

# Stanislaus County

Modesto City-County Airport  
Oakdale Municipal Airport  
Crows Landing Airport

## Airport Land Use Compatibility Plan



Prepared by  
Stanislaus County  
Planning and Community  
Development Department  
Angela Freitas, Director

For the  
Stanislaus County  
Airport Land Use Commission

Adopted October 6, 2016  
Revised November 15, 2018



# Stanislaus County Airport Land Use Compatibility Plan

Including

Modesto City-County Airport

Oakdale Municipal Airport

Crows Landing Airport

Adopted October 6, 2016

Revised November 15, 2018

Prepared by

Stanislaus County  
Planning and Community  
Development Department  
Angela Freitas, Director



with assistance from



Prepared for the  
Stanislaus County  
Airport Land Use Commission



<b>Chapter 1</b>	<b>Introduction</b>	
	PLAN OVERVIEW.....	1-1
	AIRPORT LAND USE COMPATIBILITY PLANNING .....	1-1
	Powers and Duties of ALUCs .....	1-1
	Relationship of the ALUCs to County and City Governments.....	1-2
	ALUCP PREPARATION.....	1-2
	State Laws and Guidelines.....	1-2
	ALUCP Relationship to Airport Plans .....	1-3
	AIRPORT LAND USE COMPATIBILITY PLANNING .....	1-4
	Airports in Stanislaus County .....	1-4
	PLAN ADOPTION.....	1-6
	PLAN IMPLEMENTATION.....	1-7
	General Plan Consistency.....	1-7
	Overrule Process.....	1-8
	Project Referrals.....	1-8
	PLAN CONTENTS.....	1-9
	SOURCES OF INFORMATION AND GUIDANCE.....	1-9
	<i>Map</i>	
	1-1 Airport Locations .....	ff 1-10
 <b>Chapter 2</b>	 <b>Policies</b>	
	1. GENERAL APPLICABILITY .....	2-1
	1.1 Purpose and Use .....	2-1
	1.2 Definitions .....	2-3
	1.3 Geographic Scope.....	2-7
	1.4 Limitations of this Compatibility Plan.....	2-7
	1.5 Types of Actions Subject to ALUC Review .....	2-9
	1.6 Overruling the ALUC .....	2-12
	2. ALUC REVIEW PROCESS .....	2-12
	2.1 General Requirements.....	2-12
	2.2 Review Process for General Plans, Specific Plans, Zoning Ordinances, and Building Regulations.....	2-13
	2.3 Review Process for Major Land Use Actions.....	2-15
	2.4 Review Process for Airport Master Plans and Development Plans.....	2-18
	3. COMPATIBILITY CRITERIA .....	2-20
	3.1 Evaluating Land Use Consistency.....	2-20
	3.2 Noise Compatibility.....	2-20
	3.3 Safety Compatibility .....	2-23
	3.4 Airspace Protection .....	2-34
	3.5 Overflight Compatibility.....	2-37
	4. OTHER COMPATIBILITY POLICIES.....	2-40
	4.1 Policies for Special Circumstances .....	2-40

Chapter 2, continued

4.2 Site-Specific Exceptions .....2-44  
 4.3 General Plan Consistency with Compatibility Plan .....2-44  
 4.4 Criteria for Review of Airport Plans.....2-45

*Exhibits*

1 Intensity Calculation Example .....2-28  
 2 Site Split by Safety Zones .....2-33  
 3 Transferring Usage Intensity .....2-33

*Tables*

1 Noise Compatibility Criteria ..... 2-47  
 2 Safety Compatibility Criteria ..... 2-51

**Chapter 3 Individual Airport Policies and Compatibility Maps .....3-1**

CHAPTER OVERVIEW.....3-1  
 MOD. MODESTO CITY-COUNTY AIRPORT.....3-2  
     MOD-1 Airport Influence Area Policy Map ..... ff-3-2  
     MOD-2 Airport Noise Zones Policy Map..... ff 3-2  
     MOD-3 Safety Zones Policy Map .....ff 3-2  
     MOD-4 Airspace Protection Zones Policy Map.....ff 3-2  
     MOD-5 Overflight Zones Policy Map.....ff 3-2  
 OAK. OAKDALE MUNICIPAL AIRPORT.....3-3  
     OAK-1 Airport Influence Area Policy Map ..... ff-3-4  
     OAK-2 Airport Noise Zones Policy Map..... ff 3-4  
     OAK-3 Safety Zones Policy Map .....ff 3-4  
     OAK-4 Airspace Protection Zones Policy Map .....ff 3-4  
     OAK-5 Overflight Zones Policy Map.....ff 3-4  
 CRO. CROWS LANDING AIRPORT.....3-5  
     CRO-1 Airport Influence Area Policy Map ..... ff-3-6  
     CRO-2 Airport Noise Zones Policy Map..... ff 3-6  
     CRO-3 Safety Zones Policy Map .....ff 3-6  
     CRO-4 Airspace Protection Zones Policy Map .....ff 3-6  
     CRO-5 Overflight Zones Policy Map.....ff 3-6

**Chapter 4 Background Data: Modesto City-County Airport and Environs**

INTRODUCTION .....4-1  
 STATUS OF AIRPORT PLANS .....4-1  
 AIRFIELD CONFIGURATION .....4-2  
 ACTIVITY .....4-3  
     Activity Forecast.....4-3  
     Noise Contours.....4-3  
     Overflight Patterns.....4-3  
     Airport Environs .....4-4  
 BACKGROUND INFORMATION .....4-4

**Chapter 4, continued**

*Exhibits*

MOD-1	Airport Location.....	ff 4-6
MOD-2	Airport Features Summary.....	ff 4-6
MOD-3	Airport Layout Plan (ALP).....	ff 4-6
MOD-4	Airport Activity.....	ff 4-6
MOD-5	Noise and Overflight Factors.....	ff 4-6
MOD-6	Safety Factors.....	ff 4-6
MOD-7	Part 77 Airspace Surfaces.....	ff 4-6
MOD-8	Airport Environs.....	ff 4-6
MOD-9A	Existing Land Uses, City of Modesto General Plan.....	ff 4-6
MOD-9B	Existing Land Uses, City of Ceres General Plan.....	ff 4-6
MOD-9C	Existing Land Uses, Stanislaus County General Plan.....	ff 4-6

**Chapter 5 Background Data: Oakdale Municipal Airport and Environs**

INTRODUCTION.....	5-1
STATUS OF AIRPORT PLANS.....	5-1
AIRFIELD CONFIGURATION.....	5-2
AIRSPACE PLAN.....	5-2
EXISTING ACTIVITY.....	5-2
Activity Forecast.....	5-3
Noise Contours.....	5-3
Overflight Patterns.....	5-3
Safety Zones.....	5-3
Airport Environs.....	5-4
BACKGROUND INFORMATION.....	5-4

