9001-9019 LONG BEACH BOULEVARD HABITAT FOR HUMANITY PROJECT

Appendix G
Local Transportation Assessment

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February 10, 2026

Ms. Starla Barker
DE NOVO PLANNING GROUP
180 East Main Street #108
Tustin, CA 92780

Subject: **Long Beach Boulevard Multifamily Residential Project Trip Generation & VMT Analysis/Screening, City of South Gate, California**

Dear Starla,

MAT Engineering, Inc. is pleased to submit this trip generation study and VMT screening for the proposed Long Beach Boulevard multifamily residential project in the City of South Gate.

This analysis has been prepared in accordance with the scope previously reviewed and approved by City staff. A copy of the approved scope is contained in **Attachment D**.

A. Project Description & Location

The project site is located on the southwest corner of the Long Beach Boulevard / Willow Place intersection in the City of South Gate.

Existing uses on the project site consist of an auto repair/tire shop with an area of approximately 650 square feet.

The proposed project consists of removal of the existing auto repair/tire shop with development of 14 dwelling units of three-story multi-family residential use.

Access for the proposed project is planned via two driveways; one driveway on Willow place and one right-in/right-out driveway on Long Beach Boulevard.

Exhibit A shows the project location. **Exhibit B** shows the proposed site plan.

B. Project Trip Generation

Trip generation represents the amount of trips attracted and produced by a land use.

The trip generation for the existing use and the proposed project is based upon the specific land uses that have been planned for this project and has been determined utilizing the Institute of Transportation Engineers (ITE) trip generation rates which is an industry standard for calculating trips associated with land uses.

Table 1 shows the trip ITE trip generation rates for the existing and also the proposed uses based on the ITE. A copy of the ITE rates descriptions for these land uses is contained in **Attachment B**.

Table 1
ITE Trip Generation Rates

Land Use	ITE Code	Units	Peak Hour						Daily
			AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Auto Repair/Care	942	TSF	2.55	1.32	3.87	2.25	2.65	4.90	3.89
Multi-family Residential (Low-Rise)	220	DU	0.10	0.31	0.41	0.32	0.20	0.52	6.21

Notes:

Source: 2025 ITE 12th Edition Trip Generation Manual;

TSF = Thousand Square Feet; DU = Dwelling Units

Utilizing the ITE trip generation rates from **Table 1**, **Table 2** shows a summary of the net trip generation for the proposed project after accounting for the existing land use which will be removed.

Table 2
Project Trip Generation

Land Use	Quantity	Units	ITE Code	Peak Hour						Daily
				AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
Proposed Use (14 Dwelling Units of Low-Rise Multifamily Residential Units)	14	DU	220	1	5	6	4	3	7	87
Existing Use (650 Square Feet of Auto Repair Use)	0.650	TSF	942	- 2	- 1	- 3	- 1	- 2	- 3	- 22
NET Total				**- 1**	**4**	**3**	**3**	**1**	**4**	**65**

Source::

Institute of Transportation Engineers (ITE) 2025 Trip Generation Manual (12th Edition)

As shown in **Table 2**, based on the ITE trip generation rates:

- Without taking any credit for the existing use, the proposed project is forecast to generate approximately 87 daily trips which include approximately 6 AM peak hour trips and approximately 7 PM peak hour trips.

- The existing use generates approximately 22 daily trips which include approximately 3 AM peak hour trips and approximately 3 PM peak hour trips.

- After taking credit for the existing use, the proposed project is forecast to generate approximately 65 NET additional daily trips which include approximately 3 NET additional AM peak hour trips and approximately 4 NET additional PM peak hour trips.

C. Trip Generation Evaluation & Access Analysis

As shown in **Table 2**, after taking credit for the existing use, the proposed project is forecast to generate approximately 65 NET additional daily trips which include approximately 3 NET additional AM peak hour trips and approximately 4 NET additional PM peak hour trips.

Based on industry standards and the Los Angeles County traffic study requirements, typically, a full traffic study is required when a project generates more than 50 peak hour trips or 110 daily trips. Since the proposed project is expected to generate a low number of trips, a full traffic study is not required for the proposed project. Due to the low number of trips, the project is expected to not have an adverse impact on the level of service and operations of the surrounding circulation system and roadway network.

D. Proposed Scope of Vehicle Miles Traveled (VMT) Analysis

In response to Senate Bill (SB) 743, the California Natural Resource Agency certified and adopted new CEQA Guidelines in December 2018 which now identify Vehicle Miles Traveled (VMT) as the most appropriate metric to evaluate a project's transportation impact under CEQA (§ 15064.3).

Effective July 1, 2020, the previous CEQA metric of LOS, typically measured in terms of automobile delay, roadway capacity and congestion, generally will no longer constitute a significant environmental impact.

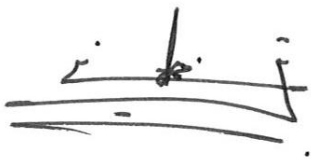
Based on Section 3.1.2.1 of the County of Los Angeles traffic study requirements (July 23, 2020), non-retail projects generating less than 110 daily trips could be screened out from requiring a full VMT analysis. A copy of the guidelines is contained in Attachment C.

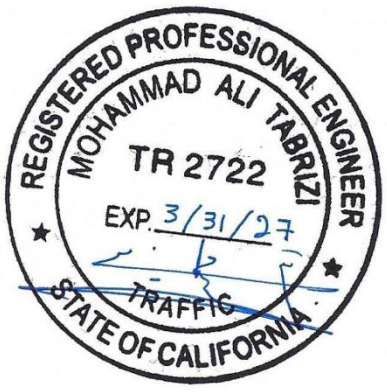
Hence, the proposed project screens out for requiring a full VMT analysis and has a less than significant traffic impact under the California Environmental Quality Act (CEQA).

MAT Engineering Inc. appreciates the opportunity to provide this technical letter and memorandum. If you have any questions, concerns, or comments, please contact us at 949-344-1828 or at@matengineering.com.

Respectfully submitted,

MAT ENGINEERING, INC.



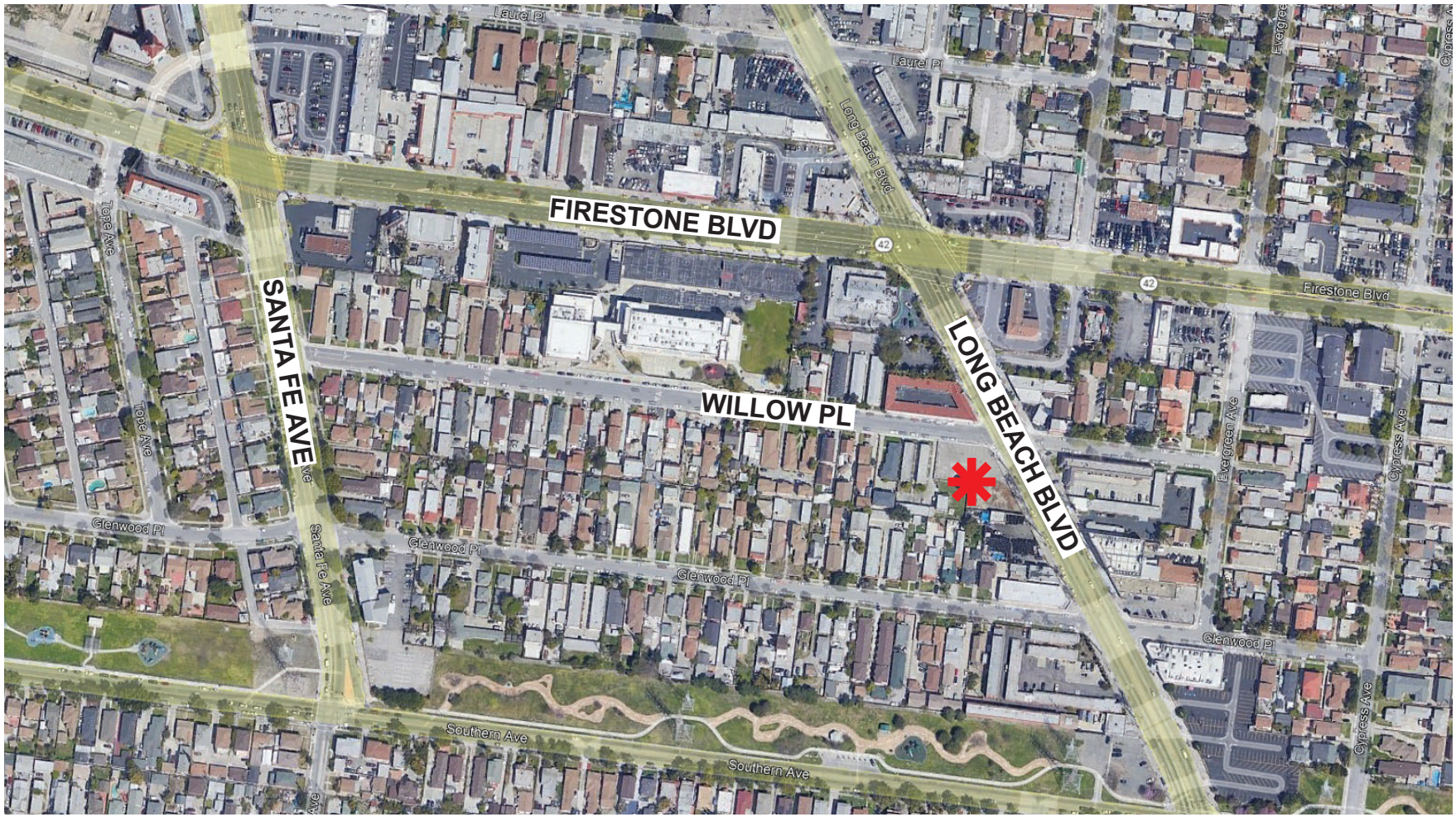


Alex Tabrizi, PE, TE

President

Attachment A

Exhibits



Legend:

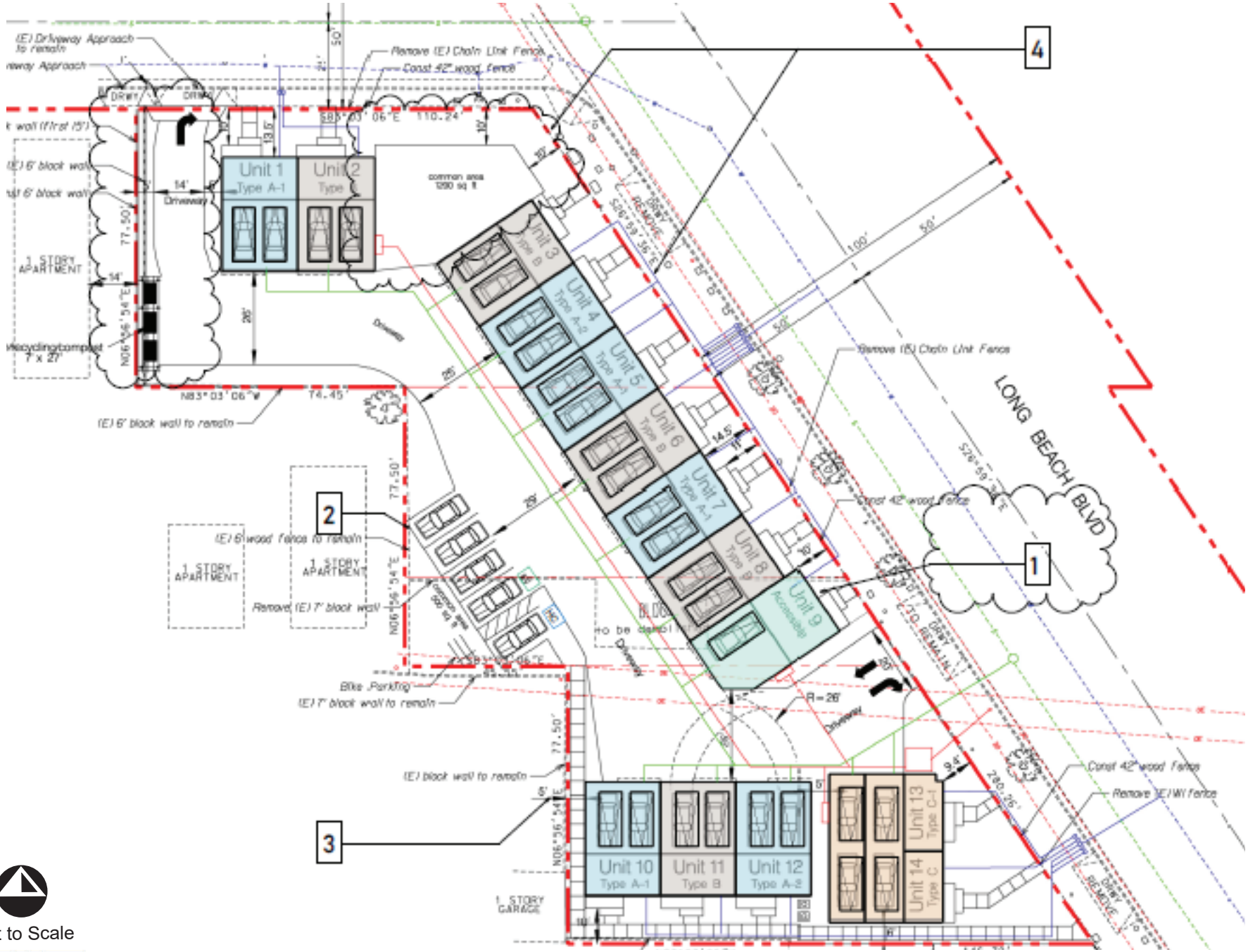
Site Location

Not to Scale

ENGINEERING, INC.

