

February 14, 2025

GM PROPERTIES  
c/o Ms. Jessica Haughton  
SYNERGY CONSULTING CA  
13305 Penn Street, Suite 200

Whittier, CA 90602

**Subject: Avenue M & Division Street Warehouse Project Revised Vehicle Miles Traveled (VMT) Analysis, City of Lancaster**

Dear Ms. Haughton:

### **Introduction**

RK ENGINEERING GROUP, INC. (RK) is pleased to provide this Vehicle Miles Traveled (VMT) analysis for the Avenue M & Division Street Warehouse Project. The project site is located at the northwest corner of Avenue M and Division Street, in the City of Lancaster.

The proposed project consists of the construction of two warehouse/manufacturing buildings totaling 807,005 square feet (SF) on a 37.10-acre site. Building 1 is approximately 401,973 SF, which consists of 343,973 SF warehousing, 46,000 SF manufacturing, and 12,000 SF office. Building 2 is approximately 405,032 SF, which consists of 347,032 SF warehousing, 46,000 SF manufacturing, and 12,000 SF office.

A total of 443 auto parking spaces and 148 truck trailer parking spaces are proposed on-site. Access to the project is proposed via the following:

- One (1) full-access driveway along Avenue L-12;
- Three (3) full-access driveway along Division Street;
- One (1) full-access signalized driveway along Avenue M; and
- One (1) right-in/right-out driveway along Avenue M.

This VMT analysis has been conducted pursuant to the *City of Lancaster Department of Public Works Local Transportation Assessment Guidelines, January 5, 2021* ("VMT Guidelines"). An excerpt of the VMT Guidelines is provided in Appendix A.

The project location map is provided in **Exhibit A** and a copy of the project site plan is provided in **Exhibit B**.

**VMT Screening Criteria**

The City of Lancaster VMT Guidelines indicate that land use projects can be screened from a VMT analysis based on their size, location, or accessibility to transit. Based upon this review, the proposed project does not satisfy the VMT screening requirements and additional VMT analysis is required.

**Table 1** provides a summary of the VMT Screening Criteria for the proposed project.

**Table 1  
 VMT Screening Criteria<sup>1</sup>**

Screening Categories	Project Requirements to Meet Screening Criteria	Satisfied (Yes/No)
Project Size	A project that generates 110 or fewer daily trips.	No
Locally Serving Retail	A project that has locally serving retail uses that are 50,000 square feet or less, including specialty retail, shopping center, grocery store, pharmacy, financial services/banks, fitness center or health club, restaurant, and café. If the project contains other land uses, those uses need to be considered under other applicable screening criteria.	No
Project Located in a Low VMT Area	A residential or office project that is located in a TAZ that is already 15% below the AVPA Baseline VMT.	No
Transit Proximity	A multifamily residential project providing higher density housing or a commercial project in an area already zoned for commercial use that is located within a ½ mile of the Metrolink station or within a ½ mile of a bus stop with service frequency of 15 minutes or less during commute periods.	No
Affordable Housing	A residential project that provides affordable housing units; if part of a larger development, only those units that meet the definition of affordable housing satisfy the screening criteria.	No
Transportation Facilities	Transportation projects that promote non-auto travel, improve safety, or improve traffic operations at current bottlenecks, such as transit, bicycle and pedestrian facilities, intersection traffic control (e.g., traffic signals or roundabouts), or widening at intersections to provide new turn lanes.	No

<sup>1</sup> City of Lancaster Department of Public Works Local Transportation Assessment Guidelines, January 5, 2021.

The proposed project does not meet any of the screening criteria shown in the table above. Thus, additional VMT analysis is required.

### **VMT Impact Analysis**

Per City of Lancaster VMT Guidelines, the VMT Analysis should be conducted using the Southern California Association of Governments (SCAG) Regional Travel Demand Model, and the VMT analysis should consider the potential impacts of the project under both existing and future/cumulative conditions.

