Vision Zero Action Plan

Second Edition — September 2024

City of San Antonio Transportation Department **Ron Nirenberg**, Mayor **Catherine Hernandez**, Director

A Poem for the Memory of Those We've Lost.

The San Antonio Transportation Department (TD) recognizes that the crash data used in this plan represents more than just inputs into a formula – they represent our lost brothers, sisters, neighbors and friends whose lives were tragically cut short due to traffic violence in San Antonio.

To honor their memory while preserving their family's privacy, **San Antonio Poet Laureate Eddie Vega** produced a series of poems for the Vision Zero Action Plan.

Readers will see these poems throughout the plan – seeking to center the work in the lives of those lost, and the promise that soon we will not lose any others.

Envision a city where injury from infrastructure is incomprehensible

because accidents were no longer acceptable

because we focused on complete safety

because we improved all the ways in which we move

Envision a world where zero is a positive number

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SAN ANTONIO

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By Eddie Vega

regardless of address
the careless confront the carefree
cross into crosswalks
encountering parents pushing carriages
and no one walks
away
unchanged

We cross Fredericksburg at Mary Louise carrying groceries
to catch the 96 to Vance Jackson and beyond
stopping for just a little to watch San Antonio at this crossroads
having come from bus stops with no shade,
streets without sidewalks, roads without crosswalks
all we do is walk blocks to get home

There's a one-tree landscape, a live oak, un encino, and
only the encino knows, its shade useless in the dark of night
why he couldn't cross where he was supposed to
where there was at least a little more light
where there could've been a lot more care
where the SUV might've seen him
where he might not have been another mystery
where he wouldn't be another statistic on this thoroughfare
only the encino knows his thoughts, his face, his name

We have pride in our streets
cada camino with a character of its own
we are the people of Zarzamora, Southcross, Southwest Military
we are the people of Culebra, Castroville, Commerce
we are the people of Nacogdoches, Nogalitos, New Braunfels
we walk on Woodlawn, park on Presa, bike on Bandera
we are San Pedro, O'Connor, Roosevelt, Tezel
we are Flores, Wurzbach, Marbach, Potranco
we are now here to take responsibility for our roads, safeguard our streets

Just north of downtown there was a man
nameless lifeless
found on a side street, dragged by
careless faceless
early morning driver too rushed to stop
mindless senseless
actions that damage
all of us unless
we change

Envision roadsides where nature placed flowers, instead of surviving relatives
envision bikes in lanes instead of on shoulders
envision complete streets instead of broken roads
space for traffic moving on foot, on pedals, on every type of wheel

sister, mother, tía, abuela
bike user

riding worrisome streets to work on a Wednesday
the driver hit and ran
stayed southbound at six in the morning
driving wayward streets to wreck on a Wednesday
ignoring that they left behind a

bike user
sister, mother, tía, abuela

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Eddie Vega
2024 — 2027 San Antonio Poet Laureate

Our Vision Zero Commitment

Dear San Antonio,

In 2016, San Antonio became the first city in Texas to declare the goal of Vision Zero, to eliminate all traffic deaths and severe injuries on our city's streets. Since then, we have emphasized our efforts to ensure that our streets are safe for all road users, but even with significant attention to this issue, the problem is getting worse. Data shows that 452 fatal or severe crashes happened on San Antonio's streets in 2022, nearly a 5% increase from 2019, despite the county only growing by 3% in the same time frame. This increase is unacceptable, and now is the time to take action.

San Antonio has never been better equipped to tackle this challenge. New research has identified the steps cities can take to get to zero traffic deaths and severe injuries. Called the Safe System Approach, this strategy recognizes that humans are imperfect and will inevitably make mistakes behind the wheel. Instead of solely relying on individual responsibility to achieve zero deaths and severe injuries, Safe System roots its approach in street design, where providing dedicated space for all road users and adding multiple safety features results in safer driving.

Getting to zero is not something that can be done alone. This task will require significant collaboration among City departments as well as cooperation from the public, which is why this action plan has engaged a wide array of stakeholders and members of the public from the beginning of this process. While we cannot bring back those who lost their lives on San Antonio's streets, we can honor their memory by working together to make sure that not one more San Antonian dies or is severely injured on our streets. **Join me in taking our Vision Zero pledge to affirm our commitment to this cause.**

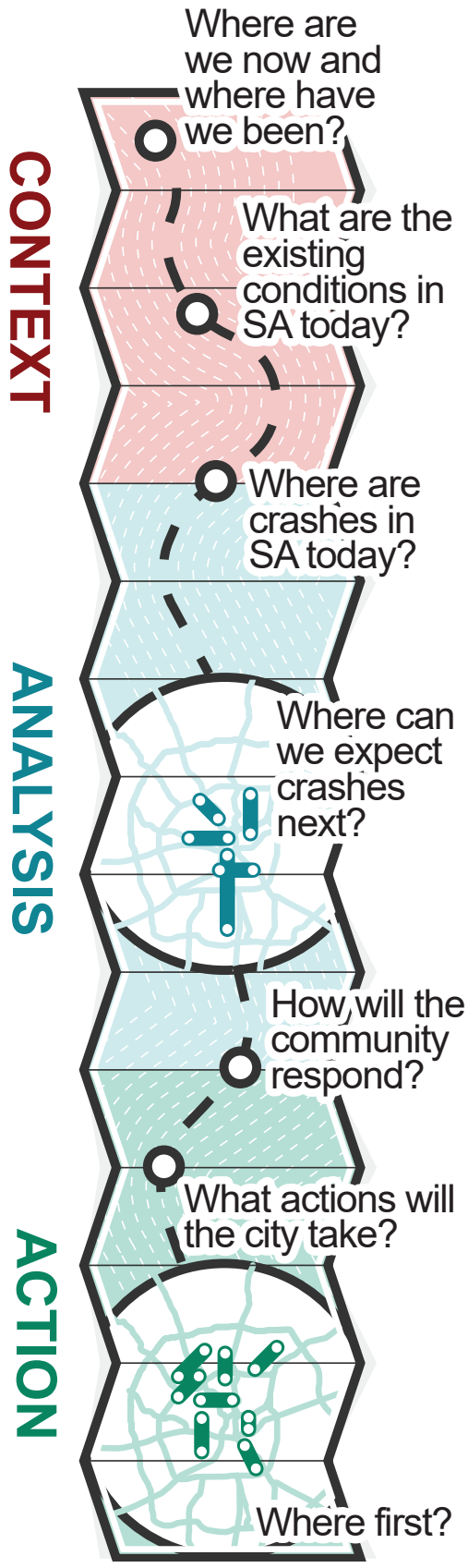
Sincerely,

Mayor Ron Nirenberg

Part One: Context

On Commerce Street in Downtown

Reading the Plan



Plan Roadmap

The work begins.

To move San Antonio forward — from the "Five E's" of traffic safety to the modern Safe System Approach — this plan begins by laying out the City's history with Vision Zero. By providing **Context** on the City of San Antonio (COSA) 2016 Vision Zero Plan as well as other plans that inform this work, the Vision Zero Action Plan lays the groundwork for its Analysis and Action. It outlines the principles serving as the Plan's foundation and sets forth a new mission statement to root this work in the service of every San Antonian — regardless of travel choice.

The **Analysis** section explores San Antonio's current infrastructure and socioeconomic conditions. It walks readers through the development and results of the City's most recent High-Injury Network (based on recent crash data) and High Risk Network (based on risk factors of roadway characteristics to predict future crashes) analyses. Both of these networks help the City to create a safer roadway network by showing where safety lapses have occurred, and which areas are most in need of improvement moving forward.

The Analysis section also discusses the community engagement efforts undertaken as part of this Plan development. Both the public at large as well as targeted stakeholders were consulted over the course of this project to determine how San Antonio residents want to approach Vision Zero Goals.

Finally, this plan lays out its **Action** — San Antonio's new and improved road map for eliminating deaths and serious injuries on its roadways. Centered around the Safe System Approach, this section summarizes 14 specific strategies that will guide COSA toward eliminating traffic deaths and serious injuries by 2040. These strategies are supported by actions to make implementation a reality. The Action section also provides a prioritized list of corridors recommended for safety improvements, with a focus on the top two corridors in each council district.

Achieving Vision Zero can happen with the hard work of COSA and its partners, as well as San Antonians from every corner of the city. We ask that you share this Plan with your friends and loved ones. Support every person's right to drive, walk, and roll on safe streets.

Important Acronyms

City or COSA – The City of San Antonio

SA – San Antonio

TD – San Antonio Transportation Department

PWD — Public Works Department

SAPD — San Antonio Police Department

DEIA – Diversity, Equity, Inclusion, Accessibility

VIA – VIA Metropolitan Transit Authority

TxDOT – Texas Department of Transportation

CRIS — The TxDOT Crash Records Information System, a state-wide database that tracks the location and type of every reported crash

AAMPO — Alamo Area Metropolitan Planning Organization

UDC – Unified Development Code

AADT — Average Annual Daily Traffic

NHTSA — National Highway Traffic Safety Administration

FHWA – Federal Highway Administration

Important Terms and Concepts

An essential part of understanding the City's commitment to ending roadway fatalities is to know the key words and concepts that underpin this work.

Vision Zero is the global movement to eliminate all severe and fatal crashes. Vision Zero asserts that any traffic death or severe injury is unacceptable and can be prevented through infrastructure improvements and safety-focused transportation policy.

The **Safe System Approach** integrates human-failing into the design of roads, reducing the severity of collisions.

Vulnerable Road Users are pedestrians, bike users, and other micromobility users. Vulnerable Road Users are more likely to die or be seriously injured when involved in a collision with a vehicle compared to drivers, who are protected by metal cages.

Traffic Crash (Not Accident) This plan refers to collisions as "crashes" rather than "accidents." "Accident" implies that a collision was without fault, inevitable, and relieves responsibility from the driver and designer of the road. Cities across the world have proven that traffic deaths and serious injuries are preventable, meaning that collisions are not accidental, but rather a result of ineffective transportation policy.

Likewise, **Traffic Violence** describes car-related collisions without relieving the driver and designers of fault. It is used especially to define collisions wherein a car seriously or fatally injures a pedestrian.

A **High Injury Network (HIN)** uses crash data to identify roadway segments where there are high rates of serious or fatal crashes.

A **High Risk Network (HRN)** is a forward-looking approach used to identify road corridors that are prone to fatal and severe injury crashes. Traffic volumes, speed limits, and road type classification are combined with the percentage of weighted crashes to identify high risk roadways.

A **Serious or Fatal Crash** is a collision that resulted in a deadly, significant, or life-altering injury. These are sometimes referred to as "**KA**" crashes as "K" refers to fatal crashes and "A" refers to severe crashes in the CRIS database.

Achieving Equity refers to correcting disparities in investment in safe infrastructure across different racial, ethnic, and economic groups currently experiencing disproportionate rates of traffic violence.

Learn More about Vision Zero and other concepts:

Vision Zero Network

The Vision Zero Network website provides information on communities that have pledged Vision Zero, Vision Zero goals and efforts, and how the nonprofit makes a difference in communities.

NHTSA

The National Highway Traffic Safety Administration (NHTSA) website provides research, data, and information on driver behavior and safety to work towards a safer highway network.

FHWA Traffic Calming E-Primer

The FHWA's Traffic Calming ePrimer is a resource for public use that contains information on a multitude of traffic calming methods, how and when to implement them, and their effects on road safety.

The COSA **Equity Atlas** uses race, ethnicity, education, language, and income data to identify neighborhoods that are disadvantaged compared to the rest of the city. The Equity Atlas uses a scale of 2 to 10, with higher scores assigned to areas with higher numbers of historically disadvantaged populations. For the purposes of this plan, "**high-equity concern**" areas are Census tracts scoring above 7 and "low-equity concern" areas are Census tracts scoring below 5.

All Ages and Abilities refers to streets, intersections, sidewalks, and bike lanes that are designed to be safe and comfortable for all users, including children, seniors, and people with disabilities.

Complete Streets is an approach to include all users and all modes of travel in the development of streets where they have historically been dismissed. Designing for all users and all modes make streets safer and more accessible.

A **Zero Car Household** is a household that does not have access to a private vehicle and instead relies on walking, biking, or public transportation to get around.

A **TxDOT-Owned Facility** is a roadway or highway that is owned, designed, and maintained by the State of Texas rather than the City. While the City can make suggestions to the design of these roadways and the Texas Department of Transportation (TxDOT) engages regularly with the San Antonio community, the ultimate design and funding of these roadways must be approved by the appointed members of the Texas Transportation Commission, not the City.

Car-Oriented roads refer to facilities that prioritize the throughput of vehicular traffic over safety for all other road users. Car-oriented roads often lack pedestrian and bike infrastructure, discouraging walking, biking, and transit as viable forms of transportation.

Bikeway, unlike bike lanes, routes, and cycle tracks, is a general term for space allocated for bike users to ride on that doesn't imply a certain type of infrastructure. Ideally this infrastructure is **Physically Separated —** using a physical barrier to separate people riding bikes from vehicular traffic.

Traffic Calming consists of physical design and other measures put in place on existing roads to reduce vehicle speeds and improve safety.

Right-sizing involves the City reviewing street right-of-way to ensure the best use is being deployed and opening new space for the design of various modes of travel on our streets.

Capital Projects construct either new facilities or make significant, long-term renewal improvements to existing facilities.

Mission Statement

Although San Antonio's mission statement from its 2016 Vision Zero Action Plan still reflects the City's goals, the new mission statement provides clearer and more specific direction.

Vision Zero is about increasing safety for all modes of transportation. It is essential to include not just vehicles, but bikes, walking, public transit, and other modes in the mission of this plan. Creating a "safe" transportation network isn't enough—the improved network should be accessible and equitable as well. A safe network can't exist without equity and accessibility! San Antonio's mission statement for the 2024 Vision Zero Action Plan is:

"Together we will achieve zero fatalities and serious injuries by creating safe, equitable, accessible streets for people walking, rolling, biking, driving, and connecting to transit; because every person in our community matters."

Principles of this Plan

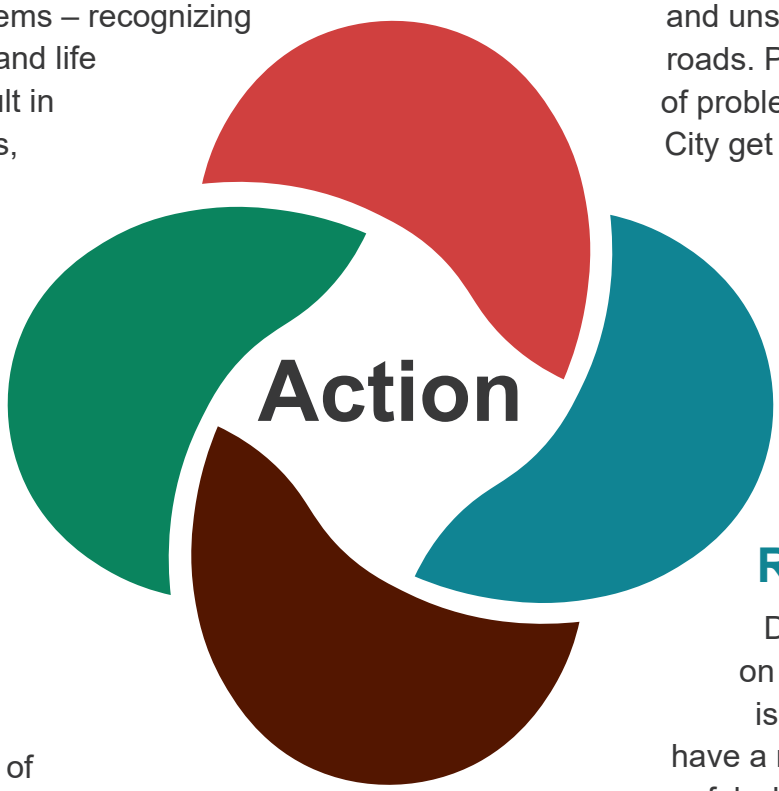
Another essential component of building a strong Vision Zero Action Plan is determining principles to serve as a foundation for specific actions. This plan defines success by rooting all actions in the four principles below which together center this plan in the needs of its residents and road users.

Equity

The City strives to achieve equality in traffic safety outcomes for persons or communities that have been or are being systemically underserved by existing infrastructure, policies, or other systems – recognizing that different abilities and life experiences may result in different vulnerabilities, and that all people have physical limits for tolerating crash forces before death or serious injury occurs.

