August 31, 2020

Mr. Matthew Cappiello
CRC Development
364 41st Street, 2nd Floor
Oakland, CA 94609

Focused Traffic Study for the Cherry Ranch Project

Dear Mr. Cappiello;

W-Trans has completed a focused analysis that addresses the potential trip generation, parking demand, and access conditions associated with the proposed Cherry Ranch housing project to be located at 930 Fresno Avenue in the City of Santa Rosa.

Project Description

The proposed project includes construction of 67 single family dwellings on a vacant lot on the east side of Fresno Avenue. The project includes 62 duplex units and five standalone homes. The site would be accessible via three access points on Fresno Avenue, with two new streets built within the site. The site plan includes sidewalk connectivity along the entire frontage with Fresno Avenue as well as the new project streets. The project site plan is enclosed for reference.

Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 10th Edition, 2017. Consideration was given to application of rates for "Single Family Detached Housing" (LU #210) to all dwellings; however, all but five units would be attached to another unit duplex-style so this land use was determined not to be a good fit for the duplexes. The ITE description for "Multi-Family Housing (Low-Rise)" (LU #220) was also reviewed, but the description says that this land use should be applied to units located in the same building with at least three other units which would not be the case with the proposed project. Due to the mixed nature and size of the housing units proposed, including both single-family detached homes and duplexes, it was determined that rates for "Residential Planned Unit Development (PUD)" (LU #270) would best represent the project. The ITE description for PUD states, "A residential planned unit development (PUD), for the purposes of trip generation, is defined as containing any combination of residential land uses." Based on application of these rates, the proposed project would be expected to generate an average of 494 trips per day, including 38 a.m. peak hour trips and 46 p.m. peak hour trips. These results are summarized in Table 1.

Table 1 – Trip Generation Summary

Land Use	Units	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Residential PUD	67 du	7.38	494	0.57	38	8	30	0.69	46	30	16

Note: du = dwelling unit

As the project would be expected to generate fewer than 50 peak hour trips, under the City's guidelines an analysis of off-site operational impacts is typically not required, so one has not been prepared.

Vehicle Miles Traveled

Senate Bill (SB) 743 established a change in the metric to be applied to determining traffic impacts associated with development projects. Rather than the delay-based criteria associated with a Level of Service (LOS) analysis, the change in Vehicle Miles Traveled (VMT) as a result of a project is now the basis for determining impacts with respect to transportation and traffic under the California Environmental Quality Act (CEQA).

For residential uses, the City of Santa Rosa uses a metric of VMT per capita. A project exceeding a level of 15 percent below the existing regional VMT per capita may indicate a significant transportation impact. The State Office of Planning and Research (OPR) encourages the use of screening maps to establish geographic areas for which the anticipated VMT would be 15 percent below regional average thresholds, allowing jurisdictions 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 and the project site is within a screened area so it is therefore reasonable to conclude that the project would have a less-than-significant VMT impact. A copy of the VMT screening map is enclosed.

Finding – Based on a draft screening map published by the City of Santa Rosa, the project is anticipated to result in a less-than-significant transportation impact on VMT.

Access Analysis

Access to the project site is proposed via three new street connections on the east side of Fresno Avenue. Terrabrook Drive would loop around the project site and intersect Fresno Avenue in two locations. The second project street, called "Street A", would run parallel to Fresno Avenue before bending and intersecting opposite New Zealand Drive. Fresno Avenue would be widened along the project frontage as part of the project, consistent with the City's future plans for the roadway, including a center median, travel lane, bike lane, and separated sidewalk. The project would have three access points which satisfies City Street Design Standards that require projects with more than 50 residential units to provide a secondary access point.

Finding – Site access would be expected to operate acceptably.

Sight Distance

Sight distances along Fresno Avenue at the proposed new intersections were evaluated based on sight distance criteria contained in the *Highway Design Manual, 6th Edition* published by Caltrans. The recommended sight distances for minor street approaches to intersections are based on corner sight distance. For the posted 25-mph speed limit on Fresno Avenue, the recommended corner sight distance is 275 feet. Based on a review of the field conditions, sight distances at all of the proposed intersection locations extend more than 300 feet in both directions so are adequate for the posted speed limit. Similarly, sight lines along Fresno Avenue approaching the project access points are more than adequate to allow a following driver to observe and react to a vehicle stopped in the roadway while the driver waits to turn left into the site.

Finding – Based on field observations and the project site plan, sight distances along Fresno Avenue are adequate to accommodate all turns into and out of the site.

On-site Circulation

As proposed, Terrabrook Drive would vary in width from 24 to 36 feet depending on the presence of street parking on one side, both sides, or no street parking. Street A would be 24 feet wide and would have no street parking. All project streets would be wide enough to accommodate two-way traffic as well as emergency response vehicles. The proposed street cross-sections are shown on the enclosed plans.

Finding – On-site circulation would be expected to operate acceptably.

