



Local Road Safety Plan

Santa Fe Metropolitan Planning Organization



2022

Acknowledgements

Santa Fe Metropolitan Planning Organization (MPO)

City of Santa Fe Public Works

Santa Fe Public Schools

City of Santa Fe Police Department

City of Santa Fe Fire Department

City of Santa Fe Land Use Department

Pueblo of Tesuque

Traditional Village of Aqua Fria

Santa Fe County Public Works Department

Santa Fe County Growth and Management Department

New Mexico Department of Transportation

New Mexico Department of Health

American Heart Association in New Mexico

Compass Community Planning Association

CHRISTUS St. Vincent Regional Medical Center

Federal Highways Administration (FHWA) New Mexico Division

FHWA Office of Safety



Executive Summary

The Santa Fe Metropolitan Planning Organization (SFMPO) promotes a safe, efficient, and reliable multi-modal transportation system that serves the needs of the citizens and those that travel the Santa Fe metropolitan region. The [Santa Fe 2020-2045 Metropolitan Transportation Plan \(MTP\)](#)¹ documents the SFMPO's goal to have a safe and secure transportation system for all transportation users. The SFMPO engaged a multi-disciplinary stakeholder group comprised of federal, state, and local representatives from the 4E's (engineering, enforcement, education, and emergency response) to develop the Santa Fe Metropolitan Region Local Road Safety Plan (LRSP).

A LRSP is a [Federal Highway Administration \(FHWA\) Proven Safety Countermeasure](#).² This Santa Fe Metropolitan LRSP provides a framework for identifying, analyzing, and prioritizing safety improvements on local streets and roads within the region. The LRSP development process and content are tailored to local issues and needs. The process results in a prioritized list of issues, risks, actions, and improvements that can be used to reduce fatalities and serious injuries on local roads.

The Santa Fe Metropolitan Region LRSP vision, mission, and goal are:

Vision: Create a transportation system that is safe for all users.

Mission: Prioritize safety through a data-driven, collaborative, multi-disciplinary effort which identifies and implements safety strategies equitably to reduce traffic related fatalities and serious injuries.

Goal: Reduce fatalities and serious injuries by 50 percent by 2027.

The LRSP aligns with the [New Mexico 2021 Strategic Highway Safety Plan \(SHSP\) Safe Mobility for Everyone](#)³ and supports the New Mexico Department of Transportation's (NMDOT) implementation of the national Toward Zero Deaths campaign. It adopts the [Safe System Approach](#)⁴ which is based on the principles that the human body is vulnerable, humans make mistakes, responsibility is shared, safety is proactive, redundancy is crucial, and it is unacceptable that these mistakes result in death and injury..

¹ Santa Fe MPO, 2020 – 2045 Metropolitan Transportation Plan, https://santafempo.org/wp-content/uploads/2021/11/Santa-Fe-MTP_FINAL_111621-low-res.pdf

² FHWA, Office of Safety, Proven Safety Countermeasures, https://safety.fhwa.dot.gov/provencountermeasures/local_roads.cfm

³ New Mexico Department of Transportation, New Mexico 2021 Strategic Highway Safety Plan Safe Mobility for Everyone, [bc275f2c-9ec3-406a-94fa-6be73e85187f \(realfilef260a66b364d453e91ff9b3fedd494dc.s3.amazonaws.com\)](https://www.nmdot.gov/files/media/document/bc275f2c-9ec3-406a-94fa-6be73e85187f_realfilef260a66b364d453e91ff9b3fedd494dc.s3.amazonaws.com)

⁴ FHWA, Office of Safety, Safe System Approach flyer, SA-20-015, https://safety.fhwa.dot.gov/zerodeaths/docs/FHWA_SafeSystem_Brochure_V9_508_200717.pdf



Developed using the collaborative six-step process documented by FHWA, the purpose of the Santa Fe Metropolitan Region LRSP is to:

- Achieve a significant reduction of traffic fatalities and serious injuries on the local streets and roads in the SFMPO planning area limits.
- Leverage partnerships and resources to maximize implementation of this plan.
- Complement efforts to develop and implement the master transportation plans and other plans and studies.
- Identify safety strategies based on data analysis and crash trends.
- Prioritize needed safety improvements.
- Increase awareness of road safety and risks through education and enforcement.
- Develop support for funding applications.
- Support implementation of the 2021 New Mexico SHSP and achieve their safety performance targets.

An analysis of 5 years (2015 -2019) of crash data for the 1,664 miles of local streets and roads within the metropolitan planning area limits identified a total of 2,852 injury crashes occurred. A total of 109 crashes resulted in 118 traffic-related fatalities and serious injuries, of which nearly 85 percent occurred on 7 percent of the local street and road system in the region. Based on the data analysis and discussions, the SFMPO stakeholders identified the following nine emphasis:

- Roadway Departure.
- Distracted Driving.
- Impaired Driving.
- Speeding.
- Intersections.
- Older Drivers.
- Younger Drivers.
- Pedestrians.
- Bicyclists.

The Safe System Approach elements serve as the framework for integrating emphasis areas, strategies, and action items into an LRSP. The SFMPO stakeholders identified various strategies and action items. Examples include:

- Establish a Santa Fe Safety Committee
- Improve data collection.
- Conduct road safety audits (RSAs) and implement RSA recommendations.
- Provide enhanced crosswalk and intersection visibility,
- Install six-inch pavement markings
- Implementing leading pedestrian intervals (LPI).

The stakeholders prioritized projects to implement these strategies and action items. It is the combined, collaborative efforts of the stakeholders that will advance the implementation of the LRSP and achieve the vision of creating a transportation system that is safe for all users.



Acronym List

A	Suspected Serious Injury/A-Injury (From The KABCO Injury Scale)
B	Non-Incapacitating Injury (From the KABCO Injury Scale)
BAC	Blood Alcohol Content
C	Possible Injury (From the KABCO Injury Scale)
CAD	Computer Aided Dispatch
CPS	Child Passenger Safety
DWI	Driving While Intoxicated
FHWA	Federal Highway Administration
HIN	High Injury Network
HSP	Highway Safety Plan
HSIP	Highway Safety Improvement Program
K	Fatality (from the KABCO injury scale)
KA	Fatal and Severe Injury Crashes (using KABCO injury scale)
KABC	Fatal and All Injury Crashes (using KABCO injury scale)
KABCO	All Crashes, including Property Damage Only (KABCO scale)
LEL	Law Enforcement Liaison
LPI	Leading Pedestrian Interval
LRSP	Local Road Safety Plan
MADD	Mothers Against Drunk Driving
MTP	Metropolitan Transportation Plan
NCRTD	North Central Regional Transit District
NHTSA	National Highway Traffic Safety Administration
NMDOT	New Mexico Department of Transportation
NMHP	New Mexico Highway Patrol
NMLTAP	New Mexico Local Technical Assistance Program
O	Property Damage Only (From the KABCO Injury Scale)
PHB	Pedestrian Hybrid Beacon
PSC	Proven Safety Countermeasure (As identified by FHWA)
RECC	Regional Emergency Communications Center
RRFB	Rectangular Rapid Flashing Beacon
RSA	Road Safety Audit



SANTA FE METROPOLITAN REGION LOCAL ROAD SAFETY PLAN

SAMS	Safety Analysis Management System
SFMPO	Santa Fe Metropolitan Planning Organization
SHSP	Strategic Highway Safety Plan
SRTS	Safe Routes to School
SS4A	Safe Streets and Roads for All
STEP	Saturated Traffic Enforcement Program
TIP	Transportation Improvement Program



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Introduction

The Santa Fe Metropolitan Planning Organization (SFMPO) was established in 1982 and is one of five MPOs in New Mexico. The SFMPO includes the City of Santa Fe, parts of the Santa Fe County, and the Pueblo of Tesuque (see figure 1). The SFMPO planning area represents 25 percent of the total land area for Santa Fe County, 80 percent of the population and 90 percent of its employment. The region reflects a combination of urbanized and rural characteristics. The total population for the SFMPO planning area is 123,189. The population growth of the region is anticipated to be 20 percent over the next 25 years. The region also receives over one million tourists annually.

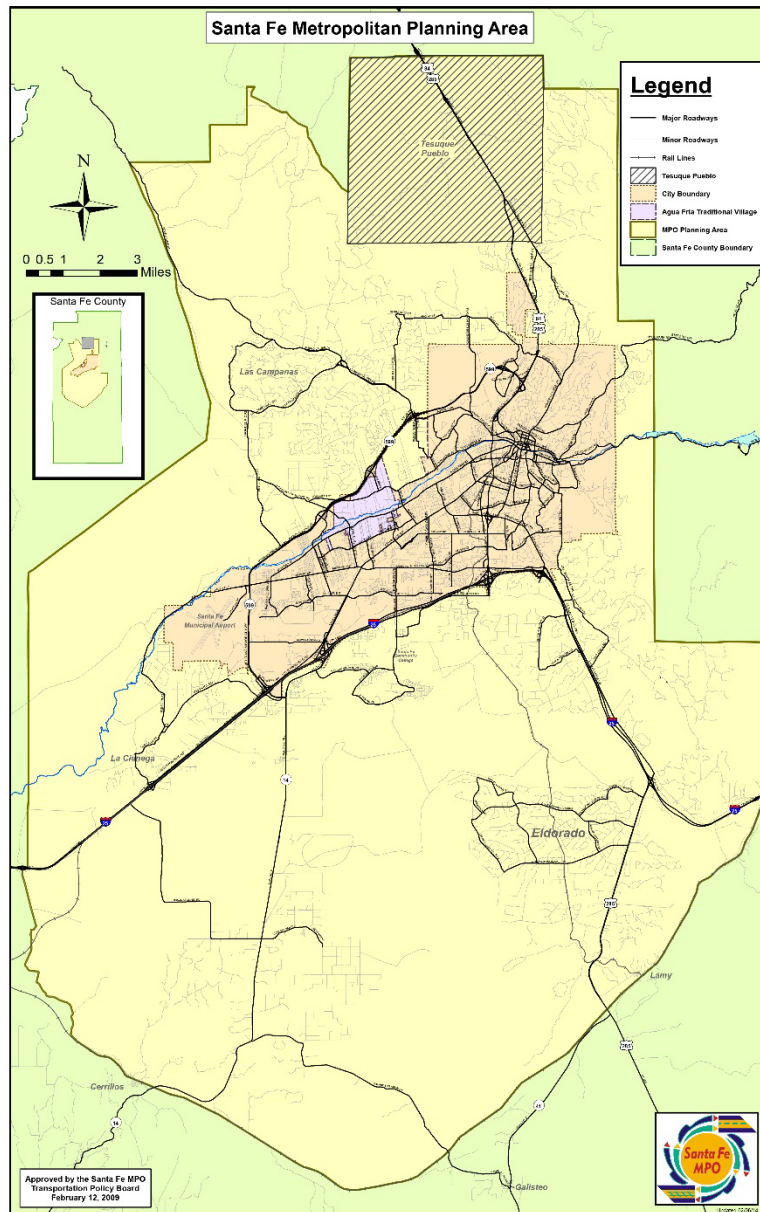


Figure 1. Graphic. Santa Fe Metropolitan Planning Area (Source: Santa Fe MPO, 2022).

The Santa Fe metropolitan region has a diverse population with distinct areas of minority populations, low-income and zero-vehicle households. The three predominant cultures in the region are Hispanic, Non-Hispanic White, and Native Americans. Hispanic people represent the largest racial/ethnic demographic population in the region. Based on the most recent U.S. Census Bureau data, Hispanics represent over 50 percent of the population in the region. Native Americans represent 2.7 percent of the region's population. The Santa Fe region has over 50,000 households, of which approximately 6,000 are considered low-income and 2,000 have zero vehicles. The areas where minority populations reside closely align with the low-income areas. The region also has a large aging population. The transportation planning decisions and investments have significant impact on the various populations and communities in the Santa Fe metropolitan region. Therefore, it is essential to consider these impacts and transportation equity⁵ early during the planning process.

The SFMPO provides a forum for decision-making in the metropolitan planning area to create a multi-modal transportation system that is safe and addresses the needs of the various system users. The region has a robust multi-modal transportation system that includes state and locally owned roads and streets, sidewalks, bicycle lanes, multi-use paths, and transit facilities. There are 1,664 miles of locally owned streets and roads within the metropolitan planning area. These streets and roads are a combination of historic and modern and range from multi-lane highways to single lane cart paths that have been paved, to dirt roads. Although the historic nature of the streets and roads sometimes makes upgrading them to accommodate pedestrian facilities challenging, there are over 450 miles of sidewalks and urban trails within the region. The pedestrian facilities include a mix of sidewalks, crosswalks, and formal and informal pathways. On-street bicycle facilities include 190 miles of shared lanes and 108 miles of bicycle lanes on streets with speed limits from 25 mph to greater than 40 mph. Five public agencies offer public transit service in the Santa Fe area. Consideration of the various users of the system and the local road transportation system within the Santa Fe region creates unique safety challenges. This is particularly notable on the higher speed facilities where vulnerable road users are at greater risk of injury or death should a crash occur.

The SFMPO is committed to improving transportation safety for all users and eliminating traffic fatalities and serious injuries. The established safety goal from the [Santa Fe 2020-2045 Metropolitan Transportation Plan \(MTP\)](#)⁶ is "a safe and secure transportation system for motorized and non-motorized users". To achieve this, the SFMPO initiated and engaged a multi-disciplinary stakeholder group comprised of federal, state, and local representatives from the 4E's (engineering, enforcement, education, and emergency response) to develop a Local Road Safety Plan (LRSP).

A LRSP is a [Federal Highway Administration \(FHWA\) Proven Safety Countermeasure](#).⁷ The Santa Fe Metropolitan LRSP provides a framework for identifying, analyzing, and prioritizing safety improvements on local streets and roads within the region. The LRSP development process and content are tailored to local issues and needs. The process results in a prioritized list of issues, risks, actions, and improvements that can be used to reduce fatalities and serious injuries on local streets and roads.

⁵ FHWA/Federal Transit Administration, Transportation Capacity Building, https://www.planning.dot.gov/planning/topic_transportationequity.aspx

⁶ SFMPO, Santa Fe 2020 – 2045 Metropolitan Transportation Plan (MTP), https://santafemopo.org/wp-content/uploads/2021/11/Santa-Fe-MTP_FINAL_111621-low-res.pdf

⁷ FHWA, Office of Safety, Proven Safety Countermeasures, https://safety.fhwa.dot.gov/provencountermeasures/local_roads.cfm

Developed using the collaborative six-step LRSP process documented by FHWA, the purpose of the Santa Fe Metropolitan Region LRSP is to:

- Achieve a significant reduction of traffic fatalities and serious injuries on the locally owned or maintained streets and roads in the SFMPO planning area limits.
- Leverage partnerships and resources to maximize implementation of this plan.
- Complement efforts to develop and implement master transportation plans and other plans and studies.
- Identify strategies based on data analysis and crash trends.
- Prioritize needed safety improvements.
- Increase awareness of road safety and risks through education and enforcement.
- Develop support for funding applications.
- Support implementation of the 2021 New Mexico SHSP and help achieve their safety performance targets.

The data-driven Santa Fe Metropolitan Region LRSP aligns with the recently updated [New Mexico 2021 Strategic Highway Safety Plan \(SHSP\) *Safe Mobility for Everyone*](#)⁸ and supports the New Mexico Department of Transportation's (NMDOT) implementation of the national Toward Zero Deaths campaign as well as the [2021 NMDOT Pedestrian Safety Action Plan \(PSAP\)](#).⁹ The LRSP complements other SFMPO plans such as the [Santa Fe Metropolitan Bicycle Master Plan 2019](#)¹⁰ and the [Santa Fe Metropolitan Pedestrian Master Plan 2015-2040](#).¹¹ With the focus on improving safety for all users on the local road system in the region, the LRSP adopts and uses the Safe System Approach as the framework for integrating the emphasis areas, strategies, and action items into an LRSP.

⁸ New Mexico Department of Transportation, New Mexico 2021 Strategic Highway Safety Plan Safe Mobility for Everyone, [bc275f2c-9ec3-406a-94fa-6be73e85187f \(realfilef260a66b364d453e91ff9b3fedd494dc.s3.amazonaws.com\)](https://www.nmdot.gov/files/2021-08/bc275f2c-9ec3-406a-94fa-6be73e85187f/realfilef260a66b364d453e91ff9b3fedd494dc.s3.amazonaws.com)

⁹ New Mexico Department of Transportation, 2021 NMDOT Pedestrian Safety Action Plan (PSAP), https://nmpedplan.altaplanning.cloud/storage/app/media/Final%20Plan_August_2021.pdf

¹⁰ SFMPO, Santa Fe Metropolitan Bicycle Master Plan 2019, <https://santafemppo.org/plans/bicycle-master-plan/>

¹¹ SFMPO, Santa Fe Metropolitan Pedestrian Master Plan 2015-2040, <https://santafemppo.org/plans/pedestrian-master-plan/>

Safe System Approach

The Santa Fe Metropolitan Region LRSP adopts the [Safe System Approach](#)¹² (see Figure 2) which is based on the principles that the human body is vulnerable, humans make mistakes, and it is unacceptable that these mistakes result in death and injury. It is critical to design and operate the streets and road system to keep impact energy on the human body at tolerable levels. Shared responsibility by all stakeholders is key, making it important that the stakeholders are collaborative and engaged partners when developing and implementing the Santa Fe Metropolitan Region LRSP.

The FHWA has recognized the Safe System Approach as a method for eliminating traffic fatalities and serious injuries for all street and road users. The Safe System Approach moves beyond the traditional approach of reacting strictly based on crash history to proactively identifying risk factors associated with severe crash types and implementing safety countermeasures systemically based on those factors. This LRSP includes the systemic implementation of strategies. All parts of the transportation system need to be strengthened to build in redundancy to accommodate failures of the system that may arise. Examples of redundancy include the installation of curve warning signs to alert motorists of conditions in which a slower speed is necessary combined with speed feedback signs and education and enforcement campaigns that help avoid behaviors that may result in crashes.

The Santa Fe Metropolitan Region LRSP uses the five elements of the Safe System Approach as the framework for organizing emphasis areas and strategies. These elements encompass the 4Es of safety and accommodate human error:

Safe Roads: Streets and roads are the platform in which users move across the system. Safe roads incorporate engineering-related strategies during planning, design, construction, maintenance, and operations to prevent crashes and manage impacts to keep kinetic energy at tolerable levels should a crash occur.

Safe Road Users: This represents all users of all modes of travel. Their capabilities are influenced by factors such as age, level of impairment, and other behaviors. System owners and other stakeholders can use strategies such as signing, enforcement, and education campaigns to address these limitations and encourage behavior change.



Figure 2. Graphic. Safe System approach (Source: FHWA).

¹² FHWA, Office of Safety, Safe System Approach flyer, SA-20-015, https://safety.fhwa.dot.gov/zerodeaths/docs/FHWA_SafeSystem_Brochure_V9_508_200717.pdf

Safe Speeds: As speeds increase, the risk of death and serious injury dramatically increase. This is especially true for pedestrians (see figure 3) where the risk of death doubles for a pedestrian when speeds increase from 32 mph to 42 mph, and triples at 50 mph. Safe speeds increase the likelihood of an individual surviving a crash. Appropriate speed limits and signing, as well as radar speed feedback signs, help reduce the speed of users. These can be reinforced with enforcement and education campaigns.

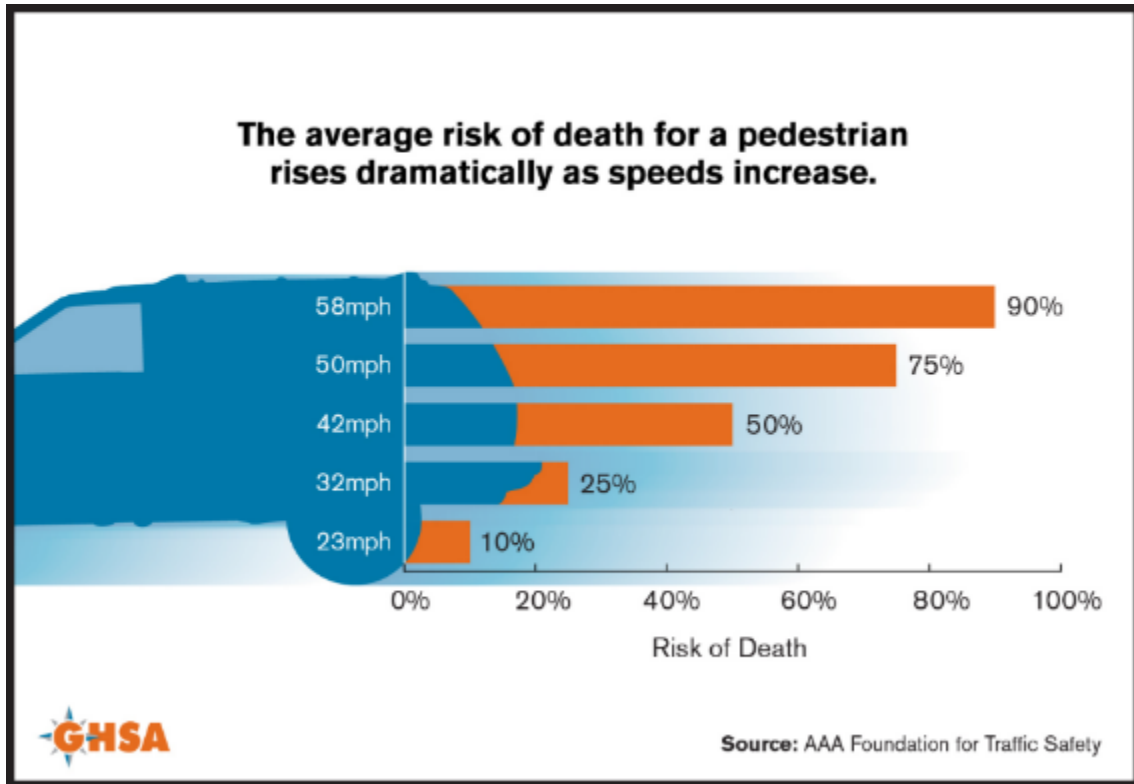


Figure 3. Graphic. Relationship between pedestrian crash risk and speed (Source: GHS and AAA).

Safe Vehicles: Safe vehicles incorporate new technology and other features to prevent crashes from occurring, and if they do, reduce the severity of a crash.

Post-Crash Care: Post-crash care is critical when a crash occurs, and a person is injured. This includes first responders' being able to quickly locate and respond to the crash and stabilize and transport the individual. This also includes accurate and complete data collection and sharing of the data to facilitate improved decision-making and investments specific to safety.

Ultimately, the Safe System Approach puts safety at the forefront and shifts how transportation investments are prioritized. The SFMPO and its stakeholders, using this Approach for the development and implementation of the LRSP, can have success in reducing traffic fatalities and serious injuries on its streets and roads.

Equity

The transportation system is a vital component of the quality of life of the people in a community. It effects where people live, where and how they travel to work and school, and what services and recreational activities are available. Transportation equity seeks fairness in mobility and accessibility to meet the needs of all community members, especially those individuals traditionally underserved. It is important to note that transportation equity does not mean equal. The FHWA provides information, including pertinent Executive Orders, on its webpage [Transportation Equity - Transportation Planning Capacity Building Program](#)¹³. Under Executive Order 13985 Advancing Racial Equity and Support for Underserved Communities (2021), the term “equity” means the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.

The Santa Fe metropolitan region has a diverse population with concentrated areas of minority populations, elderly, low-income families, and zero-vehicle households. Hispanics represent the largest racial/ethnic demographic in the region with over 50 percent of the region’s population. Approximately 40 percent of the region’s population is Non-Hispanic White, and 2.7 percent are Native Americans. Approximately five percent of the region’s population identify solely as Black/African American, American Indian, Asian, or Native Hawaii/Pacific Islander. The areas where minority populations reside align closely with the low-income areas. The Santa Fe region has over 50,000 households, of which approximately 6,000 are considered low-income and 2,000 have zero-vehicles. The region also has a large aging population which exceeds the statewide average (18.5 percent). Over 20 percent of the citizens in the region are 65 years of age or older. It is essential to consider these various populations and communities early during the planning process to address potential impacts and transportation equity.

The SFMPO understands that the demographic composition (age, gender, race/ethnicity, ability/disability, income) of the region is critical to making informed transportation investment decisions and achieving the region’s social equity goal of providing equitable investments in transportation to enable quality of life for all residents. The consideration of demographics and equity also influence safety of all road users. For example, houses with zero-vehicles likely means that there will be more people walking, biking, or using transit as a means of transportation. This increased exposure of these vulnerable road users would lead to a higher percentage of crashes in these communities. Implementation of safety countermeasures such as installing and properly maintaining sidewalks and bicycle lanes, adding high visibility crosswalks, evaluating intersections for safe pedestrian crossings, and placing transit stops to provide for safe travels of users in these zero-vehicle household blocks would improve traffic safety and address equity at the same time.

The SFMPO and its stakeholders considered transportation equity during each step of the LRSP development process. This included evaluating and comparing the locations of minority populations, low-income areas, and households with zero-vehicles with those streets and roads with a higher concentration of fatal and serious injury crashes. The LRSP identifies strategies and projects that address the safety needs

¹³ FHWA/Federal Transit Administration, Transportation Capacity Building, https://www.planning.dot.gov/planning/topic_transportationequity.aspx

of all road users. Projects identified support the recognition that the needs of all road users should align with future transportation investments.

Vision, Mission, Goal

The stakeholders developed the Santa Fe Metropolitan Region LRSP Vision, Mission, and Goal statements. These statements reflect the Safe System Approach principles that death and serious injuries are unacceptable and shared responsibility by all stakeholders is necessary. The Vision for the LRSP demonstrates the intent that all users of the local streets and road system within the Santa Fe metropolitan region reach their destination safely. The Mission statement recognizes that a collaborative effort by all the safety partners is necessary to achieve the reductions in traffic-related fatalities and serious injuries set forth by the Goal. Strategies and action items identified in later sections of this LRSP reflect elements of the Safe System Approach and support achieving the Vision, Mission, and Goal.

Vision:

Create a transportation system that is safe for all users.

Mission:

Prioritize safety through a data-driven, collaborative, multi-disciplinary effort which identifies and implements safety strategies equitably to reduce traffic related fatalities and serious injuries.

Goal:

Reduce fatalities and serious injuries by 50 percent by 2027.

LRSP Process Methodology

LRSPs are one of several [FHWA Proven Safety Countermeasures](#) and are developed using a collaborative six-step process (see figure 4). The following sections describe each step. More detail can be found in later sections of the plan. The Santa Fe Metropolitan Region LRSP builds upon past and ongoing safety activities and considers the unique needs and issues specific to the local road system within the planning area limits and the users of these streets and roads. The LRSP aligns with the 2021 New Mexico SHSP and its goals and strategies to eliminate traffic fatalities and serious injuries. This is supported by adopting the principles and elements of the Safe System Approach. Implementation is key and has been kept in the forefront during the LRSP development process.



Figure 4. Graphic. LRSP development process (Source: FHWA).

Establish Leadership

The Santa Fe Metropolitan Region LRSP leadership team has a key role in the development and implementation of safety projects, programs, and policies. The leadership team is ultimately responsible for developing, adopting, and implementing the LRSP. The SFMPO served as the safety champion and led efforts to develop the LRSP. The SFMPO engaged multi-disciplinary federal, state, and local safety stakeholders representing 4Es: engineering, enforcement, education, and emergency response to provide input into the development of the LRSP. These partnerships and collaborative efforts recognize a shared responsibility to eliminate fatal and serious injury crashes and provide the opportunity to share knowledge, leverage resources, and maximize implementation of the LRSP. An initial kickoff meeting was held to identify additional stakeholders and sources of data. SFMPO should engage the New Mexico Local Technical Assistance Program (NMLTAP) Center to help with LRSP implementation and evaluation efforts.

Analyze Safety Data

Analysis of safety data (e.g., crash, traffic, and street and road data) identifies crash trends, high-risk factors, and those locations with a higher concentration of fatal and serious injury crashes. The NMDOT and SFMPO provided safety data for the local streets and roads within the limits of the Santa Fe metropolitan planning area for the five-year period of 2015 to 2019. This overlaps the 2013 to 2019 analysis period for 2021 New Mexico SHSP. The crash injury identified in the data is based on the assessment of the responding law enforcement officer using the KABCO scale as follows:

- Fatality (K).
- Suspected serious injury (A).
- Suspected minor injury (B).
- Possible injury (C).
- Property damage only (O).

The safety analysis for the LRSP considered the over-representation of major crash types and their relationship between each other. This guided the selection of LRSP emphasis areas. Crash tree analysis helped to identify key combinations of factors that contribute to predominant crash types. This is especially beneficial to systemically address locations where crashes have not yet occurred. An assessment of crashes and key corridors identified a High Injury Network (HIN) where most fatal and serious injury crashes occur. An overlay of the HIN with equity area maps for minorities, low-income and zero-vehicle households showed a strong correlation between the HIN and equity areas of concentration. Systemwide analysis of intersections presents a significant challenge as NMDOT's roadway inventory database does not have specific codes or identifiers for intersections. The SFMPO 2020 - 2045 MTP identifies corridors and intersection locations from past analysis efforts and a strong correlation between intersection related crashes and pedestrians and bicyclists. Performing a safety field review helped to overcome this challenge and identify features that may contribute to crashes and safety countermeasures that are typically present to mitigate crashes. Ultimately, the analysis results and safety field review guided the selection of the emphasis areas and strategies and identification of potential projects.

Determine Emphasis Areas

Emphasis areas in a LRSP enable the safety stakeholders to better focus available resources. The 2021 New Mexico SHSP contains 10 high-priority and 10 priority emphasis areas selected based on analysis results for the period of 2013 to 2019. The safety stakeholders considered these SHSP emphasis areas and the corresponding data analysis results for the local streets and roads within the limits of the Santa Fe metropolitan planning area for 2015 to 2019. They selected the following nine emphasis areas for the Santa Fe Metropolitan Region LRSP.

- Roadway Departure.
- Distracted Driving.
- Impaired Driving.
- Speeding.
- Intersections.
- Older Drivers.
- Younger Drivers.
- Pedestrians.
- Bicyclists.

Although crashes involving occupant protection as well as motorcycles are not included as emphasis areas in the LRSP, strategies related to these are integrated into the other emphasis areas. The five Safe System Approach elements serve as "pillars," and each emphasis area aligns with the appropriate Safe System Approach element.

Identify Strategies

The LRSP identifies strategies and action items that support the appropriate Safe System element and align with each of the nine emphasis areas. This allows for the strategies to take all road users and modes of transportation into account (see figure 5), while also ensuring that multiple emphasis areas can be addressed simultaneously. It also makes it easier for the various stakeholders to strategize and implement the Santa Fe Metropolitan Region LRSP. Based on local knowledge and potential policy changes, the stakeholders considered the data analysis results, potential to address identified safety issues, different types of road users, equity, and how to ensure the strategies are actionable when identifying multi-disciplinary countermeasures for inclusion in the LRSP.

Many of the action items are considered as effective countermeasures by FHWA and National Highway Transportation Safety Administration (NHTSA) and are identified in the 2021 New Mexico SHSP as well as the New Mexico Highway Safety Plan (HSP).