Project Location

Exhibit A



Not to Scale

ENGINEERING, INC.

Site Plan

Exhibit B

Attachment B

ITE Data

Land Use: 220
Multifamily Housing (Low-Rise)

Description

Low-rise multifamily housing is a residential building with two or three floors (levels) of residences. Various configurations fit this description, including the following:

- Walk-up apartment or multiplex—access to the individual dwelling units is typically internal to the structure and provided through a shared entry, stairway, and hallway.
- Mansion apartment with several dwelling units within what appears from the outside to be a single-family dwelling unit.
- Stacked townhouse designed to match the external appearance of a townhouse, but which has dwelling units that share both floors and walls and with access through a central entry and stairway.

Land Use Subcategory

Data are presented for two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Additional Data

For the three sites for which both the number of residents and the number of occupied dwelling units were available, there was an average of 2.72 residents per occupied dwelling unit.

For the two sites for which the numbers of both total dwelling units and occupied dwelling units were available, an average of 96.2 percent of the total dwelling units were occupied.

It is expected that the number of bedrooms and number of residents are likely correlated to the trips generated by a residential site. To assist in future analysis, trip generation studies of all multifamily housing should attempt to obtain information on occupancy rate and on the mix of residential unit sizes (i.e., number of units by number of bedrooms at the site complex).

The sites were surveyed in the 1990s, the 2000s, the 2010s, and the 2020s in Arizona, British Columbia (CAN), California, Delaware, Florida, Illinois, Maine, Massachusetts, Minnesota, New Jersey, New York, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Utah, and Washington.

Source Numbers

357, 390, 412, 525, 530, 579, 583, 638, 864, 866, 896, 901, 903, 904, 936, 939, 944, 946, 947, 948, 963, 964, 966, 967, 1012, 1013, 1014, 1036, 1047, 1056, 1071, 1076, 1219, 1236, 1265, 1267

Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

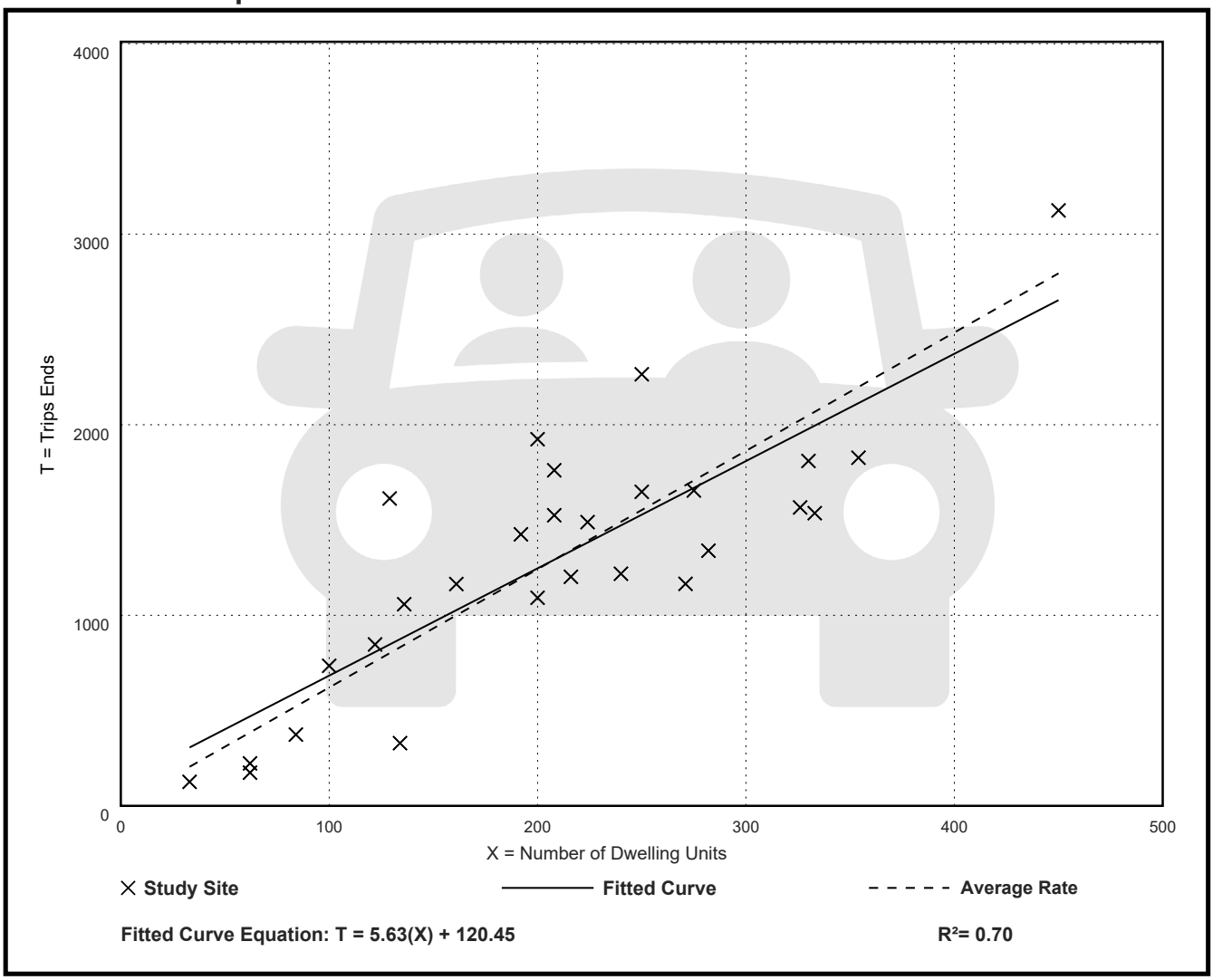
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 28
Avg. Num. of Dwelling Units: 208
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.21	2.46 - 12.50	1.87

Data Plot and Equation



Fitted Curve Equation: T = 5.63(X) + 120.45

R^2= 0.70

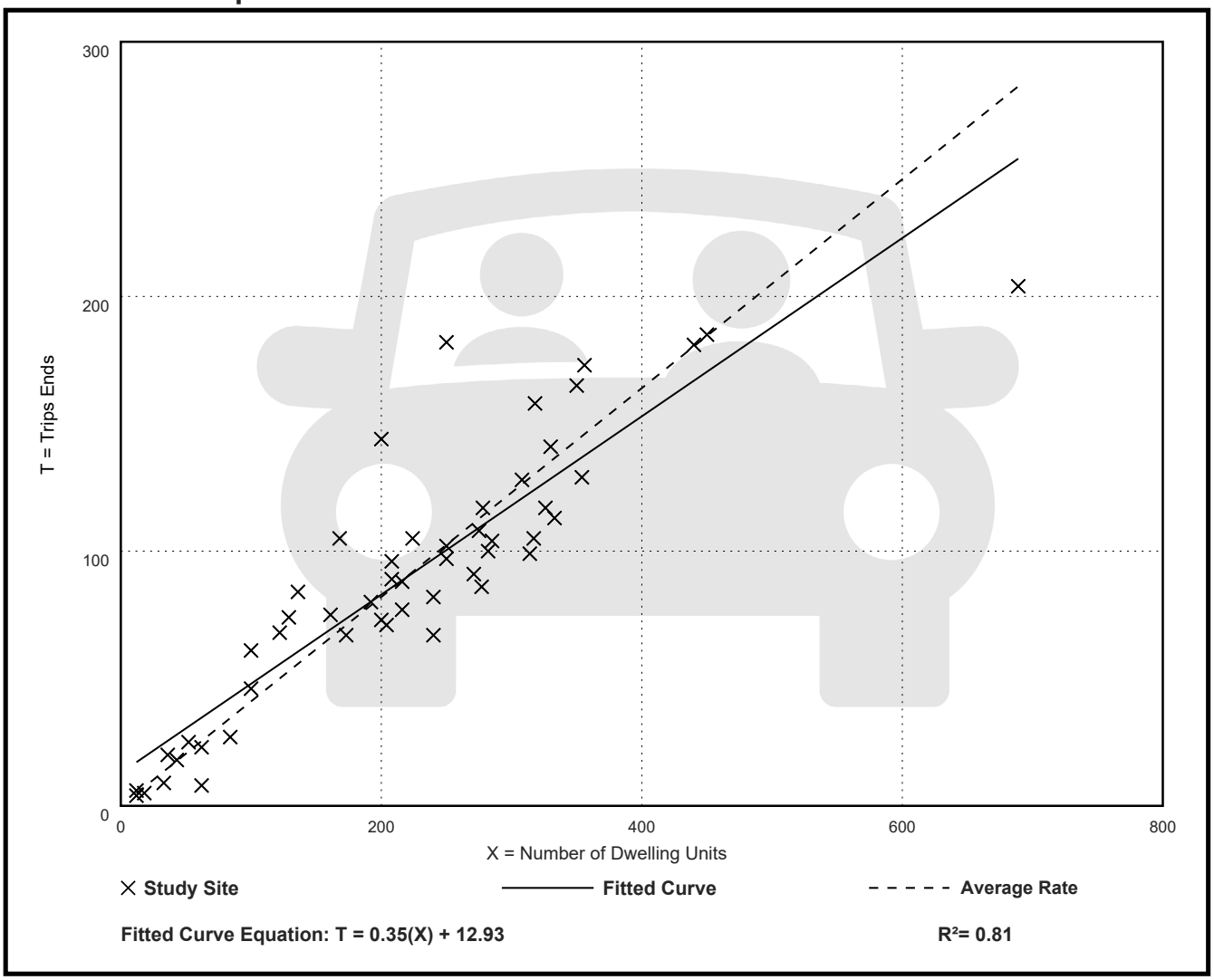
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	51
Avg. Num. of Dwelling Units:	219
Directional Distribution:	24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.41	0.13 - 0.73	0.10

Data Plot and Equation



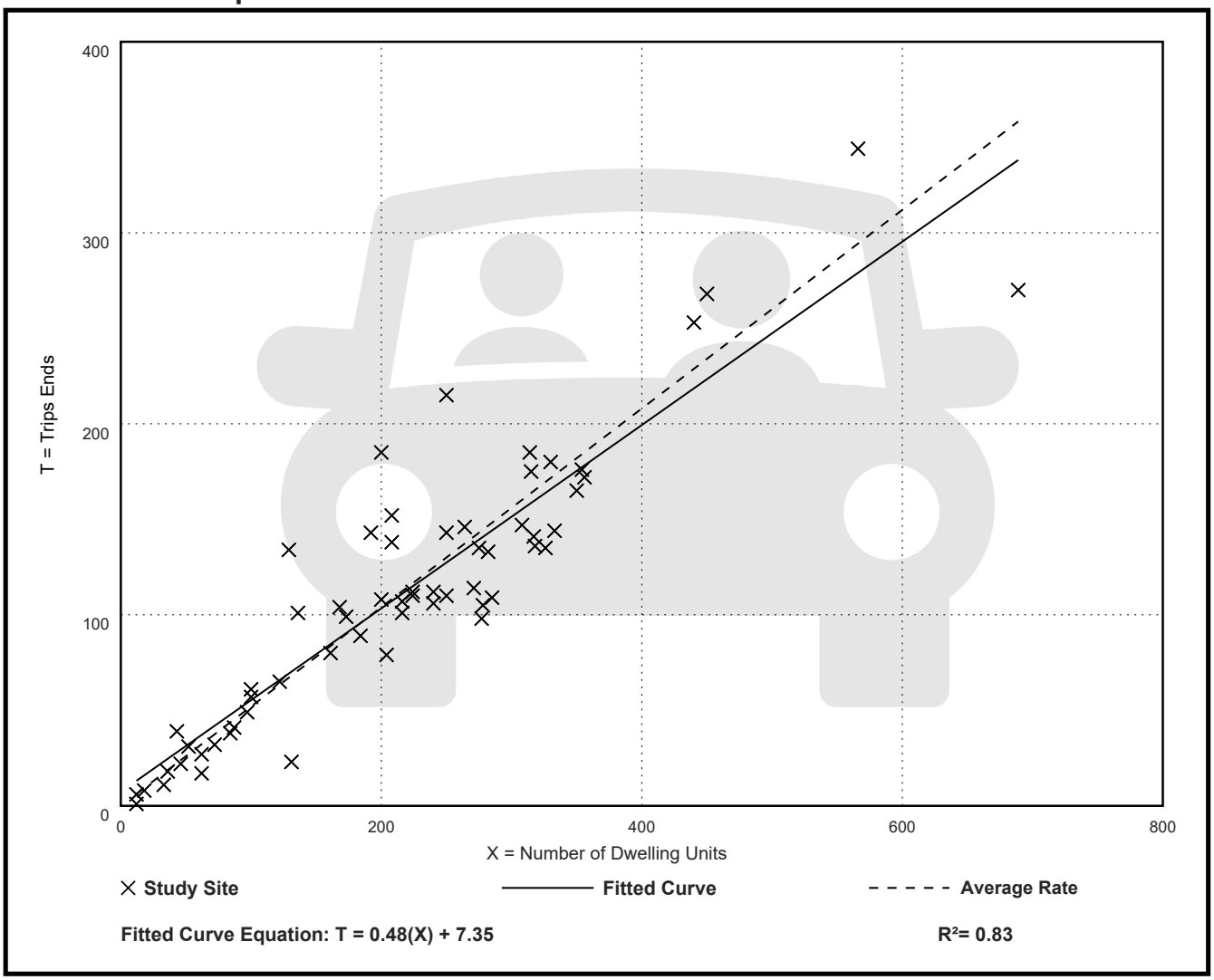
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	61
Avg. Num. of Dwelling Units:	215
Directional Distribution:	62% entering, 38% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.52	0.08 - 1.04	0.13

Data Plot and Equation



Fitted Curve Equation: T = 0.48(X) + 7.35

R^2= 0.83

Land Use: 942
Automobile Care Center

Description

An automobile care center houses numerous businesses that provide automobile-related services, such as repair and servicing, stereo installation, and seat cover upholstering.