Per the City of Lancaster VMT Guidelines, the threshold for determining a significant VMT impact for an Employment (Commercial or Industrial) Project would occur if the project exceeds 15% below the Los Angeles County Antelope Valley Planning Area (AVPA) Baseline VMT for home-based work VMT per employee.

To determine the significant effect of the project, RK has performed a VMT analysis utilizing VMT data from the SCAG model for 2012 base year and 2040 future year conditions. To estimate 2024 baseline year conditions, the 2012 base year and 2024 future year VMT data were interpolated. The proposed project is expected to add approximately 435 employees, which is consistent with the socio-economic data (SED) growth projections for the project's traffic analysis zone, and it would not modify the existing roadway circulation plan for the area. Hence, no land use or network changes have been made to the SCAG model.

Based on the results of this VMT analysis, the project generated VMT per employee has the potential to exceed the City of Lancaster VMT Threshold of Significance under 2024 Baseline Year conditions and 2040 Future Year conditions. The project proposes to mitigate its VMT exceedances by contributing to the City's VMT impact fee program.

The City of Lancaster VMT impact fee program identifies relevant transportation demand management (TDM) strategies and VMT-reducing projects within the City to be funded by the impact fee. The overall intent of the program is to streamline the Senate Bill (SB) 743 compliance process for development projects while funding future VMT improvement projects to reduce Citywide VMT.

Through VMT impact fee contributions, the project impact would be reduced to less than significant levels.

**Table 2** summarizes the results of the SCAG VMT analysis for 2012 base year conditions, 2024 baseline conditions, and 2040 future year conditions.

**Table 2**  
**SCAG VMT Analysis<sup>1</sup>**

Zone ID	Tier 2 TAZ	VMT Metric	2012 Base Year	2040 Future Year	2024 Baseline Year
VMT Analysis Results for Project TAZ					
105	20315300	Employees	1,256	2,067	1,604 <sup>3</sup>
		Home Based Work VMT	16,217	17,933	16,952 <sup>3</sup>
		Home Based Work VMT per Employee [a]	12.91	8.68	10.57
Threshold of Significance					
<b>AVPA Home Based Work VMT per Employee</b>			10.97	7.05	9.29 <sup>3</sup>
<b>VMT Threshold of Significance [b] (15% below AVPA Home Based Work VMT per employee)</b>			9.32	5.99	7.90
Project Mitigation Calculation					
<b>VMT/Employee Above Threshold [a] - [b]</b>			3.59	2.69	2.67
<b>Estimated Number of Project Employees<sup>1</sup></b>			435		
<b>Total VMT Above Threshold</b>			1,561.65	1,170.15	1,161.45
<b>VMT Impact Fee Requirement (\$150/VMT Above Threshold)</b>			--	--	<b>\$174,218</b>

1. SCAG base model SED and VMT statistics provided by City of Lancaster. See Appendix B.

2. The number of project employees is estimated based on current trends in warehouse employment density; which shows a rise in warehouse automation that has led to a reduction in the number of warehouse employees per square foot. The ratio of employees per square foot is consistent with the employment density rate used for the *8th Street Warehouse Project Vehicle Miles Traveled (VMT) Analysis, City of Lancaster, July 25, 2023, prepared by RK Engineering Group, Inc.*

- Project employees = (Project Building Area, in thousand square feet) x (Employment density ratio from 8th Street Warehouse Project)

- 435 employees = (807.968 TSF) x (50 employees / 92.932 TSF)

3. Interpolated based on 2012 base year and 2040 future year VMT data.

The source of the employment density rate is based on the *8th Street Warehouse Project Vehicle Miles Traveled (VMT) Analysis, City of Lancaster, July 25, 2023, prepared by RK Engineering Group, Inc.* 2. This study estimated the number of project employees based on current trends in warehouse employment density; which show a rise in warehouse automation that has led to a reduction in the number of warehouse employees per square foot.

A copy of the SCAG VMT modeling data is provided in **Appendix B**.

