

Attachment 1



Santa Rosa Citywide Progressive Parking Management Strategy

February 2017

Table of Contents

	Page
1 Introduction	1-1
Background.....	1-1
Goals and Objectives.....	1-2
Study Area	1-3
2 Existing System	2-1
Parking Supply.....	2-1
Parking Occupancy	2-3
Parking Management.....	2-12
Railroad Square Parking Demand Analysis.....	2-17
3 Public Input	3-1
4 Best Practices Review	4-1
Progressive Pricing.....	4-1
Ambassador Parking Enforcement.....	4-11
Station Area Parking.....	4-11
Parking Benefit District.....	4-13
Employee Parking	4-15
Valet Parking.....	4-16
5 Recommendations	5-1
Management Strategies	5-1
Fiscal Impact Analysis.....	5-17
6 Appendix	6-1

Table of Figures

	Page
Figure 1 Study Area and Railroad Square Focus Area	1-3
Figure 2 Distribution of Parking Supply	2-1
Figure 3 Off-Street Parking Supply.....	2-2
Figure 4 Off-Street Public Parking Supply	2-2
Figure 5 Peak Public Parking Occupancies.....	2-3
Figure 6 On-Street Occupancy by Time Period.....	2-4
Figure 7 Peak Weekday On-street Occupancy – PM (8-9 p.m.).....	2-5
Figure 8 Peak Weekend On-street Occupancy – PM (8-9 p.m.)	2-5
Figure 9 Off-street Occupancy by Time Period.....	2-6
Figure 10 Peak Weekday Off-street Occupancy – Midday (12-1 p.m.).....	2-7
Figure 11 Peak Weekend Off-street Occupancy – PM (8-9 p.m.)	2-7
Figure 12 On-street Occupancy by Time Period.....	2-8
Figure 13 Peak Weekday On-street Occupancy – Early PM (4-5 p.m.).....	2-9
Figure 14 Peak Weekend On-street Occupancy – PM (8-9 p.m.)	2-9
Figure 15 Public and Private Off-street Occupancy	2-10
Figure 16 Off-street Occupancy by Time Period.....	2-10
Figure 17 Peak Weekday Off-street Occupancy – Midday (12-1 p.m.).....	2-11
Figure 18 Peak Weekend Off-street Occupancy – PM (8-9 p.m.)	2-11



Figure 19	Downtown Station Specific Plan Parking Minimum Requirements.....	2-12
Figure 20	Meter Types, Time Limits, and Rates.....	2-14
Figure 21	Parking Rates.....	2-14
Figure 22	Permit Rates	2-15
Figure 23	Off-Street Parking Revenue.....	2-16
Figure 24	Existing Non-Residential Development	2-18
Figure 25	Existing Parking Supply	2-18
Figure 26	Existing Weekday Occupancy by Time Period and Type.....	2-19
Figure 27	Weekend Occupancy by Time Period and Type	2-19
Figure 28	Railroad Square Development Forecast, 2015 - 2025	2-20
Figure 29	Future Parking Supply Adjustments	2-21
Figure 30	ITE Parking Demand Estimates from New Development	2-22
Figure 31	City of Santa Rosa Commute Mode Share (2014).....	2-23
Figure 32	City of Santa Rosa Mode Share with 10% Shifts to Walking and Biking.....	2-24
Figure 33	Total Future Parking Demand under 4 SMART Rail Station Access Scenarios	2-25
Figure 34	Supply/Demand Ratios under 4 SMART Ridership Scenarios.....	2-25
Figure 35	Means of Transportation to Downtown Santa Rosa/Railroad Square	3-2
Figure 36	Factors Influencing Transportation Mode Choice (Intercept Survey Only).....	3-3
Figure 37	License Plate Recognition (LPR) Technology	4-2
Figure 38	Progressive Parking Programs and Results	4-3
Figure 39	goBerkeley Pilot Project Pricing Adjustments.....	4-6
Figure 40	Downtown San Luis Obispo Parking Map	4-8
Figure 42	SDOT Price Change Protocols.....	4-9
Figure 43	SeaPark Marketing Materials.....	4-10
Figure 44	SeaPark Zone Signage.....	4-10
Figure 45	Housing Parking Enforcement Volunteer on Patrol.....	4-11
Figure 46	Old Pasadena Parking Map.....	4-14
Figure 47	Ventura Downtown Parking District.....	4-15
Figure 48	Pricing Zones and Proposed Meters	5-3
Figure 49	Proposed Meters	5-6
Figure 50	Proposed SMART and Downtown Circulator Shuttles	5-8
Figure 51	Employee Parking Program Eligibility Zones.....	5-10
Figure 52	Proposed RPP Zone	5-15
Figure 53	Progressive Policy Evaluation.....	5-17
Figure 54	Relaxing Meter Time Limits Evaluation	5-18
Figure 55	Updating Meter Hours of Operation Evaluation	5-18
Figure 56	Updating Meter Hours of Operation Evaluation	5-19
Figure 57	Shared Parking Evaluation.....	5-19
Figure 58	Parking Benefit District Evaluation.....	5-20
Figure 59	Valet Parking Program Evaluation.....	5-21
Figure 60	Visitor Ambassador Program Evaluation.....	5-22
Figure 61	Parking Structure Cost Analysis	5-24
Figure 62	Citywide Parking Policy Option Matrix.....	6-1
Figure 63	Railroad Square Parking Policy Option Matrix.....	6-3

1 Introduction

Background

Located in the heart of Sonoma County, Santa Rosa is the largest city in the North Bay, and the northernmost social and economic hub within the Bay Area. Downtown Santa Rosa is charming and thriving, lined with shops and restaurants. Across Highway 101, the Railroad Square area is dense with historic commercial buildings, and local restaurants and shops. With the opening of two Sonoma-Marín Area Rail Transit (SMART) stations in Santa Rosa, including one in Railroad Square, and several other planned and proposed developments in the downtown area, Santa Rosa must evolve its parking system to meet the unique, evolving needs of the downtown and Railroad Square area.

Parking in downtown Santa Rosa and the historic Railroad Square includes on- and off-street parking facilities with an array of time limits, parking meters, and free parking. The City's Parking Division manages all on- and off-street public parking in downtown Santa Rosa through the Downtown Parking District. The Division also oversees six residential permit zones and the Railroad Square Meter Zone which encompasses all public parking in the Railroad Square area.

Santa Rosa has a long track record of coordinating parking policy with maximum community benefit. Since the district was formed in the 1950s, Santa Rosa has provided parking for downtown businesses, constructed off-street facilities through parcel assessments, and relaxed most city parking requirements within the district boundaries. The City has also taken steps in recent years to advance parking policies. In 2009, UCLA professor and author of *The High Cost of Parking*, Dr. Donald Shoup, recommended that the City implement demand-based pricing, among other parking management strategies, spurring parking focus groups and data collection work in the City.

A recent 2015 study of parking patterns and use in and around downtown Santa Rosa and Railroad Square revealed an excess of parking in both areas. In addition, it found that parking at various blocks is fully utilized during certain times of day. It was also observed that some drivers park to the north of downtown to avoid parking restrictions from time limits and meters, creating spillover into adjacent residential neighborhoods.

On-street spaces near popular destinations tend to be the most utilized due to greater visibility and convenience. Nearby parking garages lack sufficient price incentives to attract people to park there. This can often lead to on-street parking becoming full, causing drivers to cruise for parking and increasing traffic congestion, greenhouse gas emissions and air pollution. This can create the perception that there is inadequate parking supply and spur interest in building more parking even though the existing off-street supply is not yet fully utilized.

Demand-responsive pricing management of on- and off-street parking is key to providing more convenient parking in a financially sustainable manner. With the existing parking supply geared

toward meeting availability targets, people will rarely need to circle to find parking or double-park. With the right level of parking availability maintained, everyone benefits. Positive outcomes of progressive parking strategies include the following:

- Easier for drivers to find a parking space
- Supports Santa Rosa's economic vitality
- Lower rate parking options are created
- Reduces illegal parking/double parking
- Improves safety for all road users
- Reduces congestion and improves traffic flow
- Better air quality

The Railroad Square Area Parking Management Plan and Citywide Progressive Parking Strategy provide a consistent set of parking recommendations for the City based on data, rigorous analysis and lessons learned from cities similar to Santa Rosa. With a new train station and associated growth and development, a strategic, comprehensive, and integrated plan for the location and management of parking assets is crucial to ensuring a high quality experience for residents, patrons, workers, and visitors in the downtown and Railroad Square areas.

Goals and Objectives

The project team in coordination with City staff defined the following objectives for the parking management study and strategy development:

- Better understand existing parking assets in the Railroad Square and downtown areas.
- Comprehensively document how those assets are being utilized, with a focus on parking behavior.
- Identify the Railroad Square area's future parking needs, within the context of planning efforts and development projects.
- Develop an integrated set of parking policy recommendations that ensure the parking system facilitates future growth and supports transit and multimodal investments, while making it easier to find parking.
- Incorporate the diverse needs of many stakeholders and community members to build continued support to actively implement project recommendations.
- Develop strategies that are ready for implementation and provide clear guidance on future parking changes.

In order to achieve these objectives, the following goals were developed to shape the vision of this plan:

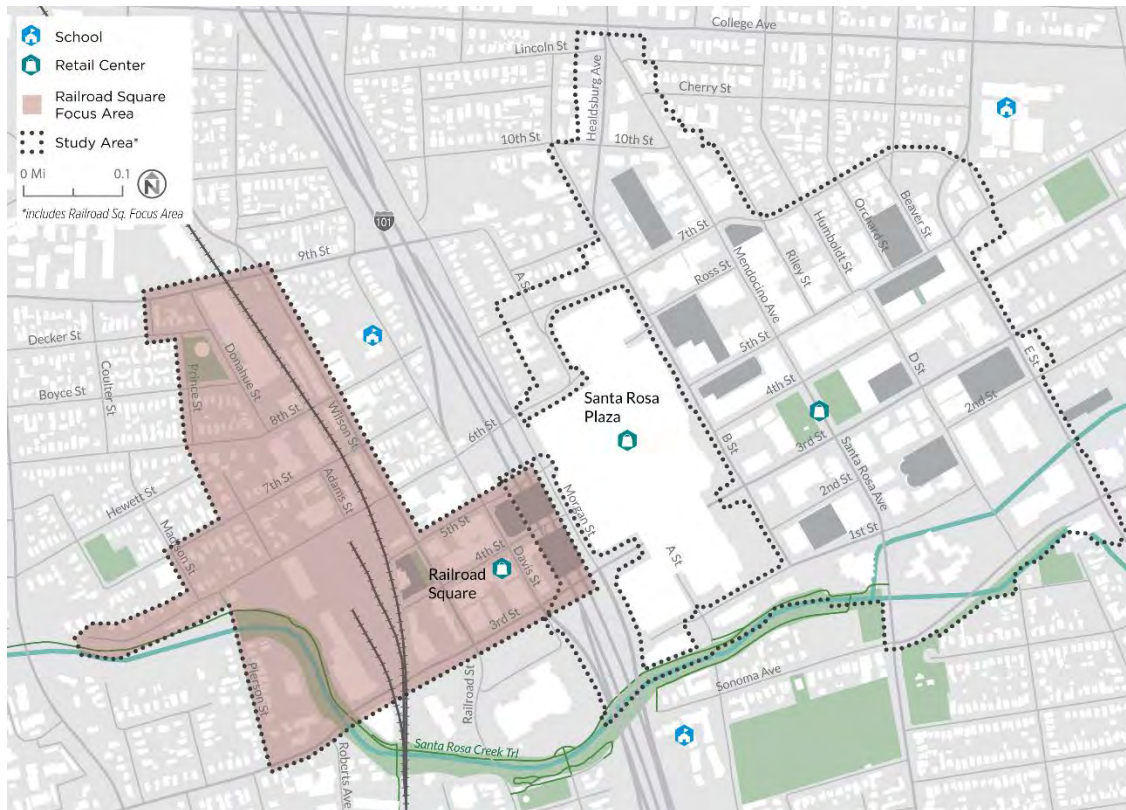
- Create more open parking spaces across downtown and Railroad Square.
- Reduce circling for parking in busy areas.
- Ensure customers can easily access local businesses during busy hours.
- Reduce congestion and spillover parking into residential areas.
- Use parking resources efficiently.
- Encourage people to spend time downtown and in Railroad Square.
- Ensure there is enough parking to accommodate future growth.

- Provide incentives for employees away from busy streets in high demand areas, in a safe, accessible area.
- Keep parking regulations easy to understand.
- Ensure parking investments and policies anticipate changes in vehicle and parking technology and travel behavior.

Study Area

The study area encompassed downtown Santa Rosa and the adjacent Railroad Square focus area shown in Figure 1. Downtown Santa Rosa is bounded by College and 7th streets to the north, E Street to the east, 1st Street to the south, and the Santa Rosa Plaza on B Street to the west. The Railroad Square focus area is bounded by 9th Street to the north, Wilson Street to the east, expanding to Morgan Street where Wilson Street and 5th Street intersect, 3rd Street to the south, and roughly along Prince Street and Pierson Street to the west. Downtown Santa Rosa and the historic Railroad Square encompass prime retail centers and corridors in the City.

Figure 1 Study Area and Railroad Square Focus Area



2 Existing System

This section examines existing parking conditions, which includes the current parking supply, utilization during different times of day, and management (including relevant policies and programs, minimum requirements, pricing, time restrictions, payment methods, and other regulations). This analysis identifies the factors that influence parking demand and distribution in and around downtown Santa Rosa and the Railroad Square. The results of this analysis helped inform the development of the various parking and pricing strategies recommended in Section 5 of this plan.

Parking Supply

Public parking supply data was collected on 151 on-street blockfaces and 14 off-street parking facilities. As shown in Figure 3, private parking supply data was also collected at 12 private lots in the Railroad Square focus area. On- and off-street parking is primarily regulated by time and/or metering, with only a handful of unregulated spaces on-street.

Figure 2 summarizes the distribution of on- and off-street public parking spaces in the study area and Railroad Square focus area. There are a total of 5,003 public parking spaces located in the study area, which includes the Railroad Square focus area. Of these parking spaces, approximately 70% spaces are located on-street and 30% are off-street.

In the Railroad Square focus area, there are 1,210 spaces in the area which consist of 619 on-street spaces and 591 off-street spaces located in various public and private lots. There are no parking garages located in the Railroad Square focus area.

Figure 2 Distribution of Parking Supply

Facility Type	Study Area*		Railroad Square Focus Area	
	Total Spaces	%	Total Spaces	%
On-street	1,527	69%	619	51%
Off-street (public)	3,476	31%	266	22%
Off-street (private)	-	-	325	27%
Total	5,003	-	1,210	-

*includes the Railroad Square Focus Area

Figure 3 Off-Street Parking Supply

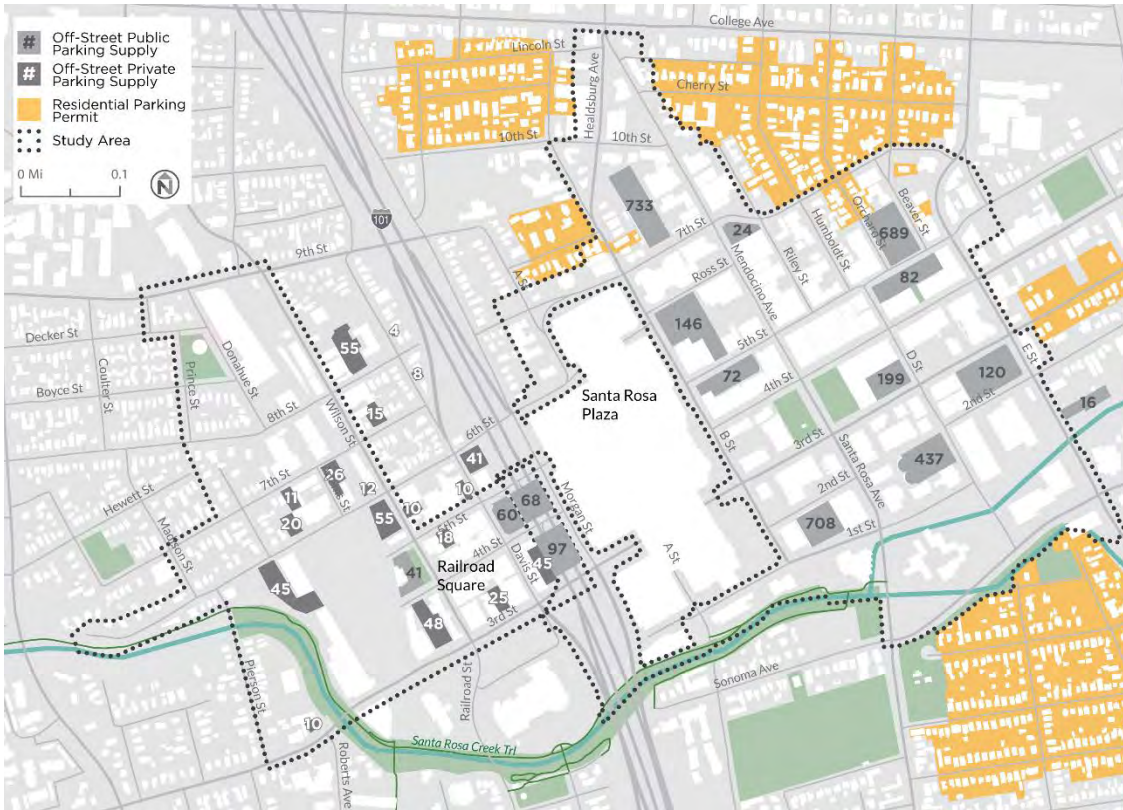


Figure 4 shows the off-street parking inventory in public parking lots and garages. There are a total of four garages and nine lots (four of which are located in the Railroad Square focus area). Parking lots are generally meter operated, while garages are time operated and users pay for the time parked when exiting the garage.

Figure 4 Off-Street Public Parking Supply

Facility	Location	Total Spaces
Lot 2	521 5th Street	146
Lot 4	608 7th Street	24
Lot 7	769 2nd Street	120
Lot 10	730 5th Street	82
Lot 11	540 5th Street	72
Lot 13*	207 3rd Street	97
Lot 14*	200 5th Street	68
Lot 15*	210 5th Street	60
Depot Lot*	9 4th Street	41
Total		710

Facility	Location	Total Spaces
Garage 1	521 7th Street	733
Garage 3	735 5th Street	689
Garage 5	625 3rd Street	199
Garage 9	97 D Street	437
Garage 12	555 1st Street	708
Total		2,766

*located in the Railroad Square focus area

Parking Occupancy

In the following sections, parking occupancy is analyzed in the Railroad Square focus area, as well as the overall study area. Occupancy counts from the 2015 Santa Rosa Parking Analysis report are analyzed to inform how public parking spaces are utilized on- and off-street.

Occupancy counts were completed on Saturday, August 9, 2014 and Tuesday, August 12, 2014. Tuesday counts represent weekday occupancy and Saturday counts represent weekend occupancy. On each day, data was collected for public parking spaces during five, one-hour intervals, Early AM (5-6 a.m.), AM (9-10 a.m.), Midday (12-1 p.m.), Early PM (4-5 p.m.), and PM (8-9 p.m.). Occupancy rates were collected for publicly accessible on- and off-street spaces.

Separate field visits conducted by the project team also resulted in the collection of off-street occupancy rates for private lots in the Railroad Square focus area.

Figure 6 through Figure 18 illustrate peak-hour occupancy during the weekday and weekend in the study area, and in the Railroad Square focus area. The results of these findings are summarized below and in Figure 5:

- On-street parking occupancy for the entire study area, as a whole peaks, at 67% during the PM period on both the weekday and weekend.
- Off-street occupancy for the entire study area, as a whole peaks, at 48% during the weekday Midday period.
- On- and off-street occupancy rates for the entire study area are relatively low because utilization is concentrated along key streets with high retail activity and occupancy rates that exceed 85%. Utilization is much lower along streets that are further from retail businesses.
- Lots 10 and 11, and most block faces on 4th and 5th streets in downtown exceed 85% occupancy from the Midday period onwards.
- Garages 1 and 12 have the largest parking supply but are among the most underutilized garages, rarely exceeding 50% occupancy.
- Occupancies for the Railroad Square focus area as a whole are comparatively lower. Overall, occupancy peaks at approximately 50% for both on- and off-street parking during the Midday and PM periods, respectively.
- The Depot Lot and Lot 14 have the highest observed occupancy rates in the Railroad Square focus area, albeit not exceeding 85%.

Figure 5 Peak Public Parking Occupancies

Facility Type	Study Area				Railroad Square Focus Area			
	Weekday (Tues)		Weekend (Sat)		Weekday (Tues)		Weekend (Sat)	
On-street	PM	67%	PM	67%	Early PM	46%	PM	53%
Off-street	Midday	48%	PM	26%	Midday	52%	PM	40%

Study Area

This section evaluates peak-hour occupancy data for the entire study area (shown in Figure 1), which includes downtown Santa Rosa and the Railroad Square focus area. The analysis concentrates on the occupancy of all 5,003 on- and off-street public parking spaces.

On-Street Parking

Weekday and weekend occupancy rates in the study area are relatively similar throughout the day. As shown in Figure 6, on-street occupancy gradually increases and peaks during the PM period (8-9 p.m.) for both weekday and weekend. The lowest on-street occupancy is observed during the Early AM period (4-5 a.m.).

Figure 6 On-Street Occupancy by Time Period

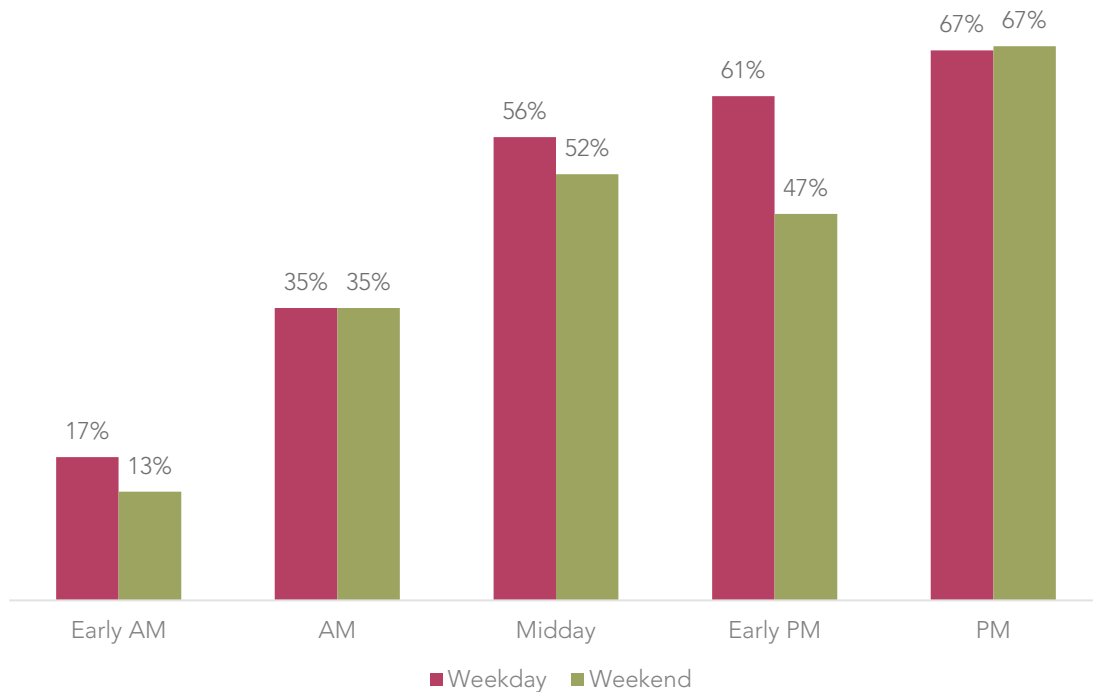


Figure 7 and Figure 8 illustrate weekday and weekend on-street occupancy during the PM period when occupancy for the entire study area is the highest. Although occupancy for the entire study area as a whole is relatively low (peaking at 67%). Overall, on-street parking demand is heavily concentrated on streets where many downtown retail businesses are located. In particular, most block faces on 4th, 5th, and 8th streets exceed 85%, the industry’s optimal rate for parking occupancy. This is also the case during the Midday and Early PM periods.

