Photograph: Nelson Minar

DRAFT FINAL

Comprehensive Airport Land Use Compatibility Plan For the Environs of San Carlos Airport

Prepared For
City/County Association of Governments of San Mateo County
Redwood City, California

April 2015

ESA Airports

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CHAPTER 1
Purpose and Scope

1.1 Introduction

This document represents an update to the state-mandated airport land use compatibility plan (ALUCP) for the environs of San Carlos Airport (the Airport). The Airport is one of three public use airports located in San Mateo County. The other two airports in San Mateo County are San Francisco International Airport which is owned and operated by the City and County of San Francisco through the San Francisco Airport Commission and Half Moon Bay Airport which is owned and operated by San Mateo County. This ALUCP was prepared by the City/County Association of Governments of San Mateo County (C/CAG) in its designated role as the Airport Land Use Commission for San Mateo County under the authority of the State of California Aeronautics Law, State Aeronautics Act, Chapter 4, Article 3.5, California Public Utilities Code (see **Appendix B**).

1.2 State Requirements for Airport Land Use Compatibility Planning

In 1967, the State legislature adopted legislation requiring the establishment of airport land use commissions in counties with one or more airports serving the general public.[1] Amendments adopted by the legislature in 1970 require each commission to develop ALUCPs for the environs of public-use airports within their respective jurisdiction. ALUCPs are designed to encourage compatible land uses in the vicinity surrounding an airport by providing for the "orderly growth of each public airport and the area surrounding the airport" while safeguarding "the welfare of the inhabitants within the vicinity of the airport and the public in general."

1.3 Airport Land Use Compatibility Planning in California: Roles and Responsibilities

The following sections describe the roles and responsibilities of airport land use commissions and federal, state, and local agencies with respect to aviation and airport/community land use compatibility planning in California.

[1] See California Public Utilities Code, Article 3.5, Section 21670, et seq.

1.3.1 Airport Land Use Commissions

In accordance with Section 21674(b) of the California Public Utilities Code, an airport land use commission has the authority "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"; to prepare and adopt airport land use plans; and to review and make recommendations concerning specified plans, regulations and other actions of local agencies and airport operators. In addition, airport land use commissions review plans for proposed new airports or heliports.

State law does not authorize airport land use commissions to zone property or apply other land use controls normally exercised by local public agencies. Airport land use commissions have no authority to issue permits prior to construction of a building or grant approvals for the recording of subdivision plats. Actions by the airport land use commission can be overruled by local governments, although the override action must follow specific steps and be supported by adopted findings.

The jurisdiction of an airport land use commission is limited to new land uses, hence existing land uses that are in conflict with or affected by existing or anticipated airport operations are not subject to the policies established by the airport land use commission. State law does not provide airport land use commissions with jurisdiction over airport operations, although ALUCPs must include assumptions about future operations at each airport covered by the plan. Once adopted, an ALUCP serves as a framework for reviewing significant proposals for further airport development.

1.3.2 The Federal Aviation Administration

The Federal Aviation Administration (FAA) plays several roles with respect to airport/community land use compatibility and control of noise associated with aircraft operations.

- **Implement and Enforce Aircraft Operational Procedures** – The FAA's responsibilities include ensuring pilot compliance with Air Traffic Control instructions, enforcing flight restrictions, and monitoring careless and reckless operation of aircraft. Where and how aircraft are operated is under the jurisdiction of the FAA and the pilot-in-command.
- **Managing the Air Traffic Control and Airspace System** – The FAA is responsible for the control of navigable airspace and for reviewing all proposed alterations to airport flight procedures proposed for noise abatement purposes. The FAA reviews proposed alterations to flight procedures on the basis of safety of flight operations, safe and efficient use of navigable airspace, effects on national security and defense, compliance with applicable laws and regulations, and general management and control of national airspace and air traffic control systems.
- **Certification of Aircraft** – the FAA sets noise level requirements for aircraft including noise standards for new aircraft type certifications pursuant to Code of Federal Regulations, Title 14, Part 36 "Noise Standards: Aircraft Type and Air Worthiness Certification".

- **Pilot Certification/Licensing** – the FAA has exclusive authority to certify pilots of aircraft in the United States. Individuals licensed as pilots are trained under strict guidelines focused on safety.
- **Noise Compatibility Studies** - In 1981, the FAA issued its Interim Rule on Federal Aviation Regulations (FAR) Part 150, *Airport Noise Compatibility Planning*, which became final in 1985.[2] The FAR Part 150 regulations were issued in response to provisions contained in the *Aviation Safety and Noise Abatement Act of 1979*, which allow airport operators, on a voluntary basis, to prepare aircraft noise exposure maps and land use compatibility programs. FAR Part 150 "prescribes the procedures, standards and methodology governing the development, submissions, and review of airport noise maps and airport noise compatibility programs, including the process for evaluating and approving or disapproving those programs." FAR Part 150 is more comprehensive than previous federal noise programs, and since its enactment, FAA grants can be applied to implement noise programs in communities impacted by aircraft noise.

1.3.3 California Department of Transportation, Division of Aeronautics

State law directs the California Department of Transportation to "develop and implement a program or programs to assist in the training and development of the staff of airport land use commissions."[3] Implementation of this directive has included the preparation and periodic update of the *California Airport Land Use Planning Handbook* (Handbook). The California Department of Transportation, Division of Aeronautics is also responsible for funding and permitting programs for airports and heliports.

1.3.4 Local Governments

California law requires that, after an airport land use commission has adopted an ALUCP, affected local government agencies must update their general plans, specific plans, and land use regulations to be consistent with the ALUCP.[4] Alternatively, local government agencies may take steps[5], provided by law, to overrule part or all of the ALUCP as it relates to their jurisdiction. If a local government agency fails to take either action, then it must submit all land use policy action, development actions, and facility master plans within the airport influence area to the airport land use commission for review. Even if the local government agency has amended its plan(s) to be consistent with the ALUCP or has overruled the ALUCP, it must still submit proposed new and amended general plans, specific plans, land use ordinances, regulations, and facility master plans to the airport land use commission for review.[6]

2 U.S. Department of Transportation, Federal Aviation Administration, Federal Aviation Regulations Part 150, *Airport Noise Compatibility Planning*, Code of Federal Regulations, Title 14, Chapter I, Subchapter I, Part 150, January 18, 1985, as amended.
3 California Public Utilities Code, Section 21674.5(a).
4 See California Government Code, Section 65302.3.
5 See Section 3.3.3 of the ALUCP for a detailed description of the overrule process.
6 See California Public Utilities Code, Section 21676.5(a).

1.4 San Mateo County Airport Land Use Commission

1.4.1 History

The City/County Association of Governments of San Mateo County (C/CAG) Board of Directors serves as the airport land use commission for San Mateo County. C/CAG was formed in November 1990 through a Joint Powers Agreement (JPA) between the County and the 20 incorporated cities in the County to prepare, adopt, and enforce state-mandated countywide plans. One of those plans is the 1996 *San Mateo County Comprehensive Airport Land Use Plan*.[7] In February 1991, the County Board of Supervisors and the City Selection Committee of Mayors designated C/CAG as the Airport Land Use Commission for San Mateo County. C/CAG has established an Airport Land Use Committee to advise the C/CAG Board on airport/land use compatibility planning issues. The Board, however, retains all decision-making authority as the official airport land use commission established under State law.[8]

1.4.2 C/CAG Structure and Membership

C/CAG is an autonomous public agency and is not part of the governmental structure of the County of San Mateo. With respect to its duties as the Airport Land Use Commission in San Mateo County, C/CAG acts independently of the County of San Mateo Board of Supervisors. The existing membership of C/CAG, as of January 2014, is presented in **Table 1-1**.

C/CAG has several designated roles and implements several multi-jurisdictional plans and programs. The C/CAG Airport Land Use Committee is one of several advisory committees established by the C/CAG Board to provide technical assistance in the preparation and implementation of plans and programs.

7 The *San Mateo County Comprehensive Airport Land Use Plan* is the existing ALUCP for San Carlos Airport.

8 Prior to 1990, the airport land use commission function had been the responsibility of the Regional Planning Committee (RPC) of San Mateo County. The RPC was created in 1964 as an advisory body to the County Board of Supervisors. The Board of Supervisors abolished the RPC after the formation of C/CAG. Many of the RPC's functions were assumed by C/CAG.

TABLE 1-1
C/CAG BOARD MEMBERSHIP

Voting Members	
Town of Atherton	City of Millbrae
City of Belmont	City of Pacifica
City of Brisbane	Town of Portola Valley
City of Burlingame	City of Redwood City
Town of Colma	City of San Bruno
City of Daly City	City of San Carlos
City of East Palo Alto	City of San Mateo
City of Foster City	City of South San Francisco
City of Half Moon Bay	Town of Woodside
Town of Hillsborough	County of San Mateo
City of Menlo Park	
Ex-Officio (Non-Voting) Members	
San Mateo County Transportation Authority	San Mateo County Transit District
Staff Assistance	
Sandy Wong, C/CAG Executive Director; C/CAG staff for various activities	

NOTE: All members are elected officials of the jurisdictions listed, unless otherwise noted; Membership as of January 2014.

SOURCE: City/County Association of Governments of San Mateo County (C/CAG). "2014 Board Members," www.ccag.ca.gov/board_members.html (accessed January 31, 2014).

The ALUCP for the environs of each airport in the County and C/CAG's review of local land use policy actions and issues are not subject to approval by the County Board of Supervisors. The County of San Mateo is a member of the C/CAG Board of Directors and is subject to the same requirements and procedures that apply to any other affected local agency regarding the ALUCP referral and review process.

The County Board of Supervisors, in accordance with PUC Section 21671.5(b), determines any compensation for C/CAG Board members. In addition, C/CAG cannot hire staff or contractors without the prior approval of the Board of Supervisors (PUC Section 21671.5(d)). However, the County of San Mateo is required to provide staff assistance for the operation and support of C/CAG in its role as the San Mateo County Airport Land Use Commission (PUC Section 21671.5(c)).

1.4.3 C/CAG Airport Land Use Committee Activities and Membership

The responsibilities of the C/CAG Airport Land Use Committee include: (1) reviewing proposed local agency land use policy actions for a determination of consistency with the applicable provisions contained in the ALUCP and making recommendations to the C/CAG Board regarding such actions and (2) preparing periodic draft amendments to the ALUCP for adoption by the

C/CAG Board. The C/CAG Board, acting as the Airport Land Use Commission for San Mateo County, makes all final decisions regarding airport/land use planning issues in San Mateo County in compliance with the provisions of PUC Section 21670, et seq.

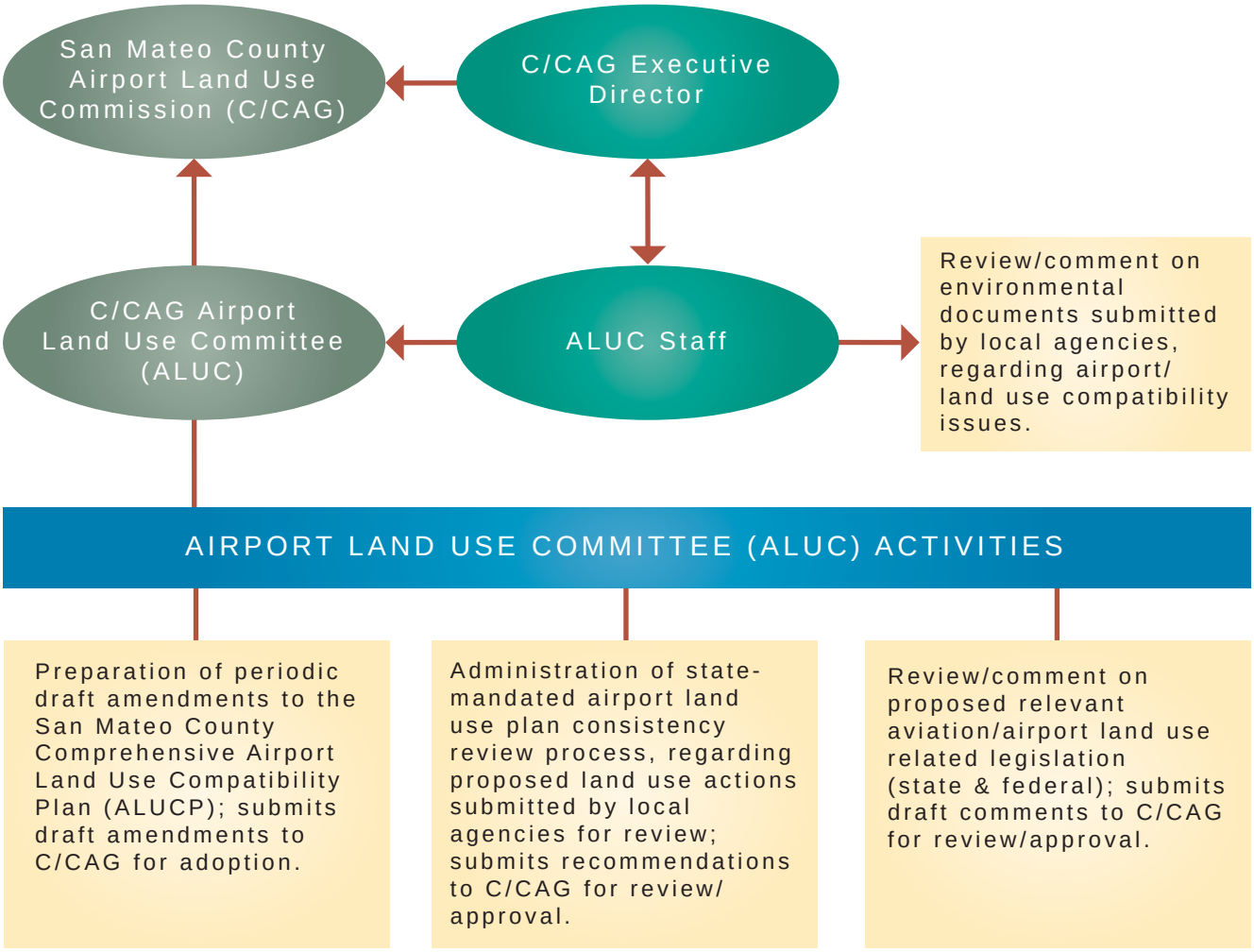
The membership of the C/CAG ALUC, as of January 2014, is listed in **Table 1-2**. The membership includes C/CAG member jurisdictions that are affected by one or more of the airports in San Mateo County. An overview of ALUC activities is presented on **Exhibit 1-1**.

TABLE 1-2
MEMBERSHIP OF C/CAG AIRPORT LAND USE COMMITTEE (ALUC)

City of Brisbane	City of San Bruno
City of Burlingame	City of San Carlos
City of Daly City	City of South San Francisco
City of Foster City	County of San Mateo
City of Half Moon Bay	Aviation Representative (appointed)
City of Millbrae	Half Moon Bay Airport Pilots Association (appointed)
City of Redwood City	

NOTE: All members are elected officials of the jurisdictions listed unless otherwise noted.

SOURCE: City/County Association of Governments of San Mateo County (C/CAG). "C/CAG Airport Land Use Committee (ALUC) Membership Roster February 2013," http://www.ccag.ca.gov/pdf/aluc/2013/ALUC%20Membership%20Feb%202013.pdf (accessed January 31, 2014).



SOURCE: i-cubed,1999; ESRI, 2012; ESA Airports, 2014

San Carlos Airport ALUCP . 130753

Exhibit 1-1

Overview of C/CAG Airport Land Use Committee (ALUC) Activities

1.4.4 Duties of the C/CAG Board of Directors as the Airport Land Use Commission

Under the provisions of state law, the C/CAG Board of Directors, acting as the Airport Land Use Commission for San Mateo County, has certain responsibilities and specific duties to perform. The Board fulfills its responsibilities in three basic ways:

- Adopting an ALUCP for the environs of each airport in the County that contains airport/land use compatibility policies, standards, and criteria addressing noise, safety, and building height issues.
- Coordinating with local agencies (affected cities and the County of San Mateo) with jurisdiction over any geographic area subject to the provisions of the relevant ALUCP and assisting those agencies to implement airport-compatible land use planning, as part of their local land use and zoning authority.
- Reviewing and determining the compatibility of proposed local agency land use policy actions (e.g., general plans, general plan amendments, specific plans, specific plan amendments, and rezonings resulting in a land use change within an airport influence area of any public use airport in the County) with the applicable policies, standards, and criteria contained in the relevant ALUCP.

1.5 Airport Land Use Compatibility Plan: Need and Purpose

1.5.1 Need for the ALUCP Update

The C/CAG Board adopted an ALUCP covering all three public use airports in San Mateo County in December 1996.[9] The C/CAG Board has since adopted an updated ALUCP for San Francisco International Airport (November 2012) and Half Moon Bay Airport (September 2014). C/CAG is developing an updated ALUCP for San Carlos Airport to address: (1) community concerns regarding aircraft noise levels, (2) changes that have occurred at the airport and in the environs since 1996, and (3) changes in the State Aeronautics and other regulations since 1996. Portions of the 1996 plan are out-of-date and/or are inconsistent with guidance presented in the current version of the *California Airport Land Use Planning Handbook.*

The updated ALUCP for San Carlos Airport is based on the 2010 ALP for San Carlos Airport. The County Airport Manager has confirmed that the 2010 ALP reflects the expected growth of the Airport over a 20+ year period through 2035 which is the planning horizon for this ALUCP.

1.5.2 Purpose of the ALUCP

The ALUCP is the primary document used by an airport land use commission to help promote compatibility between an airport and its environs. More specifically, the ALUCP should act as a

[9] City/County Association of Governments of San Mateo County (C/CAG). *San Mateo County Comprehensive Airport Land Use Plan*. December 1996.

guide for the airport land use commission and local jurisdictions in safeguarding the general welfare of the public as the airport and the area surrounding the airport grows. The ALUCP also serves as a tool for the airport land use commission in fulfilling its duty to review airport and land use development proposals within the airport influence area (AIA) or referral area associated with an airport.

The ALUCP for the environs of San Carlos Airport is the key to implementation of Airport Land Use Commission (the C/CAG Board) policies related to proposed land development in the vicinity of the Airport. The ALUCP provides the standards, criteria, and policies on which the compatibility of proposed local land use policy actions are determined. The ALUCP also establishes the planning boundaries around San Carlos Airport that define noise, safety, height/airspace protection, and overflight areas for policy implementation, and areas within which notification of the proximity of the Airport is required as part of real estate transactions.

1.6 Scope of the Plan

This ALUCP replaces the San Carlos Airport Land Use Plan in Chapter IV of the *1996 San Mateo County Comprehensive Land Use Plan* (previously referred to as a CLUP). The Airport Layout Plan (ALP) and aviation activity forecasts for San Carlos Airport have been updated since that time and are reflected in the ALUCP update. This ALUCP is consistent with the guidance provided by the Department of Transportation, Division of Aeronautics in the 2011 *California Airport Land Use Planning Handbook*[10], in conformance with Public Utility Code (PUC) Sections 21674.5 and 21674.7.

1.6.1 Planning Assumptions

The updated ALUCP is based on three sets of key planning assumptions: (1) the 2010 Airport Layout Plan (ALP) for San Carlos Airport; (2) updated aviation activity forecasts; and (3) updated noise exposure contours.

State law requires that airport land use commissions base their ALUCPs on up-to-date airport master plans or ALPs.[11] The updated ALUCP for San Carlos Airport is based on the most recent ALP for the Airport. The ALP reflects existing facilities at San Carlos Airport and proposed facilities/improvements which include the relocation of a levee/perimeter road on the southeast side of the airport, relocation of fuel storage facilities, relocation of the administration/terminal building, upgraded visual aids, and construction of new aircraft hangars. No modifications to the physical ends of the runway (Runway 12-30) are planned.

Aviation activity forecasts for San Carlos Airport including the FAA's 2014 Terminal Area Forecast (TAF) were reviewed during the development of this ALUCP. For the purposes of developing noise contours for future conditions, C/CAG staff developed a new forecast of airport

[10] California Department of Transportation, Division of Aeronautics, *California Airport Land Use Planning Handbook*, October 2011.
[11] See California Public Utilities Code, Section 21675(a).

operations through the year 2035 which represents the planning horizon for this ALUCP. The 2035 forecast noise contours are included in Chapter 4 of this ALUCP and define the boundaries within which the noise compatibility policies apply.

1.6.2 Land Use Compatibility Concerns Addressed in the ALUCP Update

Noise and safety are the two primary airport impact concerns that have the potential to affect the health, safety and welfare of people within the vicinity of an airport. The related issues of overflight (noise) and airspace protection (safety) are also considered when preparing an ALUCP.

The ALUCP update for San Carlos Airport addresses four primary land use compatibility concerns:

- Aircraft Noise –reduce the potential number of future residents in the airport environs exposed to excessive noise from aircraft and airport operations
- Safety of Persons on the Ground – minimize the potential number of residents and workers exposed to hazards related to aircraft operations and accidents
- Airspace Protection/Building Heights – protect the navigable airspace around the airport and ensure the safe and efficient operation of aircraft in flight
- Aircraft Overflights – identify areas subjected to frequent aircraft overflights and/or low altitude overflights and require real estate disclosure notices.

Land use policies and criteria in this ALUCP apply to new development only. Under State law, the C/CAG Board acting as the Airport Land Use Commission has no jurisdiction over existing development unless it is expanded or significantly modified in use, in which case it can be treated as new development subject to the policies and criteria contained in the ALUCP update. The policies and criteria contained in this ALUCP are intended to help achieve compatibility of proposed land use development or proposed airport-area development with San Carlos Airport and aircraft operations.

Airport influence area (AIA) boundaries define areas where noise, safety, airspace/height, and overflight policies and criteria are applied to certain proposed land use policy actions. The policies, standards, and criteria applicable within the AIA and contained in this ALUCP are designed to (1) minimize the exposure of the public to noise and safety hazards, (2) provide for safer aircraft operations, (3) protect the airport from encroachment and minimize incompatible development in the immediate vicinity of the airport, and (4) ensure notification of prospective buyers of real estate of the presence of the Airport and aircraft overflights.

This ALUCP establishes a two-tier AIA around San Carlos Airport and identifies land uses that are compatible with airport and aircraft operations within different compatibility zones within the AIA. This ALUCP provides a basis for determining the compatibility of proposed land use policy actions with the relevant land use compatibility provisions associated with the different compatibility zones within the AIA.

To support the policies that directly address the four compatibility concerns described above, this ALUCP also includes policies related to planning and communication protocols among C/CAG, the Airport, and local governmental agencies.

1.6.3 Limitations of the Plan

The following sections highlight the limitations of this ALUCP.

Not a Specific Development Plan

This ALUCP is not a specific development plan. It sets forth no specific land uses for any particular parcel or parcels of land.

No Authority Over Airport Operations

The Airport Land Use Commission (C/CAG Board) has no authority over Airport operations.[12] Nothing in this ALUCP shall be interpreted as regulating or conveying any recommendations concerning aircraft operations to/from/at the Airport.

Status of Existing Incompatible Development

While this ALUCP provides a guide to promote compatible land uses near San Carlos Airport, considerable development already exists in the Airport environs, including development that is inconsistent with the compatibility policies and criteria contained in this ALUCP. The land use compatibility policies and criteria contained in this document are intended to promote compatible land development in the vicinity of San Carlos Airport and are not intended to remove existing incompatible uses. None of the compatibility criteria contained herein are retroactive to existing land uses.

Incompatible development that currently exists is recognized as existing nonconforming land use by the Airport Land Use Commission (C/CAG Board). Although these nonconforming land uses are recognized, neither this ALUCP nor the Airport Land Use Commission (C/CAG Board), finds these uses to be consistent with this ALUCP.

Existing Land Uses

In addition to land uses that are currently developed and in use, "existing land uses" shall include vested development projects that have not yet been built if one or more of the following conditions is satisfied:

- A vesting tentative map has been approved pursuant to California Government Code, Section 66498.1, and has not expired as of the effective date of this ALUCP; or
- A development agreement has been executed pursuant to California Government Code, Section 65866, and remains in effect as of the effective date of this ALUCP; or

[12] See California Public Utilities Code, Section 21674(e).

- As of the effective date of this ALUCP, a valid building permit has been issued, substantial work has been performed, and substantial liabilities have been incurred in good faith reliance on the permit, pursuant to the California Supreme Court decision in *Avco Community Developers, Inc. v. South Coast Regional Com.* (1976) 17 Cal.3d 785,791, and its progeny.

1.7 ALUCP Adoption and Amendments

1.7.1 ALUCP Adoption

The adoption of this ALUCP is coordinated by C/CAG. C/CAG is obligated to involve affected local agencies in the adoption process by holding a public hearing on the ALUCP document prior to formal adoption. As discussed in the 2011 Handbook, adoption of the ALUCP begins a statutory 180-day period within which the county and affected cities must either modify their general plan and applicable specific plans or take the steps necessary to overrule the ALUC (Government Code, Section 65302.3). The overrule process involves four mandatory steps:

1. The local agency must provide the local Airport Land Use Commission and the California Department of Transportation, Division of Aeronautics a copy of the proposed decision and specific findings within 45 days prior to any decision to overrule the commission;
2. Holding a public hearing;
3. The adoption of specific findings that the local government's plans are consistent with the purposes of the State airport compatibility statute and that they provide for the orderly development of the airport; and
4. Approval of the overrule action by a two-thirds majority of the governing body of the local government.

1.7.2 Plan Amendments

The airport land use commission statute (Pub. Util. Code, Section 21675 (a)) limits amendments to an ALUCP to not more than once per calendar year. The San Mateo County Airport Land Use Commission (the C/CAG Board) has delegated the preparation of draft amendments of the ALUCP to the C/CAG ALUC. The ALUC initiates this process when necessary and feasible. ALUC staff or consultants prepare draft amendment documents for review by the ALUC, affected agencies, and the public. The content and scope of the amendments are guided by the relevant provisions of the latest edition of California Airport Land Use Planning Handbook, published by the Caltrans Division of Aeronautics (Pub. Util. Code, Section 21674.7).

Upon completion of a draft amendment document, the ALUC refers the document to the Airport Land Use Commission (C/CAG Board) for review and adoption. The C/CAG Joint Powers Agreement requires a countywide plan, or an amendment of a countywide plan, to be introduced at a C/CAG Board meeting prior to final action on the plan or plan amendment at a subsequent C/CAG Board meeting. Therefore, it takes at least two C/CAG Board meetings to adopt an amendment to the ALUCP. A public hearing is convened to receive public input prior to final action on the amendment.

1.8 Environmental Review

Requirements for the preparation of California Environmental Quality Act (CEQA) documentation when adopting or amending an ALUCP are not mentioned in the airport land use commission statutes. A decision reached by the California Supreme Court in 2007 clarified the application of CEQA to airport land use compatibility plans (*Muzzy Ranch Co. v. Solano County Airport Land Use Commission*, 41 Cal. 4th 372, June 21, 2007, modified September 12, 2007). The court ruled that an ALUCP is a "project" subject to environmental review under CEQA. The court explained that even if subsequent action by a local land use regulatory agency is required before development projects can be authorized, an ALUCP "carries significant, binding regulatory consequences for local government…" The court noted that even if an ALUCP would not cause a direct physical change in the environment, it still might affect the environment indirectly. The court specifically discussed the possibility that adoption of land use restrictions in the vicinity of an airport could cause development that would have occurred in the airport area to shift elsewhere, potentially giving rise to an adverse effect on the environment.

Nevertheless, the court also explained that the "common sense" exemption from CEQA may be invoked by an airport land use commission "where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment …."[13] The CEQA exemption may be used, however, only when the specific facts in question reveal that use of the exemption is justified.

It has been the practice of the San Mateo County Airport Land Use Commission (the C/CAG Board) to prepare an Initial Study and a Negative Declaration, per CEQA requirements, when adopting an amendment to the ALUCP. The rationale for concluding that no significant environmental impacts would result from an amendment to the ALUCP has been that the ALUCP is intended to reduce environmental impacts in an airport area through relevant policy implementation.

[13] CEQA Guidelines, Section 15061 (b)(3).

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CHAPTER 2
San Carlos Airport and Environs

2.1 Airport Setting

San Carlos Airport is located on the San Francisco Bay Peninsula approximately 24 miles south of the City of San Francisco and two miles northeast of the City of San Carlos' central business district in San Mateo County. The 160-acre airport is located west of the San Francisco Bay at five feet above mean sea level (MSL). As shown on **Exhibit 2-1**, U.S. Highway 101 is located west of the Airport and provides primary highway access to the airport via Redwood Shores Parkway. Redwood Shores Parkway runs east-west along the northern boundary of the Airport and intersects Airport Drive which provides direct access to the airport terminal building and other facilities on the north side of the Airport. The west side of the Airport can be accessed via Skyway Road, which intersects Airport Drive immediately north of the Airport.

San Carlos Airport is owned and operated by San Mateo County (Public Works, Airports Division).The Airport accommodates almost 400 based aircraft and a variety of aviation-related businesses including flight schools.

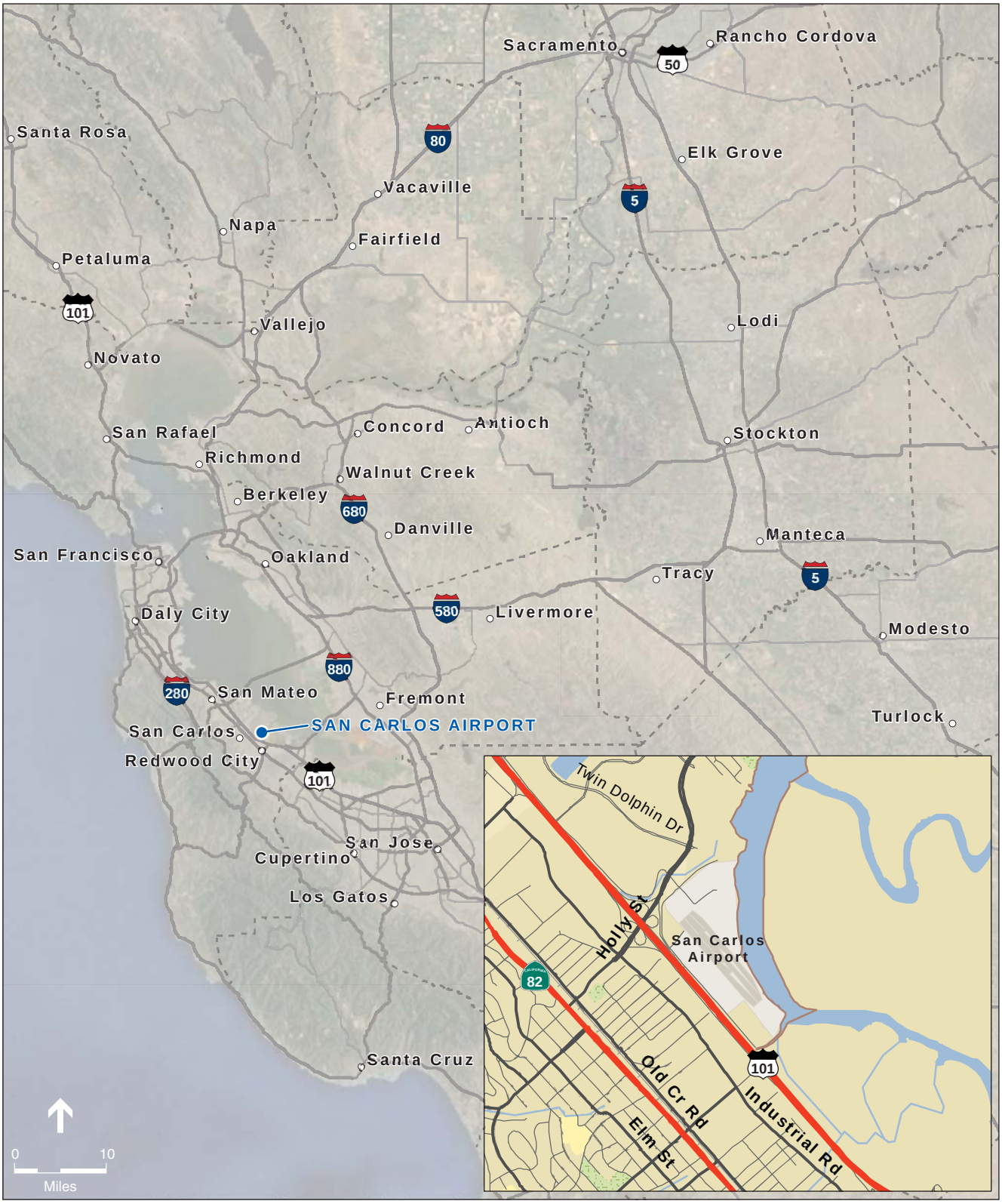
San Carlos Airport is designated as a reliever airport in the National Plan of Integrated Airport Systems (NPIAS). Reliever airports are located in major metropolitan areas and provide general aviation pilots and users with an alternative to congested commercial service airports like San Francisco International Airport.

2.2 Existing and Planned Airport Facilities

Exhibit 2-2 depicts the general layout of airfield and landside facilities at San Carlos Airport. **Exhibit 2-3** presents information regarding existing and planned facilities at San Carlos Airport. Additional details regarding existing and planned facilities at San Carlos Airport are provided in the following sections.

2.2.1 Airside Facilities

Airside facilities at San Carlos Airport include Runway 12-30, taxiways, and navigational and approach lighting aids.



SOURCE: i-cubed,1999; ESRI, 2012; ESA Airports, 2014

San Carlos Airport ALUCP . 130753

Exhibit 2-1

Airport Location Map

SOURCE: ESA Airports, 2014

San Carlos Airport ALUCP . 130753

Exhibit 2-2
Airport Layout

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EXISTING NONSTANDARD CONDITIONS

DEVIATION DESCRIPTION	EFFECTED DESIGN STANDARD	STANDARD	EXISTING	PROPOSED DISPOSITION
Runway-Taxiway Separation	Runway-Taxiway Separation	240'	140'	None
Taxiway Width	Taxiway Width	35'	30'	None
Aircraft Parking	OFA Width	500'	400'	Relocate Aircraft Parking
Parallel Taxiway-Taxilane Separation	Parallel Taxiway-Taxilane Separation	105'	69'	None
Rwy. 30 Safety Area Length	Runway Safety Area	300'	160'	Levee Relocation
Rwy. 30 Safety Area Width	Runway Safety Area	150'	119'	Levee Relocation
Rwy. 30 Obstacle Free Zone Length	Runway OFZ	200'	42'	Levee Relocation
Rwy. 30 Obstacle Free Zone Width	Runway OFZ	250'	173'	Levee Relocation
Rwy. 30 Object Free Area Length	Runway OFA	300'	-473'	Levee Relocation
Rwy. 30 Object Free Area Width	Runway OFA	500'	259'	Levee Relocation

HOLD POSITION MARKINGS/SIGN (TYP)

RUNWAY END COORDINATES (NAD 83)		EXISTING	ULTIMATE
RUNWAY 12	Latitude	N37°30' 52.2300"	SAME
	Longitude	W122°15' 09.0900"	SAME
RUNWAY 30	Latitude	N37°30' 33.1300"	SAME
	Longitude	W122°14' 47.4800"	SAME

OBSTACLE FREE ZONE (OFZ) OBJECT PENETRATIONS

OBJECT	PENETRATION	DISPOSITION
10' Levee with service road Runway 30	10'	Levee Relocation

AIRPORT DATA

SAN CARLOS AIRPORT (SQL)

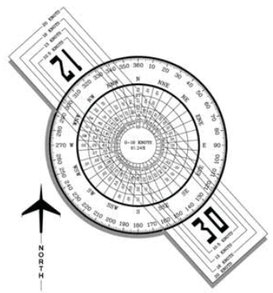
CITY: SAN CARLOS — COUNTY: SAN MATEO, CALIFORNIA

RANGE: R 4W — TOWNSHIP: T 5S — CIVIL TOWNSHIP: N/A

		EXISTING	ULTIMATE
AIRPORT SERVICE LEVEL		GENERAL AVIATION	SAME
AIRPORT REFERENCE CODE		B-II	B-II
AIRPORT ELEVATION (NAVD 88)		4.9' MSL	SAME
MEAN MAXIMUM TEMPERATURE OF HOTTEST MONTH		59°F (July)	SAME
AIRPORT REFERENCE POINT	Latitude	N37°30' 42.6800"	SAME
(ARP) COORDINATES (NAD 83)	Longitude	W122°14' 58.2800"	SAME
AIRPORT and TERMINAL NAVIGATIONAL AIDS		ROTATING BEACON	SAME
		ATCT	SAME
		AWOS III/P	SAME
		---	---

BUILDINGS/FACILITIES

EXISTING	ULTIMATE	DESCRIPTION	EL.
①	①	ADMINISTRATION/TERMINAL BUILDING	16.3'-26.7'
②	---	AIRPORT TRAFFIC CONTROL TOWER (ATCT)	47.9
③	③	CONVENTIONAL HANGAR	19.6'/32.5'
④	---	T-HANGAR	18.1'/26.9'
⑤	---	T-SHADE STRUCTURE	21.9'
⑥	---	FUEL STORAGE FACILITY (TO BE RELOCATED)	---
⑦	---	HILLER AIRCRAFT MUSEUM	24.6'/40.1'
⑧	⑧	THIS NUMBER NOT USED	---
⑨	---	AIRCRAFT WASHRACK	---
⑩	---	PUMP STATION	---
⑪	---	OBSERVATION DECK/CEILOMETER	
⑫	---	FAA WEATHER TOWER	
⑬	---	FAA AND NWS EQUIPMENT/BUILDING	



ALL WEATHER WINDROSE

SOURCE:
NOAA National Climatic Center
Asheville, North Carolina
San Francisco International Airport
San Francisco, California

OBSERVATIONS:
70,127 All Weather Observations
4,230 IFR CAT-I Observations
1987 – 1994

ALL WEATHER WIND COVERAGE

Runways	10.5 Knots 12 MPH	13 Knots 15 MPH	16 Knots 18 MPH	20 Knots 23 MPH
Runway 12-30	89.45%	94.54%	98.06%	99.49%

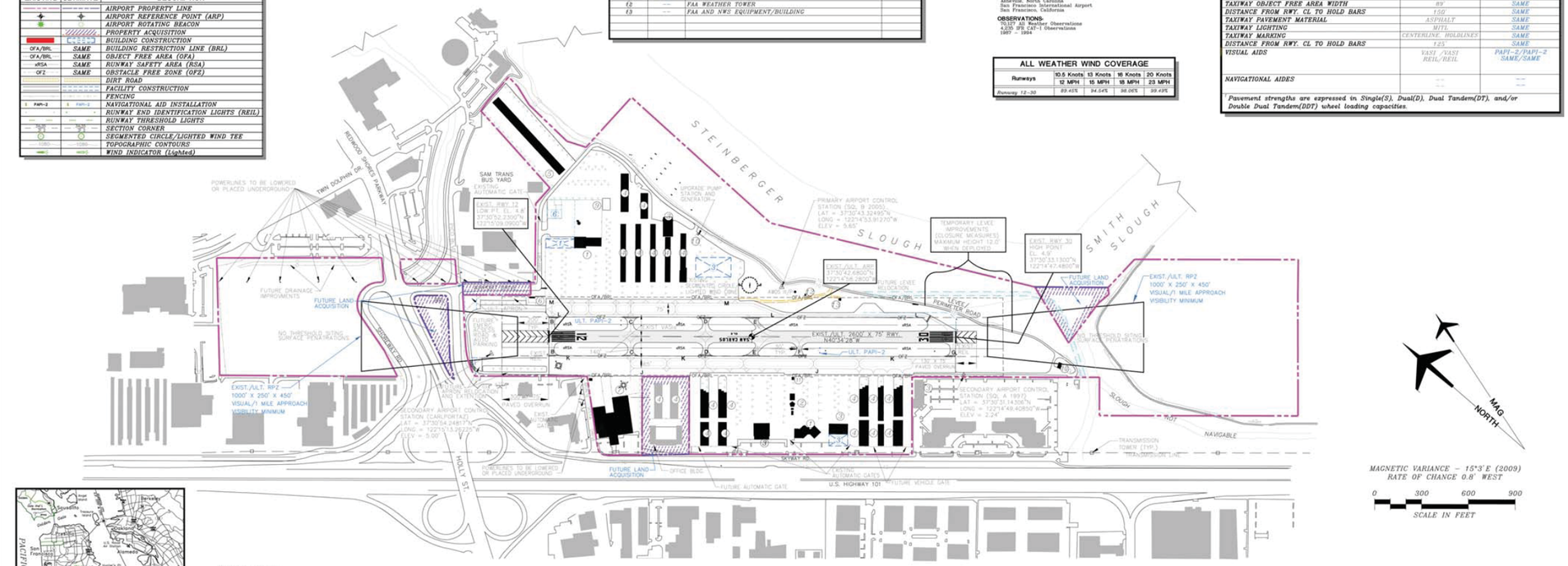
RUNWAY DATA

	RUNWAY 12-30 EXISTING	RUNWAY 12-30 ULTIMATE
RUNWAY CATEGORY/AIRCRAFT DESIGN GROUP	II-II	SAME
CRITICAL DESIGN AIRCRAFT	SUPER KING AIR B200	SAME
WINGSPAN OF DESIGN AIRCRAFT	54.5'	SAME
APPROACH SPEED OF DESIGN AIRCRAFT (KNOTS)	103	SAME
MAXIMUM TAKE OFF WEIGHT (lbs)	12,500lbs	SAME
RUNWAY AZIMUTH	137.97°/317.97°	SAME
RUNWAY BEARING (TRUE)	N 45°34' 26" W	SAME
RUNWAY DIMENSIONS	2,600' X 75'	SAME
ELEVATION OF RWY. TOUCH DOWN ZONE (MSL)	5.1'	SAME
ELEVATION OF RUNWAY HIGH POINT (above MSL)	4.9'	SAME
ELEVATION OF RUNWAY LOW POINT (above MSL)	4.8'	SAME
WIND COVERAGE IN MPH	12 - 99.35%, 15 - 99.76%	SAME
APPROACH VISIBILITY MINIMUMS	VISUAL/1 MILE	SAME
FAR PART 77 CATEGORY	VISUAL/NONPREC	SAME
RUNWAY APPROACH SURFACES	20:1/20:1	SAME
RUNWAY THRESHOLD DISPLACEMENT	NONE	NONE
RUNWAY STOPWAY	NONE	NONE
RUNWAY SAFETY AREA WIDTH (RSA)	150'	SAME
RSA DISTANCE BEYOND EACH RUNWAY END	300'/300'	SAME
RUNWAY OBJECT FREE AREA WIDTH (OFA)	500'	SAME
OFA DISTANCE BEYOND EACH RUNWAY END	300'/300'	SAME
RUNWAY OBSTACLE FREE ZONE WIDTH (OFZ)	250'	SAME
OFZ DISTANCE BEYOND EACH RUNWAY END	200'/200'	SAME
LINE OF SITE REQUIREMENT	NO	SAME
RUNWAY PAVEMENT MATERIAL	ASPHALT	SAME
RUNWAY PAVEMENT SURFACE TREATMENT	NONE	SAME
PAVEMENT STRENGTH (in thousand lbs.)	12.5(S)	SAME
RUNWAY EFFECTIVE GRADIENT (in %)	0.007%	0.16%
MAXIMUM GRADIENT (in %)	0.0%	SAME
RUNWAY LIGHTING	MIRL	SAME
RUNWAY MARKINGS	VISUAL/VISUAL	SAME
RUNWAY APPROACH LIGHTING	NONE	SAME
RUNWAY CL TO PARALLEL TAXIWAY CL	140'	SAME
TAXIWAY CL TO FIXED OR MOVABLE OBJECT	50'	SAME
TAXIWAY OBJECT FREE AREA WIDTH	89'	SAME
DISTANCE FROM RWY. CL TO HOLD BARS	150'	SAME
TAXIWAY PAVEMENT MATERIAL	ASPHALT	SAME
TAXIWAY LIGHTING	MITL	SAME
TAXIWAY MARKING	CENTERLINE, HOLDLINES	SAME
DISTANCE FROM RWY. CL TO HOLD BARS	125'	SAME
VISUAL AIDS	VASI /VASI REIL/REIL	PAPI-2/PAPI-2 SAME/SAME
NAVIGATIONAL AIDES	---	---
	---	---

* Pavement strengths are expressed in Single(S), Dual(D), Dual Tandem(DT), and/or Double Dual Tandem(DDT) wheel loading capacities.

LEGEND

EXISTING	ULTIMATE	DESCRIPTION
		AIRPORT PROPERTY LINE
		AIRPORT REFERENCE POINT (ARP)
		AIRPORT ROTATING BEACON
		PROPERTY ACQUISITION
		BUILDING CONSTRUCTION
OFA/BRL	SAME	BUILDING RESTRICTION LINE (BRL)
OFA/BRL	SAME	OBJECT FREE AREA (OFA)
sRSA	SAME	RUNWAY SAFETY AREA (RSA)
OFZ	SAME	OBSTACLE FREE ZONE (OFZ)
		DIRT ROAD
		FACILITY CONSTRUCTION
		FENCING
PAPI-2	PAPI-2	NAVIGATIONAL AID INSTALLATION
		RUNWAY END IDENTIFICATION LIGHTS (REIL)
		RUNWAY THRESHOLD LIGHTS
		SECTION CORNER
		SEGMENTED CIRCLE/LIGHTED WIND TEE
1280	1280	TOPOGRAPHIC CONTOURS
		WIND INDICATOR (Lighted)



LOCATION MAP
NOT TO SCALE

GENERAL NOTES:

1. Depiction of features and objects, including related elevations within the runway protection zones are depicted on the APPROACH ZONES PROFILES/RUNWAY PROTECTION ZONES PLANS AND PROFILES.
2. Details concerning terminal improvements are depicted on the EAST TERMINAL AREA PLAN and WEST TERMINAL AREA PLAN.
3. Recommended land uses within the airport environs are depicted on the ON-AIRPORT LAND USE PLAN.
4. Base Map and Contours derived from March 1, 2005 aerial photography and planametric mapping, surveyed by Towill.
5. All elevations are in NAVD 88 and all horizontal coordinates are in NAD 83.
6. All survey monuments enclosed in concrete casings.
7. No threshold sting surface object penetrations.
8. To meet current FEMA requirements, the portion of the airport levee outside critical FAA safety areas will be raised to 12.0' (NAVD 88). Work to be completed by Redwood City.

FAA APPROVAL STAMP

SUBMITTED BY:
Coffman Associates
FOR APPROVAL BY:

APPROVED BY: ON THE DATE OF:

Mark Larson
Airport Manager

No.	REVISIONS	DATE	BY	APP'D
2	ALP UPDATE, REVISED PROPERTY LINE, ADDED NEW HANGARS, ADDED PAVED OVERRUNS AND BUILDING EL.	10/30/09	JMH	---
1	ALP/MASTER PLAN	11/13/96	JMH	12/19/96

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 AND POLICY OF THE FAA AND DO NOT CONSTITUTE A STANDARD, SPECIFICATION OR REGULATION. ACCEPTANCE OF THIS REPORT BY THE FAA DOES NOT IN ANY WAY CONSTITUTE A COMMITMENT ON THE PART OF THE UNITED STATES TO PARTICIPATE IN ANY DEVELOPMENT DEPICTED HEREIN NOR DOES IT INDICATE THAT ANY APPROVED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS.

SAN CARLOS AIRPORT

AIRPORT LAYOUT PLAN

SAN CARLOS, CALIFORNIA

PLANNED BY: James M. Harris P.E.
DETAILED BY: Maggie Brewer
APPROVED BY: James M. Harris P.E.

October 30, 2009 — SHEET 1 OF 8

Coffman Associates
Airport Consultants
www.coffmanassociates.com

SOURCE: Coffman Associates, 2010

Exhibit 2-3
Airport Layout Plan

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Runway 12-30

San Carlos Airport has one runway (Runway 12-30) which is 2,600 feet long and 75 feet wide. The orientation of Runway 12-30 is northwest/southeast and the runway has a strength rating of 12,500 pounds single wheel loading (SWL). The runway gradient (i.e., slope) is less than 0.1 percent.

Runway 12-30 is equipped with medium intensity runway lights (MIRL) and high intensity threshold lighting at each end. The runway is painted with basic runway markings including runway numbers, centerline markings, and threshold bars.

Runway 12-30 is equipped with paved overruns at each end that provide emergency space to stop aircraft that overrun the runway. Runway 30 is equipped with a 300-foot long paved overrun and Runway 12 is served by a 130-foot long paved overrun.

Taxiways

The airfield is served by full-length parallel taxiways on both sides of Runway 12-30. Taxiway L is located on the east side of the runway and is 30 feet wide with a runway/taxiway centerline separation distance of 140 feet. Taxiway K is located on the west side of the runway and is also 30 feet wide with a runway/taxiway centerline separation distance of 140 feet.

By-pass taxiways are provided on both sides of Runway 12-30. Taxiway M extends approximately 1,300 feet parallel to Taxiway L with a taxiway-to-taxiway centerline separation of 75 feet. Taxiway J provides by-pass taxiway access for almost the entire length of Taxiway K with a taxiway-to-taxiway centerline separation of 65 feet. Immediate access to taxilanes, aircraft parking aprons, and hangar facilities is provided by Taxiways M and J.

There are five entrance/exit taxiways (Taxiways B, C, D, E, and L) on the east side of Runway 12-30 and six entrance/exit taxiways (Taxiways B, C, D, E, F, and G) on the west side of the runway.

Navigational Aids and Approach Lighting Systems

Navigational aids are electronic and visual devices that provide guidance or position information to aircraft while they are in flight. There are a number of different navigational aids at San Carlos Airport and in the surrounding area. The primary types of navigational aids used to guide aircraft in the San Carlos Airport area airspace are discussed in the following paragraphs.

The nearest en route navigational aid to San Carlos Airport is a very high frequency omnidirectional range (VOR) facility. Military tactical air navigation aids (TACANs) and civil VORs are commonly combined to form a VORTAC that provides distance and direction information to civilian and military pilots. Frequently, distance measuring equipment (DME) is also combined with a VOR facility. The Woodside VORTAC is located approximately seven nautical miles south of the airport and the San Francisco VOR/DME is located approximately

nine nautical miles northwest of the airport. Several other VOR facilities are located within 35 nautical miles of the airport.

Global positioning systems (GPS) are another navigational aid that pilots operating to and from San Carlos Airport can utilize. GPS is used extensively for a wide variety of civilian uses, including civil aircraft navigation. Furthermore, GPS supports two non-precision area navigation (RNAV) GPS approaches to Runway 30 at the airport. These approaches each provide a straight-in procedure for aircraft landing on Runway 30. The RNAV GPS Z approach allows for cloud ceiling minimums as low as 580 feet above ground level (AGL) and visibility minimums down to one mile, while the RNAV GPS Y approach provides for cloud ceilings down to 1,260 feet AGL and visibility minimums as low as 1.25 miles.

Visual approach aids give an indication to pilots of being above, below, or on the designated descent path to the runway. Two-box visual approach slope indicators (VASI-2) are available on each end of Runway 12-30. Runway end identification lights (REIL) provide rapid and positive identification of the approach ends of a runway and consist of two synchronized flashing lights, located laterally on each side of the runway end, facing the approaching aircraft. A REIL system has been installed on both ends of Runway 12-30.

The airport's rotating beacon is located atop a tower adjacent to the terminal building on the northeast side of the airport. A segmented circle and lighted wind cone are located approximately 600 feet east of Runway 12-30 near midfield. The airport is also equipped with an automated weather observation system (AWOS-III/P) that provides pilots with current weather information. This system is located approximately 300 feet southeast of the segmented circle.

2.2.2 Landside Facilities

Landside facilities at San Carlos Airport include the terminal building, aircraft storage and maintenance hangars, aircraft parking aprons, the airport traffic control tower (ATCT), and support facilities including a fuel storage farm, an aircraft wash rack, and pump stations. The locations of these facilities are shown on Exhibits 2-2 and 2-3.

2.3 Airspace and Air Traffic Control

The Federal Aviation Administration (FAA) is the agency responsible for the control and use of navigable airspace within the United States. It has established an airspace system that is designed to protect persons and property on the ground and to establish a safe operating environment for civil, commercial, and military aviation.

2.3.1 Airspace Structure

Airspace in the United States is classified as controlled, uncontrolled, or special use. Controlled airspace encompasses those areas where there are specific certification, communication, and

navigation equipment requirements that pilots and aircraft must meet to operate in that airspace. Airspace is classified as Class A, B, C, D, E, or G, or special use airspace. The following paragraphs describe each airspace classification, as well as the applicability of each classification to airspace in the vicinity of San Carlos Airport.

- **Class A** airspace is designated for positive control of aircraft and ranges from 18,000 feet above mean sea level (MSL) to 60,000 feet MSL. Within Class A airspace, only aircraft operating under instrument flight rules (IFR) that are on instrument flight plans are authorized. The aircraft must have specific equipment and air traffic control (ATC) clearance before entering the airspace. All airspace at and above 18,000 feet above MSL in the vicinity of San Carlos Airport is classified as Class A.
- **Class B** airspace is generally defined as that airspace from the surface up to 10,000 feet above MSL. This airspace usually surrounds the nation's busiest airports (e.g., San Francisco International Airport), and is individually tailored consisting of a surface area and two or more layers. Class B airspace is sometimes described as an "upside down wedding cake" designed to contain all published instrument procedures once an aircraft enters the airspace. An ATC clearance is required for all aircraft to operate in Class B airspace, and all aircraft that are so cleared receive separation services from other aircraft within the airspace.
- **Class C** airspace is the airspace from the surface up to 4,000 feet above the airport elevation charted in MSL surrounding those airports that have an operational control tower, are serviced by a radar approach control, and that have a certain number of IFR operations or passenger enplanements (e.g., Norman Y. Mineta San Jose International Airport). Like Class B airspace, Class C airspace is individually tailored to meet the needs of the respective airport. Pilots must establish two-way radio communications with the ATC facility providing air traffic control services prior to entering Class C airspace. VFR aircraft are separated from IFR aircraft in Class C airspace.
- **Class D** airspace is generally that airspace from the surface to 2,500 feet AGL. The configuration of Class D airspace are individually tailored and shown as a dashed blue line on sectional charts with an altitude representing the extent of the airspace from the surface. The airspace immediately surrounding San Carlos Airport is Class D airspace.
- **Class E** airspace is controlled airspace that encompasses all instrument approach procedures and low-altitude federal airways. Only aircraft conducting instrument flights are required to be in contact with air traffic control when operating within Class E airspace. While aircraft conducting visual flights in Class E airspace are not required to be in radio communications with air traffic control facilities, visual flights can only be conducted if minimum visibility and cloud ceilings exist.
- **Class G** airspace is uncontrolled airspace that does not require contact with an air traffic control facility.

Exhibit 2-4 depicts the airspace in the vicinity of San Carlos Airport. During hours of ATCT operation (7:00 a.m. to 9:00 p.m. daily), San Carlos Airport is located under Class D airspace. Class D airspace extends to a three-nautical mile radius from the airport to an elevation of approximately 1,500 feet AGL northeast of the runway and up to 2,000 feet AGL southwest of the runway. Prior to entering this airspace, aircraft are required to contact the ATCT. Class B airspace associated with San Francisco International Airport surrounds San Carlos' Class D

airspace. In addition, Class C airspace associated with Metropolitan Oakland International and Norman Y. Mineta San Jose International airports and Class D airspace associated with Palo Alto Airport are nearby. When the ATCT at San Carlos Airport is closed, the airport operates in Class G airspace which extends to the overlying Classes B, C, and D airspaces associated with other regional airports.