Additional Data

The sites were surveyed in the 1990s and the 2020s in Florida and New Jersey.

Source Numbers

439, 1219

Automobile Care Center
(942)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

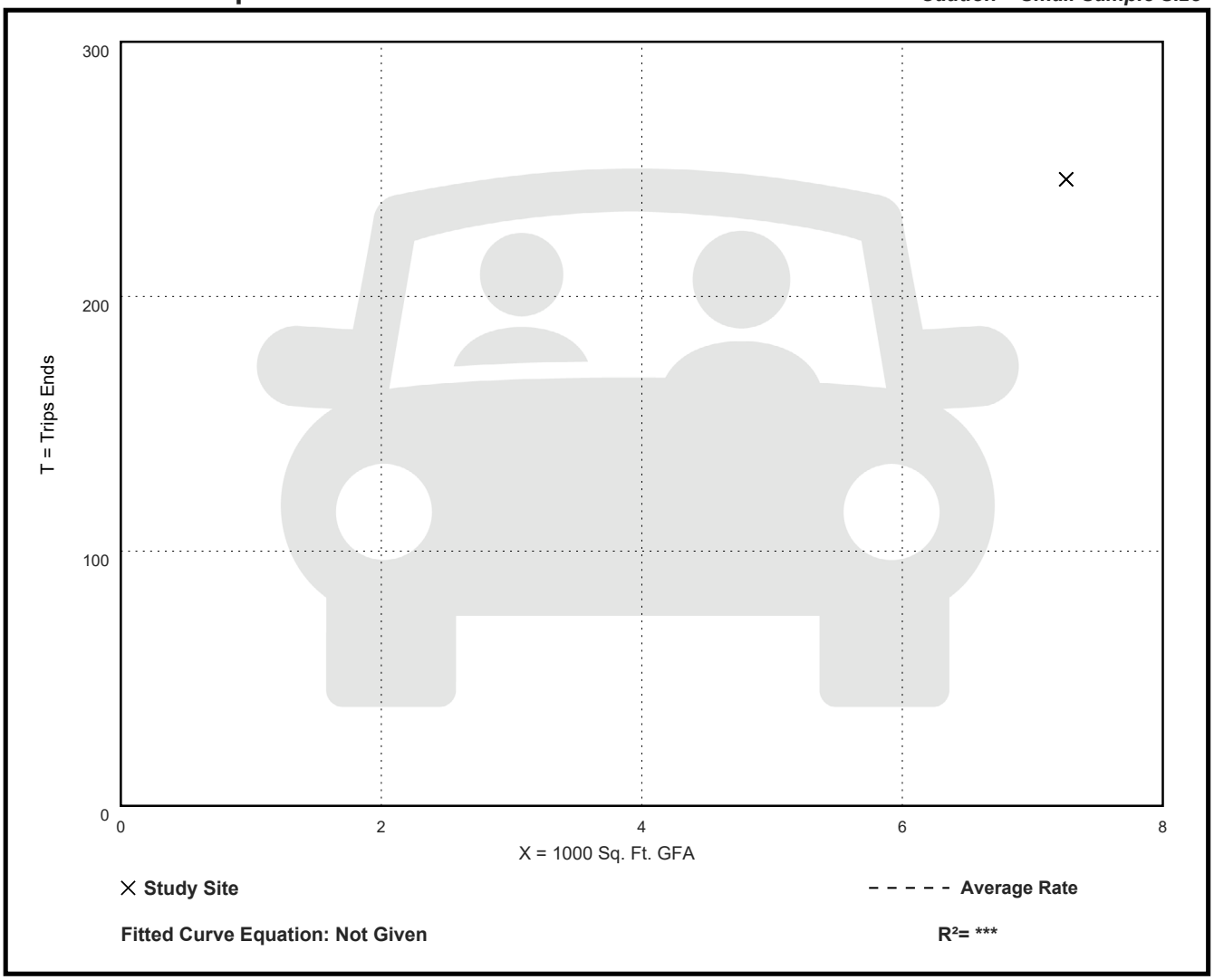
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. 1000 Sq. Ft. GFA: 7
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
33.89	33.89 - 33.89	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= *

Automobile Care Center
(942)

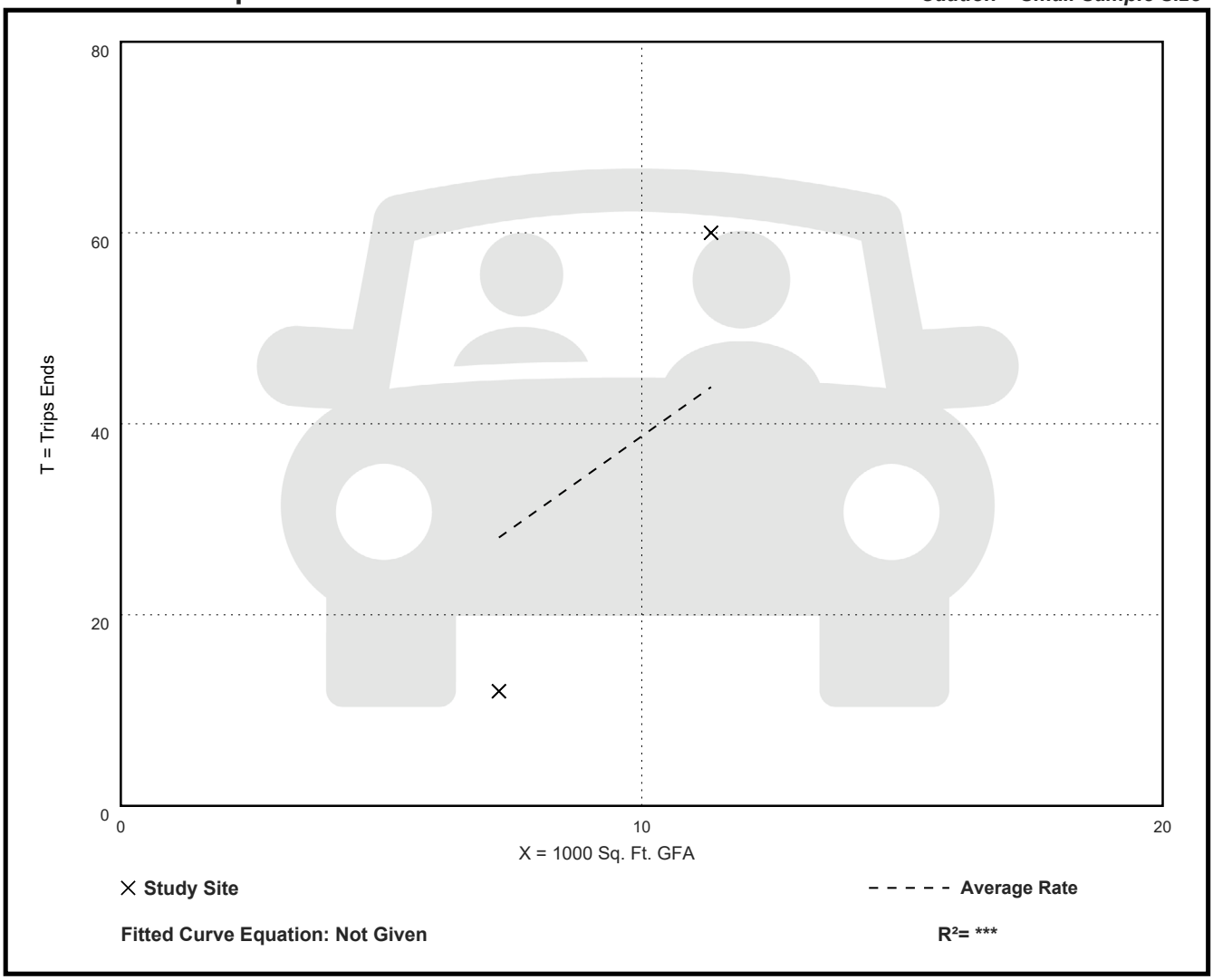
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 2
Avg. 1000 Sq. Ft. GFA: 9
Directional Distribution: 66% entering, 34% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.87	1.65 - 5.30	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= *

Automobile Care Center
(942)

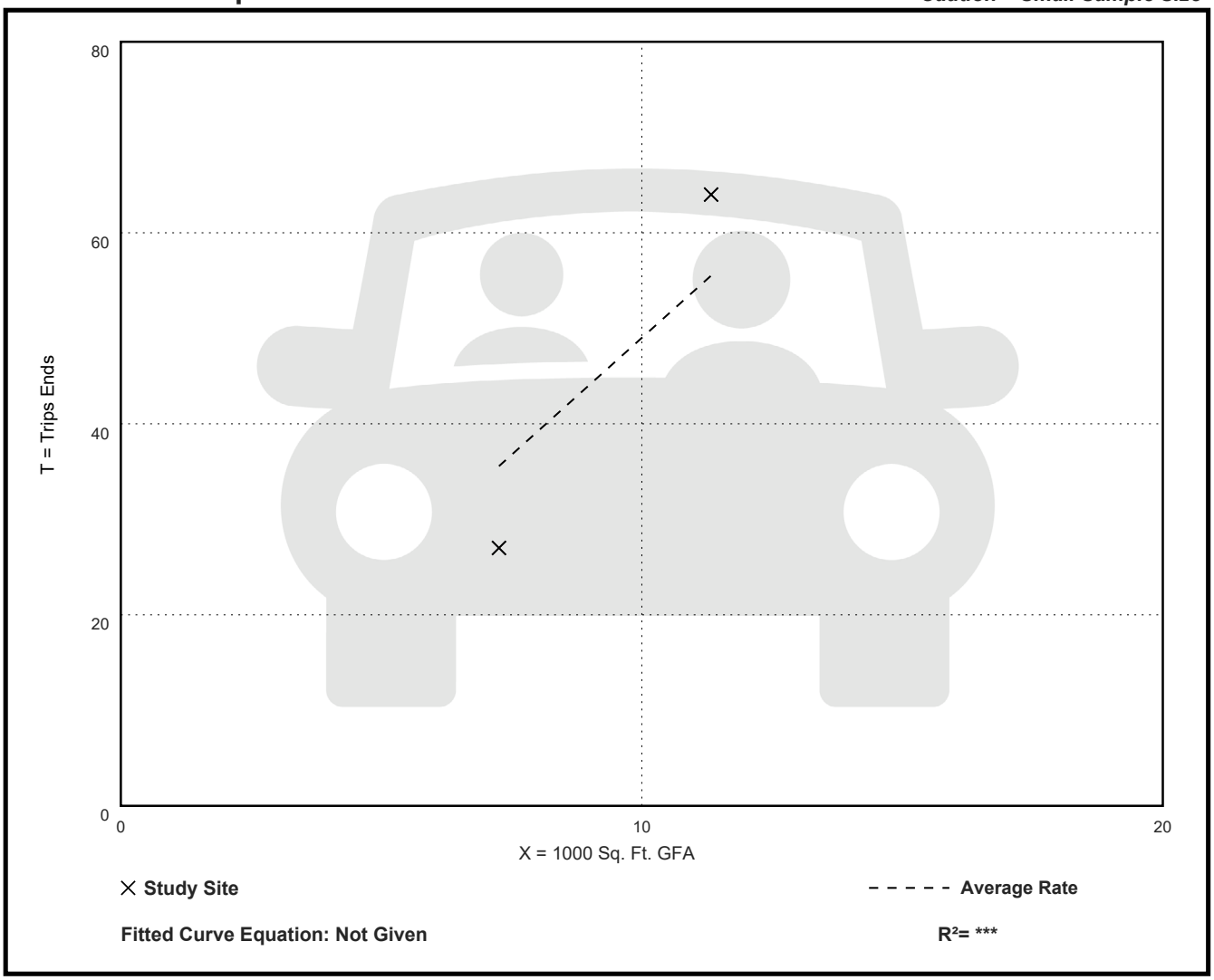
Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	2
Avg. 1000 Sq. Ft. GFA:	9
Directional Distribution:	46% entering, 54% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
4.90	3.72 - 5.65	***

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: Not Given

R^2= ***

Attachment C

Los Angeles County Public Works Transportation Impact Analysis Guidelines

Los Angeles County Public Works

Transportation Impact Analysis Guidelines

July 23, 2020
Prepared by Public Works

Table of Contents

Section 1. - Introduction

Public Works generally will require the preparation and submission of a Transportation Impact Analysis for projects that meet the following criteria:

- Development Projects:
  - Estimated to generate a net increase of 110 or more daily vehicle[1] trips.
- Transportation Projects:
  - Likely to induce additional vehicle[1] miles traveled (VMT) by increasing vehicle capacity.
- Projects for which a Transportation Impact Analysis is required by County ordinance; regulation; resolution; court order; or directive from the Board of Supervisors, Regional Planning Commission.

