



2026 CARROLL COUNTY SAFETY ACTION PLAN

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SAFETY ACTION PLAN OVERVIEW



The Carroll County Safety Action Plan is a county-specific supplement to the KIRPC Comprehensive Safety Action Plan. It is designed to help translate regional safety goals into clear, locally relevant priorities that reflect Carroll County's rural and urban roadway network and travel patterns.

Where should Carroll County focus to reduce fatal and severe injury crashes?

Carroll County's transportation system is defined by a mix of rural highways, state routes, and historic town centers where local travel and community activity are concentrated. While the county's rural roadways carry lower traffic volumes overall, higher operating speeds and limited pedestrian infrastructure increase the likelihood that crashes result in fatal or severe injuries. In communities such as Burlington, Delphi, Flora, and Camden, regional traffic moves directly through compact downtown street networks, creating elevated safety risks at intersections, along main streets, and near schools, civic spaces, and pedestrian destinations.

This plan is intended to support county-level decision-making by identifying priority corridors and town-center locations where safety improvements can most effectively reduce fatal and severe injury crashes in Carroll County. It provides a practical framework for balancing rural roadway safety needs with town-center design considerations, coordinating with state and regional partners, and strengthening future funding applications that address both systemic and location-specific safety challenges.

How to **USE THIS PLAN**

This plan is designed to be used, not archived. Carroll County should reference it to:

- 1 Focus safety efforts where they matter most**
Use the High Injury Network and emphasis areas to identify roadway segments, intersections, and communities where safety improvements are most likely to reduce fatal and severe injury crashes.
- 2 Guide project planning and prioritization**
Apply the plan's findings when evaluating capital projects, maintenance activities, and operational improvements, especially when resources are limited.
- 3 Support coordination and funding**
Reference this plan when working with INDOT, KIRPC, municipalities, and emergency response partners, and when preparing state or federal grant applications.
- 4 Select context-appropriate solutions**
Use the emphasis areas and prioritization framework to match the scale of safety improvements to Carroll County's rural roadway conditions and needs.



County at a Glance

Carroll County is located northwest of Lafayette and south of Logansport and Monticello. The county seat in Delphi, which is about 20 miles away from Lafayette. Within the county, there are 11 public schools but no hospitals. Delphi is crossed by State Route 25 and US Route 421 (**Figure 1**).

On average, 101,000 daily trips occur on Carroll County roads. Almost 80 percent of Carrol County residents are employed outside the county with 27 percent working in Lafayette or West Lafayette. A majority of jobs within the county are filled by residents of other counties.



7

Number of Public Schools



0

Number of Hospitals

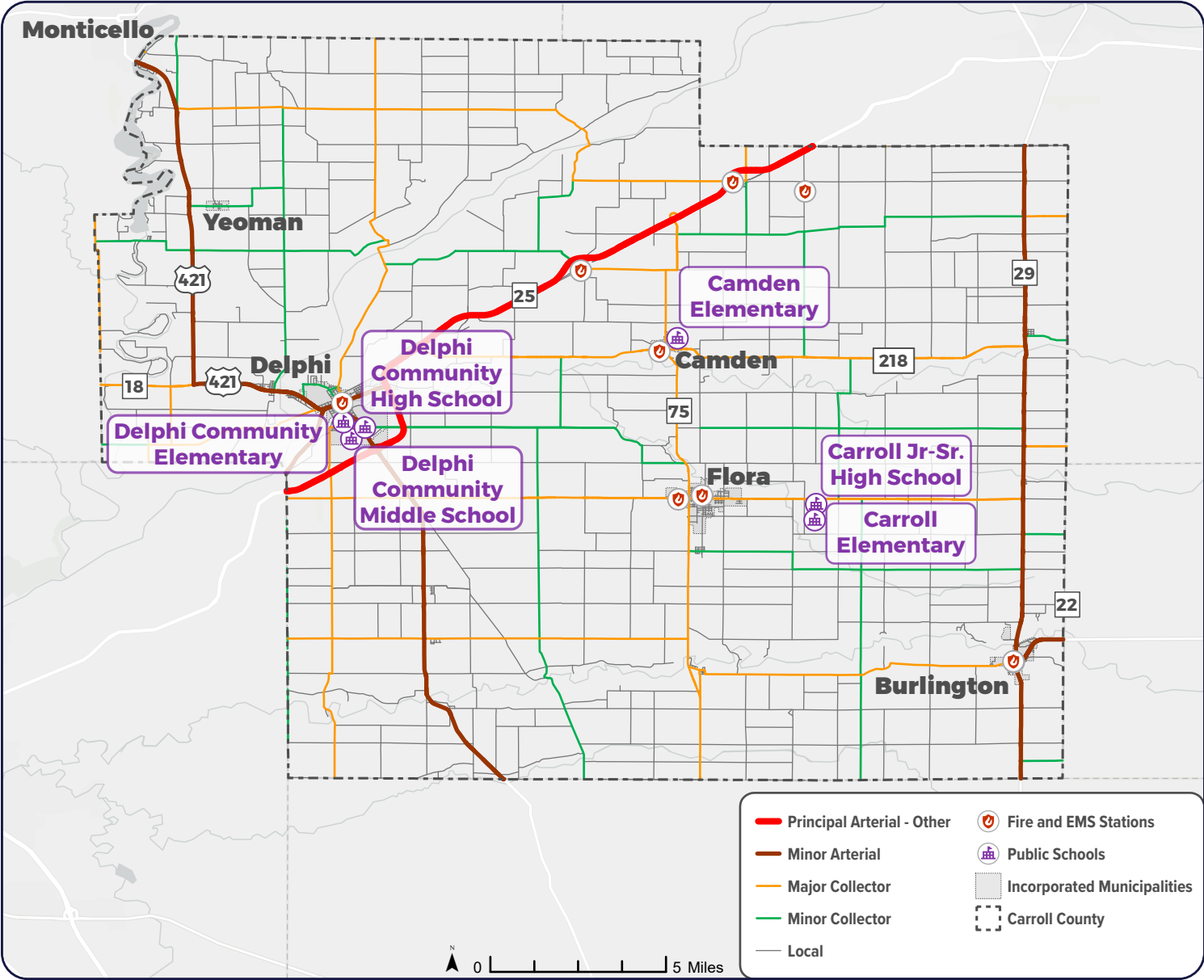


Figure 1. Carroll County Plan Study Area

Carroll County's residents depend on driving to navigate a predominantly rural road network, with major travel occurring along corridors such as State Road 25 and US 421. These routes link small towns including Delphi, Flora, Burlington, and Camden, enabling residents to reach schools, businesses, and community services.

