REGIONAL ROADWAY SAFETY ACTION PLAN

DRAFT

tpo
KNOXVILLE REGIONAL

ACKNOWLEDGMENTS

The Regional Roadway Safety Action Plan is a product of the hard work and commitment of each of the members of the TPO's Safety Task Force and Knoxville's Steering Committee. Their efforts are a testament to the outstanding partnership and collaboration that will be necessary to achieve zero traffic deaths and severe injuries in the Knoxville Region.

KNOXVILLE TPO SAFETY TASK FORCE

Brian Blackmon, City of Knoxville

Brian Boone, City of Maryville

Dakota Gentry, City of Alcoa

Zoe Scott, Bike Walk Knoxville,

Cathy Olsen, Knox County

Wayne Blasius, City of Oak Ridge

Karen McKeehan, City of Knoxville

Andy Padgett, TDOT

Mike Conger, Knoxville Regional TPO

Ellen Zavisca, Knoxville Regional TPO

CONSULTANT TEAM

alta

FAIRPOINTE PLANNING

CITY OF KNOXVILLE STEERING COMMITTEE

MAYOR'S OFFICE

Indya Kincannon, Mayor

Erin Gill, Deputy Mayor

OFFICE OF SUSTAINABILITY

Brian Blackmon, Director

Dawn Michelle Foster, Deputy Director

Grace Levin, Coordinator

Alex Marsicovetere, Bloomberg Harvard City Hall Fellow

KNOXVILLE AREA TRANSIT

Isaac Thorne, Director

KNOXVILLE POLICE DEPARTMENT

Michael Tucker, Sergeant

Scott Erland, Communications Manager

PARKS AND RECREATION

Tim Hester, Greenways Coordinator

ENGINEERING

Tom Clabo, Director

Karen McKeehan, Transportation Engineering Chief

George Daws, Civil Engineering Manager

Evan Hoffman, Professional Transportation Engineer

Jon Livengood, Alternative Transportation Coordinator

Shawn Garner, Transportation Engineer

Jonathan West, Transportation Engineer

OFFICE OF COMMUNITY SAFETY

LaKenya Middlebrook, Director

Mustafa Ali-Smith, Program Specialist

OFFICE OF NEIGHBORHOOD EMPOWERMENT

Debbie Sharp, Coordinator

Hayley Howard, Assistant Coordinator

OUR COMMITMENT

The more than 10,000 miles of public roadways in the six-county Knoxville Region provide necessary connections to community, jobs, and recreation. These roadways need to be safe for users of all ages, abilities, and backgrounds regardless of where they live in the region or how they choose to get around.

The Knoxville Regional Transportation Planning Organization (TPO) strongly supports the vision set forth in the National Roadway Safety Strategy, a document with the steps required to meet the national goal to dramatically reduce fatalities and serious injuries. **The Knoxville TPO is doing our part with a commitment to reduce fatalities by 66% by 2045**.

This Action Plan spells out the steps we need to take to improve safety for everyone who uses our region's roadways. It is rooted in the Safe System approach, a holistic approach that encompasses the many dimensions of safety interventions required to reduce fatal and serious injury crashes.

We thank the residents, staff, and elected officials within the region for your commitment and work thus far toward meeting this goal. We ask that each of you continues to support roadway safety improvements and take personal responsibility to follow the rules of the road. While this work is difficult, it is essential. A brighter future, where nobody's life is tragically cut short by a traffic crash, is within our reach.

JEFFREY A. WELCH, AICP
KNOXVILLE REGIONAL TPO
EXECUTIVE DIRECTOR

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INTRODUCTION

Our Call to Action

Every year, hundreds of people who live, work, and travel throughout the Knoxville TPO are killed or seriously injured in traffic crashes. This Regional Roadway Safety Action Plan acknowledges that these life-altering traffic crashes are not acceptable. This plan is based on input from residents, stakeholders, and elected officials and will guide our transportation decision-making in the region by:

- **Designating** a high injury network, those roadway segments that see the most life-altering crashes in our region.
- **Identifying** projects and strategies that will reduce the number of fatal and severe injury crashes on our roadways.
- **Creating** a transparent platform for tracking our progress on improving roadway safety.

THE KNOXVILLE TPO IS DOING OUR PART WITH A COMMITMENT TO REDUCE FATALITIES AND SERIOUS INJURIES BY **TWO-THIRDS** BY **2045**.

5% ANNUAL REDUCTION 2024-2045

Basics of the Safe System Approach

The Safe System approach, developed and adopted by the United States Department of Transportation (USDOT), is a framework that guides safety efforts. The Safe System approach anticipates human mistakes by building redundancy into the system so that when a crash occurs, it does not lead to a life-altering injury. This approach involves identifying multiple aspects of safety: safe road users, safe vehicles, safe roads, safe speeds, and post-crash care. The Safe System approach requires those who plan, govern, maintain, and use our roadways in the Knoxville region to adopt a culture of safety.

> *I only ride the greenways since the streets are unsafe for bicyclists.*
>
> *Community Survey Response*

Source: USDOT Safe System Approach

Our Shared Responsibility

The Knoxville TPO region is made up of a diverse range of communities, jurisdictions, and contexts. Collaboration and partnerships will be an essential part of working toward the shared goal of improving safety for all roadway users.

KNOXVILLE REGIONAL TRANSPORTATION PLANNING ORGANIZATION

The Knoxville TPO region consists of Knox County in its entirety, as well as the contiguous areas of Anderson, Blount, Loudon, Roane, and Sevier counties. Within those counties, these cities are also included in the TPO: Alcoa, Clinton, Farragut, Knoxville, Lenoir City, Loudon, Maryville, and Oak Ridge.

LAND USE CONTEXT

The TPO region consists of an urbanized area with approximately 727,000 residents. The region is not uniform in density or development pattern. It includes the focal city, Knoxville, as well as suburban and rural communities. This diversity in land use context contributes to the challenge of coordinating a regional Safe System approach, as appropriate countermeasures may vary by jurisdiction. Even so, the region as a whole can unite behind the shared goal of reducing traffic deaths and serious injuries and overcoming barriers to improved traffic safety.

The Knoxville TPO's key safety responsibilities include the following:

- Improve the safety of the transportation system for all users, motorized and non-motorized. The TPO does not implement projects, but it does bring together agencies and people on shared goals and on determining funding priorities.
- Coordinate regional planning efforts by vetting and approving projects to be included in the long-range Mobility Plan and the four-year Transportation Improvement Program (TIP). The Mobility Plan and the TIP include all phases of transportation projects of regional significance for the Knoxville region.
- Provide vital technical assistance to all jurisdictions including safety analysis, contract procurement, evaluating performance measures, and prioritizing the perspectives of the traditionally underserved and underrepresented.

CITY OF KNOXVILLE

As the largest municipality in the region, the City of Knoxville plays a vital role in informing and advancing regional priorities. The City of Knoxville has been a regional trendsetter with respect to safety, with the City of Knoxville City Council passing a unanimous resolution to support a Vision Zero goal to eliminate serious injuries and traffic deaths in Knoxville. The City has invested time and energy into policies that support safer roads. This includes efforts such as the Knoxville Bicycle Facilities Plan, a Complete Streets policy, the 2020 sidewalk study, and pedestrian-oriented zoning districts and design standards.

Buy-in from the City of Knoxville plays a crucial role in actualizing the regional safety objectives, because the City will implement specific projects and programs recommended in the plan, along with other regional jurisdiction partners. For more information on the City's Vision Zero program and standalone action plan, go to their website: knoxvilletn.gov/visionzero/

When it is completed, the City's action plan will also be added to this document as an appendix.

vision zero
SAFER STREETS FOR KNOXVILLE

CITY OF KNOXVILLE SAFETY MILESTONES

2019

- **October 2019** City Council passes resolution endorsing Vision Zero goal.

2021

- **November 2021** Council approves policy reducing speed limits to 25 mph on any street where a limit is not posted.

2022

- **January 2022** City launches public survey on road safety.
- **February 2022** City launches the planning stage of the Vision Zero Plan.
- **May 2022** Vision Zero Steering Committee meets.
- **June 2022** WATE interviews Vision Zero leaders on speed limit reduction.
- **July 2022** City reduces speed limits on unposted roads and launches "Save Lives with 25" campaign.
- **July 2022** Tennessee Highway Safety Office announces "Operation Southern Slow Down."
- **August 2022** City Council workshop on active transportation studies.
- **October 2022** Bike Walk Knoxville releases "Crash Survivor Stories" video.

2023

- **January 2023** Knoxville joins a coalition of local governments as the TPO begins regional roadway safety planning process.
- **February 2023** City launches public outreach to gather input on life-altering crashes for regional plan.
- **June 2023** City finalizes Vision Zero Action Plan which is adopted as part of the TPO Regional Roadway Safety Action Plan.

LOCAL JURISDICTIONS

In addition to the City of Knoxville, local governments throughout the region play a key role in implementing the Safe System approach and reducing the number of life-altering traffic crashes. They oversee the operations and maintenance of their roadways, and often undertake projects using local funding. Rural communities and unincorporated areas face unique safety challenges in maintaining extensive roadway networks amid significant growth pressures.

TENNESSEE DEPARTMENT OF TRANSPORTATION

Nurturing and maintaining collaborative working relationships among all of the local governments and the Tennessee Department of Transportation (TDOT) is essential to reducing traffic deaths and severe injuries. As the primary owner of the major roadways throughout Tennessee, TDOT serves to connect regions of the state with each other. Agency missions should be coordinated and aligned with the common goal of reducing crashes and eliminating traffic fatalities and severe injuries.

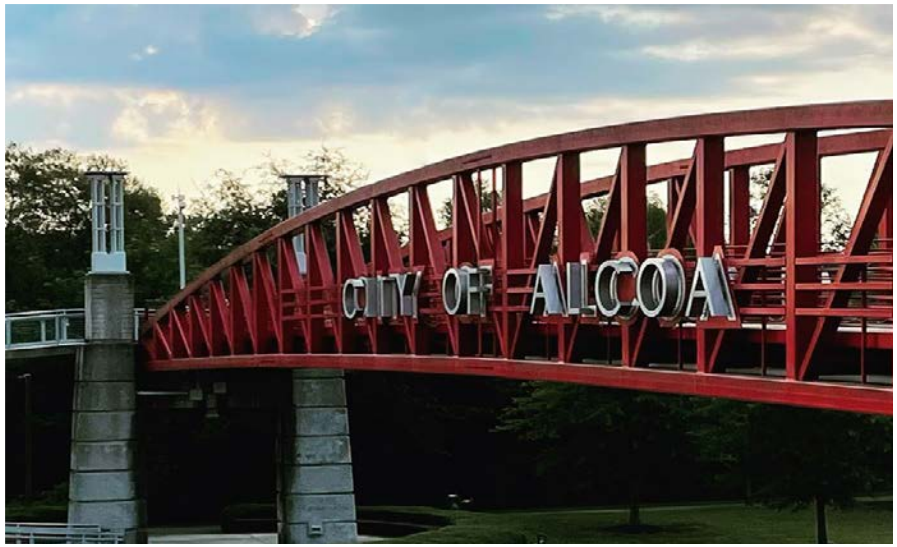


Image Credit: City of Alcoa

Image Credit: Town of Farragut

Our Guiding Principles

The Regional Roadway Safety Action Plan is our call to action to significantly reduce traffic-related deaths and severe injuries. In light of the recent increase in traffic-related fatalities and serious injuries across Tennessee and the U.S., this can seem like an overwhelming task and out-of-reach goal. The opportunity to save lives is worth it. In order to make this plan a reality, it will require commitment to shared values and guiding principles. When design and policy challenges arise, these principles serve as a reminder of the importance of this work, the underlying values, and the necessary elements to make this goal a reality.

> *There are several areas where the sidewalk just ends before my destination requiring walking in the grass or side of the road.*
>
> *Community Survey Response*

Traffic deaths and severe injuries are unacceptable and preventable.

The region will prioritize actions that reduce crashes that result in a severe injury or death.

Human life is vulnerable and takes priority over moving cars.

The impact of heavy, fast-moving vehicles is often too much for our bodies. Saving lives is more important than improving roadway capacity.

Traffic safety is everyone's responsibility and should reflect community needs.

Everyone who lives in, works in, visits, or travels through the Knoxville region shares responsibility for the safety of our streets. This includes elected officials, government staff, advocates, the vehicle industry, and members of the public.

Roadways should be designed to account for human error and ensure that mistakes aren't deadly or life-altering.

We know humans make mistakes, but one mistake should not end a life. Design of our streets should anticipate these risks and minimize harm.

Quality data, transparent evaluation, and transparent decision-making are needed at all levels of government.

High-quality data is foundational to informing safety improvements. Data should be made available to the public to hold everyone accountable on progress toward zero traffic deaths.

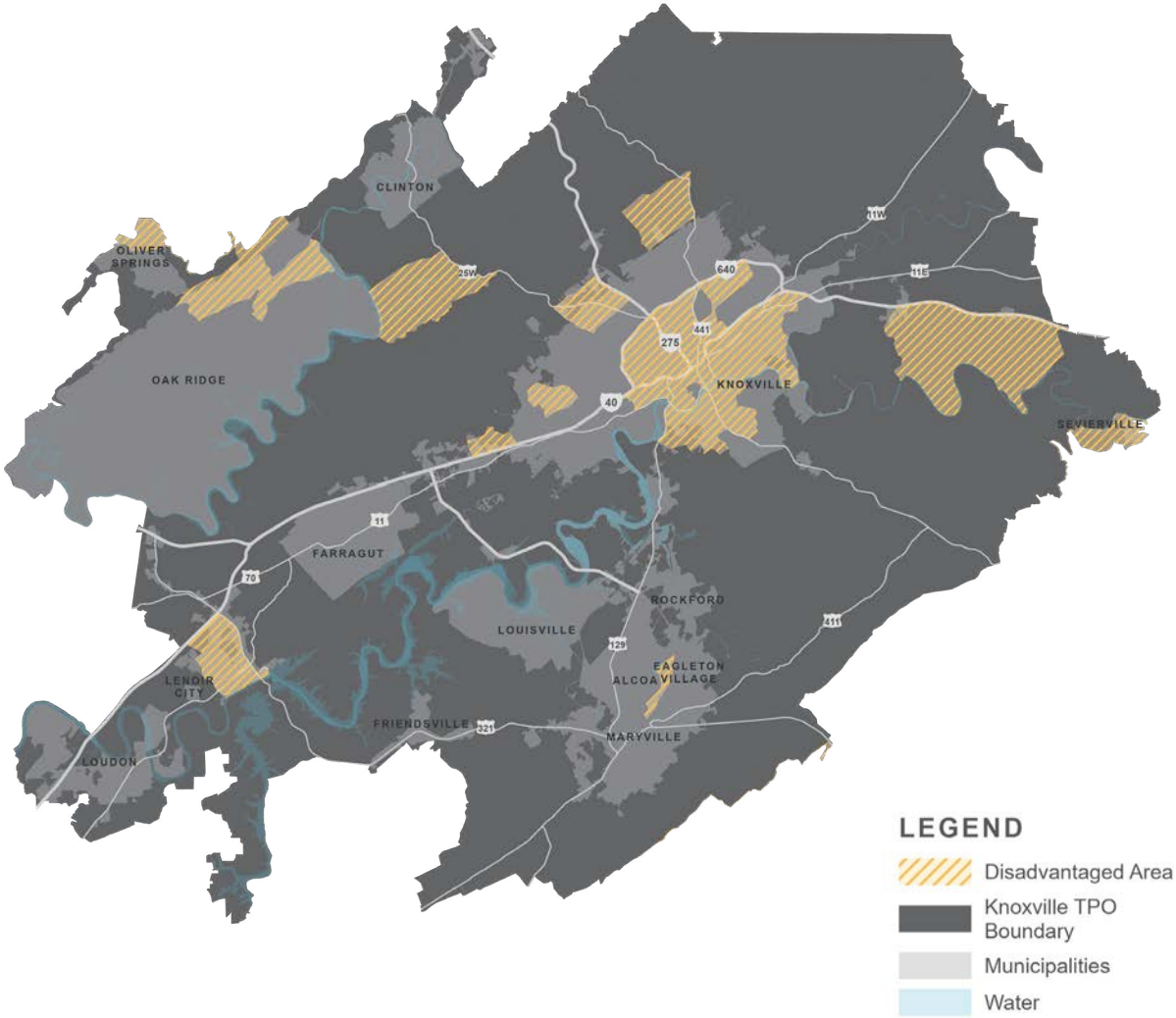
Prioritizing Equity

The Justice40 initiative provides tools used by USDOT to understand certain disadvantages experienced by communities.

The Equitable Transportation Community Explorer tool assesses indicators within five components: climate and disaster risk burden, environmental burden, health vulnerability, social vulnerability, and transportation insecurity. Scores within each component are used to create a final index score that shows areas that are considered disadvantaged.

The map to the right identifies the disadvantaged areas in the Knoxville region where safety projects should be prioritized.

43% OF RESIDENTS IN THE KNOXVILLE REGION LIVE IN A DISADVANTAGED AREA



Safety in the Region Today

Between October 2016 through September 2021, 2,979 traffic crashes in the region resulted in a fatality or serious injury, which equates to one life-altering crash every **15 hours** in the region. During the same time period, 1,183 traffic crashes in the City of Knoxville resulted in a fatality or serious injury. This means there was a life-altering crash every **37 hours** in the City.

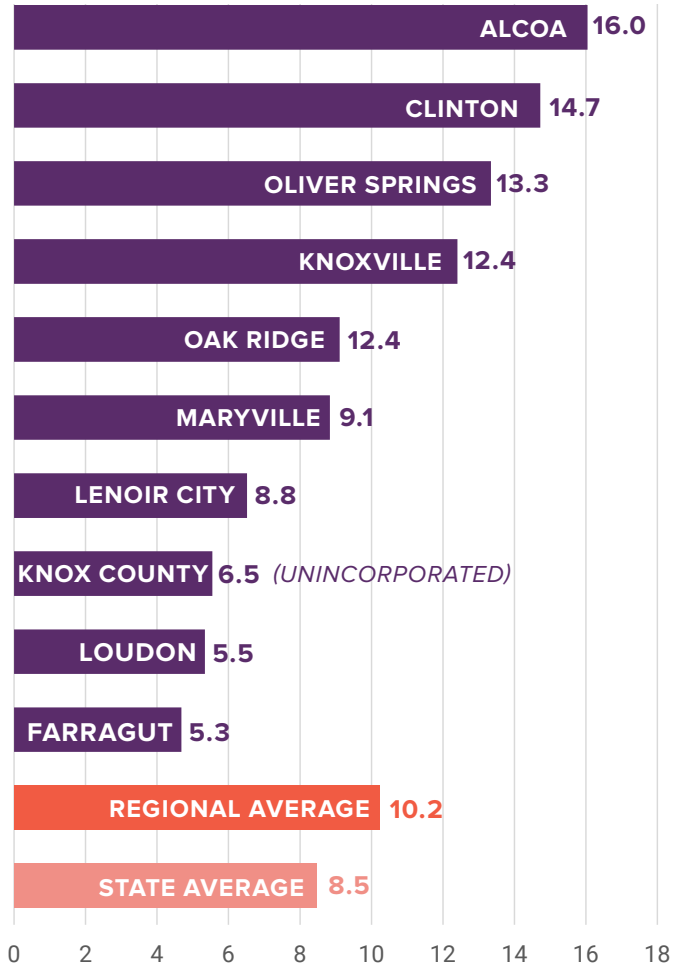
HOW OUR REGION COMPARES

According to Smart Growth America's Dangerous by Design 2022, Tennessee is the 17th most dangerous state in the country for pedestrians.