*Exhibits*

OAK-1	Airport Location.....	ff 5-4
OAK-2	Airport Features Summary.....	ff 5-4
OAK-3	Airport Diagram.....	ff 5-4
OAK-4	Airport Activity.....	ff 5-4
OAK-5	Noise and Overflight Factors.....	ff 5-4
OAK-6	Safety Factors.....	ff 5-4
OAK-7	Airspace Protection Surfaces.....	ff 5-4
OAK-8	Airport Environs.....	ff 5-4
OAK-9A	Oakdale General Plan.....	ff 5-4
OAK-9B	Stanislaus County General Plan.....	ff 5-4

**Chapter 6 Background Data: Crows Landing Airport and Environs**

INTRODUCTION.....	6-1
STATUS OF AIRPORT PLANS.....	6-1
AIRFIELD CONFIGURATION.....	6-2
AIRSPACE PLAN.....	6-3
ACTIVITY FORECASTS.....	6-3

Chapter 6, continued

Activity Forecast.....6-3  
 Noise Contours.....6-4  
 Overflight Patterns.....6-4  
 Safety Zones.....6-4  
 Airport Environs .....6-4  
 BACKGROUND INFORMATION .....6-4

*Exhibits*

CRO-1 Airport Location..... ff 6-6  
 CRO-2 Airport Features Summary..... ff 6-6  
 CRO-3 Airport Layout Plan .....ff 6-6  
 CRO-4 Airport Activity Data Summary .....ff 6-6  
 CRO-5 Noise and Overflight Factors .....ff 6-6  
 CRO-6 Safety Factors .....ff 6-6  
 CRO-7 Part 77 Airspace.....ff 6-6  
 CRO-8 Airport Environs .....ff 6-6  
 CRO-9A City of Patterson 2014 General Plan .....ff 6-6  
 CRO-9B Stanislaus County 2016 General Plan.....ff 6-6

Appendices

**A** Foundations of Airport Land Use Compatibility Planning  
**B** State Laws Related to Airport Land Use Planning  
**C** Federal Aviation Regulations Part 77  
     *Figure C1 – Far Part 77 Imaginary Surfaces*  
     *Figure C2 – Far Part 77 Notification*  
     *Figure C3 – Far Part 77 Filing Process*  
**D** Airport Land Use Compatibility Concepts  
     *Table D1 – Safety Zone Aircraft Accident Risk Characteristics*  
     *Figure D1 – Noise Footprints of Selected Aircraft*  
     *Figure D2 – General Aviation Accident Distribution Contours: All Arrivals*  
     *Figure D3 – General Aviation Accident Distribution Contours: All Departures*  
**E** Methods for Determining Concentrations of People  
     *Table E1 – Occupant Load Factors*  
**F** General Plan Consistency Checklist  
**G** Sample Implementation Documents  
     *Table G1 – Sample Airport Combining Zone Components*  
     *Table G2 – Typical Avigation Easement*  
     *Table G3 – Sample Recorded Overflight Notification*  
**H** Glossary of Terms  
**I** Stanislaus County Airport Land Use Commission Rules and Regulations





Chapter **1**

**INTRODUCTION**



---

# Introduction

## PLAN OVERVIEW

The *Stanislaus County Airport Land Use Compatibility Plan* (ALUCP) contains the individual Compatibility Plan for three airports in Stanislaus County: the Modesto City-County Airport, the Oakdale Municipal Airport, and the Crows Landing Airport. As adopted by the Stanislaus County Airport Land Use Commission, the basic function of the plan is to promote compatibility between these airports and the land uses surrounding them to the extent that these areas have not already been devoted to incompatible uses. The plan accomplishes this function through establishment of a set of compatibility criteria applicable to new development around the airport. Neither this ALUCP nor the ALUC have authority over existing land uses or over operation of the airport.

Geographically, the *Compatibility Plan* pertains to portions of unincorporated areas within Stanislaus County, together with portions of the cities of Modesto, Oakdale, Ceres, and Patterson. Special districts, school districts, and community college districts within those jurisdictions are also subject to the provisions of the plan. The authority of the ALUC does not extend to state, federal, or tribal lands.

## AIRPORT LAND USE COMPATIBILITY PLANNING

The creation of airport land use commissions (ALUCs) and the preparation of airport land use compatibility plans are requirements of the California State Aeronautics Act (Aeronautics Act/Public Utilities Code Section 21670 *et seq.*). Provisions for creation of ALUCs were first established under state law in 1967 (see Appendix B for a copy of the statutes). With limited exceptions, an ALUC is required in every county in the state and a compatibility plan is required for each public-use and military airport.

### Powers and Duties of ALUCs

Although the Aeronautics Act has been amended numerous times since its original enactment, the fundamental purpose of ALUCs to promote land use compatibility around airports has remained unchanged. As expressed in the present statutes, this purpose is:

“...to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public’s exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.”

The compatibility plans that ALUCs adopt are the basic tools that ALUCs use to achieve this purpose. The primary objective of an ALUCP is to ensure that the land use actions taken by local agencies also adhere to this purpose. ALUCs pursue this objective by reviewing the general plans, specific plans, zoning ordinances, building regulations, and certain individual development actions of local agencies for consistency with the policies and criteria in the applicable compatibility plan. ALUCs also review master plans and other development plans for civilian airports proposed by airport operators to determine if those plans are consistent with the compatibility plan or if modifications should be made to the compatibility plan to reflect current airport planning.

Two specific limitations on the powers of ALUCs are set in the statutes. The first explicit limitation, as indicated above, is that ALUCs have no authority over areas “already devoted to incompatible uses.” The common interpretation of this clause is that ALUCs have no jurisdiction over existing land uses, even if those uses are incompatible with airport activities. For example, an ALUC cannot require that an existing incompatible land use be converted to something compatible. The second explicit limitation is that the ALUCs have no “jurisdiction over the operation of any airport.” This limitation includes anything concerning the configuration of runways and other airport facilities, the type of aircraft operating at the airport, or where aircraft fly.

## **Relationship of the ALUCs to County and City Governments**

The relationship between ALUCs and the governments of the counties and the cities within their jurisdiction is set forth in the State Aeronautics Act. For the most part, ALUCs act independently from the local land use jurisdictions. ALUCs must consult with the involved agencies regarding the establishment of airport influence area (AIA) boundaries (Public Utilities Code Section 21675(c)), but otherwise have the authority to adopt compatibility plans without approval from county or city governing bodies. However, ALUCs do not have the authority to implement their own compatibility policies.

