



Memorandum

Date: October 13, 2022
To: Patrick Kallas, David J. Powers & Associates, Inc.
From: Kai-Ling Kuo
Daniel Choi
Subject: Transportation Analysis for the Proposed Residential Project at 1957 Pruneridge Avenue

This memorandum presents the transportation analysis for the proposed residential development located at 1957 Pruneridge Avenue in Santa Clara, California. The project site is located along Pruneridge Avenue, approximately 300 feet west of Winchester Avenue (see Figure 1). The project proposes to demolish the existing unoccupied church on-site and construct 22 townhomes. Access to the project site would be provided via two driveways along Pruneridge Avenue (see Figure 2).

Because the project would generate a small number of new trips during the peak hours, a local transportation analysis to evaluate the project's traffic effects on intersection operations is not required. The transportation analysis includes trip generation estimates, a vehicle miles traveled (VMT) assessment, evaluation of site access and on-site circulation, and effects on pedestrians, bicycles, and transit facilities.

Per California Senate Bill 743 (SB 743) and CEQA Guidelines, all new developments are required to analyze transportation impacts using the VMT metric and to conform the City's VMT Policy. The City's VMT Policy establishes procedures and VMT thresholds of significance for determining project impacts on VMT. The City's VMT Policy also includes screening criteria that are used to identify projects that would not exceed the VMT thresholds of significance. If a project meets the screening criteria, it is then presumed that the project would result in a less-than- significant VMT impact, and a VMT analysis is not required. The project would not meet all applicable VMT screening criteria. Therefore, a CEQA VMT analysis is required for the project.

Project Trip Estimates

Through empirical research, data have been collected that show trip generation rates for many types of land uses. The research is compiled in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition*. The magnitude of traffic added to the roadway system by a particular development is estimated by multiplying the applicable trip generation rates by the size of the development. The rates published for "Single-Family Detached Housing" (Land Use Code 210) were used to estimate the trips generated by the proposed development. Although the townhomes may not actually be classified as single-family homes, this trip generation category is the closest available. The proposed townhomes would have individual garages and would comprise units with four to five bedrooms.

Based on the rates found in the ITE *Trip Generation Manual*, it is estimated that the proposed project would generate 207 new daily trips, including 15 new trips (4 inbound and 11 outbound) during the AM peak hour and 21 new trips (13 inbound and 8 outbound) during the PM peak hour (see Table 1).