MOST DANGEROUS STATES, BY RANK

1. NEW MEXICO
2. FLORIDA
3. SOUTH CAROLINA
4. ARIZONA
5. DELAWARE
6. LOUISIANA
7. MISSISSIPPI
8. NEVADA
9. GEORGIA
10. CALIFORNIA
11. ALABAMA
12. TEXAS
13. HAWAII
14. NORTH CAROLINA
15. OKLAHOMA
16. MARYLAND
17. TENNESSEE
18. ARKANSAS
19. NEW JERSEY
20. OREGON

Annual Killed and Seriously Injured (KSI) Crashes Per 10,000 Population

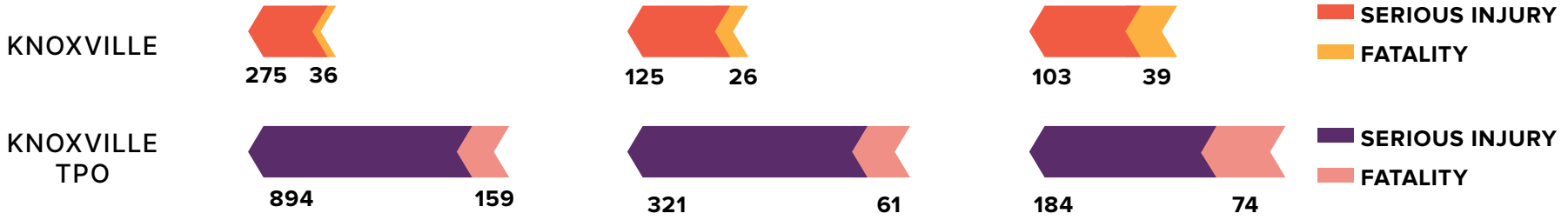


CRASHES BY MODE

While pedestrians, bicyclists, and motorcyclists make up a smaller proportion of overall crashes, they are overrepresented in the most serious crashes.

16x More likely to be killed in a crash compared to a motorist.

25X More likely to be killed in a crash compared to a motorist.

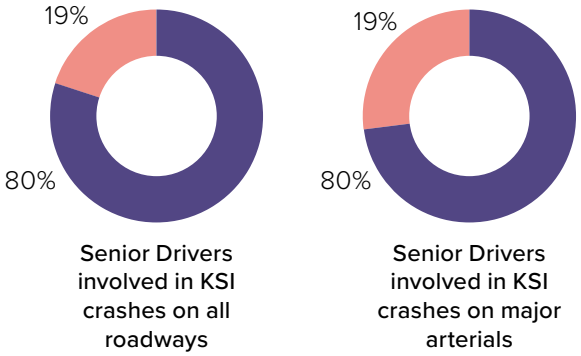


WHO'S GETTING HURT?

National studies have found that certain demographics are most at risk when it comes to pedestrian traffic crashes. People of color (including Black people, Latino/a people, and Indigenous people) are more likely to be killed in crashes, as are older Americans. Some of these disparities occur in the City of Knoxville and the surrounding area.

IN THE KNOXVILLE REGION

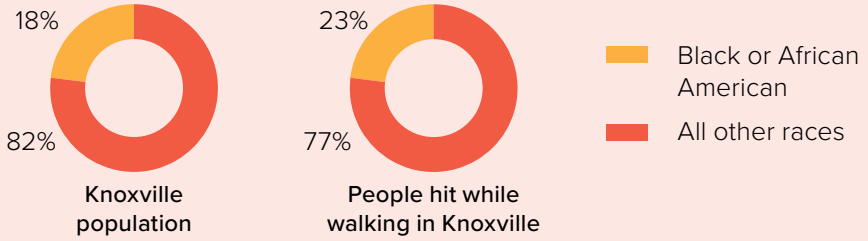
Drivers aged 65 and older are involved in 20% of life-altering crashes throughout the region. They are also involved in 27% of fatal and serious crashes on major arterials, which suggests that senior drivers are more at risk on these higher-speed, wider roadways.



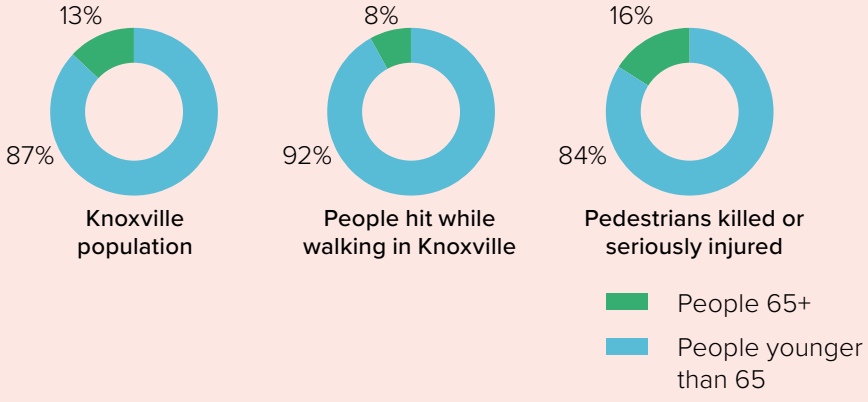
IN KNOXVILLE

Disparities Exist in Pedestrians Crashes

Black people represent a larger share of people hit by cars while walking, compared with their share of the Knoxville population.



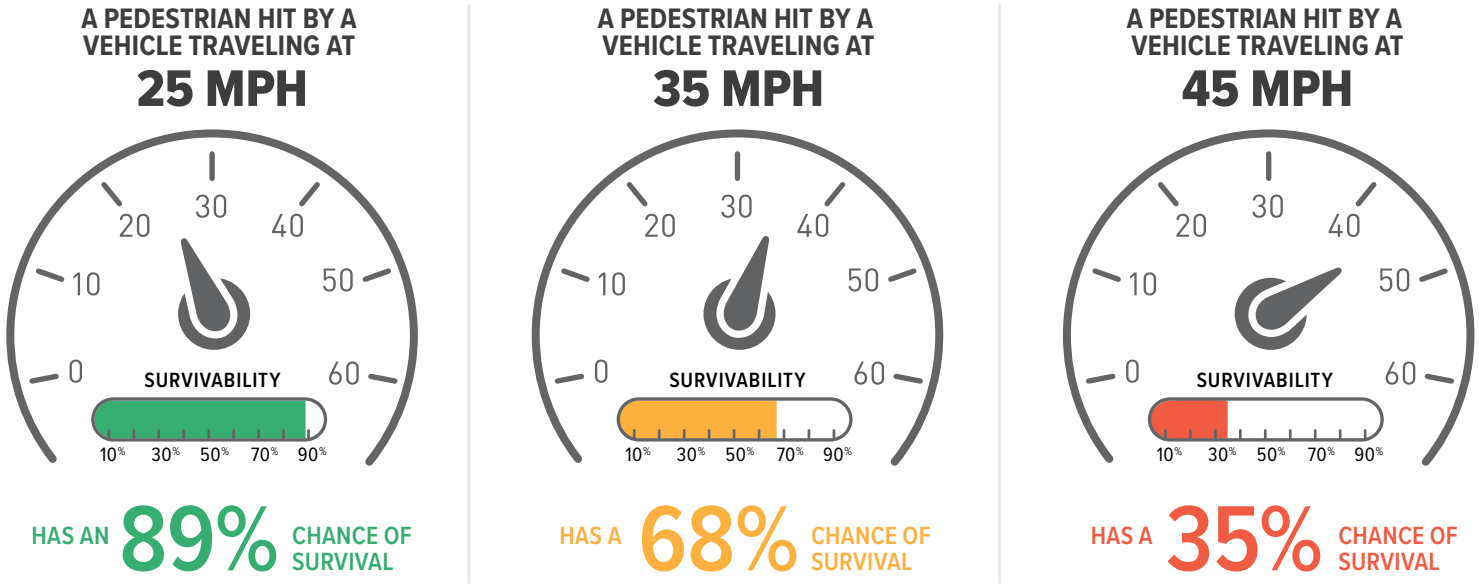
People age 65 and older are less likely to be hit as pedestrians, compared with their share of the population, but are more likely to be killed or seriously injured.



CONTEXT AND CRASH FACTORS

Speed

Speed is one of the most important predictors of whether a crash is survivable. Lower speeds make crashes more avoidable as well. Due to the high speeds common on major arterials and rural or suburban roads, crashes tend to be more severe on these roadways. This is a significant crash factor throughout the Knoxville region and for people using all modes of transportation. However, higher speeds are particularly dangerous for people walking, with a pedestrian's chance of surviving a crash declining to 35% when hit by a vehicle traveling at 45 mph.



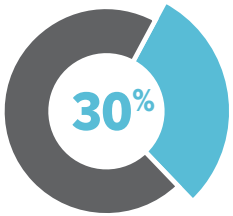
Tefft, B. C. *Impact speed and a pedestrian's risk of severe injury or death.* Accident Analysis & Prevention 50 (2013) 871-878.

CONTEXT AND CRASH FACTORS

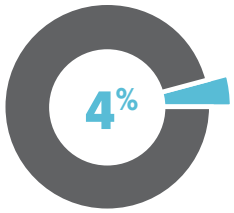
IN THE KNOXVILLE REGION

Major Arterials

Major arterials in the Knoxville region—roadways such as Clinton Highway and Lamar Alexander Parkway—are where a significant portion of life-altering crashes occur. These roadways make up 4% of the road network in the region, yet it is where 30% of fatal and serious injury crashes have occurred.



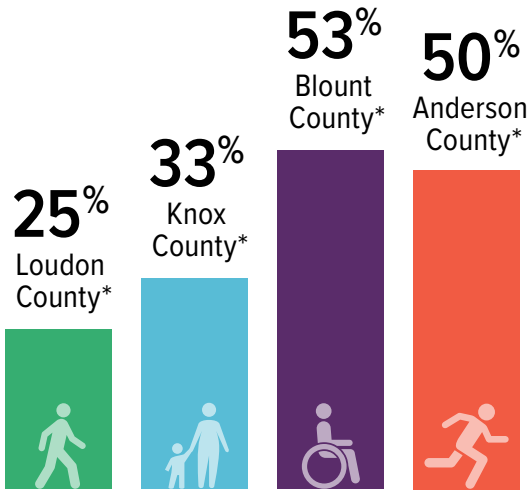
of **life-altering crashes** in the Knoxville region took place on **major arterial roads**



Major arterial roads are just **4%** of the road network in the Knoxville region.

Rural Roads

Most crashes in our region that involve people walking or bicycling occur in cities and towns. But they do occur on rural roads as well. The most common crash factor when a person is hit by a vehicle on a rural road is the lack of space for walkers. Accommodations for pedestrians on rural roads can include shoulders, trails, or sidewalks.



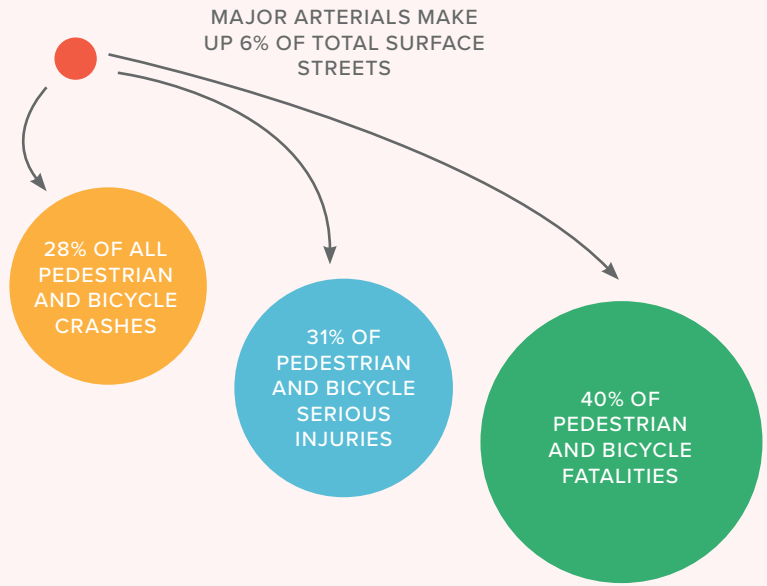
*Unincorporated

Percent of Crashes Due to Lack of Dedicated Space for People Walking

IN THE CITY OF KNOXVILLE

Major Arterials

Major arterials make up six percent of the surface street mileage in Knoxville. Yet a disproportionate share of pedestrian/bicycle crashes, especially serious crashes, occur on major arterials (streets such as Broadway and Kingston Pike).



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02

THE HIGH INJURY NETWORK

Where Is the Risk?

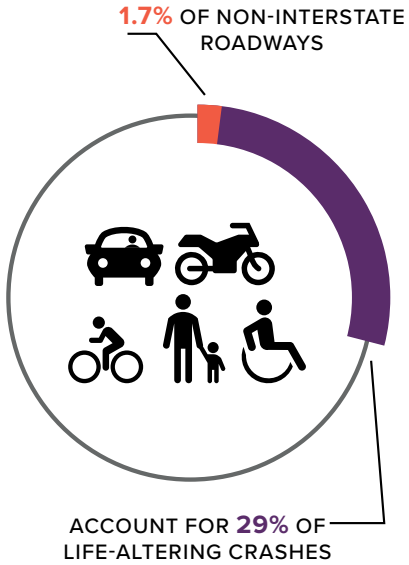
In addition to understanding overall trends, it's important to know the places people have been killed or seriously injured in traffic crashes. The results of this crash analysis is the High Injury Network (HIN), which identifies specific roads that bear a disproportionate amount of serious crashes. These corridors are a small subset of the larger overall roadway network, highlighting opportunities for targeted investments where it is needed the most. Roads on the HIN that ranked particularly high for severe crashes are shown as a Tier 1 priority on the map on the following page. Two separate HINs were developed, one for the Knoxville region excluding the City of Knoxville, and one for the City of Knoxville.

Table 1. Knoxville TPO High Injury Network by Jurisdiction

Jurisdiction	HIN Mileage	Jurisdiction	HIN Mileage
Knox County	33.2	Clinton City	2.1
Blount County	10.5	Lenoir City	1.7
Maryville City	7.9	Loudon County	1.5
Oak Ridge City	5.3	Sevier County	1.3
Anderson County	4.5	Alcoa City	1.2
Town of Farragut	2.6	Sevierville City	0.5
Town of Oliver Springs	2.3	Louisville City	0.3

REGIONAL HIGH INJURY NETWORK

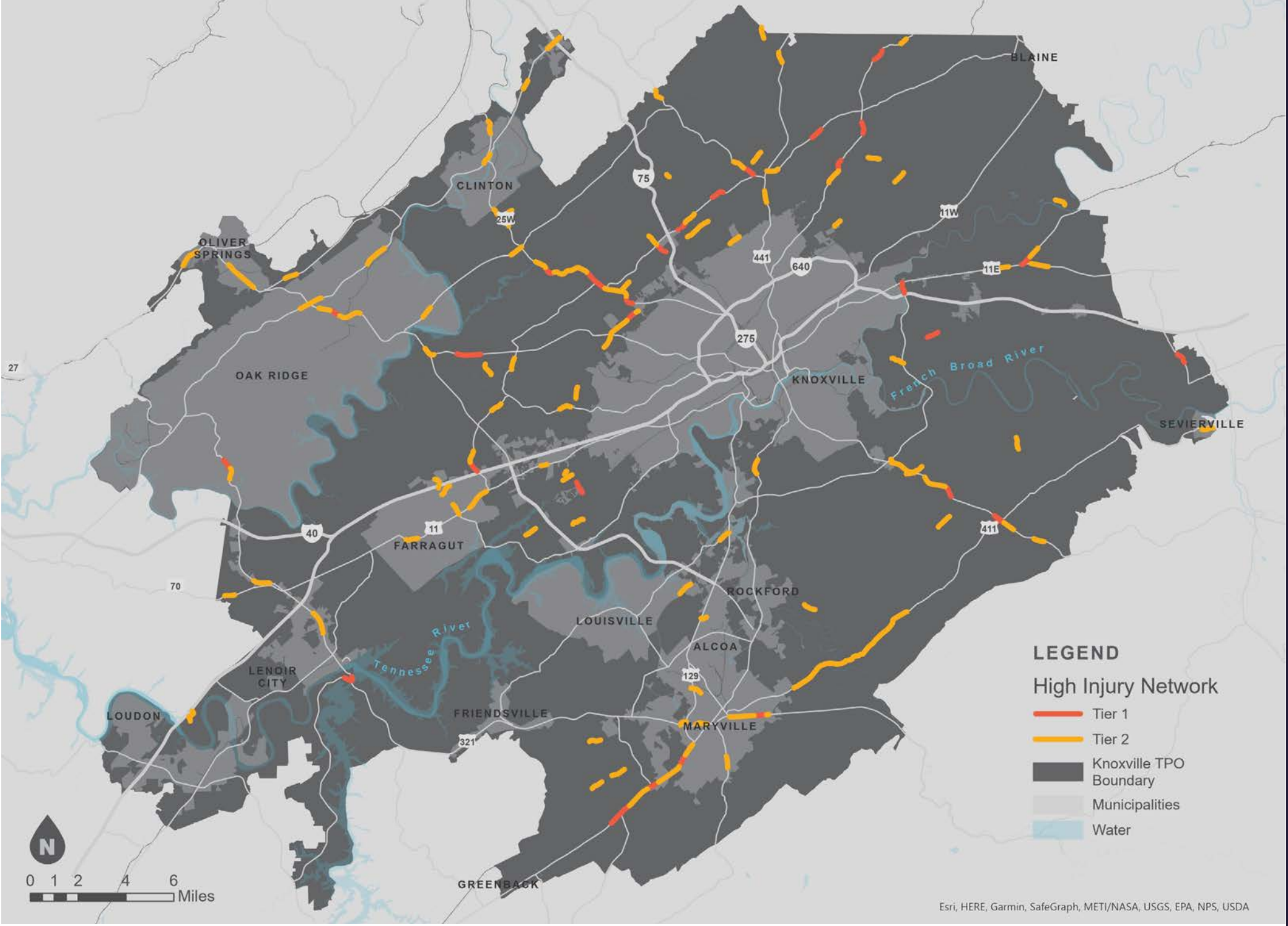
The regional HIN covers the entire Knoxville TPO region, with the exception of the City of Knoxville. Fatal and serious-injury crashes are more dispersed in the region compared withthe City. Thus, the overall percentage of the roadway network captured by the HIN is lower, but the total roadway mileage is greater than the City of Knoxville HIN. See the Appendix for a full list of the regional HIN corridors.



