

# Memorandum

Date: March 4, 2021  
To: Thomas A. Robertson, IGH Partners, LLC, Manager of 425 Humboldt, LLC  
From: Mike Hawkins, PE & Ian Barnes, PE, Fehr & Peers  
Subject: **Traffic Technical Operational Memorandum for the 425 Humboldt Street Project in Downtown Santa Rosa, California**

SF21-1147

## Introduction

This memorandum documents the results of a traffic technical operational analysis conducted for the 425 Humboldt Street project ("Project"). The Project includes two-story podium parking with six stories above in two towers. The eight-story, mixed-use, multifamily residential project includes 94 residential dwelling units and up to 2,100 square foot office space on the ground floor and second level. The actual amount of proposed office space is likely to be closer to 2,000 square feet, however, this assessment assumes slightly more to provide a more conservative analysis. The first and second levels include a two-story lobby and a two-level office space, both facing Humboldt Street. The residential unit mix consists of six studios, 64 one-bedroom units, and 24 two-bedroom units. The Project site is bounded by Humboldt Street and Riley Street between 5<sup>th</sup> Street and 7<sup>th</sup> Street in downtown Santa Rosa. The Project will replace an existing 5,700 square foot (approximately) office building currently occupying the site. The Project site is located approximately 0.75 miles in walking distance from the Santa Rosa Downtown SMART station and approximately 0.25 miles in walking distance from the Second Street Transit Mall. The Project also includes 71 parking stalls in a two-story podium parking configuration.

Based on the location of the Project and the trip generation characteristics of the project (i.e. the Project is projected to generate less than 50 peak hour trips), City of Santa Rosa staff determined that a full Traffic Operational Analysis is not required. However, a Traffic Technical Operational Memorandum 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, 10<sup>th</sup> Edition*. Based on the Project characteristics (eight-story residential/office mixed use) and surrounding land use context (multi-use urban area), data from Land Use Code 221 – *Multifamily Housing Mid-Rise* and from Land Use Code 712 – *Small Office Building* were used. Trips associated with the existing office space are also calculated and subtracted from total Project trips to calculate total net new trip generation for the site. There is some potential for internalization with the mix of land uses (e.g. residents that also work or visit the office space); however, no internalization reduction was accounted for in order to provide a more conservative analysis. Additional reductions associated with trips taken to/from the site via transit, bicycle, or walking were also not accounted for to, similarly, present a more conservative analysis. **Table 1** presents the net new trip generation calculation for the Project.

**Table 1: Project Trip Generation**

Land Use	Quantity <sup>1</sup>	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Existing Office (to be removed) <sup>2</sup>	5,700 sf	-9	-2	-11	-4	-10	-14
New Residential <sup>2</sup>	94 du	8	24	32	26	16	42
Replacement Office <sup>2</sup>	2,100 sf	3	1	4	2	3	5
<b>NET NEW TOTAL</b>		<b>2</b>	<b>23</b>	<b>25</b>	<b>24</b>	<b>9</b>	<b>33</b>

Notes:

1. Land use quantities expressed in terms of square feet (sf) for office and number of dwelling units (du) for residential.
2. Trip generation estimated using data from the Institute of Transportation Engineers' *Trip Generation Manual, 10<sup>th</sup> Edition*, using Land Use Code 712 – Small Office Building and Land Use Code 221 – Multifamily Housing Mid-Rise

Source: Fehr & Peers, 2021

As noted in **Table 1**, the Project is forecast to generate 25 net new weekday AM peak hour trips and 33 net new PM peak hour trips, or less than one car per minute in each of the peak hours. These trips would be concentrated at the Project's two driveways on Riley Street and at the City Garage 3 entrance/exit located at Fifth Street and Beaver 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.

## Vehicle Miles Traveled

California Senate Bill 743 (SB 743) changes the metric used to evaluate transportation impacts. Vehicle delay-based metrics such as Level of Service (LOS) are no longer appropriate for determining a project's environmental impact. The California Governor's Office of Planning and Research (OPR) has issued a technical advisory that recommends vehicle-miles traveled (VMT) be used at the new metric in order to align with state greenhouse gas (GHG) reduction planning goals, multimodal transportation, and land use diversity. The City of Santa Rosa is in the process of preparing guidelines for VMT analysis. The City has outlined VMT guidelines in *Vehicle Miles Traveled (VMT) Guidelines Final Draft*, dated June 5, 2020, including existing VMT levels, VMT thresholds for land use and transportation projects, screening maps, and VMT reduction strategies. Effective July 1, 2020, new land use and transportation projects will be required to comply with the Draft VMT Guidelines.

