COMPREHENSIVE LAND USE PLAN
SANTA CLARA COUNTY

REID-HILLVIEW AIRPORT

ADOPTED
by the
SANTA CLARA COUNTY
AIRPORT LAND USE COMMISSION
San Jose, California
October 24, 2007

Amended
11/16/2016

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ACKNOWLEDGEMENTS

The author gratefully acknowledges the review, comments and recommendations provided by John Blair, Robert Luten, Aldyth Parle, Arthur Knopf, Roger Chinn and Andrew Faber in the development of this CLUP. The assistance of Reid-Hillview airport management, the County of Santa Clara and the cities of San Jose and Santa Clara is also acknowledged with thanks and appreciation.

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Section 1

1 INTRODUCTION AND BACKGROUND

1.1 PURPOSE AND SCOPE

This Comprehensive Land Use Plan (CLUP) is intended to safeguard the general welfare of the inhabitants within the vicinity of Reid-Hillview Airport (also referred to as the "Airport" throughout this report) and the aircraft occupants. This CLUP is also intended to ensure that surrounding new land uses do not affect the Airport's continued operation.

Specifically, the CLUP 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 CLUP is intended to prevent future incompatible development from encroaching on the Airport and allow for its development in accordance with the current airport master plan.

The aviation activity forecast for the Airport was updated 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 2022 aircraft noise contours. The Airport Layout Plan and updated aviation activity forecast and available aircraft noise contours formed the basis for preparation of this CLUP.

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 a comprehensive land use plan (CLUP) for the area surrounding each public-use airport within Santa Clara County. A CLUP 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 South County Airport, and one federally owned airport used by the military, Moffett Federal Airfield. Reid-Hillview Airport is defined as a General Aviation Airport (as opposed to an Air Carrier Airport) due to the type of aircraft that use this airport. Section 21675 also specifies that comprehensive land use plans will:

> *(a) 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 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 a land use plan, the commission may develop height restrictions on buildings, may specify use of land, and may determine building standards, including soundproofing adjacent to airports, within the planning area. The comprehensive land use 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 5 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 Select Committee of Mayors. 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 Comprehensive Land Use Plan) was amended in 1974 and 1991, and last adopted by the ALUC in September 1992.

1.4 CONTENTS OF THE COMPREHENSIVE LAND USE PLAN

The Comprehensive Land Use Plan contains several major elements:

- The existing and planned-for facilities at the Airport that are relevant to preparing the CLUP;
- Appropriate noise, height, and safety restriction policies and land use compatibility standards;
- Specific findings of compatibility or incompatibility with respect to existing land uses, proposed General Plan land uses, or existing zoning controls; 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 Comprehensive Land Use Plan.

The CLUP establishes an airport land use planning area, referred to as the Airport Influence Area (AIA), which sets the boundaries for application of ALUC Policy. The CLUP contains the relevant policies and guidelines 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 control the compatibility of future development in these areas.

The CLUP 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 CLUP 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 CLUP. The documents will be available for review at Santa Clara County Planning Office.

Section 2

2 REID-HILLVIEW AIRPORT AND ENVIRONS

2.1 AIRPORT ROLE

Reid-Hillview Airport is geographically located in the north-central area of Santa Clara County, in the City of San Jose, at the southeast end of San Francisco Bay. The Airport is located on 179 acres of land, at an elevation of 133 feet above mean sea level (at the FAA Airport Reference Point). The Airport is owned by the County of Santa Clara and surrounded by the City of San Jose. The location of the Airport with respect to nearby communities and other airports is illustrated on Figure 1.

Reid-Hillview Airport (the Airport) is the largest and most active General Aviation airport in the county. General Aviation is defined as all aviation other than Air Carrier aviation (commercial passenger flights). While commercial airfreight is also a part of General Aviation, General Aviation activity consists mostly of single-engine and small twin-engine aircraft, typically holding six or fewer people. Reid-Hillview Airport has a full range of aircraft parking/storage facilities, aircraft fueling facilities and significant aircraft support operations, commonly known as Fixed Base Operators (FBOs). These FBOs include flight training, aircraft maintenance and repair, and aircraft engine overhaul facilities. The Airport terminal and transient parking areas are located within a few blocks of a planned light rail terminal providing transportation to commercial and industrial areas in Mountain View, Sunnyvale and San Jose. This makes this airport very attractive as a destination for corporate aircraft visiting business customers in Silicon Valley.

Reid-Hillview Airport is classified as a General Aviation Reliever Airport. General Aviation Airports are airports that do not have scheduled commercial air-carrier service. General Aviation Airports are the most convenient source of air transportation for about 19 percent of the U.S. population and are particularly important to corporate aircraft, based on the latest publication of the Federal Aviation Administration's (FAA*) National Plan of Integrated Airport Systems* (NPIAS) (1998-2002). The Reid-Hillview Airport is listed in the NPIAS and is designated as a reliever airport.

San Jose International Airport is the nearest airport to Reid-Hillview Airport. San Jose Airport is a large regional commercial air-carrier airport and is located approximately 5 nautical miles northwest of Reid-Hillview Airport. Palo Alto Airport, the nearest General Aviation airport is located in Palo Alto, 16 nautical miles to the northwest. South County Airport, the other General Aviation airport in the county, is located in San Martin, 19 nautical miles to the southeast of the Airport.

2.2 AIRPORT LAYOUT PLAN

The previous Reid-Hillview Airport, Airport Master Plan was approved by the Federal Aviation Administration (FAA) in June 1982. The most recent Airport Layout Plan (ALP), illustrated on Figure 2, delineates the layout of existing Airport facilities as of October 1999. This ALP does not reflect the current airport environment or airport data and is currently being revised. The FAA-approved ALP is used by Caltrans 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.

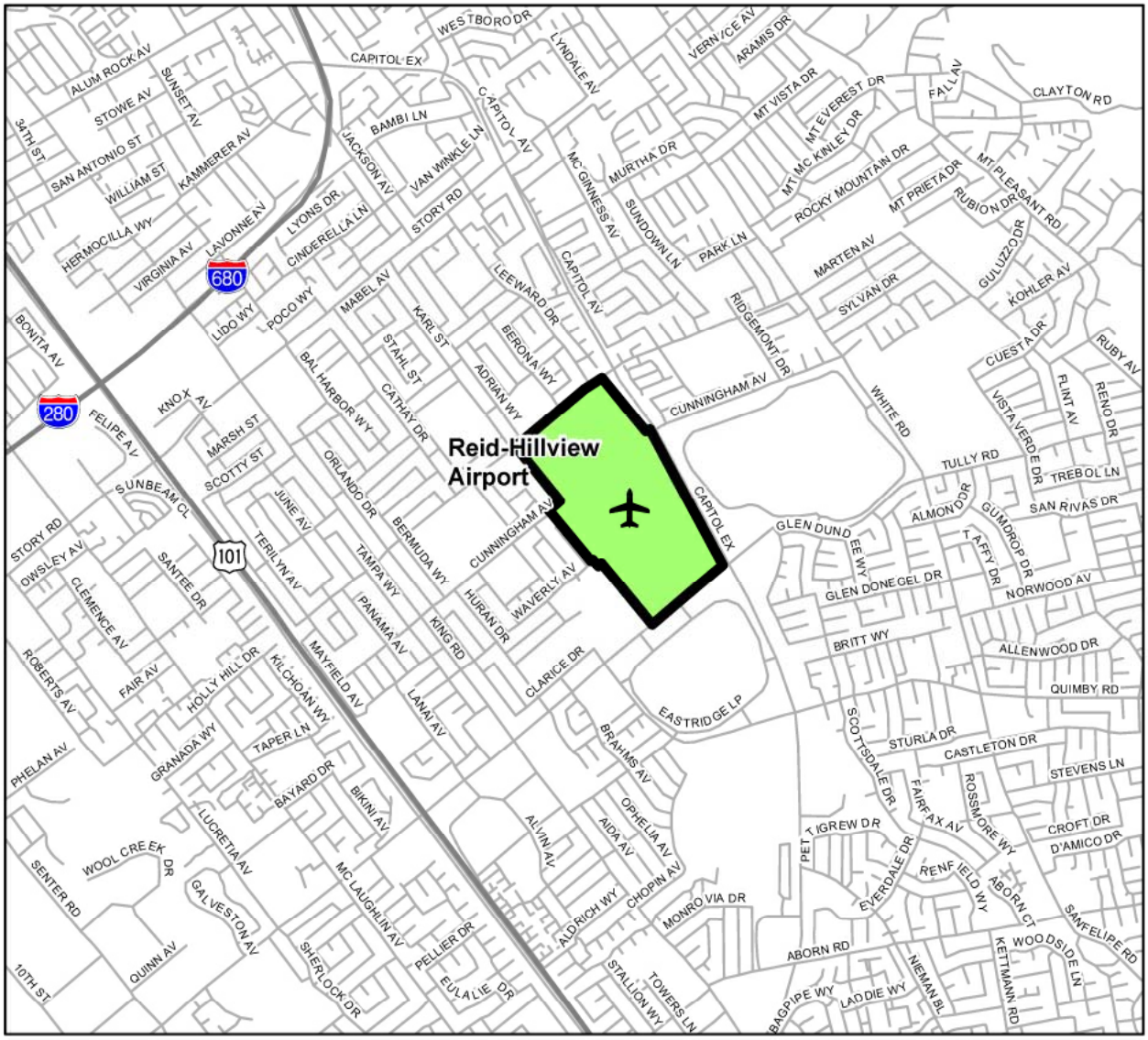


Figure 1
Reid Hillview Airport
Location Map

RUNWAY END DATA

APPROACH END OF RUNWAY:			13L	31R	13R	31L
APPROACH TYPE [FAR Part 77 Category]		Existing	Visual [A(V)]	Visual [A(V)]	Visual [A(V)]	Visual [A(V)]
		Future	No Change	No Change	No Change	No Change
APPROACH VISIBILITY MINIMUMS:		Existing	1 Mile	1 Mile	1 Mile	1 Mile
		Future	No Change	No Change	No Change	No Change
APPROACH SLOPE: Required/Clear		Existing	20:1/42:1	20:1/37:1	20:1/39:1	20:1/53:1
		Future	No Change	No Change	No Change	No Change
RUNWAY SAFETY AREA Length Beyond Rwy End		Existing	684'	125'	655'	140'
		Future	No Change	No Change	No Change	No Change
APPROACH & LANDING AIDS	Visual	Existing	VASI 4°, REIL	VASI 4°, REIL	None	VASI 4°
		Future	No Change	No Change	No Change	No Change
	Electronic	Existing	None	None	None	None
		Future	No Change	No Change	No Change	No Change
RUNWAY END (a) COORDINATES	Latitude	Existing	37° 20' 11.47" N	37° 19' 47.01" N	37° 20' 09.66" N	37° 19' 45.22" N
		Future	No Change	No Change	No Change	No Change
	Longitude	Existing	121° 49' 21.38" W	121° 49' 58.20" W	121° 49' 24.32" W	121° 49' 01.17"W
		Future	No Change	No Change	No Change	No Change

