APPENDIX C
GENERAL PLAN FOUR-YEAR REVIEW LONG-RANGE TRAFFIC ANALYSIS

HEXAGON TRANSPORTATION CONSULTANTS, INC.

General Plan 4-Year Review

Long-Range Traffic Analysis

Prepared for:

City of San Jose

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Table of Contents

List of Tables

1. Introduction

This report presents the results of the long-range traffic analysis completed for the City of San Jose 4-Year Review of the Envision San Jose 2040 General Plan (4-Year Review). As part of the review, the City is considering minor adjustments to the adopted 2040 General Plan (GP) land uses that would result in the reduction in the total planned employment within the City. The traffic analysis consists of a long-term evaluation of the effects of the proposed land use adjustments on the citywide transportation system following standard City of San Jose procedures for GP traffic analysis. The traffic analysis includes the following:

- Update of the City's projected land uses between 2008 and 2015 to reflect the actual development that has occurred in the period since the GP base year of 2008.
- Update of the citywide transportation system to reflect the City's current (2015) street and transit network as well as adjustments to the planned street and transit improvements that are expected to be constructed by 2040.
- Transportation impact analysis of the proposed 4-Year Review land use adjustments.

Envision San Jose 2040 General Plan

The current City of San Jose GP, *Envision San Jose 2040,* was adopted in 2011 and is based on planned land uses within the City projected to the Year 2035. In October 2010, Fehr & Peers Transportation Consultants prepared a Traffic Impact Analysis, *Envision San Jose 2040: Transportation Impact Analysis (TIA) for the Draft Environmental Impact Report (DEIR)*. Subsequently, in March 2011, the City of San Jose prepared a technical memorandum (*Envision San Jose 2040 General Plan Project Scenario 7 and Land Use Options Scenario 7A)* that presented traffic analysis for the ultimate Envision San Jose 2040 GP land uses. The GP TIA and technical memorandum provide a comprehensive evaluation of the effects of planned land use as identified in the GP on the citywide transportation system. Adjustments to the planned roadway system that were identified in the GP TIA analysis were ultimately adopted.

Scope of Study

The Envision San Jose 2040 GP 4-Year review consists of land use changes to the GP land uses adopted in 2011 that will result in a reduction in the total planned employment within the City. The 4-Year Review does not propose any changes to the citywide transportation system and the transportation policies that were adopted in the Envision San Jose 2040 GP. The transportation impact analysis of the proposed land use adjustments of the 4-Year Review 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 Jose 2040 GP TIA and include an evaluation of the same set of transportation facilities as those evaluated in the GP TIA.

Evaluation Approach

The 4-Year Review consists of an evaluation of impacts to ensure that the proposed reduction in the number of jobs within the City will result in no more impact to the transportation system than those impacts already identified for the adopted GP land uses approved in the Envision San Jose 2040 GP EIR. The Envision San Jose 2040 GP EIR remains valid should the evaluation indicate that the land use changes result in no new significant environmental effects or a substantial increase in the severity of previously identified significant effects.

For the purposes of the traffic impact analysis, the citywide travel demand forecasting (TDF) model that was prepared as part of the Envision San José 2040 GP is used to evaluate the effects of the proposed reduction in planned job capacity. The TDF model relies on the adopted GP land uses and transportation network that were approved in the Envision San Jose 2040 GP EIR. For the purpose of this evaluation several adjustments were made to the land use data utilized in the TDF model. The adjustments included the projection of regional growth to the Year 2040 rather than the Year 2035 used in the Envision San Jose 2040 GP EIR. However, the projection to Year 2040 do not include any change to the land uses within the City of San Jose as adopted in the GP. In addition, for the purpose of establishing current (Year 2015) land use conditions, development that has been completed since 2008, which was used as the Base Year in the Envision San Jose 2040 GP EIR, was added to the original 2008 Base Year land use. The adjustments along with land use adjustments to reflect the proposed reduction in job growth within the City, constituted the updated land use for use in the TDF model and evaluation of the proposed (4-Year review) GP land uses. It is important to note that the modifications in planned growth in the Bay Area region as described above may cause differences in the model that would make make a comparison of the results presented within this study and the traffic study prepared for the adopted GP appear inconsistent. However, the overall determination of impacts due to the proposed 2040 GP 4-Year Review can be compared to the Year 2015 condition and adopted 2040 General Plan condition to determine if those impacts are new or of greater severity than those impacts identified in the Envision San Jose 2040 GP EIR.

Traffic conditions were evaluated for the following traffic scenarios using the City of San Jose's GP TDF model:

- **Projected Year 2015 Conditions:** The proposed GP 4-Year Review Conditions are evaluated against Projected Year 2015 Conditions. The Projected Year 2015 Conditions represent a projection of transportation conditions in 2015 using the City's GP TDF model. To reflect a more accurate projection of the Year 2015 conditions, the land use growth between 2008 and 2015 that was originally projected in the model was updated to reflect the actual development that has occurred in the period. Existing land use data as recent as Spring/Summer 2015 were provided by City staff. The roadway network was also reviewed and updated as needed to reflect the Year 2015 roadway network and transportation system.
- **Adopted 2040 General Plan Conditions:** For the purpose of this analysis, future traffic due to the adopted GP land uses (i.e., including GP Land Use Amendments adopted since 2011) is added to regional growth that can be reasonably expected to occur by 2040. Transportation conditions for the adopted 2040 GP Conditions were evaluated against the Projected Year 2015 Conditions. Adopted 2040 GP conditions includes the citywide roadway network to reflect the current roadway network as well as all transportation system improvements as identified in the adopted GP.
- **Proposed 2040 General Plan 4-Year Review Conditions:** Proposed adjustments to the adopted 2040 General Plan Conditions consist of a reduction in the total employment projected within the City. Future traffic due to the proposed modified land use program is added to regional growth that can be reasonably expected to occur by 2040. Transportation conditions for the Proposed 2040 GP 4-Year Review Conditions were evaluated against the Projected Year 2015 conditions. Results were then compared relative to the adopted 2040 GP Conditions to determine any additional long-range traffic impacts.