For residential uses, the City of Santa Rosa proposes to use an efficiency metric of VMT per capita. A significant impact may apply to a project that generates VMT at a rate higher than 15 percent below the existing regional average VMT per resident. OPR's technical advisory encourages the use of screening maps to establish geographic areas that achieve 15 percent below the regional average to simplify VMT assessment by allowing lead agencies to "screen" projects in those areas from quantitative VMT analysis since impacts can be presumed to be less than significant. The Sonoma County Transportation Authority (SCTA) prepared a draft screening map for the City of Santa Rosa that identifies area that have been identified as being within a transit priority area (areas within 0.5 miles of a rail station), along high-quality transit corridors (areas within 0.5 miles of transit routes with 15-minute or less peak headways), and areas with residential VMT per capita that is currently lower than 15 percent below the countywide average. The Project site is within a screened area based on its proximity to a high quality transit corridor (located less than 0.5 miles from the 2<sup>nd</sup> Street Transit Mall). Therefore, it is reasonable to conclude that the project would have a less-than-significant VMT impact associated with resident travel.

SCTA has also prepared a draft screening map for employment land uses. While the proposed office land use is not a new land use for the site, it is also located within 0.5 miles of a high-quality



transit corridor and would be expected to have a less-than-significant impact on VMT based on the employment screening map. A copy of the VMT screening maps is attached.

## **Site Access Review**

### **Vehicle Access**

The Project site currently has four driveways – one on Humboldt Street and three on Riley Street. With construction of the Project, access will be reduced to two driveways on Riley Street only, both serving as two-way entries and exits. This eliminates potential driveway conflicts on Humboldt Street. Riley Street is a one-way, lightly-traveled alley that serves primarily as service access to commercial businesses whose public entry points face Mendocino Avenue and for access to parking lots and covered parking along the eastern side of Riley Street.

Each of the new driveways will be 20 feet wide, in accordance with City design standards. Parking stalls will range from 9 to 10 feet in width, also consistent with City standards.

### **Pedestrian, Bicycle, Transit Access**

Given the proximity of the Project site to local transit stops located two blocks away on B Street, the 2<sup>nd</sup> Street Transit Mall, and to the Sonoma-Marin Area Rail Transit (SMART) Santa Rosa Downtown station, it is expected that many project residents/employees/visitors will use transit to travel to and from the Project site. Continuous sidewalks on Humboldt Avenue and Riley Streets provide access to the nearby transit stops and effectively link the project site to the surrounding pedestrian network, plus many shops and restaurants, including the nearby Santa Rosa Plaza Shopping Center.

The SMART train provides service between the Sonoma County Airport and Downtown San Rafael with stops in Santa Rosa, Rohnert Park, Cotati, Petaluma, and Novato. The Santa Rosa Downtown Transit Mall is serviced by Santa Rosa City Bus, Sonoma County Transit, Golden Gate Transit, and Mendocino Transit, which provide service locally and regionally to surrounding counties. The Downtown Transit Mall is located approximately 0.25 miles to the south of the project site. While the Downtown Santa Rosa SMART station is located approximately 0.75 miles west of the project site (not within the one-quarter mile walking distance typically considered “convenient”), the station is regionally serving and will still attract riders from the Project site. It is also located within a comfortable biking distance for most people.

Adjacent to the Project, Humboldt Street is designated as a Class IIIB bicycle boulevard. The Humboldt Street bicycle boulevard is a major north-south connector that connects the Project site to the City’s extensive system of bicycle routes and allows bicycle travel to the downtown and to major employment centers, such as Santa Rosa Community College, Sonoma County’s Administrative Center and the Kaiser Permanente Hospital and Clinics. Several other nearby roads



are designated as bicycle friendly with slower vehicle traffic, including 5<sup>th</sup> Street, 7<sup>th</sup> Street, and D Street. There are also Class II bike lanes on 3<sup>rd</sup> Street west of E Street.

### **Emergency Vehicle Access**

Overhead power and communication lines will be undergrounded along both the Humboldt and Riley Street Project frontages in compliance with the local Fire Code allowing emergency access along both street frontages. The Project will not impede access to the fire hydrant along its frontage on Humboldt Street nor to the fire hydrant located across Riley Street opposite the Project.

### **Loading**

On-street loading space will be necessary 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. The Riley Street and Humboldt Street frontage currently includes metered parking on both sides of the street. A 60-foot yellow curb loading zone is located on Riley Street directly across from the proposed Project driveways. This yellow zone can be utilized for resident move-in/move-out activity as well as for delivery trucks serving the site.

To accommodate passenger pick-up/drop-off activity associated with the project (as well as for other uses in the immediate vicinity), it is recommended that two on-street parking spaces along the Humboldt Street frontage of the project site directly in front of the Project's main entrance be converted to a white-curb passenger loading zone.