Figure 5. Photograph. Santa Fe multi-modal roundabout (Source: FHWA, 2022).

Prioritize and Incorporate Strategies

The stakeholders considered each strategy and action item as well as the feasibility of implementation during the process to prioritize them. The cost and availability of resources as well as the ease of implementation or how a strategy could influence implementation of other strategies were factors that influenced the prioritization. Each action item is listed in priority order and includes the lead agency and partners, application method (e.g., regionwide), priority ranking, effectiveness, level of resources required (e.g., low, medium, or high), and an implementation time frame. Short-term actions are anticipated to be implemented within 3 years; medium-term actions can be implemented within 8 to 10 years; and long-term actions can be implemented within 15 years. Some actions are considered ongoing.

Evaluate and Update

Transportation safety stakeholders including planners, designers, builders, operators, and maintenance personnel, law enforcement, post-crash personnel, road users and others all have a shared responsibility to reduce traffic fatalities and serious injuries on the streets and roads within the Santa Fe metropolitan planning area. It is essential that this LRSP moves beyond a planning document. Implementation of the identified strategies and action items by the various stakeholders is key to achieving the goal set forth in this LRSP. The benefit of the alignment of the LRSP with the New Mexico SHSP is that it leverages existing funding sources to support LRSP implementation. The Bipartisan Infrastructure Law (BIL) establishes the new [Safe Streets and Roads for All \(SS4A\) Grant Program](#) and other eligible discretionary grants which may support implementation of the LRSP. The SS4A discretionary grant program is designed to support regional, local, and Tribal initiatives to prevent roadway deaths and serious injuries.

The LRSP is a living document that will be evaluated and updated periodically. The SFMPO and its safety stakeholders will Track the allocation of resources, positive changes in user behavior, and the reduction in crashes as the various strategies and action items are implemented to evaluate the effectiveness of the LRSP implementation. Evaluation will assist in identifying new action items, effective strategies to expand application, and determining resources for implementation. Based on the five-year update-cycle required for State SHSPs, it is anticipated that the 2021 New Mexico SHSP would be updated in 2026. The Santa Fe Metropolitan Region LRSP should continue to align with the New Mexico SHSP to leverage safety resources. SFMPO will reassess the LRSP during the next update of the SFMPO 2020-2045 MTP. This would provide an opportunity to identify and integrate strategies and action items into multi-year projects and continue to advance the region's safety priorities. SFMPO can partner with the NMLTAP Center with the implementation, evaluation, and update of the LRSP.

Existing Efforts

A review of pertinent documents, stakeholder discussion, and a field review of several miles of locally owned roads in the Santa Fe metropolitan planning area identified various existing efforts that have been implemented or are planned. The NMDOT recently transferred jurisdiction of a portion of Cerrillos Road and Saint Michaels Drive over to the City of Santa Fe, increasing the number of miles of locally owned streets and roads in the region to 1,664 miles.

The SFMPO and its stakeholders emphasize the importance of providing a transportation system that is safe for all users. For example, the goal of SFMPO's [Santa Fe Pedestrian Master Plan 2015-2040](#)¹⁴ is to "improve pedestrian safety through well-designed facilities along and across roadways, and by promoting safe driving, walking, and bicycling behaviors." They anticipate a substantive increase in bicycling and walking in the region. Therefore, the SFMPO and its stakeholders evaluate the roads with consideration of providing for safer alternative modes for transportation within the region, identify opportunities to address safety for all users, and implement improvements that will reduce fatal and serious injury crashes. The stakeholders use various approaches to improve safety for pedestrians and bicyclists within the region. Examples include items such as:

- Adding separated/buffered bicycle lanes.
- Constructing new sidewalks.
- Constructing new trails.
- Implementing road diets.
- Constructing or paving shoulders to accommodate bicyclists.
- Using signs to communicate bicycle travel ways (e.g., shared lanes, start/end of bicycle lanes).
- Placing in-pavement markings.
- Constructing underpasses.

Cerrillos Road is a heavily traveled multi-lane arterial. The completion of two of the three reconstruction phases provides designated lanes for commercial access, modernized intersections, bicycle lanes, and sidewalks (see figure 6). The SFMPO collaborated with the NMDOT to assess the streets and roads, land use, and the various road users and propose an improvement that balanced safety and capacity.

The region has successfully used road diets at various locations in the region to provide dedicated facilities for pedestrians and bicyclists within



Figure 6. Photograph. Cerrillos Road at Siler Road (Source: FHWA, 2022).

¹⁴ Santa Fe MPO, Pedestrian Master Plan 2015-2040, <https://santafemopo.org/plans/pedestrian-master-plan/>

the existing right of way. This success has the SFMPO and its stakeholders planning for additional road diet projects. These projects include narrowing the lane width or reducing the number of travel lanes to help reduce motorists' speeds, providing a shorter distance for pedestrians to cross, and increasing safety for vulnerable road users.

The region's efforts to provide for safe walking and biking promotes this same approach by others. Developers have designed and constructed streets and roads that separate vehicles, bicycles, and pedestrians to safely accommodate the various users (see figure 7) in newer neighborhoods.

Existing shoulders, where feasible, accommodate bicycles. The SFMPO has identified that steeper cross-slopes, loose soil due to slope erosion, and debris on some of the shoulders may result in bicyclists riding in the travel lane, placing them more at risk for injury should a crash occur.



Figure 7. Photograph. Local roadway constructed by a developer that accommodates various road users in the Santa Fe region (Source: FHWA, 2022).

Bicycle lanes on various streets and roads across the region have designated pavement marking arrows and bicycle symbols (see Figure 7). Sharrows (bicycle logo with arrow on top) are placed in the travel lanes of streets and roads where bicyclists share the lane with motorists. The stakeholders use signs across the region to communicate to the users where bicycle lanes exist, start and end, and when shared use of the lanes is anticipated.

The existing efforts SFMPO and its stakeholders use to address pedestrian safety have included the following:

- Installing high visibility crosswalks and signing at multiple uncontrolled pedestrian crossings in region (see figure 8).
- Modifying the land use policy to require the local agencies to repair and maintain sidewalks instead of the property owners.
- Inventorying the existing sidewalk network to identify gaps and repair needs which can be used to prioritize sidewalk improvement.
- Including pedestrian and bicycle accommodations in the design and construction of roundabouts (see Figure 5).
- Performing walkability assessments (led by the New Mexico Department of Health) and considering the built environment and how it effects safety of pedestrians. Ultimately, the goal is to increase safety while promoting physical activity.
- Installing radar speed indicator signs in a few locations.



Figure 8. Photograph. Uncontrolled Pedestrian Crossing with marked crosswalk in City of Santa Fe (Source: FHWA).

Old Santa Fe Trail is rural in nature and has several curves along the corridor. Sections of Old Santa Fe Trail have been recently resurfaced. This improvement included new pavement markings, advanced curve warning signs, and chevrons to provide enhanced visibility of the travel lane and delineation of numerous curves (see figure 9).



Figure 9. Photograph. Old Santa Fe Trail curves and chevron installation (Source: FHWA, 2022).

The SFMPO and the stakeholders coordinate, identify, prioritize, and address the transportation needs of the region based on the available funding. The [Santa Fe 2020-2045 MTP](#)¹⁵ guides transportation improvements for the region and includes a list of ranked projects that are prioritized based on a variety of evaluation criteria of which one is safety. For safety, the evaluation metric is “how well does the project improve safety for all users, and does it alleviate a known issue?”

The SFMPO develops the Transportation Improvement Program (TIP) to complement its MTP. The TIP is a short-term funded project list that includes the federally funded projects and any regionally significant projects. Table 1 lists those projects identified in the FFY2022-2027 SFMPO TIP that have significant safety emphasis.

Table 1. Safety projects-FFY2022-2027 Santa Fe MPO Transportation Improvement Program (TIP) (Source: SFMPO, 2021).¹⁶

Project	Description	Estimate
Harrison Road- Sidewalk and Lighting.	Agua Fria to Cerrillos Road.	\$700,000
Henry Lynch Reconstruction.	Rufina to Agua Fria.	\$3,100,000.
Pacheco Street Bicycle and Pedestrian Improvements.	W San Mateo Road to Alta Vista Street.	\$1,000,000.
Agua Fria St./Cottonwood Drive Intersection (HSIP).	Roundabout at the intersection.	\$1,796,000
Guadalupe Street Reconstruction- Road Diet (HSIP).	Milepost .51 to Milepost 1.19 (.679 mile). The proposed project was identified through the RSA and includes lane reduction, pedestrian and bicycle improvements, signalized intersections improvements, lighting, new signing, and striping.	\$10,709,444
Saint Michael's Drive (HSIP).	Rail Trail Pedestrian Crossing/Underpass, milepost 1 Proposed project was identified through the RSA.	\$4,984,999
Cerrillos Road/ Second Street	Intersection, ADA, and Bus Stop Improvements	\$1,386,000
NM 599/US 285 Ramp (HSIP).	Southbound On-Ramp from NM 599 to US 84/285.	\$3,608,620
Santa Fe Trails- Ridefinders	Ridesharing Program for Transit, 2022-2023.	\$168,008
Santa Fe Trails-5339	Funding for capital projects to replace, rehabilitate and purchase buses, vans, and related equipment, and to construct bus related facilities.	\$1,017,500

Highway Safety Improvement Program (HSIP) funds a number of local street and road safety projects identified in the TIP. Two safety improvement projects identified in the TIP and funded with HSIP, the Guadalupe Street Road Diet Reconstruction study (\$486,000) and improvement (\$10,709,444) as well as the Rail Trail Pedestrian Crossing/Underpass at Saint Michael’s Drive, resulted from recommendations of road safety audits (RSA). HSIP also funded the Agua Fria Street/Cottonwood Drive intersection improvement (\$49,500) study to construct a roundabout.

The NMDOT encourages local safety improvements using HSIP that are data-driven and focused on reducing traffic-related fatalities and serious injuries but also recognizes some challenges exist that have

¹⁵ Santa Fe 2020 – 2045 Metropolitan Transportation Plan, https://santafempo.org/wp-content/uploads/2021/11/Santa-Fe-MTP_FINAL_111621-low-res.pdf

¹⁶ SFMPO, FFY2022-2027 SFMPO TIP, <https://santafempo.org/programs/tip/>

made it difficult to obtain HSIP funding for local projects. One identified challenge included receiving safety project applications that are not data-driven. Project development and delivery is another impediment to obligating HSIP funds. The process and time that it takes to complete studies and designs for a larger scale safety improvement can extend beyond the allowable timeframe to obligate federal funds. The NMDOT is developing a HSIP Manual which will provide a roadmap for implementation of the New Mexico HSIP. This can help local agencies understand what is required to submit a safety improvement application (e.g., data needs, scope of work, alignment with the New Mexico SHSP) and may provide additional information to guide them through the federal aid process. Several other actions needed to support local agencies and the New Mexico HSIP also include improvements to the Linear Referencing System for street and road data, improved coordination with safety stakeholders, and greater focus on pedestrian and bicyclist safety.

In addition to infrastructure related improvements, the TIP also includes transit related projects which support Safe System elements (Safe Road Users and Safe Vehicles). These projects include Santa Fe Ride which is an origin to destination program that provides ride sharing as an alternative source of transportation for disabled (ADA Complementary Paratransit Service) and senior citizens of the City of Santa Fe. Another transit project provides funding to maintain and replace aging transit buses and vans which allows the region to acquire vehicles with the latest technology (Safe Vehicles). Transit provides an alternative mode of transportation for impaired drivers. Senior services received funding annually between 2017 and 2019 to provide transportation for elderly to participate in activities in the Santa Fe region. During the 2020 and 2021 period, this transportation service was reduced to only provide transport for elderly to and from doctor appointments. Increasing funding to pre-pandemic levels would support traffic safety related to older drivers and pedestrians.

New Mexico has some of the toughest and diverse traffic safety laws and policies in place. The stakeholders have implemented enforcement and outreach activities and campaigns to encourage safe behavior and reduce the number of traffic crashes, fatalities, and injuries in the region. These include:

- ENDWI (see figure 10)¹⁷
- JUSTDRIVE¹⁸
- SLODWN/BKLUP¹⁹
- ZEROPROOF²⁰

Information (laws, penalties, statistics) and resources (videos, new stories) for each of these programs are available on the NMDOT's website.



Figure 10. Graphic. NMDOT ENDWI campaign (Source: NMDOT, 2022).

Based on population, fatality, and crash data, the NMDOT's Traffic Safety Division has provided behavior grants to support safety programs and initiatives in the Santa Fe region. This includes grants to the three law enforcement agencies (Santa Fe County Sheriff's Office, City of Santa Fe Police Department and Tesuque Pueblo Police Department) within the region. The City of Santa Fe Police Department uses a data driven approach to direct their efforts. They develop real time enforcement areas using data from their Computer Aided Dispatch (CAD) system and crash reports.

¹⁷ New Mexico DOT, Traffic Safety Division, ENDWI, <https://www.endwi.com/>

¹⁸ New Mexico DOT, Traffic Safety Division, JUSTDRIVE, <https://www.dntxtjustdrive.com/>

¹⁹ New Mexico DOT, Traffic Safety Division, SLODWN/BKLUP, <https://www.slodwnbklup.com/>

²⁰ New Mexico DOT, Traffic Safety Division, ZEROPROOF, <http://zeroproofnm.com/>

Impaired Driving

Impaired driving laws in New Mexico are exceptionally strong. These include mandated ignition interlock installed on every vehicle driven by a convicted first or subsequent offender, license revocation, high Blood Alcohol Content (BAC) sanctions, mandatory jail time, and mandatory screening and treatment. In 2021, New Mexico passed legislation legalizing recreational use of cannabis by persons aged 21 years or older, which may create new safety challenges for the region.

NMDOT Traffic Safety Division utilizes evidenced-based, data-driven enforcement and high-visibility media and public awareness activities to support its Driving While Intoxicated (DWI) efforts and its ENDWI campaign.²¹

Law Enforcement Liaisons (LEL):

NMDOT has three full time law enforcement liaisons (LEL) responsible for coordinating ENDWI activities with State, City, County, and Tribal law enforcement agencies. The Santa Fe region is part of the eastern region assigned to one LEL²¹.

DWI Enforcement:

The City of Santa Fe Police Department and the County Sheriff's Office perform DWI enforcement and utilize local DWI grants. The County had the fourth highest number of DWI arrests statewide in 2019 and the City of Santa Fe had the second highest number of DWI arrests in the State. The City of Santa Fe Police Department prepares a monthly report by patrol area and shares with each patrol unit so that they can respond to areas of concern. The City of Santa Fe Police Department also includes an education and outreach component in their efforts. Their activities related to DWI checkpoints place an emphasis on education. In addition, representatives of the NMDOT Division of Traffic Safety will often come out to the checkpoints and distribute education pamphlets. The City of Santa Fe Police Department also uses social media platforms to educate the public.

DWI Drug Courts:

The region (Santa Fe County and the City of Santa Fe) has DWI drug courts which focus on alcohol and substance abuse as one way to address impaired driving. These courts serve as an alternative to imprisonment when convicted of impaired driving. This approach has been found to reduce relapse by as much as 50 to 60 percent and is less expensive than incarceration of the offender. The NMDOT's Traffic Safety Division directs NHTSA funding to provide training and travel for the Santa Fe County DWI/Drug Court team.

DWI Compliance Monitoring/Tracking:

The NMDOT's Traffic Safety Division also pays for one full-time employee dedicated to supervising and monitoring eligible DWI offenders in Santa Fe County's DWI Compliance Monitoring/Tracking Program who are subject to ignition interlock restrictions. This project is focused on providing enhanced supervision of high-risk first-time offenders. NMDOT also funds a contract with Mothers Against Drunk Driving (MADD) to gather information on impaired driving court cases in the region.

The Santa Fe region benefits from these programs as well as NMDOT's statewide DWI program activities.

²¹ NMDOT Traffic Safety Division, <https://www.endwi.com/>

Occupant Protection

New Mexico has a primary seat belt law and strong child safety seat laws. Observed seat belt use in New Mexico remains above 90 percent. NMDOT's Traffic Safety Division uses its SLODWN/BKLUP²² campaign (see figure 11) for enforcement and outreach efforts to address speeding and seat belt use.

Santa Fe County Sheriff's Office, Santa Fe City Police Department and Tesuque Pueblo Police Department receive funds from NMDOT's Traffic Safety Division to support occupant protection activities. This includes participating in the 2022 Click It or Ticket National Enforcement Mobilization.

Child Safety Seats:

[Safer New Mexico Now](#)²³ collaborates and supports NMDOT and the local agencies, stakeholders, and the citizens of New Mexico as well as the Santa Fe region to improve traffic safety through a variety of services related to child passenger safety (CPS). These services include car seat fitting stations, clinics, training, and distribution of car seats.

Car seat fitting stations are currently operating in the region (City of Santa Fe) and offer appointments during regular hours of operation. These fitting stations serve at-risk populations which includes low-income families of all ethnic groups. The City participates in planned child restraint inspection events. Child safety seat clinics are used to supplement the permanent fitting station activities and are on a "first come, first serve" basis. Virtual car seat checks are also available on a regular basis ([Safer New Mexico Now Calendar](#))²⁴ and can be attended through an appointment made online. The virtual car seat checks provide parents and caregivers of the region the opportunity to receive one-on-one education and instruction from certified CPS technicians on the proper selection, installation, and use of their car seats. Safer New Mexico Now also provides CPS certification training to law enforcement officers, fire and EMS personnel, health care professionals and other safety advocates.

[New Mexico Child Safety Seat Distribution Program](#)²⁵ distributes child safety seats to low income families throughout the Santa Fe region and New Mexico.

Distracted Driving.

New Mexico prohibits all drivers from texting or typing on handheld mobile devices, including web site and navigation app use. Drivers may use a hands-free device to talk, except where prohibited by local ordinance. The New Mexico legislature added "Driver Inattention (includes cell phone/texting)" to the Uniform Crash Report as a contributing factor of crashes. This includes activities such as failing to stop or yield. This change allows for more accurate reporting and identification of distracted driving-related crashes. NMDOT's Traffic Safety Division's JUST DRIVE²⁶ (see Figure 12) campaign provides for enforcement and outreach to discourage distracted driving.

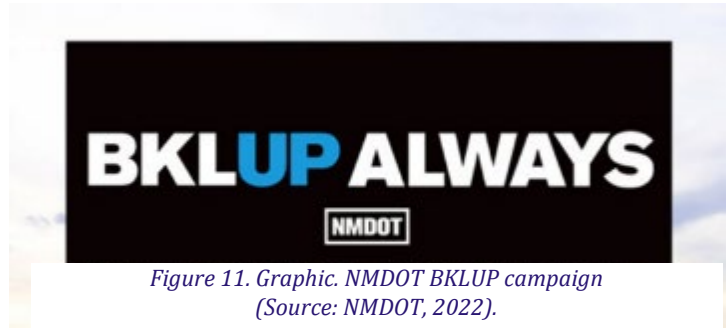


Figure 11. Graphic. NMDOT BKLUP campaign
(Source: NMDOT, 2022).

²² New Mexico DOT, Traffic Safety Division, SLODWN/BKLUP, <https://www.slodwnbklup.com/>

²³ Safer New Mexico Now, <https://www.safernm.org/>

²⁴ Safer New Mexico Now, Calendar of Events, <https://www.safernm.org/calendar/>

²⁵ Safer New Mexico Now, Child Safety Distribution Program, <https://www.safernm.org/car-seat-safety/new-mexico-child-safety-seat-distribution-program/>

²⁶ New Mexico DOT, JUSTDRIVE, <https://www.dntxtjustdrive.com/>

The City of Santa Fe Police Department participates in grants related to distracted driving and cell phone use. A challenge related to enforcement of distracted driving is that the officer must observe the use of a cell phone, and because most vehicles have tinted windows, it is difficult to identify this violation. Search warrants to verify that someone was using a cell phone are only issued when a crash results in a fatality.



Figure 12. Graphic. NMDOT's JUST DRIVE addresses distracted driving (Source: NMDOT, 2022).

Speeding

Addressing speeding in the region is accomplished through a variety of efforts. The City of Santa Fe Police Department receives speed complaints from the public which frequently are related to speeding in those neighborhoods that have vehicles pass through to other areas of the City. The City of Santa Fe Police Department installs a small electronic device with radar capabilities and collects and evaluates data (the number of vehicles and speed (average, low, and high)). These are not used for speed enforcement but for data collection only. The City of Santa Fe has installed radar speed feedback signs (see figure 13) in a few locations and the Police Department recently began using speed trailers to collect data and provide messages and feedback to motorists on their speed. The City of Santa Fe Police Department indicated that drag racing on the City of Santa Fe streets has become an issue, due in part, to less traffic on the road during the COVID-19 pandemic period. They took proactive measures to address this, directing significant resources and deploying police units to stop it.



Figure 13. Photograph. Radar speed feedback signs encourage speed limit compliance (Source: FHWA, 2022).

Other enforcement efforts by City of Santa Fe Police Department include participation in the *Back to School Blitz* and the *Spring/Fall Blitz* campaigns sponsored by the NMDOT's Traffic Safety Division. These include sobriety check points and saturation patrols, speed enforcement, and compliance checks of New Mexico safety belt laws. Law enforcement continues to implement activities related to Safe Routes to School (SRTS).

The SFMPO law enforcement stakeholders participate in New Mexico's 100 Days and Nights of Summer Campaign²⁷ which is a NMDOT Traffic Safety Division enforcement program that focuses on DWI and distracted driving. The NMDOT encourages local law enforcement agencies to conduct checkpoints and saturation patrols during a 100-day period from June through September.

The New Mexico Motorcycle Safety Program provides motorcycle safety training courses in the Santa Fe region. Several motorcycle dealerships sponsor a "Safety Days" during the summer months of 2022 to provide a fun opportunity for new and experienced motorcyclists to learn and refresh their riding skills and listen to motorcycle experts.

²⁷ Safer New Mexico Now, 100 Days and Nights of Summer Campaign, <https://www.safernm.org/resources/enhanced-law-enforcement-campaigns-reports/>

The City of Santa Fe Police Department also tracks crashes to identify high crash areas. Monthly reports are sent to the Chief of Police's office and leadership of the government body. This is a good resource that can be used for LRSP implementation, especially by a Santa Fe Metropolitan Safety Committee.

Data Analysis

The data analysis which forms the basis of this LRSP used statewide crash data from the NMDOT's Safety Analysis Management System (SAMS) for the five-year period of 2015 to 2019. The analysis focused on the 1,664 miles of local streets and roads in the region. The severity of a crash is based on the assessment of the responding law enforcement officer using the KABCO scale as follows:

- Fatality (K).
- Suspected serious injury (A).
- Suspected minor injury (B).
- Possible injury (C).
- Property damage only (O).

Analysis results for the five-year period indicate that a total of 8,927 reported crashes occurred on the local streets and roads within the limits of the Santa Fe metropolitan region planning area. Of these crashes, 2,852 involved a fatality or injury. A total of 109 KA crashes resulted in 118 fatalities and serious injuries. Santa Fe County is one of the top six counties in New Mexico for fatal and serious injury crashes. The City of Santa Fe is one of the cities with the highest number of total crashes.

Safety data analysis identifies trends and proportions in the types of crashes, risk factors, and locations with higher proportion of fatal and serious injury crashes. The objective of the analysis is to identify safety priorities, emphasis areas, strategies, and action items that can be implemented by the various stakeholders. The analyses used crash trees which are diagrams that illustrates the breakdown of crash data into more detailed categories that help identify factors for the systemic application of safety countermeasures. Crash maps assisted with identifying High Injury Network (HIN) corridors with higher concentration of fatal and injury crashes. Mapping of the equity areas allowed for a comparison with these HIN corridors.

Emphasis Area Analysis

The data analysis considered the over-representation of major crash types and their relationship between each other to guide the selection of the LRSP emphasis areas. The emphasis areas identified in the 2021 New Mexico SHSP serve as a starting point for the analysis. This ensures that the LRSP aligns with the SHSP while also addressing the safety needs on the local streets and roads within the Santa Fe metropolitan region. The New Mexico SHSP identifies intersection-related crashes as an emphasis areas based on statewide analysis indicating that these crashes represent 40 percent of the fatalities and 61 percent of the serious injuries. NMDOT's roadway inventory database does not have specific codes or identifiers for intersections, making it difficult to perform network level analysis. NMDOT is working to address this challenge.

While the analysis period for this LRSP is 2015 to 2019, the 2021 New Mexico SHSP uses the period of 2013 to 2019. The two outside years of crash data do not significantly impact the comparison of the statewide fatality and serious injury numbers with the values for the Santa Fe metropolitan region. Local intersection data was not available for analysis for the plan. However, based on the statewide numbers, past analysis efforts by the SFMPO, the urban environment of the Santa Fe metropolitan region, the number of intersections, and the interaction between different road users, the SFMPO decided intersections are a significant focus area.

Table 2 shows distribution of crashes and injuries that have occurred on the local streets and roads within the limits of the Santa Fe metropolitan region planning area considering the emphasis areas from the 2021 New Mexico SHSP, except for intersections. These reflect major crash types or attributes that are likely to be a cause of fatal and serious injury crashes. Those emphasis areas that exceed the statewide average are bolded.

Table 2. SFMPO local streets and roads traffic-related crashes and injuries 2015-2019 (Source: NMDOT, 2021).²⁸

Emphasis Area/ Attribute	SFMPO LOCAL STREETS AND ROADS (2015-2019)						STATEWIDE (2013-2019)			
	CRASHES				INJURIES		INJURIES			
	Percent of KA (109)	Number of KA (109)	Percent of KABC (2,852)	Number of KABC (2,852)	Percent of All (8,927)	Number of All (8,927)	Percent of KA Injuries (118)	Number of KA Injuries (118)	Percent of KA Injuries, NMSHSP (10,911)	Number of KA Injuries, NMSHSP (10,911)
Distracted Driving	32%	35	34.0%	970	31%	2,736	32%	38	47%	5,071
Roadway Departure	21%	23	11%	316	13%	1,187	23%	27	42%	4,598
Impaired Driving	28%	31	7%	212	6%	508	30%	35	25%	2,719
Restraint Not Used	23%	25	8%	234	5%	408	22%	26	19%	2,019
Motorcycles	17%	18	5%	129	2%	177	16%	19	13%	1,437
Older Drivers (65 years of age and older)	25%	27	25%	702	25%	2,187	24%	28	17%	1,889
Younger Drivers (15-20 years)	17%	18	16%	462	16%	1,462	19%	22	17%	1,854
Speeding	19%	21	9%	257	8%	737	20%	23	35%	3,831
Pedestrians	18%	20	5%	133	2%	140	17%	20	11%	1,211
Bicyclists	7%	8	4%	114	1%	124	7%	8	2%	211
Inclement Weather	5%	5	6%	165	7%	585	4%	5	9%	1,013
Heavy Vehicles	4%	4	2%	55	3%	280	3%	4	9%	990
Sleepy/Fatigued	1%	1	1%	15	1%	33	1%	1	3%	354
Wildlife Animal	1%	1	0.1%	4	1%	54	1%	1	1%	74

Each of the potential emphasis categories represents at least 15 percent of the total fatalities and serious injuries on the local streets and roads in the region: distracted driving, roadway departure, impaired driving, restraint not used, motorcycles, older drivers (65 years of age and older), younger drivers (15-20 years), speeding, and pedestrians. All of these except for roadway departure and speeding exceed the statewide average. Crashes involving distracted driving and impaired driving represent the highest number of fatalities and serious injuries in the Santa Fe region. Based on population size and crash data analysis, the NMDOT’s Traffic Safety Division identifies Santa Fe County as high risk for crashes involving impaired

²⁸ NMDOT shared crash data with the project team. These data were used to make this table.

driving, unbelted vehicle occupants, distracted driving, and speeding. Bicyclists only represent 7 percent of the total fatalities and serious injuries on the local streets and roads in the region. However, these exceed the statewide average and the SFMPO anticipates a substantive increase in biking in the region.

The safety stakeholders selected the following nine LRSP emphasis areas based on the data presented in table 2 and local expertise.

- Roadway Departure.
- Distracted Driving.
- Impaired Driving.
- Speeding.
- Intersections.
- Older Drivers.
- Younger Drivers.
- Pedestrians.
- Bicyclists.

The emphasis area matrix shown in table 3 illustrates the relationship between the selected LRSP emphasis areas, except for intersections. This relationship allows stakeholders to leverage resources and address multiple emphasis areas simultaneously. The matrix is read by selecting the primary emphasis area in the left column and then by reading across the row to determine that portion of fatal and serious injuries associated with the other emphasis areas. For example, looking in the left column at roadway departure emphasis area and across to impaired driving indicates that 56 percent of the roadway departure fatalities and serious injuries involve impaired driving.

Table 3. Santa Fe Metropolitan Region LRSP emphasis area matrix for local streets and roads, number of KA injuries 2015 to 2019 (Source: NMDOT, 2021).²⁹

KA Injuries (118) (2015-2019)										
Emphasis Area	Distracted Driving	Roadway Departure	Impaired Driving	Older Driver	Younger Driver	Pedestrian	Bicyclist	Speeding	Total KA	% of Total KA
Distracted Driving	—	28%	28%	24%	10%	7%	3%	24%	38	32%
Roadway Departure	32%	—	56%	24%	20%	0%	0%	36%	27	23%
Impaired Driving	29%	50%	—	18%	29%	14%	0%	39%	35	30%
Older Driver	27%	23%	19%	—	4%	4%	8%	8%	28	24%
Younger Driver	21%	36%	57%	7%	—	0%	7%	50%	22	19%
Pedestrian	25%	0%	50%	13%	0%	—	0%	13%	20	17%
Bicyclist	17%	0%	0%	33%	17%	0%	—	0%	8	7%

²⁹ NMDOT shared crash data with the project team. These data were used to make this table.

Speeding	39%	50%	61%	11%	39%	6%	0%	—	23	20%
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Similar to statewide trends, the LRSP emphasis areas for distracted driving, roadway departure, impaired driving, and speeding are closely related. The implementation of recommended strategies and action items will consider this relationship.

When looking at each of the emphasis areas individually, more older drivers are distracted than younger drivers. For younger drivers, impaired driving and speeding as well as roadway departure-related crashes are the major contributing factors of the fatalities and serious injuries.

Santa Fe County is one of 33 counties in New Mexico and is one of 6 counties with the highest number of alcohol-involved fatalities and serious injuries. It also has one of the highest crash rates. Most of these crashes in rural areas occurred on non-interstate streets and roads in dark-not lighted conditions. The urban area alcohol-involved crashes occurred mostly in dark lighted or not-lighted conditions. Most alcohol-involved crashes occurred on the weekend (Friday through Sunday), primarily during the time periods of 6 pm to 3 am.

Pedestrians and bicyclists are the most vulnerable users of the system and are at greatest risk of death or serious injury when involved in a crash. Higher speeds increase the severity of injuries should a crash occur. The 2021 [NMDOT Pedestrian Safety Action Plan \(PSAP\)](#)³⁰ identifies the top three contributing factors for pedestrian-involved crashes as pedestrian error (25 percent), alcohol/drug involvement (24 percent), and driver inattention (18 percent). This aligns with the data analysis results for the region except that alcohol was a factor in over 50 percent of the pedestrian fatalities and serious injuries and 25 percent involved distracted driving. For purposes of coding crashes, New Mexico classifies pedestrian error as the pedestrian failing to yield to right of way, crossing outside of a crosswalk, and other actions.

