

TRANSPORTATION IMPACT ANALYSIS
TWIN OAKS FUEL STATION
San Marcos, California
January 2021

LLG Ref. 3-19-3162

EXECUTIVE SUMMARY

Linscott, Law & Greenspan, Engineers (LLG) has prepared this Transportation Impact Analysis for Twin Oaks Fuel Station (“Project”). The Project site is located on approximately 2.5 acres at the southeast corner of the Twin Oaks Valley Road / Borden Road intersection and in the Commercial (C) Zoning District in the City of San Marcos. The Project site is currently vacant and unoccupied. The project proposes construction of an approximately 5,462 square feet (16 fueling pumps) gas station, approximately 2,134 square feet automated car wash, and a 4,083 square feet convenience store.

Based on the City of San Marcos’ *Transportation Impact Analysis Guidelines* (dated November 2020), the proposed Project evaluated transportation impacts under the California Environmental Quality Act (CEQA) using a Vehicle Miles Traveled (VMT) metric, pursuant to guidance from the Governor’s Office of Planning and Research (OPR) in December 2018 (*Technical Advisory on Evaluating Transportation Impacts in CEQA*).

Using the screening criteria outlined in the City’s guidelines, the Project is screened out from a detailed VMT analysis since it meets the criteria of being a locally serving retail facility with the total project land use density less than 50,000 square feet of gross floor area. Therefore, per the City’s guidelines, the Project site is presumed to have a less-than-significant transportation impact. Since the Project does not result in a significant impact, no mitigation measures are required to be implemented.

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TRANSPORTATION IMPACT ANALYSIS

TWIN OAKS FUEL STATION

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1.0 INTRODUCTION

Linscott, Law & Greenspan, Engineers (LLG) has prepared this Transportation Impact Analysis (TIA) for Twin Oaks Fuel Station (“Project”). The Project site is located at the southeast corner of the Twin Oaks Valley Road / Borden Road intersection in the City of San Marcos. The Project site is currently vacant and unoccupied. The project proposes construction of an approximately 5,462 square feet (16 fueling pumps) gas station, approximately 2,134 square feet automated car wash, and a 4,083 square feet convenience store.

This TIA has been prepared to evaluate the effects of the Project using Vehicle Miles Traveled (VMT), as proposed by the California Governor’s Office of Planning and Research (OPR) to implement California State Law Senate Bill (SB) 743 and subsequently adopted by the City of San Marcos in November 2020. The analysis methodology contained in this report utilizes the City of San Marcos’ latest *Transportation Impact Analysis Guidelines* (November 2020).

The report is organized as follow:

<i>Section 1.0</i>	Introduction
<i>Section 2.0</i>	Project Description and Trip Generation
<i>Section 3.0</i>	Report Approach
<i>Section 4.0</i>	VMT Significance Criteria & Methodology
<i>Section 5.0</i>	Project VMT Analysis

2.0 PROJECT DESCRIPTION

2.1 Project Location and Description

The Project site is located on approximately 2.5 acres at the southeast corner of the Twin Oaks Valley Road / Borden Road intersection and in the Commercial (C) Zoning District in the City of San Marcos. The Project site is currently vacant and unoccupied. The project proposes construction of an approximately 5,462 square feet (16 fueling pumps) gas station, approximately 2,134 square feet automated car wash, and a 4,083 square feet convenience store. Access to the site is proposed on Twin Oaks Valley Road only.

Figure 2-1 shows the vicinity map. *Figure 2-2* shows a more detailed project area map. *Figure 2-3* shows the Project's site plan.

2.2 Project Trip Generation

The “gasoline (with food mart and car wash)” trip rates from SANDAG’s *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002* were used to calculate the trip generation for the proposed Project.

Table 2-1 tabulates the total Project traffic generation.

As seen in *Table 2-1* the Project is calculated to generate 1,785 average daily trips (ADT) with 72 inbound / 72 outbound trips during the AM peak hour and 81 inbound / 81 outbound trips during the PM peak hour.