RUNWAY DATA

	RUNWAY 13L-31R		RUNWAY 13R-31L	
	EXISTING	FUTURE	EXISTING	FUTURE
AIRPORT REFERENCE CODE	B-I	No Change	B-I	No Change
CRITICAL AIRCRAFT	Baron 58	No Change	Baron 58	No Change
WIND COVERAGE (12 M.P.H.)	98.76%	No Change	98.75%	No Change
PHYSICAL LENGTH AND WIDTH	3,099' x 75'	No Change	3,101 x 75'	No Change
RUNWAY/TAXIWAY SURFACE TYPE	Asphalt	No Change	Asphalt	No Change
EFFECTIVE GRADIENT	0.48%	No Change	0.48%	No Change
PAVEMENT STRENGTH (1000#) S/D/DT	17/-/-	No Change	17/-/-	No Change
RUNWAY SAFETY AREA WIDTH	120'	No Change	120'	No Change
RUNWAY LIGHTING	None	No Change	None	No Change
RUNWAY MARKING	Basic	No Change	Basic	No Change
TAXIWAY LIGHTING	Med. Intensity	No Change	N/A	N/A
MAX. ELEVATION (above MSL)	131'	No Change	133'	No Change

AIRPORT DATA

		EXISTING	FUTURE
AIRPORT SERVICE LEVEL (NPIAS)		Reliever	No Change
AIRPORT REFERENCE CODE		B-I	No Change
CRITICAL AIRCRAFT		Baron 58	No Change
AIRPORT REFERENCE POINT (a)	Latitude	37° 19' 58.343" N	No Change
	Longitude	121° 49' 11.262" W	No Change
AIRPORT ELEVATION (Above Mean Sea Level)		133'	No Change
MEAN MAX. TEMP. (Hottest Month)		84.0° F (July)	No Change
AIRPORT AND TERMINAL NAVIGATIONAL AIDS		Beacon	No Change
GPS APPROACH ESTABLISHED		No	No Change
AIRPORT ACREAGE	Fee Simple	179	No Change
	Easement	19	27
AIRCRAFT PARKING SPACES	Tiedowns	460	No Change
	Individual Hangar Units	185	222
	Helicopter Spaces	5	No Change

BUILDING AND FACILITY LEGEND

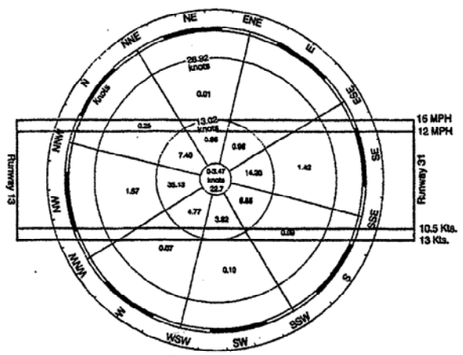
1. Terminal Building
2. Maintenance Building
3. T-Hangars
4. Tie-downs
5. Aircraft Shelters
6. Aircraft Box Hangars
7. Fixed Base Operator
8. Helicopter Parking
9. Air Traffic Control Tower (el. 170', top of handrail)
10. Electrical Vault
11. Fuel Island
12. Compass Rose
13. Ceilometer
14. VASI
15. Automobile Parking
16. Beacon Tower
17. Fuel Farm - to be removed
18. Future Fuel Farm
19. Future Storage Hangars
20. Future Compass Rose
21. Future Aircraft Parking

ALP NOTES

(a) Airport coordinate data source: National Oceanic and Atmospheric Administration Report dated May 4, 1992. Data is NAD 83.

(b) The airport is in Township 7 South, Range 1 East. This quadrangle has not been sectioned.

(c) Deviations from FAA standards:
- Parallel taxiway separation less than 150'.
- Runway Safety Area for Runway 31L & Runway 31R is less than 300'.

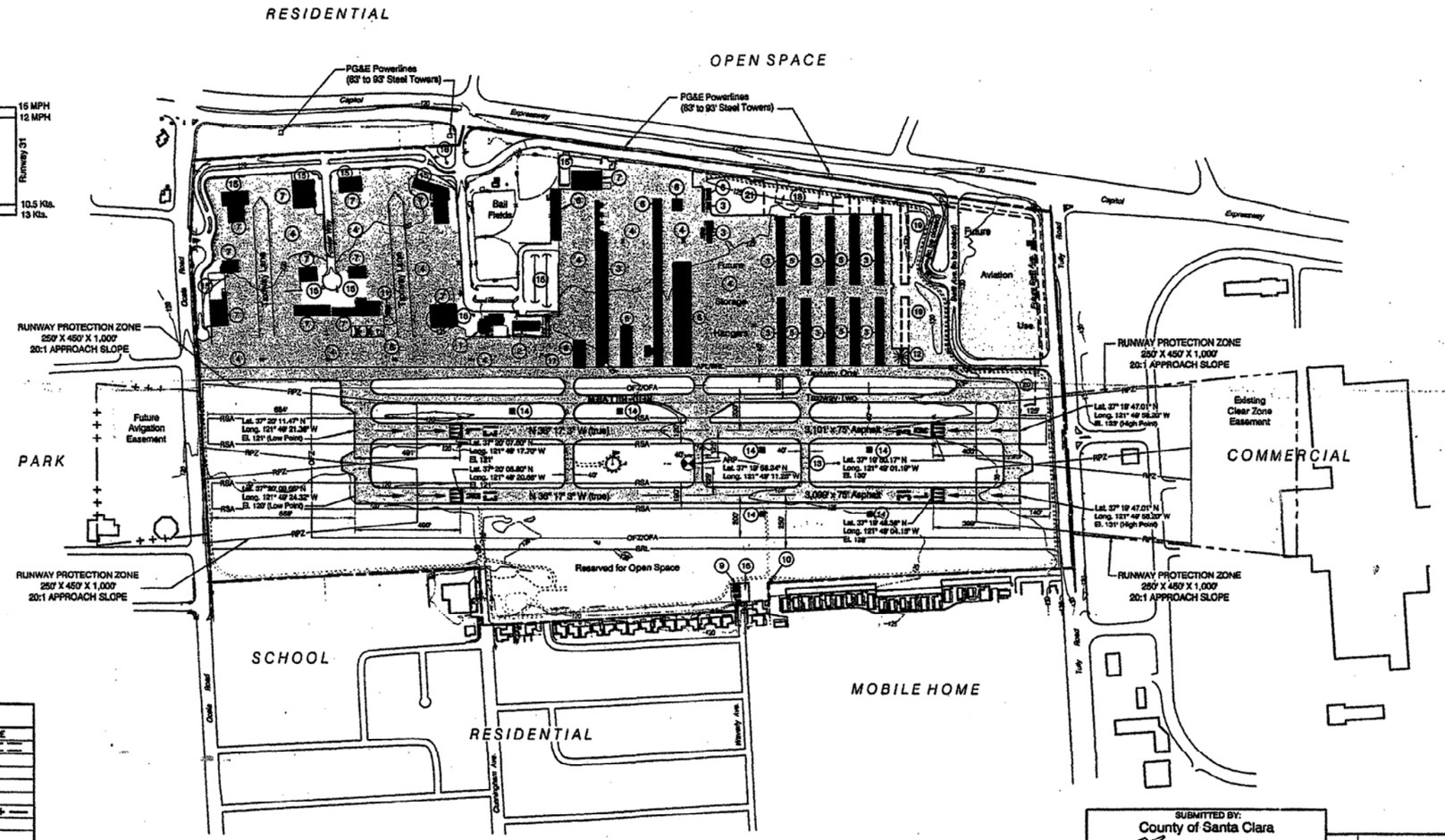


SOURCE: RECORDS OF SAN JOSE WEATHER STATION, DEPARTMENT OF PUBLIC WORKS, COOPERATIVE STATION OF THE U.S. WEATHER BUREAU, 1937-1947.