Knowledge

Citizens deserve to understand how their government is approaching policy action and to be informed about the seen and unseen conditions on the roads. Proactive identification of problem areas can help the City get ahead of the problem and keep the public informed.



Mobility

Human beings are vulnerable, and how people move through the city is not always their choice. Because of this, every type of mobility must be safe and viable. Whether due to disability, cost, or age, the inability to access a motor vehicle should not limit access to opportunities. Everyone has a right to move safely and efficiently in San Antonio, even if they do not use a vehicle.

Responsibility

Death or serious injury on San Antonio's streets is unacceptable. We all have a responsibility to travel safely, but those who design, maintain, and operate roads have an obligation to prioritize safety on these facilities above all other goals. Humans will inherently make mistakes, but redundant roadway design with multiple safety features present can ensure that those mistakes do not cause anyone to suffer a fatal or life-threatening injury.

San Antonio's Vision Zero History

City of San Antonio. (2016). *Vision Zero Action Plan.*

City of San Antonio. (2019). *Vision Zero Action Plan 2019 Annual Report.*

2016 Vision Zero Plan Review

San Antonio's 2016 Vision Zero Plan created a framework to assist city leaders and the public in creating a safer, more equitable, and more accessible transportation network. The plan focused on the five essential elements of a safe transportation system: **education, encouragement, engineering, enforcement,** and **evaluation** (the "5 E's). Each element featured key actions that assist in fulfilling the goals of the Plan.

San Antonio released a *Vision Zero Progress Report* in 2019. This report included data on crashes (vehicles, motorcycles, bikes, and pedestrians) from the years 2015-2019. It also included highlights in outreach and events. The *Projects* section is dedicated to the monitoring of early project progress and impact on the safety of San Antonio streets, as well as a project map. The *Progress Report* explained how to use and find information on San Antonio's Vision Zero Website.

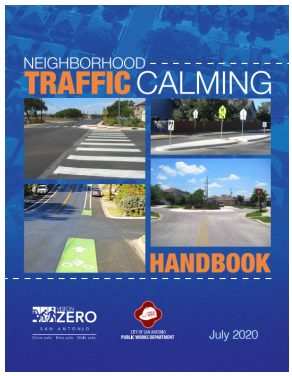
The City also published reports on severe injury areas for pedestrians in 2017, and for both bike users and pedestrians in 2020. Information in these reports included not only the locations of these high-risk areas, but other factors such as time and day of the week. Also in 2020, the city published the *Spring/Summer Vision Zero Highlights*. Similar to the 2019 progress report, this document contained information about outreach programs and projects the city is investing in to reach its Vision Zero goal.

Thanks to the 2016 Plan and 2019 Annual Report, the City was awarded a federal Safe Streets for All (SS4A) grant for new pedestrian infrastructure and traffic calming on Zarzamora Street — a Severe Injury Area recorded in all Vision Zero Documents.

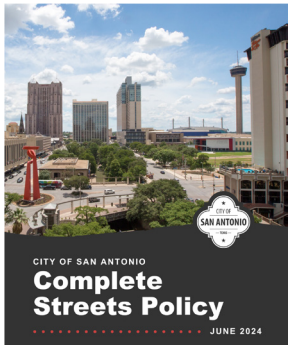
To ensure that San Antonio's Vision Zero efforts meet national best practices, this Plan adapts the actions or past plans and reports to the **Safe System Approach** to roadway safety. This safety approach, endorsed by the Federal Highway Administration (FHWA), emphasizes every City institution and operating procedure's responsibility to end traffic deaths and serious injuries.

This change does not negate the work of the past, but rather roots Vision Zero efforts in the reality that human error and vulnerability cannot be fully eliminated. The most impactful actions a city can take to save lives are rooted in the systems of mobility designed and maintained for San Antonians.

2016



2020



2024

2025

Other Plans

SA Tomorrow

The *SA Tomorrow Multimodal Plan* highlighted the city's need to repurpose its existing transportation network rather than expanding it. It recognized that San Antonio's growth cannot be accommodated solely by a car-based transportation system due to high costs and little space. The plan suggested the promotion of other modes of transportation, such as light rail, bus, and cycling, to increase capacity.

Traffic Calming Handbook

San Antonio's *Neighborhood Traffic Calming Handbook* provides information on many traffic calming methods appropriate for low traffic, residential streets in accordance with the FHWA guidance. These interventions can help manage cut-through traffic volume and speeding, and make streets safer for bikers and pedestrians. Measures like chicanes, median islands, speed humps and other interventions are discussed, and information on their advantages, disadvantages, and eligibility considerations provided. This handbook equips COSA Public Works with all the tools necessary to make San Antonio's streets safe for all users.

Complete Streets Policy

The City's Complete Streets Policy works hand in hand with the Traffic Calming toolkit to encourage an approach to street design that promotes healthy and active living through increased opportunities to walk and bike. Complete Streets is also meant to enhance economic vitality of commercial corridors and maximize benefits from investment in infrastructure. This policy is referenced when neighborhood traffic calming measures are being identified for implementation or updates to the City's Unified Development Code (UDC) are analyzed. For each roadway, function, levels of vehicular, bicycle, pedestrian traffic, and adjacent land use will be considered to determine the best solutions.

Bike Network Plan (BNP)

Safe infrastructure is the best approach to reducing roadway injuries and encouraging people to use other modes of transportation. The San Antonio *Bike Network Plan* will build off established best practices and provide a framework for developing and maintaining safe, functional, and equitable bike facilities. This plan will create a healthier and safer San Antonio and encourage investments in transportation that will meet the needs of all San Antonians.

San Antonio Today

Like many American cities, San Antonio is made up of a diverse array of neighborhoods, some of which have historically experienced disinvestment while others have experienced disproportionate investment.

The City of San Antonio realizes that past decisions made by leadership have contributed to health disparities between neighborhoods of differing socioeconomic statuses, including rates of traffic violence. The 2024 Vision Zero Action Plan Update seeks to analyze what neighborhoods are most disproportionately impacted by traffic violence with the goal of creating a plan that prioritizes infrastructure improvements based on the rates of serious and fatal crashes and equity concerns.

Crossing Fredericksburg Road in Los Angeles Heights

Demographics

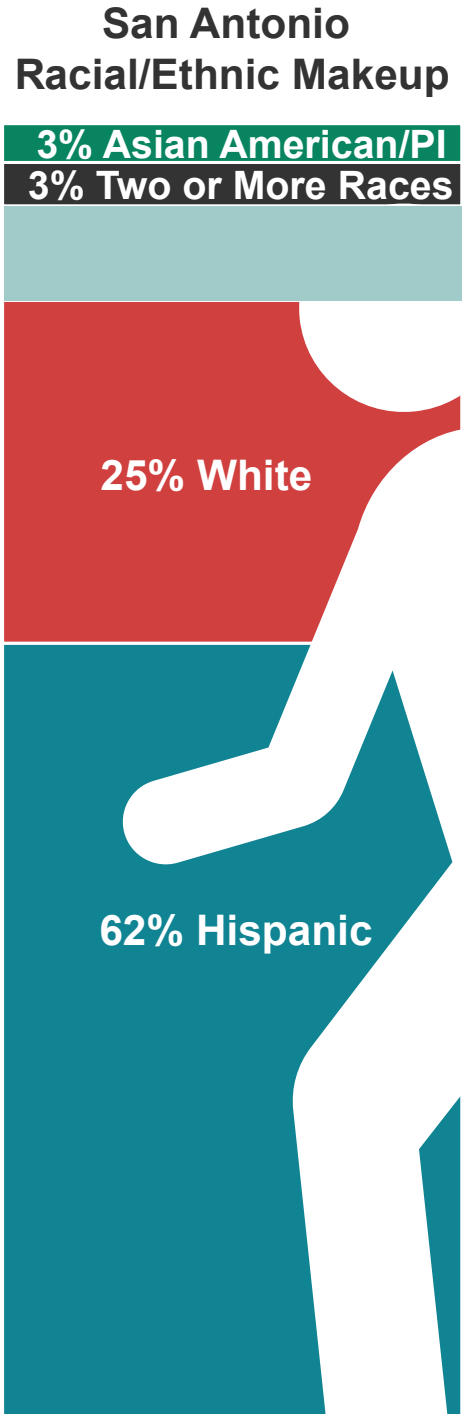


Figure 1.

U.S. Census Bureau. (2022). 2022: *ACS 5-year estimates subject tables. Income in the past 12 months (in 2022 inflation-adjusted dollars)*.

City of San Antonio Office of Equity. (2024). *Equity Matrix + Demographic Indicator Maps.*

San Antonio is a majority-minority city *(Figure 1)*. The highest concentration of People of Color is located on the Inner West Side, South Side, and East Side *(Map 1)*.

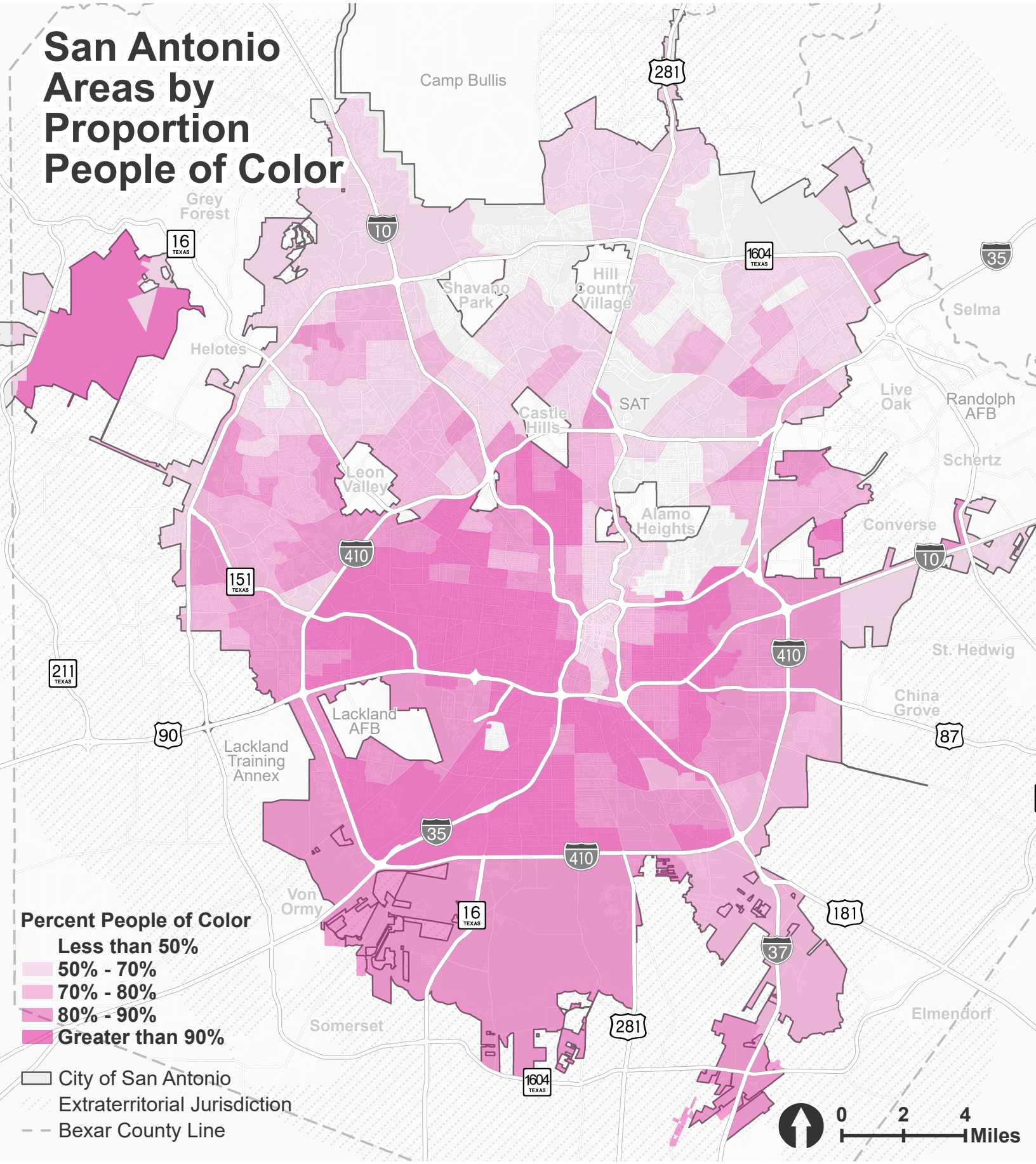
About 24% of San Antonio residents are under 18 years old, while about 13% are over 65 years old. This means that 1/3 of San Antonio residents can be considered vulnerable road users, since children and older adults are often unable to drive and thus engage in non-vehicular mobility.

The median household income in the City of San Antonio was $58,829 in 2022, more than $15,000 lower than the median household income in the State of Texas ($74,640). About 17.7% of all residents live below the poverty line, with most impoverished households concentrated on the Inner West Side and East Side ***(Map 2)***.

Approximately 7.5% of all San Antonio households do not have access to a motor vehicle, a lower car ownership rate than the State of Texas (5.4% of households across the state do not have access to a vehicle). Neighborhoods with the lowest rate of car ownership are concentrated on the Inner West Side or Southeast Side ***(Map 3)***.

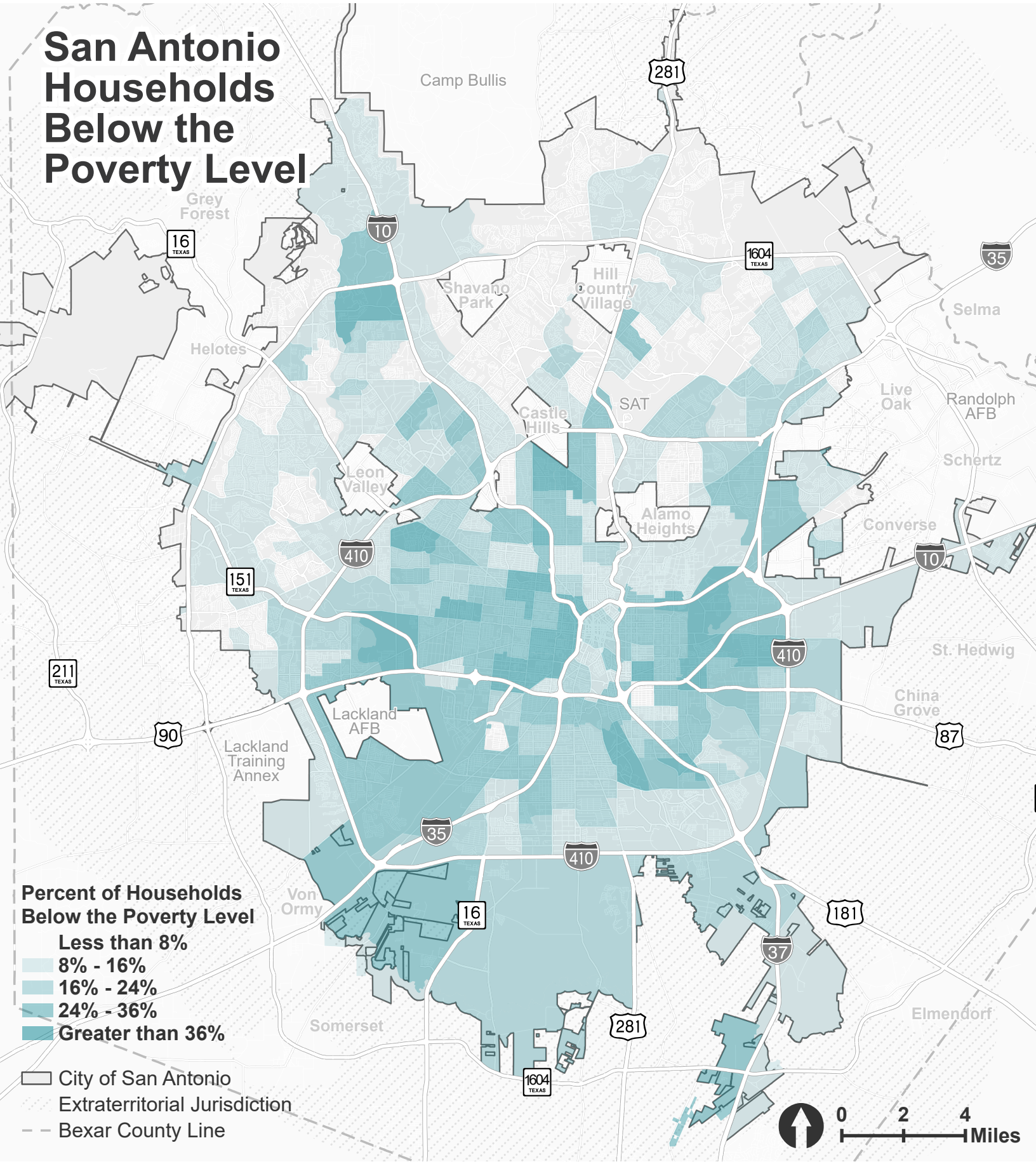
Since users of transportation modes like biking or walking are much more likely to be injured if involved in a crash, it is essential to study the availablity of cars for road users when analyzing crash data. Motor vehicles are the most likely mode of transportation to cause severe and fatal crashes, but thanks to decades of safety improvements, they also serve as protection for those inside them. The correlation between those Census Tracts with the lowest car ownership and those with lower incomes is stark, highlighting that the protection of a motor vehicle is not experienced equally to all San Antonians.