Many commuters travel to employment centers in Lafayette, West Lafayette, Kokomo, and Indianapolis, reflecting the county's strong regional connections **(Figure 2) (Table 2)**. These patterns show how Carroll County's roadways support daily movement across farmland and between small towns, tying rural communities to larger job markets

County by the Numbers

Carroll County **COMMUNITY PROFILE** In 2024



20,747

TOTAL POPULATION
(2024)¹



5,679

TOTAL JOBS
(2024)²



372.2

TOTAL AREA
(Square Miles)



Table 1. Carroll County Municipalities

Carroll County Municipalities	
1	Burlington
2	Camden
3	Delphi
4	Flora
5	Yeoman

Carroll County **ROADWAY NETWORK**



2,013

TOTAL ROADWAY
(Miles)



186

TOTAL URBAN ROADWAY
(Miles)



1,827

TOTAL RURAL ROADWAY
(Miles)

Carroll County **COMMUTER TRENDS** In 2024 ¹

Table 2. Top 5 Commuting Destinations

Rank	Commuting Destinations	% Of County Workforce
1	Lafayette, IN	22.6%
2	Indianapolis, IN	6.9%
3	Delphi, IN	6.2%
4	West Lafayette, IN	4.4%
5	Kokomo, IN	3.7%
	All Other Locations	56.2%

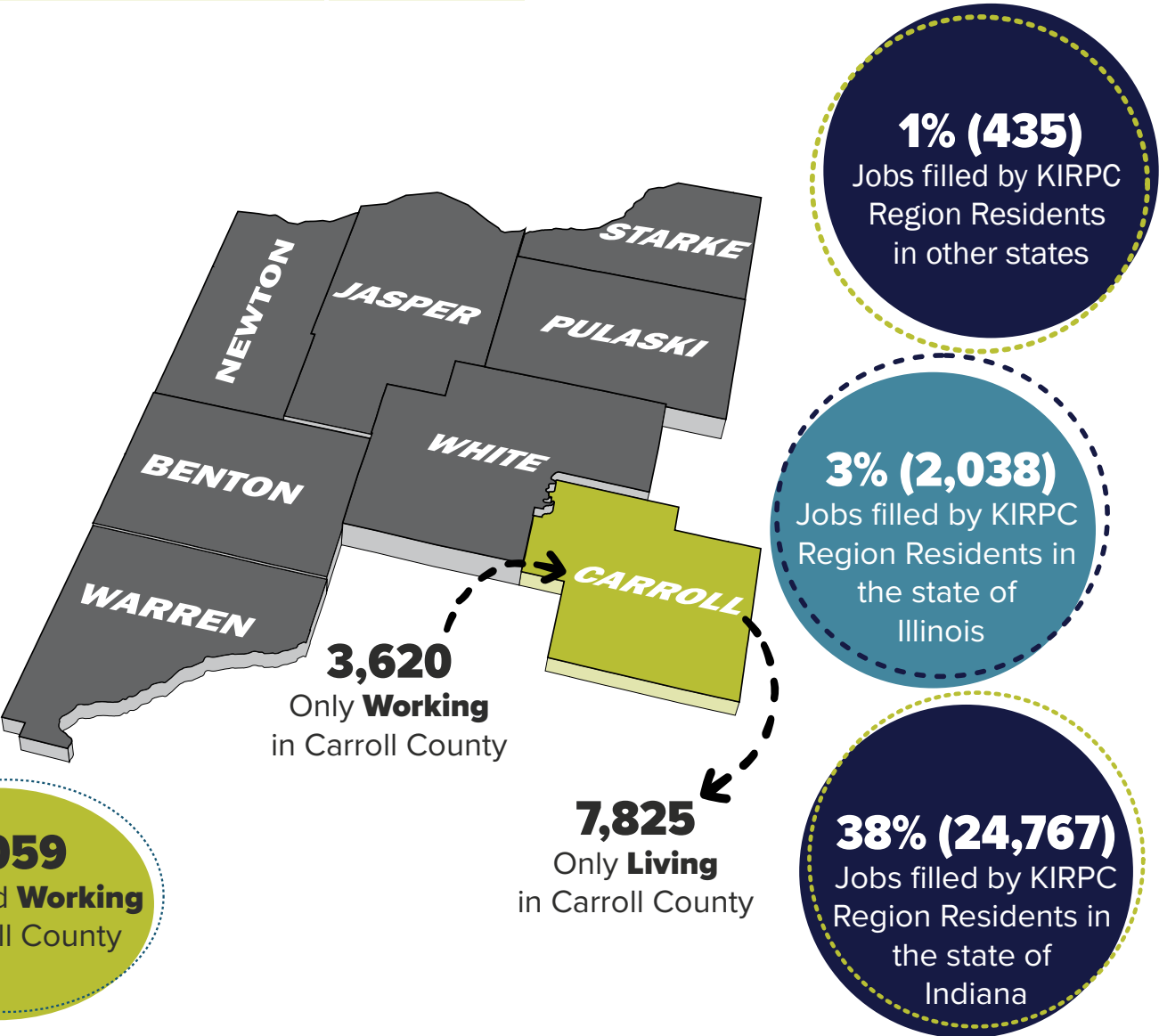


Figure 2. Carroll County Travel Patterns

CURRENT STATE OF SAFETY

Safety Overview

Crash safety analysis examined all crashes in Carroll County that resulted in an injury or fatality from 2015 to 2023. In that nine-year period, of all crashes 6% involved fatalities, 52% resulted in incapacitating injuries, 35% were non-incapacitating injuries, and 7% were classified as possible injuries (**Figure 3**).

Rate of crash fatality measures the likelihood any crash that occurs results in a fatality. Carroll County's rate is 4.4 fatalities per 10,000 crashes, much higher than the state average (1.3) (**Table 4**). This combined with a high percentage of incapacitating injury crashes emphasizes the urgency to address traffic safety.

An analysis of state crash data shows that 58% of all reported crashes that result in a person being injured or killed occur on just 15% of Carroll County's roads. The High Injury Network (HIN) identifies roadway segments and intersection locations with the highest concentrations of severe crashes. The HIN should be prioritized when considering crash countermeasures.