Adjacent streets including Humboldt Street, Mendocino Avenue, and D Street also have high on-street parking occupancy rates during both weekday and weekend. Parking occupancy also exceed 85% on Riley and 7th streets during the weekend peak hour. In the Railroad Square focus area, peak-hour occupancy is generally highest on 4th and 5th streets between Drake and Wilson streets. Lower occupancy rates are observed on streets that are further away from the downtown core and on streets near the Santa Rosa Plaza.

Figure 7 Peak Weekday On-street Occupancy - PM (8-9 p.m.)

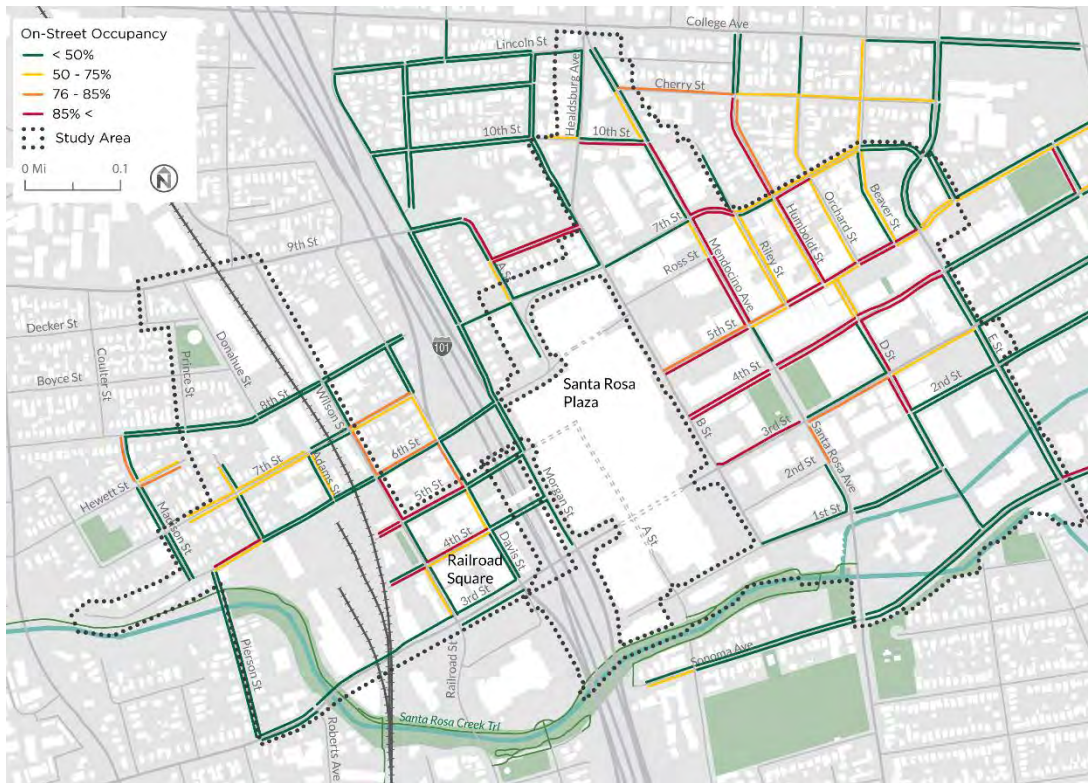
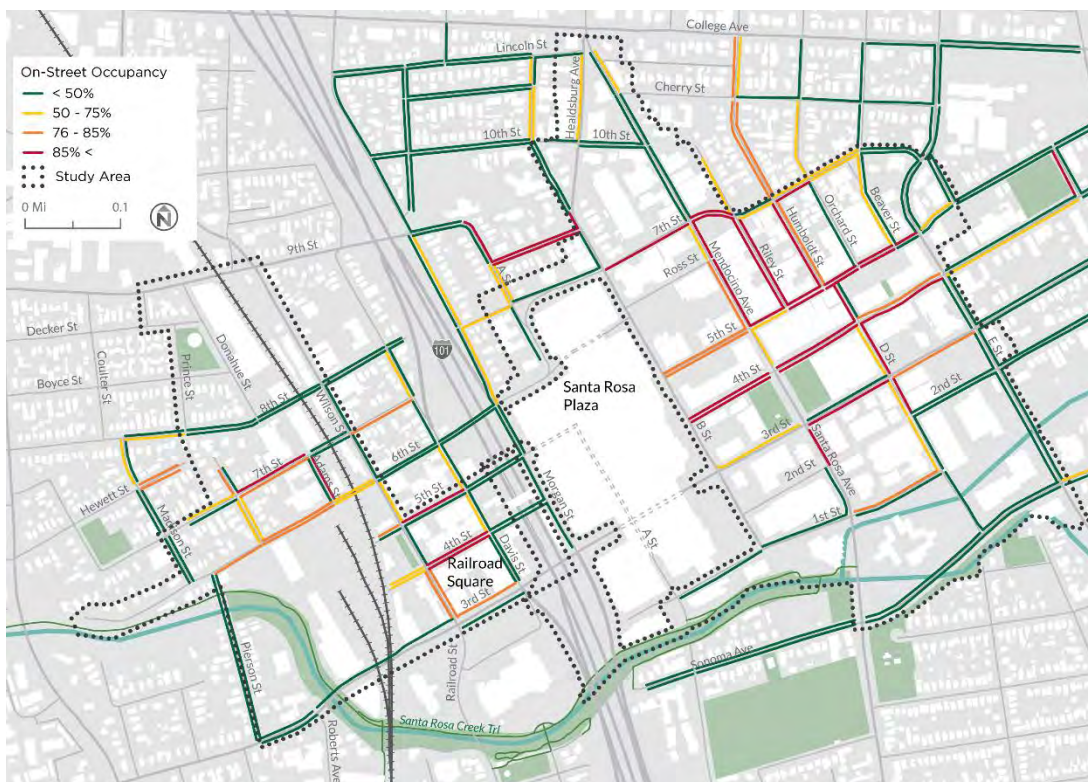


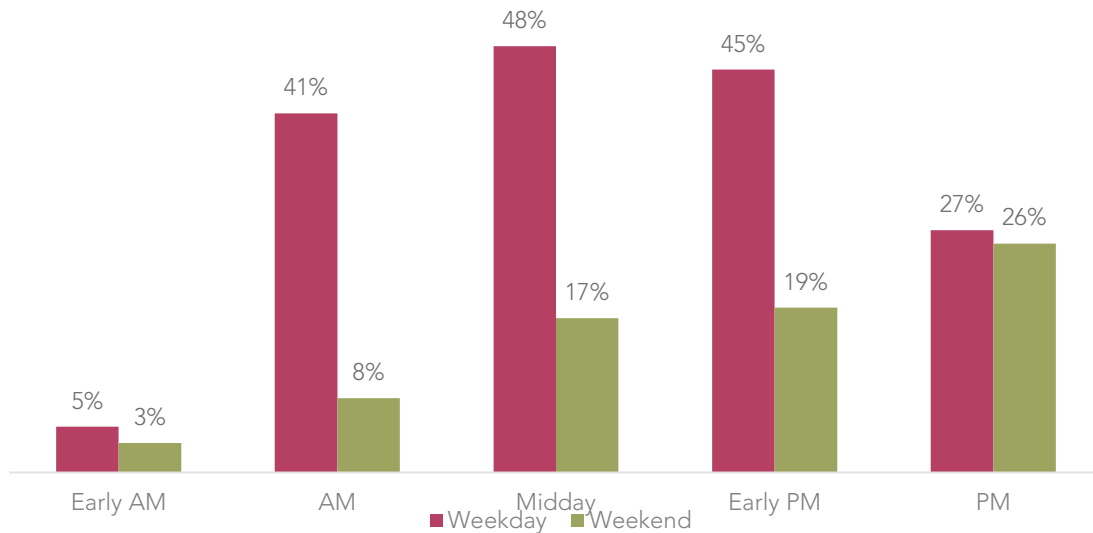
Figure 8 Peak Weekend On-street Occupancy - PM (8-9 p.m.)



Off-Street Parking

Figure 9 shows weekday and weekend off-street parking utilization for the entire study area as a whole throughout the day. Overall, off-street parking facilities are considerably more utilized on weekdays than weekends, especially during the AM, Midday, and Early PM periods. On weekdays, off-street occupancy peaks at 48% during the Midday period. Similar to on-street spaces, off-street spaces have low occupancy rates during the Early AM period.

Figure 9 Off-street Occupancy by Time Period



Lots 10 and 11, located on 5th Street in downtown, have the highest observed off-street occupancy rates during both weekday and weekend peak-hour periods. As shown in Figure 10 and Figure 11, the two lots are over 85% occupied during these times. The proximity of these lots to the 4th Street retail corridor account for higher occupancy rates. Lot 4 on Mendocino Avenue and 7th Street is also heavily utilized with 79% weekday capacity and 100% weekend capacity during the Midday and PM periods.

In general, Santa Rosa’s off-street parking supply accommodates current parking demand. With the exception of Garage 5 and Lots 4, 10, and 11, other off-street facilities are not heavily utilized. Garages 1, 9, and 12, and Lot 7, in particular, are underutilized and are less than 50% occupied during both weekday and weekend peak periods.

Notably, Garages 1 and 12 have the largest parking supply— 733 spaces and 708 spaces, respectively—and are two of the most underutilized off-street facilities in the study area. Garage 1 has an average overall occupancy of 26% during the weekday and 6% during the weekend. Garage 12 has an average occupancy rate of 17% during the weekday and 14% during the weekend. Since occupancy counts were collected in 2014, occupancy levels at Garages 1 and 12 have increased. While this indicates a greater demand for parking at these two facilities, Garages 1 and 12 are still underutilized. In order to achieve the target occupancy rate, it is important to develop strategies that will redirect users from high occupancy facilities such as lots 10 and 11, to underutilized facilities such as Garages 1 and 12.

Figure 10 Peak Weekday Off-street Occupancy – Midday (12-1 p.m.)

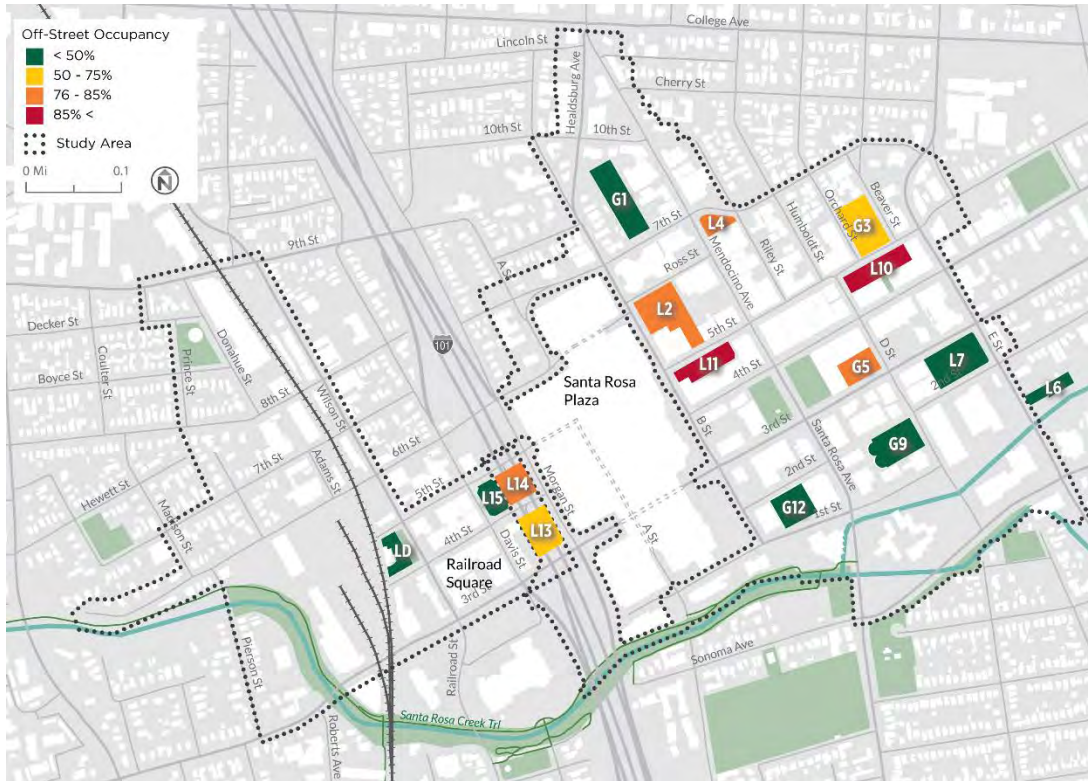
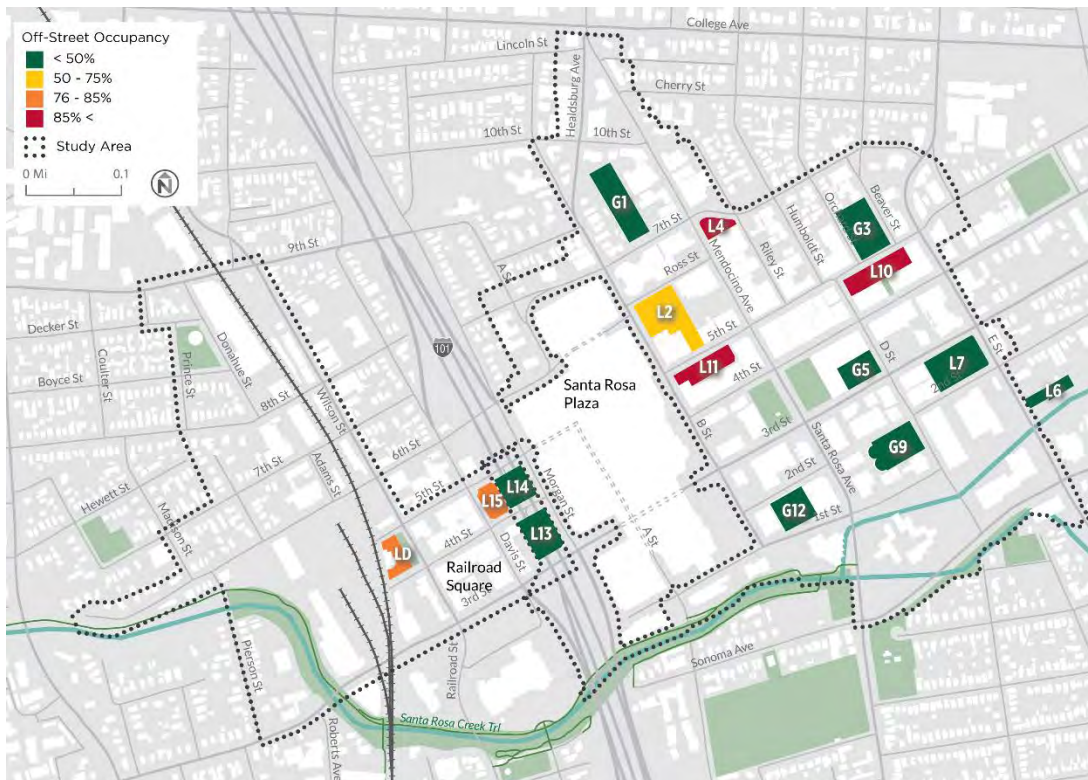


Figure 11 Peak Weekend Off-street Occupancy – PM (8-9 p.m.)



Railroad Square Focus Area

This section evaluates peak-hour occupancy data for the Railroad Square focus area. The analysis examines on- and off-street occupancy for all 1,210 parking spaces in the area, which includes 619 private spaces at various off-street lots.

On-Street Parking

On-street occupancy in the Railroad Square focus area is low throughout the day, never exceeding 50% occupancy except during the weekend PM period (see Figure 12). Occupancy rates are relatively similar throughout the day between the weekday and weekend. Weekday utilization peaks at 46% during the Early PM period (4-5 p.m.) and at 53% during the weekend PM period (8-9 p.m.). Weekday occupancy remains constant from the Midday to PM period.

Figure 12 On-street Occupancy by Time Period

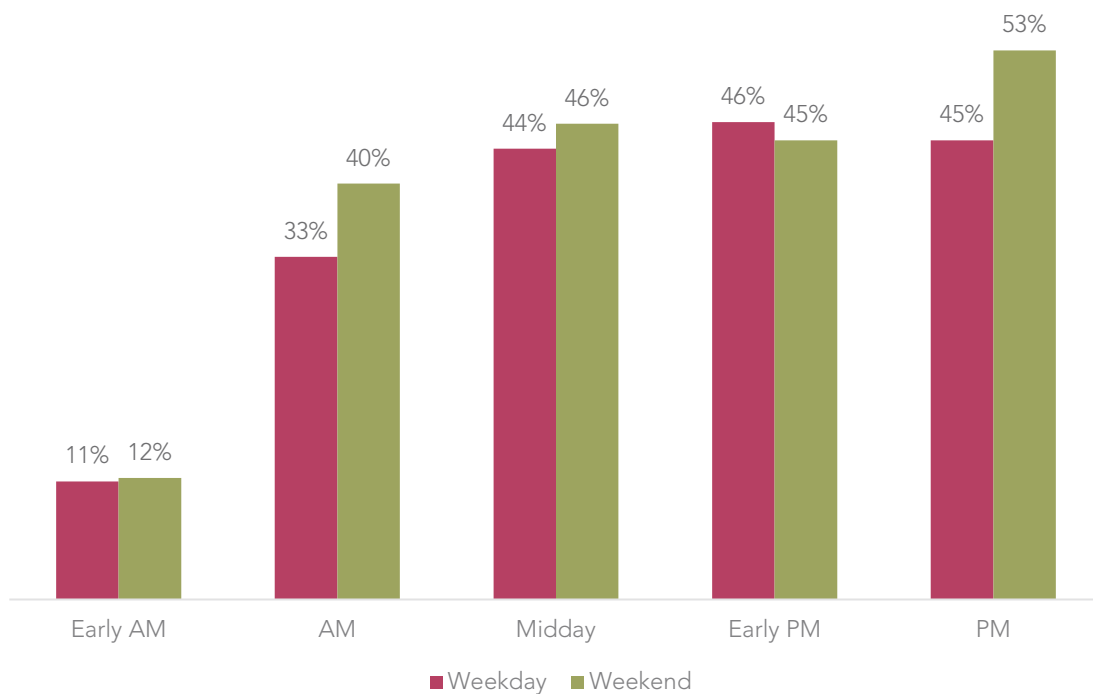


Figure 13 and Figure 14 illustrate on-street occupancy during the Early PM and PM periods when weekday and weekend occupancy rates are the highest. During the Early PM period, weekday parking utilization is typically highest on streets bounding Railroad Square; most block faces on Wilson, Davis, 3rd, and 4th streets exceed 85% parking utilization. Similar rates are also along a section of Davis Street between 5th and 6th streets and along 6th Street between Davis and Morgan streets and between Wilson and Adams streets. On the weekend, occupancy rates during the peak PM period is slightly higher and more varied throughout the Railroad Square focus area.

Figure 13 Peak Weekday On-street Occupancy - Early PM (4-5 p.m.)

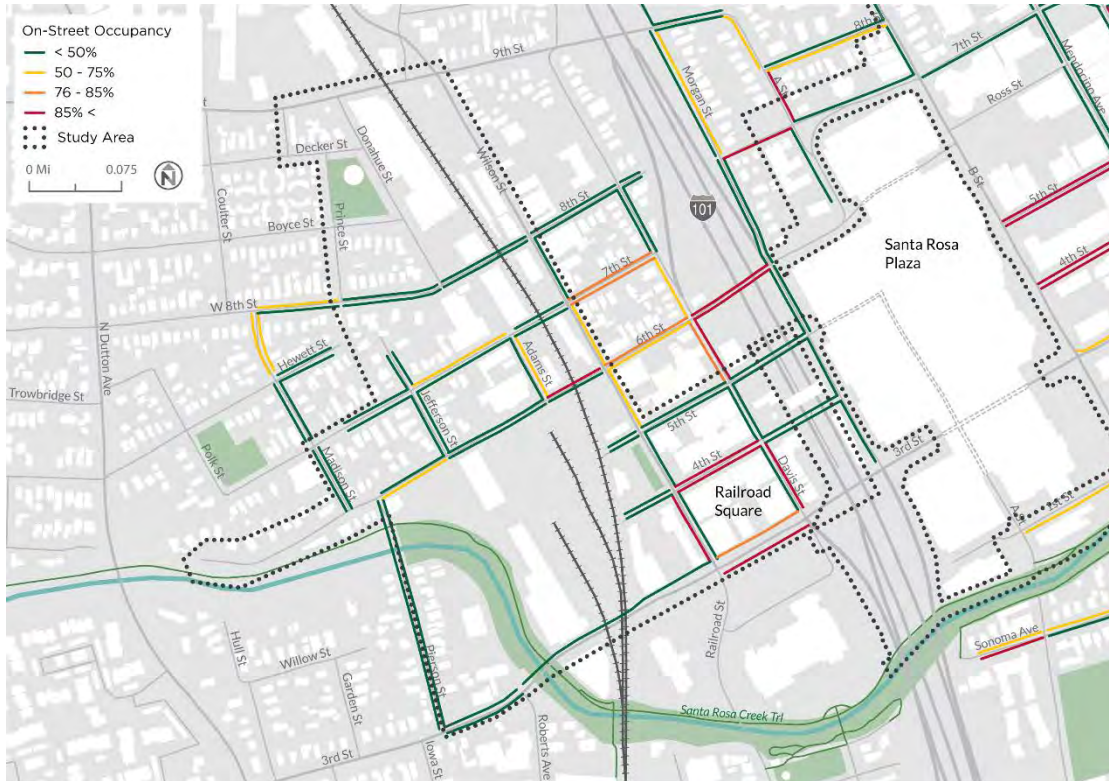
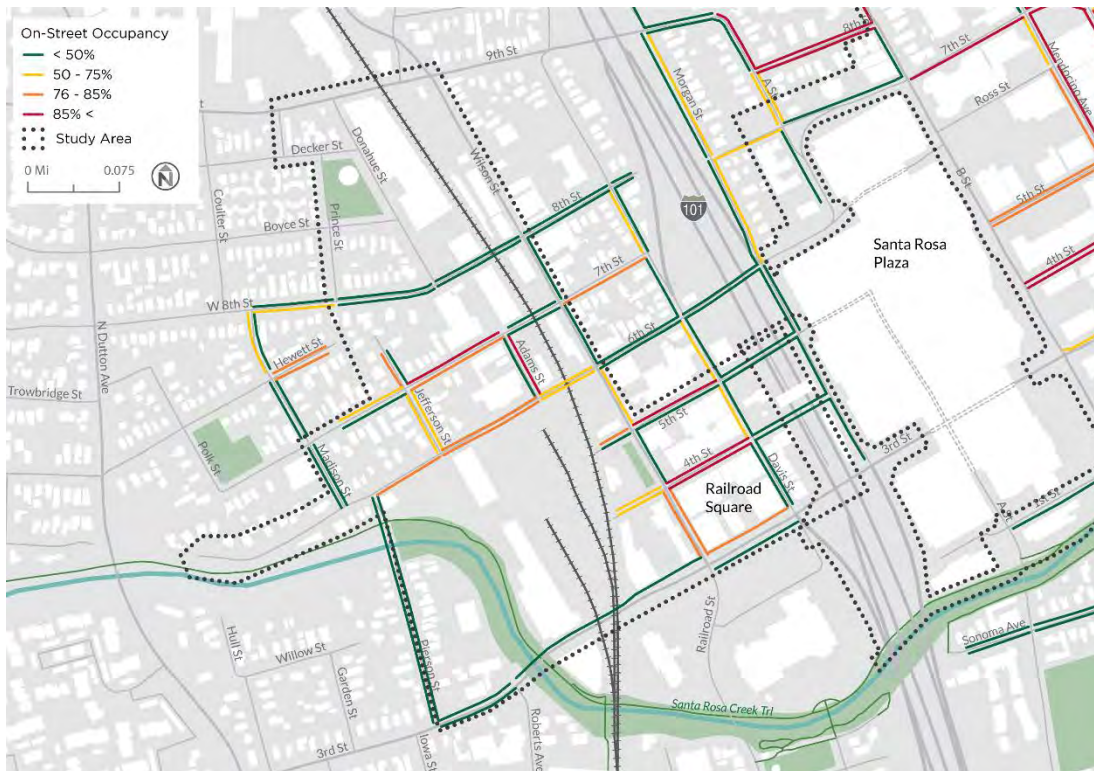


Figure 14 Peak Weekend On-street Occupancy - PM (8-9 p.m.)



