NORMAN Y. MINETA

SAN JOSÉ INTERNATIONAL AIRPORT

MASTER PLAN UPDATE PROJECT

SAN JOSÉ, CA

EIGHTH

ADDENDUM TO THE

ENVIRONMENTAL IMPACT REPORT

City of San José Public Project File No. PP 10-024

CITY OF SAN JOSÉ

FEBRUARY 10, 2010

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SECTION 1. INTRODUCTION

This document is an Addendum to an Environmental Impact Report (EIR) on the Master Plan Update (the "Airport Master Plan") for the Norman Y. Mineta San José International Airport (SJC), which EIR was certified in June 1997, and updated with a Supplemental EIR that was certified in January 2003.

The purpose of this Addendum is to disclose the environmental impacts associated with a proposed change in the Airport Master Plan horizon year from 2017 to 2027, as well as proposed changes in the scope of a number of planned facilities.

Under Section 15164 of the California Environmental Quality Act (CEQA) Guidelines, an Addendum to a previously-certified EIR may be prepared by the Lead Agency when subsequent analysis concludes that there will not be a new significant effect or a significant effect being substantially more severe than shown in the previous EIR. [Note: If an analysis were to show a new significant effect or that a significant effect would be substantially more severe than shown in the previous EIR, then a Subsequent or Supplemental EIR would be required (i.e., an Addendum would not comply with CEQA).]

This is the eighth in a series of addenda that have been prepared to address various modifications to the Airport Master Plan. Section 2.2 of this Addendum summarizes the prior modifications to the Airport Master Plan that have been approved by the San Jose City Council.

SECTION 2. OVERVIEW OF THE SAN JOSÉ INTERNATIONAL AIRPORT MASTER PLAN

2.1 DEVELOPMENT AND APPROVAL OF THE MASTER PLAN

SJC is one of the three primary airports that serve the San Francisco Bay Area. The Airport, which is owned and operated by the City of San José, is located on a site of approximately 1,050 acres in Santa Clara County at the southerly end of San Francisco Bay. The Airport is generally bounded by U.S. 101 on the north, the Guadalupe River and State Route 87 on the east, Interstate 880 on the south, and Coleman Avenue and De la Cruz Boulevard on the west.

In 1988, the City initiated a planning process to update its 1980 Airport Master Plan for SJC. The City's aviation consultants prepared demand forecasts for SJC and evaluated a series of alternative development scenarios which would adequately accommodate some or all of the projected growth in passenger and air cargo traffic at the Airport through a year 2010 planning horizon. Between 1988 and 1995, numerous meetings, workshops, and hearings occurred for the purpose of determining the range and scope of alternatives to be formally evaluated in an EIR. The City began the formal preparation of the Draft EIR for the Master Plan Update in 1995. The Draft EIR, which evaluated four alternatives (including the CEQA-mandated No Project Alternative), was published and circulated in October of 1996. The Final EIR was certified in June of 1997. The SJC Master Plan Update was approved by the San José City Council on June 10, 1997. A Supplemental EIR, which updated the noise analysis and addressed the effects of an Automated People Mover (APM), was certified in 2003. A number of EIR Addenda have also been prepared, as listed in Table 2, to address various amendments to the Airport Master Plan that have been approved since 1997.

The approved Airport Master Plan consists of a comprehensive and integrated package of improvements to airside and landside facilities at SJC, such improved facilities having the design capacity to fully accommodate the 2017 forecast demand for air passenger and air cargo service in a comfortable and efficient manner. Table 1 summarizes the primary improvements contained in the approved Airport Master Plan.

2.2 IMPLEMENTATION OF THE AIRPORT MASTER PLAN: 1997 - 2009

Subsequent to the approval of the Master Plan Update in 1997, construction of various capital improvement projects has been completed or is currently underway. Most of the airfield improvement projects have been completed, including the reconstruction/lengthening of Runway 12L/30R to 11,000 feet and the reconstruction/lengthening of Runway 12R/30L to 11,000 feet. Other projects that have been completed include various improvements to the on-Airport roadway system, a new Federal Inspection Services (FIS) building for international flights, and a new jet fuel storage and distribution facility. Current construction activities include a new passenger terminal and adjacent parking garage with associated roadway improvements.

T A B L E 1

SUMMARY OF KEY PROJECTS IN THE APPROVED SJC MASTER PLAN [a]

Project Type	Description of Project
Airfield Improvements	- Reconstruct/lengthen Runway 12L/30R to 11,000 feet - Reconstruct/lengthen Runway 12R/30L to 11,000 feet
Passenger Terminals	- Modify existing terminals to create centralized passenger terminal with 49 air carrier gates and 1,700,000 square feet [b]
Public Parking Facilities	- Construct parking garages with 16,200 spaces [c]
Rental Car Facilities	- Construct consolidated parking garage with 6,000 spaces, including 2,000 ready/return spaces
Air Cargo Facilities	- Construct new all-cargo facilities totaling 1,897,900 square feet - Construct new belly freight facilities totaling 460,500 square feet
Aviation Support Facilities	- Construct new fuel storage facility with capacity of 4,000,000 gallons
General Aviation Facilities	- Limit general aviation facilities to the southwest side of the Airport and reduce aircraft storage capacity to 360 based aircraft
Transportation and Access	- Construct on-Airport APM - Upgrade/widen Terminal Drive - Construct grade separations on Airport Boulevard at Skyport Drive and Airport Boulevard - Construct APM between Airport and Metro/Airport LRT Station

[a] Section 2.3.1 (beginning on page 2-5) of the Final EIR contains a listing and description of all SJC Master Plan projects.

[b] Number of air carrier gates limited to 40 by Section 25.04.300(B)(1) of the San José Municipal Code.

[c] Number of public parking spaces limited to 12,700 by Section 25.04.300(B)(3) of the San José Municipal Code.

Source: SJC Master Plan, as amended through 5/22/07.

TABLE 2

APPROVED AMENDMENTS TO THE 1997 SJC MASTER PLAN [a]

Number	Description of Amendment	Type	Approval Date	CEQA Clearance
1	Interim off-Airport Office Space and Reuse of Vacated On-Airport Space for Air Carrier-related Uses	Minor	June 1998	Airport Master Plan EIR Reuse
2	Expanded Fixed Base Operator (FBO) Leasehold for ACM Aviation	Minor	June 1999	Airport Master Plan EIR Reuse
3	Interim Relocation of Federal Inspection Services (FIS) Facility	Minor	June 1999	Airport Master Plan EIR Reuse
4	Interim Rental Car Ready/Return Facility Consolidation	Minor	April 2000	Airport Master Plan EIR Reuse
5	Terminal Area Development Program Modifications (including terminal, parking garage, and roadway project revisions, as well as associated interim facility changes)	Minor	November 2001	Airport Master Plan EIR Addendum #1
6	94th Aero Squadron Early Lease Termination/Removal and Interim Reuse for Runway Project Cement Plant	Minor	December 2001	Airport Master Plan EIR Reuse
7	Relocation of Remote Transmitter/Receiver Facility to North Side of Control Tower & Reuse of Site for General Aviation	Minor	February 2002	Airport Master Plan EIR Reuse
8	Automated People Mover (APM) between Airport and Metro/Airport LRT Station	Minor	March 2003	Airport Master Plan Supplemental EIR
9	Additional General Aviation Facilities on west side of Airport & Designate Employee Parking as ultimate use in Terminal A Parking Garage	Major	April 2003	Airport Master Plan EIR Addendum #2
10	Off-Airport Construction Staging & Change in Designated Location of Future Airline Maintenance/Equipment Storage Facilities	Minor	June 2003	Airport Master Plan EIR Reuse
11	Lease of 52-acre off-Airport Site for the Temporary Relocation of Rental Cars & Employee Parking	Minor	November 2004	Airport Master Plan EIR Addendum #4
12	Square Footage of Centralized Passenger Terminal increased to 1,700,000 square feet	Minor	March 2005	Airport Master Plan EIR Addendum #4
13	Shifted the Master Plan Horizon Year from 2010 to 2017; Modified designs of Terminal Area Facilities; Modified range of interim uses on former-FMC Site	Major	June 2006	Airport Master Plan EIR Addendum #6
14	Change in East Side Non-Terminal Development Projects to provide flexibility in location, function, and development sequencing	Minor	May 2007	Airport Master Plan EIR Reuse

[a] Per Section 25.02.300 of the San José Municipal Code, amendments to the Master Plan Update are classified as "minor" or "major". The criteria for defining minor and major amendments are set forth in that same section of the Municipal Code.

Notes: EIR Addendum #3 addressed a modification to the Airport Noise Control Program that was approved on October 21, 2003. EIR Addendum #5 addressed the Airport's Gate Management Plan that was approved on November 15, 2005. EIR Addendum #7 addressed the impacts of the Master Plan with regard to its potential to increase terrorist attacks. No Master Plan Amendment was involved with any of these EIR Addenda.

