

TOLEDO VISION ZERO

DRAFT MARCH 2023



City of Toledo

TOOLE
DESIGN

OPENING FROM CITY LEADERSHIP

In Toledo, an average of 32 people lose their lives to traffic related fatalities every year, and hundreds more are severely injured. We cannot accept this statistic as an inevitable consequence of traveling in our city. That is why we embarked on this Vision Zero planning process, and we are adopting a bold goal to eliminate all traffic related deaths by 2031.

As city leaders, we are committed to making investments that improve the quality of life for people who live, work, and play in Toledo. Having safe roadways for those who walk, bicycle, use mobility devices and ride public transit, as well as drive vehicles is paramount to strengthening our community. A commitment to this plan is a commitment to the quality of life for all Toledoans.

We must shift the mindset that our roadways are only for those traveling by vehicle to our roadways are a place for all users regardless of how they travel. We must prioritize the needs of the most vulnerable users first, we must begin now, and not stop until we achieve our goal.

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. This action plan offers the roadmap to achieving zero deaths by 2031 through improved roadway design, slower speeds and culture change, using a data driven approach with equity at its core.


A goal as bold as this cannot be achieved alone. Thank you to the numerous city leaders and community partners who worked over the past year to bring this action plan to completion. Now it's time to act, and we need the support of our residents. Together we can make Toledo safer for everyone.



Mayor Wade Kapszukiewicz and Councilman Sam Melden

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Between 2017 and 2021, **160 people were killed** in traffic crashes in Toledo. Nearly **800 were severely injured**. As a city and as humans, we should not accept fatal crashes as inevitable. **Crashes are not accidents**, and can be prevented with the right actions and commitments.

Everyone in Toledo has the right to safely travel on our streets no matter where they are going and how they travel, and **we are committed to eliminating traffic deaths and serious injuries by 2031.**



**MAKING A VISION
ZERO TOLEDO**

Introduction

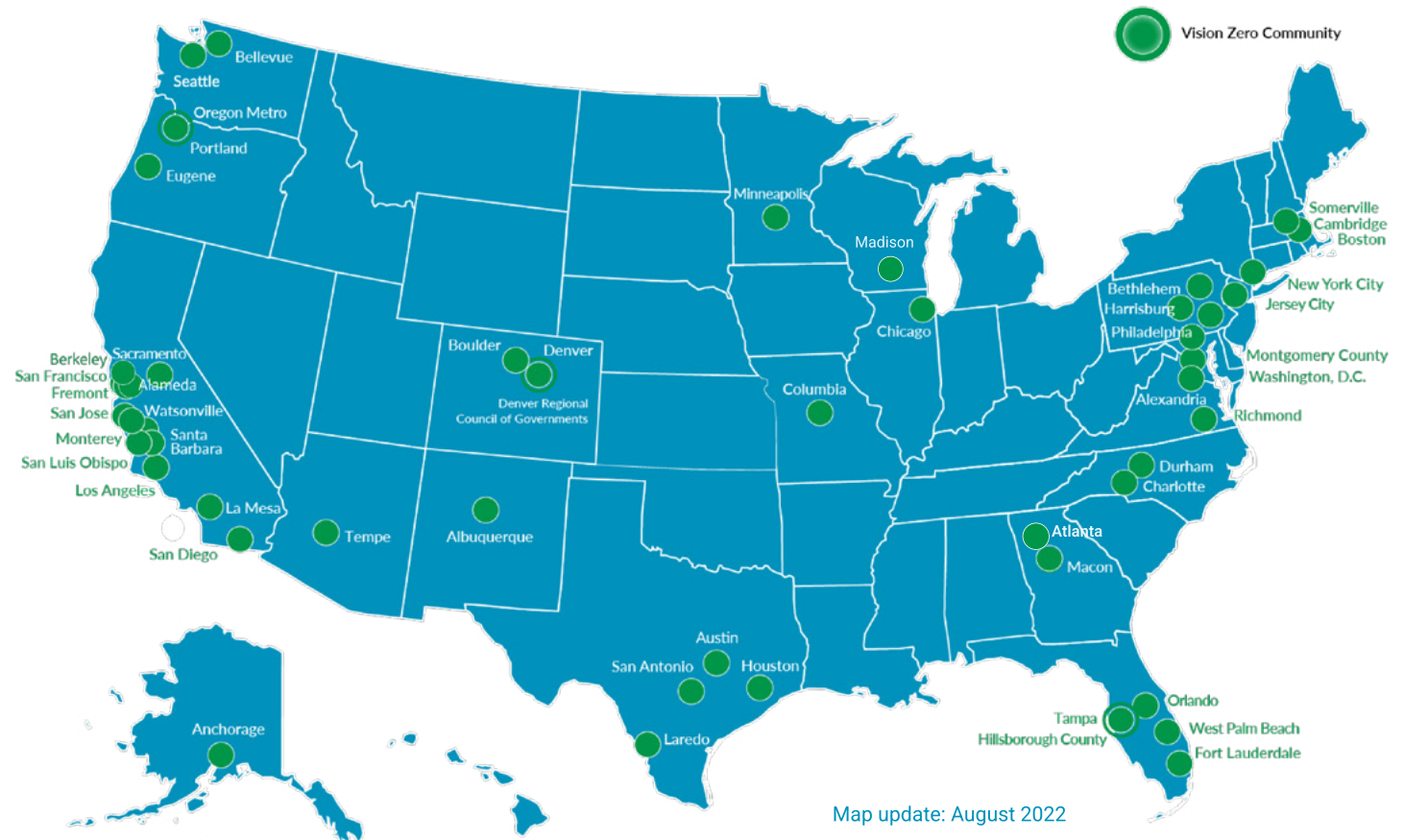
WHAT IS VISION ZERO?

Vision Zero is a worldwide movement to eliminate traffic deaths and serious injuries on roadways. Vision Zero began in Sweden in the late 1990s and has spread throughout the world since then. Over 50 communities in the United States have adopted Vision Zero as a central tenant of how they plan and operate their roads.

The Vision Zero philosophy is a marked shift from how American cities have historically thought about the expected safety of our streets. Vision Zero is based in the idea that nobody should be killed or seriously injured as a consequence of mobility, and that other potential goals of the transportation system around speed, congestion, or ease should never supersede the importance of one life on our roadways.

Vision Zero uses both commitment and approach to eliminating death and serious injury from traffic crashes. Changing how Toledo's streets are designed, used, and viewed can make them safer for everybody.

VISION ZERO NETWORK



There are five fundamental principles of a meaningful Vision Zero commitment:¹



Traffic deaths and severe injuries are acknowledged to be preventable. Vision Zero shifts expectations about death and serious injuries from being inevitable to being preventable. Every transportation-related death and serious injury is one too many.



Human life and health are prioritized within all aspects of the transportation system. This principal highlights fatalities and serious injuries on streets as a public health issue. A transportation system should be planned and operated to ensure that lives and health are protected when people are getting around, no matter whether they are walking, biking, driving, or using transit.



Human error is inevitable, and transportation systems should be forgiving. Humans are always going to make mistakes. A Vision Zero approach designs for these mistakes in order to make sure a mistake does not result in a fatality or severe injury.



Safety work should focus on system level changes that influences individual behavior. Vision Zero work is about thinking about the transportation network as a whole and as an entity that makes street users behave in safe ways. Planning, engineering, education, and enforcement need to work in tandem for Vision Zero to succeed.



Mitigation of speed is recognized and prioritized as the fundamental factor in crash severity. Speeding is the leading factor in nearly 30% of fatal crashes each year.² Creating a system where speeding isn't allowed, expected, or easy has the potential to decrease crash severity for roadway users and is the primary goal of Vision Zero implementation.

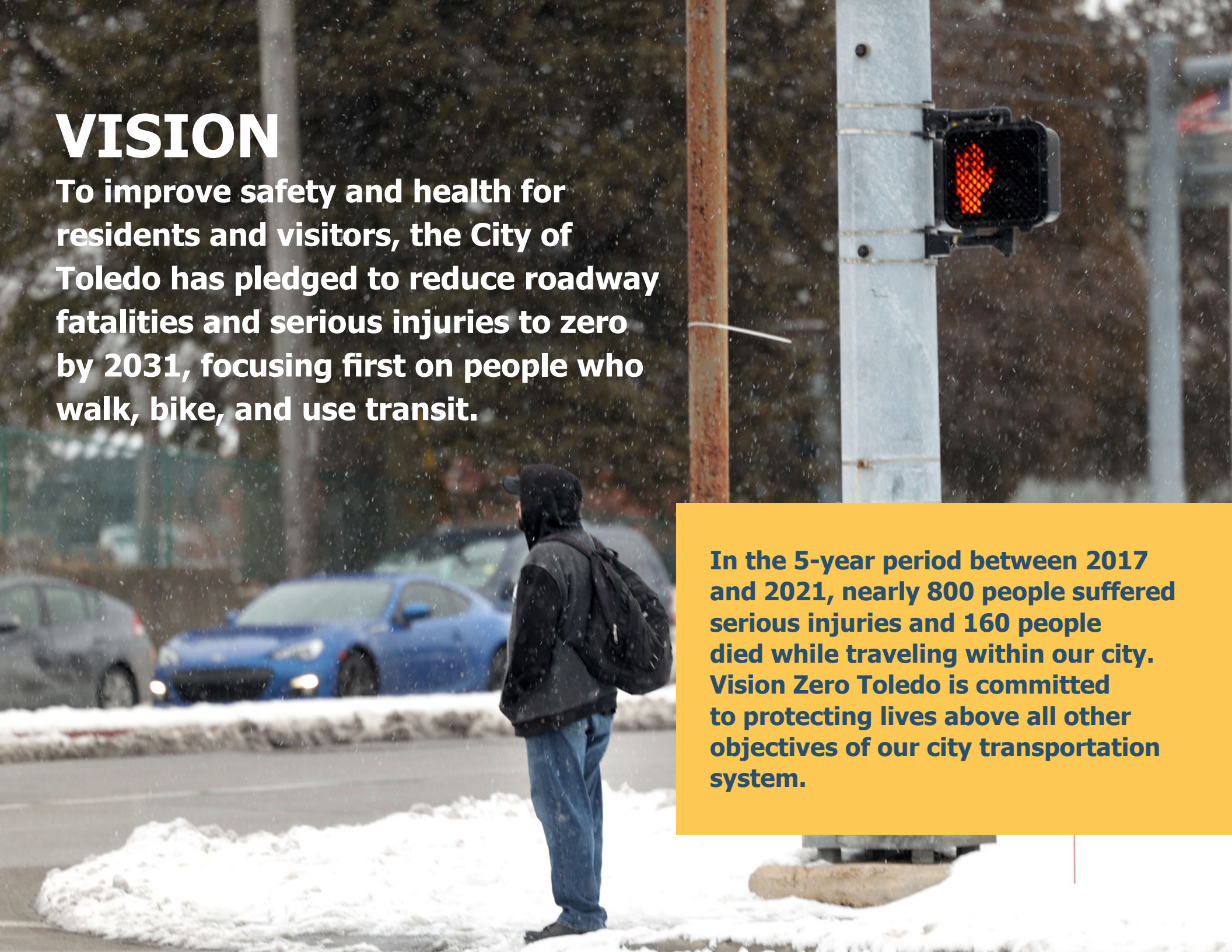
In 2022, the City of Toledo took a bold step to join the ranks of Vision Zero cities across the country and around the world, prioritizing the safety and health of the people that use its streets. This plan provides an overview of why the City decided to become a Vision Zero city and outlines the actions that it will take to ensure that no more lives are ended or forever changed because of a crash on our streets.

¹ Vision Zero Network. <https://visionzeronetwork.org/>

² NHTSA. <https://www.nhtsa.gov/risky-driving/speeding>

VISION

To improve safety and health for residents and visitors, the City of Toledo has pledged to reduce roadway fatalities and serious injuries to zero by 2031, focusing first on people who walk, bike, and use transit.

A person wearing a dark hooded jacket and a backpack stands on a snowy sidewalk, looking across a street. In the background, a blue car is visible. To the right, a pedestrian crossing signal shows a red hand icon. The scene is set in winter with snow on the ground and falling snow in the air.

In the 5-year period between 2017 and 2021, nearly 800 people suffered serious injuries and 160 people died while traveling within our city. Vision Zero Toledo is committed to protecting lives above all other objectives of our city transportation system.

GOALS

The City of Toledo will need to work collaboratively and cooperatively with partners throughout the City to achieve our vision. Specifically, there are four focus areas - equity, safety and slow speeds, culture changes, and data - that will guide the work to achieve the vision.



