JUNE 12, 2026

Mr. Peter Carlson
CARLSON STRATEGIC LAND SOLUTIONS
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San Juan Capistrano, CA 92675

SUBJECT: POLARIS PLACE RESIDENTIAL PROJECT VEHICLE MILES TRAVELED (VMT) ANALYSIS, CITY OF ALISO VIEJO

Dear Mr. Carlson:

INTRODUCTION

RK ENGINEERING GROUP, INC. (RK) is pleased to provide this Vehicle Miles Traveled (VMT) Analysis for the proposed Polaris Place Residential Project (hereinafter referred to as "project").

This analysis has been conducted pursuant to the *City of Aliso Viejo Transportation Impact Guidelines for CEQA and General Plan Consistency,* dated May 2020 (City of Aliso Vejo VMT Guidelines) which establishes uniform analysis methodologies and thresholds of significance for determining VMT impacts under the California Environmental Quality Act (CEQA).

PROJECT DESCRIPTION

The proposed project site is located at the southwest corner of Aliso Creek Road and Polaris Way/Columbia, in the City of Aliso Viejo. The project site is currently occupied by existing general office buildings and associated parking lots.

The project proposes to demolish the existing 448,000 square feet (SF) of general office buildings and parking lot and construct 405 single-family attached residential dwelling units (DUs). As such, the project consists of a General Plan Amendment (GPA) from Professional Office to Medium Density Residential (18 du/acre) in addition to a zone change from Professional Office to Residential Medium Density.

Access to the project is proposed to remain via the one (1) signalized driveway at Polaris Way/Columbia and one (1) full-ingress/right-out only driveway along Aliso Viejo Parkway. Additional fire access is provided via one right-in/right-out gated driveway, located south of the signalized driveway.

Exhibit A shows the location map of the proposed project. **Exhibit B** presents the proposed site plan.

TRIP GENERATION

Trip generation represents the amount of traffic that is attracted and produced by a development. Typically, trip generation rates from the latest Institute of Transportation Engineers (ITE) Trip Generation Manual (12th Edition, 2025) are used when calculating a proposed project's trip generation forecast. This publication provides a comprehensive evaluation of trip generation rates for a variety of land uses.

The project proposes to demolish the existing 448,000 SF commercial building and constructing 409 single-family attached residential dwelling units. As such, ITE Land Use 710: General Office Building trip rates and ITE Land Use 215: Single-Family Attached Housing trip rates are the most appropriate for the existing and proposed land uses, respectively.

Table 1 shows the appropriate ITE trip generation rates and the forecasted project trip generation.

Table 1 | Project Trip Generation Rates & Forecast[1]

Land Use (ITE Code)	Quantity	Units[2]	Weekday						
			AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
ITE Trip Generation Rates									
Single-Family Attached Housing (215)	--	DU	25%	75%	0.47	57%	43%	0.51	0.57
General Office Building (710)	--	TSF	88%	12%	1.24	16%	84%	1.18	7.83
Existing Land Use Trip Generation									
General Office Building [A]	448.000	TSF	489	67	556	85	444	529	3,508
Proposed Project Trip Generation Forecasts									
Single-Family Attached Housing [B]	405	DU	48	142	190	118	89	207	2,661
Net Total Proposed Project Trip Generation Forecast			***-441***	***+75***	***-366***	***+33***	***-355***	***-322***	***-847***

[1] Source: *ITE Trip Generation Manual* (12th Edition, 2025).
[2] DU = Dwelling Units; TSF = Thousand Square Feet

As shown in Table 1, based on the ITE trip generation rates, the existing general office building generates approximately 3,508 daily trips, which include approximately 556 AM peak hour trips and 529 PM peak hour trips.

As also shown in Table 1, based on the ITE trip generation rates, the proposed project is forecast to generate approximately 2,661 gross daily trips, which include approximately 190 gross AM peak hour trips and 207 gross PM peak hour trips. After accounting for the change in land use, the proposed project is forecast to generate 847 fewer daily trips, which includes approximately 336 fewer AM peak hour trips and 322 fewer PM peak hour trips.

VEHICLE MILES TRAVELED (VMT) SCREENING

The City of Aliso Vejo VMT Guidelines provides recommendations in the form of thresholds of significance and methodologies for identifying VMT related impacts. The proposed project is subject to a VMT screening analysis and will adhere to the recommendations and practices described in the City's guidelines.