ALL WEATHER WIND ROSE

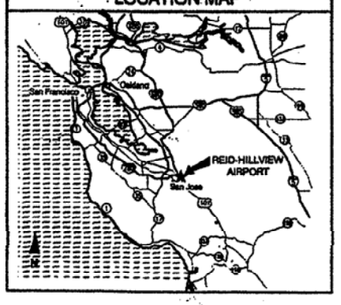
WIND COVERAGE

Runway	12 M.P.H. (10.5 Knots)	15 M.P.H. (13 Knots)
13L-31R	98.76%	99.61%
13R-31L	98.75%	99.61%
Combined	98.76%	99.61%



VICINITY MAP

LOCATION MAP



DRAWING LEGEND

	EXISTING	FUTURE
ACTIVE AIRFIELD PAVEMENT		
OTHER PAVEMENT IN USE		
DIRT OR GRAVEL ROAD		
AIRPORT PROPERTY LINE		
OTHER PROPERTY LINES		
EASEMENT		
INTERNAL BOUNDARY (lease, R.O.W., etc.)		
CRITICAL AIRFIELD AREAS *	XYZ	
BUILDING		
FENCE		
VEHICLE GATE		
WIND CONE		
AIRFIELD LIGHTS: SINGLE/GROUP/FLASHING		
APRON LIGHTING		
BEACON		
UTILITY POLE / POWER LINE		
TOPOGRAPHIC CONTOURS	XXX	
WATERWAY / CULVERT		
RIVER BANK		
AIRPORT REFERENCE POINT		
SECTION CORNER		

* APL - Aircraft Parking Limits
BRL - Building Restriction Line
RSA - Runway Safety Area
RPZ - Runway Protection Zone
OFA - Object Free Area
OFZ - Obstacle Free Zone

Figure 2

Reid Hillview Airport
Airport Layout Plan

DECLINATION:
15° 25' 32.52" E
SEPTEMBER 1999
ANNUAL RATE OF CHANGE
0' 4.18" W

300 FEET 600
1" = 300'

SUBMITTED BY:
County of Santa Clara
By: J. Bennett
JEROME T. BENNETT
DIRECTOR, COUNTY AIRPORTS
Date: APRIL 25, 2000

FAA Approval Space
APPROVED
FEDERAL AVIATION ADMINISTRATION
AIRPORTS DISTRICT OFFICE
SAN FRANCISCO, CALIFORNIA
By John L. Gaffney Date 7/10/2000
Manager
Subject to letter dated 7/10/2000

The preparation of these documents was financed in part through a planning grant from the Federal Aviation Administration as provided under Section 505 of the Airport and Airway Improvement Act of 1982, as amended. The contents do not necessarily reflect the official views or policy of the FAA. Acceptance of these documents by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted therein nor does it indicate that the proposed development is environmentally acceptable in accordance with applicable public laws.

NO.	REVISION	SPONSOR	DATE

REID-HILLVIEW AIRPORT
SANTA CLARA, CALIFORNIA

AIRPORT LAYOUT PLAN

SHUTT MOEN ASSOCIATES
AIRPORT CONSULTANTS & ENGINEERS
707 Aviation Blvd., Santa Rosa, California 95403

DESIGN:	DD	DRAWN:	TE	DATE:	October 1999	SHEET	1 OF 1

2.2.1 Existing Airport Facilities

The existing airfield consists of two parallel runways, Runways 31R-13L and 31L-13R. Both Runways have a paved surface. Runway 31R-13L is 3,101 feet long by 75 feet wide and has medium intensity runway lights, Visual Approach Slope Indicators (AVASI-L) and Runway End Identifier Lights (REIL). Runway 31L-13R is 3,099 feet long by 75 feet wide and has Visual Approach Slope Indicators (AVASI-L). Both runways have displaced thresholds at both ends of the runways. The existing maximum gross weight for aircraft using the runways is as follows:

Aircraft Maximum Gross Weight (pounds)

Runway	Gross Weight
31L-13R	12,500 lbs.
31R-13L	12,500 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 Reid-Hillview Airport.

Controlling Obstacle/Obstruction:
Location from Runway Threshold Related to
Extended Runway Centerline

Runway No.	Elevation	FAR Part 77 Slope	Actual Slope	Type of Obstruction	Height Above Runway Threshold	Location
31L	131	20:1	33:1	Road	18	200 ft along and on the extended runway centerline
13R	120	20:1	39:1	Trees	35	900 ft along and 170 feet right of the extended runway centerline
31R	133	20:1	37:1	Road	16	200 ft along and on the extended runway centerline
13L	121	20:1	42:1	Trees	31	830 ft along and 37 feet left of the extended runway centerline

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.	Protection Zone	Length (feet)	Inner Width (feet)	Outer Width (feet)
31R	Nonprecision	1,000	500	800
13L	Visual	1,000	500	650
31L	Visual	1,000	250	450
13R	Visual	1,000	250	450

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 Zones for Runway 31L/31R are outside the Airport boundary but are somewhat protected by an approach zone easement purchased from the property owners. Portions of the Runway Protection Zones for Runway 13R/13L are outside the Airport boundary and in the City of San Jose. This area is identified as an area of future avigation easement.

The main entrance to the Airport is from Capital Expressway at Cunningham Ave. on the northeast side of the Airport. A second entrance, open during the day, is from Ocala Ave. on the north side of the Airport. The aircraft basing areas are located on the east side of the Airport along Capitol Expressway. There are 460 aircraft tiedown spaces, 185 hangars and 15 transient tiedown spaces at the airport. Airport facilities include a control tower, a rotating beacon and a lighted windsock.

2.2.2 Future Airport Facilities

The current Airport Layout Plan identifies an increase of 37 aircraft hangar spaces, located in the east corner of the Airport. A new aviation fuel farm is also identified for this area, as is a future compass rose (a location for magnetic compass calibration).

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 November draft of the *Airport Roles and Forecasts*, Chapter 2 of the County Airports Master Plan (AMP) adopted by the Santa Clara County Board of Supervisors on November 19, 2002. The AMP provides forecasts of aircraft operations at the Airport through the year 2022.

As the CLUP is a 20-year planning document, the existing base year (2001) aviation activity was reviewed and updated aviation activity forecasts were prepared through the year 2022. A summary of the existing and forecast aviation activity is presented in Table 2-1 and discussed in the following paragraphs.

2.3.1 Based Aircraft

The AMP forecasts that the number of based aircraft at Reid-Hillview will increase from 687 in 2001 to 750 by 2022 as shown in Table 2-1. The growth in forecast-based aircraft at the Airport is due in large part to the increase in support and storage facilities planned for the Airport. Discussions with airport staff indicate that no changes in mix of types of based aircraft are foreseen through 2022.

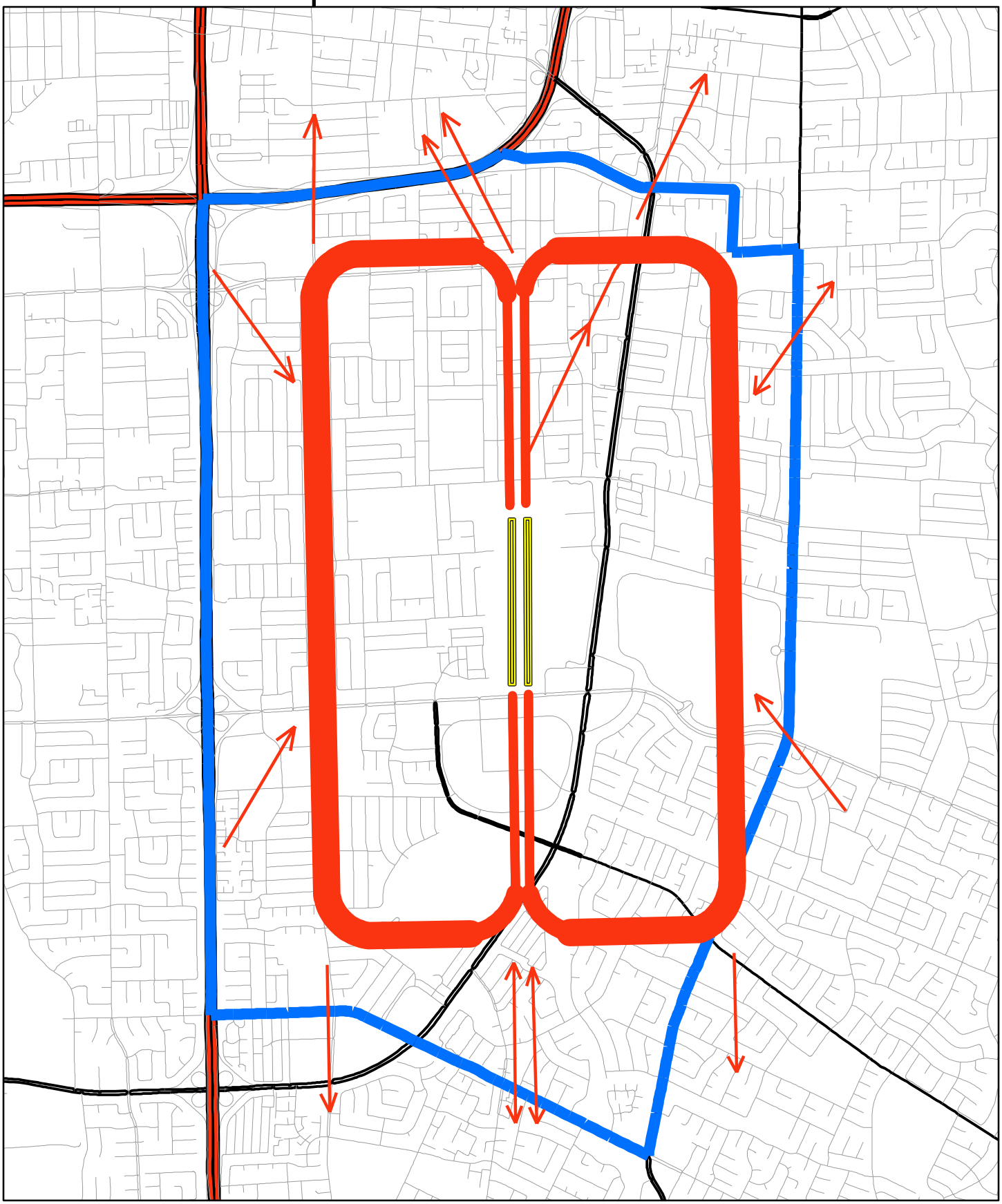
2.3.2 Aircraft Operations

The number of annual aircraft operations at Reid-Hillview Airport, as presented in Table 2-1, is forecast to increase from an estimated 235,213 operations in the year 2001 to 245,986 operations by the year 2022. These data are taken from the recent Reid-Hillview Airport Master Plan. Discussions with airport staff indicate that the mix of types of aircraft that account for these operations, the flight tracks, and the mix of time-of-day of the operations is not expected to change through 2022

2.3.2.1 General Aviation

Since no commercial passenger (air carrier) operations are forecast for the planning period, general aviation will continue to account for all of the operations at the Airport, increasing from an estimated 235,213 annual operations in 2001 to 245,986 annual operations by 2022.