## E. Conclusions

RK Engineering Group, Inc. has completed this VMT Analysis for the proposed W. Avenue M & Division Street Warehouse Project. Based on the results of this VMT analysis, the project generated VMT per employee has the potential to exceed the City of Lancaster VMT Threshold of Significance under 2024 Baseline Year conditions. The project proposes to mitigate its VMT exceedances by contributing a maximum of \$174,218 to the City's VMT impact fee program. Through the VMT impact fee contributions, the project impact would be reduced to a level of less than significant.

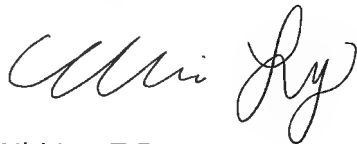
RK Engineering Group, Inc. appreciates this opportunity to assist GM PROPERTIES and SYNERGY CONSULTING CA with this project. If you have any questions regarding this study, please do not hesitate to contact us at (949) 474-0809.

Sincerely,

RK ENGINEERING GROUP, INC.

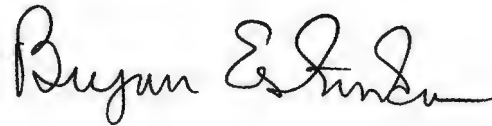


Justin Tucker, P.E., T.E.  
Principal



Nhi Ly, T.E.  
Engineer III

Attachments:



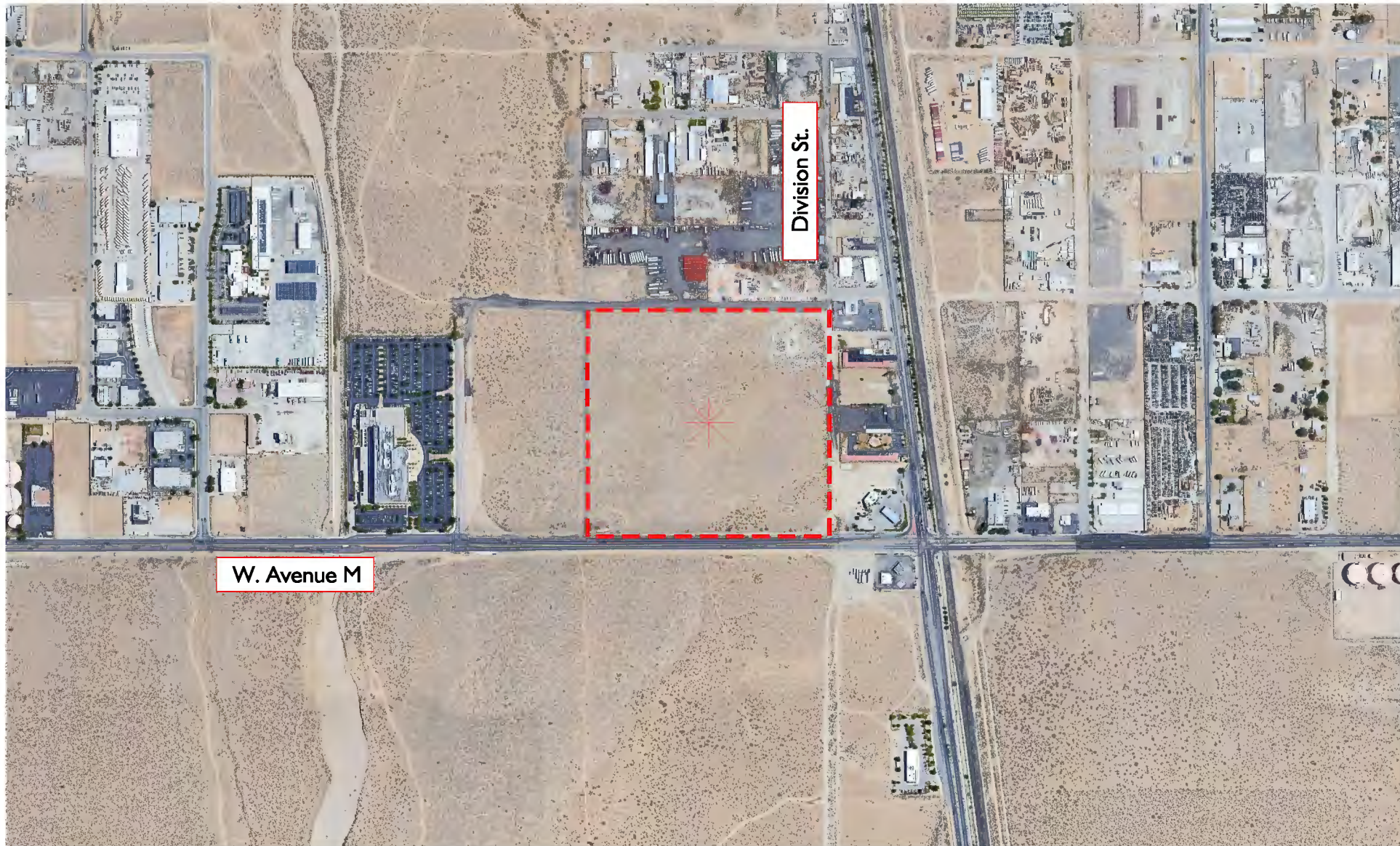
Bryan Estrada, T.E..  
Principal



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# Exhibits

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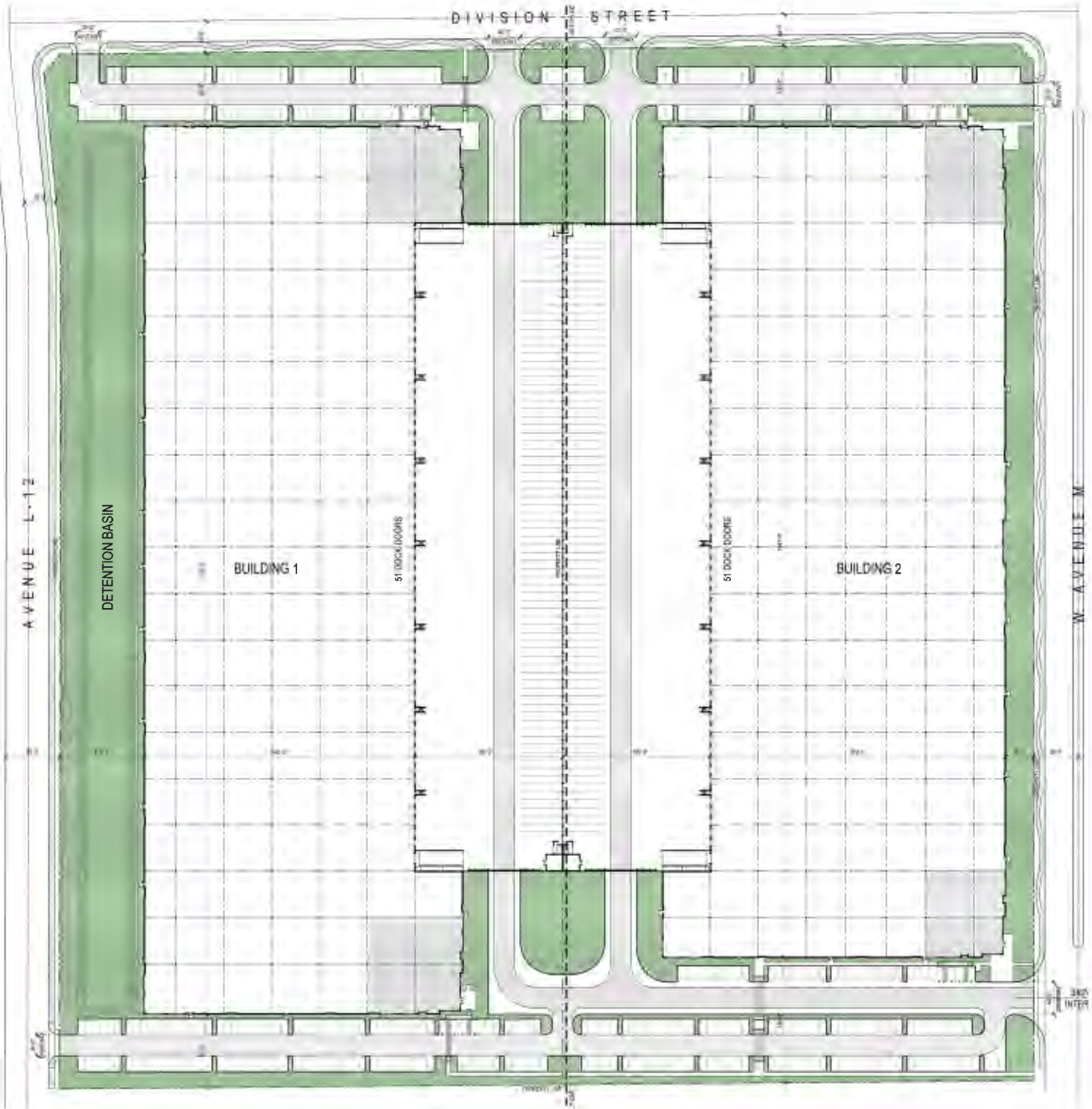
**Legend:**