San Antonio is a sprawling city with low population density. With an area of about 511 square miles and a population of 1,445,662, the City has an average population density of 2,827 people per square mile. San Antonio's populations is growing rapidly, from 1,330,000 in 2010 to 1,470,000 in 2022. However, much of the population growth in the metropolitan area has happened on the outer edges of the city limits or outside of the city. Many Census Tracts within the city limits have lost population since 2010.



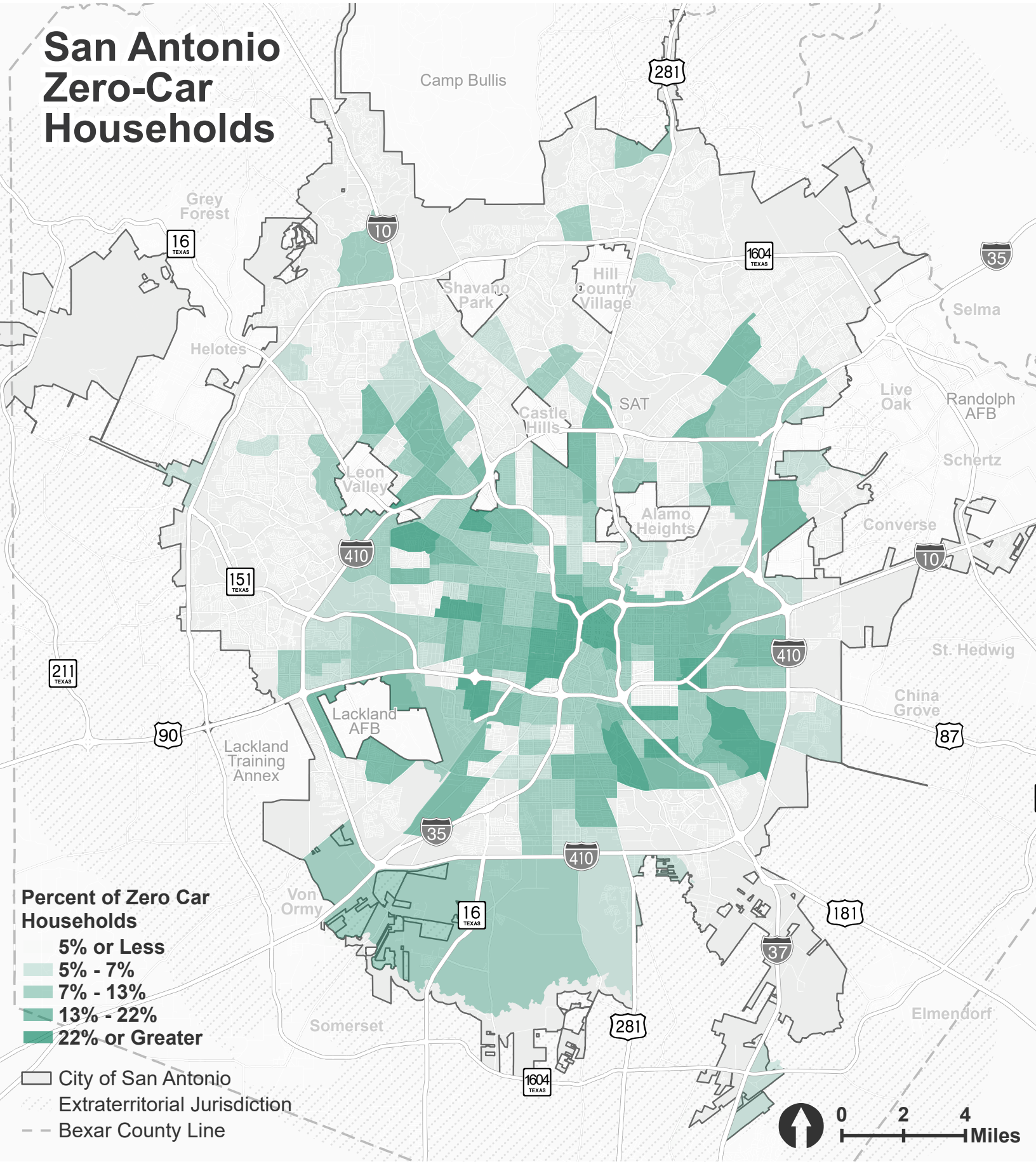
City of San Antonio Office of Equity. (2024). *Equity Matrix + Demographic Indicator Maps.*

Map 1.



City of San Antonio Office of Equity. (2024). *Equity Matrix + Demographic Indicator Maps.*

Map 2.



U.S. Census Bureau. (2022). 2022: *ACS 5-year estimates subject tables.*

Map 3.

Built Environment

Roads in San Antonio have a variety of lane configurations, with most major roads featuring four or more lanes. Select major roads have six lanes or more, which encourages high travel speeds, impacts the pedestrian experience, and diminishes bike users' level of comfort. In addition to wider roadway configurations, the presence of parking facilities can interrupt and diminish bike user or pedestrian connectivity to daily needs like grocery stores and shopping centers. Parking lots break the sense of enclosure and shade that buildings provide, and most do not feature any dedicated paths for pedestrians. Much of the area in close proximity of planned VIA Advanced Rapid Transit (ART) lines is currently used for parking facilities. In the North Star Mall Area, 23% of all space is solely to off-street parking facilities ***(Map 4).***

We cross Fredericksburg at Mary Louise carrying groceries

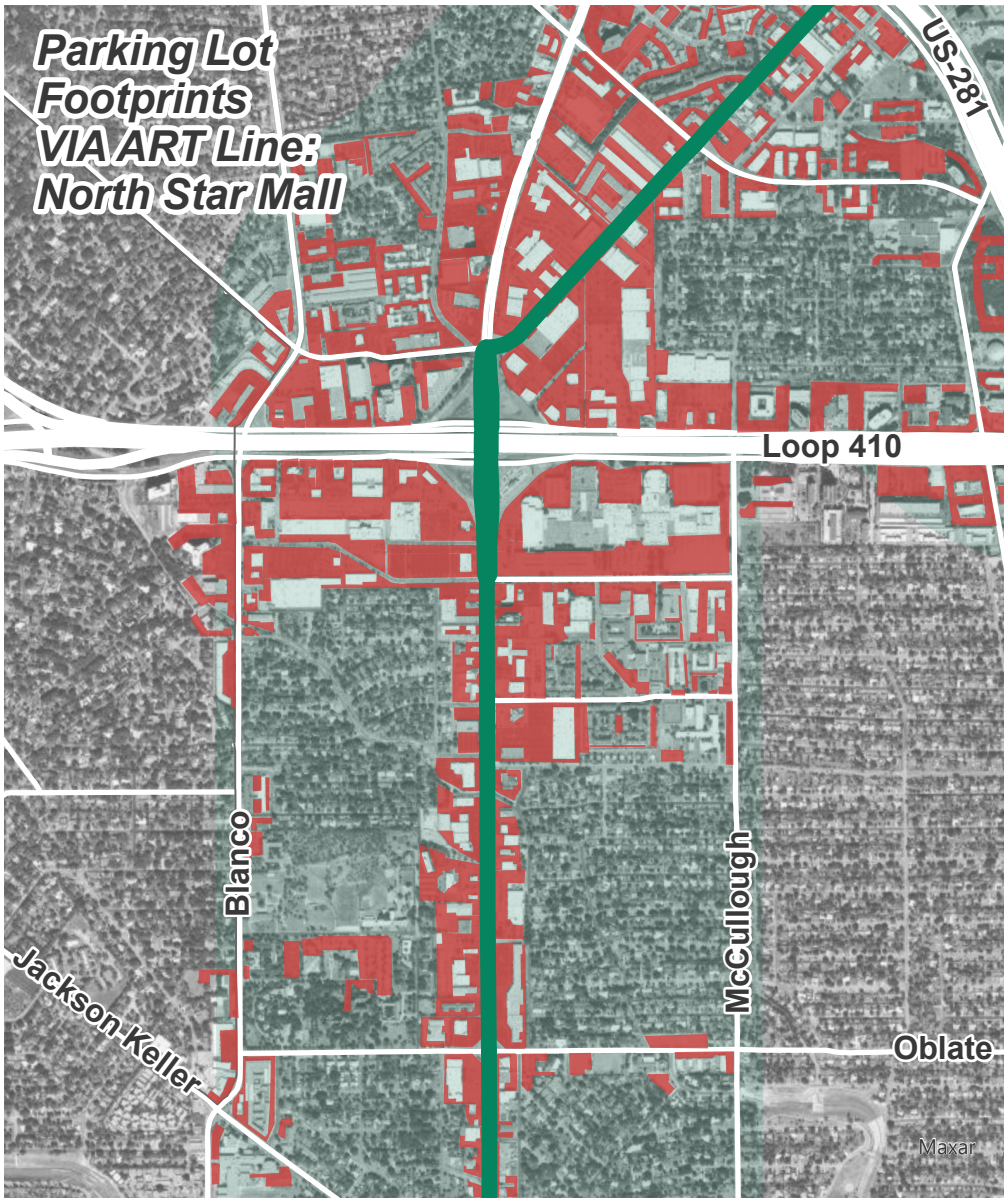
to catch the 96 to Vance Jackson and beyond

stopping for just a little to watch San Antonio at this crossroads

having come from bus stops with no shade,

streets without sidewalks, roads without crosswalks

all we do is walk blocks to get home



Map 4.

Part Two: Analysis

At the Ride of Silence in Main Plaza

Roadway Safety Today

Just north of downtown
there was a man

nameless lifeless

found on a side street,
dragged by

careless faceless

early morning driver too
rushed to stop

mindless senseless

actions that damage

all of us unless

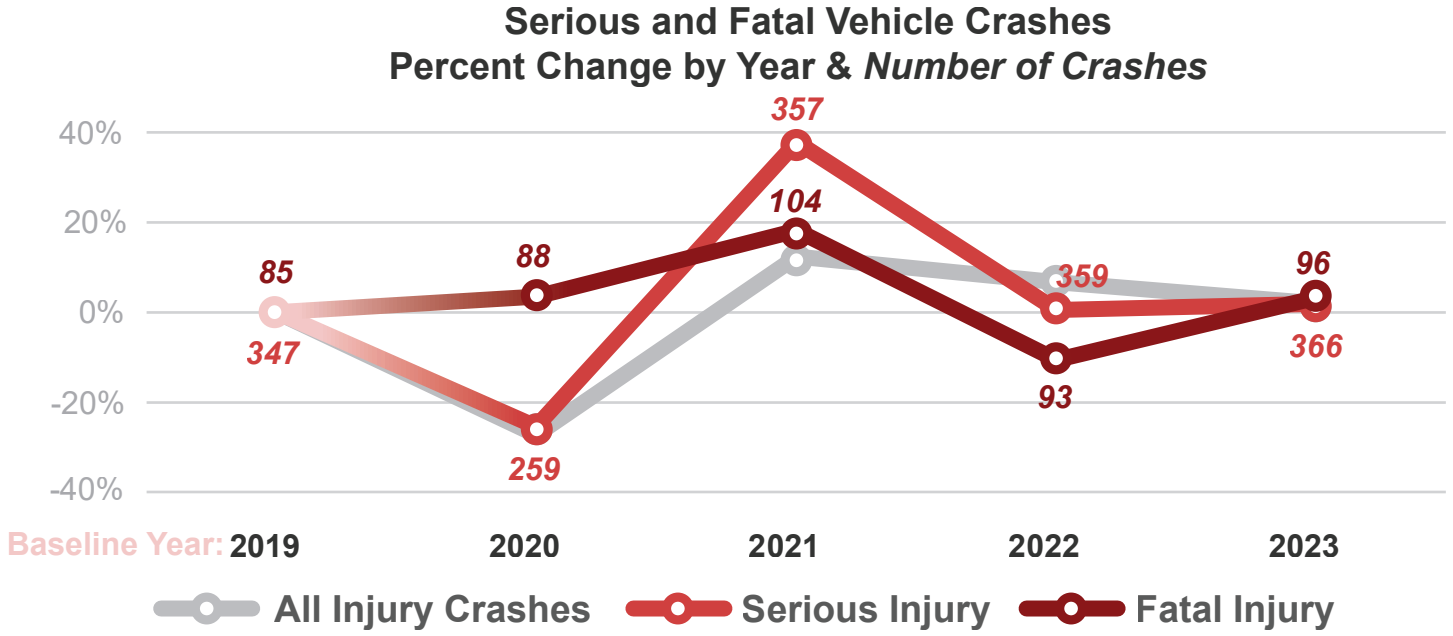
we change

To understand the state of roadway safety in San Antonio, this plan utlizes two primary data sources: Crash records from TxDOT CRIS database and City Geographic Information System (GIS) records. Crashes occurring between January 2019 and December 2023 were queried to San Antonio's city limits for all potentially injury-causing crashes. To enhance the analysis, the Plan built on the City of San Antonio's Roadways GIS layer, performing a series of data gathering exercises to create attributes for each roadway such as number of lanes, lane widths, AADT, and others. In the five-year span, 37,017 crashes caused an injury on San Antonio local roadways ***(Map 5)*** — Interstates and other Freeways were not included in this analysis.

Mandated stay-at-home orders associated with the SARS-CoV-2 (COVID-19) epidemic resulted in a 50% dip in overall crashes between 2019 and 2020. Otherwise, the number of serious and fatal injury crashes saw a 7% increase from 2019 to 2023. The percent and overall number of crashes fell by 50% in 2020 and then returned to pre-COVID-19 levels in 2021 ***(Figure 2)***.

