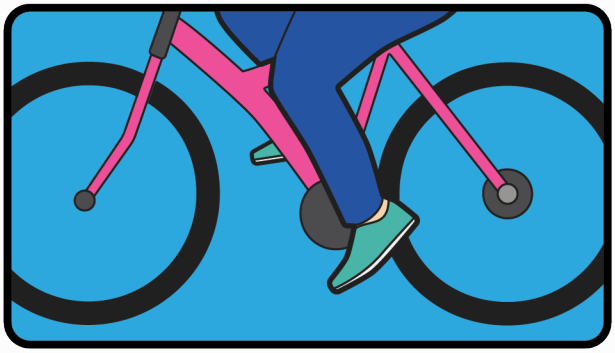
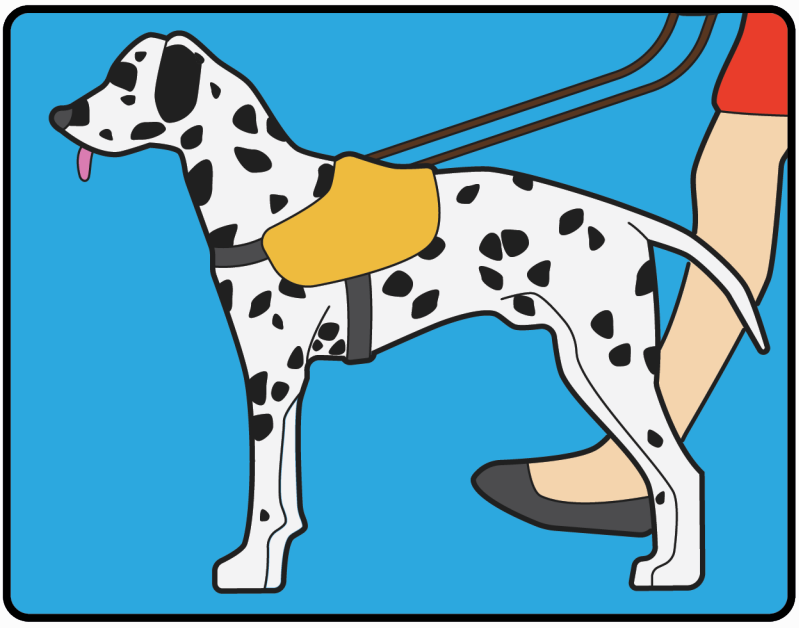
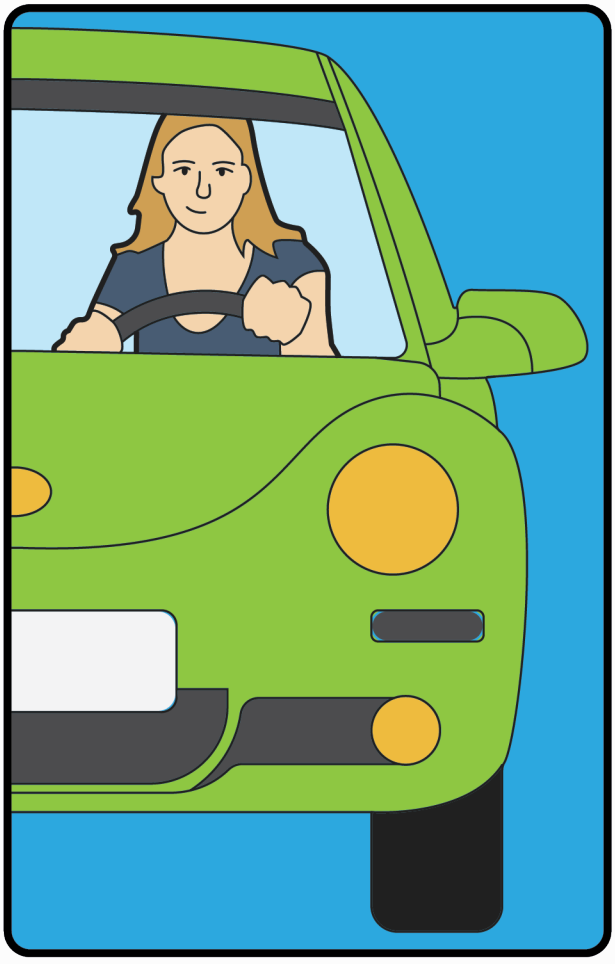
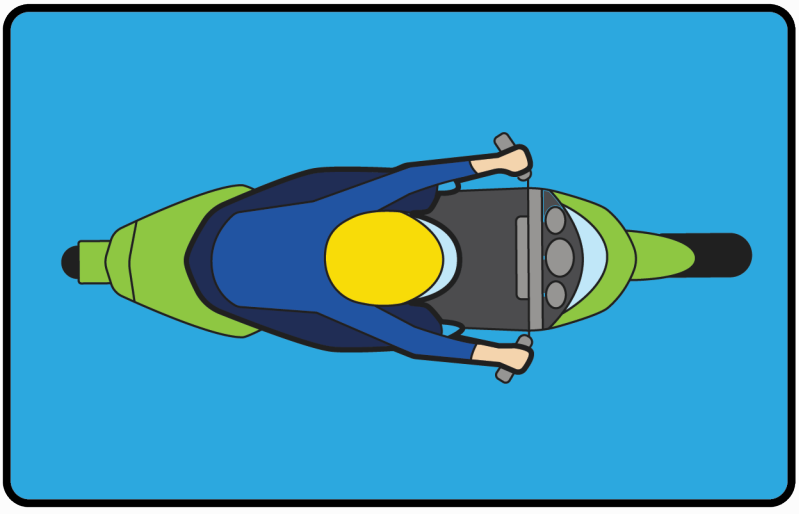
BLOOMINGTON

SAFE STREETS FOR ALL









Public Engagement Overview

DRAFT

October 2024

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List of Abbreviations

ACS: American Community Survey

DUI: Driving Under the Influence

FHWA: Federal Highway Administration

FI: Fatal or Injury (all injury severities)

FSI: Fatal or Serious Injury

HIN: High Injury Network

HRN: High Risk Network

INDOT: Indiana Department of Transportation

PCSi: Proven Safety Countermeasure initiative

PHB: Pedestrian Hybrid Beacon

RRFB: Rectangular Rapid Flashing Beacon(s)

SRTS: Safe Routes to School

USDOT: United States Department of Transportation

VPD: Vehicles Per Day

VRU: Vulnerable Road User (includes Pedestrian or Bicyclists)

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Bloomington is committed to making our streets safer for everybody.

The City of Bloomington is a City with vibrant neighborhoods, diverse and hardworking residents, a large university, and a thriving downtown. While Bloomington already has a lot to offer residents and is continually attracting new ones, we know that there is still work to do to make our roadways safer for all those that travel on our roadways, whether on foot, bike, in a vehicle, or on transit.

Between the years 2019-2023, there were 10,391 crashes on Bloomington's streets; 443 of these crashes resulted in either a life-changing injury or death. These crashes, notably, are more than a statistic to track. These crashes forever impact families, friends, and neighbors throughout Bloomington. As a community, we do not accept these crashes as status quo. We are ready to commit to being a better and safer community. We are ready to change.

This Transportation Safety Action Plan documents what is happening now and what we commit to do to increase the safety for everybody on all of Bloomington's streets. This plan includes implementable recommendations that we will carry out with community partners and advocates. This plan is our roadmap to our main priority - achieving the goal of zero deaths or serious injuries on our roads by 2039.

We are committed to safer streets in Bloomington. Join us.

Sincerely,

Kerry Thomson

Mayor, City of Bloomington

Between 2019 and 2023, there were 443 fatal or life-altering crashes on Bloomington's streets.

These crashes have permanent and, often, devastating impacts on families, friends, and neighbors throughout the City. As such, the City of Bloomington is committed to implementing projects, programs, and policies that will work to reduce and, eventually, eliminate all serious and fatal crashes from our roadways to ensure that everybody using the City's streets – whether walking, biking, driving, or taking transit – can always reach their destinations safely. Our vision is:

Zero traffic deaths and serious injuries by 2039.

Background

This Safety Action Plan (SAP) is Bloomington's roadmap to achieving our ambitious vision and should be used by City staff, elected officials, community advocates, residents, businesses, and all Bloomington residents committed to safer streets. This Plan includes four major sections:

• **Finding Our Focus.** In creating this Safety Action Plan, the City of Bloomington is joining Cities across the country and the world in working to eliminate serious injuries and fatalities from our roadways. This section introduces the concepts of Vision Zero and the Safe Systems approach, solidifies the relationship between safer streets and equity, and reviews past efforts in the region to improve roadways safety.

• **Setting the Stage.** This section provides an overview of what has historically happened and what is currently happening on our roadways, and how existing policies, programs, and projects impact people throughout the region. This section includes both quantitative and qualitative information about current conditions with a crash data analysis and information gathered through extensive public engagement efforts.

• **Getting to ZERO.** This section lays out programs, policies, and projects that aim to eliminate serious injuries and fatalities on Bloomington's streets by 2039. This section also outlines how these elements should be prioritized in order to be efficient, opportunistic, and effective.

• **Tracking Progress.** This section outlines how the City will measure whether our roadways are becoming safer for all using performance measures, annual reporting, and a crash data dashboard.

Finding Our Focus

Bloomington is joining an ever-growing number of cities throughout the county and world who are committed to eliminating transportation-related fatalities and serious injuries on their streets. This momentum started with the Vision Zero movement and is founded in the Safe Systems Approach.

Vision Zero

Vision Zero is a values-based philosophy that was developed in Sweden in the late 1990s that states that traffic deaths and serious injuries in our transportation systems are avoidable and unacceptable. The Vision Zero movement is one of the first large-scale efforts to look at traffic crashes as a systemic issue, versus blaming individual users. Vision Zero also pivoted from the acceptance of death and serious injuries as just the "cost" of having an efficient transportation system to stating that absolutely nobody should be killed or injured on our streets due to traffic-related causes.

While the Bloomington SAP is not, officially, a Vision Zero effort, much of this plan, its content, and recommendations align with Vision Zero philosophies and actions. More information about Vision Zero can be found at https://visionzeronetwork.org/.

Safe Systems Approach

The Safe Systems approach is founded in the belief that humans are human - people will not always behave perfectly, won't always follow the rules, and may make bad decisions on the roadways. The Safe Systems approach confronts this reality by creating a multi-faceted system that acknowledges the many contributors to roadway safety outcomes – safe road users, post-crash care, safe roads, safe vehicles, and safe speeds – and works to create safety in redundancy.

This redundant approach means that even if one of these players "fails," there will be multiple other players ready and waiting to ensure that the situation remains safe. For example, if an individual chooses to drive at excessive speeds, the design of the roadway (narrow lanes, separation between vehicles and pedestrians, speed humps, etc.) or other factors is likely to keep all roadway users safe.

The Safe Systems Approach has six key principles:

1. Death and serious injury are unacceptable. Although no crashes are desired, the Safe System approach focuses on eliminating crashes where people die or are seriously injured.

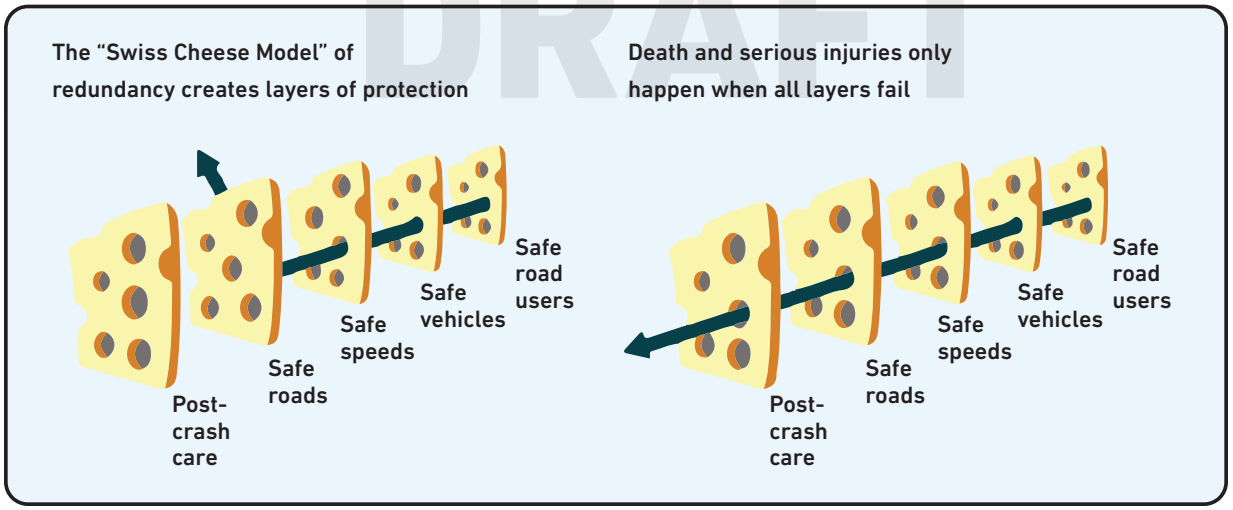
2. Humans make mistakes. There is no perfect person, so human error should be expected and anticipated. Human mistakes should not result in life-changing injuries or death.

3. Humans are vulnerable. Human bodies are subject to the laws of physics. They can only withstand so much force before a serious injury or death occurs.

4. Responsibility is shared. Eliminating deaths and serious injuries on our roadways is a team effort. Elected officials, planners, engineers, vehicle designers, police, healthcare providers, emergency medical services. and people traveling need to work together to create a safe roadway network.

5. Safety is proactive. Planners, engineers, and roadway designers know the factors that make streets safe or unsafe – a crash should not need to happen to prove that an area is unsafe. Best practices and research should be used to proactively identify and address dangerous locations.

6. Redundancy is crucial. Even if one part of the transportation system fails, redundancy will be in place to make sure the transportation system stays safe for all users.



Road Safety & Equity

Transportation is a key element of people's daily lives that not only allows them to access their day-to-day needs and activities, but also serves as a place for the community to gather and socially interact. Additionally, transportation systems are complex and comprehensive, often overlapping with other systems, such as housing, land use, utilities, law enforcement, and climate efforts.

Policies and practices surrounding these systems can create inequitable transportation access for black, indigenous, and people of color (BIPOC) communities, those who are low income, and other marginalized groups, often due to a lack of representation and institutional power. Decades of racist policies and planning practices have long-standing and detrimental impacts to these communities in cities across the country.

Nationally, these practices have led specific demographic groups to disproportionately suffer the burdens of transportation systems, and many of these same national trends have likely affected demographically disadvantaged portions of the Bloomington community as well. Some of these burdens include higher exposure to pollution, public health and climate impacts, higher concentrations of traffic crashes, service gaps and inadequate infrastructure, and divisive highway construction. Local governments, like Bloomington, are responsible for reversing these practices and implementing planning practices and policies that respond to the needs of all people.

In developing this Plan, the City was intentional in ensuring the process used and the recommendations that were developed for the plan support the creation of a future equitable transportation network. Specifically, the planning process and the resulting plan was founded in the following principles:

- **Communities of Interest should participate in and influence transportation decision-making and outcomes.** Communities of Interest are defined as areas with populations that have a higher density of eight equity indicators: BIPOC, low-income households, people with disabilities, people with low English proficiency, children, elderly adults, students, and limited vehicle access.

- **One's race, income, physical ability, gender, age, and other demographic characteristics should not determine their safe access** to jobs, healthcare, childcare, education, public amenities, recreation, and quality food.

- **A person's race, income, physical ability, gender, age, and other demographic characteristics should not correlate with negative transportation-related outcomes** related to health, safety, or climate.

• **The way a person gets around (mode) should not correlate with negative safety or health outcomes, disproportionate climate impacts, or limited access to opportunities.** Planning, maintenance, and funding efforts for different transportation modes, like walking, bicycling, micromobility, driving, carpooling, or public transportation should be prioritized in Communities of Interest first while considering community goals and overall system needs.

• **Safe and adequate sidewalks, bikeways, and trails should be accessible for and welcoming** to people of all cultural backgrounds, ages, and to people with disabilities.

• **Public investments, safety improvements, and other transportation policies and programs in areas vulnerable to displacement should be paired with anti-displacement strategies** to empower residents to stay in their homes, encourage small businesses to remain in place, and strengthen the character of the community or neighborhood.

More information about how and why equity is foundational to this Safety Action Plan can be found in Appendix X. Safe Streets for All Equity Framework.

What We've Already Done

This plan is a major step in demonstrating the City of Bloomington's commitment to safer streets for all its residents. That said, this is not the first time the City or the region has created a plan, actions, policies, or programs that address roadway safety. The following table highlights many of Bloomington's past efforts and the roadway safety topics they touched upon.

