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Date:	March 13, 2023
Prepared by:	Daji Yuan, Ph.D., EPD Solutions Inc
To:	Traffic Division, City of Orange
Site:	Collins Logistics Center
Subject:	Trip Generation and Vehicle Miles Traveled (VMT) Screening Analysis

This technical memorandum evaluates the need to prepare a vehicle miles traveled (VMT) analysis for the proposed Collins Logistics Center. The 6.0-acre project site is located at 500 West Collins Avenue, City of Orange. The project site comprises of two parcels (APNs – 386-581-18 and 386-561-02). The northern parcel currently contains a 20,034 square feet (SF) office building and the southern parcel currently contains a 32,400 SF warehouse. The project would demolish the current buildings and construct a warehouse totaling 128,953 SF. The warehouse includes 4,500 SF of ground floor office space, 4,500 SF of 2nd story office space and 119,953 SF of warehouse space, consisting of 10 percent cold storage (12,895 SF). The project site plan is shown in Figure 1. This memo will evaluate the project using the City of Orange Guidelines for Traffic Impact Analysis (TIA) (July, 2020).

Project Trip Generation

The project trip generation was prepared using trip rates from the Institute of Transportation Engineers (ITE)[1]. The trip rates for Warehousing (Land Use Code 150) were used to evaluate the proposed warehousing land use. Project truck trips were determined using data from the South Coast Air Quality Management District (SCAQMD) *Warehouse Truck Trip Study Data Results and Usage*[2].

Table 1 presents the trip generation estimate for the proposed project. As shown in Table 1, the project is forecast to generate 221 daily trips, including 22 trips during the AM and 23 trips during the PM peak hours.

VMT Screening Analysis

Senate Bill (SB) 743 was signed by Governor Brown in 2013 and required the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to LOS for evaluating Transportation impacts. SB743 specified that the new criteria should promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks and a diversity of land uses. The bill also specified that delay-based level of service could no longer be considered an indicator of a significant impact on the environment. In response, Section 15064.3 was added to the CEQA Guidelines beginning January 1, 2019. Section 15064.3 - Determining the Significance of Transportation Impacts states that Vehicle Miles Traveled (VMT) is the most appropriate measure of transportation impacts and provides lead agencies with the discretion to choose the most appropriate methodology and thresholds for evaluating VMT.

[1] *Trip Generation Manual*, 11th Edition, Institute of Transportation Engineers (ITE). 2021.

[2] *SCAQMD Warehouse Truck Trip Study Data Results and Usage, July 17, 2014.*

City of Orange VMT Screening

The City's Guidelines for TIA provide VMT screening thresholds to identify projects that would be considered to have a less-than significant impact on VMT and therefore could be screened out from further analysis. If a project meets one of the following criteria, then the VMT impact of the project would be considered less-than significant and no further analysis of VMT would be required:

1. The project is located within a Transit Priority Area (TPA).
2. The project is located in a low VMT generating area.
3. The project is considered a local-serving land use.
4. The project is generating less than 110 daily vehicle trips.

The applicability of each criterion to the project is discussed below.

Screening Criteria 1 - Transit Priority Area Screening: As per the City's Guidelines, projects located in a TPA and have a Floor Area Ratio (FAR) more than 0.75 may be presumed to have a less than significant impact. Although the project is located in a TPA, the project has a FAR of 0.491, which is less than 0.75, therefore the project would not satisfy the requirements of Screening Criteria 1 – TPA screening.

Screening Criteria 2 - Low VMT Area Screening: The City's Guidelines include a screening threshold for projects located in a low VMT generating area. To determine if the project is located in a low VMT generating area, the city utilizes the NOCC+, a tool adopted by the City of Orange along with other northern orange county jurisdictions. The project is consistent with the existing land use; therefore, the NOCC+ is an appropriate tool to use. The City conducted a screening check using the NOCC+ tool for this project and is shown in Figure 2. A review of the NOCC+ output indicates that the proposed project is located within a low VMT generating zone. Therefore, the Screening Criteria 2 – Low VMT Area has been met.

Screening Criteria 3 – Low Project Type: According to the City's Guidelines, projects which propose local serving retail (retail projects less than 50,000 square feet) or other local serving uses would have a less than significant impact on VMT. The types of projects considered local serving include K-12 schools, day care centers, local parks, student housing projects and community institutions such as libraries, fire stations, etc. The project does not propose a local serving land use and therefore would not satisfy the requirements of Screening Criteria 3.

Screening Criteria 4 – Net Daily Trips less than 110 daily vehicle trips: As per the City's Guidelines, projects which would generate fewer than 110 average daily vehicle trips would not cause a substantial increase in the total citywide or regional VMT. As shown in Table 1, the project would generate a total of 221 daily trips. Because the project would generate more than 110 daily vehicle trips, the project would not satisfy Screening Criteria 4.

