

2

0

2

3

TRAFFIC SAFETY REPORT



LARIMER
COUNTY

ENGINEERING DEPARTMENT

200 W. Oak St. Fort Collins, CO 80501 970.498.7000 Larimer.org

Table of Contents

Introduction	3
Crash Trends	4
Overall Crashes	5
Crash Rates	6
Serious Crash Review	7-8
Seatbelt Use	9
Human Factor	10
Distracted Driver	11
Impaired Driver	12
Work Zone	13
Motorcycle Crashes	14
Roadway Departures	15
Animal Crashes	16
Non-Motorist Crashes	17
Snow and Ice	18
Traffic Mitigation	19 - 20
Safety Grant Funding	21
Appendix A - Fatalities	22-23
Appendix B—Monitoring of recent Low Cost Safety Improvements	24

Introduction

This report covers the unincorporated roadways in Larimer County which the County has responsibility to maintain. Unincorporated Larimer County has 841 miles of roadways—98 miles in subdivisions, 64 miles of mainline road in urban areas surrounding communities, and 679 in rural portions of the county.

Larimer County strives to make roadways as safe as possible. The Traffic Safety Program Goal is to **reduce the number and severity of crashes on our roadways.**



Colorado Health Information Dataset Mortality Statistics — Larimer County (2022)

Cause of Death:

Cardiovascular Disease¹

754

Cancer

544

Influenza & Pneumonia¹

26

COVID-19¹

121

Drug Induced

78

All Larimer County Roadway Fatalities, 2023²

44

Unincorporated Larimer County Roadway Fatalities, 2023

5

Source: ¹cdphe.colorado.gov/center-for-health-and-environmental-data/registries-and-vital-statistics/vital-statistics-program

²www.codot.gov/safety/traffic-safety/data-analysis/fatal-crash-

Crashes are categorized into three classes by severity: Property Damage Only (PDO), Injury, and Fatal. A property damage only crash indicates that no one was injured or killed in the crash. In an injury crash at least one person was injured in the crash but no one was killed. In a fatal crash at least one person lost their life although there may also have been injuries sustained by other persons.

Property damage only crashes were up over 9% from 2022. Injury crashes were down nearly 21% in 2023 compared to 2022. Larimer County saw 3 fatal crashes resulting in 5 fatalities in 2023, a decrease from 8 in 2022..

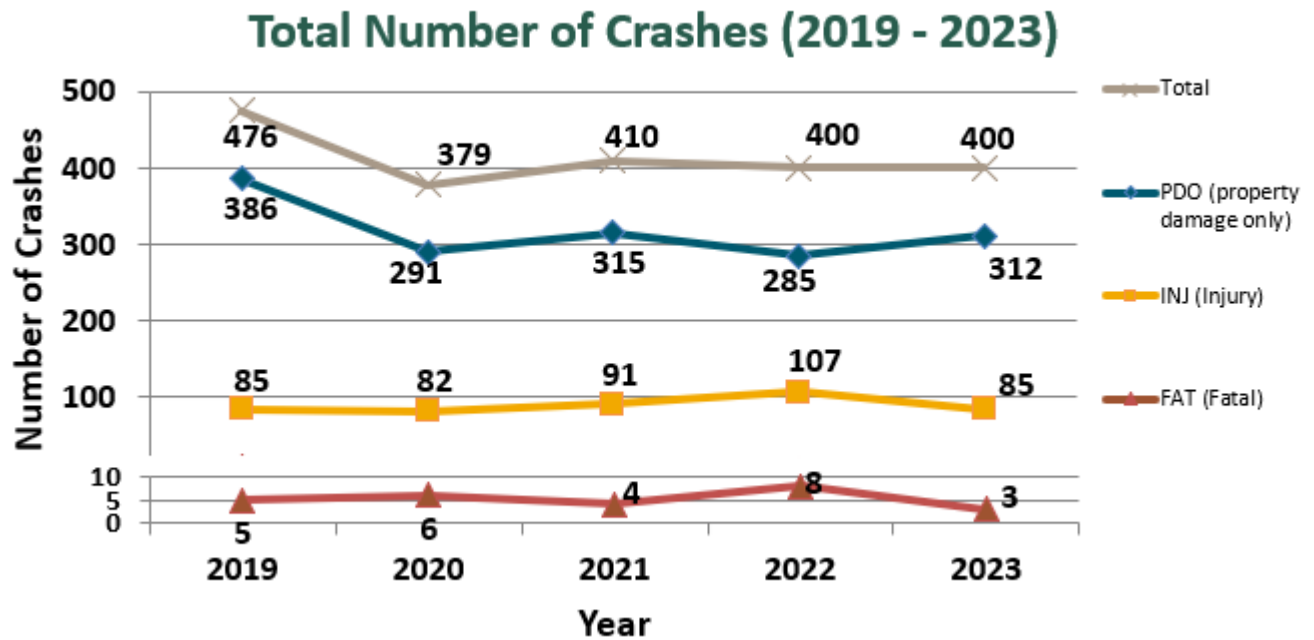
Crashes and crash severity are often influenced by the choices people make. Examples of these choices include speeding, distracted driving, driving under the influence of alcohol or drugs, and seat belt or helmet use.

This report summarizes crashes in unincorporated Larimer County by a variety of factors that are focused on areas of interest and identification of trends to be addressed through safety improvements and education.

2023 Crash Trends

In 2023, there were 400 crashes on unincorporated roads in Larimer County which is the same as in 2022. The total number of crashes is below the most recent 5 year average of 413 crashes.

There were 3 fatal crashes killing 5 people in 2023. This represents a decrease from 2022 which saw 8 fatal crashes and 8 fatalities. of 5.2 deaths per year.



Fatal crashes: 3 crashes **decreased 63%**
and fatalities (5) **decreased 38%** from 2022

Injury crashes: **Decreased 21%**

Property Damage Only: **Increased 9%**

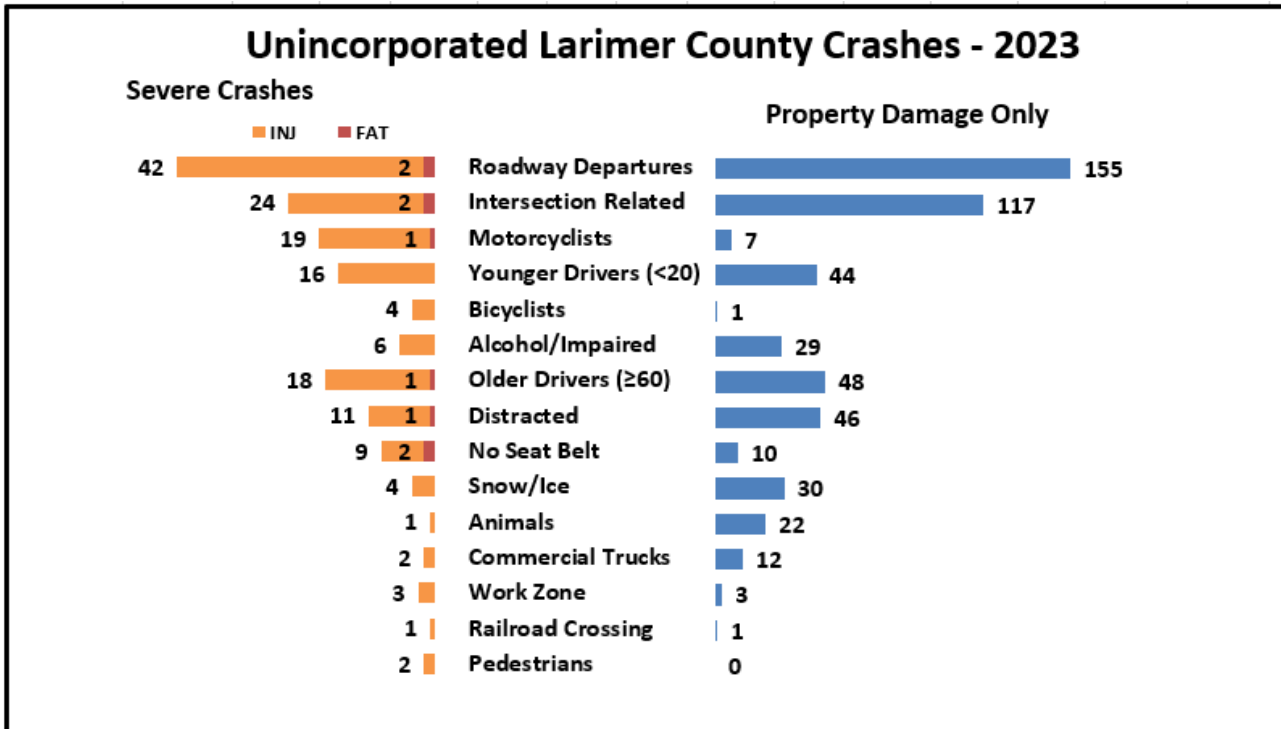
Overall Crashes

The Traffic Safety Annual Report summarizes the general trends in roadway safety, analyzes specific areas of interest, and monitors ongoing traffic safety efforts in the County. Crash data is obtained directly from Colorado State Patrol crash reports and other law enforcement entities as needed.

Charts below show the number of crashes in 2023 relative to a variety of factors. Crashes may be listed in more than one category.

Crash Characteristics	% Change between 2022 and 2023*	5 Year Trend*	2019 Total	2020 Total	2021 Total	2022 Total	2023 Total
Roadway Departures	-4%	-3%	230	191	203	207	199
Intersection Related	-8%	-5%	182	123	152	156	143
Motorcyclists	-21%	-22%	31	44	38	34	27
Younger Drivers (<20)	-3%	-5%	75	53	67	62	60
Bicyclists	67%	19%	4	4	5	3	5
Alcohol/Impaired	-30%	-22%	60	43	36	50	35
Older Drivers (≥60)	-1%	-8%	79	77	73	68	67
Distracted	16%	7%	63	55	46	50	58
No Seat Belt	-42%	1%	19	17	11	36	21
Snow/Ice	-28%	-20%	59	45	27	47	34
Animals	-32%	-23%	43	19	31	34	23
Commercial Trucks	-22%	-17%	14	16	16	18	14
Work Zone	100%	43%	3	10	2	0	6
Railroad Crossing	100%	43%	1	2	1	1	2
Pedestrians	0%	43%	0	2	1	2	2

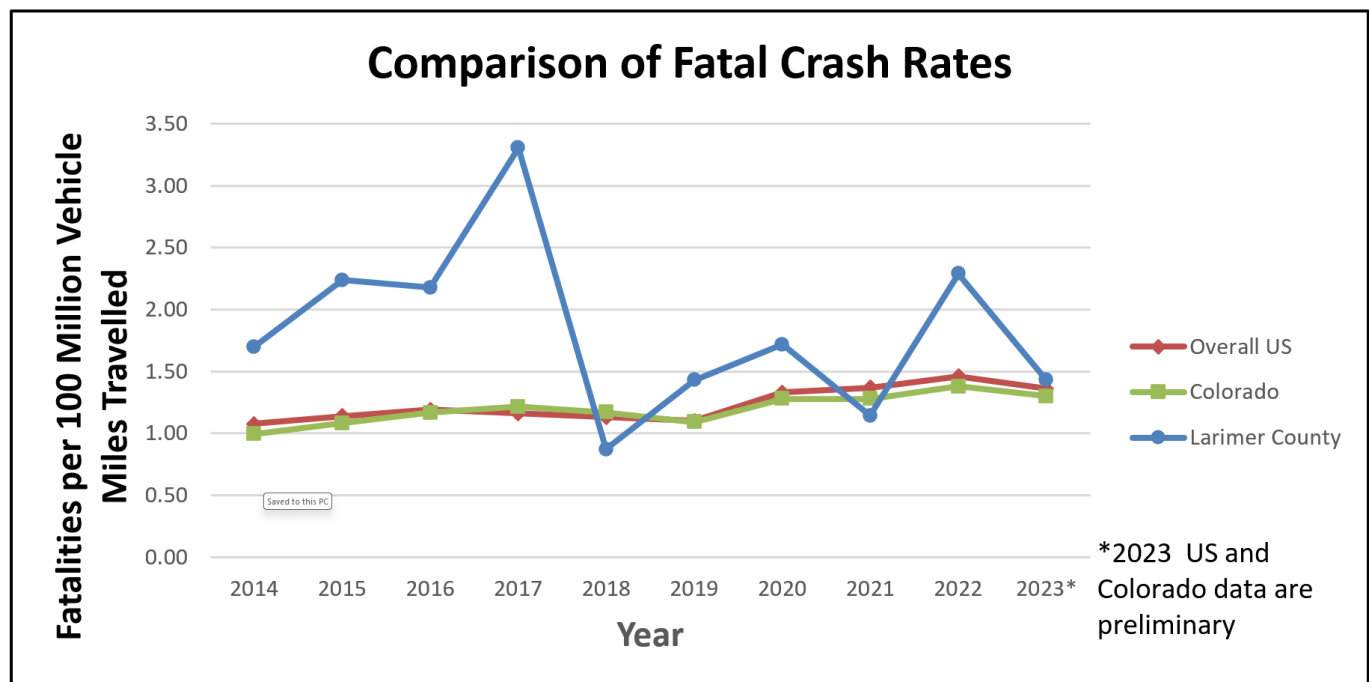
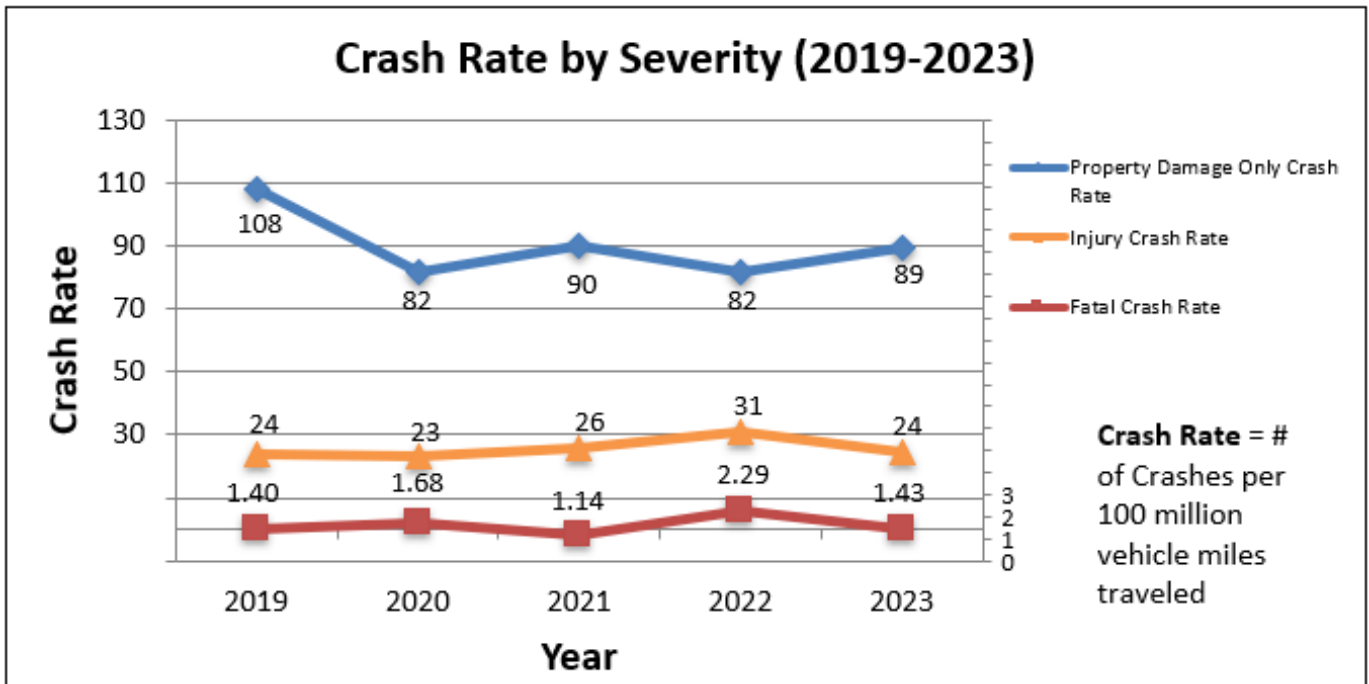
* % Change is based on # of crashes not % of yearly crashes



