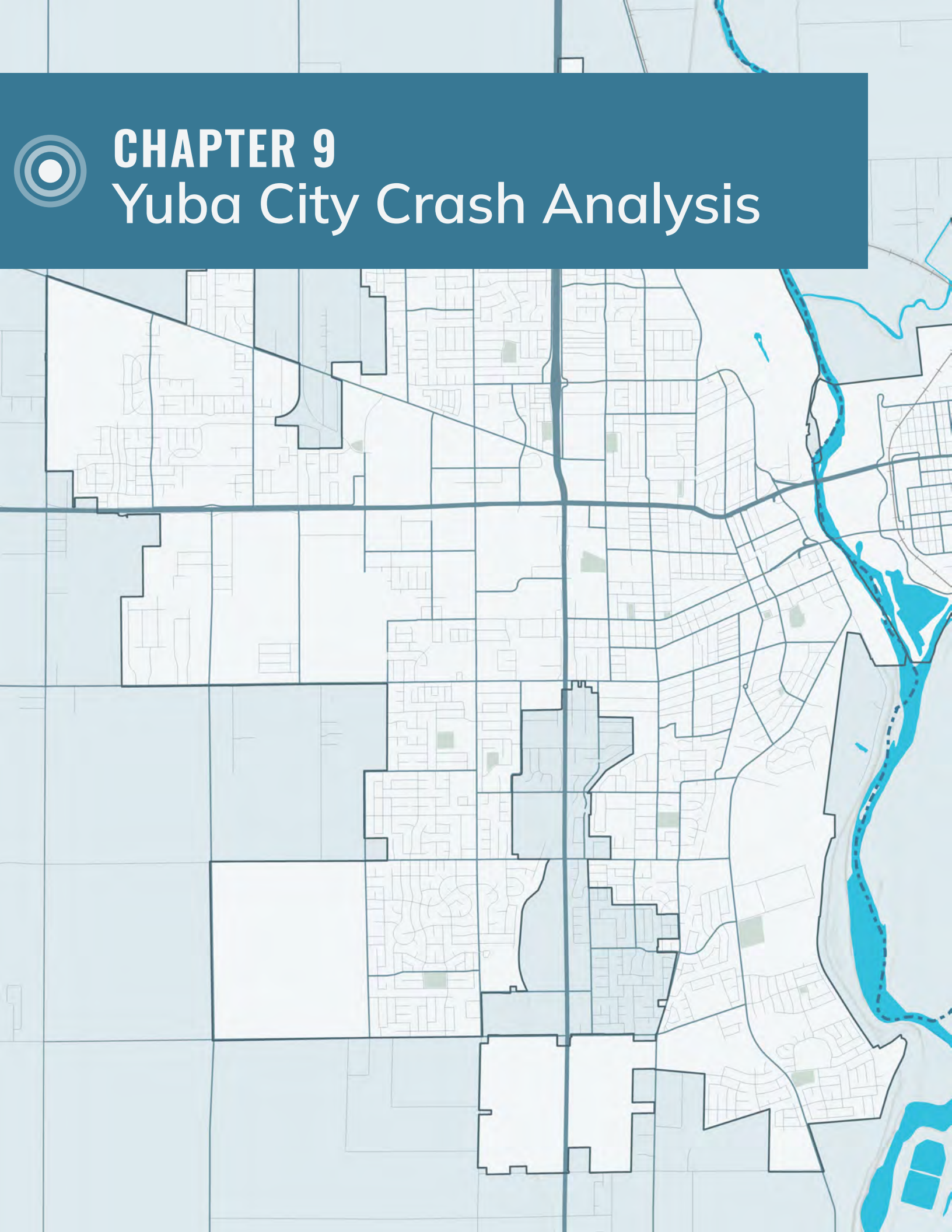




CHAPTER 9

Yuba City Crash Analysis

This Plan and Our City

Introduction

Yuba City, located in the heart of California’s Sacramento Valley, serves as the county seat of Sutter County and is the central hub in the Yuba-Sutter region, along with its sister city across the river, Marysville. The city has experienced steady growth and has a population of about 70,000. Its transportation network is well-connected and supports both local and regional mobility. Major roadways include State Route 99, which runs north-south through the city and serves as a primary corridor for commuters and freight, and State Route 20, which provides east-west access across the region. Within the city, arterial roads like Franklin Road, Butte House Road, and Bridge Street facilitate local travel. Public transportation is available through Yuba-Sutter Transit, offering fixed-route and paratransit services.

Yuba City plays a vital role in the Yuba-Sutter region as an economic and cultural center. It hosts a diverse range of businesses, from local shops and restaurants to regional retail centers and industrial parks. Yuba City provides critical support to the region’s extensive agricultural industry. The city is home to the Sunsweet Cannery, Holt Ag Solutions, Tractor Supply, Beeler Tractor, Pape Machinery, the Yuba-Sutter Farm Bureau, NorTech Ag, the regional USDA office, and the Cooperative Extension of the University of California - Climate Smart Agriculture Program.

Residential areas such as Lincoln East, Butte Vista, and El Margarita are spread throughout the city with access to schools, civic facilities, and other amenities. Commercial activity is concentrated along SR 20/Colusa Highway,

Bridge Street, and in the historic downtown along Plumas Street, where shops, restaurants, and services are located. The city’s strategic location, combined with its planning framework and transportation infrastructure, makes it a key driver of regional growth and a focal point for community services, commerce, and connectivity.

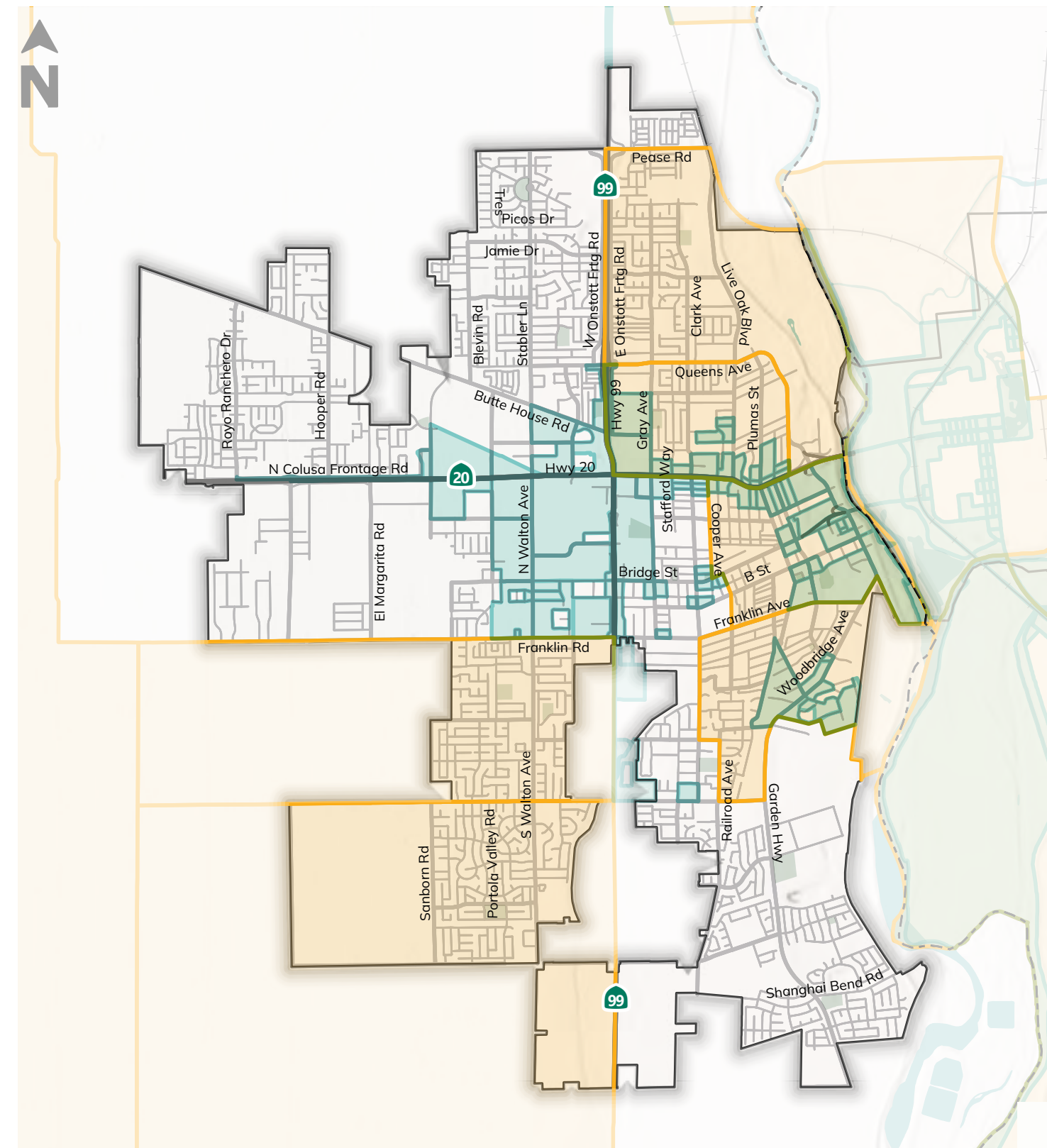
Communities of Concern

Sociodemographic data sources are helpful to better understand the community, as well as when applying for state and federal grant funding to implement infrastructure projects. Figure 9.1 shows locations in Yuba City that meet the criteria for two community metrics relevant to grant applications:

- Caltrans Transportation Equity Index (EQI) Transportation-Based Priority Populations: 10 percent of Yuba City’s population meets Caltrans’ threshold for Transportation-Disadvantaged status, compared to 16 percent statewide.
- USDOT Areas of Persistent Poverty and Historically Disadvantaged Communities: 52 percent of Yuba City’s population lives in areas of persistent poverty and historically disadvantaged communities, compared to 28 percent statewide.

