

BENTON COUNTY TRANSPORTATION SAFETY ACTION PLAN

DATE: April 8, 2025

TO: Project Team

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DKS Associates

SUBJECT: Benton County Transportation Safety Action Plan

Existing Safety Conditions Preliminary Findings

Project #25003-000

The Benton County Transportation Safety Action Plan (TSAP) will serve as a guide for investing in transportation safety through a Safe System approach to reach the goal of eliminating traffic fatalities and serious injuries within the county.

As part of this plan, crash records from the most recent five years of available data (2018 to 2022) were reviewed and analyzed to assess the existing safety conditions of roadways within Benton County. The crash analysis considered crash collision type, crash cause, location, and temporal factors like time, day, week, and month. Notable crash trends, high-injury locations, and potential safety emphasis areas are summarized below. These preliminary findings are intended to be discussed with the public at upcoming open houses and will be refined as needed in a subsequent existing safety conditions memorandum.

COUNTYWIDE CRASH TRENDS

Within Benton County, there were 3,830 crashes reported between 2018 and 2022, which is an average of 766 crashes per year. As a result, there were 40 crashes where at least one-person lost their life and 166 crashes where at least one person was severely injured.

Figure 1 and Table 1 below present a summary of crash severity by year. The total number of crashes per year has fluctuated over time, with the lowest crash frequency in 2020 (likely reflective of the overall reduction in vehicle miles traveled during the COVID-19 pandemic). Although the total number of crashes in recent years is lower than pre-pandemic levels, the number and proportion of high severity (fatal and serious injury) crashes has increased. As shown in Figure 2, the proportion of high severity crashes reached a peak of 8% in 2022, nearly double the proportion of 2018 (4%).

ODOT’s preliminary crash data for 2023 (fatal and serious injury only) and 2024 (fatal only) was reviewed to gain some insight into how this trend may have changed in more recent years. The 2023 data recorded 8 fatal crashes and 42 crashes resulting in serious injury, which are similar numbers as those experienced in 2021. The 2024 data also reported 8 fatal crashes (data on serious injury crashes is not yet available), indicating that the number of high severity crashes may be stabilizing around levels experienced in 2021.

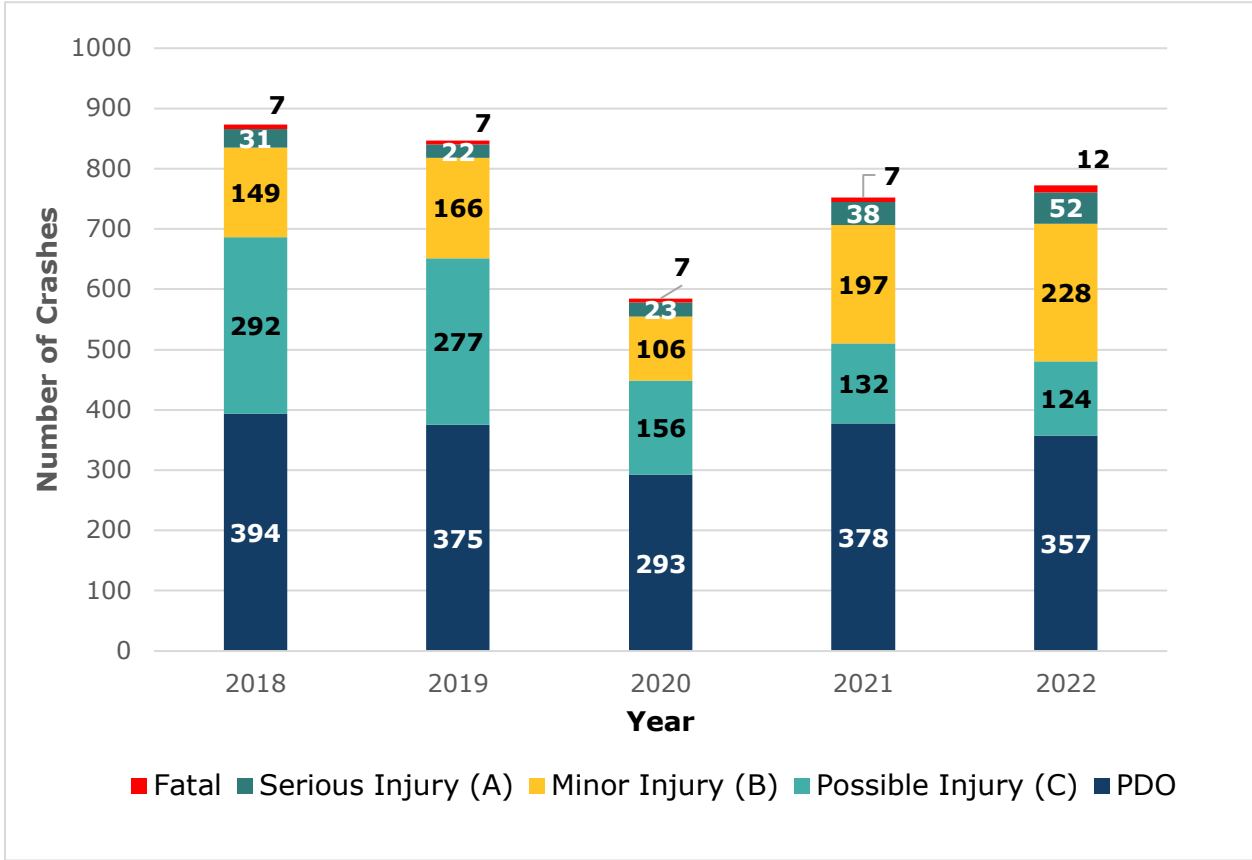


FIGURE 1: BENTON COUNTY CRASH SEVERITY BY YEAR (2018 TO 2022)