Equity

Transportation-related deaths and serious injuries impact some residents more than others, and that is unacceptable. People of Color are more likely to be victims of traffic crashes, and serious and fatal crashes disproportionately happen in neighborhoods with lower-income residents. This is not okay.

National trends and Vision Zero research consistently show that past transportation investments (and disinvestments) have created street networks that are inherently safer for white, wealthier, and able-bodied people and less safe for People of Color, lower-income residents, and those with disabilities.³

Equity is an essential component of Vision Zero's planning and implementation. Equity in Vision Zero takes an array of forms but primarily prioritizes the expansion of safe streets and safety improvements in areas that are socioeconomically disadvantaged, expanding access to safe streets in historically disenfranchised areas, and supporting and protecting the most vulnerable populations, especially children and older residents. The safety of people who have been marginalized by structures that perpetuate racism, ableism, and classism should be centered in all the plan's strategies, recommendations, and designs.



Safety and Slow Speeds

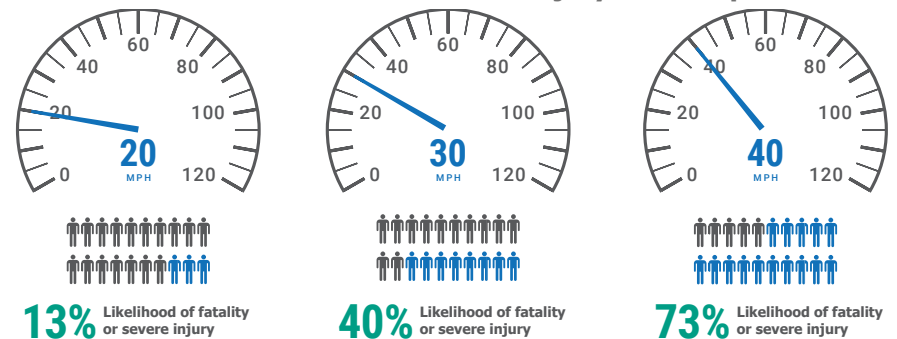
Slower vehicles mean safer streets for all people using the roadways. Safe speeds save lives.

Higher speeds increase the risk of a crash and increase the risk of serious injury or death, regardless of mode. Higher speeds are especially dangerous for people walking, as their risk of being seriously injured or killed goes up exponentially with small increases in speed.

Pedestrians are much more likely to survive a crash with a vehicle going 20 mph versus a vehicle moving 30 mph. The likelihood of a crash resulting in death or a serious injury increases with the speed of the vehicle - if the vehicle is moving at 40 mph, there is a 73 percent likelihood that a crash will kill or seriously injure the person walking. Seemingly small changes in speeds can make a big difference in safety outcomes.

Many streets in Toledo were designed to move large volumes of vehicles quickly, and that approach, unfortunately, creates an unsafe environment for all people. In addition, it's been shown that people are more likely to drive faster on streets with higher speed limits, meaning that streets with already high speed limits have dangerously higher speeds actually happening.⁴ Toledo's Vision Zero actions should be centered on reducing speeds on streets throughout the city, especially streets that have high posted limits and a history of speeding issues.

Likelihood of Death & Severe Injury Due to Speed



Source: Tefft, Brian C. Impact speed and a pedestrian's risk of severe injury or death. Accident Analysis & Prevention. 50, 2013.

3 <https://www.hsph.harvard.edu/news/press-releases/racial-disparities-traffic-fatalities/>

4 Insurance Institute for Highway Safety. <https://www.iihs.org/topics/speed>



Culture Change

A commitment to Vision Zero is a commitment to changing the status quo and creating a culture where everyone understands the role they play in preventing traffic violence.

Vision Zero requires a shift in transportation practices and behaviors, from residents, transportation professionals, and city leadership. Street design does not guarantee that individuals will eliminate distractions while driving, buckle their seatbelt, or not drive under the influence. The culture of how people behave has to change if we want to achieve zero fatalities and serious injuries on Toledo's streets. A culture change not only has to happen at the pedestrian, bicyclist, and driver level, but also at the highest levels of government in Toledo. Every policymaker, engineer, urban designer, and leader in the community has to reject the idea that transportation-related crashes, fatalities, and severe injuries are an accepted downside to people's mobility.



Data-Driven Approach

Understanding what has happened on Toledo's streets, why it happens, who it happens to, and how it's changing is a key part of Toledo's Vision Zero strategy. And that understanding will only be possible with clear, consistent, and honest data.

The City should collect and analyze crash and speed data to measure the impact of Vision Zero projects and programs as they are implemented. In addition, improving data quality and transparency is essential for a greater understanding of street design, human behavior, and other factors that lead to fatal and severe crashes. The City must work with partners to get the right data that tells the whole story of what's happening on Toledo's streets. For example, hospital data, community survey data, and community stories help supplement crash data to create a fuller and more accurate picture.

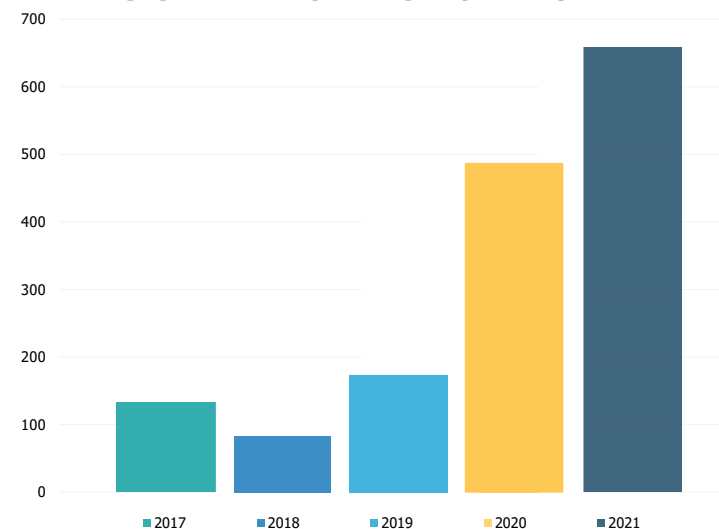
The City should also work to continually improve their current crash reporting procedures. Police crash reports are currently the best way to obtain information about crashes, but they have limitations. Many crash reports are not fully filled

out and, as such, important information like contributing factors (e.g., speed, distracted driving), demographics of the people involved (race, age, ability), or severity are unknown. Getting consistent and complete crash reports is essential in understanding what's happening on Toledo's roads.

In addition, the total number of crashes may be higher than captured because of unreported crashes. Crashes may be unreported for a variety of reasons. Some people have concerns about interacting with police for reasons unrelated to a crash. Black people and other People of Color may have a general fear of police because of concerns around racism. Another reason for unreported crashes is that the police departments often do not have enough officers to respond to high crash volumes during rain, snow, or other inclement weather events. This means even when police are called, they do not have the staff to respond to all crashes. In those situations, a crash report would only be filed if one of the involved parties had the resources and ability to either self-report the crash online or to travel to police headquarters to self-report.

A final limitation of crash reports is that they may underestimate the severity of a crash. Adrenaline at the time of a crash may mask injury or the severity and cause the crash to be underestimated. It is useful to keep these limitations in mind when considering what information is presented by crash reports and what information is not documented.

Engage Toledo Speeding Reports by Year



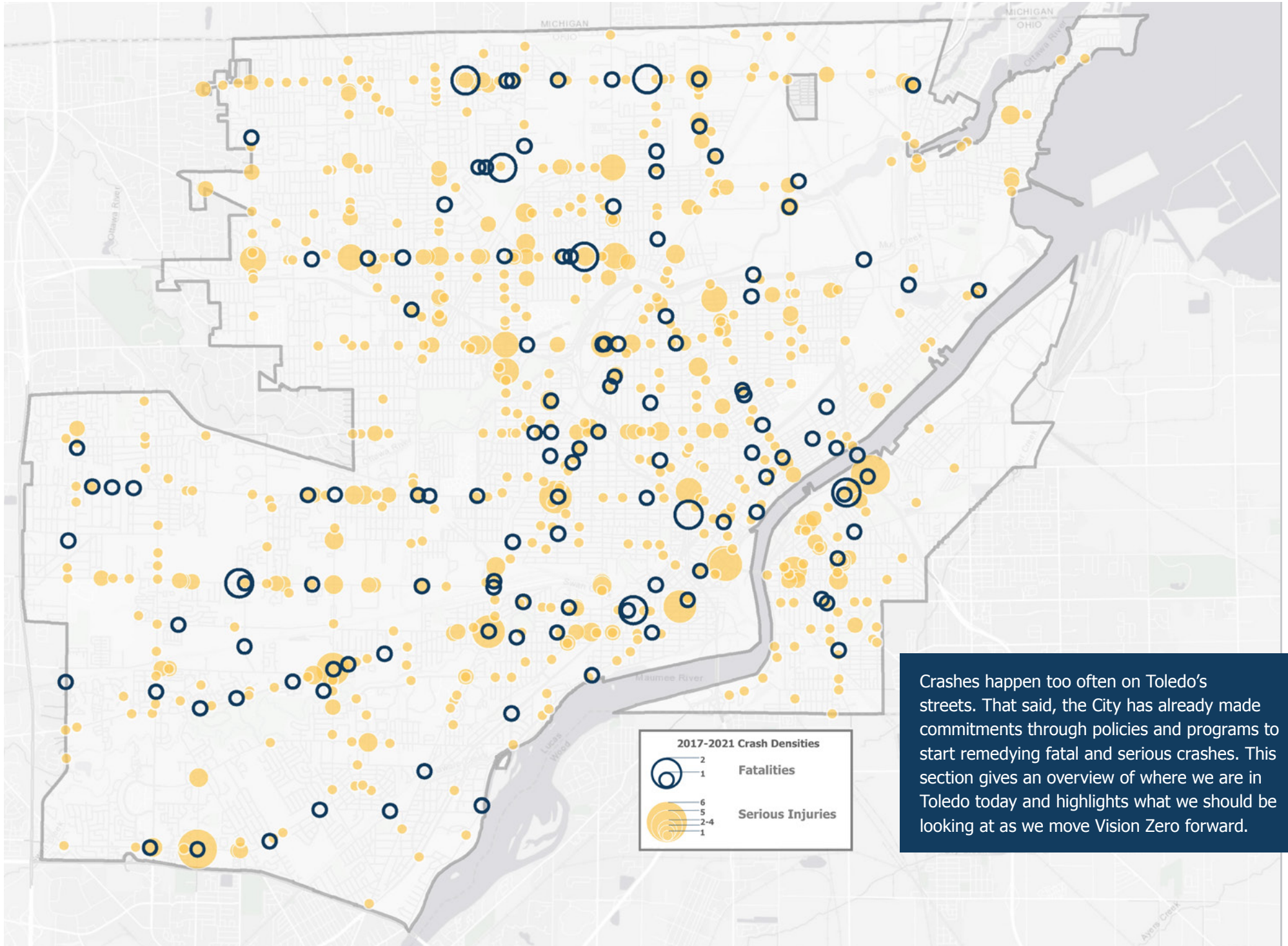
TOLEDO TODAY

SPEED
LIMIT
35

NO
STOPPING
ANY
TIME



Crash Map with Serious Injuries and Fatalities



Crashes happen too often on Toledo's streets. That said, the City has already made commitments through policies and programs to start remedying fatal and serious crashes. This section gives an overview of where we are in Toledo today and highlights what we should be looking at as we move Vision Zero forward.

Crash Data and Analysis

Over the last five years, over 900 people in Toledo have been either killed or severely injured in traffic crashes. And while that number is and should be shocking, there is more to the number. Each crash is a person, and these people were getting around in different ways (disproportionately walking), were different ages (disproportionately kids and older adults), were different races and ethnicities, and were traveling on different types of streets (disproportionately on high speed streets).

In Toledo



People bicycling are **3x more likely** to die or be seriously injured than a person in a car.