A Transportation Impact Analysis requires analyses and forecasting of impacts or deficiencies to the circulation system generated by the project. The Transportation Impact Analysis identifies feasible measures or corrective conditions to offset any impacts or deficiencies.

The Transportation Impact Analysis shall be prepared under the direction of, and be signed by, a Professional Engineer, registered in the State of California to practice either Traffic or Civil Engineering.

[1] The term vehicle refers to on-road passenger vehicles, specifically cars and light trucks. Heavy-duty trucks should only be included in a traffic impacts analysis for modeling convenience and ease of calculation (e.g., where models or data provide combine auto and heavy-freight VMT) but should not contribute to a finding of significant traffic impact under any circumstances.

Section 2. - Overall Steps

The project applicant shall follow the general steps summarized below when preparing a transportation impact analysis for a discretionary development project or transportation project.

Step 1. Project Memo

The project applicant shall inform Public Works that a new Transportation Impact Analysis is being prepared. In this initial communication, the following information shall be provided:

A. Project Description – Provide a general description of the project, including size (defined by square footage per use and/or number of dwelling units) and use(s). The project description should include information on any phased construction and any unusual conditions. The project description shall specify a building address, Assessor's parcel number, and project title.

B. Project Site Plan – Submit the proposed project site plan, which shall clearly identify driveway or access location(s), loading/unloading areas, and parking design and circulation to help define the distribution of project trips. Considerations for traffic flow and movement should be designed and incorporated early in building and parking layout plans. To minimize and prevent last minute building design changes, project applicants should contact the Public Works Land Development Division and Public Works Traffic Safety and Mobility Division to determine the requirements for driveway width and internal circulation before finalizing the building and parking layout design.

Step 2. Other Agency Contacts

The project applicant shall consult with other agencies or adjacent jurisdictions (e.g., Caltrans, other cities, transit agencies, etc.) that may be affected by site access and travel demands generated by the project to ensure those agencies' transportation-related concerns and issues are properly addressed in the Transportation Impact Analysis. If, as part of site access and circulation evaluation (see Section 4), a Transportation Impact Analysis includes the evaluation of an intersection or intersections in an adjacent local jurisdiction, then any corrective actions deemed necessary to address circulation concerns should be reviewed by and confirmed in writing by that jurisdiction. Written confirmation of consultation with all affected agencies is required.

Step 3. Scoping Document

The project applicant shall prepare and submit a Scoping Document to Public Works through the EPIC-LA portal. The Scoping Document describes the

assumptions and parameters that shall be included in the Transportation Impact Analysis including any analysis requirements from other affected jurisdictions identified in Step 2.

Step 4. Data Collection

The project applicant shall gather qualitative and quantitative data needed to support the required analyses and components of the Transportation Impact Analysis. Traffic count data shall be collected in accordance with standards and methods established in the Transportation Impact Analysis Guidelines.

Step 5. Transportation Impact Analysis Submittal

The project applicant shall submit the completed Transportation Impact Analysis to Public Works through the EPIC-LA portal and ensure that all subsequent submittals of the Transportation Impact Analysis are dated and timestamped.

Step 6. Transportation Impact Analysis Confirmation of Findings Letter

Public Works will prepare and distribute a Transportation Impact Analysis Confirmation of Findings Letter after the fees have been submitted and the Transportation Impact Analysis has been reviewed and approved.

The Transportation Impact Analysis Confirmation of Findings Letter will be limited to summarizing the findings and requirements for the proposed project. Additional fees/deposits may be required should the project applicant request findings and requirements for additional project alternatives.

Step 7. Mitigation and Monitoring

The project applicant may be responsible for ongoing reporting, depending on the nature of the mitigation measures and corrective actions to be implemented by the project. Reporting and monitoring of Transportation Demand Management (TDM) measures implemented by the project to improve mobility options at and around a project site may also be required and will be described in the Transportation Impact Analysis Confirmation of Findings Letter.

Section 3. - California Environmental Quality Act (CEQA) Transportation Impact Analysis Process

Section 3.1. - Development Projects

Section 3.1.1. - Introduction

The updated CEQA Guidelines certified and adopted by the California Natural Resources Agency in December 2018 are now in effect. Accordingly, Public Works recognizes the need to provide information based on guidance from the Office of Planning and Research and the California Air Resources Board on the assessment of vehicle miles traveled (VMT), thresholds of significance, and mitigation measures for development projects and land use plans in accordance with the amended Appendix G question below:

- For a development project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?

For development projects, the intent of this question is to assess whether a proposed project or plan adequately reduces total VMT. Public Works provides the following guidance regarding screening and impact criteria to address this question. The following screening criteria and impact criteria are only meant to serve as guidance for projects to determine whether a Transportation Impact Analysis should be performed, and the criteria to determine if a project generates a significant transportation impact. The criteria shall be determined on a project-by-project basis as approved by Public Works.

Section 3.1.2. - Screening Criteria

Section 3.1.2.1. - Non-Retail Project Trip Generation Screening Criteria

If the answer is no to the question below, further analysis is not required, and a less than significant determination can be made.

- Does the development project generate a net increase of 110 or more daily vehicle[1] trips[2]?

A project's daily vehicle trip generation should be estimated using the most recent edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. If the project proposed land use is not listed in the ITE Trip Generation Manual, please submit a trip generation study to Public Works for review and approval.

Section 3.1.2.2. - Retail Project Site Plan Screening Criteria

A project that contains a local serving retail use is assumed to have less than significant VMT impacts for the retail portion of the project. If the answer to the following question

[2] As referenced in the Governor's Office of Planning and Research (OPR), *Technical Advisory on Evaluating Transportation Impacts in CEQA*, December 2018.

is no, a less than significant determination can be made for the portion of the project that contains retail uses.

- Does the project contain retail uses that exceed 50,000 square feet of gross floor area[2]?

However, if the retail project is part of a mixed-use project, then the remaining portion of the project may be subject to further analysis in accordance with other screening criteria in Section 3.1. Projects that include retail uses in excess of the Retail Project Site Plan Screening Criteria need to evaluate the entirety of the project's VMT.

Section 3.1.2.3. – Proximity to Transit Based Screening Criteria

If a project is located near a major transit stop or high-quality transit corridor, the following question should be considered:

- Is the project located within a one-half mile radius of a major transit stop or an existing stop along a high-quality transit corridor[2]?

If the answer to the question above is yes, then the following subsequent questions should be considered:

- Does the project have a Floor Area Ratio[2] less than 0.75?
- Does the project provide more parking than required by the County Code[2]?
- Is the project inconsistent with the SCAG RTP/SCS[2]?
- Does the project replace residential units set aside for lower income households with a smaller number of market-rate residential units[2]?

If the answer to all four questions is no, further analysis is not required, and a less than significant determination can be made.

To determine the proposed change in residential units, the total number of lower income housing units that exist on the project site should be counted and compared to the total number of lower income and market-rate residential units proposed by the project. If there is a net decrease in residential units, the Proximity to Transit Based Screening Criteria cannot be utilized.

Section 3.1.2.4. – Residential Land Use Based Screening Criteria

Independent of the screening criteria for non-retail and retail projects, certain projects that further the State's affordable housing goals are presumed to have less than significant impact on VMT. If the project requires a discretionary action and the answer is yes to the question below, further analysis is not required, and a less than significant determination can be made.

- Are 100% of the units, excluding manager's units, set aside for lower income households[2]?

Section 3.1.3. - Impact Criteria

The project has a potentially significant VMT impact if it meets one or more of the criteria listed below. The impact criteria below are considered as potential options that may be selected as thresholds for determining significance. These impact criteria below are based on guidance published by OPR[2] and CARB[3] but their applicability to a specific project shall be justified with substantial evidence and is not presumed to be appropriate.

- Residential Projects The project's residential VMT[4] per capita would not be 16.8%[3] below the existing residential VMT[4] per capita for the Baseline Area in which the project is located (Table 3.1.3.-1),
- Office Projects. The project's employment VMT[5] per employee exceeding would not be 16.8%[3] below the existing employment VMT[5] per employee for the Baseline Area in which the project is located (see Table 3.1.3.-1),
- Regional Serving Retail Projects. The project would result in a net increase[2] in existing total VMT (see Table 3.1.3.-1),
- Land Use Plans. The plan total VMT per service population[6] (residents and employees) would not be 16.8%[3] below the existing VMT per service population[6] for the Baseline Area in which the plan is located (see Table 3.1.3.-1),
- For other land use types, please contact Public Works to determine which of the above are an appropriate threshold of significance to be utilized (see Table 3.1.3.-1).

Table 3.1.3-1 provides the Baseline VMT for the North and South areas of the County at the time these guidelines were prepared. The Baseline VMT applied in the Transportation Impact Analysis should be consistent with the year that the transportation study begins as defined in the Scoping Document.

[3] As referenced by the VMT reduction goals discussed in the California Air Resources Board, 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Goals, January 2019, Figure 3.
[4] Residential VMT is the VMT generated by Home-Based Work and Home-Based Other trip productions.
[5] Employment VMT is the VMT generated by Home-Based Work trip attractions.
[6] Service population is the sum of the number residents and the number of employees

Table 3.1.3.-1 – Baseline VMT for North and South County

Baseline Area	Residential VMT per Capita	Employment VMT per Employee	Total VMT per Service Population
North County	22.3	19.0	43.1
South County	12.7	18.4	31.1

The geographic boundaries for the North County and South County Baseline Areas are shown in Figure 3.1.3-1.

Figure 3.1.3.-1 North and South County Baseline VMT Boundaries

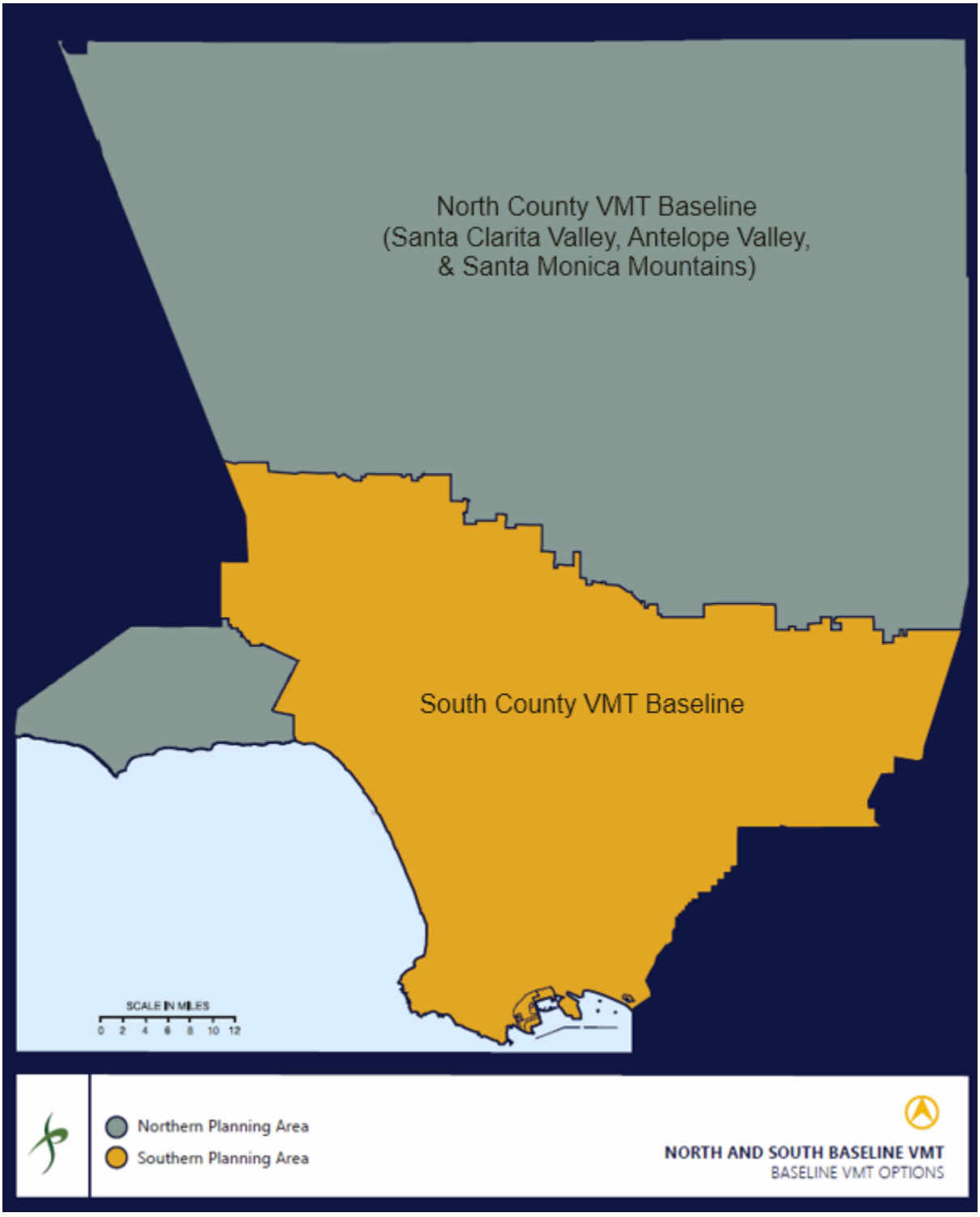


Table 3.1.3.-2 – VMT Impact Criteria (16.8% Below Area Baseline)

Baseline Area	Residential VMT per Capita	Employment VMT per Employee	Total VMT per Service Population (residents and employees)
North County	18.6	15.8	35.9
South County	10.6	15.3	25.9

Section 3.1.4. - Methodology

Section 3.1.4.1 - Evaluation

Screening and impact evaluation should be conducted for the following types of development projects:

- Non-Retail Land Uses:
  - Residential Land Uses:
    - Single-family housing,
    - Multi-family housing,
    - Affordable housing (for lower income households).
  - Office, Manufacturing, or Institutional Land Uses:
    - General office,
    - Medical office,
    - Light industrial,
    - Manufacturing,
    - Warehousing/self-storage,
    - K-12 schools,
    - College/university,
    - Hotel/motel.
- Retail Land Uses:
  - General retail,
  - Furniture store,
  - Pharmacy/drugstore,
  - Supermarket,
  - Bank,
  - Health club,
  - Restaurant,
  - Auto repair,
  - Home improvement superstore,
  - Discount store,
  - Movie theater.

