APPENDIX A

Crash Analysis Detailed Review

Crash Analysis

Crashes within the City of Paola from 2014 to 2023 were analyzed to identify crash trends and areas of safety concerns. Crash data is from the Kansas Department of Transportation (KDOT) and does not include near misses or crashes not reported to the police. KDOT aggregates crash data from agencies across the state to provide a comprehensive dataset of crashes occurring on public roadways in Kansas. Between 2014 and 2023, there were 798 crashes, approximately 30% were on US-169. **Table 1** show the total number of crashes occurring in Paola split up based on if the crash occurred on US-169.

Table 1: Paola Crash History (2014-2023)

Crash Severity	Paola (Excluding US-169)	US-169	Paola and US-169
Fatal (K)	1	1	2
Serious Injury (A)	8	2	10
Non-incapacitating Injury (B)	30	14	44
Possible Injury (C)	31	9	40
Property Damage (O)	492	210	702
Total	**562**	**236**	**798**

Approximately a 7 mile stretch of US-169 is within Paola city limits. US-169 makes up 30% of crashes within Paola city boundaries, however the facility is owned and maintained by KDOT. The roadway is also disconnected from Paola by grade separated interchanges. As a result, US-169 was included in a brief corridor specific analysis but was excluded from the bulk of the analysis for Paola because crash trends along US-169 are not correlated to crash trends in Paola.

US-169 Crash Analysis

Figure 1 shows the crashes within Paola along US-169. There is a hotspot at the intersection of Baptiste Dr and US-169.

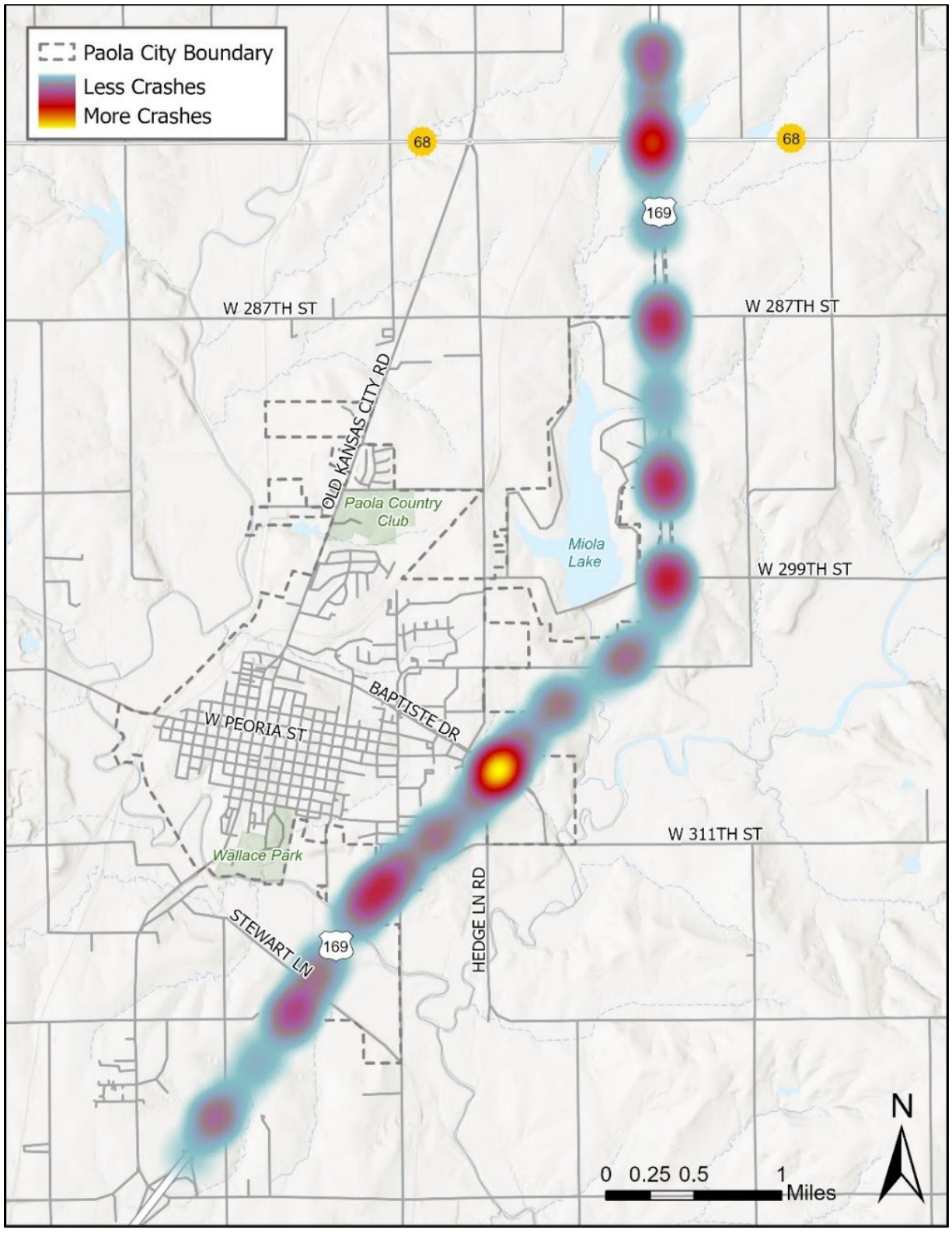


Figure 1: Heat Map of Crashes along US-169

Figure 2 shows the crashes on US-169 by type of crash. Collisions with animals are the most commonly occurring crash type. Animal, fixed object and overturned crashes result in the most injuries. Fixed object and overturned crashes have a larger proportion of injuries in relation to the number of crashes.

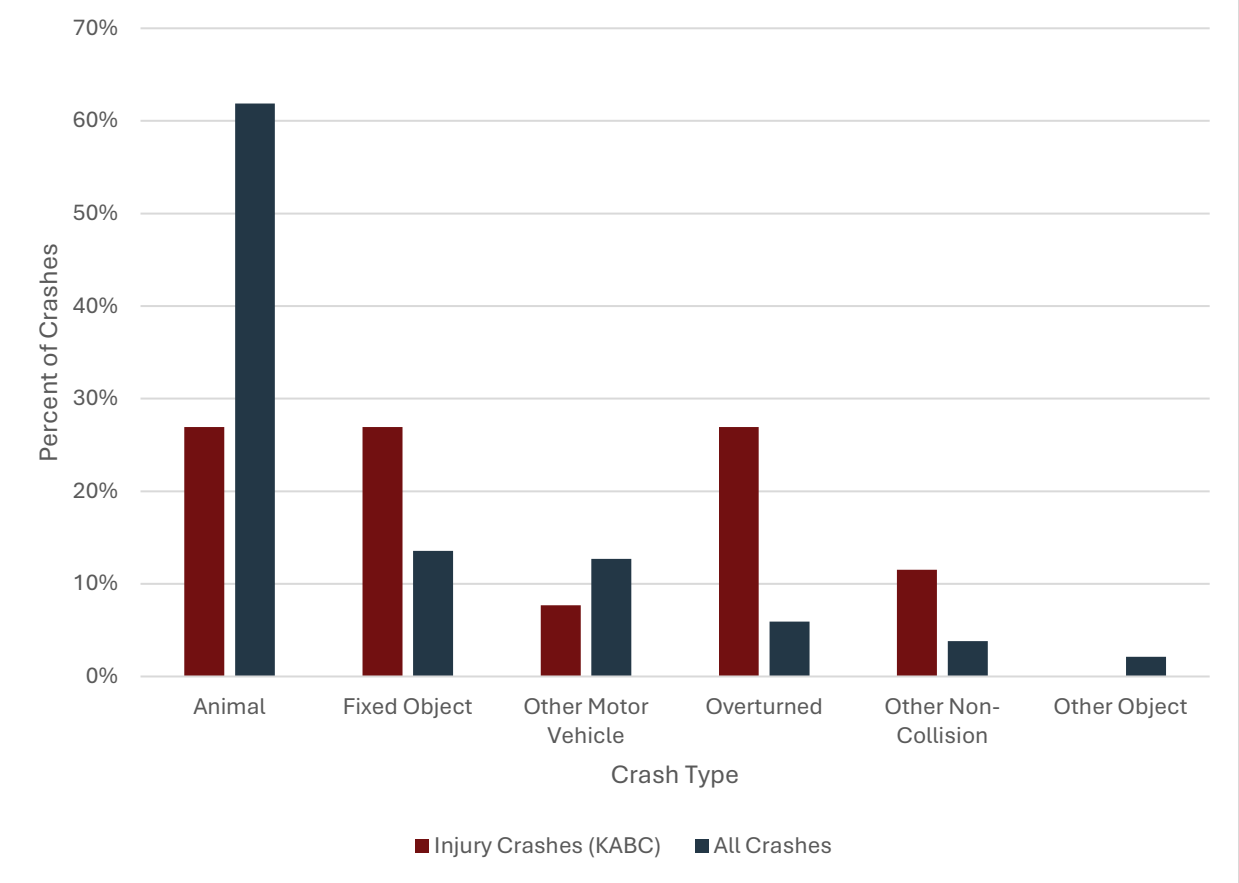


Figure 2: US-169 Crashes by Type

Injury crashes along US-169 are shown in **Figure 3.** There was one fatal crash along US-169 in Paola between 2014 and 2023. The fatality occurred near the W 299th St overpass.

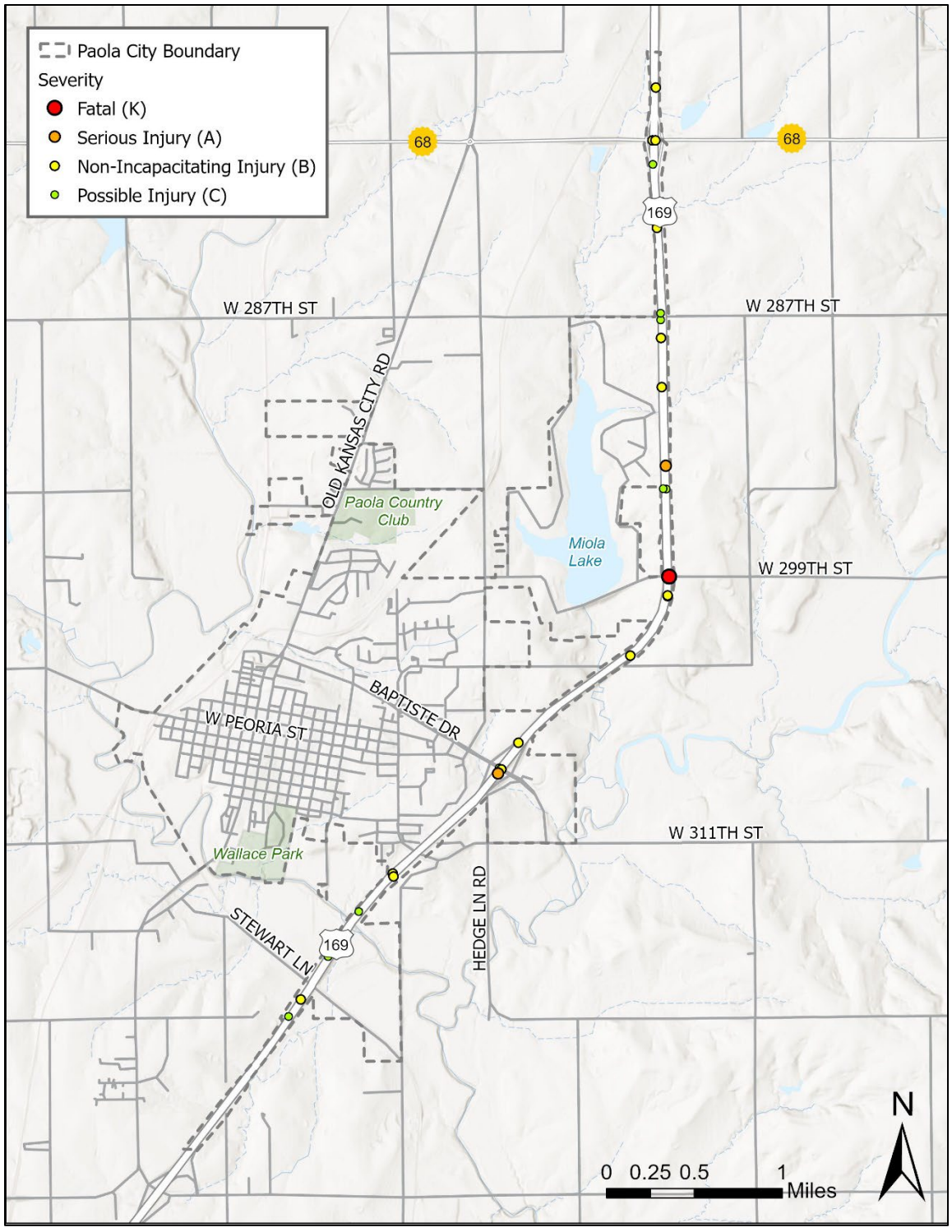


Figure 3: All Injury Crashes along US-169 within Paola

Paola Crash Analysis

As previously mentioned, US-169 is a grade separated, limited-access highway, and is not owned by the City of Paola, as a result it was not included in this following analysis. As a result, the 236 crashes on US-169 were not included in the analysis. Crashes by year in Paola, excluding those on US-169, are shown in **Figure 4.** On average, 55 crashes occurred in Paola a year from 2014 to 2017. Crashes rose significantly in 2018 and peaked at 83 crashes in 2019. Crashes dropped in 2020 and 2021, likely a result of COVID-19 pandemic measures leading to fewer drivers on the road. Crashes resumed to pre-COVID-19 levels in 2022.

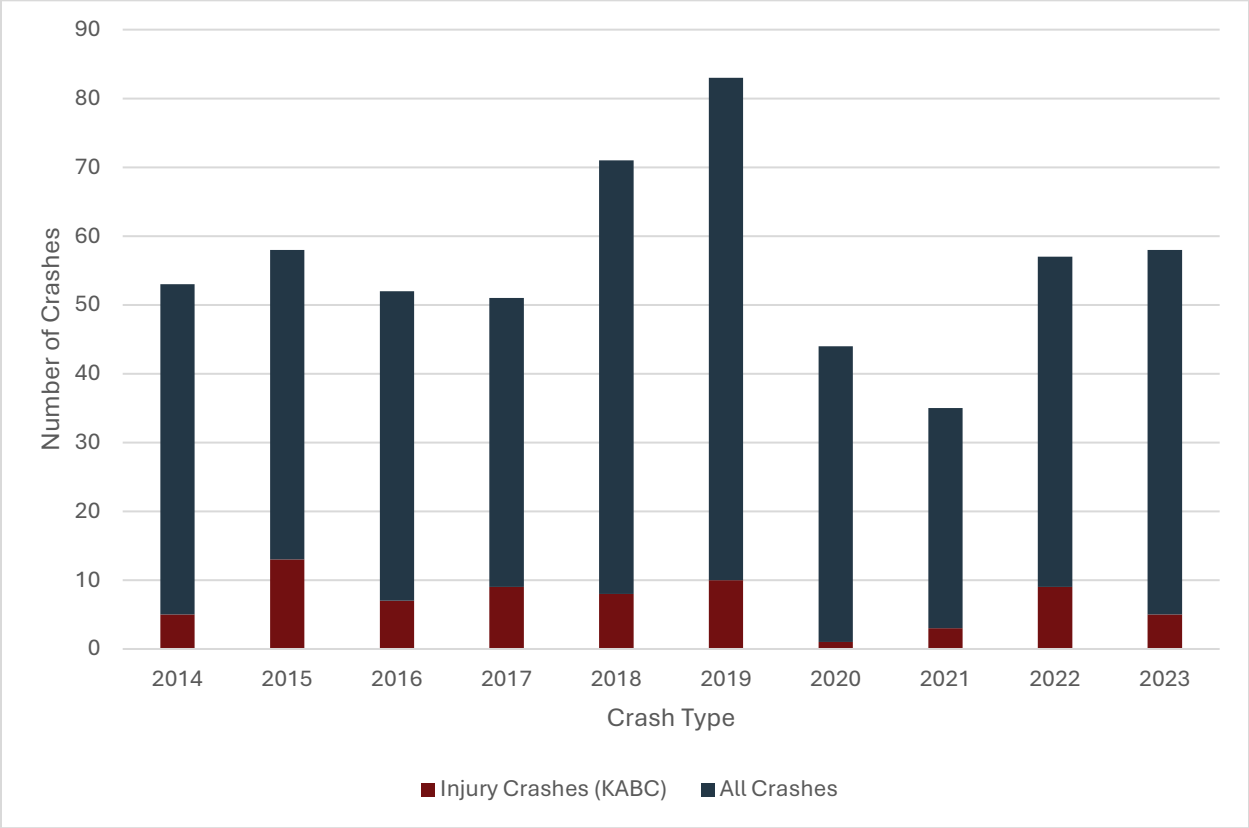


Figure 4: Crash Type by Year

Figure 5 shows a heat map of all the crashes in Paola. Areas in yellow and pink are areas with a concentration of crashes. Noticeable hot spots are at intersections along Baptiste Dr, Peoria St and Hospital Dr. Areas in yellow have the highest concentration of crashes. Two major hotspots are seen at the intersections of Hospital Dr and Baptiste Dr and Peoria St and Silver St.

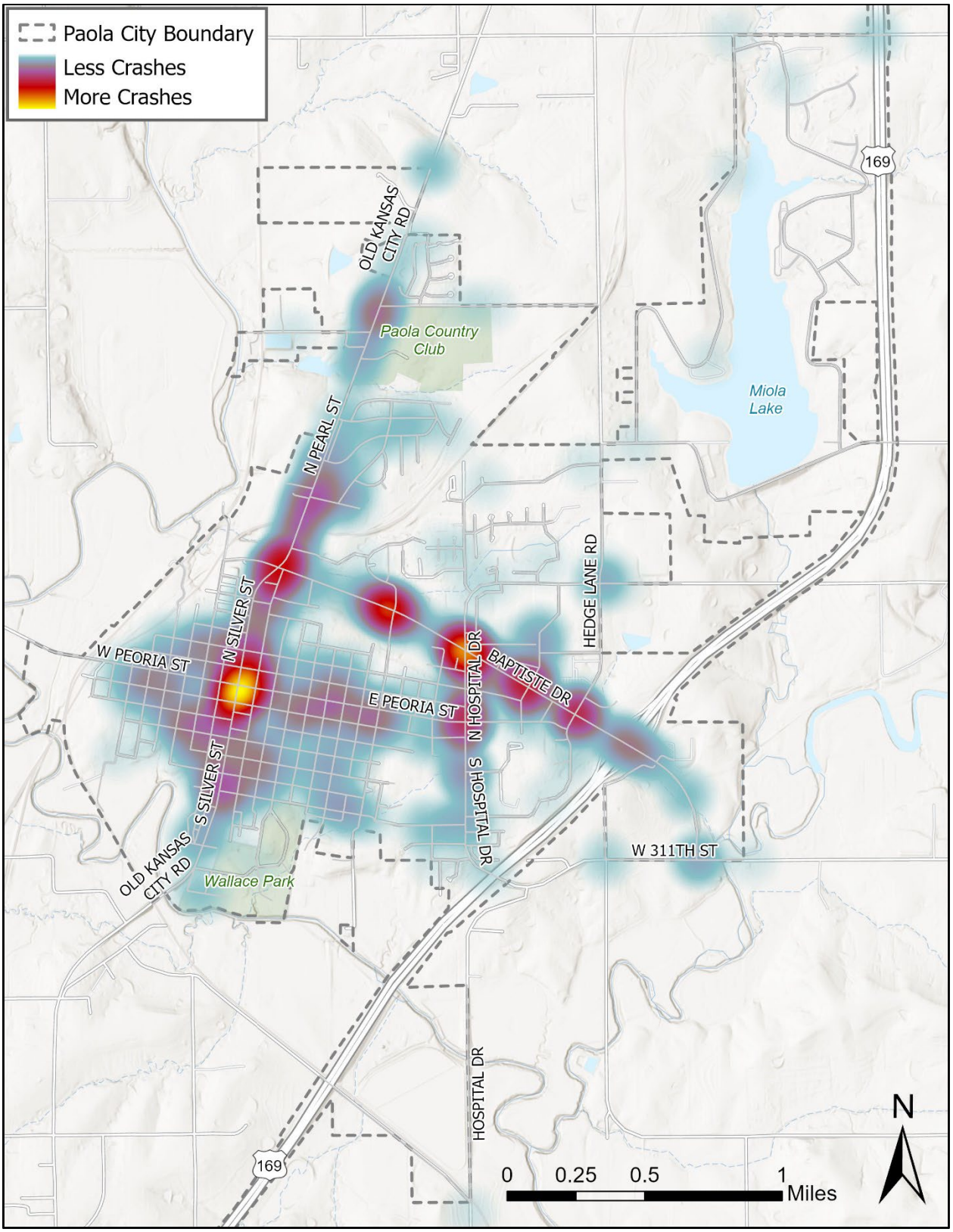


Figure 5: Heat Map of Crashes in Paola Excluding US-169

As shown in **Figure 6,** the most common type of crash in Paola is crashes with another motor vehicle. Parked Motor Vehicle and Fixed Object crashes are the most commonly occurring crash type outside of Other Motor Vehicle crashes. Representing 20% and 15% of crashes in Paola, respectively. Despite accounting for 2% of crashes, overturned crashes account for 9% of all injury crashes. This trend continues with Pedestrian crashes, which account for 1% of crashes but 7% of all injury crashes.