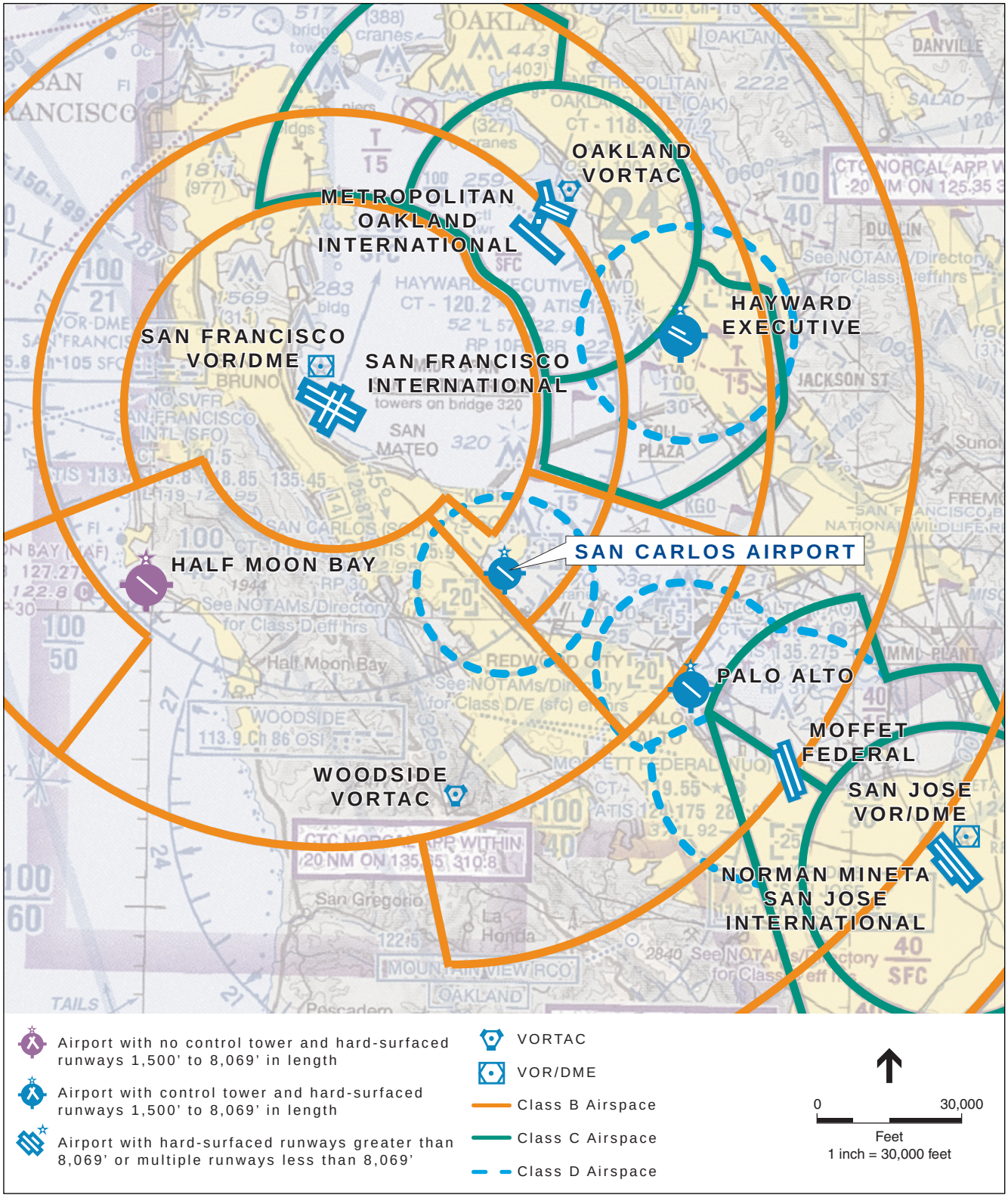
2.3.2 Standard Operating Procedures

The traffic pattern at San Carlos Airport is maintained to provide the safest and most efficient use of the airspace surrounding the airport. Fixed-wing aircraft at the Airport utilize a right-hand traffic pattern for Runway 30 and a left-hand traffic pattern for Runway 12. These traffic patterns were established to keep aircraft over less populated areas to the east of the airport and to avoid 90 foot tall power lines that run parallel to Highway 101 and are just west of the Airport. A large amount of flight training is conducted at the Airport, which results in numerous touch-and-go operations. Runway 12 is designated as the calm wind runway at the Airport.

San Carlos Airport also accommodates rotorcraft (i.e., helicopters). The helicopter traffic pattern is located southwest of the Airport and east of Industrial Avenue in the City of San Carlos. ATC personnel assign helicopters to a left-hand traffic pattern for Runway 30 and a right-hand traffic pattern for Runway 12 to keep helicopters away from fixed-wing aircraft operating at the airport.

2.3.3 Noise Abatement Procedures at San Carlos Airport

In an effort to reduce noise impacts in areas adjacent to San Carlos Airport, pilots are encouraged to adhere to the voluntary San Carlos Airport Noise Abatement Procedures (See **Exhibit 2-5**). There are many noise-sensitive areas in the vicinity of the Airport. As a result, airport management has provided a list of guidelines and procedures to reduce the noise impacts on surrounding neighbors of the airport. These guidelines are summarized in **Table 2-1**.



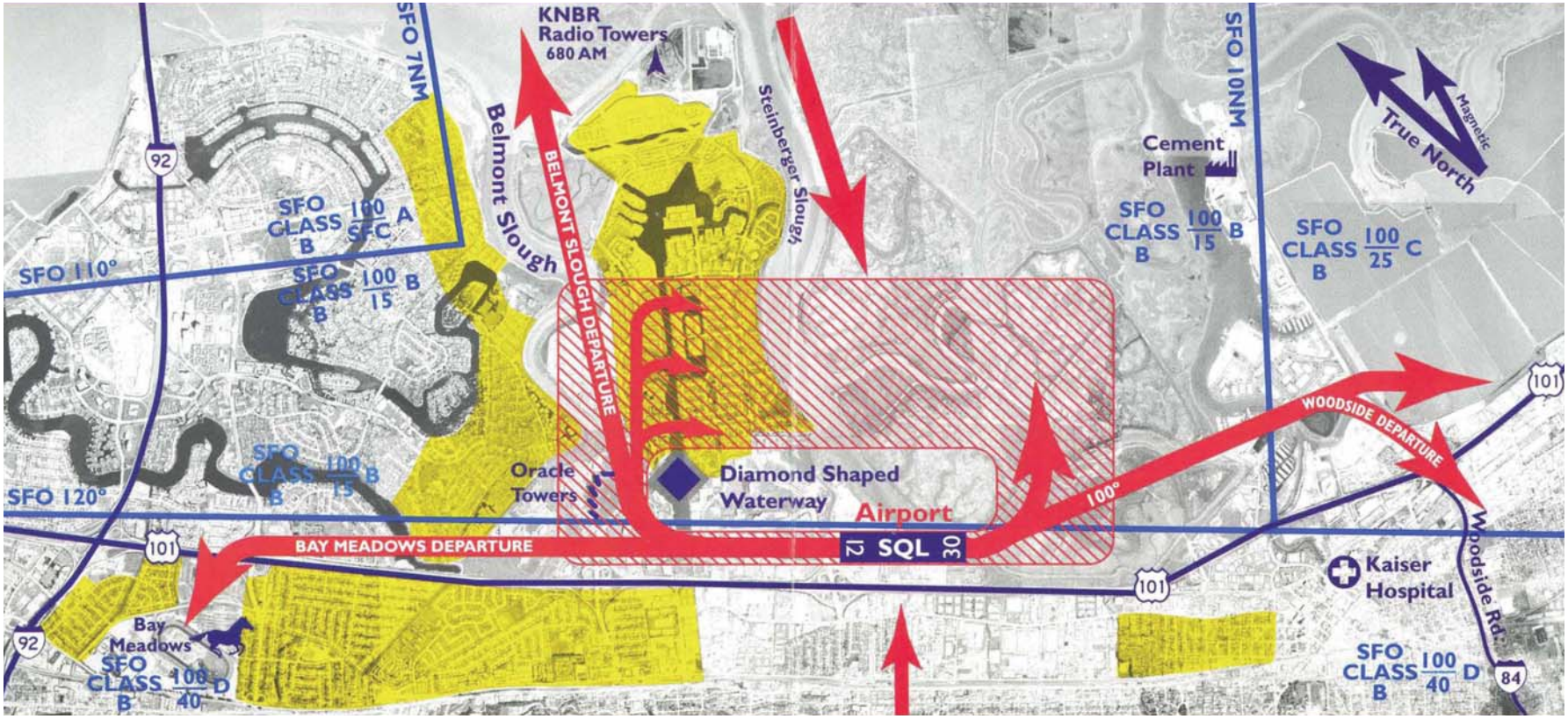
SOURCE: San Francisco Sectional Charts, U.S. Department of Commerce, NOAA, 2013; ESA Airports, 2014

Exhibit 2-4
San Carlos Airport Airspace

TABLE 2-1
VOLUNTARY NOISE ABATEMENT PROCEDURES, SAN CARLOS AIRPORT

Pattern Work Runway 30	
Climb straight-out, parallel to Highway 101. Fly crosswind turn so that ground track remains just northwest of the diamond-shaped waterway. Do not overfly the diamond shaped waterway. Delay downwind turn until reaching 800 feet MSL and reducing power/RPM.	
Preferred Departures Runway 30	
Crosswind departures: "Belmont Slough" departure. Climb straight-out, parallel to Highway 101. Fly your crosswind turn so that your ground track remains just northwest of the diamond-shaped waterway. Do not overfly the diamond-shaped waterway. Fly out the Belmont Slough. Avoid overflying homes on either side of the slough. Remain northwest of the radio towers to avoid inbound traffic.	Downwind departures: Delay downwind turn until reaching 800 feet MSL. Continue climbing at reduced power/RPM setting until past housing. Make a left 45-degree turn off the downwind at pilot's discretion or continue downwind.
Woodside departure: Delay downwind turn until reaching 800 feet MSL. Continue climbing at reduced power/RPM setting until past housing. Proceed downwind until abeam Woodside Road prior to initiating a right turn.	Upwind departures: "Bay Meadows" departure. Climb straight-out, parallel to Highway 101, until abeam the race track, then turn left to a southwesterly heading, remaining south of Highway 92.
Preferred Departures Runway 12	
Aircraft turn left 20 degrees to a heading of 100 degrees as soon as safe and after passing the end of the runway.	Departing traffic use Runway 12, weather permitting.
Southbound and westbound: "Woodside" departure. Continue outbound on a heading of 100 degrees until abeam Woodside Road prior to initiating a right turn.	Crosswind departures and pattern traffic: Begin left crosswind turn as soon as traffic permits.
Preferred Arrivals	
From north/northeast (Runway 30): Make entry via the Steinberger Slough (southeast of KNBR radio towers).	From southwest through northwest (Runway 30): Remain at least 1,000 feet AGL. Make entry overhead the airport northeast bound. Cross overhead midfield at or above 1,200 feet MSL.
Straight-in entry (Runway 30): Remain at or above 1,000 feet MSL until passing Kaiser Hospital	Runway 12: Avoid aerobatic-style short approaches over the homes and buildings north of the airport.
Other Voluntary Procedures	
If able, fly after 10:00 a.m. on weekend and holiday mornings.	No touch-and-go activity when the ATCT is not in operation.
Helicopter traffic pattern located southwest of runway and east of Industrial Road.	Avoid flying over homes in extremely noise sensitive areas.
On weekdays: No touch-and-go, low approach, or full stop-taxi back operations during the period from two hours after sunset of one day and 8:00 a.m. of the following day, Monday through Friday, and until 9:30 a.m. on Saturday.	On weekends and holidays: No touch-and-go, low approach, or full stop-taxi back operations before 9:30 a.m. or after 6:00 p.m. on any Saturday, Sunday, or holiday.

SOURCE: San Mateo County Public Works, Airports Division. December 2007.



Arrival & Departure Routes

Approximate SFO Class B Airspace

Typical Traffic Pattern Area

Extremely Noise Sensitive Areas

For Exhibit Purposes Only – Not to be Used for Navigation

SOURCE: Aire (aerial image); San Carlos Airport, 2007

San Carlos Airport ALUCP . 130753

Exhibit 2-5

San Carlos Airport Noise Abatement Procedures

2.4 Airport Activity Data

Table 2-2 presents existing (2013) and future (2035) airport activity level data for San Carlos Airport. The 2013 data were derived from the FAA's Airport Traffic Activity Data System (ATADS) website. Airport activity data for 2035 were derived by computing 10-year average activity levels using historic data for calendar years 2000 through 2010.

TABLE 2-2
EXISTING AND PROJECTED ACTIVITY LEVELS, SAN CARLOS AIRPORT

	Itinerant			Local		
Calendar Year	Commercial and Air Taxi	General Aviation and Military	Total	General Aviation and Military	Total	Total Airport Operations
2013	2,828	51,595	54,423	57,077	57,077	111,500
2035	3,681	67,165	70,846	75,851	75,851	146,697

SOURCE: ESA Airports, 2014; Federal Aviation Administration. *Airport Traffic Activity Data System*. March 2014.

2.5 Existing and Planned Land Uses in the Airport Environs

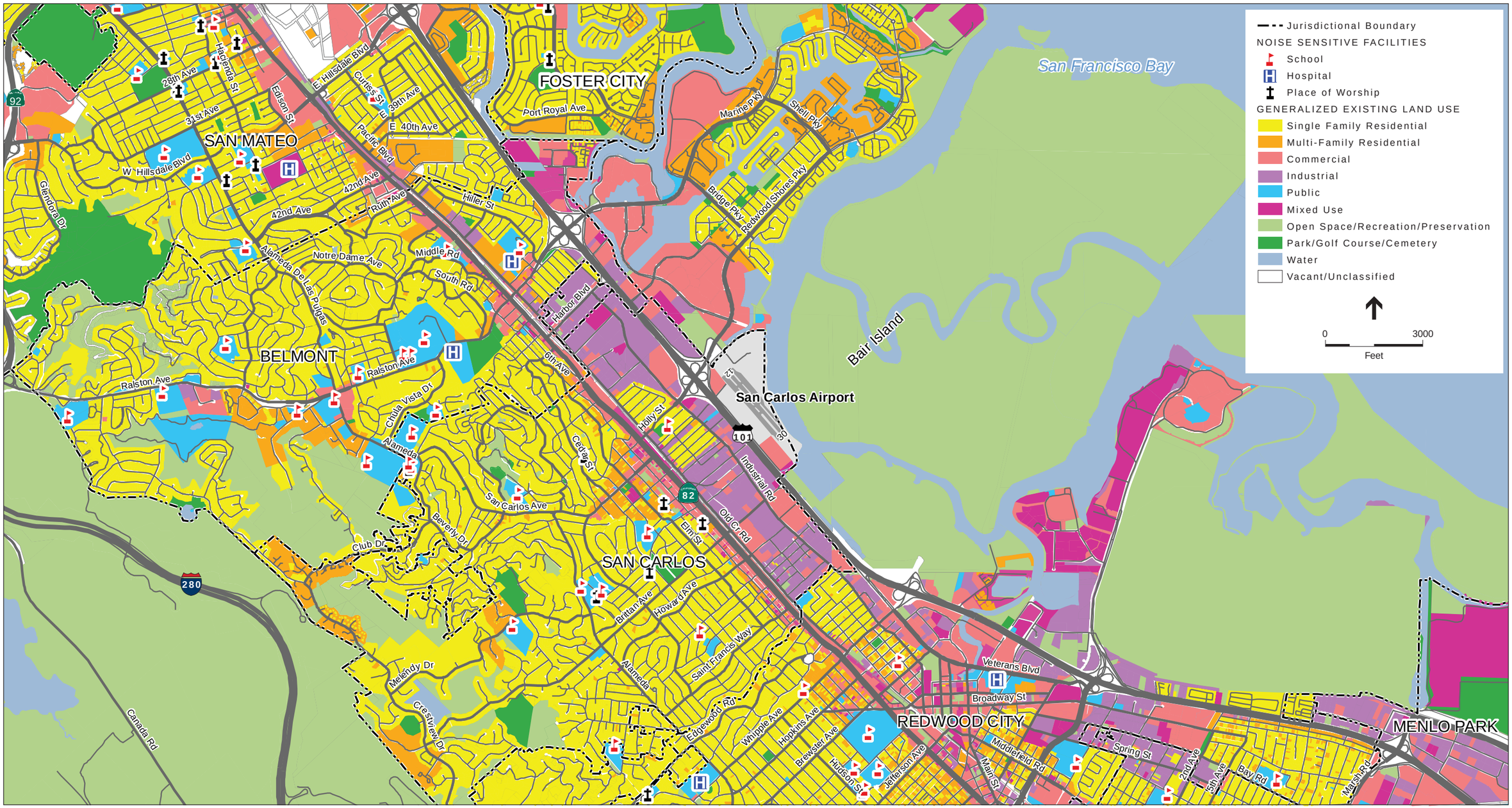
As described previously, San Carlos Airport is located in the San Francisco Bay Area, approximately 24 miles south of the City of San Francisco and 25 miles north of the City of San Jose. The Airport is located immediately east of Highway 101 and is primarily accessed via Redwood Shores Parkway and Airport Drive. In addition to the City of San Carlos, the Airport is also located in the vicinity of several other jurisdictions, including Redwood City, the City of Belmont, Foster City, the City of San Mateo, and portions of unincorporated San Mateo County.

Generalized existing land uses in the vicinity of the airport are depicted on **Exhibit 2-6**. Generalized planned land uses in the vicinity of the airport are depicted on **Exhibit 2-7** while generalized zoning district information is presented on **Exhibit 2-8**. The following discussion describes the existing land uses in the jurisdictions surrounding San Carlos Airport and the land use plans that are guiding future development within the airport's influence area.

2.5.1 City of San Carlos

Existing Land Uses

San Carlos Airport makes up a portion of the easternmost boundary of the City of San Carlos. Existing land uses associated with the City of San Carlos located in the immediate vicinity of the Airport include industrial uses to the northwest, industrial and commercial to the southwest, and a mix of office and industrial uses and residential uses to the west. Existing commercial land uses are



SOURCE: ESRI, 2014; San Mateo County Planning and Building Department, 2014; ESA Airports, 2014

Exhibit 2-6

Generalized Existing Land Uses in the Vicinity of San Carlos Airport

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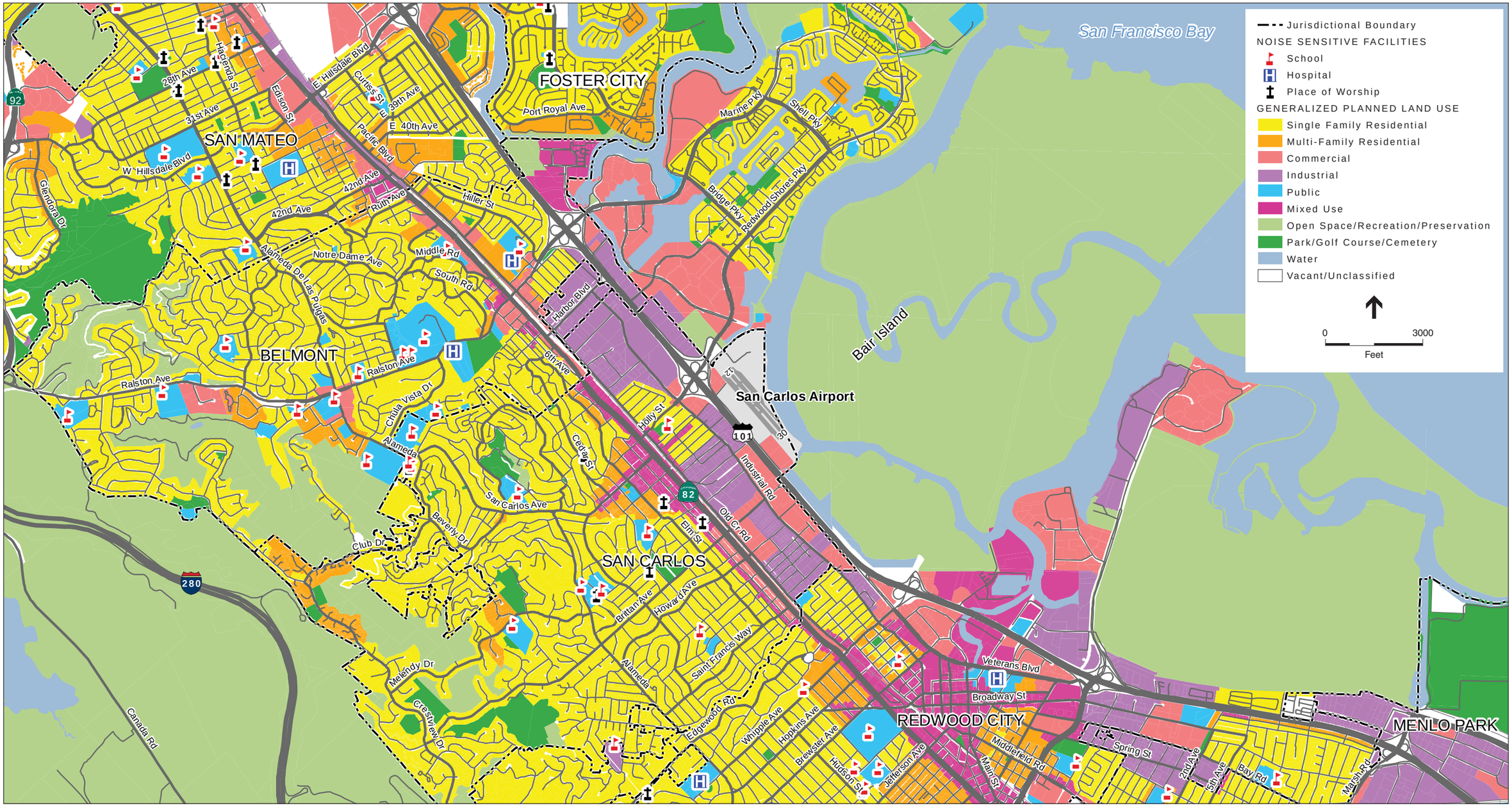

SOURCE: Belmont, 1982; San Mateo County, 1986; Foster City, 1993; Menlo Park, 1994; San Carlos, 2009; City of San Mateo, 2010; Redwood City, 2010; ESRI, 2014; ESA Airports, 2014

Exhibit 2-7

Generalized Planned Land Uses in the Vicinity of San Carlos Airport

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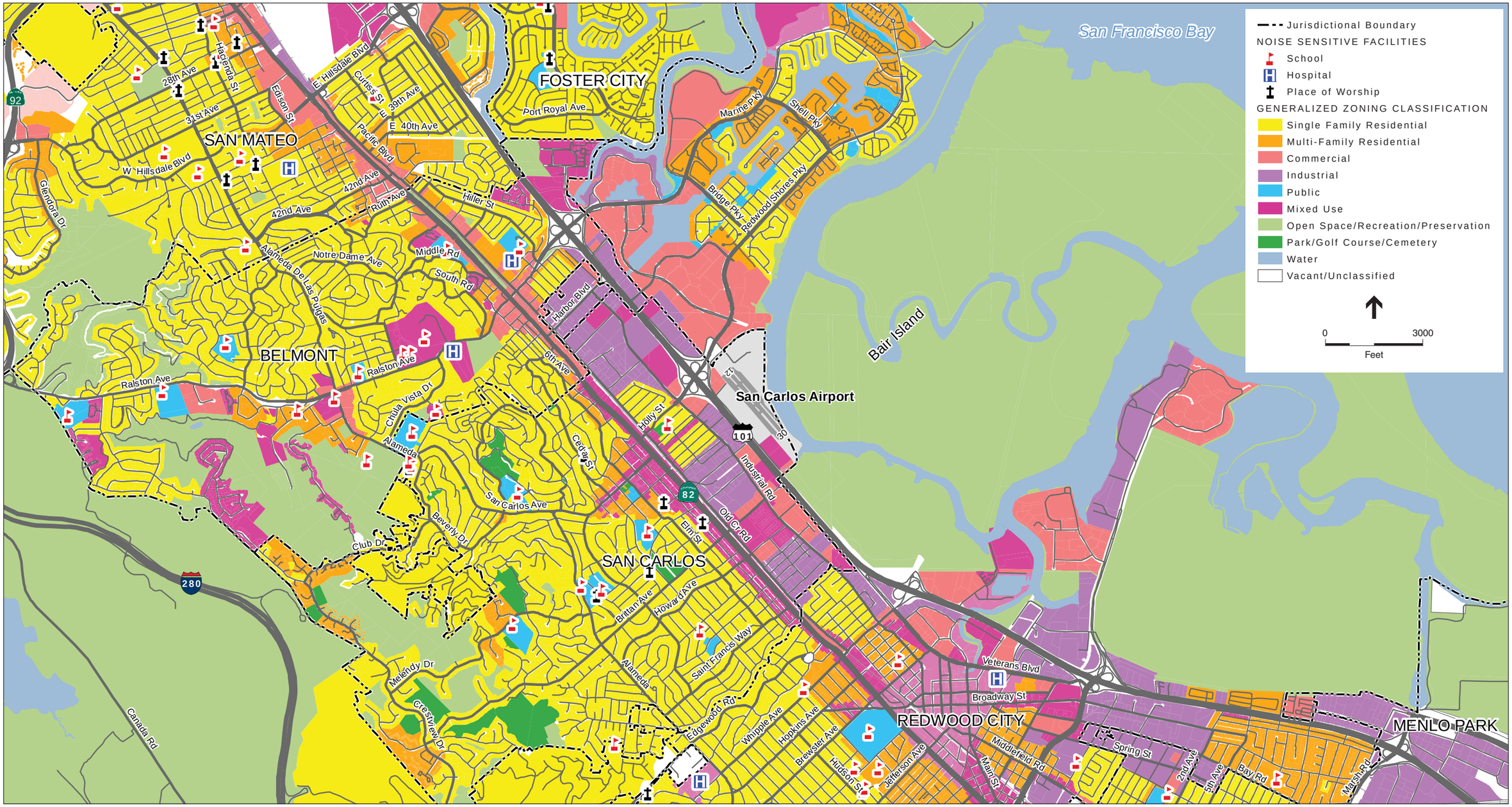

SOURCE: ESRI, 2014; San Mateo County, 2014; Foster City, 2014; City of San Mateo, 2014; Belmont, 2014; San Carlos, 2014; Redwood City, 2014; Menlo Park, 2014; ESA Airports, 2014

Exhibit 2-8

Generalized Zoning in the Vicinity of San Carlos Airport

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clustered along El Camino Real to the west of the Airport. Farther to the southwest, existing land uses predominately consist of residential uses, with a mix of schools and parks (see **Exhibit 2-6**).

Planned Land Uses

The vision of future development within the City of San Carlos is set forth in the *San Carlos 2030 General Plan.* Given the built-out nature of the City of San Carlos, General Plan land use designations largely reflect the existing landscape. As shown on **Exhibit 2-7**, land uses in the immediate vicinity of San Carlos Airport are primarily designated for industrial and general commercial. Planned land uses along El Camino Real are predominately designated for medium density mixed uses, while uses farther to the west are primarily single-family residential, open space/schools, open space, and parks (City of San Carlos, 2009).

According to the General Plan, the City of San Carlos is projected to add approximately 1,436 new housing units by the year 2030 (City of San Carlos, 2009; p. 52). Non-residential growth in the City is also anticipated, with gross square footage of commercial uses increasing by 26 percent, office uses by 39 percent, and industrial uses by 26 percent by 2030. The bulk of future commercial and office development is anticipated to occur in the Downtown area and along El Camino Real, Old County Road, Brittan Avenue, and Industrial Road. Industrial growth will be limited to the east side area of San Carlos (City of San Carlos, 2009; p. 53).

2.5.2 City of San Mateo

Existing Land Uses

Existing land uses in the portions of the City of San Mateo closest to San Carlos Airport consist predominately of residential uses, which are located east and west of El Camino Real. Other uses located in the southern portions of the City of San Mateo include commercial and park uses.

Planned Land Uses

Planned land uses are established in the *City of San Mateo General Plan* (City of San Mateo, 2010). Due to the relatively built-out nature of much of the area comprising the City of San Mateo, planned land use designations generally reflect the state of the existing environment. That is, planned land uses generally consist of a mix of single, medium, and high density residential uses; and neighborhood commercial and regional/community commercial mixed uses along the El Camino Real corridor.

2.5.3 Redwood City

Existing Land Uses

Existing land uses within portions of Redwood City closest to San Carlos Airport are primarily associated with the Redwood Shores planning area, which is located north and northeast of the Airport. Existing land uses within Redwood Shores consists of commercial and office uses north

of the Airport. Farther to the northeast, existing land uses transition to predominately single- and multi-family dwellings. Parks as well as a school are also located northeast of the Airport within Redwood Shores.

Immediately east of the Airport is Bair Island, which is separated from the mainland by Steinberger and Smith Sloughs. Bair Island is an undeveloped area and part of the larger Don Edwards San Francisco Bay National Wildlife Refuge. Southeast of Bair Island is a variety of uses including the Port of Redwood City, various commercial, office, and industrial uses, and salt harvesting operations.

To the south of San Carlos Airport lies Redwood City's downtown area, which consists of a variety of mixed use retail, office, and public land uses. Farther to the southwest, existing Redwood City land uses are predominately residential, with a variety of schools and parks scattered in this area as well (see Exhibit 2-6).

Planned Land Uses

Planned land uses for Redwood City are established in the *Redwood City General Plan*. As identified in the land use map for the General Plan (Redwood City, 2010; p. BE-39), planned land uses within the Redwood Shores area continue to predominately be, low- to medium-density residential, commercial/office professional and technology, and open space/preservation uses. Similarly, Bair Island to the east of San Carlos Airport is designated for preservation. To the south east of the Airport, uses within Redwood City's downtown core are designated for a variety of mixed uses, including Mixed Use – Downtown, Corridor, Neighborhood, Waterfront, and Marina. Lastly, portions of Redwood City to the southwest of the Airport are primarily designated for low- and medium-density residential (see Exhibit 2-7).

2.5.4 City of Belmont

Existing Land Uses

Existing land uses within portions of the City of Belmont located closest to San Carlos Airport include primarily office buildings and a hotel east of Highway 101. Farther to the north, within an area identified as East Belmont, are a mix of office buildings, condominiums, and ball fields. Existing uses farther to the northwest, west of Highway 101, predominately consist of single-family residences, with an elementary school and two parks interspersed amongst the homes. Existing offices and apartment complexes are located along Old Country Road, while fast food restaurants, retail stores, and other commercial uses are located farther west along El Camino Real. Belmont's downtown core, which is located in the general vicinity of Ralston Avenue and El Camino Real, consists of a variety of retail, office, and public uses. Lastly, existing uses in western Belmont primarily consist of single-family homes, public uses such as schools and parks, and open space. Notre Dame de Namur University is also located in western Belmont.

Planned Land Uses

Planned land use designations for Belmont are established in the City's General Plan. Given the built-out nature of Belmont, General Plan land use designations generally reflect the existing pattern of development in the City. Portions of the City of Belmont east of Highway 101 are designated for light industrial and highway commercial uses. The area located east of Highway 101 and north of Marine Parkway is designated as East Belmont and open space. To the west of Highway 101, land is designated for a mix of low, medium, and high density residential, with a variety of commercial uses (e.g., service, office, neighborhood, highway, general, and central business district) clustered along El Camino Real and the intersection at Ralston Avenue. Farther to the west, Belmont primarily designates land for low density residential uses, with some medium and high density uses also located farther to the southwest. Land in western Belmont also been designated for public uses and private university institutions (see Exhibit 2-7).

2.5.5 City of Foster City

Existing Land Uses

Single-family homes make up the majority of existing uses within the City of Foster City, with a smaller percentage of condominiums, townhomes, apartments, and duplexes combining to make overall residential uses the predominate (46 percent) existing use within the City (Foster City, 2011). Existing residential uses are primarily clustered on the southwestern, southern, central, and eastern portions of the City. Existing land uses in the central and northwestern portions of the City consist of mixed use, commercial and industrial uses (Exhibit 2-6).

Planned Land Uses

Planned land uses within the City of Foster City generally follow the existing development pattern, with a mix of single-family, townhouse, and condominium uses designated southwester, southern, and eastern portions of the City. Public uses such as parks and schools are also interspersed throughout this area. Central Foster City is designated for single-family residential, condos, semi-public uses, mixed uses and a school. Planned land use designations in northwestern Foster City include Town Center, service commercial with housing, and light industrial (see Exhibit 2-7).

2.5.6 San Mateo County

Existing Land Uses

The environs surrounding San Carlos Airport primarily consist of incorporated areas associated with the cities of San Carlos, Redwood City, Foster City, and Belmont. However, small pockets of unincorporated San Mateo County are located in the general vicinity of the Airport. To the north of the Airport, between Highway 101 and El Camino Real, are industrial uses that are a part of the County's Harbor Industrial area. Farther west is the unincorporated community of

Devonshire, which consists primarily of single-family homes and some open space. South of the Devonshire community and south of Eaton Park is the unincorporated community of Palomar Park, which consists primarily of single-family residential. The Clifford Elementary school is also located in this area (see Exhibit 2-6).

Planned Land Uses

General Plan land use designations within portions of unincorporated San Mateo County located closest to the Airport generally reflect the development pattern of existing land uses. Land within the Harbor Industrial area is designated as general industrial. Within the unincorporated community of Devonshire, land has been designated as medium density residential and medium-low density residential. Within the community of Palomar Park, land has been designated for low and medium-low density residential and residential and institutional uses (see Exhibit 2-7).

2.6 Special Districts, School Districts, and Community College Districts

A special district is a separate local government that delivers a specific public service (or a limited number of services) to a geographically limited area. Special districts only serve in specifically defined areas; most provide only a single service, allowing them to concentrate on one activity. Special districts localize the costs and benefits of public services, allowing for residents to acquire the services they are willing to pay for.

Residents and landowners can form a special district to pay for new services or higher levels of existing services such as sewage treatment, electricity, fire protection, irrigation, cemeteries, animal control, mosquito abatement, and community services. Special districts can deliver a variety of public services, excluding education, which is under the purview of school districts. School districts get most of their money from the state government whereas special districts rely mostly on local revenues.

Although most special districts operate within one county, some district boundaries cross over city and county lines. Each county has a state-mandated Local Agency Formation Commission (LAFCO) that is responsible for forming and disbanding special districts.

2.6.1 Special Districts

The following special districts are located in the vicinity of San Carlos Airport:

- San Mateo County Flood Control District: The San Mateo County Flood Control District is a Countywide Special District that was created by State legislation in order to provide a mechanism to finance flood control projects within the county. The legislation requires that a flood control zone be formed over an entire watershed and a proposed funding source be determined before a flood control project is undertaken. The closest flood control zone to

San Carlos Airport is the San Francisquito Creek Flood Zone. This is a county-wide district.

- Peninsula Health Care District: The Peninsula Health Care District was established with broad support from San Mateo County voters in 1947 to build and operate Peninsula Medical Center. In order to bring citizens into the decision-making process at the new hospital, a publicly elected five-member District Board was created. The District is the leaser of Peninsula Medical Center. The District office is located south of El Camino Real (Route 82) on Trousdale Avenue, approximately eleven miles north of San Carlos Airport (Peninsula Health Care District, 2014).
- Harbor Industrial Sewer Maintenance District: The Harbor Industrial Sewer Maintenance District serves the unincorporated Harbor Industrial area, which is located between the cities of San Carlos and Belmont.
- Devonshire County Sanitation District: The Devonshire County Sanitation District serves the unincorporated community of Devonshire, which is located in western San Carlos.
- San Mateo County Harbor District: Created by a County election in 1933, the San Mateo County Harbor District manages Pillar Point Harbor in Princeton and Oyster Point Marina/Park in South San Francisco. The County of San Mateo established the entire area of the County of San Mateo as the District's boundaries. The Oyster Point Marina is located approximately 2.5 miles north of SFO and is owned by the City of South San Francisco. The marina consists of 600 berths, a boat dock, a fishing ramp, and a 300-foot pier; a park and a beach are also located adjacent to the marina (San Mateo County Harbor District, 2014). This is a county-wide district.
- Mid-Peninsula Water District: The Mid-Peninsula Water District, formerly Belmont County Water District, was formed in 1929. The District supplies water to consumers in an area slightly larger than the city limits of the City of Belmont. Small portions of the service area are within the City Limits of the City of San Carlos, Redwood City, and parts of the unincorporated County of San Mateo. The District's service territory covers approximately 5 square miles and serves approximately 28,000 people. In the event of an emergency the district can serve or be served with inter-ties between neighboring utilities, as of today the district has 1 inter-tie with Foster City, 3 with San Carlos, 1 with Redwood City and 3 with San Mateo (Mid-Peninsula Water District, 2014).
- San Mateo County Mosquito and Vector Control District: The San Mateo County Mosquito and Vector Control District is an independent special district that is guided by its own Board of Trustees. The mission of the District is "To safeguard the health and comfort of the citizens of San Mateo County through a planned program to monitor and reduce mosquitoes and other vectors."[1] The primary goals of the District are to:
    - Prevent the emergence of biting adult mosquitoes by applying control to the larval stage;
    - Monitor adult mosquito populations to uncover new sites of larval development and assess the effectiveness of control;
    - Monitor the distribution of vector-borne diseases and prevent the occurrence of these diseases among district residents;

[1] San Mateo County Mosquito and Vector Control District, 2014.

- Evaluate new pesticides and methods of control for mosquitoes; and
- Increase public awareness of District services with an active educational program (San Mateo County Mosquito and Vector Control District, 2014).

The San Mateo County Mosquito and Vector Control District is a county-wide district.

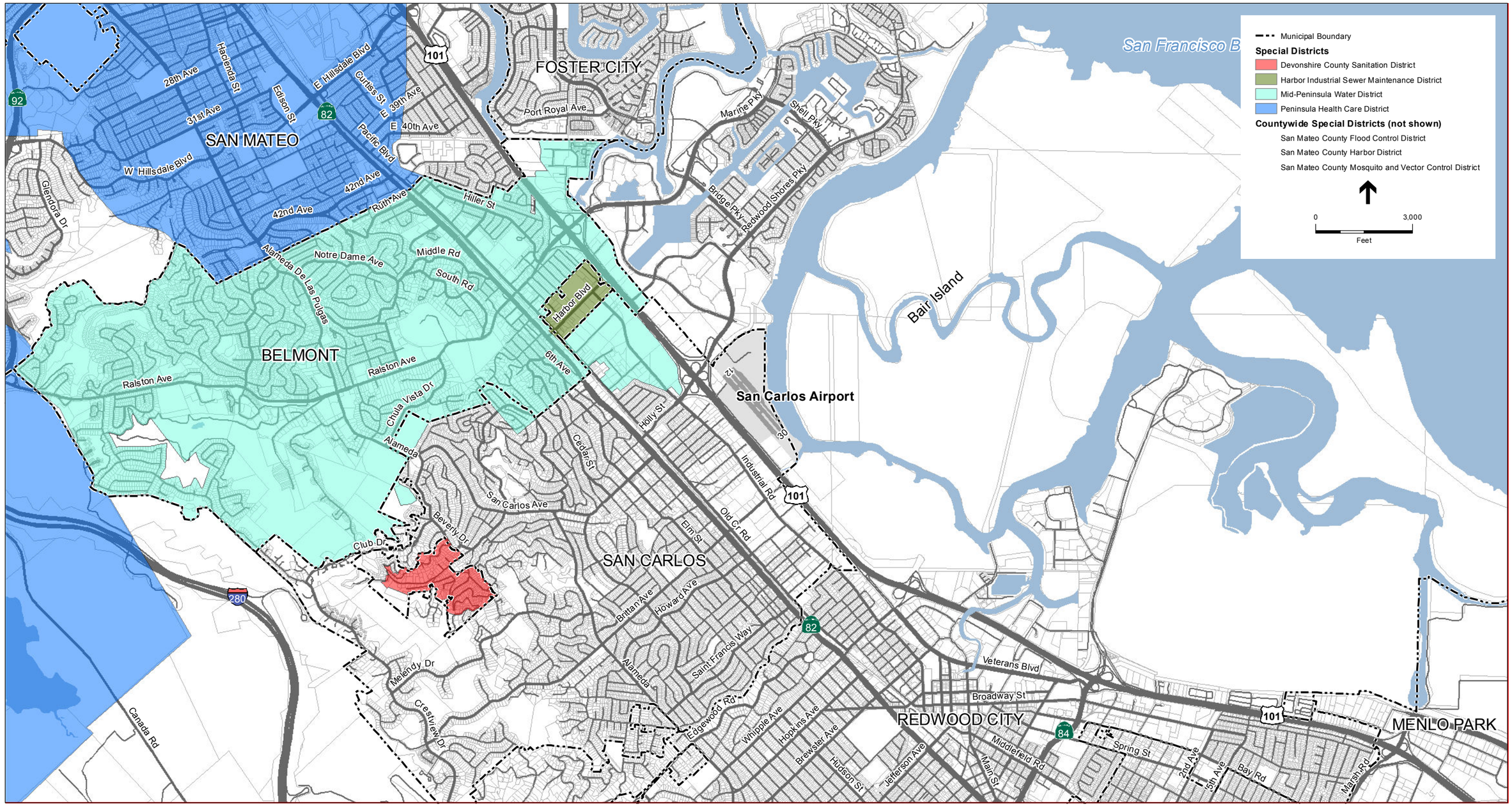
Special district boundaries are presented on **Exhibit 2-9**.

2.6.2 School Districts

The following school districts are located in the vicinity of San Carlos Airport:

- San Mateo County Community College District
- San Mateo Foster City Elementary School District (serving the cities of San Mateo and Foster City and portions of unincorporated San Mateo County)
- Belmont Elementary School District (serving the City of Belmont and portions of unincorporated San Mateo County)
- Redwood City Elementary School District (serving the City of Redwood City and portions of unincorporated San Mateo County)
- San Mateo Union High School District (serving the cities of San Bruno, Millbrae, Burlingame, Hillsborough, San Mateo, and Foster City and portions of unincorporated San Mateo County)
- Sequoia Union High School District (serving the cities of Belmont, San Carlos, Redwood City, Woodside, Atherton, Menlo Park, East Palo Alto, and Portola Valley and portions of unincorporated San Mateo County)

School district boundaries are depicted on **Exhibit 2-10**.



SOURCE: ESRI, 2014; San Mateo County Planning and Building Department, 2014; ESA, 2014

Exhibit 2-9

Special Districts in the Vicinity of San Carlos Airport

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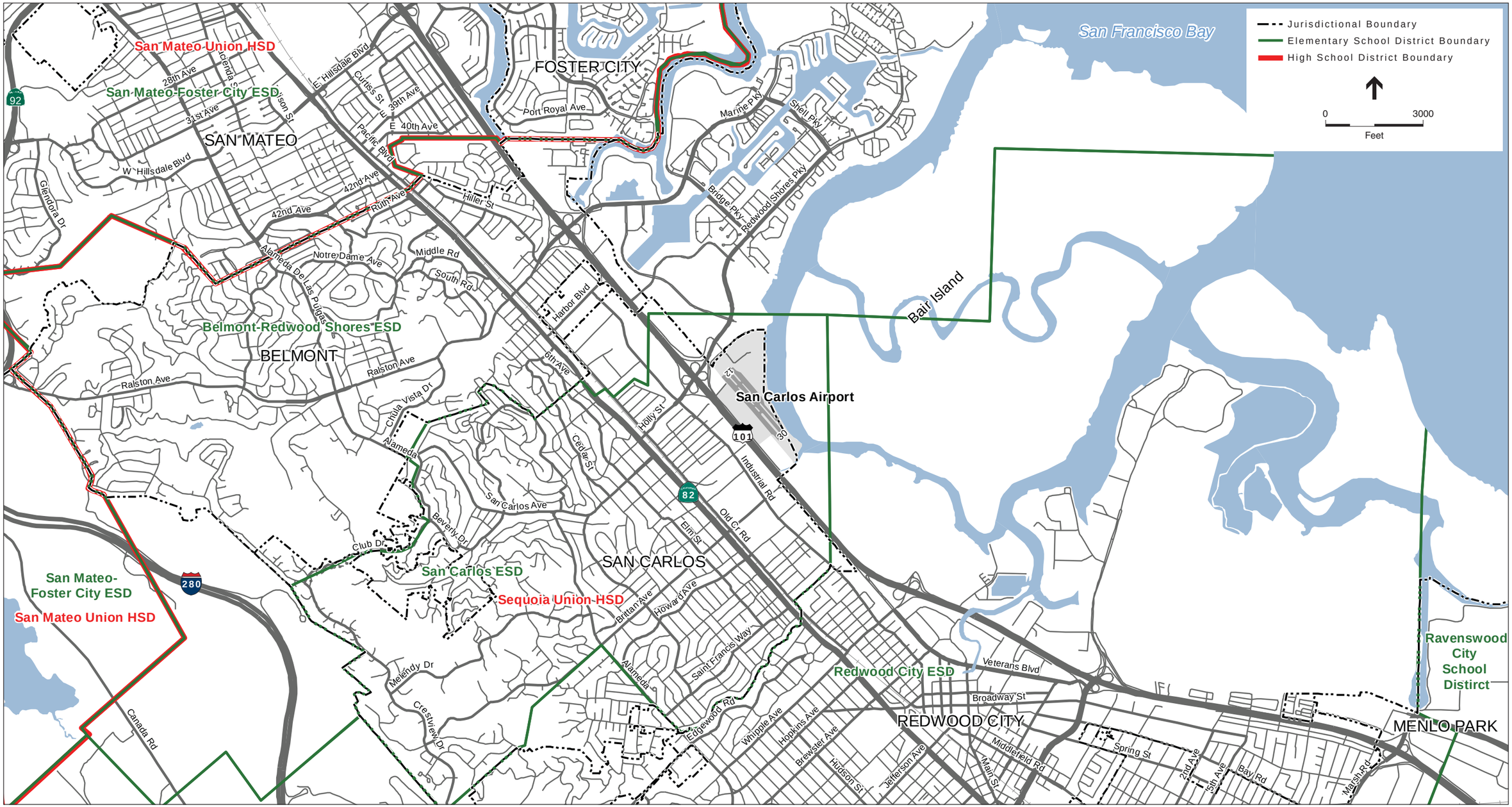

SOURCE: ESRI, 2014; San Mateo County Planning and Building Department, 2014; ESA Airports, 2014

San Carlos Airport ALUCP . 130753

Exhibit 2-10

School Districts in the Vicinity of San Carlos Airport

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2.7 Natural Environment

San Carlos Airport is located adjacent to Bair Island, which is a part of the Don Edwards National Wildlife Refuge (Refuge). The 30,000-acre Refuge, which was created in 1974, was largely the result of grassroots efforts by the local community to protect the San Francisco Bay ecosystem (USFWS, 2014a). The Refuge is made up of marsh, pond, mudflat, vernal pool, and upland habitats, and provides habitat to several federally-listed endangered species as well as millions of migrating birds (USFWS, 2014b).

Bair Island itself, which is located in Redwood City less than a mile east of the Airport, is divided into three distinct areas separated by slough channels: Inner, Middle and Outer Bair Islands. The California Department of Fish and Wildlife and the Refuge both own portions of Bair Island. Inner Bair Island is connected to the mainland and can be reached directly by land from Whipple Avenue. Inner Bair Island is separated from Middle Bair Island by Smith Slough which, in turn, is separated from Outer Bair Island by Corkscrew Slough (USFWS & CDFW, 2006). Over the last few years, Bair Island has undergone a series of restorative improvements. Most recently, the refuge opened a new pedestrian bridge near the south eastern levee of Inner Bair Island and a portion of the Inner Bair Island Trail. The pedestrian bridge spans across “No-Name Slough” and connects Uccelli Boulevard with Inner Bair Island. The bridge is the new and only public access point to enter the Inner Bair Island Trail (USFWS, 2014c).

Management and conservation of both the Refuge and Bair Island is guided by the Don Edwards San Francisco Bay National Wildlife Refuge Comprehensive Conservation Plan (CCP). The CCP is intended to achieve the following:

- Provide a clear statement of direction for the management of the Refuge during the lifetime of the CCP.
- Provide long-term continuity in Refuge management.
- Communicate the Service’s management priorities for the Refuge to its neighbors and the public.
- Provide an opportunity for the public to help shape the future management of the Refuge.
- Ensure that management programs on the Refuge are consistent with the legal and policy mandates for the Refuge System and the purpose of the Refuge as set forth in establishing documentation.
- Ensure that management of the Refuge is, to the extent practicable, consistent with Federal, State, and local plans.
- Provide a basis for budget requests to support the Refuge’s needs for staffing, operations, maintenance, and capital improvements.
- Evaluate existing and proposed uses on each of the Refuges to ensure that they are compatible with the Refuge purpose(s); the Refuge System mission; and the maintenance of biological integrity, biodiversity, and environmental health (USFWS, 2012).

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CHAPTER 3
Definitions, General Policies, and Plan Implementation

3.1 Definitions

Airport: When capitalized, unless the context clearly indicates otherwise, San Carlos Airport.

Airport Influence Area (AIA): A two-part area, including Area A and Area B, established by this ALUCP and within which the C/CAG Board, in its capacity as the Airport Land Use Commission for San Mateo County, exercises its jurisdiction with respect to airport land use compatibility planning.

Airport Land Use Commission: When capitalized, unless the context clearly indicates otherwise, the C/CAG Board, acting in its capacity as the Airport Land Use Commission for San Mateo County.

Airport Land Use Committee (ALUC): The committee duly appointed by the C/CAG Board to advise the Board on matters pertaining to airport land use compatibility in San Mateo County.

Airport Layout Plan: A scaled drawing, prepared in conformance with criteria promulgated by the FAA, depicting existing and proposed airport facilities, their location on an airport, and pertinent clearance and dimensional information.

Airspace Protection Surfaces: Imaginary surfaces in the airspace surrounding airports defined in accordance with criteria set forth in 14 Code of Federal Regulations, Part 77, Subpart C.

Aviation-Related Use: Any facility or activity directly associated with the air transportation of persons or cargo or the operation, storage, or maintenance of aircraft at an airport or heliport. These uses specifically include runways, taxiways, and their associated protection areas defined in accordance with ***FAA*** criteria, together with aircraft parking aprons, hangars, fixed-base operations facilities, terminal buildings, and related facilities.

Avigation Easement: A limited real property right that is granted by a property owner to an airport proprietor that provides for a right-of-way in, through, across, or about any portion of the airspace above and within the vicinity of the subject real property for the free, safe, and unobstructed passage of aircraft in flight. An avigation easement typically also allows for the creation of noise, vibration, and other effects that are attendant to the normal operation of aircraft

in flight that may affect the subject real property. The avigation easement does not limit property owners' rights in the event of an abnormal activity. Depending on the specific language of the easement document, it may also limit the height of structures on the property to a certain height. As a legal instrument that is officially recorded with the County, it provides the current property owner and subsequent property owners with formal notice that his or her property is located near an airport and may be subject to impacts from airport and aircraft operations.

City/County Association of Governments of San Mateo County (C/CAG): The association of governments in San Mateo County, which includes elected representatives of the County of San Mateo and incorporated cities in the county. The ***C/CAG*** Board of Directors is responsible for a variety of county-wide transportation and environmental planning activities. The ***C/CAG Board*** also serves as the state-mandated ***Airport Land Use Commission*** for San Mateo County.

C/CAG: See City/County Association of Governments of San Mateo County.

C/CAG Board: The Board of Directors of C/CAG.

CNEL: See ***Community Noise Equivalent Level***.

Community Noise Equivalent Level (CNEL): A 24-hour cumulative noise metric used in the State of California for describing aircraft noise exposure. In computing CNEL, a 4.77 decibel (dB) weighting penalty is assigned to noise events during the evening hours from 7:00 p.m. to 9:59 p.m. A 10 dB weighting penalty is assigned to noise events during the nighttime hours after 10:00 p.m. and before 7:00 a.m.

Development: Any human-caused change to improved or unimproved real property that requires a permit or approval from any local agency or that is sponsored and proposed to be built by a local agency. Development includes, but is not limited to, buildings or other structures, mining, dredging, filling, grading, paving, an excavation or drilling operation, and/or storage of materials.

Division of Aeronautics: California Department of Transportation, ***Division of Aeronautics***, or any successor agency that may assume the responsibilities of the ***Division of Aeronautics***.

Existing Land Use: The actual use of land or the proposed use of the land evidenced by a ***vested right*** in the land as of the effective date of this ALUCP.

FAA: The Federal Aviation Administration.

Handbook: The most recent version (2011) of the *California Airport Land Use Planning Handbook* published by the California Department of Transportation, Division of Aeronautics.

Infill: Development of vacant or underutilized land within established communities or neighborhoods that are already served with streets, water, sewer, and other infrastructure.

Land Use Jurisdiction: The County of San Mateo and the municipalities with land use regulatory jurisdiction within the ***Airport Influence Area***.

Land Use Policy Action: Any city or county general plan, specific plan, or zoning ordinance (including zoning maps and/or text) or any amendment to a city or county general plan, specific plan, or zoning ordinance (zoning maps and/or text). A ***land use policy action*** also refers to any school district, community college district, or special district facilities master plans or amendments to such master plans.

Local Agency: A ***land use jurisdiction***, school district, community college district, or other special district.

Lot of Record: A parcel of land platted and recorded as of the effective date of this ALUCP.

Lot Coverage: The ratio between the ground floor area of a building (or buildings) and the area of the lot or parcel on which the building (or buildings) are placed.

Nonconforming Use: An ***existing land use*** or building that does not comply with this ALUCP.

Real Estate Disclosure: A written statement that notifies the prospective purchaser of real estate, prior to completion of the purchase, of the potential annoyances or inconveniences associated with airport operations. Typically, a ***real estate disclosure*** is provided at the real estate sales or leasing offices. ***Real estate disclosure*** is required by state law as a condition of the sale of most residential property if the property is located in the vicinity of an airport and is within its AIA (see Bus. & Prof. Code, §11010; Civ. Code, §§1102.6, 1103.4, 1353). State law does not require the ***real estate disclosure*** to be recorded in the chain of title for the affected property.

Vested Right: A right to the proposed use of land as demonstrated by any of the following:

(a) A vesting tentative map that has been approved pursuant to California Government Code section 66498.1, and has not expired; or

(b) A development agreement that has been executed pursuant to California Government Code section 65866, and remains in effect; or

(c) A valid building permit that has been issued, substantial work that has been performed, and substantial liabilities that have been incurred in good faith reliance on the permit, pursuant to the California Supreme Court decision in *Avco Community Developers, Inc. v. South Coast Regional Com* (1976) 17 Cal.3d 785,791, and its progeny.

3.2 General Policies

The policies of this ALUCP have four goals:

- To protect San Carlos Airport (the Airport) from further encroachment by incompatible land uses;
- To safeguard the general welfare of the inhabitants within the vicinity of the Airport and the public by protecting them from adverse effects of aircraft noise and by avoiding an increase in the number of people exposed to airport/aircraft related hazards;

- To ensure that no structures or land use characteristics adversely affect the navigable airspace in the vicinity of the Airport to provide for the safe passage of aircraft in flight; and
- To provide guidance to land use agencies on compatible land uses in the environs of the Airport.

This ALUCP contains general and specific policies that guide its overall implementation. The general policies that follow are to be used, in addition to the specific policies, standards, and criteria in Chapter 4, by the ALUC, the Airport Land Use Commission (C/CAG Board), affected local agencies, and others, to implement the relevant provisions in this ALUCP.

The official policy language of the ALUCP is labeled with policy numbers (e.g., GP-1, which means General Policy number 1).

GP-1 COMPLIANCE WITH STATE LAW

The C/CAG Board, acting in its capacity as the Airport Land Use Commission for San Mateo County, and the C/CAG Airport Land Use Committee (ALUC) shall comply with the provisions in the Public Utilities Code, Chapter 4, Article 3.5 Section 21670 et seq. (airport land use commission statutes), when administering this ALUCP and the airport land use compatibility planning process in San Mateo County.