The land uses described above are not intended to be inclusive of every project-type reviewed by Public Works and subject to CEQA. For these and all other land uses, the appropriate screening criteria and impact evaluation shall be determined on a project-by-project basis.

Section 3.1.4.2. - Project Impact Determination

- Residential Projects: Daily vehicle[1] trips, daily VMT, and daily residential VMT[4] per capita for residential projects should be estimated using the SCAG RTP/SCS Travel Demand Forecast Model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]). Transportation demand management strategies to be included as project design features should be considered in the estimation of a project's daily vehicle trips and VMT (see Section 3.1.5 regarding TDM strategies),

- Office Projects: Daily vehicle[1] trips, daily VMT, and daily employment VMT[5] per employee for office projects should be estimated using the SCAG RTP/SCS Travel Demand Forecast Model (as described Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]). Transportation demand management strategies to be included as project design features should be considered in the estimation of a project's daily vehicle trips and VMT,

- Regional Serving Retail Projects: The Scoping Document prepared by the project applicant and Public Works will outline one of the following methods for impact determination:

    - Preparation of a market-study-based transportation analysis submitted by the project applicant that demonstrates the project area is underserved for the proposed retail use and that the project will shorten existing shopping trips by creating an intervening location between trip origins and current retail destinations.

    - Run the SCAG RTP/SCS Travel Demand Forecasting Model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) with and without the project. Since the overall number of trips in the model is based on home-based trips and is balanced to home-trip productions, the total number of trips will not be influenced materially by the introduction of the additional retail space. Rather, the model will redistribute home-shopping trips from other retail destinations to the proposed retail destination,

        - If the project is entirely retail, the following steps apply:
            - Determine the traffic analysis zone (TAZ) in which the project is located,

[7] *Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report*, Fehr & Peers, June 2020

- Convert the project retail land uses into the appropriate employment categories utilized in the model and adjust the socioeconomic parameters in the TAZ appropriately to reflect removal of existing land uses and addition of the project,
- Run the four-step model process for the model existing base year for the four-time periods in the model (AM peak period, midday period, PM peak period, nighttime period) for the base ("no project") scenario and for the "plus project" scenario,
- Calculate total VMT on the model network for each time period and sum to determine daily VMT for each scenario. The total VMT should capture both employee and home-shopping trips. Subtract the daily VMT for the base scenario from the daily VMT for the "plus project" scenario to determine the net change in daily VMT.

▪ If the proposed project is a mixed-use development including more than 50,000 square feet of retail, conduct steps similar to those described above. However, first create a "without retail" model scenario that includes the rest of the project's proposed land uses and then create and run the four-step model for this "with retail" scenario. Subtract the daily VMT for the "without retail" scenario from the daily VMT for the "with retail" scenario to determine the net change in daily VMT.

- Land Use Plans: Daily vehicle[1] trips, daily VMT, and daily total VMT per service population[6] for land use plans should be estimated using the SCAG RTP/SCS Travel Demand Forecast Model (as described Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]). Transportation demand management strategies to be included as project design features should be considered in the estimation of a project's daily vehicle trips and VMT,

- Unique Land Uses: Some projects will not fit into one of the above categories. In such cases, a customized approach may be required to estimate daily trips and VMT. The methodology and thresholds to be used in such cases should be developed in consultation with and approved by Public Works staff at the outset of the study,

- Mixed-Use Projects: The project VMT impact should be considered significant if any (one or all) of the project land uses exceed the impact criteria for that particular land use, taking credit for internal capture. In such cases, mitigation options that reduce the VMT generated by any or all of the land uses could be considered.

Section 3.1.4.3. - Cumulative Impacts Determination

Land use projects should consider both short- and long-term project effects on VMT. Short-term effects will be evaluated in the detailed project-level VMT analysis. Long-term, or cumulative effects is determined through consistency with the SCAG RTP/SCS. The

RTP/SCS is the regional plan that demonstrates compliance with air quality conformity requirements and GHG reduction targets. As such, projects that are consistent with this plan in terms of development location, density, and intensity, are part of the regional solution for meeting air pollution and GHG goals. Projects that are deemed to be consistent would have a less than significant cumulative impact on VMT. Development in a location where the RTP/SCS does not specify any development may indicate a significant impact on transportation. However, if a project does not demonstrate a significant impact in the project impact analysis, a less than significant impact in the cumulative impact analysis can also be determined. Projects that fall under the RTP/SCS's efficiency-based impact thresholds are already shown to align with the long-term VMT and greenhouse gas reduction goals of SCAG's RTP/SCS.

Land use projects that: (1) demonstrate a project impact after applying an efficiency based VMT threshold and (2) are not deemed to be consistent with the SCAG RTP/SCS could have a significant cumulative impact on VMT. Further evaluation would be necessary to determine whether the project's cumulative impact on VMT is significant. This analysis could be conducted by running the SCAG RTP/SCS Travel Demand Forecasting Model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) with the cumulative "no project" scenario representing the RTP/SCS cumulative year conditions and the cumulative "plus project" scenario representing the reallocation of the population and/or employment growth based on the land supply changes associated with the proposed project. Baseline Area VMT, residential VMT per capita, or employment VMT per employee (depending on project type) would be calculated for both scenarios, and any increase in VMT, residential VMT per capita, or employment VMT per employee (depending on project type) above that which was forecasted in the RTP/SCS would constitute a significant impact.

When specifically evaluating the VMT impacts of regional-serving retail, the cumulative analysis would include additional steps under the project impact methodology to compare a cumulative "plus project" scenario with the cumulative "no project" scenario. The cumulative "no project" scenarios represents the adopted RTP/SCS cumulative year conditions (as incorporated into the SCAG RTP/SCS model). This would involve the following additional steps:

- Determine the traffic analysis zone (TAZ) in which the project is located,
- Convert the project land uses into the appropriate employment categories utilized in the RTP/SCS horizon year model. Adjust the socioeconomic parameters in the TAZ appropriately to reflect removal of the existing land uses and addition of the project,
- Run the four-step model process for the model's cumulative "no project" scenario for the four-time periods in the model (AM peak period, midday period, PM peak period, nighttime period). Then do the same for the base cumulative "no project" scenario and for the cumulative "plus project" scenario,
- Calculate total VMT on the model's network for each time period as well as the sum total to determine daily VMT for each scenario. Subtract the daily VMT for the

base cumulative “no project” scenario from the daily VMT for the cumulative “plus project” scenario to determine the net change in daily VMT.

Land use plans that: (1) demonstrate a project impact after applying an efficiency based VMT threshold and (2) are not deemed to be consistent with the SCAG RTP/SCS could have a significant cumulative impact on VMT. Further evaluation would be necessary to determine whether the Plan’s cumulative impact on VMT is significant. This analysis could be conducted by running the SCAG RTP/SCS Travel Demand Forecasting Model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) with the cumulative “no project” scenario representing the RTP/SCS cumulative year conditions and the cumulative “plus project” scenario representing the reallocation of the population and/or employment growth based on the land supply changes associated with the proposed plan. Total VMT and VMT per service population would be calculated for both scenarios, and any increase in VMT above that which was forecasted in the RTP/SCS would constitute a significant impact.

Section 3.1.5. - Mitigation

Section 3.1.5.1. - Development Project Mitigations

Potential mitigation measures for a development project’s VMT impacts can include the following:

- Transportation demand management (TDM) strategies beyond those that will be included as project design features. These strategies shall be demonstrated to be effective in reducing VMT. Some of these may include, but are not limited to, the following described in Table 3.1.5-1 below. Substantial evidence should be provided to the Public Works to support the claimed effectiveness of the measure(s),

Table 3.1.5-1: TDM Strategies

Category	Measure
Commute Trip Reduction	• Commute Trip Reduction Programs with Required Monitoring • Ride Sharing Programs • Subsidized or Discounted Transit Programs • Telecommuting • Alternative Work Schedules
Land Use/Location	• Increase Transit Accessibility
Parking Policy/Parking	• Unbundle parking
Neighborhood/Site Enhancement	• Pedestrian Network Improvements • Traffic Calming Measures • Car Sharing Programs

- Additional TDM measures beyond those listed above may be considered, if such measure is used to quantitatively reduce a project's VMT estimate. Substantial evidence should be provided to Public Works to support the effectiveness of the measure,
- For a single-use project, introducing compatible additional land uses to allow for internalization of trips,
- For a mixed-use project, modifying the project's land use mix to increase internalization of trips, reduce external trip generation, and serve the local community.

Section 3.1.5.2. - Land Use Plans Mitigations

Potential mitigation measures for land use plan VMT impacts can include:

- Reallocation of future land use development to increase land use variety and density in transportation-efficient locations (e.g., proximity to jobs and housing, proximity to transit, proximity to services),
- Measures to enhance the public transit system and/or connections to the system including active transportation mode improvements, such as infrastructure improvements, programs, or education and marketing,
- Measures to encourage reduced reliance on automobile trips and encourage transit and active transportation modes.

Section 3.2. - Transportation Projects

Section 3.2.1. - Introduction

Transportation projects that increase vehicular capacity can lead to additional travel on the roadway network, which can include induced vehicle travel due to factors such as increased speeds and induced growth. To provide consistency across transportation projects and achieve the County's sustainability goals, the screening criteria for transportation impacts is based on the question below:

- For a transportation project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(2)?

For transportation projects, the intent is to assess whether a transportation project induces substantial additional VMT. The following screening criteria and impact criteria are meant to serve as guidance for projects to determine whether a Transportation Impact Analysis should be performed, and whether a project generates a significant transportation impact. The criteria will be considered on a project-by-project basis as approved by Public Works.

Section 3.2.2. - Screening Criteria

If the answer is no to the following question, further analysis will not be required, and a less than significant impact determination can be made for that threshold:

- Would the project include the addition of through traffic lanes on existing or new highways, including general purpose lanes, high-occupancy vehicle (HOV) lanes, peak period lanes, auxiliary lanes, and lanes through grade-separated interchanges (except managed lanes, transit lanes, and auxiliary lanes of less than one mile in length designed to improve roadway safety)[2]?

Transit and active transportation projects and projects that reduce roadway capacity generally reduce VMT and, therefore, are presumed to cause a less-than-significant impact. Transportation projects that are not likely to lead to a substantial or measurable increase in vehicle travel and would, therefore, not be required to prepare an induced travel analysis supported by the OPR technical advisory[2], are listed below:

- Rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of existing transportation assets (e.g., highways; roadways; bridges; culverts; Transportation Management System field elements such as cameras, message signs, detection, or signals; tunnels; transit systems; and assets that serve bicycle and pedestrian facilities) and that do not add additional motor vehicle capacity,
- Roadside safety devices or hardware installation such as median barriers and guardrails,

- Roadway shoulder enhancements to provide "breakdown space" - dedicated space for use only by transit vehicles, to provide bicycle access, or to otherwise improve safety, but which will not be used as automobile vehicle travel lanes,
- Addition of an auxiliary lane of less than one mile in length designed to improve roadway safety,
- Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets, two-way left turn lanes, or emergency breakdown lanes that are not utilized as through lanes,
- Addition of roadway capacity on local or collector streets provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit,
- Conversion of existing general-purpose lanes (including ramps) to managed lanes or transit lanes, or changing lane management in a manner that would not substantially increase vehicle travel,
- Addition of a new lane that is permanently restricted to use only by transit vehicles,
- Reduction in number of through lanes,
- Grade separation to separate vehicles from rail, transit, pedestrians or bicycles, or to replace a lane to separate preferential vehicles (e.g., high-occupancy vehicles [HOV], high-occupancy toll [HOT], or trucks) from general vehicles,
- Installation, removal, or reconfiguration of traffic control devices,
- Installation of traffic metering systems, detection systems, cameras, changeable message signs and other electronics designed to optimize vehicle, bicycle, or pedestrian flow,
- Timing of signals to optimize vehicle, bicycle or pedestrian flow,
- Installation of roundabouts or traffic circles,
- Installation or reconfiguration of traffic calming devices,
- Adoption of, or increase, in tolls,
- Addition of tolled lanes, where tolls are sufficient to mitigate VMT increase.
- Initiation of new transit service,
- Conversion of streets from one-way to two-way operation with no net increase in number of traffic lanes,
- Removal or relocation of off-street or on-street parking spaces,
- Adoption or modification of on-street parking or loading restrictions (including meters, time limits, accessible spaces, and preferential/reserved parking permit programs),
- Addition of traffic wayfinding signage,
- Rehabilitation and maintenance projects that do not add motor vehicle capacity,

- Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of-way,
- Addition of Class I bike paths, trails, multi-use paths, or other off-road facilities that serve non- motorized travel,
- Installation of publicly available alternative fuel/charging infrastructure,
- Adding of passing lanes, truck climbing lanes, or truck brake-check lanes in rural areas that do not increase overall vehicle capacity along the corridor.