Reid-Hillview Airport



Runway

Take-off and Landing Vectors

Flightpath

AIA

Figure 3
Typical Flight Paths

0 500 1,000 2,000 3,000
Feet

Table 2 - 1

UPDATED AVIATION ACTIVITY FORECASTS

Reid-Hillview Airport

2001 – 2022

	Base Year	Forecast				
	2001	**2002**	**2007**	**2012**	**2017**	**2022**
GENERAL AVIATION BASED AIRCRAFT						
Single-engine – piston	633	627	673	681	676	666
Single-engine – turbine	1	1	3	5	7	9
Multi-engine – piston	50	48	47	43	38	30
Multi-engine – turbine	0	1	2	3	4	5
Helicopter	3	10	10	10	10	10
Other (Jet, quieter than Stage 3)	0	0	2	8	15	30
Total based aircraft	687	687	737	750	750	750
AIRCRAFT OPERATIONS						
General aviation						
-Itinerant	82,571	82,624	83,638	84,659	85,239	86,095
-Local	152,642	152,834	155,328	157,223	158,301	159,891
Subtotal – general aviation operations	235,213	235,458	238,966	241,882	243,540	245,986
Air Taxi	0	0	0	0	0	0
Military	0	0	0	0	0	0
Total operations	235,213	235,458	238,966	241,882	243,540	245,986
OPERATIONS PER BASED AIRCRAFT	342	342	324	323	325	328

Source: *Santa Clara County Master Plan Update and Business Plan*, 2003, *FAR Part 150 Study*, and *Airport Management*

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 operations include training operations by both aircraft based at the Airport and aircraft from other airports in nearby counties. The 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 a different airport.

Local operations are forecast to remain constant at 65 percent of total general aviation aircraft operations and will continue to account for the larger number of general aviation operations.

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 remain constant at 35 percent of total general aviation aircraft operations over the forecast period and will continue to account for the smaller number of aircraft operations.

2.3.2.2 Air Taxi

In 2001 there were no Air Taxi operations at the Airport. Air taxi operations include the unscheduled "for hire" operations carrying passengers and cargo to and from the area including any operations by bank couriers or other small package carriers. Based on discussions with persons knowledgeable of the Airport and its activities, no Air Taxi operations are foreseen through the year 2022.

2.3.2.3 Military

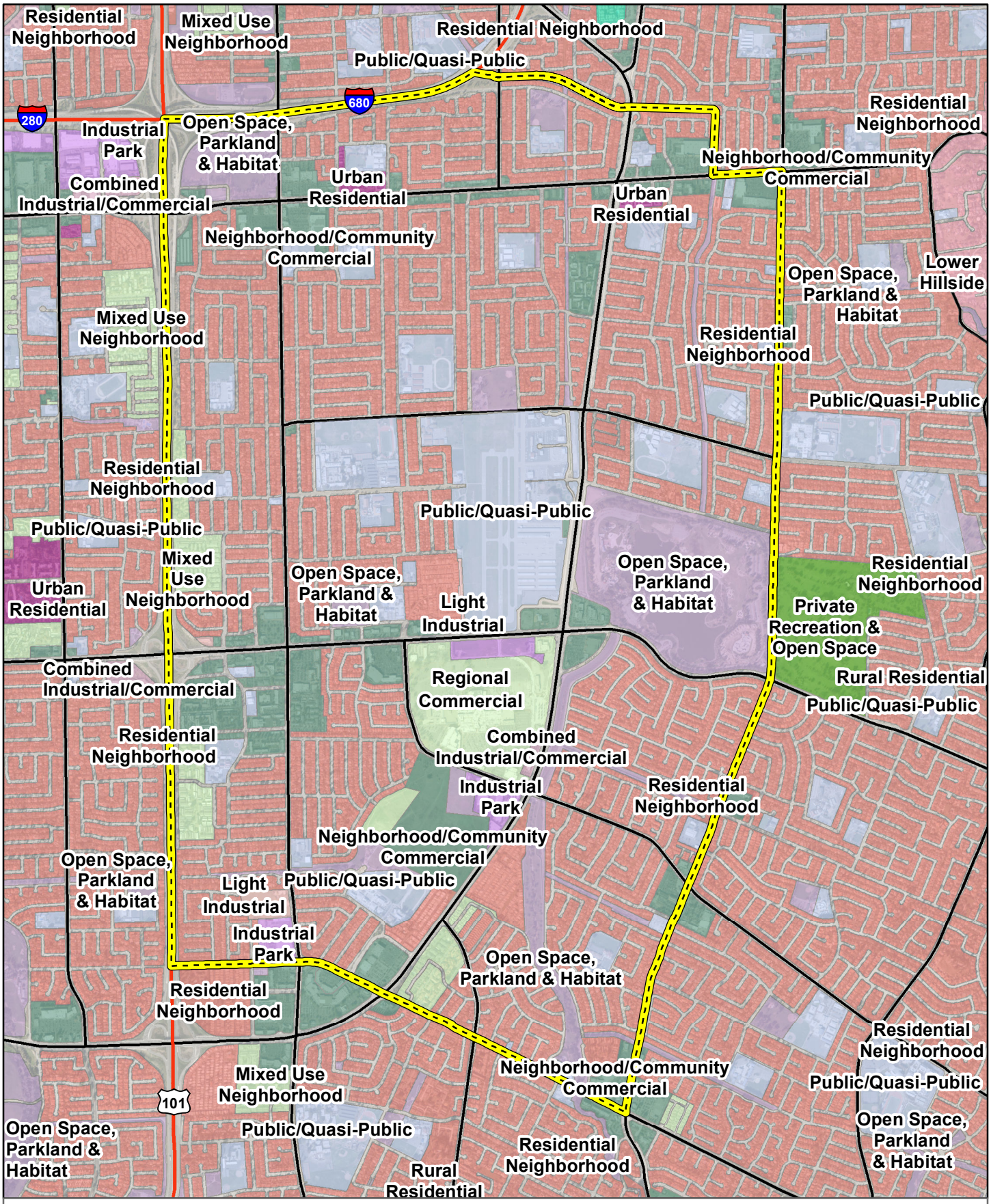
Based on discussions with persons knowledgeable of the Airport and its activities, there were no military operations in 2001. The runways are not suitable for fixed-wing military aircraft. Current military aircraft require runways of greater length than those at the Airport.

Military helicopter operations are not expected to contribute in a significant manner to the number of annual airport operations through 2022.

2.4 AIRPORT ENVIRONS

Figure 4 presents the land use designations within the Airport environs based on the current City of San Jose 2002 General Plan. The Airport property is surrounded by the City of San Jose. The predominant land uses in the Airport environs are single family residential and commercial.

Reid-Hillview Airport



San Jose General Plan

- Combined Industrial/Commercial
- Industrial Park
- Light Industrial
- Lower Hillside
- Mixed Use Neighborhood
- Neighborhood/Community Commercial
- Open Space, Parkland & Habitat
- Private Recreation & Open Space
- Public/Quasi-Public
- Regional Commercial
- Residential Neighborhood
- Rural Residential
- Transit Residential
- Urban Residential

Figure 4
General Plan Land Use

0 1,000 2,000 Feet

This map created by the Santa Clara County Planning Office. The GIS data was compiled from various sources. While deemed reliable, the Planning Office assumes no liability.
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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 January 2002 *California Airport Land Use Planning Handbook* (2002 Handbook) published by the California Department of Transportation, Division of Aeronautics (Caltrans). The 2002 Handbook provides guidelines for formulating compatibility criteria and policies for preparing Comprehensive Land Use Plans (CLUPs). 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 2002 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 CLUP.

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.

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.

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 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 2002 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 2002 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 general aviation airports. The frequency of operations from some airports, visibility of aircraft at low altitudes and typically lower background noise levels around many general aviation airports are all believed to create a heightened awareness of general 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 *Noise Element* of the 1994 Santa Clara County General Plan, the County identified 55 dB DNL as the normally acceptable standard for residential uses. Above 55 dB DNL, residential uses are conditionally acceptable, however the noise exposure is great enough to be of some concern.

3.3.4 Land Use Compatibility Standards – City of San Jose

The *Noise Element* of the San Jose Comprehensive Plan specifies a maximum interior noise level limit of 45 DNL (equilivent to CNEL) for 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. Outdoor activity areas are required to have noise barriers to limit the noise levels to 60 DNL or less.

3.3.5 Reid-Hillview Airport Noise Contours

An analysis of annual aircraft operations and related noise levels for Reid-Hillview Airport was made to prepare CNEL noise exposure maps for this CLUP using current and forecast aircraft operations based on the existing runway configuration. These noise studies are presented in the 2002 *Reid-Hillview Part 150 Noise Study* report. The ALUC has elected to adopt the most conservative (largest) contours from this study for the purposes of this CLUP.

The Federal Aviation Administration's (FAA) Integrated Noise Model (INM) Version 6.0b was used to prepare CNEL noise exposure maps based on the FAA aircraft noise level database and airport operational factors described below. The INM software was developed by the FAA and represents the Federally sanctioned and preferred method for analyzing aircraft noise exposure.

3.3.6 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 INM applies corrections to air carrier aircraft takeoff profiles to account for these differences, but makes no corrections to general aviation aircraft takeoff profiles.

Aircraft operational assumptions for the Airport were based upon analyses of airport activity provided by Caltrans and Airport Management. These assumptions are summarized in Tables 3-1 and 3-2.

