DOCKETED	
Docket Number:	22-SPPE-03
Project Title:	Martin Backup Generating Facility (MBGF)
TN #:	250811
Document Title:	Martin Properties Supplemental Responses to Data Requests 34, 35, and 36 - MBGF
Description:	N/A
Filer:	Scott Galati
Organization:	DayZenLLC
Submitter Role:	Applicant Representative
Submission Date:	6/29/2023 10:55:10 AM
Docketed Date:	6/29/2023

SUPPLEMENTAL RESPONSE TO DATA REQUESTS 34, 35 AND 36

Martin Backup Generating Facility (22-SPPE-03)

SUBMITTED TO: CALIFORNIA ENERGY COMMISSION
SUBMITTED BY: **Martin Avenue Properties LLC**

June 29, 2023

DAYZEN LLC

INTRODUCTION

Attached is Martin Properties' Supplemental Response to California Energy Commission (CEC) Staff Data Request Set No. 1, Numbers 34, 35 and 36 for the Martin Backup Generation Facility (MBGF) Application for Small Power Plant Exemption (SPPE) (22-SPPE-03).

HAZARDS AND HAZARDOUS MATERIALS; LAND USE AND PLANNING; AND TRANSPORTATION

BACKGROUND: Project's Conformance with CLUP Policy S-4

The project is within the Turning Safety Zone (TSZ) of the Norman Y. Mineta San Jose International Airport, as designated by the Santa Clara County Comprehensive Land Use Plan (CLUP) for the airport. The applicant proposes above-ground diesel storage tanks (total capacity 237,600 gallons), in violation of Policy S-4 of the CLUP, prohibiting above-ground storage of fuel or other hazardous materials in the TSZ.

The applicant states in Section 4.9.3.5 on page 4-102 that the City of San Jose recently approved revisions to the San Jose International Airport Master Plan which note that Runway 11-29 is now closed. The applicant states that the CLUP should be revised to remove the TSZ overlaying the project site, as it was associated with flights to and from Runway 11-29. Section 4.9.3.5 includes the following statement: While the CLUP has not been revised to remove the TSZ in conformance with the Master Plan, the purpose of the TSZ crossing the site property is moot. Therefore, the proposed site should not be treated as if it were in a special protection zone that would require placing the generators' tanks below grade.

DATA REQUESTS

34. Please provide documentation supporting a forthcoming revision of the CLUP to remove the TSZ over the project site, or to show Santa Clara County Airport Land Use Commission (ALUC) and City of San Jose support of above-ground storage tanks at the project site. This supporting documentation must include written communication from the ALUC and city airport planning staff. Written summaries of the applicant's discussions with ALUC and city staff may suffice.

RESPONSE TO DATA REQUEST 34

Attachment TRANS DR-34 includes a copy of the ALUC May 24, 2023 Meeting Agenda. Item 7 on the Consent Calendar includes receipt of draft revisions to the CLUP eliminating the TSZ overlaying the MGBG and MDC site. As referenced in the SPPE Application, the

TSZ was associated only with Runway11-29, which has not been in operation since 2009 and was formally eliminated from use in the recent Airport Master Plan. The revisions to the plan eliminate the application of Policy S-4 of the CLUP to the Project Site.

35. Please update, as necessary, the analysis of the project's conformance with CLUP Policy S-4 as it relates to the CEQA Guidelines Appendix G questions in the areas of Transportation, Land Use and Planning, and Hazards and Hazardous Materials, noting written documentation from DR-34, above.

RESPONSE TO DATA REQUEST 35

See Response to Data Request 34.

36. If the analysis cannot show project conformance with the CLUP Policy S-4, please submit an alternative design for the fuel storage tanks that would be consistent with this policy. Please note that other nearby data center projects (Lafayette and Sequoia) have provided alternative designs for their fuel storage tanks to conform with the CLUP Policy S-4.

RESPONSE TO DATA REQUEST 36

See Response to Data Request 34.

ATTACHMENT TRANS DR-34

ALUC Agenda and Revisions to CLUP

County of Santa Clara
Airport Land Use Commission

DATE: May 24, 2023, Regular Meeting
TIME: 6:00 PM
PLACE: Conference Room 157
County Government Center – 70 West Hedding Street
San Jose, CA 95110

AGENDA PACKET

-- In compliance with the Americans with Disabilities Act and the Brown Act, persons requiring accommodations should notify the Office of the Clerk of the Board of Supervisors at least 24 hours prior to the meeting at (408) 299-5001.

-- To contact the Commission and/or to inspect any disclosable public records relating to an open session item on a regular meeting agenda and distributed by the County to all or a majority of the Board of Supervisors (or any other commission, board, or committee) less than 72 hours prior to the meeting, visit our website at http://www.sccgov.org or contact the Office of the Clerk of the Board of Supervisors at (408) 299-5001 or 70 West Hedding Street, East Wing, 10th Floor, San Jose, CA 95110, during normal business hours.

-- Persons wishing to address the Commission on a regularly scheduled item on the agenda are requested to complete a Request to Speak Form and give it to the Clerk (Government Code Section 54953.3). The Chairperson will call on individual speakers when the item is considered. Speakers are requested to limit their comments to two minutes. Groups of speakers on a specific item are asked to limit their total presentation to a maximum of 20 minutes for each side of the issue.

-- Commute Alternatives: The Board of Supervisors encourages the use of commute alternatives, including public transit, bicycles, carpooling, and hybrid vehicles. Public transit access is available to and from the County Government Center, 70 West Hedding Street, San Jose, by VTA Light Rail and bus line 61. Bicycle parking racks are available in the James McEntee, Sr., Plaza in front of the County Government Center building. For schedules and trip planning information, visit www.vta.org or contact the VTA Customer Service Department at (408) 321-2300, Monday through Friday from 6:00 a.m. to 7:00 p.m. and Saturday from 7:30 a.m. to 4:00 p.m. If this meeting body does not meet in the County Government Center, please contact VTA for related routes.

Opening

1. Call to Order/Roll Call.
2. Public Comment.

   This item is reserved for persons desiring to address the Commission on any matter within the subject matter jurisdiction of the Commission that is not on this agenda. Members of the public who wish to address the Commission on any item not listed on the agenda should request to speak at this time. Individuals will be called to speak in turn.

   Speakers are limited to the following: three minutes if the Chairperson or designee determines that five or fewer persons wish to address the Commission; two minutes if the Chairperson or designee determines that between six and fourteen persons wish to address the Commission; and one minute if the Chairperson or designee determines that fifteen or more persons wish to address the Commission.

   The law does not permit Commission action or extended discussion of any item not on the agenda except under special circumstances. If Commission action or response is requested, the Commission may place the matter on a future agenda.

3. Approve Consent Calendar and changes to the Commission Agenda.

   Items removed from the Consent Calendar will be considered at the end of the Regular Agenda for discussion, or earlier in the discretion of the Chairperson. The Commission may also add items on the Regular Agenda to the Consent Calendar.

   Notice to the public: There is no separate discussion of Consent Calendar items, and the recommended actions are voted on in one motion. If an item is approved on the consent vote, the specific action listed in the agenda is approved. Members of the public who wish to address the Commission on any Consent Calendar items should request to speak at this time. Each speaker is limited to up to two minutes total, as determined by the Chairperson.

Regular Agenda - Items for Discussion

4. Discuss and approve Airport Land Use Commission Work Plan for Fiscal Year (FY) July 1, 2023 through June 30, 2024 and Accomplishments for FY 2022-2023, to be submitted to the Clerk of the Board by April 1, 2023 and subsequently forwarded to the Board of Supervisors through the Housing, Land Use, Environment, and Transportation Committee. (ID# 116248)

5. Consider referral from the City of Santa Clara relating to General Plan and Zoning Code map amendments regarding a proposed Mixed-Use Development within the San Jose International Airport (SJC) Airport Influence Area. (ID# 115990)

   Possible action:

   a. Find the City of Santa Clara referred General Plan and Zoning Code map amendments to be consistent with the policies contained in the SJC Comprehensive Land Use Plan (CLUP).

      OR

   b. Find the City of Santa Clara referred General Plan and Zoning Code map amendments to be inconsistent with the policies contained in the SJC CLUP.

6. Consider referral from the City of San Jose relating to Zoning Ordinance text amendments to San Jose Municipal Code Sections 20.80.763, 20.80.770, 20.80.775, and 20.80.780 to address separation requirements for Cannabis land uses. (ID# 116200)

   Possible action:

   a. Find the Zoning Ordinance text amendments to be consistent with the policies contained in the San Jose International Airport (SJC) and Reid-Hillview Airport (RHV) Comprehensive Land Use Plans (CLUPs).

      OR

   b. Find the Zoning Ordinance text amendments to be inconsistent with the policies contained in the SJC and RHV CLUPs.

7. Receive report from the Department of Planning and Development relating to proposed San Jose International Airport Comprehensive Land Use Plan (CLUP) text amendments regarding the Airport Influence Area revision and other text amendments to bring the CLUP current. (ID# 116272)
8. Receive report from the Office of the County Counsel relating to the status of revised Commission bylaws. (Lizanne Reynolds)
9. Receive report from Chairperson relating to Commission activities. (Lisa Matichak)
10. Receive report from the Department of Planning and Development. (Carl Hilbrants)
11. Receive report from Airport Planner, San Jose International Airport. (Ryan Sheelen)
12. Receive report relating to plans for the future of Reid-Hillview Airport pursuant to actions taken by the Board of Supervisors. (Ken Betts)
13. Receive report from County Airports Business Manager. (Scott Riddle)
14. Receive report from Moffett Federal Airfield representative. (David Satterfield)
15. Receive report relating to Palo Alto Airport. (Andrew Swanson)
16. Propose future agenda items.

Announcements

17. Announcements and correspondence:

    This item is reserved for brief announcements of matters of interest to the Commission. Discussion among Commissioners should be limited to procedural matters such as scheduling items for future consideration.

    a. Commissioners' announcements.

    b. There are currently no vacancies on the Commission. For internet access to the vacancies list and applications, please visit www.sccgov.org/vacancies.

    c. The County of Santa Clara provides reimbursement to appointed Commissioners for family care expenses incurred during the time spent performing their official County duties. For additional information please contact the Office of the Clerk of the Board of Supervisors at (408) 299-5001.

    d. Receive correspondence, if any.

Consent Calendar

18. Approve minutes of the April 26, 2023 Regular Meeting.

Adjourn

19. Adjourn. The next regular meeting is scheduled for Wednesday, June 28, 2023 at 6:00 p.m. in Room 157, 70 West Hedding Street, San Jose.

ALUC REFERRAL APPLICATION

REFERRALS WILL NOT BE PROCESSED UNTIL THE COUNTY DEEMS THE APPLICATION COMPLETE

LOCATION INFORMATION

Site Address: Citywide **APN:** NA

REFERRAL TYPE

☐ General Plan Amendment; ☐ Specific Plan/Plan Amendment; ■ Zoning Ordinance Adoption/Amendment;

☐ Building Regulation Adoption/Amendment; ☐ Other: _____

Applicable CLUP Zones - *(check relevant airport CLUPs)*:

☐ None

☐ Height Zone(s): NA (State PAR 77 height range covering the area)

■ Noise Zone(s): 60, 65 and 70 DB (State CNEL Decibel range covering the area)

■ Safety Zone(s): _____ (State Safety Zones covering the area)

REQUIRED PROJECT INFORMATION

Total Site Area (acres) : NA

Total Area within AIA (acres) : NA

List of Planned Uses with AIA : NA

Max Height Allowed (feet above AMSL) : NA

Total Percent Open Space Gross Area by Safety Zones : NA

List of planned land uses by each Safety Zone : Clarify setback standards and restrictions for the following:

Medical Cannabis Collective Dispensary site only, Medical Cannabis Dispensary, or Cannabis Retail Storefront

SUBMITTAL MATERIALS

- **Referral Description Letter -** Letter indicating the proposed use, total acreage of the site, total floor area of the proposed building(s), total open space available, proposed occupancy type and maximum allowed occupancy. For policy/ordinance amendments please include a comparative document outlining the changes in the Ordinance / policy document (refer to sections) highlighted in RED with replaced text struck-through.
- **Fee** - A check payable to County of Santa Clara. Consult County Planning Staff for initial review and determination of type and applicable fees.
- **Maps -** Maps (11x17 pdfs) of the subject area (boundaries) with the AIA, Part 77 contours (height), CNEL contours (noise), and safety zone data overlayed, flight paths (GIS layers for those available here). Please make sure the maps are zoomed to the subject area.

PERMIT INFORMATION

City: City of San Jose **Airport:** Norman Mineta International and Reidview Airport

Project Planner: Aparna Ankola **Permit Number:** PP23-001

Email: aparna.ankola@sanjoseca.gov **Phone:** 408-535-7845

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

Planning, Building and Code Enforcement
PLANNING DIVISION

April 07, 2023
Revised on April 25, 2023

Carl Hilbrants
Senior Planner
County of Santa Clara
Planning Division
70 W. Hedding Street
San Jose, CA 95110

Dear Mr. Hilbrants:

RE: San Jose Municipal Code (Titles 20) Cannabis Ordinance Update – File No. PP23-001

In accordance with California Public Utilities Code Section 21676(b) the City of San José is referring proposed changes to the Zoning Ordinance (Title 20) to you for determination of the proposed changes' consistency with Santa Clara County's adopted Comprehensive Land Use Plans (CLUP) for Norman Y. Mineta San José International Airport and Reid-Hillview Airport.

The City Council hearing for these items is planned to be held on Tuesday **June 13, 2023**. For the City to consider your comments, we kindly request a response within 60 days of receipt of this letter. Please submit comments on or before Monday, **June 09, 2023**.

A summary of the proposed modification is attached. Analysis of the potential impacts regarding these changes within the influence area of Mineta and/or Reid-Hillview by Planning staff can be found in the analysis section included with the policy description.

If you have any comments or questions, please feel free to contact me by e-mail at aparna.ankola@sanjoseca.gov or on my direct line at (408)535-7845. Thank you.

Sincerely,

Planning Project Manager

Attachments
1. Policy description & Analysis
2. Maps
4. Tables
4. Draft Ordinance

Policy Description

File No. PP23-001: An amendment of the City of San José Zoning Ordinance to address separation requirements for Cannabis land uses within Sections 20.80.763, 20.80.770, 20.80.775 and 20.80.780 from Part 9.75 of Chapter 20.80 in Title 20 of San José Municipal Code. The proposed amendments would modify distance requirements from Cannabis retail businesses to schools, daycare centers, youth centers, community and recreation centers, and parks; eliminate the distance requirement between storefronts and add a standard to address concentration of cannabis retail businesses; remove the police beat restriction; and make other technical, non-substantive, or formatting changes within those sections of Title 20 of the San José Municipal Code.

Analysis

Both the Norman Y. Mineta—referred to as Mineta (see **Appendix 1**) from here forward—and Reid-Hillview (see **Appendix 2**) Airport Influence Areas (AIA) were examined to determine the scope of potential impacts regarding the Cannabis Ordinance Update. It was found that there are approximately 430 possible Cannabis Retail Storefront locations within both Mineta and Reid-Hillview influence areas, respectively, that meet the proposed criteria. Accompanying this analysis is a breakdown of the Community Noise Equivalent Level and Safety Zone areas for both Delivery Only and Retail Storefront (see Table 1 and Table 2).

The total number of registrations available for a Retail Storefront is limited up to 21, and Retail Storefront uses prohibit another such use within 500 feet if within a Downtown or Urban Village area as defined on the land use/transportation diagram of the General Plan, or within **500 feet** (path of travel) or 1,000 (feet anywhere else. The existing regulation of Cannabis under Title 6, Chapter 6.88 also limits the operation of both Retail Storefront and Delivery Only uses to indoors only and Delivery Only use is not open to the public.

This leads Staff to conclude that, the low number of available registrations, control against concentration, and the regulation of these uses for this Ordinance update, will have minimal change to land use from what exists within the AIA today.

Lastly, while no Cannabis business has proposed new development to date, any such proposal is subject to discretionary and California Environmental Quality Act (CEQA) processes.

County of Santa Clara
Department of Planning and Development

116272

DATE: May 24, 2023

TO: Airport Land Use Commission

FROM: Samuel Gutierrez, Principal Planner
Carl Hilbrants, Senior Planner

SUBJECT: Receive report from Staff relating to SJC CLUP text amendments

RECOMMENDED ACTION

Receive report from the Department of Planning and Development relating to proposed San Jose International Airport Comprehensive Land Use Plan (CLUP) text amendments regarding the Airport Influence Area revision and other text amendments to bring the CLUP current.

Receive Report

Santa Clara County Staff has received the text amendments to the San Jose International Airport (SJC) Comprehensive Land Use Plan (CLUP) from the aviation consultant. The amendments are proposed to allow for forthcoming amendments to the SJC Airport Influence Area (AIA) / Noise Contours. The proposed amendments to the SJC CLUP are attached to this report.

ATTACHMENTS:

- Attachment A - SJC 5-4-23 Amended ALUCP (PDF)
- Attachment B - BridgeNet Sept 2021 Report WBW (PDF)

AIRPORT LAND USE COMPATIBILITY PLAN
SANTA CLARA COUNTY

NORMAN Y. MINETA
SAN JOSE INTERNATIONAL AIRPORT

DRAFT

Adopted by
SANTA CLARA COUNTY
AIRPORT LAND USE COMMISSION
San Jose, California
May 25, 2011

Amended
5/4/2023
AM

Prepared by
Walter B. Windus, PE
Aviation Consultant
12681 Saratoga Creek Dr.
Saratoga, California
(408) 255-1917

i

ACKNOWLEDGEMENTS

The author gratefully acknowledges the review, comments and recommendations provided by Bob Sturdivant, Ron Blake and Arthur Knopf in the development of this CLUP. The assistance of San Jose International Airport (Cary Greene), the County of Santa Clara Planning Staff (Mark Connolly) and the City of San Jose are also acknowledged with thanks and appreciation.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Section 1

1 INTRODUCTION AND BACKGROUND

1.1 PURPOSE AND SCOPE

This Airport Land Use Compatibility Plan (ALUCP) is intended to safeguard the general welfare of the inhabitants within the vicinity of Norman Y. Mineta San Jose International Airport (also referred to as San Jose International Airport or the "Airport" throughout this report) and the aircraft occupants. This ALUCP is also intended to ensure that surrounding new land uses do not affect the Airport's continued operation.

Specifically, the ALUCP seeks to protect the public from the adverse effects of aircraft noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable airspace. The implementation of this ALUCP is intended to prevent future incompatible development from encroaching on the Airport and to allow for its development in accordance with the current airport master plan.

The aviation activity forecast for the Airport was updated in 2022 to reflect the existing aviation activity and provide at least a 20-year forecast of activity. The updated aviation activity forecast formed the basis for preparation of 2037 aircraft noise contours. The Airport Master Plan (AMP) and updated aviation activity forecast and available aircraft noise contours formed the basis for preparation of this ALUCP.

1.2 LEGAL AUTHORITY

The Public Utilities Code of the State of California, Sections 21670 et seq. authorizes each county to establish an Airport Land Use Commission (ALUC) and defines its range of responsibilities, duties and powers. The Santa Clara County Airport Land Use Commission is composed of 7 members, two appointed by the Santa Clara County Board of Supervisors, two appointed by the Santa Clara County City Selection Committee, two appointed by a committee composed of the Aviation Director of San Jose International Airport and the Director of the County Roads and Airports Department and one appointed at large by the ALUC.

Section 21675 requires the ALUC to formulate and maintain an Airport Land Use Compatibility Plan (ALUCP) for the area surrounding each public-use airport within Santa Clara County. An ALUCP may also be developed for a military airport at the discretion of the ALUC. The County has four public-use airports, San Jose International, Palo Alto Airport, Reid-Hillview Airport and San Martin Airport, and one federally owned airport used by the military, NASA and others, Moffett Federal Airfield. San Jose International Airport is defined as an Air Carrier Airport (as opposed to a General Aviation Airport) due to the type of aircraft that use this airport. Section 21675 also specifies that:

> (a) *Each commission shall formulate an airport land use compatibility plan that will provide for the orderly growth of each public airport and the area surrounding the airport within the jurisdiction of the commission, and will safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general. The commission's airport land use compatibility plan shall include and shall be based on a long-range master plan or an airport layout plan, as determined by the Division of Aeronautics of the Department of Transportation, that reflects the anticipated growth of the airport during at least the next 20 years. In formulating an airport land use compatibility plan, the commission may develop height restrictions on buildings, specify use of land, and determine building standards, including soundproofing adjacent to airports, within the airport influence area. The airport land use compatibility plan shall be reviewed as often as necessary in order to accomplish its purposes, but shall not be amended more than once in any calendar year.*

1.3 BACKGROUND AND HISTORY

Legislation passed by the State of California in 1967 mandated the creation of an Airport Land Use Commission in each county that had an airport served by a scheduled airline or operated for use by the general public. In conformance with this legislation the Planning Policy Committee, an existing decision-making body with representation from the 15 cities and the County, was designated to be the Airport Land Use Commission (ALUC) for Santa Clara County by the Board of Supervisors and the City Selection Committee of the Cities Association of Santa Clara County. After certification by the California Secretary of State, the Airport Land Use Commission officially came into existence in Santa Clara County in January of 1971. Their first land use policy plan was adopted on June 28, 1973. The 1973 policy plan (the land use plan preceding this Airport Land Use Compatibility Plan) was amended in 1974 and 1991, and last adopted by the ALUC in September 1992.

1.4 CONTENTS OF THE AIRPORT LAND USE COMPATIBILITY PLAN

The Airport Land Use Compatibility Plan contains several major elements:

- The existing and planned-for facilities at the Airport that are relevant to preparing the ALUCP;
- Appropriate noise, height, and safety policies and land use compatibility standards;
- Specific findings of compatibility or incompatibility with respect to existing land uses, proposed land uses, or existing zoning; and
- Specific actions that need to be taken to make the County of Santa Clara and the cities' General Plans, Specific Plans, Master Plans and/or Zoning Ordinances consistent with the Airport Land Use Compatibility Plan.

The ALUCP establishes an airport land use planning area, referred to as the Airport Influence Area (AIA), which sets the boundaries for application of ALUC Policies;. The ALUCP contains the relevant policies for land use compatibility and specific findings of compatibility or incompatibility of land uses within the AIA. Of particular interest to the ALUC are areas "not already devoted to incompatible uses" and, more specifically, undeveloped lands within the AIA. The planning effort is focused on identifying these lands because the policies and standards of the plan are intended to address the compatibility of future development in these areas.

The ALUCP is not intended to define allowable land use for a specific parcel of land, although the plan establishes development standards or restrictions that may limit or prohibit certain types of uses and structures on a parcel. The ALUCP is not retroactive with respect to existing incompatible land uses, but discusses actions to be taken when expansion, replacement or other significant changes are made to incompatible land uses.

1.5 TECHNICAL REFERENCE DOCUMENT

A separate Technical Reference Library is being maintained by the County of Santa Clara. The Technical Reference Library will contain the major reference documents associated with the land use compatibility planning criteria in this ALUCP. The documents will be available for review at Santa Clara County Planning Office.

Section 2

2 SAN JOSE INTERNATIONAL AIRPORT AND ENVIRONS

2.1 AIRPORT ROLE

Norman Y. Mineta San Jose International Airport is geographically located in northern Santa Clara County, at the northwestern boundary of the City of San Jose. The Airport is located on 1050 acres of land, at an elevation of 62 feet above mean sea level (at the FAA Airport Reference Point). The Airport is owned by the City of San Jose and surrounded by the cities of San Jose and Santa Clara. The location of the Airport with respect to nearby communities and other airports is illustrated on Figure 1.

San Jose International Airport (the Airport) is the only Air Carrier airport in Santa Clara County. Air Carrier aviation is defined as scheduled commercial passenger flights and includes scheduled airfreight flights. San Jose International Airport has a full range of aircraft parking/storage facilities, aircraft fueling facilities and aircraft support operations, commonly known as Fixed Base Operators (FBOs). FBO activities include flight training, aircraft maintenance and repair, and aircraft engine overhaul facilities. The airfield has undergone a significant expansion in recent years, both in the runways and in the west side facilities, where there has been significant FBO facility expansion to accommodate corporate aircraft. The Airport passenger terminal area is now undergoing an expansion to accommodate the anticipated increase in passenger traffic. This has made this airport very attractive as a destination for passengers and corporate aircraft visiting northern Santa Clara Valley.