--- = Project Site Boundary

\* = Project Site



Exhibit B  
Site Plan



3032-2023-02

W. AVENUE M & DIVISION STREET WAREHOUSE PROJECT VEHICLE MILES TRAVELED (VMT) ANALYSIS, City of Lancaster, CA



engineering  
group, inc.



## **Attachment A**

Excerpt from City of Lancaster VMT Guidelines

## City of Lancaster Development Services Department LOCAL TRANSPORTATION ASSESSMENT GUIDELINES

JANUARY 5, 2021

The City recognizes that vehicular LOS is not to be used as a measure of transportation impacts in the context of CEQA. Therefore, the City has determined that a dual analysis process will be applied for identifying and evaluating potential transportation impacts and necessary roadway improvements associated with new land development and infrastructure projects located within the City. The first analysis will consist of an approach using the metric of vehicle miles traveled (VMT) to identify potential transportation impacts by applying CEQA designated methodologies and thresholds. The second analysis will be a localized approach conducted primarily to identify potential safety and operational issues when applied against criteria the City has established. This approach will continue to use LOS to evaluate land development and infrastructure projects. A separate report is required for each analysis. For more information pertaining to the VMT analysis and the City's development of significance thresholds, please refer to the attached report, *Transportation Analysis Updates in Lancaster*. For more information about the City's goals regarding LOS, please refer to the City's General Plan.

### I. CEQA Regional Analysis Overview

Pursuant to the adoption of California Senate Bill 743 (SB 743), the implementation of CEQA guidance in the City of Lancaster includes the following:

- **VMT Screening:** The first step in the traffic analysis process is to determine when a VMT analysis is required. The City of Lancaster requires that VMT screening be conducted based on the recommendations of the Governor's Office of Planning & Research (OPR). OPR recommends that projects be screened from a VMT analysis based on their size, location, or accessibility to transit. In addition, transportation projects that are not adding new travel lanes may be screened from further VMT analysis.
- **VMT Analysis Methodology:** If the project is not screened from needing a VMT analysis, the SCAG regional travel demand model shall be used to estimate a project's VMT. OPR recommends that VMT be reported as "Home-Based VMT" per capita for residential projects and "Home-Based Work VMT" per employee for office projects. Total VMT and/or VMT per service population is to be reported for area plans, large-scale retail projects, or other project types, such as special event venues.
- **VMT Impact Thresholds:** Projects exceeding a level of 15 percent below the Baseline VMT (reported as VMT per capita, per employee, or per service population) are considered to have a significant VMT impact. The City of Lancaster has defined Los Angeles County's Antelope Valley Planning Area (AVPA) as the geographic area for the Baseline VMT.

