



CHAPTER 4 TRANSPORTATION

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Transportation Demand Management | Aviation



4.1 TRANSPORTATION FINDINGS

Travel and Commute Patterns

1. Santa Rosa is the largest activity center in Sonoma County with over one-third of both the county's population and jobs.
2. A large number of Santa Rosa residents work locally. Approximately 60 percent of workers in Santa Rosa live within the city limits, and 37 percent of employed city residents both live and work in Santa Rosa.
3. Motor vehicle travel is the dominant mode of transportation for commute trips by Santa Rosa residents, with 89 percent of commuters driving to work, including 78 percent driving alone.
4. With the arrival of SMART commuter rail and the City's emphasis on high-quality transit corridors, in addition to the City's efforts in expanding its bicycle and pedestrian networks, a significant opportunity exists to shift travel mode shares to transit and non-auto modes.

Vehicle Miles Traveled

5. Approximately 30 percent of the County's 10.3 million daily vehicle miles traveled is associated with development in Santa Rosa. The city's average VMT per resident and average VMT per employee are lower than the countywide average, and in fact are the lowest of all incorporated cities in Sonoma County.
6. Existing and future development that is within one-half mile of a SMART station or high-frequency transit corridor can generally be presumed to have a less-than-significant VMT impact.
7. VMT generated by development increases with distance from the downtown core.
8. The land use and circulation pattern set forth in the General Plan update has a direct relationship with VMT.

Equity

9. Eleven Census tracts in central Santa Rosa were identified by the Metropolitan Transportation Commission as Communities of Concern, highlighting transportation challenges faced by residents in these areas.

Streets and Highways

10. The primary location of traffic congestion is along US 101, where drivers routinely experience delays during the morning and afternoon peak periods in both the northbound and southbound directions.

11. As of 2020, traffic conditions have been impacted by the 2017 Tubbs Fire and the COVID-19 pandemic. Ongoing monitoring of patterns will be important in understanding the long-term impacts of these events and how the City can best respond to achieve its mobility goals.

Bicycle Facilities

12. Between 2010 and 2018, Santa Rosa's network of bicycle facilities increased by 35 miles, an increase of 44 percent.
13. Eight key corridors have been identified for study to develop enhanced bicycle access to major destinations and improve connectivity throughout the city.
14. Six high-injury bicycle corridors have been identified as priorities for safety improvements.

Pedestrian Facilities

15. Most City streets have sidewalks on at least one side of the street. Areas where sidewalks do not currently exist are in more rural neighborhoods where sidewalks are not required and areas that have been annexed from Sonoma County.
16. Transportation infrastructure and natural features act as barriers to bicycling and walking. There are limited opportunities for crossing US 101, the SMART tracks, and several creeks.
17. Twelve pedestrian corridors have been identified as priorities for pedestrian enhancements.

Transit Service

18. SMART service has established the Downtown and North Santa Rosa station areas as targets for future development and transportation investments, especially projects that provide non-driving mobility options.
19. CityBus service has been restructured to provide frequent, high-quality transit service along key corridors, and plans to expand these corridors in the future as supported by new transit-oriented development.

Transportation Demand Management

20. Numerous programs are available to residents and workers in Santa Rosa to encourage the use of alternatives to motor vehicle travel.
21. Telework is anticipated to increase as technology continues to evolve and enable more people to work remotely.

Aviation

22. There is public transportation access to the Charles M. Schulz Sonoma County Airport via Sonoma County Transit Route 62 directly from Santa Rosa or from the Sonoma County Airport SMART station.

23. The Sonoma County Airport Express provides service from the airport to Santa Rosa as well as to Marin County and the Oakland and San Francisco airports.

4.2 INTRODUCTION

The county seat and largest city in Sonoma County, Santa Rosa is the hub of the county's transportation system. Lying at the juncture of US 101 and State Route (SR) 12, and with access to passenger rail, buses, and regional trails, the city features connections to communities throughout the North Bay as well as to Mendocino and Humboldt Counties to the north and Marin and San Francisco Counties to the south. There is a range of transportation choices for local travel, with a local bus system and a growing network of bicycle and pedestrian facilities in addition to its street network.

This chapter provides an overview of Santa Rosa's existing transportation infrastructure. It describes facilities and services related to each mode of transportation, the most notable features of each, and the key issues that need to be addressed by the City going forward. Note that this Plan was developed in 2020 while shelter-in-place restrictions were in place due to the COVID-19 pandemic; it is anticipated that pandemic-related considerations may have a long-term impact on commuting patterns and transportation needs.

This chapter is divided into the following sections:

- Transportation Findings (Section 4.1)
- Introduction (Section 4.2)
- Regulatory Setting (Section 4.3)
- Travel and Commute Patterns (Section 4.4)
- Vehicle Miles Traveled (Section 4.5)
- Equity (Section 4.6)
- Streets and Highways (Section 4.7)
- Traffic Conditions (Section 4.8)
- Bicycle Facilities (Section 4.9)
- Pedestrian Facilities (Section 4.10)
- Transit (Section 4.11)
- Transportation Demand Management (Section 4.12)
- Aviation (Section 4.13)
- Sources (Section 4.14)

4.3 REGULATORY SETTING

State

Numerous State policies and plans provide a framework for the development of Santa Rosa's transportation facilities network and mobility strategies and programs.

California Complete Streets Act of 2008

The Complete Streets Act requires city and county general plans to include policies that support the development of facilities for a multimodal transportation network. Complete streets principles should be incorporated into street design to meet the needs of all users – drivers, bicyclists, pedestrians, and transit riders – regardless of age or physical ability.

California Senate Bill 288

Senate Bill 288 (SB 288), signed into law in 2020, exempts certain transit, bike, and pedestrian projects from the environmental review requirements of the California Environmental Quality Act (CEQA).

California Senate Bill 743

SB 743, signed into law in 2013, marked a notable change in the identification of environmental impacts under CEQA, requiring CEQA lead agencies to shift from using traditional level of service (LOS) standards and automobile delay to determine significant traffic impacts. As a result of SB 743, the State Office of Planning and Research (OPR) has updated CEQA guidelines and criteria to use vehicle miles traveled (VMT) as the metric for evaluating the significant traffic impacts. Pursuant to Public Resources Code Section 21099(b)(2), "automobile delay, as described solely by level of service of similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment." The OPR publication "Technical Advisory on Evaluating Transportation Impacts in CEQA", published in December 2018, provides details on VMT assessment, methodologies, and suggested metrics.

The City of Santa Rosa will use thresholds developed by OPR to evaluate the impacts of VMT associated with land development and transportation projects. The City will use tools developed by Sonoma County Transportation Authority to help evaluate projects, including screening maps to identify specific areas in the city where project-related VMT for residential and commercial projects is expected to be less than significant, and a VMT calculator tool to help quantify VMT impacts for projects.

Caltrans

Caltrans, as a responsible agency under the California Environmental Quality Act (CEQA), reviews topics in environmental documents pertaining to State highway facilities. With respect to transportation analyses, the agency historically referred to measures of effectiveness identified in the *Guide for the Preparation of Traffic Impact Studies* (December 2002). In response to SB 743 Caltrans's Local Development-Intergovernmental Review (LD-IGR) team in 2016 shifted attention

from LOS-based metrics to a focus on VMT, appropriate transportation demand measures (TDM), and determining how best to address multimodal operational issues.

Caltrans has not established formal VMT significance thresholds, though in May 2020 the VMT-Focused Transportation Impact Study Guide (Draft TISG) was released. The guide reiterates that automobile delay is no longer considered a significant impact on the environment within CEQA transportation analysis and that Caltrans will now focus on VMT. With respect to VMT significance thresholds, Caltrans refers to guidance provided in the 2018 OPR Technical Advisory on Evaluating Transportation Impacts in CEQA, and also refers to OPR's guidance on the types of projects that can be presumed to have a less-than-significant transportation impact.

Regional

Numerous regional agencies, policies, and plans provide a framework for the development of Santa Rosa's transportation facilities network and mobility strategies and programs.

Plan Bay Area

The Metropolitan Transportation Commission, made up of 109 representatives from the Bay Area's cities and counties, leads the development of transportation priorities and targeting investments in the region. Plan Bay Area is the region's long-range plan for coordinating transportation and housing to achieve regional goals focused on economic development, equity, and environmental sustainability. Plan Bay Area provides a broad framework for local agencies to follow in their own planning, including grant funding for projects that support the regional vision. Plan Bay Area 2040 was adopted in 2017.

Caltrans District 4 Bike Plan

Caltrans District 4, which covers the nine-county Bay Area, was the state's first Caltrans District to develop a bike plan. The plan's focus was on identifying and addressing the need for improved access and safety along and across the 1,400 miles of state highways in the region. High priority projects identified in the plan include grade-separated crossings of highways, which are often barriers to pedestrian and bicycle mobility. Key projects in Santa Rosa include a pedestrian-bicycle bridge over US 101 near Santa Rosa Junior College and the reconstruction of the US 101 interchange at Hearn Avenue.

Sonoma County Transportation Authority

The Sonoma County Transportation Authority (SCTA), created in 1990, is governed by a twelve-member Board of Directors representing the nine Sonoma County cities and the County. The SCTA serves as the entity responsible for coordinating planning and prioritization of transportation improvement projects at a county-wide level. SCTA is also responsible for managing the voter-approved Measure M, the Traffic Relief Act for Sonoma County, which provides direct funding for local transportation projects.

As the regional transportation authority, the SCTA prepares the Comprehensive Transportation Plan (CTP) for Sonoma County. *Moving Forward 2040*, September 2016, is the most recent CTP approved by the SCTA, and establishes goals and objectives for improving mobility on Sonoma County's streets, highways, transit systems and bicycle/pedestrian facilities; supporting statewide

air quality goals; and reducing transportation-related impacts. *Moving Forward 2040* also includes the Sonoma County Travel Model that is used to forecast future travel patterns and demand, based on changes to the transportation system, land use, and demographics.

Caltrans Highway 12 Concept Report

The Caltrans 2014 *State Route 12 (West) Transportation Concept Report* provides an evaluation of the existing and projected conditions along State Route 12 (SR 12) and a vision for future development along the corridor. The Transportation Concept Report was developed with goals of increasing safety, improving mobility, providing stewardship, and meeting community and environmental needs along the corridor. The report adopted a multimodal perspective and considered the context of the land uses present along the corridor.

Local

Numerous local agencies, policies, and plans provide a framework for the development of Santa Rosa's transportation facilities network and mobility strategies and programs.

Santa Rosa CityBus Short Range Transit Plan 2016-2025

The Santa Rosa CityBus Short Range Transit Plan 2016-2025 includes near-term goals, objectives, and standards for the transit system. Key performance standards include ensuring that 90 percent of transit-supportive areas are within one-quarter mile of a bus stop and providing weekday service headways of 15 to 30 minutes on trunk routes and 30 to 60 minutes on local routes.

In 2017, CityBus implemented a restructured route and schedule system following the Phase I recommendations contained in *Reimagining CityBus*, Santa Rosa CityBus and Nelson\Nygaard, September 2016. These changes included improving connectivity to regional service (SMART, Golden Gate Transit, Sonoma County Transit) and improving route frequency and design. In Phase I, the establishment of trunk lines with 15-minute frequencies in Downtown Santa Rosa, including Mendocino Ave and segments of Bicentennial Way, Range Ave, West Third St, Santa Rosa Ave, and Sebastopol Rd enables future development along these corridors. The Santa Rosa City Council was actively involved in developing the new bus system and adopted the Final Plan in August 2016. The new bus system is a roadmap for creating a modern transit system to meet the current and future needs of Santa Rosans.

Phase II of *Reimagining CityBus* focuses on increasing the span of service on weekends and nights and increasing frequencies on development-focused high-performing corridors, Phase II highlights increasing Mendocino Ave to 10 minutes frequency, and potentially upgrading infrastructure on this route to implement a Rapid Bus corridor. Phase II details either service expansion or increased frequencies to Santa Rosa Ave south, Roseland Area, Cleveland Ave to Coddington Mall, Sonoma Avenue, and Rincon Valley, increasing the number of buses serving the city from the downtown Transit Mall with an increase of 60% more hours of service. The Phase II improvements are integrally tied to the land use and circulation plans contained in the *Downtown Station Area Specific Plan Update*, as future transit service upgrades are reliant upon and intended to support new sources of ridership.

Bicycle and Pedestrian Master Plan Update 2018

The policies included in the Bicycle and Pedestrian Master Plan (BPMP) focus on improving access, user comfort, and safety for bicycling and walking. Goals of the plan include increasing the share of people walking and bicycling to work to 5 percent and reducing the number of severe injury and fatal collisions to zero by 2040. The plan's recommendations would more than double the number of miles of bikeways in the city, including over 40 miles of multi-use paths and which offer users greater levels of protection from vehicle traffic. Other key themes in the plan include using the plan as a tool to promote public health and ensure that the benefits of the plan are distributed equitably to target all of Santa Rosa's neighborhoods.

Citywide Creek Master Plan

The Santa Rosa Citywide Creek Master Plan is a blueprint for the restoration, preservation, and improved accessibility for the entirety of the creek trail network. The creek plan includes a set of policies, recommendations, and strategies for site-specific improvements for over 100 miles of creeks. The plan's goals are not only to protect and restore the waterways and riparian habitats along the creeks, but to also develop a network of trails alongside the creeks. The trails are proposed as both an option for active transportation commuting and as a recreational resource.

Climate Action Plan (2012)

The Santa Rosa Climate Action Plan laid out a set of strategies to support the City's ongoing efforts to reduce greenhouse gas (GHG) emissions, which had initially been established at 25 percent below 1990 levels, to be achieved by 2015. Transportation strategies were a central element to the plan, as transportation-related emissions were calculated to be 51 percent of the city's total GHG emissions in 2007. Recommended strategies to help reduce vehicle emissions include implementation of the *Bicycle and Pedestrian Master Plan*, implementation of transit system improvements for local and regional travel, encouragement of increased use of transportation demand management strategies by local employers, and promotion of telecommuting to reduce the number of vehicle trips.

Downtown Station Area Specific Plan

This plan laid out a development strategy for a 650-acre area within one-half mile of the Santa Rosa Downtown SMART station. The intent of the plan was to concentrate future housing and jobs in and around Downtown Santa Rosa, where residents, workers, and visitors, could easily access the SMART station and the Transit Mall's multiple bus lines offering frequent service. In addition, the proximity of homes to commercial areas in a downtown setting creates short trip distances, encouraging walking and bicycling. Completed in 2007 – prior to the initiation of SMART service in 2017 – the plan is undergoing an update for 2020 with an emphasis on further intensifying residential development and multimodal circulation in and around Downtown and the SMART station area.

North Santa Rosa Station Area Specific Plan (2012)

Focused on the area within one-half mile of the North Santa Rosa SMART Station on Guerneville Road, the plan was undertaken to help guide land use development and transportation improvements within one-half mile of the station, which has become active with the initiation of

SMART service in 2017. The plan laid out a path to increase residential and employment density within walking distance of the station site, enhance economic development, and provide infrastructure to support multimodal transportation and connectivity.