Table 4. Crash Comparison

Jurisdiction	Crash Fatality Rate (Per 10k Crashes)
Carroll County	4.4
KIRPC Region	2.5
Indiana	1.3

Understanding Crash Severity

For the purposes of this report, Crash severity can be identified as:

- K Fatal Injury** Any injury that results in death within a 30 day period after the crash occurred.
- A Incapacitating Injury** Any non-fatal injury that prevents the injured person from walking, driving or normally continuing the activities the person was capable of performing before the injury occurred. Hospitalization is usually required.
- B Non Incapacitating Injury** Any injury, other than a fatal or incapacitating injury, which is evident to the officer at the scene of the crash and may require medical treatment. Although, hospitalization is usually not required.
- C Possible Injury** Any injury reported or claimed which is not visible.

Crash Severity By the numbers

	Angle	Backing	Head On	Non Collision	Object/ Animal	Ran Off Road	Rear End	Side Swipe	Other
K	5	0	3	0	0	18	2	1	1
A	41	1	14	6	5	117	27	12	27
B	39	3	2	1	11	79	14	6	16
C	10	0	1	0	2	13	4	1	5

Table 3. Crash Type Totals by Severity

Crash Severity Heatmap

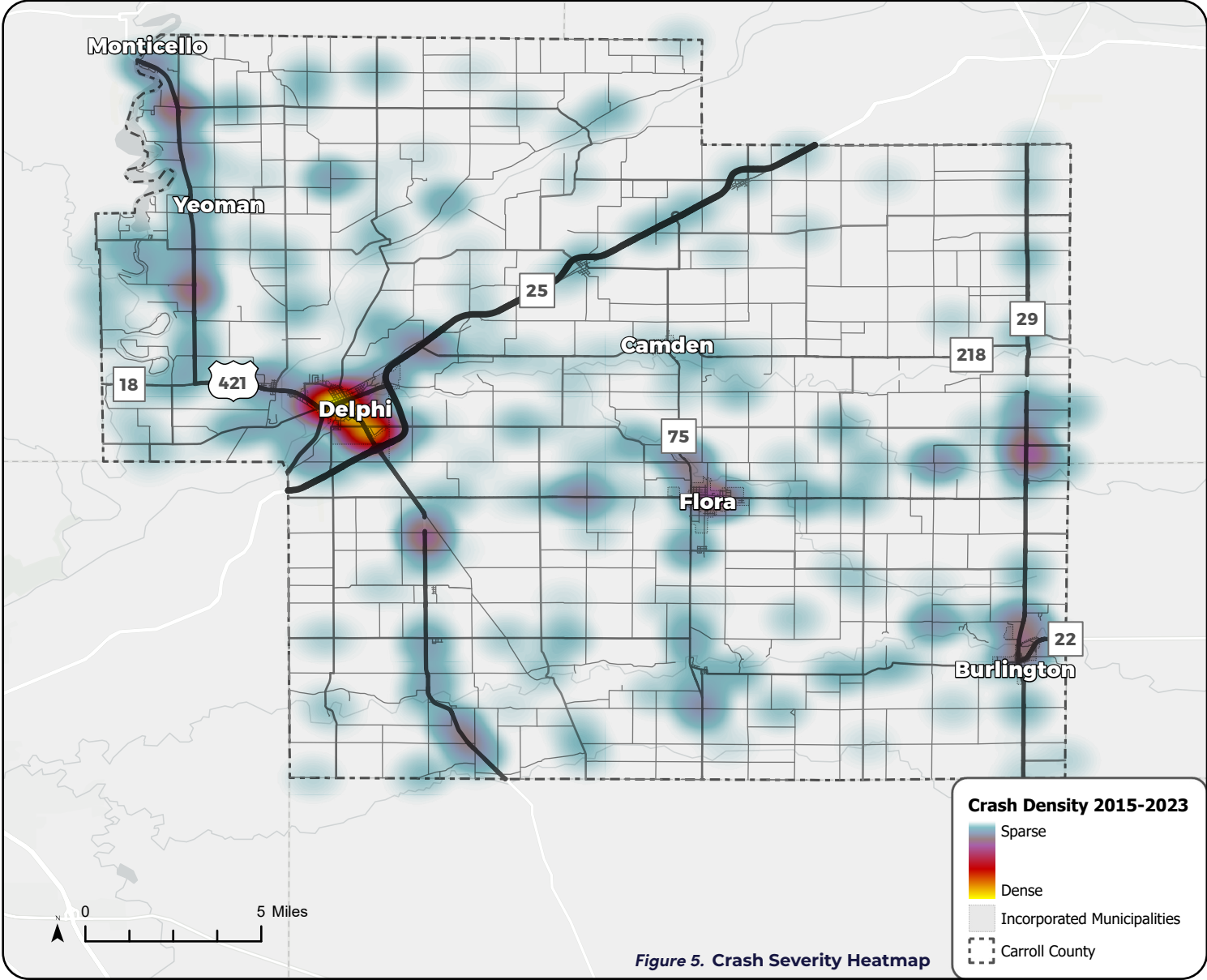


Figure 4. Crash Types Resulting in Death or Severe Injury (%)

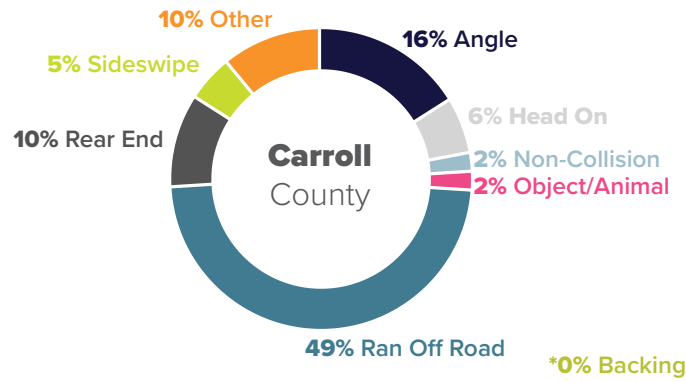
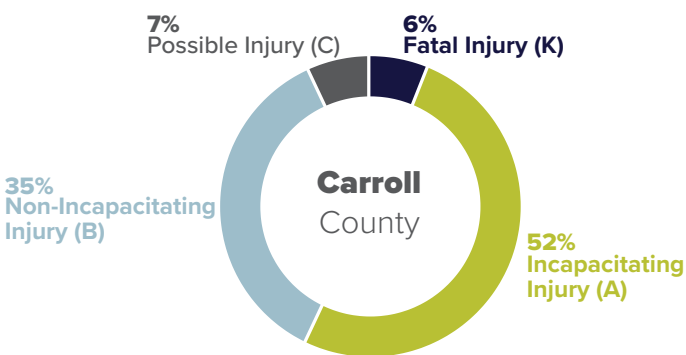


Figure 3. Crash Severity (%)



HIGH INJURY NETWORK

A High Injury Network is a selection of the roadways in an area with the highest incidences of fatal and severe injury crashes (**Figure 6**). To produce this high injury network, fatal and severe injury crashes from 2015 to 2023 were used. Intersection crashes were assigned to be half weight to identify the top 10 HIN Segments (**Table 5**) and Intersections (**Table 6**).