Crash Rates

To account for varying amounts of traffic, a measure of crash *RATE* is used in addition to crash *NUMBERS*. The crash rate is expressed in the number of crashes per 100 million Vehicles miles traveled. Larimer County rates are typically higher than US and Colorado rates due to its largely rural nature with higher speeds and narrower roadways and shoulders. Small changes in the number of crashes result in significant changes in crash rates.

This graphic shows the crash rate by severity and indicates the property damage only crash rate increased 5%, while the injury crash rate decreased by 12% from 2022. The fatal crash rate decreased 34% over the previous year.



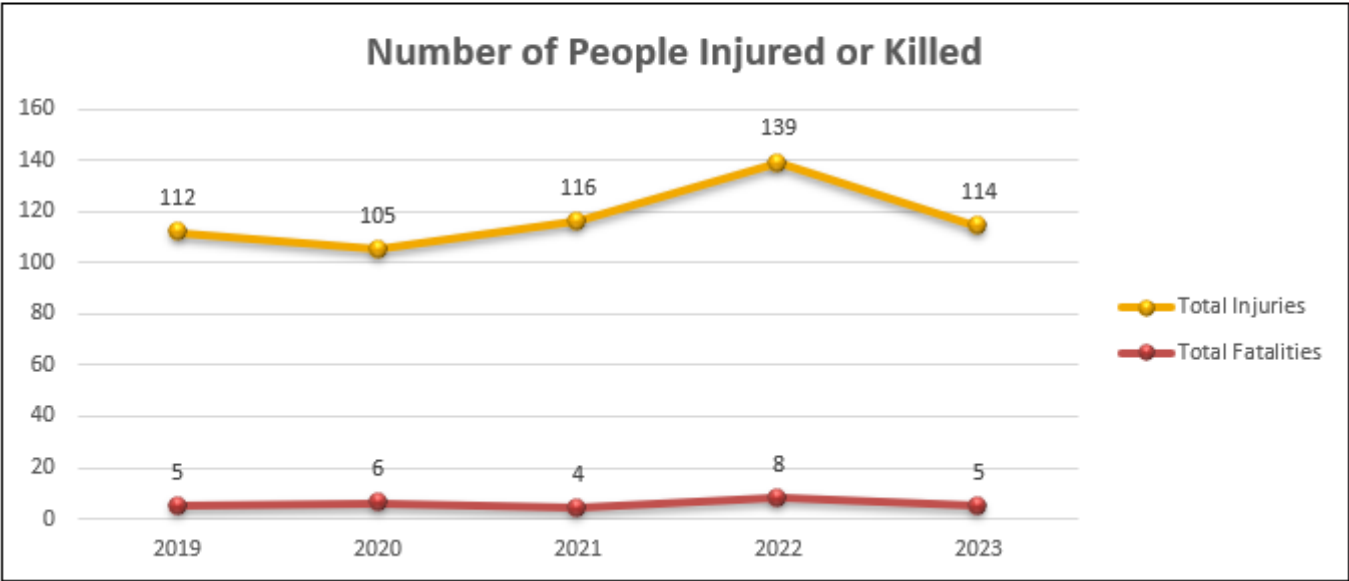
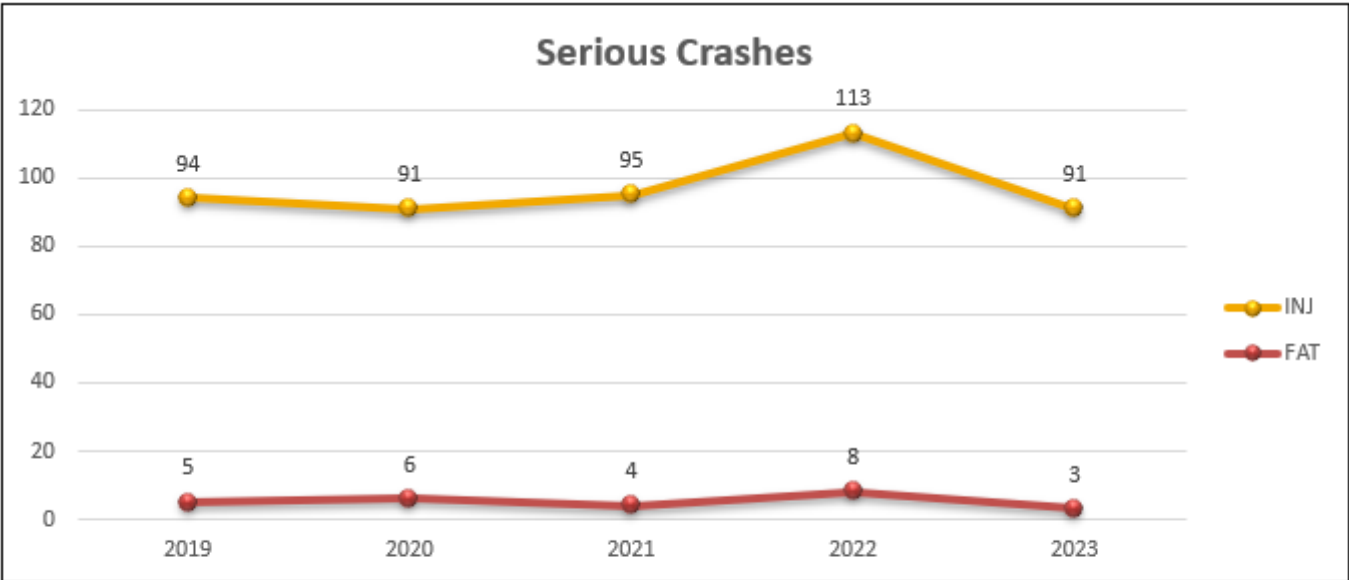
Serious Crash Review

Fatal Crash Statistics for 2023:

- ◆ According to the Colorado Department of Transportation fatality report, there were 37 fatal crashes resulting in 44 deaths on Larimer County roads
- ◆ According to data compiled from the police crash reports for unincorporated roadways in Larimer County, there were 3 fatal crashes resulting in 5 deaths.

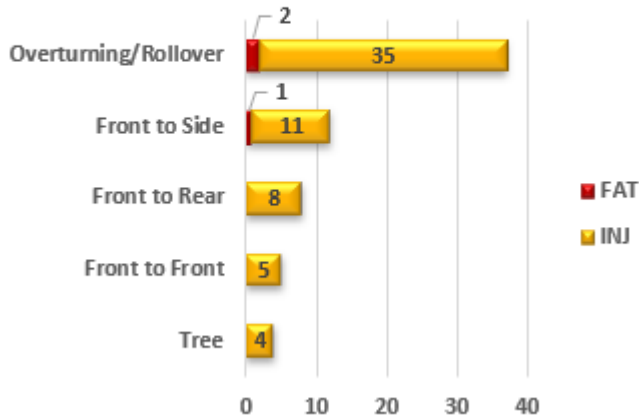
Injury Crash Statistics for 2023:

- ◆ On unincorporated Larimer County roads there were 91 injury related crashes resulting in 114 injuries. 2023 injury crash statistics for the State of Colorado were unavailable at the time of this publication.

