

TECHNICAL MEMORANDUM

To: David Dewegeli, Pulte Homes
From: Carla Dietrich, Michael Baker International
CC: Elizabeth Meyerhoff, Michael Baker International
Date: May 15, 2023
Subject: Tentative Tract Map 38577 Sevilla II VMT Assessment

Introduction

The purpose of this memorandum is to document a vehicle miles traveled (VMT) assessment in support of the transportation component of the California Environmental Quality Act (CEQA) prepared for the Sevilla II Tentative Tract Map No. 38577 proposed residential development (Project) in the City of Coachella, California. A separate Traffic Analysis Study has been prepared for this Project to document traffic operations analysis and level of service. **Table 1** provides key project information. **Exhibit 1** shows the location of the Project and **Exhibit 2** shows the conceptual site plan.

Table 1: Project Information

Item	Description
Project Title	Sevilla II, Tentative Tract Map 38577
Project Location	Southwest quadrant of Van Buren Street & Via Valencia located in between Avenue 50 and Avenue 51 (City of Coachella, County of Riverside)
Assessor Parcel Numbers (APNs)	779-280-002 and 779-320-001
Travel Demand Model Traffic Analysis Zone (TAZ)	Riverside County Model (RIVCOM) TAZ 284
Existing Use	One (1) residence located in the central portion of the site, along with five (5) warehouse/ storage buildings on-site. (existing uses will be demolished)
Proposed Use	204 single family residential dwelling units
Site Area	Approximately 39 acres