Crashes were averaged over a distance of 2,600 feet. Only corridors over a half mile were considered. HIN segments had a minimum length of 1,500 feet. Segments that were closer than 900 feet together were merged.

Each county has a different threshold of fatal and severe injury crashes, so that even if a county has fewer crashes, it still identify a robust set of priority corridors for targeted safety improvements.

Top 10 HIN Segments

Rank	Primary Roadway	Segment Start	Segment End
1	Armory Rd	N. CR 800 (W)	W. CR 200 (N)
2	E. CR 100 (N)	N. CR 300 (E)	N. CR 600(E)
3	E. Main St	S. Washington St	Mill Dr
4	W. CR 1100 (N)	N. Quiet Water Cir	N. CR 850 (W)
5	W. Bicycle Bridge Rd	E. Bicycle Bridge Rd	W. Franklin St
6	W. CR 100 (S)	S. CR 650 (W)	S. Prince William Rd
7	E. CR 150 (N)	N. SR 29	N. SR 29
8	E. CR 350 (S)	S. CR 500 (E)	S. SR 29
9	E. CR 500 (S)	S. CR 208 (E)	S. CR 500 (E)
10	W. CR 400 (S)	S. CR 500 (W)	S. CR 250 (W)

See map on next page with all HIN segment locations.

Table 5. Top 10 High Crash Segments

Top 10 HIN Intersections

Rank	Primary Roadway	Secondary Roadway
1	W. CR 200 (N)	Armory Rd
2	W. Main St	W. Monroe St
3	N. SR 29	E. SR 18
4	E. Main St	Bowen Ct
5	N. CR 800 (W)	W. CR 900 (N)
6	W. CR 1100 (N)	N. CR 1125 (W)
7	S. CR 500 (E)	E. CR 350 (S)
8	W. CR 600 (S)	E. CR 600 (S)
9	W. CR 150 (N)	N. CR 125 (W)
10	N. Seventh St	Mill St

See map on next page with corresponding numbers labeled.

Table 6. Top 10 High Crash Intersections

HIN Facts

15% OF ALL ROADS IN THE COUNTY ARE IN THE HIN



57% OF ALL CRASHES OCCUR ON HIN ROADWAYS

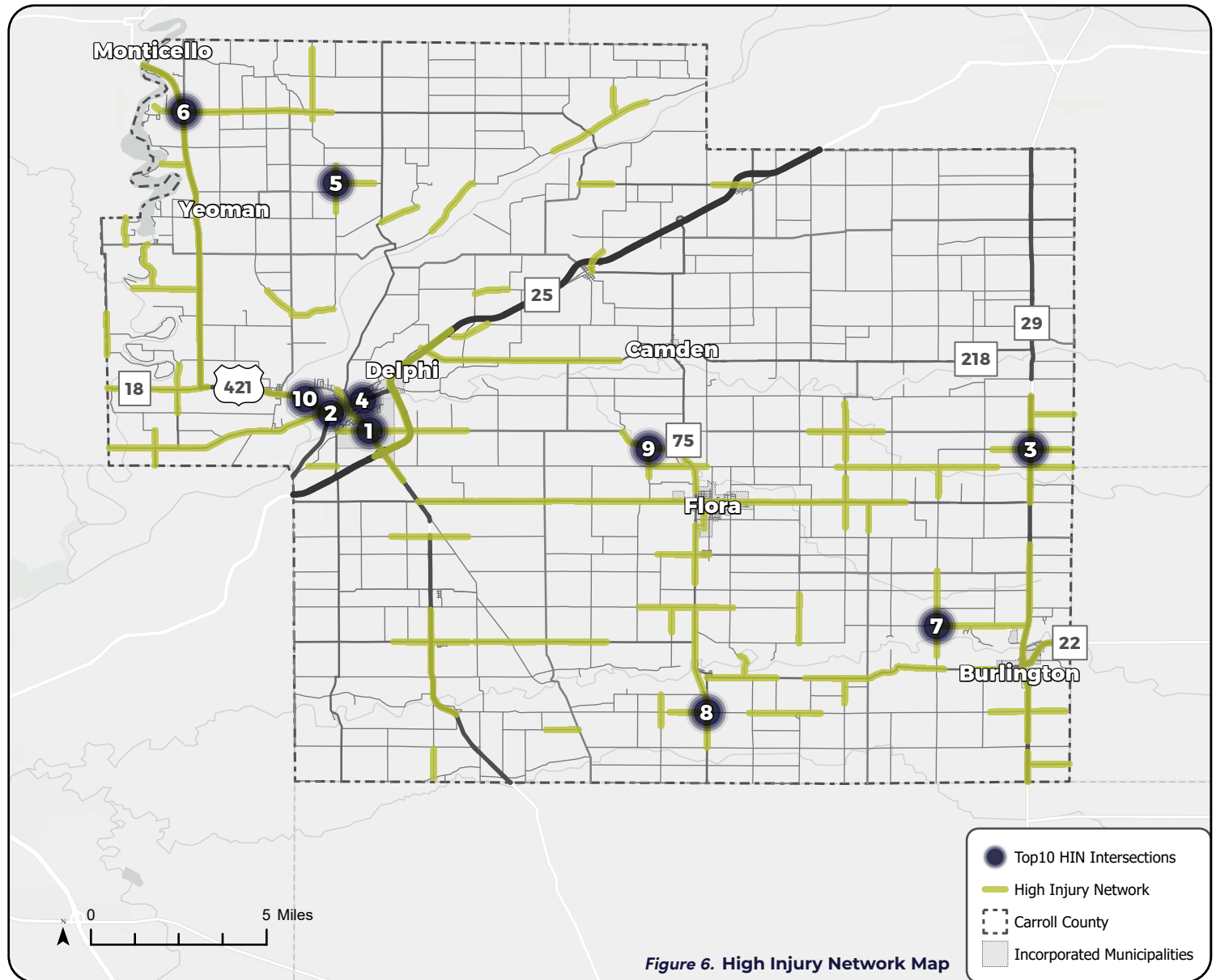


980
TOTAL COUNTY ROAD
(CENTERLINE MILES)

144.7
TOTAL HIN COUNTY ROADS
(CENTERLINE MILES)

116
TOTAL HIN INTERSECTIONS

High Injury Network Map



Check the **REGIONAL PLAN** to see the HIN for the rest of the **KIRPC REGION!**

ROAD SAFETY AUDIT



CORRIDOR OVERVIEW

STATE ROUTE 25:

Between CR 218 to U.S. 421

CORRIDOR LENGTH:

3.5 miles

ADJACENT KIRPC COUNTIES:

White Co.