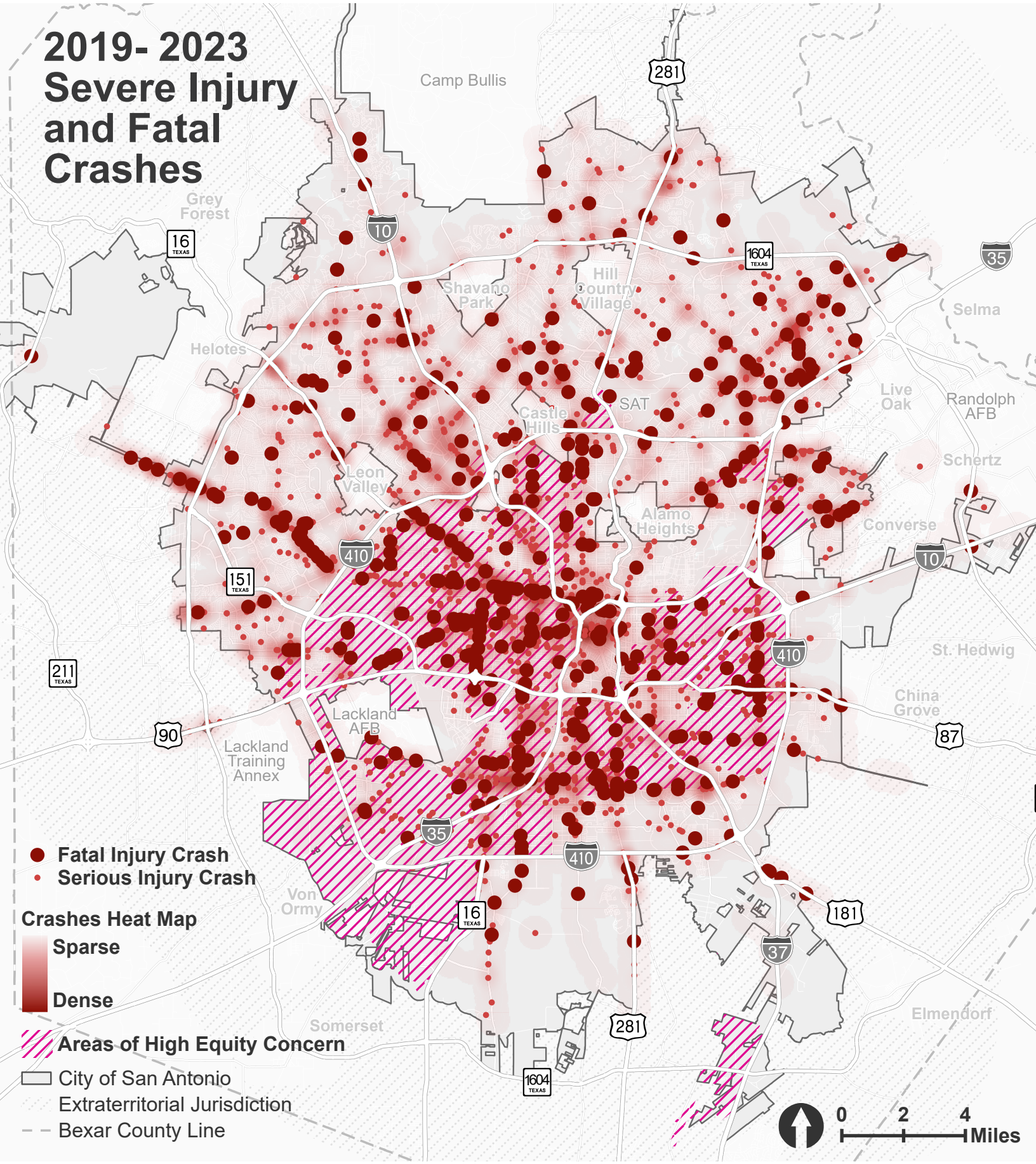
However, the number of fatal crashes increased during the COVID-19 lockdowns — the potential for fewer travelling vehicles and corresponding decrease in traffic volume moved car users at higher speeds, contributing to the fatal crashes.

Similarly, a much higher percentage of crashes were serious or fatal during late night and early morning hours. This could be attributed to many factors including intoxicated driving, a lack of street lighting, or higher speeds caused by the absence of traffic.



CRIS Crash Database. (2019-2023).

Figure 2.



City of San Antonio Office of Equity. (2024). *Equity Matrix + Demographic Indicator Maps.*

CRIS Crash Database. (2019-2023).

Map 5.

Crash Analysis

The contributing factors for each crash is one of the most useful kinds of data gathered from CRIS.

These factors can tell us if there are specific issues with a roadway or intersection that can benefit from a tailored intervention. There are over 75 individual contributing factors in the CRIS database, but to simplify analysis, these factors were grouped into 12 categories.

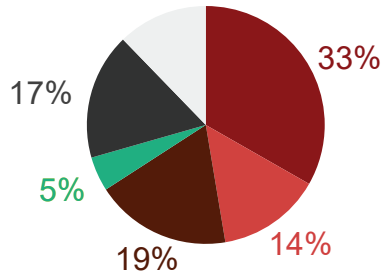
Some of the names of these groups are obvious, such as **Speeding**, but others require further explanation. A crash factor is categorized within **Failed to Follow the Rules of the Road** when one or more drivers involved makes illegal and unsafe movements like running a red light, failing to yield right-of-way when making a turn, or passing when unsafe. A crash is caused by **Inattention** refers to a crash caused by a driver who did not pay attention to the road, including being on their phone. A crash is caused by **Dangerous Driving** when one or more drivers operate their vehicle in an unsafe manner including faulty evasive actions, tailgating, or cutting the corner when making a left turn. **Impaired** driving refers to those crashes where the motor vehicle user was under the influence of drugs or alcohol. A crash is classified as **Other** when there is no crash factor listed, or if the factor does not fall under one of TxDOT's pre-established contributing factors.

The most severe and fatal crashes were caused by failing to follow the rules of the road. Although some of these factors caused relatively few crashes, they may have an outsized impact on the number of severe and fatal crashes ***(Figure 3)***. **Pedestrian failure to yield right of way (ROW)**, which does not include all pedestrian involved crashes and refers to only those cases where a pedestrian was in the roadway without a marked crossing, is an extremely risky factor, resulting in serious or fatal injuries over 30% of the time. In contrast, the most common factor, Dangerous Driving, is much less severe.

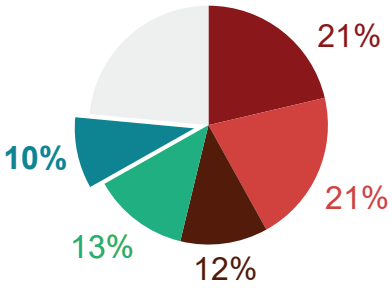
Speed was also an important factor in the outcome of a crash. Data shows that crashes occuring on a road with a speed limit of 45 miles per hour were nearly four times more likely to be fatal crashes than those that occured on roads 25 miles per hour or slower. This of course includes vehicle-only crashes as well as injuries bike users to pedestrians who were impacted by high speed vehicles.

Top 5 Contributing Factors to:

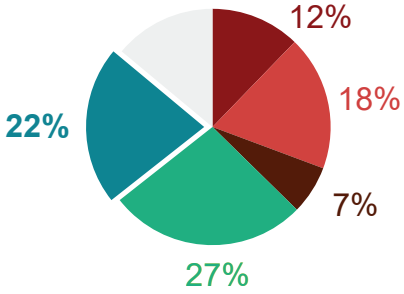
All Injury Crashes



Severe Crashes



Fatal Crashes



Failed to Follow Rules of Road
Inattention
Speeding
Dangerous Driving
Impaired
Pedestrian Failed to Yield ROW
Other

Figure 3.

CRIS Crash Database. (2019-2023).

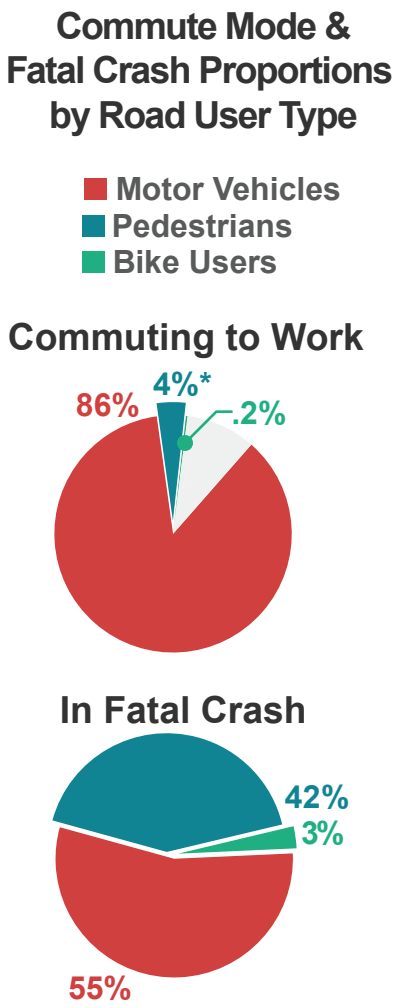


Figure 4.

An important focus of Vision Zero is safety for vulnerable road users — San Antonians who walk or bike.

For most San Antonians — no matter what neighborhood they live in — driving is the mode of choice for getting around the city. This is not all due to personal preference; the vast majority of San Antonio's neighborhoods feature primarily car-oriented designs.

While less than 5% of all vehicle-only crashes were serious or fatal, over 20% of pedestrian or bike-user-involved crashes were severe or fatal. Vulnerable road users make up under 6% of all injury crashes, but account for about 28% of serious or fatal crashes. 2021 Census data estimates that 4% of San Antonians walk or use public transit to get to work (*meaning at some point in their commute they are a pedestrian), but nearly half of all fatal crashes in San Antonio involve a vulnerable road user — an inequity devastating to the families of those getting around our city by foot, bus, or bike ***(Figure 4)***.

The number of vulnerable road user fatalities has skyrocketed ***(Figure 5)***. From 2019 — 2023, pedestrian fatalities have increased 22% overall — with a steady increase every year, even during COVID-19 lockdowns. For bike-users, fatalities on local streets doubled.

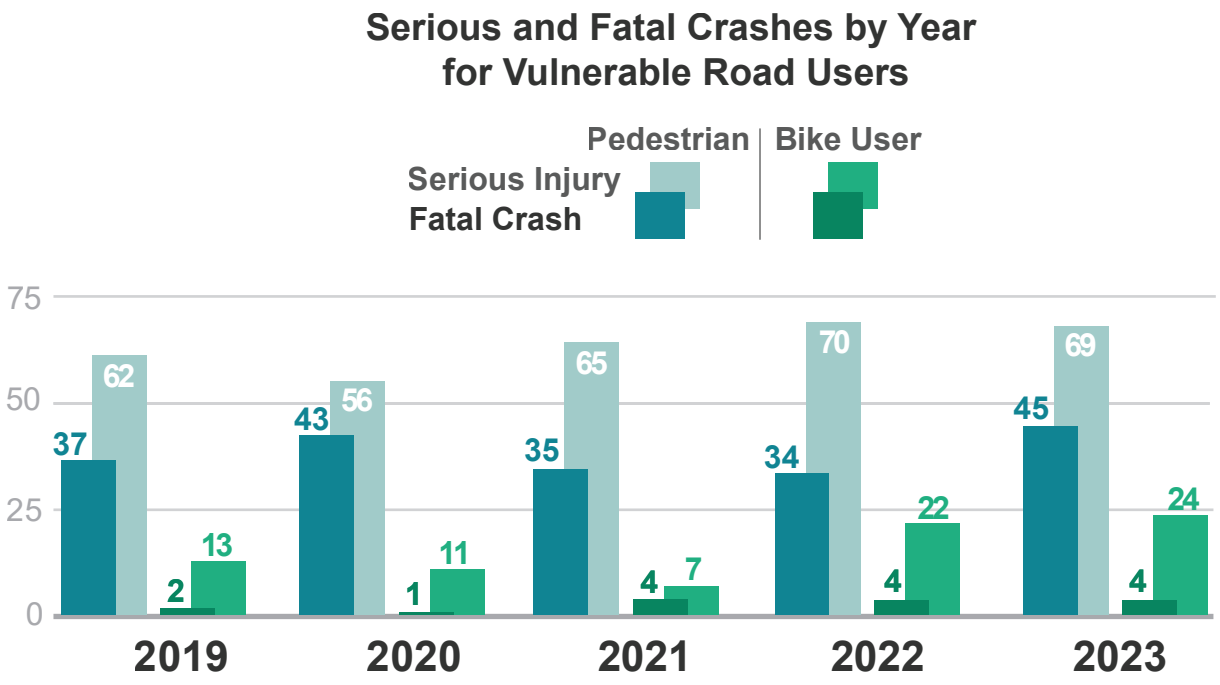


Figure 5.

U.S. Census Bureau. (2022). 2022: *ACS 5-year estimates subject tables.*

CRIS Crash Database. (2019-2023).

Equity and Traffic Safety

The correlation between areas of frequent injury crashes and Higher Equity Concern Areas is undeniable — especially for Vulnerable Road Users in those areas.

High Equity Concern Areas feature some of the highest concentrations of injury crashes outside in San Antonio ***(Map 5)***.

Whether on the Inner West Side, the Southwest Side, or in areas surrounding Downtown, neighborhoods that have born the brunt of inequitable investment in transportation infrastructure — often being divided by freeways and rail lines — now suffer the greatest density of injury crashes.

Car-oriented design combined with the significant risk that comes with walking or biking explains why so many San Antonians drive if financially or physically able. However, some individuals cannot afford the high price of car ownership while others have a disability that prevents them from driving. About 20% of San Antonio's residents are too young to drive and thousands more are too old to drive.

While 92.3%[4] of households in San Antonio have access to at least one vehicle, certain neighborhoods have significantly lower rates of car ownership than the city average, which means more people walking, riding a bike, and taking transit for daily needs. High Equity Concern Areas had a 144% higher rate of severe or fatal bike and pedestrian crashes compared to Low Equity Concern Areas, and a 74% higher rate of severe or fatal motor vehicle crashes.

Data analysis indicates a significant correlation between the number of zero car households and the rate of serious or fatal crashes. Census tracts with a percentage of zero car households higher than the median (4.8% Zero Car Households) experience approximately 350% as many serious and fatal bike or pedestrian crashes compared to Census Tracts below the median percentage of zero car households. Census Tracts with a very low car ownership rate (which include more than 21% of all households having no car) experience 530% more severe or fatal bike and pedestrian crashes compared to census tracts with higher-than-average car ownership ***(Figure 6)***.

Serious and Fatal Vulnerable Road User Crashes per 100,000 Residents by Household Car Ownership

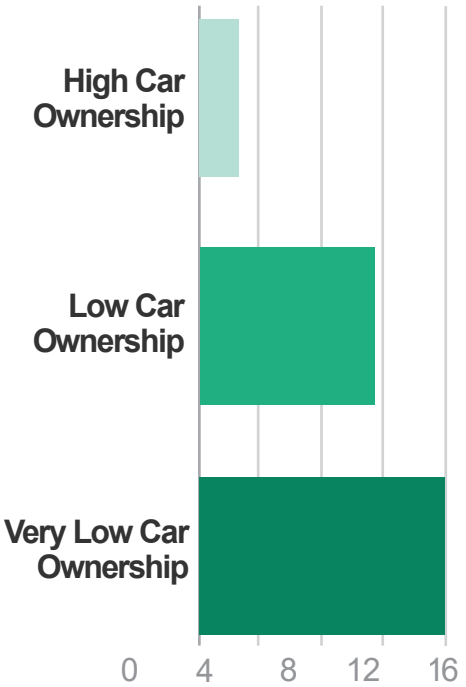


Figure 6.

CRIS Crash Database. (2019-2023).

U.S. Census Bureau. (2022). 2022: *ACS 5-year estimates subject tables.*

High-Injury Networks

See Also: Appendix 3: High Injury Network and High-Risk Network Study

To consolidate and geographically focus the VZAP Analysis, the City defines High Injury Networks (HIN) — areas on a roadway system that experience disproportionately high numbers of crashes. Spatial analysis attributed crashes to the San Antonio roadways where they occurred and then identified corridors that exhibited concerning patterns. Subsets of the HIN ***(Map 6)*** were developed by travel type:

- **All Modes (AHIN)** – High number of severe/fatal crashes involving any combination of motor vehicles, pedestrians, bikes
- **Pedestrians only (PHIN)** – High number of severe/fatal crashes involving at least one pedestrian party
- **Bicycles only (BHIN)** — High number of severe/fatal crashes involving at least one bike user party

Roadways on the AHIN have a crash concentration 3.4 times higher than the average San Antonio roadway — meaning 65% of serious injury and fatal crashes took place on only 3.8% of San Antonio's existing roadway network.

The PHIN has a crash concentration of 15.5 times higher than the average roadway, with 52.9% of pedestrian crashes occurring on only 0.7% of the network. Most concerning was the BHIN, with a crash concentration of 44.4 times higher than average. On the BHIN, 44.6% of serious/fatal crashes occurred on only 0.2% of the network. These networks highlight the density of fatal and serious injury crashes on a small subset of San Antonio's roadway network ***(Figure 7)***.