The number of bicyclists involved fatalities and serious injuries in the Santa Fe metropolitan region is much smaller (8) than those of the other emphasis areas. However, with such a robust bicycle network, and a substantial increase in bicycle use anticipated, ensuring that these users can operate safely on the network is essential. An analysis of bicycle crashes performed by the City of Santa Fe Police Department for the period of 2015 to 2018 indicated that many of the crashes documented occurred on higher speed and higher volume streets and roads, primarily arterials, and at intersections. The main contributing factor was a failure to yield by both motorists and bicyclists with inattention as the second leading cause.

Although occupant protection and motorcycles are not included as LRSP emphasis areas, appropriate strategies and action items will be implemented with other LRSP emphasis areas (e.g., roadway departure, impaired driving) based on their relationship. In 2019, five counties including Santa Fe County accounted for over 45 percent of the New Mexico's unbelted crash fatalities and serious injuries. Santa Fe County represented 19 percent of the total for these five counties. Most unrestrained occupant fatalities and serious injuries occurred on rural non-interstate roads and on urban streets and roads. Drivers on local streets and roads had the lowest observed seatbelt use percentages, regardless of type of vehicle driven. The lowest observed belt use was by pickup truck occupants on local streets and roads.

Figure 14 maps the locations of fatal and serious injury crashes involving vehicles occupants not using the proper occupant restraints. Several of these occur on Cerrillos Road, Airport Road, and Rodeo Road.

³⁰ 2021 New Mexico Department of Transportation, 2021 Pedestrian Safety Action Plan (PSAP), walksafenewmexico.com

Integration of activities that encourage proper use of occupant protection with other LRSP emphasis enforcement and outreach activities will maximize the safety benefits of these efforts.

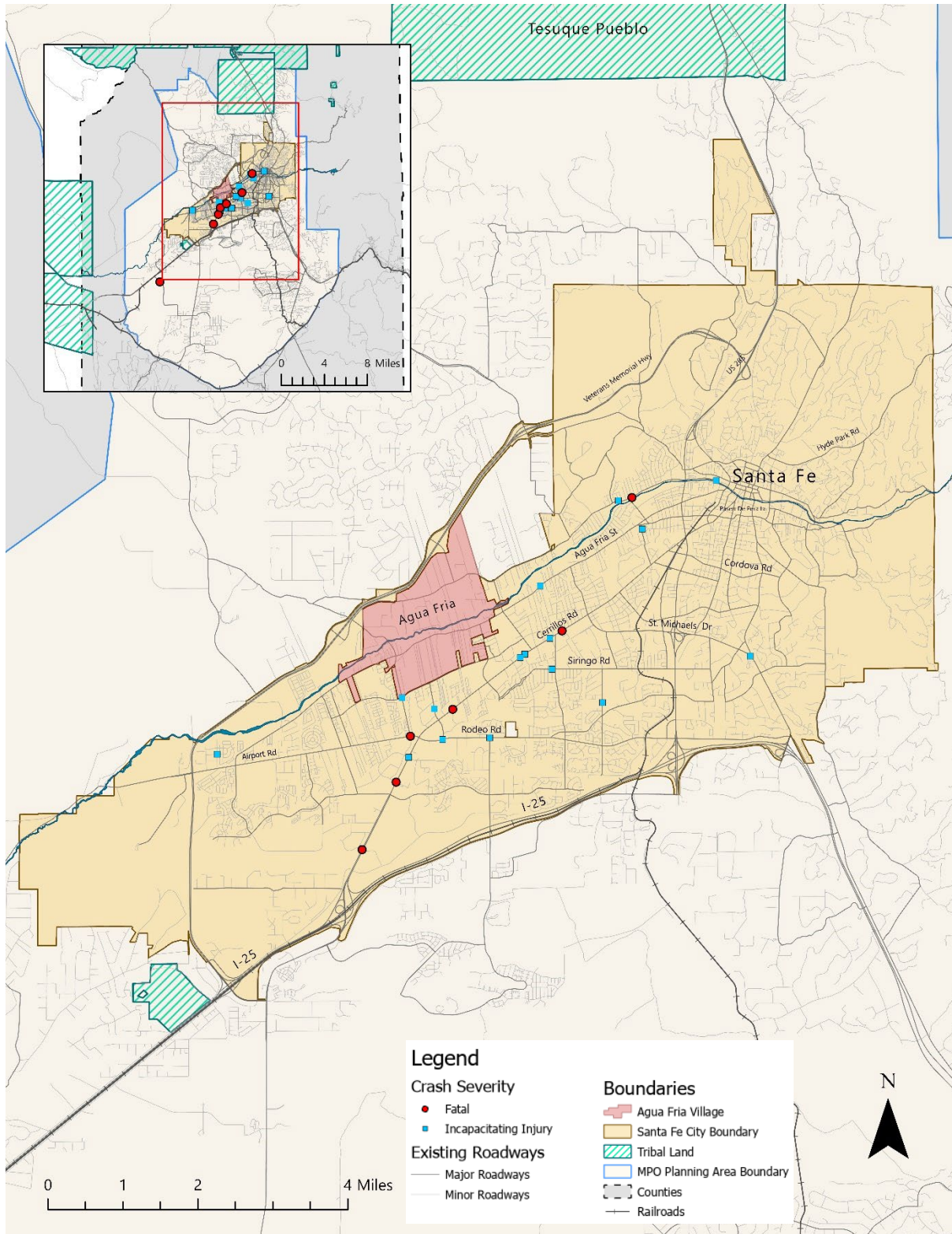


Figure 14. Graphic. Occupant restraint not used fatal and serious injury crashes, 2015-2019 (Source: NMDOT, 2021).

Figure 15 maps the locations of fatal and serious injury crashes involving motorcycles. Cerrillos Road has the largest number of these crashes. Similar to occupant protection, safety activities should consider motorcycle safety.

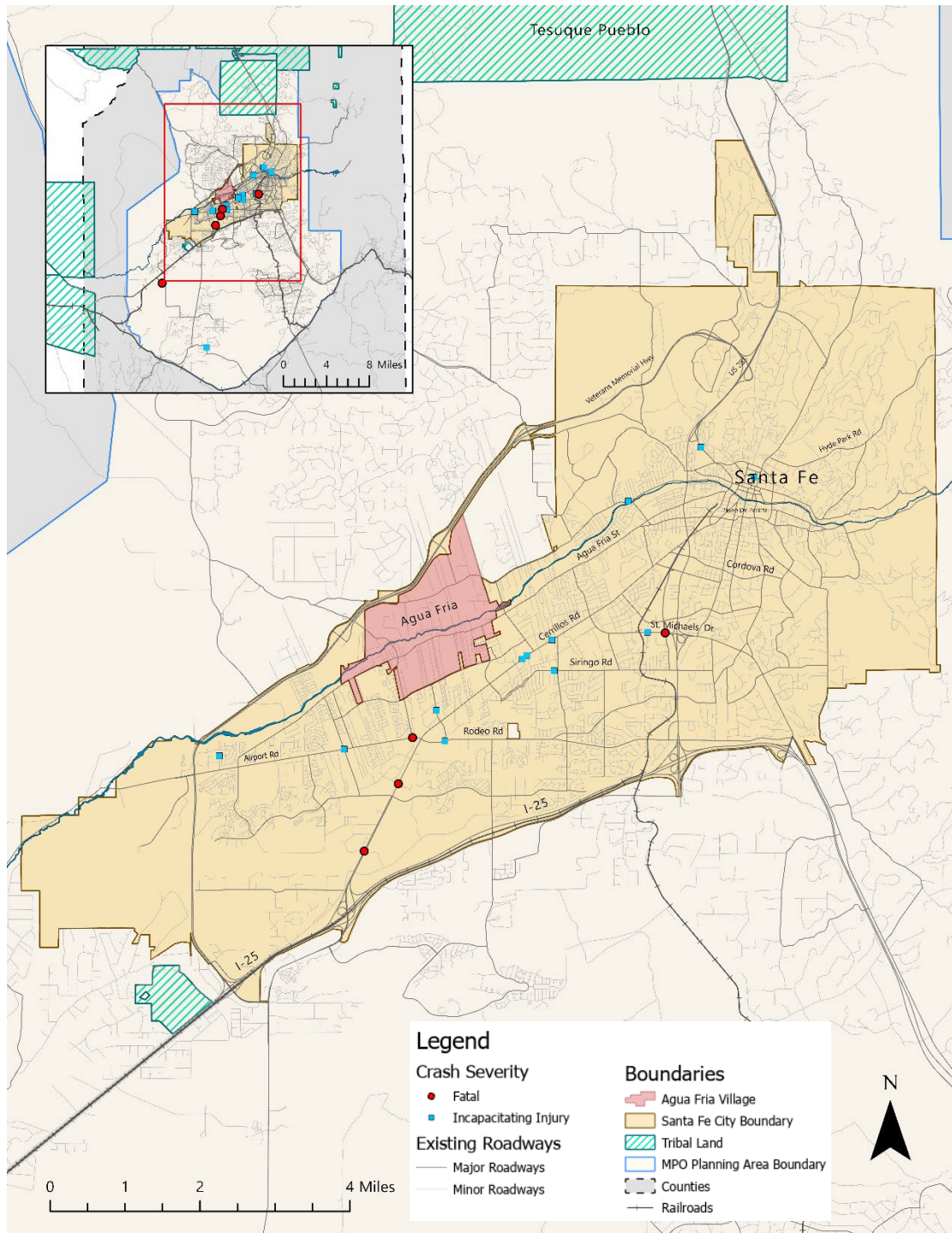


Figure 15. Graphic. Motorcyclists fatal and serious injury crashes, 2015-2019 (Source: NMDOT, 2021).

High Injury Network (HIN)

The High Injury Network (HIN) are those streets and roads that have a higher concentration of fatal and serious injury crashes than other streets and roads in the MPO region. An analysis of the data identified 62 streets and roads segments representing 114 miles of local streets and roads in the Santa Fe region as HIN (see figure 16). This accounts for almost seven percent of 1,664 miles of local streets and roads in the region, 83 percent (91) of the fatal and serious injury (KA) crashes, and 78 percent (567) of the KAB crashes. Table 5 in the Appendix provides a list of those roadways identified as HIN, the segment lengths, and the number of crashes by severity.

An evaluation of the 114 miles of HIN resulted in a subset of 16 priority HIN corridors shown in Table 4. These priority HIN corridors consist of approximately 44 miles (39 percent) of the HIN, or nearly 3 percent of the 1,664 miles of local streets and roads in the region. Seventy percent of the fatal and serious injury (KA) crashes and 60 percent of the KAB crashes occurred on these priority HIN corridors. Table 4 includes the limits, length, and percentage of KA and KAB crashes for each priority HIN corridor segment.

The priority HIN corridors are primarily Urban Principal and Minor Arterials. Statewide, for New Mexico, urban principal arterials have the highest number of fatalities and serious injuries, with urban minor arterials having the second highest number of serious injuries. Cerrillos Road has the highest concentration of fatal and serious injury (KA) crashes (27 percent) and KAB crashes (21 percent). Airport Road has the second highest at 12 percent of KA crashes and 10 percent of the KAB crashes. Saint Michaels Drive and West Alameda Street have larger percentages of KA crashes than the remaining priority HIN corridors. The top 44 miles of the HIN should be priority for of safety improvements with Cerrillos Road, Airport Road, Saint Michaels Drive and West Alameda Street having the highest priority. This is further supported based on past analysis performed by the SFMPO for the MTP of crashes involving intersections, pedestrians, and bicyclists.

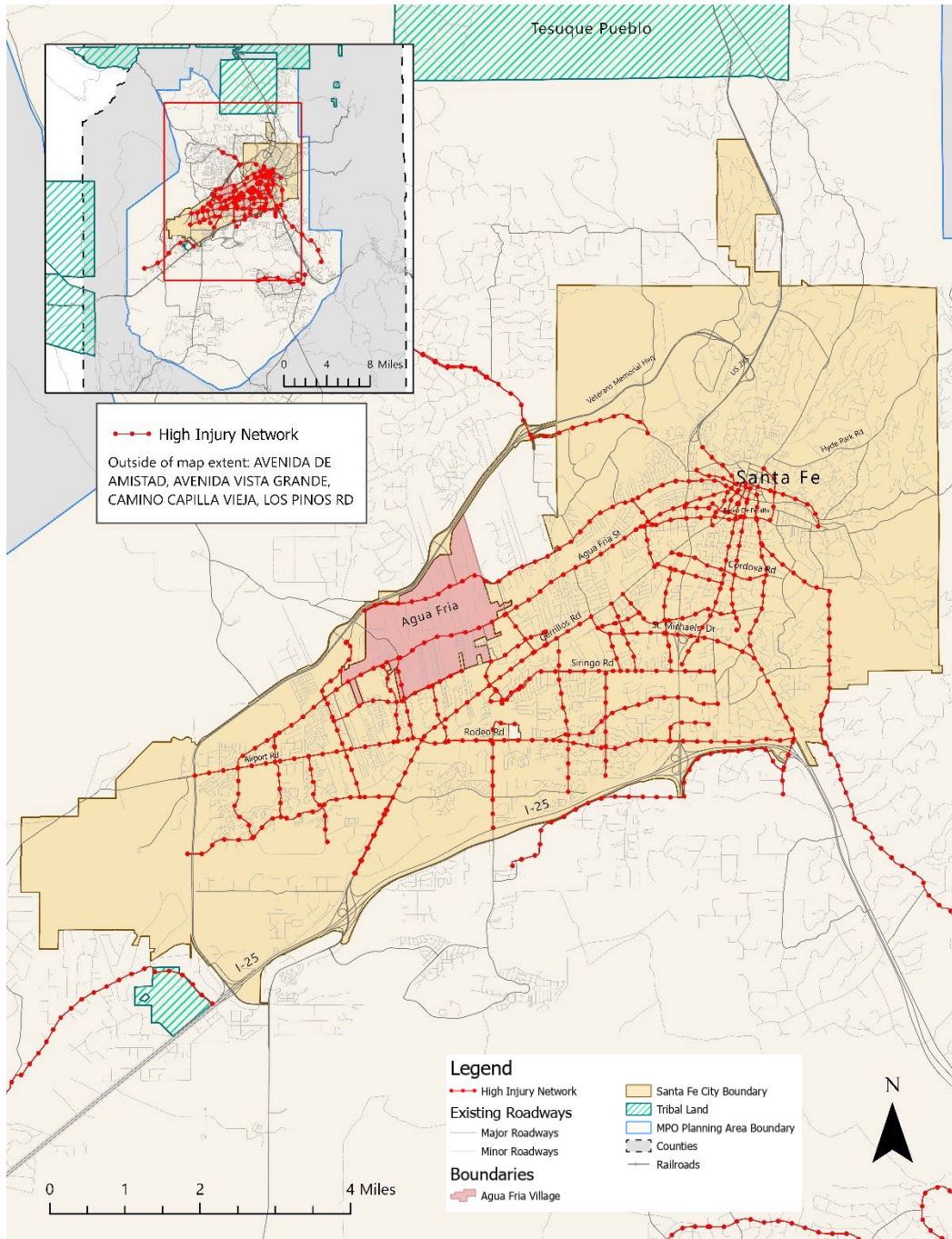


Figure 16. Graphic. Santa Fe Metropolitan region High Injury Network (HIN) (Source: NMDOT, 2021).

Table 4. Priority High Injury Network (HIN) corridors (Source: NMDOT, 2022).³¹

HIN Corridor	Start	End	Miles	K	A	B	% of Locality KA Crashes	% of Locality KAB Crashes
Agua Fria Rd	Airport Rd	Siler Rd	4.01	0	2	24	2%	4%
Agua Fria St	Siler Rd	Alameda St	3.62	0	2	23	2%	4%
Airport Rd	Veterans Memorial Hwy	Cerrillos Rd	3.06	3	10	62	12%	10%
Camino Carlos Rey	Calle De Oriente Norte	Governor Miles Rd	1.88	2	2	10	4%	2%
Cerrillos Rd*	Beckner Rd	St. Michaels Dr	5.92	10	20	121	28%	21%
Old Pecos Trail (N)	St. Michaels Dr	Old Santa Fe Trail	1.60	0	2	7	2%	1%
Old Pecos Trail (S)	St. Michaels Dr	W Old Agua Fria Rd	1.97	0	3	14	3%	2 %
Paseo De Peralta	S. St. Francis Dr	Washington Ave. -Bishops Lodge Rd	1.92	1	3	14	4%	3%
Richards Ave	Historic Route 66	Rufina St	2.33	1	2	22	3%	4%
Rodeo Rd	Cerrillos Rd	Old Pecos Trail	4.35	1	4	38	5%	6%
Saint Michaels Dr	Cerrillos Rd	Old Pecos Trail	2.34	2	6	48	7%	8%
Siler Rd	Agua Fria St	Cerrillos Rd	0.63	1	3	17	4%	3%
South Meadows Rd	Alameda Frontage Rd	Jaguar Rd	2.41	0	3	12	3%	2%
W Alameda St	Via Abaio	Don Gaspar Ave	5.25	1	6	20	6%	4%
Zafarano Dr	Rufina St	Rodeo Rd	0.79	0	3	18	3%	3%
W. Zia Rd	Rodeo Rd	Botulph Rd	2.38	0	2	13	2%	2%

*Cerrillos Road from St. Michaels Drive to St. Francis Drive is not included as it is NMDOT's jurisdiction.

For intersections, previous analysis by SFMPO determined that between 2010 and 2019, 69 percent of all crashes on the state and local roads and streets in the Santa Fe metropolitan planning area occurred at or within 100 feet of an intersection. These crashes occurred at 37 percent of the intersections. During this same period, 150 fatal crashes occurred on the state and local roads and streets. Cerrillos Road, Airport Road, and Saint Michaels Drive are principal arterials and are the primary corridors for intersection-related fatal crashes. These corridors are multi-lane facilities with heavier traffic volumes and higher operating speeds.

The 2021 New Mexico Pedestrian Safety Action Plan also identifies Cerrillos Road, Airport Road, and Saint Michaels Drive as pedestrian-involved high crash corridors. Most of these crashes occurred at intersections. The statewide analysis results using data from 2012 to 2018 indicate that most of the pedestrian-involved crashes occurred on four-lane roadways with a center median or turn lane and a posted speed limit of 35 mph to 45 mph. Many of these pedestrian-involved high crash corridors have longer distances between the

³¹ NMDOT shared crash data. The analysis of the data produced the information in the table.

signalized intersections and are surrounded mostly by low- to mid-density commercial development. These factors may encourage pedestrians to cross mid-block and contribute to an increased risk of pedestrian crashes. Similarly, crashes involving bicyclists occurred primarily on principal arterials such as Cerrillos Road, Airport Road, and Saint Michaels Drive.

A safety field review of the priority HIN corridors including Old Santa Fe Trail provided insight into risk factors and potential safety strategies that could be implemented systemically to address safety of all users and the various facilities. During the field review, vehicles were observed traveling faster than the posted speed limit. Use of radar speed indicator signs on Cerrillos Road, Airport Road, and Saint Michaels Drive, as a minimum, will increase motorist awareness and compliance of posted speed limits, especially when combined with enforcement.

The intersection of Saint Michaels and South Pacheco Street shown in figure 17 is like many along the principal arterials in the region. The intersection is very wide with multiple lanes, requiring pedestrians to walk a longer distance to cross. High visibility crosswalks and stop bars are not present and reflective backplates are not on the signal heads. This was similar to other locations along the priority HIN corridors. These low-cost safety countermeasures increase the visibility of the intersection as well as the driver expectation for pedestrians and are effective at reducing fatalities and serious injuries.



Figure 17. Photograph. Multi-lane, urban signalized intersection of St. Michaels Drive and South Pacheco Street (Source: FHWA, 2022).

The safety field review of the HIN also noted the need for wider or separated pedestrian and bicycle facilities in some areas, improved connectivity of these facilities, and enhanced visibility of the existing traffic control devices and crosswalks at intersections across the network. Implementing strategies associated with these three key findings addresses crashes related to intersections, pedestrians, bicyclists, older drivers, and younger drivers.

Improved delineation of the bicycle lanes as well as separation of bicycle lanes from the vehicle travel lane, especially on higher speed principal arterials, have the potential to improve the safety of bicyclists. Improved connectivity of bicycle accommodations across the network also provides improved safety, especially as growth occurs in the region.

Consistent application of chevrons and advance warning signs on rural and urban streets and roads can help reduce roadway departure crashes. Old Santa Fe Trail (see figure 18) is a two-lane roadway that has rural characteristic with several curves along the corridor. Some curves have chevrons and advanced warning signs while other curves along the corridor have similar characteristics but do not have any signing.

The safety field review also identified an opportunity to enhance uncontrolled pedestrian crossings using a pedestrian actuated Rectangular Rapid Flashing Beacon (RRFB). The RRFB enhances pedestrian conspicuity and increases driver awareness of these crossing locations.



Figure 18. Photograph. Old Santa Fe Trail is a two-lane roadway that has rural design features and several curves along the corridor. Chevrons and advanced curve warning signs are not located on all curves with similar characteristics (Source: FHWA, 2022).

Equity Analysis

The Santa Fe metropolitan region is comprised of a racial/ethnic and economically diverse populations. It is essential to consider these various populations and communities during the planning process to address potential impacts and facilitate the equitable distribution of safety improvement in the region. During the development of the MTP, the SFMPO studied the population, household, and demographic data and produced a series of maps to graphically present the composition of the region. Focusing on equity in the LRSP development process improves the ability to respond to the safety needs of the various communities. Superimposing the HIN on the maps for the census block groups showing minority populations, low-income households, and zero-vehicle households allows for comparison of these concentrated areas. Many of these areas overlap with some streets and roads identified as HIN. Addressing safety on these corridors can consider the specific needs of typical underserved populations and communities.

Racial or Ethnic Minorities

Figure 19 shows the areas within the region that have the highest concentration of racial and ethnic minorities. These occur on the western part of the City of Santa Fe and around the Santa Fe Municipal Airport. Over 75 percent of residents in these areas are racial or ethnic minorities. The southwest part of the region and near the Pueblo of Tesuque also have higher concentrations of communities of color.

Low Income Households

Figure 20 shows the areas of low-income households in the region. These closely overlap with the areas that have higher concentrations of minorities.

Zero-Vehicle Households

Households may not have vehicles due to a variety of reasons including income, personal preference, or disabilities. These zero-vehicle households, as shown in figure 21, are concentrated in the highly urbanized area of the City and the southwest portion of the City.

Older and Younger Populations

Those citizens 65 years of age and older represent over 20 percent of the population. These individuals primarily live in the northern part of the region and in the historic part of the City of Santa. The younger population lives western part of the urban center, primarily due to lower housing costs.

Disabled Population

Approximately 19,000 people, or 13 percent of the total population, in the Santa Fe region have a disability related to hearing, vision, cognition, and ambulation. This disabled population have the highest concentration in the southern part of the region and the south and east portions of the center of the City of Santa Fe.

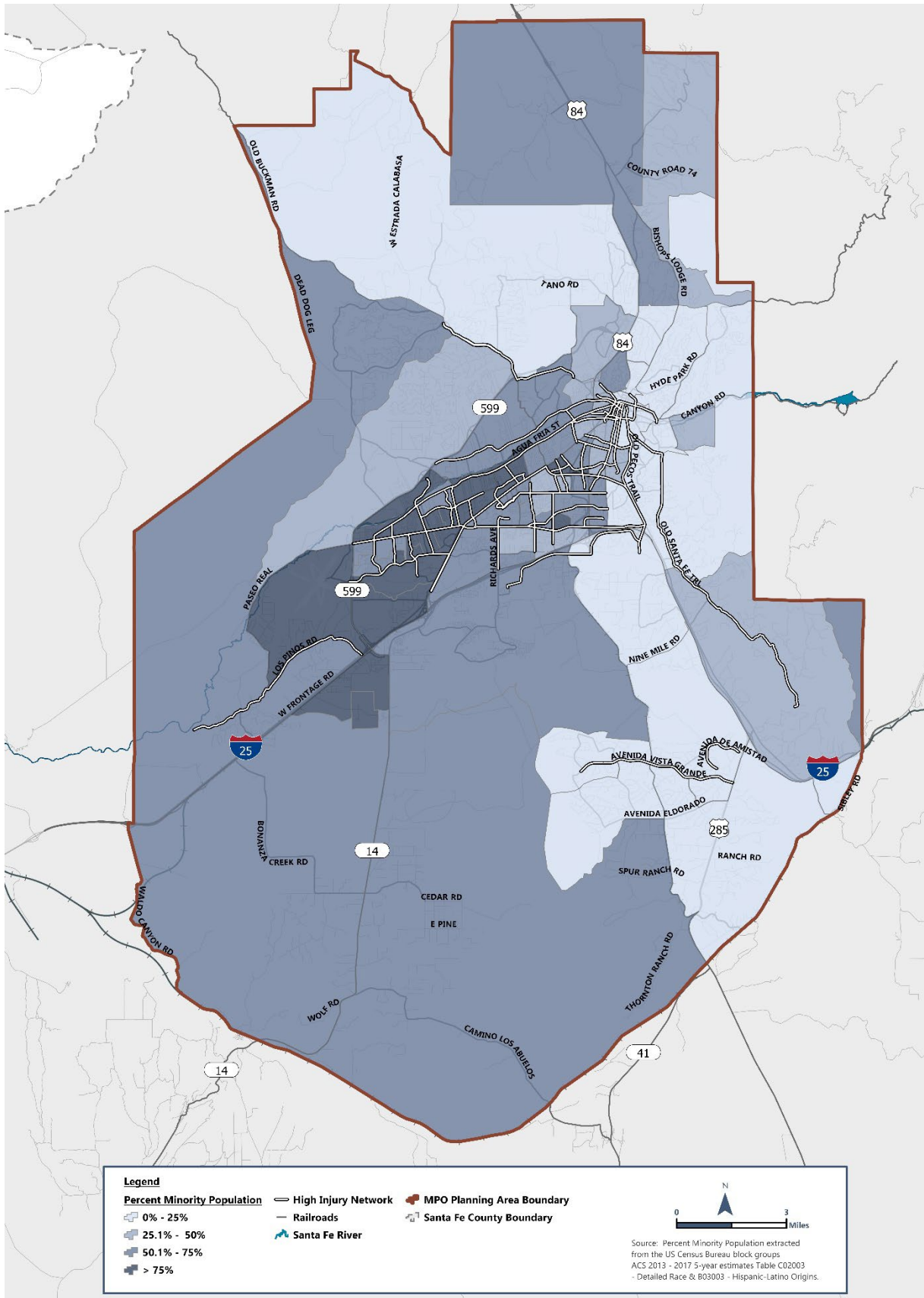


Figure 19. Graphic. Minority populations and corresponding SFMPO High Injury Network (Source: 2019 SFMPO MTP, NMDOT 2022).

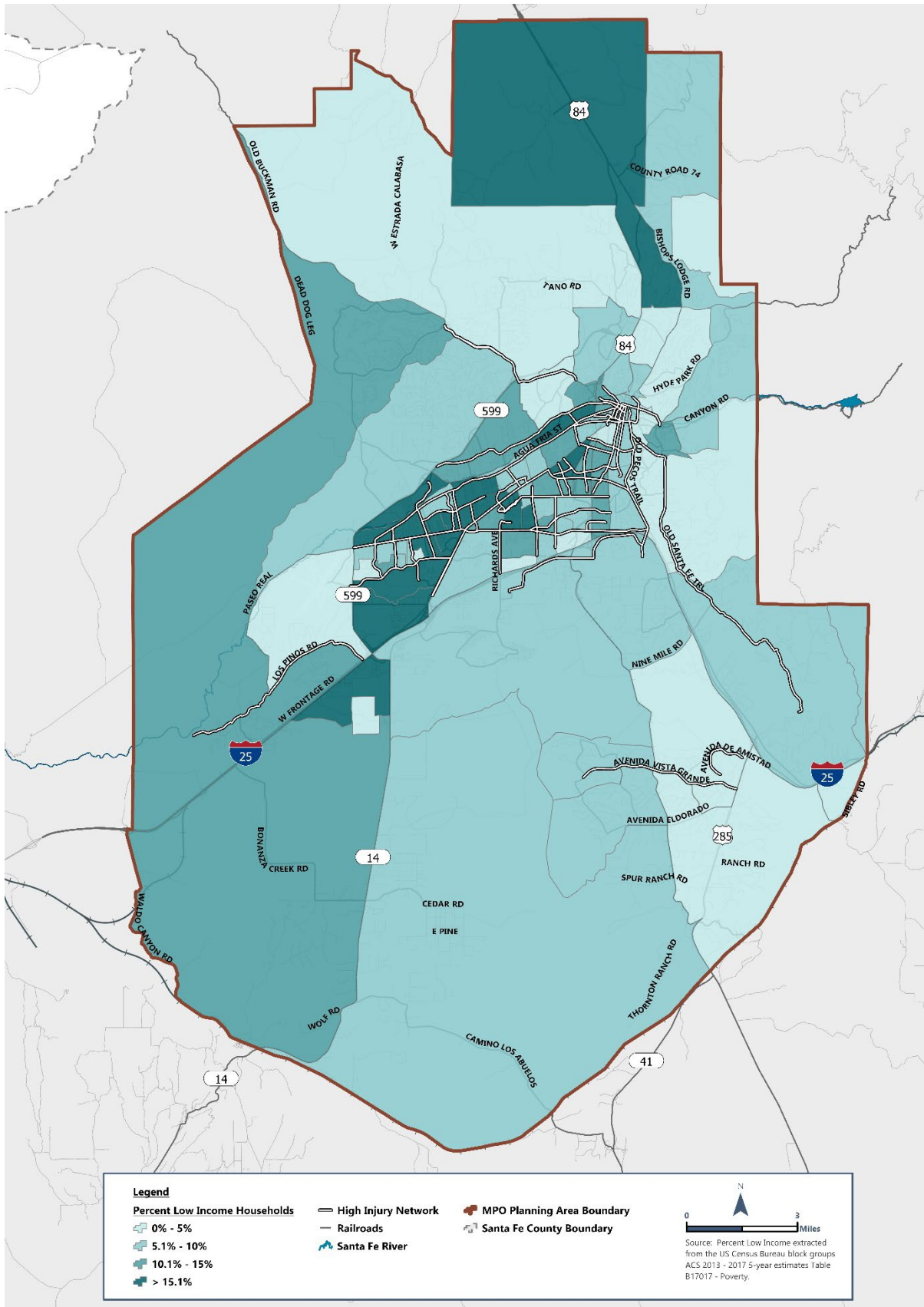


Figure 20. Graphic. Low-income households and corresponding SFMPO High Injury Network (Source: 2019 SFMPO MTP, NMDOT, 2021).