Report Organization

The remainder of this report is divided into three chapters. Chapter 2 describes analysis methodology, including the City's TDF model, and the measures of effectiveness (MOEs) and significance thresholds used in the analysis. Chapter 3 presents the results of the analysis based on the TDF modeling and citywide MOEs. Chapter 4 presents the conclusions of the long-range impact analysis.

2.
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 Jose 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 General Plan. The model was developed from the VTA countywide travel demand model, which is 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 Jose 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 Jose. This allows regional travel patterns and behavior to be accounted for in the focused area of San Jose, which will become more important with the recent legislative requirements associated with greenhouse gas quantification and impacts.

The VTA and San Jose 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 General Plan land uses. The City's TDF model includes trip generation formulas that are 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 is the second element of the model. 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 is the third element of the model. 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 is the fourth and final element of the model. 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 April and May 2008 conditions. This analysis includes an update of the 2008 GP base year model to reflect land use development and roadway projects completed as of approximately mid-2015. City staff provided Hexagon with existing land use data for the entire City. The existing land use data was utilized to make adjustments to the existing land uses coded in the model traffic analysis zones. The updated land use data contained in the model was then used to produce projected (Year 2015) traffic conditions for the analysis. Year 2015 land use data for the TAZ's representing other counties in the region were obtained from the VTA.

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 Jose TDF model is capable of estimating 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 the:

- 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 Land Use

Regionally, the number of jobs and residents for each of the nine Bay Area counties were updated in the GP TDF model from the Association of Bay Area Governments (ABAG) 2007 Projections to the most recent, Plan Bay Area 2040, or ABAG 2013, Projections. The total number of jobs and residents within the nine-county Bay Area remained constant for both the adopted 2040 GP and the Proposed 2040 GP 4-Year Review Conditions by adjusting land use outside of Santa Clara County such that, if a scenario differed from the ABAG projections, the difference between the projections for San Jose and the scenario's land use was distributed among the jurisdictions in the Bay Area outside of Santa Clara County.

General Plan Transportation Network

The GP TDF model includes all major transportation infrastructure identified in the Envision San Jose 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 through the use of measures of effectiveness (MOEs) developed for the Envision San Jose 2040 GP. Impacts of both the adopted 2040 GP Conditions and the Proposed 2040 GP 4-Year Review Conditions were assessed against projected Year 2015 conditions. Impacts of the two conditions were then compared to

determine if the Proposed 2040 GP 4-Year Review Conditions would result in any new or substantially more significant transportation impacts than the adopted 2040 GP Conditions. The results of the analysis for the proposed 4-Year Review adjustments are then compared to the results in the Envision San Jose 2040 GP EIR 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 Jose. 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 Jose 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 Jose'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 Jose adopted policies and goals in Envision San Jose 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 1 summarizes the significance thresholds associated with vehicular modes of transportation that were adopted as part of Envision San Jose 2040 for the evaluation of long-range traffic impacts resulting from proposed land use adjustments.

In addition to the MOEs described above, the effects of the proposed 2040 GP 4-Year Review 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.

Table 1
MOE Significance Thresholds

MOE	Citywide Threshold
VMT/Service Population	Any increase over Projected Year 2015 conditions
Mode Share (Drive Alone %)	Any increase in journey-to-work drive alone mode share percentage over Projected Year 2015 conditions
Transit Corridor Travel Speeds	Decrease in average travel speed on a transit corridor below Projected Year 2015 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 Projected Year 2015 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 and the following conditions are met: 1. V/C ratios of 1.0 or greater; and 2. 10% or more of trips on a deficient roadway segment are attributed to San Jose.

Source: Envision San Jose 2040 General Plan TIA, October 2010.

3. General Plan 4-Year Review Land Use Adjustments Long-Range Analysis

The long-range traffic impacts resulting from the proposed 2040 GP 4-Year Review land use adjustments 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 2. The results of the long-range analysis are described below.

Proposed General Plan Adjustments

The adopted 2040 GP includes a buildout projection of 429,350 households and 839,450 jobs within the City by the horizon year. The proposed land use adjustments would reduce the total number of jobs within the City by 87,800 jobs to 751,650 jobs. There is no proposed change to the projected 429,350 households. Table 2 provides a comparison of the adopted 2040 GP and proposed 2040 GP 4-Year Review.

Table 2
General Plan Land Use Comparison

Year/Source	Housing Units	Employed Residents	Population	Jobs	Jobs to Employed Residents Ratio	Employed Residents to Housing Units Ratio
2008 [1]	309,350	460,443	985,307	369,450	0.8	1.49
2015	318,686	472,917	1,010,805	374,225	0.8	1.48
Current Adopted GP [1]	429,350	665,493	1,313,811	839,450	1.3	1.55
Proposed 4-Year Review [2]	429,350	665,493	1,313,811	751,650	1.1	1.55
Change (Proposed GP 4-Year Review-Ad	0	0	0	-87,800		

[1] These totals are consistent with the numbers that were reported in the current GP EIR. Minor land use changes were made to include 2015 GPA's 15-001 and 15-014) that were approved in 2015. These GPA's did not change the total citywide number of housing units and jobs.

[2] In the 4-Year Review data set, 200 homes moved between 14 TAZ's with a net increase of 0 and the number of jobs were reduced by 87,800 per *land use data provided by City of San Jose,* July 15, 2016.

Vehicle Miles Traveled Per Service Population

The San Jose 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 Jose 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 Jose. For this reason, the following trip types were included in the VMT calculation:

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

Trips that travel through San Jose to and from other locations (External-External) are not included in the calculation of VMT.

As shown in Table 3, the proposed 2040 GP 4-Year Review land uses will result in an increase in VMT per service population when compared to Projected Year 2015 conditions. However, the adopted GP land uses also were shown to result in an increase in VMT within the Envision San Jose 2040 GP EIR. The citywide daily VMT per service population in 2040 would decrease slightly as a result of the proposed 2040 GP 4-Year Review land use adjustments when compared to the adopted 2040 GP. The reduction in VMT is due to a citywide reduction in the number of vehicle trips as a result of the proposed reduction in employment in the City. The reduction in employment numbers will result in a reduction in the number of longer vehicle trips originating from outside the City.