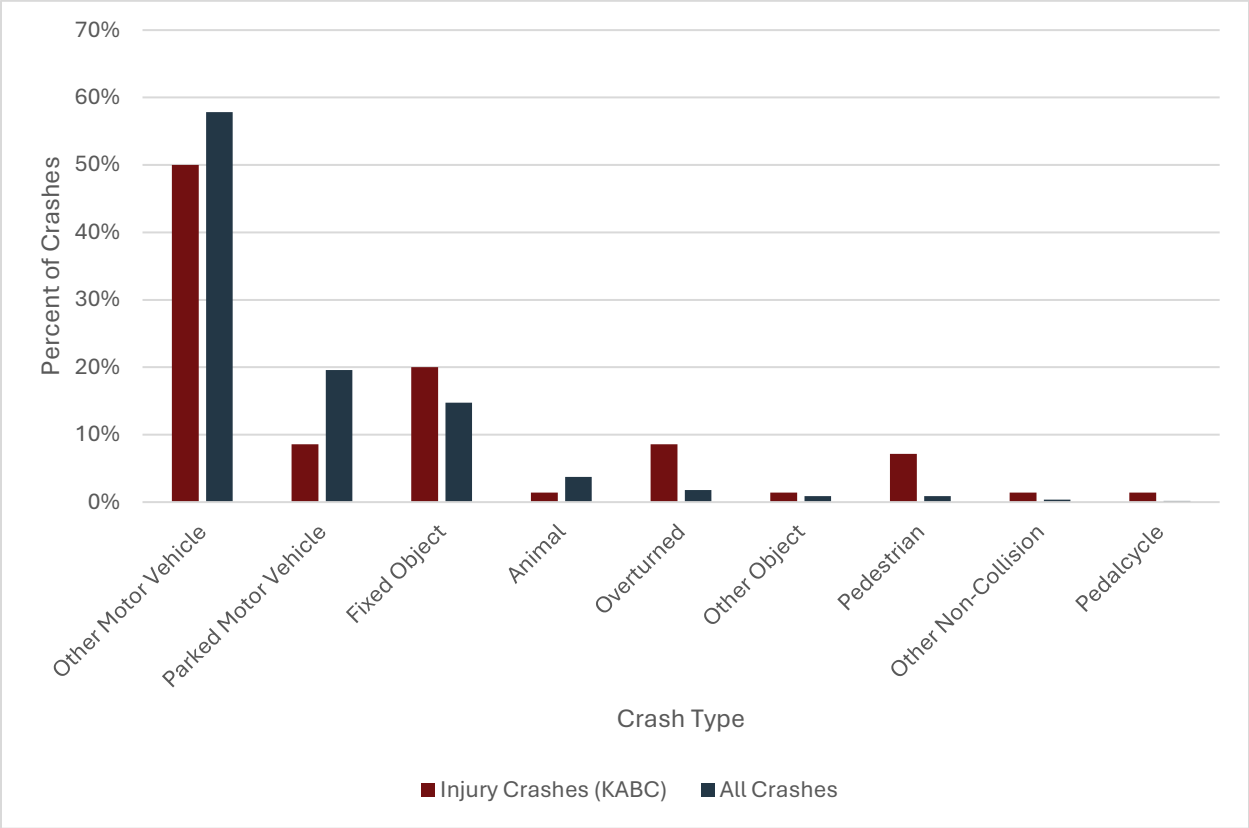


Figure 6: All Crashes by Crash Type

Figure 7 shows the breakdown of Other Motor Vehicle crashes by crash type. Angle-Side Impact crashes are the most commonly occurring Other Motor Vehicle crashes in Paola, accounting for 45% of all Other Motor Vehicle crashes. Rear End crashes were the second most commonly occurring crashes, accounting for 32% of crashes. Angle-Side Impact and Rear End crashes are often associated with intersections. Despite accounting for 4% of Other Motor Vehicle crashes, Head On crashes account for 17% of Other Motor Vehicle injury crashes.

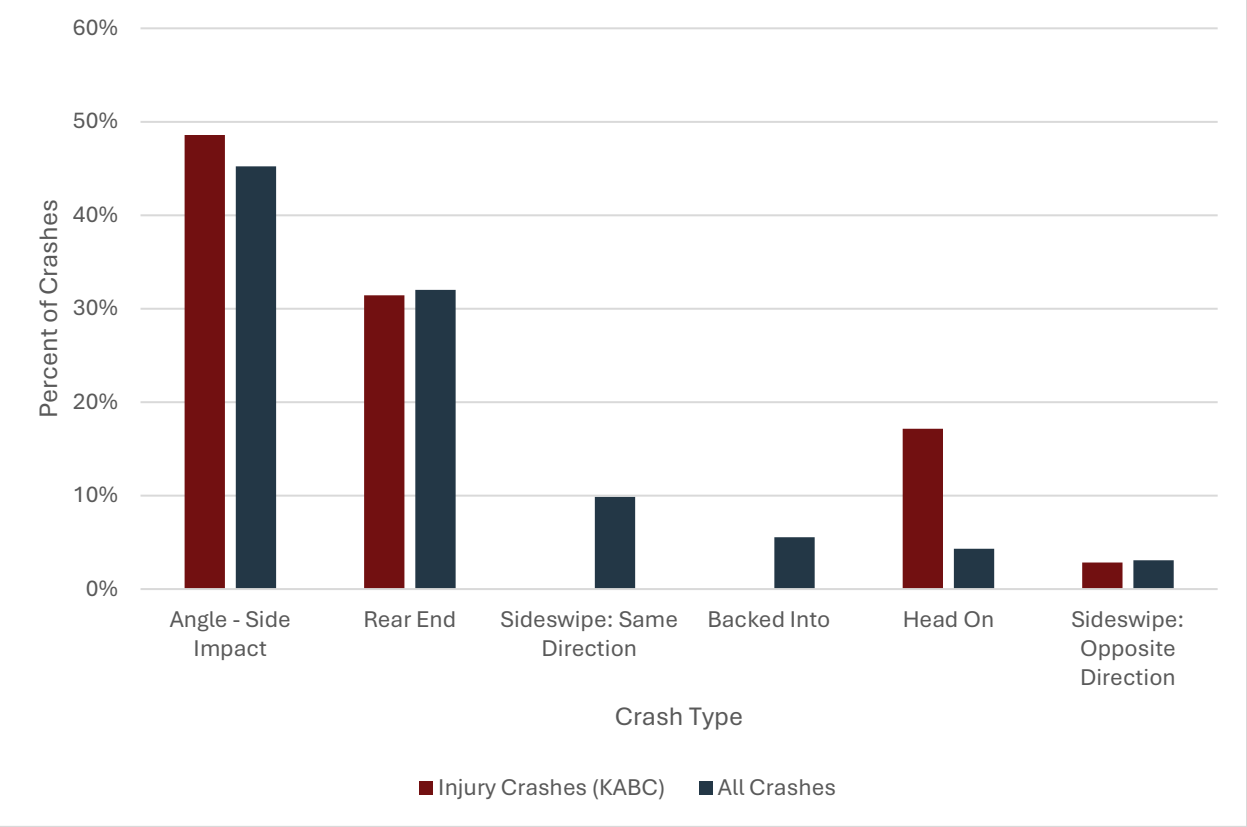


Figure 7: Other Motor Vehicle Crashes by Crash Type

Figure 8 shows all the injury crashes in Paola from 2014 to 2023, excluding those on US-169. During that time period, one fatal and eight serious injury crashes occurred. The fatality occurred along Lake Miola Dr and is shown in red below. The serious injury crashes occurred primarily along major roadways such as Peoria St and Pearl St.

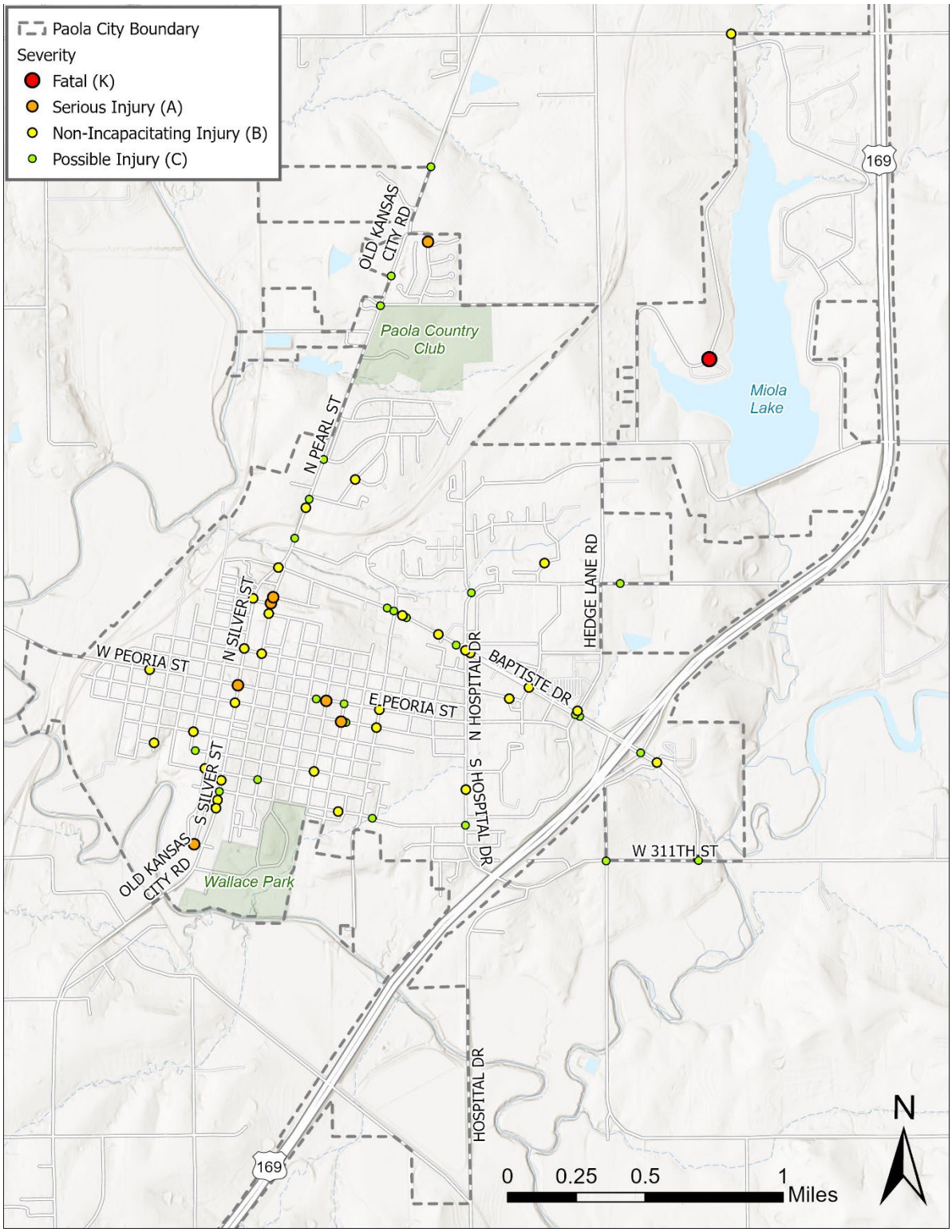


Figure 8: All Injury Crashes in Paola Excluding US-169

Figure 9 shows the breakdown of crash types by vehicle and injury. Unsurprisingly, automobiles are involved in the majority of crashes in Paola excluding US-169. This is followed by Pickup Trucks, SUVs and Vans. Motorcycles accounted for significantly less crashes than Automobiles, Pickup Trucks, SUVs and Vans. However, motorcycle crashes resulted in serious injury and minor injury crashes in higher proportion than any other vehicle class.

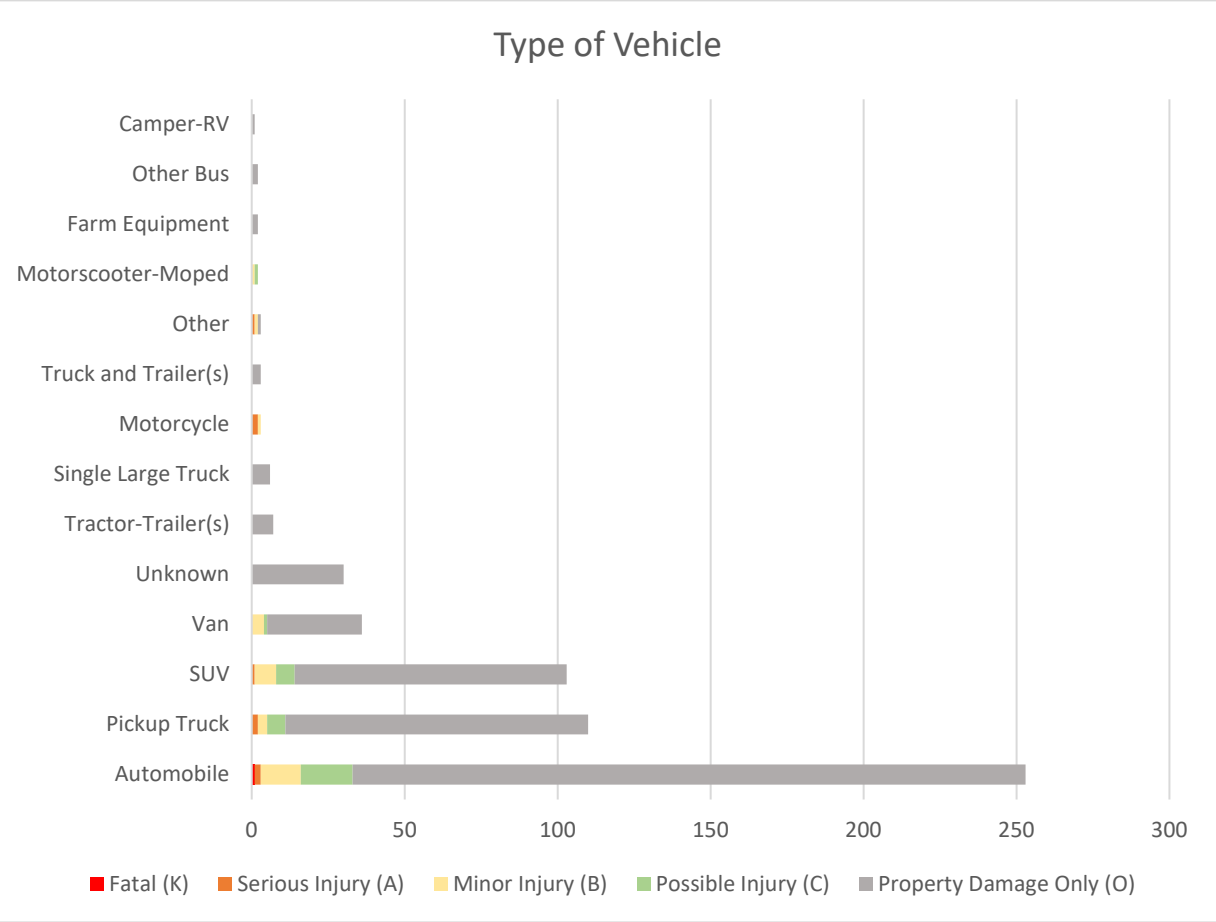


Figure 9: Crashes by Type of Vehicle

A wide variety of factors influence why crashes occur; these factors are known as Contributing Circumstances. In Paola, Young Drivers (25 and younger) and Distracted Drivers were the most commonly occurring contributing circumstances, shown in **Figure 10.** Accounting for 50% and 46% of crashes, respectively. It is important to note that crashes can have more than one contributing circumstance, so the data may show a total percentage of crashes higher than 100. Despite occurring for 5% and 4% of crashes, respectively, Speeding and Lack of Seatbelt accounted for 14% and 24% of injury crashes, respectively. This highlights how impactful following speed limits and wearing a seatbelt is in reducing crash severity.

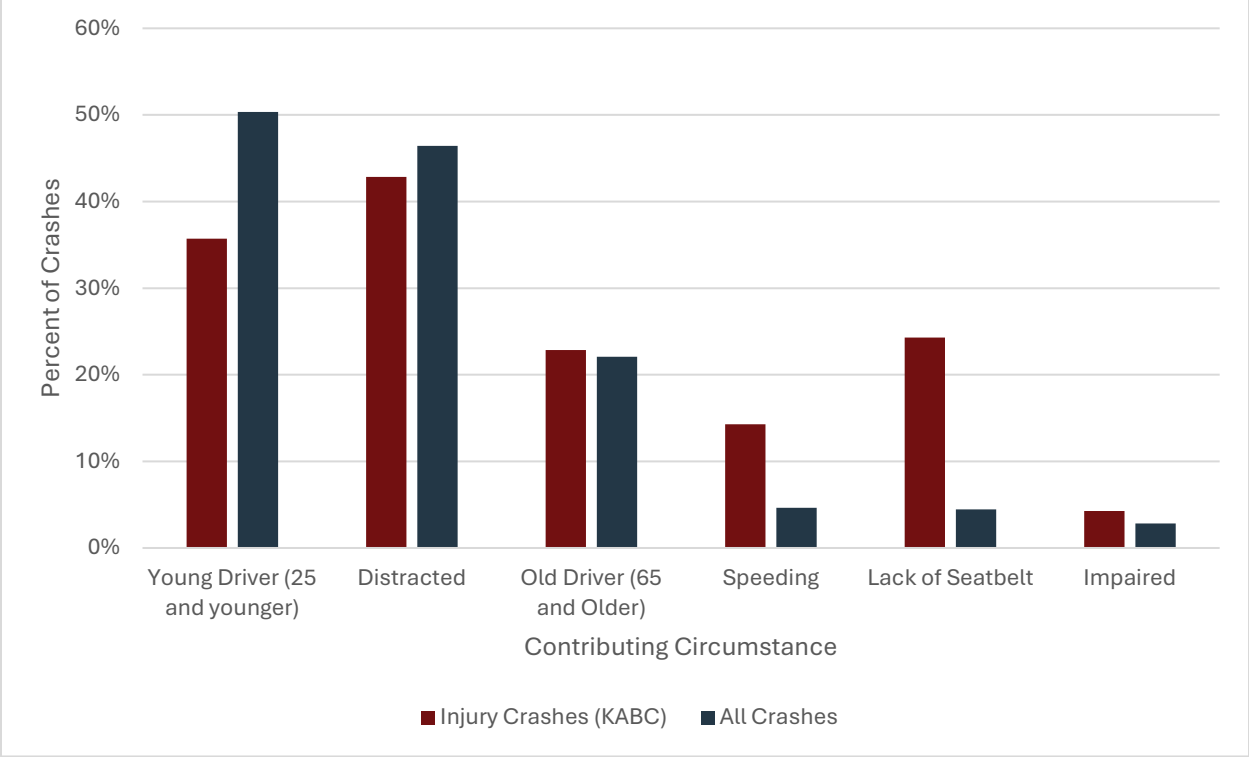


Figure 10: Contributing Circumstances

Other factors can influence accidents and are often outside of the driver's control. This includes lighting conditions, day of the week, weather, and many more. **Figure 11** shows the crashes in Paola, excluding US-169, based on their lighting conditions. Unsurprisingly, the majority of crashes occur in daylight. Those that occur at night primarily occur on roadways with street lights.

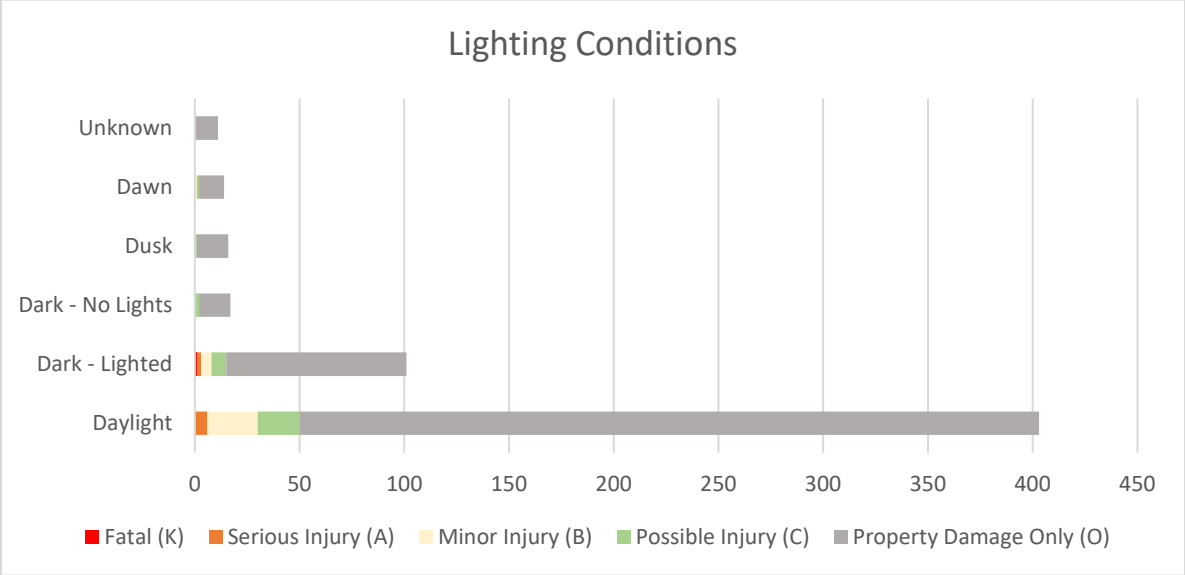


Figure 11: Crashes by Lighting Condition

Lighting conditions are consistent with when the majority of people are driving and thus when most crashes occur. **Figure 12** shows that highest percentage of crashes occur between 3 pm and 4 pm. As many people are getting off work around this time, there is an influx of traffic on the roadway, leading to a higher chance of crashes. Overall, crashes are more common during the day, peaking during traditional commuting times. Interestingly, a spike in crashes is seen between midnight and 1 am. Additionally, the majority of severe injury crashes occur between 3 pm and 6 pm. Likely as a factor of increased traffic during this time period.

