

ENVIRONMENT | PLANNING | DEVELOPMENT SOLUTIONS, INC.

Date: December 12, 2022
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To: City of Menifee Engineering Department
Site: APNs – 331-060-036, 331-060-021, City of Menifee
Plot Plan No. PLN 21-0290, Change of Zone No. PLN 21-0260
EPD Project Number 21-185
Subject: Vehicle Miles Traveled (VMT) Analysis



This Vehicle Miles Traveled (VMT) Analysis evaluates the potential VMT for the Ethanac/Barnett Warehouse project located in the City of Menifee. The project is located on the south side of Ethanac Road and west of Barnett Road in the City of Menifee. The project site plan is shown in Figure 1. This Analysis is based on the requirements of the City of Menifee Traffic Impact Analysis (TIA) Guidelines for Vehicle Miles Traveled, January 2022.

Project Description

The project site is comprised of two adjacent parcels (APNs – 331-060-036, 331-060-021) totaling an area of 13.89 acres. The development proposes the construction of two speculative buildings totaling 251,133 square feet (SF). 10 percent of the total square footage would be allocated for manufacturing and 90 percent would be allocated for warehousing.

The project will be accessible via four driveways, one on Ethanac Road and three on Barnett Road. Project driveway 1 would be accessible to passenger vehicles only and restricted to right-in and right-out movements due to the median on Ethanac Road. Project driveway 2 would be accessible to passenger vehicles and trucks and would also be restricted to right-in and right-out movements due to the planned median on Barnett Road at the time the project is built. Project driveway 3 would be a full access driveway accessible to trucks only, and project driveway 4 would be a full access driveway accessible to passenger vehicles and trucks.

Vehicle trips were generated for the project using trip rates for manufacturing and warehouse land uses from the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition. The project trip generation is shown in Table 1. The proposed Ethanac/Barnett Warehouse Project would generate a total of 506 daily trips, 56 AM peak hour trips and 59 PM peak hour trips.

Table 1: Project Trip Generation

Land Use	Units	AM Peak Hour			PM Peak Hour				
		Daily	In	Out	Total	In	Out	Total	
Trip Rates									
Manufacturing ¹	TSF	4.75	0.52	0.16	0.68	0.23	0.51	0.74	
Warehouse ²	TSF	1.71	0.13	0.04	0.17	0.05	0.13	0.18	
Total Vehicle Trip Generation									
Proposed Manufacturing	25.113	TSF	119	13	4	17	6	13	19
Proposed Warehouse	226.020	TSF	386	30	9	38	11	29	41
Total Trip Generation			506	43	13	56	17	42	59
Vehicle Mix³									
		Percent							
Passenger Vehicles		72.50%	367	31	9	40	12	31	43
2-Axle Trucks		4.60%	23	2	1	3	1	2	3
3-Axle Trucks		5.70%	29	2	1	3	1	2	3
4+-Axle Trucks		17.20%	87	7	2	10	3	7	10
		100%	506	43	13	56	17	42	59
PCE Trip Generation⁴									
		PCE Factor							
Passenger Vehicles		1.0	367	31	9	40	12	31	43
2-Axle Trucks		1.5	35	3	1	4	1	3	4
3-Axle Trucks		2.0	58	5	1	6	2	5	7
4+-Axle Trucks		3.0	261	22	7	29	9	22	31
Total PCE Trip Generation			720	61	18	79	24	60	84

TSF = Thousand Square Feet

PCE = Passenger Car Equivalent

¹Trip rates from the Institute of Transportation Engineers, *Trip Generation Manual, 11th Edition, 2021*. Land Use Code 140 - Manufacturing.

²Trip rates from the Institute of Transportation Engineers, *Trip Generation Manual, 11th Edition, 2021*. Land Use Code 150 - Warehousing.

³Vehicle Mix from the SCAQMD Warehouse Truck Trip Study Data Results and Usage, July 2014. Classification: Without Cold Storage

⁴Passenger Car Equivalent (PCE) factors from San Bernardino County CMP, Appendix B - Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County, 2016

Background

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. Section 15064.3(c) states that the provisions of the section shall apply statewide beginning on July 1, 2020.

