URBAN CROSSROADS

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Mr. David Ornelas
T&B Planning, Inc.
3200 El Camino Real, Suite 100
Irvine, CA 92602

SUBJECT: APPESETCHE TTM 20247 VEHICLE MILES TRAVELED (VMT) ANALYSIS

Dear Mr. David Ornelas:

The following VMT Analysis has been prepared for the proposed for Appesetche TTM 20247 development (**Project**), which is generally located east of Euclid Avenue and north of Bickmore Avenue in the City of Chino.

PROJECT DESCRIPTION

The Project is proposed to consist of a 169 single family dwelling units (68 detached and 101 attached).

Trip generation rates used for this assessment are based upon information collected by the Institute of Transportation Engineers (ITE) as provided in their Trip Generation Manual (10th Edition, 2017) (1). The ITE Trip Generation Manual is a nationally recognized source for estimating site specific trip generation.

As shown in Attachment A, the resulting trip generation for the proposed Project is anticipated to generate 1,596 trip-ends per day (also referred to as daily trips), with 125 trips generated during the AM peak hour and 167 trips generated during the PM peak hour.

BACKGROUND

Changes to California Environmental Quality Act (CEQA) Guidelines were adopted in December 2018, which require all lead agencies to adopt VMT as a replacement for automobile delay-based level of service (LOS) as the new measure for identifying transportation impacts for land use projects. This statewide mandate takes effect July 1, 2020. The focus of this memorandum is to calculate VMT for the proposed Project.

PROJECT VMT

The calculation of VMT for land use projects is based on the total number of trips generated and the average trip length of each vehicle. The San Bernardino County Transportation Analysis Model (SBTAM) is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households and employment.

Project VMT has been calculated using the most current version of SBTAM. Adjustments in socio-economic data (SED) (i.e., population) have been made to the appropriate traffic analysis zone (TAZ) within the SBTAM model to reflect the Project's proposed land use (i.e., residential use). Table 1 summarizes the population factors and estimates for the Project.

TABLE 1: POPULATION DENSITY FACTORS

	Project
Dwelling Units	169
Population Density Factor[1]	3.41 persons/1 household
Population	576

Adjustments to population for the Project's TAZ were made to both the SBTAM base year model (2012) and the cumulative year model (2040). Project-generated Total VMT was then calculated for both the base year model (2012) and cumulative year model (2040) and linear interpolation was used to determine the Project's baseline (2020) Total VMT. The Total VMT is then normalized by dividing by the number of service population (SP). Since the Project does not include an employment component, the service population consists entirely of population. As shown in Table 2, the Project baseline (2020) Total VMT per SP is 48.46.

TABLE 2: PROJECT TOTAL VMT PER SP

	Project
Population	576
Total VMT	27,912
Total VMT / SP	48.46

If you have any questions, please contact me directly at (949) 336-5978.

Respectfully submitted,

URBAN CROSSROADS, INC.

Aric Evatt, PTP
President

Robert Vu, PE
Transportation Engineer

[1] Population Density Factor was obtained from the City of Chino General Plan Housing Element (September 2013).

REFERENCES

1. **Institute of Transportation Engineers.** *Trip Generation Manual.* 10th Edition. 2017.

ATTACHMENT A:

PROJECT TRIP GENERATION SUMMARY

Project Trip Generation Summary

Land Use	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Trip Generation Rates[1]									
Single Family Detached Residential	DU	210	0.19	0.56	0.74	0.62	0.37	0.99	9.44

Land Use	Quantity	Units[2]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Project Trip Generation Summary									
Single Family Detached Residential	DU	169	31	94	125	105	62	167	1,596

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).

[2] DU = Dwelling Units