The City of Aliso Viejo has developed three (3) types of screening criteria that can be applied to effectively screen projects from project-level assessment. The screening steps are identified below:

- Step 1: Transit Priority Area (TPA) Screening
- Step 2: Low VMT Area Screening
- Step 3: Project Type Screening

Step 1: Transit Priority Area (TPA) Screening

Based on the City of Aliso Vejo VMT Guidelines, "Projects located within a TPA may be presumed to have a less than significant impact absent substantial evidence to the contrary." However, this presumption may not be appropriate if the project:

- Has a Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate or high-income residential units.

A transit priority area is defined as a half mile area around an existing major transit stop or a high-quality transit corridor. A major transit stop refers to a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency service interval of 20 minutes or less during the morning and afternoon peak commute periods. A high-quality transit corridor refers to a corridor with fixed route bus service intervals no longer than 20 minutes during peak commute hours.

However, as indicated in the City of Aliso Vejo VMT Guidelines, there are no TPA's located within the city. Therefore, the proposed project does not satisfy the TPA Screening criteria.

Step 2: Low VMT Area Screening

Per the City of Aliso Viejo Guidelines, residential and office projects located within a low VMT-generating area are presumed to have a less than significant impact absent substantial evidence to the contrary. To identify if the project is in a low VMT-generating area, Appendix A from the City's VMT

guidelines was used which provides a map showing the locations of low VMT-generating zones in Aliso Viejo.

As shown in the City's Guidelines, the proposed project is located in an area with a higher VMT per service population than city average (2045). Therefore, the proposed project does not satisfy the Low VMT Area screening criteria.

Step 3: Low Project Type Screening

The City VMT Guidelines specify that certain project types are eligible to screen from a project-level VMT assessment because they can be presumed to have a less than significant impact absent substantial evidence to the contrary as their uses are local serving in nature. These types of projects include:

- Local Serving Retail Less than 50,000 square feet (e.g., gas stations, banks, restaurants, shopping centers, etc.)
- Local-Serving K-12 schools
- Local parks
- Day Care Centers
- Local-serving hotels (e.g., non-destination hotels)
- Student housing projects on or adjacent to college campuses
- Local-serving assembly uses (places of worship, community organizations)
- Community institutions (Public libraries, fire stations, local government)
- Local serving community colleges that are consistent with the assumptions noted in the RTP/SCS
- Affordable or supportive housing
- Assisted Living Facilities
- Senior Housing (as defined by HUD)
- Projects generating less than 110 daily vehicle trips
- Other local-serving projects as approved by the Planning Manager and Director of Community Development

As shown in Table 1, the project is forecast to generate 2,661daily trips. However, the City Guidelines includes a footnote providing an example of the application of these criteria which overall emphasize that "*it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact.*"

As clarified by the example contained in this footnote, the calculation of "Projects generating less than 110 daily vehicle trips" refers to "trip generation increases," projects which "generate or attract an additional" number of trips, and "the addition of 110 or fewer trips," each refers to a net calculation of trips, consistent with CEQA's standard evaluation of impacts.

Therefore, when accounting for the change in land use, the project is forecast to generate 847 fewer daily trips than the office land use, This does not exceed the 110 daily vehicle trips threshold.

As a result, the project does meet the Low Project Type screening criteria and impacts would be less than significant. However, to further justify that the project meets the criteria for an overall decrease in trips from the land use change, a full VMT model analysis has been prepared.

VMT ANALYSIS METHODOLOGY

The Orange County Transportation Analysis Model (OCTAM) Version 5.1, the latest version of OCTAM, is a TransCAD-based travel demand model focused on Orange County.

OCTAM follows a four-step modeling process that includes trip generation, trip distribution, mode choice and trip assignment. The model is enhanced by an auto ownership model and a time-of-day model to assist in estimating travel behavior associated with specific socioeconomic indicators and/or better estimate peaking characteristics during commute travel periods. OCTAM is validated to 2019 with a planning horizon year of 2050.