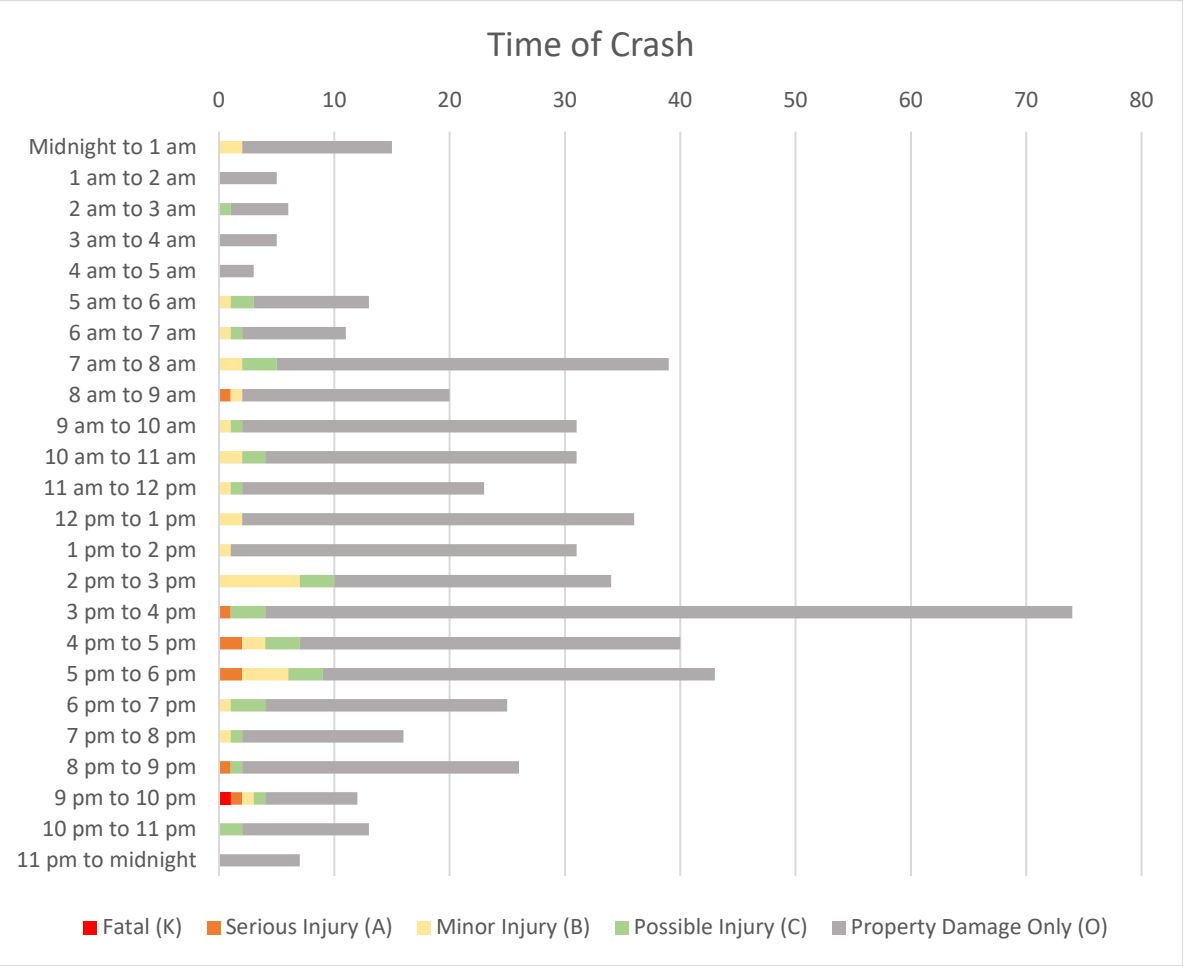


Figure 12: Crashes by Time of Day

Crashes remain fairly consistent during the weekday, as shown in **Figure 13.** There is a decrease in crashes on the weekends, with the lowest amount of crashes on Sundays. The majority of serious injury crashes occurred on Saturdays.

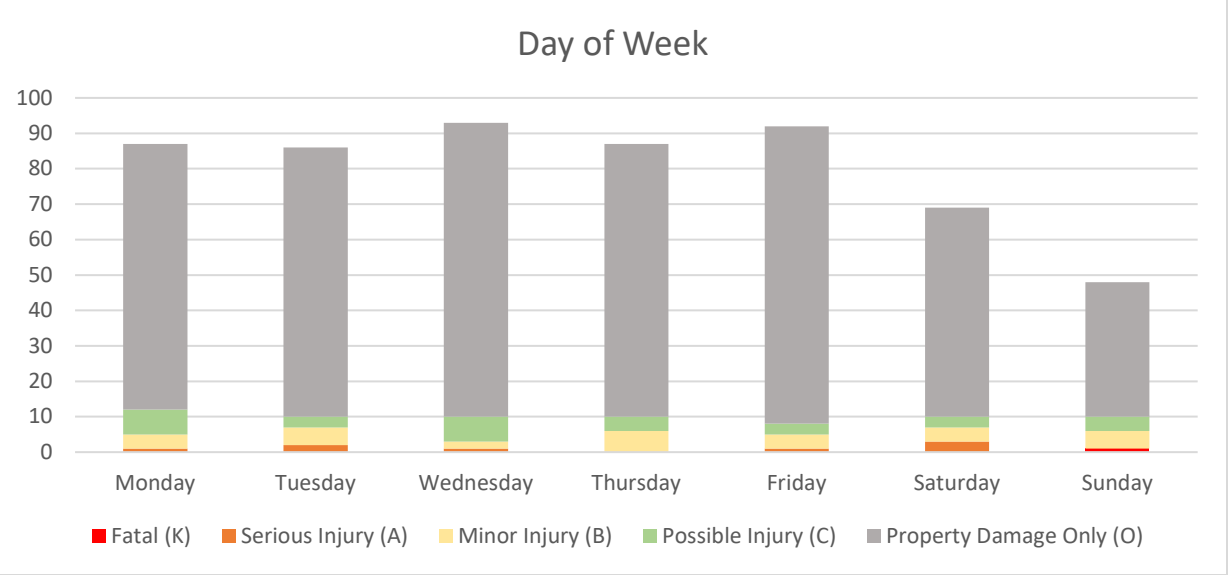


Figure 13: Crashes by Day of the Week

Figure 14 shows crashes by the month of the accident. Similar to how weekdays have higher amounts of crashes due to increased traffic, a spike in crashes can be seen in July and August. Crash rates are also higher at the end of the year.

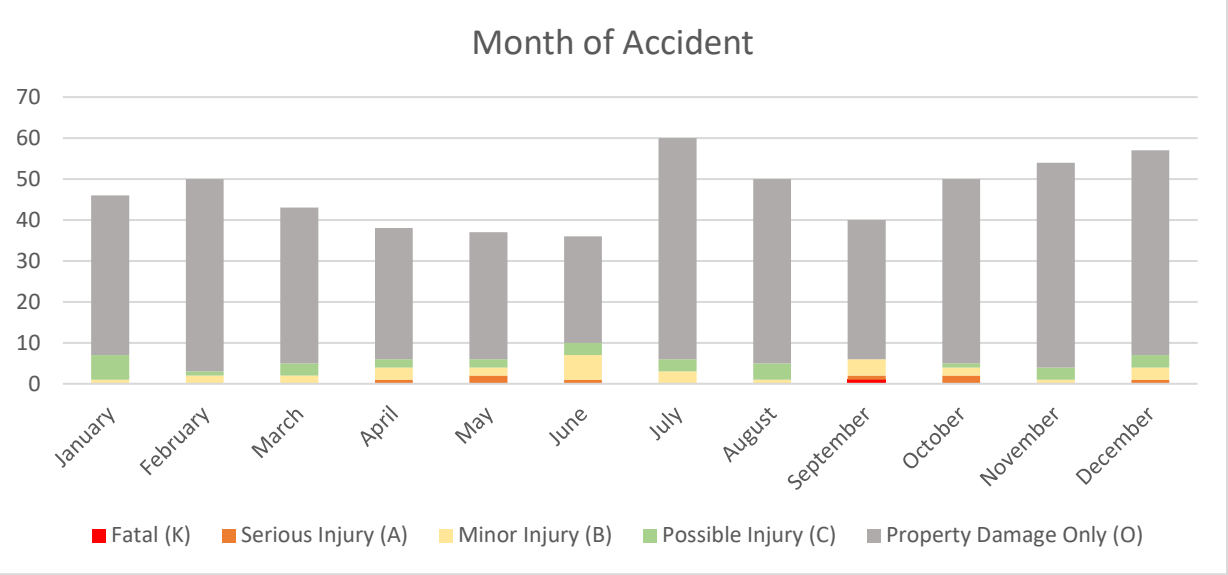


Figure 14: Crashes by Month of Accident

Figure 15 shows crashes by weather conditions. Most crashes occur where there is no adverse conditions. The second most commonly occurring weather condition for crashes to occur in is rain, mist or drizzle. Snow was the third most common weather condition for crashes to occur in.

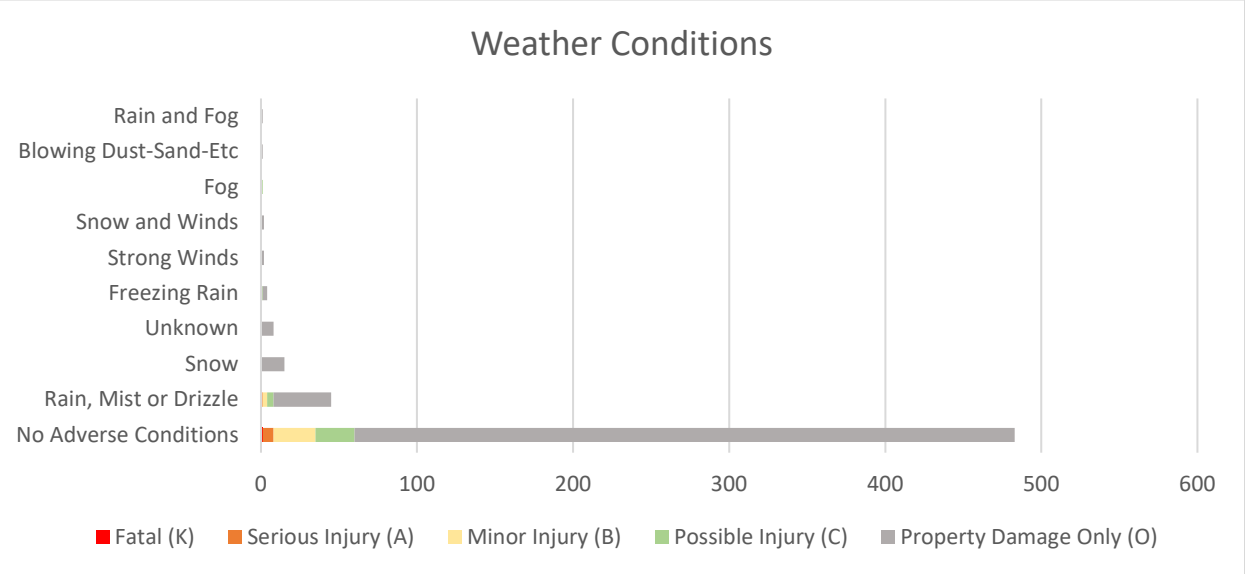


Figure 15: Crashes by Weather Condition

High Injury Network

Methodology

To identify areas of safety concern, a High-Injury Network was created for Paola. US-169 was excluded from this analysis as it is a limited-access highway and is owned by KDOT.

Crashes were spatially joined to segments and intersections in GIS. To accommodate the differences in roadways and intersections, different distances were used to identify crashes related to a particular roadway or intersection. Roadways utilized a 100' buffer, so every crash within 100' of the roadway in either direction were identified as being linked to the roadway. Intersection buffers varied based on traffic control. Signalized intersections used a 200' buffer, and stop-controlled intersections used a 50' buffer because signalized intersections have a larger radius of influence. To ensure crashes were not counted twice, intersection and roadways were mutually exclusive. Intersections that only had 1 or no crashes were not included in the analysis, and crashes were assigned to the roadway.

Roadways and intersections were ranked by a scoring system based on crash severity. Crash costs are an approach commonly used in benefit-cost analyses to understand the "societal cost" of crashes. This cost includes factors such as property damage, medical care, insurance payouts and missed work. Traditionally, the Equivalent Property Damage Only (EPDO) values are used to determine crash costs. 2024 KDOT EPDO costs have fatal crash costs over 1,000 times higher than property damage only crashes. In Paola, excluding US-169, there was one fatality between 2014-2023. As a result, EPDO scoring would heavily skew the roadways and intersections based on the one fatality. To counteract this, a weighted scoring system consistent with other Kansas SS4A plans and the Kansas Statewide VRU Assessment was used. The following values were used to rank each roadway and intersection:

- Fatal Crash (K): 15
- Serious Injury Crash (A): 5
- Minor Injury Crash (B): 2
- Possible Injury Crash (C): 2
- No Injury/Property Damage Only Crash (O): 1

A map displaying the score of these roadways and intersections is shown in **Figure 16.** A table showing the top-scoring intersections and roadways is shown in **Table 2** and **Table 3.**

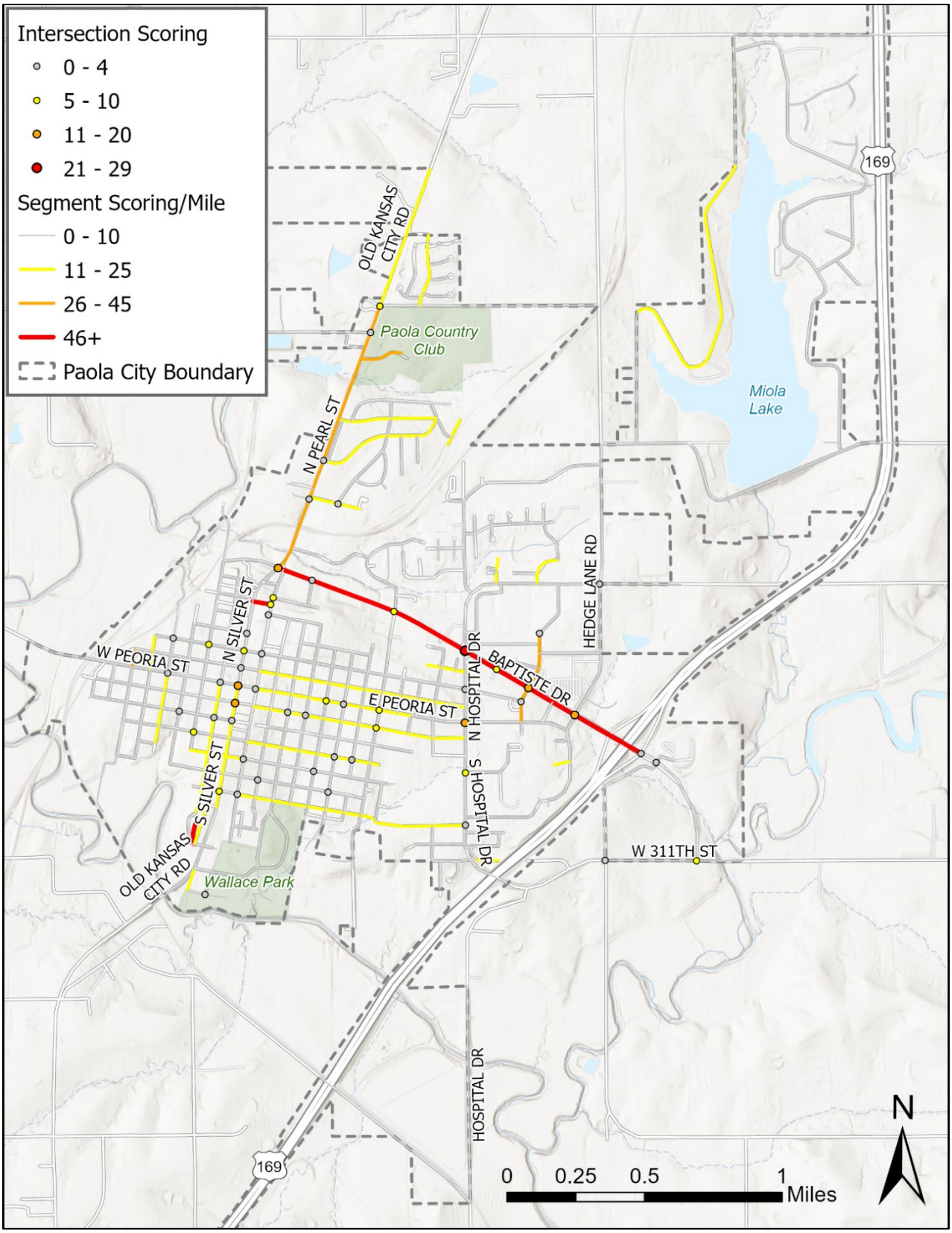


Figure 16: High Injury Network

Table 2: Top Scoring Intersections

Intersection	Crashes	Score
Baptiste Dr & N Hospital Dr	26	29
Baptiste Dr & N Pearl St	19	20
Peoria St & Silver St	15	19
Baptiste Dr & Hedge Lane Rd	15	18
Peoria St & S Hospital Dr	15	15
Baptiste Dr & Angela St	14	15
Silver St & Wea St	12	13
Baptiste Dr & East St	9	10
Old Kansas City Rd & N Pearl St	6	7
S Hospital Dr & Lakemary Dr	6	6

Table 3: Top Scoring Segments

Road Name	From	To	Length (mi)	Crashes	Score (per mi)
S Gold St	Dead End	Delaware St	0.08	3	87.56
Dewey St	N Silver St	N Pearl St	0.07	3	60.50
Baptiste Dr	N East St	US-169	1.04	42	47.31
Baptiste Dr	N Silver St	N East St	0.45	20	46.63
N West St	W Piankishaw St	W Peoria St	0.06	2	30.85
Angela St	Main St	E Peoria St	0.34	9	26.38
Country Club Dr	N Pearl St	Dead End	0.15	4	26.11
N Pearl St	W 295th St	Baptiste Dr	1.02	24	25.41
S Silver St	W Peoria St	Virginia St	0.45	8	24.34
N Petroleus St	W Kaskaskia St	W Peoria St	0.13	2	23.89

Note: Segments with lengths less than a quarter of a mile may have inflated scores due to calculations using length as the denominator. Engineering judgement should be used when evaluating segments with few crashes and a short overall segment length.

APPENDIX B

Community Engagement Summary

Public and Stakeholder Engagement

This appendix provides a summary of the community and stakeholder input gathered during the development of the Paola Transportation Safety Action Plan (TSAP). Engaging with residents, city staff, regional partners, and advocates was essential to identifying the safety concerns most pressing in Paola. The insights shared through technical working group (TWG) meetings, one-on-one interviews, online feedback, and public outreach events have directly informed the plan's focus areas, countermeasure strategies, and next steps.

Stakeholder Meetings

PROJECT MANAGEMENT TEAM (PMT)

The TSAP was supported by a Project Management Team (PMT) that met monthly to oversee day-to-day project activities and coordination. The PMT consisted primarily of city officials—including the city manager, city clerk, public works director, and zoning administrator—alongside members of the Kimley-Horn consultant team responsible for developing the plan. PMT participants included:

Paola

- Randi Shannon – City Manager
- Mitch Gabbert – Zoning Administrator
- Brett Marler – Assistant Public Works Director
- Stephanie Marler – City Clerk

Kimley-Horn

- Anthony Gallo – Project Advisor
- Ray Hayhurst – Project Manager
- Riley Mitts – Crash Analyst
- Andrew Moore – Planning Analyst

This group focused on maintaining project momentum, reviewing progress, and ensuring alignment between the city's goals, technical analyses, and community engagement efforts. Regular PMT meetings provided a structured forum for decision-making and communication throughout the project's development.

TECHNICAL WORKING GROUP (TWG)

The TWG convened three times during the planning process and included representatives from public safety, schools, planning, transportation, and advocacy groups. Attendees contributed professional expertise and personal observations to shape the direction of the plan.

TWG meeting participants included the PMT and the following members:

- Chad Corbin – Paola Police Chief
- JR McMahon – Paola City Council
- Matt Meek – USD 368 Superintendent
- Mark Whelan – Emergency Management Coordinator, Miami County
- Eric Sandberg – Director of Road and Bridge, Miami County

Themes and Input from TWG Meetings

TWG Meeting #1 Summary

Agenda

1. Project Introduction
2. Crash Analysis
3. Public Engagement Introduction
4. Plan Review
5. Next Steps

The meeting revealed concern about pedestrian and traffic safety, particularly near schools and along key corridors such as Baptiste Drive and Osage Street. Participants recognized that infrastructure gaps, visibility issues, and speeding contribute to local risk, even where crashes may seem infrequent. The discussion emphasized collaboration, practical improvements, and better data to guide investment in safer, more accessible streets.