The responsibility for the implementation of ALUC-adopted compatibility plans rests with the affected local agencies. Government Code Section 65302.3 establishes that each county and city affected by an airport land use compatibility plan must make its general plan and any applicable specific plans consistent with the ALUC’s compatibility plan. Alternatively, local agencies can take the series of steps listed in the Aeronautics Act and described later in this chapter to overrule the ALUC policies.

The other responsibility of local agencies is to refer their plans and certain other proposed land use actions to the ALUC for review. The ALUC will then determine whether the proposed plans or land use actions are consistent with the ALUCP. Proposed adoption or amendment of general plans, specific plans, zoning ordinances, and building regulations always must be referred to the ALUC. However, other actions, such as those associated with individual development proposals are subject to review by the ALUC only until the general plan and specific plan(s) of a local agency have been made consistent with the ALUCP or the agency has overruled the ALUC.

## **ALUCP PREPARATION**

### **State Laws and Guidelines**

Many of the procedures that govern how ALUCs operate are defined by state law, particularly the State Aeronautics Act. As noted earlier, statutory provisions in the Public Utilities Code establish the requirements for ALUC adoption of compatibility plans, which airports must have these plans, and some of the

steps involved in plan adoption. The Aeronautics Act also dictates the requirements for airport land use compatibility reviews by an ALUC. For example, the types of actions that local jurisdictions must refer to an ALUC for review are specified in the Aeronautics Act.

With respect to airport land use compatibility criteria, the statutes say little. Instead, a section of the law enacted in 1994 refers to another document, the *Airport Land Use Planning Handbook* published by the California Department of Transportation (Caltrans) Division of Aeronautics. Specifically, the Aeronautics Act says that, when preparing compatibility plans for individual airports, ALUCs shall “be guided by” the information contained in the *Handbook*. The *Handbook* is not regulatory in nature, however, and it does not constitute formal state policy except to the extent that it explicitly refers to state laws. Rather, its guidance is intended to serve as the starting point for compatibility planning around individual airports. The policies and maps in the *Stanislaus County Airport Land Use Compatibility Plan* take into account the guidance provided by the current edition of the *Handbook*, dated October 2011. The October 2011 edition of the *Handbook* is available for downloading from the Division of Aeronautics web site ([www.dot.ca.gov/hq/planning/aeronaut](http://www.dot.ca.gov/hq/planning/aeronaut)).

An additional function of the *Handbook* is established elsewhere in California state law. The Public Resources Code creates a tie between the *Handbook* and California Environmental Quality Act (CEQA) documents. Specifically, Section 21096 requires that lead agencies must use the *Handbook* as “a technical resource” when assessing airport-related noise and safety impacts of projects located in the vicinity of airports.

## **ALUCP Relationship to Airport Plans**

ALUCPs are distinct from airport master plans and other types of airport development plans, but they are closely connected to them. The issues addressed by airport master plans and development plans focus primarily on the airport facility and its property, whereas the issues addressed by an ALUCP focus primarily on areas outside of the airport and its property. The purpose of an airport master plan is to assess the demand for airport facilities and to guide the development necessary to meet those demands. An airport master plan is prepared for and adopted by the agency that owns and/or operates the airport. In contrast, the primary purpose of a compatibility plan is to ensure that incompatible development does not occur on lands surrounding the airport. The responsibility for the preparation and adoption of compatibility plans lies with each county’s airport land use commission (ALUC).

The principal connection between the two types of plans stems from the Aeronautics Act. Specifically, Public Utilities Code Section 21675(a) requires that ALUC plans be based upon a long-range airport master plan that is adopted by the airport owner/proprietor or, if such a plan does not exist for a particular airport, an airport layout plan may be used with the approval of the California Division of Aeronautics. Furthermore, the compatibility plan must reflect “the anticipated growth of the airport during at least the next 20 years.”

The connection works in both directions. While a compatibility plan must be based upon an airport master plan, Public Utilities Code Section 21676(c) requires that any proposed modification to an airport master plan be referred to the ALUC to determine if the proposal is consistent with the compatibility plan. Provided that the off-airport compatibility implications of the proposed modifications are adequately addressed in the master plan, the outcome of this process usually is that the compatibility plan will need to be updated to mirror the new master plan.

# AIRPORT LAND USE COMPATIBILITY PLANNING

## Airports in Stanislaus County

The responsibility for preparation of a compatibility plan for the public-use airports in Stanislaus County and environs rests with the Stanislaus County Airport Land Use Commission (ALUC). The ALUC is composed of the Stanislaus County Planning Commission and two additional members with expertise in aviation. Although the ALUC is an independent body, it operates under the auspices of the County of Stanislaus.

Staff for the ALUC is provided by the County's Planning and Community Development Department. Although a small portion of the overflight impact area associated with the Modesto City-County Airport extends into Merced County, the policies of this Compatibility Plan are strictly advisory with respect to lands in that county.

In 1978, the ALUC adopted the County's first Airport Land Use Commission Plan, which was amended in 2004. That plan provided height restrictions and building standards for areas adjacent to the five public and privately owned airport that resided in the County at that time:

- ▶ Modesto City-County Airport
- ▶ Oakdale Municipal Airport
- ▶ Patterson Airport
- ▶ Turlock Airpark
- ▶ Crows Landing Airport, formerly the Crows Landing Naval Auxiliary Landing Field

In 2010, the ALUC initiated a comprehensive update of the 2004 ALUCP to reflect changes in statewide guidance in Airport Land Use Compatibility Plan development, as documented in the 2011 *California Airport Land Use Planning Handbook*.

The current ALUCP update provides policies for three airports: the Modesto City-County Airport, the Oakdale Municipal Airport, and the Crows Landing Airport (see Map 1-1). The Patterson Airport has closed, and the Turlock Airpark is in the process of being sold for non-aeronautical use.<sup>1</sup> Safety inspectors from the Caltrans Division of Aeronautics report that the Airport Operating permit associated with Turlock Airpark is no longer valid.<sup>2</sup>

## **Modesto City-County Airport/Harry Sham Field**

Modesto City-County Airport (MOD) is located in the City of Modesto. The airport opened in 1920 and was used during World War II as a training center for the Army Air Corps. The airport is owned by the City of Modesto and is the only commercial-service airport in the County, although it is used primarily for general aviation. The Airport Advisory Committee, which is a nine-member committee appointed by

---

<sup>1</sup> Airport owner responded to an inquiry of September 4, 2013, by County consultants regarding airport status. The airpark phone number had been disconnected, and the owner reported that the airport was being offered for sale for non-aeronautical purposes.

<sup>2</sup> Mr. Don Haug, Safety Inspector, Caltrans Division of Aeronautics, stated on August 8, 2013, stated that the airport operating permit for Turlock Airpark is no longer valid, and ongoing airport operations under new ownership would require the procurement of new airport operating permit from the Division of Aeronautics. The status of current operations is unknown.

the member agencies of the Modesto City Council, Stanislaus County Board of Supervisors, and the cities of Ceres and Turlock, acts in an advisory capacity on airport policy matters.

