In 2013, California’s Senate Bill 743 brought a significant change to the California Environmental Quality Act (CEQA) by establishing vehicle-miles traveled (VMT) as the transportation impact measure to promote the state’s climate goals. Off-site mitigation, or mitigation occurring outside the immediate boundaries of a development, has been proposed as a flexible and financially efficient way to address significant VMT impact of developments. Although promising, off-site mitigation projects could unintentionally burden disadvantaged communities by refraining access to benefits or disproportionately increasing VMT in areas surrounding project sites. This research addresses these equity concerns of off-site mitigation strategies like VMT banks and exchanges, ties the microscale built environment features to VMT, and explores the current perception of the VMT transition process among professionals.

Study Methods
This report employs a mixed-methods approach to explore the equity challenges of off-site VMT mitigation strategies and inform relevant policy and practices. For the quantitative analysis, a stratified random sample was used to select 60 census tracts within northern and southern California to perform a comparative analysis of VMT against sprawl, transit access, and microscale built environment data. On the qualitative side, 19 professionals with expertise in the California Environmental Quality Act, level-of-service, and VMT were interviewed to gain insight on how local and state government have handled the transition process. Interview transcripts were coded, and common themes were extracted to support the report’s conclusions. The report also examines the literature to identify best practices of off-site environmental mitigation.

Findings
The report offers several key findings. First, VMT-efficient areas can be characterized by communities of compact
densities, lower incomes, good access to transit, a higher percentage of households without access to vehicles, and better urban design features that contribute to walkability. This supports the popular notion that transit-oriented developments with urban design features that support walking and biking to said transit, significantly impacts people’s choice to drive. Second, microscale urban design features—along with macroscale built environment features, income, and access to transit—have a significant impact on VMT reduction. As such, the combination of all four factors must be considered for effective VMT mitigation. Third, transportation professionals are receptive to Senate Bill 743’s changes, but they desire additional support from the state for information and regional coordination. The main challenges described by the experts were: the lack of reliable, standardized VMT measure and evaluation tools; the lack of a strong legal foundation for VMT as a component of the CEQA; and the challenge of distributing off-site VMT mitigation equitably. Ensuring the equitable and proportionate distribution of VMT mitigation benefits involves identification of communities of concern, analysis of how the investments benefit these communities, and a meaningful community engagement process.

Policy/Practice Recommendations

• VMT mitigation strategies must account for how macroscale and microscale built environment attributes, transit access, and income interact to impact VMT.
  
• A combination of access to compact places, high-quality urban design features, and transit access is especially important for mitigating VMT in low-income communities and ensuring equity.

• Development of the VMT body of knowledge and robust VMT estimation and evaluation tools should be prioritized by the State of California.

• Statewide VMT banks and exchanges can be effectively managed at the regional level with local input.

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To Learn More
For more details about the study, download the full report at transweb.sjsu.edu/research/2027

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