summarized by year and type in **Table 2**. The Town of Smyrna experienced a lower percentage of fatal and suspected serious injury crashes than the State of Tennessee (3%) during the same period. While the total number of crashes in Smyrna decreased each year, the number of fatal and suspected serious injury crashes remained consistent or increased slightly during the study period.



Year	Fatal Injury (K)	Suspected Serious Injury (A)	Suspected Minor Injury (B)	Possible Injury (C)	No Apparent Injury (O)	Total
2019	7	23	304	66	1,227	1,627
2020	3	22	185	91	823	1,124
2021	3	17	140	137	793	1,090
2022	6	36	165	120	716	1,043
2023	10	29	147	105	700	991
Total	29	127	941	519	4,259	5,875
Percentage of All Crashes	0.5%	2.2%	16.0%	8.8%	72.5%	100.0%

Table 2: Crashes by Severity and Year

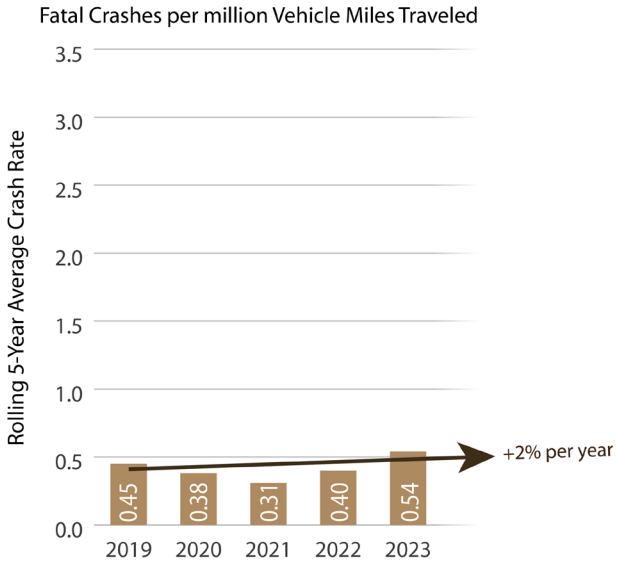
Crash Rate Comparison

From 2015 to 2023, there were approximately 30 high-severity (i.e., fatal plus serious injury) crashes per year on Smyrna roadways. Please note, that this excludes crashes along general-purpose I-24 lanes. The absolute number of crashes each year does not tell the whole story. Normalizing the crashes in a year by million vehicle miles traveled (VMT) allows for a comparison between trends as historical traffic fluctuates. Historical crash rates were calculated using crash records from TDOT's AASHTOWare Safety and annualized VMT information for Rutherford County obtained from TDOT's Highway Performance Monitoring System[2]. **Figure 8** illustrates how the fatal crash rate trend slightly increased by approximately 2.0 percent each year and the serious injury crash rate trend decreased by approximately 14 percent each year. Combining the fatal and serious injury crash rate trends results in approximately a 12 percent decrease each year. Projecting the trend to 2035 (i.e., 20 years from the completion of this study) results in a value of 1.69 by 2035, and a 20 percent reduction results in a target goal value of 1.35 fatal and serious injury crashes per million VMT by 2035.

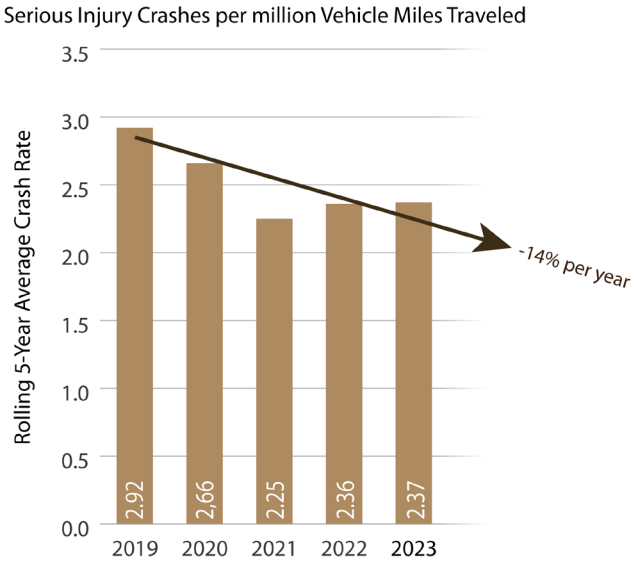
$$Crash\ Rate = \frac{Number\ of\ Crashes}{Million\ Vehicle\ Miles\ Traveled}$$

[2]TDOT Highway Performance Monitoring System, https://www.tn.gov/tdot/long-range-planning-home/longrange-road-inventory/longrange-road-inventory-highway-performance-monitoring-system.html

Fatal Crash Rate Trend



Serious Injury Crash Rate Trend



Fatal + Serious Injury Crash Rate Trend

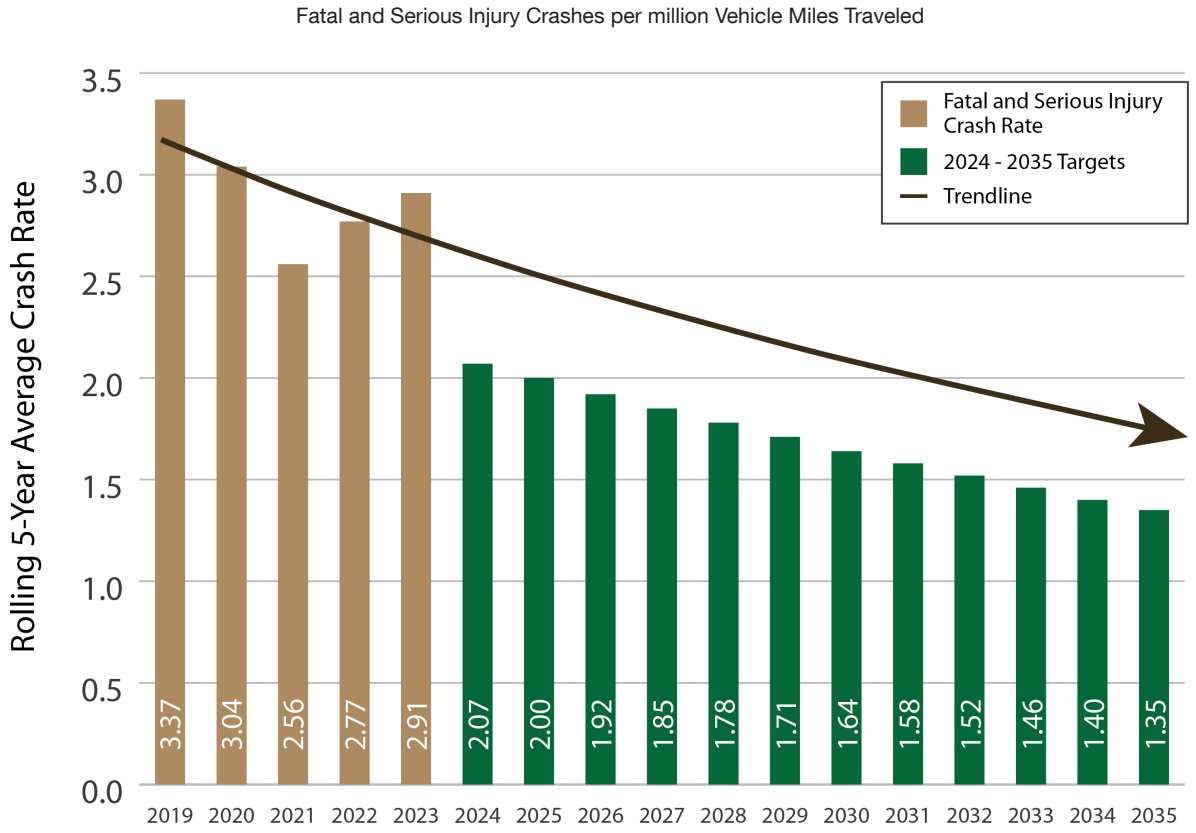


Figure 8: Smyrna Fatal and Serious Injury Crash Rate Trends

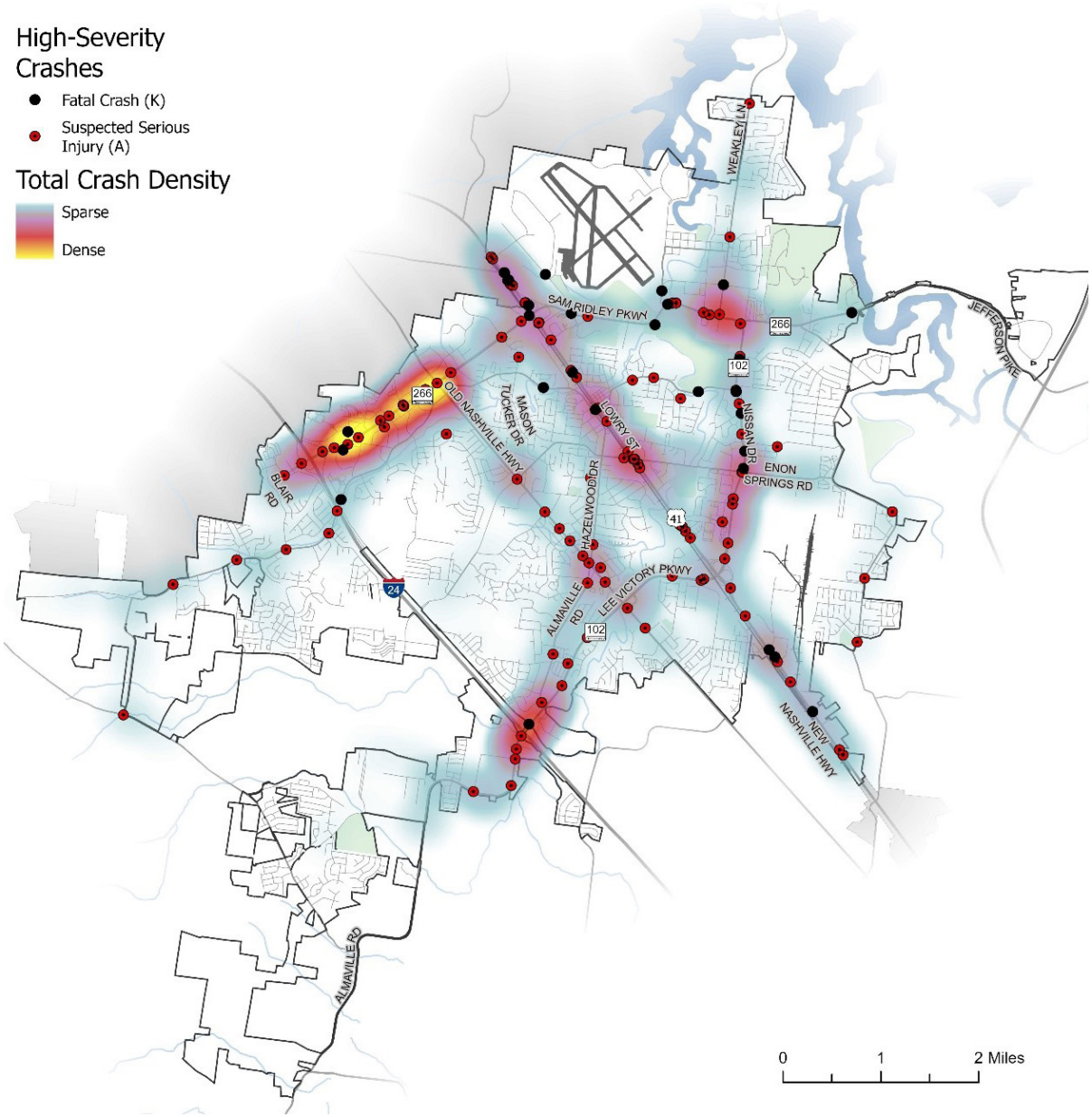
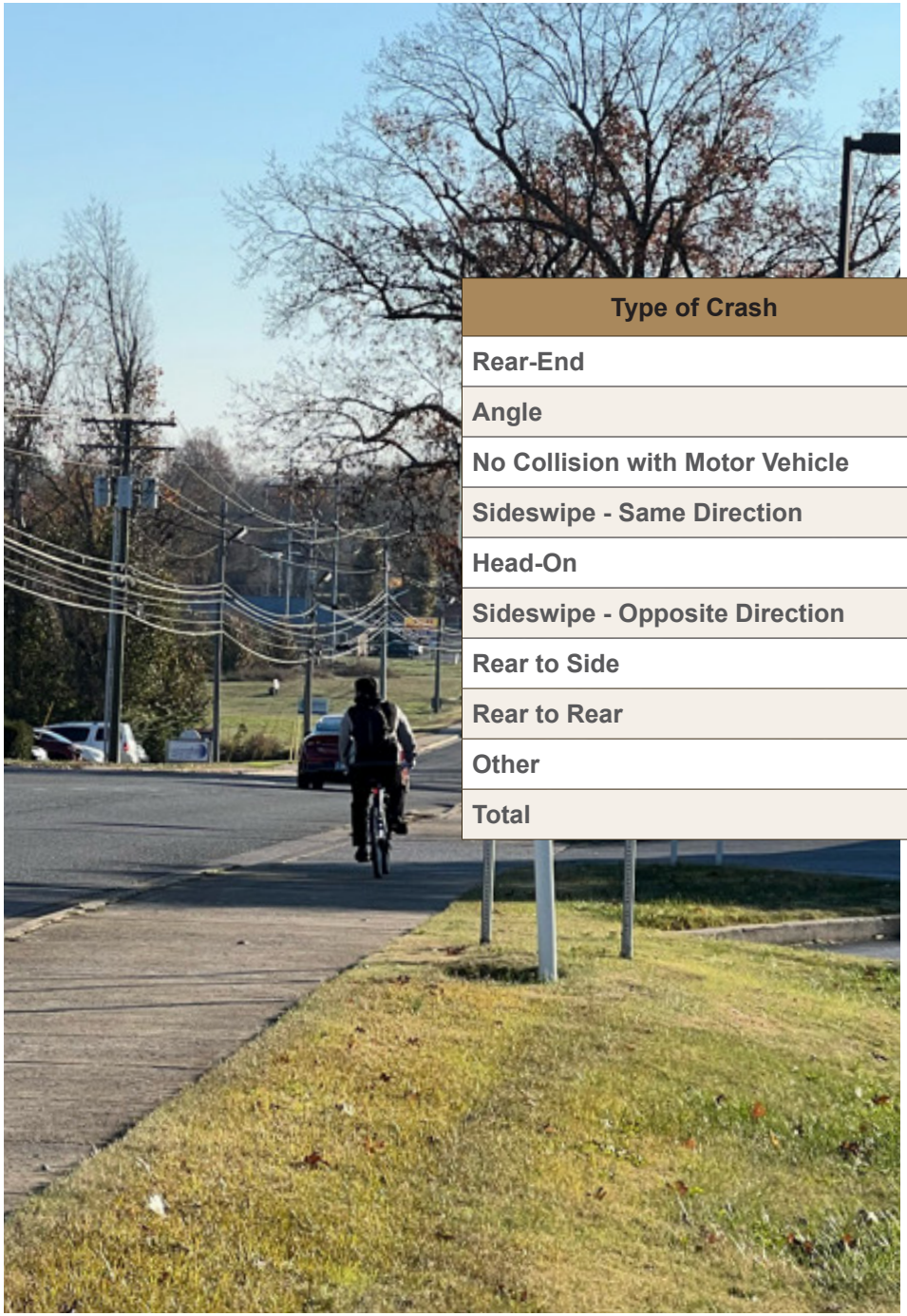


Figure 9: Overall Crash Density and Fatal/Suspected Serious Injury Crashes (2019-2023)

Crash Density

Crash density can be defined as the total amount of crashes per unit of road length, commonly defined as crashes per mile. **Figure 9** displays a total crash density map while highlighting locations where fatal and serious injury crashes occurred along the roadway network. The highest crash densities are usually observed at locations with higher traffic volumes as this translates to more exposure and potential risk for all road users. The highest crash density can be found along the Sam Ridley Parkway (TN-266) corridor, where there is a large commercial presence.



Crashes by Type

Crash type is indicated on crash reports submitted by law enforcement agencies. Rear-end crashes were the most common type over the study period, often occurring in congested traffic or when drivers are distracted. These types of crashes tend to be less severe because they often occur at lower speeds with less damaging crash angles. Angle crashes were the second most common crash type overall. Angle crashes often occur at roadway intersections, driveways, and roads with surplus side street access.

Type of Crash	2019	2020	2021	2022	2023	Total
Rear-End	602	395	359	336	299	1,991
Angle	464	351	398	394	368	1,975
No Collision with Motor Vehicle	221	200	155	171	160	907
Sideswipe - Same Direction	102	80	79	62	58	381
Head-On	34	30	27	32	35	158
Sideswipe - Opposite Direction	24	15	22	19	21	101
Rear to Side	6	9	2	2	2	21
Rear to Rear	6	4	3	4	2	19
Other	168	40	45	23	46	322
Total	1,627	1,124	1,090	1043	991	5,875

Table 3: Crashes by Type

Compared to the statewide data, the Town of Smyrna experienced a higher percentage of rear-end crashes and a lower percentage of crashes involving single vehicles (no collision with motor vehicle). This is likely due to Smyrna having more urban characteristics than other areas in the state resulting in more intersections and congestion. Single-vehicle crashes often occur along curves and uninterrupted rural sections of roadways.

Crashes by Lighting Conditions

Street lighting serves as a streetscaping asset and safety countermeasure if it fits the context of the community and built environment. Approximately 28% of crashes in Smyrna occurred during non-daylight conditions (i.e., Dark, Dark – Not Lighted, Dark – Lighted, Dusk, and Dawn) which is lower than the statewide average during the same period of 32% percent. Proper lighting along roadways and at intersections can increase driver awareness of the roadway and decrease the probability of a crash due to low visibility and driver confusion.

Lighting Condition	2019	2020	2021	2022	2023	Total
Daylight	1,017	742	724	697	665	3,845
Dark - Lighted	326	232	212	202	173	1,145
Dark - Not Lighted	65	65	65	80	62	337
Dusk	29	22	13	14	23	101
Dawn	18	16	18	16	19	87
Other	172	47	58	34	49	360
Total	1,627	1,124	1,090	1,043	991	5,875
Rear to Rear	6	4	3	4	2	19

Table 4: Crashes by Lighting Condition

Crashes by Road Surface Conditions

Pavement friction affects how vehicles interact with the roadway and directly influences the frequency of crashes. Wet pavement can further reduce traction and exacerbate the frequency and severity of vehicle crashes. Approximately 16% of crashes in Smyrna occurred during wet road surface conditions, which is only slightly lower than the statewide average of 19% over the same period.

Surface Condition	2019	2020	2021	2022	2023	Total
Dry	1,239	888	859	858	808	4,652
Wet	224	203	175	148	147	897
Ice	1	0	5	11	0	17
Snow/Slush	3	5	12	7	0	27
Other	160	28	39	19	36	282
Total	1,467	1,096	1,051	1,024	955	5,875

Table 5: Crashes by Road Surface Condition

Figure 10: Freight Network and Related Crashes in Smyrna

Crashes Involving Freight

The Town of Smyrna experiences a high presence of freight transportation due to its large industrial behavior and advantageous location in the Nashville MPO and international freight network. **Figure 10** illustrates the existing freight network with an overlay of freight-related crashes, differentiated by crash severity type. As shown, 234 freight-related crashes occurred in Smyrna during the study period, of which one (1) resulted in a fatal crash (along Industrial Boulevard) and eight (8) in a serious injury crash.

High-Crash Locations

The total number of crashes at a location does not tell the whole story, as areas with a higher traffic volume are more likely to experience a greater absolute number of crashes. Furthermore, locations with high crash volumes often experience congestion which may result in lower crash severities. Crash rate calculations account for the traffic volumes at specific locations to allow for a more effective comparison between similar locations with safety concerns. The crash rates shown in **Table 6** are expressed as crashes per million vehicle miles of travel and were calculated in AASHTOWare Safety using the FHWA Roadway Departure Safety manual methodology.

Segments

There are over 240 centerline miles of roadway in the Town of Smyrna, not including interstate and private drives. Of the 156 KA (Fatal & Serious Injury) crashes in Smyrna, 79 occurred along roadway segments (i.e., at least 150 feet from an intersection or highway ramp).

The roadway segments experiencing a higher number of KA crashes, listed by characteristics, are listed below summarized by notable trends:

Opposing Travel Lane Separation

Divided Median

- 29 (37%) fatal/serious injury crashes occurred along divided roadways:
  - N/S Lowry Street (US-41/US-70S/TN-1) – 15 Crashes
  - Nissan Drive (TN-102) – 4 Crashes
  - Sam Ridley Parkway W (TN-266) – 3 Crashes

Undivided Median

- 50 (63%) fatal/serious injury crashes occurred along undivided roadways:
  - Nissan Drive (TN-102) – Fatal/Serious Injury 6 Crashes
  - Almaville Road / Hazelwood Drive – 6 Crashes
  - Rock Springs Road – 5 Crashes
  - Sam Ridley Parkway (TN-266) – 5 Crashes
  - Sam Davis Road – 5 Crashes

Roadway Ownership

TDOT

- 44 (56%) fatal/serious injury crashes occurred along TDOT roadways:
  - N/S Lowry Street (US-41/US-70S/TN-1) – 18 Crashes
  - Nissan Drive (TN-102) – 10 Crashes
  - Sam Ridley Parkway (TN-266) – 5 Crashes

Municipal

- 35 (44%) fatal/serious injury crashes occurred along Town roadways:
  - Old Nashville Highway – 6 Crashes
  - Almaville Road / Hazelwood Drive – 6 Crashes
  - Rock Springs Road – 5 Crashes

Number of Lanes

2 Lanes

- 32 (41%) fatal/serious injury crashes occurred along 2-lane roads:
  - Rock Springs Road – 5 Crashes
  - Almaville Road / Hazelwood Drive – 5 Crashes
  - Sam Davis Road – 3 Crashes
  - Weakley Lane – 3 Crashes

2+ Lanes

- 47 (59%) fatal/serious injury crashes occurred along roadways with 2+ lanes:
  - N/S Lowry Street (US-41/US-70S/TN-1) – 18 Crashes
  - Nissan Drive (TN-102) – 10 Crashes
  - Old Nashville Highway – 6 Crashes
  - Sam Ridley Parkway (TN-266) – 5 Crashes

Light Conditions

Daylight

- 45 (57%) fatal/serious injury crashes occurred during daylight conditions:
  - N/S Lowry Street (US-41/US-70S/TN-1) – 13 Crashes
  - Sam Ridley Parkway (TN-266) – 4 Crashes
  - Almaville Road / Hazelwood Drive – 4 Crashes
  - Old Nashville Highway – 3 Crashes
  - Nissan Drive (TN-102) – 3 Crashes

Non-Daylight

- 34 (43%) fatal/serious injury crashes occurred during non-daylight conditions:
  - Nissan Drive (TN-102) – 7 Crashes
  - N/S Lowry Street (US-41/US-70S/TN-1) – 6 Crashes
  - Rock Springs Road – 4 Crashes
  - Old Nashville Highway – 3 Crashes

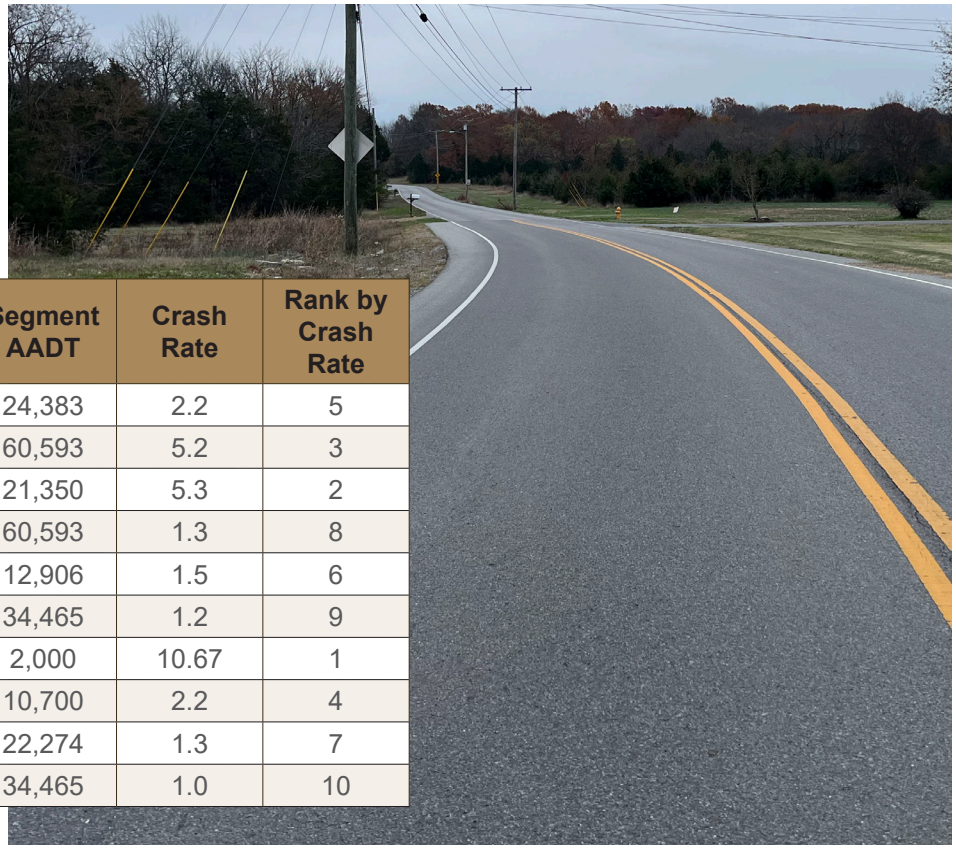


Table 6 summarizes the top 10 Town roadway segments, respectively, ranked by total crashes and crash rates. Identifying these segments was an important step toward defining the High-Injury Network, which is introduced in a later section.

Segment (Milepost Length)	Length (miles)	Crashes	Rank by Crashes	Segment AADT	Crash Rate	Rank by Crash Rate
Murfreesboro Road (2.67-5.68)	3.01	301	1	24,383	2.2	5
W Sam Ridley Parkway (0-0.32)	0.32	184	2	60,593	5.2	3
Almaville Road (6.89-7.66)	0.77	160	3	21,350	5.3	2
W Sam Ridley Parkway (0.43-1.51)	1.08	151	4	60,593	1.3	8
Old Nashville Parkway (3.08-6.54)	3.46	126	5	12,906	1.5	6
S Lowry Street (7.14-8.72)	1.58	115	6	34,465	1.2	9
Industrial Boulevard (0-2.57)	2.57	114	7	2,000	10.67	1
Old Nashville Parkway (0.66-2.93)	2.27	96	8	10,700	2.2	4
Almaville Road (7.66-9.33)	1.67	89	9	22,274	1.3	7
New Nashville Highway (8.72-9.91)	1.19	78	10	34,465	1.0	10

Table 6: Crashes and Crash Rates - Road Segments (2019-2023)

Intersections

There are approximately 3,600 roadway intersections within the Town limits, of which approximately 100 are signalized. Intersections, both signalized and unsignalized can pose potential conflicts for all road users. Signalized intersections can experience higher volumes than unsignalized intersections, thus increasing exposure and the potential for crash occurrence and severity. Of the 156 KA (Fatal and Serious Injury) crashes occurring in Smyrna within the study period, 66 occurred near an intersection. Of these 66 crashes, 35 occurred near signalized intersections while 31 occurred near unsignalized intersections.

The intersections experiencing a higher number of KA crashes are listed below summarized by notable trends:

Traffic Control Type

Signalized Intersections

- S Lowry Street (US-41/US-70S/TN-1) at Enon Springs Road W – 3 Crashes
- Sam Ridley Parkway W (TN-266) at Mason Tucker Drive – 3 Crashes
- Old Nashville Highway at Enon Springs Road W – 2 Crashes
- S Lowry Street (US-41/US-70S/TN-1) at Washington Street – 2 Crashes

Unsignalized Intersections

- N Lowry Street (US-41/US-70S/TN-1) at Jefferson Pike – 6 Crashes
- Nissan Drive (TN-102) at Sam Davis Road – 3 Crashes
- S Lowry Street (US-41/US-70S/TN-1) at George Franklin Road – 2 Crashes
- Almaville Road at Seven Oaks Boulevard – 2 Crashes

Light Conditions

Daylight

- N Lowry Street (US-41/US-70S/TN-1) at Jefferson Pike – 4 Crashes
- S Lowry Street (US-41/US-70S/TN-1) at Washington Street – 2 Crashes
- Sam Ridley Parkway W (TN-266) at Wolverine Trail – 2 Crashes
- Sam Ridley Parkway W (TN-266) at Mason Tucker Drive – 2 Crashes

Non-Daylight

- Nissan Drive (TN-102) at Enon Springs Road E – 2 Crashes
- S Lowry Street (US-41/US-70S/TN-1) at Enon Springs Road E – 2 Crashes
- Nissan Drive (TN-102) at Bent Tree Drive – 2 Crashes

Intersection Layout

3-Legged Intersections

- N Lowry Street (US-41/US-70S/TN-1) at Jefferson Pike – 6 Crashes
- S Lowry Street (US-41/US-70S/TN-1) at George Franklin Road – 2 Crashes
- Nissan Drive (TN-102) at Bent Tree Drive – 2 Crashes

4-Legged Intersections

- S Lowry Street (US-41/US-70S/TN-1) at Enon Springs Road W – 3 Crashes
- Sam Ridley Parkway W (TN-266) at Mason Tucker Drive – 3 Crashes
- Nissan Drive (TN-102) at Enon Springs Road E – 2 Crashes
- S Lowry Street (US-41/US-70S/TN-1) at Washington Street – 2 Crashes

Table 7 summarizes the top 10 Town roadway intersections, ranked by total crashes and crash rates. Identifying these intersections was an important step toward developing the High-Injury Network, which is introduced in a later section.

Intersection	Traffic	Crashes	Rank by Crashes	Segment AADT	Crash Rate	Rank by Crash Rate
Industrial Boulevard at W Sam Ridley Parkway	Signalized	142	1	60,593	0.6	9
Isabella Lane at W Sam Ridley Parkway	Signalized	92	2	60,593	0.4	10
Old Nashville Highway at W Sam Ridley Parkway	Signalized	88	3	71,293	0.7	8
Almaville Road at Lee Victory Parkway	Signalized	85	4	32,678	1.4	3
US 41 (N Lowry Street) at Jefferson Pike	Stop-Controlled	78	5	29,026	1.5	1
Lee Victory Parkway at Tridon Drive	Signalized	77	6	22,274	0.9	6
S Lowry Street at Enon Springs Road	Signalized	69	7	34,123	1.1	4
Enon Springs Road E at Nissan Drive	Signalized	66	8	36,808	1.0	5
Old Nashville Highway at Rock Springs Road	Signalized	62	9	35,307	1.5	1
E Sam Ridley Parkway at Weakley Lane	Signalized	60	10	65,736	0.8	7

Table 7: Crashes and Crash Rates - Intersections (2019-2023)

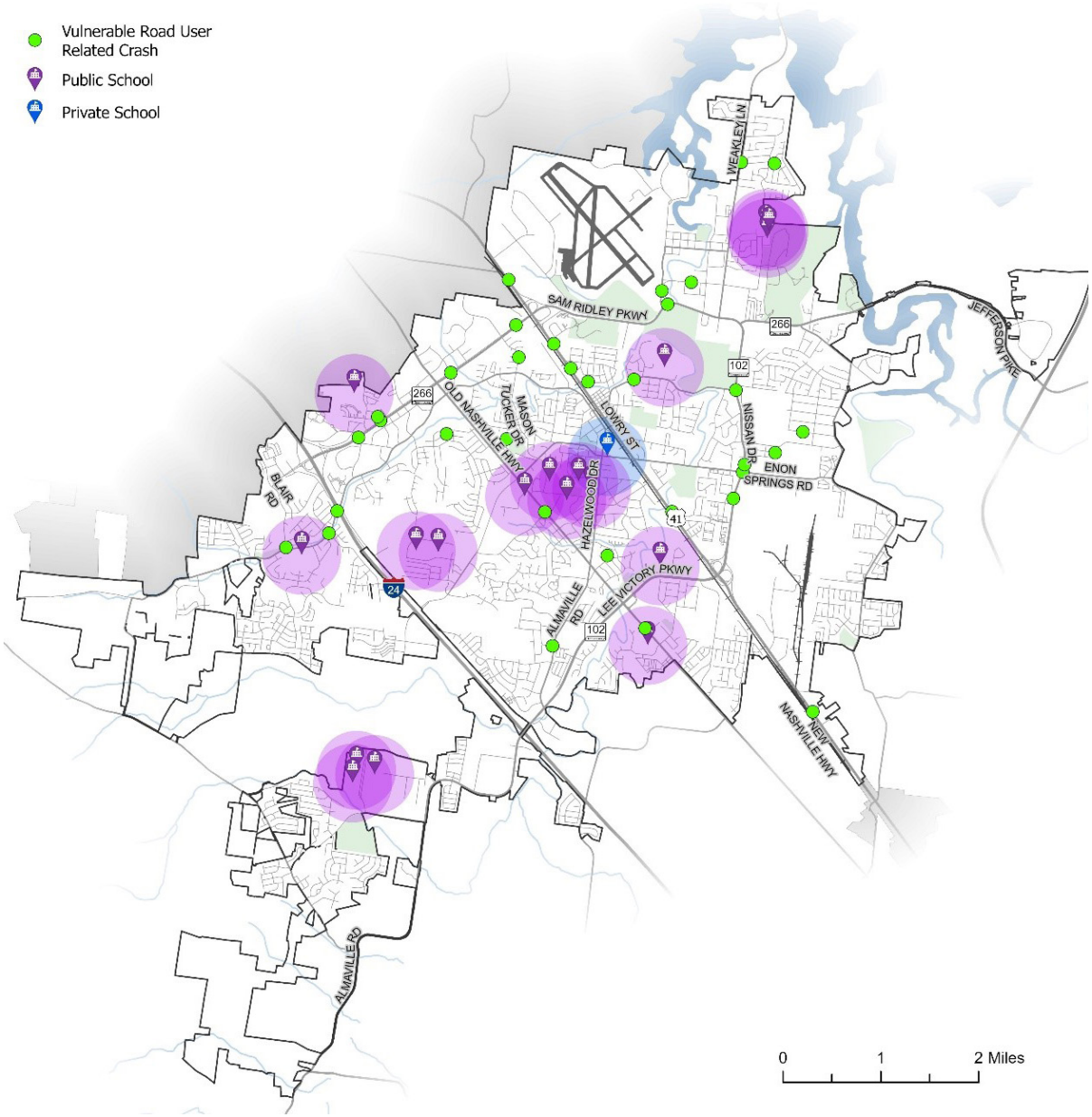


Figure 11: Crashes involving VRUs in Proximity to Schools (2019-2023)

Crashes Involving Vulnerable Users

Vulnerable roadway users (VRU) include pedestrians, cyclists, mobility device users (e.g., wheelchairs), and shared micromobility riders (e.g., e-scooter). VRUs are more exposed and at risk in the event of a crash with motorists. Over 30 percent of crashes involving VRUs resulted in serious injuries or fatalities in Tennessee between 2018 to 2022[3]. Furthermore, fatal and serious injury pedestrian and cyclist crashes increased by over 44% and 18%, respectively, from 2018 to 2022. The characteristics of roadways and their surrounding areas such as retail density, number of travel lanes, and roadway speed limits can pinpoint locations with potentially higher risk for VRUs. As illustrated in **Figure 11**, there were 25 pedestrian and eight bicycle crashes between 2019 and 2023 of which six (6) occurred within 0.5 miles of a school.

[3]TDOT, Tennessee VRU Safety Assessment, 2023 https://www.tn.gov/content/dam/tn/tdot/strategic/TDOT%202023%20VRU%20Safety%20Assessment%20Final%20w%20Appendix%2011-15-2023.pdf

Demographics and Community Characteristics

The following sections provide a summary of local demographics and community characteristics visualizations developed using various demographic datasets to understand the population characteristics of the Town of Smyrna. These findings helped inform the prioritization of High-Injury Network segments and ultimately the proposed projects and strategies of the Plan. The following is a summary of demographic characteristics for the Town of Smyrna:

- Population of 53,070 per the 2020 Census
- Approximately 17 percent are Hispanic or Latino versus a Tennessee statewide of approximately seven percent
- Approximately 16 percent of Smyrna residents are Black or African American (2020 Census)
- The median household income is $76,115 (2018-2022 ACS) versus a Tennessee statewide median household income of $65,254
- Approximately 28 percent of the Town's residents hold a bachelor's degree or higher
- Approximately 12 percent in poverty versus a Tennessee statewide of 13 percent (2018-2022 ACS)

The three areas of greatest employment in Smyrna (Nissan, the retail strip on Sam Ridley Parkway east of I-24, and the warehouse park north of Almaville Road) coincide with high-injury roadways. Roadway safety concerns in these areas can have chilling effects on investment and development.

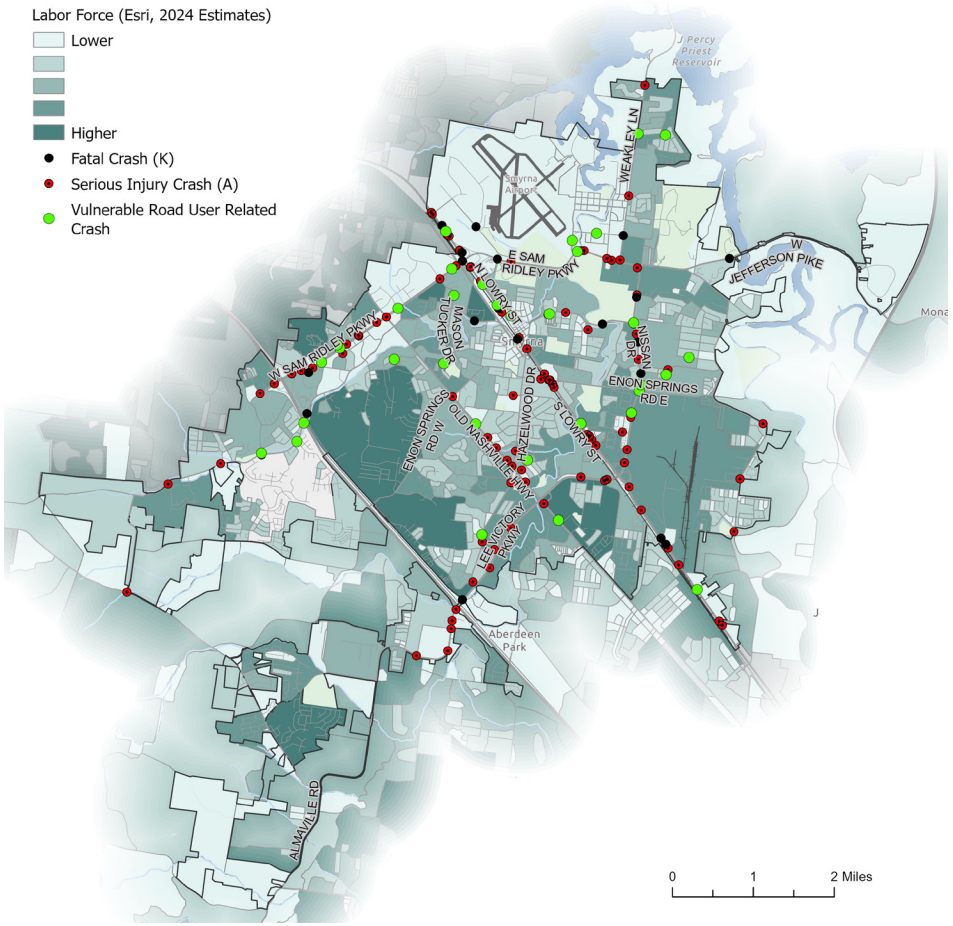


Figure 12: Crash Trends in High-Employment Areas

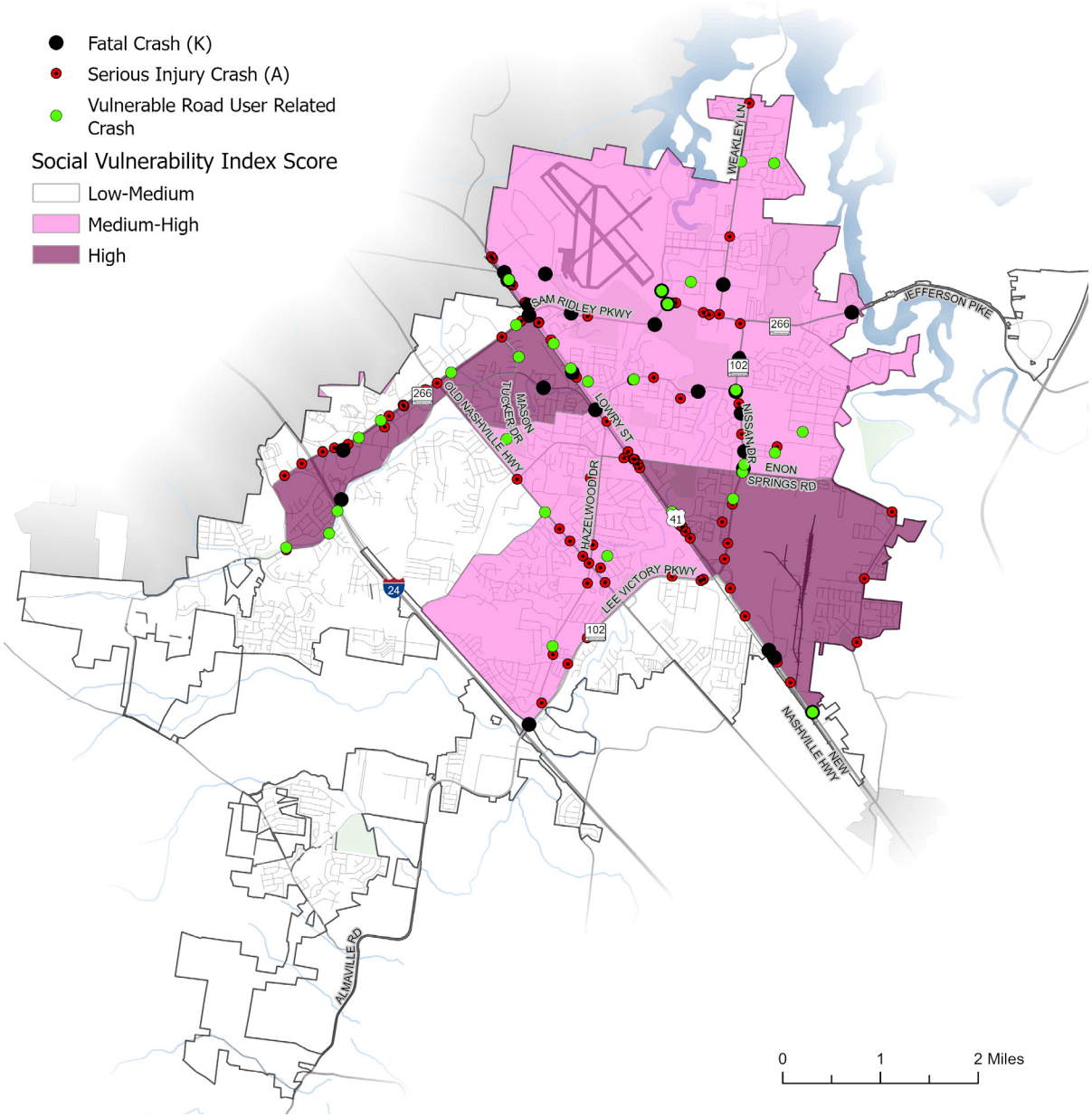


Figure 13: Areas of Smyrna with High Social Vulnerability

Social Vulnerability Index

The Centers for Disease Control and Prevention (CDC) developed the Social Vulnerability Index (SVI)[4] tool that considers four overall categories of vulnerability: Socioeconomic Status, Household Characteristics, Racial & Ethnic Minority Status, and Housing Type & Transportation. Between these four categories, 159 individual sub-categories are scaled and calculated to form an overall index score, ranging from 0 to 1 (where an index value of 1 is defined as the most socially vulnerable). Of the 156 fatal/serious injury crashes occurring in Smyrna, 58 crashes occurred in areas of high social vulnerability and 138 occurred within areas of upper-half social vulnerability.