MOD includes two parallel runways: Runway 10L-28R is 5,911 feet long and 150 feet wide and designated as the air carrier runway. The smaller runway, 10R-28L, is 3,459 feet long and 100 feet wide. The ALUCP is based on the Airport Layout Plan and Narrative Report that were published by the airport in 2009. Based on the 2009 ALP, MOD will remain classified as an Airport Reference Code (ARC) C-III airport. (the ARC designation refers to the size and type of aircraft that an airport can accommodate). Runway 10L-28R is designated as ARC C-III to accommodate commercial aircraft (e.g., Boeing 737), and Runway 10R-28L is designated as ARC B-I to accommodate general aviation traffic (e.g., Cessna 421).

MOD is located approximately 2 miles southeast of the Modesto city center. Some unincorporated land is present between the City and the airport. The airport is located south of Yosemite Boulevard (Highway 132), with Mitchell Road serving as the primary access route to the airport. The airport is adjacent to the City of Ceres to the south and unincorporated areas to the east. Areas characterized by industrial use are northeast of the airport, and agricultural areas are located to the southeast. Densely developed urban areas are located to the north, south, and west, with the Tuolumne River and an associated open space corridor adjacent to the south side of the airport.

The City of Modesto undertook a master planning effort for the Modesto City-County Airport in 2002. However, due to changes in airport management and the expiration of the federal grant, the plan was never completed.

In 2008, the City prepared a noise compatibility study in accordance with FAR Part 150. This noise study was updated in February 2009. The Part 150 study included a baseline (2008) and two forecast levels of activity (2015 and “Long Range”). The “Long Range” forecast presented in the Part 150 study is the basis for the forecast operations and resulting noise contours used in this ALUCP.

In December 2009, an Airport Layout Plan (ALP) and Narrative Report were published for Modesto City-County Airport, which was approved by the Federal Aviation Administration (FAA) on February 8, 2011. The purpose of the ALP is to depict the currently planned airport improvements for the airport.

### ***Oakdale Municipal Airport***

The 117-acre Oakdale Municipal Airport (O27 or Oakdale Airport) is exclusively a general aviation facility that is owned and operated by the City of Oakdale. Although the airport property is located within the city limits, the airport is not contiguous to the City. The airport is located approximately 2.5 miles east of the City, with access available from Sierra Road and Laughlin Road.

The Oakdale Airport has a single paved runway (Runway 10-28), which is 3,013 feet long and 75 feet wide. The runway is aligned with the prevailing winds in an approximately west-south alignment. The airport is classified as an ARC A-I airport, which indicates that it can accommodate small aircraft weighing less than 12,500 lbs. (e.g., Cessna 172).

The Oakdale City Council adopted a Master Plan for Oakdale Municipal Airport in 1998 (Resolution 98-88). The 1998 Master Plan included a long-term development plan for the airport covering planning horizon of 20 years. The 1998 Airport Layout Plan (ALP) drawing showed a 1,300-foot extension of the airport’s single runway (Runway 10-28) to the southeast for a total length of 4,400 feet. In addition to this extension, the 1998 ALP showed an upgrade of the Airport Reference Code (ARC) classification from the current classification of ARC A-I (small) to a classification of B-II.

In 2006, the City of Oakdale prepared an Airport Layout Plan to assist airport staff in implementing short-term improvements to the airfield. The 2006 ALP does not depict the long-term Master Plan development projects such as the runway extension and upgrade to ARC B-II.

Conversations with the City's Department of Public Works, which is the department responsible for airport operations and management, indicate that the 1998 Master Plan no longer reflects the City's long-term vision for the airport. The FAA informed the City that it will not support runway extension, and the City prepared a revised Airport Layout Plan and Narrative Report in November 2013 that do not depict a runway extension or upgrade to ARC B-II. The City submitted the November 2013 ALP to the FAA, and staff have stated that the 2013 ALP provided the best available data to serve as the basis for the Compatibility Plan. In accordance with Section 21675(a) of the California Public Utilities Code, the 2013 ALP was submitted to Caltrans Division of Aeronautics for approval as the basis of the Oakdale Municipal Airport Land Use Compatibility Plan.

### ***Crows Landing Airport***

The former Crows Landing Naval Auxiliary Landing Field was commissioned in 1943 to serve as a training field during World War II. The airfield was used during the 1950s for fleet carrier and landing practice and used again throughout the 1970s and 1980s for practice operations by the United States Navy, Air Force, Army, and Coast Guard. The National Aeronautics and Space Administration (NASA) Ames Research Center took over facility operations in 1994 and ceased operations at the airfield in 1997, when it proposed to declare the base as excess. The United States Congress passed House Resolution (H.R.) 356 in 1999, which stated that as soon as practicable, the NASA Administrator would convey to Stanislaus County, all right, title, and interest of the United States in and to the former Crows Landing Air Facility.

Since the decommissioning of the facility by NASA in the late 1990s, the Stanislaus County Board of Supervisors has pursued and studied reuse opportunities for the former military property. In 2001, the Board adopted a reuse plan that would designate a portion of the property for use as a General Aviation (GA) airport. In 2004, the Stanislaus County Board of Supervisors accepted the conveyance of the land associated with the former Crows Landing Air Facility pursuant to Public Law 106-82. The County envisions optimizing the site for economic development while maintaining an aviation use.

The County of Stanislaus has worked closely with the California Department of Transportation's (Caltrans) Division of Aeronautics since property conveyance, and it has developed an Airport Layout Plan (ALP) that includes the reuse of the prevailing wind runway. The County will submit an application to the Caltrans Division of Aeronautics to operate a public-use general aviation (GA) airport at the former Crows Landing Air Facility. The development of airport-specific policies is a prerequisite for obtaining an airport operating permit from Caltrans. The Stanislaus County ALUCP includes airport-specific policies for the proposed Crows Landing General Aviation Airport.

## **PLAN ADOPTION**

Although contained within this single volume, the *Stanislaus County Airport Land Use Compatibility Plan* consists of three separate ALUCPs, one for each airport addressed. Since the County's ALUCP and General Plan update were undertaken simultaneously, an Environmental Impact Report (EIR) was prepared in accordance with the California Environmental Quality Act (CEQA) that addresses both projects. The purpose of the EIR is to identify the potential environmental impacts associated with the implementation of the revised General Plan ALUCP following adoption; the issues addressed will include those



identified in the 2007 California Supreme County decision in *Muzzy Ranch Company v. Solano County Airport Land Use Commission*, such as an assessment of the potential displacement of future residential and non-residential land use development. The potential environmental impacts associated with the ALUC amendment to include the Crows Landing Airport were evaluated simultaneously with the EIR prepared in support of the Crows Landing Industrial Business Park, which includes the Crows Landing Airport.