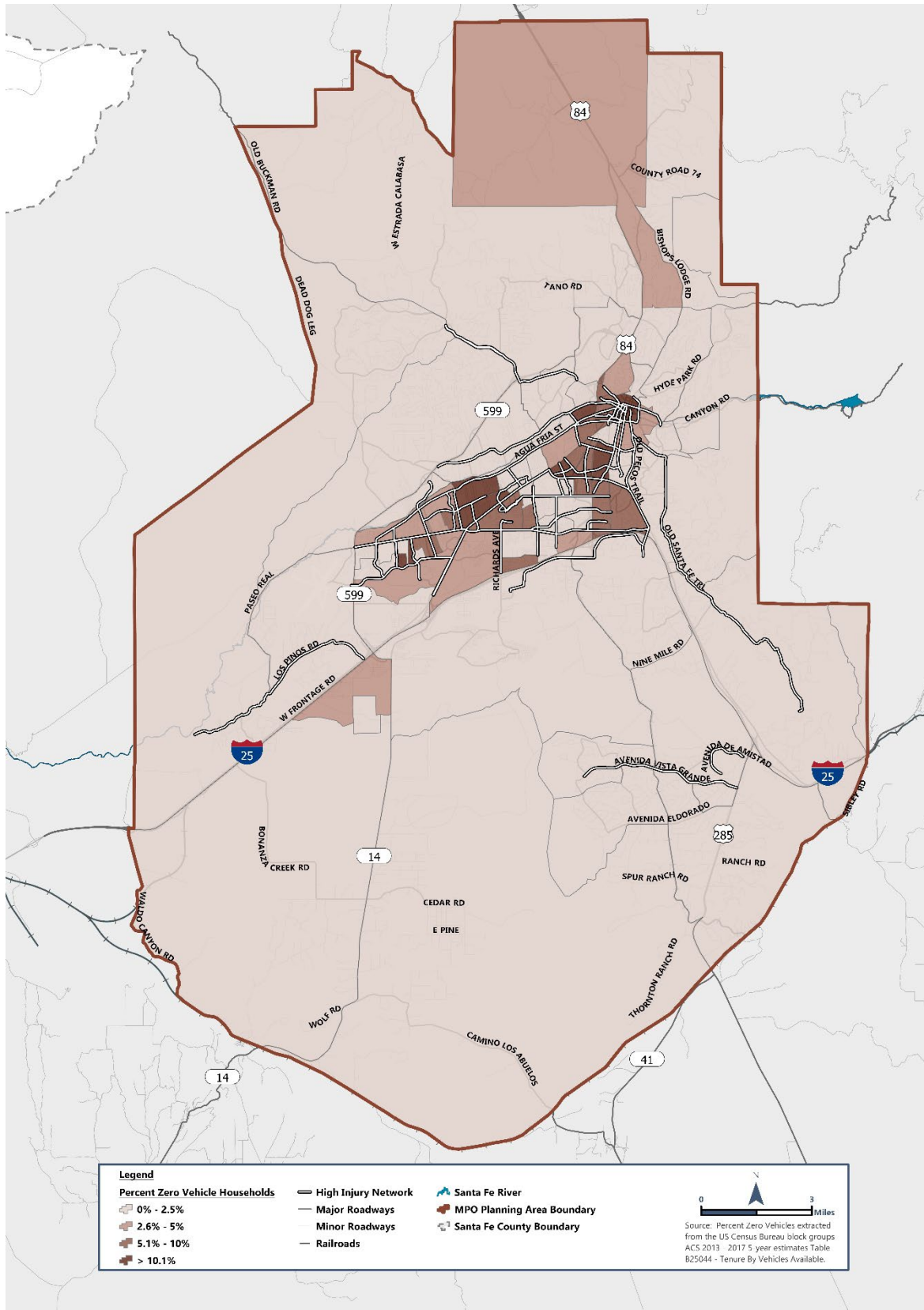


Figure 21. Graphic. Zero vehicle households and SFMPO High Injury Network (Source: SFMPO and NMDOT, 2022).

Systemic Safety Analysis

A system-based approach looks beyond crashes at a specific location, evaluates risk across an entire roadway system, identifies crash patterns and characteristics, and proactively treats locations with identified risk where crashes have not yet occurred. Systemic safety analysis evaluates safety data to identify key combinations of factors that contribute to predominant crash types and guides the selection and systemic implementation of low-cost proven safety countermeasures. This proactive technique complements traditional site-specific analysis and supports the Safe System Approach.

The systemic safety analysis used crash trees (see Figures 34 - 45 in the Appendices) for each LRSP emphasis areas to evaluate the local roadways within the limits of the Santa Fe metropolitan region. A safety field review supplemented the systemic and HIN analysis to identify risk factors that may contribute to the potential for fatal and serious injury crashes.

Roadway departure crashes occur after a vehicle crosses an edge line or a center line, or otherwise leaves the traveled way. These crashes include those involving hitting fixed objects as well as overturn crashes off the road or street. The roadway departure crash tree (see figure 35 in the Appendices) indicates that Over 80 percent of these crashes occurred on urban streets and roads, of which 35 percent involved curves. Nearly 60 percent of the fatal, serious injury, and possible injury roadway departure-related crashes involved curves on the rural local roads in the region. The largest number of roadway departure injury crashes involve driver impairment with nearly 70 percent occurring during dark conditions. A review of the crash tree for speeding (see figure 38) indicates that all of the fatal and serious injury crashes and a majority of those that resulted in a possible injury occurred on urban streets and roads in the region. Of these crashes, 40 percent involved curves. Chevrons, advanced signing, and higher visibility pavement markings are countermeasures that help keep motorists in their lane of travel, especially at night.

Distracted driving includes driver inattention, disregarding traffic signal, or passing a stop sign. The distracted driving crash tree (see figure 36 in the Appendices) indicates most of the fatal and injury crashes involving distracted driving occur on urban local streets and roads during daylight conditions across all age groups. Additionally, a notable number of older drivers over the age of 65 are involved in distracted driving crashes. The safety field review observed that some motorists drive faster than the posted speed limit. Speeding reduces the ability for motorists to react quickly to avoid a crash, especially when distracted.

The majority of fatal and injury crashes involving older drivers (65 years of age and older) (see figure 39 and figure 40 in the Appendices) occur during daylight conditions. Three primary factors for these crashes are following too closely, failure to yield the right of way, and driver inattention. Mapping of the older driver fatal and serious injury crashes (see figure 30) indicates a higher concentration of intersection-related crashes on corridors such as Cerrillos Road, Rodeo Drive, Agua Fria Street, and Alameda Street. Properly judging gaps in traffic for turning movements is a common contributing factor related to crashes involving older drivers. Assessing signal timing at intersections with high turning movements on these corridors would determine applicability to addressing older driver crashes. The primary factors related to younger drivers (aged 15-20 years) (see figure 41) are impaired driving, following too closely, failure to yield the right of way, and driver inattention in urban areas.

Understanding trends such as time of day and highest months for crashes can guide systemic application of strategies that target users or events. Figure 22 shows the fatal and serious injury (KA) and total injury (KABC) crashes for the five-year analysis period. During this period, the highest number of total injury (KABC) crashes occurred between August and October. The months of March and June had the highest number of fatal and serious injury crashes.

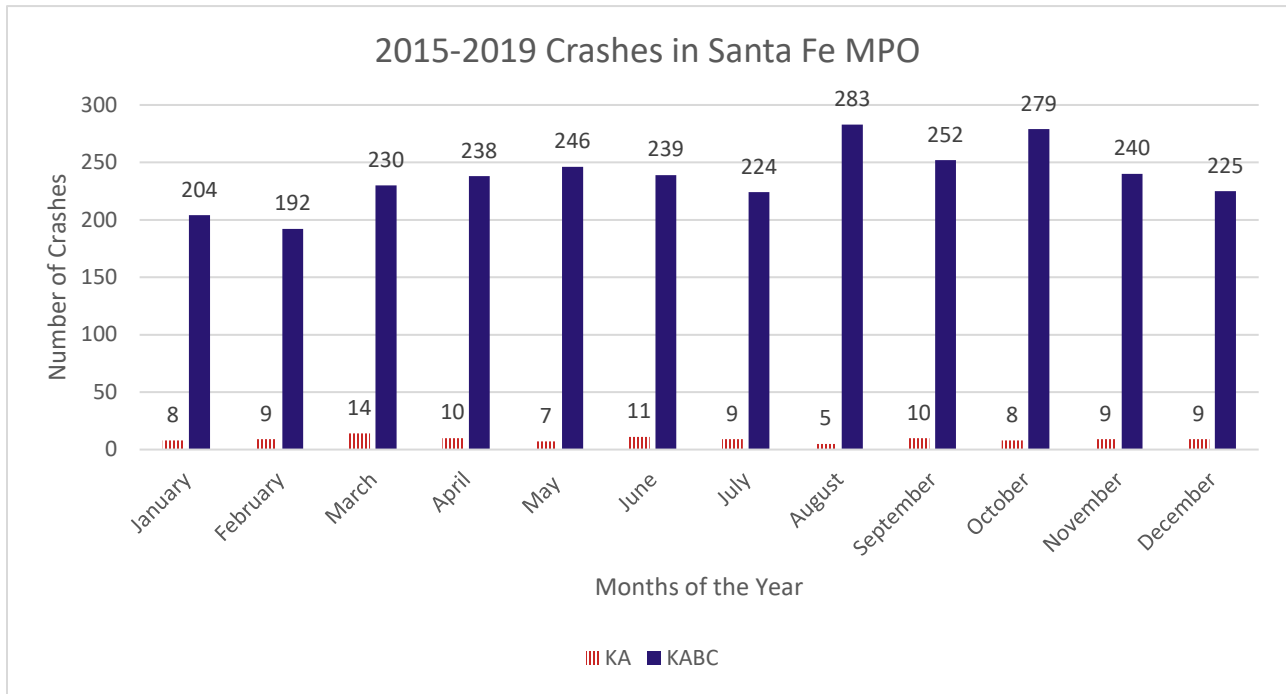


Figure 22. Graphic. Injury crashes in Santa Fe metropolitan region by month, 2015-2019 (Source: NMDOT, 2021).

Figure 23 shows the fatal and serious injury (KA) crashes and total injury (KABC) crashes for the five-year analysis period. A large differential in frequency of fatal and all injury crashes on local streets and roads occurs at 7 am and after 7pm. These KABC crashes peak at 6pm. This aligns with the typical work schedule and the commuter traffic patterns. Most of the fatal and serious injury (KA) crashes occur between 6 am and 10 pm, with a higher concentration occurring from 4pm to 10 pm and peaking at 5pm to 6 pm. The later hours align with impaired driving crashes that result in a fatality or serious injury.

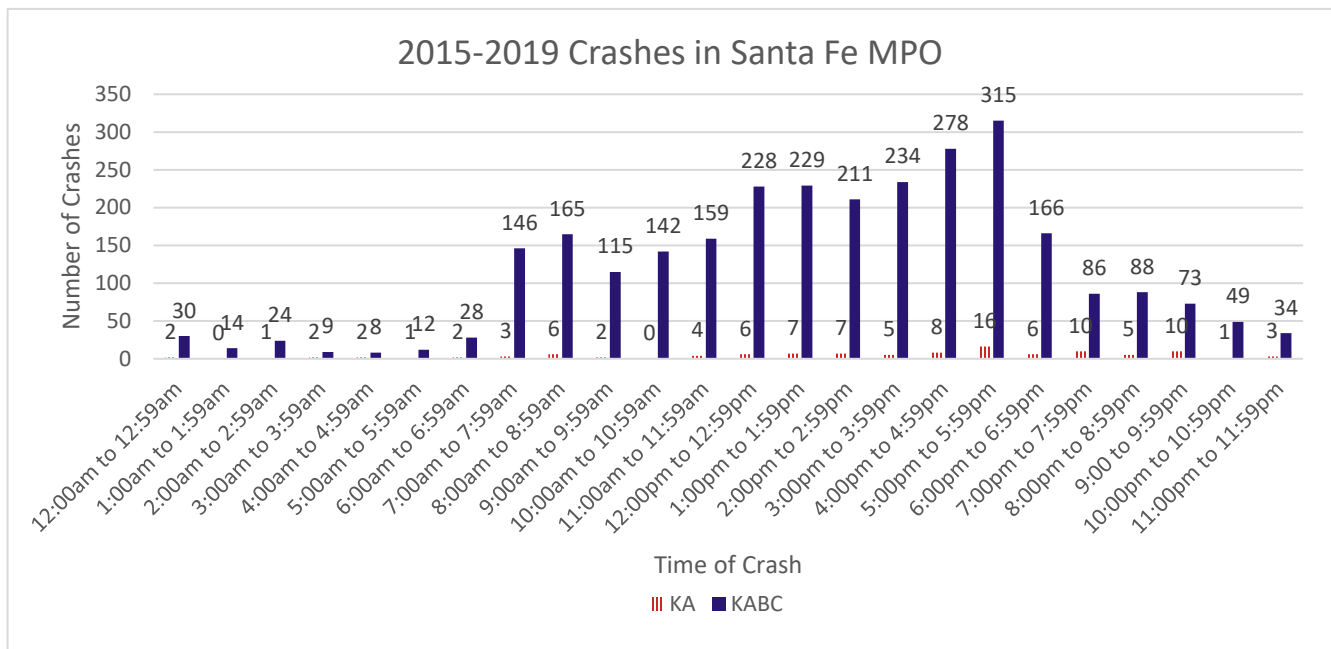


Figure 23. Graphic. Injury crashes in Santa Fe metropolitan region by time of day, 2015-2019 (Source: NMDOT, 2021).

Emphasis Areas

The Santa Fe Metropolitan Region LRSP contains the nine emphasis areas shown in Figure 24 which offer the greatest opportunity to achieve significant reductions in traffic-related fatal and serious injury crashes and meet the safety goal of the LRSP. The five elements of the Safe System Approach provide the framework into which each of these emphasis areas are integrated.

-  **Roadway Departure**
-  **Distracted Driving**
-  **Impaired Driving**
-  **Speeding**
-  **Intersections**
-  **Older Drivers**
-  **Younger Drivers**
-  **Pedestrians**
-  **Bicyclists**

Figure 23. Graphic. Santa Fe Metropolitan Region LRSP emphasis areas (Source: FHWA, 2022).

Roadway Departure

As defined in the NMSHSP, road departure crashes are those that occur after a vehicle crosses an edge line, road edge, or a centerline, or otherwise leaves the travel lane³². These crashes include head-on, fixed objects, overturned, rollover, sideswipe opposite direction, and sideswipe same direction. Of the total number of roadway departure crashes that occurred on the local streets and roads in the Santa Fe region, 23 resulted in a fatal and serious injury, and 293 resulted in a possible injury.

A review of the crash data indicates a majority of those occur during dark conditions. Impaired driving, distracted driving, and speed are the three major contributing factors to fatalities and serious injuries involving roadway departure crashes. Curves represent 43 percent of fatal and serious injury crashes. Figure 25 maps the location of the fatal and serious injury (incapacitating injury) crashes.

Wider pavement markings, chevrons, advance warning signs, and increasing the size and retro-reflectivity of signs are low-cost safety countermeasures that address roadway departure crashes. These engineering related countermeasures combined with enforcement and education strategies can help reduce roadway departure crashes.

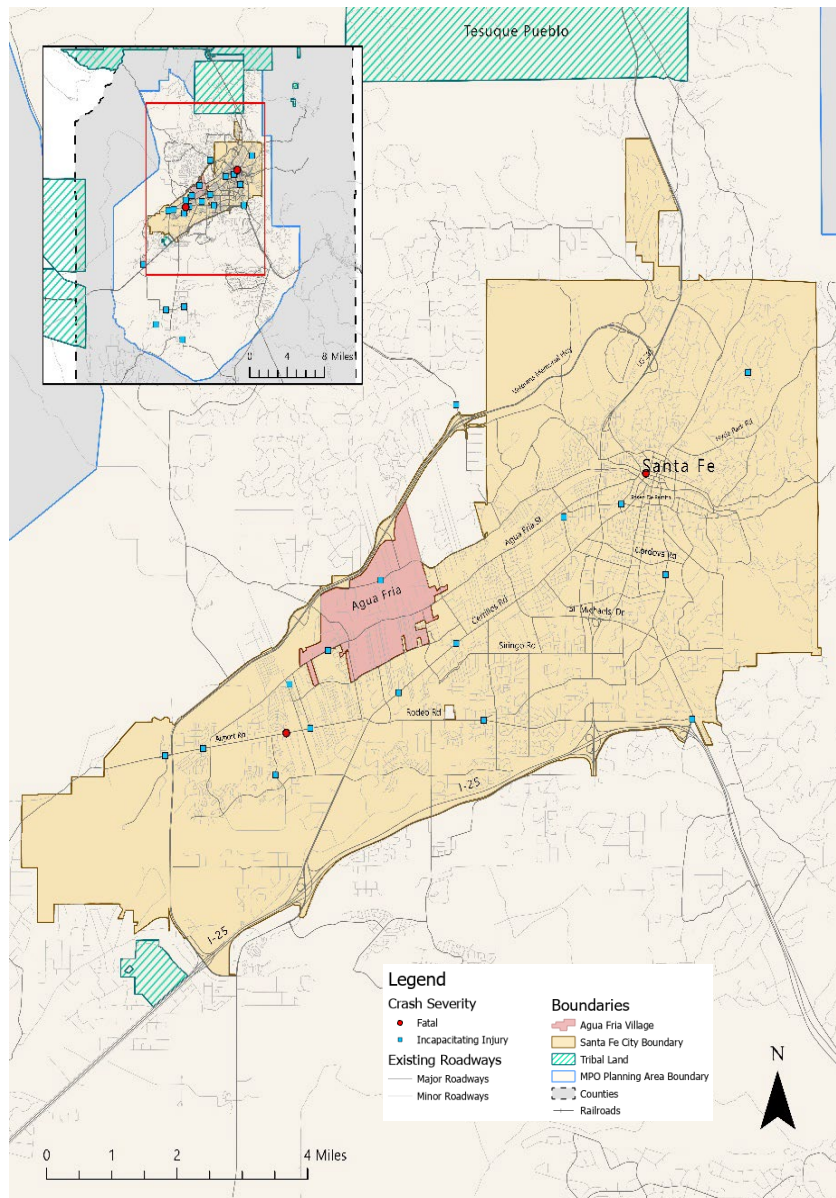


Figure 24. Graphic. Roadway departure fatal and serious injury Crashes, 2015-2019 (Source: NMDOT, 2022)

³²New Mexico Department of Transportation, New Mexico 2021 Strategic Highway Safety Plan Safe Mobility for Everyone, [bc275f2c-9ec3-406a-94fa-6be73e85187f](https://realfilef260a66b364d453e91ff9b3fedd494dc.s3.amazonaws.com)

Distracted Driving

Distracted driving is any activity that takes a person’s attention away from the primary task of driving. This includes activities such as use of cell phones and other electronic devices, talking and eating. Crashes involving distracted driving are the leading cause of fatalities and serious injuries in the Santa Fe region. These exceed the statewide average for New Mexico. The State Legislature changed the law to include “driver inattention” to the crash report. Driver inattention may result in failing to yield at a stop at an intersection. Combined with speeding, these crashes can result in fatalities and serious injuries of all types of road users.

Many of these crashes occur on urban streets and roads. As shown in figure 26, Cerrillos Road, Airport Road, and Agua Fria Street are the primary streets and roads where these crashes have resulted in fatalities and serious injuries. A review of the crash data indicates that most of the crashes involving distracted driving occur during daylight conditions.

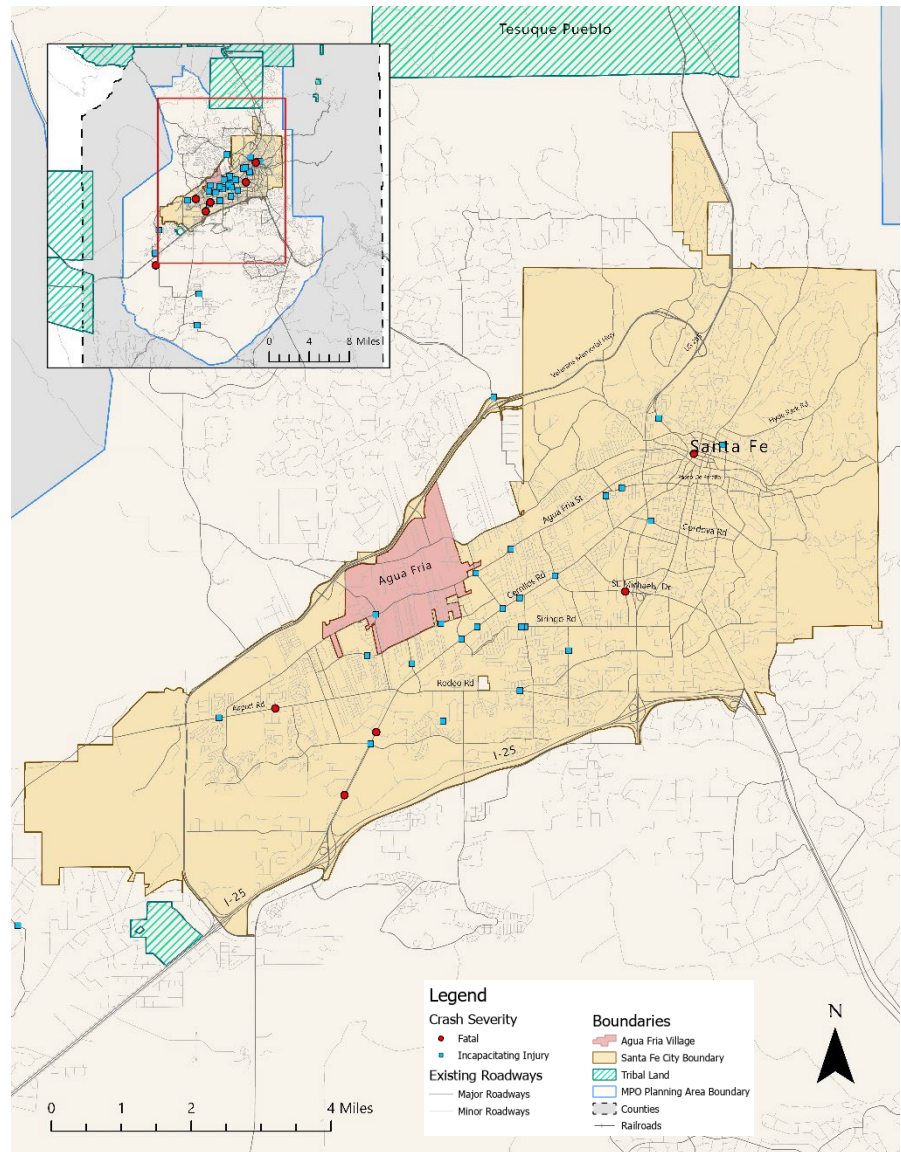


Figure 25. Graphic. Distracted driving-related fatal and serious injury crashes, 2015-2019 (Source: NMDOT, 2022).

Impaired Driving

New Mexico defines an impaired driving-related crash as a crash where drugs/alcohol was a contributing factor, a person in control of a motor vehicle, a bicyclist, or a pedestrian was suspected of being under the influence of drugs/alcohol, or a Driving While Intoxicated (DWI) citation was issued to the person³³. Impaired driving is the second leading cause of traffic fatalities and serious injuries in the Santa Fe region and exceeds the statewide average for fatalities and serious injuries.

Roadway departure, speeding and distracted driving are the major contributing factors for impaired driving-related traffic fatalities and serious injuries. Impaired driving represents almost 60 percent of the fatalities and serious injuries involving younger drivers (15-20 years). It is a factor in 50 percent of the pedestrian related fatalities and serious injuries. As shown on figure 27, most of these crashes occur on Cerrillos Road, Airport Road, and Saint Michaels Drive.

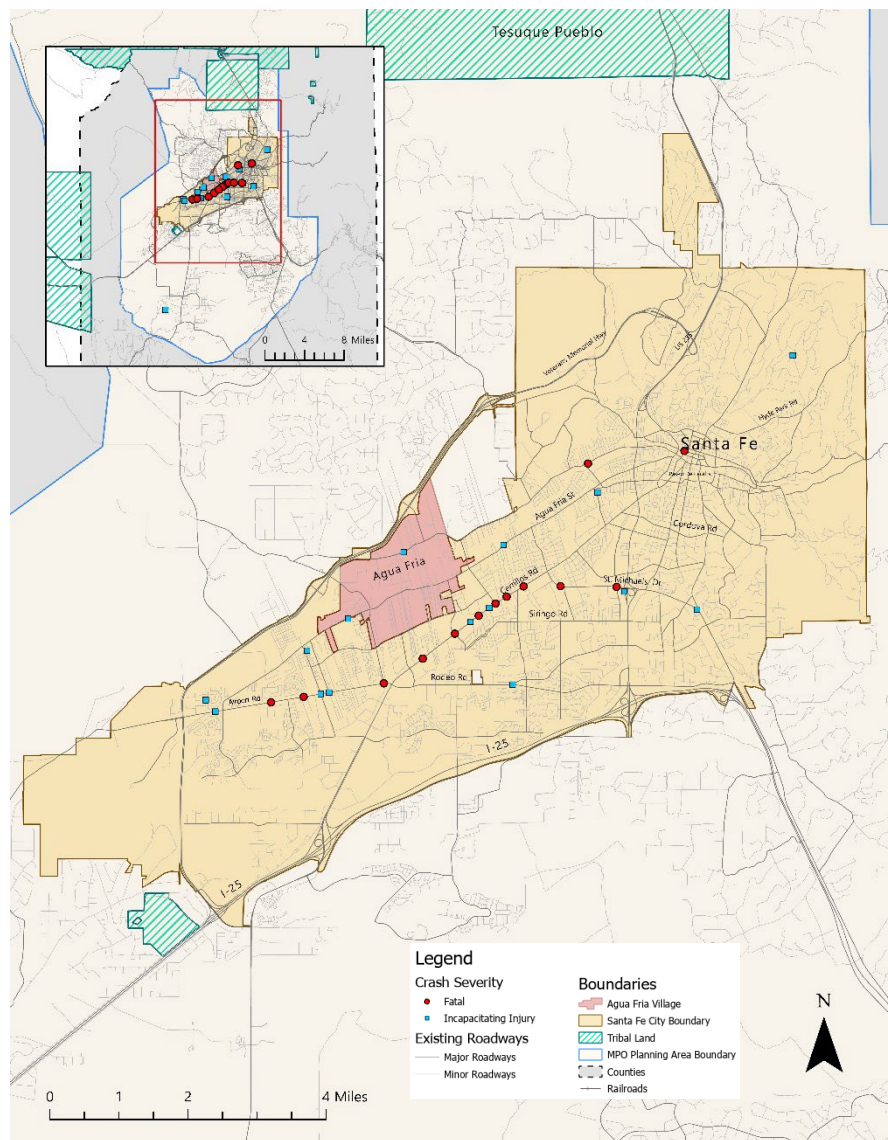


Figure 26. Graphic. Impaired driving fatal and serious injury crashes, 2015-2019 (Source: NMDOT, 2022).

³³ https://gps.unm.edu/gps_assets/tru_data/Crash-Reports/Community-Reports/2020-community-reports/State NewMexico.pdf

Speeding

As speeds increase, the risk of death and serious injury dramatically increases, especially when pedestrians and bicyclists are involved. Higher speeds require longer stopping distances and influence the ability of drivers to control their vehicle and avoid a crash. Of the total number of speed-related crashes, 21 result in a fatal or serious injury and 236 result in possible injury. The majority of these crashes occur in urban areas.

Crashes involving speeding closely align with other risk factors such as distracted driving, impaired driving, younger drivers, and roadway departure. The map shown in figure 28 shows Cerrillos Road and Airport Road as two primary routes with higher frequency of fatal and serious injury crashes related to speeding.

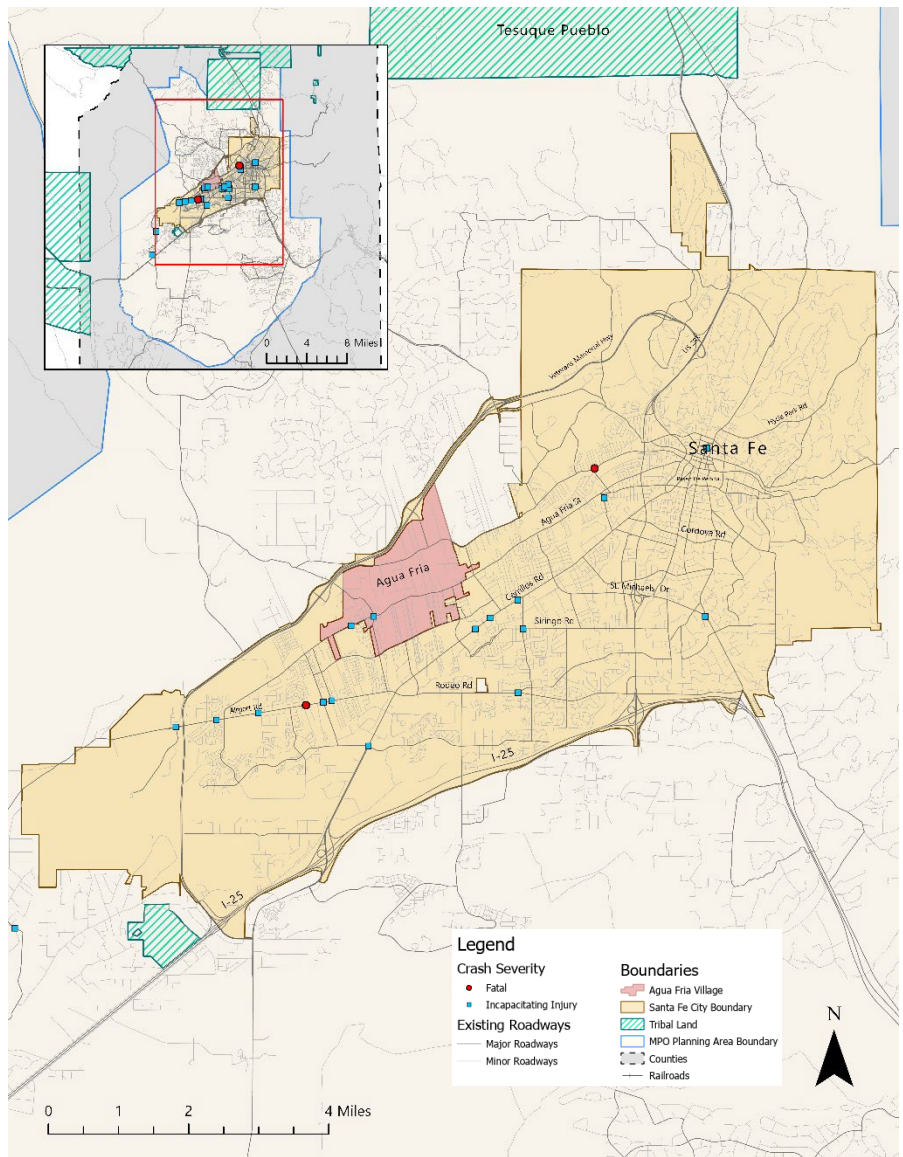


Figure 27. Graphic. Speeding-related fatal and serious injury crashes, 2015-2019 (Source: NMDOT, 2022).