Specific talking points included the following:

- The goal of reducing injury-related crashes was supported by the group.
- It was noted there were safety hazards near the grain elevator, where train track crossings and intersection dips.
- Hospital Drive and Baptiste Drive were cited as major problem areas with blind spots, difficult bus access, and unsafe pedestrian crossings.
- Speeding and car–pedestrian concerns on Baptiste Drive, especially near schools and key intersections, were discussed.
- The Osage Street corridor was identified as a high-priority project due to past pedestrian fatality, lack of sidewalks, and its importance as a park connection.
- Many crashes near the “pork chop” median at Angela Street and Baptiste Drive are rear-end or yield-related, suggesting design-related safety issues.
- Participants agreed on the need for more detailed crash data from police, including private property incidents and environmental factors.
- It was noted that limited funding makes it difficult to address issues perceived as minor, though community collaboration remains a major strength.
- There was a question on whether Paola follows AASHTO or its own 1997 street access standards, noting implications for prioritizing safety projects like Osage.

TWG Meeting #2 Summary

Agenda:

1. Project Introductions
2. Public and Stakeholder Engagement - Update
3. Crash Analysis – Update
4. Focus Areas – New
5. Project Prioritization – New
6. Action Items and Next Steps

The meeting demonstrated a growing alignment between public feedback and technical analysis, reinforcing priorities around pedestrian safety and sidewalk connectivity. Participants emphasized using data-driven methods to target the most serious crash locations while remaining flexible in how projects are defined and prioritized. Overall, the discussion emphasized the importance of strategic funding, clear communication, and sustained community engagement to advance safety goals.

Specific talking points included the following:

- There was support for the public feedback emphasizing the need for improved sidewalks throughout Paola.

- The project team will continue engagement through additional stakeholder meetings and an upcoming open house.
- The crash analysis is focused on fatal and serious injury crashes within Paola, excluding private property incidents.
- Data shows that motorcycles, scooters, and moped crashes have a higher proportion of injuries compared to other vehicle types.
- It was noted that Osage Street lacks sidewalks despite nearby parks and amenities and questioned why it does not appear as a crash hotspot.
- There was interest in clarifying and simplifying data presentation in order to increase the accessibility of information to the public.
- The group reviewed the project prioritization framework, aligning it with SS4A and federal funding criteria.
- The importance of focusing on areas near schools and Osage Street was emphasized and the group asked whether grant funding could also support enforcement or pilot safety programs beyond infrastructure.

TWG Meeting #3 Summary

Agenda:

1. Project Introductions
2. Public and Stakeholder Engagement -Update
3. Safety Countermeasures
4. Catalyst Projects
5. Next Steps

Participants favored practical, context-sensitive solutions—like traffic calming and crosswalk improvements—over more complex or costly features. Across discussions, there was strong alignment around prioritizing everyday usability, incremental progress, and long-term community benefit.

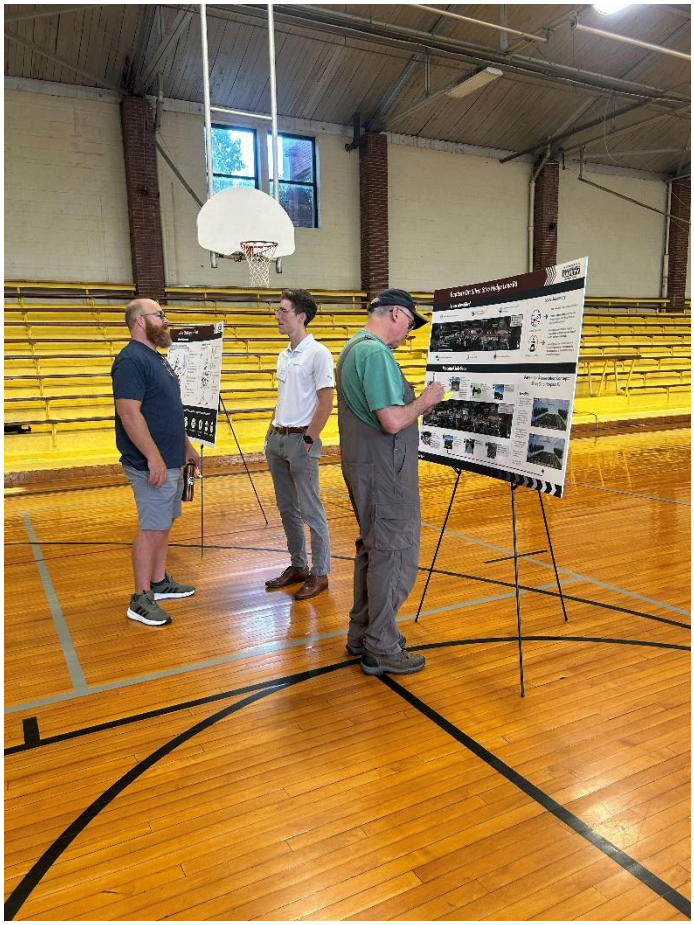
Specific talking points included the following:

- The group discussed expanding public outreach and considered using traditional news outlets or local papers to share project updates.
- Sidewalk improvements were identified as a key safety countermeasure, with J.R. again highlighting Osage Street as a top priority area.
- On Baptiste Drive, there was support for implementing a road diet to improve safety and accessibility, though they expressed reservations about raised pedestrian medians.
- There was a need for additional pedestrian crosswalks and noted ongoing speeding issues between Pearl and Hospital Drive
- Osage Street, originally designed in 1975, was described as having the most potential for improvement but faces right-of-way and parking challenges; Mitch supported pursuing short-term fixes and noted possible funding sources through KDOT Cost Share and HRUR programs.
- On Silver Street, improvements are already in progress with new signal heads, pending breakaway mounts, and planned additions of detection and pedestrian crossing buttons; Mitch supported roadway narrowing as a safety measure.
- There was an emphasis that streets should serve all users, not just drivers.
- One member, drawing from experience in Overland Park, confirmed that the proposed approach aligns with successful strategies elsewhere and asked the Paola team if this is the intended direction.
- There was concern expressed about pedestrian refuge islands, particularly on Silver Street, though they agreed that raised crossings can be appropriate in certain contexts.

Public Open House

On September 24, 2025 an open house was held from 4:00 to 6:00 p.m. at the Paola Fire Station to engage the public on the proposed Safety Action Plan. The purpose was to share key safety concerns identified through crash data analysis and community input via the SocialPinpoint platform, and to introduce catalyst projects developed from this analysis.

The event followed an open house format, allowing residents to drop in at their convenience. Upon arrival, attendees signed in and received ten green dots (to indicate agreement) and ten red dots (to indicate disagreement). These were used to vote on display boards featuring safety issues and proposed recommendations. Kimley-Horn and City staff were available at each board to answer questions and facilitate discussion. Comment forms were also provided for those wishing to share more detailed written feedback.



RESULTS

Participation & Engagement

- The sign-in sheet recorded 22 visitors.
- A total of 117 comments were captured via the dot voting method across all display boards, and two written comment forms were submitted.

Feedback on Catalyst Projects

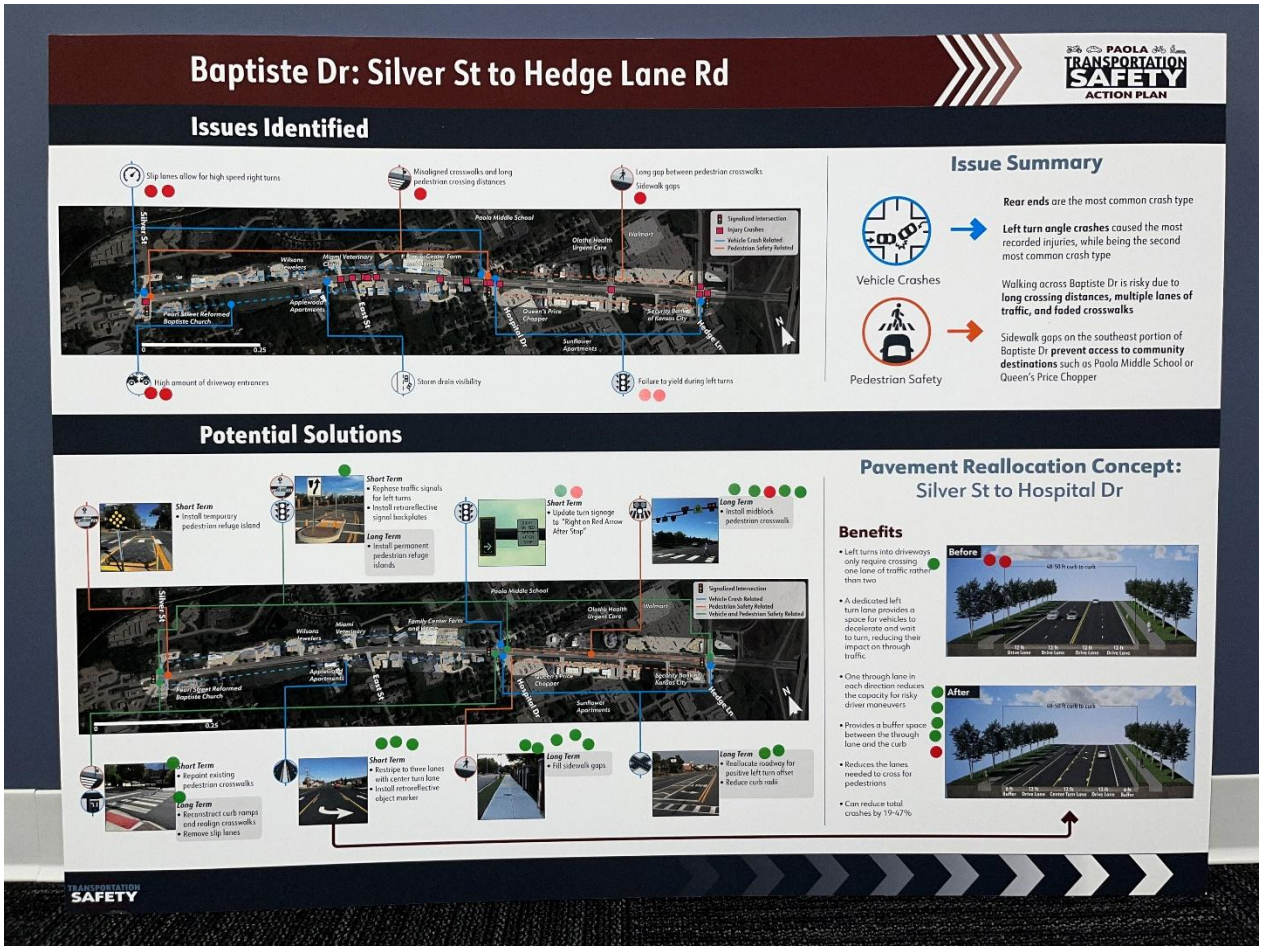
As previously mentioned, attendees of the open house were provided with red and green dots to indicate their support of recommendations on the catalyst project recommendations (green being positive and red being negative). This section outlines the general themes and provides pictures of the boards and the dot feedback received.

Osage Street Project

- This project received the most public engagement, gathering 40 comments (as dots) with an 84% positive response.
- Top recommendations include:
- New crosswalks (6 green dots)
- Fill sidewalk gaps (6 green dots)
- Construct a raised intersection (4 green dots)

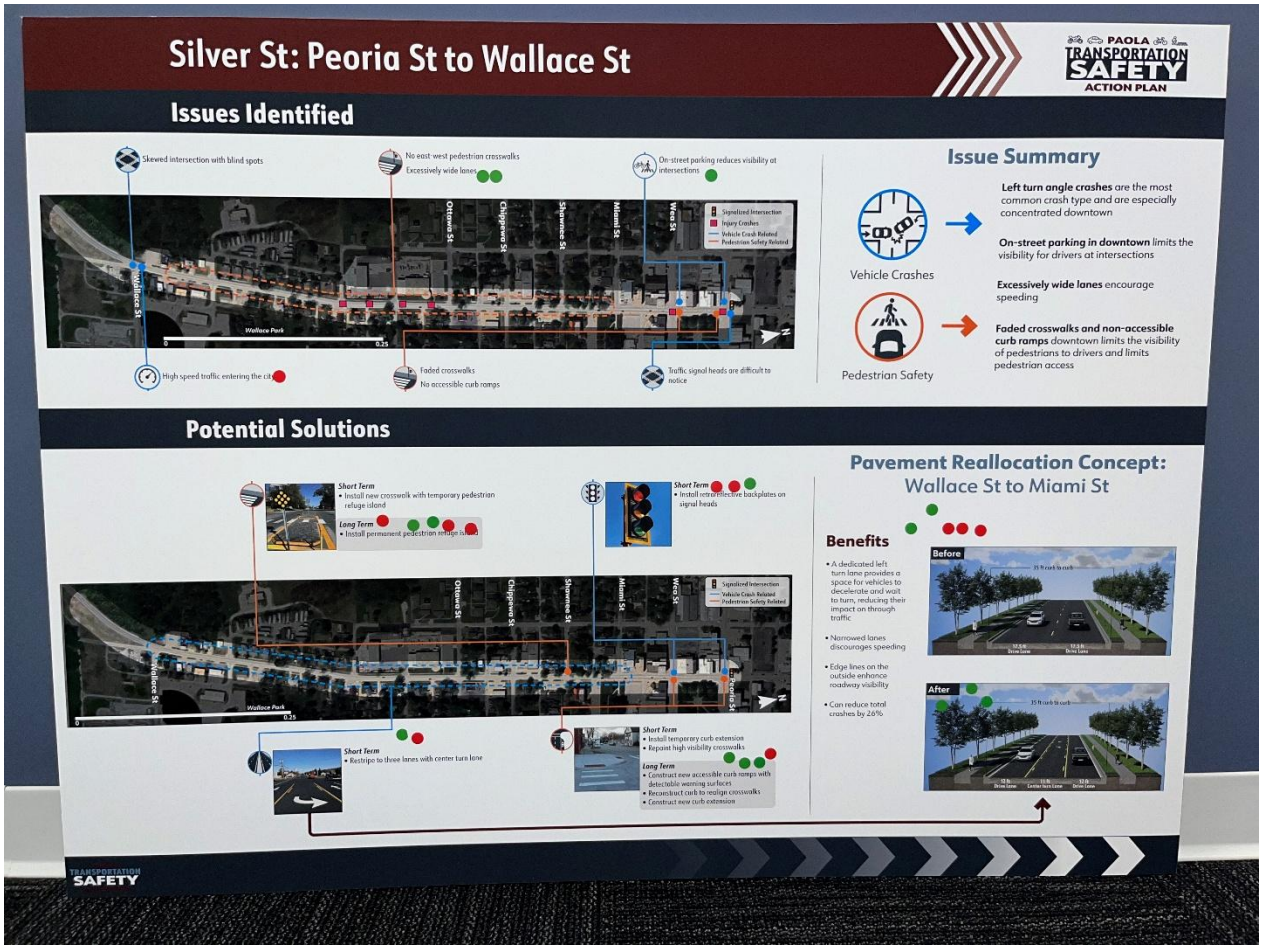
Baptiste Drive Project

- This project received the second-highest number of comments, with 36 total. It garnered the most positive reception at 88% agreement.
- Top recommendations include:
- 4-to-3 lane pavement reallocation (7 green dots)
- Fill sidewalk gaps (5 green dots)
- Mid-block crosswalk with pedestrian signaling (4 green dots)



Silver Street Project

- This project received 26 comments, with a mixed response of 50% positive feedback.
- Top recommendations include:
- 2-to-3 lane pavement reallocation (4 green dots)
- Construct curb extension and new crosswalks (3 green dots)



Feedback on General Safety Issues

A separate board outlined the seven focus areas that guided the plan's recommendations. While not primarily intended for dot voting, it received 15 comments. This feedback helped confirm the community's top safety concerns. The most agreed-upon focus areas identified by the public include:

- Speeding (4 dots)
- Distracted Driving (4 dots)
- Vulnerable Road Users (3 dots)
- Young Drivers (2 dots)

Online Engagement

Online engagement through the project's public engagement website was integral to understanding the public's general feelings and concerns on transportation safety in Paola. The engagement website facilitated two primary forms of engagement:

- Online quick poll
- Online comment map

The engagement website was promoted through Kiosk boards setup at community nodes, one-pagers to provide info on the plan and solicit input, social media posts, email blasts, and ultimately the public open house.

QUICK POLL RESULTS

Four questions were asked in the online quick poll, receiving 49 responses in total:

What are the biggest traffic safety issues in Paola?

Respondents could select up to 3 issues to answer the question. The lack of sidewalks was the top traffic safety issue according to respondents (25%).

What Street Safety Improvements should be the highest priority?

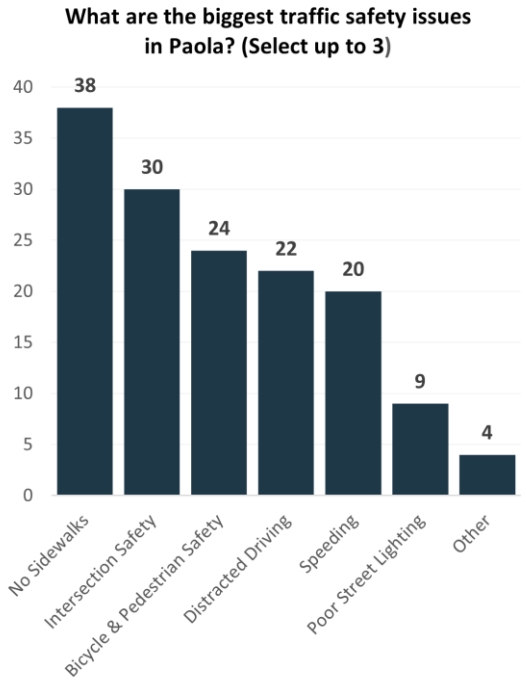
Adding sidewalks was the highest priority according to most respondents (69%), with slowing down vehicles and enhancing bicycle lanes as the highest priorities for other respondents..

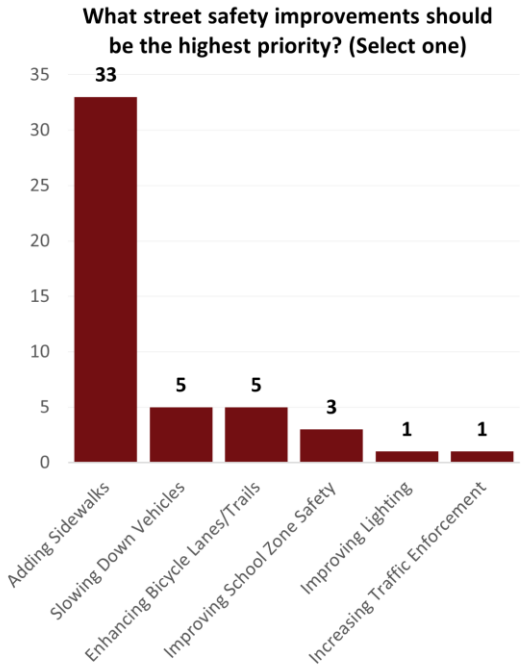
How safe do you feel when walking, biking, or rolling in Paola?

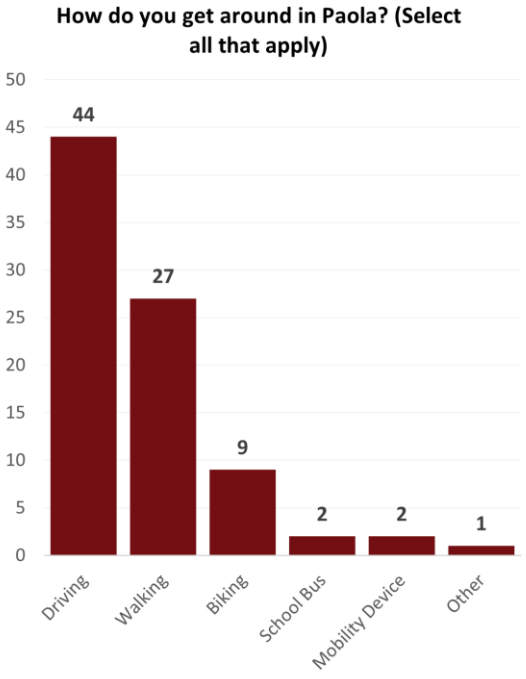
The majority of residents (60%) feel somewhat safe, while 8% feel somewhat unsafe, and 2% feel very unsafe.

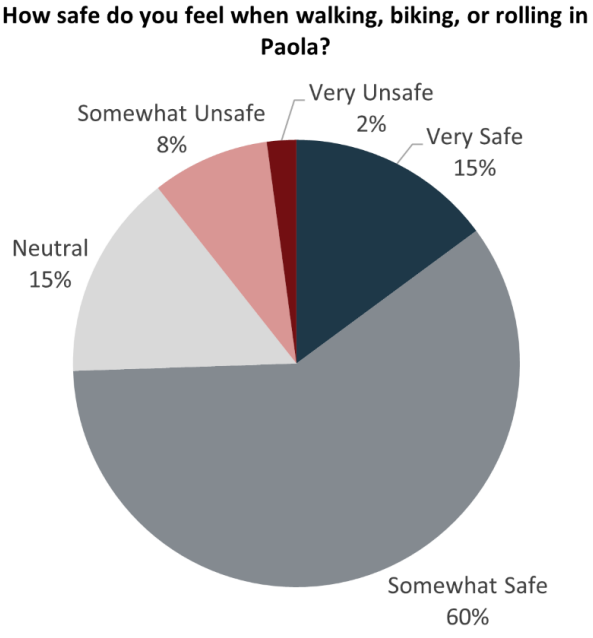
How do you get around in Paola?