THE REGION'S HIGHEST INJURY ROADS

The HIN analysis is a process of ranking roadways with the highest overall score, based on the number and severity of crashes on that road. Roads in the region with the highest overall score include:

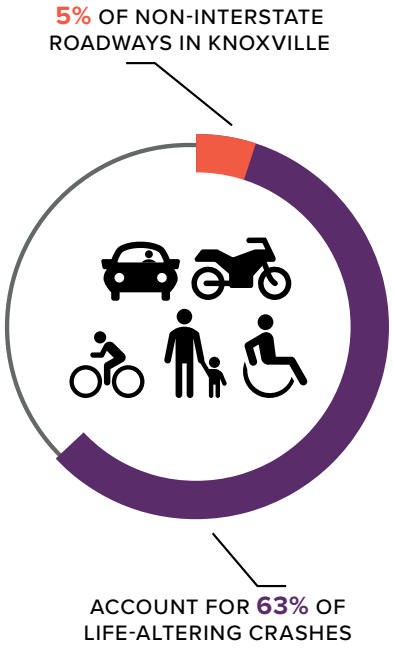
- West Broadway Avenue from Foxglove Lane to Cooper Street **(Maryville)**
- White Wing Road (SR-95) from Lagoon Road to New Zion Patrol Road **(Oak Ridge)**
- East Lamar Alexander Parkway (US-321/SR-73) from Grandview Drive to S Washington Street **(Maryville)**
- Clinton Highway (US-25W/SR-9) from Old Callahan Drive to Stewart **(Knox County)**
  Run Way
- SR-131 from Dixon Spring Lane to Fortner Lane **(Halls)**



1.7% OF THE REGION'S LOCAL STREETS ACCOUNT FOR 29% OF INJURY CRASHES

KNOXVILLE'S HIGH INJURY NETWORK

The HIN identifies the most dangerous roads, those with the greatest number of serious crashes. This analysis helps guide the City of Knoxville's investments in infrastructure and programs and ensures that Vision Zero projects support those most in need. The Knoxville HIN identifies a larger overall percentage of the roadway network, compared with the regional HIN.



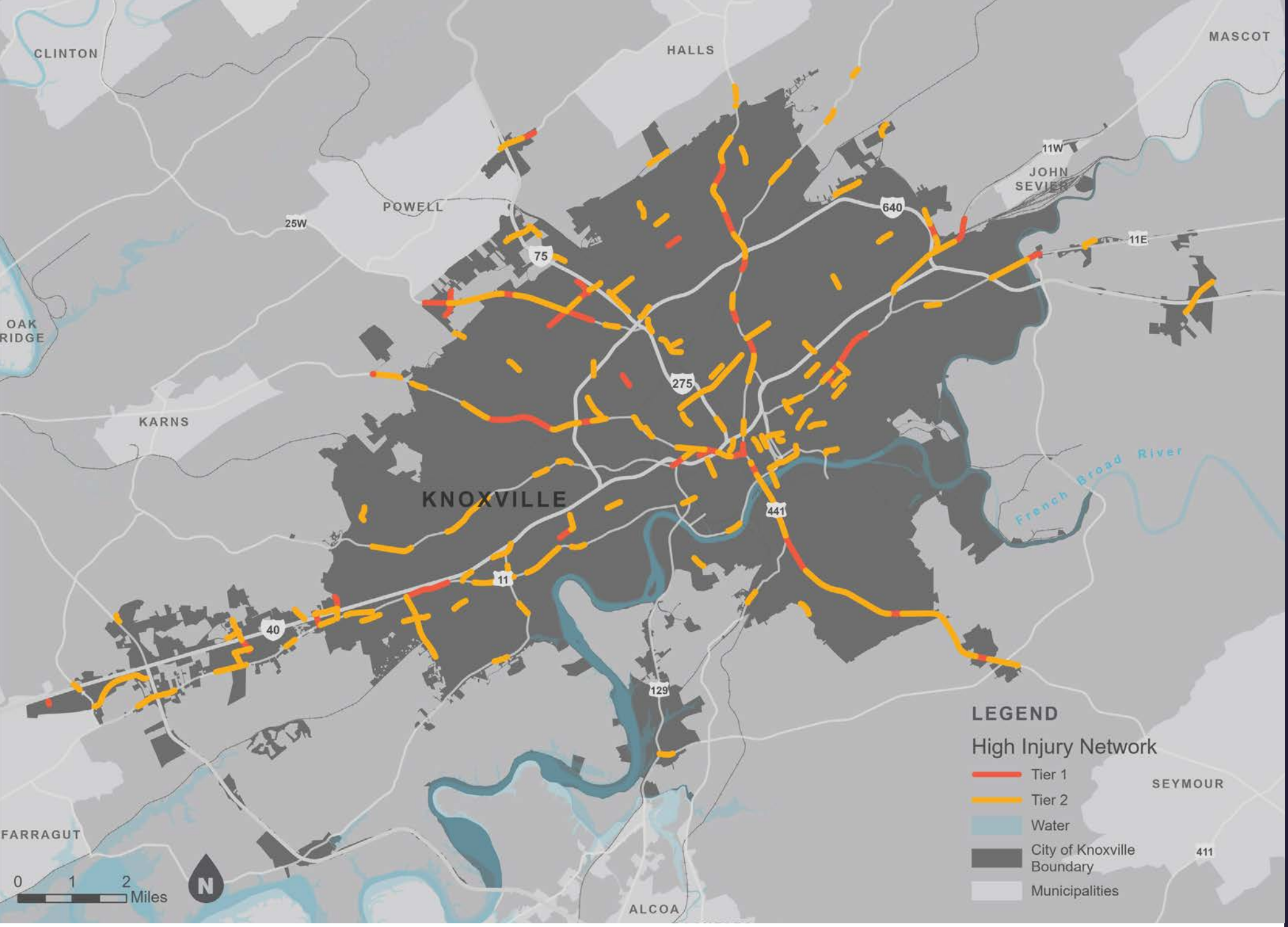
KNOXVILLE'S HIGHEST INJURY ROADS

The HIN analysis is a process of ranking roadways with the highest overall score, based on the number and severity of crashes on that road. See the Appendix for a full list of the regional HIN corridors.

Roads in Knoxville with the highest overall score include:

- Clinton Highway (US-25W) from Old Callahan Drive to Schaad Road.
- N Broadway from Interstate 640 to Old Broadway
- Chapman Highway (SR-71) from Nixon Road to Norton Road
- Western Avenue from 17th Street to Interstate 40
- E Magnolia Avenue from N Harrison Street to N Beaman Street

E Magnolia at Kirkwood is part of a roadway corridor on the City of Knoxville's HIN.



5% OF THE CITY OF KNOXVILLE LOCAL STREETS ACCOUNT FOR 63% OF INJURY CRASHES

PREDICTING WHERE A CRASH MAY OCCUR BEFORE IT HAPPENS

This predictive crash analysis highlights roadways where severe crashes are likely to occur in the future. This is done by identifying characteristics associated with high-crash locations and identifying other roadways with those characteristics, even if they have not experienced a high number of actual crashes.

Table 2 shows the variables collected for each road segment that were used in the analysis to compare roadways with observed crashes to other roadways throughout the area. These variables are focused on land uses near the roadway, road characteristics, and relation to intersections.

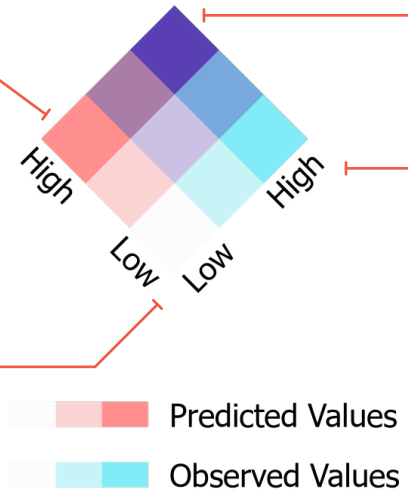
Table 2. Roadway Characteristics Used in Predictive Analysis

Variable
Near commercial land use
Near multifamily land use
Average annual daily traffic (AADT)
At signalized intersection
Speed limit
Functional class
At intersection (regardless of signal)
Segment length
Road curvature

HOW THE PREDICTIVE ANALYSIS IS USED

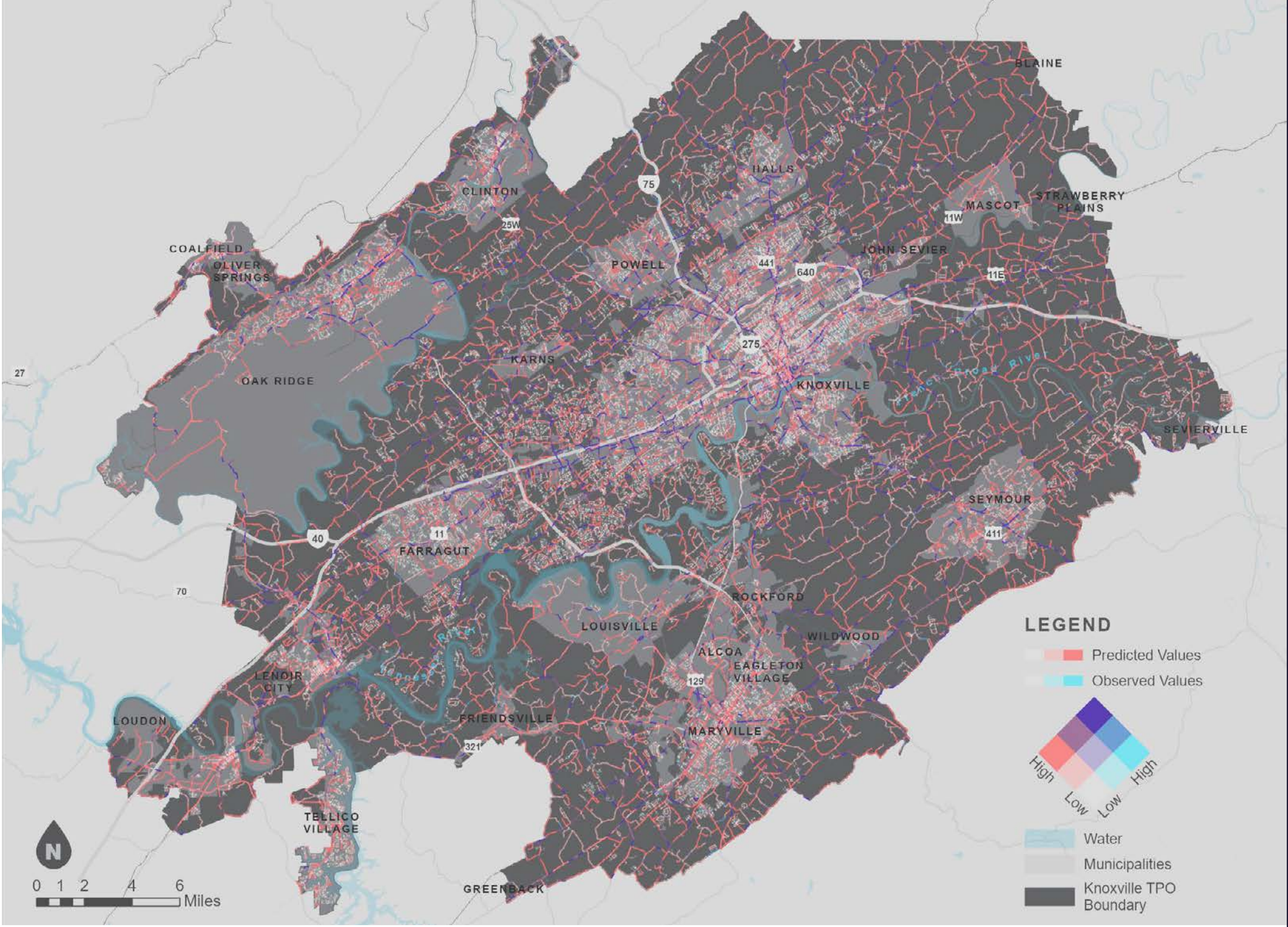
High Predicted but Low Observed: These segments have characteristics of high-crash roadways but have not seen as many actual crashes. They could experience near misses that are not captured in crash data, or there may be other variables not included in the model that reduce their risk of severe crashes. **Improvements on these segments should be a priority for preventing crashes before they happen.**

Low Predicted and Low Observed: These are high-crash roadways that we would not expect to have a high number of crashes based on the characteristics identified in the model. **These characteristics should be documented as potential countermeasures.**



High Predicted and High Observed: These are high-crash roadways that have the characteristics that the model has shown are consistent with high-crash roadways. **These roads should be considered as high priorities.**

Low Predicted but High Observed: These are high-crash roadways that we would not expect to have a high number of crashes based on the characteristics identified in the model. There may be other variables not included in the model that cause these roadways to see high numbers of severe crashes, such as a blind curve or poor street lighting. **These factors should be further investigated.**



KNOXVILLE TPO PREDICTIVE ANALYSIS MAP

ROADS WITH THE HIGHEST PREDICTED CRASH INDEX

The table below shows the roadways with the highest predicted crash index that have a high risk of injury crashes in the future. The results of this analysis can be used to identify roadways and intersections where safety improvements can be made to prevent injury crashes before they occur.

Table 3. Roads with the Highest Predicted Crash Index (all injury crashes)

Road Name	From	To	Jurisdiction
N. Hall Road	US 129 Ramp	Tyson Boulevard	Alcoa
Lovell Road	Simmons Road	I-40 Ramp	Knoxville
Clinton Highway	W. Emory Road	Bell Stanley Road	Knox County
W. Broadway Avenue	William Blount Drive	Fairview Drive	Maryville
Chapman Highway	Hendrons Chapel Road E.	Kimberlin Heights Road	Knox County
Clinton Highway	Rhealand Lane	Lakewood Lane	Knox County
Clinton Highway	W. Beaver Creek Drive	Larkspur Lane	Knox County
Oak Ridge Highway	N. Burchfield Road	South of Melton Hill Reservoir Bridge	Oak Ridge
W. Lamar Alexander Parkway	Foothills Mall Drive	Bridgeway Drive	Maryville
Chapman Highway	Sevierville Pike	E. Simpson Road	Knox County

North Hall Road

PREDICTING WHERE SPECIFIC CRASH TYPES MAY HAPPEN

Three sets of analyses were run to make predictions for three types of crashes: injury crashes involving a **roadway departure**, **left-turn injury crashes**, and **all injury crashes**. The result show roadways and intersections that have a high risk of severe crashes within each of these crash types. Because these roads don't necessarily have a high number of observed crashes, they may not have been identified as areas of risk in the HIN. The results were used to inform priority projects, detailed in Chapter 5.

03

CRASH PROFILES + COUNTERMEASURES

Crash Profiles

Through an examination of crash characteristics and contextual factors, the most pertinent crash trends were identified for further analysis. “Crash profiles” highlight specific conditions that account for a large share of fatal and serious injury crashes in the Knoxville region. These crash profiles are paired with potential countermeasures to identify system-wide safety interventions, in addition to the corridor interventions identified in the HIN.

The following crash profiles were identified and more detail is provided on the following pages per profile:

- **Crash Profile 1:** Motor Vehicle Crashes in Commercial Areas
- **Crash Profile 2:** Left Turn/U-Turn-Related Motor Vehicle Crashes at Signalized Intersections
- **Crash Profile 3:** Pedestrian/Bicyclist-related Crashes in Commercial Areas along Arterials
- **Crash Profile 4:** Motor Vehicle Crashes at Nighttime on Arterials
- **Crash Profile 5:** Motor Vehicle Roadway Departure Crashes on Slopes and Hill Crests
- **Crash Profile 6**: Crashes Involving Motorcycles

Safety Countermeasures are actions to counteract an identified danger to one or more modes of travel. A rectangular rapid flashing beacon (RRFB) is an example of a countermeasure.

CRASH PROFILE 1: MOTOR VEHICLE CRASHES IN COMMERCIAL AREAS

This factor analyzes crashes that resulted in death or serious injury that occurred within 200 feet of an area with commercial land use in the City of Knoxville.

OWNERSHIP

46% on local roads

54% on TDOT maintained roads

MODE: MOTOR VEHICLES

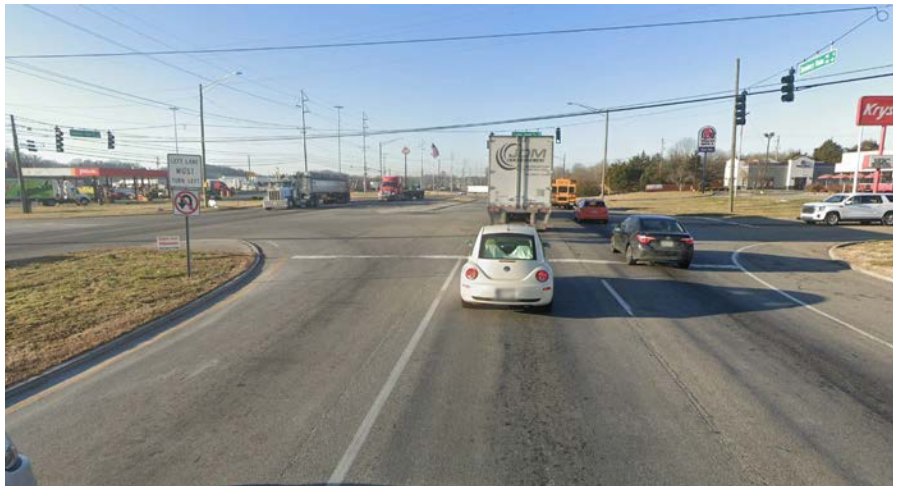
SERIOUS AND FATAL CRASHES

357

POTENTIAL COUNTERMEASURES

- Access management
- Driveway improvements, including sight distance improvements
- Lane narrowing
- Controlled pedestrian crossings

Clinton Highway & Callahan Drive / Schaad Road



Strawberry Plains Pike & Region Lane

CRASH PROFILE 2: LEFT TURN/U-TURN-RELATED MOTOR VEHICLE CRASHES AT SIGNALIZED INTERSECTIONS

This factor analyzes crashes that resulted in death or serious injury involving a motor vehicle making a left turn or U-turn at a signalized intersection in the City of Knoxville.

OWNERSHIP

27% on local roads

74% on TDOT maintained roads

MODE: MOTOR VEHICLES

SERIOUS AND FATAL CRASHES

83

POTENTIAL COUNTERMEASURES

- Reduced conflict intersections or other alternative intersections
- Protected left turn movements
- Flashing yellow arrow traffic signals (when protected left turn is not feasible; specific subtypes must be used)
- Retroreflective backplates
- One-lane roundabouts on lower volume roads
- Red light cameras
- Prohibit right turn on red
- Sight distance enhancements

Henley Street & Cumberland Avenue

Chapman Highway & Green Road

CRASH PROFILE 3: PEDESTRIAN/BICYCLIST-RELATED CRASHES IN COMMERCIAL AREAS ALONG ARTERIALS

This factor analyzes crashes that resulted in death or serious injury to a person walking within 200 feet of a commercial land use area along an arterial roadway in the City of Knoxville. The countermeasures address both pedestrians and bicyclists, even though bicyclist serious injuries or deaths did not occur in this crash profile, because people bicycling are vulnerable in this context as well.

OWNERSHIP

34% on local roads

66% on TDOT maintained roads

MODE: WALKING & BIKING

SERIOUS AND FATAL CRASHES

56

POTENTIAL COUNTERMEASURES

- Access management
- Add sidewalk
- Prohibit right turn on red
- Driveway improvements, including sight distance improvements
- Adding midblock crossings and improvements
- Pedestrian hybrid beacon (PHB) or Rectangular Rapid Flashing Beacon (RRFB)
- Pedestrian refuge islands
- Raised crosswalks and high-visibility crosswalks
- Road diets (cross-section reallocation)
- Bike facilities; including bike paths, protected bike lanes, cycle track, depending on context
- Lighting
- Speed management strategies
- Raised Pavement Markers
- Pedestrian & Bicyclist signage, if appropriate

North Broadway NW & West 5th Avenue

Magnolia Avenue & Castle Street

CRASH PROFILE 4: MOTOR VEHICLE CRASHES AT NIGHTTIME ON ARTERIALS

This factor analyzes crashes that resulted in death or serious injury of a motorcyclist on roads with posted speed limits of 35 MPH or greater in the Knoxville Region.