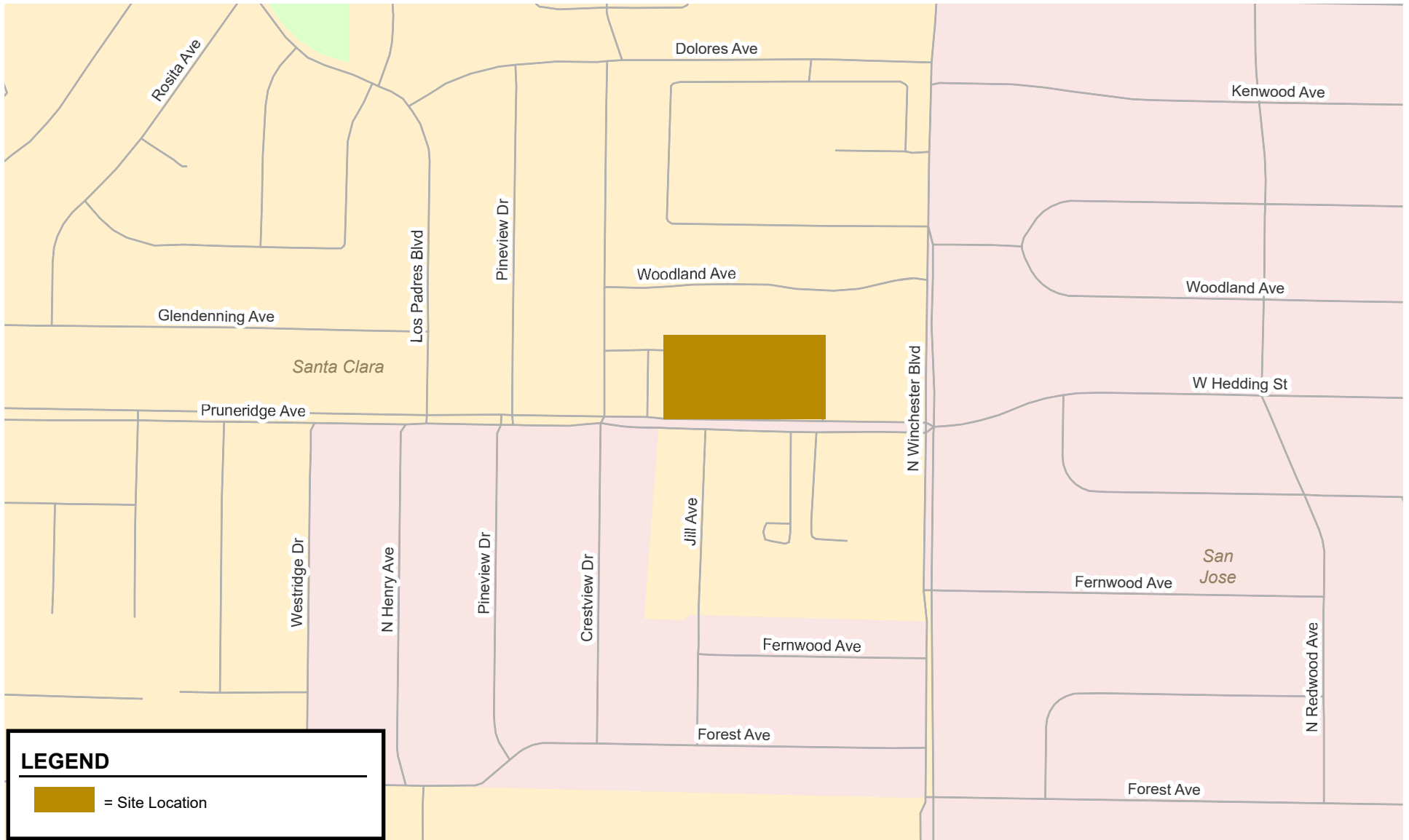


Figure 1
Site Location

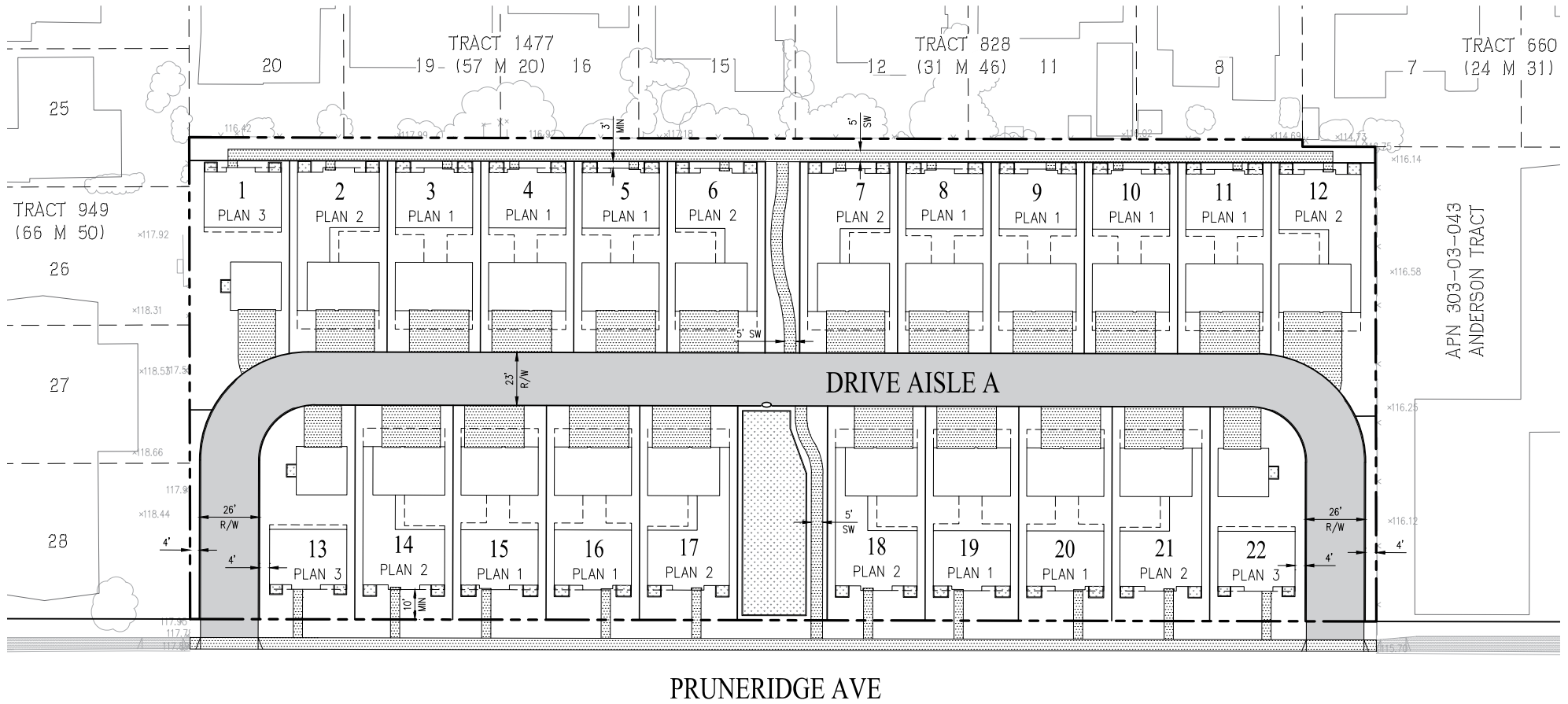


Figure 2
Site Plan

**Table 1
Project Trip Generation**

Land Use	Size	Daily		AM Peak Hour			PM Peak Hour				
		Rate	Trip	Rate	Trip		Rate	Trip			
					In	Out		Total	In	Out	Total
#210 - Single-Family Detached Housing	22 Units	9.43	207	0.70	4	11	15	0.94	13	8	21

Source: ITE Trip Generation Manual, 11th Edition 2021.

Vehicle Miles Traveled Analysis

The City of Santa Clara adopted a VMT Transportation Analysis Policy for Environmental Review on June 30, 2020. The Policy sets forth screening criteria that allow various types of developments such as small projects, local-serving retail development, local-serving public projects, affordable housing projects, and/or transit supportive projects near major transit stops or high-quality transit corridors to be presumed to have a less than significant impact on VMT. The project is located within one-half mile of a major transit stop. However, the project density (8.9 DU/acre) would not meet the minimum density requirement (35 DU/acre) to be considered a transit supportive project. Since the project would not meet the screening criteria, a project-level VMT analysis is required.

VMT Evaluation Methodology

VMT is defined as the total miles of travel by personal motorized vehicles a project is expected to generate in a day. A project’s VMT is compared to established thresholds of significance based on the project location and type of development. When assessing a residential project, the project’s VMT is divided by the number of residents and evaluated based on VMT per capita.

VMT Evaluation Tool

To determine whether a project would result in CEQA transportation impacts related to VMT, the Santa Clara Valley Transportation Authority (VTA) has developed a countywide VMT Evaluation Tool to streamline the analysis.