[4]CDC/ATSDR SVI, https://www.atsdr.cdc.gov/placeandhealth/svi/index.html

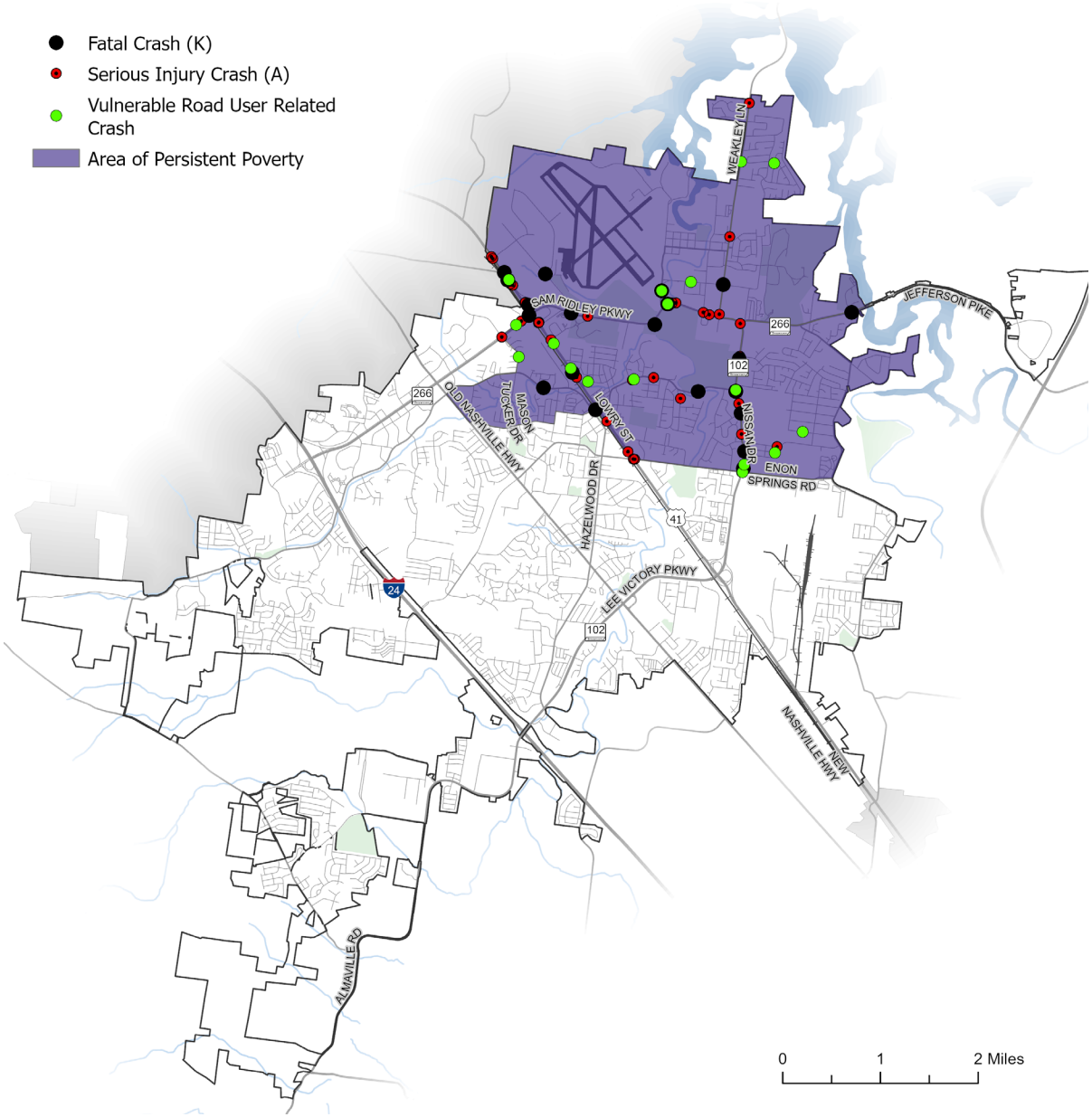


Figure 14: Areas of Persistent Poverty in Smyrna

Areas of Persistent Poverty

An "Area of Persistent Poverty" is defined by the Bipartisan Infrastructure Law. A project is in an Area of Persistent Poverty if it meets one of more of the following criteria:

- The county in which the project is located consistently had greater than or equal to 20 percent of the population living in poverty in all three of the following datasets: (a) the 1990 decennial census; (b) the 2000 decennial census; and (c) the most recent (2021) Small Area Income Poverty Estimates; OR
- The Census Tract in which the project is located has a poverty rate of at least 20 percent as measured by the 2014-2018 5-year data series available from the American Community Survey of the Bureau of the Census; OR
- The project is in any territory or possession of the United States.

Of the 156 fatal and serious injury crashes occurring in Smyrna, 61 (or 39 percent) were found to have occurred in areas of persistent poverty.

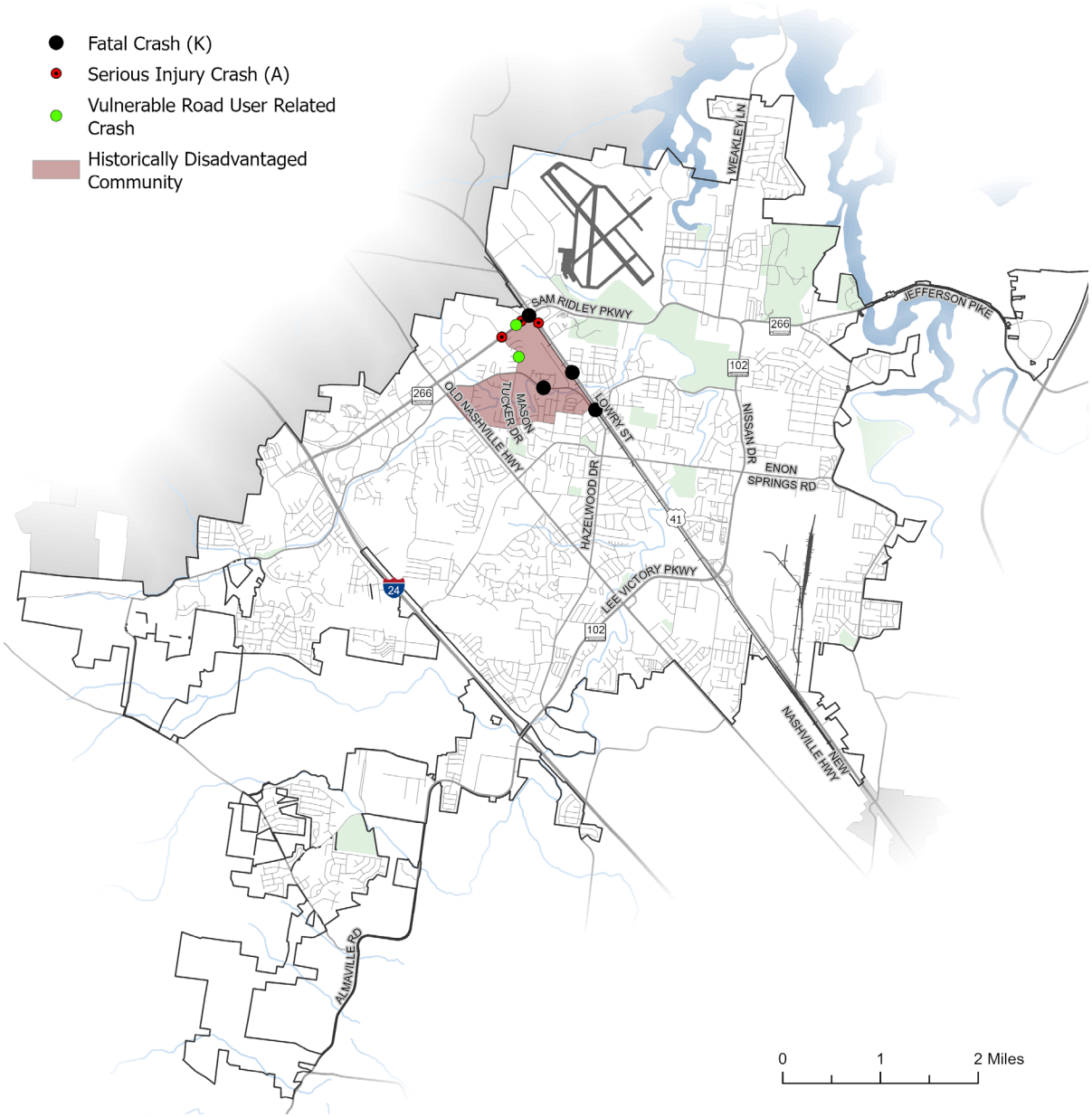


Figure 15: Historically Disadvantaged Communities in Smyrna

Historically Disadvantaged Communities

The Climate and Economic Justice Screening Tool highlights disadvantaged census tracts nationwide. A community is considered disadvantaged if it is located within a census tract that meets the threshold for one or more environmental, climate, or other burdens, and at least two associated socioeconomic burdens. Of the 156 fatal and serious injury crashes that took place in Smyrna during the study period, 57 (or 37 percent) occurred in areas determined by the USDOT to be labeled as a Historically Disadvantaged Community.

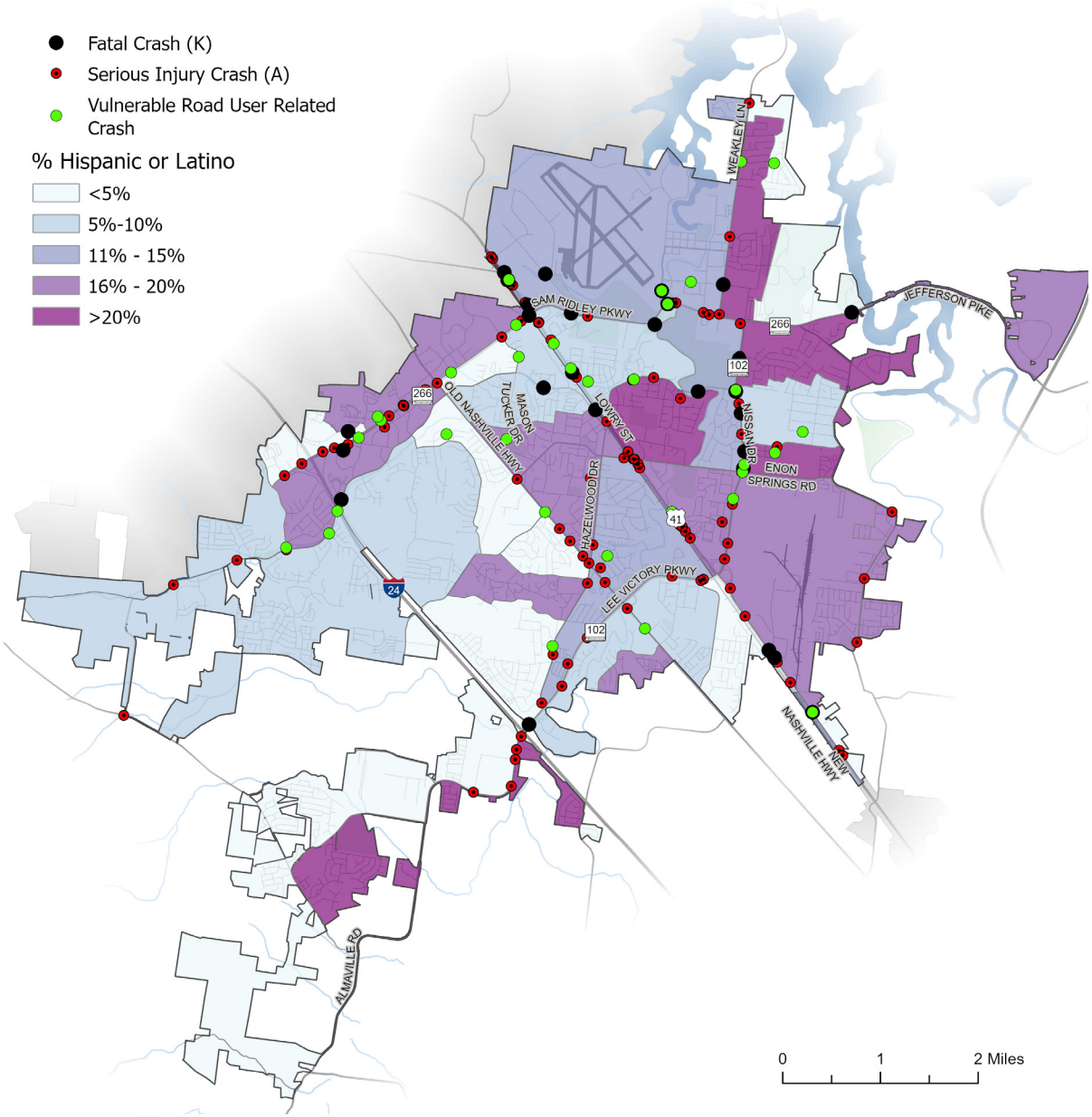


Figure 16: Percent of Population is Hispanic/Latino

Hispanic/Latino Population

Smyrna is home to a substantial Hispanic/Latino population. The population in Smyrna is roughly 17 percent Hispanic or Latino, while the State of Tennessee exhibits seven percent. As shown in Figure 16, nine-block groups within the Town have a greater than 20 percent Hispanic population. These findings helped inform the community outreach approach for the Plan. Approximately 10 percent speak Spanish at home (2018-2022 ACS) versus a Tennessee statewide of four percent. As such, steps were taken to maximize inclusive and representative processes for the Plan such as translating the project website content and developing a Spanish-language version of the online survey.

Identifying a High Injury Network

A High-Injury Network (HIN) was developed to identify the routes for the most fatal and serious injury crashes in the Town of Smyrna. A HIN is a collection of corridors where a disproportionate number of fatal and serious injury crashes occurred as well as corridors that may pose higher risk for all road users. The development of a HIN allows for the proper allocation of effort and funds towards specific areas of the Town that require it. While the HIN is usually comprised of the major thoroughfares of a study area, the methodology used allowed for the more minor roads to be represented as candidates for improvements. Developing the HIN is a key step toward effectively directing resources for developing projects to help reduce fatal and serious injury crashes for all road users in Smyrna.

METHODOLOGY

The HIN was identified by first evaluating segments along the Smyrna roadway network with the highest reported crash rates during the study period (2019-2023) using TDOT's AASHTOWare Safety Network Screening platform. Twenty high-crash-rate segments were identified at logical roadway limits using features such as the municipal boundary, road name changes, and roadway characteristics (e.g., the number of lanes). The 20 HIN segments were associated with the following relevant variables in a GIS environment to calculate a prioritization score. The highest possible score a segment could receive is 50 points. Ranking weights were identified for each variable in coordination with the Steering Committee members.

- ***K&A Crashes:*** The number of fatal and serious injury crashes along the segment
- ***VRU Crashes:*** The number of pedestrian/bicycle crashes reported along the segment
- ***Crash Rate:*** The segment crash rate expressed in crashes per million vehicle miles traveled per day
- ***Replica Risk Index:*** Replica Safe Streets Planner Risk Index which is based on Fall 2023 data and considers roadway characteristics, suspected collisions, phone handling, sudden braking/acceleration, and speeding activity
- ***Demographics and Community Characteristics:*** Defined as the HIN segment crossing an area of the Town with an SVI score of medium or high, an Area of Persistent Poverty, or a Historically Disadvantaged Community area

Table 8 provides an overview of the HIN scores for the 20 segments and the ranking weights assigned to each variable. The analysis results indicate that Lowry Street was the TDOT-owned roadway with the highest score and Sam Davis Road from Lowry Street to Nissan Drive was the highest-scoring local roadway. **Figure 17** illustrates the HIN segment locations.

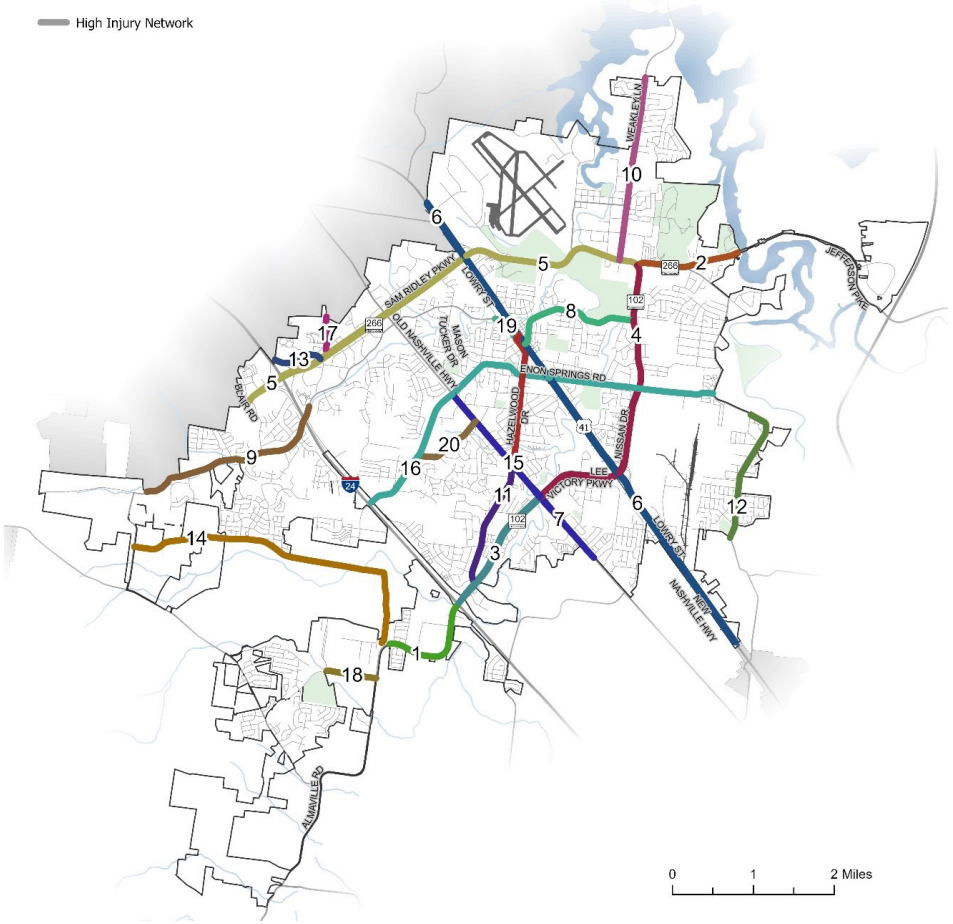


Figure 17: Town of Smyrna High Injury Network

Table 8: High-Injury Network Prioritization Results

HIN ID	Location	Ownership	Length (miles)	K&A Crashes	VRU Crashes	Crash Rate	Replica Risk Index	Demographics and Community Characteristics	Prioritization Score
				Ranking Weight for Prioritization Score					(50 Maximum)
				19	9	9	8	5	
6	N/S Lowry Street (US-41) from Town Limits to Town Limits	TDOT	12.4	46	5	1.56	94	Yes	41
5	W Sam Ridley Pkwy (SR-266) from Blair Rd to Nissan Drive	TDOT	8.5	30	5	2.54	95	Yes	35
4	Nissan Drive (SR-102) from Bulldog Drive to Jefferson Pike	TDOT	5.9	22	4	1.58	87	Yes	29
8	Sam Davis Road from N Lowry St to Nissan Drive	Town	1.7	6	2	10.48	80	Yes	22
19	Front Street from Imperial Blvd to College St	Town	0.3	0	0	19.48	86	Yes	21
16	Enon Springs Rd from I-24 to Florence Rd	Town	5.7	9	1	1.53	90	Yes	18
9	Rock Springs Rd from Town Limits to Pele Dr	Town	2.5	7	2	6.06	88	0	16
7	Old Nashville Hwy from Enon Springs Rd to Cheatham Ave	Town	2.9	10	2	1.72	95	0	16
10	Weakley Ln from Sam Ridley Pkwy to Town Limits	Town	2.3	4	1	2.19	81	Yes	16
2	Jefferson Pike (SR-266) from Nissan Drive to River bridge	TDOT/Town	1.3	3	0	1.81	97	Yes	15
13	Industrial Blvd from Sam Ridley to Town Limits	Town	0.6	2	1	10.67	91	0	15
20	Rocky Fork Road from Old Nashville Hwy to Enon Springs Rd	Town	0.9	0	1	12.18	82	0	14
11	Almaville Rd from Lee Victory Pkwy to Old Nashville Hwy	Town	1.6	5	1	4.38	93	0	13
15	Hazelwood Rd from Old Nashville to Lowry St	Town	1.6	5	0	3.79	85	0	11
1	Almaville Rd (SR-102) from Poplar Wood Rd to I-24	TDOT	1.4	5	0	2.45	90	0	10
3	Lee Victory Pkwy (SR-102) from I-24 to Old Nashville Hwy	TDOT	3.3	4	0	1.38	95	0	10
17	Chaney Rd from Sam Ridley Pkwy to School Entrance Road	Town	0.5	0	0	4.82	88	0	9
12	Florence Rd from Wade Herrod Rd to Cole St	Town	1.7	3	0	2.74	74	0	8
18	Morton Lane from Red Hawk Pkwy to Almaville Rd	Town	0.6	0	0	2.35	87	0	8
14	Lee Rd/Seminary Rd from Cooks Lane to Poplar Wood Rd	County/Town	4.0	0	0	0.24	0	0	0

Community Engagement

Robust community engagement was essential for understanding the transportation safety needs of all roadway users in Smyrna. Various opportunities for community input and feedback on the process were provided. This included in-person events, targeted e-mail outreach, social media postings, and a dedicated project website to gather and record public input as well as providing for the dissemination of information regarding this SAP and the overall SS4A Program.

Following the project kick-off meeting on April 10, 2024, the following key engagement events occurred:

Community Engagement Activity	Date(s)
Community Outreach Event #1: July 3rd Celebration	July 3rd, 2024
Steering Committee Kickoff Meeting	July 8th, 2024
Community Outreach Event #2: 6K Top Gun Night Run	September 20th, 2024
Steering Committee Meeting #2 – Public Input Summary & Preliminary Network Rankings	October 21st, 2024
Online Survey	July 10th – October 15th, 2024

FORMATION OF A STEERING COMMITTEE

To help guide the study, a Steering Committee was established. The role of the Steering Committee was two-fold. First, to provide local, informed input regarding current conditions and opportunities for improvement in the Town of Smyrna. Secondly, the Steering Committee and Town staff acted as an outreach conduit to the community. Town staff and members of the Steering Committee engaged the community through direct e-mail communications, social media blasts, and direct communication with groups in the community and encouraged them to get involved and provide input. The work of this committee is in large part responsible for the success of the community engagement of this study.

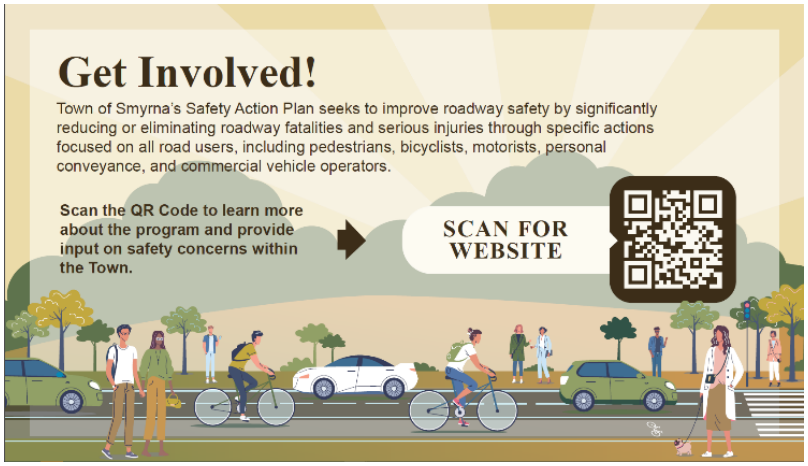
EQUITABLE ENGAGEMENT

The community engagement activities conducted for the Smyrna SAP took intentional measures to reach underserved communities. The project website was compliant with Americans with Disabilities Act (ADA) standards and had a plug-in option for users to translate the website content to other languages through Google Translate. Furthermore, a Spanish-language version of the online survey (SurveyMonkey) was developed for participants. Targeted outreach was conducted to community organizations within areas where racial makeup was more diverse to gather feedback representative of the overall community, as reflected in the demographic breakdown of survey respondents which is included in Appendix A.

IN-PERSON ACTIVITIES

Community Pop-up Events

We found that attending community events was highly effective for providing information and gathering stakeholder input, as it allowed us to engage with a broad spectrum of the community in their environment. For this study, our team set up a display at two community events and engaged attendees, informing them of the study, answering questions, encouraging their participation in both the survey and interactive map, and even walking them through the steps in person. Hundreds of business cards containing QR codes for the website were distributed to promote awareness and public engagement at these events. One of the attended events was located in an area of persistent poverty and with a high social vulnerability index (SVI), highlighting the importance of addressing social disparities and providing essential resources to the community.



6K Top Gun Night Run

Additional Outreach

In addition to the information boards prepared for the Community Pop-up events (pictured above), a project banner with a QR Code linked to the project website was created that could be moved to various locations throughout the community to inform community members of the study as they visited parks, paid their utility bills or went about their daily activities.

ONLINE ENGAGEMENT

Public notification of the online survey and interactive map was achieved through a combination of tools as outlined in this section, each intended to drive traffic to and through the project website for ease of data collection and dissemination of project information. Smyrna has a notable population of English-learning residents. Therefore, the website and collateral materials including the survey were made available in both English and Spanish since approximately 17 percent of Smyrna residents are Latino/Hispanic.

Project Website

To facilitate the dissemination of crash-related information as well as to provide a portal for input and information gathering from community stakeholders, a project-specific website was created, www.smyrnasafetyactionplan.com. Within the website, users were provided information about the project and the overall SS4A Program, including how the activities can benefit the community, and how participants can contribute by providing input. This site yielded nearly 1,500 individual page views.

Online Survey

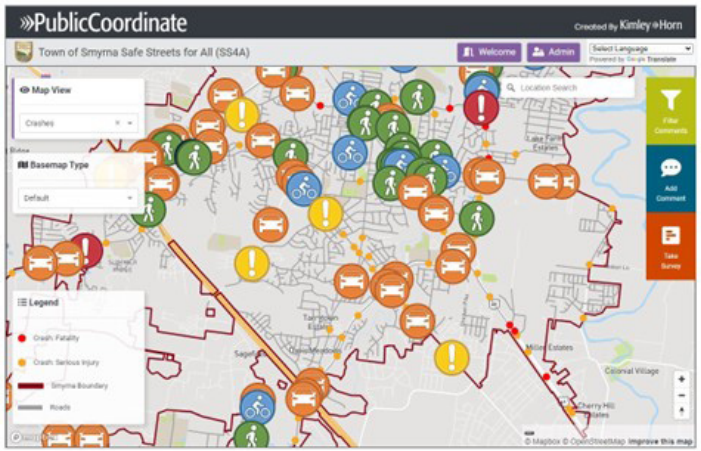
In addition to providing a broad range of safety information, the website hosted two key participation avenues. The first was an online survey that focused on user demographics and concerns. A total of 473 participants completed the online survey, providing input and background data, ranging from travel-related characteristics and demographic information to specific safety concerns.

Speeding was mentioned frequently along with concerns of development-related growth without proper transportation infrastructure. Additionally, people were interested in multimodal alternatives, but some people believed roadway issues such as additional lanes or reconfigured turn lanes should be addressed first.

The data gathered from the online survey as well as individual comments provided were shared with the Steering Committee as part of their review and ranking of projects during their second steering committee meeting. Appendix A contains a detailed evaluation of the survey results.

Interactive Map

The second avenue for interactive input via the website was an interactive map that allowed users to identify concerns related to vehicle, pedestrian, and bike safety as well as general concerns. This map allowed the users to drop ‘pins’ at specific locations where they had or have experienced safety-related concerns.



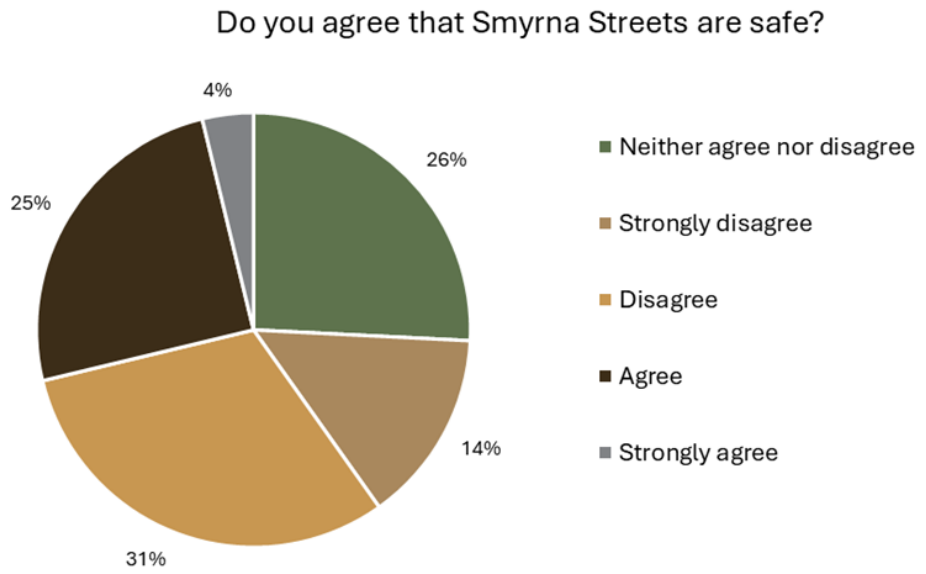
This map engaged 97 total users, providing 118 separate comments or replies to comments in the categories of pedestrian, near-crash, mobility, driver, and bicyclist. Individual comments were analyzed and placed in descriptive categories for review by the Steering Committee as part of their considerations in project ranking.

Online Survey Results

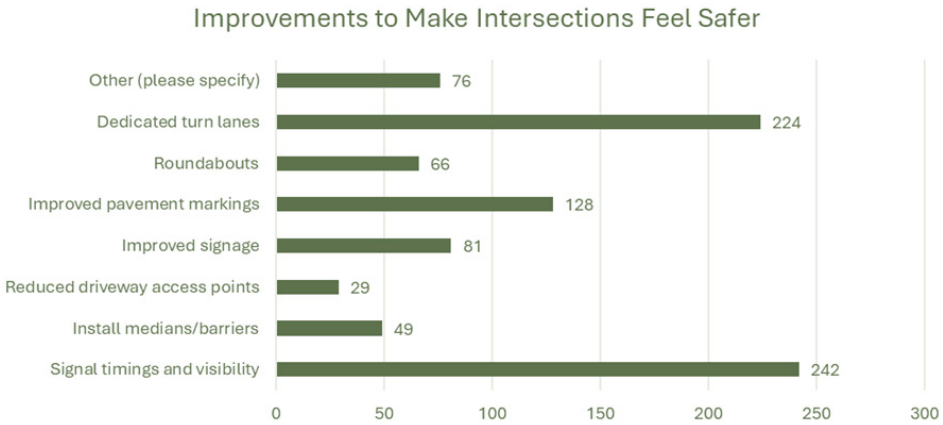
The online survey was designed to gather feedback from people in Smyrna about safety issues or concerns they may have. The survey asked a series of questions to understand trends, concerns, and improvements that the public would like to see. The first few questions were about the respondent's relationship to the area and how they usually get around. Then, the survey asked about specific improvements for driving, walking/biking, and intersections. Finally, there were optional questions about the respondents' demographics. The goal of the survey was to gather a wide range of perspectives and suggestions to help improve safety in Smyrna.

Respondents were asked how strongly they agree that Smyrna streets are safe. Over a quarter of respondents were indifferent. Almost half disagree, however, indicating that they feel unsafe on the streets in Smyrna

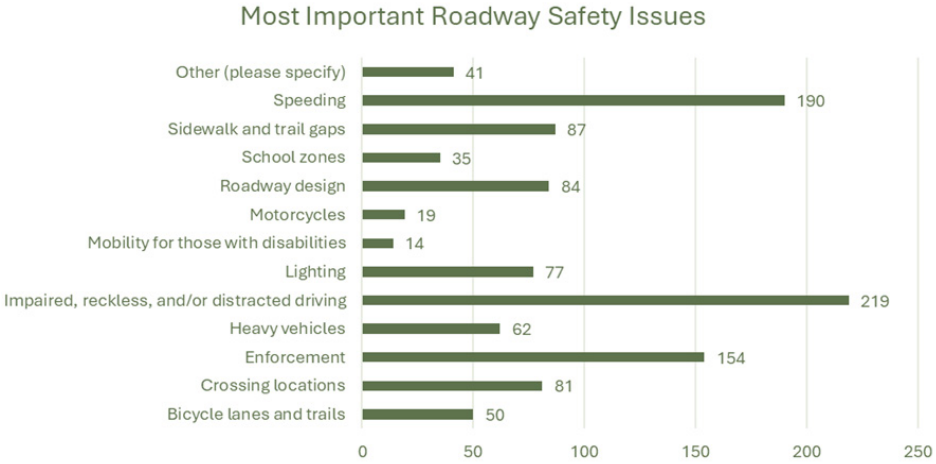
Respondents were also asked, across a series of questions, to select up to three improvements that would make driving, walking, and intersections in Smyrna feel safer. The three most popular intersection safety improvements for intersections identified by respondents were visibility, signal timing, and dedicated turn lanes. Detailed responses are included in Appendix A.



Respondents were also able to select up to three safety issues most important to them. The most selected issue was impaired, reckless, and/or distracted driving (210 responses) then speeding (190 responses) and enforcement (154 responses).



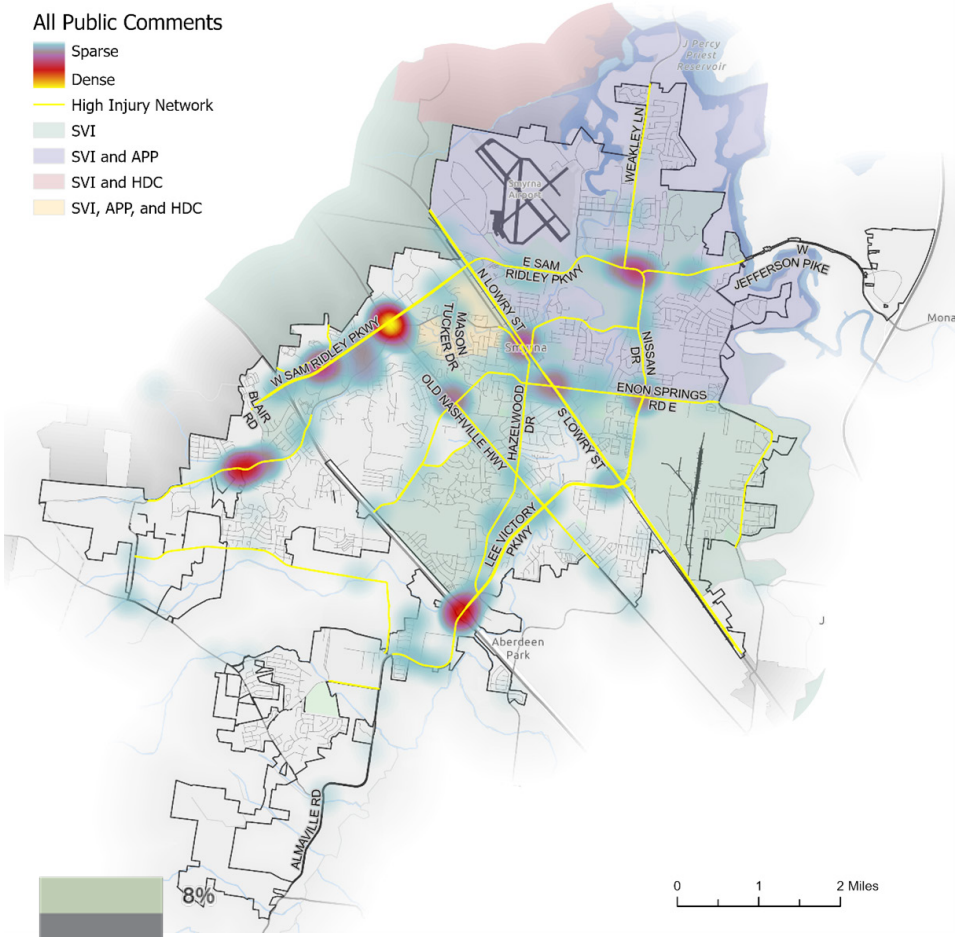
The survey results indicate that many respondents reside and work in Smyrna and primarily rely on driving alone in a car for their transportation needs. Respondents mentioned that they only bike or walk for leisure purposes. A prevailing perception among respondents is that Smyrna is unsafe in terms of



transportation. There was strong support for various improvements, such as enhancing pavement quality, developing multimodal infrastructure, creating dedicated turn lanes, and addressing signal timing and visibility. The survey also highlighted reckless driving and speeding as prominent roadway issues in Smyrna. There were concerns expressed about a lack of transportation infrastructure to support the growth and development in the area.

Interactive Map Results

The project website also directed participants to Public Coordinate, an interactive map that displayed the Town of Smyrna, roadways, and severe crashes. Participants could add points to the map in different categories and write comments on concerns or opportunities that they see. Below is a heat map displaying the location of the comments placed, including the additional data points provided in question #8 on the online survey. Most comments were driver-related, and the locations generally follow the High Injury Network. Additionally, Areas of Persistent Poverty (APP), areas with medium to high Social Vulnerability Index (SVI), and Historically Disadvantaged Census (HDC) tracts were displayed on the map. Comments were placed within these regions as shown with the heat map, highlighting the community's needs and concerns.



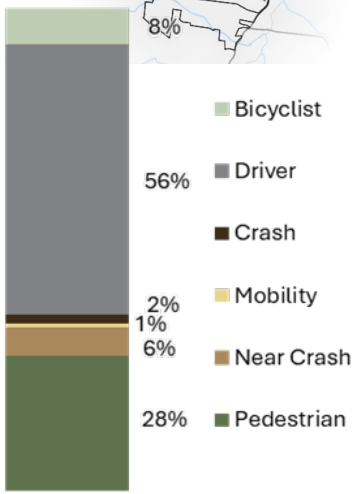


Figure 18: All Public Comments and High Injury Network

In addition to the location-specific inputs received through the Public Coordinate Platform, question #8 of the online survey asked respondents if there are "any intersections in Smyrna that they are concerned about?" and asked for the cross streets to be identified. This open-ended question resulted in 379 individual comments. Since each comment correlates to an intersection, each entry was converted to a GIS data point and these comments were then included in the Interactive Map inputs so that all concerns registered by the public regarding the existing network could be mapped.