OWNERSHIP

28% on local roads

72% on TDOT maintained roads

MODE: MOTOR VEHICLES

SERIOUS AND FATAL CRASHES

257

POTENTIAL COUNTERMEASURES

- Lighting
- Retroreflective traffic signal backplates
- Increase pavement marking reflectivity

Montvale Road & Boardman Avenue

Morganton Road

CRASH PROFILE 5: MOTOR VEHICLE ROADWAY DEPARTURE CRASHES ON SLOPES AND HILL CRESTS

This profile analyzes crashes resulting in death or serious injury that occurred when a motor vehicle leaves the roadway and hits a fixed object on a slope or hillcrest along a one or two-lane roadway in the Knoxville Region.

OWNERSHIP

75% on local roads

25% on TDOT maintained roads

MODE: MOTOR VEHICLES

SERIOUS AND FATAL CRASHES

273

POTENTIAL COUNTERMEASURES

- Remove or relocate fixed objects
- Crash cushions
- Breakaway posts/supports
- Longitudinal edge line rumble strips
- Safety edge
- Speed humps/cushions/tables
- High-friction surface treatment
- Speed feedback signs
- Wider edge lines
- Reconstruct roadway to flatten crest vertical curve
- Spot shoulder widenings

Maryville Pike

Boyds Creek Highway

CRASH PROFILE 6: CRASHES INVOLVING MOTORCYCLES

This factor analyzes crashes that resulted in death or serious injury that involved a motorcycle on roads with posted speed limits of 35 MPH or greater in the Knoxville Region.

OWNERSHIP

37% on local roads

63% on TDOT maintained roads

MODE: MOTORCYCLES

SERIOUS AND FATAL CRASHES

183

POTENTIAL COUNTERMEASURES

- Longitudinal rumble strips and stripes
- Lane narrowing
- Safety edge
- High-friction surface treatment
- Sight distance improvements
- Systemic application of multiple low-cost countermeasures at stop-controlled intersections

US 321

Clinton Highway

Safety Countermeasures

Proven safety countermeasures can be a powerful tool in accelerating safety goals. Countermeasures can be implemented through different delivery, material, and installation methods which allows them to be installed as a quick build or more permanent solution. The following are some sources for countermeasures:

- **Federal Highway Administration's (FHWA's) Proven Safety Countermeasures initiative (PSCi)** is a collection of 28 countermeasures and strategies designed for all road users and all kinds of roads—from rural to urban, from high-volume freeways to less traveled two-lane state and county roads, from signalized crossings to horizontal curves, and everything in between. Each countermeasure addresses at least one safety focus area – speed management, intersections, roadway departures, or pedestrians/bicyclists – while others are crosscutting strategies that address multiple safety focus areas. Search Proven Safety Countermeasures.
- **TDOT** has compiled a list of Roadside Design Resources that includes Tennessee specific guidance as well as serves as a clearinghouse of national best practices and resources for safety countermeasure implementation.
- The **Crash Modification Factors (CMF) Clearinghouse** provides a searchable database of CMFs along with guidance and resources on using CMFs in road safety practice.

QUICK BUILD PROJECTS

Quick build is a method to help local governments improve safety on a minimal budget and on a compressed timeline. Projects can include safer crossings, slower streets, an extended bikeway network, or safer routes to transit, schools, and essential workplaces.

The City of Kirkwood, MO, installed quick build safety improvements as an engagement activity during the Vision Zero Action Plan development process.

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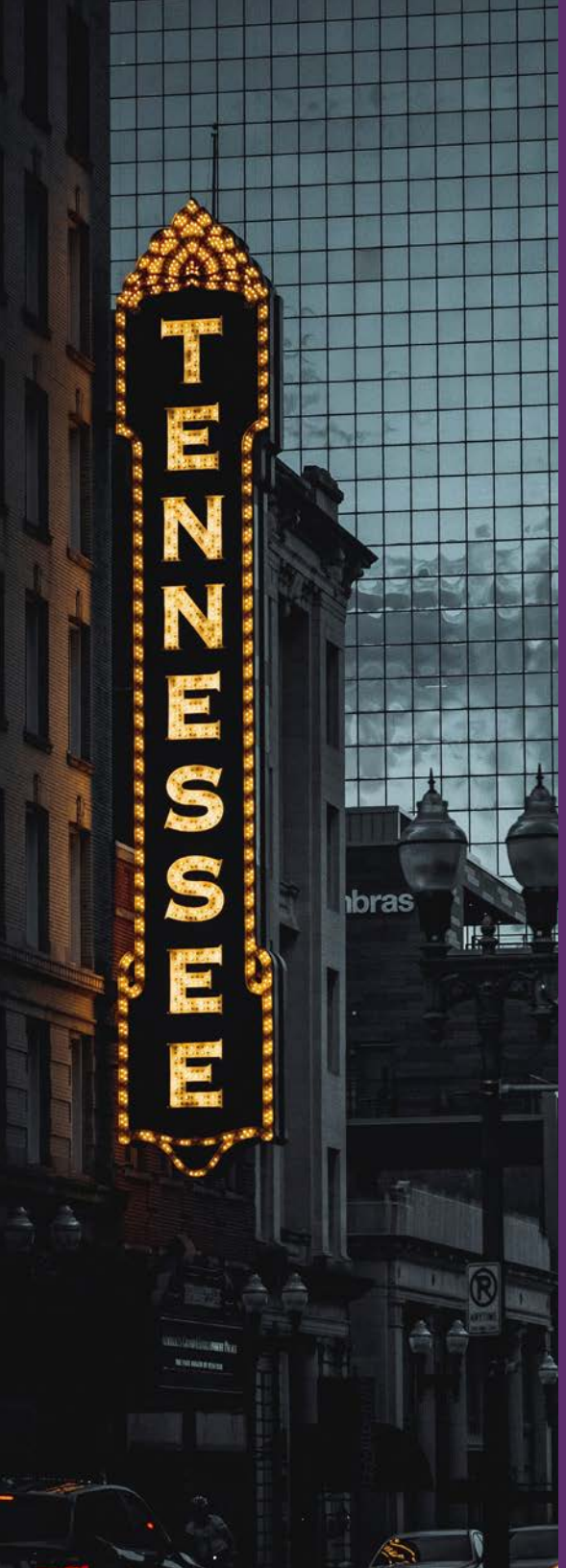


04

ACTION PLAN

Building on Engagement

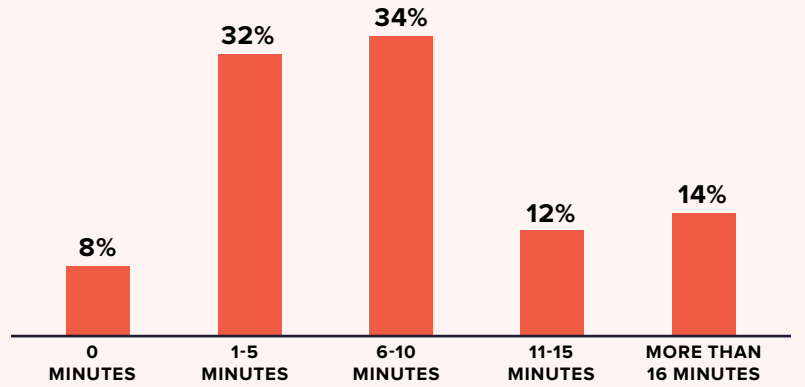
The regional safety actions and strategies were built on three “pillars” of information and data: the crash findings, existing policy and programs, and engagement with technical stakeholders as well as the general public. Engagement efforts were conducted at the regional scale, with additional engagement targeted specifically to Knoxville residents.

REGIONAL ENGAGEMENT SUMMARY

Key themes from engagement include:

- 61% of respondents felt either uncomfortable or very uncomfortable walking and 70% felt either uncomfortable or very uncomfortable bicycling.
- People are concerned about the number of drivers in the region who speed or drive distracted.
- There is a desire for expanding pedestrian and bicycle infrastructure, such as paths, crosswalks, and greenways.
- Over 50% of survey respondents supported reducing speed limits.

How many minutes would you be willing to add to your commute as a trade-off for safe streets in the Knoxville Region for all users?



The majority of survey respondents are willing to add at least some time to their commute in order to achieve safer streets.

142 *ONLINE SURVEY RESPONSES*

117 *FOCUS GROUP PARTICIPANTS*

341 *INTERCEPT SURVEYS COLLECTED*

14 *TASK FORCE PARTICIPANTS*

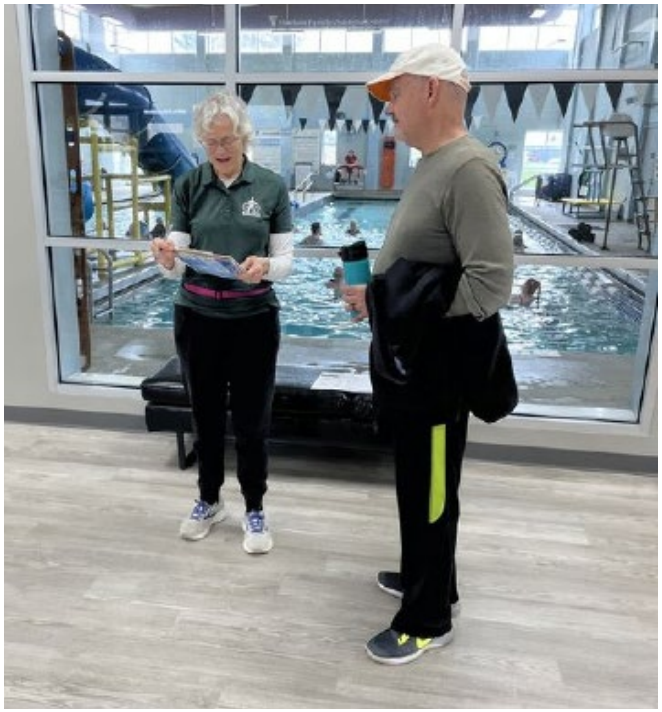
CITY ENGAGEMENT SUMMARY

Key themes from engagement include:

- People feel safest in their cars, and most people do not feel safe walking or biking. This is often due to missing or inadequate walking and biking facilities, such as unprotected bike lanes, unsafe crosswalks, or sidewalks in poor condition.
- People drive too fast, and there is not enough enforcement to address this issue.
- There are barriers to accessibility, such as sidewalk gaps and obstructions.
- People support expanded education on the rules of the road, and desire more transparent information on safety planning efforts.
- Knoxville residents highlighted unique safety concerns for vulnerable populations, such as elderly and young residents, unhoused individuals, and people with disabilities. Concerns included lack of visibility, hazardous conditions, and accessibility concerns.

Specific location concerns include:

- Broadway
- Magnolia Avenue
- Kingston Pike
- Chapman Highway
- James White Parkway
- Central Street
- Neyland Drive
- Sutherland Avenue
- Cumberland Avenue
- Summit Hill Drive
- Western Avenue



Action Plan Framework

To comprehensively identify solutions for transportation safety challenges and organize recommended strategies, this action plan's recommendations are organized into the following themes: Design, Land Use, Plans, Policies, and Programs.

In addition, the framework integrates the Safe System approach and identifies the corresponding category. Most recommendations fall into multiple categories, as the elements of a Safe System approach are interconnected.

SAFE SYSTEM CATEGORIES

SAFER PEOPLE

SAFER SPEEDS

SAFER VEHICLES

SAFER ROADS

POST-CRASH CARE

HOW TO READ THE RECOMMENDATIONS

The table below outlines the definitions for the columns in the following pages.

Safe System Categories	Safe Road Users, Safe Vehicles, Safe Speeds, Safe Roads, Post-Crash Care
Recommendation	The key steps needed to achieve the recommendation.
Timeline	When the action should take place. Short (<1 Year) Medium (1-2 Years) Long (>2 years) 
Action Lead	Who are the leading and supporting partners?
Implementation Needs	Identifies if the action item will require funding, additional staff capacity, relationship building with external partners, or policy legislation in order to advance. (Significant)  (Minimal)
Example Performance Measure	How will the action be monitored, evaluated or communicated on progress?
Cost	What is the general expected cost to implement this recommendation?

DESIGN

D.1 IMPLEMENT SAFETY IMPROVEMENTS ON THE HIGH INJURY NETWORK.

Improving safety on the HIN should be a top priority as crash data shows those corridors as being the highest-risk crash areas for all road users. Quick build improvements should be considered for locations that need safety enhancements to be implemented rapidly and where traditional construction timelines would be lengthy. Specific vulnerable road user improvements should be incorporated as discussed in Strategy D.9.

Sample Performance Measure: Number of safety countermeasure projects implemented along HIN and the Crash Modification Factor or Crash Reduction Factor achieved through the countermeasure selection.

Timeline:

Cost:

$$$

Action Lead:

TDOT

Local Governments

Organizational Needs

D.2 USE PREDICTIVE ANALYSIS RESULTS TO IMPLEMENT PROACTIVE SAFETY IMPROVEMENTS.

Corridors with high crash risk are not reflected in historical crash data. Using the results of the Predictive Analysis to target safety improvements, in addition to the HIN, could help proactively prevent incidents. Quick build improvements should be considered for locations that need safety enhancements to be implemented rapidly and where traditional construction timelines would be lengthy. Specific vulnerable road user improvements should be incorporated as discussed in Strategy D.9.

Sample Performance Measure: Number of safety countermeasure projects implemented along the top tier of predictive analysis results.

Timeline:

Cost:

$$$

Action Lead:

TDOT

Local Governments

Organizational Needs

DESIGN

D.3 IMPROVE LEFT TURN AND U-TURN SAFETY.

The Crash Profile analysis found that left turns and U-turns resulted in a notable proportion of serious crashes. Countermeasures cited in the Crash Profile analysis should be implemented as appropriate.

Sample Performance Measure: Number of targeted left-turn conflict projects and the associated Crash Modification Factor.

Timeline:

Cost:

$$$

Action Lead:

TDOT

Local Governments

Organizational Needs

D.4 DEVELOP PEDESTRIAN AND BICYCLE COUNTERMEASURE GUIDANCE.

The Safety Practice Assessment showed a need for consistent design guidance on safety countermeasures for vulnerable road users. This should include pedestrian scale lighting standards and emphasize separated facilities where dictated by context.

Sample Performance Measure: Bicycle and pedestrian countermeasure guidance document.

Timeline:

Cost:

$$

Action Lead:

Knoxville TPO

Organizational Needs

DESIGN

D.5 ESTABLISH A TPO WORKING GROUP TO COORDINATE REGIONAL COMPLETE STREETS EFFORTS.

While Complete Streets policies are already in use in the Knoxville Region, the Safety Practice Assessment identified the opportunity for coordination on those policies to ensure best practices are being used throughout the region. This strategy should coordinate with strategy PL.2

Sample Performance Measure: Establishment of working group to meet quarterly with regular distribution/posting of meeting minutes.

Timeline:

Cost:

$

Action Lead:

Knoxville TPO

Organizational Needs

D.6 IMPROVE ROADWAY LIGHTING, ESPECIALLY ON HIN.

Nighttime traffic deaths on arterials were highlighted in the Crash Profile analysis as a crash type contributing to a large number of crashes involving fatalities or serious injuries. Lighting and visibility can also be especially important for vulnerable road users, which should be addressed through the addition of pedestrian scale lighting.

Sample Performance Measure: Decrease in numbers of traffic deaths and serious injuries associated with dark conditions.

Timeline:

Cost:

$$$

Action Lead:

Local Governments

Organizational Needs

DESIGN

D.7 MITIGATE HIGH SPEED FIXED-OBJECT CRASHES ON SLOPES AND HILL CRESTS.

The Crash Profile analysis showed that high speed vehicle collisions on curved or hilly roadways accounted for a lot of serious and fatal crashes in the Knoxville Region. A variety of countermeasures outlined in the Crash Profile analysis can help address the safety issues contributing to these crashes.

Sample Performance Measure: Decrease in numbers of traffic deaths and serious injuries associated with fixed-object collisions on curved roadways and hillsides.

Timeline:

Cost:

$$$

Action Lead:

TDOT

Local Governments

Organizational Needs

D.8 ADDRESS MOTORCYCLE SAFETY ISSUES.

Motorcycle crashes on roads with a speed limit of 35 mph or greater were a large source of fatal crashes in the Knoxville Region, according to the Crash Profile analysis. Refer to the Crash Profile analysis for specific countermeasures that an help improve safety for these users and pair with Strategies D.1, D.2, and PR.1.

Sample Performance Measure: Decrease in numbers of traffic deaths and serious injuries associated with motorcycle crashes on roads with a speed limit of 35 mph or greater.

Timeline:

Cost:

$$

Action Lead:

TDOT

Local Governments

Organizational Needs

DESIGN

D.9 IMPROVE PEDESTRIAN AND BICYCLE INFRASTRUCTURE AND ADDRESS GAPS.

Enhance pedestrian and bicycle safety and fill gaps in the network by contextually implementing proven safety countermeasures where necessary. These could include Americans with Disabilities Act (ADA) retrofits and treatments such as new and/or improved midblock crossings, roundabouts, sidewalks, bicycle infrastructure, and curb extensions. This strategy should coordinate with Strategies D.1 and D.2.

Sample Performance Measure: Facilities added and gaps filled.

Timeline:

Cost:
$$$

Action Lead:
TDOT
City of Knoxville
Other

Organizational Needs

D.10 EXPAND THE CITY OF KNOXVILLE'S NEIGHBORHOOD TRAFFIC SAFETY PROGRAM.

Expanded program could include additional collaboration between the Office of Neighborhood Empowerment, the Engineering Department, and Knoxville Police Department; developing the framework for public education and community engagement; establishing new partnerships with community organizations; and emphasizing the need to slow streets with design and enforcement.

Sample Performance Measure: Corridors improved through program.

Timeline:

Cost:
$$

Action Lead:
City of Knoxville

Organizational Needs

Policy Changes

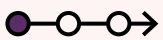
LAND USE

L.1 TARGETED REDUCTIONS TO OFF-STREET PARKING REQUIREMENTS.

Reducing government mandates to provide off-street parking can help make areas more walkable and mitigate vehicle conflicts with vulnerable road users, as well as reducing development costs. This strategy could be coordinated with access management policy efforts in Strategy PO.4.

Sample Performance Measure: Review of jurisdictions reducing their parking requirements.

Timeline:



Cost:

$$

Action Lead:

Local Governments

Organizational Needs

Policy Changes

L.2 REQUIRE NEW DEVELOPMENTS TO CONSIDER BICYCLE AND PEDESTRIAN IMPACTS.

A thorough analysis of the effect of new developments on bicycle and pedestrian travel, coupled with effective and appropriate mitigations, can improve roadway safety by ensuring that the needs of vulnerable road users are emphasized as a municipality grows. Long term, this could also contribute to lowering the high proportion of serious and fatal crashes for pedestrians along arterials in commercial areas in the City of Knoxville that was cited in the Crash Profile analysis.

Sample Performance Measure: Percent of jurisdictions specifically considering bicycle and pedestrian impacts in new development proposals.

Timeline:

Cost:

$$

Action Lead:

Local Governments

Organizational Needs

Policy Changes

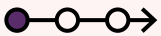
LAND USE

L.3 EXPAND BICYCLE PARKING REQUIREMENTS IN APPROPRIATE LOCATIONS.