Based on the location of a project, the VMT evaluation tool identifies the existing average VMT per capita for the project area. Based on the project location, type of development, project description, and proposed trip reduction measures, the VMT evaluation tool calculates the project VMT.

Threshold of Significance

A project’s VMT impact is determined by comparing the project VMT to the appropriate thresholds of significance based on the type of development. In Santa Clara, the VMT thresholds of significance are established based on the existing countywide average VMT levels. For residential uses, the threshold of significance is the countywide average VMT per capita (13.33) minus 15 percent, which calculates to 11.33 VMT per capita.

VMT of Existing Land Uses

The results of the VMT evaluation, using the VMT evaluation tool, indicate that the existing VMT for residential uses in the project vicinity is 8.85 per capita.

Project-Level VMT Impact Analysis

The project-level VMT estimated by the VMT evaluation tool is 8.82 per capita, which is lower than the existing area VMT for residential uses in the project vicinity (see Attachment A). The project

would increase residential density and residential diversity, which would result in a lower VMT per capita. Since the project-level VMT per capita is less than the threshold of significance, the project would result in a less than significant impact on the transportation system based on the City's VMT impact criteria.

Site Access and Circulation

A review of the project site plan was performed to determine if adequate site access and on-site circulation would be provided and to identify any access or circulation issues that should be improved. This review is based on the vesting tentative map, dated August 31, 2022 (see Figure 2) and in accordance with generally accepted traffic engineering standards.

Site Access

The project would construct a drive aisle within the project site that could be accessed via two existing driveways along Pruneridge Avenue. Each townhome would provide a garage accessible from the 23-foot-wide drive aisle.