Off-Street Parking

Figure 16 compares weekday and weekend occupancy rates throughout the day. This data is inclusive of both public and private lots in the Railroad Square focus area. Overall, off-street parking demand is low, peaking at 52% during the Midday period on weekdays. With the exception of the PM period, off-street parking occupancy is significantly higher on weekdays than on weekends.

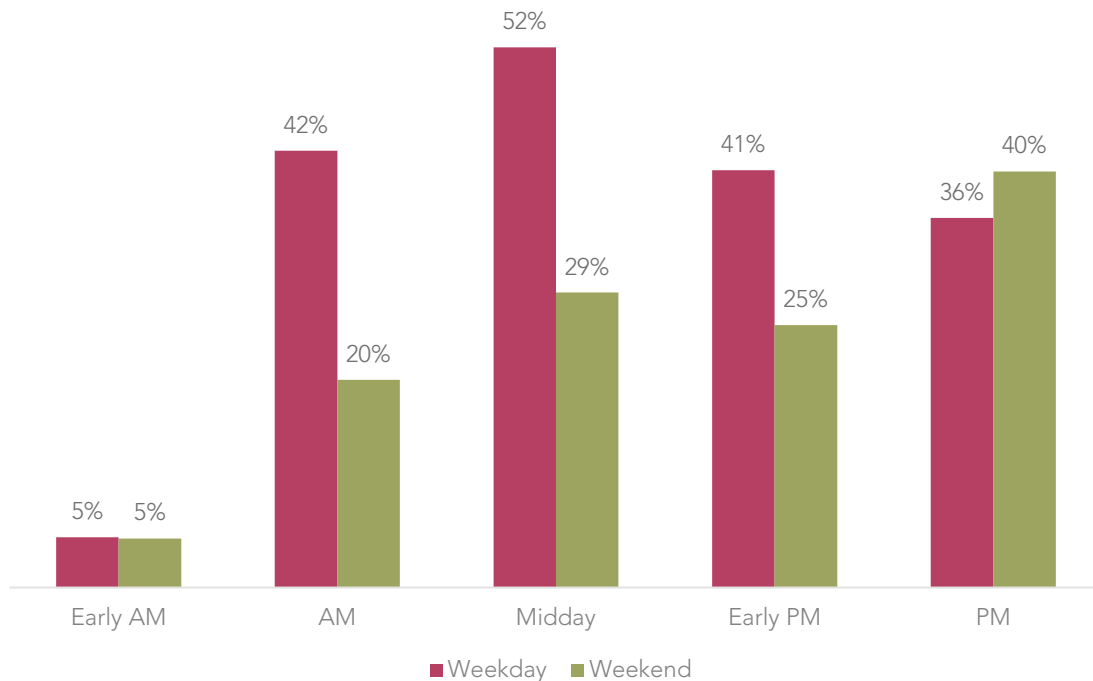
Figure 15 compares off-street parking occupancy between the public and private parking lots in the focus area.

Private lots generally have higher occupancy rates on weekends, whereas higher occupancy rates on weekdays tend to fluctuate between the public and private lots.

Figure 15 Public and Private Off-street Occupancy

Time Period	Weekday		Weekend	
	Public	Private	Public	Private
Early AM	1%	8%	0%	8%
AM	48%	38%	8%	31%
Midday	53%	52%	18%	38%
Early PM	37%	44%	14%	35%
PM	30%	40%	32%	47%

Figure 16 Off-street Occupancy by Time Period



Overall, the demand for publicly-accessible off-street spaces is slightly higher during the weekday peak-hour period (Midday) than the weekend peak-hour period (PM). Figure 17 and Figure 18 illustrate peak-hour utilization of all four public lots during the weekday and weekend, respectively. As shown in Figure 17, Lot 14 is the most utilized with 81% occupancy during the weekday Midday period. On the weekends, Lot 15 and the Depot Lot are the most utilized with 77% and 83% occupancy, respectively.

Figure 17 Peak Weekday Off-street Occupancy – Midday (12-1 p.m.)



Figure 18 Peak Weekend Off-street Occupancy – PM (8-9 p.m.)



Parking Management

The following sections provide an overview of existing parking management policies in Santa Rosa. This includes regulatory framework, development standards, and other parking practices.

Downtown Parking District

The City formed the Downtown Parking District in the 1950s to acquire and improve off-street parking in downtown. With the exception of residential development, properties located within the District are exempt from minimum parking requirements. The Parking Division also manages the Railroad Square Meter Zone which was established in 2004 and encompasses all public off-street parking facilities and metered on-street spaces in the Railroad Square focus area.

Downtown Station Area Specific Plan

The Downtown Station Area Specific Plan provides the framework for the future SMART Station. The Plan area encompasses 650 acres of surrounding land and includes the study area and Railroad Square focus area. The City’s zoning code defines all uses within this area as “Station Area Plan,” with parking requirements specific to uses within the area and subareas.

Minimum Requirements

Applicable minimum parking requirements are summarized in Figure 19. Overall, parking minimums are low and not required for non-residential uses in the study area. Parking requirements within the Station Area Plan boundaries may also be reduced through a condition of project approval or Minor Conditional Use Permit. The applicant is required to complete a parking study to prove that the reduced parking provides sufficient parking and is compatible with neighboring properties.

The zoning code also encourages alternative parking solutions within the Station Area Plan boundaries, such as shared parking, tandem parking, garage/parking lifts, unbundled parking, and parking cash-out programs.

Figure 19 Downtown Station Specific Plan Parking Minimum Requirements

Attached Multifamily Residential	Vehicle Parking Spaces	Bicycle Parking Spaces
Courthouse Square and Railroad subareas	1 reserved space per unit	1 space per 4 units if units do not have a private garage or private storage space for bike storage.
Railroad Corridor subarea	1.5 reserved spaces per unit, except that only 1 reserved spare per unit is required for residential uses on properties along the Wilson Street corridor between 6 th Street and 9 th Street.	
Parks and Gardens subarea	1.5 reserved spaces per unit.	
Residential, historic residential, and Imwalle Gardens subareas	1 reserved, covered space plus 0.5 shared visitor spaces per unit. Visitor Spaces may be in tandem with spaces for the unit; or on-street abutting the site, except on a street identified by the general plan as a regional street.	

Detached Single-Family Residential	Number of Vehicle Parking Spaces Required
Residential, historic residential	2 spaces per unit, one of which must be reserved, on-site, covered and outside of setbacks. The remaining space may be shared, on-site (in the driveway and tandem) or on a public or private street when directly fronting the lot.

Affordable Residential	Vehicle Parking Spaces	Bicycle Parking Spaces
All subareas	1 reserved space per unit.	1 space per 4 units if units do not have a private garage or private storage space for bike storage.

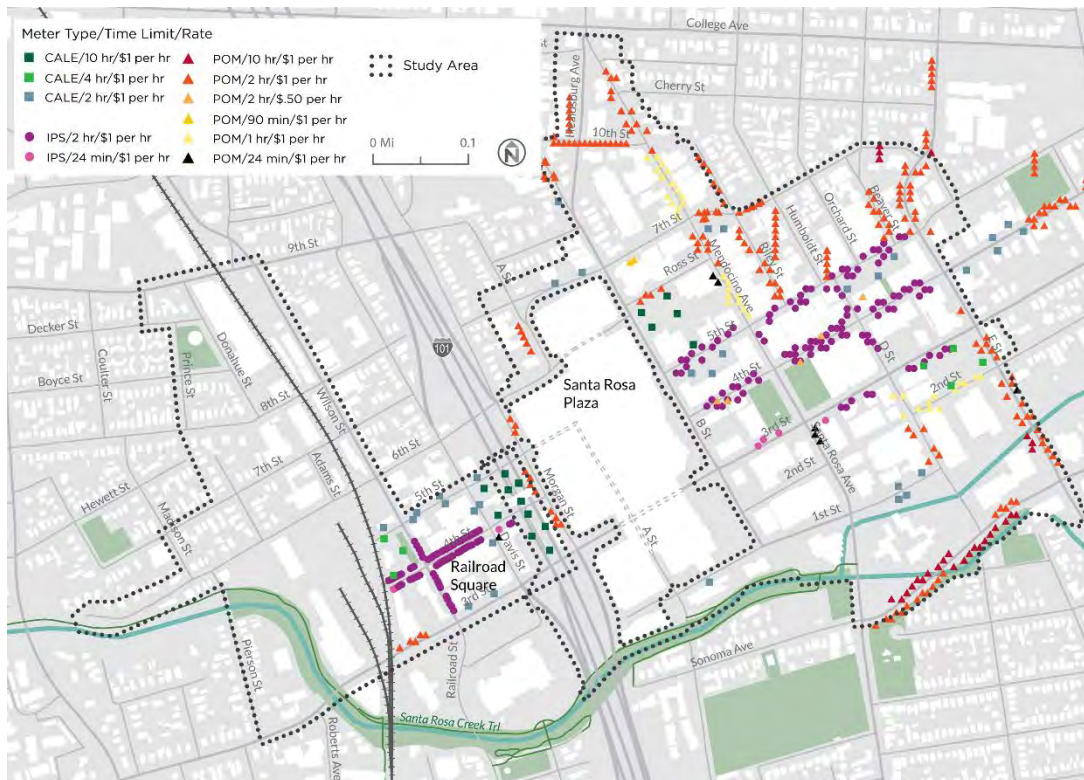
Senior Housing Project	Vehicle Parking Spaces	Bicycle Parking Spaces
All subareas	0.5 reserved space per unit.	1 space per 4 units if units do not have a private garage or private storage space for bike storage.

Non-Residential Uses	Number of Vehicle Parking Spaces Required
Courthouse Square subarea	None, except 600 shared parking spaces shall be provided for the City Hall Performing Arts Center. Any new on-street spaces created by development shall count toward meeting the shared parking requirement.
Railroad Square subarea	1 shared space for each 500 sq. ft. of new floor area, no additional parking is required for new uses occupying existing buildings. Any new on-street spaces created by a development shall count toward meeting the shared parking requirement. Required parking may be provided on-site or within a nearby parking facility.
Railroad Corridor subarea	1 shared space for each 300 sq. ft. Any new on-street spaces created by a development shall count toward meeting the shared parking requirement.

Parking Rates and Restrictions

Metered parking located on-street and in parking lots is enforced from 8 a.m. to 6 p.m., Monday through Saturday. Metered rates are \$1.00 per hour for vehicles and \$0.50 per hour for motorcycles. As shown in Figure 20, time limits range from 1 to 10 hours, with a small number of 24-minute metered spaces. In the Railroad Square focus area, time limits range from 2 to 10 hours, with a five 24-minute metered spaces located along 4th Street. Metered parking is free and not time-restricted on Sundays.

Figure 20 Meter Types, Time Limits, and Rates



Parking rates in garages are priced lower than metered parking at \$0.75 per hour, with a maximum daily rate of \$8.00. As summarized in Figure 21, voucher bundles are available for purchase from the Parking Division in 1-hour, 3-hour, and all-day increments. Unlike metered parking, garages are enforced 24 hours a day, Monday through Sunday.

Figure 21 Parking Rates

Parking Garages	Rate
Parking Garage Hourly Rate	\$0.75 per hour
Maximum Daily Rate	\$8.00 per day
1-Hour Vouchers	\$30.00 for 40 hours
3-Hour Vouchers	\$45.00 for 20 hours
Daily Rate Vouchers	\$80.00 for 10 days
1-Hour Discounted Bundle	\$63.75 for 100 hours

With the exception of Garage 5 and Lots 4, 11, and 15, all off-street parking facilities in the study area also offer non-reserved monthly parking passes available for purchase (shown in Figure 22).

Figure 22 Permit Rates

Facility	Rate	Facility	Rate
Lot 2	\$85 monthly	Garage 1	\$62 monthly
Lot 7	\$85 monthly	Garage 3	\$62 monthly
Lot 10	\$140 monthly	Garage 5	\$140 monthly
Lot 13*	\$45 monthly	Garage 9	\$85 monthly
Lot 14*	\$45 monthly	Garage 12	\$85 monthly
Depot Lot*	\$77 monthly		

*located in the Railroad Square focus area

Shop Here Park Free Program

The Shop Here Park Free program is a city-initiated effort to encourage those who visit downtown for over an hour to park in one of five downtown public parking garages. Merchants participate in the program by purchasing one-hour vouchers from the Chamber of Commerce which validate one hour of free parking. One-hour vouchers cost \$40 for a pack of 100. The vouchers are valid at Garages 1, 3, 5, 9, and 12.

Payment Methods

As shown in Figure 20, the City currently operates two types of single-space meters (IPS and POM) and one type of multi-space meter (CALE). Users can pay by credit/debit card or coin at IPS meters, and by coin only at POM meters. All surface lots, with the exception of Lot 6 (permit only), use CALE meters at pay-and-display parking stations. CALE meters allow users to pay by credit/debit card or coin.

Parking garage payment is administered by pay-on-foot stations located within each of the City’s public parking garages. Patrons receive a ticket upon entering the garage and pay at one of the stations before returning to their vehicle. Monthly permit holders may use their permits to gain access to and from the garage at all times.

In 2015, the City launched a mobile payment application that allows patrons to pay for on- and off-street metered spaces by credit/debit card using a phone app (up to the maximum allotted time) without returning to the parking meter.

Residential Parking Permits

There are six residential parking zones in Santa Rosa, including one in the downtown area. Downtown area residents living within this zone can purchase an annual parking pass to park on-street, exempt from the posted time limit. Residential parking permits are issued annually by the Parking Division for a fee of \$20 per permit. Residents are allowed to purchase up to three permits per household.

Parking Revenue

The Parking District is operated under the Parking Enterprise Fund. The Parking Enterprise Fund, separate from the General Fund, accounts for parking revenues and expenditures for the City and funds the operation, maintenance, and capital improvements of the City’s public parking program. The City sets fees and rates to cover the costs of operations, maintenance and capital projects. Fees collected from on-street and surface lot metered parking and garage fees make up the majority of the Parking District’s funding.

Figure 23 shows the FY 2015-16 parking revenue for all off-street facilities in the study area (roughly \$3.3 million). Lot 4 and Garage 5 are the most profitable with an average revenue of approximately \$2,000 per space. Overall, Garage 3 has the highest total revenue. Revenue from all on-street parking meters located within the Central Parking District and Railroad Square were approximately \$1,042,418.

Figure 23 Off-Street Parking Revenue

Facility	Annual Revenue	Revenue/Space	Facility	Annual Revenue	Revenue/Space
Lot 2	\$257,493	\$1,788	Garage 1	\$529,985	\$701
Lot 4	\$43,895	\$1,908	Garage 3	\$692,711	\$978
Lot 7	\$132,789	\$1,145	Garage 5	\$423,586	\$2,183
Lot 10	\$145,445	\$1,865	Garage 9	\$474,081	\$1,058
Lot 11	\$124,048	\$1,798	Garage 12	\$282,309	\$388
Lot 13/14*	\$93,446	\$573	Total	\$2,402,672	-
Lot 15*	\$31,227	\$496			
Depot Lot*	\$33,564	\$799			
Total	\$861,907	-			

*located in the Railroad Square focus area

Railroad Square Parking Demand Analysis

The Railroad Square focus area was identified as a priority area for analysis of parking demand because of the upcoming opening of the SMART commuter rail station at Wilson Street between 3rd and 4th streets and the significant mixed-use development expected to accompany the station in coming years, as part of the City's broader economic development strategy. Ensuring adequate access to both existing and new destinations in Railroad Square requires a quantitative understanding of parking demand in the area, both in current and forecast conditions.

System Performance

An assessment of parking supply, utilization rates, and patterns was conducted to evaluate whether the existing parking supply can adequately meet demand. Because parking demand and behavior can vary significantly amongst different areas, the demand analysis for parking in and around Railroad Square was conducted through several lenses: on-street vs. off-street, public vs. private, user group, and geography.

Existing parking demand is analyzed through a three-step process, which accounts for existing development of various non-residential land uses (in square feet)¹, parking supply, and parking occupancy counts. Future parking needs project demand to the horizon year 2025, and is adjusted to account for new development, changes in parking inventory, and parking demand estimates from the Institute of Transportation Engineers (ITE).

The following three ratios are the most significant outputs from the analysis which help assess existing and future parking demand:

1. Supply Ratio: number of parking spaces per 1,000 square feet of non-residential gross floor area
2. Demand Ratio: number of occupied parking spaces per 1,000 square feet of non-residential gross floor area
3. Supply/Demand Ratio: Supply Ratio divided by the Demand Ratio; indicates whether parking is over- or under-provisioned according to various land use and transportation scenarios. A Supply/Demand Ratio of 100% means that parking supply is in line with peak demand; a ratio of 50% indicate that supplies only satisfy half of peak demand.

Existing Parking Demand and Land Use Assessment

Land use and development data provided by the City and local stakeholders was used to determine the Supply and Demand ratios under existing conditions. Relevant land uses included office, industrial, retail, and hotel uses. Figure 24 summarizes the gross floor area of non-residential development by land use. A vacancy adjustment of 25%² was applied to hotel uses because vacant rooms are assumed to not contribute to parking demand. It is also assumed that hotel rooms occupy 325 square feet of space. The Supply Ratio compares the total inventory of existing parking spaces to the total square footage of development within the Railroad Square focus area. The Demand Ratio is calculated by evaluating peak occupancy levels summarized in the Parking Occupancy section of this report.

¹ Residential land uses are excluded because the City does not routinely manage residential parking.

² Sonoma County Economic Development Board. 2016. "Occupancy Statistics."

Figure 24 Existing Non-Residential Development

Land Use	Square Feet
Hotel (Net Occupied Rooms)	16,509
Industrial	157,957
Office	50,543
Retail	375,081
Total	600,090

Sources: City of Santa Rosa

Figure 25 categorizes all 1,210 parking spaces in the Railroad Square focus area, which includes private/reserved off-street parking. Given that there is 600,090 square feet of non-residential development in the area, the Supply Ratio is 2.02 spaces per 1,000 square feet of development.

Figure 25 Existing Parking Supply

Parking Resource	# of Spaces
Public Off-Street Parking	266
Lot 13, 207 3 rd Street	97
Lot 14, 206 5 th Street	68
Lot 15, 210 5 th Street (proposed for development)	60
Lot D, 9 4 th Street (will be reduced for SMART station amenities)	41
On-Street Parking	619
Private/Reserved Off-Street Parking	325
DeMeo Teen Club “Chops”	20
Stark’s Steak & Seafood	11
6 th Street Playhouse	45
Assistance League Thriftshop	26
Arlene Francis Center	12
Chevy’s	48
Aroma Roasters/Hotel La Rose	55
Teevax Home Appliance & Kitchen Center	10
Echelen Cycle & Multisport	10
Hotel La Rose	18
Sole Desire Rack	25
Charles Schwab/Rabobank	27
Total	1,210

Figure 26 and Figure 27 show peak occupancy counts collected throughout the day during the weekday and weekend. Only partial occupancy data was available for private/reserved off-street lots. To estimate occupancy for these facilities, occupancy was extrapolated using a weighted average of occupancy figures for on-street and City-owned off-street facilities during each time period. Parking demand was aggregated as the total number of spaces concurrently occupied between on-street, off-street, and private/reserved parking. Based on these occupancy estimates, the peak parking demand is during the Midday Period on weekdays (581 spaces) and the PM period on weekends (569 spaces). As a general best practice, a 10% “vacancy cushion” was added to these unadjusted occupancy totals. Drivers typically expect 10 % of spaces to be vacant—about one on-street space per block face—to make searching for parking worthwhile. Including the vacancy cushion, peak demand totals for the weekday and weekend are 639 spaces and 626 spaces, respectively.

Figure 26 Existing Weekday Occupancy by Time Period and Type

	Early AM	AM	Midday	Early PM	PM
Public Off-Street	2	128	142	98	81
On-Street	71	206	271	287	276
Private/Reserved Off-Street	27	123	168	141	131
Total	100	457	581	526	488
Adjusted Total (with 10% vacancy cushion)	110	503	639 (MAX)	579	537

Figure 27 Weekend Occupancy by Time Period and Type

	Early AM	AM	Midday	Early PM	PM
Public Off-Street	1	20	47	36	86
On-Street	73	250	286	276	330
Private/Reserved Off-Street	27	99	122	115	153
Total	101	369	455	427	569
Adjusted Total (with 10% vacancy cushion)	111	406	501	470	626 (MAX)

Given the previous gross floor area of non-residential development, parking supply, and parking occupancy totals, the three parking demand and supply indicators are calculated as follows and evaluated further in this report:

- Supply Ratio: 2.02 spaces per 1,000 sq. ft. of development
- Demand Ratio: 1.06 spaces per 1,000 sq. ft. of development
- Supply/Demand Ratio: 189%

The most significant demand indicator, the Supply/Demand Ratio, is calculated by dividing the Supply Ratio by the Demand Ratio. The result is a Supply/Demand Ratio of 189%, which indicates that the Railroad Square focus area provides an excess of parking, 89% more than what is currently needed. This Supply/Demand Ratio is slightly more than what is observed in other similar sized cities in the United States. A sample analysis of roughly 40 communities shows an average Supply/Demand Ratio of 175%. While public perception may be that there is a shortfall of parking in the Railroad Square area (certainly at peak times in high demand areas), the data suggests otherwise. The data indicates that the current *overall* parking supply in the Railroad Square focus area can comfortably satisfy existing parking demand under peak demand conditions.

Future Parking Demand Assessment

Future parking demand (to horizon year 2025) is calculated by applying the same methodology above, with adjustments for new development, changes in parking inventory, and ITE parking demand estimates.

First, the City’s pending and approved development in the pipeline was added to the existing land use totals used in the denominator of the Supply and Demand Ratios. These pending development totals included 144 hotel rooms (equivalent to about 35,000 square feet of net occupied rooms),¹ 7,000 square feet of industrial, 44,000 square feet of office, and about 33,000 square feet of retail space.² This new development consists of six non-residential projects in the City’s pipeline; as of October 2016, four are approved. The retail total also includes 15,000 square feet of retail space tentatively planned as part of the ROEM Development Corporation’s “Watertower” development adjacent to the SMART station in Railroad Square, which was not provided in City documentation.³ Total new and future non-residential development is provided in Figure 28.

Figure 28 Railroad Square Development Forecast, 2015 - 2025

Land Use	Gross Sq. Ft. of New Development (2015 - 2025)	Net Sq. Ft., New + Existing, (2025)
Hotel (Net Occupied Rooms)	34,960	51,468
Industrial	6,835	164,792
Office	43,700	94,243
Retail	32,937	408,018
Total	118,432	718,521

Sources: City of Santa Rosa

¹ Calculation assumes each hotel room is equivalent to 325 square feet, with the most recent Sonoma County hotel vacancy rate of 25% applied. These totals do not include the Hyatt, which lies just outside the Railroad Square Study Area across 3rd Street. The Marriott hotel development is included in this figure.

² In addition to these totals, about 100 multifamily units and 200 single-family detached units are forecast in the Railroad Square area. However, these residential properties were not incorporated into the parking demand analysis.