Bicycle parking requirements could be expanded and unbundled from vehicle parking. This could support multimodal transportation by advancing the feasibility of bicycle travel for short trips in densely populated areas, and ultimately improving safety for those users.

Sample Performance Measure: Percent of jurisdictions implementing new unbundled bicycle parking requirements.

Timeline:



Action Lead:

Local Governments

Organizational Needs

Policy Changes

L.4 EXPAND PEDESTRIAN- AND TRANSIT-ORIENTED DESIGN STANDARDS FOR DEVELOPMENTS.

Design standards are present in many zoning districts, and can help create safer and more comfortable streets for pedestrians, bicyclists, and transit users. For example, pedestrian-oriented building frontage requirements can frame pedestrian spaces and calm vehicle traffic.

Sample Performance Measure: Percent of jurisdictions implementing new pedestrian- or transit-oriented development design standards.

Timeline:

Action Lead:

Local Governments

Organizational Needs

Policy Changes

LAND USE

L.5 ANALYZE REGIONAL BARRIERS TO COMPACT DEVELOPMENT.

Reducing barriers to compact development can help facilitate denser development patterns where they are already intended to occur, which makes pedestrian travel easier and safer by reducing distances between destinations in high-activity areas. This strategy should be coordinated with Strategy L.1, since high off-street parking requirements can make compact developments less feasible.

Sample Performance Measure: Number of barriers identified and mitigated.

Timeline:

Action Lead:

Local Governments

Organizational Needs

Policy Changes

PLANS

PL.1 INCORPORATE THE HIN, CRASH PROFILES AND PREDICTIVE ANALYSIS RESULTS INTO FUTURE PLAN UPDATES.

Ensuring that HIN is referenced in future plans and plan updates will carry recommendations forward for future implementation where needed, and potentially improve future funding applications.

Sample Performance Measure: The HIN integrated into every relevant plan.

Timeline:

Action Lead:

Knoxville TPO

Organizational Needs

Policy Changes

PLANS

PL.2 UPDATE THE KNOXVILLE TPO COMPLETE STREETS PLAN AND COORDINATE WITH REGION.

Strategy D.4 notes the need for regional Complete Streets design standards coordination, which may be best achieved through an update and re-examination of the Knoxville TPO Complete Streets Plan to act as a model for the region.

Sample Performance Measure: Knoxville TPO Complete Streets Plan revised/updated.

Timeline:

Cost:

$

Action Lead:

Knoxville TPO

Organizational Needs

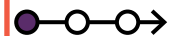
Policy Changes

PL.3 AUDIT BUS STOPS ALONG THE HIN TO IDENTIFY BOTH QUICK BUILD STRATEGIES AND LONG-TERM IMPROVEMENTS NEEDED, INCLUDING ADA COMPLIANCE.

Safe access to transit is essential, and safety issues can arise for vulnerable users when transit stops lack comfortable and accessible connections. Transit stop improvements could include a variety of interventions such as relocations to enhance safety, ADA improvements, or the addition of rider amenities to improve comfort and accessibility.

Sample Performance Measure: Percent of regional bus stops audited. Number of bus stops improved.

Timeline:



Cost:

$

Action Lead:

Knoxville Area Transit

Organizational Needs

Policy Changes

POLICIES

PO.1 ADVANCE REGIONAL VISION ZERO POLICIES AND HIRE OR APPOINT A VISION ZERO COORDINATOR.

Tackling traffic safety is not new to the Knoxville TPO, however the Knoxville TPO could lead coordination among policies and provide technical assistance for communities wishing to implement or update their own policies.

Sample Performance Measure: Vision Zero Coordinator hired or appointed. Percent of regional organizations adopting Vision Zero policies.

Timeline:

Cost:

$$

Action Lead:

Knoxville TPO

Organizational Needs

Policy Changes

Staff Needs

PO.2 MONITOR AND IMPROVE EXISTING SAFETY POLICIES.

The Safety Practice Assessment noted that there are a variety of safety policies throughout the region. The Knoxville TPO could assist with tracking these policies, and TDOT and local governments should continually monitor and evaluate these policies for ongoing improvements.

Sample Performance Measure: Number of safety policies adopted or improved in each local jurisdiction tracked by the TPO.

Timeline:

Action Lead:

Knoxville TPO

Organizational Needs

Policy Changes

POLICIES

PO.3 DIVERSIFY SAFETY FUNDING SOURCES AND IDENTIFY DEDICATED FUNDING FOR VULNERABLE ROAD USER SAFETY IMPROVEMENTS.

Dedicated funding, such as reliable grant funding or new dedicated funding sources, can help improve vulnerable road user safety more quickly by making a larger, more consistent pool of funding available.

Sample Performance Measure: Total amount of dedicated funding.

Timeline:

Cost:

$$$

Action Lead:

TDOT

Local Governments

Organizational Needs

Policy Changes

PO.4 DEVELOP/UPDATE ACCESS MANAGEMENT POLICIES TO REDUCE DRIVEWAY CONFLICTS.

The Crash Profile analysis found that there were many vehicular traffic deaths in commercial areas. Access management policies can help address this by reducing conflicts along busy commercial corridors, making the roadway environment safer for all users.

Sample Performance Measure: Percent of jurisdictions/ organizations with updated access management policies.

Timeline:

Action Lead:

TDOT

Local Governments

Organizational Needs

Policy Changes

POLICIES

PO.5 EXAMINE OPPORTUNITIES FOR LOWERING SPEED LIMITS ON COMMERCIAL ARTERIALS.

Lowering speed limits on areas with a lot of conflicts between users can lower stopping distance, lower the likelihood of serious or fatal crashes, and greatly improve safety for all users. This strategy can also help address the Crash Profile analysis's finding of high proportions of both vehicular and pedestrian traffic deaths and serious injuries in commercial areas and arterials. Lower speed limits should be implemented in coordination with Strategies D.1, D.2, PR.1, and PR.4.

Sample Performance Measure: Percent of local roadway network with reduced speed limit (where applicable) and accompanied by relevant supporting strategies.

Timeline:

Cost:

$

Action Lead:

TDOT

Local Governments

Organizational Needs

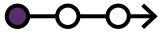
Policy Changes

PO.6 PROVIDE FOR PEDESTRIAN AND BICYCLE MOBILITY IN EXISTING OR NEW MAINTENANCE OF TRAFFIC POLICIES.

Vulnerable road users should be provided with safe routes when construction projects or road work disrupt connections.

Sample Performance Measure: Maintenance of traffic policies implemented or improved that contain bicycle and pedestrian mobility requirements.

Timeline:



Action Lead:

TDOT

Local Governments

Organizational Needs

Policy Changes

PROGRAMS

PR.1 DEVELOP TARGETED ROADWAY SAFETY EDUCATION AND ENFORCEMENT PROGRAMS.

Education and enforcement programs are most effective when paired together and/or with other safety improvements such as design changes. There should be clear and consistent messaging that includes high-quality materials that community stakeholders can distribute. Specific behaviors and groups can be targeted, which should be coordinated with findings in the Crash Profile analysis. Public outreach also showed that vehicle speeds, distracted driving, aggressive driving, and drivers failing to yield to pedestrian and bicyclists were the top four concerns of respondents, so these should be among the targeted behaviors.

Sample Performance Measure: Reach and number of safety education and awareness programs.

Timeline:

Cost:
$$

Action Lead:
TDOT
Knoxville TPO

Organizational Needs

Policy Changes

Staff Needs

PR.2 PRIORITIZE VULNERABLE ROAD USER FACILITY MAINTENANCE.

Improper facility maintenance can create safety hazards and additional conflict points with vehicles. For example, debris in bicycle lanes can cause cyclists to take evasive action into vehicle lanes, and barriers on sidewalks can make a sidewalk unusable for pedestrians.

Sample Performance Measure: Should measure proactive improvements in addition to tracking improvements to infrastructure.

Timeline:

Cost:
$$$

Action Lead:
TDOT
Local Governments

Organizational Needs

Policy Changes

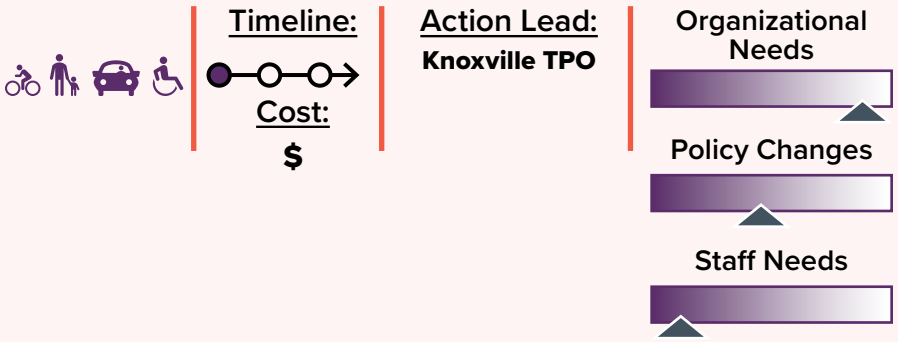
Staff Needs

PROGRAMS

PR.3 SPREAD AWARENESS OF AND PARTICIPATION IN SMART TRIPS, THE EXISTING REGIONAL TRANSPORTATION DEMAND MANAGEMENT (TDM) PROGRAM.

The regional TDM program, Smart Trips, incentivizes alternatives to single-occupancy vehicle travel through centralized information and travel rewards. Increasing visibility and knowledge of this program could improve safety by spreading awareness of the travel needs of alternative modes. This strategy could be used in conjunction with changes to roadway design or enforcement measures, such as in Strategies PR.4, PO.4, D.1, and D.2.

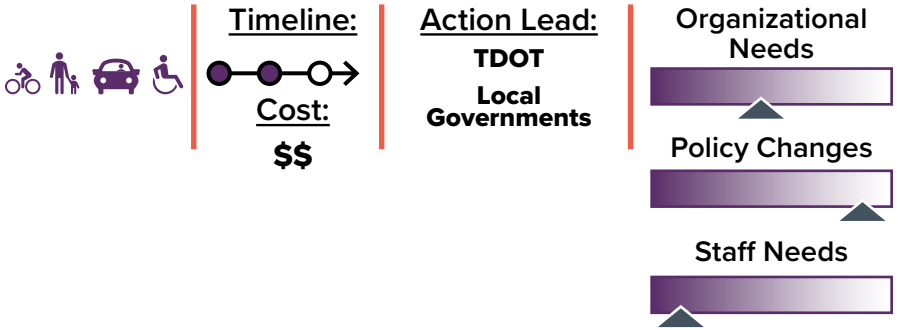
Sample Performance Measure: Number of new memberships and recorded trips in the Smart Trips program.



PR.4 EXPAND AUTOMATED ENFORCEMENT PROGRAMS.

Automated speed and/or red light enforcement programs have received very high effectiveness ratings through the National Highway Traffic Safety Administration's (NHTSA's) Countermeasures That Work. The Knoxville region can expand existing programs and pair these programs with Strategy PR.1.

Sample Performance Measure: Number of new automated enforcement efforts.



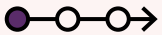
PROGRAMS

PR.5 IMPROVE CRASH DATA AND TRANSPARENCY.

Reliable crash data is essential to understanding and responding to crash patterns in the Knoxville Region. Crash data should be shared publicly and the TPO could explore ways to collect data on near misses and unreported traffic-related injuries. Data on near misses and unreported traffic-related injuries can contribute to advancing Strategy D.2.

Sample Performance Measure: Launch a regional interactive data dashboard.

Timeline:



Cost:

$$

Action Lead:

TDOT

Knoxville TPO

Organizational Needs

Policy Changes

PR.6 ESTABLISH REGIONAL SAFETY EVALUATION WORKING GROUP TO MONITOR PERFORMANCE MEASURES.

A regional working group focused on monitoring performance measures would ensure that regional progress on addressing these strategies is tracked and documented over time. The Knoxville TPO could lead the formation and organization of this working group.

Sample Performance Measure: Establishment of working group with regular distribution/posting of meeting minutes.

Timeline:

Action Lead:

Knoxville TPO

Organizational Needs

Staff Needs

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05

PRIORITY LOCATIONS + FUNDING OPPORTUNITIES

Knoxville TPO Priority Actions

We are committed to reducing deaths and serious injuries on our streets. The strategies outlined in this action plan were developed to help guide the implementation efforts of Knoxville TPO and its partners to improve safety in Knoxville.

ACTION ITEMS

The following immediate action items are intended to be the priority steps that Knoxville TPO will take toward implementing the Regional Roadway Safety Action Plan. We're committed to making the Knoxville Region safer for all users, and we will update these action steps annually based on performance and progress.

PRIORITY PROJECTS

Priority projects will be identified using the HIN and predictive analysis. These will be detailed with planning-level cost estimates, and implementation will be pursued over time in accordance with the Action Plan Framework and through the various funding sources listed in Table 4.

PRIORITY ACTIONS

- Apply for Knoxville Regional Safe Streets and Roads for All Implementation Grant
- Conduct a regional roadway safety education and encouragement campaign
- Oversee the Regional Roadway Safety Task Force
- Collaborate with TDOT to prioritize, fund, and implement safety improvements along the state maintained HIN.
- Maintain crash data quality and transparency
- Make annual progress on implementing safety policy and program recommendations
- Monitor progress towards significantly reducing traffic fatalities and severe injuries by 2045

REGIONAL ROADWAY SAFETY CAMPAIGN

WHY IS THIS A PRIORITY?

An effective roadway safety marketing and education campaign will raise awareness about safety initiatives and educate all roadway users.

The campaign will feature both proactive safety messaging and a data-driven approach, responding to this study's crash findings in order to target specific behaviors. Specific behaviors and groups (and potentially HIN locations) would be targeted, coordinated with the findings of this safety plan's crash profile analysis.

CAMPAIGN TASKS + BUDGET

Knoxville TPO, and its partners, will develop a targeted, strategic roadway safety campaign to include a communications plan and brand identity for the Knoxville region's safety program as well as developing marketing and educational materials; printing collateral and developing promotional items (posters, postcards, yard signs, t-shirts, etc.); identifying audiences; developing innovative media ads (cell phone banners, convenience store and gas station displays, smart TVs, radio, buses, marquees, etc.); conducting outreach to residents, non-profits, students, community partners; developing earned and paid media strategies; and more. The TPO will coordinate efforts of the campaign with both internal and external partners to leverage resources and outreach activities to expand the reach of the campaign.

Task	Budget	Timeframe
Safety Campaign Planning Stakeholder Interviews and Listening Sessions; Marketing Strategy and Communications Plan	$50,000	Year 1 (Months 1-5)
Materials Production Messaging Development; Branding and Design; Production; Media Procurement and Print Management	$200,000	Year 1 (Months 5-12)
Campaign Implementation Community Outreach and Event Coordination; Campaign Coordination and Monitoring; Additional Collateral Production	$175,000	Year 2 (Months 12-22)
Campaign Evaluation Survey; Field Observations; Final Report and Summary	$75,000	Year 2 (Months 22-24)

CASE STUDY: ROANOKE SAFETY CAMPAIGN

The City of Roanoke developed three annual safety campaigns focused on crosswalk compliance (2020), traffic speed (2021), and traffic safety in school zones (2022), all funded by the Virginia Department of Motor Vehicles. The campaigns included robust paid media advertising, community outreach, and partnerships with local organizations.

The goal of the **crosswalk compliance campaign** was to help reduce the number of pedestrian-involved crashes in Roanoke and increase compliance with Virginia state law at crosswalks by both pedestrians and drivers. Education was focused on drivers and the law that requires that they stop for pedestrians at all marked and unmarked crosswalks, and to encourage pedestrians to be predictable by crossing at the corner or a designated crosswalk. Campaign materials emphasize that in Virginia, every corner is a crosswalk. Based on citywide online surveys conducted before and after the campaign, knowledge of the VA law that every intersection is a crosswalk whether it is painted or not increased by 12%

The goal of the **traffic speed campaign** was to reduce speeding and speed-related crashes and increase awareness of speeding as a pedestrian safety issue. The City completed traffic speed analyses to identify and prioritize locations to focus on in the No Need to Speed campaign. Although the campaign aimed to reach residents citywide (and did with an estimated 93% of the City's population), the selected corridors served as a basis for the campaign approach and locations for traffic speed studies. In order to evaluate the campaign's effectiveness, two online community surveys were conducted (one before the campaign and one after). The campaign produced nearly a 5% increase in the perception of speeding as a problem from before to after the campaign.

Transit ad displayed in city buses for the Crosswalk Compliance Campaign

Yard sign made available free of charge to residents for the Traffic Speed Campaign

ROADWAY DEPARTURE CRASHES

WHY IS THIS A PRIORITY?

Addressing roadway departure crashes will help address a major source of crashes outside of urban areas in the Knoxville TPO region.

A roadway departure crash occurs when a vehicle crosses outside of its travel lane, either by departing the roadway or crossing over the center line into oncoming traffic. It represented one of the top crash profiles for the Knoxville TPO region.

From 2016 to 2018 roadway departures resulted in an average of 19,158 fatalities, which is 51 percent of all traffic fatalities in the United States. This crash type is especially prevalent on rural roadways, where it accounts for one-third of traffic fatalities nationally. Chapter 3 contains a list of general potential countermeasures for this crash profile.

The map on page 55 highlights corridors in the TPO region that were selected as being most susceptible to this type of crash.

