

# MEMORANDUM

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To: Mike Grehl  
Zephyr Partners

Date: April 26, 2021

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From: John Boarman, P.E.  
Amelia Giacalone  
LLG, Engineers

LLG Ref: 3-19-3145

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Subject: VMT Alternatives Memo

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Linscott, Law & Greenspan, Engineers (LLG) has prepared the following Vehicle Miles Traveled (VMT) Alternatives memorandum for the proposed Ocean Kamp project to summarize potential VMT impacts of the Project alternatives.

## PROPOSED PROJECT

The Ocean Kamp Project proposes a mix of commercial and residential uses. Commercial uses would be located within the central/southwestern portion of the site, and are proposed to include a 300-room resort hotel; approximately 126,000 SF of retail / commercial uses; and a wave lagoon. Multi-family residential uses are proposed to include approximately 700 units within the northern and eastern portions of the Project site. Access to the site is proposed primarily via Foussat Road at SR 76 and via Ocean Pointe at Mission Avenue.

The Project is calculated to generate 19,040 Average Daily Trips (ADT) with 1,057 AM peak hour trips (453 inbound / 604 outbound) and 1,834 total PM peak hour trips (1,053 inbound / 781 outbound) at the Project driveways.

Based on the VMT analyses conducted for the Project, the VMT per employee for the proposed hotel use is less than 85% of the regional average and the proposed retail / commercial uses do not result in a net increase in the total Regional VMT. Therefore, these land use components of the Project would have a less-than-significant transportation impact and no mitigation measures are needed.

The VMT per capita for the proposed residential use is greater than 85% of the regional average, with the Project exceeding the significance threshold by 6.68%. Therefore, a significant transportation impact is calculated for the residential component of the Project.

## ALTERNATIVES ANALYSIS

This following three Project alternatives were reviewed:

- Pavilion at Oceanside Project Alternative
- Reduced Land Use Alternative
- Alternate Location Alternative



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#### PAVILION AT OCEANSIDE PROJECT ALTERNATIVE

An Environmental Impact Report (EIR) addressing development of the Ocean Kamp project site was certified by the City of Oceanside in 2008 (State Clearinghouse No. 2006111033). The Pavilion at Oceanside project described in the EIR consisted of a 950,000-square foot (SF) shopping center with a variety of retail uses.

A Traffic Impact Analysis Report dated March 2008 was prepared by RBF Consulting in conjunction with the certified EIR in which the Pavilion at Oceanside project was calculated to generate 32,175 ADT. Level of Service (LOS) related mitigation measures were identified to address potential operational impacts to the surrounding street system. However, VMT was not considered as a metric for the determination of significant traffic related impacts at the time this study was prepared and therefore, VMT impacts for the Pavilion at Oceanside project were not assessed.

The Ocean Kamp project is calculated to result in significantly fewer ADT as compared to the approved Pavilion at Oceanside project. **Table A** summarizes the trip generation calculations for the Ocean Kamp and Pavilion at Oceanside projects. The Pavilion project was calculated to generate 32,175 ADT, whereas the Ocean Kamp project is calculated to generate 19,040 ADT – approximately 40% fewer trips as compared to the approved project. While ADT and VMT are not directly correlated, and the use types are different, it can be concluded that a 40% reduction in the number of generated trips will also result in a reduction to the site's total VMT, as shown in **Table B** using SANDAG trip rates and average trip lengths. Based on the SANDAG average trip lengths, the approved Pavilion project is calculated to result in 167,310 total VMT, and the Ocean Kamp project is calculated to result in 122,192 total VMT.

#### REDUCED LAND USE ALTERNATIVE

As noted above, the Ocean Kamp project proposes a 300-room resort hotel; approximately 126,000 SF of retail / commercial uses; a wave lagoon, and 700 multi-family residential uses. A reduced land use alternative consisting of a 150-room resort hotel; approximately 126,000 SF of retail / commercial uses; a wave lagoon, and 600 multi-family residential use is also being considered. This alternative project description would result in 16,740 ADT as shown in **Table C**, which is approximately 12% fewer trips as compared to the proposed Project.

While ADT and VMT are not directly correlated, it can be concluded that a 12% reduction in the number of generated trips will also result in a reduction to the site's total VMT, as shown in **Table D** using SANDAG trip rates and average trip lengths. Based on the SANDAG average trip lengths, the Ocean Kamp project is calculated to

result in 122,192 total VMT, and the project alternative is calculated to result in 104,472 total VMT.

#### ALTERNATE LOCATION ALTERNATIVE

As noted above, based on the VMT analyses conducted for the proposed Ocean Kamp project, the VMT per employee for the proposed hotel use is less than 85% of the regional average and the proposed retail / commercial uses do not result in a net increase in the total Regional VMT. Therefore, these land use components of the Project would have a less-than-significant transportation impact.

The VMT per capita for the proposed residential use is greater than 85% of the regional average, with the Project exceeding the significance threshold by 6.68%. Therefore, a significant transportation impact is calculated for the residential component of the Project. This impact is based on the location of the Project, and the distance that residents would be expected to drive to reach various destinations including work and school. Moving the Project, specifically the residential component of the Project, to a more VMT efficient location, such as near a transit center, a Transit Priority Area (TPA), or smart growth area, would result in a less-than significant VMT per capita impact.