Document Name	Safety Vision or Goals	Safety Data	Safety Actions	Equity	Roadway Design/ Countermeasures	Projects/ Priority Corridors	Funding/ Implementation
City of Bloomington Transportation Plan	✓	✓	✓	✓	✓	✓	✓
City of Bloomington Comprehensive Plan	✓		✓	✓			
City of Bloomington Climate Action Plan	✓		✓	✓	✓		✓
City of Bloomington Bicycle and Pedestrian Transportation and Greenways System Plan	✓	✓	✓	✓	✓	✓	✓
Bloomington, Indiana TDM Program Plan					✓		✓
City of Bloomington Right-of-Way Permitting					✓		
City of Bloomington Design Standards Manual					✓		
City of Bloomington Capital Improvement							✓
City of Bloomington Zoning Districts							
City of Bloomington Unified Development Ordinance					✓		
City of Bloomington Boards and Commissions Structure							
City of Bloomington Traffic Calming and Greenways Program	✓	✓	✓	✓	✓	✓	✓
City of Bloomington Scooter Guidelines	✓		✓			✓	
City of Bloomington Sidewalk Repair Assistance Program	✓		✓			✓	✓
BMCMPO Transportation Improvement Program					✓	✓	✓
BMCMPO Complete Streets Policy	✓		✓	✓	✓		✓
Indiana Safe Routes to School Guidebook	✓	✓	✓	✓	✓		✓

Table 1: Summary of Actions and Considerations within Reviewed Documents

Setting The Stage

There are many factors that contribute to how safe a City's streets are – design, operation, and user behaviors all play important roles and must be understood in order to make them better. This section describes the results of these factors on Bloomington's roads today using both quantitative and qualitative measures – a crash analysis and extensive public feedback, respectively. These methods were used to understand what the data says about what's happening on our streets

Crash Analysis

Crash data is one of the best tools we have to understand how and where people are severely injured or killed while traveling on Bloomington's streets. If the crash is reported to police, a report is generated that details crash characteristics like the location, contributing crash factors, and demographic information such as the gender and age of those involved.

The crash analysis conducted for Bloomington used data from the Indiana Department of Transportation (INDOT) for the most recent five years (2018 through 2022). It should be noted that while the data is the best available, it represents crashes that are reported to local law enforcement agencies, which makes it an incomplete picture because some crashes may not be reported (due to avoiding interactions with law enforcement, especially for those with past negative interactions with police, such as People of Color). Additionally, the report may not be accurate – severity may be underreported because the reporter may not have medical training, and some factors (such as speed or the reasons for the crash) are challenging to determine after the crash has happened. That said, crash data, while imperfect, is a valuable starting point in understanding current conditions. The following are key takeaways from Bloomington's crash analysis.

Vehicle-only crashes are the most common, but the risk or serious injury of death is much higher for crashes involving people walking, biking, or rolling. Only 4% of total crashes involve somebody walking, biking, or rolling, but over 38.5% of fatal crashes and 24% of serious injury crashes involve people using these modes.

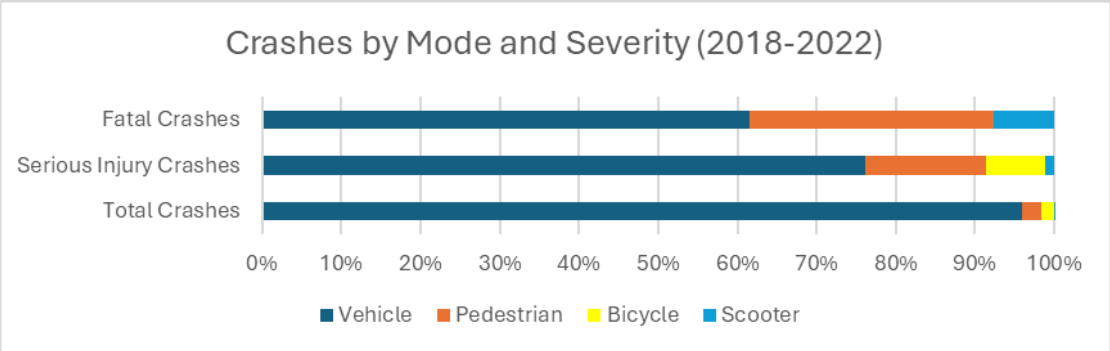


Figure 2. Crashes by Mode and Severity, 2018-2022

The majority of fatal or serious injury crashes occurred on arterial street and state highways. There were 262 fatal or serious injury crashes on arterial streets or state highways (60% of all fatal or serious injury crashes) Arterial streets and state highways make up only 20% of the city's roadway mileage. Figure 9 shows the classification of all streets in Bloomington for reference.

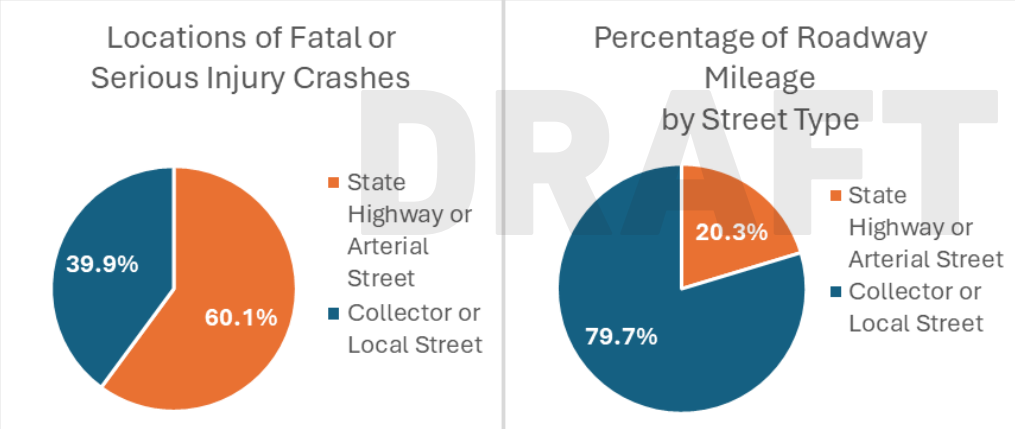


Figure 3. Percentage of Streets by Type of Street/Highway

Figure 4. Percentage of FSI Crashes by Type of Street/Highway

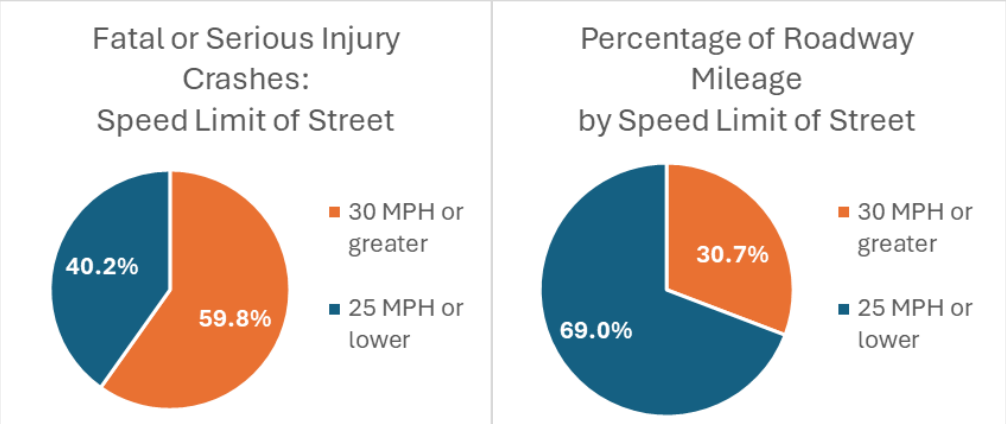


Figure 5. Percentage of Streets by Speed Limit

Figure 6. Percentage of FSI Crashes by Speed Limit

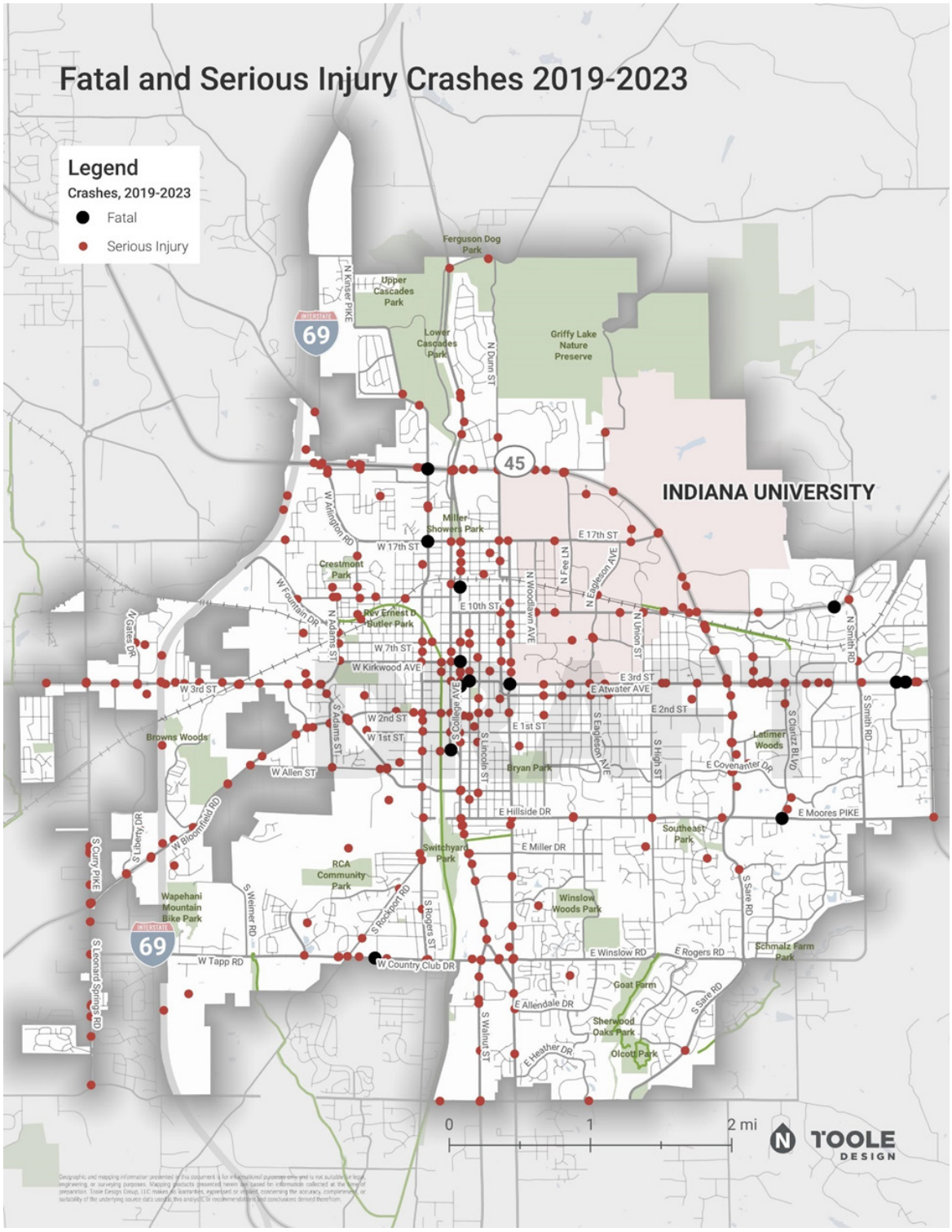


Figure 7. Location of Fatal or Serious Injury Crashes, 2019-2023

The streets in Bloomington with the largest clusters of fatal and serious injury crashes are:

- State Highway 45/46 (aka the Bypass)
- West 3rd Street
- East 3rd Street
- North Kinser Pike
- College Avenue
- Walnut Street
- South College Mall Road
- West Country Club Road/East Winslow Drive
- North and South Indiana Avenue
- Bloomfield Road
- Leonard Springs Road

These streets tend to have speed limits of 30, 35, 40, or 45 MPH and tend to have four or more lanes if they are two-way or two or more lanes if they are one-way. All of these streets are either INDOT state highways or city-owned arterials. Figure 8 and Figure 9 on the following pages show the speed limit and functional class of streets in Bloomington.