Intersections

Intersections create natural points of conflict due to the various types of maneuvers (turning and crossing) as well as the various types of users (vehicles, pedestrians, bicycles). Because of these factors, greater demand is placed on road users when making decisions. Pedestrians and bicyclists are at greater risk at these locations. for crashes. An analysis of the state and local intersections from 2010 to 2018 within the region by SFMPO identified that 65 percent of the intersection related crashes occurred at 35 percent of the intersections. This represented 150 fatalities. Many of the intersection related crashes involve pedestrians and bicyclists.

Figure 29 identifies Cerrillos Road, Airport Road, and Saint Michaels Drive as the primary corridors for the fatal crashes involving intersections.

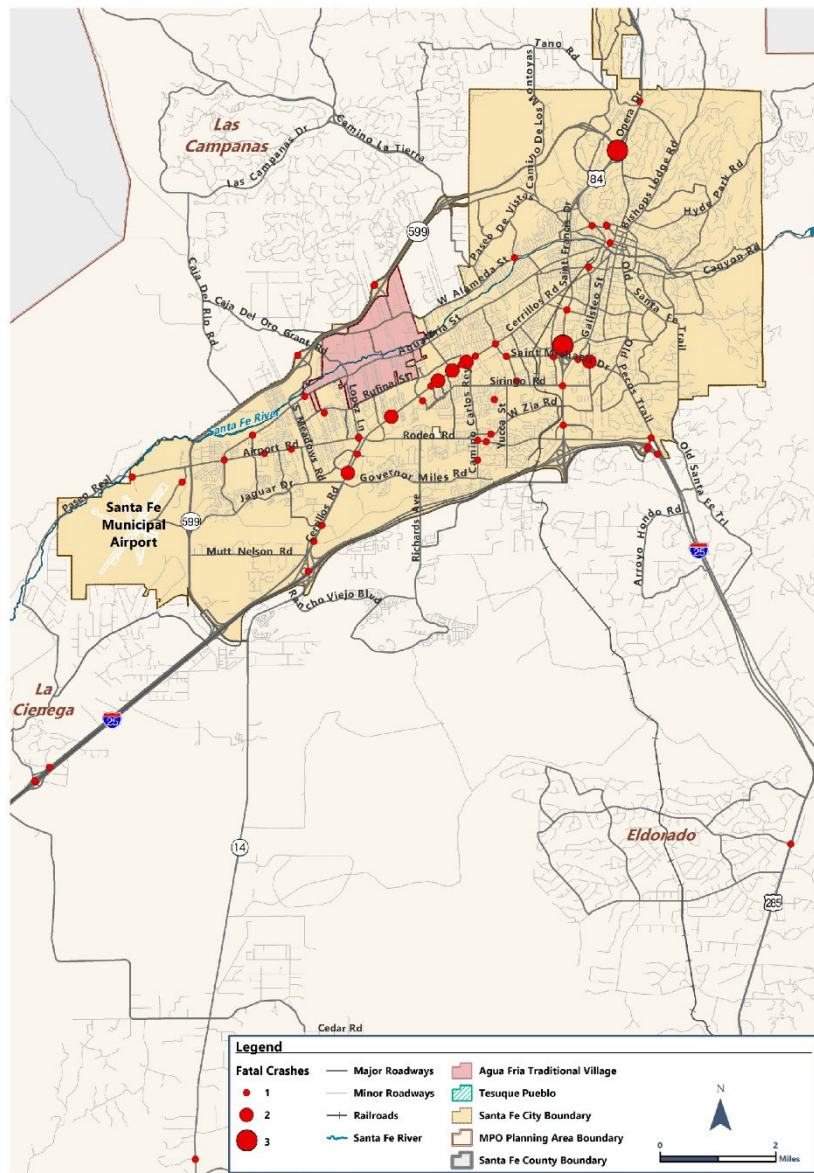


Figure 28. Graphic. Intersection-related fatal crash locations, 2010-2018 (Source: SFMPO 2020-2045 MTP).

Older Drivers

The Santa Fe region has an aging population. Crashes involving older drivers (65 years of age and older) represent 25 percent of the fatalities and serious injuries. This exceeds the statewide average. Three primary factors related to these older drivers are following too closely, failure to yield the right of way, and driver inattention. Figure 30 indicates many of these crashes occur at intersections.

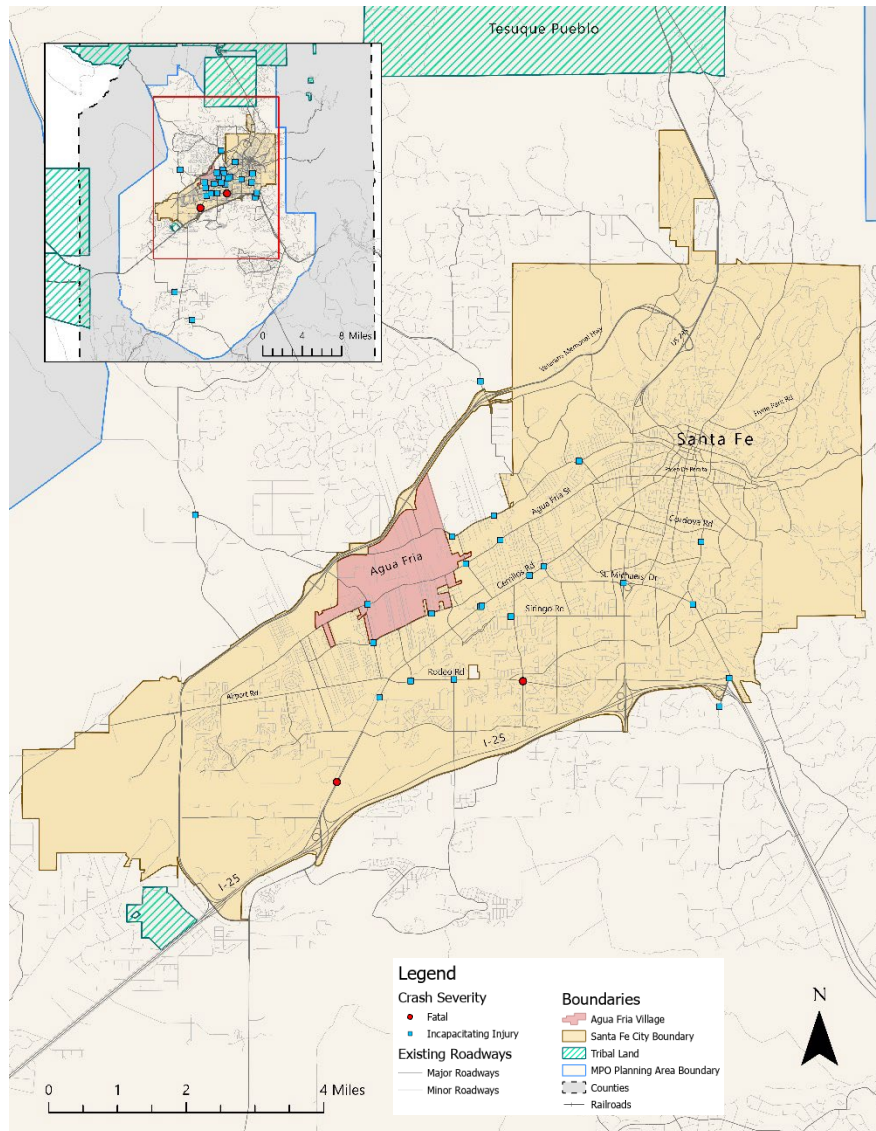


Figure 29. Graphic. Older drivers fatal and serious injury crashes, 2015-2019 (Source: NMDOT, 2022).

Younger Drivers

Crashes involving younger drivers (15-20 years) represents 17 percent of the fatalities and serious injuries in the region. This exceeds the statewide average. The primary factors related to these younger drivers are impaired driving, following too closely, failure to yield the right of way, and driver inattention in urban areas. The two primary routes (see figure 31) where these crashes have occurred are Cerrillos Road and Airport Road.

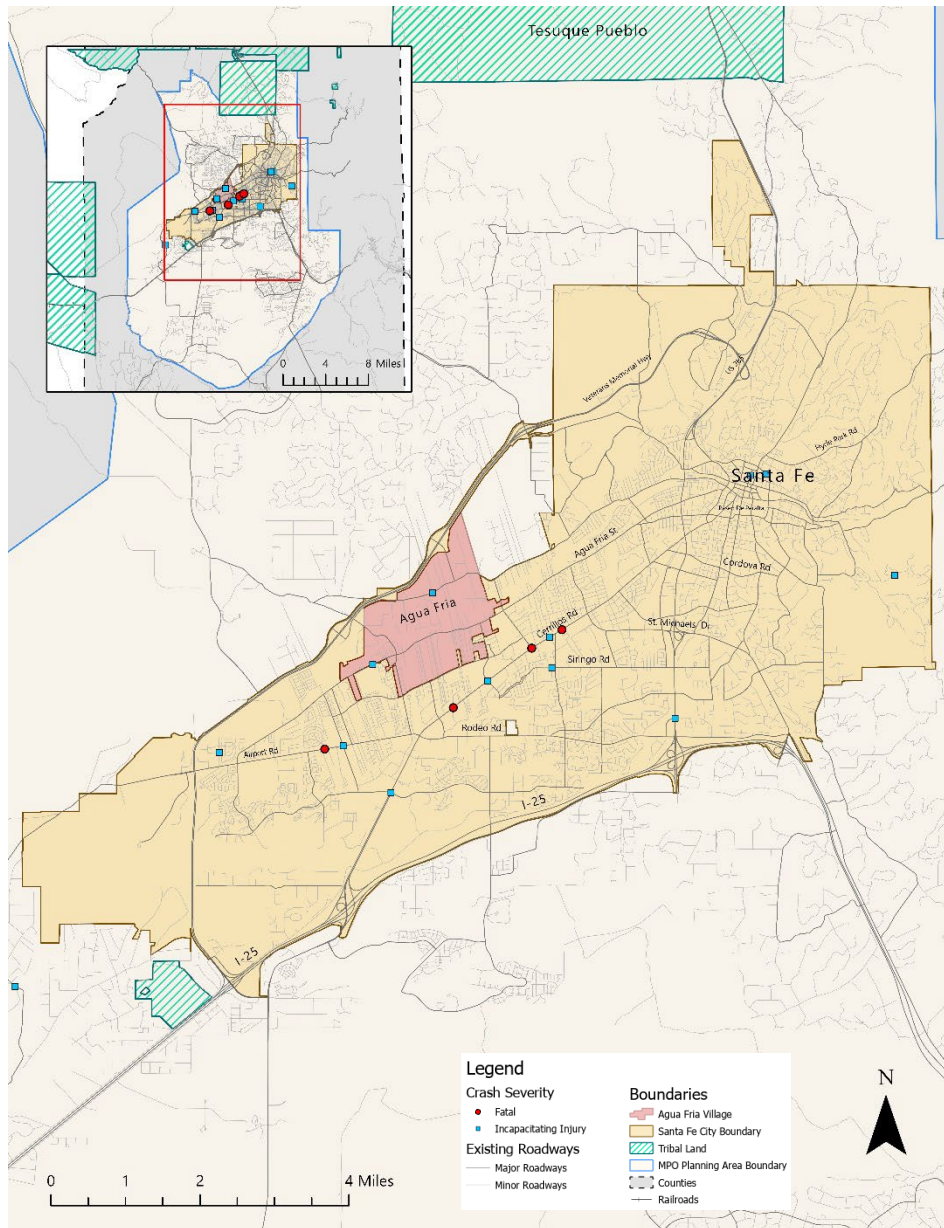


Figure 30. Graphic. Younger drivers fatal and serious injury crashes, 2015-2019 (Source: NMDOT, 2022).

Pedestrians

Pedestrians are the most vulnerable road user. Crashes involving pedestrians resulted in 20 fatalities and serious injuries and 113 resulted in possible injury. This exceeds the statewide average. Alcohol and drugs were a factor in 60 percent of the fatal and serious injury crashes. Pedestrian error, failure to yield the right of way are primary factors in these crashes. Four-lane streets and roads with a center median or turn lane and a posted speed limits of 35 mph to 45mph have a higher risk for pedestrian related crashes. Figure 32 shows Cerrillos Road, Airport Road, and Saint Michaels Drive as the primary corridors where pedestrian fatalities and serious injuries have occurred.

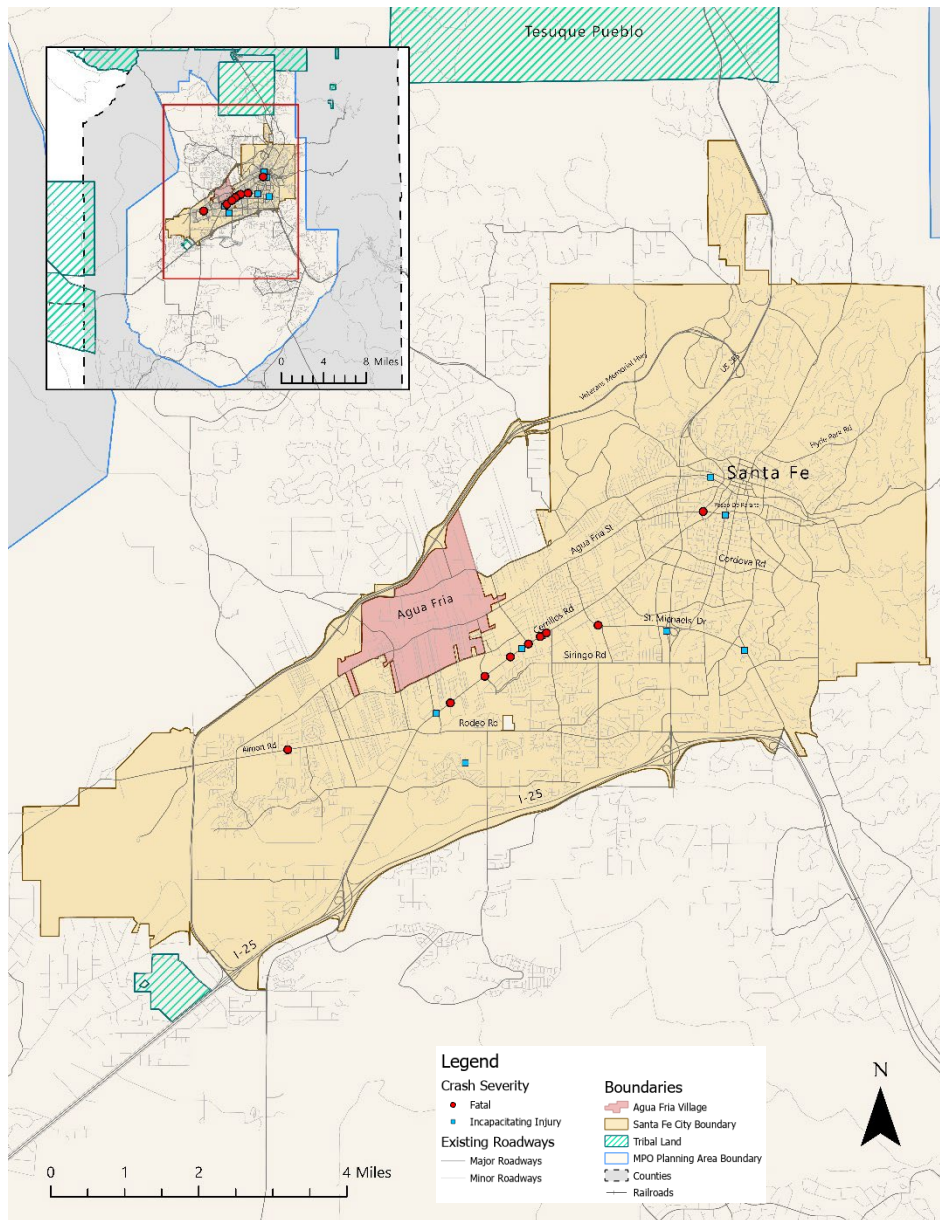


Figure 31. Graphic. Pedestrian involved fatal and serious injury crashes, 2015-2019 (Source: NMDOT, 2022).

Bicyclists

Bicycle-related fatalities and serious injuries in the Santa Fe region exceeded the statewide average. These crashes resulted in eight fatalities and serious injuries and 106 resulted in a possible injury. The majority of these occurred during daylight conditions in urban areas. Bicycle travel demand is anticipated to expand. Crashes involving bicyclists occurred primarily on principal arterials (see figure 33) such as Cerrillos Road, Airport Road, and Saint Michaels Drive.

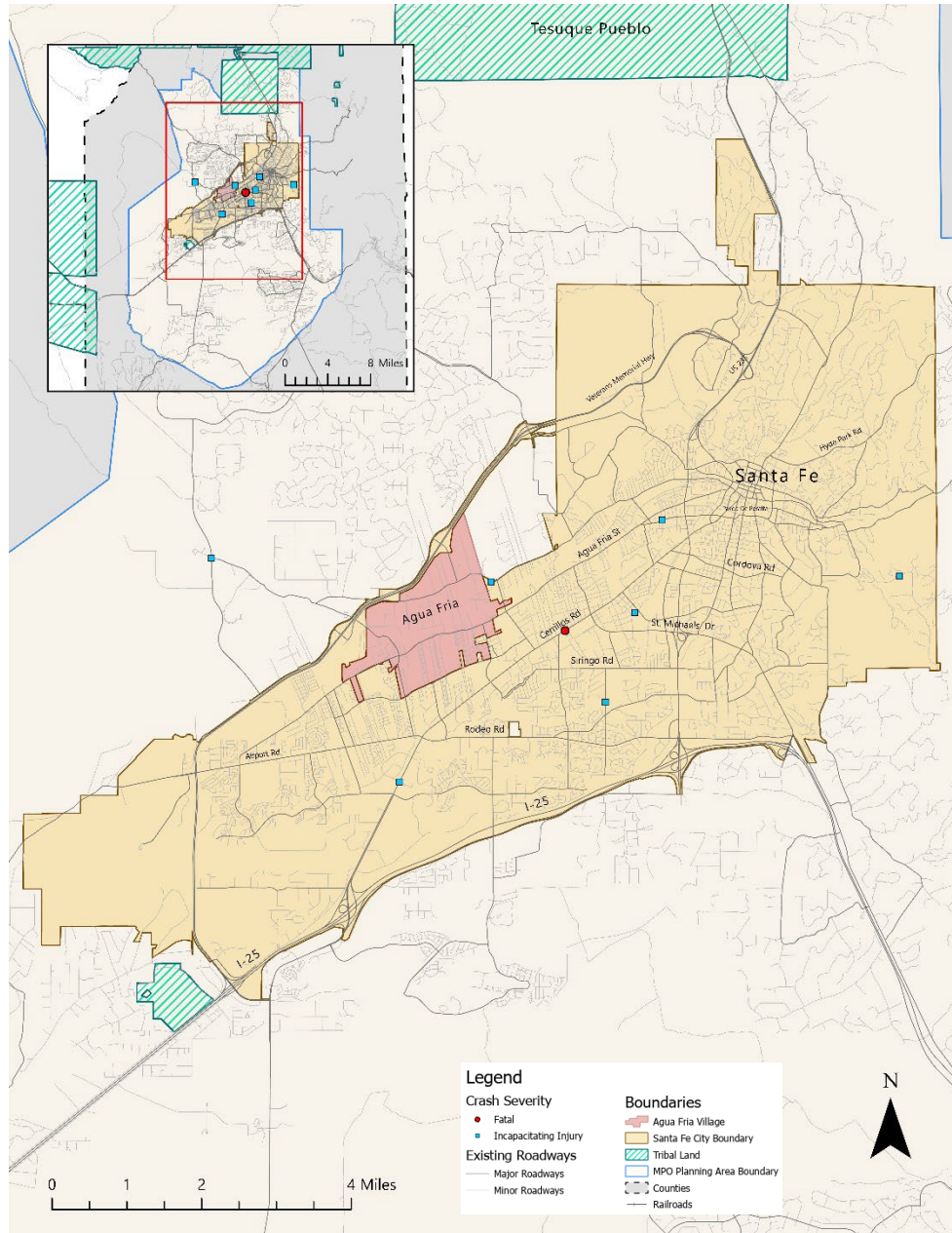


Figure 32. Graphic. Bicyclist-involved fatal and serious injury crashes, 2015-2019 (Source: NMDOT, 2022).

Action Tables

The SFMPO and its stakeholders evaluated the results of the data analysis, the safety concerns, and priorities of the region, and established the strategies and action items represented in the LRSP with consideration of the Safe System Approach. Each Safe System element: Safe Roads, Safe Speeds, Safe Road Users, Safe Vehicles, and Post-Crash Care acts as the pillar for which implementation occurs. LRSP emphasis areas, strategies, and action items are correlated with the Safe System elements which when implemented with leadership and partnership support and input will achieve the Santa Fe Metropolitan Region LRSP safety goals. However, in a cost-constrained environment, not all actions will take place simultaneously.

They used multiple resources to develop the appropriate safety strategies and action items and identified the effectiveness (if available). These include the following:

- FHWA’s Proven Safety Countermeasures (see figure 34)³⁴
- NHTSA’s “Countermeasures that Work”³⁵
- FHWA’s Crash Modification Factors Clearinghouse³⁶
- New Mexico SHSP
- New Mexico HSP

The effectiveness of an engineering-related action item is measured by a crash modification factor (CMF) from the FHWA [Crash Modification Factors Clearinghouse](#).³⁶ NHTSA’s publication [Countermeasures That Work: A Highway Safety Countermeasure Guide for State Highway Safety Offices](#)³⁵ contains star ratings to measure the effectiveness of behavior-related (education and enforcement) countermeasures that are used most regularly by State Highway Safety Offices.

<p><i>What is a crash modification factor (CMF)?</i></p> <p><i>A CMF is an estimate of the change in crashes expected after implementation of a countermeasure. For example, an intersection is experiencing 100 angle crashes and 500 rear-end crashes per year. If you apply a countermeasure that has a CMF of 0.80 for angle crashes, then you can expect 80 angle crashes per year following the implementation of the countermeasure (100 x 0.80 = 80). If the same countermeasure also has a CMF of 1.10 for rear-end crashes, you will also expect 550 rear-end crashes per year following implementation (500 x 1.10 = 550).</i></p> <p><i>(Source: FHWA CMF Clearinghouse)³⁶</i></p>	<p>Behavior Countermeasure Star Ratings</p> <p>★★★★ or ★★★★★ Effective</p> <p>★★★ Promising, and Likely To Be Effective</p> <p>☆☆ Effectiveness Still Undetermined</p> <p>☆ Limited or No High-Quality Evaluation Evidence</p> <p>(Source: NHTSA Countermeasures That Work)³⁵</p>
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³⁴ <https://safety.fhwa.dot.gov/provencountermeasures/>

³⁵ https://www.nhtsa.gov/sites/nhtsa.gov/files/2021-09/15100_Countermeasures10th_080621_v5_tag.pdf



³⁶ <http://www.cmfclearinghouse.org/>

OFFICE OF SAFETY
Proven Safety Countermeasures




SPEED MANAGEMENT

-  Speed Safety Cameras
-  Variable Speed Limits
-  Appropriate Speed Limits for All Road Users




ROADWAY DEPARTURE

-  Wider Edge Lines
-  Enhanced Delineation for Horizontal Curves
-  Longitudinal Rumble Strips and Stripes on Two-Lane Roads
-  SafetyEdge™
-  Roadside Design Improvements at Curves
-  Median Barriers


INTERSECTIONS

-  Backplates with Retroreflective Borders
-  Corridor Access Management
-  Dedicated Left- and Right-Turn Lanes at Intersections
-  Reduced Left-Turn Conflict Intersections
-  Roundabouts
-  Systemic Application of Multiple Low-Cost Countermeasures at Stop-Controlled Intersections
-  Yellow Change Intervals

PEDESTRIANS/BICYCLES

-  Crosswalk Visibility Enhancements
-  Bicycle Lanes
-  Rectangular Rapid Flashing Beacons (RRFB)
-  Leading Pedestrian Interval
-  Medians and Pedestrian Refuge Islands in Urban and Suburban Areas
-  Pedestrian Hybrid Beacons
-  Road Diets (Roadway Reconfiguration)
-  Walkways

CROSSCUTTING

-  Pavement Friction Management
-  Lighting
-  Local Road Safety Plans
-  Road Safety Audit

FHWA-SA-21-062

Figure 33. Graphic. FHWA Proven Safety Countermeasures (Source: FHWA, 2022).

Safe Roads

The streets and roads are the platform in which users move across the system. The Safe System element, Safe Roads, considers the interaction of all users and incorporates engineering-related strategies during planning, design, construction, maintenance, and operations of the system to prevent crashes and minimize impact should a crash occur. Many of the identified strategies address multiple LRSP emphasis areas and through implementation, can help reduce fatalities and serious injuries for all road users.

Implementation of countermeasures involving traffic control devices (pavement markings, roadway signs and traffic signals) should adhere to the standards provided in the Manual of Uniform Traffic Control Devices for Streets and Highways (MUTCD)³⁷.

³⁷ <https://mutcd.fhwa.dot.gov/>

1. Safe System Element: Safe Roads

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
1.1 Conduct Road Safety Audits (RSA)								
1.1.1 Conduct RSAs on priority corridors and implement recommendations.	Not Available (NA)	SFMPO, City PW, County PW	NMDOT, FHWA, County Sheriff, City PD, LEL	HIN	Priority 1 Short	Low	All	NM SHSP Priority Safety Strategy. FHWA Proven Safety Countermeasure (PSC) (RSAs).
1.2 Reduce Roadway Departure Crashes								
1.2.1 Install, enhance, or maintain center line and edge line pavement markings to provide enhanced visibility of the travel lane, especially through curves. Consider 6" wide edge lines on HIN, where lane width is adequate.	0.63 (CMF ID: 4737) - 0.78 ³⁸	City PW County PW	NMDOT, SFMPO	HIN	Priority 1 Short	Low	Road Departure	NM SHSP Road Departure Priority Safety Strategy. FHWA PSC (Wider Edge Lines, Enhanced Delineation for Horizontal Curves).
1.2.2 Provide curve delineation using advance curve warning signs, chevrons, reflective strips on signposts, and pavement markings.	0.78-0.94 ³⁹	City PW County PW	NMDOT, SFMPO	HIN-Systemic	Priority 1 Short	Low	Road Departure	NM SHSP Road Departure Priority Safety Strategy. FHWA PSC (Enhanced Delineation for Horizontal Curves).

³⁸ <https://safety.fhwa.dot.gov/provencountermeasures/wider-edge-lines.cfm>

³⁹ https://safety.fhwa.dot.gov/provencountermeasures/enhanced_delineation.cfm

1. Safe System Element: Safe Roads

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
1.2.3 Install SafetyEdge SM on local streets and roads, as appropriate, to address edge drop-offs and give drivers the opportunity to return to the travel lane and maintain control of the vehicle.	0.79 ⁴⁰ (CMF ID: 9211)	City PW County PW	NMDOT, FHWA, SFMPO	HIN	Priority 1 Short	Low	Road Departure	NM SHSP Road Departure Priority Safety Strategy. FHWA PSC (SafetyEdge SM).
1.2.4 Widen and/or pave shoulders on rural local roads, providing recovery area for drivers and safe riding area for bicyclists.	0.66- 0.89 (CMF ID: 10399) ⁴¹	City PW County PW	NMDOT, SFMPO	Rural HIN	Priority 1 Medium	Medium	Road Departure	NM SHSP Road Departure Priority Safety Strategy.
1.2.5 Install shoulder rumble strips or stripes on rural local roads to address roadway departure crashes, considering bicyclists.	0.49- 0.87 ⁴²	City PW County PW	NMDOT, SFMPO	Rural HIN	Priority 1 Short	Medium	Road Departure	NM SHSP Road Departure Priority Safety Strategy. FHWA PSC (Longitudinal Rumble Strips and Stripes).
1.2.6 Improve clear zones on rural local roads, especially at curves.	0.56- 0.92 ⁴³	City PW County PW	NMDOT, SFMPO	Rural HIN	Priority 1 Medium	Medium	Road Departure	NM SHSP Road Departure Priority Safety. FHWA PSC (Roadside Design Improvements at Curves).