- VMT Mitigation:** The types of mitigation that effect VMT are those that reduce the number of single-occupant vehicles generated by the site. This can be accomplished by changing the land uses being proposed or by implementing transportation demand management (TDM) measures.

The following sections describe the CEQA analysis process in greater detail.

## VMT Screening Criteria

Land use projects can be screened from a VMT analysis based on their size, location, or accessibility to transit. In addition, transportation projects that are not adding new travel lanes may be screened from further VMT analysis. Screening opportunities in the City of Lancaster are described in the table below. A project only needs to satisfy one of the screening criteria to be exempt from requiring further VMT analysis.

Screening Categories	Project Requirements to Meet Screening Criteria
Project Size	A project that generates 110 or fewer daily trips.
Locally Serving Retail	A project that has locally serving retail uses that are 50,000 square feet or less, including specialty retail, shopping center, grocery store, pharmacy, financial services/banks, fitness center or health club, restaurant, and café. If the project contains other land uses, those uses need to be considered under other applicable screening criteria.
Project Located in a Low VMT Area	A residential or office project that is located in a TAZ that is already 15% below the AVPA Baseline VMT.
Transit Proximity	A multifamily residential project providing higher density housing or a commercial project in an area already zoned for commercial use that is located within a ½ mile of the Metrolink station or within a ½ mile of a bus stop with service frequency of 15 minutes or less during commute periods.
Affordable Housing	A residential project that provides affordable housing units; if part of a larger development, only those units that meet the definition of affordable housing satisfy the screening criteria.
Transportation Facilities	Transportation projects that promote non-auto travel, improve safety, or improve traffic operations at current bottlenecks, such as transit, bicycle and pedestrian facilities, intersection traffic control (e.g., traffic signals or roundabouts), or widening at intersections to provide new turn lanes.

## VMT Analysis Methodology

For projects that do not meet any of the screening criteria in the table above, a VMT analysis is required and should rely on the best available data to inform trip generation and trip length estimates for the project uses. For land use plans (e.g., Specific Plan or General Plan) and projects consisting of residential, office, and retail land uses, the VMT analysis should be conducted using the SCAG regional travel demand model. For other project types, such performing arts center or special event venues, the VMT analysis should be customized to determine the unique trip generation and trip length characteristics of the proposed uses.

The VMT analysis should consider the potential impacts of the project under both existing and future/cumulative conditions as follows:

- **Existing/Baseline Conditions:** Project-generated VMT should be estimated for the proposed land uses under existing/baseline conditions. VMT can be estimated using the SCAG regional travel demand model and should be reported as Home-Based VMT per capita (residential projects), Home-Based Work VMT per employee (office or employment-generating projects), or Total VMT per service population (all other land uses). For land use plans, Total VMT per service population or Total VMT can be used to determine potential impacts.
- **Cumulative Conditions:** A less than significant impact under Existing/Baseline conditions would also result in a less than significant cumulative impact as long as the project is consistent with the SCAG RTP/SCS.

For large planning efforts such as a Specific Plan that may result in changes to regional travel patterns, the Project-effect on VMT should be estimated under cumulative conditions to determine if VMT in the study area would be higher/lower in the future with the project in place. To evaluate the project's effect on VMT, the future year travel demand model should be updated to reflect the project and determine if the citywide or regional VMT increases or not with the project. If the project is large enough that it would affect land use absorption elsewhere, a redistribution of land use can be completed to ensure that the "no project" assessment and the "with project" assessment contain the same land use control totals for the City.

## VMT Impact Thresholds

The Governor's Office of Planning and Research has identified 15% below the regional average as the threshold for identifying a significant VMT impact for land use projects and plans. This is based on research conducted to determine the VMT reduction needed in order to help the State achieve its climate goals. The California Air Resources Board has quantified the need for VMT reduction in order to meet the State's long-term climate goals and OPR sees reducing VMT to 15% below existing conditions as a reasonable threshold for new development projects. OPR guidance is also provided for transportation projects. For roadway widening projects, a significant impact would occur if the project increased the baseline VMT in the study area.