VMT Screening Analysis

The project is located in the City of Menifee. The City has adopted screening and analysis guidelines for the preparation of VMT analyses¹. The City's guidelines provide criteria for projects that would be considered to have a less-than significant impact on VMT and therefore could be screened from requiring further analysis. If a project meets one of the following criteria, then the VMT impact of the project is 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. Project Type - the project is a local-serving land use or generates less than 110 daily vehicle trips.

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

Screening Criteria 1 - Transit Priority Area Screening: According to the City's guidelines, projects located in a TPA may be presumed to have a less than significant impact. The project is not located in a TPA; 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 residential and office projects located in a low VMT generating area. Low VMT generating area is defined as traffic analysis zones (TAZ) with a total daily VMT/Service Population (employment plus population) that is less than the County of Riverside General Plan Buildout VMT per service population. The project zone was evaluated using the WRCOG VMT Screening Tool. According to the screening tool, Project Zone 1113 has a VMT/Service Population of 38.6 and the County VMT/Service Population threshold is 33.6. Therefore, the project zone is not considered a low VMT area and would not satisfy the requirements of Screening Criteria 2. The TPA and Low VMT Area Screening is shown in Figure 2.

¹ City of Menifee, *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled*, January 2022.

Screening Criteria 3 – Project Type Screening: This criterion would apply to land uses that are considered local serving, as well as projects that generate less than 110 daily vehicle trips. The project is not considered a local serving use. The project trip generation was evaluated using trip rates from the *ITE Trip Generation Manual*, 11th Edition (2021). The project was analyzed as 10 percent manufacturing and 90 percent warehouse land use. The project trip generation is shown in Table 1. As stated in Section 15064.3, subdivision (a) of the CEQA guidelines, VMT “refers to the amount and distance of automobile travel attributable to a project”; therefore, only passenger vehicle trips were used for Screening Criteria 3. The project would generate 367 daily passenger vehicle trips, which is more than 110 daily vehicle trips, and therefore the project would not meet Screening Criteria 3.

Because the project would not meet any of the City’s screening criteria, an analysis of VMT would be required.

Project VMT Evaluation

The City’s guidelines require use of the RIVCOM model for preparation of VMT analysis. However, the guidelines specify that routine projects that are simple in nature and that are similar to other standard land uses in the City and model can use the WRCOG VMT calculator, instead of the RIVCOM model. As shown in Figure 3, the project is consistent with the future socioeconomic data in the zone, which includes 190 construction jobs, 68 manufacturing jobs, 5 retail jobs, and 263 transportation, warehousing and utility jobs. Because the project is consistent with the existing and future planned land uses in the area, it would be appropriate to utilize the WRCOG VMT calculator to evaluate the project’s VMT impacts.

The project would result in a significant project generated VMT impact if either of the following conditions are satisfied:

1. The baseline project generated VMT per service population exceeds the County of Riverside General Plan Buildout VMT per service population, or
2. The cumulative project generated VMT per service population exceeds the County of Riverside General Plan Buildout VMT per service population.

The results of the WRCOG VMT tool are shown in Figures 3 and 4 and are summarized in Table 2. The year 2030 was used for the Cumulative analysis as this is the latest year available from the WRCOG VMT tool. As shown in Table 2, the project VMT/SP in the baseline and cumulative scenarios would be less than the County General Plan Buildout VMT/SP. Therefore, the project would have a less than significant VMT impact.

Table 2: VMT Analysis Summary

Scenario	Project VMT/SP	Threshold ¹	Impact?
Baseline (2022)	24.7	35.3 VMT/SP	No
Cumulative (2030)	27.4		No