³ In addition to the planned retail space at this development, 268 multifamily housing units are planned at the site.

To comply with the City’s off-street parking requirements of one shared space per 500 square feet of new floor area, it is anticipated that these new developments will add about 233 new off-street spaces to the area’s parking inventory. This includes 70 tentative spaces at the Watertower development adjacent to the SMART station site. Two planned development changes will cause the loss of 73 spaces from public lots. These include the conversion of the Lot 15 (60 spaces) into a hotel with only 26 spaces and the conversion of 13 spaces in the Depot Lot to provide amenities at the SMART station. Together, these changes in parking inventory yield a net gain of about 160 spaces between the existing and future conditions. However, it is important to note that the City’s off-street parking requirements for new development are determined through the planning entitlement process. For example, mixed-used residential property owners who engage in shared parking agreements may reduce their parking requirement by up to 50% for either the residential or retail use, whichever is lower.¹ Thus, off-street parking constructed for new development may fall slightly below this forecast if the larger developments engage in shared parking agreements with nearby properties. Under the assumption that new developments will comply with off-street requirements, the Railroad Square focus area is expected to have an overall inventory of about 1,370 spaces and total developed area of about 719,000 square feet (see Figure 29.) This yields a Supply Ratio of about 1.91 spaces per 1,000 square feet of development.

Figure 29 Future Parking Supply Adjustments²

Parking Resource	Spaces
Existing Parking Supply	1,210
Parking Requirements for New, Non-residential Space	137
Watertower development shared parking ³	70
New Hotel Parking ⁴	26
Lot 15 conversion	-60
Reduction of Lot D for SMART station amenities	-13
Net Future Parking Supply	1,370

Parking demand generated by new development is estimated using demand factors from the ITE *Parking Generation* (4th edition). The ITE demand factors include average parking generation rates per unit of development and are based on counts from developments throughout the United States. Parking demand generated by new development in Railroad Square is given, along with relevant ITE demand factors, in Figure 30. Demand factors are expressed as the number of spaces likely to be in demand per 1,000 square feet of gross floor area or, in the case of hotels, per occupied room. New development is expected to create demand for an additional 281 spaces on weekdays and 210 spaces on Saturdays.

¹ City of Santa Rosa Code. 20-36.050. Retrieved from <http://qcode.us/codes/santarosa/>

² Hyatt hotel has 66 spaces, but lies outside the Railroad Square Study Area across 3rd Street. It is not included as part of this demand analysis.

³ ROEM Development Corporation. July 11, 2016. “Water Tower Plaza Apartments: Presentation to SMART and City of Santa Rosa.”

⁴ http://santa-rosa.granicus.com/Viewer.php?view_id=20&event_id=1623&meta_id=88211

Figure 30 ITE Parking Demand Estimates from New Development

ITE Code	Land Use	New Development	Units	Weekday Demand Factor	Saturday Demand Factor	Weekday Parking Demand	Saturday Parking Demand
310	Hotel	144	Rooms	0.89	1.2	96	129
110	Industrial	6,835	sq .ft.	0.75	N/A	5	N/A
701	Office	43,700	sq .ft.	2.47	N/A	108	N/A
820	Retail	32,937	sq .ft.	2.20	2.46	72	81
Total		118,432	-	-	-	281	210

Source: ITE Parking Generation, 4th edition.

Parking occupancy rates for existing on-street parking, City-managed off-street, and private/reserved lots are assumed to remain the same as under current conditions. While Lot 15’s conversion to a hotel development will result in a loss of 60 spaces, the City’s parking requirements for new non-residential development and other planned parking will ensure that new off-street spaces detailed in Figure 29—an estimated 233 in total—help offset this change by creating a net gain of 160 spaces in the Railroad Square focus area. Likewise, occupancy rates for net new private/reserved parking from new development are expected to mirror those of existing private/reserved parking inventory: a weighted average occupancy rate between on-street and public off-street facilities is assumed for the occupancy of new parking facilities. Future parking demand forecasts are calculated by adding together existing parking demand generated from existing development (with occupancy rates expected to remain the same), parking demand generated by new development, shown in Figure 30, and parking demand forecasts from riders accessing the new SMART station.

As performed above for existing parking demand, the **Demand Ratio** is calculated by dividing the total maximum peak occupancy forecasted by the total square footage of development within the study area boundary. The Demand Ratio can be interpreted as the peak number of spaces in demand per 1,000 square feet of development. The **Supply Ratio** is the quotient of future parking inventory divided by the total square footage of development, and it remains the same – 1.91 spaces per 1,000 square feet of development – regardless of SMART station demand.

There is considerable uncertainty with respect to future parking demand in the Railroad Square focus area. While parking demand generated by planned development is well-understood from ITE’s national parking utilization factors (shown in Figure 30), there is greater uncertainty about the number of SMART train riders who will access the station by private car and thereby cause parking demand in the Railroad Square focus area to increase. Stakeholders therefore have good cause to be concerned that parking supplies in the Railroad Square focus area may become more constrained as a result of SMART riders accessing a station where no on-site rider parking is provided. This concern is especially acute if SMART riders utilize some types of parking inventory in the Railroad Square focus area more than others—likely on-street parking and public off-street lots closest to the station—causing these parking supplies to become functionally full during AM peak commuting periods before other users have the opportunity to access these supplies.

The primary uncertainty in estimating future parking demand concerns the influence of riders arriving at the SMART rail station by private car. Most residents of Santa Rosa commute by car,

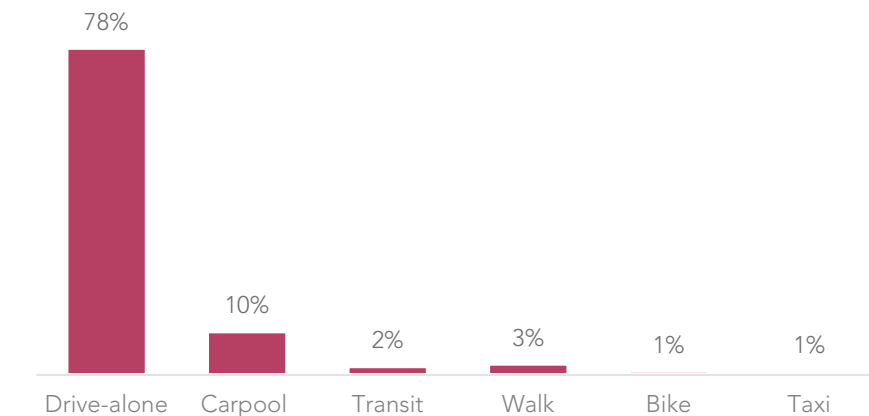
and most riders will likely park near the station to access the rail service. The number of SMART riders accessing the station by private car will vary according to two factors: the station’s forecast ridership and the modal split of how riders access the station.

The SMART Rail Final Environmental Impact Statement estimates a daily ridership at the Downtown Santa Rosa station of 847 riders by 2025.¹ These ridership forecasts may be overly optimistic at the time of the station’s opening, given that the SMART rail line will not reach Larkspur for some time. Some degree of transition time may be necessary for commuters and discretionary riders to change their current travel patterns to begin taking regular trips on the SMART system. More importantly, however, it is unknown how these riders are likely to access the stations, whether by private car or by other modes. To illustrate the impact of various travel demand management programs, four scenarios of SMART station access were developed:

- High ridership (847/day) under existing drive-alone mode share; SMART station generates demand for 660 spaces.
- High ridership (847/day) with a modal shift of 10% away from drive-alone, 5% to walking and 5% to bicycling; SMART station generates demand for 575 spaces.
- Low ridership (400/day) under existing drive-alone mode share; SMART station generates demand for 312 spaces.
- Low ridership (400/day) with a modal shift of 10% away from drive-alone, 5% to walking and 5% to bicycling; SMART station generates demand for 272 spaces.

Existing mode share data was provided through the American Community Survey, 2010-2014 Five Year Estimates, shown in Figure 31. The mode share given in scenarios with 5% shifts each to walking and cycling are shown in Figure 32. As with existing parking demand estimates, future parking demand estimates include a 10% vacancy adjustment to satisfy drivers’ parking searches with a small cushion of available spaces.

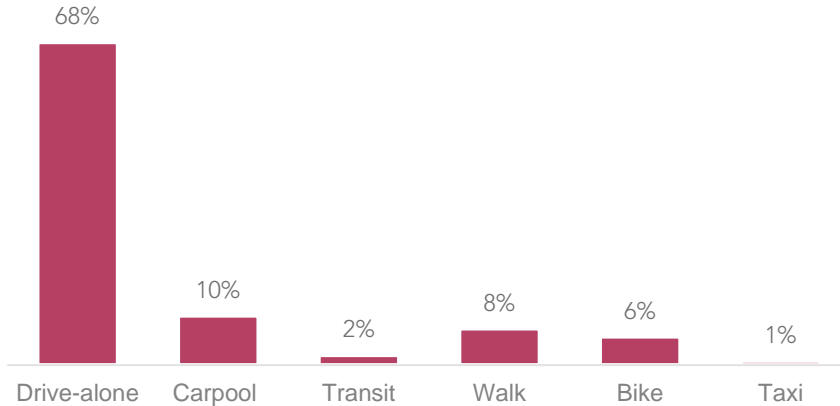
Figure 31 City of Santa Rosa Commute Mode Share (2014)



Source: ACS, 2010-2014

¹ SMART FEIS. 2006. Chapter 4: Revisions and Corrections to the Draft EIR. Retrieved from http://www.sctainfo.org/pdf/smart/final/04_revisions_and_corrections_to_draft_eir.pdf

Figure 32 City of Santa Rosa Mode Share with 10% Shifts to Walking and Biking



Source: ACS, 2010-2014

The four SMART rail station parking demand scenarios outlined above were combined with demand forecasts for existing and net new parking supplies to reach estimates of future parking demand. The results of these four scenarios, including peak estimated demand, provided in Figure 33, illustrate the forecast that the Railroad Square focus area’s parking demand will significantly increase if the vast majority of SMART riders arrive by private car and search for parking locally. The Supply/Demand Ratio of 79%, in the left-most column, indicates that if ridership is high and SMART riders access the station at current drive-alone rates, parking demand will exceed supply by about 21%. If, on the other hand, the SMART station generates high ridership and a 10% mode shift to walking and riding bicycles, the Supply/Demand Ratio is 84%, indicating that demand exceeds supply by about 16%.

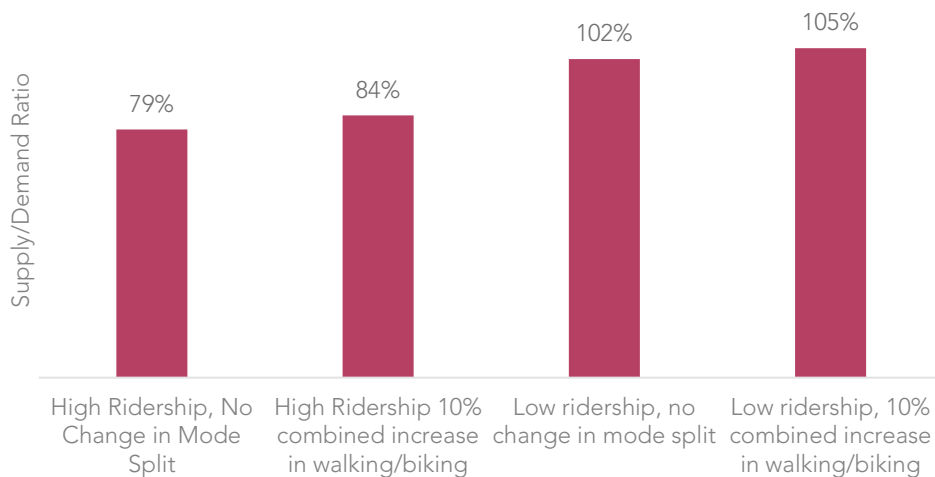
As is more likely during the SMART station’s opening year, in a low ridership scenario without a concurrent modal shift in station access the Supply/Demand Ratio will be 102%. This Supply/Demand Ratio would indicate a surplus of spaces just 2% greater than peak demand. However, as the right-most column of Figure 33 shows, lower ridership estimates and a 10% modal shift to walking and riding bicycles to access to the SMART station—achievable through coordinated travel demand management programs—would enable a smaller increase in parking demand than other scenarios. Under this low-ridership, high-walking/bicycling scenario, parking supply would still satisfy peak demand with an excess of 5% capacity.

Figure 33 Total Future Parking Demand under 4 SMART Rail Station Access Scenarios

Operation	Demand Category	# of Spaces
A	Maximum Parking Demand under Existing Conditions, Tuesday	692
B	Maximum Parking Demand under Existing Conditions, Saturday	697
C	Parking Demand from New Development, Tuesday (based on ITE rates shown in Figure 30)	281
D	Parking Demand from New Development, Saturday (based on ITE rates shown in Figure 30)	210
E	Total Future Parking Supply (shown in Figure 29)	1,370
F	Total Future Built Non-Residential Floor Area (square feet, shown in Figure 28)	718,521

Operation	Demand Category	High Ridership, Current Mode Share	High Ridership, 5% Shift to Walking, 5% Shift to Cycling	Low Ridership, Current Mode Share	Low Ridership, 5% Shift to Walking, 5% Shift to Cycling
G	SMART Station Parking Demand Estimates	660	575	312	272
H (A + C + G)	Max Est Parking Occupancy Tuesday	1,727	1,634	1,344	1,300
I (B + D + G)	Max Est Parking Occupancy Saturday	1,654	1,561	1,271	1,227
J (E / F)	Supply Ratio – Spaces Supplied per 1,000 S.F. of Development	1.91			
K (H / F)	Demand Ratio – Max. Spaces Occupied per 1,000 S.F. of Development	2.40	2.27	1.87	1.81
J / K	Supply/Demand Ratio, Tuesday	79%	84%	102%	105%

Figure 34 Supply/Demand Ratios under 4 SMART Ridership Scenarios



3 Public Input

The Santa Rosa Parking Management project team engaged in public outreach efforts to understand the views and needs of stakeholders, residents, business owners, and visitors. Stakeholder interviews, online and intercept surveys, and public outreach meetings resulted in a better understanding of the existing parking conditions, key parking issues, and downtown dynamics in Santa Rosa.

Stakeholder Interviews

In June 2016, the project team held stakeholder interviews at Santa Rosa City Hall with 30 key stakeholders involved in Santa Rosa's downtown revitalization, including property owners, Chamber of Commerce members, environmental advocates, developers, restaurant owners, neighborhood association representatives, contractors, storeowners, and retailers.

These discussions yielded the following findings:

- There is a need for a downtown employee parking program, with dedicated off-street spaces that are affordable, convenient, and safe.
- Some suggested that the City should charge for parking to increase the use of other modes and improve parking conditions. However, others noted that many towns in the county do not currently charge for parking.
- Merchants were most concerned about providing easy and convenient parking for their customers.
- Retailers agreed that there is sufficient parking supply in the area, and that underutilized garages could attract more users through price incentives, advertising, and real-time availability technology.
- There is concern regarding the new SMART train service and the increased parking demand that will occur as a result.

Online and Intercept Surveys

A parking management survey was distributed to thousands of Santa Rosa residents and visitors in person and online. The survey included questions regarding travel modes, choices, and time, as well as downtown parking and expenditures and the future SMART train. Of all 1,150 respondents, over 1,000 people completed the survey online, and nearly 100 responded in person. In-person surveys were conducted on the afternoon of Thursday, June 23, 2016 and during the Wednesday Night Market on July 13, 2016. The online survey was open for the entire month of June 2016.

The survey results included the following findings:

- Most respondents are auto-dependent, roughly 80% drive to downtown Santa Rosa/Railroad Square (see Figure 35).
- Majority of trips made to the area (71%) are specifically to eat or drink, demonstrating the important role that businesses play in downtown.
- 68% of respondents choose their mode of transportation based on convenience (see Figure 36).
- 80% stated that where they park is determined by the proximity of their destination
- 50% of respondents noted that increased parking availability would encourage them to visit the area more often.
- 80% of employees in the downtown Santa Rosa/Railroad Square areas drive alone to work.
- Of all employees who drive alone to work, approximately 32% park in a private garage/lot; 25% park at an unmetered parking space; 21% at a public garage, 14% at an on-street metered space, and 8% at a public parking lot.

Figure 35 Means of Transportation to Downtown Santa Rosa/Railroad Square

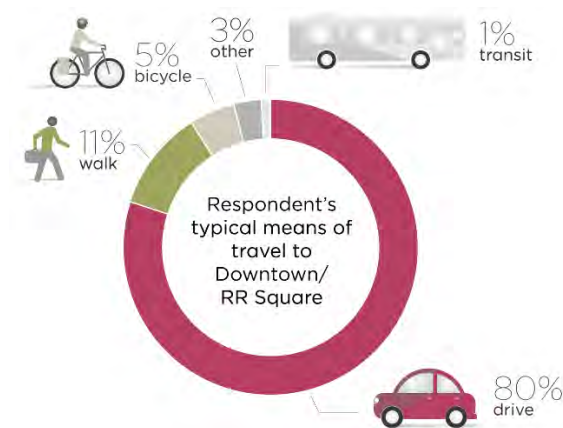
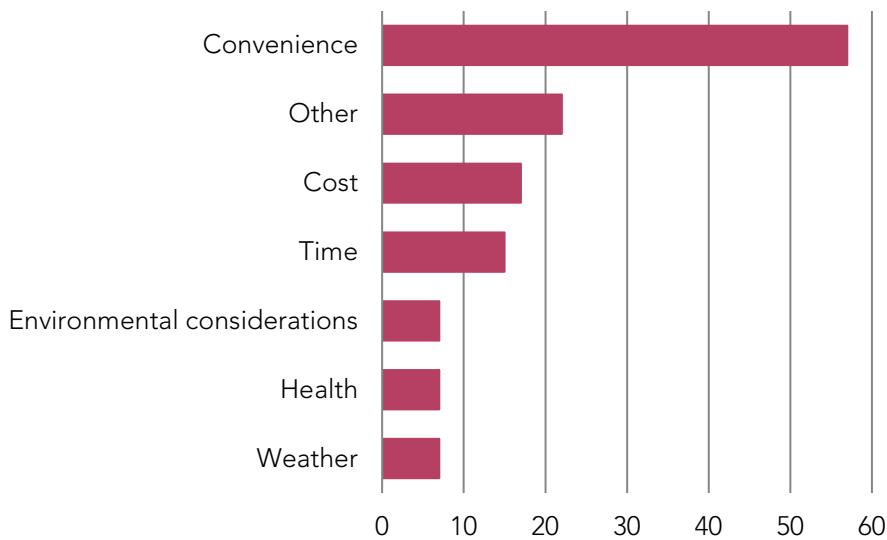


Figure 36 Factors Influencing Transportation Mode Choice (Intercept Survey Only)



Public Outreach Meetings

Four public meetings were held in the Summer and Fall 2016. The first meeting was held on July 28, 2016 in the West End neighborhood of Santa Rosa, where the 26 attendees were primarily nearby residents. The following two meetings were held at the Santa Rosa City Hall on August 24 and October 25, with 35 and 18 attendees, respectively. Attendees were predominately members of the business community. The last meeting was held on November 14, 2016 in the Railroad Square area with 20 attendees who were primarily nearby restaurant owners.

All meetings were comprised of a question and answer session, followed by three group activities in which participants could provide feedback on progressive parking policies and current parking challenges in the study area.

Key findings from the public outreach meetings include:

- Residents suggested increasing on-street parking prices to encourage off-street parking and reduce commercial parking spillover into nearby residential streets.
- The business community is generally in favor of the project and supportive of raising parking rates on the busiest streets and in high demand garages and lots.
- When asked to select parking solutions that would make parking easier and more convenient, participants favored affordable employee parking options, better signage and wayfinding, and competitively pricing garages to free up on-street spaces.
- Parking is difficult on 3rd, 4th, and 5th Streets downtown, as well as Donahue Street in the West End neighborhood, and 3rd and Wilson Streets in the Railroad Square focus area.
- All parking structures were noted as easy to park, with the exception of Lots 10 and 11.
- Overall, participants were not interested in increasing the parking supply.
- In general, there was a strong interest in employee parking programs and improved walking conditions.

4 Best Practices Review

This chapter provides an overview of how other cities in the United States responded to similar parking challenges that Santa Rosa faces. The following review provides experiences and lessons that are applicable to the development of parking strategies in Santa Rosa. Topics include progressive pricing, ambassador enforcement, station area parking, parking benefit districts, employee parking, and valet parking.

Progressive Pricing

Progressive parking strategies help better manage existing parking supply. A key component of any progressive parking strategy is a concept known as demand-responsive pricing. Demand-responsive pricing charges the lowest possible rate to achieve availability targets and better align the price of parking to demand. Researchers have determined the ideal parking occupancy rate to be around 85%, which leaves roughly one to two spaces available per block so that cars no longer have to circle the block to find parking. To achieve this occupancy rate, cities increase the cost of parking or reduce time limits in areas with occupancy rates higher than 85% and decrease the cost of parking or increase time limits in areas with occupancy rates lower than 85%. Below is a list of US cities that have implemented progressive parking policies over the past several years, and the difference in parking availability and average cost before and after their programs were implemented (see Figure 38).

Berkeley, California (goBerkeley)

The goBerkeley program began as a three-year pilot program designed by the City to improve traffic congestion and parking options, and to promote alternatives to private automobiles within the core areas of the City. In the summer of 2013, the City Council authorized adjusting parking rates and time limits at meters, surface lots, and garages in order to achieve parking occupancy rates of 65-85% per block by passing an ordinance revising the City's Municipal Code.

The pilot program tested a variety of automated data collection and enforcement technologies, including smart meters and License Plate Recognition (LPR) surveys. Moving forward the City determined that it will continue to use occupancy data collected through License Plate Recognition (LPR) surveys to calibrate the Xerox software's algorithms for estimating parking occupancy rates based upon parking meter transaction data in order to determine the adjustment of parking rates as the program is implemented.

Figure 37 License Plate Recognition (LPR) Technology



On the basis of the utilization targets set by the pilot program, parking rates and time limits were adjusted within the study area in fall 2013 and spring 2014. Figure 39 summarizes the price and time limit changes that occurred throughout the course of the pilot program.

On December 16, 2014, the City of Berkeley released an initial draft evaluation of the results of the pilot program. (The final results of the program are pending.) The report states that in its first phase, the goBerkeley Transportation Demand Management (TDM) Program resulted in an overall reduction in automobile use, while drivers found that their parking experience in the City had improved:

- Drivers can now find a parking space more easily.
- On-street parking availability in the most congested areas has improved.
- More drivers are using the Telegraph Channing Garage, a previously underutilized facility.
- Increases to parking time limits and improved parking signage significantly improved customer experience.
- Changes to parking rates and time limits succeeded in changing driver behavior and have shifted parking demand in neighborhoods to metered parking spaces.
- A majority of parkers continue to rank “Proximity to Location” as the most important factor in seeking a parking space.