### **Sight Distance Review**

At driveways, a clear line of sight should be maintained between the driver of a vehicle waiting on the driveway and the driver of an approaching vehicle. Sight distances along Riley Street at the proposed location of the new driveways were evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. The recommended sight distances for minor street approaches that are driveways are based on stopping sight distance.

For the posted 25 mph speed limit on Riley Street, the recommended stopping sight distance is 150 feet. Based on a review of the field conditions, sight distance at the proposed driveway locations extends at least 200 feet in both directions, which satisfies requirements for speeds up to 30 mph. Additionally, Riley Street is straight and on a flat grade, so adequate sight lines are available for a following driver to observe and react to a motorist slowing or stopping to turn into the project driveway. Upon construction of the project, some on-street parking spaces on Riley Street directly adjacent to the proposed driveways may need to be removed and curbs painted red to maintain adequate sight distance.



Pedestrian sight distances along Riley Street at both driveways will be preserved by the presence of planted beds located on both sides of the driveways. As proposed in the site plan, plants in the beds will have a height of no more than three feet and would extend onto the sidewalk approximately two feet preserving pedestrian sight lines and allowing pedestrians to see vehicles before vehicles enter the sidewalk. Generally, sight lines should be kept clear between three and seven feet in height within the vision triangle, so it is recommended that the plants have a height of no more than three feet. This would allow planting of low-lying vegetation that could grow up to one foot in height without restricting sight lines. This improvement would result in clear sight lines of as described above and are adequate considering its 25 mph speed limit.

The final site plans for development should be reviewed by City staff for sight distance obstructions prior to the issuance of building permits.

## **Parking**

The Project is located within the Downtown Station Area Specific Plan (DSASP) area and is subject to its parking policies and goals. The DSASP removes minimum parking requirements for all development in the Downtown Station Area and allows for unbundled parking, allowing greater flexibility for developers to right-size their parking. The Project as proposed includes 71 covered parking stalls located in a two-story parking podium configuration. The project site is also approximately one block from the City of Santa Rosa's Garage 3 located at Fifth Street and Beaver Street with 708 spaces and currently over 200 parking permits available. Both Humboldt Street and Riley Street offer metered on street parking. Parking demand for residential uses peaks during evening and weekend periods when nearby office uses experience their lowest parking demand levels. Additionally, on-street parking is free between the hours of 6:00 PM and 9:00 AM. Between provided on-site parking, available garage parking, and available on-street parking, the available parking supply in the vicinity of the Project is expected to be adequate to accommodate the peak parking demand for the Project.

The project design includes secure bicycle parking for 20 bicycles with room for expansion if warranted by future demand. Bicycle parking meets the City of Santa Rosa requirements.

## **Conclusions**

The Project is forecast to generate 25 net new weekday AM peak hour trips and 33 net new weekday PM peak hour trips. While the Project trips would be concentrated at the Project driveways on Riley Street and the driveways for City Garage 3 on Orchard and Beaver Streets near 5<sup>th</sup> Street, the less than one car per minute (during the peak hours) generated by the Project is expected to be accommodated by the downtown street grid, and thus the Project is not anticipated to result in a substantial effect on roadway and intersection operations in the vicinity of the Project site.



The Project is expected to have a less-than-significant impact on VMT based on its proximity to high-quality transit corridor and draft screening maps provided by SCTA.

Vehicle access for the Project will be provided via two driveways on Riley Street. All driveways will be designed in compliance with City standards. Pedestrian access will be provided via sidewalks on Riley and Humboldt Streets. Bicycle access will be provided via bicycle friendly roads within the Project vicinity. Nearby local and regional transit is easily accessible from the Project site for pedestrians and bicycles. **To accommodate passenger pick-up/drop-off activity, two metered parking spaces on Humboldt Street near the Project's main entrance should be converted to white curb.**

Vehicle and pedestrian sight distance at the two Project driveways is expected to be adequate for the posted 25 mph. **Sight distance lines should be kept clear between three and seven feet in height within the sight triangles. Any plants or shrubbery in the area should be maintained so as not to impede sight distance. On-street parking on Riley Street directly adjacent to the proposed driveways should be reevaluated upon construction of the Project to ensure adequate sight distance is maintained.**

The Project includes 71 covered parking spaces which, in combination with available parking in City Garage 3 and on-street parking, is expected to be adequate to accommodate the Project's peak parking demand.

This concludes Fehr & Peers' Traffic Technical Operations Memorandum for the 425 Humboldt Street Project. Please contact Mike Hawkins or Ian Barnes at (925) 930-7100 with any questions.

## **Attachments**

**Attachment A** SCTA Draft VMT Screening Maps (updated 3-11-2020)