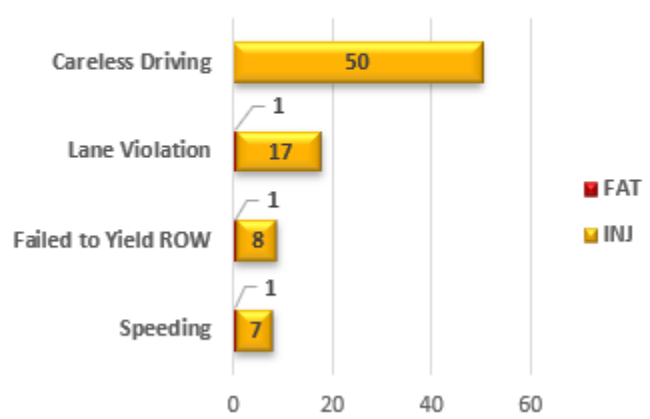


Serious Crash Breakdown

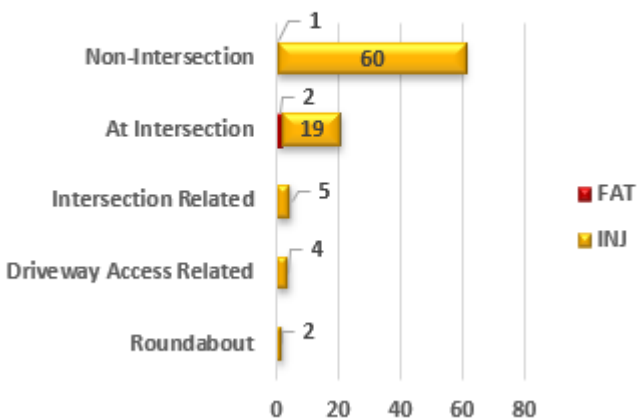
Most Harmful Events 2023



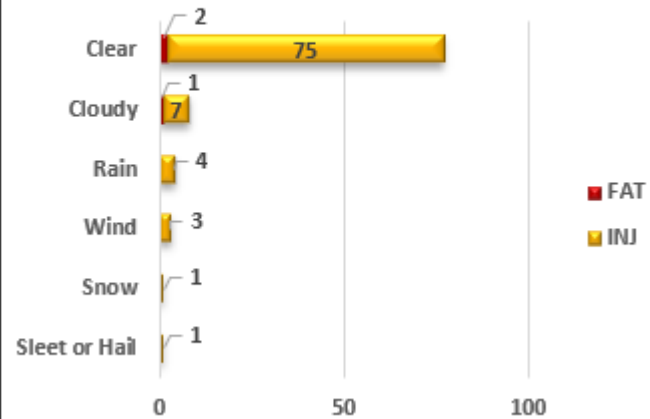
Driver Actions 2023



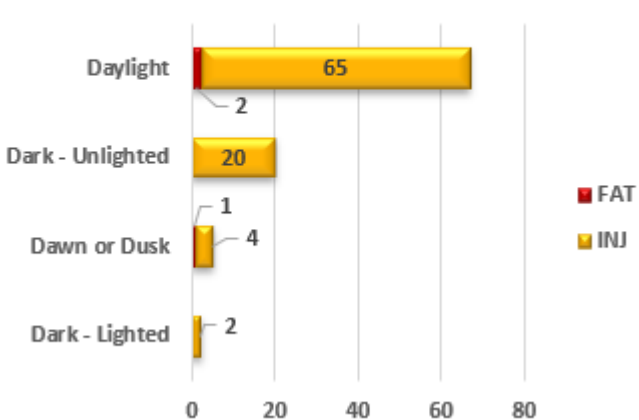
Road Description 2023



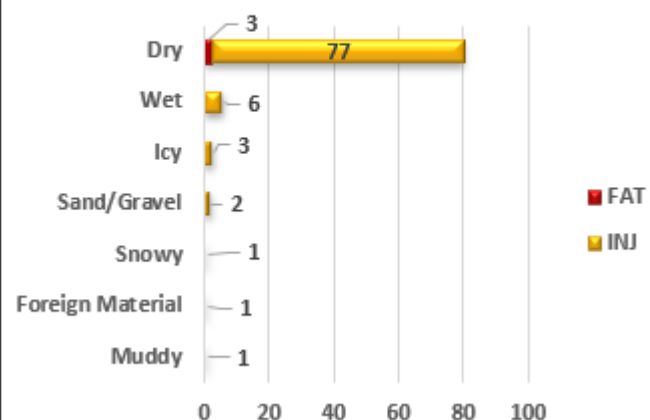
Weather Condition 2023



Light Condition 2023

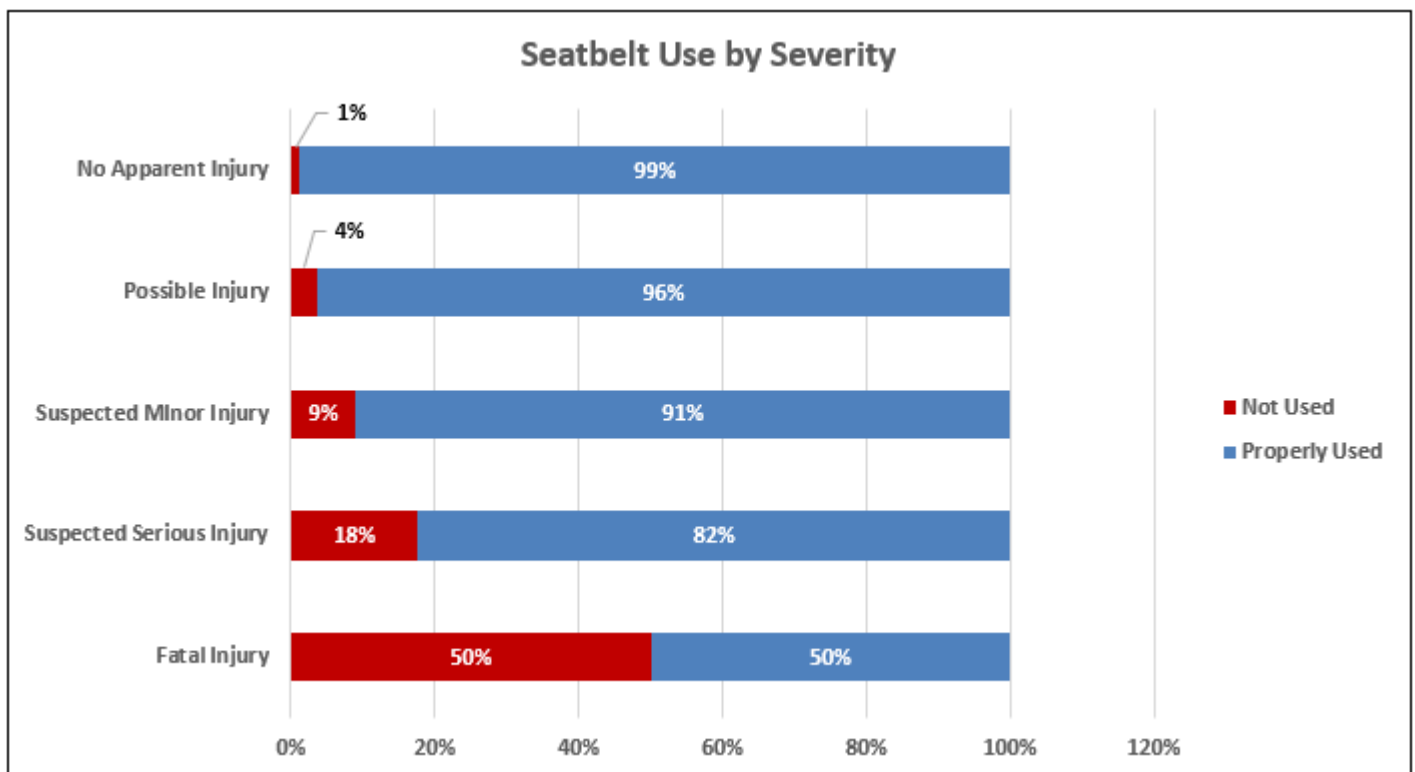
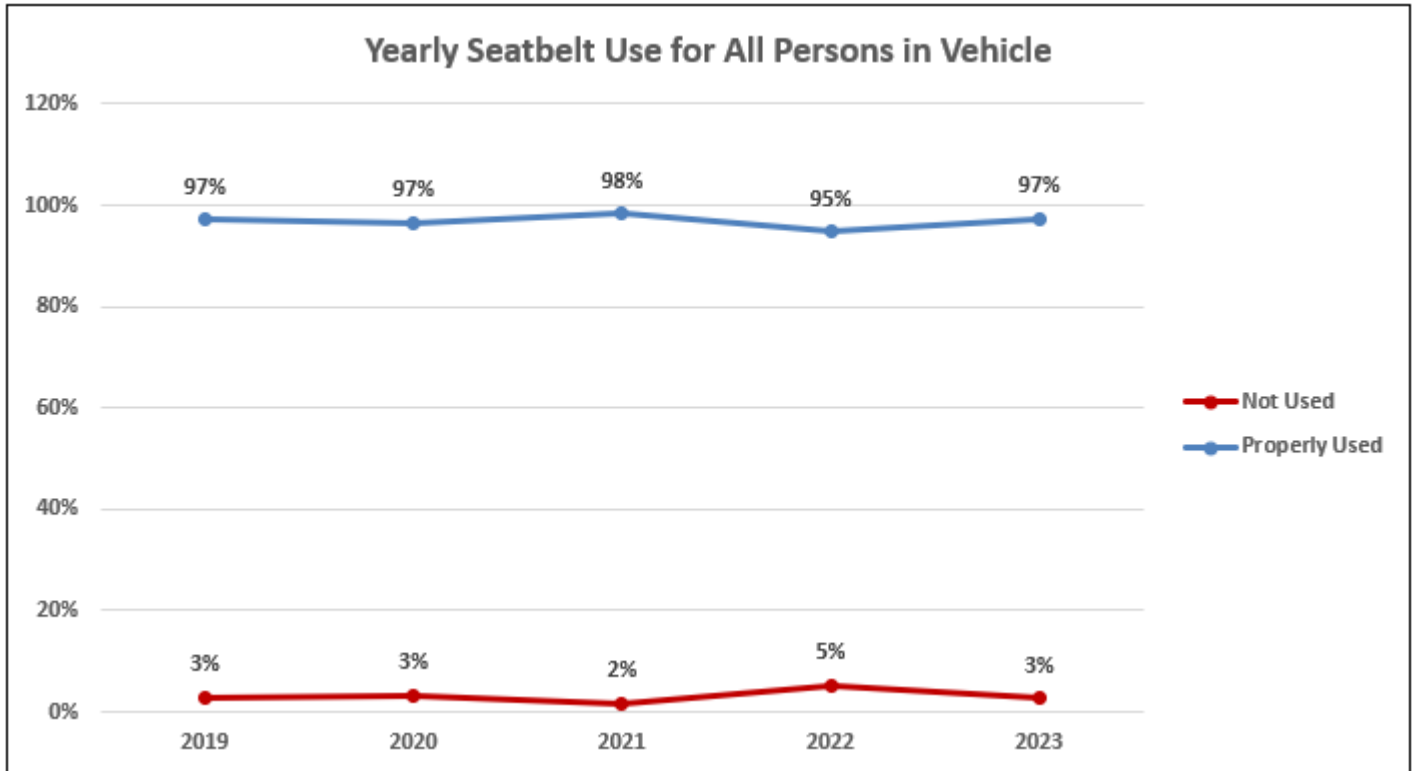


Road Condition 2023



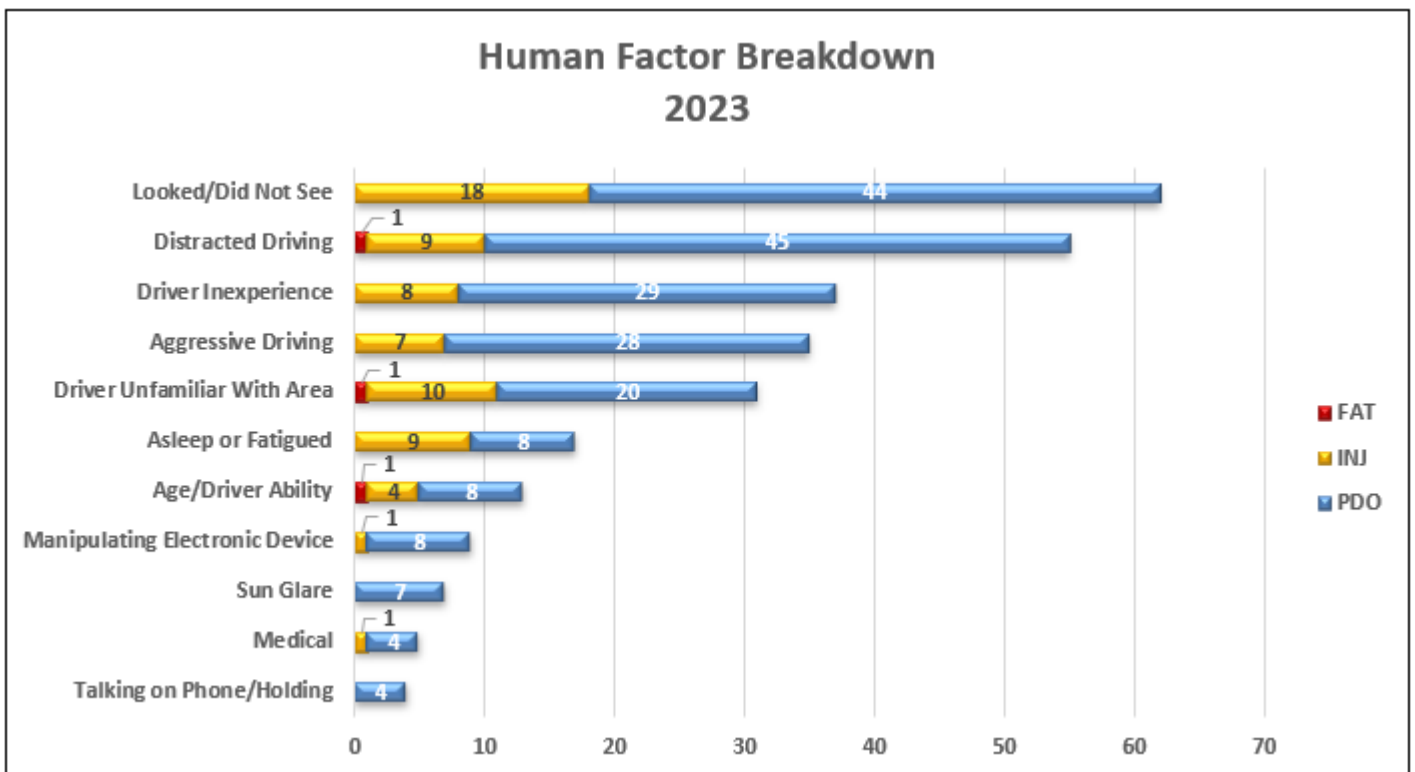
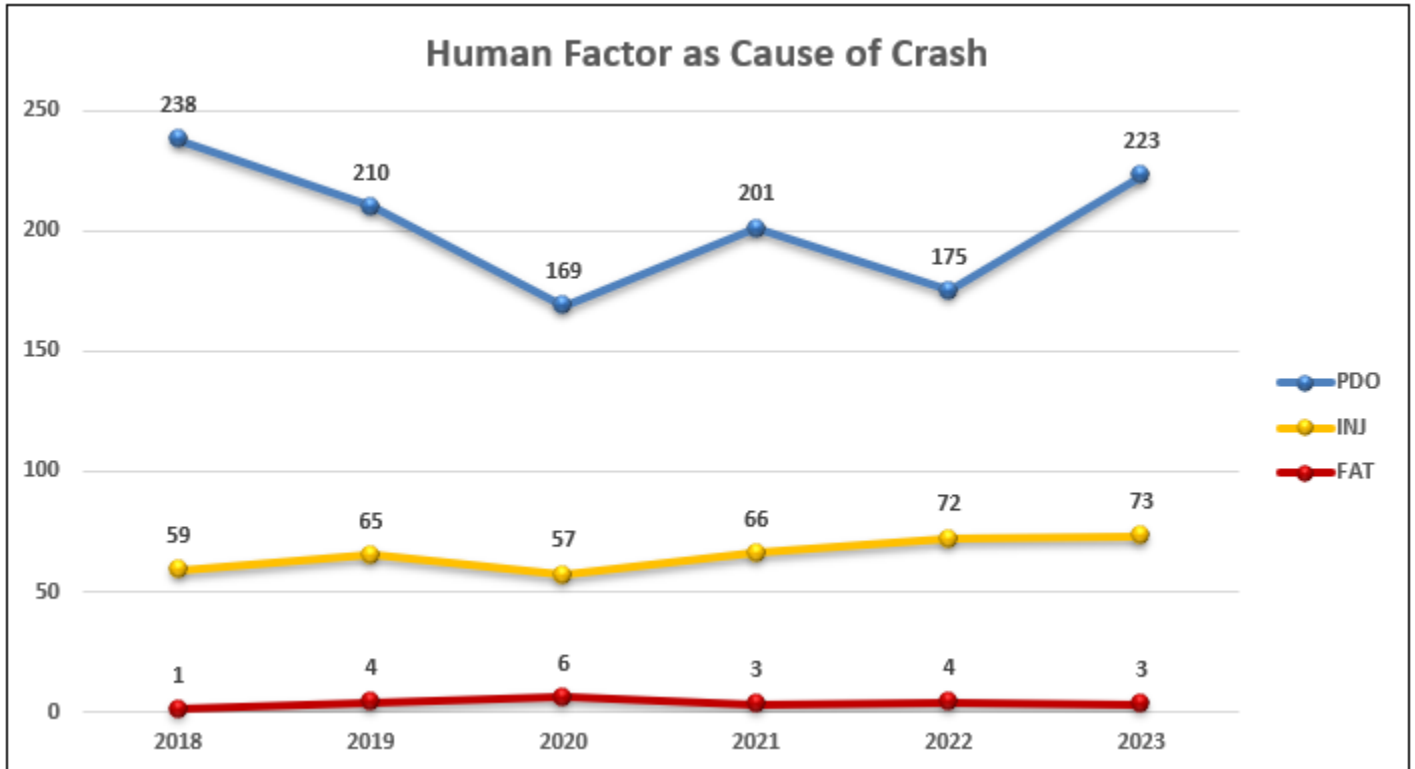
Seatbelt Use