Driving was the most common mode of travel (52%), following by walking (32%), and biking (11%).


What are the biggest traffic safety issues in Paola? (Select up to 3)
40
35
30
25
20
15
10
5
0
38
30
24
22
20
9
4
No Sidewalks
Intersection Safety
Bicycle & Pedestrian Safety
Distracted Driving
Speeding
Poor Street Lighting
Other


What street safety improvements should be the highest priority? (Select one)
35
30
25
20
15
10
5
0
33
5
5
3
1
1
Adding Sidewalks
Slowing Down Vehicles
Enhancing Bicycle Lanes/Trails
Improving School Zone Safety
Improving Lighting
Increasing Traffic Enforcement


How do you get around in Paola? (Select all that apply)
50
45
40
35
30
25
20
15
10
5
0
44
27
9
2
2
1
Driving
Walking
Biking
School Bus
Mobility Device
Other


How safe do you feel when walking, biking, or rolling in Paola?
Somewhat Unsafe 8%
Very Unsafe 2%
Very Safe 15%
Neutral 15%
Somewhat Safe 60%

ONLINE COMMENT MAP

The interactive online comment map allowed participants to place pins at specific locations to share comments related to driving, walking, or biking. In total, 70 map comments were recorded. Driving-related comments were the most common, representing 48% of all comments, followed by walking-related comments at 43%, and biking-related comments at 9%.

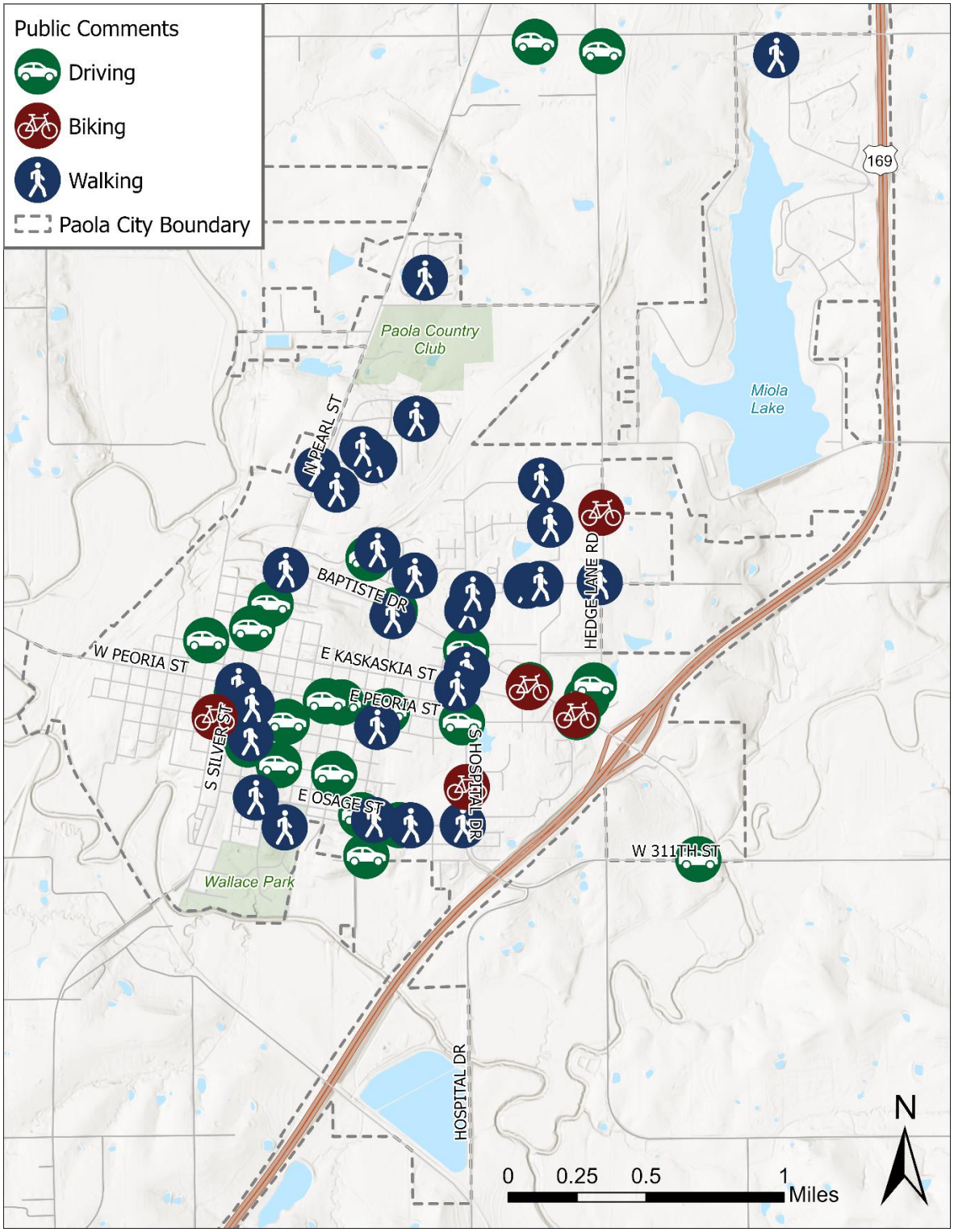


Figure 5. Online Comment Map

Online Map Comments

A summary of the online map comments is provided on the following table.

Comment	Category	Date Submitted	Latitude	Longitude
Church and Funeral homes use on-street parking here; it gets very busy on Sundays. Would not like a project that removes this parking	Driving	Oct 15, 2025, 10:29 AM	38.57032704	-94.87945866
The sight triangle is obstructed Southwest corner by the brush on the tree base. Northeast bush may be ok if trimmed.	Driving	Sep 22, 2025, 11:05 AM	38.57435147	-94.87740467
Cars regularly fly down this road, well over the speed limit, and it's become noticeably worse since this residential area was completed. Now, police officers also frequently use it as a pass-through to get across town, adding to the high-speed traffic. This is a family neighborhood with lots of small children, and the increased volume and speed of traffic is making it unsafe for everyone. It really needs to be addressed before someone gets hurt.	Walking	Jul 30, 2025, 11:43 PM	38.57986291	-94.86954195
It's becoming increasingly dangerous—one of the stop signs is almost completely blocked by a tree, and parked cars are too close to the intersection, making it hard to navigate safely before another car turns into your lane. It's no surprise drivers aren't stopping consistently. This intersection really needs attention before it results in an accident, if it hasn't already.	Driving	Jul 30, 2025, 11:36 PM	38.5794437	-94.87014803
It can be really difficult to cross Baptiste safely at this intersection	Driving	Jul 30, 2025, 01:47 PM	38.57653694	-94.86845004
It can be really difficult to cross Baptiste safely at this intersection	Driving	Jul 30, 2025, 01:46 PM	38.57668858	-94.8684272
Excessive speed on a street with kids, bicycles, and no sidewalks is a recipe for disaster. occasional enforcement is not enough until it gets a reputation that you don't want to speed on Osage.	Driving	Jul 29, 2025, 09:44 PM	38.5653882	-94.86827647
New or at least fix existing sidewalks	Walking	Jul 14, 2025, 07:51 PM	38.57790322	-94.85958183

Comment	Category	Date Submitted	Latitude	Longitude
Lots of foot traffic on Osage. Need a sidewalk!	Walking	Jul 13, 2025, 01:16 AM	38.56534882	-94.86403126
There are lots of people who have to walk out in the street because the sidewalk ends at the post office. We live in Heatherwood and see it happening a lot.	Walking	Jul 12, 2025, 10:17 PM	38.58341677	-94.85853707
All of Hedge lane / hospital Dr south from the transfer station to 391st is unsafe for walking, bicycling, and driving. Recommend sidewalks and/or shoulder along entire stretch	Driving	Jul 12, 2025, 08:46 PM	38.44089136	-94.85352616
No sidewalks to get into town.	Walking	Jul 12, 2025, 07:17 PM	38.594158	-94.866176
Terrible intersection. Needs a green turn arrow to turn left all the time. People are constantly running the red light.	Driving	Jul 12, 2025, 07:05 PM	38.57097655	-94.85632792
Baptiste Drive needs multilane roundabouts at Hedge and at Silver. I would say Hospital, also, but the large amount of pedestrian traffic would make that impractical. I was against installing roundabouts until I saw the great reduction in serious accidents after Olathe installed those at busy intersections.	Driving	Jul 12, 2025, 06:07 PM	38.57101079	-94.8562607
The City of Paola needs to evaluate its sidewalks throughout town. We are a growing community trying to attract families to our area, we need to have sidewalks that are usable and maintained. We need to evaluate adding sidewalks and redoing sidewalks to increase pedestrian safety and decrease accidents involving pedestrians.	Walking	Jun 27, 2025, 01:33 PM	38.57056394	-94.86968674
Cars fly on this road, and there is a section with no sidewalk for walking which forces you out into the street.	Walking	Jun 26, 2025, 10:35 AM	38.57850415	-94.86706518
Very difficult to see traffic coming westbound on 311th.	Driving	Jun 25, 2025, 11:04 PM	38.56342388	-94.8482888
For this style of storm drain, ideally, the grating would be oriented perpendicular to the curb. When the gaps in the grating are aligned with the path of a bicycle following the curb to turn, a	Bicycling	May 23, 2025, 12:02 PM	38.57116746	-94.88056224

Comment	Category	Date Submitted	Latitude	Longitude
wheel can be wedged in them and cause the rider be thrown off their bike.				
The majority of drivers treat East Osage St like it's a race track. I refuse to walk on this street because drivers have no concern for anyone. They hotrod up and down, go so fast, they are on the wrong size of the street, fly around the S curve and several fly through the stop sign as well. There are a couple who I've seen who don't even look up from their phones as they fly up and down a 25 MPH street. Between my husband and me and a couple of neighbors, we have called in drivers repeatedly who deliberately disobey the speed limit. We can't forget the guy who flew around the S Curve and ended up in the creek. That's an example of going way too fast on a residential street.	Walking	May 19, 2025, 06:24 PM	38.56527681	-94.87136721
The stoplight at Baptiste & Hospital is far too long for the north/south traffic.	Driving	May 19, 2025, 12:25 PM	38.57447218	-94.86366126
Could add a traffic signal to allow traffic to cross Baptiste instead of the right turn only restriction, which could alleviate some traffic from the Hedge Lane WMT entrance/exit.	Driving	May 19, 2025, 12:24 PM	38.57266788	-94.85941929
This intersection is getting busier with the Paola Crossings development. May need a traffic student and/or traffic light at WMT Hedge Lane entrance/exit.	Driving	May 19, 2025, 12:22 PM	38.57196142	-94.85564062
This intersection is getting much busier with the Paola Crossings development. The curve and slope out of Walmart make sight difficult. May need a traffic control study and/or stop light here.	Driving	May 19, 2025, 12:21 PM	38.57262128	-94.85514973
Drivers consistently drive above the speed limit on this street. This would be a great area for families as it's close to the square and the library, but the excessive speed by many individuals makes it unsafe.	Driving	May 17, 2025, 03:50 PM	38.57187073	-94.87205995
Kids walking to school.	Walking	May 16, 2025, 05:12 PM	38.58110084	-94.85796464

Comment	Category	Date Submitted	Latitude	Longitude
This intersection has a lot of frightening instances of cars coming close to accidentally hitting children working across before and after school. Additional safety features and community outreach to use Industrial Road for vehicles not dropping off kids could help.	Walking	May 16, 2025, 04:53 PM	38.57805198	-94.85468449
No sidewalks along Osage after Wallace Park. Not safe for walking or biking. This is a frequent rout for kids to get to the school from the south end of town.	Walking	May 13, 2025, 10:32 AM	38.56536958	-94.86751683
No sidewalk	Walking	May 12, 2025, 12:07 PM	38.57638215	-94.86857794
There are no sidewalks for kids to walk to school. And even though kids here are within the 2.5 miles and are not qualified for bussing, it takes 25 minutes to walk the safest route to school. It's dangerous in the fall, winter and early spring with it being dark when they are walking. Little lighting and no sidewalks. Half of my child's walk before we HAD TO PAY was no sidewalks.	Walking	May 09, 2025, 03:33 PM	38.58458936	-94.8697039
No sidewalk	Walking	May 09, 2025, 03:29 PM	38.58413484	-94.87350673
No sidewalk	Walking	May 09, 2025, 03:28 PM	38.58673352	-94.86684367
Needs a sidewalk	Walking	May 09, 2025, 03:27 PM	38.58517037	-94.87047095
Kids try to cross here daily with vehicles not yielding. There is no safe place to cross from the neighborhoods to the schools.	Walking	May 05, 2025, 08:06 PM	38.57354279	-94.86364665
Kids try to cross here daily with vehicles not yielding. There is no safe place to cross from the neighborhoods to get to the schools.	Walking	May 05, 2025, 08:03 PM	38.57253348	-94.86430075
This design with only a northbound bike lane results in people riding in the bike lane while heading south. Having bicycle traffic against the flow of cars increases the velocity of potential	Bicycling	May 05, 2025, 11:03 AM	38.56735209	-94.86372093

Comment	Category	Date Submitted	Latitude	Longitude
crashes, and makes for an unpredictable traffic event when bikes heading in opposing directions meet.				
No sidewalk between Wallace Park & Hospital Dr	Walking	May 02, 2025, 05:08 PM	38.56567219	-94.86996565
Heavy, fast traffic including Sheriffs department vehicles	Walking	Apr 28, 2025, 11:03 AM	38.566925	-94.87785607
During pickup, cars are lined up through this crosswalk and kids are difficult to see for westbound traffic, I sit there and watch kids cross while picking up my daughter and a few times cars were going a little too fast and not paying attention.	Walking	Apr 28, 2025, 07:04 AM	38.57799467	-94.85865541
The sidewalk along the middle school is small and so close to road. It makes me nervous seeing this sidewalk get crowded with groups of kids and see cars driving so close.	Walking	Apr 28, 2025, 07:00 AM	38.57661628	-94.86357273
Kids often cross here from the middle school and not all cars are paying attention in this place.	Walking	Apr 28, 2025, 06:57 AM	38.57750477	-94.863202
Cars parked on Peoria create traffic bottlenecks	Driving	Apr 27, 2025, 09:16 PM	38.57137785	-94.86901558
Cars parked on Peoria block view for vehicles attempting to enter or cross Peoria from the south on Maple.	Driving	Apr 27, 2025, 09:14 PM	38.57194893	-94.87309464
You cannot see incoming vehicles from the stop sign on Shawnee with traffic traveling southbound on Pearl Street due to the parking spots on the west side of the Sheriff's department.	Driving	Apr 25, 2025, 08:40 PM	38.56971335	-94.87836242
Low visibility here, plus a narrowing roadway. People coming up the hill on Pearl aren't visible to those heading north. You can see where people have partially driven into front yards because visibility isn't great.	Driving	Apr 25, 2025, 06:21 PM	38.57707807	-94.87672696

Comment	Category	Date Submitted	Latitude	Longitude
Lots of intersections in the old part of town don't have stop signs so lots of folks don't know who has the right of way, or worse yet, they don't even slow down or yield.	Driving	Apr 25, 2025, 06:19 PM	38.56861148	-94.87629692
Cars parked along the east side of Pearl block the view of traffic traveling southbound. The street narrows south of Pearl and Shawnee so the stop signs on Shawnee are set back and visibility is blocked by parked cars. Lots of near-misses here.	Driving	Apr 25, 2025, 06:18 PM	38.57022933	-94.87866498
People speed down Pearl in both directions even though it's a residential area that transitions to a commercial zone. The school bus stop is a bit tricky too because of this	Walking	Apr 25, 2025, 06:14 PM	38.57004142	-94.87816421
Heavy traffic on Hickory driving too fast and not slowing down at intersections.	Driving	Apr 25, 2025, 03:22 PM	38.568124	-94.8726013
No sidewalks	Walking	Apr 25, 2025, 03:18 PM	38.58306266	-94.87222876
Need a left turn arrow from hospital drive onto Baptiste, especially when school is in session	Driving	Apr 24, 2025, 10:07 AM	38.5745711	-94.86367185
Bad intersection	Driving	Apr 23, 2025, 03:26 PM	38.6064905	-94.85865039
Thanks to the inductive loops, this is the only intersection in the city that is able to reliably detect bicycle traffic in the road.	Bicycling	Apr 22, 2025, 11:26 AM	38.57107699	-94.85636571
If 169 is in the city limits, does the city have any influence with KDOT on getting the Sunflower Rail-Trails Conservancy's proposed US 169 Trail built on KDOT's easements? Having a safe link to Spring Hill would enable travel into the metro. It would also be another connection to the intersection with 68th highway if the city is able to get development going up there, as laid out in the city's Comprehensive Plan.	Bicycling	Apr 22, 2025, 11:25 AM	38.61225408	-94.83537853
All of Osage Street has high traffic of pedestrians and with it being the main access to the park area and there are no sidewalks. Children and adults always walking in the streets, and it is a highly	Walking	Apr 22, 2025, 02:18 AM	38.56532868	-94.87594745

Comment	Category	Date Submitted	Latitude	Longitude
driven road. There needs to be safer ways for pedestrians to access areas on this road.				
Very hard to see towards the south due to very large tree.	Driving	Apr 19, 2025, 12:36 PM	38.56728741	-94.88025671
People fly through here even though it's 25. Can we get speed bumps, please?	Driving	Apr 19, 2025, 12:33 PM	38.56593888	-94.87081454
People fly through here even though the speed limit is 25. Can we get speed bumps in please?	Driving	Apr 19, 2025, 12:32 PM	38.56378558	-94.87050328
Enough cars block the crosswalks and ignore right of way that it feels safer to avoid the square and walk down Gold or Piankishaw instead.	Walking	Apr 19, 2025, 09:25 AM	38.57282735	-94.87894988
So many vehicles speed here on Silver St after coming out of the 20mph zone.	Driving	Apr 19, 2025, 04:47 AM	38.57580003	-94.87798121
Victory and 311th is a dangerous intersection. Removal of some vegetation might help.	Driving	Apr 19, 2025, 04:40 AM	38.56096054	-94.82577061
Cars routinely exceed the posted speed limits. Pedestrians also walk in the street as these cars exceed the speed limits. The lack of sidewalks, and darker street conditions, makes walking at night dicey through this area and to near McDonalds.	Driving	Apr 18, 2025, 07:17 PM	38.57074926	-94.86400607
Older stop lights sit off to the side of the street and aren't the easiest to notice. Cars speed down Silver even as kids, and their families, utilize the square.	Driving	Apr 18, 2025, 07:14 PM	38.57237251	-94.87906063
Pearl is wide next to the square and county government buildings. Corners present opportunities to build bump outs, allowing for shorter street crossing distances, landscaping opportunities and season decoration spaces while also slowing cars down through the "heart" of the city. All sides of the square (Pearl, Wea,	Walking	Apr 18, 2025, 07:12 PM	38.57178948	-94.87804971

Comment	Category	Date Submitted	Latitude	Longitude
Silver, and Peoria) would benefit from enhancements.				
The west entrance to the Walmart parking lot feels the safest to use via bike, but there is no good way to cross Baptiste. The nearest intersection that feels safe is East St & Baptiste.	Bicycling	Apr 18, 2025, 11:43 AM	38.57256469	-94.85950821
This crosswalk is very uncomfortable to use due to unusual traffic patterns. Perhaps consider adding a flashing light to alert drivers when the crosswalk is in use.	Walking	Apr 18, 2025, 11:33 AM	38.57885239	-94.87569976
The path has settled here and formed quite a bump.	Bicycling	Apr 18, 2025, 11:29 AM	38.58170595	-94.8545339
Some personal vehicles leaving Taylor Forge heading east on Kaskaskia St drive very aggressively and too fast for the residential area nearby.	Driving	Apr 18, 2025, 11:26 AM	38.57521246	-94.88106936
Cars park on all corners, making this intersection scary for driving and crossing	Driving	Apr 18, 2025, 10:28 AM	38.57088322	-94.87573636
North & south traffic fails to stop. Or stop in front of stop sign so do not see the sign saying east-west traffic does not stop. Suggest a 4-way stop.	Driving	Apr 15, 2025, 09:03 PM	38.60597003	-94.8541435

APPENDIX C

Plan and Policy Review

Plan and Policy Review

This appendix summarizes a review of existing plans, policies, and strategies relevant to transportation safety in the City of Paola. The purpose of this appendix is to document existing policies and plans and identify opportunities to amend or introduce policies. This appendix also provides an inventory of previously identified projects and goals that impact transportation safety in Paola.

The Plan and Policy Review is organized in two sections: the existing plan and policy document review and the strategy review. The existing document review aims to broadly understand the current transportation and safety initiatives in the City of Paola and identify opportunities for improvement. The strategy review is intended to inventory relevant existing strategies from a range of jurisdictions that will aid in developing Safe Streets and Roads for All (SS4A) Action Plan strategies that address the opportunities and needs identified in the existing document review and crash analysis.