In CalEnviroScreen, which evaluates environmental burdens including air pollution, traffic density, and health vulnerabilities, Yuba City received a score of 32, where the state had a score of 23, indicating that the population of Yuba City experience higher levels of environmental impacts than the state as a whole.

Figure 9.1: Caltrans Transportation Equity Index & USDOT Areas of Persistent Poverty



Legend

- Caltrans Transportation Equity Index (EQI) Transportation-Based Priority Populations
- USDOT Areas of Persistent Poverty and Historically Disadvantaged Communities (APPHDC)

Plans

CITY OF YUBA CITY 2040 GENERAL PLAN UPDATE

Yuba City has already made commitments to improving roadway safety, as encapsulated in the following General Plan Policies:

- CI 1-5: As appropriate, implement traffic calming measures such as minimum road right of ways, roundabouts, traffic circles, and other measures.
- CI 5-1: When feasible, construct complete streets for new and modified roadways, plan for usage of the roadway space by all users, including motor vehicles, transit vehicles, bicyclists, and pedestrians (complete streets).
- CI 7-1: Establish a network of on- and off-roadway bicycle routes and encourage their use for commute, recreational, schools and other trips. Design bike routes with the safety of cyclists as a priority.
- CI 7-6: In accordance with Public Works Standard Details, design new pedestrian facilities to be accessible to all persons regardless of ability and ensure that roadway improvement projects address mobility or accessibility for bicyclists or pedestrians.

YUBA CITY LOCAL ROADWAY SAFETY PLAN

The Yuba City Local Roadway Safety Plan (LRSP) is a strategic framework designed to improve traffic safety by identifying crash trends, prioritizing high-risk locations, and recommending targeted countermeasures to reduce severe and fatal crashes. The LRSP identified safety recommendations for the following corridor segments:

- Walton Avenue Between SR 20 and Franklin Avenue
- Gray Avenue Between SR 20 and Franklin Avenue
- Sutter Street/2nd Street/ Garden Highway Between SR 20 and Franklin Avenue
- Bridge Street Between SR 99 and Shasta Street
- Live Oak Boulevard Between Pease Road and Queens Avenue

Projects and Programs

There are numerous infrastructure improvement projects currently underway or planned in Yuba City. The following roadway safety projects are planned on state and local roadway facilities:

- Install backplates with reflective borders to signal lights; install touch-free pedestrian signals; and upgrade curb ramps to American with Disabilities Act (ADA) standards at various locations on SR 20 and SR 99.
- Install signs and restripe crosswalk to ladder type at two intersections: SR 99 and Queens Avenue and SR 20/Colusa Highway and North George Washington Boulevard
- Install traffic signals at the SR 20/Colusa Highway and Stafford Way intersection
- Build concrete barriers and pullouts for maintenance vehicles; upgrade lighting, signs, and facilities to comply with Americans with Disabilities Act (ADA) standards along SR 99 between Encinal Road/Live Oak Boulevard and SR 20/ Colusa Highway
- Extend striping; install traffic signals, headlight signs, and rumble strips; and upgrade existing signs along SR 20 between Central Street and Sutter County limits.

YUBA CITY SAFE ROUTES TO SCHOOL

Yuba City’s Safe Routes to School is a multidisciplinary program aimed at making streets safer for students to walk and bike to school and reducing school travel by vehicle. The plan identifies infrastructure improvements, safety education initiatives, and other nonengineering measures at 15 schools in the Yuba City Unified School District:

- Andros Karperos School
- April Lane Elementary School
- Barry Elementary School
- Bridge Street Elementary School
- Butte Vista Elementary School
- Central Gaither Elementary School
- Gray Avenue Middle School
- King Avenue Elementary School
- Lincoln Elementary School
- Lincrest Elementary School
- Park Avenue Elementary School
- River Valley High
- Riverbend Elementary School
- Tierra Buena School
- Yuba City High



INJURY CRASH TOTAL

1,589

KSI CRASH TOTAL

142

Figure 9.2
Injury Crashes by Year, 2018 - 2023

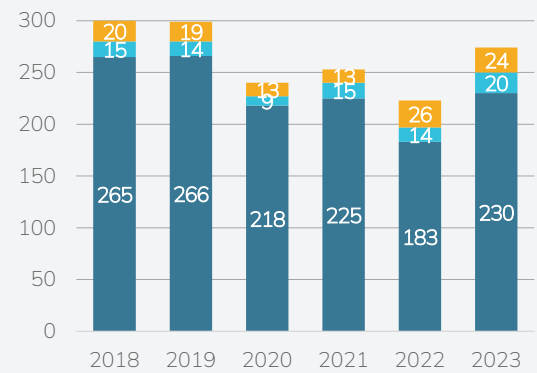
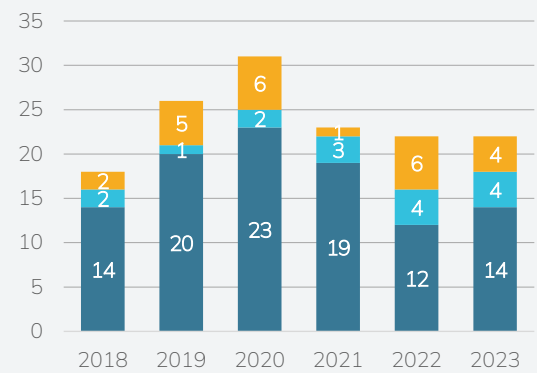


Figure 9.3
KSI Crashes by Year, 2018 - 2023



KSI = Killed or Severely Injured

- Vehicle-Only Crashes
- Bicycle-Involved Crashes
- Pedestrian-Involved Crashes

Crash Summary

This section summarizes key findings from the city's crash data obtained from the California Highway Patrol's Statewide Integrated Traffic Records System (SWITRS) database, for the years 2018 to 2023. The analysis includes all crashes that led to injury and excludes property-damage-only crashes.