SECTION 3. SCOPE OF THIS ADDENDUM

The City is proposing to amend the approved Airport Master Plan in two primary categories:

- ✈ Shift the horizon year from 2017 to 2027, and

- ✈ With regard to air cargo and general aviation, modify development program objectives and future facilities requirements to reflect updated demand forecasts.

3.1 SHIFT IN MASTER PLAN HORIZON YEAR TO 2027

For the reasons described below, the City is proposing to shift the horizon year for the Airport Master Plan from 2017 to 2027.

The original Airport Master Plan horizon year of 2010 was based on aviation demand forecasts that were prepared in 1994. The forecasts quantified the expected demand for air transportation services at SJC in 2010, based upon an analysis of economic, employment, and demographic data. Based on those forecasts, a list of airport facility improvement projects to accommodate the projected demand was developed. These projects became the Airport Master Plan, which as noted on page 2, was approved by the San José City Council in 1997. The aircraft operations forecasts for 2010 were modified in 2003.

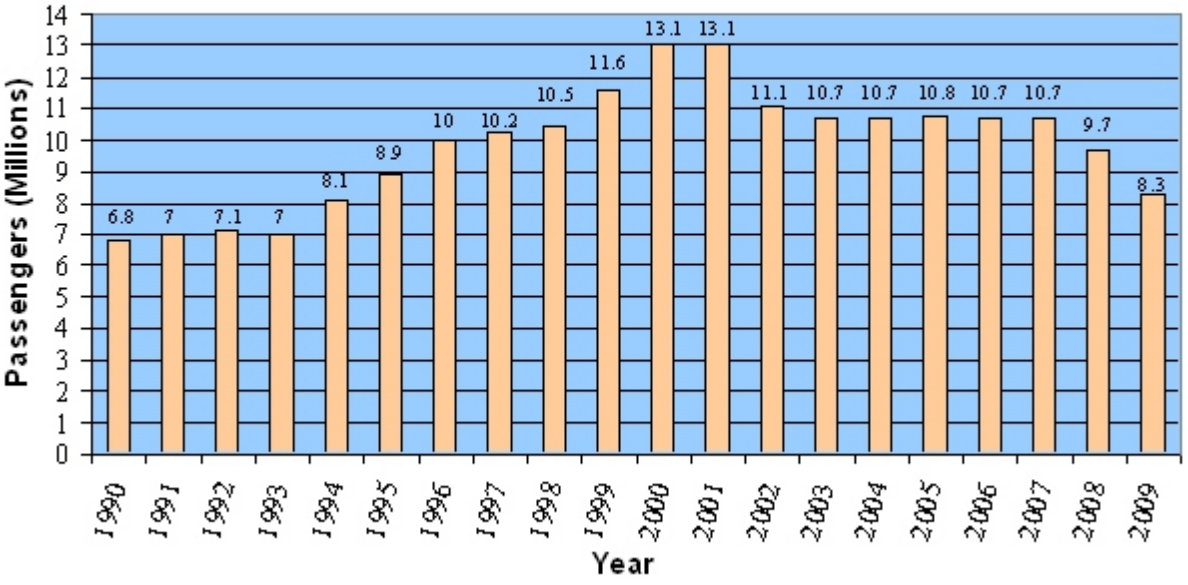
As part of a 2005 financial feasibility analysis, the level of air passenger activity at SJC that was originally projected to be reached by year 2010, was projected not to be reached until year 2017. This updated forecast formed the basis for a decision in 2006 by the City to shift the horizon year for the Airport Master Plan from 2010 to 2017, along with a modified set of air carrier operations forecasts.

In 2009, the City completed another update to the aviation demand forecasts for SJC. Based on this 2009 updated forecast, which is described more fully below, the level of air passenger activity at SJC that was originally projected to be reached by year 2010, and subsequently projected to be reached by 2017, is now projected not to be reached until year 2027. In addition, the 2009 updated forecast indicates that future demand for general aviation and air cargo will be substantially different from that which was originally projected.

Forecasted versus Actual Demand

At the time the original demand forecasts were undertaken, SJC was experiencing substantial annual growth in the number of air passengers using the airport. That substantial growth, which is summarized in Figure 1, was projected to continue through the year 2010. However, several unforeseen events subsequently transpired, which resulted in a major effect on the aviation industry and on activity levels at SJC: 1) terrorist attacks on September 11, 2001; 2) bursting of the high-tech "dot com" bubble in

Figure 1:
Comparison of Annual Air Passenger Activity Levels at SJC



Silicon Valley; 3) substantial increases in the price of aviation fuel; and 4) the widespread economic recession that began in 2008, the effects of which are still being experienced.

As a result of these events and other factors, the airline industry has been undergoing rapid and significant changes. For example, airlines are frequently modifying their route structure and the markets they serve in response to changes in economic and competitive conditions. In addition, airline start-ups, mergers, reorganizations, and bankruptcies are more common in today's aviation industry than in past years.

At SJC, the cumulative effect of all of these changes has been a decrease in airport activity in recent years. For example, as illustrated on Figure 1, the annual number of passengers using SJC has decreased from a high of 13.1 million in 2001 to 8.3 million in 2009, a decrease of 37%. This trend is projected to reverse as the economy recovers; however, the 17.6 million annual passengers that were originally forecasted to use the Airport by 2010, and subsequently forecasted to use the Airport by 2017, are now forecasted not to occur until year 2027. See Table 3 for a summary of the changes in forecasts.

For air cargo, the 2009 updated forecast is showing a much slower growth rate in future demand than previously projected. As shown in Table 3, the projected annual air cargo volume for year 2027 is 189,700 tons. This demand level is 40% less than the 315,300 tons that had been previously projected to occur by year 2017.

T A B L E 3

COMPARISON OF AIRPORT MASTER PLAN DEMAND FORECASTS

	Actual	Demand Forecasts		
	2009	Forecast for 2010 Horizon Year	Forecast for 2017 Horizon Year	Forecast for 2027 Horizon Year
Air Passengers (millions)	8.3	17.6	17.6	17.6
Air Cargo (tons)	59,471	315,300	315,300	189,700
General Aviation (# of Based Aircraft)	149	360*	360*	209

*Projected demand was for 630 aircraft, of which 360 could be accommodated at the Airport.

Sources: Ricondo & Associates, City of San Jose.

For general aviation, the 2009 updated forecast is also showing a much lower growth rate in future demand than previously projected. As shown in Table 3, the projected demand for year 2027 is 209 based aircraft. This demand level is 42% less than the accommodated demand of 360 based aircraft that had been previously projected for year 2017. In addition, the general aviation environment has changed, and is projected to continue to change, from a fleet comprised largely of single-engine piston aircraft to a fleet comprised largely of corporate jet aircraft.

3.2 MODIFICATIONS TO VARIOUS MASTER PLAN PROJECTS

The existing Airport Master Plan, which is based on the 1994 and 2005 demand forecasts, designates future air cargo facilities on the northwest side of the Airport, as well as future relocated and expanded belly-freight facilities on the east side of the Airport. The existing Airport Master Plan also anticipates that there will be adequate room at the Airport to accommodate 360 based general aviation aircraft.

As stated above, the 2009 updated demand forecasts for air cargo and general aviation are substantially different from the previous forecasts. In response to the updated forecasts, the City is proposing the following changes to the Airport Master Plan so as to accommodate the projected demand:

1. Modify Future Air Cargo Facilities. The existing Airport Master Plan designates 1.9 million square feet of air cargo facilities (ramps, building, vehicle movement/parking) on the northwest