## PLAN IMPLEMENTATION

As noted above, each local agency having jurisdiction over land uses within an ALUC's planning area is required by state law to modify its general plan and any affected specific plans to be consistent with the compatibility plan. The law says that the local agency must take this action within 180 days (six months) of ALUC adoption or amends its compatibility plan.

### General Plan Consistency

A general plan does not need to be identical with the ALUC compatibility plan in order to be consistent with it. To meet the consistency test, a general plan must do two things:

- ▶ It must specifically address compatibility planning issues, either directly or through reference to a zoning ordinance or other policy document; and
- ▶ It must avoid direct conflicts with compatibility planning criteria.

The land use jurisdictions affected by the *Stanislaus County Airport Land Use Compatibility Plan* may need to modify their general plans, specific plans, and other policy documents to be consistent with the *Compatibility Plan*. It must be emphasized, however, that local agencies need not change land use designations to make them consistent with the ALUC criteria if the current designations reflect existing development. In such cases, they would need to establish policies to ensure that the nonconforming uses would not be expanded in a manner inconsistent with this *Compatibility Plan* and that any redevelopment of the affected areas would be consistent with the *Compatibility Plan*.

Compatibility planning issues can be reflected in a general plan in several ways:

- ▶ **Incorporate Policies into Existing General Plan Elements**—One method of achieving planning consistency is to modify existing general plan elements. For example, airport land use noise policies could be inserted into the noise element, safety policies could be placed into a safety element, and the primary compatibility criteria and associated maps plus the procedural policies might fit into the land use element. With this approach, direct conflicts would be eliminated and the majority of the mechanisms and procedures necessary to ensure compliance with compatibility criteria could be fully incorporated into the local jurisdiction's general plan.
- ▶ **Adopt a General Plan Airport Element**—Another approach is to prepare a separate airport element of the general plan. Such a format may be advantageous when the community's general plan also needs to address on-airport development and operational issues. Modification of other plan elements to provide cross-referencing and eliminate conflicts would still be necessary.
- ▶ **Adopt Compatibility Plan as Stand-Alone Document**—Jurisdictions selecting this option would simply adopt as a local policy document the relevant portions of the *Stanislaus County Airport Land Use Compatibility Plan*—specifically, the policies and maps in Chapters 2. Applicable background information from Chapter 3 could be included as well. Changes to the community's existing general plan would be minimal. Policy reference to the *Compatibility Plan* would need to be added and any direct land use or other conflicts with compatibility planning criteria would have to be removed. Limited

discussion of compatibility planning issues could be included in the general plan, but the substance of most compatibility policies would appear only in the stand-alone document.

- **Adopt Airport Combining District or Overlay Zoning Ordinance**—This approach is similar to the stand-alone document except that the local jurisdiction would not explicitly adopt the *Compatibility Plan* as policy. Instead, the compatibility policies would be restructured as an airport combining or overlay zoning ordinance. A combining zone serves as an overlay of standard community-wide land use zones and modifies or limits the uses permitted by the underlying zone. Flood hazard combining zoning is a common example. An airport combining zone ordinance can serve as a convenient means of bringing various airport compatibility criteria into one place. The airport-related height-limit zoning that many jurisdictions have adopted as a means of protecting airport airspace is a form of combining district zoning. Noise and safety compatibility criteria, together with procedural policies, would need to be added to create a complete airport compatibility zoning ordinance. Other than where direct conflicts need to be eliminated from the local plans, implementation of the compatibility policies would be accomplished solely through the zoning ordinance. Policy reference to airport compatibility in the general plan could be as simple as mentioning support for the airport land use commission and stating that policy implementation is by means of the combining zone. (An outline of topics which could be addressed in an airport combining zone is included in Appendix F.)

## Overrule Process

The only other action available to local agencies is to overrule the ALUC by a two-thirds vote of the local agency governing body after making findings that the agency's plans are consistent with the intent of state airport land use planning statutes in the Aeronautics Act. Additionally, the local agency must provide both the ALUC and the California Department of Transportation, Division of Aeronautics, with a copy of the local agency's proposed decision and findings at least 45 days in advance of its decision to overrule and must hold a public hearing on the proposed overruling (Public Utilities Code Section 21676(a) and (b)). The ALUC and the Division of Aeronautics may provide comments to the local agency within 30 days of receiving the proposed decision and findings. If comments are submitted, the local agency must include them in the public record of the final decision to overrule the ALUC (Sections 21676, 21676.5 and 21677). Note that similar requirements apply to local agency overruling of ALUC actions concerning individual development proposals for which ALUC review is mandatory (Section 21676.5(a)) and airport master plans (Section 21676(c)).

## Project Referrals

In addition to the types of land use actions for which referral to the ALUC is mandatory in accordance with state law—adoption or amendment of general plans, specific plans, zoning ordinances, or building codes affecting land within an airport influence area—the ALUCP specifies other land use projects that either must or should be submitted for review. These major land use actions are defined in Chapter 2. Beginning with plan adoption by the ALUC and continuing until such time as local jurisdictions have made the necessary modifications to their general plans, all of these major land use actions are to be referred to the commission for review. After local agencies have made their general plans consistent with the ALUCP, the ALUC requests that these major actions continue to be submitted on a voluntary basis. These procedures must be indicated in the local jurisdiction's general plan or other implementing policy document for the general plan to be considered fully consistent with the ALUCP.

## PLAN CONTENTS

This *Stanislaus County Airport Land Use Compatibility Plan* is organized into six chapters and a set of appendices. The intent of this introductory chapter is to set the overall context of airport land use compatibility planning in general and for Stanislaus County in particular.