Roseland Sebastopol Road Specific Plan (2016)

Covering a 1,860-acre area in southwest Santa Rosa, this plan focuses on enhancing the Sebastopol Road commercial corridor to serve the existing nearby residential neighborhoods as well as retaining the industrial and auto-related land uses near US 101. In terms of transportation, the plan seeks to emphasize the development of transit-supportive land uses as well as support active transportation by improving connections for bicycling and walking to Downtown Santa Rosa, the SMART station, and the Sebastopol Road corridor. At the time the plan was completed in 2016, Roseland was part of unincorporated Sonoma County; the neighborhood was officially annexed by Santa Rosa in 2017.

4.4 TRAVEL AND COMMUTE PATTERNS

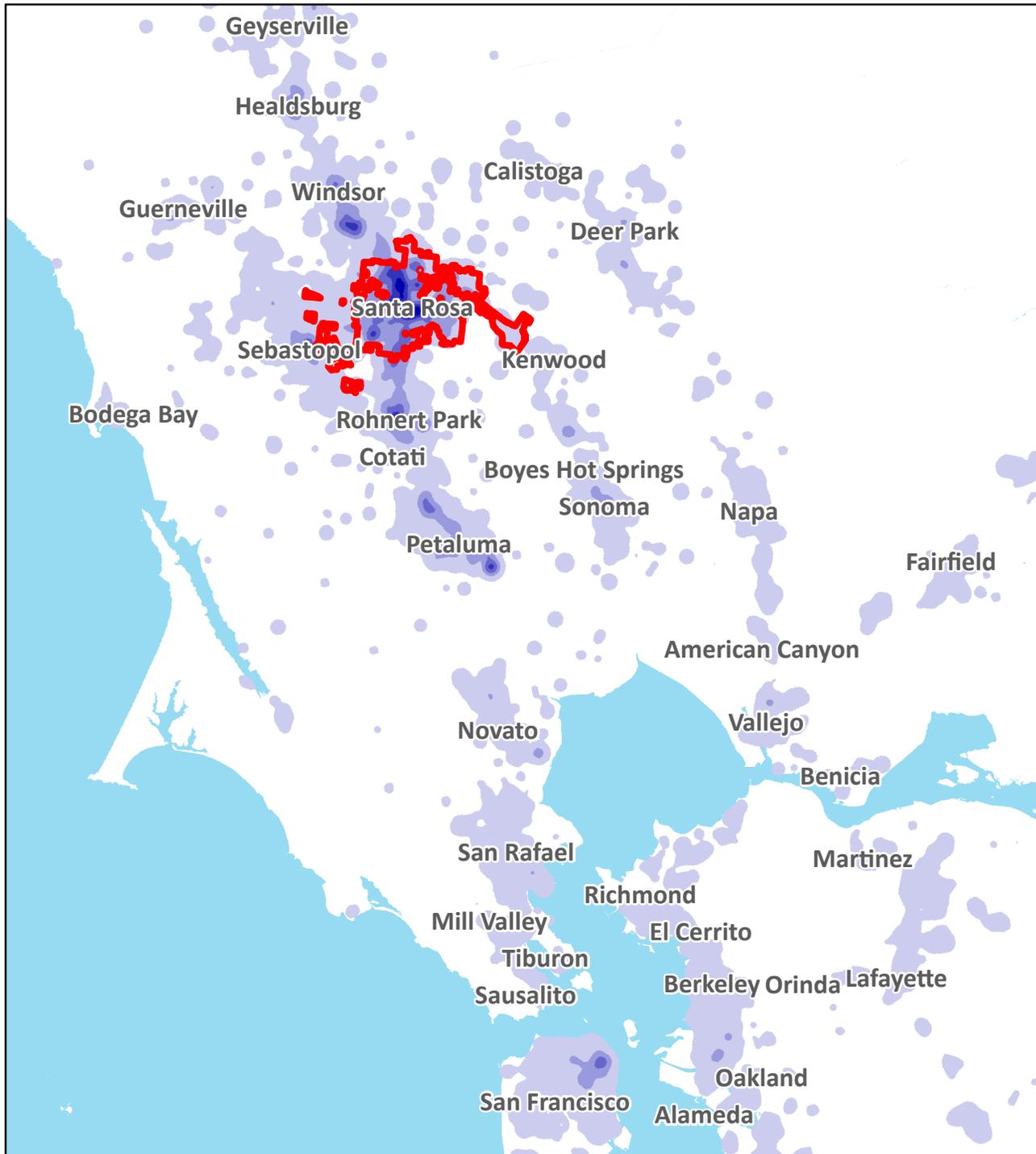
Proximity of Residents to Key Destinations

Santa Rosa is Sonoma County's largest population and employment center, home to 35.9 percent of the county's population and 35.6 percent of its jobs (American Community Survey, 2018). Well-connected to other cities and towns in Sonoma County via US 101 and SR 12, it is a regional hub and is home to many of the services used by residents in the Santa Rosa Planning Area.

For Santa Rosa residents, the mix of land uses enables them to meet many of their needs locally. According to the *Sonoma County Travel Behavior Study (2020)*, Santa Rosa-generated trips average 5.4 miles each and over 60 percent are less than five miles. As a share of all a.m. weekday trips within Sonoma County, 29 percent of trips both begin and end in Santa Rosa. The geographic distribution of workplace locations for Santa Rosa residents can be seen in **Figure 4-1**.

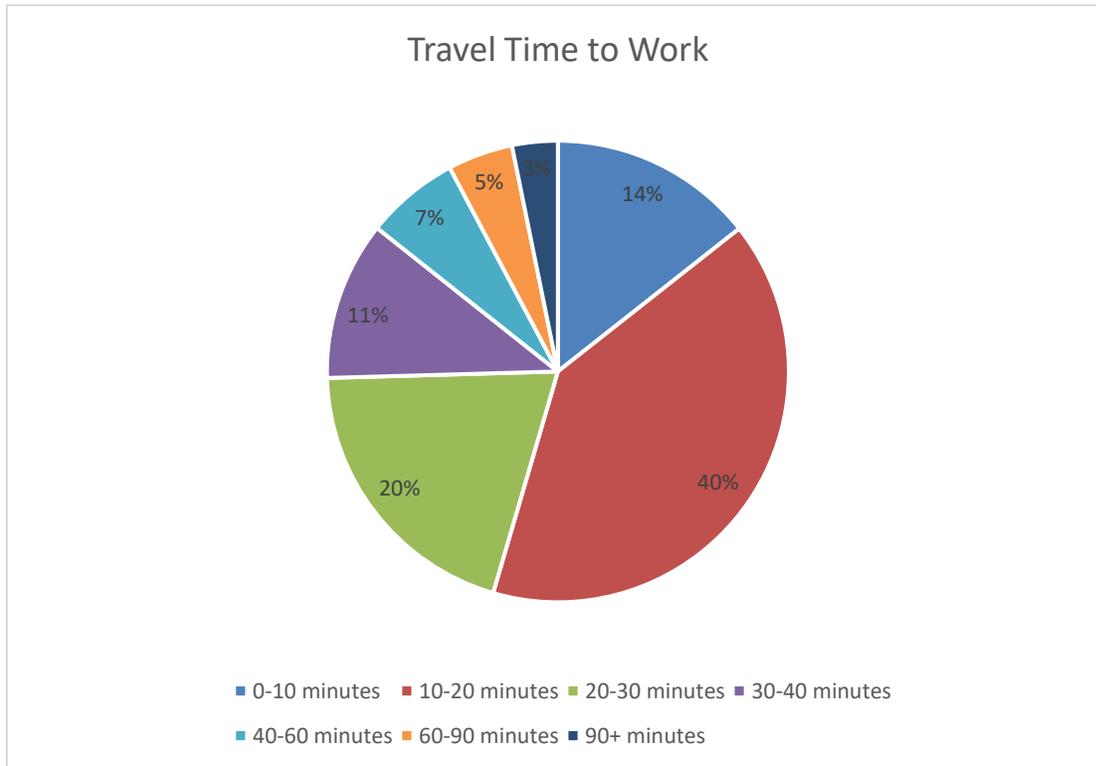
Santa Rosa residents also spend less time commuting than other residents of Sonoma County and the Bay Area as a whole. While the average Bay Area commute is 31 minutes, the average for Sonoma County is 24 minutes, and the average for Santa Rosa residents is 22 minutes. **Figure 4-2** illustrates the range of work commute times for Santa Rosa residents.

Figure 4-1
Work Destinations
for Santa Rosa
Residents



Legend

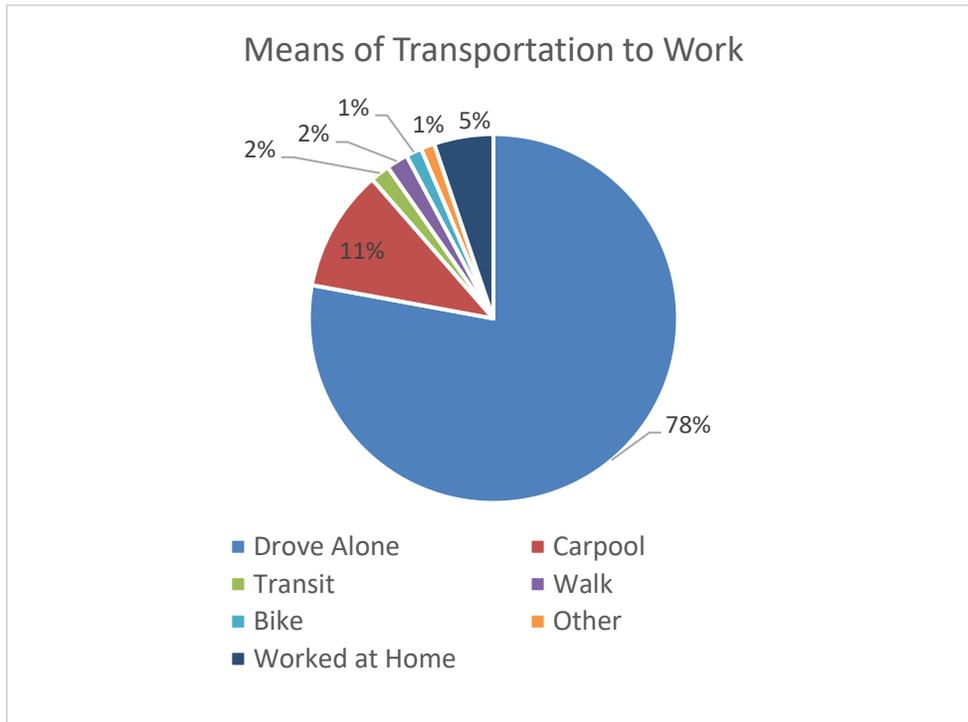
-  City Limit
-  1 - 200 Workers
-  201 - 800 Workers
-  801 - 1,800 Workers
-  1,800 - 3,200 Workers
-  3,201 - 5,000 Workers

Figure 4-2. Travel Time to Work for Santa Rosa Residents

Transportation Mode Share

Motor vehicles are the dominant transportation mode for Santa Rosa residents, with 89 percent relying on motor vehicles for travel to and from work, 78 percent driving alone and another 11 percent sharing rides in a carpool or vanpool. Only two percent of residents travel to work using public transportation, two percent by walking, and one percent by bicycle. As these data are based on a five-year average from 2014-2018, they do not adequately account for the initiation of the SMART commuter rail service in 2017 and its subsequent extension from San Rafael to Larkspur in late 2019. The commute shares of Santa Rosa residents for each transportation mode are shown in **Figure 4-3**.

Along with other communities in California, Santa Rosa is experiencing a shift toward telework. According to the most recent data, 5.2 percent of workers reported that they worked at home, which includes workers with home-based businesses as well as telework. However, this percentage is expected to increase due to the improvements in technology to support telework for many types of work, as a result of policies designed to reduce GHG emissions, and as part of behavior changes in response to the COVID-19 pandemic.

Figure 4-3. Santa Rosa Residents Means of Transportation to Work

Source: American Community Survey, 2018 (5-year average)

4.5 VEHICLE MILES TRAVELED

Background

A common indicator used to quantify the amount of motor vehicle use is Vehicle Miles Traveled, or VMT. VMT represents the total number of miles driven per day by persons traveling to and from a defined area. Many factors affect VMT including the average distance people drive to work, school, and shopping, as well as the proportion of trips that are made by non-automobile modes. Areas that have a diverse land use mix and facilities for non-automobile modes, including transit, walking, and biking, tend to generate lower VMT than auto-oriented suburban areas where land uses are typically segregated. Further, cities and regions where the jobs/housing ratio is balanced generate a lower VMT than areas where most residents commute long distances to work. From an environmental perspective, development that generates less per capita VMT reflects less auto usage, and correspondingly, lower fuel consumption and production of GHG emissions.

Application of VMT

In California, the use of VMT instead of Level of Service (LOS) as a metric to assess transportation-related environmental impacts has been adopted as part of updates to the California Environmental Quality Act (CEQA). As a result, transportation-related environmental impacts are now based on the miles of vehicle travel associated with a project instead of the project's effects on traffic congestion. The City of Santa Rosa released the *Vehicle Miles Traveled (VMT) Guidelines Final Draft* in June 2020 which identifies a set of draft VMT significance thresholds that largely align with guidance provided in the California Office of Planning and Research publication *Technical Advisory on Evaluating Transportation Impacts in CEQA*, December 2018. The City's draft significance thresholds are as follows:

- For residential projects, a project would cause substantial additional VMT if it exceeds existing countywide average home-based VMT per capita minus 15 percent
- For office projects, a project would cause substantial additional VMT if it exceeds existing countywide average commute-based VMT per worker minus 15 percent
- For retail projects, a project would cause substantial additional VMT if it results in a net increase in regional total VMT

Residential VMT per capita represents the VMT associated with home-based trips divided by the population in the corresponding geographical area. Residential VMT per capita for a development project is compared to the countywide VMT per capita. Employment VMT per employee represents the VMT associated with home-based employment trips (commute trips) divided by the number of employees, and for a development project is compared to the countywide average VMT per employee. Retail differs from residential and employment-based uses in that it considers total regional VMT instead of a performance metric like VMT per capita or VMT per employee.

Existing Citywide VMT

The travel demand model operated by the Sonoma County Transportation Authority (SCTA) can produce VMT estimates and is used by the City of Santa Rosa to assess VMT. SCTA's model outputs VMT data at the traffic analysis zone (TAZ) level, which in the denser Downtown typically span several blocks, increasing in size as densities decrease toward the edges of the city. The VMT projections included herein were produced by a version of the SCTA model released in May 2020.

Approximately 3.27 million daily VMT are associated with the existing land uses in the City of Santa Rosa. This constitutes just over 30 percent of the Countywide 10.74 million daily VMT. Santa Rosa has an average existing residential VMT per capita of 13.67 miles per resident and an average existing employment VMT of 9.05 miles per employee. Notably, both of these efficiency metrics are lower than the countywide average, and in fact are the lowest of all incorporated cities in Sonoma County. This is largely attributable to Santa Rosa being the region's major employment center and related jobs-housing balance. The existing VMT and VMT efficiency metrics are summarized in **Table 4-1**.