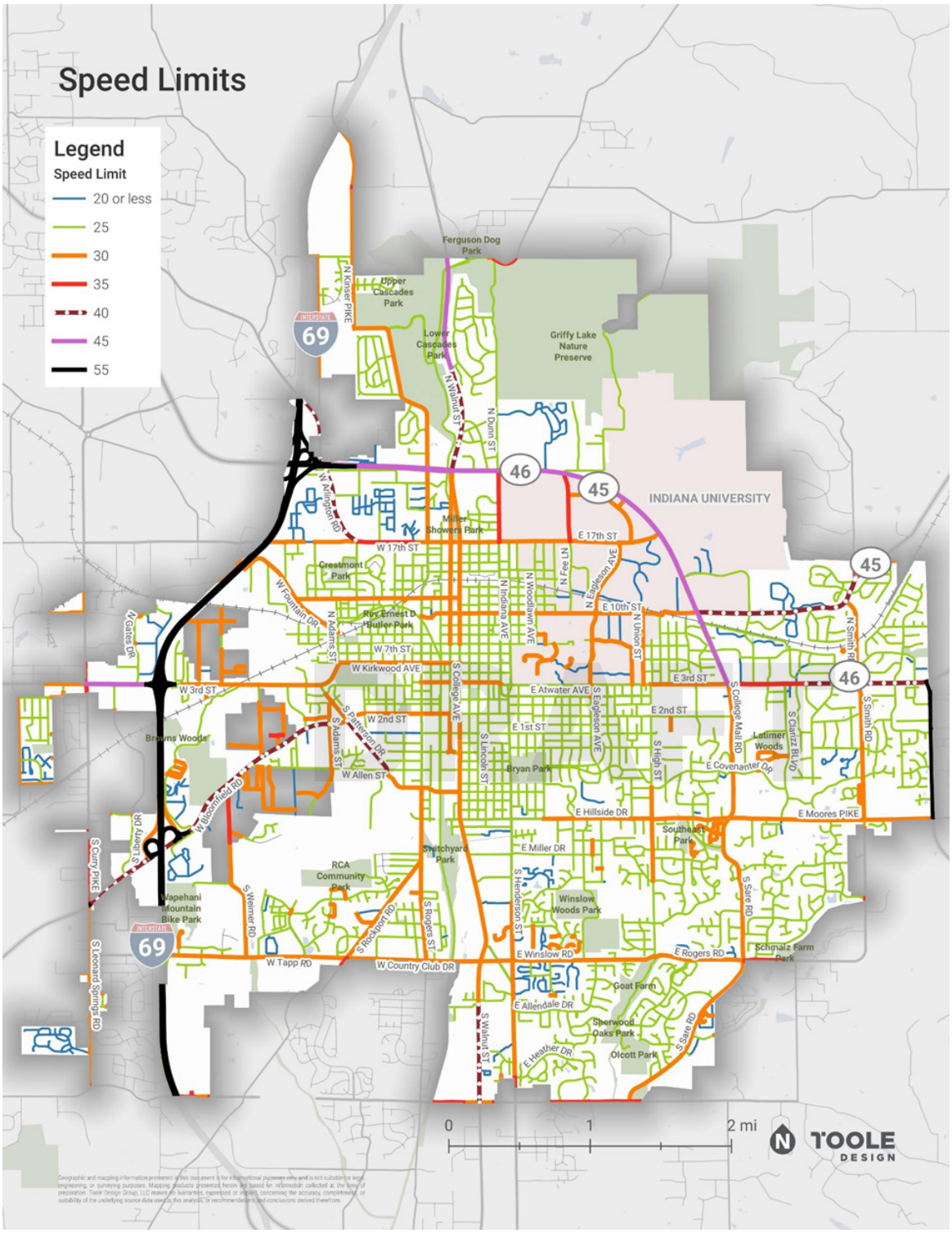


Figure 8. Speed Limits of Streets in Bloomington

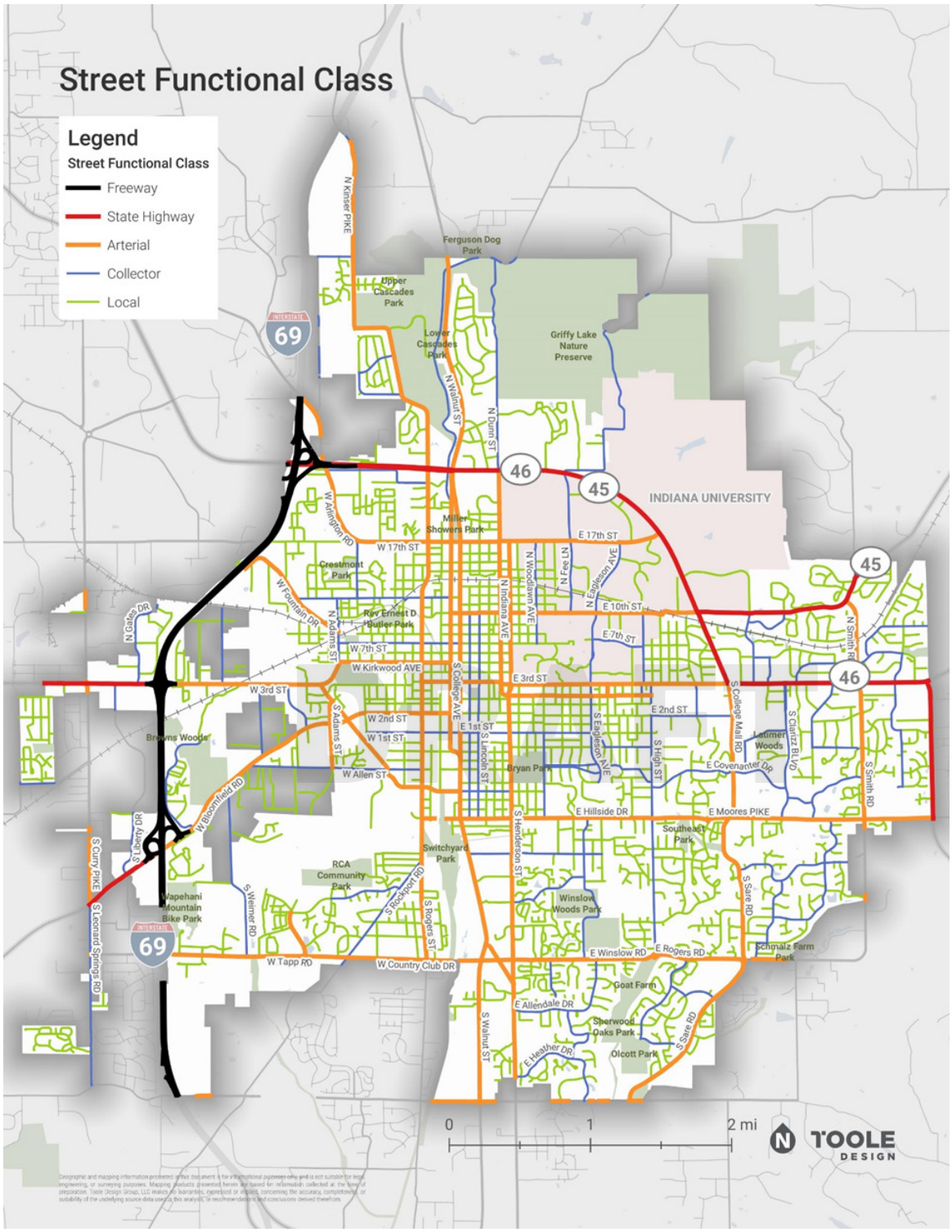


Figure 9. Functional Class of Streets in Bloomington

Rear-end and right angle crashes ("T-bone crashes") are the leading fatal and serious injury crash types for people driving on Bloomington's streets. "Failure to Yield the Right of Way" was the most common leading contributing factor for these same crashes. For crashes involving pedestrians or people riding scooters, "other" is the most common listed crash type. This crash type typically has more detailed information listed in the narrative of the crash report, however, this data was not available in the crash dataset used for analysis.

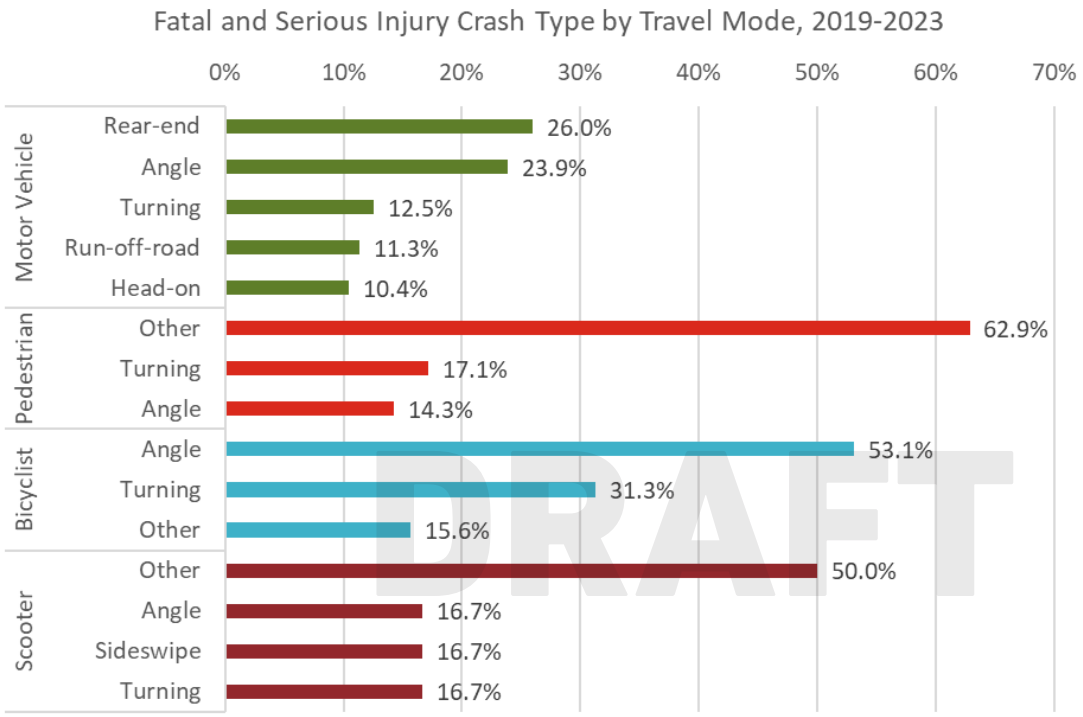


Figure 10. Crash Type by Mode of Travel for Fatal and Serious Injury Crashes, 2019-2023

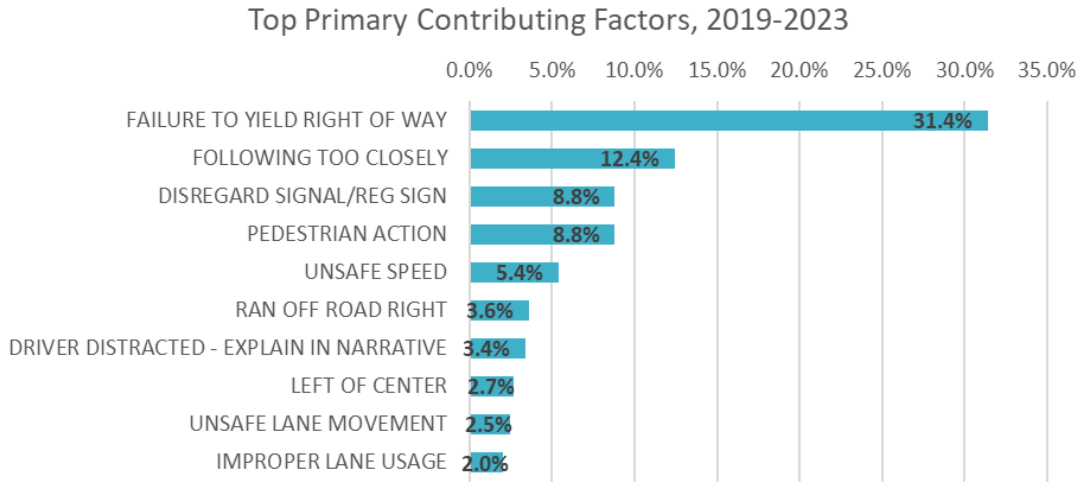
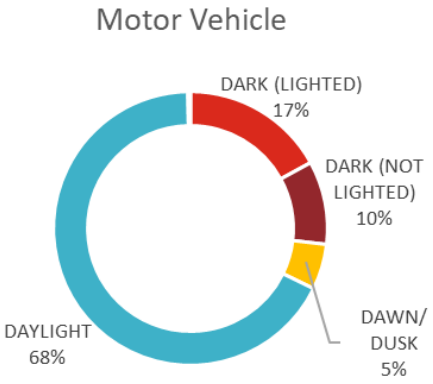
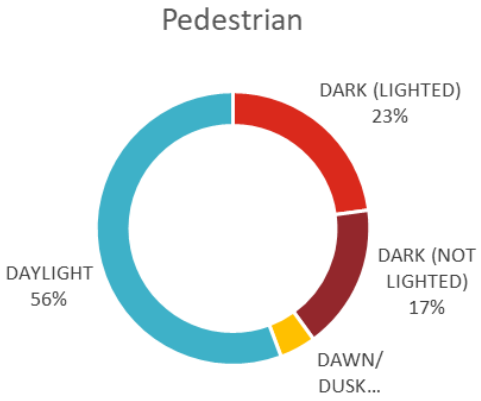
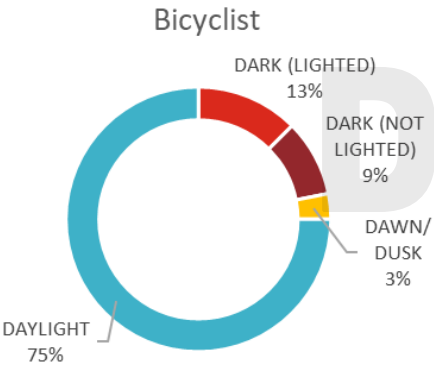


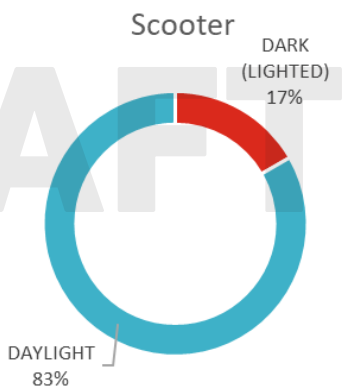
Figure 11. Top Primary Contributing Factors for Fatal and Serious Injury Crashes, 2019-2023

40% of fatal and serious injury crashes that involved a pedestrian were at night. This follows national crash trends in which darkness commonly elevates risk, especially for pedestrians, due to reduced visibility and increased vehicle speeds at night, among other reasons.









High Injury Network

Crash data is one of the best tools we have to understand how and where people The City of Bloomington developed a High Injury Network to determine where to focus transportation safety projects in the future in order to reach zero fatal or serious injury crashes.

A High Injury Network is a map of streets that have the highest frequency of fatal and serious injury crashes. These locations are candidates for safety improvements as part of a data-driven, reactive safety program. By targeting these high injury locations with the safe systems approach, we can be sure that our investments will produce strong results for our road users.

Method

The crash dataset used to create the High Injury Network was fatal and serious injury (FSI) crashes from the years 2019 through 2023. Roads were analyzed using a sliding window-type analysis approach with a step size of 0.1 miles and a window size of 0.5 miles, producing smoothed crash frequencies. Crashes which occurred near intersections were assigned to all intersection approaches within 30 feet to account for corridors patterns that traverse intersections.

Results

All analysis results are summarized in the following maps. Each map below visualizes the top 15% of crash locations based on their respective scores. The scores are calculated for the 2019 through 2023 study period, summarizing computing a segment length-weighted average of FSI the total number of crashes on each roadway segment using a sliding window approach. This smooths the crash data, allowing us to interpret crashes, which occur at discrete locations, along continuous roadways. The approach uses a window size of 0.5 mile, and steps through each roadway corridor 0.1 mile at a time, scoring each segment based on crashes which occur on that segment or, to a lesser degree, which occur on adjacent segments. Results are summarized in a series of maps as follows:

- **All Mode FSI Crash Score:** Total number of fatal or serious injury crashes of any mode. (Figure 12)
- **Motor Vehicle FSI Crash Score:** Total number of fatal or serious injury crashes involving only motor vehicles. (Figure 13)
- **Pedestrian FSI Crash Score:** Total number of fatal or serious injury crashes involving pedestrians. (Figure 14)

• **All Mode FSI Crash Score:** Total number of fatal or serious injury crashes of any mode. (Figure 12)

• **Bicyclist FSI Crash Score:** Total number of fatal or serious injury crashes involving bicyclists. (Figure 15)

• **Scooter FSI Crash Score:** Total number of fatal or serious injury crashes involving people riding scooters. (Figure 16)

• **Vulnerable Road User FSI Crash Score:** Total number of fatal or serious injury crashes involving pedestrians and bicyclists (Figure 17)

Some of the top High Injury Network corridors include:

• State Route 45/46

• East 3rd Street

• West 3rd Street

• Walnut Street

• College Avenue

• West Country Club Drive

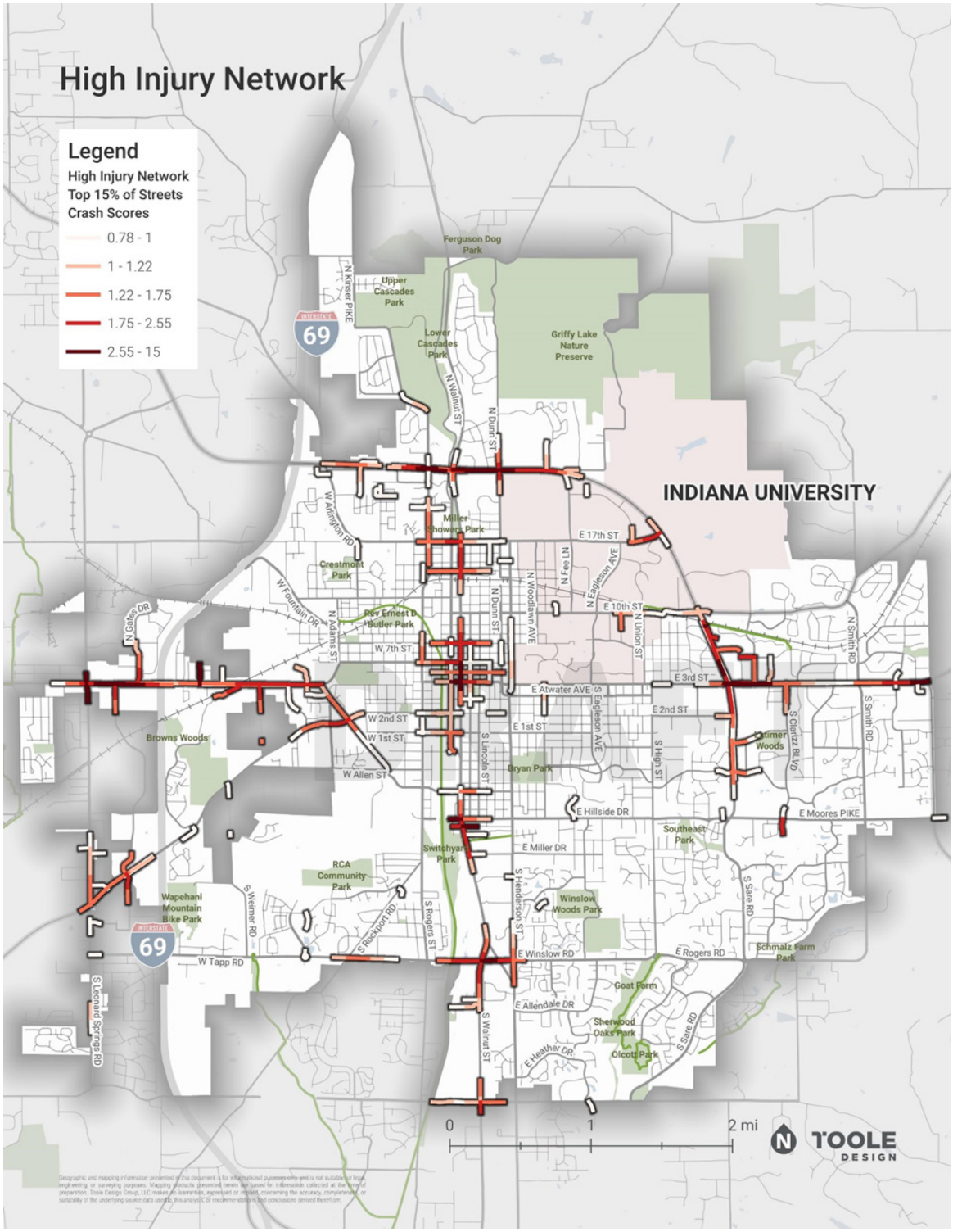


Figure 12. High Injury Network - All Modes

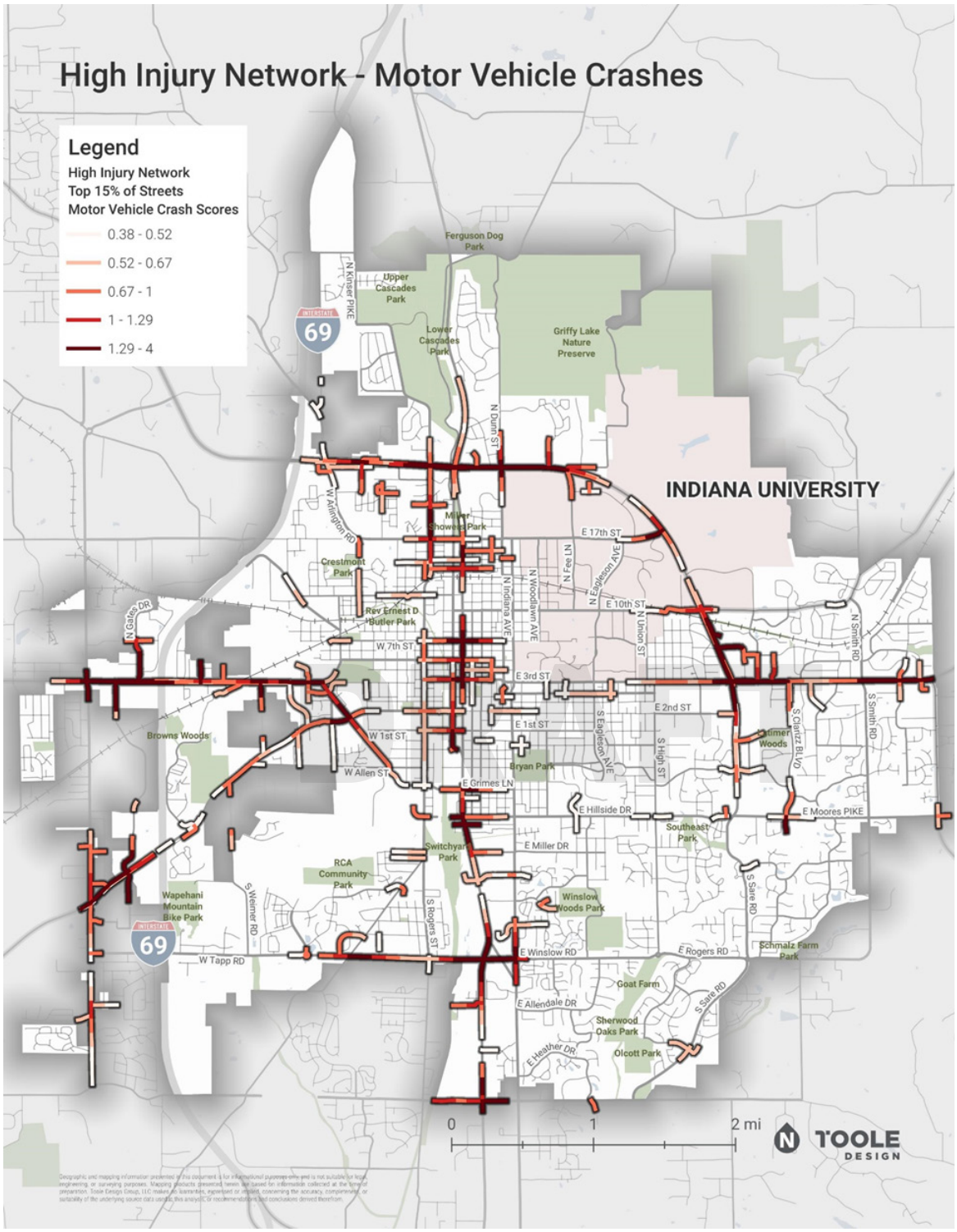


Figure 13. High Injury Network - Motor Vehicle Crashes

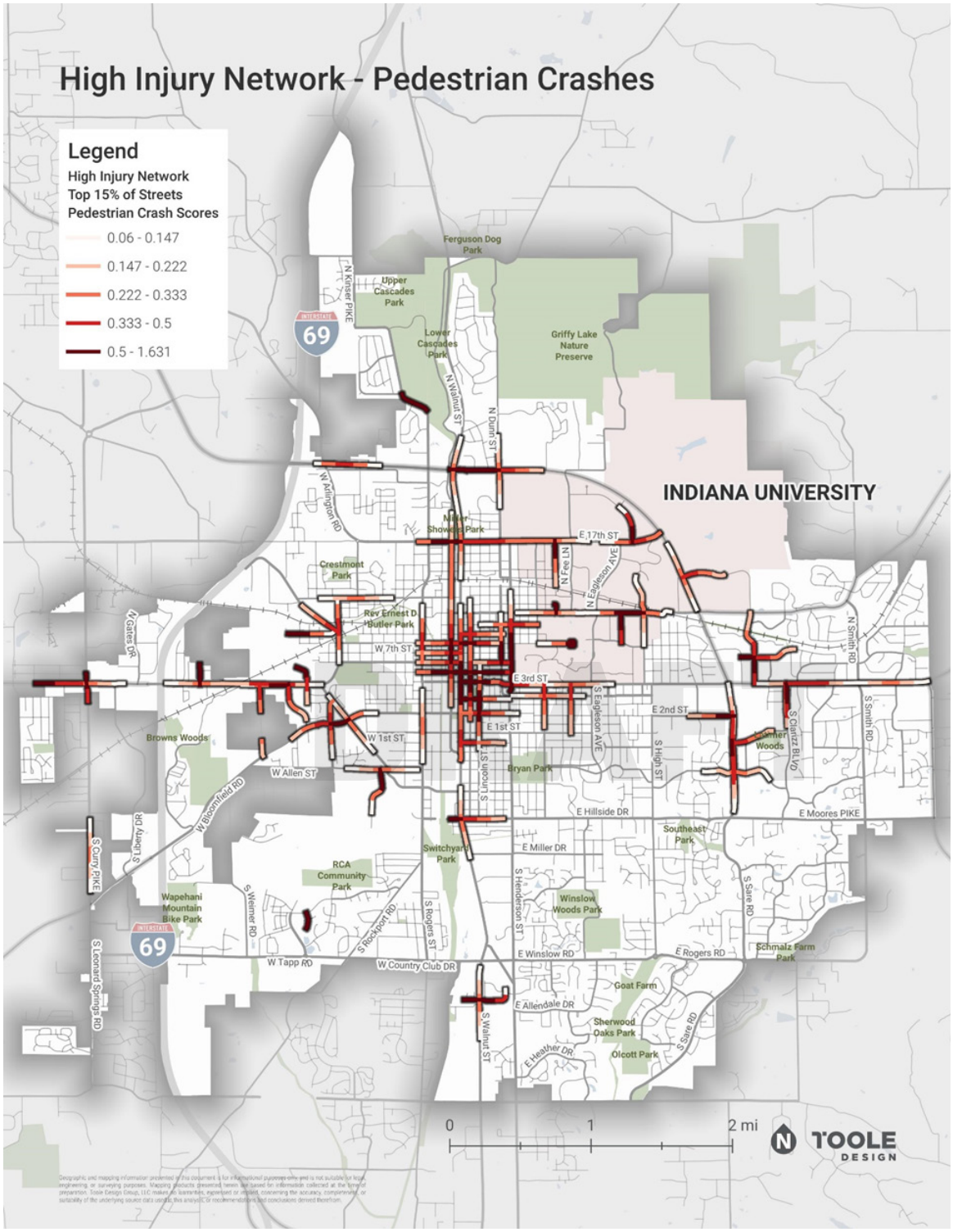


Figure 13. High Injury Network - Motor Vehicle Crashes

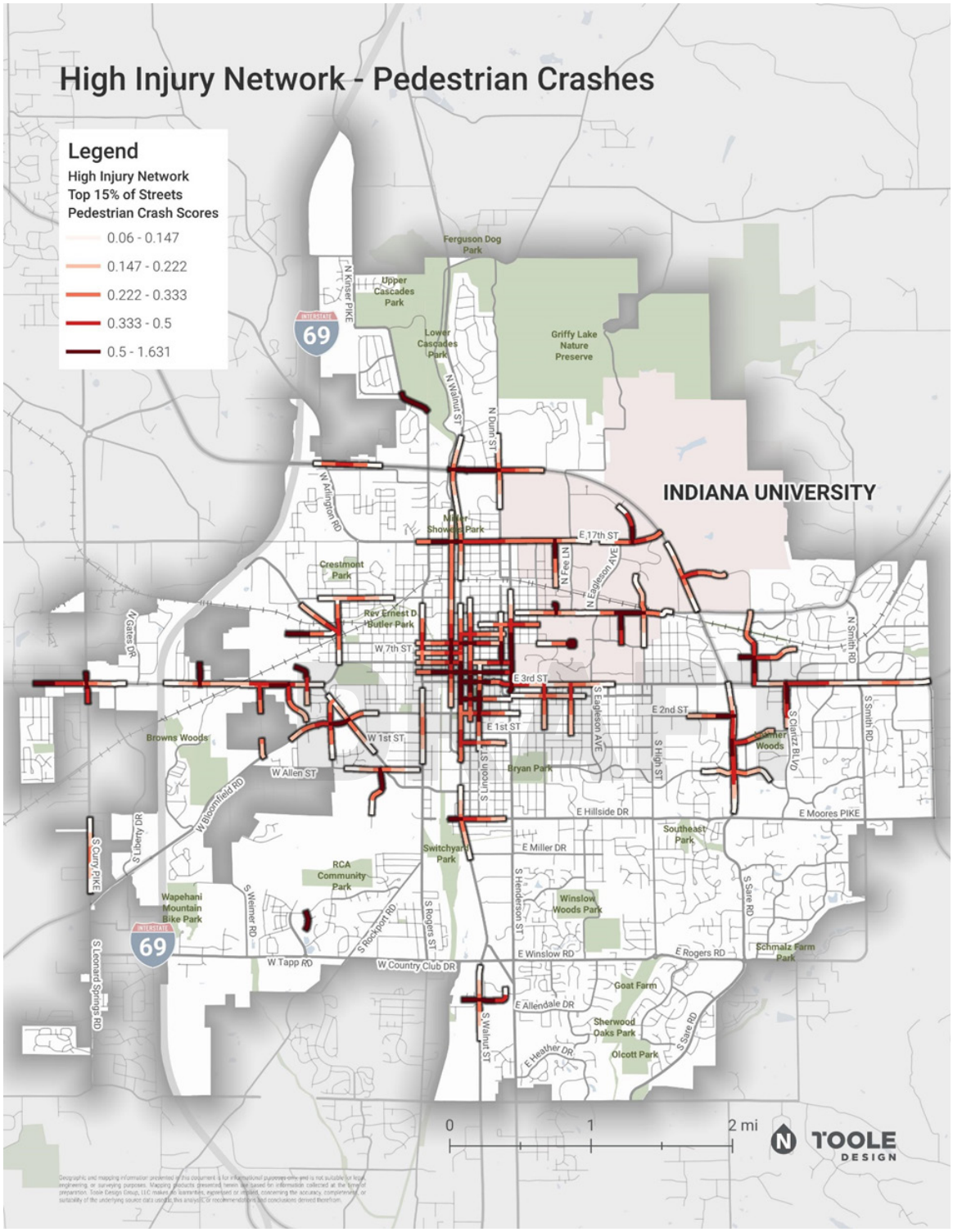


Figure 14. High Injury Network - Pedestrian Crashes

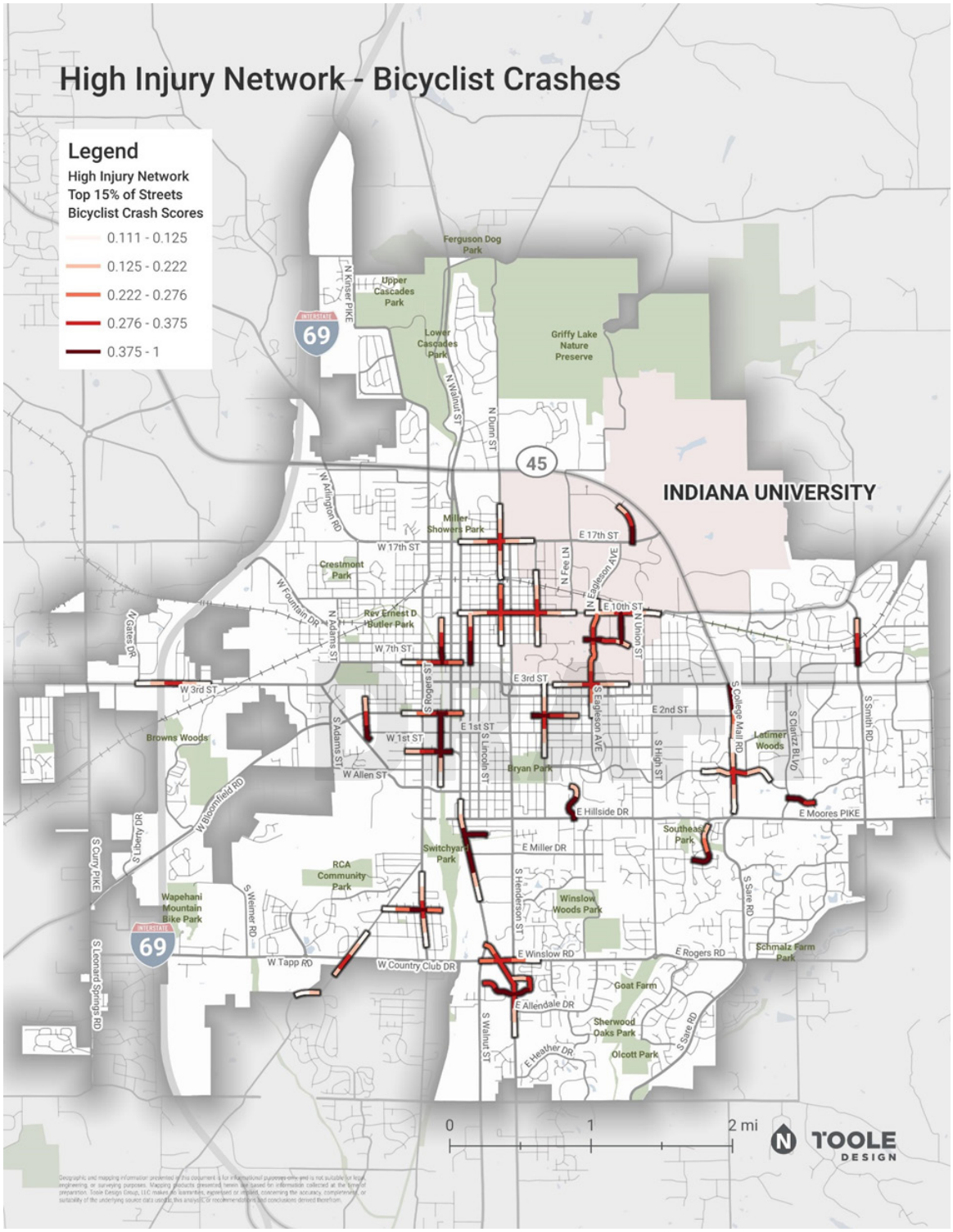


Figure 15. High Injury Network - Bicyclist Crashes

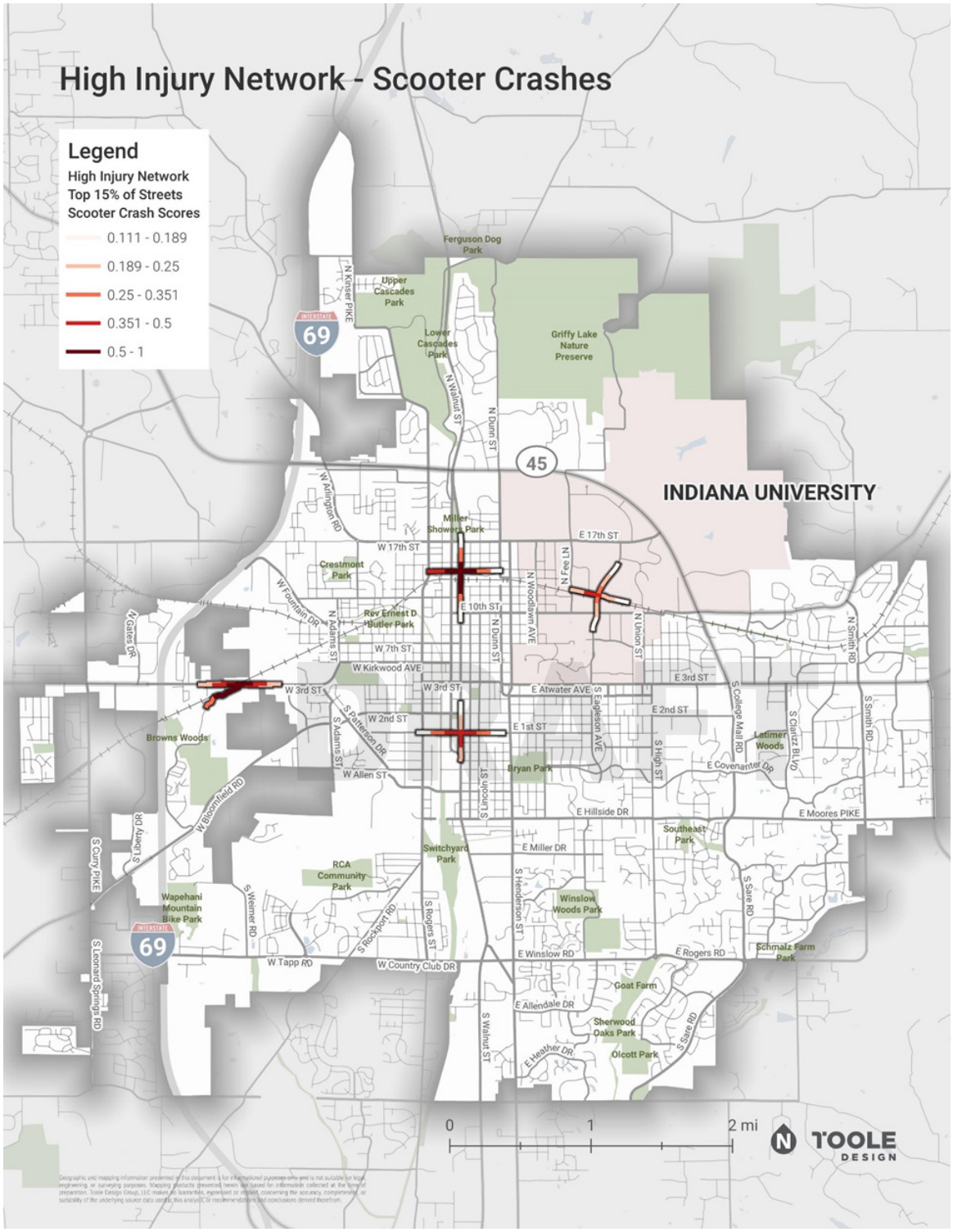


Figure 16. High Injury Network - Scooter Crashes

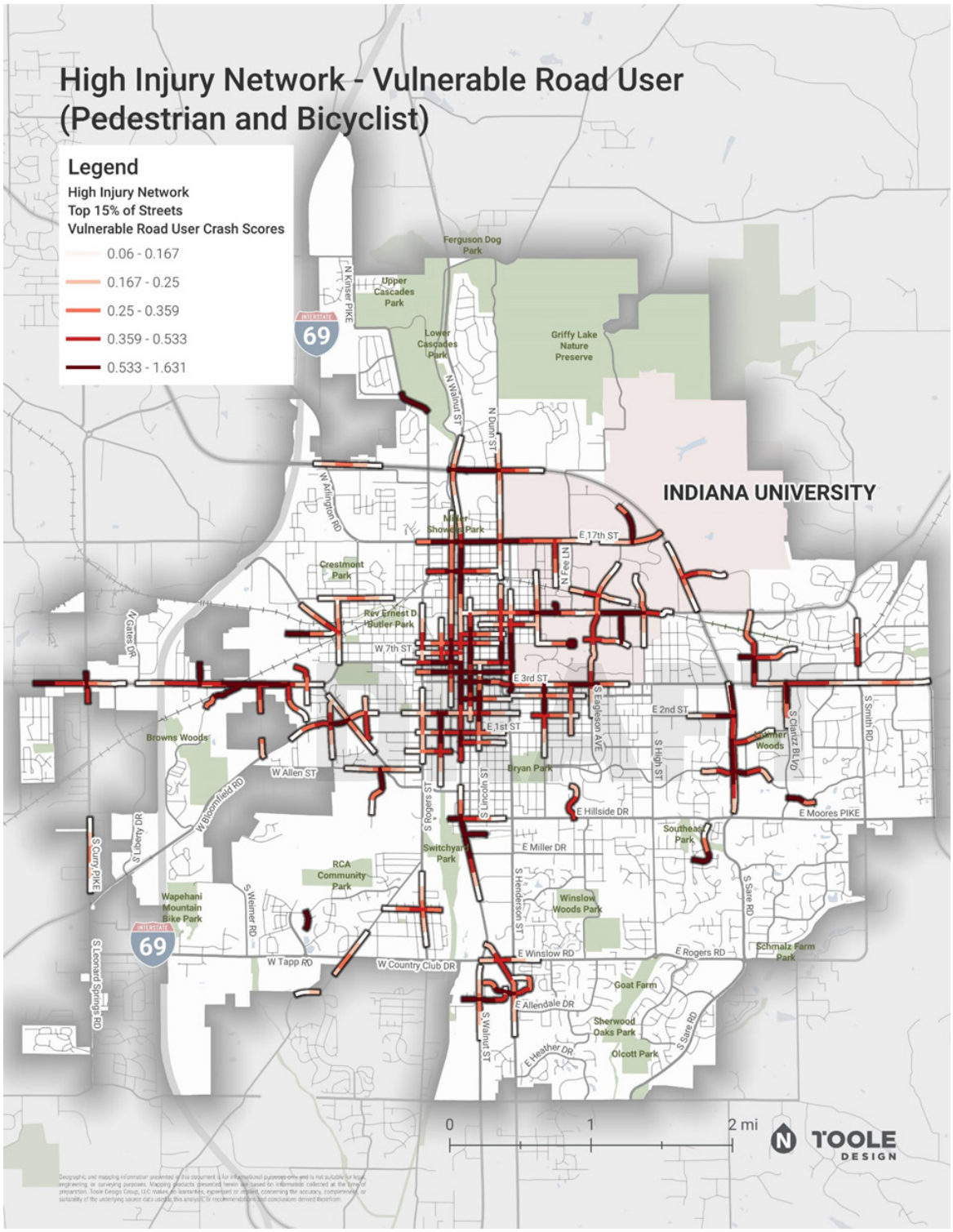


Figure 17. High Injury Network - Vulnerable Road Users (Pedestrian and Bicyclist)

High Risk Network

In addition to the High Injury Network analysis, which looks backwards in time at the locations of crashes historically, the City of Bloomington also developed a High Risk Network (HRN). High Risk Network analysis highlights roads that have similar designs, land use patterns, or population characteristics with roads on the High Injury Network. In other words, the High Risk Network is a proactive, systemic assessment of where fatal and serious injuries are likely to occur in the region. These roads are candidates for safety improvement as part of a data-driven, proactive safety program. This is a key aspect of the Systemic Safety Approach which requires agencies to think critically about where crashes could occur in the future based on systemic risk – even if very few or no severe crashes have occurred in those locations in the past.

Method

For this High Risk Network analysis, roadways were analyzed using the facility profile analysis methodology, which identifies unique combinations of roadway design and contextual attributes which correlate with elevated crash risk. The analysis produces a risk score for each roadway segment based on the frequency of crashes observed at similar facilities across the study area, representing the average number of crashes at comparable facilities during the study period. All facilities are categorized into one of five tiers based on their relative risk score, namely Critical, High, Medium, Low, and Minimal. Attributes considered in the analysis include:

- **Roadway Class:** Major Road (functional class of minor arterial and above or major/primary local roads) or Minor Road (all others).
- **Lane Configuration:** Two-lane or Multilane.
- **Setting:** Urban or Rural context.
- **Traffic Volume:** Average annual daily traffic (<1,000 vehicles per day (vpd), 1,000-10,000 vpd, or 10,000+ vpd).
- **Speed Category:** Posted speed limit (≤30 MPH, 35-45 MPH, or 50+ MPH).
- **Percent Zero Vehicle Households:** Percent of households within the census block group which have zero vehicles.
- **Percent of Residents in Poverty:** Percent of population within the census block group at or below 2X the poverty level.

• **Percent Younger Residents:** Percent of population within the census block group below the age of 18.

• **Percent Older Residents:** Percent of population within the census block group age 65 years or older.

• **Percent Disabled Resident**s: Percent of population within the census block group with a disability.

• **Housing Cost Burden:** Percent of households within the census block group which spend more than 30% of income on housing.

• **Transportation Access**: Equitable Transportation Communities data transportation access subcomponent score.

Results