Exhibit 1: Project Location

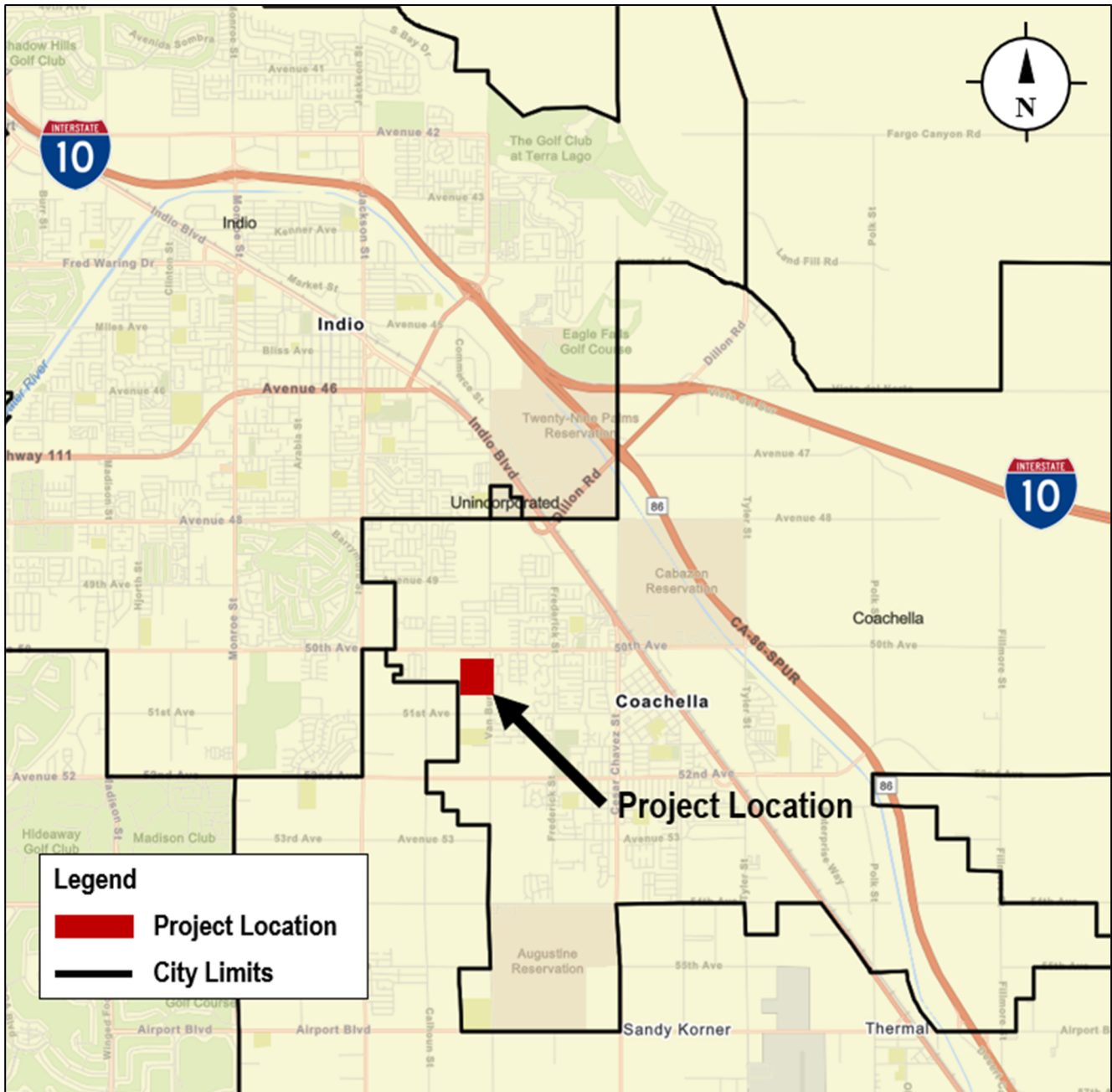
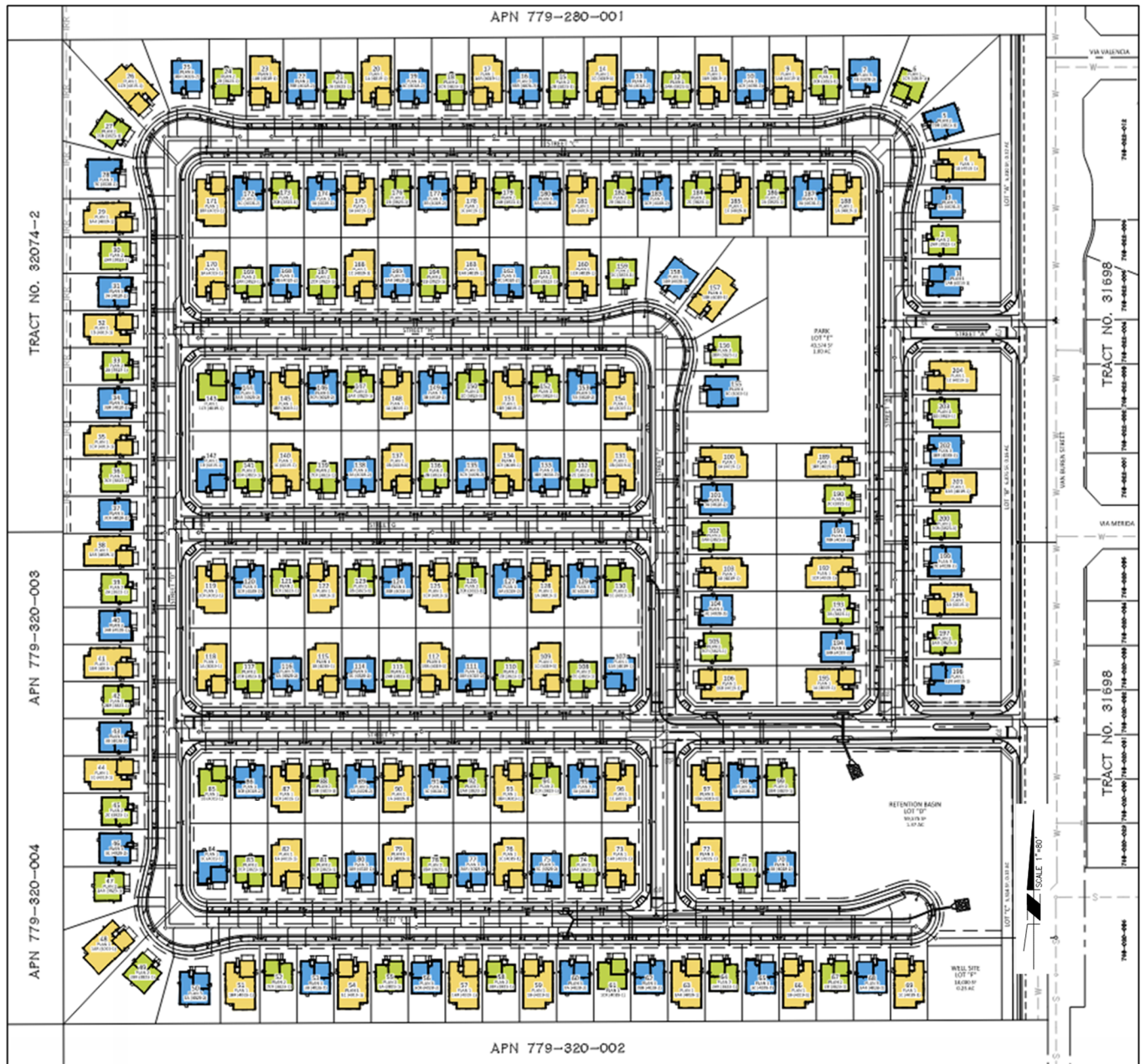


Exhibit 2: Site Plan



Source: Michael Baker International.