Driveway Design

The project driveways would provide two-way flow and would be 26 feet wide. According to the City of Santa Clara Municipal Code, Chapter 18.74 (Parking Regulations), two-way driveways providing access to 25 or more residential parking spaces or garage spaces should be at least 26 feet wide. The project driveways meet the requirement. The site plan shows individual driveways at each townhome accessing private garages. These driveways are easily accessible from the proposed drive aisle, and no obstructions or design features would impede access to individual driveways for the townhome garages.

Sight Distance at Project Driveways

The project driveways to Pruneridge Avenue should be free and clear of any obstructions to provide adequate sight distance, thereby ensuring that exiting vehicles can see pedestrians on the sidewalk and vehicles and bicycles traveling on Pruneridge Avenue. Any landscaping and signage within the sight triangles at the project driveways should be no taller than 3 feet and located in such a way to ensure an unobstructed view for exiting drivers. Providing the appropriate sight distance reduces the likelihood of a collision at a driveway and provides drivers with the ability to locate sufficient gaps in traffic and exit a driveway.

The landscape plan shows street trees would be added along the project frontage on Pruneridge Avenue. Note that street trees have a high canopy and would not obstruct the view of drivers exiting the project driveways.

The posted speed limit on Pruneridge Avenue is 35 mph. The Caltrans stopping sight distance is 300 feet (based on a design speed of 40 mph). Thus, a driver must be able to see 250 feet in both directions of Pruneridge Avenue to locate a sufficient gap to turn out of the driveways. There is no roadway curve within 300 feet of the driveways. However, on-street parking is allowed along the project frontage and could obstruct the vision of exiting drivers if there were cars parked next to the driveways. Therefore, the project should provide 25 feet of red curb along both sides of each driveway to prohibit parking.

Traffic Operations at Project Driveways

The project trips that are estimated to occur at the driveways are 4 inbound trips and 11 outbound trips in the AM peak hour and 13 inbound trips and 8 outbound trips during the PM peak hour. Due

to the relatively low number of project-generated trips at the driveways, significant operational issues related to vehicle queueing and vehicle delay for inbound and outbound traffic are not expected to occur at the driveways. Vehicles turning right into the project site from Pruneridge Avenue may block the travel lane momentarily due to vehicles slowing down to turn into the driveway, but this would not have a significant effect on traffic operations. Given the small number of estimated outbound trips at each driveway, the probability of two or more outbound vehicles exiting the site at the same time would be low. The maximum queue is not expected to affect the on-site circulation.

Passenger Loading

The site plan does not show any loading zones for dropping off and picking up passengers such as would be using Uber/Lyft or other rideshare apps (e.g., Scoop, Waze Carpool). On-street parking is provided along Pruneridge Avenue, which could be used for this purpose. Since the project proposes townhomes with individual driveways and garages, an on-site or on-street loading zone would not be necessary.

On-Site Circulation

The project proposes to construct a 23-foot-wide drive aisle within the project site. Vehicles would access individual driveways to each townhome from the drive aisle. The proposed drive aisle provides adequate width for two-way circulation on site.

Emergency Vehicle and Truck Access and Circulation

Emergency vehicle access to the project site is provided via Pruneridge Avenue. The project site plans show that fire trucks would be able to turn into the project drive aisle and drive through the site.

The site plan does not indicate where trash pick-up activities would occur. It is assumed that trash bins would need to be wheeled out to the drive aisle for pick-up on trash collection days. Garbage trucks would be able to turn into the drive aisle, pick up garbage, and exit via the other driveway.

Effects on Pedestrians, Bicycles, and Transit Facilities

The following describes the existing transit, pedestrian and bicycle facilities that serve the site and evaluates whether appropriate bicycle and pedestrian access and transit service are provided between the site and nearby destinations.

Pedestrian Facilities

Pedestrian facilities in the study area consist of sidewalks and crosswalks. A continuous network of sidewalks is present along all of the surrounding streets. Crosswalks with pedestrian signal heads are located at all of the signalized intersections in the area.

The project would reconstruct the sidewalks along the project frontage and provide landscaping along the project frontage. Pedestrian access to each townhome located along the southern portion of the project site would be provided directly to Pruneridge Avenue. A walkway located along the northern project boundary would provide pedestrian access to each townhome located along the north side of the drive aisle. The project proposes a north-south walkway in the center of the project site that would connect the sidewalk on Pruneridge Avenue to the walkway in the back.