High Injury Networks Summary

	All Modes	Pedestrian	Bike
Injury Network Miles	325	58	17
% of Road Network	3.8%	0.7%	0.2%
On HIN KA Crashes	1408	273	41
On HIN KA Crash %	65%	53%	45%
KA Crash Concentration	3.4x	15.5x	44.4x

Figure 7.

sister, mother, tía, abuela

bike user

riding worrisome streets to work on a Wednesday

the driver hit and ran

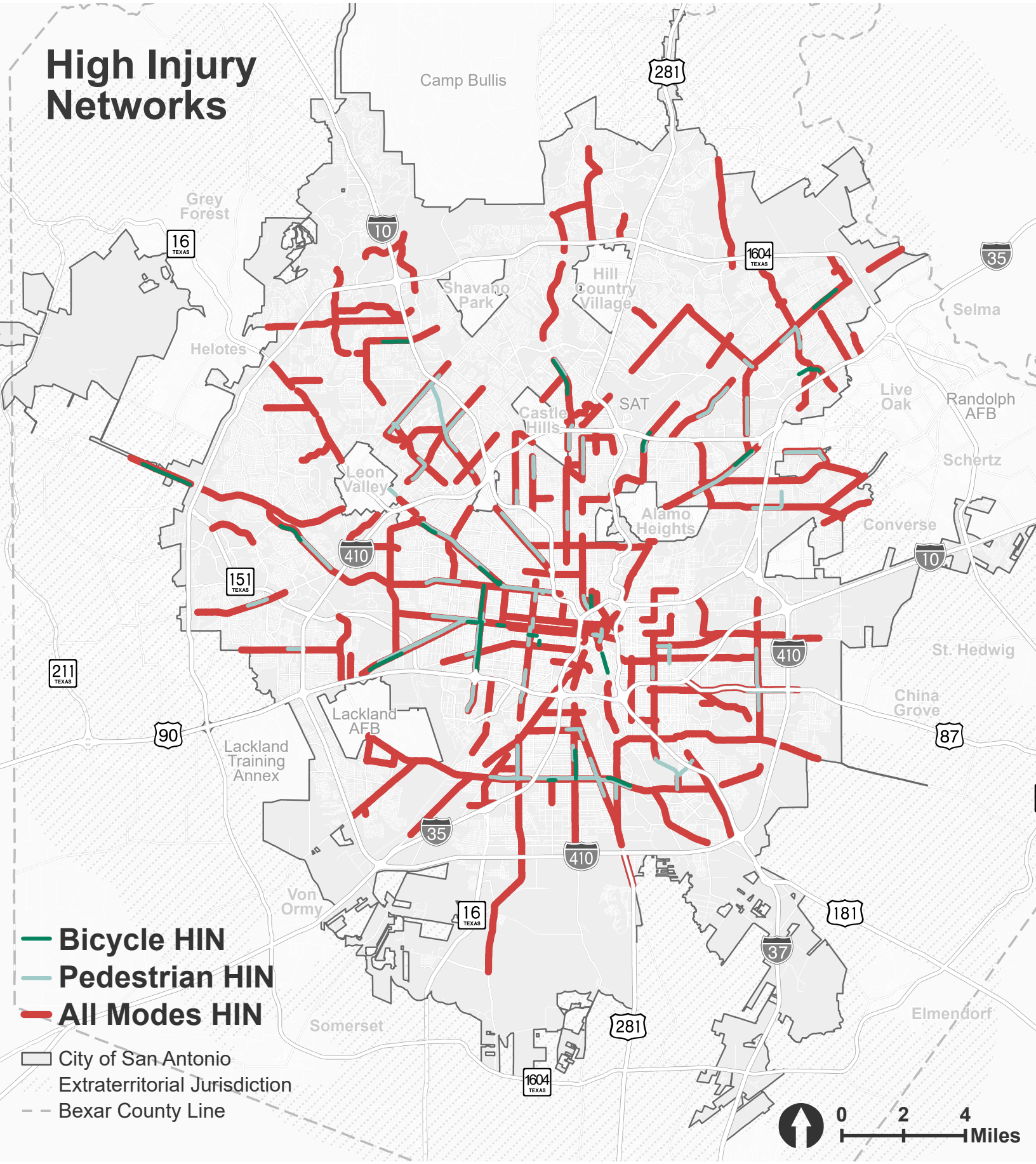
stayed southbound at six in the morning

driving wayward streets to wreck on a Wednesday

ignoring that they left behind a

bike user

sister, mother, tía, abuela


High Injury Networks
Camp Bullis
281
Grey Forest
16
TEXAS
10
1604
TEXAS
35
Shavano Park
Hill Country Village
Selma
Helotes
Live Oak
Randolph AFB
SAT
Castle Hills
Schertz
Leon Valley
Alamo Heights
Converse
410
10
151
TEXAS
211
TEXAS
St. Hedwig
China Grove
Lackland AFB
90
87
Lackland Training Annex
35
410
Von Ormy
16
TEXAS
181
37
Somerset
281
Elmendorf
1604
TEXAS
Bicycle HIN
Pedestrian HIN
All Modes HIN
City of San Antonio Extraterritorial Jurisdiction
Bexar County Line
0
2
4
Miles

Map 6.

Roadway Safety Tomorrow

Risk Factor Explainer: Speed

A road with a speed limit of 30 mph has a risk factor of **0.6 (below-average risk)**, while a 40-mph road has a risk factor of **6.3 (higher than average risk)**. This reflects the increase in risk of a severe or fatal crash on roads with higher speed limits.

High-Risk Network

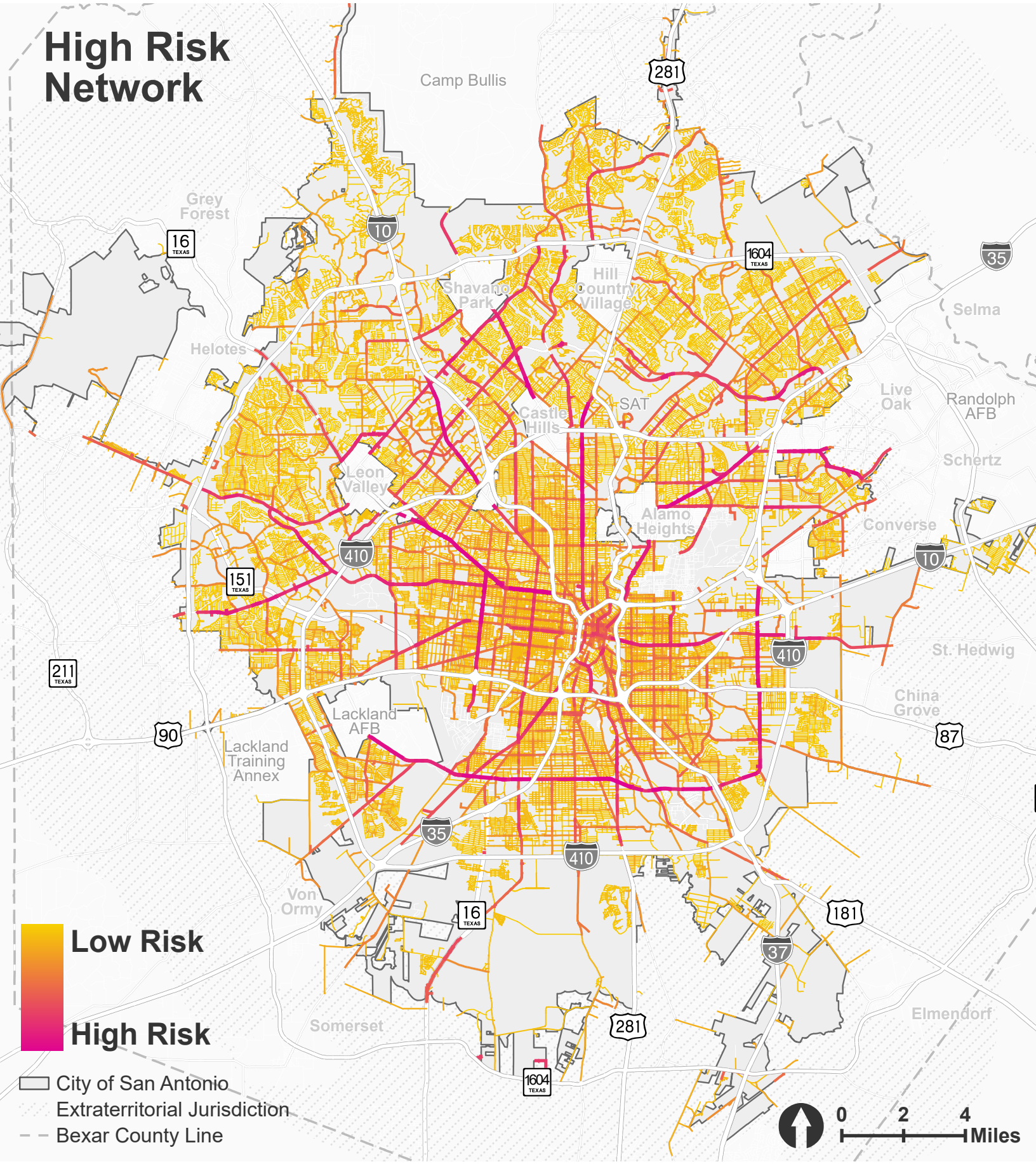
A reality of this Plan is that all the fatal crashes discussed in crash data are the neighbors that have been lost forever. **We will never be able to prevent those crashes or save their lives.** But we can look at the built environment that lead to those crashes to try to identify where, without intervention, fatalities may happen next. Our High-Risk Network (HRN) identifies corridors that are particularly vulnerable to severe or fatal crashes ***(Map 7)***. These vulnerabilities may arise from various factors in the built environment. Each attribute was assigned a Risk Factor based on how frequently crashes of different types occured on roads with those attributes, creating a numerical representation of potential safety risk ***(Figure 8)***. The sum of points for each roadway is the Risk Score for each roadway.

High-Risk Network Risk Score Summary

Lowest Risk Attribute	Low Risk Factor
Highest Risk Attribute	High Risk Factor

Category:		Description:	Attribute:	Risk Factor
Road Class		Categorization based on level of traffic service and degree of access	Local	0.2
			Major Arterial	6.8
AADT		Average vehicular traffic on a roadway per day	0-1k	0.2
			>30k	8.5
Truck Volume		Percentage of AADT comprised of freight or heavy vehicles	>2.5-5%	0.9
			>5-10%	3.5
Speed Limit		Maximum legal speed on a roadway	0-20mph	0.1
			35-40mph	6.3
Road Type/Lanes	1-Way	Travel lane number, direction of the roadway and divided or undivided	1 lane	0.1
			5+ lanes	8.4
	2-Way Divided		2 lanes	3
			5+ lanes	10.5
	2-Way Undivided		2 lanes	0.4
			5+ lanes	9.6
Lane Widths		Width of motor vehicle travel lanes	<10ft	0.3
			13-16ft	5.5
Sidewalk Coverage		Approximate percentage of roadway with sidewalks along both sides	>90%	0.8
			>60-90%	1.3
Equity Score		COSA's Equity Matrix that analyzes areas on race and income	2	0.3
			10	1.5
Bus		Within 50-ft of a VIA bus stop	Not Near Bus	0.6
			Near Bus	3.7

Figure 8.


High Risk Network
Camp Bullis
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Schertz
Converse
Selma
St. Hedwig
China Grove
Lackland AFB
Lackland Training Annex
Von Ormy
Somerset
Elmendorf
281
10
16
1604
35
410
151
211
90
87
181
37
Low Risk
High Risk
City of San Antonio
Extraterritorial Jurisdiction
Bexar County Line
0
2
4
Miles

Map 7.

Community Engagement

Open-House Public Meetings

Included five engagement activities to gauge the community's opinions about San Antonio's previous Vision Zero strategy and how the City should move forward.

Data analysis is only part of the Vision Zero planning process — community engagement is crucial for crafting a successful Action Plan. The City of San Antonio organized two open house-style public meetings, five pop-up events, and three Vision Zero committee meetings in Spring 2024. The City also launched a Vision Zero survey to expand the reach of engagement. Throughout the comment period of April-May 2024, approximately 300 people were reached through in-person events, and over 1,700 survey responses were received. Described below are all of the community engagement methods used to collaborate with San Antonians. **See also: Appendix 2: Public and Stakeholder Engagement Report**

The **5 E's Activity**: The purpose of this activity was to expose the public to the City's 2015 strategies for achieving Vision Zero. Boards were displayed featuring a series of statements relating to the 5 E's of traffic safety — education, encouragement, engineering, enforcement, and evaluation — and asked the public to place a sticker to indicate if they agree or disagree with the statements and add additional comments ***(Figure 9)***. Engineering solutions, such as crosswalks, roundabouts, and other traffic calming devices were the most popular strategies by a factor of 7 to 1, indicating that the public views engineering and design as an effective way to reduce dangerous road activity. Enforcement and encouragement strategies such as traffic patrols and fines were viewed very skeptically by the public.

Mapping Activity: This activity allowed the public to identify specific locations in San Antonio where they felt safe or unsafe. Over 150 responses were collected. There were no clear trends in where participants noted feeling safe or unsafe, though a majority of stickers placed on the South Side were red (unsafe). Bandera Road was also frequently marked as being unsafe.

Open Response Questions: Common themes from open, unfiltered responses about road safety in San Antonio included interest in traffic calming tools in addition to speed bumps to slow vehicle traffic, desire for physically protected bike lanes to improve comfort, requests for lowering speed limits to be combined with other traffic calming tools to improve effectiveness, and desire for improved sidewalks.

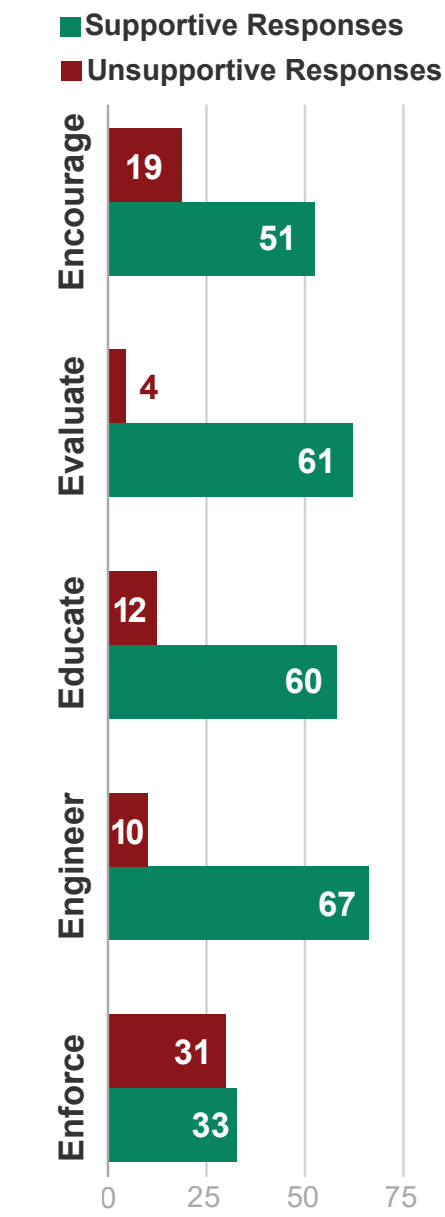


Figure 9.

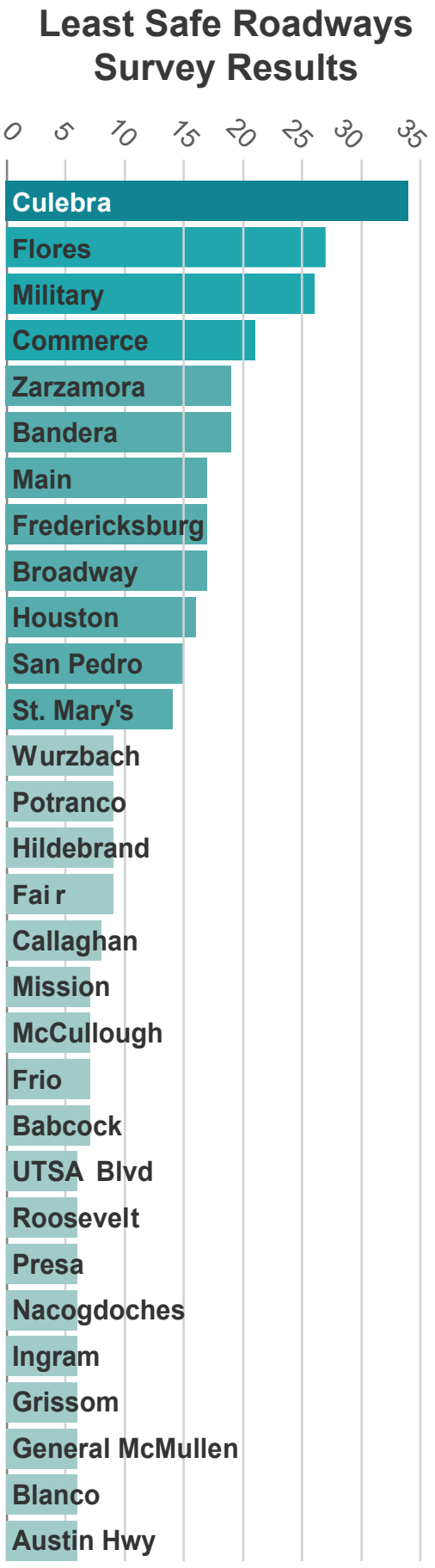


Figure 10.