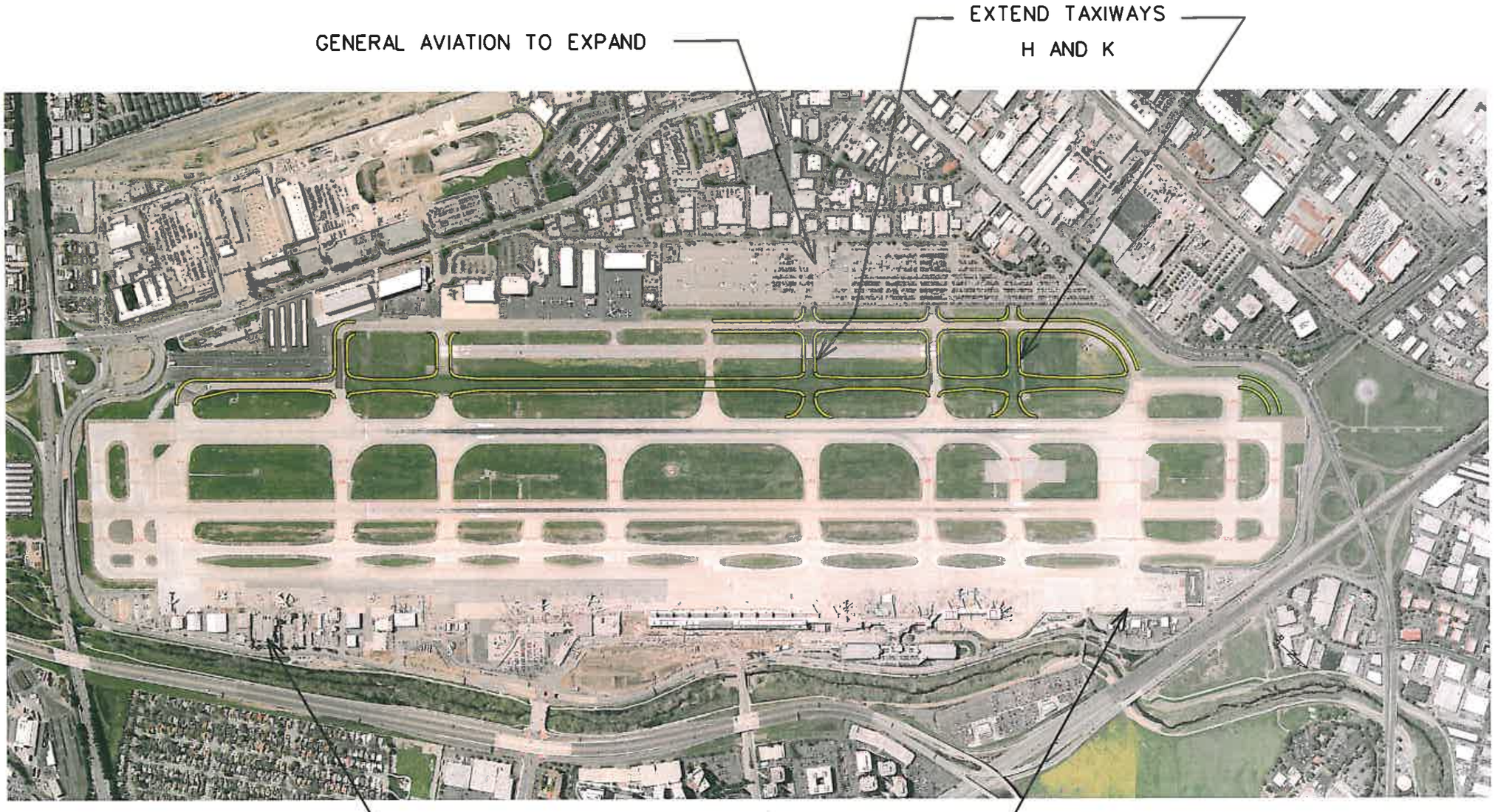


FIGURE 2

PROPOSED AMENDMENT TO AIRPORT MASTER PLAN

REF.

side of the Airport (see Figure 2). The City proposes to delete these future facilities at this location and, instead, designate 1.2 million square feet of air cargo facilities on the east side of the Airport, both north and south of the passenger terminals. This proposed modification would, in essence, retain air cargo facilities at their current locations. The smaller facilities proposed by this modification correspond to the reduced future demand forecast (see Table 3).

2. Modify Future Belly-Freight Facilities. The existing Airport Master Plan designates 219,000 square feet of relocated/expanded belly-freight facilities on the east side of the Airport (see Figure 2). The City proposes to reduce the size of these facilities to 93,000 square feet, which reflects the reduced future demand forecast (see Table 3).

3. Modify Future General Aviation Facilities. The existing Airport Master Plan anticipates that there would be sufficient room, primarily on approximately 56 acres of land in the southwest portion of the Airport, to accommodate up to 360 based aircraft. This was, however, based on an assumption that most of the general aviation fleet would consist of small, single-engine, aircraft. The general aviation environment has recently changed and it is now forecast that the majority of the general aviation fleet will be comprised of large corporate jet aircraft. Thus, while the forecast number of based aircraft is lower (209 versus 360), the amount of room needed on a per-aircraft-basis is much larger. Therefore, the City is proposing to replace the future air cargo facilities on the northwest side of the Airport (see #1, above), with approximately 44 acres of general aviation facilities in order to accommodate this demand.

4. Modifications to Taxiway H. The existing Airport Master Plan provides for the extension of Taxiway H between Taxiway V and Runway 11/29. The City proposes to modify this project by continuing the extension easterly to Runway 12R/30L. The new segment of Taxiway H will have a width of 75 feet with 25-foot shoulders. The additional extension will provide better access for corporate jets to the expanded general aviation facilities (see #3, above).

5. Modifications to Taxiway K. Cross Taxiway K currently provides a connection between Runways 12R/30L and 12L/30R and Taxiways Y and Z. The City proposes to add a new project to the Airport Master Plan to extend Taxiway K to the west of Runway 12R/30L to connect to Taxiways W and V. The new segment of Taxiway K will have a width of 75 feet with 25-foot shoulders. The extension will provide better access for corporate jets to the expanded general aviation facilities (see #3, above).

The above proposed modifications are also summarized in Table 4.

T A B L E 4

PROPOSED REVISIONS TO AIRPORT MASTER PLAN PROJECTS

Project Number	Existing Description	Proposed Description
A-27	Construct cross Taxiway H between Runway 11/29 and Taxiway V (for B-II aircraft).	Construct cross Taxiway H between Runway 12R/30L and Taxiway V (for D-IV aircraft).
A-37	n/a (new project)	Extend cross Taxiway K west of Runway 12R/30L to Taxiway V (for D-IV aircraft).
C-2	Construct new Cargo Airline facilities on northwest side of Airport, including up to 1.9 million square feet of ramp, building, and vehicle parking/movement space.	Construct new Cargo Airline facilities at or adjacent to east side cargo airline area and south of terminal area, including up to 1.2 million square feet of ramp, building, and vehicle parking/movement space.
C-3	Relocate/expand Belly-Freight facilities to new sites on east side of Airport, including up to 219,000 square feet of building and vehicle parking/movement space.	Relocate/expand Belly-Freight facilities to new site(s) on east side of Airport, including up to 93,000 square feet of building and vehicle parking/movement space.
G-8	n/a (new project)	Expand General Aviation facilities onto northwest side of Airport (44 acres) in phases (upon implementation of Project T-7 and T-8).

SECTION 4. ENVIRONMENTAL IMPACTS OF THE PROPOSED CHANGES TO THE AIRPORT MASTER PLAN

[Introductory Note: The analysis of environmental impacts follows the same order and addresses the same topics as those contained in Chapter 3 of the 1997 SJC Master Plan Update EIR.]

4.1 LAND USE

The proposed change in the horizon year from 2017 to 2027 will have no effect on existing or future land uses on the Airport or in the Airport vicinity.

The proposed modifications to the Airport Master Plan projects that are described in Section 3.2 consist of minor changes in the size and design of approved airport facilities to reflect updated air transportation demand forecasts. The modifications will allow SJC to accommodate each of the three main segments of air transportation: air passengers, air cargo, and general aviation. This is consistent with the adopted policies of the *San Jose General Plan*, which state that the City should continue to provide aviation services at SJC and promote airline service which meets the present and future air transportation needs of local residents and the business community.

> ***Conclusion**: The proposed changes to the Airport Master Plan would not result in any new significant land use impacts and/or land use impacts that are substantially different from those described in the 1997 SJC Master Plan Update EIR*

4.2 CULTURAL RESOURCES

The proposed change in the horizon year from 2017 to 2027 will have no effect on historic or archaeologic cultural resources on the Airport or in the Airport vicinity.

The proposed modifications to the Airport Master Plan projects that are described in Section 3.2 will result in the construction of facilities in areas already identified for such in the 1997 Master Plan Update EIR. Consistent with the findings of the 1997 EIR, construction of projects in areas that have been designated as archaeologically-sensitive will be monitored by an archaeologist, in conformance with mitigation measures identified in the 1997 SJC Master Plan EIR.

> ***Conclusion**: The proposed changes to the Airport Master Plan would not result in any new significant cultural resources impacts and/or cultural resources impacts that are substantially different from those described in the 1997 SJC Master Plan Update EIR.*

4.3 TRANSPORTATION AND CIRCULATION

Ground Transportation

The amount of ground traffic associated with SJC is directly related to the level of activity that occurs at the Airport. Each of the three major components of air transportation (i.e., air passenger, air cargo, and general aviation) contributes to the total volume of traffic at SJC.

Changing the horizon year of the Airport Master Plan from 2017 to 2027 would not result in an increase in ground traffic. This statement is based on the data contained in Table 3, which show that projected activity levels in 2027 will be the same as, or lower than, those projected to occur in 2017. This same conclusion applies when projected 2027 activity levels are compared to those originally projected for 2010. In fact, air passenger activity, which is by far the largest component of the Airport's ground traffic, would remain unchanged.

Similarly, modifying the air cargo and general aviation facilities, as described above in Section 3.2, would not increase the volume of ground traffic over that assumed for either 2010 or 2017. This conclusion is based on the following:

- The proposed modifications would reduce the planned size of air cargo facilities, as compared to that analyzed in the 1997 Airport Master Plan EIR. In addition, the tonnage of air cargo to be processed at SJC in 2027 will be 40% lower than that originally projected for 2010 and 2017. Therefore, the volume of ground traffic associated with air cargo will be lower as there will be fewer truck trips to/from the Airport

- Although the proposed modifications would increase the acreage of general aviation facilities on the Airport, the number of based general aviation aircraft would be 209, which is a 42% decrease from the 360 assumed in the traffic analysis contained in the 1997 Master Plan EIR.