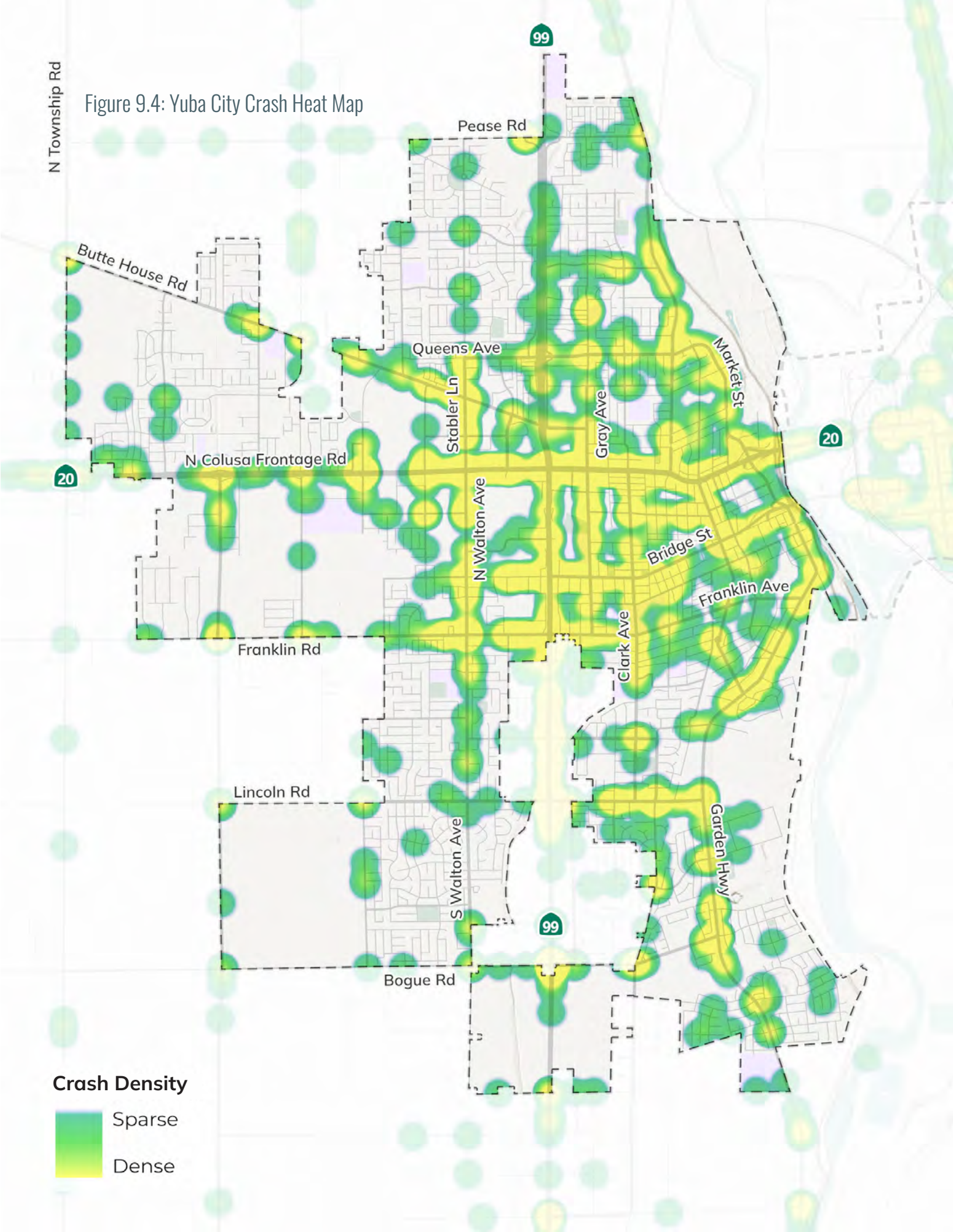
Within the six-year period, Yuba City saw a total of 1,589 crashes that led to some degree of injury, 87 crashes (five percent of all injury crashes) that involved bicyclists, and 115 (seven percent) that involved pedestrians. Yuba City's crashes account for over half (53 percent) of Sutter County's crashes. 142 of Yuba City's injury crashes involved at least one person being killed or severely injured (KSI).

As shown in Figures 9.2 and 9.3, the total number of yearly crashes decreased from 2019 into 2020, the first year of the COVID pandemic, while the number of KSI crashes increased, relative to the prior year. Crash trends have been inconsistent since 2020.

There are several noteworthy corridors with high crash rates:

- About a quarter of all Yuba City crashes took place on State Route 20/Colusa Highway.
- On SR 20/Colusa Highway between Gray Avenue and Clark Avenue, eight crashes involved pedestrians.
- Many rear end crashes occurred where SR 99 intersects Bridge Street and Franklin Road, two major intersections.
- 14 crashes occurred at the Garden Highway and Percy Avenue intersection alone. A cluster of broadside crashes occurred on Bridge Street between North Palora Avenue and North Barrett Road.

Figure 9.4: Yuba City Crash Heat Map



About KSI Crashes

Severe injuries resulting from a traffic crash can result in a number of catastrophic impacts, including permanent disability, lost productivity and wages, and ongoing healthcare costs. These injuries can include:

- Broken or fractured bones
- Dislocated or distorted limbs
- Severe lacerations
- Severe burns
- Skull, spinal, chest or abdominal injuries
- Unconsciousness at or when taken from the collision scene

Throughout this analysis, the acronym KSI is used to denote crashes where someone was killed or severely injured.

KSI Crash Summary

As shown in Figure 9.5, there is a disproportionately greater share of bicycle and pedestrian crashes among KSI crashes, compared to all injury crashes. Out of 142 KSI crashes, 16 (11 percent) involved bicyclists, and 24 (17 percent) involved pedestrians. There was a total of 16 fatalities: 9 drivers or passengers, 5 pedestrians, and 2 bicyclists.

Figure 9.5
Crash Mode Share by Severity

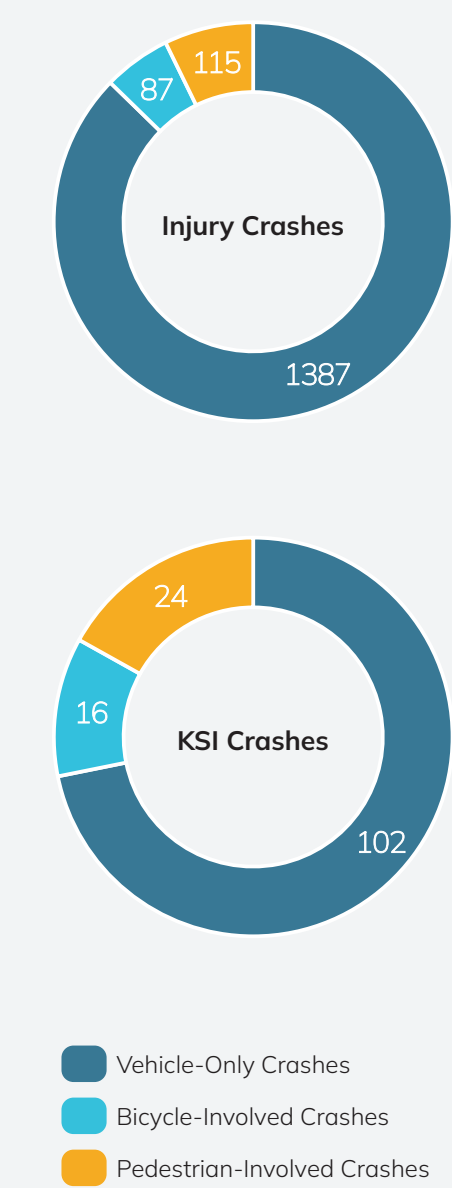
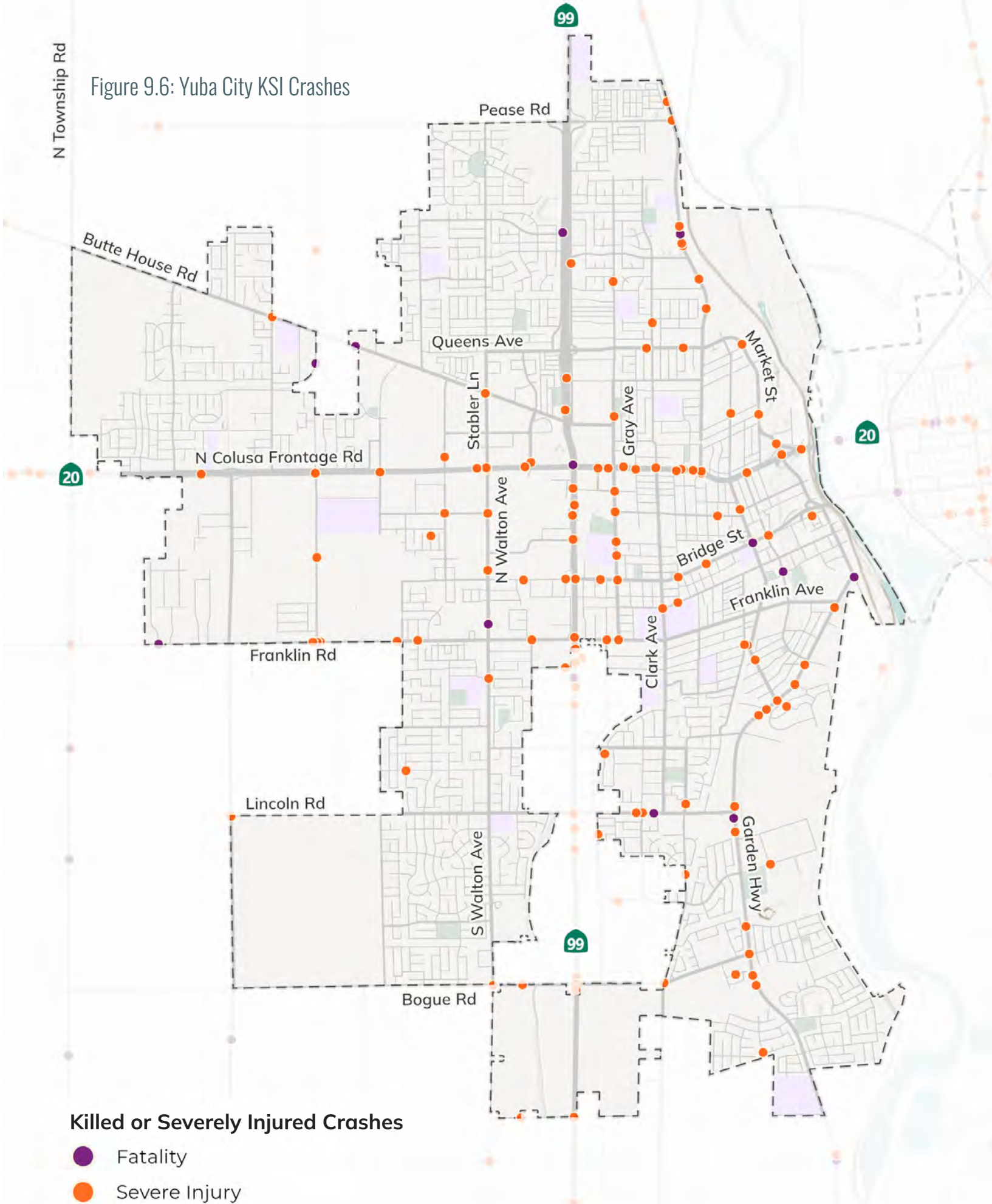


