

Final Memorandum

RECEIVED*By Andrew Trippel at 5:15 pm, Aug 20, 2020*

Date: August 20, 2020

To: Keith Rogal, SRDT Holdings and Jack Robertson, Tableau Development

From: Ian Barnes, PE, Fehr & Peers

Subject: Traffic Technical Operational Memorandum for the One Santa Rosa Avenue Project in Downtown Santa Rosa, California

WC20-3727

Introduction

This memorandum documents the results of a traffic technical operational analysis conducted for the One Santa Rosa Avenue project. The proposed project includes a seven-story, mixed-use, multifamily residential building with 120 residential dwelling units and a 500 square foot café on the ground floor. The project will be constructed at the southwest corner of Santa Rosa Avenue/Third Street with frontages on both Santa Rosa Avenue and Third Street. The project site is located approximately one-half mile walking distance from the Santa Rosa Downtown SMART station and is immediately adjacent to the downtown Santa Rosa Second Street Transit Mall. The project will use existing parking supply at City of Santa Rosa Garage 12 (555 First Street), which is located across the Transit Mall from the project site with a current monthly parking rate of \$31 (low wage rate) to \$62; no on-site parking will be provided. The project site plan is presented on **Figure 1** (all figures provided at the end of this memorandum).

Based on the location of the project and the trip generation characteristics of the project (e.g. the project will generate less than 50 peak hour trips), City staff determined that a full Traffic Operational Analysis is not required, but that the following more focused traffic technical operational analysis is required. The remainder of this memorandum documents the traffic technical analysis prepared for the project.

Project Trip Generation

Trip generation refers to the process of estimating the amount of vehicular traffic a project would add to the surrounding roadway system. Project trip generation estimates are prepared for the



one-hour peak period during the weekday morning and evening commute when traffic volumes on the adjacent streets are typically the highest.

The trip generation estimates for the project were prepared using data from the Institute of Transportation Engineers' *Trip Generation Manual, 10th Edition*. Based on the project characteristics (seven-story residential building with ground floor retail) and context (multi-use urban area), data from Land Use Code 231 – *Mid-Rise Residential with 1st Floor Commercial* was used. This assumption was confirmed by City staff to be appropriate. **Table 1** presents the trip generation calculation for the proposed project.

Table 1: Project Trip Generation

Land Use	Quantity ¹	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Mid-Rise Residential with First Floor Retail ²	120	10	26	36	30	13	43

Notes:

1. Land use quantities expressed in terms of dwelling units.
2. Trip generation estimated using data from the Institute of Transportation Engineers' *Trip Generation Manual, 10th Edition*, using Land Use Code 231 – Mid-Rise Residential with 1st Floor Retail

Source: Fehr & Peers, 2020

As noted in **Table 1**, the proposed project is forecast to generate 36 weekday AM peak hour trips and 43 PM peak hour trips, or less than one car per minute in each of the peak hours. These trips would be concentrated at the City Garage 12 entrance/exit on First Street (between Santa Rosa Avenue and B Street) but would then distribute amongst the downtown Santa Rosa street grid to other destinations in the City and to the US 101 and SR 12 freeways. Based on the low number of trips generated by the project, the distribution of those trips spread across the downtown grid system of roadways, and the fact that the majority of the project's residential trips during weekday peak hours would be in off-peak directions (i.e., primarily outbound in the morning and inbound in the evening) compared to weekday peak travel to and from downtown employment destinations, the data suggests that the project would have a less-than-substantial effect on traffic operations on roadways and intersections in the vicinity of the project site.

Parking Assessment

An analysis of the parking demand generated by the project was performed to inform an assessment of the adequacy of the parking supply in City Garage 12 to accommodate the project's projected parking demand. This assessment was previously completed and documented in the memorandum titled *Parking Demand Analysis for the One Santa Rosa Avenue Project* (Fehr & Peers, June 2020), which is included for reference as **Attachment A**. The assessment found that there is sufficient spare parking supply in City Garage 12 to accommodate the peak parking



demand generated by the One Santa Rosa Avenue project. Parking demand for residential uses peaks during evening and weekend periods when nearby office uses experience their lowest parking demand levels.