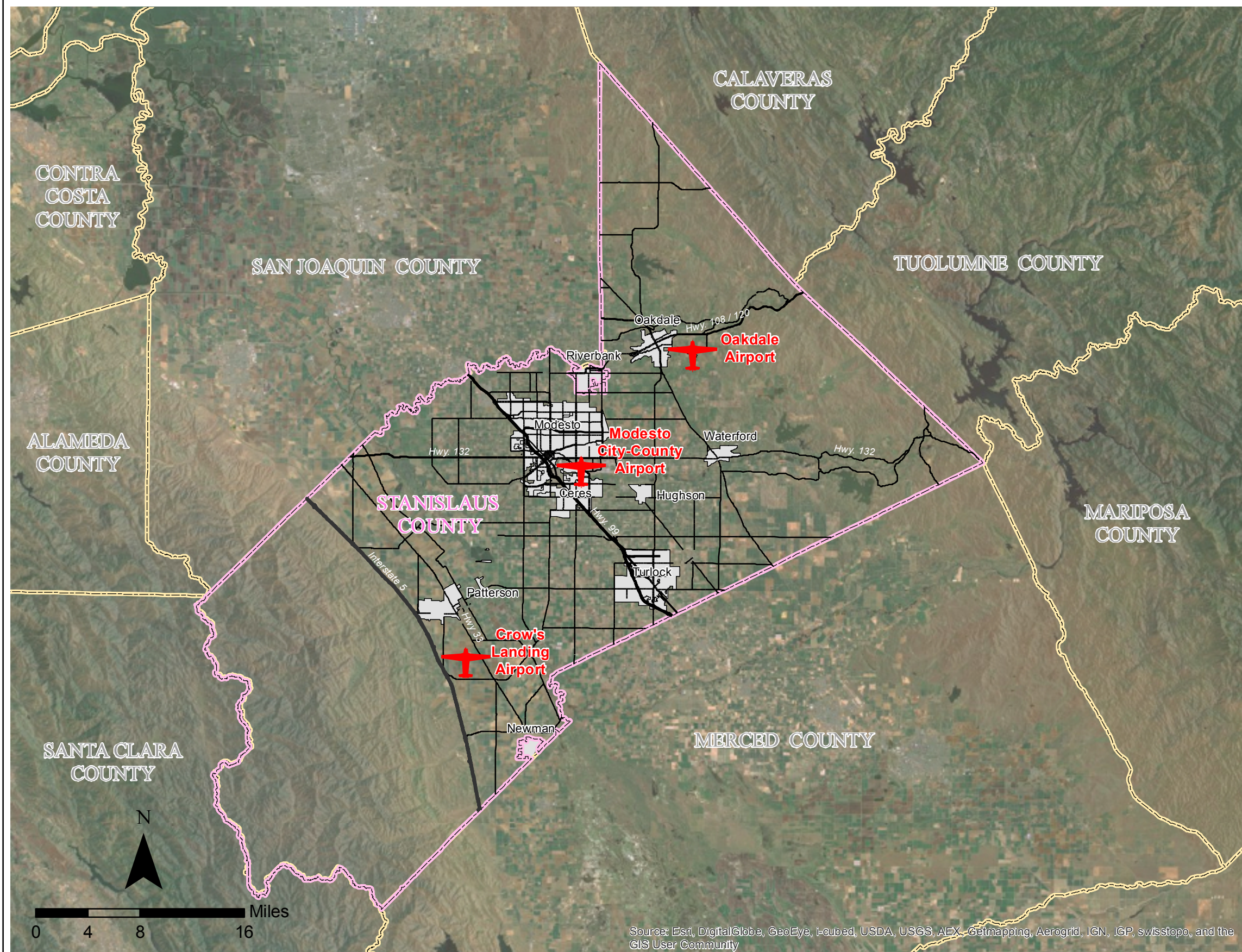
Chapter 2 presents airport compatibility and review policies that are applicable to each of the three airports addressed. Chapter 3 presents the compatibility policy maps associated with each airport as well as the individual policies for that airport. Chapters 4 through 6 present the airport land use background information regarding each of the airports in sequence: Modesto City-County Airport, the Oakdale Municipal Airport, and the Crows Landing Airport.

Also included in this document are a set of appendices containing a copy of state statutes concerning airport land use commissions and other general information pertaining to airport land use compatibility planning. This material is mostly taken from other sources and does not represent ALUC policy except where cited as such in Chapter 2—specifically the state ALUC statutes and certain other laws (Appendix B) and Federal Aviation Regulations Part 77 (Appendix C).






## SOURCES OF INFORMATION AND GUIDANCE

As required by the Aeronautics Act, the *California Airport Land Use Planning Handbook* provides guidance for the compatibility policies set forth in this *Stanislaus County Airport Land Use Compatibility Plan*. The Handbook was used both to structure and define compatibility criteria and to establish the procedures to be followed by the ALUC and local agencies in implementation of the criteria.

This page intentionally blank



**Legend**

-  Road
-  City
-  Stanislaus County Boundary
-  Other County Boundary
-  Airport

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
*(Adopted October 2016)*

Map 1-1

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Sources: City and County GIS Data (2009)





Chapter **2**

**POLICIES**







---

# Policies

## 1. GENERAL APPLICABILITY

### 1.1. Purpose and Use

- 1.1.1. *Airport Land Use Commission:* The Stanislaus County Planning Commission was appointed as a designated body to act as the Stanislaus County Airport Land Use Commission (ALUC) on December 1, 1970, by the City-County Committee and the Board of Supervisors in accordance PUC Section 21670.1. The nine-member Planning Commission, which includes representatives from all five County districts, is augmented by two additional members with aviation expertise when acting in the capacity of the Airport Land Use Commission. (Stanislaus County ALUC Rules and Regulations are presented as **Appendix I**.)
- 1.1.2. *Airport Land Use Compatibility Plans for Individual Airports in Stanislaus County.* With limited exceptions, California law requires an Airport Land Use Compatibility Plan for each public use and military airport in the state. This document, the *Stanislaus County Airport Land Use Compatibility Plan (ALUCP)* contains the individual ALUCP for each of the three public-use airports in Stanislaus County: There are no military airports in the County.
  - (a) The three airports covered by this ALUCP are:
    - (1) Modesto City-County Airport, a publicly owned, commercial-service airport.
    - (2) Oakdale Municipal Airport, a publicly owned, general aviation airport.
    - (3) Crows Landing Airport, a publicly owned, public-use airport pending approval by the California Department of Transportation, Division of Aeronautics.
  - (b) The policies in this document are divided into three chapters.
    - (1) Chapters 1 and 2, together with the respective airport-specific policies in Chapters 4 through 6, comprise the ALUCP for each of the three airports.
    - (2) Chapter 3 includes the Individual Airport Policies and Compatibility Maps for Modesto City-County, Oakdale Municipal, and Crows Landing airports. The chapter includes a set of maps for each airport plus any compatibility criteria that are unique to that airport.
    - (3) Chapters 4 through 6 provide Specific data pertaining to each airport and summaries of the background data used to prepare the compatibility plans.
- 1.1.3. *Basic Purpose:* The basic purpose of this ALUCP is to establish procedures and criteria applicable to airport land use compatibility planning in the vicinity of the County's three: public-use airports: Modesto City/County Airport, Oakdale Municipal Airport, and Crows

Landing Airport. The *Compatibility Plan* was prepared in accordance with the requirements of the California State Aeronautics Act (Public Utilities Code Section 21670 *et seq.*) and guidance provided in the *California Airport Land Use Planning Handbook (Handbook)* published by the California Department of Transportation Division of Aeronautics in October 2011.