In 2023, 97% of all crash victims on unincorporated Larimer County roads were wearing seatbelts at the time of the crash.



Human Factor

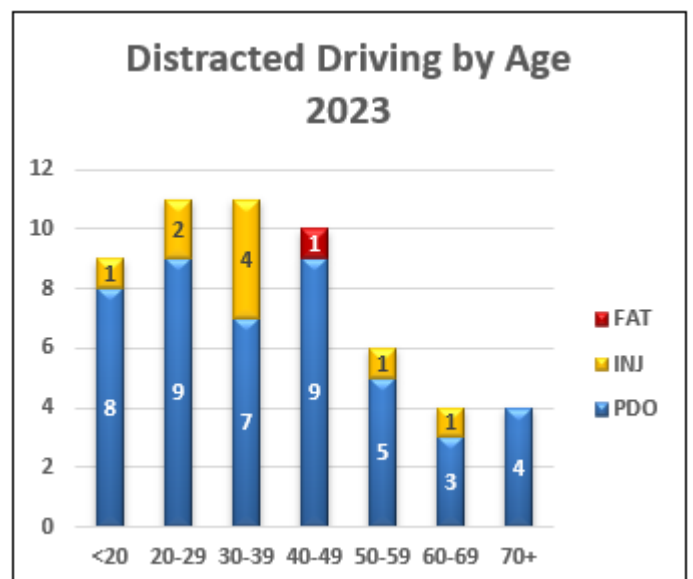
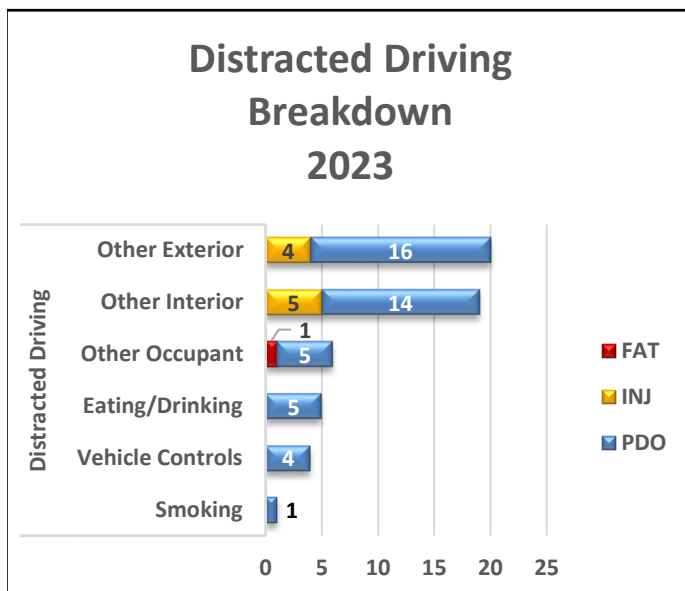
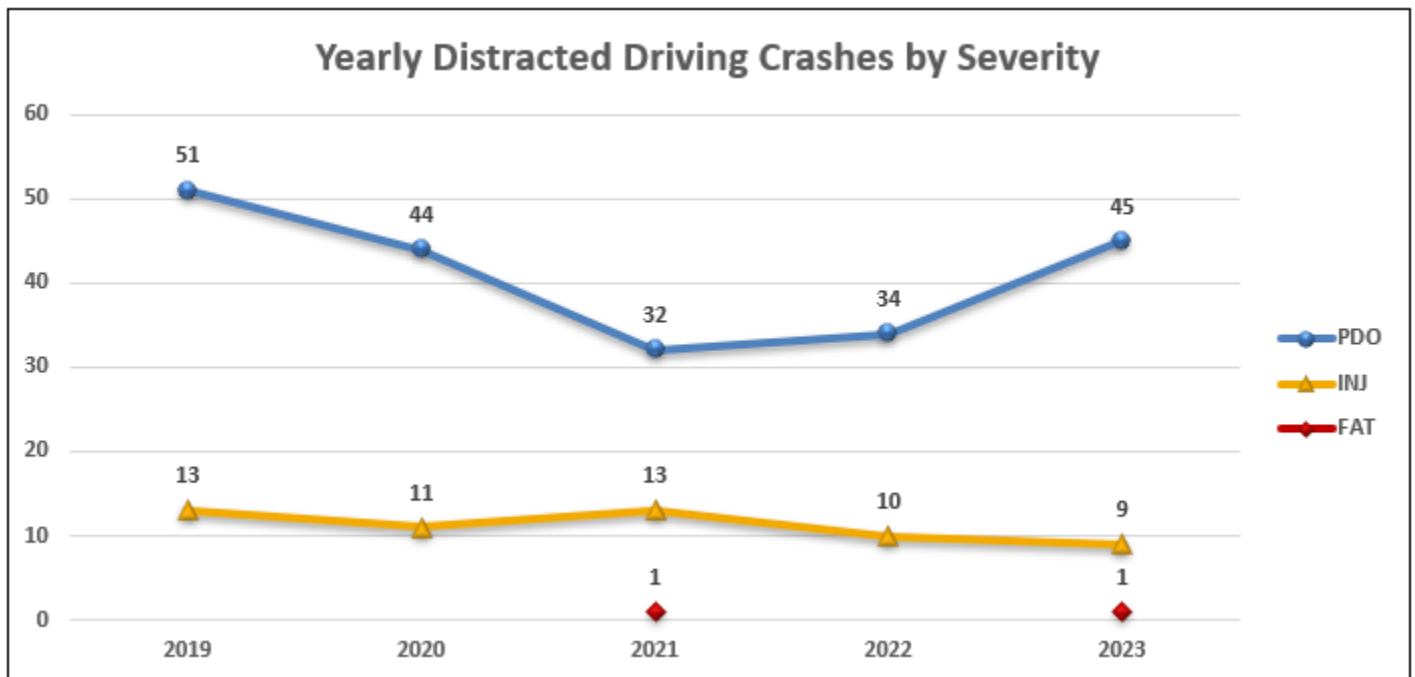
Driving is about human interaction with the vehicle, the natural elements and other drivers on the roads. In 2023, 299 crashes (71%) were attributed to a human factor as the direct cause, which is the highest rate in the last 5 years of reporting. The Human Factor crash rate severity and specific cause of crash are shown in charts below.



Distracted Drivers

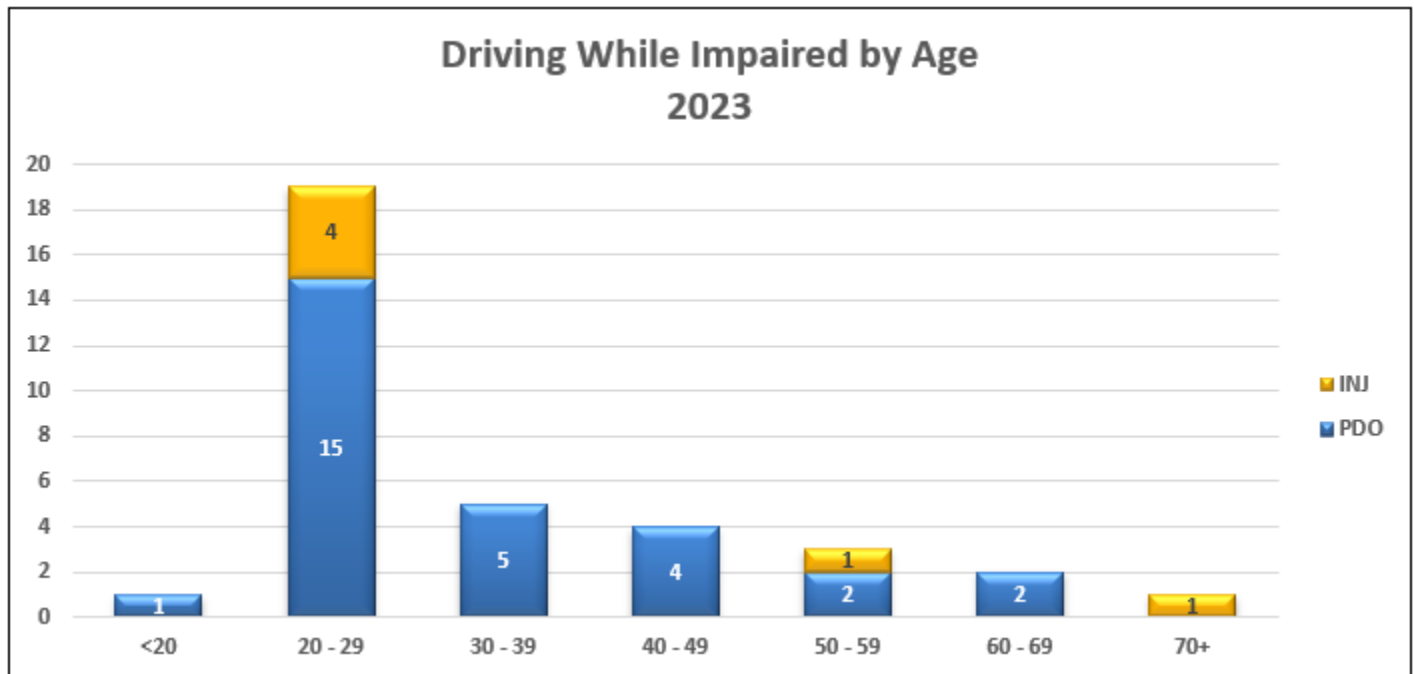
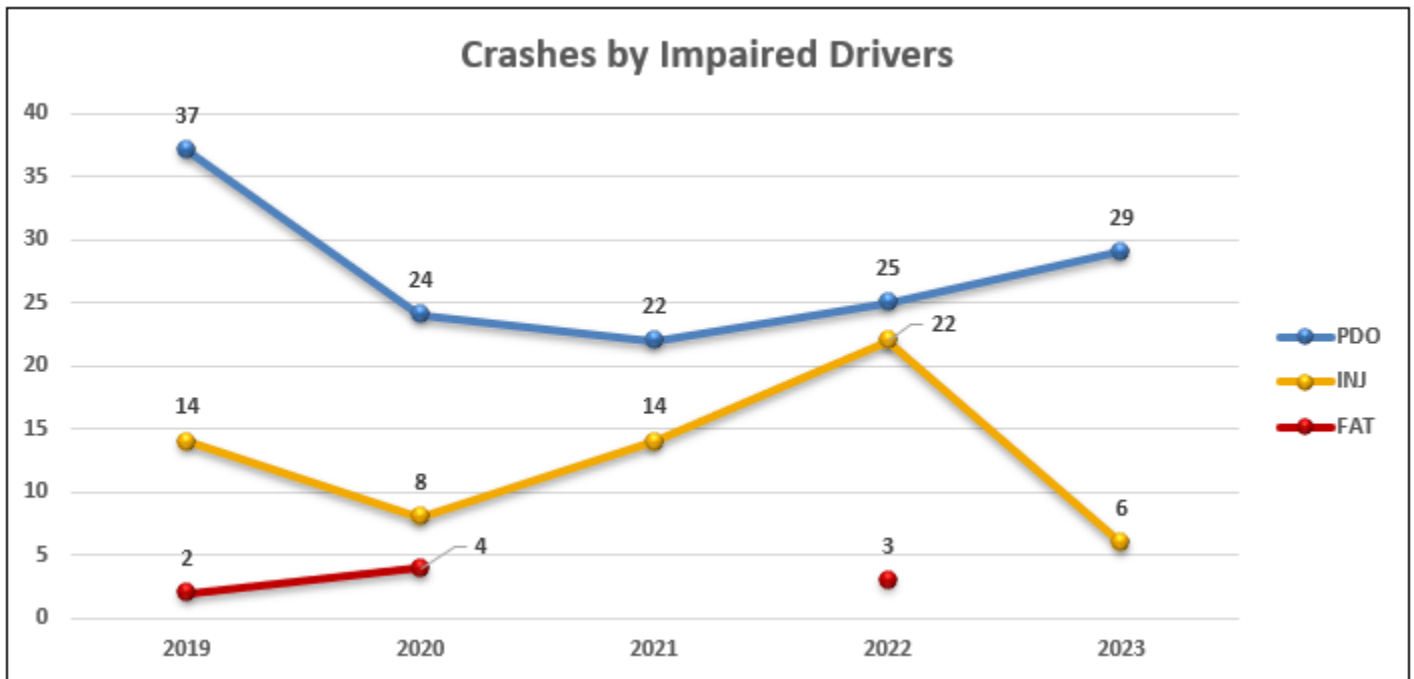
Distracted driving is a behavior that occurs when the driver attention is diverted from focus on driving to some other activity.