Geolocated survey responses and responses from Public Coordinate were cross-referenced against preliminary engineering treatment recommendations for incorporation.

COMMUNITY ENGAGEMENT TAKEAWAYS

Based on the comments gathered through the interactive map, most comments were driver-related, followed by pedestrian-related concerns. Many comments called for additional or reconfiguration of travel lanes to address traffic issues. These suggestions aimed to improve traffic flow and alleviate congestion in specific areas. Furthermore, several commenters request additional or reconfiguration of sidewalks or shoulders to enhance pedestrian safety and accessibility. These comments aligned with the need to address safety concerns in locations with a higher likelihood of accidents or injuries, as reflected in the high-injury network. By incorporating improvements in these areas, it allows for a targeted approach to enhance transportation safety for both drivers and pedestrians.

Identifying Projects and Strategies

This Smyrna SAP identifies countermeasures and strategies to reduce fatal and serious injury crashes for all road users across Smyrna. The countermeasures and strategies are classified into two categories: (1) Engineering Countermeasures (project recommendations) and (2) Driver-Related Strategies (Education, Enforcement, and Emergency Response).

ENGINEERING COUNTERMEASURES

Engineering countermeasures focus on surface transportation improvements at high-risk locations along the High Injury Network (HIN). They consist of proven countermeasures and range from lower-cost quick-build treatments to large-scale roadway projects.

Crash Modification Factors (CMF)

Because funding for infrastructure improvements is limited, Crash Modification Factors (CMF) can be used to identify and select effective engineering countermeasures. FHWA maintains the CMF Clearinghouse, a searchable database of CMFs along with guidance and resources on using CMFs in the road safety practice. CMFs quantify the potential benefit of safety countermeasures and indicate the potential crash reduction associated with a specific countermeasure. The following provides guidance to be considered when selecting and applying countermeasures and applying their respective CMFs:

- To provide a large enough sample size, use a minimum of three years of crash data for urban and suburban sites and five years of crash data for rural sites.
- CMFs should be selected from Part D of the HSM or FHWA's CMF Clearinghouse website (https://www.cmfclearinghouse.org/)
- If possible, use CMFs with star ratings of four or five. The star rating indicates the quality or confidence in the results of the study producing the CMF.

CMFs are multiplicative. However, the application of multiple CMFs can overestimate the expected crash reduction. It is recommended to use no more than three independent CMFs at a particular site. Engineering countermeasures with high CMFs, or high expected improvements to safety relative to required cost, were preferred in determining the toolkit of potential safety treatments described below.

Engineering Countermeasures Toolkit

An engineering countermeasures toolkit was compiled based on general applicability in the study area, their level of evidence in crash reduction, and feedback obtained from the public and Steering Committee. Many of the countermeasures were obtained from FHWA's Proven Safety Countermeasures initiative (PSCi)[5], a repository of proven safety countermeasures. Steering Committee members provided input regarding what engineering countermeasures are most effective and applicable for Smyrna roadways. The following provides a summary of these countermeasures and an estimated unit cost.

Smyrna Countermeasures

Source	Countermeasure	Cost
● ●	Install Backplates w/ Retroreflective Borders	$
● ● ●	Replace TWLTL with Median (Install Left-Turn Lanes as Necessary)	$$$
● ●	Improve Corridor Access Management	$$$
● ● ●	Install Protected Bicycle Lane	$$
●	Restricted Crossing U-Turn (RCUT)	$$$
● ●	Convert the Intersection to Roundabout	$$$$
● ● ●	Install Side Path/Sidewalk	$$$
● ● ●	Evaluate PED Cycle Time	$
● ● ●	Detectable Warning Surface for Sidewalk Ramps	$
● ●	Install Pedestrian Countdown Signal Heads	$$
● ● ●	Increase Crosswalk Visibility Enhancements	$$
● ●	Package of Low-Cost Intersection Improvements (Can Include Signing, Marking, Transverse Rumble Strips)	$
● ●	Install Optical Speed Bars w/ Retroreflective Pavement Markings and RPMs	$
● ●	Install Curve Feedback Warning Signs	$
● ● ●	Rectangular Rapid Flashing Beacon (RRFB)	$$
● ● ●	Streetlighting Improvements	$$
●	Install Guardrail Retroreflective Markers & Lighting Improvements near Horizontal Curve	$$
●	Upgrade School Zone Equipment	$$$
●	Install Raised Pavement Markers (Both Sides of Road)	$$
● ●	Increase/Maintain Pavement Friction & Applications	$$
● ●	Widen Edge Lines	$
●	Clear and Grub (15 ft Both Sides of Road)	$
● ● ●	Install Lighting Structures	$$
●	Evaluate Dedicated Left-Turn Lane Geometry	$$
● ● ●	Optimize Signal Cycle and Timings	$$
● ●	Speed Reduction Measures including Dynamic Speed Feedback Signs	$
● ● ●	Install High Emphasis Crosswalks with Detectable Warning Surface at Sidewalk Ramps	$$$
● ● ●	Evaluate Existing Pedestrian Crossings for Enhancements or Removal as Current Conditions are Unsafe	$$
● ●	Signalized Intersection Improvements including Signing, Markings, Signal Equipment, and Pedestrian Crossing Equipme	$$
● ●	Implement Safety Edge (SM) technology during paving process	$$
● ● ●	Improve Existing Textured Pavement/Raised Crosswalks including Signing & Pavement Markings	$
●	Evaluate Roundabout Geometry	$$
● ●	At-Grade Crossing Improvements including Equipment and Pedestrian Crossing	$$$
●	Evaluate Sight Distance and Clear Obstacles in Driver Sight Triangles	$
● ● ●	Improve Existing Designated Bike Lane with Buffered/Protected Bike Lane	$$
● ● ●	Install Pedestrian Hybrid Beacons Mid-Block	$$
● ● ●	Implement Leading Pedestrian Intervals at Signalized Intersections with High Pedestrian Traffic	$
● ●	Realign Intersection Approaches to Reduce or Eliminate Intersection Skew	$$$$
● ● ●	Corridor-Wide Sidewalk Improvements	$$$
● ●	Install Roundabout	$$$$
● ●	Install Optical Speed Bars Approaching Horizontal Curves	$
● ●	Area-Wide Wayfinding	$
● ● ●	Evaluate Traffic Operations and Circulation	$$

● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
● Vulnerable Road User Related Countermeasure

$ 0 - 50,000
$$ 50,001 - 100,000
$$$ 100,001 - 500,000
$$$$ > 500,0000

Figure 19: Engineering Countermeasures Toolkit

[5]FHWA PSCi, https://highways.dot.gov/safety/proven-safety-countermeasures

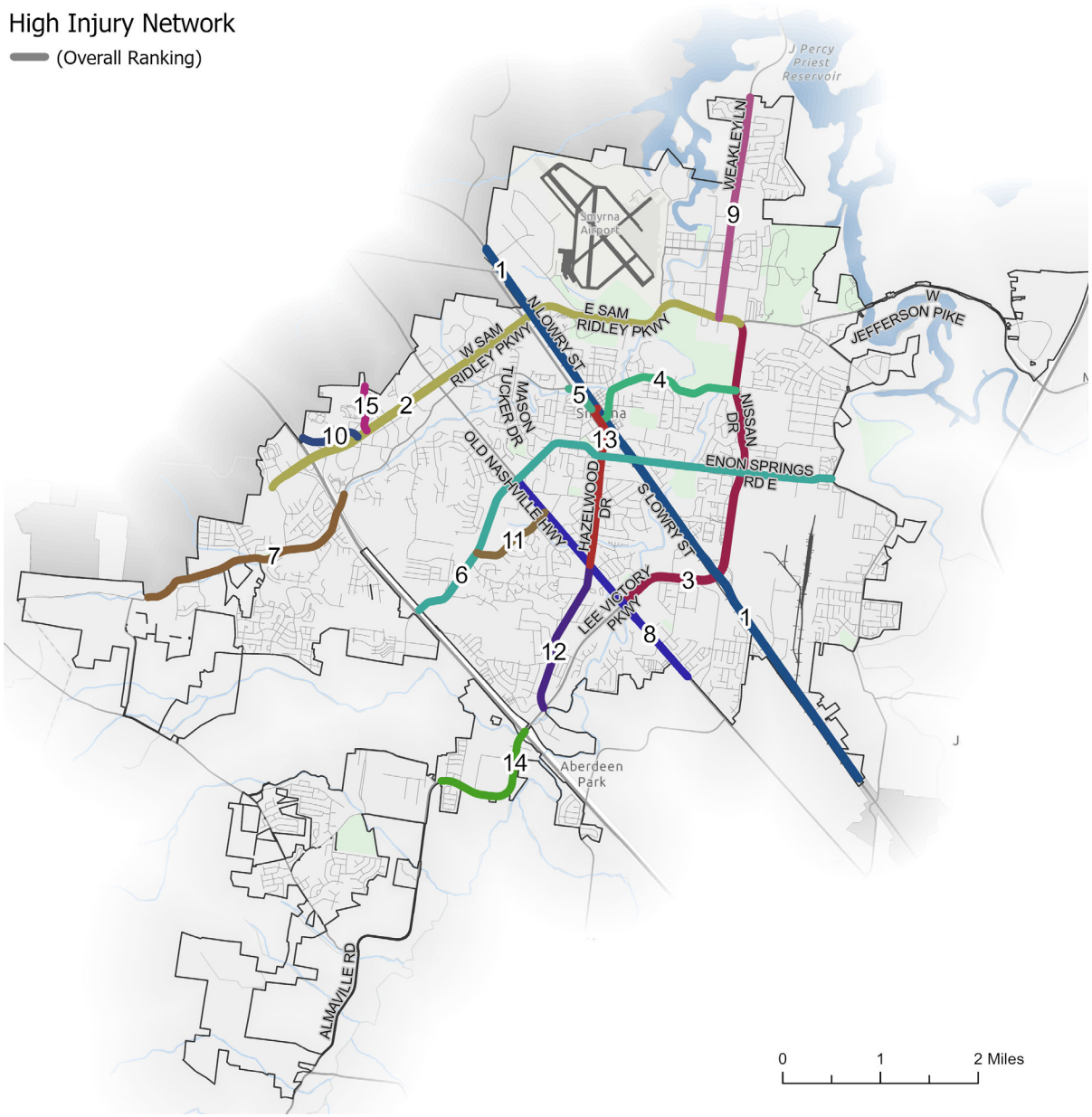


Figure 20: Engineering Project Recommendations

Engineering Project Recommendations

The Safety Analysis chapter of this Smyrna SAP detailed how the High-Injury Network (HIN) segments were evaluated to prioritize locations for engineering project recommendations. The HIN segments were evaluated in coordination with the Steering Committee through a data-driven analysis comprising five key factors representative of historical crash trends, potential risk, and demographics and community characteristics considerations.

The following 15 prioritized HIN segments were selected based on the prioritization score, Steering Committee input, and input from Town staff.

Overall Ranking	Location	Ownership
1	N/S Lowry Street (US-41) from Town Limits to Town Limits	TDOT
2	W Sam Ridley Pkwy (SR-266) from Blair Rd to Nissan Dr	TDOT
3	Nissan Dr (SR-102) from Old Nashville Hwy to Jefferson Pk	TDOT
4	Sam Davis Rd from N Lowry St to Nissan Dr	Town
5	Front St from Imperial Blvd to College St	Town
6	Enon Springs Rd from I-24 to Florence Rd	Town
7	Rock Springs Rd from Town Limits to Pele Dr	Town
8	Old Nashville Hwy from Enon Springs Rd to Cheatham Ave	Town
9	Weakly Ln from Sam Ridley Pkwy to Town Limits	Town
10	Industrial Blvd from Sam Ridley to Town Limits	Town
11	Rocky Fork Rd from Old Nashville Hwy to Enon Springs Rd	Town
12	Almaville Rd from Lee Victory Pkwy to Old Nashville Hwy	Town
13	Hazelwood Rd from Old Nashville Hwy to Lowry St	Town
14	Almaville Rd (SR-102) from Poplar Wood Rd to I-24	TDOT
15	Chaney Rd from Sam Ridley Pkwy to Town Limits	Town

RECOMMENDED PROJECT FACT SHEETS

Following the selection of the top 15 prioritized locations, site visits were conducted to supplement the desktop-based data analysis results and gain a better understanding of each location. An annotated site visit photo log is included in Appendix B. Following the site visits, safety improvement recommendations were developed for each location using the Engineering Countermeasures Toolkit.

Project fact sheets were developed for each of the 15 prioritized locations and are included in Appendix C. The fact sheets summarize the systematic high-risk analysis results, pertinent characteristics, and selected engineering countermeasures. The draft project sheets were reviewed by Town staff for input related to engineering judgment and site-specific knowledge. The fact sheets provide a concise summary of each high-risk location for ease of reference in future funding and project programming opportunities.

The improvements recommended in the fact sheets were based on a GIS database risk assessment. As such, there is no control over the accuracy of the GIS databases, nor the suitability of the specific recommended improvements provided to the Town staff for a given location. Town of Smyrna staff may use the project fact sheets and their included recommendation to aid in the selection and development of projects, but these fact sheets should not be used as the sole basis for the Town Engineer's decision-making process.

DRIVER-RELATED STRATEGIES

The Smyrna SAP also identified driver-related strategies and improvements to mitigate crashes in the Town in a manner that incorporates the remaining three Es of traffic safety: Education, Enforcement, and Emergency Response. While engineering countermeasures can make roadways safer, they alone cannot prevent all roadway crashes. The following sections provide driver-related strategy recommendations for the safety emphasis areas that were highlighted in **Table 1** in the Safety Analysis section.

Unrestrained Occupants

Unrestrained Occupants refer to individuals in a vehicle who are not using seat belts or other safety restraints at the time of a crash. This term typically includes drivers and passengers who are not wearing seat belts, as well as children who are not properly secured in car seats or booster seats. Approximately 31 percent (48 crashes) of reported fatal and serious injury crashes between 2019 and 2023 involved unrestrained occupants as a contributing factor. This is 12 percent higher than the TN State Average of 19 percent.

In Tennessee, the Child Passenger Restraint Law requires that:

- Children under 1 year old or weighing 20 pounds or less must be secured in a rear-facing child passenger restraint system in the rear seat, if available
- Children aged 1 to 3 years and weighing more than 20 pounds must be secured in a forward-facing child passenger restraint system in the rear seat, if available
- Children aged 4 to 8 years and measuring less than 4 feet 9 inches must be secured in a belt-positioning booster seat system in the rear seat, if available
- Children aged 9 to 12 years or any child through 12 years of age measuring 4 feet 9 inches or more must be secured in a seat belt system
- Children aged 13 to 15 years must be secured using a passenger restraint system, including safety belts

The law also provides for the use of medically prescribed modified child restraints for children who cannot be safely transported in conventional systems.

The following recommended strategies target driver behavior with the end goal of reducing fatal and serious injury crashes involving unrestrained occupants.

Strategy	Performance Measure	Safety Es Involved	Lead
Support and continue to promote high-risk driver-education programs and defensive driving programs targeting drivers aged 15-21 focusing on seatbelt usage	-Number of participating schools -Number of outreach activities	-Education	Rutherford County Schools District, Public Works, Public Information Office & Media Services
Continue to promote and facilitate child passenger safety community outreach initiatives in the Town of Smyrna in coordination with partner agencies including neighboring municipalities, Rutherford County, TDOSHS[6], and the TN OP Center[7]	-Number of outreach activities conducted -Number of individual seat checks completed	-Education -Emergency Response	Smyrna Fire Department, Public Works, Public Information Office & Media Services
Conduct targeted high-visibility enforcement campaigns for seat belt usage	-Number of related citations	-Enforcement	Smyrna Police Department

Table 10: Driver-Related Strategies for Increasing the Usage of Proper Vehicle Occupant Restraint

[6]Tennessee Department of Safety and Homeland Security (TDOSHS)

[7]The Tennessee Occupant Protection Center (TN OP Center) operates under a grant funded by the TN Highway Safety Office to promote and support education and awareness to decrease roadway fatal and serious injury crashes.

Aggressive Driving/Speeding

Aggressive driving and speeding refer to drivers who engage in unsafe driving behaviors with deliberate disregard for safety. These behaviors can include speeding, tailgating, weaving in and out of traffic, running red lights, and other actions that endanger other road users. The data shows that 24 percent of all fatal and serious injury crashes between 2019 and 2023 in the Town of Smyrna involved aggressive drivers and/or speeding. This is 12 percent higher than the TN State average of 12 percent. The following are recommended driver-related strategies to reduce fatal and serious injury crashes involving aggressive drivers and or speeding.

Strategy	Performance Measure	Safety Es Involved	Lead
Update Smyrna's local traffic calming policy to include additional effective devices and processes. This includes traffic calming equipment that implements vertical deflection (e.g., speed tables), horizontal deflection (e.g., chicanes), and roadside features (e.g., Dynamic Speed Display Signs [DSDS])	-Before-and-after crash and speed study results for problem areas -Number of outreach events	-Engineering -Education	Public Works
Continue to perform high-visibility enforcement targeting areas with a known history of aggressive driving/ speeding	-Number of related citations	-Enforcement	Smyrna Police Department

Table 11: Driver-Related Strategies to Reduce Aggressive Driving/Speeding

Motorcycles

Motorcyclists make up a disproportionate percentage of fatal and serious injury crashes. Though accounting for an estimated 0.7% of vehicle miles traveled, motorcyclists nationwide account for 15 percent of all traffic fatalities nationwide[8]. In Smyrna, the data shows that 17 percent (27 crashes) of all fatal and serious injury crashes between 2019 and 2023 involved motorcyclists. This is three percent higher than the TN state average of 14 percent. The following are recommended strategies to reduce fatal and serious injury crashes involving motorcycles.

Strategy	Performance Measure	Safety Es Involved	Lead
Conduct a marketing campaign encouraging riders to wear protective and conspicuous clothing	-Number of outreach activities	-Education	Public Works, Public Information Office & Media Services
Partner with TDOT in the statewide Tennessee Motorcycle Safety Strategic Plan update, anticipated in 2027	-Active participation role as a stakeholder in the statewide plan update	-Education	Public Works

Table 12: Driver-Related Strategies to Reduce Motorcycle-Related Fatal/ Serious Injury Crashes

[8]NHTSA. (2015). Traffic Facts 2015, https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812115

[9]https://www.nhtsa.gov/book/countermeasures-that-work/motorcycle-safety/countermeasures/other-strategies-behavior-change/strategies-increase-rider

Large Trucks

Large trucks, including commercial motor vehicles (CMV), comprise a disproportionate percentage of fatal/serious injury crashes in Smyrna. Approximately seven percent (11 crashes) of all fatal and serious injury crashes between 2019 and 2023 involved large trucks. This is slightly greater than the TN statewide average of 5.8 percent. The following are recommended driver-related strategies to reduce fatal and serious injury crashes involving large trucks.

Strategy	Performance Measure	Safety Es Involved	Lead
Conduct targeted campaigns for CMV operators, CMV employers, and passenger vehicle drivers about safe driving around CMVs. Emphasize public campaigns such as the "Teens and Trucks" program alerting them of the dangers of aggressive driving in the vicinity of trucks.	-Number of contacts -Number of participating CMV employers or organizations	-Education	Public Works, Public Information Office & Media Services
Conduct targeted high-visibility enforcement emphasizing locations and times with history and risk of large truck crashes ; Continue to coordinate with statewide efforts like the Tennessee Highway Patrol's Motor Carrier Plus (THP MC+) Division	-Number of contacts	-Enforcement	Smyrna Police Department

Table 13: Driver-Related Strategies for Improving Truck Safety

Vulnerable Roadway Users

Vulnerable road users (VRUs) include pedestrians, bicyclists, and users of non-motorized transportation, and their vulnerability on the road requires a focus on safety. Approximately seven percent (11 crashes) of fatal and serious crashes in Smyrna between 2019 and 2023 involved VRUs. Although this value is below the TN statewide average of 9.1 percent, VRU safety remains a priority for the Town of Smyrna, regional, statewide, and national road safety efforts. A large amount of public feedback focused on pedestrian and bicyclist concerns and related pedestrian/bicycle infrastructure needs. The following are recommended strategies to reduce fatal and serious injury crashes involving VRUs. The Tennessee Vulnerable Road User Safety Assessment (2023) provides further guidance.

Strategy	Performance Measure	Safety Es Involved	Lead
Conduct social media and Town website campaigns to enhance driver awareness of bicyclists and pedestrians. Examples include pedestrian crossing treatments like Pedestrian Hybrid Beacons (PHB), Rectangular Rapid Flashing Beacons (RRFB), and Leading Pedestrian Interval (LPI) signal phasing	-Number and frequency of communications	-Education	Public Works, Public Information Office & Media Services
Update Smyrna's local traffic calming policy to include additional effective devices and processes targeting VRU safety. This includes traffic calming equipment that implements vertical deflection (e.g., speed tables), horizontal deflection (e.g., chicanes), and roadside features (e.g., Dynamic Speed Display Signs [DSDS])	-Before-and-after crash and speed study results for problem areas -Number of outreach events	-Engineering -Education	Public Works
Conduct targeted high-visibility enforcement at school zones for speeding.	-Number of citations	-Enforcement	Smyrna Police Dept

Table 14: Strategies for Improving VRU Safety

Policy and Process Changes

DOCUMENTS REVIEWED

Current plans and policies were reviewed as a part of the Smyrna SAP process to gain perspective on the existing efforts for transportation-related improvements within the Town of Smyrna. High-level key points regarding transportation improvements and safety-related topics were identified to inform recommendations in the SAP. **Table 15** outlines the pertinent existing and past plans or policies that impact the Town of Smyrna.

Document Name	Summary/Goals
Town of Smyrna Municipal Code Title 15 and 16	• Title 15 of the Smyrna Municipal Code is titled Motor Vehicles, Traffic, and Parking, and includes chapters on emergency vehicles, speed limits, turning movements, stopping and yielding, parking, enforcement, and dockless small vehicle systems. • Title 16 of the Smyrna Municipal Code, titled Streets and Sidewalks, includes guidelines on streets, sidewalks, and excavations.
Rutherford County Comprehensive Plan 2011	• The Rutherford County Comprehensive Plan articulated how the county should grow and what policies/practices were necessary to achieve its citizen's vision. • Rutherford County's identified vision was to seek sustainable growth that protects our natural and historic resources while preserving their values, qualities, and culture. Ten goals were determined that fall into the categories of community, identity, and quality of life; economic development; transportation and community connections; and facilities and services. Corresponding objectives were established that discussed specific policies and Action Steps.
Smyrna Major Thoroughfare, Bicycle, and Pedestrian Plan 2016	• The Major Thoroughfare, Bicycle, and Pedestrian Plan identified future transportation needs of the town by summarizing existing transportation conditions, determining existing deficiencies, and documenting the growing trends.
ADA Self-Evaluation and Transition Plan, 2019	• The Town of Smyrna's ADA Self-Evaluation and Transition Plan offers a comprehensive assessment of its programs, services, and activities (PSAs) to identify potential barriers to access for individuals with disabilities. • The plan includes a detailed review of these PSAs and outlines recommended actions to ensure compliance with the Americans with Disabilities Act, ultimately ensuring equal access for all individuals with disabilities.
Smyrna Comprehensive Plan 2021	• The Smyrna Comprehensive Plan was adopted in 2021, and guides the growth and development of the town, outlining multiple topics to guide land use and transportation goals. • These goals include managing growth to maintain quality of life, diversifying the business community, enhancing the town through thoughtful placemaking during development and redevelopment, investing in utility projects that support and guide growth, promoting safety, and collaborating with neighboring agencies for responsible development.
Middle Tennessee Connected 2021-2045 Regional Transportation Plan	• The Middle Tennessee Connected Regional Transportation Plan, prepared by the Greater Nashville Regional Council (GNRC), represents the collective goals of municipal and county governments, public transit agencies, county highway departments, and the Tennessee Department of Transportation (TDOT) • The plan provides a process for improving mobility and identifies top priorities for state funding.
TDOT 10-year Transportation Modernization Act, 2023	• TDOT's Transportation Modernization Act outlined a 10-year fiscally constrained plan with a focus on completing started projects, prioritizing funding for system preservation, balancing urban and rural investments, maximizing federal funds and partnerships, and ensuring timely utilization of Transportation Modernization Act (TMA) funds.

Document Name	Summary/Goals
Rocky Ford Road to McEwen Drive Corridor Study 2023	• The Rocky Ford Road to McEwen Drive Corridor Study was completed in the spring of 2023 to identify potential challenges or obstacles for a new east-west corridor connecting Rutherford and Williamson counties, in addition to quantifying a magnitude of cost for the project. • The Town of Smyrna convened a group of stakeholders including Rutherford, Williams, and other affected municipalities to conduct the study and inform local, regional, and state leaders when deciding the feasibility of potential corridor alignments. • The study is organized into three parts, corridor screening, corridor evaluation, and major findings which report on what is possible, what is feasible, and next steps.
City of Murfreesboro: Greenways, Blueways, and Bikeways Master Plan 2023	• The City of Murfreesboro: Greenways, Blueway's, and Bikeways Master Plan was adopted in 2023 to address the growing population and increasing demand for recreational spaces and transportation options. • This plan outlines the progress of Murfreesboro's green infrastructure, focusing on promoting alternative transportation, outdoor recreation, and environmental stewardship. • Community input and collaboration among city departments were integral in shaping the master plan, which aims to enhance the city's network of greenways, blue ways, and bikeways for a sustainable future.
City of Murfreesboro: 2040 Major Transportation Plan	• The City of Murfreesboro: 2040 Major Transportation Plan envisions a transportation network that provides for the safe, efficient, and reliable movement of people and goods. • Murfreesboro's comprehensive plan outlines four key priorities: safe neighborhoods, sustainable economic health, excellent customer-focused services, and community engagement. • The 2040 Major Transportation Plan evaluates current and future transportation conditions, focusing on safety, capacity, and connectivity, to inform the 2035 Comprehensive Plan and guide future mobility policies.
TDOT I-24 Choice Lanes, Ongoing	• The proposed I-24 Southeast Choice Lanes project would construct new, optional Choice Lanes on I-24 between Nashville and Murfreesboro that allow motorists to maintain consistent travel times and bypass congestion. • The Transportation Modernization Act funds have been allocated for a partial public contribution to the proposed project, which would be delivered through a Public-Private Partnership (P3)

Table 15: Existing Plans Summary

PLAN CHECKLIST

To ensure the safety and well-being of all individuals, agencies should have a set of plans and guidelines in place. A set of plans and guidelines have been identified to serve as a roadmap for addressing safety concerns and implementing appropriate measures. The plans include Complete Street Policy Guidelines, the ADA Transition Plan, a Multi-Modal Plan, Traffic Impact Study Guidelines, and a Comprehensive Plan. These plans provide strategies for designing and managing streets that prioritize safety, address accessibility needs, promote various transportation modes, assess traffic impacts of new developments, and outline a long-term vision for land use, transportation, and community development with a focus on safety considerations. **Table 16** contains the list of plans and the corresponding plan in the Town of Smyrna.

Checklist	Plan	Corresponding Town of Smyrna Plan
◐	**Complete Street Policy Guidelines**	Town of Smyrna Municipal Code 16
●	**ADA Transition Plan**	ADA Self-Evaluation Transition Plan
◐	**Multi-Modal Plan**	Smyrna Major Thoroughfare, Bicycle, and Pedestrian Plan 2016 Middle Tennessee Connected 2021-2045 Regional Transportation Plan TDOT 10-year Transportation Modernization Act, 2023
○	**Traffic Impact Study Guidelines (with Safety)**	
●	**Comprehensive Plan**	Smyrna Comprehensive Plan 2021
○	**Pavement Management Plan**	

● = Has Plan ◐ = Mentioned in Other Plans ○ = Does Not Have Plan

Table 16. Alignment of Safety Roadmap with Existing Plans

Progress and Transparency

The Smyrna SAP recommends a set of actions that will support the successful implementation and monitoring of the recommended projects and strategies.

TASK FORCE IMPLEMENTATION AND MONITORING

It is recommended that a subset of the Steering Committee reconvene in the future as a Smyrna Safety Task Force to direct the SAP implementation, monitoring, and future progress. The Task Force can consist of Public Works staff, other Town of Smyrna departments, Smyrna Police Department, other local emergency service providers, key Rutherford County staff, key TDOT staff, other adjacent communities (e.g., City of Murfreesboro), and other stakeholders as needed. It is recommended that this group convene annually after the adoption of the Smyrna SAP to review the latest available crash data trends, engineering project completion progress, and driver-related strategy performance measures. The Task Force will discuss opportunities to build upon the plan to address any changing crash trends alongside community needs, new technologies, and additional resources available to assist in implementation.

PUBLIC POSTING OF THE SMYRNA SAP

Upon completion and adoption, this plan will be made public on a dedicated project website and the Town's website. It is recommended the project website be maintained to update the public with new crash data trends and the implementation status of accomplishments.

ACTION PLAN LOG

This section presents a comprehensive action log for the recommended engineering projects, driver-related strategies, and other policy recommendations that were derived through the policy review and plan checklist. The following table indicates specific actions, a suggested timeframe, and a lead Town of Smyrna department. It is recommended to create a "Safety Champion" position/role within the Town to lead the SS4A Task Force, track the performance of the action log, and be a liaison among Town departments.

Action	Timeframe	Lead
Adopt the Smyrna SAP	Short-Term	Town of Smyrna Council
Apply for SS4A Implementation Grant funding for the 15 recommended engineering projects	Short-Term	Public Works
Make progress toward implementing the recommended driver-related strategies: • Unrestrained Occupants • Aggressive Driving/Speeding • Motorcycles • Large Trucks • Vulnerable Roadway Users	Short-Term	Public Works
Integrate safety policy into all existing documents	Short-Term	Planning & Zoning
Update existing, or develop, roadway and intersection design standards to promote safety for all roadway users	Short-Term	Public Works
Create a Safe Routes to School Partnership Program, coordinating with School Districts to organize Bike or Ride to School Days	Short-Term	Public Works, Rutherford County Schools
Review complete street policies regarding meeting the needs of the emergency responders	Short-Term	Public Works, Planning & Zoning, Smyrna Fire Department, Smyrna Police Department
Review the Smyrna ADA Self-Evaluation and Transition Plan (2019) Action Log for opportunities to leverage SS4A Program funding opportunities	Short-Term	Public Works
Update Municipal Codes Titles15 and 16	Short-Term	Legal Department

Action	Timeframe	Lead
Facilitate Smyrna SS4A Task Force Meetings every 1-2 years to review updated trends and monitor progress over time	Mid-Term	Public Works (Safety Champion)
Update Smyrna's local traffic calming policy to include additional effective devices and processes. This includes traffic calming equipment that implements vertical deflection (e.g., speed tables), horizontal deflection (e.g., chicanes), and roadside features (e.g., Dynamic Speed Display Signs [DSDS])	Mid-Term	Public Works
Create Traffic Impact Study example guidelines for future development, considering safety. If projects are proposed that will utilize corridors within the HIN network, an evaluation of countermeasures to be implemented by the development project should be part of the process	Mid-Term	Planning & Zoning
Evaluate and implement streetscaping techniques for speed reduction	Mid-Term	Planning & Zoning
Develop an Access Management Plan	Mid-Term	Planning & Zoning, Public Works
Incorporate the recommended engineering projects from this plan into future developments and transportation projects	Long-Term	Public Works
Implement the use of Intelligent Transportation Systems (ITS) as appropriate. Develop an ITS Master Plan and identify system upgrades such as equipment upgrades and a traffic management center (TMC)	Long-Term	Public Works
Conduct corridor studies of key HIN segments	Long-Term	Public Work
Encourage businesses and special event permit holders to promote mobility alternatives for patrons through the permit process by identifying things such as bike parking areas or bike/ped connectors from parking areas to special events	Long-Term	Planning & Zoning Department, Public Information Office & Media Services
Develop a Pavement Management Plan	Long-Term	Public Works

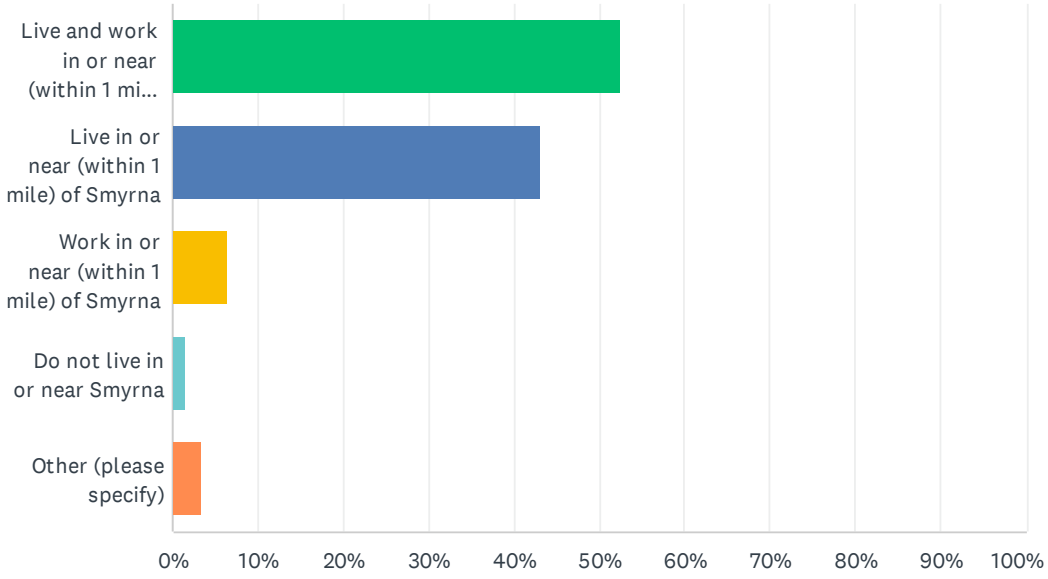
Appendix A:
Detailed Community Engagement Documentation

Q1 What is your home zip code? (Optional)

Answered: 437 Skipped: 36

Q2 What is your relationship to Smyrna? (Select all that apply).

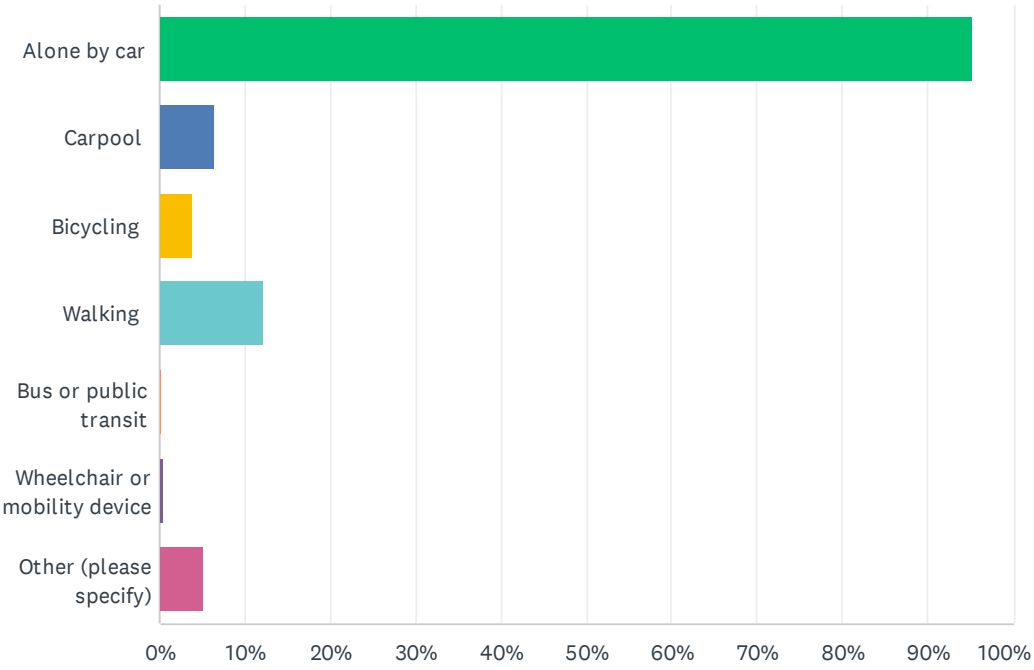
Answered: 467 Skipped: 6



ANSWER CHOICES	RESPONSES	
Live and work in or near (within 1 mile) Smyrna	52.46%	245
Live in or near (within 1 mile) of Smyrna	43.04%	201
Work in or near (within 1 mile) of Smyrna	6.42%	30
Do not live in or near Smyrna	1.50%	7
Other (please specify)	3.43%	16
Total Respondents: 467		

Q3 In a typical week, how do you usually travel to Smyrna? (Select all that apply).

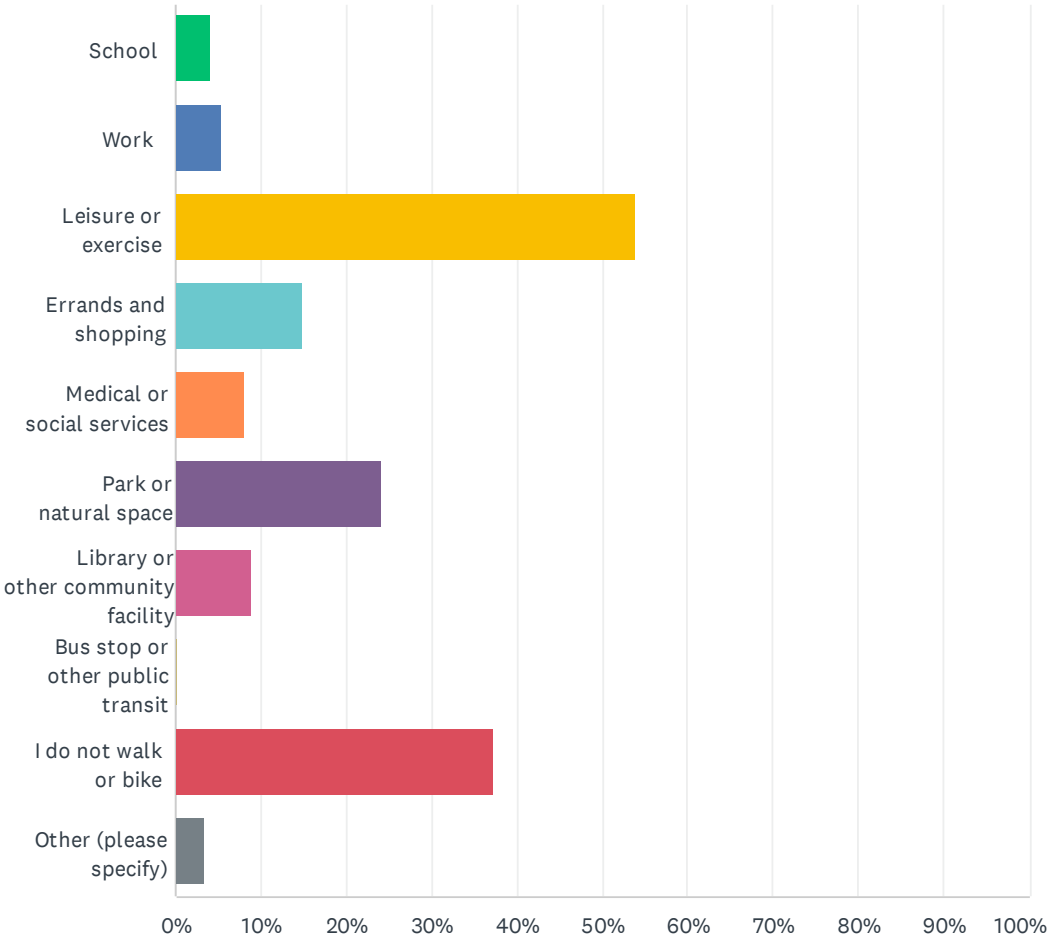
Answered: 466 Skipped: 7



ANSWER CHOICES	RESPONSES	
Alone by car	95.28%	444
Carpool	6.44%	30
Bicycling	3.86%	18
Walking	12.23%	57
Bus or public transit	0.21%	1
Wheelchair or mobility device	0.43%	2
Other (please specify)	5.15%	24
Total Respondents: 466		

Q4 If you walk and/or bike along or across streets within Smyrna, what is your destination? (Select all that apply).

