

Appendix B: General Plan Long-Range Traffic Analysis



HEXAGON TRANSPORTATION CONSULTANTS, INC.

City of San José 2019 General Plan Amendments

Long Range Traffic Impact Analysis

Prepared for:

City of San José

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Table of Contents

1.	Introduction	1
2.	General Plan Amendment Site Descriptions.....	6
3.	Analysis Methodology and Impact Criteria.....	21
4.	Cumulative General Plan Long Range Analysis	26
5.	Winchester (Site-Specific GPA Traffic Analysis).....	33
6.	Conclusions.....	46

List of Tables

Table 1	Site-Specific Long-Range Transportation Analysis Screening Criteria for Land Use Amendments	4
Table 2	Existing General Plan and Proposed GPA Land Uses.....	7
Table 3	Changes in Households, Jobs, and Peak-Hour Trips Due to Proposed GPAs	8
Table 4	MOE Significance Thresholds	25
Table 5	Daily Vehicle Miles Traveled Per Service Population.....	27
Table 6	Journey-to-Work Mode Share.....	28
Table 7	AM Peak-Hour Vehicle Speeds (mph) for San José Transit Priority Corridors	29
Table 8	AM 4-Hour Traffic Impacts in Adjacent Jurisdictions.....	31
Table 9	Changes in Households, Jobs, and Peak-Hour Trips Due to Proposed GPA at Winchester Site	35
Table 10	Daily Vehicle Miles Traveled Per Service Population (Winchester).....	40
Table 11	Journey-to-Work Mode Share (Winchester).....	41
Table 12	AM Peak-Hour Vehicle Speeds (mph) for San José Transit Priority Corridors (Winchester)	43
Table 13	AM 4-Hour Traffic Impacts in Adjacent Jurisdictions (Winchester)	44

List of Figures

Figure 1	Proposed GPA Site Locations	3
Figure 2	Location of GPA Site 1: GP18-010 (Diamond Heights).....	11
Figure 3	Location of GPA Site 2: GPT18-013 (Stockton Avenue).....	12
Figure 4	Location of GPA Site 3: GP18-014/PDC18-037 (Winchester).....	13
Figure 5	Location of GPA Site 4: GP18-015/PDC18-038 (Campbell Avenue).....	14
Figure 6	Location of GPA Site 5: GP19-001 (Williams Road)	15
Figure 7	Location of GPA Site 6: GP19-004 (Capitol Avenue/Alum Rock Avenue).....	16
Figure 8	Location of GPA Site 7: GPT19-005 (Mountain Springs Mobilehome Park).....	17
Figure 9	Location of GPA Site 8: GPT19-006 (Westwind Mobilehome Park).....	18
Figure 10	Location of GPA Site 9: GPT19-007 (Evans Lane).....	19
Figure 11	Location of GPA Site 10: GP (Berryessa BART Urban Village).....	20
Figure 12	Winchester GPA Site Location.....	34
Figure 13	Existing Bicycle Facilities (Winchester).....	38
Figure 14	Existing Transit Services (Winchester).....	39

1. Introduction

This report presents the results of the long-range traffic impact analysis completed for the proposed City of San José 2019 General Plan Amendments (project). The project consists of amending the current adopted land use designations of the Envision San José 2040 General Plan (GP) for ten sites within the City of San José. The purpose of the General Plan Amendments (GPAs) traffic analysis is to assess the long-range impacts of the amendments on the citywide transportation system. The potential traffic impacts of the project were evaluated in accordance with the guidelines set forth by the City of San José for GPA traffic analysis.

The GPA analysis provides an evaluation of the changed circumstances of future conditions in the currently adopted Envision San José 2040 General Plan due to the proposed 2019 General Plan amendments. The adopted GP identifies long-range planned land uses and transportation system within the City projected to the Year 2040, which is the baseline for the evaluation of transportation impacts of the GPAs. The results of the analysis for the proposed land use adjustments are compared to the results of the adopted GP to determine if the proposed 2019 General Plan amendments would result in any new, or substantially more severe transportation impacts than those impacts that were already analyzed for the adopted GP.

After General Plan amendments to the Land Use/Transportation Diagram become effective, which is generally 30 days after Council approval, these General Plan amendments are incorporated into the updated General Plan Land Use/Transportation Diagram. This process may occur up to four times a year under State law. Therefore, the current General Plan includes all amendments that are currently effective.

The Envision San José 2040 General Plan Land Use / Transportation Diagram designates the type, intensity, and general distribution of planned land uses within San José. Because the 2019 General Plan amendments propose changes to sites' land use designations, this traffic impact analysis (TIA) evaluates the incremental changes from uses and intensities allowed under the sites' current land use designations to the uses and intensities allowed under the proposed General Plan land use designations for each site. The reason the baseline of the current land use designation is used (as opposed to the existing physical condition) is because the General Plan DEIR and subsequent reviews have already evaluated the potential transportation CEQA impacts of building out the General Plan using existing physical condition baseline in 2015. The existing physical condition baseline was reviewed, analyzed, and updated again as part of this TIA, and it was determined based on substantial evidence that the proposed 2019 General Plan amendments would not result in any new, or substantially more severe transportation impacts than those impacts that were already analyzed for the General Plan.

Further, the Build-out of the General Plan and related environmental analysis under CEQA assumes development overall in the City will occur at the middle range of the General Plan land use designations

or consistent with surrounding development intensities. The reason why the middle or typical range is used as opposed to the maximum intensities potentially allowed under various General Plan land use designations is because building out under the maximum intensities for all General Plan land use designations would exceed the total planned growth capacity allocated in the General Plan, and this maximum amount of build-out does not represent typical development patterns or the average amount of development built on each site. General Plan land use designations allow a wide range of development intensities and types of land uses to accommodate growth; however, development projects are not typically proposed at the maximum densities due to existing development patterns, site and parking constraints, Federal Aviation Administration regulations, maximum allowable height provisions and other development regulations in the San José Municipal Code in Title 20 (Zoning), market conditions, and other factors.

For example, several General Plan land use designations include a maximum intensity for each use allowed under a land use designation, and also allow a mix of land uses. On a site where development is mixed-use, or there is a height limit, or there is a minimum required setback, achieving the maximum allowable intensities for each land use in the development is often physically infeasible. To evaluate the incremental changes of the proposed General Plan land use amendments, average residential and commercial densities for development under these land use designations and in the planning areas of the proposed General Plan amendments for San José are assumed for the current and proposed land use designations on each site. Individual development projects would be required to complete a near term traffic analysis in conjunction with any future development permit applications.

Proposed 2019 GPA Site Descriptions

The project consists of amending the current adopted land use designations of the Envision San José 2040 General Plan (GP) for ten sites within the City of San José (see Figure 1). The GPA sites, described in detailed in the following chapter, include the following:

- Site 1 – GP18-010 (Diamond Heights)
- Site 2 – GP18-013 (Stockton Avenue)
- Site 3 – GP18-014/PDC18-037 (Winchester)
- Site 4 – GP18-015/PDC18-038 (Campbell Avenue)
- Site 5 – GP19-001 (Williams Road)
- Site 6 – GP19-004 (Capitol Avenue/Alum Rock Avenue)
- Site 7 – GPT19-005 (Mountain Springs Mobilehome Park)
- Site 8 – GPT19-006 (Westwind Mobilehome Park)
- Site 9 – GPT19-007 (Evans Lane)
- Site 10 – GP (Berryessa BART Urban Village)

Each of the proposed land use amendments and resulting changes in households, employment for each of the proposed GPA sites are described in detail within the following chapters.

GPA Analysis Exemption

The City of San José Travel Demand Forecasting (TDF) model, which is described in detail in Chapter 3, was developed to help the City project peak-hour traffic impacts attributable to proposed amendments to the City's General Plan. The model is used to estimate the net change in peak-hour trips that are attributable to a proposed amendment. The City has established minimum peak-hour trip thresholds for GP land use amendments that require a site-specific GPA analysis. It is presumed that amendments that result in trips less than the trip thresholds would not create significant long-term impacts by themselves. The City's trip thresholds for requiring a site-specific GPA traffic analysis are presented in the City of San José *Transportation Analysis Handbook*, April 2018 and are shown in

**Figure 1
Proposed GPA Site Locations**

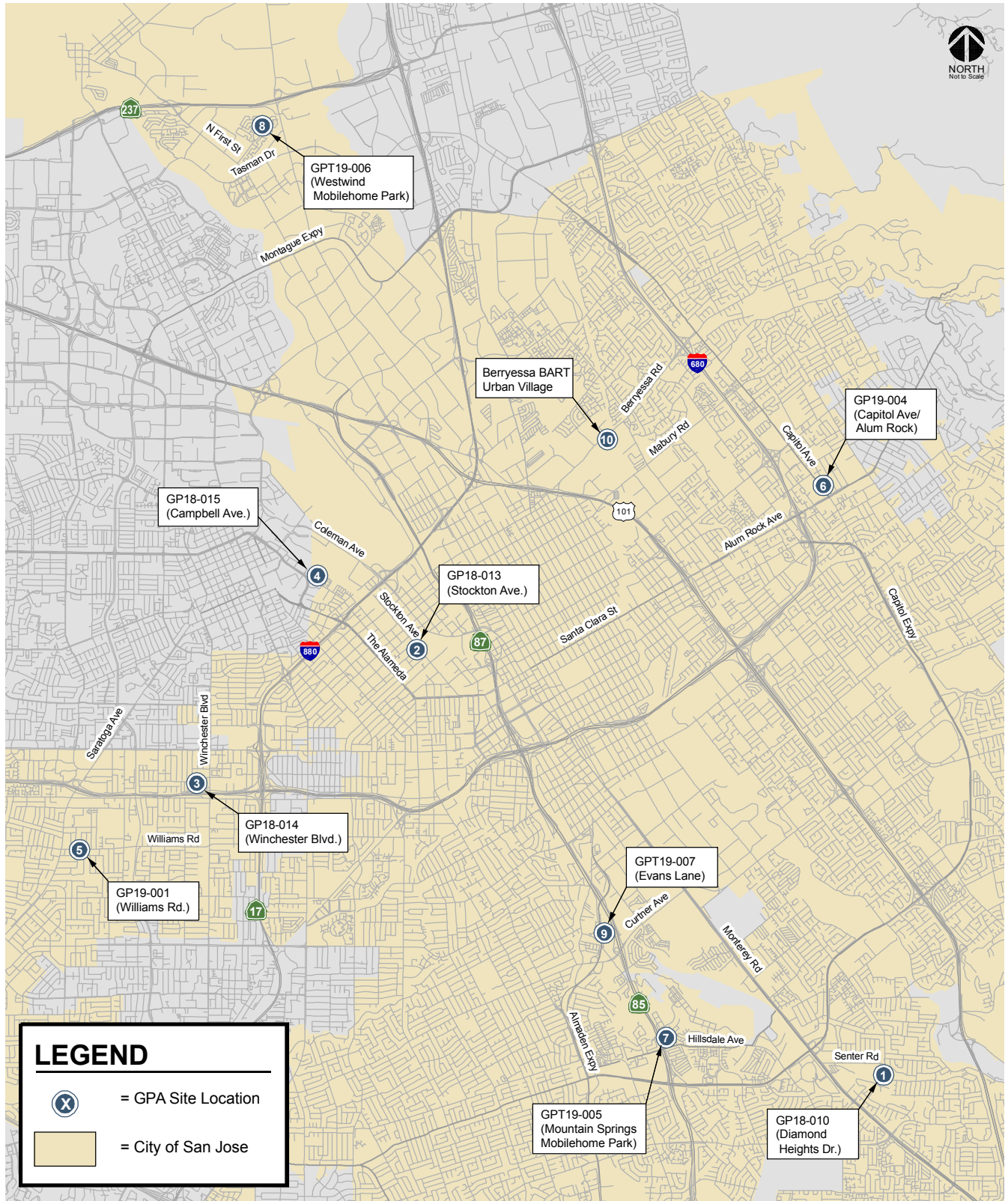


Table 1 below. With the exception of GPA sites located within the identified North San José, Evergreen, and South San José subareas, a proposed land use amendment that would result in an increase of more than 250 peak-hour trips to be generated by the subject site would be required to prepare a site-specific GPA traffic analysis.

**Table 1
Site-Specific Long-Range Transportation Analysis Screening Criteria for Land Use Amendments**

Location of Amendment	Maximum Allowable PM Peak Hour Vehicle-Trips			
	Expansion of Residential Use ¹	Conversion from Residential to Non-Residential Use ²	Conversion from Non-Residential to Residential Use ²	Expansion of Non-Residential Use ¹
North San Jose	1,000	0	500	50
Evergreen	15	600	0	300
South San Jose	50	600	0	300
Remainder of City	250	250	250	250

Notes:
¹ The screening criteria for a proposed expansion of the same land use are measured in net new PM peak hour vehicle trips.
² The screening criteria for a proposed land use conversion are measured in total PM peak hour vehicle-trips generated by the proposed use.
 Source: City of San Jose *Transportation Analysis Handbook*, April 2018.

Nine of the ten subject GPA sites are located outside the specific subareas, and therefore are subject to the 250 PM peak-hour trip threshold. The proposed land use amendments on one of the nine amendment sites located outside of the specific subareas would result in a net increase of more than 250 peak-hour trips (See Table 3 in the next chapter) and require a site-specific GPA traffic analysis.

The remaining GPA site, GPA Site 8 (Westwind Mobilehome Park), is located within the North San José subarea and is subject to the applicable trip thresholds described in Table 1. However, it is projected that the proposed land use amendment at GPA Site 8 would result in a reduction of peak-hour trips, compared to the adopted GP land use for the site. Therefore, a site-specific GPA traffic analysis for Site 8 is not required.

The following GPA site requires a site-specific GPA traffic analysis:

- GP18-014/PDC18-037 (Winchester)

Scope of Study

The purpose of the GPAs traffic analysis is to assess the long-range impacts of the amendments on the citywide transportation system. This study includes an evaluation of the cumulative impacts of all ten GPA sites with the proposed land use amendments. The study also provides the required site-specific GPA traffic analysis for the above identified GPA site. Individual development projects also will be

required to complete a near-term traffic analysis in conjunction with any future development permit applications consistent with the Envision San José 2040 GP. The potential traffic impacts of the project were evaluated in accordance with the guidelines set forth by the City of San José for GPA traffic analysis.

The project consists of land use changes to the current GP land uses. The project does not propose any changes to the citywide transportation system. The GPA long-range analysis focuses on the potential changes on the citywide transportation system in the horizon year of the GP (2040) when the GP capacities for housing and jobs are fully developed. The analysis includes evaluation of increased vehicle miles traveled, increased traffic volume on specified roadway segments, impacts to travel speeds on transit priority corridors, impacts to pedestrian, bicycle, and transit facilities, and impacts to roadways in adjacent jurisdictions. Impacts are evaluated based on the same Measures of Effectiveness (MOEs) and significance criteria utilized in the Envision San José 2040 GP TIA. Traffic conditions were evaluated for the following traffic scenarios using the City's TDF model:

- **Projected Year 2015 Conditions:** The Projected Year 2015 Conditions represent a projection of transportation conditions in 2015 using the City's GP TDF model. The roadway network also reflects the Year 2015 roadway network and transportation system.
- **Current 2040 General Plan Conditions:** Future traffic due to the current GP land uses (i.e., including the adopted GP Four-Year Review Land Use adjustments) is added to regional growth that can be reasonably expected to occur by 2040. Current 2040 GP conditions include the current roadway network as well as all transportation system improvements as identified in the current GP.
- **Proposed 2040 General Plan Amendment Conditions:** Current 2040 GP conditions with the proposed land use amendments at all ten proposed GPA sites. Transportation conditions for the Proposed 2040 GPA conditions were evaluated relative to the currently adopted 2040 GP Conditions to determine any long-range traffic impacts.

Report Organization

The remainder of this report is divided into the following chapters; Chapter 2 presents a detailed description of each of the proposed GPA sites included in the analysis. Chapter 3 describes analysis methodology, including the City's TDF model, and the MOEs and significance thresholds used in the analysis. Chapter 4 presents the results of the cumulative analysis based on the TDF modeling and citywide MOEs for the proposed GPAs. Chapter 5 presents the analysis for the Winchester GPA site, which was determined to require a site-specific analysis. Chapter 6 presents the conclusions of the long-range cumulative and site-specific GPA analyses.

2. General Plan Amendment Site Descriptions

The proposed project consists of amending land uses currently adopted in the Envision San José 2040 General Plan on ten sites. The amendment sites are described in more detail below along with peak-hour trip generation estimates for each of the proposed sites.

Envision San José 2040 General Plan

The City of San José *Envision San José 2040 General Plan* was adopted in 2011 and was based on planned land uses within the City projected to the Year 2035. Subsequent reviews in 2010, 2011, and 2016 resulted in the currently adopted General Plan, which includes a base year of 2015 and horizon year of the planned land uses to the Year 2040. Thus, the adopted General Plan traffic analysis provides a comprehensive evaluation of the effects of planned land use as identified in the current GP on the citywide transportation system and is used as the baseline from which impacts due to land use amendments such as the proposed project are evaluated.

Land use data consisting of households and employment growth for each of the proposed GPA sites as reflected in the adopted GP and the proposed land use amendments was prepared by the Department of Planning, Building, and Code Enforcement and provided to Hexagon for use in this analysis.