Findings: The adopted GP land uses were shown to result in an increase in citywide daily VMT per service population in the adopted Envision San Jose 2040 GP EIR. Compared to Projected Year 2015 Conditions, the proposed 2040 GP 4-Year Review land use adjustments would result in an increase of 0.2 vehicle miles per person, and the adopted 2040 GP Conditions would result in an increase of 0.6 vehicle miles per person. Therefore, the proposed 2040 GP 4-Year Review land use adjustments would not result in an additional impact on citywide daily VMT per service population than that identified in the adopted Envision San Jose 2040 GP EIR. 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.

Table 3
Daily Vehicle Miles Traveled Per Service Population

	Projected 2015 Conditions	Adopted 2040 General Plan Conditions	Proposed 2040 General Plan (4-Year Review) Conditions
Citywide Daily VMT	20,588,249	33,271,346	31,152,540
Citywide Service Population	1,385,030	2,153,261	2,065,461
- Total Households	318,686	429,350	429,350
- Total Residents	1,010,805	1,313,811	1,313,811
- Total Jobs	374,225	839,450	751,650
Daily VMT Per Service Population	14.9	15.5	15.1
Increas in VMT/Service Population over Baseline Conditions		***0.6***	***0.2***
Significant Impact?		**Yes**	**Yes**

Note:
Service Population = Residents + Jobs

Journey-to-Work Mode Share

The San Jose 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, a majority of work trips occur during typical peak commute periods (6:00 – 10:00 AM and 3:00 – 7:00 PM).

Table 4 summarizes the citywide journey-to-work mode share analysis results. When compared to Projected Year 2015, the percentage of drive alone trips would decrease slightly and the percentages of 3 or more-person carpool, transit, bike, and walk trips would increase as a result of the Proposed 2040 GP 4-Year Review land use adjustments. When compared with the current adopted 2040 GP land uses, the percentages of drive alone and 2-person carpool trips would increase slightly as a result of the Proposed 2040 GP 4-Year Review adjustments, while the transit and 3+ carpool shares would slightly decrease. The slight increase in drive alone trips is due to a reduction in citywide vehicle trips as a result of the employment reduction that also will result in less traffic congestion on the roadway network. The reduction in traffic congestion, though minimal, would affect the travel-mode choice of commuters. With a reduction in congestion, commuters are less likely to carpool because the time savings using the 3+ carpool lanes becomes less beneficial compared to using the mixed flow lanes. Note that by the year 2040, all existing (and future) 2-person carpool lanes will be converted to Express Lanes where carpools with 3 or more persons can use these lanes free of charge while drive alone and 2-person carpools will have to pay a toll. Similarly, slightly faster travel times on the roadway system would make transit less competitive and commuters are more likely to drive rather than utilize transit services.

Findings: The adopted 2040 GP land uses were shown to result in a decrease in drive alone trips in the Envision San Jose 2040 GP EIR and a less than significant impact on citywide journey-to-work mode share. Both the proposed 2040 GP 4-Year Review land use adjustments and adopted GP land uses will result in a decrease of drive alone trips and increase in the percentages of 3 or more-person carpool, transit, bike, and walk trips when compared to the Projected Year 2015 conditions. Therefore, the proposed 2040 GP 4-Year Review land use adjustments would result in a less than significant impact on citywide journey-to-work mode share.

Table 4
Journey-to-Work Mode Share Percentages

Mode	Projected Year 2015 Conditions		Adopted 2040 General Plan Conditions		Proposed 2040 General Plan (4-Year Review) Conditions	
	Trips	%	Trips	%	Trips	%
Drive Alone	724,531	78.3%	1,100,103	71.7%	1,060,346	72.4%
Carpool 2	112,033	12.1%	183,195	11.9%	177,778	12.1%
Carpool 3+	42,309	4.6%	92,351	6.0%	79,637	5.4%
Transit	26,816	2.9%	109,873	7.2%	100,436	6.9%
Bicycle	7,062	0.8%	20,796	1.4%	20,391	1.4%
Walk	12,126	1.3%	27,085	1.8%	26,392	1.8%
Increase in Drive Alone Percentage over Baseline Conditions				-6.6%		-6.0%
Significant Impact?				**No**		**No**

Average Vehicle Speeds in Transit Priority Corridors

The San Jose 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 Jose 2040 GP TIA. The modeling reflects the changed circumstances since preparation of the General Plan EIR and the proposed changes to the employment assumptions. The analysis of transit priority corridor speeds using updated transportation assumptions was completed to assist with the assessment of whether changes in the transportation network since adoption of the General Plan and/or the adjustment in employment assumptions would modify the conclusions in the General Plan EIR. A transit corridor is a segment of roadway identified as a Grand Boulevard in the Envision San Jose 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.