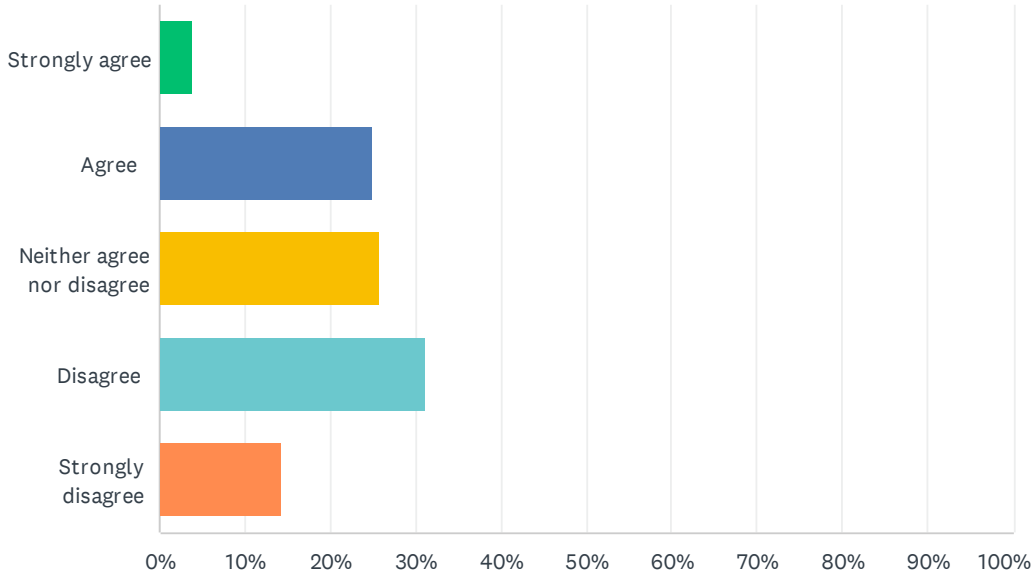
Answered: 428 Skipped: 45



ANSWER CHOICES	RESPONSES	
School	3.97%	17
Work	5.37%	23
Leisure or exercise	53.97%	231
Errands and shopping	14.95%	64
Medical or social services	8.18%	35
Park or natural space	24.07%	103
Library or other community facility	8.88%	38
Bus stop or other public transit	0.23%	1
I do not walk or bike	37.38%	160
Other (please specify)	3.50%	15
Total Respondents: 428		

Q5 Thinking of your experience traveling on streets within your community, how strongly would you agree that Smyrna streets are safe?

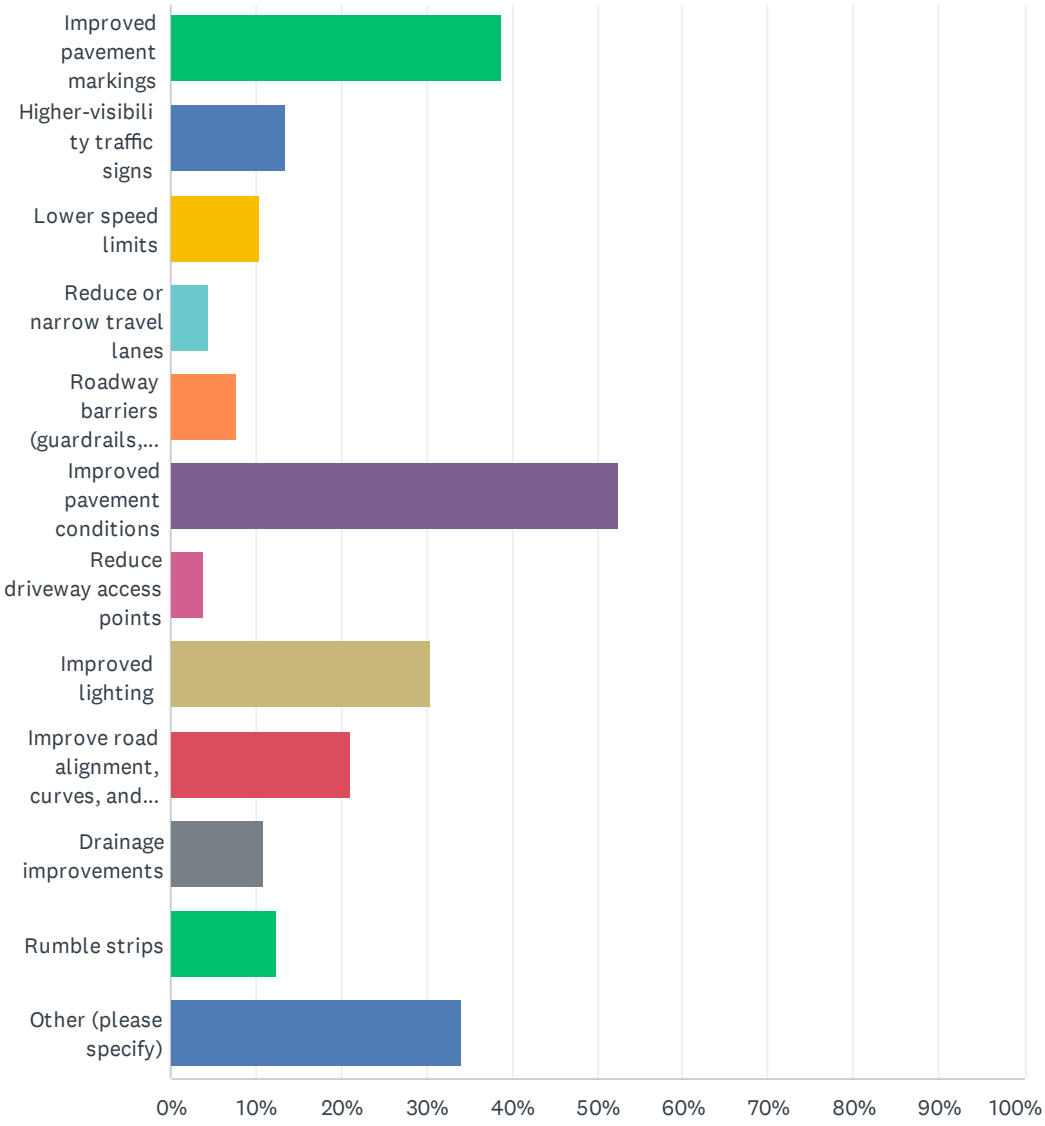
Answered: 473 Skipped: 0



ANSWER CHOICES	RESPONSES	
Strongly agree	3.81%	18
Agree	24.95%	118
Neither agree nor disagree	25.79%	122
Disagree	31.08%	147
Strongly disagree	14.38%	68
TOTAL		473

Q6 What improvements would make driving in Smyrna feel safer? (Select up to three)

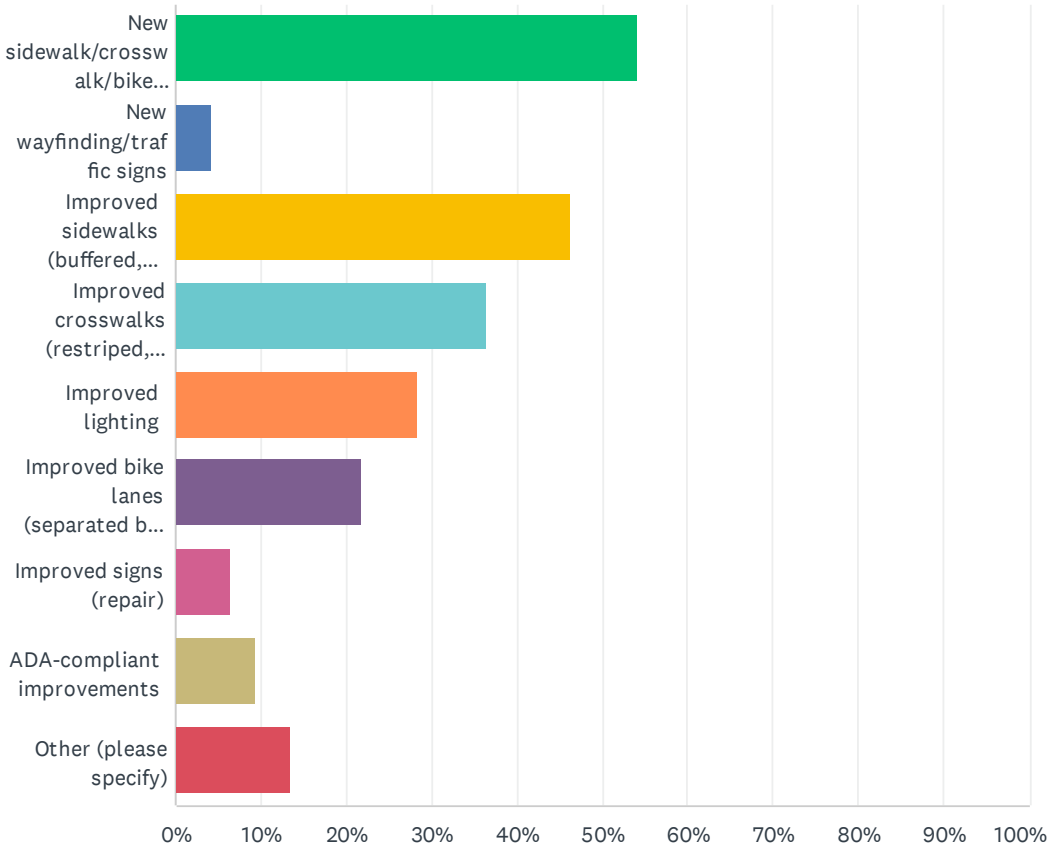
Answered: 419 Skipped: 54



ANSWER CHOICES	RESPONSES	
Improved pavement markings	38.90%	163
Higher-visibility traffic signs	13.37%	56
Lower speed limits	10.50%	44
Reduce or narrow travel lanes	4.53%	19
Roadway barriers (guardrails, etc)	7.64%	32
Improved pavement conditions	52.51%	220
Reduce driveway access points	3.82%	16
Improved lighting	30.55%	128
Improve road alignment, curves, and sight distance	21.00%	88
Drainage improvements	10.98%	46
Rumble strips	12.41%	52
Other (please specify)	34.13%	143
Total Respondents: 419		

Q7 What improvements would make walking/biking in Smyrna feel safer? (Select up to three)

Answered: 419 Skipped: 54



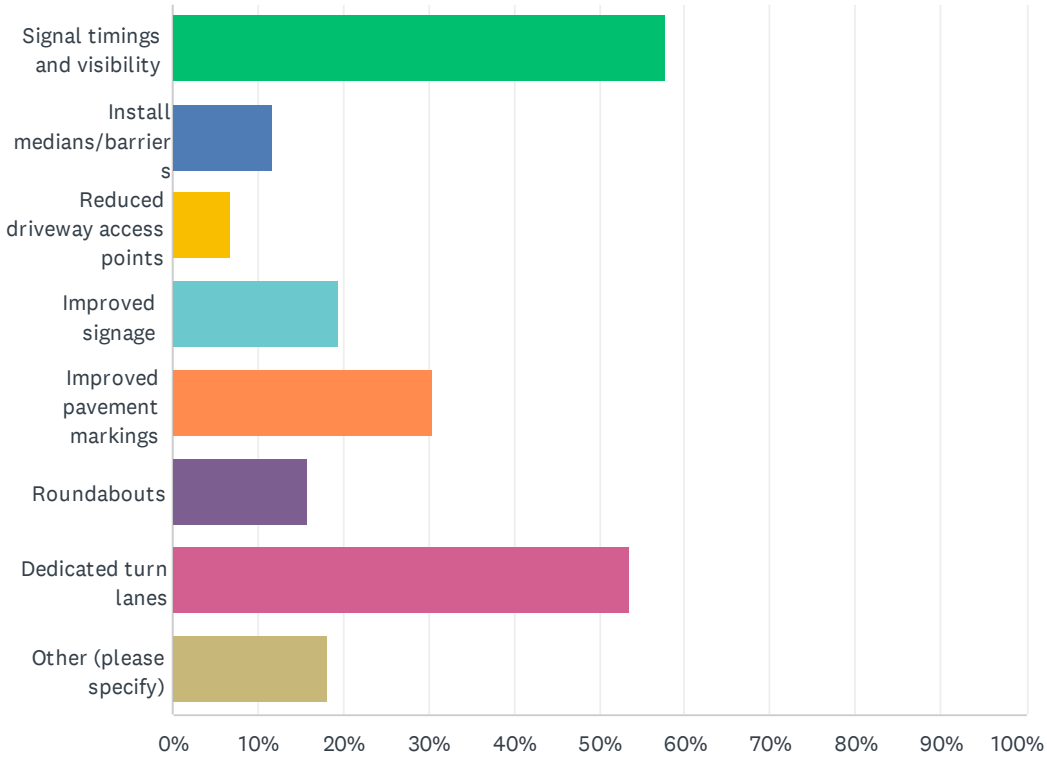
ANSWER CHOICES	RESPONSES	
New sidewalk/crosswalk/bike connections	54.18%	227
New wayfinding/traffic signs	4.30%	18
Improved sidewalks (buffered, wider sidewalks)	46.30%	194
Improved crosswalks (restriped, raised, flashing beacons, longer signal timing, refuge islands)	36.52%	153
Improved lighting	28.40%	119
Improved bike lanes (separated bike lanes, green boxes at signals, intersection markings)	21.72%	91
Improved signs (repair)	6.44%	27
ADA-compliant improvements	9.31%	39
Other (please specify)	13.37%	56
Total Respondents: 419		

Q8 Are there any intersections in Smyrna that you are concerned about? If so, please include the intersection below, including the cross street. (For example, Main Street at Town Boulevard)

Answered: 282 Skipped: 191

Q9 What improvements would make intersections in Smyrna feel safer? (Select up to three)

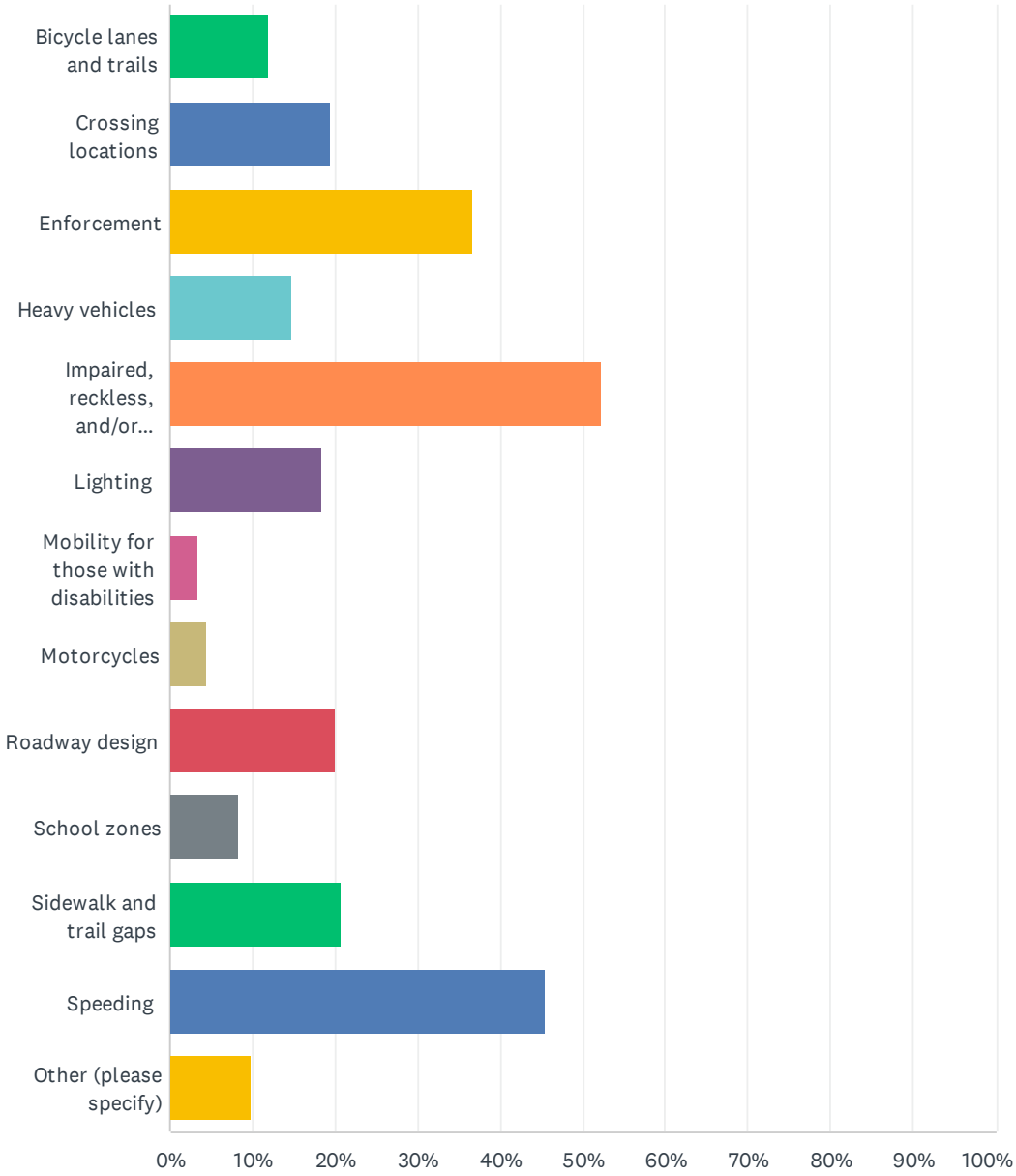
Answered: 419 Skipped: 54



ANSWER CHOICES	RESPONSES	
Signal timings and visibility	57.76%	242
Install medians/barriers	11.69%	49
Reduced driveway access points	6.92%	29
Improved signage	19.33%	81
Improved pavement markings	30.55%	128
Roundabouts	15.75%	66
Dedicated turn lanes	53.46%	224
Other (please specify)	18.14%	76
Total Respondents: 419		

Q10 What roadway safety issues are most important to you? (Select up to three)

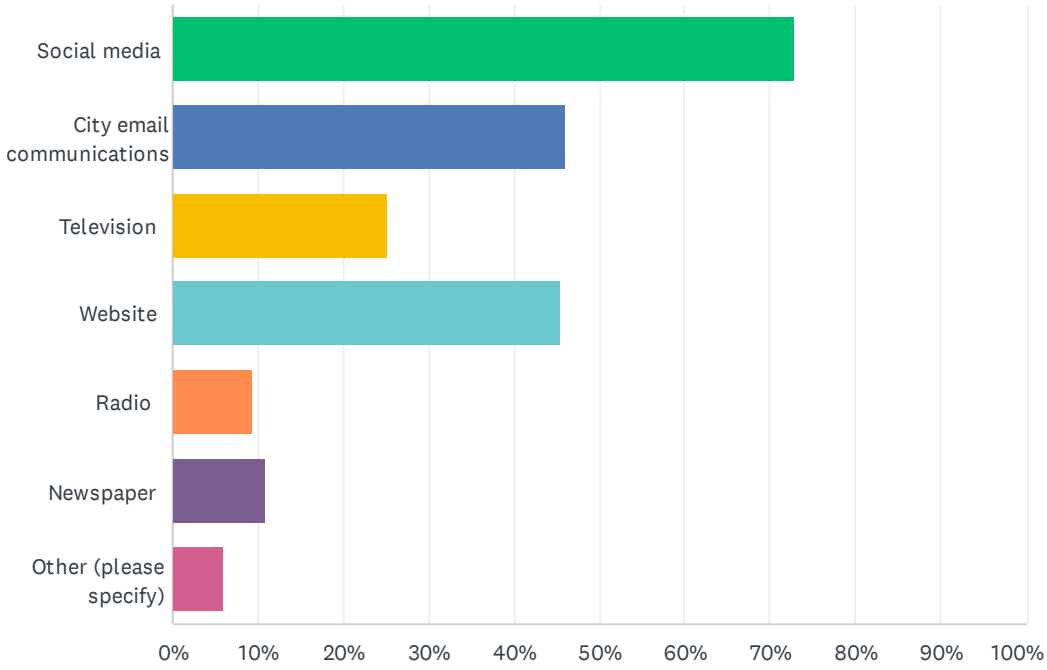
Answered: 419 Skipped: 54



ANSWER CHOICES	RESPONSES	
Bicycle lanes and trails	11.93%	50
Crossing locations	19.33%	81
Enforcement	36.75%	154
Heavy vehicles	14.80%	62
Impaired, reckless, and/or distracted driving	52.27%	219
Lighting	18.38%	77
Mobility for those with disabilities	3.34%	14
Motorcycles	4.53%	19
Roadway design	20.05%	84
School zones	8.35%	35
Sidewalk and trail gaps	20.76%	87
Speeding	45.35%	190
Other (please specify)	9.79%	41
Total Respondents: 419		

Q11 How would you prefer to learn about safe roadway practices? (Select all that apply)

Answered: 406 Skipped: 67



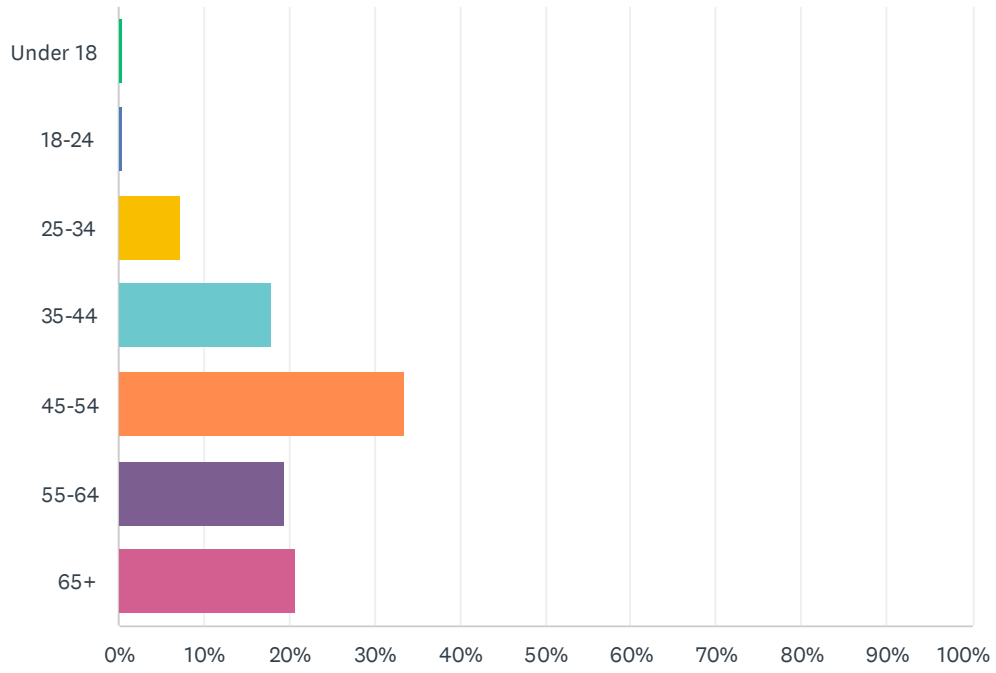
ANSWER CHOICES	RESPONSES	
Social media	72.91%	296
City email communications	46.06%	187
Television	25.12%	102
Website	45.32%	184
Radio	9.36%	38
Newspaper	10.84%	44
Other (please specify)	5.91%	24
Total Respondents: 406		

Q12 Do you have any other comments, questions, or concerns?

Answered: 202 Skipped: 271

Q13 Indicate your age group. (Optional)

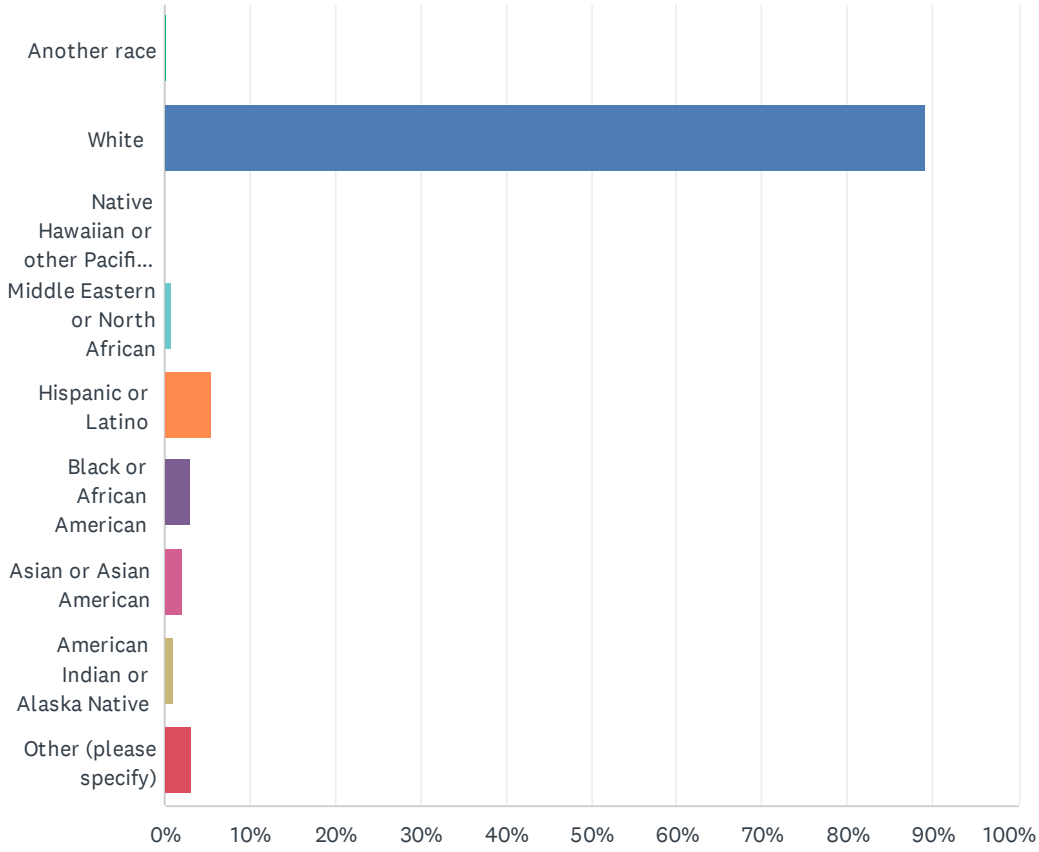
Answered: 400 Skipped: 73



ANSWER CHOICES	RESPONSES	
Under 18	0.50%	2
18-24	0.50%	2
25-34	7.25%	29
35-44	18.00%	72
45-54	33.50%	134
55-64	19.50%	78
65+	20.75%	83
TOTAL		400

Q14 Please select the racial or ethnic group with which you identify (Optional. Select all that apply).

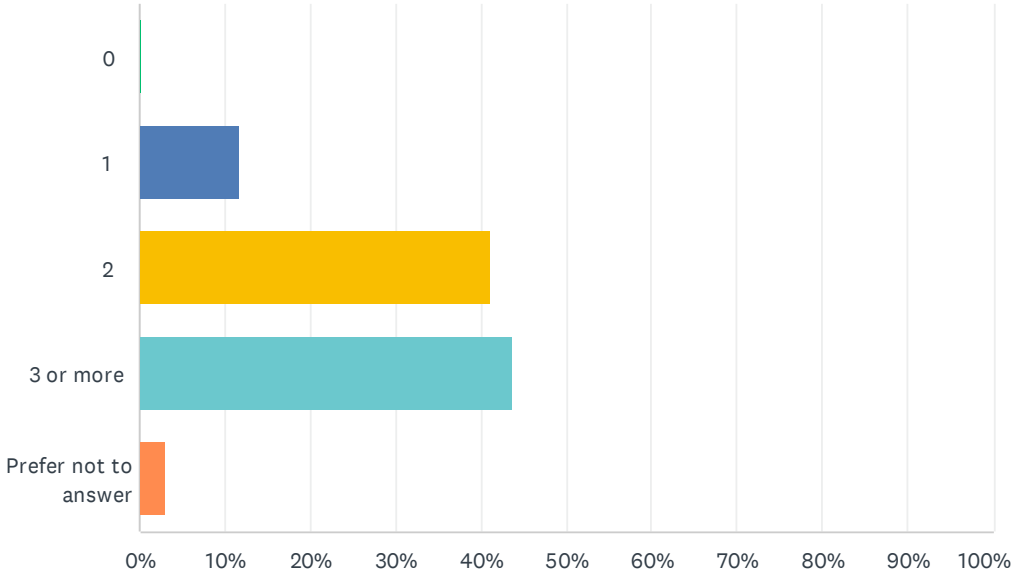
Answered: 377 Skipped: 96



ANSWER CHOICES	RESPONSES	
Another race	0.27%	1
White	89.12%	336
Native Hawaiian or other Pacific Islander	0.00%	0
Middle Eastern or North African	0.80%	3
Hispanic or Latino	5.57%	21
Black or African American	2.92%	11
Asian or Asian American	2.12%	8
American Indian or Alaska Native	1.06%	4
Other (please specify)	3.18%	12
Total Respondents: 377		

Q15 How many vehicles are available in your household? (Optional)

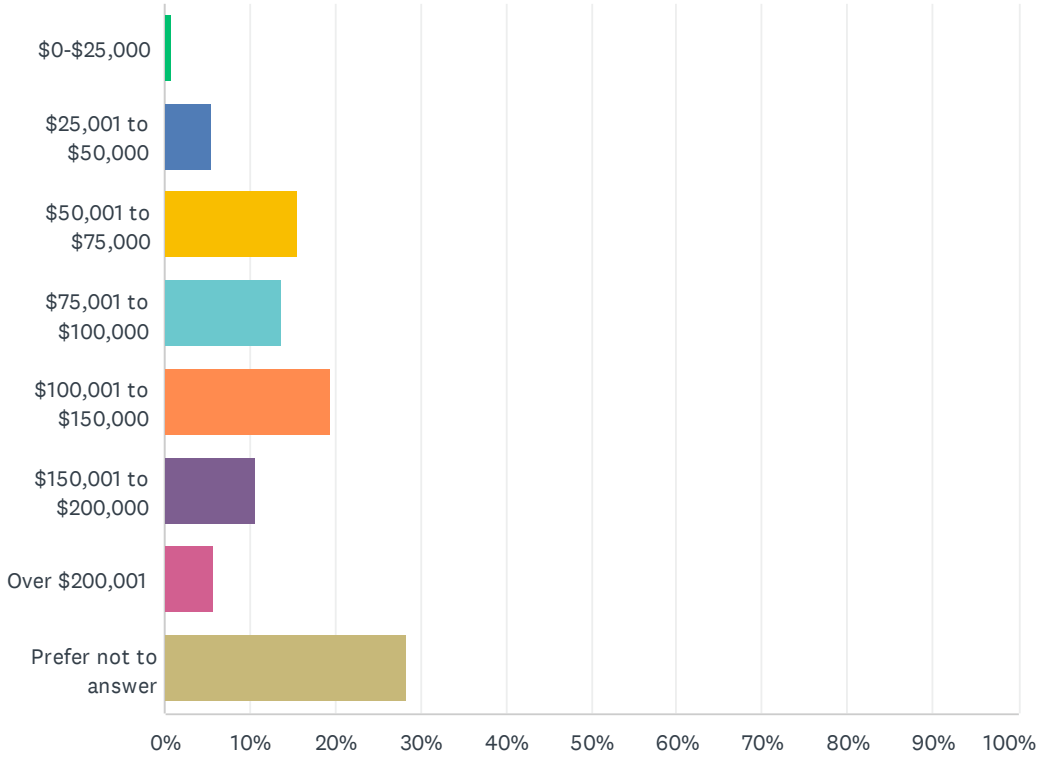
Answered: 400 Skipped: 73



ANSWER CHOICES	RESPONSES	
0	0.25%	1
1	11.75%	47
2	41.25%	165
3 or more	43.75%	175
Prefer not to answer	3.00%	12
TOTAL		400

Q16 Please indicate your annual income range. (Optional)

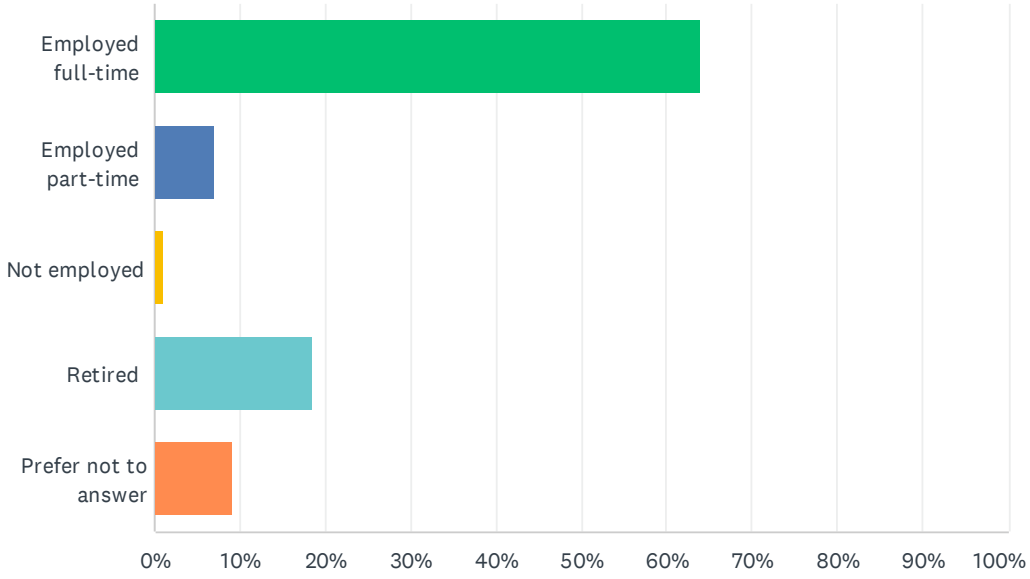
Answered: 345 Skipped: 128



ANSWER CHOICES	RESPONSES	
$0-$25,000	0.87%	3
$25,001 to $50,000	5.51%	19
$50,001 to $75,000	15.65%	54
$75,001 to $100,000	13.62%	47
$100,001 to $150,000	19.42%	67
$150,001 to $200,000	10.72%	37
Over $200,001	5.80%	20
Prefer not to answer	28.41%	98
TOTAL		345

Q17 Please indicate your current employment status. (Optional)

Answered: 367 Skipped: 106



ANSWER CHOICES	RESPONSES	
Employed full-time	64.03%	235
Employed part-time	7.08%	26
Not employed	1.09%	4
Retired	18.53%	68
Prefer not to answer	9.26%	34
TOTAL		367

Appendix B:
Site Visit Photo Log of Project Recommendations

Overall Ranking 1: N/S Lowry Street (US-41) from Town Limits to Town Limits

Staged Crossing
Missing wrong way signage, sight distance concerns.

Segment Cross Section
Segment-wide unsigned median openings, lighting concerns.

Overall Ranking 2: W Sam Ridley Pkwy (SR-266) from Blair Rd to Nissan Drive

Pedestrian Crosswalk
Stop bar through crosswalk area, pedestrian equipment does not meet PROWAG standards.

Segment Pavement Markings
Missing stop bar markings, lack of RPMs along the segment.

Overall Ranking 3: Nissan Drive (SR-102) from Old Nashville Hwy to Jefferson Pike

Pavement and Signal Equipment

Rough pavement conditions, missing pedestrian facilities and retroreflective signal backplates.

Dedicated Bike Lanes

Deficient bike lane provisions at intersections, no bike lane buffer.

Overall Ranking 4: Sam Davis Road from N Lowry St to Nissan Drive

Pedestrian Crossing
Deficient pavement markings, sight distance and lighting concerns, upgrade pedestrian equipment.

School Zone
Missing pedestrian crossing to school, outdated school zone equipment.

Overall Ranking 5: Front Street from Imperial Blvd to College St

Unsignalized Intersection
Missing pavement markings, poor pavement conditions.

Roundabout
Deficient pavement markings, missing signage, design and operational concerns.

Unsignalized Intersection
Deficient pavement markings, minimal shoulder.

Overall Ranking 6: Enon Springs Rd from I-24 to Florence Rd

Signalized Intersection
Upgrade signal equipment, missing pedestrian crosswalks, slip lane safety and lighting concerns.

Signalized Intersection by Park
Non-ADA curb ramps, outdated pedestrian pushbuttons, no retroreflective backplates.

Unsignalized Intersection
Crosswalk does not meet ADA standards, deficient pavement markings..

Signalized Intersection
Deficient pavement markings, missing pedestrian infrastructure, sight distance concerns, outdated traffic signal equipment.

Overall Ranking 7: Rock Springs Rd from Town Limits to Pele Dr

Unsignalized Intersection
Crosswalks do not meet ADA standards, no connection across Rock Springs Road

School Crossing
Crosswalks do not meet ADA standards, outdated school zone equipment, missing edgelines.

Atypical Subsegment
Lack of shoulders, poor pavement quality, deficient pavement markings, lighting concerns.

Overall Ranking 8: Old Nashville Hwy from Enon Springs Rd to Cheatham Ave

Segment Equipment
Outdated school zone equipment, missing RPMs.

Intersection Adjacent to School
Missing pedestrian crossing equipment, deficient crosswalk markings, missing signal backplates.

Overall Ranking 9: Weakley Ln from Sam Ridley Pkwy to Town Limits

Geometry Concerns
Heavy vehicle turning, unprotected pulled back left turns.

Pedestrian Crosswalk
Segment crosswalks missing or do not meet ADA standards.

Overall Ranking 10: Industrial Blvd from Sam Ridley Pkwy to Town Limits

Midblock Crossing
Deficient pavement markings, not ADA compliant, general safety concerns.

Unsignalized Driveway
Crosswalk does not meet ADA standards, sight distance concerns, access management.

Pedestrian Facilities
Sidewalk ends, no pedestrian crossing opportunities, lighting concerns.

Signalized Intersection
Heavy truck traffic, crosswalk does not extend to intersection, adjacent segment geometry concerns.

Overall Ranking 11: Rocky Fork Road from Old Nashville Hwy to Enon Springs Rd

Segment

Minimal shoulder, no pedestrian facilities, lighting concerns.

Overall Ranking 12: Almaville Rd from Lee Victory Pkwy to Old Nashville Hwy

Unsignalized Intersection
Deficient pavement markings, missing pedestrian facilities.

Signalized Intersection
Bike lane safety concerns, lighting concerns, upgrade signal equipment.

Overall Ranking 13: Hazelwood Rd from Old Nashville Hwy to Lowry St

Signalized Intersection
Crosswalks do not meet ADA standards, missing pedestrian refuge, refreshed pavement markings do not extend outside of intersection bounds.

Signalized Intersection Near School
Missing pedestrian infrastructure, sidewalk gaps.

Unsignalized Intersection
Deficient pavement markings, crosswalks do not meet ADA standards, speeding concerns.

Overall Ranking 14: Almaville Rd (SR-102) from Poplar Wood Rd to I-24

Advanced traffic signal warning infrastructure
Upgrade to modern equipment.

Pedestrian walking along the shoulder
Missing pedestrian facilities along the segment.

Overall Ranking 15: Chaney Rd from Sam Ridley Pkwy to Town Limits

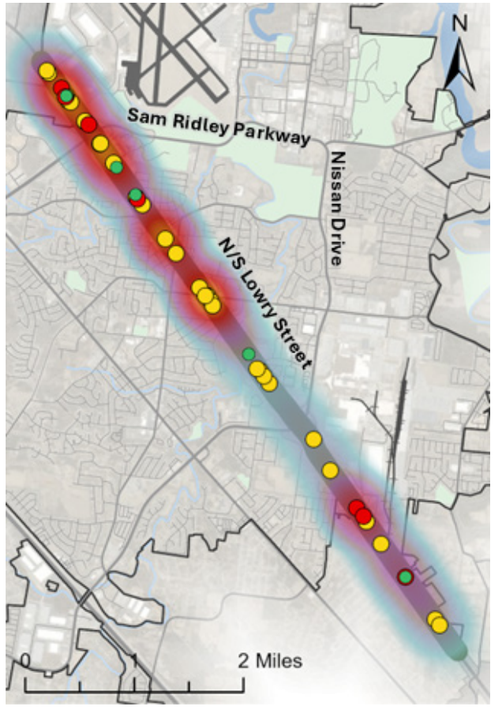
School Crossing
Deficient pavement markings, not ADA compliant, missing crosswalk signage.

Unsignalized Intersection
Deficient pavement markings, missing pedestrian facilities.

Appendix C:
Project Recommendation Fact Sheets

N/S Lowry Street (US-41)

from Town Limits to Town Limits



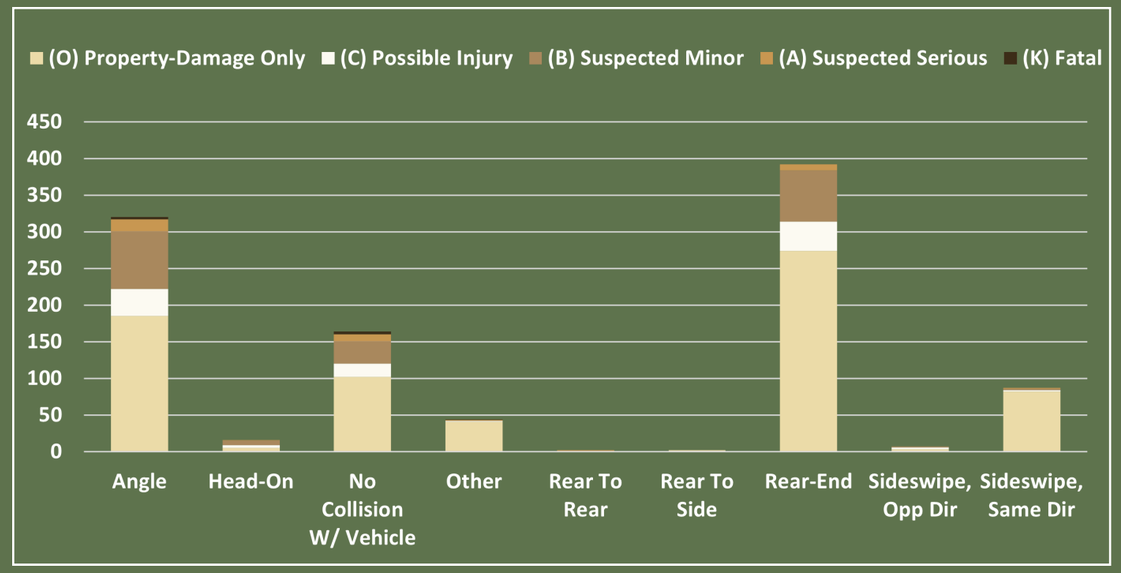
TDOT

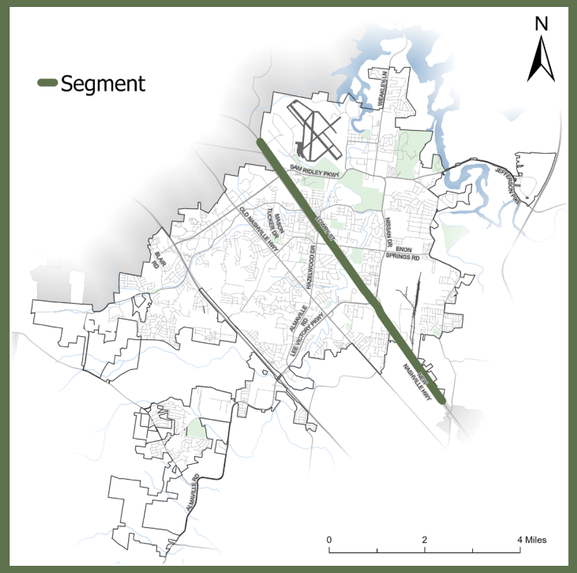
Speed Limit	40 mph
Lanes	4
Vehicles/Day	30,000
Total Crashes	1,061
HIN Intersections	2

Characteristics

This section of N/S Lowry Street is a two-way roadway, divided by a grass median on the outer end, and a two-way left-turn lane (TWLTL) near the center portion. The segment follows a straight alignment, with lightly rolling terrain. Sidewalks are partially present along the corridor, and there is a high prevalence of crashes during non-daylight conditions.