Amendment Sites

The project includes ten proposed GPA sites: GP18-010, GP18-013, GP18-014/PDC18-037, GP18-015/PDC18-038, GP19-001, GP19-004, GPT19-005, GPT19-006, GPT19-007, GP (Berryessa BART Urban Village). Each of the proposed GPAs would result in changes to the number of households and jobs on each site when compared to those adopted per the Envision San José 2040 GP for each site. However, the proposed GPAs will not change the total number of jobs and households citywide. The TDF model is used to rebalance the number of jobs and households citywide to maintain the General Plan Goal of 751,650 jobs and 429,350 households.

Table 2 summarizes the land uses and density for each proposed site under the current 2040 GP and the proposed GPAs. Table 3 summarizes the changes in households and jobs for each site and the resulting increases in peak-hour trips. The peak-hour trips for each site were estimated using the City of San José's TDF model. The TDF modeling is described in Chapter 3.

Proposed land use changes for each of the GPA sites are described below.

- **Site 1 - GP18-010 (Diamond Heights):** The 4.6-acre site is located on the east side of Diamond Heights Drive, approximately 200 feet south of its intersection with Senter Road.

**Table 2
Existing General Plan and Proposed GPA Land Uses**

Site Number	Project Name	Location	APN	Size (acres)	Existing General Plan		Proposed General Plan Amendment	
					Land Use	Density	Land Use	Density
1	GP18-010 (Diamond Heights)	East side of Diamond Heights Drive, approximately 200 feet south of Senter Road	684-43-030; 031; 032	4.60	Rural Residential	up to 2 DU/AC; FAR up to 0.35	Residential Neighborhood	8 DU/AC (match existing neighborhood character); FAR up to 0.7
2	GP18-013 (Stockton Ave)	623 Stockton Avenue	261-07-068	0.20	Residential Neighborhood	8 DU/AC (match existing neighborhood character); FAR up to 0.7	Neighborhood/Community Commercial	FAR up to 3.5
3	GP18-014/PDC18-037 (Winchester)	555 South Winchester Boulevard	303-38-001	15.70	Residential Neighborhood	8 DU/AC (match existing neighborhood character); FAR up to 0.7	Urban Residential	30-95 DU/AC; FAR 1.0 to 4.0
4	GP18-015/PDC18-038 (Campbell Ave)	1250 Campbell Avenue	230-14-004;009	3.00	Light Industrial	FAR up to 1.5	Transit Residential	50-250 DU/AC; FAR 2.0 to 12.0
5	GP19-001 (Williams Road)	4070 Williams Road	299-15-014	0.20	Residential Neighborhood	8 DU/AC; FAR up to 0.7	Urban Residential	30-95 DU/AC; FAR 1.0 to 4.0
6	GP19-004 (Capitol Ave/Alum Rock)	East of Capitol Avenue and north of Alum Rock Avenue	484-19-094	0.44	Neighborhood/Community Commercial (on 0.44 acres)	FAR up to 3.5	Mixed-Use Neighborhood	up to 30 DU/AC; FAR 0.25 to 2.0
7	GPT19-005 (Mountain Springs Mobilehome Park)	625 Hillsdale Ave.	455-10-032	27.71	Urban Residential Residential Neighborhood	30-95 DU/AC; FAR 1.0 to 4.0 8 DU/AC	Mobilehome Park	FAR N/A
8	GPT19-006 (Westwind Mobilehome Park)	500 Nicholson Lane	097-81-004	83.43	Urban Residential Residential Neighborhood	30-95 DU/AC; FAR 1.0 to 4.0 8 DU/AC	Mobilehome Park	FAR N/A
9	GPT19-007 (Evans Lane)	0 Evans Lane	456-09-016; 456-09-017	5.94	Mixed-Use Neighborhood	up to 30 DU/AC; FAR 0.25 to 2.0	Urban Residential Residential Neighborhood	30-95 DU/AC; FAR 1.0 to 4.0 8 DU/AC
10	GP (Berryessa BART Urban Village)	Generally bounded by Shore Drive to the north, Lundy Avenue to the east, Coyote Creek to the west, and Mabury Road to the south.	Parcels Within Berryessa BART Urban Village	270.00	N/A ¹	N/A ¹	N/A ¹	N/A ¹

Notes: FAR = floor-to-area ratio; DU = dwelling units; AC = acre; APN = assessor's parcel number; N/A = not applicable
 Source: City of San Jose Planning Department (June 2019).
 1. The proposed GP amendment is associated with capacity shifts proposed as part of the Berryessa BART Urban Village plan.

Table 3
Changes in Households, Jobs, and Peak-Hour Trips Due to Proposed GPAs

Site Number	Site Name	General Plan (Baseline) ¹		General Plan Amendment ²		Net Land Use Change		Net Peak-Hour Trip Change	
		TOTHH	TEMP	TOTHH	TEMP	TOTHH	TEMP	AM	PM
1	GP18-010 [Diamond Heights]	989	251	1007	251	18	0	13	16
2	GP18-013 [Stockton Ave]	437	982	436	992	-1	10	6	9
3	GP18-014/PDC18-037 [Winchester]	220	131	786	131	566	0	301	348
4	GP18-015/PDC18-038 [Campbell Ave]	723	803	1,018	944	295	141	213	241
5	GP19-001 [Williams Road]	2,311	2,179	2,322	2,189	11	10	16	21
6	GP19-004 [Capitol Ave/Alum Rock]	370	518	376	518	6	0	4	4
7	GPT19-005 [Mountain Springs Mobilehome Park]	876	45	850	45	-26	0	-14	-16
8	GPT19-006 [Westwind Mobilehome Park]	3,099	3,980	2,678	3,762	-421	-218	-466	-530
9	GPT19-007 [Evans Lane]	2,196	261	2,475	261	279	0	143	168
10	GP [] Berryessa [Total]	7,661	24,701	9,486	19,104	1,825	-5,597	-528	-1,074

Notes: TOTHH = total number of households; TEMP = total number of jobs.

¹ Total number of households and jobs under the adopted Envision San Jose 2040 General Plan (GP). The buildout of the 2040 GP represents baseline conditions.

² Total number of households and jobs as proposed by the GP Amendments.

Outlined indicates GPA that results in an increase in peak hour trips greater than 250 trips and requires site-specific GPA traffic analysis.

Sources: City of San Jose Planning Department, June 2019.

City of San Jose Travel Forecasting Model runs completed July 2019 by Hexagon Transportation Consultants, Inc.

Figure 2 shows the location of the site. The adopted GP land use designation for the site is *Rural Residential* and the proposed amendment involves changing the adopted land use to *Residential Neighborhood*. The proposed amendment would result in 18 additional households on the site. Based on the TDF modeling results, the proposed amendment would not result in a substantial net increase of peak-hour trips generated by GP18-010 and a site-specific GPA traffic analysis is not required.

- Site 2 - GP18-013 (Stockton Avenue):** The 0.20-acre site is located on the west side of San Stockton Avenue, between Schiele Avenue and Villa Avenue. Figure 3 shows the location of the site. The adopted GP land use designation for the site is *Residential Neighborhood*, and the proposed amendment involves changing the adopted land use to *Neighborhood/ Community Commercial*. The proposed amendment would result in one less household and 10 additional jobs on the site. Based on the TDF modeling results, the proposed amendment would not result in a substantial net increase of peak-hour trips generated by GP18-013 and a site-specific GPA traffic analysis is not required.
- Site 3 - GP18-014/PDC18-037 (Winchester Boulevard):** The 15.7-acre site is generally located west of Winchester Boulevard and north of I-280, with access provided via Olsen Drive and Charles Cali Drive. Figure 4 shows the location of the site. The adopted GP land use designation for the site is *Residential Neighborhood* and the proposed amendment involves changing the adopted land use to *Urban Residential*. The proposed amendment would result in 566 additional households on the site. Based on the TDF modeling results, the increase in households would result in a net increase of greater than 250 peak-hour trips to the GP18-014/PDC18-037 site. *Therefore, the preparation of a site-specific GPA traffic analysis for the proposed land use amendment on the GP18-014/PDC18-037 site is required.*

- **Site 4 - GP18-015/PDC18-038 (Campbell Avenue):** The 3.0-acre site is located north of Campbell Avenue, near the intersection of Campbell Avenue and El Camino Real. Figure 5 shows the location of the site. The adopted GP land use designation for the site is *Light Industrial* and the proposed amendment involves changing the adopted land use to *Transit Residential*. The proposed amendment would result in 295 additional households and 141 additional jobs on the site. Based on the TDF modeling results, the proposed amendment would not result in a net increase of peak-hour trips generated by GP18-015/PDC18-038 exceeding the 250-trip threshold and a site-specific GPA traffic analysis is not required.
- **Site 5 - GP19-001 (Williams Road):** The 0.2-acre site is located on the south side of Williams Road, near its intersection with Orchid Way. Figure 6 shows the location of the site. The adopted GP land use designation for the site is *Residential Neighborhood* and the proposed amendment involves changing the adopted land use to *Urban Residential*. The proposed amendment would result in 11 additional household and 10 additional jobs on the site. Based on the TDF modeling results, the proposed amendment would not result in a substantial net increase of peak-hour trips generated by GP19-001 and a site-specific GPA traffic analysis is not required.
- **Site 6 - GP19-004 (Capitol Avenue/Alum Rock Avenue):** The 0.44-acre site is located on the east side of Capitol Avenue, between Alum Rock Avenue and Avenue A. Figure 7 shows the location of the site. The adopted GP land use designation for the site is *Neighborhood/Community Commercial* and the proposed amendment involves changing the adopted land use to *Mixed use Neighborhood*. The proposed amendment would result in six additional households on the site. Based on the TDF modeling results, the proposed amendment would not result in a substantial net increase of peak-hour trips generated by GP19-004 and a site-specific GPA traffic analysis is not required.
- **Site 7 - GPT19-005 (Mountain Springs Mobilehome Park):** The 27.71-acre site is located at the northeast corner of the Narvaez Avenue and Hillsdale Avenue intersection. Figure 8 shows the location of the site. The adopted GP land use designations for the site include *Urban Residential* and *Residential Neighborhood* and the proposed amendment involves changing the adopted land uses to *Mobile Home Park*. The proposed amendment would result in 26 fewer households on the site. Based on the TDF modeling results, the proposed amendment would not result in a net increase of vehicle trips on local streets near the GPT19-005 site and a site-specific GPA traffic analysis is not required.
- **Site 8 - GPT19-006 (Westwind Mobilehome Park):** The 83.43-acre site is generally located east of North First Street and south of SR-237, with access provided via Nicholson Lane, in the North San José subarea. Figure 9 shows the location of the site. The adopted GP land use designations for the site include *Urban Residential* and *Residential Neighborhood* and the proposed amendment involves changing the adopted land uses to *Mobile Home Park*. The proposed amendment would result in 421 fewer households and 218 fewer jobs on the site. Based on the TDF modeling results, the proposed amendment would not result in a net increase of vehicle trips on local streets near the GPT19-006 site and a site-specific GPA traffic analysis is not required.
- **Site 9 - GPT19-007 (Evans Lane):** The 5.94-acre site is generally located in the area bounded by Almaden Expressway, SR-87, and Curtner Avenue, with access provided via Evans Lane. Figure 10 shows the location of the site. The adopted GP land use designation for the site is *Mixed Use Neighborhood* and the proposed amendment involves changing the adopted land use to *Urban Residential* and *Residential Neighborhood*. The proposed amendment would result in 279 additional households on the site. Based on the TDF modeling results, the proposed amendment would not result in a net increase of peak-hour trips generated by

GPT19-007 exceeding the 250-trip threshold and a site-specific GPA traffic analysis is not required.

- **Site 10 - GP (Berryessa BART Urban Village):** The Berryessa BART Urban Village consists of 270 acres generally located in the area surrounded by US 101, I-680, and I-880. The actual boundaries of the Urban Village are generally Shore Drive to the north, Lundy Avenue to the east, Coyote Creek to the west, and Mabury Road to the south. The Berryessa BART Station is located in the center of the Urban Village. Figure 11 shows the location of the Berryessa BART Urban Village area. The proposed GP amendment is associated with capacity shifts proposed as part of the Berryessa BART Urban Village Plan and would result in 1,825 additional households and 5,598 fewer jobs on the site. Based on the TDF modeling results, the proposed change in households and jobs within the Urban Village would result in a net decrease of peak-hour trips generated by the Berryessa BART Urban Village site and a site-specific GPA traffic analysis is not required.

Figure 2
Location of GPA Site 1: GP18-010 (Diamond Heights)

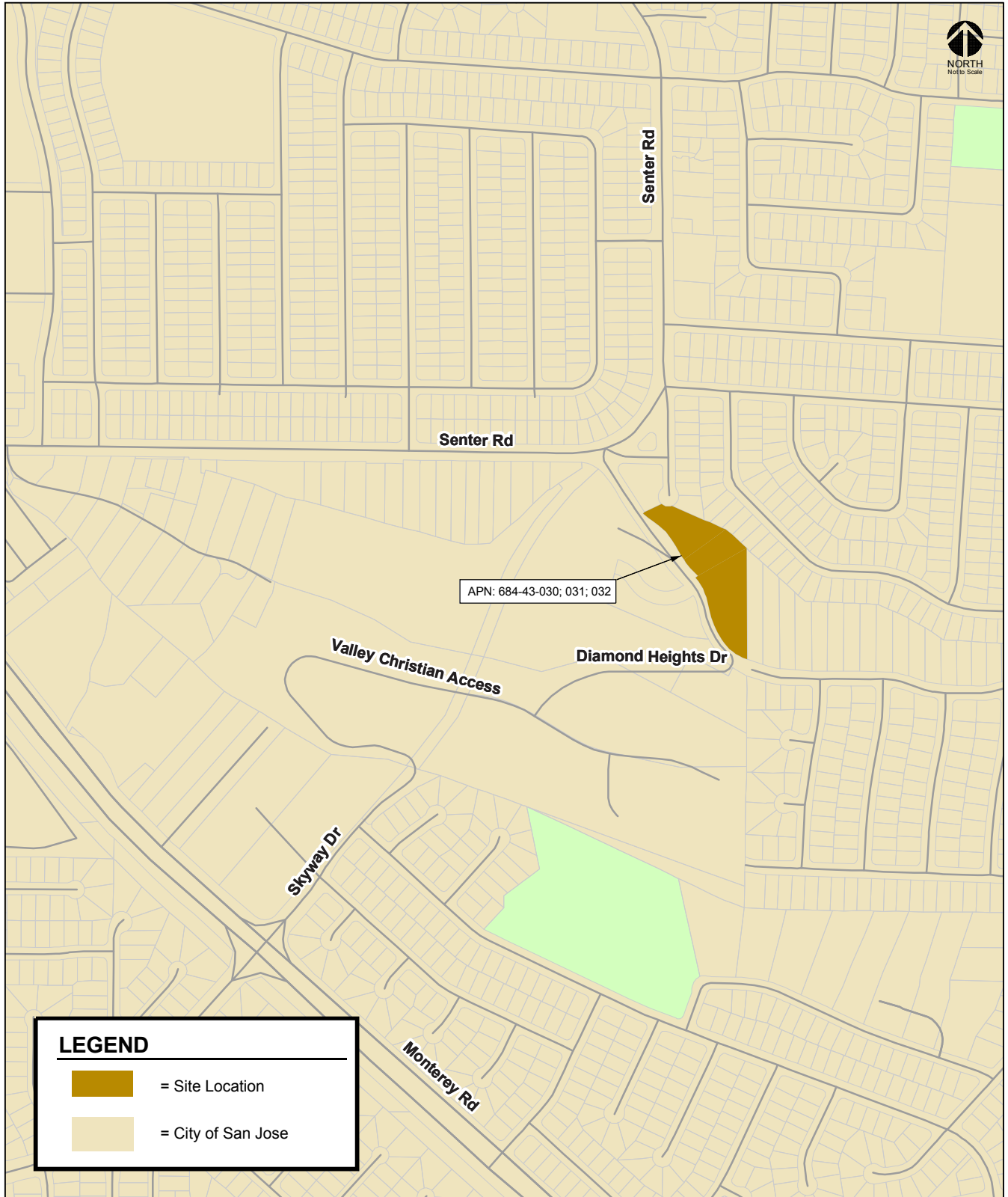


Figure 3
Location of GPA Site 2: GPT18-013 (Stockton Avenue)