The analysis results are shown in a map in Figure 18. This map visualizes the Critical and High tier facilities. These streets have a higher average fatal and serious injury crash per mile rate than other streets in Bloomington.

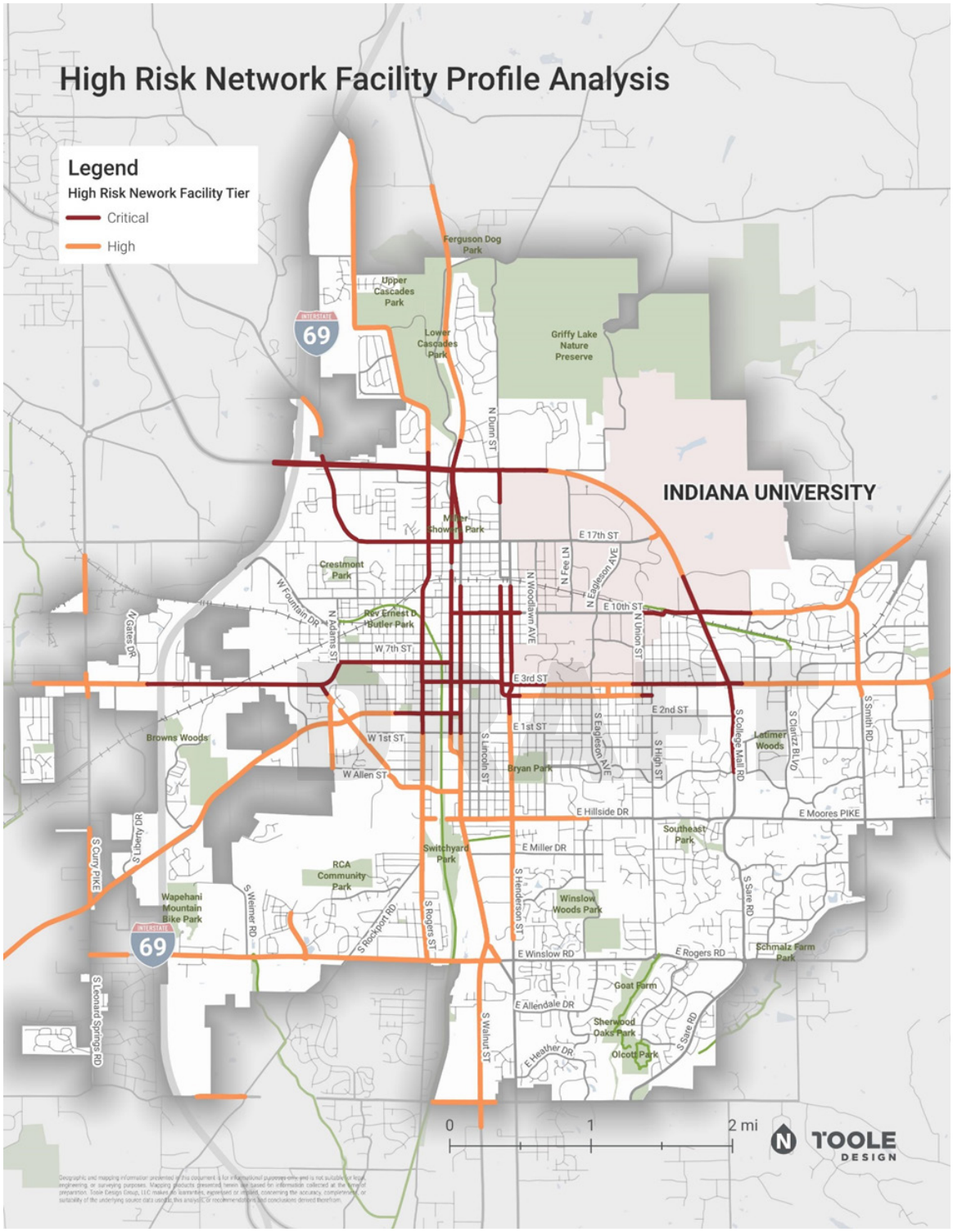


Figure 18. High Risk Network - Facility Profile Analysis

Voices of Bloomington

Transportation is a key element of people's daily lives that not only allows them People's feelings and opinions around street safety are formed through a combination of personal experience, conversations and stories within their communities, and perceptions. It's invaluable to understand these feeling and thoughts about street safety because any recommendation or project that results from this plan will aim to not only factually improve the safety of Bloomington's streets, but also increase people's feelings of safety as they walk, bike, drive, or take transit around the city.

A wide variety of public engagement opportunities were provided to gather residents' thoughts and opinions on transportation safety in Bloomington as part of this project. Over 400 residents submitted more than 1,000 unique responses via an interactive webmap, and nearly 2,000 additional residents participated in a one-week citywide public participation blitz that included 13 pop-up stations, three evening events, eight classroom visits, walking tours, and public meetings at various locations throughout the City. These strategies were designed to hear from a wide variety of Bloomington's residents, with intentional efforts made to get feedback from those that are overrepresented in traffic crashes but often underrepresented in public engagement efforts – youth and seniors, low-income individuals, people who walk and bike, and People of Color.

This public outreach was complemented by a project steering committee that was made up of members of different City commissions (Parking, Community Accessibility, Bicycle and Pedestrian Safety, and Traffic), City Council, and MPO staff. Project staff meet with this group regularly during the project at key decision points to get feedback and recommendations for going forward. More detail on the engagement efforts can be found in Appendix X.

While the project team had various conversations on a wide array of topics during our engagement effort, a few important themes stood out that were invaluable as we created this plan's recommendations:

• **Distracted driving and people driving too fast were, by far, the top two factors that make people feel unsafe on Bloomington's streets.** These factors were followed by people not yielding at intersections and the lack of safe places for bicyclists. It should be noted, however, that different locations resulted in different distributions of responses. For example, at a pop-up held at Tri-North Middle School, a much higher percent of participants selected "fear of physical or verbal harassment" as one of their top concerns. This variation is likely due to middle school students mostly being on foot, bike, or scooter and, in general, feeling threatened by adults.

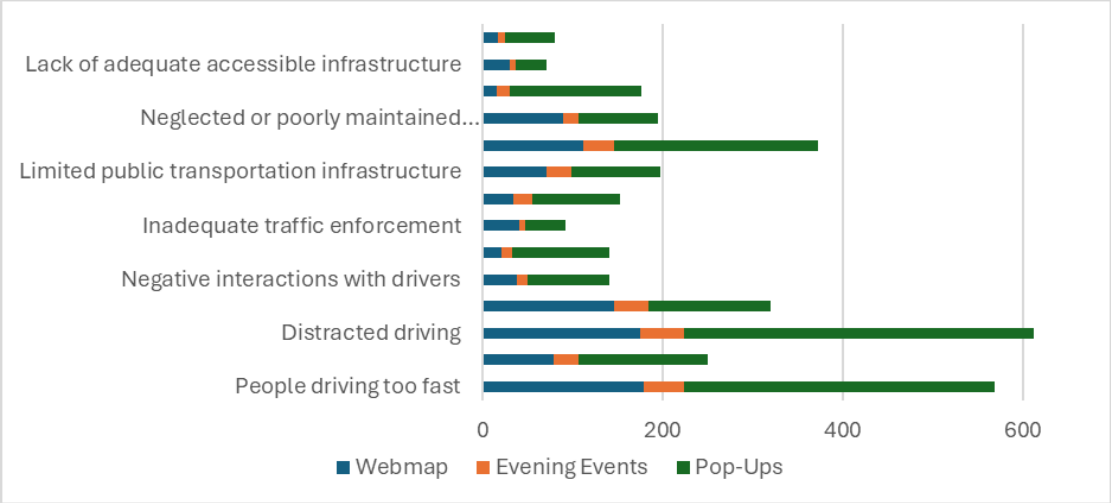


Figure 19. Responses to "What are the top three things that make you feel unsafe on Bloomington's Streets?"

• **Residents think is it very important to invest in a safe and comfortable transportation system. Nearly all participants answered** "very important" to our posed question. Very few selected "not important" as their answer.

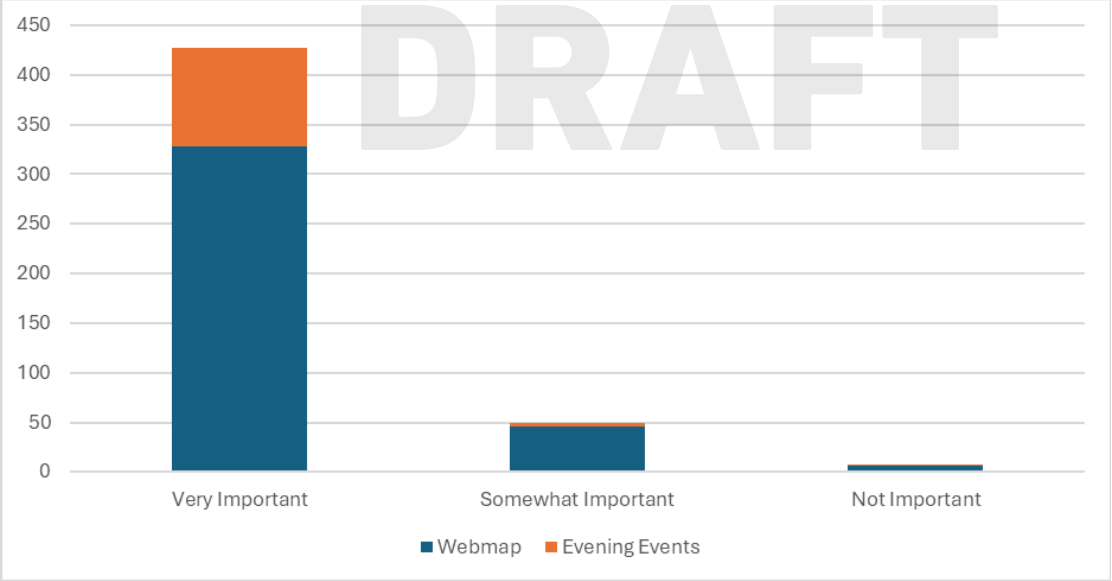


Figure 20. Reponses to "How important do you think it is to invest in a safe and comfortable transportation system in Bloomington?"