Air Transportation

When the 1994/2003, and 2009 aviation demand forecasts were prepared, the numbers of annual aircraft operations (i.e., takeoffs and landings) associated with each of those demands were also calculated. As shown in Table 5, the total projected annual aircraft operations for 2027 (263,800) will be 20% less than the current Airport Master Plan projection for 2017 (330,000). Therefore, shifting the horizon year from 2017 to 2027 would result in less air traffic, as compared to the levels shown in the 1997 Airport Master Plan EIR. [Note: For a discussion of the effects of the changes in aircraft operations on aircraft-related noise levels, please see Section 4.5, *Noise*.]

> ***Conclusion****: The proposed changes to the Airport Master Plan would not result in any new significant transportation impacts and/or transportation impacts that are substantially different from those described in the 1997 SJC Master Plan Update EIR.*

T A B L E 5

COMPARISON OF 2017 AND 2027 AIRCRAFT OPERATIONS

Aircraft Type	Average Daily Aircraft Operations	
	Forecast for 2017 Horizon Year	**Forecast for 2027 Horizon Year**
Airbus 318/319/320	40.00	94.30
Airbus 300/310 (air cargo)	3.00	8.40
Boeing 727-100/200	4.40	0.00
Boeing 737-100/200	5.00	0.00
Boeing 737-300/400/500/700/800/900	257.60	296.60
Boeing 757	51.00	7.90
Boeing 767	12.00	19.80
Boeing 777 and 787	14.00	1.80
DC-8/9	0.60	0.00
DC-10/MD-11 (air cargo)	2.00	2.10
MD-80/81/82/83/87/88/90	81.00	2.00
Regional Jets	56.00	83.30
Regional Turboprops	6.00	5.30
Air Cargo Turboprops	0.00	0.20
Business/Corporate Jets	135.8	134.70
Single Engine Piston	158.40	46.00
Twin Engine Piston	30.30	6.10
Twin Engine Turboprop	37.00	10.10
Helicopter	10.00	4.10
Total Average Daily Operations	904.10	722.70
Total Annual Operations[1]	330,000	263,800

Note: In 2006, when the City Council approved the shift of the Master Plan horizon year from 2010 to 2017, the effect was that the "2010 forecast" became the "2017 forecast".

[1]Rounded to the nearest 100.

4.4 AIR QUALITY

As discussed in the previous section, none of the proposed modifications to the approved Airport Master Plan will result in 1) an increase in activity levels at the Airport beyond that identified in the Plan, or 2) an increase in the capacity of the Airport beyond that identified in the Plan. Therefore, emissions of air pollutants, as pertains to the Airport, and as identified in the 1997 Airport Master Plan EIR, are not expected to change.

> ***Conclusion****: The proposed changes to the Airport Master Plan would not result in any new significant air quality impacts and/or air quality impacts that are substantially different from those described in the 1997 SJC Master Plan Update EIR.*

4.5 NOISE [1]

The primary noise-related issue associated with SJC is noise impacts on the community from arriving and departing aircraft. Noise impacts were quantified in the 1997 EIR and 2003 Supplemental EIR using the FAA's Integrated Noise Model (INM). The INM produces noise contours that depict the size and shape of the area around the Airport that is exposed to varying levels of airport-related noise. A critical input to the INM is the number of average daily aircraft operations, as well as the type of aircraft.

As a first step in determining if shifting the Airport Master Plan horizon year from 2017 to 2027 would result in new/greater noise impacts than that disclosed in the 1997 EIR and 2003 Supplemental EIR, a comparison of the number/type of aircraft operations between 2010/2017 and 2027 was undertaken. Table 5 presents this comparison. The data in Table 5 show the following:

- In 2027, the number of average daily aircraft operations will be 20% less than that which had been projected to occur in 2010/2017.

- In 2027, there will be far fewer operations by older and noisier aircraft (e.g., Boeing 727, MD-80 series, etc.) than there will be in 2010/2017. This is a result of older aircraft gradually being phased out over time and being replaced with newer and quieter aircraft.

These facts support a preliminary conclusion that noise impacts will be less than that previously disclosed in the 1997 EIR and 2003 Supplemental EIR. However, in order to quantify and verify this conclusion, a noise analysis was undertaken to quantify the noise associated with the number of aircraft operations forecasted for 2010/2017 and 2027and to determine whether any changes would be significant. A copy of the noise analysis is attached to this Addendum as Appendix A.

[1]Since this document is an Addendum to the 1997 EIR and 2003 Supplemental EIR, it does not contain a background discussion of the effects of noise, noise standards, or the various noise descriptors such as the CNEL. Readers desiring such background information are referred to Section 2.2 of the 2003 Supplemental EIR.

For consistency, and in accordance with state and federal regulations, the noise analysis utilized the same methodology and thresholds as those contained in the 1997 Master Plan EIR, as updated by the 2003 Master Plan Supplemental EIR. This involved the use of the FAA's INM, which accounts for projected numbers of operations, aircraft types, and factors related to runway usage and flight tracks at SJC. The INM quantifies aircraft-related noise levels at each of the 20 reference grid point locations located in the vicinity of SJC. These locations are listed in Table 6 and are the same as those used in the 1997 EIR and 2003 Supplemental EIR.

Table 7 presents the results of this analysis. At all locations, aircraft-related noise levels in 2027 will be lower than those projected for 2017, which levels were documented in the 2003 Supplemental EIR. The decrease in noise will range from a low of one decibel at Reference Location #6 to a high of 3.5 decibels at Reference Location #2. As noted above, such decreases are a result of the combination of fewer total aircraft operations and a higher percentage of operations being made by newer, quieter aircraft types.

An important tool that is used to illustrate the differences between the noise levels of various scenarios is the CNEL contour. The CNEL contours depict the "noise footprint" of the Airport. Figure 3 presents a side-by-side comparison between the 2017 and 2027 60 dB and 65 dB CNEL contours.[2] Figure 3 shows that the 2027 contours are smaller than the 2017 contours. The area that will be exposed to aircraft noise of 65 dB or greater in 2027 is 2,615 acres, which is a reduction of 28% from 3,632 acres in 2017. Similarly, the area that will be exposed to aircraft noise of 60 dB or greater in 2027 is 6,428 acres, which is a reduction of 32% from 9,422 acres in 2017.

Figure 4 depicts the 60, 65, 70, and 75 dB CNEL contours for 2027.

> ***Conclusion****: The proposed changes to the Airport Master Plan would not result in any new significant noise impacts and/or noise impacts that are substantially different from those described in the 1997 SJC Master Plan Update EIR and 2003 Master Plan Update Supplemental EIR.*

[2]In 2006, when the San Jose City Council approved the shift in the Airport Master Plan horizon year from 2010 to 2017, what was then known as the "2010 CNEL Contours" was renamed the "2017 CNEL Contours". This was done, in large part, to maintain continuity in the ongoing implementation of the Airport's Noise Control Program, including the acoustical treatment component of that Program. The other reason for this decision was the fact that, had a new contour for 2017 been developed, it would have been almost identical to the published 2010 contour since the overall activity levels forecasted for SJC for 2010 and 2017 were identical.

T A B L E 6

REFERENCE GRID LOCATIONS

Reference Number	Location/Land Use	City
1	RMS 10 - Residential	Santa Clara
2	RMS 11 - Residential	Santa Clara
3	Agnew Park - SW corner of Agnew Road/Cheeney Street	Santa Clara
4	Convalescent Hospital - North side Clyde Ave. @ Loch Lomond St.	Santa Clara
5	RMS 5 - Vacant (Airport land, adjacent to Guadalupe River Park)	San Jose
6	Heritage Rose Garden - SE corner Taylor St./Spring St. (Airport land)	San Jose
7	Performing Arts Center - SW corner Almaden Blvd./Park Ave.	San Jose
8	RMS 8 - Montague School/Park	Santa Clara
9	RMS 9 - Agnews State Hospital	Santa Clara
10	RMS 14 - Fairway Glen Park/Hughes School	San Jose
11	RMS 1 - Washington School	San Jose
12	RMS 4 - Bellarmine School	San Jose
13	RMS 13 - Residential	San Jose
14	Alviso Community Ctr - SE corner San Jose Alviso Rd./Liberty St.	San Jose
15	Cottage Trailer Grove - SW corner Monterey Hwy./San Jose Avenue	San Jose
16	Agnews State Hospital - SW corner Lick Mill Rd./Lick Mill Blvd.	Santa Clara
17	Bachrodt School - SW Corner Sonora Avenue/Forrestal Avenue	San Jose
18	Hester School - SW corner The Alameda/Pershing Avenue	San Jose
19	Ryland Park - SW Corner North First Street/Fox Avenue	San Jose
20	Lamplighter Trailer Park - SW of SR 237 and North First Street	San Jose

RMS = Remote Monitoring Site, part of SJC's Aircraft Noise & Operations Monitoring System

The reference grid locations are also shown on Figure 4.