Twin-engine aircraft are represented by the INM BEC58P aircraft. The high-performance single-engine propeller aircraft such as the Cessna 210 were represented by the INM GASEPV aircraft, and standard single-engine propeller aircraft were represented by the INM GASEPF aircraft type. Single-engine fixed-pitch propeller aircraft (GASEPF) were assumed for 100 percent of the local operations.

Table 3 - 1

AIRPORT CONFIGURATION AND RUNWAY USE

Reid-Hillview Airport

2022

Airport Configuration	
Runway Configuration:	31L-13R 31R-13L
Field Elevation: (Runway High Point)	133 feet MSL
Temporal Distribution of Operations:	84 percent Day 15 percent Evening 1 percent Night (Runway 31R-13L only)

Runway Use Factors				
Operations by Aircraft Class	Runway 31L	Runway 13R	Runway 31R	Runway 13L
Takeoffs:				
GA Aircraft	30%	5%	55%	10%
All Others	30%	5%	55%	10%
Landings:				
GA Aircraft	30%	5%	55%	10%
All Others	30%	5%	55%	10%

Source: Airport Management/FAA Tower

Table 3 - 2

ANNUAL AIRCRAFT OPERATIONS

Reid-Hillview Airport

2022

Generalized Aircraft Type	Year 2022
GA Jet (Stage 3)	200
GA Jet (quieter than Stage 3)	8,000
Twin-Engine Turbine	2,287
Twin-Engine Piston	9,347
Single-Engine Piston, High Performance	24,299
Single-Engine Piston, Standard	198,975
Helicopters	2,878
Gliders	0
Total	245,986

Source: Airport Management

Descriptions of aircraft flight tracks were developed for use in the INM through discussions with Airport Management 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 (see HMMH FAR Part 150 Noise Study, Figures 5.2, 5.3 and 5.4 for flight track details).

Descriptions of aircraft flight tracks were developed for use in the INM through discussions with Airport Management 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.

3.3.6.1 CNEL Noise Exposure Contours

The Integrated Noise Model (INM) Version 6.0b 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.

User inputs to the INM include the following:

- Airport altitude and mean temperature
- Runway configuration
- Aircraft flight track definition
- Aircraft stage length (not applicable to Reid-Hillview Airport)
- Aircraft departure and approach profiles
- Aircraft traffic volume and fleet mix
- Flight track utilization by aircraft types

The INM 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 INM database, the model automatically provides the necessary inputs concerning aircraft power settings, speed, departure profile, and noise levels. INM default values were used for all fixed-wing aircraft types.

After the model had been prepared for the various aircraft classes, INM 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 INM 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.

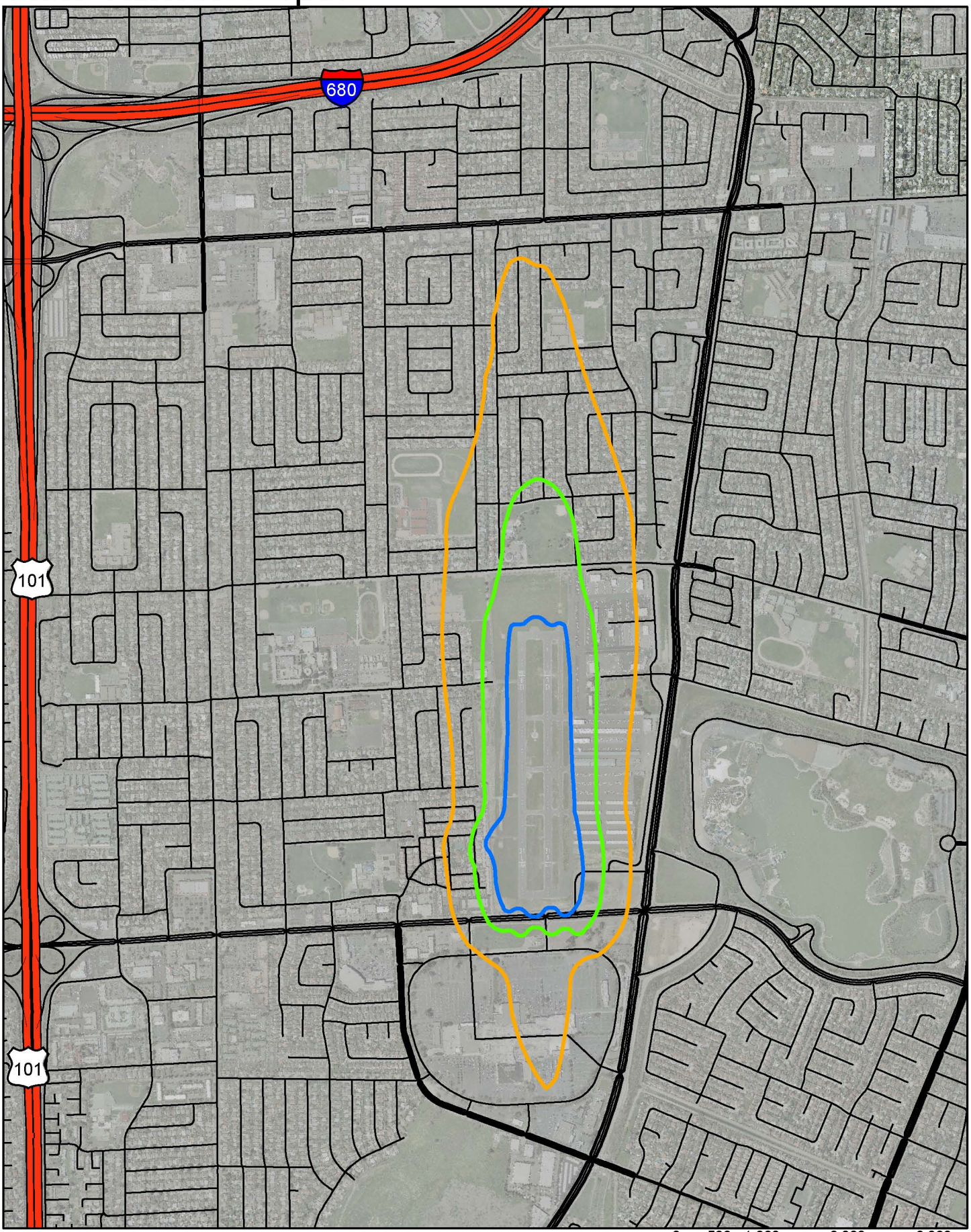
3.3.7 Impacts on Land Use

The 60, 65, and 70 dB CNEL noise contours based on the forecast aircraft operations are illustrated on Figure 5 and discussed below.

3.3.7.1 75 and 70 dB CNEL Noise Levels

The 75 and 70 dB CNEL aircraft noise contours are completely contained within the Airport boundaries and generally located within 300 feet of the runway towards the southern half of the runway length.

Reid-Hillview Airport



0 500 1,000 2,000 3,000 Feet

CNEL Noise Contours

60 dBa
70 dBa
65 dBa

Figure 5
2022 Aircraft Noise Contours

3.3.7.2 65 dB CNEL Noise Level

The 65 dB CNEL aircraft noise contour is generally contained within the Airport boundary but extends about 50 feet past Tully Road, 50 feet beyond the southwest airport boundary into the storage area, and northwest about 1200 feet beyond Ocala Road.

3.3.7.3 60 dB CNEL Noise Level

The 60 dB CNEL aircraft noise contour is contained within the Airport boundaries on the northeast side, extends into the Eastridge shopping center on the southeast side, extends about 500 feet beyond the Airport boundary on the southwest side and extends nearly to Story Road to the northwest.

3.3.7.4 Reid-Hillview FAR Part 150 Noise Reduction Forecasts

In October 2002, the Santa Clara County Board of Supervisors approved an FAR Part 150 Noise Compatibility Program (NCP) and forwarded it to the FAA for review. The NCP forecasts a reduction in the CNEL noise contours if the policies recommended in the NCP are implemented. However, following the recommendations in the 2002 Handbook, this CLUP is using the more conservative NCP 2007 noise contour information.

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 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 problem. Any penetrations of the FAR Part 77 surface are subject to review on a case-by-case basis. 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.

The dimensions of the imaginary surfaces vary depending on the type of approach to a particular runway as illustrated on Figure 6 for the Airport based on the ultimate dimensions shown on the Airport Layout Plan. Nonprecision runways generally have larger surfaces and flatter approach slopes than visual runways. Table 3-3 tabulates the imaginary surfaces described below.