Wall of Options – The purpose of this activity was to create a vision for safe streets in San Antonio by first asking *what do you want or hope to see in your neighborhood*, and *what would make you feel safe on San Antonio streets*, and then providing participants pictures to choose from out of a pile that featured street safety infrastructure from around the world. Participants would then tape the pictures underneath the prompt. Major themes from this activity were the desire to support multimodal transportation, sustainability, and compact, walkable urbanism. Almost 90 responses were collected.

Comment Cards – The final activity was designed to encourage participants to leave additional comments that were not addressed through other engagement activities. A total of 10 comment cards were collected, with key themes including the implementation of inclusive infrastructure, safety concerns for pedestrians, the desire for better public transit accessibility, and improved facilities for pedestrians and bike users.

Survey Responses — Distracted driving was the most commonly mentioned issue in the Vision Zero Survey, followed by speeding, road conditions, lack of safe bike lanes, and drunk driving. Downtown was the most commonly flagged area where people felt unsafe, followed by the South and West Sides. When asked to rate their feelings of safety while walking, biking, or taking transit on a scale of zero to 100 (100 being most safe), respondents averaged a score of 42. When asked which roadways felt least safe, respondents called out 30 different roads across the city, some as many as 35 times ***(Figure 10)***.

regardless of address,

the careless confront the carefree,

cross into crosswalks,

encountering parents pushing carriages,

and no one walks away unchanged

Part Three: Action

Riding the Floyd Curl Green Street at the San Antonio Medical Center

Safe System Approach

USDOT. *Safe Systems Approach.* (2022).

U.S. DOT utilizes a Safe System Approach as the guiding paradigm to address roadway safety. It is the most adopted approach for addressing and mitigating the risks of complex transportation systems. The **Safe System Approach** is centered around the fact that deaths and serious injuries due to traffic violence are unacceptable. Road users are humans and humans will inevitably make mistakes, which lead to crashes. Using the Safe System Approach, road systems are planned, designed, and operated so serious or fatal injuries do not result from those mistakes.

The Safe System Approach features five proven objectives for achieving Vision Zero. Within these objectives, the VZAP defines key actions that have an outsized impact on preventing severe and fatal crashes and should be achieved in the next 5 years. The following pages contain tables summarizing the expanded action tables, which can be found in Appendix 4: Implementation Plan.

Safer Streets — Design roadway environments to mitigate mistakes, account for injury tolerances, encourage safer behaviors, and facilitate safe travel by the most vulnerable users ***(Figure 11)***.

Safer People — Encourage safe, responsible behavior by people who use our roads, using education to emphasize everyone's ability to reach their destination unharmed ***(Figure 12)***.

Safer Speeds — Promote safer speeds in all roadway environments through a combination of thoughtful, equitable, context-appropriate roadway design, appropriate speed-limit setting, targeted education, outreach campaigns, and enforcement ***(Figure 13)***.

Safer Vehicles — Expand the availability of vehicle systems and features that help to prevent crashes and minimize the impact of crashes on both occupants and non-occupants ***(Figure 14)***.

Post-Crash Response and Analysis- Enhance the survivability of crashes through expedient access to emergency medical care, while creating a safe working environment for vital first responders and preventing secondary crashes through robust traffic incident management practices ***(Figure 15)***.

Safer Streets

Safer Streets calls on the City to design roadways that anticipate human mistakes, account for injury tolerances when mistakes are made, encourage safer behaviors, and facilitate safe travel by the most vulnerable users.

Strategy	Actions
Establish and Utilize a Comprehensive Quick-Build Program Lead: TD	• Apply for federal grants in order to establish a quick-build process that will efficiently build new, connected, and protected bicycle and pedestrian spaces.
Amend Policies to Make Safe Infrastructure More Implementable Leads: TD, PWD	• Update applicable design manuals and toolkits and recommend new or missing safety countermeasures and safety standards • Make Required Traffic Studies More Deployable and Impactful by developing citywide guidelines for installation of mid-block crosswalk locations supported by engineering judgement • Conceive of roadways safety-first by applying the updated Complete Streets Checklist to corridors
Operate Infrastructure Safety-First Leads: TD, PWD	• Adjust existing signals in the Central Business District that are on the HIN or HRN networks to provide increased safety to pedestrians. Couple this intervention with research over other safety interventions that could assist in intersection safety • Require safer vehicle operations by adding “Don’t Block the Box” signage at intersections along transit-oriented corridors, streets on the HIN or HRN, or intersections in the Central Business District. Research no turning right on red regulations beginning in the CBD with possibility to expand to other corridors.
Implement Priority Projects Leads: TD, PWD	• Analyze and implement infrastructure solutions along corridors identified in the VZAP. Integrate the HIN, HRN, and prioritized corridors into the City’s capital improvemmets and bond programs • Use infrastructure to create a safer and more accessible pedestrian experience by focusing on arterial streets, adding additional streetlights and call boxes, and planting trees along new sidewalk reconstructions • Work strategically and interdepartmentally to identify projects that can be funded by grants

Figure 11.

Safer People

Safer People aims to encourage responsible driving and create conditions that prioritize all road users' abilities to reach their destination unharmed. Crashes have a disproportionate impact on road users who are not in a vehicle – discouraging dangerous driver behavior helps everyone. A robust approach to influencing human behavior requires using all tools at the City's disposal.

Strategy	Actions
Engage and Educate All San Antonians Clearly and Consistently Leads: TD, PWD	• Conduct safety and information campaigns focused on the HIN and HRN corridors, and implement responsive speed signs along these corridors to address speeding issues • Develop a vehicle safety curriculum that targets youth in classrooms and driving schools, and a separate curriculum aimed at older adults in targeted programs and organizations such as senior centers. Develop intervention focused on behavioral changes to combat distracted driving • Allocate funding for city transportation employees to continue their education in the form of online classes, certifications and a localized Vision Zero course focusing on San Antonio's high injury areas and what can be done. Conduct walk audits with all departments involved in the implementation of multimodal facilities • Improve Vision Zero's public presence by participating in events from local to nationwide, partnerships with other organizations, and providing continual engagement through different forms of media. Standardize all language in the Municipal Code to read "crash" or "collision" rather than "accident"
Highlight and Analyze New Infrastructure Leads: TD, PWD	• Create and deploy a communication strategy for new projects and infrastructure including standardized educational materials that can be distributed at any point during implementation to increase visibility and inform the public of changes to roadway design • Ensure that infrastructure deployments are planned for and studied by making sure that training and enforcement of traffic control plans incorporate routes for biking and walking. Amend the Code of Ordinances to require construction crews to provide alternative multimodal pathways

Figure 12.

Safer Speeds

The City will promote Safer Speeds in all roadway environments through a combination of thoughtful, equitable, context-appropriate roadway design, appropriate speed-limit setting, targeted education, and enforcement. Unsafe speeds are a well-documented and understood factor in death and injury, especially among people outside of a vehicle.

Strategy	Actions
Build Robust Partnerships and Advocate for Change Leads: TD, PWD, GA	• Advocate at the state level to lower prima facie speed limits to 25 mph and to remove the requirement for and engineering or traffic investigation to declare a speed limit below 20 mph if in a residential area • Coordinate with partner agencies such as TxDOT, the county, and surrounding municipalities to highlight and promote successful infrastructure as well as introduce speed limit changes and new safety measures on non-COSA HIN streets
Systemically Slow Speeds Leads: TD	• Slow speeds in every neighborhood by systematically performing traffic studies on all streets in the city where a specific speed limit has not been posted and analyzing a reduction in speeds to 25 mph

Figure 13.

There's a one-tree landscape, a live oak, un encino, and
only the encino knows, its shade useless in the dark of night
why he couldn't cross where he was supposed to
where there was at least a little more light
where there could've been a lot more care
where the SUV might've seen him
where he might not have been another mystery
where he wouldn't be another statistic on this thoroughfare
only the encino knows his thoughts, his face, his name

Safer Vehicles

Expanding the availability of vehicle safety features that help to prevent crashes and injuries will minimize the impact of a crash on both occupants and non-occupants. This objective includes promoting the safety of both passenger cars and commercial vehicles.

Strategy	Actions
Make all Mobility Safe Leads: TD, SAPD	• Support safer transit by performing a walkshed within half a mile of transit centers to identify deficiencies and unsafe areas. Implement Mobility Hubs and identify opportunities to expand the pedestrian walkshed, and review TOD zoning along ART corridors to encourage active transportation • Empower pedicabs by increasing the number of operating licenses, expanding the operating area and removing the 1am curfew, and lift restrictions on operations on Commerce, Market, and Cesar Chavez
Encourage Safer Mobility Contexts Leads: TD, DSD	• Update development requirements by exploring incentive-based options or alternative measures to encourage new developments that are on existing pedestrian and bike networks to include connecting infrastructure • Ban construction of new front-in parking on all arterial and collector roadways and begin converting existing spaces. Evaluate citywide removal of parking minimums, recommend dedicated bikeways and walkways through parking lots, and require large micromobility parking areas at major sporting and other events
Advocate for Safer Vehicles Leads: GA	• Advocate at the federal level for smaller vehicle sizes, improved safety regulations, and continual improvements to the New Car Assessment Program. Advocate for federal amendments to both Corporate Average Fuel Economy standards and Federal Motor Vehicle Safety Standards

Figure 14.

Post-Crash Response & Analysis

Post-Crash Care and Analysis means enhancing the survivability of crashes through access to emergency medical care, creating a safe working environment for first responders, and preventing secondary crashes through robust traffic incident management practices. The City will commit to supporting resources and activities that improve post-crash care.

Strategy	Actions
Collaborate with First Responders Leads: TD, SAPD	• Use Data-Driven Approaches to Crime and Traffic Safety (DDACTS) program to organize high-visibility enforcement along the HIN and HRN. Work with San Antonio Fear Free Environment (SAFFE) officers for selective deployment along quick build infrastructure and at new traffic management implementations, and to lead community outreach to raise awareness on traffic safety • Through collaboration with officers, identify traffic offenses that can be established to address driving behaviors and brief law enforcement on new no right turn on red and no parking in bike lane laws
Understand Infrastructure and Roadway Behaviors Leads: TD, SAPD	• Measure average speeds and the percentage of speeding drivers before and after new infrastructure installation. Collaborate with Public Works to review and streamline the process of maintaining an inventory of improvements • Standardize and expand data collection by creating a speed count program with a single geo-data source, identifying funding for e-ticketing systems, collaborating with SAPD on blood alcohol analysis for fatality crashes, and collecting targeted bike and pedestrian counts to better understand multimodal travel behavior
Collaborate with Partners Leads: TD	• Charge the Standing Transportation Committee with new Vision Zero Policy recommendations, as well as the analysis of lower speeds, implementation of new safe designs, and monitoring HIN and HRN progress inside and outside City jurisdiction. Charge the Vision Zero team with reviewing and identifying gaps or loopholes in codes or ordinances that can be used to more effectively address safety concerns

Figure 15.

Priority Corridors

The City of San Antonio knows that a plan must be implementable to be valuable.

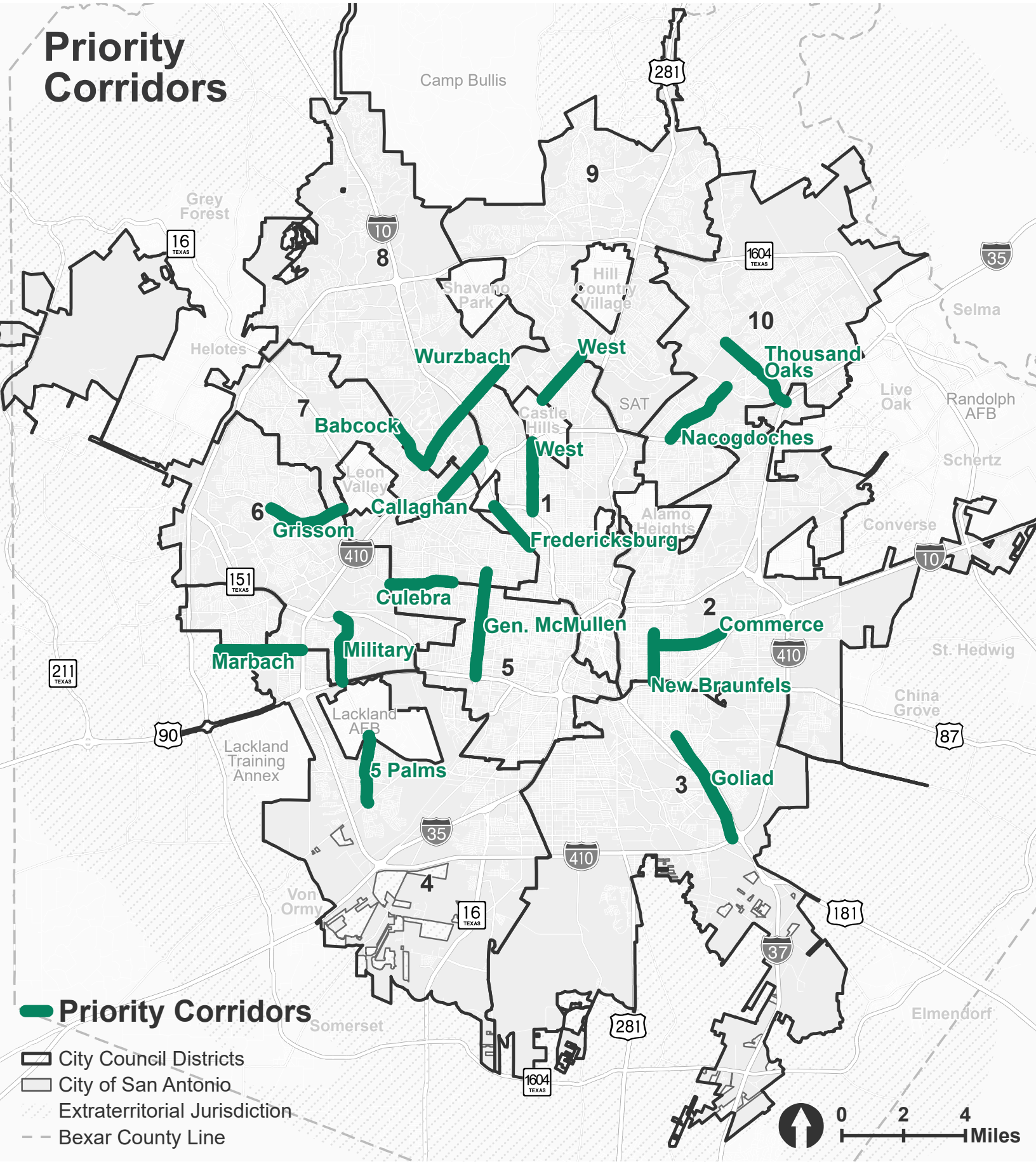
All of the City's strategies and actions need to be applied to the roadway network in order to make a difference. To move this Plan's HIN and HRN toward a focus on the implementation of new infrastructure, twenty priority corridors along these networks were selected — two per City Council District *(Figure 16, Map 8)*. These corridors were selected due to their high connectivity to everyday needs such as transit, grocery stores, and schools; their high Equity Scores; their consistent public support from both Vision Zero public engagement and previous plans; and the relative frequency of severe and fatal crashes.

Recommendations for potential safety countermeasures along these corridors were also identified for future consideration (pages 41-51). The countermeasures were identified, evaluated, and chosen based on federal and state design guidance, local design manuals, and academic studies which can be found in Appendix 4: Implementation Plan.

Priority Corridors By District

District	Roadway	Extents
1	Fredericksburg Rd	Spencer Ln
		Hildebrand Ave
	West Ave	Loop 410
		I-10
2	New Braunfels Ave	Houston St
		I-10
	Commerce St	New Braunfels Ave
		Houston St
3	Goliad Rd	Southcross Blvd
		I-37
	Goliad Rd	I-37
		Loop 410
4	Marbach Rd	Tumbleweed Way
		Loop 410
	Five Palms Dr	SW Military
		Old Pearsall Rd
5	General McMullen Dr	Commerce St
		US-90
	General McMullen Dr	Bandera Rd
		Commerce St
6	W Military Dr	TX-151
		US-90
	Grissom Rd	Culebra Rd
		Lost Ln
7	Culebra Rd	Callaghan Rd
		36th St
	Callaghan Rd	I-10
		Loop 410
8	Wurzbach Rd	Babcock Rd
		I-10
	Babcock Rd	Huebner Rd
		Wurzbach Rd
9	West Ave	Lockhill-Selma Rd
		W North Loop Rd
	Wurzbach Rd	I-10
		Lockhill-Selma Rd
10	Nacogdoches Rd	Loop 410
		Wurzbach Pkwy
	Thousand Oaks	Wetmore Rd
		I-35

Figure 16.