- ◆ In 2023, there were 58 (14% of total) distracted driving related crashes on unincorporated Larimer County roads.
- ◆ The national average per the NHTSA database for the most recent year (2021) shows that 13% of all police reported crashes were reported as distraction-affected crashes.



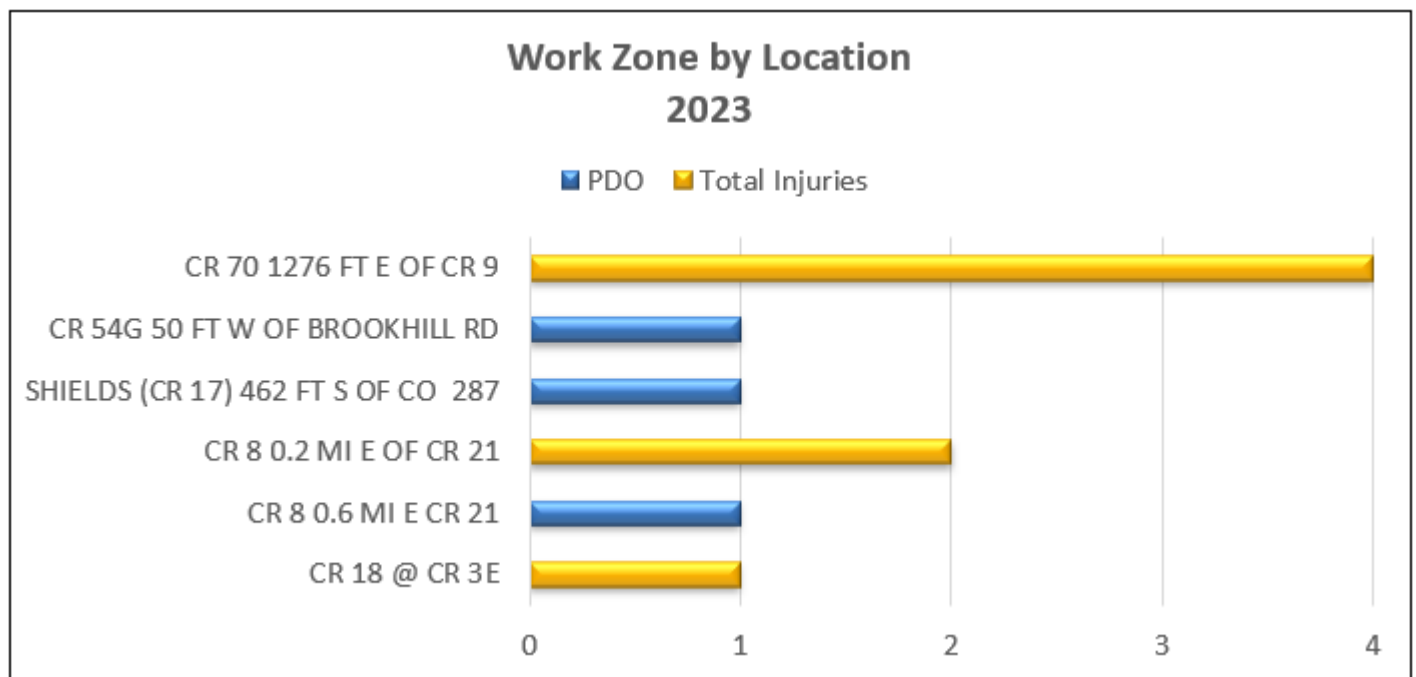
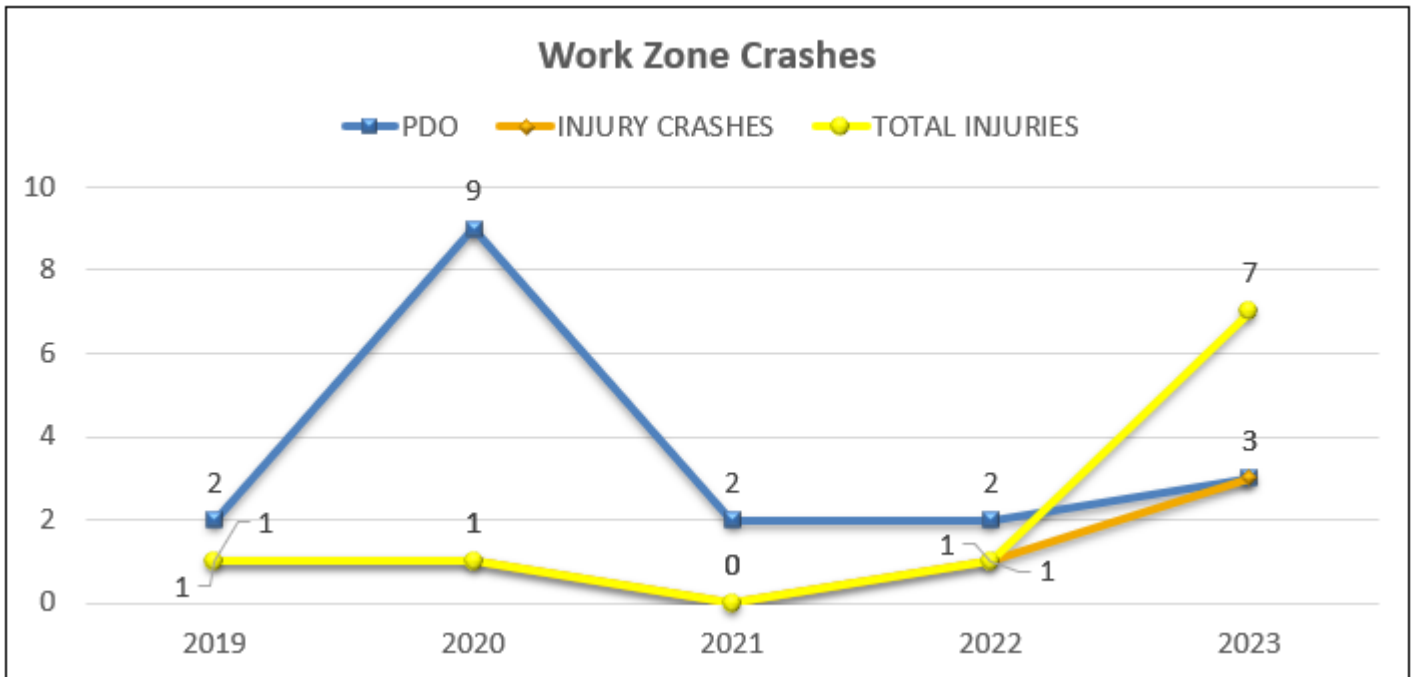
Impaired Driving

Data obtained from the police crash reports show that 35 individuals were charged with DUI/DWAI/DUID/Drugs on unincorporated Larimer County roads in 2023. According to the Colorado Department of Transportation, 261 crashes were caused by an individual that was charged with a DUI/DWAI/DUID/Drugs for all of Larimer County roads in 2023.



Work Zone

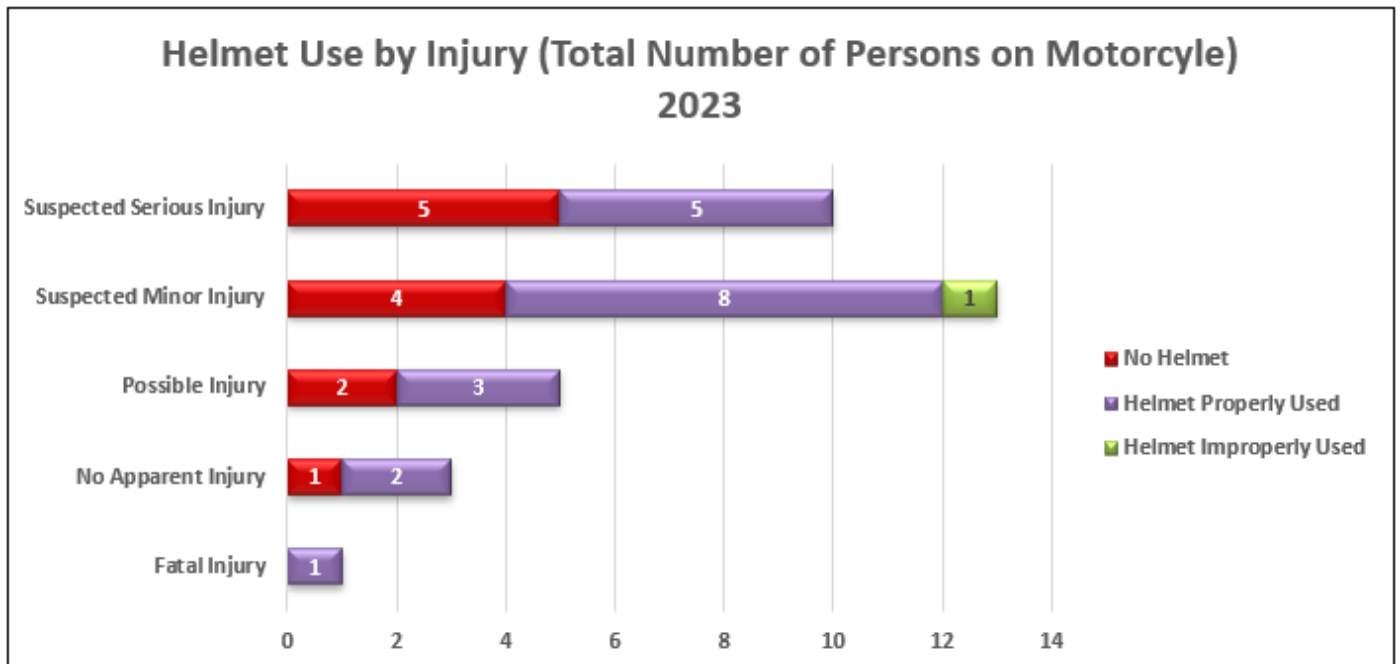
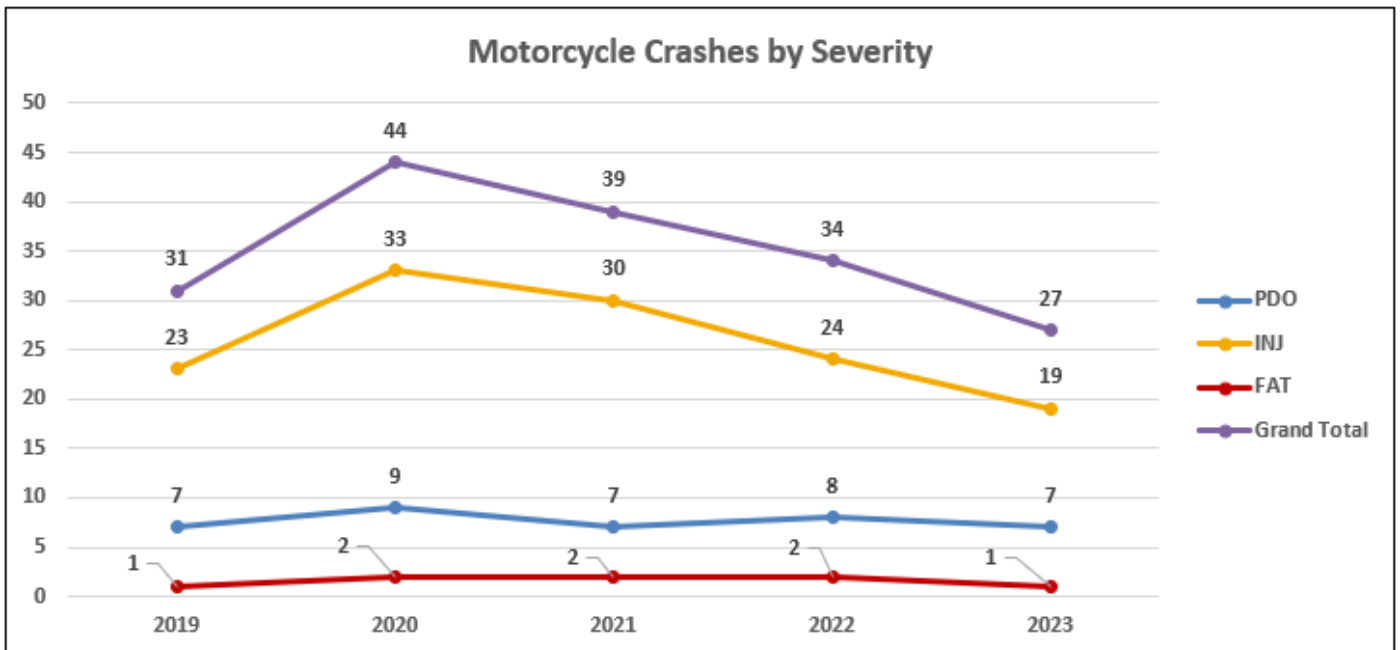
In 2023, there have been 6 crashes that occurred in unincorporated Larimer County construction zones resulting in 7 injuries. Location of each crash is shown below.