Table 5 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 Projected Year 2015 conditions, the average travel speed on 13 of the 14 transit corridors are projected to decrease slightly as a result of the Proposed 2040 GP 4-Year Review land use adjustments and adopted 2040 GP land uses. The decrease in travel speed will be greater than 25% on five of the 14 transit corridors under the adopted 2040 GP land uses and on six of the 14 transit corridors under the Proposed 2040 GP 4-Year Review land use assumptions, which is considered significant under the City's MOEs for transit corridors. Speed along The Alameda transit priority corridor also would drop below 15 miles per hour for the Proposed 2040 GP 4-Year Review land use assumptions, which is considered significant. The adopted 2040 GP land uses also were shown to result in a decrease in travel speeds of greater than 25% and impact on 12 of the 14 transit corridors in the Envision San Jose 2040 GP EIR. The 12 transit corridors shown to be impacted by the adopted 2040 GP in the Envision San Jose GP EIR include the six transit corridors shown to be impacted by the Proposed 2040 GP 4-Year Review land uses. The difference in travel speeds between the adopted 2040 GP and the Proposed 2040 GP 4-Year Review is due to a reduction in citywide vehicle trips and changes in travel patterns as a result of the employment reduction. Note that Table 5 show slightly lower travel speeds at several segments with the Proposed 2040 GP 4-Year Review compared to the adopted 2040 GP. While this may seem counter intuitive considering that the total number of trips would be fewer with the Proposed 2040 GP 4-Year Review, the reason for the minor variations in travel speeds is the result of changes in future travel patterns. With the reduction of San Jose jobs, San Jose workers would have to travel to other employment sites in the region. Since most of the jobs are located in the Golden Triangle, the Peninsula and San Francisco, San Jose workers would be commuting to jobs further away, increasing the already northbound-oriented commuter flows. The reduction in jobs in the Proposed 2040 GP 4-Year Review would create more balanced commute patterns resulting in an increase in travel from areas to the north of San Jose. This change in travel patterns would affect the traffic volumes on Grand Boulevard roadway segments resulting in lower speeds along some transit priority corridors and higher speeds in others.

Findings: The adopted 2040 GP land uses were shown to result in a decrease in travel speeds of greater than 25% and impact on 12 of the 14 transit corridors in the Envision San Jose 2040 GP EIR. The Proposed 2040 GP 4-Year Review land use adjustments will result in a decrease in travel speeds greater than 25 percent on six of the 14 transit priority corridors when compared to Projected Year 2015 conditions. The 12 transit corridors shown to be impacted by the adopted 2040 GP in the Envision San Jose GP EIR include the six transit corridors shown to be impacted by the Proposed 2040 GP 4-Year Review land uses. Therefore, the Proposed 2040 GP 4-Year Review land use adjustments would not result in additional impacts to transit priority corridors than those already identified for the adopted 2040 GP land uses in the adopted Envision San Jose 2040 GP EIR.

Adjacent Jurisdictions

The San Jose 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. A deficient roadway segment in an adjacent jurisdiction is attributed to San Jose when trips originating from residents and jobs within San Jose equal 10 percent or more on the deficient segment. An impact to an adjacent

Table 5
AM Peak-Hour Vehicle Speeds (mph) in Transit Priority Corridors

Transit Priority Corridor	Projected Year 2015 Conditions	Adopted 2040 General Plan Conditions	% Change (Adopted General Plan - Projected Year 2015)	Proposed 2040 General Plan (4-Year Review) Conditions	% Change (Proposed General Plan - Projected Year 2015)
2nd St from San Carlos St to St. James St	11.4	11.4	0%	11.4	0%
Alum Rock Av from Capitol Av to US 101	21.2	14.4	**32%**	14.7	31%
Camden Av from SR 17 to Meridian Av	22.2	16.7	**25%**	15.5	30%
Capitol Av from S. Milpitas Bl to Capitol Expwy	23.9	20.8	**13%**	20.7	13%
Capitol Expwy from Capitol Av to Meridian Av	25.8	23.7	**8%**	25.2	3%
E. Santa Clara St from US 101 to Delmas Av	20.3	17.2	**15%**	16.9	17%
Meridian Av from Park Av to Blossom Hill Rd	22.7	19.8	**12%**	19.0	16%
Monterey Rd from Keyes St to Metcalf Rd	24.2	16.4	**32%**	17.2	29%
N. 1st St from SR 237 to Keyes St	19.8	13.3	**33%**	13.1	34%
San Carlos St from Bascom Av to SR 87	22.1	21.1	**4%**	20.1	9%
Stevens Creek Bl from Bascom Av to Tantau Av	21.3	18.1	**15%**	16.9	21%
Tasman Dr from Lick Mill Bl to McCarthy Bl	24.0	13.2	**45%**	13.3	45%
The Alameda from Alameda Wy to Delmas Av	19.7	15.4	**22%**	13.8	30%
W. San Carlos St from SR 87 to 2nd St	19.3	18.4	5%	18.0	7%

Notes:
Bold & Grey shading of segment indicates significant impacts identified for the adopted General Plan in the Envision San Jose 2040 General Plan EIR.
Outlined indicates significant impacts.

jurisdiction is considered significant when 25% or more of total deficient lane miles are attributable to the City of San Jose. The 25 % threshold represents what would be a noticeable change in traffic. Table 6 summarizes the City of San Jose's traffic impacts on the roadway segments within adjacent jurisdictions. City of San Jose traffic would significantly impact roadway segments within the same 14 adjacent jurisdictions under both the adopted 2040 GP and Proposed 2040 GP 4-Year Review scenarios. With the Proposed 2040 GP 4-Year Review land uses, the percentage of deficient lane miles attributable to the City would be less than the adopted 2040 GP. The reduction in percentage of deficient lane miles is likely due to the reduction in jobs in San Jose that attract trips from adjacent jurisdictions and utilize roadways in those jurisdictions.

Findings: The adopted 2040 GP land uses were shown to impact roadway segments within 15 of the 16 adjacent jurisdictions. The Proposed 2040 GP 4-Year Review land use adjustments will result in significant impact on traffic operations of the roadway segments within 14 of 16 adjacent jurisdictions. It should be noted that roadway segments within Palo Alto that were shown to be impacted in the Envision San Jose 2040 GP EIR, would not be impacted by the Proposed 2040 GP 4-Year Review land use adjustments. Therefore, the Proposed