Table 4-1: Existing VMT and VMT Efficiency Metrics		
VMT Metric	County of Sonoma	City of Santa Rosa
Average Residential VMT per Capita	16.53	13.67
Average Employment VMT per Employee	12.53	9.05
Total VMT	10,744,393	3,271,638
Source: SCTA, May 2020		

VMT and Proximity to Transit

CEQA Guidelines Section 15064.3(b)(1) addresses the potential VMT impacts associated with land use projects in transit-oriented areas, indicating that, “Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact.” A major transit stop is a site containing a rail transit station or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods, and a high-quality transit corridor includes fixed route bus service with frequencies no longer than 15 minutes during peak commute hours. In Santa Rosa, the following locations are considered major transit stops or high-quality transit corridors:

- Downtown SMART Station
- Santa Rosa North SMART Station
- Downtown Transit Mall
- Coddington Transit Hub
- CityBus Route 1 (Mendocino Avenue/Coddington Mall) operates every 15 minutes connecting to the downtown transit mall
- CityBus Routes 2/2B (Sebastopol Road) operates every 15 minutes between the downtown transit mall and Sebastopol Road area
- CityBus Route 3 (Santa Rosa Avenue) and Route 5 (Petaluma Hill Road) combine to operate every 15 minutes on the Santa Rosa Avenue corridor between the downtown transit mall and Petaluma Hill Road

The areas of the city that are within one-half mile walking distance of these major transit facilities are shown in **Figure 4-4**. VMT impacts associated with development in these areas can generally be presumed to be less than significant.

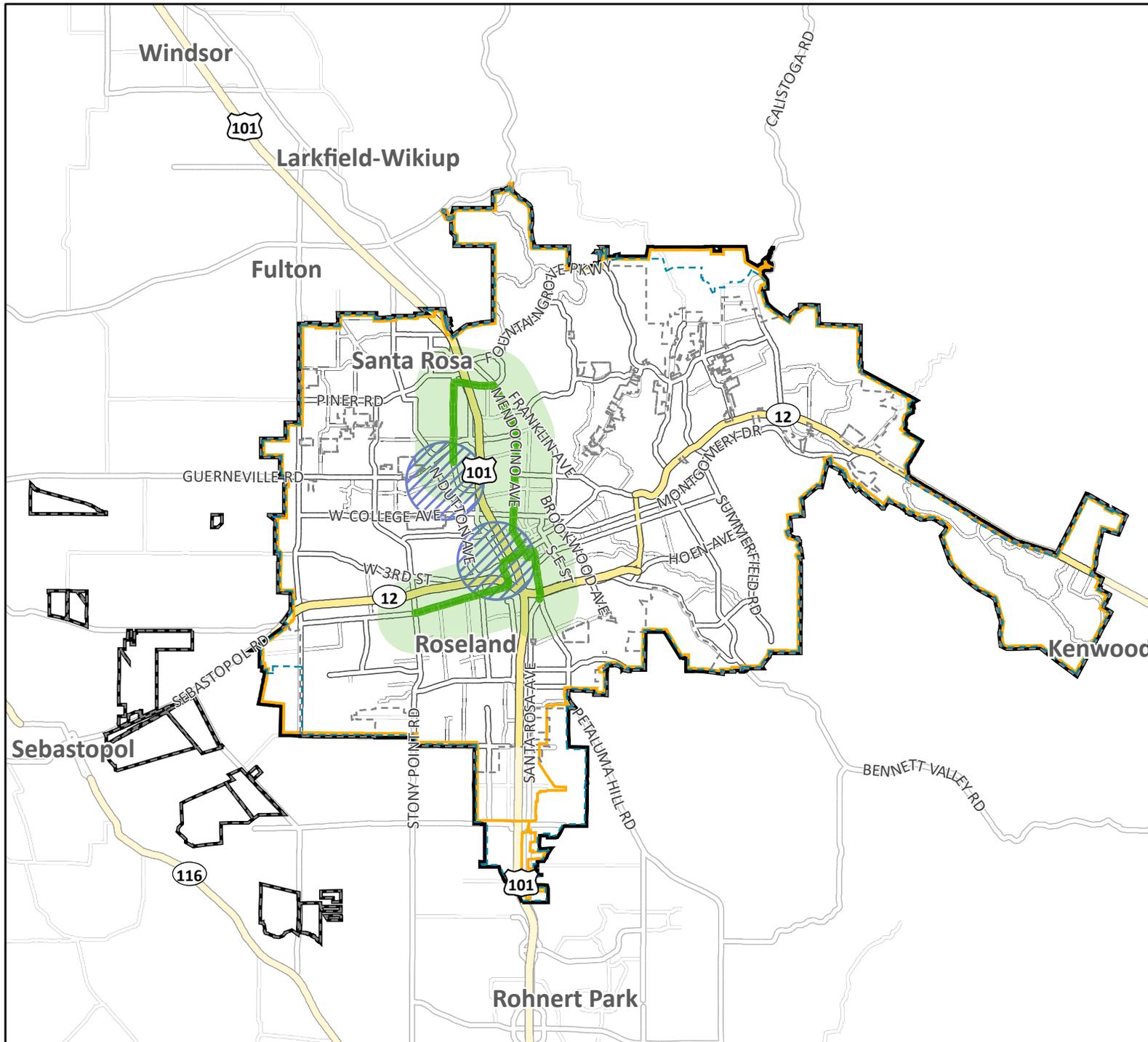
VMT Variation within Santa Rosa

The SCTA travel demand model produces VMT metrics for 318 geographic zones within Santa Rosa. Mapping of these metrics provides insight to how the amount of vehicle travel varies in

different parts of the City, as well as an indication of which areas are and are not likely to meet the City's VMT significance thresholds. A map showing the current residential VMT per capita is shown in **Figure 4-5**, and a map showing employment VMT per worker is shown in **Figure 4-6**. Areas shaded in green are considered low VMT areas, areas in yellow represent zones where VMT mitigation is likely to be required to achieve thresholds, and areas in red represent areas where it may be difficult to achieve VMT thresholds. Areas with no coloring reflect zones where that particular use (residential or employment) does not currently exist.

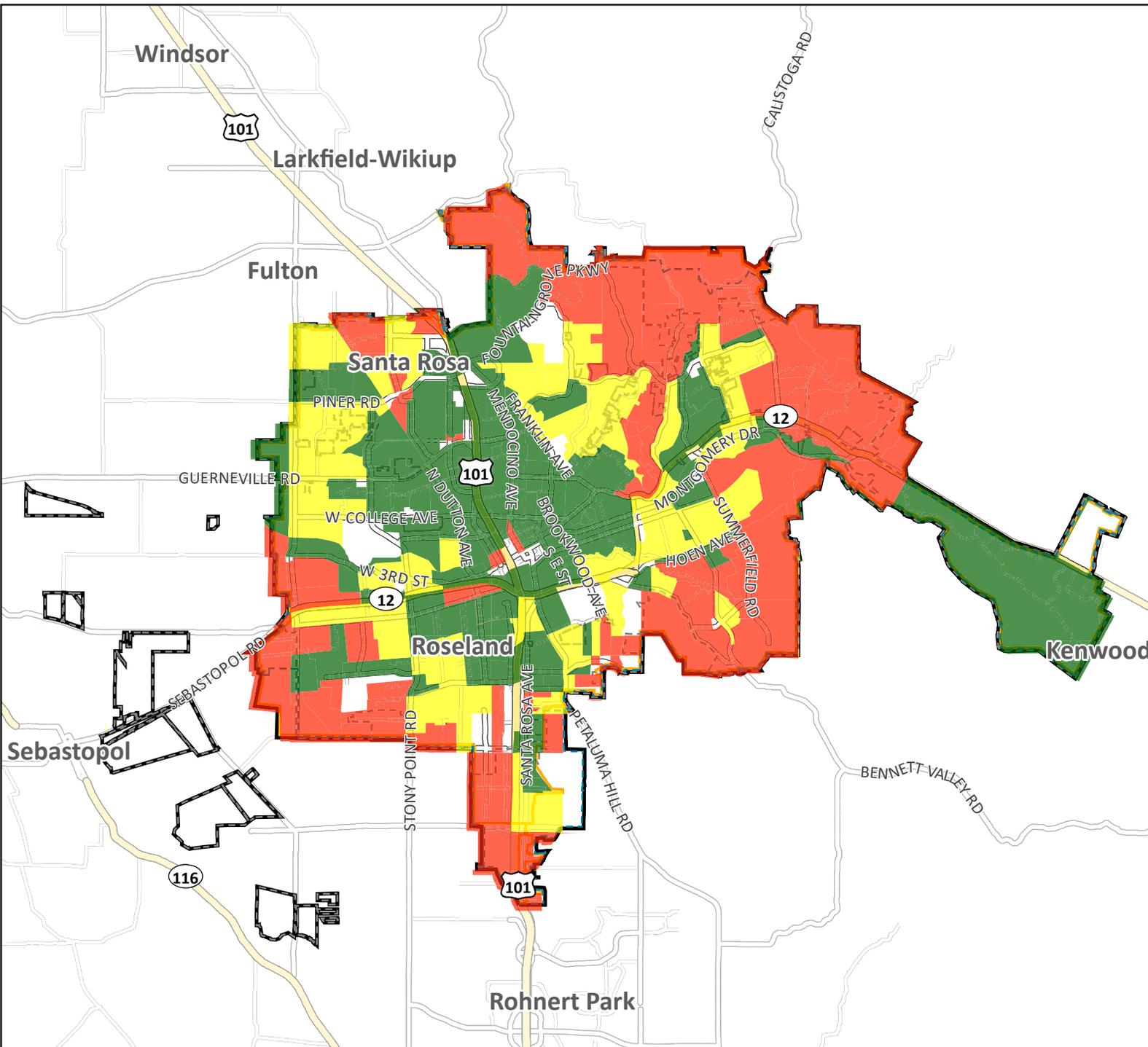
In general, residential and employment based VMT tends to be lowest in the central portion of the City, with the areas having the highest VMT being near the periphery of the City. Certain zones tend to perform better than others due to their land use types and mixes, including areas that include a mix of housing, employment, and local-serving retail. Demographic characteristics can also play a role in VMT, such as at the Oakmont retirement community in far eastern Santa Rosa where the predominantly senior population tends to drive less and generates a relatively low VMT per capita.

Figure 4-4
 Areas within 1/2
 Mile of Major
 Transit Facility
 Legend



-  City Limit
 -  Urban Growth Boundary
 -  Sphere of Influence
 -  Planning Area
- Transit Facilities
-  High Frequency Bus Routes
 -  1/2 mi from High Frequency Bus Route
 -  1/2 mi from SMART Station

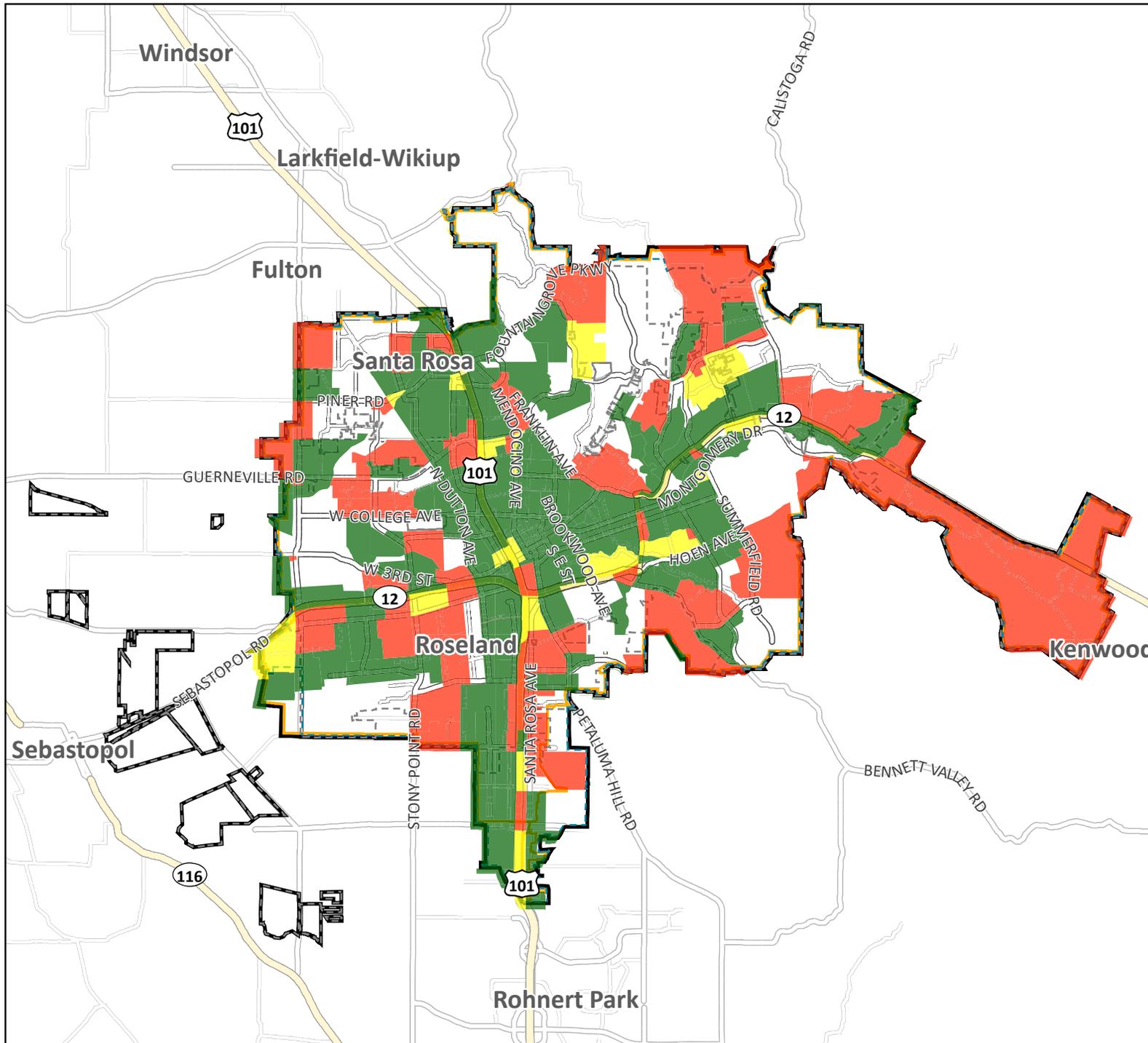
Figure 4-5
Residential
VMT per capita



Legend

- City Limit
 - Urban Growth Boundary
 - Sphere of Influence
 - Planning Area
- Vehicle Miles Traveled**
- 15% or More Below Countywide Average
 - 0 to 15% Below Countywide Average
 - Above Countywide Average

Figure 4-6
 Employment
 VMT per worker



Legend

- City Limit
 - Urban Growth Boundary
 - Sphere of Influence
 - Planning Area
- Vehicle Miles Traveled**
- 15% or More Below Countywide Average
 - 0 to 15% Below Countywide Average
 - Above Countywide Average

4.6 EQUITY

Introduction

Santa Rosa’s low-income and otherwise disadvantaged communities often face significant mobility challenges. Residents of these communities are less likely to have access to a vehicle, and as a result are more dependent on transit, bicycling, and walking to access jobs, schools, shopping, medical appointments, and other needs. As the transportation system has evolved in most of the U.S. to rely on vehicle travel and focused on improving the flow of vehicle traffic, disadvantaged populations have generally experienced less benefit from transportation investments.