Site Access Review

As noted previously, the project proposes to utilize parking supply in City Garage 12 to accommodate parking demand generated by the project. Additionally, because the proposed project does not include any on-site parking, tenant move-in/move-out and passenger pick-up/drop-off activities would be accommodated through the use of on-street parking spaces on the project frontage. A qualitative evaluation of the primary legal travel paths between the project site and the primary City Garage 12 access point for residents was performed as well as a recommendation for on-street parking strategies to support move-in/move-out activities.

Review of Access between Project Site and City Garage 12

The proposed internal circulation plan calls for building site access points directly onto the Second Street Transit Mall and directly to the southwest corner of Santa Rosa Avenue/Third Street. Existing sidewalks and crosswalks across the Second Street Transit Mall will connect paths of travel to/from these building access points to the City Garage 12 access point near bus bay S2 in the Transit Mall. Of the two crosswalks available to pedestrians to cross the Transit Mall, one is an unsignalized crosswalk in the middle of the Transit Mall, and the other is the signalized crosswalk across the eastbound approach at the Santa Rosa Avenue/Second Street Transit Mall intersection. Both crosswalks, as well as the sidewalk system, would adequately serve movement between the City Garage 12 access point and the access points for the building.

On-Street Loading Zones

On-street parking spaces will be required to facilitate move-in/move-out and passenger pick-up/drop-off activities as the project will not provide an off-street loading dock for these activities nor will it provide on-site parking. On-street parking is currently prohibited along the Third Street frontage of the project site as the curb space is used to accommodate a right-turn lane from Third Street to Santa Rosa Avenue. The Santa Rosa Avenue frontage of the site includes 4-hour, metered parking; time limits are enforced between 9:00 AM and 6:00 PM, Monday through Saturday.

To accommodate passenger pick-up/drop-off activity associated with the project (as well as for other users of the Second Street Transit Mall and other nearby businesses and commercial activities), it is recommended that the on-street parking spaces along the Santa Rosa Avenue frontage of the project site be converted to white-curb passenger loading zones. To accommodate move-in/move-out activity, as well as to promote efficient delivery activities for goods for the future residents of site (and current/future businesses in the area), it is



recommended that the southernmost parking space along southbound Santa Rosa Avenue between Third Street and the Second Street Transit Mall be converted to a yellow-curb loading zone. To promote the efficient use of this dedicated space, the City may consider retaining the parking meter and time restrictions at this space, and/or limiting the loading zone restrictions to mornings and allowing passenger loading during the afternoons.

Conclusions

The proposed project is forecast to generate 36 weekday AM peak hour trips and 43 weekday PM peak hour trips per the project description and trip rate information in the *Trip Generation Manual, 10th Edition*. While the project trips would be concentrated at the entrance/exit for City Garage 12 on First Street, the less than one car per minute (per peak hour) generated by the project would be accommodated by the downtown street grid as described in more detail above, and this the project is not anticipated to result in a substantial effect on roadway and intersection operations in the vicinity of the project site.

The parking assessment prepared for the project (included as **Attachment A**) found that there is sufficient parking supply in City Garage 12 to accommodate the peak parking demand expected to be generated by the project. A qualitative review of paths of travel between building access points and the primary City Garage 12 access point to be used by residents suggests that adequate facilities exist to accommodate the efficient movement between the project site and City Garage 12.