**TABLE 2-1
PROJECT TRIP GENERATION**

Land Use	Trip Rate & Credits	ADT ^a	AM Peak Hour				PM Peak Hour			
			% of ADT	In:Out Split	Volume		% of ADT	In:Out Split	Volume	
					In	Out			In	Out
Gasoline (with food mart and car wash) 16 vehicle fueling spaces	Trip Rate (155/vehicle fueling space) ^b	2,480	8%	50:50	100	100	9%	50:50	112	112
	Pass-By (28%)	695			28	28			31	31
	Cumulative (72%)	1,785			72	72			81	81

Footnotes:

- a. Traffic volumes expressed in vehicles per day.
- b. Per SANDAG, the trip rate for “gasoline with food mart and car wash” is 155/vehicle fueling space with AM splits as 8% of ADT with 50:50 (in:out). PM splits are 9% of ADT with 50:50 (in:out). The pass-by percentage per SANDAG is 28%.

General Notes:

1. Rate is based on SANDAG’s *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002*.
2. Driveway Trips – vehicles entering and exiting Project driveway (Driveway = Cumulative + Pass-By).
3. Cumulative Trips – net new vehicles added to the street network.
4. Pass-By Trips – vehicles already on the street network diverting to the Project site.



Figure 2-1

Vicinity Map

TWIN OAKS FUEL STATION

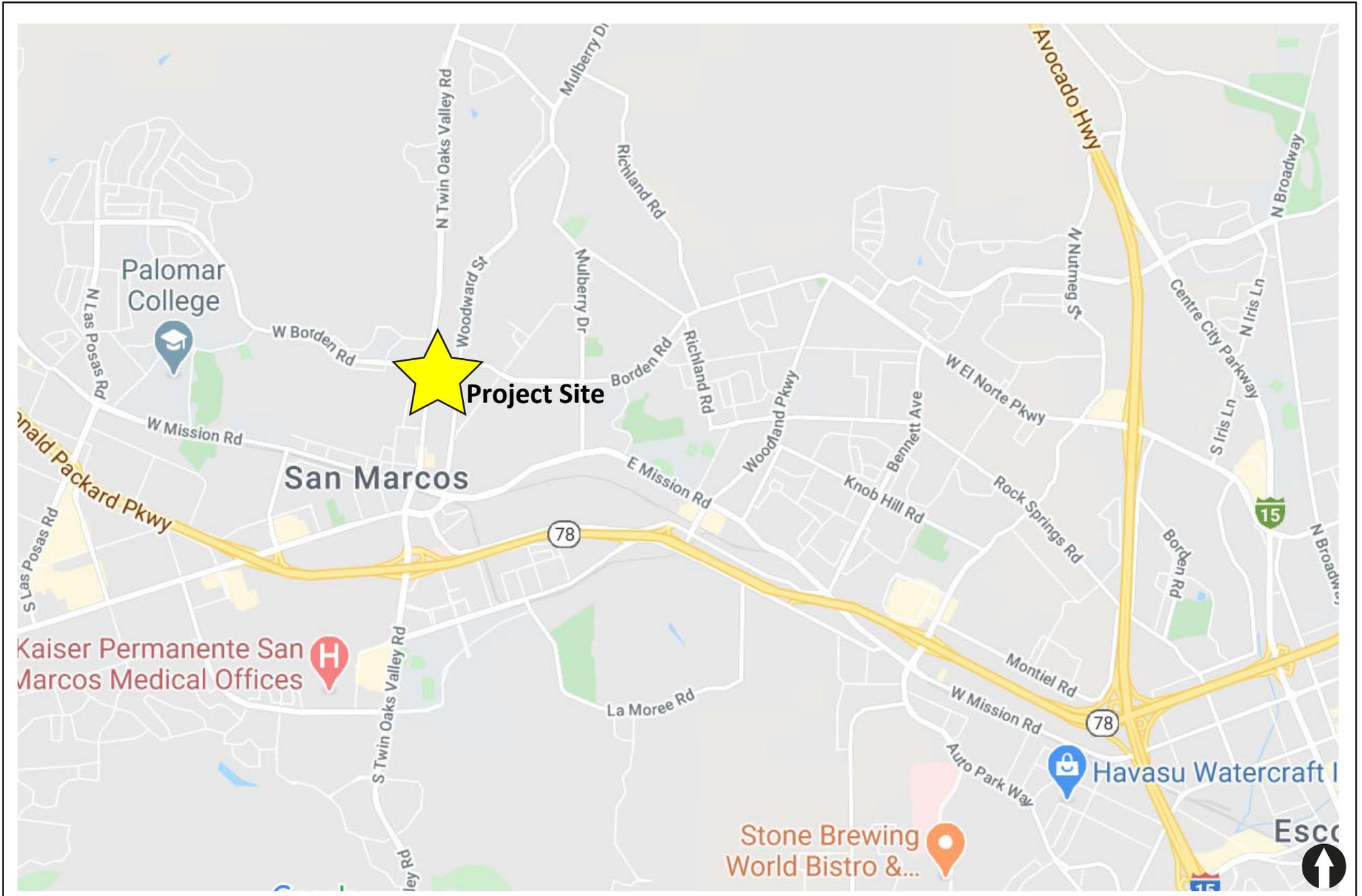
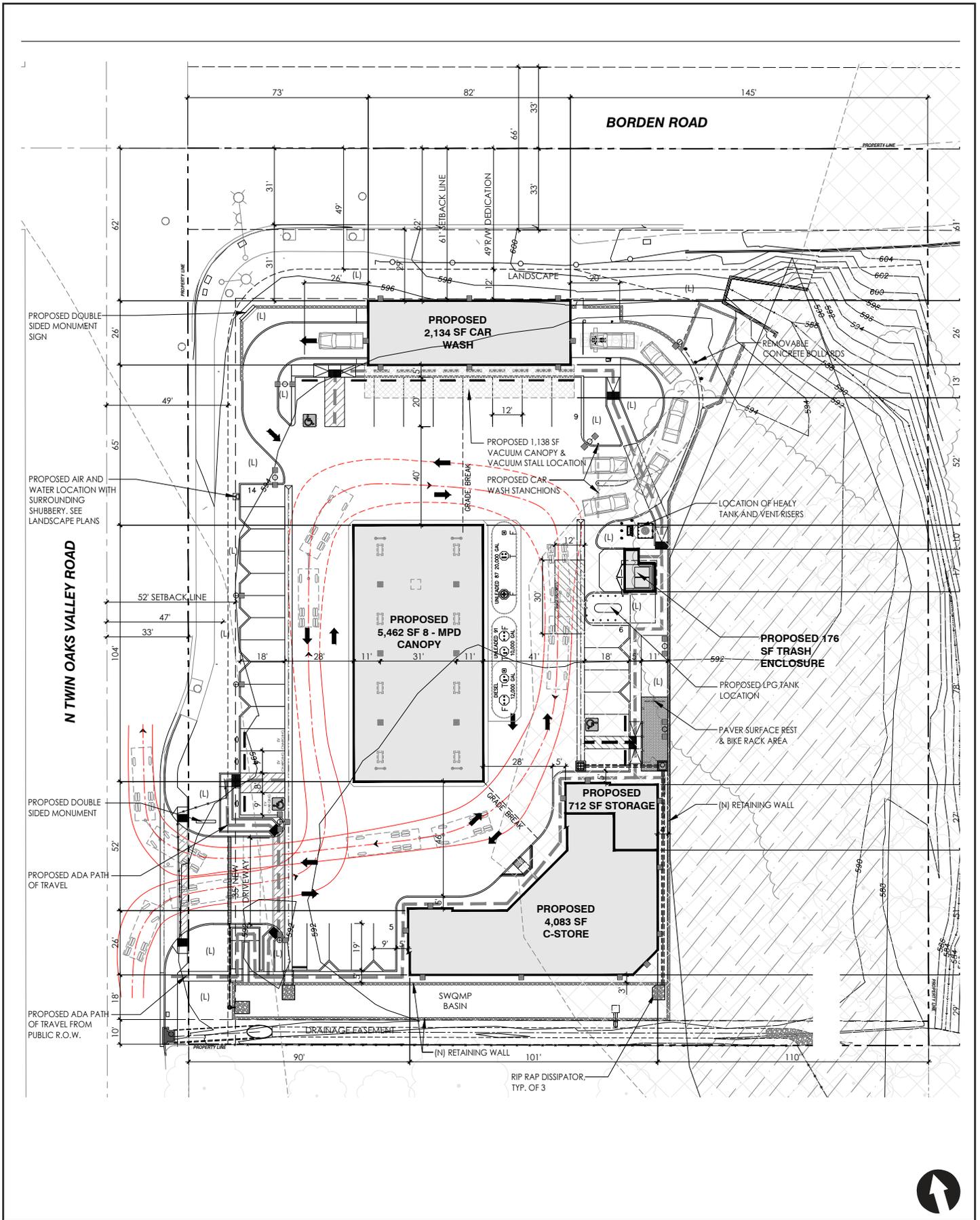