The C/CAG Board and the C/CAG ALUC also shall implement Business and Professions Code, Section 11010 (b)(13), by establishing within this ALUCP an Airport Influence Area (AIA) within which real estate disclosure of the presence of an airport shall be required.

GP-2 AMENDMENT OF THE ALUCP

The ALUCP shall be amended not more than once per calendar year, as provided in the airport land use commission statutes. The ALUCP shall be updated and amended as needed to maintain a current, updated document. Updates should be undertaken as soon as practicable after any of the following occurrences:

- Adoption of a new airport master plan or an updated airport layout plan.
- Update of long-range airport noise exposure forecasts.

GP-3 EFFECTIVE DATE

This ALUCP shall become effective immediately upon a formal adoption action by the C/CAG Board, acting in its capacity as the Airport Land Use Commission for San Mateo County.

GP-4 APPLICABILITY OF POLICIES TO EXISTING LAND USES

Existing land uses shall be exempt from the policies and criteria of this ALUCP, except as specifically provided in this Section.

GP-4.1 Modifications to Nonconforming Uses

Modification of existing nonconforming land uses shall be permissible, provided that the modification does not increase the magnitude of the nonconformity with respect to the noise, safety, and airspace protection criteria and policies described in Chapter 4. The magnitude of nonconformity shall be measured by:

1. For residential land uses, the number of dwelling units on the lot;
2. For nonresidential land uses, the size of the nonconforming use in terms of lot area and building floor area.

Where bedrooms or sleeping rooms are added to residential uses that are nonconforming with the noise compatibility policies of this ALUCP, those rooms must be sound-insulated to achieve an indoor noise level of CNEL 45 dB from exterior sources. In all cases, building modifications shall be subject to the safety and airspace protection policies of this ALUCP.

GP-4.2 Reconstruction of Nonconforming Use

Nonconforming uses may be rebuilt to a density (for residential uses, dwelling units per acre) or size (for nonresidential uses, building floor area) not exceeding that of the original construction. In all cases, however, reconstructed nonconforming uses shall comply with the noise compatibility and airspace protection policies of this ALUCP.

GP-4.3 Exceptions for Nonconforming Schools and Hospitals

Modifications, enlargement, and reconstruction of schools and hospitals that are nonconforming with the safety compatibility policies of this ALUCP shall be allowed, subject to the following conditions:

1. Schools and Hospitals must demonstrate alternative sites outside the safety and noise compatibility zones are not financially feasible or will not adequately serve the established service area.
2. Building modifications, enlargements, new buildings, and reconstruction are allowed only on the lot or, if multiple lots comprise the building site, the contiguous lots on the site existing on the date of adoption of this ALUCP. If the school or hospital is within any noise compatibility zone, as established in this ALUCP, any added classrooms, patient rooms, and patient treatment and consultation rooms must be sound-insulated to achieve an indoor noise level of CNEL 45 dB from exterior sources.
3. Where a modification results in an increase in building floor area, the number of exits required for the enlarged portion of the building under applicable building and safety codes, shall be increased by 50 percent. Where the 50-percent factor results in a fraction, the number of additional exits shall be rounded to the next highest whole number.
4. For reconstructed schools and hospitals, the number of exits required under applicable building and safety codes shall be increased by 50 percent. Where the 50-percent factor results in a fraction, the number of additional exits shall be rounded to the next highest whole number. If the reconstructed school or hospital is within any noise compatibility

zone, as established in this ALUCP, it must be sound-insulated to achieve an indoor noise level of CNEL 45 dB from exterior sources.

5. In all cases, the airspace protection policies of this ALUCP shall apply.

GP-4.4 Discontinuance of Nonconforming Use

If a nonconforming use has been discontinued for 24 months or longer, any subsequent use of the property shall comply with the provisions of this ALUCP. Local government policies that specify shorter periods shall be deemed consistent with this ALUCP policy.

GP-5 GOVERNING ALUCP

Land use policy actions and development actions are subject to this ALUCP unless the circumstances defined below apply.

GP-5.1 Development Actions With Previous Airport Land Use Commission (C/CAG Board) Consistency Determinations

Proposed development actions determined to be consistent or conditionally consistent with the ALUCP in effect at the time of Airport Land Use Commission (C/CAG Board) project review do not require further review under this ALUCP, unless the proposed development is within Area B of the AIA, the project referral area, and one or more of the following changes are proposed:

1. An increase in the proposed residential density.
2. The addition of a land use that is incompatible under this ALUCP.
3. The height of a structure is to be increased and would create a hazard or obstruction as determined by the FAA.
4. The addition of a characteristic that would create a hazard to air navigation.

If any of these changes are proposed, the development action must be reviewed for consistency with this ALUCP.

GP-5.2 Development Actions Located Outside the AIA of Previous CLUP

Development actions located outside the AIA of the previous CLUP (but within the project referral area of this ALUCP) that are in the review process or have been approved by the local agency must be reviewed under this ALUCP if any of the changes described in Policy GP-5.1 are proposed and the development action requires additional local agency review and approval.

GP-5.3 Development Actions in the Review Process Before the Effective Date of this ALUCP

Any proposed development action that has an application deemed complete by the local agency per the California Government Code (Section 65943) prior to adoption of this ALUCP will be evaluated under the 1996 CLUP.

GP-6 FINDINGS AS TO SIMILAR USES

Cases may arise where a proposed development project involves a land use that is not explicitly provided for by the land use criteria in Chapter 4 of this ALUCP. In such cases, conventional rules of reason shall be applied in determining whether the subject land use is substantially similar to any land use which is specified in the criteria in Chapter 4. In making these determinations, the reviewing officials shall consult the latest edition of the *California Airport Land Use Planning Handbook*, prepared under the direction of the California Department of Transportation, and land use classification systems available through the American Planning Association and other authoritative sources.

GP-7 PROPERTIES DIVIDED BY A COMPATIBILITY ZONE BOUNDARY

For the purpose of evaluating consistency with the compatibility criteria set forth in this ALUCP, any parcel that is split by compatibility zone boundaries shall be considered as if it were multiple parcels divided at the compatibility zone boundary line. Only the portion of the parcel that lies within the compatibility zone boundary shall be subject to the airport/land use compatibility consistency evaluation.

GP-8 LAND USE COMPATIBILITY PLANNING COORDINATION

An important purpose and function of the ALUCP is to coordinate airport land use compatibility planning across jurisdictions. To further that purpose, the following policies shall apply:

GP-8.1 Notification and Review of Proposed Land Use Policies

Any proposed land use policy action that affects property within the project referral area, Area B of the AIA, must be referred to the Airport Land Use Commission (the C/CAG Board) for a determination of consistency with the relevant policies of this ALUCP. Local jurisdictions shall notify the Airport Land Use Commission of every such proposed land use policy action as required by State law. The Airport Land Use Commission shall notify the San Mateo County Airports Division Manager, or the Manager's designee, as soon as possible after it receives a request for a consistency review of a proposed land use policy action. The intent is to afford the appropriate Airport staff an opportunity to review and comment on the proposed land use policy action.

GP-8.2 Notification to Airport of Proposed Land Use Policy Actions

C/CAG shall encourage local governments to inform the Airport of proposed land policy actions within Area B of the AIA in a manner and at a time that enables ALUC and Airport staff to review and provide timely comments on the proposed land use policy actions.

GP-8.3 Advisory Review of Development Proposals

Under state law, local governments may submit development proposals to the Airport Land Use Commission for non-binding advisory review. C/CAG shall encourage local governments to

submit the following types of development proposals within Area B of the AIA to the Airport Land Use Commission for advisory review:

- Commercial or mixed use development of more than 100,000 square feet of gross building area;
- Residential or mixed use development that includes more than 50 dwelling units;
- Public or private schools;
- Hospitals or other inpatient medical care facilities;
- Libraries;
- Places of public assembly.

3.3 ALUCP Implementation and Administration

This section explains the implementation and administration of the ALUCP and the two-step airport land use commission review process in San Mateo County.

GP-9 LOCAL AGENCY ACTIONS REQUIRED AFTER ADOPTION OF ALUCP REVISIONS OR AMENDMENTS

Upon adoption of an amendment to the ALUCP by the Airport Land Use Commission (C/CAG Board), the Airport Land Use Commission shall notify all affected local agencies of the adoption action. State law (Govt. Code, Section 65302.3) gives affected local agencies 180 calendar days to amend their general plans, specific plans, and zoning ordinances, as necessary, to be consistent with the amended ALUCP. In the case of special districts, school districts, and community college districts, this consistency requirement shall apply to their facilities master plans.

3.3.1 Airport Land Use Commission Review and Local Agency Actions

State law directs local land use agencies and airport operators to submit certain proposed actions to the airport land use commission for determinations of consistency of the proposed action with the ALUCP.

GP-10 PROPOSED LOCAL AGENCY ACTIONS REQUIRING REVIEW BY THE AIRPORT LAND USE COMMISSION (C/CAG BOARD)

The kinds of local agency actions subject to review by airport land use commissions differ depending on whether the local agency has made its general plan, specific plans, and zoning ordinance, or facilities master plan consistent with the ALUCP or has made a decision overriding the ALUCP. Proposed local agency actions that are subject to review by airport land use commissions include: (1) proposed development actions; (2) land use policy actions.

GP-10.1 Scope of Airport Land Use Commission (C/CAG Board) Review Before Local Agency Makes Local Plans Consistent with ALUCP or Overrides ALUCP

Before an affected agency makes its general plan, specific plans, and zoning ordinance, or facilities master plan either consistent with the ALUCP or overrides the ALUCP as provided by law, the local agency shall refer all ***proposed development and land use policy actions*** that affect property within the project referral area, Area B of the AIA, to the Airport Land Use Commission (the C/CAG Board) for a determination of consistency with the ALUCP prior to issuing a permit for the proposed development (Pub. Util. Code, Section 21676.5(a)).

GP-10.2 Scope of Airport Land Use Commission (C/CAG Board) Review After Local Agency Makes Local Plans Consistent with ALUCP or Overrides ALUCP

After local agencies have either made their local plans and zoning ordinances or facilities master plans consistent with the ALUCP or overridden the ALUCP as provided by law, Public Utilities Code, Section 21676 (b) requires local agencies to submit only proposed ***land use policy actions*** to the airport land use commission for a determination of the consistency of the proposed action with the ALUCP prior to local agency approval of such action. This requirement shall apply to any proposed land use policy action that affects property within the project referral area, Area B of the AIA.

GP-10.3 Review of Airport and Heliport Plans

Airport Land Use Commission (C/CAG Board) review of two categories of airport plans is required by state law – (1) airport and heliport master plans and (2) plans for construction of new airports and heliports.

- **Airport Master Plans**. Public Utilities Code, Section 21676(c) mandates that "each public agency owning an airport within the boundaries of an airport land use commission plan shall, prior to modification of its master plan, refer such proposed change to the airport land use commission." The Airport Land Use Commission (C/CAG Board) must then determine if the proposed master plan is consistent with the adopted ALUCP.[1] This requirement also applies to airport layout plans that would effectively modify any provisions of a previously adopted airport master plan.
- **Construction Plans for a New Airport**. State law also requires that no application for the consideration of plans for a new airport may be submitted to any local, regional, state, or federal agency unless the plans have been: (1) approved by the board of supervisors or the city council of the jurisdiction in which the airport is to be located and (2) submitted to and acted upon by the airport land use commission in the county in which the airport is to be located.

GP-11 EXEMPTION OF SPECIAL DISTRICTS FROM AIRPORT LAND USE COMMISSION (C/CAG BOARD) REVIEW PROCESS

C/CAG may exempt special districts from the requirement to submit proposed development and land use policy actions for consistency determinations if the scope of project responsibilities of

[1] This provision ensures that airport land use commissions are kept informed of changes in airport plans so that appropriate revisions and updates to the ALUCP may be made.

the special district does not involve any potential inconsistencies with the ALUCP. The process of granting an exemption to a special district may be initiated either by C/CAG or the special district.

GP-11.1 Application for Exemption

An application for exemption of a special district from the ALUCP consistency review process must include the following information:

1. Name of the special district, and address of the headquarters office.
2. Name and contact information for the executive director of the special district.
3. Name and contact information for the person preparing the application.
4. A map depicting the boundaries of the special district in relation to AIA Area B.
5. A description of the responsibilities and duties of the special district, including a description of all facilities built, operated, maintained, or planned by the special district and a map showing the location of existing and planned facilities with respect to AIA Area B.
6. An explanation of why the facilities built, operated, maintained, or planned by the special district and located within AIA Area B do not and would not conflict with any land use compatibility policies of the ALUCP. The explanation must address all noise compatibility, safety compatibility, and airspace protection policies of the ALUCP.

GP-11.2 ALUC Review of Exemption Application

After receipt of a complete application for exemption, C/CAG staff shall distribute copies of the application to all members of the ALUC and place the consideration of the application on the agenda of the ALUC.

The ALUC shall review and discuss the application, granting a representative of the special district and members of the public an opportunity to offer comments and testimony. The ALUC shall make a recommendation to the Airport Land Use Commission (C/CAG Board) for approval or disapproval of the application for exemption.

GP-11.3 Airport Land Use Commission (C/CAG Board) Action on Exemption Application

The C/CAG staff shall forward the application and the ALUC's recommendation to the Airport Land Use Commission (C/CAG Board) and schedule consideration of the application for the next available Board meeting. The Airport Land Use Commission shall review and discuss the application and the ALUC recommendation, granting a representative of the special district and members of the public an opportunity to offer comments and testimony. The Airport Land Use Commission shall make a decision on the application for exemption. Approval of the application shall be in the form of a resolution.

A resolution of approval shall include findings documenting that the responsibilities and duties of the special district and all facilities operated, maintained, or planned by the special district pose would involve no potential conflicts with any land use compatibility policies of the ALUCP.

GP-11.4 Documentation of Airport Land Use Commission (C/CAG Board) Approval of Exemption

All Airport Land Use Commission (C/CAG Board) resolutions approving the exemption of special districts from the ALUCP consistency review process shall be kept as part of the ALUCP document distributed and posted electronically or in hard copy.

GP-12 AIRPORT LAND USE COMMISSION (C/CAG BOARD) CONSISTENCY DETERMINATION PROCESS

In accordance with PUC Sections 21676(a) and 21676.5(a), the Airport Land Use Commission (C/CAG Board) may make the following findings when reviewing proposed development, land use policy actions, and airport and heliport plans:

a) Consistent with the ALUCP

b) Inconsistent with the ALUCP

c) Consistent with the ALUCP subject to conditions

GP-12.1 Two-Step Process

The airport/land use compatibility review process includes two steps. A diagram of the process is shown on **Exhibit 3-1**. The review process is initiated by a local agency, as specified in the airport land use commission statutes. The first step is review by the ALUC; the second step is review and final action by the Airport Land Use Commission (C/CAG Board). The process is described below.

Step 1: Review by the Airport Land Use Committee (ALUC)

a. The affected agency refers the proposed development or land use policy action, including all relevant documentation, to C/CAG ALUC staff. ALUC staff reviews the submitted materials, coordinates the review with the affected local agency staff, and schedules the item for the next available ALUC meeting. ALUC staff also prepares a report for ALUC and public review. The staff report describes the proposed action and includes an analysis of the relevant airport land use compatibility issues related to the proposed action and a recommended ALUC action.

b. The ALUC reviews the proposed development or land use policy action, considers relevant public input, and takes action by adopting a motion to advise the Airport Land Use Commission (the C/CAG Board) whether the proposed action is consistent or inconsistent with the ALUCP. The ALUC review includes a presentation of the staff report by ALUC staff and opportunities for comments from representatives of the affected local agency, other agencies, and the public.

c. The ALUC recommendation is transmitted to the Airport Land Use Commission (the C/CAG Board) via a report prepared by ALUC staff.

Step 2: Review/Final Action by the Airport Land Use Commission (C/CAG Board)
Consistent with applicable C/CAG Bard public notification and voting bylaws:

a. The proposed development or land use policy action is scheduled for consideration at the next available Airport Land Use Commission (C/CAG Board meeting). ALUC staff prepares a report for review by the Airport Land Use Commission that describes the proposed action and includes a copy of the ALUC staff report and the ALUC recommendation.

b. The Airport Land Use Commission (C/CAG Board) reviews the ALUC recommendation and adopts a motion declaring whether the proposed development or land use policy action is consistent or inconsistent with the relevant provisions in the ALUCP. The Airport Land Use Commission's review includes opportunities for comments from the affected local agency, other agencies, and the public.

c. The Airport Land Use Commission (C/CAG Board) formally notifies the affected local agency, in writing, of its final action on the proposal.

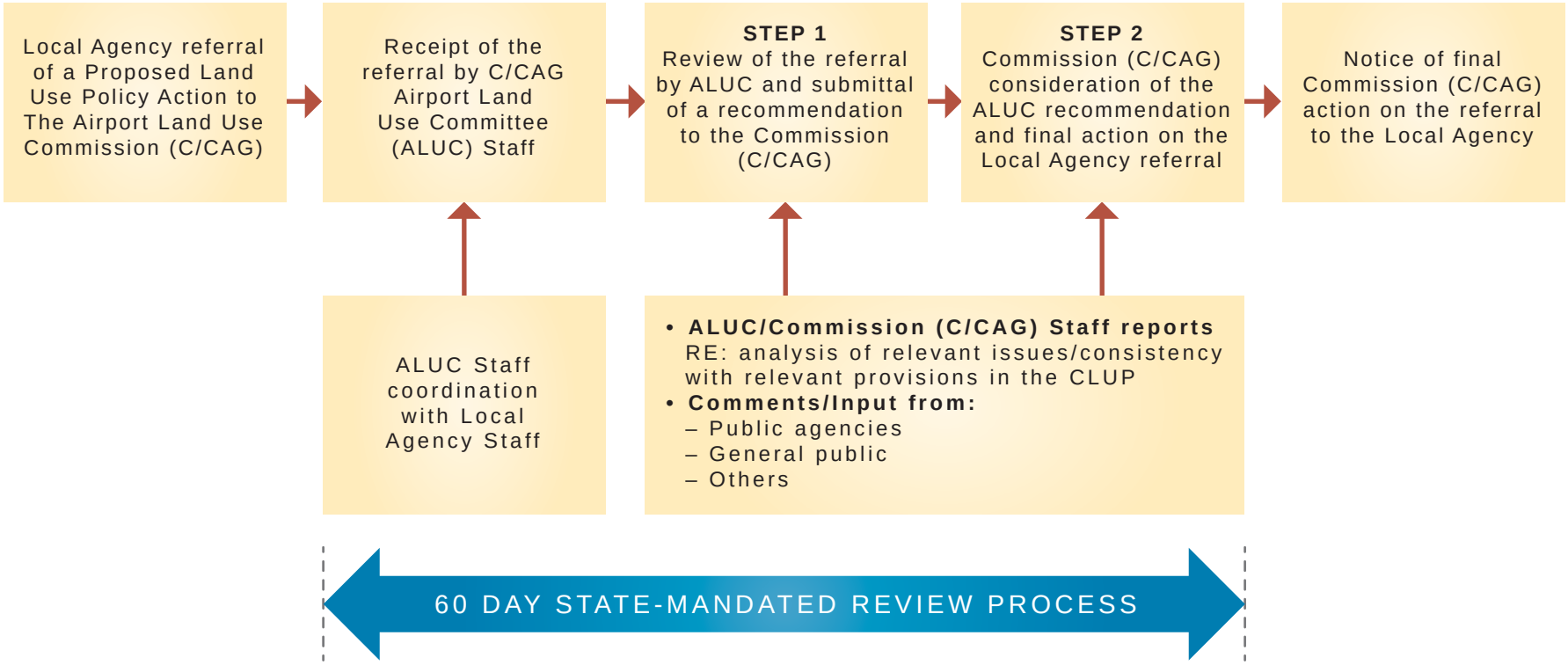
GP-12.2 Response Time Requirement

The Airport Land Use Commission (C/CAG Board) must respond to a local agency's request for a consistency determination on a proposed development or land use policy action within 60 days of the receipt of the referral by C/CAG staff. However, this review period does not begin until all necessary documentation has been received by C/CAG staff. The determination of the completeness of the information is made by C/CAG staff within 30 days under California Government Code 65943.

In San Mateo County, the 60-day review period includes a review by the ALUC. Coordination of the two-step review process by C/CAG staff is critical to completing the review within the mandated 60-day review period. If the Airport Land Use Commission (C/CAG Board) does not act on the referral within the 60-day limit, the proposed development or land use policy action is deemed consistent with the ALUCP in accordance with PUC Section 21676(d).

GP-12.3 Review Fees

There is currently no State funding provided to support the cost of operating the Airport Land Use Commission. Therefore, the Airport Land Use Commission (C/CAG Board) intends to work cooperatively with the Airport operator and the cities/county to provide equitable funding for the Airport Land Use Commission.



SOURCE: ESA, 2014

San Carlos Airport ALUCP . 130753

Exhibit 3-1

San Mateo County Airport Land Use Commission (C/CAG) Two-Step Review Process

3.3.2 Consistency Determinations

GP-13 DETERMINATION OF CONSISTENCY OF PROPOSED LAND USE POLICY ACTIONS WITH THE ALUCP

GP-13.1 General Plan, Specific Plan, and Zoning Ordinance/Rezoning Review

General plan, specific plan, and zoning ordinance/rezoning reviews are based on the ability of the proposed land use policy action to prevent future development of land uses or land use characteristics that would conflict with the airport/land use compatibility policies, standards, and criteria of this ALUCP.

These consistency evaluations must consider the following factors, based on their relationship to the relevant policies and criteria of the ALUCP:

- Residential densities;
- Types of non-residential land uses;
- Open space uses;
- Height limits/architectural features/materials;
- Sound insulation requirements;
- Exposure to aircraft noise/overflight;
- Potential impact on airspace protection.

GP-13.2 School District, Community College District, and Special District Master Plan Review

Facilities master plan reviews must consider whether the master plans propose any land uses that would be incompatible or conditionally compatible in any noise or safety zone. The consistency review must also consider the potential for planned projects to encroach into protected airspace or introduce any potential hazards to aircraft in flight.

GP-13.3 Consistency Reviews of Proposed Airport Master Plans and Expansion Plans

Under state law (Pub. Util. Code, Section 21676(c)), any public agency owning an airport must, prior to the adoption or modification of its airport master plan, refer the proposed action to the Airport Land Use Commission (C/CAG Board). According to the Handbook, “the question to be examined [by airport land use commissions] is whether any components of the airport plan would result in greater noise and safety impacts on surrounding land uses than are assumed in the

adopted compatibility plan."[2] Components of the airport plans that merit consideration in the consistency review include:

- Aviation activity forecasts;
- Changes to runway layout;
- Changes to flight tracks resulting from the proposed action;
- Changes to airspace parameters;
- Plans for non-aviation development on airport property (such as hotels, office buildings, or industrial buildings), which should be evaluated the same as projects proposed elsewhere in the project referral area.

The Airport Land Use Commission (the C/CAG Board) should update the ALUCP to account for the new airport plans.[3] (Under state law, Airport Land Use Commissions have no jurisdiction over the operation of airports [Pub. Util. Code, Section 21674(e)].)

3.3.3 Local Agency Override of an Airport Land Use Commission Determination

Section 21675.1(d) of the Public Utilities Code provides that local agencies may override airport land use commission disapprovals of proposed land use policy actions or development proposals. The local agency override process involves three mandatory steps (Pub. Util. Code, Sections 21676(b) and 21676(c)):

1. Holding a public hearing by the local agency on the proposed override action;
2. Making of specific findings by the governing body of the local agency that the proposed local action is consistent with the purposes of the airport land use commission statutes;
3. Approval of the override action by a two-thirds vote of the local agency's governing body; the override action must include adoption of the specific findings identified in Step 2, above.

3.3.3.1 Findings

Adoption of findings is the key element of the local agency override of an airport land use commission action. The purpose of adopting findings is to assure that the proposed local agency action complies with state law. Findings are legally relevant conclusions that explain the decision-making body's method of analyzing the relevant facts, regulations, and policies and the agency's rationale for taking the override action. The findings must show that the proposed local agency action is consistent with the purposes stated in Public Utilities Code, Section 21670, et seq.

[2] State of California, Department of Transportation, Division of Aeronautics, *California Airport Land Use Planning Handbook*, October 2011, p. 6-15.

[3] State of California, Department of Transportation, Division of Aeronautics, *California Airport Land Use Planning Handbook*, October 2011, p. 6-16.

3.3.3.2 Implications of a Local Agency Override Action

There are two key outcomes of a local agency override of an Airport Land Use Commission (C/CAG Board) decision disapproving a proposed land use action as inconsistent with the ALUCP:

- The proposed land use action may proceed, subject to local agency review and permitting processes, as if it had been found consistent with this ALUCP by the Airport Land Use Commission (C/CAG Board).
- If a city or county overrides a decision of the Airport Land Use Commission (C/CAG Board) relating to a publicly owned airport that is not operated by that city or county, the agency operating the airport "shall be immune from liability for damages to property or personal injury caused by or resulting directly or indirectly from the public agency's decision to override the commission's action or recommendation" (see Pub. Util. Code, Section 21678).

Where the local agency override action involves a safety or noise compatibility policy of the ALUCP, the process ends at this point and the override decision of the local agency is final. Attempts to override the airspace protection policies of the ALUCP are more complex because of the roles of the FAA and the State Department of Transportation in protecting the navigable airspace.

3.3.3.3 Override of Airspace Protection Policies

In contrast to safety and noise compatibility policies, the federal government, acting through the FAA, and the State of California, acting through the Department of Transportation (Caltrans), Division of Aeronautics, are directly involved in protecting airspace. Although a local government may override the airspace protection provisions of the ALUCP as described in the previous section, the sponsor of the proposed project is still subject to the requirements of federal and state law. Those requirements effectively prohibit the construction of any structure determined by the FAA to be a hazard to air navigation.

Federal law requires sponsors of proposed projects exceeding specified heights to file a Notice of Construction or Alteration (Form 7460-1) with the FAA before beginning construction. The FAA then undertakes an aeronautical study of the proposed construction. The FAA study ultimately concludes with a Determination of No Hazard (DNH) or a Determination of Hazard (DOH). The FAA issues a DOH when it finds that the proposed construction would be an obstruction to air navigation and would have a substantial aeronautical impact.[4] According to Joint Order (JO) 7400.2H, *Procedures for Handling Airspace Matters*, a substantial aeronautical impact is indicated if the proposed construction would:[5]

[4] 14 CFR Part 77, Section 77.31 (c).
[5] JO 7400.2H, *Procedures for Handling Airspace Matters*, Section 6-3-3.

a. Require a change to an existing or planned Instrument Flight Rules (IFR)[6] minimum flight altitude, a published or special instrument procedure, or an IFR departure procedure for a public-use airport.

b. Require a Visual Flight Rules (VFR) operation, to change its regular flight course or altitude

c. Restrict the clear view of runways, helipads, taxiways, or traffic patterns from the airport traffic control tower cab.

d. Derogate airport capacity/efficiency.

e. Affect future VFR and/or IFR operations as indicated by plans on file.

f. Affect the usable length of an existing or planned runway.

While the FAA has no authority to prohibit the erection of a structure that it determines to be a hazard to air navigation, Caltrans is specifically empowered by state law to do so. Specifically, the law prohibits the construction of any object that would be an obstruction and a hazard to air navigation without a permit issued by Caltrans.[7]

6 Instrument Flight Rules and Visual Flight Rules are defined in Appendix H.
7 California Public Utilities Code Section 21659 (a).

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CHAPTER 4
Compatibility Factor Maps and Policies

4.1 Introduction

This chapter presents policies and maps relating to the state-mandated airport compatibility factors – noise, safety, airspace protection, and overflight. This chapter also presents maps depicting the two part Airport Influence Area (AIA) within which the state real estate disclosure law related to aircraft overflights shall apply. The official policy language of the ALUCP is labeled with policy numbers.

4.1.1 Aviation Activity Forecast for San Carlos Airport

PUC Section 21675 (a) requires that ALUCPs be based on 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, Caltrans, and some regional planning agencies also prepare individual airport forecasts, some of which extend to 20 years.

Airport master plans are generally the primary source for aircraft activity forecast information. However, given the current Master Plan for San Carlos Airport was adopted in 1997, ESA Airports developed a new aircraft activity forecast for this ALUCP update. Aircraft activity level data for 2013 are based on calendar year 2013 data maintained by the FAA. Aircraft activity level data for future conditions (2035) were derived by computing 10-year average activity levels by aircraft category using historical data for San Carlos Airport. Aircraft operations data used to prepare the existing conditions (2013) and future conditions (2035) noise contours for San Carlos Airport (See Section 4.2.1) are presented in **Table 4-1**.

TABLE 4-1
PROJECTED ACTIVITY LEVELS, SAN CARLOS AIRPORT

	Itinerant			Local		
Calendar Year	Commercial and Air Taxi	General Aviation and Military	Total	General Aviation and Military	Total	Total Airport Operations
2013 Actual	2,828	51,595	54,423	57,077	57,077	111,500
2035 Forecast	3,681	67,165	70,846	75,851	75,851	146,697

SOURCES: ESA Airports and Federal Aviation Administration. *Air Traffic Activity Data System*. March 2014.

4.1.2 Comparison of 1996 CLUP and 2014 ALUCP

Table 4-2 compares policies from the 1996 CLUP for San Carlos Airport to the policies provided in this Draft Final ALUCP and guidance contained in the 2011 Handbook. As presented in Table 4-2, noise policies included in the 1996 CLUP are more stringent than guidance contained in the 2011 Handbook, which recommends use of a Community Noise Equivalent Level (CNEL) of 60 decibels (dB) as the land use compatibility planning threshold for airports in urban/suburban areas; the 1996 CLUP establishes CNEL 55 dB as the "noise impact boundary" for San Carlos Airport. In contrast, safety policies included in the 1996 CLUP are limited and generally not as protective as the recommended safety compatibility criteria contained in this Draft Final ALUCP and the 2011 Handbook.

4.1.3 General Land Use Policy

One general land use policy has been identified for the San Carlos ALUCP.

Land Use Policy 1 - Relationship of Compatibility Criteria to Proposed Development and Land Use Policy Actions

The airport/land use compatibility of a proposed development or land use policy action shall be determined by comparing the proposed development or land use policy action with the noise, safety, airspace protection, and overflight compatibility criteria and policies contained in this ALUCP. The four sets of criteria are to be used in combination, with the most restrictive requirement controlling on any given property.

A proposed local agency land use policy or development action must be compatible with each of these elements for the Airport Land Use Commission (C/CAG Board) to determine that the proposed action is consistent with the ALUCP. If a proposed action is incompatible with any of these criteria, the Airport Land Use Commission (C/CAG Board) shall determine that the proposed action is inconsistent with the ALUCP.

TABLE 4-2
COMPARISON OF COMPATIBILITY POLICIES BETWEEN SAN MATEO COUNTY'S 1996 COMPREHENSIVE AIRPORT LAND USE PLAN AND THE 2014 DRAFT FINAL ALUCP

Compatibility Factor	1996 CLUP/ALUCP	2015 Draft Final ALUCP
Noise	Residential or other noise sensitive uses in areas are compatible in areas where noise is < CNEL 55 dB, and conditionally compatible between CNEL 55 and 60 dB. No new commercial/recreation in areas where noise is > CNEL80 dB. No new industrial uses in areas where noise is > CNEL 85 dB.	The 1996 CLUP is more restrictive than the noise policies included in the 2015 Draft Final ALUCP. The 2011 Handbook suggests that CNEL 60 dB is the appropriate land use compatibility criteria for new residential development around airports in urban/suburban surroundings.
Safety	The 1996 CLUP does not propose specific intensity or density limits as they relate to nonresidential or residential uses. The Plan discourages certain types of uses that could pose safety hazards to aircraft in flight, for example: • Any use that direct or flash white, red, green, or amber color lights toward an aircraft • Any use that would cause glare • Any use that would generate smoke or rising columns of air • Any use that would attract large concentrations of birds • Any use that would generate electrical interference The 1996 CLUP presents general information regarding approach protection zones (APZs), runway protection zones (RPZs), and traffic overflight zones (TOZs) in Chapter 2 but only delineates the boundaries of the APZ for San Carlos Airport in Chapter 4 of the CLUP.	The 2015 Draft Final ALUCP recommends intensity and density standards for nonresidential and residential uses in Table 4-4. For an airport in an urban environment, the 2011 Handbook recommends: Zone 1: • Max Residential Densities: 0 dwelling units per gross acre • Max Nonresidential Intensities: 0 people per gross acre • Max Single Acre: 0 people per gross acre Zone 2: • Max Residential Densities: 0 dwelling units per gross acre • Max Nonresidential Intensities:60-80 people per gross acre • Max Single Acre: 120-160 people per gross acre Zone 3: • Max Residential Densities: Infill up to the average of surrounding area • Max Nonresidential Intensities: 100-150 people per gross acre • Max Single Acre: 300-450 people per gross acre Zone 4: • Max Residential Densities: Infill up to the average of surrounding area • Max Nonresidential Intensities: 150-200 people per gross acre • Max Single Acre: 450-600 people per gross acre Zone 5: • Max Residential Densities: Infill up to the average of surrounding area • Max Nonresidential Intensities: 100-150 people per gross acre • Max Single Acre: 300-450 people per gross acre

TABLE 4-2 (Continued)
COMPARISON OF COMPATIBILITY POLICIES BETWEEN SAN MATEO COUNTY'S 1996 COMPREHENSIVE AIRPORT LAND USE PLAN AND THE 2014 DRAFT FINAL ALUCP

Compatibility Factor	1996 CLUP/ALUCP	2015 Draft Final ALUCP
		Zone 6: • Max Residential Densities: No limit • Max Nonresidential Intensities: No limit Max Single Acre: No limit
Airspace Protection	The 1996 CLUP adopts the provisions in Federal Aviation Regulations (FAR) Part 77 for civil airport imaginary surfaces for airspace protection. The 1996 CLUP deems any use that would penetrate any part of the imaginary surfaces for San Carlos Airport as an incompatible use, unless the FAA and Caltrans find the use to not be a hazard.	The 2015 Draft Final ALUCP follows the guidelines established by FAR Part 77. In addition, the 2015 Draft Final ALUCP recommends consideration for other airspace hazards, such as wildlife, and includes policy language specific to wildlife attractants derived from FAA Advisory Circular 150/5200-33B "Hazardous Wildlife Attractants On or Near Airports".
Overflight	The 1996 CLUP does not explicitly contain policies related to overflight issues; however, the 1996 CLUP does contain avigation easement requirements for the stated purpose of informing land owners in the vicinity of San Carlos Airport that they will be exposed to aircraft-related noise (see text below).	The 2015 Draft Final ALUCP identifies an overflight notification zone for San Carlos Airport and contains overflight compatibility policies.
Other	Avigation Easement Review Area: the 1996 CLUP establishes an Avigation Easement Review Area (AERA) that is based on the CNEL 55 dB contour, the FAR Part 77 horizontal surface, the FAR Part 77 approach surface, and the FAR Part 77 transitional surface. Based on these elements, the 1996 CLUP identifies three avigation easement areas for San Carlos Airport: • Area A – property that is affected by FAR Part 77 height restrictions only. • Area B – property that is affected by aircraft noise impacts of CNEL 55 dB or higher and FAR Part 77 height restrictions. • Area C – property that is affected by aircraft noise impacts of CNEL 55 dB or higher only. The C/CAG Board requests that local planning agencies require the grant of an avigation easement to the County of San Mateo for certain proposed land use policy actions located within the AERA boundary.	The 2015 Draft Final ALUCP includes a general policy related to the granting of avigation easements/overflight easements to San Mateo County.

SOURCE: City/County Association of Governments of San Mateo County (C/CAG), 1996.

4.2 Compatibility Factor Maps and Policies

This section presents ALUCP compatibility factor maps and policies for San Carlos Airport. See **Appendix A** for a complete discussion regarding the approach used to develop the aircraft noise exposure contours presented in this section. See **Appendix D** for information regarding the regulatory foundation for the four compatibility factors evaluated in ALUCPs. See **Appendix E** for close-up versions of the noise and safety zone exhibits presented in this Chapter.

4.2.1 Noise

Noise generated by the operation of aircraft is one of the primary factors that drives land use compatibility planning. Aircraft noise is generally the most recognizable issues for people living and working in the vicinity of an airport, and depending on the size of the airport and the types of operations it accommodates, the geographic extent to which aircraft noise can be experienced is potentially great.

Aircraft noise contours included in this Draft Final ALUCP were calculated using the Integrated Noise Model (INM), Version 7.0d. INM 7.0d is the FAA-approved, industry-accepted, state-of-the-art tool for determining the total effect of aircraft noise exposure at and around airports. The INM has been the FAA's standard tool for determining the predicted noise impact in the vicinity of airports since 1978, and is recognized by the State of California as the appropriate tool for aircraft noise assessments.

CNEL is the cumulative noise descriptor required for aircraft noise analyses in the State of California. CNEL is used to describe cumulative noise exposure for an annual-average day of aircraft operations. CNEL is calculated by mathematically combining the number of single events that occur during a 24-hour day with how loud the events were and what time of day they occurred. CNEL includes penalties applied to noise events occurring after 7:00 p.m. and before 7:00 a.m., when noise is considered more intrusive. The penalized time period is further subdivided into evening (7:00 p.m. through 9:59 p.m.) and nighttime (10:00 p.m. to 6:59 a.m.). CNEL treats every evening operation as though it were three and every night as though it were ten. This “weighting” adds a 4.77 dB penalty during the evening hours and a 10 dB penalty during the nighttime hours.

Noise contours presented in this ALUCP depict noise exposure in terms of CNEL.

Aircraft Noise Contours for San Carlos Airport

Existing Conditions (2013) aircraft noise contours prepared in support of the ALUCP update are presented on **Exhibit 4-1**. 20-year future conditions (2035) noise contours are presented on **Exhibit 4-2**. Areas exposed to aircraft noise levels of CNEL 60, 65, 70, and 75 dB are shown on both exhibits. For the most part, areas exposed to aircraft noise levels of CNEL 60 and higher are owned by San Mateo County (the airport proprietor) or are undeveloped. Land use compatibility policies specific to noise (described below) apply to the noise zones depicted on Exhibit 4-2.

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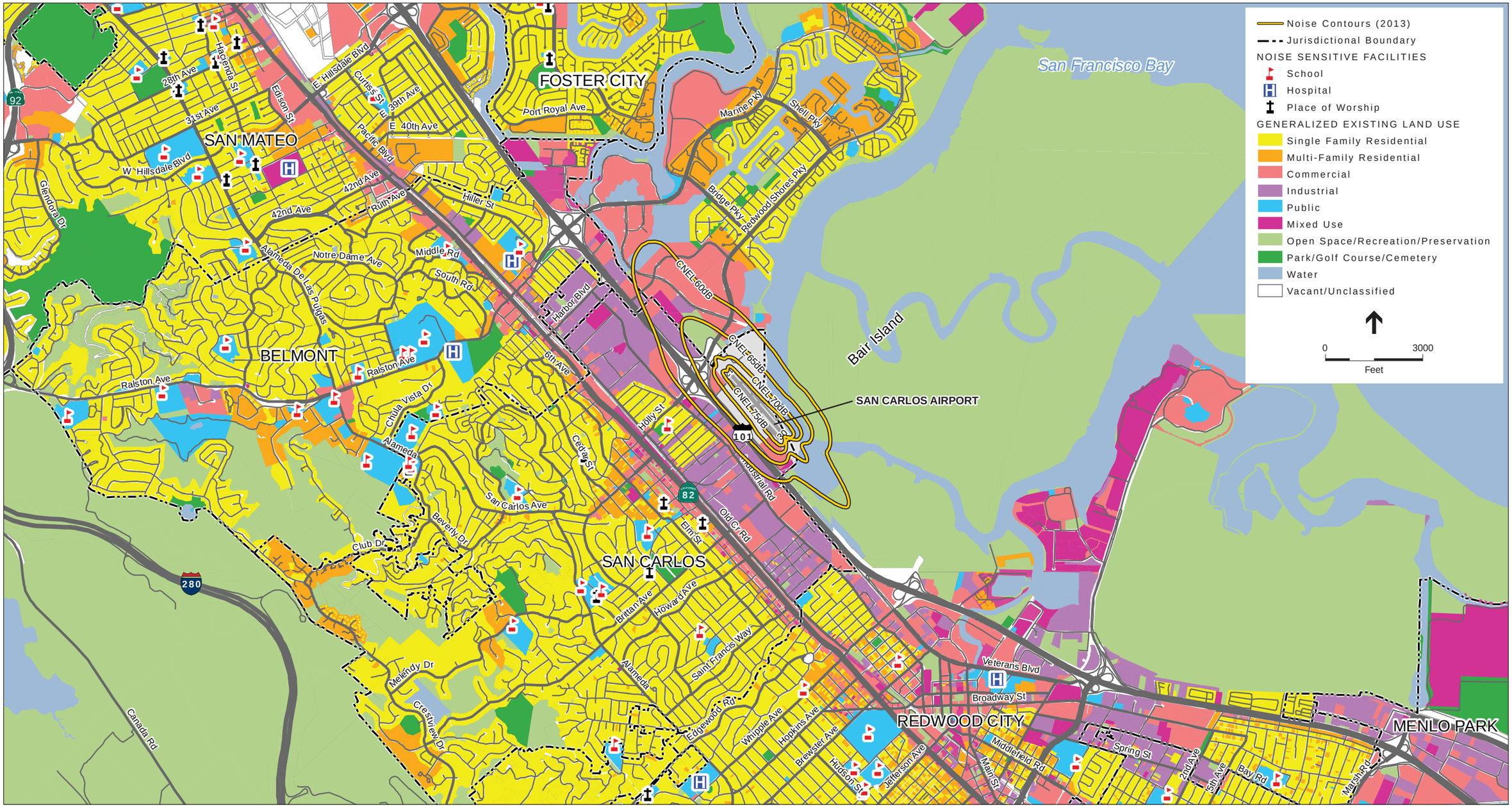

SOURCE: ESRI, 2014; San Mateo County Planning and Building Department, 2014; ESA Airports, 2015

San Carlos Airport ALUCP . 130753

Exhibit 4-1

Existing Conditions (2013) Aircraft Noise Contours

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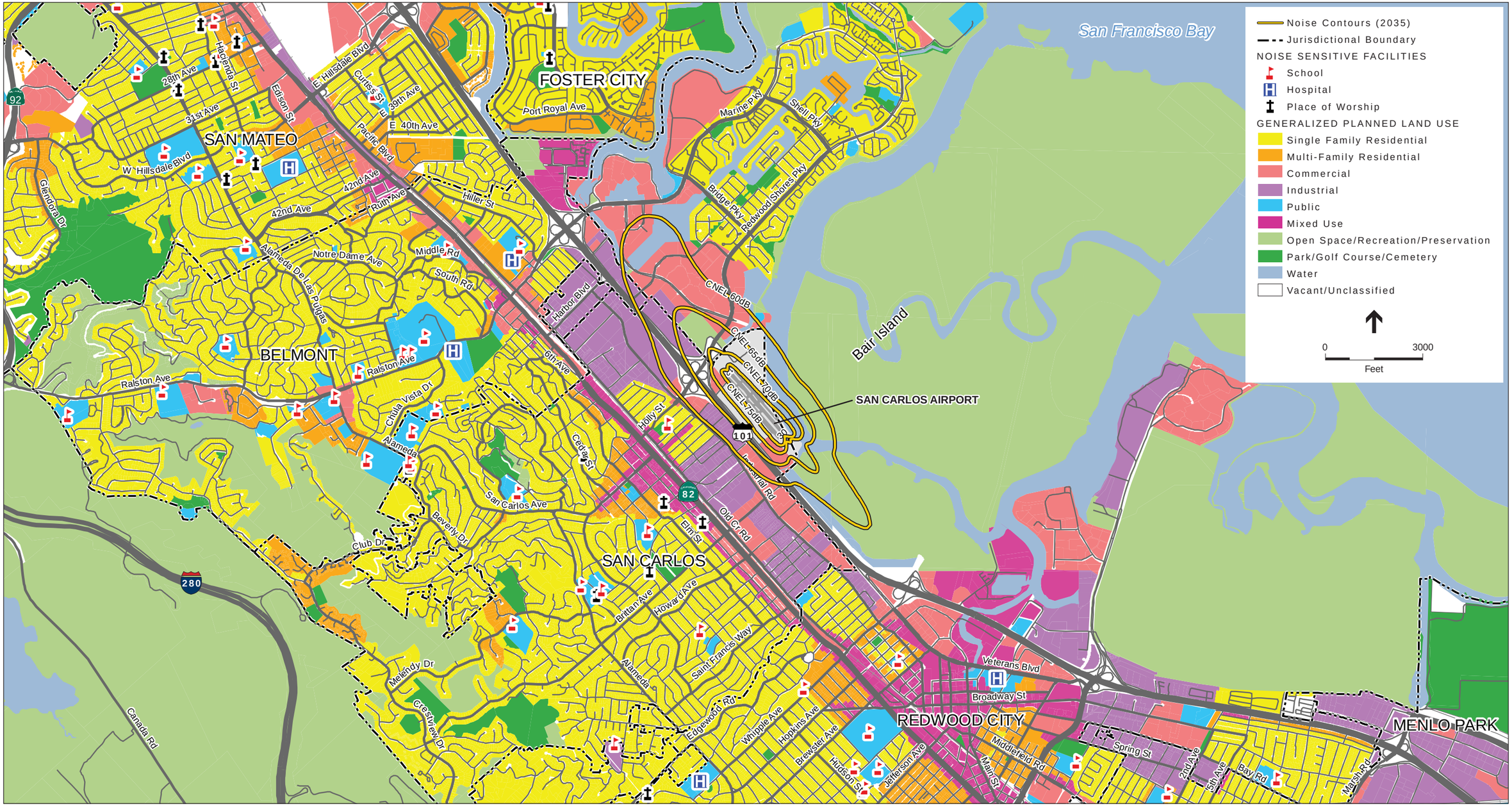

SOURCE: Belmont, 1982; San Mateo County, 1986; Foster City, 1993; Menlo Park, 1994; San Carlos, 2009; City of San Mateo, 2010; Redwood City, 2010; ESRI, 2014; ESA Airports, 2015

Exhibit 4-2

Future Conditions (2035) Aircraft Noise Contours

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Noise Compatibility Criteria and Policies for San Carlos Airport

The following are the noise compatibility criteria and policies for San Carlos Airport.

Noise Policy 1 – Noise Impact Area

The threshold for evaluation is the projected CNEL 60 dB contour depicted on Exhibit 4-2. This contour defines the noise impact area of the Airport. All land uses located outside this contour are consistent with the noise compatibility policies of this ALUCP.

Noise Policy 2 – Airport Noise/Land Use Compatibility Criteria

The noise compatibility policies set forth in this section shall be used in conjunction with the 20-year future noise exposure contours depicted on Exhibit 4-2 and noise/land use compatibility criteria presented in **Table 4-3**.

a. The compatibility criteria in this section indicate the maximum acceptable airport-related noise levels, which are measured in terms of CNEL, for a range of land uses.

b. Noise compatibility policies only apply to the identified noise contours. Within the four noise exposure ranges, each land use type is shown as "compatible", "conditionally compatible", or "incompatible". The meaning of these terms is provided in Table 4-3.

c. Land uses not specifically listed in Table 4-3 shall be evaluated using the criteria for similar listed uses.

Noise Policy 3 – Residential Land Uses

Residential land uses are considered conditionally compatible in areas exposed to noise levels between CNEL 60-64 dB only if the proposed use is on a lot of record zoned exclusively for residential use as of the effective date of this ALUCP. In such a case, the residential land use must be sound-insulated to achieve an indoor noise level of CNEL 45 dB or lower.

Noise Policy 4 - Interior Noise Levels

Within all identified noise contours, land uses for which interior activities may be easily disrupted by noise shall be required to comply with the following interior noise level criteria (calculations should assume windows are closed):

a. The maximum, aircraft-related, interior noise level which shall be considered acceptable for land uses within the airport influence area is CNEL 45 dB in:

    1. Living and sleeping areas of single- or multi-family residences;
    2. Hotels and motels;
    3. Hospitals and nursing homes;
    4. Religious facilities, cemetery chapels, and mortuaries; and
    5. Schools, libraries, and museums.

b. The maximum, aircraft-related, interior noise level which shall be considered acceptable for the following land uses is CNEL 50 dB in:

    1. Office environments;

    2. Eating and drinking establishments; and

    3. Other commercial facilities.

c. When reviewed as part of a general plan or zoning ordinance amendment or as a major land use action, evidence that proposed structures will be designed to comply with these criteria shall be submitted to the San Mateo County Airport Land Use Commission (the C/CAG Board) under the following circumstances:

    1. Any single- or multi-family residence within the CNEL 60 dB contour, as identified on Exhibit 4-2.

    2. Any hospital or nursing home, religious facility, school, library, or other noise-sensitive nonresidential use within the CNEL 60 dB contour, as identified on Exhibit 4-2.

    3. Any hotel, motel, or transient lodging within the CNEL 65dB contour, as identified on Exhibit 4-2.

Noise Policy 5 – Application of Noise Contours to Individual Project Sites to Determine Compatibility

Future/projected aircraft noise contours are inherently imprecise because flight paths and other factors that influence noise exposure are variable and activity projections are always uncertain. Given this imprecision, the San Carlos Airport noise contours shall be utilized, as follows, in assessing the compatibility of a proposed use at a specific development site:

a. In general, the highest CNEL range to which a project site is anticipated to be exposed shall be used in evaluating the compatibility of development over the entire site.

b. An exception to this policy is where no part of the building(s) or residential units proposed on the site fall within the higher CNEL range; the criteria for the CNEL range where the buildings are located shall apply.

Noise Policy 6 - Engine Run-Up and Testing Noise

Consideration of noise from engine run-up and testing noise activities shall be limited as follows.

a. Aircraft noise associated with pre-flight engine run-ups, taxiing of aircraft to and from runways, and other operation of aircraft on the ground is considered part of airport operations and is not subject to ALUC regulation. (Engine testing noise is not normally included in the noise contours prepared for an airport and has not been considered in preparation of the noise contours presented on Exhibit 4-2). However, the C/CAG Board may consider noise from these sources when reviewing the compatibility of proposed land uses to the extent that this noise is reflected in airport noise contours approved by the airport operator and the C/CAG Board.

b. Noise from aircraft ground operations should be considered by the C/CAG Board when reviewing airport master plans or development plans.

Noise from the testing of aircraft engines on airport property is not deemed an activity inherent in the operation of an airport, and it is not an airport-related impact addressed by this ALUCP. Noise from these sources should be addressed by the noise policies of local agencies in the same manner as noise from other industrial sources.

TABLE 4-3
NOISE COMPATIBILITY CRITERIA

	Community Noise Equivalent Level (dBA)			
Land Use Category	**<60**	**60-64**	**65-69**	**70-75**
Residential and Lodging				
Residential Single-family (detached, semi-detached, attached row)	Y	C(2)	N	N
Multi-family residential	Y	C(2)	N	N
Mobile home parks or courts	Y	N	N	N
Retirement homes; intermediate care facilities	Y	C(2)	N	N
Hotels; motels; other transient lodging	Y	Y	C(1)	N
Public/Institutional				
Children's schools (K-12) and child care facilities	Y	C(2)	C(2)	N
Adult schools; colleges; universities (excluding laboratories, gymnasiums, and outdoor athletic facilities)	Y	Y	C(1)	N
Outdoor amphitheaters and stadiums	Y	N	N	N
Auditoriums; concert halls; indoor arenas	Y	Y	C(1)	N
Hospitals; nursing homes; other health care services	Y	C(2)	N	N
Religious facilities; cemetery chapels; mortuaries; libraries; museums	Y	C(2)	N	N
Prisons; reformatories	Y	Y	C(3)	N
Public safety facilities (e.g., police, fire stations)	Y	Y	C(3)	C(3)
Cemeteries	Y	Y	Y	N
Recreational				
Children-oriented neighborhood parks; playgrounds	Y	Y	N	N
Community parks; regional parks; golf courses; tennis courts; athletic fields; outdoor spectator sports; fairgrounds; water recreation facilities	Y	Y	N	N
Recreation buildings; gymnasiums; club houses; athletic clubs; dance studios	Y	Y	C(3)	C(3)
Campgrounds; recreational vehicle/motor home parks	Y	C(4)	N	N
Commercial				
Office buildings; office areas of industrial facilities; medical clinics; laboratories; radio, television, and recording studios	Y	Y	C(3)	N
Retail sales; eating/drinking establishments; movie theaters; personal services	Y	Y	C(3)	N
Wholesale sales; warehouses; mini/other indoor storage	Y	Y	Y	C(3)
Auto and marine sales and repair services; car washes; gas stations	Y	Y	Y	C(3)
Animal shelters/kennels	Y	C(4)	C(4)	N
Industrial				
Light industrial/manufacturing; miscellaneous manufacturing; research and development facilities	Y	Y	Y	C(3)
Printing, publishing, and allied industries	Y	Y	Y	Y
Processing of food, wood and paper products; warehouses; wholesale storage	Y	Y	Y	Y

TABLE 4-3
NOISE COMPATIBILITY CRITERIA

Land Use Category	Community Noise Equivalent Level (dBA)			
	<60	60-64	65-69	70-75
Refining, manufacturing and storage of chemicals, petroleum and related products; manufacturing and assembly of electronic components	Y	Y	Y	Y
Salvage yards; natural resource extraction and processing; public works yards; solid waste facilities; outdoor storage; automobile dismantling	Y	Y	Y	Y
Utilities, road, rail rights-of-way; communication and other utilities; automobile parking	Y	Y	Y	Y
Agriculture and Animal-Related				
Nature preserves; wildlife preserves	Y	Y	Y	Y
Agriculture-related activities (except livestock); greenhouses; fishing	Y	C(1)	C(5)	C(5)
Horse stables; livestock breeding or farming	Y	Y	C(5)	C(5)
Zoos	Y	C(4)	N	N
Interactive Nature Exhibits	Y	C(4)	N	N

Notes:
Y – Land use and related structures are compatible without restrictions.
C(1) – Land use and related structures are conditionally compatible. Building structure must be capable of attenuating exterior noise levels to an interior noise level of CNEL 45 dB or lower.
C(2) - Land use and related structures are conditionally compatible. Building structure must be capable of attenuating exterior noise levels to an interior noise level of CNEL 45 dB or lower. Requires that an avigation easement be granted to San Mateo County as the operator of San Carlos Airport.
C(3) - Land use and related structures are conditionally compatible. Building structure must be capable of attenuating exterior noise levels to an interior noise level of CNEL 50 dB or lower.
C(4) – Land Use is conditionally compatible. Caution should be exercised with regard to noise-sensitive outdoor uses as these uses are likely to be disrupted by aircraft noise events.
C(5) – Land Use is conditionally compatible. Caution should be exercised with regard to noise-sensitive outdoor uses as these uses are likely to be disrupted by aircraft noise events. Accessory dwelling units are not compatible.
N – Land use and related structures are not compatible under any circumstances.
Source: ESA Airports, September 2014.

4.2.2 Safety

Compared to noise, safety is in many respects a more difficult concern to address in compatibility policies. A major reason for this difficulty is that safety policies address uncertain events that may occur with occasional aircraft operations, whereas noise policies deal with known, predictable events that occur with every aircraft operation. Because aircraft accidents happen infrequently and the time, place, and consequences of their occurrence cannot be predicted, the concept of risk is central to the assessment of safety compatibility. From the standpoint of land use planning, two variables determine the degree of risk posed by potential aircraft accidents:

- Accident Frequency: Where and when aircraft accidents occur in the vicinity of an airport; and
- Accident Consequences: Land uses and land use characteristics that affect the severity of an accident when one occurs.