People walking are **4x more likely** to die or be seriously injured than a person in a car



Motorcyclists are **4x more likely** to die or be seriously injured than a person in a car

A **serious injury** involves one or more of the following factors:

- Severe laceration resulting in exposure of muscle/tissue/organs or resulting in significant loss of blood
- Broken or distorted arm or leg
- Crush injuries
- Suspected skull, chest, or abdominal injury
- Second or third degree burns over 10% of the body
- Unconsciousness
- Paralysis



160

Toledoans were killed in crashes on city streets and roads from 2017 to 2021

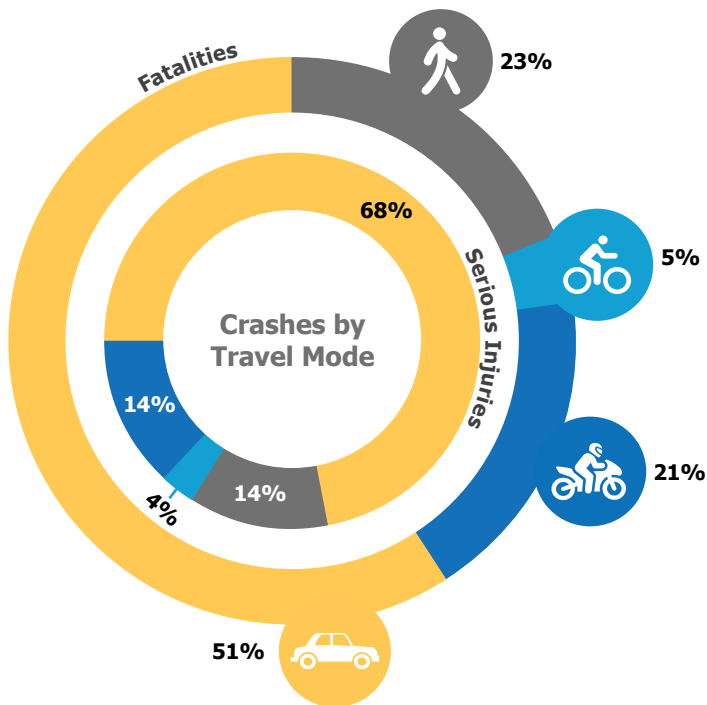


Source: ODOT TIMS GCAT (2017-2021)

COMPARISON OF FATAL AND SERIOUS INJURY CRASHES

People walking, biking, and riding a motorcycle are more likely to be in a serious crash than people driving a vehicle. While only 12 percent of people in Toledo commute by foot, pedestrians account for 23 percent of deaths and serious injuries due to crashes.

Similarly, only three percent report commuting by bicycle, yet people on bikes account for nine percent of deaths and serious injuries due to crashes. Lastly, only two percent of people in Toledo commute using a motorcycle, but people on motorcycles account for 35 percent of deaths and serious injuries due to crashes.



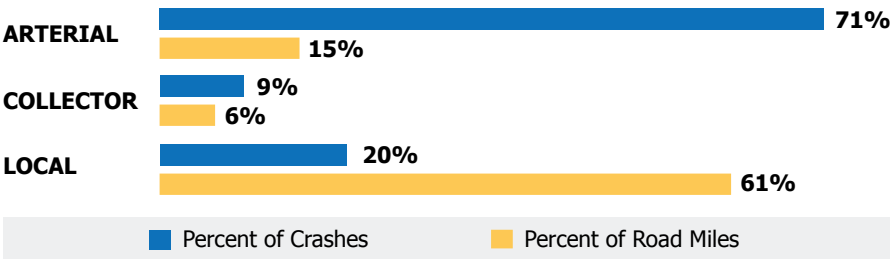
Source: ODOT TIMS GCAT (2017-2021)

CRASH RATES AT INTERSECTIONS

Although intersections represent only a small percentage of all roadway miles, they are where over half of all crashes take place and where 63 percent of crashes that result in fatalities or serious injuries occur. This makes sense - intersections are places where people must negotiate turning movements with other vehicles, where pedestrians and vehicles cross paths, and opposing traffic crosses the same space. One fifth of crashes resulting in a serious injury or fatality occurred when drivers were making left turns.

PERCENT OF CRASHES BY ROAD HIERARCHY

Serious and fatal crashes do not happen at the same rates throughout Toledo's street network. Over 70 percent of the City's serious and fatal crashes happen on arterials, which only make up 15 percent of the City's streets. Nine and 20 percent of serious and fatal crashes happen on collector and local roads, which make up six and 61 percent of Toledo's street network, respectively. These disproportionate crash rates show the impact that wider, faster, and higher-volume streets, such as arterials, have on the safety outcomes of people traveling



The crash patterns described on this page are not unique to Toledo - most cities across the United States are quite similar. But that does not make it acceptable. Instead, this data should be used to help the City hone where projects happen, what communities we partner with, what parts of the City we should focus on, and who we create programs for.

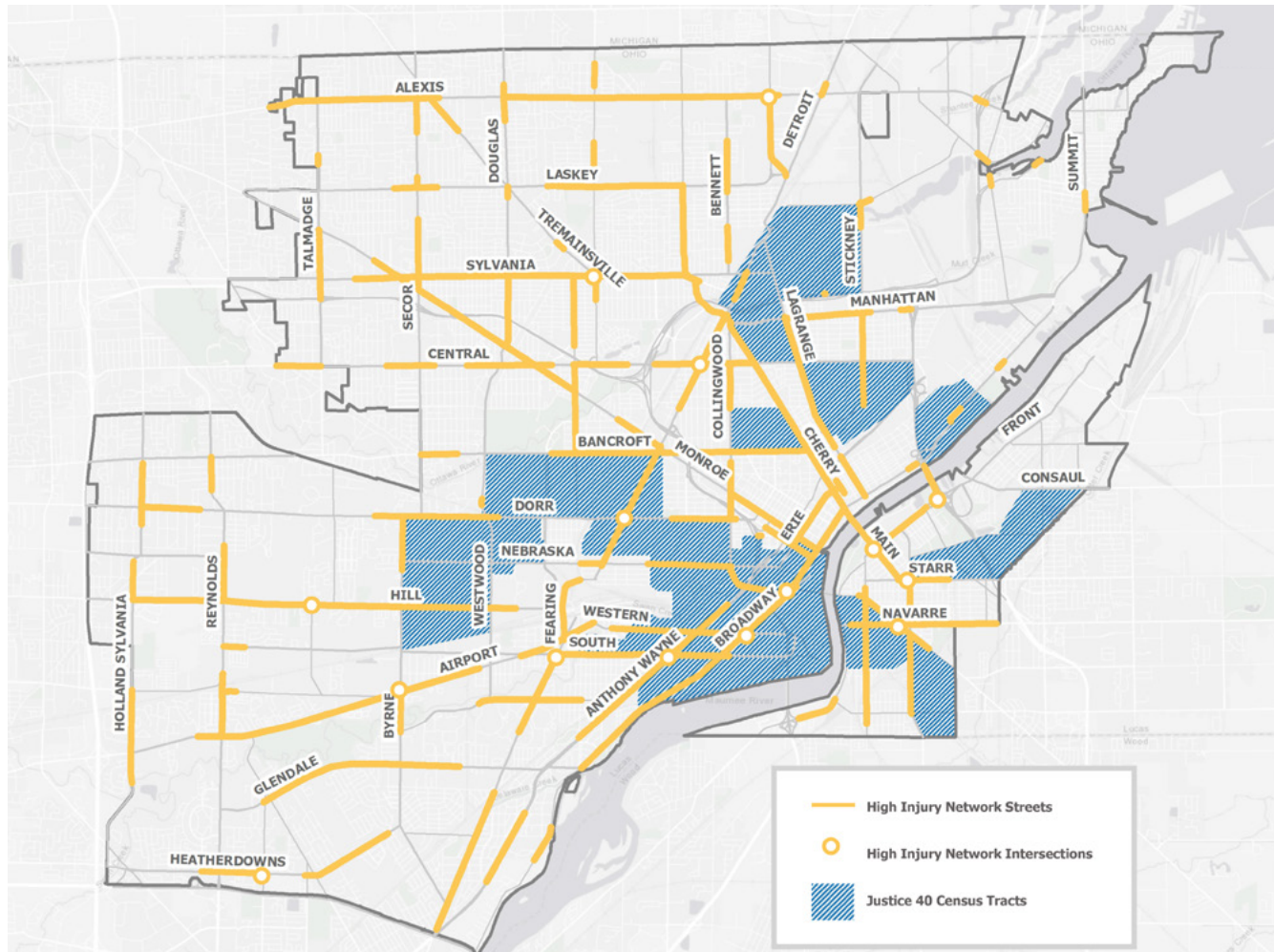
CRASH DISTRIBUTION IN JUSTICE40 COMMUNITIES

Justice40 (J40) communities are areas that have been identified by the federal government as where disadvantaged communities that are marginalized, underserved, and overburdened live.

These areas often align with areas of cities where people of color and/or lower-income residents live.⁵

In Toledo, J40 areas only represent 14 percent of the city's land area but are where 26 percent of the serious and fatal crashes take place.

5 Justice40 Initiative. <https://www.whitehouse.gov/environmentaljustice/justice40/>



Existing Plans and Policies

The City of Toledo has a long history of championing safe and inclusive transportation. From the Reduce Residential Speeding effort (also referred to as the Safe Streets Plan) to Safe Routes to School, there have been substantial efforts to prioritize people's lives on our streets.

Adopting plans and policies that support Vision Zero goals is an important step in institutionalizing the expectation that Toledo's streets should be safe for everyone, and that no crash should result in a death or serious injury. The following are past and existing plans and efforts that Toledo has already adopted that serve as a starting point for this plan, and show the historical support for Vision Zero at the City.

REDUCE RESIDENTIAL SPEEDING

The City of Toledo's Reduce Residential Speeding transportation initiative, also known as the Safe Streets Plan, is a plan that seeks to establish kid-friendly, bike-friendly, disability-friendly, and walking-friendly neighborhoods where speeding is less likely to occur.⁶ The plan looked at several sources of city-wide and state-wide crash data and developed short term (6-12 months) and long-term (2-10 years) roadway improvements and design updates. These designs included examining city-wide speed limits, improving signage, and prioritizing pedestrians.

These improvements have placed pedestrians and pedestrian safety at the forefront of their initiatives, as they have worked to improve vehicular behavior compared to the traditional approach that has placed emphasis (and blame) on infallible human behavior.

Reduce Residential Speeding Actions

Short Term (6-12 months)

- City Wide Analysis of Speed Limits
- Improve Signage
- Double Fines for Speeding on Residential Streets
(Note: Implemented in August 2020)

Long Term (2-10 years)

- Cut Down on Cut-Throughs
- Prioritize Pedestrians
- Build Safety In

⁶ City of Toledo Residential Speeding. <https://toledo.oh.gov/residents/neighborhoods/transportation-traffic/residential-speeding>

FORWARD TOLEDO

The City of Toledo is currently working on the "Forward Toledo" comprehensive land-use plan that will help guide planning initiatives and projects over the next 10 years. The plan, launched in July 2020, includes the following "Move" strategies that support the City's Vision Zero mission:

- **Increase Connectivity:** Provide a diverse transportation network that better connects people throughout the community.
- **Support Public Transit:** Promote public transit through policies that encourage more housing units along key transportation corridors.
- **Expand Right of Way Use:** Understand how right-of-way design impacts travel choices and caters to all modes of transportation.
- **Walkable Neighborhoods:** Encourage more goods and services within walking distance, promoting independence among residents and sustainable uses of land.
- **Accessibility Opportunities:** Explore how development and public infrastructure (i.e., sidewalks) can contribute to a more inclusive community.

The plan is on track to be finalized by mid-2023 and adopted by City Council by the end of the year.



TOLEDO METROPOLITAN AREA COUNCIL OF GOVERNMENTS (TMACOG) TRANSPORTATION SAFETY PLAN 2019

The 2019 Transportation Safety Plan developed by The Toledo Metropolitan Area Council of Governments (TMACOG) reviewed crash trends, safety performance, crash types, contributing factors, and locations of crashes, in an effort to create solutions that combat safety issues in the region. The plan had “three emphasis areas:” young drivers, distracted driving, and intersections.