ROADWAY DESIGN

FUNCTIONAL CLASSIFICATION:

Principal Arterial Expressway (rural)

ROADWAY CHARACTERISTICS:

Wide shoulder, rumble strips and stripes, segments of guard rail

NUMBER OF LANES:

Four-lanes (two in each) separated by depressed grass median

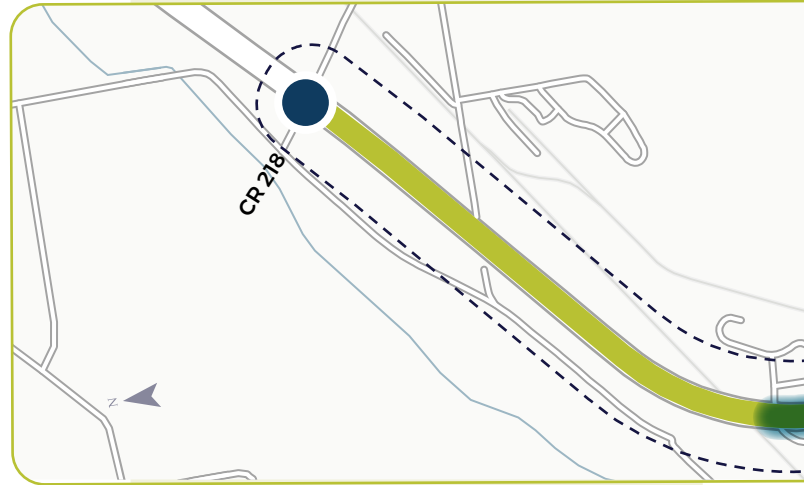
POSTED SPEED LIMIT:

60 mph

TRAFFIC VOLUME:

8,358 - 10,834 AADT (2024)

State Route 25



LEGEND:

- Priority Intersections
- Priority Segments
- Corridor Segment
- Study Area



CRASHES BETWEEN 2015 AND 2023



TOP FACTOR



75%

Failure to Yield (25%)
Maintain Lane (25%)
Object/Animal (25%)

TOP CRASH TYPE

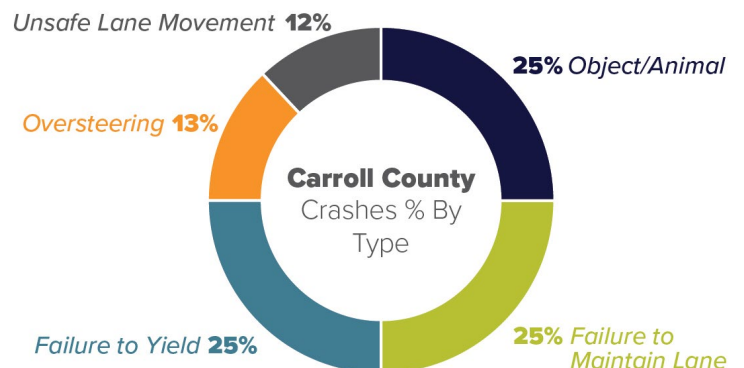
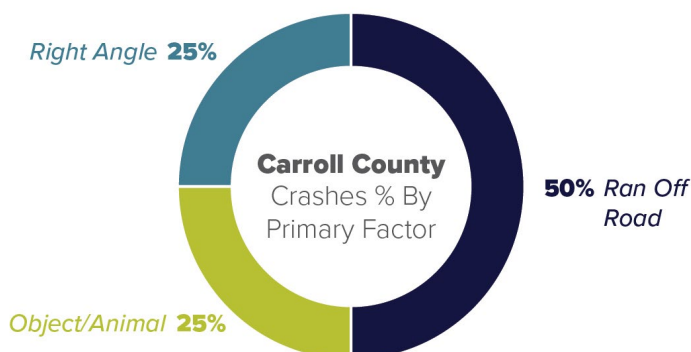


50%

Ran Off Road

Figure 7. Crash Percent by Primary Factor

Figure 8. Crash Percent by Type



In Fall 2025, KIRPC launched a series of Road Safety Audits across the region, focusing attention at the highest priority location in each county. The following is a summary of the corridor selected for this county along with a set of short-term, mid-term, and long term recommendations for improving safety.



Figure 9. Road Safety Audit Study Area

COUNTERMEASURES recommended:

SHORT-TERM IMPROVEMENTS	
Installation of additional signage	Refreshed stop bars/markings
Installation of larger signs	Addition of transverse rumble strips
Installation of LED flashing “Stop” signs	
Short-Term Improvements Total Cost: \$35,000 - \$55,000	
MID-TERM IMPROVEMENTS	
Installation of J-turns and restriction of median access [E. Main St.]	Relocating light poles outside of the clear zone [E. Main St.]
Addition of guardrail and chevrons along curves [CR 200N and CR 300N]	Addition of cable barrier in the median
Mid-Term Improvements Total Cost: \$1,550,000 – \$1,950,000	
LONG-TERM IMPROVEMENTS	
Convert intersection to a reduced left-turn conflict intersection (RLTCI) [CR 218]	
Long-Term Improvements Total Cost: \$2,000,000 – \$2,500,000	

Table 7. Countermeasures Recommended

CARROLL COUNTY EMPHASIS AREAS

EMPHASIS AREA OVERVIEW

As part of the KIRPC Comprehensive Safety Action Plan (CSAP), six emphasis areas were identified to address the most critical roadway safety challenges across the eight-county region: Benton, Carroll, Jasper, Newton, Pulaski, Starke, Warren, and White Counties.

These emphasis areas were selected through a comprehensive analysis of regional crash data and stakeholder input. These areas reflect the most pressing roadway safety concerns across the region and serve as the foundation for identifying appropriate countermeasures.

By examining the types and patterns of crashes associated with each emphasis area (**Figure 10**), the plan ensures that recommended interventions are both targeted and evidence-based. This approach supports the overarching goal of reducing severe injuries and fatalities.

Crashes By Emphasis Areas:



227 RUN-OFF-ROAD
Crashes



441 EMS RESPONSE
HOSPITALIZATION
Crashes



8 INTERSECTION
KSI RELATED
CRASHES



33 HIN SEGMENT
Crashes
Near Schools

CARROLL COUNTY EMPHASIS AREAS



RURAL RUN- OFF-ROAD CRASHES

Run-off-road crashes involve a vehicle departing the roadway. Typically, a single vehicle collides with fixed objects or terrain beside the road. Of all crash types, run-off-road crashes are the most common in Carroll County, accounting for 49 percent of all injury crash types. These crash types result in the most fatal and severe injury crashes at 58 percent of the time.