⁴⁰ https://safety.fhwa.dot.gov/provencountermeasures/safety_edge.cfm

⁴¹ http://www.cmfclearinghouse.org/study_detail.cfm?stid=603

⁴² https://safety.fhwa.dot.gov/provencountermeasures/long_rumble_strip.cfm

⁴³ https://safety.fhwa.dot.gov/provencountermeasures/roadside_design.cfm

1. Safe System Element: Safe Roads

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
1.3 Improve Intersection Safety								
1.3.1 Implement signal timing modifications (e.g., Yellow Change Interval) to serve all modes/users.	0.50-0.88 ⁴⁴	City PW County PW	NMDOT, SFMPPO	Systemic HIN	Priority 1 Short	Low	Intersections, Pedestrians, Bicyclists, Older Drivers, Younger Drivers	<i>NM SHSP Intersection Priority Safety Strategy.</i> <i>FHWA PSC (Yellow Change Interval).</i>
1.3.2 Implement Leading Pedestrian Interval (LPI); consider adding NO RIGHT TURN blank out signs to balance safety and capacity.	0.87 ⁴⁵	City PW County PW	NMDOT, SFMPPO	HIN	Priority 1 Short	Low	Intersections, Pedestrians, Older Drivers, Younger Drivers	<i>NM SHSP Intersection Priority Safety Strategy.</i> <i>NM Pedestrian Safety Action Plan (PSAP).</i> <i>FHWA PSC (LPI).</i>
1.3.3 Install street lighting to improve visibility of intersections and pedestrians.	0.58-0.72 ⁴⁶	City PW County PW	NMDOT, SFMPPO	HIN	Priority 1 Short	Low	Intersections, Pedestrians, Bicyclists, Older Drivers, Younger Drivers	<i>NM SHSP Intersection Priority Safety Strategy.</i> <i>FHWA PSC (Lighting).</i>

⁴⁴ https://safety.fhwa.dot.gov/provencountermeasures/yellow_xhg_intervals.cfm

⁴⁵ https://safety.fhwa.dot.gov/provencountermeasures/lead_ped_int.cfm

⁴⁶ <https://safety.fhwa.dot.gov/provencountermeasures/lighting.cfm>

1. Safe System Element: Safe Roads

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
1.3.4 Improve visibility of intersections and traffic control devices (signs and signals) using low-cost countermeasures (signing, reflective backplates for signals, delineation, pavement markings).	0.73-0.90 ^{47,48}	City PW County PW	NMDOT, SFMPPO	Systemic HIN	Priority 1 Short	Low	Intersections, Pedestrians, Bicyclists, Older Drivers, Younger Drivers	<i>NM SHSP Intersection Priority Safety Strategy.</i> <i>FHWA PSC (Systemic Application of Multiple Low-Cost Countermeasures at Stop-Controlled Intersections; Backplates with Reflective Borders);</i>
1.3.5 Verify sight triangles and eliminate obstructions.	0.53 (CMF ID:307)	City PW County PW	NMDOT, SFMPPO	HIN	Priority 1 Short	Low	Intersections, Pedestrians, Bicyclists, Older Drivers, Younger Drivers	<i>NM SHSP Signalized Intersection Safety Strategy C1.</i>
1.3.6 Increase use of roundabouts.	0.42-0.80 ⁴⁹	City PW County PW	NMDOT, SFMPPO	HIN	Priority 2 Medium	High	Intersections, Older Drivers, Younger Drivers	<i>FHWA PSC (Roundabouts, Reduced Left-Turn Conflict intersections)</i>
1.3.7 Redesign intersections to reduce left-turn conflicts.	0.46-0.78 ⁵⁰	City PW County PW	NMDOT, SFMPPO	Divided Highways, HIN	Priority 1 Medium	Low	Intersections, Pedestrians, Bicyclists, Older Drivers, Younger Drivers	<i>FHWA PSC (Reduced Left-Turn Conflict Intersections)</i>

⁴⁷ <https://safety.fhwa.dot.gov/provencountermeasures/backplate.cfm>

⁴⁸ https://safety.fhwa.dot.gov/provencountermeasures/syst_stop_control.cfm

⁴⁹ <https://safety.fhwa.dot.gov/provencountermeasures/roundabouts.cfm>

⁵⁰ https://safety.fhwa.dot.gov/provencountermeasures/reduced_left.cfm

1. Safe System Element: Safe Roads

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
1.3.8 Manage corridor access, particularly at intersections.	0.53-0.95 ⁵¹	City PW County PW	NMDOT, SFMPO	HIN	Priority 1 Medium	High	Intersections, Pedestrians, Bicyclists, Older Drivers, Younger Drivers	<i>FHWA PSC (Corridor Access Management.</i>
1.4. Improve Safe Access to Transit								
1.4.1. Continue to implement the City's Bus Stop and Connectivity Assessment program to adjust transit stop locations and improve accessibility to ensure safety of road users.	NA	City PW County PW	NMDOT, SFMPO	HIN	Priority 1 Medium	High	Intersections, Pedestrians, Bicyclists, Older Drivers, Younger Drivers	<i>NM SHSP Signalized Intersection Safety Strategy</i>
1.5. Improve Pedestrian Facilities								
1.5.1 Adopt updated 2022 and pending Complete Streets Policy.	NA	City PW County PW	NMDOT, SFMPO	HIN	Priority 1 Short	Low	Intersections, Pedestrians, Bicyclists, Older Drivers, Younger Drivers	<i>NM SHSP Pedestrian Safety Priority Strategy</i>

⁵¹ https://safety.fhwa.dot.gov/provencountermeasures/corridor_access_mgmt.cfm

1. Safe System Element: Safe Roads

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
1.5.2 Install high-visibility crosswalks and stop/yield bars (pavement markings), lighting, and signing at intersections and other appropriate crossing locations.	0.58-0.75 ⁵²	City PW County PW	NMDOT, SFMPPO	HIN	Priority 1 Short	Low	Intersections, Pedestrians, Older Drivers, Younger Drivers	<i>NM SHSP Pedestrian Priority Safety Strategy</i> <i>FHWA PSC (Crosswalk Visibility Enhancement, Lighting)</i>
1.5.3 Complete sidewalk gaps via the City's Pedestrian Improvement Program developed by the SFMPPO including repairs and phased implementation to ensure connectivity.	0.11-0.35 ⁵³	City PW County PW	NMDOT, SFMPPO	HIN	Priority 1 Short	Medium	Intersections, Pedestrians,	<i>NM SHSP Pedestrian Safety Priority Strategy</i> <i>FHWA PSC (Walkways)</i>
1.5.4 Explicitly include the safety of all road users in the design of transportation projects, including maintenance projects.	Varies	City PW County PW	NMDOT, SFMPPO	All roads HIN	Priority 1 Short	Medium	Intersections, Pedestrians, Bicyclists, Older Drivers, Younger Drivers	<i>NM SHSP Pedestrian Safety Priority Strategy</i>

⁵² <https://safety.fhwa.dot.gov/provencountermeasures/crosswalk-visibility.cfm>

⁵³ <https://safety.fhwa.dot.gov/provencountermeasures/walkways.cfm>

1. Safe System Element: Safe Roads

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
1.5.5 Install street lighting on arterials to improve pedestrian visibility.	0.72 ⁵⁴	City PW County PW	NMDOT, SFMPO	HIN	Priority 1 Short	Low	Intersections, Pedestrians, Older Drivers, Younger Drivers	<i>NM SHSP Pedestrian Priority Safety Strategy.</i> <i>FHWA PSC (Lighting).</i>
1.5.6 Install medians and pedestrian refuge islands.	0.44- 0.54 ⁵⁵	City PW County PW	NMDOT, SFMPO	HIN	Priority 1	Medium	Intersections Pedestrians	<i>FHWA PSC (Medians and Pedestrian Refuge Islands in urban and Suburban Areas).</i>
1.5.7 Install traffic calming strategies, such as road diets, speed tables, chicane, and narrowing lanes, in the appropriate street and road sections. Reference the Traffic Calming Policy for the City Santa Fe.	0.53- 0.81 ⁵⁶	City PW County PW	NMDOT, SFMPO	HIN	Priority 1 Short	Low	Intersections, Pedestrians, Bicyclists	<i>NM SHSP Pedestrian Priority Safety Strategy.</i> <i>FHWA PSC (Road Diet-Road Reconfiguration).</i>
1.5.8 Install Rectangular Rapid Flashing Beacon (RRFB) at uncontrolled, marked crosswalks at locations, as appropriate, where pedestrian safety is enhanced by increased driver awareness of a crossing location.	0.53 ⁵⁷	City PW County PW	NMDOT, SFMPO	HIN	Priority 1 Short	Low	Intersections, Pedestrians	<i>NM SHSP Pedestrian Priority Safety Strategy.</i> <i>FHWA PSC (RRFB).</i>

⁵⁴ <https://safety.fhwa.dot.gov/provencountermeasures/lighting.cfm>

⁵⁵ https://safety.fhwa.dot.gov/provencountermeasures/ped_medians.cfm

⁵⁶ https://safety.fhwa.dot.gov/provencountermeasures/road_diets.cfm

⁵⁷ <https://safety.fhwa.dot.gov/provencountermeasures/rrfb.cfm>

1. Safe System Element: Safe Roads

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
1.5.9 Install pedestrian hybrid beacon (PHB), as appropriate, to help pedestrians safely cross higher-speed streets and roads at midblock crossings and uncontrolled intersections.	0.45-0.85 ⁵⁸	City PW County PW	NMDOT, SFMPPO	HIN	Priority 1 Short	Low	Intersections, Pedestrians	<i>NM SHSP Pedestrian Priority Safety Strategy.</i> <i>FHWA PSC (PHB).</i>
1.5.10 Implement SRTS projects.	Varies	City PW County PW	NMDOT, SFMPPO	HIN	Priority 1 Short	Low	Intersections Pedestrians, Bicyclists	<i>NM SHSP Pedestrian Priority Safety Strategy.</i> <i>FHWA PSC (Crosswalk Visibility Enhancements, Walkways, Bicycle Lanes, RRFB, medians and Pedestrian Refuge Islands, PHB, and Road Diets).</i>
1.5.11 Amend the County/City Land Use Policy to document local agency sidewalk maintenance responsibility and coordinate maintenance activities with the appropriate agency.	0.11-0.35 ⁵⁹	City PW County PW	SFMPPO	Regionwide	Priority 1 Short	Medium	Pedestrians Intersections	<i>SFMPPO and stakeholder workshop recommendation.</i>
1.6 Improve Bicycle Routes								

⁵⁸ https://safety.fhwa.dot.gov/provencountermeasures/ped_hybrid_beacon.cfm

⁵⁹ <https://safety.fhwa.dot.gov/provencountermeasures/walkways.cfm>

1. Safe System Element: Safe Roads

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
1.6.1 Add signing and pavement markings (Share the Road, Bicycle Routes and Sharrows) to alert motorists of the potential presence of bicyclists.	NA	City PW County PW	NMDOT, SFMPO	HIN	Priority 1 Short	Low	Bicyclists, Roadway Departure Intersections	<i>NM SHSP Bicycle Safety Priority Strategy</i>
1.6.2 Include bicycle usage and safety considerations on shoulders for resurfacing and maintenance projects	0.51- 0.70 ⁶⁰	City PW County PW	NMDOT, SFMPO	HIN	Priority 1 Short	Low	Bicyclists, Roadway Departure	<i>NM SHSP Bicycle Safety Priority Strategy</i>
1.6.3 Include safe interaction and connectivity of transit, pedestrians, and bicycle modes in the planning and design of facilities.	VAR	City PW County PW	NMDOT, SFMPO	HIN	Priority 1 Short	Low	Pedestrians Bicyclists Intersections, Older Drivers, Younger Drivers	<i>NM SHSP Bicycle Safety Priority Strategy</i>

⁶⁰ <https://safety.fhwa.dot.gov/provencountermeasures/bike-lanes.cfm>

Safe Road Users

This represents all users of all modes of travel. Their capabilities are influenced by factors such as age, level of impairment, and other behaviors. System owners and other stakeholders can implement engineering, enforcement, and education strategies to address these road user behaviors and limit the impact when a crash occurs.

2. Safe System Element: Safe Road Users

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
2.1 Strengthen Partnerships								
2.1.1 Establish a Santa Fe Metropolitan Region Safety Committee consisting of safety stakeholders which will focus on street and road safety in the region including implementing and updating the LRSP.	NA	SFMPO	County PW and Sheriff, City PW and PD, NMDOT, FHWA, and other key stakeholders	Regionwide	Priority 1 Short	Low	All	<i>Best Practice.</i>
2.1.2 Share and discuss findings from Police Department's and Sheriff's Office traffic investigation team for crashes and speed data.	NA	County Sheriff, City PD	SFMPO, County PW, City PW, NMDOT, FHWA	Regionwide	Priority 1 Short	Low	All	<i>Best Practice.</i>
2.2 Conduct Education and Outreach to Address Road User Behaviors								
2.2.1 Host informational meetings and press events and provide editorials to local news to inform the public of the region's safety activities.	★★★	SFMPO	NMDOT-TSD, County Sheriff, City PD	Regionwide	Priority 1 Short	Low	All	<i>NHTSA Countermeasures That Work.</i>

2. Safe System Element: Safe Road Users

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
2.2.2 Promote New Mexico's <i>ENDWI, ZeroProof, Just Drive, and DNTXT</i> ⁶¹ safety campaigns and other similar campaigns on regional, county, city, and other stakeholders' websites.	★★★- ★★★★	SFMPO	City and County stakeholders	Regionwide	Short	Low	Impaired Driving, Younger Drivers, Distracted Driving, Speeding, Older Drivers	<i>NM SHSP Strategies.</i> <i>Supports NM HSP Strategies</i> <i>NHTSA Countermeasures That Work.</i> <i>Includes Occupant Protection as a focus.</i>
2.2.3 Promote use of New Mexico Child Restraint Inspection Stations and virtual inspections in the region to increase proper child restraint use.	★★★	NMDOT-TSD	SFMPO, County Sheriff, City PD, LEL	Regionwide	Priority 1 Short	Low	Roadway Departure, Intersections	<i>NM SHSP and HSP Occupant Protection Strategy.</i> <i>NHTSA Countermeasures That Work.</i>
2.2.4 Support training for Certified Child Seat Inspectors.	★★★	NMDOT-TSD	SFMPO, County Sheriff, City PD, LEL	Regionwide	Priority 1 Short	Low	Roadway Departure, Intersections	<i>NM SHSP and HSP Occupant Protection Strategy.</i> <i>NHTSA Countermeasures That Work.</i>
2.2.5 Support licensing and training for motorcycle riding skills.	☆☆	NMDOT-TSD	SFMPO, County Sheriff, City PD, LEL	Regionwide	Short	Low	Impaired Driving, Speeding, Distracted Driving, Older Drivers, Younger Drivers	<i>NM SHSP Motorcycle Safety Strategy,</i> <i>NHTSA Countermeasures That Work</i>

⁶¹ New Mexico DOT, Traffic Safety Division, <https://www.dot.nm.gov/planning-research-multimodal-and-safety/modal/traffic-safety/>

2. Safe System Element: Safe Road Users

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
2.2.6 Support driver education programs to address high-risk behavior.	☆☆	School districts,	NMDOT-TSD, SFMPO, County Sheriff, City PD, LEL	Regionwide	Short	Low	Impaired Driving, Speeding, Distracted Driving, Younger Drivers	<i>NM SHSP Younger Driver Safety Strategy</i>
2.2.7 Promote outreach and education, addressing youth alcohol and drug issues. Promote policies and programs to restrict alcohol access to minors.	☆☆	NMDOT-TSD	County health department	Regionwide	Short	Low	Impaired Driving, Younger Drivers	<i>NM SHSP Impaired Driving Safety Strategy</i>
2.2.8 Promote safe ride alternative transportation (e.g., transit) for impaired road users.	★★★	NMDOT-TSD	SFMPO, County Sheriff, City PD, LEL	Regionwide	Short	Low	Impaired Driving, Younger Drivers, Older Drivers	<i>NM SHSP Impaired Driving Safety Strategy</i>
2.2.9 Use the distracted driving simulator, rollover convincer, and other exhibits at community events and high schools to demonstrate impact of risky driver behavior.	☆☆	County Sheriff, City PD	School districts, NMDOT-TSD, LEL	Regionwide	Short	Low-Medium	Younger Drivers, Older Drivers, Distracted Driving, Road Departure, Intersections	<i>Used by other law enforcement agencies. Including Occupant Protection as a focus area to integrate with other emphasis area activities.</i>

2. Safe System Element: Safe Road Users

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
2.3 Enforce the Rules of the Road								
2.3.1 Conduct High Visibility saturation patrols for impaired driving including participating in <i>ENDWI</i> and <i>National Drive Sober or Get Pulled Over Impaired Driving</i> ⁶² campaigns.	★★★★	County Sheriffs, City Police	NMHP, NMDOT-TSD, LEL	Regionwide, HIN	Short	Medium	Impaired Driving, Roadway Departure	<i>NM SHSP Impaired Driving Priority Safety Strategy.</i> <i>NM HSP DWI Strategy</i> <i>NHTSA Countermeasures That Work</i>
2.3.2 Participate in the Click It or Ticket National Enforcement Mobilization and BUCKLUP campaigns.	★★★- ★★★★	County Sheriffs, City Police	NMHP, NMDOT-TSD, LEL	Regionwide HIN	Short	Medium	Roadway Departure, Intersections, Younger Drivers, Older Drivers	<i>NM SHSP Occupant Protection Priority Safety Strategy.</i> <i>NM HSP Occupant Protection (OP) Strategy.</i> <i>NHTSA Countermeasures That Work</i>
2.3.3 Increase high visibility enforcement of cellphone/ texting laws.	★★★★	County Sheriffs, City Police	NMHP, NMDOT-TSD, LEL	Regionwide HIN	Short	Medium	Distracted Driving, Younger Drivers, Older Drivers	<i>NM SHSP Distracted Driving Priority Safety Strategy.</i> <i>NM HSP Distracted Driving Strategy.</i> <i>NHTSA Countermeasures That Work.</i>

⁶² New Mexico DOT, Traffic Safety Division, <https://www.dot.nm.gov/planning-research-multimodal-and-safety/modal/traffic-safety/>

2. Safe System Element: Safe Road Users

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
2.3.4 Perform integrated enforcement of impaired driving, speeding, occupant protection, and distracted driving including participating in <i>Superblitz</i> enforcement campaign.	★★★	County Sheriffs, City Police	NMHP, NMDOT-TSD, LEL	Regionwide HIN	Short	Medium	Impaired Driving, Speeding, Distracted Driving	<i>NM HSP Safety Strategy.</i> <i>NHTSA Countermeasures That Work.</i> <i>Include Occupant Protection as a focus.</i>
2.3.5 Engage LEL for training, grant assistance, and coordination of enforcement activities and initiatives.	NA	County Sheriffs, City Police	NMDOT-TSD, LEL, NMHP	Regionwide	Short	Low	Impaired Driving, Younger Drivers, Distracted Driving, Speeding	<i>NM HSP DWI Strategy.</i> <i>NHTSA Countermeasures That Work.</i> <i>Include Occupant Protection as a focus.</i>
2.3.6 Conduct well publicized compliance check of alcohol retailers to reduce sales to underage persons.	★★★	County Sheriffs, City Police	NMDOT-TSD, LEL, NMHP	Regionwide	Short	Medium	Impaired Driving, Younger Drivers	<i>NM SHSP Impaired Driving Priority Safety Strategy.</i> <i>NM HSP DWI Strategy.</i> <i>NHTSA Countermeasures That Work.</i>
2.3.7 Participate in 100 Days and Nights of Summer Enforcement Program ⁶³	★★★	County Sheriff, City Police	NMDOT-TSD, LEL, SFMPO	HIN	Short-Term, Ongoing	Medium	Impaired Driving Distracted Driving Speeding	<i>NM SHSP Speeding Safety Priority Strategy.</i> <i>HSP Safety Strategy.</i> <i>NHTSA Countermeasures That Work</i>

⁶³Safer New Mexico Now, 100 Days and Nights of Summer Campaign, <https://www.safernm.org/resources/enhanced-law-enforcement-campaigns-reports/>

2. Safe System Element: Safe Road Users

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
2.3.8 Support Santa Fe County's DWI Compliance Monitoring/ Tracking Program	★★★★	County Sheriffs, City Police	NMDOT-TSD, LEL, NMHP, SFMPO, stakeholders	Regionwide	Short	Medium	Impaired Driving	<i>NM SHSP Impaired Driving Priority Safety Strategy. NM HSP DWI Strategy. NHTSA Countermeasures That Work.</i>
2.3.9 Partner with motorcycle dealerships and other safety stakeholders (e.g., insurance companies) to sponsor a "Safety Days" during the summer months.	☆☆	County Sheriffs, City Police	NMDOT-TSD, LEL, NMHP, SFMPO, stakeholders	Regionwide	Short	Low	Impaired Driving, Speeding, Distracted Driving	<i>NM HSP Motorcycle Safety Strategy; NM HSP DWI Strategy NHTSA Countermeasures That Work</i>
2.4 Improve Data Collection								
2.4.1 Improve data collection and reporting of distracted driving crashes.	NA	County Sheriffs, City Police	NMDOT-TSD, LEL, NMHP, SFMPO, stakeholders	Regionwide	Short	Low	Distracted Driving, Younger Drivers, Older Drivers	<i>NM SHSP Distracted Driving Safety Strategy</i>
2.4.2 Improve collection of intersection crash data.	NA	NMDOT-TSD	SFMPO, County Sheriff, City PD, LEL	Regionwide	Short	Low	Intersections, Younger Drivers, Older Drivers, Pedestrians, Bicyclists	
2.4.3 Collect pedestrian and bicycle volume/ exposure data.	NA	SFMPO	NMDOT, City and County	Regionwide HIN	Short	Low	Pedestrians, Distracted Driving, Speeding, Intersections	<i>NM SHSP Pedestrian Priority Safety Strategy. NHTSA Countermeasures That Work</i>

2. Safe System Element: Safe Road Users

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	<i>Source of Strategy or Comment from Workshops</i>
2.4.4 Improve collection of speed and volume data.	NA	SFMPPO	NMDOT, City and County PW	Regionwide, HIN	Short	Low	Speeding, Pedestrians, Roadway Departure, Intersections	

Safe Speeds

Safe speeds increase the likelihood of an individual surviving a crash and can be accomplished through implementation of engineering, education, and enforcement strategies. Designing streets and roads with all users in mind and maintaining appropriate speed limits help reduce fatalities and serious injuries. Traffic calming strategies and radar speed feedback signs have proven to lower speeds.

3 Safe System Element: Safe Speeds

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
3.1 Conduct Speed Management								
3.1.1. Set speed limits based on the use of appropriate engineering practices.	★★★★★	City PW County PW	SFMPO, NMDOT, FHWA,	Regionwide	Priority 1 Short, Ongoing	Low	Speeding, Roadway Departure, Impaired Driving, Distracted Driving	<i>NM SHSP</i>
3.1.2. Implement Complete Streets Design to improve safety for all road users and Road Diets to provide context-sensitive street design.	0.53- 0.81	City PW County PW	SFMPO, NMDOT, FHWA,	HIN	Priority 1 Medium	Low	Speeding, Roadway Departure, Impaired Driving, Distracted Driving	<i>NM SHSP Speeding Strategy. FHWA PSC (Road Diets)</i>
3.1.3. Use radar speed feedback signs to notify drivers of reduced speed limits, especially at rural/urban transition areas.	0.95 (CMF ID: 6885)	City PW County PW	SFMPO, NMDOT, FHWA,	HIN	Priority 1 Short	Low	Speeding, Roadway Departure, Impaired Driving, Distracted Driving	<i>City of Santa Fe has used speed feedback signs.</i>
3.1.4. Implement traffic calming measures. Reference the Traffic Calming Policy for the City Santa Fe. ⁶⁴	Varies	City PW County PW	SFMPO, NMDOT, FHWA,	HIN	Priority 1 Short Medium		Speeding, Roadway Departure, Distracted Driving, Pedestrians, Bicyclists	<i>FHWA PSC (Road Diets)</i>

⁶⁴https://safety.fhwa.dot.gov/ped_bike/univcourse/pdf/swless11.pdf and <https://www.ite.org/technical-resources/traffic-calming/traffic-calming-measures/>

3 Safe System Element: Safe Speeds

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
3.1.5. Modify Level of Service (LOS) policies to incorporate consideration of safe speeds for vulnerable road users.	Not Available	SFMPO	City PW, County PW, NMDOT	Regionwide	Priority 1 Short	Low	Speeding Pedestrians Bicyclists Intersections	
3.2. Conduct Speed Enforcement								
3.2.1 Conduct high visibility speed enforcement.	★★★	County Sheriff, City Police	NMDOT-TSD, LEL, SFMPO	HIN	Ongoing	Medium	Speeding	<i>NM SHSP Speeding Safety Priority Strategy. HSP Safety Strategy.</i> <i>NHTSA Countermeasures That Work</i>
3.2.2 Participate in 100 Days and Nights of Summer Enforcement Program ⁶⁵	★★★	County Sheriff, City Police	NMDOT-TSD, LEL, SFMPO	HIN	Short-Term, Ongoing	Medium	Speeding	<i>NM SHSP Speeding Safety Priority Strategy. HSP Safety Strategy.</i> <i>NHTSA Countermeasures That Work</i>
3.2.3 Support legislation to allow automated speed enforcement.	★★★★★	County Sheriff, City Police	NMDOT-TSD, SFMPO, Stakeholders	HIN	Medium	Medium	Speeding	<i>NHTSA Countermeasures That Work.</i> <i>FHWA PSC (Speed Safety Cameras).</i>

⁶⁵Safer New Mexico Now, 100 Days and Nights of Summer Campaign, <https://www.safernm.org/resources/enhanced-law-enforcement-campaigns-reports/>

3 Safe System Element: Safe Speeds

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
3.3 Conduct Outreach Efforts								
3.3.1 Conduct educational campaigns to reinforce safe speeds.	★★★	SFMPO	County Sheriff, City Police, NMDOT-TSD	Regionwide	Short	Low	Speeding	<i>NHTSA Countermeasures That Work.</i>
3.3.2 Continue law enforcement initiative to collect speed data, use radar speed trailers, and enforce speed limits as appropriate in response to speeding complaints.	☆	County Sheriff, City Police	County PW, City PW, NMDOT-TSD, LEL, SFMPO	HIN	Short-Term, Ongoing	Medium	Speeding	<i>NM SHSP Speeding Safety Strategy.</i>

Post-Crash Care

Post-crash care is critical to the survivability of a crash victim. The ability of emergency responders to quickly locate and respond to a crash and stabilize and transport an individual injured in a crash influences the chances of survivability. The crash location will factor in the response time of emergency medical personnel. The distance from medical care will play a role in whether person survives a crash. For these reasons, accurate and complete data collection and the sharing of data is important to facilitate improved decision-making and investments specific to safety. Communication and collaboration between all stakeholders are necessary to improve post-crash care and reduce the potential of crashes resulting in fatalities and serious injuries.

4 Safe System Element: Post-Crash Care

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Recommendation Source
4.1 Coordinate Post-Crash Efforts								
4.1.1 Coordinate with EMS officials to determine street and road issues related to getting crash victims medical care and determine strategies for improvement and training opportunities.	Not Available	City PW County PW	Santa Fe RECC, NM Bureau of EMS, NMDOT, SFMPO	Regionwide	Short	Low	All	<i>NM SHSP EMS Priority Strategy.</i>
4.1.2 Educate and partner with EMS and other emergency personnel (fire, police) to plan and execute incident/scene management.	Not Available	County Sheriffs, City Police	Santa Fe RECC, NM Bureau of EMS, NMDOT, FHWA, SFMPO	Regionwide	Short	Low	All	<i>NM SHSP EMS Priority Strategy.</i>
4.1.3 Improve data collection and analysis capabilities related to EMS tracking and reporting.	Not Available	NM Bureau of EMS	Santa Fe RECC, County, City, NMDOT- TSD, SFMPO	Regionwide	Medium	Low/ Medium	All	<i>NM SHSP EMS Priority Strategy.</i>

Safe Vehicles

Safe vehicles incorporate new technology and other features to prevent crashes from occurring, and if they do, reduce the severity of a crash.

5. Safe System Element: Safe Vehicles

Strategy/Action	CMF/ NHTSA Star Rating	Lead Agency	Partners	Application Priority Locations	Priority (Ranked as 1-highest, 3-lowest) Timeline	Cost	Emphasis Area	Source of Strategy or Comment from Workshops
5.1 Coordinate Efforts to Address Safe Vehicles								
5.1.1 Maintain and increase alternative transportation options in the region, especially in underserved communities	NA	Santa Fe MPO	Santa Fe Trails Santa Fe Pick-Up NCRTD NM Park & Ride Rail Runner Express NMDOT, City, County	Regionwide	Medium	Medium	Impaired Driving, Older Drivers, Younger Drivers, Pedestrians, Bicyclists	<i>Santa Fe MPO MTP.</i>
5.1.2 Build and maintain the appropriate infrastructure to support implementation of the SFMPO's Regional Architecture Intelligent Transportation System (ITS) technologies and enhance vehicle-roadway interaction.	NA	County and City	NMDOT, SFMPO, FHWA	Regionwide	Long	Medium High	All	<i>FHWA TSMO.</i>

Implementation and Evaluation

The Santa Fe Metropolitan Region LRSP builds on past and ongoing efforts, strengthens partnerships, and enhances the ability to leverage limited funds and resources. Moving the LRSP from planning to implementation is essential to reduce fatalities and serious injuries occurring on the local streets and roads in the region. This section provides a road map to guide implementation of the LRSP and evaluate success. It identifies potential funding sources, a detailed list of strategies and action items using the Safe System Approach as the framework, and a list of projects that represent regional safety priorities.

A key benefit of the Santa Fe Metropolitan Region LRSP is its alignment with the New Mexico SHSP. As the NMDOT uses the New Mexico SHSP and its emphasis areas to guide its safety funding, the alignment of the Santa Fe Metropolitan Region LRSP strategies and actions with State priorities enhances their eligibility for Federal and State funds. Accessing HSIP funds to support the region's transportation infrastructure safety projects is predicated on this linkage to emphasis areas in the SHSP. Accessing these HSIP funds helps to supplement local funding for projects stemming from this LRSP. Additionally, Federal behavioral grant funding from NHTSA and managed by the State highway safety office is available on an annual basis. The NMDOT's Traffic Safety Division manages these funds for New Mexico and solicits grant applications on an annual basis.

Establishment of a Santa Fe Regional Safety Committee provides a leadership group to facilitate LRSP implementation. Membership from the multi-disciplinary LRSP stakeholder group can facilitate a seamless transition to this new Safety Committee. Activities can include coordinating with the various existing committees, collaborating with key stakeholders, prioritizing safety projects, and pursuing potential funding opportunities that support implementation of LRSP strategies and actions across the region. This Safety Committee can include NMDOT to share safety related information and to ensure the safety activities of the region align with the State safety priorities.

Evaluation of the LRSP will be in the form of process and outcomes. Process evaluation involves reviewing each numbered action under the strategies in the LRSP and determining if progress has been made. Outcome evaluation looks at the impact of activities. For some projects, such as site-specific projects, it is relatively straightforward to determine safety impact based on pre-construction and post-construction crash statistics. For other projects, it may be a combination of several activities that lead to a change in crash frequency. For example, a change in the frequency of impaired driving crashes may be a result of a combination of educational and enforcement initiatives. Therefore, because of the interrelationship between different safety activities in the region, it is ideal to evaluate outcomes at the emphasis area level. The LRSP can use fatalities and injuries as the metric for annual progress in each of the emphasis areas.

In addition to crash frequency, evaluations should also consider other metrics, if data allow. Changes in traffic volumes, crash severity, and characteristics of crashes also provide meaningful insight into the effect of safety countermeasures. Part B of the Highway Safety Manual (HSM)⁶⁶ is a useful resource that provides further information on different performance measures and evaluation methods.

The SFMPO and its stakeholders recognize that some strategies may take several years to fully implement. Additionally, it may take several years to realize the benefit of the strategies through a reduction of fatal and serious injury crashes. The LRSP is a living document and should be reviewed on an on-going basis. Like the New Mexico SHSP, a full update of the LRSP is anticipated to be completed every five years. However, more frequent updates to the individual strategies and actions may take place to reflect the Plan's progress and any

⁶⁶ <https://www.highwaysafetymanual.org/Pages/default.aspx>

new policies that affect implementation. The SFMPO will be the primary agency responsible for updating the LRSP with support from the stakeholders.

Additional resources to guide the implementation of the LRSP can be found in Chapter 3 of FHWA's reference, *Implementing a Local Road Safety Plan*⁶⁷.

Funding Sources

Funding is critical to implement the strategies and action items in this LRSP and may come from a variety of sources: Federal, State, local, and the private sector. These include standard funding program mechanisms and grants as well as new initiative grants. Some sources of funding include the following:

- Local Agency Funding. Local agencies have various funding sources that can be used to improve and maintain streets and roads and perform other safety activities. Consideration of the LRSP strategies during the allocation of funding, especially for maintenance activities or other street and road improvement projects can support implementation of the LRSP.
- Highway Safety Improvement Program (HSIP).⁶⁸ The NMDOT manages [New Mexico's HSIP programs](#).⁶⁹ This core Federal-aid highway program funds projects and strategies that are data-driven, align with the State SHSP, and through implementation, help reduce traffic-related fatalities and serious injuries on all public roads and streets, including locally-owned public streets and roads and roads on Tribal lands. The HSIP supports advancing implementation of the Safe System Approach and LRSPs. NMDOT distributes application information through the MPOs. HSIP funds require a 10 percent match by the participating agency, unless otherwise determined by NMDOT, and use the MPO planning process to program them. Distribution of funds is through Cooperative Agreements with tribal and local agencies.
- Safe Streets and Roads for All. The Bipartisan Infrastructure Law (BIL) establishes the new [Safe Streets and Roads for All \(SS4A\)](#) discretionary program that will provide \$5-6 billion in grants over the next 5 years. Funding supports regional, local, and Tribal initiatives through grants to prevent deaths and serious injuries on roads and streets.
- Federal NHTSA Grant Funding. The NMDOT [Traffic Safety Division](#)⁷⁰ manages the various federal NHTSA grant funding that New Mexico receives to support enforcement, education, and emergency response activities to improve driver behavior and reduce deaths and injuries from motor vehicle-related crashes. The NMDOT Traffic Safety Division receives grant applications annually in early spring and approval by NHTSA, typically in July.
- Federal Section 164 Impaired Driving Repeat Offender Safety Program Funding. NMDOT's Traffic Safety Division uses its allocated Federal Section 164 program funds to maintain and expand impaired driving enforcement activities statewide. As the Santa Fe metropolitan region has high rates of DWI

⁶⁷ FHWA, Office of Safety, *Implementing a Local Road Safety Plan*, https://safety.fhwa.dot.gov/local_rural/training/fhwasa20025/chap3.cfm

⁶⁸ FHWA, Office of Safety, *HSIP Eligibility Guidance*, https://safety.fhwa.dot.gov/hsip/rulemaking/docs/BIL_HSIP_Eligibility_Guidance.pdf

⁶⁹ New Mexico Department of Transportation, *HSIP*, <https://www.dot.nm.gov/planning-research-multimodal-and-safety/planning-division/multimodal-planning-and-programs-bureau/highway-safety-improvement-program/>

⁷⁰ New Mexico Department of Transportation, *Traffic Safety Division, Traffic Safety Programs*, <https://www.dot.nm.gov/planning-research-multimodal-and-safety/modal/traffic-safety/>

crashes, the law enforcement agencies should continue to pursue grants. The NMDOT Traffic Safety Division funds a [Law Enforcement Liaison \(LEL\)](#)⁷¹ to coordinate enforcement initiatives.