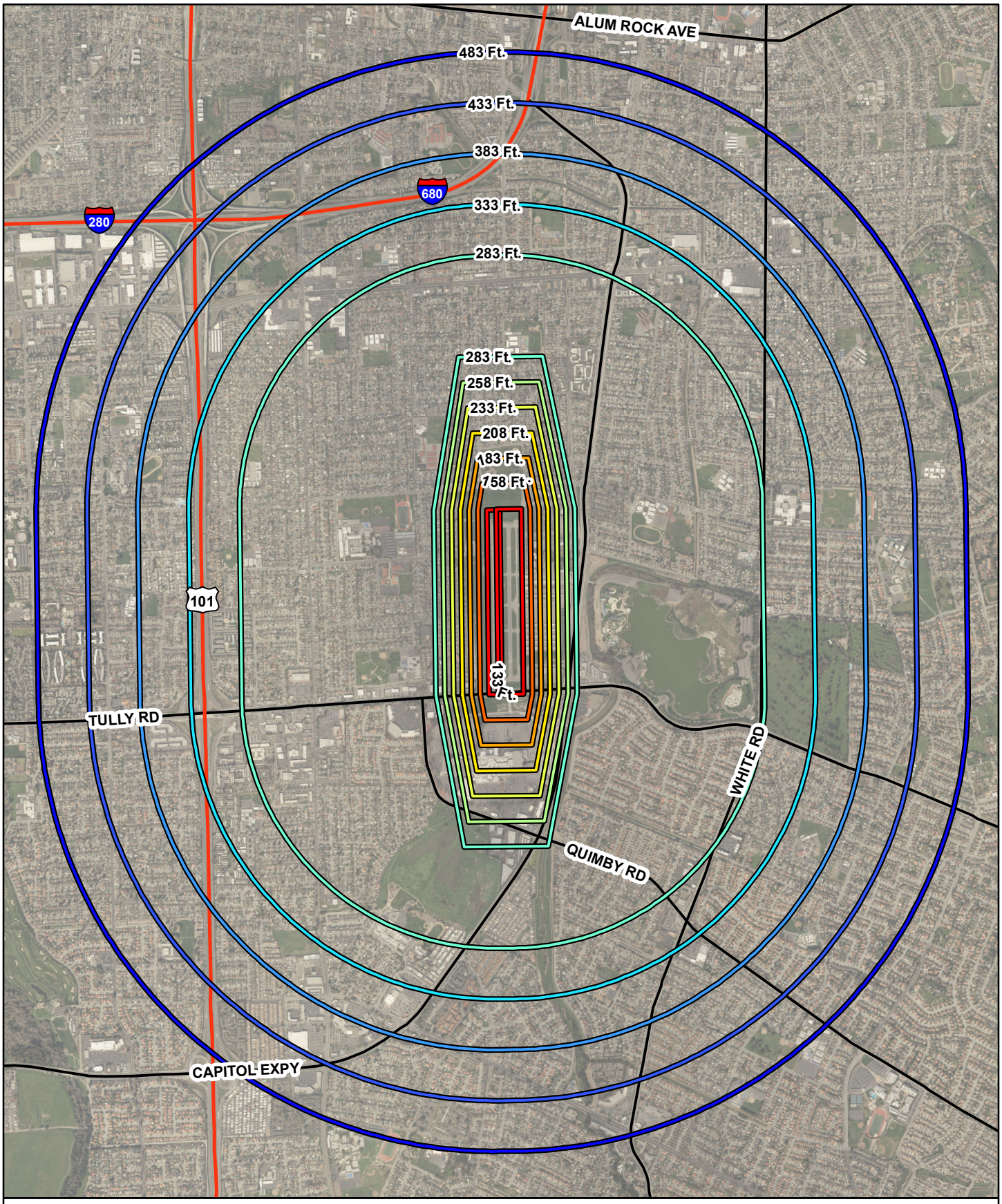
3.4.1 Primary Surface

A surface longitudinally centered along a runway, and extending 200 feet beyond the end of each instrument runway. For Runway 31L-13R the width is 250 feet and the primary surface extends 200 feet beyond the ends of the runway. For Runway 31R-13L the width is 500 feet and the primary surface extends 200 feet beyond the ends of the runway pavement. The two parallel runways are separated by 300 feet, from centerline to centerline.

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 and it extends for a length of 5000 feet at a slope of 20:1. Runway 31L-13R and 31R-13L Approach Surfaces have a width of 2000 feet at the outer end.

Reid-Hillview Airport



Elevation Restrictions (Feet above MSL)

133 183 233 283 383

158 208 258 333 433

483

Figure 6
FAR Part 77
Surfaces

0 2,000 4,000
Feet

This map created by the Santa Clara County Planning Office. The GIS data was compiled from various sources. While deemed reliable, the Planning Office assumes no liability.
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Table 3 - 3

FAR PART 77 DIMENSIONS

Reid-Hillview Airport

	Runway			
	31R	13L	31L	13R
Runway Type	Nonprecision	Visual	Visual	Visual
Primary Surface				
Length (feet)	3,501	3,501	3,499	3,499
Width (feet)	500	500	250	250
Approach Surface				
Slope	20:1	20:1	20:1	20:1
Length (feet)	5,000	5,000	5,000	5,000
Inner Width	500	500	250	250
Outer Width	2,000	2,000	1,250	1,250
Transitional Surface				
Slope	7:1	7:1	7:1	7:1
Horizontal Surface				
End Radius (feet)	5,000	5,000	5,000	5,000
Elevation (feet MSL)	283	283	283	283
Conical Surface				
Slope	20:1	20:1	20:1	20:1
Width (feet)	4,000	4,000	4,000	4,000

Source: Federal Aviation Regulations, Part 77

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 5,000 feet out for Runway 31L-13R and for Runway 31R-13L, 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 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 CLUP.

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 2002 Handbook presents guidelines for the establishment of airport safety areas in addition to those established by the FAA.

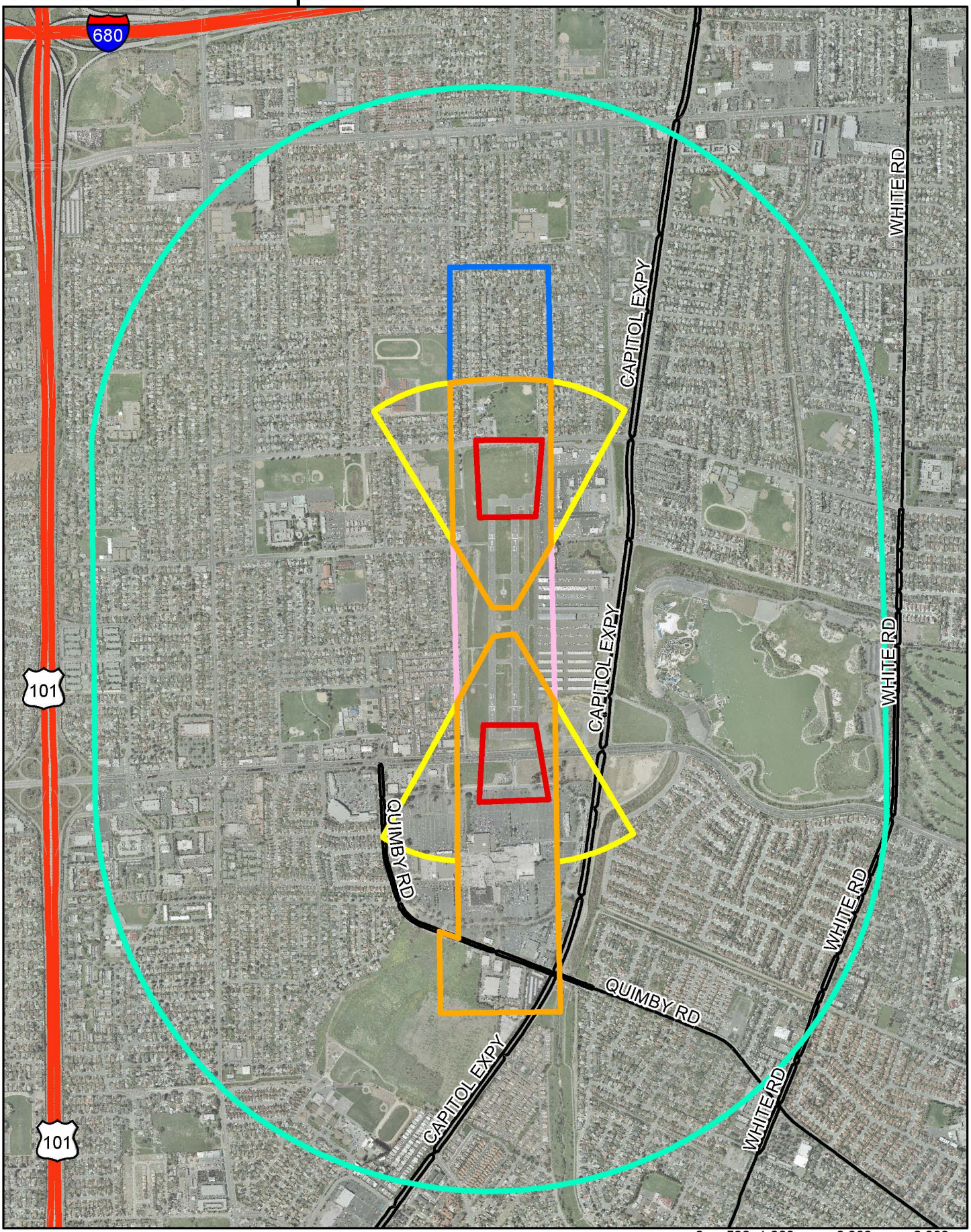
Airport safety zones are established to minimize the number of people exposed to potential aircraft accidents in the vicinity of the Airport by imposing density and use limitations within these zones. Figure 7 illustrates the airport safety zones for Runways 31R-13L and 31L-13R at the Airport. The safety zones are related to runway length and expected use. 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 having the highest exposure followed by the Inner Safety Zone, Turning Safety Zone, Outer Safety Zone and Sideline Safety Zone, with the Traffic Pattern Zone having the lowest level of exposure.

At airports with displaced runway thresholds, a choice exists to use either the runway threshold (end of pavement) or the displaced threshold to determine the location of the safety zones. This CLUP uses the threshold 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. At this airport all four RPZs are based on the displaced thresholds and thus the ALUC safety zones are positioned accordingly.

Reid-Hillview Airport



0 500 1,000 2,000 3,000 Feet

Safety Zones

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

Figure 7
Airport Safety Zones

The safety zones defined for the Airport are based on the 2002 Handbook guidelines for an airport having a general aviation runway less than 4000 feet in length. Some deviations from the guidelines have been made to account for the parallel runways and for the existing land uses on the southeast side of the 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.

3.5.1 Eastridge Shopping Center

Safety zone design is complicated to the southeast of the Airport due to the existence of the Eastridge Shopping Center, a large regional mall. Eastridge was constructed in 1970, before the establishment of the ALUC, and while it is clearly an incompatible land use under both the 1993 and 2002 Handbook guidelines, it must be addressed as a pre-existing land use. The existence of the mall structure creates certain safety impacts, which must be addressed. As was stated in the 1974 CLUP:

> "The cleared area should extend south of the Eastridge building because the existence of that structure limits the usefulness of the [standard Inner Safety Zone] adjacent to the runways.
>
> The existing Eastridge building acts as a high wall along the southern boundary of the [standard Inner Safety Zone]. Pilots experiencing trouble may have difficulty in successfully completing an emergency landing unless an additional cleared area is available south of the Eastridge building."