The project land use was added to the Project TAZ and full base year model runs were performed for the following scenarios:

- Base Model Year 2019 With Project Conditions
- Future Model Year 2050 With Project Conditions

The OCTAM VMT post processing tool was then used to calculate the total daily VMT for each analysis year. The VMT results of the Base Model Year 2019 With Project and Future Model Year 2050 With

OCTAM SOCIO ECONOMIC DATA (SED) MODIFICATIONS

The project is located in Traffic Analysis Zone (TAZ) 1547, which is illustrated in **Exhibit C.**

The project adds 405 households to TAZ 1547. The household population for the project was calculated using an average household size of 2.599 persons per household, based on the *SCAG Pre-*

Certified Local Housing Data for the City of Aliso Viejo, dated April 2021. As a result, the household population increases by approximately 1,053 people within the project TAZ.

In addition, the employee population for the project refers to the population of residents within the TAZ that are employed. The employee population was calculated by applying the City of Aliso Viejo employment rate from the *SCAG Pre-Certified Local Housing Data for the City of Aliso Viejo*, dated April 2021. Based on 28,899 employees and a total population of 50,044 people, approximately 58% of the City's population is employed. This equates to an estimated employee population increase of approximately 611 people within the project TAZ.It is important to note that, since the project replaces all existing employment-based land uses with the proposed residential land use, all existing employment categories within the TAZ (retail, service, and basic employment) were fully removed from the OCTAM SED inputs as part of the project.

Table 3 shows the socio-economic data (SED) modifications made to the project TAZ in OCTAM.

Table 3 | OCTAM Socio-Economic Data (SED) Modifications

Analysis Scenario	Total Households	Total Population	Household Population	Employee Population	Retail Employee	Service Employee	Basic Employee
Base Model Year 2019	433	1,199	1,199	765	15	904	516
Project	+405	+1,053	+1,053	+611	-15	-904	-516
Base Model Year 2019 + Project	838	2,252	2,252	1,376	0	0	0
Future Model Year 2050	433	1,092	1,092	709	15	951	624
Project	+405	+1,053	+1,053	+611	-15	-951	-624
Future Model Year 2050 + Project	838	2,145	2,145	1,320	0	0	0

OCTAM VMT ANALYSIS

(OCTAM) has been utilized to conduct full model runs for the following scenarios:

- Base Model Year 2019 No-Project
- Base Model Year 2019 With Project
- Future Model Year 2050 No-Project
- Future Model Year 2050 With Project

To determine project-generated VMT per service population, the difference in total VMT between the With Project and No Project scenarios was calculated in each model year and was divided the total service population generated by the project (i.e., 160 people).

Table 4 summarizes the OCTAM VMT per service population calculations for TAZ 1547 under the Base Model Year 2019 and Future Model Year 2050 scenarios.

Table 4 | OCTAM VMT Analysis Summary

Project TAZ	Metric	Base Model Year 2019			Future Model Year 2050		
		No-Project	With Project	Net Difference	No-Project	With Project	Net Difference
1547	Total VMT	67,359.1	52,063.7	-15,295.4	68,083.5	51,674.2	-16,409.3
	Total Service Population	2,634	2,252	-382	2,682	2,145	-537
Total VMT Per Service Population		**25.6**	**23.1**	**-2.5**	**25.4**	**24.1**	**-1.3**

As shown in Table 4, the project would result in an overall decrease of approximately 15,295.4 daily VMT under base model year 2019 conditions and a decrease of approximately 16,409.3 daily VMT under future model year 2050 conditions. Additionally, the project would result in a decrease of 2.5 VMT per service population under base model year 2019 conditions and a decrease of 1.3 VMT per service population under future model year 2050 conditions.

Therefore, pursuant to CEQA Guidelines Section 15064.3(b), the proposed Project would "*decrease vehicle miles traveled in the project area compared to existing conditions"* and *"should be presumed to have a less than significant transportation impact," which* to further justifies that the project meets will result in a decrease in trips and meets the criteria listed under Step 3: low Project Type Screening.

CONCLUSIONS

RK Engineering Group, Inc. has completed this Vehicle Miles Traveled (VMT) Analysis for the proposed Polaris Place Residential Project.

RK Engineering Group, Inc. appreciates this opportunity to work with CARLSON STRATEGIC LAND SOLUTIONS on the project. If you have any questions regarding this review, or need further clarification, please contact us at (949) 474-0809.

Sincerely,

RK ENGINEERING GROUP, INC.

Bryan Estrada, T.E.
Principal

Attachments



Sabrina Ayala
Engineer II



Legend

= Project Site Boundary

Exhibit A

Location Map



N

Exhibit B

Site Plan



N

Exhibit C

TAZ Map