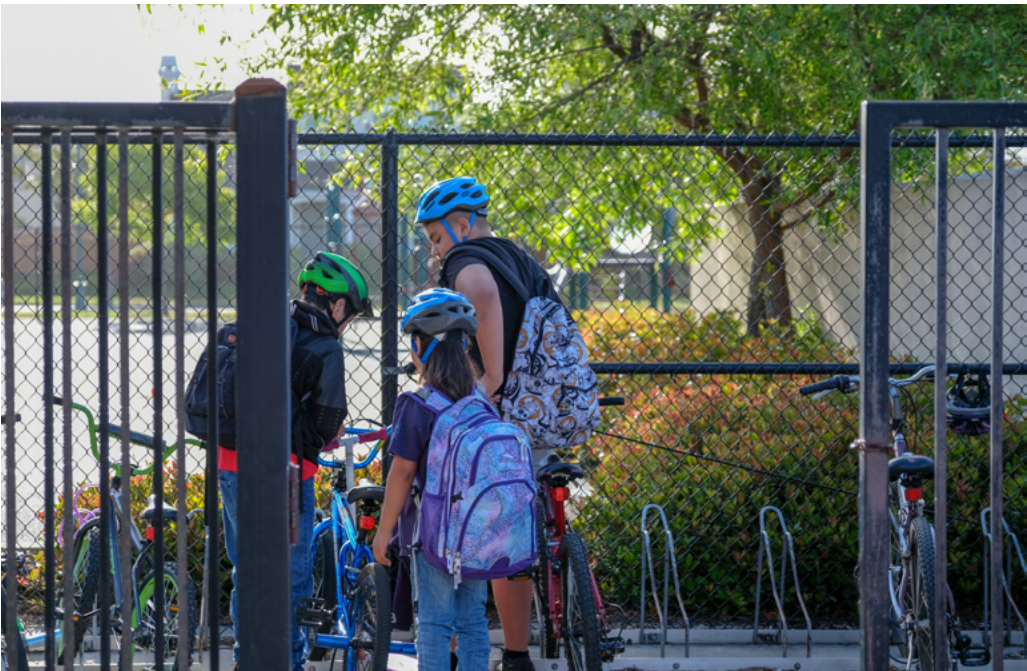
The TMACOG plan included strategies in different disciplines such as enforcement, education, coordination, policy, and infrastructure.

| TMACOG TRANSPORTATION SAFETY PLAN 2019 FOCUS AREAS | | | |
|---|---|---|--|
| | Young Drivers | Distracted Drivers and Intersections | Intersections |
| What the TMACOG research showed: | Research shows immaturity, risk taking and inexperience as the primary factors in these crashes. On average, about 20 people are killed and 250 people are seriously injured each year in a crash involving a young driver. | Between 2009 – 2018 distracted driving contributed to nearly 6% of all fatal and serious injury crashes and was the main factor that contributed to distracted driving fatalities and serious injuries at intersections. | Crashes at intersections contributed to 52% of all fatal and serious injury crashes in the region between 2009-2018. |
| Takeaways for Toledo's Vision Zero efforts: | It important to think about all types of drivers, but it is critically important to see which population of motor vehicle operators are at the highest risk and who are the most inexperienced. | Given that the majority of distracted driving crashes occurred at intersections, the Vision Zero approach can establish a multi-disciplinary strategy to improve intersections, which can include intersection improvements and redesign that reduce travel speeds. | |

SAFE ROUTES TO SCHOOL

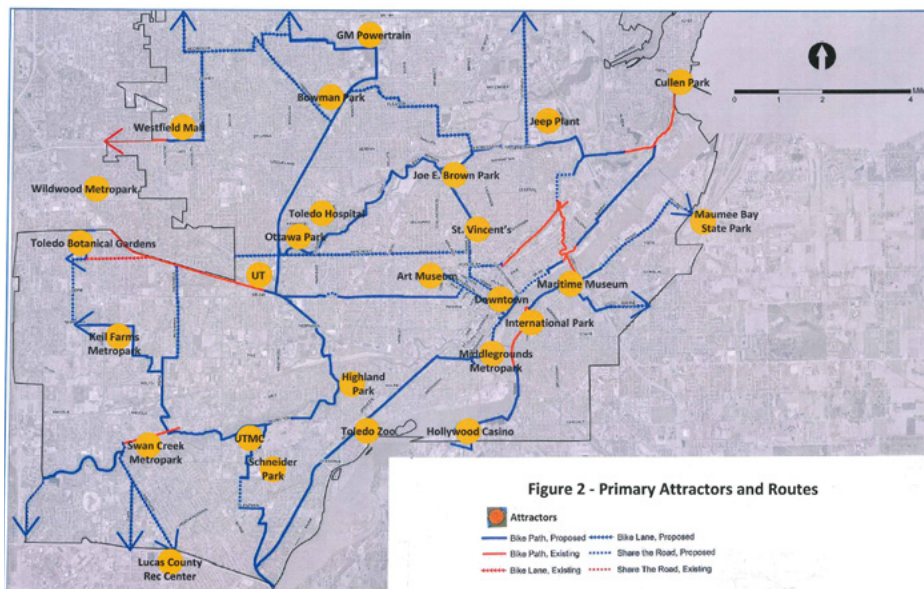
The Safe Routes to School initiative is a series of projects and programs within the Toledo/Washington school district, funded by the Ohio Safe Routes to School program and administered by the Ohio Department of Transportation. Safe Routes to School programs and projects seek to inspire local action to create safe, convenient, and fun opportunities for children to walk and bicycle to school.

The program hopes to create and maintain a positive and safe learning environment for students, faculty, and staff and to encourage lifelong walking and bicycling habits throughout the community. Safe Routes to School programs consistently align with Vision Zero objectives, and should be supported by Vision Zero efforts as a way to educate students and families, prioritize projects on routes where kids are walking and biking, and tap into existing communication channels.



TOLEDO BIKE PLAN

The Toledo Bike Plan was adopted in 2016. It maps out a system of thirteen primary routes to connect the city's neighborhoods, major parks, and many destinations. The recommended facilities in the system include designated paths, side paths, bike lanes, and shared lanes. The initial focus of the Bike Plan is on the primary network or the "spine", and to date, over 50% of this network has been built.



DOWNTOWN TOLEDO TRANSPORTATION PLAN

The Downtown Toledo Transportation Study was conducted to gain a better understanding of the current opportunities and challenges associated with the transportation network. The study included projecting future transportation users and demands and developing a plan to ensure that downtown has a safe, efficient, and equitable transportation network. The study was completed in 2020 and several recommendations have already been accomplished with plans moving forward for other improvements in the coming years. Some of the completed projects are:

- Jefferson Cycle Track- a one mile long two way separated bike path connecting the Maumee River to the Toledo Art Museum
- Summit Street Reconstruction and Beatification, focusing on slower speeds and pedestrian safety
- Updated Truck Routes and signage throughout the downtown to keep through trucks on state routes and out of areas where there are a higher number of pedestrians



HIGH INJURY NETWORK



High Injury Network

Toledo's High Injury Network (HIN) - the city's most dangerous streets and intersections - are located throughout the city, crossing through and dividing neighborhoods from one another. These streets are in residential areas, commercial districts, downtown, and near schools.

The High Injury Network was developed using crash data from ODOT and finalized with a manual review. Crash data from ODOT was mapped onto the city's roadway network to identify streets with the highest number of crashes. Then, the manual review checked for gaps and extended some segments to include serious and fatal crashes at nearby intersections. The results were vetted by city staff and members of the Vision Zero Steering Committee. A map of the High Injury Network can be seen on the following page.



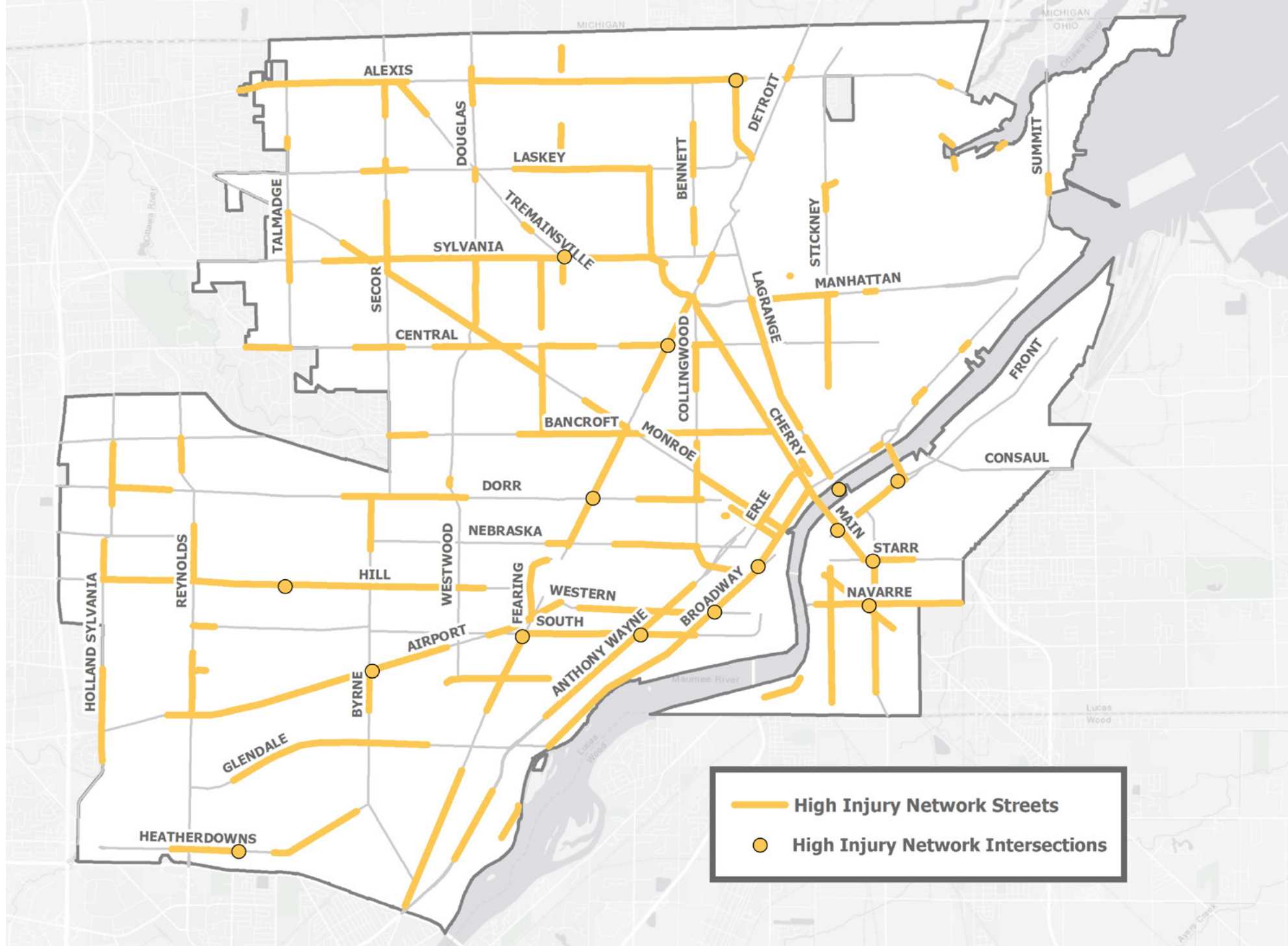
High Injury Network - Streets and Intersections

Streets

| | |
|---------------|-----------|
| E Broadway | Lagrange |
| Alexis | Laskey |
| Dorr | Main |
| Collingwood | Manhattan |
| Craig Bridge | Miami |
| Bancroft | Navarre |
| Bennet | Nebraska |
| Central | Oak |
| Broadway | South |
| Byrne | Starr |
| Fearing | Stickney |
| Erie | Sylvania |
| Douglas | Telegraph |
| Anthony Wayne | Upton |
| Cherry | Western |
| Front | Woodville |
| Heatherdowns | |