Section 3.2.3. – Impact Criteria

The project has a potentially significant VMT impact if it meets the criteria listed below. The impact criteria below are considered as a potential option that may be selected as thresholds for determining significance. The impact criteria below is based on guidance published by OPR[2], but their applicability to a specific project shall be justified with substantial evidence and is not presumed to be appropriate.

- The project will increase the project area VMT, as measurable by the SCAG RTP/SCS base year Travel Demand Forecasting Model plus an induced travel elasticity factor per lane mile[2].

Section 3.2.4. - Methodology

Section 3.2.4.1. - Project Impacts Determination

The County utilizes the SCAG RTP/SCS Travel Demand Forecasting Model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) that is suitable for assessing change in VMT due to a given roadway project in its land use/transportation context. This model should be used to calculate the change in VMT from transportation projects that, by definition, are considered to have the potential for inducing VMT.

For the direct measurement of project impacts, the SCAG RTP/SCS model's base year network should be modified to reflect the vehicle capacity-enhancements that would result from the proposed transportation project. The base year model should be run with and without the proposed transportation project, without adjusting the model's land use inputs, to isolate the potential change in network VMT with the project as compared to the baseline. The assessment should cover the full area in which driving patterns are expected to change and include supporting evidence for why such area was selected.

The SCAG RTP/SCS model is capable of adjusting trip lengths, mode split, and route choice in response to network changes. However, the model does not include the ability to modify land use in response to changes to the transportation system and will not increase trips to reflect latent demand. Therefore, such induced travel should be estimated by applying an induced demand elasticity factor available from appropriate academic literature.

Accordingly, the VMT impact of a transportation project shall be calculated as the direct change in VMT as estimated by the SCAG RTP/SCS model (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) with and without the project plus a factor for induced demand calculated as follows:

- Run the SCAG RTP/SCS model with and without the transportation project to isolate the potential direct change in network VMT due to changes in trip length, mode split, and route choice,
- Using the SCAG RTP/SCS model, determine the total modeled lane-miles over the project area that fully captures travel behavior changes resulting from the project,
- Determine the percent change in total lane miles that will result from the project,
- Using the SCAG RTP/SCS model, determine the total existing VMT over that same area,
- Multiply the percent increase in lane miles by the existing VMT and then multiply that by the elasticity factor from the latest induced travel literature to determine the induced VMT,
- Add the induced VMT to the modeled change in network VMT due to trip length, mode split, and route choice.

Section 3.2.4.2. - Cumulative Impacts Determination

Analyses should consider both short- and long-term project effects on VMT. Short-term effects will be evaluated in the project-level VMT analysis described above. Long-term, or cumulative, effects will be determined through consistency with the SCAG RTP/SCS. The RTP/SCS is the regional plan that demonstrates compliance with air quality conformity requirements and greenhouse gas (GHG) reduction targets. As such, transportation projects that are included in this plan are part of the regional solution for meeting air pollution and GHG reduction goals. Transportation projects that are deemed to be consistent would have a less than significant cumulative impact on VMT.

Transportation projects that are not deemed to be consistent could have a significant cumulative impact on VMT. Further evaluation would be necessary to determine whether such a project's cumulative impact on VMT is significant. This analysis would be conducted by running the RTP/SCS cumulative year conditions and the cumulative "plus project" scenario (as described in the Los Angeles County Senate Bill (SB) 743 Implementation and CEQA Updates Report[7]) incorporating the network changes due to the proposed transportation project. An induced demand elasticity factor should be applied to any increase in VMT thus determined, and any increase in VMT would constitute a significant impact because it could jeopardize regional air quality conformity or GHG reduction findings.

Section 3.2.5. – Mitigation

Mitigation measures that could reduce the amount of increased vehicle travel induced by capacity increases could include, but not be limited to, the following measures:

- Converting existing general-purpose lanes to HOV lanes, high occupancy toll (HOT) lanes, toll lanes, or bus lanes to encourage carpools and fund transit improvements,
- Implementing or funding off-site mobility improvements, including the initiation of transportation management organizations (TMOs),
- Implementing intelligent transportation systems (ITS) strategies to improve passenger throughput on existing lanes,
- Additional measures beyond those listed above, may be considered, if such measures are used to quantitatively reduce a project's VMT estimate, substantial evidence should be provided to support the claimed effectiveness of the measure(s).

Section 4. – Site Access Studies

Section 4.1. – Operational Analysis

Section 4.1.1. - Introduction

The site access and circulation constraints related to the provision of access to and from the project site may be analyzed as part of the project's environmental review. The analysis should address the site access and circulation needs of vehicles, bicycles and pedestrians. If the operation analysis is determined to be necessary in consultation with Public Works, operational performance may be quantified for primary site access points, unsignalized intersections integral to the project's site access, and signalized intersections in the vicinity of the project site.

Section 4.1.2. - Screening Criteria

Section 4.1.2.1. - Development Projects

For development projects, if the answer is yes to the following questions, further analysis may be required to assess whether the project would negatively affect project access and circulation:

- Is the project required to submit a Transportation Impact Analysis?
- Does the development project involve a discretionary action that would be reviewed by the Department of Regional Planning?

Section 4.1.3. - Evaluation Criteria

Section 4.1.3.1. - Operational Deficiencies

The Transportation Impact Analysis should include a quantitative evaluation of the project's expected access and circulation operations. Project access is considered constrained if the project's traffic would contribute to unacceptable queuing at nearby signalized intersections. Unacceptable or extended queuing may be defined as follows:

- Spill over from turn pockets into through lanes,
- Spill over into intersections.

Section 4.1.4. - Methodology

Section 4.1.4.1. - Level of Service and Queueing Methodology

Intersection level of service (LOS) and queueing methodologies from the latest edition of the Transportation Research Board Highway Capacity Manual (HCM) should be used to evaluate the operation of the project driveways and nearby intersections. For individual

isolated intersection analysis, the use of software packages such as Synchro, Vistro, or HCS that implement the HCM methodologies is acceptable.

Where oversaturated conditions currently exist, the operational analysis should be conducted using Synchro/SimTraffic or VISSIM simulation models to more accurately reflect the effect of downstream congestion on intersection operations. VISSIM should be used in areas with transit lanes or with high levels of pedestrians conflicting with vehicle turning movements

Section 4.1.4.2. - Study Area

Study locations should be determined in consultation with Public Works and should include:

- All primary project driveway(s),
- Unsignalized and/signalized intersections that are adjacent to the project or that are expected to be integral to the project's site access and circulation plan,
- Additional intersections may be necessary as determined by Public Works.

For most projects, analyze traffic for both the a.m. and p.m. weekday peak hours as determined by 24-hour traffic counts. For some projects, expanding the analysis to include midday or weekend periods may be appropriate if these are expected to be the prime periods of trip generation for the project.

Section 4.1.4.3. - Traffic Counts

Traffic counts should generally be conducted per the following guidance and by Section 4.1.4.2., unless otherwise directed by Public Works:

- Turning movement data at the study intersections:
    - Should be collected in 15-minute intervals,
    - Must include vehicle classifications, pedestrian volume counts, and bicycle counts,
    - Must include a minimum or 2 hours of traffic counts for each of the peak hours,
    - Must be taken on Tuesdays, Wednesdays or Thursdays,
    - Must exclude holidays, and the first weekdays before and after the holiday,
    - Must be taken on days when local schools or colleges are in session,
    - Must be taken on days of good weather, and avoid atypical conditions (e.g., road construction, detours, or major traffic incidents),
- Traffic counts used from other traffic studies in the area may be use if they are reviewed and approved by Public Works.

When simulation analyses are to be conducted, obtain traffic speed and/or travel time data during peak periods to aid in calibration of the simulation model.

Section 4.1.4.4. - Project Trip Distribution

Distribution patterns for project trips should be determined considering a number of factors including, but not limited to, the following:

- Characteristics of the street system serving the project site,
- Level of accessibility of routes to and from the proposed project site,
- Locations of employment and commercial centers,
- Locations of residential areas.

The Transportation Impact Analysis shall include map(s) showing project trip distribution percentages (inbound and outbound) at the study intersections, and project driveway(s). This map shall be pre-approved by Public Works and included in the Transportation Impact Analysis Scoping Document.

Section 4.1.4.5. - Traffic Forecasts

The Transportation Impact Analysis shall estimate traffic conditions for the study horizon year selected during the scoping phase and recorded in the executed Scoping Document. The study shall clearly identify the horizon year and annual ambient growth rate used for the study. For development projects constructed in phases over several years, the Transportation Impact Analysis should analyze intermediary milestones before the buildout and completion of the project. The annual ambient growth rate shall be determined by Public Works staff during the scoping process and can be based on the most recent SCAG Regional Transportation Model or other empirical information approved by Public Works.

The Transportation Impact Analysis shall consider trip generation for known development projects within one-half mile (2,640 foot) radius of the farthest outlying study intersections. Consultation with the Department of Regional Planning or other planning agencies will be required to compile a related projects list.

The traffic forecasts for the project access and circulation constraints are determined by adding project-generated trips to future base traffic volumes, including ambient growth and related projects and conducting the operational analysis.

Any programmed and funded transportation system improvements that are expected to be implemented on or before the project buildout year should be identified in the study, in consultation with Public Works. If programmed improvements include a modification to the existing lane configuration at any of the study intersections, then the study should identify these changes and include the revised lane configuration in the LOS calculations for all future scenarios.

Section 4.1.5. – Recommended Action

Potential corrective actions for project access and circulation constraints can include, but are not limited to:

- Installation of a traffic signal or stop signs or electronic warning devices at site access points,
- Redesign and/or relocation of project access points,
- Redesign of the internal access and circulation system,
- Installation of stop-signs and pavement markings internal to the site,
- Restriction or prohibition of turns at site access points,
- Installation of new traffic signal, left-turn signal phasing, or other vehicle flow enhancements at nearby intersections,
- Reconfiguration of study intersections that reduces gridlock and unsafe conflict points.

Any of the above-mentioned actions shall be recommended in accordance with California Manual on Uniform Traffic Control Devices (CA MUTCD) warrants and criteria, or other criteria deemed appropriate by Public Works.

Section 4.2 – Construction Phase Analysis

Section 4.2.1. - Introduction

This category addresses activities associated with project construction and major in-street construction of infrastructure projects.

Section 4.2.2. - Screening Criteria

If the answer is yes to any of the following questions, further analysis will be required to assess if the project could negatively affect existing pedestrian, bicycle, transit, or vehicle circulation:

- For projects that require construction activities to take place within the right-of-way of a highway, would it be necessary to close any temporary lanes, alleys, or streets for more than one day (including day and evening hours, and overnight closures if on a residential street)?
- For projects that require construction activities to take place within the right-of-way of a Local Street, would it be necessary to temporarily close any lanes, alleys, or streets for more than seven days (including day and evening hours, and including overnight closures if on a residential street)?
- Would in-street construction activities result in the loss of any vehicle, bicycle, or pedestrian access, including loss of existing bicycle parking to an existing land use for more than one day, including day and evening hours and overnight closures if access is lost to residential units?
- Would in-street construction activities result in the loss of any ADA access to an existing transit station, stop, or facility (e.g., layover zone)?

- Would in-street construction activities restrict access to any bus stops for more than one day, or necessitate any rerouting of a bus route?

- Would construction of a project interfere with pedestrian, bicycle, transit, or vehicle circulation and accessibility to adjoining areas?

Please note, that further analysis may determine that a project construction analysis may be required as determined by Public Works.

Section 4.2.3. - Evaluation Criteria

Factors to be considered as part of the construction phase analysis are: location of the project site, functional classification of the adjacent street, availability of alternate routes or additional capacity, temporary loss of bicycle parking, temporary loss of bus stops or rerouting of transit lines, duration of temporary loss of access, affected land uses, and magnitude of the temporary construction activities.