Along S Lowry Street, Facing South, Just North of George Franklin Road





SOURCE: Tennessee Department of Transportation (TDOT), AASHTOWare Safety 2019-2023

DISCLAIMER

23 United States Code Section 407 - Discovery and admission as evidence of certain reports and surveys

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

Overall Ranking: 1

Ranking Index

Fatal & Serious Injury Crashes:

low — high

Vulnerable Road User Crashes:

low — high

Crash Rate:

low — high

Replica Risk Index:

low — high

Demographics Consideration:

low — high

Community Input

- Pedestrian infrastructure throughout the corridor is needed.
- Pedestrian crossing at the intesection of Lowry Street and Washington Street is a major need.
- The intersection of Lowry Street at Jefferson Pike is a major area of concern. Right-turn lanes are needed when turning from Lowry Street onto Jefferson Pike.

N/S Lowry Street (US-41)

from Town Limits to Town Limits

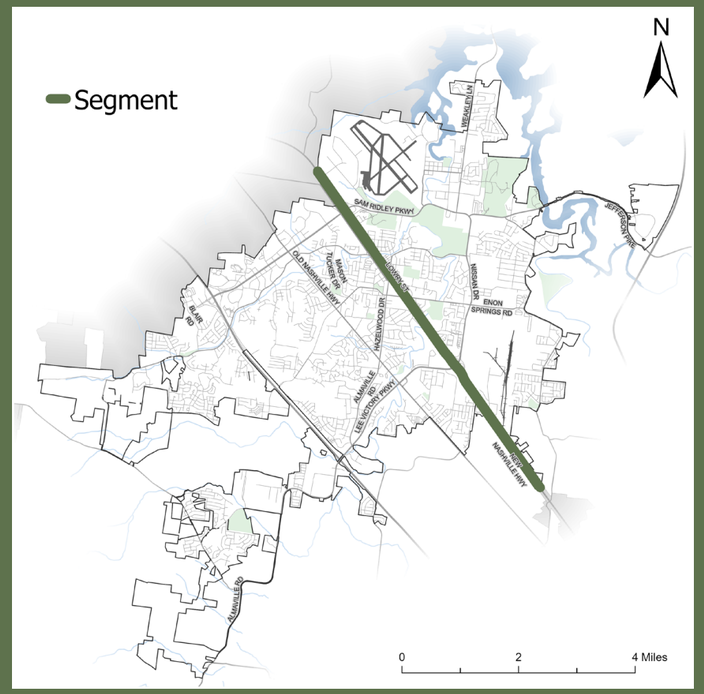
	ID	Countermeasure	Cost	Schedule	Project Readiness
●	1.1	Improve Corridor Access Management at Commercial Areas	$$	Short-Term	●
● ●	1.2	Signalized Intersection Improvements at 10 Locations including Signing, Markings, Signal Equipment, Backplates with Retroreflective Borders, Sidewalk Ramps with Detectable Warning Surface, and High-Emphasis Crosswalks	$	Short-Term	●
● ● ●	1.3	Install Side Path/Sidewalks to Fill Gaps	$$$	Long-Term	● ●
● ● ●	1.4	Install Pedestrian Hybrid Beacons Mid-Block	$$	Short-Term	●
● ●	1.5	Package of Low-Cost Signing and Marking Improvements for Section of Physical Median to Mitigate Wrong-Way Driving	$	Short-Term	Ready
● ● ●	1.6	Implement Leading Pedestrian Intervals at Signalized Intersections with High Pedestrian Traffic	$	Short-Term	Ready
● ● ●	1.7	Pedestrian Improvements including High-Emphasis Crosswalks, Pedestrian Refuge Islands, and At-Grade Rail Crossing Improvements	$$$	Long-Term	●
● ● ●	1.8	Lighting Improvements including Evaluate Existing Equipment and Install Lighting Structures	$$	Short-Term	●
● ●	1.9	Package of Low-Cost Intersection Improvements (Can Include Signing, Marking, Transverse Rumble Strips)	$	Short-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
● Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

Benefit Summary

- Access management controls where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- Shorter crosswalks minimize the time pedestrians spend in the roadway, thereby reducing the exposure to potential vehicle conflicts. Pedestrian refuge islands provide a safe space for pedestrians to wait if they are unable to cross the entire street in one traffic signal cycle or during heavy traffic.
- Sidewalks provide a dedicated space for pedestrians, keeping them separated from vehicular traffic and significantly reducing the risk of accidents.
- The red signal indication of Pedestrian Hybrid Beacons requires drivers to come to a complete stop, which increases motorist compliance with yielding to pedestrians.
- By allowing pedestrians to establish their presence in the crosswalk first, Leading Pedestrian Intervals reduce conflicts between turning vehicles and pedestrians, leading to fewer accidents.
- Enhanced signage, striping, and rumble strips can collectively reduce the risk of crashes at stop-controlled intersections. These low-cost countermeasures provide a significant safety return on investment, improving safety without the need for expensive infrastructure modifications.



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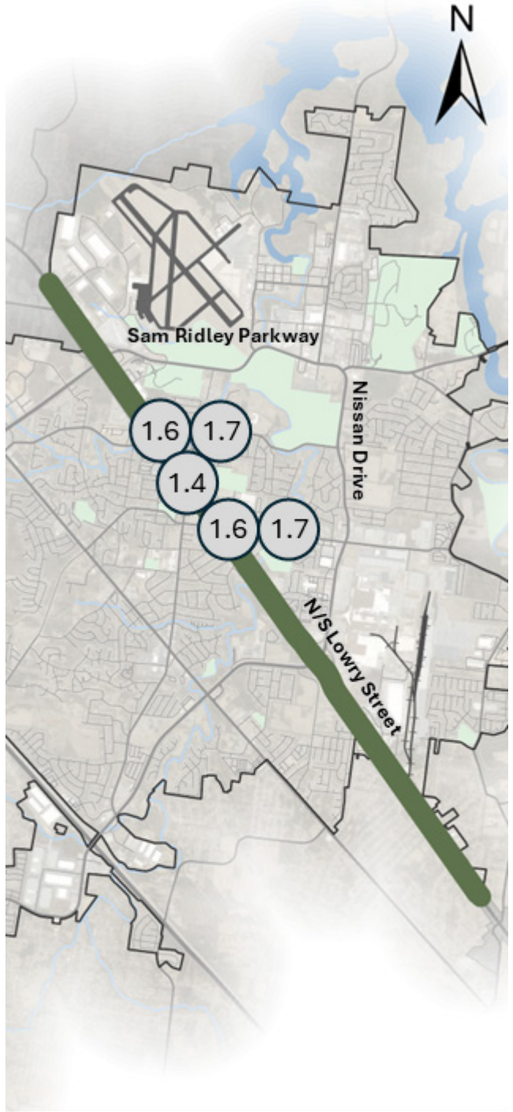
Recommended Countermeasures



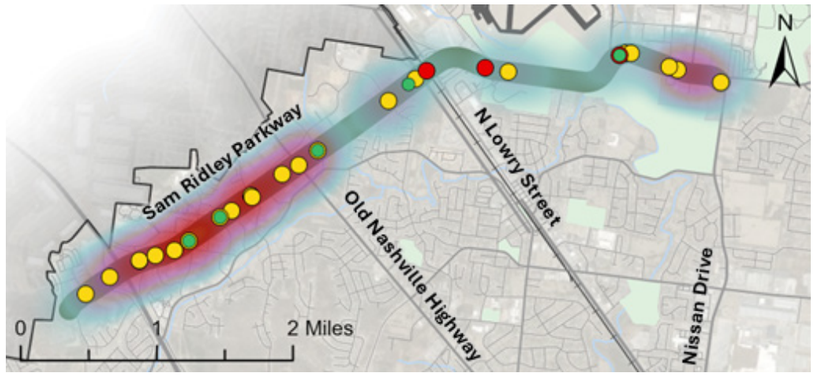
SEGMENT-WIDE RECOMMENDATION

1.1 1.2 1.3 1.5 1.8 1.9

0 1.5 3 Miles

W Sam Ridley Parkway (SR-266)

from Blair Road to Nissan Drive



- VRU (5)
- Serious Injury (27)
- Fatal (3)

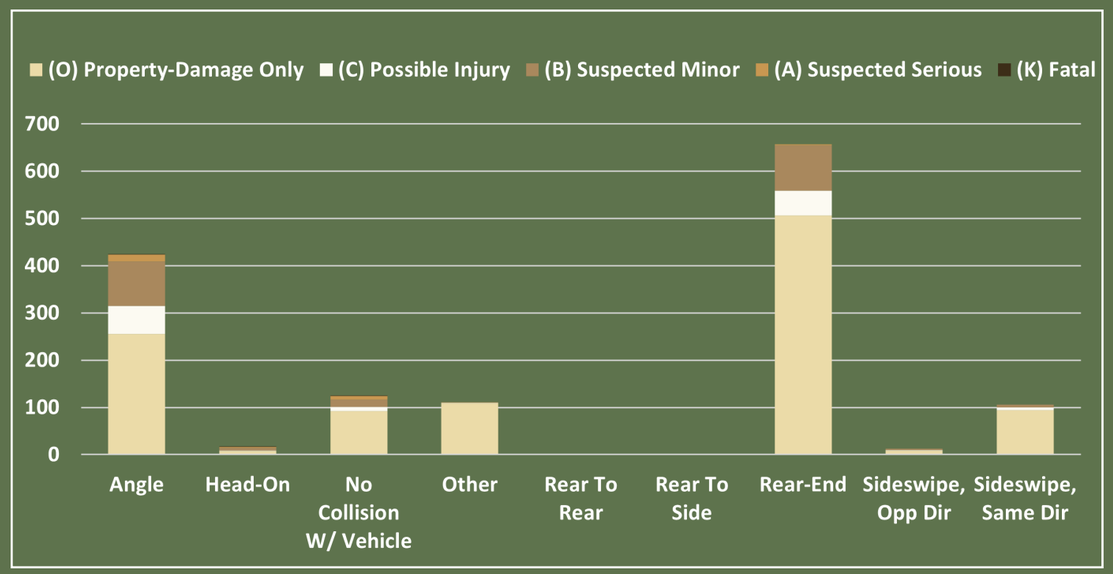
TDOT

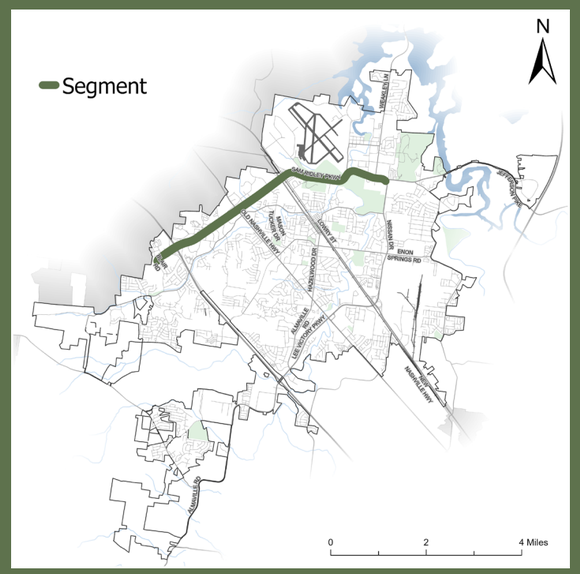
Speed Limit	45 mph
Lanes	4
Vehicles/Day	37,000
Total Crashes	1,460
HIN Intersections	4

Characteristics

This section of W Sam Ridley Parkway is a two-way roadway, divided by a grass median on the western end and a two-way left-turn lane (TWLTL) on the eastern end. The segment follows a mainly straight alignment, except for two sharp curves on the eastern end, and has a mildy rolling terrain. Sidewalks are not present along this section of W Sam Ridley Parkway.

Along W Sam Ridley Parkway, Facing West, Just West of Weakley Lane





SOURCE: Tennessee Department of Transportation (TDOT), AASHTOWare Safety 2019-2023

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Overall Ranking: 2

Ranking Index

Fatal & Serious Injury Crashes:

low — high

Vulnerable Road User Crashes:

low — high

Crash Rate:

low — high

Replica Risk Index:

low — high

Demographics Consideration:

low — high

Community Input

- Concerns for bicycle and pedestrian infrastructure including sidewalk gaps and crosswalks at signalized and non-signalized intersections.
- Intersections of W Sam Ridley Parkway at Stonecrest Parkway, Industrial Boulevard, and Old Nashville Highway are all areas of concern and in need of improvements.
- Areawide multimodal improvements are needed in the commercial area between I-24 and Old Nashville Highway including pedestrian crossings, sidewalk gap infills, and wayfinding.
- Improved signage and pavement marking needed at the I-24 Eastbound ramps.

W Sam Ridley Parkway (SR-266)

from Blair Road to Nissan Drive

Recommended Countermeasures

	ID	Countermeasure	Cost	Schedule	Project Readiness
● ●	2.1	Convert the Intersection to Roundabout	$$$$	Long-Term	● ●
● ● ●	2.2	Install Side Path/Sidewalk	$$$	Long-Term	● ●
● ● ●	2.3	Evaluate PED Cycle Time	$	Short-Term	Ready
● ● ●	2.4	Detectable Warning Surface for Sidewalk Ramps	$	Short-Term	Ready
● ●	2.5	Install Pedestrian Countdown Signal Heads	$$	Short-Term	Ready
● ● ●	2.6	Increase Crosswalk Visibility Enhancements	$$	Short-Term	Ready
● ●	2.7	Package of Low-Cost Intersection Improvements (Can Include Signing, Marking, Transverse Rumble Strips)	$	Short-Term	Ready
●	2.8	Improve Corridor Access Management	$$$	Long-Term	Ready
● ●	2.9	Install Backplates w/ Retroreflective Borders	$	Short-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure

● Crash Modification Factors Countermeasure

● Vulnerable Road User Related Countermeasure

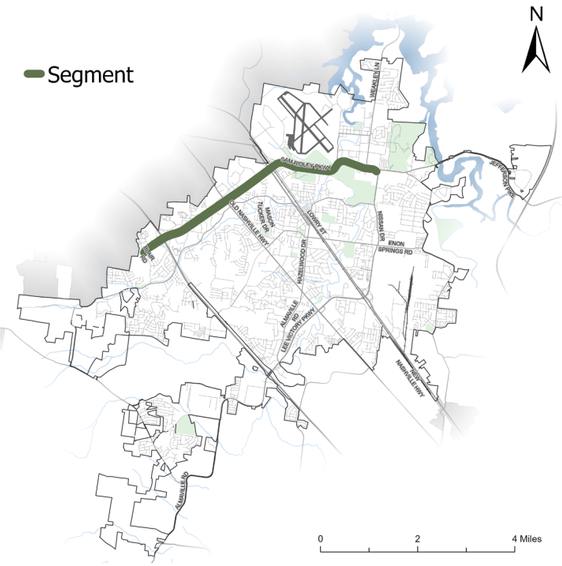
● Requires ROW Acquisition

● Requires Utility Relocation

SOURCE: Tennessee Department of Transportation (TDOT), AASHTOWare Safety 2019-2023

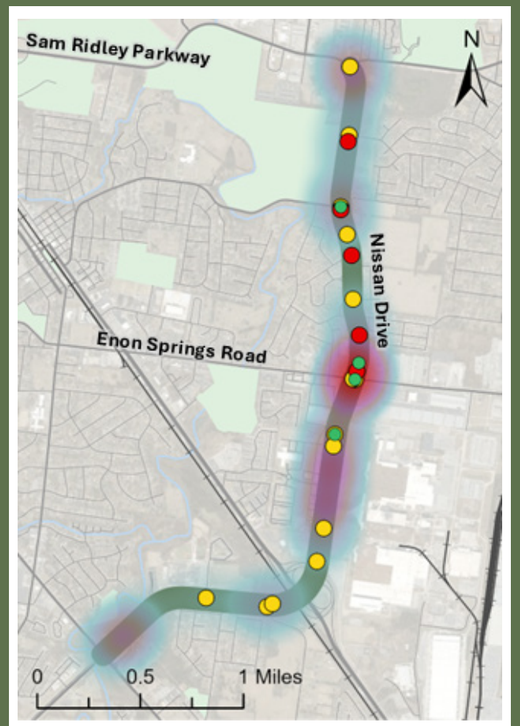
Benefit Summary

- Enhanced signage, striping, and rumble strips can collectively reduce the risk of crashes at stop-controlled intersections. These low-cost countermeasures provide a significant safety return on investment, improving safety without the need for expensive infrastructure modifications.
- Backplates with retroreflective borders increase the conspicuity of traffic signal heads, especially under low-light conditions. They also help drivers quickly and easily identify traffic signals in the presence of visual clutter. This enhanced visibility and recognition can lead to a reduction in rear-end and angle crashes at signalized intersections.
- Properly timed pedestrian signals ensure that pedestrians have dedicated time to cross the street without conflicting with vehicle movements.
- Sidewalks offer a dedicated walking space and provide pedestrians with access to destinations along the corridor, decreasing the likelihood of vehicle/pedestrian conflicts within the roadway.
- High-emphasis crosswalks are designed to improve pedestrian safety by making crosswalks more visible and conspicuous to drivers.
- Traditional intersections have 32 potential conflict points where vehicles can collide, while roundabouts reduce this number to just 8. This reduction significantly lowers the chances of accidents.



Nissan Drive (SR-102)

from Old Nashville Highway to Jefferson Pike



VRU (4) Serious Injury (6) Fatal (16)

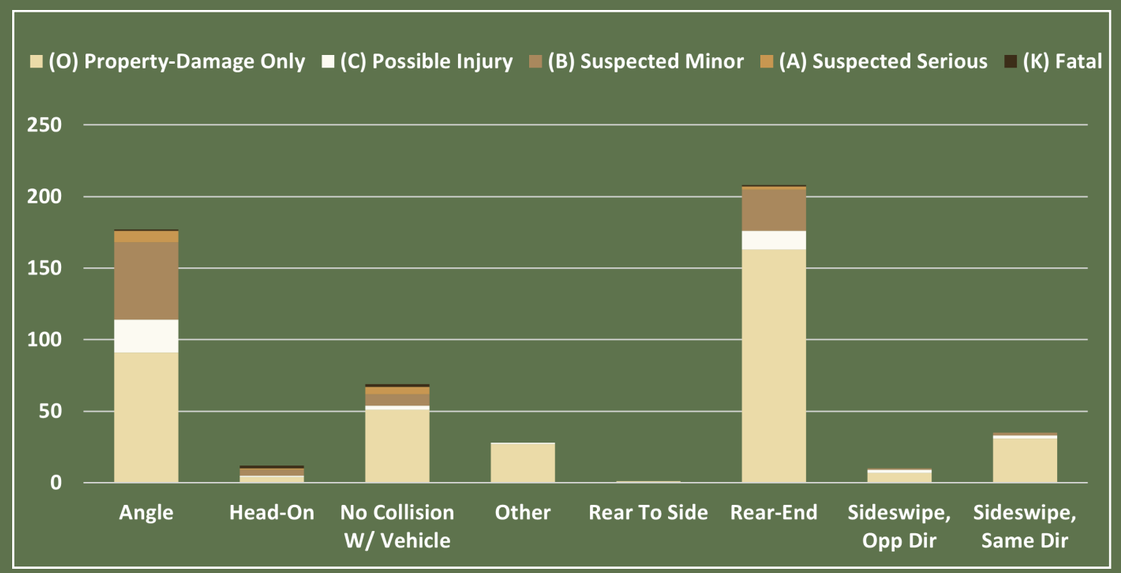
TDOT

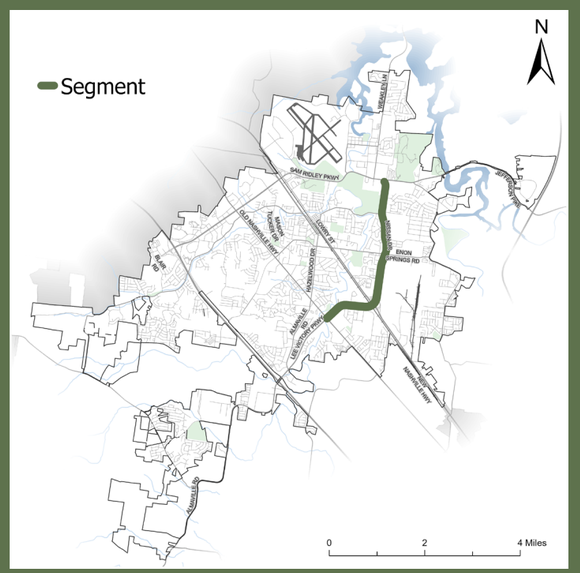
Speed Limit	45 mph
Lanes	4
Vehicles/Day	32,000
Total Crashes	543
HIN Intersections	1

Characteristics

This section of Nissan Drive is a two-way roadway, separated by a grass median on the southern end and a two-way left-turn lane (TWLTL) near the northern end. The segment follows a lightly curved alignment, except for a large curve near the southern end. The segment has a mildy rolling terrain, and does not have sidewalks present at any section of the corridor.

Along Nissan Drive, Facing South, Just North of Sergeant Ashbury Hawn Way





Overall Ranking: 3

Ranking Index

Fatal & Serious Injury Crashes:
low — high

Vulnerable Road User Crashes:
low — high

Crash Rate:
low — high

Replica Risk Index:
low — high

Demographics Consideration:
low — high

Community Input

- Pedestrian infrastructure, incuding sidewalks and crosswalks, are needed throughout Nissan Drive.
- The intersection of Nissan Drive at Enon Springs Road and Chicken Pike are areas of concern.

Nissan Drive (SR-102)

from Old Nashville Highway to Jefferson Pike

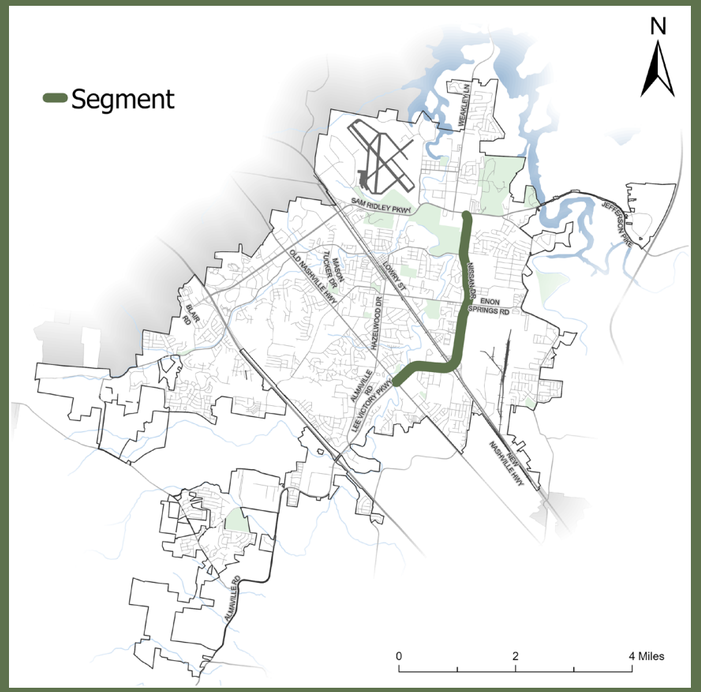
	ID	Countermeasure	Cost	Schedule	Project Readiness
●	3.1	Evaluate Sight Distance and Clear Obstacles in Driver Sight Triangles	$	Short-Term	●
● ●	3.2	Signalized Intersection Improvements at Nine Locations Including Signing, Markings, Signal Equipment, Backplates with Retroreflective Borders, Sidewalk Ramps with Detectable Warning Surfaces, and High Emphasis Crosswalks	$$	Short-Term	●
● ● ●	3.3	Package of Low-Cost Intersection Improvements (Can Include Signing, Marking, Transverse Rumble Strips)	$	Short-Term	Ready
●	3.4	Install Physical Median Near Commercial Areas	$$$$	Long-Term	● ●
● ● ●	3.5	Install Side Path/Sidewalks to Fill Gaps including High-Emphasis Crosswalks and Detectable Warning Surface at Sidewalk Ramps	$$$$	Long-Term	● ●
● ● ●	3.6	Lighting Improvements including Evaluate Existing Equipment	$$	Short-Term	●
● ● ●	3.7	Improve Existing Designated Bike Lane with Buffered/Protected Bike Lane	$$	Short-Term	Ready
●	3.8	School Zone Equipment Improvements including Signing, Markings, and Beacons	$$	Short-Term	●
●	3.9	Evaluate Paired/Adjacent Signalized Intersections; Install Programmable Signal Heads	$$	Short-Term	●
● ●	3.10	Improve Corridor Access Management at Commercial Areas	$$	Short-Term	●

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
● Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

Benefit Summary

- Backplates with retroreflective borders increase the conspicuity of traffic signal heads, especially under low-light conditions. They also help drivers quickly and easily identify traffic signals in the presence of visual clutter. This enhanced visibility and recognition can lead to a reduction in rear-end and angle crashes at signalized intersections.
- Sidewalks offer a dedicated walking space and provide pedestrians with access to destinations along the corridor, decreasing the likelihood of vehicle/pedestrian conflicts within the roadway. Sidewalks provide children with a safe route for walking to school, and foster a safer environment for those who rely on walking as their primary mode of transportation.
- Properly designed lighting improves visibility for drivers, pedestrians, and cyclists, making it easier to see potential hazards and navigate safely.
- Installing clear and visible signage, including reflective materials and flashing lights, ensures that drivers are aware of school zones and the need to reduce speed.
- Access management controls where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- Medians can prevent left-turn and head-on crashes by separating opposing traffic flows. They also facilitate better access management by controlling where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.



SOURCE: Tennessee Department of Transportation (TDOT), AASHTOWare Safety 2019-2023

DISCLAIMER

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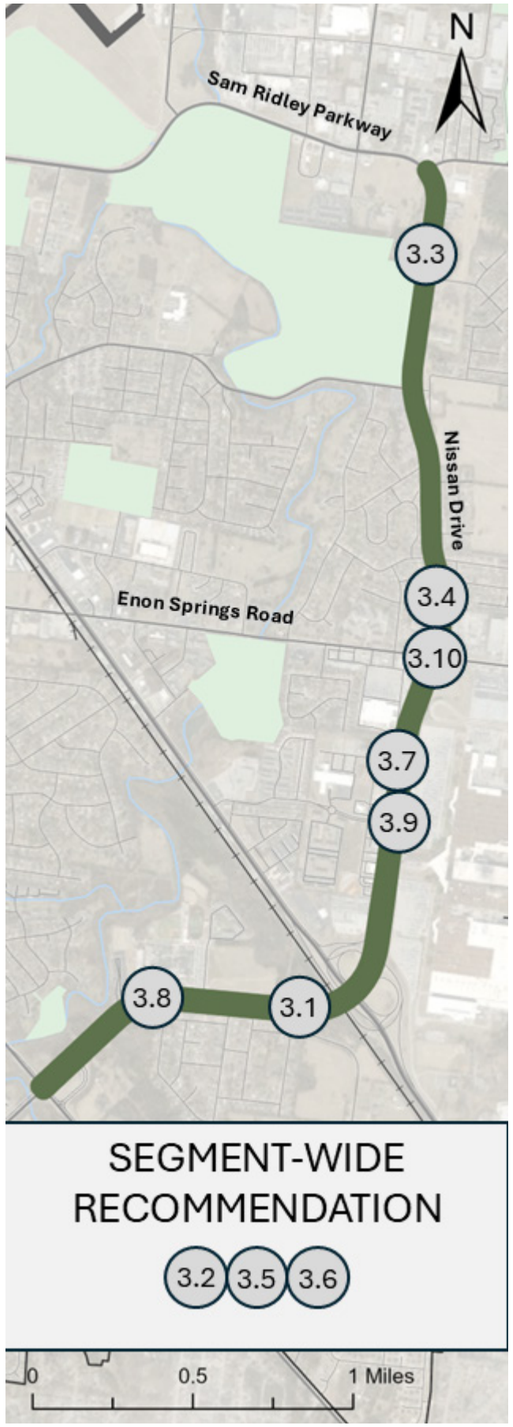
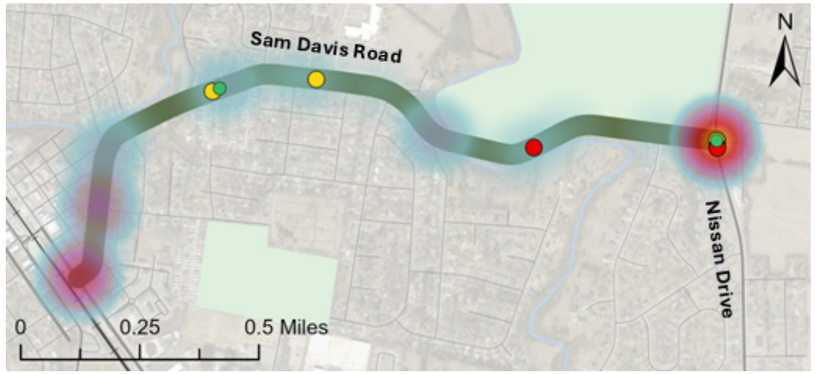
Recommended Countermeasures



Sam Davis Road

from N Lowry Street to Nissan Drive



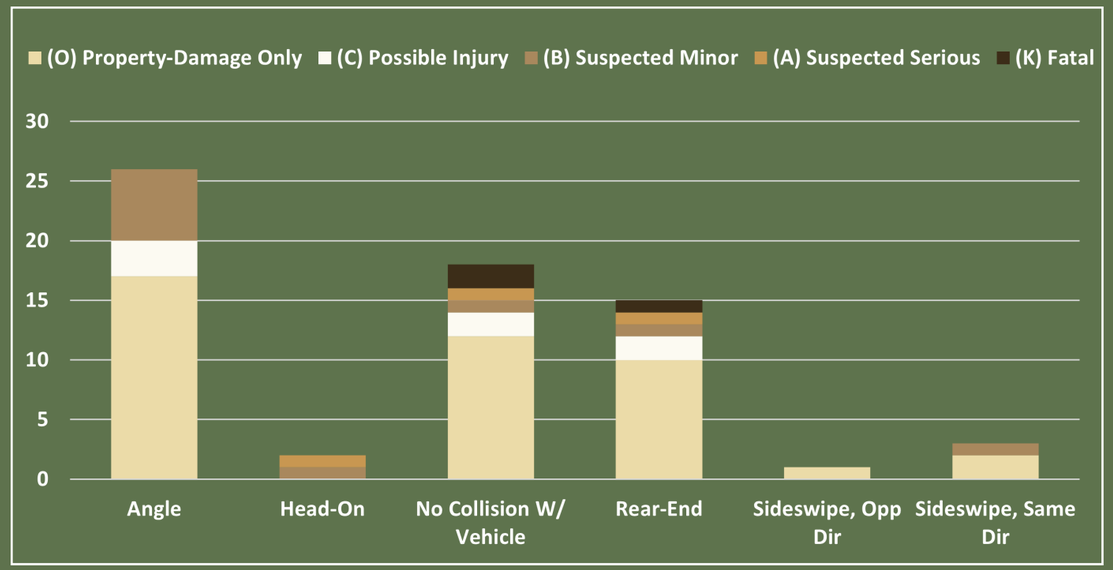
Town

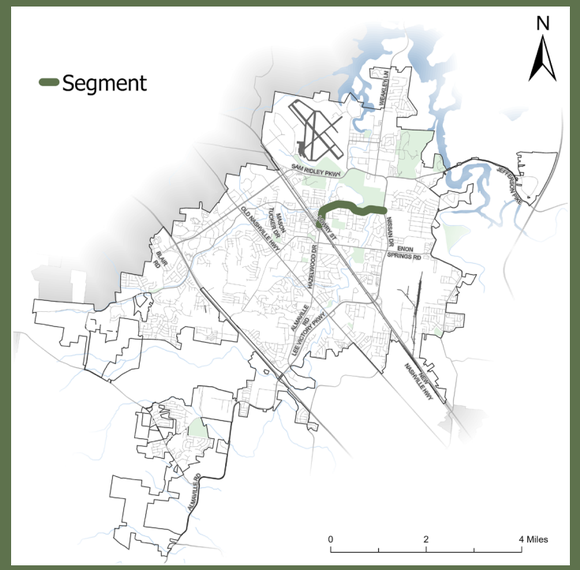
Speed Limit	35 mph
Lanes	2
Vehicles/Day	2,000
Total Crashes	65
HIN Intersections	0

Characteristics

This section of Sam Davis Road is a two-way roadway, with no separation between opposing travel lanes. The segment follows a curvd alignment, with rolling terrain. Sidewalks are present along a single side of Sam Davis Road, and there is a high prevalence of crashes during non-daylight conditions along this corridor.

Along Sam Davis Road, Facing West, Just West of Old Jones Mill Road





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Overall Ranking: 4

Ranking Index

Fatal & Serious Injury Crashes:

low — high

Vulnerable Road User Crashes:

low — high

Crash Rate:

low — high

Replica Risk Index:

low — high

Demographics Consideration:

low — high

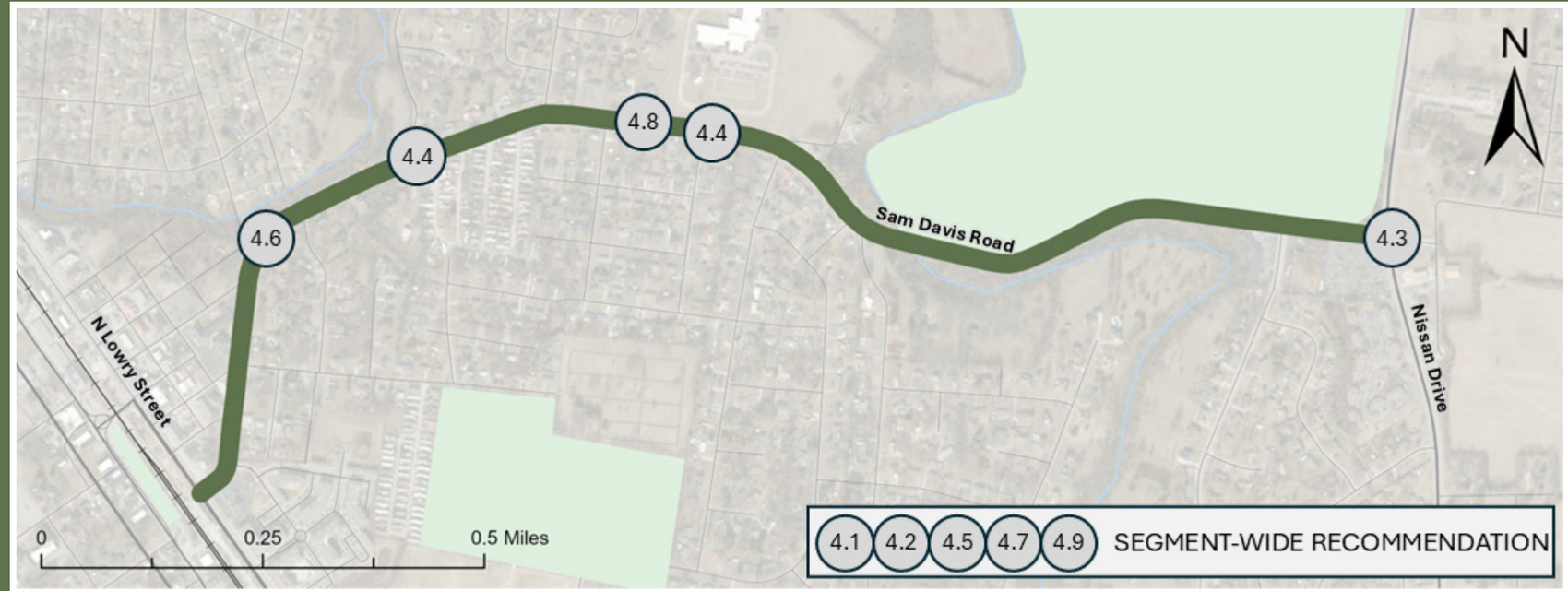
Community Input

- Concerns for Bicycle and pedestrian infrastructure needed at several intersections along Sam Davis Road.

Sam Davis Road

from N Lowry Street to Nissan Drive

Recommended Countermeasures



	ID	Countermeasure	Cost	Schedule	Project Readiness
● ●	4.1	Install Optical Speed Bars w/ Retroreflective Pavement Markings and RPMs	$	Short-Term	Ready
● ●	4.2	Install Curve Feedback Warning Signs	$	Short-Term	Ready
● ●	4.3	Install Backplates w/ Retroreflective Borders	$	Short-Term	Ready
● ○	4.4	Rectangular Rapid Flashing Beacon (RRFB)	$$	Short-Term	●
● ● ○	4.5	Streetlighting Improvements	$$	Short-Term	● ●
●	4.6	Install Guardrail, Retroreflective Markers & Lighting Improvements near Horizontal Curve	$$	Short-Term	● ●
● ●	4.7	Package of Low-Cost Intersection Improvements (Can Include Signing, Marking, Transverse Rumble Strips)	$	Short-Term	Ready
●	4.8	Upgrade School Zone Equipment	$$$	Long-Term	● ●
● ● ○	4.9	Install Sidewalk/Side Path on Southern Side of Roadway	$$$	Long-Term	● ●

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure

● Crash Modification Factors Countermeasure

○ Vulnerable Road User Related Countermeasure

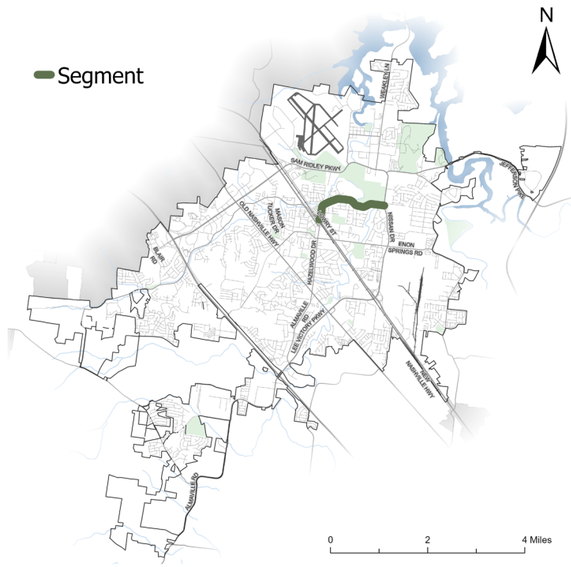
● Requires ROW Acquisition

● Requires Utility Relocation

SOURCE: Tennessee Department of Transportation (TDOT), AASHTOWare Safety 2019-2023

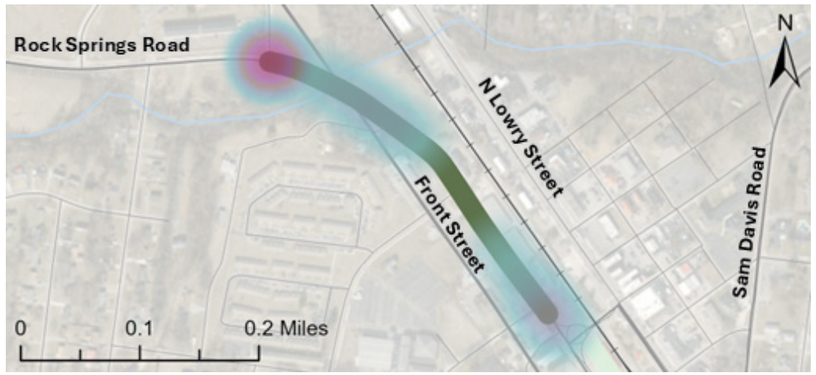
Benefit Summary

- Curve warning signage alerts drivers about the upcoming curve, encouraging reduced speeds and more cautious driving. The feedback signage offers real-time feedback based on vehicle speeds, enhancing responsiveness and compliance with speed limits.
- Roadway lighting helps drivers, cyclists, and pedestrians see each other more clearly, especially during nighttime and low-visibility conditions, reducing the likelihood of crashes.
- RPMs enhance visibility in low-light and adverse weather conditions, such as fog and rain, making it easier for drivers to see lane markings and road edges.
- Installing clear and visible signage, including reflective materials and flashing lights, ensures that drivers are aware of school zones and the need to reduce speed.
- Enhanced signage, striping, and/or markings provide clear guidance and better visibility to drivers.
- RRFBs provide increased driver awareness, enhanced pedestrian visibility, and increased driver compliance, reducing the likelihood of pedestrian/vehicle crashes.