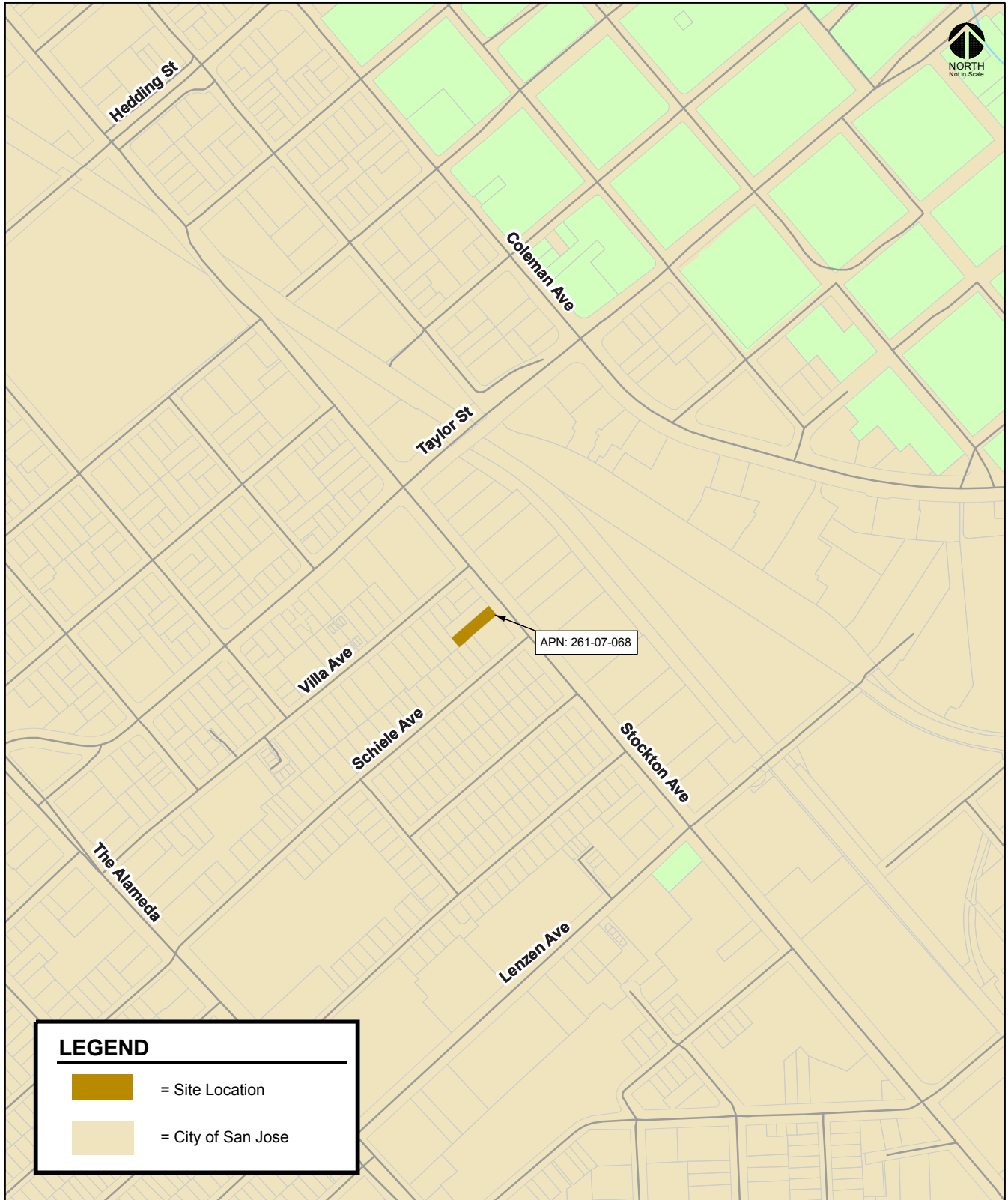


Figure 4
Location of GPA Site 3: GP18-014/PDC18-037 (Winchester)

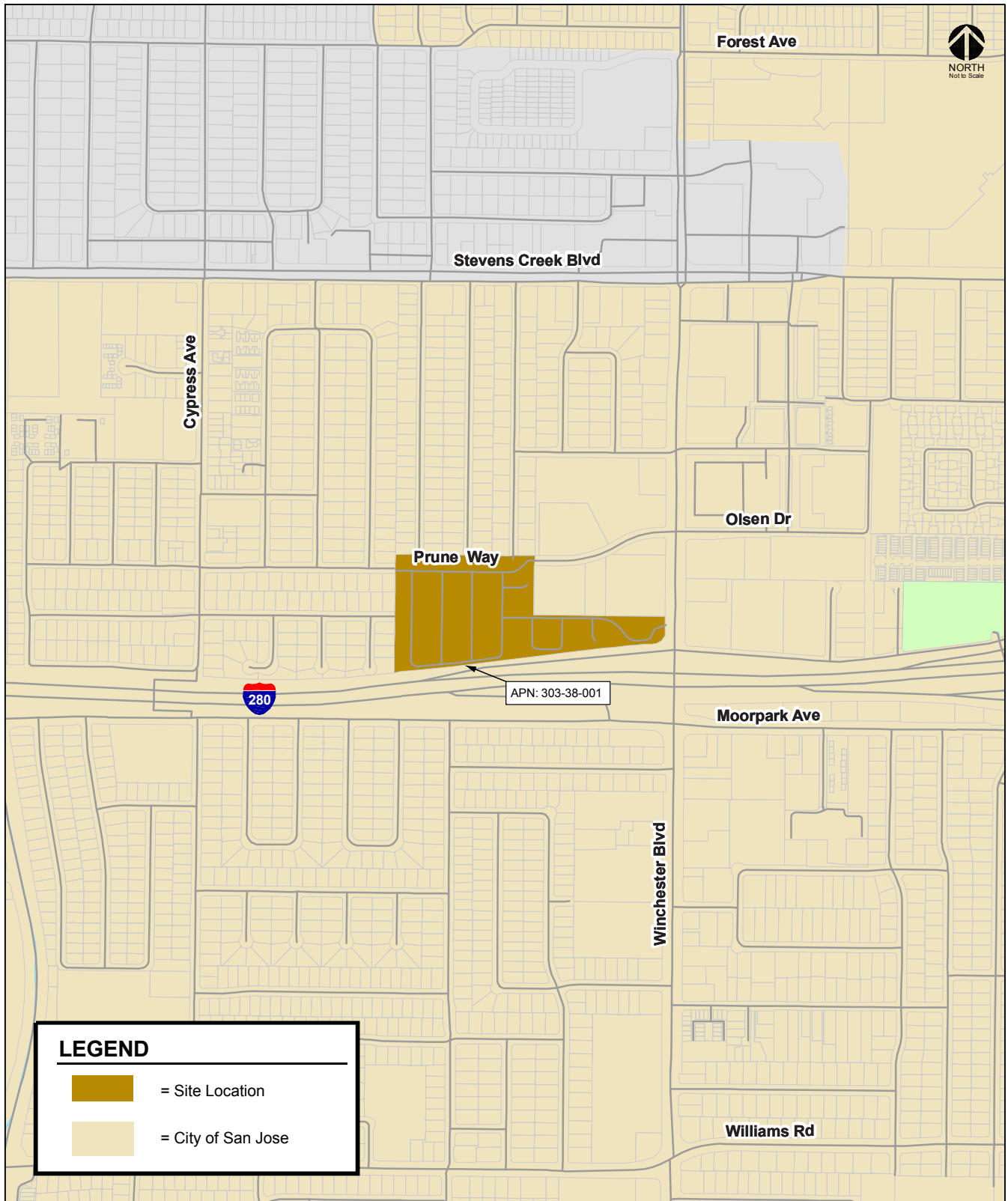


Figure 5
Location of GPA Site 4: GP18-015/PDC18-038 (Campbell Avenue)

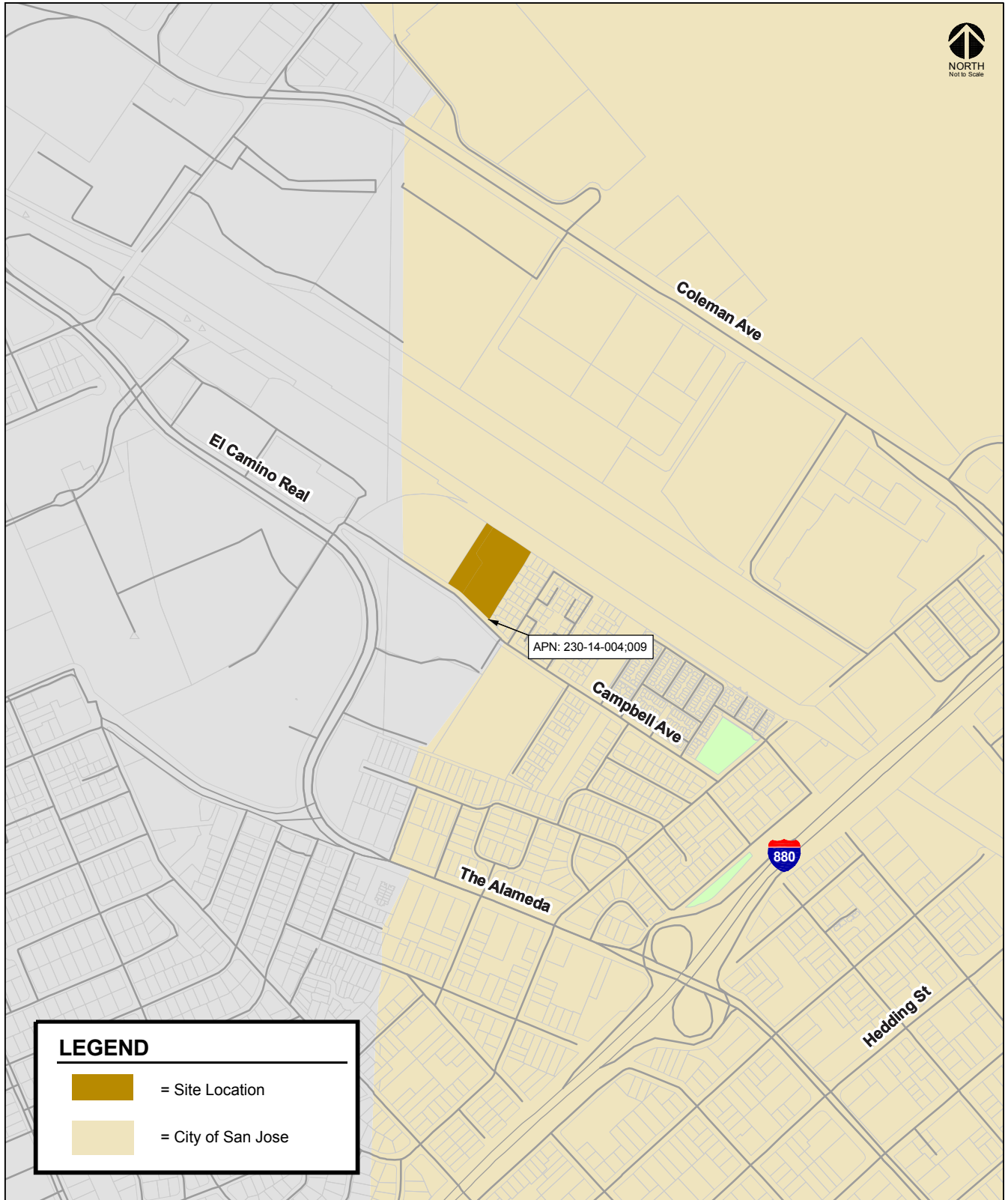


Figure 6
Location of GPA Site 5: GP19-001 (Williams Road)

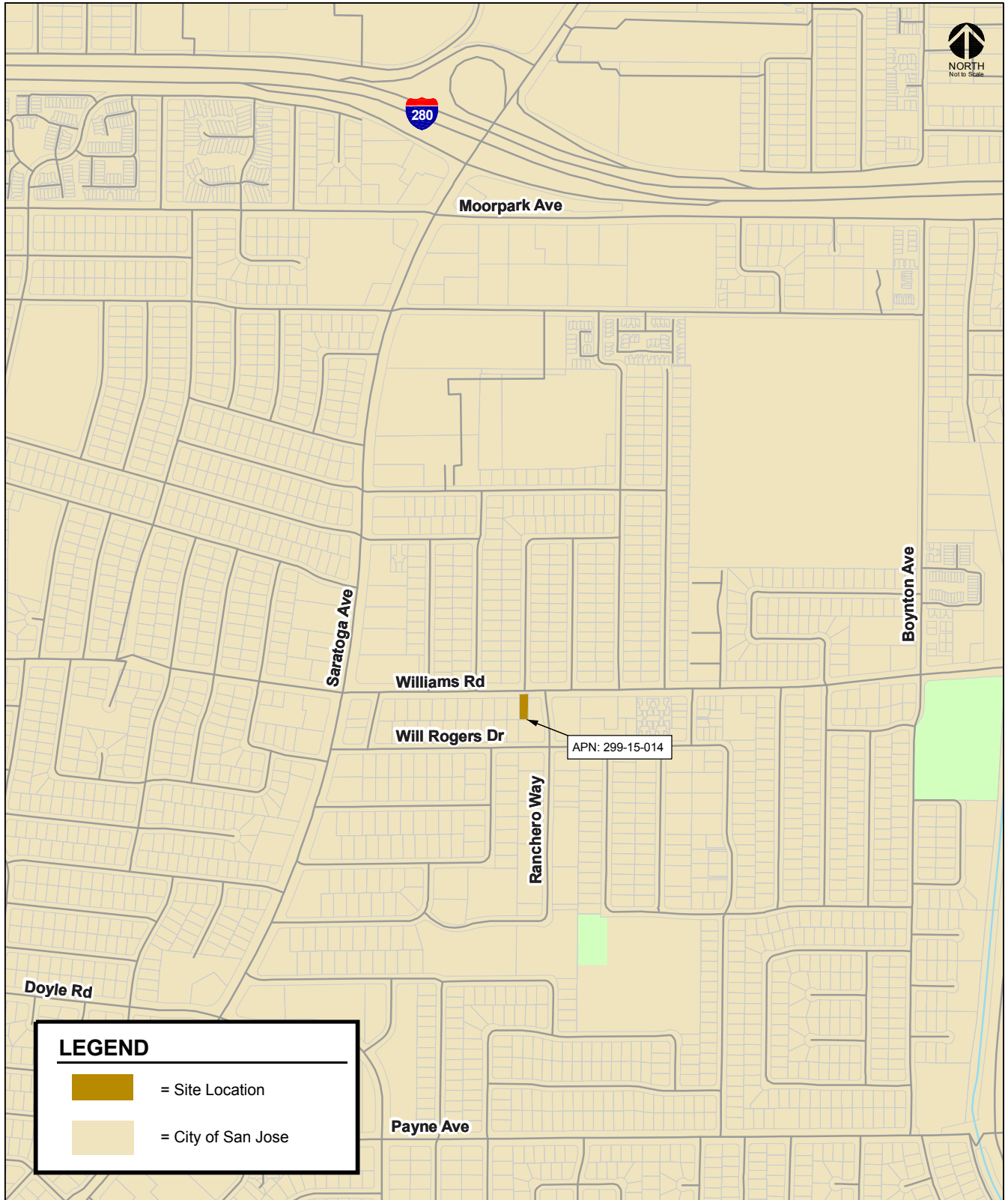


Figure 7
Location of GPA Site 6: GP19-004 (Capitol Avenue/Alum Rock Avenue)

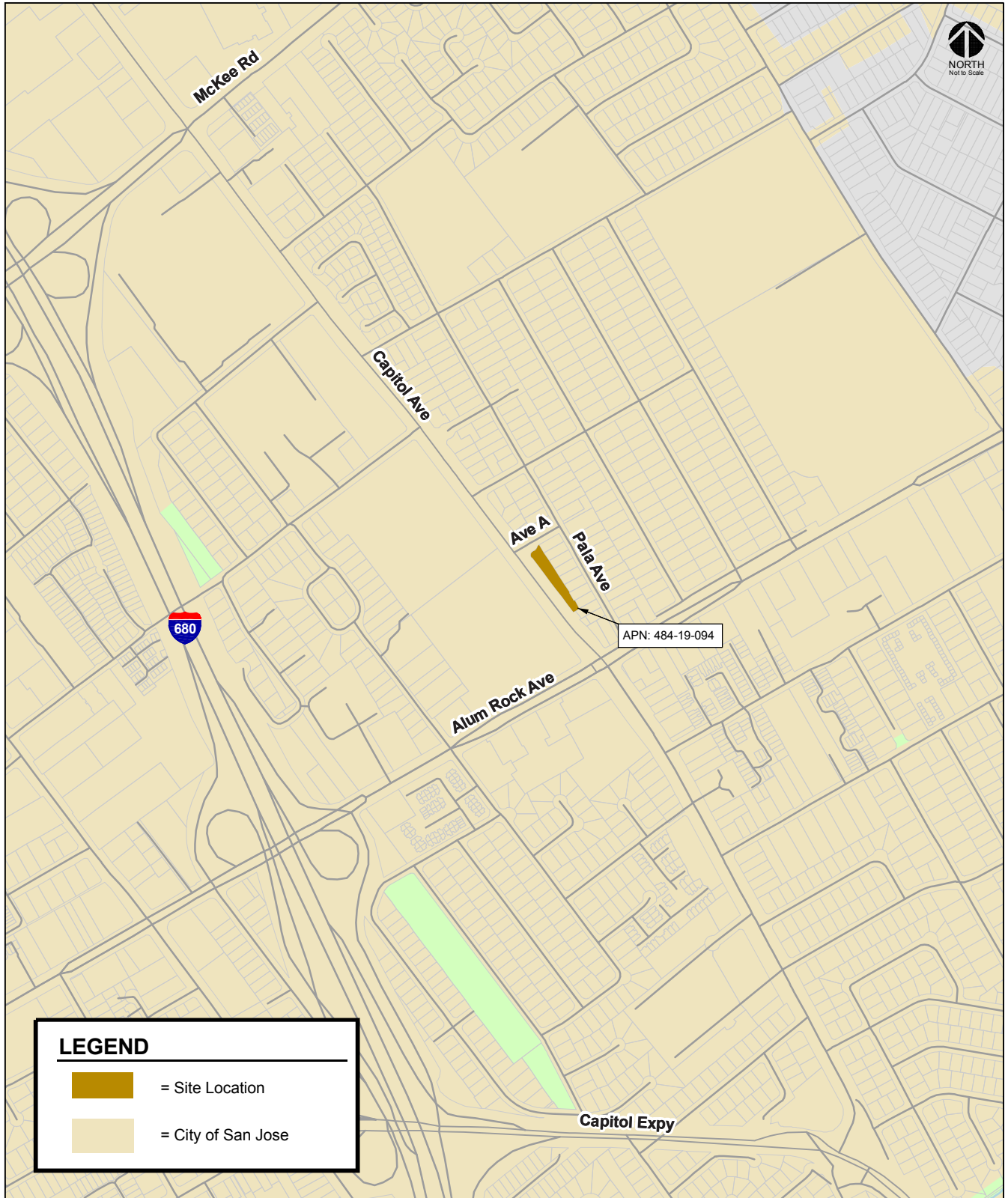


Figure 8
Location of GPA Site 7: GPT19-005 (Mountain Springs Mobilehome Park)