Communities of Concern

The Metropolitan Transportation Commission has identified Communities of Concern throughout the region to help identify and prioritize areas that face greater transportation challenges and has prioritized these areas for many transportation investments. To be identified as a Community of Concern, a Census tract must either have a concentration of both minority and low-income households or a concentration of low-income households and also meet the thresholds for three of the six other disadvantage factors, as listed in **Table 4-2**.

Disadvantage Factor	Threshold
Minority Population	70%
Income <200% of federal poverty level	28%
Limited English proficiency	12%
Zero-vehicle households	15%
Seniors age 75 and older	8%
People with disabilities	12%
Single-parent families	18%
Severely rent-burdened households (>50% of income)	14%
Source: Metropolitan Transportation Commission, 2018	

There are three neighborhoods in Santa Rosa – consisting of 11 Census tracts – that meet Communities of Concern criteria. This includes areas where much of the city’s population and jobs are located – the Roseland neighborhood, the area north of College Avenue and west of US 101, and Downtown Santa Rosa, as shown in **Figure 4-7**.

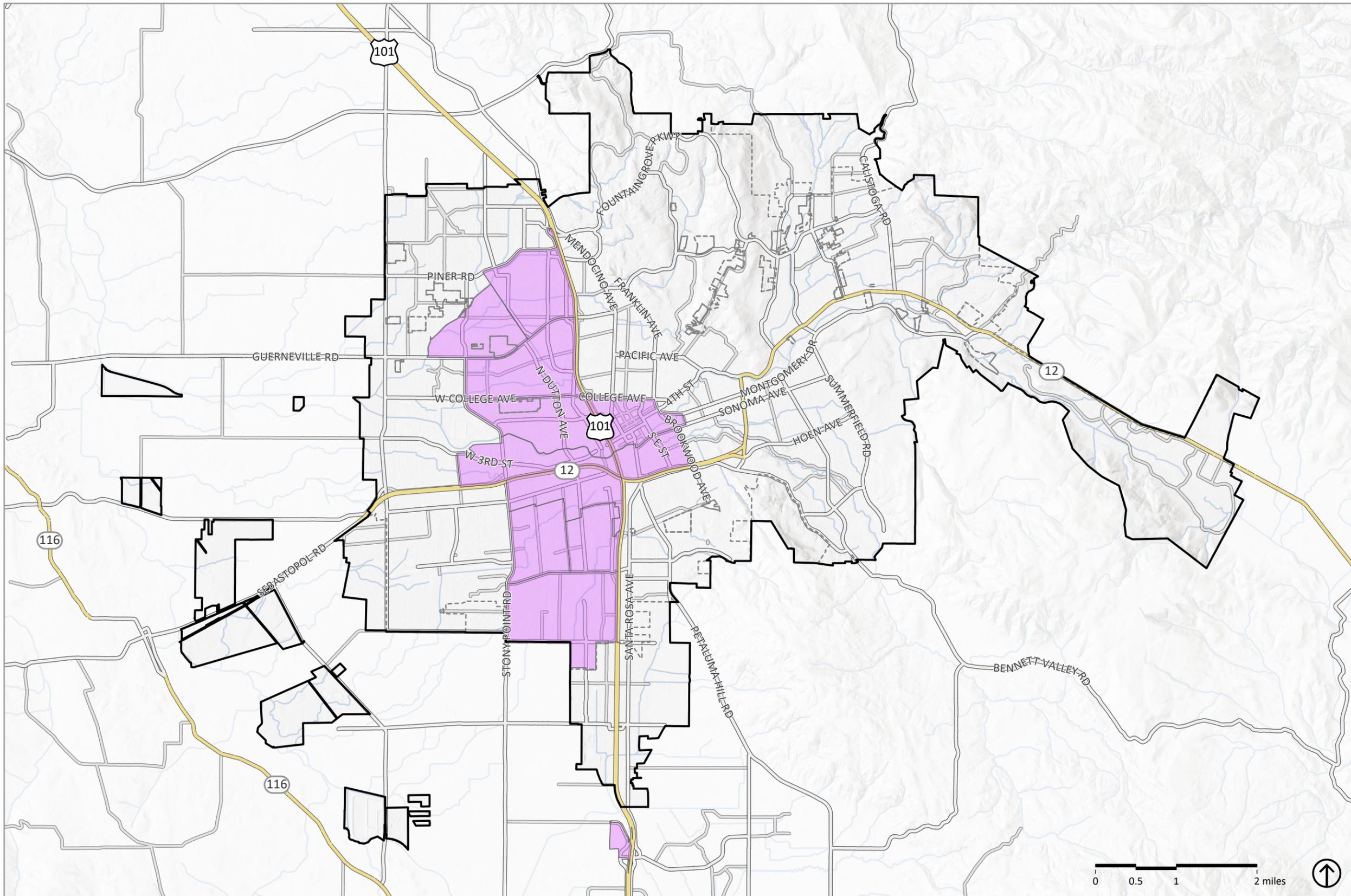


Figure 4-7
Communities of Concern

- Communities of Concern Class
- High
 - Higher
 - Highest
 - Planning Area
 - City Limit

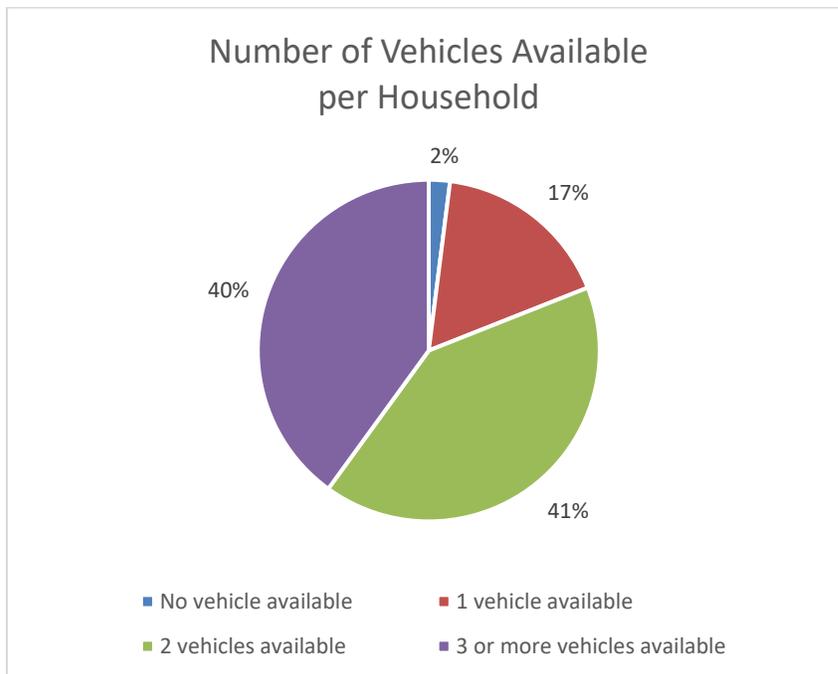


Vehicle Availability

Among the Communities of Concern criteria, vehicle availability is the one most directly related to transportation and mobility. Motor vehicle travel has historically been the dominant mode of transportation in Santa Rosa, and this is reflected in how people travel to work, school, shopping, and to meet other needs. As a result, households that lack access to a vehicle – or those with fewer vehicles than licensed drivers – face mobility challenges.

It is estimated that two percent of Santa Rosa households do not have access to a motor vehicle. However, this underestimates the number of people with mobility challenges, as it does not account for households that have fewer vehicles than adults as well as those individuals who are unable to drive and need to rely on other mobility options, including children, seniors, and people with disabilities. With 19 percent of households having access to one vehicle or fewer, a sizable number of city residents need to rely on alternatives to personal motor vehicles to meet their mobility needs. The number of vehicles per household is indicated in **Figure 4-8**.

Figure 4-8. Vehicle Availability for Santa Rosa Households



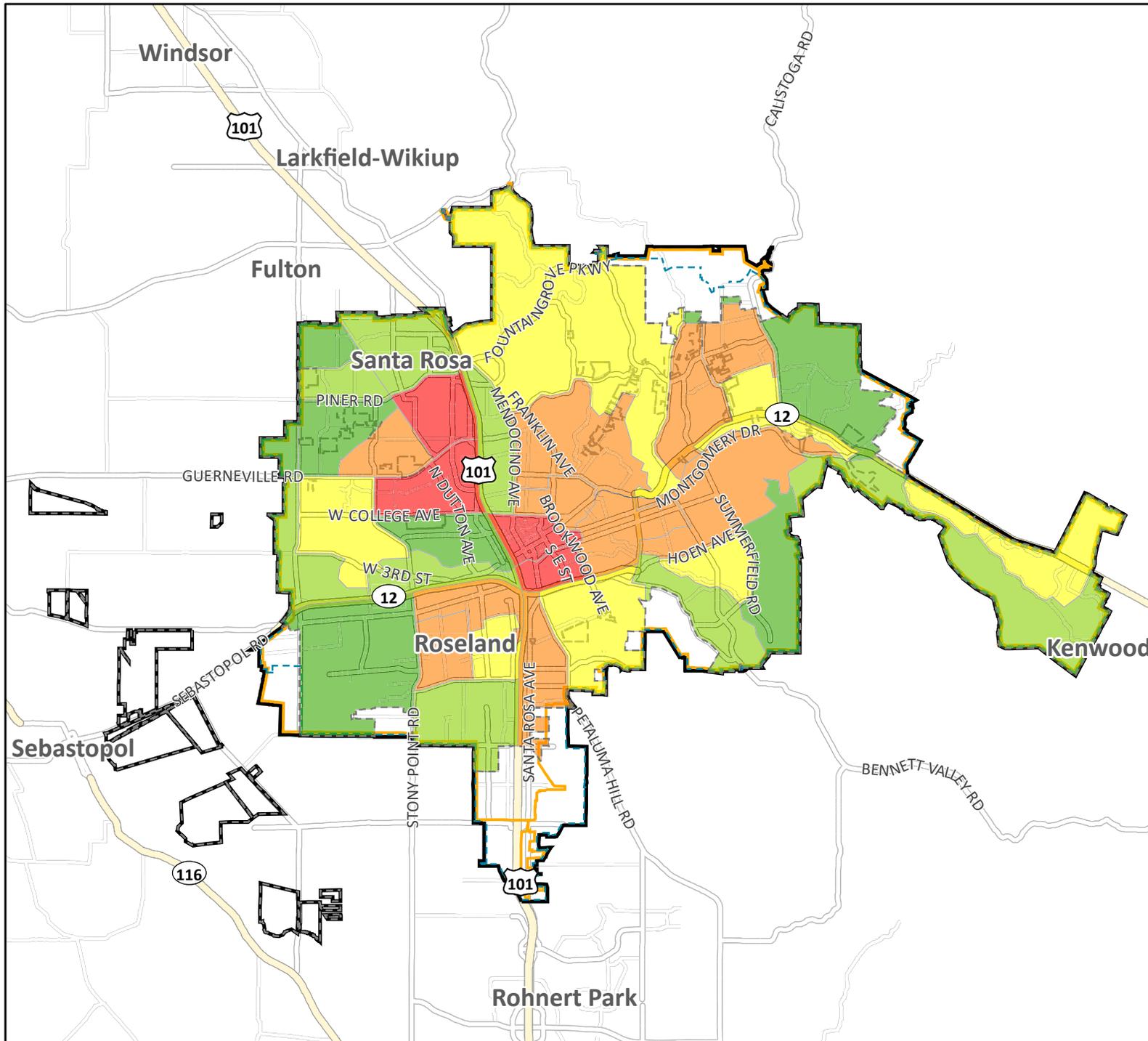
Source: American Community Survey, 2018 (5-year average)

However, as shown in **Figure 4-9**, zero-vehicle households are more heavily concentrated in some parts of the city than others, notably in the Communities of Concern.

Figure 4-9
 Zero-Vehicle
 Households in
 Santa Rosa
Legend

-  City Limit
-  Urban Growth Boundary
-  Sphere of Influence
-  Planning Area

- Zero-Vehicle Households
-  0-2%
 -  2-4%
 -  4-6%
 -  6-12%
 -  12-20%



4.7 STREETS AND HIGHWAYS

Functional Classification System

Santa Rosa's streets and highways are classified by the current General Plan according to the type and volume of traffic they carry:

Highways

Highways supplement the city's local roadway system by carrying long-distance traffic at relatively high speeds to and through Santa Rosa. US 101 is the primary transportation spine running through Sonoma County, as well as Marin County to the south and Mendocino County to the north. It is access-controlled within Santa Rosa, with interchanges at Mendocino Avenue/Old Redwood Highway, Bicentennial Way, Hopper Avenue, Steele Lane/Guerneville Road, College Avenue, Downtown, SR 12, Baker Avenue/Colgan Avenue, and Hearn Avenue/Yolanda Avenue. SR 12 is a major east-west route through the city and has four travel lanes, except for the far eastern portion of Santa Rosa where the highway narrows to two lanes at Melita Road. It is access-controlled between Fulton Road and Farmer's Lane, with interchanges at Stony Point Road, Dutton Avenue, US 101, and South E Street. A portion of SR 12 runs on Farmers Lane, and the segment between Farmers Lane and the eastern city limits is sometimes referred to as Sonoma Highway. Highways are the responsibility of the State Department of Transportation (Caltrans), not the City of Santa Rosa, though the City operates the traffic signals along Farmers Lane and at many of the US 101 interchanges.

Arterial Streets

Boulevards and parkways connect town centers to the greater region. Boulevards and parkways are essential for combining motorized and non-motorized traffic in safe, efficient, welcoming environments. Since the success of commerce and traffic circulation depends on effective street design, attention must be paid to the balanced movement of all transportation modes on boulevards and parkways. On these streets, passenger vehicles, delivery trucks, emergency responders, and transit must operate with high levels of efficiency. Pedestrians and bicyclists must also be welcomed and are in greater need of support, due to higher vehicle speeds and volumes of traffic. The Regional Streets category includes the following street types:

- **Boulevards.** Boulevards provide multi-lane access to commercial and mixed-use buildings and they carry regional traffic. For these reasons, speeds on these streets are higher (30 to 35 mph). Boulevards have medians, bike lanes and they may have sections with parking to support adjacent commerce, parks, schools, and other attractions along their route.
- **Parkways.** Parkways provide connections between outlying areas to more developed parts of the City, or they carry traffic through natural areas. Parkways are not designed to accommodate adjoining development. Roadway speeds may be 45 mph or higher, but when parkways enter denser parts of the City, speeds are reduced. Bike lanes are typically included in Parkways, although bike facilities may also be separated.