Figure 9.6: Yuba City KSI Crashes



Crashes by Crash Type

Overall, broadside (38 percent) and rear end (29 percent) crashes were the most common crash types, making up two thirds of all injury crashes. Broadside crashes are typically the result of a failure to yield to oncoming traffic that has the right of way. Similarly, among KSI crashes, broadside (37 percent) was also the most common type of crash, followed by vehicle/pedestrian (16 percent), and rear end (14 percent).

Crashes by Primary Crash Factor

Unsafe speed (25 percent) was the leading reported primary cause of crashes, followed

by vehicle right of way violation (19 percent). Nearly half the crashes attributed to unsafe speed occurred on state facilities within Yuba City, with one-third along SR 20—mostly between Tharp Road and the eastern city limit—and 15 percent on SR 99. Notably, these were clustered where SR 99 intersects Bridge Street and Franklin Avenue. Overall, 85 percent of all unsafe speed crashes led to rear end crashes.

Driving or bicycling under the influence (18 percent) was the leading reported primary cause of KSI crashes followed by vehicle right of way violation (15 percent) and unsafe speed (13 percent).

Crashes by Time of Day and Lighting Condition

Overall, most crashes occurred in the daylight (73 percent), 20 percent occurred in the dark where streetlight was present, and 3 percent in the dark with no lighting. A disproportionately greater share of KSI crashes occurred during nighttime in areas with lighting, at 35 percent. 55 percent of KSI crashes happened in daylight, and 4 percent took place during the nighttime in areas that lacked lighting.

Most of the crashes that took place under the absence of working streetlights in the dark happened along the SR 20, SR 99, Garden Highway/2nd Street, Live Oak Boulevard, and Pease Road corridors.

Driving Under the Influence

While DUI was involved in 10 percent of all crashes, it accounted for a significantly higher proportion of KSI crashes, at 25 percent. 19 out of 25 DUI KSI crashes led to broadside, rear end, and hit object crashes.

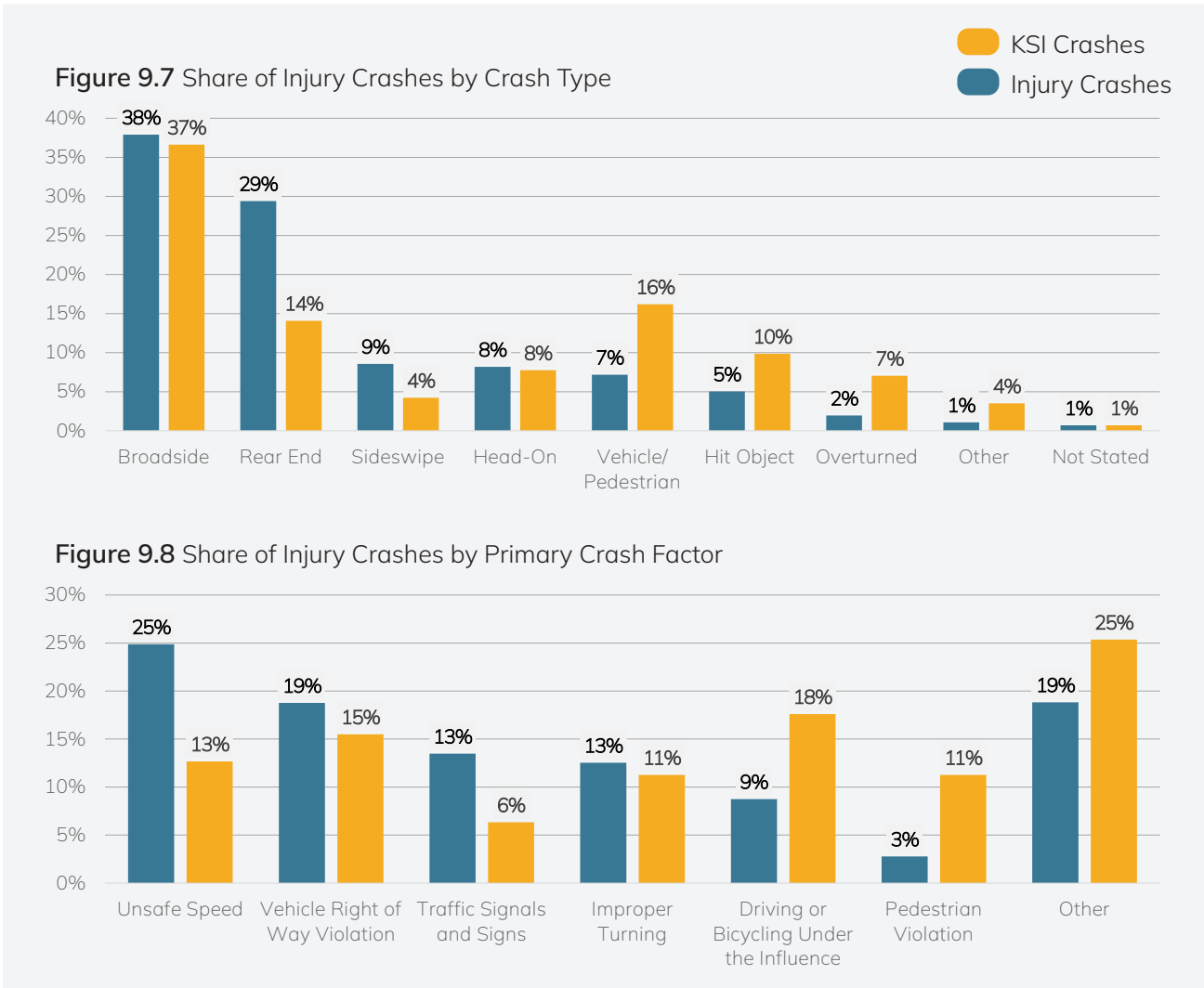
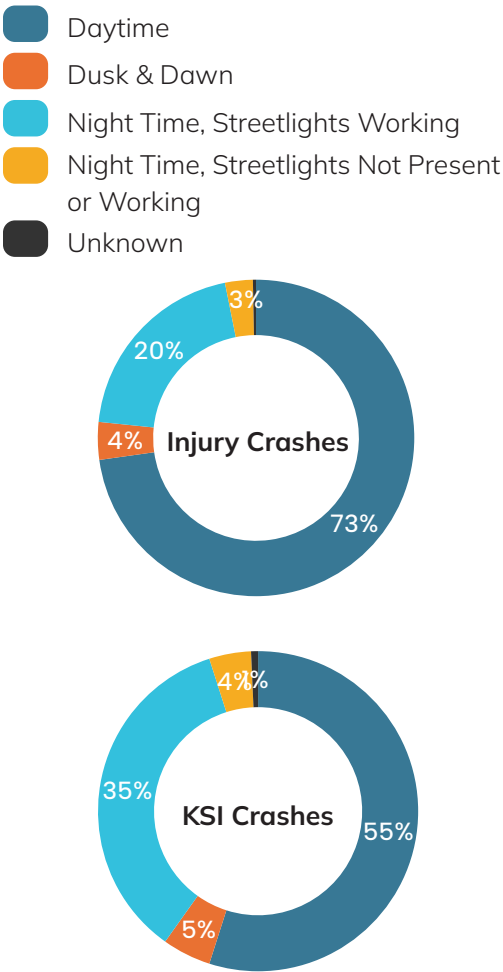
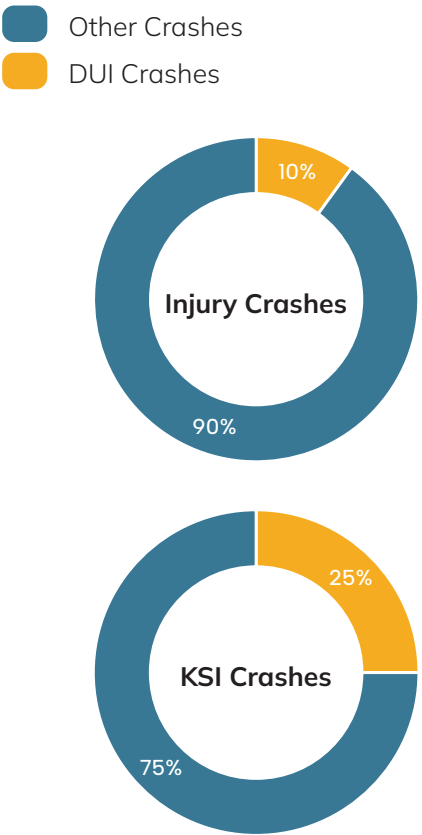