T A B L E 7

COMPARISON OF AIRCRAFT NOISE LEVELS

Reference Location[1]	Aircraft Community Noise Equivalent Level (CNEL), dB		
	Year 2017 (from 2003 SEIR)[2]	Year 2027 (based on 2009 forecast)	Change from Year 2017
1	70.3	67.3	- 3.0
2	68.0	64.5	- 3.5
3	69.8	66.7	- 3.1
4	67.3	65.2	- 2.1
5	69.6	67.1	- 2.5
6	68.4	67.4	- 1.0
7	67.7	66.2	- 1.5
8	66.6	65.0	- 1.6
9	65.2	63.1	- 2.1
10	63.2	60.7	- 2.5
11	65.9	64.1	- 1.8
12	60.2	58.8	- 1.4
13	67.1	65.9	- 1.2
14	61.8	59.1	- 2.7
15	63.5	61.9	- 1.6
16	59.1	58.1	- 1.0
17	61.3	60.1	- 1.2
18	55.7	54.5	- 1.2
19	59.0	57.6	- 1.4
20	61.0	68.6	- 2.4

[1]Reference grid locations are listed in Table 6 and are shown on Figure 4.
[2]Includes operations associated with Airport Master Plan Amendment #9 (Expansion of the San Jose Jet Center), which was analyzed in EIR Addendum #2 and approved by the San Jose City Council in April 2003.

Source: Brown-Buntin Associates, Inc., 2010.

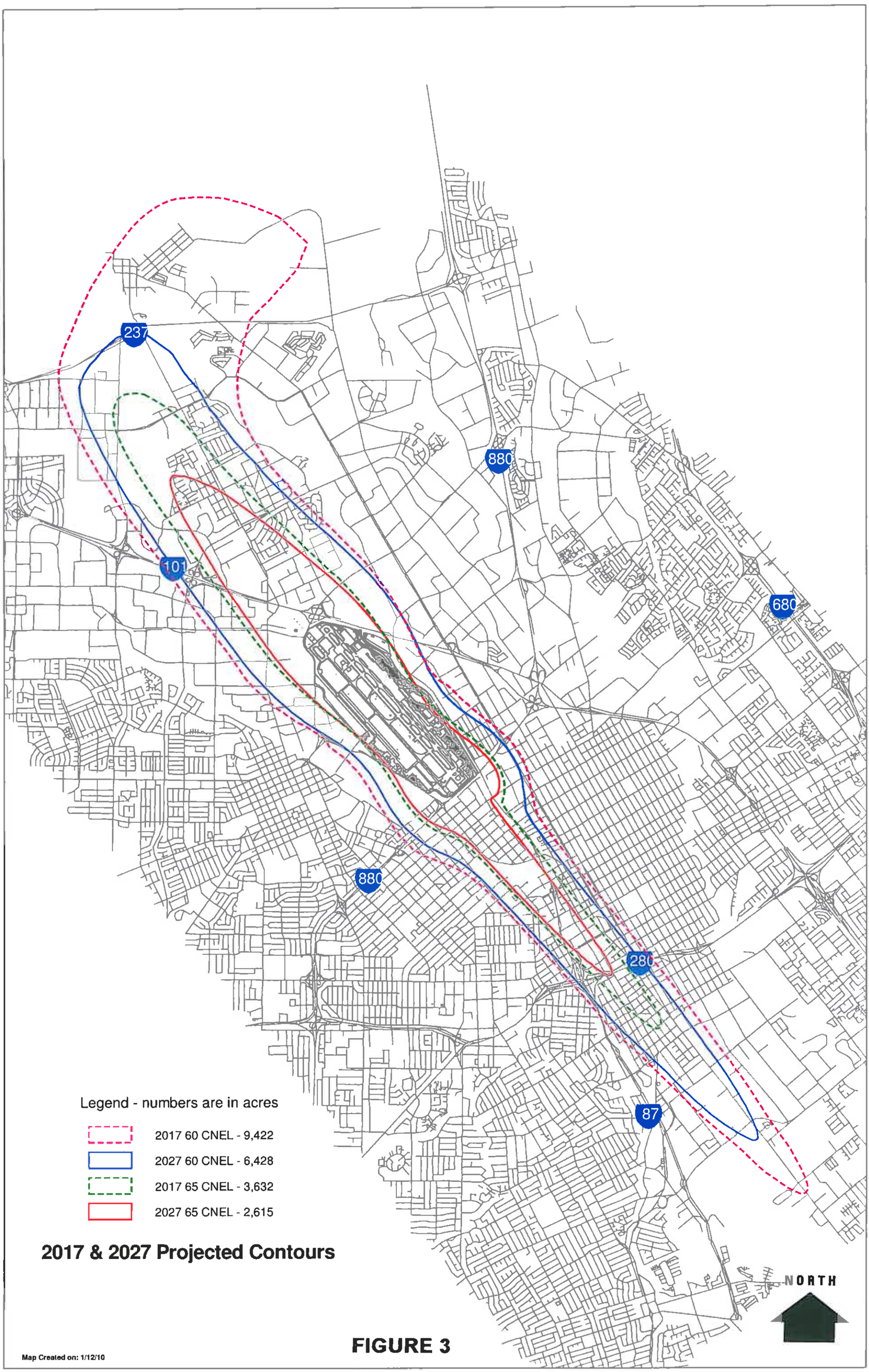

237
101
880
880
680
280
87
Legend - numbers are in acres
2017 60 CNEL - 9,422
2027 60 CNEL - 6,428
2017 65 CNEL - 3,632
2027 65 CNEL - 2,615
2017 & 2027 Projected Contours
NORTH
Map Created on: 1/12/10

FIGURE 3

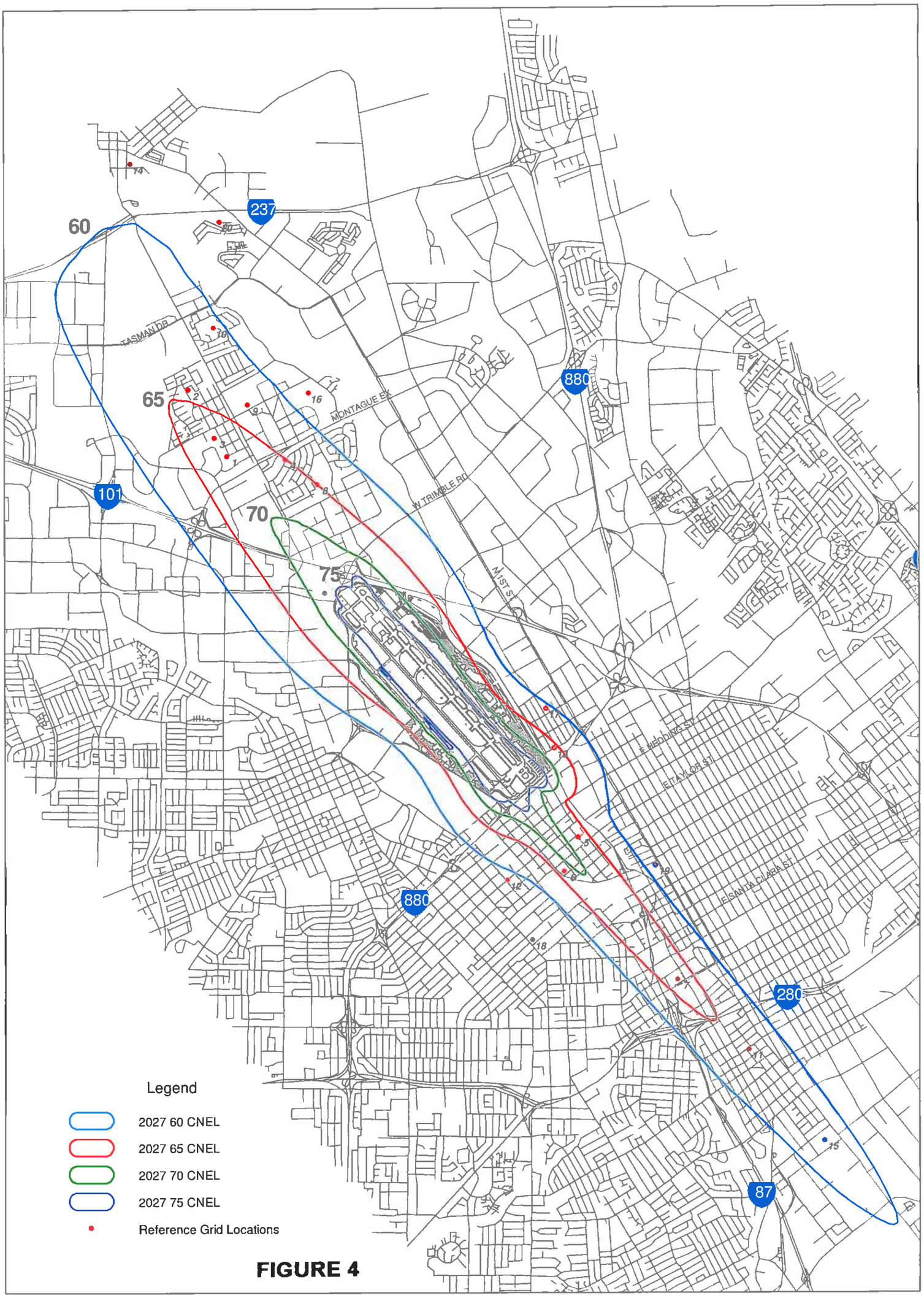


FIGURE 4

NORMAN Y. MINETA SAN JOSE INTERNATIONAL AIRPORT

2027 CNEL Contours
For
Proposed Amendment To Airport Master Plan

NORTH

0 2000 4000

Survey Feet

Map Created on:2/3/10

4.6 HYDROLOGY AND WATER QUALITY

The proposed change in the horizon year from 2017 to 2027 will have no effect on hydrology or water quality on the Airport or in the Airport vicinity.