At the Winchester Avenue/Pruneridge Avenue/Hedding Street intersection located 300 feet east of the project site, crosswalks and curb ramps are present at each corner, but the southwest corner curb ramp does not include truncated domes. The sidewalks, crosswalks, and ADA curb ramp

would facilitate pedestrian movements between the project site and surrounding points of interest, such as bus stops and shopping.

Bicycle Facilities

Within the study area, there are bike lanes on Los Padres Boulevard and along Hedding Street, east of Winchester Boulevard. According to the *Santa Clara Bicycle Master Plan Update 2018*, Class II buffered bicycle lanes are planned on Pruneridge Avenue, which would connect the project site to the existing bicycle facilities on Los Padres Boulevard and on Hedding Street.

Transit Services

The VTA Frequent Route 60 runs along Winchester Boulevard in the project vicinity with the nearest bus stop approximately 500 feet from the project site. Route 60 has a headway of 15 minutes during the morning and evening peak hours. Due to the proximity of Route 60 to the project site, it is assumed that some residents of the project would utilize the existing transit services.

Conclusions

The project would have a less than significant impact on VMT using the County's VMT Evaluation Tool.

The project would not have an adverse effect on the existing pedestrian, bicycle, or transit facilities in the study area. Hexagon has the following recommendations resulting from the site access and circulation evaluation:

- The project should provide 25 feet of red curb along both sides of the Pruneridge Avenue driveways to prohibit parking to provide adequate sight distance.

Attachment A
VMT Evaluation Tool Output

Project Details

Timestamp of Analysis October 10, 2022, 02:27:51 PM

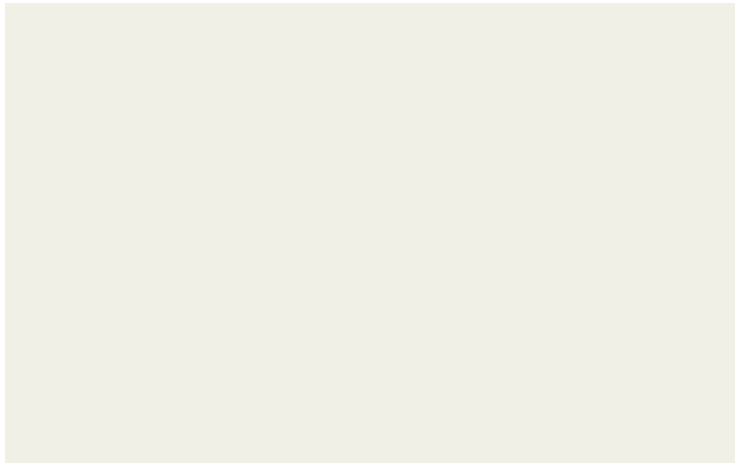
Project Name 1957 Pruneridge Avenue Residential

Project Description 22-unit townhome development

Project Location Map

Jurisdiction: Santa Clara

APN	TAZ
30303025	1255



Analysis Details

Data Version VTA Countywide Model December 2019

Analysis Methodology Parcel Buffer Method

Baseline Year 2015

Project Land Use

Residential:

Single Family DU: 22

Multifamily DU:

Total DUs: 22

Non-Residential:

Office KSF:

Local Serving Retail KSF:

Industrial KSF:

Residential Affordability (percent of all units):

Extremely Low Income: 0 %

Very Low Income: 0 %

Low Income: 0 %

Parking:

Motor Vehicle Parking:

Bicycle Parking:

Proximity to Transit Screening

Inside a transit priority area? Yes (Pass)

Residential Vehicle Miles Traveled (VMT) Screening Results

Land Use Type 1:	Residential
VMT Metric 1:	Home-based VMT per Capita
VMT Baseline Description 1:	County Average
VMT Baseline Value 1:	13.33
VMT Threshold Description 1 / Threshold Value 1:	-15% / 11.33
Land Use 1 has been Pre-Screened by the Local Jurisdiction:	N/A

	Without Project	With Project & Tier 1-3 VMT Reductions	With Project & All VMT Reductions
Project Generated Vehicle Miles Traveled (VMT) Rate	8.85	8.82	8.82
Low VMT Screening Analysis	Yes (Pass)	Yes (Pass)	Yes (Pass)

Tier 1 Project Characteristics

PC01 Increase Residential Density

Existing Residential Density:	9.39
With Project Residential Density:	9.47

PC02 Increase Residential Diversity

Existing Residential Diversity Index:	0.67
With Project Residential Diversity Index:	0.66