Figure 9.9
Crashes by Time of Day & Lighting



Note: Lighting conditions for five crashes (<1 percent) in Yuba City were unreported.

Figure 9.10
DUI Crashes



Safety Corridors

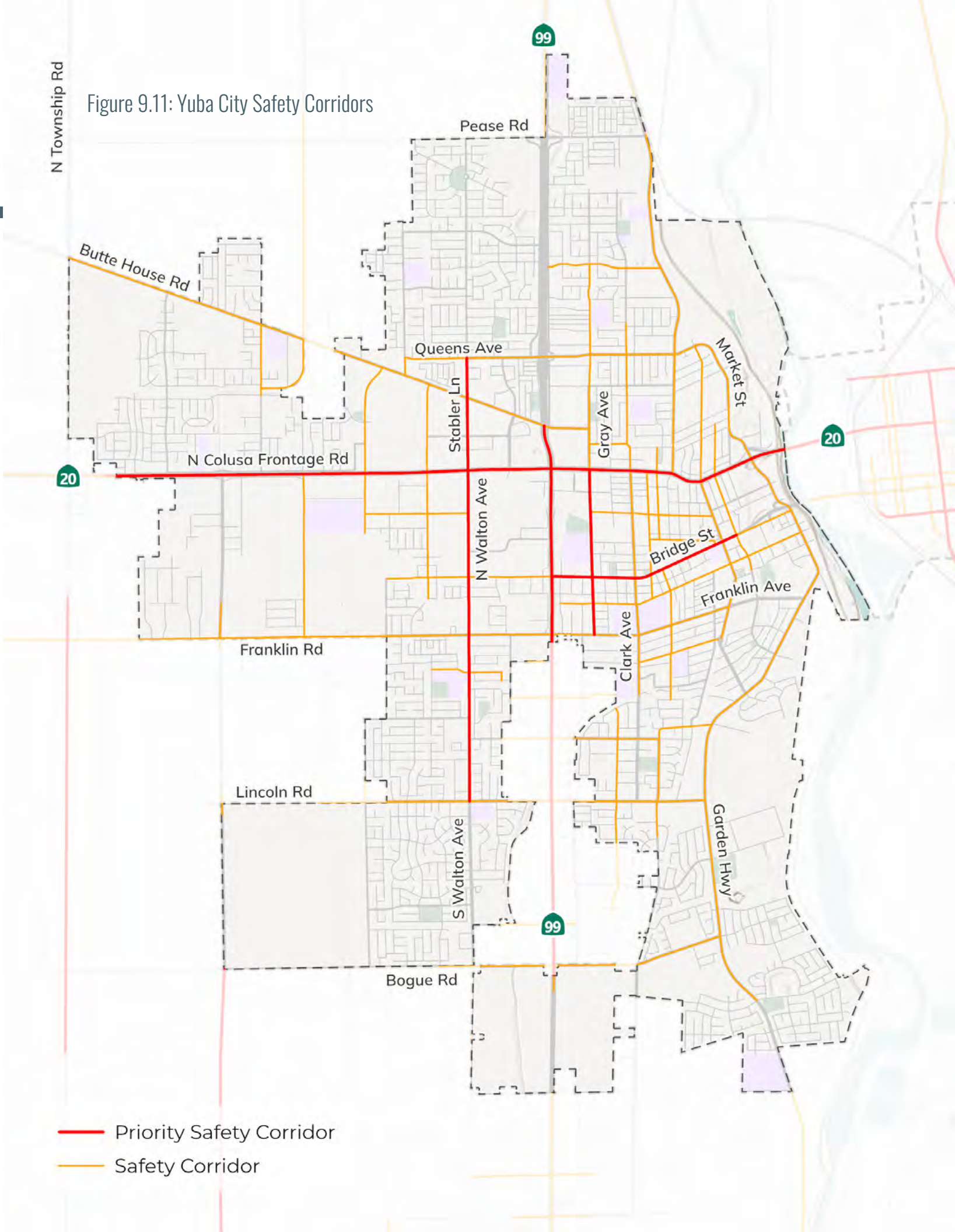
Safety corridors are the roadway segments within Yuba City that had the highest number of crashes resulting in severe injury or death (KSI) in the six-year study period. Priority safety corridors are the safety corridors that experienced the highest rate of KSI crashes, are adjacent to sensitive land uses, and have high potential for severe crashes and thus, should be prioritized for improvements.

The following is a list of Yuba City's priority safety corridors as identified through a safety corridor systemic analysis, task force input, and community feedback. Figure 9.11 displays Yuba City's network of safety corridors, which are shown in orange. Priority corridors are shown in red. Refer to Appendix C for a more detailed explanation of the safety corridor identification technical methodology.

- SR 20 from Western Parkway to Feather River
- SR 99 from Butte House Road to Franklin Avenue
- Stabler Lane from SR 20 to Queens Avenue
- Walton Avenue from SR 20 to Lincoln Road
- Gray Avenue from SR 20 to Franklin Avenue
- Bridge Street from SR 99 to Shasta Street

Priority Safety Corridors were identified to provide the list of locations for actionable next steps with additional study. Studies could include recommended engineering safety countermeasures with targeted improvements to address crash history or focused programs identified in the Action Plan chapter.