Table 6
AM 4-Hour Traffic Impacts in Adjacent Jurisdictions

City	Projected Year 2015 Conditions			Adopted 2040 General Plan Conditions			Proposed 2040 General Plan (4-Year Review) Conditions		
	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	0.14	0.14	100%	0.76	0.76	**100%**	0.20	0.20	100%
Cupertino	3.76	2.96	79%	3.57	1.50	**42%**	3.18	1.12	35%
Gilroy	0.00	0.00	0%	1.03	1.03	**100%**	1.03	1.03	100%
Los Altos	1.21	0.25	21%	1.24	0.67	**54%**	1.24	0.38	31%
Los Altos Hills	0.65	0.00	0%	1.76	1.11	**63%**	1.71	0.93	54%
Los Gatos	0.70	0.70	100%	0.29	0.29	**100%**	0.82	0.82	100%
Milpitas	1.08	0.87	81%	13.11	13.11	**100%**	10.79	10.79	100%
Monte Sereno	0.00	0.00	0%	0.00	0.00	0%	0.00	0.00	0%
Morgan Hill	0.46	0.46	100%	1.78	1.78	**100%**	1.24	1.24	100%
Mountain View	1.69	1.51	89%	2.05	1.77	**86%**	2.12	1.59	75%
Palo Alto	0.64	0.16	25%	3.52	0.20	**6%**	2.47	0.16	7%
Santa Clara	0.04	0.04	100%	0.99	0.99	**100%**	1.22	1.15	94%
Saratoga	1.86	1.57	85%	3.22	3.22	**100%**	2.99	2.99	100%
Sunnyvale	0.95	0.46	49%	1.17	1.17	**100%**	0.78	0.78	100%
Caltrains Facilities	5,313.11	4,133.95	78%	5,218.84	4,453.12	**85%**	5,220.91	4,434.87	85%
Santa Clara County Expressways	2.75	2.75	100%	11.07	10.87	**98%**	13.74	13.43	98%

Notes:
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.
Bold indicates significant impacts identified for the adopted General Plan in the Envision San Jose 2040 General Plan EIR.
Outlined indicates significant impacts.

2040 GP 4-Year Review land use adjustments would not result in further impact on roadways in adjacent jurisdictions than that identified for the adopted 2040 GP land uses in the adopted Envision San Jose 2040 GP EIR.

Roadway Segment Evaluation

The effects of the Proposed 2040 GP 4-year Review land use adjustments on the City roadway segments were evaluated based on average daily volumes (ADT). The San Jose TDF model was used to calculate the ADT of the same 109 roadway segments evaluated in the traffic study for Envision San Jose 2040 GP. The City of San Jose does not have a formally adopted roadway segment operating standards. Therefore, the roadway segment evaluation is provided for informational purposes only.

Table 7 summarizes the ADT on each of the study roadway segments. When compared to the Projected Year 2015 conditions, the ADT of the majority of the segments are projected to increase with both the adopted 2040 GP and Proposed 2040 GP 4-Year Review land uses. However, the ADT increase with the Proposed 2040 GP 4-Year Review land use adjustments would be slightly less than that of the adopted 2040 GP land uses.

Findings: The Proposed 2040 GP 4-Year Review land use adjustments will increase the ADT of the majority of the roadway segments when compared to Projected Year 2015 conditions. However, the adopted 2040 GP land uses also were shown to result in an increase in ADT on the same roadway segments. Additionally, the ADT increase with the Proposed 2040 GP 4-Year Review land use adjustments would be slightly less than that of the adopted 2040 GP land uses. Therefore, the planned number of lanes on each of the segments as identified in the adopted Envision San Jose 2040 GP EIR would be adequate to serve traffic volumes associated with the Proposed 2040 GP 4-Year Review land use adjustments.

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, LRT extensions, new BRT services, and the proposed California High Speed Rail project. The Proposed 2040 GP 4-Year Review 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 2040 GP 4-Year Review land use adjustments would not substantially disrupt existing, or interfere with planned transit services or facilities.

Bicycle Facilities

The adopted Envision San Jose 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 thorughTR-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 2040 GP 4-Year Review 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 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 adopted Envision San Jose 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 2040 GP 4-Year Review 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 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.