• **Most residents are willing to make trade-offs for the sake of safety** That said, many participants admitted that they don't usually drive at or below the speed limit which shows that people are in support of safety, in theory, but may need more than a speed limit to encourage them to drive at safe speeds.

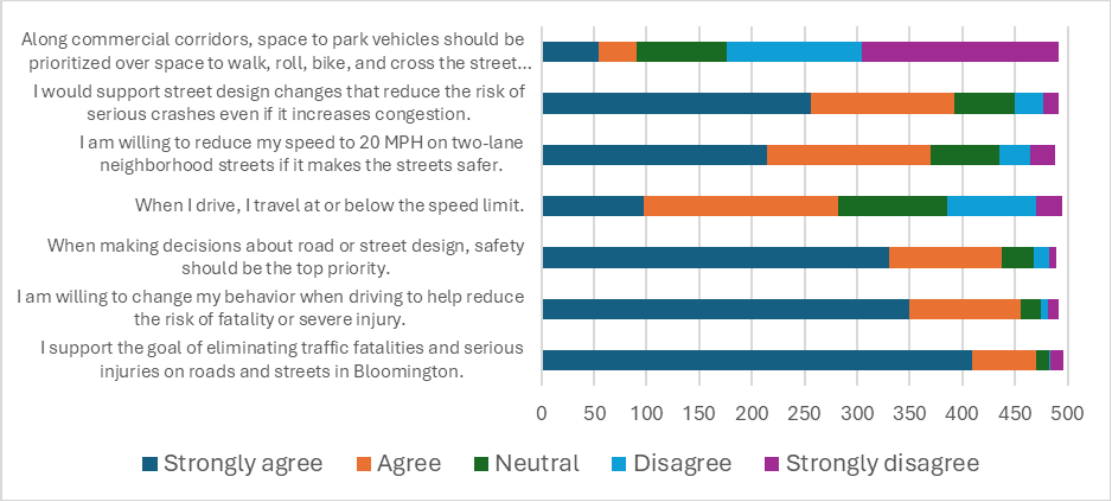


Figure 21. Results to tradeoff questions

• **The feelings of safety differ dramatically depending on how one navigates the City.** In general, respondents felt safe while driving or on transit. Walking was the next "safest," with a very small amount of respondents saying it feels "very unsafe." Feelings of safety dramatically dropped from there with less than a quarter of people feeling safe while biking or in a wheelchair. Notably, nobody responded that they felt "very safe" on a scooter.

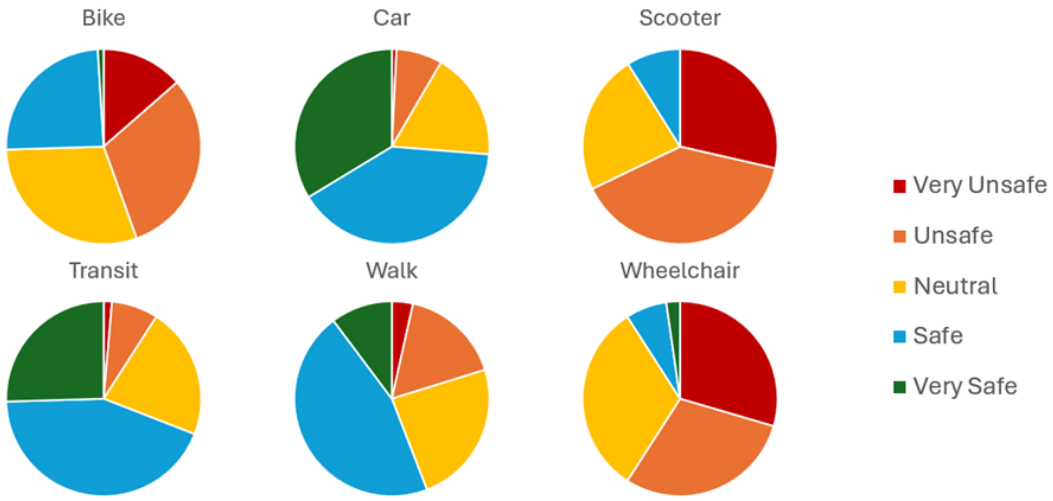


Figure 22. Responses to "Generally, how safe do you feel traveling around Bloomington walking, rolling, biking, scooting, driving, or taking transit?"

• **More separation between modes makes everybody feel safer.** Respondents that walk or bike want more separation between them and vehicles, better maintained facilities, and more sidewalks, bicycle lanes, or trails in the community. For people biking, more secure bicycle parking and better wayfinding were also common selections. For pedestrians, participants selected better lighting and more accessible infrastructure as items that would make them feel safer.

Interestingly, participants selected "more space separating people bicycling from car traffic" and "better road maintenance" as the top two items that would make them feel safer while driving, which is nearly identical to the responses of pedestrians and bicyclists. Reducing driving speeds using speed bumps or lane reductions, and better or more visible signs were the next most common answers.

For transit riders (which had less responses than questions for walking, rolling, biking, and driving), participants highlighted improvements at transit stops, especially adding more pedestrians' crossings and/or signals near stops. Adding more shelters was the second most common choice, followed by the desire to increase lighting around transit stops.

What would make you feel safer when walking or rolling?	
More space separating people walking from car traffic	402
More sidewalks or trails	267
Better maintenance of sidewalks and trails	241
Better lighting of sidewalks, trails, and roads	176
More accessible infrastructure (curb-ramps, wheelchair access, wider sidewalks, etc.)	113
Additional signs or signals at intersections	94
Additional police presence	51
Other	48
Better wayfinding so I know where to go	21

What would make you feel safer when biking?	
More space separating people bicycling from car traffic	243
More bicycle lanes or trails in the community	236
Better maintenance of bicycle lanes and trails	136
More secure bicycle parking	91
Additional signs or signals at intersections	82
Better lighting of trails and roads	73
Other	44
Better wayfinding so I know where to go	26
Additional police presence	19

What would make you feel safer when driving?	
Better road maintenance	235
More space separating people bicycling from car traffic	219
Increased street lighting	153
Reducing driving speeds using speed bumps or reducing the number of lanes	134
Lowering speed limits	130
Better or more visible signs so I know where to go	106
Other	78
Additional police presence	64
Increasing the number of traffic signals	36

What would make you feel safer when taking transit?	
Adding more shelters at transit stops	151
Increasing lighting around transit stops	145
Having more pedestrian crossings and/or signals near transit stops	133
More route information so I know where to go	117

• **The presence of walking and cycling facilities, such as sidewalks, bicycle lanes, and crossings, make a location feel safe. Fast driving speeds are the top reason areas feel unsafe.** Respondents feel safe near the B-Line Trail or 7-Line, and other places where there are many other pedestrians and bicyclists (e.g. Switchyard Park, Bryan Park, Kirkwood St.). Respondents identified arterial and collector roadway segments (such as College Avenue, Walnut Street, and East 3rd Street) and areas where a higher degree of bicycle and pedestrian traffic occurs (adjacent to downtown and Indiana University) as areas where they feel unsafe.

"This Location is Safe Because"	Count	"This Location is Unsafe Because"	Count
There are bicycle lanes or space for bicyclists	79	People drive too fast	392
There are sidewalks	74	Drivers do not pay attention	324
There are a lot of other people walking or biking	66	There are no safe places for people walking, biking, or rolling to cross the street	219
People drive at the speed limit or slower	41	There are no bicycle lanes or space for bicyclists	189
There are safe crossings	40	There are no or inadequate sidewalks	189
Drivers are paying attention	35	Other (please specify below)	185
There is good lighting at night for pedestrians or bicyclists	22	There are too many cars on the road	177
"This Location is Safe Because"	**Count**	**"This Location is Unsafe Because"**	**Count**
Other (please specify below)	18	I have experienced personal safety or harassment at this location	110
		There is not enough lighting at night for pedestrians or bicyclists	84
		There is not enough lighting at night for driving	45
Total	**375**	**Total**	**1,914**

Table 2. Summary of safe and unsafe location webmap attributes

Getting To Zero

It's one thing to know what the issues are and where they are happening. It's another thing to know what to do and how to act. Bloomington is ready to act.

This section outlines the commitments the City of Bloomington will do to make our streets safer for everybody. The actions are organized into four categories:

- Funding and Staffing
- Community Engagement and Equity
- Policies, Processes, and Government Structure
- Safety Studies and Infrastructure

The tables on the following pages have prioritized the actions associated with these categories into three timeframes:

1. Immediate or Short Term (2024-2027)
2. Medium Term (2028-2034)
3. Long Term (2035-2039)

Each action includes an interim goal year, identified lead(s), and resources needed to complete the action. These actions and strategies should be reviewed and revised regularly to ensure that the Bloomington's goal to eliminate fatal and serious injury roadway crashes by 2039 will be achieved.

These strategies and implementation actions will only occur when and where appropriate based on further analysis, engineering design, and environmental assessment. Implementation will also be dependent on staffing, financial, partnership development, and other constraints so while the City will make every effort to implement that following actions, other contributing factors will need to be accounted for. **Additional staffing hires and significant investment in infrastructure planning and construction funding levels will be needed to meet the City's goal.**

Please note that all costs and funding amounts shown in the following section are estimated costs using 2024 dollars. Amounts should be taken as a starting point for budgeting purposes only and should be updated by City staff for inflation and for the exact scope developed for each item. Additional information and assumptions listed are given to assist the City with future scoping and delivery items only. The team developing this action plan is not responsible for the accuracy of the numbers provided herein.

Immediate or Short Term Action Items (2024-2027)

Funding & Staffing

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
FS1	Increase City engineering and public works staffing levels to support implementation of safety improvements	2025	Engineering, Planning, Administration	Additional staffing (see items noted for additional staffing)

Additional information:

• Consider hiring permanent staff in place of consultants to reduce estimated costs reported elsewhere in this document.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
FS2	Establish permanent local funding for safety and speed studies, low-cost implementation projects, and regular maintenance of safety infrastructure	2025/Ongoing	Engineering, Planning, Administration	Funding (Suggest to start with $500,000 in 2025)

Additional information:

• Revisit funding levels as projects are designed and implemented.

• Safety infrastructure is defined as infrastructure related to safety enhancement demonstration projects (such as flexible delineators, paint, hardened centerlines, and removable speed humps) and permanent direct safety implementation items (such as RRFB systems, crosswalk signing, and pavement markings).

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
FS3	Evaluate individual property owner contributions for sidewalk maintenance, traffic calming, street reconstructions, and other safety improvements	2025	Engineering, Planning, Administration	Funding shift to City tax levy

Additional information:

• Currently, individual fronting property owners contribute funding toward improvement projects (sometimes referred to as “special assessments”). This funding mechanism may be inequitable, particularly toward lower- and fixed-income residents, and may contribute to lack of public momentum for needed projects.

• Adjusting funding for projects to the community at-large (via tax levy) or to a region of the community (via transportation improvement districts or similar, if allowed by the state) decreases financial strain on particular properties when projects occur on adjacent roadways, and it allows more users who benefit from the improvement to share the cost.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
FS4	Establish transparent Capital Investment Program funding programming process	2025	Administration, Engineering	None

Additional information:

• Currently, there is not a transparent, data-driven process for prioritizing Capital Improvement Projects.

• Utilize the project prioritization in this report combined with infrastructure maintenance and preservation needs to develop funding levels and capital improvement plan.

• Include regular funding for maintenance and replacement of safety infrastructure, sidewalks, trails, and bikeways.

Community Engagement & Equity

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
CEE1	Develop a Community Engagement and Communication Plan for safety implementation projects	2025	Planning	Funding ($150,000 estimated consultant cost to develop, budget $50,000 annually for compensation of community partners)

Additional information:

• Integrate language that communicates safety goals into public outreach.

• Establish regular targeted outreach to various neighborhood and civic groups to collect feedback on transportation safety issues (examples include neighborhood groups, advocacy organizations, IU students and staff, and religious organizations).

• Utilize existing events to promote safety messaging and collect feedback (examples include Night to Unite, annual City festivals, etc.)

• Include set goals, engagement strategies, community partners, engagement timelines, and methods for integrating feedback into the project.

• Establish a scale to determine dollar amount or impact level that requires certain strategies.

• Establish a system to communicate materials to the public virtually (via website, social media, email newsletter, etc.), printed (at daily destinations, in the right of way, at public buildings, etc.), and in media (newspapers, online alternative news sources, television, radio, etc.) to all types of transportation users.

• Provide materials in other languages (Spanish at a minimum and consider other languages as needed)

• Consider creation of a program to involve community members, groups, and organizations in conducting and participating in engagement efforts.

• Consider establishing community ambassadors to employ for engagement efforts, and establish funding source to provide fair compensation and necessary resources for ambassadors.

• Collaborate with local groups and advocates for walking, biking, and vulnerable road user groups to expand the reach of SS4A effort, including collaborating to host events that promote and advocate for walking, biking, rolling, or taking transit.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
CEE2	Invest in a public communication campaign to shift culture toward multimodal travel and educating transportation users about safety in all modes of travel	2026	Planning	Funding ($75,000-150,000 estimated consultant cost)

Additional information:

• Includes education about crash factors, safety data, benefits aside from traffic safety (such as physical health, personal safety, air quality, economic and health disparities, etc.).

• Includes information and training to local media around understanding crash data, minimizing victim blaming, and high-level understanding of SS4A efforts.

Policies, Processes, and Government Structure

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS1	Create an Advisory Transportation Commission to review and approve all transportation facility projects, including safety implementation projects.	2024	Planning	None

Additional information:

• Intended to provide a single commission review process for transportation projects to streamline City business and to create accountability for review of safety in each project.

• This committee should review all public- or private-led projects by any City department, other governmental agency, property owner, developer, utility, or other party that has a project that affects the City's transportation system. Review must include analysis of safety impacts (during construction and following construction) and provide recommendation for approval, modification, or denial to deciding body or staff.

• Submitting party must provide analysis of potential alternatives for all transportation facility projects that includes Safe Systems approach, Vision Zero, Complete Streets, and Safe Routes to School analysis for all studied alternatives. Document this analysis in a Safe Systems design alternatives report to include within a project's Engineer's Report (or similar) that is included in the project review and approvals process.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS2	Analyze City staff and department structure to provide holistic response to safety needs and realize efficiencies in staff and other resources.	2025	Planning, Engineering, Administration	None

Additional information:

• Intended to determine if existing government structure is effective at championing study and implementation of safety on the City's transportation system or if combining or restructuring departments (particularly the Planning and Transportation and Engineering departments) will result in a more efficient and effective delivery of the action items in this report.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS3	Modify existing fatal crash analysis structure	2025	Engineering (development); Engineering, Planning, Fire, Police (participation)	Additional staff position (engineering) to review data, coordinate meetings, and report findings

Additional information:

• Schedule a regular (monthly or quarterly as needed) meeting with engineering, planning, fire, police, EMS, other jurisdictions (INDOT, Monroe County), and public health professionals to analyze contributing factors and identify potential short- and long-term solutions to address crash causes.

• Expand to include serious injury crashes as staffing allows.

• Provides brief report on crash data and findings to Advisory Transportation Committee (see PPGS1)

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS4	Develop and/or revise City standard details that integrate Safe Systems Approach design principles	2025	Engineering	Funding ($50,000 estimated consultant cost)

Additional information:

• Add standard details for sidewalks, driveways, bikeways, RRFBs, traffic signals, safety countermeasures provided in Appendix X, etc. that currently do not exist but contribute to safety for all transportation users.

• Revise existing details (such as pavement markings) to reflect latest safety research and data. For example, increase lane line striping to 6" width and default to continental/block, "ladder", or other high-visibility crosswalk striping.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS5	Revise land use and zoning standards to support transportation safety	2025	Planning	Funding ($250,000 estimated consultant cost)

Additional information:

• Promote redevelopment and new development that encourages slow vehicle speeds, mode shift to non-personal vehicle transportation, and funds adjacent transportation safety projects.