Front Street

from Imperial Boulevard to College Street



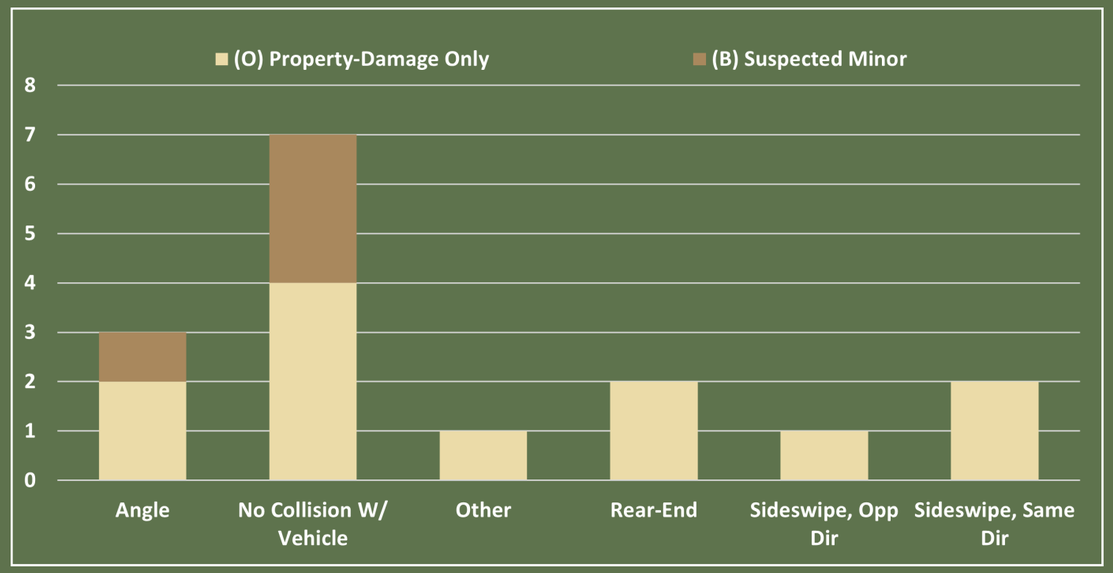
Town

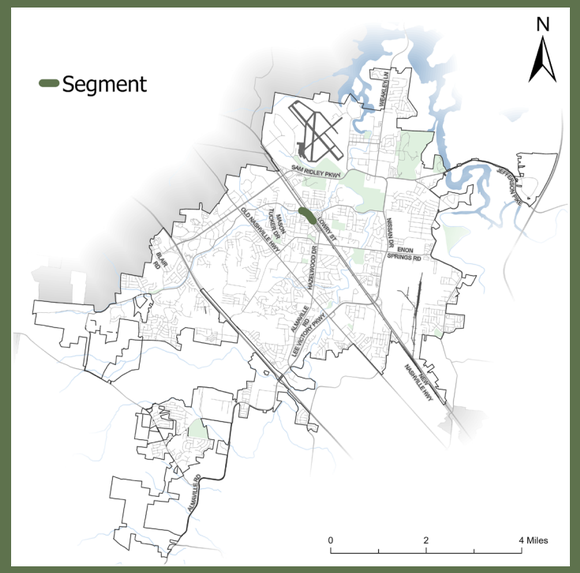
Speed Limit	25 mph
Lanes	2
Vehicles/Day	1,500
Total Crashes	16
HIN Intersections	0

Characteristics

This section of Front Street is a two-way roadway, with no separation between opposing travel lanes. The segment follows a mainly straight alignment, with a mildly rolling terrain. Sidewalks are partially present along a single side fo the corridor.

Along Front Street, Facing North, Just South of David Collins Drive





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Overall Ranking: 5

Ranking Index

Fatal & Serious Injury Crashes:

low — high

Vulnerable Road User Crashes:

low — high

Crash Rate:

low — high

Replica Risk Index:

low — high

Demographics Consideration:

low — high

Community Input

- N/A

Front Street

from Imperial Boulevard to College Street

Recommended Countermeasures

	ID	Countermeasure	Cost	Schedule	Project Readiness
● ●	5.1	Install Optical Speed Bars w/ Retroreflective Pavement Markings and RPMs	$	Short-Term	Ready
● ●	5.2	Traffic Calming Measures including Dynamic Speed Feedback Signs	$	Short-Term	Ready
● ●	5.3	Widen Edge Lines	$	Short-Term	Ready
● ● ○	5.4	Install Side path/Sidewalks	$$$	Long-Term	● ●
● ● ○	5.5	Raised Crosswalks	$$	Short-Term	Ready
● ● ○	5.6	Lighting Improvements	$$	Short-Term	● ●
● ● ○	5.7	Improve Existing Textured Pavement/Raised Crosswalks including Signing & Pavement Markings	$	Short-Term	Ready
●	5.8	Evaluate Roundabout Geometry (Entry Approach from North Side Alignment)	$$	Short-Term	Ready
● ○	5.9	At-Grade Crossing Improvements including Equipment and Pedestrian Crossing	$$$	Long-Term	●

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure

● Crash Modification Factors Countermeasure

○ Vulnerable Road User Related Countermeasure

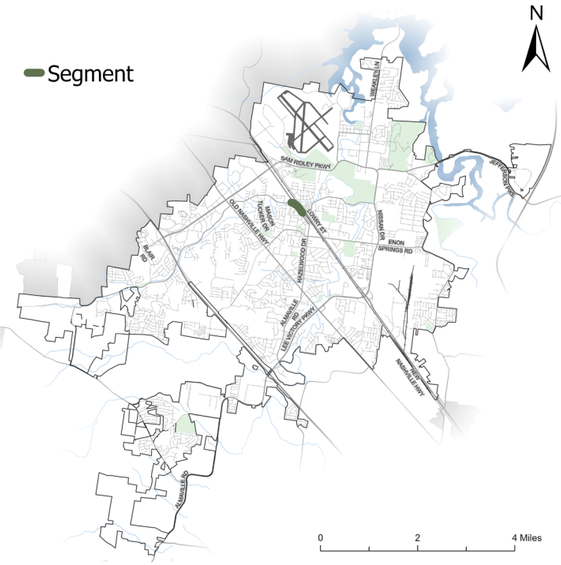
● Requires ROW Acquisition

● Requires Utility Relocation

SOURCE: Tennessee Department of Transportation (TDOT), AASHTOWare Safety 2019-2023

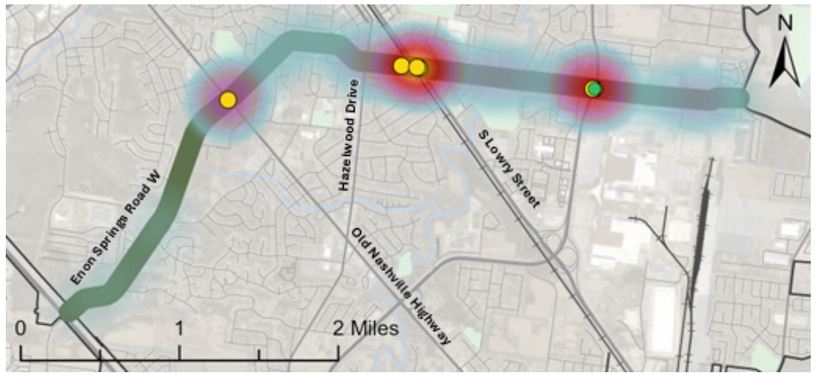
Benefit Summary

- By providing clearer lane demarcations, wider edge lines help drivers maintain their lanes more effectively, reducing the likelihood of lane departure accidents
- Curve warning signage alerts drivers about the upcoming curve, encouraging reduced speeds and more cautious driving. The feedback signage offers real-time feedback based on vehicle speeds, enhancing responsiveness and compliance with speed limits.
- RPMs improve road visibility, especially during nighttime and adverse weather conditions. Their reflective properties make lane boundaries and road features more noticeable to drivers
- Roadway lighting helps drivers, cyclists, and pedestrians see each other more clearly, especially during nighttime and low-visibility conditions, reducing the likelihood of crashes.
- Wider edge lines enhance the visibility of travel lane boundaries compared to traditional edge lines.
- Sidewalks offer a dedicated walking space and provide pedestrians with access to destinations along the corridor, decreasing the likelihood of vehicle/pedestrian conflicts within the roadway. Sidewalks provide children with a safe route for walking to school, and foster a safer environment for those who rely on walking as their primary mode of transportation.



Enon Springs Road

from I-24 to Florence Road



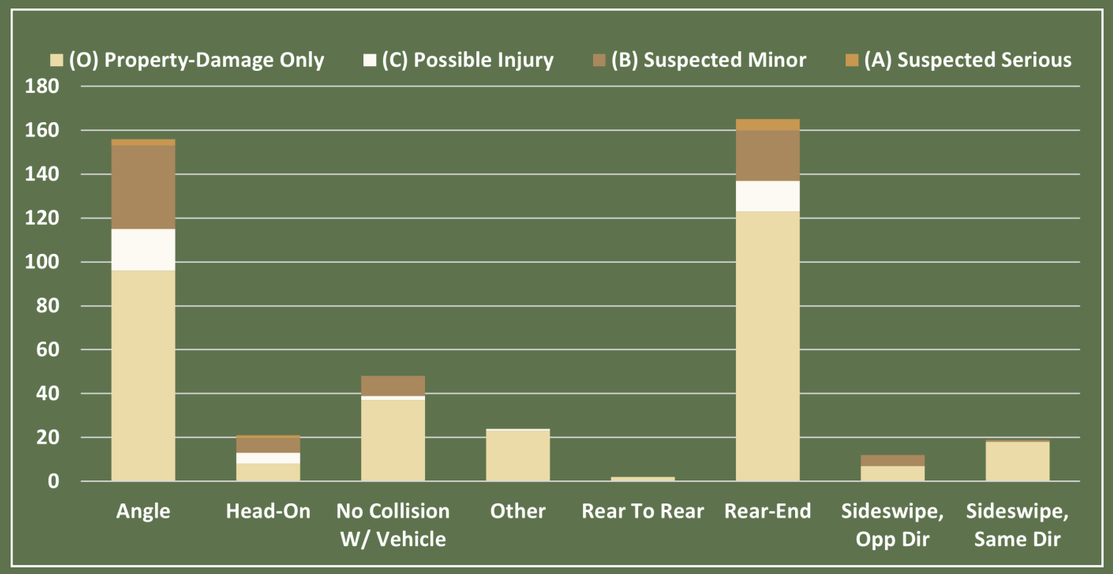
Town

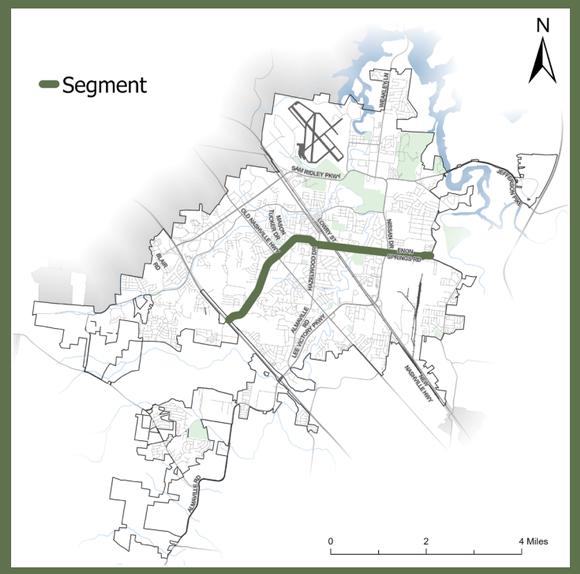
Speed Limit	35 mph
Lanes	2
Vehicles/Day	28,000
Total Crashes	447
HIN Intersections	2

Characteristics

This section of Enon Springs Road is a two-way roadway, divided by a two-way left-turn lane (TWLTL). The segment follows a curved alignment, with rolling terrain. Sidewalks are partially present along both sides of the corridor, with some gaps in connectivity.

Along Enon Springs Road, Facing East, Just West of Mayfield Drive





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Overall Ranking: 6

Ranking Index

Fatal & Serious Injury Crashes:

low — high

Vulnerable Road User Crashes:

low — high

Crash Rate:

low — high

Replica Risk Index:

low — high

Demographics Consideration:

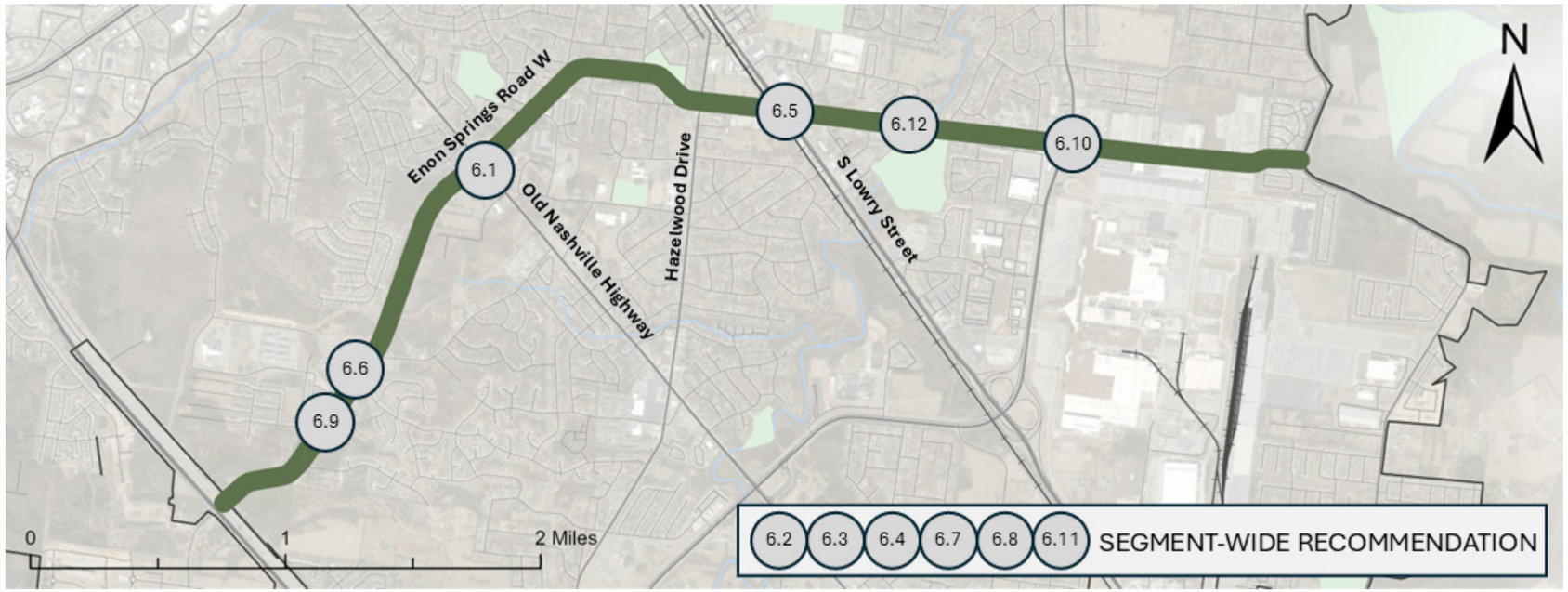
low — high

Community Input

- Intersection improvements needed at the intersection of Enon Springs Road at Nissan Drive and S Lowry Street.
- A traffic signal and pedestrian infrastructure is needed at the intersection of Enon Springs Road at Lowry Road. It is a major area of conern.

Enon Springs Road
from I-24 to Florence Road

Recommended Countermeasures



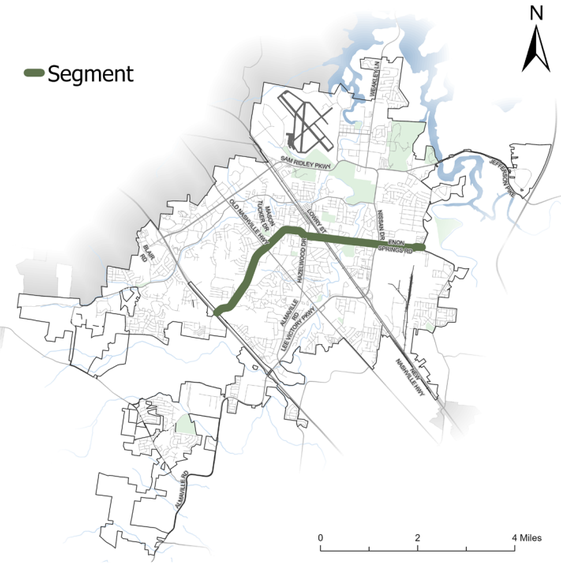
	ID	Countermeasure	Cost	Schedule	Project Readiness
● ●	6.1	Signalized Intersection Improvements including Signing, Markings, Signal Equipment, and Pedestrian Crossing Equipment	$$	Short-Term	Ready
● ●	6.2	Install Optical Speed Bars w/ Retroreflective Pavement Markings and RPMs	$	Short-Term	Ready
● ●	6.3	Install Curve Feedback Warning Signs	$	Short-Term	Ready
●	6.4	Improve Corridor Access Management at Commercial Areas	$$$	Long-Term	● ●
● ●	6.5	Signalized Intersection Improvements including Evaluate Sight Distance, Signing, Markings, Signal Equipment, and Pedestrian Crossing Equipment; At-Grade Rail Crossing Equipment Improvements including Signing, Markings, and Dynamic Equipment	$$	Short-Term	●
● ●	6.6	Package of Low-Cost Intersection Improvements (Can Include Signing, Marking, Transverse Rumble Strips)	$	Short-Term	Ready
● ●	6.7	Install RPMs	$	Short-Term	Ready
● ●	6.8	Install Combination Centerline/Edgeline Rumble Strips	$$$	Long-Term	Ready
● ●	6.9	Implement Safety Edge (SM) technology during paving process	$$	Short-Term	Ready
● ●	6.10	Signalized Intersection Improvements including Signing, Markings, Signal Equipment, Retroreflective Backplates, and Pedestrian Crossing Equipment; Improve RIght-Turn Slip Lane Geometry or Remove Slip Lane	$$	Short-Term	●
● ● ●	6.11	Install Side Path/Sidewalks to Fill Existing Gaps; HIgh Emphasis Crosswalks and Detectable Warning Surface at Sidewalk Ramps	$	Short-Term	● ●
● ●	6.12	Signalized Intersection Improvements including Signing, Markings, Signal Equipment, Retroreflective Backplates, and Pedestrian Crossing Equipment	$	Short-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

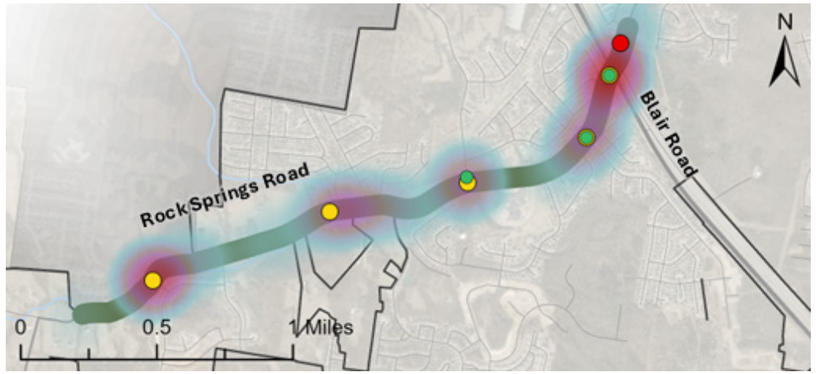
● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
● Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

Benefit Summary

- Enhanced curve signage, grooved edge/centerlines, and pavement friction applications collectively address various risk factors associated with curves. Signage provides enhanced guidance and awareness, grooves provide tactile and auditory feedback to drivers, and increased pavement friction helps vehicles stay on the roadway, reducing the risk of roadway departure.
- Access management controls where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- Rumble strips provide audible and tactile feedback to drivers when they unintentionally drift from their lane or leave the roadway. This helps prevent run-off-road crashes and head-on collisions.
- RPMs enhance visibility in low-light and adverse weather conditions, such as fog and rain, making it easier for drivers to see lane markings and road edges.
- Sidewalks offer a dedicated walking space and provide pedestrians with access to destinations along the corridor, decreasing the likelihood of vehicle/pedestrian conflicts within the roadway. Sidewalks provide children with a safe route for walking to school, and foster a safer environment for those who rely on walking as their primary mode of transportation.



Rock Springs Road
from Town Limits to Pele Drive



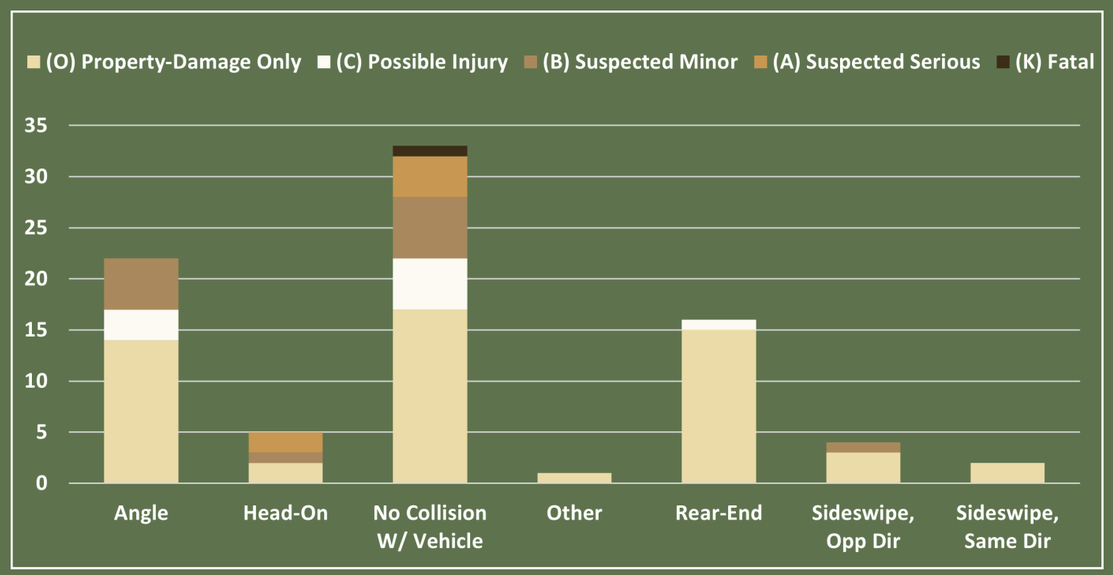
Town

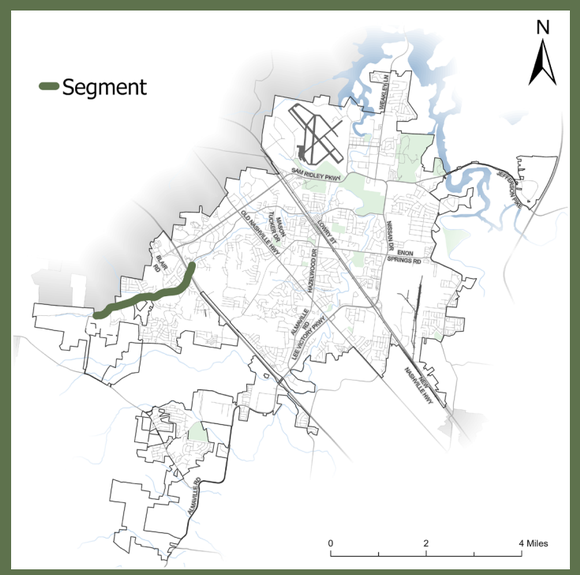
Speed Limit	25 mph
Lanes	2
Vehicles/Day	3,000
Total Crashes	83
HIN Intersections	1

Characteristics

This section of Rock Springs Road is a two-way roadway, divided by a two-way left-turn lane (TWLTL). The segment follows a curved alignment, with rolling terrain. Sidewalks are partially present along both sides of the corridor, with some gaps in connectivity.

Along Rock Springs Road, Facing East, Just East of Dale Drive





SOURCE: Tennessee Department of Transportation (TDOT), AASHTOWare Safety 2019-2023

Overall Ranking: 7

Ranking Index

Fatal & Serious Injury Crashes:
low — high

Vulnerable Road User Crashes:
low — high

Crash Rate:
low — high

Replica Risk Index:
low — high

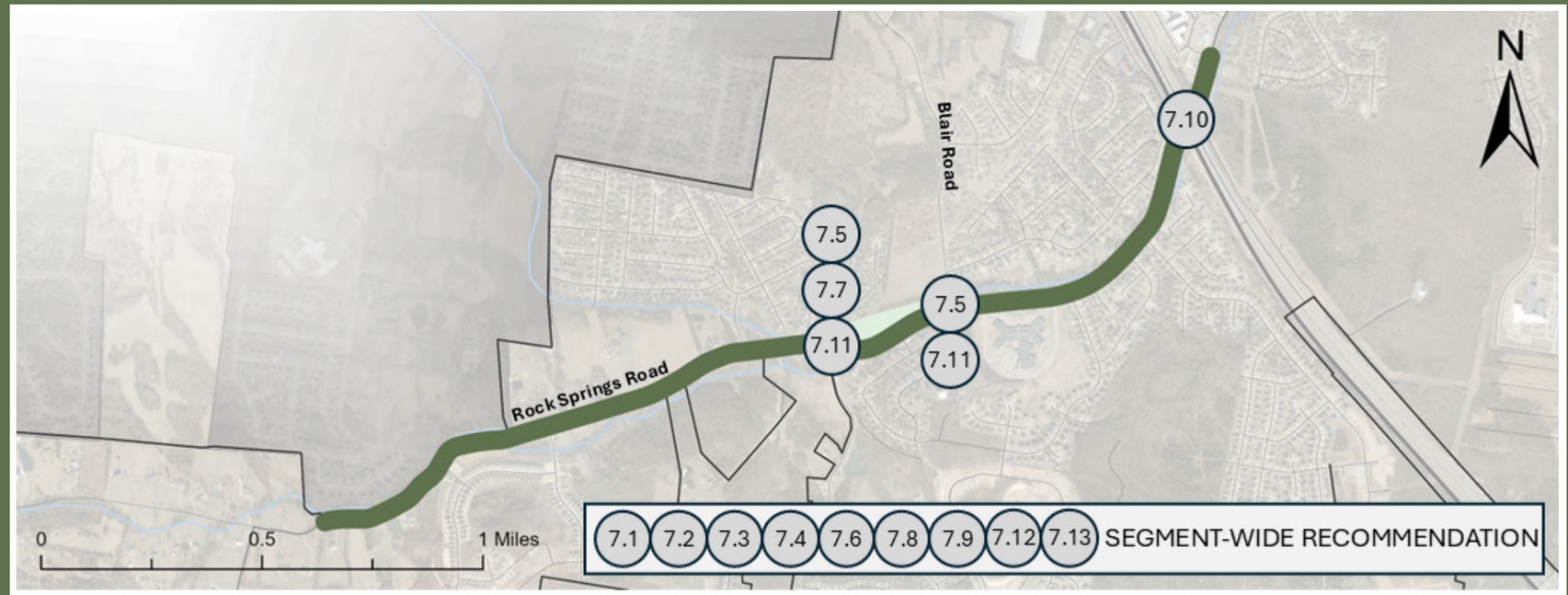
Demographics Consideration:
low — high

Community Input

- Widening the roadway could help with congestion.
- Intersections of Rock Springs Road at Montgomery Way and Blair Road could be safer if converted to signalized intersections.

Rock Springs Road
from Town Limits to Pele Drive

Recommended Countermeasures



	ID	Countermeasure	Cost	Schedule	Project Readiness
●	7.1	Install Raised Pavement Markers (Both Sides of Road)	$$	Short-Term	Ready
● ●	7.2	Increase/Maintain Pavement Friction & Applications	$$	Short-Term	Ready
● ● ○	7.3	Install Side path/Sidewalks	$$$	Short-Term	● ●
● ●	7.4	Widen Edge Lines	$	Short-Term	Ready
● ● ○	7.5	Increase Crosswalk Visibility Enhancements	$	Short-Term	Ready
● ● ○	7.6	Detectable Warning Surface for Sidewalk Ramps	$	Short-Term	Ready
● ○	7.7	Rectangular Rapid Flashing Beacon (RRFB)	$$	Short-Term	●
●	7.8	Clear and Grub (15 ft Both Sides of Road)	$	Short-Term	Ready
● ● ○	7.9	Install Lighting Structures	$$	Short-Term	●
● ● ○	7.10	Increase Crosswalk Visibility Enhancements	$	Short-Term	Ready
●	7.11	Package of Low-Cost Intersection Improvements (Can Include Signing, Marking, Transverse Rumble Strips)	$	Short-Term	Ready
●	7.12	Install School Zone Signage, Pavement Markings, & Equipment Improvements	$$	Short-Term	●
●	7.13	Evaluate Dedicated Left-Turn Lane Geometry	$$	Short-Term	● ●

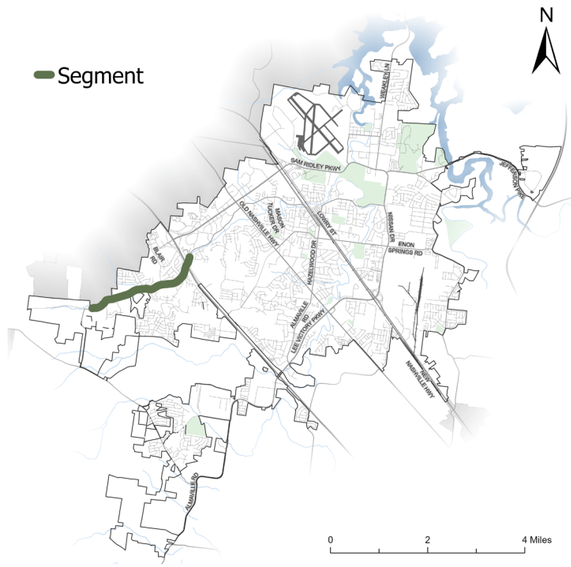
$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
○ Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

SOURCE: Tennessee Department of Transportation (TDOT), AASHTOWare Safety 2019-2023

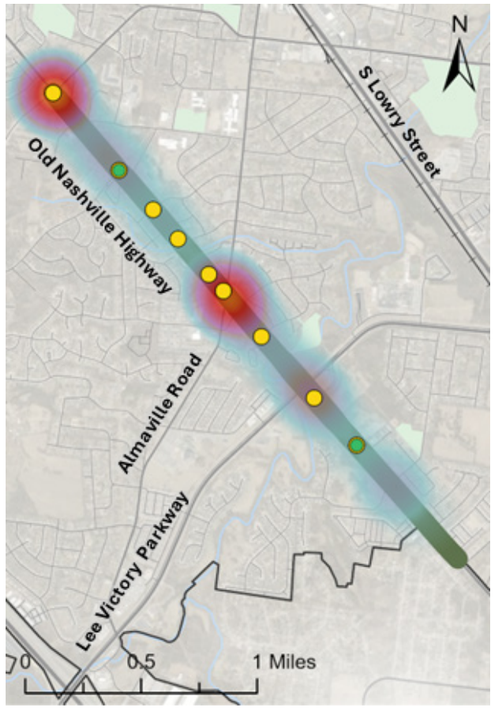
Benefit Summary

- High-friction surfaces help to minimize skidding and hydroplaning, particularly in wet conditions. Higher friction levels can also help reduce the impact speed, potentially decreasing the severity of injuries and vehicle damage. Applying high-friction surfaces in high-risk areas such as intersections, curves, pedestrian crossings, and steep gradients can significantly reduce crashes in these locations.
- Sidewalks offer a dedicated walking space and provide pedestrians with access to destinations along the corridor, decreasing the likelihood of vehicle/pedestrian conflicts within the roadway. Sidewalks provide children with a safe route for walking to school, and foster a safer environment for those who rely on walking as their primary mode of transportation.
- RRFBs provide increased driver awareness, enhanced pedestrian visibility, and increased driver compliance, reducing the likelihood of pedestrian/vehicle crashes.
- Wider edge lines enhance the visibility of travel lane boundaries compared to traditional edge lines.
- Roadway lighting helps drivers, cyclists, and pedestrians see each other more clearly, especially during nighttime and low-visibility conditions, reducing the likelihood of crashes.



Old Nashville Highway

from Enon Springs Road to Cheatam Avenue



● VRU (2) ○ Serious Injury (10) ● Fatal (0)

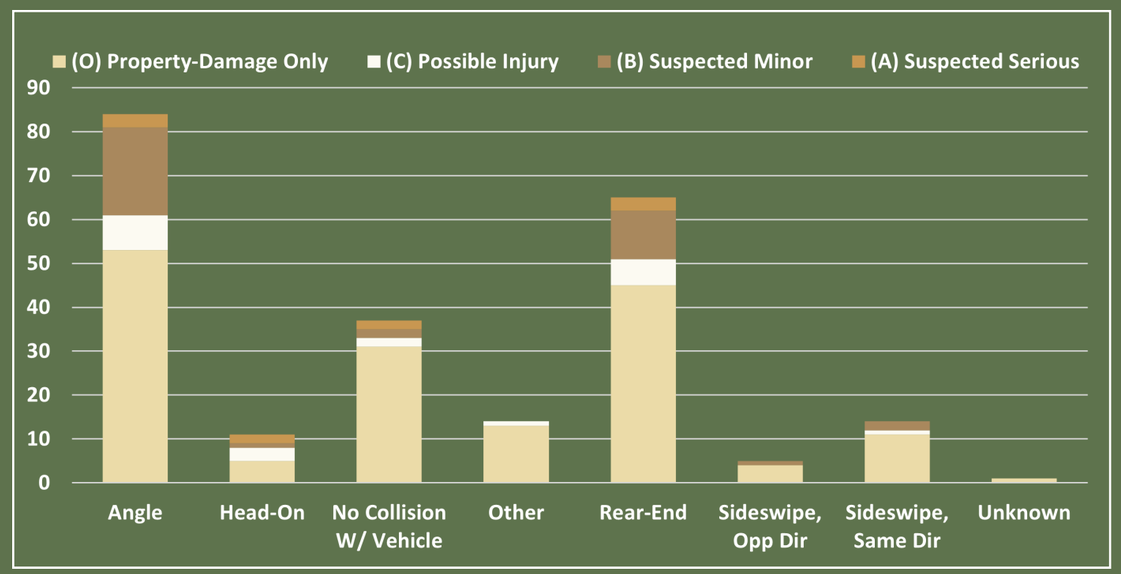
Town

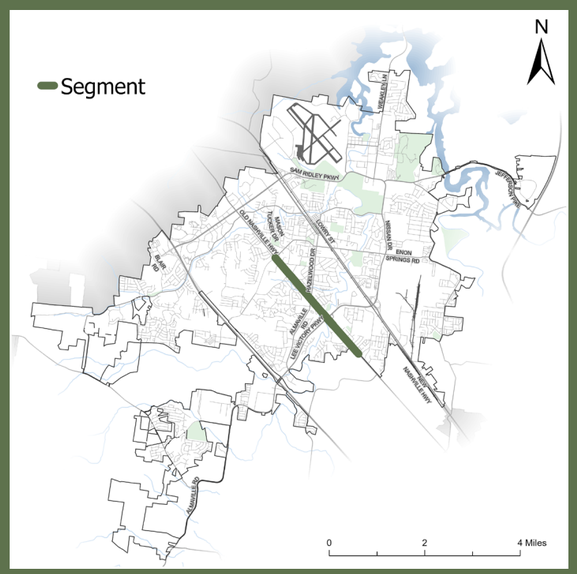
Speed Limit	45 mph
Lanes	4
Vehicles/Day	24,000
Total Crashes	234
HIN Intersections	2

Characteristics

This section of Old Nashville Highway is a two-way roadway, divided by a two-way left-turn lane (TWLTL). The segment follows a straight aligment, with a mildly rolling terrain. Sidewalks are present on both sides along this corridor.

Along Old Nashville Highway, Facing East, Just East of Pioneer Drive





SOURCE: Tennessee Department of Transportation (TDOT), AASHTOWare Safety 2019-2023

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Overall Ranking: 8

Ranking Index

Fatal & Serious Injury Crashes:

low — high

Vulnerable Road User Crashes:

low — high

Crash Rate:

low — high

Replica Risk Index:

low — high

Demographics Consideration:

low — high

Community Input

- The intersection of Old Nashville highway at Delacy Lane is a major area of concern.

Old Nashville Highway

from Enon Springs Road to Cheatam Avenue

	ID	Countermeasure	Cost	Schedule	Project Readiness
● ●	8.1	Signalized Intersection Improvements at 5 Locations including Singing, Markings, Signal Equipment, Backplates with Retroreflective Borders, Sidewalk Ramps with Detectable Warning Surface, and High-Emphasis Crosswalks	$$	Short-Term	●
● ● ●	8.2	Evaluate Pedestrian Crossing and Install Pedestrian Hybrid Beacon	$$	Short-Term	●
●	8.3	Install Raised Pavement Markers (Both Sides of Road)	$	Short-Term	Ready
●	8.4	Evaluate Implementing Protected Left-Turn Signal Phasing	$	Short-Term	Ready
●	8.5	Improve Corridor Access Management at Commercial Areas	$$	Short-Term	● ●
● ●	8.6	Realign Intersection Approaches to Reduce or Eliminate Intersection Skew	$$$$	Long-Term	● ●
● ● ●	8.7	Optimize Corridor Signal Cycle & Timings	$$	Short-Term	Ready
●	8.8	School Zone Equipment Improvements including Signing, Markings, and Beacons	$$	Short-Term	●
● ● ●	8.9	Install Pedestrian Hybrid Beacons Mid-Block Near Schools, Parks, and other Pedestrian Areas	$$	Short-Term	●
● ●	8.10	Corridor-Wide Speed Reduction Measures including Lane Narrowing and Speed Feedback Signs	$$	Short-Term	●
● ●	8.11	Package of Low-Cost Intersection Improvements (Can Include Signing, Marking, Transverse Rumble Strips)	$	Short-Term	Ready
● ● ●	8.12	Corridor-Wide Sidewalk Improvements	$$$	Long-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure

● Crash Modification Factors Countermeasure

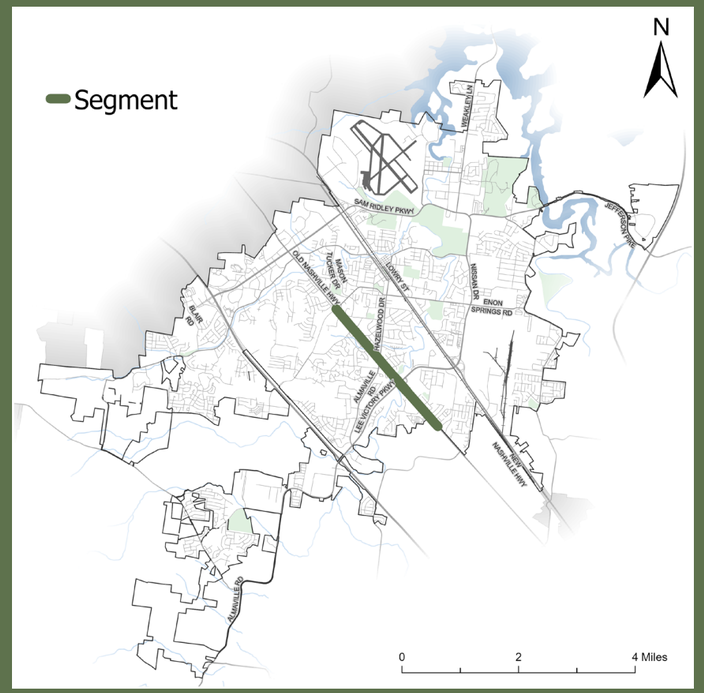
● Vulnerable Road User Related Countermeasure

● Requires ROW Acquisition

● Requires Utility Relocation

Benefit Summary

- Correcting a skew can improve sight lines and reduce blind spots, allowing drivers to see oncoming traffic more clearly and make safer crossing or turning decisions.
- Installing crosswalks on side streets make pedestrians more visible to drivers, especially if they are crossing at unexpected locations. They also provide a designated area for crossing, making pedestrian movements more predictable and reducing the risk of collision.
- Installing clear and visible signage, including reflective materials and flashing lights, ensures that drivers are aware of school zones and the need to reduce speed.
- Aligning intersections perpendicularly enhances sight distance for drivers, making it easier to see oncoming traffic and pedestrians.
- Properly timed signals can encourage more uniform speeds, improve driver compliance with traffic signals, and may decrease incidences of red-light running.
- Access management controls where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.