TABLE 1: SUMMARY OF CRASH SEVERITY BY YEAR (2018-2022)

Crash Severity	2018	2019	2020	2021	2022	Total
Fatal	7	7	7	7	12	40
Serious Injury (A)	31	22	23	38	52	166
Minor Injury (B)	149	166	106	197	228	846
Possible Injury (C)	292	277	156	132	124	981
Property Damage Only (PDO)	394	375	293	378	357	1,797
Total	873	847	585	752	773	3,830

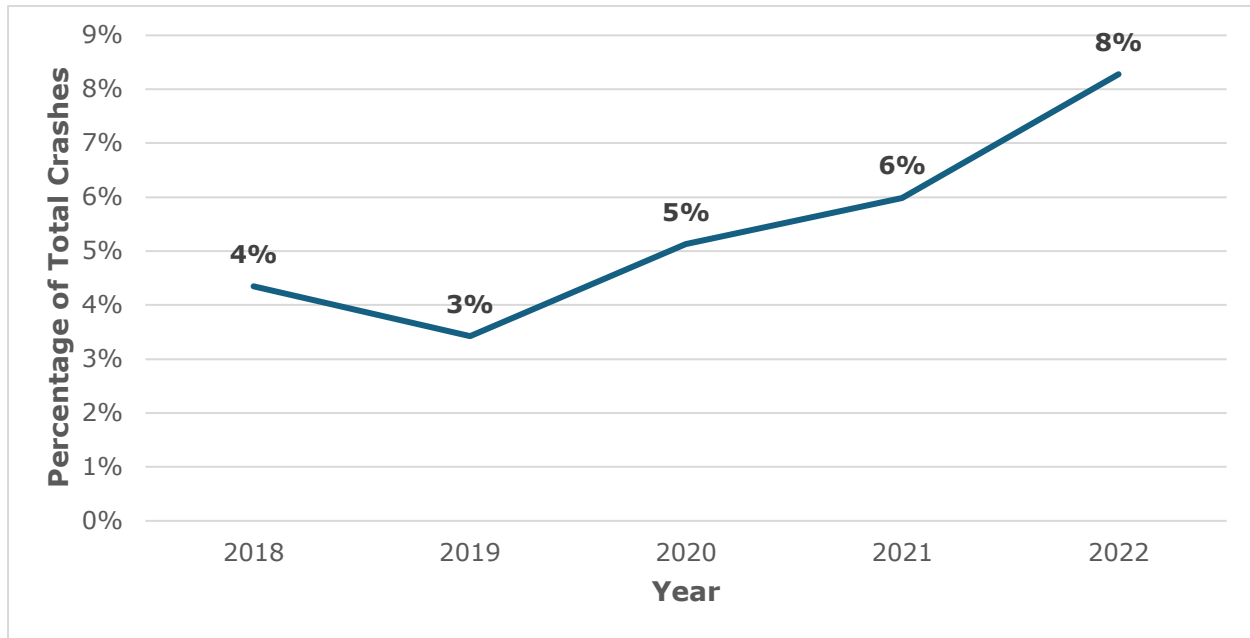


FIGURE 2. PERCENT OF CRASHES RESULTING IN FATAL OR SERIOUS INJURY BY YEAR (2018-2022)

WHY ARE PEOPLE BEING KILLED OR SERIOUSLY INJURED?

While there are many factors that influence the outcome of a crash, statewide and national safety trends over the last five years show a clear increase in risky behaviors on the roadway. Risky behaviors include speeding, drug and/or alcohol impairment, distraction, drowsiness, and aggressive driving¹. Not only do these behaviors increase the likelihood of a crash occurring, but they are also associated with more severe injuries when a crash does occur.

In Benton County, the highest number of fatal and serious injury crashes occur during the PM peak hours from 3 PM to 6 PM. Monday and Tuesday have the highest incidence of these crashes. The most common crash types with a higher percentage of fatal and serious injury outcomes include fixed-object crashes (33%), turning movement crashes (17%), and rear-end collisions (10%). Key contributing factors include excessive speed, failure to yield, following too closely, and failure to avoid a collision.

¹ AAA Studies the COVID Pandemic's Tragic Effects on Traffic Safety. <https://newsroom.acg.aaa.com/aaa-studies-the-covid-pandemics-tragic-effects-on-traffic-safety/>

WHERE ARE PEOPLE BEING KILLED OR SERIOUSLY INJURED?

A High Injury Network (HIN) identifies roadway segments and intersections within the County that experience the highest concentration of fatal and serious injury crashes. These locations are determined using the Equivalent Property Damage Only (EPDO) method, which accounts for all crashes but assigns greater weight to crashes of higher severity.

Intersections on the HIN were identified using EPDO scores, while roadway segments were selected based on EPDO rates per mile. To avoid overrepresenting smaller segments, any segment shorter than 0.5 miles was assigned an EPDO rate based on a minimum length of 0.5 miles.

The "Natural Breaks Method" (Jenks optimization) was used to determine which roadway segments and intersections were included in the HIN. This method categorizes data into naturally clustered groups to maximize differences between classes—in this case, EPDO scores or rates. Three classes were generated, with the highest EPDO class representing high-injury locations. Additionally, any segments or intersections with fatal or serious injury crashes not captured by this method were also included in the HIN.

Tables 2 and 3 present the HIN roadway segments and intersections, respectively, ranked from highest to lowest EPDO rate/score to reflect crash severity. Corresponding HIN maps for roadway segments and intersections are shown in Figures 3, 4, 5 and 6. Note that in the tables locations that are under City of Corvallis jurisdiction were scored and ranked for reference, but removed from consideration (greyed out in the tables) for Benton County's HIN since the City is prioritizing HIN locations for their own TSAP.