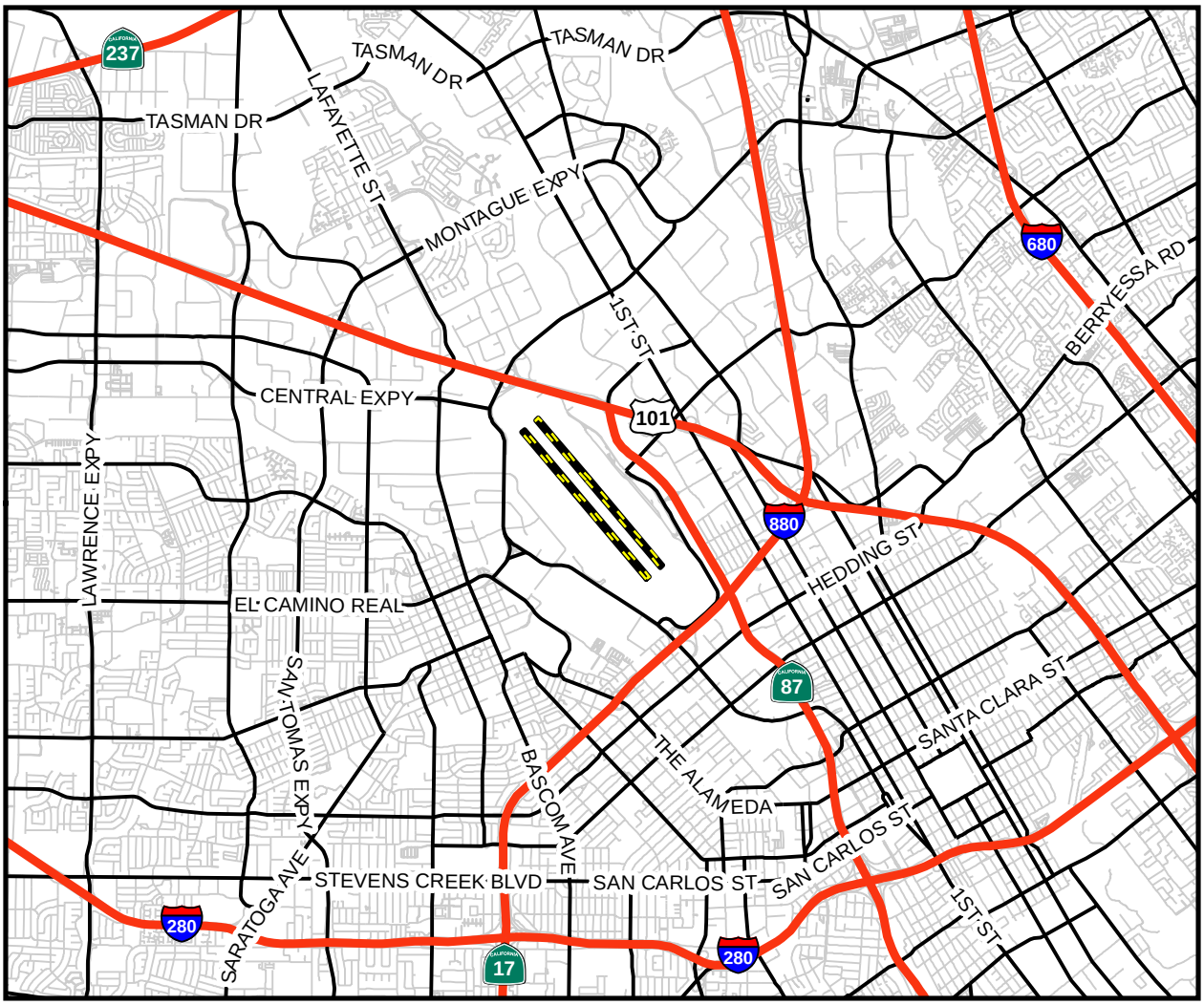
San Jose International Airport is classified as a Medium Hub Airport based on the number of annual passenger enplanements. Medium Hub airports are those that account for between 0.25 and 1 percent of total U.S. enplanements. The Role of the Airport as listed in the latest publication of the Federal Aviation Administration's (FAA*) National Plan of Integrated Airport Systems* (NPIAS) (2023-2027), is described as a Primary Commercial Service airport. This describes the level of service that the airport currently provides to the community and is anticipated to provide to the community at the end of the five-year FAA planning period. This designation also represents funding categories for the distribution of Federal aid.

In 2020, passenger volume at the airport was the 5th busiest in CA and 40th busiest in U.S., cargo volume was the 10th busiest in CA and 74th busiest in U.S., and total aircraft operations volume (including General Aviation) was the 8th busiest in CA and 58th busiest in U.S.

Reid-Hillview Airport is the nearest airport to San Jose International Airport, located 6 miles east. Reid-Hillview Airport is a general aviation airport owned and operated by the County of Santa Clara. Other airports in the vicinity are Moffett Federal Airfield located 7 miles to the northwest, Palo Alto Airport located 12 miles northwest; San Carlos airport located 20 miles northwest and San Martin Airport located 26 miles southeast. San Francisco International Airport and Metropolitan Oakland International Airport, 30 miles northwest, are the closest Air Carrier airports to San Jose International Airport.

2.2 AIRPORT LAYOUT PLAN

The most recent San Jose International Airport, Airport Layout Plan (ALP) approved by the Federal Aviation Administration (FAA), illustrated on Figure 2, delineates the layout of existing Airport facilities as of May 2020. The ALP is updated as needed to reflect changes in the airport's physical and operational environment. The FAA-approved ALP is used by the FAA for Airport Improvement Program (AIP) grant funds for eligible construction and development projects. AIP grant funds are dispersed on the basis of a priority based on activity levels. Selected data about the existing Airport facilities and information about its planned development are presented in the following paragraphs.



San Jose International Airport
Location Map
Figure 1

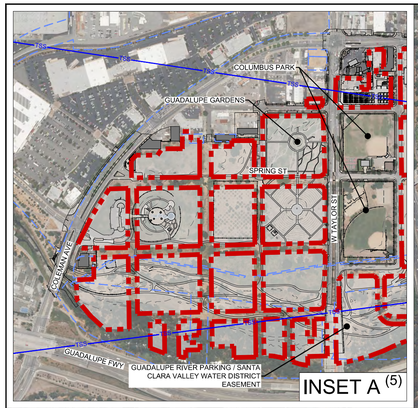
EXISTING OFF-AIRPORT LAND USES IN RPZ

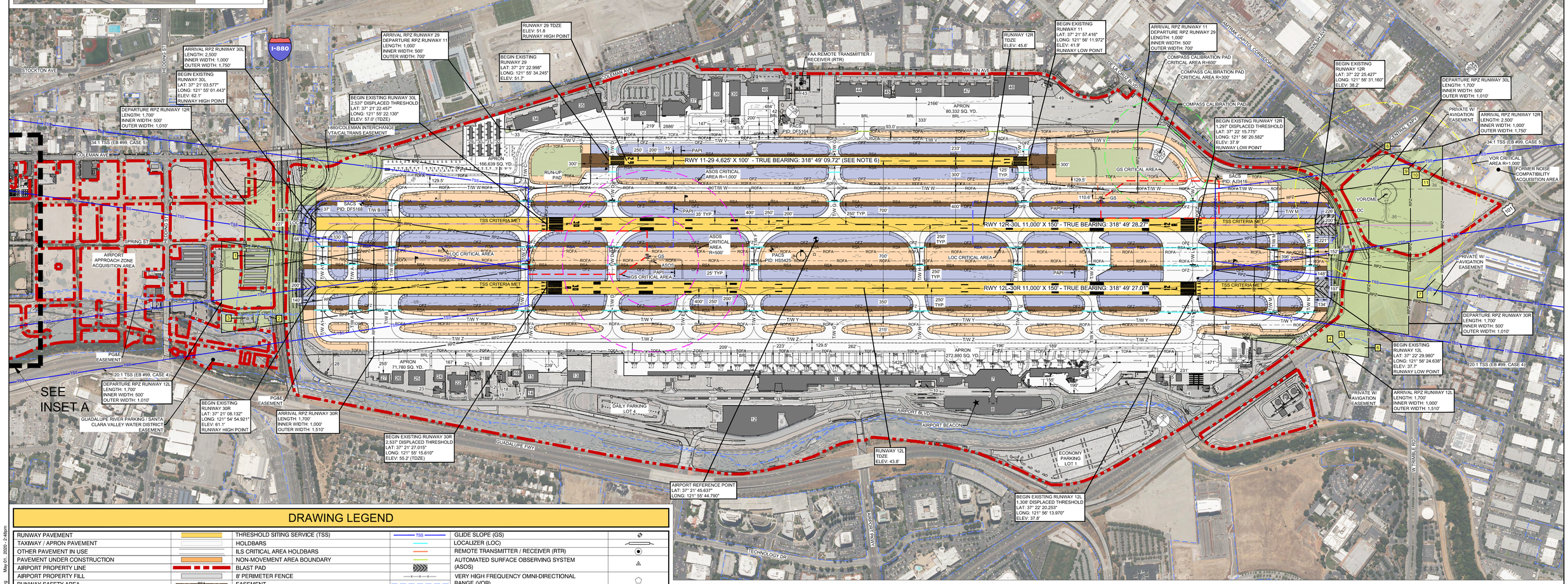
NO.	LAND USE	LOCATION	AVIGATION EASEMENT
1	INDUSTRIAL (CENTRAL SELF STORAGE)	12L DEPARTURE RPZ (S OF AIRPORT)	76-03
2	INDUSTRIAL (VALLEY CONCRETE)	12L DEPARTURE RPZ (SE OF AIRPORT)	76-03
3	INDUSTRIAL (SEIU LOCAL UNION 1877)	12L DEPARTURE RPZ (SE OF AIRPORT)	N/A
4	INDUSTRIAL (PLAMAR GRANITE)	30R DEPARTURE RPZ (NE OF AIRPORT)	74-06
5	INDUSTRIAL (UNITED WHOLESALE FLOWERS)	30R DEPARTURE RPZ (NE OF AIRPORT)	74-06
6	INDUSTRIAL (CENTRAL FLOORS)	30R DEPARTURE RPZ (NE OF AIRPORT)	74-06
7	INDUSTRIAL (IMPACKT)	12R ARRIVAL RPZ (NE OF AIRPORT)	72-01
8	INDUSTRIAL (STROUSS BROTHERS CONSTRUCTION)	12R ARRIVAL RPZ (NW OF AIRPORT)	73-01
9	INDUSTRIAL (SPRAY TECHNOLOGY)	12R ARRIVAL RPZ (NW OF AIRPORT)	73-01
10	INDUSTRIAL (SANTA CLARA STEEL)	12R ARRIVAL RPZ (NW OF AIRPORT)	73-01
11	INDUSTRIAL (GRANITE)	12R ARRIVAL RPZ (NW OF AIRPORT)	N/A

(1) ALL LAND USES ARE LOCATED ON PRIVATE PROPERTY.
(2) ALL LAND USES MEET RPZ CRITERIA.

EXISTING BUILDINGS / FACILITIES (MAIN AIRPORT CAMPUS)

NO.	DESCRIPTION	TOP ELEVATION FEET MSL	NO.	DESCRIPTION	TOP ELEVATION FEET MSL	NO.	DESCRIPTION	TOP ELEVATION FEET MSL
1	AIRPORT FUEL FARM	34.0	16	FIRE STATION 20	75.0	33	AVBASE FUEL FARM	36.2
2	FED-EX CARGO	27.9	17	WASTE DISPOSAL	65.1	34	AVBASE HANGAR	93.6
3	SAN JOSE POLICE DEPARTMENT (SJPD)	54.0	18	CITY MAINTENANCE	71.0	35	ATLANTIC AVIATION SOUTH	95.3
4	SHUTTLE BUS STAGING	58.6	19	CITY MAINTENANCE	74.6	36	HEWLETT PACKARD HANGAR	93.2
5	FUEL DISPENSING RACKS	57.5	20	CITY MAINTENANCE	74.5	37	ATLANTIC AVIATION HANGARS	91.2
6	COMPRESSED NATURAL GAS (CNG) FUEL STATION	53.6	21	CITY BUILDING	70.8	38	ATLANTIC AVIATION HANGARS	89.2
			22	LSG SKY CHEFS	100.5	39	ATLANTIC AVIATION HANGARS	79.4
7	TERMINAL A	81.8	23	CITY OFFICE	71.6	40	ATLANTIC AVIATION HANGARS	90.1
8	HOURLY LOT 2 (TERMINAL A GARAGE)	110.8	24	MULTIPLE TENANT HANGAR	85.4	41	ATLANTIC AVIATION FUEL FARM	70.5
9	FIS FACILITY	117.4	25	MULTIPLE TENANT HANGAR	97.8	42	FAA TOWER	146.6
10	CENTRAL PLANT	62.5	26	AMERICAN AIRLINES HANGAR	88.1	43	REGULATOR VAULT	94.5
11	TERMINAL B	117.4	27	SOUTHWEST AIRLINES PROVISIONING	91.6	44	SIGNATURE HANGARS 1-2	94.6
12	HOURLY LOT 3 (TERMINAL B GARAGE) / CONSOLIDATED RENTAL CAR FACILITY (CONRAC)	149.6	28	MAIN POINT OF ENTRY (MPOE) DATA BUILDING	67.7	45	SIGNATURE TERMINAL	78.5
			29	CITY T-HANGARS	70.6	46	SIGNATURE HANGARS 3-4	93.9
13	AIR FREIGHT	77.3	30	CITY T-HANGARS	70.2	47	SIGNATURE HANGARS 5-6	93.0
14	CITY HANGARS	83.8	31	CITY T-HANGARS	70.0	48	SIGNATURE HANGAR 7	130.6
15	CITY HANGARS	85.9	32	CITY T-HANGARS	69.8	49	SIGNATURE FUEL FARM	65.9





DRAWING LEGEND

RUNWAY PAVEMENT	THRESHOLD SITING SERVICE (TSS)	GLIDE SLOPE (GS)	
TAXIWAY / APRON PAVEMENT	HOLDBARS	LOCALIZER (LOC)	
OTHER PAVEMENT IN USE	ILS CRITICAL AREA HOLDBARS	REMOTE TRANSMITTER / RECEIVER (RTR)	
PAVEMENT UNDER CONSTRUCTION	NON-MOVEMENT AREA BOUNDARY	AUTOMATED SURFACE OBSERVING SYSTEM (ASOS)	
AIRPORT PROPERTY LINE	BLAST PAD	VERY HIGH FREQUENCY OMNI-DIRECTIONAL RANGE (VOR)	
AIRPORT PROPERTY FILL	8' PERIMETER FENCE		
RUNWAY SAFETY AREA	EASEMENT	MEDIUM INTENSITY APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATOR LIGHTS (MALSR)	
RUNWAY PROTECTION ZONE	TOPOGRAPHIC CONTOURS (FEET, MSL)		
CENTRAL PORTION OF THE RPZ	GLIDESLOPE (GS) CRITICAL AREA	SURVEY POINTS	
RUNWAY OBJECT FREE AREA	LOCALIZER (LOC) CRITICAL AREA		
TAXIWAY OBJECT FREE AREA	ASOS CRITICAL AREA	AIRPORT REFERENCE POINT	
RUNWAY OBSTACLE FREE ZONE	VOR CRITICAL AREA		
BUILDING RESTRICTION LINE	COMPASS CALIBRATION PAD CRITICAL AREA	SECTION CORNERS	
TAXIWAY OBJECT FREE AREA / BUILDING RESTRICTION LINE	AIRPORT BEACON		
BUILDING - EXISTING - ON AIRPORT	WIND CONE AND SEGMENTED CIRCLE	EXISTING OFF-AIRPORT LAND USES (SEE TABLE FOR OFF-AIRPORT LAND USES IN RPZ)	
BUILDING - EXISTING - OFF AIRPORT	PRECISION APPROACH PATH INDICATOR (PAPI)		
	RUNWAY END IDENTIFIER LIGHTS (REIL)		

NOTES

(1) ALL ELEVATIONS ARE IN FEET ABOVE MEAN SEA LEVEL (MSL).
(2) HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT (NAD83 [2010.00]).
(3) VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
(4) THE BUILDING RESTRICTION LINE (BRL) IS A COMPOSITE OF THE PART 77 35' CONTOUR, TOFA, RPZ, AND NAVAID CRITICAL AREAS.
(5) THE SCALE AND ORIENTATION ARE THE SAME IN THE INSET AS SHOWN IN OVERALL VIEW OF DRAWING.
(6) RUNWAY 11-29 HAS BEEN TEMPORARILY CLOSED SINCE 9/8/2009.

MAGNETIC TRUE

DECLINATION: 13° 18' E
2018
ANNUAL RATE OF CHANGE 0° 6' W

0 500 1,000
GRAPHIC SCALE IN FEET

CITY OF SAN JOSE
CAPITAL OF SILICON VALLEY

NORMAN Y. MINETA SAN JOSE INTERNATIONAL AIRPORT

NORMAN Y. MINETA SAN JOSE INTERNATIONAL AIRPORT
SAN JOSE, CALIFORNIA

FAA DISCLAIMER

THE CONTENTS OF THESE DOCUMENTS DO NOT NECESSARILY REFLECT THE OFFICIAL VIEWS OR POLICY OF THE FAA. ACCEPTANCE OF THESE DOCUMENTS BY THE FAA DOES NOT NECESSARILY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED HEREIN, NOR DOES IT INDICATE THAT THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS.

REVISION BLOCK

NO.	BY	APP	DATE	REVISIONS
1	CITY		AUG. 2015	ADD RUNWAY 12R-30L LOCALIZER AND GLIDESLOPE CRITICAL AREAS
2	CITY		JUL. 2018	INTERIM TERMINAL FACILITY
3	CITY		SEP. 2018	AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF) FACILITY
4	HNTB		MAY 2020	INCORPORATES PROPOSED PROJECTS IDENTIFIED IN THE RUNWAY INCURSION MITIGATION (RIM) STUDY

EXISTING AIRPORT LAYOUT PLAN

HNTB

DRAWN BY: AYG/KKP/EWG
CHECKED BY: JRB/TMW

MAY 2020

3 OF 25

2.2.1 Existing Airport Facilities

The existing airfield consists of two parallel runways, Runway 30R-12L and Runway 30L-12R. Runways 30R-12L and 30L-12R have grooved concrete surfaces 11,000 feet long by 150 feet wide and high intensity runway lights, and Precision Approach Path Indicators at both ends of the runways. There are displaced thresholds at both ends of both runways; 2537 feet for Runway 30R, 1308 feet for Runway 12L, 2537 feet for Runway 30L and 1297 feet for Runway 12R. The existing maximum gross weight for aircraft using the runways is as follows:

Aircraft Maximum Gross Weight

Runway	Single-wheel	Dual-wheel	Dual-Tandem-wheel	Double-Dual-Tandem-Wheel
30R-12L	220,000 lbs.	250,000 lbs.	605,000 lbs.	
30L-12R	220,000 lbs.	250,000 lbs.	605,000 lbs.	875,000 lbs.

Federal Aviation Regulations (FAR) Part 77, *Objects Affecting Navigable Airspace*, defines imaginary surfaces that are used to identify obstructions to air navigation. The following tabular data shows the FAR Part 77 approach slopes, compared with existing obstacle/obstruction-controlled approach slopes and other information relative to the controlling obstacle/obstructions based on the latest FAA Form 5010-1, Airport Master Record, for San Jose International Airport.

			Controlling Obstacle/Obstruction: Location from Runway Threshold Related to Extended Runway Centerline			
Runway No.	Runway End Elevation	FAR Part 77 Slope	Actual Slope at Runway End*	Type of Obstruction	Height Above Runway End (feet)	Location
30R	61	34:1	23:1	Tree	54	1435 ft along and 550 ft right of the extended runway centerline
12L	38	34:1	38:1	Pole	32	1441 ft along and 580 ft right of the extended runway centerline
30L	62	50:1	2:1	Fence	14	230 ft along and 170 ft right of the extended runway centerline
12R	38	50:1	13:1	Pole	29	580 ft along and 480 ft right of the extended runway centerline

Source: FAA Form 5010, 2/23/2023 * NOTE: All runways meet their FAR Part 77 slope requirements to the runway thresholds.

The FAA establishes Runway Protection Zones off each runway end to enhance the safety of aircraft operations and the protection of people and property on the ground. The following defines the size of the Runway Protection Zones for each runway.

Runway No.	Runway Approach Type	Length (feet)	Inner Width (feet)	Outer Width (feet)
30R-12L	Nonprecision	1,700	1,000	1,510
30L-12R	Precision	2,500	1,000	1,750

Caltrans requires that the airport sponsor have adequate property interest in the Runway Protection Zones (RPZs) as a condition of receiving certain grants. Portions of the Runway Protection Zone for Runway 12L and Runway 12R are outside the Airport boundary but are on state owned property and/or have avigation easements.

Access to the passenger terminal area on the east side of the Airport is from Coleman Avenue off Interstate 880 on the south, Airport Boulevard from the east or Highway 87 on the northwest. Access to the General Aviation facilities is on the west side of the airport from Coleman Avenue. All General Aviation aircraft basing areas are located on the west side of the Airport. There are 25 aircraft tiedown spaces, 46 hangars and approximately 90 unmarked FBO tiedown spaces at the Airport. Airport facilities include a FAA control tower, an ARFF fire station, a fuel farm, a rotating beacon, a lighted windsock and a segmented circle.

2.2.2 Future Airport Facilities

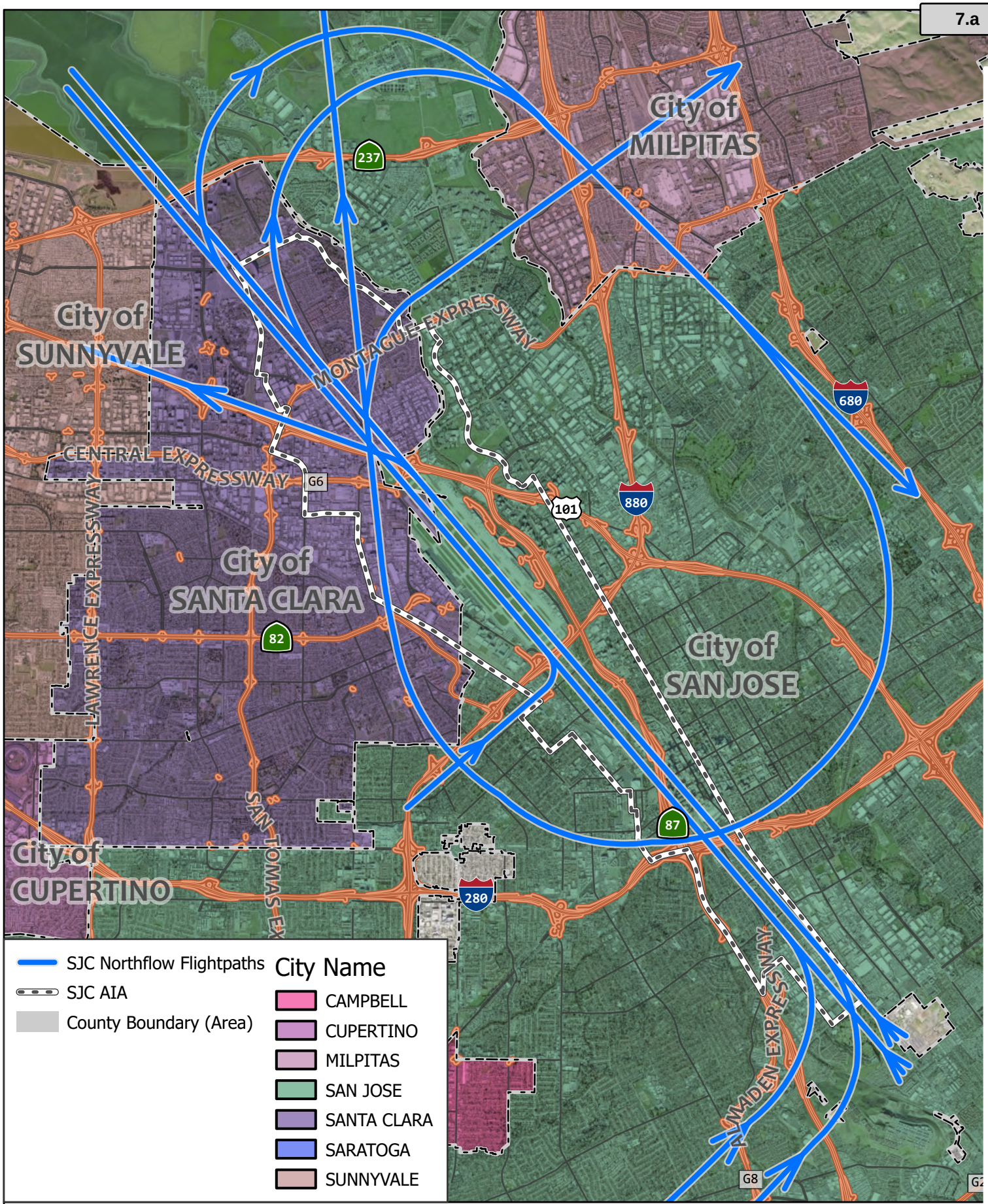
Most of the airfield improvement projects identified in the June 2007 Airport Master Plan (AMP) Update have been completed or are in progress. The April 2020 AMP Update identifies several taxiway improvement projects remaining, and several additional runway and taxiway improvement projects to comply with the FAA Runway Incursion Mitigation (RIM) Program. Future projects include various roadway improvements, new public short term parking garage and long term parking garage, and additional passenger Terminal B expansion. Additional General Aviation development is planned for the west side of the airport with obsolete buildings being removed and replaced by new FBO facilities. A number of Aviation Support Projects have been identified for future construction, such as expanded fuel storage facilities, relocated airline maintenance/storage facilities and relocated airport maintenance facilities.

2.3 AVIATION ACTIVITY

The noise impact of an airport is a direct result of the number of aircraft operations at that airport and the types of those aircraft. Given this information, and some other factors such as flight tracks and the distribution of flight operations throughout the day and night, computer models can generate a representation of the noise contours around an airport. The generalized flight tracks for the airport are shown in Figure 3. The noise contours created by the computer model reflect the data provided to the program. Thus the activity data, both current and forecasted, needs to be as accurate as possible.

The aviation activity data is taken from the FAA Form 5010 reports for 2023, and from the *San Jose International Airport Master Plan Update* adopted April 28, 2020. The April 2020 AMP Update provides forecasts of aircraft operations at the Airport for the year 2037,.

As the ALUCP is a 20-year planning document, the existing base year (2022) aviation activity was reviewed and updated aviation activity forecasts were prepared through the year 2037. A summary of the existing and forecast aviation activity is presented in Table 2-1 and discussed in the following paragraphs.