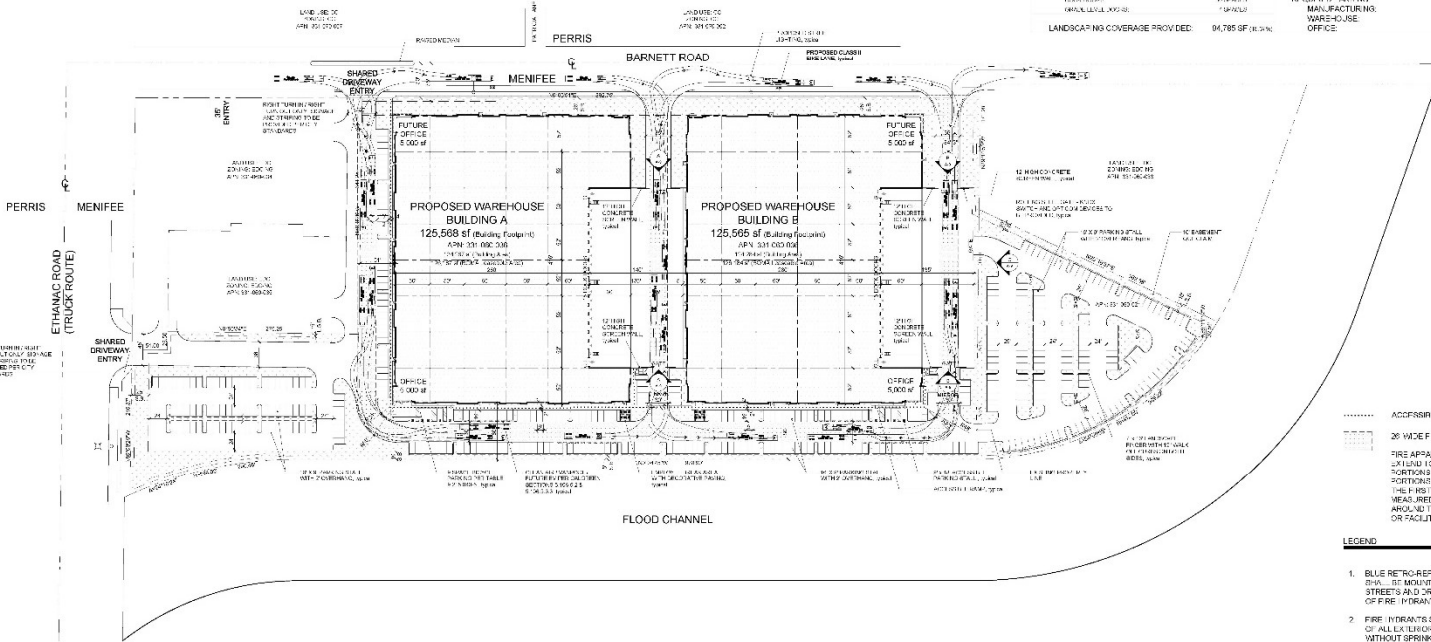
VMT/SP = VMT per Service Population (total of population and employment)

¹Threshold is equal to the County of Riverside General Plan VMT/SP.

If you have any questions, please feel free to contact me at daji@epdsolutions.com or at (949) 794-1180.

Figure 1: Project Site Plan

PROJECT INFORMATION		ECONOMIC DEVELOPMENT CORRIDOR-NORTHERN GATEWAY (EDC-NG) DEVELOPMENT STANDARDS:	
GROSS LOT AREA	694,973 SF (2.0 acres)	LAND USE DESIGNATION	EDC
NET LOT AREA	694,973 SF	ZONING DESIGNATION	EDC-05
BUILDING COVERAGE	41.31%	MINIMUM LOT SIZE	16,000 SF
TOTAL BUILDING COVERAGE AREA	287,133 SF	MAXIMUM FLOOR AREA RATIO TO MAXIMUM BUILDING HEIGHT	1.0
MIN. FLOOR	7'-0" MIN	MAXIMUM BUILDING HEIGHT	10'0"
MIN. FLOOR	7'-0" MIN	MIN. BUILDING SETBACKS (yards)	
MIN. FLOOR	7'-0" MIN	FRONT YARD	25'
MIN. FLOOR	7'-0" MIN	ADJACENT TO RESIDENTIAL ZONE	25'
MIN. FLOOR	7'-0" MIN	INTERIOR SIDE YARD	10' SIDE
MIN. FLOOR	7'-0" MIN	STREET SIDE YARD	10'
MIN. FLOOR	7'-0" MIN	REAR YARD	10'
PARKING REQUIRED:	338 SPACES *	TREE REQUIREMENTS	1 TREE / 4 PARKING SPACES
MINIMUM REQUIRED: 10' x 14' (SIDE)	10' x 14' (SIDE)	PARKING LOT SHADING TREES	SHADE TREES: 50%
MULTIPLE PARKING (SIDE)	10' x 14' (SIDE)	LANDSCAPE SETBACKS	25', 5', 10' (adjacent to residential)
DRIVE-UP (SIDE)	10' x 14' (SIDE)	FRONT, REAR, SIDE YARDS	MIN: 10% TOTAL SITE (within 15%);
PERMITS (SIDE)	10' x 14' (SIDE)	LANDSCAPING COVERAGE:	MIN: 10% PARKING AREA (within 15%)
MINIMUM REQUIRED: 10' x 14' (SIDE)	10' x 14' (SIDE)		
PARKING PROVIDED:	414 SPACES *	OFF STREET PARKING:	8' x 18'
MINIMUM REQUIRED: 10' x 14' (SIDE)	10' x 14' (SIDE)	STANDARD	2' x 2'
MULTIPLE PARKING (SIDE)	10' x 14' (SIDE)	LANDSCAPE	2'
DRIVE-UP (SIDE)	10' x 14' (SIDE)	OVERHANG	2'
PERMITS (SIDE)	10' x 14' (SIDE)	REQUIRED PARKING:	1:500
MINIMUM REQUIRED: 10' x 14' (SIDE)	10' x 14' (SIDE)	MANUFACTURING WAREHOUSE	1:1000
		OFFICE	1:250
LANDSCAPING COVERAGE PROVIDED:	94,785 SF (13.6%)		