Except for the additional taxiway extensions, the proposed modifications to the Airport Master Plan projects that are described in Section 3.2 will not result in the construction of larger facilities or an increase in impervious surfaces in any area not already identified for such in the 1997 Master Plan Update EIR.

The taxiway extensions will increase impervious surfaces at the Airport by approximately two acres. This is a minor increase over the 107 acres of additional impervious surfaces that will be created at the Airport under the approved Airport Master Plan.[3] This increase would not alter any of the conclusions of the hydrological analyses contained in the 1997 EIR.

The project will comply with the requirements of the National Pollution Discharge Elimination System (NPDES) permit for Santa Clara County, of which the City of San José is a participant. This permit mandates that projects include feasible best management practice treatments to reduce the amount of pollutants contained in stormwater runoff. In this case, runoff from the paved areas of the airfield flows through the vegetated infield areas before entering the storm drains. The vegetated areas, which are often referred to as bioswales, serve to filter out some of the pollutants contained in the stormwater.

> ***Conclusion**: The proposed changes to the Airport Master Plan would not result in any new significant hydrological/water quality impacts and/or hydrological/water quality impacts that are substantially different from those described in the 1997 SJC Master Plan Update EIR.*

4.7 GEOLOGY AND SEISMICITY

The proposed change in the horizon year from 2017 to 2027 will have no effect on geologic conditions on the Airport or in the Airport vicinity.

The proposed modifications to the Airport Master Plan projects that are described in Section 3.2 will not result in the construction of facilities in any area not already identified for such in the 1997 Master Plan Update EIR. Geologic conditions and hazards for these areas are described in the EIR.

> ***Conclusion**: The proposed changes to the Airport Master Plan would not result in any new significant geologic impacts and/or geologic impacts that are substantially different from those described in the 1997 SJC Master Plan Update EIR.*

[3] Source: Table 3.6.2 of the 1997 Airport Master Plan Final EIR.

4.8 BIOLOGICAL RESOURCES

The proposed change in the horizon year from 2017 to 2027 will have no effect on biological resources on the Airport or in the Airport vicinity.

Except for the additional taxiway extensions, the proposed modifications to the Airport Master Plan projects that are described in Section 3.2 will not result in the construction of facilities in any area not already identified for such in the 1997 Master Plan Update EIR. Biological resources and impacts for these areas are described in the EIR.

Based on a biological survey that was undertaken in 2008, habitat present on the approximately four acres of the airfield that will be used for the proposed taxiway extensions (includes approximately two acres of unpaved taxiway shoulders) is limited to grassland and herbaceous plant communities that are associated with the California Annual Grassland Series. No trees are present on the airfield. Wetlands are also absent from the airfield.

There is no suitable habitat on the airfield for any plant or animal species listed on either the Federal Endangered Species Act and/or California Endangered Species Act.

Burrowing Owls

As described in the 1997 EIR, there is a year-round resident population of burrowing owls at SJC. The Burrowing Owl (*Speotyto cunicularia*), a California species of concern, is known to nest and forage on portions of the Airport, most notably the unpaved areas of the airfield. The airfield provides ideal habitat for this species, namely open land characterized by low-growing vegetation and limited tree cover. To manage conflicts between the operational and safety needs of the Airport and the habitat needs of the burrowing owl in a consistent manner, SJC developed and adopted a Burrowing Owl Management Plan, which is part of the approved SJC Master Plan and is described in detail in the 1997 EIR. The plan 1) reduces the potential for aircraft strike hazards from burrowing owls, 2) implements a plan of action to mitigate construction impacts to burrowing owls and their burrows, and 3) provides for long-term maintenance of a stable burrowing owl population. The plan includes the designation of 84 acres of grassland on the airfield for burrowing owl management.

The area to be affected by the proposed taxiway improvements include both natural burrows (i.e., those excavated by California ground squirrels) and artificial burrows (i.e., those installed by the Airport's biologists), both of which are used by burrowing owls for shelter and nesting.

To avoid impacts to any owls that may be nesting or foraging within the footprints of the taxiway extensions, the areas to be disturbed will be surveyed by a biologist prior to the commencement of construction. Natural and artificial burrows located within the construction impact zone will be identified and closed. One-way doors will be installed for at least 48 hours prior to the closing of any natural burrows so as to avoid trapping any owls. To avoid impacts during the nesting season, the burrows will be closed prior to February 15th of the year in which ground disturbance is scheduled to

take place. In addition, the artificial burrows impacted by the project will be installed elsewhere on the Airport. This mitigation is part of the Burrowing Owl Management Plan and is a standard mitigation for all airfield projects.

Construction of the taxiway extensions will result in the permanent loss of approximately four acres of burrowing owl habitat that is designated as a permanent owl management area in the adopted SJC Burrowing Owl Management Plan. To offset this loss, the Airport will designate four acres of grassland on the Airport adjacent to the VOR/DME[4] facility as a permanently-designated owl management area. The use of the VOR/DME site, which is shown on Figure 5, is recommended by the biologists that have been monitoring the owls at SJC because of its proximity to the population of owls on the airfield, its suitable habitat, and its absence of human activity (except for occasional maintenance). To maintain comparable habitat conditions for burrowing owls, the vegetation on the VOR/DME site will be mowed regularly according to the same schedule of mowing for the airfield infields.

> ***Conclusion****: The proposed changes to the Airport Master Plan would not result in any new significant biologic impacts and/or biologic impacts that are substantially different from those described in the 1997 SJC Master Plan Update EIR.*

4.9 ENERGY

As discussed in Section 4.3, none of the proposed modifications to the approved Airport Master Plan will result in 1) an increase in activity levels at the Airport beyond that identified in the Plan, or 2) an increase in the capacity of the Airport beyond that identified in the Plan. Therefore, energy consumption, as pertains to activity levels at the Airport, is not expected to change.

> ***Conclusion****: The proposed changes to the Airport Master Plan would not result in any new significant energy impacts and/or energy impacts that are substantially different from those described in the 1997 SJC Master Plan Update EIR.*

4.10 AESTHETICS

None of the proposed modification to the Airport Master Plan projects would result in larger facilities than that identified in the approved Plan. In fact, some structures (e.g., air cargo facilities) will be smaller.

> ***Conclusion****: The proposed changes to the Airport Master Plan would not result in any new significant aesthetic impacts and/or aesthetic impacts that are substantially different from those described in the 1997 SJC Master Plan Update EIR.*

[4]The VOR/DME (very high frequency omnidirectional range/distance measuring equipment) facility, which is an aircraft navigational aid, is located in an unpaved area at the northwest corner of the Airport.

LOCATION OF VOR/DME FACILITY

FIGURE 5

4.11 PUBLIC SERVICES AND UTILITIES

As discussed in Section 4.3, none of the proposed modifications to the approved Airport Master Plan will result in 1) an increase in activity levels at the Airport beyond that identified in the Plan, or 2) an increase in the capacity of the Airport beyond that identified in the Plan. Therefore, utility and service impacts, as pertains to activity levels at the Airport, are not expected to change.

> ***Conclusion**: The proposed changes to the Airport Master Plan would not result in any new significant utility/service impacts and/or utility/service impacts that are substantially different from those described in the 1997 SJC Master Plan Update EIR.*

4.12 HAZARDOUS MATERIALS

The proposed modification to planned Airport projects will not result in an increased use or storage of any hazardous substances beyond that identified in the approved Airport Master Plan. This statement is based on the fact that activity levels will not increase and the fact that the capacity of planned facilities will not increase. Facility locations, with regard to proximity to areas of known or previous contamination, will also not change.

> ***Conclusion**: The proposed changes to the Airport Master Plan would not result in any new significant hazardous materials impacts and/or hazardous materials impacts that are substantially different from those described in the 1997 SJC Master Plan Update EIR.*

4.13 AIR SAFETY

Section 3.13 of the 1997 EIR included an analysis of the Airport Master Plan with regard to the potential for aviation-related accidents, both on the Airport and in the surrounding areas. The analysis concluded that the Airport Master Plan would not result in an increase in air safety risks. That conclusion was based on the fact that 1) all new facilities would be designed to comply with applicable FAA safety and design standards, 2) substantial changes in existing flight patterns were not proposed, and 3) there is no meaningful relationship between aviation activity and accident rates.