- **Congestion Mitigation and Air Quality Improvement (CMAQ) Program:** These federal funds are made available to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act.
- **Technology Transfer (T2).** These federal funds are managed by the FHWA Division office and are used for research development, technology and innovation transfer, outreach and communication activities (e.g., peer exchanges, scan tours). They are completely reimbursable for travel. A 20 percent match is required for other activities.
- **FHWA Grants.** FHWA may make other funding available through grants to advance various safety activities. Other initiatives through FHWA that can provide resources to assist locals with LRSP activities include the Local Road Safety Focus Approach.

Implementation of Strategies and Action Items











Each of the strategies and action items in the following tables addresses the nine emphasis areas identified within the Santa Fe Metropolitan Region LRSP using the Safe System Approach. Agency leads, priority locations, potential funding sources and timeframe for implementation have been provided for each emphasis area strategy and action item. The implementation time frame identified as “Short” is for a period of now to three years; “Medium” covers three to eight years; “Long” covers a period over eight years.

The strategies and actions in the LRSP can also link to the current and future updates of SFMPO-led programs including the Long Range Transportation Plan, the Transportation Improvement Program, Bicycle/Pedestrian Master Plan, and Regional Transit Plan. Bringing together the LRSP with these other plans and programs has the potential to reduce administrative burden, encourages the use of consistent data and analysis methods, and allocates resources to identified locations and programs that address the greatest safety needs in the region.

⁷¹ New Mexico Department of Transportation, Traffic Safety Division, <https://api.realfile.rtsclients.com/PublicFiles/f260a66b364d453e91ff9b3fedd494dc/f3d769ba-f5b9-4898-bd16-6293933a0f26/LEL%20Contact%20Information%20and%20list%20of%20Law%20Enforcement%20Agencies%20conducting%20ENDWI%20activities>










Regional Safety Priorities

Legend:  = Equity Area  = Short Time Frame  = Medium Time Frame  = Long Time Frame

Rank	Project Name and Description	Lead Agency	Cost (Low, Medium, High)	Safe System Element	Emphasis Area	Equity	Time Frame
1	Systemic Safety Improvement: Intersection and Pedestrian Conspicuity: Systemic application of traffic signal backplates, high-visibility crosswalks, stop bars.	City of Santa Fe Santa Fe County SFMPO	Low	Safe Roads Safe Users	Intersections Pedestrians Bicyclists Older Drivers Younger Drivers		
2	Systemic Safety Improvement: Road Safety Audit; Traffic Calming; Restriping; Street & Road Redesign; ADA Compliance; Pedestrian Safety Countermeasures: Systemic application of analysis and implementation of fundamental street and road design elements intended to increase safety for all users	City of Santa Fe	Low, Medium, and High	Safe Roads Safe Users	Pedestrians Bicyclists Older Drivers Younger Drivers		
3	Systemic Curve Enhancement: Systemic application of Chevrons and Advanced Warning Signs to ensure consistent application on rural two-lane roadways.	City of Santa Fe Santa Fe County SFMPO	Low	Safe Roads	Roadway Departure		
4	Systemic Safety Improvement: Adding bicycle facilities where feasible: Systemic narrowing of travel lanes, and application of shoulders, bike lanes, sharrows, and/or buffer strips upon road restriping whenever road restriping is implemented, and the road configuration allows. Review of existing bike lanes to make sure that proper signage exists where bike lanes end or where users must merge with traffic.	City of Santa Fe Santa Fe County	Low	Safe Roads Safe Users	Bicyclists		
5	Review of codes, ordinances, and development plans for compliance with complete street design and recognition of all modes, updating and enforcing these where necessary. Include review of sidewalk policies.	City of Santa Fe Santa Fe County SFMPO	Low	Safe Roads Safe Users Safe Speeds	Intersections Pedestrians Bicyclists		

Regional Safety Priorities
















Legend:  = Equity Area  = Short Time Frame  = Medium Time Frame  = Long Time Frame

Rank	Project Name and Description	Lead Agency	Cost (Low, Medium, High)	Safe System Element	Emphasis Area	Equity	Time Frame
6	Rectangular Rapid Flashing Beacon (RRFB): Installation of RRFB at two midblock crossing locations.	City of Santa Fe Santa Fe County SFMPO	Low	Safe Roads Safe Users	Pedestrians		
7	Bishops Lodge Road and Tesuque Village Road Multimodal Road Safety Audit (RSA).	Santa Fe County	Low (\$50,000) ⁷²	Safe Roads Safe Users Safe Speeds	Intersections Pedestrians Bicyclists		
8	Cerrillos Road Reconstruction (St. Michaels Drive to St. Francis Drive): Reconstruct to add medians, drainage, bike lanes, sidewalks, and transit facilities.	NMDOT	High (\$30M) ⁷²	Safe Roads Safe Users Safe Speeds	Intersections Pedestrians Bicyclists Older Drivers Younger Drivers Speeding		
9	S100440 - NM 466 (St. Michaels): Study, design, and construction of the St. Francis Drive/ St. Michaels Drive interchange; pedestrian ADA improvements; pavement preservation; bridge reconstruction.	NMDOT	High (\$15.54M) ⁷²	Safe Roads Safe Users	Intersections Pedestrians Older Drivers Younger Drivers Speeding		
10	S100460 - Guadalupe Street Road Diet and Paseo de Peralta/Guadalupe Street Intersection Improvements: Reduce the road from 4 to 3 lanes, add bike lanes, widen sidewalks, and add additional pedestrian crossing from Paseo de Peralta (North) to Agua Fria Street. Reconfigure intersection to improve pedestrian crossings and upgrade traffic signals.	City of Santa Fe	High (\$4.15M) ⁷²	Safe Roads Safe Users Safe Speeds	Intersection Pedestrians Bicyclists Speeding		

⁷² Santa Fe 2020-2045 MTP, https://santafemtp.org/wp-content/uploads/2021/11/Santa-Fe-MTP_FINAL_111621-low-res.pdf

Regional Safety Priorities












Legend:  = Equity Area  = Short Time Frame  = Medium Time Frame  = Long Time Frame

Rank	Project Name and Description	Lead Agency	Cost (Low, Medium, High)	Safe System Element	Emphasis Area	Equity	Time Frame
11	S100122 - South/East Connector: ROW acquisition, design, and construction of a new road.	Santa Fe County	High (\$4.750) ⁷³	Safe Roads Safe Users Safe Speeds	Roadway Departure Intersection Pedestrians Bicyclists Speeding		
12	S100470 - St. Michaels Underpass; Design and construction of an underpass along the Rail Trail.	City of Santa Fe	High (\$4.70M) ⁷³	Safe Roads Safe Users	Intersection Pedestrians Bicyclists		
13	S100370 - Agua Fria Street/Cottonwood Drive Intersection Safety Improvements: Construct a roundabout at the intersection.	City of Santa Fe	High (\$1.775M) ⁷³	Safe Roads	Intersection		
14	Agua Fria/South Meadows Intersection Improvements: Reconfigure intersection to include left turn bays on Agua Fria and improve pedestrian crossings and upgrade traffic signals.	City of Santa Fe	High (\$3.150M) ⁷³	Safe Roads Safe Users	Intersection Pedestrian Older Drivers Younger Drivers		
15	Acequia Trail Extension (Otowi to La Cieneguita)	City of Santa Fe	High (\$3 M) ⁷³	Safe Roads Safe Users	Pedestrians Bicyclists		
16	Transit Fixed Route Vehicle Replacement	City of Santa Fe	High (\$5.3 M) ⁷³	Safe Vehicles	All		
17	Arroyo De Los Chamisos Crossing	City of Santa Fe	High (\$11.8 M) ⁷³	Safe Roads Safe Users	All		
18	Lopez Lane Bicycle and Pedestrian Improvements	City of Santa Fe	High (\$2.5 M) ⁷³	Safe Roads Safe Users	Pedestrians Bicyclists		

⁷³ Santa Fe 2020-2045 MTP, https://santafemtp.org/wp-content/uploads/2021/11/Santa-Fe-MTP_FINAL_111621-low-res.pdf

Regional Safety Priorities
















Legend:  = Equity Area  = Short Time Frame  = Medium Time Frame  = Long Time Frame

Rank	Project Name and Description	Lead Agency	Cost (Low, Medium, High)	Safe System Element	Emphasis Area	Equity	Time Frame
19	Cerrillos/Sandoval Intersection Improvements: Pedestrian improvements, striping, signage, reconfigure medians.	City of Santa Fe	High (\$1.80M) ⁷⁴	Safe Roads Safe Users	Intersections Pedestrians Bicyclists		
20	St. Michaels Road Diet/Road Reconstruction	City of Santa Fe	High (\$23.0 M) ⁷⁴	Safe Roads Safe Users	Pedestrians Bicyclists Intersections		
21	Bishop’s Lodge Road Reconstruction: Redesign and reconstruction including the addition of sidewalks, curb gutter, bike lanes, and associated drainage facilities.	City of Santa Fe	High (\$10.2M) ⁷⁴	Safe Roads Safe Users	Pedestrians Bicyclists Intersections		
22	Camino del Monte Sol: Expand the street to add shoulders and repave from Camino de Cruz Blanca to Old Santa Fe Trail.	City of Santa Fe	Low (\$120K) ⁷⁴	Safe Roads Safe Users	Roadway Departure Bicyclists		
23	St. Francis Drive Pedestrian Intersection Improvement: Pedestrian improvements at all the intersections along St. Francis Drive.	NMDOT/City of Santa Fe	Low-Medium (\$600K) ⁷⁴	Safe Roads Safe Users	Pedestrians Intersections		
24	Paseo del Sol Extension: Roadway extension of Paseo del Sol within the Tierra Contenta Master Planned development. The roadway will include 2 travel lanes, bicycle lanes, sidewalk, lighting, and landscaping.	City of Santa Fe	High (\$8.0M) ⁷⁴	Safe Roads Safe Users	Roadway Departure Pedestrians Bicyclists Intersections		
25	Sandoval/Montezuma Intersection Improvements: Pedestrian improvements, striping, signage.	City of Santa Fe	Low-Medium (\$850K) ⁷⁴	Safe Roads Safe Users Safe Speeds	Intersections Pedestrians		

⁷⁴ Santa Fe 2020-2045 MTP, https://santafemetro.org/wp-content/uploads/2021/11/Santa-Fe-MTP_FINAL_111621-low-res.pdf

Regional Safety Priorities












Legend:  = Equity Area  = Short Time Frame  = Medium Time Frame  = Long Time Frame

Rank	Project Name and Description	Lead Agency	Cost (Low, Medium, High)	Safe System Element	Emphasis Area	Equity	Time Frame
26	San Felipe Road Reconstruction: Reconstruct roadway from Airport Road to Agua Fria Street and add bike lanes, curb and gutter, sidewalk.	City of Santa Fe	High (\$1.6M) ⁷⁵	Safe Roads Safe Users	Bicyclists Pedestrians		
27	Rancho Viejo Boulevard Bike Lanes (Shoulders): Widen from NM 14 to Avenida del Sur to add bike lanes.	Santa Fe County	Medium (\$1.0M) ⁷⁵	Safe Roads Safe Users	Bicyclists		
28	Bishop Lodge Road Bicycle, Pedestrian, ADA, and Transit Improvements.	Santa Fe County	High (\$4M) ⁷⁵	Safe Roads Safe Users	Intersections Pedestrians Bicyclists		
29	Agua Fria Road/Henry Lynch Street Intersection Roundabout-Study.	Santa Fe County	Low (\$130,000) ⁷⁵	Safe Roads	Intersections		
30	Beckner Road/Richards Avenue Intersection Improvements: Pedestrian improvements, striping, signage.	City of Santa Fe	High (\$2.0M) ⁷⁵	Safe Roads	Pedestrians Intersections		
31	Tesuque Village Road Bike Lanes: Extend bike lanes from the Tesuque Pueblo Fire Department to the Pueblo of Tesuque boundary.	Santa Fe County	High (\$1.65M) ⁷⁵	Safe Roads Safe Users	Bicyclists		
32	South Capital Area/Cordova Road Reconstruction.	City of Santa Fe	High (\$1.5 M) ⁷⁵	Safe Roads Safe Users	Intersections Pedestrians Bicyclists		
33	West Alameda Street Bike Lanes (City): Widen from Calle Nopal to Siler Road to add bike lanes and improve drainage.	City of Santa Fe	High (\$9.4 M) ⁷⁵	Safe Roads	Bicyclists		
34	Cerrillos Phase III Ped and Bike Improvements.	City of Santa Fe	High (\$5.0 M)	Safe Roads Safe Users	Pedestrians Bicyclists		

⁷⁵ Santa Fe 2020-2045 MTP, https://santafemetro.org/wp-content/uploads/2021/11/Santa-Fe-MTP_FINAL_111621-low-res.pdf

Regional Safety Priorities

Legend:  = Equity Area  = Short Time Frame  = Medium Time Frame  = Long Time Frame

Rank	Project Name and Description	Lead Agency	Cost (Low, Medium, High)	Safe System Element	Emphasis Area	Equity	Time Frame
35	Governor Miles Road Reconstruction: Reconstruct road from Richards Avenue to Pueblos del Sol and add bike lanes, curb and gutter, sidewalk.	City of Santa Fe	\$2,000,000	Safe Roads Safe Users	Pedestrians Bicyclists		
36	Bicycle & Pedestrian Wayfinding System.	City of Santa Fe	Med (\$0.4 M)	Safe Roads Safe Users	Pedestrians Bicyclists		
37	Buckman Road Bike and Pedestrian Improvements.	City of Santa Fe	High (\$1.25 M)	Safe Roads Safe Users	Pedestrians Bicyclists		
38	Calle Po Ae Pi Extension: Pave dirt section include sidewalks.	City of Santa Fe	High (\$1.5 M)	Safe Roads Safe Users	Pedestrians		
39	Cerro Gordo Reconstruction: Road improvements from Armijo Lane to Canyon Road. Existing road consists of millings over a dirt road and will need to be engineered for drainage and pavement.	City of Santa Fe	High (\$6.0 M)	Safe Roads Safe Users	Intersections Pedestrians Bicyclists		
40	Rufina St & Lopez Lane Intersection Improvements: Pedestrian improvements, striping, signage, reconfigure medians.	City of Santa Fe	High (\$2.5 M)	Safe Roads Safe Users	Intersections Pedestrians Bicyclists		
41	New Entrance Road Regional Airport.	City of Santa Fe	High (\$9.0 M)	Safe Roads Safe Users	All		
42	US-285 Frontage Road Corridor Study through the Pueblo of Tesuque.	NMDOT, Pueblo of Tesuque, SFMPO	Low (\$0.2 M)	Safe Roads Safe Users	Pedestrians Bicyclists		

Appendix

Regional Crash Trees

Roadway Departure Crashes

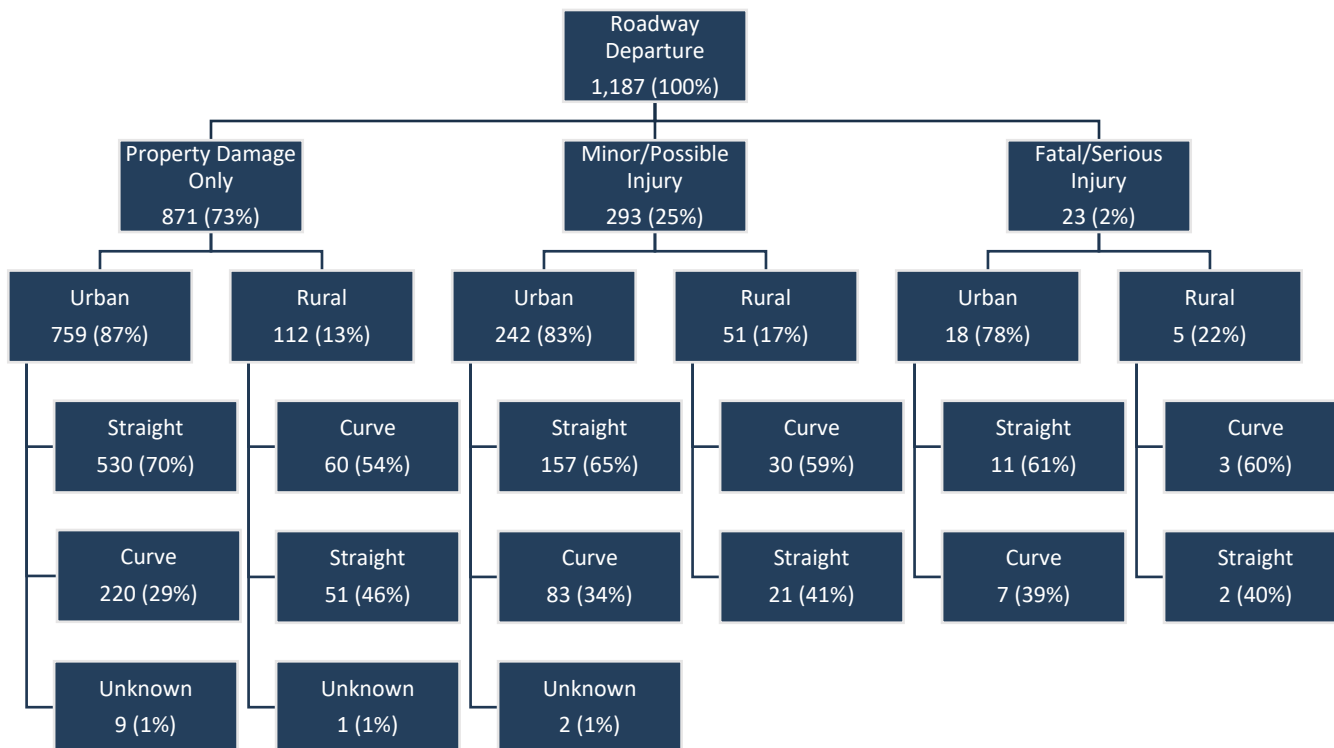


Figure 34. Graphic. Roadway departure fatal and injury crashes, 2015-2019 (Source: NMDOT, 2021).

The crash tree shown in figure 35 shows that of the total number of roadway departure crashes on the local streets and roads in the Santa Fe region, 23 resulted in a fatality or serious injury and 290 resulted in a possible injury. Over 80 percent of these crashes occurred on urban streets and roads, of which 35 percent involved curves. Nearly 60 percent of the fatal, serious injury, and possible injury roadway departure-related crashes involved curves on the rural local streets and roads in the region. A review of the crash data indicates a majority of the roadway departure crashes occurred during dark conditions.

Distracted Driving Crashes

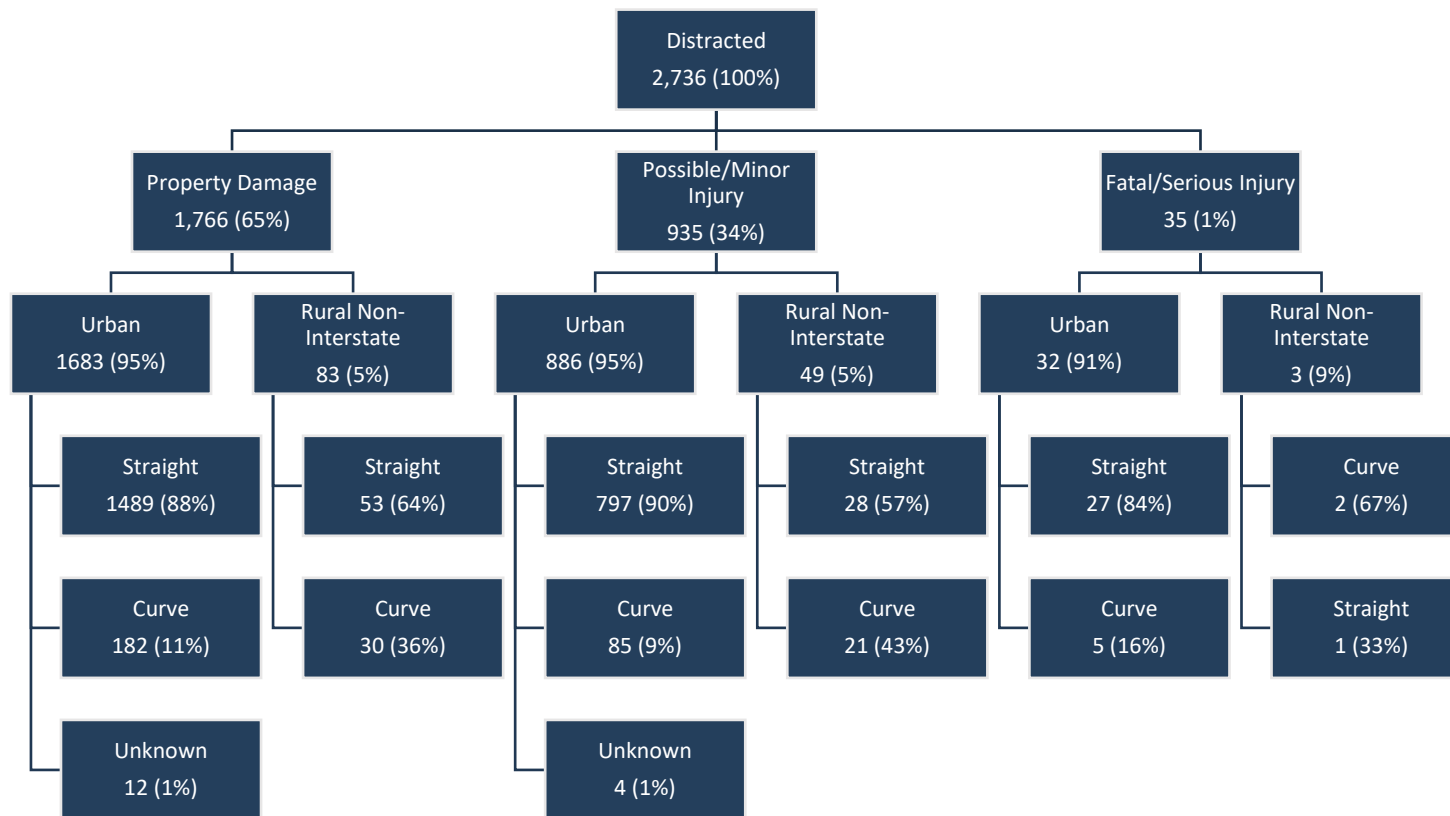


Figure 35. Graphic. Distracted driving fatal and injury crashes, 2015-2019 (Source: NMDOT, 2021).

The distracted driving crash tree shown in figure 36 reflects the crashes from NMDOT’s SAMS database that are listed as driver inattention, disregarding traffic signal, or passed stop sign. Of the total number of distracted driving crashes on the local streets and roads in the Santa Fe region, 35 resulted in a fatal and serious injury crash, and 935 resulted in possible injury. These crashes primarily occurred on urban local streets and roads, with the majority on straight streets and roads. Distracted driving is a factor on rural roads in the region. A review of the crash data indicates that many of the crashes involving distracted driving occur during daylight conditions.

Impaired Driving Crashes

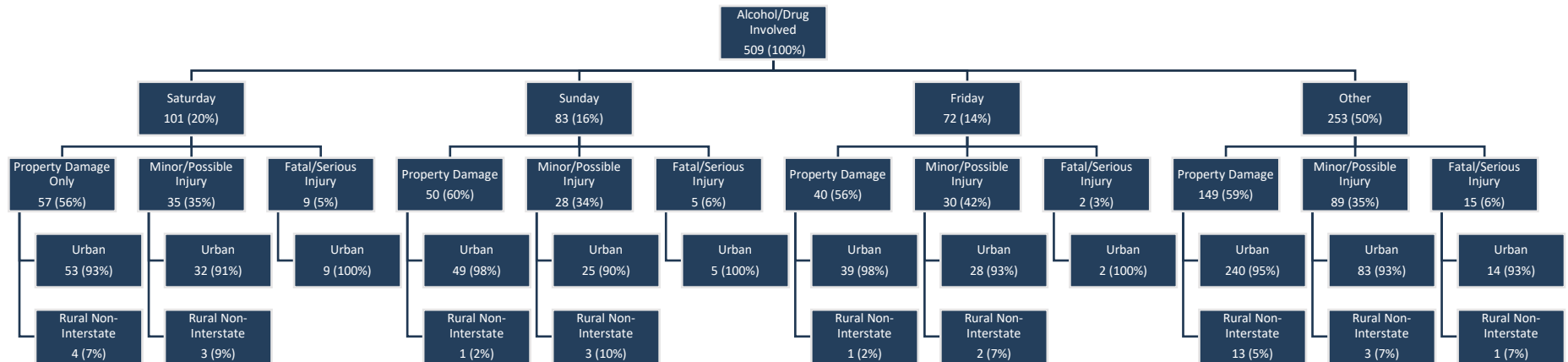


Figure 36. Graphic. Impaired driving crashes, 2015-2019 (Source: NMDOT, 2021).

The impaired driving crash tree shown in figure 37 indicates those crashes in the Santa Fe region that have alcohol or drugs identified in the SAMS database as a factor in the cause of the crash. Approximately 50 percent of the total impaired driving crashes occur on Friday, Saturday, and Sunday. On these three days of the week, all of the fatal and serious injury crashes occurred on the urban local streets and roads in the region. A review of the data indicates that the largest number of impaired driving crashes occurred during dark conditions.

Speeding/Aggressive Driving Related Crashes

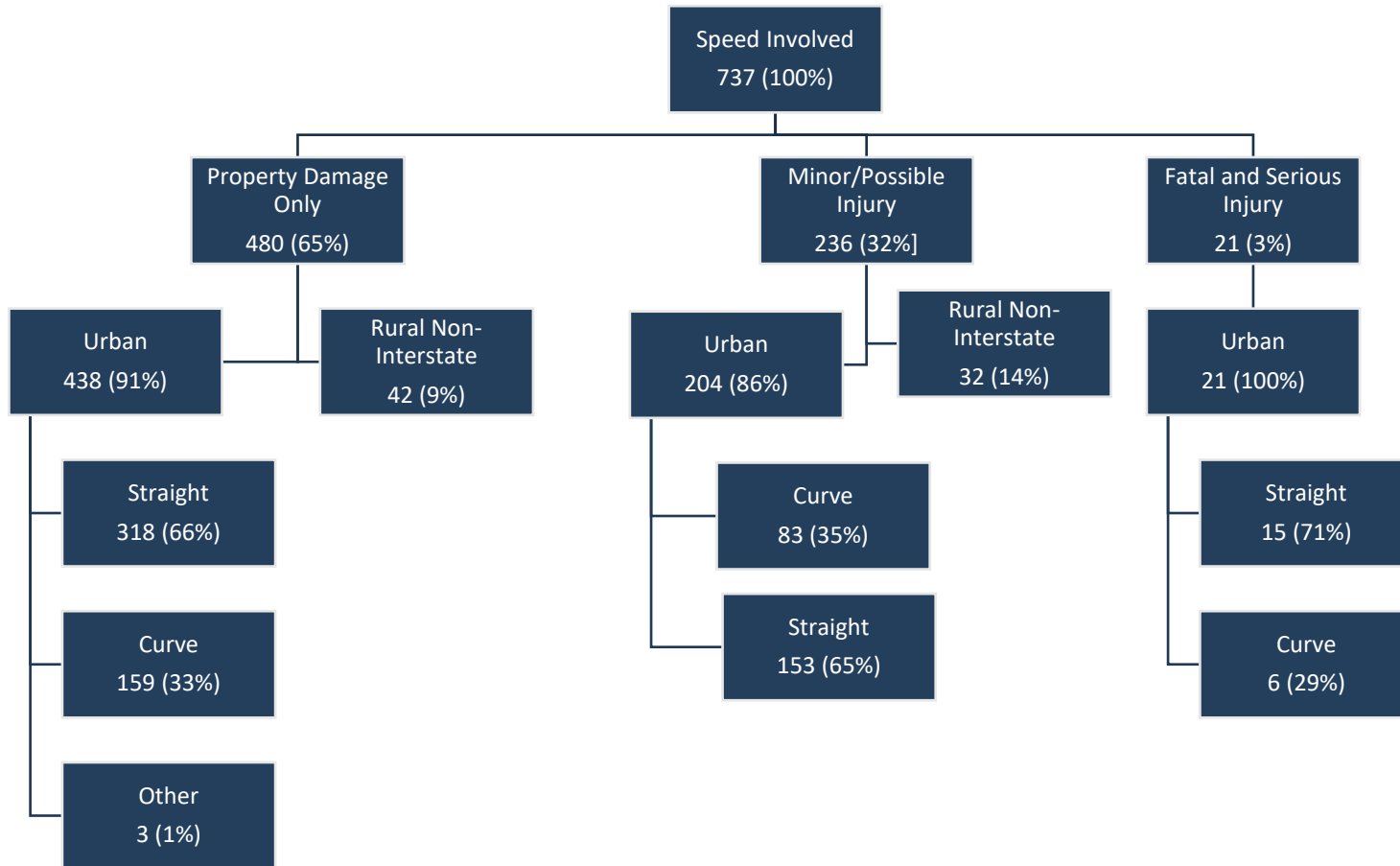


Figure 37. Graphic. Speeding-related crashes, 2015-2019 (Source: NMDOT, 2021).

The crash tree shown in figure 38 reflects the crashes involving speeding and aggressive driving on local streets and roads in the Santa Fe region. Of the total number of speed-related crashes, 21 resulted in a fatal or serious injury and 236 resulted in a possible injury. All of the fatal and serious injury crashes and a majority of those that resulted in a possible injury occurred on urban streets and roads in the region. Of these crashes, 40 percent involved curves.