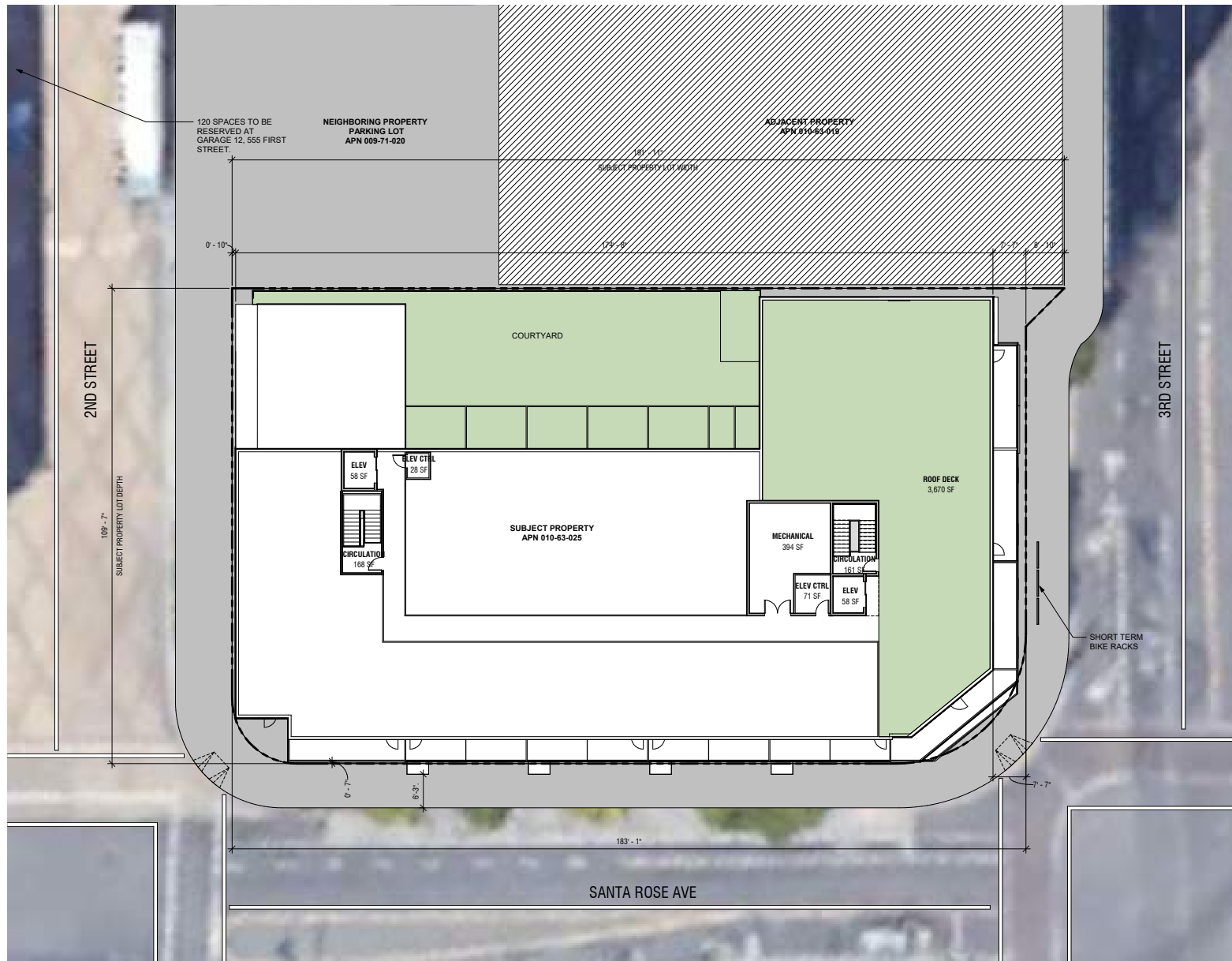
To support passenger pick-up/drop-off activities, it is recommended that the on-street parking spaces along southbound Santa Rosa Avenue between Third Street and the Second Street Transit Mall be converted to white-curb passenger loading zones. To support move-in/move-out activities (as well as future delivery activities) it is recommended that the southernmost metered parking space along southbound Santa Rosa Avenue between Third Street and the Second Street Transit Mall be converted to a yellow-curb loading zone; the City may consider retaining the existing time restrictions, metering and/or limiting the loading zone restrictions to mornings (with passenger loading permitted in the afternoons).

This concludes Fehr & Peers' Traffic Technical Operations Memorandum for the One Santa Rosa Avenue project. Please contact Ian Barnes at (925) 357-3388 with any questions.