PRELIMINARY SITE PLAN
 SCHEME 5r4

14 October 2022

Barnett Road and Ethanac Road
 Menifee, California



Figure 2: VMT Screening Analysis

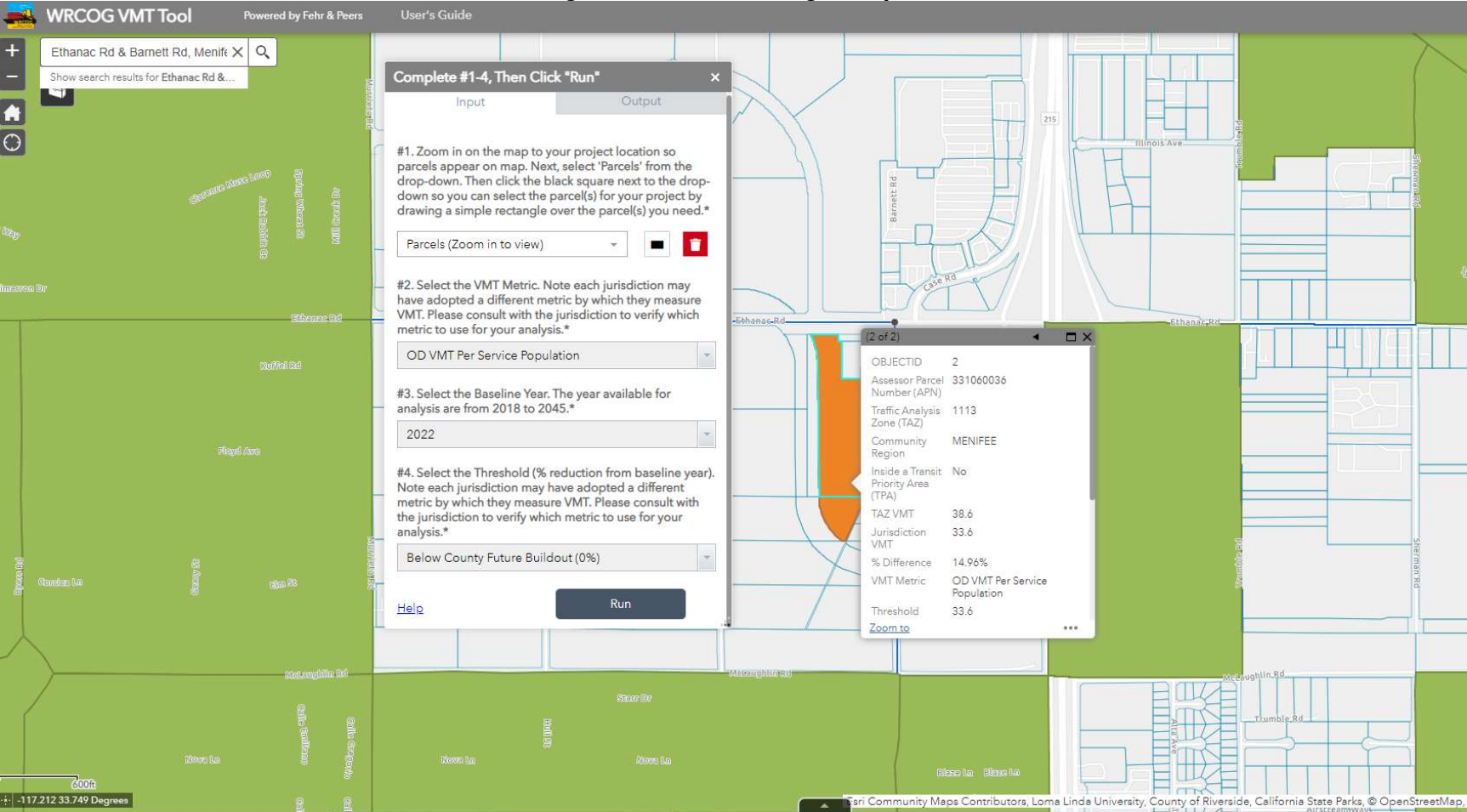


Figure 3. 2022 VMT Using the WRCOG VMT Tool



Western Riverside Council of Governments VMT Tool

Project Information

Project Name
 Ethanac Barnett Industrial Development
 Parcel Number (RIVCOM TAZ#1113) Analysis Year
 331060036 2022

Screening Criteria for Menifee

Use the online *WRCOG VMT Tool* to determine the following

Is the Project screened by Transit Priority Area or located in a low VMT generating zone? No

Is the Project one of these land use types? No
 (show land use types)

Does the project generate fewer than 110 daily trips? (enter project land use in the section below) No

The Project does not meet screening criteria. Please Continue

Project Land Use Information

	Unit
Residential : Single Family Homes	0 Dwelling Units
Residential : MultiFamily Homes	0 Dwelling Units
Office	0 1,000 Square Feet
Retail	0 1,000 Square Feet
Industrial	0 1,000 Square Feet
Manufacturing	25.113 1,000 Square Feet
Warehousing	226.02 1,000 Square Feet
Hotel	0 Rooms
University	0 Students
Private School	0 Students

Project Trips, VMT, and TAZ SED Information

Project Summary