Overall, the HIN represents 7% of the roadway centerline miles with 100% of fatal and serious injury crashes.

TABLE 2: HIGH INJURY SEGMENTS IN BENTON COUNTY

Ref #	Location	Ownership	Map Quadrant	Length	Fatal Crashes	Serious Injury Crashes	Total Crashes (2018-2022)	EPDO per Mile
1	OR 99W [4th St] (Western Blvd to Twin Oaks Cir South)	ODOT	NE	0.5	3	3	21	1392
2	9th St (Sequoia Ave to Buchanan Ave)	City of Corvallis		1.2	0	5	95	869
3	US 20 [Philomath Blvd] (53rd St to Country Club Dr)	ODOT	NE	0.9	1	3	48	737
4	Circle Blvd (Highland Dr to 9th St)	City of Corvallis		0.4	0	2	15	534
5	Conifer Blvd (OR 99W to Cambridge Cir)	City of Corvallis		0.2	0	2	6	408
6	OR 99W (Walnut Blvd to Cornell Ave Overpass)	ODOT	NE	1.2	3	1	6	345
7	US 20 (County Boundary to Corvallis City Limits)	ODOT	NE	9.5	8	15	161	334
8	US 20 [Philomath Blvd] (ODOT Driveway to RR overpass)	ODOT	NE	1.3	0	1	38	274
9	53rd St (Campus Way to Reservoir Ave)	County	NE	0.1	0	1	4	242
10	Circle Blvd (Kings Blvd to 17th St)	City of Corvallis		0.2	0	1	4	242
11	Kings Blvd (Circle Blvd to Elmwood Dr)	City of Corvallis		0.1	0	1	4	242
12	Highland Dr (Meadow Ridge Pl to Conifer Blvd)	City of Corvallis		0.3	0	1	3	240
13	OR 34 [Van Buren Ave] (1st St to County Boundary)	ODOT	NE	0.1	0	0	16	230
14	US 20 [Main St] (26th St to Newton St)	ODOT	NW	0.2	1	0	4	224
15	West Hills Rd (Bullevard St to Reservoir Ave)	County	NW	0.2	1	0	3	222
16	15th St (Western Blvd to E Ave)	City of Corvallis		0.2	0	1	3	222

17	Springhill Dr (Pointe Dr to Benton Pl)	County	NE	0.2	0	1	2	220
18	Western Blvd (Deon Dr to Ivy Pl)	City of Corvallis		0.1	0	1	2	220
19	Springhill Dr (Westminster Way to Ferguson Dr)	County	NE	2.7	0	5	26	218
20	West Hills Rd (19th St to Bailey St)	County	NW	0.2	1	0	3	204
21	US 20 (Priest Rd to Lone Star Rd)	ODOT	NW	3.0	2	3	28	203
22	OR 34 (Gray Creek Lane to Henkle Way)	ODOT	SW	0.3	0	1	2	202
23	10th St (Beca Ave to Buchanan Ave)	City of Corvallis		0.2	0	1	2	202
24	Cascade Heights Dr (Alpine Meadow to Cascade Falls Ct)	City of Albany	NE	0.0	1	0	1	200
25	Gibson Hill Rd (Grandview Dr to North Heights Dr)	County	NE	0.2	0	1	1	200
26	North Albany Rd (Thornton Lake Dr to Jones Ave)	City of Albany	NE	0.2	0	1	1	200
27	Thornton Lake Dr (Edgewood Dr to Thornton Lake Pl West)	County	NE	0.3	0	1	1	200
28	Wood Duck Ln (Mallard Ln to Extents)	Private	NE	0.0	1	0	1	200
29	Marys River Estates Rd (Cascara Ln to Chicory Ln)	Private	NW	0.1	1	0	1	200
30	Pioneer St (Tasman Pl to Adelaide Dr)	City of Philomath	NW	0.1	0	1	1	200
31	US 20 [Main St] (17th St to 18th St)	ODOT	NW	0.1	0	1	1	200
32	Airport Ave (OR 99W to Lowe St)	County	SE	0.3	0	1	1	200
33	OR 34 (Hill Top Rd to Digger Creek Rd)	ODOT	SW	0.1	0	1	1	200
34	Coon Rd (Cherry Creek Rd to Elbett Ln)	County	SE	0.1	0	1	1	200
35	Witham Hill Dr (Canary Pl to Elmwood Dr)	City of Corvallis		0.1	0	1	1	200
36	Mulkey Ave (23rd St to Kings Blvd)	City of Corvallis		0.1	0	1	1	200
37	Kings Blvd (Grant Ave to Beca Ave)	City of Corvallis		0.0	0	1	1	200