Collector Streets

Collector streets connect residential neighborhoods to commercial centers and service commercial districts. Avenues and Main Streets are collector roadways. In addition to providing access, they carry large and more diverse amounts of traffic. Avenues and main streets host deliveries and efficient emergency responses. They anchor neighborhood commerce, serve bicyclists and pedestrians, and improve transit operations. Collector streets must operate at low to moderate speeds since many people live, work, shop, and play within these street environments. Parking is found on many, but not all avenues and main streets. The Collector Streets category includes the following street types:

- **Avenues.** Avenues connect neighborhoods to town centers, commercial centers, and other neighborhoods. A raised center median is preferred allowing for a triple canopy of street trees. Avenues are richly landscaped, since they are civic spaces that serve as gateways to town centers. Since avenues serve as the transitions between neighborhoods and commercial districts, speeds should be kept low, typically 35 mph. Avenues also serve as major transit routes.
- **Main Streets.** Main streets provide access to neighborhood commercial and mixed-use buildings and districts. On-street parking is very desirable and recommended. Low speeds (25 to 30 mph) are desirable to protect pedestrians and enhance commercial activity.

Local Streets

Local streets, which form the heart of neighborhoods, function primarily to provide access to neighborhood destinations and make connections within neighborhoods. All of these streets provide vehicle, pedestrian, and utility access. Traffic speeds of not more than 15 to 25 mph are appropriate for such streets. A measure of how successful a local street is performing its intended function is how well it adds to the quality of the neighborhood by offering access, parking, tranquility, and safety. Local streets should provide indirect connection between Collector or Arterial Streets. Long straight connections will encourage “shortcut” traffic through neighborhoods. The Local Streets category includes the following street types:

- **Neighborhood Streets.** Neighborhood streets are the most common type of access road in healthy neighborhoods. This is the preferred street to service residential areas when the street does not exceed 100 homes or 1,000 average daily trips (ADT). Streets are short, terminating in two to six blocks.
- **Lanes.** These narrow roads (typically 16 to 20 feet wide) are useful in accessing small numbers (up to approximately 12) of homes. Parking, when needed, can be placed on one side or in parking bays. One-way lanes can operate around parks or nature preserves. They also work well as two-way facilities in many other contexts. Landscaping and sidewalks fill the remainder of the available public right-of-way.

- **Alleys.** Alleys are slow-speed (10 mph), secondary access ways running behind and sometimes between rows of houses, or commercial buildings. Alleys can provide service workers easy access to utilities and sanitation and give residents easy access to garages, backyards, and any accessory units.
- **Trails.** Trails are pedestrian path connectors through neighborhoods or along creeks not intended for motorized vehicles. They often follow their own independent rights-of-way or utility corridors. Serving as an alternative transportation system, trails connect many homes to parks, schools, transit stops, join cul-de-sacs, provide access to collector streets, and other common destinations.

Major Street Corridors

Santa Rosa's local traffic is primarily carried along arterial streets, including the following:

College Avenue/West College Avenue

College Avenue/West College Avenue is an east-west street, generally with two through lanes in each direction and a two-way left turn lane west of US 101. Sidewalks are present along both sides of the street east of US 101, and on-street parking is available at a limited number of locations. The posted speed is 40 mph west of Lance Drive and 35 mph between Lance Drive and its eastern terminus at 4th Street.

Dutton Avenue

Dutton Avenue is a 25- to 30-mph two-lane street with sidewalks and on-street parking to the south of Sebastopol Road. To the north of Sebastopol Road, the corridor is a five-lane street with 35- to 40-mph speed limits, sidewalks, on-street parking, and bike lanes between the Joe Rodota Trail and 3rd Street and north of College Avenue.

4th Street

4th Street has two travel lanes and a speed limit of 25 mph west of Chinn Street, transitioning to four travel lanes to the east with a speed limit of 30 mph east of E Street. Within Downtown Santa Rosa, the street is low-speed, with one lane in each direction and diagonal and parallel parking.

Fulton Road

Fulton Road is a north-south street from Old Redwood Highway to SR 12. It has a posted speed limit of 45 mph with two lanes in each direction divided by a raised and landscaped median south of Chatham Drive; north of this location there is a center turn lane. There are continuous bike lanes and no available on-street parking. Portions of the roadway north of Appletree Drive Lane is one lane in each direction though the city is currently completing the design phase of a project to widen the road to provide the planned five-lane cross-section.

Mendocino Avenue

Mendocino Avenue is a north-south street that serves as a primary transit corridor. North of College Avenue, Mendocino Avenue has two southbound, two northbound lanes, a shared center turn lane, on-street parking on the eastern side, continuous bike lanes, and a 35-mph speed limit. Between College Avenue and Courthouse Square, there are two northbound lanes and one southbound lane, on-street parking, and a 25-mph posted speed limit. Sidewalks are present on both sides of the street for its entire length.

Montgomery Drive

Montgomery Drive has one eastbound and one westbound lane for its entire length, on-street parking west of Hallin Lane, discontinuous bike lanes, and sidewalks west of Greengate Court. The speed limit for Montgomery Drive varies from 40 mph to the west of Melita Road to 25 mph to the west of Hahman Drive.

Petaluma Hill Road

Petaluma Hill Road is a north-south street with two travel lanes and a posted speed limit ranging from 35 to 45 mph, with the higher speed section in the southern side of the city. Sidewalks and on-street parking are present north of Kawana Springs Road and there are bike lanes from Pressley Street and Yolanda Avenue.

Santa Rosa Avenue

Santa Rosa Avenue is a north-south commercial corridor with a posted speed limit ranging from 30 to 40 mph, with the slower section near Downtown Santa Rosa. It also has a two-way left-turn lane south of Petaluma Hill Road and continuous sidewalks between downtown and the city limits. Bike lanes are present along most of the corridor, and on-street parking is intermittent. The width ranges from two to four travel lanes.

Sebastopol Road

Sebastopol Road is an east-west road with discontinuous bike lanes and sidewalks, some on-street parking, a speed-limit of 25 mph west of Wright Street, and a speed limit of 40 mph east of Wright Street. Sebastopol Road has one lane in each direction from the easternmost section of the road to Lombardi lane and between Romani Court and Justin Drive. Outside of those sections, it consists of two lanes in each direction. Sebastopol Road also has a shared center turn lane east of Dutton Avenue and a raised concrete median between Wright Road and Fresno Avenue.

Steele Lane-Guerneville Road

Steele Lane-Guerneville Road has four through lanes, two eastbound and two westbound, a speed limit of 35-40 mph, and an intermittent raised concrete median. Continuous sidewalks are present along both sides of the street. Bike lanes are present at some locations but are not continuous, and on-street parking is generally not permitted.

Stony Point Road-Marlow Road

Stony Point Road-Marlow Road is a north-south street west of US 101. The street name changes at College Avenue – Stony Point Road to the south and Marlow Road to the north. There are two northbound and two southbound lanes divided by a raised landscaped median, with continuous bikes lanes and sidewalks on both sides of the street, and on-street parking available at select locations. The posted speed limit is 35 to 40 mph on Marlow Road and Stony Point Road.

4.8 TRAFFIC CONDITIONS

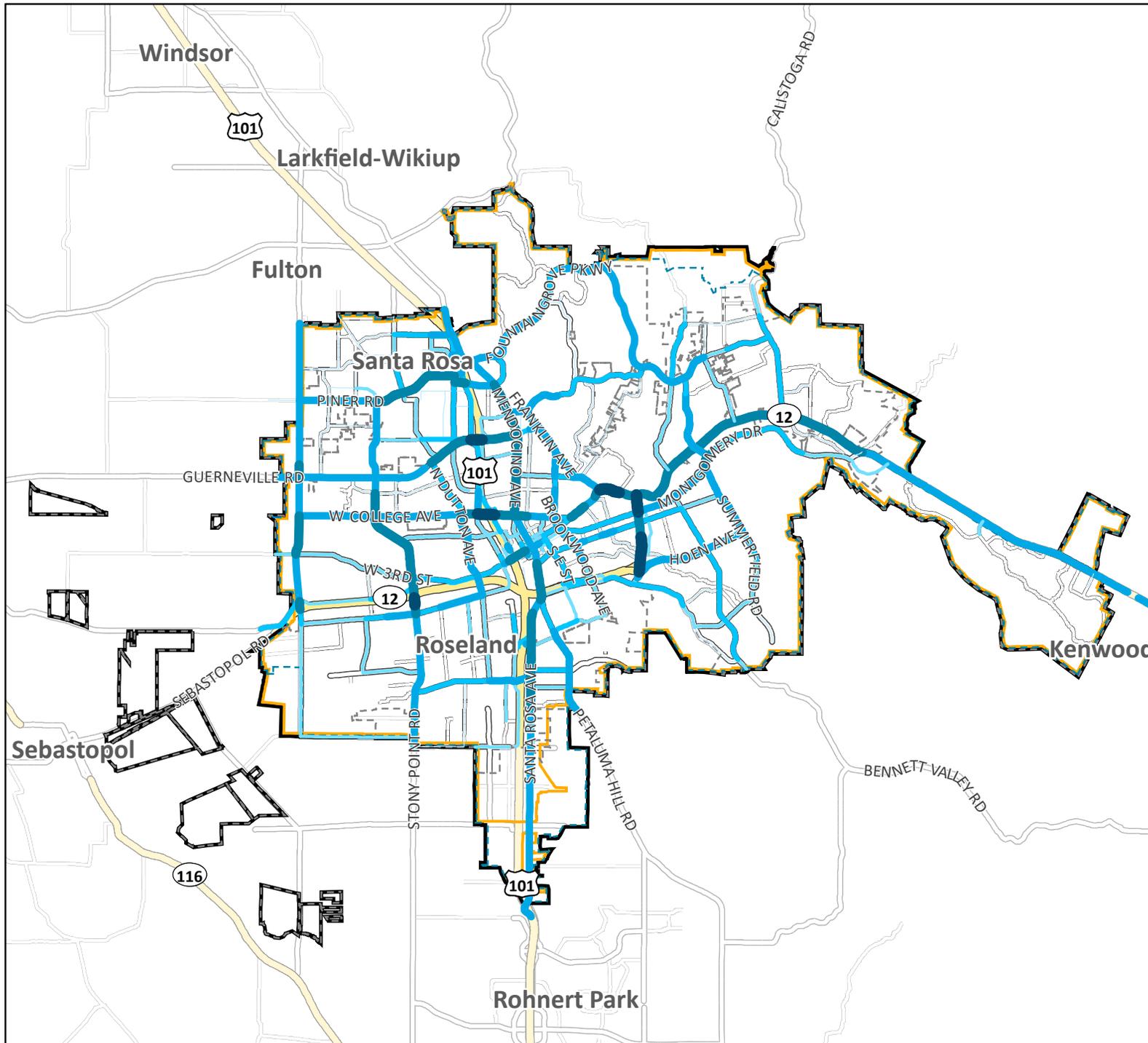
Traffic Volumes

The City’s Public Works Traffic Engineering Division oversees a traffic data collection program that collects roadway and intersection volumes throughout the city, with most major arterials and signalized intersections being counted about every three years. A “bandwidth” type map showing roadway traffic volumes is shown in **Figure 4-10**, with the width of lines corresponding to the daily traffic volume served on each roadway link. As is evident on the map, the busiest corridors in Santa Rosa include Piner Road, Mendocino Avenue, Santa Rosa Avenue, Guerneville Road, College Avenue, Stony Point Road, Fourth Street, Farmers Lane, and Sonoma Highway (SR 12).

Traffic patterns in Santa Rosa and throughout the state, nation, and world have been affected by the COVID-19 pandemic, with substantial decreases in volume and in many cases congestion. As of 2020, many businesses in Santa Rosa remain closed, tourism and visitor activity is negligible, and many employees work from home. It is too soon to know whether traffic patterns will return to pre-COVID conditions at a later date or whether they will in some ways be permanently altered. For the purposes of this report, the descriptions of traffic volumes and congestion refer to conditions before the pandemic.

The destruction caused by the 2017 Tubbs Fire also continues to influence traffic patterns in some parts of the city, namely in and around the Coffey Park and Fountaingrove neighborhoods where rebuilding efforts are still underway.

Figure 4-10
 Typical Daily
 Traffic Volumes



Legend

- City Limit
- Urban Growth Boundary
- Sphere of Influence
- Planning Area

Daily Traffic Volumes

- Under 5,000 ADT
- 5,000 to 10,000 ADT
- 10,000 to 15,000 ADT
- 15,000 to 25,000 ADT
- 25,000 to 35,000 ADT
- 35,000 to 50,000 ADT



Traffic Congestion

Level of Service

Level of Service (LOS) is used to rank traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, LOS A represents free flow traffic conditions and LOS F represents forced flow or breakdown conditions. The City of Santa Rosa's current General Plan calls for LOS D operation on the City's roadway network, except in Downtown Santa Rosa. Prior to July 2020, LOS was also used in environmental analyses (CEQA) to assess transportation impacts from a congestion perspective. Per SB 743, the LOS metric as used in CEQA has subsequently been replaced with a VMT metric as described in previous sections. The City still uses traffic operational analysis to assess the need for operational enhancements related to development proposals.

Freeways

The most visible and familiar traffic congestion occurring in Santa Rosa is on the US 101 freeway. Within and near Santa Rosa, northbound US 101 often operates at LOS E or F between 7:00 and 9:00 a.m. and again between 3:00 and 6:00 p.m., with bottlenecks generally occurring between Golf Course Drive in Rohnert Park and Airport Boulevard just north of Santa Rosa. Southbound US 101 often encounters a period of LOS E or F operation between 6:00 and 9:00 a.m. and again between 3:00 and 6:00 p.m., with bottlenecks tending to occur between Airport Boulevard and Todd Road. Strategies to help reduce congestion and delay on US 101 include the use of high-occupancy vehicle (HOV) lanes to encourage carpooling; in addition, ramp meters are used at freeway entrances to regulate traffic flow. The SR 12 freeway generally operates acceptably though drivers do encounter some congestion at its eastern and western termini as well as near the US 101 downtown interchange.