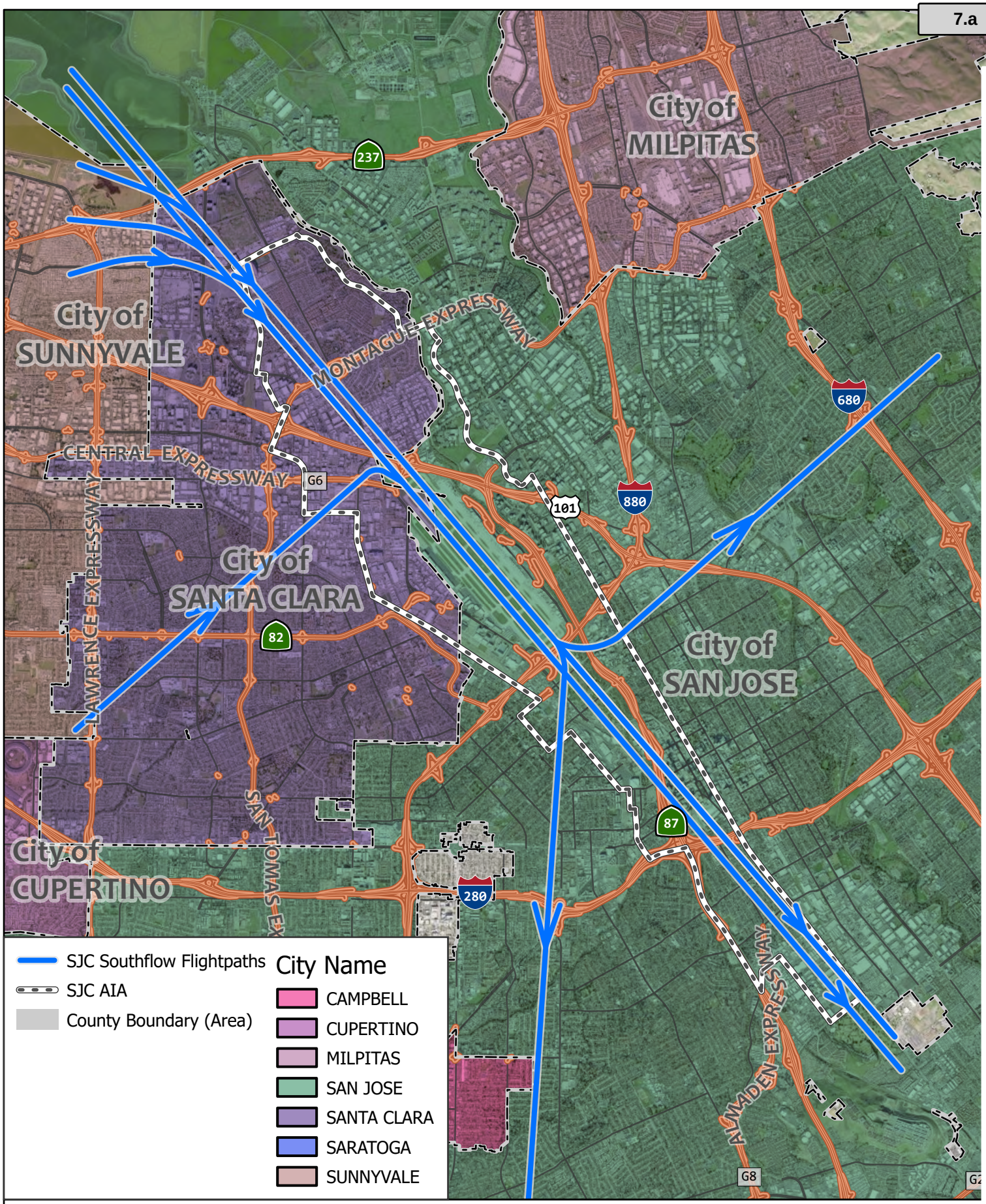
Flightpaths

Northflow

Figure 3a

0 3,000 6,000 12,000

N



Flightpaths

Southflow

Figure 3b

0 3,000 6,000 12,000 Feet

N

Attachment: Attachment A - SJC 5-4-23 Amended ALUCP (116272 : Receive report from Staff relating to SJC CLUP text amendments)

Table 2 - 1

UPDATED AVIATION ACTIVITY FORECASTS

San Jose International Airport

2022 – 2037

	Base Year(Actual)*	Forecast				
	2022	**2018**	**2022**	**2027**	**2032**	**2037**
BASED AIRCRAFT						
Single-engine – piston	66		63	58	54	51
Multi-engine – piston	17		10	9	9	8
Turboprop			10	11	12	12
Jet	53		56	67	75	85
Helicopter	6		5	6	7	8
Other	0		0	0	0	0
Total based aircraft	142		144	151	157	164
AIRCRAFT OPERATIONS						
Air Carrier	116,738	135,541	148,126	160,639	173,295	185,880
General Aviation						
-Itinerant	30,587	49,183	47,803	46,425	44,894	43,670
-Local	5,541	8,910	8,662	8,412	8,134	7,910
Subtotal – General Aviation operations	36,128	58,093	56,465	54,837	53,028	51,580
Air Taxi & Commuter	24,344	1774				
Military	18	247	247	248	249	250
Total operations	177,228	195,655	213,838	215,725	226,572	237,710
OPERATIONS PER BASED AIRCRAFT	1248		1485	1429	1443	1449

Source: *San Jose International Airport Master Plan Update, Adopted 4/28/2020, *Airport 2023 FAA 5010 report and PP18-203 AMPA Final EIR Table 3.2-2*

2.3.1 Based Aircraft

The AMP forecasts that the number of based General Aviation aircraft at San Jose International will slightly increase from 142 in 2022 to 164 by 2037 as shown in Table 2-1.

2.3.2 Aircraft Operations

The number of annual aircraft operations at San Jose International Airport, as presented in Table 2-1, is forecast to increase from a recorded 177,428 operations in the year 2022 to 356,565 operations by the year 2037. The 237,710 number was taken from the April 2020 San Jose International Airport Master Plan Update. The AMP indicates that the mix of operations will change over time with a greater percentage of operations being conducted by twin-engine, turboprop aircraft and business jets through 2037.

2.3.2.1 Air Carrier

The number of Air Carrier aircraft operations at the Airport, as presented in Table 2-1, is forecast to increase from 116,738 operations in the year 2022 to 185,880 by the year 2037.

2.3.2.2 General Aviation

The number of annual General Aviation aircraft operations at San Jose International Airport, as presented in Table 2-1, is forecast to decrease from a recorded 60,472 operations in the year 2022 to 51,580 operations by the year 2037.

Itinerant Operations. Itinerant operations are conducted by aircraft that takeoff from one airport and land at another airport, or the reverse. They include the operations of aircraft based at the Airport and flights of other aircraft to and from the Airport. The itinerant operations at the Airport include aircraft based on the airport used for personal business and recreational activities traveling to other airports.

Itinerant operations are forecast to increase from 90.9 percent of total General Aviation aircraft operations to 99.0 percent of total General Aviation aircraft operations at the Airport over the forecast period and will continue to account for the larger number of General Aviation aircraft operations at the Airport.

Local Operations. Local operations are performed by aircraft operating in the local traffic pattern and aircraft departing for, or arriving from, local practice areas. These are primarily General Aviation operations with a few Military operations, and include training operations by both aircraft based at the Airport and aircraft from other airports in nearby communities. These local operations include flight training, the activities of based aircraft pilots maintaining their landing skills and activities of itinerant aircraft pilots who come to practice landing at an Air Carrier airport.

Local operations are forecast to decrease as a percent of total General Aviation operations from 9.1 percent of total operations to 1.0 percent of total General Aviation operations at the airport.

2.3.2.3 Air Taxi-Commuter

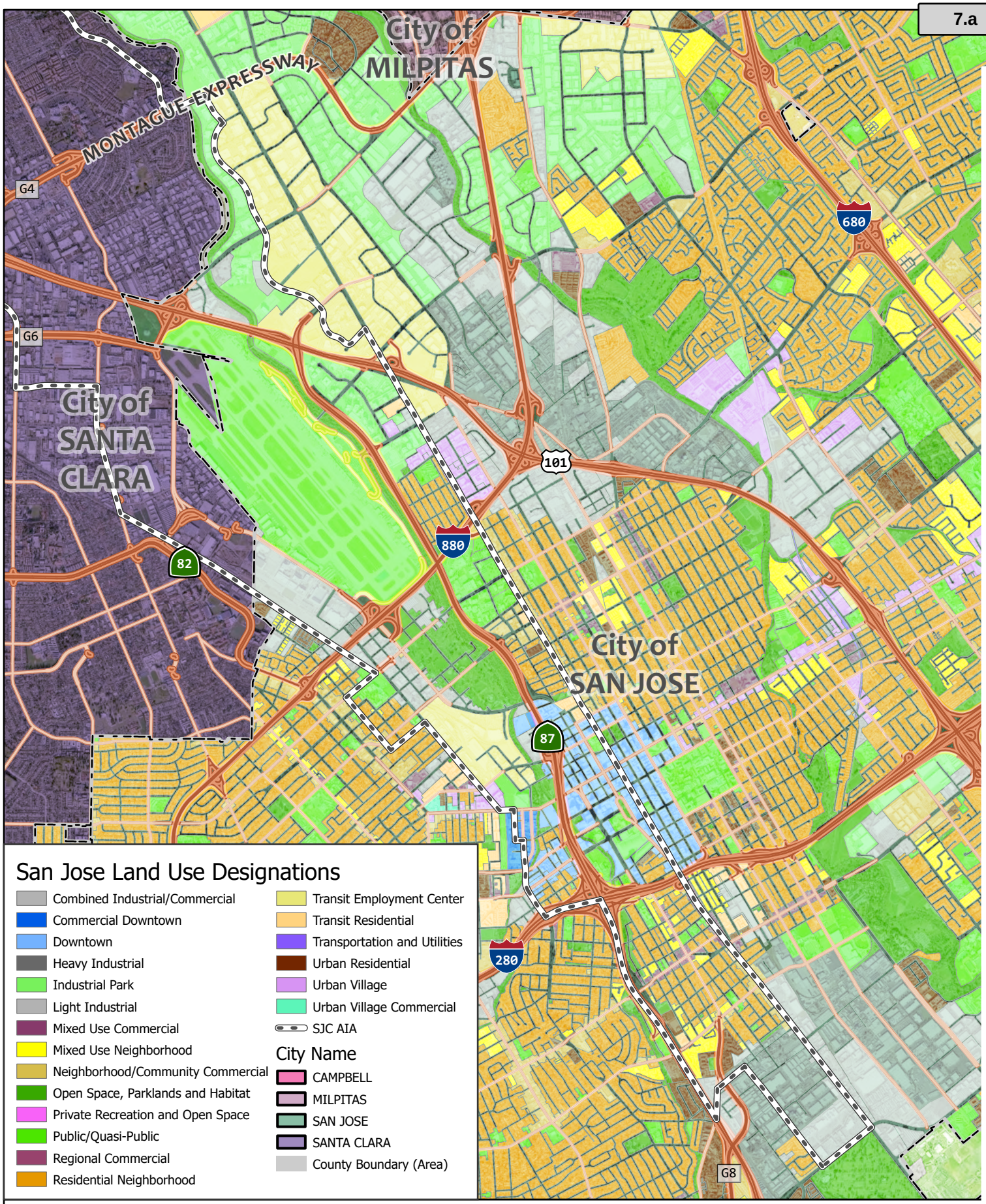
Air taxi operations include the unscheduled "for hire" operations carrying passengers and cargo to and from the area including any operations by small package carriers. Commuter Airlines operate scheduled passenger flights using aircraft with fewer than 60 seats. Air taxi operations are considered to be general aviation activity and commuter airline operations are considered to be air carrier activity.

2.3.2.4 Military

Military operations are forecast to increase from 19 in 2022 to 250 in 2037 in the April 2020 AMP Update. Military operations consist of both fixed-wing and helicopter operations.

2.4 AIRPORT ENVIRONS

Figures 4a and 4b present the land use designations within the Airport environs based on the current City of San Jose and the City of Santa Clara General Plans. The predominant land uses in the Airport environs are commercial and residential.



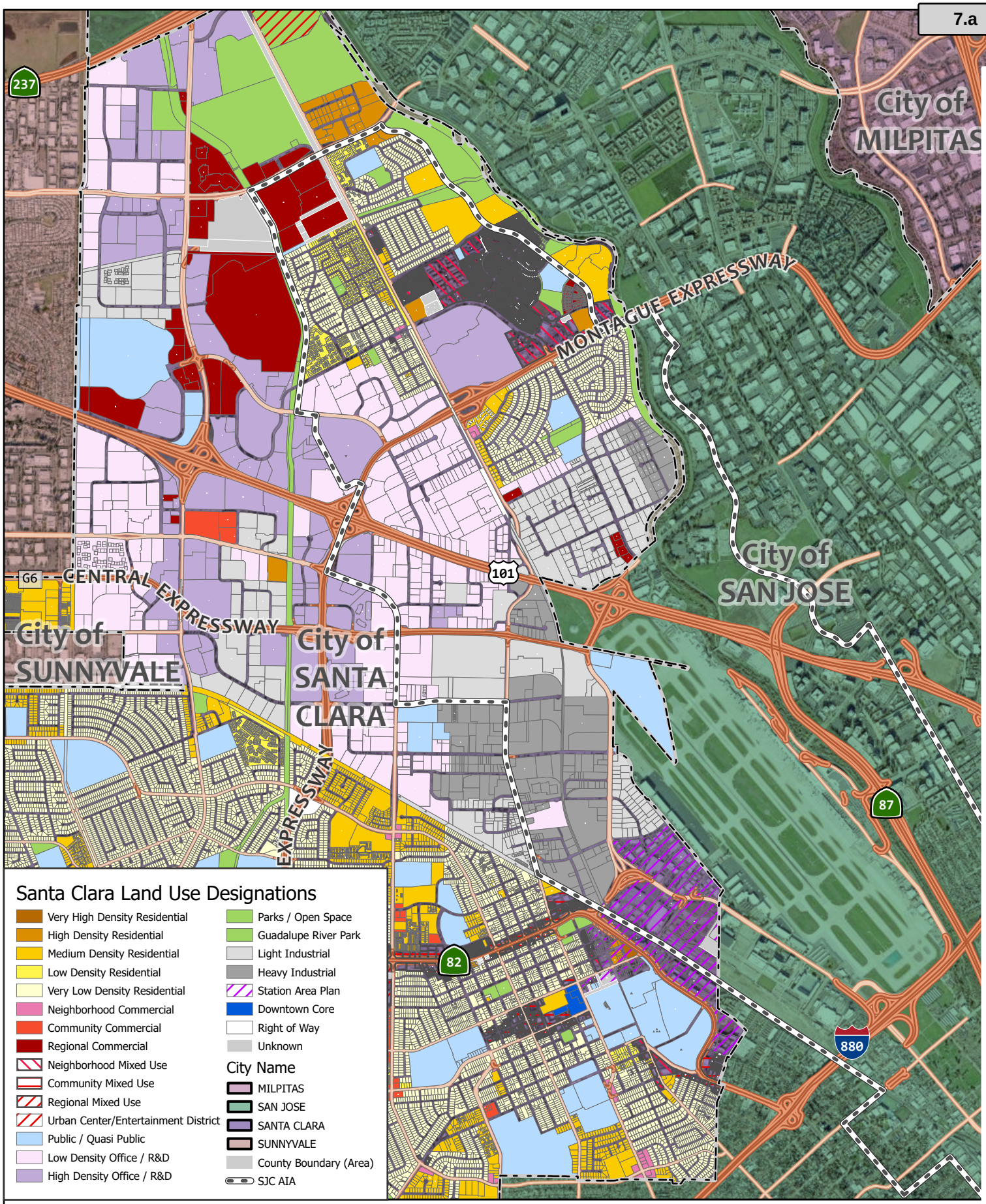
General Plan Land Use

City of San Jose

Figure 4a

0 2,000 4,000 8,000

N



General Plan Land Use

City of Santa Clara

Figure 4b

0 1,500 3,000 6,000 N

Section 3

3 LAND USE COMPATIBILITY GUIDELINES

3.1 OVERVIEW

Land use compatibility policies and standards are based on community values, sound technical knowledge, and acceptable analytical methods. These policies and compatibility criteria form the basis for evaluating existing land use compatibility and provide the foundation for the Santa Clara County Airport Land Use Commission (ALUC) policies. These standards focus on the three areas of ALUC responsibility including aircraft noise, the control of objects in navigable airspace, and the safety of persons on the ground and in aircraft. These compatibility criteria are contained in relevant State and Federal statutes and regulations and are discussed in this section.

Federal, State and other local agencies have developed and published guidelines for airport land use compatibility planning. Unfortunately, no civilian or military authority has established regulations or statutes that specify a single methodology for mitigating the incompatibilities between an airport and its environs, nor have such incompatibilities been adequately defined. The enabling legislation for the Santa Clara County Airport Land Use Commission offers some guidance while directing the Commission to provide for the orderly growth of the airports and the areas surrounding the airports, and to safeguard the general welfare of the inhabitants within the vicinity of the airports and the public in general. The legislation further enables the Commission to develop height restrictions on structures, to specify the use of land, to determine building standards, including noise insulation, and to assist local agencies in ensuring compatible land uses in the vicinity of the airports to the extent that the land in the vicinity of the airports is not already devoted to incompatible uses. The Commission is also empowered to coordinate planning at the State, regional and local levels so as to provide for the orderly development of air transportation, while at the same time protecting the public health, safety, and welfare.

3.2 LAND USE COMPATIBILITY CRITERIA

The principal source for airport land use compatibility planning is the October 2011 *California Airport Land Use Planning Handbook* (2011 Handbook) published by the California Department of Transportation, Division of Aeronautics (Caltrans). The 2011 Handbook provides guidelines for formulating compatibility criteria and policies for preparing Airport Land Use Compatibility Plans (ALUCPs). Noise and safety compatibility concepts and issues are presented, and copies of relevant legislation and examples of mitigation measures, such as model noise and avigation easements are included. The 2011 Handbook is available for review at http://www.dot.ca.gov/hq/planning/aeronaut/htmlfile/landuse.html and at the Santa Clara County Planning Department office. Note that a local agency is not precluded from establishing land use policies and guidelines that are more restrictive than those described in this ALUCP.

3.3 NOISE RESTRICTION AREA

Airport noise affects many communities. At certain levels, airport noise can interfere with sleep, conversation, or relaxation. It also may disrupt school and work activities. At even higher levels, airport noise may make outdoor activities impossible and may begin to raise health concerns with respect to hearing loss and stress-related problems. However, hearing damage from airport noise may not be a problem for nearby neighbors because noise levels are simply not of sufficient intensity to cause such damage. An exception to this is the exposure a ground crew member receives during the handling of a jet aircraft. Similarly, medical studies are inconclusive on a cause-and-effect relationship for non-auditory health concerns near airport. A more general conclusion is that noise may have an additive effect for some people with anxieties, ulcers, and tension illness.

The amount of annoyance that aircraft noise creates among people living and working in the vicinity of an airport varies on an individual basis. Studies show that a certain percentage of people will continue to be annoyed by aircraft noise at any given noise level, regardless of how low that aircraft noise level may be.

The contemporary technical rationale for assessing effects ("impacts") of transportation noise on communities rests in large part on a purely descriptive dosage-effect relationship of the sort first synthesized by Schultz [J. Acoust. Soc. Am. **64**, 377–405 (1978)]. Although U.S. federal adoption of an

annoyance-based rationale for regulatory policy has made this approach a familiar one, it is only one of several historical perspectives, and not necessarily the most useful for all purposes. Reviewed by the U.S. Federal Interagency Committee on Noise (FICON 1992) a number of years ago, the accuracy and precision of estimates of the prevalence of a consequential degree of noise-induced annoyance yielded by functions of noise exposure leave much to be desired.

While the "Schultz Curves" have been commonly used as the measure of annoyance for aviation generated noise, a recent study by the FAA entitled *Neighborhood Environmental Study (2022)* observed that a significantly higher percentage of people are identified as being highly annoyed by aircraft noise. Thus the reliance on the Schultz Curves likely underestimates the effect of aviation noise on the impacted community.

All levels of government share responsibility for addressing the airport noise issue. The Federal government establishes noise standards for aircraft as published in Federal Aviation Regulations (FAR) Part 36, *Noise Standards: Aircraft Type and Airworthiness Certification*, and conducts research on noise abatement techniques and noise compatibility. The preparation of a special airport noise study under the provisions of FAR Part 150, *Airport Noise Compatibility Planning*, provides technical assistance to the airport operator in planning and implementing a noise compatibility program. The State of California also prescribes noise standards for all airports as defined in Title 21, *Airport Noise Standards*, of the California Code of Regulations, and sets noise insulation standards for residential structures as defined in Title 24, *California Building Standards Code*, of the California Building Standards Commission. The airport operator may develop airport noise control programs and enact operational restrictions to control and reduce noise levels in the community. Finally, local governments have the responsibility to limit the exposure of the population to excessive airport noise levels through the land use planning and zoning process.

The City of San Jose has recognized that a higher noise level exists around the Airport and in their Downtown Core Area, defined as the area south of Julian St, west of Fourth St, north of Highway 280 and east of Highway 87, due to aircraft overflights, the level of commercial activities and vehicular traffic in that area. Therefore the City tolerates a higher level of aircraft noise in that area.

3.3.1 Airport Noise Descriptors

To adequately address the airport noise issue, local governments need a standard way to measure and describe airport noise and establish land use compatibility guidelines. The City of San Jose uses DNL as the measure of noise. The County of Santa Clara has identified DNL and CNEL as being equivalent measures of noise. Relative to aviation, it is common to use the Community Noise Equivalent Level (CNEL) for determining land use compatibility in the community environment.

The Community Noise Equivalent Level (CNEL) descriptor is a method of averaging single-event noise levels over a typical 24-hour day and applying penalties to noise events occurring during the evening (7 p.m. to 10 p.m.) and night (10 p.m. to 7 a.m.) hours. CNEL is usually defined in terms of average annual conditions, so that the CNEL measured on a given day may be either less than or greater than the annual average.

The State of California uses the CNEL descriptor to describe land use compatibility with respect to aircraft noise exposures. CNEL is the noise descriptor standard defined in Title 21 of the California Code of Regulations, *Airport Noise Standards*, and the standard specified for evaluation of exterior and interior noise impacts in Title 24 of the California Building Standards Commission, *California Building Standards Code*. The CNEL is identified as one of two noise descriptors used in the preparation of a noise element of a general plan according to guidelines established by the Office of Noise Control, California Department of Health Services (now documented as *General Plan Guidelines*, *Appendix A*).

The Federal Aviation Administration (FAA) recognizes the CNEL as essentially equivalent to the Yearly Day-Night Average Sound Level (DNL), which is the basis for FAA recommendations for land use compatibility with respect to aircraft noise described in FAR Part 150, *Airport Noise Compatibility Planning*.

The decibel (dB) is the unit of measurement for the magnitude of a sound. A decibel is equal to the logarithm of the ratio of the intensity of the sound to the intensity of an arbitrarily chosen standard sound, specifically a sound just barely audible to an unimpaired human ear (e.g., 55, 60, 65, 70 and 75 dB).

3.3.2 Land Use Compatibility Standards – California

Land use compatibility guidelines for airport noise are included in the 2011 Handbook. Amendments to the law enacted in October 1994 mandate the use of these guidelines in the preparation of airport land use plans. These guidelines were originally developed in 1983 after considering State Office of Noise Control (ONC), FAA, and U.S. Department of Housing and Urban Development (HUD) guidelines together with a review of available airport land use plans. Existing Federal and State laws were reviewed as part of the updated 2011 Handbook. The State ONC criteria established the 55 dB CNEL as a residential threshold value to distinguish normally acceptable from conditionally acceptable situations.

The Caltrans guidelines for land use compatibility standards extend below the Federal 65 dB CNEL, as the Federal threshold does not sufficiently explain the annoyance area surrounding airports. The frequency of operations from some airports, the change in traffic patterns due to weather, visibility of aircraft at low altitudes and typically lower background noise levels around many airports are all believed to create a heightened awareness of aviation activity and potential for annoyance outside of the 65 dB CNEL contour.

At and above the 60 dB CNEL level, the California Building Code, Section 1208A.8.3 requires an acoustical analysis of proposed residential structures, other than detached single-family dwellings, to achieve an indoor noise level of 45 dB CNEL.

The noise attenuating properties of existing types of construction were considered in setting state standards. Typical wood frame construction with drywall interiors provides noise reduction of between 15 and 20 dB. Thus, residential units exposed to outdoors noise in the range between 60 and 65 dB CNEL can be attenuated to achieve the 45 dB CNEL level indoors when built using normal standards of construction.

The 2002 Handbook (see Appendix B herein) urges ALUCs to be conservative when establishing noise contours.

3.3.3 Land Use Compatibility Standards - Santa Clara County

In the *Safety and Noise Element* of the Santa Clara County General Plan, 1995-2010, page P-5 the County identified 55 dB DNL as the normally acceptable standard for residential uses. Above 55 dB DNL, residential uses are cautionary, however the noise exposure is great enough to be of some concern.

3.3.4 Land Use Compatibility Standards – City of San Jose

The Land Use Compatibility Guidelines for Community Noise in the *Environmental Leadership Chapter* of the San Jose 2040 General Plan, ch 6, page 55 et seq, Goal ED-1.1, specifies a maximum interior noise quality level limit of 45 DNL and a long-range maximum exterior noise quality level of 55 DNL (equilivent to CNEL) for schools, hospitals, libraries and auditoriums, and a maximum exterior noise level limit of 60 DNL for residences, hotels, motels, retail and business areas, parks and playgrounds. Specified land uses in areas above these exterior noise levels are permitted after an acoustical analysis of the amount of attenuation necessary to maintain an indoor level of DNL <=45. A Leq value of Leq(30) is used for the evaluation of school impact by the airport. Exterior noise guidelines are shown in ch 3, page 40, Table EC-1 for various types of land uses. Outdoor activity areas are permitted if they are designed and constructed to limit the noise levels to 60 DNL or less.

The San Jose 2040 General Plan recommends a maximum exterior noise level of 55 DNL for Public/Quasi-Public uses which include schools, hospitals, libraries and auditoriums and 60 DNL for residential uses and most institutial land uses. Additionally, the San Jose 2040 General Plan noise policies acknowledge the pre-existing noise context of the Airport.

Specifically, noise goals EC-1.10, EC-1.11 and EC-1.12 on page 42 in the General Plan state:

San Jose 2040 General Plan Noise Goal EC-1.10 : "Monitor Federal legislative and administrative activity pertaining to aircraft noise for new possibilities for noise-reducing modifications to aircraft engines beyond existing Stage 3 requirements. Encourage the use of quieter aircraft at the San José International Airport.

San Jose 2040 General Plan Noise Goal EC-1.11 : "Require safe and compatible land uses within the Mineta International Airport noise zone (defined by the 65 CNEL contour as set forth in State law) and encourage aircraft operating procedures that minimize noise "

San Jose 2040 General Plan Noise Goal EC-1.12 : "Encourage the Federal Aviation Administration to enforce current cruise altitudes that minimize the impact of aircraft noise on land use "

The San Jose 2040 General Plan also contains several policies relating to airports, specifically the following:

San Jose 2040 General Plan Transportation policy TR-14.1: "Foster compatible land uses within the identified Airport Influence Area overlays for Mineta San José International and Reid-Hillview airports."

San Jose 2040 General Plan Transportation policy TR-14.2: "Regulate development in the vicinity of airports in accordance with Federal Aviation Administration regulations to maintain the airspace required for the safe operation of these facilities and avoid potential hazards to navigation."