- Temporary transportation constraints:
    - Length of time of temporary street closures or closures of one or more travel lanes,
    - Classification of the street (major arterial, state highway) affected,
    - Existing congestion levels on the affected street segments and intersections,
    - Direct access to freeway on- or off-ramp or other state highway,
    - Presence of emergency services (fire, hospital, etc.) located nearby that regularly use the affected street,
- Temporary loss of access:
    - Length of time of any loss of pedestrian or bicycle circulation outside the construction zone,
    - Length of time of any loss of vehicular, bicycle, or pedestrian access to a parcel within the construction zone,
    - Length of time of any loss of ADA pedestrian access to a transit station, stop, or facility,
    - Availability of nearby vehicular or pedestrian access within 1/2 mile of the lost access,
- Temporary Loss of Bus Stops or Rerouting of Bus Lines:
    - Days and times during which an existing bus stop would be unavailable or existing service would be interrupted,
    - Availability of a nearby location (within 1/2 mile) to which the bus stop or route can be temporarily relocated,
    - Existence of other bus stops or routes with similar routes/destinations within a 1/2- mile radius of the affected stops or routes,
    - Time of interruption on a weekday, weekend or holiday, and whether the existing bus route typically provides service on those day(s).

Section 4.2.4. – Methodology

Describe the physical setting, including the classification of adjacent streets, on-street parking conditions, including bicycle parking, in the immediate vicinity of the construction project, a description of the land uses potentially affected by construction, and an inventory of existing transit lines, bus stops, transit stations, and transit facilities within a 1/2-mile radius of the construction site. Review proposed construction procedures/plans to determine whether construction activity within the street right-of-way would require any of the following:

- Closure of street, sidewalk, or lanes,
- Blocking existing vehicle, bicycle, or pedestrian access along a street or to parcels fronting the street,
- Modification of access to transit stations, stops, or facilities during service hours,
- Closure or movement of an existing bus stop or rerouting of an existing bus line.
- Creation of transportation hazards.

Compare the results to the evaluation criteria to determine the level of deficiency.

Section 4.2.5. - Recommended Action

Potential corrective conditions for project construction constraints can include but are not limited to:

- Implement traffic management plan, including traffic control plans,
    - Consult with Public Works if temporary closure of a travel lane may be necessary to stage equipment in the public right-of-way,
- Modify construction procedures,
- Limit major road obstructions to off-peak hours,
- Coordinate with emergency service and public transit providers,
- Provide alternative vehicular, bicycle, and/or pedestrian access to affected parcels. Consult with Public Works if temporary closure of a travel lane may be necessary to maintain adequate pedestrian and bicycle access as part of the traffic management plan,
- Coordinate access with adjacent property owners and tenants,
- Coordinate with transit agency regarding maintenance of ADA access to transit stations, stops, and transit facilities (e.g., layover zones),
- Coordinate with transit providers regarding need to temporarily close or relocate bus stops or reroute service.

Section 4.3. – Local Residential Street Cut-Through Analysis

Section 4.3.1. - Introduction

Development and transportation projects may be required to conduct a Local Residential Street Cut-Through Analysis (LRSTM). The objective of this analysis is to determine

potential increases in average daily traffic (ADT) volumes on designated Local Streets near a project that can be classified as cut-through trips generated by the project, and that can adversely affect the character and function of those streets. Cut- through trips are defined as trips along a street classified as a Local Street in the County's General Plan, with residential land-use frontage, as an alternative to trips along a highway defined as Limited Secondary, Secondary, Major, Parkway, or Expressway as designated in the County's General Plan for purposes of accessing a destination that is not within the neighborhood within which the Local Street is located.

Cut-through traffic may result from development projects that add vehicle trips to congested arterial street segments, or by transportation projects that reduce vehicular capacity on highway street segments. To mitigate potential adverse impacts from cut-through traffic (e.g., congestion, access issues, and speeding on Local Streets), traffic calming and diverting features should be considered and, if deemed appropriate by Public Works, implemented to offset any anticipated cut-through traffic.

Section 4.3.2. - Screening Criteria

Section 4.3.2.1. - Development Projects

If the answer is yes to the following questions, further analysis may be required to assess whether the project would negatively affect residential streets:

- Is the project required to submit a Transportation Impact Analysis?
- Does the development project involve a discretionary action that would be reviewed by the Department of Regional Planning?

In addition, for development projects to which all of the following circumstances apply, select local residential street segments for analyses during the transportation assessment scoping process:

- The project is located along a current Limited Secondary, Secondary, Major, Parkway, Expressway per the County's General Plan and the study intersections under project build-out conditions (as determined in Section 4.1) operate at a peak hour LOS E or LOS F.

- The project has a potential, based on connectivity to the roadway network, to add automobile traffic to the alternative local residential street route(s) during peak hours,

- An alternative local residential street route (defined as local streets as designated in the County's General Plan passing through a residential neighborhood) provide motorists with a viable alternative route. A viable alternative local residential street route is defined as one which is parallel and reasonably adjacent to the primary route as to make it attractive as an alternative to the primary route. The project applicant in consultation with Public Works shall define which routes are viable

alternative routes, based on, but not limited to, features such as geography and presence of existing traffic control devices, and other criteria as determined by Public Works.

For the purpose of screening for daily vehicle trips, a proposed project's daily vehicle trips should be estimated using the most recent edition of the ITE Trip Generation Manual. If the project proposed land use is not listed in the ITE Trip Generation Manual, please submit a trip generation study to Public Works for review and approval.

Section 4.3.3. - Methodology

Section 4.3.3.1. - Development Projects

Future peak hour "without project" traffic conditions for the study intersections in the vicinity of the project identified in Section 4.1 should be developed using the intersection analysis methodologies, including an ambient growth rate to the study horizon year and adding traffic generated by related projects. Future "without project" daily traffic volumes for the local residential streets included in the analysis should be developed by collecting daily traffic counts for the subject streets, adding an ambient growth rate to the study horizon year, and adding traffic generated by related projects, also using methodologies described in Section 4.1.

The methodologies described in Section 4.1 should be applied to estimate the daily and peak hour trip generation of the project and distribute the project trips to the street system to forecast the amount of project traffic that may be added to nearby congested highways. If the nearby study intersections are projected to operate at LOS E or F, the analysis shall include the following:

- Estimate the amount of peak hour project traffic that may instead shift away from the congested facilities to local residential streets,
- Estimate the amount of daily project traffic that may shift to local residential streets, considering that the street system is less congested during non-peak hours than during peak hours,

Section 4.3.4. - Recommended Action

If the analysis indicated the project may result in substantial diversion, the project applicant shall conduct public outreach and develop a Local Residential Street Cut-Through (LRSTM) Plan. The project applicant shall consult with Public Works, and neighborhood stakeholders, and any other stakeholders to collaboratively prepare the LRSTM Plan. Coordination with the appropriate Supervisorial District office may be necessary to designate the stakeholders that should facilitate the public outreach.

The project applicant shall submit a separate scoping document for the LRSTM Plan to Public Works for review and approval as part of the Transportation Impact Analysis which shall include the following items:

- Identify key milestones,
- Summarize the proposed process in developing a LRSTM plan for the local residential street segments of concern,
- Define a public outreach and consensus- building process,
- Propose selection and approval criteria for any evaluated traffic calming measures,
- Provide a funding plan which will include potential sources of funding.

The project applicant shall submit the LRSTM Plan with a cost estimate for the improvements, and a funding plan to Public Works for review and approval, prior to issuance of building permit. The LRSTM Plan shall be prepared in conformance with the guidelines established by Public Works and should contain, at a minimum, the following elements:

- Description of existing facilities and neighborhood traffic conditions,
- Description of proposed neighborhood traffic controls, including sketches of specific street modifications,
- Analysis of any change in existing or future traffic patterns as a result of implementation of the plan,
- Implementation and monitoring program.

The project applicant shall lead public outreach in consultation with Public Works and the affected Supervisorial District office.

The development of the LRSTM plan shall include the analysis of any relevant traffic data, roadway characteristics, and conditions of the local residential street segments of concern.

The LRSTM Plan should prioritize implementing effective traffic calming subject to Public Works guidelines and appropriate warrants, which may include, but is not limited to:

- Traffic circles,
- Speed humps,
- Roadway narrowing effects (raised medians, traffic chokers, etc.),
- Landscaping features,
- Roadway striping changes,
- Traffic control devices,
- Restrictive measures such as turn restrictions, physical barriers, diverters, signal metering, etc.,
    - Restrictive measures should be carefully evaluated to ensure that they do not lead to the diversion of a significant amount of traffic from one local residential street to another local residential street.

For these above-mentioned items, the project applicant shall also be responsible for conducting the engineering evaluation of the potential measures to determine the feasibility regarding drainage, constructability, street design and other pertinent elements.

Section 4.4 - Additional Site Access Analysis

Section 4.4.1 - Introduction

Project access and circulation constraints related to the site plan, and access to and from the project site may be analyzed separately from the Transportation Impact Analysis.

Section 4.4.2. - Screening Criteria

If the answer is yes to any of the following question, additional site access studies may be required to assess the projects site access requirements:

- Would the project provide a driveway on a rural cross section two-lane highway per the County's General Plan?
- Does the project's land use require vehicles to queue on-site?
- Does the project's land use include intermittent events which may exceed the supply of on-site parking?

Section 4.4.3. - Evaluation and Methodology

The project applicant shall prepare and submit a Scoping Document to Public Works through the EPIC-LA portal. The Scoping Document describes the assumptions and parameters that shall be included in the Additional Site Access Studies including any analysis requirements. The additional site access studies required based on the screening criteria from Section 4.4.2. are listed below

- Public Works may evaluate the site access requirements for a driveway on a rural two-lane highway by requesting a Traffic Access Management Study to be conducted,

- Public Works may evaluate the site access requirements for vehicular queuing by requesting a Traffic Queueing Analysis to be conducted,

- Public Works may evaluate the site access requirements for land use with intermittent events that will exceed the supply of on-site parking by requesting a Traffic Event Management Study to be conducted.

Section 4.4.4. - Recommended Actions

Potential corrective actions for project access and circulation will be addressed in the additional site access studies and documented in a Traffic Study Confirmation of Findings Letter from Public Works.

Section 5. - Study Format and Required Content

Each Transportation Impact Analysis should follow a consistent format and organization and include all of the figures, maps, and information presented in this section. The level of detail required for each project's Transportation Impact Analysis should be determined during the scoping process and identified in the Scoping Document.

Section 5.1. - Project Description

A Transportation Impact Analysis shall include a detailed project description at the beginning of the document. The project description should include the following information:

- Project case number, as assigned by the Department of Regional Planning (if applicable Tract Map, Parcel Map, Conditional Use Permit, RPPL),
- Location of the project site, address, Assessor's Block and Lot number(s), cross streets, and Supervisorial District, and Unincorporated Community,
- Existing and proposed total square footage for each type of land use and/or the number of residential units, including the net changes for each type of use,
- Transportation demand management measures proposed as part of the project.

This section shall also include the following maps and figures:

- Project site plan showing driveway locations, loading/unloading area,
- Site map showing study intersections and distance of the project driveway(s) from the adjacent intersections. Include location and identification of all major buildings, driveways, parking areas, and loading docks of the project.

Section 5.2. - Site Conditions

The information on the location and surroundings of the project shall be discussed following the project description, as a different section of the Transportation Impact Analysis. This section will provide a brief, but comprehensive description of the existing transportation infrastructure and conditions in the vicinity of the project. The specific boundaries of the Transportation Impact Analysis area, for both the location and surroundings of the project, should be confirmed during the initial discussion and scoping process with Public Works.

The project context section should include the following information, with the level of detail to be directed by Public Works during the scoping process:

- Street designations, classifications, pedestrian and bicycle facilities existing and planned,

- Description of the study area streets, including the number and width of lanes, direction of flow, on-street parking information, and other significant street information,
- Location of, distance from, and routings to and from on-ramps and off-ramps of regional highways and freeways,
- Description of public transit routes operating on the streets within the Transportation Impact Analysis area, including hours of service, peak period headways, type of vehicle (bus, light rail vehicle, etc.), and service provider.

This section of a Transportation Impact Analysis will also include the following maps and figures:

- Area map showing location of the project and related projects,
- Street maps of the study area indicating street names, classifications, and traffic control,
- Map or diagram of potential pedestrian destinations within 1,320 feet of the edge of a project site,
- Table indicating location, size, name, description, and trip generation of each related project.

Section 5.3. - Analysis, Discussion, and Results

Following the descriptions of the project and its surroundings, the Transportation Impact Analysis shall contain sections that detail the analyses conducted, summarize the results, and identify any significant transportation impacts and mitigation measures for each of the CEQA issue areas identified in Section 3, and any operational deficiencies and corrective actions for the additional areas of analysis identified in Section 4.

The Transportation Impact Analysis should include calculations, data, and descriptions of any transportation analyses conducted to determine project impacts on the transportation system. The Transportation Impact Analysis should describe the results of all project scenarios and describe all project impacts that have been identified.

Section 5.4. – Mitigation Measures and Recommended Actions

Section 5.4.1. - Introduction

When a project is expected to result in significant transportation impacts, as defined in Section 3, or transportation deficiencies, as defined in Section 4, the project's consultant should meet with Public Works to discuss potential transportation mitigation options and corrective actions before submitting a Transportation Impact Analysis. A variety of transportation mitigation measures should be considered to mitigate a project's significant transportation impact to a level of insignificance.

All proposed mitigation measures shall be described in the Transportation Impact Analysis and to the satisfaction of Public Works.