Majority of run-off-road crashes occur in rural areas. Roadways containing the highest concentration of rural run-off-road crashes in the county include US 421 and IN SR 18. Run-off-road crashes can be caused by a variety of things including unsafe roadway geometry, speed, distracted driving, vehicle defects, and swerving to avoid objects in the road.



EMERGENCY RESPONSE / POST-CRASH CARE

Post crash care is a component in the safe system approach, a holistic method for strategies to reduce traffic fatalities and injuries. Post crash care involves the handling of crashes after they have occurred. The effectiveness of fire, police, and EMS personnel at crash scenes to treat patients involved could make the difference between life and death in severe situations.

Carroll County has eight fire and EMS stations and zero hospitals with qualifying trauma centers. Areas in the southwest and east parts of the county are over five miles away from the nearest fire or EMS station. These areas had 114 crashes with injuries or fatalities from 2015-2023.

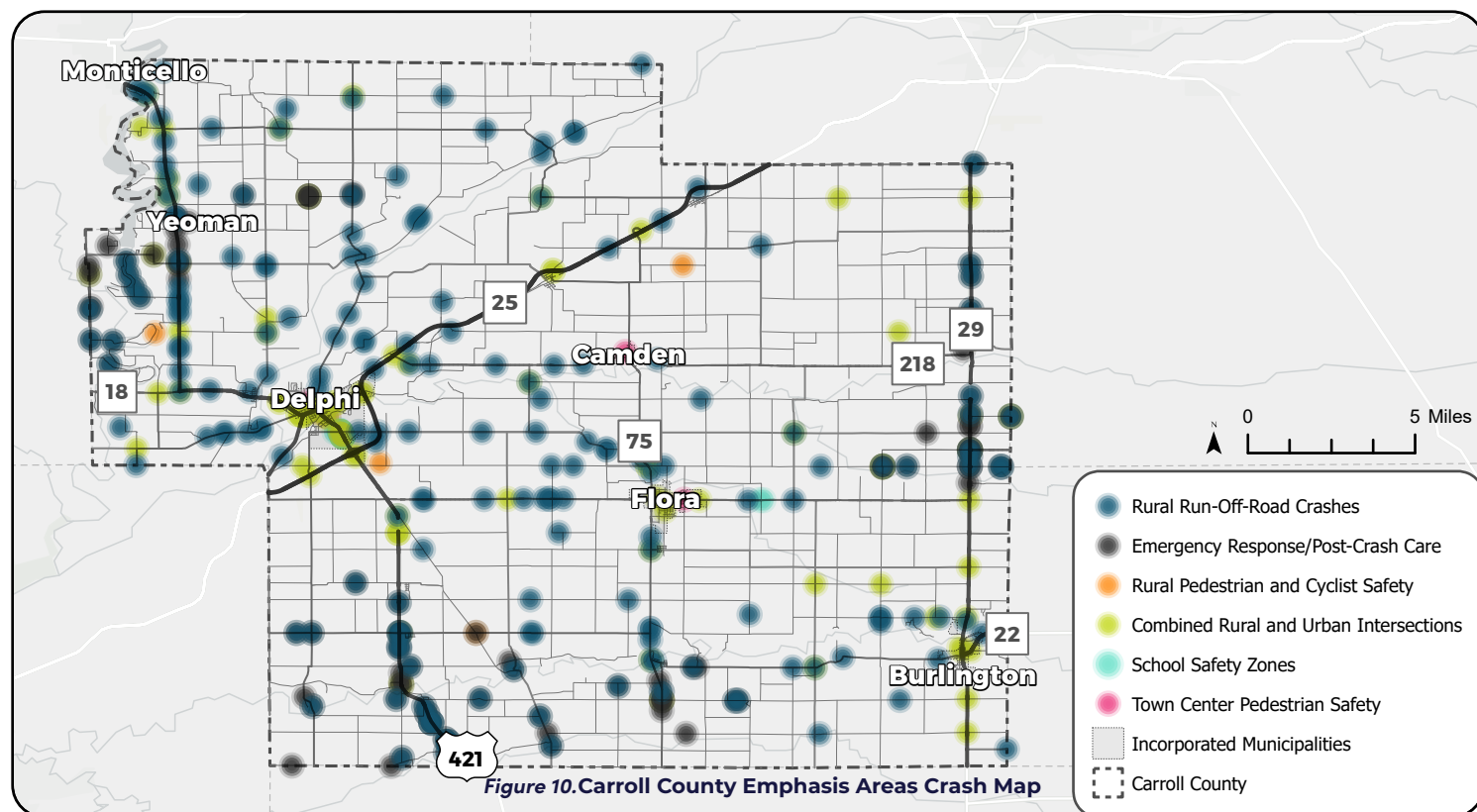


RURAL PEDESTRIAN AND CYCLIST SAFETY

In Carroll County, there were four injury crashes involving a pedestrian or cyclist on rural roadways from 2015-2023. These crashes were mostly severe and three caused a fatality or incapacitating injury. The roads where these take place are often state and county roads with higher operating speeds, limited lighting, and no sidewalks or designated crossing facilities.

Common contributing factors included pedestrian actions, such as walking along or crossing high-speed roads, driver failure to yield, and distraction. Several crashes happened at night or in low-light conditions, where visibility was poor and roadway design offered little margin of safety for non-motorized users.

CARROLL COUNTY EMPHASIS AREAS CRASH MAP



COMBINED RURAL AND URBAN INTERSECTIONS

In Carroll County, 106 injury crashes occurred at intersections accounting for 22 percent of all injury crashes in the county. Intersections are a particular area of concern because of the high number of potential conflicts that can occur between vehicles.

Rural intersections often present unique risks, such as higher travel speeds, limited sight distances, and fewer traffic control devices, while urban intersections typically see greater pedestrian and cyclist activity alongside higher traffic volumes. Intersections are a smaller location compared to long road segments and can be targeted for specific interventions.



SCHOOL ZONE SAFETY

School zones have an elevated risk of crashes involving vulnerable road users (VRUs), like children. From 2015–2023, there were 24 injury crashes within 1,000 feet from public school zones. The most common streets for crashes were near Delphi Community High School and Carroll Junior-Senior High School.