Safety Zones for San Carlos Airport

The 2011 Handbook provides a series of generic compatibility zones for general aviation airports in Chapter 4. While the general dimensions of these zones are largely a function of the size of the corresponding runway, the geometric patterns of the zones were designed to capture areas in the vicinity of an airport where the risk of an aircraft accident are greatest. Where an aircraft accident may occur is driven by aeronautical considerations; that is, the geography of risk is determined by the runway configuration, approach and departure procedures, and other factors that determine where aircraft fly and where accidents occur.

In an attempt to define the geography of risk around an airport, the 2011 Handbook includes an analysis of more than 10 years of aircraft accident data; identifying general accident patterns. While precedent is not predictive of future events (i.e., because accidents occur in certain locations does not guarantee that it will happen again in the exact same places), this information provides a reasonable basis for defining broad areas within which a significant number of aircraft accidents have occurred in the past. Based on this data, the 2011 Handbook identifies a series of six safety zones, which are defined as follows:

- Zone 1: Runway protection zone and within runway object free area adjacent to the runway;
- Zone 2: Inner approach/departure zone;
- Zone 3: Inner turning zone;
- Zone 4: Outer approach/departure zone;
- Zone 5: Sideline zone; and
- Zone 6: Traffic pattern zone.

Proposed safety zones for the San Carlos Airport ALUCP update are depicted on **Exhibit 4-3**. These zones are based on the dimensions recommended by the Handbook for a "short" (i.e., <

4,000 feet) general aviation runway.[1] However, given the size of the local traffic pattern used by fixed-wing aircraft at San Carlos Airport (east of Runway 12-30), the dimensions of Zone 6 have been enlarged to encompass the local traffic pattern used by fixed-wing aircraft as represented by actual radar flight tracks.[2] Exhibit 4-3 provides the dimensions for each of the safety zones.

Safety Compatibility Criteria and Policies for San Carlos Airport

The following are ALUCP safety compatibility criteria and policies for San Carlos Airport.

Safety Compatibility Policy 1 – Evaluating Safety Compatibility for New Development

The safety compatibility of proposed uses within the Airport Influence Area for San Carlos Airport shall be evaluated in accordance with the policies set forth in this section, including the safety zones presented on Exhibit 4-3 and the compatibility criteria listed in **Table 4-4**.

a. The criteria in Table 4-4 indicate whether a particular land use is "compatible", "conditionally compatible", or "incompatible" with the exposure to aircraft accident risks. The meaning of these terms is provided in the table.

b. Land uses not specifically listed should be evaluated using the criteria for similar listed uses.

Safety Compatibility Policy 2 – Residential Development Criteria

The development of new residential land uses must be restricted in the following ways:

a. In Safety Zones 1, 2, and 5 no new dwellings shall be constructed under any circumstance.

b. In Safety Zones 3 and 4 new dwellings are not recommended within the zone boundaries. However, due to the existing urban nature of the surrounding environs and the existing residential land use, infill may be allowed up to an average of the surrounding residential use, provided that other safety criteria identified in this plan are satisfied (see Safety Compatibility Policy 8 for infill criteria). The infill policy does not apply to the construction of a secondary dwelling unit.

c. Other land uses listed as "conditional" (e.g., short-term and long-term lodging facilities) shall comply with all relevant conditions applied to the particular safety zone(s) in which they are proposed. Within Safety Zones 3 through 5 these uses should be clustered, to the greatest extent practical, to preserve open space as specified in Table 4-4. (See Safety Compatibility Policy 6 for clustering criteria.). Within Safety Zone 3, buildings should be limited to three aboveground habitable floors.

d. Secondary units, as defined by state law, shall be excluded from density calculations, and may be constructed on existing, non-conforming residential parcels.

e. In Safety Zone 6, new residential development is compatible and is not restricted for safety reasons. Other compatibility policies (e.g., noise and airspace protection) may apply.

[1] Runway 12/30 is 2,600 feet long and 75 feet wide.

[2] On the northwest side of Runway 12-30, Safety Zone 6 has been lengthened from 4,500 feet to 6,400 feet. On the southeast side of Runway 12-30 Safety Zone 6 has been lengthened from 4,500 feet to 8,500 feet.

SOURCE: ESRI, 2014; ESA Airports, 2014

Exhibit 4-3

San Carlos Airport Safety Zones

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Safety Compatibility Policy 3 - Nonresidential Development Criteria

The following criteria apply to most new/proposed nonresidential developments. Separate or additional criteria for land uses of special concern are described in Safety Compatibility Policy 4. For the purposes of the ALUCP, the primary measure of risk exposure for people on the ground in the event of an aircraft accident is based on the number of people concentrated in areas most susceptible to the risk of aircraft accidents.

a. In the vicinity of San Carlos Airport the maximum acceptable intensity of new nonresidential development, including all people (e.g., employees, customers/visitors) who may be at a particular location at any single point in time, both indoors and outdoors, shall be limited to the intensities indicated in Table 4-4. The nonresidential intensity criteria are based on guidance contained in the 2011 Handbook for "urban" settings. (See Safety Compatibility Policy 8 for infill criteria).

b. The compatibility of a proposed nonresidential land use shall be evaluated using the land use types listed in Table 4-4.

    1. The nonresidential uses are categorized primarily with respect to the typical occupancy load factor of the use measured in terms of square footage per occupant.

    2. Proposed development not listed in Table 4-4 shall be evaluated by comparison to a similar use on the list.

c. Land uses shown as "conditional" shall comply with all relevant criteria applied to the particular safety zone(s) in which they are proposed. New nonresidential land uses within Safety Zones 2 through 5 should be clustered, to the greatest extent practical, to preserve open space as identified in Table 4-4. (See Safety Compatibility Policy 6 for clustering criteria.) Within Safety Zone 2, office buildings should be limited to one-story. Within Safety Zone 3, buildings should be limited to three aboveground habitable floors.

d. Land uses listed as "incompatible" should not be permitted to be developed within the indicated safety zones.

e. Though no limit is placed on the intensity of new, nonresidential uses within Safety Zone 6, exceptions to these criteria should be considered on a case-by-case basis by the C/CAG Board when reviewing development proposals or during mandatory reviews that entail large indoor or outdoor assembly facilities.

Safety Compatibility Policy 4 - Land Uses of Particular Concern

Land uses which pose the greatest concern are those in which the occupants have reduced effective mobility or are unable to respond in emergency situations. Children's schools, day care centers, hospitals, nursing homes, and other uses in which the majority of occupants are children, elderly, and/or handicapped shall be prohibited within Zones 1 through 5.High capacity and medium capacity indoor assembly rooms shall be prohibited in Zones 1 through 5.

a. For the purposes of these criteria, children's schools include all grades through grade 12.

b. Day care centers and family day care homes are defined by state law. Non-commercial day care centers ancillary to a place of business are permitted in Zones 2 through 5 provided that the overall use of the property meets the intensity criteria indicated in Table 4-4.

Family day care homes are permitted in any location where residential development is permitted and the intensity of the day care home is ≤14 people. Commercial day care centers are conditionally compatible in Zone 6.

c. In-patient health care facilities include hospitals, health care facilities, and other types of non-ambulatory medical centers. Land uses of these types are prohibited in Safety Zones 1 through 5, and permissible in Zone 6.

d. Out-patient health care facilities such as health care centers, clinics, dentists' offices, and other types of ambulatory facilities are conditionally compatible in Safety Zones 3 and 4.

e. Use and storage of fuel and other hazardous materials within the airport environs is restricted as follows:

    1. Within Safety Zones 1 and 2, storage of any such substance is prohibited.

    2. Within Safety Zones 3, 4, and 5, aboveground fuel storage of more than 10,000 gallons is prohibited.

    3. See Safety Compatibility Policy 9 for additional safety compatibility criteria for hazardous uses.

f. Land uses shown as "conditional" should comply with all relevant criteria applied to the particular safety zone(s) in which they are proposed. Land uses within Safety Zones 2 through 4 should be clustered, to the greatest extent practical, to preserve open space as specified in Table 4-4. (See Safety Compatibility Policy 6 for clustering criteria.). Within Safety Zone 2, buildings should be limited to one-story. Within Safety Zone 3, buildings should be limited to three aboveground habitable floors.

g. Land uses listed as "incompatible" should not be permitted to be developed within the indicated safety zones.

h. Generally no limit is placed on the intensity of new nonresidential uses within Safety Zone 6. Exceptions to these criteria should be considered on a case-by-case basis by the C/CAG Board when it performs consistency reviews for development proposals that involve schools, day care centers, hospitals, indoor assembly facilities, outdoor assembly facilities, and correctional facilities (See General Policies 8 and 10 for information regarding local agency actions requiring review by the Airport Land Use Commission) . Large indoor or outdoor assembly facilities (greater than 1,000 people) should be avoided in Safety Zone 6.

Safety Compatibility Policy 5 - Mixed-Use Development

If a combination of land use types listed separately in Table 4-4 is proposed for a single project or site, the following policies apply:

a. Where residential and nonresidential uses are proposed to be located in the same or nearby buildings, both residential and nonresidential density criteria must be achieved. The number of dwelling units shall not exceed the density limits indicated in Table 4-4. Both occupancy totals (residential and nonresidential) will be considered with respect to the nonresidential usage intensity criteria cited in Table 4-4.

    1. Except as designated below in paragraph (2), this mixed-use development criterion is proposed for dense, urban-type developments where the overall usage intensity and ambient noise levels are relatively high.

2. Mixed-use development is prohibited where the residential component would be exposed to noise levels exceeding the limits set in Table 4-3.

b. Where proposed development will contain a mixture of nonresidential land uses as identified in Table 4-4, the total number of occupants for all the uses shall be added to determine the total number of people on the site. The total number of occupants on the site shall not exceed the maximum set forth in Table 4-2.

   1. The number of people for each component use shall be estimated to equal the square footage of that use divided by the occupancy load factor (square footage per person) cited in Table 4-4.

   2. If an occupancy load factor is not provided for a component use, the number of occupants may be estimated by using parking space requirements of the affected jurisdiction.

Safety Compatibility Policy 6 - Criteria for Clustering of Development

The C/CAG Board generally supports clustering as a means for both enhancing safety compatibility in the vicinity of airports and accomplishing other development objectives. Clustering occurs when development is concentrated on one portion of a site or within an overall safety zone, leaving other areas as open space. If the area remaining undeveloped is relatively level and free of large obstacles, clustering potentially allows a greater amount of open space towards which a pilot can land the aircraft; thus reducing the risk of harm to people on the ground. However, an aircraft still has the potential to strike a clustered site, and as such, limitations on the maximum concentrations of dwellings or people in a small area of a large project site are appropriate.

a. No development shall be clustered in a manner that would exceed the intensity limits listed as incompatible in Table 4-4.

Safety Compatibility Policy 7 - Open Land

In the event of an emergency landing, risks to both people in the aircraft and on the ground can be minimized by providing as much open land as possible in the vicinity of the airport. The following open land policies are considered recommendations, and generally only applicable to development projects of five acres or more.

a. To be considered “open land”, an area should:

   1. Be free of obstacles such as large trees, walls, or poles, and overhead wires.

   2. Have minimum dimensions of approximately 0.5 acre in size.

b. Open land areas should be oriented with the typical direction of aircraft flight over the location.

c. Roads and automobile parking areas are considered acceptable as open land areas if they meet criterion (a).

d. Open land should not preserve or create habitat that could pose hazards to aircraft. For example, wildlife refuges, mitigation banks, wetlands, and other uses that provide habitat or food sources for birds or other wildlife that are hazardous to aircraft operations.

e. Clustering of development, as detailed in Safety Compatibility Policy 6, is encouraged to increase the amount of open land.

Safety Compatibility Policy 8 – Infill Criteria

Where development not in conformance with the safety compatibility policies of this ALUCP already exists, additional infill development of similar land uses may be allowed under certain circumstances. The burden for demonstrating that a proposed development qualifies as infill rests with the project proponent and/or local jurisdiction.

a. A parcel can be considered for infill development if it meets all of the following criteria plus the applicable provisions of either paragraph b. or paragraph c. below:

    1. The parcel size is 10 acres or less.

    2. The site is at least 65% bound (disregarding roads) by existing uses that are similar to, or more intensive than, those proposed.

    3. The proposed project would not extend the perimeter of the area defined by the surrounding, already developed, incompatible uses.

    4. The proposed project is compatible with noise, airspace protection, and overflight policies applicable to the parcel(s) in question.

    5. The area to be developed cannot previously have been set aside as open land in accordance with open land policies presented in Safety Compatibility Policy 7 unless replacement open land is provided within the same compatibility zone.

b. For residential development proposed in Safety Zones 3 and 4, the density of the parcel proposed for development shall not exceed the median density represented by all existing lots that lie fully or partially within a distance of 300 feet from the defined infill area. Residential infill in Safety Zones 1, 2, and 5 is prohibited.

c. For nonresidential development the usage intensity (the number of people per acre) of the proposed use shall not exceed the lesser of:

    1. The average intensity of all existing uses that lie fully or partially within a distance of 300 feet from the boundary of the proposed development.

    2. Double the intensity permitted in accordance with the safety compatibility criteria for that location as presented in Table 4-4.

Safety Compatibility Policy 9 – Hazardous Uses

Facilities involving the manufacture, processing, or storage of hazardous materials, can pose serious risks to the public in case of aircraft accidents. Hazardous materials of particular concern in this ALUCP are described below:

a. **Aboveground fuel storage** – This includes storage tanks with capacities greater than 10,000 gallons of any substance containing at least 5 percent petroleum.[3] Above ground fuel storage tanks are incompatible in Safety Zones 1 and 2. Tanks with capacities greater than 10,000 gallons should be avoided in Safety Zones 3, 4, and 5. Project proponents must

[3] State of California, California Health and Safety Code, Section 25270 (*Aboveground Petroleum Storage Act)*

provide evidence of compliance with all applicable regulations prior to the issuance of development permits.

b. **Facilities where toxic substances are manufactured, processed or stored** – Proposed projects involving the manufacture or storage of toxic substances may be allowed in Safety Zones 3 and 4 if the amounts of the substances do not exceed the threshold planning quantities of hazardous and extremely hazardous substances specified by the U.S. EPA.[4]

c. **Explosives and fireworks manufacturing and storage** – Proposed projects involving the manufacture or storage of explosive materials may be allowed in Safety Zones 3 and 4 only in compliance with the applicable regulations of the California Division of Occupational Safety and Health (Section 5252, Table EX-1). Such projects are incompatible with Safety Zones 1, 2, and 5. Project proponents must provide evidence of compliance with applicable state regulations prior to the issuance of any development permits.[5]

d. **Medical and biological research facilities handling highly toxic or infectious agents** – These facilities are classified by "Biosafety Levels". Biosafety Level 1 does not involve hazardous materials and is not subject to the same restrictions as Biosafety Levels 2, 3, and 4. Biosafety Level 2 facilities are not permitted in Safety Zones 1, 2, and 5. Biosafety Level 3 and 4 facilities are not permitted in Safety Zones 1 through 5. Definitions of Biosafety Level 2, 3, and 4 as derived from *Biosafety in Microbiological and Biomedical Laboratories*[6] are provided below.

    1. Biosafety Level 2 practices, equipment, and facility design and construction are applicable to clinical, diagnostic, teaching, and other laboratories in which work is done with the broad spectrum of indigenous moderate-risk agents that are present in the community and associated with human disease of varying severity.

    2. Biosafety Level 3 practices, safety equipment, and facility design and construction are applicable to clinical, diagnostic, teaching, research, or production facilities in which work is done with indigenous or exotic agents with a potential for respiratory transmission, and which may cause serious and potentially lethal infection.

    3. Biosafety Level 4 practices, safety equipment, and facility design and construction are applicable for work with dangerous and exotic agents that pose a high individual risk or life-threatening disease, which may be transmitted via the aerosol route and for which there is no available vaccine or therapy.

Safety Compatibility Policy 10 – Project Sites Lying Partially within a Safety Zone or within Two or More Safety Zones

For the purposes of evaluating consistency with the compatibility criteria set forth in Table 4-4, any parcel that is split by compatibility zone boundaries shall be considered as if it were multiple parcels divided at the compatibility zone boundary line. Guidelines regarding the clustering of residential and nonresidential development shall apply (See Safety Compatibility Policy 6).

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4 Title 40 Code of Federal Regulations Part 355, Subpart D, Appendices A&B.

5 California Code of Regulations, Title 8, Subchapter 7 *General Industry Safety Orders*, Group 18 *Explosives and Pyrotechnics*, Article 114 *Storage of Explosives*.

6 *Biosafety in Microbiological and Biomedical Laboratories*, 5th Edition, 2009, published by the U.S. Department of Health and Human Services in concert with the Public Health Service, Centers for Disease Control and Prevention, and National Institutes of Health, or any successor publication.

Safety Compatibility Policy 11 – Special Provisions for Safety Zone 1

In accordance with FAA Advisory Circular 150/5300-13A, *Airport Design*, the basic compatibility criteria for Safety Zone 1 (the runway protection zone), as listed in Table 4-4, preclude most uses, including any new structures and uses having an assemblage of people.

a. The presumption is that the airport proprietor (San Mateo County) owns or intends to acquire property interests – fee title or easements – sufficient to effectuate this policy. The C/CAG Board's policy is to encourage the airport proprietor to acquire these property interests in Safety Zone 1 with funding assistance from the FAA.

b. In instances where the affected property is privately owned and the airport proprietor does not intend to acquire property interests, the following uses and only these uses shall be considered acceptable:

    1. Within the object free area (OFA): No uses except FAA-approved uses related to aeronautical functions.

    2. Within the extended runway object free area:

        - Roads;
        - Farm crops that do not attract wildlife.

    3. Outside the runway object free area and extended runway object free area.

        - Uses listed in Paragraph (2) above;
        - Surface automobile parking.

    4. The FAA and the airport operator will be consulted regarding the acceptability of the aforementioned uses prior to the issuance of a permit by a local governmental agency.

TABLE 4-4
SAFETY COMPATIBILITY CRITERIA

Land Uses	Safety Compatibility Zones 1	2	3	4	5	6
Maximum Non-Residential Intensity (Site wide average people per acre)	0	60	100	150	100	No Limit
Required Open Land	100%	30%	20%	20%	30%	10%
Residential Land Uses						
➢ Note: Where uses are listed as "C"- Conditionally Compatible, please refer to Safety Compatibility Policy 2.						
Short-term lodging facilities (≤ 30 nights): hotels, motels, etc. (*approx. 200 s.f./person*)	N	N	C	C	C	Y
Long-term lodging facilities (> 30 days): extended-stay hotels, dormitories, etc.	N	N	C	C	N	Y
Single-family residential: detached dwellings, duplexes, townhomes, mobile homes	N	N	Zones 3 and 4: Incompatible at density > 4.0 d.u./ac		N	Y
Multi-family residential: low-to-high density apartments, condominiums	N	N	Zones 3 and 4: Incompatible at density > 12.0 d.u./ac		N	Y
Sensitive Land Uses (Land Uses of Particular Concern)						
➢ Note: Where uses are listed as "C"- Conditionally compatible, please refer to Safety Compatibility Policy 4.						
Schools, K-12	N	N	N	N	N	C
Commercial Daycare (≥8 children)	N	N	N	N	N	C
Nurseries/In-home day care (≤14 people)	N	N	N	N	N	Y
Inpatient facilities: hospitals, sanitariums, psychiatric facilities *(approximately 250 s.f./person)*	N	N	N	N	N	C
Outpatient facilities *(>5 patients):* dentist offices, clinics, etc. *(approximately 240 s.f. /person)*	N	N	C	C	N	Y
Congregate Care Facilities- ambulatory and non-ambulatory *(includes assisted living, convalescent/rehab facilities, retirement homes)*	N	N	N	N	N	C
Correctional Facilities	N	N	N	N	N	C
High Capacity Indoor assembly room *(≥ 1,000 people)*	N	N	N	N	N	N
Medium to large indoor assembly room *(≥300. <1,000 people)*	N	N	N	N	N	C
Low capacity indoor assembly room *(≤ 300 people)*	N	N	C	C	N	C
Large outdoor assembly area *(≥1,000 people)*	N	N	N	N	N	N
Medium outdoor assembly area *(≥300, <999 people*)	N	N	C	C	N	C

TABLE 4-4 (Continued)
SAFETY COMPATIBILITY CRITERIA

Land Uses	Safety Compatibility Zones					
	1	2	3	4	5	6
Small outdoor assembly area (*≥50, ≤299 people*)	N	N	C	C	N	C
Non-Residential Land Uses						
Commercial Land Uses						
➢ Note: Where uses are listed as "C"-Conditionally Compatible, please refer to Safety Compatibility Policy 3.						
Offices *(approx. 215 s. f. /person)*	N	C	C	C	C	Y
Small eateries/drinking establishments *(approx. 60 s.f./person)*	N	N	C	C	C	Y
Medium sized business *(approx. 200 s.f./person)*	N	C	C	C	C	Y
Mixed use retail centers with restaurant facilities (*approx. 110 s.f./ person*)	N	N	C	C	C	Y
Retail center with no restaurant facilities (*approx. 170 s.f./ person*)	N	C	Y	Y	Y	Y
Manufacturing, R&D, Industrial Land Uses						
➢ Note: Where uses are listed as "C"-Conditionally Compatible, please refer to Safety Compatibility Policy 3.						
Manufacturing, research and development (*approx. 300 s.f./ person*)	N	N	C	C	C	Y
Occupancies utilizing hazardous (flammable, explosive, corrosive, or toxic) materials	N	N	Zones 3 - 5: C "Conditionally Compatible": Please refer to Safety Compatibility Policies 4 and 9.			Y
Storage of hazardous materials: gas stations, etc.	N	N	Zones 3 - 5: C "Conditionally Compatible": Please refer to Safety Compatibility Policies 4 and 9.			Y
Warehouses, distribution facilities (*approx. 500 s.f./ person*)	N	C	C	Y	Y	Y
Repair garages not requiring use of flammable objects	N	Y	Y	Y	Y	Y
Open parking garages	N	Y	Y	Y	Y	Y
Private garages, carports, and agricultural buildings	N	Y	Y	Y	Y	Y
Agriculture, Natural Features, Resource Operations						
➢ Note: These uses may attract birds or other wildlife considered potentially hazardous to flight. For uses listed as C-Conditionally Compatible, see Airspace Protection Policy 6 and FAA Advisory Circular 150/5200-33B, *Hazardous Wildlife Attractants On or Near Airports*.						
Tree farms, landscape nurseries, and greenhouses	N	N	C	C	N	Y
Community Gardens	N	N	C	C	N	Y
Fish farms	N	N	N	N	N	Y
Land reserves and open space	N	Y	Y	Y	N	Y
Waterways (rivers, creeks, swamps bays, lakes)	N	N	N	C	N	C
Reservoirs; quarry lakes; detention ponds; aquifer recharge; recycled water storage; flood control or water conveyance channels.	N	N	C	C	C	C

TABLE 4-4 (Continued)
SAFETY COMPATIBILITY CRITERIA

Land Uses	Safety Compatibility Zones					
	1	2	3	4	5	6
Utilities						
➢ Note: These uses may generate dust, smoke, thermal plumes, or other hazards to flight. These uses may attract birds or other wildlife considered potentially hazardous to flight. Power lines, smoke stacks, or other tall objects associated with these uses may be hazards to flight. For uses listed as C-Conditionally Compatible, see Airspace Protection Policy 6.						
Water treatment	N	C	C	C	N	C
Electrical substations	N	N	C	N	C	Y
Power plants	N	N	N	N	N	N
Power lines	N	N	N	N	N	Y
Roadways	C	Y	Y	Y	Y	Y
Other transit-oriented uses (train stations, bus stations, etc.)	N	C	Y	Y	N	Y
Recreational Land Uses						
➢ Note: Golf courses and parks may attract birds or other wildlife considered potentially hazardous to flight. For uses listed as C- Conditionally Compatible, see Airspace Protection Policies 4 and 6.						
Golf courses	N	N	N	N	N	C
Parks (playgrounds, picnic areas, athletic fields, tennis courts, etc.)	N	C	C	C	N	Y
Riding stables and trails	N	Y	Y	Y	N	Y

NOTES:

N – INCOMPATIBLE: Uses should not be permitted under any circumstances as they may expose persons to airport-related safety hazards.

C – CONDITIONALLY COMPATIBLE: Uses or activities that may be compatible with airport operations depending on their location, size, bulk, height, density and intensity of use.

Y – COMPATIBLE: Uses or activities are compatible with airport operations and are permitted, however, these activities should be reviewed to ensure that they will not create height hazard obstructions, smoke, glare, electronic, wildlife attractants, or other airspace hazards. Noise, airspace protection, and/or overflight policies may still apply.

All uses or activities identified in Table 3-4 are subject to intensity and density limitations as indicated. Particular attention should be given to developments that, when located in combination with other permitted or limited activities, may create cumulative impacts on airport operations. All uses should be reviewed to ensure that they will not create airspace hazards. Noise, airspace protection, and/or overflight policies may still apply.

Source: ESA Airports, September 2014.

4.2.3 Airspace Protection

Similar to safety policies, airspace protection criteria are intended to reduce the risk of harm to people and property from an aircraft accident. This is accomplished by the establishment of compatibility policies that seek to prevent the creation of land use features that can be hazards to the airspace used by aircraft in flight and have the potential to cause an aircraft accident to occur. Such hazards may be physical, visual, or electronic.

Airspace Protection Surfaces for San Carlos Airport

Subpart C, Obstruction Standards, of Federal Aviation Regulations (FAR) Part 77, *Safe, Efficient Use and Preservation of the Navigable Airspace,* establishes the standards for determining obstructions to air navigation. This subpart defines a set of imaginary surfaces with relation to an airport's runway(s). The slope and dimension of each imaginary surface is based on the type of approach available or planned for each runway (e.g., visual, non-precision, precision). The five types of imaginary surfaces for civil airports are:

- **Primary Surface**—The primary surface is longitudinally centered on a runway and has the same elevation as the elevation of the nearest point on the runway centerline. When the runway has a prepared hard surface, the primary surface extends 200 feet beyond each end of that runway. The width of the primary surface ranges from 250 to 1,000 feet depending on the existing or planned approach and runway type. The primary surface must be clear of all obstructions except those fixed by their function, such as runway edge lights, navigational aids, or airport signage. The majority of the primary surface is controlled by runway safety area criteria contained in FAA Advisory Circular 150/5300-13, *Airport Design*, and almost always lies within airport-controlled property.
- **Approach Surface**—The approach surface is longitudinally centered on the extended runway centerline and extends outward and upward from the end of the primary surface. The slope of the approach surface is based upon the type of approach available or planned for each runway: 20:1 (visual), 34:1 (non-precision), or 50:1 (precision). The length of the approach surface varies from 5,000 to 50,000 feet depending on the approach type.
- **Transitional Surface**—The transitional surface extends outward and upward at right angles to the runway centerline and extends at a slope of 7 feet horizontally for each one-foot vertically (7:1) from the sides of the primary and approach surfaces. The transitional surfaces extend to the point at which they intercept the horizontal surface at a height of 150 feet above the established airport elevation (i.e., highest runway end elevation).
- **Horizontal Surface**—The horizontal surface is a horizontal plane located 150 feet above the established airport elevation and encompasses an area from the transitional surface to the conical surface.
- **Conical Surface**—The conical surface extends upward and outward from the periphery of the horizontal surface at a slope of 20 feet horizontally for every one-foot vertically (20:1) for a horizontal distance of 4,000 feet. Height limits for the surface range from 150 feet above the airport elevation at the inner edge to 350 feet at the outer edge.

By definition, any object that penetrates one of the imaginary surfaces is deemed an obstruction to air navigation. However, not all obstructions are necessarily hazards. The determination of whether an object would be a hazard to air navigation is made as part of an aeronautical study conducted by the FAA.

Subpart B, *Notice of Construction or Alteration*, of the FAR Part 77 regulations requires that the FAA be notified of any proposed construction or alteration of objects within 20,000 feet of a runway and having a height that would exceed a 100:1 imaginary surface (1 foot upward per 100 feet horizontally) beginning at the nearest point of the runway. This requirement applies to runways more than 3,200 feet in length. For shorter runways, like Runway 12-30 at San Carlos Airport, the notification surface has a 50:1 slope and extends 10,000 feet from the runway. Notification is required with regard to any public-use or military airport. Also requiring notification is any proposed structure or object more than 200 feet in height regardless of proximity to an airport.

The airspace protection surfaces for San Carlos Airport are depicted on **Exhibit 4-4**. The FAA's notification surface as defined in FAR Part 77, Subpart B is shown on **Exhibit 4-4a**.

Airspace Protection Compatibility Criteria and Policies for San Carlos Airport

The following are ALUCP airspace protection compatibility criteria and policies for San Carlos Airport.

Airspace Protection Policy 1 – Airspace Protection Compatibility for New Development

Tall structures, trees, other objects, or high terrain on or near airports, may constitute hazards to aircraft in flight. Federal regulations establish the criteria for evaluating potential obstructions. These regulations require that the FAA be notified of proposals related to the construction of potentially hazardous structures. The FAA conducts "aeronautical studies" of proposed projects to determine whether they would pose risks to aircraft, but it does not have the authority to prevent their creation. The purpose of the ALUCP airspace protection policies, together with regulations established by local land use jurisdictions and the state government, is to avoid the creation of hazards to navigable airspace.

The airspace protection compatibility of proposed land uses within the Airport Influence Area for San Carlos Airport shall be evaluated in accordance with the policies in this section and the airspace protection surfaces depicted on Exhibit 4-4 and the FAA's notification surface depicted on Exhibit 4-4a. The policies set forth in this section apply to the entire Airport Influence Area for San Carlos Airport (i.e., Areas A and B).

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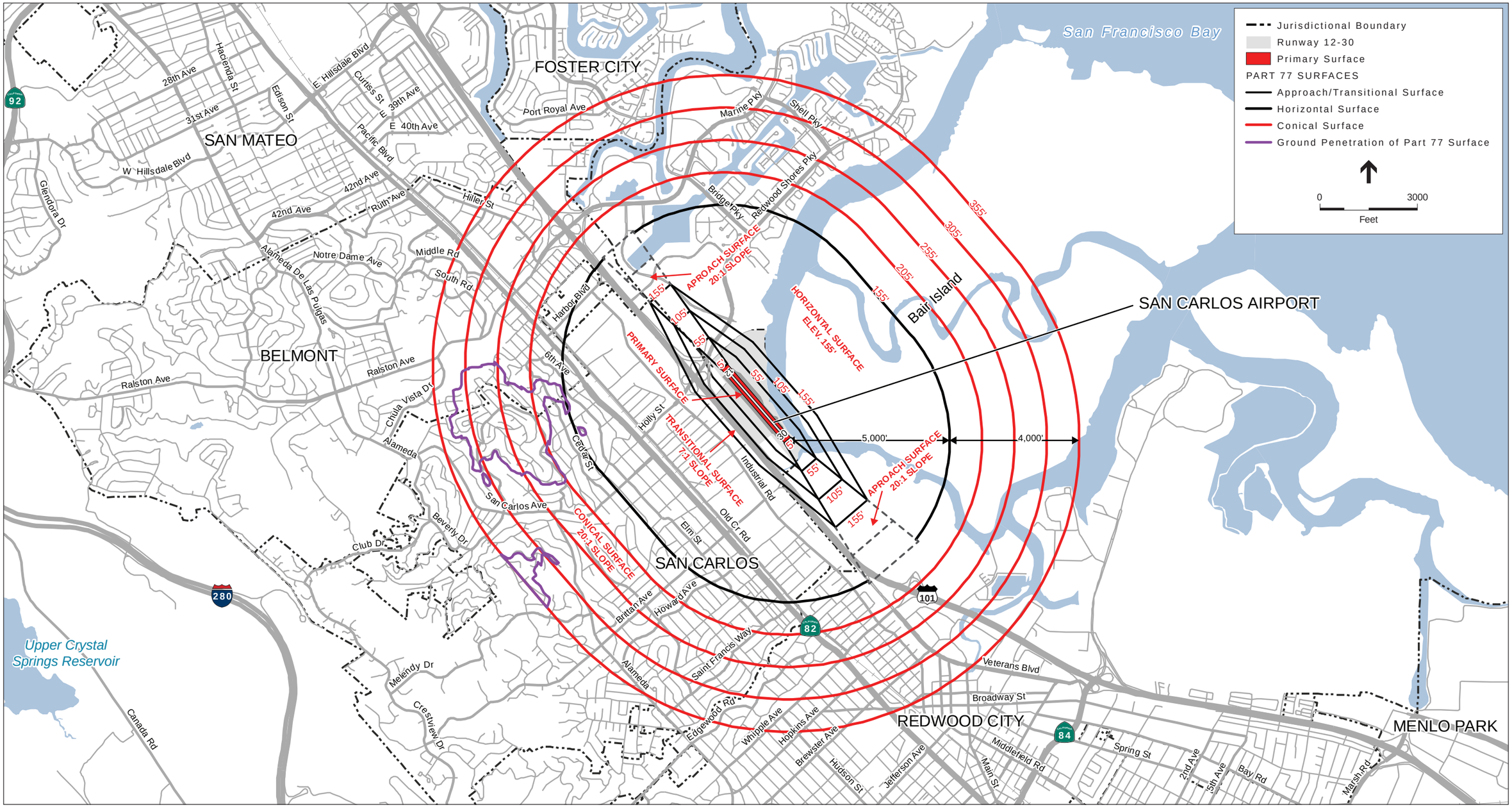

SOURCE: ESRI, 2014; San Mateo County Planning and Building Department, 2014; ESA Airports, 2014

NOTE 1: All elevations on this exhibit are expressed in feet above mean sea level (MSL). The elevation of San Carlos Airport is 5 feet MSL.

NOTE 2: Locations where the ground/terrain penetrates the FAR Part 77 airspace surfaces are approximate and were developed using ground elevation contours provided by the San Mateo County Planning and Building Department, 2014.

Exhibit 4-4

San Carlos Airport Part 77 Airspace Protection Surfaces

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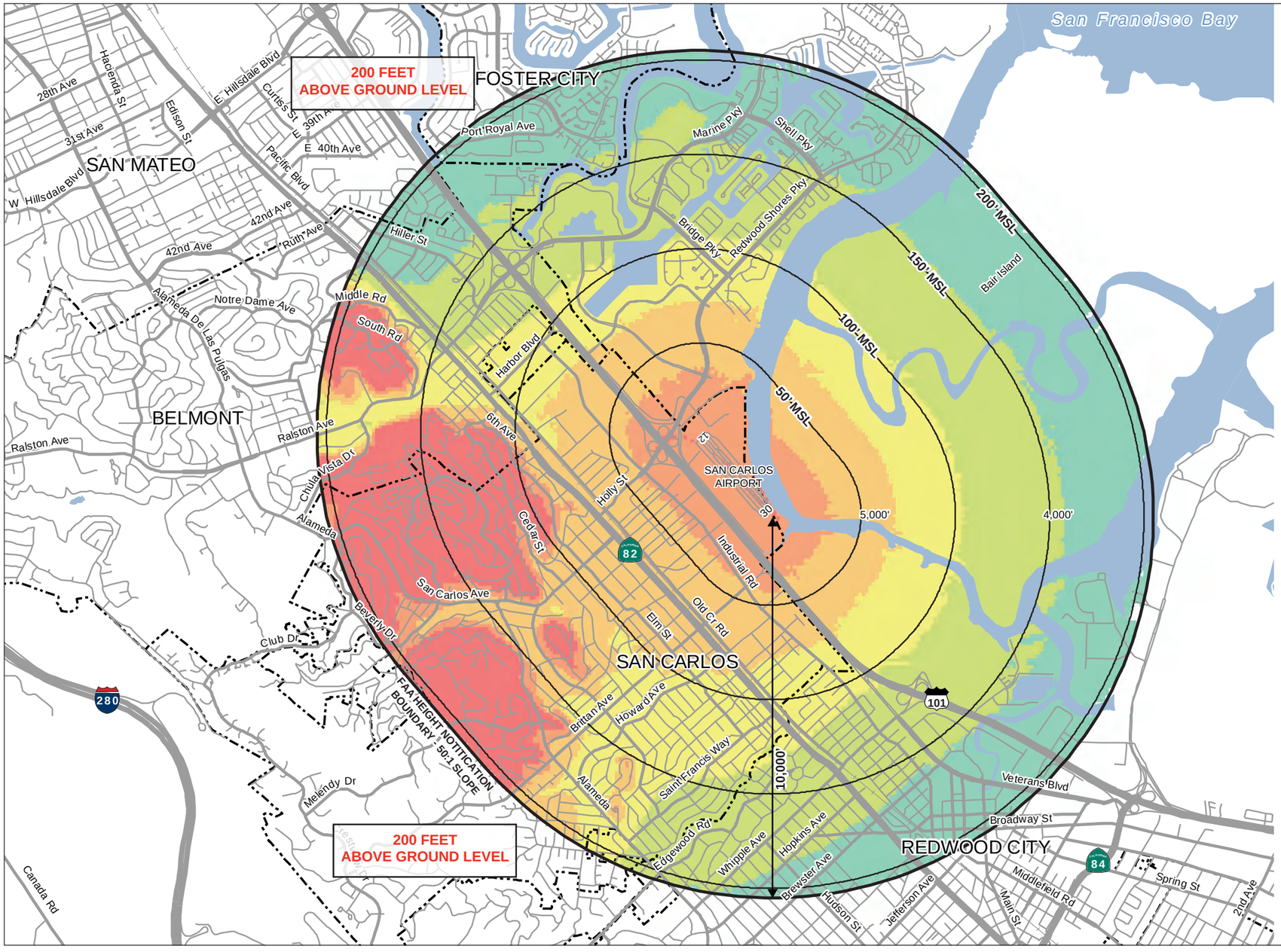

FAA NOTIFICATION REQUIREMENTS

A structure proponent must file FAA Form 7460-1, Notice of Proposed Construction or Alteration, for any proposed construction or alteration that meets any of the following Notification Criteria described in 14 CFR Part 77.9:

§77.9(a) – A height more than 200 feet above ground level (AGL) at its site;

§77.9(b) – Within 10,000 feet of a runway less than 3,200 feet in length, and exceeding a 50:1 slope imaginary surface (i.e,, a surface rising 1 foot vertically for every 50 feet horizontally) from the nearest point of the nearest runway. The 50:1 surface is shown as follows:

- 10,000 Feet from Runway 12-30
- -100- Elevation Above Mean Sea Level

Heights Of 50:1 Surface Above Ground (AGL)

- Terrain Penetration of Airspace Surface
- Less than 30
- 30-65
- 65-100
- 100-150
- 150-200
- 200 and more

§77.9(c) – Roadway, railroads, and waterways are evaluated based on heights above surface providing for vehicles; by specified amounts or by the height of the highest mobile object normally traversing the transportation corridor;

§77.9(d) – Any construction or alteration on any public-use military airport or (heliport).

Structure proponents or their representative may file via traditional paper forms via US mail, or online at the FAA's OE/AAA website, http://oeaaa.faa.gov

LEGEND

- Municipal Boundary
- Railroad
- Freeway
- Road

Note:

Per 14 CFR Part 77, developers proposing structures taller than the indicated elevations must file Form 7460-1 with the FAA at least 30 days before the proposed construction. However, due to local requirements for a favorable FAA determination as a contingency for project approval, it is advisable to file the Form 7460-1 as soon as possible because the FAA can take several months to undertake aeronautical reviews.

Source:

ESA Airports,
based on 14 CFR Part 77, Subpart B, Section 77.9

0 3000
Feet

SOURCE: USGS, 1999-2013; ESRI, 2014; San Mateo County Planning and Building Department, 2014; ESA Airports, 2014

Exhibit 4-4a
FAA Notification Form 7460-1 Filing Requirements

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Airspace Protection Policy 2 – Requirements for FAA Notification of Proposed Construction

Proponents of projects involving construction of structures or other objects in the vicinity of San Carlos Airport that may exceed the height standards defined in FAR Part 77, Subpart C must submit notification of the proposal to the FAA where required by the provisions of FAR Part 77, Subpart B and by the California Public Utilities Code, sections 21658 and 21659. Local governments should notify project proponents/sponsors at the earliest opportunity to file Form 7460-1, *Notice of Proposed Construction or Alteration*, with the FAA for any proposed project that could exceed the FAA notification heights defined in Subpart B. Proponents of projects in locations where the terrain penetrates the FAA notification surface (see Exhibit 4-4a) must file Form 7460-1 with the FAA if the project involves buildings with more than two floors or if the project involves building, structures, or objects greater than or equal to 30 feet in height. Under federal law, it is the responsibility of the project proponent to comply with all notification and other requirements described in FAR Part 77. This requirement applies independent of this ALUCP.

The proponent of a proposed project that would exceed the FAA notification heights shall present to the local government permitting agency with his or her application for a development permit, a copy of the findings of the FAA's aeronautical study, or evidence demonstrating that he or she is exempt from having to file Form 7460-1 with the FAA. It is the responsibility of the local agency to consider the FAA determination study findings as part of its review and decision on the proposed project.

The requirement for filing Form 7460-1 with the FAA shall not trigger a consistency review of an individual project by the C/CAG Board unless the general plan of the local governmental agency in which the proposed project is to be located has not been deemed consistent with this ALUCP for San Carlos Airport.

Airspace Protection Policy 3 – Compliance with Findings of FAA Aeronautical Studies

Project proponents shall be required to comply with the findings of FAA aeronautical studies with respect to any recommended alterations in the building design and height and any recommended marking or lighting of their structures for their proposed projects to be deemed consistent with this ALUCP.

Airspace Protection Policy 4 – Airspace Obstruction Criteria

The C/CAG Board's criteria for determining the acceptability of a project with respect to height shall be based on: the standards set forth in FAR Part 77, Subpart C and applicable airport design standards published by the FAA. Additionally, the C/CAG Board shall, where an FAA aeronautical study or a proposed structure/object has been required, take into account the results of that study.

a. Except as provided in paragraph (b) of this policy, no structure or object, including a temporary object such as a construction crane, shall have a height that would result in penetration of any of the airspace protection surfaces defined in FAR Part 77, Subpart C and depicted on Exhibit 4-4. Any object that penetrates one of these surfaces is, by FAA definition, an obstruction.

b. A proposed structure or object having a height that exceeds the airspace protection surfaces for San Carlos Airport is compatible with the airspace protection goals of this ALUCP only if all of the following apply:

    1. As the result of an aeronautical study, the FAA determines the object would not be a hazard to air navigation; and

    2. FAA or other expert analysis conducted under the auspices of the C/CAG Board or the airport operator concludes that, despite being an airspace obstruction (not necessarily a hazard), the object would not cause any of the following:

        - An increase in the ceiling or visibility minimums at San Carlos Airport for an existing or planned instrument procedure;
        - A diminution of the established operational efficiency of the airport, such as by causing the usable length of the runway to be reduced;
        - Conflict with the visual flight rules (VFR) airspace used for the airport traffic pattern or en route navigation to and from San Carlos Airport.

    3. Marking or lighting of the structure/object will be installed as directed by the FAA aeronautical study or the Division of Aeronautics and in a manner consistent with FAA standards in effect at the time the construction is proposed.

    4. The proposed project complies with all policies contained in this ALUCP.

Airspace Protection Policy 5 – Maximum Compatible Building Height

In order to be deemed consistent with the ALUCP, the maximum height of a new building/structure must be the lower of (1) the height of the controlling airspace protection surface shown on Exhibit 4-4, or (2) the maximum height determined not to be a "hazard to air navigation" by the FAA in an aeronautical study prepared pursuant to the filing of Form 7460-1.

For the vast majority of parcels in the vicinity of San Carlos Airport, height limits established in local zoning ordinances are lower than the elevation of critical airspace protection surfaces. Compliance with zoning district height limits does not relieve the construction proponent/project proponent of the obligation to file Form 7460-1, Notice of Proposed Construction or Alteration, if required, and to comply with the determinations resulting from the FAA's aeronautical study.

Airspace Protection Policy 6 – Other Flight Hazards are Incompatible

Land uses that may cause visual, electronic, navigational, or wildlife hazards, particularly bird strike hazards, to aircraft in flight or taking off or landing at San Carlos Airport are incompatible in Area B of the Airport Influence Area. These uses may be permitted only if the uses are determined to be consistent with FAA rules and regulations. Proof of consistency with FAA rules

and regulations and with any performance standards cited below must be provided to the C/CAG Board by the proponent of the proposed land use action.

Specific characteristics which are incompatible and should be avoided include:

1. Sources of glare, such as highly reflective buildings or building features, or bright lights, including search lights or laser displays, which would interfere with the vision of pilots making approaches to San Carlos Airport;
2. Distracting lights that could be mistaken by pilots on approach to San Carlos Airport for airport identification lighting, runway edge lighting, runway end identification lighting, or runway approach lighting;
3. Sources of dust, water vapor, or smoke that may impair the vision of pilots making approaches to San Carlos Airport;
4. Sources of steam or other emissions that may cause thermal plumes or other forms of unstable air that generate turbulence within the flight path;
5. Sources of electrical interference with aircraft or air traffic control communications or navigation equipment, including radar; and
6. Features that create an increased attraction for wildlife as identified in FAA rules, regulations, and guidelines including, but not limited to, FAA Order 5200.5A, *Waste Disposal Sites On or Near Airports*, and Advisory Circular 150/5200-33B, *Hazardous Wildlife Attractants On or Near Airports*. Land uses with the possibility of attracting hazardous wildlife include landfills and certain recreational or agricultural uses that attract large flocks of birds. Exceptions to this policy are acceptable for wetlands or other environmental mitigation projects required by ordinance, statute, court order, or Record of Decision issued by a federal agency under the National Environmental Policy Act

Due to their propensity to generate smoke, steam, and other visual and physical hazards to aircraft in flight, power plants should be avoided in Area B of the Airport Influence Area. However, given the varying types of power plants (e.g.., natural gas, thermal, solar farms, etc.), proposed land uses of this type should be evaluated on a case-by-case basis, and in accordance with applicable FAA criteria and the policies set forth in this ALUCP.

4.2.4 Overflight

Noise -related concerns do not stop at the boundary of the outermost mapped CNEL contour. Instead, many people are sensitive to the frequent presence of aircraft overhead even at low noise levels. These reactions are mostly expressed in the form of annoyance. At many airports, particularly air carrier airports or busy general aviation airports, complaints often come from locations beyond any of the defined noise contours. The basis for such complaints may be a desire and expectation that outside noise sources not be intrusive—or, in some circumstances, not even distinctly audible— above the quiet, natural background noise level.

While these impacts may be important community concerns, the question of importance here is whether any land use planning actions can be taken to avoid or mitigate the impact/concern.

Commonly, when overflight impacts are discussed in a community, the focus is on the modification of flight routes. Indeed, some might argue that overflight should be addressed solely through the aviation side of the equation—not only flight route changes, but other modifications to where, when, and how aircraft are operated. Airport land use commissions are particularly limited in their ability to deal with overflight, as they have no influence over how an airport operates, nor do their policies affect existing land uses.

Overflight Review Area for ALUCP Update

Overflight zone boundaries are typically established using a variety of data inputs, including noise contours, flight tracks, and even noise complaint patterns. Given the geographic extent at which annoyance from aircraft overflights can occur, the boundary within which overflight policies are applicable generally is larger than the noise contours themselves. Radar flight track data for San Carlos Airport are depicted on **Exhibit 4-5**. These data represent arrival and departure operations at San Carlos Airport for the month of July 2013. Considering the extent of the region that experiences overflights of aircraft heading to/from San Carlos Airport, the recommended overflight notification zone encompasses the entirety of the existing airport influence area (AIA) for San Carlos Airport (see **Exhibit 4-6**).

Overflight Compatibility Criteria and Policies for San Carlos Airport

The following are ALUCP overflight compatibility criteria and policies for San Carlos Airport.

Overflight Policy 1 – Real Estate Transfer Disclosure

Effective as of January 1, 2004, California state statutes (Business and Professional Code Section 11010 and Civil Code Sections 1102.6, 1103.4, and 1353) mandate that sellers or lessors of real property must disclose information regarding whether their property is situated within an airport influence area.

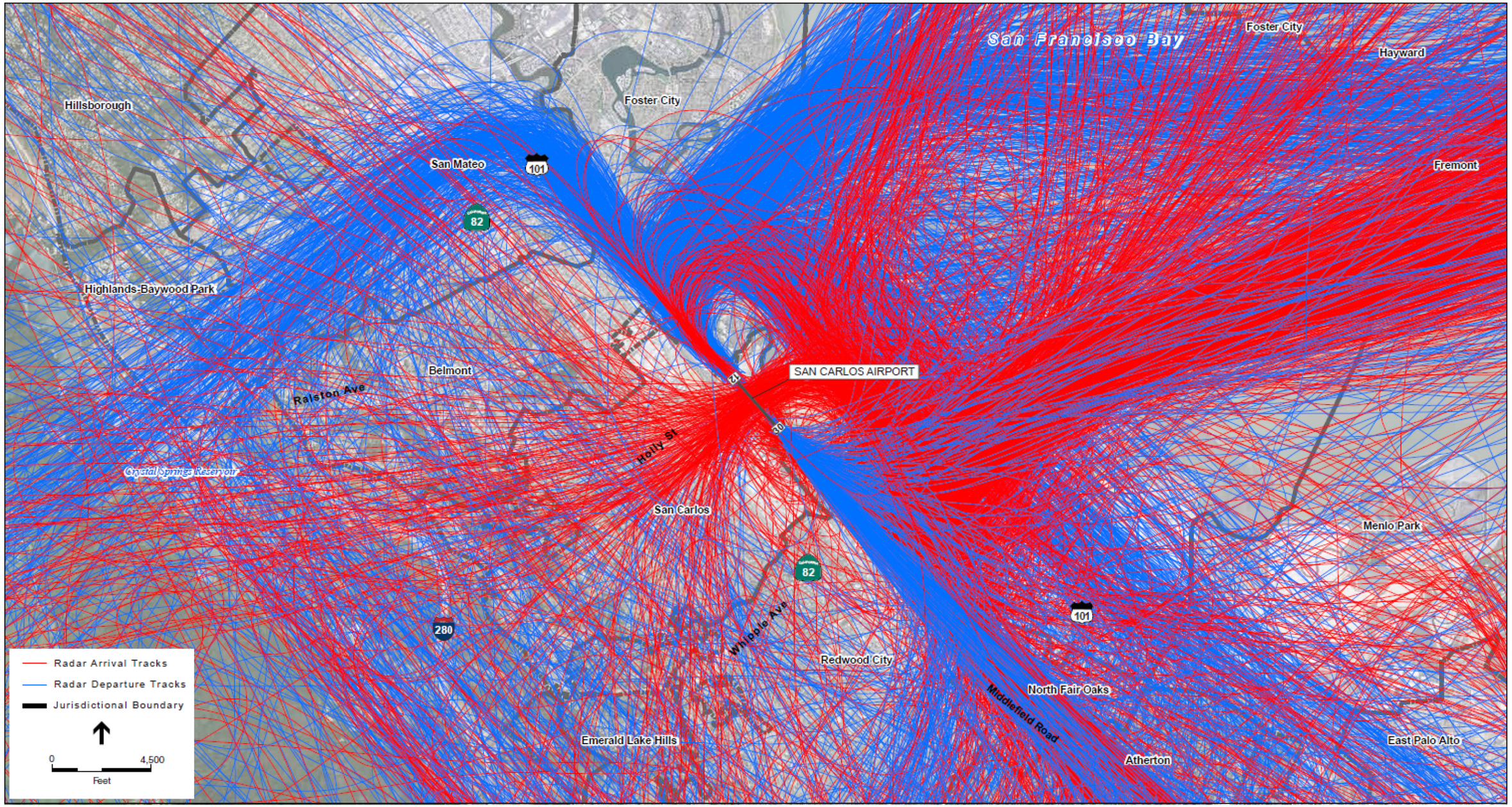
a. These state requirements apply to the sale or lease of subdivided lands and condominium conversions and to the sale of certain existing residential property.

b. Where disclosure is required, the state statutes dictate that the following statement shall be provided:

   NOTICE OF AIRPORT IN VICINITY

   This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

c. Although not mandated by state law, the recommendation of this ALUCP is that the airport proximity disclosure should be provided as part of all real estate transactions involving private property (both new and existing) within the airport influence area.



SOURCE: Aerial - USDA, 2012; SFO ANOMS; ESA Airports, 2014

San Carlos Airport ALUCP . 130753

Exhibit 4-5

Radar Flight Tracks - San Carlos Airport

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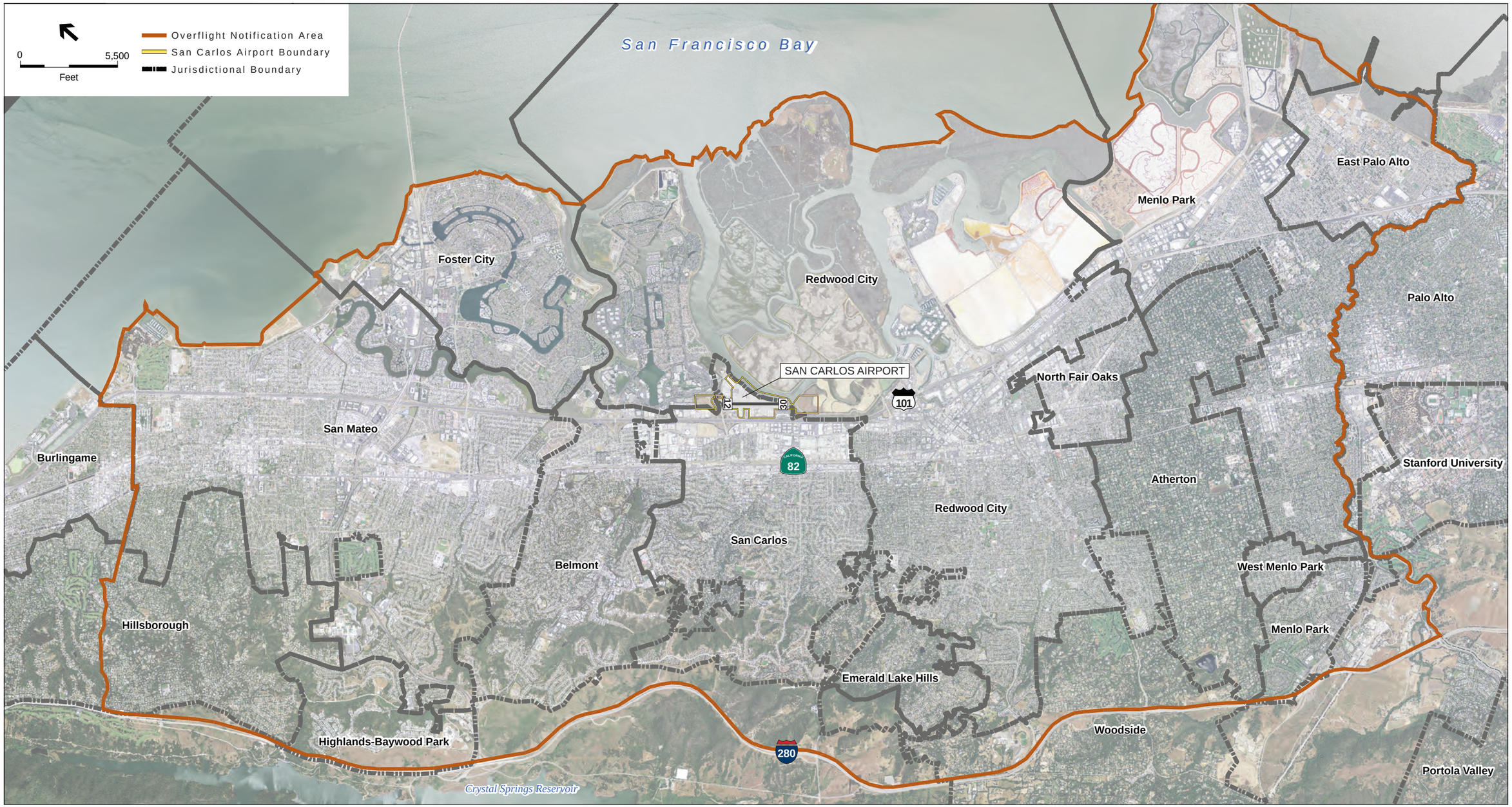

SOURCE: Aerial - USDA, 2012; CCAG; ESA Airports, 2014

San Carlos Airport ALUCP . 130753

Exhibit 4-6

Overflight Notification Zone – San Carlos Airport

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Overflight Policy 2 – Overflight Easement Review Area

The 1996 CLUP established an Avigation Easement Review Area (AERA) that is based on the CNEL 55 dB contour, the FAR Part 77 horizontal surface, the FAR Part 77 approach surface, and the FAR Part 77 transitional surface. The AERA is hereby modified as follows:

a. The AERA is renamed the Overflight Easement Review Area (OERA)

b. The OERA boundary for San Carlos Airport is based on the combination of the:

    1. 60 dB CNEL noise contour as depicted on Exhibit 4-2

    2. The FAR Part 77 horizontal surface as depicted on Exhibit 4-4

    3. The FAR Part 77 approach surface depicted on Exhibit 4-4

    4. The FAR Part 77 transitional surface depicted on Exhibit 4-4

The C/CAG Board deems it necessary to: (1) ensure the unimpeded use of airspace in the vicinity of San Carlos Airport; (2) to ensure that new noise-sensitive land uses within the CNEL 60 dB contour are made compatible with aircraft noise in accordance with California Code of Regulations, Title 21, Section 5014; and (3) to provide notice to owners of real property near San Carlos Airport of the proximity to the airport and of the potential impacts that could occur on the property from airport/aircraft operations. Both the C/CAG ALUC and the C/CAG Board, acting as the Airport Land Use Commission, will consider the need for the granting of an avigation easement to the County of San Mateo, as part of their reviews of proposed local agency land use policy actions that affect property within the defined OERA for San Carlos Airport. The request for the grant of an avigation easement will be made to the local agency that is proposing the land use policy action and will be based on the following criteria:

a. The proposed land use policy action involves real property located within the OERA and includes adoption of one or more of the following:

    1. General Plan
    2. General Plan Amendment
    3. Zoning Ordinance
    4. Zoning Ordinance Amendment
    5. Specific Plan
    6. Specific Plan Amendment

b. The proposed land use policy action would either permit or result in the development or construction of noise-sensitive land uses that are considered to be conditionally compatible with aircraft noise of CNEL 60 dB or greater;

c. The proposed land use policy action would allow the construction of structures or other objects in the vicinity of San Carlos Airport that could exceed the height standards defined in FAR Part 77, Subpart C;

d. The proposed land use policy action would allow land uses that may cause visual, electronic, navigational, or wildlife hazards to aircraft in flight or taking off or landing at San Carlos Airport.