38	Western Blvd (Stamm Pl to Poplar Pl)	City of Corvallis		0.1	0	1	1	200
39	Walnut Blvd (Garryanna Dr to 13th St)	City of Corvallis		0.1	0	1	1	200
40	US 20 (OR 180 to Davis Rd West)	ODOT	NW	1.3	0	2	11	195
41	OR 501 (OR 34 to Rycraft Ln)	ODOT	SW	0.5	1	0	1	194
42	Fern Rd (Powderhouse Rd North to Powderhouse Rd South)	County	SE	0.6	1	0	3	188
43	OR 99W (Crane Ln to Arboretum Rd)	ODOT	NE	1.3	0	2	10	188
44	OR 34 (Greasy Creek Rd to Decker Rd)	ODOT	SW	0.6	0	1	4	185
45	OR 99W (Territorial Hwy to Schultz Rd)	ODOT	SE	2.6	0	4	20	181
46	Independence Hwy (Pettibone Dr to US 20)	County	NE	0.7	0	1	7	180
47	OR 223 (Alexander Rd to Zenczak Ln)	ODOT	NW	0.6	0	1	1	179
48	Pettibone Dr (Avalon Dr to Haugen Rd)	County	NE	0.6	0	1	1	173
49	Independence Hwy (Camp Adair Rd to Gilmour Ln)	County	NE	0.6	0	1	2	172
50	OR 99W (Camp Adair Rd to Adair Frontage Rd North)	ODOT	NE	0.7	0	1	7	161
51	US 20 (West of Blodgett Rd West to County boundary)	ODOT	NW	2.2	1	2	13	157
52	Sulphur Springs Rd (Forest Springs Ln to Wildview Pl)	County	NE	1.7	0	2	8	143
53	Ryals Ave (Birch Ln to Independence Hwy)	County	NE	1.6	0	2	2	124
54	Alpine Rd (Foster Rd to Alpine Cut Off Rd)	County	SE	2.9	3	0	10	119
55	Soap Creek Rd (Govier Pl North to Govier Pl South)	County	NE	0.9	0	1	1	111

56	Marys Peak Rd (West Point Spur to Summit)	Private	SW	2.4	0	2	7	102
57	OR 99W (3 Mile Ave to Barclay Ln)	ODOT	SE	9.9	1	6	53	100
58	OR 180 (Devitt Rd to Atticus Ln)	ODOT	NW	1.3	0	1	3	91
59	OR 34 (Salmonberry Rd to Vernon Rd)	ODOT	SW	5.6	0	4	18	84
60	Bellfountain Rd (Airport Ave to Llewellyn Rd)	County	SE	1.7	0	1	7	80
61	OR 34 (Marys Peak Rd to Cedar Creek Rd)	ODOT	SW	2.6	1	0	19	70
62	Marys River Rd (Hoskins Rd to Long Rd)	County	NW	1.5	0	1	1	67
63	OR 223 (Tatum Ln to County Boundary)	ODOT	NW	2.0	0	1	5	64
64	Llewellyn Rd (Venell Ln to OR 99W)	County	SE	1.6	1	0	2	63
65	Maxfield Creek Rd (Ward Rd to Maxfield Creek)	County	NW	1.9	0	1	2	59
66	South Fork Rd (Tobe Creek Rd to BLM Management Area)	County	SW	2.2	1	0	2	50

TABLE 3: HIGH INJURY INTERSECTIONS IN BENTON COUNTY

Ref #	Location	Ownership	Quadrant	Fatal Crashes	Serious Injury Crashes	Total Crashes (2018-2022)	EPDO Score
1	US 20 & Granger Ave	ODOT	NE	1	8	51	1230
2	US 20 & Independence Hwy	ODOT	NE	0	4	25	556
3	US 20 [Philomath Blvd] & 35th St	ODOT	NE	0	3	29	497
4	9th St & Van Buren Ave	City of Corvallis		0	2	34	385
5	35th St & Western Blvd	City of Corvallis		0	3	13	346
6	Llewellyn Rd & Bellfountain Rd	County	SE	0	2	5	230
7	OR 99W [3rd St] & Western Blvd	ODOT	NE	1	0	20	227
8	Walnut Blvd & Glenridge Dr	City of Corvallis		0	2	4	220
9	OR 99W & Conifer Blvd	ODOT	NE	0	1	21	210
10	9th St and Harrison Blvd	City of Corvallis		0	1	17	197
11	US 20 & North Albany Rd	ODOT	NE	0	1	17	197
12	OR 99W [3rd St] & Van Buren Ave	ODOT	NE	0	1	18	189
13	10th St & Buchanan Ave	City of Corvallis		0	1	15	168
14	Ryals Ave & Independence Hwy	County	NE	0	1	6	150
15	US 20 [Main St] & 19th St	ODOT	NW	0	1	14	149
16	US 20 [Philomath Blvd] & Technology Lp	ODOT	NE	0	1	13	148
17	Garfield Ave & Highland Dr	City of Corvallis		0	1	5	140
18	5th St & Tyler Ave	City of Corvallis		0	1	5	140
19	US 20 [Philomath Blvd] & Sunset Dr	ODOT	NE	0	1	9	135
20	Kings Blvd & Walnut Blvd	City of Corvallis		0	1	9	135
21	9th St & Garfield Ave	City of Corvallis		0	1	7	133
22	Kings Blvd & Circle Blvd	City of Corvallis		0	1	7	133
23	Harrison Blvd & 29th St	City of Corvallis		0	1	7	133
24	Circle Blvd & Four Acre St	City of Corvallis		1	0	7	133
25	5th St & Jefferson Ave	City of Corvallis		0	1	6	132
26	Adams Ave & 5th St	City of Corvallis		0	1	5	131