Table 7
Roadway Segment Average Daily Traffic

				Projected Year 2015			Adopted 2040 General Plan Conditions		Proposed 2040 General Plan Conditions	
Roadway Segment	Location		Roadway Type	Number of Lanes	ADT	General Plan Number of Lanes	ADT	ADT Increase vs. Projected Year 2015	ADT	ADT Increase vs. Projected Year 2015
1st St	Burton St	Younger Ave	Major Arterial	4	35,400	4	39,100	3,700	38,700	3,300
1st St	Holger Wy	SR 237	Major Arterial	6	26,800	6	46,200	19,400	45,300	18,500
1st St	I-280	Reed St	Minor Arterial	6	36,700	6	52,800	16,100	50,300	13,600
1st St	Trimble Rd	Component Dr	Major Arterial	4	40,300	4	62,200	21,900	61,700	21,400
7th St	I-280	Margaret St	Minor Arterial	2	13,800	2	14,900	1,100	15,300	1,500
10th St	Commercial St	US 101	Minor Arterial	4	16,300	4	25,100	8,800	25,000	8,700
10th/11th St	Julian St	Washington St	Local	4	9,800	4	14,000	4,200	13,900	4,100
11th St	Margaret St	Virginia St	Local	4	20,000	4	23,600	3,600	23,900	3,900
13th St	Madera Ave	Berryessa Rd	Major Arterial	4	27,800	6	30,200	2,400	30,200	2,400
Aborn Rd	Capitol Expwy	Rock Water Ln	Major Arterial	6	48,000	6	63,800	15,800	59,200	11,200
Almaden Expwy	Foxchase Dr	Blossom Hill Rd	Expressway	6	100,000	8	135,900	35,900	131,700	31,700
Almaden Expwy	Lillian Wy	Cloverhill Dr	Expressway	4	54,800	6	62,700	7,900	61,800	7,000
Almaden Expwy	Old Almaden Rd	Lincoln Ave	Expressway	7	59,300	8	84,100	24,800	78,900	19,600
Almaden Rd	Vine St	Almaden Expwy	Major Arterial	4	24,400	4	31,500	7,100	29,400	5,000
Alum Rock Ave	Capitol Ave	Sierra Vista Pl	Minor Arterial	4	28,100	4	37,100	9,000	35,700	7,600
Bailey Ave	McKean Rd	Santa Teresa Blvd	Minor Arterial	4	18,600	4	37,000	18,400	35,200	16,600
Bailey Ave	Monterey Rd	US 101	Minor Arterial	6	18,100	6	32,500	14,400	29,400	11,300
Bascom Ave	Downing Ave	Leon Dr	Major Arterial	6	23,900	6	39,900	16,000	37,900	14,000
Bascom Ave	Dry Creek Rd	Surrey Pl	Major Arterial	6	19,100	6	31,500	12,400	30,200	11,100
Bascom Ave	E Mozart Ave	Loretta Ln	Major Arterial	6	26,700	6	38,500	11,800	37,400	10,700
Bascom Ave	Nedbush Ter	Cherrystone Dr	Minor Arterial	4	31,500	4	45,400	13,900	44,800	13,300
Berryessa Rd	Capitol Ave	I-880	Major Arterial	4	35,500	6	56,100	20,600	53,000	17,500
Berryessa Rd	Cornish Ln	Commercial St	Major Arterial	4	24,400	6	49,100	24,700	47,500	23,100
Blossom Hill Rd	Eagles Ln	Judith St	Major Arterial	6	20,800	6	40,400	19,600	34,700	13,900
Blossom Hill Rd	Sanchez Dr	Winfield Blvd	Major Arterial	6	26,500	6	45,500	19,000	43,800	17,300
Blossom Hill Rd	union Ave	Greenridge Ter	Minor Arterial	2	15,000	2	18,900	3,900	18,300	3,300
Branham Ln	Glenmont Dr	Pearl Ave	Major Arterial	6	16,100	4	22,100	6,000	20,900	4,800
Brokaw Rd	I-880	Ridder Park	Major Arterial	6	63,600	6	82,600	19,000	81,500	17,900
Camden Ave	Coleman Rd	Hicks Rd	Major Arterial	4	18,600	4	23,000	4,400	22,400	3,800
Camden Ave	Curtner Ave	Erin Wy	Major Arterial	6	50,600	6	61,900	11,300	60,100	9,500
Camden Ave	Leigh Ave	Hillsdale Ave	Major Arterial	6	51,900	6	64,700	12,800	61,400	9,500
Capitol Ave	Gay Ave	Madden Ave	Major Arterial	4	17,500	4	26,300	8,800	24,000	6,500
Capitol Ave	Montague Expwy	Cropley Ave	Major Arterial	4	16,300	6	43,100	26,800	39,300	23,000
Capitol Ave	Sierra Rd	Old Post Wy	Major Arterial	4	11,500	4	24,500	13,000	22,800	11,300
Capitol Expwy	Old Almaden Rd	Pearl Ave	Expressway	6	45,600	6	55,500	9,900	51,000	5,400
Capitol Expwy	Cunningham Ave	Tully Rd	Expressway	6	65,600	6	88,500	22,900	81,500	15,900

Table 7 (Continued)
Roadway Segment Average Daily Traffic

				Projected Year 2015			Adopted 2040 General Plan Conditions		Proposed 2040 General Plan Conditions	
Roadway Segment	Location		Roadway Type	Number of Lanes	ADT	General Plan Number of Lanes	ADT	ADT Increase vs. Projected Year 2015	ADT	ADT Increase vs. Projected Year 2015
Capitol Expwy	I-680	Camas Ave	Expressway	6	81,600	6	97,000	15,400	93,000	11,400
Capitol Expwy	Seven Trees Blvd	Monterey Rd	Expressway	6	67,100	6	87,000	19,900	80,100	13,000
Capitol Expwy	Silver Creek Rd	Aborn Rd	Expressway	6	74,100	6	95,600	21,500	89,400	15,300
Coleman Ave	Brokaw Rd	Airport Blvd	Major Arterial	4	21,500	6	37,500	16,000	37,200	15,700
Curtner Ave	Cherry Ave	Nola Dr	Minor Arterial	4	30,100	4	38,400	8,300	36,900	6,800
East Brokaw Rd	Zanker Rd	Rogers Ave	Major Arterial	6	48,500	6	65,400	16,900	64,200	15,700
Guadalupe Pkwy	US 101	Orchard Pkwy	Minor Arterial	4	34,300	4	61,500	27,200	61,100	26,800
Hale Ave	Kalana Ave	Palm Ave	Collector	2	3,500	2	5,700	2,200	5,500	2,000
Hamilton Ave	Hwy 17	Bascom Ave	Major Arterial	6	59,800	6	68,800	9,000	66,600	6,800
Hedding St	Ruff Dr	SR 87	Minor Arterial	4	16,000	4	25,300	9,300	24,900	8,900
Hostetter Rd	Automation Pkwy	Rue Avati	Major Arterial	6	39,100	6	57,800	18,700	56,400	17,300
Julian St	21st St	24th St	Minor Arterial	2	20,200	2	26,400	6,200	26,200	6,000
King Rd	Havana Dr	Cunningham Ave	Minor Arterial	4	26,700	4	38,800	12,100	34,900	8,200
King Rd	St James St	Wilshire Blvd	Minor Arterial	2	11,300	2	18,700	7,400	17,700	6,400
Lawrence Expwy	Doyle Rd	Prospect Rd	Expressway	6	50,000	6	72,800	22,800	69,800	19,800
Leigh Ave	Dry Creek Rd	Bent Dr	Minor Arterial	4	20,500	2	21,200	700	20,000	-500
Lincoln Ave	Minnesota Ave	Brace Ave	Minor Arterial	4	19,900	4	32,100	12,200	30,300	10,400
Mabury Rd	Capitol Ave	Cedarville Ln	Minor Arterial	2	11,100	4	29,500	18,400	26,800	15,700
Mabury Rd	Educational Park	Jackson Ave	Minor Arterial	4	7,900	4	25,500	17,600	24,300	16,400
Mabury Rd	Lenfest Ave	Taylor St	Minor Arterial	2	12,200	4	42,100	29,900	42,000	29,800
Market St	San Pedro St	SR 87	Minor Arterial	4	15,100	4	26,600	11,500	26,400	11,300
McKean Rd	Harry Rd	Hunters Hill Rd	Minor Arterial	2	8,100	2	19,200	11,100	18,000	9,900
McKee Rd	Capitol Ave	I-680	Major Arterial	6	60,900	6	78,800	17,900	71,700	10,800
Meridian Ave	Dry Creek Rd	Campbell Ave	Minor Arterial	4	25,500	4	37,000	11,500	34,500	9,000
Meridian Ave	Southwest Expwy	Fruitdale Ave	Minor Arterial	4	34,600	4	47,000	12,400	43,900	9,300
Montague Expwy	Guadalupe River	Orchard Dr	Expressway	8	92,300	8	142,500	50,200	141,400	49,100
Montague Expwy	O'Toole Ave	I-880	Expressway	8	105,500	8	146,400	40,900	144,800	39,300
Monterey Rd	Bellevue Ave	San Jose Ave	Major Arterial	6	27,200	6	40,800	13,600	37,500	10,300
Monterey Rd	Bouganvilla Dr	Branham Ln	Major Arterial	6	14,700	4	25,000	10,300	20,900	6,200
Monterey Rd	Kalana Ave	Palm Ave	Minor Arterial	4	10,700	4	24,100	13,400	23,700	13,000
Monterey Rd	Metcalf Rd	Blanchard Rd	Minor Arterial	4	8,600	4	26,800	18,200	24,800	16,200
Monterey Rd	SR 85	Bernal Rd	Major Arterial	4	11,000	4	24,300	13,300	22,500	11,500
Moorpark Ave	Borina Dr	Castlewood Dr	Minor Arterial	4	12,100	4	15,500	3,400	15,500	3,400
Morrill Ave	Hostetter Rd	Cataldi Wy	Collector	2	11,000	4	17,900	6,900	16,700	5,700
Oakland Rd	Montague Expwy	Atteberry Ln	Major Arterial	6	23,500	6	42,200	18,700	38,400	14,900
Piedmont Rd	Penetencia Creek Rd	Noble Ave	Minor Arterial	2	15,700	2	21,300	5,600	19,700	4,000
Quimby Rd	Capitol Expwy	Keppler Dr	Minor Arterial	4	45,600	4	52,500	6,900	50,400	4,800
San Carlos St	SR 87	Almaden Rd	Minor Arterial	4	13,500	4	25,000	11,500	25,200	11,700
San Felipe Rd	Heartland Wy	Metcalf Rd	Collector	2	1000	2	2,100	1,100	1,500	500