Past CLUPs have attempted to mitigate the safety impacts of the mall structure by extending the inner safety zone into the parking lots south of the mall. However, the growth of trees in and around these parking lots has severely compromised their ability to serve as an emergency safety zone for aircraft in distress. As a result, this CLUP extends the size of the southern ISZ even further southward than previous CLUPs, and requires more restrictions on land use in the southern ISZ than in the northern ISV in order to help mitigate the negative impacts that the Eastridge structure creates.

The following safety zones apply to Reid-Hillview Airport based on guidelines provided in the 2002 Handbook:

3.5.2 Runway Protection Zone

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 thresholds. 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.

- Runway 31L-13R: The RPZ for Runway 31L is 1,000 feet long, with an inner width of 250 feet and an outer width of 450 feet. The RPZ for Runway 13R is 1,000 feet long, with an inner width of 250 feet and an outer width of 450 feet.

- Runway 31R-13L: The RPZ for Runway 31R is 1,000 feet long, with an inner width of 500 feet and an outer width of 800 feet. The RPZ for Runway 13L is 1,000 feet long, with an inner width of 500 feet and an outer width of 650 feet.

3.5.3 Turning Sector Defined

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

Each runway end has a sector, which is bounded on the inside by the extended runway centerline. The radius of these sectors is 3000 ft with the center point located 1000 ft along the runway centerline from the runway threshold towards the opposite end of the runway. The arc for the sector is swung away from the opposite runway. The interior angle of the sector is 30 degrees from the extended runway centerline. The two closest turning sector center-points are connected with a straight line and a tangent line connects the two associated arcs.

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

3.5.4 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 line midway between the runway centerlines starting at the apex of the Turning Sector boundary and except as noted below, extends to the outer arc of the Turning Sector boundary. The length of the runway determines the dimensions.

- The ISZ for Runway 13L and 13R is an area 1,300 feet wide, centered between the runways and contained within the Turning Sector.

- The ISZ for Runway 31R and 31L is an area 1,300 feet wide, centered between the runways and extending 4500 feet from the Turning Sector center points defined above. This safety zone has an additional area at the far end extending to the west along the outer edge of the ISZ, defined as being an additional 250 feet wide and extending from the centerline of Quimby Road to the outer end of this safety zone.

- The Inner Safety Zone excludes the RPZ.

3.5.5 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 13L and 13R are the two areas within the Turning Sector outside of the ISZ.

- The TSZs for Runways 31R and 31L are the two areas within the Turning Sector outside of the ISZ.

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

3.5.6 Outer Safety Zone

The Outer Safety Zone (OSZ) extends out from the Turning Sector arc. The OSZ is a rectangular area centered on the line midway between the extended runway centerlines starting at the outer end of the Turning Sector arc. The length of the runway determines the dimensions.

- The OSZ for northwest ends of the runways is a rectangular area 1300 feet wide and 1500 feet long at the center, centered on the line midway between the extended runway centerlines, starting at the outer edge of the ISZ and extending away from the runway threshold.

- There is no OSZ for the southwest ends of the runways due to the extended ISZ.

3.5.7 Sideline Safety Zone

The Sideline Safety Zone (SSZ) is an area along side and parallel to the runways. This area is not normally overflown by aircraft except by aircraft losing directional control on takeoff (especially twin-engine aircraft).

- The SSZ for both runways 31R-13L and 31L-13R is 1300 feet wide centered on the line midway between the runway centerlines and extending along the runways to intercept the Turning Sector boundaries.

3.5.8 Traffic Pattern Zone

The Traffic Pattern Zone (TPZ) is within other portions of the airport area that are routinely overflown by aircraft. 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. For this airport, the TPZ is the surface area underlying the FAR Part 77 Horizontal Surface.

- The perimeter of the TPZ is constructed by swinging arcs of 5,000 feet out for Runways 31L-13R and for Runways 31R-13L from a point 200 feet out from each runway pavement end on the extended centerline and connecting the arcs with lines tangent to these arcs.

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.).

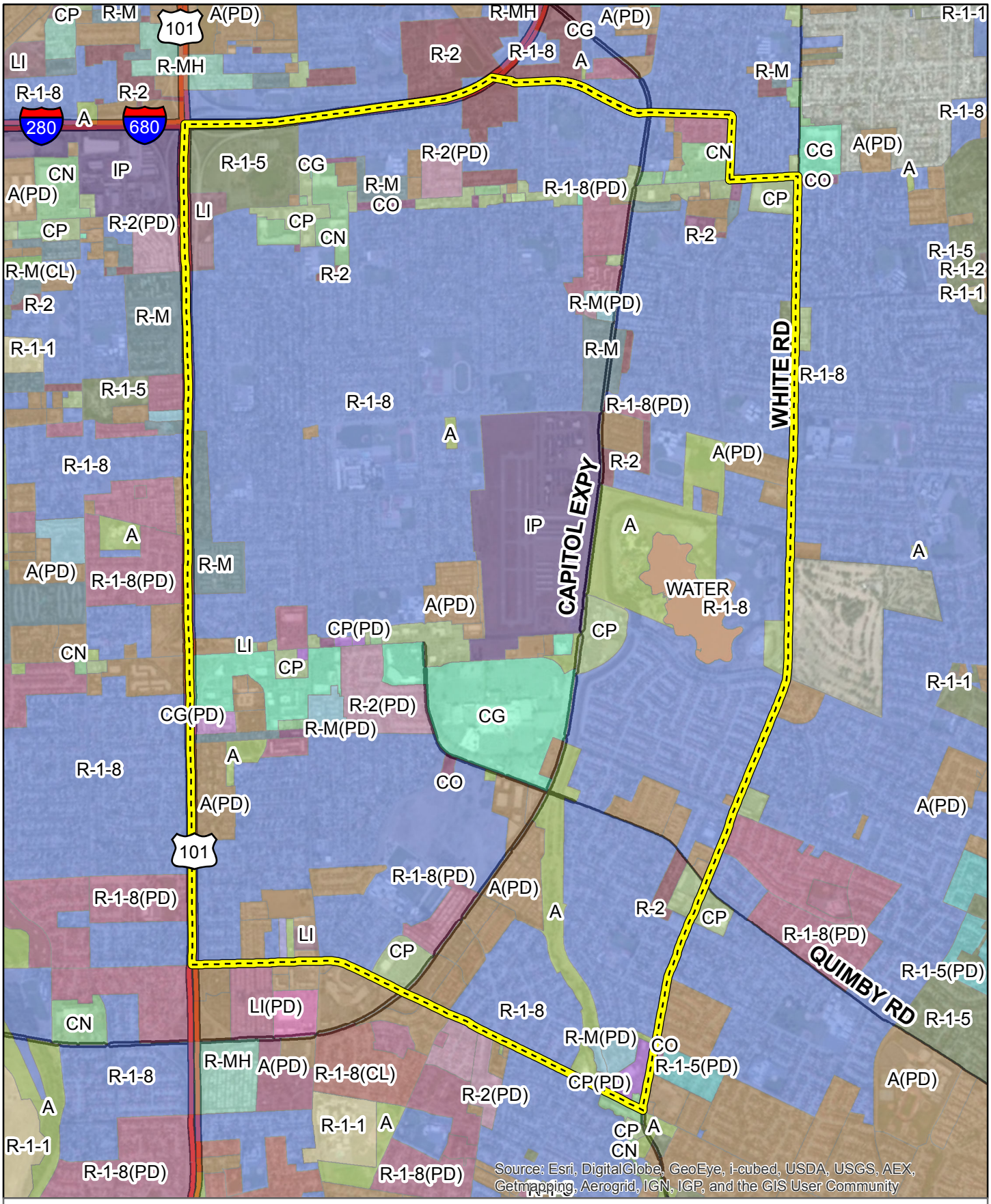
3.7 AIRPORT INFLUENCE AREA

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 development projects must be evaluated by local agencies to determine how the Airport Comprehensive Land Use Plan may impact the proposed development. This evaluation is to determine that the development meets the conditions specified for height restrictions, and noise and safety protection to the public. [A.B. 332 (Stats. 2003) to be codified in Public Utilities Code 21674.7 (b)].

The Airport Influence Area (Figure 8) is defined as the area bounded by Highway 101 on the west side, Highway 680 to Silver Creek to Story Road on the northwest to White Road on the northeast to Aborn Road on the southeast to Highway 101. In addition, for structures (including antennae) with a height of 500 feet or greater above ground level, the AIA is defined as the entire county.

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.

Reid-Hillview Airport



Zoning

A	CO	LI	R-1-5	R-2	R-MH
A(PD)	CO(PD)	LI(PD)	R-1-5(PD)	R-2(PD)	WATER
CG	CP	R-1-1	R-1-8	R-M	
CG(PD)	CP(PD)	R-1-2	R-1-8(CL)	R-M(CL)	
CN	IP	R-1-2(PD)	R-1-8(PD)	R-M(PD)	

Figure 8
Airport Influence Area
with Zoning

0 1,000 2,000 Feet

This map created by the Santa Clara County Planning Office. The GIS data was compiled from various sources. While deemed reliable, the Planning Office assumes no liability.
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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 presents a composite of the land use planning categories and the criteria that establishes the Airport Influence Area (AIA). The Santa Clara County Airport Land Use Commission (ALUC) and the Comprehensive Land Use Plan (CLUP) for the Airport address policies based on the following criteria:

- **Noise Restriction Area.** The Noise Restriction Area is defined as the 60 dB CNEL contour, inside which an acoustical analysis is required by the local agency with land use jurisdiction demonstrating how low-density, single-family, duplex and mobile home dwelling units 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 Approach Surfaces plus the Transitional Surfaces plus the Horizontal Surface plus the Conical Surface.