General Plan Consistency

The Project entitlements include a zone change and General Plan Amendment. The General Plan Amendment is required to change the site’s land use designation from General Neighborhood to Suburban Neighborhood. The Project site consists of two (2) parcels with different zoning: R-M (Residential Multiple Family) and R-S (Residential Single Family). The Project will require a zone change such that the entire site will be zoned R-S. Under the Suburban Neighborhood land use and R-S zoning, the Project is proposed to be developed at a slightly lower density than identified under the current General Plan land use designation of General Neighborhood.

Project Trip Generation

The Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition) was used to forecast vehicle trips generated by the proposed Project. **Table 2** shows the trip generation rate for Single-Family Detached Housing land use (ITE Code 210). **Table 3** summarizes the vehicular trips forecast to be generated by the Project. As shown, the project is anticipated to generate approximately 1,944 daily trips with 143 AM Peak Hour trips and 194 PM Peak Hour trips. The trip generation analysis was reviewed and approved by City staff during project scoping.

Table 2: Trip Generation Rates

Land Use	ITE Code	Daily Trips Equation	AM Peak Hour			PM Peak Hour		
			Equation	In / Out		Equation	In / Out	
Single-Family Detached	210	$\text{Ln}(T) = 0.92 \text{Ln}(X) + 2.68$	$\text{Ln}(T) = 0.91 \text{Ln}(X) + 0.12$	26% / 74%		$\text{Ln}(T) = 0.94 \text{Ln}(X) + 0.27$	63% / 37%	

Source: ITE *Trip Generation Manual*, 11th Edition.

Table 3: Estimated Site Trips

Land Use	ITE Code	Intensity		Daily Trips	AM Peak Hour			PM Peak Hour		
					Volume	In	Out	Volume	In	Out
Single-Family Detached	210	204	DU	1,944	143	37	106	194	122	72

Note: 1) DU = Dwelling Units.

Analysis Guidelines

The Riverside County *Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled* (December 2020) (County Guidelines) have been utilized as the primary resource in the development of this analysis since City-specific VMT guidelines have not yet been developed.

Screening Criteria

Land use projects that meet the County Guidelines screening thresholds identified in **Table 4** are assumed to result in a less-than-significant transportation impact under CEQA and do not require a detailed quantitative VMT assessment. **The Project does not meet any of the Screening Criteria for land use projects, thus a project-specific VMT assessment is required.**

Table 4: Screening Criteria for Land Use Projects Exempt from VMT Calculation

Category	Description	Project Assessment	Result
Small Projects	<ul style="list-style-type: none"> • Single Family Housing projects less than or equal to 110 Dwelling Units; or • Multi Family (low rise) Housing projects less than or equal to 147 Dwelling Units; or • Multi Family (mid-rise) Housing projects less than or equal to 194 Dwelling Units; or • General Office Building with area less than or equal to 165,000 SF; or • Retail buildings with area less than or equal to 60,000 SF; or • Warehouse (unrefrigerated) buildings with area less than or equal to 208,000 SF; or • General Light Industrial buildings with area less than or equal to 179,000 SF • Project GHG emissions less than 3,000 Metric Tons of Carbon Dioxide Equivalent (MTCO_{2e}) as determined by a methodology acceptable to the Transportation Department; or • Unless specified above, project trip generation is less than 110 trips per day per the ITE Manual or other acceptable source determined by Riverside County 	<p>The project proposes to construct 204 single-family residences, over the maximum 110 dwelling units. The project does not screen out as a small project.</p>	Does Not Meet
Projects Near High Quality Transit	<ul style="list-style-type: none"> • Within ½ mile of an existing major transit stop; and • Maintains service interval frequency of 15 minutes or less during the morning and afternoon peak commute periods. 	<p>The project is located within a quarter mile of Sunline Routes 6 & 8 transit stops. However, Routes 6 & 8 have service intervals of 60 minutes, and thus do not meet the criteria of a 15-minute service interval.</p>	Does Not Meet
Local Serving Retail	<ul style="list-style-type: none"> • No single store on-site exceeds 50,000 SF; and • Project is local-serving as determined by the Transportation Department 	<p>This screening criteria is not applicable since Project is a residential land use.</p>	Not Applicable
Affordable Housing	<ul style="list-style-type: none"> • A high percentage of affordable housing is provided as determined by the Riverside County Planning and Transportation Departments 	<p>All Project residences will be market rate housing. The Project does not screen out because it provides not affordable housing.</p>	Does Not Meet