Figure 2-2

Project Area Map



3.0 REPORT APPROACH

3.1 VMT Background

Vehicle Miles Traveled (VMT) is defined as the “amount and distance of automobile travel attributable to a project” per CEQA Guidelines Section 15064.3. VMT is a measure of the use and efficiency of the transportation network as well land uses in a region. VMT is calculated based on individual vehicle trips generated and their associated trip lengths. VMT accounts for two-way (roundtrip) travel and is estimated for a typical weekday for the purposes of measuring transportation impacts.

3.2 Transportation Analyses

The potential transportation impacts of the proposed Project are based on VMT to satisfy the California Environmental Quality Act (CEQA) guidelines through SB 743. Public Resources Code section 20199, enacted pursuant to SB 743, identifies VMT as an appropriate metric for measuring transportation impacts along with the elimination of auto delay/Level of service (LOS) for CEQA purposes statewide.

4.0 VMT SIGNIFICANCE CRITERIA & METHODOLOGY

4.1 Significance Criteria

The *Transportation Impact Analysis Guidelines* has been published by the City of San Marcos in November 2020 and was utilized for this report for evaluating Project impacts using VMT.

According to the City of San Marcos’ guidelines, the transportation VMT thresholds of significance are shown in *Table 4-1*.

TABLE 4-1
VMT SIGNIFICANCE THRESHOLDS

Land Use Type	Thresholds for Determination of a Significant Transportation VMT Impact ¹
Residential Uses	15% below countywide average ² Resident VMT/Capita
Employment Projects	15% below countywide average ² Employee VMT/Employee
Retail Uses	Zero net increase in total citywide VMT ²
Mixed-Use	Evaluate each component of a mixed-use project independently and apply the significance threshold for each land use type, incorporating internalization reductions.
Redevelopment (replaces existing uses)	If the project results in a net increase in VMT, apply the appropriate significance threshold for the project land use type(s)
Hotel	Use Employment Projects Threshold
Medical Office	Use Employment Projects Threshold
School/College	Use Retail Uses Threshold
Recreational Facilities	Use Retail Uses Threshold
Churches and Other Religious Institutions	Use Retail Uses Threshold

Source: City of San Marcos’ Transportation Impact Analysis Guidelines (November 2020)

Footnotes:

1. Projects that exceed these thresholds would have a significant impact.
2. The countywide average and total citywide VMT are determined using the most recent version of the base year SANDAG Regional Travel Demand Model or the SANDAG online mapping tool.

4.2 Technical Methodology

The technical approach for the Project is broken into the following two components.

- City of San Marcos Screening Criteria
- VMT Analysis Methodology

4.2.1 *City of San Marcos Screening Criteria*

According to the City of San Marcos guidelines, a project that meets at least one of the following screening criteria would have less than significant VMT impact due to project characteristics and/or location.

1. **Small Project:** The project is a small project defined as generating less than 110 daily driveway trips using SANDAG trip generation rates and is consistent with the City's current General Plan.
2. **Affordable Housing:** The project is a residential project with 100 percent deed restricted affordable housing. If the project contains less than 100 percent affordable housing, the portion that is affordable should be screened out of needing a detailed VMT analysis. Projects can only be screened out if they are located in parts of the city that have been identified by SANDAG and the City as Smart Growth Opportunity Areas.
3. **Locally Serving Retail and Public Facilities:** The project is a locally serving retail project defined as having 50,000 square feet gross floor area or less. Retail can include shopping centers as well as standalone uses such as commercial shops, gas stations, and restaurants.