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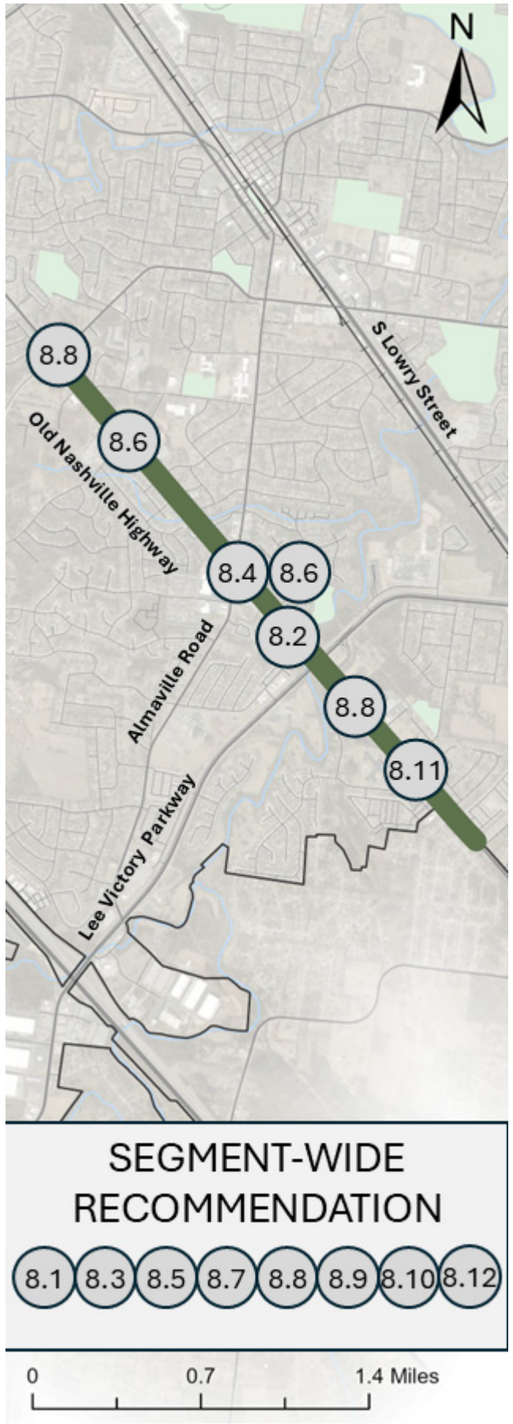
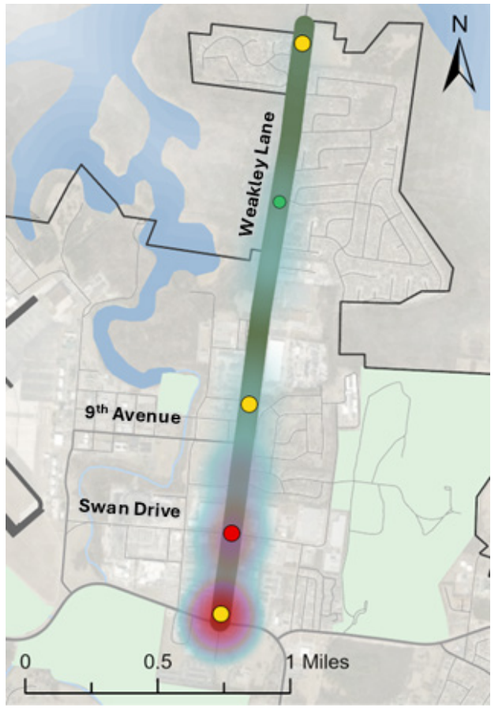
Recommended Countermeasures



Weakley Lane

from Sam Ridley Parkway to Town Limits



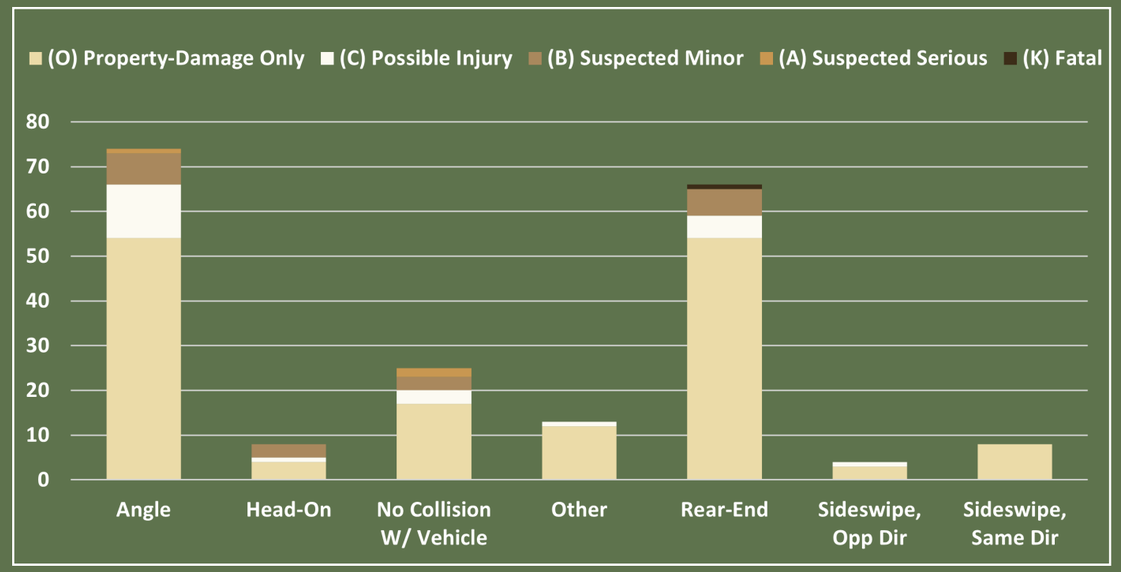
Town

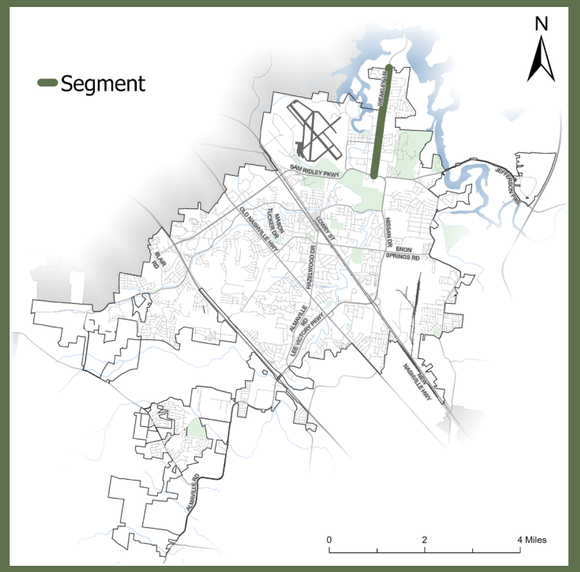
Speed Limit	40 mph
Lanes	2
Vehicles/Day	22,000
Total Crashes	202
HIN Intersections	1

Characteristics

This section of Weakley Lane is a two-way roadway, divided by a two-way left-turn lane (TWLTL). The segment follows a straight alignment, and has a mildly rolling terrain. Sidewalks are not present along either side of this segment.

Along Weakley Lane, Facing North, Just North of Lakeside Drive





SOURCE: Tennessee Department of Transportation (TDOT), AASHTOWare Safety 2019-2023

Overall Ranking: 9

Ranking Index

Fatal & Serious Injury Crashes:

low — high

Vulnerable Road User Crashes:

low — high

Crash Rate:

low — high

Replica Risk Index:

low — high

Demographics Consideration:

low — high

Community Input

- Weakley Lane at Sam Ridley Parkway is a major area of concern.
- Need to connect Wheery Housing community to work, shopping opportunities.

Weakley Lane

from Sam Ridley Parkway to Town Limits

	ID	Countermeasure	Cost	Schedule	Project Readiness
● ● ●	9.1	Optimize Signal Cycle & Timings	$	Short-Term	Ready
● ●	9.2	Signalized Intersection Improvements including Signing, Markings, Signal Equipment, Backplates with Retroreflective Borders, Sidewalk Ramps with Detectable Warning Surface, and High-Emphasis Crosswalks	$$	Short-Term	●
● ● ●	9.3	Install Pedestrian Mid-Block Crossing (RRFB or PHB)	$$	Short-Term	●
● ●	9.4	Package of Low-Cost Intersection Improvements (Can Include Signing, Marking, Transverse Rumble Strips)	$	Short-Term	Ready
● ●	9.5	Wider Edge Lines	$	Short-Term	Ready
● ● ●	9.6	Install Side Path/Sidewalks	$$$	Long-Term	● ●
●	9.7	Improve Corridor Access Management in Commercial/Industrial Area	$$$	Long-Term	● ●

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure

● Crash Modification Factors Countermeasure

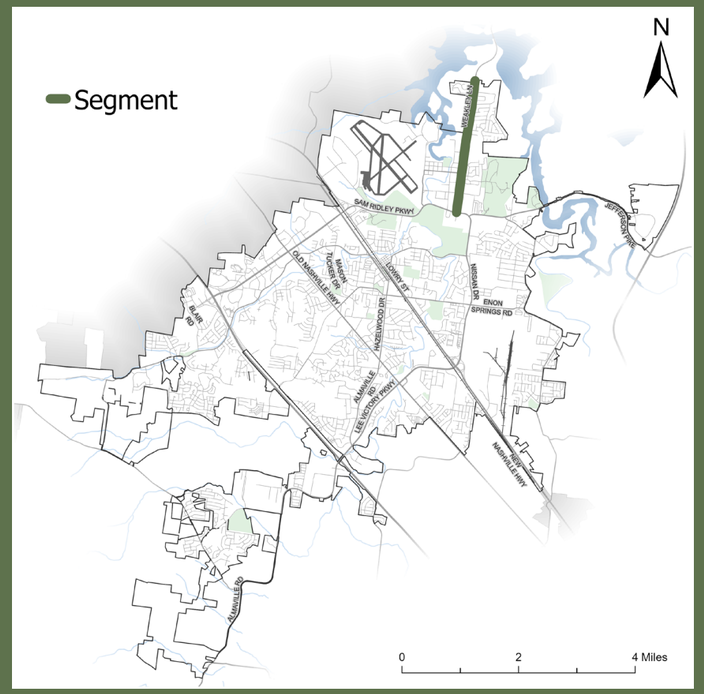
● Vulnerable Road User Related Countermeasure

● Requires ROW Acquisition

● Requires Utility Relocation

Benefit Summary

- Access management controls where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- Properly timed signals can encourage more uniform speeds, improve driver compliance with traffic signals, and may decrease incidences of red-light running.
- Backplates with retroreflective borders increase the conspicuity of traffic signal heads, especially under low-light conditions. They also help drivers quickly and easily identify traffic signals in the presence of visual clutter. This enhanced visibility and recognition can lead to a reduction in rear-end and angle crashes at signalized intersections.
- The red signal indication of Pedestrian Hybrid Beacons requires drivers to come to a complete stop, which increases motorist compliance with yielding to pedestrians.
- Sidewalks offer a dedicated walking space and provide pedestrians with access to destinations along the corridor, decreasing the likelihood of vehicle/pedestrian conflicts within the roadway. Sidewalks provide children with a safe route for walking to school, and foster a safer environment for those who rely on walking as their primary mode of transportation.



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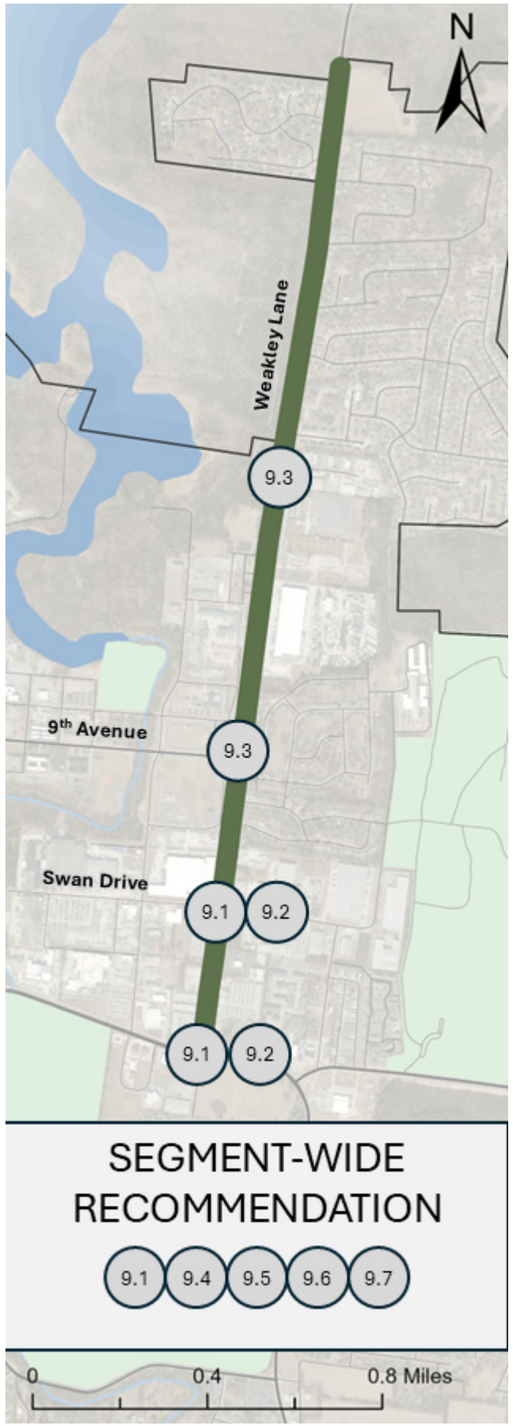
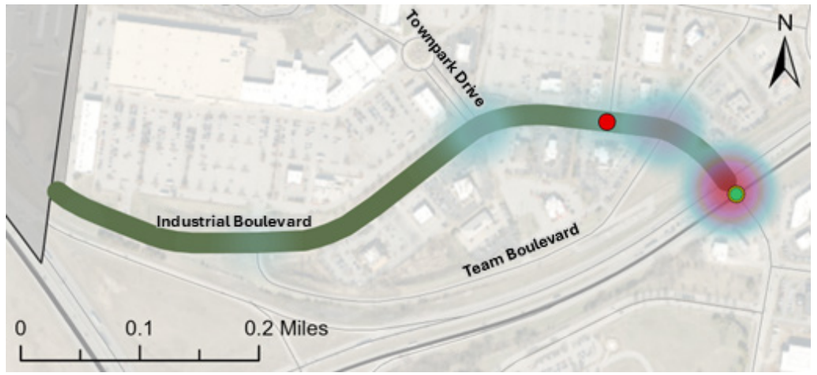
Recommended Countermeasures



Industrial Boulevard

from Sam Ridley Parkway to Town Limits



- VRU (1)
- Serious Injury (1)
- Fatal (1)

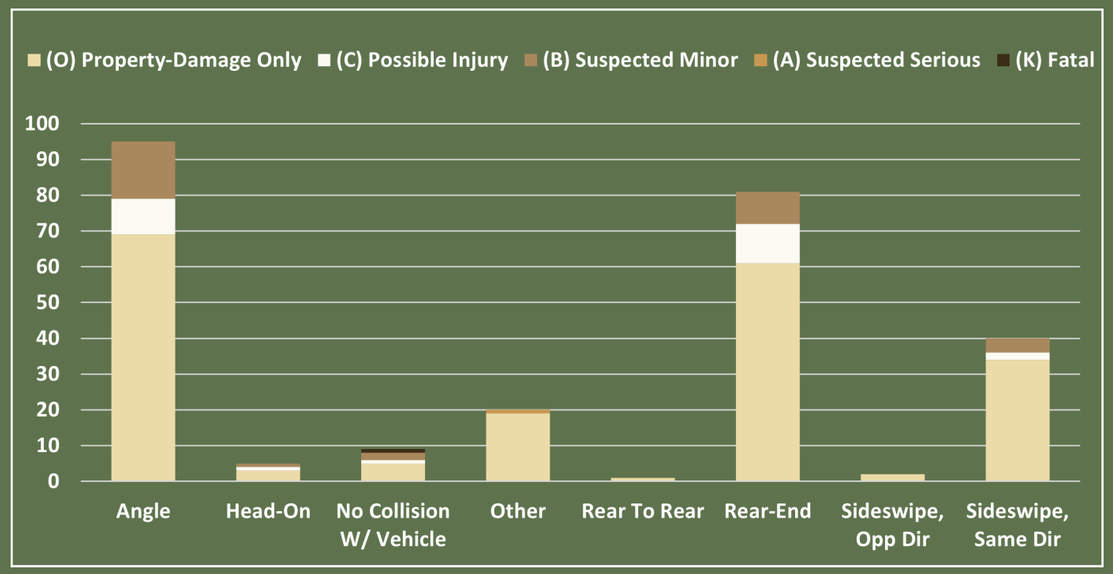
Town

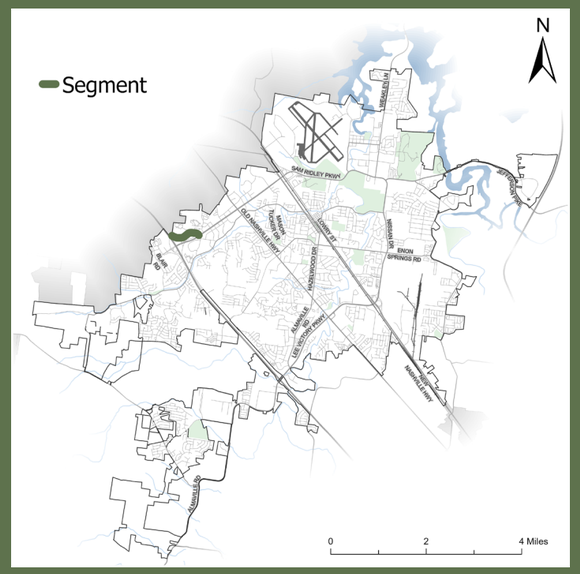
Speed Limit	35 mph
Lanes	2
Vehicles/Day	22,000
Total Crashes	257
HIN Intersections	1

Characteristics

This section of Industrial Boulevard is a two-Way roadway, divided by a two-way left-turn lane (TWLTL) on the eastern end and a raised concrete median along the western end. The segment follows a curved alignment with a mildly rolling terrain. Sidewalks are present along this corridor, however, they are not fully connected thorughout the segment.

Along Industrial Boulevard,Facing South, Just East of Team Boulevard





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Overall Ranking: 10

Ranking Index

Fatal & Serious Injury Crashes:

low — high

Vulnerable Road User Crashes:

low — high

Crash Rate:

low — high

Replica Risk Index:

low — high

Demographics Consideration:

low — high

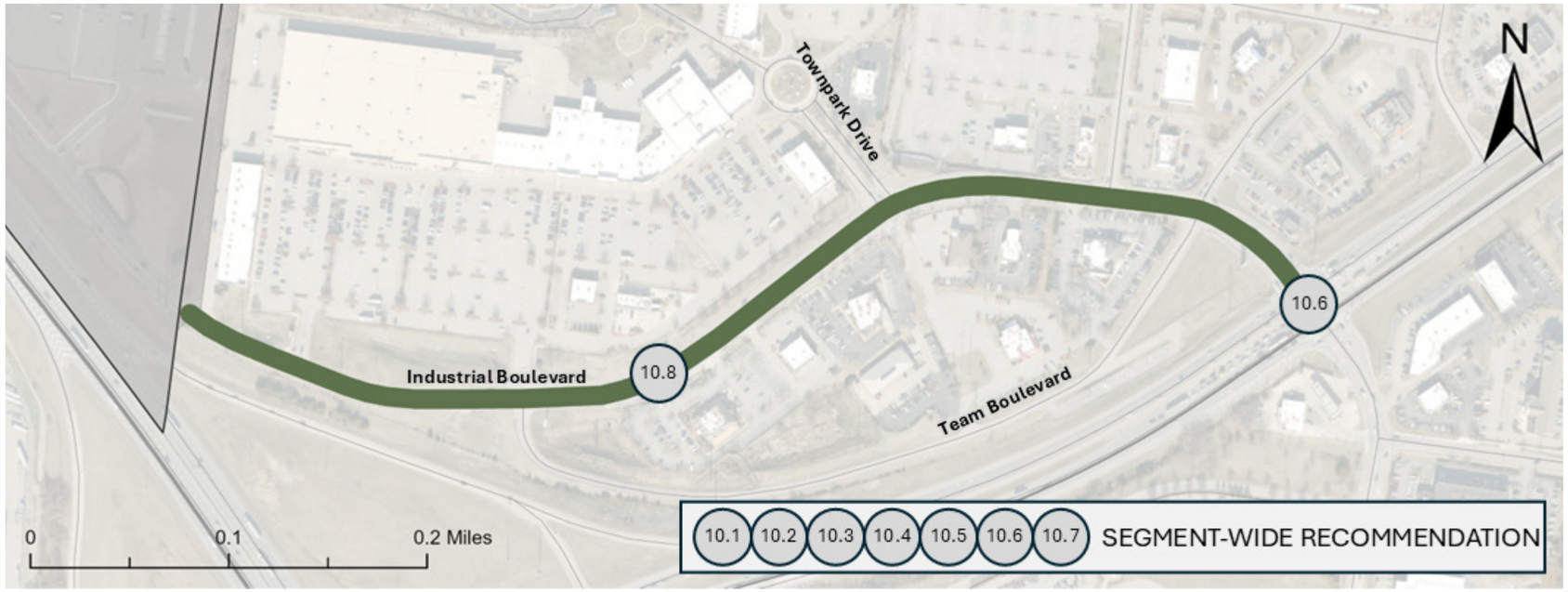
Community Input

- Intersection of Industrial Boulevard and W Sam Ridley Parkway is a major area of concern.
- Areawide multimodal improvements are needed including pedestrian crossings, sidewalk gap infills, and wayfinding.
- Need for improved/upgraded signage and pavement markings.

Industrial Boulevard

from Sam Ridley Parkway to Town Limits

Recommended Countermeasures



	ID	Countermeasure	Cost	Schedule	Project Readiness
● ●	10.1	Install Optical Speed Bars w/ Retroreflective Pavement Markings and RPMs	$	Short-Term	Ready
● ●	10.2	Install Curve Feedback Warning Signs	$	Short-Term	Ready
● ● ○	10.3	Optimize Signal Cycle and Timings	$$	Short-Term	Ready
● ●	10.4	Speed Reduction Measures including Dynamic Speed Feedback Signs	$	Short-Term	Ready
● ●	10.5	Package of Low-Cost Intersection Improvements (Can Include Signing, Marking, Retroreflective Backplates for Signal Heads)	$	Short-Term	Ready
● ● ○	10.6	Install Side Path/Sidewalks to Fill Gaps	$$$	Long-Term	● ●
● ● ○	10.7	Install High Emphasis Crosswalks with Detectable Warning Surface at Sidewalk Ramps	$$$	Long-Term	Ready
● ● ○	10.8	Evaluate Existing Pedestrian Crossings for Enhancements or Removal as Current Conditions are Unsafe	$$	Short-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure

● Crash Modification Factors Countermeasure

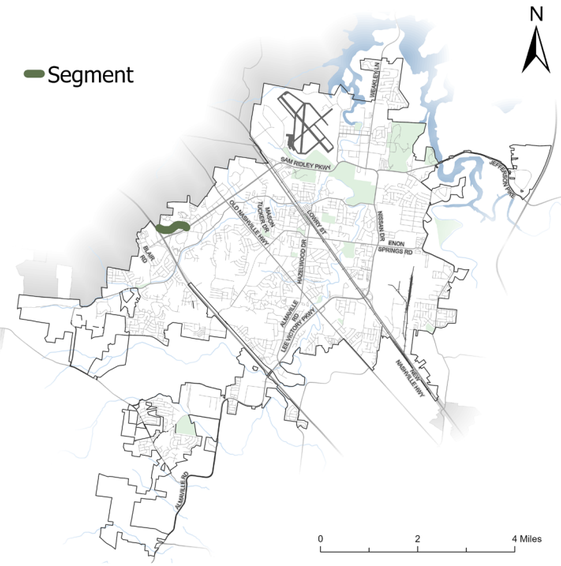
○ Vulnerable Road User Related Countermeasure

● Requires ROW Acquisition

● Requires Utility Relocation

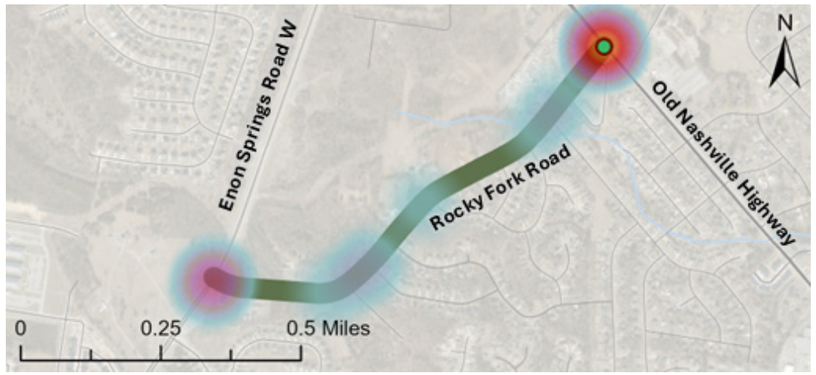
Benefit Summary

- Enhanced signage, striping, and rumble strips can collectively reduce the risk of crashes at stop-controlled intersections. These low-cost countermeasures provide a significant safety return on investment, improving safety without the need for expensive infrastructure modifications.
- Sidewalks offer a dedicated walking space and provide pedestrians with access to destinations along the corridor, decreasing the likelihood of vehicle/pedestrian conflicts within the roadway. Sidewalks provide children with a safe route for walking to school, and foster a safer environment for those who rely on walking as their primary mode of transportation.
- Curve warning signage alerts drivers about the upcoming curve, encouraging reduced speeds and more cautious driving. The feedback signage offers real-time feedback based on vehicle speeds, enhancing responsiveness and compliance with speed limits.
- Traditional intersections have 32 potential conflict points where vehicles can collide, while roundabouts reduce this number to just 8. This reduction significantly lowers the chances of accidents
- Properly timed signals can encourage more uniform speeds, improve driver compliance with traffic signals, and may decrease incidences of red-light running.



Rocky Fork Road

from Old Nashville Highway to Enon Springs Road



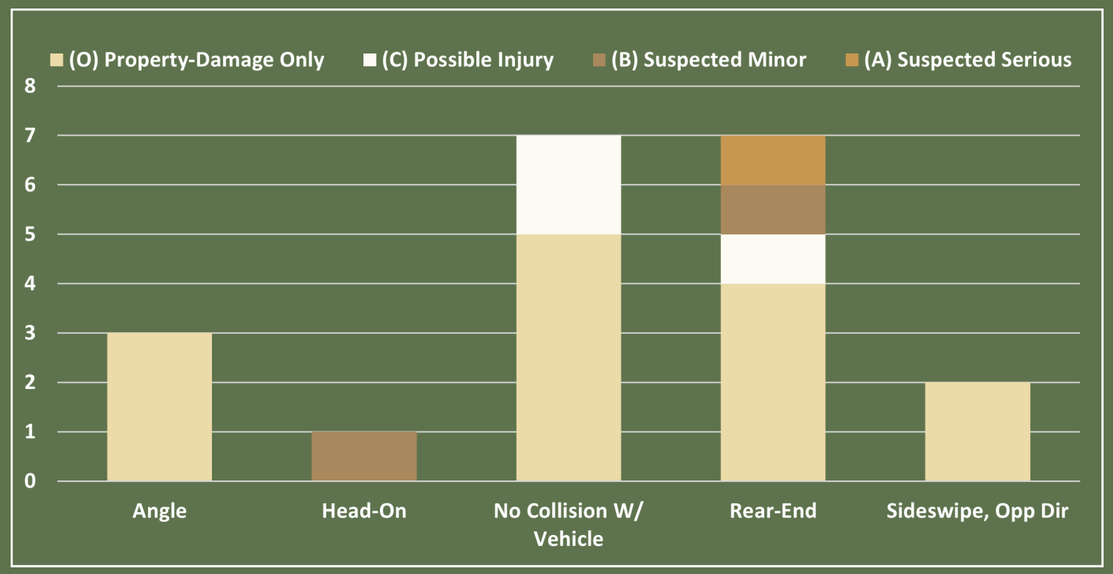
Town

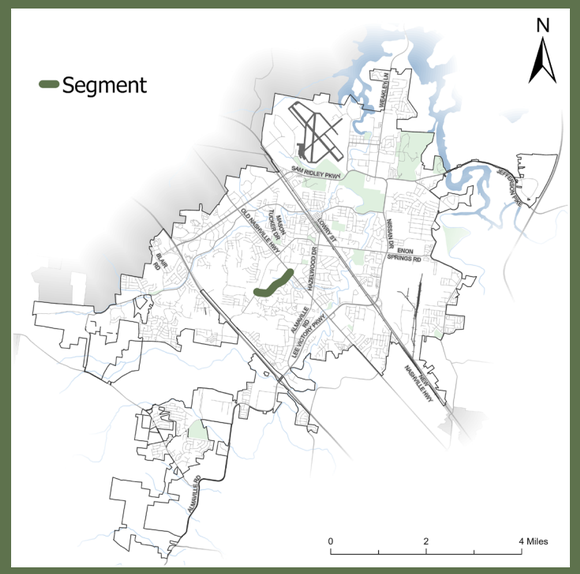
Speed Limit	40 mph
Lanes	2
Vehicles/Day	1,500
Total Crashes	20
HIN Intersections	0

Characteristics

This section of Rocy Fork Road is a two-way roadway, with no separation between opposing travel lanes. The segment follows a curved alignment, with mildly rolling terrain. Sidewalks are partially present along a single side of the corridor, and there is a high prevalence of crashes during non-daylight conditions.

Along Rocky Fork Road, Facing South, Just East of Enon Springs Road





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Overall Ranking: 11

Ranking Index

Fatal & Serious Injury Crashes:

low — high

Vulnerable Road User Crashes:

low — high

Crash Rate:

low — high

Replica Risk Index:

low — high

Demographics Consideration:

low — high

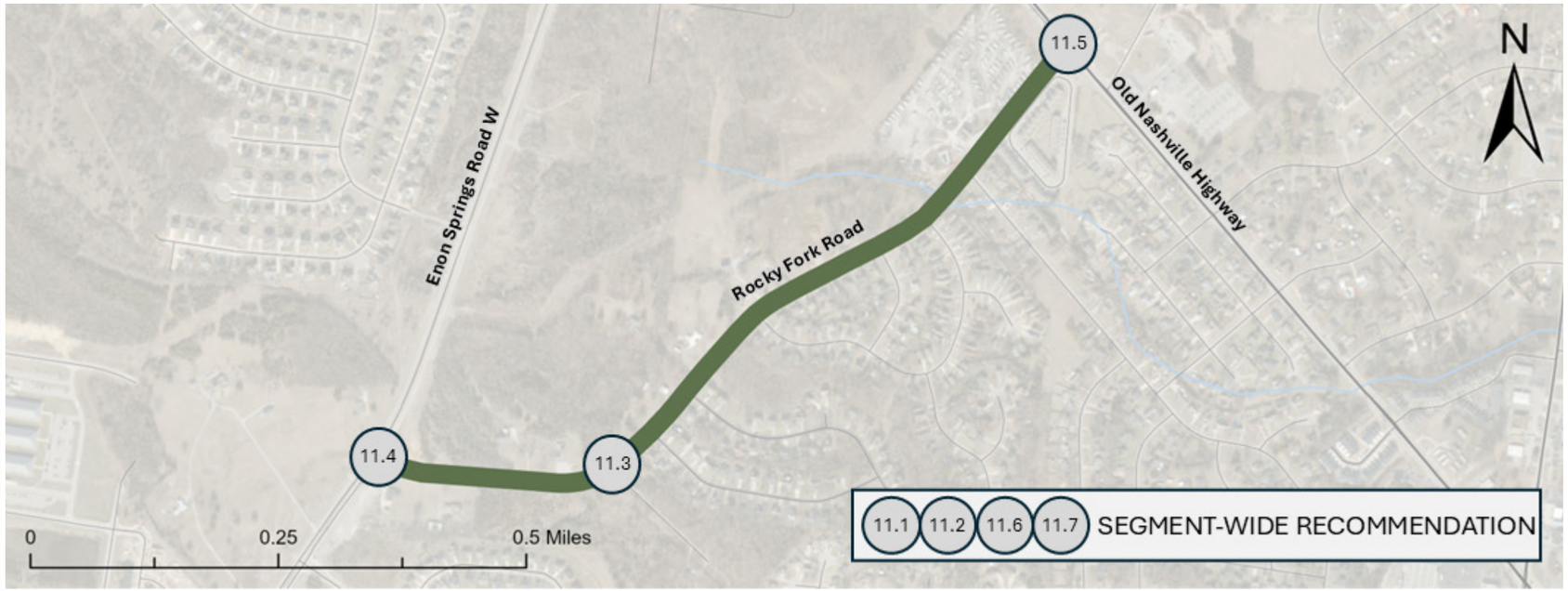
Community Input

- N/A

Rocky Fork Road

from Old Nashville Highway to Enon Springs Road

Recommended Countermeasures



	ID	Countermeasure	Cost	Schedule	Project Readiness
● ●	11.1	Install Combination Centerline / Edge line Rumble Strips	$$$	Long-Term	Ready
● ●	11.2	Implement Safety Edge (SM) technology during paving process	$$	Short-Term	Ready
● ●	11.3	Install Curve Feedback Warning Signs	$	Short-Term	Ready
● ●	11.4	Package of Low Cost Intersection Improvements (Can Include Signing, Markings, Transverse Rumble Strips)	$	Short-Term	Ready
● ○	11.5	Signalized Intersection Improvements including Signing, Markings, Signal Equipment, Retroreflective Backplates, Sidewalk Ramps, and Pedestrian Crossing Equipment	$$	Short-Term	●
● ● ○	11.6	Lighting Improvements	$$	Short-Term	●
● ● ○	11.7	Install Side path/Sidewalks to Fill Gaps	$$$	Long-Term	● ●

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure

● Crash Modification Factors Countermeasure

○ Vulnerable Road User Related Countermeasure

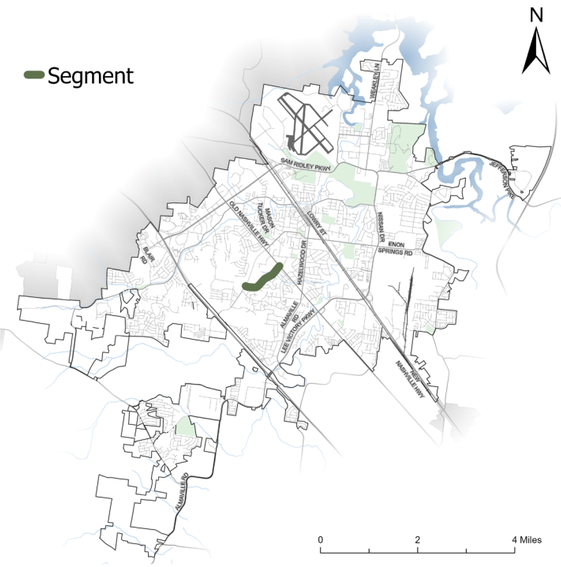
● Requires ROW Acquisition

● Requires Utility Relocation

SOURCE: Tennessee Department of Transportation (TDOT), AASHTOWare Safety 2019-2023

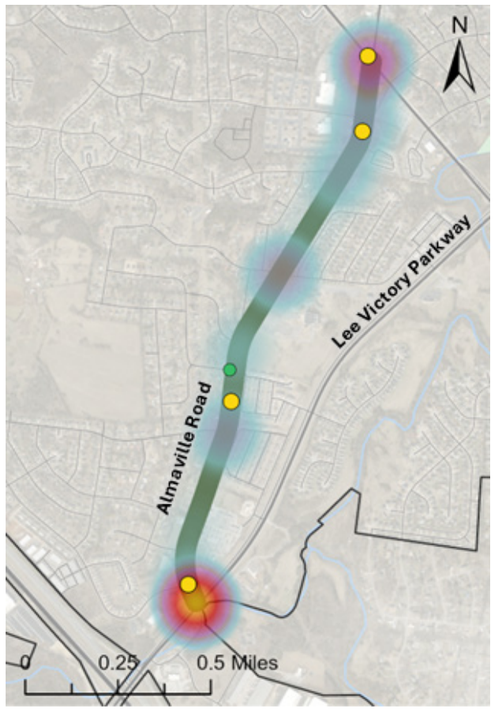
Benefit Summary

- Curve warning signage alerts drivers about the upcoming curve, encouraging reduced speeds and more cautious driving. The feedback signage offers real-time feedback based on vehicle speeds, enhancing responsiveness and compliance with speed limits.
- Roadway lighting helps drivers, cyclists, and pedestrians see each other more clearly, especially during nighttime and low-visibility conditions, reducing the likelihood of crashes.
- Rumble strips provide audible and tactile feedback to drivers when they unintentionally drift from their lane or leave the roadway. This helps prevent run-off-road crashes and head-on collisions.
- Safety Edge eliminates the potential for vertical drop-off at the pavement edge, has minimal effect on project cost, and can improve pavement durability by reducing edge raveling of asphalt.
- Sidewalks offer a dedicated walking space and provide pedestrians with access to destinations along the corridor, decreasing the likelihood of vehicle/pedestrian conflicts within the roadway. Sidewalks provide children with a safe route for walking to school, and foster a safer environment for those who rely on walking as their primary mode of transportation.
- Enhanced signage, striping, and rumble strips can collectively reduce the risk of crashes at stop-controlled intersections. These low-cost countermeasures provide a significant safety return on investment, improving safety without the need for expensive infrastructure modifications.



Almaville Road

from Lee Victory Parkway to Old Nashville Highway



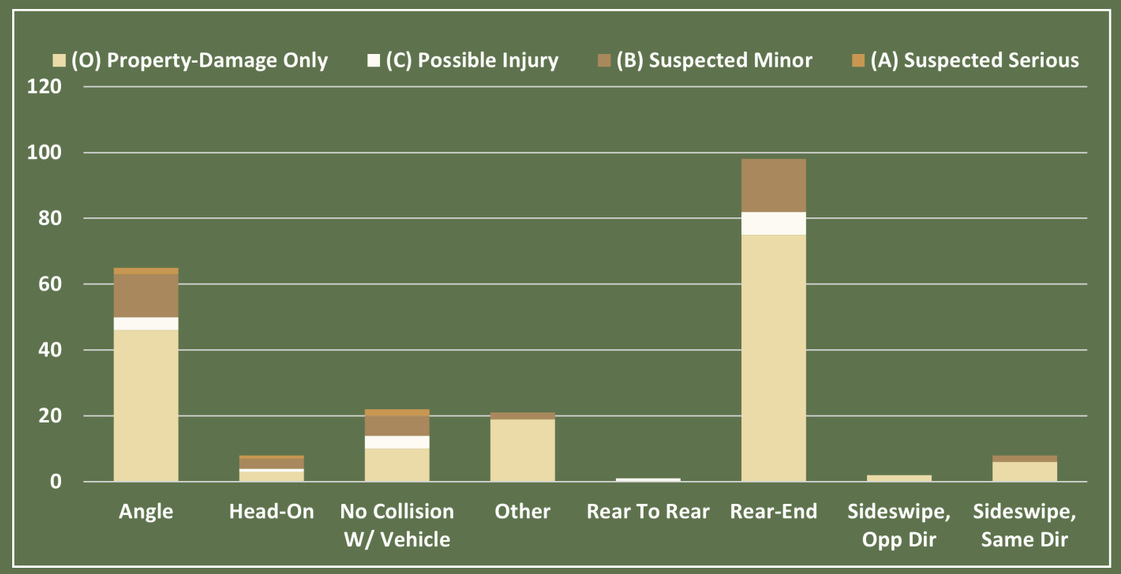
Town

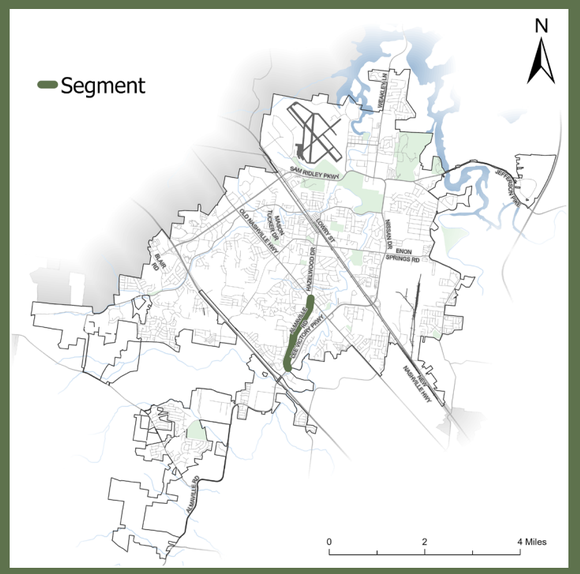
Speed Limit	30 mph
Lanes	2
Vehicles/Day	18,000
Total Crashes	230
HIN Intersections	1

Characteristics

This section of Almaville Road is a two-way roadway, with no separation between opposing travel lanes. The segment follows a lightly curved alignment, with rolling terrain. Sidewalks are partially present along this corridor.