Section 5.4.2. - Transportation Demand Management Measures

Mitigation measures shall minimize vehicle miles traveled through Transportation Demand Management (TDM) strategies. A preliminary draft performance based TDM Program shall be included in the Transportation Impact Analysis for any project seeking trip generation amendments supported by TDM, to the satisfaction of Public Works. The applicant may be allowed to reduce the total project trips and VMT by an amount determined to be commensurate with the measures proposed in the TDM Program.

Section 5.4.3. - Physical Infrastructure Improvements

Construction of physical infrastructure improvements shall encourage walking and biking and the use of transit. Conceptual Traffic Signal Plans and Conceptual Signing and Striping Plans should be prepared for any proposed physical infrastructure improvements and should be submitted to Public Works for review and approval as part of the Transportation Impact Analysis.

Section 5.4.4. - Mitigation Monitoring and Reporting Program in CEQA Documents

Each mitigation measure in the project's mitigation monitoring program should be described separately in the CEQA Document. The following details are required for each measure:

- Identification of the agency responsible for monitoring the measure and coordinating all participants,
- Qualifications, if any, of the necessary monitor(s),
- Monitoring schedule (i.e., the phase of the project, frequency, and completion/termination) – this should be stated for physical mitigation measures required during construction as well as those that are for the operation/life of the project (e.g., TDM program),
- Funding required and sources of funding for monitoring activities by both project and County personnel (especially for long-term monitoring activities).

Attachment D

Approved Scope of Work

MAT Engineering, Inc.
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17192 Murphy Avenue #14902
Irvine, CA 92623
Ph: 949.344.1828

November 15, 2022

Ms. Starla Barker
DE NOVO PLANNING GROUP
180 East Main Street #108
Tustin, CA 92780

Subject: **Long Beach Boulevard Multifamily Residential Project Trip Generation & VMT Analysis/Screening Scope of Work, City of South Gate, California**

Dear Starla,

MAT Engineering, Inc. is pleased to submit this proposed scoping agreement for preparation of a trip generation study and VMT screening for the proposed Long Beach Boulevard multifamily residential project in the City of South Gate.

A. Project Description & Location

The project site is located on the southwest corner of the Long Beach Boulevard / Willow Place intersection in the City of South Gate.

Existing uses on the project site consist of an auto repair/tire shop with an area of approximately 650 square feet.

The proposed project consists of removal of the existing auto repair/tire shop with development of 14 dwelling units of three-story multi-family residential use.

Access for the proposed project is planned via two driveways; one driveway on Willow place and one right-in/right-out driveway on Long Beach Boulevard.

Exhibit A shows the project location. Exhibit B shows the proposed site plan.

B. Project Trip Generation

Trip generation represents the amount of trips attracted and produced by a land use.

The trip generation for the existing use and the proposed project is based upon the specific land uses that have been planned for this project and has been determined utilizing the Institute of Transportation Engineers (ITE) trip generation rates which is an industry standard for calculating trips associated with land uses.

Table 1 shows the trip ITE trip generation rates for the existing and also the proposed uses based on the ITE.

Table 1
ITE Trip Generation Rates - subject to verification.

Land Use	ITE Code	Units	Peak Hour						Daily
			AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Auto Repair/Care	942	TSF	1.49	0.76	2.25	1.49	1.62	3.11	31.1 *
Multi-family Residential (Low-Rise)	220	DU	0.10	0.30	0.40	0.32	0.19	0.51	6.74

Notes:
Source: 2021 ITE 11th Edition Trip Generation Manual; - provide cut sheets for ITE codes 942 and 220 in the report.
TSF = Thousand Square Feet; DU = Dwelling Units
* For auto repair use, since ITE does not have daily rates, the daily rate is derived by multiplying the PM peak hour rate by a factor of 10.0

Utilizing the ITE trip generation rates from Table 1, Table 2 shows a summary of the net trip generation for the proposed project after accounting for the existing land use which will be removed.

Table 2
Project Trip Generation - subject to verification

Land Use	Quantity	Units	ITE Code	Peak Hour						Daily
				AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
Proposed Use (14 Dwelling Units of Low-Rise Multifamily Residential Units)	14	DU	220	1	5	6	4	3	7	94
Existing Use (650 Square Feet of Auto Repair Use)	0.650	TSF	942	-1	0	-1	-1	-1	-2	-20
NET Total				**0**	**5**	**5**	**3**	**2**	**5**	**74**

Source::

Institute of Transportation Engineers (ITE) 2021 Trip Generation Manual (11th Edition) Source: 2021 ITE 11th Edition Trip Generation Manual;

As shown in Table 2, based on the ITE trip generation rates:

- Without taking any credit for the existing use, the proposed project is forecast to generate approximately 94 daily trips which include approximately 6 AM peak hour trips and approximately 7 PM peak hour trips.

- The existing use generates approximately 20 daily trips which include approximately 1 AM peak hour trips and approximately 2 PM peak hour trips.

- After taking credit for the existing use, the proposed project is forecast to generate approximately 74 NET additional daily trips which include approximately 5 NET additional AM peak hour trips and approximately 4 NET additional PM peak hour trips.

C. Trip Generation Evaluation & Access Analysis

As shown in Table 2, after taking credit for the existing use, the proposed project is forecast to generate approximately 74 NET additional daily trips which include approximately 5 NET additional AM peak hour trips and approximately 4 NET additional PM peak hour trips.

Based on industry standards and the Los Angeles County traffic study requirements, typically, a full traffic study is required when a project generates more than 50 peak hour trips or 110 daily trips. Since the proposed project is expected to generate a low number of trips, MAT Engineering, Inc. proposes preparation of a trip generation memorandum for the project instead of a full traffic study.

The trip generation memorandum will disclose the project's trip generation based on the ITE trip generation rates and draw a conclusion that based on the low number of trips, the proposed project is expected to not result in an adverse level of service impact and operations on the surrounding roadway system.

D. Proposed Scope of Vehicle Miles Traveled (VMT) Analysis

In response to Senate Bill (SB) 743, the California Natural Resource Agency certified and adopted new CEQA Guidelines in December 2018 which now identify Vehicle Miles Traveled (VMT) as the most appropriate metric to evaluate a project's transportation impact under CEQA (§ 15064.3).

Effective July 1, 2020, the previous CEQA metric of LOS, typically measured in terms of automobile delay, roadway capacity and congestion, generally will no longer constitute a significant environmental impact.

Based on County of Los Angeles traffic study requirements, projects generating less than 110 daily trips could be screened out from requiring a full VMT analysis. - Attach copy in the report

Hence, the proposed project is expected to screen out for requiring a full VMT analysis.

MAT Engineering, Inc., will prepare a VMT screening memo for the proposed project based on this screening criteria.

MAT Engineering Inc. appreciates the opportunity to provide this scope of work for review. If you have any questions, concerns, or comments, please contact us at 949-344-1828 or at@matengineering.com.

Respectfully submitted,

MAT ENGINEERING, INC.

Alex Tabrizi, PE, TE

President

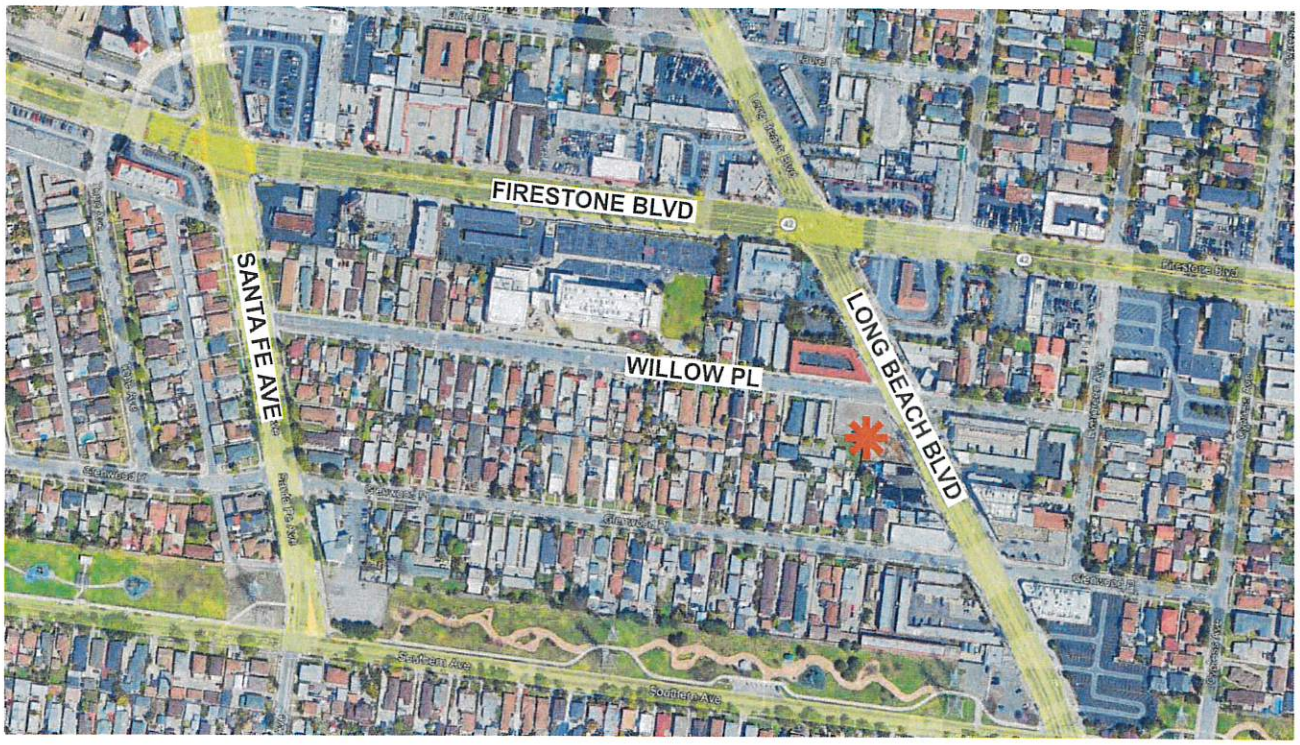
Approved by:

11-15-2022

Date

Attachment A

Exhibits



Legend:

Site Location

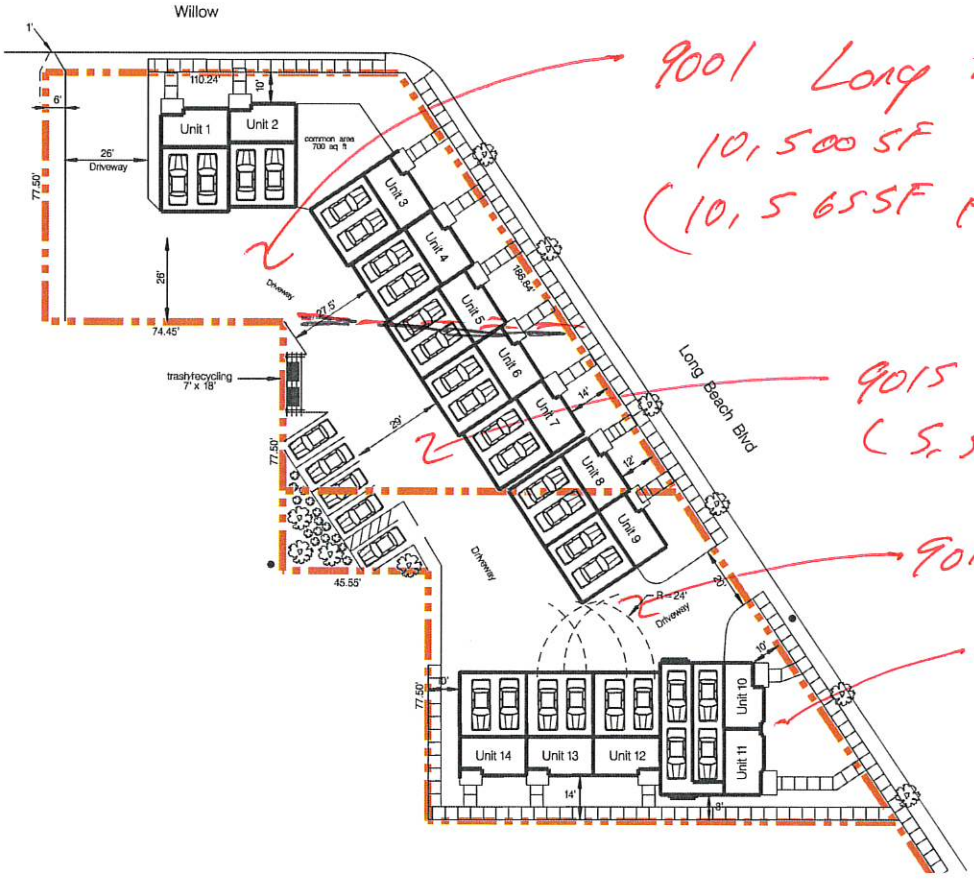
Not to Scale

ENGINEERING, INC.

Long Beach Boulevard Multifamily Residential Project Trip Generation & VMT Screening, City of South Gate, California / 0006-2022-13 NOV/2022

Project Location

Exhibit A



Not to Scale

ENGINEERING, INC.

Provide a scale plan 1" = 20' or 40'
size of site plan shall be 24 x 36.

Site Plan

Exhibit B