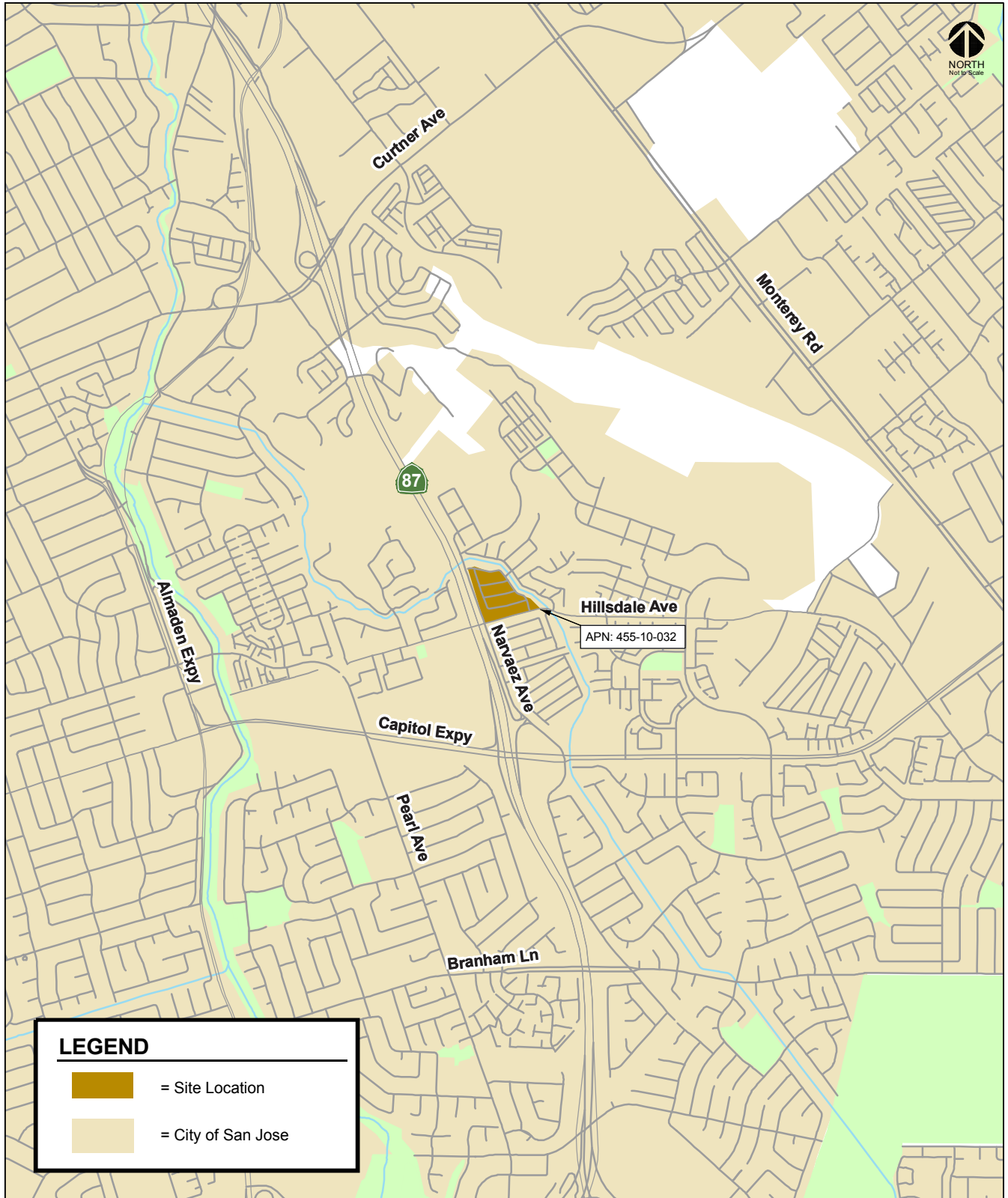


Figure 9
Location of GPA Site 8: GPT19-006 (Westwind Mobilehome Park)

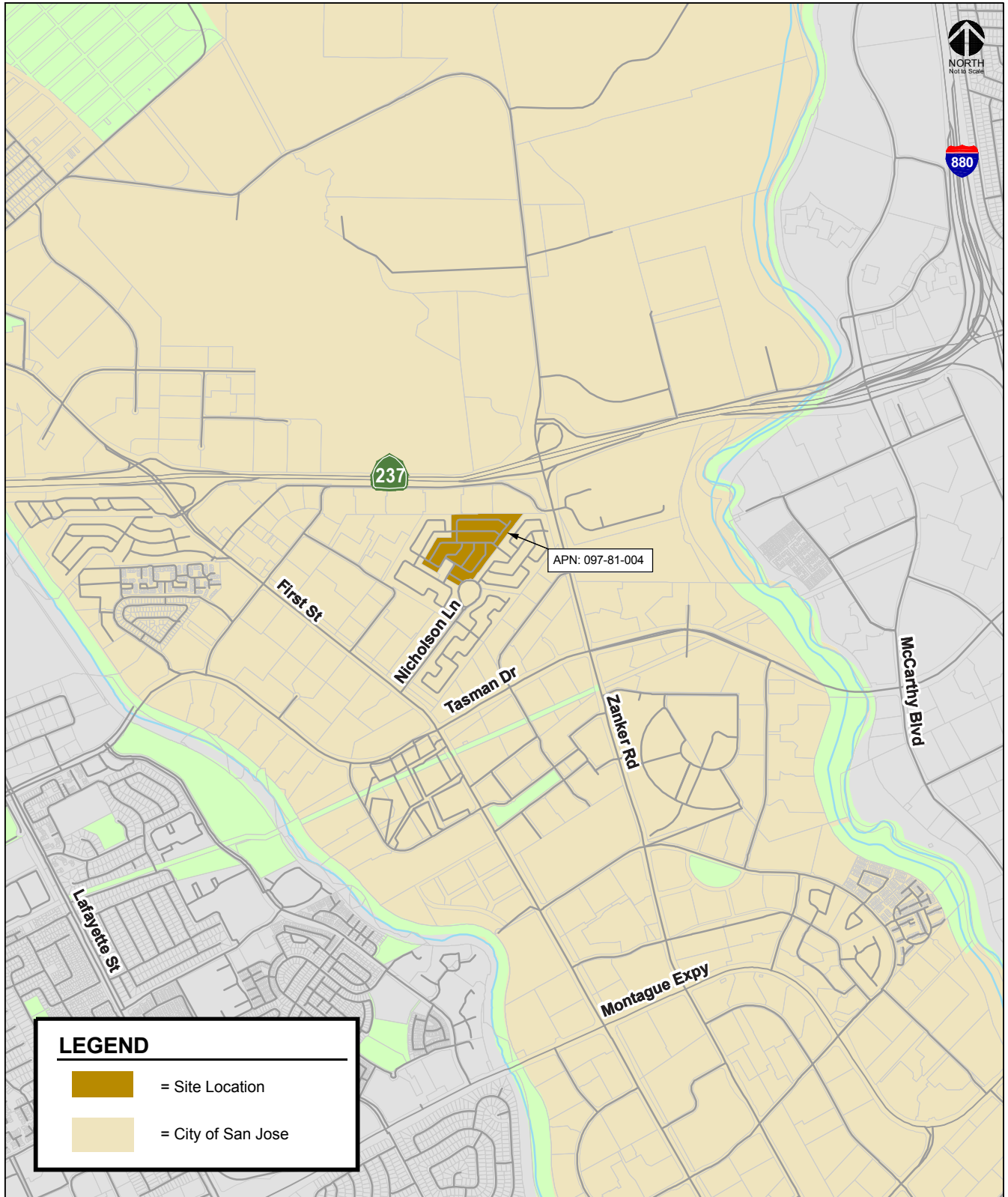


Figure 10
Location of GPA Site 9: GPT19-007 (Evans Lane)

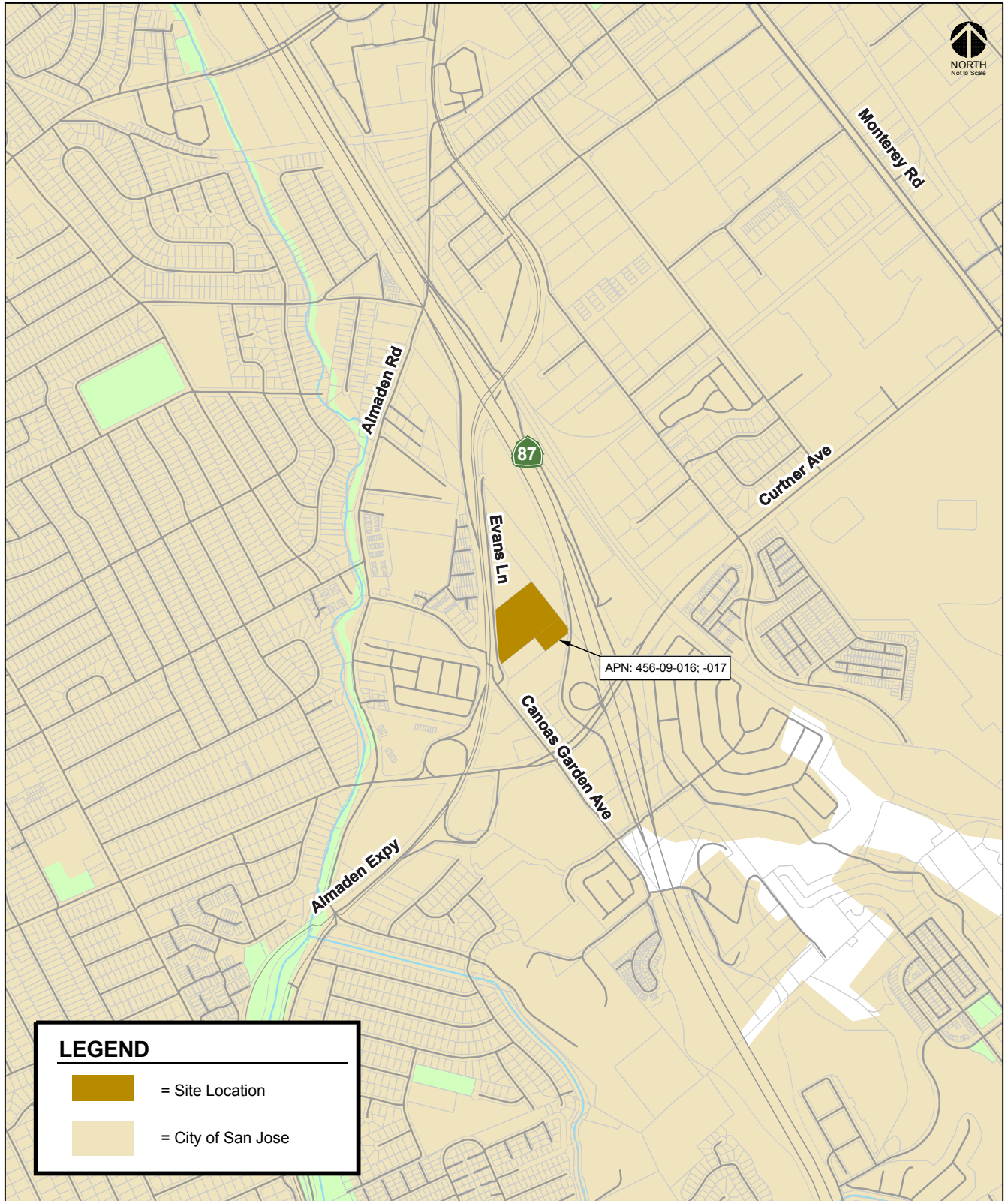
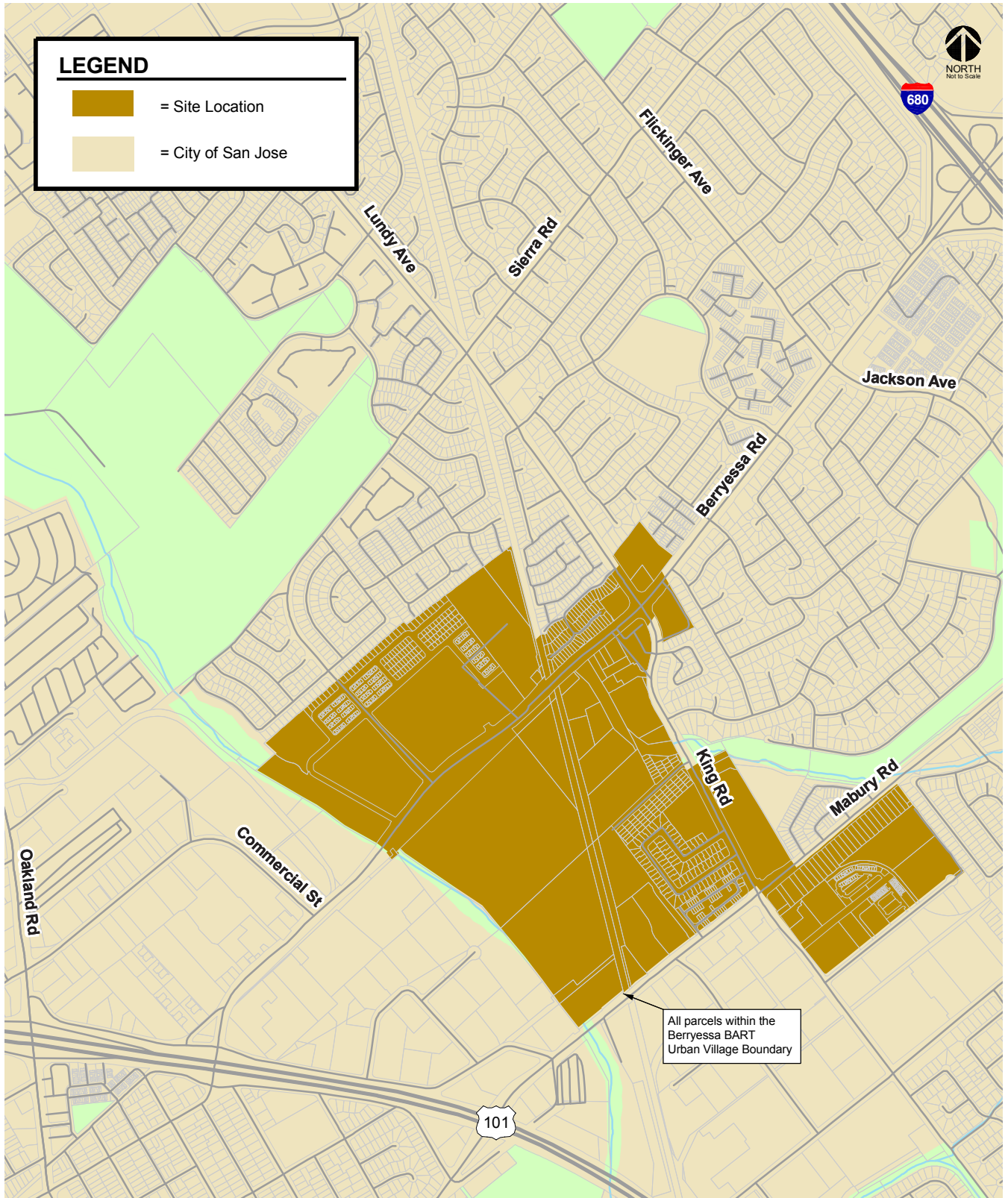


Figure 11
Location of GPA Site 10: GP (Berryessa BART Urban Village)



3.

Analysis Methodology and Impact Criteria

This chapter describes the travel demand forecasting modeling methodology used for the analysis and the methods used to determine the traffic conditions for the study scenarios described in the previous chapter. It includes descriptions of the measures of effectiveness (MOE) and the applicable impact criteria for GP traffic analysis.

Travel Demand Forecasting Model

The citywide travel demand forecasting (TDF) model was prepared as part of the Envision San José 2040 GP. The TDF model was developed to provide improved citywide travel demand forecasting as part of continued planning efforts to address transportation infrastructure needs and to assist in the update of the City's GP. The model was developed from the VTA's countywide travel demand model, based on Metropolitan Transportation Commission (MTC's) BAYCAST trip-based regional model. The VTA model contains all cities and counties within the model's extents roughly bounded by southern Monterey County, eastern San Joaquin County, northern Sonoma County, and the Pacific Ocean. The San José model is a sub-area model of the VTA model – it maintains the general inputs (roadway network, land use, trip generation rates, etc.), structure, and process as the VTA model, but with refinement within the City of San José. This allows regional travel patterns and behavior to be accounted for in the focused area of San José, which will become more important with the recent legislative requirements associated with greenhouse gas quantification and impacts.

The VTA and San José models both include four elements traditionally associated with models of this kind. These elements include trip generation, trip distribution, mode choice, and traffic assignment.