1.1.4. *Use by ALUC:* The *ALUC* shall:

- (a) Formally adopt this *Compatibility Plan* in accordance with Public Utilities Code Section 21674(c).
- (b) When a *Land Use Action* or *Airport-Related Action* is referred for review as provided by Section 1.5, make a determination as to whether such *Action* is consistent with the criteria set forth in this *Compatibility Plan*.

1.1.5. *Use by Affected Local Agencies:*

- (a) This ALUCP and its policies shall apply to all of the following affected *Local Agencies* (see Policy 1.2.23), each of which has or may in the future have jurisdiction over lands within parts of the *Airport Influence Areas* defined by this plan; specifically:
  - (1) County of Stanislaus
  - (2) City of Ceres
  - (3) City of Modesto
  - (4) City of Oakdale
  - (5) City of Patterson
  - (6) Any future city within Stanislaus County that may be incorporated within all or part of the airport influence area associated with the Modesto City-County Airport, Oakdale Municipal Airport, or the Crows Landing Airport.
  - (7) Special districts, school districts and community college districts within Stanislaus County to the extent that the district boundaries extend into an *Airport Influence Area*.
- (b) *Local Agencies* preparing an environmental document for any *Project* within the *Airport Influence Area* for one of the airports addressed by this ALUCP shall address the compatibility criteria contained in this *Compatibility Plan* in addition to referencing guidance from the *Handbook*.<sup>1</sup>
- (c) Stanislaus County and each of the affected municipalities shall:
  - (1) Modify its respective general plan, applicable specific plan(s), and zoning ordinance to be consistent with the policies in the *Compatibility Plan*.<sup>2</sup>
  - (2) Use the ALUCP, either directly or as reflected in the appropriately modified general plan and zoning ordinance, when making other planning decisions regarding proposed development of lands with the AIA for any of the three airports included in this document.

<sup>1</sup> The California Environmental Quality Act (CEQA) requires environmental documents for *Projects* situated within an *Airport Influence Area* to evaluate whether the *Project* would expose people residing or working in the *Project* area to excessive levels of airport-related noise or to airport-related safety hazards (Public Resources Code Section 21096). In the preparation of such environmental documents, the law specifically requires that the *Airport Land Use Planning Handbook* published by the California Division of Aeronautics be utilized as a technical resource.

<sup>2</sup> Public Utilities Code Section 21676(a) specifically requires general plan consistency. Because specific plans and zoning ordinances are also subject to *ALUC* review, the consistency requirement also extends to them.

- (3) Refer proposed *Land Use Actions* for review by the ALUC as specified by Policies 1.5.1 and 1.5.2 herein.
  - (d) Special districts, school districts, and community college districts shall:
    - (1) Apply the policies of this *Compatibility Plan* when creating plans and making other planning decisions regarding the proposed development of lands under their control within an *Airport Influence Area*.
    - (2) Refer proposed *Land Use Actions* for review by the ALUC as specified by Policies 1.5.1 and 1.5.2 herein.
  - (e) The entities owning each of the public-use airports addressed by this ALUCP shall refer proposed airport master plans and certain airport improvement plans to the ALUC for review (see Policy 1.5.1.1.5). In addition, any public or private entity proposing construction of a new airport or heliport for which a State Airport Permit is required must submit the proposed plans to the ALUC for land use compatibility review (see Policy 1.5.5).
- 1.1.6. *Use by Federal and State Entities:* Lands controlled by federal or state agencies or by Native American tribes are not subject to the provisions of the state ALUC statutes or this *Compatibility Plan*. However, the compatibility criteria included herein are intended as recommendations to these agencies.
- 1.1.7. *Effective Date:* The policies in this *Compatibility Plan* shall become effective as of the date that the ALUC adopts the ALUCP for each airport. is:
- (a) The Effective Date of the ALUCP for each airport is:
    - (1) Modesto City-County Airport – October 6, 2016.
    - (2) Oakdale Municipal Airport – October 6, 2016.
  - (b) The previous ALUCP, referred to as the Airport Comprehensive Land Use Plan for the three airports was adopted by the ALUC in 1978 and revised in 2004. The earlier plan will remain in effect for each airport until the ALUC adopts these ALUCP policies and the ALUCP data associated with each airport covered in this document. If the present ALUCP for one or more of the individual airports should be come invalidated by court action, the site-specific data presented in the earlier plan for the affected airport or airports shall again become effective. The ALUCP for each unaffected airport, as contained within this document, shall remain in effect.
  - (c) Any project or phase of a project that has received local agency approvals sufficient to qualify as an existing land use (Policies 1.2.17 and 1.4.43) prior to the date of the ALUCs adoption of the respective ALUCP shall not be required to comply with the policies herein. Rather, the policies of the earlier ALUCP shall apply. *Examples:* Where an example is used in this ALUCP, such example or examples are provided for purposes of illustration only and any such example or set of examples are not intended nor shall such be construed as an exhaustive list of the subject to which it corresponds.

## 1.2. Definitions

The following definitions apply for the purposes of the policies set forth in this *Compatibility Plan*. Additional terms are defined in the *Glossary* (**Appendix H**).

- 1.2.1. *Aeronautics Act*: Except as indicated otherwise, the article of the California Public Utilities Code (Sections 21670 *et seq.*) pertaining to airport land use commissions and airport land use compatibility planning (also known as the California State Aeronautics Act).
- 1.2.2. *Airport*: Modesto City-County Airport, Oakdale Municipal Airport, or any new a public-use or military airport created within Stanislaus County.
- 1.2.3. *Airport Influence Area*: An area, as delineated herein, 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. The *Airport Influence Area* constitutes the area within which certain *Land Use Actions* are subject to *ALUC* review to determine consistency with the policies herein.
- 1.2.4. *Airport Land Use Commission (ALUC)*: The Stanislaus County Planning Commission augmented by two members with aviation expertise.
- 1.2.5. *Airport Land Use Commission Secretary*: A member of the Stanislaus County Planning Department assigned by the Stanislaus County Planning Director to assist the ALUC or another person designated by the Board of Supervisors with the concurrence of the Planning Director.
- 1.2.6. *Airport Proximity Disclosure*: A form of buyer awareness documentation required by California state law and applicable to many transactions involving residential real estate including previously occupied dwellings. The disclosure notifies a prospective purchaser that the property is located in proximity to an airport and may be subject to annoyances and inconveniences associated with the flight of aircraft to, from, and around the airport. See Policy 3.5.3 for applicability. Also see Policy 1.2.32 for a related buyer awareness tool, *Recorded Overflight Notification*.
- 1.2.7. *Airspace Protection Area*: The area beneath the *Airspace Protection Surfaces* for each airport as depicted on **Maps MOD-4, OAK-4, and CRO-4**.
- 1.2.8. *Airspace Protection Surfaces*: Imaginary surfaces in the airspace surrounding each airport as defined in accordance with criteria set forth in Federal Aviation Regulations (FAR) Part 77. These surfaces establish the maximum height that objects on the ground can reach without potentially creating constraints or hazards to the use of the airspace by aircraft approaching, departing, or maneuvering in the vicinity of the *Airport*.
- 1.2.9. *Ancillary Use*: A use related to the primary use and occupying no more than 10% of total building floor area.
- 1.2.10. *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. Such uses specifically include, but are not limited to, runways, taxiways, and their associated protection areas defined by the Federal Aviation Administration (FAA), together with aircraft aprons, hangars, fixed base operations facilities, terminal buildings, etc. Hotels or other commercial/industrial facilities on airport property do not qualify as an aviation-related use.
- 1.2.11. *Avigation Easement*: An easement that conveys rights associated with aircraft overflight of a property, including but not limited to creation of noise and limits on the height of structures and trees, etc. (see **Appendix G**).
- 1.2.12. *Community Noise Equivalent Level (CNEL)*: The noise metric adopted by the State of California for land use planning purposes, including describing airport noise impacts. The noise