The goBerkeley program has proven to be effective in moving parking demand, successful in gaining acceptance and approval from local merchants, and has a lean administrative framework relative to other successful programs. Of all the models reviewed in this section, the program offers the most direct applications to development of Santa Rosa’s program. Unique among other progressive parking programs, the Berkeley program also incorporates TDM measures, as described above. While this is not initially a part of development of Santa Rosa’s downtown parking policies, those measures should be considered for future incorporation

Figure 38 Progressive Parking Programs and Results

City	Goals	Scale	Price Change Schedule	Current Price & Regulation Ranges	Results ¹
Berkeley, CA (goBerkeley)	<ul style="list-style-type: none"> ▪ Increase transportation options ▪ Reduce traffic congestion ▪ Cleaner air ▪ Easier and more efficient parking ▪ Encourage short-term parking at popular “Premium” spaces ▪ Attract parkers to less utilized “Value” zones with longer time limits 	<ul style="list-style-type: none"> ▪ On-street meters and select City-owned off-street facilities in three neighborhood pilot areas: Downtown, Southside, and Elmwood. 	<ul style="list-style-type: none"> ▪ Prices are changed at the blockface level. ▪ Prices do not vary by time of day. 	<p>Pricing Premium: \$2.00-\$3.25/hr Value: \$2.00 Time Limits Premium: 2 to 3 hours Value: 4 to 8 hours Enforcement Hours 9 a.m. – 6 p.m. Mon-Sat</p>	<ul style="list-style-type: none"> ▪ Average increase in availability of 8% for short-term parkers ▪ “Full” blocks in core area dropped by 12% ▪ Visitor satisfaction with “ease of parking” increased by 41% ▪ Parking at Value Zones increased by 38%
Los Angeles, CA (Express Park)	<ul style="list-style-type: none"> ▪ Reduce time spent on parking ▪ Optimize the flow of traffic ▪ Reduce air pollution ▪ Achieve 10% to 30% availability 	<ul style="list-style-type: none"> ▪ 6,000 on-street metered spaces ▪ 7,500 City-owned off-street parking spaces at five facilities ▪ Recently launched in Westwood near UCLA with 462 spaces 	<ul style="list-style-type: none"> ▪ Prices changed at the blockface level. ▪ Prices vary by time of day from Monday to Friday in some areas. 	<p>Pricing On-street: \$0.50 - \$6.00/hr Time Limits Varies; 15 minutes to 10 hours Enforcement Hours 7 a.m. – 6/8 p.m. Mon-Sat</p>	<ul style="list-style-type: none"> ▪ Most recent change increased average rate \$0.04/hr, 84% of spaces had no rate change ▪ Average hourly rate since inception has decreased by \$0.19/hr ▪ Average hourly rate increase in area added to the program was \$0.21/hr

¹ From program pilot or most recent reporting year.

City	Goals	Scale	Price Change Schedule	Current Price & Regulation Ranges	Results ¹
San Francisco, CA (SFpark)	<ul style="list-style-type: none"> Reduce traffic by helping drivers find parking Make streets less congested and safer Have at least one parking space available per block 	<ul style="list-style-type: none"> 6,000 on-street metered spaces and 12,250 City-owned off-street spaces in seven pilot districts. 1,200 Port of SF meters. 	<ul style="list-style-type: none"> Prices changed at the blockface level. Prices vary by time of day in some areas 	Pricing On-street: \$0.50 - \$6.25 Time Limits 4 hours or no time limit Enforcement Hours 9 a.m.–6 p.m. Mon-Sat 7 a.m.–11 p.m. Mon-Sun (Port only)	<ul style="list-style-type: none"> Average hourly rate at meters decreased by \$0.11/hour and average hourly rates at SFpark garages decreased by \$0.42/hour Amount of time that blocks were at 100% capacity decreased by 16% Amount of time to find a space decreased by 43% On-street parking availability increased by 22% during peak periods and 12% during off-peak periods
Seattle, WA (SeaPark)	<ul style="list-style-type: none"> Support neighborhood business districts Improve parking availability for a variety of users Maintain adequate turnover Reduce congestion 	<ul style="list-style-type: none"> Citywide; approximately 12,000 spaces across 31 rate areas 	<ul style="list-style-type: none"> Prices, time limits, and hours of operation are changed at the paid parking area level. Prices vary by time of day in Pioneer Square only at this time. 	Pricing On-street: \$1.00 - \$4.00 Time Limits 2, 4, or 10 hours Enforcement Hours 8 a.m.–6/8 p.m. Mon-Sat)	<ul style="list-style-type: none"> Initially, average hourly rate decreased by \$0.50-\$1.00 in 55% of neighborhoods, stayed the same in 27% of neighborhoods, and increased by \$1.00-\$2.00 in 18% of neighborhoods Most recently, average hourly rate stayed the same in 47% of neighborhoods The majority of neighborhoods where

City	Goals	Scale	Price Change Schedule	Current Price & Regulation Ranges	Results ¹
					<p>hourly rates decreased or stayed the same did not see an increase in occupancy</p> <ul style="list-style-type: none"> ▪ In areas where hourly rate increased, there was a slight reduction in occupancy
<p>Ventura, CA (Downtown Parking District)</p>	<ul style="list-style-type: none"> ▪ Increase parking availability ▪ Mitigate employees occupying prime downtown shopping spaces for extended periods 	<ul style="list-style-type: none"> ▪ 318 of 2,900 on- and off- street parking spaces in the downtown area. 	<ul style="list-style-type: none"> ▪ Prices are changed at the parking area level, with three rates ▪ Prices do not vary by time of day 	<p>Pricing On-street: \$0.50 - \$1.00</p> <p>Time Limits None, at meters. 24 minutes at 48 short-term parking spaces.</p> <p>Enforcement Hours 10 a.m.–9 p.m. Mon-Sun</p>	<ul style="list-style-type: none"> ▪ 16 new businesses opened since 2010 ▪ First use of priced curb parking in Ventura ▪ Revenue funds streetscape improvements and free Wi-Fi ▪ Crime in downtown decreased by 29% in first year



Figure 39 goBerkeley Pilot Project Pricing Adjustments

Neighborhood/ Facility	Regulations	Baseline Rate	Launch Rate (December 2013)	Adjustment Rate (June 2014)	Adjustment Rate (September 2015)	Adjustment Rate (May 2016)
On-Street Meters						
Elmwood	Parking Rates	\$1.50/hr	1 st hr - \$1.50 2 nd hr - \$2.00 3 rd hr - \$2.50	Same as Launch	No Change	1 st hr - \$2.00 2 nd hr - \$2.50 3 rd hr - \$3.00
	Time Limits	1 hr	3 hrs	Same as Launch	No Change	No Change
Southside	Parking Rates	\$1.50/hr	Premium -\$2.25/hr Value - \$1.00/hr	Premium -\$2.75/hr Value - \$1.50/hr	No Change	Premium -\$3.25/hr Value - \$2.00/hr
	Time Limits	30 min – 2 hr	Premium – 2 hr Value – 8 hr	Same as Launch	No Change	No Change
Downtown	Parking Rates	\$1.50/hr \$1.75/hr (Premium)	Premium -\$2.25/hr Value - \$1.25/hr	Premium -\$2.75/hr Value - \$1.50/hr	No Change	Premium -\$3.25/hr Value - \$1.50/hr
	Time Limits	30 min – 2 hr	Premium – 2 hr Value – 4 hr	Premium – 2 hr Value – 8 hr	No Change	Premium – No Change Value – 4 hr
Off-Street Facilities						
Elmwood Lot (in the Elmwood neighborhood)	Parking Rates	\$1.50/hr	\$1.50/hr	Same as Launch	Same as Launch	\$2.00/hr
	Time Limits	2 hr	3 hr	Same as Launch	Same as Launch	Same as Launch
Telegraph Channing Garage (in the Southside neighborhood)	Parking Rates (non- validated)	Hourly - \$3/hr 4+ hrs - \$18 Early Bird - \$8 Monthly - \$150	First hour free Hourly - \$1/hr 4+ hrs - \$15 Early Bird - \$9 Monthly - \$150	Same as Launch	First hour – Same Up to 2-4 hrs - \$2/hr 4+ hrs - \$16 Early Bird - Same Monthly - Same	No Change



Neighborhood/ Facility	Regulations	Baseline Rate	Launch Rate (December 2013)	Adjustment Rate (June 2014)	Adjustment Rate (September 2015)	Adjustment Rate (May 2016)
Center Street Garage (located in the Downtown area)	Parking Rates	Hourly - \$2.50/hr 4+ hrs - \$15 Early Bird - \$8 Monthly - \$150	Hourly - \$2.50/hr 4+ hrs - \$17 Early Bird - \$9 Monthly - \$170	Hourly - \$2/hr 4+ hrs - \$20 Early Bird - \$10 Monthly - \$190	Hourly - No Change 4+ hrs - No Change Early Bird - \$11 Monthly - No Change	Hourly - No Change 4+ hrs - No Change Early Bird - \$12 Monthly - No Change
Oxford Garage (located in the Downtown area)	Parking Rates	Hourly - \$2.50/hr 4+ hrs - \$15 Monthly - \$150	Hourly - \$2/hr 4+ hrs - \$17 Monthly - \$170	Same as Launch	Same as Launch	Same as Launch
Berkeley Way Lot (located in the Downtown area)	Parking Rates	First 2 hrs - \$1.50/hr Next 4 hrs - \$2.50/hr	No change	\$1.50/hr	Same	\$2.00/hr
	Time Limits	6 hr	No change	8 hr	Same	4 hr

San Luis Obispo, California

San Luis Obispo's approach to parking management is guided by the City's *Access & Parking Management Plan*. The plan's policies emphasize maximizing the use of all parking structures and lots, encourage the use of curb spaces for shorter-term parking, and encourage future off-street parking to meet's the City's aesthetic goals.

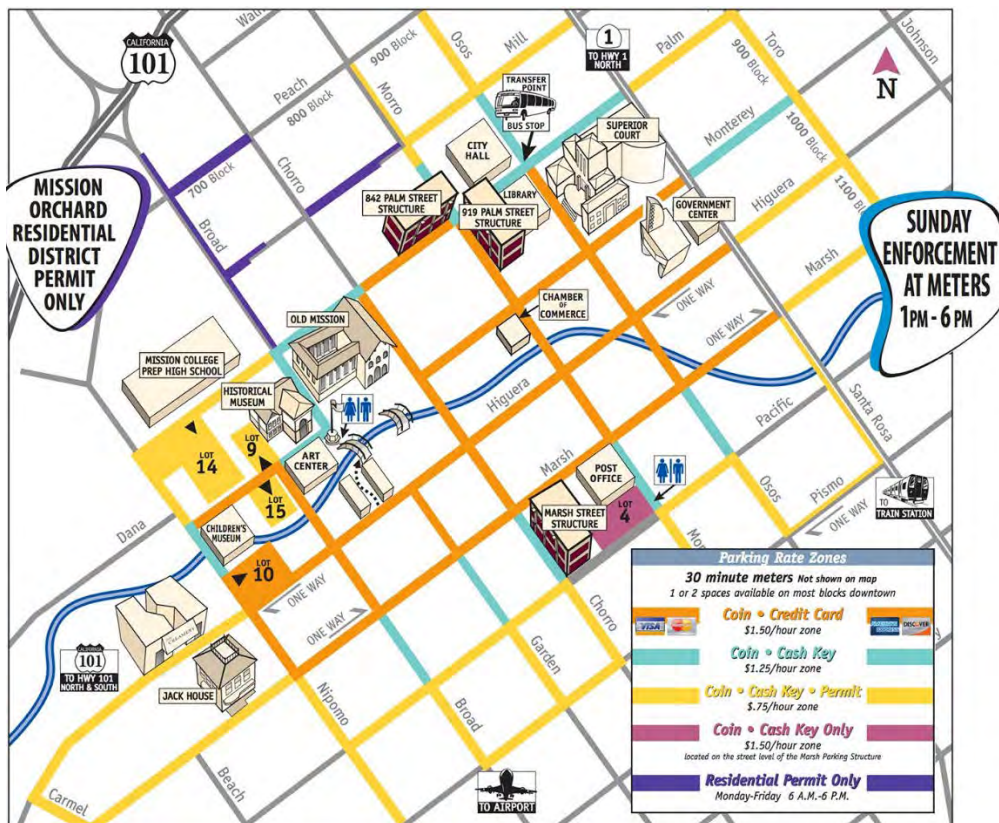
The City has approximately 1,150 metered parking spaces in its downtown, and operates three off-street structures and numerous metered lots. Meters operate Monday through Saturday, 9 a.m. to 6 p.m., and Sunday, 1 p.m. to 6 p.m. Meters are enforced year round, including holidays.

The rate structure for on-street meters is split into three categories and shown in Figure 40:

- 30-minute meters (1-2 spaces per block)
- 2-hour meters — \$1.50 per hour in downtown core; \$1.25 per hour in outlying areas
- 10-hour meters — \$0.75 per hour

The City's tiered pricing and time limit structure encourages long-term parkers to find spaces in lower-demand areas. Downtown employees are also encouraged to use travel modes other than driving alone to commute to downtown. In order to reduce the amount of parking needed for new residences downtown, residents are allowed to park overnight in designated lower-demand areas that do not significantly interfere with customer and employee parking.

Figure 40 Downtown San Luis Obispo Parking Map



Source: City of San Luis Obispo

San Mateo, California

The City of San Mateo has approximately 2,900 parking spaces downtown, including about 1,200 on-street spaces and 1,700 off-street spaces in five garages and four lots. Parking meter revenues are stored in a special revenue fund that supports parking operations, enforcement, and facility maintenance, as well as landscaping and security downtown. The Downtown Parking Zone is broken up into two categories:

- **Orange:** Intended for errands needing less time. The higher price encourages turnover, making it easier for customers to find a spot and businesses to thrive.
- **Green:** Intended for downtown employees and those needed more time. A few steps from the core, these spaces cost less and provide options for all-day parking.
- The differentiated parking pricing and regulations for the Downtown, which went into effect in July 2015, are shown in Figure 41.

The simplicity of the zone system is applicable to development of Santa Rosa’s parking system.

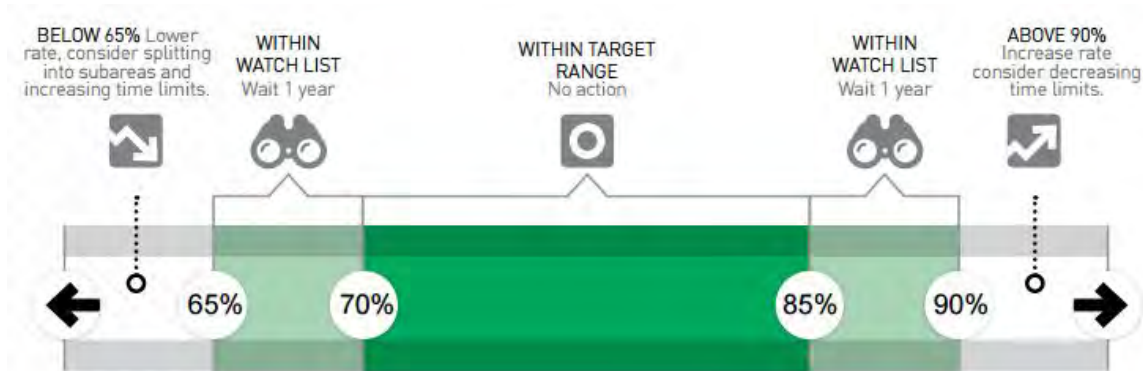
The City has partnered with Streetline to install over 100 on-street sensors as a pilot to see how well this could work with its parking system. According to City staff, accuracy has been excellent to date. Data collected so far has helped to confirm anecdotal evidence and perceptions about on-street parking availability and will be used to confirm the validity of policy recommendations.

Seattle, Washington (SeaPark)

Since 2010, the City of Seattle’s Department of Transportation (SDOT) SeaPark program has annually adjusted on-street parking rates, time limits, and paid hours of operation with the goal of maintaining a target occupancy rate of 70-85%. Seattle’s program is special in that it applies to all metered curb parking spaces in the city (approximately 12,000 spaces across 32 different rate areas).

In order to determine adjustments, the SDOT conducts hourly manual data collections each spring, which are used to create an Annual Paid Parking study. Subsequently, each fall, findings of the study are then used to adjust rates, time limits, and paid parking hours. Figure 42 represents the protocols that SDOT utilizes to adjust rates on the basis of the annual report. Since 2010 the SeaPark program has resulted over 70 rate changes at \$0.50 increments each.

Figure 41 SDOT Price Change Protocols



Source: Seattle Department of Transportation

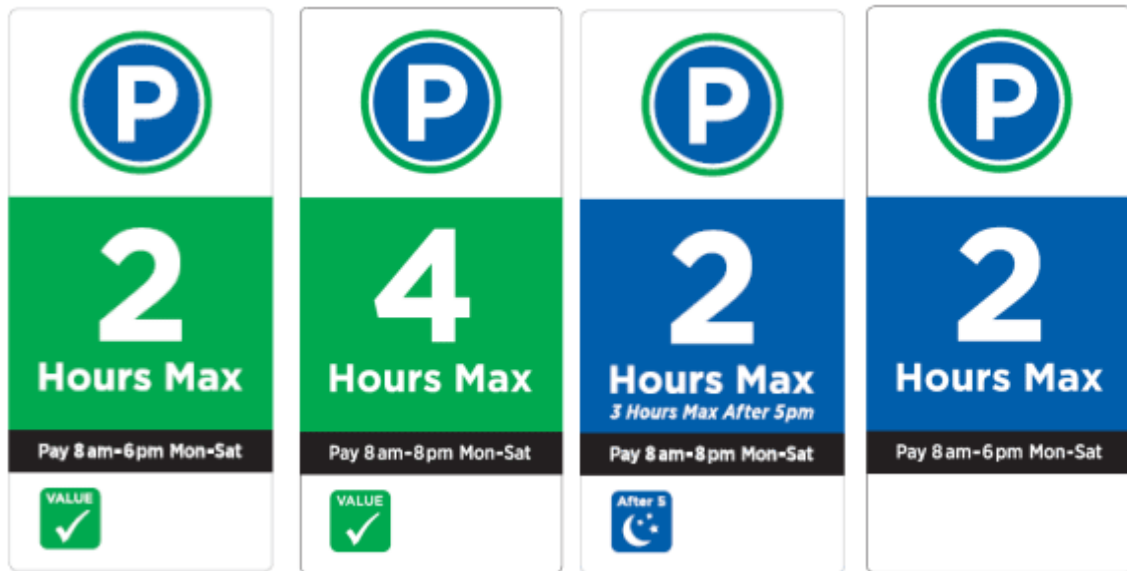
In addition to the program’s public meetings, rate changes are explained to users through the “Play Like A Parking Pro” media campaign (see Figure 43) and marketing strategies to inform and educate users about parking options. The use of large green “Best Value” signs on blockfaces with less expensive parking, and/or longer time limits, encourages parkers to shift from high-demand streets to underutilized blockfaces at the periphery of paid parking areas (see Figure 44). Although these marketing details have additional costs, they are highly recommended for consideration for Santa Rosa’s program, as they help emphasize the user benefits of the system and anticipate and side step any confusion about changes to the parking system.

Figure 42 SeaPark Marketing Materials



Source: Seattle Department of Transportation

Figure 43 SeaPark Zone Signage



Source: Seattle Department of Transportation

The City of Seattle is currently in the process of switching out pay-and-display pay stations with IPS pay-by-plate multi-space pay stations that allow for time of day pricing and for rates to be set remotely. Seattle is unusual in that all paid parking is governed by multi-space units versus single-head meters.

SDOT's Annual Paid Parking Survey confirms that previous changes to rates and time limits have had the intended effect of shifting demand from the most heavily used subareas to peripheral areas and times of day when/where parking is more widely available.

Figure 44 Housing Parking Enforcement Volunteer on Patrol



Ambassador Parking Enforcement

Parking ambassador programs provide staff or volunteers to patrol downtown parking areas and serve as liaisons between businesses owners and city governments. The objective of parking ambassadors is to promote and enforce the parking policies of a downtown area, while providing information and guidance to downtown patrons in a friendly manner.

Examples of existing parking ambassador programs throughout the United States are provided below:

Hartford, Connecticut – Hartford's Parking Ambassadors are visible throughout downtown in bright red jackets, providing directions, answering questions about regulations, and able to make change for Pay-and-Display stations. Hartford has also made efforts to make citation payments and appeals easier to resolve through online and telephone options.

Hendersonville, North Carolina – Two part-time Parking Ambassadors patrol the downtown zone and serve as liaisons to the business owners and the City while also writing warnings and citations. The City introduced the program in order to combat inconsistent enforcement due to a lack of full-time officers and to cope with an increase in tourists.

Houston, Texas – As part of the City's Volunteer Initiatives Program (VIP), the Parking Management Office holds volunteer trainings for citizens interested in fighting disabled parking abuse in their communities. Volunteers are required to attend a four-hour training session and pass a background check. Once complete, volunteers are permitted to issue citations to parkers observed illegally utilizing disabled parking spaces.

Omaha, Nebraska – Omaha's Parking Ambassadors, identifiable by Park Omaha branded apparel, provide assistance with parking guidelines, safety tips, and directions to popular venues throughout downtown, in addition to writing citations for metered locations.

Santa Rosa has made strides in improving the friendliness of enforcement procedures. If desired and if financially feasible, the types of programs described above offer direct applications for the type of additional effort that could build upon this improvement.

Station Area Parking

Parking is widely recognized as an important factor influencing transit access and ridership. As transit agencies work to attract customers, parking strategies—in particular parking pricing—can play a critical role in transit agency decision making. An increasing number of transit agencies



have begun to think carefully about how their parking strategies encourage or discourage transit usage and how to efficiently use resources consumed for parking.

Greater Chicago, Illinois (Metra)

The City of Berwyn and the Village of Hinsdale located in the Greater Chicago area have vibrant downtown districts located on the Metra rail line. Due to their proximity to a rail station and role as key destinations, the two areas have to fulfill the diverse parking needs of transit users, residents, visitors, and employees. As a result, the two municipalities implemented station-specific parking plans to identify current and future parking challenges, and to identify policy and enforcement strategies to address them. The recommended strategies of both plans focused on utilizing the existing parking stock of the area through the use of a demand-based parking program, including permit and metered spaces for Metra rail riders to improve current parking conditions and plan for future parking demands in the area. Beyond parking pricing, both communities identified additional improvement strategies to support the transit area:

- Improved parking information and wayfinding
- Improved parking technology
- Increased parking enforcement
- Improvements and expansion of bicycle facilities at Metra stations and to the local bicycle network
- Improvements to the pedestrian network and experience to increase safety

San Francisco, CA (SFMTA)

The 2008 Balboa Park Station Area Plan provided extensive parking management recommendations for the area surrounding south central San Francisco's Balboa Park Station, which is served by BART, Muni Metro rail service and Muni bus lines. Parking management strategies included in the plan were crafted with the objective of not only supporting the needs of the transit station, but revitalizing the neighborhood as a commercial district and ensuring standards that promote transit-oriented development. Recommended policies for station area parking include:

- Eliminating minimum off-street parking requirements and establishing parking caps
- Prioritizing spaces for residents, shoppers, and non-commute transit trips
- Promoting car-share programs to reduce parking needs
- Improving metered parking
- Adding public off-street parking only after all existing and on-street parking opportunities have been exhausted

Seattle, Washington (SDOT)

In efforts to discourage Sound Transit users from "hide and ride" parking—when transit users park in neighborhoods surrounding transit stations—the City of Seattle committed to mitigation measures to prevent transit riders from parking in neighborhoods within a quarter mile of transit stations. To respond to unique community needs of each area, the City works with each individual neighborhood to determine the appropriate parking controls to discourage commuter parking.

Mitigation measures can include the following.

- 1 or 2-hour time limit signs
- Passenger, truck and load/unload zones
- Residential parking zone signage
- Paid parking technology

Additionally, restricted parking zones (RPZs) in Seattle help maintain available parking in areas for local residents, customers, and service providers through the use of time limits for non-permitted vehicles and unlimited parking for permitted, local vehicles. In 2009, the City expanded the program to enable local business employees to apply for permits.

Parking Benefit District

Boulder, Colorado

The City of Boulder's parking benefit district program incorporates more than 800 on-street metered spaces and nine off-street facilities throughout a 30-block district of downtown Boulder in order to maximize the use of existing supply and to fund improvements within the district through meter revenue. The program initiatives were introduced through the Central Area General Improvement District (CAGID) and was set up by the City Council and the Downtown Management Commission.



Benefits to the District funded through parking meter revenue include historic preservation, streetscape improvements, bike parking, bike share, public Wi-Fi, and free universal transit passes for downtown employees (RTD Eco Pass).