• Utilize development opportunities to meet other goals, such as filling in sidewalk gaps, intersection improvements, and road diets.

• Utilize proactive land use planning, such as small area plans and/or ghost platting, to inform potential developers of future land use intent (not included in estimated consultant cost above).

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS6	Develop appropriate truck turning standards and evaluate existing roadway system for excessive curb radii	2025 (development), 2028 (evaluation)	Engineering	Intern or EIT staff for evaluation

Additional information:

• Evaluate appropriate design vehicles and accommodation/control vehicles for various street typologies from the 2019 Transportation Plan and surrounding land use context.

• Identify areas with excessive curb radii, roadway/lane widths, etc. based on AutoTURN or other truck turning software following established design and control vehicle standards.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS7	Enhance robustness of crash data by improving quality and consistency of crash reporting and by collaborating with EMS, hospital, and trauma facilities to identify instances of potential crash underreporting	2026	Planning, Police, Engineering, Fire	Staff member to facilitate coordination and communication

Additional information:

• Historical crash data for Indiana has been challenging to analyze and compare.

• Historically marginalized communities may avoid reporting injury crashes to law enforcement but likely will seek medical attention for injuries.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS8	Identify criteria or universal adoption of signal-related pedestrian and bicycle safety improvements	2026	Engineering	Funding ($5,000 estimated consultant cost)

Additional information:

• Examples include No Turn on Red, Leading Pedestrian and/or Bicycle Intervals, Pedestrian Scrambles, and Rest-In-Red.

• Prioritize implementation on high priority areas and all new signal installations.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS9	Evaluate transit availability, routing, incentives, and usage to promote mode shift from personal vehicles to transit.	2027	Planning, Transit	Funding ($250,000 estimated consultant cost for evaluation)

Additional information:

• Consider additional incentives, such as free or reduced fares to select groups or all riders, to encourage transit usage during events and for commuting.

• Continue to promote transit usage for City employees, and consider expanding further to additional employers.

• Study proactive expansion of the transit system through additional routes and/or reducing headways to enhance desirability of transit usage, including mid-day, night, and weekend service.

• Enhance accessibility of system (shelters, boarding zones) to ensure availability to all users regardless of physical ability.

• Increases potential for mode shift away from personal vehicles and toward transit, reducing system kinetic energy and helping the City meet climate goals.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS10	Prepare an annual report highlighting progress made toward zero deaths/serious injuries goal, and present to City Council and Advisory Transportation Commission	2025	Planning	Funding ($5,000 estimated consultant cost to establish report template)

Additional information:

• Also post to City website, social media, and in locations accessible to the public.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS11	Explore establishing a citywide 20 mph speed limit and/or slower speed zones in school areas.	2025	Planning	Funding ($5,000 estimated consultant cost for background information report)

Additional information:

• Other slower speed zones, such as neighborhood slow zones, may also be considered as part of this effort.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS12	Identify and develop prioritization plan for eliminating sidewalk and bikeway gaps and reducing barriers to use.	2026	Planning	Funding ($25,000 estimated consultant cost to complete)

Additional information:

• Use available city data and public input to prioritize improvements.

• Prioritize construction of at least one side of sidewalk where none currently exist and to fill in gaps in existing sidewalks.

• Where available right of way and roadway geometrics allow, provide physical horizontal and vertical separation between roadway and sidewalk/bikeway.

• Increases potential for mode shift away from personal vehicles and toward active transportation, reducing system kinetic energy and helping the City meet climate goals.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS13	Analyze sight distance and visibility of all roadway users at intersections and midblock crossings.	2027	Engineering	Intern or EIT staff for evaluation

Additional information:

• Coordinate with Public Works staff to remove any barriers to sight distance within the City's control (such as low-hanging tree branches and vegetation).

• Develop a list of items within the property of others (such as private property owners) and items by others within City right of way (such as utility poles and boxes) that block visibility. Begin coordination with such parties to remove such obstacles.

• Update City code to include clear sight distance requirements.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS14	Train all planning, engineering, and other appropriate staff in Safe Systems Approach topics to ensure a culture of safety among City staff charged with implementation of the adopted goal	2026	Planning (development)	Funding ($10,000 estimated consultant cost for developing training materials and one round of delivery)

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS15	Develop Safe Routes to School Program for all public and private preschools, elementary schools, middle schools, and high schools within City limits.	2026	Planning	Funding ($100,000 estimated consultant cost for developing plan)

Additional information:

• Intended to provide extra prioritization to improvements within school walksheds.

• Could be expanded to include Indiana University campus (would require additional funding)

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS16	Evaluate equity in application records and project selection process in existing City programs.	2026	Planning	Funding ($25,000 estimated consultant cost for analysis)

Additional information:

• Includes Sidewalk Repair Assistance program, Traffic Calming program, Neighborhood Greenways program, and others as needed.

• Conduct outreach to confirm Priority communities have the resources to apply to these programs, and provide resources as needed to address any barriers or shortfalls for these communities.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS17	Develop list of City advocacy items targeted toward state decision-makers and pursue lobbying or other advocacy for these items	2025	Planning	Lobbyist

Additional information:

• Examples include support for automated speed enforcement camera authorizing legislation, automated red light enforcement authorizing legislation, and expansion of extraterritorial zoning to include approval of transportation facility construction standards

Safety Studies & Infrastructure

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI1	Undertake corridor-wide safety analysis and project planning efforts on at least one large (greater than 1 mile) corridor or multiple smaller corridors per year.	2025-2039	Planning, Engineering	Funding (Cost varies by corridor and scope; suggest beginning with $200250,000 per year adjusted for inflation)

Additional information:

• Suggested to follow prioritization scoring within this report. The top 4 scoring corridors that are not currently under evaluation at the time of this report (excluding INDOT highway corridors) are:

  o E/W 3rd Street (Jackson Street to SR 46)/ Atwater Avenue (Dunn Street to Mitchell Street)

  o College Mall Road (E 3rd Street to Covenanter Drive)

  o W 3rd Street (I-69 to Kirkwood Avenue)

  o Dunn Street (E 3rd Street to E 10th Street)

• Prioritization may be adjusted to take advantage of adjacent land use changes, additional public and private funding (grants, partnerships, etc.), projects initiated by other jurisdictions (such as INDOT), and other factors as deemed desirable by City staff.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI2	Study appropriate rapid-implementation, low-cost safety countermeasures at all intersections along the High Priority Network, and design and implement countermeasures at half of the High Priority Network intersections	2025 (study); 2026 (design and implementation)	Engineering	Funding (Cost varies by int.; suggest budgeting $350,000 for planning and design, $1,600,000 for implementation)

Additional information:

• Assumed that not all intersections on the High Priority Network will be appropriate for rapid-implementation countermeasures.

•Assumes paint/post type curb extensions at 4 corners of a typical intersection or median refuge island on 4 legs of a typical intersection at approximately 150 intersections. Estimate does not include adjustments to traffic signals (head moves, additional heads, timing adjustments, left-turn phasing changes, etc.). Estimate assumes no ADA improvements are triggered with rapid-implementation measures, no modifications needed to public or private utilities, and no right of way or easement purchases required. Minor adjustments to signing (such as additional no parking signing) included, but larger scale replacement of signing (such as replacement of all stop signs at the intersection) not included.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI3	Conduct before and after analysis of safety improvements, especially rapid-implementation improvements, to assess effectiveness and refine existing and future applications	2025 (development), Ongoing (implementation)	Engineering	Intern or EIT position to do analysis and develop report on results

Additional information:

• Intended to evaluate both past permanent countermeasure installation to ensure effectiveness and to evaluate rapid-implementation items to determine whether to install on a permanent basis.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI4	Design permanent safety countermeasures at up to 50 intersections.	2027	Engineering	Funding (Approx. design cost $750,000)

Additional information:

• Assumed to be designed with local funding (typically, federal grant funding does not cover design work prior to execution of a grant agreement).

• To be constructed in medium-term action item SSI19.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI5	Initiate discussion with INDOT regarding improvements to state highway facilities.	2025	Engineering	None

Additional information:

• This item is only for coordination and discussion with INDOT. Corridor study, design, and construction of improvements assumed in medium-term and long-term action items.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI6	Design amount sidewalk and bikeway gap closures up to identified funding level	2027	Engineering	Funding ($500,000 suggested)

Additional information:

• This item is only for design of closure of sidewalk and/or bikeway gaps. Construction will follow in medium-term and long-term action items.

• Use prioritization plan in PPGS12 to determine which gaps to design.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI7	Implement lighting improvement program for intersection visibility and personal safety	2027 (development); Ongoing (implementation)	Engineering	Funding ($150,000 estimated consultant cost for analysis; suggest $250,000 annually for implementation)

Additional information:

• May require UDO update to allow for appropriate lighting types and levels.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI8	Develop Road Safety Audit materials, checklists, etc. for use in execution of proactive and reactive Road Safety Audits, and conduct Road Safety Audits on at least 2 additional 1-mile corridors by the goal year	2027	Engineering	Funding ($10,000 estimated consultant cost for development of materials; $200,000 for consultant costs for conducting audits)

Additional information:

• Staff time also required to participate in Road Safety Audit process.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI9	Develop long-range capital planning to coordinate safety improvements with other capital needs (such as pavement preservation and underground utility replacements) to achieve future project cost savings	2026	Planning, Engineering, Public Works, Parks	None

Additional information:

• Significant additional study may be needed to project City infrastructure preservation and replacement needs in the future if such information does not currently exist (would require significant additional funding for study).

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI10	Complete design ~~of and construct~~ College Avenue/Walnut Street project	2027	Engineering	Design ~~and construction~~ funding (to be determined based on cost estimate for the project)

Additional information:

• Secure local and/or federal funding to construct identified improvements to College Avenue and Walnut Street.

Medium Term Action Items (2027-2034)

Policies, Processes, and Government Structure

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS18	Catalyze redevelopment of land use along HPN corridors from unsupportive to supportive of safety enhancement and multimodal mobility	2030 (first corridor), Ongoing thereafter	Planning	Further analysis needed of funding or other resources

Additional information:

• Secure local and/or federal funding to construct • Exact mechanisms to catalyze land use shifts to be determined based on corridor. Examples could include zoning changes, tax increment financing, public or non-profit land banking, etc.

• Goal year does not indicate that land use on a corridor will completely change by the goal year but rather all redevelopment incentives are in place and redevelopment has begun occurring along the corridor.

Safety Studies and Infrastructure

Continuations from Short-Term Action Items:

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI1 (Cont.)	Undertake corridor-wide safety analysis and project planning efforts on at least one large (greater than 1 mile) corridor or multiple smaller corridors per year.	2025-2039	Planning	Funding (Cost varies by corridor; suggest beginning with $200,000 per year adjusted for inflation)
SSI3 (Cont.)	Conduct before and after analysis of safety improvements, especially rapid-implementation improvements, to assess effectiveness and refine existing and future applications	Ongoing (implementation)	Engineering	Intern or EIT position to do analysis and develop report on results
SSI7 (Cont.)	Implement lighting improvement program for intersection visibility and personal safety	Ongoing (implementation)	Engineering	Funding (Suggest $250,000 annually)

New Medium-Term Action Items:

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI11	Implement annual program for addressing sight distance issues beyond those easily correctable by Public Works maintenance staff	2028 (begin), Ongoing (implementation)	Engineering	Funding (Suggest $200,000 annually)

Additional information:

- Intended to provide funding to move utility poles/boxes, landscaping, and other items that are obscuring necessary sight triangles at intersections.

- Revisit funding annually to determine appropriate budget level to complete removal of sight obstructions by zero deaths and serious injuries goal year.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI12	Reanalyze High Injury Networks every 5 years per SS4A program requirements	2029, 2034	Planning	Funding ($50,000 estimated consultant cost)

Additional information:

• Estimate includes only reanalysis of the High Injury Network and project management. Cost does not include full redevelopment of a new SS4A Action Plan.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI13	Construct designed sidewalk and bikeway gaps in item SSI6	2028	Engineering	Funding (Approx. $3.5 million construction and administration cost)

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI14	Design and construct additional sidewalk and bikeway gap projects per funding level budgeted	2028 (begin); Ongoing thereafter	Engineering	Funding (Suggest $200,000 annually for design and $1.5 million annually for construction)

Additional information:

• City staff should evaluate budgeted amount to determine if it is adequate to achieve the goal of closing all sidewalk and bikeway gaps by the zero fatalities and serious injuries goal year. Adjust budget as needed.

• This action item is intended to be a standalone project apart from other action items in this list, such as reconstructions of priority corridors.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI15	Lead corridor studies, preliminary, and final design of improvements to INDOT facilities (one per year beginning in 2029)	2029 (begin)	Planning, Engineering	Additional information needed to determine funding levels (INDOT cost participation, scope of improvements, etc.); Suggested budgeting $1 million per year starting in 2029

Additional information:

• Assumption that City will need to lead the project development process but follow INDOT policies, procedures, etc.

• Refine budget amount when scope of improvements are identified.

• Funding amounts listed assume INDOT does not participate in cost sharing for these corridor studies and design efforts.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI16	Complete preliminary and final design on projects with corridor studies developed in SSI1 at a rate of at least one per year. Construct with available local, partnership, and/or grant funding as available and applicable.	2028 (begin)	Engineering	Funding levels to be scoped through corridor planning efforts

Additional information:

• Exact funding amounts cannot be estimated at this time due to unknowns of project scope, termini, timing, etc.

• Per mile costs for resurfacing and reconstruction costs can be based on past bid experience or on general resources such as the Status of the Nation's Highways, Bridges, and Transit report produced by FHWA. See Exhibit A-6 in 25th edition of the Status of the Nation's Highways, Bridges,

and Transit for FHWA assumed costs per lane mile as of the time of creation of this report. Typical design costs range from 10% to 15% or more depending on complexity and scale of the project.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI17	Perform one additional 1-mile or longer Road Safety Audit per year (or multiple smaller corridors)	2028 (begin); Ongoing thereafter	Engineering	Funding (Suggest $100,000 annually)

Additional information:

• Evaluate funding amount annually to ensure funding levels contribute to meeting zero fatal and serious injury goal.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI18	Revisit prioritization of improvements annually based on funding, design constraints, High Injury Network updates, coordination with other projects, additional funding sources, etc.	2028 (begin), Ongoing thereafter	Planning	None

Additional information:

• Flexibility is encouraged if conditions, analysis, funding sources, etc. change over time.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI19	Construct permanent safety countermeasures designed in item SSI4	2028	Engineering	Funding (Approximate construction cost: $5 million)

Additional information:

• Suggested to pursue SS4A Implementation Grant funding to achieve this action item.

Long Term Action Items (2035-2039)

Policies, Processes, and Government Structure

Continuations from Medium-Term Action Items:

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS18 (Cont.)	Catalyze redevelopment of land use along HPN corridors from unsupportive to supportive of safety enhancement and multimodal mobility	2030 (first corridor), Ongoing thereafter	Planning	Further analysis needed of funding or other resources

New Long-Term Action Items:

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
PPGS19	Confirm zero fatal and serious injury goal met or adjustment to goal. If goal is not met, reanalyze and adjust action plan items as needed to support expedited progress toward new goal.	2039	Planning	Funding ($250,000 to complete new SS4A Action Plan if needed)

Additional information:

• Goal should strive to be met as much as possible. Adjustment of goal should only be necessary if unforeseen conditions arise to make goal unattainable in the time period forecasted.

Safety Studies and Implementation

Continuations from Medium-Term Action Items:

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI1 (Cont.)	Undertake corridor-wide safety analysis and project planning efforts on at least one large (greater than 1 mile) corridor or multiple smaller corridors per year.	2025-2039	Planning	Funding (Cost varies by corridor; suggest beginning with $200,000 per year adjusted for inflation)

Additional information:

• Reevaluation of rate of corridor studies is encouraged in approximately year 2035 to determine if rate of studies and construction is sufficient to meet zero fatalities and serious injuries goal.

ID	Description	Interim Goal Year	Who Is Responsible	Additional Resources Needed
SSI3 (Cont.)	Conduct before and after analysis of safety improvements, especially rapid-implementation improvements, to assess effectiveness and refine existing and future applications	Ongoing (implementation)	Engineering	Intern or EIT position to do analysis and develop report on results
SSI7 (Cont.)	Implement lighting improvement program for intersection visibility and personal safety	Ongoing (implementation)	Engineering	Funding (Suggest $250,000 annually)
SSI16 (Cont.)	Complete preliminary and final design on projects with corridor studies developed in SSI1 at a rate of at least one per year. Construct with available local, partnership, and/or grant funding as available and applicable.	Ongoing	Engineering	Funding levels to be scoped through corridor planning efforts
SSI17 (Cont.)	Perform one additional 1-mile or longer Road Safety Audit per year (or multiple smaller corridors)	Ongoing	Engineering	Funding (Suggest $100,000 annually)
SSI18 (Cont.)	Revisit prioritization of improvements annually based on funding, design constraints, High Injury Network updates, coordination with other projects, additional funding sources, etc.	Ongoing	Engineering	None

Safety Countermeasure Toolkit

To achieve zero roadway fatalities and serious injuries by 2039, the City of Bloomington will need to comprehensively address roadway safety issues in the region, starting with the priority corridors in Figure 25 and priority intersections in Figure 26. FHWA's Proven Safety Countermeasures are specific design or operational changes to streets that have been proven nationally to improve safety. Selection and design of safety countermeasures on every street project in the city should be decided through the lens of the Safe System Approach, so that if a crash occurs it will likely not result in a fatal or serious injury. Safety countermeasures should not be compromised or simplified during the design or construction phases. These modifications can reduce the level of safety for all road users.

