Memorandum

Date: March 7, 2024

Project: SRO330

To: Jean Kapolchok
J. Kapolchok & Associates

From: Dalene J. Whitlock
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Subject: Updated Trip Generation and Trip Length Information for Elm Tree Station

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As requested, and to support the analysis of greenhouse gases (GHG), we have reevaluated the proposed project's anticipated trip generation based on current rates as new data has been published since the traffic study for the project was prepared in 2013.

Project Description

The project as evaluated in the *Traffic Impact study for the Elm Tree Station Project*, July 26, 2013, included an approximately 3,500 square foot community grocery store, a gasoline station with twelve fueling positions and four electric vehicle charging stations along with an approximately one-quarter acre open space and bicycle path with a small commercial building (approximately 432 square feet). Additionally, a single apartment would be constructed on the site which is planned to be occupied by a site caretaker employee.

Trip Generation

The anticipated trip generation for the proposed project was updated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 11th Edition, 2021, for Convenience Store/Gas Station – 9-15 VFP (LU #945), and Multifamily House (Low-Rise) Not Close to Rail Transit (LU #220) as these descriptions most closely matches the proposed project.

The majority of traffic associated with both convenience store and gas station uses would be drawn from existing traffic on nearby streets. These vehicle trips are not considered "new," but are instead comprised of drivers who are already driving on the adjacent street and choose to make an interim stop. These trips are referred to as "pass-by." The percentage of these pass-by trips was based on information provided with the *Trip Generation Manual*. For the applied land use pass-by rates of 76 and 75 percent are reported for the a.m. and p.m. peak hours respectively. A rate of 75 percent was therefore applied to the daily rate.

Based on application of these assumptions, the proposed project is expected to generate an average of 2,459 trips per day at its driveway, though only 620 net new trips after the pass-by deduction is applied. These results are summarized in ~~Table~~ 1.

Table 1 – Trip Generation Summary			
Land Use	**Units**	**Daily**	
		Rate	**Trips**
Conv Store/Gas Station	3.5 ksf	700.43	2,452
Pass-by		-75%	-1,839
Multifamily Housing	1 du	6.74	7
Total New Trips			**620**

Note: ksf = 1,000 square feet; du = dwelling unit

Vehicle Miles

The Sonoma County Transportation Authority (SCTA) operates and maintains the regional travel demand model that produces traffic and VMT estimates. The most current version of the SCTM19 model, which was released in December 2021, indicates that the average trip length in the traffic analysis zone (TAZ) containing the project site is 5.67 miles.

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