Priority Corridors
Camp Bullis
Grey Forest
Helotes
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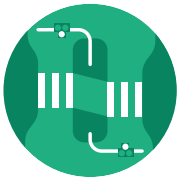
Hill Country Village
Selma
Live Oak
Randolph AFB
Schertz
Converse
Leon Valley
Alamo Heights
Castle Hills
SAT
Lackland AFB
Lackland Training Annex
Somerset
Von Ormy
China Grove
St. Hedwig
Elmendorf
9
8
10
7
6
1
2
5
3
4
Wurzbach
West
Thousand Oaks
Babcock
West
Nacogdoches
Callaghan
Grissom
Fredericksburg
Culebra
Gen. McMullen
Commerce
Marbach
Military
New Braunfels
5 Palms
Goliad
281
10
35
1604
16
410
151
211
90
87
181
37
Priority Corridors
City Council Districts
City of San Antonio
Extraterritorial Jurisdiction
Bexar County Line
0
2
4
Miles

Map 8.

What should the city consider on these corridors?

Based on built infrastructure, as well as prevalent crash factors, pointing to deficiencies in infrastructure, the tools below are considered for each corridor. However, these are not the only tools available to roadway designers and each corridor will require further evaluation and analysis. For more information about success stories featuring these tools, select graphics below:



New mid-block crossings have the greatest potential to reduce errant pedestrian crossings.

Controlling left turns ensures that drivers focus before crossing lanes of opposing traffic.

Reduced speeds are shown to be the most important way to save lives for all modes.

Median Barriers block left turns and U-turns, two very frequent causes of severe and fatal crashes.

Dedicated bicycle facilities make roads safer for all modes by slowing speeds and potentiall making drivers more attentive.

Two Way Left Turn Lanes can make left turns much safer and creates space for other facilities.

Filling gaps in bicycle infrastructure solves the problem of bikes having to enter a traffic lane and reduces conflicts.

Removal of slip lanes means that pedestrians have fewer motor vehicle lanes to cross and requires driveres to pay attention when turning right.

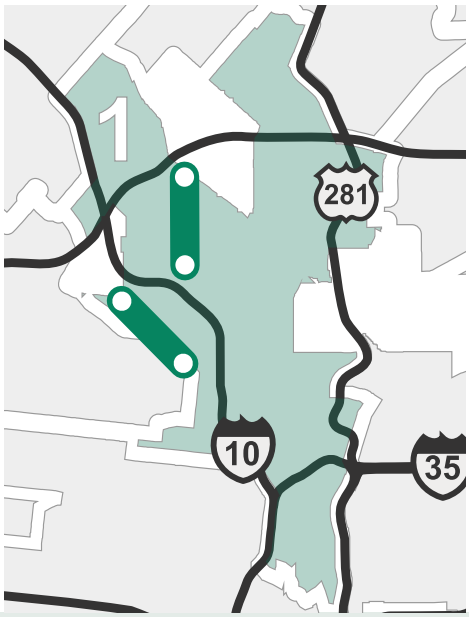
Repairing existing traffic calming infrastructure ensure that speed bumps actually slow traffic.

Roundabouts are a successful way to minimize errant travel movements in intersections.

Improving pedestrian facilities can include closing sidewalk gaps, adding buffers from car traffic, and improving physical conditions. All of which can make pedestrians safer and more comfortable.

Vehicle lane reduction or narrowing should be considered when the width or number of lanes exceeds the needs of the road, as both more and wider lanes are shown to be risker.

District 1 Corridors



Treatments for Consideration:

New mid-block crossings

Dedicated bicycle facilities

Removal of slip lanes

Reduced speeds

Vehicle lane reduction or narrowing

Improved pedestrian facilities

Fredericksburg Road

- **Corridor Length: 1.8 miles**
- **Roadway Design: Two-way undivided road with seven 12-ft lanes in northern portion and four 10.5-ft lanes beginning at Pasadena Street.**
- **Speed Limit(s): 40 mph (seven-lane section) 30 mph (four-lane section)**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes: **7**

2019-2023 Fatal Crashes: **2**

Pedestrian-Involved Severe/Fatal Crashes: **7**

Primary Reported Contributing Factor(s): **Pedestrian failed to yield right-of-way**

Network(s): **PHIN, AHIN**

Recommended Corridor Treatments:

- Install additional Pedestrian Hybrid Beacon mid-block crossings.
- Remove the slip lanes at Balcones Heights Road and Babcock Road to improve pedestrian safety.

West Avenue

- **Corridor Length: 2.4 miles**
- **Roadway Design: Two-way undivided road with four 10.5-ft lanes.**
- **Speed Limit(s): 35 mph**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes: **10**

2019-2023 Fatal Crashes: **4**

Pedestrian-Involved Severe/Fatal Crashes: **4**

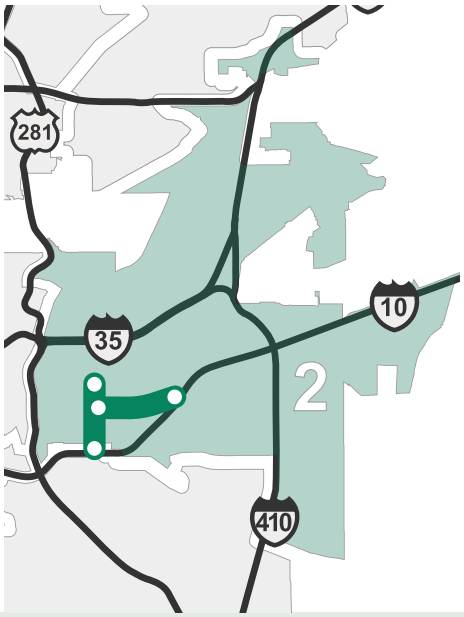
Primary Reported Contributing Factor(s): **Inattention, speeding**

Network(s): **PHIN, AHIN**

Recommended Corridor Treatments:

- Reduce the number of vehicle lanes from four to three and implement a protected bike lane.
- Install more and safer crosswalks at intersections and mid-block.
- Reduce the posted speed limit from 35 to 30 mph.

District 2 Corridors



Treatments for Consideration:

New mid-block crossings

Dedicated bicycle facilities

Roundabouts

Reduced speeds

Vehicle lane reduction or narrowing

Improved pedestrian facilities

New Braunfels Street

- **Corridor Length: 1.6 miles**
- **Roadway Design: Two-way undivided road with four 10.5-ft lanes.**
- **Speed Limits: 30 mph**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes: **6**

2019-2023 Fatal Crashes: **1**

Pedestrian-Involved Severe/Fatal Crashes: **3**

Primary Reported Contributing Factors: **Driver Inattention**

Network(s): **PHIN, AHIN**

Recommended Corridor Treatments:

- Reduce the number of vehicle lanes from four to three.
- Install more and safer crosswalks at intersections and mid-block.

East Commerce Street

- **Corridor Length: 2.25 miles**
- **Roadway Design: Two-way undivided road with four 11-ft lanes**
- **Speed Limits: 40 mph, 35 mph west of Spriggsdale Avenue.**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes: **8**

2019-2023 Fatal Crashes: **1**

Pedestrian-Involved Severe/Fatal Crashes: **2**

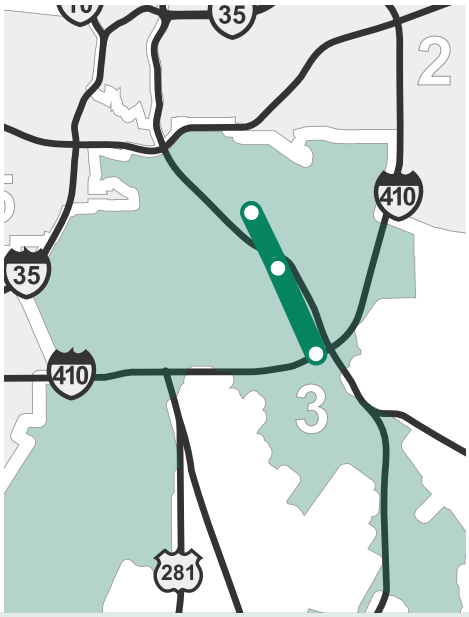
Primary Reported Contributing Factors: **Driver failed to yield right-of-way**

Network(s): **PHIN, AHIN**

Recommended Corridor Treatments:

- Reduce the number of vehicle lanes from four to three, providing space for a dedicated turn lane and protected bike lanes.
- Lower the speed limit to 30 mph.
- Install roundabouts at the Houston, Gevers, and Walters Street intersections.

District 3 Corridors



Treatments for Consideration:

Fill gaps in bicycle infrastructure

Dedicated bicycle facilities

Roundabouts

Reduced speeds

Vehicle lane reduction or narrowing

Improved pedestrian facilities

Goliad Road

- **Corridor Length: 1.4 miles**
- **Roadway Design: Two-way undivided road with four 10.5-ft lanes.**
- **Speed Limits: 35 mph**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes: **3**

Pedestrian-Involved Severe/Fatal Crashes: **1**

Primary Reported Contributing Factors: **Driver inattention, pedestrian failure to yield right-of-way**

Network(s): **AHIN**

Recommended Corridor Treatments:

- Reduce the number of vehicle lanes from four to three to make room for center turn and bike lanes, reduce speed limit to 30mph.
- Install roundabouts at major intersections like Pecan Valley.

Goliad Road

- **Corridor Length: 2.4 miles**
- **Roadway Design: Two-way undivided road with four 10.5-ft lanes and three 12-ft lanes south of Military Drive.**
- **Speed Limits: 40 mph**
- **Bike Infrastructure Present: 4-ft painted bike lanes south of Military Drive.**

2019-2023 Severe Crashes: **2**

2019-2023 Fatal Crashes: **2**

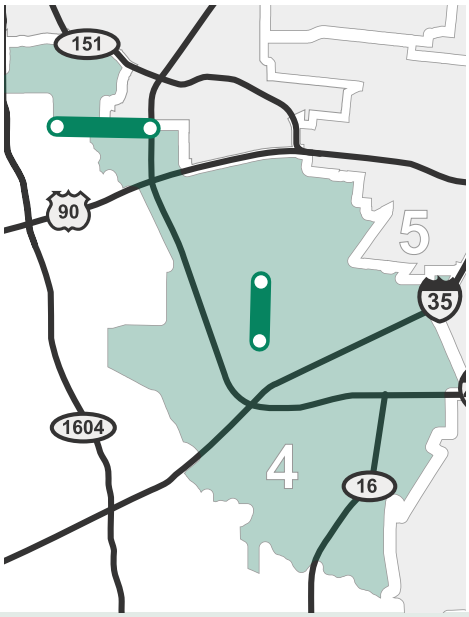
Primary Reported Contributing Factors: **Speeding, failure to yield right-of-way while turning left, driver inattention**

Network(s): **AHIN**

Recommended Corridor Treatments:

- Reduce the number of vehicle lanes from four to three, providing a dedicated turn lane and bike infrastructure.
- South of Military Drive, reduce the speed limit to 30 mph, narrow vehicular lanes from 12 ft to 10 ft, add protected bikeways.

District 4 Corridors



Treatments for Consideration:

- New mid-block crossings
- Improved pedestrian facilities
- Repair existing traffic calming infrastructure
- Reduced speeds
- Roundabouts
- Removal of slip lanes

Marbach Road

- **Corridor Length: 2.7 miles**
- **Roadway Design: Two-way undivided road with five 12-ft lanes.**
- **Speed Limits: 40 mph**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes: **6**

2019-2023 Fatal Crashes: **3**

Pedestrian-Involved Severe/Fatal Crashes: **4**

Primary Reported Contributing Factors: **Driver inattention, pedestrians failing to yield the right of way, drunk driving**

Network(s): **PHIN, AHIN**

Recommended Corridor Treatments:

- Install mid-block Pedestrian Hybrid Beacon crossings.
- Reduce lane width from 12 to 10 feet and speed limit to 30 mph.
- Remove slip lanes at Columbia Square and install roundabouts at busy intersections such as Hunt Lane and Horal Drive.

Five Palms Drive

- **Corridor Length: 2.7 miles**
- **Roadway Design: Two-way undivided road with two lanes ranging from 12-16 ft.**
- **Speed Limits: 30 mph**
- **Bike Infrastructure: painted bike lanes south of Medina Base Road.**

2019-2023 Severe Crashes: **1**

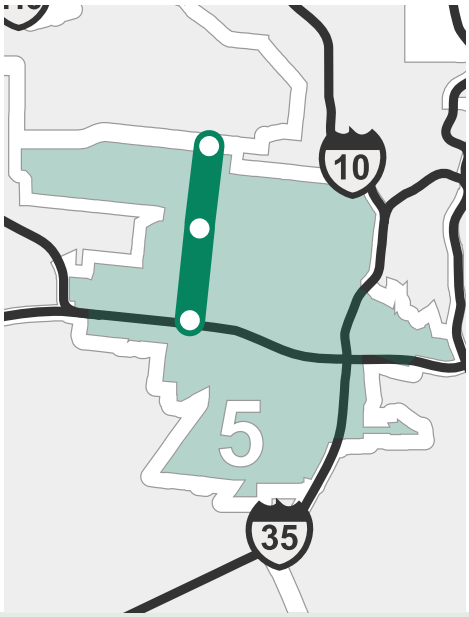
Primary Reported Contributing Factors: **Fatigue**

Network(s): **AHIN**

Recommended Corridor Treatments:

- Place physical barriers between bike lanes and vehicle lanes.
- Reduce lane width to 10 feet.
- Repair existing speed humps and intersections.

District 5 Corridors



Treatments for Consideration:

New mid-block crossings

Dedicated bicycle facilities

Roundabouts

Reduced speeds

Vehicle lane reduction or narrowing

Improved Pedestrian Facilities

General McMullen Drive

- **Corridor Length: 1.8 miles**
- **Roadway Design: Two-way undivided road with seven 10.5-ft lanes.**
- **Speed Limits: 40 mph**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes: **10**

2019-2023 Fatal Crashes: **10**

Pedestrian-Involved Severe/Fatal Crashes: **11**

Primary Reported Contributing Factors: **Pedestrian failure to yield right-of-way to vehicle, driver inattention**

Network(s): **PHIN, BHIN, AHIN**

Recommended Corridor Treatments:

- Reduce the number of vehicle lanes from seven to five.
- install share use paths and Pedestrian Hybrid Beacon crossings.
- Remove slip lanes at Castroville Road.

General McMullen Drive

- **Corridor Length: 1.6 miles**
- **Roadway Design: Two-way undivided road with four 13-ft lanes north of Culebra Road and seven 11-ft lanes south of Culebra Road.**
- **Speed Limits: 35 — 40 mph**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes: **8**

2019-2023 Fatal Crashes: **1**

Pedestrian-Involved Severe/Fatal Crashes: **2**

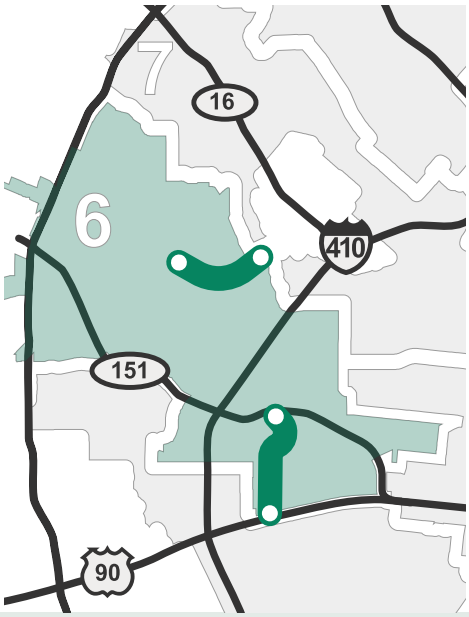
Primary Reported Contributing Factors: **Driver failed to yield ROW**

Network(s): **PHIN, AHIN**

Recommended Corridor Treatments:

- Reduce the number of vehicle lanes from four to three, providing space for a dedicated turn lane and protected bike lanes.
- Lower the speed limit to 30 mph.
- Install roundabouts at the Culebra and Martin intersections.