Table 4: Screening Criteria for Land Use Projects Exempt from VMT Calculation (Continued)

Category	Description	Project Assessment	Result
Local Essential Service	<ul style="list-style-type: none"> • Project is local serving as determined by the Transportation Department; and • Local serving and Day care center; or •Police or Fire facility; or •Medical/Dental office building under 50,000 square feet; or •Government offices (in-person such as post office, library, and utilities); or •Local or Community Parks 	This evaluation applies to retails uses. Since the Project is a residential land use, this screening criteria does not apply.	Not Applicable
Map Based Screening	<ul style="list-style-type: none"> • Area of development is under threshold as shown on screening map as allowed by the Transportation Department 	City-approved screening maps are not available.	Not Applicable
Redevelopment Projects	<ul style="list-style-type: none"> • Project replaces an existing VMT-generating land use and does not result in a net overall increase in VMT 	Project is proposed to be constructed on existing agricultural land with one residence. The Project does not screen out since the proposed use is an increase in intensity.	Does Not Meet

Source: Category and Description obtained from the Riverside County *Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled* (December 2020).

- Notes:**
- 1) SF = Square Feet
 - 2) GHG = Greenhouse gas
 - 3) ITE = Institute of Transportation Engineers

VMT Threshold of Significance

Table 5 shows the thresholds of significance per the County Guidelines. The County has adopted the county-wide average VMT as threshold of significance. Given the proposed site use is residential, VMT per capita was considered for the overall project VMT metric in this analysis.