In addition to the above, CAGID also funds the operation of a "Transportation Resource Center" in a downtown storefront. The responsibilities of the resource center include:

- Provide personalized advice and information about transit, bike, and pedestrian travel in Downtown.
- Provide personalized ride-matching services for Downtown employees.
- Marketing of transportation programs and incentives.
- Coordination of transportation events like Bike-to-Work Day.
- Management of Downtown bicycle lockers.

All downtown parking revenue, including more than \$1 million per year from meters and over \$2 million per year from garages, is returned to CAGID for area improvements. Among other things, the revenue is used to fund more than \$325,000 per year worth of transportation demand management programs.

In order to ensure the efficacy of the district’s paid parking, CAGID uses sophisticated enforcement strategies such as license plate recognition. Neighborhood permit parking initiatives have been introduced to prevent overspill parking from commuters trying to avoid parking restrictions and charges downtown. In addition, businesses located within the district are eligible for free employee transit passes, called EcoPasses.

Pasadena, California

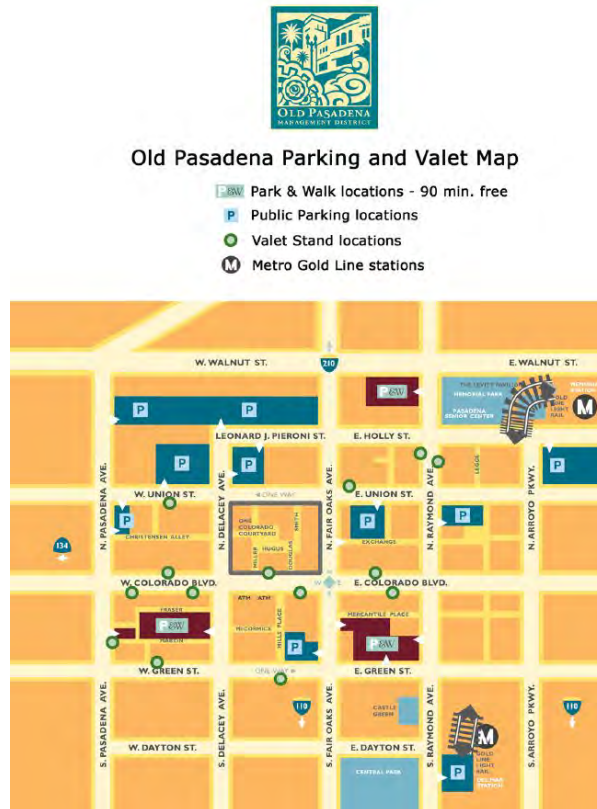
Old Pasadena offers more than 7,500 spaces on street, within public and private garages, and in surface lots. On-street meters operate Sunday through Thursday from 11 a.m. to 8 p.m. and Friday through Saturday from 11 a.m. to Midnight. Meter rates are \$1.25 per hour in the core and \$0.75 on the periphery. As has been the case since the inception of the program more than two decades ago, meter revenues stay in Old Pasadena to fund streetscape and alleyway maintenance and improvement efforts. Public parking structure, stylized as “Park & Walk,” within the area offer the first 90 minutes free, with each hour there after \$2.00, freeing up high value on-street spaces in front of businesses.

Despite fears from merchants, the Pasadena example shows that charging for parking can actually increase business for local retailers. A study in 2001 found that the average occupancy rate for curb parking was 83%, which represents around the optimum balance between revenue, efficiency, and availability. While pricing cannot create more spaces, it can make existing spaces more productive by promoting turnover and making parking spaces more available. Metered spaces can be used by multiple customers who use the spot for 15 or 30 minutes. Meanwhile, drivers with a long appointment will park farther away for a lower rate because the short walk is less of an inconvenience.

Ventura, California

In January 2009, the City Council adopted an ordinance to establish a Downtown Parking District (DPD), which also allows the City Transportation Manager to adjust parking rates based on occupancy in order to achieve the district’s parking occupancy goals. In addition, the ordinance specifies that all revenues generated from the program are to be devoted to funding public facilities and services benefiting the district.

Figure 45 Old Pasadena Parking Map



In September 2010, the City installed new parking meters and began charging for parking on the downtown district’s two main retail arteries, Main Street and California Street, as well as on the adjacent blocks of several side streets.¹ A total of 318 on-street meters were placed on “high-demand” blockfaces, or about 11% of downtown’s parking supply, where turnover is key for downtown businesses. Time limits for the newly metered spaces were eliminated, with the City relying instead solely upon pricing to meet its parking availability goals for each block. Within the DPD, all off-street parking remains free.

Figure 46 Ventura Downtown Parking District



The revenue from the metered parking spaces funds what the City describes as “a cleaner, safer downtown for everyone.” This includes funding a new police officer dedicated solely to patrolling downtown, as well as a team of nine police cadets dedicated to downtown security and parking enforcement. The meter revenues also are funding improved lighting and landscape improvements for downtown streets, parking lots and garages, to improve the perceived safety of downtown.

Within the DPD, all on-site parking can be shared between land uses with different periods of peak parking demand, by ordinance. Shared parking is allowed to satisfy 100% of the minimum parking requirement for each land use, providing a degree of flexibility in code-mandated minimum parking requirements. Revenues from this program help fund DPD expenditures.

Employee Parking

Many cities have implemented employee parking programs as a means to move downtown commercial district employees from on-street parking spaces to off-street parking facilities. The objective of employee parking programs is to reduce long-term on-street parking in commercial

¹ “Parking | City of Ventura.” <http://www.cityofventura.net/pw/transportation/parking>.



districts and to alleviate traffic congestion in these areas. Examples of employee parking programs throughout the United States are provided below:

- **Sacramento, California** – Sacramento’s employee parking program allows full and part-time employees to purchase discounted parking permits, valid in three of the downtown parking garages. The permit costs full-time employees \$0.25 per hour of parking and \$0.50 per hour of parking for part-time employees. In order to be approved for a permit, employees must present the City with proof of employment and proof of wage that does not exceed \$16.00 per hour or less for full-time employees or \$22.00 per hour or less for part-time employees. The permits are used to receive the daily discounted parking price when payment is made to exit the parking garage.
- **Santa Fe, New Mexico** – Santa Fe offers a \$35.00 monthly parking pass to be purchased by downtown employees, valid in all City-owned parking garages and lots in order to increase on-street parking supply for downtown business customers. Applicants for the permit must show proof of downtown employment and wage that does not exceed \$15.00 per hour or \$31,200 annually.

Valet Parking

Another strategy used by cities to manage parking demand is through municipal valet services in downtown commercial districts. These services offer an easy alternative to finding on-street parking by allowing drivers to drop-off their car at one location, shop and run errands, and then pick up their car when they are done. Unlike other valets that serve only one business, municipal valets are open to the general public. With just a few on-street spots at each valet location, municipalities can maximize their existing parking supply by having the valet use under-utilized parking lots and garages.

Cambridge, Massachusetts – In order to meet the demand for valet parking, the City of Cambridge Department of Traffic, Parking, and Transportation created a valet licensing requirement to allow all City departments to sign off on a proposed valet system before allowing implementation. The valet licensing is given to businesses (typically restaurants) and not the valet company. If any issues or complaints arise, the responsible party is the business owner. This forces the valet to ensure no violations exist so that they will keep their client.

Charlottesville, Virginia – The City of Charlottesville recently adopted an ordinance that allows valet companies to operate with a permit granted by the city, valid for 12 months. The ordinance requires companies specify pickup, drop-off, and queue locations, as well as hours of operation for approval. Each permit costs applicants \$500.00.

Redwood City, California – Initiated through a partnership of downtown businesses, the City of Redwood City offers valet services in downtown on Fridays and Saturdays from 6 p.m. to 11 p.m. Motorists drop off their vehicles at a specific location, and their vehicle is parked in an underutilized off-street facility. The cost of the valet service is \$10, or \$5 per vehicle with validation from a participating business. Initially, the valet services were funded by the City’s Parking Fund, however over the last few years the City has transferred the responsibilities of the program, including its funding and operation, to the Redwood City Improvement Association (RCIA). The RCIA is a property-based benefit assessment district. Each year the property owners allocate funds to the RCIA to fund downtown benefits, including the valet parking program. The program was a priority of many of the businesses and property owners, prompting the RCIA to subsidize the program and maintain its operation.

5 Recommendations

Based on the previous findings and analyses, various management strategies were identified to address the aforementioned parking constraints and opportunities in Santa Rosa. The following section evaluates each strategy as it applies to Santa Rosa and concludes with a fiscal impact review of these strategies.

Management Strategies

A comprehensive set of management strategies helps maximize Santa Rosa's current parking resources, balance the needs of all users, and emphasize cost-effective solutions. The following set of recommended strategies are heavily influenced by the parking data analysis and public input, especially regarding factors which most heavily influence parking behavior and demand in Santa Rosa. These strategies include progressive pricing, shared parking, employee parking, parking revenue investments, enforcement, meter adjustments, user information and marketing, valet parking, residential parking permits, and station area parking.

Parking Pricing

Progressive Pricing – adopt a formal policy of performance-based management

Progressive pricing, or performance-based pricing, is central to an improved parking system. This involves moving from a static pricing system to a demand-based one in which rates are adjusted over time based on data. The goal is to set prices so that approximately 10% of spaces are available at any time. Systems can range from simple to complex, and will likely require some updates to equipment and operations over time. The design options for such a system and recommended version are described below:

- **Simple** (basic zone—for example: core, value) – Recommended for Santa Rosa
 - Some municipalities have implemented simple progressive parking rates, which identifies premium, value, and discount zones and then tiers the rates accordingly, based on convenience. Examples include: Redwood City, Ventura
- **Medium** (Berkeley—data-driven)
 - The next level of complexity would involve a similar system to the “simple” version, but with more specification in creating boundaries, and a data-driven process for adjusting rates. Berkeley's goBerkeley program is a prime example. This program works by raising or lowering parking rates to achieve 1-2 open spaces per block, using routing parking occupancy information by block to adjust rates. The zone boundaries for price tiers are fairly simple, and the rates are communicated in general terms via simple signage in each zone.

- **Complex (SFpark)**
 - The most sophisticated demand-responsive pricing programs adjust rates by block, time of day, and day of week, in small increments based on large amounts of data either from sensors or data models. These programs also relate on- and off-street pricing policies so that they are coordinated according to demand. Some include special event pricing in certain districts. Adjustments occur as frequently as every six weeks.

The primary goal of progressive pricing is not to generate increased revenue, but rather to make it as easy as possible to find a parking space. By setting specific availability targets and adjusting pricing, demand can be effectively managed so that when a motorist chooses to park, they can do so without circling the block or searching aimlessly. An ideal occupancy rate for on-street, curb spaces is approximately 85% at even the busiest hour, a rate which leaves about one out of every seven spaces available, or approximately one empty space on each block face. For off-street facilities where parking turnover is less frequent, target rates should be even higher, at approximately 95%, to ensure that supply is optimally utilized.

For a given block or off-street facility, the “right price” is the lowest price that will achieve this goal. This means that pricing should not be uniform: the most desirable spaces need higher prices, while less convenient lots cost less or may even be free. Prices could also vary by season, day of week, or time of day. Rate adjustment protocol should include garages. For example, the garage rate structure should relate to on-street parking, and they should be priced according to demand, so that facilities in busy areas cost more and those in remote areas cost less. The cities with the most effective parking pricing programs monitor on- and off-street supply with regular occupancy counts and grant City staff discretion to adjust hours/pricing in response to changes in demand.

In order to implement such a strategy, performance-based pricing should be rolled out in higher priced “Premium Zones” and lower priced “Value Zones.” This simple zone differentiation in pricing will allow the primary retail blocks to have the price required to create more available spaces, without unduly raising rates on outer blocks. Parking rates and regulations can thus be better matched to demand and access needs. Figure 48 shows the location of proposed pricing zones, which encompass existing and proposed meters in the downtown and Railroad Square.

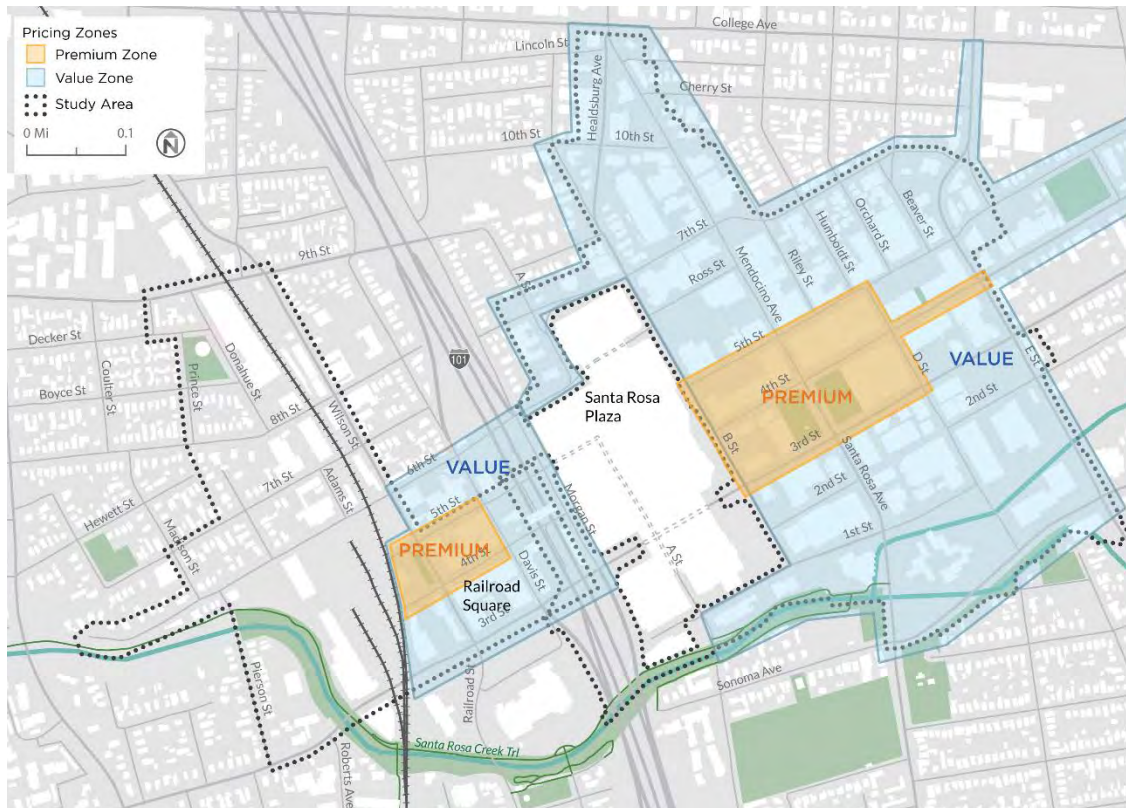
Essential to such a program and adoption of demand-responsive protocol, as described above, is an authority to assume responsibility. The City should adopt a policy delegating authority over rate adjustments, time limits, locations, technology, and hours of operation, to the Parking program based on clear goals of stated target occupancies, asking staff to set up ongoing adjustment procedures based on these targets. This will allow parking tools to adjust over time, as downtown Santa Rosa evolves. An initial rate adjustment of \$1.50 per hour for the Premium Zone and \$1 per hour for the Value Zone is recommended. After the first evaluation period, recommended in six months, the Value Rate can decrease if occupancy is still low. The City should adopt a policy to adjust rates biannually in the event that it becomes necessary or technology advances to allow it.

The recommended adjustment thresholds based on occupancy are:

- 0-70%: Lower by \$0.25
- 70-85%: No change
- 85-100%: Raise price

Demand-responsive pricing requires a consistently collected data source to help assess demand. Typical sources used include manual data collection, modeled occupancy data based on payment data, License Plate Recognition data, or parking sensors. The City has License Plate Recognition (LPR) equipment that is being piloted to be used to gather data for pricing decisions.

Figure 47 Pricing Zones and Proposed Meters



Ensure off-street parking costs less than on-street

Garages and lots account for a significant portion of the parking supply. Parking pricing systems should be consistent across the parking supply—including city garages. Using the same basic approach to pricing at garages and lots as at metered on-street parking will improve the fluidity of the parking market and therefore the usefulness of parking pricing in achieving goals. It will allow the City to manage its parking assets in a unified way. Prices should reflect demand—which typically means that garages are less expensive than on-street meters.

During stakeholder outreach participants raised the point that although some parking garages had a lower hourly rate than some nearby on-street meters, the effective cost was more, due to requirements that the parking must be purchased in larger portions—such that someone parking at certain times would pay more for certain parking events in a garage than on the street, despite a lower hourly rate. To remedy this situation, rates can be reviewed with this “effective cost” lens to ensure parking costs are less in garages for most types of parking trips.

Rate adjustment protocol should include garages. For example, the garage rate structure should relate to on-street parking, and should be priced according to demand, so that facilities in busy areas cost more and those in remote areas cost less. Garages and meters should be subject to similar ongoing occupancy monitoring and systematic rate adjustments.

Garage rates should be set similarly to on-street parking – aiming for around 80% full – and using consistent, simple, rules-based, and data-driven procedures. Additionally, improving customer service, experience, and convenience at City garages and lots can help attract more people and thereby reduce demand for on-street parking.

Rates should respond to changing demand over time:

- Set garage rates using quarterly demand trend data available for each garage, analyzing the publicly-available (rather than monthly permit) supply of parking. For each rate period, compare occupancy for the preceding quarter and occupancy from the preceding quarter in the previous year. Take the difference and apply it to estimated garage occupancy for the upcoming quarter.
- When occupancy is 80 - 100%, the hourly rate will be raised by \$0.25.
- When occupancy is 40 - 80%, the hourly rate will not be changed.
- When occupancy is less than 40 percent, the hourly rate will be lowered by \$0.25.

Parking Meter Changes

Relax time limits

At most meters, the time limit for regular parking is two hours, and there are also 12-minute, 24-minute, 1-hour, 90-minute, 4-hour, and 10-hour meters. Moving to progressive pricing, the system will emphasize the use of demand-responsive pricing to achieve parking availability goals rather than time limits to achieve a vague turnover goal. While relaxing time limit restrictions makes parking more convenient for drivers, doing so does not mean that all people will park longer. Extended time limits simply allows individuals to park longer if they want to. It is also recommended that various time limits be consolidated to fewer options, to improve the ease of understanding options. Moving to a demand-responsive pricing system reduces the reliance on time limits. Fewer time limits result in fewer citations and a more positive parking experience for drivers. Best practices for relaxing time limits include:

- **Four hours** – The typical/default parking meter time limit could be relaxed to four hours. This allows the City to try relaxed time limits, without completely eliminating them. Four hours typically allows plenty of time for someone to dine and run multiple errands without fearing a parking citation.
- **No limit** – True demand-responsive pricing eliminates the need for parking meter time limits, as availability is managed through price rather than arbitrary limits to how long one can stay. This is, understandably, a significant change for many cities, most of whom have historically relied on short time limits and a focus on turnover.
- **Parking Insurance** – Allows parkers at two-hour meters to keep their cars there longer if they are willing to pay progressively higher prices for extra hours. Users pay remotely via an app.

At implementation of the new progressive pricing system, a **3-hour time limit is recommended in the Premium Zone**, and a **4-hour time limit is recommended in the Value Zone**. Later on,



depending on the success of these time limits, the City can reevaluate adjusting time limits for each zone according to demand. If occupancy rates exceed 85% on certain block faces in the Value Zone, the City could consider expanding the Premium Zone.

Update hours of operation

Hours of operation should be matched to the need for open parking spaces based on business hours and occupancy trends. Current time restrictions are only until 6 p.m. and lose their ability to create turnover thereafter. As observed with on-street parking counts, on-street parking occupancy peaks after 6 p.m. on weekdays and weekends in downtown and on weekends in Railroad Square. This high demand after 6 PM represents loss of parking availability and justification for extending the hours of operation for parking meters. Recommended hours of meter operation are as follows:

- Premium Zone: 10 a.m. – 8 p.m.
- Value Zone: 10 a.m. – 6 p.m

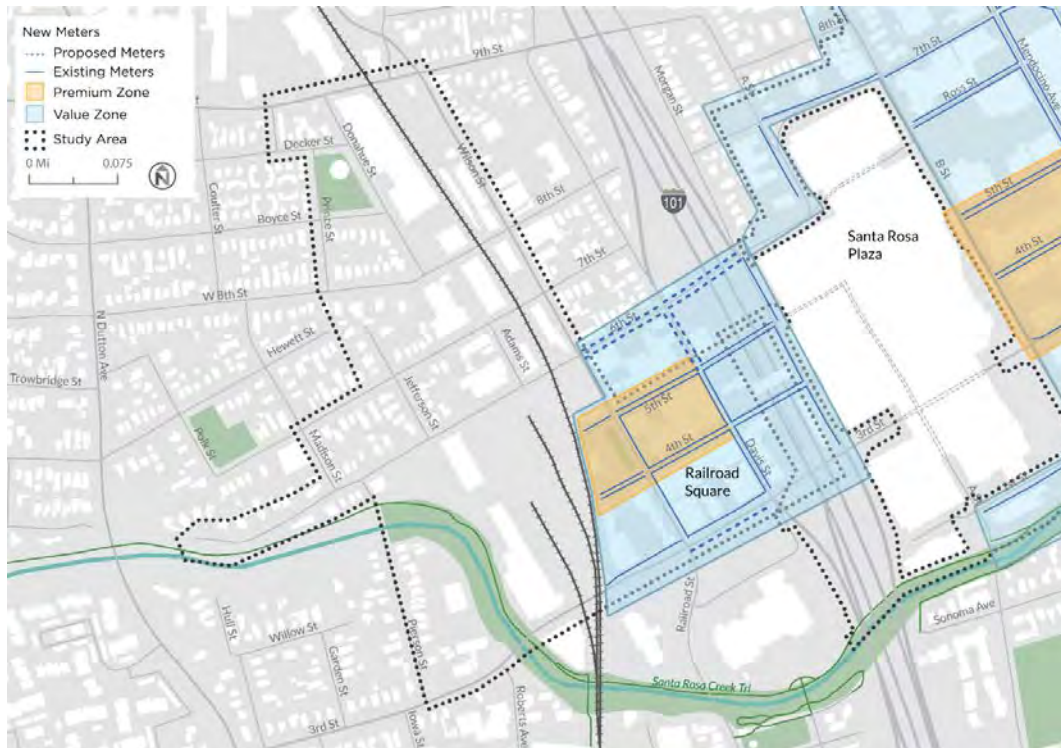
While not included in initial recommendations, Sunday hours of operation should be considered for future inclusion. During outreach meetings, community members noted that parking availability is a challenge on Sundays and metering would help. Further analysis to confirm Sunday occupancies can help shape this later policy decision.

Add new meters where needed

Parking meters should be added where and when parking management is needed. Meters are most typically needed where occupancy/demand is very high, and on or near blocks where many businesses are open. As shown in Figure 49, and based on parking occupancy data, the recommended locations for new meters are located in the Railroad Square focus area, which include:

- 6th Street from Wilson Street to Morgan Street
- Davis Street from 5th Street to 6th Street
- South side of 3rd Street between Railroad Avenue and Davis Street

Figure 48 Proposed Meters



Shared Parking

Shared parking typically allow 20-40% more users than individually assigned spaces, because users are usually not all present at the same time. For example, 100 employees can share 60-80 parking spaces, because at any given time a number of employees are either on leave, away on business, or not driving to work. Even greater reductions are possible with mixed land uses, since various activities have different peak demand times. For example, a restaurant can share parking with an office complex, because parking demand peaks in the evening for restaurants and during the middle of the day for offices. Public facilities, including on-street spaces, can usually be shared efficiently among multiple destinations. The appropriate number of motorists that can be assigned to a particular number of parking spaces depends on several factors. In general, the more diverse the user, and the larger the facility, the more parking spaces can be shared.

Require shared parking in future developments

There are several new development projects coming to the study area. The City could require shared parking in the following form: parking must be shared between uses on the site, parking provisions for the sites are allowed to be fulfilled by leasing parking at other nearby sites, or when these developments build parking, they are required to allow its use to the general public as well.