Alternative Modes

Given the proximity of the project site to the transit stops located north of Deuce Drive on Fresno Avenue and west of Fresno Avenue on Sebastopol Road, it is reasonable to assume that some project residents would want to use transit for trips from and to the project site. Continuous sidewalks would be constructed along the site's frontage with Fresno Avenue and along both sides of the new streets to be constructed within the project site. Residents would be able to use the project sidewalks, existing sidewalks on the west side of Fresno Avenue south of Sebastopol Road, and an existing four-foot paved shoulder on the east side of Fresno Avenue to reach the nearest transit stops, which are within an acceptable walking distance from the site of less than one-quarter mile.

The southbound transit stop on Fresno Avenue north of Deuce Drive is on the opposite side of the street as the project so consideration was given to the need for a marked crosswalk and enhanced crossing device on Fresno Avenue near New Zealand Avenue. The *National Cooperative Highway Research Program* (NCHRP) Pedestrian Crossing Treatment Worksheet was completed to help determine what, if any, crossing measures would be warranted at this location. The worksheet recommends pedestrian treatment devices such as Rectangular Rapid Flashing Beacons (RRFBs), In-Roadway Warning Lights (IRWLs), High Visibility markings, and signage depending on pedestrian and vehicle volumes and geometrics of the crosswalk. Based on vehicle volume data collected in August 2018 and with the addition of project-related traffic, a minimum of 20 pedestrian crossings would be needed within a single hour at this location for installation of a marked crosswalk to be warranted. Further, approximately 600 pedestrian crossings would be needed to warrant installation of an enhanced crossing device such as an RRFB or vehicle volumes would need to increase by nearly 600 percent with 20 pedestrian crossings. Given the size of the project, it is unlikely that it would result in 20 crossings. The unmarked condition where pedestrians understand that they must carefully observe oncoming traffic before crossing is therefore considered the best safety option for this specific location as crosswalks can give pedestrians a false sense of security that can result in less safe conditions, especially if the crosswalk is used infrequently. The NCHRP Pedestrian Crossing Treatment Worksheet is enclosed.

In the project vicinity there are existing Class II bicycle lanes in the southbound direction on Fresno Avenue between Sebastopol Road and approximately 150 feet south of New Zealand Avenue, and on Sebastopol Road between approximately 450 feet west of Campoy Street and Fresno Avenue and between Corporate Center Parkway and Avalon Avenue. According to the *Santa Rosa Bicycle and Pedestrian Master Plan*, there are plans to provide Class II bike lanes on Fresno Avenue between New Zealand Avenue and Finley Avenue and on Sebastopol Road between Fresno Avenue and Corporate Center Parkway. The project is consistent with this plan as the planned northbound bike lane on Fresno Avenue would be constructed along the project frontage as part of the project.

Finding – Access for pedestrians, bicyclists, and transit riders would be adequate.

Recommendation – The project should include construction of a Class II bike lane along the project's frontage on Fresno Avenue, as proposed.

Parking

Based on the site plan, the proposed project would provide 194 parking spaces, including 89 in garages, 67 in driveways, and 38 on-street spaces. Per Section 20-36.040 of the City of Santa Rosa Zoning Code, single-family attached housing (duplex units) with two or more bedrooms are required to provide one covered space per unit and one and one-half visitor spaces per unit, which may be uncovered. Single family detached homes are required to provide four spaces each, one of which must be covered. Based on application of standard City rates, the project would need to provide a total of 175 parking spaces on-site, 67 of which would need to be covered. With a

proposed supply of 194 spaces, including 89 in garages, the project would exceed City requirements. The proposed supply and City requirements are shown in Table 2.

Table 2 – Parking Summary

Land Use	Units	Rate	Parking Spaces
City Required Parking			
Duplex (2+ bedrooms)	62 du		
Covered Spaces		1.0 space/du	62
Uncovered Visitor Spaces		1.5 space/du	93
Single Family Detached Housing	5 du		
Covered Spaces		1.0 space/du	5
Uncovered Visitor Spaces		3.0 space/du	15
Total City Requirements			*175*
Proposed Parking Supply			**194**

Notes: du = dwelling unit

Finding – The proposed parking supply would be adequate to satisfy City requirements.

Bicycle Parking

As proposed, all units would have a garage in which to store their bicycles, therefore additional bicycle storage facilities are not necessary.

Finding – Residents would be able to store bicycles in their private garages, so no parking facilities are required.

Conclusions and Recommendations

- The proposed project is expected to generate an average of 494 new daily vehicle trips, including 38 trips during the morning peak hour and 46 trips during the evening peak hour.
- The proposed project is expected to have a less-than-significant transportation impact on VMT.
- Site access via Fresno Ave and the proposed new project streets would be expected to operate adequately.
- Sight distance is adequate at all the proposed access points on Fresno Avenue to accommodate all turns into and out of the site.
- On-site circulation would be expected to operate acceptably as proposed.
- The proposed vehicle and bicycle parking supplies comply with City requirements.
- Access for pedestrians, bicyclists, and transit riders would be adequate. A marked crosswalk would not be warranted on Fresno Avenue and is therefore not recommended.
- The project frontage with Fresno Avenue should include a Class II bike lane in the northbound direction, as proposed. A bike lane is already present in the southbound direction.