Safety countermeasures are listed below along with hyperlinks to provide a more detailed description and effectiveness of the full safety countermeasure. A set of cut sheets describing each Safety Countermeasure are also included in Appendix XX: Safety Countermeasure Cut Sheets.

Speed Management

Appropriate Speed Limits for All Road Users

Medians and Pedestrians Refuge Islands in Urban and Suburban Areas

Speed Safety Cameras

Pedestrian Hybrid Beacons

Variable Speed Limits

Rectangular Rapid Flashing Beacons [RRFB]

Road Diets (Roadway Reconfiguration)

Pedestrian/Bicyclist

Bicycle Lanes

Bicycle Lanes

Crosswalk Visibility Enhancement

Leading Pedestrian Interval

Longitudinal Pedestrians Interval

Median Barriers

Roadside Design Improvements at Curves

SafetyEdge

Wider Edge Lines

Roadway Departure

Longitudinal Rumble Strips and Stripes on Two-Lane Roads

Reduced Left-Turn Conflict Intersections

Roundabouts

Systemic Application of Multiple Low-Cost Countermeasures at Stop-Controlled Intersections

Yellow Change Intervals

Intersections

Lighting

Local Road Safety Plans

Pavement Management

Crosscutting

Backplates with Retroreflective Borders

Wider Edge Lines

Dedicated Left- and Right-Turn Lanes at Intersections

Road Safety Audit

Hight Priority Corridors & Intersections

The actions defined in the previous sections will help to institutionalize the practices, policies, and programs that will make Bloomington's streets safer for all residents. These actions will be complemented by on-the-ground safety improvement projects that will be designed using Safe Systems principles and the Safety Countermeasures Toolkit, and informed by the crash factors we identified as part of our crash analysis and creation of the High Risk Network.

Eventually, the City hopes to address all the High Risk Network issues with improved design and practices. But we need to start somewhere. Using information from the crash analysis, community input, and best practices, the following corridors were selected as "Priority Corridors," meaning the City will focus on improving these roadways in the near term.

The streets and intersections shown on the priority corridors and priority intersections were scored using a combination of the vfollowing factors:

• Vehicle-only High Injury Network: calculated as amount of vehicle-only FSI crashes / highest intersection amount of vehicle-only FSI crashes X 20 points

• Vulnerable Road User High Injury Network: calculated as amount of VRU FSI crashes / highest intersection amount of VRU FSI crashes X 25 points

• High Risk Network:

  o One or more roadway legs on Critical All-Users High Risk Network: 20 points

  o One or more roadway legs on High All-Users High Risk Network: 10 points

  o No roadway legs on High or Critical All-Users High Risk Network: 0 points

  o Intersections with roadway legs on both High and Critical All-Users High Risk Network received 20 points

• Equity (Bloomington MPO EJ Mapping)

  o Intersection bordering or within "High Concentration of EJ Populations": 15 points

- Intersection bordering or within "Medium- High Concentration of EJ Populations": 7.5 points
- Other intersections: 0 points

• Public Input (Online Webmapping + In-Person Safety Week Activities)

- Intersection received 6+ negative comments: 20 points
- Intersection received 4-5 negative comments: 15 points
- Intersection received 2-3 negative comments: 10 points
- Intersection received 1 negative comment: 5 points
- Intersection received no negative comments: 0 points

• All intersections with one or more INDOT-controlled legs separated from prioritization scoring

• Maximum score possible: 100 points

• Maximum score achieved: SR 45/46 at College Avenue/Walnut Street (82 points)

• Maximum score achieved at City-controlled intersection: College Avenue and W 3rd Street (68 points)

• Scoring tiers:

- Highest: Scores above 40
- High: Scores between 26 and 40
- Medium: Scores between 18 and 25
- Medium-Low: Scores between 1 and 17
- Low: Intersections not scored assumed to be low due to not being on high injury or high risk networks

Corridors:

• Vehicle-only High Injury Network: calculated as max segment vehicle-only FSI crash score / highest max segment vehicle-only FSI crash score X 20 points

• Vulnerable Road User High Injury Network: calculated as max segment VRU FSI crash score/ highest max segment VRU FSI crash score X 25 points

• High Risk Network:

    o Roadway corridor on Critical All-User High Risk Network: 20 points

    o Roadway corridor on High All-User High Risk Network: 10 points

    o Roadway corridor not on Critical or High All-User High Risk Network: 0 points

• Equity (Bloomington MPO EJ Mapping)

    o Corridor bordering or within “High Concentration of EJ Populations”: 15 points

    o Corridor bordering or within “Medium-High Concentration of EJ Populations”: 7.5

Street	From	To
West 2nd Street	Rogers Street	Walnut Street
East 3rd Street	Rogers Street	State Route 46
West 3rd Street	Interstate 69	Kirkwood Avenue
East and West 4th Street	Rogers Street	Indiana Avenue
East and West 7th Street	Rogers Street	Woodlawn Avenue
College Avenue	State Route 45/46	East 2nd Street
College Mall Road	Covenanter Drive	State Route 46
Dunn Street	East 10th Street	East 3rd Street
Hillside Drive	Walnut Street	Maxwell Street
Indiana Avenue	East 3rd Street	East 17th Street
Kinser Pike/Madison Street	State Route 45/46	West 11th Street
Kirkwood Avenue	Adams Street	Indiana Avenue
Rogers Street	West 11th Street	West 2nd Street
North Walnut Street	State Route 45/46	East 2nd Street
South Walnut Street	E 2nd Street	Dodds Street
South Walnut Street	Dodds Street	Country Club Drive

Table 3. Highest Priority Corridors for Safety Countermeasures

Figure 25 and Figure 26 show the priority corridors and intersections grouped by highest, high, medium, and medium-low priority. Streets that are a priority but are owned by INDOT are labeled “INDOT” jurisdiction. These streets will likely have a different process for implementing safety countermeasures than city-owned streets that requires additional coordination and time to implement.

Corridors and intersections not noted as high priority in the following figures should still be analyzed for safety improvements with other projects (such as pavement preservation or reconstruction projects) as they arise.

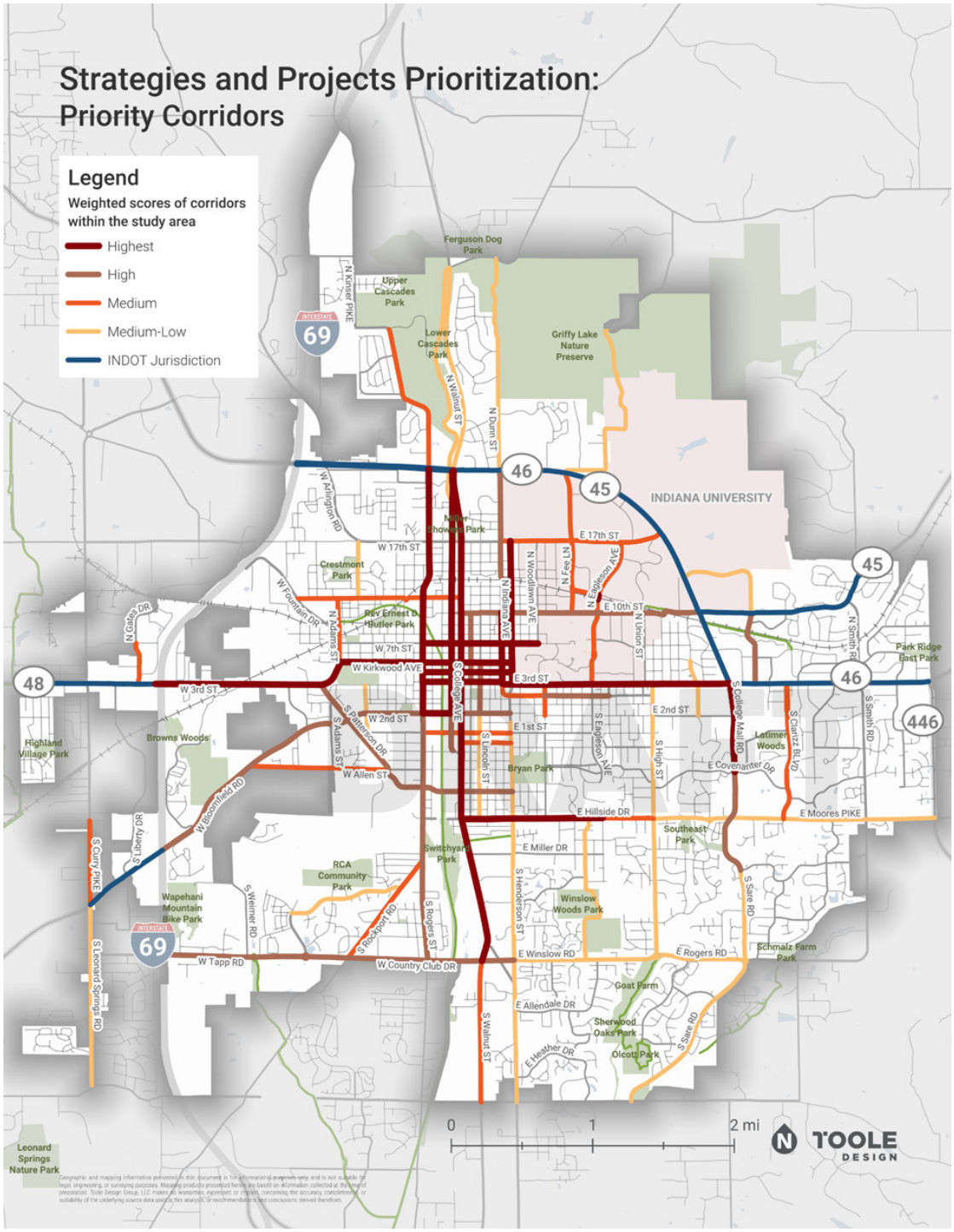


Figure 25. Priority Corridors for Safety Countermeasures

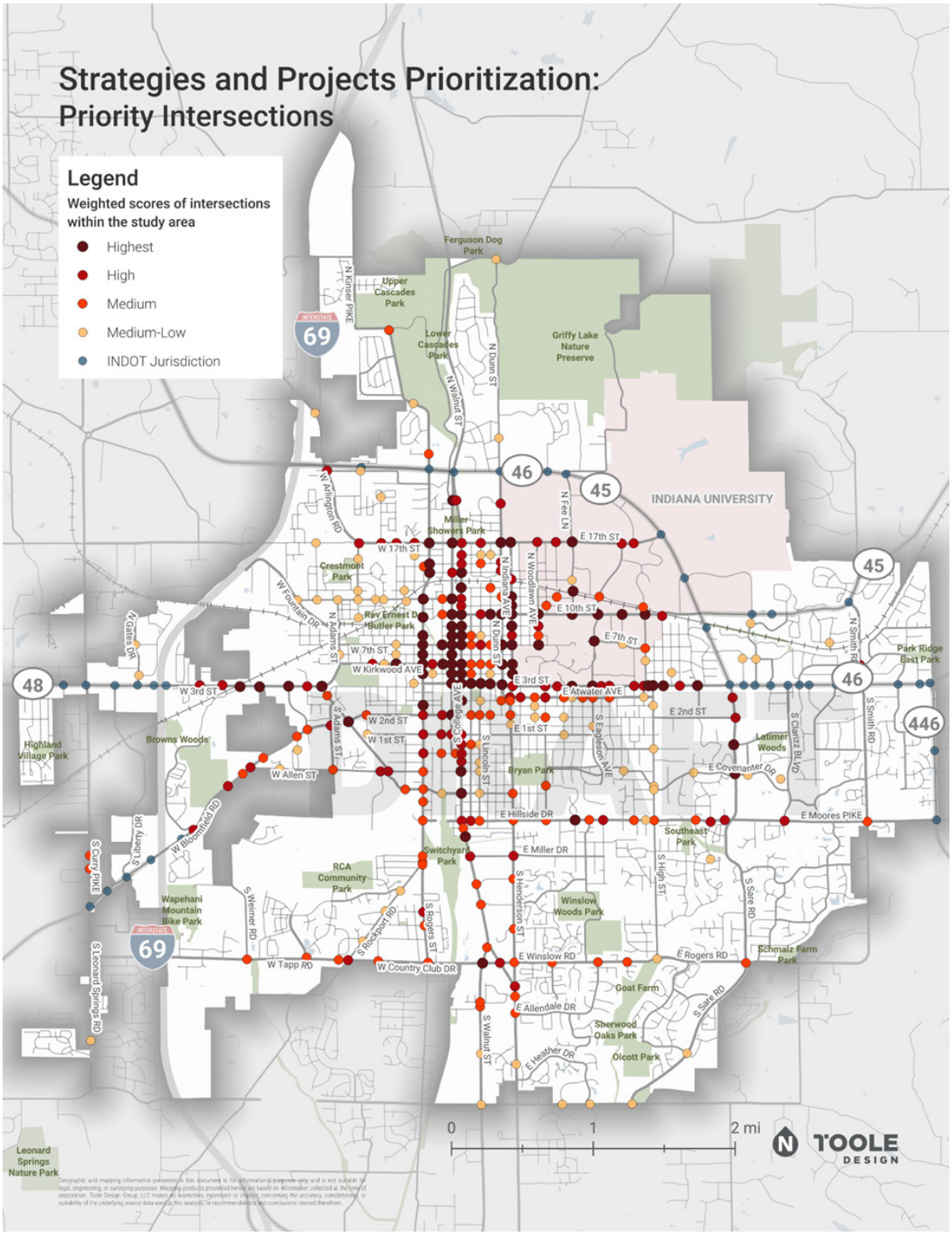


Figure 26. Priority Intersections for Safety Countermeasures

Progress & Moving Forward

This plan is full of actions, strategies, and projects that will help reduce fatal and serious injuries on Bloomington's roadways. However, this plan needs to be embraced, discussed, emphasized, implemented, and reinforced every day as decisions are made, projects are built, and people move around the community.

The actions, strategies, and projects described in this plan are a transformative step for Bloomington and may not come naturally or easily. Thus, is it important to track what is (and, perhaps, isn't) happening and how (or if) actions are resulting in safer streets so the plan can be modified to ensure success.

Performance Measures & Annual Reporting

It is essential that there are regular public conversations about Bloomington's roadway safety and progress toward zero deaths and serious injuries. To institutionalize these conversations, the City will produce an annual report that will be posted on their website and publicized through its main communication channels. The annual report should include the following performance measures, at minimum:

Performance Measure
Number of fatal and serious injury crashes
Number of fatal and serious injury crashes involving people walking, biking, or rolling
Number of crashes involving speeding
Number of crashes involving distracted driving
Number of crashes involving driving under the influence (DUI)
Number of rapid implementation intersection safety projects completed
Number of miles of speed management projects completed on HIN streets
Number of action items started
Number of action items completed
Locations and number of street segment and intersection improvements made on the High Priority Network
Locations and number of off-street segment improvements (sidewalks, multiuse paths, bike trails) made adjacent to the High Priority Network.
Number of road diet/road reconfiguration projects completed
Number of intersection reconstruction projects completed
Number of roundabouts completed
Dollar amount invested in infrastructure improvements along the High Priority Network as a percentage of all transportation projects.

Crash Data Dashboard

A crash data dashboard has been developed for Bloomington to help City staff, stakeholders, and residents easily see and understand crash trends, patterns, and factors around the City. The dashboard will help track progress towards Bloomington's goal of zero deaths and serious injuries by 2039 by providing data on what types of crashes are occurring, where and when they are occurring, and how performance measures are trending.

This dashboard will be updated annually to ensure that what is shown is reflective of the current situation. We encourage this dashboard to be used as an important tool in future conversations about roadway safety in Bloomington. The dashboard can be

Moving Forward

The creation of this plan was an extensive effort involving elected officials, City staff, Advisory Committees, advocates, community stakeholders, and Bloomington residents. The success of this plan will rely on all these groups and individuals to work together to meet our shared goal of

Let's continue this work together into the future. Advocating for and acting on roadway safety for all of Bloomington's residents is everybody's responsibility. Together, we will make our roads safer and save lives.