27	35th St & Jackson Ave	City of Corvallis		0	1	4	130
28	Kings Blvd & Grant Ave	City of Corvallis		0	1	6	123
29	OR 99W & Camp Adair Rd	ODOT	NE	0	1	5	122
30	Highland Dr & Lewisburg Ave	County	NE	0	1	3	120
31	Gibson Hill Rd & Gibson Way	City of Albany	NE	0	1	3	120
32	Springhill Dr & Independence Hwy	County	NE	0	1	3	120
33	Campus Way & 35th St	City of Corvallis		0	1	3	120
34	OR 99W & Elliott Cir	ODOT	NE	0	1	6	114
35	Highland Dr & Sequoia Ave	City of Corvallis		0	1	3	111
36	OR 99W & Mountain View Dr	ODOT	NE	1	0	3	111
37	Grant Ave & 11th St	City of Corvallis		0	1	3	111
38	Washington Way & 15th St	City of Corvallis		0	1	3	111
39	US 20 & Priest Rd	ODOT	NW	0	1	3	111
40	West Hills Rd & Rosecrest Dr	County	NW	0	1	2	110
41	US 20 & Merloy Ave	ODOT	NE	0	1	2	110
42	Lincoln Ave & 29th St	City of Corvallis		0	1	2	110
43	Independence Hwy & Metge Ave	County	NE	0	1	4	103
44	OR 99W & Airport Ave	ODOT	SE	0	1	3	102
45	Arrowood Cir & 29th St	City of Corvallis		0	1	2	101
46	OR 99W & Goodnight Ave	ODOT	NE	1	0	2	101
47	Hayes Ave & 23rd St	City of Corvallis		0	1	1	100
48	11th St & Campus Way	City of Corvallis		0	1	1	100
49	7th St & Western Blvd	City of Corvallis		0	1	1	100
50	Washington Way & 17th St	OSU		0	1	1	100
51	OR 99W & McKenzie Ave	ODOT	NE	0	1	1	100
52	OR 34 & Decker Rd	ODOT	SW	1	0	1	100
53	US 20 [Main St] & 8th St	ODOT	NW	1	0	1	100
54	US 20 & Rainwater Ln	ODOT	NE	0	1	1	100
55	Goodnight Ave & Midvale Dr	City of Corvallis		0	1	1	100