The VMT thresholds for projects and plans in the City of Lancaster are summarized in the table below.

Project Type	Threshold for Determination of Significant VMT Impact
Residential Project	Project exceeds 15% below AVPA Baseline VMT for home-based VMT per capita
Employment (Commercial or Industrial) Project	Project exceeds 15% below AVPA Baseline VMT for home-based work VMT per employee
Regional Retail Project <sup>1</sup>	Project results in a net increase in total VMT per service population in comparison to the AVPA Baseline VMT
Mixed-Use Projects	Evaluate each project land use component separately using the criteria above
Land Use Plans	Plan exceeds 15% below AVPA Baseline VMT for Total VMT per service population
Other land use types	Project exceeds 15% below AVPA Baseline VMT. For land use types not listed above, the City can determine the appropriate VMT metric depending on the project characteristics. For projects that are generally producing job-related travel, the employment generating VMT (home-based work VMT per employee) can be compared to the baseline. For other projects, the total VMT per service population can be compared to the AVPA baseline, or the net change in Total VMT can be estimated.
Transportation Projects	Project results in an increase in VMT in the study area in comparison to baseline conditions

## VMT Mitigations

The types of mitigation that affect VMT are those that reduce the number of single-occupant vehicles generated by the project. This can be accomplished by changing the land uses being proposed or by implementing Transportation Demand Management (TDM) strategies. TDM strategies have been determined to be among the most effective VMT impact mitigators. TDM strategies are reductions available from certain types of project site modifications, programming, and operational changes.

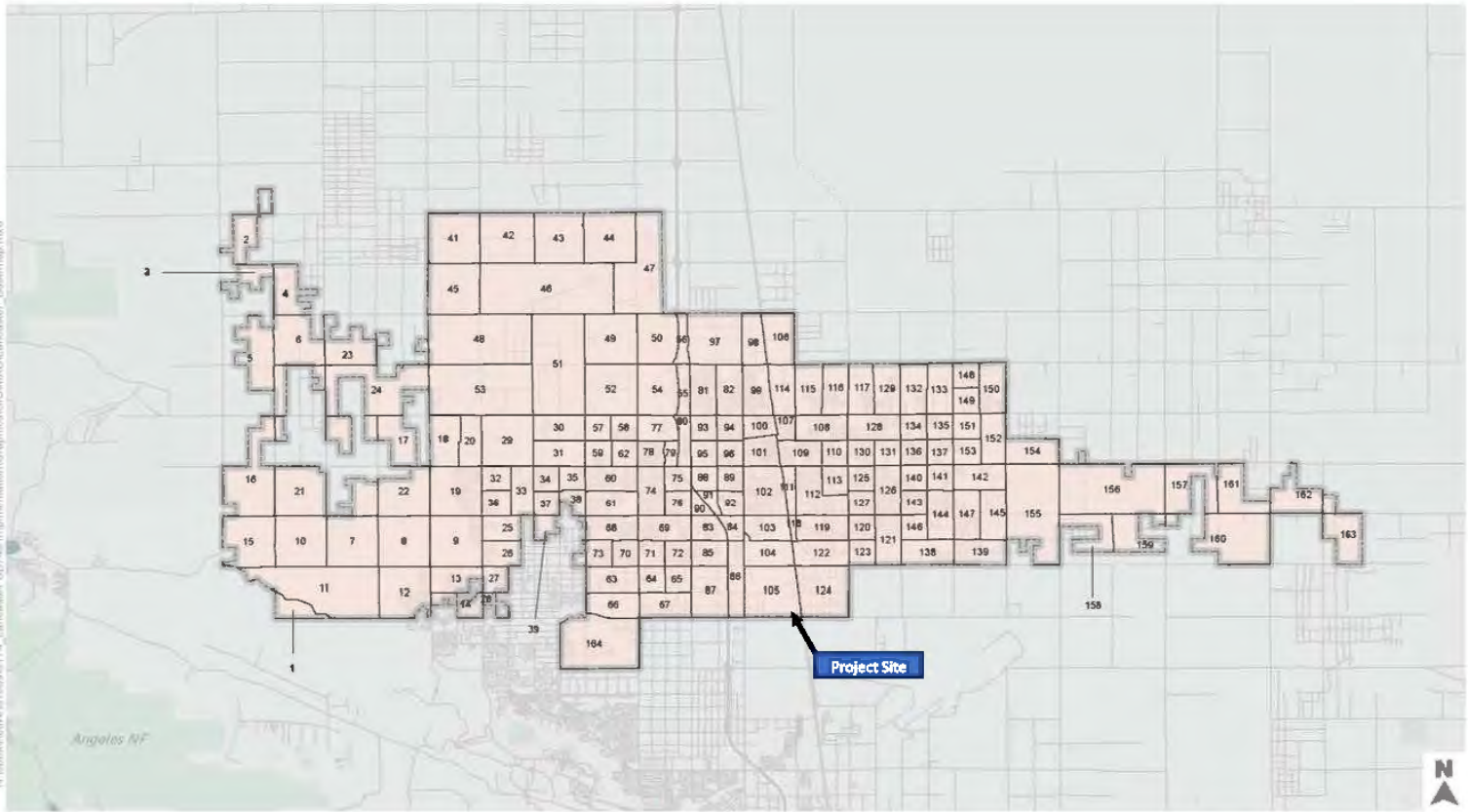
The effectiveness of identified TDM strategies is based primarily on research documented in the 2010 California Air Pollution Control Officers Association (CAPCOA) publication, *Quantifying Greenhouse Gas Mitigation Measures* (CAPCOA, 2010). CAPCOA offers methodology based on preferred literature, along with methodology based on alternative literature, for each strategy. The strategies described in the tables below are a sample of the options most effective in areas like the City of Lancaster, some of which are already being implemented in the City pursuant to the City's TDM ordinance. For a comprehensive list of available TDM