San Jose 2040 General Plan Transportation policy TR-14.3: "For development in the Airport Influence Area overlays, ensure that land uses and development are consistent with the height, safety and noise policies identified in the Santa Clara County Airport Land Use Commission (ALUC) comprehensive land use plans for Mineta San José International and ReidHillview airports, or find, by a two-thirds vote of the governing body, that the proposed action is consistent with the purposes of Article 3.5 of Chapter 4 of the State Aeronautics Act, Public Utilities Code Section 21670 et seq."

San Jose 2040 General Plan Transportation policy TR-14.4: "Require avigation and “no build” easement dedications, setting forth maximum 6 elevation limits as well as for acceptance of noise or other aircraft related effects, as needed, as a condition of approval of development in the vicinity of airports."

3.3.5 Land Use Compatibility Standards – City of Santa Clara

The City of Santa Clara 2010 – 2035 General Plan, Appendix 14, PG 8.14-4, Table 8.14-1, indicates that for Residential and Public Educational facilities, an exterior noise level GREATER THAN 58 dB CNEL “Require design & insulation to reduce noise levels.” Above 73 dB CNEL, “Avoid land use except when entirely indoors and an interior noise level of 45 Ldn can be maintained.” (CNEL and Ldn are considered equivalent.) Noise Policy 5.10.6-P7 says: " Implement measures to reduce interior noise levels and restrict outdoor activities in areas subject to aircraft noise in order to make Office/Research and Development uses compatible with the Norman Y. Mineta International Airport land use restrictions". Policy 5.10.6-P8 says: " Continue to encourage safe and compatible land uses within the Norman Y. Mineta International Airport Noise Restriction Area." Policy 5.10.6-P9 says: "Work with the City of San José Norman Y. Mineta International Airport to implement mitigation from aircraft noise to the fullest extent possible

Paragraph 8.14.4 says in part: "The City uses the official Santa Clara County ALUC Referral Boundary (65 dB CNEL) Map as a basis of referring proposed projects to the Airport Land Use Commission (ALUC). This is consistent with noise restrictions in the California Administrative Code, Title 21, Subchapter 6 “Noise Standards.” Local plans, policy actions or development activities that affect areas within the ALUC boundary need approval, or a finding of overriding consideration, prior to the issuance of local permits."

3.3.6 San Jose International Airport Noise Contours

An analysis of annual aircraft operations and related noise levels for San Jose International Airport was made to prepare CNEL noise exposure maps for this ALUCP using SJC forecast aircraft operations based on the updated runway configuration.

The ALUC's mission is "to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports." (Pub. Util. Code § 21670(a)(2).) Aircraft operational assumptions for calculating the airport noise curves were based on the 2037 operations forecast of 237,710 as outlined in the Environmental Impact Report prepared by the City of San Jose for the Airport Master Plan update ("SJC 2020 EIR") (Table 3.2-1), increased by 50%. The rationale for the 50% increase is explained below.

1. Since land use decisions cannot be easily undone after development has been permitted, it is prudent, when significant doubts are present, for the ALUC to be more protective to avoid the potential harms that it is charged with minimizing. This is best achieved by using the most recent data.

2. Details of the forecast used in the master plan can be found in the SJC 2020 EIR, Appendix C *Airport Master Plan Demand Forecast Update*, dated June 2, 2017. By April 2020, when the San Jose City Council approved the update to the Airport Master Plan, three more years of airport data had become available (2017-2019). Year-over-year growth of operations for those years was 12%, 11%, and 19% respectively – a total of 49% growth during a period for which 9.3% growth would have been expected using the growth rate required for 2016 actuals to reach the 2022 forecast found in Table 10 of Appendix C.

3. The fact that actual operations greatly exceeded the forecast at the very start of the forecast period invites examination of the forecast methodology. Appendix C indicates that the forecast for passenger operations is grounded in the forecast for passenger demand and that domestic passenger demand (the vast majority of passenger demand at SJC) was forecasted using a formula derived from a regression analysis of historical data from 1990-2014. It is worth noting that embedded within this 24-year period is a 12-year period during which operations fell 58% (Compound Annual Growth Rate (CAGR) -7.0%)[1]. Over the 24-year period considered, total passengers grew at 1.4% CAGR. While the prediction formula should not be confused with the data inputs to that formula (mainly forecasts for regional income, average air fares and the U.S. unemployment rate), the ALUC is mindful of the possibility that a formula for predicting growth that is derived from a regression over a long period of modest net growth might understate growth during periods when growth is more robust.

4. The COVID pandemic was in its infancy when the San Jose City Council adopted the master plan update in April 2020, which clouded the growth forecast. Actual data shows that 2022 airport operations were 98.9% of the value forecasted for 2022 in 2017, despite the demand suppressed by the pandemic.

5. The CAGR of operations from 2012-2022 – the most recent decade for which annual data is available – was 3.2%. This is almost double the 1.67% CAGR forecasted for the 2018-2037 planning period in the master plan update. Again, this growth occurred despite the demand suppressed by the pandemic.

Increasing the number of operations expected in 2037 by 50% has the following implications:

- The 356,565 operations the ALUC has assumed for 2037 represents 3.1% CAGR in operations from 2019 levels. (2019 was the last full year for which data was available when the update to the Master Plan was adopted.) The ALUC believes this level of demand is consistent with the airport's current capacity, even without the expansion planned for SJC.

[1] The period was 2000-2012. Historical data for operations from 2002-2016 can be found in SJC 2020 EIR Appendix C Table C.15. Data for 2000 and 2001 can be found on the SJC web site: "Draft Technical Memorandum – Summary of Updated Aviation Activity Forecasts", Kimley Horn Associates, June 1, 2017, https://www.flysanjose.com/sites/default/files/improvement/RIMstudy-Task3.2-TechMemo.pdf. Data since 2016 can be found at https://www.flysanjose.com/airport-activity.

- This 3.1% CAGR is less than the 3.2% CAGR seen during the decade 2012-2022, which included the pandemic.

- It is reasonable to assume that operations might increase rapidly for the next few years, as demand suppressed by the pandemic recovers. If operations were to reach 2019 levels by the end of 2025, the ALUC's forecast would be met if SJC operations were to experience 4.6% CAGR during the remainder of the planning period. This is below the 5.9% CAGR of operations for the 2010s and below the 6.8% CAGR of passengers for the 1990s (Operations data for the 1990s was not found in the sources cited.)

The noise curves upon which the revised AIA are based were developed using the same noise modeling data developed by BridgeNet International (2019) referenced in the 2020 AMP update, but with airport operations increased by 50%. These assumptions are summarized in Tables 3-1 and 3-2. Single-engine piston aircraft were assumed for 100 percent of the local operations but will be insignificant by 2037.

The FAA's Neighborhood Environmental Survey (NES) provides additional reasons for caution when drawing airport noise contours for land use planning purposes. In perhaps the most comprehensive and rigorous study of community response to airplane noise done in the US for almost 50 years, the NES estimated that 60.1%-70.9% of residents within the 65 dB DNL noise contour were 'highly annoyed' by airplane noise at the time of the survey in 2016. This is a stark contrast with the former 12.3% estimate for highly annoyed people within the 65 dB DNL noise contour, which was adopted by the FAA in the 1970s and reaffirmed in 1992. Noise contours based on more protective assumptions provide some cushion for members of the community affected by ALUC decisions that are consistent with NES findings and with the ALUC's charter.

The Federal Aviation Administration's (FAA) Aviation Environmental Design Tool (AEDT) Version 2d was used to prepare CNEL noise exposure maps based on the FAA aircraft noise level database and airport operational factors described below. The AEDT software was developed by the FAA and represents the Federally sanctioned and preferred method for analyzing aircraft noise exposure.

3.3.7 Aircraft Operations

Aircraft operational factors that can significantly affect overall noise levels as described by CNEL include the aircraft fleet mix, the number of daily operations and the time of day when aircraft operations occur. Runway use factors also significantly influence CNEL values. Trip length can affect aircraft single-event noise levels. An aircraft that is making a local flight may carry less fuel and fewer passengers than that for a long flight and therefore make less noise on departure. The AEDT software applies corrections to air carrier aircraft takeoff profiles to account for these differences, but makes no corrections to general aviation aircraft takeoff profiles.

As noted above, the number of operations used in the development of the noise contours were based on the BridgeNet International (2019) analysis but increased by 50%. BridgeNet International provided the revised noise contours in their report to the ALUC dated September 27, 2021.

Descriptions of aircraft flight tracks were developed for use in the AEDT through discussions with Airport Management, review of FAA radar flight tracks and review of the assumptions used for previous descriptions of aircraft operations at the Airport. Based on these data, generalized flight tracks were prepared for use in the noise modeling process to describe areas with a concentration of aircraft overflights. It is recognized that variations in flight paths occur at the Airport and that the tracks used for this analysis are a general representation of those flight tracks.

Table 3 - 1

AIRPORT CONFIGURATION AND RUNWAY USE

San Jose International Airport

2027

Airport Configuration	
Runway Configuration:	30R-12L 30L-12R
Field Elevation: (Runway High Point)	62 feet MSL
Runway Use:	Runway 30L/30R – 86% Runway 12R/12L – 14%

Temporal Distribution of Runway Operations Percentage of Use			
Aircraft Type	Day 7 a.m. to 7 p.m.	Evening 7 p.m. To 10 p.m.	Night 10 p.m. to 7 a.m.
Arrivals:			
Air Carrier Wide Body	2.7%	3.2%	0.1%
Air Carrier Narrow Body	44.7%	60.6%	58.7%
Regional Jets	18.2%	15.4%	20.6%
Commuter Prop	0.7%	1.5%	1.3%
General Aviation Jet	17.0%	10.1%	9.8%
General Aviation Prop	16.5%	9.2%	9.5%
Military	0.2%	0%	0%
Total	100%	100%	100%
Total Arrival Operations	71,302	17,156	9,371
Departures:			
Air Carrier Wide Body	2.0%	7.5%	0.3%
Air Carrier Narrow Body	45.7%	52.1%	65.3%
Regional Jets	17.9%	19.8%	16.1%
Commuter Prop	0.7%	3.1%	0%
General Aviation Jet	17.1%	8.6%	9.6%
General Aviation Prop	16.4%	8.9%	8.7%
Military	0.288%	0%	0%
Total	100%	100%	100%
Total Departure Operations	73,971	12,937	10,918
Percent of Total Operations	74%	16%	10%

Source: *BridgeNet International 2019, Pg 12*

Table 3 - 2

ANNUAL AIRCRAFT OPERATIONS

San Jose International Airport

Aircraft ICAO Code	Assigned AEDT Code	Arrivals Day	Arrivals Evening	Arrivals Night	Departure Day	Departure Evening	Departure Night	Total
A332	A330-301	2.8147	0.2856	0.0476	1.9621	1.0805	0.1053	6.2959
A359	A330-343	3.1932	0.0000	0.0000	2.1165	1.0395	0.0371	6.3863
B744	747400	0.0123	0.0000	0.0000	0.0000	0.0123	0.0000	0.0247
B763	767300	1.4953	1.4462	0.1622	1.8451	1.2450	0.0116	6.2054
B764	767400	0.0573	0.0249	0.0000	0.0731	0.0000	0.0091	0.1644
B772	777200	0.1233	0.0000	0.0000	0.0117	0.0939	0.0176	0.2466
B77W	7773ER	1.2942	0.1927	0.0624	0.5209	0.7235	0.3049	3.0986
B788, B789	7878R	4.5000	0.0000	0.0000	2.5738	1.9262	0.0000	9.0000
A319, A19N, A220	A319-131	27.4258	6.3960	3.5725	27.6867	6.2160	3.4810	74.7781
A320, A20N	A320-211	6.5466	1.9512	1.0453	6.3576	1.5689	1.6155	19.0852
A321, A21N	A321-232	18.6456	1.5897	3.1212	20.3609	0.6310	2.0649	46.4134
B737	737700	16.1446	4.2623	2.0274	15.9723	4.1091	2.3524	44.8681
B738, B739, P8	737800	40.4850	16.2127	5.8699	51.5110	5.7253	5.3330	125.1369
B38M	7378MAX	118.8557	35.1039	20.2080	120.4031	25.7234	27.9767	348.2707
B752	757PW	0.0082	0.0000	0.0000	0.0000	0.0082	0.0000	0.0164
B753	757300	0.0082	0.0000	0.0000	0.0082	0.0000	0.0000	0.0164
CRJ9	CRJ9-ER	0.0616	0.0000	0.0000	0.0616	0.0000	0.0000	0.1233
E75L, E75S	EMB175	26.4226	5.6846	4.3014	26.8163	5.3943	4.1946	72.8137
E190	EMB190	0.0000	0.0699	0.0000	0.0427	0.0000	0.0272	0.1397
DH8D	DHC830	0.2878	0.1521	0.0726	0.2792	0.2357	0.0000	1.0274
GL5T	BD-700-1A11	0.9852	0.1927	0.0963	1.0806	0.0953	0.0978	2.5479
GLEX	BD-700-1A10	3.1685	0.7430	0.1976	3.2966	0.6745	0.1389	8.2192
CL30, CL35, CL60	CL600	7.6950	1.1874	0.5694	8.3018	0.5290	0.6213	18.9040
LJ35, LJ40, LJ45, LJ50, LJ55	LEAR35	2.4008	0.3517	0.1661	2.3726	0.3365	0.2094	5.8371
C500	CNA500	0.4501	0.0431	0.0204	0.4567	0.0343	0.0228	1.0274
C510	CNA510	2.6563	0.4484	0.2031	2.8203	0.3051	0.1830	6.6163
C25A, C25B, C25C, C25M	CNA525C	1.0129	0.0585	0.0585	1.0706	0.0597	0.0000	2.2603
C550, E55P	CNA55B	3.9882	0.3689	0.3696	4.1215	0.2142	0.3897	9.4521
C560	CNB560E	0.8567	0.0736	0.0972	0.8431	0.1106	0.0736	2.0547
C56X	CNA560XL	6.8985	0.7782	0.4252	7.0244	0.5025	0.6044	16.2332
C650	CIT3	0.2100	0.0000	0.0166	0.2267	0.0000	0.0000	0.4533
C680, C68A	CNA680	3.4631	0.3694	0.1741	3.6381	0.1737	0.1952	8.0135
C750, LJ60, LJ70, LJ75		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
F2TH, FA50, F900, G280	CNA750	15.8102	2.5544	1.2227	16.4170	1.4636	1.7073	39.1752
EA50	ECLIPSE500	0.5225	0.0000	0.0000	0.3145	0.1065	0.1016	1.0451
E145, E45X	EMB145	4.6121	0.6119	0.3235	4.8040	0.7236	0.0209	11.0959
GLF4	GIV	2.0838	0.4107	0.1762	2.2419	0.2056	0.2243	5.3425
GLF5, FA7X	GV	6.0384	1.2889	0.5007	6.0647	0.9293	0.8343	15.6564
GLF6	GVI	2.2715	0.0176	0.0000	2.2260	0.0354	0.0277	4.5781
ASTRA, G150, G200	IA1125	1.2642	0.1740	0.0000	1.3962	0.0423	0.0000	2.8767
BE40, PRM1	MU3001	0.6223	0.0194	0.0777	0.5597	0.0595	0.0999	1.4383
C425, C441	CNA441	0.1939	0.0955	0.0599	0.2627	0.0000	0.0853	0.6973
BE20, BE30, B350, DHC6	DHC6	2.7938	0.3837	0.2398	2.7105	0.3838	0.3118	6.8234
PAY3, PAY4	PA42	0.2054	0.0000	0.0000	0.2054	0.0000	0.0000	0.4108
C208, PC12, TBM8	CNA208	2.3509	0.2851	0.1241	2.4516	0.1355	0.1719	5.5191
BE55, BE58, C310, C421	BEC58P	2.0748	0.2743	0.1758	2.1786	0.2391	0.1260	5.0685
PA30, PA31	PA30	0.0788	0.0112	0.0000	0.0532	0.0000	0.0368	0.1800
BE33, BE35, BE36, C172	CNA172	1.2125	0.1902	0.0768	1.2664	0.1681	0.0448	2.9589
C162, C182	CNA182	0.9272	0.0668	0.0167	0.9259	0.0666	0.0181	2.0214
BL17, C206, C20T	CNA206	1.3631	0.1157	0.0869	1.4791	0.0920	0.0423	3.1791
BE33, BE35, BE36,	GASEPF	1.7390	0.0820	0.1926	1.6025	0.4111	0.0000	4.0274
PA24	GASEPV	4.1530	0.5328	0.2065	4.3235	0.3794	0.1896	9.7848
P28A	PA28	0.2304	0.0000	0.0688	0.2270	0.0165	0.0557	0.5984
SR20, SR22	COMSEP	2.4948	0.3310	0.0508	2.6215	0.1021	0.1532	5.7534
A109, A119, A139	A109	0.1407	0.0241	0.0161	0.1407	0.0241	0.0161	0.3619
B06	B206L	0.0453	0.0000	0.0000	0.0485	0.0137	0.0092	0.1167
B407	B407	0.0485	0.0137	0.0092	0.0453	0.0000	0.0000	0.1167
EC13	EC130	0.4266	0.0494	0.0861	0.4190	0.0445	0.0985	1.1242
R22	R22	0.1457	0.0094	0.0047	0.1457	0.0094	0.0047	0.3194
R44	R44	0.0426	0.0094	0.0047	0.0426	0.0094	0.0047	0.1134
C130	C130	0.1594	0.0000	0.0000	0.1586	0.0000	0.0000	0.3180
F15	F15A	0.0311	0.0000	0.0000	0.0309	0.0000	0.0000	0.0620
F18	F-18	0.0623	0.0000	0.0000	0.0621	0.0000	0.0000	0.1244
P8, P8A	737800	0.1027	0.0000	0.0000	0.1027	0.0000	0.0000	0.2055
S61	S61	0.0855	0.0000	0.0000	0.0855	0.0000	0.0000	0.1711
S76	S76	0.0750	0.0000	0.0000	0.0750	0.0000	0.0000	0.1500
Total Daily Operations		**357**	**86**	**47**	**370**	**64**	**54**	**977**

Source: BridgeNet International, 2021, Pg 3

3.3.7.1 CNEL Noise Exposure Contours

The Aviation Environmental Design Tool (AEDT) Version 2d was used to prepare CNEL noise exposure contours for the Airport based on the aircraft noise level and operational factors described in the previous sections. As noted above, the BridgeNet International 2019 data was used with a 50% increase in the number of operations.

User inputs to the AEDT include the following:

- Airport altitude and mean temperature
- Runway configuration
- Aircraft flight track definition
- Aircraft stage length
- Aircraft departure and approach profiles
- Aircraft traffic volume and fleet mix
- Flight track utilization by aircraft types

The AEDT database includes aircraft performance parameters and noise level data for numerous commercial, military and general aviation aircraft classes. When the user specifies a particular aircraft class from the AEDT database, the model automatically provides the necessary inputs concerning aircraft power settings, speed, departure profile, and noise levels. AEDT default values were used for all fixed-wing aircraft types.

After the model had been prepared for the various aircraft classes, AEDT input files were created containing the number of operations by aircraft class, time of day and flight track for annual average day aircraft operations and future operations.

From these data, the AEDT produces lines of equal noise levels, i.e. noise contours. The location of these noise contours become less precise with distance from the runway since aircraft do not follow each flight track exactly as defined in the model. However, they are accurate enough to indicate general areas of likely community response to noise generated by aircraft activity and serve as the basis for land use compatibility determinations.

3.3.8 Impacts on Land Use

The 75, 70 and 65 dB CNEL noise contours based on the ALUC forecast aircraft operations are illustrated on Figure 5 and discussed below.

3.3.8.1 75 dB CNEL Noise Level

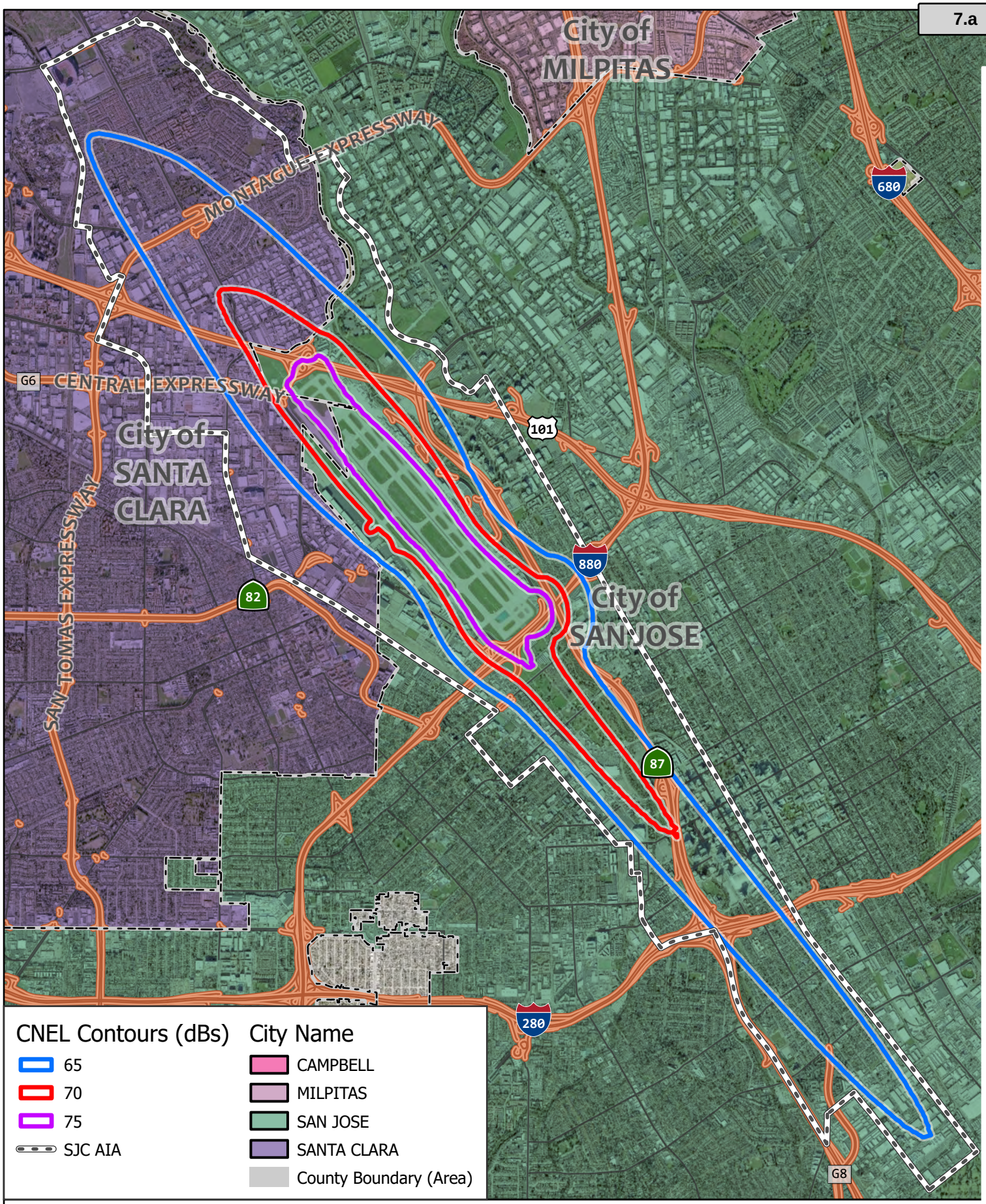
The 75 dB CNEL aircraft noise contour is completely contained within the Airport boundaries or over city or state owned property

3.3.8.2 70 dB CNEL Noise Level

The 70 dB CNEL aircraft noise contour is shown on Figure 5.

3.3.8.3 65 dB CNEL Noise Level

The boundary of the 65 dB CNEL aircraft noise contour is shown on Figure 5.



CNEL Contours

Figure 5

3.4 HEIGHT RESTRICTION AREA

Airport vicinity height limitations are required to protect the public safety, health, and welfare by ensuring that aircraft can safely fly in the airspace around an airport. This protects both those in the aircraft and those on the ground who could be injured in the event of an aircraft accident. In addition, height limitations are required to protect the operational capability of airports, thus preserving an important part of National and State aviation transportation systems.

Federal Aviation Regulations (FAR) Part 77, *Objects Affecting Navigable Airspace*, establishes imaginary surfaces for airports and runways as a means to identify objects that are obstructions to air navigation. Each surface is defined as a slope ratio or at a certain altitude above the airport elevation.

FAA uses FAR Part 77 obstructions standards as elevations above which structures may constitute a safety hazard. Any penetrations of the FAR Part 77 surface are subject to review on a case-by-case basis by the FAA. The FAA evaluates the penetration based on the published flight patterns for the airport, as they exist at that time. If a safety problem is found to exist, FAA may issue a determination of a hazard to air navigation. FAA does not have the authority to prevent the encroachment, however California law can prevent the encroachment if the FAA has made a determination of a hazard to air navigation. The local jurisdiction can establish and enforce height restrictions.

Another height restriction consideration for air carrier airports is defined in FAR Part 25.121, *Climb: One-engine-inoperative* (OEI). This regulation defines minimum clearance heights extending from the runway liftoff point for an air carrier aircraft having an engine failure as it departs the runway. These aircraft are designed to fly safely with one engine inoperative, but their rate of climb is substantially reduced and obstacles need to be lower than for a normal departure. Different aircraft designs (at their maximum gross weight) and different Air Carriers have different OEI surface requirements. These height limitations may or may not be lower than the FAR Part 77 surfaces, and are generally NOT considered by the FAA in its review of obstructions to air navigation.

The ALUC statutes (PUC 21670) mandate that the airspace above the airport be protected for at least the next 20 years. Thus while higher FAR Part 77 surface penetrations are not found to be a hazard at the time they are evaluated by the FAA, these penetrations may become a hazard in the future due to changes in instrument approach procedures or lower OEI surfaces or lengthened runways. FAA approved penetrations would prevent these new procedures from being put into place for the benefit of airport operations, thus reducing the future utility of the airport.
The dimensions of the imaginary surfaces vary depending on the type of approach to or the OEI departure from a particular runway as illustrated on Figure 6 for the Airport based on the ultimate dimensions shown on the Airport Layout Plan. Precision Instrument-Approach runways generally have larger surfaces and flatter approach slopes than non-precision approach and visual approach runways. Table 3-3 tabulates the imaginary surfaces described below.

3.4.1 Primary Surface

The Primary Surface is a surface longitudinally centered along a runway, and extending 200 feet beyond the end of each runway. For Runways 30L-12R and 30R-12L the width of the Primary Surface is 1,000 feet.