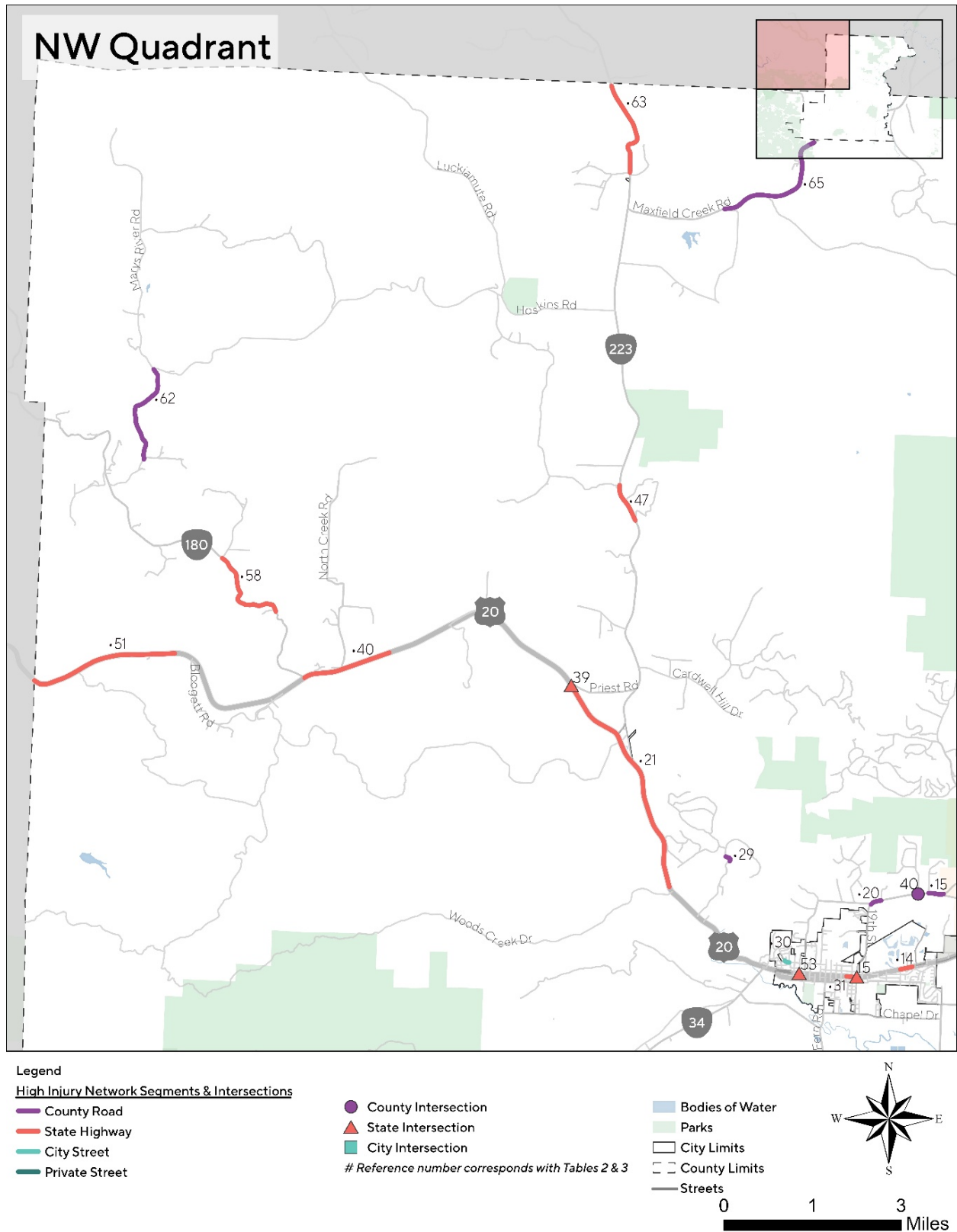


FIGURE 3: BENTON COUNTY HIGH INJURY SEGMENTS AND INTERSECTIONS IN NW QUADRANT

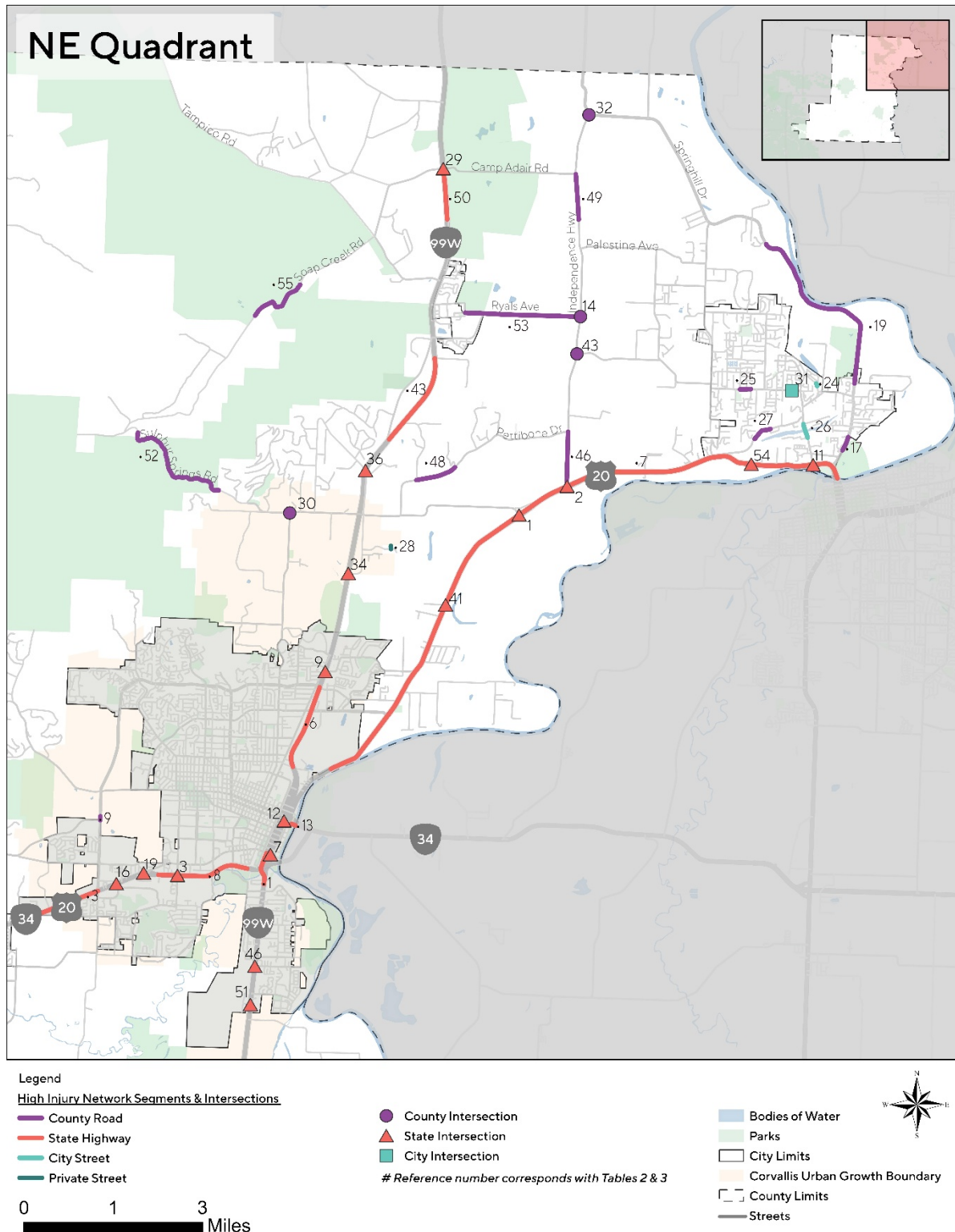


FIGURE 4: BENTON COUNTY HIGH INJURY SEGMENTS AND INTERSECTIONS IN NE QUADRANT