The process for requesting the grant of an avigation easement to the County of San Mateo will include the following steps:

1. The C/CAG ALUC reviews a proposed local agency land use policy action and submits a recommendation to the Airport Land Use Commission (C/CAG Board), regarding a request for a grant of an avigation easement to the County of San Mateo.

2. The Airport Land Use Commission (C/CAG Board) reviews the proposed local agency land use policy action and considers the ALUC recommendation

3. If the Airport Land Use Commission (C/CAG Board) concurs with the ALUC recommendation it shall notify the affected local agency of its action and shall formally request the agency to require the grant of an avigation easement to the County of San Mateo as part of the agency's final approval of the proposed action.

When deemed necessary, the C/CAG Board shall condition its approval of the proposed development upon the owner of the subject property granting an avigation easement to San Mateo County, as the proprietor of San Carlos Airport. The local governmental agency with the ultimate permitting and approval authority over the proposed development shall ensure that this condition is implemented prior to final approval of the proposed development. If the approval action for the proposed development includes construction of a building(s) and/or other structures, the local permitting authority shall require the grant of an avigation easement to San Mateo County prior to issuance of a building permit(s) for the proposed building or structure. If the proposed development is not built, then, upon notice by the local permitting authority, San Mateo County shall record a notice of termination of the avigation easement. The avigation easement to be used in fulfilling this condition is presented in **Appendix E**.

4.2.5 Airport Influence Area

The planning boundary of the ALUCP is the airport influence area (AIA), and is established by the ALUC after a hearing and consultation with the involved agencies (PUC Section 21675 (c)).

An ALUC usually establishes the AIA boundary based on:

- The location and configuration of the airport(s) included in the plan; and
- The extent of the noise and safety impacts associated with the airport(s).

The geographic area for noise impacts is typically described by CNEL contours and overflight areas, while safety impacts are mapped according to airport safety zones and the airspace surfaces.

The existing AIA for San Carlos Airport is depicted on **Exhibit 4-7**. The Airport Land Use Commission (C/CAG Board) proposes to retain the current AIA for the San Carlos Airport ALUCP update. As shown on Exhibit 4-7, the AIA includes two parts: Area A and Area B. Area A is the larger of the two areas and encompasses a good portion of San Mateo County. Area B lies within Area A and is defined by the 14 CFR Part 77 conical surface.

Airport Influence Area Compatibility Criteria and Policies for San Carlos Airport

The following are ALUCP compatibility criteria and policies specific to the San Carlos Airport AIA.

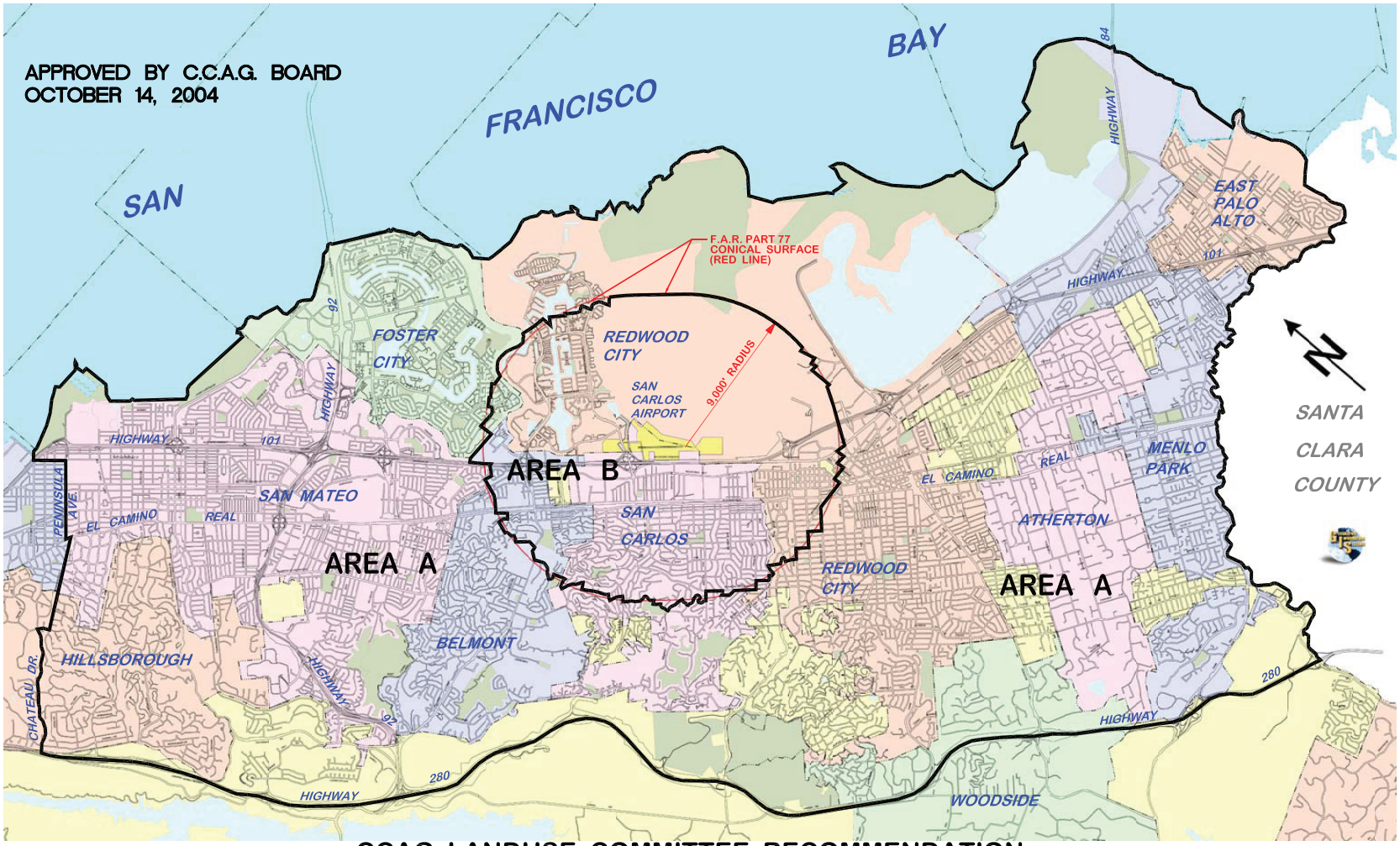
Airport Influence Area Policy 1 – Real Estate Disclosure Area

Within Area A of the AIA the real estate disclosure requirements of state law apply. Section 11010 (b) (13) of the Business and Professions Code requires people offering subdivided property for sale or lease to disclose the presence of all existing and planned airports within two miles of the property. The law requires that, if the property is within an "airport influence area" designated by an airport land use commission, the following statement must be included in the notice of intention to offer the property for sale:

> ***NOTICE OF AIRPORT IN VICINITY***
>
> This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

Airport Influence Area Policy 2 – Policy/Project Referral Area

Within Area B of the AIA, the C/CAG Board shall exercise its statutory duties to review proposed land use policy actions, including new general plans, specific plans, zoning ordinances, plan amendments and rezonings, and land development proposals. The real estate disclosure requirements in Area A also apply in Area B. For the purposes of this policy, parcels along the edge of the Area B Boundary that are split by the boundary shall be considered as fully being within Area B.



CCAG LANDUSE COMMITTEE RECOMMENDATION

REVISED AIRPORT INFLUENCE AREA BOUNDARY FOR SAN CARLOS AIRPORT -- AREAS A & B (OCTOBER 2004)

AREA A: PROPOSED REVISED AIRPORT INFLUENCE AREA (AIA) BOUNDARY (real estate disclosure only)

AREA B: PROPOSED CCAG/ALUC REVIEW AREA BOUNDARY* (real estate disclosure and formal CCAG/ALUC review)

* This boundary is a refinement of the current CCAG/ALUC review boundary.

SOURCE: City/County Association of Governments of San Mateo County (C/CAG), October 2004

Exhibit 4-7

Airport Influence Area for San Carlos Airport

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APPENDIX A
Noise Modeling Assumptions

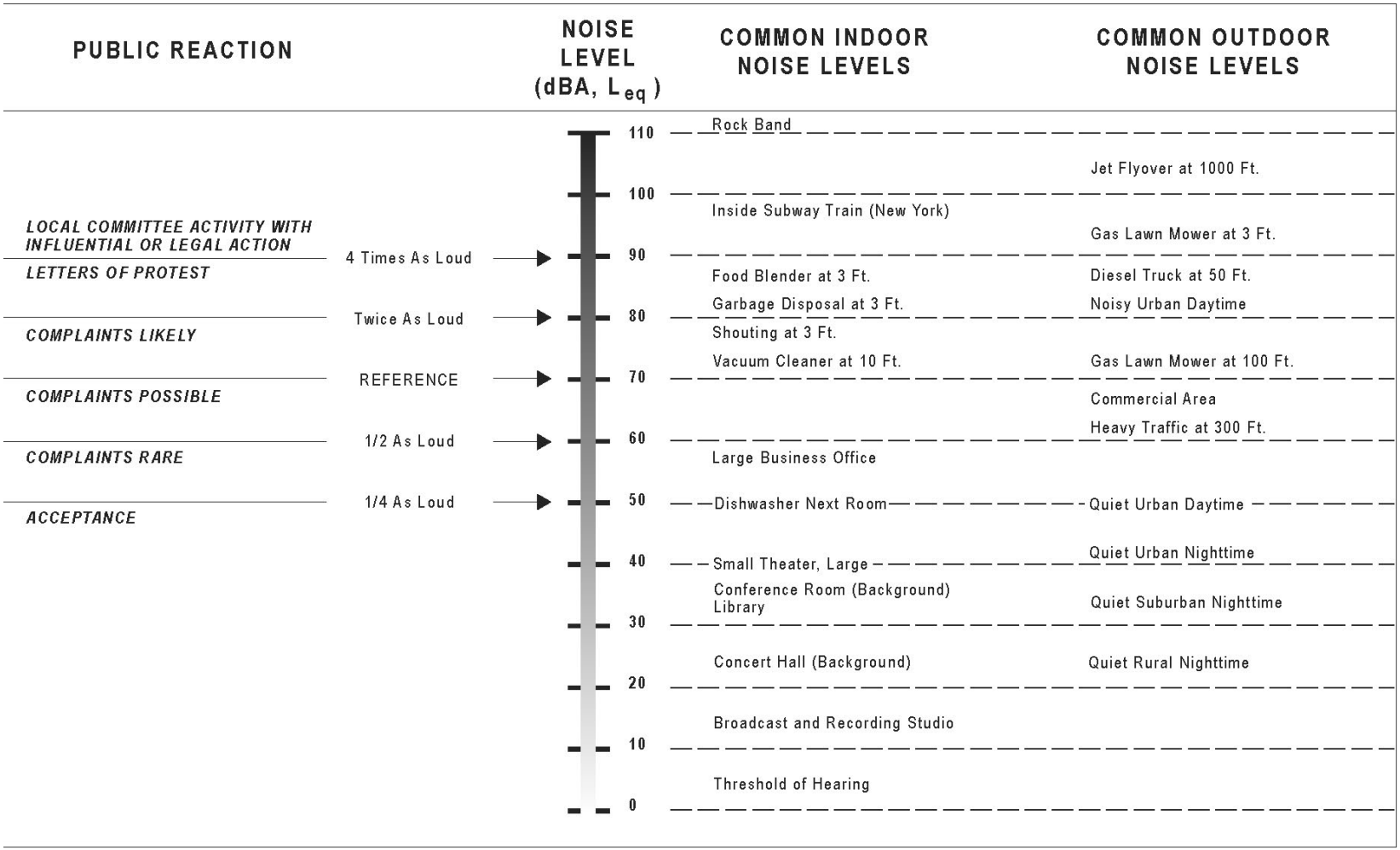
A.1 Environmental Noise Fundamentals

Noise is defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequencies spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to extremely low and extremely high frequencies. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). A-weighting follows an international standard methodology of frequency weighting and is typically applied to community noise measurements. Some representative noise sources and their corresponding A-weighted noise levels are shown on **Exhibit A-1**.

Exhibit A-1: Effect of Noise on People



SOURCE: ESA Airports, 2007.

A.2 Noise Exposure and Community Noise

An individual's noise exposure is a measure of noise over a period of time. A noise level is a measure of noise at a given instant in time. The noise levels presented on Exhibit A-1 are representative of measured noise at a given instant in time, however, they rarely persist consistently over a long period of time. Rather, community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable.

The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and atmospheric conditions. What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.

These successive additions of sound to the community noise environment varies the community noise level from instant to instant requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below.

A.3 Noise Descriptors

Noise levels are measured using a variety of scientific metrics. As a result of extensive research into the characteristics of transportation-related noise and human response to that noise, standard noise descriptors have been developed for use in noise exposure analyses.

The noise descriptor most commonly used to describe aircraft and surface transportation noise is referred to as a "cumulative" noise descriptor. Such descriptors present the amount of noise occurring at a given location over a defined period of time in numerical terms. Depending upon the descriptor used, this period can be as brief as one hour, but is usually calculated for an annualized 24-hour period. Cumulative noise descriptors can be used to present noise exposure from a specific source, such as a roadway or an airport, to describe total noise exposure from all noise sources affecting a specific location.

The noise descriptors used in this analysis are described as follows:

A-Weighted Sound Pressure Level (dBA): The decibel (dB) is a unit used to describe sound pressure level. When expressed in dBA, the sound has been filtered to reduce the effect of very low and very high frequency sounds, much as the human ear filters sound frequencies. Without this filtering, calculated and measured sound levels would include events that the human ear

cannot hear (e.g., dog whistles and low frequency sounds, such as the groaning sounds emanating from large buildings with changes in temperature and wind). With A-weighting, calculations and sound monitoring equipment approximate the sensitivity of the human ear to sounds of different frequencies.

Some common sounds on the dBA scale are listed in **Table A-1**. The relative perceived loudness of a sound doubles for each increase of 10 dBA, although a 10-dBA change in the sound level corresponds to a factor of 10 change in relative sound energy. Generally, individual sounds with differences of 2 dBA or less are not perceived to be noticeably different by most listeners.

Maximum Noise Level (Lmax): Lmax is the maximum or peak sound level during a noise event. The metric only accounts for the instantaneous peak intensity of the sound, and not for the duration of the event. As an aircraft passes by an observer, the sound level increases to a maximum level and then decreases. Some sound level meters measure and record the maximum level or Lmax.

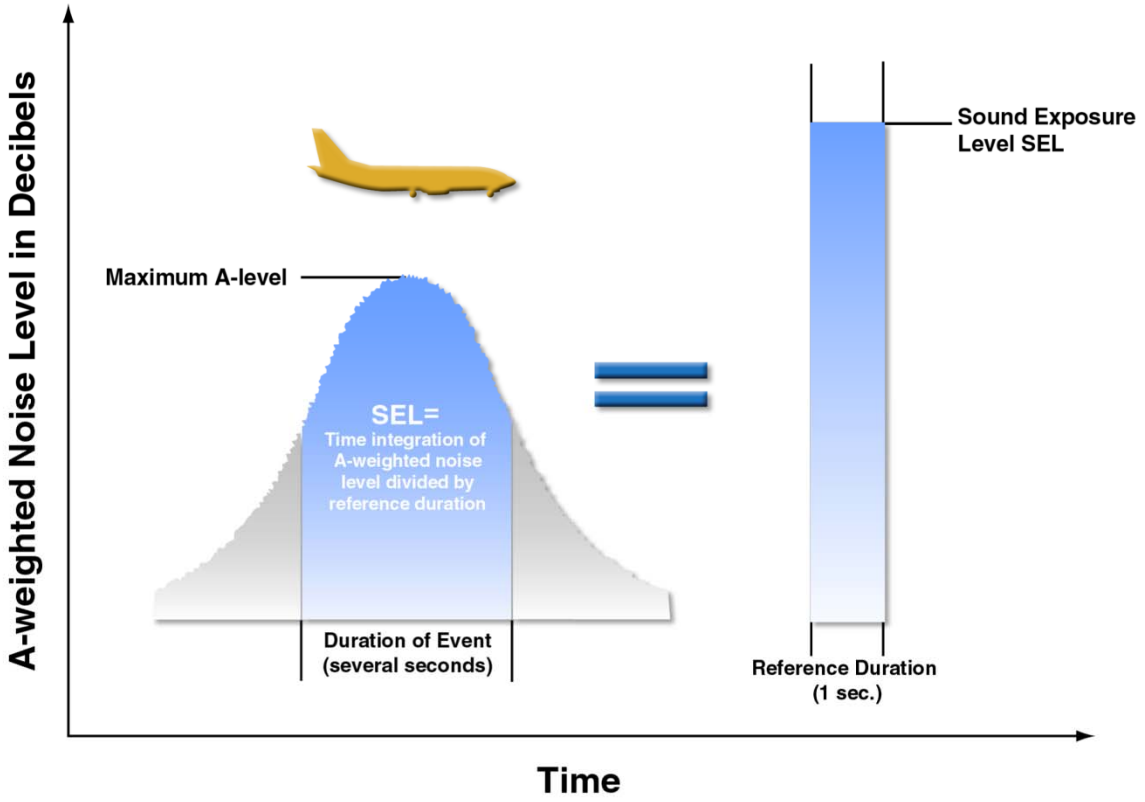
Sound Exposure Level (SEL): SEL, expressed in dBA, is a time integrated measure, expressed in decibels, of the sound energy of a single noise event at a reference duration of one second. The sound level is integrated over the period that the level exceeds a threshold. Therefore, SEL accounts for both the maximum sound level and the duration of the sound. The standardization of discrete noise events into a one-second duration allows calculation of the cumulative noise exposure of a series of noise events that occur over a period of time. Because of this compression of sound energy, the SEL of an aircraft noise event is typically 7 to 12 dBA greater than the Lmax of the event. SELs for aircraft noise events depend on the location of the aircraft relative to the noise receptor, the type of operation (landing, takeoff, or overflight), and the type of aircraft. The SEL concept is depicted on **Exhibit A-2.**

TABLE A-1
COMMON SOUNDS ON THE A-WEIGHTED DECIBEL SCALE

Sound	Sound level (dBA)	Relative loudness (approximate)	Relative sound energy
Rock music, with amplifier	120	64	1,000,000
Thunder, snowmobile (operator)	110	32	100,000
Boiler shop, power mower	100	16	10,000
Orchestral crescendo at 25 feet, noisy kitchen	90	8	1,000
Busy street	80	4	100
Interior of department store	70	2	10
Ordinary conversation, 3 feet away	60	1	1
Quiet automobiles at low speed	50	1/2	.1
Average office	40	1/4	.01
City residence	30	1/8	.001
Quiet country residence	20	1/16	.0001
Rustle of leaves	10	1/32	.00001
Threshold of hearing	0	1/64	.000001

SOURCE: U.S. Department of Housing and Urban Development, Aircraft Noise Impact—Planning Guidelines for Local Agencies, 1972.

Exhibit A-2: Sound Exposure Level Concept



Source: Brown-Buntin Associates, Inc., November 2004.
Prepared by: ESA Airports, August 2013.

Community Noise Equivalent Level (CNEL): The cumulative noise descriptor required for aircraft noise analyses in the State of California is the CNEL. CNEL is used to describe cumulative noise exposure for an annual-average day of aircraft operations. The CNEL is calculated by mathematically combining the number of single events that occur during a 24-hour day with how loud the events were and what time of day they occurred.

CNEL includes penalties applied to noise events occurring after 7:00 p.m. and before 7:00 a.m., when noise is considered more intrusive. The penalized time period is further subdivided into evening (7:00 p.m. through 9:59 p.m.) and nighttime (10:00 p.m. to 6:59 a.m.). CNEL treats every evening operation as though it were three and every night as though it were ten. This "weighting" adds a 4.77 dB penalty during the evening hours and a 10 dB penalty during the nighttime hours.

Because of the interrelationship between the weighted number of daily noise events and the noise levels generated by the events, it is possible to have the same CNEL value for an area exposed to a few loud events as for an area exposed to many quieter events.

The CNEL metric used for this aircraft noise analysis is based on an average annual day of aircraft operations, generally derived from data for a calendar year. An annual-average day

(AAD) activity profile is computed by adding all aircraft operations occurring during the course of a year and dividing the result by 365. As such, AAD does not reflect activities on any one specific day, but represents average conditions as they occur during the course of the year. The evening weighting is the only difference between CNEL and DNL. For purposes of aircraft noise analysis in the State of California, the FAA recognizes the use of CNEL, and the metric is used to assess potential significant impacts.

A.4 The Integrated Noise Model

The Integrated Noise Model (INM) is the FAA-approved, industry-accepted, state-of-the-art tool for determining the total effect of aircraft noise exposure at and around airports. The INM has been the FAA's standard tool for determining the predicted noise impact in the vicinity of airports since 1978, and is recognized by the State of California as the appropriate tool for aircraft noise assessments. The INM uses runway and flight track information, operation levels distributed by time of day, aircraft fleet mix, and aircraft profiles as inputs. The INM calculates noise exposure levels at a series of "noise grids", and produces noise exposure contours based on the grid results, for a variety of noise metrics including CNEL, DNL, Lmax, Leq, and SEL. As described below, for this ALUCP the INM was used to calculate CNEL contours for existing conditions (2013) and 20-year future conditions (2035).

A.5 Existing Conditions Noise Exposure – San Carlos Airport

Noise exposure contours were developed for San Carlos Airport using the latest version of the FAA's Integrated Noise Model (INM), Version 7.0d. The following sections summarize the data/inputs used to develop the existing conditions (2013) CNEL contours presented in Chapter 3 of this ALUCP.

A.5.1 Annual-Average Day Operations by Aircraft Type

For CNEL aircraft noise exposure calculations, aircraft operations associated with the annual-average day are used in the INM. The number of annual operations by each INM aircraft type is divided by 365 to arrive at the annual-average day (AAD) level. This representation of airport activity does not reflect any particular day, but gives an accurate picture of the character of operations throughout the year. Use of AAD is required by the FAA for aircraft noise modeling.

2013 AAD operations by aircraft type, operation type (i.e., arrival, departure, touch-and-go), and time of day are summarized in **Table A-2** at the end of this Appendix. Touch-and-go operations in the INM consist of an arrival and a departure. The number of touch-and-go operations at San Carlos Airport in 2013 was calculated by dividing local operations by two.

A.5.2 Time of Day

As noted previously, the CNEL metric applies different weighting penalties to aircraft operations during the evening or nighttime hours. Therefore, the average daily numbers of operations by

aircraft type during the evening and nighttime periods are required inputs to the INM. Due to the CNEL weighting scheme, evening and nighttime operations have a greater potential effect on the shape and size of the noise exposure area than their number might suggest. In the calculation of CNEL, one operation during the evening hours is equivalent to three daytime operations and one operation during the nighttime hours is equivalent to 10 daytime operations.

Based on conversations with airport management and operations personnel it is assumed that 94% of the operations at San Carlos Airport in 2013 occurred during daytime hours, 4% of the operations occurred during evening hours, and 1% of the operations occurred during nighttime hours.

A.5.3 Runway Use

Runway use for departures or arrivals is typically a function of prevailing wind and weather; lengths and widths of the runways; runway instrumentation; and effects of other airports or air traffic facilities in the area. Runway use may also be influenced by the direction of flight of an arriving or departing aircraft; the aircraft parking position; and/or periodic closures of runways and taxiways. Finally, noise abatement procedures may also influence runway use at an airport.

Runway use information for existing conditions (2013) is presented in **Table A-3.**

TABLE A-3
EXISTING CONDITIONS (2013) RUNWAY USE BY OPERATION TYPE, SAN CARLOS AIRPORT

	Operation Type		
Runway	**Arrival**	**Departure**	**Touch-and-Go**
12	20%	20%	20%
30	80%	80%	80%

SOURCE: San Mateo County Public Works Airports Division, March 2014.

A.5.4 Flight Tracks and Flight Track Use

Once aircraft leave a runway on departure or while approaching a runway on arrival, their location and altitude over surrounding communities becomes a determining factor in how much noise is experienced on the ground. For this reason, flight track information is an important input to the INM. Most pilots fly their aircraft in predictable patterns as they follow instructions from FAA Air Traffic Control handling their movements into or away from an airport.

Flight tracks are defined to represent the typical paths of the large majority of aircraft located throughout the study area. When using INM, these flight tracks are specified to capture the complexity of the actual flight patterns by representing the center of a specific flow of traffic, and dispersed tracks linked to the center track to account for the width.

Arrival, departure, and touch and go flight tracks used to model existing conditions (2013) and future conditions (2035) noise contours for San Carlos Airport are presented at the end of this appendix on **Exhibits A-3 through A-8.** It is assumed that flight tracks/ground tracks will not change over time and therefore flight tracks used to model existing conditions (2013) are identical to the flight tracks used to model future conditions (2035). **Table A-4** presents flight track use data for existing conditions (2013) and future conditions (2035).

TABLE A-4
FLIGHT TRACK USE BY RUNWAY AND OPERATION TYPE, SAN CARLOS AIRPORT

Flight Track Name[1]	Runway	Operation Type	Track Use %
12A1P	12	Arrival	8.22%
12A2P	12	Arrival	17.81%
12A3P	12	Arrival	23.29%
12A4P	12	Arrival	34.25%
12A5P	12	Arrival	16.44%
		Subtotal	**100%**
12D1P	12	Departure	43.96%
12D2P	12	Departure	13.19%
12D3P	12	Departure	29.30%
12D4P	12	Departure	10.99%
12D5P	12	Departure	2.56%
		Subtotal	**100%**
12TG1P	12	Touch-and-Go	74.77%
12TG2P	12	Touch-and-Go	25.23%
		Subtotal	**100%**
30A1P[2]	30	Arrival	28.18%
30A2P	30	Arrival	39.08%
30A3P	30	Arrival	6.05%
30A4P	30	Arrival	7.53%
30A5P	30	Arrival	4.28%
30A6P	30	Arrival	5.31%
30A7P	30	Arrival	7.24%
30A8P	30	Arrival	2.34%
		Subtotal	**100%**
30D1P	30	Departure	7.44%
30D2P	30	Departure	11.47%
30D3P	30	Departure	27.96%
30D4P	30	Departure	13.87%
30D5P	30	Departure	3.30%
30D6P	30	Departure	17.23%
30D7P	30	Departure	18.74%
		Subtotal	**100%**
30TG1P	30	Touch-and-Go	45.22%
30TG2P	30	Touch-and-Go	54.78%
		Subtotal	

1. The flight tracks listed above are associated with fixed-wing aircraft. One helicopter arrival track, departure track, and touch-and-go track were assigned to each runway end in the Integrated Noise Model (INM). INM flight tracks used to model helicopter operations are presented on Exhibits A-3 through A-8 and include 12H1DP, 12H1AP, 12HTG, 30H1DP, 30H1AP, 30HTG.
2. All PC12 aircraft were assigned to the straight-in arrival track (30A1P) for Runway 30.

Source: ESA Airports, May 2014.

A.6 Future Conditions Noise Exposure – San Carlos Airport

Noise exposure contours were developed for San Carlos Airport using the latest version of the FAA's Integrated Noise Model (INM), Version 7.0d. The following sections summarize the data and assumptions used to develop the future conditions (2035) noise exposure contours presented in Chapter 3 of this ALUCP.

A.6.1 Annual Average Day Operations by Aircraft Type

2035 AAD operations by aircraft type, operation type (i.e., arrival, departure, touch-and-go), and time of day are summarized in **Table A-5** at the end of this appendix. Touch-and-go operations in the INM consist of an arrival and a departure. The number of touch-and-go operations at San Carlos Airport in 2035 was calculated by dividing local operations by two.

A.6.2 Time of Day

Based on conversations with airport management and operations personnel it is assumed that 94% of the operations at San Carlos Airport in 2035 will occur during daytime hours, 4% of the operations will occur during evening hours, and 1% of the operations will occur during nighttime hours.

A.6.3 Runway Use

Runway use information for future conditions (2035) is presented in **Table A-6**. It is assumed that runway use patterns will not change over time at San Carlos Airport and hence runway use data for existing conditions and future conditions are identical.

TABLE A-6
FUTURE CONDITIONS (2035) RUNWAY USE BY OPERATION TYPE, SAN CARLOS AIRPORT

	Operation Type		
Runway	**Arrival**	**Departure**	**Touch-and-Go**
12	20%	20%	20%
30	80%	80%	80%

SOURCE: San Mateo County Public Works Airports Division, March 2014.

TABLE A-2
ANNUAL AVERAGE DAY OPERATIONS – EXISTING CONDITIONS (2013)

		Arrivals			Departures			Touch-and-Go		
Aircraft Type	**INM Type**	**Day**	**Evening**	**Night**	**Day**	**Evening**	**Night**	**Day**	**Evening**	**Night**
Helicopter	B206L	0.35	0.02	0.00	0.35	0.02	0.00	0.37	0.02	0.00
Turboprop	BEC58P	5.61	0.30	0.06	5.61	0.30	0.06	5.51	0.29	0.06
Single-engine propeller	CNA172	10.51	0.56	0.11	10.51	0.56	0.11	13.21	0.70	0.14
Single-engine propeller	CNA182	3.50	0.19	0.04	3.50	0.19	0.04	5.87	0.31	0.06
Single-engine propeller	CNA206	3.50	0.19	0.04	3.50	0.19	0.04	7.34	0.39	0.08
Turboprop	CNA441	3.50	0.19	0.04	3.50	0.19	0.04	1.47	0.08	0.02
Single-engine propeller	GASEPF	3.50	0.19	0.04	3.50	0.19	0.04	5.14	0.27	0.05
Single-engine propeller	GASEPV	28.03	1.49	0.30	28.03	1.49	0.30	27.89	1.48	0.30
Single-engine propeller	PA28	3.50	0.19	0.04	3.50	0.19	0.04	6.61	0.35	0.07
Turboprop	PC12	7.01	0.37	0.07	7.01	0.37	0.07	0.00	0.00	0.00
Business Jet	CNA525C	0.70	0.04	0.01	0.70	0.04	0.01	0.00	0.00	0.00
Business Jet	ECLIPSE500	0.35	0.02	0.00	0.35	0.02	0.00	0.00	0.00	0.00
	Total	**70.08**	**3.73**	**0.75**	**70.08**	**3.73**	**0.75**	**73.41**	**3.90**	**0.78**

NOTE: In the Integrated Noise Model a touch-and-go operation consists of an arrival and a departure. Local operations were divided by two to calculate the number of touch-and-go operations at San Carlos Airport.

SOURCES: ESA Airports, May 2014 based on information provided by San Mateo County Public Works, Airports Division staff; Federal Aviation Administration, *Air Traffic Activity Data System (ATADS)*, March 2014.

TABLE A-5
ANNUAL AVERAGE DAY OPERATIONS – FUTURE CONDITIONS (2035)

		Arrivals			Departures			Touch-and-Go		
Aircraft Type	**INM Type**	**Day**	**Evening**	**Night**	**Day**	**Evening**	**Night**	**Day**	**Evening**	**Night**
Helicopter	B206L	0.46	0.02	0.00	0.46	0.02	0.00	0.49	0.03	0.01
Turboprop	BEC58P	7.30	0.39	0.08	7.30	0.39	0.08	7.33	0.39	0.08
Single-engine propeller	CNA172	13.68	0.73	0.15	13.68	0.73	0.15	17.58	0.94	0.19
Single-engine propeller	CNA182	4.56	0.24	0.05	4.56	0.24	0.05	7.81	0.42	0.08
Single-engine propeller	CNA206	4.56	0.24	0.05	4.56	0.24	0.05	9.77	0.52	0.10
Turboprop	CNA441	4.56	0.24	0.05	4.56	0.24	0.05	1.95	0.10	0.02
Single-engine propeller	GASEPF	4.56	0.24	0.05	4.56	0.24	0.05	6.84	0.36	0.07
Single-engine propeller	GASEPV	27.37	1.46	0.29	27.37	1.46	0.29	37.12	1.97	0.39
Single-engine propeller	PA28	4.56	0.24	0.05	4.56	0.24	0.05	8.79	0.47	0.09
Turboprop	PC12	18.25	0.97	0.19	18.25	0.97	0.19	0.00	0.00	0.00
Business Jet	CNA525C	0.91	0.05	0.01	0.91	0.05	0.01	0.00	0.00	0.00
Business Jet	ECLIPSE500	0.46	0.02	0.00	0.46	0.02	0.00	0.00	0.00	0.00
	Total	**91.23**	**4.85**	**0.97**	**91.23**	**4.85**	**0.97**	**97.67**	**5.20**	**1.04**

NOTE: In the Integrated Noise Model a touch-and-go operation consists of an arrival and a departure. Local operations were divided by two to calculate the number of touch-and-go operations at San Carlos Airport.

SOURCE: ESA Airports, May 2014 based on information provided by San Mateo County Public Works, Airports Division staff; Federal Aviation Administration, *Terminal Area Forecast (TAF)*, March 2014.

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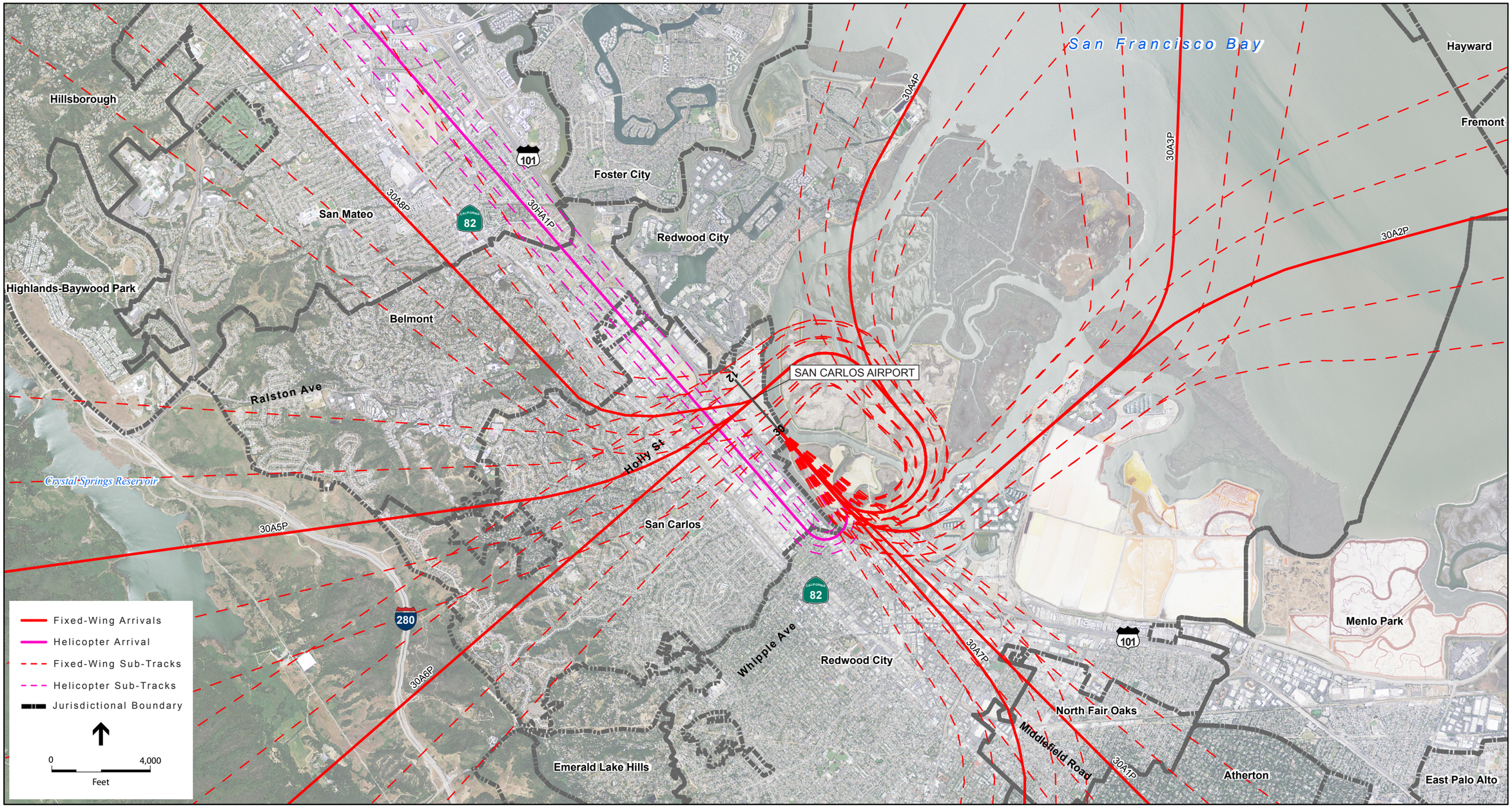

SOURCE: Aerial - USDA, 2012; INM 7.0d; ESA Airports, 2014

San Carlos Airport ALUCP . 130753

Exhibit A-3

INM Arrival Flight Tracks - Runway 30

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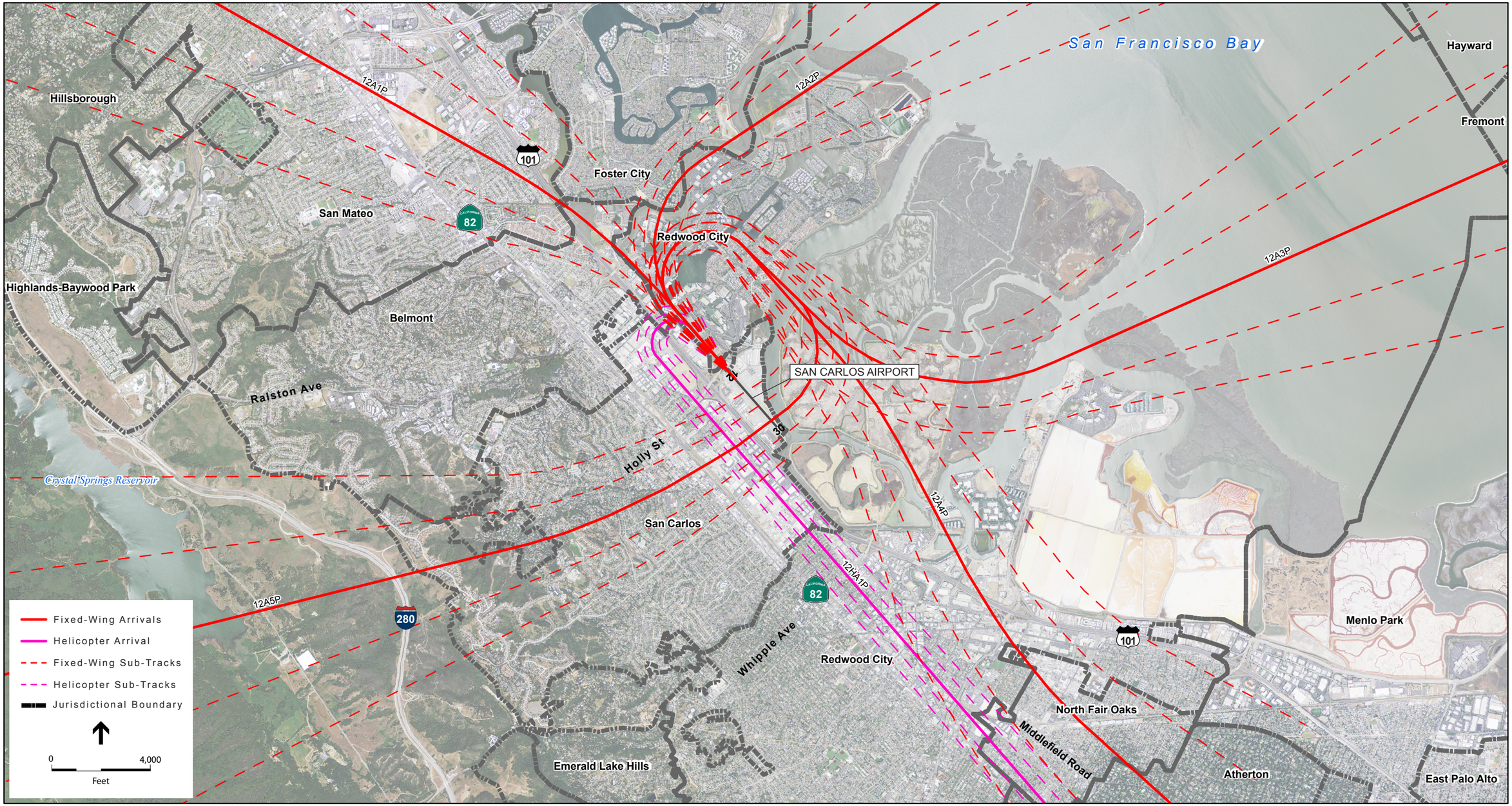

SOURCE: Aerial - USDA, 2012; INM 7.0d; ESA Airports, 2014

San Carlos Airport ALUCP . 130753

Exhibit A-4

INM Arrival Flight Tracks - Runway 12

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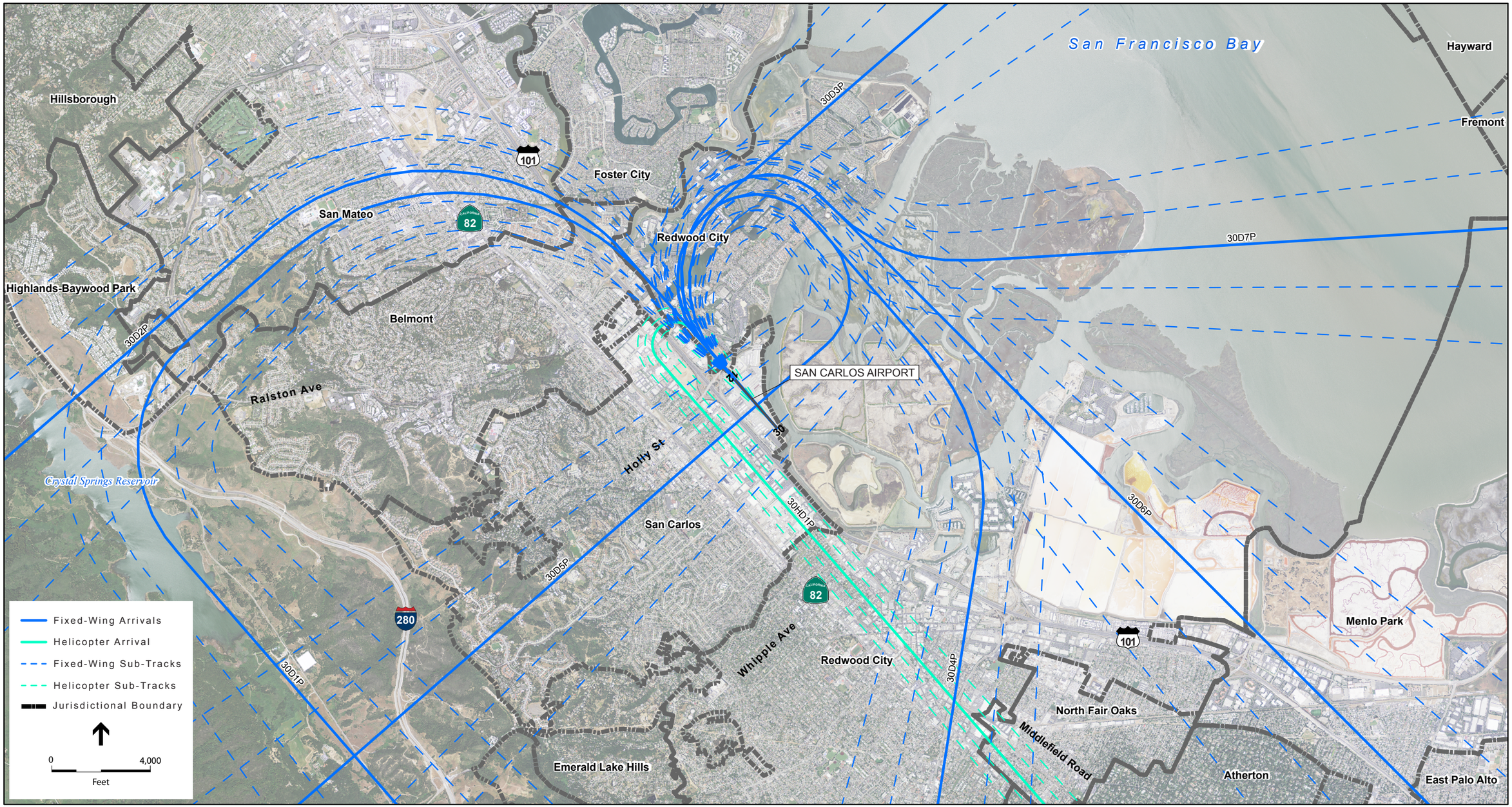

SOURCE: Aerial - USDA, 2012; INM 7.0d; ESA Airports, 2014

San Carlos Airport ALUCP . 130753

Exhibit A-5

INM Departure Flight Tracks - Runway 30

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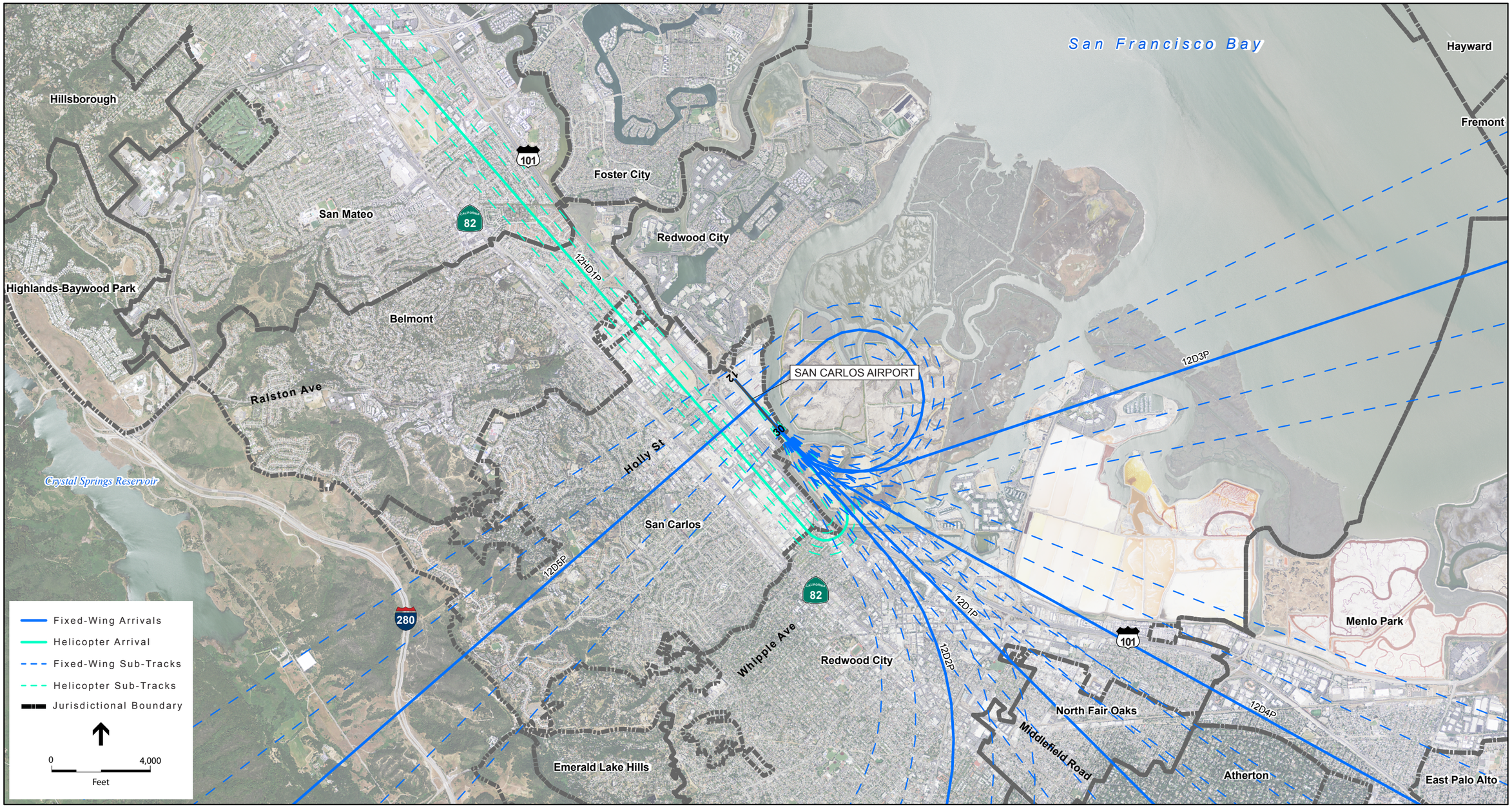

SOURCE: Aerial - USDA, 2012; INM 7.0d; ESA Airports, 2014

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Exhibit A-6

INM Departure Flight Tracks - Runway 12

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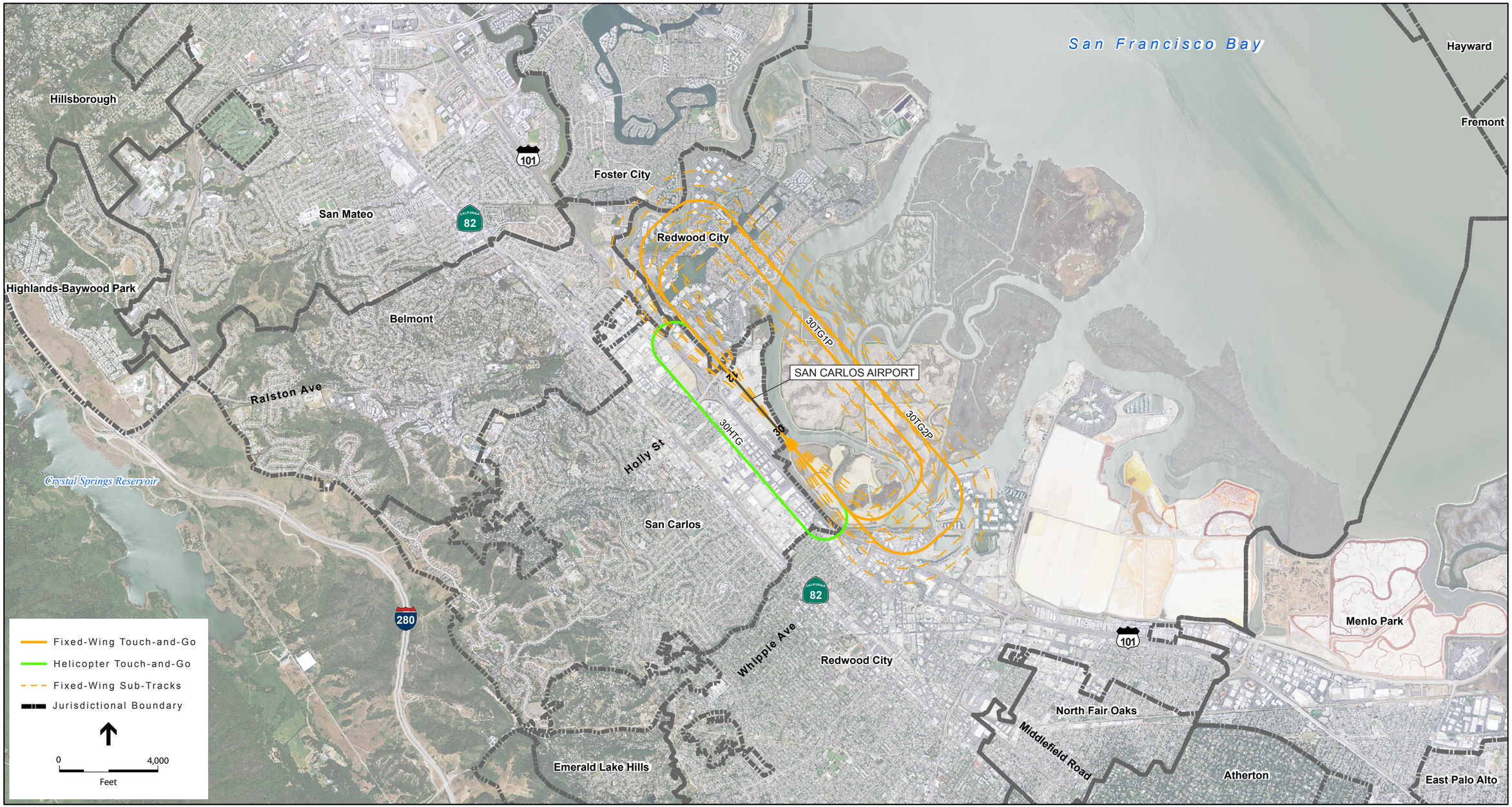

SOURCE: Aerial - USDA, 2012; INM 7.0d; ESA Airports, 2014

San Carlos Airport ALUCP . 130753

Exhibit A-7

INM Touch-and-Go Flight Tracks - Runway 30

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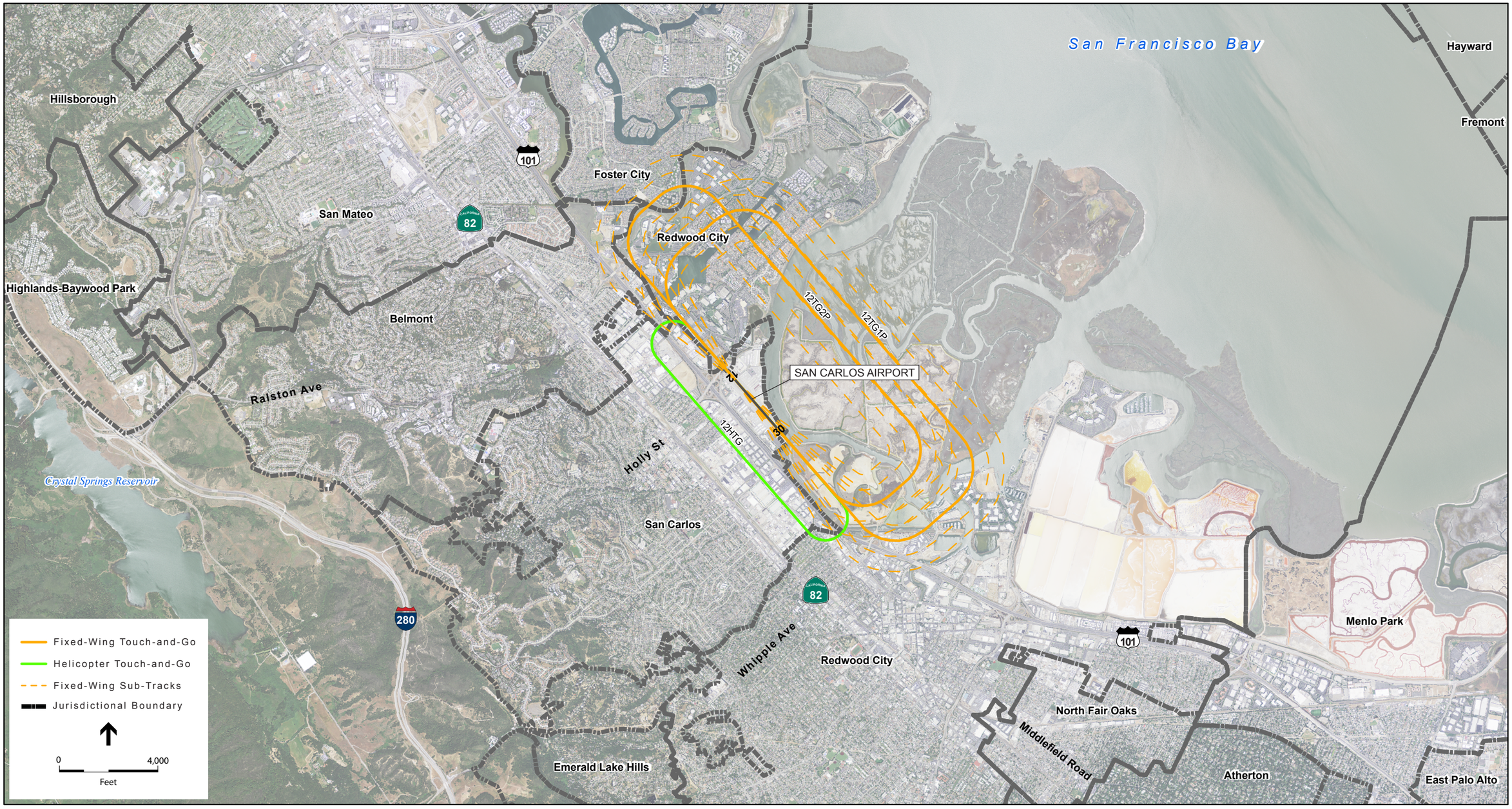

SOURCE: Aerial - USDA, 2012; INM 7.0d; ESA Airports, 2014

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Exhibit A-8

INM Touch-and-Go Flight Tracks - Runway 12

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APPENDIX B
State Laws Related to Airport Land Use Planning

B.1 Public Utilities Code

B.1.1 §21670 – 21679.5 Airport Land Use Commission

21670.