- **Trip Generation.** Trip generation involves estimating the number of trips that would occur with the proposed GP land uses. The City's TDF model includes trip generation formulas based on the MTC regional travel demand model. Trip generation is estimated based on the type and amount of specific land uses within each travel analysis zone (TAZ). The TDF model produces trip estimates in person trips (as opposed to vehicle trips, which are typically used in near-term traffic analyses).
- **Trip Distribution.** Trip distribution involves distributing the trips to various internal destinations and external gateways. The model pairs trip origins and trip destinations (starting and ending points) for each person trip based on the type of trip (e.g., home-to-work, home-to-school, etc.) and the distance a person is willing to travel for that purpose. The distance a person is willing to travel is determined by a gravity model, which is analogous to Newton's law of gravity. In a gravity model, estimates are made about how many trips occur between two locations where

the interaction between those two locations diminishes with increasing distance, time, and cost between them.

- **Mode Choice.** Mode choice, as assigned by the model, determines which mode of transport a person will choose for each trip, based on the availability of a vehicle, the trip distance, and the trip purpose.
- **Traffic Assignment.** Traffic assignment involves determining which route to take to travel between the trip origin and destination. The model assigns the trips to the roadway network to minimize travel time between the start and end points.

Subsequent trip distribution, assignment, and mode choice iterations are completed by the model to account for roadway congestion. These iterations continue under equilibrium traffic conditions until the optimal trip assignment is reached.

Transportation Network and Traffic Analysis Zones (TAZs)

The fundamental structure of the model includes a computer readable representation of the roadway system (highway network) that defines roadway segments (links) identified by end points (nodes). Each roadway link is further represented by key characteristics (link attributes) that describe the length, travel speeds, and vehicular capacity of the roadway segment. Small geographic areas (TAZs) are used to quantify the planned land use activity throughout the City's planning area. The boundaries of these small geographic areas are typically defined by the modeled roadway system, as well as natural and man-made barriers that have an effect on traffic access to the modeled network. Transit systems are represented in the model by transit networks that are also identifiable by links and nodes. Unlike the roadway network, the key link attributes of a transit link are operating speed and headways – elapsed time between successive transit services. Transit stops and “dwelling times” (the time allowed for passengers embarking and disembarking transit vehicles) are described as transit node attributes. Transit networks are further grouped by type of transit (rail versus bus) and operator (VTA bus versus AC Transit bus). Transit accessibility for each TAZ is evaluated by proximity to transit stops or stations, and the connectivity of transit lines to destinations.

The socioeconomic data for each TAZ in the model includes information about the number of households (stratified by household income and structure type), population, average income, population age distribution, and employment (stratified by groupings of Standard Industrial Codes). The worker per household ratios and auto ownership within a TAZ are calculated based on these factors and the types and densities of residences. The model projects trip generation rates and the traffic attributable to residents and resident workers, categorized by trip purposes, using set trip generation formulas that are based on the MTC regional travel demand model. The land use data and roadway network used for the GP base year reflect land use development and roadway projects completed as of approximately mid-2015.

Traffic Assignment

Travel times within and between TAZs (intra-zonal, inter-zonal and terminal times) are developed from the network being modeled. Travel times within zones (intra-zonal travel times) are derived for each zone based on half its average travel time to the nearest three adjacent zones. Time to walk to and from the trip maker's car (terminal times) are also added. The projected daily trips are distributed using a standard gravity model and friction factors calibrated for the modeling region, which presently consists of 13 counties.

The City of San José TDF model can estimate up to 7 modes of transportation:

- auto drive alone

- auto carpool with two persons
- auto carpool with three+ persons
- rail transit
- bus transit
- bicycle
- walk

Before the traffic is assigned to the roadway networks, time-of-day factors and directionality factors are applied to automobile trips occurring during:

- AM peak hour
- AM 4-hour peak
- PM peak hour
- PM 4-hour peak
- mid-day 6-hour
- mid-night 10-hour periods

The assignment of the trip tables to the roadway network uses a route selection procedure based on minimum travel time paths (as opposed to minimum travel distance paths) between TAZs and is done using a capacity-constrained user equilibrium-seeking process. This capacity constrained traffic assignment process enables the model to reflect diversion of traffic around congested areas of the overall street system. High Occupancy Vehicle (HOV) lanes on freeways, expressways, and on-ramps are specifically dealt with in the model network, with access restricted to auto-shared-ride mode trips only, similar to real world operations of roadway facilities with HOV lanes.

Transit Mode Share

Transit use is modeled for peak and non-peak periods based on computed transit levels of services (speeds and wait times). Based on the conditions that influence transit speeds and wait times (such as traffic congestion), transit use numbers are modified to reflect the likelihood of transit use, based on the constraints to the system. This feedback loop is a modern enhancement in the model to address the dynamics of transit ridership related to the expansion or contraction of roadway capacities.

In addition to providing projected peak hour and peak period volumes and ratios comparing projected traffic volume to available roadway capacity (V/C ratios) on each roadway segment, the model provides information on vehicle-miles and vehicle-hours of travel by facility type (freeway, expressways, arterial streets, etc.). These informational reports can be used to compare projected conditions under the adopted GP with the impacts of proposed land use amendments. The City's TDF model is intended for use as a "macro analysis tool" to project probable future conditions. Therefore, the TDF model is best used when comparing alternative future scenarios, and is not designed to answer "micro analysis level" operational questions typically address in detailed traffic impact analyses (TIAs).

General Plan Transportation Network

The GP TDF model includes all major transportation infrastructure identified in the Envision San José 2040 *Land Use/Transportation Diagram*, including planned infrastructure that is not yet built and/or funded.

Measures of Effectiveness

This analysis addresses the long-range impacts of the proposed GP land use adjustments on the citywide transportation system by applying measures of effectiveness (MOEs) developed for the Envision San José 2040 GP. The results of the analysis for the proposed land use adjustments are compared to the current GP to determine if the proposed adjustments would result in any new or substantially more severe transportation impacts. The long-range analysis includes analysis of the following MOEs:

- **Vehicle Miles Traveled (VMT) per Service Population.** VMT per service population is a measure of the daily vehicle miles traveled divided by the number of residents and employees within the City of San José. VMT per service population (residents + employees) is used for the analysis as opposed to VMT per capita (residents only), since per service population more accurately captures the effects of land use on VMT. The City not only has residents that travel to and from jobs, but also attracts regional employees. VMT is calculated based on the number of vehicles multiplied by the distance traveled by each vehicle in miles.
- **Journey-to-Work Mode Share (Drive Alone %).** Mode share is the distribution of all daily work trips by travel mode, including the following categories: drive alone, carpool with two persons, carpool with three persons or more, transit (rail and bus), bike, and walk trips.
- **Average Travel Speeds within the City's Transit Priority Corridors.** Average travel speed for all vehicles (transit and non-transit vehicles) in the City's 14 transit corridors is calculated for the AM peak hour based on the segment distance dividing the vehicle travel time. A transit corridor is a segment of roadway identified as a Grand Boulevard in the Envision San José 2040 GP Land Use/Transportation Diagram. Grand Boulevards serve as major transportation corridors and, in most cases, are primary routes for Valley Transportation Authority (VTA) light-rail transit (LRT), bus rapid transit (BRT), local buses, and other public transit vehicles. Although transit services are found on other street types throughout the City, transit has the utmost priority on Grand Boulevards.
- **Adjacent Jurisdictions.** Roadway conditions on major streets within adjacent jurisdictions are evaluated for the AM 4-hour peak period based on the volume-to-capacity (V/C) ratios of the street segments and the City of San José's contributions to the total traffic of the street segments. V/C is a performance measure and represents the level of saturation (proportion of roadway capacity that is being used). A lower ratio indicates a roadway's capacity is not fully utilized while a larger ratio, or ratio greater than 1.00, represents a roadway's capacity is fully utilized or over saturated. Freeway facilities operated by Caltrans and expressways operated by the Santa Clara County are also considered as adjacent jurisdictions.

Significance Impact Criteria

The City of San José adopted policies and goals in Envision San José 2040 to reduce the drive alone mode share to no more than 40 percent of all daily commute trips, and to reduce the VMT per service population by 40 percent from existing (year 2008) conditions. To meet these goals by the GP horizon year and to satisfy CEQA requirements, the City developed a set of MOEs and associated significance thresholds to evaluate long-range transportation impacts resulting from land use adjustments. Table 4 summarizes the significance thresholds associated with vehicular modes of transportation that were adopted as part of Envision San José 2040 for the evaluation of long-range traffic impacts resulting from proposed land use adjustments and used in this analysis.

**Table 4
MOE Significance Thresholds**

MOE	Citywide Threshold
VMT/Service Population	Any increase over 2015 baseline conditions
Mode Share (Drive Alone %)	Any increase in journey-to-work drive alone mode share over 2015 baseline conditions
Transit Corridor Travel Speeds	Decrease in average travel speed on a transit corridor below 2015 baseline conditions in the AM peak one-hour period when: 1. The average speed drops below 15 mph or decreases by 25% or more, or 2. The average speed drops by one mph or more for a transit corridor with average speed below 15 mph under 2015 baseline conditions.
Adjacent Jurisdiction	When 25% or more of total deficient lane miles on streets in a adjacent jurisdiction are attributable to the City of San Jose during the AM peak-4-hour period. 1. Total deficient lane miles are total lane miles of street segments with V/C ratios of 1.0 or greater. 2. A deficient roadway segment is attributed to San Jose when trips from the City are 10% or more on the deficient segment.
Source: Envision San Jose 2040 General Plan TIA, October 2010.	

In addition to the MOEs described above, the effects of the proposed land use adjustments on transit, bicycle, and pedestrian facilities were evaluated. A significant long-range transportation impact would occur if the adjustments would:

- Disrupt existing, or interfere with, planned transit services or facilities;
- Disrupt existing, or interfere with, planned bicycle facilities;
- Conflict or create inconsistencies with adopted bicycle plans, guidelines, policies, or standards;
- Not provide secure and safe bicycle parking in adequate proportion to anticipated demand;
- Disrupt existing, or interfere with, planned pedestrian facilities;
- Not provide accessible pedestrian facilities that meet current ADA best practices; or
- Create inconsistencies with adopted pedestrian plans, guidelines, policies, or standards.

4.

Cumulative General Plan Long Range Analysis

The long-range cumulative traffic impacts resulting from the proposed 2019 GPAs were determined based on the MOEs significance thresholds for vehicle modes of travel and the impact criteria for transit, bicycle and pedestrian described in Chapter 3. The results of the GPA long-range analysis are described below.

Vehicle Miles Traveled Per Service Population

The San José GP TDF model was used to calculate daily vehicle miles traveled (VMT) per service population, where service population is defined as the number of residents plus the number of employees citywide. This approach focuses on the VMT generated by new population and employment growth. VMT is calculated as the number of vehicle trips multiplied by the length of the trips in miles.

Since the City of San José not only has residents that travel to and from jobs within the City, but also attracts regional employees, the daily VMT includes some trips traveling outside of the City limits but with origins or destinations within San José. For this reason, the following trip types were included in the VMT calculation:

- Internal-Internal – All daily trips are made entirely within the San José City limits.
- One-half of Internal-External – One-half of the daily trips with an origin located within the San José City limits and a destination located outside of San José.
- One-half of External-Internal – One-half of the daily trips with an origin located outside the San José City limits and a destination located within San José.

Trips that travel through San José to and from other locations (External-External) are not included in the calculation of VMT. As defined in the City of San José *Transportation Analysis Handbook* (Thresholds of Significance for General Plan Amendments, Table 11), any increase in VMT per service population over the current GP conditions due to the proposed land use amendments is considered a significant impact.

As shown in Table 5, the citywide daily VMT and the VMT per service population would decrease due to the proposed land use amendments when compared to the current GP. This is because (1) the total number of jobs and households would not change citywide as a result of the GPAs (only shifting of households and jobs would occur) and (2) the addition of households to areas with more jobs and transit options. Vehicle trips citywide would be reduced due to an increase in trips made via transit at the Berryessa BART Urban Village site as well as a reduction in peak-hour trips projected at other sites. Therefore, cumulatively, the proposed 2019 GPAs would result in a *less than significant* impact on

Table 5
Daily Vehicle Miles Traveled Per Service Population

	Base Year (2015)	2040 General Plan (Baseline)	2040 General Plan Plus GPAs
Citywide Daily VMT	17,505,088	28,006,100	27,983,855
Citywide Service Population	1,392,946	2,054,758	2,054,758
- Total Households	319,870	429,350	429,350
- Total Residents	1,016,043	1,303,108	1,303,108
- Total Jobs	376,903	751,650	751,650
Daily VMT Per Service Population	12.57	13.63	13.62
Increase in VMT/Service Population over General Plan Conditions			-0.01
Significant Impact?			No
Note: 2040 General Plan (Baseline) = Buildout conditions of the adopted Envision San Jose 2040 General Plan (GP). GPAs = General Plan Amendments Service Population = Residents + Jobs Source: City of San Jose Travel Forecasting Model runs completed July 2019 by Hexagon Transportation Consultants, Inc.			

citywide daily VMT per service population.

Findings: Compared to the current GP, the proposed land use adjustments would not result in an increase in citywide VMT per service population. Therefore, cumulatively, the proposed 2019 GPAs would result in a *less than significant* impact on citywide daily VMT per service population. It is important to note that the VMT per service population is based on raw model output and does not reflect the implementation of adopted GP policies and goals that would further reduce VMT by increased use of non-auto modes of travel.

Journey-to-Work Mode Share

The San José GP TDF model was used to calculate citywide journey-to-work mode share percentages. Mode share is the distribution of all daily work trips by travel mode, including drive alone, carpool with two persons, carpool with three persons or more, transit (rail and bus), bike, and walk trips. Although work trips may occur at any time of the day, most of the work trips occur during typical peak commute periods (6:00 – 10:00 AM and 3:00 – 7:00 PM). As defined in the City of San José *Transportation Analysis Handbook* (Thresholds of Significance for General Plan Amendments, Table 11), any increase in the journey-to-work drive alone mode share percentage over the current GP conditions due to the proposed land use amendments is considered a significant impact.

Table 6 summarizes the citywide journey-to-work mode share analysis results. Compared to the current Envision San José 2040 GP, the percentage of journey-to-work drive alone trips would decrease slightly and the percentage of transit and bike trips would increase slightly as a result of the proposed GPAs. Therefore, cumulatively, the proposed 2019 GPAs would result in a *less than significant* impact on citywide journey-to-work drive alone mode share.

**Table 6
Journey-to-Work Mode Share**

Mode	Base Year (2015)		2040 General Plan (Baseline)		2040 General Plan Plus GPAs	
	Trips	%	Trips	%	Trips	%
Drive Alone	753,264	79.69%	1,092,115	71.73%	1,091,812	71.66%
Carpool 2	85,496	9.04%	137,524	9.03%	137,584	9.03%
Carpool 3+	28,526	3.02%	54,804	3.60%	54,842	3.60%
Transit	48,181	5.10%	182,677	12.00%	183,635	12.05%
Bicycle	14,120	1.49%	26,041	1.71%	26,255	1.72%
Walk	15,666	1.66%	29,323	1.93%	29,447	1.93%
Increase in Drive Alone Percentage over General Plan Conditions						-0.07%
Significant Impact?						No
Notes:						
2040 General Plan (Baseline) = Buildout conditions of the adopted Envision San Jose 2040 General Plan (GP).						
GPAs = General Plan Amendments						
Source: City of San Jose Travel Forecasting Model runs completed July 2019 by Hexagon Transportation Consultants, Inc.						

Findings: The proposed land use adjustments will not result in an increase of drive alone trips when compared to the current GP conditions. Therefore, cumulatively, the proposed 2019 GPAs would result in a *less than significant* impact on citywide journey-to-work mode share.

Average Vehicle Speeds in Transit Priority Corridors

The San José GP TDF model was used to calculate the average vehicle travel speeds during the AM peak hour for the City’s 14 transit corridors that were evaluated in the Envision San José 2040 GP TIA. A transit corridor is a segment of roadway identified as a Grand Boulevard in the Envision San José 2040 GP Land Use/Transportation Diagram. Grand Boulevards serve as major transportation corridors and, in most cases, are primary routes for VTA’s LRT, BRT, local buses, and other public transit vehicles. The travel speeds are calculated by dividing the segment distance by the vehicle travel time. As defined in the City of San José *Transportation Analysis Handbook* (Thresholds of Significance for General Plan Amendments, Table 11), land use amendments that result in a decrease in average travel speed on a transit corridor in the AM peak one-hour period when the average speed drops below 15 miles per hour (mph) or decreases by 25 percent (%) or more, or the average speed drops by one mph or more for a transit corridor with average speed below 15 mph when compared to the current GP conditions is considered a significant impact.

Table 7 presents the average vehicle speeds on the City’s 14 transit priority corridors (i.e., Grand Boulevard segments) during the AM peak-hour of traffic. When compared to travel speeds under current GP conditions, the change in traffic resulting from the proposed land use amendments would have minimal effect on the travel speeds in the transit corridors. The TDF model estimates decrease in travel speeds of 0.4 mph or less (or a change of 2.4% or less) on six corridors due to the proposed GPAs. Travel speeds on the remaining corridors would improve slightly or remain unchanged when compared to the current GP. Therefore, cumulatively, the proposed 2019 GPAs would result in a *less than significant* impact on the AM peak-hour average vehicle speeds on the transit priority corridors.