Figure 9.11: Yuba City Safety Corridors



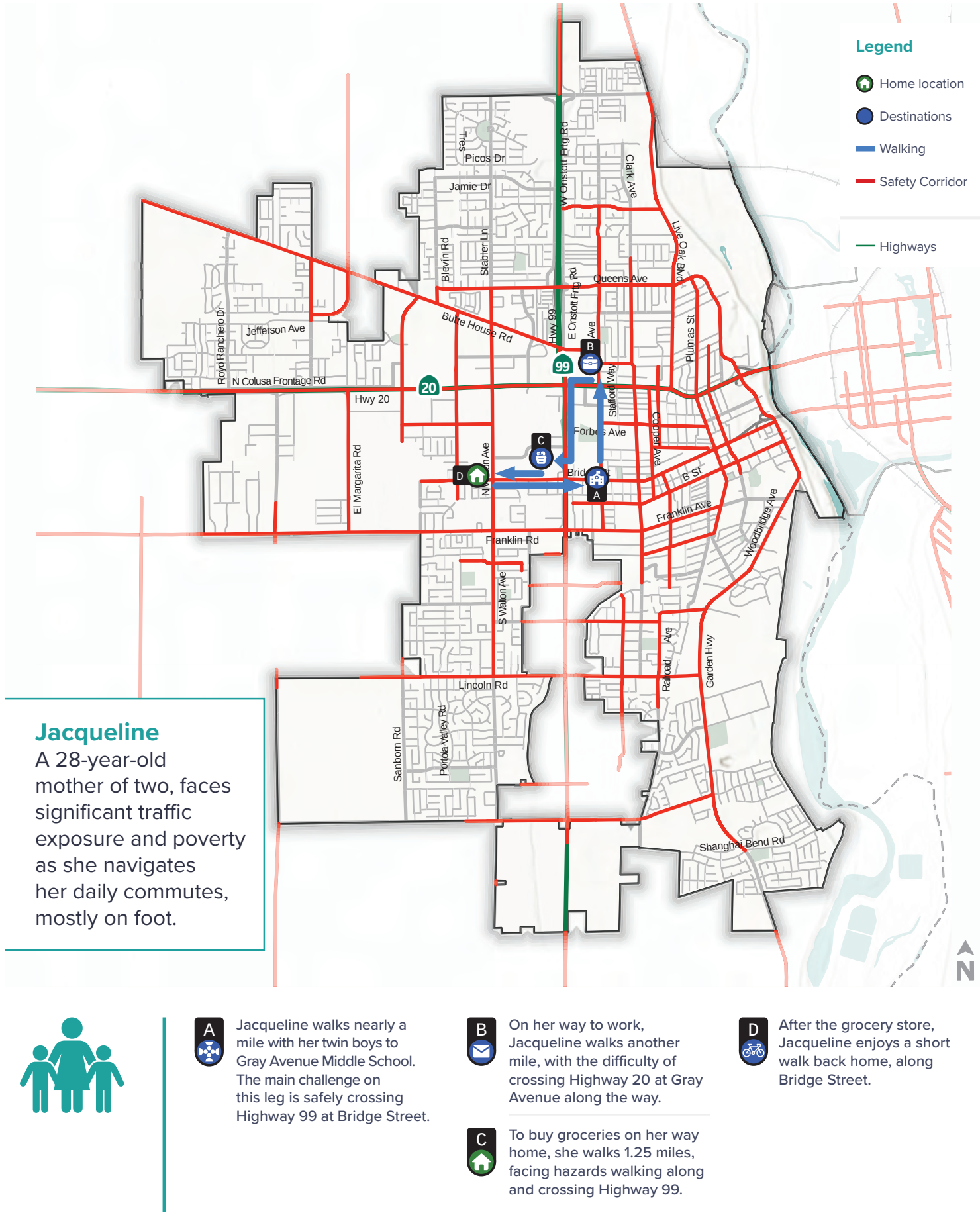
Community Snapshot

This community snapshot features Jacqueline, a fictional character created to illustrate the daily transportation challenges faced by a mother without a personal vehicle in Yuba City. The experiences of this character are based on census data as well as local lived experiences.



A majority of trips within Yuba City are made by driving, but one-tenth are done via walking. Jacqueline, a 28-year-old mother of two, faces daily transportation and safety challenges as she commutes primarily on foot. Her routine includes walking nearly a mile with her twin boys to Gray Avenue Middle School, where crossing Highway 99 at Bridge Street presents a major safety concern. She then walks another mile to work, navigating the dangerous crossing at Highway 20 and Gray Avenue. On her way home, Jacqueline walks 1.25 miles to buy groceries, again encountering hazards along and across Highway 99. Although her final stretch home along Bridge Street is relatively safer, her daily routes expose her to significant traffic risks and reflect the broader challenges of navigating essential errands without access to safe, reliable transportation. Figure 9.12 illustrates Jacqueline's typical daily trip sequence.

Figure 9.12: Yuba City Community Snapshot





Focus Areas

Six focus areas were identified through a systemic analysis of crash records to represent the most significant patterns behind injury crashes—and especially KSI crashes—in the region. These focus areas are identified with the letters “A” through “F” and each one is applicable to one, several, or all of the communities covered by this RSAP. Following each crash focus area is a set of potential countermeasures that should be considered for implementation to improve safety outcomes. Appendix D contains a more detailed summary of each countermeasure.

Yuba City’s traffic safety challenges can be understood through a subset of these focus areas:



FOCUS AREA A
Crashes on State Highways Serving as
Main Streets



FOCUS AREA B
Right-of-Way Issues at Intersections



FOCUS AREA C
Driving Under the Influence



FOCUS AREA D
Crashes Involving People Walking and
Biking



FOCUS AREA A

Crashes on State Highways Serving as Main Streets

INJURY CRASH STATISTICS

532 (34%) Total Crashes

42 (30%) KSI Crashes

State Routes 99 and 20 serve as main streets within Yuba City, traversing the middle of the city in a north-south and east-west direction, respectively. Roads of this nature—arterials designed not just for local but also regional mobility and situated along key destinations—typically have higher crash rates and often see conflict between the different modes of transportation. Within the six-year period, 532 total crashes occurred on this road type, making up 34 percent of Yuba City’s crashes; 42 of these crashes resulted in a fatal or severe outcome, which account for 30 percent of KSI crashes.

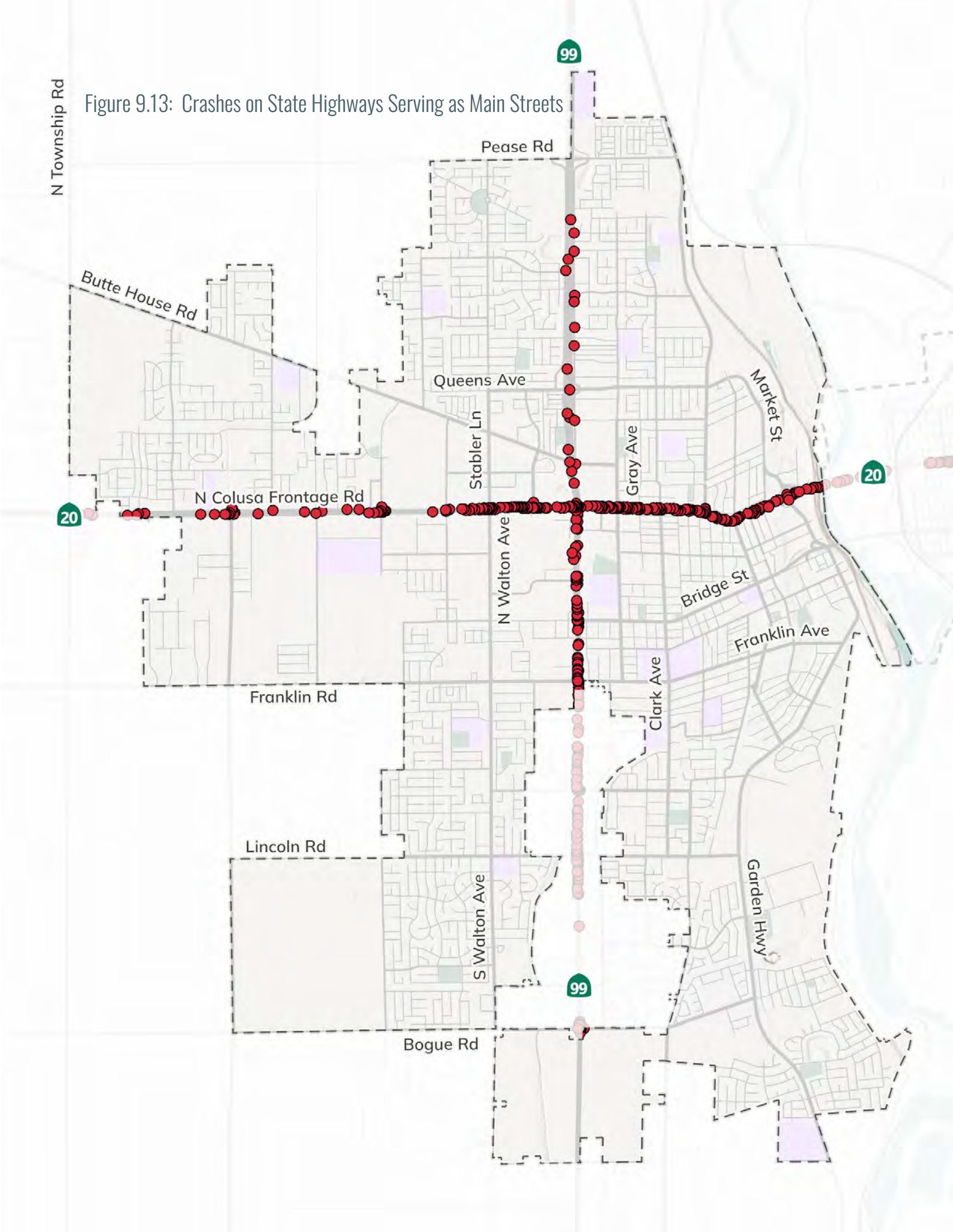
These roads are heavily utilized in Yuba City by residents and visitors since they provide access to shops and businesses and connectivity to

other parts of the city and region. These roads are four lanes wide in order to accommodate the high volumes. Wider roads typically induce travel at higher speeds and increase the time needed to safely cross them. The top leading causes behind the crashes that happened under this focus area were unsafe speed (38 percent) and right-of-way violation (29 percent). The most common crash types to result were rear end (42 percent) and broadside (33 percent), crash types that are typically more severe.

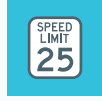
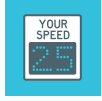
The following countermeasures can improve safety along highway main streets by slowing vehicle speeds, organizing traffic flow, and reducing conflict points between roadway users.