City Streets

Most streets within Santa Rosa operate acceptably at most times of the day. On major arterial corridors including Steele Lane-Guerneville Road and College Avenue, the City has invested in "smart" traffic signal technology that can automatically adapt signal timing in response to traffic patterns and plans are to expand these systems to additional corridors over time. Still, congestion is unavoidable during peak hours on some of the busiest corridors and in Downtown, particularly near freeway interchanges. A map showing peak hour congestion levels developed using the SCTA travel demand model, while very broad and focused only on major streets, helps to highlight the busiest corridors as shown in **Figure 4-11**. Select corridors that encounter congestion include:

- Farmers Lane from SR 12 to Fourth Street-Sonoma Highway
- Fulton Road south of Piner Avenue
- Hearn Avenue overcrossing
- Mendocino Avenue overcrossing
- Sonoma Highway from Calistoga Road to Oakmont Drive

- Sonoma Highway (SR 12) from Fourth Street to Mission Boulevard
- Stony Point Road south of Hearn Avenue
- College Avenue from Mendocino Avenue to Dutton Avenue

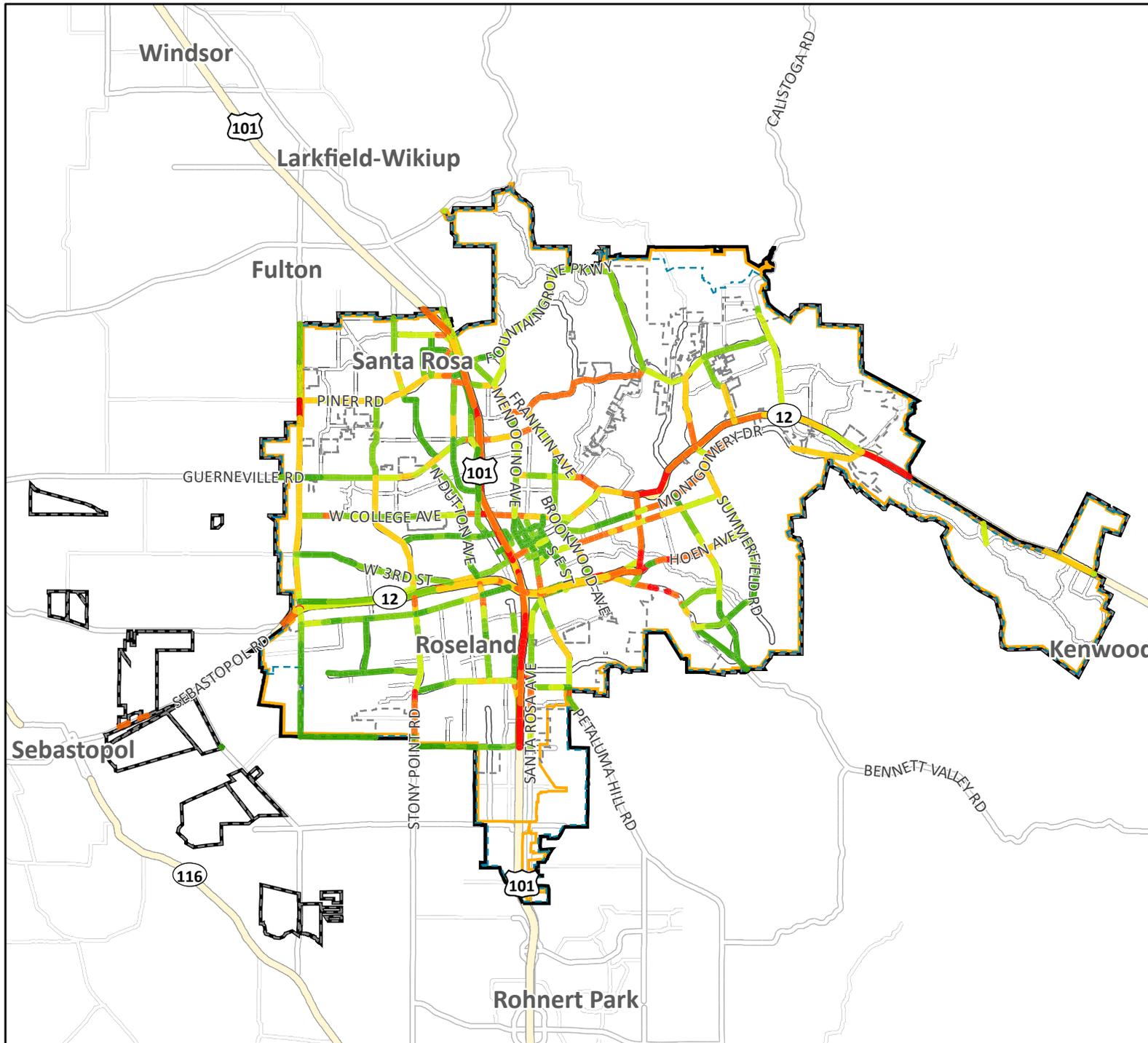
Not reflected on the roadway congestion figure are localized intersection-related delays. Intersection delays typically occur during peak hours and tend to be concentrated near freeway interchanges and schools, and at select locations like Fourth Street/Farmers Lane that handle large volumes of both local and regional traffic.

Figure 4-11
**Peak Hour
 Congestion Levels
 on Major Streets**
Legend

- City Limit
- Urban Growth Boundary
- Sphere of Influence
- Planning Area

Typical Peak Hour Auto
 Congestion Value

Most
 Least



4.9 BICYCLE FACILITIES

Santa Rosa has over 100 miles of designated bikeways, including multi-use paths as well as on-street facilities where bicyclists mix with vehicle traffic. The network was designed with the intent of providing coverage citywide to enable residents to use bicycles throughout the city. As the City has placed a growing emphasis on providing multimodal mobility options, the network has expanded, and the 2018 Bicycle and Pedestrian Master Plan (BPMP) provides a framework to continue to develop new facilities, with an eye toward creating a network that serves the broadest possible range of users.

Types of Bicycle Facilities

The local bicycle network includes a range of facility types. The City uses the following classifications for its bikeway facilities, which include variations on the standard facilities from the Caltrans *Highway Design Manual*.



Class I – Shared Use Paths

Class I shared use paths are paved trails completely separated from the street. They allow two-way travel by people bicycling and walking and are often considered the most comfortable facilities for children and inexperienced riders as there are few potential conflicts between people bicycling and people driving.



Class II – Bicycle Lanes

Class II bicycle lanes are striped preferential lanes on the roadway for one-way bicycle travel. Some bicycle lanes include a striped buffer (designated as Class IIB) on one or both sides to increase separation from the traffic lane or from parked cars, where people may open doors into the bicycle lane.



Class III – Bicycle Routes

Bicycle routes are signed routes where people bicycling share a travel lane with people driving. Because they are shared facilities, bicycle routes are only appropriate on low-speed streets with relatively low traffic volumes. Some Class III bicycle routes include shared lane markings or “sharrows” that indicate proper bicycle positioning in the center of the travel lane and alert drivers that bicyclists may be present. Others include more robust traffic calming features to promote bicyclist comfort and are known as “bicycle boulevards,” which have been designated as Class IIIB bikeways.



Class IV – Separated Bikeways

Separated bikeways are on-street bicycle facilities that are physically separated from motor vehicle traffic by a vertical element or barrier, such as a curb, bollards, or vehicle parking aisle. They can allow for one- or two-way travel on one or both sides of the roadway.

Bicycle Facilities Network

Santa Rosa has expanded its bikeway mileage by over 40 percent since 2010, as shown in **Table 4-3**. This growth has been primarily through the increase in miles of trails and striping new bike lanes, some of which represented an upgrade over existing bike routes. Since limited rights-of-way are available for trails, most of the bikeway system is located along the City’s street network as Class II and Class III facilities.

Bikeway Type	2010 Miles	2018 Miles
Class I – Shared Use Paths	13	30.9
Class II – Bicycle Lanes	46	67.1
Class II – Buffered Bicycle Lanes	0	0.2
Class III – Bicycle Routes	18	12.8
Class III – Bicycle Boulevards	1	1.6
Class IV – Separated Bikeways	0	0
Total	78	112.6

Source: Santa Rosa Bicycle and Pedestrian Master Plan Update, 2018

Santa Rosa’s Class I trails include routes that serve as major spines to the regional trail system. The SMART Trail, which is partially complete, is planned to ultimately extend from Larkspur to Cloverdale, a distance of 70 miles, of which 54 miles is planned to be a Class I facility. The Joe Rodota Trail runs parallel to SR 12, connecting the SMART Trail to Sebastopol. Creek corridors also provide opportunities to develop trails, such as the existing Santa Rosa Creek Trail, which connects neighborhoods in west Santa Rosa to Downtown via the Prince Memorial Greenway.

Bike lanes are generally located along major transportation corridors with moderate to heavy traffic as these streets tend to provide access to desirable destinations such as commercial corridors. Bike routes are typically located along low-volume streets but provide connectivity within the network. The City’s existing bicycle facilities network as identified in the 2018 Bicycle and Pedestrian Master Plan is shown in **Figure 4-12**.

While designated bicycle facilities provide a framework for navigating the city, bicycles are also permitted on the rest of the City’s streets, which include the majority of the street network. Based on street and traffic characteristics, the BPMP conducted a citywide “Level of Traffic Stress” analysis and determined that 74 percent of streets are considered to be comfortable for an average adult rider. Streets rated as low-stress tend to have low traffic volumes and slow speeds. Arterial streets, which are the major travel routes and provide access to most of the major destinations in the city, carry more traffic at higher speeds and can be intimidating for many bicyclists. As a result, in addition to adding to the bicycle facilities network, a complete streets approach can provide significant benefits to bicyclists by lowering speeds and reducing stress levels. A map of the Bicycle Level of Traffic Stress for the City’s street network is shown in **Figure 4-13**.

Bicycle Counts

Counts of bicyclists were taken at locations throughout the city to identify the most heavily used streets and trails for bicycling. Many of the highest count locations were along the City’s trails, which are used for both utilitarian trips – including commute trips – as well as recreational riding. The ten locations with the highest recorded numbers of bicyclists are listed in **Table 4-4**.

Street/Trail	Cross Street	Estimated Daily Bicyclists
Santa Rosa Creek Trail	Stony Point Rd.	807
Joe Rodota Trail	Prince Memorial Greenway	711
Joe Rodota Trail	Dutton Ave.	629
Humboldt St.	College Ave.	561
Mendocino Ave.	Pacific Ave.	546
Sonoma Ave.	Brookwood Ave.	546
Joe Rodota Trail	South Wright Rd.	386
Santa Rosa Ave.	2 nd St.	379
Mendocino Ave.	Steele Lane	350
Stony Point Rd.	Sebastopol Rd.	307

Source: Santa Rosa Bicycle and Pedestrian Master Plan, 2018

Bike Parking

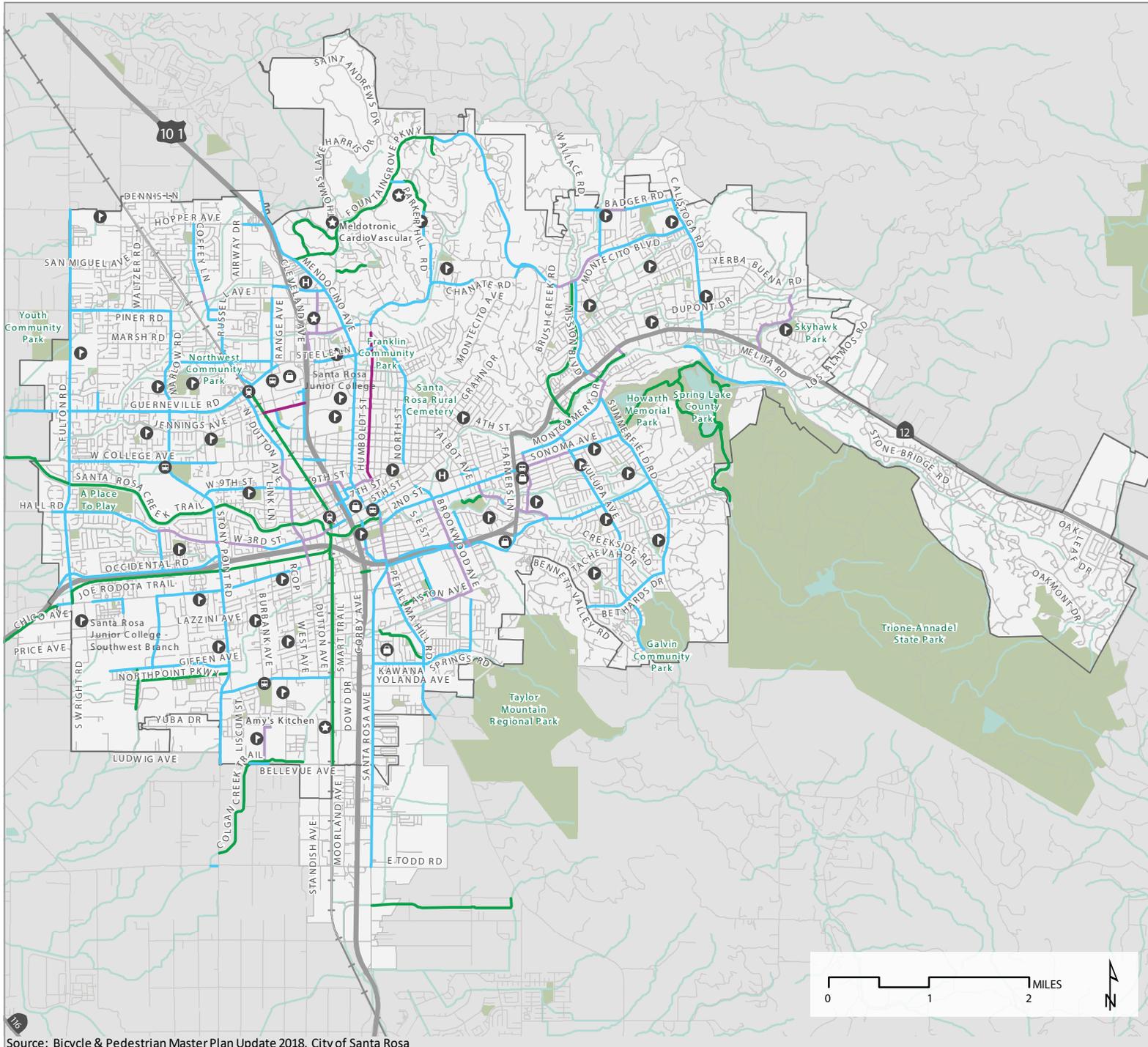
Secure bike parking facilities are an important component of the local bicycle network. Particularly in Downtown Santa Rosa, bicycle racks are available, with 62 in Downtown at the time of the BPMP. Lockers intended for several hours or daylong use are available, notably at the Santa Rosa Junior College campus, which houses 36 of the 80 lockers currently available. Other bike locker locations include the two SMART stations, the 1st Street garage downtown, and several locations in the Sonoma County Administration Center.

Bike Collisions

During the ten-year period from 2007 to 2017, there were 628 collisions involving bicyclists, which made up 6.5 percent of all collisions in Santa Rosa during this time period. These collisions resulted in 591 injuries and four fatalities. Based on an analysis of collision locations, six corridors were identified as part of a High-Injury Network, or high priority locations for bicycle-related safety improvements, as shown in **Table 4-5**.