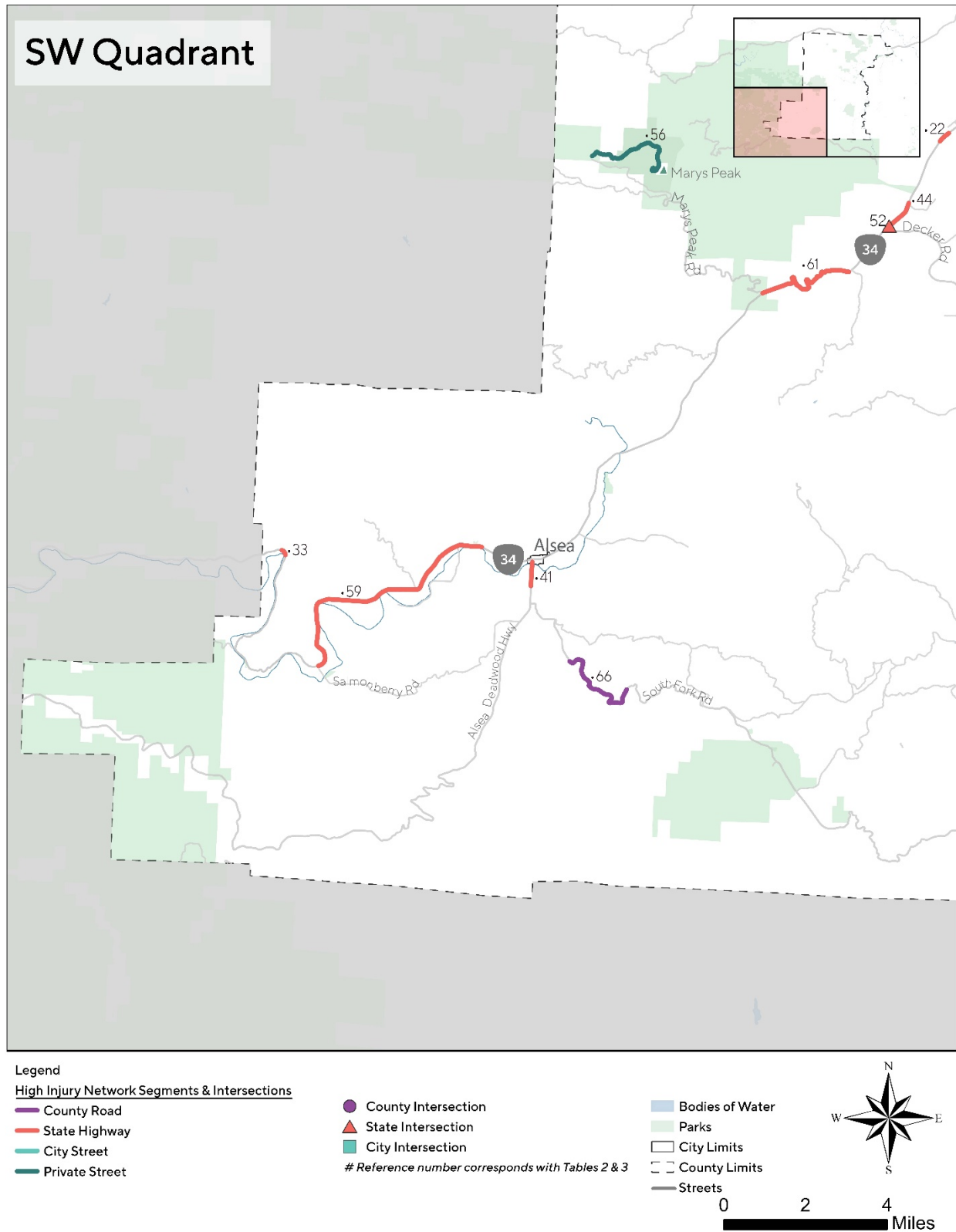


FIGURE 5: BENTON COUNTY HIGH INJURY SEGMENTS AND INTERSECTIONS IN SW QUADRANT

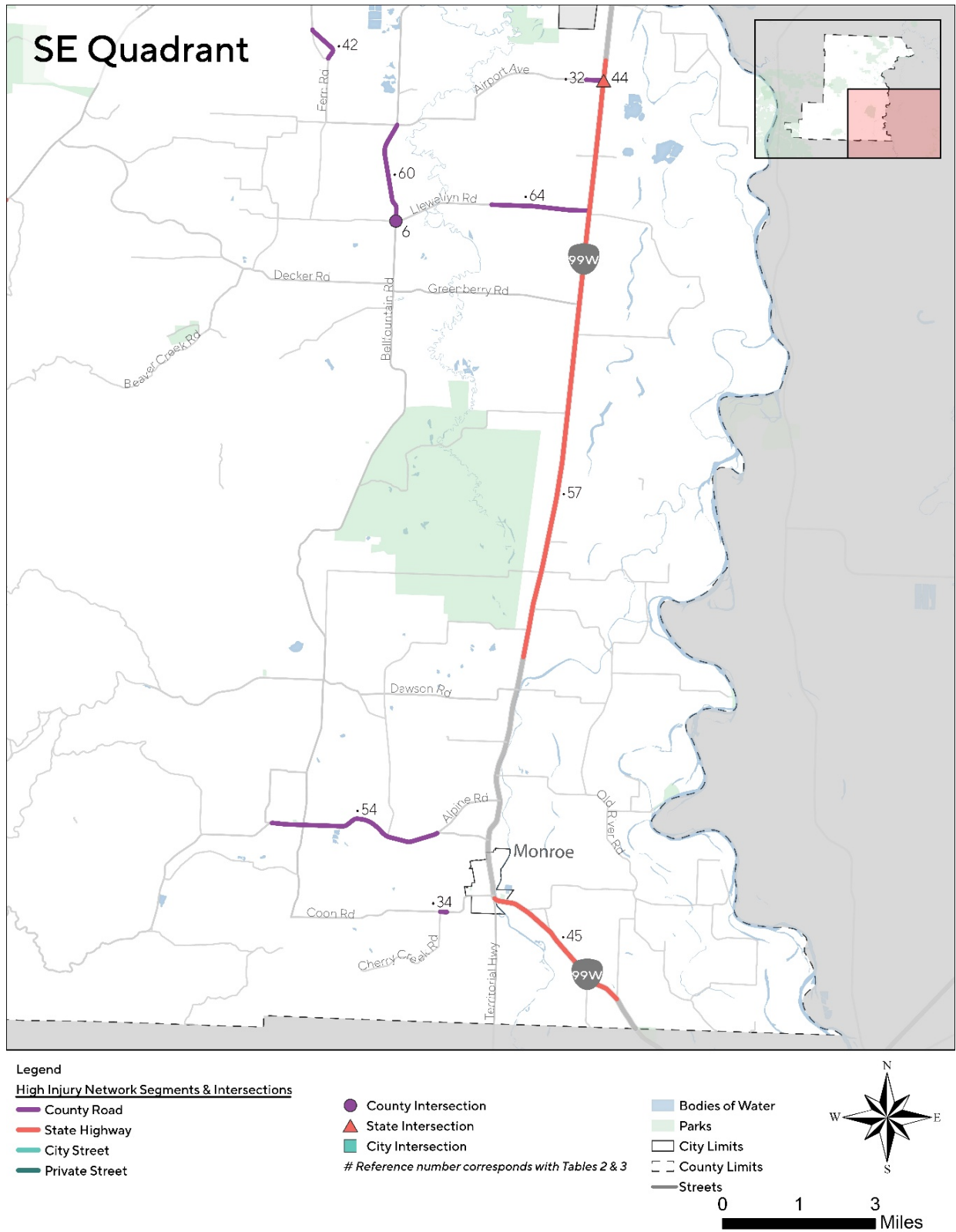


FIGURE 6: BENTON COUNTY HIGH INJURY SEGMENTS AND INTERSECTIONS IN SE QUADRANT

WHAT ARE THE EMPAHSIS AREAS?