3.4.2 Approach Surface

A surface longitudinally centered on the extended runway centerline, extending outward and upward from each end of the primary surface. An Approach Surface is applied to each end of each runway based upon the type of approach available or planned for that runway end. The inner edge of the Approach Surface is the same width as the Primary Surface for that runway. The Approach Surface dimensions are described in Table 3-3.

3.4.3 Transitional Surface

A surface extending outward and upward from the sides of the Primary Surface and from the sides of the Approach Surfaces at a slope of 7 to 1.

3.4.4 Horizontal Surface

A horizontal plane 150 feet above the established airport elevation (the highest point of an airport's usable landing area measured in feet above mean sea level), the perimeter of which is constructed by swinging arcs 10,000 feet out for Runways 30R-12L and 30L-12R, from the center of each end of the Primary Surface of each runway and connecting the arcs with tangent lines.

3.4.5 Conical Surface

A surface extending outward and upward from the periphery of the Horizontal Surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

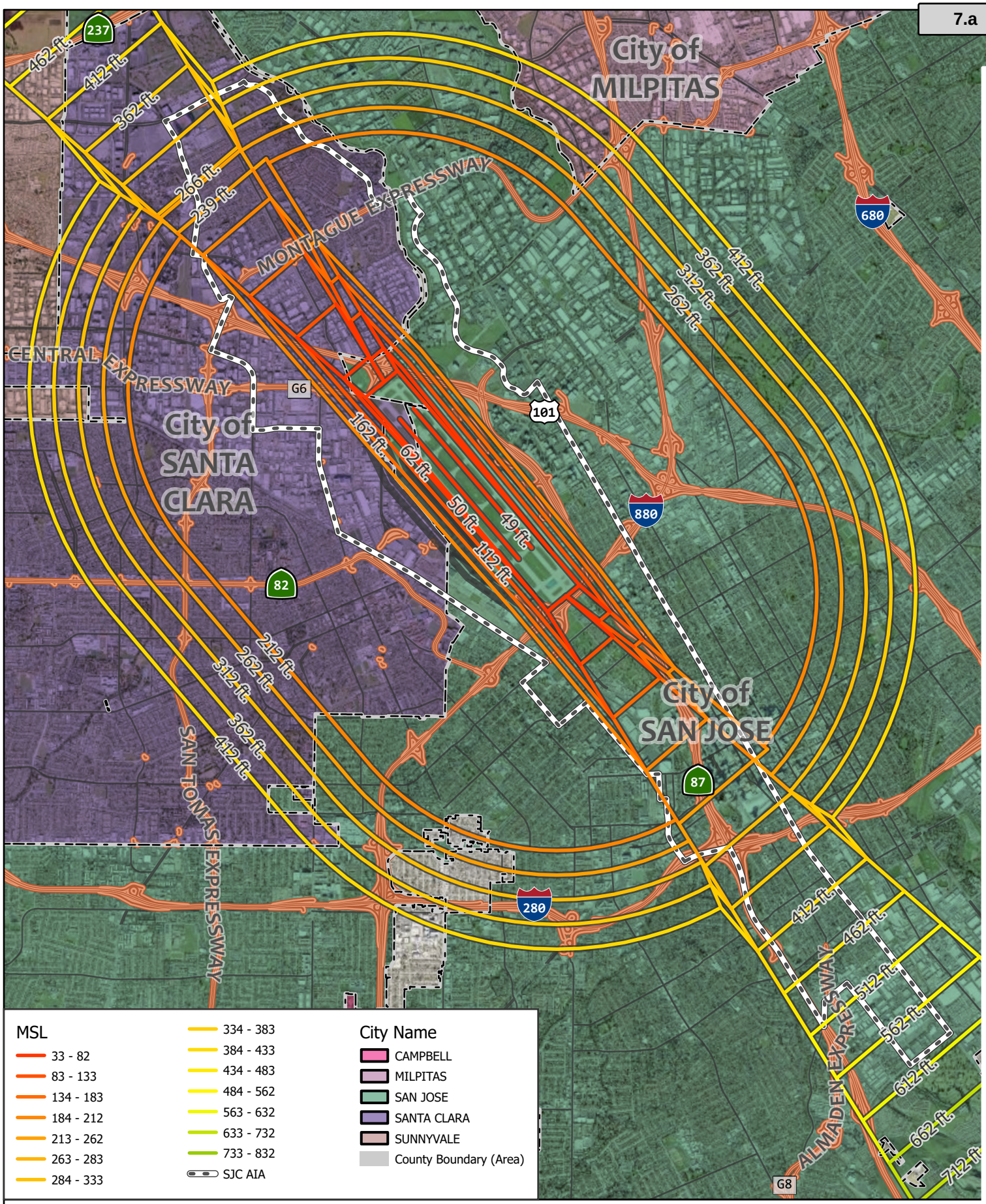
3.4.6 One Engine Inoperative (OEI) Surfaces

A surface extending outward and upward from a runway used for departures by Air Carrier aircraft. This surface provides obstruction clearance for a multi-engine aircraft having an engine failure on takeoff. The parameters for this surface are defined in Federal Aviation Regulations (FAR) Part 25.121.

3.4.7 Summary

Where imaginary surfaces overlap, such as in the case where the Approach Surface penetrates and continues upward and outward from the Horizontal Surface, the lowest surface is used to determine whether or not an object would be an obstruction to air navigation.

Any proposed new construction or expansion of existing structures that would penetrate any of the FAR Part 77 imaginary surfaces of the Airport is considered an incompatible land use, unless either the FAA has determined that the proposed structure does not constitute a hazard to air navigation or the Caltrans Aeronautics Program has issued a permit allowing construction of the proposed structure. The FAA has established minimum standards for the determination of hazards or obstructions to aviation. The FAA permits local agencies such as the ALUC to establish more restrictive criteria for determining if the height of a structure creates a safety hazard to aircraft operations. A determination by the FAA or Caltrans that a project does not constitute a hazard to air navigation does not limit the ALUC from determining that a project may be inconsistent under the policies of this ALUCP.



FAR Part 77 Surfaces

Figure 6

0 2,000 4,000 8,000

N

Attachment: Attachment A - SJC 5-4-23 Amended ALUCP (116272 : Receive report from Staff relating to SJC CLUP text amendments)

Table 3 - 3

FAR PART 77 DIMENSIONS

San Jose International Airport

	Runway			
	30L	12R	30R	12L
Runway Type	Precision	Precision	Nonprecision	Nonprecision
Primary Surface				
Length (feet)	11,400	11,400	11,400	11,400
Width (feet)	1000	1000	1000	1000
Approach Surface				
Slope	50:1*	50:1*	34:1	34:1
Length (feet)	10,000*	10,000*	10,000	10,000
Inner Width	1000	1000	1000	1000
Outer Width	16,000	16,000	4,000	4,000
Transitional Surfaces				
Slope	7:1	7:1	7:1	7:1
Horizontal Surface				
End Radius (feet)	10,000	10,000	10,000	10,000
Elevation (feet MSL)	212	212	212	212
Conical Surface				
Slope	20:1	20:1	20:1	20:1
Width (feet)	4,000	4,000	4,000	4,000

* Slope is 50:1 for 10,000 feet then 40:1 for an additional 40,000 feet

Source: Federal Aviation Regulations, Part 77

3.5 SAFETY RESTRICTION AREA

Safety of people on the ground and in the air and the protection of property from airport-related hazards are among the responsibilities of the Airport Land Use Commission. The 2011 Handbook presents guidelines for the establishment of airport safety areas in addition to those established by the FAA.

Airport safety zones are established to minimize the number of people exposed to potential aircraft accidents in the vicinity of the Airport by imposing density and use limitations within these zones. Figure 7 illustrates the airport safety zones for Runways 30R-12Land 30L-12R at the Airport. The safety zones are related to runway length and expected use. The safety zones shown in Figure 7 are based on a runway length of 11,000 feet for Runways 30R-12L and 30L-12R. Aircraft flight tracks are shown on Figure 3.

In addition, the survivability of aircraft occupants in the event of an emergency landing has been shown to increase significantly if the aircraft is able to reach the ground under control of the pilot. As a result, open area requirements are established for the safety zones in addition to density and use requirements.

Exposure to potential aircraft accidents diminishes with distance from the airport runways. The safety zones shown below are in descending order of exposure to potential aircraft accidents, with the Runway Protection Zone (RPZ) having the highest exposure followed by the Inner Safety Zone (ISZ), Turning Safety Zone (TSZ), Outer Safety Zone (OSZ) and Sideline Safety Zone (SSZ), with the Traffic Pattern Zone (TPZ) having the lowest level of exposure.

At airports with displaced runway thresholds, a choice exists to use either the runway threshold or the end of pavement to determine the location of the safety zones. This ALUCP uses the runway threshold as adopted by the Airport and the FAA for positioning the FAA RPZs, as depicted on the FAA approved Airport Layout Plan, as the basis for positioning the ALUC safety zones. Thus both RPZs are based on the runway thresholds and the ALUC safety zones are positioned accordingly.

The safety zones defined for the Airport are a composite based on the 2011 Handbook guidelines. The safety zones for the two longer runways are based on the diagram for a Large Air Carrier Airport. Safety zones are exclusive in their coverage, and do not overlay each other. Thus land in the RPZ is only in the RPZ, and is not also in the ISZ or TSZ. The order of precedence is, from highest to lowest: RPZ, ISZ, TSZ, OSZ, SSZ and TPZ. If a development project spans more than one safety zone, each part of the project must meet the requirements for the safety zone in which the land for that portion of the project is located. Thus a single building that extends over two safety zones may have differing height and density-of-use requirements for the two parts of the same physical structure. The following safety zones apply to San Jose International Airport based on guidelines provided in the 2011 Handbook:

3.5.1 Runway Protection Zones

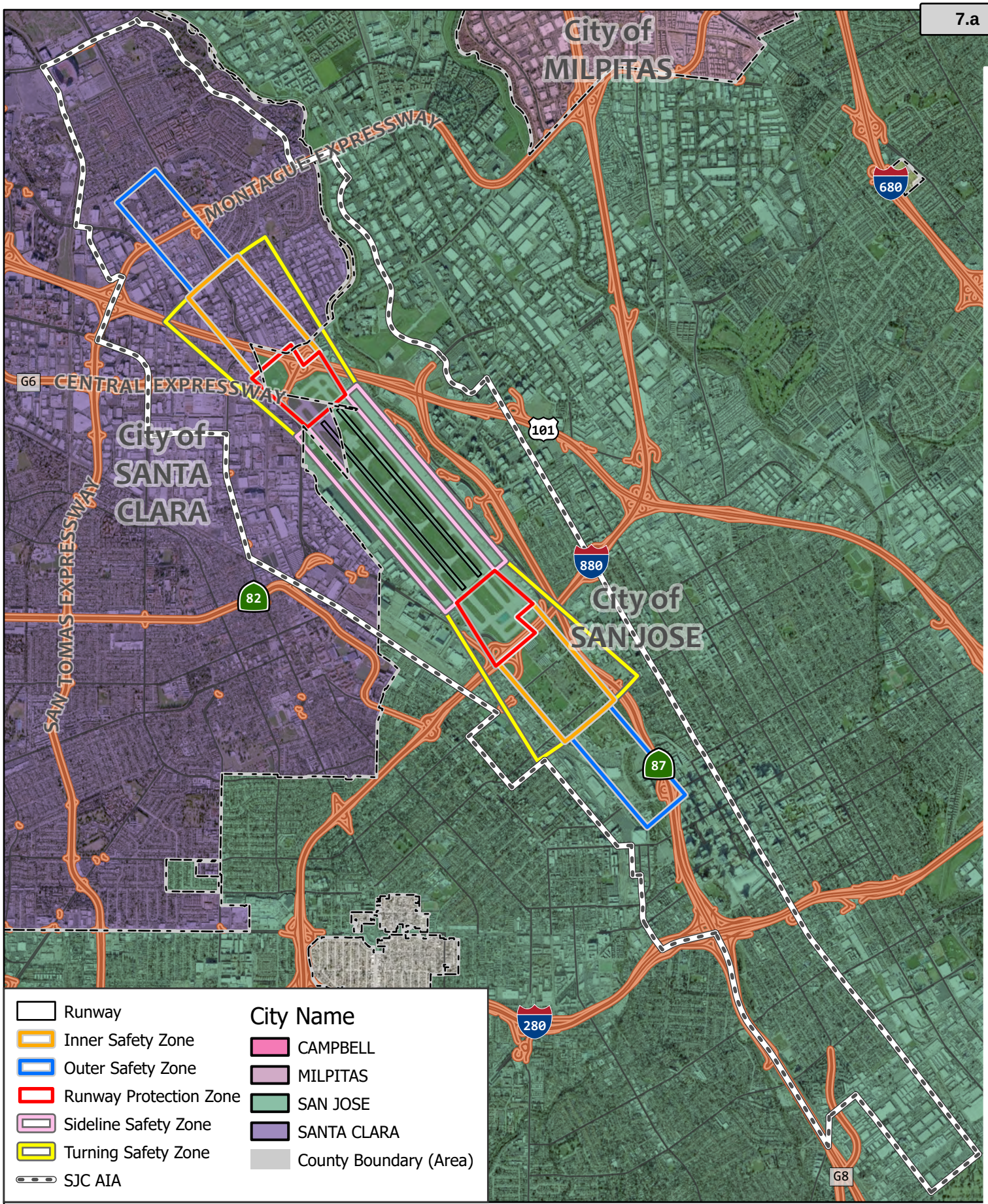
The function of the Runway Protection Zone (RPZ) is to enhance the protection of people and property on the ground and aircraft occupants. RPZs should be clear of all objects, structures and activities. At this airport the RPZ as adopted by the airport and the FAA, begins 200 feet out from the runway's displaced landing thresholds (not the pavement ends). It is a trapezoidal area centered on the extended runway centerline. The size is related to the expected aircraft use and the visibility minimums for that particular runway.

- The RPZs for Runway 30L and Runway 12R are 2,500 feet long with an inner width of 1,000 feet and an outer width of 1,750 feet.

- The RPZs for Runway 30R and Runway 12L are 1,700 feet long with an inner width of 1,000 feet and an outer width of 1,510 feet.

3.5.2 Turning Sector Defined

Some of the safety zones are bounded by a geometric feature defined as a "Turning Sector". These features are constructed as follows:



Safety Zones

Figure 7

0 2,000 4,000 8,000

N

3.5.2.1 Runways 30L-12R and 30R-12L Turning Sectors

Each runway end has a sector, which is bounded on the inside by the extended runway centerline. The radius of these sectors is 12667 ft, with the center point located 6667 ft along the runway centerline from the outer end of the primary surface, towards the opposite end of the runway. The arc for the sector is swung to the side opposite from the other runway. The interior angle of the sector is 8.53 degrees from the extended runway centerline.

The Turning Sector is defined as the outside bounds of the feature constructed above. There is one Turning Sector for each end of each of the runways.

3.5.3 Inner Safety Zone

The Inner Safety Zone (ISZ) is located within the Turning Sector boundary described above. The ISZ represents the approach and departure corridors that have the second highest level of exposure to potential aircraft accidents. The ISZ is centered on the runway centerline and extends from the outer edge of the Runway Protection Zone to the outer edge of the Turning Sector boundary. The length of the runway determines the dimensions.

- The ISZ for Runway 30L, 30R, 12L and 12R is an area 1,500 feet wide, centered on the runway centerline, contained within the Turning Sector. The total length of the RPZ and the ISZ is 6,000 feet.

- The Inner Safety Zone excludes the RPZ, the Turning Safety Zone and the Primary Surface.

3.5.4 Turning Safety Zone

The Turning Safety Zone (TSZ) represents the approach and departure areas that have the third highest level of exposure to potential aircraft accidents. The Turning Safety Zones are defined below.

- The TSZs for Runways 30R, 30L, 12R, and 12L are the areas inside the Turning Sector that do not include the RPZ or the ISZ.

- The Turning Safety Zone areas do not include the RPZ or the ISZ.

3.5.5 Outer Safety Zone

The Outer Safety Zone (OSZ) is a rectangular area centered on the extended runway centerline starting at the outer end of the ISZ and extending away from the runway end. The length of the runway determines the dimensions.

- The OSZ for each end of Runways 30L, 30R, 12L and 12R is a rectangular area 1,000 feet wide and 4,000 feet long centered on the extended runway centerline, starting at the outer edge of the ISZ and extending away from the runway threshold.

3.5.6 Sideline Safety Zone

The Sideline Safety Zone (SSZ) is an area along the length of the outside of the Primary Surface intersecting the Turning Safety Zone. Aircraft do not normally over fly this area, except aircraft losing directional control on takeoff (especially twin-engine aircraft).

- The SSZ for runways 30L, 30R, 12L and 12R are 500 feet wide and extend along the runway Primary Surface to intercept the Turning Sector boundaries.

- The SSZ excludes the area of the primary surface.

3.5.7 Traffic Pattern Zone

The Traffic Pattern Zone (TPZ) is that portion of the airport area routinely overflown by aircraft operating in the airport traffic pattern. The potential for aircraft accidents is relatively low and the need for land use restrictions is minimal. The TPZ excludes all other zones described above.

- The area outside any of the Runway Protection Zones, Inner Safety Zones, Sideline Safety Zones and Outer Safety Zones and inside this boundary and inside the Airport Influence Area is defined as the Traffic Pattern Zone for this runway.

- The Traffic Pattern Zone for this airport is defined as that portion of the Airport Influence Area outside the Runway Protection Zones, Inner Safety Zones, Traffic Pattern Zones, Sideline Safety Zones and Outer Safety Zones.

3.6 OVERFLIGHT RESTRICTION AREA

All areas within the Airport Influence Area (AIA) should be regarded as potentially subject to aircraft overflights. Although sensitivity to aircraft overflights will vary from one person to another, overflight sensitivity is particularly important within residential land uses and certain agricultural uses (open-air turkey farming, etc.).

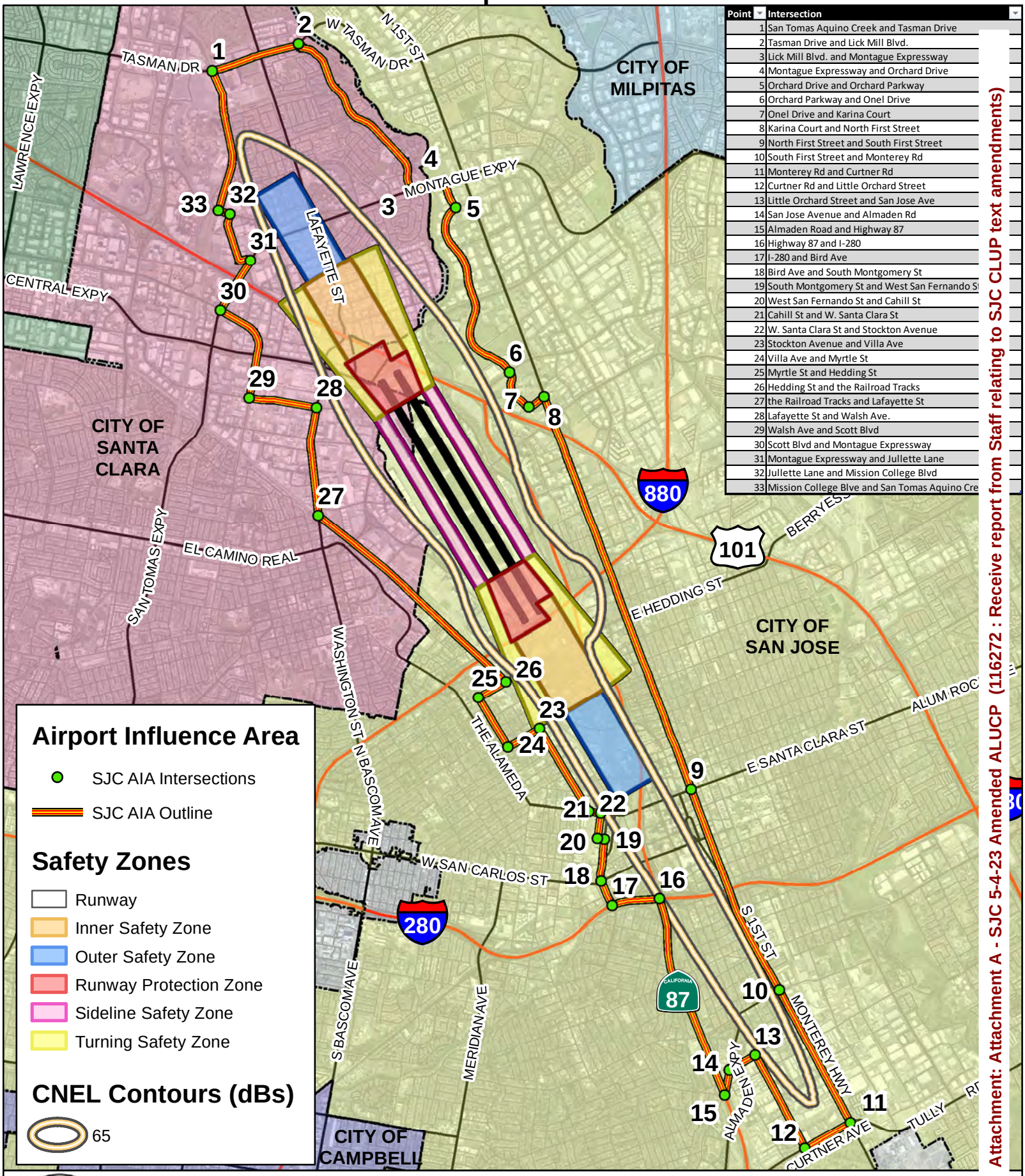
3.7 AIRPORT INFLUENCE AREA

The Airport Influence Area (AIA) is a composite of the areas surrounding the Airport that are affected by noise, height, and safety considerations. The AIA is defined as a feature-based boundary around the Airport within which all actions, regulations and permits must be evaluated by local agencies to determine how the Airport's Airport Land Use Compatibility Plan policies may impact the proposed project. This evaluation is to determine that the project meets the conditions specified for height restrictions, and noise and safety protection to the public. [A.B. 332 (Stats. 2003) codified in Public Utilities Code 21674.7 (b)].

The Airport Influence Area for San Jose International Airport (Figure 8) is defined as the area bounded by Saratoga Creek at Tasman Dr to Lick Mill Blvd to Montague Expressway to Orchard Dr to O'Nel Dr to Karina Ct to N 1st St to S 1st St to Monterey Rd to Curtner Rd to Little Orchard St to San Jose Ave to Almaden Rd to Highway 87 to I-280 to Bird Ave to S Montgomery St to W San Fernando St to Cahill St to W Santa Clara St to Stockton Ave to Villa Ave to Myrtle St Hedding St to the Railroad tracks to Lafayette St to Walsh Ave to Scott Blvd to San Tomas Expressway to Montague Expressway to Jullette Lane to Mission College Blvd to Saratoga Creek to Tasman Dr. In addition, for structures (including antennas) with a height of 500 feet or greater above ground level, the AIA is defined as the entire county, but only policies T-1 and T-2 shall apply.

The compatibility of land uses within the AIA should be preserved to the maximum extent feasible with particular emphasis on the preservation of existing agricultural and open space uses. The conversion of land from existing or planned agricultural, industrial, or commercial use to residential uses should be the subject of careful consideration of the potential impacts of aircraft overflights.

San Jose International Airport



Point	Intersection
1	San Tomas Aquino Creek and Tasman Drive
2	Tasman Drive and Lick Mill Blvd.
3	Lick Mill Blvd. and Montague Expressway
4	Montague Expressway and Orchard Drive
5	Orchard Drive and Orchard Parkway
6	Orchard Parkway and Onel Drive
7	Onel Drive and Karina Court
8	Karina Court and North First Street
9	North First Street and South First Street
10	South First Street and Monterey Rd
11	Monterey Rd and Curtner Rd
12	Curtner Rd and Little Orchard Street
13	Little Orchard Street and San Jose Ave
14	San Jose Avenue and Almaden Rd
15	Almaden Road and Highway 87
16	Highway 87 and I-280
17	I-280 and Bird Ave
18	Bird Ave and South Montgomery St
19	South Montgomery St and West San Fernando St
20	West San Fernando St and Cahill St
21	Cahill St and W. Santa Clara St
22	W. Santa Clara St and Stockton Avenue
23	Stockton Avenue and Villa Ave
24	Villa Ave and Myrtle St
25	Myrtle St and Hedding St
26	Hedding St and the Railroad Tracks
27	the Railroad Tracks and Lafayette St
28	Lafayette St and Walsh Ave.
29	Walsh Ave and Scott Blvd
30	Scott Blvd and Montague Expressway
31	Montague Expressway and Jullette Lane
32	Jullette Lane and Mission College Blvd
33	Mission College Blve and San Tomas Aquino Cre

Airport Influence Area

- SJC AIA Intersections
- SJC AIA Outline

Safety Zones

- Runway
- Inner Safety Zone
- Outer Safety Zone
- Runway Protection Zone
- Sideline Safety Zone
- Turning Safety Zone

CNEL Contours (dBs)

- 65

Attachment: Attachment A - SJC 5-4-23 Amended ALUCP (116272 : Receive report from Staff relating to SJC CLUP text amendments)

Airport Influence Area
Figure 8

0 0.5 1 2 Miles

N

Section 4

4 LAND USE COMPATIBILITY POLICIES

4.1 LAND USE PLANNING ISSUES

The land use planning criteria for the individual land use planning issues applicable to the Airport are discussed in Section 3.0. Figure 8 shows the Airport Influence Area (AIA), which encompasses the land use planning categories for noise and safety. The Santa Clara County Airport Land Use Commission (ALUC) and the Airport Land Use Compatibility Plan (ALUCP) for the Airport address policies based on the following criteria:

- **Noise Restriction Area.** The Noise Restriction Area is defined as the 65 dB CNEL contour (see Figure 5), inside which an acoustical analysis is required by the local agency with land use jurisdiction demonstrating how low-density, single-family, multi-family and mobile home dwelling units and schools have been designed to meet an interior noise level of 45 dB CNEL.