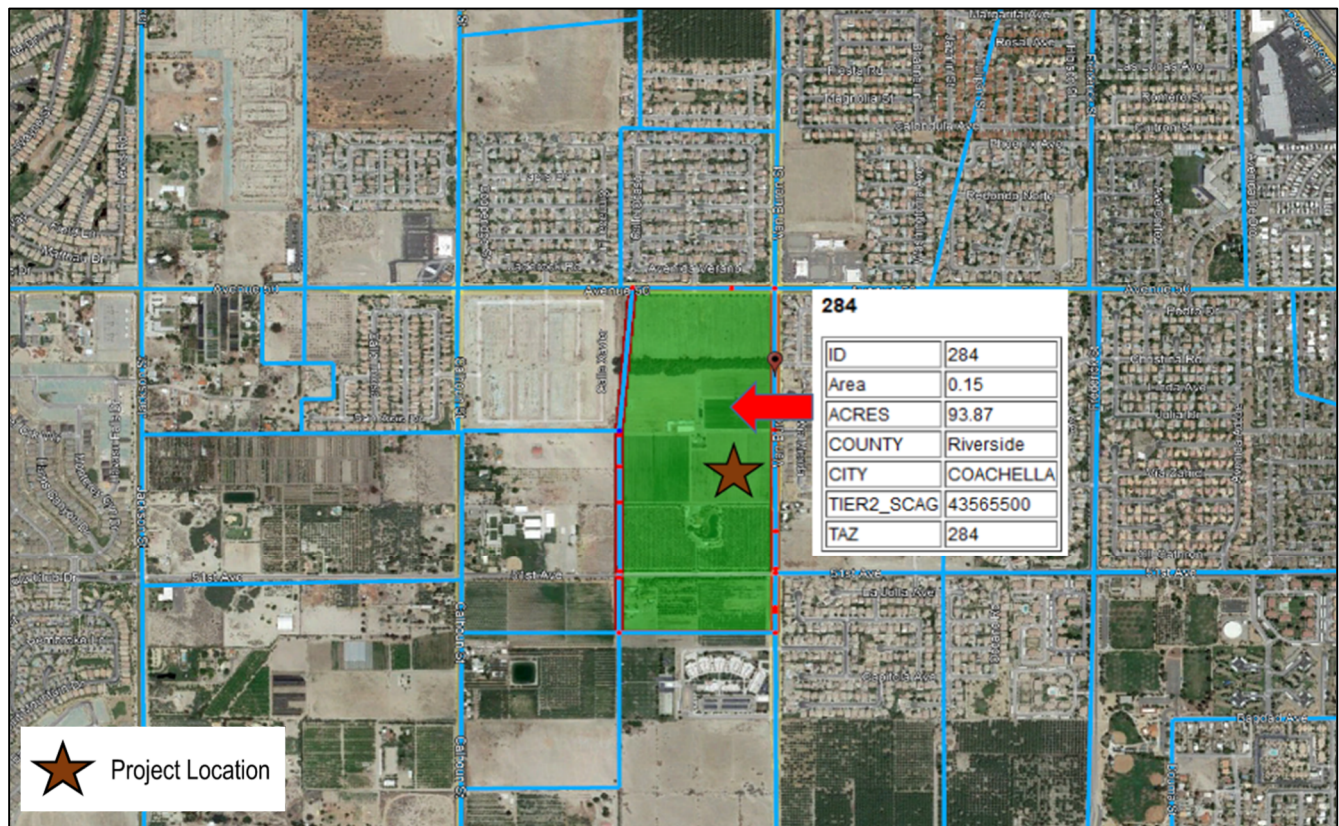
Table 5: VMT Thresholds of Significance

Land Use Type	Threshold of Significance
Residential	Existing county-wide average VMT per capita
Office	Existing county-wide average Work VMT per employee
Retail	Net increase in total VMT

Project Level VMT Assessment

Michael Baker enlisted the assistance of Translutions, Inc. to conduct the Project specific travel demand modeling evaluation using the Riverside County Model (RIVCOM) regional Travel Demand Model (TDM). The Project is located within Traffic Analysis Zone 284 (TAZ-284) of RIVCOM as shown in **Exhibit 3**.

Exhibit 3: Project Area TAZ



Source: Translutions, Inc.

The model socio-economic data (SED) includes eight (8) residential units in the base year. Consistent with County Guidelines, an empty TAZ in the area was used to code the project for the base year and future year. Also, the evaluation includes the addition of external trips (from/to the City of Coachella and from/to outside of Riverside County).

Unlike the previous Riverside County Traffic Analysis (RIVTAM) travel demand model, the RIVCOM processes the number of residential units as the input and the population is calculated using the population synthesizer built into the model. In the case of this Project, 204 residential units were added to an empty TAZ and the model's population synthesizer calculated a resulting Project population of 503. This would result in an average household size of 2.47 persons per household. Upon review of the City of Coachella demographic data (<https://www.coachella.org/about-us/demographics>), the average household size in the City is 4.68 persons per household. Reviewing TAZ's adjacent to the study TAZ it was determined that an average household size of 4.06 is included in TAZ's with similar land use characteristics and a determination was made to override the population synthesizer to represent a condition consistent with the City. Therefore, the model was updated to evaluate the 204 residential units with a projected population of 943 which results in an average household size of 4.62.

The VMT travel demand model calculation results are summarized in **Table 6**. The Project is estimated to generate a year 2018 daily total VMT of 12,783. The resulting VMT per capita is 13.6 (12,783 VMT / 943 population). A comparison of the Project VMT per capita (13.6 VMT per capita) to the County Baseline (18.3 VMT per capita) shows that the Project VMT per capita is anticipated to be 25.7% below the baseline threshold under the year 2018, therefore, **the Project is not anticipated to result in a significant transportation impact**. A future year analysis was not conducted since per the Riverside County Guidelines, Project analysis for Cumulative conditions is only required if there is a finding of a significant impact under the Baseline with Project conditions.

Table 6: VMT Summary

Category		Sevilla II Residential Project	Riverside County
2018	Total Population	943	2,358,439
	Total Employment	--	759,857
	Total Service Population	943	3,118,296
	Homebased VMT	12,783	43,061,412
	Homebased VMT Per Capita	13.6 (25.7% below County Baseline)	18.3

Conclusions

A VMT analysis was conducted since the Project did not meeting any of the screening criteria for a presumed less-than-significant impact. The results of the model run to calculate VMT showed that the Baseline condition with the Project would result in a 13.6 VMT per capita, which is below the County's 18.3 VMT per capita threshold. Therefore, **the Project would result in no significant VMT transportation impact**.