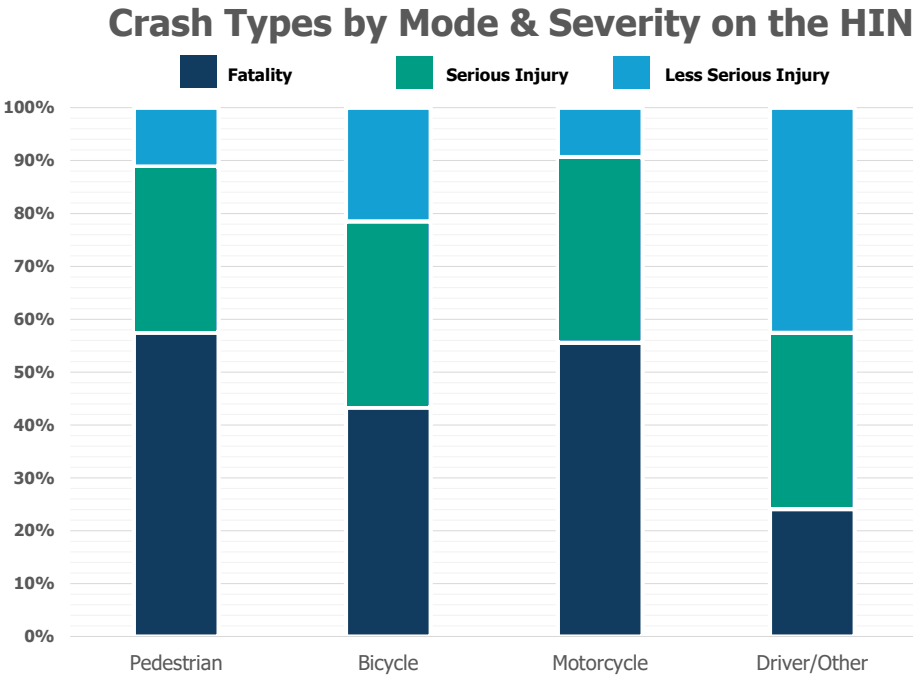
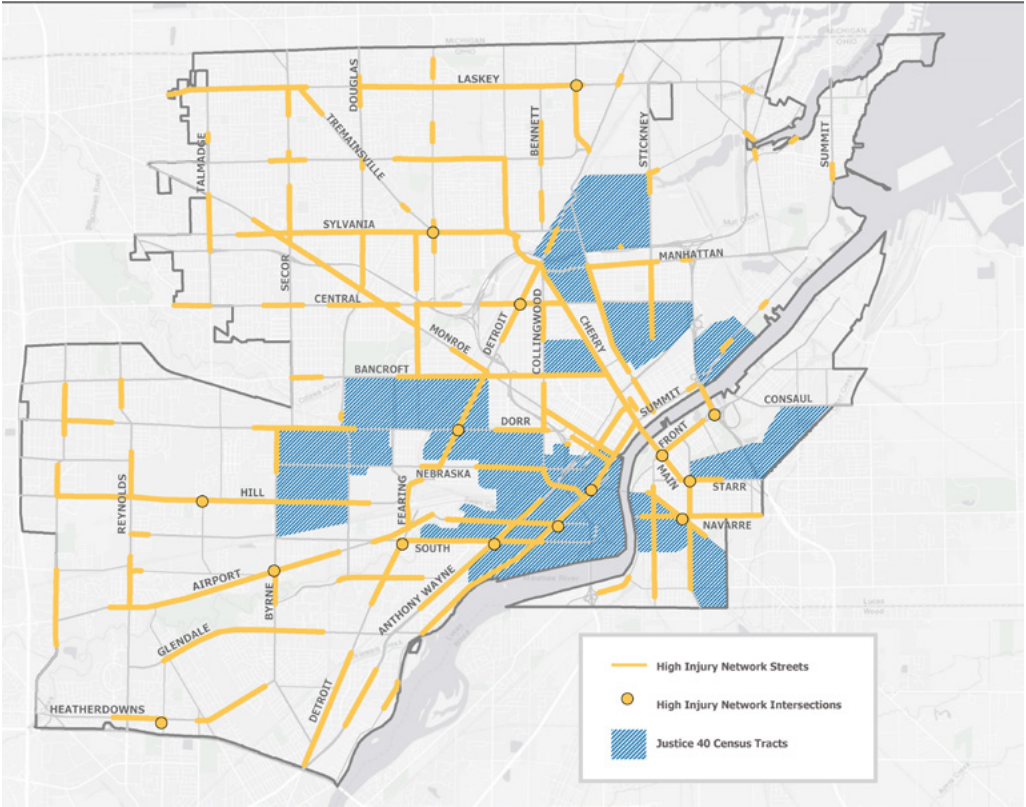
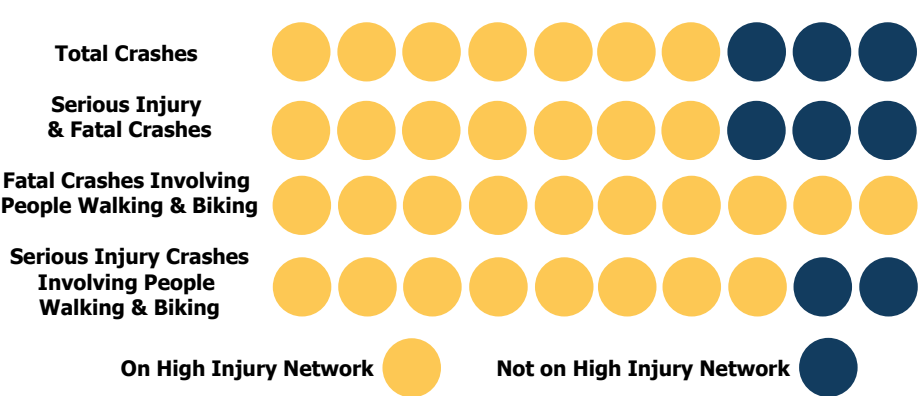
Intersections

| | |
|-----------------------|----------------------|
| Airport & Byrne | Front & Craig Bridge |
| Alexis & Telegraph | Front & Main |
| Anthony Wayne & South | Heatherdowns & Cass |
| Broadway & Clayton | Hill & Wenz |
| Broadway & Western | South & Detroit |
| Central & Detroit | Sylvania & Jackman |
| Dorr & Detroit | Woodville & Navarre |
| E Broadway & Starr | |



There are some characteristics that stand out consistently on Toledo’s High Injury Network streets. They are where 75.6% of serious injury and fatal crashes occur, even though they are only 6% of the road network. They are where 59.7% of pedestrian and bicycle crashes happen. They are more likely to be arterial streets with more lanes and higher speed limits.

The City should prioritize projects that impact safety outcomes on High Injury Network streets, especially in regard to lowering speed limits and design speeds, creating safe crossings for people walking, and improving the visibility for all travelers. The following page describes low-cost design treatments and Vision Zero best practices that should be considered as projects are developed for the High Injury Network.



Design Treatments

Low-Cost Design Treatments for High Injury Network Streets

Left turn traffic calming treatments

- Effective examples include hardened centerlines and left-turn wedges
- A hardened centerline is appropriate for locations where a one-way roadway meets a two-way intersection
- A slow turn wedge (below) is also appropriate for one-way to one-way applications
- In New York City, these treatments were found to reduce pedestrian injuries by 20% and reduce average left turning speeds by 20.5%⁷

Traffic signal improvements, including Leading Pedestrian Intervals (LPI)

- A Leading Pedestrian Interval (LPI) is when the walk signal is shown a few seconds before the green light for parallel traffic
- LPIs have been found to reduce collisions involving pedestrians between 46 - 73%⁸
- Adding pedestrian signal heads and accessible pedestrian signals help pedestrians understand when it's their turn to cross
- Area-wide No Turn On Red restrictions reduce conflicts between pedestrians and right turning vehicles

Intersection daylighting

- Daylighting restricts parking near intersections to improve visibility for drivers and pedestrians
- A 30% reduction in pedestrian crashes is expected after daylighting is implemented⁹



7 NYC Department of Transportation

8 NACTO; https://nacto.org/docs/usdg/safety_effectiveness_of_lpi_fayish.pdf

9 CMF Clearinghouse; https://safety.fhwa.dot.gov/ped_bike/tools_solve/fhwasa18041/fhwasa18041.pdf

Low-Cost Design Treatments for High Injury Network Streets

Crosswalk visibility enhancements

- High-visibility crosswalk markings and advance stop or yield markings can help make crossing pedestrians more visible to drivers.
- Crosswalk visibility enhancements can reduce crashes by 23–48%¹⁰
- Maintenance and lighting are also issues that should be noted during evaluation and addressed to improve safety

Measures to slow down right turns and reduce free-flowing movements

- Removing high-speed slip lanes
- Providing curb extensions and protected intersections that:
 - Slow turning vehicle speeds
 - Shorten the pedestrian crossing distance
 - Narrow the roadway
- Curb extensions can reduce all crash types by 39-46%¹¹

Slow zones

- Slow zones are specifically designated roadways with lower speed limits compared to similarly designed streets in the same jurisdiction or municipality.
- Slow zones that can be applied to Toledo include school zones, major park zones, and areas with a high concentration of seniors.
- Slow zones can use a variety of strategies, including signage, lower speed limits, as well as design that encourages lower travel speeds.



¹⁰ FHWA; https://safety.fhwa.dot.gov/ped_bike/step/docs/techSheet_VizEnhancemt2018.pdf

¹¹ Minnesota Department of Transportation; <http://www.dot.state.mn.us/research/TS/2013/201322.pdf>

Low-Cost Design Treatments for High Injury Network Streets

Median refuge islands

- Median refuge islands are protected spaces or blocks that are situated in the center of a street to help facilitate and protect bicycle and pedestrian crossings, especially when people have to wait to cross.
- Median refuge islands help decrease the amount of delay that a bicyclist would experience when crossing a street and helps calm traffic through physically narrowing the roadway.



Raised crosswalks

- Raised crosswalks are ramped speed tables spanning the entire width of a roadway.
- They can be installed temporarily for pilot projects using rubber platforms bolted into the roadway or can be constructed of poured concrete for permanent installations.
- They essentially become an extension of the sidewalk and allow for complete ADA compliance and, because of their width, do not negatively affect emergency vehicle travel in the way a speed hump would. Instead, they act as a natural means to slow vehicles down while entering an intersection or midblock crossing.



VOICES OF TOLEDO



Outreach

The Vision Zero planning process was guided by a core team from the City of Toledo which included staff from the Department of Transportation, Marketing and Communications, the Mayor's Office, and City Council. The City of Toledo hired a consulting firm with national expertise in the development of Vision Zero plans, as well as local experience with the City of Toledo. Members of the core team met with the consulting team several times a month to guide the planning process.

A steering committee of more than two dozen community partners were available to provide individual guidance throughout the planning process. This steering committee met as a group three times during the planning process to influence and vet the work of the planning team.

Throughout the planning process Toledo Residents provided input to create a plan that is visionary, applicable, and grounded in the history of the City. Toledo residents were engaged through stakeholder interviews, an online survey, public meeting, bike rides, and pop-up events. That feedback directly influenced the Vision Zero Plan's goals and strategies

KEY STAKEHOLDER INTERVIEWS

In July and September 2022, the project team interviewed three City Councilmembers to learn more about potential political support for Vision Zero and identify areas of the City where elected officials are especially concerned about safety and/or if there are any programs or policies that they would like to see enacted.

Who we heard from

Three City Councilmembers were interviewed:

- John Hobbs III, District 1
- Theresa Gadus, District 3
- Vanice S Williams, District 4

What we heard

- All interviewees were interested in and supporting of Vision Zero practices and policies.
- Upon learning about the Ohio Department of Transportation's Multimodal Design Guide, the interviewees requested a copy to learn more about how design can impact traffic safety.
- Driver behavior is a concern, and the interviewees were interested in leveraging design to impact behaviors.



ONLINE SURVEY

An online survey was open from Jun 29 - August 31, 2020. The survey asked respondents to rank traffic safety concerns and prioritize potential Vision Zero strategies. The survey was available in English and Spanish.

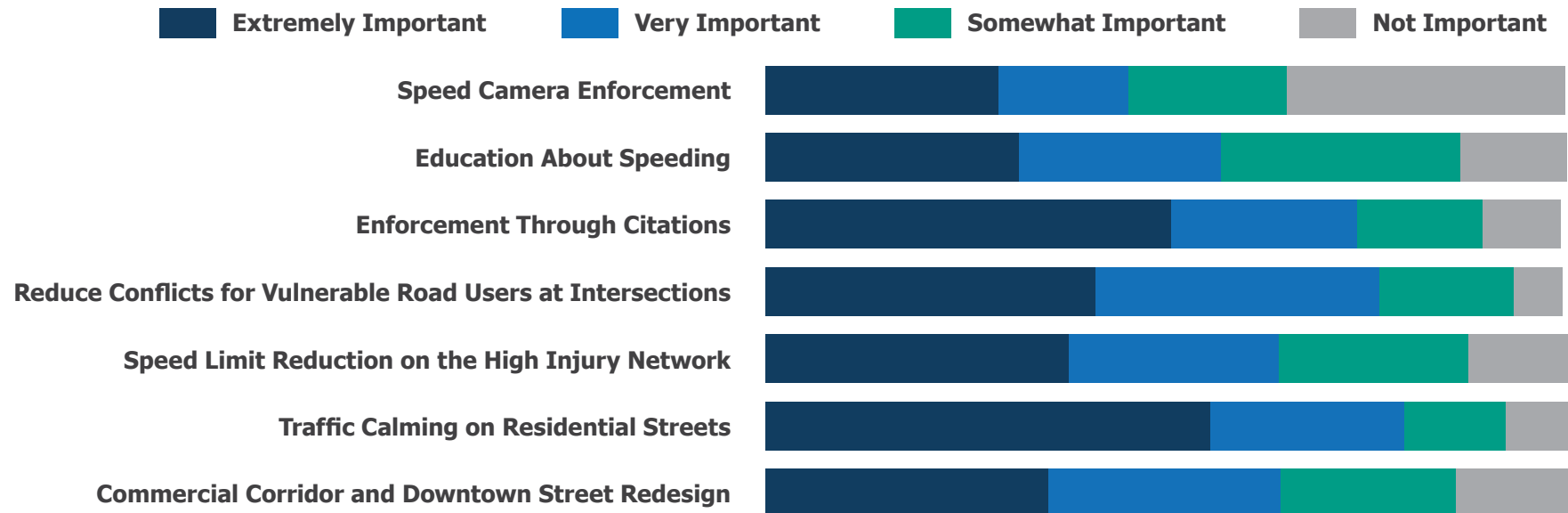
Who we heard from

There were over 400 survey respondents, most of whom lived in the northern and western parts of the city. Over half of the respondents were between the ages of 25 and 45, with very few under 25.