Along Almaville Road, Facing North, Just South of Tarrytown Drive





SOURCE: Tennessee Department of Transportation (TDOT), AASHTOWare Safety 2019-2023

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Overall Ranking: 12

Ranking Index

Fatal & Serious Injury Crashes:

low — high

Vulnerable Road User Crashes:

low — high

Crash Rate:

low — high

Replica Risk Index:

low — high

Demographics Consideration:

low — high

Community Input

- Almaville Road at Legacy Drive is a major area of concern.
- Need of better access management to commercial areas along corridor; better bicycle and pedestrian access as well.

Almaville Road

from Lee Victory Parkway to Old Nashville Highway

	ID	Countermeasure	Cost	Schedule	Project Readiness
●	12.1	Improve Corridor Access Management in Commercial Areas	$$$	Long-Term	●
● ●	12.2	Realign Intersection Approaches to Reduce or Eliminate Intersection Skew	$$$$	Long-Term	● ●
● ● ●	12.3	Segment-Wide Pedestrian Improvements including Sidewalk Infill, Sidewalk Ramps with Detectable Warning Surface, and High-Emphasis Crosswalks	$$$	Long-Term	●
●	12.4	Signalized Intersection Improvements including Signing, Markings, Signal Equipment, and Backplates with Retroreflective Borders	$$	Short-Term	●
● ●	12.5	Install Roundabout	$$$$	Long-Term	● ●
● ● ●	12.6	Install Lighting Structures	$$	Short-Term	● ●
● ●	12.7	Install Speed Feedback Signs	$	Short-Term	●
● ●	12.8	Pavement Marking Improvements including Wider Edge Lines and RPMs	$	Short-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure

● Crash Modification Factors Countermeasure

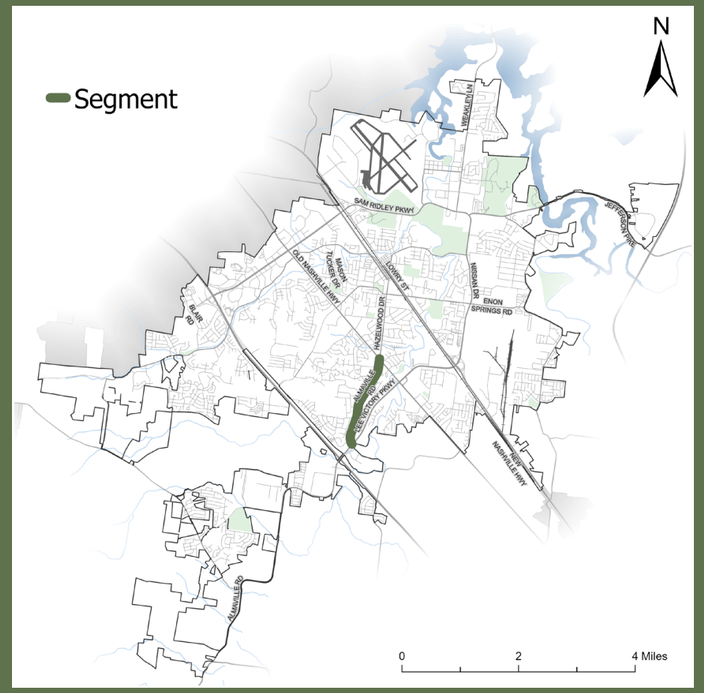
● Vulnerable Road User Related Countermeasure

● Requires ROW Acquisition

● Requires Utility Relocation

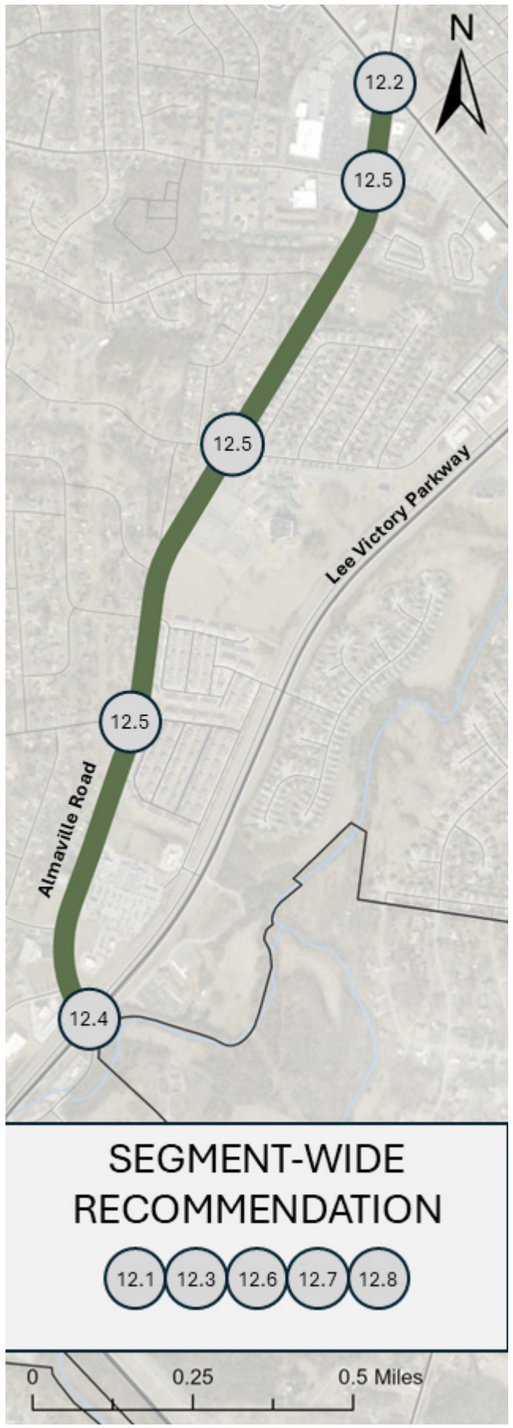
Benefit Summary

- Intersection lighting helps drivers, cyclists, and pedestrians see each other more clearly, especially during nighttime and low-visibility conditions, reducing the likelihood of crashes.
- Roadway lighting helps drivers, cyclists, and pedestrians see each other more clearly, especially during nighttime and low-visibility conditions, reducing the likelihood of crashes.
- Traditional intersections have 32 potential conflict points, while roundabouts have only 8. This reduction in conflict points decreases the chances of accidents. The design of roundabouts naturally calms traffic, leading to lower vehicle speeds and safer driving conditions.
- By providing real-time feedback, these signs make drivers more aware of their speed and the need to adjust it according to road conditions and speed limits.
- RPMs enhance visibility in low-light and adverse weather conditions, such as fog and rain, making it easier for drivers to see lane markings and road edges.
- Enhanced signage, striping, and rumble strips can collectively reduce the risk of crashes at stop-controlled intersections. These low-cost countermeasures provide a significant safety return on investment, improving safety without the need for expensive infrastructure modifications.



SOURCE: Tennessee Department of Transportation (TDOT), AASHTOWare Safety 2019-2023

Recommended Countermeasures



Hazelwood Road

from Old Nashville Highway to Lowry Street

VRU (0) Serious Injury (3) Fatal (2)

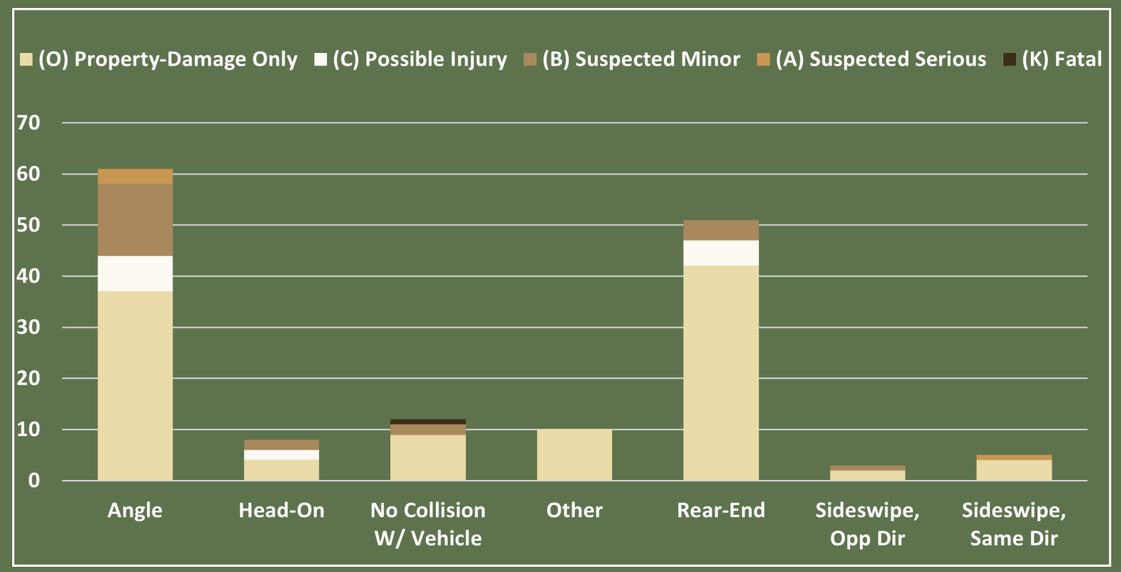
Town

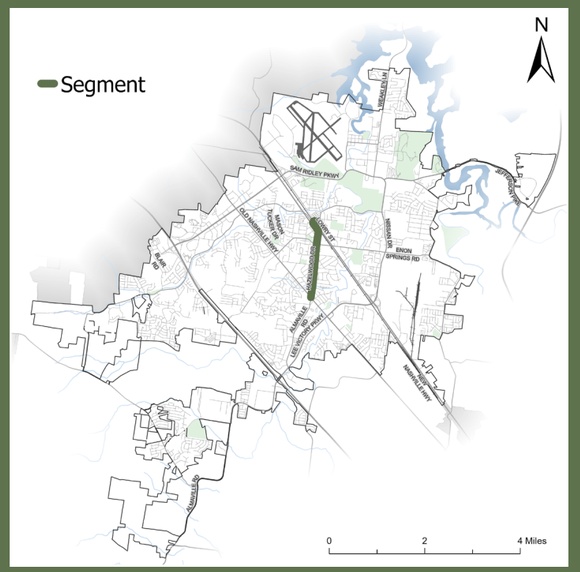
Speed Limit	30 mph
Lanes	2
Vehicles/Day	14,000
Total Crashes	155
HIN Intersections	0

Characteristics

This section of Hazelwood Road is a two-way roadway, with no separation between opposing travel lanes. The segment follows a straight alingment, with lightly rolling terrain. Sidewalks are present along a single side of this corridor. This segment is a main school zone for the Smyrna Primary and Middle Schools, and is in need of pedestrian infrastructural upgrades.

Along Hazelwood Road, Facing North, Just North of Todd Lane





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Overall Ranking: 13

Ranking Index

Fatal & Serious Injury Crashes:

low — high

Vulnerable Road User Crashes:

low — high

Crash Rate:

low — high

Replica Risk Index:

low — high

Demographics Consideration:

low — high

Community Input

- N/A

Hazelwood Road

from Old Nashville Highway to Lowry Street

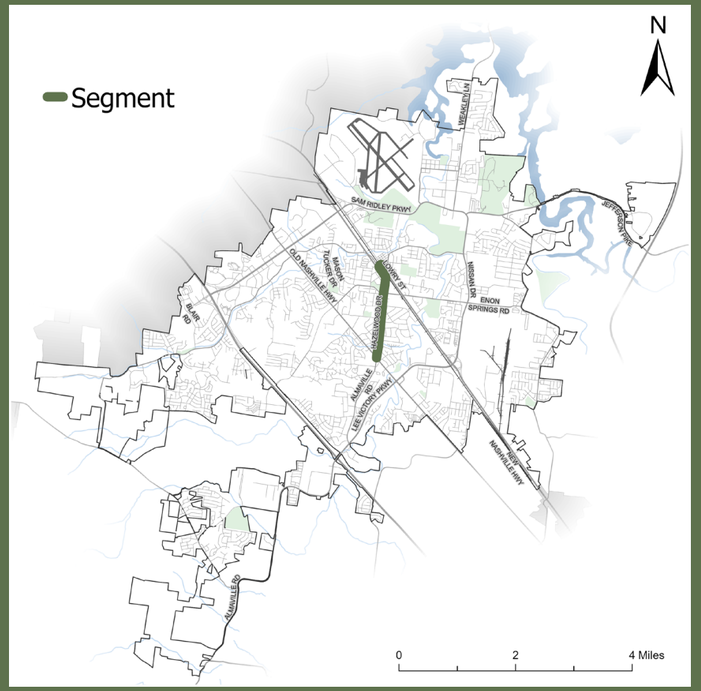
	ID	Countermeasure	Cost	Schedule	Project Readiness
●	13.1	Improve Corridor Access Management	$$$	Long-Term	●
● ●	13.2	Signalized Intersection Improvements at 4 Locations including Signing, Markings, Signal Equipment, Backplates with Retroreflective Borders, Sidewalk Ramps with Detectable Warning Surface, and HIgh-Emphasis Crosswalks	$$	Short-Term	●
● ●	13.3	Install Roundabout at 3 Locations (Walnut Street/Belaire Drive, Todd Lane, and Bailey Collins Drive)	$$$$	Long-Term	● ●
● ● ●	13.4	Install Mid-Block Crossing (RRFB or PHB)	$$	Short-Term	●
● ●	13.5	Realign Intersection Approaches to Reduce or Eliminate Intersection Skew	$$$	Long-Term	● ●
● ● ●	13.6	Segment-Wide Pedestrian Improvements including Sidewalk Infill, Sidewalk Ramps with Detectable Warning Surface, and High-Emphasis Crosswalks	$$$	Long-Term	●
●	13.7	School Zone Improvements including Signing, Markings, and Beacons	$$	Short-Term	●
● ●	13.8	Hazelwood Drive/Front Street Complete Streets Improvements	$$$	Long-Term	● ●
● ●	13.9	Install Speed Feedback Signs	$	Short-Term	Ready
● ●	13.10	Install Optical Speed Bars Approaching Horizontal Curves	$	Short-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure
● Crash Modification Factors Countermeasure
● Vulnerable Road User Related Countermeasure
● Requires ROW Acquisition
● Requires Utility Relocation

Benefit Summary

- Sidewalks offer a dedicated walking space and provide pedestrians with access to destinations along the corridor, decreasing the likelihood of vehicle/pedestrian conflicts within the roadway. Sidewalks provide children with a safe route for walking to school, and foster a safer environment for those who rely on walking as their primary mode of transportation.
- Backplates with retroreflective borders increase the conspicuity of traffic signal heads, especially under low-light conditions. They also help drivers quickly and easily identify traffic signals in the presence of visual clutter. This enhanced visibility and recognition can lead to a reduction in rear-end and angle crashes at signalized intersections.
- Traditional intersections have 32 potential conflict points, while roundabouts have only 8. This reduction in conflict points decreases the chances of accidents. The design of roundabouts naturally calms traffic, leading to lower vehicle speeds and safer driving conditions.
- RRFBs provide increased driver awareness, enhanced pedestrian visibility, and increased driver compliance, reducing the likelihood of pedestrian/vehicle crashes.
- High-emphasis crosswalks are designed to improve pedestrian safety by making crosswalks more visible and conspicuous to drivers.
- Access management controls where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.



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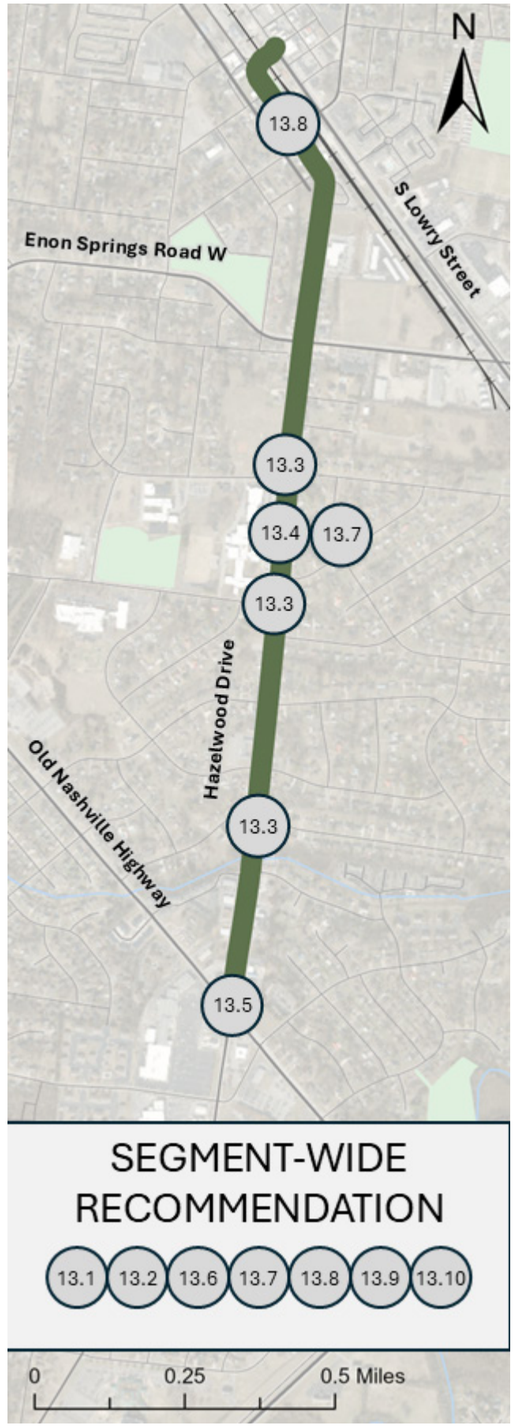
Recommended Countermeasures



Almaville Road (SR-102)

from Poplar Wood Road to I-24

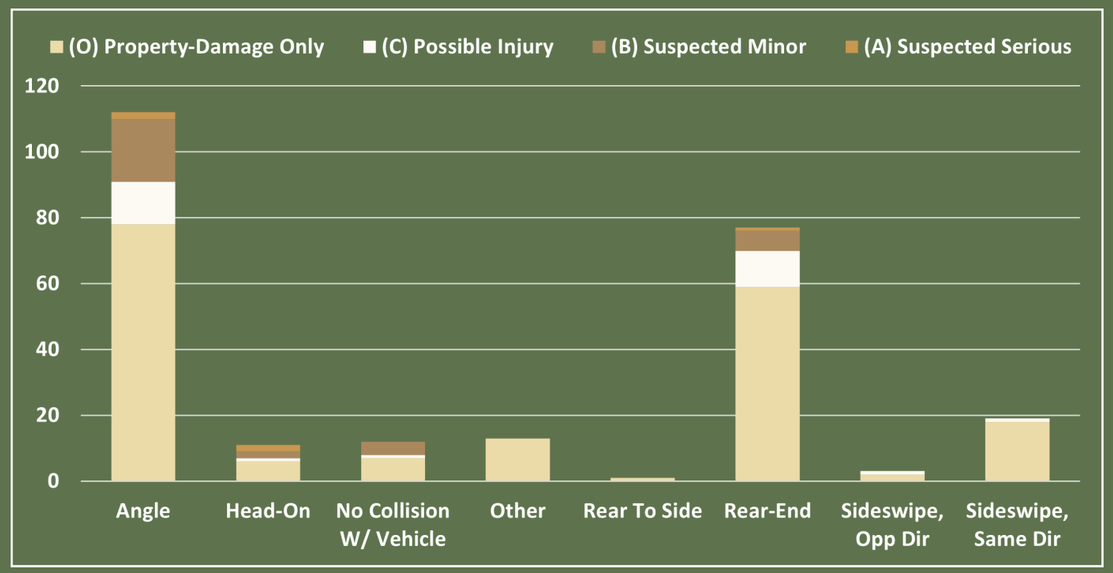
TDOT

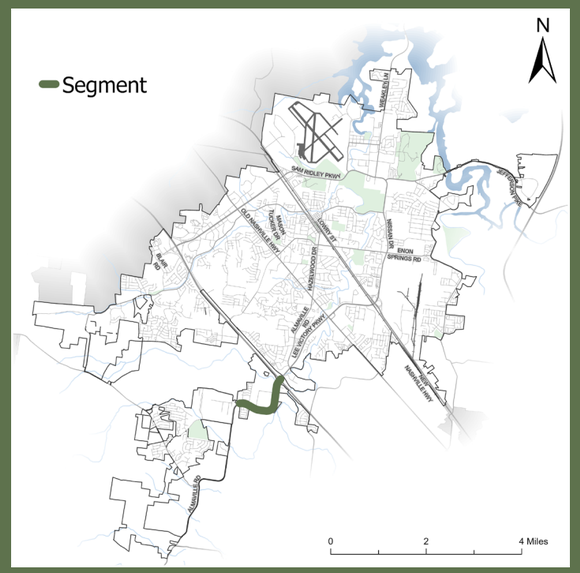
Speed Limit	40 mph
Lanes	2 - 4
Vehicles/Day	40,000
Total Crashes	250
HIN Intersections	0

Characteristics

This section of Almaville Road is a two-way roadway with non-consistent laneage and opposing lane separation. The segment is a 2-lane roadway with no separation between opposing travel lanes to the west of McNairy Lane. The segment is a 4-lane roadway separated by a two-way left-turn lane (TWLTL) east of One Mile Lane. It follows a curved alignment, with a medium rolling terrain. Sidewalks are not present along this section of Almaville Road.

Along Almaville Road, Facing North, Just South of Poplar Woods Road





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Overall Ranking: 14

Ranking Index

Fatal & Serious Injury Crashes:

low — high

Vulnerable Road User Crashes:

low — high

Crash Rate:

low — high

Replica Risk Index:

low — high

Demographics Consideration:

low — high

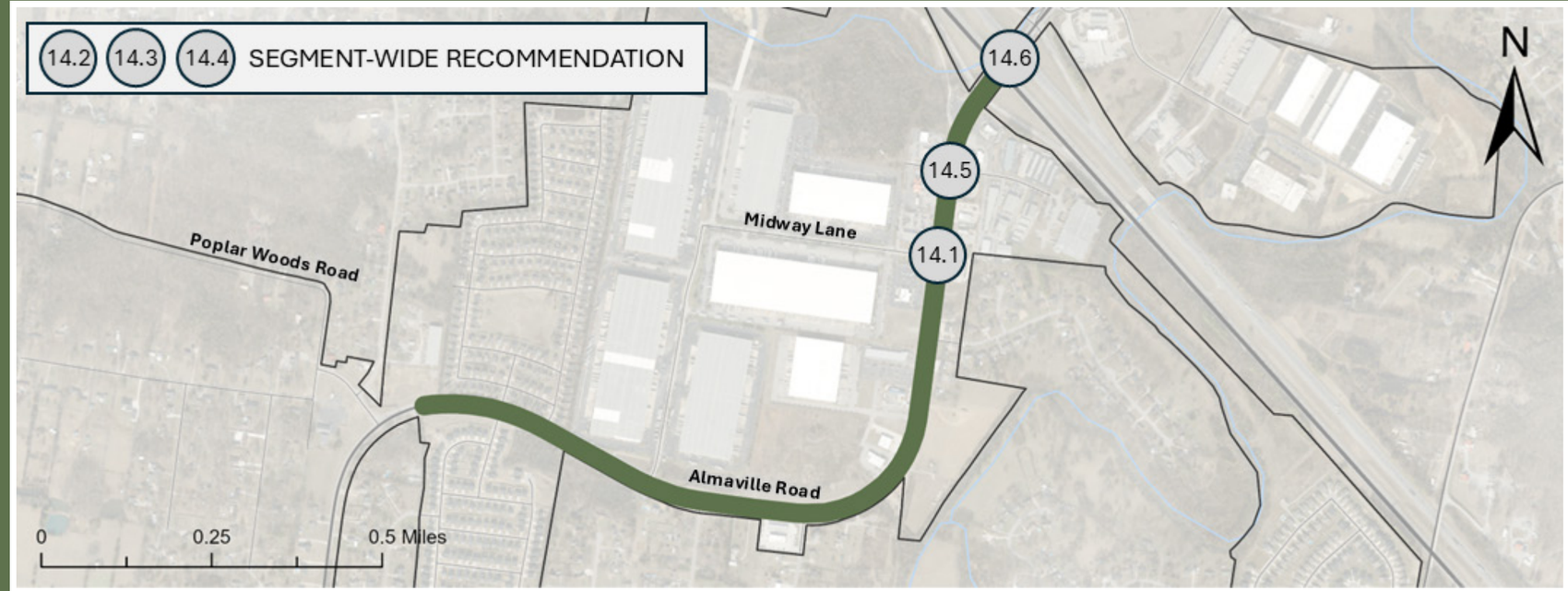
Community Input

- Intersections of Almaville Road at Poplar Wood Road, Neal Avenue, Midway Lane, One Mile Lane, and I-24 are all areas of concern and in need of improvements.
- Speed bumps on near Neal Avenue and on residential streets could help with speeding problems.
- Addtional storage for dedicated left-turn lanes needed in both directions to access the I-24 interchange.

Almaville Road (SR-102)

from Poplar Wood Road to I-24

Recommended Countermeasures



	ID	Countermeasure	Cost	Schedule	Project Readiness
● ●	14.1	Install Backplates w/ Retroreflective Borders	$	Short-Term	Ready
● ● ○	14.2	Replace TWLTL with Median (Install Left-Turn Lanes as Necessary)	$$$	Long-Term	Ready
● ●	14.3	Improve Corridor Access Management	$$$	Long-Term	Ready
● ● ○	14.4	Install Protected Bicycle Lane	$$	Short-Term	Ready
●	14.5	Restricted Crossing U-Turn (RCUT)	$$$	Long-Term	Ready
●	14.6	Operational Interchange Improvements	$$$	Short-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure

● Crash Modification Factors Countermeasure

○ Vulnerable Road User Related Countermeasure

● Requires ROW Acquisition

● Requires Utility Relocation

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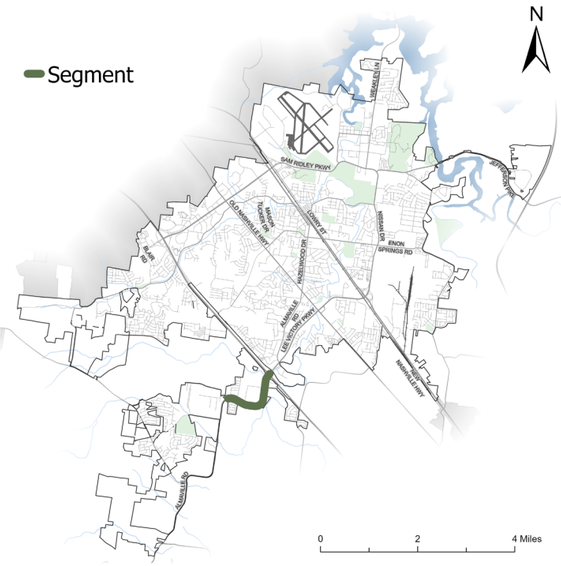
Benefit Summary

- Medians can prevent left-turn and head-on crashes by separating opposing traffic flows. They also facilitate better access management by controlling where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- Access management controls where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- By physically separating cyclists from motor vehicle traffic, protected bike lanes provide a safer environment for cyclists, reducing the risk of collisions.
- Backplates with retroreflective borders increase the conspicuity of traffic signal heads, especially under low-light conditions. They also help drivers quickly and easily identify traffic signals in the presence of visual clutter. This enhanced visibility and recognition can lead to a reduction in rear-end and angle crashes at signalized intersections.
- RCUTs significantly reduce the number of conflict points where vehicles can collide, particularly those that lead to severe crashes like head-on and angle collisions. This design change can lead to a substantial decrease in fatal and injury crashes.



Chaney Road

from Sam Ridley Parkway to Town Limits

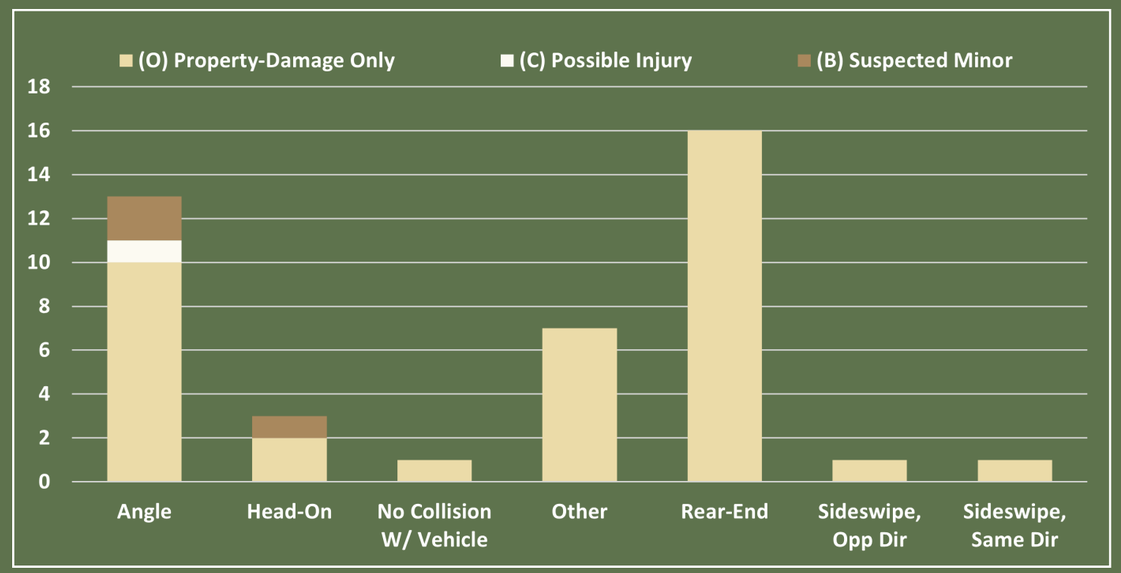
Town

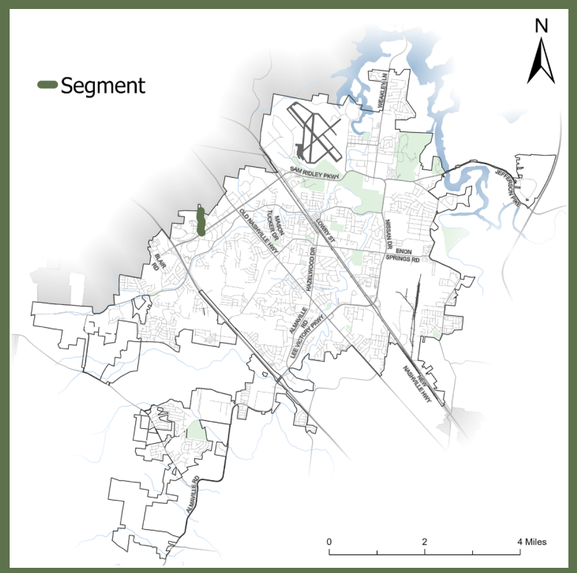
Speed Limit	30 mph
Lanes	2
Vehicles/Day	10,000
Total Crashes	44
HIN Intersections	0

Characteristics

This section of Chaney Road is a one-way roadway on the southern end, and becomes a two-way roadway at Grammer Lane. The segment has no separation between opposing travel lanes, follows a curved alignment, and has a rolling terrain. Sidewalks are partially present along a single side of this corridor.

Along Chaney Road, Facing North, Just South of Grammer Lane





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Overall Ranking: 15

Ranking Index

Fatal & Serious Injury Crashes:

low — high

Vulnerable Road User Crashes:

low — high

Crash Rate:

low — high

Replica Risk Index:

low — high

Demographics Consideration:

low — high

Community Input

- N/A

Chaney Road

from Sam Ridley Parkway to Town Limits

	ID	Countermeasure	Cost	Schedule	Project Readiness
● ● ●	15.1	Install Side Path/Sidewalks to Infill Gaps	$$$	Long-Term	● ●
● ●	15.2	Area-Wide Wayfinding	$	Short-Term	Ready
● ● ●	15.3	Increase Crosswalk Visibility Enhancements	$	Short-Term	Ready
● ● ●	15.4	Install Midblock Pedestrian Crossing (RRFB or PHB)	$$	Short-Term	●
● ●	15.5	Install Speed Feedback Signs	$	Short-Term	Ready
● ● ●	15.6	Sidewalk Improvements to include Raised Curb and/or Buffer to Protect Pedestrians	$$	Short-Term	● ●
● ●	15.7	Evaluate Traffic Operations and Circulation to/from Industrial Boulevard	$$	Short-Term	●
● ●	15.8	School Zone Area Improvements including Signing, Markings, and Beacons	$	Short-Term	●
● ●	15.9	Wider Edge Lines and Curve Warning Signage at Horizontal Curves	$	Short-Term	Ready

$ - 0 to 50,000; $$ - 50,001 to 100,000; $$$ - 100,001 to 500,000; $$$$ - Over 500,000

● FHWA Proven Safety Countermeasure

● Crash Modification Factors Countermeasure

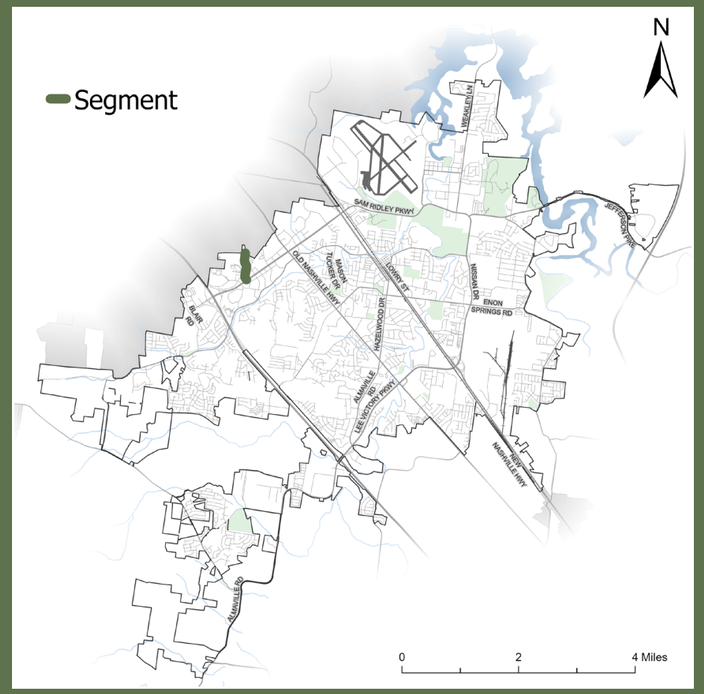
● Vulnerable Road User Related Countermeasure

● Requires ROW Acquisition

● Requires Utility Relocation

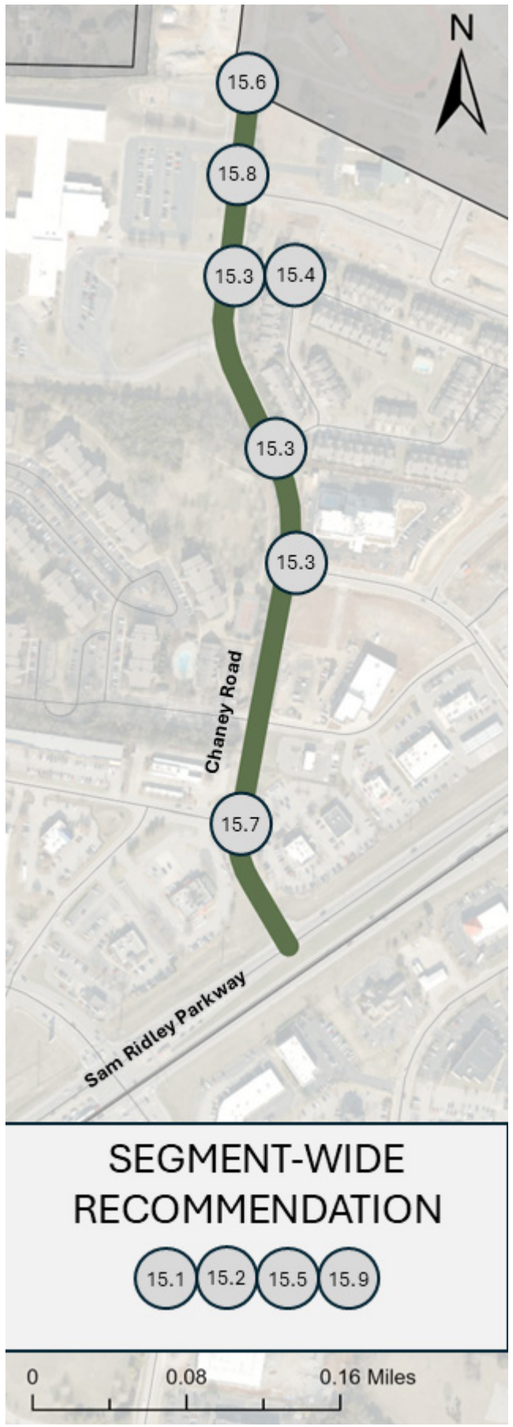
Benefit Summary

- Sidewalks offer a dedicated walking space and provide pedestrians with access to destinations along the corridor, decreasing the likelihood of vehicle/pedestrian conflicts within the roadway. Sidewalks provide children with a safe route for walking to school, and foster a safer environment for those who rely on walking as their primary mode of transportation.
- By providing real-time feedback, these signs make drivers more aware of their speed and the need to adjust it according to road conditions and speed limits.
- Wayfinding signs guide pedestrians along safer routes, minimizing conflicts with vehicles and ensuring they can reach their destinations safely.
- Medians can prevent left-turn and head-on crashes by separating opposing traffic flows. They also facilitate better access management by controlling where vehicles can turn, thereby reducing unpredictable movements that can lead to crashes.
- RRFBs provide increased driver awareness, enhanced pedestrian visibility, and increased driver compliance, reducing the likelihood of pedestrian/vehicle crashes.



SOURCE: Tennessee Department of Transportation (TDOT), AASHTOWare Safety 2019-2023

Recommended Countermeasures



Appendix D:
Resolution

TOWN OF SMYRNA, TENNESSEE
RESOLUTION NO. 25-8

A RESOLUTION adopting the Town of Smyrna Comprehensive Safety Action Plan.

WHEREAS, there were 5,875 crashes reported within the Town limits of Smyrna from 2019 to 2023; and

WHEREAS, 29 people lost their lives in crash-related deaths on Smyrna roadways in the five-year period; and

WHEREAS, there were 127 people with suspected serious injuries caused by crashes on Smyrna roadways in the five-year period; and

WHEREAS, economically disadvantaged communities, people with disabilities, vulnerable road users, seniors, and young people face higher risks of crash-related fatalities and injuries; and

WHEREAS, the Town of Smyrna is committed to the long-term goal of zero traffic deaths and serious injuries. As an interim goal, Smyrna aims to achieve a TWENTY PERCENT reduction in fatal and serious injury crash rates (expressed in crashes per million vehicle miles traveled [VMT]) by 2035.

NOW, THEREFORE, BE IT RESOLVED by the Town Council of the Town of Smyrna that the Town adopts this Comprehensive Safety Action Plan, of the Safe Streets and Roads for All initiative, to serve as a guiding document for the Town as they work toward achieving their safety performance goals.

This resolution shall take effect immediately upon its adoption, the public health and welfare of the Town of Smyrna requiring it.

ADOPTED by the Town Council the 8th day of April, 2025.

TOWN OF SMYRNA, TENNESSEE

Mary Esther Reed
MARY ESTHER REED, Mayor

ATTEST: Amber Hobbs
AMBER HOBBS, Town Clerk

Town of Smyrna Administration Office

Mary Esther Reed

Town of Smyrna Mayor

Town of Smyrna City Hall
315 S. Lowry Street, Smyrna, TN 37167
Phone: (615) 267-5005 Fax (615) 355-5715

Re: Comprehensive Safety Action Plan

Elected Officials, Stakeholders, and Citizens:

In Smyrna, every life is invaluable, and every traffic incident that leads to a fatality or serious injury is one too many. Our roadways are the lifelines of our community, and it is our utmost responsibility to ensure that they are not only efficient but, above all, safe.

On behalf of the Smyrna Town Council, I am proud to express our strong support for initiatives to make our roadways safer for all users.

Between 2019 and 2023, our town experienced 5,875 reported roadway crashes, of which 29 resulted in fatalities and 127 in serious injuries. These events are more than statistics; they are tragedies for the victims, their families, and our community. We are committed to significantly reducing these heartbreaking events.

The Town of Smyrna proudly strives towards the long-term goal of zero traffic deaths and serious injuries. Between 2019 and 2023, our town had a lower rate of fatal and serious injury crashes than the State of Tennessee (2.7% town-wide versus 3% statewide), and we are committed to doing better. As an interim goal, we aim to achieve a 20% reduction in fatal and serious injury crash rates by 2035.

This Comprehensive Safety Action Plan is an essential first step in our commitment. This plan is an actionable document that includes engineering projects and driver-related strategies that can positively impact roadway safety by addressing the Four Es of traffic safety: Engineering, Education, Enforcement, and Emergency Response. This data-driven approach ensures that our efforts are targeted, effective, and measurable. Annual progress updates will be published on our project website, Smyrna Safety Action Plan, ensuring transparency and accountability.

As a lifelong resident of Smyrna, I have witnessed the growth and evolution of our town firsthand. My commitment to our community's well-being has always guided my efforts, both in my professional and public service roles. I believe that creating safer roads is an extension of this mission, ensuring that all members of our community, especially our youth, can thrive in a safe environment.

We cannot achieve this alone. Smyrna's success in making our roadways safer relies on the active participation of residents, local government, and advocacy organizations. Together, we can

eliminate preventable crashes and fatalities, creating a community where safety is a shared responsibility and a shared success.

Sincerely,

Mary Esther Reed

Mary Esther Reed, Mayor

Town of Smyrna