Street	Start/End of Segment	Fatal and Severe Injury Collisions	Collisions per 1000 feet
Mendocino Ave.	Elliott Ave. to 10 th St.	5	1.0
Santa Rosa Ave.	Petaluma Hill Rd. to Colgan Ave.	3	0.9
Guerneville Rd/Steele Ln	Dutton Ave. to Rowe Dr.	5	0.8
Sebastopol Rd.	Mattson Rd. Dutton Ave.	6	0.6
Stony Point Rd.	College Ave. to Campbell Dr.	5	0.5
Montgomery Dr.	Farmer Ln. to Mission Blvd	3	0.5
Source: Santa Rosa Bicycle and Pedestrian Master Plan, 2018			

Figure 4-12
Existing
Bike Facilities

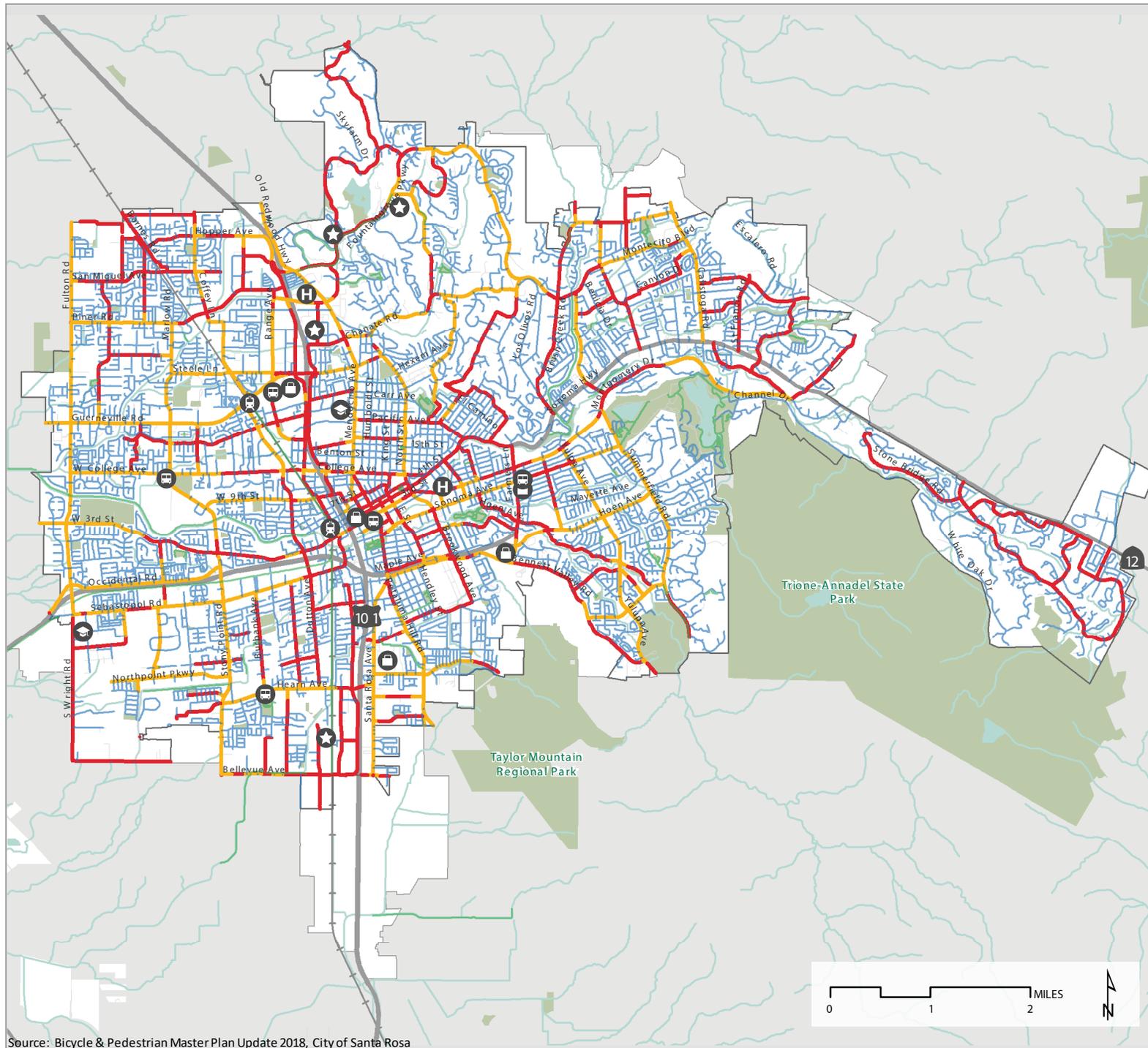


Legend

- Planning Area
 - City Limit
 - Urban Growth Boundary
 - Park
 - School
 - Major Employer
 - Transit Station
 - SMART Station
 - Hospital
 - Shopping Center
- Bike Facilities**
- Class I Shared-Use Path
 - Class II Bike Lane
 - Class III Bike Route
 - Class IIIB Bicycle Boulevard

Source: Bicycle & Pedestrian Master Plan Update 2018, City of Santa Rosa

Figure 4-13
Bicycle Level of Stress



Legend

- Planning Area
- City Limit
- Urban Growth Boundary
- Park
- School
- Major Employer
- Transit Station
- SMART Station
- Hospital
- Shopping Center

Level of Traffic Stress

- Level 1 All Ages and Abilities
- Level 2 Average Adult
- Level 3 Confident Adult
- Level 4 Fearless Adult

Source: Bicycle & Pedestrian Master Plan Update 2018, City of Santa Rosa

4.10 PEDESTRIAN FACILITIES

Santa Rosa includes a wide range of land uses, including a downtown business district, older residential neighborhoods, lower density suburbs, and rural areas. The infrastructure provided for pedestrians varies based on the character of the neighborhood and the historical development of each area.

The City's multi-use paths serve as spines for the local network for all nonmotorized users, particularly the Joe Rodota Trail, SMART Trail, and creek paths such as the Santa Rosa Creek Trail and Prince Memorial Greenway.

High Use Pedestrian Locations

Pedestrian traffic is typically highest in and around areas that feature a concentration and mix of land use types – such as Downtown or neighborhood business districts – where people can live and meet basic needs such as employment, grocery shopping, and entertainment in close proximity to one another. High volumes of pedestrians can also be found near large single-use locations such as schools, major employment sites, regional trails, and rail stations or major bus transfer points. In its efforts to guide Santa Rosa toward a more multimodal transportation system, the City's plans have emphasized strategies to create activity centers where there are a mix of residential and commercial land uses to attract more pedestrian traffic and to build infrastructure designed to enhance pedestrian safety and comfort. This includes the *Downtown Station Area Specific Plan*, the station area plans for the two SMART rail stations, and corridor plans for Sebastopol Road and Mendocino Avenue. The Sonoma County Transportation Authority has conducted counts of pedestrians at strategic locations, with the highest-volume locations shown in **Table 4-6**.

Street/Trail	Cross Street	Estimated Daily Pedestrians
Santa Rosa	2 nd St.	2,511
Mendocino Ave.	Pacific Ave.	2,432
B St.	4 th St.	1,964
Davis St.	3 rd St.	1,071
Middle Rincon Rd.	Badger Rd.	1,032
Sonoma Ave.	Brookwood Ave.	825
Morgan St.	4 th St.	767
Mendocino Ave.	Steele Ln.	679
Yulupa Ave.	Bethards Dr.	639
Davis St.	6 th St.	567

Source: Santa Rosa Bicycle and Pedestrian Master Plan, 2018

Santa Rosa has prioritized investments in pedestrian-oriented infrastructure in many of these major activity areas to create a safer and more pleasant pedestrian experience. Pedestrian-friendly infrastructure includes wider sidewalks and enhanced intersection crossings.

Gaps and Barriers

Most streets in Santa Rosa include sidewalks or pathways along at least one side of the street, and in Downtown and other centrally located neighborhoods the sidewalk network is generally complete on both sides. There are also locations that are not required to provide sidewalks in more rural parts of the city, as well as areas including much of Roseland that have been annexed from unincorporated Sonoma County and have limited existing sidewalks. In many cases, sidewalk gaps can be eliminated through redevelopment, as incoming projects are required to provide facilities to meet contemporary standards and provide access for pedestrians. These gaps in the sidewalk network can be especially challenging to navigate for people with disabilities.

At a citywide scale, there are several barriers that impact pedestrian circulation and mobility. In Santa Rosa, barriers include US 101, the SMART railroad tracks, and numerous creeks. A comfortable distance for a pedestrian to travel to a destination is generally considered to be one-half mile, but this short trip distance means that pedestrians are more sensitive to the diversions required to overcome such barriers. Barriers to pedestrian connectivity are often difficult to address, as they may require costly infrastructure such as an overpass.

Pedestrian Safety

The BPMP identified clusters of pedestrian injury collisions as part of the High Injury Network – which also included locations with high concentrations of bicycle-related injury collisions – to help prioritize locations where improvements are needed. The HIN pedestrian corridors are shown in **Table 4-7**.

Street	Start/End of Segment	Fatal and Severe Injury Collisions	Collisions per 1,000 Feet
Santa Rosa Ave	Charles St to Mill St	3	4.7
3 rd St	Gate Way to Stony Pt Rd	3	2.6
Santa Rosa Ave	Court Rd to Bellevue Ave	4	2.2
Piner Rd	Bay Village Cir to Coffey Ln	3	2.1
Mendocino Ave	McConnell Ave to 4 th St	9	1.6
Farmers Ln	Long Dr to Sonoma Ave	3	1.4
Guerneville Rd/ Steele Ln	Coffey Ln to Mendocino Ave	8	1.3
Stony Point Rd	Glenbrook Dr to Sebastopol Rd	5	1.3
4th Street	Mendocino Ave to College Ave	4	1.2
3rd St	Hwy 101 to E St	3	1.2
Range Ave	Bicentennial Way to Guerneville Rd	5	1.1
College Ave	Link Ln to Mendocino Ave	5	1.0
Source: Santa Rosa Bicycle and Pedestrian Master Plan, 2018			

Intersection Crossings

Intersections are the site of most collisions, and crossings often pose significant challenges for pedestrians. In 2018, the City initiated a program to implement crossing improvements at 100 priority intersections to make pedestrians more visible to drivers and minimize potential conflicts. Projects included features such as enhanced signing and striping, refuge islands, rectangular rapid flashing beacons (RRFBs), curb ramps to aid people with disabilities, curb extensions to shorten the crossing distance at intersections, and improved lighting.



Rectangular Rapid
Flashing Beacon (RRFB)



Median Refuge Island

4.12 TRANSIT

Santa Rosa is served by several transit providers, offering local transportation within the city, as well as connections throughout Sonoma County and to regional service.

The Santa Rosa Transit Mall is the busiest Transit Hub in the North Bay with over 3,000 trips departing the Transit Mall each week (751,500 trips per year). In addition to local CityBus fixed route service, downtown Santa Rosa is served by four regional bus transit providers (Sonoma County Transit, Golden Gate Transit, Mendocino Transit, and Greyhound) and one regional commuter rail (SMART). The Transit Mall went through significant renovations in 2012. These services provide regional connections to other cities in Sonoma County, Marin County, Mendocino County, San Francisco, and Contra Costa County. Sonoma County Transit provides direct services to the following jurisdictions in the county: Cloverdale, Healdsburg, Windsor, Guerneville, Sebastopol, Cotati, Rohnert Park, Petaluma and Sonoma. Sonoma County Transit ends their routes at the County Center in North Santa Rosa which provides additional transit coverage on Mendocino Avenue and Santa Rosa Avenue.

MTC, as the transportation planning, financing, and coordinating agency for the nine-county San Francisco Bay Area, plays a significant role in coordinating regional transit services, including the Clipper Program, the Regional Eligibility Database for paratransit services, and wayfinding programs.

CityBus engages in significant coordination efforts with Sonoma County Transit, Petaluma Transit, Golden Gate Transit, and SMART through monthly meetings at Sonoma County Transportation Authority (SCTA). SCTA recently conducted a Transit Integration and Efficiency Study (TIES) looking at the communication, coordination, collaboration, and consolidation possibilities between CityBus, Sonoma County Transit, and Petaluma.

Rail Service

Sonoma Marin Rail Transit (SMART) operates seven days a week, with a weekday focus on peak hour commute service with 30-minute headways and weekend headways of one hour. Schedules generally favor commuters originating in Sonoma County and traveling southbound during the morning peak hour and northbound in the evening peak hour. In Santa Rosa, there are two stations: the Downtown Station, the city's main SMART train station in Railroad Square, within the Downtown Station Area, and the North Station on Guerneville Rd. San Rafael is a primary destination, along with Larkspur, which provides a connection via the Larkspur Ferry to the financial district in San Francisco. SMART service primarily focuses on serving commuters, with fewer trips during midday hours and on weekends.

Amtrak provides a bus connection to the Martinez rail station, providing riders with access to long-distance train service.

CityBus service provides 10 buses per hour serving the Downtown SMART Station on weekdays. There are three bus stops near the Downtown train station, all accessible via a pedestrian path next to the tracks. The City is currently piloting a Commuter Parking Permit that offers a 50% discount on monthly permits in Garage 12 (555 1st St) for commuters using SMART or any other transit service. CityBus piloted a free shuttle connecting the Downtown SMART station with Santa Rosa garages and Old Courthouse Square from December 2017 to November 2018. It was discontinued due to low ridership.

Regional Bus Service

Golden Gate Transit operates two routes in Santa Rosa. Route 101 connects Santa Rosa and other communities in Sonoma County to Marin County and San Francisco, operating seven days a week, with buses departing every 60 minutes from 4 a.m. to 10 p.m. Route 72 serves cities in Sonoma County along the US 101 corridor, operating only during peak commute hours on weekdays.

Mendocino County Transit provides service along two routes between Santa Rosa and destinations in Mendocino County. Route 65 serves Ukiah, Hopland, Willits, and Fort Bragg, while Route 95 operates along Highway 1 to communities including Gualala and Point Arena. And Greyhound offers intercity bus service from the Transit Mall with connections to routes throughout its nationwide network.

Sonoma County Transit

Sonoma County Transit (SCT) operates twelve routes that serve Santa Rosa, with stops within the city limits as well as connections to cities, towns, and unincorporated areas throughout the County. SCT's fixed-route ridership for FY 2018-19 was 909,613 and paratransit ridership for FY 2018-19 was 58,772. SCT's local stops include major destinations such as the Transit Mall,

SMART, and Santa Rosa Junior College, which are each served by six routes. Routes along lower activity corridors generally operate hourly or less frequently. Routes 46 (to Sebastopol and Rohnert Park), 60 (to Cloverdale and Healdsburg), and 62 (to Sonoma County Airport and Windsor) operate at greater frequencies during peak times. Most routes operate seven days a week.

Santa Rosa CityBus

The City of Santa Rosa provides the most rides for local fixed-route bus service and demand-responsive paratransit service in Sonoma County. Total system-wide ridership was 1.8 million in FY 2018-19 with approximately 6000 rides per weekday. Ridership on CityBus is within the top ten transit providers in the Bay Area of the over 20 providers. In total, there are 14 routes, 12 of which operate seven days a week. With the completion of the Reimaging CityBus Plan, Phase I implementation in 2017, CityBus now has three corridors (4 routes) operating 15-minute frequencies during weekdays, 6 routes operating on 30-minute frequencies, and a four routes operating on 60-minute frequencies. Most routes begin service between 6:00 a.m. and 7:00 a.m. Monday – Saturday, and finish service between 7:30 p.m. and 8:30 p.m. On Sundays, service is truncated, with routes starting after 10:00 a.m., and ending before 5:15 p.m.