- **Height Restriction Area.** The Height Restriction Area is to protect the airspace around the Airport. The Horizontal Surface is 150 feet above the Airport elevations, the perimeter of which is constructed by swinging arcs out from the ends of the Primary Surface. The radius of the arc is 10,000 feet for this airport. The Conical Surface extends outward and upward from the periphery of the Horizontal Surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet. The Height Restriction Area is defined as the lowest of the Approach Surfaces plus the Transitional Surfaces plus the Horizontal Surface plus the Conical Surface plus the One Engine Inoperative surfaces and is defined in section 3.4 and presented on Figure 6.

- **Safety Restriction Area.** The Safety Restriction Area is to provide land use safety with respect to people and property on the ground and the occupants of aircraft. The safety zones applicable to the Airport are defined in Section 3.5 and presented on Figure 7.

- **Overflight Restriction Area.** The Overflight Restriction Area is a composite of the areas surrounding the Airport that are areas affected by noise, height, and safety considerations. All areas within the AIA (Figure 8) should be regarded as potentially subject to aircraft overflights as discussed in Section 3.6.

4.2 JURISDICTIONAL RESPONSIBILITIES

The policies set forth in this section contain criteria intended to prevent future conflicts between airport operations and surrounding land uses. Implementation of these criteria requires action by the local jurisdictions that have control over the land uses in the Airport Influence Area (AIA) presented on Figure 8.

The jurisdictional responsibilities for implementation of the ALUCP are described below. In addition, actions that are available to the local jurisdictions are also presented.
Implementation of the ALUCP will be the responsibility of the County of Santa Clara and the City of San Jose and the City of Santa Clara for those areas within the AIA under their jurisdiction. Note that Policies T-1 and T-2 extend countywide. The Santa Clara County Airport Land Use Commission (ALUC) will provide policy direction, advice, and technical assistance to the County and the Cities of San Jose and Santa Clara as needed to facilitate implementation of the ALUCP.

4.2.1 Santa Clara County Airport Land Use Commission

The Santa Clara County Airport Land Use Commission shall:

- Adopt the airport land use policies and the AIA boundary maps. The ALUCP and its planning boundary maps shall, upon adoption, be subject to annual review by the ALUC and be updated as required.

  Amendments to the ALUCP document are limited to no more than once per calendar year.

- Review the General Plan and applicable Specific Plans for the County of Santa Clara and the Cities of San Jose and Santa Clara to determine if such plans and regulations are consistent with the policies of this ALUCP.

  Until the ALUC has determined that the General Plans and Specific Plans of the County and cities are consistent, or until the County or associated city has overridden the ALUC's determination, all actions, regulations and permits within the AIA shall be referred to the ALUC for a consistency determination.

- Review all proposed amendments to the General Plans, Specific Plans, and zoning and building regulations that may affect land use in the AIA.

  The ALUC shall determine if the proposed amendments are consistent or inconsistent with this ALUCP.

- Review changes to the Airport Master Plan or Airport Layout Plan or modifications to the aircraft flight tracks, new aircraft noise contours, or any other development that would alter the land use compatibility issues addressed in Section 3.0.

  The ALUC shall determine if the ALUCP is consistent with the changes or if the ALUCP requires an amendment.

- Review the plans, regulations and other actions where there is a conflict with ALUC plans and policies. A review of land use issues within the AIA relating to ALUC policies may be requested by any member of the ALUC, or by the owner/operator of the Airport.

- Coordinate off-airport land use planning efforts of the cities within the county, the County of Santa Clara and Federal and State agencies concerned with airport land use.

- Gather and disseminate information relating to airport land use and aircraft noise, height and safety factors that may affect land use.

4.2.1.1 Review of Development Projects

Once the ALUC has determined that a local jurisdiction's General Plan and applicable Specific Plans are consistent with the ALUCP (or the local jurisdiction has overruled the ALUC and made the required findings of consistency with the purposes stated in Public Utilities Code section 21670, et al), to the extent that these are not mandated referrals, the ALUC encourages the local jurisdictions to submit referrals to the ALUC for the following proposed developments:

- Any project that requires use of the Infill policies or Reconstruction policy R-3 in order to be deemed consistent or inconsistent with this ALUCP.

- Proposed residential development, including land divisions, consisting of five or more dwelling units or parcels within the AIA.

- Major infrastructure development or improvements (e.g., water, sewer, roads) that would promote urban development within the AIA.

- Proposed land acquisition by any entity for the purpose of developing a school, hospital, nursing home, library, outdoor theater, or other high-density or low-mobility uses within the AIA.

- Any proposal anywhere in the County for construction or alteration of a structure (including antennas) higher than 200 feet above ground level, to verify compliance with FAR 77.13 and ALUC policies.

- Any proposed land use action by city or County planning agencies involving a question of compatibility with the Airport's activities. For example, creation of a landfill within the AIA would generally meet all height and density requirements, however the tendency of landfills to attract bird activity may create a safety hazard for airport operations.

- Any project within the AIA that is voluntarily referred to the ALUC for review by the local agency.

4.2.1.2 Project Submittals

When review of a land use development proposal is required under this ALUCP, the referring agency shall provide the following information to the ALUC in addition to the information required by the city or County:

- A map, drawn to an appropriate scale, showing the relationship of the project to the Airport's boundaries and runways, airport safety zones, airport noise contours and the FAA Part 77 Surfaces for the airport.

- A detailed site plan showing ground elevations, location of structures, open spaces and the heights of structures and landscaping.

- A description of permitted or proposed land uses and restrictions on the uses.

- An indication of the potential or proposed number of dwelling units per acre for residential uses.

- The maximum number of people potentially occupying the total site or portions of the site at any one time.

- Any project submitted for airport land use compatibility review for reasons of height-limit issues shall include a copy of the Federal Aviation Administration's evaluation and reply to proponent's notification to the FAA using FAA Form 7460-1, *Notice of Proposed Construction or Alteration*.

4.2.1.3 Review Process

The proposed actions referred to in Section 4.2.1.1 shall be referred to the ALUC at the earliest possible time but no later than the time allowed in the applicable statutes and regulations, in order that the ALUC's findings may be considered by the local agency prior to finalizing the proposed action.

The ALUC must find a proposal either 1) consistent with the ALUCP or 2) inconsistent with the ALUCP. Additionally, the ALUC can provide recommendations for changes that would enhance the project's compatibility with the ALUCP or the ALUC can state under which conditions the proposal would be consistent.

The ALUC must take action on a request for a consistency determination within 60 days of the referral being deemed complete by ALUC Staff. If the proponent desires to request a delay in determination, the proponent must withdraw the project from consideration and reapply at a later date. If the determination is not made within 60 days (or as extended by proponent's request), the proposal shall be considered consistent with the ALUCP.

The ALUC may, at the request of the local jurisdiction or interested party, provide an interpretation of any of the policies found in this ALUCP.

4.2.2 Affected Local Agencies

To bring their General Plan and Specific Plans into conformity with this ALUCP, the ALUC recommends that the affected agencies consider the following:

- Adopt the ALUC policies and the AIA boundary maps.

- Incorporate the adopted ALUC policies, boundary maps, and land use recommendations into the local agency's General and/or Specific Plan and Zoning Ordinances.

- Provide ongoing review of land uses within the AIA to ensure that land use changes are compatible with ALUC policies and plans. The affected local agency shall work closely with ALUC staff to establish and carry out review coordination with the ALUC.

- Incorporate the AIA boundary maps into the local agency's geographic information system (GIS).

4.2.2.1 Overrule Notification Process

The affected local agencies shall:

- Notify the ALUC at least 45 days in advance, of their intent to overrule any ALUC non-consistency determination including a copy of their proposed decision and specific findings.

- Notify the ALUC if and when the local agency overrules any ALUC non-consistency determinations.

4.2.3 Airport Owner/Operator Responsibilities

To ensure that the ALUC is able to fulfill its statutory responsibilities, San Jose International Airport management should:

- Notify the ALUC of operational or physical changes at any of the airports they manage, such as aircraft flight tracks, airfield configuration, structural development, relocation of facilities, and proposed new and/or updates to planning documents.

- Notify the ALUC of any changes that may affect Federal Aviation Regulations (FAR) Part 77 height restriction surfaces or CNEL aircraft noise contours.

- Provide CNEL noise contour data including the most recent actual data as well as forecasts covering at least twenty years into the future.

4.3 COMPATIBILITY POLICIES

The compatibility of land uses in the vicinity of the Airport will be evaluated for each of the potential land use impact categories in terms of the compatibility policies established for each category of concern. The graphic illustrations of each area of concern presented in this ALUCP are to be included in the evaluation. The following compatibility policies will be used for ALUC consistency review.

4.3.1 General Compatibility

4.3.1.1 Policies

G-1 In the case of conflicting policies, the most restrictive policy shall be applied.

G-2 If a project falls into an area within two or more Airport Influence Areas (AIA), the most restrictive conditions from each separate airport ALUCP shall apply to the project.

G-3 The Airport is exempt from the policies of this ALUCP for the development of projects on airport property that are directly related to airport operations (examples: terminals, FBOs, fuel storage, passenger and employee parking). This policy does not relieve the Airport of its other obligations to the ALUC, such as providing Airport Master Plan Updates for ALUC review.

G-4 Local jurisdictions should encourage the conversion of land uses that are currently incompatible with this ALUCP to uses that are compatible, where feasible.

G-5 Where legally allowed, dedication of an avigation easement to the City of San Jose shall be required to be offered as a condition of approval on all projects located within an Airport Influence Area, other than reconstruction projects as defined in paragraph 4.3.7. All such easements shall be similar to that shown as Exhibit 1 in Appendix A.

G-6 Any proposed uses that may cause a hazard to aircraft in flight are not permitted within the AIA. Such uses include electrical interference, high intensity lighting, attraction of birds (certain agricultural uses, sanitary landfills), and activities that may produce smoke, dust, or glare. This policy requires the

height at maturity of newly planted trees to be considered to avoid future penetration of the FAA FAR Part 77 Surfaces.

G-7 All new exterior lighting or large video displays within the AIA shall be designed so as to create no interference with aircraft operations. Such lighting shall be constructed and located so that only the intended area is illuminated and off-site glare is fully controlled. The lighting shall be arrayed in such a manner that it cannot be mistaken for airport approach or runway lights by pilots.

G-8 These policies apply to short term (temporary) uses a well as long term uses.

4.3.2 Noise Compatibility

The objective of noise compatibility criteria is to minimize the number of people exposed to frequent and/or high levels of aircraft noise.

4.3.2.1 Policies

N-1 The Community Noise Equivalent Level (CNEL) method of representing noise levels shall be used to determine if a specific land use is consistent with the ALUCP.

N-2 In addition to the other policies herein, the Noise Compatibility Policies presented in Table 4-1 shall be used to determine if a specific land use is consistent with this ALUCP.

N-3 Noise impacts shall be evaluated according to the Aircraft Noise Contours presented on Figure 5.

N-4 No residential or transient lodging construction shall be permitted within the 65 dB CNEL contour boundary unless it can be demonstrated that the resulting interior sound levels will be less than 45 dB CNEL and there are no outdoor patios or outdoor activity areas associated with the residential portion of a mixed use residential project or a multi unit residential project. (Sound wall noise mitigation measures are not effective in reducing noise generated by aircraft flying overhead.)

N-5 All property owners within the Airport Influence Area who rent or lease their property for residential use shall include in their rental/lease agreement with the tenant, a statement advising that they (the tenants) may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). See AB2776 (2002).

N-6 Noise level compatibility standards for other types of land uses shall be applied in the same manner as the above residential noise level criteria. Table 4-1 presents acceptable noise levels for other land uses in the vicinity of the Airport.

N-7 Single-event noise levels (SENL) from single aircraft overflights are also to be considered when evaluating the compatibility of highly noise-sensitive land uses such as schools, libraries, outdoor theaters, and mobile homes. Single-event noise levels are especially important in the areas regularly overflown by aircraft, but which may not produce significant CNEL contours, such as the down-wind segment of the traffic pattern, and airport entry and departure flight corridors.

4.3.3 Height Compatibility

The objective of height compatibility criteria is to avoid development of land uses, which, by posing hazards to flight, can increase the risk of an accident occurring.

4.3.3.1 Policies

H-1 Any structure or object that penetrates the Federal Aviation Regulations Part 77, *Objects Affecting Navigable Airspace*, (FAR Part 77) surfaces as illustrated in Figure 6, is presumed to be a hazard to air navigation and will be considered an incompatible land use, except in the following circumstance. If the structure or object is above the FAR Part 77 surface, the proponent may submit the project data to the FAA for evaluation and air navigation hazard determination, in which case the FAA's determination shall prevail.

Table 4 - 1

NOISE COMPATIBILITY POLICIES

LAND USE CATEGORY	CNEL					
	55-60	60-65	65-70	70-75	75-80	80-85
Residential – low density Single-family, duplex, mobile homes	*	**	***	****	****	****
Residential – multi-family, condominiums, townhouses	*	**	***	****	****	****
Transient lodging - motels, hotels	*	*	**	****	****	****
Schools, libraries, indoor religious assemblies, hospitals, nursing homes	*	***	****	****	****	****
Auditoriums, concert halls, amphitheaters	*	***	***	****	****	****
Sports arena, outdoor spectator sports, parking	*	*	*	**	***	****
Playgrounds, neighborhood parks	*	*	***	****	****	****
Golf courses, riding stables, water recreation, cemeteries	*	*	*	**	***	****
Office buildings, business commercial and professional, retail	*	*	**	***	****	****
Industrial, manufacturing, utilities, agriculture	*	*	*	***	***	****
* Generally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements. Mobile homes may not be acceptable in these areas. Some outdoor activities might be adversely affected.					
** Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Outdoor activities may be adversely affected. <u>Residential:</u> Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.					
*** Generally Unacceptable	New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor activities are likely to be adversely affected.					
**** Unacceptable	New construction or development shall not be undertaken.					

Source: Based on General Plan Guidelines, Appendix C (2003), Figure 2 and Santa Clara County ALUC 1992 Land Use Plan, Table 1

H-2 Any project that may exceed a FAR Part 77 surface must notify the Federal Aviation Administration (FAA) as required by FAR Part 77, Subpart B on FAA Form 7460-1, *Notice of Proposed Construction or Alteration*. (Notification to the FAA under FAR Part 77, Subpart B, is required even for certain proposed construction that does not exceed the height limits allowed by Subpart C of the FARs).

4.3.4 Tall Structure Compatibility

Structures of a height greater than 200 feet above ground level can be a special hazard to aircraft in flight.

4.3.4.1 Policies

T-1 The applicant for any proposed project anywhere in the County for construction or alteration of a structure (including antennas) higher than 200 feet above ground level shall submit to the FAA a completed copy of FAA Form 7460-1, *Notice of Proposed Construction or Alteration*. A copy of the submitted form shall be submitted to the Santa Clara County ALUC as well as a copy of the FAA's response to this form.

T-2 Any proposed project anywhere in the County for construction or alteration of a structure (including antennas) higher than 200 feet above ground level shall comply with FAR 77.13(a)(1) and shall be determined inconsistent if deemed to be a hazard by the FAA or if the ALUC determines that the project has any impact on normal aircraft operations or would increase the risk to aircraft operations.

4.3.5 Safety Compatibility

The objective of safety compatibility criteria is to minimize the risks associated with potential aircraft accidents. These include the safety of people on the ground and the safety of aircraft occupants. Land uses of particular concern are those in which the occupants have reduced effective mobility or are unable to respond to emergency situations.

4.3.5.1 Policies

S-1 These policies and the Safety Zone Compatibility Policies presented in Table 4-2 shall be used to determine if a specific land use is consistent with the ALUCP. Safety impacts shall be evaluated according to the Airport Safety Zones presented on Figure 7.

S-2 Schools, hospitals, nursing homes, and other uses in which the majority of occupants are children, elderly, and/or disabled shall be prohibited within the Runway Protection Zones (RPZs), Inner Safety Zones (ISZs), Turning Safety Zones (TSZs), Sideline Safety Zones (SSZs), and Outer Safety Zones (OSZs) presented in Table 3-2.

S-3 Amphitheaters, sports stadiums and other very high concentrations of people shall be prohibited within the Runway Protection Zones (RPZs), Inner Safety Zones (ISZs), Turning Safety Zones (TSZs), Sideline Safety Zones (SSZs) and Outer Safety Zones (OSZs) presented in Figure 7.

S-4 Storage of fuel or other hazardous materials shall be prohibited in the Runway Protection Zone. Above ground storage of fuel or other hazardous materials shall be prohibited in the Inner Safety Zone and Turning Safety Zone. In the Sideline Safety Zones and Outer Safety Zones, above ground storage of fuel or other hazardous materials not associated with aircraft use should be discouraged.

S-5 In addition to the requirements of Table 4-2, open space requirements, for sites which can accommodate an open space component, shall be established at the general plan level for each safety zone where feasible as determined by the local jurisdiction, as individual parcels may be too small to accommodate the minimum-size open space requirement. To qualify as open space, an area must be free of buildings and have minimum dimensions of at least 75 feet wide by 300 feet long along the normal direction of flight. Streets and parks may function as such open spaces without limitations on vegetation or right of way improvements. The alignment of streets to runways, clustering of development and provision of contiguous landscaping and parking areas will be encouraged to increase the size of open space areas.

Table 4 - 2

SAFETY ZONE COMPATIBILITY POLICIES

Safety Zone	Maximum Population Density	Open Space Requirements	Land Use
Runway Protection Zone – RPZ	-0- (No people allowed)	100 percent (No structures allowed)	Agricultural activities, roads, open low-landscaped areas. No trees, telephone poles or similar obstacles. Occasional short-term transient vehicle parking is permitted.
Inner Safety Zone – ISZ	Nonresidential, maximum 120 people per acre (includes open area and parking area required for the building's occupants and one-half of the adjacent street area)	30 percent of gross area open. No structures or concentrations of people between or within 100 feet of the extended runway centerlines.	No residential. Nonresidential uses should be activities that attract relatively few people. No shopping centers, restaurants, theaters, meeting halls, stadiums, multi-story office buildings, labor-intensive manufacturing plants, educational facilities, day care facilities, hospitals, nursing homes or similar activities. No hazardous material facilities (gasoline stations, etc.).
Turning Safety Zone – TSZ	Nonresidential, maximum 200 people per acre (includes open area and parking area required for the building's occupants and one-half of the adjacent street area)	20 percent of gross area Minimum dimensions: 300 ft by 75 ft parallel to the runway(s).	Residential - if non-residential uses are not feasible, allow residential infill to existing density. No regional shopping centers, theaters meeting halls, stadiums, schools, day care centers, hospitals, nursing homes or similar activities. No hazardous material facilities (gasoline stations, etc.).
Outer Safety Zone – OSZ	Nonresidential, maximum 300 people per acre (includes open area and parking area required for the building's occupants and one-half of the adjacent street area)	20 percent of gross area	Residential - if non-residential uses are not feasible, allow residential infill to existing density. No regional shopping centers, theaters meeting halls, stadiums, schools, large day care centers, hospitals, nursing homes or similar activities. No above ground bulk fuel storage.
Sideline Safety Zone – SSZ	Nonresidential, maximum 300 people per acre (includes open area and parking area required for the building's occupants and one-half of the adjacent street area)	30 percent of gross area	Residential - if non-residential uses are not feasible, allow residential infill to existing density. No regional shopping centers, theaters meeting halls, stadiums, schools, large day care centers, hospitals, nursing homes or similar activities. No above ground bulk fuel storage.
Traffic Pattern Zone – TPZ	No Limit	10 percent of gross area located within one-half mile of the project	Residential – No Limit. No sports stadiums (greater than 20,000 person capacity) or similar uses with very high concentration of people. Note that this applies only to those areas inside the Airport Influence Area. (See Paragraph 3.5.7, Pg 3-16)

Source: Based on 2011 *Airport Land Use Planning Handbook* prepared by the California Department of Transportation, Division of Aeronautics

S-6 The principal means of reducing risks to people on the ground is to restrict land uses so as to limit the number of people who might gather in areas most susceptible to aircraft accidents. A method for determining the concentration of people for various land uses is presented in Section 5.0, Implementation.

S-7 The following uses shall be prohibited in all Airport Safety Zones:

- Any use which would direct a steady light or flashing light of red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.

- Any use that would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.

- Any use which would generate smoke or water vapor, or which would attract large concentrations of birds, or which may otherwise negatively affect safe air navigation within the area.

- Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation, communication or navigation equipment.

S-8 In unique cases an exception can be granted, at the discretion of the ALUC, on the basis of mitigation measures proposed by the applicant which would result in the final project improving the overall safety in the safety zones in comparison to the situation existing prior to the project. An example of such a possible mitigation is the removal of existing incompatible structures in exchange for constructing less incompatible structures. The following conditions must be met for this variance to be granted:

a. There must be a clear, demonstrable net improvement in safety.

b. The mitigation must provide a permanent improvement in safety. For instance, in the example above, the removed structures could not be replaced by other structures at a later date.

4.3.6 Overflight

The objective of the overflight compatibility criteria is to assist those persons who are highly annoyed by overflights or have an above-average sensitivity to aircraft overflights to avoid living in locations where these impacts may occur.

4.3.6.1 Policies

O-1 All new projects within the AIA that are subject to discretionary review and approval shall be required to dedicate in compliance with state law, an avigation easement to the City of San Jose. The avigation easement shall be similar to that shown as Exhibit 1 in Appendix A.

(In September of 2002 Assembly Bill AB2776 was signed into law and became effective on January 1, 2004. This statute requires that as part of the real estate transfer process, the residential property purchaser be informed if the property is in an Airport Influence Area and be informed of the potential impacts resulting from the associated airport.)

4.3.7 Reconstruction

Reconstruction as used in this ALUCP is the rebuilding of a legally established structure located in any of the safety zones, to its original conditions (typically due to a fire, or earthquake damage or destruction). “Original conditions” means the same or lesser footprint, height and intensity of use. Reconstruction projects may be approved under the following policies:

4.3.7.1 Policies

R-1 Reconstruction projects that are not subject to a previous avigation easement shall not be required to provide an avigation easement as a condition for approval, unless required by R-3.

R-2 Residential reconstruction projects must include noise insulation to assure interior noise levels of less than 45 dB CNEL.

R-3 An application for reconstruction increasing the structure's internal square footage, footprint square footage, height, and/or intensity of use may be approved if the local agency determines that such increase will have no adverse impact beyond that which existed with the original structure. However, a project approved under this policy shall require the property owner to offer and the local agency shall accept an avigation easement to the jurisdiction operating the airport, similar to Exhibit 1 in the Appendix.

4.3.8 Modification

Modification as used in this ALUCP is defined as the modification of approvals and unbuilt development that does not change the intensity of development. Examples are rezoning to change the setbacks, permit amendments or revised architecture, etc.

4.3.8.1 Policies

M-1 Modifications shall be transmitted to the ALUC staff for review and comment.

4.3.9 Infill

The term "infill" as used in this ALUCP is defined as the development of vacant or underutilized residential properties located in a safety zone, of less than 0.25 acres in size, in areas that are already substantially developed with uses not ordinarily permitted by the ALUCP compatibility criteria. In some circumstances, infill projects may be acceptable if the following criteria are met.

Redevelopment is not considered infill. The term "redevelopment" as used in this ALUCP is defined as land that previously contained a building that was removed or demolished with the intent of replacing the building with a new building.

4.3.9.1 Policies

I-1 Infill projects must comply with paragraph 4.3.5 and table 4-2 of this ALUCP with the exception of the land use density requirements.

I-2 Infill projects may be approved if all of the following conditions are met:

a) The total contiguous undeveloped land area at this location is less than 0.25 acres in size. Note that this means the total contiguous undeveloped land area, not just the land area being proposed for development. Lots larger than 0.25 acres shall not be considered for infill.

b) The site is already surrounded on three sides and a street, or two sides and two streets, by the same land use as that being proposed.

c) The local agency determines that the project will create no adverse safety impacts beyond those that already exist due to the existing incompatible land uses.

d) Where legally feasible the property owner shall offer and the local agency shall accept an avigation easement to the jurisdiction operating the airport, similar to Exhibit 1 in the Appendix.

Section 5

5 IMPLEMENTATION

5.1 CONSISTENCY WITH LOCAL PLANS AND ZONING

The California State Aeronautics Act {Public Utilities Code: Division 9, Part 1, Chapter 4, Article 3.5, Section 21670 et seq} places the responsibility for implementing and enforcing this Airport Land Use Compatibility Plan (ALUCP) on the local governmental agencies responsible for land use planning within each airport's Airport Influence Area (AIA).

Once the ALUC has adopted a revised (or new) ALUCP, and transmitted that ALUCP to an affected local agency that local agency is mandated to incorporate the ALUCP's provisions into its General and/or Specific Plan(s) within 180 days {Government Code 65302.3(b)}, unless all or portions of the ALUCP are overruled, in which case the 180 day requirement is reset to the overrule date. The local agency is encouraged to adopt zoning ordinance(s) that implement the policies of their General/Specific Plan(s).

If a local agency decides not to incorporate the ALUCP policies verbatim in its General and/or Specific plans, it may overrule portions (or all of) the ALUCP if it finds that its General and/or Specific Plans are consistent with the State Aeronautics Act, PUC 21670 et seq. The overrule process requires a two-thirds vote of the local agency's governing body, supported by specific findings which demonstrate that the plan(s) satisfy the purposes of the State Aeronautics Act {PUC 21670 et seq} and guidance of the state's Airport Land Use Planning Handbook.

During the amendment process and subsequent to adoption of revised General and/or Specific Plan(s) by a local agency, the ALUC is required to promptly review both the draft and final Plan(s) for and ALUCP consistency determination {PUC 21676}.

5.2 LAND USE DESIGNATIONS

The most fundamental means of assuring compatibility between an airport and surrounding land uses is by the designation of appropriate land uses in local general plans, specific plans, and zoning ordinances. Even with the designation of appropriate land uses, the long-term maintenance of airports and land use compatibility is often difficult to achieve.

Land use designations can be limited in the degree of restrictiveness that can be applied. Overly restrictive land use regulations may raise constitutional questions to the taking of private property without just compensation. This is particularly applicable in areas near the ends of the runways where such extreme restrictions may be appropriate. For this reason airport owners/operators are encouraged to purchase an interest in the land containing the Runway Protection Zones in order to effect the purposes of this Plan.

Land use designations for an area for different uses than already exist may encourage change in the long term, but it may not eliminate existing incompatible uses. Other actions such as fee simple acquisition may be necessary to bring about the changes.