Contributing factors for crashes in school zones include speeding, distracted driving, improper turning, and failure to yield right-of-way. Challenges include high-speed arterial roads near schools, low-density rural land use, insufficient pedestrian infrastructure, traffic congestion during drop-off/pick-up times, and inadequate lighting during early morning hours.



TOWN CENTER PEDESTRIAN SAFETY

Town centers in Carroll County, such as Delphi and Flora, serve as community hubs concentrating schools, shops, services, and civic spaces within walkable distances. From 2015–2023, six vulnerable road user crashes occurred in these town centers resulting in injuries or fatalities.

Contributing factors for pedestrian crashes is the failure of vehicles to yield to pedestrian right of way, underscoring the need for improved driver awareness and pedestrian-priority infrastructure. Notably, the majority of crashes occurred in clear, dry, daylight conditions, indicating that environmental factors were not the primary cause and reinforcing the role of behavioral and design-related issues.

RECOMMENDATIONS

Emphasis Area Recommendations



Rural Run-Off-Road Crashes

- 1 Conduct RSAs at sites where multiple rural run-off-road crashes have occurred.
- 2 Consider adding edge lines or widening the shoulder where applicable.
- 3 Advocate to INDOT on behalf of KIRPC in support of safety improvements on rural roads under state control



Emergency Response / Post-Crash Care

- 1 Convene a safety steering committee that includes representatives from the EMS community.
- 2 Look for opportunities to increase agency funding for supplies and life saving equipment.



Rural Pedestrian and Cyclist Safety

- 1 Several ped/cyclist related crashes have been reported throughout the County; including at E 700 N and Horseshoe Bend Road. Identify areas along Carroll County's rural road network that may be considered higher pedestrian and cyclist activity areas and implement low cost countermeasures such as reducing speed, narrowing lanes, and adding bicycle lanes or sidewalks.



Combined Rural and Urban Intersections

- 1 Intersection improvements are context sensitive. Conduct informal RSAs at the 10 high crash intersections defined earlier in this plan.
- 2 Implement high impact countermeasures that are contextually appropriate (examples at right).
- 3 Advocate to INDOT on behalf of KIRPC in support of safety improvements on rural roads under state control



School Zone Safety

- 1 Support KIRPC in developing a regional Safe Routes to School Plan.
- 2 Implement low-cost safety countermeasures within "school zones" such as pedestrian gateway treatments, RRFBs, and reduced speed limits.



Town Center Pedestrian Safety

- 1 Crashes involving pedestrians occurred at Camden, Flora, and Delphi. Review these crashes further for causation with the KIRPC leadership team.
- 2 Implement low-cost / quick-build crash countermeasures such as lane narrowing, left-turn traffic calming, and restrict right on red should be deployed to address geometric deficiencies.



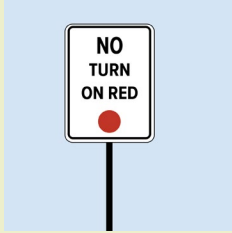
Countermeasure Recommendations

Low-Cost / Quick-Build

Restrict Right on Red

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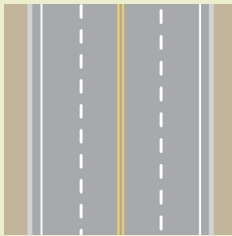
This tool could reduce crashes by **40%**



Edge Lines & Parking Lines

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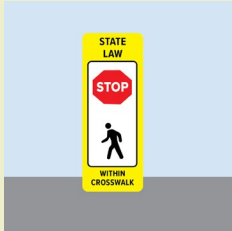
This tool could reduce crashes by **52%**



Pedestrian gateway treatment

\$\$\$\$

This tool results in yield rates up to **80%**



Slow zones / reduced speed

\$\$\$\$

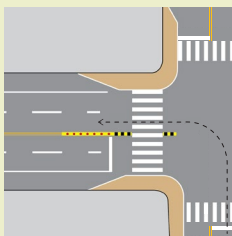
This tool could reduce crashes by **26%**



Left-turning traffic calming

\$\$\$\$

This tool could reduce crashes by **24%**

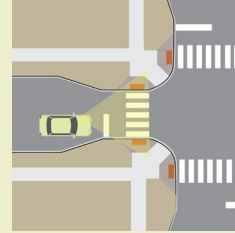


Higher-Cost

Intersection daylighting

\$\$\$\$

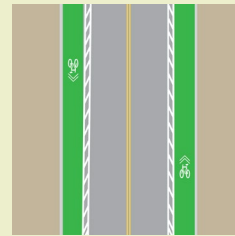
This tool could reduce crashes by **49%**



Protected bike lanes

\$\$\$\$

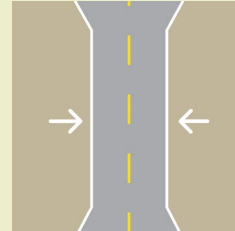
This tool could reduce crashes by **23%**



LANE NARROWING

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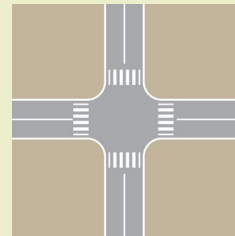
This tool could reduce crashes by **42%**



Intersection Realignment

\$\$\$\$

*Benefits vary based on degree of intersection Skew



Raised median / limited access control

\$\$\$\$

This tool could reduce crashes by **71%**

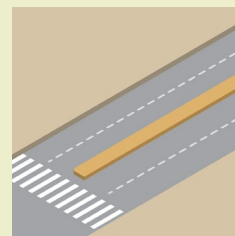


Figure 11. Countermeasure Recommendations

Carroll County Capital Project Recommendations

CARROLL COUNTY						
ID	Street	Start	End	Short-Term	Mid-Term	Long-Term
1	Armory Rd	N. CR 800 W	W. CR 200 N	Add stop signs to the approach to US 421. Relocate stop bars closer to the intersection.	Intersection conflict warning system. Add edge line striping to the county road.	Convert intersection from a flashing beacon to a signalized intersection.
2	E. CR 100 N*	N. CR 300 E	N. CR 600 E	Cut back landscaping in SW corner of CR 100N and CR 500E. Make intersection all-way stop. Add flashing LED lights to stop signs and add stop signs on the left side of the road at the approach. Stripe stop bar on CR 500E. Stripe edge lines on CR 100N. Sweep loose gravel from intersection surface.	Install stone shoulder, safety edge, and edge line rumble stripes.	Widen pavement and install asphalt shoulders.
3	E. Main St	S. Washington St	Mill Dr	Stripe shoulders and parking lanes on Main Street. Install Continental Crosswalks.	Add raised crosswalks and rectangular rapid flashing beacons for unsignalized crosswalks on Main Street.	Add lighting at intersections.
4	W. CR 1100 N*	N. Quiet Water Cir	N. CR 850 W	Add stop signs on CR 1100N at US 421. Stripe stop bars add signs alerting drivers that cross traffic does not stop. Stripe edge and centerlines on CR 1100N.	Stone shoulder, safety edge, edge line rumble stripes.	Pavement widening and asphalt shoulders.
5	W. Bicycle Bridge Rd	E. Bicycle Bridger Rd	W. Franklin St	Add stop signs and stripe stop bars on CR 1200E. Make the intersection with Bicycle Bridge Rd a four-way stop. Crops at the intersection could impact sight distance. Stripe edge and centerlines on Bicycle Bridge Rd.	Advanced warning system along main route.	Convert intersection to R-Cut.