(a) The Legislature hereby finds and declares that:

(1) It is in the public interest to provide for the orderly development of each public use airport in this state and the area surrounding these airports so as to promote the overall goals and objectives of the California airport noise standards adopted pursuant to Section 21669 and to prevent the creation of new noise and safety problems.

(2) It is the purpose of this article to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.

(b) In order to achieve the purposes of this article, every county in which there is located an airport which is served by a scheduled airline shall establish an airport land use commission. Every county, in which there is located an airport which is not served by a scheduled airline, but is operated for the benefit of the general public, shall establish an airport land use commission, except that the board of supervisors of the county may, after consultation with the appropriate airport operators and affected local entities and after a public hearing, adopt a resolution finding that there are no noise, public safety, or land use issues affecting any airport in the county which require the creation of a commission and declaring the county exempt from that requirement. The board shall, in this event, transmit a copy of the resolution to the Director of Transportation.

For purposes of this section, "commission" means an airport land use commission. Each commission shall consist of seven members to be selected as follows:

(1) Two representing the cities in the county, appointed by a city selection committee comprised of the mayors of all the cities within that county, except that if there are any

cities contiguous or adjacent to the qualifying airport, at least one representative shall be appointed there from. If there are no cities within a county, the number of representatives provided for by paragraphs (2) and (3) shall each be increased by one.

(2) Two representing the county, appointed by the board of supervisors.

(3) Two having expertise in aviation, appointed by a selection committee comprised of the managers of all of the public airports within that county.

(4) One representing the general public, appointed by the other six members of the commission.

(c) Public officers, whether elected or appointed, may be appointed and serve as members of the commission during their terms of public office.

(d) Each member shall promptly appoint a single proxy to represent him or her in commission affairs and to vote on all matters when the member is not in attendance. The proxy shall be designated in a signed written instrument which shall be kept on file at the commission offices, and the proxy shall serve at the pleasure of the appointing member. A vacancy in the office of proxy shall be filled promptly by appointment of a new proxy.

(e) A person having an "expertise in aviation" means a person who, by way of education, training, business, experience, vocation, or avocation has acquired and possesses particular knowledge of, and familiarity with, the function, operation, and role of airports, or is an elected official of a local agency which owns or operates an airport.

(f) It is the intent of the Legislature to clarify that, for the purposes of this article, that special districts, school districts, and community college districts are included among the local agencies that are subject to airport land use laws and other requirements of this article.

21670.1.

(a) Notwithstanding any other provision of this article, if the board of supervisors and the city selection committee of mayors in the county each makes a determination by a majority vote that proper land use planning can be accomplished through the actions of an appropriately designated body, then the body so designated shall assume the planning responsibilities of an airport land use commission as provided for in this article, and a commission need not be formed in that county.

(b) A body designated pursuant to subdivision (a) that does not include among its membership at least two members having expertise in aviation, as defined in subdivision (e) of Section 21670, shall, when acting in the capacity of an airport land use commission, be augmented so that body, as augmented, will have at least two members having that expertise. The commission shall be constituted pursuant to this section on and after March 1, 1988.

(c)

(1) Notwithstanding subdivisions (a) and (b), and subdivision (b) of Section 21670, if the board of supervisors of a county and each affected city in that county each makes a determination that proper land use planning pursuant to this article can be accomplished pursuant to this subdivision, then a commission need not be formed in that county.

(2) If the board of supervisors of a county and each affected city makes a determination that proper land use planning may be accomplished and a commission is not formed pursuant to paragraph (1), that county and the appropriate affected cities having jurisdiction over an airport, subject to the review and approval by the Division of Aeronautics of the department, shall do all of the following:

(A) Adopt processes for the preparation, adoption, and amendment of the airport land use compatibility plan for each airport that is served by a scheduled airline or operated for the benefit of the general public.

(B) Adopt processes for the notification of the general public, landowners, interested groups, and other public agencies regarding the preparation, adoption, and amendment of the airport land use compatibility plans.

(C) Adopt processes for the mediation of disputes arising from the preparation, adoption, and amendment of the airport land use compatibility plans.

(D) Adopt processes for the amendment of general and specific plans to be consistent with the airport land use compatibility plans.

(E) Designate the agency that shall be responsible for the preparation, adoption, and amendment of each airport land use compatibility plan.

(3) The Division of Aeronautics of the department shall review the processes adopted pursuant to paragraph (2), and shall approve the processes if the division determines that the processes are consistent with the procedure required by this article and will do all of the following:

(A) Result in the preparation, adoption, and implementation of plans within a reasonable amount of time.

(B) Rely on the height, use, noise, safety, and density criteria that are compatible with airport operations, as established by this article, and referred to as the Airport Land Use Planning Handbook, published by the division, and any applicable federal aviation regulations, including, but not limited to, Part 77 (commencing with Section 77.1) of Title 14 of the Code of Federal Regulations.

(C) Provide adequate opportunities for notice to, review of, and comment by the general public, landowners, interested groups, and other public agencies.

(4) If the county does not comply with the requirements of paragraph (2) within 120 days, then the airport land use compatibility plan and amendments shall not be considered adopted pursuant to this article and a commission shall be established within 90 days of the determination of noncompliance by the division and an airport land use compatibility plan shall be adopted pursuant to this article within 90 days of the establishment of the commission.

(d) A commission need not be formed in a county that has contracted for the preparation of airport land use compatibility plans with the Division of Aeronautics under the California Aid to Airports Program (Chapter 4 (commencing with Section 4050) of Title 21 of the California Code of Regulations), Project Ker-VAR 90-1, and that submits all of the following information to the Division of Aeronautics for review and comment that the county and the cities affected by the airports within the county, as defined by the airport land use compatibility plans:

(1) Agree to adopt and implement the airport land use compatibility plans that have been developed under contract.

(2) Incorporated the height, use, noise, safety, and density criteria that are compatible with airport operations as established by this article, and referred to as the Airport Land Use Planning Handbook, published by the division, and any applicable federal aviation regulations, including, but not limited to, Part 77 (commencing with Section 77.1) of Title 14 of the Code of Federal Regulations, as part of the general and specific plans for the county and for each affected city.

(3) If the county does not comply with this subdivision on or before May 1, 1995, then a commission shall be established in accordance with this article.

(e)

(1) A commission need not be formed in a county if all of the following conditions are met:

(A) The county has only one public use airport that is owned by a city.

(B)

(i) The county and the affected city adopt the elements in paragraph (2) of subdivision (d), as part of their general and specific plans for the county and the affected city.

(ii) The general and specific plans shall be submitted, upon adoption, to the Division of Aeronautics. If the county and the affected city do not submit the elements specified in paragraph (2) of subdivision (d), on or before May 1, 1996, then a commission shall be established in accordance with this article.

21670.2.

(a) Sections 21670 and 21670.1 do not apply to the County of Los Angeles. In that county, the county regional planning commission has the responsibility for coordinating the airport planning of public agencies within the county. In instances where impasses result relative to this planning, an appeal may be made to the county regional planning commission by any public agency involved. The action taken by the county regional planning commission on an appeal may be overruled by a four-fifths vote of the governing body of a public agency whose planning led to the appeal.

(b) By January 1, 1992, the county regional planning commission shall adopt the airport land use compatibility plans required pursuant to Section 21675.

(c) Sections 21675.1, 21675.2, and 21679.5 do not apply to the County of Los Angeles until January 1, 1992. If the airport land use compatibility plans required pursuant to Section 21675 are not adopted by the county regional planning commission by January 1, 1992, Sections 21675.1 and 21675.2 shall apply to the County of Los Angeles until the airport land use compatibility plans are adopted.

21670.3.

(a) Sections 21670 and 21670.1 do not apply to the County of San Diego. In that county, the San Diego County Regional Airport Authority, as established pursuant to Section 170002, shall be responsible for the preparation, adoption, and amendment of an airport land use compatibility plan for each airport in San Diego County.

(b) The San Diego County Regional Airport Authority shall engage in a public collaborative planning process when preparing and updating an airport land use compatibility plan.

21670.4.

(a) As used in this section, "intercounty airport" means any airport bisected by a county line through its runways, runway protection zones, inner safety zones, inner turning zones, outer safety zones, or sideline safety zones, as defined by the department's Airport Land Use Planning Handbook and referenced in the airport land use compatibility plan formulated under Section 21675.

(b) It is the purpose of this section to provide the opportunity to establish a separate airport land use commission so that an intercounty airport may be served by a single airport land use planning agency, rather than having to look separately to the airport land use commissions of the affected counties.

(c) In addition to the airport land use commissions created under Section 21670 or the alternatives established under Section 21670.1, for their respective counties, the boards of supervisors and city selection committees for the affected counties, by independent majority vote of each county's two delegations, for any intercounty airport, may do either of the following:

(1) Establish a single separate airport land use commission for that airport. That commission shall consist of seven members to be selected as follows:

(A) One representing the cities in each of the counties, appointed by that county's city selection committee.

(B) One representing each of the counties, appointed by the board of supervisors of each county.

(C) One from each county having expertise in aviation, appointed by a selection committee comprised of the managers of all the public airports within that county.

(D) One representing the general public, appointed by the other six members of the commission.

(2) In accordance with subdivision (a) or (b) of Section 21670.1, designate an existing appropriate entity as that airport's land use commission.

21670.6.

Any action brought in the superior court relating to this article may be subject to a mediation proceeding conducted pursuant to Chapter 9.3 (commencing with Section 66030) of Division 1 of Title 7 of the Government Code.

21671.

In any county where there is an airport operated for the general public which is owned by a city or district in another county or by another county, one of the representatives provided by paragraph (1) of subdivision (b) of Section 21670 shall be appointed by the city selection committee of mayors of the cities of the county in which the owner of that airport is located, and one of the representatives provided by paragraph (2) of subdivision (b) of Section 21670 shall be appointed by the board of supervisors of the county in which the owner of that airport is located.

21671.5.

(a) Except for the terms of office of the members of the first commission, the term of office of each member shall be four years and until the appointment and qualification of his or her successor. The members of the first commission shall classify themselves by lot so that the term of office of one member is one year, of two members is two years, of two members is three years, and of two members is four years. The body that originally appointed a member whose term has expired shall appoint his or her successor for a full term of four years. Any member may be removed at any time and without cause by the body appointing that member. The expiration date of the term of office of each member shall be the first Monday in May in the year in which that member's term is to expire. Any vacancy in the membership of the commission shall be filled for the unexpired term by appointment by the body which

originally appointed the member whose office has become vacant. The chairperson of the commission shall be selected by the members thereof.

(b) Compensation, if any, shall be determined by the board of supervisors.

(c) Staff assistance, including the mailing of notices and the keeping of minutes and necessary quarters, equipment, and supplies shall be provided by the county. The usual and necessary operating expenses of the commission shall be a county charge.

(d) Notwithstanding any other provisions of this article, the commission shall not employ any personnel either as employees or independent contractors without the prior approval of the board of supervisors.

(e) The commission shall meet at the call of the commission chairperson or at the request of the majority of the commission members. A majority of the commission members shall constitute a quorum for the transaction of business. No action shall be taken by the commission except by the recorded vote of a majority of the full membership.

(f) The commission may establish a schedule of fees necessary to comply with this article. Those fees shall be charged to the proponents of actions, regulations, or permits, shall not exceed the estimated reasonable cost of providing the service, and shall be imposed pursuant to Section 66016 of the Government Code. Except as provided in subdivision (g), after June 30, 1991, a commission that has not adopted the airport land use compatibility plan required by Section 21675 shall not charge fees pursuant to this subdivision until the commission adopts the plan.

(g) In any county that has undertaken by contract or otherwise completed airport land use compatibility plans for at least one-half of all public use airports in the county, the commission may continue to charge fees necessary to comply with this article until June 30, 1992, and, if the airport land use compatibility plans are complete by that date, may continue charging fees after June 30, 1992. If the airport land use compatibility plans are not complete by June 30, 1992, the commission shall not charge fees pursuant to subdivision (f) until the commission adopts the land use plans.

21672.

Each commission shall adopt rules and regulations with respect to the temporary disqualification of its members from participating in the review or adoption of a proposal because of conflict of interest and with respect to appointment of substitute members in such cases.

21673.

In any county not having a commission or a body designated to carry out the responsibilities of a commission, any owner of a public airport may initiate proceedings for the creation of a commission by presenting a request to the board of supervisors that a commission be created and showing the need therefore to the satisfaction of the board of supervisors.

21674.

The commission has the following powers and duties, subject to the limitations upon its jurisdiction set forth in Section 21676:

(a) To assist local agencies in ensuring compatible land uses in the vicinity of all new airports and in the vicinity of existing airports to the extent that the land in the vicinity of those airports is not already devoted to incompatible uses.

(b) 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.

(c) To prepare and adopt an airport land use compatibility plan pursuant to Section 21675.

(d) To review the plans, regulations, and other actions of local agencies and airport operators pursuant to Section 21676.

(e) The powers of the commission shall in no way be construed to give the commission jurisdiction over the operation of any airport.

(f) In order to carry out its responsibilities, the commission may adopt rules and regulations consistent with this article.

21674.5.

(a) The Department of Transportation shall develop and implement a program or programs to assist in the training and development of the staff of airport land use commissions, after consulting with airport land use commissions, cities, counties, and other appropriate public entities.

(b) The training and development program or programs are intended to assist the staff of airport land use commissions in addressing high priority needs, and may include, but need not be limited to, the following:

(1) The establishment of a process for the development and adoption of airport land use compatibility plans.

(2) The development of criteria for determining the airport influence area.

(3) The identification of essential elements that should be included in the airport land use compatibility plans.

(4) Appropriate criteria and procedures for reviewing proposed developments and determining whether proposed developments are compatible with the airport use.

(5) Any other organizational, operational, procedural, or technical responsibilities and functions that the department determines to be appropriate to provide to commission staff and for which it determines there is a need for staff training or development.

(c) The department may provide training and development programs for airport land use commission staff pursuant to this section by any means it deems appropriate. Those programs may be presented in any of the following ways:

(1) By offering formal courses or training programs.

(2) By sponsoring or assisting in the organization and sponsorship of conferences, seminars, or other similar events.

(3) By producing and making available written information.

(4) Any other feasible method of providing information and assisting in the training and development of airport land use commission staff.

21674.7.

(a) An airport land use commission that formulates, adopts, or amends an airport land use compatibility plan shall be guided by information prepared and updated pursuant to Section 21674.5 and referred to as the Airport Land Use Planning Handbook published by the Division of Aeronautics of the Department of Transportation.

(b) It is the intent of the Legislature to discourage incompatible land uses near existing airports. Therefore, prior to granting permits for the renovation or remodeling of an existing building, structure, or facility, and before the construction of a new building, it is the intent of the Legislature that local agencies shall be guided by the height, use, noise, safety, and density criteria that are compatible with airport operations, as established by this article, and referred to as the Airport Land Use Planning Handbook, published by the division, and any applicable federal aviation regulations, including, but not limited to, Part 77 (commencing with Section 77.1) of Title 14 of the Code of Federal Regulations, to the extent that the criteria has been incorporated into the plan prepared by a commission pursuant to Section 21675. This subdivision does not limit the jurisdiction of a commission as established by this article. This subdivision does not limit the authority of local agencies to overrule commission actions or recommendations pursuant to Sections 21676, 21676.5, or 21677.

21675.

(a) Each commission shall formulate an airport land use compatibility plan that will provide for the orderly growth of each public airport and the area surrounding the airport within the jurisdiction of the commission, and will safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general. The commission's airport land use compatibility plan shall include and shall be based on a long-range master plan or an airport layout plan, as determined by the Division of Aeronautics of the Department of

Transportation, that reflects the anticipated growth of the airport during at least the next 20 years. In formulating an airport land use compatibility plan, the commission may develop height restrictions on buildings, specify use of land, and determine building standards, including soundproofing adjacent to airports, within the airport influence area. The airport land use compatibility plan shall be reviewed as often as necessary in order to accomplish its purposes, but shall not be amended more than once in any calendar year.

(b) The commission shall include, within its airport land use compatibility plan formulated pursuant to subdivision (a), the area within the jurisdiction of the commission surrounding any military airport for all of the purposes specified in subdivision (a). The airport land use compatibility plan shall be consistent with the safety and noise standards in the Air Installation Compatible Use Zone prepared for that military airport. This subdivision does not give the commission any jurisdiction or authority over the territory or operations of any military airport.

(c) The airport influence area shall be established by the commission after hearing and consultation with the involved agencies.

(d) The commission shall submit to the Division of Aeronautics of the department one copy of the airport land use compatibility plan and each amendment to the plan.

(e) If an airport land use compatibility plan does not include the matters required to be included pursuant to this article, the Division of Aeronautics of the department shall notify the commission responsible for the plan.

21675.1.

(a) By June 30, 1991, each commission shall adopt the airport land use compatibility plan required pursuant to Section 21675, except that any county that has undertaken by contract or otherwise completed airport land use compatibility plans for at least one-half of all public use airports in the county, shall adopt that airport land use compatibility plan on or before June 30, 1992.

(b) Until a commission adopts an airport land use compatibility plan, a city or county shall first submit all actions, regulations, and permits within the vicinity of a public airport to the commission for review and approval. Before the commission approves or disapproves any actions, regulations, or permits, the commission shall give public notice in the same manner as the city or county is required to give for those actions, regulations, or permits. As used in this section, "vicinity" means land that will be included or reasonably could be included within the airport land use compatibility plan. If the commission has not designated an airport influence area for the airport land use compatibility plan, then "vicinity" means land within two miles of the boundary of a public airport.

(c) The commission may approve an action, regulation, or permit if it finds, based on substantial evidence in the record, all of the following:

(1) The commission is making substantial progress toward the completion of the airport land use compatibility plan.

(2) There is a reasonable probability that the action, regulation, or permit will be consistent with the airport land use compatibility plan being prepared by the commission.

(3) There is little or no probability of substantial detriment to or interference with the future adopted airport land use compatibility plan if the action, regulation, or permit is ultimately inconsistent with the airport land use compatibility plan.

(d) If the commission disapproves an action, regulation, or permit, the commission shall notify the city or county. The city or county may overrule the commission, by a two-thirds vote of its governing body, if it makes specific findings that the proposed action, regulation, or permit is consistent with the purposes of this article, as stated in Section 21670.

(e) If a city or county overrules the commission pursuant to subdivision (d), that action shall not relieve the city or county from further compliance with this article after the commission adopts the airport land use compatibility plan.

(f) If a city or county overrules the commission pursuant to subdivision (d) with respect to a publicly owned airport that the city or county does not operate, the operator of the airport is not liable for damages to property or personal injury resulting from the city's or county's decision to proceed with the action, regulation, or permit.

(g) A commission may adopt rules and regulations that exempt any ministerial permit for single-family dwellings from the requirements of subdivision (b) if it makes the findings required pursuant to subdivision (c) for the proposed rules and regulations, except that the rules and regulations may not exempt either of the following:

(1) More than two single-family dwellings by the same applicant within a subdivision prior to June 30, 1991.

(2) Single-family dwellings in a subdivision where 25 percent or more of the parcels are undeveloped.

21675.2.

(a) If a commission fails to act to approve or disapprove any actions, regulations, or permits within 60 days of receiving the request pursuant to Section 21675.1, the applicant or his or her representative may file an action pursuant to Section 1094.5 of the Code of Civil Procedure to compel the commission to act, and the court shall give the proceedings preference over all other actions or proceedings, except previously filed pending matters of the same character.

(b) The action, regulation, or permit shall be deemed approved only if the public notice required by this subdivision has occurred. If the applicant has provided seven days advance notice to

the commission of the intent to provide public notice pursuant to this subdivision, then, not earlier than the date of the expiration of the time limit established by Section 21675.1, an applicant may provide the required public notice. If the applicant chooses to provide public notice, that notice shall include a description of the proposed action, regulation, or permit substantially similar to the descriptions which are commonly used in public notices by the commission, the location of any proposed development, the application number, the name and address of the commission, and a statement that the action, regulation, or permit shall be deemed approved if the commission has not acted within 60 days. If the applicant has provided the public notice specified in this subdivision, the time limit for action by the commission shall be extended to 60 days after the public notice is provided. If the applicant provides notice pursuant to this section, the commission shall refund to the applicant any fees which were collected for providing notice and which were not used for that purpose.

(c) Failure of an applicant to submit complete or adequate information pursuant to Sections 65943 to 65946, inclusive, of the Government Code, may constitute grounds for disapproval of actions, regulations, or permits.

(d) Nothing in this section diminishes the commission's legal responsibility to provide, where applicable, public notice and hearing before acting on an action, regulation, or permit.

21676.

(a) Each local agency whose general plan includes areas covered by an airport land use compatibility plan shall, by July 1, 1983, submit a copy of its plan or specific plans to the airport land use commission. The commission shall determine by August 31, 1983, whether the plan or plans are consistent or inconsistent with the airport land use compatibility plan. If the plan or plans are inconsistent with the airport land use compatibility plan, the local agency shall be notified and that local agency shall have another hearing to reconsider its airport land use compatibility plans. The local agency may propose to overrule the commission after the hearing by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670. At least 45 days prior to the decision to overrule the commission, the local agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the local agency governing body may act without them. The comments by the division or the commission are advisory to the local agency governing body. The local agency governing body shall include comments from the commission and the division in the final record of any final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.

(b) Prior to the amendment of a general plan or specific plan, or the adoption or approval of a zoning ordinance or building regulation within the planning boundary established by the airport land use commission pursuant to Section 21675, the local agency shall first refer the

proposed action to the commission. If the commission determines that the proposed action is inconsistent with the commission's plan, the referring agency shall be notified. The local agency may, after a public hearing, propose to overrule the commission by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670. At least 45 days prior to the decision to overrule the commission, the local agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the local agency governing body may act without them. The comments by the division or the commission are advisory to the local agency governing body. The local agency governing body shall include comments from the commission and the division in the public record of any final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.

(c) Each public agency owning any airport within the boundaries of an airport land use compatibility plan shall, prior to modification of its airport master plan, refer any proposed change to the airport land use commission. If the commission determines that the proposed action is inconsistent with the commission's plan, the referring agency shall be notified. The public agency may, after a public hearing, propose to overrule the commission by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670. At least 45 days prior to the decision to overrule the commission, the public agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the public agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the public agency governing body may act without them. The comments by the division or the commission are advisory to the public agency governing body. The public agency governing body shall include comments from the commission and the division in the final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.

(d) Each commission determination pursuant to subdivision (b) or (c) shall be made within 60 days from the date of referral of the proposed action. If a commission fails to make the determination within that period, the proposed action shall be deemed consistent with the airport land use compatibility plan.

21676.5.

(a) If the commission finds that a local agency has not revised its general plan or specific plan or overruled the commission by a two-thirds vote of its governing body after making specific findings that the proposed action is consistent with the purposes of this article as stated in Section 21670, the commission may require that the local agency submit all subsequent actions, regulations, and permits to the commission for review until its general plan or specific plan is revised or the specific findings are made. If, in the determination of the

commission, an action, regulation, or permit of the local agency is inconsistent with the airport land use compatibility plan, the local agency shall be notified and that local agency shall hold a hearing to reconsider its plan. The local agency may propose to overrule the commission after the hearing by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article as stated in Section 21670. At least 45 days prior to the decision to overrule the commission, the local agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the local agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the local agency governing body may act without them. The comments by the division or the commission are advisory to the local agency governing body. The local agency governing body shall include comments from the commission and the division in the final decision to overrule the commission, which may only be adopted by a two-thirds vote of the governing body.

(b) Whenever the local agency has revised its general plan or specific plan or has overruled the commission pursuant to subdivision (a), the proposed action of the local agency shall not be subject to further commission review, unless the commission and the local agency agree that individual projects shall be reviewed by the commission.

21677.

Notwithstanding the two-thirds vote required by Section 21676, any public agency in the County of Marin may overrule the Marin County Airport Land Use Commission by a majority vote of its governing body. At least 45 days prior to the decision to overrule the commission, the public agency governing body shall provide the commission and the division a copy of the proposed decision and findings. The commission and the division may provide comments to the public agency governing body within 30 days of receiving the proposed decision and findings. If the commission or the division's comments are not available within this time limit, the public agency governing body may act without them. The comments by the division or the commission are advisory to the public agency governing body. The public agency governing body shall include comments from the commission and the division in the public record of the final decision to overrule the commission, which may be adopted by a majority vote of the governing body.

21678.

With respect to a publicly owned airport that a public agency does not operate, if the public agency pursuant to Section 21676, 21676.5, or 21677 overrules a commission's action or recommendation, the operator of the airport shall be immune from liability for damages to property or personal injury caused by or resulting directly or indirectly from the public agency's decision to overrule the commission's action or recommendation.

21679.

(a) In any county in which there is no airport land use commission or other body designated to assume the responsibilities of an airport land use commission, or in which the commission or other designated body has not adopted an airport land use compatibility plan, an interested party may initiate proceedings in a court of competent jurisdiction to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, that directly affects the use of land within one mile of the boundary of a public airport within the county.

(b) The court may issue an injunction that postpones the effective date of the zoning change, zoning variance, permit, or regulation until the governing body of the local agency that took the action does one of the following:

(1) In the case of an action that is a legislative act, adopts a resolution declaring that the proposed action is consistent with the purposes of this article stated in Section 21670.

(2) In the case of an action that is not a legislative act, adopts a resolution making findings based on substantial evidence in the record that the proposed action is consistent with the purposes of this article stated in Section 21670.

(3) Rescinds the action.

(4) Amends its action to make it consistent with the purposes of this article stated in Section 21670, and complies with either paragraph (1) or (2), whichever is applicable.

(c) The court shall not issue an injunction pursuant to subdivision (b) if the local agency that took the action demonstrates that the general plan and any applicable specific plan of the agency accomplishes the purposes of an airport land use compatibility plan as provided in Section 21675.

(d) An action brought pursuant to subdivision (a) shall be commenced within 30 days of the decision or within the appropriate time periods set by Section 21167 of the Public Resources Code, whichever is longer.

(e) If the governing body of the local agency adopts a resolution pursuant to subdivision (b) with respect to a publicly owned airport that the local agency does not operate, the operator of the airport shall be immune from liability for damages to property or personal injury from the local agency's decision to proceed with the zoning change, zoning variance, permit, or regulation.

(f) As used in this section, "interested party" means any owner of land within two miles of the boundary of the airport or any organization with a demonstrated interest in airport safety and efficiency.

21679.5.

(a) Until June 30, 1991, no action pursuant to Section 21679 to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, directly affecting the use of land within one mile of the boundary of a public airport, shall be commenced in any county in which the commission or other designated body has not adopted an airport land use compatibility plan, but is making substantial progress toward the completion of the airport land use compatibility plan.

(b) If a commission has been prevented from adopting the airport land use compatibility plan by June 30, 1991, or if the adopted airport land use compatibility plan could not become effective, because of a lawsuit involving the adoption of the airport land use compatibility plan, the June 30, 1991, date in subdivision (a) shall be extended by the period of time during which the lawsuit was pending in a court of competent jurisdiction.

(c) Any action pursuant to Section 21679 commenced prior to January 1, 1990, in a county in which the commission or other designated body has not adopted an airport land use compatibility plan, but is making substantial progress toward the completion of the airport land use compatibility plan, which has not proceeded to final judgment, shall be held in abeyance until June 30, 1991. If the commission or other designated body adopts an airport land use compatibility plan on or before June 30, 1991, the action shall be dismissed. If the commission or other designated body does not adopt an airport land use compatibility plan on or before June 30, 1991, the plaintiff or plaintiffs may proceed with the action.

(d) An action to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, directly affecting the use of land within one mile of the boundary of a public airport for which an airport land use compatibility plan has not been adopted by June 30, 1991, shall be commenced within 30 days of June 30, 1991, or within 30 days of the decision by the local agency, or within the appropriate time periods set by Section 21167 of the Public Resources Code, whichever date is later.

B.1.2 §21402 , 21403 Regulation of Aeronautics

21402.

The ownership of the space above the land and waters of this State is vested in the several owners of the surface beneath, subject to the right of flight described in Section 21403. No use shall be made of such airspace which would interfere with such right of flight; provided, that any use of property in conformity with an original zone of approach of an airport shall not be rendered unlawful by reason of a change in such zone of approach.

21403.

(a) Flight in aircraft over the land and waters of this state is lawful, unless at altitudes below those prescribed by federal authority, or unless conducted so as to be imminently dangerous

to persons or property lawfully on the land or water beneath. The landing of an aircraft on the land or waters of another, without his or her consent, is unlawful except in the case of a forced landing or pursuant to Section 21662.1. The owner, lessee, or operator of the aircraft is liable, as provided by law, for damages caused by a forced landing.

(b) The landing, takeoff, or taxiing of an aircraft on a public freeway, highway, road, or street is unlawful except in the following cases:

(1) A forced landing.

(2) A landing during a natural disaster or other public emergency if the landing has received prior approval from the public agency having primary jurisdiction over traffic upon the freeway, highway, road, or street.

(3) When the landing, takeoff, or taxiing has received prior approval from the public agency having primary jurisdiction over traffic upon the freeway, highway, road or street.

The prosecution bears the burden of proving that none of the exceptions apply to the act which is alleged to be unlawful.

(c) The right of flight in aircraft includes the right of safe access to public airports, which includes the right of flight within the zone of approach of any public airport without restriction or hazard. The zone of approach of an airport shall conform to the specifications of Part 77 of the Federal Aviation Regulations of the Federal Aviation Administration, Department of Transportation.

B.1.3 §21655, 21658, 21659 Regulation of Obstructions

21655.

Notwithstanding any other provision of law, if the proposed site of any state building or other enclosure is within two miles, measured by air line, of that point on an airport runway, or runway proposed by an airport master plan, which is nearest the site, the state agency or office which proposes to construct the building or other enclosure shall, before acquiring title to property for the new state building or other enclosure site or for an addition to a present site, notify the Department of Transportation, in writing, of the proposed acquisition. The department shall investigate the proposed site and, within 30 working days after receipt of the notice, shall submit to the state agency or office which proposes to construct the building or other enclosure a written report of the investigation and its recommendations concerning acquisition of the site.

If the report of the department does not favor acquisition of the site, no state funds shall be expended for the acquisition of the new state building or other enclosure site, or the expansion of the present site, or for the construction of the state building or other enclosure, provided that the provisions of this section shall not affect title to real property once it is acquired.

21658.

No public utility shall construct any pole, pole line, distribution or transmission tower, or tower line, or substation structure in the vicinity of the exterior boundary of an aircraft landing area of any airport open to public use, in a location with respect to the airport and at a height so as to constitute an obstruction to air navigation, as an obstruction is defined in accordance with Part 77 of the Federal Aviation Regulations, Federal Aviation Administration, or any corresponding rules or regulations of the Federal Aviation Administration, unless the Federal Aviation Administration has determined that the pole, line, tower, or structure does not constitute a hazard to air navigation. This section shall not apply to existing poles, lines, towers, or structures or to the repair, replacement, or reconstruction thereof if the original height is not materially exceeded and this section shall not apply unless just compensation shall have first been paid to the public utility by the owner of any airport for any property or property rights which would be taken or damaged hereby.

21659.

(a) No person shall construct or alter any structures or permit any natural growth to grow at a height which exceeds the obstruction standards set forth in the regulations of the Federal Aviation Administration relating to objects affecting navigable airspace contained in Title 14 of the Code of Federal Regulations, Part 77, Subpart C, unless a permit allowing the construction, alteration, or growth is issued by the department.

(b) The permit is not required if the Federal Aviation Administration has determined that the construction, alteration, or growth does not constitute a hazard to air navigation or would not create an unsafe condition for air navigation. Subdivision (a) does not apply to a pole, pole line, distribution or transmission tower, or tower line or substation of a public utility.

(c) Section 21658 is applicable to subdivision (b).

B.1.4 §21661.5, 21664.5 Regulation of Airports

21661.5.

(a) No political subdivisions, any of its officers or employees, or any person may submit any application for the construction of a new airport to any local, regional, state, or federal agency unless the plan for construction is first approved by the board of supervisors of the county, or the city council of the city, in which the airport is to be located and unless the plan is submitted to the appropriate commission exercising powers pursuant to Article 3.5 (commencing with Section 21670) of Chapter 4 of Part 1 of Division 9, and acted upon by that commission in accordance with the provisions of that article.

(b) A county board of supervisors or a city council may, pursuant to Section 65100 of the Government Code, delegate its responsibility under this section for the approval of a plan for construction of new helicopter landing and takeoff areas, to the county or city planning agency.

21664.5.

(a) An amended airport permit shall be required for every expansion of an existing airport. An applicant for an amended airport permit shall comply with each requirement of this article pertaining to permits for new airports. The department may by regulation provide for exemptions from the operation of this section pursuant to Section 21661, except that no exemption shall be made limiting the applicability of subdivision (e) of Section 21666, pertaining to environmental considerations, including the requirement for public hearings in connection therewith.

(b) As used in this section, "airport expansion" includes any of the following:

(1) The acquisition of runway protection zones, as defined in Federal Aviation Administration Advisory Circular 150/1500-13, or of any interest in land for the purpose of any other expansion as set forth in this section.

(2) The construction of a new runway.

(3) The extension or realignment of an existing runway.

(4) Any other expansion of the airport's physical facilities for the purpose of accomplishing or which are related to the purpose of paragraph (1), (2), or (3).

(c) This section does not apply to any expansion of an existing airport if the expansion commenced on or prior to the effective date of this section and the expansion met the approval, on or prior to that effective date, of each governmental agency that required the approval by law.

B.2 Government Code

B.2.1 §65302.3 Consistency with Airport Land Use Plans

65302.3.

(a) The general plan, and any applicable specific plan prepared pursuant to Article 8 (commencing with Section 65450), shall be consistent with the plan adopted or amended pursuant to Section 21675 of the Public Utilities Code.

(b) The general plan, and any applicable specific plan, shall be amended, as necessary, within 180 days of any amendment to the plan required under Section 21675 of the Public Utilities Code.

(c) If the legislative body does not concur with any provision of the plan required under Section 21675 of the Public Utilities Code, it may satisfy the provisions of this section by adopting findings pursuant to Section 21676 of the Public Utilities Code.

(d) In each county where an airport land use commission does not exist, but where there is a military airport, the general plan, and any applicable specific plan prepared pursuant to Article 8 (commencing with Section 65450), shall be consistent with the safety and noise standards in the Air Installation Compatible Use Zone prepared for that military airport.

B.2.2 §65943 – 65945.7 Application for Development Projects

65943.

(a) Not later than 30 calendar days after any public agency has received an application for a development project, the agency shall determine in writing whether the application is complete and shall immediately transmit the determination to the applicant for the development project. If the written determination is not made within 30 days after receipt of the application, and the application includes a statement that it is an application for a development permit, the application shall be deemed complete for purposes of this chapter. Upon receipt of any re-submittal of the application, a new 30-day period shall begin, during which the public agency shall determine the completeness of the application. If the application is determined not to be complete, the agency's determination shall specify those parts of the application which are incomplete and shall indicate the manner in which they can be made complete, including a list and thorough description of the specific information needed to complete the application. The applicant shall submit materials to the public agency in response to the list and description.

(b) Not later than 30 calendar days after receipt of the submitted materials, the public agency shall determine in writing whether they are complete and shall immediately transmit that determination to the applicant. If the written determination is not made within that 30-day period, the application together with the submitted materials shall be deemed complete for purposes of this chapter.

(c) If the application together with the submitted materials are determined not to be complete pursuant to subdivision (b), the public agency shall provide a process for the applicant to appeal that decision in writing to the governing body of the agency or, if there is no governing body, to the director of the agency, as provided by that agency. A city or county shall provide that the right of appeal is to the governing body or, at their option, the planning commission, or both.

There shall be a final written determination by the agency on the appeal not later than 60 calendar days after receipt of the applicant’s written appeal. The fact that an appeal is permitted to both the planning commission and to the governing body does not extend the 60-day period. Notwithstanding a decision pursuant to subdivision (b) that the application and submitted materials are not complete, if the final written determination on the appeal is not made within that 60-day period, the application with the submitted materials shall be deemed complete for the purposes of this chapter.

(d) Nothing in this section precludes an applicant and a public agency from mutually agreeing to an extension of any time limit provided by this section.

(e) A public agency may charge applicants a fee not to exceed the amount reasonably necessary to provide the service required by this section. If a fee is charged pursuant to this section, the fee shall be collected as part of the application fee charged for the development permit.

65943.5.

(a) Notwithstanding any other provision of this chapter, any appeal pursuant to subdivision (c) of Section 65943 involving a permit application to a board, office, or department within the California Environmental Protection Agency shall be made to the Secretary for Environmental Protection.

(b) Notwithstanding any other provision of this chapter, any appeal pursuant to subdivision (c) of Section 65943 involving an application for the issuance of an environmental permit from an environmental agency shall be made to the Secretary for Environmental Protection under either of the following circumstances:

(1) The environmental agency has not adopted an appeals process pursuant to subdivision (c) of Section 65943.

(2) The environmental agency declines to accept an appeal for a decision pursuant to subdivision (c) of Section 65943.

(c) For purposes of subdivision (b), "environmental permit" has the same meaning as defined in Section 71012 of the Public Resources Code, and "environmental agency" has the same meaning as defined in Section 71011 of the Public Resources Code, except that "environmental agency" does not include the agencies described in subdivisions (c) and (h) of Section 71011 of the Public Resources Code.

65944.

(a) After a public agency accepts an application as complete, the agency shall not subsequently request of an applicant any new or additional information which was not specified in the list prepared pursuant to Section 65940. The agency may, in the course of processing the application, request the applicant to clarify, amplify, correct, or otherwise supplement the information required for the application.

(b) The provisions of subdivision (a) shall not be construed as requiring an applicant to submit with his or her initial application the entirety of the information which a public agency may require in order to take final action on the application. Prior to accepting an application, each public agency shall inform the applicant of any information included in the list prepared pursuant to Section 65940 which will subsequently be required from the applicant in order to complete final action on the application.

(c) This section shall not be construed as limiting the ability of a public agency to request and obtain information which may be needed in order to comply with the provisions of Division 13 (commencing with Section 21000) of the Public Resources Code.

65945.

(a) At the time of filing an application for a development permit with a city or county, the city or county shall inform the applicant that he or she may make a written request to receive notice from the city or county of a proposal to adopt or amend any of the following plans or ordinances:

(1) A general plan.

(2) A specific plan.

(3) A zoning ordinance.

(4) An ordinance affecting building permits or grading permits.

The applicant shall specify, in the written request, the types of proposed action for which notice is requested. Prior to taking any of those actions, the city or county shall give notice to any applicant who has requested notice of the type of action proposed and whose development project is pending before the city or county if the city or county determines that the proposal is reasonably related to the applicant's request for the development permit. Notice shall be given only for those types of actions which the applicant specifies in the request for notification.

The city or county may charge the applicant for a development permit, to whom notice is provided pursuant to this subdivision, a reasonable fee not to exceed the actual cost of providing that notice. If a fee is charged pursuant to this subdivision, the fee shall be collected as part of the application fee charged for the development permit.

(b) As an alternative to the notification procedure prescribed by subdivision (a), a city or county may inform the applicant at the time of filing an application for a development permit that he or she may subscribe to a periodically updated notice or set of notices from the city or county which lists pending proposals to adopt or amend any of the plans or ordinances specified in subdivision (a), together with the status of the proposal and the date of any hearings thereon which have been set.

Only those proposals which are general, as opposed to parcel-specific in nature, and which the city or county determines are reasonably related to requests for development permits, need be listed in the notice. No proposal shall be required to be listed until such time as the first public hearing thereon has been set. The notice shall be updated and mailed at least once every six weeks; except that a notice need not be updated and mailed until a change in its contents is required.

The city or county may charge the applicant for a development permit, to whom notice is provided pursuant to this subdivision, a reasonable fee not to exceed the actual cost of providing that notice, including the costs of updating the notice, for the length of time the applicant requests to be sent the notice or notices.

65945.3.

At the time of filing an application for a development permit with a local agency, other than a city or county, the local agency shall inform the applicant that he or she may make a written request to receive notice of any proposal to adopt or amend a rule or regulation affecting the issuance of development permits.

Prior to adopting or amending any such rule or regulation, the local agency shall give notice to any applicant who has requested such notice and whose development project is pending before the agency if the local agency determines that the proposal is reasonably related to the applicant's request for the development permit.

The local agency may charge the applicant for a development permit, to whom notice is provided pursuant to this section, a reasonable fee not to exceed the actual cost of providing that notice. If a fee is charged pursuant to this section, the fee shall be collected as part of the application fee charged for the development permit.

65945.5.

At the time of filing an application for a development permit with a local agency, other than a city or county, the local agency shall inform the applicant that he or she may make a written request to receive notice of any proposal to adopt or amend a rule or regulation affecting the issuance of development permits.

Prior to adopting or amending any such rule or regulation, the local agency shall give notice to any applicant who has requested such notice and whose development project is pending before the agency if the local agency determines that the proposal is reasonably related to the applicant's request for the development permit.

The local agency may charge the applicant for a development permit, to whom notice is provided pursuant to this section, a reasonable fee not to exceed the actual cost of providing that notice. If a fee is charged pursuant to this section, the fee shall be collected as part of the application fee charged for the development permit.

65945.7.

No action, inaction, or recommendation regarding any ordinance, rule, or regulation subject to this Section 65945, 65945.3, or 65945.5 by any legislative body, administrative body, or the officials of any state or local agency shall be held void or invalid or be set aside by any court on the ground of any error, irregularity, informality, neglect or omission (hereinafter called "error") as to any matter pertaining to notices, records, determinations, publications or any matters of procedure whatever, unless after an examination of the entire case, including evidence, the court

shall be of the opinion that the error complained of was prejudicial, and that by reason of such error the party complaining or appealing sustained and suffered substantial injury, and that a different result would have been probable if such error had not occurred or existed. There shall be no presumption that error is prejudicial or that injury was done if error is shown.

B.2.3 §66030 – 66031 Mediation and Resolution of Land Use Disputes

66030.

(a) The Legislature finds and declares all of the following:

(1) Current law provides that aggrieved agencies, project proponents, and affected residents may bring suit against the land use decisions of state and local governmental agencies. In practical terms, nearly anyone can sue once a project has been approved.

(2) Contention often arises over projects involving local general plans and zoning, redevelopment plans, the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code), development impact fees, annexations and incorporations, and the Permit Streamlining Act (Chapter 4.5 (commencing with Section 65920)).

(3) When a public agency approves a development project that is not in accordance with the law, or when the prerogative to bring suit is abused, lawsuits can delay development, add uncertainty and cost to the development process, make housing more expensive, and damage California's competitiveness. This litigation begins in the superior court, and often progresses on appeal to the Court of Appeal and the Supreme Court, adding to the workload of the state's already overburdened judicial system.

(b) It is, therefore, the intent of the Legislature to help litigants resolve their differences by establishing formal mediation processes for land use disputes. In establishing these mediation processes, it is not the intent of the Legislature to interfere with the ability of litigants to pursue remedies through the courts.

66031.

(a) Notwithstanding any other provision of law, any action brought in the superior court relating to any of the following subjects may be subject to a mediation proceeding conducted pursuant to this chapter:

(1) The approval or denial by a public agency of any development project.

(2) Any act or decision of a public agency made pursuant to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code).

(3) The failure of a public agency to meet the time limits specified in Chapter 4.5 (commencing with Section 65920), commonly known as the Permit Streamlining Act, or in the Subdivision Map Act (Division 2 (commencing with Section 66410)).

(4) Fees determined pursuant to Sections 53080 to 53082, inclusive, or Chapter 4.9 (commencing with Section 65995).

(5) Fees determined pursuant to Chapter 5 (commencing with Section 66000).

(6) The adequacy of a general plan or specific plan adopted pursuant to Chapter 3 (commencing with Section 65100).

(7) The validity of any sphere of influence, urban service area, change of organization or reorganization, or any other decision made pursuant to the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Division 3 (commencing with Section 56000) of Title 5).

(8) The adoption or amendment of a redevelopment plan pursuant to the Community Redevelopment Law (Part 1 (commencing with Section 33000) of Division 24 of the Health and Safety Code).

(9) The validity of any zoning decision made pursuant to Chapter 4 (commencing with Section 65800).

(b) The validity of any decision made pursuant to Article 3.5 (commencing with Section 21670) of Chapter 4 of Part 1 of Division 9 of the Public Utilities Code.

(c) Within five days after the deadline for the respondent or defendant to file its reply to an action, the court may invite the parties to consider resolving their dispute by selecting a mutually acceptable person to serve as a mediator, or an organization or agency to provide a mediator.

(d) In selecting a person to serve as a mediator, or an organization or agency to provide a mediator, the parties shall consider the following:

(1) The council of governments having jurisdiction in the county where the dispute arose.

(2) Any sub-regional or countywide council of governments in the county where the dispute arose.

(3) Any other person with experience or training in mediation including those with experience in land use issues, or any other organization or agency that can provide a person with experience or training in mediation, including those with experience in land use issues.

(d) If the court invites the parties to consider mediation, the parties shall notify the court within 30 days if they have selected a mutually acceptable person to serve as a mediator. If the parties have not selected a mediator within 30 days, the action shall proceed. The court shall not draw any implication, favorable or otherwise, from the refusal by a party to accept the invitation by the court to consider mediation. Nothing in this section shall preclude the parties from using mediation at any other time while the action is pending.

B.2.4 §66455.9 School Site Review

66455.9.

Whenever there is consideration of an area within a development for a public school site, the advisory agency shall give the affected districts and the State Department of Education written notice of the proposed site. The written notice shall include the identification of any existing or proposed runways within the distance specified in Section 17215 of the Education Code. If the site is within the distance of an existing or proposed airport runway as described in Section 17215 of the Education Code, the department shall notify the State Department of Transportation as required by the section and the site shall be investigated by the State Department of Transportation required by Section 17215.

B.3 Education Code

B.3.1 §17215 School Facilities, General Provisions

17215.

(a) In order to promote the safety of pupils, comprehensive community planning, and greater educational usefulness of school sites, before acquiring title to or leasing property for a new school site, the governing board of each school district, including any district governed by a city board of education, or a charter school, shall give the State Department of Education written notice of the proposed acquisition or lease and shall submit any information required by the State Department of Education if the site is within two miles, measured by air line, of that point on an airport runway or a potential runway included in an airport master plan that is nearest to the site.

(b) Upon receipt of the notice required pursuant to subdivision (a), the State Department of Education shall notify the Department of Transportation in writing of the proposed acquisition or lease. If the Department of Transportation is no longer in operation, the State Department of Education shall, in lieu of notifying the Department of Transportation, notify the United States Department of Transportation or any other appropriate agency, in writing, of the proposed acquisition or lease for the purpose of obtaining from the department or other agency any information or assistance that it may desire to give.

(c) The Department of Transportation shall investigate the site and, within 30 working days after receipt of the notice, shall submit to the State Department of Education a written report of its

findings including recommendations concerning acquisition or lease of the site. As part of the investigation, the Department of Transportation shall give notice thereof to the owner and operator of the airport who shall be granted the opportunity to comment upon the site. The Department of Transportation shall adopt regulations setting forth the criteria by which a site will be evaluated pursuant to this section.

(d) The State Department of Education shall, within 10 days of receiving the Department of Transportation's report, forward the report to the governing board of the school district or charter school. The governing board or charter school may not acquire title to or lease the property until the report of the Department of Transportation has been received. If the report does not favor the acquisition or lease of the property for a school site or an addition to a present school site, the governing board or charter school may not acquire title to or lease the property. If the report does favor the acquisition or lease of the property for a school site or an addition to a present school site, the governing board or charter school shall hold a public hearing on the matter prior to acquiring or leasing the site.

(e) If the Department of Transportation's recommendation does not favor acquisition or lease of the proposed site, state funds or local funds may not be apportioned or expended for the acquisition or lease of that site, construction of any school building on that site, or for the expansion of any existing site to include that site.

(f) This section does not apply to sites acquired prior to January 1, 1966, nor to any additions or extensions to those sites.

B.3.2 §81033 Community Colleges, School Sites

81033.

(c) To promote the safety of students, comprehensive community planning, and greater educational usefulness of community college sites, the governing board of each community college district, if the proposed site is within two miles, measured by air line, of that point on an airport runway, or runway proposed by an airport master plan, which is nearest the site and excluding them if the property is not so located, before acquiring title to property for a new community college site or for an addition to a present site, shall give the board of governors notice in writing of the proposed acquisition and shall submit any information required by the board of governors.

Immediately after receiving notice of the proposed acquisition of property which is within two miles, measured by air line, of that point on an airport runway, or runway proposed by an airport master plan, which is nearest the site, the board of governors shall notify the Division of Aeronautics of the Department of Transportation, in writing, of the proposed acquisition. The Division of Aeronautics shall make an investigation and report to the board of governors within 30 working days after receipt of the notice. If the Division of Aeronautics is no longer in operation, the board of governors, in lieu of notifying the Division of Aeronautics, shall notify the Federal Aviation Administration or any other appropriate agency, in writing, of the

proposed acquisition for the purpose of obtaining from the authority or other agency any information or assistance it may desire to give.

The board of governors shall investigate the proposed site and, within 35 working days after receipt of the notice, shall submit to the governing board a written report and its recommendations concerning acquisition of the site. The governing board shall not acquire title to the property until the report of the board of governors has been received. If the report does not favor the acquisition of the property for a community college site or an addition to a present community college site, the governing board shall not acquire title to the property until 30 days after the department's report is received and until the board of governors' report has been read at a public hearing duly called after 10 days' notice published once in a newspaper of general circulation within the community college district, or if there is no such newspaper, then in a newspaper of general circulation within the county in which the property is located.

(d) If, with respect to a proposed site located within two miles of an operative airport runway, the report of the board of governors submitted to a community college district governing board under subdivision (c) does not favor the acquisition of the site on the sole or partial basis of the unfavorable recommendation of the Division of Aeronautics of the Department of Transportation, no state agency or officer shall grant, apportion, or allow to that community college district for expenditure in connection with that site, any state funds otherwise made available under any state law whatever for community college site acquisition or college building construction, or for expansion of existing sites and buildings, and no funds of the community college district or of the county in which the district lies shall be expended for those purposes. However, this section shall not be applicable to sites acquired prior to January 1, 1966, or to any additions or extensions to those sites.

If the recommendation of the Division of Aeronautics is unfavorable, the recommendation shall not be overruled without the express approval of the board of governors and the State Allocation Board.

B.4 Public Resources Code

B.4.1 §21096 California Environmental Quality Act, Airport Planning

21096.

(a) If a lead agency prepares an environmental impact report for a project situated within airport land use compatibility plan boundaries, or, if an airport land use compatibility plan has not been adopted, for a project within two nautical miles of a public airport or public use airport, the Airport Land Use Planning Handbook published by the Division of Aeronautics of the Department of Transportation, in compliance with Section 21674.5 of the Public Utilities Code and other documents, shall be utilized as technical resources to assist in the preparation

of the environmental impact report as the report relates to airport-related safety hazards and noise problems.

(b) A lead agency shall not adopt a negative declaration for a project described in subdivision (a) unless the lead agency considers whether the project will result in a safety hazard or noise problem for persons using the airport or for persons residing or working in the project area.

B.5 Business and Professions Code

B.5.1 §11000-11010 Real Estate Disclosure Requirements

11000.

(a) "Subdivided lands" and "subdivision" refer to improved or unimproved lands or lands, wherever situated within California, divided or proposed to be divided for the purpose of sale or lease or financing, whether immediate or future, into five or more lots or parcels. However, land or lands sold by lots or parcels of not less than 160 acres which are designated by lot or parcel description by government surveys and appear as such on the current assessment roll of the county in which the land or lands are situated shall not be deemed to be "subdivided lands" or "a subdivision" within the meaning of this section, unless the land or lands are divided or proposed to be divided for the purpose of sale for oil and gas purposes, in which case the land or lands shall be deemed to be "subdivided lands" or "a subdivision" within the meaning of this section. This chapter also does not apply to the leasing of apartments, offices, stores, or similar space within an apartment building, industrial building, commercial building, or mobile home park, as defined under Section 18214 of the Health and Safety Code, except that the offering of leases for a term in excess of five years to tenants within a mobile home park as a mandatory requirement and prerequisite to tenancy within the mobile home park shall be subject to the provisions of this chapter. The leasing of apartments in a community apartment project, as defined in Section 11004 in an apartment or similar space within a commercial building or complex, shall be subject to the provisions of this chapter.