The City's zoning code encourages shared parking for areas located within the Station Area Plan boundaries, which includes the study area. However, shared parking provisions are for non-residential uses. Moving forward, the City can extend shared parking provisions for residential developments.

Encourage Shared Parking at current businesses

As previously mentioned, shared parking is currently allowed in the study area. The ability to share parking, however, is not widely known by business owners. Additionally, there may be less incentive to participate since there are not minimum parking requirements for businesses downtown. The program can be further publicized, with outreach on the participation procedures to the local business community. Additionally, minor hurdles to participation should be reviewed to see if ease of participation can be improved in any way. This strategy will lead to more private businesses sharing spaces with other businesses—so the parking remains “customer only,” just for a broader swath of customers. Alternatively, the City could actively lease private parking for public use, or implement a program in which private businesses with excess parking supply are actively encouraged to open their facilities to public use, and compensated for doing so, via monetization of the spaces. The latter type of program will likely require city leadership to implement. Clear signage is key, so that an average driver can see exactly where they are allowed to park.

Move toward increasing the municipal shared system

To further support shared parking, the City can implement parking maximums and require in-lieu parking fees instead. In-lieu fees allow developers to pay into a fund for off-site municipal parking facilities instead of providing their own on-site parking. This results in more efficient shared parking facilities and allows parking facilities to be located where they are most optimal for urban design. The follow steps are recommended:

- Extend shared parking provisions to residential uses
- Require major new developments to share parking
- Actively encourage participation in the existing shared parking system by outreaching to current businesses and ensuring the application is simple, reasonable, and easily found
- Meet with downtown parking lot owners to discuss concept of enhancing shared parking capabilities, measuring interest in opening up access to and monetizing private parking lots for public use. If there is supply and interest available, or is expected to be, revise city policies accordingly. Assign city staff to actively manage and promote such a shared parking program.
- Consider an in-lieu program to fund future municipal supply, particularly in the Railroad Square area. The City’s economic development and housing staff will likely need to study how this strategy will relate to and interact with the development market in that area to determine the effectiveness and tangential impacts of such a program.

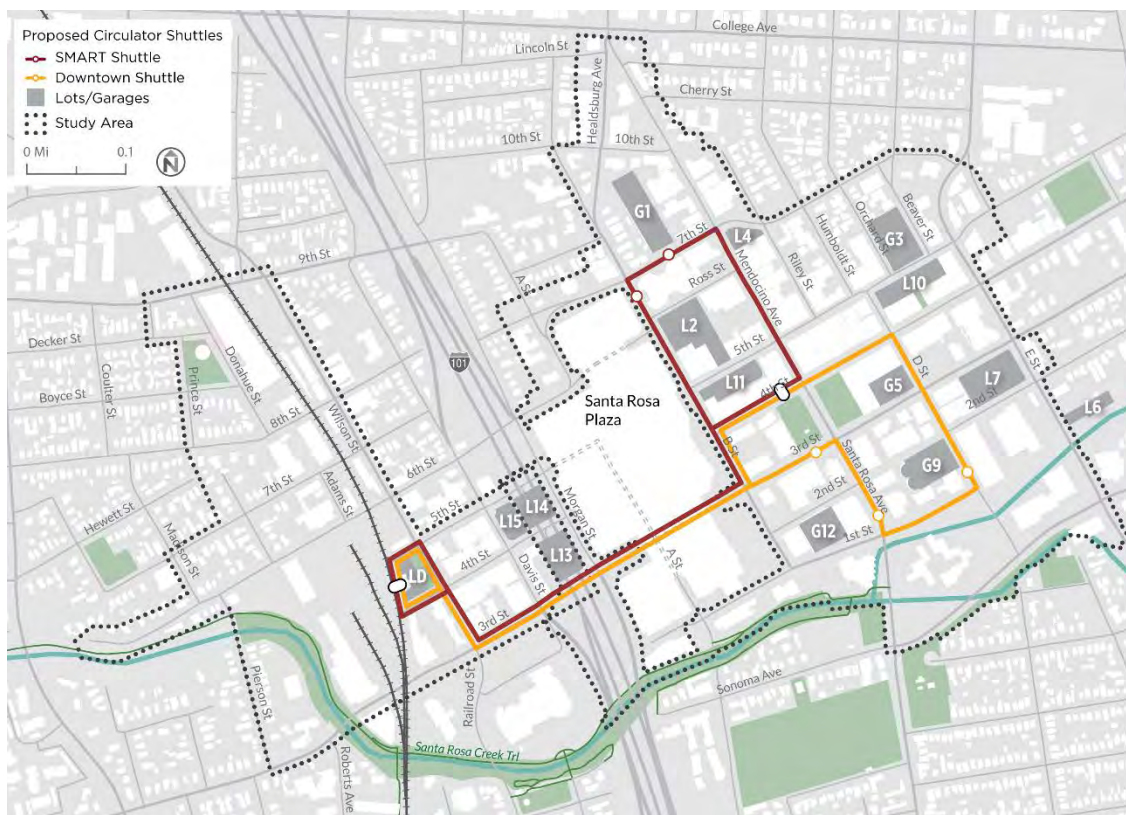
Revenue Investments

The question of how to use revenue from parking systems is a matter of operational and public policy, and is used differently city by city. The Santa Rosa Parking Division, like many, is self-funding, so parking revenue must go toward operations, maintenance, capital improvements and staff to run the current system. Like many cities, Santa Rosa has used parking revenues to help fund acquisition and construction of parking facilities, along with parcel assessments to pay debt service on bonds used to help fund those projects. Some cities invest any excess revenue to support transit service, or other parking or traffic related uses. One revenue investment strategy that has gained traction in recent years is the creation of a Parking Benefit District, discussed below.

Fund the circulator shuttle

In light of the pending opening of the SMART station in the heart of Railroad Square and lack of nearby off-street parking, the City has decided to fund a one-year pilot of a circulator bus that will operate up to two different routes, and connect the train station to farther flung parking garages that have availability, as well as connecting to the downtown core. The SMART Shuttle will operate in accordance with train arrival and departure times, while the Downtown Shuttle will operate between SMART arrival and departure schedules. Both are to be funded by the Parking Enterprise Fund. The pilot year of operation will help determine its effectiveness and costs, and whether or not it should remain in place. This pilot program effectively allows Santa Rosa to test needs for satellite parking. If the shuttle is successful, then the City may wish to further invest in a satellite parking program.

Figure 49 Proposed SMART and Downtown Circulator Shuttles



Create a Parking Benefit District

Parking benefit districts allow cities to return all or a portion of gross parking revenue generated through meters and/or non-resident passes to an entity representing the district for extra maintenance, security, beautification projects, etc. During stakeholder input sessions, key desires for further investment included: improvements to the streetscape in the key retail areas, repairing curbs, improving planters along 4th Street, improving street trees, providing security services, and adding lighting.



A Parking Benefit District would unnecessarily duplicate a potential future Courthouse Square Business Improvement District but may be sensible in Railroad Square. As current parking revenues go toward maintaining the existing parking system, a PBD is only beneficial if revenue is generated in excess of the operational needs of the Parking Enterprise Fund, such as from extending hour of operation.

Employee Parking Program

Employee parking was identified as a significant need during outreach and stakeholder meetings. Employee parking impacts parking availability. (Some studies—not Santa Rosa-specific—indicate that up to 20% of downtown retail area parking demand may be comprised of employees). There is a clear need to encourage and incentivize employees to parking away from key retail streets, which, ideally, are primarily used by customers.

Employee parking programs support the quality of life of employees and the sustainability of downtown businesses. While employees are typically more willing to walk further to parking spaces than a customer, they need to know where to park, have financial incentive to do so, and feel safe, especially for evening employees. Implementing an employee parking program in Santa Rosa begins by identifying underutilized garages or lots that are easily accessible, safe, and can be designated as employee parking eligible sites. If possible, it is ideal to have some flexibility in location, so employees can park in multiple underutilized locations. Some cities have evening permits for restaurant/bar employees (sometimes as a separate program if needed).

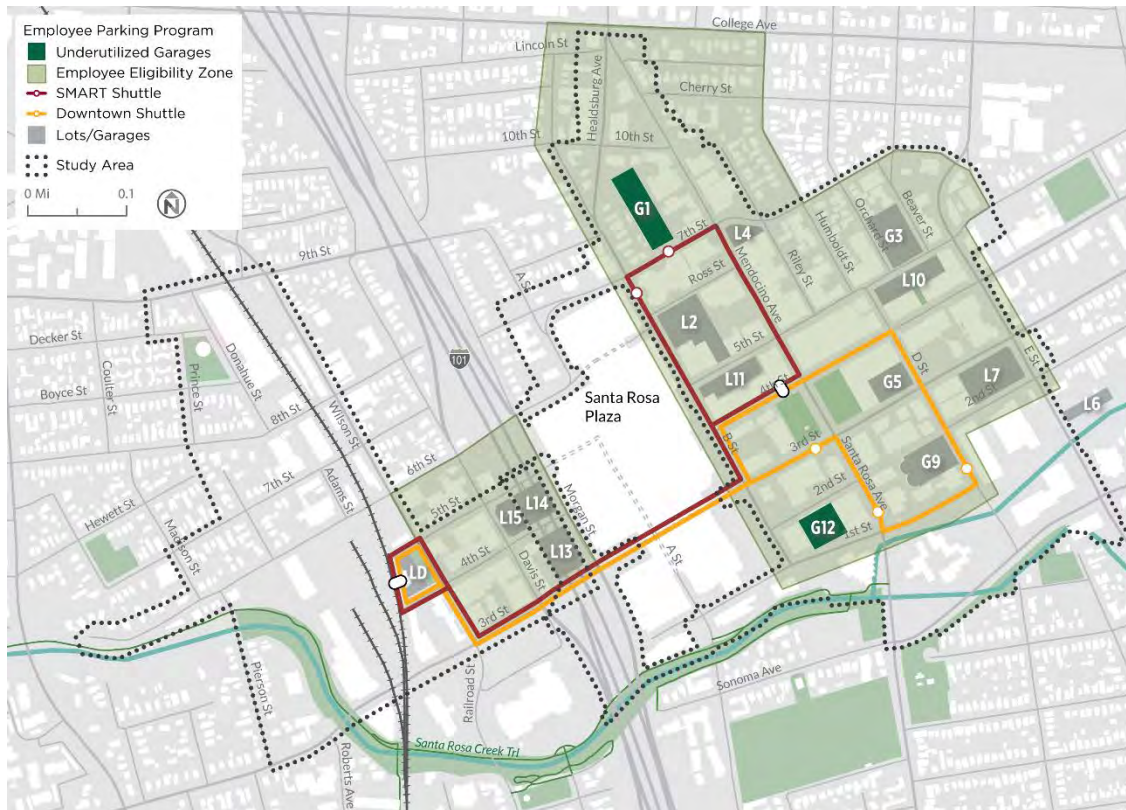
Employee parking programs are sometimes accompanied by a related Transportation Demand Management (TDM) program for employees. Two options for such programs include:

- **City-operated:** Most employee parking programs are city-operated. A city sets up this permit type and then issues them to qualifying employees. In applying, the employees must provide proof of employment. In addition, some programs have income requirements—i.e., lower rates for lower-wage employees. Best practices indicate that the rate for parking could be adjusted to reflect demand times/locations. Daily payments through use of pre-loaded parking cards encourage use of other modes of transportation as an alternative to a monthly pass which may encourage people to drive more often.
- **Employer operated:** A less common option is for a city to issue a set number of employee parking permits to nearby businesses, and they would issue them to employees. The main benefit to this approach is that the permit can be shared among multiple employees.

Employees would apply to participate. To achieve the intended purpose of providing improved parking options for lower-wage workers, an income cap can be applied.

It is recommended that the City designate an underutilized garage, such as Garage 12 at 555 1st Street or Garage 1 at 521 Seventh Street, or both, as a site for downtown and Railroad Square employee permit parking. These two garages have the largest parking supply, are heavily underutilized, and also connect to the proposed SMART and Downtown shuttles. The proposed eligibility zone for employee parking is shown in Figure 51.

Figure 50 Employee Parking Program Eligibility Zones



Valet Parking Program

Establish a valet strategy to manage spikes in parking demand. This strategy can help to distribute demand across an area, ensuring some parking availability at key high-demand locations. Valet strategies are adept at increasing capacity during peaks, and taking advantage of more remote locations—avoiding building parking that is only used a few days out of the year. Valet parking is useful in evenings and during seasonal or event peaks, particularly to support restaurants and the theater. Valet parking can also increase the effective parking supply through more efficient use, as valet operators can tandem or triple park vehicles. The City should license one universal valet parking program, allowing motorists to drop their vehicle off in one part of downtown and pick it up elsewhere. There is a variety of valet parking apps to facilitate such arrangements.

- Universal Valet Service** (example): Within the Old Pasadena district, the City also offers a universal valet service. The universal valet parking program allows customers to drop off their vehicles at any of the 14 valet stations in the district, most of which are located along Colorado Boulevard. Customers can then arrange to have their vehicle waiting for them at any other valet stand. Various participating merchants allow validation that reduces the price of valet parking. The current cost is \$10 per vehicle without validation. The City does not regulate the price of valet parking, but rather the private service provider determines the rate. The cost of the program is approximately \$300 to \$600 per space per year.

- Implementation of this strategy would primarily rely on the time of existing parking staff and parking enforcement. Any new costs incurred, such as those for uniforms or branding would be minimal. Ambassador programs are a cost-effective method of improving overall enforcement of parking regulations and in turn improves customer service and the management of the parking system. Staff time will be needed to coordinate and manage the program. Some cities have implemented ambassador programs through volunteers in the community.

Carshare

Expand carshare options

Carsharing is currently experiencing a time of heightened innovation. The one-way rental model, pioneered successfully by small start-ups, is attracting established car sharing companies and even Big Three car manufacturers. Peer-to-peer carsharing is also proving viable in markets similar to downtown Santa Rosa. Many carsharing players exist now, and many more are expected to enter the market in the next several years. The City should review carshare strategies and adopt improvements to encourage carshare operators that meet City goals.

Enforcement

The Parking Division has already begun systematically making improvements to the parking enforcement operations, including allowance for a 5-minute grace period, issuing warnings when appropriate, providing Certified Tourism Ambassador training, and a renewed focus on customer service. However, the project team received input that enforcement could be improved overall to create a better downtown environment.

Invest in full visitor ambassador system

Some cities have gone a step further and implemented a full visitor ambassador program utilizing their parking enforcement system. Parking Enforcement Officers are trained to be downtown ambassadors and are available to answer questions and provide information about the downtown. Citations focus most heavily on quality of life violations (such as blocking the sidewalk or double parking) rather than parking time limit violations, and the Officers are effective communicators of parking and traffic rules, helping to shape behavior over time using "soft skills" in addition to issuing violations. The City should invest in a full visitor ambassador program by designating 0.25 FTE of staff time to coordinate and manage the program, as well as hiring two additional officers. Some cities have employed volunteers to become officers.

Branding, Communications, and Wayfinding

Improve branding and communications

The City can create a new brand, improved user experience, and targeted campaign for the updated parking system. Communicating parking locations, rules, and availability is highly complementary to efforts to redistribute parking using pricing and regulations.

- **Marketing campaigns:** Some progressive parking programs have created marketing programs to help explain any changes in parking rates and rules, and make people aware of the less expensive parking options that become available. For example, SDOT's parking program created a Plan Like a Parking Pro campaign that included signs and pay

stations, ads, and other marketing materials. When goBerkeley changed some rates from Value to Premium, they also used temporary marketing materials to help point drivers toward less expensive parking in off-street parking facilities and streets. SFpark employed marketing to help make drivers aware of the low-utilization garages in particular areas. On select nearby meters, they affixed an attractive decal noting where the nearby value garage was located. They also created and distributed attractive outreach flyers and window stickers to nearby businesses, letting them know where nearby, less expensive garages are located. All of these efforts successfully helped to drive up use of the underutilized parking facilities and help show drivers how to save money on parking rates.

- **Holistic rebranding:** Many of the successful parking programs have had some element of branding for their programs, that help communicate the new system for managing parking. Consistent branding has been extended to decals, signage, and marketing materials. The new brand can help communicate a shift from previous ways of managing parking and a renewed focus on customer service.

Streamline regulations

Parking rules should be easy to understand so people feel they are able to avoid citations and park without concern about interpreting the regulations. For example, too many time limits on different blocks can seem arbitrary.

Improve wayfinding and signage

Make people aware of the city-owned garages. Some cities have chosen to use signage, apps, and open data feeds to share real-time information about where parking is available in garages. The underlying data for this feed already exists for operational purposes at those garages that have control equipment, and the real-time signage and data sharing investment has a fairly reasonable cost.

There are off-street parking facilities located within a close walking distance to the 4th Street commercial area in downtown Santa Rosa. However, there are few signs that direct drivers to these locations.

Underutilized garages or other parking areas should be noted at the Railroad Square SMART station, including information about the parking connections available via the circulator shuttle.

Future Proof Parking/Code

Flexible Parking Requirements

- Ensure parking requirements are flexible enough to allow the types of future development desired in the downtown and Railroad Square areas.
- Reduce minimums, eliminate minimums for affordable housing, unbundle parking, and introduce maximums, density bonuses, and shared parking.
- Flexible parking requirements, such as allowing a density bonus for housing developments.

Efficient Parking Technologies

- Ensure parking codes allow desired parking technologies that may become increasingly viable in the future (e.g., shared, stacked, and automated parking)

- Upgrade parking communications, payment, and enforcement systems. Policy changes should be paired with customer improvements to the underlying parking systems, and upgrades to these systems will enable implementation of the other parking strategies listed in this section. In the short-term, this means continuing to upgrade parking meters to electronic meters, working with vendors to encourage investment in open data and data management tools within meter management systems, leveraging and testing existing License Plate Recognition equipment for applicability to routine data collection, and continuing the expansion of pay-by-phone service for meter payment. The underlying technology and data systems are continually changing, so options should be continually reviewed, with the following goals in mind:
 - Parking information should be simply and conveniently shared in user-friendly format
 - Parking payment should be easy and simple, with multiple options and options that are most convenient to customers
 - Enforcement systems should efficiently encourage adherence to parking regulations, and should not be overly punitive

Railroad Square Specific

Add meters

For the reasons previously discussed, recommended locations for new meters in the Railroad Square focus area include (see Figure 49):

- 6th Street from Wilson Street to Morgan Street
- Davis Street from 5th Street to 6th Street
- South side of 3rd Street between Railroad Avenue and Davis Street

Add RPP

Residential Parking Permit (RPP) zones operate by exempting permitted vehicles from the parking restrictions and time limits for non-metered, on-street parking spaces within a geographic area. Typical RPPs allow for those without a permit to park for generally two to four hours during a specified time frame, such as 8 a.m. to 6 p.m., Monday through Friday. Permit holders are exempt from these regulations and able to essentially store their vehicle on-street. Ownership of a permit, however, does not guarantee the availability of a parking space. Key components of implementing an RPP program are as follows:

- **Resident support:** An RPP should be supported by the residents and most RPPs require a minimum level of residential support via a petition to initiate an RPP.
- **Number of permits issued:** The number of permits issued per residence or unit should be limited and tied directly to the amount of on-street supply. Issuing a high number or unlimited number of permits per residence does little to address the core issue of parking demand exceeding supply.
- **Cost of permits:** Per the California Vehicle Code, jurisdictions are allowed to price permits to cover their "administrative" costs, which can be broadly defined to include development, management, and enforcement of the program. It is important that the City charge to recover the full costs of program administration so that it is not further subsidizing parking on public right-of-way.

In addition, to ensure that residents only purchase the number of permits that they really need, it is recommended that cities price the permits on an escalating scale. For example, purchase of the third permit should cost significantly more than the first or second. By pricing permits in this manner, the City can utilize pricing to encourage residents to park their additional vehicles in their garage or driveway instead of on-street.

- **Guest parking:** Guest parking should be convenient, but guest permits should also be limited and priced on an escalating basis.
- **Enforcement:** Enforcement is essential to a successful RPP. Without consistent enforcement an RPP will not work. New technologies have made enforcement easier via license plate recognition technology and/or handheld devices, both of which Santa Rosa already uses.

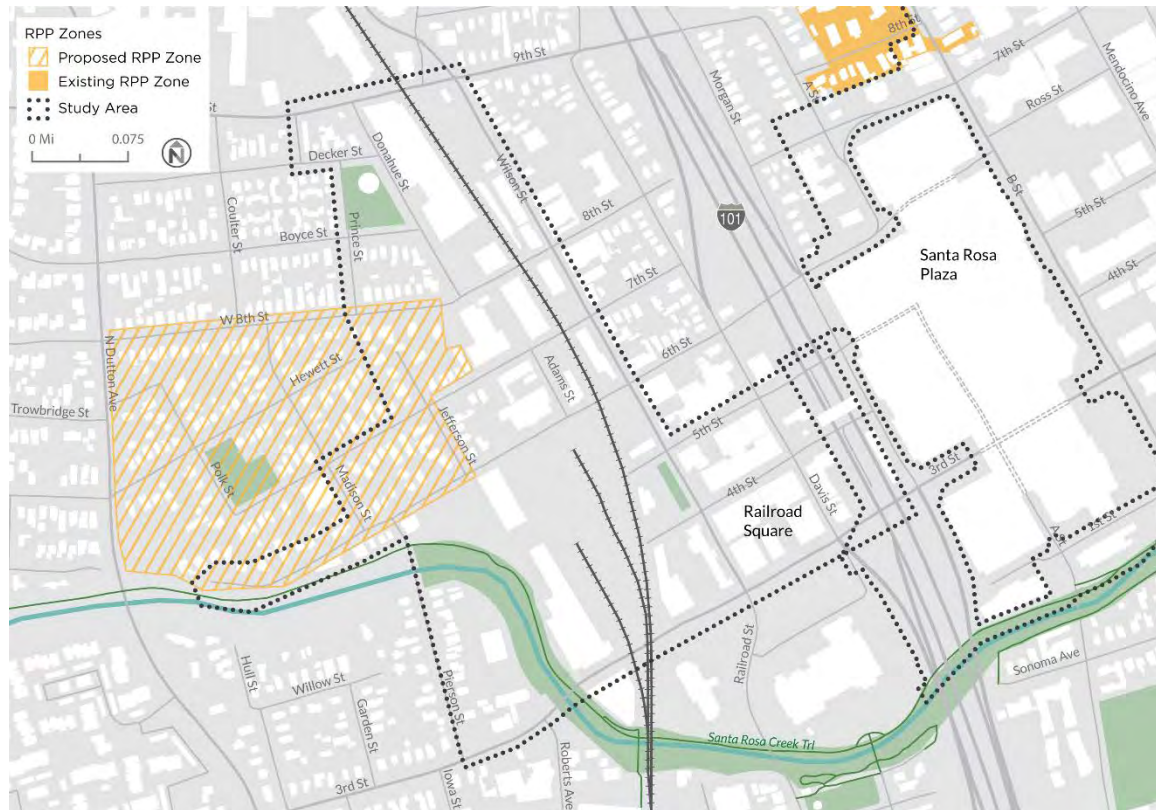
Before and during this study, there has been discussion among West End neighbors about creating a new RPP zone for that area—the residential neighborhood adjacent to the Railroad Square core business area and the upcoming SMART station. RPP zones must be petitioned by citizens—rather than city-created. However, there is strong desire among West End and Railroad Square representatives to coordinate parking policies for the maximum benefit of all parties in the area. While there is some time before it will be strongly needed, the creation of a new West End RPP zone is recommended, should citizens decide to petition for it, in anticipation of future developments. The recommended RPP zone location for the Railroad Square focus area covers the neighborhood bound by 8th Street to the north, Jefferson Street to the east, 6th Street to the South, and Dutton Ave to the west (see Figure 52).