Table 7 (Continued)
Roadway Segment Average Daily Traffic

				Projected Year 2015			Adopted 2040 General Plan Conditions		Proposed 2040 General Plan Conditions	
Roadway Segment	Location		Roadway Type	Number of Lanes	ADT	General Plan Number of Lanes	ADT	ADT Increase vs. Projected Year 2015	ADT	ADT Increase vs. Projected Year 2015
San Felipe Rd	Yurba Buena Rd	Park Estates Wy	Minor Arterial	4	23,100	4	26,700	3,600	25,900	2,800
San Tomas Expwy	Williams Rd	Payne Ave	Expressway	6	61,200	6	76,500	15,300	75,500	14,300
Santa Clara St	19th St	17th St	Minor Arterial	4	22,900	4	35,500	12,600	34,900	12,000
Santa Clara St	Almaden Rd	SR 87	Minor Arterial	4	25,900	4	40,700	14,800	40,500	14,600
Santa Teresa Blvd	Bayliss Dr	Laguna Seca Creek	Major Arterial	2	9,600	4	44,400	34,800	41,500	31,900
Santa Teresa Blvd	Chesbro	1ndian Ave	Major Arterial	6	20,300	6	36,300	16,000	32,800	12,500
Santa Teresa Blvd	Miyuki Dr	San 1gnacio Ave	Major Arterial	6	15,200	6	46,900	31,700	40,100	24,900
Santa Teresa Blvd	SR 85	Thornwood Dr	Major Arterial	6	54,100	6	79,800	25,700	79,700	25,600
Saratoga Ave	Los Felice Dr	Country Ln	Major Arterial	4	21,000	6	36,500	15,500	34,200	13,200
Saratoga Ave	Moorpark Ave	I-280	Major Arterial	6	67,600	6	86,800	19,200	83,000	15,400
Senter Rd	Dadis Wy	Lewis Rd	Major Arterial	4	20,800	6	34,400	13,600	31,300	10,500
Silver Creek Valley Rd	US 101	Monterey Rd	Major Arterial	6	61,200	6	85,500	24,300	80,200	19,000
Southwest Expwy	Leigh Ave	La Barbera Dr	Major Arterial	4	22,700	4	38,100	15,400	34,600	11,900
Stevens Creek Blvd	I-880	Wainright Ave	Major Arterial	4	22,200	6	42,000	19,800	39,800	17,600
Story Rd	12th St	Senter Rd	Major Arterial	6	23,100	6	36,600	13,500	35,600	12,500
Story Rd	Capitol Expwy	Sollmar Dr	Minor Arterial	6	47,600	6	59,600	12,000	53,200	5,600
Story Rd	King Rd	Bal Harbor Wy	Major Arterial	6	25,200	6	36,200	11,000	30,800	5,600
Story Rd	US 101	Knox Ave	Major Arterial	6	23,400	6	34,600	11,200	31,000	7,600
Tasman Dr	Guadalupe River	Renaissance Dr	Major Arterial	4	25,100	4	44,300	19,200	43,300	18,200
Tasman Dr	McCarthy Blvd	Cisco Wy	Major Arterial	4	27,300	6	53,100	25,800	52,000	24,700
The Alameda	I-880	Alameda Wy	Minor Arterial	4	33,700	4	47,500	13,800	47,100	13,400
The Alameda	Martin Ave	Julian St	Minor Arterial	4	18,500	4	29,900	11,400	29,700	11,200
Trimble Rd	Junction Ave	Montague Expwy	Major Arterial	6	46,600	6	64,200	17,600	63,400	16,800
Trimble Rd	Orchard Pkwy	De La Cruz Blvd	Major Arterial	6	36,400	6	62,100	25,700	62,200	25,800
Tully Rd	Brahms Ave	Quimby Rd	Major Arterial	6	35,400	6	46,900	11,500	41,600	6,200
Tully Rd	Capitol Expwy	Glen Hanleigh Dr	Major Arterial	6	17,000	6	23,900	6,900	22,600	5,600
Tully Rd	Galveston Ave	La Rasione Ave	Major Arterial	6	30,800	6	39,300	8,500	36,200	5,400
Union Ave	SR 85	Logic Dr	Minor Arterial	4	20,100	4	28,300	8,200	27,000	6,900
White Rd	Mt McKinley Dr	Mt Vista Dr	Minor Arterial	4	22,800	4	28,300	5,500	27,100	4,300
White Rd	Stevens Ln	Westbranch Dr	Major Arterial	6	18,800	6	26,800	8,000	24,500	5,700
Winchester Blvd	Fireside Dr	Greentree Wy	Major Arterial	5	16,000	4	24,000	8,000	23,500	7,500
Winchester Blvd	Tisch Way	I-280	Major Arterial	6	37,100	6	47,200	10,100	49,100	12,000
Verba Buena Rd	Baronet Ct	Chisin St	Minor Arterial	4	38,800	4	48,400	9,600	47,300	8,500
Zanker Rd	SR 237	Holger Wy	Major Arterial	6	34,500	6	68,000	33,500	65,800	31,300