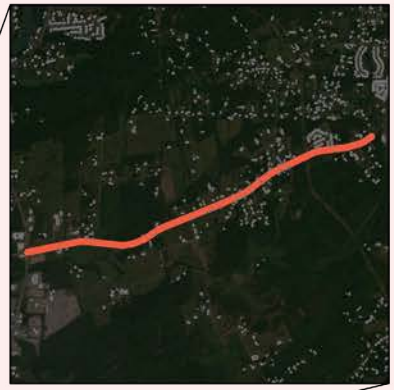
COUNTERMEASURE TOOLBOX (SEE ALSO PG. 29)

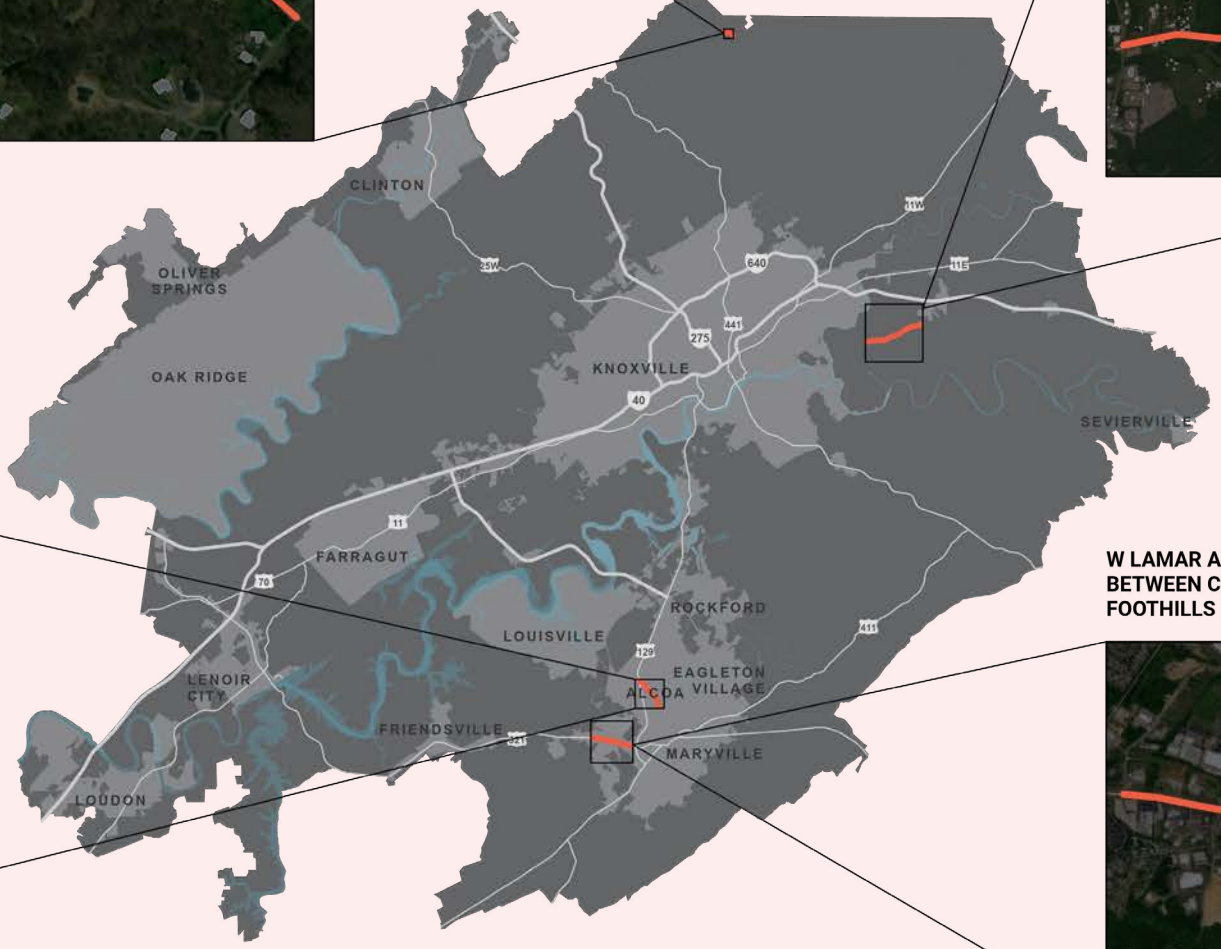
- Shoulder rumble strips
- Centerline rumble strips
- Safety edge
- Widening shoulders
- Flatten side slopes
- High friction surface treatment
- Speed feedback signs
- Raised pavement markers
- New edge lines
- Wider edge lines
- Fluorescent curve signs
- Chevron signs on curves
- Lighting
- Guardrail
- In-lane curve markings
- Cable median barriers

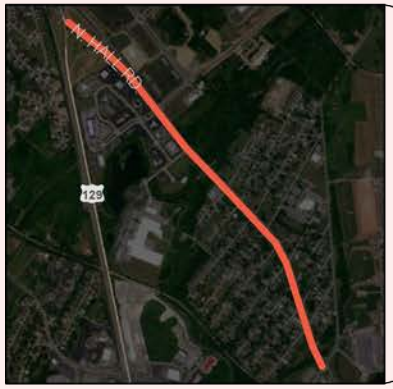
ROADWAY DEPARTURE PRIORITY PROJECTS

LOYSTON ROAD BETWEEN TOLSON LANE AND OLD MAYNARDVILLE PIKE

STRAWBERRY PLAINS PIKE BETWEEN E. GOVERNOR JOHN SEVIER HWY AND OSBORNE ROAD







N HALL ROAD BETWEEN 129 RAMP AND E BESSEMER ST

W LAMAR ALEXANDER PARKWAY BETWEEN CLYDESDALE ST AND FOOTHILLS MALL DR

LEFT TURN CRASHES

WHY IS THIS A PRIORITY?

Left turn crashes was one of the most significant factors resulting in death and serious injury in crashes in the Knoxville TPO region. Addressing this crash type will improve safety in a variety of urban and rural contexts.

A left turn crash occurs when a vehicle makes a left turn and either strikes, or is struck by, another vehicle at an intersection or driveway. It represented one of the top crash profiles for the Knoxville TPO region.

The map on page 57 highlights corridors in the TPO region that were selected as being most susceptible to this type of crash.

COUNTERMEASURE TOOLBOX (SEE ALSO PG. 26)

- Reduced conflict intersections
  - » Signalized and unsignalized
- Median u-turn
- Protected left turn movements
- Flashing yellow arrow traffic signals
- Retroreflective backplates
- Roundabouts
- Red light cameras
- Application of multiple low-cost countermeasures at stop-controlled intersections
- Centerline hardening

LEFT-TURN CRASHES PRIORITY PROJECTS

TEXAS VALLEY ROAD BETWEEN OLD MAYNARDVILLE PIKE AND OLD TEXAS VALLEY ROAD

S TULANE BETWEEN OAK RIDGE TURNPIKE AND S ILLINOIS AVENUE

STRAWBERRY PLAINS PIKE BETWEEN STEVIE ROAD AND 25W

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City of Knoxville Priority Actions

We are committed to reducing deaths and serious injuries on our streets. The strategies outlined in this action plan were developed to help guide the implementation efforts of the City and its partners to improve safety in Knoxville.

ACTION ITEMS

The following immediate action items are intended to be the priority steps the City will take toward implementing the Vision Zero Action Plan. While this is an aggressive approach, we're committed to making Knoxville safer for all users, and we will update these action steps annually based on performance and progress.

PRIORITY PROJECTS

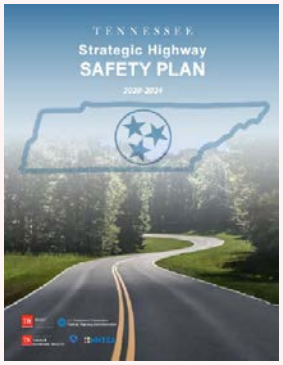
Priority projects will be identified using the HIN and predictive analysis. These will be detailed with planning-level cost estimates, and implementation will be pursued over time in accordance with the Action Plan Framework and through the various funding sources listed in Table 4.

PRIORITY ACTIONS

- Apply for Safe Streets and Roads for All Implementation Grant for priority projects.
- Support the Knoxville Vision Zero Steering Committee.
- Collaborate with TDOT to prioritize, design, and fund safety projects on the HIN that are state maintained.
- Implement safety improvements along the HIN prioritizing Tier 1 project segments.
- Conduct demonstration projects to test new design ideas, engage the public, and implement safety improvements faster.
- Evaluate success towards the goal of zero traffic deaths and severe injuries.
- Launch a transparent data dashboard.

Partnering with TDOT

TDOT is responsible for the construction and maintenance of state roads. State roadways are typically higher speed and higher capacity roadways, and thus see a significant portion of severe crashes. TDOT plays a vital role in efforts to reduce the number of severe roadway crashes in the Knoxville region and across the state.

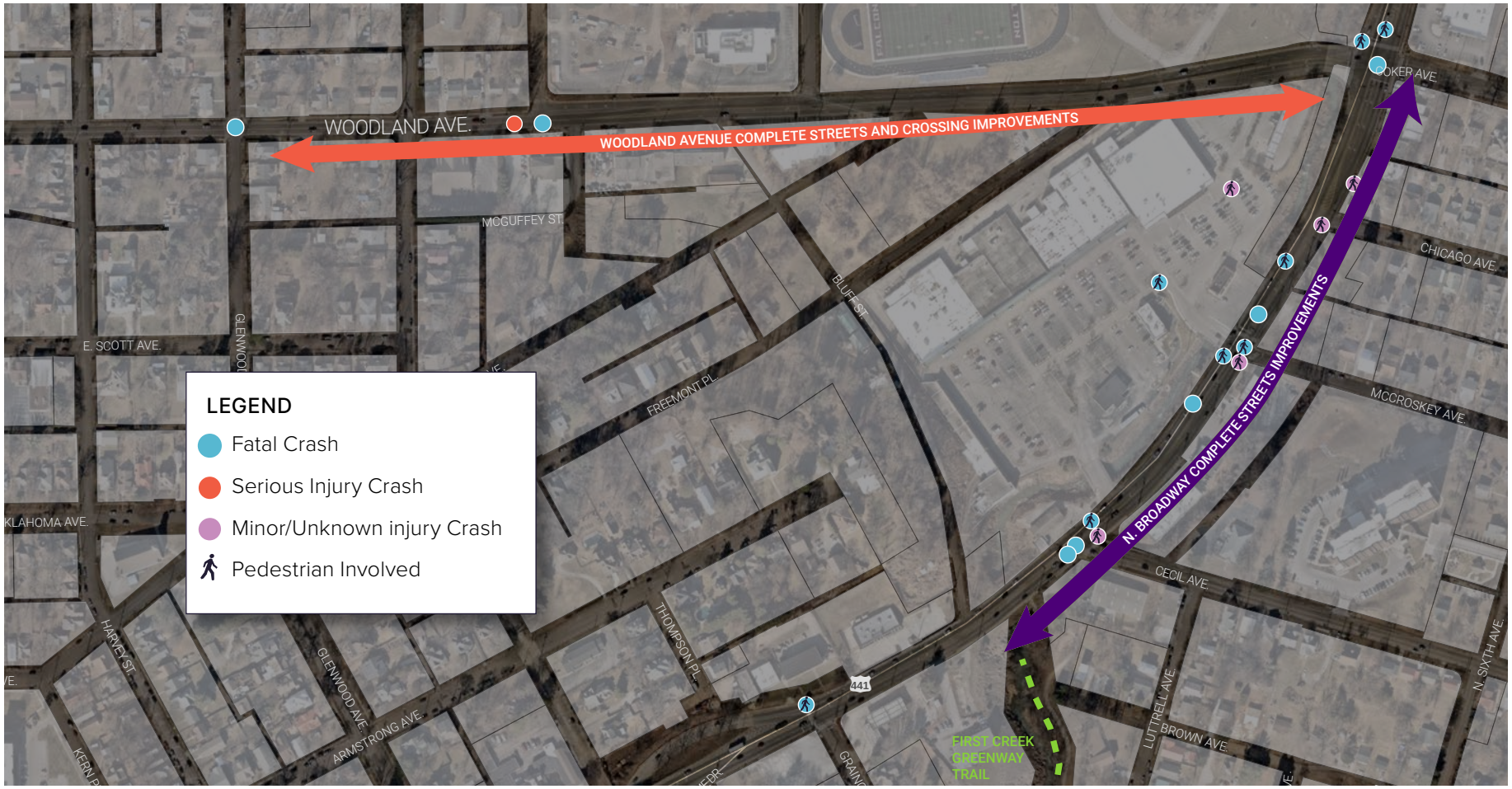


TDOT's Strategic Highway Safety Plan is the statewide road map to identify and mitigate safety concerns. The SHSP commits the state to moving toward zero fatalities and serious injuries on its roadways.

Key Departments within TDOT include:

- **The Region 1 Office**
  - » Oversees operations and design of TDOT routes in the region.
- **Traffic Operations**
  - » Responsible for the Traffic Management Center and Traffic Incident Management program, perform traffic engineering studies, prepare traffic signal, roadway lighting, and roadway signage designs.
- **Multimodal Division**
  - » Supports mobility for all through public transportation, bicycle and pedestrian infrastructure, complete streets, and Travel Demand Management. They also manage the Pedestrian Road Safety Initiative (PRSI) and Multimodal Access Grant (MMAG) program.
- **Long Range Planning**
  - » Responsible for planning, developing, and managing statewide transportation studies and planning tools that help guide statewide policy for the department. This division collects and maintains eTRIMS, the roadway inventory database, and manages the Congestion Mitigation and Air Quality and TDOT MMAG grant programs. They also oversee the Corridor Management Agreements, focusing on access management.
- **Roadway Design**
  - » Responsible for oversight of roadway design standards and policy updates. They also ensure roadway plans meet state and federal guidance.
  - » Provides geometric designs of state controlled roadways.

PRIORITY ACTION: NORTH BROADWAY / WOODLAND AVENUE



PRIORITY ACTIONS

Both Broadway and Woodland Avenue present opportunities for targeted investments in high-crash corridors. Improvements on N Broadway include adding a shared-use path. This would also provide a valuable connection to the First Creek Greenway trail. On E Woodland Avenue, improvements include a shared-use path, reducing travel lanes from four to two, an on-road bike lane, and a refuge island at Fulton High School.

PRIORITY ACTION: E MAGNOLIA AVENUE

PRIORITY ACTIONS

Improvements on E Magnolia Avenue are focused on two key intersections: Cherry Street and Hembree Street, although complete street improvements to benefit all roadway users are also recommended. Magnolia Ave is a 5-lane roadway with a wide outside shoulder. The intersection between Magnolia and Hembree Street was the site of a pedestrian fatality and currently there is no safe way to cross Hembree Street. The roadway here is above 70 feet wide. Crosswalks should be added to all legs of the intersection, with enhanced pedestrian protection through curb extensions, RRFBs or PHBs, and a pedestrian refuge island.

Funding Opportunities

The transformative actions needed to achieve zero traffic deaths will require a significant financial commitment. Fortunately, this does not fall entirely on local governments to fund. The USDOT established historic discretionary grant awards for safety planning and implementation through the Safe Streets and Roads for All (SS4A) program, which is set to fund $1 billion in projects each year through 2026 (five years total). In addition to this huge federal investment in safety, other federal grant programs, and state programs can be used to leverage existing funds from the local governments.

Table 4. State & Federal Funding Programs

Funding Program	Administering Agency	Description and Eligible Recipients	Local Match
Federal Highway Safety Improvement Program (HSIP)	TDOT	"Umbrella" safety program that funds different programs like a Road Safety Audit and PRSI. Communities across TN. This is not a grant program, rather TDOT applies funding based on state priorities.	N/A
Pedestrian Road Safety Initiative (PRSI)	TDOT	Safety improvement program for pedestrian-related severe crashes. Cities and counties are eligible but not a grant application progress. This program is funded through the larger HSIP program.	N/A
Tennessee Highway Safety Office (THSO)	THSO	Grant program focusing on changing driver behavior. Cities, counties are eligible.	Varies
Transportation Planning Grant (TPG)	TDOT	Competitive grant program used to fund planning related to safety, congestion and access management for cities and counties. Available to communities within Metropolitan Planning Organization (MPO) areas across the state. The max award in 2023 is $200K.	20%
Transportation Alternatives Program (TAP)	TDOT/TPO	Local community enhancement grant. Cities are eligible. The average award is $350,000.	20%
Congestion Mitigation and Air Quality Improvement (CMAQ)	TDOT	Provides funding for air quality improvement and congestion reduction projects. Air quality nonattainment or maintenance communities.	0-20%

Funding Program	Administering Agency	Description and Eligible Recipients	Local Match
Surface Transportation Block Grant (STBG)	TDOT/TPO	Flexible transportation program used to fund a variety of programs. Cities, counties, and state are eligible.	20%
Safe Streets for All (SS4A)	FHWA (state or local entity may administer project, working with FHWA if awarded)	Competitive grant; $1.2B available in FY23 for planning and implementation.	20%
RAISE (Rebuilding American Infrastructure with Sustainability and Equity)	FHWA (state or local entity may administer project, working with FHWA if awarded)	$7.5B over 5 years ($1.5B/year); funding for transportation projects (multimodal projects that address equity and safety will be favored under current administration). The maximum funding award is approximately $30M.	20% but projects with a higher local match are typically more competitive. Disadvantage communities may be eligible for local match waiver.
Active Transportation Infrastructure Investment	FHWA (state or local entity may administer project, working with FHWA if awarded)	$1B over 5 years ($200M/year); funding for active transportation projects.	N/A
Reconnecting Communities	FHWA (state or local entity may administer project, working with FHWA if awarded)	$500M (and up to $1B in future appropriation); competitive grant program for planning or construction.	N/A
Healthy Streets	FHWA (state or local entity may administer project, working with FHWA if awarded)	$500M for programs that address urban heat island.	N/A
Carbon Reduction Program	TDOT/TPO	$139M over 5 years for the State of Tennessee; will be distributed through MPOs and the state; flexibility for each state so uncertain how this will trickle down. Active transportation and trail projects may be funded.	20%
Multimodal Access Grant (MMAG)	TDOT	TDOT's MMAG is a state-funded program created to support the transportation needs of pedestrians, bicyclists, and transit users through infrastructure projects that address existing gaps along state routes. Projects in Distressed/At-Risk Counties: 95% of total project budget, up to a maximum award of $1,187,500 Project in All Other Counties: 90% of total project budget, up to a maximum award of $1,125,000	5%-10%