5.2.1 Airport Overlay Zones

One way of achieving aviation-oriented land use designations is adoption of an overlay or combining zone. An overlay zone supplements local land use designations by adding specific noise and, often more importantly, safety criteria (e.g., maximum number of people on the site, site design, and open space criteria, height restrictions, etc.) applicable to future development in the AIA.

An airport overlay zone has several important benefits. Most importantly, it permits the continued utilization of the majority of the design and use policies contained in the existing zones. At the same time, it provides a mechanism for implementation of restrictions and conditions that may apply to only a few types of land uses within a given land use category or zoning district. This avoids the need for a large number of discrete zoning districts. It also enables local jurisdictions to use the policies provided in the ALUCP, rather than through redefinition of existing zoning district descriptions.

The County and cities should consider adopting in their zoning codes an Airport Overlay District Zone (Airport Safety Overlay Zone), which should include the following:

- **Noise Insulation Standards** - In areas that will potentially be impacted by noise, the Airport Overlay District Zone could be used to assure compliance with the State statutes regarding interior noise levels. The Overlay District Zone could specify the construction techniques necessary to meet the requirements.

- **Height Limitations** - Restrictions on the height of buildings, antennas, trees, and other objects near the Airport, as defined by Federal Aviation Regulations (FAR) Part 77, Subpart C, and regulated by the California Aeronautics Law, can be implemented as part of the Airport Overlay District Zone.

- **FAA Notification Requirements** - The Airport Overlay District Zone also can be used to assure that project developers are informed about the need for compliance with the notification requirements of FAR Part 77. Subpart B of the regulations requires that the proponent of any project that exceeds a specified set of height criteria submit a FAA Form 7460-1 *Notice of Proposed Construction or Alteration* to the FAA prior to commencement of construction. The height criteria associated with this notification requirement are lower than those in FAR Part 77, Subpart C, which define airspace obstructions. The purpose of the notification is to determine if the proposed construction would constitute a potential hazard or obstruction to flight. Notification is not required for proposed structures that would be shielded by existing structures or by natural terrain of equal or greater height, where it is obvious that the proposal would not adversely affect air safety. Whenever possible, the FAA No Hazard Determination shall be obtained by the project proponent prior to submitting a referral for a consistency determination.

- **Maximum Densities** - The principal noise and safety compatibility standards in the ALUCP are expressed in terms of dwelling units per acre for residential uses and people per acre for other land uses. These standards can either be included as is in the Airport Overlay District Zone or used to modify the underlying land use designations. For residential land uses, the correlation between the compatibility criteria and land use designations is direct. For other land uses, the implications of the density limitations are not as clear. One step that can be taken by local governments is to establish a matrix indicating whether specific types of land uses are or are not compatible with each of the four compatibility zones. To be useful, the land use categories will need to be more detailed than typically provided by general plan or zoning ordinance land use designations. When calculating density, the project site shall be the area used in the calculation.

- **Open Space Requirements** - ALUCP criteria regarding AIA open space suitable for emergency aircraft landings can be implemented by the Airport Overlay District Zone. These criteria are most effectively carried out by planning at the general or specific plan level, but may also need to be addressed in terms of development restrictions on large parcels.

5.2.2 Avigation Easements

Avigation easements are another type of land use control measure available to local jurisdictions. Historically, avigation easements have been used to establish height limitations, prevent other flight hazards, and prevent noise impacts. More recently, they have been used as a form of buyer awareness - the recording of an easement against a property ensures that prospective buyers of the property are informed about the Airport impacts. (See the Appendix for a typical Avigation Easement).

An avigation easement applies only to the specific property to which it is attached and it is binding on all subsequent owners of the property. Avigation easements can be obtained either by purchase or by required dedication.

- **Purchase** - Acquisition of avigation easements for a monetary amount is usually done by the Airport owner, which may or may not be the same as the local land use jurisdiction. In most instances, the purchase of avigation easements is limited to property within Runway Protection Zones or elsewhere very close to the Airport's boundaries where some significant degree of restriction or impact is involved.

- **Dedication** - Required dedication of avigation easements is sometimes set as a condition for local jurisdiction approval of a proposed land use development, especially a residential development, in the vicinity of an Airport. Generally, when avigation easements are obtained in this manner, they are primarily intended to serve as a comprehensive and stringent form of a buyer awareness measure.

A standard avigation easement conveys the following property rights from the owner of the property to the holder of the easement:

- **Overflight** - A right-of-way for free and unobstructed passage of aircraft through the airspace over the property at any altitude above a surface specified in the easement (in accordance with Federal Aviation Regulations Part 77 and/or criteria for terminal instrument procedures).

- **Impacts** - A right to subject the property to noise, vibration, fumes, dust, and fuel particle emissions associated with airport and aircraft activity.

- **Height Limits** - A right to prohibit the construction or growth of any structure, tree, or other object that would penetrate the acquired airspace.

- **Access and Abatement** - A right-of-entry onto the property, with appropriate advance notice, for the purpose of removing, marking, or lighting any structure or other object that enters the acquired airspace.

- **Other Restrictions** - A right to prohibit electrical interference, glare, misleading light sources, visual impairments, and other hazards to aircraft from being created on the property.

Easements that convey only one or more of these rights are common. An easement containing only the first two rights is usually referred to as an overflight or noise easement. The latter three rights are often collectively called a height-limit or airspace easement. Overflight easements are useful in locations sufficiently distant from an airport where height limits and other restrictions are not a concern. Height-limit easements have most frequently been obtained by purchase of properties close to an airport where restrictions on the height of objects are necessary. Because height-limit easements do not include the overflight easement rights, there is little apparent advantage to obtaining them rather than a complete avigation easement.

5.2.3 Buyer Awareness Measures

Buyer awareness is an umbrella category for types of airport/land use compatibility measures whose objective is to ensure that prospective buyers of property in the vicinity of an airport are made aware of the airport's existence and the impacts that the airport activity has on surrounding land uses. Avigation easements are the most definitive form of a buyer awareness measure. Buyer awareness can also be successfully implemented through other types of programs. Two primary methods are deed notices and real-estate disclosure statements.

- **Deed Notices.** Deed notices are statements recorded with the County Clerk-Recorder disclosing that the property is subject to routine overflights and associated noise and other impacts by aircraft operating at a nearby airport. An ideal application of deed notices is as a condition of approval for development of residential land use in airport-vicinity locations where neither noise nor safety are significant factors, but frequent aircraft overflights may be annoying to some people. In addition to being recorded with the deed to a property, the notices should be recorded with parcel maps and any tentative or final subdivision maps. (See the Appendix for a typical Deed Notice).

Deed notices are similar to avigation or other aviation-related easements in that they become part of the title to a property and thus are a permanent form of buyer awareness. The distinguishing difference between deed notices and avigation easements is that deed notices only serve as a disclosure of potential overflights, whereas avigation easements convey an identified set of property rights. In locations where height limitations or other land use restrictions are unnecessary, deed notices have the advantage of being

less cumbersome to define. Also, they have less appearance of having a negative effect on the value of the property.

- **Real Estate Disclosure Statements.** A more comprehensive form of buyer awareness program is to require that information about an Airport Influence Area be disclosed to prospective buyers of all airport-vicinity properties prior to the transfer of title. The advantage of this type of program is that it applies to previously existing land uses as well as to new development.

  This type of program can be implemented through adoption of a local ordinance requiring real estate disclosure upon the transfer of title or it can be established in conjunction with the adoption of an airport overlay zone. Notification describing the zone and discussing its significance could be formally sent to all local real-estate brokers and title companies. The brokers would be obligated by State law to pass it along to prospective buyers after receiving this information.

  At a minimum, the area covered by a real estate disclosure program should include the Airport Influence Area as established in the ALUCP. The boundary also could be defined to coincide with the boundaries of an airport overlay zone.

5.2.4 Methods of Calculating Density and Building Occupancy

The Safety Compatibility Policies for non-residential uses limit the persons per acre in certain safety zones. Determining the maximum number of persons likely to occupy a structure is not an exact science, however, the following methods are available to provide a reasonable estimate of how many persons will use a proposed facility.

- **Parking Ordinance.** Most jurisdictions have parking regulations, which specify how many parking spaces are required for particular types of uses. Once an assumption is made regarding the number of persons per vehicle, an estimate can be made of the maximum number of persons that could occupy the structure. The assumption of persons per vehicle must be based on the type of use.

- **Number of Seats.** If the proposed use provides seating for its patrons, such as a restaurant, it is relatively easy to determine the maximum number of people that could occupy the structure.

- **Uniform Building Code.** The Uniform Building Code (UBC) specifies a certain number of square feet per occupant that are required for certain uses. This number can be determined through contact with the city or County Building Department.

- **LEED Green Building Council.** The U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED), Building Design and Construction, Core and Shell Appendix presents a method for calculating approximate building Default Occupancy Count. Use the LEED default occupancy index gross square feet per occupant for General Office. The People per Acre allowance for the site is obtained by using the Building Gross Square Feet divided by Site Area in Gross Acres and the result divided by 250.

- **Similar Uses.** Certain uses may require an estimate based on a survey of similar uses. This method is more difficult but is appropriate for uses, which because of the nature of the use, cannot be reasonably estimated based on parking or square footage.

Section 6

6 BIBLIOGRAPHY

BridgeNet International, Inc., *Mineta San Jose International Airport Noise Assessment for the Master Plan Environmental Impact Report*, October 2019

BridgeNet International, Inc., *Mineta San Jose International Airport Noise Contours – EIR Impact Scenario 2 Increase, September 27, 2021*.

California Building Standards Commission, Title 24, *California Building Standards Code, 1998*, California Building Code, Volume 1, Appendix Chapter 12, Division IIA, Section 1208A.8, pg. 1-332

California Code of Regulations, *Title 21, Public Works, 1998, Division 2.5, Division of Aeronautics, Chapter 6, Noise Standards*, December 2022

California Department of Transportation, Division of Aeronautics, *California Airport Land Use Planning Handbook*, October 2011.

California Department of Transportation, Division of Aeronautics, *California Aviation System Plan2020*, August 18, 2021

City of San Jose Airport Department, *Norman Y. Mineta San Jose International Airport, Amendment to Airport Master Plan , Integrated Final EIR*, April 2020

City of San Jose, *Envision San Jose 2040 General Plan*, November 3, 2022

City of San Jose, *Updated Airport Facility and Facility Requirements Analysis*, September 13, 2017

City of Santa Clara, *City of Santa Clara 2010-2035 General Plan, Appendix 8.14, Noise*, November 16, 2010

County of Santa Clara, Santa Clara County *General Plan, 1995-2010*, adopted by the County Board of Supervisors on December 20, 1994

Federal Interagency on Noise (FICON), *Federal Agency Review of Selected Airport Noise Analysis Issues*, 1992

Federal Interagency on Aviation Noise (FICAN), *Effects of Aviation Noise on Awakenings from Sleep*,1997

Kimley Horn Associates, RIM Study Technical Memorandum: *Updated Airport Capacity and Facility Requirements Analysis*, September 2017

Santa Clara County Airport Land Use Commission, *Land Use Plan for Areas Surrounding Santa Clara County Airports*, Adopted September, 1992

State of California, Governor's Office of Planning and Research, *General Plan Guidelines, Appendix D*, July 31, 2017 (formerly Office of Noise Control Guidelines)

U.S. Department of Transportation, Federal Aviation Administration, *5010 report, Norman Y Mineta San Jose Intl Airport*, February 23, 2023

U.S. Department of Transportation, Federal Aviation Administration, *AC 150/5300-13, Airport Design*, March 31, 2022

U.S. Department of Transportation, Federal Aviation Administration, *National Plan of Integrated Airport Systems (NPIAS)* 2023-2027, September 30, 2022

U.S. Department of Transportation, Federal Aviation Administration, *Neighborhood Environmental Survey*, March 29, 2022

U.S. Department of Transportation, Federal Aviation Administration, Terminal Area Forecasts, FY 2022 March 16, 2023

U.S. Department of Transportation, Federal Aviation Regulations Part 25, *Airworthiness Standards: Transport Category Airplanes*, 2023

U.S. Department of Transportation, Federal Aviation Regulations Part 36, *Aircraft Type and Airworthiness Certification*, 2023

U.S. Department of Transportation, Federal Aviation Regulations Part 77, *Objects Affecting Navigable Airspace*, 2023

U.S. Department of Transportation, Federal Aviation Regulations Part 150, *Airport Noise Compatibility Planning*, 2023

U.S. Green Building Council, *Leadership in Energy and Environmental Design (LEED), Building Design and Construction, Core and Shell, Appendix 1*, 2009

7 APPENDIX A

Sample Implementation Documents

Some ALUC approvals may require the dedication of Avigation Easements or use of Deed Notices in selected areas around the Airport. Examples might be the dedication of Avigation Easements for any development within the Traffic Pattern Zone, especially within the Safety Zones and Runway Protection Zones. Deed Notices might be more appropriate for development outside the Traffic Pattern Zone but within the Airport Influence Area.

Examples of these documents are presented on the following pages.

Exhibit 1 – Avigation Easement

Exhibit 2 – Deed Notice

Exhibit 1
Sample Avigation Easement

AVIGATION EASEMENT DEED

_____ [list owners of property in exact form as on deed for property] (hereinafter "Grantor") hereby grant an avigation easement to the City of San Jose, a political subdivision in the State of California (hereinafter "Grantee").

The Grantor, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby grant to the Grantee, its successors and assigns, a perpetual and assignable easement over the following described parcel of land in which the Grantor holds fee title. The property which is subject to this Avigation Easement is located at [insert address and assessor's parcel number] and is more particularly described on Exhibit A attached hereto and incorporated herein (hereinafter "Property").

The easement conveyed herein ("Avigation Easement") applies to both the Property and the airspace above an imaginary plane over the Property (hereinafter "Airspace"), which is described as follows:

> The imaginary plane above the hereinbefore described real property, as such plane is defined by Part 77 of the Federal Aviation Regulations and consists of a plane [describe approach, transition, or horizontal surface]: the elevation of said plane being based upon the official FAA San Jose International Airport elevation of _____ feet Above Mean Sea Level (AMSL), the approximate dimensions of which said plane are described and shown on Exhibit B attached hereto and incorporated herein by reference.

The purposes of this Avigation Easement include, but are not limited to, the following:

(1) The use and benefit of the public for the continuing right to fly, or cause or permit the flight by any and all persons, or any aircraft, of any and all kinds now or hereafter known, in, through, across, or about any portion of the Property and Airspace; and

(2) The right to cause or create, or permit or allow to be caused or created within all space above the existing surface of the Property and any and all Airspace above the Property, such noise, vibration, currents and other effects of air, illumination and fuel consumption as may be inherent in, or may arise or occur from or during the operation of aircraft of any and all kinds, now or hereafter known or used, for navigation of or flight in air; and

(3) A continuing right to clear and keep clear from the Property and Airspace any portions of buildings, structures, or improvements of any kinds, and of trees or other objects, including the right to remove or demolish those portions of such buildings, structures, improvements, trees, or other things which extend into or above the Airspace, and the right to cut to the ground level and remove any trees which extend into or above the Airspace; and

(4) The right to mark and light, or cause or require to be marked or lighted, as obstructions to air navigation, any and all buildings, structures, or other improvements, and trees or other objects which extend into or above the Airspace; and

(5) The right of ingress to, passage within, and egress from the Property for the purposes described in subparagraphs (3) and (4) above at reasonable times and after reasonable notice.

For and behalf of itself, its successors and assigns, the Grantor hereby covenants with the Grantee, for the direct benefit of the real property constituting the San Jose International Airport (hereinafter

"Airport"), that neither the Grantor, nor its successors in interest or assigns will construct, install, erect, place or grow in or upon the Property, nor will they allow, any building structure, improvement, tree or other object to extend into or above the Airspace or constitute an obstruction to air navigation, or to obstruct or interfere with the use of this Avigation Easement.

This Avigation Easement shall be deemed both appurtenant to and for the direct benefit of that real property which constitutes the Airport in the County of Santa Clara, State of California; and shall further be deemed in gross, being conveyed to the Grantee for the benefit of the Grantee and to any and all members of the general public who may use Airspace for landing at, taking off from or operating such aircraft in or about the Airport, or in otherwise flying above the Property or through said Airspace.

Grantor, together with its successors in interest and assigns, hereby waives its right to legal action against Grantee, its officers, employees, successors, and assigns for monetary damages or other redress due to impacts associated with aircraft operations in the air or on the ground at the Airport, including future increases in the volume or changes in location of said operations. Furthermore, Grantee, its officers, employees, successors, and assigns shall have no duty to avoid or mitigate such damages through physical modifications of airport facilities or establishment or modification of aircraft operational procedures or restrictions. This grant of Avigation Easement shall not operate to deprive the Grantor, its successors or assigns, of any rights which it may have against any air carrier or private operator for negligent or unlawful operation of aircraft.

These covenants and agreements run with the land and are binding upon the heirs, administrators, executors, successors and assigns of the Grantor, and, for the purpose of this Avigation Easement, the Property and Airspace hereinabove described constitute the servient tenement and property comprising the Airport is the dominant tenement.

DATED: _____ _____

Name: _____

_____

Name: _____

[Note: Signatures of grantors must be notarized.]

Exhibit 2

Sample Deed Notice

The following statement should be included on the deed and recorded by the transferor with the County Clerk-Recorder for any property located within the Airport Influence Area. This statement should also be included on any parcel map, tentative map or final map for subdivision approval for any property within the Airport Influence Area.

The *Santa Clara County Airport Land Use Compatibility Plan* identifies Airport Influence Areas. Properties within these areas are routinely subject to overflights by aircraft using the associated airport and, as a result residents may experience inconvenience, annoyance or discomfort arising from the noise or sight of such operations. State law (Public Utilities code sections 21670 et. Seq.) establishes the importance of public use airports to protection of the public interest of the people of the State of California. Residents of property near such airports should therefore be prepared to accept the inconvenience, annoyance or discomfort from normal aircraft operations. Residents also should be aware that the current volume of aircraft activity may increase in the future in response to government needs, Santa Clara County population and/or economic growth. Any subsequent deed conveying this parcel or subdivisions there of shall contain a statement in substantially this form.

8 APPENDIX B

Selected Excerpts
California Airport Land Use Planning Handbook (January 2002)

Establishing Noise Compatibility Policies

[Page Summary-8]
"Compatibility plans should be based upon the noise contours for the time frame that results in the greatest noise impacts. Usually, this time frame is the long-range future (at least 20 years), but sometimes can be the present or a combination of the two. Also, for busy airports, the capacity of the runway system may be the best representation of potential long-range future activity levels."

[Pages 7-18,19]
"State statutes specify that airport land use compatibility plans must be based upon an airport development plan "that reflects the anticipated growth of the airport during at least the next 20 years." Forecasts having the required 20-year time horizon are normally included in airport master plans. The FAA, the Division of Aeronautics, and some regional planning agencies also prepare individual airport forecasts, some extending to 20 years.

For the purposes of compatibility planning, however, 20 years may be shortsighted. For most airports, a lifespan of more than 20 years can reasonably be presumed. Moreover, the need to avoid incompatible land use development will exist for as long as an airport exists. Once development occurs near an airport, it is virtually impossible or at least very costly and time consuming to change the land uses to ones which would be more compatible with airport activities

In conducting noise analyses for compatibility plans, the long-range time frame is almost always of greatest significance. Barring vast improvements in aircraft noise reduction technology, the growth in aircraft operations expected at most airports will result in larger noise contours. A possible exception to this trend is that, at some airports, planned changes in runway configuration or approach procedures could result in reduction of noise impacts in some portions of the airport environs. In these instances, a combination of current and future noise contours may be the appropriate basis for compatibility planning.

Past improvements in aircraft noise reduction technology or, more to the point, the elimination of older, noisier aircraft from the fleet have caused noise contours at some airports to shrink. One result of shrinking contour sizes during the late 1990s was pressure to allow residential and other noise-sensitive development closer to airports. Allowing such development might be reasonable in situations where no potential exists for the contours to expand back to their former size (for example, where policies to limit contour sizes have been adopted). However, whether future technology will again enable significant reduction in noise impacts is uncertain. Thus, looking to the long-range future, the scenario which has the greatest land use planning implications for most airports is that anticipated future growth in airport activity will result in expansion of noise contours.

G U I D A N C E
The "at least" phrase in the statutory guidelines deserves emphasis. The 20-year time frame should be considered a minimum for compatibility plans. Noise impacts (as well as other compatibility concerns) should be viewed from the longest practical time perspective."

9 APPENDIX C

Bridgenet International, Inc
SJC EIR Impact Senario 2 50% Increase

10 APPENDIX D

ANALYSIS OF MAXIMUN OPERATIONS AT SJC

WBW
4/17/2023

References:
Amendment to Airport Master Plan, Integrated Final EIR, April 2020 (SJC 2020 EIR)
Kimley Horn Associates, RIM Study Technical Memorandum: *Updated Airport Capacity and Facility Requirements Analysis*, September 2017.
City of San Jose, *Updated Airport Facility and Facility Requirements Analysis* September 13, 2017
U.S. Department of Transportation, Federal Aviation Administration, *Airport Capacity Profiles*, August 2, 2022

Assumptions:
Dual runway operation
Hours of operation: 6:30am to 11:30pm, (San Jose Code 25.03) & SJC 2020 EIR, Pg 256
Note that this policy does not apply to those General Aviation operations occurring during the curfew hours.
Airfield operation capacity: 73 operations per hour, Table 3.3-3 SJC 2020 EIR Pg 34
Average aircraft delay is projected to be 2.0 minutes, Table 3.3-5 SJC 2020 EIR, Pg 34. Note that other similar airports (PHX and TPA) have 100 operations per hour per runway. See https://www.faa.gov/airports/planning_capacity/profiles.

Calculations:
Total max annual airfield operations: 73/hr x 16 hours x 365 days per yr = 426,320 ops
SJC forecast of 237,710 ops (Table 3.3-1 SJC 2020 EIR). ALUC uses 356,565 ops or 84% of max over 16 hours. This is also known as Annual Service Volume (ASV).

Comments:
SJC 2020 EIR (above) on page 34, note 18 says: "Annual Service Volume (ASV) is the maximum number of aircraft operations an airfield can accommodate in a one-year period **without excessive delay** (emphasis added). ASV does not represent an absolute limit of operational capability of an airfield, but it is indicative of a level of service. Many airports operate above their calculated ASV."

RIM Study Pg 5, last sentence says: " Practical airfield capacity typically only becomes an issue of concern when average delay begins to exceed 4-6 minutes." Current projected average delay is 2.0 minutes (see above). Thus true airfield capacity is clearly above the 426,320 calculated above.

The ALUC believed that the SJC capacity study and the estimated number of annual operations is understating the potential number of annual operations. Neither the City of San Jose nor airport management have identified any constraint or stated policy on limiting the number of operations, beyond those stated in the curfew policy. Thus the ALUC agreed that 1.5 times the SJC estimated year 2037 number of operations was a reasonable alternative, equating to 356,565 operations per year.

DATE: September 27, 2021

TO: Walter Windus, Chairperson
Santa Clara County Airport Land Use Commission

Bharat Singh, Principal Planner
Santa Clara County

FROM: Cynthia Gibbs
BridgeNet International

SUBJECT: Mineta San Jose International Airport Noise Contours – EIR Impact Scenario 2 Increase

---

Introduction

BridgeNet International, a Tetra Tech company, was scoped with generating a new 65 CNEL noise contour that represents annual average noise from aircraft operations at Mineta San Jose International Airport (Airport or SJC) for use by the Santa Clara County Airport Land Use Committee. Baseline information for the 65 CNEL noise contour is from the Airport's most recent Master Plan Environmental Impact Report.

Methodology

To maintain consistency and for comparison purposes, the CNEL noise contours were generated using the same version of the FAA's Aviation Environmental Design Tool (AEDT) model used for the San Jose International Airport's *Noise Assessment for the Master Plan Environmental Impact Report*[1]*(Report)* by BridgeNet International, which is AEDT version 2d. The contour generation used all the same inputs as the *Report* except for the number of operations. The operations from Scenario 2 were increased by 50% for the fleet mix equally. This new fleet mix is shown in **Table 1 – Summary of Annual Average Daily Operations** and the associated runway utilization in **Table 2 – Summary of Runway Utilization.**

The 65 CNEL noise contour was plotted on an aerial map to show the increased operations in Table 1; the updated contour and original contour from the EIR are shown in **Figure 1 – SJC Master Plan EIR Scenario 2 Operations Increase Year 2037.** This figure shows the 65, 70 and 75 CNEL contours. **Figure 2 – SJC Master Plan EIR Increased Scenario 2 and Original Scenario 2 CNEL Noise Contours for Year 2037** shows

[1] https://www.sanjoseca.gov/home/showpublisheddocument/61662/637304476649030000

only the 65 CNEL for the Airport's Master Plan EIR and the 50% increase. **Figure 3 – SJC Master Plan EIR Scenario 2 Operations Increase & 2003 Sound Insulation Boundary** shows the same contours with the addition of the 2003 contour that was used in the Airport's sound insulation boundary eligibility. As can be seen in Figure 3, both Scenario 2 contours are smaller than the 2003 contour. A summary of the acres in each of these contours is shown in **Table 3 – CNEL Contours, Acres.** The increase between the Scenario 2 contours is approximately 969 acres and follows the same general shape as in the Airport's Master Plan EIR. The contour reflects the dominate operational flow, which is departing to the north and landing from the south on parallel Runways 12R/30L and 12L/30R. The source for all tables and figures are BridgeNet International, 2021.