- **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 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 CLUP are described below. In addition, actions that are available to the local jurisdictions are also presented.

Implementation of the CLUP will be the responsibility of the County of Santa Clara and the City of San Jose 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 City of San Jose as needed to facilitate implementation of the CLUP.

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 CLUP and its planning boundary maps shall, upon adoption, be subject to annual review by the ALUC and be updated as required.

  Amendments to the CLUP 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 City of San Jose to determine if such plans and regulations are consistent with the policies of this CLUP.

  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 discretionary 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 CLUP.

- Review proposed 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 proposed changes are consistent with this CLUP or if the CLUP requires an amendment.

- Consider and comment on local government decisions relating to proposed land use 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 CLUP (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), 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 with this CLUP.

- 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 a 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 CLUP, 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 CLUP or 2) inconsistent with the CLUP. Additionally, the ALUC can provide recommendations for changes that would enhance the project's compatibility with the CLUP 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. 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 CLUP.

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

4.2.2 Affected Local Agencies

To bring their General Plan and Specific Plans into conformity with this CLUP, 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, after January 1, 2004, 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, Reid-Hillview Airport 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 guidelines or policies established for each category of concern. The graphic illustrations of each area of concern presented in this CLUP 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 guidelines or policies, the most restrictive guideline or 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 shall apply to the project.

G-3 The Airport is exempt from the policies of this CLUP for the development of projects on airport property that are directly related to airport operations (examples: terminals, FBOs, fuel storage, passenger and employee parking). The policies of this CLUP apply to all land uses on airport property that are not directly related to airport operations (examples: commercial non-aviation uses, athletic fields). In the case of mixed use, the primary use of the project shall be used to determine if the project is exempt, for example:

- A terminal building would be considered related to airport operations even though it also provided retail food and product sales.

- A commercial office complex would not be considered related to airport operations even though some of the office space might be used for airport administration.

In cases of uncertainty, the ALUC is available to help determine if a land use is or is not directly related to airport operations. 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 CLUP to uses that are compatible, where feasible.

G-5 Dedication of an avigation easement to the County of Santa Clara shall be required 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. In addition to Major Projects, which include General Plan Amendments and Rezoning Applications, the following projects defined in the City of San Jose Guidelines as "Minor Permits", shall require Avigation Easements:
1 - Subdivisions
2 - Lot Combining/Merger
3 - Single family houses that either exceed 30 feet in height or two stories, or whose floor area ratio (FAR) exceeds 0.45.
4 - Telecommunication facilities
5 – Any addition to a residential mixed-use property.
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.

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 CLUP.

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

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

N-4 No residential 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 project. All property owners within the 65 dB CNEL contour boundary 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) are living within a high noise area and the exterior noise level is predicted to be greater than 65 dB CNEL.

N-5 Residential construction will not be permitted in the area between the 60 dB CNEL contour boundary and the 65 dB CNEL contour boundary unless it can be demonstrated that the resulting interior sound level will be no greater than 45 dB CNEL.

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) 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-

Table 4 - 1

NOISE COMPATIBILITY GUIDELINES

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, churches, 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 A (1998), Figure 2 and Santa Clara County ALUC 1992 Land Use Plan, Table 1

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 presented in Table 3-3 and illustrated on Figure 6 will be considered an incompatible land use.

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 Guidelines presented in Table 4-2 shall be used to determine if a specific land use is consistent with the CLUP. 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. These uses should also be discouraged in the Traffic Pattern Zones (TPZs).

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), Outer Safety Zones (OSZs) and Traffic Pattern Zones (TPZs) presented in Table 4-2.

Table 4 - 2

SAFETY ZONE COMPATIBILITY GUIDELINES

Safety Zone	**Maximum Population Density**	**Open Area 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 60 people per acre (includes open area and parking area required for the building's occupants)	30 percent of gross area open. No structures or concentrations of people between or within 100 feet of the extended runway centerlines.	Very low-density residential. 10 acres or more per dwelling unit - 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 100 people per acre (includes open area and parking area required for the building's occupants)	20 percent of gross area Minimum dimensions: 300 ft by 75 ft parallel to the runway(s).	Very low-density residential, 5 acres or more per dwelling unit. No regional shopping centers, theaters, meeting halls, stadiums, buildings with more than three above ground habitable floors, schools, day care centers, hospitals, nursing homes or similar activities. No hazardous material facilities (gasoline stations, etc.).
Outer Safety Zone – OSZ	Nonresidential, maximum 100 people per acre (includes open area and parking area required for the building's occupants)	20 percent of gross area	Rural areas - allow residential, 2 acres or more per dwelling unit. Urban areas - allow residential infill to existing density. No regional shopping centers, theaters, meeting halls, stadiums, buildings with more than three above ground habitable floors, schools, large day care centers, hospitals, nursing homes or similar activities. No above ground bulk fuel storage.
Sideline Safety Zone - SSZ	Nonresidential, maximum 150 people per acre (includes open area and parking area required for the building's occupants)	30 percent of gross area	Residential - 5 acres or more per dwelling unit. No regional shopping centers, theaters, meeting halls, stadiums, buildings with more than three above ground habitable floors, 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 every one-half mile	Residential – No Limit. No sports stadiums or similar uses with very high concentration of people.

Source: Based on 2002 *Airport Land Use Planning Handbook* prepared by the California Department of Transportation, Division of Aeronautics

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. Beyond these zones, 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, 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 structures, walls, large trees or poles (greater than 4" in diameter) and overhead wires, and have minimum dimensions of at least 75 feet wide by 300 feet long along the normal direction of flight. In addition, a clear path must exist which allows aircraft to reach the open space. Hence, an open area surrounded by structures or trees may not qualify as open space if such obstructions preclude a gliding aircraft from reaching the ground under full control of the pilot. The clustering of development and provision of contiguous landscaping and parking areas will be encouraged to increase the size of open space areas.

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 Within the outer walls of the Eastridge Mall, the shopping center may be renovated, reconstructed or modified provided that:

a) The roof remains contiguous over the entire center (no open air malls or detached structures inside the zone).

b) The height of the roof may not be raised above the current roof level.

c) The placement of poles, antennae, wires and cables on the roof should be minimized and located outside the area between the extended runway centerlines as far as practicable.

d) Modifications to the roof and exterior walls of the structure are permitted so long as the new structure uses the same general type of construction in order to maintain the same level of safety to aircraft and building occupants as the structure did before modification.

S-9 Within the boundaries of the southern Inner Safety Zone (ISZ):

a) Policy S-5 not withstanding, the entire south Inner Safety Zone is to remain open area. No new structures, trees or poles are permitted in the south ISZ open areas. The current land use of at-grade automobile parking is explicitly permitted.

b) Ensure that any landscaping associated with new development will not create a hazard to a gliding aircraft attempting to reach the safety zones.

c) The above restrictions notwithstanding, trees and bollards are permitted and encouraged within the ISZ to help form a protective barrier for existing structures that are within the ISZ boundary. These trees and bollards should follow the boundary of the structures, should not be allowed to grow higher than the structures, and should not intrude within the ISZ any further than necessary to serve their protective purpose.

S-10 Structures or trees that would interfere with an aircraft gliding to an emergency landing in a safety zone open area are not permitted.

S-11 In exceptional cases a variance 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 shall be required to dedicate an avigation easement to the County of Santa Clara. 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 CLUP 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.

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 ALUC 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 provide an avigation easement to the jurisdiction operating the airport, similar to Exhibit 1 in the Appendix.

4.3.8 Infill

Infill as used in this CLUP is defined as the development of vacant or underutilized 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 CLUP compatibility criteria. In some circumstances, infill projects may be acceptable if the following criteria are met.

4.3.8.1 Policies

I-1 Infill projects must comply with all safety policies and guidelines of this CLUP with the possible 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 ALUC determines that the project will create no adverse impacts beyond those that already exist due to the existing incompatible land uses.

d) The property owner shall provide 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 Comprehensive Land Use Plan (CLUP) 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) CLUP, and transmitted that CLUP to an affected local agency that local agency is mandated to incorporate the CLUP's provisions into its General and/or Specific Plan(s) within 180 days {Government Code 65302.3(b)}. Implicitly, the local agency is then required to adopt zoning ordinance(s) that implement the policies of their General/Specific Plan(s).

If a local agency decides not to incorporate the CLUP policies verbatim in its General and/or Specific plans, it may overrule portions (or all of) the CLUP 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 a CLUP 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. If the land use restrictions eliminate all reasonable economic use of private property, they can be considered an unconstitutional taking and result in inverse condemnation. 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 the land containing the most restrictive safety zones.

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 guidelines 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 CLUP, rather than through redefinition of existing zoning district descriptions.

The County and cities should consider the following for inclusion in the Airport Overlay District Zone (Airport Safety Overlay Zone):

- **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.

- **Maximum Densities** - The principal noise and safety compatibility standards in the CLUP 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.

- **Open Space Requirements** - CLUP 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 CLUP. 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 Guidelines 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.

- **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.

6 BIBLIOGRAPHY

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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 County of Santa Clara, 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 Reid-Hillview 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 Reid-Hillview 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 Comprehensive Land Use 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."

RHV CLUP
CHANGE DOCUMENT
10/24/07 to 11/16/16
WBW

Cover page: Added "Amended 11/16/16",

Page 2-9, Figure 4 Updated this figure to reflect the current City of San Jose Envision San Jose 2040 General Plan.

Page 3-9, Figure 6 Redrew the Part 77 contour lines to show greater slope detail and corrected a minor drawing error.

Page 3-16, Figure 8 Updated this figure to incorporate the current City of San Jose zoning amendments.

Page 4-5, Section 4.3.1.1, Policy G-6 Added the following sentence to the end of this paragraph: "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."

Page 4-5, Section 4.3.1.1, Policy G-7 Added the phrase "or large video displays" in the first sentence.