Figure 9.13: Crashes on State Highways Serving as Main Streets



Potential Countermeasures

	Traffic Signal		Roundabout
	All-Way Stop Control		Close Slip Lane
	Slow Turn Wedge		Advance Stop Bar
	Lane Narrowing		Road Diet
	Driveway Consolidation		Raised Median
	Directional Median Openings to Restrict Left Turns		Separated Bikeways
	Buffered Bike Lanes		Bike Lane
	Add Sidewalk		Street Lighting
	Speed Limit Reduction		Speed Feedback Sign
	Advanced Dilemma Zone Detection		Flashing Yellow Turn Phase
	All-Red Signal Time		Speed Sensitive Rest in Red Signal
	Retroreflective Tape on Signals		





FOCUS AREA B

Right-of-Way Issues at Intersections

INJURY CRASH STATISTICS

446 (28%) Total Crashes

27 (19%) KSI Crashes

In Yuba City, 446 crashes (28 percent of Yuba City’s total crashes from 2018 to 2023) were recorded at intersections where the primary contributing factor was right-of-way violation; 27 resulted in someone being killed or seriously injured, making up 19 percent of Yuba City’s KSI crashes.

These incidents predominantly stemmed from drivers failing to yield to oncoming or cross traffic that legally possessed the right-of-way. In many cases, motorists either misjudged the speed and distance of approaching vehicles or did not come to a complete stop at the appropriate distance from the main thoroughfare. As a result, a majority of these

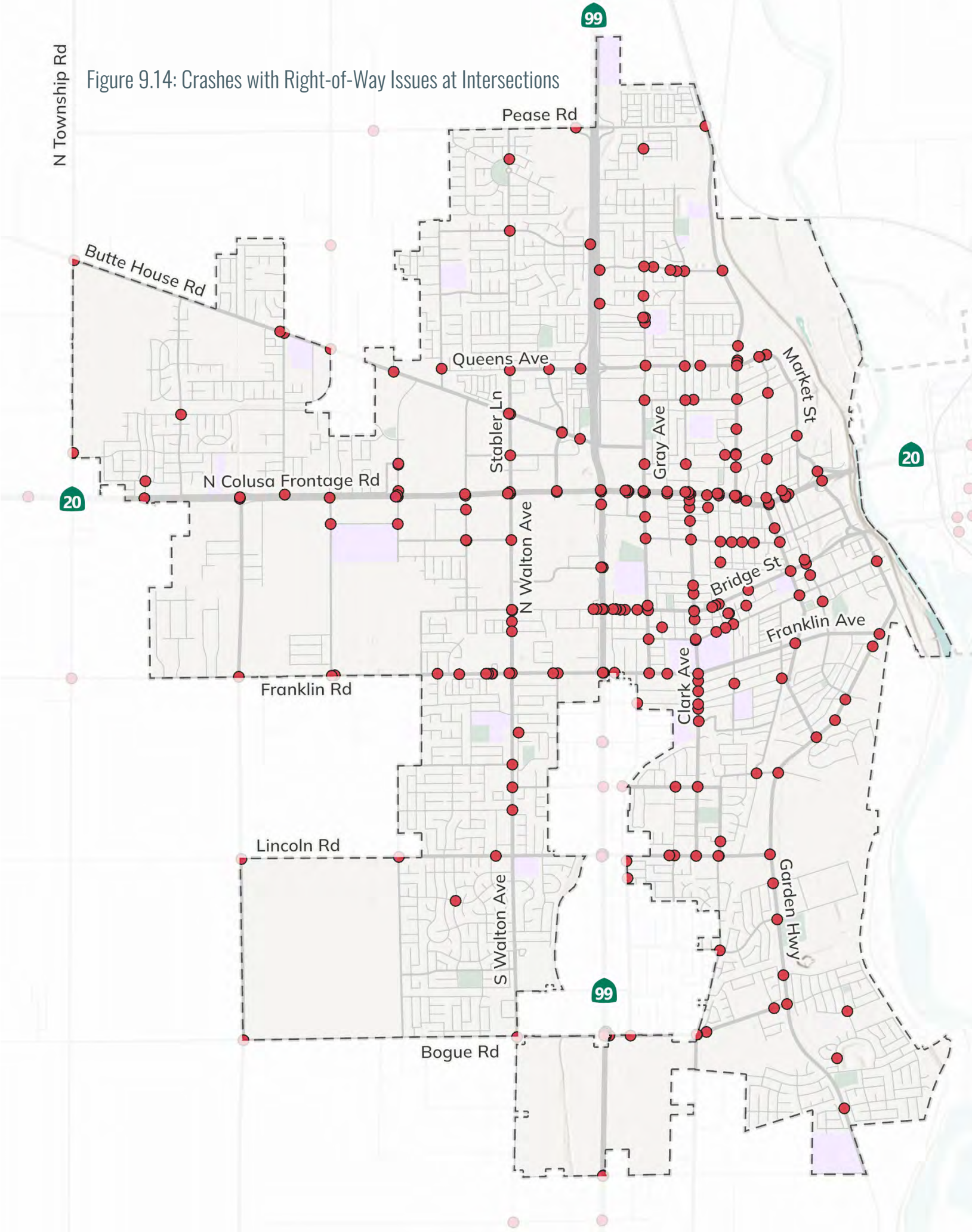
crashes culminated in broadside, or T-bone, crashes—an especially dangerous type of crash due to the limited protection on the sides of vehicles—highlighting the importance of right-of-way compliance at intersections.

SR 20/Colusa Highway, Bridge Street, Clark Avenue, Walton Avenue, Gray Avenue, Franklin Boulevard, and Garden Highway saw the highest frequency of this type of crash.

The following countermeasures directly target right-of-way issues by making intersections safer, more predictable, and easier to navigate.



Figure 9.14: Crashes with Right-of-Way Issues at Intersections



Potential Countermeasures

	Roundabout		Traffic Signal
	Neighborhood Traffic Circle		Close Slip Lane
	Intersection Reconstruction and Tightening		Slow Turn Wedge
	Advance Stop Bar		Centerline Hardening
	Raised Median		Lane Narrowing
	Road Diet		Through Bike Lane at Intersection
	Rectangular Rapid Flashing Beacon		Pedestrian Hybrid Beacon
	High-Visibility Crosswalk		Bicycle Signal/Exclusive Bike Phase
	Advanced Dilemma Zone Detection		Protected Left Turns
	Flashing Yellow Turn Phase		All-Red Signal Time





FOCUS AREA C

Driving Under the Influence

INJURY CRASH STATISTICS

160 (10%) Total Crashes

37 (26%) KSI Crashes

Driving under the influence remains a leading cause of severe and fatal crashes in Yuba City, with impaired driving incidents disproportionately contributing to the city’s most serious roadway outcomes. While DUI-related crashes account for only 10 percent of all crashes in Yuba City, they represent 26 percent of KSI crashes. Figure 9.15 displays all DUI crashes that occurred in Yuba City.