4. Conclusions

This section presents a summary of the long-range traffic analysis completed for the City of San Jose 4-Year Review of the Envision 2040 General Plan (GP). The analysis evaluated the long-range impacts of the proposed 2040 General Plan 4-Year Review land use adjustments on the citywide transportation system and roadway operations of adjacent jurisdictions based on measures of effectiveness (MOEs) developed for the Envision San Jose 2040 General Plan. The results of the analysis for the Proposed 2040 GP 4-Year Review adjustments are then compared to the results of the previously identified impacts in the Envision San Jose GP 2040 EIR to determine if the proposed adjustments would result in any new or substantially more severe transportation impacts.

Long-Range Traffic Impacts

Vehicle Miles Traveled Per Service Population

The adopted GP land uses were shown to result in an increase in citywide daily VMT per service population in the adopted Envision San Jose 2040 GP EIR. Compared to Projected Year 2015 Conditions, the proposed 2040 GP 4-Year Review land use adjustments would result in an increase of 0.2 vehicle miles per person, and the adopted 2040 GP Conditions would result in an increase of 0.6 vehicle miles per person. Therefore, the proposed 2040 GP 4-Year Review land use adjustments would not result in additional impact on citywide daily VMT per service population than that identified in the adopted Envision San Jose 2040 GP EIR. 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 adopted 2040 GP land uses were shown to result in a decrease in drive alone trips in the Envision San Jose 2040 GP EIR and a less than significant impact on citywide journey-to-work mode share. Both the proposed 2040 GP 4-Year Review land use adjustments and adopted GP land uses will result in a decrease of drive alone trips and increase in the percentages of 3 or more-person carpool, transit, bike, and walk trips when compared to the Projected Year 2015 conditions. Therefore, the proposed 2040 GP 4-Year Review land use adjustments would result in a less than significant impact on citywide journey-to-work mode share.

Average Vehicle Speeds in Transit Priority Corridors

The adopted 2040 GP land uses were shown to result in a decrease in travel speeds of greater than 25% and impact on 12 of the 14 transit corridors in the Envision San Jose 2040 GP EIR. The Proposed 2040 GP 4-Year Review land use adjustments will result in a decrease in travel speeds greater than 25 percent on six of the 14 transit priority corridors when compared to Projected Year 2015 conditions. The 12 transit corridors shown to be impacted by the adopted 2040 GP in the Envision San Jose GP EIR include the six transit corridors shown to be impacted by the Proposed 2040 GP 4-Year Review land uses. Therefore, the Proposed 2040 GP 4-Year Review

land use adjustments would not result in additional impacts to transit priority corridors than those already identified for the adopted 2040 GP land uses in the adopted Envision San Jose 2040 GP EIR.

Adjacent Jurisdictions

The adopted 2040 GP land uses were shown to impact roadway segments within 15 of the 16 adjacent jurisdictions. The Proposed 2040 GP 4-Year Review land use adjustments will result in significant impact on traffic operations of the roadway segments within 14 of 16 adjacent jurisdictions. It should be noted that roadway segments within Palo Alto that were shown to be impacted in the Envision San Jose 2040 GP EIR, would not be impacted by the Proposed 2040 GP 4-Year Review land use adjustments. Therefore, the Proposed 2040 GP 4-Year Review land use adjustments would not result in further impact on roadways in adjacent jurisdictions than that identified for the adopted 2040 GP land uses in the adopted Envision San Jose 2040 GP EIR.

Roadway Segment Evaluation

The Proposed 2040 GP 4-Year Review land use adjustments will increase the ADT of the majority of the roadway segments when compared to Projected Year 2015 conditions. However, the adopted 2040 GP land uses also were shown to result in an increase in ADT on the same roadway segments. Additionally, the ADT increase with the Proposed 2040 GP 4-Year Review land use adjustments would be slightly less than that of the adopted 2040 GP land uses. Therefore, the planned number of lanes on each of the segments as identified in the adopted Envision San Jose 2040 GP EIR would be adequate to serve traffic volumes associated with the Proposed 2040 GP 4-Year Review land use adjustments. The City of San Jose does not have a formally adopted roadway segment operating standards. Therefore, the roadway segment evaluation is provided for informational purposes only.

Impacts on Transit, Bicycle, and Pedestrian Circulation

Transit Services or Facilities

The Proposed 2040 GP 4-Year Review 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 2040 GP 4-Year Review land use adjustments would not substantially disrupt existing, or interfere with planned transit services or facilities.

Bicycle Facilities

The Proposed 2040 GP 4-Year Review 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 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 2040 GP 4-Year Review 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 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.