# Vehicle Miles Traveled (VMT) Analysis

Our Mission Create a safe, accessible, sustainable transportation environment that embodies diversity, equity and inclusion for future generations



## Vehicle Miles Traveled (VMT) Analysis

Following the passage of Senate Bill 743 (SB 734), the updated California Environmental Quality Act (CEQA) requires that all projects within the State of California utilize vehiclemiles-traveled (VMT) to analyze and evaluate transportation impacts as of July 1, 2020. Since that time, KOA has helped numerous jurisdictions, institutions, and private developers to evaluate VMT impacts associated with a wide range of project types. KOA is intimately familiar with VMT guidance published at the State level, as well as with the requirements of local municipalities throughout the Southern California region. Our company's breadth of knowledge and technical expertise allow us to identify and address VMT impacts for any project.

KOA implements a variety of tools to quantify the effects on VMT of a wide range of project types, from roadway infrastructure to land use development projects. These tools include local and regional travel demand models; GIS and "big data" sources; and jurisdictional sketch planning tools. Our experience with and understanding of these tools allow KOA to establish the appropriate VMT analysis approach, in compliance with CEQA requirements, for any type of project. Our engineers and planners have worked with numerous jurisdictions to implement and evaluate VMT conditions along their roadway networks.

To address VMT impacts identified in the analysis, our team has extensive experience preparing Transportation Demand Management (TDM) plans to reduce the amount of VMT generated by a project. KOA has worked with local jurisdictions and project teams to develop a list of feasible measures that will provide the greatest VMT reduction based on the context and environment of the project. Our staff is familiar with the latest research published by the California Air Pollution Control Officers Association (CAPCOA) and have the tools to quantify the VMT reductions associated with numerous TDM measures.

### **OUR EXPERTISE**



#### LAND USE DEVELOPMENT PROJECTS

- · Evaluate the total VMT generated by the proposed uses
- Prepare for individual developments or a Citywide land use plan
- Prepare TDM plans for project-specific or Citywide implementation

#### **ROADWAY INFRASTRUCTURE PROJECTS**

Evaluate the Citywide/area-wide change in VMT resulting from the project
Prepare graphics demonstrating the change in VMT along local roadways



· Incorporate physical improvements that reduce VMT into the project design



#### VMT IMPLEMENTATION/GUIDANCE

- Establish the appropriate tools and methodologies for evaluating VMT impacts within a jurisdiction
- Identify thresholds and criteria in order to meet regional and state emission reduction goals
- Create a toolbox of applicable and appropriate TDM measures for implementation by projects within the jurisdiction



Figure: Geographic expanse of KOA VMT experience. Blue shaded regions represent the areas covered by the travel demand models with which KOA has worked on. Yellow dots represent local jurisdictions for which KOA has conducted VMT analysis.

## CITY OF BUELLTON | TRAFFIC IMPACT ANALYSIS AND VEHICLE MILES TRAVELED GUIDELINES

KOA reviewed and updated the City of Buellton Traffic Impact Analysis (TIA) guidelines to comply with the transition from level of service (LOS) to VMT, as required by SB 743. As part of the update, KOA worked with the City to develop appropriate screening criteria and screening maps which could be used to determine quickly which projects would not be required to perform a full VMT analysis. For projects required to perform a full VMT analysis, KOA determined the appropriate analysis methodology and thresholds to apply for various project types and compiled a TDM Toolbox with measures to reduce VMT impacts. Due to the suburban/rural location of the City, the TDM measures and associated VMT reductions were carefully selected and quantified to be in line with the character of the City.

#### CITY OF ORANGE | NORTH TUSTIN STREET SPECIFIC PLAN

KOA assisted in the evaluation of existing and future traffic conditions associated with the implementation of Specific Plan land use changes along an approximately two-mile stretch of North Tustin Street in the City of Orange. For this analysis, KOA evaluated VMT generated by Specific Plan uses, as well as VMT occurring along roadways within the Specific Plan area. Due to the diverse mix of land uses proposed as part of the Specific Plan, KOA quantified VMT metrics for three different trip types: home-based trips, home-based-work trips, and all trips. In addition, KOA developed a list of appropriate TDM measures that could be implemented at developments throughout the Specific Plan area to reduce the VMT generated by the proposed uses.

#### CITY OF GLENDALE | GLENOAKS BOULEVARD ROADWAY REPURPOSING PROJECT

KOA provided planning and conceptual design assistance for the implementation of a roadway repurposing project in the City of Glendale, which consisted of the removal of travel lanes to accommodate upgraded bicycle facilities. In order to demonstrate the VMT reduction benefits of the project, KOA prepared a VMT analysis evaluating the project's effect on VMT within the immediate community and within the City at large. A VMT heat map was prepared demonstrating how changes in VMT along the project segment would impact nearby residential streets.