Motorcycle Crashes

Motorcycle crashes on unincorporated Larimer County roads decreased to 27 total crashes in 2023.

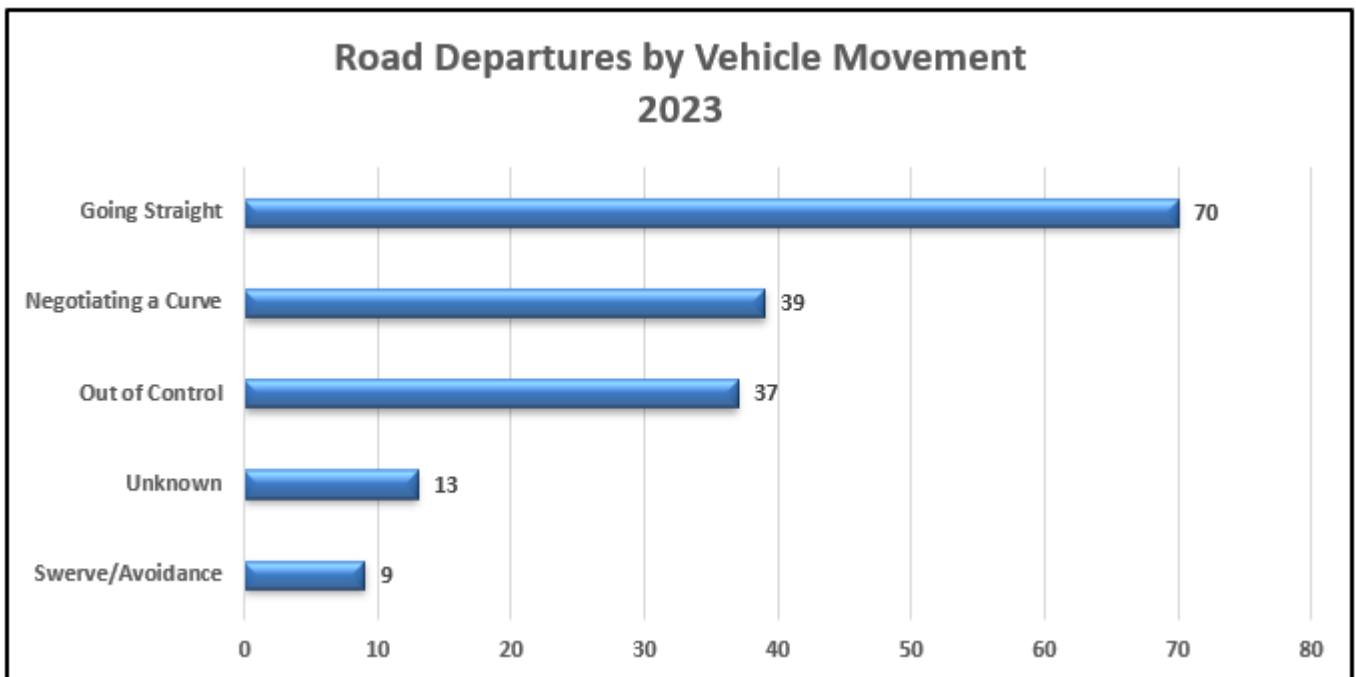
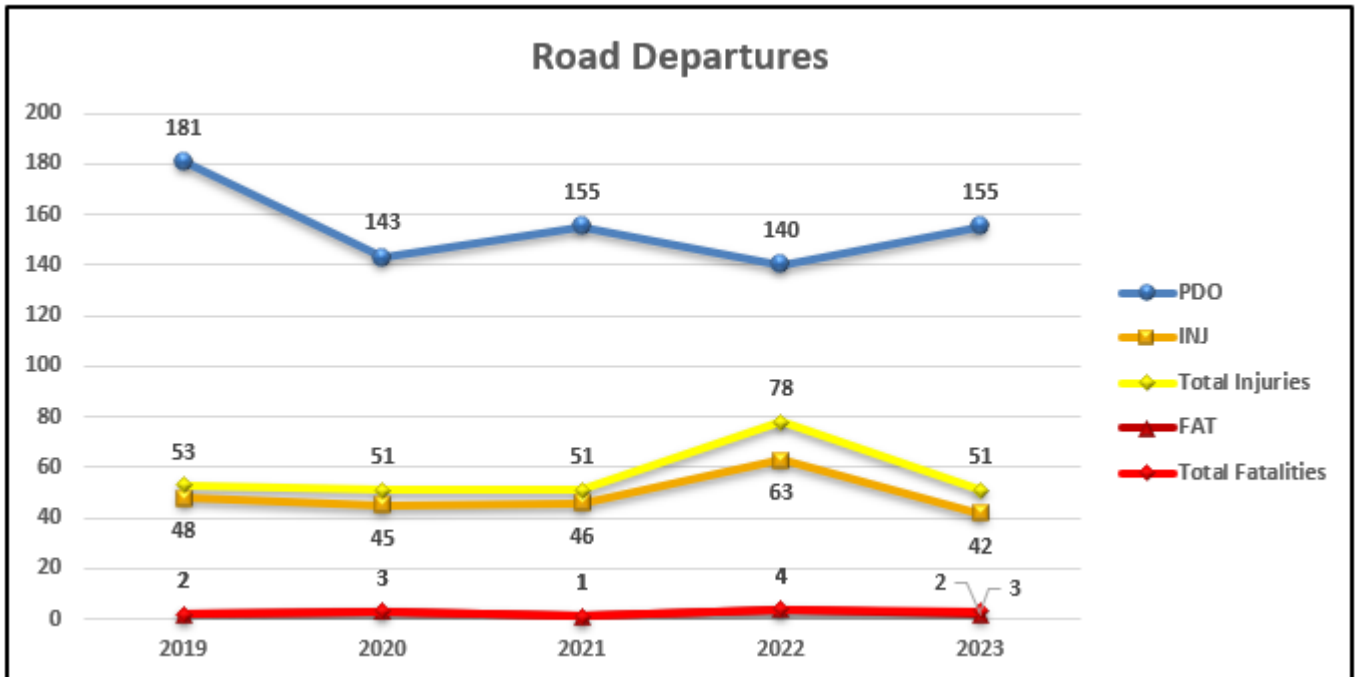
- ◆ Serious crash rate (INJ + FAT) for 2023 remains high at 75% of total motorcycle crashes.
- ◆ The fatality in 2023 was a male driver, age 25 years, speeding 65 mph in a 45 mph speed limit zone. The road was dry and weather conditions were clear. The description of fatality was: *“Vehicle 1 was southbound on Larimer County Road 29 (LCR29) riding abreast while slightly behind and to the right of Vehicle 2. Both motorcycles were approaching the intersection of Larimer County Road 18E (LCR18E). Vehicle 2 began turning right onto west-bound LCR18E. Vehicle 1 failed to turn and continued straight where it collided with it’s left side with the right side of Vehicle 2.”*



Roadway Departures

In 2023, 47% of all crashes (199 crashes) involved a Vehicle leaving the roadway. Roadway Departures led to 44 serious crashes resulting in 51 injuries and 3 deaths.

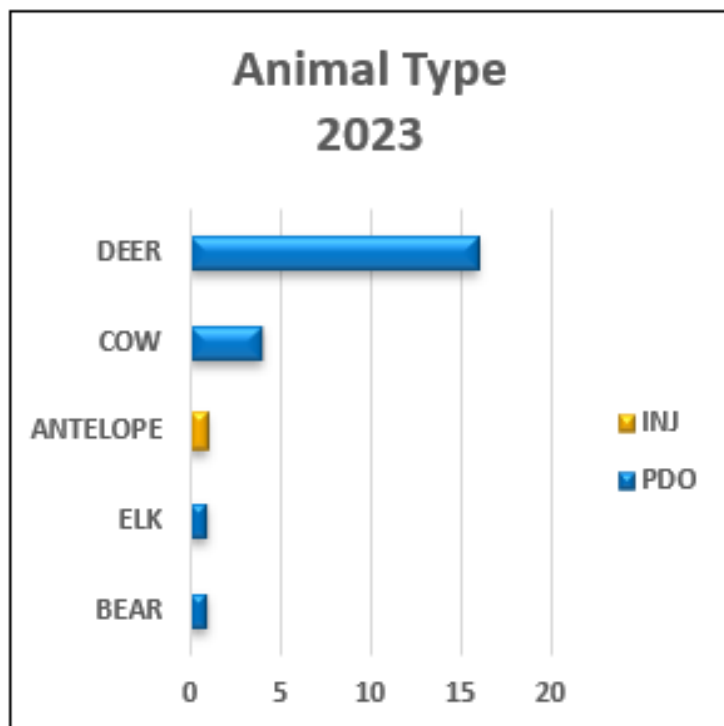
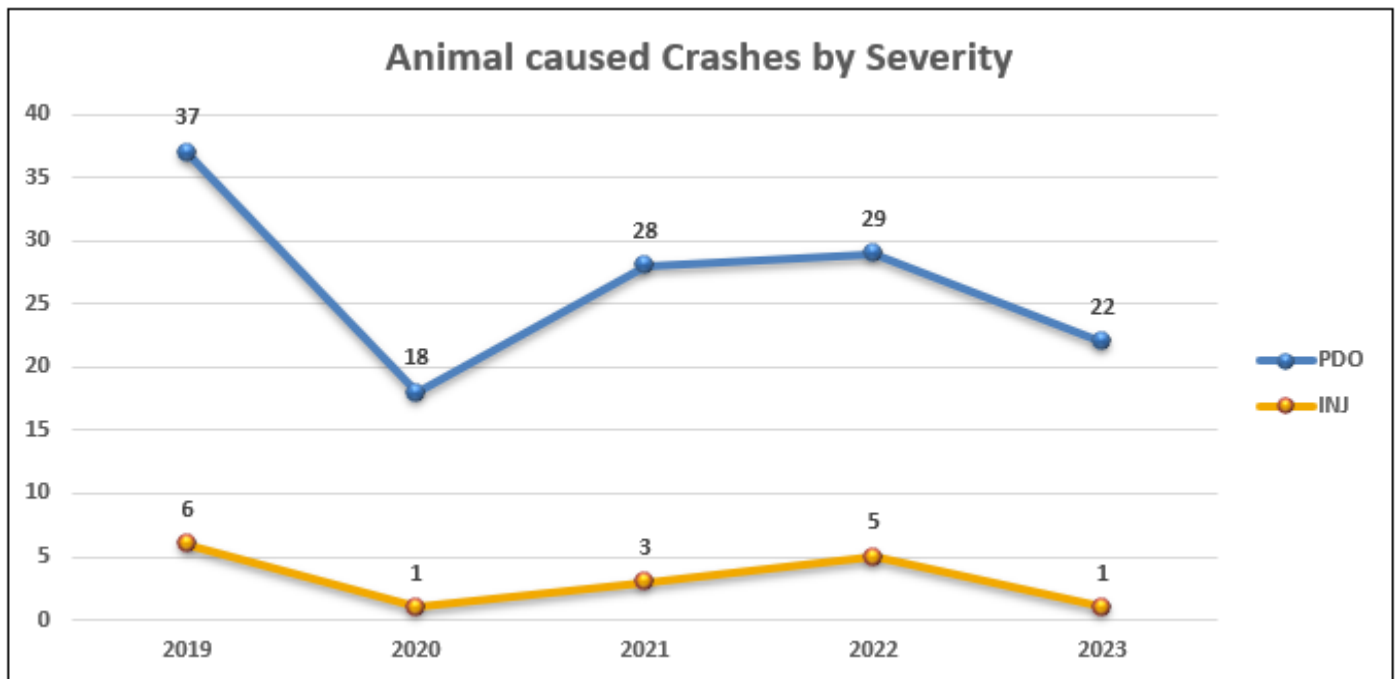
Larimer County is in the process of reviewing all horizontal curves and turns on the Larimer County road system. Safe advisory speeds are being reviewed and adjusted. Locations that would benefit from additional signing are being upgraded with additional chevron or large arrow warning signs at the curve locations.



Animal Crashes

Animal related crashes are crashes where an animal played a significant cause in the crash. This can include hitting an animal, swerving to avoid an animal or an animal inside the vehicle causing the driver to crash.

In 2023, on the Unincorporated Larimer County Roads, there were 23 animal caused crashes resulting in 1 injured person.



Non-Motorist Crashes

In 2023, there were 8 unincorporated Larimer County crashes that included a non-motorist (bicycle or pedestrian) resulting in 7 injuries.