* Non-Local Roads

Table 8. Carroll County Capital Projects

CARROLL COUNTY

ID	Street	Start	End	Short-Term	Mid-Term	Long-Term
6	W. CR 100 S*	S. CR 650 W	S. Prince William St	Crops at all 4 corners are affecting the sight distance from CR 100S to US 421. Stripe stop bars and add signs explaining cross traffic does not stop on CR 100S at US 421 intersection.	Intersection conflict warning system.	Acquire R/W at NW and SW corners to remove obstructions and improve sight distance.
7	E. CR 150 N*	N. SR 29	N. SR 29	Stripe stop bar on CR 150N and add warning signs explaining that cross traffic doesn't stop.	Intersection conflict warning system.	Acquire R/W at NW and SW corners to remove obstructions and improve sight distance.
8	E. CR 350 S*	S. CR 500 E	S. SR 29	Sight line obstructions are present at CR 350S approach to SR 29. Move stop signs closer to SR 29 and stripe stop bars. Add signs explaining cross traffic does not stop. Stripe edge lines on CR 350S.	Add intersection ahead road signs on SR 29 approaching CR 350S. Stone shoulder, safety edge, edge line rumble stripes on CR 350S.	Pavement widening and asphalt shoulders on CR 350S. Intersection conflict warning system.
9	E. CR 500 S*	S. CR 208 E	S. CR 500 E	Stripe edge lines and center lines. Install speed limit signs.	Stone shoulder, safety edge, edge line rumble stripes.	Pavement widening and asphalt shoulders.
10	W. CR 400 S*	S. CR 500 W	S. CR 250 W	Stripe stop bars, add transverse rumble strips, and additional stop signs at the intersection of Prince William Rd and CR 400S. Stripe edge lines on CR 400S.	Stone shoulder, safety edge, edge line rumble stripes.	Pavement widening and asphalt shoulders.

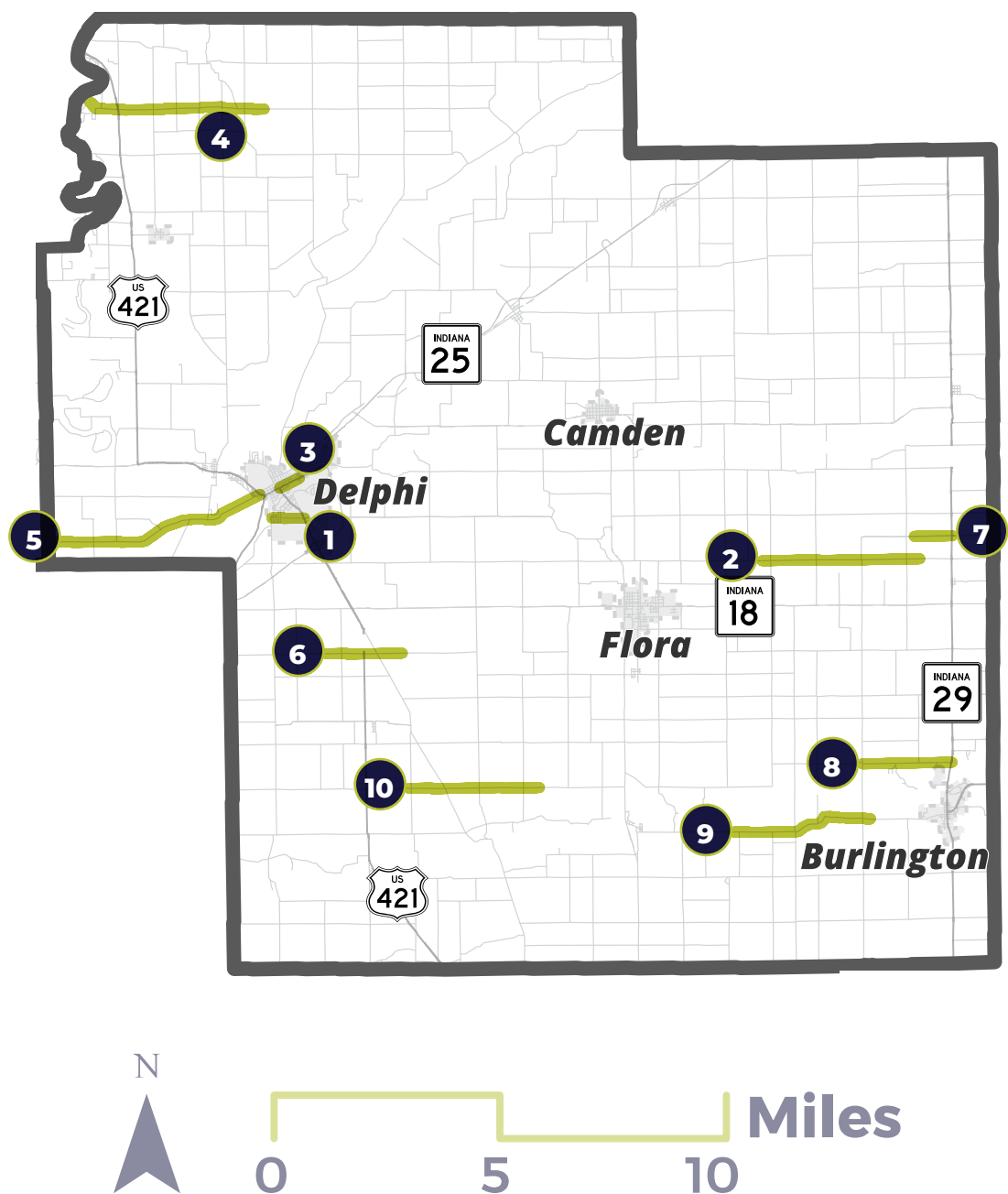


Figure 12. Carroll County Capital Project Recommendations Map