Table 7
AM Peak-Hour Vehicle Speeds (mph) for San José Transit Priority Corridors

Transit Priority Corridor	Base Year (2015)	2040 General Plan (Baseline)	2040 General Plan Plus GPAs		
	Speed (mph)	Speed (mph)	Speed (mph)	% Change $\frac{GPplusGPAs - GP}{GP}$	Absolute Change (GPplusGPAs - GP)
2nd St from San Carlos St to St. James St	16.6	15.3	15.4	0.7%	0.1
Alum Rock Av from Capitol Av to US 101	21.3	16.6	16.7	0.0%	0.0
Camden Av from SR 17 to Meridian Av	23.1	16.4	16.4	-0.1%	0.0
Capitol Av from S. Milpitas Bl to Capitol Expwy	27.1	22.5	22.6	0.3%	0.1
Capitol Expwy from Capitol Av to Meridian Av	33.0	26.6	26.6	0.0%	0.0
E. Santa Clara St from US 101 to Delmas Av	20.4	15.8	15.5	-2.4%	-0.4
Meridian Av from Park Av to Blossom Hill Rd	24.9	20.0	20.0	0.2%	0.0
Monterey Rd from Keyes St to Metcalf Rd	27.4	19.3	19.5	1.1%	0.2
N. 1st St from SR 237 to Keyes St	21.3	13.8	13.8	0.3%	0.0
San Carlos St from Bascom Av to SR 87	24.8	20.0	19.9	-0.5%	-0.1
Stevens Creek Bl from Bascom Av to Tantau Av	24.3	18.9	18.7	-0.8%	-0.1
Tasman Dr from Lick Mill Bl to McCarthy Bl	22.7	14.0	14.1	0.4%	0.1
The Alameda from Alameda Wy to Delmas Av	20.5	14.0	13.9	-0.7%	-0.1
W. San Carlos St from SR 87 to 2nd St	20.0	18.8	18.7	-0.6%	-0.1

Notes:
2040 General Plan (Baseline) = Buildout conditions of the adopted Envision San Jose 2040 General Plan (GP).
GPAs = General Plan Amendments
[Outlined] indicates significant impacts.
Source: City of San Jose Travel Forecasting Model runs completed July 2019 by Hexagon Transportation Consultants, Inc.

Findings: The proposed land use adjustments would not result in a decrease in travel speeds greater than one mph or 25 percent on any of the 14 transit priority corridors when compared to current GP conditions. Therefore, cumulatively, the proposed 2019 GPAs would result in a *less than significant* impact on the AM peak-hour average vehicle speeds on the transit priority corridors.

Adjacent Jurisdictions

The San José GP TDF model was used to calculate the number of lane miles of street segments with V/C ratios of 1.0 or greater during the peak 4-hour AM period within adjacent jurisdictions.

The effect of the proposed land use adjustments is evaluated based on the percentage of traffic that would be added to the deficient roadways. As defined in the City of San José *Transportation Analysis Handbook* (Thresholds of Significance for General Plan Amendments, Table 11), a deficient roadway segment in an adjacent jurisdiction is attributed to San José when trips originating from residents and jobs within San José equal 10% or more on the deficient segment. An impact to an adjacent jurisdiction is considered significant when 25% or more of total deficient lane miles are attributable to the City of San José. The 25% threshold represents what would be a noticeable change in traffic.

Table 8 summarizes the City of San José's traffic impacts on the roadway segments within adjacent jurisdictions. City of San José traffic would significantly impact roadway segments within the same 12 adjacent jurisdictions under both current GP and proposed GPA conditions. With the proposed land use amendments, the percent of deficient lane miles attributable to the City would increase by 2% at one of the 12 impacted jurisdictions, decrease by 1% and 2% at two other impacted jurisdictions, and remain unchanged at all other jurisdictions, compared to the current GP. The proposed land use amendments would not result in further impacts on roadways in adjacent jurisdictions than those identified for the current GP. Therefore, cumulatively, the proposed 2019 GPAs would result in a *less than significant* impact on the roadway segments in adjacent jurisdictions.

Findings: The proposed land use amendments would not result in further impacts on roadways in adjacent jurisdictions than those identified for the current GP. Therefore, cumulatively, the proposed 2019 GPAs would result in a *less than significant* impact on the roadway segments in adjacent jurisdictions.

Impacts on Transit, Bicycle, and Pedestrian Circulation

Transit Services or Facilities

Planned transit services and facilities include additional rail service via the future Bay Area Rapid Transit (BART) extension, light rail transit (LRT) extensions, new bus rapid transit (BRT) services, and the proposed California High Speed Rail (HSR) project. The proposed GPAs land use adjustments would not result in a change to the existing and planned roadway network that would result in an adverse effect on existing or planned transit facilities. Therefore, the proposed 2019 GPAs land use adjustments would not substantially disrupt existing, or interfere with planned transit services or facilities.

Bicycle Facilities

The adopted Envision San José 2040 GP supports the goals outlined in the City's Bike Plan 2020 and contains policies to encourage bicycle trips (Policies TR-1.1, TR-1.2, TR-1.4 through TR-1.9, TR 2.1 through TR 2.11, TR-7.1, TN-1.1 through TN-1.5, TN-2.1 through TN-2.7, and TN-3.1 through 3.6; Implementing Actions TR-1.12 through TR-1.15, TR-2.12 through TR-2.21, TR-7.2, TR-7.3, TN-1.6, TN-2.8 through 2.10, and TN-3.7; Performance Measures TN-2.11, TN-2.12). The proposed GPA land use adjustments would not result in a change to the existing and planned roadway network that would affect existing or planned bicycle facilities. Therefore, the proposed 2019 GPA land use adjustments would not substantially disrupt existing, or interfere with planned bicycle facilities; conflict or create inconsistencies with adopted bicycle plans, guidelines, policies, or standards; and provide insecure and unsafe bicycle parking in adequate proportion to anticipated demand.

**Table 8
AM 4-Hour Traffic Impacts in Adjacent Jurisdictions**

City	Base Year (2015)			2040 General Plan (Baseline)			2040 General Plan Plus GPAs		
	Total Deficient Lane Miles ¹	Total Deficient Lane Miles Attributable to San Jose ²	% of Deficient Lane Miles Attributable to San Jose	Total Deficient Lane Miles ¹	Total Deficient Lane Miles Attributable to San Jose ²	% of Deficient Lane Miles Attributable to San Jose	Total Deficient Lane Miles ¹	Total Deficient Lane Miles Attributable to San Jose ²	% of Deficient Lane Miles Attributable to San Jose
Campbell	0.12	0.12	100%	1.15	1.15	100%	1.11	1.11	100%
Cupertino	1.67	1.19	72%	2.60	2.23	86%	2.60	2.23	86%
Gilroy	0.34	0.34	100%	0.00	0.00	0%	0.00	0.00	0%
Los Altos	0.50	0.00	0%	1.49	0.30	20%	1.28	0.25	20%
Los Altos Hills	0.38	0.13	35%	2.51	1.95	78%	2.64	2.12	80%
Los Gatos	0.22	0.22	100%	1.34	1.34	100%	1.34	1.34	100%
Milpitas	0.39	0.39	100%	5.54	5.54	100%	5.43	5.43	100%
Monte Sereno	0.00	0.00	0%	0.00	0.00	0%	0.00	0.00	0%
Morgan Hill	0.00	0.00	0%	0.24	0.24	100%	0.24	0.24	100%
Mountain View	0.39	0.28	71%	1.40	1.31	93%	1.40	1.29	92%
Palo Alto	0.88	0.31	35%	3.08	0.69	22%	2.53	3.08	22%
Santa Clara	0.00	0.00	0%	0.34	0.34	100%	0.34	0.34	100%
Saratoga	0.00	0.00	0%	0.63	0.63	100%	0.63	0.63	100%
Sunnyvale	0.81	0.81	100%	0.53	0.48	90%	0.53	0.48	90%
Caltrans Facilities	5,743.69	4,433.43	77%	5,780.69	4,759.85	82%	5,782.31	4,758.10	82%
Santa Clara County Expressways	0.62	0.51	81%	6.86	6.84	100%	6.00	5.88	98%

Notes:

2040 General Plan (Baseline) = Buildout conditions of the adopted Envision San Jose 2040 General Plan (GP).

GPAs = General Plan Amendments

1. Total deficient lane miles are total lane miles of street segments with V/C ratios of 1.0 or greater.

2. A deficient roadway segment is attributed to San Jose when trips from the City are 10% or more on the deficient segment.

Outlined indicates significant impacts.

Source: City of San Jose Travel Forecasting Model runs completed July 2019 by Hexagon Transportation Consultants, Inc.

Pedestrian Facilities

The adopted Envision San José 2040 GP contains goals and policies (Policies TR-1.1, TR-1.2, TR-1.4 through TR-1.9, TR-2.1 through TR-2.11, TR-7.1, TN-1.1 through TN-1.5, TN-2.1 through TN-2.7, and TN-3.1 through 3.6; Implementing Actions TR-1.12 through TR-1.15, TR-2.12 through TR-2.21, TR-7.2, TR-7.3, TN-1.6, TN-2.8 through 2.10, and TN-3.7; Performance Measures TN-2.11, TN-2.12) to improve pedestrian walking environment, increase pedestrian safety, and create a land use context to support non-motorized travel. The proposed GPAs land use adjustments would not result in a change to the existing and planned roadway network that would affect existing or planned pedestrian facilities. Therefore, the proposed 2019 GPAs land use adjustments would not substantially disrupt existing, or interfere with planned pedestrian facilities; create inconsistencies with adopted pedestrian plans, guidelines, policies, or standards; and provide accessible pedestrian facilities that would not meet current ADA best practice.

5. Winchester (Site-Specific GPA Traffic Analysis)

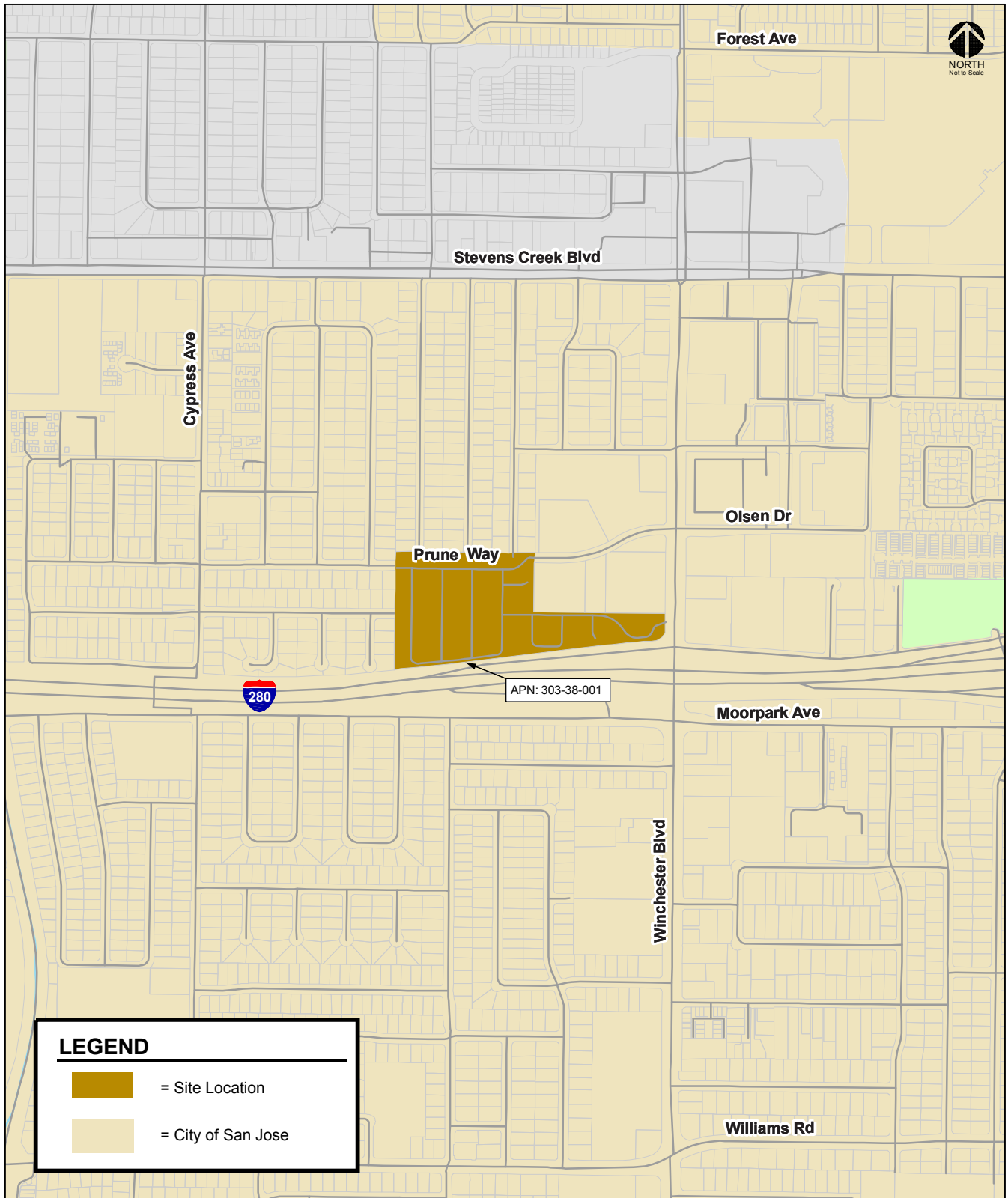
This report presents the results of the long-range site-specific traffic impact analysis for the proposed Winchester General Plan Amendment (GP18-014). The purpose of the General Plan Amendment (GPA) traffic analysis is to assess the long-range impacts of the proposed land use amendment to the Winchester General Plan site on the citywide transportation system. The potential traffic impacts of the project were evaluated in accordance with the guidelines and thresholds set forth by the Envision San José 2040 General Plan (GP). In addition, a near term traffic analysis in conjunction with any future development permit applications consistent with the Envision San José 2040 GP will be required once a development application is submitted to the City.

General Plan Amendment Site Description

The project consists of amending the adopted land use designation of the Envision San José 2040 GP for the approximately 15.7-acre site located at 555 South Winchester Boulevard, generally located west of Winchester Boulevard and north of I-280. The site is located within a designated Urban Village (Santana Row/Valley Fair) per the Envision San José 2040 GP. The Winchester GPA site location is presented on Figure 12. The adopted GP land use designation for the site is *Residential Neighborhood*, which includes a density of 8 dwelling units per acre (DU/AC) and a floor area ratio (FAR) of up to 0.7. The proposed amendment involves changing the adopted land use to *Urban Residential*, which includes a density of 30-90 DU/AC and a FAR of 1.0 to 4.0. The site is currently occupied by a mobile home park. The proposed land use change for development of the site would be consistent with the immediate and surrounding land uses.

The GPA traffic analysis guidelines, described in the City of San José Transportation Analysis Handbook, Volume II (dated April 2018), under the *Methodology for Transportation Network Modeling & Analysis* section, provide a trip threshold for GP land use amendments that require a site-specific GPA analysis. With the exception of GPA sites located within the identified North San José, Evergreen, and South San José subareas, a proposed land use amendment that would result in an increase of more than 250 peak-hour trips to be generated by the subject site due to proposed increases in households or employment would be required to prepare a site-specific GPA traffic analysis. The Winchester GPA site is located outside of the specific subareas. According to the TDF modeling results, the proposed amendment at the Winchester GP site would result in 566 additional households on the site. The increase in households would result in an additional 302 AM and 347 PM peak-hour trips at the Winchester GPA site when compared to the current GP land use designation (see Table 9). Therefore, a site-specific GPA traffic analysis is required for the proposed land use amendment. The GPA does not propose any changes to the city's major transportation system and the transportation policies that were adopted in the Envision San José 2040 GP.

Figure 12
Winchester GPA Site Location



**Table 9
Changes in Households, Jobs, and Peak-Hour Trips Due to Proposed GPA at Winchester Site**

Site Number	Site Name	General Plan (Baseline) ¹		General Plan Amendment ²		Net Land Use Change		Net Peak-Hour Trip Change	
		TOTHH	TEMP	TOTHH	TEMP	TOTHH	TEMP	AM	PM
3	GP18-014/PDC18-037 [Winchester]	220	131	786	131	566	0	302	347

Notes: TOTHH = total number of households; TEMP = total number of jobs.
¹ Total number of households and jobs under the adopted Envision San Jose 2040 General Plan (GP). The buildout of the 2040 GP represents baseline conditions.
² Total number of households and jobs as proposed by the GP Amendment.
Outlined indicates GPA that results in an increase in peak hour trips greater than 250 trips and requires site-specific GPA traffic analysis.
 Sources: City of San Jose Planning Department, June 2019.
 City of San Jose Travel Forecasting Model runs completed July 2019 by Hexagon Transportation Consultants, Inc.

Scope of the Study

The GPA analysis includes the evaluation of the potential for the proposed land use amendment to result in increased vehicle miles traveled, increased traffic volume on specified roadway segments, impacts to travel speeds on transit priority corridors, impacts to roadways in adjacent jurisdictions, and impacts to pedestrian, bicycle, and transit facilities. Impacts are evaluated based on the same measures of effectiveness (MOEs) and significance criteria utilized in the Envision San José 2040 GP TIA and described in Chapter 3 of this report. Traffic conditions were evaluated for the following traffic scenarios using the City of San José’s Traffic Demand Forecasting (TDF) model:

- **Projected Year 2015 Conditions:** The Projected Year 2015 Conditions represent a projection of transportation conditions in 2015 using the City’s GP TDF model. The roadway network also reflects the Year 2015 roadway network and transportation system.
- **Current 2040 General Plan Conditions:** Future traffic due to the current GP land uses is added to regional growth that can be reasonably expected to occur by 2040. Current 2040 GP conditions include the current roadway network as well as all transportation system improvements as identified in the current GP.
- **Proposed 2040 General Plan Amendment Conditions:** Current 2040 GP conditions with the proposed land use amendment for the Winchester GP site. Transportation conditions for the Proposed 2040 GP Amendment Conditions were evaluated relative to the currently adopted 2040 GP Conditions to determine any long-range traffic impacts.