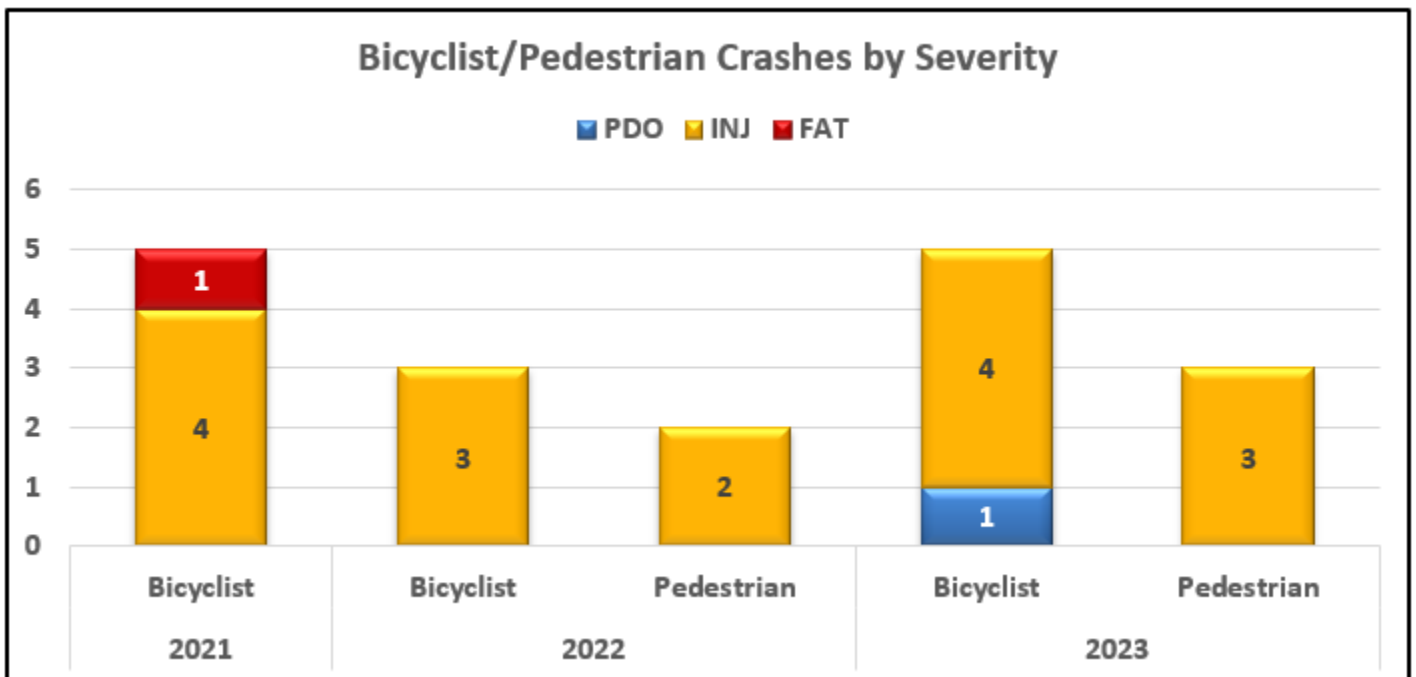
Listed below is a brief description of each crash:

5 bicycle crashes

- Vehicle made turn in front of bicycle causing bicyclist to run into vehicle. Human factor listed as “Sun Glare”.
- Vehicle clipped bicyclist with mirror. Human factor listed as “Looked/Did Not See” and “Sun Glare”.
- Vehicle hit bicycle from behind. Human factor listed as “Looked/Did Not See”.
- Bicyclist was riding 8 ft from curb in traffic and vehicle hit bicycle from behind. Non-motorist factor listed as “Not Visible, Dark Clothing, No Lighting, etc.”.
- Bicyclist was swerving in-between parked cars that were waiting for light to change and eventually was hit by a moving car. Non-motorist factor listed as “Looked/Did Not See”.

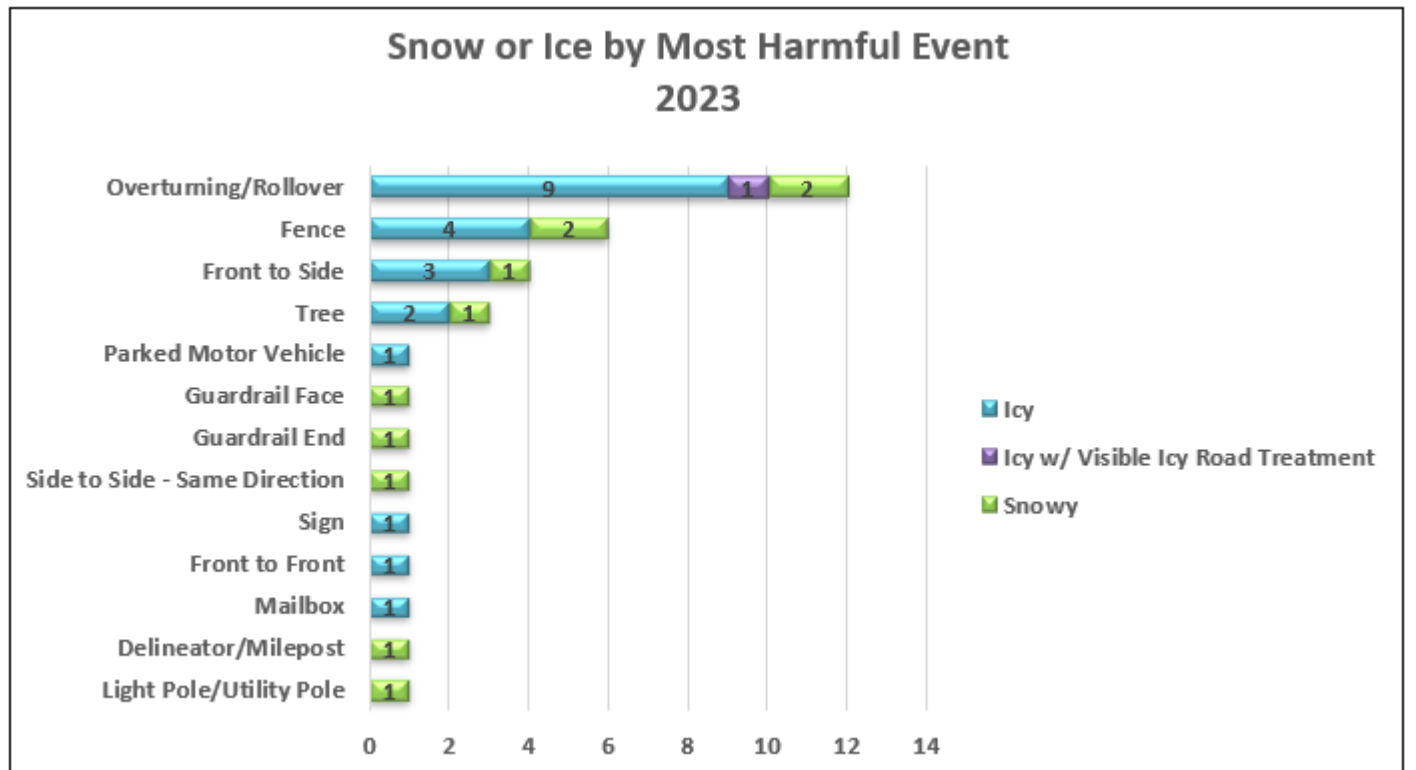
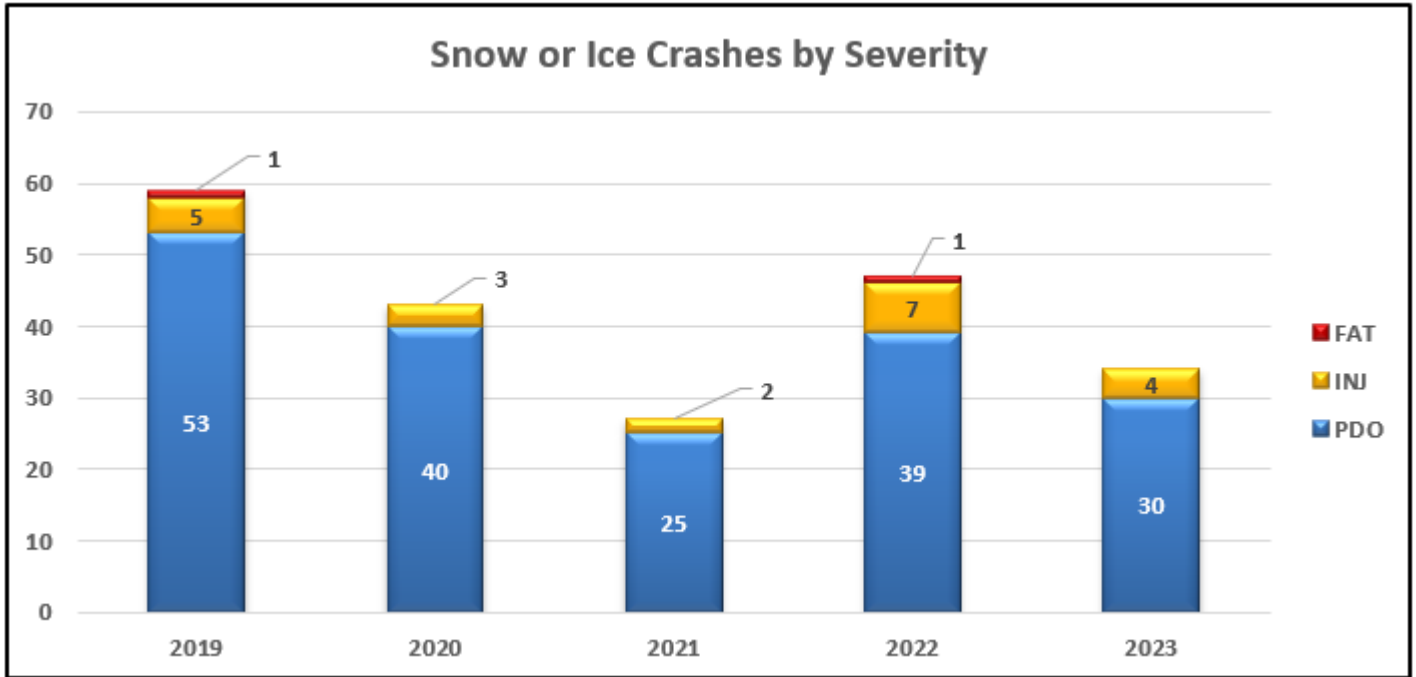
3 pedestrian crashes

- Pedestrian dashed in front of a moving car. Non-motorist factor listed as “Illness/Medical”.
- Vehicle backed from parking lot, across 2 lanes and into pedestrian walking along road. Human factor was listed as “Looked/Did Not See”.
- Vehicle backed into child driving a toy car along street. Driver then proceeded to drive away from scene.



Snow and Ice

In 2023, there were 34 crashes that occurred on snow or ice covered unincorporated Larimer County roads. 35% of total crashes on snow or ice covered roads resulted in the vehicle overturning or rolling over in 2023, compared to only 7% in 2022 .



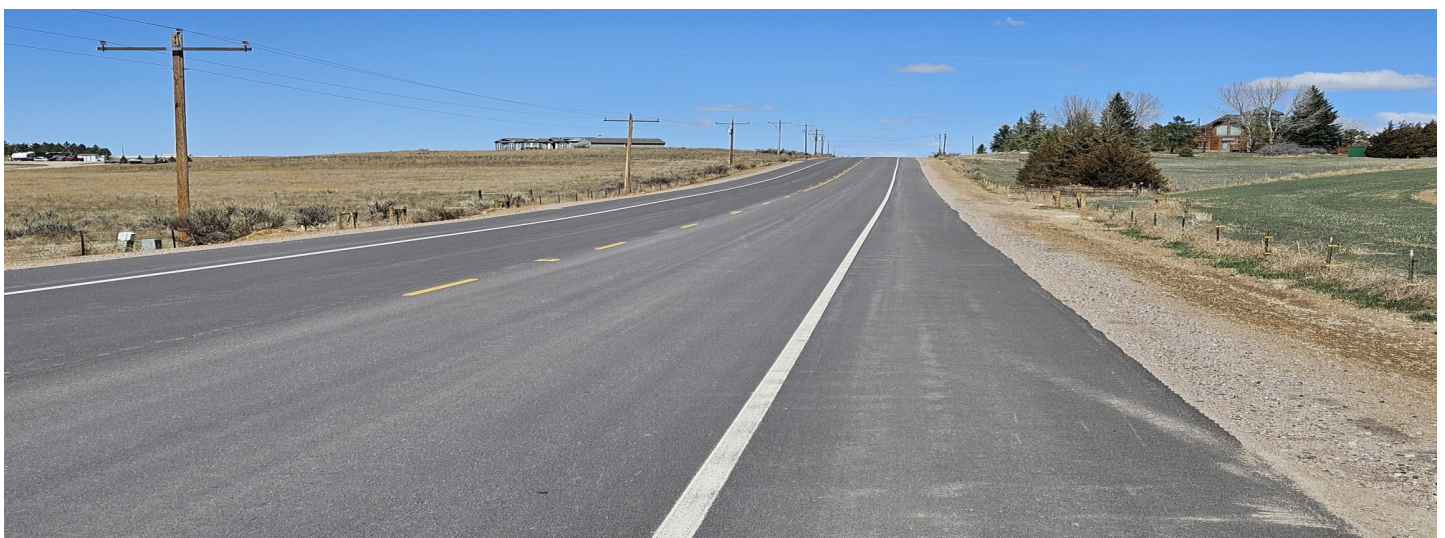
Traffic Safety Mitigation

Radar Speed Feedback Trailers

During 2023 the Engineering Department continued deploying trailers with radar speed feedback signs on county roadways. Roadways included CR 11C near Boyd Lake, CR 29 and CR 23 west of Berthoud, CR 54G, and CR 72—Owl Canyon Rd. The trailers are placed on a temporary basis on roadways where the county has documentation of excessive speeds or the county is receiving multiple complaints of speeding from residents.