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APPENDIX

TPO CORRIDOR LIST

Corridor Length (miles)	Street Name	To	From	County	City/Town	Full/ Partial Lighting	Max Number of Lanes	Max Speed Limit (mph)	Max HIN Index	Max HIN Tier
4.84	W. BROADWAY AVE.	Foxglove Ln	Cooper St	Blount County	Maryville	YES	4	50	116.78	Tier 1
0.69	WHIPP RD.	New Zion Patrol Rd	Lagoon Rd	Roane County	Oak Ridge	NO	4	55	101.76	Tier 1
1.77	E. LAMAR ALEXANDER PKWY.	Hwy 321	Grandview Dr	Blount County	Maryville	YES	4	55	98.04	Tier 1
2.43	CLINTON PK.	Stewart Run Way	Old Callahan Dr	Knox County	Knoxville	YES	5	55	97.95	Tier 1
0.95	E. EMORY RD.	Fortner Ln	Dixon Spring Ln	Knox County	Halls	YES	4	40	97.62	Tier 1
0.59	STRAWBERRY PLAINS PK.	Kennedy Rd	Moshina Rd	Knox County		YES	4	45	93.70	Tier 1
1.03	OAK RIDGE HWY.	Pebble Pass Rd	Hackworth Rd	Knox County		YES	4	55	92.85	Tier 1
0.55	W. GOV. JOHN SEVIER HWY.	Asheville Hwy	I-40	Knox County	Knoxville	YES	4	50	92.52	Tier 1
0.52	CHAPMAN HWY.	E Simpson Rd	Burnett Ln	Knox County	Seymour	YES	6	55	92.31	Tier 1
1.72	S. ILLINOIS AVE.	Badger Ave	Centrifuge Way	Anderson County	Oak Ridge	YES	6	45	88.43	Tier 1
0.86	E. EMORY RD.	Stormer Rd	Brackett Rd	Knox County		NO	3	45	85.22	Tier 1
1.67	SCHAAD RD.	Ball Camp Pike	Pleasant Ridge Rd NW	Knox County	Knoxville	YES	4	45	82.48	Tier 1
0.53	DOUGLAS DAM RD.	Clear Creek Way	Piney Rd	Sevier County		NO	2	45	78.44	Tier 1
1.32	TAZEWELL PK.	Carter Rd	McKinnon Ridge Ln	Knox County		YES	3	50	77.84	Tier 1
0.54	MARYVILLE HWY.	Colonial Cir	Chapman Hwy SE	Sevier County	Seymour	NO	2	45	77.45	Tier 1
0.57	CHAPMAN HWY.	Marine Way	Newell Village Dr	Sevier County	Seymour	YES	6	55	76.94	Tier 1
0.60	TELLICO PKWY.	Hwy 321	Tellico Reservoir Service Road	Loudon County		NO	2	55	76.86	Tier 1
0.55	EBENEZER RD.	Ebenezer Rd	Canada Geese Way	Knox County		YES	4	45	76.61	Tier 1
0.93	CENTRAL AVE. PK.	Verton Dr	Country Run Cir	Knox County	Knoxville	YES	2	40	76.51	Tier 1
0.54	NORRIS FRWY.	Whitworth Dr	Hwy 131	Knox County	Halls	NO	4	50	76.36	Tier 1
0.67	TAZEWELL PK.	Wood Rd	Old Tazwell Pike	Knox County		NO	2	45	75.38	Tier 1
0.84	E. EMORY RD.	Barnett Way	Pedigo Rd	Knox County	Knoxville	YES	4	40	75.12	Tier 1
0.56	TAZEWELL PK.	Cove Ln	Fairview Rd	Knox County		YES	3	50	70.22	Tier 1
1.03	LOVELL RD.	Cornerstone Dr	I-40	Knox County	Knoxville	YES	4	45	70.21	Tier 1
2.18	US-HWY. 25W	Mehaffey Rd	Stewart Run Way	Knox County	Powell	YES	5	50	70.10	Tier 1
0.91	US-HWY. 25W	Peaks Station Rd	Hiway Dr	Anderson County	Clinton	YES	5	50	70.05	Tier 2
0.53	NORRIS FRWY.	Gordon Smith Rd	Whitworth Dr	Knox County	Halls	NO	4	50	68.69	Tier 2
0.56	PORTERFIELD GAP RD.	W Union Valley Rd	Seymour CDP Limits	Knox County	Seymour	--	2	45	68.11	Tier 2
0.26	AIRPORT PLAZA DR.	Hwy 129	Wright Rd N	Blount County	Alcoa	YES	2	0	65.80	Tier 2
0.54	KARNS VALLEY DR.	Dade Dr	Westcott Blvd	Knox County		NO	2	30	65.17	Tier 2
0.91	ASHEVILLE HWY.	Cash Rd	Wildow Newman Ln	Knox County		YES	4	55	64.46	Tier 2
1.44	E. TRI-COUNTY BLVD.	Hannah Dr	Fowler St	Anderson County	Oliver Springs	YES	5	45	63.37	Tier 2
0.15	EXIT CHAPMAN HWY.	Hwy 168	Chapman Hwy	Knox County	Knoxville	--	2	0	62.50	Tier 2
0.97	OAK RIDGE TURNPIKE	Dresden Rd	Athens Rd	Anderson County	Oak Ridge	YES	5	55	62.00	Tier 2
0.78	MORGANTON RD.	Dave Ln	County Farm Rd	Blount County		NO	2	45	61.93	Tier 2
0.28	BOYDS CREEK HWY.	Island Blvd	Oak View Dr	Sevier County	Sevierville	YES	2	45	61.64	Tier 2
1.27	MARTIN MILL PK.	At Crumley Rd	Andy Harris Rd	Blount County		NO	2	40	61.59	Tier 2
0.46	W. LAMAR ALEXANDER PKWY.	Belfast St	Simmons St	Blount County	Maryville	YES	5	65	61.57	Tier 2
0.55	WESTLAND DR.	Burch Cove Way	Andover View Ln	Knox County		NO	2	40	61.51	Tier 2
0.75	STATE HWY. 61	Old Beatty Rd	Brooks Rd	Anderson County		NO	4	55	60.80	Tier 2
1.03	PARKSIDE DR.	N Campbell St	Turkey Cove Ln	Knox County	Knoxville	YES	4	40	59.89	Tier 2
0.79	CHAPMAN HWY.	Litton Dr	Garner Hollow Ln	Sevier County		NO	4	55	57.09	Tier 2
0.53	LOUISVILLE RD.	Iris St	Louisville Rd	Blount County	Alcoa	YES	5	45	54.97	Tier 2
1.08	ANDREW JOHNSON HWY.	Arms Rd	Dragonfly Way	Knox County		--	4	55	54.92	Tier 2
0.51	LOVELL RD.	Plumb Branch Rd	Hickey Rd	Knox County		YES	4	45	54.61	Tier 2
1.18	OAK RIDGE TURNPIKE	Adams Ln	N Tulane Ave	Anderson County	Oak Ridge	YES	5	55	54.25	Tier 2
0.81	MAYNARDVILLE PK.	Cunningham Rd	Shotsman Ln	Knox County	Knoxville	YES	4	55	54.24	Tier 2
0.71	OAK RIDGE HWY.	Guinn Rd	Joe Daniels Rd	Knox County		YES	4	55	54.16	Tier 2

TPO CORRIDOR LIST (CONTINUED)

Corridor Length (miles)	Street Name	To	From	County	City/Town	Full/ Partial Lighting	Max Number of Lanes	Max Speed Limit (mph)	Max HIN Index	Max HIN Tier
1.07	CHAPMAN HWY.	Exit Chapman Hwy	Lobelia Ln	Knox County	Knoxville	YES	6	55	53.86	Tier 2
0.96	CHAPMAN HWY.	Whites School Rd	E Simpson Rd	Knox County		YES	6	55	53.85	Tier 2
0.27	W. HENDRON CHAPEL RD.	Tipton Station Rd	Chapman Hwy	Knox County		NO	2	40	53.69	Tier 2
0.23	KINGSTON PK.	N Seven Oaks Dr NW	Essex Rd	Knox County	Knoxville	YES	6	45	53.50	Tier 2
1.01	KINGSTON PK.	West End Ave	Farlow Dr	Knox County	Farragut	YES	6	45	53.50	Tier 2
0.63	KINGSTON PK.	Everett Rd	N Fox Den Dr	Knox County	Farragut	YES	6	45	53.20	Tier 2
0.51	WASHINGTON PK.	Golden Pond Way	Ellistown Rd	Knox County		YES	2	45	51.31	Tier 2
1.09	BEAVER CREEK DR.	Green Estates Way	Dry Gap Pike NE	Knox County	Halls	NO	2	40	50.80	Tier 2
0.31	FOOTHILLS MALL DR.	W Lamar Alexander Pkwy	Hwy 129	Blount County	Maryville	YES	4	45	50.14	Tier 2
0.15	THEBES LN.	Thebes Ln western terminus	Thebes Ln eastern terminus	Knox County		YES	2	0	50.00	Tier 2
0.19	TYRONE DR.	Engert Rd	Tyronne Dr terminus	Knox County		--	2	0	50.00	Tier 2
0.41	GEORGE WILLIAMS RD.	School Acc	S Peters Rd	Knox County		NO	3	30	49.10	Tier 2
0.44	JOE HINTON RD.	Jenkins Creek Ln	Marty McGuiness Cir	Knox County		NO	2	30	47.54	Tier 2
0.63	WASHINGTON PK.	McCampbell Dr	Luttrell Rd	Knox County	Knoxville	YES	4	45	47.44	Tier 2
0.51	S. CHARLES G. SEIVERS BLVD.	Willow St	E Broad St	Anderson County	Clinton	YES	4	45	47.31	Tier 2
0.80	NORRIS FRWY.	Prayer Ln	E Raccoon Valley Dr	Knox County		NO	2	50	47.23	Tier 2
1.02	US-321	Town Creek Pkwy	Highland Park Dr	Loudon County	Lenoir City	YES	5	55	46.91	Tier 2
0.56	US-HWY. 25W	Old State Cir	Mehaffey Rd	Anderson County		YES	5	50	46.73	Tier 2
0.47	MONTVALE RD.	Belwood Dr	N Heritage Dr	Blount County	Maryville	YES	2	45	46.71	Tier 2
0.51	US-HWY. 25W	Wilbrook Ln	Peaks Station Rd	Anderson County		YES	5	50	46.70	Tier 2
0.49	BALL CAMP PK.	Schaad Rd	Barnard Rd	Knox County		NO	2	40	46.60	Tier 2
0.41	E. EMORY RD.	Willow Fork Ln	Hwy 33	Knox County	Halls	NO	3	45	46.46	Tier 2
0.57	MIDDLEBROOK PK.	Andrewbrook Ln	Fox Lonas Rd	Knox County		YES	4	50	46.45	Tier 2
0.71	MORGANTON RD.	Morganton Rd	Peak Way	Blount County		NO	2	45	46.43	Tier 2
0.77	TOPSIDE RD.	Top Hill Rd	Hwy 129	Blount County	Alcoa	NO	3	45	46.31	Tier 2
0.40	CHAPMAN HWY.	Newell Village Dr	Down Home Park Ln	Sevier County	Seymour	YES	6	55	46.16	Tier 2
0.49	W. BEAVER CREEK DR.	Clinton Hwy	Small Creek Way	Knox County	Powell	NO	2	40	46.14	Tier 2
0.49	BYINGTON-BEAVER RIDGE RD.	Byington Solway Rd	Dolph Dr	Knox County	Karns	NO	2	35	46.00	Tier 2
0.52	EDGEMOOR RD.	Centennial Village Dr	Park Meade Dr	Anderson County	Oak Ridge	NO	3	55	45.31	Tier 2
0.56	EDGEMOOR RD.	Old Edgemoor Ln	Clinton Hwy	Anderson County		NO	3	55	45.28	Tier 2
0.76	RIFLE RANGE RD.	Parkdale Rd NE	Grove Dr NE	Knox County	Knoxville	YES	2	30	45.27	Tier 2
0.52	MCCLOUD RD.	Andersonville Pike	Ventura Dr	Knox County	Halls	--	2	0	44.33	Tier 2
0.59	THORNGROVE PK.	Bales Ln	Hwy 168	Knox County		--	2	30	43.40	Tier 2
0.85	N. MAIN ST.	Pumphouse Ln	Sharp St	Anderson County	Clinton	YES	4	45	42.83	Tier 2
0.77	HWY. 70	Carters Chapel Rd	Abbott Rd	Loudon County		NO	2	55	42.37	Tier 2
0.86	W. TRI-COUNTY BLVD.	Oliver Springs Town Boundary	Butler Mill Rd	Roane County	Oliver Springs	YES	4	55	42.25	Tier 2
0.50	HUFFS FERRY RD. N.	Hotchkiss Valley Rd W	Club Dr	Loudon County		--	2	35	41.59	Tier 2
0.74	N. CHARLES G. SEIVERS BLVD.	Doe Run Blvd	Eugene Fox Blvd	Anderson County	Clinton	YES	4	55	40.67	Tier 2
0.81	MAYNARDVILLE PK.	Loyston Rd	Texas Valley Rd	Knox County		NO	4	55	40.43	Tier 2
0.51	E. WOLF VALLEY RD.	Clinton Hwy	Windsong Rd	Anderson County		NO	2	45	40.35	Tier 2
0.24	MASCOT PK.	Immel Mine Rd	McBee Ln	Knox County		--	2	40	39.85	Tier 2
0.39	E. HENDRON CHAPEL DR.	Chapman Hwy	Becky Ln	Knox County		NO	2	40	39.82	Tier 2
0.37	LOYSTON RD.	Knox County Line	Old Loyston Rd	Knox County		NO	2	40	39.63	Tier 2
0.44	CAMPBELL STATION RD.	Sonja Dr	Kingston Pk	Knox County	Farragut	YES	4	40	39.43	Tier 2
0.57	CAMPBELL STATION RD.	Destiny Ridge Way	Campbell Lakes Dr	Knox County	Farragut	YES	4	40	39.42	Tier 2
0.74	WISE SPRINGS RD.	Ridgeview Rd	Rocky Ln	Knox County		--	2	0	39.38	Tier 2
0.52	US-321	Holiday Rd	Parkway Dr	Loudon County	Lenoir City	YES	5	55	39.10	Tier 2
2.52	SEVIERVILLE RD.	Dell Rd	Valentine Rd	Blount County	Maryville	YES	2	45	38.68	Tier 2
1.29	N. CHARLES G. SEIVERS BLVD.	Indian Hills Cir	Miller Rd	Anderson County	Clinton	YES	4	55	37.28	Tier 2
0.72	ASHEVILLE HWY.	Kitts Rd	N Carter School Rd	Knox County		NO	4	50	26.71	Tier 2
0.90	MT. OLIVE RD.	Berry Rd	Bayonet Ln	Knox County		NO	2	0	17.88	Tier 2

TPO CORRIDOR LIST (CONTINUED)

Corridor Length (miles)	Street Name	To	From	County	City/Town	Full/ Partial Lighting	Max Number of Lanes	Max Speed Limit (mph)	Max HIN Index	Max HIN Tier
0.64	BURNETT STATION RD.	McMurray Rd	Hinkle Rd	Blount County	Seymour	NO	2	45	7.79	Tier 2
3.52	GREEN RD.	Valentine Rd	Alfred McCammon Rd	Blount County	Wildwood	--	2	0	0.00	Tier 2
0.61	MENTOR RD.	Jones Rd	Clear Springs Way	Blount County	Louisville	NO	2	35	0.00	Tier 2
0.48	SCOTT RD.	Clapps Chapel Rd	Scott Rd	Knox County		--	2	0	0.00	Tier 2
0.49	LONG POWERS RD.	John Sparks Dr	Unity Way	Blount County		--	2	25	0.00	Tier 2
0.51	SWEET AMBER RD.	Pine Springs Rd	Straw Flower Dr	Knox County		--	4	0	0.00	Tier 2

CITY OF KNOXVILLE CORRIDOR LIST

Corridor Length (miles)	Street Name	To	From	Full/ Partial Lighting	Max Number of Lanes	Max Speed Limit (mph)	Max HIN Index	Max HIN Tier
0.47	CLINTON PK.	Old Callahan Dr	Callahan Dr NW	YES	5	55	246.46	Tier 1
0.48	N. BROADWAY	Old Broadway NE	Highland Dr NE	YES	6	55	201.99	Tier 1
0.59	CHAPMAN HWY.	Nixon Rd SE	Norton Rd	YES	6	55	200.04	Tier 1
0.28	WESTERN AVE.	17th St NW	I-40	YES	7	55	182.81	Tier 1
0.70	E. MAGNOLIA AVE.	N Harrison St	N Beaman St NE	YES	4	45	171.93	Tier 1
0.72	WESTERN AVE.	Sullivan Rd NW	Morningstar Storage driveway	YES	7	55	167.57	Tier 1
0.25	N. BROADWAY	Old Broadway NE	Hwy 640 ramp	YES	6	55	155.38	Tier 1
0.31	N. BROADWAY	Lawson Ave NE	Cecil Ave NE	YES	6	55	155.22	Tier 1
0.55	RUTLEDGE PK.	N Chilhowee Dr NE	Cement Plant Rd	YES	4	55	154.44	Tier 1
0.49	CLINTON PK.	Marchants Dr NW	Allen Dr	YES	5	55	154.04	Tier 1
0.51	CEDAR BLUFF RD.	I-40	Hwy 1	YES	6	40	141.65	Tier 1
0.22	N. BROADWAY	Bref Rd	Ridgewood Rd	YES	6	55	139.84	Tier 1
0.29	UNIVERSITY AVE.	Sutherland Ave NW	21st St NW	YES	4	35	134.38	Tier 1
0.27	CALLAHAN DR.	Hwy 9	Crown Pointe Plaza driveway	YES	4	45	133.44	Tier 1
0.22	AILOR AVE.	I-40 ramp	Hwy 62	YES	4	35	133.43	Tier 1
0.26	HENLEY ST.	W Clinch Ave SW	W Hill Ave	YES	8	45	131.55	Tier 1
0.23	WALKER SPRINGS RD.	I-40 ramp	Ivy Falls Way	YES	4	0	128.13	Tier 1
0.46	MERCHANT DR.	Schubert Rd NW	Central Ave Pike	YES	4	40	123.87	Tier 1
0.68	RUTLEDGE PK.	Cement Plant Rd	Transport Ln	YES	4	55	123.55	Tier 1
0.22	CLINTON PK.	Murray Dr NW	Metler Dr	YES	5	55	123.20	Tier 1
0.54	CHAPMAN HWY.	E Lake Forest Dr SE	E Ford Valley Rd SE	YES	6	55	123.10	Tier 1
0.25	WESTERN AVE.	Morningstar Storage driveway	Shoppers Lane NW	YES	7	55	121.87	Tier 1
0.27	SUTHERLAND AVE.	Forest Park Blvd NW	Hollywood Rd NW	YES	3	35	120.35	Tier 1
0.20	GAP RD.	Larch St	Ohio Ave NW	YES	2	35	114.66	Tier 1
0.28	N. CHESTNUT ST.	E 5th Ave NE	Martin Luther King Jr Ave	YES	2	0	111.19	Tier 1
0.48	E. MAGNOLIA AVE.	Spruce St	N Harrison St	YES	4	45	109.41	Tier 1
0.28	N. BROADWAY	Atlantic Ave NE	Emoriland Blvd NE	YES	6	55	108.77	Tier 1
0.13	S. BROADWAY	W Summit Hill Dr SW	W Jackson Ave SW	YES	4	35	108.74	Tier 1
0.30	E. EMORY RD.	Dannaher Dr	Knoxville City limit	YES	4	40	108.40	Tier 1
0.36	MERCHANT DR.	Tillery Rd NW	Harriet Pl	YES	4	40	108.38	Tier 1
1.29	CHAPMAN HWY.	E Ford Valley Rd SE	Nixon Rd SE	YES	6	55	107.71	Tier 2
0.51	CHAPMAN HWY.	Gwinfield Dr SE	Larry Dr SW	YES	6	55	107.71	Tier 2
0.82	CHAPMAN HWY.	Maryville Pike	Woodlawn Pike SE	YES	6	55	107.67	Tier 1
1.02	ASHEVILLE HWY.	I-40	Holtson Ferry Rd NE	YES	4	55	107.47	Tier 1
0.24	WALKER SPRINGS RD. NW.	Knoxville City Limit	Hwy 1	YES	4	40	106.93	Tier 1
0.36	WESTERN AVE.	Hwy 640	Chillicothe St	YES	7	55	106.64	Tier 1
0.25	WESTERN AVE.	Grand Ave SW	Henley St SW	YES	7	55	106.64	Tier 1
0.42	SCHAAD RD.	Pleasant Ridge Rd NW	Hwy 9	YES	4	45	104.98	Tier 1
0.26	MERCHANTS CENTER BLVD.	Merchants Center Blvd NW terminus	Merchants Dr NW	YES	4	0	104.71	Tier 1
0.05	FAMILY INN DR.	Merchants Dr NW	Parking Lot	--	4	0	100.00	Tier 1

CITY OF KNOXVILLE CORRIDOR LIST (CONTINUED)