What we heard

- Nearly half the respondents had never heard of Vision Zero.
- Respondents believed that speeding and failure to yield to pedestrians were the top two behaviors that lead to crashes.
- Poor visibility and visual barriers at intersections were the most selected safety concerns. Missing crosswalks, missing bike lanes, and poor conditions of existing bike lanes were also mentioned.
- When asked what one thing the City could do to improve traffic safety, over one-third of respondents thought the City should design and build safer streets
- Open ended comments focused on the need for bike infrastructure (85), sidewalks (33) and lighting (16).

Survey Result: Strategies to Reduce Speeding and Dangerous Driving



PUBLIC MEETING

City staff hosted a public meeting on October 26, 2022 at Mott Branch Library to share information about the Vision Zero planning process and gather community feedback.

Who we heard from

Fifteen people were in attendance including three member of the press who wrote stories about the meeting that appeared in the [Toledo Blade](#).

What we heard

People in attendance reported a desire to feel safer when traveling, shared concerns about the safety and even loss of loved ones, and support of the City's investment in Vision Zero.

BIKE RIDES

In October 2022, the project team led two bike rides with City staff and members of the Steering Committee for the Vision Zero Plan. The bulk of the route consisted of components of the High Injury Network identified in the planning process and focused on examining current conditions for people biking, scootering, and walking. The groups stopped many times throughout the rides to discuss infrastructure that they used and passed, to identify what is working well from a user perspective, and consider what still needs improvements.

Who we heard from

There were six City staff that participated in the bike rides. All of the participating staff are involved in transportation planning, policymaking, and/or design at the City.

What we heard

Participants reported a better understanding of what Toledo has done well and what types of roads still create challenges for people using bicycles and scooters for transportation. Each group identified areas they would like to replicate and discussed potential solutions for higher stress corridors. One group discovered a geofenced area in a Metropark that extended beyond the intended boundaries, making scooter share unusable in an important transportation corridor. Some participants even reported learning new things about general bicycling practices, and others left the ride feeling more confident about using a bicycle or scooter to travel to destinations.



POP-UP AND TABLING EVENTS

In October and November of 2022 the project team held five “pop-up” events which focused on having conversations with individuals and small groups about Vision Zero at places they already visited. Events were held at the Fredrick Douglass Center, the Main Library, Summit Diner, the TARTA hub on North Huron Street between Cherry Street and Orange Street, and the Glow Ride bike ride hosted by Bike Rides Matter 419.

The project team also participated in an event at the Essquela Smart School along with other City Departments and had interpreters available for English only language speakers. Staff had a large print out of the High Injury Network map and a “Vision Zero Bingo” card to guide conversations, but the main purpose of the pop-ups was to listen to people’s experiences traveling in Toledo and hear what they thought about Vision Zero as a concept.

Who we heard from

Approximately three dozen people participated in conversations. Some spoke Spanish, though most only participated in English. Most participants were adults. A majority of the people in the conversations were People of Color.

What we heard

- People described a variety of concerns about safety when traveling, (or considering traveling,) as a pedestrian, on a bike, or by scooter to all the destinations they need to travel to in Toledo. Concerns expressed included:
 - Fear of (and stories of) being hit by fast-moving moving cars and trucks;
 - Problems with absent and poor sidewalk conditions causing people with mobility devices to use the street;
 - Concerns about low or absent streetlights in some locations that made some concerned about crime;
 - Geographic disparity throughout the City in comfort while traveling based on street conditions, safe crossings for pedestrians, shade from street trees, lighting, and sidewalk conditions; and
 - Concerns about being targeted for “not appearing to belong” in different parts of Toledo.

- Some people reported that driving was the safest mode of travel, though they wished they felt safe traveling other ways to save money.
- Some people felt that traffic fatalities are just an unfortunate and normal part of traveling regardless of mode. Many people focused on the actions of individual bad actors (mostly drivers speeding or not paying attention to pedestrians) as the cause of fatalities.
- The idea that changes in systems, like road design, could influence the speed of drivers was new to almost everyone in these conversations.

| THINK SAFETY BINGO! | | | | |
|--|---|---|---|---|
|  | Children Present |  | Street Trees |  |
| Speeding |  | No Sidewalks |  | Near-miss Crash |
|  | Multifamily Housing |  | Wide Lanes |  |
| Sidewalks on one side of the street |  | Brick Roads |  | On street Parking |
|  | Two Lane Street |  | School Zone |  |
| Instructions to play: Cross off any square you can answer “yes” for on the street where you live. Write the name of the street you live on and the nearest cross street on the back of the card. | | | | |

How Public Input is Integrated into Toledo's Vision Zero Plan

Understanding the community's needs, experiences, perceptions, and understanding around walking, biking, and driving in Toledo is a major consideration when creating recommendations and actions. The following are topics that were reiterated throughout the public involvement activities that are addressed in this plan's recommended strategies and actions:

- People feel more vulnerable when they are walking, biking, or rolling for a variety of reasons - vehicle speeds, lighting (or lack thereof), availability or maintenance of walking and biking infrastructure (sidewalks, bike lanes, crossings, etc.), and the ways in which some populations of people are marginalized. Street design and placemaking that considers each of these factors is necessary to increase safety.
- Street design should focus on improvements that make walking, biking, and rolling safer and more comfortable for people of all ages and people with disabilities.
- There are existing design standards - such as the Ohio Department of Transportation's Multimodal Design Guide - that should be used by City staff to consistently consider all modes in roadway projects.
- Equity should be a consideration when deciding on the types of projects built and what parts of the City are prioritized.
- Vision Zero is still a relatively unknown concept in Toledo and focusing on culture change that sets a community expectation that, deaths are preventable should be a component of an implementation plan.



TIME TO ACT



Recommended Strategies and Actions

The crash analysis, High Injury Network development, public input, and the work of the Steering Committee detailed in the previous sections helped create the following recommendations. The crash data and High Injury Network were used heavily to consider project types and prioritization, and input from the public and Steering Committee was used to tailor the comprehensive education and awareness recommendations to Toledo's unique culture.

Each recommended strategy includes associated actions, and a general timeline as well the identified lead and potential partners. These actions and strategies should be reviewed and revised regularly to ensure that the city's Vision Zero efforts remain applicable and effective.



EQUITY STRATEGIES AND ACTIONS

Equal access to safe streets is an important goal for the Toledo Vision Zero Action Plan. Currently, serious injury and fatal crashes do not occur equally throughout the city - crash data shows that serious crashes occur at a higher rate in Communities of Concern with higher concentrations of low-income communities, communities of color, and/or communities in households without access to a car. The actions below will help guide equitable investments in transportation safety efforts throughout Toledo, and create programs to ensure that everybody, regardless of race, age, ability, or income can safely move throughout the city.

EQUITY STRATEGY 1 - Prioritize Vision Zero investment in Communities of Concern (communities of color at all income levels, low-income communities of all races and ethnicities, low car ownership neighborhoods, NRSA communities)

| ID | Action | Timeline | Lead | Partners |
|------|---|------------|------------------------------|---|
| E1.1 | Ensure that funding allocations are prioritized for improvements within the High Injury Network focus area. | Short Term | Department of Transportation | City Council , Vision Zero Coordinating Committee, Mayor's Office |

EQUITY STRATEGY 2 - Establish a standing voluntary Vision Zero Coordinating Committee

| ID | Action | Timeline | Lead | Partners |
|------|--|------------|------------------------------|--|
| E2.1 | Include City staff, community-based organizations, partner institutions, and state and regional partners who have a role in advancing equity in the City of Toledo and Vision Zero action items. | Short Term | City Council, Mayor's Office | Mayor's Office on Disability, Department of Transportation, Diversity Equity & Inclusion Office, Housing and Community Development |

| ID | Action | Timeline | Lead | Partners |
|------|--|------------|------------------------------------|---|
| E2.2 | Include people who walk, use mobility devices, transit, bicycles, scooters, other micromobility, and ride motorcycles. | Short Term | City Council, Mayor's Office | Ability Center, TARTA, Lucas County Board of Developmental Disabilities, Safe Routes To School, Bike Rides Matter 419, Toledo Bikes, Buffalo Soldiers Motorcycle Club |
| E2.3 | Include residents from Communities of Concern and people with disabilities. | Short Term | City Council, Mayor's Office | |
| E2.4 | Identify a community partner to provide a stipend for volunteer committee members and community-based organizations. | Short Term | City Council, Mayor's Office | Toledo Community Funds |
| E2.5 | Monitor implementation to ensure no strategies result in racial profiling or otherwise exacerbate racial inequities. | Ongoing | Vision Zero Coordinating Committee | |
| E2.6 | Meet a minimum of twice a year to review methodology for implementing highest priority strategies. | Short Term | City Council, Mayor's Office | |
| E2.7 | Complete a formal update to the Vision Zero Plan every five years, and routinely update the document as progress is made and/or information is gathered. | Short Term | City Council, Mayor's Office | Department of Transportation |

EQUITY STRATEGY 3 - Develop processes to center community participation in the development and implementation of Vision Zero related efforts and strategy updates

| ID | Action | Timeline | Lead | Partners |
|------|---|------------|--|---|
| E3.1 | Attend existing events in Communities of Concern within the High Injury Network. | Short Term | Department of Transportation, Marketing & Communications | Lucas County Safe Communities, Lucas County Health Department, Safe Routes to School |
| E3.2 | Partner with hospitals for Healthy Zone door to door canvassing in Communities of Concern on the High Injury Network. | Short Term | Department of Transportation, Marketing & Communications | Mercy Health - St. Vincent Medical Center, ProMedica Children's Hospital, University of Toledo Medical Center |

| ID | Action | Timeline | Lead | Partners |
|------|---|-------------|--|--|
| E3.3 | Host engagement events in Communities of Concern within the High Injury Network. Provide incentives to community members for participation. | Long Term | Department of Transportation, Marketing & Communications | Lucas County Safe Communities, Safe Routes to School, Safe Kids Greater Toledo |
| E3.4 | Hire local community-based organizations and culturally based organizations to shape and share Vision Zero related messages and develop a Street Ambassador program that employs people from Communities of Concern to conduct engagement events. | Medium Term | City Council | |
| E3.5 | Conduct engagement in multiple languages including Arabic, English, Mandarin, and Spanish. | Short Term | Marketing & Communications | Vision Zero Coordinating Committee and Community Based Organizations |
| E3.6 | Message to all road users: drivers, pedestrians, transit riders and people who use bicycles and other forms of micromobility. | Short Term | Marketing & Communications | Bicycle Advocacy Organizations, Motorcycle Clubs, TARTA |
| E3.7 | Ensure public feedback is reported to the Coordinating Committee. | Short Term | Marketing & Communications | |

EQUITY STRATEGY 4 - Report annually to the public the impacts of Vision Zero implementation strategies

| ID | Action | Timeline | Lead | Partners |
|------|---|----------|----------------------------|--|
| E4.1 | Provide data about traffic fatalities and serious collisions on the City's website, highlighting equity metrics. | Annual | Marketing & Communications | Regional Trauma Registry, Department of Transportation, TMACOG |
| E4.2 | Report on traffic fatalities and serious injuries for people who walk, use mobility devices, transit, bicycles, scooters, other micromobility devices, ride motorcycles and drive other vehicles. | Annual | Marketing & Communications | Regional Trauma Registry, Department of Transportation, TMACOG |



SAFETY AND SLOW SPEEDS STRATEGIES AND ACTIONS

The Vision Zero Action Plan prioritizes safety for all roadway users. The actions below include physical changes to the High Injury Network and the citywide street network to address issues, notably speed, that result in the most serious crashes.