Uses that are local-serving public facilities include, but are not limited to the following: public services (e.g. police, fire stations, public utilities), local-serving neighborhood schools, and local neighborhood parks.

4. **Adjacent to High-Quality Transit:** The project is located in a high-quality transit area which is defined as the one-half mile walkshed around either of the following:
 - An existing major transit, defined as a site containing an existing rail transit station or the intersection of two or more major bus routes with a combined frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods (typically defined as 7:00 AM to 9:00 AM and 4:00 Pm and 6:00 PM, respectively). In addition, a rail transit station must be within 0.25 miles of bus stop serving at least one bus route with individual service intervals no longer than 30 minutes during peak commute periods per route in order to qualify as a high-quality transit area.
 - An existing stop along a high-quality transit corridor, defined as a corridor with fixed route bus service with combined service intervals (gaps between buses serving the corridor) no longer than 15 minutes during peak commute hours.

The project must also meet the following criteria:

- Has a floor area ratio (FAR) of equal or greater than 0.75;
 - Does not include more parking for use by residents, customers, or employees of the project than required by the City;
 - Is consistent with the City's current General Plan, as determined by the City
 - Does not replace affordable residential units with a smaller number of moderate- or high-income residential units
5. **Located in Low VMT Areas:** The project is located in an area that generates VMT below adopted City thresholds. This determination must be made using SANDAG's online residential and employment VMT maps for existing year or model baseline year VMT (whichever is available at the time analysis is being conducted), which show census tracts in the city where the VMT is below the regional average. The project must incorporate similar land use characteristics to other projects in the census tract. Map-based screening cannot be applied to a retail project, the retail portion of a mixed-use project, or any projects that are not analyzed using VMT per capita or per employee metrics.

4.2.2 *Analysis Methodology*

If a project is not screened out using City criteria, the following methodology is used for completing the VMT analysis was performed. Per the City guidelines, transportation VMT analysis for CEQA shall be conducted using the SANDAG Regional Travel Demand Model. SANDAG provides base year 2016 VMT data using the SANDAG Series 14 model. By utilizing the SANDAG screening maps, the Resident VMT per Capita and Employee VMT per Employee can be observed at both the regional and census tract level. Section 2.1.3 of the City's Transportation Impact Analysis Guidelines further details the City's methodology based on the project land use.

5.0 PROJECT VMT ANALYSIS

5.1 Screening Criteria

Based on the screening criteria described in *Section 4.2.1*, the Project is screened out from a VMT analysis as detailed below. **Table 5-1** summarizes the Project applicability of the City’s screening criteria.

TABLE 5-1
VMT SCREENING CRITERIA – PROJECT APPLICABILITY

Screening Criteria ¹	Applicable to the Project?	Project Screen out?
1. Small Project	No	—
2. Affordable Housing	No	—
3. Locally Serving Retail and Public Facilities	Yes	Yes
4. Adjacent to High Quality Transit	No	—
5. Located in Low VMT Areas	No	—

Footnotes:

1. According to the City of San Marcos Transportation Impact Analysis Guidelines (November 2020).

Screening Criteria 3 per Section 2.1.2.3 of the City’s guidelines:

Locally Serving Retail and Public Facilities: “The project is a locally serving retail project defined as having 50,000 square feet gross floor area or less. Retail can include shopping centers as well as standalone uses such as commercial shops, gas stations, and restaurants. Uses that are local-serving public facilities include, but are not limited to the following: public services (e.g. police, fire stations, public utilities), local-serving neighborhood schools, and local neighborhood parks.”

Result:

The proposed Project is a locally-serving gas station with a convenience store and an automated car wash with the total project land use density less than 50,000 square feet of gross floor area. Therefore, per the City’s guidelines, the Project site is presumed to have a less-than-significant transportation impact and does not require a detailed VMT analysis. Since the Project does not result in a significant impact, no mitigation measures are required to be implemented.

End of Report