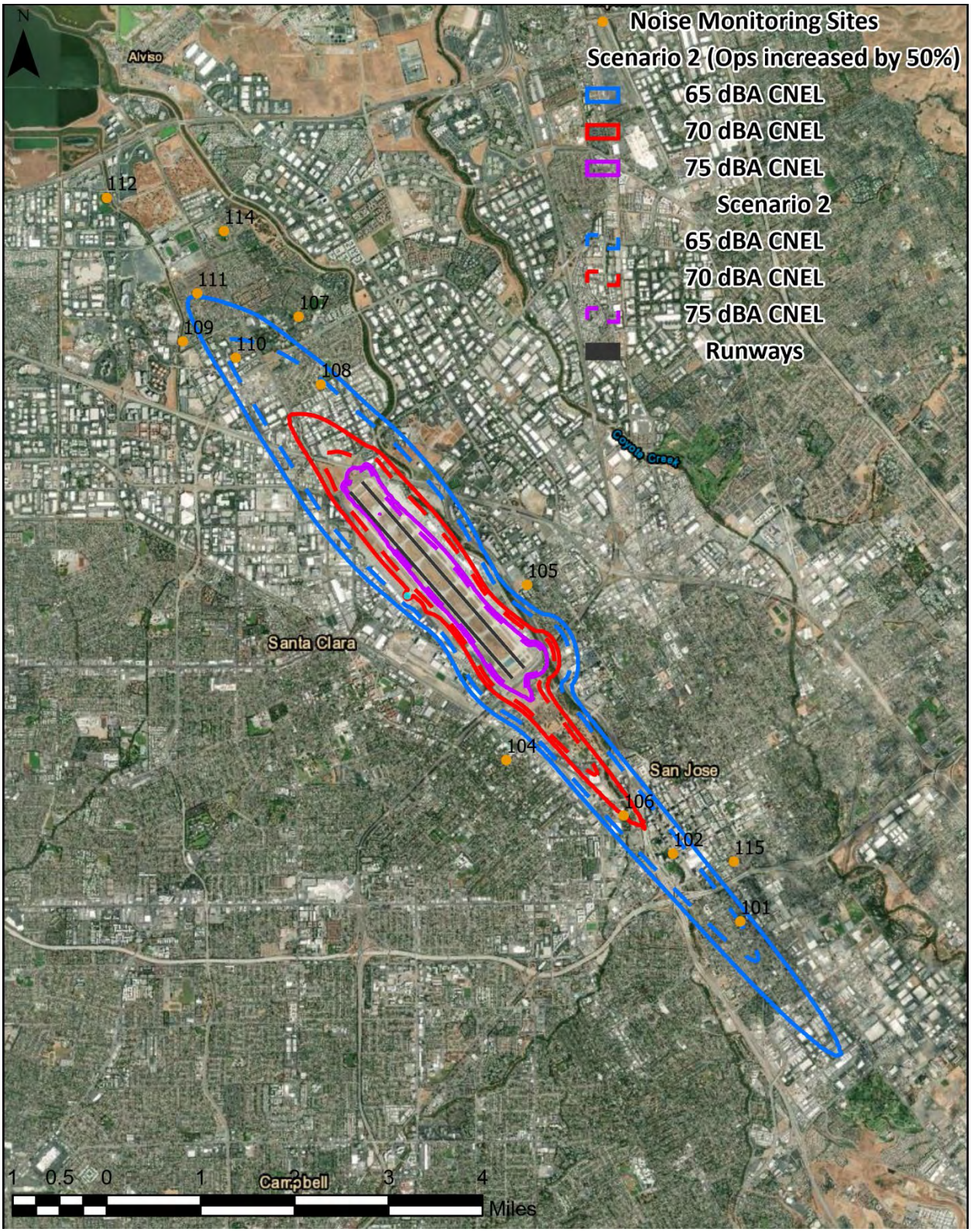
Table 1 – Summary of Annual Average Daily Operations, Scenario 2 Increased 50% for Calendar Year 2037

Aircraft ICAO Code	Assigned AEDT Code	Arrivals Day	Arrivals Evening	Arrivals Night	Departure Day	Departure Evening	Departure Night	Total
A332	A330-301	2.8147	0.2856	0.0476	1.9621	1.0805	0.1053	6.2959
A359	A330-343	3.1932	0.0000	0.0000	2.1165	1.0395	0.0371	6.3863
B744	747400	0.0123	0.0000	0.0000	0.0000	0.0123	0.0000	0.0247
B763	767300	1.4953	1.4462	0.1622	1.8451	1.2450	0.0116	6.2054
B764	767400	0.0573	0.0249	0.0000	0.0731	0.0000	0.0091	0.1644
B772	777200	0.1233	0.0000	0.0000	0.0117	0.0939	0.0176	0.2466
B77W	7773ER	1.2942	0.1927	0.0624	0.5209	0.7235	0.3049	3.0986
B788, B789	7878R	4.5000	0.0000	0.0000	2.5738	1.9262	0.0000	9.0000
A319, A19N, A220	A319-131	27.4258	6.3960	3.5725	27.6867	6.2160	3.4810	74.7781
A320, A20N	A320-211	6.5466	1.9512	1.0453	6.3576	1.5689	1.6155	19.0852
A321, A21N	A321-232	18.6456	1.5897	3.1212	20.3609	0.6310	2.0649	46.4134
B737	737700	16.1446	4.2623	2.0274	15.9723	4.1091	2.3524	44.8681
B738, B739, P8	737800	40.4850	16.2127	5.8699	51.5110	5.7253	5.3330	125.1369
B38M	7378MAX	118.8557	35.1039	20.2080	120.4031	25.7234	27.9767	348.2707
B752	757PW	0.0082	0.0000	0.0000	0.0000	0.0082	0.0000	0.0164
B753	757300	0.0082	0.0000	0.0000	0.0082	0.0000	0.0000	0.0164
CRJ9	CRJ9-ER	0.0616	0.0000	0.0000	0.0616	0.0000	0.0000	0.1233
E75L, E75S	EMB175	26.4226	5.6846	4.3014	26.8163	5.3943	4.1946	72.8137
E190	EMB190	0.0000	0.0699	0.0000	0.0427	0.0000	0.0272	0.1397
DH8D	DHC830	0.2878	0.1521	0.0726	0.2792	0.2357	0.0000	1.0274
GL5T	BD-700-1A11	0.9852	0.1927	0.0963	1.0806	0.0953	0.0978	2.5479
GLEX	BD-700-1A10	3.1685	0.7430	0.1976	3.2966	0.6745	0.1389	8.2192
CL30, CL35, CL60	CL600	7.6950	1.1874	0.5694	8.3018	0.5290	0.6213	18.9040
LJ35, LJ40, LJ45, LJ50, LJ55	LEAR35	2.4008	0.3517	0.1661	2.3726	0.3365	0.2094	5.8371
C500	CNA500	0.4501	0.0431	0.0204	0.4567	0.0343	0.0228	1.0274
C510	CNA510	2.6563	0.4484	0.2031	2.8203	0.3051	0.1830	6.6163
C25A, C25B, C25C, C25M	CNA525C	1.0129	0.0585	0.0585	1.0706	0.0597	0.0000	2.2603
C550, E55P	CNA55B	3.9882	0.3689	0.3696	4.1215	0.2142	0.3897	9.4521
C560	CNB560E	0.8567	0.0736	0.0972	0.8431	0.1106	0.0736	2.0547
C56X	CNA560XL	6.8985	0.7782	0.4252	7.0244	0.5025	0.6044	16.2332
C650	CIT3	0.2100	0.0000	0.0166	0.2267	0.0000	0.0000	0.4533
C680, C68A	CNA680	3.4631	0.3694	0.1741	3.6381	0.1737	0.1952	8.0135
C750, LJ60, LJ70, LJ75		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
F2TH, FA50, F900, G280	CNA750	15.8102	2.5544	1.2227	16.4170	1.4636	1.7073	39.1752
EA50	ECLIPSE500	0.5225	0.0000	0.0000	0.3145	0.1065	0.1016	1.0451
E145, E45X	EMB145	4.6121	0.6119	0.3235	4.8040	0.7236	0.0209	11.0959
GLF4	GIV	2.0838	0.4107	0.1762	2.2419	0.2056	0.2243	5.3425
GLF5, FA7X	GV	6.0384	1.2889	0.5007	6.0647	0.9293	0.8343	15.6564
GLF6	GVI	2.2715	0.0176	0.0000	2.2260	0.0354	0.0277	4.5781
ASTRA, G150, G200	IA1125	1.2642	0.1740	0.0000	1.3962	0.0423	0.0000	2.8767
BE40, PRM1	MU3001	0.6223	0.0194	0.0777	0.5597	0.0595	0.0999	1.4383
C425, C441	CNA441	0.1939	0.0955	0.0599	0.2627	0.0000	0.0853	0.6973
BE20, BE30, B350, DHC6	DHC6	2.7938	0.3837	0.2398	2.7105	0.3838	0.3118	6.8234
PAY3, PAY4	PA42	0.2054	0.0000	0.0000	0.2054	0.0000	0.0000	0.4108
C208, PC12, TBM8	CNA208	2.3509	0.2851	0.1241	2.4516	0.1355	0.1719	5.5191
BE55, BE58, C310, C421	BEC58P	2.0748	0.2743	0.1758	2.1786	0.2391	0.1260	5.0685
PA30, PA31	PA30	0.0788	0.0112	0.0000	0.0532	0.0000	0.0368	0.1800
BE33, BE35, BE36, C172	CNA172	1.2125	0.1902	0.0768	1.2664	0.1681	0.0448	2.9589
C162, C182	CNA182	0.9272	0.0668	0.0167	0.9259	0.0666	0.0181	2.0214
BL17, C206, C20T	CNA206	1.3631	0.1157	0.0869	1.4791	0.0920	0.0423	3.1791
BE33, BE35, BE36,	GASEPF	1.7390	0.0820	0.1926	1.6025	0.4111	0.0000	4.0274
PA24	GASEPV	4.1530	0.5328	0.2065	4.3235	0.3794	0.1896	9.7848
P28A	PA28	0.2304	0.0000	0.0688	0.2270	0.0165	0.0557	0.5984
SR20, SR22	COMSEP	2.4948	0.3310	0.0508	2.6215	0.1021	0.1532	5.7534
A109, A119, A139	A109	0.1407	0.0241	0.0161	0.1407	0.0241	0.0161	0.3619
B06	B206L	0.0453	0.0000	0.0000	0.0485	0.0137	0.0092	0.1167
B407	B407	0.0485	0.0137	0.0092	0.0453	0.0000	0.0000	0.1167
EC13	EC130	0.4266	0.0494	0.0861	0.4190	0.0445	0.0985	1.1242
R22	R22	0.1457	0.0094	0.0047	0.1457	0.0094	0.0047	0.3194
R44	R44	0.0426	0.0094	0.0047	0.0426	0.0094	0.0047	0.1134
C130	C130	0.1594	0.0000	0.0000	0.1586	0.0000	0.0000	0.3180
F15	F15A	0.0311	0.0000	0.0000	0.0309	0.0000	0.0000	0.0620
F18	F-18	0.0623	0.0000	0.0000	0.0621	0.0000	0.0000	0.1244
P8, P8A	737800	0.1027	0.0000	0.0000	0.1027	0.0000	0.0000	0.2055
S61	S61	0.0855	0.0000	0.0000	0.0855	0.0000	0.0000	0.1711
S76	S76	0.0750	0.0000	0.0000	0.0750	0.0000	0.0000	0.1500
Total Daily Operations		**357**	**86**	**47**	**370**	**64**	**54**	**977**

Table 2 – Summary of Runway Utilization, Scenario 2 Increased 50% for Calendar year 2037

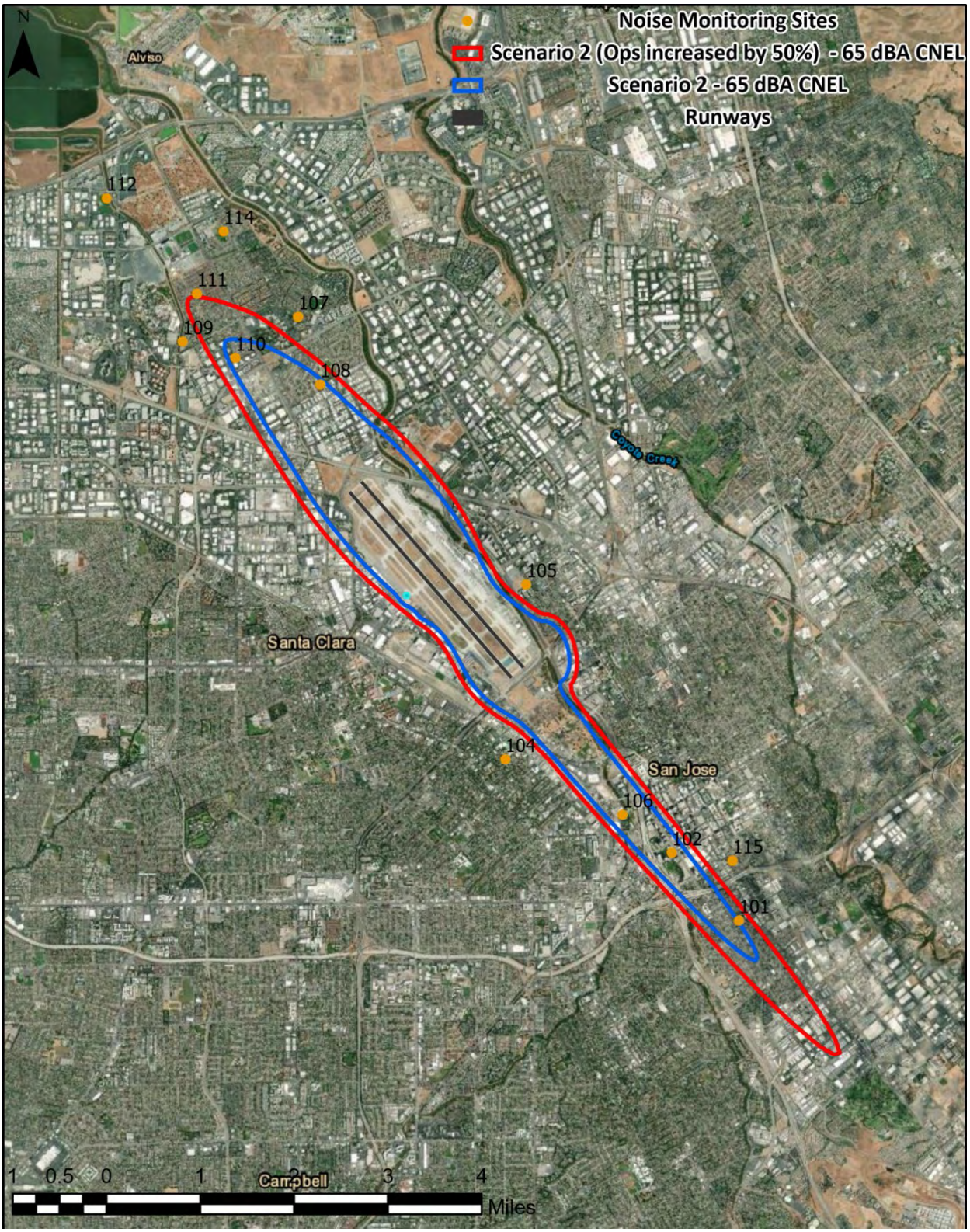
Aircraft ICAO Code	Assigned AEDT Code	Arrival Runways 12L	12R	30L	30R	Departure Runways 12L	12R	30L	30R	Helicopter Pad
A332	A330-301	0.0065	0.2143	2.8431	0.0840	0.2239	0.0266	0.1489	2.7485	
A359	A330-343		0.3327	2.8605		0.1844		3.0088		
B744	747400			0.0123					0.0123	
B763	767300	0.0097	0.2092	2.7850	0.0998	0.3500	0.0032	0.0852	2.6635	
B764	767400		0.0071	0.0751		0.0091			0.0731	
B772	777200		0.0157	0.1076		0.0176		0.0176	0.0881	
B77W	7773ER		0.0518	1.4457	0.0518			0.0495	1.4998	
B788, B789	7878R	0.0378	0.4054	3.9906	0.0662	0.3086	0.1223	0.1318	3.9373	
A319, A19N, A220	A319-131	0.2682	3.2353	31.7286	2.1622	3.8114	0.1649	1.1546	32.2528	
A320, A20N	A320-211	0.0681	0.8958	8.0165	0.5626	0.9772	0.0224	0.1720	8.3705	
A321, A21N	A321-232		1.0236	21.2244	1.1085	1.1164	0.1719	0.9448	20.8237	
B737	737700	0.3593	1.8536	16.2368	3.9846	2.2627	0.0191	0.4943	19.6577	
B738, B739, P8	737800	0.6365	5.5238	50.6353	5.7720	6.9895	0.1924	1.4865	53.9009	
B38M	7378MAX	0.6811	17.1149	146.3392	10.0325	17.0065	0.4814	10.4732	146.1419	
B752	757PW		0.0082			0.0082				
B753	757300		0.0082			0.0082				
CRJ9	CRJ9-ER			0.0616					0.0616	
E75L, E75S	EMB175	0.3379	3.4191	30.1634	2.4881	3.9326	0.0398	0.6842	31.7486	
E190	EMB190			0.0699				0.0543	0.0155	
DH8D	DHC830	0.0045	0.0436	0.4208	0.0436	0.0454	0.0006	0.0038	0.4651	
GL5T	BD-700-1A11		0.1051	1.1560	0.0131	0.0523	0.0784	0.8361	0.3069	
GLEX	BD-700-1A10	0.0079	0.4446	3.5757	0.0809	0.1459	0.3226	2.8192	0.8223	
CL30, CL35, CL60	CL600	0.0691	0.8897	8.2995	0.1936	0.3354	0.7940	5.7067	2.6160	
LJ35, LJ40, LJ45, LJ50, LJ55	LEAR35	0.0172	0.3909	2.4702	0.0402	0.1129	0.2372	1.7948	0.7736	
C500	CNA500	0.0014	0.0537	0.4449	0.0136	0.0192	0.0421	0.3052	0.1473	
C510	CNA510	0.0113	0.3229	2.8660	0.1077	0.1433	0.2316	2.0180	0.9155	
C25A, C25B, C25C, C25M	CNA525C		0.1350	0.9950		0.0796	0.0796	0.7163	0.2548	
C550, E55P	CNA55B	0.0212	0.3762	4.2127	0.1166	0.2057	0.3165	2.8369	1.3663	
C560	CNB560E	0.0000	0.0683	0.9197	0.0395	0.0167	0.0268	0.7093	0.2744	
C56X	CNA560XL	0.0709	0.6739	7.1585	0.1986	0.2870	0.6353	4.9275	2.2816	
C650	CIT3	0.0045	0.0181	0.1994	0.0045	0.0045	0.0136	0.1542	0.0544	
C680, C68A	CNA680	0.0122	0.3303	3.5416	0.1224	0.1241	0.2954	2.2222	1.3652	
C750, LJ60, LJ70, LJ75										
F2TH, FA50, F900, G280	CNA750	0.0841	1.9931	16.9468	0.5634	0.7387	1.4854	12.1360	5.2277	
EA50	ECLIPSE500		0.0871	0.4209	0.0145	0.0145	0.0290	0.3194	0.1597	
E145, E45X	EMB145	0.0412	0.6120	4.7579	0.1363	0.2302	0.4016	3.3912	1.5254	
GLF4	GIV	0.0213	0.2340	2.3305	0.0850	0.0703	0.2110	1.7332	0.6572	
GLF5, FA7X	GV	0.0196	0.6542	7.0036	0.1505	0.2009	0.5769	5.1263	1.9244	
GLF6	GVI	0.0126	0.0175	2.2413	0.0175	0.0138	0.0277	0.1107	2.1368	
ASTRA, G150, G200	IA1125	0.0353	0.1179	1.2615	0.0236	0.0846	0.0846	0.7375	0.5318	
BE40, PRM1	MU3001		0.0586	0.6394	0.0213	0.0218	0.0436	0.4195	0.2342	
C425, C441	CNA441	0.0081	0.0569	0.2518	0.0325	0.0081	0.0244	0.2275	0.0880	
BE20, BE30, B350, DHC6	DHC6	0.0360	0.3477	2.8897	0.1439	0.1679	0.2519	2.0389	0.9475	
PAY3, PAY4	PA42	0.0000	0.0000	0.1369	0.0685		0.0685	0.0685	0.0685	
C208, PC12, TBM8	CNA208	0.0336	0.2118	2.1417	0.3731	0.0745	0.2166	1.8042	0.6637	
BE55, BE58, C310, C421	BEC58P	0.0446	0.2259	1.8833	0.3712	0.0650	0.1678	1.7073	0.6035	
PA30, PA31	PA30	0.0000	0.0225	0.0563	0.0112	0.0082		0.0736	0.0082	
BE33, BE35, BE36, C172	CNA172	0.0304	0.0731	1.1417	0.2344	0.0348	0.0791	1.0083	0.3572	
C162, C182	CNA182	0.0162	0.0757	0.7513	0.1676	0.0363	0.0635	0.7659	0.1450	
BL17, C206, C20T	CNA206	0.0583	0.0585	1.1568	0.2921	0.0283	0.0599	1.2770	0.2482	
BE33, BE35, BE36,	GASEPF	0.0221	0.1106	1.3941	0.4868	0.0485	0.0728	1.4801	0.4122	
PA24	GASEPV	0.1327	0.2464	3.7456	0.7676	0.1030	0.3323	3.3565	1.1006	
P28A	PA28	0.0052	0.0464	0.1960	0.0516		0.0227	0.2312	0.0453	
SR20, SR22	COMSEP	0.0515	0.1986	2.2368	0.3899	0.1248	0.1594	1.9754	0.6172	
A109, A119, A139	A109									0.3619
B06	B206L									0.1428
B407	B407									0.0907
EC13	EC130									1.1242
R22	R22									0.3194
R44	R44									0.1134
C130	C130	0.0139	0.0077	0.0577	0.0801	0.0146	0.0077	0.0570	0.0793	
F15	F15A	0.0027	0.0015	0.0113	0.0156	0.0029	0.0015	0.0111	0.0155	
F18	F-18	0.0056	0.0032	0.0224	0.0312	0.0056	0.0032	0.0225	0.0309	
P8, P8A	737800	0.0010	0.0091	0.0831	0.0095	0.0115	0.0003	0.0024	0.0885	
S61	S61									0.1711
S76	S76									0.1500
Total Daily Runway Operations		**3.30**	**43.64**	**408.61**	**31.93**	**40.89**	**8.71**	**84.04**	**353.56**	**2.47**

Figure 1 - SJC Master Plan EIR Scenario 2 Operations Increase Year 2037



20201 SW Birch Street, Suite 250 • Newport Beach, CA 92660 • 949-250-1222 • Fax 949-250-1225

Figure 2 – SJC Master Plan EIR Increased Operation Scenario 2 and Original Scenario 2 CNEL Noise Contours for Year 2037



20201 SW Birch Street, Suite 250 • Newport Beach, CA 92660 • 949-250-1222 • Fax 949-250-1225

Figure 3 - Increased Operation Scenario 2, Original Scenario 2 CNEL Noise Contours for Year 2037 and 2003 Sound Insulation Contour

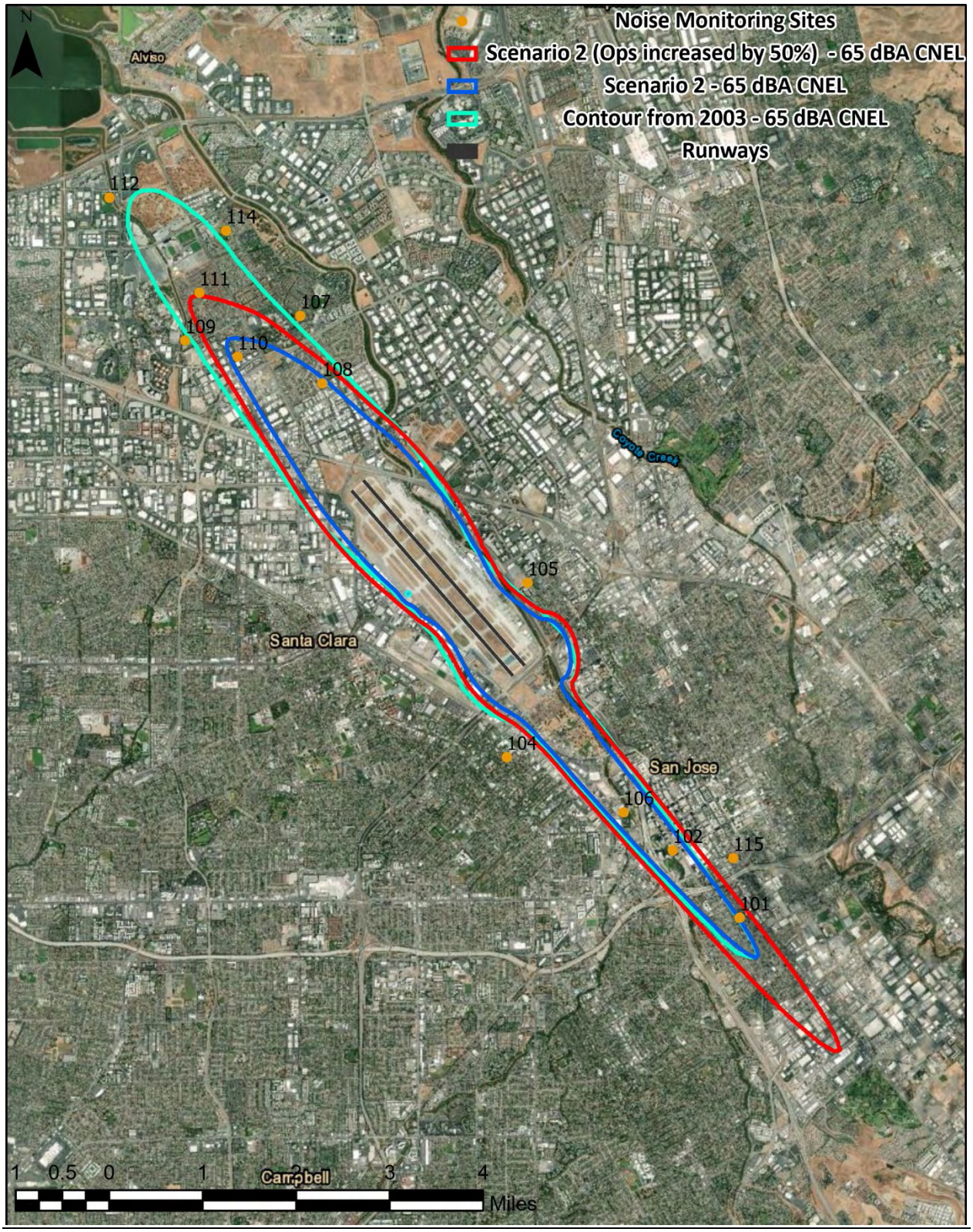


Table 3 – CNEL Contours, Acres

Project	Year	65 CNEL, Acres
Sound Insulation Eligibility Contour	2003	3,552
SJC EIR Scenario 2	2037	2,346
SJC EIR Scenario 2, Increased Operations	2037	3,315

Source: BridgeNet International, 2021