PN 339—CR 9

During 2023, CR 9 from just north of CR 70 north to the entrance area for the new Larimer County Landfill was reconstructed and paved. The majority of traffic accessing the new landfill will use this route. Six foot paved shoulders were added to each side of the road which will provide separation for bicycles using the roadway and extra paved surface for vehicles pulling onto and off of CR 9 from driveway accesses along the road.



Traffic Safety Mitigation (continued)

2023 Capital Project:

CR 8 and CR 21 Intersection: - Project No. 336: This construction project, completed during 2023, replaced the current two-way stop intersection with a single lane roundabout. There have been numerous crashes at this intersection during the past 10 years. Increasing traffic moving through the intersection along with some sight distance limitations contributed to the on-going crashes at the intersection. Nationally and in Larimer County, conversion of conventional intersections to roundabouts has led to significant reductions in serious crashes at those intersections. This project should lead to a reduction in serious crashes and increased safety at this intersection.



2023—2024 Capital Projects: CR 70 (Owl Canyon Rd) and CR 9—Project No. 339 Construction work on this project started in 2023 and will be completed in 2024. This project involves reconstruction and widening of CR 70, the Owl Canyon Rd, from CR 9 to I-25, and CR 9 from CR 70 north to the location of the new Larimer County Landfill. The roadwork includes widening of the roadways to accommodate additional bike lanes, addition of auxiliary turning lane improvements at the CR 7 intersection and reconstruction of the CR 9 and CR 70 intersection as a roundabout.

CR 17 (Shields St) from CR 50 (Wilcox Ln) to US 287 - Project No. 327: Construction work on this project should be completed in 2024. The north end of the project will have a continuous two-way center turn lane in an area that has several residences and accesses. The project will also add 6 foot paved shoulders in each direction. This project will eliminate a gap in paved shoulders for bike lanes on CR 17 between Wilcox Ln and US 287.

Safety Grant Funding

Safe Streets and Roads For All (SS4A) Grant

Larimer County is proud to announce it's successful funding award through the Federal Infrastructure Investment and Job Act (IIJA) Safe Streets and Roads for All (SS4A) Grant Program. This grant paves the way for the development of a Comprehensive Safety Action Plan (CSAP) dedicated to reducing or eliminating roadway fatalities and serious injuries across all road user groups in the unincorporated area of the county.

The CSAP will conduct a thorough evaluation of applicable data, existing policies, plans, guidelines and standards to identify opportunities for enhancing safety throughout the unincorporated areas of the county. By carefully analyzing data and actively involving stakeholders and the public, the plan will outline specific projects and strategies that prioritize safety initiatives and optimize future implementation for grant applications.

Felsburg Holt and Ullevig (FHU) has been chosen as the consultant to assist in preparing the CSAP. Larimer County is committed to ensuring extensive stakeholder and public engagement throughout 2024 with a targeted completion date of mid 2025.

2024 Safety Grant Projects:

- US Hwy 34 and Glade Rd (CR 23H) intersection signalization - \$550,800 from Highway Safety Improvement Program (HSIP) grant.
- CR 38E west of South Bay area guardrail - \$217,800 HSIP grant.
- CR 73C at Munsee Rd guardrail - \$22,500 HSIP grant.

The 2024 Safety Grant Projects and the SS4A grant are among several safety grants Larimer County has received over the last few years. Some projects have been completed, others are scheduled for construction in the next two to three years.

Glade Rd (CR 23H) and US Hwy 34 Intersection



Appendix A

2023 Fatal Crash Descriptions/Locations

Three Fatal Crashes

Five Fatalities

County Rd 29 at the intersection of CR 18E (Pole Hill Rd). On May 21, 2023 at 5:39 PM, Vehicle No 1, a motorcycle, was southbound on CR 29 riding abreast and slightly behind and to the right of Vehicle No. 2, another motorcycle. Both motorcycles were approaching the intersection of CR 18E. Vehicle No. 2 began to turn right onto westbound CR 18E. Vehicle No. 1 failed to turn and continued straight where it collided with the left side of Vehicle No. 2. On impact, Vehicle No. 1 continued 64 feet through the intersection before it ran off the southwest corner of the intersection. Vehicle No. 1 continued for another 93 feet, off road, where it collided with a telephone junction box. Vehicle No. 1 continued for another 93 feet before overturning and coming to final rest 22 feet west of the road edge for CR 29. The rider and passenger were both ejected off the motorcycle and came to rest south of Vehicle No. 1. Vehicle No. 2 was driven to a controlled stop on the right shoulder of CR 29 south of CR 18E. The 25 year old male rider of Vehicle No. 1 suffered serious injuries and passed away the next day. The passenger had evident, but non-capacitating injuries. The crash occurred during daylight hours on a dry roadway. The driver of motorcycle no. 1 had a properly used helmet. The passenger had no helmet. The most harmful event was listed as the motorcycle overturning.

County Rd 63E (Pingree Park Rd). The crash occurred on CR 63E on June 13, 2023 at 8:34 PM. Vehicle No. 1, a northbound custom (bus) motorhome, was negotiating a right turn and drifted off the right side of the roadway with it's right tires. Vehicle No. 1 partially travelled off the road and then rolled downhill for approximately 400 feet. The vehicle came to rest on it's right side facing north. The driver and passenger no. 1 were ejected shortly after the vehicle began it's rolling descent. Passengers 2, 3 and 4, all juveniles, were ejected near the final resting place of vehicle no. 1, The 47 year old male driver and the 34 year old female passenger no. 1 were killed in the crash. The 1 year old female passenger suffered evident incapacitating injuries in the crash. The 3 year old and 7 year old male passengers suffered possible injuries. The crash occurred at dusk on a non-paved dry roadway on a downhill grade. Weather conditions were listed as cloudy. No shoulder or lap belts were in use at the time of the crash. The most harmful event was listed as overturning/rollover.

County Rd 54G at US Highway 287: The crash occurred on October 1, 2023 at 1:00 PM. Vehicle No. 1, an Audi SUV, was westbound (northbound at this location) on CR 54G stopped at a stop sign for US Hwy 287. Vehicle No. 2, a BMW passenger car, was southbound (eastbound at this location) on US Hwy 287. Vehicle No. 1 proceeded from the stop sign in front of vehicle no. 2. The front of vehicle no. 2 collided with vehicle no. 1's left side. After impact, vehicle 1 slid southbound into the grass center median for US Hwy 87, collided with a sign and delineator post and rolled one time. Vehicle 1 rolled into the northbound lanes of US Hwy 287, where it came to rest on it's wheels, facing northwest. Vehicle No. 2 rotated counterclockwise and slid southbound, partially into the center median, and collided with a delineator post.. Vehicle No. 2 came to rest on the left shoulder of southbound US Hwy 287, facing northwest. The 84 year old female driver and the 89 year old passenger in vehicle no. 1 were killed in the crash. The 21 year old male driver of vehicle no. 2 was injured in the crash. The road surface was dry, weather was clear, during daylight hours. The posted speed limit on US Highway 287 at this location is 65 MPH. Estimated vehicle no. 2 speed on the crash report was 89 MPH. Shoulder and lap belts were properly in use for all three vehicle occupants. The most harmful event was listed as the front to side (broadside) collision.

2023 Fatal Crash Descriptions—continued

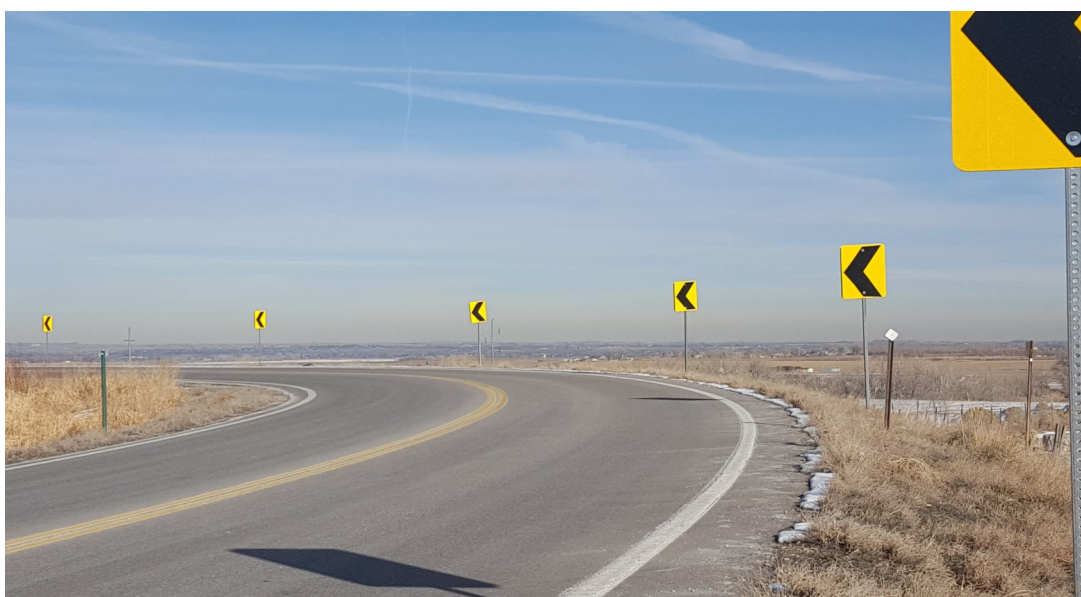
Private Road Crash—Cucharas Mountain Rd: This crash occurred on a private road in the Glacier View subdivision which is not maintained by the county. The crash occurred on October 13, 2023 at 5:30 PM. Vehicle No. 1, a Chevrolet SUV was westbound on Cucharas Mountain Rd east of Kenosha Mountain Dr near 636 Cucharas Mountain Rd. Vehicle No. 1 failed to negotiate a downhill, right curve in the roadway and ran off the left side of the road. The vehicle collided it's front side with an embankment and went airborne. The vehicle then collided it's front with a tree and rotated counterclockwise. The vehicle came to rest facing east, on it's wheels, on an embankment south of the roadway. The weather was clear, the non-paved road surface was dry and the crash occurred at dusk. The crash was responded to on October 14, 2023. The 76 year old female driver was pronounced dead at the scene. Estimated vehicle speed was 35 MPH. The shoulder and lap belt were not in use at the time of the crash. The most harmful event was listed as the collision with the tree.

Appendix B

Monitoring of Low Cost Safety Sign Improvements at curve locations with multiple crashes on the Larimer County road system

Number Crashes Per Year									
<i>Segment</i>	<i>Time Frame</i>	<i>PDO</i>	<i>INJ</i>	<i>FAT</i>	<i>Total</i>	<i>Minor</i>	<i>Severe</i>	<i>Date</i>	<i>Notes</i>
CR 54G at Curve west of Indigo Hills Ln	Type of	Relocations and upgrade of advance warning signs and placement of 7 -24"						12/10/2018	Average of 4 years before improvements and 5 years after
	Before Improvements	0.25	0.75	0.25	1.25	0.25	1.00		
	After Improvements	0.00	0.00	0.00	0.00	0.00	0.00		
	Change	-100%	-100%	-100%	-100%	-100%	-100%		
CR 38E at Horseshoe Curve south of Westridge Dr	Type of Improvement	Addition of 18" x 24" chevrons in both directions through the curve						3/8/2019	Average of 7 years before improvements and 5 years after
	Before Improvements	0.57	0.29	0.14	1.00	0.57	0.43		
	After Improvements	0.60	0.00	0.00	0.00	0.60	0.00		
	Change	5%	-100%	-100%	-100%	5%	-100%		
CR 43 at Turn near Bridge - 0.2 mi SW of Milepost 9	Type of Improvement	Placement of 3 pairs of 24" x 30" chevrons through the curve just east of the bridge						8/5/2019	Average of 2 years before improvements and 4 years after
	Before Improvements	0.00	1.00	0.00	1.00	0.00	1.00		
	After Improvements	0.50	0.25	0.00	0.75	0.50	0.25		
	Change	100%	-75%	0	-25%	100%	-75%		
CR 30 at turn on the east side of Donath Lake	Type of	Placement of 9 pairs of chevrons through turn at east end of Donath Lake						11/2/2017	Average of 4 years before improvements and 6 years after.
	Before Improvements	2.25	0.50	0.00	2.75	2.25	0.50		
	After Improvements	0.33	0.00	0.00	0.33	0.33	0.00		
	Change	-85%	-100%	0	-88%	-85%	-100%		

Chevron signs installed on CR 30 at turn on the east side of Donath Lake



Contact Us

Larimer County Engineering Department

Address

200 West Oak Street, Suite 3000
Fort Collins, CO 80521

Mailing Address

PO Box 1190
Fort Collins, CO 80522-1190

Email

Eng-Traffic@larimer.org

Phone

(970) 498-5700
(970) 498-7986 (Fax)

Office Hours

8:00 a.m. - 4:30 p.m.
Monday - Friday

On The Web At:

www.larimer.org/engineering