<sup>1</sup> Per the Governor's Office of Planning and Research (OPR) guidance, regional retail projects are those that exceed 50,000 square feet.

## **Attachment B**

SCAG VMT Modeling Data

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-  Tier 2 TAZs
-  City of Lancaster

City of Lancaster  
Tier 2 TAZs

**2012 Home-Based VMT Per Capita and Home-Based Work VMT per Employee**

Tier 2 TAZ	Population	Employment	Tier 1 TAZ	VMT Summary (Home-Based)						VMT Summary (Home-Based Work)					
				Home Based VMT	Home Based VMT per Capita	AVPA Home Based VMT per Capita	City Home Based VMT per Capita	AVPA Home Based VMT per Capita % Difference	City Home Based VMT per Capita % Difference	Home Based Work VMT	Home Based Work VMT per Worker	AVPA Home Based Work VMT per Worker	City Home Based Work VMT per Worker	AVPA Home Based Work VMT per Worker % Difference	City Home Based Work VMT per Worker % Difference
20315300	43	1,256	20315000	213	4.96	21.03	14.71	-76.42%	-66.31%	16,217	12.91	10.97	9.38	17.65%	37.62%

**2040 Home-Based VMT Per Capita and Home-Based Work VMT per Employee**

Tier 2 TAZ	Population	Employment	Tier 1 TAZ	VMT Summary (Home-Based)						VMT Summary (Home-Based Work)					
				Home Based VMT	Home Based VMT per Capita	AVPA Home Based VMT per Capita	City Home Based VMT per Capita	AVPA Home Based VMT per Capita % Difference	City Home Based VMT per Capita % Difference	Home Based Work VMT	Home Based Work VMT per Worker	AVPA Home Based Work VMT per Worker	City Home Based Work VMT per Worker	AVPA Home Based Work VMT per Worker % Difference	City Home Based Work VMT per Worker % Difference
20315300	58	2,067	20315000	246	4.24	18.81	14.71	-77.45%	-71.18%	17,933	8.68	7.05	9.38	22.98%	-7.53%