Existing Conditions

This section describes the existing conditions for all of the major transportation facilities near the site, including the roadway network, transit service, and bicycle and pedestrian facilities.

Existing Roadway Network

Regional access to the site is provided via I-880 and I-280. Local access to the site is provided by Stevens Creek Boulevard, Winchester Boulevard, Monroe Street, Tisch Way, Olsen Drive, and Charles Cali Drive. These facilities are described below.

Interstate 880 (I-880) is a six-lane freeway in the vicinity of the site. It extends along the eastern side of the San Francisco Bay from San José to Oakland. South of its interchange with I-280 in west San José, I-880 becomes SR 17 and extends southward to Santa Cruz. Access to the site is provided via its interchange with Stevens Creek Boulevard.

Interstate 280 (I-280) is generally an eight-lane freeway near the project site with auxiliary lanes between some interchanges. It extends northwest to San Francisco and east to King Road in San José, at which point it transitions into I-680 to Oakland. The section of I-280 just north of the Bascom Avenue overcrossing has six mixed-flow lanes and two high-occupancy-vehicle (HOV) lanes. I-280 provides access to the site via its interchanges with Winchester Boulevard (access to and from the north only) and Stevens Creek Boulevard via the I-280/I-880 interchange.

Stevens Creek Boulevard is a six-lane east-west divided roadway in the vicinity of the project site. It extends from Cupertino eastward to I-880, at which point it transitions into San Carlos Street to Downtown San José. In the vicinity of the project site, Stevens Creek Boulevard has a posted speed limit of 35 miles per hour (mph) with sidewalks on both sides of the street and no bike lane. Access to the site from Stevens Creek Boulevard is provided via Winchester Boulevard.

Winchester Boulevard is a six-lane north-south divided roadway that extends from Los Gatos to Lincoln Street in Santa Clara. In the vicinity of the project site, Winchester Boulevard has a posted speed limit of 35 mph with sidewalks on both sides of the street and on-street bike lanes between I-280 and Stevens Creek Boulevard. Winchester Boulevard provides access to the project site via its intersection with Olsen Drive and Charles Cali Drive.

Monroe Street is a two-lane north-south roadway that extends northward from Tisch Way to Santa Clara. In the vicinity of the project site, Monroe Street has a posted speed limit of 30 mph with sidewalks on both sides of the street and bike lanes between Stevens Creek Boulevard and Forest Avenue. Access to the site from Monroe Street is provided via Tisch Way and Winchester Boulevard.

Tisch Way is a two-lane east-west roadway that extends between Winchester Boulevard and Monroe Street. Tisch Way has sidewalks only on the north side of the street with no bike lane. Access to the site from Tisch Way is provided via Winchester Boulevard.

Olsen Drive is a two-lane east-west roadway that extends between Santana Row and the eastern project site boundary. At the project site, Olsen Drive terminates in a cul-de-sac where it provides direct access to the project site via the Prune Way driveway. West of the project site, Olsen Drive continues to Coakley Drive where it terminates, however, this segment of Olsen Drive does not provide direct access to the project site. Olsen Drive has sidewalks on both sides of the street with no posted speed limit or bike lane.

Charles Cali Drive is a private access roadway that currently provides inbound access only to the project site via its intersection with southbound Winchester Boulevard. It extends from Winchester Boulevard westward to Water Witch Way where it terminates.

Existing Bicycle and Pedestrian Facilities

There are several bicycle facilities near the Winchester GP site. As defined by the California Department of Transportation (Caltrans), bicycle facilities include Class I bikeways (defined as bike paths off street, which is shared with pedestrians and excludes general motor vehicle traffic), Class II bikeways (defined as striped bike lanes on street), Class III bike routes (defined as roads with bike route signage where bicyclists share the road with motor vehicles), and Class IV cycle tracks (bike lanes physically separated from vehicle traffic by a vertical element). Bicyclists are allowed to ride on any roadway, even if there is no bicycle facility present with the exception of limited access highways.

Class II striped bike lanes are provided on the following roadways near the project site:

- Winchester Boulevard, between Moorpark Avenue and Stevens Creek Boulevard
- Monroe Street, between Tisch Way and El Camino Real
- Forest Avenue, between Winchester Boulevard and Monroe Street; east of Ciro Avenue
- Stevens Creek Boulevard, between Monroe Street and Di Salvo Avenue
- Moorpark Avenue, between Thorton Way and San Tomas Expressway

Class III bike routes are provided on the following roadway near the project site:

- Forest Avenue, between Monroe Street and Ciro Avenue

The existing bicycles facilities are shown on Figure 13.

In addition, the City of San José bicycle master plan, *San José Bike Plan 2020*, provides policies and improvements to bicycle facilities to improve the use of bicycles in the City. It includes an inventory of existing bicycle facilities and identifies locations for enhancement of existing facilities by expansion and establishing potential connections.

Pedestrian facilities near the project site consist primarily of sidewalks along the streets in the study area. Sidewalks are found along both sides of all streets near the project site, including Winchester Boulevard and Olsen Drive. Other pedestrian facilities in the project area include marked crosswalks and pedestrian push buttons at all signalized intersections near the project site.

Existing Transit Services

Existing transit services to the study area are provided by the Santa Clara Valley Transportation Authority (VTA). The VTA transit services are described below and shown on Figure 14.

VTA Bus Services

Local Route 23 runs from De Anza College to the Alum Rock Transit Center via Stevens Creek Boulevard and operates from approximately 5:30 AM and 1:00 AM with 10- to 15-minute headways during the weekday commute periods. The nearest bus stop to the Winchester site served by Route 23 is located at the intersection of Stevens Creek Boulevard and Hanson Avenue.

Local Route 25 runs from De Anza College to the Alum Rock Transit Center via Winchester Boulevard and Moorpark Avenue in the vicinity of the project site. Route 25 operates from approximately 5:00 AM and 12:30 AM with 20- to 25-minute headways during the weekday commute periods. The nearest bus stop to the Winchester site served by Route 25 is located at the intersection of Winchester Boulevard and Moorpark Avenue.

Local Route 60 runs from the Winchester Transit Center to Great America via Winchester Boulevard and operates from approximately 5:00 AM and 11:00 PM with 15- to 20-minute headways during the weekday commute periods. The nearest bus stop to the Winchester site served by Route 60 is located at the intersection of Winchester Boulevard and Olsen Drive/Olin Avenue.

Express Route 323 runs from Downtown San José to De Anza College via Stevens Creek Boulevard and operates from approximately 6:30 AM and 10:30 PM with 15- to 20-minute headways during the weekday commute periods. The nearest bus stop to the Winchester site served by Route 323 is located at the intersection of Stevens Creek Boulevard and Santana Row.

Figure 13
Existing Bicycle Facilities (Winchester)

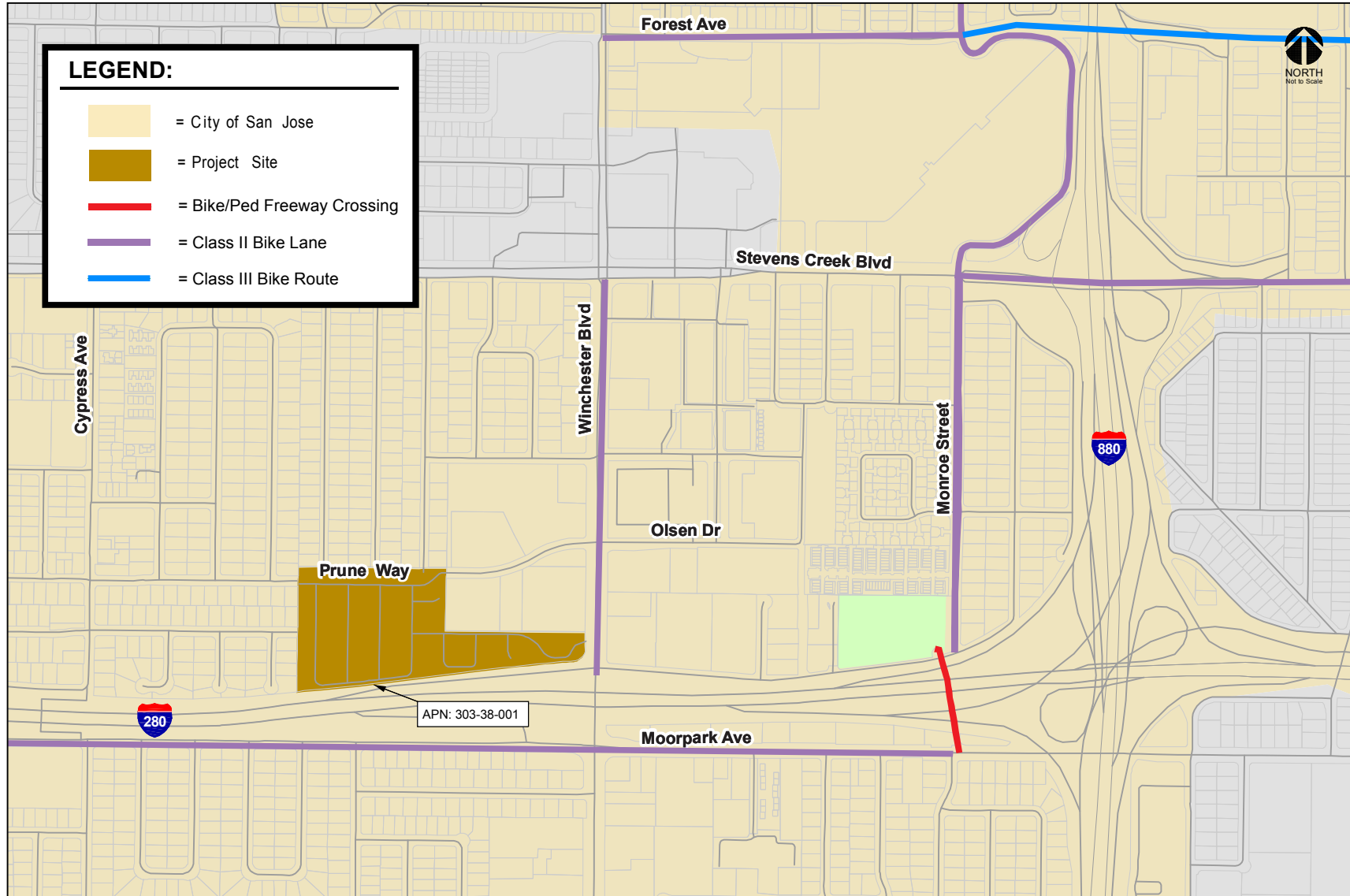
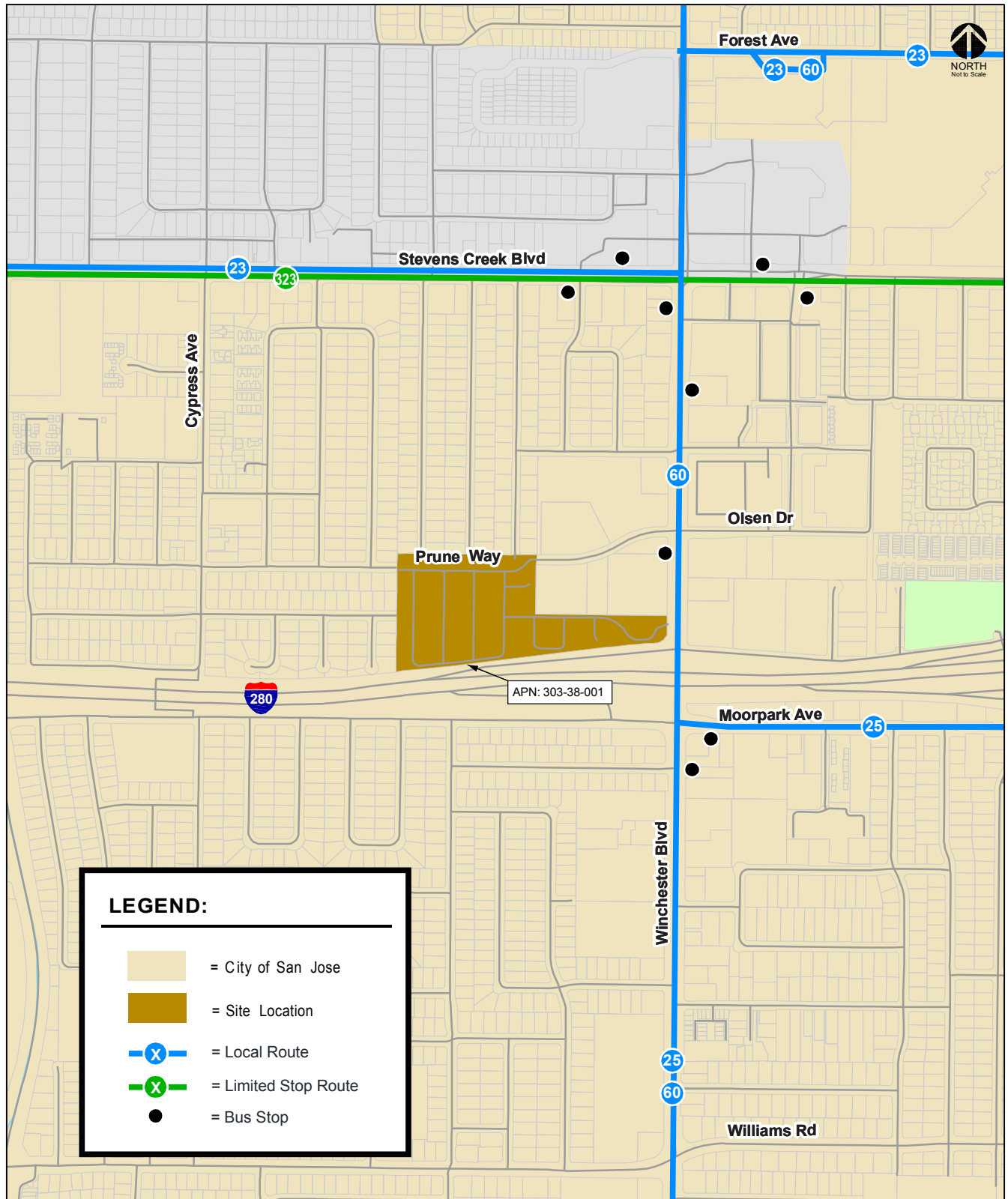


Figure 14
Existing Transit Services (Winchester)



General Plan Amendment Site-Specific Long-Range Analysis

The site-specific long-range traffic impacts resulting from the proposed Winchester site GPA were determined based on the MOEs and associated significance thresholds described in Chapter 3. The results of the site-specific GPA long-range analysis are described below.

Vehicle Miles Traveled Per Service Population

The San José GP TDF model was used to calculate daily vehicle miles traveled (VMT) per service population, where service population is defined as the number of residents plus the number of employees citywide. This approach focuses on the VMT generated by new population and employment growth. VMT is calculated as the number of vehicle trips multiplied by the length of the trips in miles. As defined in the City of San José *Transportation Analysis Handbook* (Thresholds of Significance for General Plan Amendments, Table 11), any increase in VMT per service population over the current GP conditions due to the proposed land use amendment is considered a significant impact.

As shown in Table 10, the citywide daily VMT would decrease slightly and the VMT per service population would remain unchanged with the proposed land use amendment when compared to the current GP. Therefore, the proposed Winchester GPA would result in a *less than significant* impact on the citywide daily VMT per service population.

Table 10
Daily Vehicle Miles Traveled Per Service Population (Winchester)

	Base Year (2015)	2040 General Plan (Baseline)	2040 General Plan Plus GPA
Citywide Daily VMT	17,505,088	28,006,100	28,002,147
Citywide Service Population	1,392,946	2,054,758	2,054,758
- Total Households	319,870	429,350	429,350
- Total Residents	1,016,043	1,303,108	1,303,108
- Total Jobs	376,903	751,650	751,650
Daily VMT Per Service Population	12.57	13.63	13.63
Increase in VMT/Service Population over General Plan Conditions			-0.002
Significant Impact?			No
Note:			
2040 General Plan (Baseline) = Buildout conditions of the adopted Envision San Jose 2040 General Plan (GP).			
GPA = General Plan Amendment			
Service Population = Residents + Jobs			
Source: City of San Jose Travel Forecasting Model runs completed July 2019 by Hexagon Transportation Consultants, Inc.			

Journey-to-Work Mode Share

The San José GP TDF model was used to calculate journey-to-work citywide mode share percentages. Mode share is the distribution of all daily work trips by travel mode. The modes of travel included in the TDF model are drive alone, carpool with two persons, carpool with three persons or more, transit (rail and bus), bike, and walk trips. Although work trips may occur at any time of the day, most of the work

trips occur during typical peak commute periods (6:00 – 10:00 AM and 3:00 – 7:00 PM). As defined in the City of San José *Transportation Analysis Handbook* (Thresholds of Significance for General Plan Amendments, Table 11), any increase in the journey-to-work drive alone mode share percentage over the current GP conditions due to the proposed land use amendment is considered a significant impact.