None of the proposed modifications to the approved Airport Master Plan that are the subject of this Addendum would have any effect on the above-described conclusions of the EIR pertaining to air safety.

> ***Conclusion**: The proposed changes to the Airport Master Plan would not result in any new significant air safety impacts and/or air safety materials impacts that are substantially different from those described in the 1997 SJC Master Plan Update EIR.*

SECTION 5. CONCLUSION

The City of San José is considering modifications to the approved Airport Master Plan for the Norman Y. Mineta San José International Airport. The proposed modifications are described in Section 3 of this Addendum. The City has evaluated the environmental effects of the proposed modifications in Section 4 of this Addendum.

Based upon the factual information contained in the above analyses, the City has reached the following conclusion:

Approval of the proposed modifications described in Section 3 will not have any significant environmental impacts not previously disclosed in the Airport Master Plan EIR, nor will there be a substantial increase in the severity of previously-identified significant environmental impacts. Therefore, no subsequent or supplemental EIR is warranted or required.

SECTION 6. REFERENCES

San José, City of, **Final EIR for the San José International Airport Master Plan Update**, 1997.

San José, City of, **Final Supplemental EIR for the San José International Airport Master Plan Update**, January 2003.

San José, City of, **Revised First Addendum to the EIR for the San José International Airport Master Plan Update**, September 2001.

San José, City of, **Second Addendum to the EIR for the San José International Airport Master Plan Update**, April 2003.

San José, City of, **Third Addendum to the EIR for the San José International Airport Master Plan Update**, October 2003.

San José, City of, **Fourth Addendum to the EIR for the San José International Airport Master Plan Update**, November 2004.

San José, City of, **Fifth Addendum to the EIR for the San José International Airport Master Plan Update**, April 2005.

San José, City of, **Sixth Addendum to the EIR for the San José International Airport Master Plan Update**, April 2006.

San José, City of, **Seventh Addendum to the EIR for the San José International Airport Master Plan Update**, October 2006.

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Appendix

A

Noise

Analysis

BBA

BROWN • BUNTIN
ASSOCIATES, INC.

January 11, 2010

Mr. John Hesler
DAVID J. POWERS & ASSOCIATES
1871 The Alameda, Suite 200
San Jose, California 95126

RE: ANALYSIS OF NOISE LEVELS RESULTING FROM THE UPDATED MASTER PLAN FORECAST FOR 2027 AT SJIA

Dear John:

As requested, Brown-Buntin Associates, Inc. (BBA) has completed an analysis of changes in predicted future aircraft noise exposure that would occur upon adoption of the proposed Updated Master Plan Forecast for the year 2027 (2027 forecast) at SJIA. Following is a summary of our analysis methodology, aircraft operational assumptions and findings.

The basic noise assessment methodology consisted of substituting 2027 forecast aircraft operations data for the aircraft operations data used to model future (2010) aircraft operations in the SJIA Master Plan Update SEIR (including the San Jose Jet Center Expansion). All assumptions concerning flight tracks, the temporal distribution of flights and the departure stage length distribution of flights were the same as used for the 2010 analysis. Runway use assumptions were also the same as in the 2010 analysis in terms of the historical north/south directional split of 85%/15%, respectively. However, a detailed analysis of runway utilization at SJIA between the years of 2004 and the first 10 months of 2009 demonstrated that the east/west distribution of aircraft to the three airport runways (12L-30R, 12R-30L and 11-29) needed some adjustments to be consistent with how the airfield is being utilized. Aircraft operations data used for the 2010 and 2027 forecast analyses are summarized in Table I. Runway use assumptions are summarized in Table II.

Table III summarizes the changes in aircraft noise exposure that would occur as a result of the updated forecast as quantified by the INM at the twenty (20) grid points used for noise impact assessment purposes in the SJIA Master Plan Update EIR/EIS and SEIR documents. The last column of the table shows that the 2027 Forecast would result in aircraft CNEL values that are 1.0 to 3.5 dB *lower* than the original 2010 forecast at the grid points. The predicted reduction in noise exposure is the result of forecast changes in the number of aircraft operations and aircraft fleet mix and changes to the INM that have occurred since the 2010 CNEL contours were prepared. The 2027 contours were prepared using INM Version 7.0b (the current version of the INM), whereas the 2010 contours were prepared using INM Version 6.1.

Please do not hesitate to contact me at (559) 627-4923 or rbrown@brown-buntin.com if there are questions or additional information is required.

Sincerely,

Robert E. Brown
President

REB:dm
Attachments: Tables I, II & III

TABLE I

FORECAST AVERAGE DAILY AIRCRAFT OPERATIONS
SAN JOSE INTERNATIONAL AIRPORT

Aircraft Type	INM Aircraft[1]	2010 [2]	2017	2027
A-318	A319-131[4]	---	(A319)	15.80
A-319	A319-131	10.00	17.62	30.30
A-320	A320-211	30.00	67.40	48.20
A-300/310 (air cargo)	A300-622R	3.00	---	8.40
B-727-100/200[3]	727EM2	4.40	1.00	---
B-737-100/200[3]	737N17	5.00	---	---
B-737-300	737300	(737700)	109.76	47.30
B-737-400	737400	(737700)	19.54	11.80
B-737-500	737500	(737700)	7.36	---
B-737-700	737700	257.60	65.86	166.50
B-737-800	737800	(737700)	70.70	59.20
B-737-900	737800[4]	---	---	11.80
B-757-200/300	757RR	51.00	22.66	7.90
B-767-300/300ER	767300	12.00	5.24	19.80
B-777-200/B-787-200	777200	14.00	3.94	1.80
DC-9[3]	DC93LW	0.60	---	---
DC-8-70[3]	DC870	---	1.80	---
DC-10-10 (air cargo)	DC1010	(DC1030)	(DC1030)	0.70
DC-10-30 (air cargo)	DC1030	2.00	4.22	0.90
MD-11 (air cargo)	MD11GE	---	---	0.50
MD-80/81/82/83/87/88	MD83	81.00	22.46	---
MD-90	MD9028	---	---	2.00
CRJ-200	CL601[4]	56.00	9.48	21.30
CRJ-700	CRJ9-ER[4]	---	---	19.50
CRJ-900	CRJ9-ER	---	---	4.40
EMB-140	EMB145[4]	---	73.52	15.10
EMB-145	EMB145	---	1.30	5.30
EMB-170	GV[4]	---	---	13.30
EMB-190	GV[4]	---	---	4.40
EMB-120 (Brasilia)	EMB120	6.00	3.32	---
Dash 8-400	DHC830	---	15.40	5.30
Bizjets	COMJET/GIIB/GIV/GV/LEAR35	135.8	105.36	134.70
C208A/B (air cargo)	CNA208	---	---	0.20
Single-engine Piston	COMSEP	158.40	156.40	46.00
Multi-engine Piston	BEC58P	30.30	34.74	6.10
G.A. Twin Turboprop	CNA441	37.00	34.74	10.10
Helicoptors	AS350/B212	10.00	17.42	4.10
	Daily Operations	**904.10**	**871.24**	**722.70**
	Annual Operations	**329,997**	**318,002**	**263,786**

[1]INM aircraft type designation from the Version 7.0b database.
[2]Master Plan SEIR w/ Jet Center Expansion.
[3]Stage 2 aircraft hushkitted or re-engined for compliance with FAR Part 36 Stage 3 noise levels.
[4]Approved INM substitution aircraft.

Sources: City of San Jose
Brown-Buntin Associates, Inc.

TABLE II
ANNUAL AVERAGE RUNWAY USE
2027 AIRPORT MASTER PLAN FORECAST UPDATE
SAN JOSE INTERNATIONAL AIRPORT

Aircraft Category	Arrivals by Runway					
	12L	**30R**	**12R**	**30L**	**11**	**29**
Heavy AC Jet	2%	10%	13%	75%	0%	0%
AC Jet	3%	19%	12%	66%	0%	0%
Commuter	2%	14%	12%	68%	1%	3%
Cargo Jet	2%	14%	13%	71%	0%	0%
Corp Jet	2%	12%	13%	73%	0%	0%
GA Prop	1%	6%	6%	36%	8%	43%
Aircraft Category	**Departures by Runway**					
	12L	**30R**	**12R**	**30L**	**11**	**29**
Heavy AC Jet	12%	69%	3%	16%	0%	0%
AC Jet	13%	71%	2%	14%	0%	0%
Commuter	11%	61%	4%	22%	0%	2%
Cargo Jet	12%	69%	3%	16%	0%	0%
Corp Jet	5%	27%	10%	58%	0%	0%
GA Prop	1%	8%	6%	32%	8%	45%

Sources: City of San Jose ANOMS
Brown-Buntin Associates, Inc.