 Select VMT Methodology:

Analysis Year Daily Trips: 1035 Average Trip Length: 11.4
 Service Population: 477
 Project VMT per Service Population: 24.7

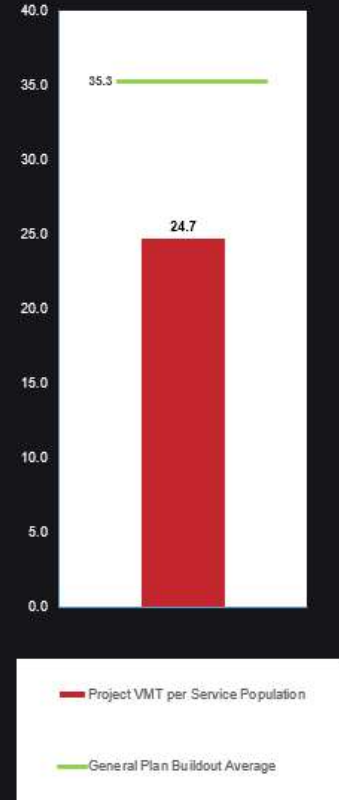
Project Location TAZ Socioeconomic:

Land Use	Value	Unit
SFDU - Single-Family Detached Housing	8	DU
MFDU - Multi-Family Attached Housing	1	DU
K12 - Kindergarten - 12th Grade Enrollment	0	STU
COLLEGE - College Enrollment	0	STU
AG - Agricultural & Mining Employment	0	EMP
CONST - Construction Employment	190	EMP
MANU - Manufacturing Employment	68	EMP
WHOLE - Wholesale Employment	0	EMP
RET - Retail Employment	5	EMP
TRANS - Transportation, Warehousing, and Utility Employment	263	EMP
INFOR - Information Services Employment	0	EMP
FIRE - Financial Activities Employment	0	EMP
PROF - Professional and Business Services Employment	0	EMP
EDUC - Educational and Health Services Employment	0	EMP
ARTENT - Arts/Entertainment Employment	0	EMP
OTHSER - Other Services Employment	0	EMP
PUBADMIN - Public Administration Employment	0	EMP

Project VMT Thresholds Comparison

Select the VMT Thresholds for comparison to project VMT

- Below Existing
- Better than General Plan Buildout
- OPR Guidance (15% Below Existing)



ver. 2021.11.24

Figure 4. 2030 VMT Using the WRCOG VMT Tool