SAFETY STRATEGY 1 - Improve the High Injury Network

| ID | Action | Timeline | Lead | Partners |
|------|---|-------------|---|--|
| S1.1 | Rank capital improvements using High Injury Network. | Ongoing | Department of Transportation | |
| S1.2 | Identify locations for streamlining projects to be fed into Capital Improvement Projects. | Ongoing | Department of Transportation | |
| S1.3 | Build improvements at two (2) High Injury Network segments each year. | Ongoing | Department of Transportation | |
| S1.4 | Build improvements at 10 High Injury Network intersections in 10 years. | Long Term | Department of Transportation | |
| S1.5 | Prioritize improvements in Communities of Concern & near Schools. | Medium Term | Department of Transportation, Safe Routes to School | Housing & Community Development |
| S1.6 | Promote a culture of safety through educational programs. | Medium Term | Marketing & Communications | Department of Transportation, Safe Routes to School, Housing & Community Development, TMACOG, YMCA, Health Department, Lucas County Traffic Safety |

SAFETY STRATEGY 2 - Evaluate speeds on High Injury Network

| ID | Action | Timeline | Lead | Partners |
|------|---|----------|------------------------------|--------------|
| S2.1 | Inventory speed limits on the High Injury Network & take live measurements at peak hours, non-peak hours, & after dark. | Ongoing | Department of Transportation | TMACOG, ODOT |
| S2.2 | Identify locations where lower speed limits should be considered. | Ongoing | Department of Transportation | |
| S2.3 | Evaluate for design interventions to lower the operating speed. | Ongoing | Department of Transportation | ODOT |

SAFETY STRATEGY 3 - Improve crosswalks on the High Injury Network

| ID | Action | Timeline | Lead | Partners |
|------|---|-------------|------------------------------|-----------------------|
| S3.1 | Inspect all crosswalks on High Injury Network, especially near schools, hospitals, libraries, & parks High Injury Network | Ongoing | Department of Transportation | TMACOG, ODOT |
| S3.2 | Implement Leading Pedestrian Intervals (LPI) at all school crosswalks. | Medium Term | Department of Transportation | Safe Routes to School |
| S3.3 | Review restricted parking guidelines near High Injury Network intersections to be in alignment with daylighting principles. | Ongoing | Department of Transportation | |

SAFETY STRATEGY 4 - Improve lighting on the High Injury Network

| ID | Action | Timeline | Lead | Partners |
|------|---|----------|------------------------------|--|
| S4.1 | Review sidewalk & intersection lighting & make recommendations to Toledo Edison for necessary improvements. | Ongoing | Department of Transportation | Toledo Edison, Housing & Community Development |

SAFETY STRATEGY 5 - Build a complete and connected sidewalk network on the High Injury Network

| ID | Action | Timeline | Lead | Partners |
|------|--|----------|------------------------------|--|
| S5.1 | Determine gaps in sidewalk network along the High Injury Network & prioritize locations annually for improvements using Lucas County Land Bank Assessment data (2021). | Ongoing | Department of Transportation | Housing & Community Development, Land Bank |
| S5.2 | Prioritize locations within school travel plan & in Communities of Concern. | Ongoing | Department of Transportation | Safe Routes to School |

SAFETY STRATEGY 6 - Integrate the High Injury Network into development review

| ID | Action | Timeline | Lead | Partners |
|------|--|-------------|---|--|
| S6.1 | Consider High Injury Network impacts during plan reviews for sites abutting the High Injury Network. | Medium Term | Plan Commission, Department of Transportation | |
| S6.2 | Update Safe Routes to Schools Priority Corridors abutting the High Injury Network. | Ongoing | Safe Routes to School | Department of Transportation, ODOT, TMACOG |
| S6.3 | Refine Toledo Municipal Code with text amendments to align development codes and High Injury Network for engineer/transportation team. | Medium Term | Plan Commission | Department of Transportation |

SAFETY STRATEGY 7 - Quickly identify ongoing projects on the HIN and review them for the incorporation of Vision Zero design changes

| ID | Action | Timeline | Lead | Partners |
|------|--|-------------|------------------------------|---------------------------------------|
| S7.1 | Review all ongoing, planned, and funded projects on the High Injury Network including the paving program, capital improvement plans, and ODOT Transportation Improvement Projects. | Ongoing | Department of Transportation | ODOT, TMACOG |
| S7.2 | Identify projects on the High Injury Network, compare with High Injury Network speed evaluation, rapid improvement evaluation, crosswalk evaluation, sidewalk gap evaluation, and lighting evaluation. | Medium Term | Department of Transportation | TMACOG |
| S7.3 | Conduct walk audits for major street design project updates. | Ongoing | Department of Transportation | ODOT, Housing & Community Development |

SAFETY STRATEGY 8 - Advocate for design changes to state roads entering Toledo that support changes made within Toledo

| ID | Action | Timeline | Lead | Partners |
|------|--|----------|------------------------------|----------------------------|
| S8.1 | Ensure Toledo has the ability to modify state roads locally and/or obtain specific commitments from ODOT for roadway safety improvements on the High Injury Network. | Ongoing | Department of Transportation | ODOT, TMACOG, Lucas County |

SAFETY STRATEGY 9 - Establish Vision Zero Guidelines

| ID | Action | Timeline | Lead | Partners |
|------|---|-------------|------------------------------|-------------------------------|
| S9.1 | Update existing Toledo Complete Streets policy and guidance. | Ongoing | Department of Transportation | Plan Commission, TMACOG |
| S9.2 | Consolidate policies and design guidelines from adopted plans such as TMACOG Complete Streets 2020 and Lucas County Active Transportation Plan 2022 to guide Toledo's street design, traffic, and parking procedures in order to prioritize safety and reduce the incidence of fatal and serious injury crashes. Include national and state-level guidance where available. | Medium Term | Department of Transportation | Plan Commission, TMACOG, ODOT |
| S9.3 | Create Multimodal Design policy and guidance. | Medium Term | Department of Transportation | Plan Commission, TMACOG, ODOT |
| S9.4 | Expand design guidelines to include: <ol style="list-style-type: none"> 1. Design elements identified in the citywide crash analysis focused on intersection treatments, signalization, and crosswalk improvement 2. Ensure correlation to vulnerable road user and Communities of Concern populations | Medium Term | Department of Transportation | Plan Commission, TMACOG, ODOT |

SAFETY STRATEGY 10 - Work with one (1) school per year to install safety projects surrounding school

| ID | Action | Timeline | Lead | Partners |
|-------|--|-------------|-----------------------|--|
| S10.1 | Update Toledo Public School Safe Routes to School plans to include High Schools. | Short Term | Safe Routes to School | Department of Transportation, TMACOG, ODOT |
| S10.2 | Involve students in issue identification and design process. | Medium Term | Safe Routes to School | Department of Transportation, TMACOG, ODOT |
| S10.3 | Prioritize projects on the High Injury Network and by Communities of Concern. | Medium Term | Safe Routes to School | Department of Transportation, TMACOG, ODOT |

| ID | Action | Timeline | Lead | Partners |
|-------|---|-------------|---|--------------|
| S10.4 | Install traffic signal bike detection within school zones. | Long Term | Safe Routes to School, Department of Transportation | TMACOG, ODOT |
| S10.5 | Install high Visibility green bike conflict zone markings within school zone. | Medium Term | Safe Routes to School, Department of Transportation | TMACOG, ODOT |

SAFETY STRATEGY 11 - Develop a speed management program

| ID | Action | Timeline | Lead | Partners |
|-------|---|-------------|------------------------------|---------------------------------|
| S11.1 | Develop a program for systematically collecting speed data throughout the city. | Ongoing | Department of Transportation | TMACOG, ODOT |
| S11.2 | Focus on passive enforcement solutions such as automated speed enforcement within school zones, traffic calming, or other design interventions within the High Injury Network and Communities of Concern. | Medium Term | Department of Transportation | Housing & Community Development |

SAFETY STRATEGY 12 - Install automated red-light enforcement and designate funds from automated enforcement for Vision Zero projects

| ID | Action | Timeline | Lead | Partners |
|-------|---|-----------|--------------------------|------------------------------|
| S12.1 | Allow in school zones (anytime students are out/outside the building; i.e. arrival, dismissal, and afterschool programs). | Long Term | Toledo Police Department | Department of Transportation |

SAFETY STRATEGY 13 - Identify criteria for installation of "No Turn on Red" and Leading Pedestrian Intervals

| ID | Action | Timeline | Lead | Partners |
|-------|--|----------|------------------------------|----------|
| S13.1 | Outline process for implementing changes at priority intersections. | Ongoing | Department of Transportation | |
| S13.2 | Consider city wide or district wide applications for uniform improvements. | Ongoing | Department of Transportation | |
| S13.3 | Reprogram signaling to automatically display the walk signal in high density pedestrian areas. | Ongoing | Department of Transportation | |

| ID | Action | Timeline | Lead | Partners |
|-------|---|-------------|-------------------------------------|----------|
| S13.4 | Consider protected turn phases at High Injury Network intersections where there are 3+ fatal/serious injury crashes within a 5 year period. | Ongoing | Department of Transportation | |
| S13.5 | Co-Locate bus stops and pedestrian crossings. | Medium Term | Department of Transportation, TARTA | |

SAFETY STRATEGY 14 - Ensure freight master planning includes focus on safe and reliable urban truck movements

| ID | Action | Timeline | Lead | Partners |
|-------|--|-----------|------------------------------|--|
| S14.1 | Collaborate with Lucas County and ODOT partners to evaluate current truck movements within Toledo. | Long Term | Department of Transportation | TMACOG, ODOT, Lucas County |
| S14.2 | Collaborate with freight operators to provide education for drivers on safe movements within Toledo. | Long Term | TMACOG | ODOT, Department of Transportation, Lucas County |



DATA-DRIVEN APPROACH STRATEGIES AND ACTIONS

Vision Zero's success will be measured by evaluating and understanding crash data. Improving data collection, sources, and analysis methods will lead to a better understanding of what is happening on Toledo's streets and inform continued efforts to improve outcomes for all road users.

DATA STRATEGY 1 - Improve access to and understanding of crash data

| ID | Action | Timeline | Lead | Partners |
|------|---|-------------|--|--|
| D1.1 | Form a Crash Analysis Committee from all departments that collaborates to improve the quality, detail, access, timeliness, and organization of ODOT and Toledo Police Department data points. | Medium Term | Department of Transportation, Mercy Health - St. Vincent Medical Center, ProMedica Children's Hospital | Lucas County Traffic Safety, ODOT, TMACOG, Lucas County Safe Community |
| D1.2 | Coordinate with ODOT to link crash data to EMS, and hospital/trauma center registry data to collect accurate injury information to be aggregated and anonymized. | Long Term | Mercy Health - St. Vincent Medical Center, ProMedica Children's Hospital | ODOT, Marketing & Communications, TMACOG, Lucas County Safe Community |
| D1.3 | Work with ODOT and the City of Toledo to improve local access to detailed crash data. | Ongoing | Toledo Police Department, Department of Transportation | ODOT, TMACOG, Lucas County Safe Community |

DATA STRATEGY 2 - Complete Vision Zero Walk Audits along HIN

| ID | Action | Timeline | Lead | Partners |
|------|---|-------------|------------------------------|-------------------------------------|
| D2.1 | Develop a Vision Zero Walk Audit Checklist. | Medium Term | Department of Transportation | ODOT |
| D2.2 | Publicize findings annually. | Short Term | Marketing & Communications | Toledo Department of Transportation |

DATA STRATEGY 3 - Conduct before and after studies of safety improvements to assess effectiveness and refine future applications using Performance Measure 1 FHWA guidance to position the City for safety funding opportunities

| ID | Action | Timeline | Lead | Partners |
|------|---|-------------|---|---|
| D3.1 | Include evaluation counts of past crashes, design changes implemented, increased/decreased Vulnerable Road User counts, speed recording and traffic counts. | Ongoing | Department of Transportation | ODOT, TMACOG |
| D3.2 | Include qualitative evaluation using intercept surveys, public surveys, walk audits and/or focus groups. | Medium Term | Department of Transportation | ODOT, TMACOG, Housing & Community Development |
| D3.3 | Include an overall project evaluation including interviews with stakeholders at all stages and lessons learned. | Long Term | Housing & Community Development, Marketing & Communications | TMACOG |

DATA STRATEGY 4 - Publish an annual report to document prioritized efforts and funding towards Vision Zero that includes:

| ID | Action | Timeline | Lead | Partners |
|------|--|-------------|--|---|
| D4.1 | Implementation status of the Action Plan. | Ongoing | Department of Transportation, Marketing & Communications | |
| D4.2 | Fatal and Serious Injury crash statistics. | Ongoing | Department of Transportation, Marketing & Communications | ODOT, TMACOG, Lucas County Safe Community |
| D4.3 | Key traffic citation metrics or changes to citation practices. | Long Term | Toledo Police Department, Marketing & Communications | Department of Transportation |
| D4.4 | A summary of the effect on Safety Countermeasures. | Long Term | Department of Transportation, TMACOG | ODOT |
| D4.5 | Update HIN every three (3) years. | Medium Term | Department of Transportation, Marketing & Communications | Lucas County Safe Communities |



CULTURE CHANGE STRATEGIES AND ACTIONS

Vision Zero is a shift from traditional transportation practices and behaviors, from engineers and planners to residents of Toledo. The actions below identify ways to change the status quo and create a culture where everyone knows the role they play in making Toledo's streets safer for everyone.