District 6 Corridors



Treatments for Consideration:

New mid-block crossings

Dedicated bicycle facilities

Reduced speeds

Remove Slip Lanes

Vehicle lane reduction or narrowing

Control Left Turns

West Military Drive

- **Corridor Length: 2.4 miles**
- **Roadway Design: Two-way undivided road with five 11-ft lanes.**
- **Speed Limits: 35 mph**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes: **2**

2019-2023 Fatal Crashes: **3**

Pedestrian-Involved Severe/Fatal Crashes: **1**

Primary Reported Contributing Factors: **speeding, driver inattention**

Network(s): **AHIN**

Recommended Corridor Treatments:

- Reduce the number of lanes from five 11-foot lanes to four 10-foot lanes.
- Install protected bike lanes and widen sidewalks.
- Lower speed limit to 30 mph.

Grissom Drive

- **Corridor Length: 2.9 miles**
- **Roadway Design: Two-way undivided road with five lanes: outer two are 15 ft and inner two are 11 ft.**
- **Speed Limits: 45 mph**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes: **9**

2019-2023 Fatal Crashes: **4**

Pedestrian-Involved Severe/Fatal Crashes: **2**

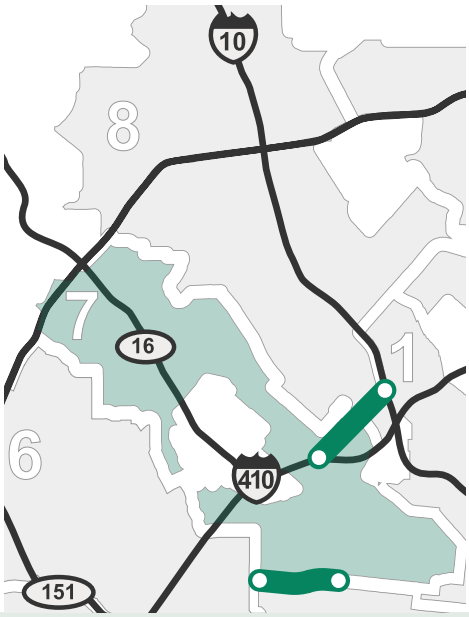
Primary Reported Contributing Factors: **Inattention, failure to yield right of way when turning left**

Network(s): **AHIN**

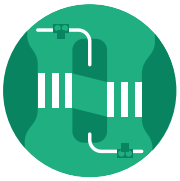
Recommended Corridor Treatments:

- Reduce speed limit to 30 mph.
- Reduce all lane widths to 10 feet, remove center left turn lane to manage left turns and install Shared Use Paths.
- Remove slip lanes at the Culebra/Tezel intersection.

District 7 Corridors



Treatments for Consideration:



New mid-block crossings

Dedicated bicycle facilities

Improved pedestrian facilities

Reduced speeds

Median Barriers

Removal of slip lanes

Culebra Road

- **Corridor Length: 4.6 miles**
- **Roadway Design: Two-way undivided road with five 12-ft lanes.**
- **Speed Limits: 40 mph**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes: **9**

2019-2023 Fatal Crashes: **3**

Pedestrian-Involved Severe/Fatal Crashes: **9**

Primary Reported Contributing Factors: **driver inattention, speeding, or unsafe turning maneuvers**

Network(s): **PHIN, AHIN**

Recommended Corridor Treatments:

- Reduce the number of travel lanes from five to three and reduce the lane width to 10 feet, creating room for protected bike lanes on both sides.
- Reduce the speed limit to 30 mph.
- Install Pedestrian Hybrid Beacon mid-block crossings strategically along the corridor with median barriers.

Callaghan Road

- **Corridor Length: 2 miles**
- **Roadway Design: Two-way undivided road with four 10.5-ft lanes.**
- **Speed Limits: 35 mph**
- **Bike Infrastructure: None**

2019-2023 Fatal Crashes: **1**

Pedestrian-Involved Severe/Fatal Crashes: **1**

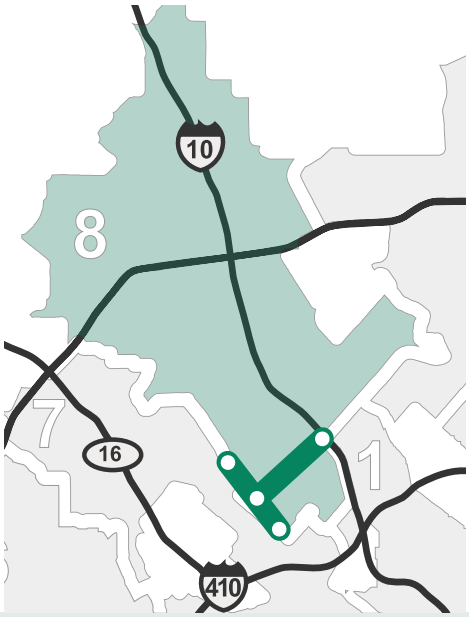
Primary Reported Contributing Factors: **failure to yield right of way when turning left, unsafe turning movements, driver inattention, speeding**

Network(s): **AHIN**

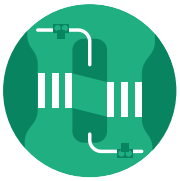
Recommended Corridor Treatments:

- Reduce the number of vehicle lanes from four to three, including a center turn lane while removing slip lanes along the corridor.
- Install protected bike lanes and wide sidewalks on both sides of the road.

District 8 Corridors



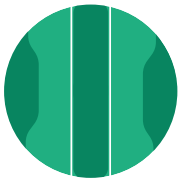
Treatments for Consideration:



New mid-block crossings

Dedicated bicycle facilities

Vehicle lane reduction or narrowing



Median Barriers

Control Left Turns

Improved pedestrian expereince

Wurzbach Road

- **Corridor Length: 2.5 miles**
- **Roadway Design: Two-way undivided road with two 11.5-ft lanes in the southern portion; northern portion has a landscaped or paved median with a center turn lane.**
- **Speed Limits: 35 mph**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes: **10**

Pedestrian-Involved Severe/Fatal Crashes: **3**

Primary Reported Contributing Factors: **speeding, failure to yield right-of-way, inattention**

Network(s): **PHIN, AHIN**

Recommended Corridor Treatments:

- Extend Pedestrian Hybrid Beacon crossing opportunities and shared-use paths to the north of the Medical Center.
- Reduce lane width to 10 feet, add median barriers, and control left turn actions.

Babcock Road

- **Corridor Length: 1.9 miles**
- **Roadway Design: Two-way undivided road with six 10-ft lanes.**
- **Speed Limits: 45 mph**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes: **13**

2019-2023 Fatal Crashes: **4**

Pedestrian-Involved Severe/Fatal Crashes: **6**

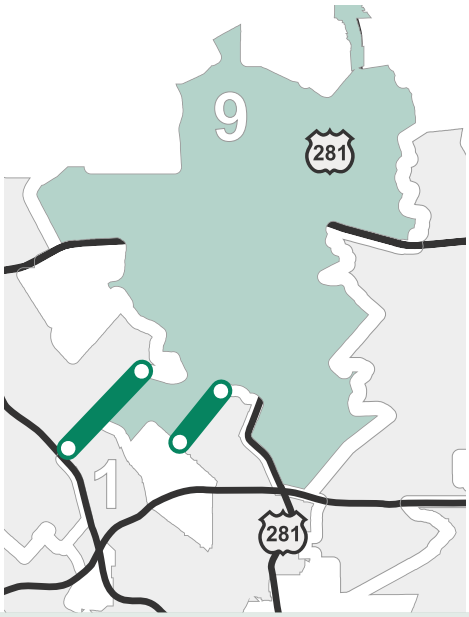
Primary Reported Contributing Factors: **speeding, unsafe turning movements, and driver inattention**

Network(s): **PHIN, AHIN**

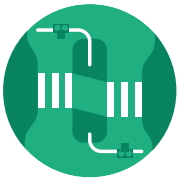
Recommended Corridor Treatments:

- Reduce vehicle lanes from six to four, add medians.
- Install mid-block Pedestrian Hybrid Beacon crossings.
- Add protected bike lanes and robust pedestrian infrastructure.

District 9 Corridors



Treatments for Consideration:



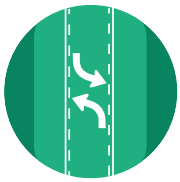
New mid-block crossings

Dedicated bicycle facilities

Improved pedestrian expereince

Reduced speeds

Vehicle lane reduction or narrowing



Two Way Left Turn Lane

West Avenue

- **Corridor Length: 2.2 miles**
- **Roadway Design: Two-way undivided road with four 10.5-ft lanes.**
- **Speed Limits: 40 mph**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes: **3**

Pedestrian-Involved Severe/Fatal Crashes: **1**

Primary Reported Contributing Factors: f**ailure to yield right of way when turning left**

Network(s): **AHIN**

Recommended Corridor Treatments:

- Reduce the number of vehicle lanes from four to three to add a center turn lane and protected bike lanes.
- Reduce the speed limit to 30 mph.

Wurzbach Road

- **Corridor Length: 1.9 miles**
- **Roadway Design: Two-way undivided road with two 10-ft lanes and a center turn lane.**
- **Speed Limits: 35 mph**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes:**13**

2019-2023 Fatal Crashes: **1**

Pedestrian-Involved Severe/Fatal Crashes: **4**

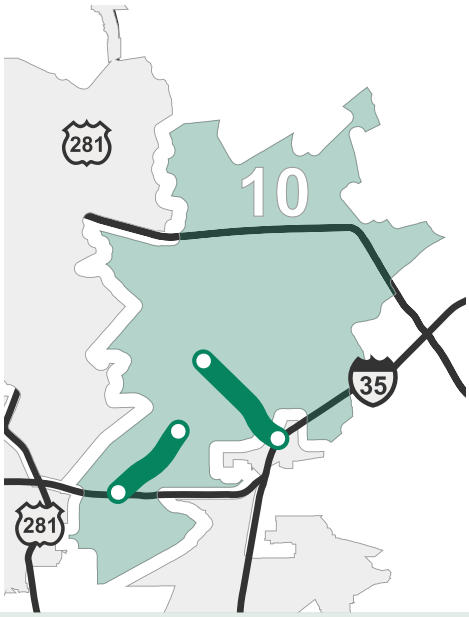
Primary Reported Contributing Factors: **driver inattention, disregard of traffic control**

Network(s): **PHIN, AHIN**

Recommended Corridor Treatments:

- Reduce the number of vehicle lanes from five to three.
- Install protected bike lanes and widen sidewalks.
- Install mid-block Pedestrian Hybrid Beacon crossings.

District 10 Corridors



Treatments for Consideration:

New mid-block crossings

Dedicated bicycle facilities

Median barriers

Reduced speeds

Control left turns

Removal of slip lanes

Nacogdoches Road

- **Corridor Length: 2.8 miles**
- **Roadway Design: Two-way undivided road with four 10-ft lanes.**
- **Speed Limits: 35**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes: **12**

2019-2023 Fatal Crashes: **2**

Pedestrian-Involved Severe/Fatal Crashes: **6**

Primary Reported Contributing Factors: **faulty decision making at intersections, inattention, or speeding**

Network(s): **PHIN, AHIN**

Recommended Corridor Treatments:

- Reduce the number of vehicle lanes from four to three to install protected bike lanes a median protected left turn lane.
- Remove slip lanes and reduce the speed limit to 30 mph.
- Install crosswalk at Salado Cliffs Drive.

Thousand Oaks Drive

- **Corridor Length: 3 miles**
- **Roadway Design: Two-way road with four 11-12-ft lanes and intermittent left turn lanes.**
- **Speed Limits: 30 mph**
- **Bike Infrastructure: None**

2019-2023 Severe Crashes: **12**

2019-2023 Fatal Crashes: **6**

Pedestrian-Involved Severe/Fatal Crashes: **2**

Primary Reported Contributing Factors: **Inattention, speeding, pedestrian failure to yield right-of-way**

Network(s): **PHIN, AHIN**

Recommended Corridor Treatments:

- Install mid-block Pedestrian Hybrid Beacon crossings.
- Reduce the number of vehicle lanes from five to three.
- Reduce the amount of space allocated to the landscaped median.

Vision Zero San Antonio Partners

To guide the development and implementation of this plan, the City organized its Vision Zero Action Plan Committee. Members of this body attended three coordinating meetings and moving forward will be essential partners in making San Antonio's streets a safer place to walk, bike, ride, and drive.

Captain Michael Starnes, San Antonio Police Department

Sergeant Jeffery Rhinehart, San Antonio Police Department

Sergeant Scott Foulke, San Antonio Police Department

Lieutenant Brent Bell, San Antonio Police Department

Officer Daniel Paez, San Antonio Police Department

Judge Carla Obledo, San Antonio Municipal Court

Captain Raul Lopez, San Antonio Fire Department

Joe Arrington, San Antonio Fire Department

Deputy Johnny Garcia, Bexar County Sherriff's Office

Ambar Perez, Alamo Area Metropolitan Planning Organization

Matthew Moreno, Alamo Area Metropolitan Planning Organization

Mia Garza-White, Alamo Area Metropolitan Planning Organization

Ismael Herrera, American Association of Retired Persons

Jayson Horn, Center City Development Office

Deborah Scharven, Diversity, Equity, Inclusion & Accessibility

Robert Potter, Diversity, Equity, Inclusion & Accessibility

Charles Charlemagne, Development Services Department

Logan Sparrow, San Antonio Development Services Department

Melissa Ramirez, Development Services Department

Rachel Parrish, Development Services Department

Stephen Stokinger, Development Services Department

Geoffrey Urbach, Information Technology Services Department

Chris Ryerson, San Antonio Planning Department

Josh Jaeschke, San Antonio Planning Department

Chris Georges, San Antonio Public Works Department

David McBeth, San Antonio Public Works Department

Karlo Jajliardo, San Antonio Public Works Department

Kathleen Buckalew, San Antonio Public Works Department

Luis Fierro, San Antonio Public Works Department

Marc Jacobson, San Antonio Public Works Department

Connie Soria, San Antonio Metropolitan Health District

Ethel Magana, San Antonio Metropolitan Health District

Maria Palma, San Antonio Metropolitan Health District

Peter Stranges, San Antonio Metropolitan Health District

Cara Hausler, San Antonio Metropolitan Health District

Carol Schliesinger, San Antonio Metropolitan Health District

J'shcarla Adkins, San Antonio Metropolitan Health District

Jerry Trevino, San Antonio Metropolitan Health District

Julius Hunter, San Antonio Metropolitan Health District

Katherine Soto, San Antonio Metropolitan Health District

Lauren Pyle, San Antonio Metropolitan Health District

Lisa Petrakis, San Antonio Metropolitan Health District

Patricia Kittle, San Antonio Metropolitan Health District

Sean Greene, San Antonio Metropolitan Health District

Ed Burgos-Gomez, Federal Highway Administration

Fara Smith, University Health

Jennifer Northway, University Health

Nicole Valdez, University Health

Abigail Kinnison, VIA Metropolitan Transit

Daniel Leal, VIA Metropolitan Transit

Veronica Escalera-Ibarra, VIA Metropolitan Transit

Joey Pawlik, ActivateSA

The end of this plan is the beginning of eliminating injury and fatal crashes in San Antonio. COSA TD will carry this vision forward, but it requires multi-agency commitment and a shift to a safety culture for residents, staff, and elected officials. Success in this plan can influence other aspects of San Antonian's lives, freeing our minds of an ever-present fear and opening hearts to a kinder future. Together we will…

Envision roadsides where nature placed flowers, instead of surviving relatives

envision bikes in lanes instead of on shoulders

envision complete streets instead of broken roads

space for traffic moving on foot, on pedals, on every type of wheel

Envision a city where injury from infrastructure is incomprehensible

because accidents were no longer acceptable

because we focused on complete safety

because we improved all the ways in which we move

Envision a world where **zero** is a **positive number**

Appendix 1: Equity Report

San Antonio Demographic Analysis and Equity Report

August 2024 City of San Antonio Transportation Department *RS&H*

Appendix 2: Engagement

2024 Vision Zero Public and Stakeholder Engagement Report

August 2024 City of San Antonio Transportation Department *RS&H* *CD&P*

Appendix 3: HIN & HRN

High Injury Network and High-Risk Network Study

Appendix 4: Implementation

Vision Zero Implementation Plan

August 2024 City of San Antonio Transportation Department *RS&H*