Attachments

Figure 1 Project Site Plan

Attachment A Technical Memorandum: *Parking Demand Analysis for the One Santa Rosa Avenue Project* (Fehr & Peers, June 2020)



Site Plan Source: Lowney Architecture, 4/13/20



Figure 1



Memorandum

Date: June 26, 2020
To: Keith Rogal, SRDT Holdings and Jack Robertson, Tableau Development
From: Kari McNickle and Ian Barnes, Fehr & Peers
Subject: **Parking Demand Analysis for the One Santa Rosa Avenue Project**

WC20-3727

This memorandum documents the results of a parking demand and supply analysis conducted for the One Santa Rosa Avenue project. The proposed project includes a seven-story, mixed-use, multifamily residential building with 120 residential dwelling units and a 500 square foot café on the ground floor. The project will be constructed at the southwest corner of Santa Rosa Avenue/Third Street and will be located approximately one-half mile from the Santa Rosa Downtown SMART station and immediately adjacent to the downtown Santa Rosa transit mall. The strategy to satisfy the City's parking requirements for the project includes the utilization of spare parking capacity in the existing, City-owned Garage 12 at 555 First Street (located across the transit mall from the proposed project). The City of Santa Rosa's residential parking minimum for the Downtown area is one (1) space per dwelling unit.

The parking demand analysis summarized in this memorandum answers the following questions:

1. What is the project's projected residential parking demand relative to the City's specified residential parking minimum for the Downtown area?
2. Does Garage 12 have enough capacity to satisfy parking demand for One Santa Rosa Avenue?

To answer these question, Fehr & Peers conducted the following analysis:

- Literature review of parking demand in suburban mixed-use, commercial and multifamily residential transit-oriented developments (TODs)
- Guidance from the Institute of Transportation Engineer's (ITE) *Parking Generation Manual, 5th Edition* and the Urban Land Institute's (ULI) *Shared Parking, 3rd Edition*.
- Analysis of Garage 12's existing parking capacity and occupancy



Literature Review

A literature review was conducted to study parking demand characteristics for mixed-use, multifamily residential and commercial projects located near high quality transit in suburban mixed-use/downtown environments compared with other suburban settings. The research suggests the following:

- A survey of several mixed-use, commercial and multifamily suburban TOD sites in Denver, Los Angeles, the San Francisco Bay Area, Seattle, and Washington, D.C. finds that parking demand at the sites were well below published data (Ewing, et. Al, 2017)
- A survey of suburban multifamily residential TODs finds an oversupply of residential parking by as much as 25-30 percent (Arrington and Cervero, 2008)
- An oversupply of parking at suburban multifamily residential TODs positively correlates with increased vehicle ownership (Cervero, et al, 2010)
- Proximity to transit, along with a walkable design and a mix of uses, significantly reduces parking demand (Cervero and Guerra, 2013)

The research indicates that suburban multifamily residential TODs generate lower parking demand than other suburban settings, particularly when accompanied with a pedestrian-oriented design and a mix of uses nearby. As compared to the baseline research numbers in the ITE *Parking Generation Manual*, these factors can reduce parking demand by 8 percent to 73 percent for multifamily residential uses.

ITE Parking Generation

Parking demand data in previous versions of the ITE *Parking Generation Manual* were based on sites that were “primarily isolated, suburban sites” that did not account for the presence of high-quality transit or a mix of nearby compatible uses such as employment, retail and restaurants. Therefore, ITE guidance often overestimates parking demand for suburban multifamily residential TODs.

However, the 5th Edition of the ITE *Parking Generation Manual* (published in 2019), studied suburban TODs specifically and differentiated parking demand within one-half mile of rail transit from parking demand outside of the one-half mile catchment area. The *Parking Generation Manual*, 5th Edition provides an 18 percent reduction factor for projects located within one-half mile of rail transit; no data on reduction factors are provided for projects located immediately adjacent to major transit hubs.

The research presented previously indicates that projects similar to One Santa Rosa Avenue typically result in parking demand that is less than the ITE guidance. Based on the research, Fehr & Peers estimates that parking demand for One Santa Rosa Avenue will be fifteen percent below the ITE 5th Gen published rates based on the project’s context, distance to compatible land uses,



and immediate proximity to a major transit hub (the Downtown transit mall). **Table 1** summarizes the parking demand calculation for the project.