Older Driver Involved Crashes

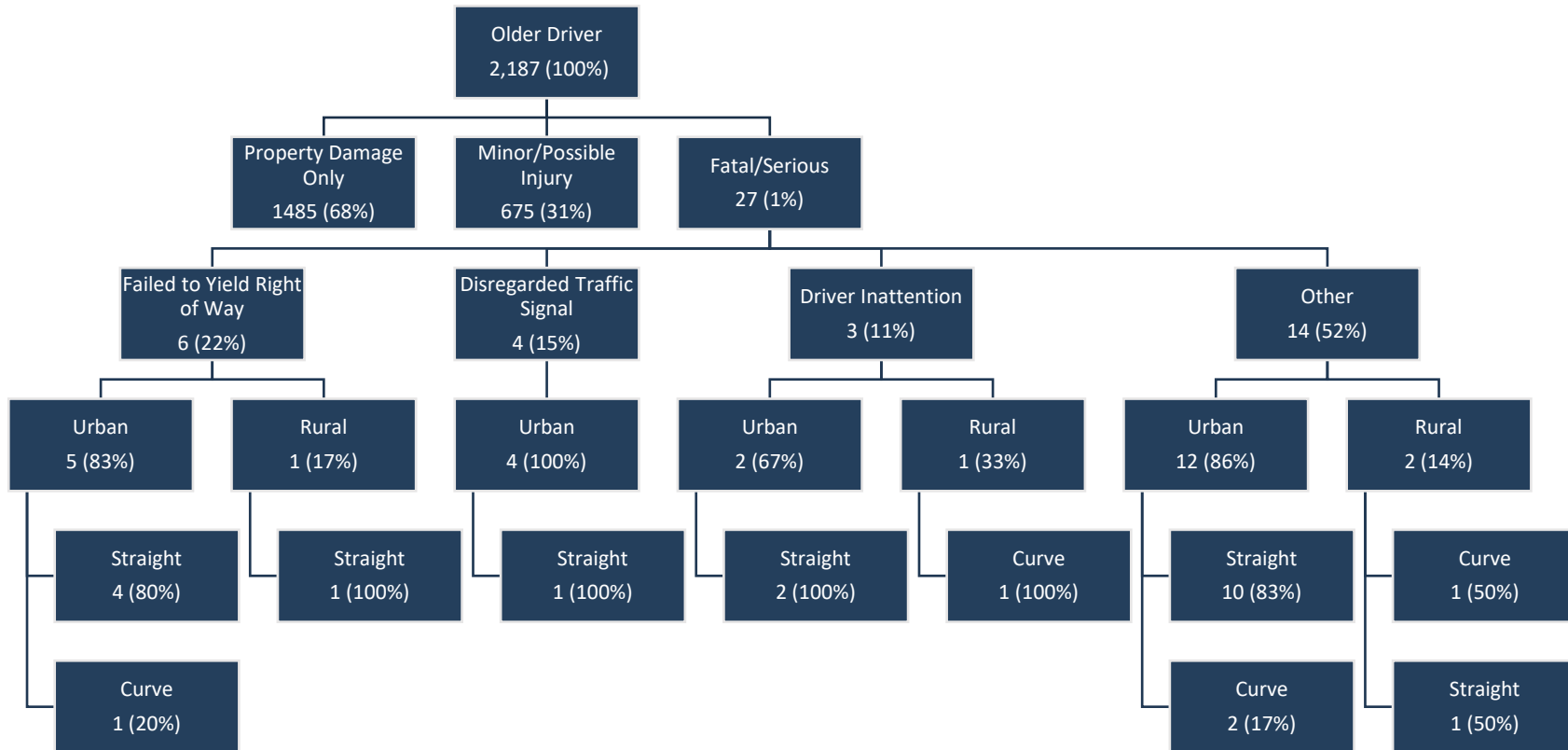


Figure 38. Graphic. Older driver-involved fatal and injury crashes, detailed fatal and serious injury crashes, 2015-2019 (Source: NMDOT, 2021).

The crash tree shown in figure 39 indicates that of the total number of crashes involving older drivers (65 years of age and older), 27 resulted in a fatality or serious injury and 675 resulted in a possible injury. Three primary factors related to the fatal and serious injury crashes involving older drivers are failure to yield the right of way, disregarded a traffic signal, and driver inattention. These crashes primarily occurred in urban areas. Figure 39 provides more information regarding older drivers involved in crashes resulting in a possible injury.

Older Driver Involved Crashes

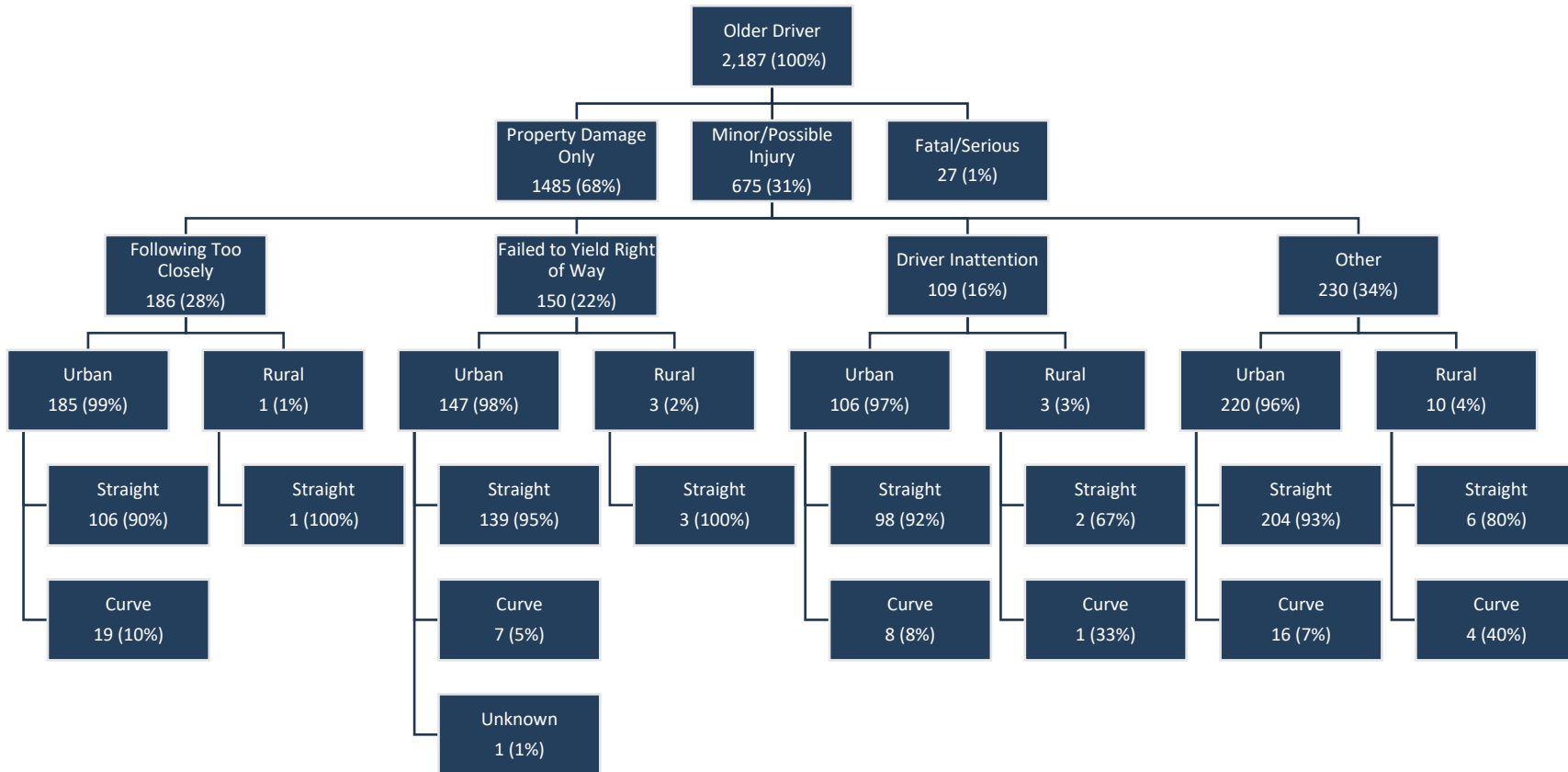


Figure 39. Graphic. Older driver-involved possible injury crashes, 2015-2019 (Source: NMDOT, 2021).

The crash tree shown in figure 40 indicates that of the total number of crashes involving older drivers (65 years of age and older), 675 resulted in a possible injury. Three primary factors related to these crashes are following too closely, failure to yield the right of way, and driver inattention. These occurred on urban local streets and roads in the region. Curves are a factor in these crashes.

Younger Driver-Involved Crashes

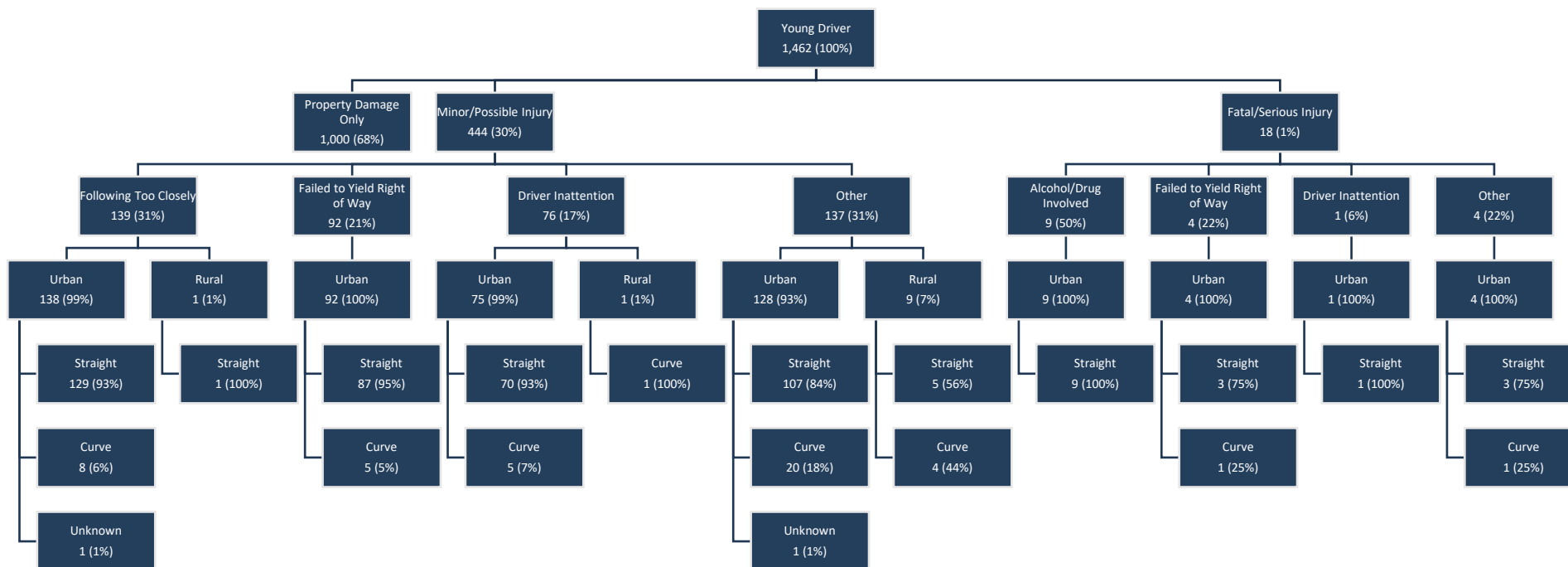


Figure 40. Graphic. Younger driver-involved crashes, 2015-2019 (Source: NMDOT, 2021).

The crash tree shown in figure 41 indicates that of total number of crashes involving younger drivers, 18 resulted in a fatality or serious injury and 444 resulted in a possible injury. Alcohol or drug involvement represents 50 percent (9) of the fatal and serious injury crashes involving younger drivers in the region and all of these occurred on urban local streets and roads. Other factors related to these younger drivers are following too closely, failure to yield the right of way, and driver inattention in urban areas. Although most of the crashes occurred on straight streets and roads, curves are a factor in almost 10 percent of all of the injury crashes involving younger drivers.

Pedestrian-Involved Crashes

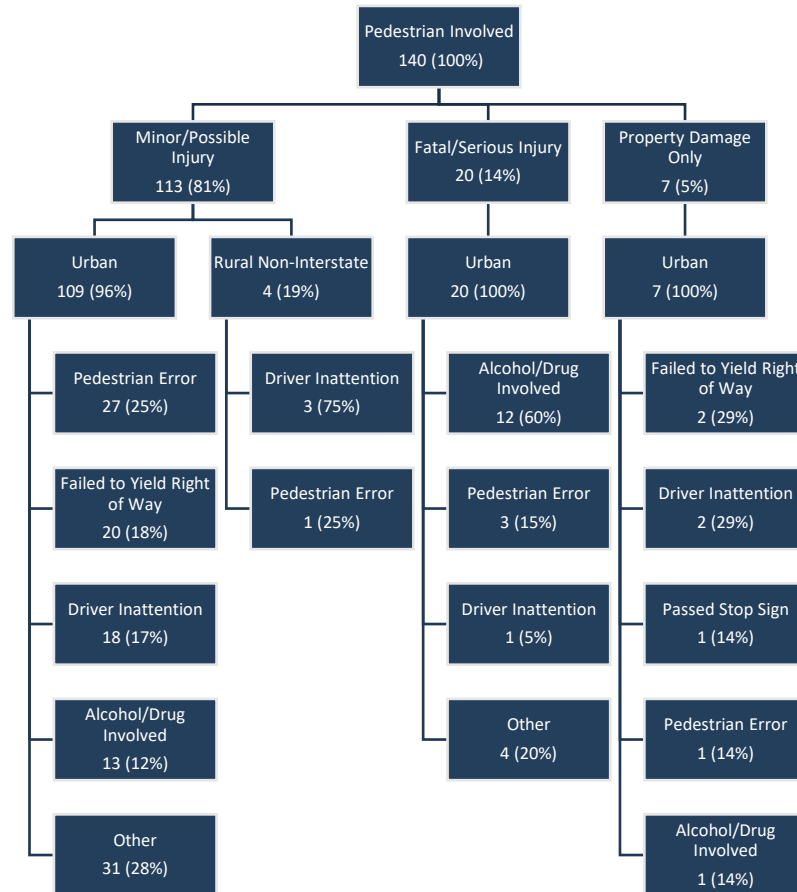


Figure 41. Graphic. Pedestrian-involved crashes, 2015-2019 (Source: NMDOT, 2021)..

The crash tree shown in figure 42 indicates that 140 total crashes on local streets and roads in the region involved pedestrians. Of these, 20 resulted in a fatality or serious injury and 113 resulted in a possible injury. These crashes occurred primarily on urban streets and roads. Alcohol and drugs were a factor in 60 percent of the fatal and serious injury crashes. Pedestrian error, failure to yield the right of way, and driver inattention are the primary factors in pedestrian-involved crashes.

Bicyclist-Involved Crashes

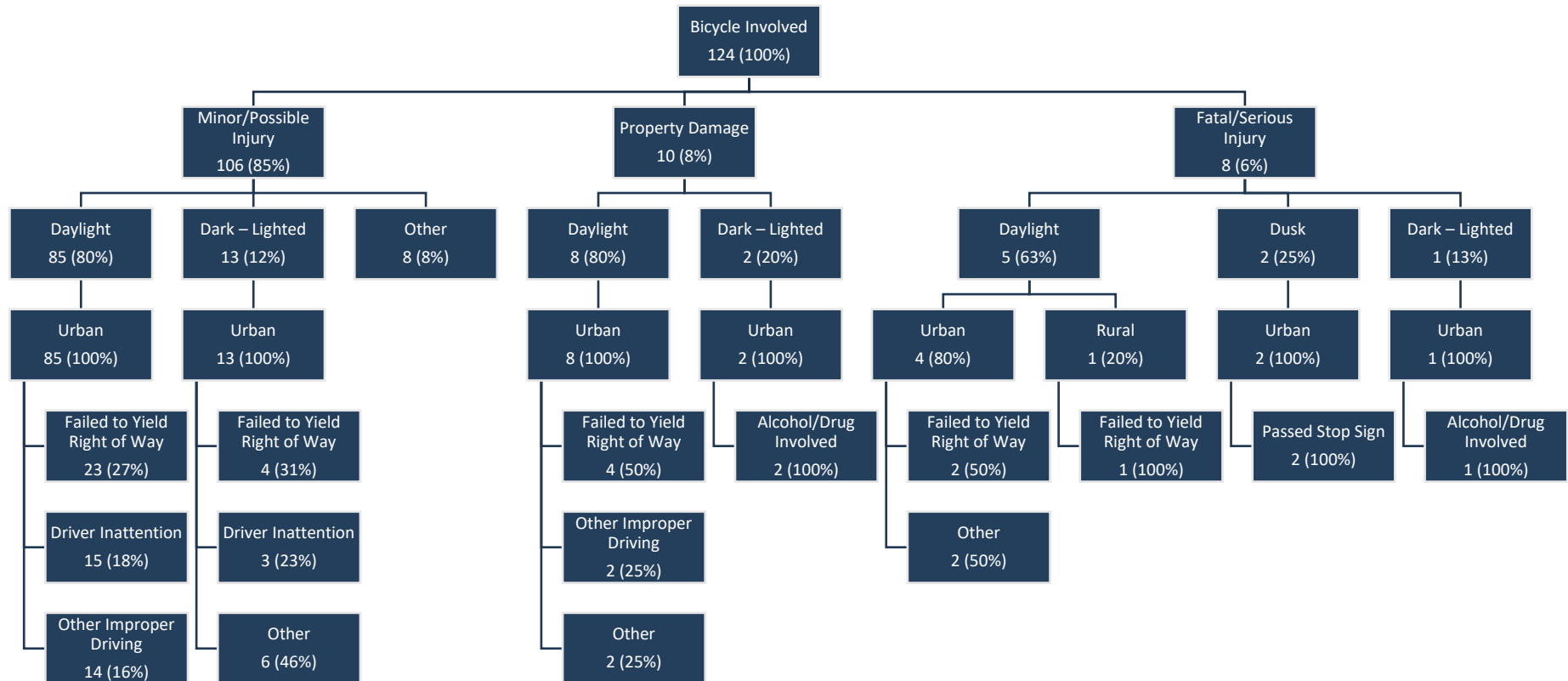


Figure 42. Graphic. Bicycle-involved crashes 2015-2019 (Source: NMDOT, 2021).

The crash tree shown in figure 43 indicates that of the total number of bicycle-involved crashes, eight resulted in a fatality and serious injury and 106 resulted in a possible injury. All of these crashes except for 1 occurred on urban local streets and roads. The majority of these occurred during daylight conditions. Failure to yield the right of way is a common factor in these crashes.

Improper Restraint Use in Crashes

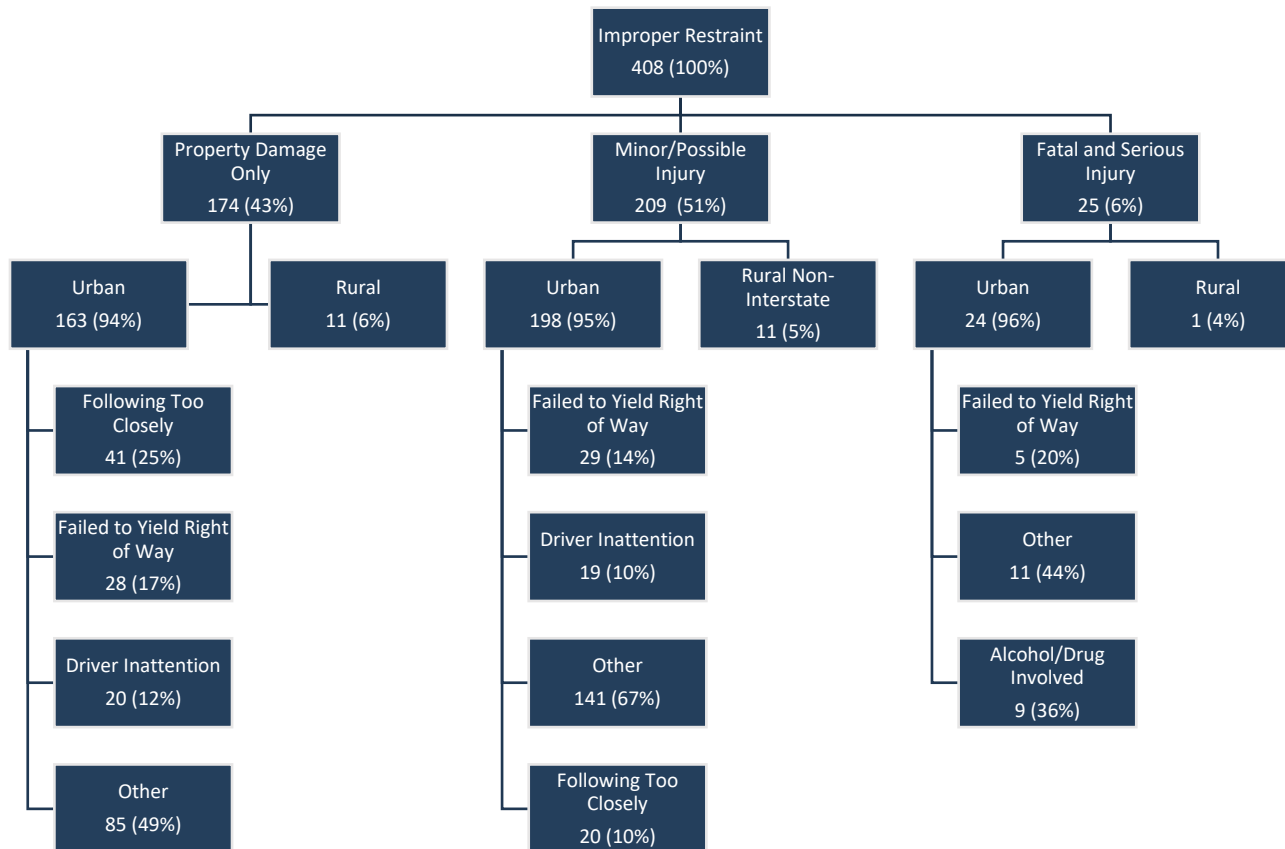


Figure 43. Graphic. Improper restraint use in crashes, 2015-2019 (Source: NMDOT, 2021).

The crash tree shown in **Error! Reference source not found.** shows the distribution of crashes involving the improper use of vehicle restraints. Although not an emphasis area for the LRSF, improper use of vehicle restraints contributes to 23 percent of the fatal and serious injury crashes in the Santa Fe region. Of the total number of crashes involving improper restraint use by the vehicle occupant, 25 crashes resulted in a fatal and serious injury and 209 crashes in a possible injury. These primarily occurred on urban local streets and roads within the region. Other contributing factors in these crashes include failure to yield the right of way, following too closely, and alcohol or drug involvement. A review of the data indicates that over one-quarter of these drivers were aged 65 or over. Over 50 percent of the fatal and injury crashes with a restraint not used occurred during daylight conditions.

Motorcycle-Involved Crashes

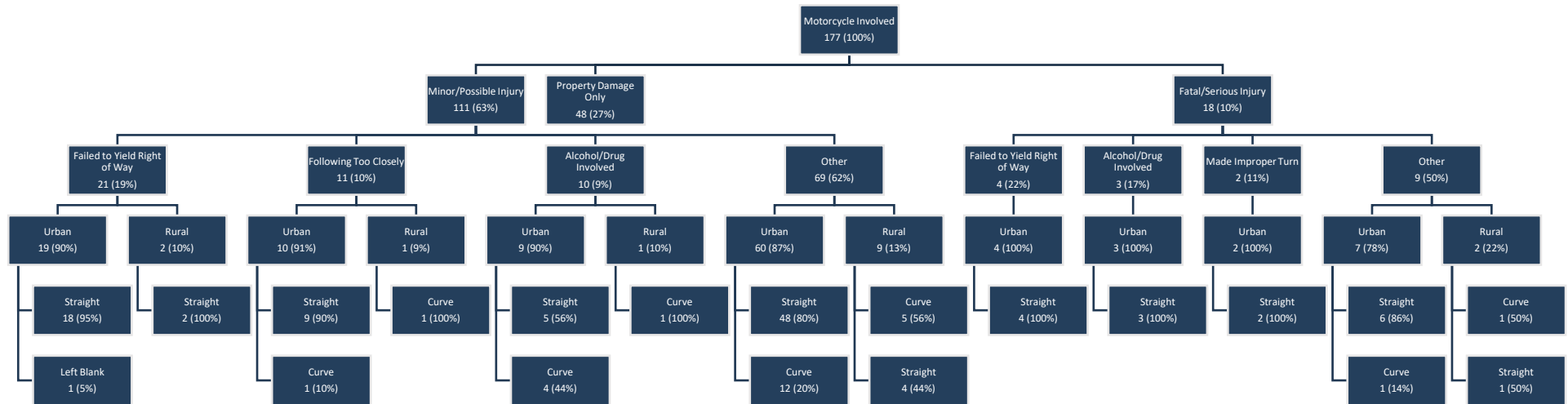


Figure 44. Graphic. Motorcycle-involved fatal and injury crashes, 2015-2019 (Source: NMDOT, 2021).

The crash tree shown in figure 45 represents crashes involving motorcycles on local streets and roads. Although not a LRSP emphasis area, addressing motorcycle crashes in combination with other emphasis areas can result in reductions of fatalities and serious injuries. Of the total number of motorcycle-involved crashes, 18 resulted in a fatality and serious injury and 111 resulted in a possible injury. These crashes are primarily in urban areas and on straight sections of streets and roads. Failure to yield right of way, alcohol or drug involvement, and making an improper turn are common factors in these crashes.

High Injury Network (HIN)

Table 5. High Injury Network (HIN), Source: NMDOT, 2022.

HIN Route	Length	K Crashes	A Crashes	B Crashes	% of Locality KA Crashes	% of Locality KAB Crashes	% of Locality Miles
AGUA FRIA RD	4.01	0	2	24	1.83%	3.59%	0.24%
AGUA FRIA ST	3.62	0	2	23	1.83%	3.45%	0.22%
AIRPORT RD	3.06	3	10	62	11.93%	10.36%	0.18%
ALAMEDA FRONTAGE RD	0.49	0	0	2	0.00%	0.28%	0.03%
ALTA VISTA ST	0.89	0	0	0	0.00%	0.00%	0.05%
AVENIDA DE AMISTAD	1.64	0	0	2	0.00%	0.28%	0.10%
AVENIDA VISTA GRANDE	4.42	0	0	3	0.00%	0.41%	0.27%
BACA ST	0.56	0	1	2	0.92%	0.41%	0.03%
BUCKMAN RD	1.71	0	0	2	0.00%	0.28%	0.10%
CALLE ATAJO	1.07	0	0	4	0.00%	0.55%	0.06%
CAMINO ALIRE	0.41	0	0	6	0.00%	0.83%	0.02%
CAMINO CAPILLA VIEJA	1.44	0	0	0	0.00%	0.00%	0.09%
CAMINO CARLOS REY	1.88	2	2	10	3.67%	1.93%	0.11%
CAMINO DE LA FAMILIA	0.08	0	0	0	0.00%	0.00%	0.00%
CAMINO LA TIERRA	4.55	0	2	4	1.83%	0.83%	0.27%
CERRILLOS RD	5.92	10	20	121	27.52%	20.86%	0.36%
COUNTRY CLUB RD	0.76	0	2	5	1.83%	0.97%	0.05%
DON GASPAR AVE	1.95	0	0	4	0.00%	0.55%	0.12%
E CORDOVA RD	0.44	0	0	2	0.00%	0.28%	0.03%
E PALACE AVE	1.05	0	0	2	0.00%	0.28%	0.06%
FIFTH ST	0.96	0	0	4	0.00%	0.55%	0.06%
GALISTEO ST	2.53	0	2	8	1.83%	1.38%	0.15%
HICKOX ST	0.62	0	1	3	0.92%	0.55%	0.04%
HOPEWELL ST	0.50	0	1	2	0.92%	0.41%	0.03%
JAGUAR DR	3.02	0	1	8	0.92%	1.24%	0.18%
JAMES AVE	0.18	0	0	0	0.00%	0.00%	0.01%
JORGENSEN LN	0.16	1	0	1	0.92%	0.28%	0.01%

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HIN Route	Length	K Crashes	A Crashes	B Crashes	% of Locality KA Crashes	% of Locality KAB Crashes	% of Locality Miles
LLANO ST	0.52	0	1	11	0.92%	1.66%	0.03%
LOPEZ LN	1.09	0	2	3	1.83%	0.69%	0.07%
LOS PINOS RD	4.47	0	0	8	0.00%	1.10%	0.27%
N GUADALUPE ST	0.73	0	1	5	0.92%	0.83%	0.04%
OLD PECOS TRL (N)	1.60	0	2	7	1.83%	1.24%	0.10%
OLD PECOS TRL (S)	1.97	0	3	14	2.75%	2.35%	0.12%
OLD SANTA FE TRL	10.70	0	0	10	0.00%	1.38%	0.64%
PACHECO ST	0.91	1	0	11	0.92%	1.66%	0.05%
PASEO DE PERALTA	1.92	1	3	14	3.67%	2.49%	0.12%
PASEO DEL SOL	1.22	0	1	5	0.92%	0.83%	0.07%
PASEO DEL SOL WEST	1.03	0	0	8	0.00%	1.10%	0.06%
PASEO NOPAL	0.05	0	0	1	0.00%	0.14%	0.00%
RABBIT RD	4.62	0	1	4	0.92%	0.69%	0.28%
RICHARDS AVE	2.33	1	2	22	2.75%	3.45%	0.14%
RODEO RD	5.00	1	4	38	4.59%	5.94%	0.30%
RUFINA ST	2.72	0	2	9	1.83%	1.52%	0.16%
S GUADALUPE ST	0.58	1	1	6	1.83%	1.10%	0.03%
S PACHECO ST	0.36	1	0	13	0.92%	1.93%	0.02%
SAINT MICHAELS DR	2.34	2	6	48	7.34%	7.73%	0.14%
SAN FELIPE RD	0.35	0	2	4	1.83%	0.83%	0.02%
SANDOVAL ST	0.50	1	0	3	0.92%	0.55%	0.03%
SAWMILL RD	0.71	0	1	9	0.92%	1.38%	0.04%
SECOND ST	0.42	0	0	0	0.00%	0.00%	0.03%
SILER RD	0.63	1	3	17	3.67%	2.90%	0.04%
SIRINGO RD	3.62	0	2	18	1.83%	2.76%	0.22%
SOUTH MEADOWS RD	2.41	0	3	12	2.75%	2.07%	0.14%
W ALAMEDA ST	5.25	1	6	20	6.42%	3.73%	0.32%
W CORDOVA RD	0.86	0	1	4	0.92%	0.69%	0.05%
W MANHATTAN AVE	0.76	0	0	1	0.00%	0.14%	0.05%
W PALACE AVE	0.17	0	0	0	0.00%	0.00%	0.01%
W SAN FRANCISCO ST	0.77	1	0	3	0.92%	0.55%	0.05%

SANTA FE METROPOLITAN REGION LOCAL ROAD SAFETY PLAN

HIN Route	Length	K Crashes	A Crashes	B Crashes	% of Locality KA Crashes	% of Locality KAB Crashes	% of Locality Miles
W SAN MATEO RD	1.27	0	0	5	0.00%	0.69%	0.08%
W ZIA RD	2.38	0	2	13	1.83%	2.07%	0.14%
YUCCA ST	1.36	0	2	4	1.83%	0.83%	0.08%
ZAFARANO DR	0.79	0	3	18	2.75%	2.90%	0.05%