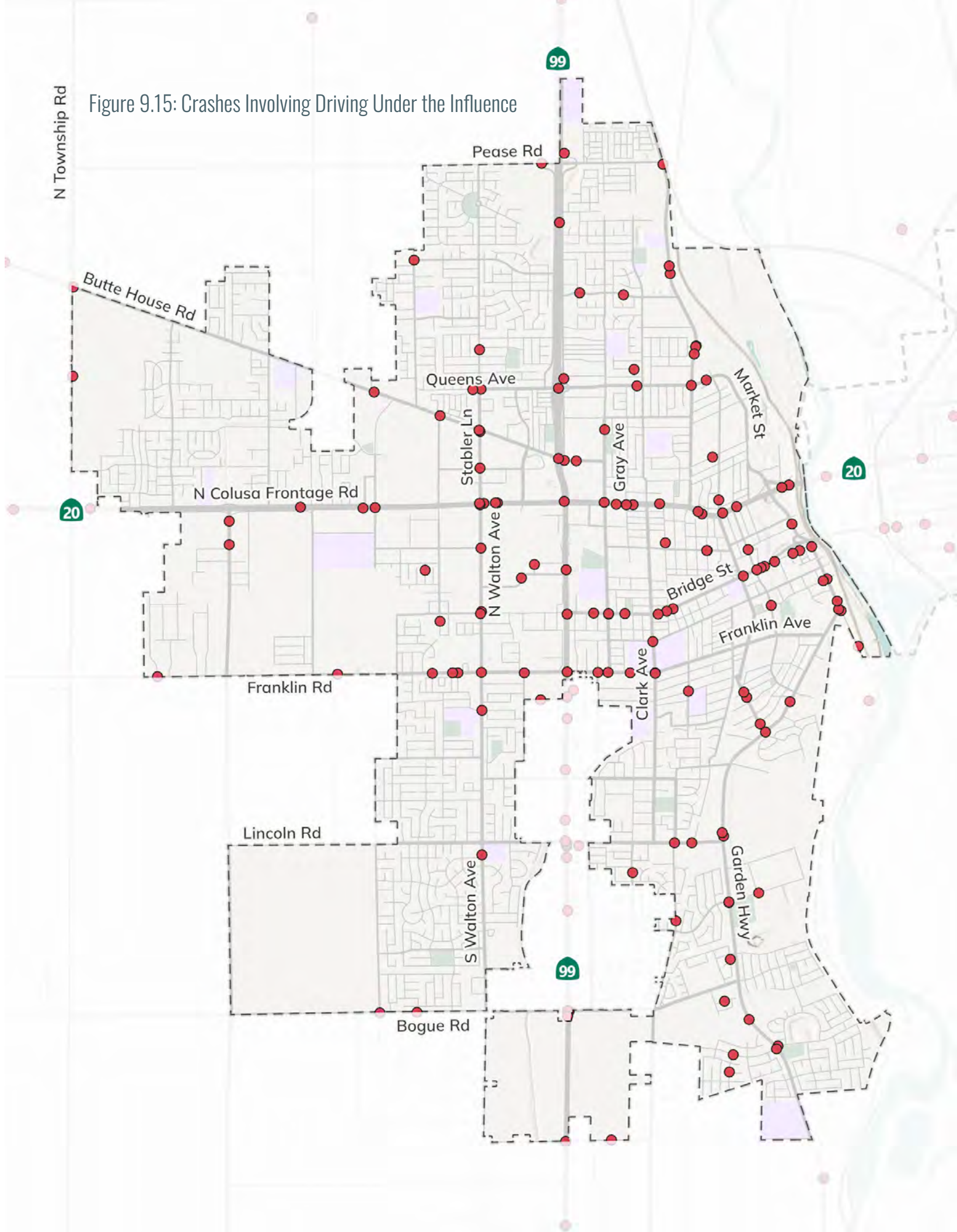
Crashes are primarily concentrated along major roadways and intersections, with the highest densities appearing in the central and eastern parts of the city. Notable clusters are visible along SR 20/Colusa Highway, Bridge Street, and Garden Highway, which serve as key thoroughfares for local and regional traffic.

Intersections such as Queens Avenue and Live Oak Boulevard also show a significant number of incidents. Some crashes are scattered throughout residential neighborhoods, but these are less frequent. Rear end crashes were the most common crash type to result from DUIs, accounting for 33 percent, followed by broadside (23 percent). DUI-related crashes tend to pose a greater risk to those involved; in Yuba City, nearly one-fourth of these crashes had a KSI outcome.

Addressing DUI-related crashes most effectively requires non-engineering strategies, particularly those focused on education and enforcement.



Figure 9.15: Crashes Involving Driving Under the Influence





FOCUS AREA D

Crashes Involving People Walking and Biking

INJURY CRASH STATISTICS

201 (13%) Total Crashes

40 (28%) KSI Crashes

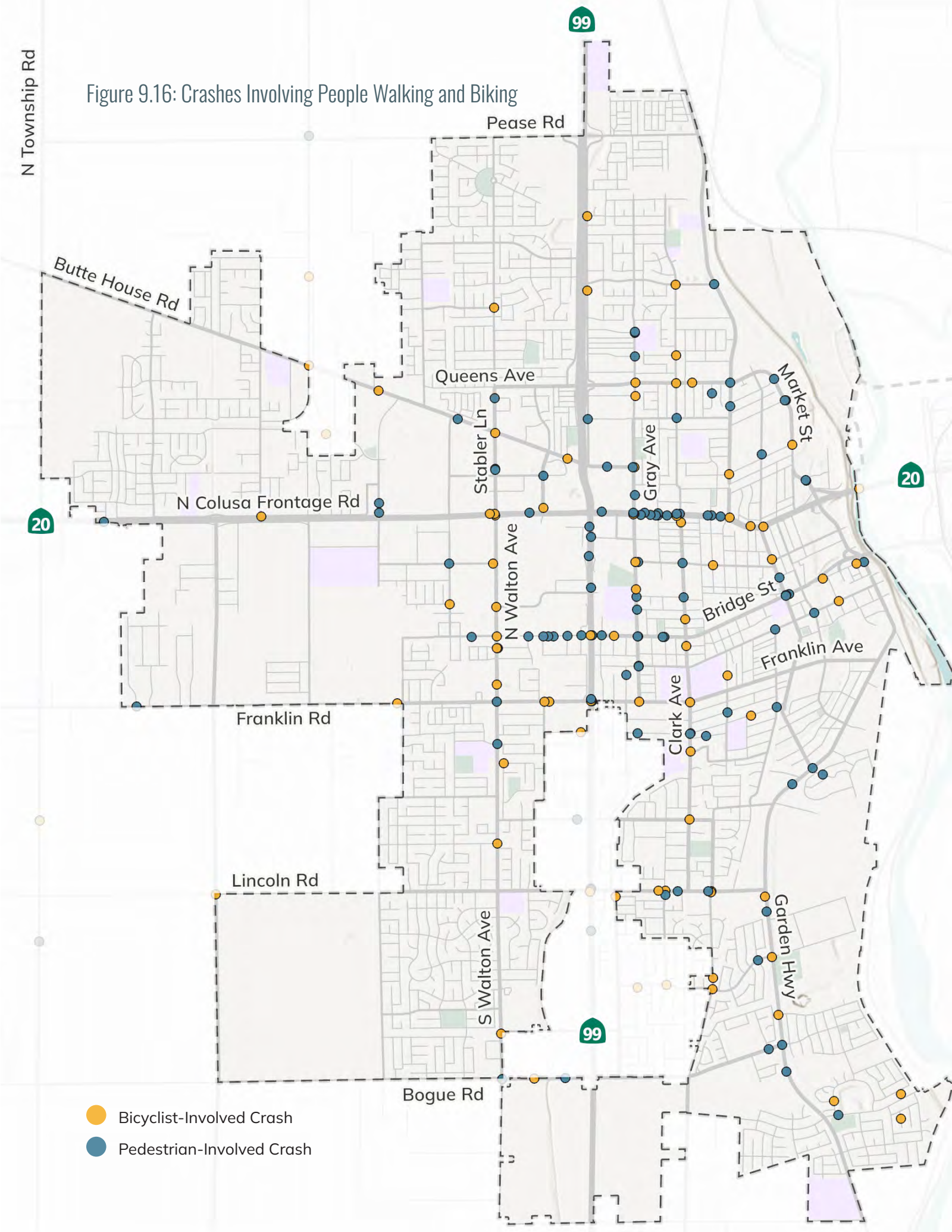
Pedestrians and bicyclists are among the most vulnerable users on Yuba City’s roadways. While they represent a smaller share of overall traffic, they are involved in 13% of all crashes in the city, and account for an alarming 28% of KSI crashes. The leading contributing factors behind these crashes were attributed to drivers failing to yield at crosswalks or signal, pedestrians crossing outside of designated crossing areas, and traveling on the left side of the road.

The convergence of high traffic volumes with areas where people live, shop, walk, and bike play a role in the frequency of crashes on key corridors in the city. Central Yuba City has the highest density of crashes; SR 20/Colusa Highway, Bridge Street, Walton Avenue, Gray Avenue, and Clarke Avenue are high incidence corridors. Notably, there are dense clusters of (mostly) pedestrian crashes on SR 20 between Gray Avenue and Clarke Avenue and Bridge Street between Joann Way and North Lawrence Avenue, locations within busy commercial areas that are adjacent to residential neighborhoods and served by wide, four-lane roads. There is a series of crashes right outside Gray Avenue Middle School along Gray Avenue. Additional crashes occurred along Garden Highway and Franklin Road.

The following countermeasures reduce risks for crashes involving pedestrians and bicyclists by making them more visible to drivers, providing safer and more frequent opportunities to cross busy roads, and creating dedicated or protected spaces for their use.



Figure 9.16: Crashes Involving People Walking and Biking



Potential Countermeasures

- | | | | |
|---|---|---|-------------------------|
|  | Rectangular Rapid Flashing Beacon |  | Shared-Use Path |
|  | High-Visibility Crosswalk |  | Separated Bikeway |
|  | Pedestrian Hybrid Beacon |  | Buffered Bike Lanes |
|  | Leading Pedestrian Interval and Pedestrian Recall |  | Green Conflict Striping |
|  | Co-Locate Bus Stops and Pedestrian Crossings |  | Bike Lane |
|  | Curb Extensions |  | Add Sidewalk |