The plans and policies reviewed are from a range of jurisdictions, including the City of Paola, City of Overland Park, City of Lee's Summit, City of De Soto, Miami County, and the Kansas Department of Transportation (KDOT). As safety is a multi-faceted issue, it can be approached through many different lenses; thus, the Plan team reviewed highway safety plans, comprehensive transportation plans, street design guidelines, and bicycle and pedestrian plans. Additionally, the Plan team reviewed relevant Capital Improvement Plan (CIP) documents to identify any key safety projects that the City should prioritize or coordinate with other jurisdictions.

Review of Existing Plan and Policy Documents

The following sections summarize the key plan and policy documents reviewed, highlighting any safety-related takeaways. The documents reviewed are listed below and summarized on the following pages:

City of Paola

- Planning Paola 2050 Comprehensive Plan (2022)
- Neighborhood Revitalization Plan (2004)
- Street and Access Standards (1997)
- Sign Regulations (1997)
- Snow Removal Policy

City of De Soto

- De Soto Strategic Plan (2024)

City of Lee’s Summit

- Ignite! Comprehensive Plan (2021)
- Pavement Management Program
- Neighborhood Traffic Safety Program

Miami County

- Miami County Comprehensive Plan (2004)

State of Kansas (KDOT)

- Kansas Strategic Highway Safety Plan 2020-2024
- Kansas Vulnerable Road User Safety Assessment (2023)
- Kansas Active Transportation Plan (2023)

Mid-America Regional Council

- ConnectedKC 2050 (2020)
- Regional Bikeway Plan (2014

CITY OF PAOLA

Planning Paola 2050 Comprehensive Plan Infrastructure, Transportation + Mobility Section (2022)

The Infrastructure, Transportation + Mobility section of the City's 2050 Comprehensive Plan delves into the existing conditions, challenges, and opportunities for transportation in the City of Paola. Comprehensive plans are documents, usually required by state law, that set forth a municipality's land use, housing and economic development, transportation, parks, and utility planning goals for the coming years. The transportation chapter of the plan briefly discusses safety issues and strategic opportunities, including ideas such as consistent and broad road and safety tracking, infrastructure investments, and the incorporation of a multimodal transportation network.

Neighborhood Revitalization Plan (2004)

The Neighborhood Revitalization Plan (NRP) was adopted by City Council in 2004 with the intention to promote the revitalization of a portion of the city through rehabilitation, conservation, or redevelopment of the area in order to protect the sound growth of the city. Within the plan area, multiple streets, sidewalks, and curbs were identified for resurfacing and reconstruction improvements to improve safety.

Street and Access Standards (1997)

This article provides the standards for street and access improvements for the City of Paola. Guidelines for street design, residential and nonresidential access, and roadway improvements are established to ensure safe and efficient development.

Sign Regulations (1997)

The City of Paola Sign Regulations is an article passed to regulate sign placement, size, lighting and other factors to preserve the desired community character and avoid confusing and cluttered streetscapes.

Snow Removal Policy

The City of Paola Snow and Ice Control Policy was passed to ensure the safe and efficient movement of vehicle and pedestrian traffic during snowfall and icing events, as well as provide for removal procedures and operational tasks. Snow removal procedures for snowfall less than 2", between 2-6" and greater than 6" are listed, as well as equipment and personnel information, plowing priorities, right-of-way repair, and more.

CITY OF DE SOTO

De Soto Strategic Plan (2024)

In 2016, the City of De Soto City Council began a visioning process aimed to formulate an organizational direction on the various areas of local governance. Among these areas are economic development and incentives, current and future planning, utility master planning, and growth. The end result of the effort was a new mission and values statement for the City, a list of goals and objectives, and the City's first Strategic Plan, which will help to focus efforts and provide policy clarity to future decisions. The Built and Natural Environment section includes strategies for improving safe connectivity for all modes of transportation.

CITY OF LEE'S SUMMIT

Ignite! Comprehensive Plan Multimodal Transportation Section (2021)

The Ignite! Comprehensive Plan articulates a series of goals, policies, actions and standards to define the community's physical development and programs. The Multimodal Transportation Chapter of the plan discusses context and existing conditions within the City surrounding these goals, and the safety issues associated. There is a focus on implementing a safe multimodal transportation network, increasing accessible travel options, and ensuring the City's transportation networks are connected, resilient, and adaptable to the future.

Pavement Management Program

The City of Lee's Summit Pavement Management Program is used to maintain or restore paved road surfaces, add structural capacity, and improve riding comfort and skid resistance. Streets included in the City's annual resurfacing projects are carefully evaluated and inspected under the guidelines of the program. Other repairs are made based on reports of problems from residents. Funding is made available through the 1/2-cent transportation sales tax.

Neighborhood Traffic Safety Program

Lee's Summit Neighborhood Traffic Safety Program is a comprehensive program designed specifically to protect the environment and quality of life in the Lee's Summit neighborhoods through the management and control of traffic on neighborhood streets. The program depends on community participation by submitted a request application, and then if selected to proceed, submitting a petition signed by a majority of local residents. Actions to address a traffic concern in the program include education, enforcement, or engineering approaches.

MIAMI COUNTY

Miami County Comprehensive Plan (2004)

A comprehensive plan is a long-range document that guides the county's future growth and development, its priorities, and its services. Miami County last updated its Comprehensive Plan in 2004. The principle objective of the transportation planning element is to provide the County with a long-range plan to guide future roadway improvements in an orderly and efficient manner consistent with the Comprehensive Plan goals and objectives.

STATE OF KANSAS (KDOT)

Kansas Strategic Highway Safety Plan 2020-2024

Kansas' statewide 5-year transportation safety plan intended to drive strategic investments that reduce traffic injuries and deaths, focusing on factors that take place in the highest number of fatal or serious injury crashes ("emphasis areas").

Kansas Vulnerable Road User Safety Assessment (2023)

Addendum to the 2020-2024 SHSP in accordance with the federal Bipartisan Infrastructure Law (BIL) that aims to improve understanding of the conditions and behaviors present in fatal and serious injury crashes involving VRUs (pedestrians, cyclists, and others using non-motorized modes of transportation). This document includes guidance for the next SHSP update and guidance for implementing VRU safety programs and projects in Kansas.

Kansas Active Transportation Plan (2023)

The state's first Active Transportation Plan since 1995 explores the needs of people who walk, cycle, use mobility assistance devices, scoot, and more. In addition to the Plan, several toolkits and resources that complement the Plan and advance the needs of active transportation in local communities are available.

MID-AMERICA REGIONAL COUNCIL

ConnectedKC 2050 (2020)

The Kansas City metro's federally required long-range transportation plan (LRTP) for the next 30 years that identifies specific significant transportation projects. Projects in the plan include those that can be completed within projected revenues ("constrained" projects) as well as illustrative projects that will require resources beyond what we can reasonably expect today. This plan is updated every 5 years, with its next update in 2025.

Regional Bikeway Plan (2014)

The Mid-America Regional Council Regional Bikeway Plan aims to create a Kansas City metro region-wide bicycle network for both recreational and transportation-oriented riders, as well as envisions a 2,000-mile network of both on- and off-road facilities across the 8-county region.

APPENDIX D

Countermeasures Toolbox

COUNTERMEASURES TOOLBOX

Cost estimates for each countermeasure are represented using a relative scale ranging from $ to $$$. This system provides a general indication of the anticipated level of investment required, rather than precise construction costs.

- **$ — Low cost**: Typically inexpensive and easily implemented measures that may require minimal design or construction effort.
- **$$ — Moderate cost**: Countermeasures requiring some design and construction work or moderate material costs.
- **$$$ — High cost**: More complex or capital-intensive projects that involve substantial design, materials, or coordination.

These relative cost categories are intended to help decision-makers understand the general magnitude of investment needed for each recommendation and to prioritize improvements accordingly.

Crash reduction ratings are assigned to each strategy based on the Crash Modification Factor (CMF) provided by the Federal Highway Administration's CMF Clearinghouse database. These crash reduction ratings represent the percent that fatal and injury crashes that are expected to be reduced due to implementation of the respective countermeasure.

VULNERABLE ROAD USERS

Countermeasure	Description	Cost	Estimated Crash Reduction
High-visibility crosswalks	Crosswalks painted with bold, reflective markings that stand out in all weather and light conditions, helping drivers spot pedestrians sooner.	**$**	**40%**
Raised crosswalks	Crosswalks built higher than the roadway, slowing vehicles and making pedestrians more visible while providing a level walking surface from curb to curb.	**$$**	**36%**
Pedestrian Hybrid Beacon (PHB)	A traffic signal that stays dark until activated by a pedestrian, then flashes yellow and turns red to stop vehicles so people can cross safely.	**$$**	**47%**
Lighting	Focused lighting along sidewalks and crossings that makes people walking more visible to drivers and improves comfort and safety at night.	**$$**	**42%**
Daylighting	Removing parked cars or other obstructions near intersections so drivers, cyclists, and pedestrians can see each other more easily.	**$**	**30%**
Pedestrian refuge Islands	Protected areas in the center of wide roads that give people crossing a safe place to pause before finishing their trip.	**$$-$$$**	**56%**
Sidewalks	Continuous, well-maintained paths that connect key destinations, giving people a safe and accessible place to walk without gaps or obstacles.	**$$-$$$**	**20-65%**
Protected bike lanes	Bicycle lanes separated from cars by curbs, posts, or planters, creating a safer and more comfortable space for cyclists.	**$$-$$$**	**53%**

INTERSECTIONS

Countermeasure	Description	Cost	Estimated Crash Reduction
Retroreflective traffic signal backplates	Traffic signal borders enhanced with reflective strips to improve signal visibility for drivers during low-light conditions, adverse weather, or power outages.	**$**	**30%**
All way stop control conversion	Upgrading a two-way stop intersection so all approaches have stop signs, improving safety by requiring every driver to stop and yield before proceeding.	**$**	**60%**
Dotted turn path markings	Short, dashed lane lines through intersections that guide drivers along the intended turning path and reduce conflicts with other road users.	**$**	**18%**
Slip lane removal	Eliminating the separate turn lane that allows vehicles to bypass an intersection corner, reducing vehicle speeds, shortening pedestrian crossings, and improving visibility.	**$**	**Varies**
Truck apron	A raised, mountable area at an intersection corner that reduces the effective turning radius for cars while still accommodating trucks, helping slow vehicle turns and improve pedestrian safety.	**$$**	**Varies**
Protected left turn phases	Traffic signal timing that provides a dedicated green arrow for left turns during busy periods, reducing conflicts with oncoming traffic and improving safety.	**$**	**42%**
Roundabouts	Circular intersections designed to slow vehicle speeds and reduce conflict points, improving safety while keeping traffic flowing smoothly.	**$$-$$$**	**45%**
Restrict right turns on red	Prohibiting vehicles from turning right at a red light to reduce conflicts with pedestrians and cyclists and improve safety at intersections.	**$**	**2-8%**

SPEEDING

Countermeasure	Description	Cost	Estimated Crash Reduction
Curb extensions	A curb extension that narrows the roadway at intersections or midblock, helping slow down cars, shorten crossings, and improve safety for people walking.	**$$**	**30%**
Speed cameras	An automated traffic device that uses sensors to detect cars exceeding the speed limit and capture an image of the vehicle's license plate, resulting in a mailed citation for the owner.	**$$**	**19%**
Pavement reallocation	Reconfiguring the number of vehicle travel lanes on a street to create space for a center turn lane, shoulders, or wider sidewalks, causing drivers to naturally slow down.	**$-$$$**	**20-47%**
Chicanes	Intentional curves or narrowings added to a straight road, requiring drivers to steer around them, encouraging reduced vehicle speeds.	**$$**	**Varies**
Lane width reduction	A roadway design change that narrows travel lanes to make streets feel less wide-open, encoruaging reduced vehicle speeds.	**$**	**24-42%**
Speed feedback signs	A digital sign displaying an approachig drivers current speed, encoraging them to follow the speed limit.	**$**	**5%**
Short-term, high visibility enforcement	A short, highly visible enforcement effort that increases patrol presence and public awareness, helping deter speeding and reduce crashes.	**$**	**N/A**

ROADWAY DEPARTURE

Countermeasure	Description	Cost	Estimated Crash Reduction
Rumble strip	Grooved patterns on the road that make noise and vibration when driven over, alerting drivers and helping prevent run-off-road crashes.	**$**	**20%**
Retroreflective center line / edge lines	High visibility center and edge lines use special paint or tape that reflects headlights at night, making the road easier to see and helping drivers stay in their lane.	**$**	**25%**
Widening edge lines	Widened edge lines make the road's outer boundary more visible, helping drivers stay on the roadway and reducing run-off-road crashes.	**$**	**20%**
Curve delineation	Signs, markings, or posts to highlight the path of a curve, helping drivers see and navigate the curve more safely.	**$**	**35%**
Clear zones	A roadside design feature that removes or sets back obstacles near the road, giving drivers who leave the lane more space to recover safely.	**$-$$**	**20%**

YOUNG DRIVERS

Countermeasure	Description	Cost	Estimated Crash Reduction
Mothers Against Drunk Driving (MADD) program	Community focused program that works with youth and families to prevent impaired driving, helping young drivers stay safe and avoid alcohol-related crashes.	**$**	**N/A**
Students against Destructive Decisions (SADD) program	Peer-to-peer program that encourages young drivers to make safe choices, helping prevent risky behaviors that lead to crashes.	**$**	**N/A**
Impact Teen Drivers program	School based program helping teen understand and avoid reckless or distracted driving behaviors that cause most young driver crashes.	**$**	**N/A**
Mass Media Campaigns	Broad outreach program that uses TV, radio, or social media to highlight safe driving messages, helping raise awareness and influence young drivers' behavior.	**$**	**N/A**

SEATBELTS

Countermeasure	Description	Cost	Estimated Crash Reduction
Short term, high visibility enforcement	Short, highly visible enforcement effort that pairs extra patrols with clear public messaging, helping increase seat belt use and reduce crashes involving unrestrained occupants.	**$**	**N/A**
Seatbelts Are For Everyone (SAFE) program	A state led peer-to-peer program in schools that uses education, rewards, and enforcement partnerships to encourage seat belt use.	**$**	**N/A**

DISTRACTED DRIVING

Countermeasure	Description	Cost	Estimated Crash Reduction
Short term, high visibility cell phone enforcement	A short, highly visible enforcement effort that focuses on drivers using cell phones, helping discourage distracted driving and reduce related crashes.	**$**	**N/A**
End Distracted Driving (EndDD) program	A community education program that uses presentations and real stories to show the dangers of phone use behind the wheel, helping drivers recognize risks and avoid distracted driving.	**$**	**N/A**

SAFETY STRATEGIES

The following section provides additional detail on several key safety strategies initially introduced in the countermeasures toolbox. These strategies represent proven traffic safety countermeasures, documented and endorsed by the Federal Highway Administration (FHWA) and the National Highway Traffic Safety Administration (NHTSA). Each strategy is grounded in evidence-based research demonstrating reductions in crash frequency and severity when properly implemented.

Safety strategies are often complementary, meaning that combining multiple treatments at a single location or corridor can produce greater safety benefits than any one measure alone. The descriptions that follow outline the purpose, application, and benefit of each strategy to support informed decision-making.

PAVEMENT REALLOCATION

FOCUS AREAS ADDRESSED

Pavement reallocation typically converts a four-lane roadway (two in each direction) into a three-lane roadway. The new configuration includes one travel lane in each direction and a center two-way left-turn lane.

By providing a dedicated lane for turning vehicles, it reduces abrupt stops and rear-end collisions, leading to a smoother, more predictable flow of traffic. The simplified road layout also makes it safer for pedestrians to cross the street. According to the U.S. Federal Highway Administration, road diets have a proven safety record and can **reduce total crashes by 19% to 47%.**

Image Source: Google Maps (Nieman Rd. Shawnee, KS)

Image Source: Google Maps (Nieman Rd. Shawnee, KS)

CURB EXTENSIONS

FOCUS AREAS ADDRESSED

Curb extensions, also known as bulb-outs, are sidewalk expansions at corners or mid-block crosswalks that extend into the extra roadway to physically narrow the lanes for vehicles.

This design improves safety by shortening the street crossing distance, which reduces pedestrian exposure to traffic, and by improving visibility. The tighter corners also slow turning vehicles, and the additional sidewalk space can be used for amenities like benches or landscaping. According to the Federal Highway Administration, this strategy can **reduce intersection crashes by up to 59%.**

Image Source: Google Maps (Bridge St. and Main St., Smithville, MO)

Image Source: Google Maps (Bridge St. and Main St, Smithville, MO)

RAISED CROSSINGS

FOCUS AREAS ADDRESSED

Raised crossings, also known as speed tables, are elevated crosswalks that span the width of a roadway, often found at mid-block crossings.

By raising the crosswalk to the same level as the sidewalk, they create a seamless path for pedestrians and a physical traffic-calming feature for drivers. This elevation makes pedestrians more visible to drivers and reduces the speed of approaching vehicles. The inherent traffic-calming effect of raised crossings enhances safety for all users, with studies from the Federal Highway Administration (FHWA) showing they can **reduce pedestrian crashes by up to 8%.**

Image Source: Google Maps (Grassy Gutter Rd. and Williams St. Longmeadow, MA)

Image Source: Google Maps (Grassy Gutter Rd. and Williams St. Longmeadow, MA)

PEDESTRIAN REFUGE ISLANDS

FOCUS AREAS ADDRESSED

Pedestrian refuge islands are concrete islands located in the middle of a crosswalk, designed to serve as a 'refuge' for pedestrians needing to cross long distances or multiple lanes of traffic.

These islands enhance pedestrian safety by reducing the time they are exposed to active traffic lanes, providing a space to wait between crossing different directions of traffic. By breaking up the crossing into two shorter segments, these islands also allow pedestrians to focus on one direction of traffic at a time. Studies show these islands can **reduce pedestrian related crashed by 46%.**

Image Source: Google Maps (U.S. 69 HWY and Poe St. Claycomo, MO)

Image Source: Google Maps (U.S. 69 HWY and Poe St. Claycomo, MO)

REDUCED CORNER TURNING RADII

FOCUS AREAS ADDRESSED

Reduced corner turning radii involves tightening the corners at intersections, resulting in a less sweeping turning movement for drivers.

A smaller turning radii encourages drivers to slow down when turning, improving visibility and yielding behavior toward pedestrians. This geometric change helps create a more predictable intersection environment. According to the Federal Highway Administration, reducing the corner turning radii can **reduce crashes by 25-35%**, depending on the degree of reduction and existing site conditions.

Image Source: Google Maps (Grassy Gutter Rd. and Williams St. Longmeadow, MA)

Image Source: Google Maps (Grassy Gutter Rd. and Williams St. Longmeadow, MA)

WIDE EDGE LINES

FOCUS AREAS ADDRESSED

Wide edge lines are pavement markings along the side of a travel lane that are wider than the standard four-inch line, typically measuring six inches across.

These enhanced markings are more visible to drivers, especially at night, in rain, or in fog. This increased visibility provides stronger visual guidance, helping drivers better identify the edge of the roadway and stay within their lane. Studies from the Federal Highway Administration (FHWA) show that wide edge lanes can **reduce crashes by up to 23%**

Image Source: Google Maps (NE 10th St. Pratt County, KS)

Image Source: Google Maps (U.S. 69 HWY and Poe St. Claycomo, MO)

SAFE ROUTES TO SCHOOL (SRTS) PROGRAM

FOCUS AREAS ADDRESSED

The Safe Routes to School (SRTS) Program is a federally established initiative, designed to make it safer for students to walk and bike to school.

It works by combining infrastructural improvements like adding sidewalks and crosswalks, providing safety education to students and drivers, and hosting community engagement events. By creating a safer physical environment and building a culture of safety, the program helps protect the community's youngest pedestrians and bicyclists.

Image Source: Google Maps (Palmer St and 5th St. Strong City, KS)

Image Source: Google Maps (Palmer St and 5th St. Strong City, KS)

STRATEGIC LAW ENFORCEMENT

FOCUS AREAS ADDRESSED

Strategic law enforcement is a data-driven approach to traffic safety where enforcement resources are concentrated on the specific behaviors, locations, and times most associated with serious crashes.

Rather than being random, these efforts are highly visible and often supported by media campaigns to raise public awareness, such as for speeding, distracted driving, or impaired driving. This approach works by creating a credible deterrent and changing community-wide behavior, encouraging all drivers to be safer.

Image Source: https://www.claimsjournal.com/news/national/2021/03/30/302854.htm

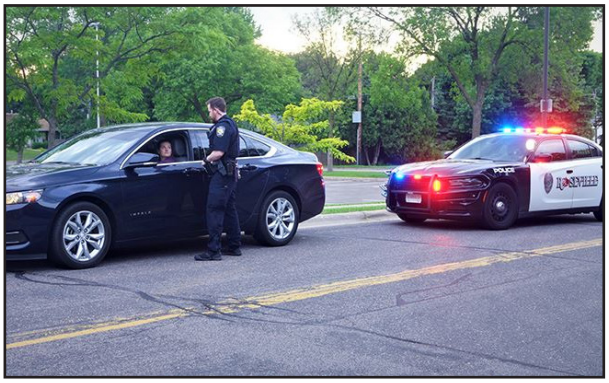


Image Source: https://www.cityofroseville.com/3319/Traffic-Stop-Data

SHORT TERM, HIGH VISIBILITY SEATBELT LAW ENFORCEMENT

FOCUS AREAS ADDRESSED

This strategy involves a brief, highly publicized enforcement period (typically about two weeks) where law-enforcement agencies increase checks for seat-belt use, often paired with media outreach.