The system is oriented around five main transfer centers, with nearly all routes stopping at the main Transit Mall in downtown, radiating out towards the city's neighborhoods and residential areas. This system provides affordable, accessible, and sustainable connections to jobs, education, shopping, and recreation for the region.

The transportation sector is being significantly altered by the technology sector. Perhaps the most significant technology improvement for transit has been access to route planning and real-time bus arrival information. CityBus' contractor, AVAIL, publishes a GTFS (General Transit Feed Specification) that allows application developers to provide route planning and real-time information on the CityBus Routes. Currently, CityBus provides this real-time information via text, voice, MyStop app, or desktop computer. Additionally, this feed is consumed by MTC's 511.org, Google, and the Transit App. This information is available for most transit systems throughout the Bay Area.

CityBus also operates a deviated-fixed route shuttle in a cost sharing arrangement with the Oakmont Village Association, to support residents and the general public. This service offers pick-up at the bus stops within Oakmont, at designated shopping locations, or within three-quarters of a mile from Route 16, providing one trip per day to a food shopping destination.

Buses are the primary mode of public transportation in Santa Rosa. Local bus service is primarily provided by CityBus, which operates 14 routes. CityBus routes are summarized in **Table 4.8**, and routes are shown on the system map in **Figure 4-14**.

Table 4.8: Santa Rosa CityBus Summary of Service by Route			
Route	Major Stops	Weekday Service	Weekend Service
Route 1 Mendocino Ave	Transit Mall Mendocino Ave/Pacific Ave Bicentennial Ave/Ventura Ave Coddington Mall	6:00 AM – 8:00 PM 15-min frequency	SAT 6:00 AM – 8:00 PM 30-min frequency SUN 10:00 AM – 5:30 PM 45-min frequency
Route 2/2B Sebastopol Rd	Transit Mall Sebastopol Rd/West Ave Stony Pt Rd/Sebastopol Rd Corp Ctr Pkwy/Mercury Way Finley Rd/Wright Rd	6:00 AM – 8:30 PM 15-minute frequency	SAT 6:00 AM – 8:30 PM 30-minute frequency SUN 10:00 AM – 6:00 PM 45-min frequency
Route 3 Santa Rosa Ave	Transit Mall Santa Rosa Ave/Marketplace Elsa Dr/Santa Rosa Ave	6:00 AM – 8:00 PM 30-min frequency	SAT 6:00 AM – 7:30 PM 60-min frequency SUN 10:00 AM – 4:30 PM 60-min frequency
Route 4/4B Rincon Valley	Transit Mall Sonoma/Montgomery Village Mission Blvd/Hwy 12 Calistoga Rd/Hwy 12	6:00 AM – 8:30 PM 30-min frequency	SAT 6:00 AM – 8:00 PM 60-min frequency SUN 10:00 AM – 5:00 PM 60-min frequency
Route 5 Petaluma Hill Road	Transit Mall Petaluma Hill/Kawana Springs Kawana Springs/ Meadow Wy Petaluma Hill Rd/Pressley Rd	6:00 AM – 8:00 PM 30-min frequency	SAT 6:30 AM – 8:00 PM 60-min frequency SUN 10:30 AM – 5:00 PM 60-min frequency
Route 6 Fulton Road	Transit Mall Fulton Rd/Guerneville Rd Fulton Rd/Piner High School Coddington Mall	6:00 AM – 8:30 PM 30-min frequency	SAT 6:00 AM – 8:00 PM 75-min frequency SUN 10:00 AM – 6:00 PM 75-min frequency
Route 7 Montgomery Village	Coddington Mall Mendocino/Elliott Ave Pacific Ave/North St Sonoma/Montgomery Village	7:30 AM – 5:00 PM 60-min frequency	None
Route 8 Bennett Valley	Transit Mall Sonoma/Montgomery Village Summerfield Rd/Hoen Ave Yulupa Ave/Mayette Ave	6:00 AM – 8:30 PM 30-min frequency	SAT 6:30 AM – 8:30 PM 60-min frequency SUN 10:30 AM – 5:30 PM 60-min frequency
Route 9/9E Finley Community Center	Transit Mall N Dutton/W Third St W Ninth St/Link Ln Stony Point–Westside Transfer	6:00 AM – 8:00 PM 30-min frequency	SAT 6:30 AM – 8:00 PM 60-min frequency SUN 10:30 AM – 5:00 PM 60-min frequency

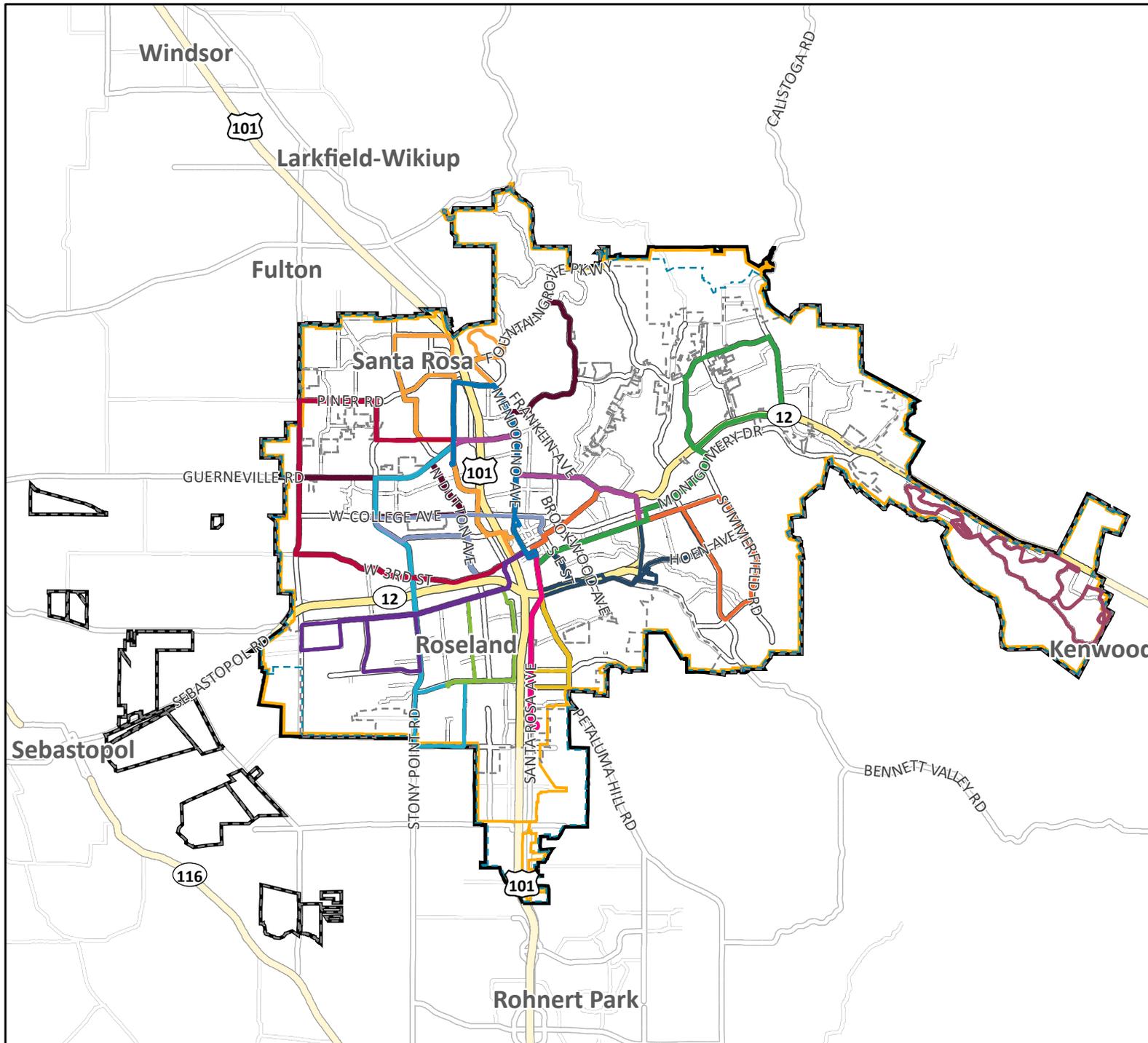
Table 4.8: Santa Rosa CityBus Summary of Service by Route			
Route	Major Stops	Weekday Service	Weekend Service
Route 10 Coddington Mall	Transit Mall Coddington Mall Airway Dr/Hopper Ave Round Barn Blvd	6:00 AM – 8:00 PM 30-min frequency	SAT 7:30 AM – 5:30 PM 60-min frequency SUN 9:30 AM – 4:30 PM 60-min frequency
Route 12 Roseland	Transit Mall Corby Ave/Barham Ave Hearn Ave/Corby Ave Hearn Ave/Burbank Ave West Ave/South Ave	6:00 AM – 8:00 PM 30-min frequency	SAT 6:00 AM – 7:30 PM 60-min frequency SUN 10:00 AM – 4:30 PM 60-min frequency
Route 15 Stony Point Road	Coddington Mall Stony Point-Westside Transfer Stony Point/Sebastopol Rd Hearn Ave/Burbank Ave Elsie Allen High School	6:30 AM – 8:00 PM 60-min frequency	SAT 8:30 AM – 5:00 PM 60-min frequency SUN 10:30 AM – 5:00 PM 60-min frequency
Route 18 East Circulator	Transit Mall Bennett Valley/Rutledge Ave Farmers Ln/Neotomas Ave Sonoma/Montgomery Village Yulupa Ave/Mayette Ave	7:30 AM – 5:00 PM 60-min frequency	SAT 10:30 AM – 5:00 PM 60-min frequency SUN 10:30 AM – 5:00 PM 60-min frequency
Route 19 North Circulator	Coddington Mall Steele Lane/Mendocino County Chanate Campus Stagecoach/Fountaingrove	8:00 AM – 5:00 PM 75-min frequency	None
Source: City of Santa Rosa, 2020			

Paratransit

Paratransit service must be provided to compliment fixed- route services as part of the Americans with Disabilities Act (ADA). With Santa Rosa residents being serviced by Golden Gate Transit, Sonoma County Transit and Santa Rosa' CityBus, each agency also services the city with paratransit services. All agencies offer next-day ADA Paratransit transportation service seven days a week to those who are unable (temporarily or permanently) to use fixed route services due to a disability. These services are provided within three-quarters of a mile, in compliance with the ADA. The services are shared-ride public transportation that is available for all trip purposes.

The City of Santa Rosa takes pride in providing high quality, safe, reliable, and courteous paratransit transportation service. CityBus paratransit ridership was approximately 35,000 in FY 2018-19 with approximately 125 rides per weekday. Paratransit eligible riders can ride the fixed-route CityBus for zero costs, a program aimed at saving riders' money and promoting independent living for persons living with disabilities.

Figure 4-14
 Santa Rosa CityBus
 System Map



Legend

- City Limit
- Urban Growth Boundary
- Sphere of Influence
- Planning Area

Bus Routes

- | | |
|----|-----|
| 1 | 9 |
| 2 | 9E |
| 2B | 10 |
| 3 | 10W |
| 4 | 12 |
| 4B | 15 |
| 5 | 16 |
| 6 | 18 |
| 7 | 19 |
| 8 | |



4.13 TRANSPORTATION DEMAND MANAGEMENT

Transportation demand management (TDM) strategies include a broad range of options for reducing vehicle trips by encouraging the use of other transportation modes or eliminating trips altogether. The benefits of TDM include reducing GHG emissions, reducing traffic congestion, saving public resources by reducing the need for expanded roadway capacity projects, and providing residents and workers with increased flexibility and transportation choices. Such programs are also a necessary strategy to support land development projects, as they can help mitigate project-related VMT impacts. TDM programs are supported by regional and local public agencies as well as by private sector entities, particularly employers.

Emergency Ride Home

The Sonoma County Transportation Authority (SCTA) administers this countywide program as a way of encouraging people who work in Sonoma County to commute to work or school using alternatives to driving alone, such as carpooling, transit, bicycling, or walking. Users of these modes can be reimbursed for a ride home in the event of circumstances such as a sick child, stolen bicycle, or unexpected work schedule change. Employees in Sonoma County can be reimbursed for up to four trips per year.

Bikeshare

Bikeshare programs enable users to have access to a bicycle on a short-term basis as an alternative to bicycle ownership. A pilot bike sharing program was approved in 2020 and is currently in development for SMART rail stations in Sonoma and Marin Counties to support the transportation needs of SMART users and other people near these locations.

Discounted/Free Transit Passes

The provision of discounted or free transit passes helps to incentivize transit use. For example, in spring 2010⁷, Santa Rosa Junior College established a program using the funds from a Student Transportation Fee to enable students to ride free with CityBus, Sonoma County Transit, and Petaluma Transit. SMART provides discounted fares to SRJC students. On CityBus, ridership averaged about 10,000 rides per month for the first semester of the program and, as of spring 2019, average ridership per month is over 15,000 per month.

Additional unlimited ridership programs are available to Veterans (average 3,000 rides per month) and people living with disabilities, eligible for paratransit (average 4,000 rides per month).

The City is looking into expanding Unlimited Ridership programs for kindergarten through 12th grade, employers, developments, business districts, residents, and other interested entities.

The Bay Area has a regional fare payment system, Clipper. Clipper is the all-in-one transit card for the Bay Area. Passengers can add value to their card and ride any transit system in the Bay Area (seniors, youth, low-income and persons with disabilities all receive discounts on all transit systems with this card). With Clipper, riders receive a discount when transferring between SMART, CityBus, Golden Gate Transit, and Sonoma County transit

Employer-Supported Incentives

Many employers administer their own TDM programs. Program elements may include enabling employees to purchase transit passes through a pre-tax payroll deduction; providing preferential parking for carpoolers; and providing secure bicycle parking, showers, and lockers to encourage bicycling.

Free Ride – Trip Reduction Incentive Program

Funded through the Bay Area Air Quality Management District, the Free Ride program supports efforts by employers to encourage transit use, bicycling, walking, and carpooling to and from work. Employees participating in the program are able to receive discounted monthly transit passes for CityBus and Sonoma County Transit or they can opt to be entered in a drawing to receive a \$50 gift card. Participating employers must have a designated Transportation Coordinator to administer the program. Over 1,500 people had registered in the Free Ride program as of 2018.

4.14 AVIATION

The Charles M. Schulz Sonoma County Airport is located northwest of Santa Rosa in the unincorporated County of Sonoma, approximately one mile from the Santa Rosa North SMART station. The airport currently provides service from Alaska Airlines, American Airlines, and United Airlines, offering service to and from Seattle, Portland, Los Angeles, Orange County, San Diego, San Francisco, Dallas/Fort Worth, Phoenix, Las Vegas, Minneapolis and Denver. The airport has been growing, and funding has been secured to expand the existing terminal.

For connections to Santa Rosa, various ground transportation options are available at the airport, including Sonoma County Transit Route 62, which provides limited service to and from the airport, which includes a stop at the North Santa Rosa SMART station. Sonoma County Airport Express also provides service to Santa Rosa, as well as connections from the Sonoma County Airport to Marin County, the San Francisco International Airport and Oakland International Airport.

4.15 SOURCES

Reports and Data

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