Table 11 summarizes the citywide journey-to-work mode share analysis results. Compared to the current Envision San José 2040 GP, the percentage of journey-to-work drive alone trips would decrease slightly as a result of the proposed GPA. Therefore, the proposed Winchester GPA would result in a *less than significant* impact on citywide journey-to-work drive alone mode share.

**Table 11
Journey-to-Work Mode Share (Winchester)**

Mode	Base Year (2015)		2040 General Plan (Baseline)		2040 General Plan Plus GPA	
	Trips	%	Trips	%	Trips	%
Drive Alone	753,264	79.69%	1,092,115	71.73%	1,091,954	71.72%
Carpool 2	85,496	9.04%	137,524	9.03%	137,682	9.04%
Carpool 3+	28,526	3.02%	54,804	3.60%	54,803	3.60%
Transit	48,181	5.10%	182,677	12.00%	182,619	11.99%
Bicycle	14,120	1.49%	26,041	1.71%	26,072	1.71%
Walk	15,666	1.66%	29,323	1.93%	29,346	1.93%
Increase in Drive Alone Percentage over General Plan Conditions						-0.01%
Significant Impact?						No
Notes:						
2040 General Plan (Baseline) = Buildout conditions of the adopted Envision San Jose 2040 General Plan (GP).						
GPA = General Plan Amendment						
Source: City of San Jose Travel Forecasting Model runs completed July 2019 by Hexagon Transportation Consultants, Inc.						

Average Vehicle Speeds in Transit Priority Corridors

The San José GP TDF model was used to calculate the average vehicle travel speeds during the AM peak hour for the City’s 14 transit corridors that were evaluated in the Envision San José 2040 GP TIA. The analysis of transit priority corridor speeds was completed to assist with the assessment of whether the proposed land use amendment would cause a significant change in travel speeds on the transit priority corridors compared to the current GP. A transit corridor is a roadway segment identified as a Grand Boulevard in the Envision San José 2040 GP Land Use/Transportation Diagram. Grand Boulevards serve as major transportation corridors and, in most cases, are primary routes for VTA’s LRT, BRT, local buses, and other public transit vehicles. The travel speeds are calculated by dividing the segment distance by the vehicle travel time. As defined in the City of San José *Transportation Analysis Handbook* (Thresholds of Significance for General Plan Amendments, Table 11), land use amendments that result in a decrease in average travel speed on a transit corridor in the AM peak one-hour period when the average speed drops below 15 miles per hour (mph) or decreases by 25 percent (%) or more, or the average speed drops by one mph or more for a transit corridor with average speed below 15 mph when compared to the current GP conditions is considered a significant impact.

Table 12 presents the average vehicle speeds on the City's 14 transit priority corridors (i.e., Grand Boulevard segments) during the AM peak-hour of traffic. When compared to the travel speeds under current GP conditions, the change in traffic resulting from the proposed land use amendment would have a minimal effect on the travel speeds in the transit corridors. The TDF model estimates decrease in travel speeds of 0.2 mph or less (or a change of 1.5% or less) on seven corridors due to the proposed Winchester GPA. Travel speeds on the remaining corridors would improve slightly or remain unchanged when compared to the current GP. Therefore, the proposed Winchester GPA would result in a *less than significant* impact on the AM peak-hour average vehicle speeds on the transit priority corridors.

Adjacent Jurisdictions

The San José GP TDF model was used to calculate the number of lane miles of street segments with V/C ratios of 1.0 or greater during the peak 4-hour AM period within adjacent jurisdictions. The effect of the proposed land use adjustments is evaluated based on the percentage of traffic that would be added to the deficient roadways. As defined in the City of San José *Transportation Analysis Handbook* (Thresholds of Significance for General Plan Amendments, Table 11), a deficient roadway segment in an adjacent jurisdiction is attributed to San José when trips originating from residents and jobs within San José equal 10% or more on the deficient segment. An impact to an adjacent jurisdiction is considered significant when 25% or more of total deficient lane miles are attributable to the City of San José. The 25% threshold represents what would be a noticeable change in traffic.

Table 13 summarizes the City of San José's traffic impacts on the roadway segments within adjacent jurisdictions. City of San José traffic would significantly impact roadway segments within the same 12 adjacent jurisdictions under both the current GP and the current GP plus proposed land use amendment conditions. With the proposed land use amendment, the percentage of deficient lane miles attributable to the City would increase by 1% at one of the 12 impacted jurisdictions, decrease by 1% at one of the 12 impacted jurisdictions, and would remain unchanged at the remaining 10 impacted jurisdictions, compared to the current GP. The proposed land use amendment would not result in further impacts on roadways in adjacent jurisdictions than those identified for the current GP. Therefore, the proposed Winchester GPA would result in a *less than significant* impact on the roadway segments in adjacent jurisdictions.

Table 12
AM Peak-Hour Vehicle Speeds (mph) for San José Transit Priority Corridors (Winchester)

Transit Priority Corridor	Base Year (2015)	2040 General Plan (Baseline)	2040 General Plan Plus GPA		
	Speed (mph)	Speed (mph)	Speed (mph)	% Change $\frac{GPplusGPA - GP}{GP}$	Absolute Change (GPplusGPA - GP)
2nd St from San Carlos St to St. James St	16.6	15.3	15.2	-0.7%	-0.1
Alum Rock Av from Capitol Av to US 101	21.3	16.6	16.8	1.0%	0.2
Camden Av from SR 17 to Meridian Av	23.1	16.4	16.3	-0.7%	-0.1
Capitol Av from S. Milpitas Bl to Capitol Expwy	27.1	22.5	22.7	0.5%	0.1
Capitol Expwy from Capitol Av to Meridian Av	33.0	26.6	26.6	0.0%	0.0
E. Santa Clara St from US 101 to Delmas Av	20.4	15.8	15.6	-1.5%	-0.2
Meridian Av from Park Av to Blossom Hill Rd	24.9	20.0	19.9	-0.5%	-0.1
Monterey Rd from Keyes St to Metcalf Rd	27.4	19.3	19.3	0.0%	0.0
N. 1st St from SR 237 to Keyes St	21.3	13.8	13.8	0.3%	0.0
San Carlos St from Bascom Av to SR 87	24.8	20.0	19.9	-0.1%	0.0
Stevens Creek Bl from Bascom Av to Tantau Av	24.3	18.9	18.8	-0.5%	-0.1
Tasman Dr from Lick Mill Bl to McCarthy Bl	22.7	14.0	13.9	-0.8%	-0.1
The Alameda from Alameda Wy to Delmas Av	20.5	14.0	13.9	-0.5%	-0.1
W. San Carlos St from SR 87 to 2nd St	20.0	18.8	18.8	0.1%	0.0

Notes:
 2040 General Plan (Baseline) = Buildout conditions of the adopted Envision San Jose 2040 General Plan (GP).
 GPA = General Plan Amendment
 Outlined indicates significant impacts.
 Source: City of San Jose Travel Forecasting Model runs completed July 2019 by Hexagon Transportation Consultants, Inc.

**Table 13
AM 4-Hour Traffic Impacts in Adjacent Jurisdictions (Winchester)**

City	Base Year (2015)			2040 General Plan (Baseline)			2040 General Plan Plus GPA		
	Total Deficient Lane Miles ¹	Total Deficient Lane Miles Attributable to San Jose ²	% of Deficient Lane Miles Attributable to San Jose	Total Deficient Lane Miles ¹	Total Deficient Lane Miles Attributable to San Jose ²	% of Deficient Lane Miles Attributable to San Jose	Total Deficient Lane Miles ¹	Total Deficient Lane Miles Attributable to San Jose ²	% of Deficient Lane Miles Attributable to San Jose
Campbell	0.12	0.12	100%	1.15	1.15	100%	1.11	1.11	100%
Cupertino	1.67	1.19	72%	2.60	2.23	86%	2.60	2.23	86%
Gilroy	0.34	0.34	100%	0.00	0.00	0%	0.00	0.00	0%
Los Altos	0.50	0.00	0%	1.49	0.30	20%	1.31	0.25	19%
Los Altos Hills	0.38	0.13	35%	2.51	1.95	78%	2.51	1.99	79%
Los Gatos	0.22	0.22	100%	1.34	1.34	100%	1.34	1.34	100%
Milpitas	0.39	0.39	100%	5.54	5.54	100%	5.54	5.54	100%
Monte Sereno	0.00	0.00	0%	0.00	0.00	0%	0.00	0.00	0%
Morgan Hill	0.00	0.00	0%	0.24	0.24	100%	0.24	0.24	100%
Mountain View	0.39	0.28	71%	1.40	1.31	93%	1.40	1.29	92%
Palo Alto	0.88	0.31	35%	3.08	0.69	22%	3.08	0.69	22%
Santa Clara	0.00	0.00	0%	0.34	0.34	100%	0.60	0.60	100%
Saratoga	0.00	0.00	0%	0.63	0.63	100%	0.63	0.63	100%
Sunnyvale	0.81	0.81	100%	0.53	0.48	90%	0.53	0.48	90%
Caltrans Facilities	5,743.69	4,433.43	77%	5,780.69	4,759.85	82%	5,783.03	4,758.77	82%
Santa Clara County Expressways	0.62	0.51	81%	6.86	6.84	100%	5.55	5.52	100%

Notes:

2040 General Plan (Baseline) = Buildout conditions of the adopted Envision San Jose 2040 General Plan (GP).

GPA = General Plan Amendment

1. Total deficient lane miles are total lane miles of street segments with V/C ratios of 1.0 or greater.

2. A deficient roadway segment is attributed to San Jose when trips from the City are 10% or more on the deficient segment.

Outlined indicates significant impacts.

Source: City of San Jose Travel Forecasting Model runs completed July 2019 by Hexagon Transportation Consultants, Inc.

Impacts on Transit, Bicycle, and Pedestrian Circulation

The Circulation Element of the Envision San José 2040 GP includes a set of balanced, long-range, multimodal transportation goals and policies that provide for a transportation network that is safe, efficient, and sustainable (minimizes environmental, financial, and neighborhood impacts). In combination with land use goals and policies that focus growth into areas served by transit, these transportation goals and policies are intended to improve multi-model accessibility to employment, housing, shopping, entertainment, schools, and parks and create a city where people are less reliant on driving to meet their daily needs. San José's Transportation Goals, Policies, and Actions aim to:

- Establish circulation policies that increase bicycle, pedestrian, and transit travel, while reducing motor vehicle trips, to increase the City's share of travel by alternative transportation modes.
- Promote San José as a walking- and bicycling-first city by providing and prioritizing funding for projects that enhance and improve bicycle and pedestrian facilities.

Included within the GP are a set of Goals and Policies to support a multimodal transportation system that gives priority to the mobility needs of bicyclists, pedestrians, and public transit users while also providing for the safe and efficient movement of automobiles, buses, and trucks. Policies TR-2.1 through TR-2.11 provide specific policies to guide improvement to walking and bicycling. Such policies include the provision of continuous bicycle system, constructing sidewalks and crosswalks. Similarly, the Envision San José 2040 GP includes specific policies to maximize use of public transit (TR-3.1 through 3.4). As the Winchester GP site develops, the project should ensure that it is consistent with the Envision San José 2040 GP to provide safe, accessible and inter-connected pedestrian and bicycle facilities, and accommodate transit services (i.e., bus dugout) as new roadways are constructed. The impacts to pedestrian, bicycle, and transit facilities *are less-than-significant*.

6. Conclusions

This report presents the results of the long-range traffic impact analysis for the proposed City of San José 2019 General Plan Amendments (project). The project consists of amending the current adopted land use designations of the Envision San José 2040 GP for ten sites within the City of San José. The purpose of the GPAs traffic analysis is to assess the long-range impacts of the amendments on the citywide transportation system. The analysis includes evaluation of increased vehicle miles traveled, increased traffic volume on specified roadway segments, impacts to travel speeds on transit priority corridors, impacts to pedestrian, bicycle, and transit facilities, and impacts to roadways in adjacent jurisdictions. Impacts were evaluated based on the same measures of effectiveness (MOEs) and significance criteria utilized in the Envision San José 2040 GPA TIA.

Per GPA traffic analysis guidelines, described in the City of San José Transportation Analysis Handbook, Volume II (dated April 2018), under the *Methodology for Transportation Network Modeling & Analysis* section, a proposed land use amendment that would result in a net increase of more than 250-peak-hour trips due to increased households or employment is required to prepare a site-specific GPA traffic analysis, with the exception of GPA sites located within the identified North San José, Evergreen, and South San José subareas. The proposed land use amendments on one of the ten amendment sites (Winchester Site) would result in a net increase of more than 250 peak-hour trips.

This study includes an evaluation of the cumulative impacts of all ten GPA sites. The study also includes the required site-specific GPA traffic analysis for the Winchester GPA site. Individual development projects also will be required to complete a near term traffic analysis in conjunction with any future development permit applications consistent with the Envision San José 2040 GP once a development application is submitted to the City.

Cumulative GPA Long-Range Traffic Impacts

Vehicle Miles Traveled Per Service Population

Compared to the current GP, the proposed land use adjustments would not result in an increase in citywide VMT per service population. Therefore, cumulatively, the 2019 GPAs would result in a less than significant impact on citywide daily VMT per service population. It is important to note that the VMT per service population is based on raw model output and does not reflect the implementation of adopted GP policies and goals that would further reduce VMT by increased use of non-auto modes of travel.

Journey-to-Work Mode Share

The proposed land use adjustments will not result in an increase of drive alone trips when compared to the current GP conditions. Therefore, cumulatively, the 2019 GPAs would result in a *less than significant* impact on citywide journey-to-work mode share.

Average Vehicle Speeds in Transit Priority Corridors

The proposed land use adjustments will not result in a decrease in travel speeds of greater than one mph or 25 percent on any of the 14 transit priority corridors when compared to current GP conditions. Therefore, cumulatively, the 2019 GPAs would result in a *less than significant* impact on the AM peak-hour average vehicle speeds on the transit priority corridors.

Adjacent Jurisdictions

The proposed land use amendments would not result in further impacts on roadways in adjacent jurisdictions than those identified for the current GP. Therefore, cumulatively, the 2019 GPAs would result in a *less than significant* impact on the roadway segments in adjacent jurisdictions.

Site-Specific GPA Traffic Analysis

The proposed land use amendments on nine of the ten subject GPA sites are located outside the specific subareas, and therefore are subject to the 250 PM peak-hour trip threshold. The proposed land use amendments on one of the nine amendment sites located outside of the specific subareas would result in a net increase of more than 250 peak-hour trips and require a site-specific GPA traffic analysis.

The remaining GPA site, GPA Site 8 (Westwind Mobilehome Park), is located within the North San José subarea and is subject to the applicable trip thresholds described in Table 1. However, it is projected that the proposed land use amendment at GPA Site 8 would result in a reduction of peak-hour trips, compared to the adopted GP land use for the site. Therefore, a site-specific GPA traffic analysis for Site 8 is not required.

The following GPA site requires a site-specific GPA traffic analysis:

- GP18-014/PDC18-037 (Winchester)

The results of the analysis show that the additional traffic generated by the Winchester GPA site would not cause any additional transportation impacts beyond those identified for the adopted Envision San José 2040 GP. Therefore, the Winchester GPA site would result in a *less than significant* impact on the citywide roadway system.

Impacts on Transit, Bicycle, and Pedestrian Circulation

Transit Services or Facilities

The proposed GPAs land use adjustments would not result in a change to the existing and planned roadway network that would have an adverse effect on existing or planned transit facilities. Therefore, the proposed 2019 GPAs land use adjustments would not substantially disrupt existing, or interfere with planned transit services or facilities.

Bicycle Facilities

The proposed GPAs land use adjustments would not result in a change to the existing and planned roadway network that would affect existing or planned bicycle facilities. Therefore, the proposed 2019 GPA land use adjustments would not substantially disrupt existing, or interfere with planned bicycle

facilities; conflict or create inconsistencies with adopted bicycle plans, guidelines, policies, or standards; and provide insecure and unsafe bicycle parking in adequate proportion to anticipated demand.

Pedestrian Facilities

The proposed GPAs land use adjustments would not result in a change to the existing and planned roadway network that would affect existing or planned pedestrian facilities. Therefore, the proposed 2019 GPA land use adjustments would not substantially disrupt existing, or interfere with planned pedestrian facilities; create inconsistencies with adopted pedestrian plans, guidelines, policies, or standards; and provide accessible pedestrian facilities that would not meet current ADA best practices.

Consistency with General Plan Policies

The City of San José's Transportation Policies contained in the General Plan are intended to do the following:

1. Establish circulation policies that increase bicycle, pedestrian, and transit travel, while reducing motor vehicle trips, to increase the City's share of travel by alternative transportation modes; and
2. Promote San José as a walking- and bicycling-first city by providing and prioritizing funding for projects that enhance and improve bicycle and pedestrian facilities.

Implementation of the General Plan Transportation Policies can help to promote a multi-modal transportation system and stimulate the use of transit, bicycle, and walk as practical modes of transportation in the City, which ultimately will improve operating speeds in the City's 14 transit priority corridors. An enhanced multi-modal transportation system can reduce reliance on the automobile and decreasing the amount of vehicle travel, specifically journey-to-work drive alone trips.

Based on the result of the analysis, the 2019 GPAs are consistent with the City of San José GP transportation policies, as they are projected to increase transit travel, while slightly reducing motor vehicle (drive alone) trips and slightly improving operating speeds along some of the City's 14 transit priority corridors, when compared to the current GP conditions.