Corridor Length (miles)	Street Name	To	From	Full/ Partial Lighting	Max Number of Lanes	Max Speed Limit (mph)	Max HIN Index	Max HIN Tier
0.06	WILD GEESE RD.	Turkey Dr NW	Parkside Dr NW	--	2	0	100.00	Tier 1
0.24	HIGHLAND DR.	Woodfern Rd	Jenkins Rd	YES	2	30	94.08	Tier 1
0.54	N. BROADWAY	Gibbs Dr NE	Bref Rd	YES	6	55	93.23	Tier 1
0.14	MERCHANT DR.	Fredonia Rd	Tillery Rd NW	YES	4	40	92.90	Tier 1
0.81	KINGSTON PK.	Morrell Rd SW	Wesley Rd	YES	6	45	92.46	Tier 1
0.26	CLINTON PK.	Callahan Dr NW	Cherrybrook Dr NW	YES	5	55	92.42	Tier 2
0.25	WESTERN AVE.	I-40	Grand Ave SW	YES	7	55	91.40	Tier 2
0.27	WOODLAND AVE.	Shepherd St NE	W Glendwood Ave NE	YES	4	40	89.52	Tier 2
0.26	WOODLAND AVE.	W Glenwood Ave NE	St Mary St NE	YES	4	40	89.52	Tier 2
0.39	E. SUMMIT HILL DR.	James White Pkwy	Town View Dr E	YES	4	35	87.04	Tier 2
0.82	LOVES CREEK RD.	Buffat Mill Rd	Rutledge Pike NE	YES	2	30	85.56	Tier 2
0.45	W. OLDHAM AVE.	Reed St NW	Hwy 275	YES	4	0	80.42	Tier 2
0.24	NORTHSHORE DR.	Hwy 1	Woodburn Dr	YES	4	40	79.28	Tier 2
0.25	PAPERMILL RD.	Hwy 1	Westfield Rd NW	YES	5	40	78.92	Tier 2
0.26	N. CENTRAL ST.	Atlantic Ave NE	Metroplex Ct	YES	3	35	78.51	Tier 2
0.28	N. CENTRAL ST.	Fox St	Atlantic Ave NE	YES	3	35	78.51	Tier 2
0.53	PLEASANT RIDGE RD.	Meadowood Apartments	Hwy 62	YES	2	45	77.73	Tier 2
0.17	PLEASANT RIDGE RD.	Virginia Walker Apartments	Murray Dr NW	YES	2	45	77.73	Tier 2
0.25	N. BROADWAY	Cecil Ave NE	Kenyon St NE	YES	6	55	77.69	Tier 2
0.29	N. BROADWAY	Emory Pl	Old Magnolia Ave NW	YES	6	55	77.63	Tier 2
0.32	OAK RIDGE HWY.	Knoxville City Limit	Beaver Ridge Rd	YES	4	55	77.37	Tier 2
0.86	KINGSTON PK.	N Seven Oaks Dr NW	S Cedar Bluff Rd	YES	6	45	77.11	Tier 2
0.38	I-275	W 5th Ave NW	Hwy 275 ramp	YES	8	55	77.10	Tier 2
0.33	CHAPMAN HWY.	E Martin Mill Pike SE	E Martin Mill Pike SW	YES	6	55	76.94	Tier 2
0.12	CHAPMAN HWY.	Michaels Ln	Mountain Grove Dr	YES	6	55	76.93	Tier 2
0.28	WASHINGTON PK.	Edmondson Ln	Murphy Rd NE	YES	4	45	76.60	Tier 2
0.26	CENTRAL AVE. PK.	Murray Dr NW	Steeplechase Blvd	YES	2	40	76.58	Tier 2
0.72	CENTRAL AVE. PK.	Merchants Dr NW	Bookwalter Dr	YES	2	40	76.58	Tier 2
0.71	TAZEWELL PK.	Beverly Pl	Villa Rd	YES	3	50	76.56	Tier 2
0.37	CENTRAL AVE. PK.	Callahan Dr NW ramp	Barberry Dr NW	YES	2	40	76.49	Tier 2
0.21	WESTERN AVE.	Ridgedale Rd	Nickle Rd	YES	7	55	76.17	Tier 2
0.33	WESTERN AVE.	Eubanks Ave	University Ave	YES	7	55	76.17	Tier 2
0.53	WOODLAND AVE.	Hwy 275	Shepherd St NE	YES	4	40	74.58	Tier 2
0.45	DANDRIDGE AVE.	Hazen St	Surrey Rd	YES	4	35	73.10	Tier 2
0.34	RAY MEARS BLVD.	Downtown West Blvd SW	Winston Rd SW	YES	4	40	72.69	Tier 2
0.25	PARKDALE RD.	Pilleaux Rd NE	Bonita Dr NE	YES	2	30	71.69	Tier 2
0.17	TOWN VIEW DR.	Summit Hill Dr	Green Magnet Academy Driveway	YES	2	0	69.45	Tier 2
0.23	BLACKSTOCK AVE.	Hannah Ave	McGhee Ave	YES	2	30	67.13	Tier 2
0.22	GLEASON DR.	Morrell Rd SW	Gleason Dr SW roundabout	YES	4	0	66.98	Tier 2
0.23	PROSSER RD.	Berean Cristian School Driveway	Buffat Mill Rd	YES	4	40	64.69	Tier 2
0.23	INSKIP DR.	Central Ave Pike	Fennel Rd	YES	2	30	63.16	Tier 2
0.29	S. GAY ST.	Hwy 158	E Blount Ave	YES	4	30	62.83	Tier 2
0.53	N. CENTRAL ST.	Nerva Rd NE	Fox St	YES	3	35	62.81	Tier 2

CITY OF KNOXVILLE CORRIDOR LIST (CONTINUED)

Corridor Length (miles)	Street Name	To	From	Full/ Partial Lighting	Max Number of Lanes	Max Speed Limit (mph)	Max HIN Index	Max HIN Tier
0.23	REED ST.	Jourolman Ave	W Baxter Ave NW	YES	2	0	62.69	Tier 2
0.24	BRIDGEWATER RD.	Cross Park Dr NW	Walbrook Dr NW	YES	4	35	62.67	Tier 2
0.24	WASHINGTON PK.	Hwy 33	Glenview Dr	YES	4	40	62.43	Tier 2
0.26	WASHINGTON PK.	Glenview Dr	Newman St	YES	4	40	62.43	Tier 2
0.29	PARKSIDE DR.	Hwy 131	Goodys Ln	YES	4	40	62.16	Tier 2
0.27	HOLSTON DR.	Burns Rd SE	Holston Ct	YES	2	30	62.09	Tier 2
0.59	MIDDLEBROOK PK.	Third Creek Rd NW	Ed Shouse Rd NW	YES	4	50	61.93	Tier 2
0.45	MIDDLEBROOK PK.	Millington Pkwy	Woodview Ln	YES	4	50	61.93	Tier 2
0.26	OAK RIDGE HWY.	Beaver Ridge Rd	Summerfield Dr NW	YES	4	55	61.90	Tier 2
0.50	MORRELL RD.	Deane Hill Dr	Devonshire Dr	YES	4	40	61.78	Tier 2
1.12	RUTLEDGE PK.	I-40	N Chilhowee Dr NE	YES	4	55	61.78	Tier 2
0.43	W. GOV. JOHN SEVIER HWY.	Hwy 115	Calvary Knoxville Church driveway	YES	4	50	61.72	Tier 2
0.26	KINGSTON PK.	Railroad tracks	Noelton Dr SW	YES	6	45	61.69	Tier 2
0.52	CLINTON PK.	Allen Dr	Kensi Dr	YES	5	55	61.62	Tier 2
0.27	S. NORTHSHORE DR.	Enclave Way	Park Glen Rd SW	YES	4	45	61.46	Tier 2
0.20	CENTRAL AVE. PK.	Railroad tracks	Bruhin Rd NW	YES	2	40	61.25	Tier 2
0.40	RUGGLES FERRY PK.	Drummer Ln	Hwy 9	--	2	40	61.23	Tier 2
0.27	TAZEWELL PK.	Luttrell Rd	Kesterbrooke Blvd NE	YES	3	50	61.22	Tier 2
0.38	CEDAR LN.	Lyndell Rd NE	Montrose Rd NE	YES	4	40	60.99	Tier 2
0.29	NEYLAND DR.	Leinhard Ln SW	Railroad tracks	YES	5	45	60.96	Tier 2
0.20	WESTERN AVE.	Chillicothe St	Waverly St NW	YES	7	55	60.94	Tier 2
0.61	MARTIN MILL PK.	Lester Rd SW	Brown Rd	YES	2	40	60.90	Tier 2
0.25	WESTERN AVE.	Shoppers Ln NW	Ed Shouse Rd NW	YES	7	55	60.87	Tier 2
0.51	STRAWBERRY PLAINS PK.	I-40	Huckleberry Ln	YES	4	45	60.64	Tier 2
0.20	WESTERN AVE.	Western Ave NW	Richmond Ave NW	YES	7	55	60.55	Tier 2
0.31	DEANE HILL DR.	Cheshire Dr	Golf Club Rd	YES	2	40	60.49	Tier 2
0.36	BUFFAT MILL RD.	Pulaski Rd	Spring Hill Rd	YES	2	35	60.28	Tier 2
0.30	SUTHERLAND AVE.	Bellemead Ave NW	Liberty St NW	YES	3	35	60.18	Tier 2
0.26	PINEY GROVE CHURCH RD.	Creekhead Dr NW	W Forest Blvd NW	YES	2	30	58.99	Tier 2
0.28	MARKET PLACE BLVD.	N Peters Rd NW	Kingston Pike	YES	4	0	57.88	Tier 2
0.36	EMERALD AVE.	N Central St	Harvey St NE	YES	2	0	57.02	Tier 2
0.18	N. GALLAHER VIEW RD.	Walbrook Dr NW	Hwy 1	YES	4	0	55.54	Tier 2
0.39	CHEROKEE TR.	Medical Center Way	Cherokee Ridge Way	YES	2	40	49.07	Tier 2
0.25	INSKIP DR.	Fennell Rd	Dewey Way	YES	2	30	47.37	Tier 2
0.25	E. HILL AVE.	S Gay St SW	Hall of Fame Dr SW	YES	4	35	47.20	Tier 2
0.28	S. GAY ST.	W Jackson Ave SW	Union Ave	YES	4	30	47.12	Tier 2
0.38	STRAWBERRY PLAINS PK.	Philips Dr	I-40	YES	4	45	46.85	Tier 2
0.16	LOVELL RD.	Dutchtown Rd	I-40 ramp	YES	4	45	46.81	Tier 2
0.39	GLEASON DR.	Forest Oak Dr	Morrell Rd SW	YES	4	40	46.68	Tier 2
0.23	N. BROADWAY	Hwy 640 ramp	Greenway Dr	YES	6	55	46.61	Tier 2
0.24	N. BROADWAY	Greenway Dr	Old Broadway NE	YES	6	55	46.60	Tier 2
0.40	MAYNARDVILLE PK.	Shotsman Ln	Brown Gap Rd NE	YES	4	55	46.49	Tier 2
0.30	MERCHANT DR.	Harriet Pl	Schubert Rd NW	YES	4	40	46.45	Tier 2
0.31	MIDDLEBROOK PK.	Woodview Ln	W Hills Rd	YES	4	50	46.45	Tier 2

CITY OF KNOXVILLE CORRIDOR LIST (CONTINUED)

Corridor Length (miles)	Street Name	To	From	Full/ Partial Lighting	Max Number of Lanes	Max Speed Limit (mph)	Max HIN Index	Max HIN Tier
0.41	MIDDLEBROOK PK.	Amherst Rd NW	Midpark Rd	YES	4	50	46.45	Tier 2
0.27	MIDDLEBROOK PK.	Dowell Springs Blvd	Old Weisgarber Rd	YES	4	50	46.44	Tier 2
0.44	MORRELL RD.	Kingston Pike	Gleason Dr	YES	4	40	46.34	Tier 2
0.31	MORRELL RD.	Gleason Dr	Deane Hill Dr SW	YES	4	40	46.33	Tier 2
0.60	MARYVILLE PK.	Eastend Rd SW	Ogle Ave SW	YES	2	45	46.28	Tier 2
0.35	KINGSTON PK.	Walker Springs Rd NW	S Gallaher View Rd SW	YES	6	45	46.26	Tier 2
0.98	KINGSTON PK.	N Gallager View Rd NW	Montvue Rd	YES	6	45	46.26	Tier 2
0.15	KINGSTON PK.	S Mohican St SW	Homberg Dr SW	YES	6	45	46.26	Tier 2
0.33	KINGSTON PK.	Homber Dr SW	Gore Rd	YES	6	45	46.26	Tier 2
0.46	CLINTON PK.	Victor Dr	Merchants Dr NW	YES	5	55	46.21	Tier 2
0.67	CHAPMAN HWY.	Hawthorne Ave SW	W Hill Ave	YES	6	55	46.16	Tier 2
0.23	CHAPMAN HWY.	E Martin Mill Pike	Maryville Pike	YES	6	55	46.16	Tier 2
0.42	CHAPMAN HWY.	Norton Rd	Michaels Ln	YES	6	55	46.16	Tier 2
0.40	S. NORTHSHORE DR.	Erin Dr SW	Westland Dr SW	YES	4	45	46.09	Tier 2
0.37	TAZEWELL PK.	Comice Way	Tazewell Pointe Way	YES	3	50	45.96	Tier 2
0.75	WASHINGTON PK.	Amber Ridge Way	New Harvest Ln	YES	4	45	45.95	Tier 2
0.25	WILSON RD.	Bouldercrest Apartments	Peltier Rd NW	YES	2	30	45.91	Tier 2
0.33	MARTIN LUTHER KING JR. AVE.	S Chestnut St	S Harrison St	YES	2	30	45.81	Tier 2
0.80	WESTERN AVE.	Goldenrod Cir	Sullivan Rd NW	YES	7	55	45.70	Tier 2
0.20	WESTERN AVE.	Ed Shouse Rd NW	Hwy 640	YES	7	55	45.69	Tier 2
0.14	SHERRILL BLVD.	Knoxville City limit	Shepherd of the Hills Church driveway	--	4	40	45.10	Tier 2
0.33	N. PETERS RD.	Market Place Blvd NW	Harry Lane Blvd	YES	4	40	44.97	Tier 2
0.23	UNIVERSITY AVE.	21st St NW	Hwy 62	YES	4	35	44.82	Tier 2
0.27	CALLAHAN DR.	Hwy 75	Central Ave Pike	YES	4	45	44.48	Tier 2
0.77	CALLAHAN DR.	Keck Rd	Hwy 75	YES	4	45	44.48	Tier 2
0.25	JACKSBORO PK.	Acorn Wds	Grove Cir NE	YES	2	40	42.98	Tier 2
0.31	S. SEVENTEENTH ST.	Dale Ave NW	Laurel Ave SW	YES	4	30	34.40	Tier 2
0.56	PAPERMILL RD.	N Weisgarber Rd	I-40	YES	6	40	34.20	Tier 2
0.21	SCHOFIELD ST.	Vermont Ave	Keith Ave NE	YES	2	30	34.08	Tier 2
0.21	WALBROOK DR. NW	I-40 ramp	N Gallaher View Rd NW	NO	3	40	33.83	Tier 2
0.19	WALBROOK DR. NW	Walker Spring Rd	I-40 ramp	NO	3	40	33.83	Tier 2
0.26	S. CENTRAL ST.	Willow Ave SE	Union Ave	YES	2	30	33.38	Tier 2
0.25	N. WINONA ST.	McCalla Ave SE	E 5th Ave NE	YES	2	0	32.44	Tier 2
0.47	WASHINGTON AVE.	N Olive St NE	N Cherry St NE	YES	2	30	32.40	Tier 2
0.33	WILSON AVE.	Ben Hur Ave	S Cherry St	YES	2	0	32.24	Tier 2
0.29	ATLANTIC AVE.	N Central St	Metler St	YES	2	30	31.95	Tier 2
0.19	PARK WEST BLVD.	Park 40 North Blvd	N Cedar Bluff Rd NW	YES	4	30	31.78	Tier 2
0.24	S. HARRISON ST.	Hwy 1	Louise Ave	YES	2	0	31.58	Tier 2
0.39	CEDAR BLUFF RD.	Sherrill Blvd	I-40	YES	6	40	31.47	Tier 2
0.54	E. HILL AVE.	Hall of Fame Dr SE	Howard Baker Jr Ave SE	YES	4	35	31.43	Tier 2
0.28	E. MAGNOLIA AVE.	Myrtle St NE	N Cruze St	YES	4	45	31.26	Tier 2
0.23	N. CHERRY ST.	Cherry St Arc	I-40	YES	4	40	31.24	Tier 2
0.19	PLEASANT RIDGE RD.	Merchants Dr NW	Walpine Ln	YES	2	45	31.09	Tier 2
0.23	N. BROADWAY	Old Broadway St NE	Jacksboro Pike NE	YES	6	55	31.08	Tier 2

CITY OF KNOXVILLE CORRIDOR LIST (CONTINUED)

Corridor Length (miles)	Street Name	To	From	Full/ Partial Lighting	Max Number of Lanes	Max Speed Limit (mph)	Max HIN Index	Max HIN Tier
0.24	N. BROADWAY	Kenyon St NE	Wells Ave NE	YES	6	55	31.08	Tier 2
0.25	N. BROADWAY	Emoriland Blvd NE	Ludlow Ave NE	YES	6	55	31.08	Tier 2
0.35	HOLLYWOOD RD.	I-40	Sutherland Ave NW	YES	2	30	31.04	Tier 2
0.58	E. EMORY RD.	Blueberry Rd	Dannaher Dr	YES	4	40	30.97	Tier 2
0.39	MIDDLEBROOK PK.	Ed Shouse Rd NW	Lonas Dr NW	YES	4	50	30.95	Tier 2
0.30	KINGSTON PK.	David Ln SW	Fort Sanders West Blvd	YES	6	45	30.84	Tier 2
0.31	KINGSTON PK.	Homberg Dr SW	S Mohican St SW	YES	6	45	30.84	Tier 2
0.21	KINGSTON PK.	Mabry Hood Rd NW	Capital Dr SW	YES	6	45	30.84	Tier 2
0.28	KINGSTON PK.	Deane Hill Dr SW	Agnes Rd SW	YES	6	45	30.84	Tier 2
0.26	KINGSTON PK.	Albunda Dr	Gerald Ford St NW	YES	6	45	30.84	Tier 2
0.24	KINGSTON PK.	Gerald Ford St NW	Deane Hill Dr SW	YES	6	45	30.84	Tier 2
0.41	KINGSTON PK.	Hwy 158	Volunteer Blvd SW	YES	6	45	30.84	Tier 2
0.27	KINGSTON PK.	Fort Sanders West Blvd	Mabry Hood Rd NW	YES	6	45	30.83	Tier 2
0.31	RIVERSIDE DR.	Lombard Pl	Hwy 71	YES	3	35	30.82	Tier 2
0.43	CHAPMAN HWY.	Woodlawn Pike SE	Gwinfield Dr SE	YES	6	55	30.77	Tier 2
0.62	CHAPMAN HWY.	Larry Dr SW	E Lake Forest Dr SE	YES	6	55	30.77	Tier 2
0.76	RIFLE RANGE RD.	Parkdale Rd NE	Grove Dr NE	YES	2	30	30.18	Tier 2
0.39	MARTIN LUTHER KING JR AVE.	Harriet Tubman St	S Cruze St SE	YES	4	35	27.98	Tier 2
0.26	N. BROADWAY	Ridgewood Rd	Old Broadway St NE	YES	6	55	15.54	Tier 2
0.24	N. BROADWAY	Highland Dr NE	Gibbs Dr NE	YES	6	55	15.54	Tier 2
0.51	MIDDLEBROOK PK.	Old Weisgarber Rd	Amherst Rd NW	YES	4	50	15.48	Tier 2
0.38	CLINTON PK.	Victor Dr	Metler Dr	YES	5	55	15.40	Tier 2
0.89	CLINTON PK.	Cherrybrook Dr NW	Murray Drive NW	YES	5	55	15.40	Tier 2
0.54	KINGSTON PK.	Ebenezer Rd SW	S Martinwood Rd	YES	6	45	0.00	Tier 2
1.03	PARKSIDE DR.	Goodys Ln	Pellissippi Pkwy	YES	4	40	0.00	Tier 2
0.14	WESTERN AVE.	University Ave	17th St NW	YES	7	55	0.00	Tier 2