(b) Nothing in this section shall in any way modify or affect any of the provisions of Section 66424 of the Government Code.

(c) Subdivisions, as defined in Section 10249.1, which are located entirely outside California shall be exempt from the provisions of this part.

11000.1.

(a) "Subdivided lands" and "subdivision", as defined by Sections 11000 and 1104.5, also include improved or unimproved land or lands, a lot or lots, or a parcel or parcels, of any size, in which, for the purpose of sale or lease of financing, whether immediate or future, five or more undivided interests are created or are proposed to be created.

(b) This section does not apply to the creation or proposed creation of undivided interests in land if any one of the following conditions exists:

(1) The undivided interests are held or to be held by persons related one to the other by blood or marriage.

(2) The undivided interests are to be purchased and owned solely by persons who present evidence satisfactory to the Real Estate Commissioner that they are knowledgeable and experienced investors who comprehend the nature and extent of the risks involved in the ownership of these interests. The Real Estate Commissioner shall grant an exemption from this part if the undivided interests are to be purchased by no more than 10 persons, each of whom furnishes a signed statement to the commissioner that he or she:

(A) is fully informed concerning the real property to be acquired and his or her interest in that property including the risks involved in ownership of undivided interests,

(B) is purchasing the interest or interests for his or her own account and with no present intention to resell or otherwise dispose of the interest for value, and

(C) expressly waives protections afforded to a purchaser by this part.

(3) The undivided interests are created as a result of a foreclosure sale.

(4) The undivided interests are created by a valid order or decree of a court.

(5) The offering and sale of the undivided interests have been expressly qualified by the issuance of a permit from the Commissioner of Corporations pursuant to the Corporate Securities Law of 1968 (Division 1 (commencing with Section 25000) of Title 4 of the Corporations Code).

11010.

(a) Except as otherwise provided pursuant to subdivision (c) or elsewhere in this chapter, any person who intends to offer subdivided lands within this state for sale or lease shall file with the Department of Real Estate an application for a public report consisting of a notice of intention and a completed questionnaire on a form prepared by the department.

(b) (13) (A) The location of all existing airports, and of all proposed airports shown on the general plan of any city or county, located within two statute miles of the subdivision. If the property is located within an airport influence area, the following statement shall be included in the notice of intention:

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as the airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

(B) For purposes of this section, an "airport influence area," also known as an "airport referral area", is the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission.

B.6 Legislative History Summary

B.6.1 Airport Land Use Commission Statutes

1967 Original ALUC statute enacted.

- Establishment of ALUCs required in each county containing a public airport served by a certificated air carrier.
- The purpose of ALUCs is indicated as being to make recommendations regarding height restrictions on buildings and the use of land surrounding airports.

1970 Assembly Bill 1856 (Badham) Chapter 1182, Statutes of 1970 — Adds provisions which:

- Require ALUCs to prepare comprehensive land use plans.
- Require such plans to include a long-range plan and to reflect the airport's forecast growth during the next 20 years.
- Require ALUC review of airport construction plans (Section 21661.5).
- Exempt Los Angeles County from the requirement of establishing an ALUC.

1971 The function of ALUCs is restated as being to require new construction to conform to Department of Aeronautics standards.

1973 ALUCs are permitted to establish compatibility plans for military airports.

1982 Assembly Bill 2920 (Rogers) Chapter 1041, Statutes of 1982 — Adds major changes which:

- More clearly articulate the purpose of ALUCs.
- Eliminate reference to "achieve by zoning."
- Require consistency between local general and specific plans and airport land use commission plans; the requirements define the process for attaining consistency, they do not establish standards for consistency.
- Eliminate the requirement for proposed individual development projects to be referred to an ALUC for review once local general/specific plans are consistent with the ALUC's plan.
- Require that local agencies make findings of fact before overriding an ALUC decision.
- Change the vote required for an override from 4/5 to 2/3.

1984 Assembly Bill 3551 (Mountjoy) Chapter 1117, Statutes of 1984 — Amends the law to:

- Require ALUCs in all counties having an airport which serves the general public unless a county and its cities determine an ALUC is not needed.
- Limit amendments to compatibility plans to once per year.
- Allow individual projects to continue to be referred to the ALUC by agreement.
- Extend immunity to airports if an ALUC action is overridden by a local agency not owning the airport.
- Provide state funding eligibility for preparation of compatibility plans through the Regional Transportation Improvement Program process.1987Senate Bill 633 (Rogers) Chapter 1018, Statutes of 1987 — Makes revisions which:
- Require that a designated body serving as an ALUC include two members having "expertise in aviation."
- Allows an interested party to initiate court proceedings to postpone the effective date of a local land use action if a compatibility plan has not been adopted.
- Delete sunset provisions contained in certain clauses of the law.
- Allows reimbursement for ALUC costs in accordance with the Commission on State Mandates.

1989 Senate Bill 255 (Bergeson) Chapter 54, Statutes of 1989 —

- Sets a requirement that comprehensive land use plans be completed by June 1991.

- Establishes a method for compelling ALUCs to act on matters submitted for review.
- Allows ALUCs to charge fees for review of projects.
- Suspends any lawsuits that would stop development until the ALUC adopts its plan or until June 1, 1991.

1989 Senate Bill 235 (Alquist) Chapter 788, Statutes of 1989 — Appropriates $3,672,000 for the payment of claims to counties seeking reimbursement of costs incurred during fiscal years 1985-86 through 1989-90 pursuant to state-mandated requirement (Chapter 1117, Statutes of 1984) for creation of ALUCs in most counties. This statute was repealed in 1993.

1990 Assembly Bill 4164 (Mountjoy) Chapter 1008, Statutes of 1990 — Adds section 21674.5 requiring the Division of Aeronautics to develop and implement a training program for ALUC staffs.

1990 Assembly Bill 4265 (Clute) Chapter 563, Statutes of 1990 — With the concurrence of the Division of Aeronautics, allows ALUCs to use an airport layout plan, rather than a long-range airport master plan, as the basis for preparation of a compatibility plan.

1990 Senate Bill 1288 (Beverly) Chapter 54, Statutes of 1990 — Amends Section 21670.2 to give Los Angeles County additional time to prepare compatibility plans and meet other provisions of the ALUC statutes.

1991 Senate Bill 532 (Bergeson) Chapter 140, Statutes of 1991 —

- Allows counties having half of their compatibility plans completed or under preparation by June 30, 1991, an additional year to complete the remainder.
- Allows ALUCs to continue to charge fees under these circumstances.
- Fees may be charged only until June 30, 1992, if plans are not completed by then.

1993 Senate Bill 443 (Committee on Budget and Fiscal Review) Chapter 59, Statutes of 1993 — Amends Section 21670(b) to make the formation of ALUCs permissive rather than mandatory as of June 30, 1993. (Note: Section 21670.2 which assigns responsibility for coordinating the airport planning of public agencies in Los Angeles County is not affected by this amendment.)

1994 Assembly Bill 2831 (Mountjoy) Chapter 644, Statutes of 1994 — Reinstates the language in Section 21670(b) mandating establishment of ALUCs, but also provides for an alternative airport land use planning process. Lists specific actions which a county and affected cities must take in order for such alternative process to receive Caltrans' approval. Requires that ALUCs be guided by information in the Caltrans' Airport Land Use Planning Handbook when formulating airport land use plans.

1994 Senate Bill 1453 (Rogers) Chapter 438, Statutes of 1994 — Amends Caltrans Environmental Quality Act (CEQA) statutes as applied to preparation of environmental documents affecting projects in the vicinity of airports. Requires lead agencies to use the Airport Land Use Planning Handbook as a technical resource when assessing the airport-related noise and safety impacts of such projects.

1997 Assembly Bill 1130 (Oller) Chapter 81, Statutes of 1997 — Added Section 21670.4 concerning airports whose planning boundary straddles a county line.

2000 Senate Bill 1350 (Rainey) Chapter 506, Statutes of 2000 — Added Section 21670(f) clarifying that special districts are among the local agencies to which airport land use planning laws are intended to apply.

2001 Assembly Bill 93 (Wayne) Chapter 946, Statutes of 2001 — Added Section 21670.3 establishing the San Diego County Regional Airport Authority and assigning it various powers and duties regarding the establishment, planning and operation of airports within the county.

2002 Assembly Bill 3026 (Dutra) Chapter 438, Statutes of 2002 — In all sections where the term "comprehensive land use plan" is used this bill changed it to "airport land use compatibility plan."

2002 Assembly Bill 2776 (Simitian) Chapter 496, Statutes of 2002— Amends Business & Professions code and Civil code. Requires additional notification in real estate transactions regarding a property's proximity to airports and possible associated annoyances.

2002 Senate Bill 1468 (Knight) Chapter 971, Statutes of 2002— Amended Section 21675 requiring airport land use compatibility plans created for military airports to be consistent with the safety and noise standards in the Air Installation Compatible Use Zone prepared for that airport.

2003 Assembly Bill 332 (Mullin) Chapter 351, Statutes of 2003 —

- Clarifies that community college districts and school districts along with special districts are subject to airport land use laws in the State Aeronautics Act.

- Adds that if a local entity proposes to overrule an ALUC decision of incompatible land use then they must notify and provide findings to both the ALUC and Caltrans Aeronautics. Caltrans and the ALUC may provide comments in response and those comments must be made a part of the final local decision.

- Adds that prior to granting building construction permits, local agencies shall be guided by the criteria established in the Airport Land Use Planning Handbook and any related

federal aviation regulations to the extent that the criteria has been incorporated into their airport land use compatibility plan.

2007 Senate Bill 10 (Kehoe) Chapter 287, Statutes of 2007 — The San Diego County Regional Airport Authority Reform Act of 2007. Restructures the airport authority established in 2001 by AB 93 (Wayne), with a set of goals related to governance, accountability, planning and operations at San Diego International Airport.

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APPENDIX C

Title 14 Code of Federal Regulations Part 77, *Safe, Efficient Use and Preservation of the Navigable Airspace*

CONTENTS

TITLE 14 CODE OF FEDERAL REGULATIONS PART 77, SAFE, EFFICIENT USE AND PRESERVATION OF THE NAVIGABLE AIRSPACE

ISSUED JULY 2010, EFFECTIVE JANUARY 18, 2011

Subpart A
GENERAL

77.1 Purpose.

This part establishes:

(a) The requirements to provide notice to the FAA of certain proposed construction, or the alteration of existing structures;

(b) The standards used to determine obstructions to air navigation, and navigational and communication facilities;

(c) The process for aeronautical studies of obstructions to air navigation or navigational facilities to determine the effect on the safe and efficient use of navigable airspace, air navigation facilities or equipment; and

(d) The process to petition the FAA for discretionary review of determinations, revisions, and extensions of determinations.

77.3 Definitions.

For the purpose of this part:

"Nonprecision instrument runway" means a runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight in nonprecision instrument approach procedure has been approved, or planned, and for which no precision approach facilities are planned, or indicated on an FAA planning document or military service military airport planning document.

"Planned or proposed airport" is an airport that is the subject of at least one of the following documents received by the FAA:

(1) Airport proposals submitted under 14 CFR Part 157.

(2) Airport Improvement Program requests for aid.

(3) Notices of existing airports where prior notice of the airport construction or alteration was not provided as required by 14 CFR Part 157.

(4) Airport layout plans.

(5) DOD proposals for airports used only by the U.S. Armed Forces.

(6) DOD proposals on joint-use (civil-military) airports.

(7) Completed airport site selection feasibility study.

"Precision instrument runway" means a runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), or a Precision Approach Radar (PAR). It also means a runway for which a precision approach system is planned and is so indicated by an FAA approved airport layout plan; a military service approved military airport layout plan; any other FAA planning document, or military service military airport planning document.

"Public use airport" means an airport that is open to the general public with or without a prior request to use the airport.

"Seaplane base" is considered to be an airport only if its sea lanes are outlined by visual markers.

"Utility runway" means a runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.

"Visual runway" means a runway intended solely for the operation of aircraft using visual approach procedures, with no straight in instrument approach procedure and no instrument designation indicated on an FAA approved airport layout plan, a military service approved military airport layout plan, or by any planning document submitted to the FAA by competent authority.

Subpart B

NOTICE REQUIREMENTS

77.5 Applicability.

(a) If you propose any construction or alteration described in §77.9, you must provide adequate notice to the FAA of that construction or alteration.

(b) If requested by the FAA, you must also file supplemental notice before the start date and upon completion of certain construction or alterations that are described in §77.9.

(c) Notice received by the FAA under this subpart is used to:

(1) Evaluate the effect of the proposed construction or alteration on safety in air commerce and the efficient use and preservation of the navigable airspace and of airport traffic capacity at public use airports;

(2) Determine whether the effect of proposed construction or alteration is a hazard to air navigation;

(3) Determine appropriate marking and lighting recommendations, using FAA Advisory Circular 70/7460–1, Obstruction Marking and Lighting;

(4) Determine other appropriate measures to be applied for continued safety of air navigation; and

(5) Notify the aviation community of the construction or alteration of objects that affect the navigable airspace, including the revision of charts, when necessary.

77.7 Form and time of notice.

(a) If you are required to file notice under §77.9, you must submit to the FAA a completed FAA Form 7460–1, Notice of Proposed Construction or Alteration. FAA Form 7460–1 is available at FAA regional offices and on the Internet.

(b) You must submit this form at least 45 days before the start date of the proposed construction or alteration or the date an application for a construction permit is filed, whichever is earliest.

(c) If you propose construction or alteration that is also subject to the licensing requirements of the Federal Communications Commission (FCC), you must submit notice to the FAA on or before the date that the application is filed with the FCC.

(d) If you propose construction or alteration to an existing structure that exceeds 2,000 feet in height above ground level (AGL), the FAA presumes it to be a hazard to air navigation that results in an inefficient use of airspace. You must include details explaining both why the proposal would not constitute a hazard to air navigation and why it would not cause an inefficient use of airspace.

(e) The 45-day advance notice requirement is waived if immediate construction or alteration is required because of an emergency involving essential public services, public health, or public safety. You may provide notice to the FAA by any available, expeditious means. You must file a completed FAA Form 7460–1 within 5 days of the initial notice to the FAA. Outside normal business hours, the nearest flight service station will accept emergency notices.

77.9 Construction or alteration requiring notice.

If requested by the FAA, or if you propose any of the following types of construction or alteration, you must file notice with the FAA of:

(a) Any construction or alteration that is more than 200 feet AGL at its site.

(b) Any construction or alteration that exceeds an imaginary surface extending outward and upward at any of the following slopes:

(1) 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway more than 3,200 feet in actual length, excluding heliports.

(2) 50 to 1 for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway no more than 3,200 feet in actual length, excluding heliports.

(3) 25 to 1 for a horizontal distance of 5,000 feet from the nearest point of the nearest landing and takeoff area of each heliport specified in paragraph (d) of this section.

(c) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that

would normally traverse it, would exceed a standard of paragraph (a) or (b) of this section.

(d) Any construction or alteration on any of the following airports and heliports:

(1) A public use airport listed in the Airport/Facility Directory, Alaska Supplement, or Pacific Chart Supplement of the U.S. Government Flight Information Publications.

(2) A military airport under construction or an airport under construction that will be available for public use.

(3) An airport operated by a Federal agency or the DOD.

(4) An airport or heliport with at least one FAA-approved instrument approach procedure.

(e) You do not need to file notice for construction or alteration of:

(1) Any object that will be shielded by existing structures of a permanent and substantial nature or by natural terrain or topographic features of equal or greater height, and will be located in the congested area of a city, town, or settlement where the shielded structure will not adversely affect safety in air navigation.

(2) Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device meeting FAA-approved siting criteria or an appropriate military service siting criteria on military airports, the location and height of which are fixed by its functional purpose.

(3) Any construction or alteration for which notice is required by any other FAA regulation.

(4) Any antenna structure of 20 feet or less in height, except one that would increase the height of another antenna structure.

77.11 Supplemental notice requirements.

(a) You must file supplemental notice with the FAA when:

(1) The construction or alteration is more than 200 feet in height AGL at its site; or

(2) Requested by the FAA.

(b) You must file supplemental notice on a prescribed FAA form to be received within the time limits specified in the FAA determination. If no time limit

has been specified, you must submit supplemental notice of construction to the FAA within 5 days after the structure reaches its greatest height.

(c) If you abandon a construction or alteration proposal that requires supplemental notice, you must submit notice to the FAA within 5 days after the project is abandoned.

(d) If the construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

Subpart C

STANDARDS FOR DETERMINING OBSTRUCTIONS TO AIR NAVIGATION OR NAVIGATIONAL AIDS OR FACILITIES

77.13 Applicability.

This subpart describes the standards used for determining obstructions to air navigation, navigational aids, or navigational facilities. These standards apply to the following:

(a) Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used and any permanent or temporary apparatus.

(b) The alteration of any permanent or temporary existing structure by a change in its height, including appurtenances, or lateral dimensions, including equipment or material used therein.

77.15 Scope.

(a) This subpart describes standards used to determine obstructions to air navigation that may affect the safe and efficient use of navigable airspace and the operation of planned or existing air navigation and communication facilities. Such facilities include air navigation aids, communication equipment, airports, Federal airways, instrument approach or departure procedures, and approved off-airway routes.

(b) Objects that are considered obstructions under the standards described in this subpart are presumed hazards to air navigation unless further aeronautical study concludes that the object is not a hazard. Once further aeronautical study has been initiated, the FAA will use the standards in this subpart, along with FAA policy and guidance material, to determine if the object is a hazard to air navigation.

(c) The FAA will apply these standards with reference to an existing airport facility, and airport proposals received by the FAA, or the appropriate military service, before it issues a final determination.

(d) For airports having defined runways with specially prepared hard surfaces, the primary surface for each runway extends 200 feet beyond each end of the runway. For airports having defined strips or pathways used regularly for aircraft takeoffs and landings, and designated runways, without specially prepared hard surfaces, each end of the primary surface for each such runway shall coincide with the corresponding end of the runway. At airports, excluding seaplane bases, having a defined landing and takeoff area with no defined pathways for aircraft takeoffs and landings, a determination

must be made as to which portions of the landing and takeoff area are regularly used as landing and takeoff pathways. Those determined pathways must be considered runways and an appropriate primary surface as defined in §77.19 will be considered as longitudinally centered on each such runway. Each end of that primary surface must coincide with the corresponding end of that runway.

(e) The standards in this subpart apply to construction or alteration proposals on an airport (including heliports and seaplane bases with marked lanes) if that airport is one of the following before the issuance of the final determination:

(1) Available for public use and is listed in the Airport/Facility Directory, Supplement Alaska, or Supplement Pacific of the U.S. Government Flight Information Publications; or

(2) A planned or proposed airport or an airport under construction of which the FAA has received actual notice, except DOD airports, where there is a clear indication the airport will be available for public use; or,

(3) An airport operated by a Federal agency or the DOD; or,

(4) An airport that has at least one FAA-approved instrument approach.

77.17 Obstruction Standards.

(a) An existing object, including a mobile object, is, and a future object would be, an obstruction to air navigation if it is of greater height than any of the following heights or surfaces:

(1) A height of 499 feet above ground level at the site of the object.

(2) A height that is 200 feet AGL, or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 feet in actual length, and that height increases in the proportion of 100 feet for each additional nautical mile from the airport up to a maximum of 499 feet.

(3) A height within a terminal obstacle clearance area, including an initial approach segment, a departure area, and a circling approach area, which would result in the vertical distance between any point on the object and an established minimum instrument flight altitude within that area or segment to be less than the required obstacle clearance.

(4) A height within an en route obstacle clearance area, including turn and termination areas, of a Federal Airway or approved off-airway route, that would increase the minimum obstacle clearance altitude.

(5) The surface of a takeoff and landing area of an airport or any imaginary surface established under §77.19, 77.21, or 77.23. However, no part of the takeoff or landing area itself will be considered an obstruction.

(b) Except for traverse ways on or near an airport with an operative ground traffic control service furnished by an airport traffic control tower or by the airport management and coordinated with the air traffic control service, the standards of paragraph (a) of this section apply to traverse ways used or to be used for the passage of mobile objects only after the heights of these traverse ways are increased by:

(1) 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance.

(2) 15 feet for any other public roadway.

(3) 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road.

(4) 23 feet for a railroad.

(5) For a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it.

77.19 Civil Airport Imaginary Surfaces.

The following civil airport imaginary surfaces are established with relation to the airport and to each runway. The size of each such imaginary surface is based on the category of each runway according to the type of approach available or planned for that runway. The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise approach procedure existing or planned for that runway end.

(a) Horizontal surface. A horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of specified radii from the center of each end of the primary surface of each runway of each airport and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is:

(1) 5,000 feet for all runways designated as utility or visual;

(2) 10,000 feet for all other runways. The radius of the arc specified for each end of a runway will have the same arithmetical value. That value will be the highest determined for either end of the runway. When a 5,000-foot arc is encompassed by tangents connecting two adjacent 10,000-foot arcs, the 5,000-foot arc shall be disregarded on the construction of the perimeter of the horizontal surface.

(b) 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.

(c) Primary surface. A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of that runway; but when the runway has no specially prepared hard surface, the primary surface ends at each end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of the primary surface is:

(1) 250 feet for utility runways having only visual approaches.

(2) 500 feet for utility runways having nonprecision instrument approaches.

(3) For other than utility runways the width is:

(i) 500 feet for visual runways having only visual approaches.

(ii) 500 feet for nonprecision instrument runways having visibility minimums greater than three-fourths statute mile.

(iii) 1,000 feet for a nonprecision instrument runway having a no precision instrument approach with visibility minimums as low as three fourths of a statute mile, and for precision instrument runways.

(iv) The width of the primary surface of a runway will be that width prescribed in this section for the most precise approach existing or planned for either end of that runway.

(d) Approach surface. A surface longitudinally centered on the extended runway centerline and 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.

(1) The inner edge of the approach surface is the same width as the primary surface and it expands uniformly to a width of:

(i) 1,250 feet for that end of a utility runway with only visual approaches;

(ii) 1,500 feet for that end of a runway other than a utility runway with only visual approaches;

(iii) 2,000 feet for that end of a utility runway with a nonprecision instrument approach;

(iv) 3,500 feet for that end of a nonprecision instrument runway other than utility, having visibility minimums greater than three fourths of a statute mile;

(v) 4,000 feet for that end of a nonprecision instrument runway, other than utility, having a nonprecision instrument approach with visibility minimums as low as three fourths statute mile; and

(vi) 16,000 feet for precision instrument runways.

(2) The approach surface extends for a horizontal distance of:

(i) 5,000 feet at a slope of 20 to 1 for all utility and visual runways;

(ii) 10,000 feet at a slope of 34 to 1 for all nonprecision instrument runways other than utility; and,

(iii) 10,000 feet at a slope of 50 to 1 with an additional 40,000 feet at a slope of 40 to 1 for all precision instrument runways.

(3) The outer width of an approach surface to an end of a runway will be that width prescribed in this subsection for the most precise approach existing or planned for that runway end.

(e) Transitional surface. These surfaces extend outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary surface and from the sides of the approach surfaces. Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical surface extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.

77.21 Department of Defense (DOD) airport imaginary surfaces.

(a) Related to airport reference points. These surfaces apply to all military airports. For the purposes of this section, a military airport is any airport operated by the DOD.

(1) Inner horizontal surface. A plane that is oval in shape at a height of 150 feet above the established airfield elevation. The plane is constructed by scribing an arc with a radius of 7,500 feet about the centerline at the end of each runway and interconnecting these arcs with tangents.

(2) Conical surface. A surface extending from the periphery of the inner horizontal surface outward and upward at a slope of 20 to 1 for a horizontal distance of 7,000 feet to a height of 500 feet above the established airfield elevation.

(3) Outer horizontal surface. A plane, located 500 feet above the established airfield elevation, extending outward from the outer periphery of the conical surface for a horizontal distance of 30,000 feet.

(b) Related to runways. These surfaces apply to all military airports.

(1) Primary surface. A surface located on the ground or water longitudinally centered on each runway with the same length as the runway. The width of the primary surface for runways is 2,000 feet. However, at established bases where substantial construction has taken place in accordance with previous lateral clearance criteria, the 2,000-foot width may be reduced to the former criteria.

(2) Clear zone surface. A surface located on the ground or water at each end of the primary surface, with a length of 1,000 feet and the same width as the primary surface.

(3) Approach clearance surface. An inclined plane, symmetrical about the runway centerline extended, beginning 200 feet beyond each end of the primary surface at the centerline elevation of the runway end and extending for 50,000 feet. The slope of the approach clearance surface is 50 to 1 along the runway centerline extended until it reaches an elevation of 500 feet above the established airport elevation. It then continues horizontally at this elevation to a point 50,000 feet from the point of beginning. The width of this surface at the runway end is the same as the primary surface, it flares uniformly, and the width at 50,000 is 16,000 feet.

(4) Transitional surfaces. These surfaces connect the primary surfaces, the first 200 feet of the clear zone surfaces, and the approach clearance surfaces to the inner horizontal surface, conical surface, outer horizontal surface or other transitional surfaces. The slope of the transitional surface is 7 to 1 outward and upward at right angles to the runway centerline.

77.23 Heliport imaginary surfaces.

(a) Primary surface. The area of the primary surface coincides in size and shape with the designated takeoff and landing area. This surface is a horizontal plane at the elevation of the established heliport elevation.

(b) Approach surface. The approach surface begins at each end of the heliport primary surface with the same width as the primary surface, and extends outward and upward for a horizontal distance of 4,000 feet where its width is 500 feet. The slope of the approach surface is 8 to 1 for civil heliports and 10 to 1 for military heliports.

(b) Transitional surfaces. These surfaces extend outward and upward from the lateral boundaries of the heliport primary surface and from the approach surfaces at a slope of 2 to 1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.

Subpart D

AERONAUTICAL STUDIES AND DETERMINATIONS

77.25 Applicability.

(a) This subpart applies to any aeronautical study of a proposed construction or alteration for which notice to the FAA is required under §77.9.

(b) The purpose of an aeronautical study is to determine whether the aeronautical effects of the specific proposal and, where appropriate, the cumulative impact resulting from the proposed construction or alteration when combined with the effects of other existing or proposed structures, would constitute a hazard to air navigation.

(c) The obstruction standards in subpart C of this part are supplemented by other manuals and directives used in determining the effect on the navigable airspace of a proposed construction or alteration. When the FAA needs additional information, it may circulate a study to interested parties for comment.

77.27 Initiation of studies.

The FAA will conduct an aeronautical study when:

(a) Requested by the sponsor of any proposed construction or alteration for which a notice is submitted; or

(b) The FAA determines a study is necessary.

77.29 Evaluating aeronautical effect.

(a) The FAA conducts an aeronautical study to determine the impact of a proposed structure, an existing structure that has not yet been studied by the FAA, or an alteration of an existing structure on aeronautical operations, procedures, and the safety of flight. These studies include evaluating:

(1) The impact on arrival, departure, and en route procedures for aircraft operating under visual flight rules;

(2) The impact on arrival, departure, and en route procedures for aircraft operating under instrument flight rules;

(3) The impact on existing and planned public use airports;

(4) Airport traffic capacity of existing public use airports and public use airport development plans received before the issuance of the final determination;

(5) Minimum obstacle clearance altitudes, minimum instrument flight rules altitudes, approved or planned instrument approach procedures, and departure procedures;

(6) The potential effect on ATC radar, direction finders, ATC tower line-of-sight visibility, and physical or electromagnetic effects on air navigation, communication facilities, and other surveillance systems;

(7) The aeronautical effects resulting from the cumulative impact of a proposed construction or alteration of a structure when combined with the effects of other existing or proposed structures.

(b) If you withdraw the proposed construction or alteration or revise it so that it is no longer identified as an obstruction, or if no further aeronautical study is necessary, the FAA may terminate the study.

77.31 Determinations.

(a) The FAA will issue a determination stating whether the proposed construction or alteration would be a hazard to air navigation, and will advise all known interested persons.

(b) The FAA will make determinations based on the aeronautical study findings and will identify the following:

(1) The effects on VFR/IFR aeronautical departure/arrival operations, air traffic procedures, minimum flight altitudes, and existing, planned, or proposed airports listed in §77.15(e) of which the FAA has received actual notice prior to issuance of a final determination.

(2) The extent of the physical and/or electromagnetic effect on the operation of existing or proposed air navigation facilities, communication aids, or surveillance systems.

(c) The FAA will issue a Determination of Hazard to Air Navigation when the aeronautical study concludes that the proposed construction or alteration will exceed an obstruction standard and would have a substantial aeronautical impact.

(d) A Determination of No Hazard to Air Navigation will be issued when the aeronautical study concludes that the proposed construction or alteration will exceed an obstruction standard but would not have a substantial aeronautical impact to air navigation. A Determination of No Hazard to Air Navigation may include the following:

(1) Conditional provisions of a determination.

(2) Limitations necessary to minimize potential problems, such as the use of temporary construction equipment.

(3) Supplemental notice requirements, when required.

(4) Marking and lighting recommendations, as appropriate.

(e) The FAA will issue a Determination of No Hazard to Air Navigation when a proposed structure does not exceed any of the obstruction standards and would not be a hazard to air navigation.

77.33 Effective period of determinations.

(a) The effective date of a determination not subject to discretionary review under 77.37(b) is the date of issuance. The effective date of all other determinations for a proposed or existing structure is 40 days from the date

of issuance, provided a valid petition for review has not been received by the FAA. If a valid petition for review is filed, the determination will not become final, pending disposition of the petition.

(b) Unless extended, revised, or terminated, each Determination of No Hazard to Air Navigation issued under this subpart expires 18 months after the effective date of the determination, or on the date the proposed construction or alteration is abandoned, whichever is earlier.

(c) A Determination of Hazard to Air Navigation has no expiration date.

77.35 Extensions, terminations, revisions and corrections.

(a) You may petition the FAA official that issued the Determination of No Hazard to Air Navigation to revise or reconsider the determination based on new facts or to extend the effective period of the determination, provided that:

(1) Actual structural work of the proposed construction or alteration, such as the laying of a foundation, but not including excavation, has not been started; and

(2) The petition is submitted at least 15 days before the expiration date of the Determination of No Hazard to Air Navigation.

(b) A Determination of No Hazard to Air Navigation issued for those construction or alteration proposals not requiring an FCC construction permit may be extended by the FAA one time for a period not to exceed 18 months.

(c) A Determination of No Hazard to Air Navigation issued for a proposal requiring an FCC construction permit may be granted extensions for up to 18 months, provided that:

(1) You submit evidence that an application for a construction permit/license was filed with the FCC for the associated site within 6 months of issuance of the determination; and

(2) You submit evidence that additional time is warranted because of FCC requirements; and

(3) Where the FCC issues a construction permit, a final Determination of No Hazard to Air Navigation is effective until the date prescribed by the FCC for completion of the construction. If an extension of the original FCC completion date is needed, an extension of the FAA determination must be requested from the Obstruction Evaluation Service (OES).

(4) If the Commission refuses to issue a construction permit, the final determination expires on the date of its refusal.

Subpart E
PETITIONS FOR DISCRETIONARY REVIEW

77.37 General.

(a) If you are the sponsor, provided a substantive aeronautical comment on a proposal in an aeronautical study, or have a substantive aeronautical comment on the proposal but were not given an opportunity to state it, you may petition the FAA for a discretionary review of a determination, revision, or extension of a determination issued by the FAA.

(b) You may not file a petition for discretionary review for a Determination of No Hazard that is issued for a temporary structure, marking and lighting recommendation, or when a proposed structure or alteration does not exceed obstruction standards contained in subpart C of this part.

77.39 Contents of a petition.

(a) You must file a petition for discretionary review in writing and it must be received by the FAA within 30 days after the issuance of a determination under §77.31, or a revision or extension of the determination under §77.35.

(b) The petition must contain a full statement of the aeronautical basis on which the petition is made, and must include new information or facts not previously considered or presented during the aeronautical study, including valid aeronautical reasons why the determination, revisions, or extension made by the FAA should be reviewed.

(c) In the event that the last day of the 30-day filing period falls on a weekend or a day the Federal government is closed, the last day of the filing period is the next day that the government is open.

(d) The FAA will inform the petitioner or sponsor (if other than the petitioner) and the FCC (whenever an FCC-related proposal is involved) of the filing of the petition and that the determination is not final pending disposition of the petition.

77.41 Discretionary review results.

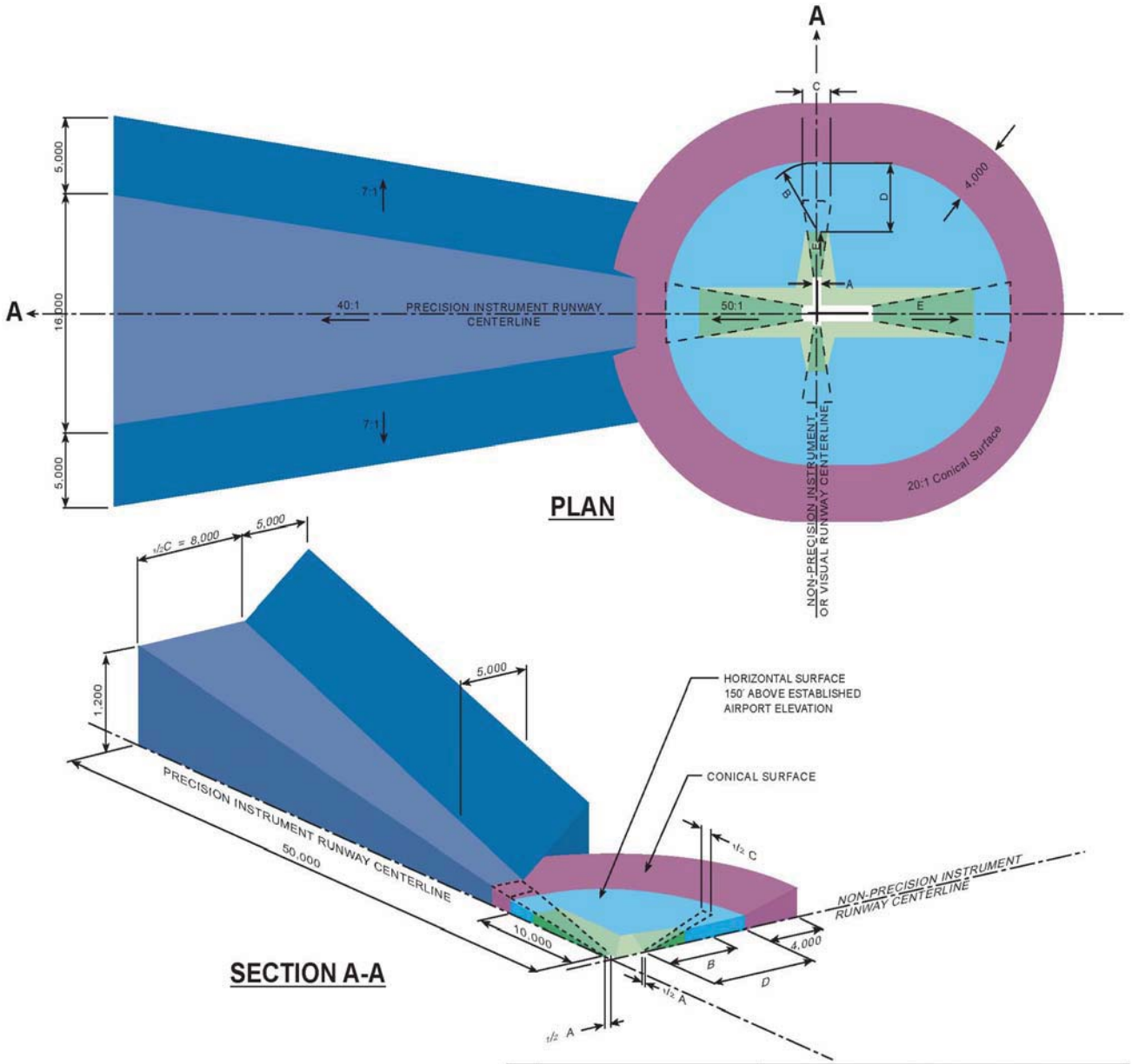
(a) If discretionary review is granted, the FAA will inform the petitioner and the sponsor (if other than the petitioner) of the issues to be studied and reviewed. The review may include a request for comments and a review of all records from the initial aeronautical study.

(b) If discretionary review is denied, the FAA will notify the petitioner and the sponsor (if other than the petitioner), and the FCC, whenever a FCC-related proposal is involved, of the basis for the denial along with a statement that the determination is final.

(c) After concluding the discretionary review process, the FAA will revise, affirm, or reverse the determination.

Editor's Note: The following pages include an example rendering of the Part 77 imaginary surfaces for a civil airport and a copy of FAA Form 7460-1 with filing instructions.

Part 77 Civil Airport Imaginary Surfaces



SURFACE SLOPE KEY

- HORIZONTAL SURFACE
- 20:1
- 7:1
- 7:1
- VARIES (SEE "E" VALUE IN TABLE BELOW)
- 40:1 (PRECISION INSTRUMENT RUNWAY ONLY)

DIM.	ITEM	DIMENSIONAL STANDARDS (FEET)					
		VISUAL RUNWAY		NON-PRECISION INSTRUMENT RUNWAY			PRECISION INSTRUMENT RUNWAY
		UTILITY	LARGER THAN UTILITY	UTILITY	LARGER THAN UTILITY X	LARGER THAN UTILITY Y	
A	WIDTH OF PRIMARY SURFACE AND APPROACH SURFACE WIDTH AT INNER END	250	500	500	500	1,000	1,000
B	RADIUS OF HORIZONTAL SURFACE	5,000	5,000	5,000	10,000	10,000	10,000
		VISUAL APPROACH		NON-PRECISION INSTRUMENT APPROACH			PRECISION INSTRUMENT APPROACH
		UTILITY	LARGER THAN UTILITY	UTILITY	LARGER THAN UTILITY X	LARGER THAN UTILITY Y	
C	APPROACH SURFACE WIDTH AT END	1,250	1,500	2,000	3,500	4,000	16,000
D	APPROACH SURFACE LENGTH	5,000	5,000	5,000	10,000	10,000	*
E	APPROACH SLOPE	20:1	20:1	20:1	34:1	34:1	*

X - VISIBILITY MINIMUMS GREATER THAN 3/4 MILE
Y - VISIBILITY MINIMUMS AS LOW AS 3/4 MILE
* - PRECISION INSTRUMENT APPROACH SLOPE IS 50:1 FOR INNER 10,000 FEET AND 40:1 FOR AN ADDITIONAL 40,000 FEET

Source: FAR Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*, Sec. 77.19. January 18, 2011.

Form 7460-1 – Notice of Proposed Construction or Alteration

Please Type or Print on This Form

Form Approved OMB No.2120-0001
Expiration Date: 7/31/07

U.S. Department of Transportation
Federal Aviation Administration

Failure To Provide All Requested Information May Delay Processing of Your Notice

Notice of Proposed Construction or Alteration

FOR FAA USE ONLY
Aeronautical Study Number

1. Sponsor *(person, company, etc. proposing this action):*
Attn. of: _____
Name: _____
Address: _____
_____
City: _____ State: _____ Zip: _____
Telephone: _____ Fax: _____

2. Sponsor's Representative *(if other than #1):*
Attn. of: _____
Name: _____
Address: _____
_____
City: _____ State: _____ Zip: _____
Telephone: _____ Fax: _____

3. Notice of: ☐ New Construction ☐ Alteration ☐ Existing

4. Duration: ☐ Permanent ☐ Temporary (____ months, ____ days)

5. Work Schedule: Beginning _____ End _____

6. Type: ☐ Antenna Tower ☐ Crane ☐ Building ☐ Power Line
☐ Landfill ☐ Water Tank ☐ Other _____

7. Marking/Painting and/or Lighting Preferred:
☐ Red Lights and Paint
☐ White - Medium Intensity
☐ White - High Intensity
☐ Dual - Red and Medium Intensity White
☐ Dual - Red and high Intensity White
☐ Other

8. FCC Antenna Structure Registration Number *(if applicable):*
_____

9. Latitude: _____ ° _____ ' _____ , _____ "

10. Longitude: _____ ° _____ ' _____ , _____ "

11. Datum: ☐ NAD 83 ☐ NAD 27 ☐ Other

12. Nearest: City: _____ State _____

13. Nearest *Public-use* *(not private-use)* or Military Airport or Heliport:
_____

14. Distance from #13. to Structure: _____

15. Direction from #13. to Structure: _____

16. Site Elevation *(AMSL)*: _____ ft.

17. Total Structure Height *(AGL)*: _____ ft.

18. Overall Height (#16 + #17) *(AMSL)*: _____ ft.

19. Previous FAA Aeronautical Study Number *(if applicable)*:
_____-OE

20. Description of Location: *(Attach a USGS 7.5 minute Quadrangle Map with the precise site marked and any certified survey)*

21. Complete Description of Proposal:

Frequency/Power (kW)	

Notice is required by 14 Code of Federal Regulations, part 77 pursuant to 49 U.S.C., Section 44718. Persons who knowingly and willingly violate the notice requirements of part 77 are subject to a civil penalty of $1,000 per day until the notice is received, pursuant to 49 U.S.C., Section 46301(a)

I hereby certify that all of the above statements made by me are true, complete, and correct to the best of my knowledge. In addition, I agree to mark and/or light the structure in accordance with established marking & lighting standards as necessary.

Date	Typed or Printed Name and Title of Person Filing Notice	Signature

FAA Form 7460-1 (2-99) Supersedes Previous Edition — Electronic Version (Adobe) — NSN: 0052-00-012-0009

Form 7460-1 – Notice of Proposed Construction or Alteration *(continued)*

A Notice of Proposed Construction or Alteration (Form 7460-1) must be filed with the Federal Aviation Administration (FAA).

If construction or alteration is not located on an airport, you may file electronically (i.e., e-filing) using the following web-link:

https://oeaaa.faa.gov/oeaaa/external/portal.jsp

If construction or alteration is located on an airport, you must file Form 7460-1 via US Postal Mail to:

Western Pacific Region
HI, CA, NV, AZ, GU
Western-Pacific Regional Office Air Traffic Division, AWP-520
15000 Aviation Boulevard Hawthorne, CA 90260
Tel: 310-725-6557

Form 7460-1 is available online in PDF format (data may be typed into form).

http://www.faa.gov/documentLibrary/media/form/faa7460_1.pdf

Note:

Original form on Federal Aviation Administration website contains interactive fields.

Source: Federal Aviation Administration, Form 7460-1, February 1999.

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APPENDIX D
Compatibility Factors Evaluated in ALUCPs

D.1 Introduction

This Appendix provides details regarding the four compatibility factors addressed in airport land use compatibility plans (i.e., noise, safety, airspace protection, and overflight), and describes the general concepts behind each factor and their regulatory foundations. This Appendix also provides information about other compatibility concerns that are typically addressed in ALUCPs.

D.2 Noise

Noise generated by the operation of aircraft is one of the primary factors that drives land use compatibility planning. Aircraft noise is generally the most recognizable issues for those living and working in the vicinity of an airport, and depending on the size of the airport and the types of operations it accommodates, the geographic extent to which aircraft noise can be experienced is potentially great.

D.2.1 Noise Policy Foundations

Federal and state statutes and regulations establish the basis for local development of airport plans, analyses of airport impacts, and enactment of compatibility policies. Brief descriptions of selected statutes, regulations, and policies having particular significance to noise issues are provided in the following paragraphs.

Federal Statutes and Regulations

The following federal regulations and statutes are the most influential from the standpoint of land use compatibility planning for aircraft noise.

Statutes

Among the stated purposes of the Aviation Safety and Noise Abatement Act of 1979 (ASNA) is "to provide assistance to airport operators to prepare and carry out noise compatibility programs." The law establishes eligibility requirements for noise compatibility planning funding. The law does not require airports to develop noise compatibility programs—the decision to do so is within the discretion of each individual airport proprietor. Regulations implementing the act are set forth in Part 150 of the Federal Aviation Regulations (FAR).

FAA Regulations and Policies

As a means of implementing ASNA, the FAA adopted 14 CFR Part 150, *Airport Noise Compatibility Planning* (FAR Part 150). FAR Part 150 establishes a voluntary program that airport operators can utilize to conduct airport noise compatibility planning. FAR Part 150 also prescribes a system for measuring airport noise impacts and presents guidelines for identifying incompatible land uses. Airports operator that participate in the FAR Part 150 program are eligible to receive federal funding for both for the study itself and for implementation of approved components of the airport's noise compatibility program.

The FAA has adopted day-night average sound level (DNL) as the noise metric for measuring cumulative aircraft noise under FAR Part 150. DNL, formerly referred to as Ldn, is expressed in dBA and represents the noise level over a 24-hour period. In the calculation of DNL, for each hour during the nighttime period (10:00 p.m. to 6:59 a.m.), the sound levels are increased by a 10 decibel-weighting penalty (equivalent to a 10 fold increase in aircraft operations) before the 24 hour value is computed. The weighting penalty accounts for the more intrusive nature of noise during the nighttime hours.

Suggested compatibility guidelines for evaluating land uses in aircraft noise exposure areas have been developed by the FAA and are presented in Table 1 of FAR Part 150 (See **Exhibit B-1**). Compatible or incompatible land use is determined by comparing the predicted or measured day-night average sound level (DNL) at a site with the DNLs in the table. As shown on Exhibit B-1, virtually all land uses are considered to be compatible with aircraft noise levels below DNL 65 dB. It is important to note that the FAA does allow local land use planning agencies to adopt a lower compatibility level that may be more stringent than the FAR Part 150 guidelines.

State of California Laws, Regulations, and Guidelines

Public Utilities Code (PUC) Section 21669 requires Caltrans to adopt—to the extent not prohibited by federal law—noise standards applicable to all airports operating under a state permit. The airport noise standards promulgated in accordance with PUC Section 21669 are set forth in Section 5000 et seq. of the California Code of Regulations (Title 21, Division 2.5, Chapter 6). The current version of the regulations became effective in March 1990.

In Section 5006, the regulations state that:

> "The level of noise acceptable to a reasonable person residing in the vicinity of an airport is established as a community noise equivalent level (CNEL) value of 65 dB for purposes of these regulations. This criterion level has been chosen for reasonable persons residing in urban residential areas where houses are of typical California construction and may have windows partially open. It has been selected with reference to speech, sleep and community reaction."

Land Use	Yearly Day-Night Noise Level (DNL) in decibels					
	Below 65	65-70	70-75	75-80	80-85	Over 85
Residential						
Residential, other than mobile homes and transient lodgings	Y	N(1)	N(1)	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N
Public Use						
Schools	Y	N(1)1	N(1)	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums and concert halls	Y	25	30	N	N	N
Governmental services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
Commercial Use						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail-building materials, hardware and farm equipment	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail trade-general	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communication	Y	Y	25	30	N	N
Manufacturing and Production						
Manufacturing, general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock farming and breeding	Y	Y(6)	Y(7)	N	N	N
Mining and fishing resource production and extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor sports arenas and spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts and camps	Y	Y	Y	N	N	N
Golf courses, riding stables and water recreation	Y	Y	25	30	N	N

Numbers in parentheses refer to notes.

* The designations contained in this table do not constitute a Federal determination that any use of land covered by the program is acceptable or unacceptable under Federal, State or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.

Key to Table 1

SLUCM	Standard Land Use Coding Manual.
Y(Yes)	Land Use and related structures compatible without restrictions.
N(No)	Land Use and related structures are not compatible and should be prohibited.
NLR	Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.
25, 30 or 35	Land Use and related structures generally compatible; measures to achieve NLR of 25, 30 or 35 dB must be incorporated into design and construction of structure.

Notes

(1) Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB to 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10 or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.

(2) Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.

(3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.

(4) Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.

(5) Land use compatible provided that special sound reinforcement systems are installed.

(6) Residential buildings require an NLR of 25.

(7) Residential buildings require an NLR of 30.

(8) Residential buildings not permitted.

Exhibit D-1
Land Use Compatibility with Yearly Day-Night Average Sound Levels

The California Building Code (California Code of Regulations, Title 24) contains standards for allowable interior noise levels associated with exterior noise sources (California Building Code, 2007 edition, Part 2, Volume 1, Chapter 12, Section 1207.11). The standards apply to new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family residences.

The standards state that:

> "Interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric shall be either the Day-Night Average Sound Level (L_{dn}) or the Community Noise Equivalent Level (CNEL), consistent with the noise element of the local general plan. Worst-case noise levels, either existing or future, shall be used as the basis for determining compliance with [these standards]. Future noise levels shall be predicted for a period of at least 10 years from the time of a building permit application."

With regard to airport noise sources, the code goes on to indicate that:

> "Residential structures to be located where the annual L_{dn} or CNEL exceeds 60 dB shall require an acoustical analysis showing that the proposed design will achieve the prescribed allowable interior level. For public use airports or heliports, the L_{dn} or CNEL shall be determined from the airport land use plan prepared by the county wherein the airport is located. For all other airports or heliports, or public use airports or heliports for which a land use plan has not been developed, the L_{dn} or CNEL shall be determined from the noise element of the general plan of the local jurisdiction."

> "When aircraft noise is not the only significant source, noise levels from all sources shall be added to determine the composite site noise level."

The State of California's *2003 General Plan Guidelines* also provide guidance regarding aircraft noise and land use compatibility. As shown on **Exhibit D-2**, the land use compatibility guidelines contained in the 2003 General Plan Guidelines are similar to the recommendations contained in Table 1 of FAR Part 150.

	Normally 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
	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 are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
	Normally Unacceptable	New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.
	Clearly Unacceptable	New construction or development generally should not be undertaken.

SOURCE: State of California, Governor's Office of Planning and Research, 2003. *General Plan Guidelines*.

Exhibit D-2
Land Use Compatibility for Community Noise Environment

D.3 Safety

D.3.1 Safety Policy Foundations

In order for ALUCs and local land use jurisdictions to address the preceding compatibility concerns, an assessment of safety standards and guidelines set by federal and state agencies is essential. Unlike the case with noise, though, few federal and state laws, regulations, or policies address the issue of safety-related land use compatibility around airports. This section summarizes significant criteria which federal and state agencies have developed.

Federal Statutes and Regulations

The following federal regulations and statutes are the most influential from the standpoint of land use compatibility planning for safety.

Federal Aviation Administration

Land use safety compatibility guidance from the FAA is limited to the immediate vicinity of the runway, the runway protection zones at each end of the runway, and the protection of navigable airspace. The absence of FAA land use compatibility criteria for other portions of the airport environment is often cited by land use development sponsors as an argument that further controls on land use are unnecessary. What must be remembered, however, is that the FAA criteria apply only to property controlled by the airport proprietor. The FAA has no authority over off-airport land uses—its role is with regard to the safety of aircraft operations. The FAA's only leverage for promoting compatible land use planning is through the grant assurances that airport proprietors must adhere to in order to obtain federal funding for airport improvements. State and local agencies are free to set more stringent land use compatibility policies.

Runway Vicinity

The emphasis in FAA safety criteria is on the runway surface and the areas immediately adjoining it. Standards are established that specify ground surface gradients for areas adjacent to runways and the acceptable location and height of aeronautical equipment placed nearby. These areas normally are encompassed within airport boundaries.

Runway Protection Zones

Runway protection zones (RPZs) are trapezoidal-shaped areas located at ground level beyond each end of a runway. The dimensions of RPZs vary depending upon:

- The type of landing approach available at the airport (visual, non-precision, or precision); and
- Characteristics of the critical aircraft operating at the airport (weight and approach speed).

Ideally, each runway protection zone should be entirely clear of all objects. The FAA's Airport Design advisory circular strongly recommends that airports own this property outright or, when

this is impractical, to obtain easements sufficient to control the land use. Acquisition of this property is eligible for FAA grants (except at some small airports that are not part of the national airport system). Even on portions of the RPZs not under airport control, the FAA recommends that churches, schools, hospitals, office buildings, shopping centers, and other places of public assembly, as well as fuel storage facilities, be prohibited. Automobile parking is considered acceptable only on the outer edges of RPZs (outside the extended object free area).

Beyond the runway protection zones, the FAA has no specific safety-related land use guidance other than airspace protection. However, additional property can also potentially be acquired with federal grants if necessary to restrict the use of the land to activities and purposes compatible with normal airport operations. In general, this property must be situated in the approach zones within a distance of 5,000 feet from the runway primary surface. Exposure to high levels of noise can also be the basis for FAA funding of property acquisition.

State of California Laws, Regulations, and Guidelines

Statutes

Few State-level laws and regulations exist that provide guidance with respect to airport land use compatibility. The guidance that is available is found in two primary locations:

- **State Aeronautics Act** —The State Aeronautics Act (PUC Section 21001 et seq.) provides for the right of flight over private property, unless conducted in a dangerous manner or at altitudes below those prescribed by federal authority (Section 21403(a)). No use shall be made of the airspace above a property that would interfere with the right of flight, including established approaches to a runway (Section 21402). The Act also authorizes Caltrans and local governments to protect the airspace defined in FAR Part 77. The SAA further prohibits any person from constructing any structure or permitting any natural growth of a height that would constitute a hazard to air navigation as defined in FAR Part 77 unless Caltrans issues a permit (PUC Section 21659). The permit is not required if the FAA has determined that the structure or growth does not constitute a hazard to air navigation or would not create an unsafe condition for air navigation. Typically this has been interpreted to mean that no penetrations of the FAR Part 77 surfaces are permitted without a finding by the FAA that the object would not constitute a hazard to air navigation.
- **State Education Code** —Education Code Section 17215 requires that, before acquiring title to or leasing property for a new school site situated within two miles of an airport runway, a school district must notify the Department of Education. The Department of Education then notifies Caltrans, which is required to investigate the site and prepare a written report. If Caltrans does not favor acquisition of the site for a school, no state or local funds can be used for site acquisition or building construction on that site. Education Code Section 81033 establishes similar requirements for community college sites. Finally, PUC Section 21655 also prescribes similar requirements for any proposed property acquisition or construction by a state agency within two miles of an airport runway.

D.4 Airspace Protection

D.4.1 Airspace Protection Policy Foundation

Federal Statutes and Regulations

The following federal regulations and statutes are the most influential from the standpoint of land use compatibility planning for airspace protection.

Federal Aviation Administration

To help ensure protection of the airspace essential to the safe operation of aircraft at and around airports, the FAA has established a process that requires project sponsors to inform the agency about proposed construction that could affect navigable airspace. The standards by which the FAA conducts these aeronautical studies are set forth in FAR Part 77. Specifically, FAR Part 77 establishes standards for:

- *FAA Notification*. Notifying the FAA about any proposed construction or alteration of objects—whether permanent, temporary, or of natural growth—that could be a hazard to flight;
- *Imaginary Surfaces*. Defining an airport's airspace, referred to as 'imaginary surfaces'; and
- *Aeronautical Studies*. Determining obstructions to navigable airspace and the potential hazardous effects of such obstructions on the safe and efficient use of that airspace.

The FAA's authority to protect the navigable airspace from obstructions and other hazards, including existing and proposed structures, is predominantly derived from Title 49 U .S.C. Section 44718. However, Section 44718 does not provide specific authority for the FAA to regulate or control of off-airport real property. Nevertheless, the FAA does have authority to require that sponsors of new objects that could be airspace obstructions submit notice to the agency prior to the construction as outlined below. Persons failing to comply with the provisions of FAR Part 77 are subject to civil penalty under Section 902 of the Federal Aviation Act of 1958, as amended and pursuant to 49 U.S.C. Section 46301(a).