TABLE III
CNEL COMPARISON AT REFERENCE GRID POINTS
2027 MASTER PLAN FORECAST UPDATE
SAN JOSE INTERNATIONAL AIRPORT

	Aircraft CNEL, dB		
Reference Grid Point[1]	**2010 Master Plan (SEIR w/Jet Ctr. Exp.)**	**2027 Master Plan Forecast Update**	**Difference**
1	70.3	67.3	-3.0
2	68.0	64.5	-3.5
3	69.8	66.7	-3.1
4	67.3	65.2	-2.1
5	69.6	67.1	-2.5
6	68.4	67.4	-1.0
7	67.7	66.2	-1.5
8	66.6	65.0	-1.6
9	65.2	63.1	-2.1
10	63.2	60.7	-2.5
11	65.9	64.1	-1.8
12	60.2	58.8	-1.4
13	67.1	65.9	-1.2
14	61.8	59.1	-2.7
15	63.5	61.9	-1.6
16	59.1	58.1	-1.0
17	61.3	60.1	-1.2
18	55.7	54.5	-1.2
19	59.0	57.6	-1.4
20	61.0	58.6	-2.4

[1]Reference grid locations are the same as those used in the SJIA Master Plan Update EIR/EIS and SEIR documents.

Source: Brown-Buntin Associates, Inc.

Appendix

B

Biological

Survey

ALBION ENVIRONMENTAL, INC.
NATURAL AND CULTURAL RESOURCES CONSULTANTS

1414 SOQUEL AVENUE, SUITE 205
SANTA CRUZ, CALIFORNIA 95062

TELEPHONE (831) 469-9128
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May 15, 2008

John Hesler
David Powers & Associates
1885 The Alameda – Suite 204
San Jose, CA 95126

Dear John:

I am writing in response to your request that I evaluate the West Side Taxiway Improvements Project at Norman Y. Mineta San Jose International Airport (SJC) and identify (1) existing habitats and (2) determine impacts of the project to those habitats.

The West Side Taxiway Improvements Project (Project) consists of building new portions (i.e., extensions) of taxiways D, H, K and W and upgrading existing portions of taxiways C, K, V, and W as shown on an aerial photograph of the airport (undated) titled Proposed Taxiway Improvements, Exhibit 1. The various taxiway improvements are shown with yellow lines and labeled Upgrade or Extend on Exhibit 1. I compared the improvements on Exhibit 1 with Exhibit 6.4 Project Case, Ultimate Development 2010 in the San Jose International Airport Master Plan Update, December 1999 (TRA · BV 1999).

The infields at SJC support grassland and herbaceous plant communities in the California Annual Grassland Series (Sawyer and Keeler-Wolf 1995). We recorded 27 bird species on the airport during year-round bird monitoring in 2004. Most notable among these is a year-round resident population of burrowing owls (*Athene cunicularia*) (Barclay 2007). The existing habitats on the airfield infields include natural burrows excavated by California ground squirrels (*Spermophilus beecheyi*) and artificial burrows (AB, Barclay 2007, 2008) that burrowing owls use for shelter and nesting.

Below I summarize effects of the Taxiway Improvement Project to AB installed in the past as mitigation for closing natural burrows occupied by burrowing owls that were affected by various Master Plan Projects (e.g., extending Runway 12L/30R, resurfacing Runway 12R/30L, resurfacing Taxiway Y) and for intentionally closing natural burrows occupied by burrowing owls along runways to reduce strike hazard potential (Albion 1997, Barclay 2007). I cannot predict how many natural burrows could be affected by the project because natural burrow numbers are dynamic and change month to month. Following this I suggest measures to mitigate effects of the project to burrowing owls and owl habitat, including infield vegetation and AB.

<u>Effects of Taxiway Improvements to Burrowing Owl Habitat</u>
I compared proposed taxiway improvements shown on Exhibit 1 and noted that the following taxiway improvements were not shown in the Master Plan Update (Exhibit 6.4) therefore they should be added to the list of improvements in the Master Plan Update.

The portion of extended Taxiway D from the extended Taxiway W to Runway 11/29.
The portion of extended Taxiway H from Runway 12R/30L to the extended Taxiway W and from there to Runway 11/29.
The portion of extended Taxiway K from Runway 12R/30L to extended Taxiway W and from there to Taxiway V.

When comparing Exhibit 1 with Exhibit 6.4 I could not determine if the short sections of Taxiways H, J, and K connecting Taxiway V to the west side parking lot were included in the improvements shown on Exhibit 6.4. These taxiway extensions cross the burrowing owl management area between Taxiway V and the west perimeter fence where there are numerous AB. Nevertheless, I included AB between Taxiway V and the west perimeter fence in the list of AB (Table 1) that could be affected by construction of these short sections of taxiway.

The taxiway improvements shown on Exhibit 1, but not shown on Exhibit 6.4, will result in a loss of approximately four additional acres of infield grassland habitat. The area of infields and burrowing owl habitat that may be affected may be greater than four acres because the level of detail on Exhibit 6.4 does not show if the short sections of Taxiways H, J, and K connecting Taxiway V to the west side were included in the taxiway improvements shown on that diagram.

Effects of Taxiway Improvements Project to Artificial Burrows

Ground disturbance from grading the soil surface during taxiway construction could destroy AB (and natural burrows) and kill burrowing owls that might be inside those burrows when the grading occurs. The Project could affect up to 28 AB installed in infields adjacent to various portions of the proposed taxiway improvements (Table 1). The number of AB that will be affected will depend upon the width of ground disturbance associated with construction of the various taxiway improvements. The extent of ground disturbance for taxiway construction was not stated in the Master Plan Update therefore I list in Table 1 all the AB that could be affected, depending on the width of ground disturbance.

Table 1. List of artificial burrows (AB) that could be affected by the West Side Taxiway Improvements Project at Mineta San Jose International Airport.

Artificial burrow	**Distance from edge of existing taxiway shoulder pavement**	**Notes**
AB06	Approx. 100 ft. from V	Could not find AB entrance
AB32	Approx. 25 ft. from W	Could not find AB entrance
AB33	21 ft. from W	
AB34	23 ft. from V	
AB35	34 ft. from V	
AB36	30 ft. from V	
AB37	40 ft. from V	
AB40	41 ft. from V	
AB41	41 ft. from V	
AB42	42 ft. from V	
AB43	27 ft. from V	
AB44	40 ft. from V	
AB46	210 ft. from J	
AB47	175 ft. from J	
AB51	35 ft. from V	On north edge of extended H shoulder
AB53	64 ft. from L	
AB54	52 ft. from L	
AB59	30 ft. from V	Note 1
AB72	48 ft. from L	
AB73	54 ft. from L	
AB78	Approx. 25 ft. from W	Could not find AB entrance
AB79	Approx. 25 ft. from W	Could not find AB entrance
AB80	39 ft. from L	Note 2
AB81	33 ft. from L	

AB84	Approx. 30 ft. from V	Could not find entrance
AB85	22 ft. from	
AB91	40 ft. from V	On south edge of extended H shoulder
AB101	21 ft. from B	Note 3
Total 28		

1. AB59 could be affected depending on how far ground disturbance occurs south of the intersection of extended Txy D and V.
2. AB80 could be affected depending on how far west of extended Txy W and how far south from upgraded Txy L/V ground disturbance occurs at the intersection of Txy W and L/V.
3. AB101 could be affected depending on how far south of the intersection of Txy W and Txy B ground disturbance occurs.

Mitigation for Taxiway Improvements Project

Effects to AB from grading for the Project could be avoided by removing all AB that will be affected before ground disturbance begins and installing new, replacement AB in areas that will not be disturbed during the Project. To avoid affects to nesting burrowing owls and burrowing owl nests, which are explicitly protected by the Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711) and California Fish and Game Code (§3503.5), any AB that could be affected should be removed during the fall or winter (before February 15) before ground disturbance is scheduled to take place and installed elsewhere before February 15.

Effects to natural burrows from grading for the Project could be avoided by closing (collapsing) all natural burrows in areas of ground disturbance after installing a one-way door in the burrow entrance for at least 48 hours (Trulio 1995). As for AB that could be affected, natural burrows should be closed during the fall or winter (before February 15) before ground disturbance is scheduled to take place in order to avoid affecting nesting owls.

Habitat loss due to paving areas of infield vegetation to construct taxiway improvements could be mitigated by designating the VOR/DME site on the northwest side of West Trimble Road a burrowing owl management area. Management of this area should provide comparable resources, especially AB and regularly-mowed vegetation that are comparable to the resources affected on the airfield. Therefore, AB should be installed (Barclay 2008) in the same number that are permanently removed from the airfield. In addition, to maintain comparable habitat conditions for burrowing owls, the vegetation on the VOR/DME site should be mowed regularly according to the same schedule of mowing for airfield infields.

Because burrowing owl populations have declined in several regions of California (see regional reports in Barclay et al. 2007), including the San Francisco Bay (DeSante et al. 1997, DeSante et al. 2007, Townsend and Lenihan 2007), the threshold of significance of burrowing owl habitat decreases. Therefore, the loss of an additional four acres of burrowing owl habitat on SJC could be deemed a significant impact. However, this loss could be mitigated to less-than-significant by managing an equal or greater area of habitat on the VOR site.

Thank you for the opportunity to review the West Side Taxiway Improvements Project and comment on its effects to burrowing owls on the airport.

Sincerely,

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