

## MEMORANDUM

**DATE:** October 18, 2022  
**To:** Alicia Velasco, City of Cypress  
**FROM:** Ambarish Mukherjee, P.E., AICP  
**SUBJECT:** Goodman Commerce Center Project – Vehicle Miles Traveled (VMT) Analysis

LSA has prepared this memorandum documenting the methodology and findings of a vehicle miles traveled (VMT) analysis for the Goodman Commerce Center Project (project) in Cypress, California.

### BACKGROUND

On December 28, 2018, the California Office of Administrative Law cleared the revised California Environmental Quality Act (CEQA) guidelines for use. Among the changes to the guidelines was the removal of vehicle delay and level of service (LOS) from consideration under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on VMT.

### PROJECT DESCRIPTION

It is LSA's understanding that GLC Cypress LLC (Applicant) is proposing to demolish an approximately 298,300-square-foot (sf) warehouse/office building on an approximately 18.63-acre site (Assessor's Parcel Number 241-101-26) located at 5757 Plaza Drive, and construct two new two-story warehouse/office buildings that would be approximately 204,910 sf (Building 1) and 185,360 sf (Building 2) in size. Each building would contain a total of approximately 10,000 sf of office space split evenly between the first and second floors, with the remaining space consisting of warehouse uses. The existing warehouse/office building is currently vacant and generating only nominal vehicle trips.

### ANALYSIS METRICS

The City of Cypress (City) has yet to adopt the Senate Bill 743 (SB 743) guidelines; therefore, the VMT analysis has been based upon the methodology and significant threshold criteria identified in the Governor's Office of Planning and Research (OPR) *Technical Advisory* (TA), dated December 2018.

The project includes primarily industrial land uses. The OPR TA does not specifically recommend any VMT metric or threshold for industrial uses. However, since the land use is non-residential and could not be classified as retail land use, a VMT-per-employee metric was used for purposes of evaluating the project.

Based on the OPR TA recommendations, the threshold for determining VMT impacts has been considered as 15 percent below the region's baseline VMT per capita for residential projects, and 15 percent below the region's baseline VMT per employee for non-residential/non-retail projects.

As per the OPR TA, a region should be defined based on where the majority of the project trips are contained. As such, the majority of project trips are estimated to start or end within the region defined for VMT analysis purposes. Typically, it is the county boundary within which a majority of those trips are contained. While the city boundary can also be considered as the region for residential uses, given that the project land use is non-residential and based on the understanding of the local trip patterns, it can be determined that Orange County can be considered as the region for the project. Therefore, if the project VMT per employee is greater than 85 percent of the existing countywide VMT per employee, the project constitutes a significant VMT impact.

## METHODOLOGY

The OPR TA provides multiple screening criteria for land use projects. One of the screening criteria is a daily trip threshold. If the land use project generates less than 110 daily trips, the project can be screened from a detailed VMT analysis. The project includes demolition of existing industrial and office land uses and replaces them with industrial land uses. A trip generation analysis conducted by the traffic consultant looked at the difference in daily trips between the existing land uses and proposed land uses. It was observed that the proposed land uses produce significantly lower daily trips than the existing land uses. However, it was noted that the current buildings are vacant and produce nominal trips. The proposed project by itself produces approximately 1,000 daily trips. Given that the current buildings have been vacant, no trip credit (proposed trips - existing trips) was considered. Hence, it was concluded that a detailed VMT analysis would be required to evaluate the project VMT impact. The Orange County Transportation Analysis Model (OCTAM) was used to determine the VMT impact of the project.

### Project Traffic Analysis Zone Update

The first step in the preparation of this analysis was to update the Traffic Analysis Zones (TAZs) in the model that include the project area. The project needs to be isolated in a separate TAZ to estimate/determine the project VMT. OCTAM doesn't include the capability to split/add new TAZs, so a TAZ was borrowed for the project. That TAZ was used to estimate the project VMT and efficiency metric (i.e., VMT per employee).

OCTAM is a socioeconomic data-based model, hence project land uses were converted into model employment using land use-to-employment conversion factors. The Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition, was used to develop the conversion factors. The ITE *Trip Generation Manual* includes trip rates for different types of land uses by multiple unit types that were used to develop land use-to-employee conversion factors (i.e., employees per thousand square feet). The project socioeconomic data were added to the project TAZ for the model run.

## VMT Analysis

A baseline model run was conducted using the adjusted socioeconomic data for the project and project location TAZs (as indicated above). No circulation/network modifications were identified for inclusion in the model network. The outputs from this updated model run were used to calculate the VMT per employee for the project.

As indicated before, VMT per employee is used to evaluate the project land use. The proposed project would constitute a significant impact if the project VMT metric is greater than 85 percent of the regional existing VMT metric. Hence the proposed project would constitute a significant impact if project VMT per employee is greater than 85 percent of the Orange County VMT per employee (threshold). As can be seen from Table A, existing project VMT per employee is lower than the Orange County regional threshold; therefore, the project doesn't constitute a significant VMT impact.

**Table A: Baseline Project and Regional VMT Per Employee Comparison**

Baseline	Goodman Commerce Center	Entire Orange County <sup>1</sup>	Threshold <sup>2</sup>	% Difference	Significant Impact
VMT per employee	20.1	24.1	20.5	-2%	No

Source: Compiled by LSA (2022).

<sup>1</sup> Obtained from Final Draft Guidelines For Evaluating Vehicle Miles Traveled Under CEQA for the County of Orange, September 17, 2020.

<sup>2</sup> 85% of the regional average (24.1\*0.85=20.5) Baseline. Base year of the OCTAM model is 2016.

OCTAM = Orange County Transportation Analysis Model

VMT = vehicle miles traveled

## CONCLUSIONS

Based on the recommendations from the OPR TA, the proposed warehouse project was evaluated based on employment VMT. The project did not screen out of a VMT analysis due to the vacancy of the existing building on site. A detailed VMT analysis was conducted for the project based on the OCTAM model and using Orange County as the region. Based on the significance threshold criteria determined within the OPR TA, the employment VMT of the project does not exceed the threshold; therefore, the project will have a less than significant transportation impact.

Attachment: Vehicle Miles Traveled (VMT) Analysis Worksheet



**VMT Analysis Worksheet**  
**Goodman Commerce Center, City of Cypress - VMT Analysis**

<b>Baseline</b>	<b>Goodman Commerce Center (project)</b>	<b>Entire Orange County *</b>	<b>Threshold **</b>
<b>Total Employment</b>	190	1710147	
<b>Homebased Work (HBW) VMT</b>	3,813	41,174,971	
<b>HBW VMT per employee</b>	<b>20.1</b>	<b>24.1</b>	<b>20.5</b>

\*: Obtained from Final Draft Guidelines For Evaluating Vehicle Miles Traveled Under CEQA for the County of Orange, September 17, 2020

\*\* : 85% of the regional average (24.1\*0.85=20.5)