According to the Oregon TSAP, Emphasis Areas (EA) provide a strategic framework for developing and implementing the Transportation Safety Action Plan (TSAP). Emphasis Areas are near-term implementation focus areas directly related to the TSAP's long-term goals, policies, and strategies.

Preliminary emphasis areas were identified based on a data-driven process of evaluating Benton County crash data patterns and characteristics that are most predominant or that are overly represented in fatal and serious injury crashes compared to lower severity crashes. The areas were compared to Oregon statewide crash data patterns and characteristics to identify those that were of higher prominence in Benton County (Figure 7 below). Potential emphasis areas are presented given consideration to all roads within Benton County, as well as to only those roads outside of the City of Corvallis, which is concurrently developing their own TSAP.

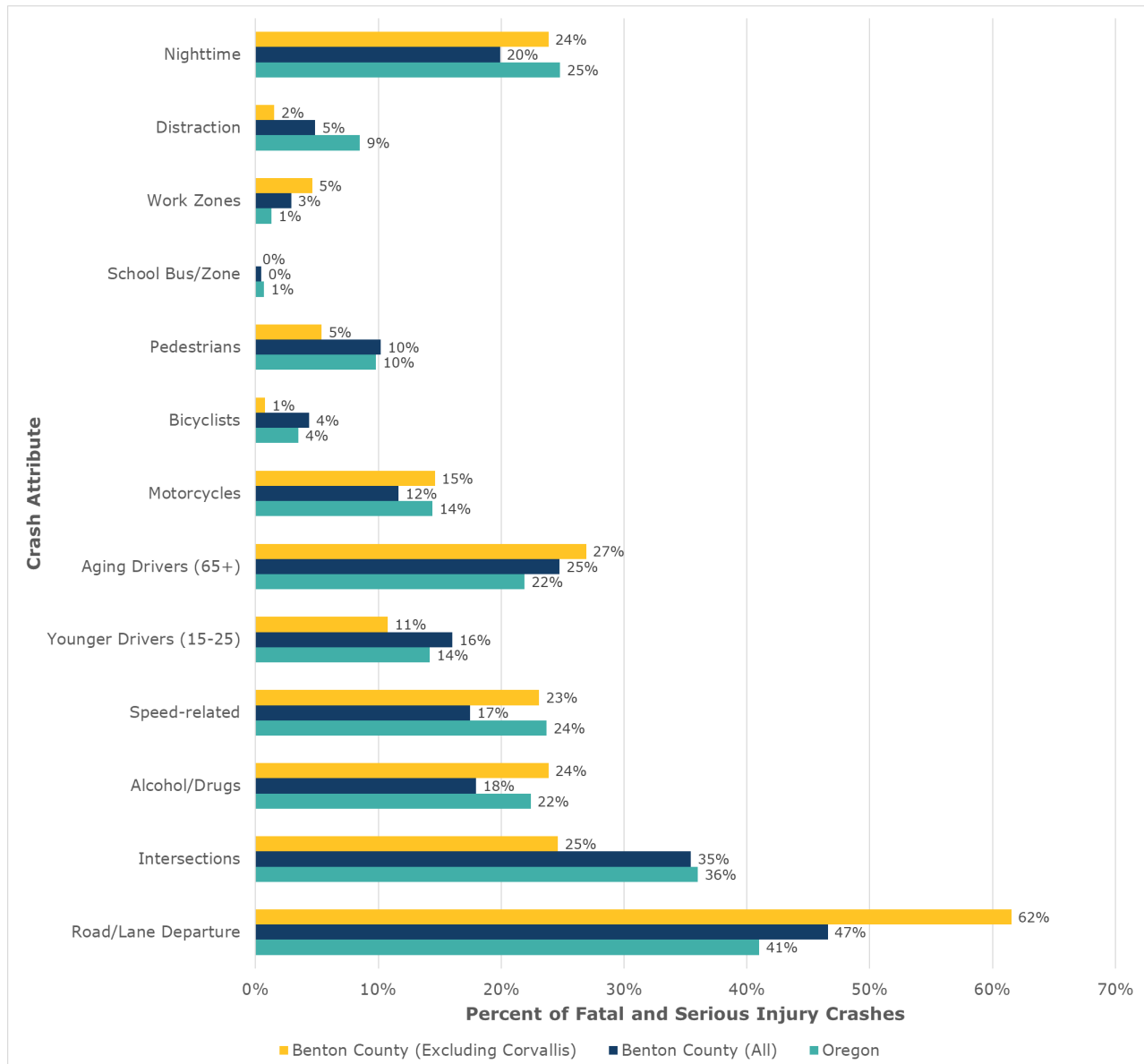


FIGURE 7: BENTON COUNTY EMPHASIS AREAS RELATIVE TO STATEWIDE CRASH STATISTICS

The County’s TSAP will address safety for all modes of travel and on all roadway types. The crash data analysis findings will be combined with input from project partners and the community to select top emphasis areas that will guide the framework of the TSAP and the County’s investment in safety strategies and projects. Based on the trends highlighted in Figure 7, potential emphasis areas for consideration are listed below, with those in bold font reflecting prominent emphasis areas in the data that excludes roadways within Corvallis.

Roadway and Lane Departure	Work Zones
Drug and/or Alcohol Impairment	Vulnerable Road Users (Pedestrians, Bicyclists, Motorcycles)
Speeding	Young Drivers (15-25)
Aging Drivers (65+)	Intersections
Nighttime	