If new airspace obstructions are created or, as may happen with the growth of trees or other vegetation, are newly identified, federal action is primarily limited to three possibilities:

- **Reduced Instrument Approach Minimums**. For airports with instrument approaches, an obstruction could necessitate modification to one or more of the approach procedures (particularly greater visibility and/or cloud ceiling minimums) or even require elimination of an approach procedure.
- **Reduced Runway Length**. Airfield changes, such as displacement of a landing threshold, could be required (especially at airports certificated for commercial air carrier service).
- **Reduced Federal Aid**. The owner of an airport could be found in noncompliance with the conditions agreed to upon receipt of FAA grant assurances, airport development or

property acquisition grant funds and could become ineligible for future grants (or, in extreme cases, be required to repay part of a previous grant).

Subpart B, *Notice of Construction or Alteration*, of the regulations requires that the FAA be notified of any proposed construction or alteration of objects within 20,000 feet of a runway and having a height that would exceed a 100:1 imaginary surface (1 foot upward per 100 feet horizontally) beginning at the nearest point of the runway. This requirement applies to runways more than 3,200 feet in length; for shorter runways, the notification surface has a 50:1 slope and extends 10,000 feet from the runway; for heliports, the notification surface has a 25:1 slope and extends 5,000 feet from takeoff and landing area, also referred to as the FATO. Notification is required with regard to any public-use or military airport and heliport.

Also requiring notification is any proposed object more than 200 feet in height regardless of proximity to an airport.

Other Federal Airspace Protection Guidance

Additional guidelines regarding protection of airport airspace are set forth in other FAA documents. In general, these criteria specify that no use of land or water anywhere within the boundaries encompassed by FAR Part 77 should be allowed if it could endanger or interfere with the landing, take off, or maneuvering of an aircraft at an airport (FAA–1987). Specific characteristics to be avoided include:

- Creation of electrical interference with navigational signals or radio communication between the airport and aircraft;
- Lighting which is difficult to distinguish from airport lighting;
- Glare in the eyes of pilots using the airport;
- Smoke or other impairments to visibility in the airport vicinity; and
- Uses which attract birds and create bird strike hazards.

Bird strike and other forms of wildlife hazard have become a major concern internationally. In the United States and Canada, reduction and management of wildlife hazards are of particular concern. With regard to bird strike hazards, the FAA specifically considers waste disposal sites (sanitary landfills) to be incompatible land uses if located within 10,000 feet of a runway used by turbine-powered aircraft or 5,000 feet of other runways. Any waste disposal site located within five statute miles of an airport is also deemed incompatible if it results in a hazardous movement of birds across a runway or aircraft approach and departure paths. Caution should be exercised with regard to certain other land uses—including golf courses and some agricultural crops—in these locations to ensure that wildlife hazards do not result (FAA–1997). (Additional guidance on the issue of hazardous wildlife can be found in the FAA's Advisory Circular 150/5200-33B, *Hazardous Wildlife Attractants on or Near Airports*.)

Furthermore, federal statutes (49 U.S.C. §44718(d)) now prohibit new "municipal solid waste landfills" within six miles of airports that: (1) receive FAA grants, and (2) primarily serve general

aviation aircraft and scheduled air carrier operations using aircraft with less than 60 passenger seats. A landfill can only be built within six miles of this class of airports if the FAA concludes that it would have no adverse effect on aviation safety.

State of California Laws, Regulations, and Guidelines

The *State Aeronautics Act* (PUC Section 21001 et seq.) provides for the right of flight over private property, unless conducted in a dangerous manner or at altitudes below those prescribed by federal authority (PUC Section 21403(a)). No use shall be made of the airspace above a property which would interfere with the right of flight, including established approaches to a runway (PUC Section 21402). The Act also authorizes Caltrans and local governments to protect the airspace defined by FAR Part 77. The Act prohibits any person from constructing any structure or permitting any natural growth of a height which would constitute a hazard to air navigation as defined in FAR Part 77 unless Caltrans first issues a permit (PUC Section 21659). The permit is not required if the FAA has determined that the structure or growth does not constitute a hazard to air navigation or would not create an unsafe condition for air navigation. Typically this has been interpreted to mean that no penetrations of the FAR Part 77 imaginary surfaces is permitted without a finding by the FAA that the object would not constitute a hazard to air navigation.

Furthermore, no payments shall be made from the Aeronautics Account for expenditure on any airport or for the acquisition or development of any airport, if the department determines that the height restrictions around the airport are inadequate to provide reasonable assurance that the landing and taking off of aircraft at the airport will be conducted without obstruction or will be otherwise free from hazards (PUC Section 21688).

D.5 Overflight

D.5.1 Overflight Policy Foundations

The primary overflight strategy is the buyer awareness measure, which, rather than applying direct restrictions on the types of land uses, seeks to inform the public of potential annoyances associated with overflight.

Business and Professions Code Sections 11010(a) and (b)(13) require that:

> "(a)... [A]ny person who intends to offer subdivided lands within this state for sale or lease shall file with the Department of Real Estate an application for a public report consisting of a notice of intention and a completed questionnaire on a form prepared by the department. (b) The notice of intention shall contain the following information about the subdivided lands and the proposed offering:
>
> …

> (13)(A) The location of all existing airports, and of all proposed airports shown on the general plan of any city or county, located within two statute miles of the subdivision. If the property is located within an airport influence area, the following statement shall be included in the notice of intention:
>
> NOTICE OF AIRPORT
>
> This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.
>
> (B) For purposes of this section, an "airport influence area," also known as an "airport referral area," is the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission."

(See also Civil Code, Sections 1102.6, 1103.4, and 1353.)

California real estate law also requires that sellers of real property disclose “any fact materially affecting the value and desirability of the property” (Civil Code, Section 1102.1(a)). While this general requirement leaves to the property seller the decision as to whether airport-related information constitutes a fact warranting disclosure, other sections of state disclosure law specifically mention airports. Specifically, Civil Code Section 1102.17 states: “The seller of residential real property subject to this article who has actual knowledge that the property is affected by or zoned to allow industrial use described in Section 731a of the Code of Civil Procedure shall give written notice of that knowledge as soon as practicable before transfer of title.” Section 731a of the Code of Civil Procedure specifies:

“Whenever any city, city and county, or county shall have established zones or districts under authority of law wherein certain manufacturing or commercial or *airport* uses are expressly permitted, except in an action to abate a public nuisance brought in the name of the people of the State of California, no person or persons, firm or corporation shall be enjoined or restrained by the injunctive process from reasonable and necessary operation in any such industrial or commercial zone or *airport* of any use expressly permitted therein, nor shall such use be deemed a nuisance without evidence of the employment of unnecessary and injurious methods of operation….”

It is interpreted that these sections of law establish a requirement for disclosure of information regarding the effects of airports on nearby property provided that the seller has “actual knowledge” of such effects. ALUCs have particular expertise in defining where airports have

effects on surrounding lands. ALUCs thus can give authority to this disclosure requirement by establishing a policy indicating the geographic boundaries of the lands deemed to be affected by airport activity. In most cases, this boundary will coincide with the ALUC's planning boundary for an airport. Furthermore, ALUCs and local jurisdictions should disseminate information regarding their disclosure policy and its significance by formally mailing copies to local real estate brokers and title companies. Having received this information, the brokers would be obligated to tell sellers that the facts should be disclosed to prospective buyers.

D.6 Other Compatibility Concerns

While policies establishing criteria for development densities and intensities, height limits, and so forth are the core elements of an ALUCP, policies addressing a variety of other issues also should be considered. The following are situations which warrant special attention in determining the compatibility or incompatibility of a land use development.

Expansion, Conversion, or Redevelopment of Existing Uses

The limitation on ALUC authority over existing land uses applies only to the extent that the use remains constant. Merely because a land use exists on a property does not entitle the owner to expand the use, convert it to a different use, or otherwise redevelop the property if new or increased compatibility conflicts would result. To the extent that such land use changes require ministerial or discretionary approval on the part of the county or city, they fall within the authority of the ALUC to review.

Infill Development

Another special situation that ALUCs should consider when formulating compatibility policies is how to deal with infill development. By definition, infill areas are parcels that are vacant or underutilized. The areas thus are subject to ALUC review authority, provided that their development is a part of a general or specific plan amendment or zoning change. The chief issue with regard to infill occurs when the surrounding existing uses are, and proposed new development would be, inconsistent with the ALUC's compatibility criteria. The question which ALUCs need to address is whether it is realistic to attempt to prevent technically incompatible development of a small area surrounded by similar existing development.

ALUCs clearly can determine nonconforming infill uses to be inconsistent with their adopted ALUCP. However, local agencies are particularly likely to disagree with such determinations and potentially to overrule them. From a broader community planning perspective, creating incompatibility with airport activities may be judged as less of a concern than causing incompatibility between adjacent land uses—for example, by placing commercial or industrial uses in the midst of a residential area.

In these circumstances, a pragmatic approach may be for ALUCs to allow infill in locations not highly critical to airport activities and require local plans to designate compatible uses in the most

important areas closest to the runways. Criteria outlining the conditions qualifying a parcel for infill development should be established. These criteria should address such factors as:

- The portions of the AIA within which infill is to be permitted (infill within the runway protection zone might be prohibited, for example):
- The maximum size of a parcel or parcels on which infill is to be allowed;
- The extent to which the site must be bounded by similar uses (and not extend the perimeter of incompatible uses);
- The density and/or intensity of development allowed relative to that of the surrounding uses and the otherwise applicable compatibility criteria; and
- Other applicable development conditions (such as easement dedication requirements or special structural noise level attenuation criteria) which must be met.

Mixed Use Development

As compatibility is typically expressed in terms of allowable land uses, and associated density/intensity, mixed use development may create some difficulties for ALUCs. Mixed use is often associated with urban infill, and therefore the issues discussed above will also be factors in considering proposed mixed use development. While mixed use may mean any combination of uses separated in traditional zoning (such as commercial and industrial), the most common application of mixed use is housing in combination with commercial development. ALUCPs typically describe the allowable level of such development differently (residential density versus non-residential intensity). One recommendation is to convert residential densities into intensity levels (persons per acre). Such conversion can be done using “persons per household” data from state and regional planning agencies, or to analyze the capacity of the housing unit (such as number of bedrooms).

The applicability of noise criteria may also be different for mixed use. While mixed-use residential development is typically “attached” and thus afforded a certain level of protection from higher noise levels, there is also an assumption that residents of urban mixed-use development will have more tolerance for higher noise levels.

Reconstruction

Reconstruction of existing nonconforming land uses destroyed by fire or other calamity can be treated in a manner similar to infill development. That is, areas where it is acceptable should be defined and appropriate conditions should be set. The conditions—such as limitations on the extent of destruction that can be rebuilt or time within which reconstruction must occur—could be based upon those followed by local agencies in their own plans and zoning. Policies also should indicate whether a reconstructed building must be limited to the same size and usage intensity as the original or can be slightly greater. Lastly, different policies on reconstruction may be appropriate for residential versus nonresidential land uses. Notably, state law allows for the reconstruction of multi-family dwellings involuntarily damaged or destroyed by fire or other catastrophic event (Government Code Section 65852.25). This right does not extend to situations

where the health, safety, or general welfare of the neighborhood would be harmed (which could certainly be the case in certain airport compatibility zones).

APPENDIX E
Implementation Materials

E.1 Avigation Easement

Avigation easements transfer certain property rights from the owner of a property to the owner of the airport (i.e., the County of San Mateo). ALUCs may recommend the dedication of an avigation easement as a condition for approval of development on property subject to high noise levels. Avigation easements can also be used to restrict heights of structures and trees to less than might ordinarily occur on a property. A sample of a standard avigation easement for San Carlos Airport is presented in **Exhibit E-1**.

Exhibit E-1: Grant of Avigation Easement

When recorded return to:
County of San Mateo
County Manager's Office
Real Property Division
455 County Center, 5th Floor
Redwood City, CA 94063

COUNTY OF SAN MATEO
AVIGATION EASEMENT

This easement is made this _____ day of _____ by and between _____, hereinafter referred to as "GRANTOR" and the County of San Mateo, a political subdivision of the State of California, hereinafter referred to as "COUNTY" or "GRANTEE."

Recitals

A. COUNTY is the owner of certain real property, commonly known as the San Carlos Airport, situated in the County of San Mateo, State of California and generally described as Assessor Parcel Numbers 046-081-730; 600; 680 and 700; 046-082-010; 095-030-210 and 230; 095-222-070; 130 and 140. The County of San Mateo operates the San Carlos Airport as a Category B-II, General Aviation Airport, as defined in Federal Aviation Administration Advisory Circular 150/5300-13 “Airport Design” and Federal Aviation Regulations, Part 77. For purposes of this easement, the San Carlos Airport property is the dominant tenement

B. GRANTOR is the owner in fee of certain real property situated in the County of San Mateo, State of California, as more particularly described in Exhibit A attached hereto, and incorporated herein by reference (the "Grantor Property"). For purposes of this easement, the Grantor Property is the servient tenement.

C. GRANTOR has proposed a _____
_____
_____, near San Carlos Airport.

D. GRANTOR and GRANTEE wish to establish the terms and conditions of an avigation easement so that the aircraft which use San Carlos Airport will have the right to use the airspace over and above GRANTOR'S property.

NOW, THEREFORE, the parties hereto agree as follows:

1. GRANT OF EASEMENT

Grantor GRANTS to COUNTY, its successors and assigns a perpetual easement over the Grantor Property, as described in Exhibit A hereto, on the terms and conditions stated herein. The easement is an easement appurtenant to the San Carlos Airport, and an easement in gross as to the general flying public using San Carlos Airport.

2. PURPOSE OF EASEMENT

The purposes of this easement are (1) to allow for the free and unobstructed passage and flight of operationally compatible aircraft using San Carlos Airport, in through, over and across the airspace of the Grantor Property and (2) to provide notice to GRANTOR and any future owners of the GRANTOR property that the PROPERTY is located in the vicinity of San Carlos Airport and may be subject to impacts of aircraft operations at such airport.

3. RIGHTS GRANTED BY EASEMENT

Subject to limitations in Paragraph 5, below, this easement grants to the COUNTY and members of the public who use San Carlos Airport, the right to fly aircraft in the airspace above the Grantor Property, together with the following rights:

a) The right to cause such noise, vibration, fumes, exhaust, dust and fuel particles which result from the legal and proper operation of such aircraft.

b) The right to cause radio, television, and other electromagnetic interference associated with the legal and proper operation of such aircraft.

c) The right to cause such other effects which are inherent in the legal and proper operation of such aircraft.

4. GRANTOR'S OBLIGATIONS

GRANTOR shall not construct, nor permit the construction of, nor permit the growth of, any structure, tree or other natural or man-made object that a) penetrates the designated transitional, horizontal or approach surface, as shown in Exhibit B, attached hereto and incorporated herein by this reference (hereafter "Prohibited Zone") such as to constitute an obstruction or hazard to air navigation as defined in 14 CFR Part 77, "Objects Affecting Navigable Airspace", or b) obstructs or interferes with the use of the flight easement and right of way granted herein, or c) creates electrical interference with radio communication between any installation located at San Carlos Airport and any aircraft, or d) impairs visibility to an extent that it interferes with the safe operation of aircraft at San Carlos Airport, as determined by the FAA.

5. COUNTY'S OBLIGATION UNDER GRANT OF EASEMENT

COUNTY shall exercise efforts to control and prohibit such aircraft operations at San Carlos Airport which:

a) are in violation of Federal noise abatement regulations and operational and noise abatement flight procedures set forth in Volume 14 of the Code of Federal Regulations and Federal Aviation Administration (FAA) orders applicable to aircraft operations at San Carlos Airport; or

b) cause noise impacts in violation of Title 21, Subchapter 6 of the California Code of Regulations.

A violation or violations of the noise criteria set forth in this paragraph shall not operate to invalidate this easement or any provision of this easement or relieve GRANTOR from complying with the provisions of this easement.

6. WAIVER AND RELEASE OF CLAIMS

GRANTOR hereby waives, releases, and discharges, for itself and on behalf of GRANTOR'S heirs, assigns and successors in interest to all or any part of the Grantor Property, any and all claims or causes of action it may have now or in the future against COUNTY arising out of any of the activities authorized under this easement to include, but not limited to, activities which cause noise, vibrations, fumes, exhaust, dust, fuel particles, radio and television interference, and other effects which may be caused by the legal and proper operation of aircraft landing at or taking off from, or operating at San Carlo s Airport.

7. ACKNOWLEDGEMENT OF EFFECTS OF AIRCRAFT OPERATION.

The Grantor Property is located within the boundary of the adopted Airport Influence Area (AIA) and the Avigation Easement Review Area (AERA) for the San Carlos Airport. GRANTOR acknowledges and understands that, because the GRANTOR'S private property is in close proximity to San Carlos Airport, operation of the airport and aircraft utilizing the airport may affect such property.

8. LIMITATIONS ON NOISE.

This grant of easement shall not: extend to permit an aircraft noise level over the Grantor Property which exceeds 65dB CNEL.

9. RESERVATION OF RIGHTS AGAINST UNLAWFUL OPERATION.

a) This grant of easement shall not operate to deprive the GRANTOR, and GRANTOR'S successors or assigns, of any rights that it may have against any individual or private operator of aircraft for negligent or unlawful operation of aircraft as such operation may affect the Grantor Property.

b) This grant of easement does not waive any claim GRANTOR or GRANTOR'S successors or assigns, or by any person lawfully on the Grantor Property, for damages for personal injury or damage to personal or real property sustained as a result of an aircraft crash or from objects falling from aircraft flying over the Grantor Property.

10. INTERPRETATION AND ENFORCEMENT.

a) COUNTY shall have the sole right and authority to enforce this easement on behalf of itself and members of the public using San Carlos Airport.

b) COUNTY may bring any action in court necessary to enforce the terms of this easement including, but not limited to, injunction to terminate a breaching activity, or an action to enforce the terms and provisions hereof by specific performance. The enforcement proceedings specified in this paragraph are not exclusive. Any forbearance on the part of the COUNTY to enforce the terms and conditions hereof shall not be deemed a waiver of COUNTY'S right regarding any subsequent breach.

11. COVENANT RUNS WITH THE LAND.

The covenants and agreements described herein shall run with the land and are binding upon the heirs, administrators, executors, successors and assigns of the GRANTOR and GRANTEE. This easement benefits and burdens the Grantor Property and the San Carlos Airport property.

12. APPLICABLE LAW.

Provisions of this easement shall be interpreted, applied and enforced in accordance with the provisions of State and Federal Laws recited herein as they exist as of the effective date of this easement, except to the extent such provisions are preempted by any future amendment or amendments to such State or Federal laws, in which case the amended provisions of State and Federal law shall apply.

13. TERMINATION.

This grant of easement, and the covenants and agreements contained therein, shall continue in effect until San Carlos Airport shall be permanently abandoned and shall cease to be used for public airport purposes.

(NAME OF GRANTOR)

Dated: _____ by: _____

APPROVED AS TO FORM

Dated: _____ _____

City Attorney

COUNTY OF SAN MATEO

Dated: _____ by: _____

County Manager

E.2 Real Estate Disclosure Notice

California Business and Professions Code, Section 11010(b) (13), states that owners of subdivided property offering for sale property within an airport influence area as adopted by the airport land use committee, the location of the airport must be disclosed. By law, the following statement must be included in the notice of intention:

NOTICE OF AIRPORT IN VICINITY

This property is presently located in the vicinity of an airport, within what is known as an airport influence area. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport operations (for example: noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

E.3 Noise Contour and Safety Zone Maps

Exhibit E-2 presents a close-up view of the 2035 aircraft noise exposure contours focused on the south side of the Airport. **Exhibit E-3** presents a close-up view of the 2035 aircraft noise exposure contours focused on the north side of the Airport. **Exhibit E-4** presents a close-up view of the airport safety zones for San Carlos Airport focused on the south side of the Airport. **Exhibit E-5** presents a close-up view of the airport safety zones for San Carlos Airport focused on the north side of the Airport. These exhibits were developed at the request of the City of Redwood City and the City of San Carlos to facilitate implementation of the noise and safety compatibility policies included in this ALUCP.

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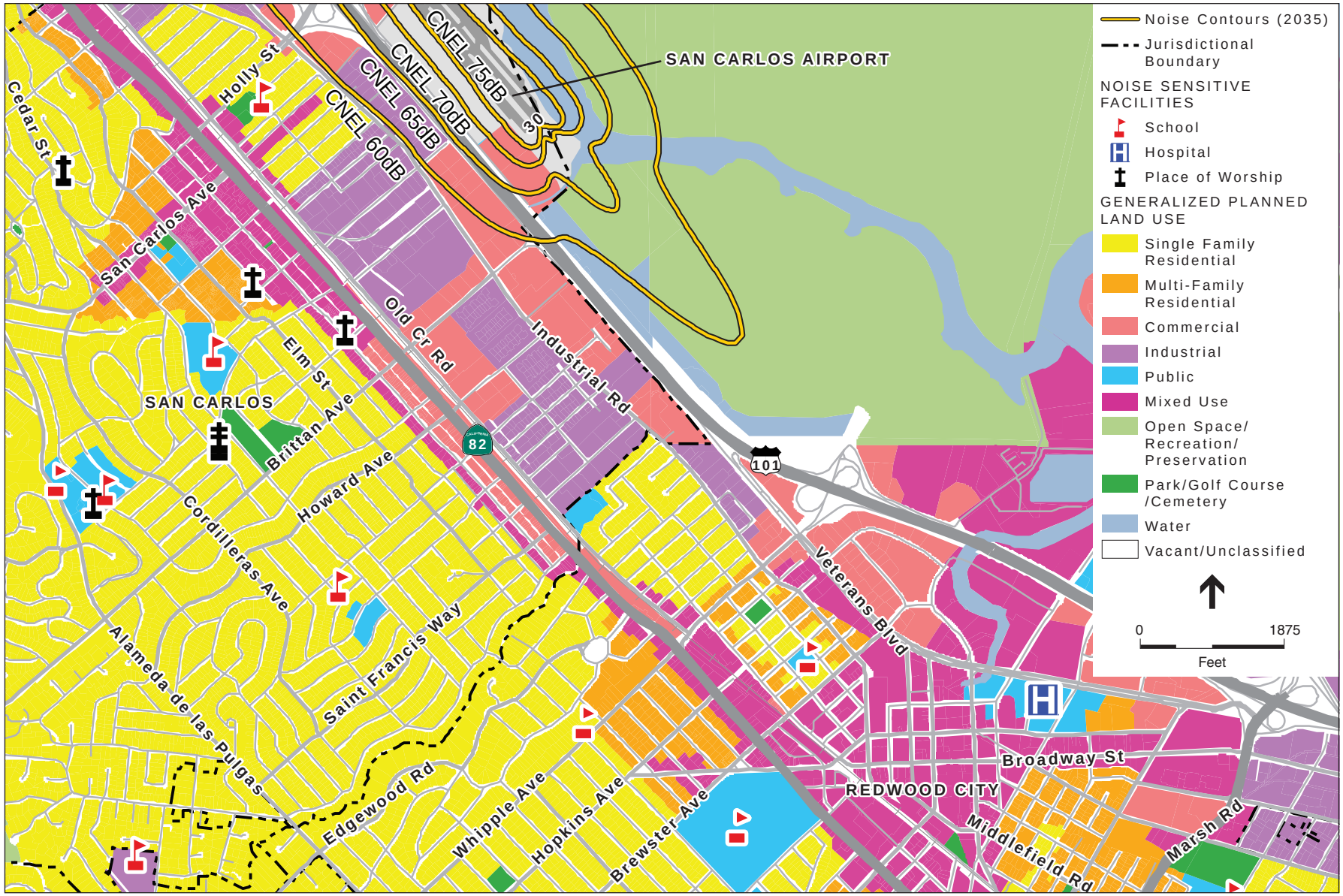
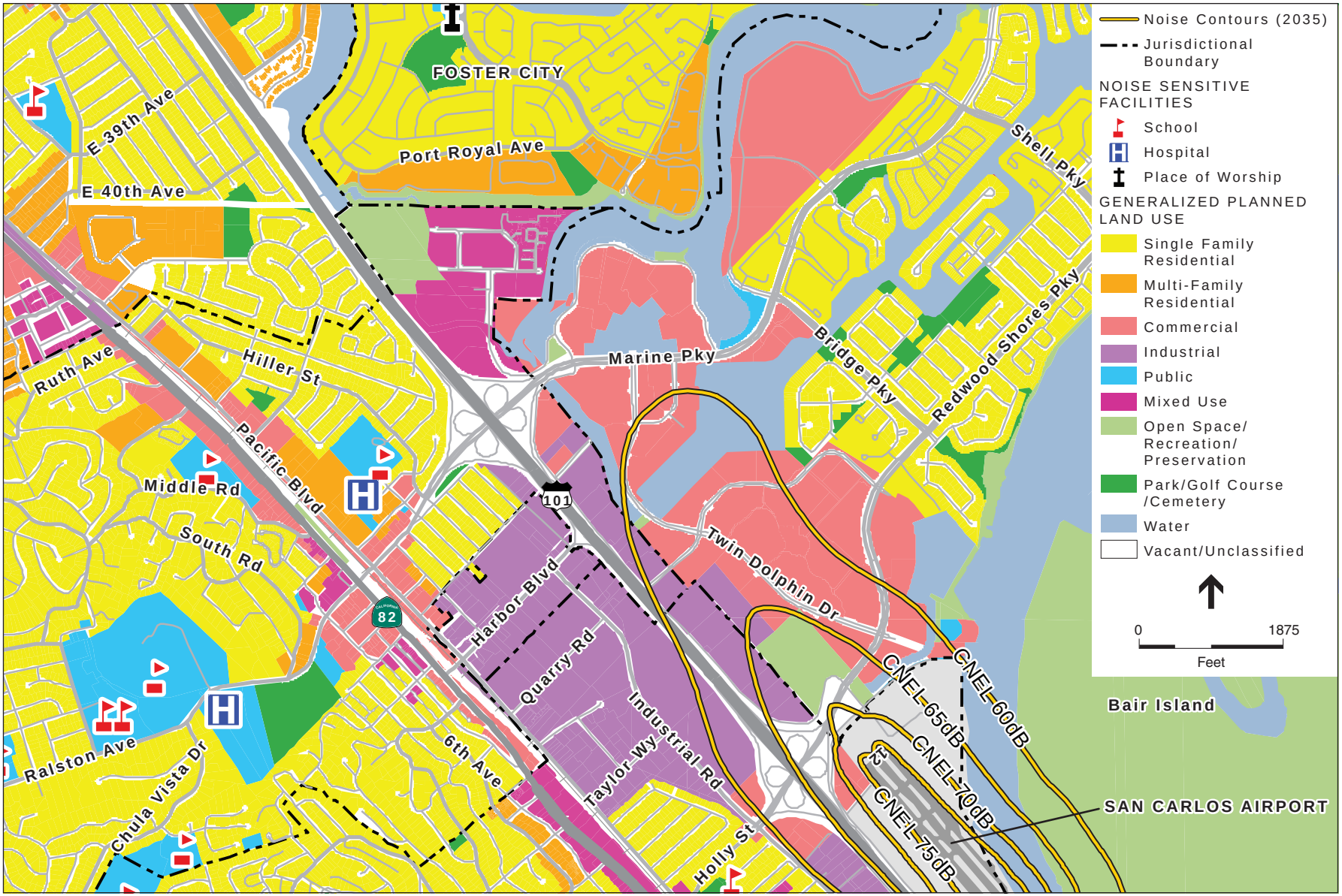


SOURCE: Belmont, 1982; San Mateo County, 1986; Foster City, 1993; Menlo Park, 1994; San Carlos, 2009; City of San Mateo, 2010; Redwood City, 2010; ESRI, 2014; ESA Airports, 2014

San Carlos Airport ALUCP . 130753

Exhibit E-2

Future (2035) Noise Contours – South



SOURCE: Belmont, 1982; San Mateo County, 1986; Foster City, 1993; Menlo Park, 1994; San Carlos, 2009; City of San Mateo, 2010; Redwood City, 2010; ESRI, 2014; ESA Airports, 2014

San Carlos Airport ALUCP . 130753

Exhibit E-3

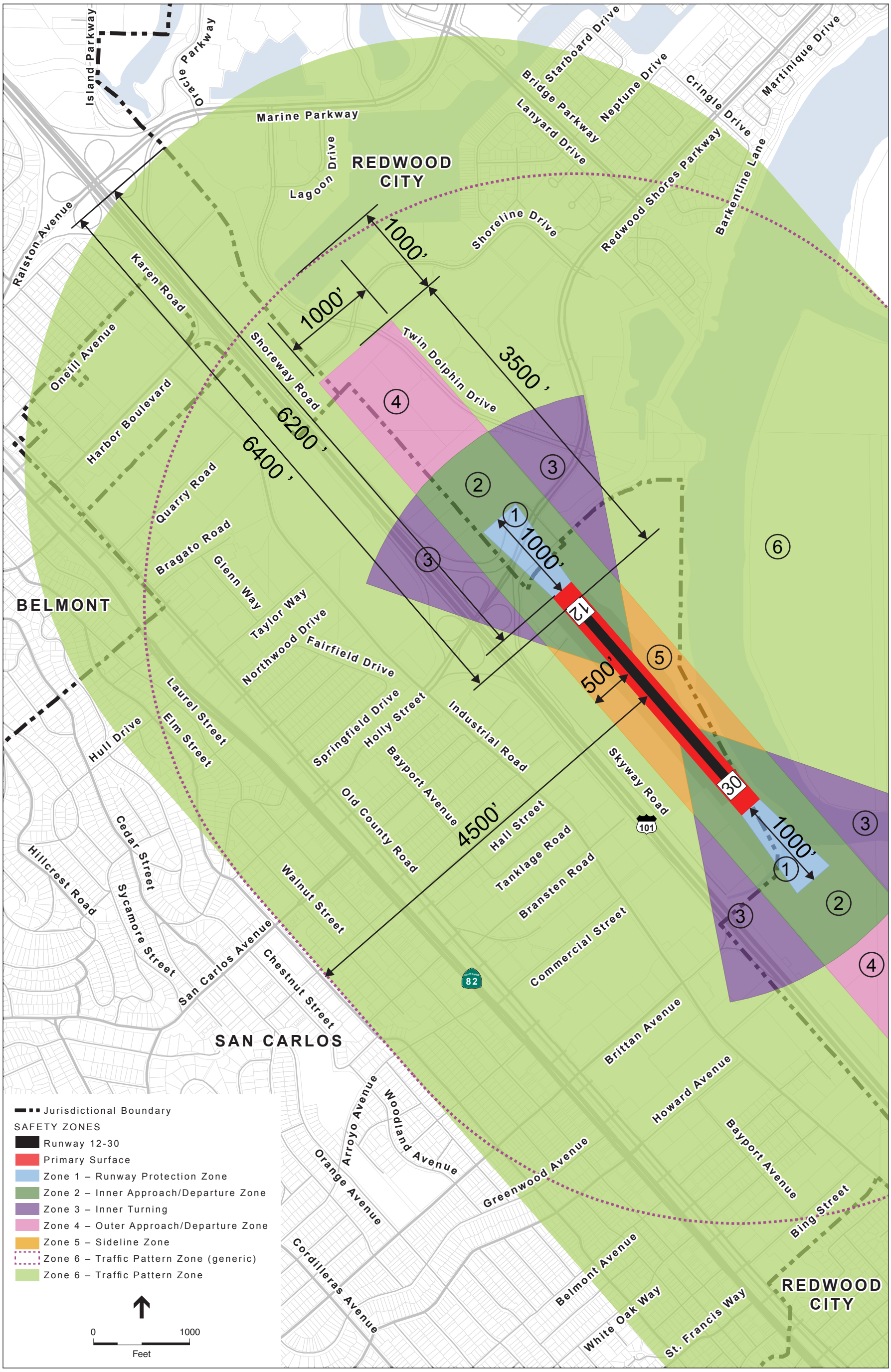
Future (2035) Noise Contours – North

SOURCE: ESRI, 2014; ESA Airports, 2014

San Carlos Airport ALUCP . 130753

Exhibit E-4

San Carlos Airport Safety Zones – South Side



SOURCE: ESRI, 2014; ESA Airports, 2014

San Carlos Airport ALUCP . 130753

Exhibit E-5

San Carlos Airport Safety Zones – North Side

APPENDIX F
Consistency Checklist

Introduction

One of the fundamental responsibilities assigned to airport land use commissions by the Aeronautics Act is to review particular types of local actions for compliance with the criteria and policies set forth in the commissions' adopted compatibility plans. The law specifies that local jurisdictions must refer certain actions to the Airport Land Use Commission (C/CAG Board) for review. Actions included in this category are proposed adoption or amendment of general plans, specific plans, zoning ordinances, and building regulations affecting land within an airport influence area (AIA). Also required to be submitted for Airport Land Use Commission (C/CAG Board) review are several types of airport and heliport development plans. Referral of other local actions – primarily individual development projects – is required in some instances, but voluntary in others.

The following checklist is intended to assist local jurisdictions with modifications necessary to make their general plans and other local policies consistent with the Airport Land Use Commission's (C/CAG Board's) compatibility plan. It is also designed to facilitate Airport Land Use Commission (C/CAG Board) review of these local plans and policies. For more information on the review process of local land use actions, please refer to Chapter 6 of the *California Airport Land Use Planning Handbook* (Caltrans Division of Aeronautics, 2011).

Consistency Checklist

General and Specific Plan Documents

The following items typically appear directly in a general or specific plan. Amendment of these types of documents will be required if there are any conflicts with the ALUCP.

Land Use Map – No direct conflicts should exist between proposed new land uses indicated on a general plan land use map and the ALUCP land use compatibility criteria.

- □ Residential densities (dwelling units per acre) should not exceed the set limits. Differences between gross and net densities and the potential for secondary dwellings on single parcels may need to be taken into account.
- □ Proposed nonresidential development needs to be assessed with respect to applicable intensity limits.
- □ No new land uses of a type listed as specifically prohibited should be shown within affected areas.

Noise Element – General plan noise elements typically include criteria indicating the maximum noise exposure for which residential development is normally acceptable. Note, however, that a general plan may establish a different limit with respect to aviation-related noise than for noise from other sources (this may be appropriate in that aviation-related noise is often judged to be more objectionable than other types of equally loud noises).

- □ This limit must be made consistent with the equivalent compatibility plan criteria.

Zoning or Other Policy Documents

The following items need to be reflected either in the general plan or in a separate policy document such as a combining zone ordinance. If a separate policy document is adopted, modification of the general plan to achieve consistency with the compatibility plan may not be required. Modifications would normally be needed only to eliminate any conflicting language which may be present and to make reference to the separate policy document.

- □ **Secondary Dwellings** – detached secondary dwellings on the same parcel should be counted as additional dwellings for the purposes of density calculations. This factor needs to be reflected in local policies either by adjusting the maximum allowable densities or by prohibiting secondary dwellings where their presence would conflict with the compatibility criteria.
- □ **Intensity Limitations on Nonresidential Uses** – Local policies must be established to limit the usage intensities of commercial, industrial, and other nonresidential land uses. This can be done by duplication of the performance-oriented criteria – specifically, the number of people per acre – indicated in the compatibility plan. Alternatively, local jurisdictions may create a detailed list of land uses which are allowable and/or not allowable within each compatibility zone. For certain land uses, such a list may need to

include limits on building sizes, floor area ratios, habitable floors, and/or other design parameters which are equivalent to the usage intensity criteria.

- □ **Identification of Prohibited Uses** – Compatibility plans may prohibit day care centers, hospitals, and certain other uses within much of an airport's influence area. The facilities often are permitted or conditionally permitted uses within many commercial or industrial land use designations. Policies need to be established which preclude these uses in accordance with the compatibility criteria.
- □ **Open Land Requirements** – Compatibility plan requirements, if any, for assuring that a minimum amount of open land is preserved in the airport vicinity must be reflected in local policies. Normally, the locations which are intended to be maintained as open land would be identified on a map with the total acreage within each compatibility zone indicated. If some of the area included as open land is private property, then policies must be established which assure that the open land will continue to exist as the property develops. Policies specifying the required characteristics of eligible open land also must be established.
- □ **Infill development** – If a compatibility plan contains infill policies and a jurisdiction wishes to take advantage of them, the lands which meet the qualifications must be shown on a map.
- □ **Height Limitations and Other Hazards to Flight** – To protect the airport airspace, limitations must be set on the height of structures and other objects near airports. These limitations are to be based upon Part 77 of the Federal Aviation Regulations, but may include exceptions for objects on high terrain if provided for in the ALUCP. Restrictions also must be established on other land use characteristics which can cause hazards to flight (specifically, visual or electronic interference with navigation and uses which attracted hazardous wildlife). Note that many jurisdictions have already adopted an airport-related hazard and height limit zoning ordinance which, if up to date, will satisfy this consistency requirement.
- □ **Noise Insulation Requirements** – Some compatibility plans call for certain buildings proposed for construction within high noise-impact areas to demonstrate that they will contain sufficient sound insulation to reduce aircraft-related noise to an acceptable level. These criteria apply to new residences, schools, and certain other buildings containing noise-sensitive uses. Local policies must include parallel criteria.
- □ **Buyer Awareness Measures** – As a condition for approval of development within certain compatibility zones, some compatibility plans require either dedication of an avigation easement to the airport proprietor or place on deeds of a notice regarding airport impacts. If so, local jurisdiction policies must contain similar requirements. Compatibility plans also may encourage, but should not require, local jurisdictions to adopt a policy stating that airport proximity and the potential for aircraft overflights be disclosed as part of real estate transactions regarding property in the airport influence area.

- **Nonconforming Uses and Reconstruction** – Local jurisdiction policies regarding nonconforming uses and reconstruction must be equivalent to or more restrictive than those in the ALUCP, if any.

Review Procedures

In addition to incorporation of ALUCP compatibility criteria, local jurisdiction implementing documents must specify the manner in which development proposals will be reviewed for consistency with the compatibility criteria.

- **Actions Always Required to be Submitted for Airport Land Use Commission Review** – State law specifies which types of development actions must be submitted for ALUC review. Local policies should either list these actions or, at a minimum, not the jurisdiction's intent to comply with the state statute.
- **Other Land Use Actions Potentially Subject to Airport Land Use Commission Review** – In addition to the above actions, the compatibility plan may identify certain major land use actions for which referral to the Airport Land Use Commission is dependent upon agreement between the jurisdiction and the Airport Land Use Commission. If the jurisdiction fully complies with all of the items in this general plan consistency checklist or has taken the necessary steps to overrule the Airport Land Use Commission, then referral of the additional actions is voluntary. On the other hand, a jurisdiction may elect not to incorporate all of the necessary compatibility criteria and review procedures into its own policies. In this case, referral of major land use actions to the Airport Land Use Commission is mandatory. Local policies should indicate the jurisdiction's intentions in this regard.
- **Process for Compatibility Reviews by Local Jurisdictions** – If a jurisdiction choose to submit only the mandatory actions for Airport Land Use Commission review, then it must establish a policy indicating the procedures which will be used to assure that airport compatibility criteria are addressed during review of other projects. Possibilities include: a standard review procedure checklist which includes reference to compatibility criteria; use of a geographic information system to identify all parcels within the airport influence area; etc.
- **Variance Procedures** – Local procedures for granting of variances to the zoning ordinance must make certain that any such variances do not result in a conflict with the compatibility criteria. Any variance which involves issues of noise, safety, airspace protection, or overflight compatibility as addressed in the compatibility plan must be referred to the Airport Land Use Commission for review.
- **Enforcement** – Policies must be established to assure compliance with compatibility criteria during the lifetime of the development. Enforcement procedures are especially necessary with regard to limitations on usage intensities and the heights of objects. An airport combining district zoning ordinance is one means of implementing enforcement requirements.

APPENDIX G
Methods for Calculating Concentrations of People

The following is guidance on how to calculate the intensity of land uses (the number of people-per-acre). The most difficult part about determining the intensity of a land use is estimating the number of people likely to use a particular facility. There are several methods which can be utilized, depending upon the nature of the proposed use:

Parking Ordinance—The number of people who could be present in a given area can be calculated based upon the number of parking spaces required by the zoning ordinance. Some assumption regarding the number of people per vehicle needs to be developed to calculate the number of people on-site. The number of people per acre can then be calculated by dividing the number of people on-site by the size of the parcel in acres. This approach is appropriate where the use is expected to be dependent up on access by vehicles. Conversely, this approach may not be appropriate for more urban developments, including transit-oriented development, where fewer parking spaces are provided to discourage single occupancy vehicle trips. Depending upon the specific assumptions utilized, this methodology typically results in a number in the low end of the likely intensity for a given land use.

Maximum Occupancy—The California Building Code (CBC) can be used as a standard for determining the maximum occupancy of certain uses. The chart provided as **Exhibit G-1** indicates the required number of square feet per occupant. The number of people on the site can be calculated by dividing the total floor area of a proposed use by the minimum square feet per occupant requirement listed in the table. The maximum occupancy can then be divided by the size of the parcel in acres to determine the people per acre. Surveys of actual occupancy levels conducted by various agencies have indicated that many retail and office uses are generally occupied at no more than 50% of their maximum occupancy levels, even at the busiest times of day. Therefore, the number of people calculated for office and retail uses should usually be adjusted (50%) to reflect the actual occupancy levels before making the final people-per-acre determination. Even with this adjustment, the CBC-based methodology typically produces intensities at the high end of the likely range.

Other Methodologies—Some uses (such as theaters or churches) may be calculated based on the number of fixed seats. This is likely to produce a range between the two methods described above. Certain uses may require an estimate based upon a survey of similar uses. This approach is more difficult, but is appropriate for uses which, because of the nature of the use, cannot be reasonably estimated based upon parking or square footage.

Exhibit G-1 provides standard floor are per occupant (in square feet) for a variety of spaces, while **Exhibit G-2** shows sample calculations.

Exhibit G-1: Maximum Floor Area Allowances Per Occupant

Function of Space	Floor area per occupant (sq. ft.)
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	
Gaming floors (keno, slots, etc.)	11 gross
Assembly with fixed seats	See Section 1004.7
Assembly without fixed seats	
Concentrated (chairs only-not fixed)	15 net
Standing space	5 net
Unconcentrated (tables and chairs)	7 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms-other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross
Educational	
Classroom area	20 net
Shops and other vocational room areas	50 net
Exercise rooms	50 gross
H-5 Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas	
Inpatient treatment areas	240 gross
Outpatient treatment areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Laboratory	
Educational	50 net
Laboratories, non-educational	100 net
Laboratory suite	200 gross
Library	
Reading rooms	50 net
Stack area	100 gross
Locker rooms	50 gross
Mercantile	
Areas on other floors	60 gross
Basement and grade floor areas	30 gross
Storage, stock, shipping areas	300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross
Stages and platforms	15 net
Warehouses	500 gross

Source: California Building Code (2007), Table 1004.1.1

Exhibit G-2: Occupancy Levels—California Building Code

Example 1

Proposed Development: Two office buildings, each two stories and containing 20,000 square feet of floor area per building. Site size is 3.0 net acres. Counting a portion of the adjacent road, the gross areas of the site is 3.5± acres.

A. Calculation Based on Parking Space Requirements

For office uses, assume that a county or city parking ordinance requires 1 parking space for every 300 square feet of floor area. Data from traffic studies or other sources can be used to estimate the average vehicle occupancy. For the purposes of this example, the number of people on the property is assumed to equal 1.5 times the number of parking spaces.

The average usage intensity would therefore be calculated as follows:

1) 40,000 sq. ft. floor area x 1.0 parking space per 300 sq. ft. = 134 (rounded from 133.3)required parking spaces
2) 134 parking spaces x 1.5 people per space = 201 maximum people on site
3) 200 people / 3.5 acres gross site size = 57.4 people per acre average for the site

Assuming that occupancy of each building is relatively equal throughout, but that there is some separation between the buildings and outdoor uses are minimal, the usage intensity for a single acre would be estimated to be:

1) 20,000 sq. ft. bldg. / 2 stories = 10,000 sq. ft. bldg. footprint
2) 10,000 sq. ft. bldg. footprint / 43,560 sq. ft. per acre = 0.23 ace bldg. footprint
3) Building footprint < 1.0 acre; therefore maximum people in 1 acre = bldg. occupancy = 100 people per single acre

B. Calculation Based on California Building Code

Using the CBC as the basis for estimating building occupancy yields the following results for the above example:

1) 40,000 sq. ft. bldg. / 100 sq. ft. per occupant = 400 people max. bldg. occupancy
2) 400 max. bldg. occupancy x 50% adjustment = 200 people maximum on site
3) 200 people / 3.5 acres gross site size = 57 people per acre average for the site.

Conclusions: In this instance, both methodologies give the same results. For different uses and/or assumptions, the two methodologies are likely to produce different numbers. In most such cases, the CBC methodology will indicate a higher intensity.

Example 2

Proposed Development: Single-floor furniture store containing 24,000 square feet of floor area on a site of 1.7 net acres. Counting a portion of the adjacent road, the gross area of the site is 2.0 acres.

A. Calculation Based on Parking Space Requirements

For furniture stores, the county requires 1 parking space per 400 square feet of use area. Assuming 1.5 people per automobile, the average usage intensity would be:

1) 24,000 sq. ft. bldg. x 1.0 parking space per 400 sq. ft. = 60 required parking spaces
2) 60 parking spaces x 1.5 people per space = 90 people maximum on site
3) 90 people / 2.0 acres gross sire size = 45 people per acre average for the site

Again, assuming a relatively balanced occupancy throughout the building and that outdoor uses are minimal, the usage intensity for a single acre would be estimated to be:

1) 24,000 sq. ft. bldg. footprint / 43,560 sq. ft. per acre = 0.55 acre bldg. footprint
2) Building footprint < 1.0 acre; therefore maximum people in 1 acre = bldg. occupancy = 90 people per single acre

B. Calculation Based on California Building Code

For the purposes of the CBC-based methodology, the furniture store is assumed to consist of 50% retail sales floor (at 30 square feet per occupant) and 50% warehouse (at 500 square feet per occupant). Usage intensities would therefore be estimate as follows:

1) 12,000 sq. ft. retail floor area / 30 sq. ft. per occupant = 400 people max. occupancy in retail area
2) 12,000 sq. ft. warehouse floor area / 500 sq. ft. per occupant = 24 people max occupancy in warehouse area
3) Maximum occupancy under CBC assumptions = 400 + 24 = 424 people
4) Assuming typical peak occupancy is 50% of CBC numbers = 212 people maximum expected at any one time
5) 212 people / 1.26 acres gross site size = 168 people per acre average for the site

With respect to the single-acre intensity criteria, the entire building occupancy would again be within less than 1.0 acre, thus yielding the same intensity of 168 people per single acre.

Conclusions: In this instance, the two methods produce very different results. The occupancy estimate of 30 square feet per person is undoubtedly low for a furniture store even after the 50% adjustment. The 72 people-per-acre estimate using the parking requirement methodology is probably closer to be realistic. As part of the general plan consistency process, ALUCs and local jurisdictions should decide which method or combination of methods is to be used in reviewing development proposals.

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APPENDIX H
Glossary of Terms

A-Weighted Sound (dBA): A system for measuring sound energy that is designed to represent the response of the human ear to sound. Energy at frequencies more readily detected by the human ear is more heavily weighted in the measurement, while frequencies less well detected are assigned lower weights. A-weighted sound measurements are commonly used in studies where the human response to sound is the object of the analysis.

Air Route Traffic Control Center (ARTCC or Center): A FAA facility established to provide air traffic control service to aircraft operating on Instrument Flight Rules (IFR) flight plans within controlled airspace during the en route portion of flight. Air Traffic Control (ATC): A service operated to promote the safe, orderly, and expeditious flow of air traffic.

Airport Operations: Landings (arrivals) and takeoffs (departures) from an airport.

Base Leg: A flight path at right angles to the approach to the runway end. It usually extends from the downwind leg to the intersection of the extended runway centerline. See "traffic pattern."

California Environmental Quality Act (CEQA): Statutes adopted by the California legislature for maintaining a quality environment for the people of the state now and in the future. CEQA establishes a process for state and local agency review of projects, as defined in the implementing guidelines, that may adversely affect the environment (California Public Resources Code §§2100-21178).

CEQA: See California Environmental Quality Act.

Commuter Aircraft: Commuters are commercial operators that provide regularly scheduled passenger or cargo service with aircraft seating less than 60 passengers.

Controlled Airspace: Airspace of a defined dimension that has air traffic control service provided to IFR flights and to VFR flights in accordance with the airspace classification. Controlled airspace is designated as Class A, Class B, Class C, Class D, or Class E. Aircraft operators are subject to certain pilot qualifications, operating rules, and equipment requirements as specified in FAR Part 91, depending upon the class of airspace in which they are operating.

Crosswind Leg: A flight path at right angles to the runway approach connecting the upwind leg to the downwind leg of the traffic pattern.

Day-Night Average Sound Level (DNL): A noise measure used to describe the cumulative sound level over a 24-hour period, typically an average day over the course of a year. In computing DNL, a weighting penalty of 10 decibels is assigned to noise occurring between the hours of 10 p.m. and 6:59 a.m. to account for increased annoyance when ambient noise levels are lower and people are trying to sleep.

Decibel (dB): A logarithmic unit of measurement that expresses the magnitude of sound pressure relative to a reference level of 20 micropascals, the lowest audible sound pressure level. A 10-decibel increase in sound is equal to a tenfold increase in sound pressure.

Displaced Threshold: A landing threshold located at a point on the runway other than the designated beginning of the runway. The portion of pavement behind a displaced threshold may be available for takeoffs in both directions and landings from the opposite direction.

Easement: The legal right of one party to use part of the real estate belonging to another party. This may include, but is not limited to, the right of passage over, on or below the property; certain air rights above the property, including view rights; and the rights to any specified form of development or activity.

Enplanements: The number of passengers boarding an aircraft at an airport. Does not include arriving or through passengers.

Federal Aviation Administration (FAA): The FAA is the Federal agency responsible for insuring the safe and efficient use of the nation's airspace, for fostering civil aeronautics and air commerce, and for supporting the requirements of national defense. The activities required to carry out these responsibilities include: issuance and administration of safety regulations; airspace management and the establishment, operation, and maintenance of a system of air traffic control and navigation facilities; research and development in support of the fostering of a national system of airports, promulgation of standards and specifications for civil airports, and administration of Federal grants-in-aid for developing public airports; various joint and cooperative activities with the Department of Defense; and technical assistance (under State Department auspices) to other countries.

Federal Aviation Regulations (FAR): The body of Federal regulations relating to aviation (published as Title 14 of the Code of Federal Regulations (CFR)).

Final Approach: A flight path that follows the extended runway centerline. It usually extends from the base leg to the runway.

General aviation: That portion of civil aviation which encompasses all facets of aviation except air carriers and air charters.

Glide Slope (GS): Electronic and visual systems providing vertical guidance for aircraft during approach and landing. The glide slope consists of the following:

- Electronic components emitting signals which provide vertical guidance by reference to airborne instruments during instrument approaches such as ILS, or

- Visual ground aids, such as VASI, which provide vertical guidance for VFR approach or for the visual portion of an instrument approach and landing.

Global Positioning System (GPS): A system of satellites used as reference points to enable navigators equipped with GPS receivers to determine their latitude, longitude, and altitude. The accuracy of the system can be further refined by using a ground receiver at a known location to calculate the error in the satellite range data. This is known as differential GPS (DGPS).

Instrument Approach: A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing, or to a point from which a landing may be made visually.

Instrument Flight Rules (IFR): That portion of the Federal Aviation Regulations (14 CFR 91) specifying the procedures to be used by aircraft during flight in Instrument Meteorological Conditions. These procedures may also be used under visual conditions and provide for positive control by ATC. (See also VFR).

Integrated Noise Model (INM): A computer model developed, updated and maintained by the FAA to predict the noise exposure generated by aircraft operations at an airport.

Ldn: See Day-Night Average Sound Level (DNL). Ldn is used in place of DNL in mathematical equations only.

Mean Sea Level (MSL): The average height of the surface of the sea for all stages of the tide; used as a reference for elevations (also called sea level datum).

Missed Approach: A procedure prescribed for aircraft to follow when they cannot complete an attempted landing at an airport.

National Airspace System (NAS): The common network of U.S. airspace; air navigation facilities, equipment, services, airports, or landing areas; aeronautical charts, information, and services; rules, regulations, and procedures; technical information, manpower, and materials, all of which are used in aerial navigation.

Nautical Mile: A measure of distance equal to one minute of arc along a meridian of latitude on the earth's surface (1,852 meters or 6,076.1 feet).

NAVAIDs (Navigational Aids): Any facility used by an aircraft for navigation.

Noise Abatement: A measure or action that minimizes the amount of impact of noise on the environs of an airport. Noise abatement measures include aircraft operating procedures and use or disuse of certain runways or flight tracks.

Noise Contour Map: A map representing average annual noise levels summarized by lines connecting points of equal noise exposure.

Nonprecision Approach: A standard instrument approach procedure providing runway alignment but no glide slope or descent information.

Operation: A takeoff or landing by an aircraft.

Precision Approach Procedure: A standard instrument approach procedure in which an electronic glideslope/glidepath is provided (e.g., ILS).

Profile: The position of the aircraft during an approach or departure in terms of altitude above the runway and distance from the runway end.

Public Use Airport: An airport that is open to public use without prior permission, and without restrictions within the physical capabilities of the facility. It may or may not be publicly owned.

Run-Up: A routine procedure for testing aircraft systems by running one or more engines at a high power setting. Engine run-ups are normally conducted by aircraft maintenance personnel checking an engine or other on board systems following maintenance.

Runway Protection Zone (RPZ): An area, trapezoidal in shape and centered about the extended runway centerline, designated to enhance the safety of aircraft operations. It begins 200 feet (60 M) beyond the end of the area usable for takeoff or landing. The RPZ dimensions are functions of the aircraft, type of operation and visibility minimums at the airport (formerly known as the clear zone).

Runway Safety Area (RSA): A defined surface surrounding the runway prepared or suitable for reducing the risk or damage to airplanes in the event of a runway undershoot, overshoot, or excursion.

Runway Threshold: The beginning of the portion of the runway that is usable for landing.

Single Event: One noise event. Sound from single events may be described by the maximum instantaneous sound level (Lmax) or the Sound Exposure Level (SEL) metric.

Sound: Sound is the result of vibration in the air. The vibrations produce fluctuations in the normal atmospheric pressure similar to ripples on a pond. Vibrations in the audible range are heard as sound.

Sound Exposure Level (SEL): A standardized measure of a single sound event, expressed in A-weighted decibels, that takes into account all sound above a specified threshold set at least 10 decibels below the maximum level. All sound energy in the event is integrated over one second.

Standard Instrument Departure Procedure (SID): A planned IFR air traffic control departure procedure published for pilot use in graphic and textual form. A SID provides transition from the terminal to the en route air traffic control structure.

Standard Terminal Arrival Route (STAR): A planned IFR air traffic control arrival procedure published for pilot use in graphic and textual form. STARs provide transition from the en route air traffic control structure to an outer fix or an instrument approach fix in the terminal area.

Statute Mile: A measure of distance equal to 5,280 feet.

Terminal Radar Approach Control (TRACON): An FAA Air Traffic Control Facility which uses radar and two-way communication to provide separation of air traffic within a specified geographic area in the vicinity of one or more airports.

Traffic Pattern: The traffic flow for aircraft landing and departing an airport. Typical components of the traffic pattern include: upwind leg, crosswind leg, downwind leg, base leg, and final approach.

Upwind Leg: A flight path parallel to the approach runway in the direction of approach.

Vector: Compass heading instructions issued by ATC in providing navigational guidance by radar.

Visual Approach: An approach conducted on an IFR flight plan which authorizes the pilot to proceed visually and clear of clouds to the airport.

Visual Flight Rules (VFR): Rules and procedures specified in 14 CFR 91 for aircraft operations under visual conditions. Aircraft operations under VFR are not generally under positive control by ATC. The term VFR is also used in the United States to indicate weather conditions that are equal to or greater than minimum VFR requirements. In addition, it is used by pilots and controllers to indicate a type of flight plan.

Yearly Day-Night Average Sound Level: see Day-Night Average Sound Level.

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