One optional variation on this recommendation is to create a Residential Permit Parking Benefit District (RPBD). Rather than prohibiting non-residents from parking like an RPP program, and RPBD allows non-residents to pay for parking in an RPP zone during business hours. In order to make the arrangement palatable to residents, revenue generated from non-resident parking is dedicated to funding improvement projects or additional services within the district. Like a traditional PBD, revenues can be dedicated to improve the quality of life in a neighborhood through more frequent street cleaning, sidewalk repair, graffiti removal, tree planting, and traffic calming measures. Neighborhoods where spillover issues are the most acute stand to gain the most from a RPBD. RPBDs are best suited for residential areas that have some parking availability during business hours and are located near employment centers or transit stations that generate daytime demand for parking.

RPBDs can be implemented incrementally on a block by block or street by street basis. When neighboring blocks or streets see positive results, they may ask to have the program expanded. In implementing the program, neighborhoods should be allowed to provide input on how many non-residents permits should be issued, with the local knowledge of how many spaces are typically available during business hours. In order to retain the benefits of a traditional RPP, non-resident permit validity can be set so that spaces are made available for residents by the time most people in the neighborhood return home from work and look for on-street parking.¹

¹ <http://www.mapc.org/resources/parking-toolkit/strategies-topic/parking-benefit-districts>

Figure 51 Proposed RPP Zone



Build on SMART Station access improvements

The City has developed a Day One station access plan that utilizes temporary materials to create transit, taxi, paratransit, rideshare, and kiss-and-ride access to the station. That plan utilizes temporary materials such as paint and re-stripping of spaces to pilot the access plan before making it permanent, and to allow for rapid implementation to meet the train’s opening day. These changes are intended to be permanent, however the exact configuration details can be adjusted if any room for improvement is found after installation. The City should monitor the functionality of the plan, gathering both quantitative information, staff observations, and user feedback, and then move to adjust as warranted. Building on this, other station improvements needed over time include sidewalk improvements on 4th Street, wayfinding and signage, streetscape improvements, and multimodal and shared mobility improvements. Over time, the station should transform into a multimodal hub, and the connections to key retail areas strengthened. The station entrance/exit should seamlessly spill patrons to area businesses—not just through signage but also through intuitive design details. The more the City can boost “park once” and multimodal transit connections in the Railroad Square area, the less the City needs to invest in new parking facilities.

Consider new parking supply

There are few public off-street parking facilities in the Railroad Square area, which is also where significant change and growth is forecasted to occur in upcoming years, raising questions about the adequacy of supply in the area. Indeed, one of the two city-operated facilities in the area is



currently being planned for redevelopment. The supply analysis related to this supply and the changing area are further discussed in the report.

- No Build
 - May wish to lease existing spaces and turn them from “customer only” to publicly available.
 - Use parking management to better manage the existing supply. It is estimated the improved parking management could add some efficiency to the system.
- Build Supply

The question of whether or not to build a new off-street parking facility to accommodate Railroad Square growth and SMART riders is key. Demand projections indicate that there will be just enough parking if all the development projects occur, and the ridership levels for the train station remain on the lower end. The ridership levels represent the most unknown variable—if they greatly exceed this expectation, a notable parking crunch could occur.

These projections include the full parking supply, both public and private. In addition to supply considerations, boosting the utilization and types of users that can access the supply is also helpful in reducing future parking supply needs. The City is piloting a circulator shuttle to connect underutilized parking facilities elsewhere in the City to the station.

A watch-and-wait approach to the SMART ridership levels, circulator effectiveness, and the ability of the parking strategies recommended as part of this plan is appropriate since there are unknown variables that will greatly impact parking availability estimates in the area. However, given the long lead-time on adding new supply, the City should initiate conversations with private partners on leasing or building additional parking supply. The Railroad Square area is not part of the Parking District, therefore funding such new supply will require public-private partnerships, creation of an additional parking district, or expansion of current district boundaries. During project outreach, community members also discussed the location of such supply. While there is concern about ensuring adequate supply, there is also awareness that new supply that breaks up the tight urban fabric and vibrancy of the Railroad Square area would be harmful. New developments at the periphery of the area present a better option. If the supply is intended to serve SMART riders, locating it as near as possible to the station is essential. Leasing existing supply is a sensible alternative as well, as it provides a nimbler addition to the public supply without major capital investments. The City should consider approaching Santa Rosa Plaza management, or owners of other underutilized private parking assets, to consider how to make greater use of existing parking supply—both public and private.

Mobility options are expected to change quite dramatically over the next decade. If significant penetration of automation and shared vehicle technologies does occur, parking demand could sharply plummet—in a surprisingly short time period. If revenue does drop significantly, it could inhibit the ability of the City to pay for these facilities. For this reason, it is important to weigh the time horizon of debt service for a new facility with great scrutiny. For many cities, building expensive parking facilities today may end up with an ongoing financial liability that extends greatly beyond the expected usefulness of the investment.

Fiscal Impact Analysis

The fiscal impacts and cost-effectiveness of the recommended parking management strategies are outlined below. This package was designed to be revenue neutral and does not include measures that are expected to significantly increase intake of parking revenue. Note that all cost projections are preliminary order-of-magnitude estimates. Due to the changing nature of parking demand, definitive predictions on fiscal impacts cannot be made. For major investments, such as new parking supply, additional detail is necessary to determine costs and benefits more precisely.

Progressive Pricing Policy

Adoption of formal performance-based management policy would incur minimal costs. Costs associated with this strategy would largely be associated with staff time to plan, craft policies and implement changes. This strategy will not increase parking supply, but it offers a low-cost means to achieve significant increases in availability of parking while ensuring parking spaces are priced according to demand. When the SFMTA implemented *SFpark*, the increase of net parking revenues was not set as an explicit goal, however the program aimed to shift the proportion of on-street parking revenue so that a greater portion comes from meter revenue and a smaller portion comes from citations. Providing multiple payment options and multiple price options, and relaxing time limits makes it easier to pay for parking and thus easier to avoid citations. In total, *SFpark* has increased SFMTA net parking revenues by almost \$2 million per year.

Figure 52 Progressive Policy Evaluation

Timing Considerations	
Timeframe for Implementation	Short
Timeframe for Impacts	Months
Economic Considerations	
Capital Cost	No direct capital cost. Systems are typically built on on-top of other technologies such as electronic meters, and garage technology.
O&M Cost	Monitoring demand and adjusting pricing requires administrative support. The technologies involved (electronic meters, garage equipment) are accounted for in existing operations plans.
Fiscal Impact	Market rate pricing can result in increased revenue.
Staffing Needs	Less enforcement needs because fewer time limits. Enforcement could refocus some effort on other infractions. Administrative staff needed to monitor demand and recommend price adjustments, 0.5 FTE.

Relax Meter Time Limits

Costs associated with this strategy are minimal and would largely be associated with staff time to plan, craft policies and implement changes. Capital costs to replace existing signage are minimal. This strategy improves revenue potential while providing additional flexibility for visitors and customers wishing to stay longer. Analysis of the *SFpark* pilot program revealed that relaxed time limits increased revenues at on-street meters. One reason for this may be that drivers value being

able to purchase additional time to reduce the anxiety of when they need to return to their vehicle, even if they do not use the entirety of that time.

Figure 53 Relaxing Meter Time Limits Evaluation

Timing Considerations	
Timeframe for Implementation	Short
Timeframe for Impacts	Months
Economic Considerations	
Capital Cost	Minimal direct capital costs to change signage.
O&M Cost	Virtually no O&M costs.
Fiscal Impact	May encourage visitors and customers to stay longer and can result in increased revenue.
Staffing Needs	Less enforcement needs because no/fewer time limits. Administrative staff needed to plan, craft policies, and implement changes.

Update Meter Hours of Operation

Costs associated with this strategy are minimal and would largely be associated with staff time to plan, craft policies, and implement changes. Capital costs to replace existing signage are minimal. For example, the cost of changing signage and decals for “Value” zones from four hours to eight hours as part of an update to the goBerkeley program cost approximately \$4,000 for meter zones comprising around 250 spaces.

Figure 54 Updating Meter Hours of Operation Evaluation

Timing Considerations	
Timeframe for Implementation	Short
Timeframe for Impacts	Months
Economic Considerations	
Capital Cost	Minimal direct capital costs to change signage. Signage adjustments can be coordinated among all policies to ensure efficiency in these transitions.
O&M Cost	Monitoring demand a requires some ongoing administrative support. Updates to parking meters and garage payment technology could incur a small fee from contractor depending on the details of those contractual obligations. Typically those agreements include a certain number of changes per year to features such as price, time limits, and hours of operation.
Fiscal Impact	Longer hours can result in increased revenue. The hours of operation recommendation reduces the overall hours of operation. The goal to have meters operate during busy demand periods would typically increase revenue overall.
Staffing Needs	A slight, but not major, reduction in enforcement hours Administrative staff needed to monitor demand and recommend price adjustments.

Add New Meters Where Needed

New meters are recommended for a total of seven proposed block faces throughout Railroad Square which can accommodate approximately 48 meters. Costs associated with this strategy are primarily related to the capital cost of new meters which vary greatly depending on the type of technology selected. IPS meters used by the City for on-street spaces are approximately \$500/each plus the cost of housing, poles, and installation. At minimum, the installation of new meters would cost \$24,000. Installation of new meters in the recommended locations should be cost-effective over time given that they will be placed at locations where existing occupancy and demand is high and on or near blocks where many businesses exist. Based off annual revenue data for Railroad Square meters during FY 15-16, the new meters are estimated to generate approximately \$83,000 of revenue per year, which can help offset the capital cost of installation.

Figure 55 Updating Meter Hours of Operation Evaluation

Timing Considerations	
Timeframe for Implementation	Medium
Timeframe for Impacts	Weeks
Economic Considerations	
Capital Cost	\$500 per space plus the costs of housing, poles, and installation; additional signage needed as well. Given approximately 48 new meters, the minimum capital cost is \$24,000.
O&M Cost	Requires maintenance and communication fees of new meters.
Fiscal Impact	Installation of new meters can potentially provide \$83,000 of annual revenue.
Staffing Needs	Increased staff and administrative time required to implement, maintain, and enforce the meters.

Shared Parking

Costs associated with this strategy are minimal and would largely be associated with staff time to plan, craft policies and implement changes, such as extending shared parking provisions to residential developments. If the City wishes to seek the leasing of privately owned spaces, shared parking agreements represent a significantly more cost-effective option than provision of new supply. For example, construction of a parking garage in the region can cost upwards of \$40,000 per space (not including maintenance) whereas existing private spaces can often be leased and operated for less than \$1,000 per space per year.

Figure 56 Shared Parking Evaluation

Timing Considerations	
Timeframe for Implementation	Short
Timeframe for Impacts	Years
Economic Considerations	
Capital Cost	Parking supply required for new developments can be reduced 40-60%; May require reconfiguration of existing lots to accommodate new pedestrian circulation movements.

O&M Cost	Varies - fewer spaces to maintain means lower maintenance costs, but shared parking generally requires more enforcement and administrative effort.
Fiscal Impact	Shared parking alone has no direct fiscal impact. When combined with In-Lieu fees, however, shared parking can generate revenue to support other parking and transportation management strategies.
Staffing Needs	City staff, approximately 0.25 FTE needed to help develop, implement, and manage a shared parking program. Could require assigning or hiring a facility manager, or possibly a third-party parking brokerage service.

Fund Circulator Shuttle

The City has decided to implement a one-year pilot of Downtown and SMART circulator shuttles that will be funded by the Parking Enterprise Fund. The pilot year of operation will help determine its effectiveness and costs, and whether or not it should remain in place.

Create a Parking Benefit District

Costs associated with this strategy are minimal and would largely be associated with staff time to plan, craft policies and develop programs and liaison with business owners. All investments attributed to the program would be directly funded by parking revenue generated within the district. In Boulder, Colorado, the City developed a PBD in the downtown area and generated over \$1 million from meters and \$2 million from garages annually. Revenue generated helped fund area improvements and TDM programs. The strategies recommended by this plan are not expected on their own to dramatically increase parking revenues that could be reinvested in the manner of a benefit district. If the implemented measures exceed revenue expectations after one or two years, then districtwide reinvestment should be explored.

Figure 57 Parking Benefit District Evaluation

Timing Considerations	
Timeframe for Implementation	Medium
Timeframe for Impacts	Years
Economic Considerations	
Capital Cost	Dependent on implementation program, potentially just signage if meters are present, may involve installing meters. \$500/single space.
O&M Cost	Signage and meter maintenance as well as administrative cost to manage revenue capture and reinvestment.
Fiscal Impact	One parking space can generate almost as much revenue as property tax. Need for construction of additional costly parking structures is reduced.
Staffing Needs	Administrative staffing to manage revenue tracking and distribution.

Employee Parking Program

Implementation of a new Employee Permit Program would involve additional costs to the City to administer the program. Permit costs should be set at a rate to offset those administrative costs and operational and maintenance costs of the garages, but the City should ensure that permit rates are low enough to encourage their use. Permit costs would remain affordable to encourage their use—approximately \$30–40 for an annual pass (or \$.12–\$.16 per work day).

Timing Considerations	
Timeframe for Implementation	Short
Timeframe for Impacts	Weeks
Economic Considerations	
Capital Cost	Virtually no capital costs.
O&M Cost	Typical costs range from \$300 to \$600 annually per space.
Fiscal Impact	Typically, no impact on municipal budgets. Permit costs would be set at a rate to offset administrative and enforcement costs.
Staffing Needs	Requires staff to administer the program and enforce.

Valet Parking Program

Ideally, this strategy should be financed and operated privately to avoid creating a continuing budgetary burden to the City, and therefore have a minimal financial impact on the City. However, demand in Santa Rosa is uncertain, and may require a financial investment – especially at the beginning of the program. Initial quotes indicate that such a program needs significant investment. To spur development of such a program, the City should seek public-private partnerships, such as with the Railroad Square Association, to sustainably fund this program. Despite the investment, this strategy would be a cost-effective method of increasing the parking supply and reduce parking demand in the downtown core and/or Railroad Square. Valet service typically costs \$5 to \$10 with validation from participating businesses.

Figure 58 Valet Parking Program Evaluation

Timing Considerations	
Timeframe for Implementation	Short
Timeframe for Impacts	Weeks
Economic Considerations	
Capital Cost	Virtually no capital costs.
O&M Cost	Typical costs range from \$300 to \$600 annually per space.
Fiscal Impact	Typically, no impact on municipal budgets. In Santa Rosa, an ongoing financial contribution will be necessary, at least in short term.
Staffing Needs	Requires attendants to park and retrieve vehicles.

Visitor Ambassador Program

Implementation of this strategy would primarily rely on the time of existing parking staff and parking enforcement. Any new costs incurred, such as those for uniforms or branding would be minimal. Ambassador programs are a cost-effective method of improving customer service and the management of the parking system. However, parking citation revenue would likely decrease due to staff spending more time on ambassador role tasks. Staff time will be needed to coordinate and manage the program. Some cities have implemented ambassador programs through volunteers in the community.

Figure 59 Visitor Ambassador Program Evaluation

Timing Considerations	
Timeframe for Implementation	Short
Timeframe for Impacts	Months
Economic Considerations	
Capital Cost	Virtually no capital costs.
O&M Cost	Virtually no O&M costs.
Fiscal Impact	Roughly 25% fewer tickets will be issued with the new ambassador program, or an estimated \$300K decrease in fine revenue.
Staffing Needs	Requires 0.25 FTE staff time to coordinate and manage the program. Two additional officers are also recommended to be ambassadors. Some cities have volunteer officers.

Expand Car Share Options

The Sonoma County Transportation Authority (SCTA) has received a grant and is issuing a Request for Proposals for a private vendor to implement car share in Santa Rosa at no cost to the City. Some City staff time may be required to provide encouragement to businesses to start the program, oversee operations, and ensure that the program is operating successfully. Because this strategy would have no capital or implementation costs to the City, it would be a cost-effective method to reduce parking demand in the downtown core and/or Railroad Square. If on-street spaces are designated for car share, the City will lose revenue for that space – however, with demand-responsive pricing, availability is less tied to small changes in supply. Potential annual loss of revenue in the Central Parking District is approximately \$1,000 for an on-street space and \$500 to \$2,000 for an off-street space depending on the facility.

Branding, Communications, and Wayfinding

Branding and communications costs would mainly be attributed to costs incurred for materials and outreach, as well as costs for an outside professional to design the campaign. The cost effectiveness of such a campaign should consider the benefit it brings to parking management, as well as the economic and vitality boost it brings to Santa Rosa as a whole. Wayfinding and signage improvement costs vary widely and could be implemented in two phases. In the near term, "low-tech" improvements such as static wayfinding signage can be implemented. Higher-tech, real-time electronic signage can be introduced in the medium-term (3-5 years). Districtwide static wayfinding signage could be implemented for around \$10,000 whereas the capital cost of real-time availability displays range between \$25,000-\$50,000 per unit. While this strategy does



not produce new parking supply, it is likely to shift enough people from higher-demand areas into underutilized parking facilities, making this a very cost-effective strategy, especially when compared to provision of new supply.

Future Proof Parking/Code

Costs associated with this strategy are minimal and would largely be associated with staff time to plan, craft policies and implement changes to the zoning code to ensure that parking requirements are flexible, that there is allowance for emerging technologies in the parking sector, and that Transportation Demand Management policies are integrated alongside parking policies.

Railroad Square Residential Permit Program

Implementation of a new Residential Permit Program would involve additional costs to the City to administer the program, including enforcement. Under California Vehicle Code, the City is allowed to price permits at a price that covers administrative costs of the program including development, management, and enforcement. As with employee parking permits, rates should be low enough to encourage use but set in consideration of offsetting administrative and enforcement costs.

Consider New Parking Supply

If the above parking management strategies are insufficient to accommodate future demand, the City may consider provision of new off-street parking facilities – ideally working within a public-private partnership. A key consideration in assessing the feasibility and cost of new off-street facilities is the assemblage of parcels; if acquisition of real estate is required, cost and implementation time can increase substantially.

Provided in Figure 61 are cost estimations for a variety of parking structure types on a standard 25,000 square foot site. In general, construction below ground increases costs significantly, while automated technologies decrease the amount of accessory space required per stall, thus decreasing construction costs per stall. These cost analyses are based on CPI and Engineering Cost Index parameters adjusted for 2016 San Francisco Bay Area context with a markup percentage provided by the California Department of General Services.

Future parking demand estimates are considered increasingly uncertain due to rapid changes in mobility technology. There is initial thinking and research to suggest that the mass rollout of autonomous vehicles could dramatically decrease parking demand. Timing estimates for broad scale adoption of shared, autonomous networks vary, suggesting anywhere from 8 to 20 years. Debt service horizons for larger parking structures often exceed this time window. Construction and financing options that reduce that long-term overhang of financial risk are recommended when possible. Similarly, shorter term solutions such as leasing existing supply are more attractive given this forecast.

Figure 60 Parking Structure Cost Analysis

Facility Type	Stalls	Floor Levels	Site (sf)	Building Area (sf)	Efficiency per Stall (sf)	Cost per Square Foot	Cost per Stall	Equivalent Construction Cost
Surface Lot	78	1	25,000	25,000	320	\$20	\$6,400	\$499,200
Above Grade Parking Structure	208	4	25,000	100,000	480	\$93	\$44,600	\$9,277,000
Below Grade Parking Structure	128	3	25,000	75,000	585	\$153	\$89,500	\$11,456,000
Above Grade Parking Structure with Automated Operation	392	4	25,000	100,000	255	\$153	\$39,000	\$15,288,000
Below Grade Parking Structure with Automated Operation	275	3	25,000	75,000	273	\$236	\$64,500	\$17,737,500
Combination of Above Grade and Below Grade Parking Structure with Automated Operation	392	4	25,000	100,000	255	\$203	\$51,800	\$20,305,600

Source: Watry Design, 2014 and California DGS, 2016

6 Appendix

Figure 61 Citywide Parking Policy Option Matrix

Implementation may successfully achieve Downtown Goals	+
May contribute to Downtown Goals or have no effect	—
Implementation may detract from Downtown Goals	×

	Strategy	Create more open parking spaces	Reduce circling for parking in busy areas	Improve the attractiveness, walkability, and safety of downtown streets	Ensure customers can easily access local businesses	Reduce congestion and spillover parking into residential areas	Use parking resources efficiently	Encourage people to spend time downtown	Ensure there is enough parking for future growth	Provide incentives for employee parking	Make parking regulations easy to understand	“Future Proof”	Cost to Implement	Ease of Implementation	Community Support
1	Progressive pricing. Price parking according to level of convenience and demand.	+	+	+	+	+	+	+	+	+	—	—	\$\$	—	+
2	Shared parking. Lease private garages for public use, encourage businesses to share parking facilities.	+	+	—	+	+	+	—	+	—	+	—	\$	+	+
3	Employee parking program. Provide nearby, affordable, and safer parking options for downtown employees.	+	+	—	+	+	+	—	+	+	—	—	\$\$	—	+
4	Circulator shuttle. Invest parking revenues in maintaining circulator shuttle to connect drivers to underutilized garages.	+	+	+	+	+	+	+	+	—	—	+	\$\$\$	—	+
5	Parking Benefit District. Invest parking revenues into a PBD to fund streetscape, safety, and downtown TDM program.	—	—	+	+	—	—	+	—	—	—	—	\$	×	+
6	Relaxed time limits. Increase parking time limits	—	—	—	+	+	+	+	—	—	—	—	\$	+	+

	Strategy	Create more open parking spaces	Reduce circling for parking in busy areas	Improve the attractiveness, walkability, and safety of downtown streets	Ensure customers can easily access local businesses	Reduce congestion and spillover parking into residential areas	Use parking resources efficiently	Encourage people to spend time downtown	Ensure there is enough parking for future growth	Provide incentives for employee parking	Make parking regulations easy to understand	"Future Proof"	Cost to Implement	Ease of Implementation	Community Support
	to allow drivers to stay longer.														
7	Coordinate hours of operation to need for open parking spaces based on business hours and occupancy trends.	+	+	-	+	+	+	+	-	-	+	-	\$	+	-
8	Add new meters where needed on periphery of downtown parking district.	+	+	-	-	×	+	+	+	-	-	-	\$\$	+	-
9	User information and marketing. Improve branding, communications, and parking wayfinding.	+	+	+	+	+	+	+	-	-	+	-	\$\$	-	+
10	Flexible parking requirements. Ensure parking requirements are flexible enough to allow the types of future development desired in the downtown area.	-	-	+	+	-	+	-	+	-	-	+	\$	+	-
11	More efficient parking technologies. Ensure parking codes allow desired parking technologies that may become increasingly viable in the future.	+	+	+	+	+	+	-	+	-	-	+	\$	+	-
12	Valet parking program. Have valet parking to manage spikes in parking demand.	+	+	-	+	+	+	-	-	-	-	-	\$	+	-

Figure 62 Railroad Square Parking Policy Option Matrix

	Strategy	Create more open parking spaces	Reduce circling for parking in busy areas	Improve the attractiveness, walkability, and safety of downtown streets	Ensure customers can easily access local businesses	Reduce congestion and spillover parking into residential areas	Use parking resources efficiently	Encourage people to spend time downtown	Ensure there is enough parking for future growth	Provide incentives for employee parking	Make parking regulations easy to understand	"Future Proof"	Cost to Implement	Ease of Implementation	Community Support
1	Residential parking permits. Extend RPP in West End residential streets surrounding Railroad Square metered area.	+	-	-	-	+	+	-	-	-	-	-	\$	+	+
2	Add new meters to key streets.	+	+	-	+	×	+	+	+	-	-	-	\$\$	+	-
3	Parking district. Add Railroad Square to the Downtown Parking District.	-	-	-	+	-	+	-	+	-	+	-	\$	+	+
4	Add an off-street parking facility to accommodate Railroad Square growth.	+	+	×	-	+	×	-	+	-	-	-	\$\$\$	×	+
5	Station area improvements (sidewalks, wayfinding, signage, streetscape, accessibility, etc.)	-	-	+	+	-	-	+	-	-	-	-	\$\$	-	+