CULTURE CHANGE STRATEGY 1 - Establish a permanent, dedicated funding source for Vision Zero implementation

| ID | Action | Timeline | Lead | Partners |
|------|---|------------|---|--------------|
| C1.1 | Identify projects that should be funded locally, like ongoing crosswalk implementation, and those that require grant funding through the Toledo Metropolitan Area Council of Governments (TMACOG) and the Ohio Department of Transportation (ODOT). | Short Term | Department of Transportation, Safe Routes to School | ODOT, TMACOG |

CULTURE CHANGE STRATEGY 2 - Ensure staff are trained to implement the Vision Zero Plan

| ID | Action | Timeline | Lead | Partners |
|------|--|-------------|---------------------|---|
| C2.1 | Create a staffing matrix of existing and proposed staff for the delivery of Vision Zero action items. | Short Term | Mayor, City Council | Department of Transportation, Marketing & Communications, Vision Zero Coordinating Committee, Planning Commission |
| C2.2 | Send key staff responsible for implementing the Vision Zero Plan, such as Toledo Department of Transportation, Marketing and Communications, Department of Economic Development, Toledo Police Department, Toledo Lucas County Health Department, Housing and Community Development, Diversity Equity and Inclusion, and elected officials to Vision Zero related conferences and trainings. | Medium Term | Mayor, City Council | All Departments listed |
| C2.3 | Conduct complete streets design training for planners and engineers designing, building, and working with contractors on projects in Toledo. | Short Term | Mayor, City Council | Department of Transportation, Vision Zero Coordinating Committee |
| C2.4 | Train Public Safety staff on Vision Zero priorities and equity considerations. | Medium Term | Mayor, City Council | Department of Transportation, Vision Zero Coordinating Committee |
| C2.5 | Require training on traffic safety and Vision Zero values for City employees receiving fleet driving permissions. | Medium Term | Mayor, City Council | Department of Transportation, Utilities |

| ID | Action | Timeline | Lead | Partners |
|------|--|-------------|---------------------|--|
| C2.6 | Research and pilot diversion program in lieu of fines to encourage safe driving behaviors. | Long Term | Mayor, City Council | Municipal Court |
| C2.7 | Provide training for community partner organizations on Vision Zero principles. | Medium Term | Mayor, City Council | Toledo Edison, Buckeye, TARTA, Toledo Public Schools |

CULTURE CHANGE STRATEGY 3 - Invest in a Comprehensive Public Communications Campaign utilizing existing resources like the Vision Zero Network

| ID | Action | Timeline | Lead | Partners |
|------|---|-------------|----------------------------|----------|
| C3.1 | Focus on prioritizing safety for all road users and set an expectation of zero traffic deaths. | Short Term | Marketing & Communications | |
| C3.2 | Shift transportation assumptions from driving culture toward a multimodal culture emphasizing the rights of people who walk, use mobility devices, bicycle, scooter, and other micromobility devices. | Medium Term | Marketing & Communications | |
| C3.3 | Address speeding as a top collision factor. | Short Term | Marketing & Communications | |
| C3.4 | Address distracted driving as a collision factor. | Short Term | Marketing & Communications | |
| C3.5 | Include information relevant to people using all types of transportation networks, including: drivers, pedestrians, transit riders and people who use bicycles and other forms of micromobility. | Short Term | Marketing & Communications | |
| C3.6 | Create Vision Zero communications and education materials in English, Spanish, Arabic, and Mandarin. | Short Term | Marketing & Communications | |
| C3.7 | Pair major infrastructure changes and enforcement activities with messaging to communicate why traffic safety is important. | Medium Term | Marketing & Communications | |
| C3.8 | Incorporate Vision Zero messaging into training and outreach materials for use by fleet managers, driving instructors, people who hold a commercial driver's license (CDL), and other professional drivers. | Long Term | Marketing & Communications | |
| C3.9 | Develop standard language regarding Vision Zero and traffic safety for use by all City partner agencies when interacting with the media and with the public directly. | Medium Term | Marketing & Communications | |

| ID | Action | Timeline | Lead | Partners |
|-------|---|-------------|----------------------------|--|
| C3.10 | Create communication campaigns for Vision Zero temporary demonstration projects that introduce the public to new roadway designs and build popular support for permanent changes. | Medium Term | Marketing & Communications | |
| C3.11 | Include messaging that focuses on children, youth, families, and people with disabilities as travelers in the transportation network. | Medium Term | Marketing & Communications | Safe Routes to School, Toledo Public Schools |

CULTURE CHANGE STRATEGY 4 - Provide information and training to local media

| ID | Action | Timeline | Lead | Partners |
|------|--|------------|----------------------------|----------|
| C4.1 | Share research with local news outlets about how word choice and framing influences public perception of the inevitability of traffic crashes. | Short Term | Marketing & Communications | |
| C4.2 | Begin this process with internal communications staff at the City of Toledo and within the Public Safety Department. | Short Term | Marketing & Communications | |

CULTURE CHANGE STRATEGY 5 - Incorporate Vision Zero data and recommendations into transportation elements of future planning efforts

| ID | Action | Timeline | Lead | Partners |
|------|---|-------------|---------------------|---|
| C5.1 | Identify necessary changes to city processes such as development review, street design processes, enforcement and other areas where the safety of all road users is not prioritized over other factors like the ease of use of automobiles. | Medium Term | Mayor, City Council | Department of Transportation, Plan Commission, Safety Services, Neighborhood Department |
| C5.2 | Evaluate ongoing and upcoming planning efforts for the incorporation of Vision Zero elements. | Medium Term | Mayor, City Council | Department of Transportation, Neighborhood Department |
| ID | Action | Timeline | Lead | Partners |
| C5.3 | Review and revise City code governing site design's interface with the public right-of-way to incorporate safe design standards for all modes and to prioritize safety along the High Injury Network. | Long Term | Mayor, City Council | Department of Transportation, Plan Commission, Safety Services, Neighborhood Department |
| C5.4 | Encourage coordination across silos of excellence. | Short Term | Mayor, City Council | |

CULTURE CHANGE STRATEGY 6 - Promote Safe Routes to School programming to all schools and integrate Vision Zero principles into school transportation policies and efforts

| ID | Action | Timeline | Lead | Partners |
|-----------|---|-----------------|----------------|---|
| C6.1 | Identify and Develop education tools, tip sheets, and activities that parents, school administrators and staff can use to teach children and families Vision Zero principles, particularly related to safe walking and bicycling behaviors. | Short Term | YMCA, Livewell | Safe Routes to School Committee |
| C6.2 | Create SRTS Program Tool-Kits with resources that encourage and support schools in expanding their SRTS program offerings more independently. | Short Term | YMCA, Livewell | Safe Routes to School Committee |
| C6.3 | Identify and invest in safety messaging around safe driving, bicycling and walking behaviors around schools prioritizing audiences of parents, and community members. | Medium Term | YMCA, Livewell | Safe Routes to School Committee, Marketing & Communications |

CULTURE CHANGE STRATEGY 7 - Advocate for changes in local, regional, and national codes that increase safety for all road users

| ID | Action | Timeline | Lead | Partners |
|-----------|---|-----------------|---|--|
| C7.1 | Update and/or remove minimum parking requirements to expand right-of-way for projects that support pedestrians, people who use bicycles, and transit-oriented development. | | Planning Commission, Department of Transportation | City Council |
| C7.2 | Require additional infrastructure on development sites to expand the public transit network for pedestrians and people who use bicycles. | | Planning Commission | Department of Transportation, TARTA, City Council, bike advocacy organizations |
| C7.3 | Amend the Zoning Code to allow the City to request additional right-of-way as part of a development projects to provide comfortable infrastructure for pedestrians and people who use bicycles. | | Planning Commission | City Council |
| C7.4 | Support a streamlined development review process to install and improve crosswalks and pedestrian infrastructure. | | Planning Commission | City Council |
| C7.5 | Advocate for the adoption and implementation of universal design standards that promote safe mobility for disabled residents. | | Planning Commission | City Council, Ability Center, Lucas County Board of Developmental Disabilities |

| ID | Action | Timeline | Lead | Partners |
|------|--|----------|---|----------|
| C7.6 | Establish micromobility regulations to protect riders, pedestrians, and other road users. | | City Council | |
| C7.7 | Advocate for changes in the Ohio Revised Code that clarify the rights of pedestrians and bicyclists. | | Lucas County Active Transportation Plan Committee | |

IMPLEMENTATION



Short Term Actions

A summary of the short-term actions from the previous section is included below. Some recommendations are already being implemented. Other short-term recommendations will be prioritized in the first few years.

CENTER EQUITY

Equity for people historically, persistently, or systemically marginalized is key to the success of Toledo's Vision Zero plan. Population demographics and mode choice should no longer predict who is safe and who is most likely to suffer from a life-altering injury or die while traveling in Toledo's transportation network. To assure this, equity strategies and actions are prioritized as a starting point for this work.

- Ensure funding allocations are prioritized within the Communities of Concern in the High Injury Network.
- Embrace community participation, particularly within Communities of Concern within the High Injury Network and include residents who regularly travel as vulnerable road users.
 - Allow engagement feedback to influence development and implementation of actions and the updates of strategies.
 - Communicate with residents in their preferred language.
- Establish a Vision Zero Coordinating Committee to guide and audit the work of the plan.
 - Select members with professional or lived expertise in prioritizing equity as it relates to race, disability, age, income, and mode of travel.
 - Monitor implementation of actions, strategies, and goals to ensure they do not exacerbate racial inequities.
 - Routinely update strategies as new information becomes available.

DESIGN FOR SAFETY OVER THROUGHPUT

Design transportation networks to prioritize human life and health over travel speed and traffic throughput. Begin with the High Injury Network, focusing first on Communities of Concern.

- Encourage safe speeds using proven countermeasures.
 - Design for safe speeds in all projects - ongoing, planned, funded, and new projects.
 - Inventory speed limits and take live measurements at peak, non-peak, and after dark to identify where operating speeds are different from speed limits and prioritize the funding of new projects in corridors with unsafe operating speeds.
 - Coordinate across departments to influence land use planning, zoning, marketing and communications, speed data collection, crash data collection, and other operations and decisions made outside the Department of Transportation that influence travel speeds.
- Improve conditions for people walking and using mobility devices, particularly near schools, hospitals, libraries, and parks.
 - Address gaps in the sidewalk network using Lucas County Land Bank Assessment data.
 - Identify and address inadequate lighting conditions.
 - Implement strategies at intersections that increase the visibility of all travelers for motorists.
 - Identify a criterion for installation of "No Turn on Red", Leading Pedestrian Intervals, and protected turn phases at intersections.
- Update existing Complete Streets policy and guidance, and conduct training for city staff designing, building, and/or working with contractors on the transportation network.
- Fund projects using both local and external funding streams.
- Improve quality of data collection and access to existing crash and trauma data sources.

INCREASE AWARENESS

Many people believe traffic deaths and severe injuries are an inevitable part of modern life. Showing what is possible through systemic changes is an important step in creating community acceptance and enthusiasm for changing the status quo.

- Invest in a comprehensive public communications campaign.
- Share research with news outlets about how word choice when reporting on crashes influences public perception of what is possible.
- Collaborate across disciplines to address this quality-of-life issue from a variety of areas of expertise including engineering, land use planning, public health, economic development, equity, and public policy

Measuring Progress

The following performance measures will be tracked and reported to assess progress on implementation of Toledo's Vision Zero plan.

ANNUAL REPORT TO THE PUBLIC

- Number of serious injury and fatal crashes, and the percent increase or decrease from previous years. Identify crash numbers and percentages by mode.
- Locations and number of street segment improvements made on the High Injury Network.
- Locations and number of off-street segment improvements (sidewalks, multi-use paths, bike trails) made adjacent to the High Injury Network.
- Locations and number of intersection improvements made on the High Injury Network.
- Dollar amount invested in infrastructure improvements in Communities of Concern as a percentage of all transportation projects.
- Description and examples of Vision Zero marketing and communications campaigns.

SEMI-ANNUAL REPORT TO THE VISION ZERO COORDINATING COMMITTEE

- Number and percent of community participation events developed with and hosted in Communities of Concern within the High Injury Network.
- Number and percent of marketing campaigns available in Spanish, Arabic, and Mandarin.
- Number of trainings for member of the press.
- Number and percent of Vision Zero Coordinating Committee members that have a lived understanding of equity related to race, age, disability, and socioeconomics.
- Number and percent of Vision Zero Coordinating Committee members that regularly travel as vulnerable road users (people using transit, bicycles, micromobility, motorcycles, or as pedestrians).

COMMUNITY PARTNERS

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Steve Atkinson, Toledo Bikes Incorporated
Keith Cook, Bike Rides Matter 419
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