The high publicity raises awareness of legal risk and visibly increases compliance, which leads to more occupants wearing seat belts and thus fewer injuries in crashes. The National Highway Traffic Safety Administration (NHTSA) rates this strategy as 5 out of 5 stars for effective crash reduction.

Image Source: https://www.keyc.com/2025/05/20/law-enforcement-enforcing-extra-patrol-ensure-drivers-passengers-are-wearing-seatbelts/

Image Source: https://www.oklahoman.com/story/news/2010/08/16/oklahoma-seat-belt-compliance-rate-up-17-percent-over-last-year

APPENDIX E

Catalyst Project Profiles and Cost Estimates

SUMMARY OF EXISTING CONDITIONS

FACILITY OBSERVATIONS

Context

- Baptiste Drive functions as the city's primary east–west arterial, providing direct access to U.S. 169 and serving as a key connector for regional traffic.
- The corridor forms a major dividing line within the city, separating residential neighborhoods to the south from significant community destinations to the north, including schools and medical facilities.

Intersection and Roadway Conditions

- The roadway extends approximately 1 mile and consists of four 12-foot travel lanes.
- At major intersections such as Hospital Drive and Hedge Lane, dedicated left- and right-turn lanes expand the roadway to six lanes at its widest points.
- West of Hospital Drive, the corridor is undivided; east of Hospital Drive, a raised median separates travel directions.
- The eastern segment, between Hospital Drive and Silver Street, contains a high density of commercial access points—26 total driveways within a 0.65-mile segment—increasing potential conflict points for vehicles and pedestrians.

Pedestrian Facilities

- Sidewalk gaps are present on the southeast portion between Hospital Drive and Hedge Lane.
- Only five north–south crosswalks exist along the full corridor, with three in deteriorated condition and low-visibility markings, reducing pedestrian safety and driver awareness.
- Over the past 10 years, 154 crashes were recorded along Baptiste Drive. Rear end collisions were the most frequent, accounting for 54 crashes (35%).

DATA OBSERVATIONS

- Over the past 10 years, 154 crashes were recorded along Baptiste Drive. Rear end collisions were the most frequent, accounting for 54 crashes (35%).
- Other common crash types included angle crashes, same-direction sideswipes, and curb hits.
- While rear-end collisions represented the majority of total crashes, angle crashes were responsible for the highest number of injury crashes.
- Injury crashes occurred throughout the corridor, but several hotspots emerged, particularly at:
  - Baptiste Drive and East Street
  - Baptiste Drive and Hospital Drive
  - Baptiste Drive and Hedge Lane Road
- Intersections were the most significant crash locations, accounting for 60% of all corridor crashes.

CRASH SEVERITY

Crash Type	K	A	B	C	Total
Angle - Side Impact	0	0	2	3	5
Coll W Fixed Object	0	0	1	2	3
Coll w Pedalcycle	0	0	0	1	1
Head On	0	0	1	1	2
Overturned	0	0	1	0	1
Rear End	0	0	2	1	3
Total	**0**	**0**	**7**	**8**	**15**

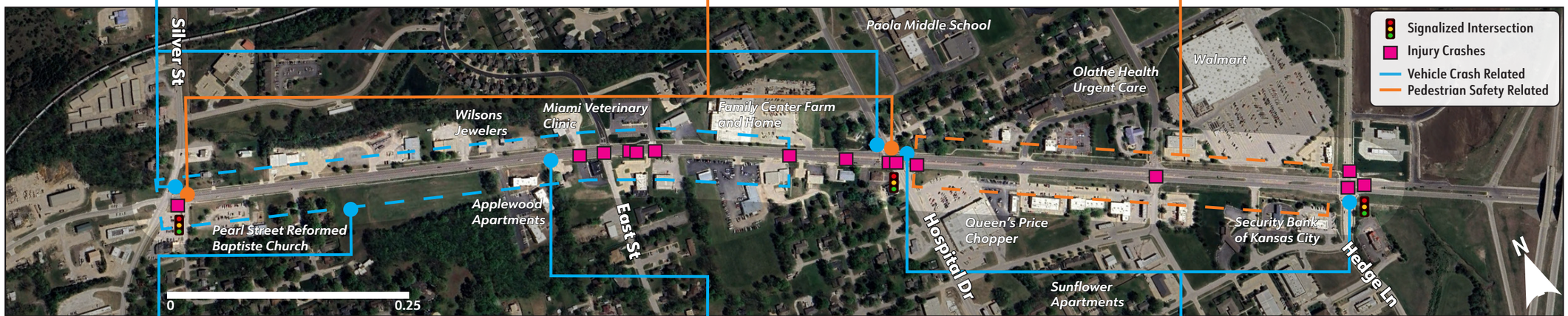
Note: The KABCO scale is a standardized crash severity classification system used by law enforcement and transportation agencies. It categorizes crashes based on the most severe injury involved: K (Fatal), A (Suspected Serious Injury), B (Suspected Minor Injury), C (Possible Injury), and O (Property Damage Only). Crash data from the last 10 years was retrieved from the Kansas Department of Transportation (KDOT).

Slip lanes allow for high speed right turns

Misaligned crosswalks and long pedestrian crossing distances

Long gap between pedestrian crosswalks

Sidewalk gaps



High amount of driveway entrances

Storm drain visibility

Failure to yield during left turns

SUMMARY OF RECOMMENDATIONS

Improvements along the Baptiste Corridor should focus on reducing intersection and pedestrian conflicts. Given the corridor's proximity to key community assets, enhancing safe and continuous pedestrian connections is essential.

PEDESTRIAN CONNECTIVITY AND CROSSINGS

- Fill sidewalk gaps to create a continuous, accessible pedestrian network connecting key community destinations.
- Install refuge islands, improve crosswalk alignments, and paint high-visibility crosswalks at key crossing points to reduce road exposure for crossing pedestrians.
- Install a midblock crosswalk with signalized pedestrian control between Hospital Dr and Hedge Lane Road to alleviate the lack of crossing opportunities.

INTERSECTION AND LEFT-TURNING MOVEMENT ENHANCEMENTS

- Improve intersection signal phasing by introducing protected and flashing-yellow left-turn signals to improve turning clarity for drivers.
- Adjust left-turn lane geometry to create positive offsets, improving sight lines and minimizing the risk of turning collisions.
- Implement a two-way left-turn lane (TWLTL) between Pearl Street and Hospital Drive to reduce congestion, minimize rear-end collisions, and decrease the impact of limited access management.

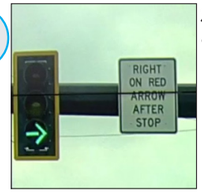
PROJECT CONCEPT COMMUNITY FEEDBACK

- According to data collected from the public open house, the project concept received 88% agreement from Paola residents, calculated by observing the amount of green dots relative to the total dots placed on the concept board.
- Restriping to three lanes with a center turn lane, recommended on the west portion of Baptiste Drive, was the most well-received recommendation with 7 green dots.
- Installing a new midblock crosswalk (4 green dots) and fill sidewalk gaps (4 dots) were other highly received recommendations.

Short Term
- Install temporary pedestrian refuge island

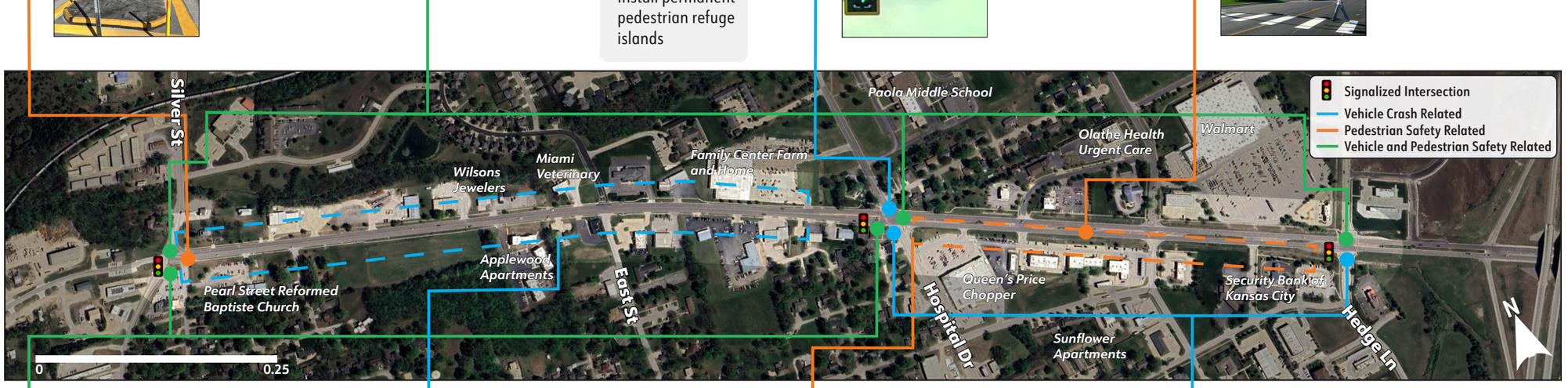
Short Term
- Rephase traffic signals for left turns
- Install retroreflective signal backplates

Long Term
- Install permanent pedestrian refuge islands



Short Term
- Update turn signage to "Right on Red Arrow After Stop"

Long Term
- Install midblock pedestrian crosswalk



Short Term
- Repaint existing pedestrian crosswalks

Long Term
- Reconstruct curb ramps and realign crosswalks
- Remove slip lanes

Short Term
- Restripe to three lanes with center turn lane
- Install retroreflective object marker

Long Term
- Fill sidewalk gaps

Long Term
- Reallocate roadway for positive left turn offset
- Reduce curb radii

COST ESTIMATE

Cost estimates were developed by reviewing comparable cost estimates from previous plans, adjusting them to 2025 dollars, and applying the professional judgment of experienced Kimley-Horn staff. Additional cost data were informed by federal planning resources, such as the National Highway Traffic Safety Administration's (NHTSA) Low-Cost Pedestrian Safety Zones documentation.

Implementation time-frames are categorized as either short-term or long-term.

- Short-term recommendations are low-cost, quickly implementable actions that the city can complete with minimal reliance on external funding.
- Long-term recommendations involve higher-cost improvements that require more extensive planning, design, and often external financial support.

In certain cases, a relatively higher-cost item may be classified as short-term. This indicates that the recommendation is of elevated priority and that early progress toward implementation is encouraged despite its higher initial expense.

Recommendation	Time Frame	Unit	Quantity	Unit Cost	Total
Quickbuild pedestrian refuge island	Short-term	EA	1	$2,000	$2,000
Retroreflective object marker	Short-term	EA	1	$600	$600
"Right on Red Arrow After Stop" sign	Short-term	EA	1	$600	$600
Repaint existing pedestrian crossings	Short-term	EA	7	$3,000	$21,000
Restripe to three lanes with center turn lane	Short-term	Per mile	0.66	$150,000	$99,000
Restrict permissive left turns during peak hours	Short-term	Per approach	12	$750	$9,000
Convert permissive turn light to flashing yellow arrow	Short-term	Per approach	12	$10,000	$120,000
Replace left turn sign on mast to reflect FYA	Short-term	Per approach	12	$600	$7,200
Retroreflective signal backplates	Short-term	EA	24	$500	$12,000
Remove slip lanes	Long-term	EA	3	$250,000	$750,000
Permanent pedestrian refuge islands	Long-term	EA	4	$30,000	$120,000
Midblock pedestrian crosswalk with RRFB	Long-term	EA	1	$93,000	$93,000
Reconstruct curb ramp and realign crosswalks	Long-term	Per crosswalk	3	$15,000	$45,000
Fill sidewalk gaps	Long-term	LF	1,755	$100	$175,500
Reallocate roadway for positive left turn offset	Long-term	Per intersection approach	4	-	Varies
Reduce curb radii with curb extensions	Long-term	Per corner	6	$35,000	$210,000
Construction Subtotal					$1,664,900
Mobilization				10%	$166,490
Traffic Control				5%	$83,254
Contingency				20%	$332,980
Estimated Construction Total					$2,247,615
PE (Design)				12%	$269,714
Utilities					
ROW					
CE (Inspection)				15%	$337,142
Estimated Project Total					$2,854,471

Note. The consultant has no control over the cost of labor, materials, equipment, or over the contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to the consultant at this time and represent only the consultant's judgment as a design professional familiar with the construction industry. The consultant cannot guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

SUMMARY OF EXISTING CONDITIONS

FACILITY OBSERVATIONS

Context

- Osage Street functions as a residential neighborhood corridor and serves as the southernmost east–west collector, connecting Silver Street to Hospital Drive.
- The southern side of the corridor provides the northern entrance to Wallace Park, a key community destination.

Intersection and Roadway Conditions

- The corridor is a two-way undivided roadway approximately 0.9 miles long and 30 feet wide, with on-street parking permitted on the north side.
- Community engagement feedback indicates frequent speeding along the corridor. Reports also note heavy truck traffic traveling to and from the Evergy facility on the western end, contributing to noise and potential safety concerns.

Pedestrian Facilities

- Pedestrian access is limited due to discontinuous infrastructure
- Sidewalks on both sides terminate east of Walnut Street, creating gaps in the pedestrian network.
- Accessible curb ramps are absent throughout, reducing safety and accessibility for all users.

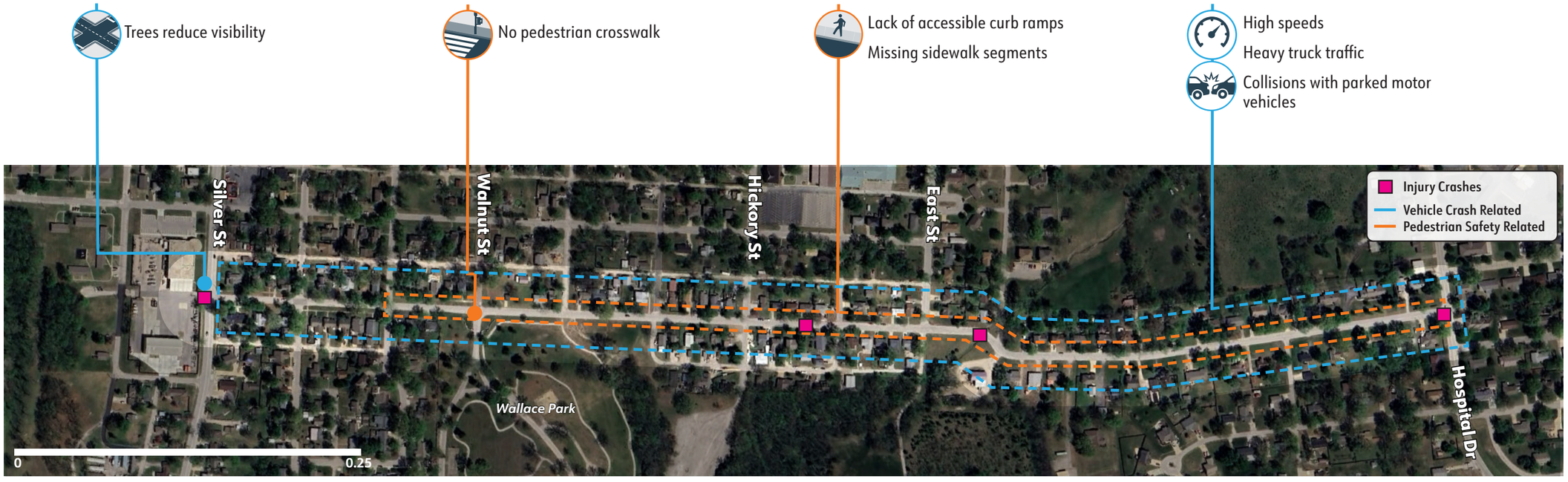
DATA OBSERVATIONS

- A total of 17 crashes were recorded along Osage Street.
- The most common crash type was collisions with parked vehicles, accounting for 47% of all crashes. Other crash types included angle and rear-end collisions.
- Injury crashes were minimal, with four total incidents. Three were possible injuries, and one confirmed injury resulted from a parked-vehicle collision.
  No significant spatial pattern was identified; crashes—both injury and non-injury—are evenly distributed along the corridor.
- Distracted driving was the leading contributing factor, responsible for 53% of all crashes, highlighting the need for speed management and driver-awareness measures.

CRASH SEVERITY

Crash Type	K	A	B	C	Total
Angle - Side Impact	0	0	0	1	1
Overturned	0	0	0	1	1
Coll w Parked Motor Vehicle	0	0	1	0	1
Rear end	0	0	0	1	1
Total	**0**	**0**	**1**	**3**	**4**

Note: The KABCO scale is a standardized crash severity classification system used by law enforcement and transportation agencies. It categorizes crashes based on the most severe injury involved: K (Fatal), A (Suspected Serious Injury), B (Suspected Minor Injury), C (Possible Injury), and O (Property Damage Only). Crash data from the last 10 years was retreived from the Kansas Department of Transportation (KDOT).



SUMMARY OF RECOMMENDATIONS

Improvements along Osage Street should reflect its residential character and role as a primary entryway to Wallace Park. The corridor should be designed with the following improvements:

TRAFFIC CALMING AND GATEWAY TREATMENT

- Transform the Osage Street and Walnut Street intersection into a distinctive gateway, signaling to eastbound drivers their transition into a slower, residential area.
- Install a raised intersection to reduce vehicle speeds and enhance driver awareness.
- Construct curb extensions at intersection corners to narrow the roadway and naturally calm traffic.

PEDESTRIAN CONNECTIVITY

- Extend sidewalks east of Walnut Street to connect with the existing network on Hospital Drive, closing existing gaps and promoting safe, continuous pedestrian access to Wallace Park and nearby neighborhoods.
- Add high-visibility crosswalks and accessible curb ramps with detectable warning surfaces to improve pedestrian safety and ADA compliance.

PROJECT CONCEPT COMMUNITY FEEDBACK

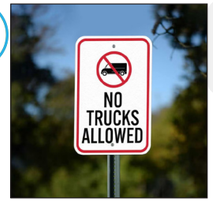
- Data collected from the public open house says that the Osage Street project received the most comments out of the three proposed project concepts, with 40 comments total.
- The project concept received an 84% positive response, judged by the amount of green dots (agreement) relative to the total dots placed.
- The most well-received recommendations included:
  - New crosswalks (6 green dots)
  - Fill sidewalk gaps (6 green dots)
  - Construct a raised intersection (4 green dots)

Long Term
- Construct raised intersection

Short Term
- Install temporary curb extension

Long Term
- Construct permanent curb extension

Short Term
- Install new pedestrian crosswalks



Long Term
- Install "No Trucks" sign

Long Term
- Fill sidewalk gaps
- Install new accessible curb ramps

COST ESTIMATE

Recommendation	Time Frame	Unit	Quantity	Unit Cost	Total
"No Trucks" sign	Short-term	EA	2	$600	$1,200
Temporary curb extension	Short-term	Per corner	4	$3,000	$12,000
High-visibility crosswalks	Short-term	EA	4	$3,000	$12,000
Curb extension	Long-term	Per corner	4	$35,000	$140,000
Raised intersection	Long-term	EA	1	$100,000	$100,000
Fill sidewalk gaps	Long-term	LF	7,700	$100	$770,000
Accessible curb ramps	Long-term	EA	8	$6,000	$48,000
Construction Subtotal					$1,083,200
Mobilization				10%	$108,320
Traffic Control				5%	$54,160
Contingency				20%	$216,640
Estimated Construction Subtotal					$1,462,320
PE (Design)				12%	$175,478
Utilities					
ROW					
CE (Inspection)				15%	$219,348
Estimated Project Total					$1,857,146

Note. The consultant has no control over the cost of labor, materials, equipment, or over the contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to the consultant at this time and represent only the consultant's judgment as a design professional familiar with the construction industry. The consultant cannot guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

SUMMARY OF EXISTING CONDITIONS

FACILITY OBSERVATIONS

General

- Silver Street serves as a major north–south corridor and one of the city's primary southern entry routes, carrying traffic northbound to downtown before transitioning into N. Pearl Street at Baptiste Drive.

Intersection and roadway Conditions

- Between Wallace Street and Miami Street, the corridor functions as a two-lane undivided roadway with excessively wide travel lanes (approximately 17.5 feet each, totaling 35 feet), encouraging higher vehicle speeds.
- North of Miami Street, approaching downtown, the lanes split and are divided by dedicated left-turn lanes, creating a more complex intersection environment.
- Within the downtown area, on-street parking near intersections limits sight distance, reducing visibility of both pedestrians and oncoming traffic.
- Traffic signals at Silver and Peoria Streets are difficult to notice in certain conditions due to their dark color and lack of mast arms, reducing conspicuity for drivers.

Pedestrian Facilities

- While sidewalks are present along most of the corridor, pedestrian facilities show signs of deterioration.
- Crosswalks are faded and often low visibility, diminishing driver awareness of pedestrian activity.
- Curb ramps are outdated and lack detectable warning surfaces, limiting accessibility.
- Crossing opportunities outside of the downtown stretch are limited.