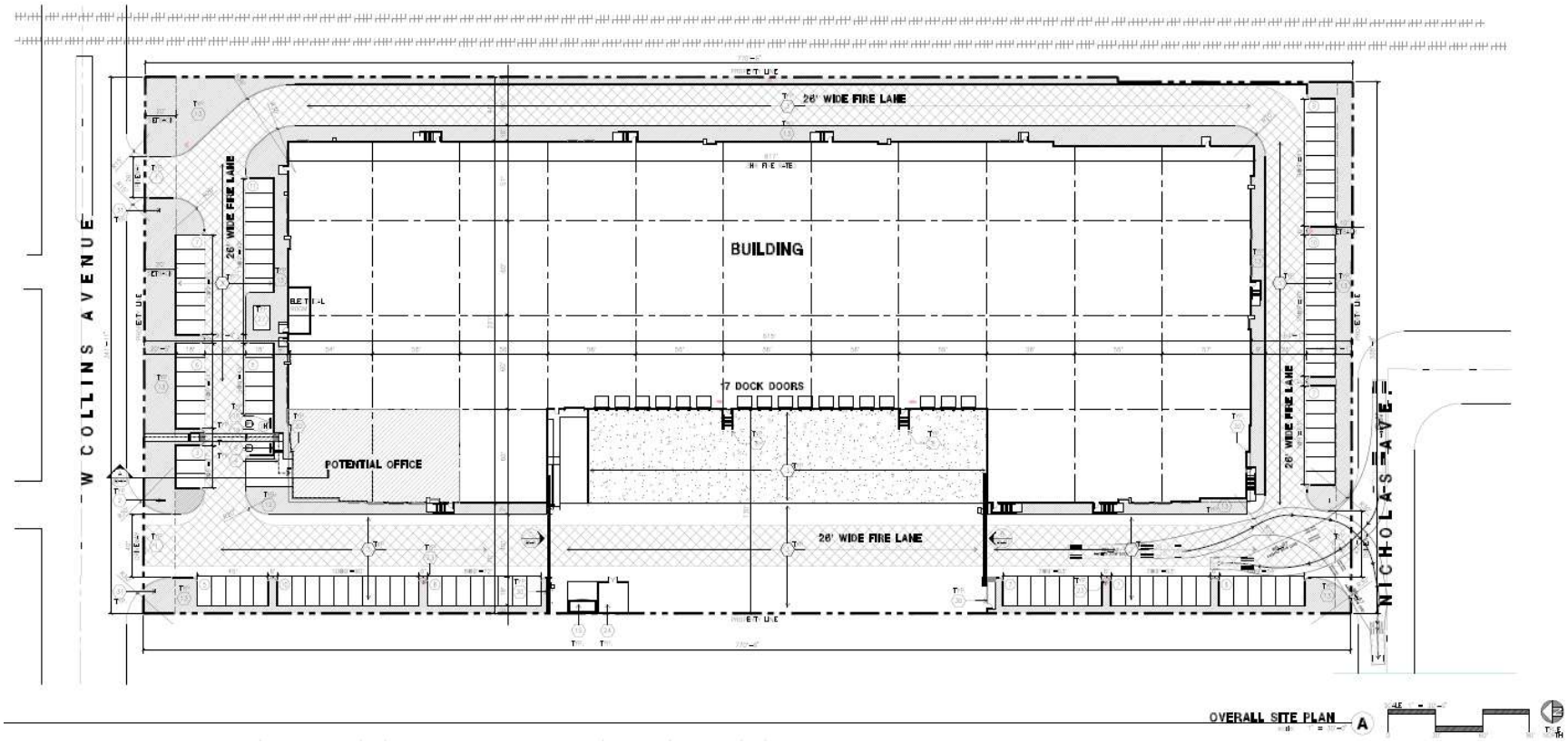
In addition to meeting Screening Criteria 2, the VMT threshold of significance used by the City of Orange for VMT analyses is "Better than General Plan Buildout." The Project VMT per service population is shown as 15.6, while the City's General Plan Buildout has a VMT per service population of 31.3. The project VMT is less than the General Plan Buildout VMT. The proposed project VMT is therefore not considered to have a significant impact and no additional VMT analysis is required.

Summary

The project was evaluated using the City's Guidelines thresholds to determine if the project would require a vehicle miles traveled (VMT) analysis. The project is located in a low VMT area. Therefore, the project VMT impacts would be considered less than significant and further analysis of VMT would not be required.

If you have any questions about this information, please contact me at (949) 794-1180 or daji@epdsolutions.com.