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**TABLE A**  
**PAVILION AT OCEANSIDE ALTERNATIVE TRIP GENERATION COMPARISON**

Land Use <sup>c</sup>	Quantity	Daily Trip Ends (ADT)		AM Peak Hour					PM Peak Hour				
		Trip Rate <sup>1</sup>	Volume	% of ADT	In:Out Split	Volume			% of ADT	In:Out Split	Volume		
						In	Out	Total			In	Out	Total
<b>A. Approved Project (Pavilion) <sup>4</sup></b>													
Pavilion at Oceanside Shopping Center	950,000 SF	-	32,175	-	-	862	376	1,254	-	-	1,485	1,388	2,872
<b>B. Proposed Project (Ocean Kamp)</b>													
Hotel (w/ convention facilities / restaurant)	300 Rooms	10 /Room	3,000	6%	60 : 40	108	72	180	8%	60 : 40	144	96	240
Multi-Family Residential	700 Units	8 /DU	5,600	8%	20 : 80	90	358	448	10%	70 : 30	392	168	560
Retail Center	126 KSF	80 /KSF <sup>3</sup>	10,080	4%	60 : 40	242	161	403	10%	50 : 50	504	504	1,008
Surf Lagoon / Resort Pass Guests <sup>2</sup>	1 Site	-	360	-	-	13	13	26	-	-	13	13	26
Proposed Project Total (Driveway Trips)			<b>19,040</b>			453	604	1,057			1,053	781	1,834

**Footnotes:**

1. Rates based on SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002 except where noted.
2. 120 Surf Lagoon guests and 50 Report Pass guests expected daily.
3. SANDAG Trip Rate for Community Shopping Centers between 125,000 SF and 400,000 SF
4. Trip Generation from the *Oceanside Pavilion Traffic Impact Analysis Report*, 2008, prepared by RBF.

**TABLE B**  
**PAVILION AT OCEANSIDE ALTERNATIVE VEHICLE MILES TRAVELED COMPARISON**

Land Use <sup>c</sup>	Quantity	Daily Trip Ends (ADT)		Vehicle Miles Traveled (VMT)	
		Trip Rate <sup>1</sup>	Volume	Average Trip Length <sup>1</sup>	VMT
<b>A. Approved Project (Pavilion) <sup>4</sup></b>					
Pavilion at Oceanside Shopping Center	950,000 SF	-	32,175	5.2	<b>167,310</b>
<b>B. Proposed Project (Ocean Kamp)</b>					
Hotel (w/ convention facilities / restaurant)	300 Rooms	10 /Room	3,000	7.6	22,800
Multi-Family Residential	700 Units	8 /DU	5,600	7.9	44,240
Retail Center	126 KSF	80 /KSF <sup>3</sup>	10,080	5.2	52,416
Surf Lagoon / Resort Pass Guests <sup>2</sup>	1 Site	-	360	7.6	2,736
Proposed Project Total			19,040	-	<b>122,192</b>

**Footnotes:**

1. Trip rates and average trip lengths based on SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002 except where noted.
2. 120 Surf Lagoon guests and 50 Report Pass guests expected daily. Hotel trip length of 7.6 miles per ADT assumed for this use.
3. SANDAG Trip Rate for Community Shopping Centers between 125,000 SF and 400,000 SF
4. Trip Generation from the *Oceanside Pavilion Traffic Impact Analysis Report*, 2008, prepared by RBF.

**TABLE C**  
**REDUCED LAND USE ALTERNATIVE TRIP GENERATION**

Land Use <sup>c</sup>	Quantity	Daily Trip Ends (ADT)		AM Peak Hour					PM Peak Hour				
		Trip Rate <sup>1</sup>	Volume	% of ADT	In:Out Split	Volume			% of ADT	In:Out Split	Volume		
						In	Out	Total			In	Out	Total
Hotel (w/ convention facilities / restaurant)	150 Rooms	10 /Room	1,500	6%	60 : 40	54	36	90	8%	60 : 40	72	48	120
Multi-Family Residential	600 Units	8 /DU	4,800	8%	20 : 80	77	307	384	10%	70 : 30	336	144	480
Retail Center	126 KSF	80 /KSF <sup>3</sup>	10,080	4%	60 : 40	242	161	403	10%	50 : 50	504	504	1,008
Surf Lagoon / Resort Pass Guests <sup>2</sup>	1 Site	-	360	-	-	13	13	26	-	-	13	13	26
<b>Reduced Land Use Alternative Total (Driveway Trips)</b>			<b>16,740</b>			<b>391</b>	<b>522</b>	<b>913</b>			<b>930</b>	<b>714</b>	<b>1,644</b>

**Footnotes:**

1. Rates based on SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002 except where noted.
2. 120 Surf Lagoon guests and 50 Report Pass guests expected daily.
3. SANDAG Trip Rate for Community Shopping Centers between 125,000 SF and 400,000 SF

**TABLE D**  
**REDUCED LAND USE ALTERNATIVE VEHICLE MILES TRAVELED CALCULATIONS**

Land Use <sup>c</sup>	Quantity	Daily Trip Ends (ADT)		Vehicle Miles Traveled (VMT)	
		Trip Rate <sup>1</sup>	Volume	Average Trip Length <sup>1</sup>	VMT
Hotel (w/ convention facilities / restaurant)	150 Rooms	10 /Room	1,500	7.6	11,400
Multi-Family Residential	600 Units	8 /DU	4,800	7.9	37,920
Retail Center	126 KSF	80 /KSF <sup>3</sup>	10,080	5.2	52,416
Surf Lagoon / Resort Pass Guests <sup>2</sup>	1 Site	-	360	7.6	2,736
Reduced Land Use Alternative Total			16,740	-	<b>104,472</b>

**Footnotes:**

1. Trip rates and average trip lengths based on SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002 except where noted
2. 120 Surf Lagoon guests and 50 Report Pass guests expected daily. Hotel trip length of 7.6 miles per ADT assumed for this use.
3. SANDAG Trip Rate for Community Shopping Centers between 125,000 SF and 400,000 SF