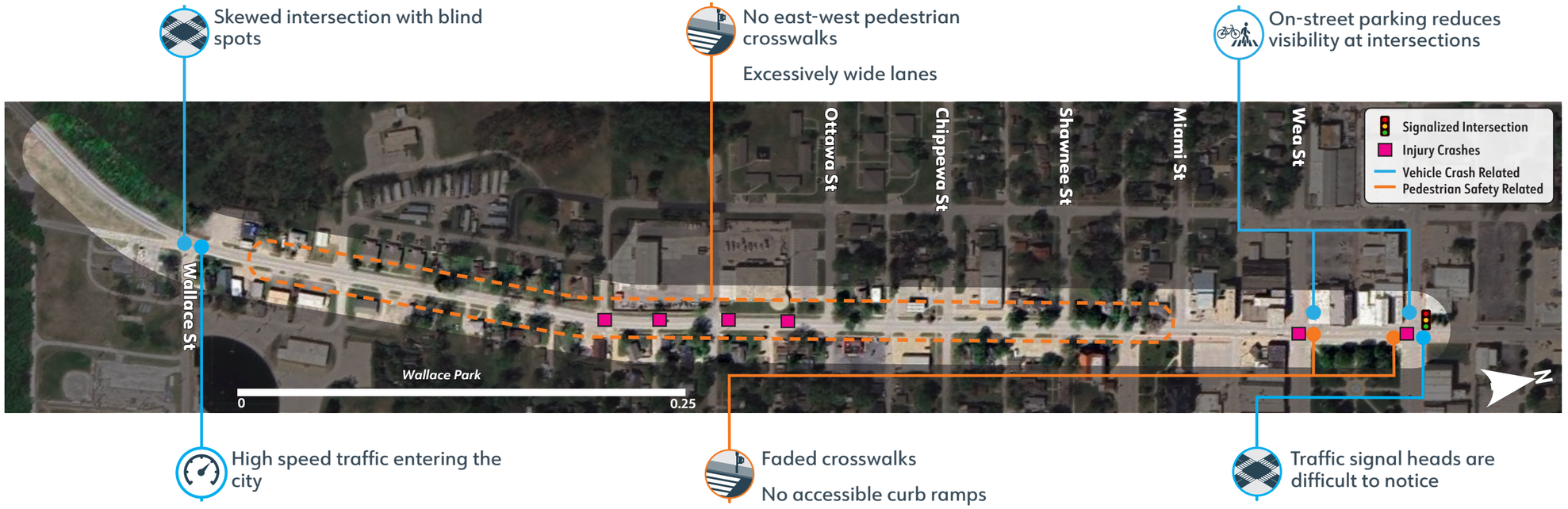
DATA OBSERVATIONS

- Over a 10-year period, 50 crashes were recorded along the Silver Street corridor.
- Angle crashes were the most frequent, accounting for 32% of all crashes. Other prevalent crash types included rear-end collisions with parked vehicles and backing-related crashes.
- Six crashes resulted in injuries, with two occurring in the downtown area and four between Wallace Street and Ottawa Street.
- Angle crashes were the leading cause of injury crashes, representing 50% of all injury incidents.
- Approximately 72% of all crashes occurred at intersections, identifying intersection safety as the corridor's most significant contributing factor to overall crash frequency.

CRASH SEVERITY

Crash Type	K	A	B	C	Total
Angle - Side Impact	0	0	2	1	3
Coll W Fixed Object	0	0	1	0	1
Head On	0	1	0	0	1
Overturned	0	0	1	0	1
Total	**0**	**1**	**4**	**1**	**6**

Note: The KABCO scale is a standardized crash severity classification system used by law enforcement and transportation agencies. It categorizes crashes based on the most severe injury involved: K (Fatal), A (Suspected Serious Injury), B (Suspected Minor Injury), C (Possible Injury), and O (Property Damage Only). Crash data from the last 10 years was retrieved from the Kansas Department of Transportation (KDOT).



SUMMARY OF RECOMMENDATIONS

Improvements along Silver Street should focus on traffic calming, pedestrian accessibility, and driver visibility, particularly through the downtown corridor, where high activity and speeding create safety concerns. Recommended Improvements include:

DOWNTOWN ENHANCEMENTS

- Curb extensions should be installed to narrow the roadway, slow turning speeds, and improve pedestrian visibility. Paint and flexible bollards should be used to implement temporary curb extensions as a cost-effective measure prior to permanent construction.
- Pedestrian connectivity should be upgraded by installing high-visibility crosswalks and constructing accessible curb ramps.
- Signal head visibility at Silver St and Peoria St should be enhanced by installing retroreflective backplates.

PAVEMENT REALLOCATION

- Stripe a two-way left-turn lane along Silver Street to reduce through-lane widths, calm traffic, and minimize rear-end collisions by separating left-turning vehicles from through movements.

Other recommendations include installing a new pedestrian crosswalk with pedestrian refuge island to allow for a safe pedestrian crossing opportunity outside of downtown.

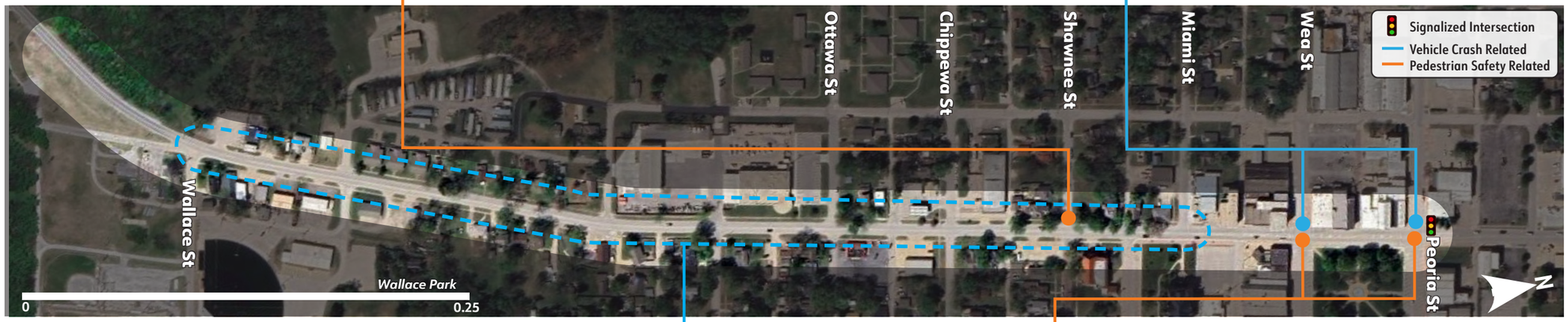
PROJECT CONCEPT COMMUNITY FEEDBACK

- Data collected from the public open house says that the Silver Street project received the least comments out of the three proposed project concepts, with 26 comments total.
- The project concept received a mixed 50% positive response, judged by the amount of green dots (agreement) relative to the total dots placed.
- The most well-received recommendations included:
  - Restripe to three lanes with a center turn lane (4 green dots)
  - Construct curb extension and new crosswalks (3 green dots)

Short Term
- Install new crosswalk with temporary pedestrian refuge island

Long Term
- Install permanent pedestrian refuge island

Short Term
- Install retroreflective backplates on signal heads



Short Term
- Restripe to three lanes with center turn lane

Short Term
- Install temporary curb extension
- Repaint high visibility crosswalks

Long Term
- Construct new accessible curb ramps with detectable warning surfaces
- Reconstruct curb to realign crosswalks
- Construct new curb extension

COST ESTIMATE

Recommendation	Time Frame	Unit	Quantity	Unit Cost	Total
High-visibility crosswalks	Short-term	EA	8	$3,000	$24,000
Install truncated domes on curb ramps	Short-term	EA	8	$2,000	$16,000
Retroreflective signal backplates	Short-term	EA	4	$500	$2,000
Install temporary curb extension	Short-term	Per corner	8	$3,000	$24,000
New crosswalk with temporary pedestrian refuge island (modular, paint, bollards)	Short-term	EA	1	$5,000	$5,000
Stripe left turn lane (no pavement modifications required)	Short-term	Per mile	0.56	$150,000	$84,000
Curb extension	Long-term	Per corner	8	$35,000	$280,000
Reconstruct curb ramps and realign crosswalks	Long-term	Per crosswalk	8	$15,000	$120,000
Permanent pedestrian refuge island	Long-term	EA	1	$30,000	$30,000
Construction Subtotal					$585,000
Mobilization				10%	$58,500
Traffic Control				5%	$29,250
Contingency				20%	$117,000
Estimated Construction Subtotal					$789,750
PE (Design)				12%	$94,770
Utilities					
ROW					
CE (Inspection)				15%	$118,463
Estimated Project Total					$1,002,983

Note. The consultant has no control over the cost of labor, materials, equipment, or over the contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to the consultant at this time and represent only the consultant's judgment as a design professional familiar with the construction industry. The consultant cannot guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

APPENDIX F

Funding Sources

Provider	Program	Typical Projects	Example Local Projects	Amounts / Funding Pool	Local Match Requirement	Notes	City of Paola Eligibility	Next Call for Projects	Link
Regional Level: MARC *These generally represent Federal formula-based funding to jurisdictions in the greater Kansas City metro area that MARC has discretion to allocate (via competitive applications).*	Transportation Safety	Non-infrastructure projects: • Youth / older driver outreach programs • Emergency response: Stop the Bleed training • Enforcement: message boards, handheld RADAR	• KDOT Seatbelts Are For Everyone (SAFE) program • Buckle Up Phone Down (BUPD) program	$100 to $30,000 Avg $11,000	N/A	Law enforcement equipment eligible if agency actively participates in KDOT STEP program	Yes	TBD. Likely February 2026	https://www.marc.org/transportation/funding/transportation-safety-call-projects
	Planning Sustainable Places	Planning studies (prior to detailed design and environmental review), with a focus on placemaking, multimodal connections, and green infrastructure	• Connected Kearney Plan • Basehor Downtown Corridor Improvement Plan • Mission City-Wide Bike/Pedestrian and Trail Connections Study • Rainbow Boulevard Complete Street Plan	Historically $50,000 to $300,000	Likely 20%		Yes	TBD. Likely May 2026	https://www.marc.org/transportation/transportation-programs/planning-sustainable-places
	Carbon Reduction Program	Planning / Design / Implementation: • Public transit projects • Bike / pedestrian / non-motorized facilities and micro-mobility projects • Green infrastructure in transportation rights-of-way • Energy-efficient street lighting and traffic control devices • Alternative fuel projects	• Merriam Citywide streetlight LED upgrades • Northeast KCK Heritage Trail • Overland Park driver feedback sign speed management and sustainable medians pilot project • City of Mission bike share in Northeast Johnson County • North Kansas City Burlington cycle track	Approx. $2 million annual pool for Kansas jurisdictions in MARC region (approx. $10 million over 5 years) FY 23 awards in KS range from $100,000 to nearly $1.5 million, with most under $500,000	20%	Unclear if this program will continue under new adminstration	Yes	TBD, likely in 2026 if program is renewed	https://www.marc.org/transportation/funding/carbon-reduction-program
	Congestion Mitigation Air Quality (CMAQ)	Projects intended to reduce air pollution, often through congestion mitigation techniques: • Alternative fuel vehicles / charging infrastructure • Bike / ped facilities • Outreach / promotional activities to reduce vehicle trips • Traffic flow projects that reduce delay but without adding capacity • Transit projects	• Operation Green Light (OGL) signal enhancements • Bikeshare expansion in Wyandotte County	Total cost of at least $50,000 for capital or operating projects and $25,000 for programs Historically $100,000 to more than $2 million	20%	Program specifically applies to Air Quality Attainment areas in urban areas; Paola is not part of this area for the Kansas City metro region.	No	TBD. Last selections in Summer 2024 allocates funds for FY 2025-2028. Next call likely in 2029	https://www.marc.org/transportation/funding/congestion-mitigation-air-quality-improvement-program
	Surface Transportation Block Grant (STBG)	Roadway projects on federal-aid highway system, capital improvements for public transportation, and multimodal projects	• 155th Street Improvements in Basehor	Historically $500,000 to more than $10 million	20%		Yes	TBD. Last selections in Summer 2024 allocates funds for FY 2025-2028. Next call likely in 2029	https://www.marc.org/transportation/funding/surface-transportation-block-grant-program
	STBG Set-Aside for Transportation Alternatives (TA)	Smaller projects including bike / facilities and trails, historic preservation and vegetation management, environmental mitigation	• Vilas Street ADA and Sidewalk Upgrades in Leavenworth • Parallel Road and 158th St Bike/Ped Improvements in Basehor • Basehor Civic Campus Trails	Typical projects of less than $500,000	20%		Yes	TBD. Last selections in Summer 2024 allocates funds for FY 2025-2028. Next call likely in 2029	https://www.marc.org/transportation/funding/transportation-alternatives-set-aside

State Level: KDOT *This represents funding that KDOT provides for individual projects, including state-funded programs and federal programs that KDOT has discretion to allocate.*	Safe Routes to School (SRTS)	Non-construction projects: • SRTS master plan development • Education/programming	• City of Manhattan 2023 SRTS Plan (USD 383) • City of Plainville 2023 SRTS Plan (USD 270)	No max on SRTS master plans Up to $50,000 for activities / programs	None for 2024 - KATE state funds will cover the 20% match		Yes	Apr-26	https://saferoutes.ksdot.gov/about-the-program
	Transportation Alternatives (TA)	Construction projects (including PE/CE): • On/off-road bike/ped facilities • Improvements for non-driver access to public transportation / enhanced mobility • Planning / designing / constructing boulevards in ROW of former highways • Scenic / environmental / historic applications	• Osawatomie John Brown South Levee Loop Connection Trail • Eudora K-10/Church St Shared Use Path	Approx. $30 million annual pool for Kansas jurisdictions outside of MARC / WAMPO urbanized areas Historically $500,000 to more than $2 million	20%; except for specific projects that qualify for HSIP funding to cover local match (locations identified through VRU assessment specifically in rural / disadvantaged areas)	Non-urbanized communities in MARC region are eligible, including City of Paola	Yes	Feb-26	https://www.ksdot.gov/bureaus/burtransplan/TransAlt.asp
	Cost Share	Flexible program intended for construction projects that improve safety, support job retention and growth, improve access / mobility, and/or relieve congestion. All transportation projects are eligible - roadway, rail, airport, bike/ped, and public transit.	• City of Paola Baptiste Drive improvements (2019) • City of Edgerton 2nd Street improvements • City of Osawatomie 6th Street reconstruction	Historically approx. $12 million per bi-annual round $1 million max award	15% non-state	Only funds construction (no PE)	Yes	Spring 2026 Opens 2x per year (fall / spring)	https://www.ksdot.gov/CostShare/CostShareProgram.asp
	Innovative Technology	Deployments of technology that does not currently exist in the local community of the project; includes projects along roadways (including off-state system), rail, aviation, unmanned aerial systems, bike / ped, public transit, software, and hardware; intended for technology investments and not on road construction or "commonly used technology" such as fiber optic lines.	• Little River pedestrian warning system with radar speed signs • Havensville digital speed sign • Edgerton automated pavement condition index and asset management	Up to $1 million per project	25% non-state		Yes	Fall 2025 (Active) Applications due November 30th 2025.	https://www.ksdot.gov/Assets/wwwksdotorg/bureaus/divInnovTech/Innovative_Technology_FactSheet.pdf
	High-Risk Rural Roads (HRRR)	Signing, pavement marking, and rumble strips for rural roads with a history of crashes; a road's crash rate must be higher than the statewide average or the potential for the crash rate to increase to higher than the statewide average.	• Leavenworth County Tonganoxie Road 187th to 189th and 199th to Mitchell	Historically $1 to $2 million per project	10%	Limited to functional classification of rural major collectors / minor collectors / local roads. County Local Road Safety Plans are intended to facilitate identification and prioritization of projects	No	TBD. Periodic calls.	https://www.ksdot.gov/bureaus/burlocalproj/default.asp
	High Risk Urban Road (HRUR)	A new funding source in 2025 that provides resources for signing and pavement marking at stop controlled instersections with arterials or major collectors. KDOT has a map of eligible locations on their site.	• Program is new this year	This program provides signage and striping materials to be installed by City maintenance staff, but no monetary contribution	Installation of materials and maintenance commitment	This is 1st phase of the HRUR program. Additional phases will target signalized intersections and Vulnerable Road User Improvements.	Yes	October 2025 (Active) Applications due November 21st 2025	https://www.ksdot.gov/programs/safety-programs/highway-safety-improvements-high-risk-urban-roads-hrur
	Access Management	Projects to manage access and increased traffic caused by future development		Up to $2 million per project	0%, but only for construction phase; PE / ROW / utilities / CE not eligible	Projects must support a Corridor Management Plan, Access Management Plan, Area Transportation Plan, or Corridor Master Plan	Unclear	Accepts applications throughout the year	https://www.ksdot.gov/Assets/wwwksdotorg/T-WORKS/documents/AccessManagementApplicationInstructions.pdf

City Connecting Link Improvement Program (CCLIP)	Projects on the state highway system located within the corporate limits of a City; • Surface preservation • Pavement restoration • Geometric improvements	• Lindsborg awarded $400,000 for K-4 improvements	Up to $1.5 million per project	0-25% depending on city population size	Paola would likely require a 10% local match	Yes	TBD. Last selection in Summer 2025 allocates funds for FY 2027-2028. Next call likely in 2029	https://www.ksdot.gov/Assets/wwwksdotorg/bureaus/burLocalProj/BLPDocuments/CCLIP%20Prog%20Guidelines.pdf
Other HSIP Programs	8 programs managed by KDOT: • Lighting, Pavement Marking, and Guardrail are exclusive to the state highway system • Intersections and General Safety Improvement may include off-system local roads • HRRR is one of these programs and is exclusive to local collectors	Examples statewide include adding trafffic signal heads, improving retroreflectivity, horizontal curve lighting, intersection realignments	Nearly $50 million in total was authorized in FY 2022 across the 8 sub-programs		Competitive application process for each sub-program	Yes	Varies	https://www.ksdot.gov/Assets/wwwksdotorg/bureaus/burTrafficSaf/reports/HSIP_Annual_Report.pdf
IKE Program - Modernization	• Narrow shoulders, unsafe intersections, tight curves • Traffic congestion • Pavement issues	• K-92 reconstruction in Wabaunsee County including turn lanes / guard rail replacement • K-10 / US 40 diverging diamond interchange	$5.6 billion over 10 years, including $1.8 billion for District 1		2-year rolling program Local consult process for localities and residents to express priorities Projects first enter development pipeline (preliminary engineering) and then some move on to construction pipeline	Yes	Fall 2027	https://ike.ksdot.gov/
IKE Program - Expansion	Projects adding capacity - new lanes, new interchanges, new highways	• K-68 expansion to four lanes in Miami County • K-10 South Lawrence Trafficway				Yes		
IKE Program - Preservation	Major maintenance projects to improve pavement condition and geometrics/safety	• K-268 resurfacing in Osage County • K-5 mill and overlay in Leavenworth County • ADA curb ramps and signal improvements in Tonganoxie			Selected using an objective formula based on geometrics/safety, capacity, and pavement condition	Yes		
Federal Level: USDOT Competitive Grants *Dozens of grants available, including many new programs from BIL*	SS4A: Safe Streets and Roads for All Supplemental Planning & Demonstration	• Supplemental Planning: funding for additional safety planning (beyond an Action Plan) for speed management, VRUs, safety-focused ITS, or lighting; road safety audits; follow-up data collection/analysis; further engagement • Demonstration Activities: quick-build / low-cost temporary safety improvements to determine potential benefits; MUTCD engineering studies; pilot behavioral / operational programs	• KCMO updates to Traffic Engineering / Operations Manual and city-wide speed management plan • Overland Park feasibility study of quick-build traffic calming measures (speed cushions)	$100,000 to $10 million range Typical supplemental planning / demonstration activities are $500,000 to $1 million	20%; *KDOT currently providing 10% or more depending on need*	Can apply while working on an Action Plan	Yes	TBD. Likely Spring 2026	https://www.transportation.gov/grants/ss4a/planning-and-demonstration-activities

SS4A: Safe Streets and Roads for All Implementation	Design and implementation of specific safety projects and strategies, including corridor improvements and off-road bike / ped facilities	• Independence, KS: Proven Safety Countermeasures along High-Injury Network (ped enhancements, ADA improvements, speed management, etc.) • Fayette County, IA: Shoulder Widening, Rumble Strips, and Low-Cost Countermeasures Along 50 Miles of Roadway • Louisville: One-Way to Two-Way Conversion of 2nd and 3rd Streets • Virginia Beach: Regional Bike/Ped Trail	$3 million to $30 million Average award size through FY 24 has been approximately $11.5 million	20%; *KDOT currently providing 10% or more depending on need*	Must have an approved Action Plan in order to apply	Yes	TBD. Likely Spring 2026	https://www.transportation.gov/grants/ss4a/eligible-implementation-grant-projects
BUILD: Better Utilizing Investments to Leverage Development (Formerly TIGER / RAISE)	Major projects with a significant local or regional impact, especially improving accessibility for all modes and located in federally-designated historically disadvantaged communities or areas of persistent poverty. Grants provided for (1) Planning and (2) Capital	• Planning: Bi-State Sustainable Reinvestment Corridor through KCK/KCMO/Independence ($5.6M) • Capital: Flint Hills Trail project ($24.8M), Old Smoky Hill River Bridge Replacement in Salina ($22.1M)	Maximum award of $45 million	As low as 0%	Typically require active support from elected officials including US Congress	Yes	TBD. Likely Spring 2026	https://www.transportation.gov/BUILDgrants
Refer to the Kansas Infrastructure Hub for additional Federal Discretionary Grant Opportunities within the BIL. The Hub also provides technical assistance, collaboration, grant tracking, and financial								https://kshub.org/

https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/funding_opportunities.pdf
https://www.fhwa.dot.gov/bipartisan-infrastructure-law/grant_programs.cfm