Figure 1: Project Site Plan



Source: HPA Architecture

Table 1: Project Trip Generation

				AM Peak Hour			PM Peak Hour		
Land Use		**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates									
Warehousing[1]		TSF	1.71	0.13	0.04	0.17	0.05	0.13	0.18
Project Trip Generation									
Proposed Warehouse[1]	**128.953**	**TSF**	**221**	**17**	**5**	**22**	**6**	**17**	**23**
Vehicle Mix [2]		***Percent*** [2]							
Passenger Vehicles		55.30%	122	9	3	12	3	9	12
2-Axle truck		15.50%	34	3	1	4	1	3	4
3-Axle truck		4.90%	11	1	0	1	0	1	1
4+-Axle Trucks		24.30%	54	4	1	5	2	4	6
Project Trip Generation		100%	**221**	**17**	**5**	**22**	**6**	**17**	**23**

TSF = Thousand Square Feet

[1] Trip rates from the Institute of Transporation Engineers, Trip Generation Manual, 11th Edition, 2021. Land Use Code 150 -Warehousing.

[2] Vehicle Mix from the SCAQMD Warehouse Truck Trip Study Data Results and Usage, July 2014. Classification: With Cold Storage

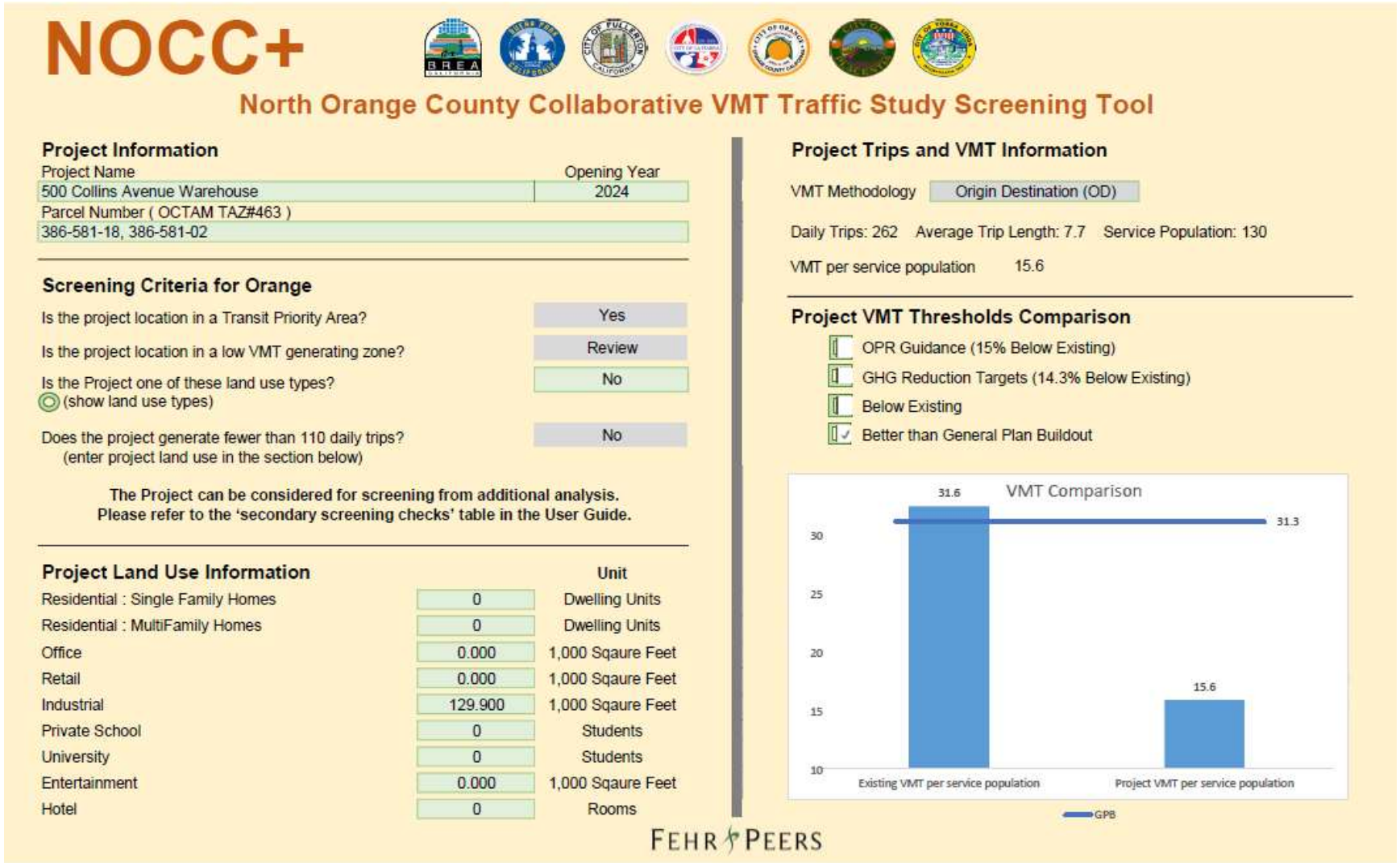



Figure 2: Project VMT Traffic Study Screening