Table 1: Project Parking Generation

Land Use Code	Land Use Name and Context	Dwelling Units	Day	Peak Demand Time	Unadjusted Demand Generated per unit	Estimated Unadjusted Parking Demand	Estimated Parking Demand with 15% reduction
221	Mid-rise Multifamily; General Urban/Suburban	120	Weekday	10 PM – 5 AM	1.12	134	114
			Saturday	11 PM – 7 AM	1.15	138	117
			Sunday	11 PM – 7 AM	1.00	120	102

Source: ITE Parking Generation Manual, 5th Edition; Fehr & Peers, 2020.

The City's residential parking minimum of 1 space per dwelling unit for the Downtown area would result in a residential parking requirement of 120 spaces for the One Santa Rosa Avenue project. Providing this amount of parking would provide additional flexibility in case parking demand is slightly higher than estimated. Also, the changes envisioned in the Downtown Station Area Specific Plan could result in even more interactions between the project and other nearby sites, thus reducing the need for parking supply even further.

For the ground-floor café, an estimated three (3) spaces should be provided for employees. It is assumed that patrons will mostly likely be tenants who live in the building, along with visitors and employees already doing business in the Downtown area.

ULI Shared Parking

The *ULI Shared Parking Manual, 3rd Edition*, was employed to estimate when peak demand would occur for each land use and whether the mix in land uses would result in competing parking demand. Based on ULI guidance, peak parking demand for the café would occur between 12:00pm and 2:00pm while peak demand for residential units occurs overnight. Non-residential uses typically generate peak parking demand during the midday and early evening. This indicates that the mix of uses proposed by the project would not result in competing parking demand.

Garage 12 Occupancy

A review of Garage 12 parking occupancy data was conducted to verify whether Garage 12 has sufficient spare capacity to satisfy the project's residential parking demand, along with existing parking demand. Garage 12 is a City-owned parking garage with 688 total parking spaces located at 555 First Street. The City of Santa Rosa provided Fehr & Peers with parking occupancy data for



Garage 12 from March 2019 to March 2020 (i.e. before the Covid-19 shelter-in-place order was issued).

In the one-year time period of data provided, the highest observed one-hour occupancy in Garage 12 over the entire data set was 58 percent, or 399 spaces occupied. Therefore, even at the peak maximum of observed occupancy for Garage 12, there would be 289 spaces available, which would be more than sufficient to accommodate the parking needs of the One Santa Rosa Avenue project (120 vehicles for residential and three café employees). This scenario assumes that the peak of One Santa Rosa Avenue demand and general public parking demand are in-line with one another. However, these peak periods would generally not be in alignment, as the peak demand hours for residential parking are overnight (ranging from 10:00pm to 7:00am, per ITE and ULI), and as such there is little impact expected during the current peak occupancy hours at the garage, which are from 12:00pm to 5:00pm.

Conclusions

Based on our analysis, Fehr & Peers concludes the following:

- Project parking demand can be satisfied by providing supply in-line with the City's residential parking minimum for the Downtown area of one (1) space per dwelling unit (120 total spaces for the project) and approximately three (3) employee spaces for the café.
- Garage 12 has enough capacity to accommodate the project's residential and commercial parking demand with room to spare, even at peak maximum occupancy (per data provided by the City).

Research suggests that suburban, multifamily residential TODs generate lower parking demand due to their proximity to transit, walkable design, and mix of uses nearby. Furthermore, a survey of suburban, multifamily residential TOD sites reveals an oversupply of parking. The findings of these research studies are confirmed by the latest edition of ITE's *Parking Generation Manual*, which accounts for parking demand at suburban sites within one-half mile of a rail station. ITE finds that mid-rise, multifamily residential parking demand within one-half mile of transit falls within the range of 0.85 – 1.15 spaces per unit. Garage 12 parking occupancy data provided by the City of Santa Rosa indicates that the facility has the spare capacity to accommodate the range of parking demand for the project (plus additional spaces to accommodate future parking demand from other nearby uses), even at existing peak occupancy.

If you have any questions, please contact Kari McNickle and Ian Barnes at (925) 930-7100.