impacts are typically depicted by a set of contours, each of which represents points having the same CNEL value.

- 1.2.13. *Compatibility Plan*: This document, the *Stanislaus County Airport Land Use Compatibility Plan (ALUCP)*, which includes individual *ALUCPs* for the Modesto City-County Airport, Oakdale Municipal Airport, and Crows Landing Airport.
- 1.2.14. *Compatibility Zone*: Any of the noise, safety, airspace protection, or overflight zones established herein.
- 1.2.15. *Critical Airspace Protection Zone*: A *Compatibility Zone* consisting of each airport's Federal Aviation Regulations (FAR) Part 77 primary surface and the area beneath portions of the approach and transitional surfaces to where these surfaces intersect with the horizontal surface.
- 1.2.16. *Density*: The number of dwelling units per acre. *Density* is used in this *Compatibility Plan* as the measure by which proposed *Residential Development* is evaluated for compliance with safety compatibility criteria (compare *Intensity*).
- 1.2.17. *Existing Land Use*: A land use that either physically exists or for which *Local Agency* (see Policy 1.2.23) commitments to the proposal have been obtained (see Policy 1.4.3).
- 1.2.18. *Federal Aviation Regulations (FAR) Part 77*: The part of Federal Aviation Regulations that deals with objects affecting navigable airspace in the vicinity of airports. Objects that exceed the Part 77 height limits constitute airspace obstructions. FAR Part 77 establishes standards for identifying obstructions to navigable airspace, sets forth requirements for notice to the FAA of certain proposed construction or alteration, and provides for aeronautical studies of obstructions to determine their effect on the safe and efficient use of airspace. (See **Appendix C** of this *Compatibility Plan* for the text of FAR Part 77).
- 1.2.19. *Handbook*: The *California Airport Land Use Planning Handbook* published by California Department of Transportation, Division of Aeronautics in October 2011. The *Handbook* provides guidance to ALUCs for the preparation, adoption, and amendment of compatibility plans.
- 1.2.20. *Infill*: Development of vacant or underutilized land within areas that are already largely developed or used more intensively. See Policy 4.1.12 for criteria used to identify *Infill* areas for the purposes of this *Compatibility Plan*.
- 1.2.21. *Intensity*: The number of people per acre. *Intensity* is used in this *Compatibility Plan* as the measure by which most proposed *Nonresidential Development* is evaluated for compliance with safety compatibility criteria (compare *Density*).
- 1.2.22. *Land Use of Special Concern*: A land use that represents special safety concerns irrespective of the number of people associated with the use. Specifically: uses with vulnerable occupants; hazardous materials storage; or critical community infrastructure.
- 1.2.23. *Local Agency*: Any county, city, or other local governmental entity such as a special district, school district, or community college district—including any future city or district—having any jurisdictional territory lying within the an *Airport Influence Area* as defined herein. These entities are subject to the provisions of this *Compatibility Plan*.
- 1.2.24. *Major Land Use Action*: Actions related to proposed land uses for which compatibility with *Airport* activity is a particular concern, but for which *ALUC* review is not always mandatory under state law. These types of actions are listed in Policy 1.5.4.

- 1.2.25. *Noise Impact Area*: The area within which the noise impacts, measured in terms of CNEL, generated by aircraft operating at an airport may represent a land use compatibility concern. The *Noise Impact Area* associated with each airport is depicted on **Maps MOD-2, OAK-2, and CRO-2, Compatibility Policy Map: Noise**.
- 1.2.26. *Noise-Sensitive Land Uses*: Land uses for which the associated primary activities, whether indoor or outdoor, are susceptible to disruption by loud noise events. The most common types of noise sensitive land uses include, but are not limited to: residential, hospitals, nursing facilities, intermediate care facilities, educational facilities, libraries, museums, places of worship, child-care facilities, and certain types of passive recreational parks and open space.
- 1.2.27. *Nonconforming Use*: An existing land use that does not comply with the compatibility criteria set forth in this *Compatibility Plan*. See Policy 4.1.3 for criteria applicable to *Land Use Actions* involving *Nonconforming Uses*.
- 1.2.28. *Object Free Area (OFA)*: An area on the ground surrounding an airport runway within which the Federal Aviation Administration (FAA) prohibits all objects except certain ones necessary for aircraft navigation or maneuvering. The OFA dimensions to be applied for the purposes of this *Compatibility Plan* are as established by the FAA.
- 1.2.29. *Override*: An action that a *Local Agency* can take in accordance with provisions of state law if the *Local Agency* wishes to proceed with adoption or amendment of a general plan or specific plan, adoption or approval of a zoning ordinance or building regulation, or modification of an airport master plan<sup>3</sup> or, under conditions specified in Section 1.5.24, a *Major Land Use Action*<sup>4</sup> affecting the *Airport Influence Area* in spite of an *ALUC* finding that the *Land Use Action* is inconsistent with this *Compatibility Plan*. See Section 1.6 for process required to overrule the *ALUC*.
- 1.2.30. *Project; Land Use Action; Development Proposal*: Terms similar in meaning and all referring to the types of land use development activities, either publicly or privately sponsored, that are subject to the provisions of this *Compatibility Plan*.
- 1.2.31. *Reconstruction*: The rebuilding of an existing nonconforming structure that has been fully or partially destroyed as a result of a calamity (not planned *Reconstruction* or *Redevelopment*). See Policy 4.1.3(c)(3)4.
- 1.2.32. *Recorded Overflight Notification*: A form of buyer awareness documentation recorded in the chain-of-title for a property stating that the property may be subject to annoyances and inconveniences associated with the flight of aircraft to, from, and around a nearby airport. Unlike an *Avigation Easement* (see Policy 1.2.11), a *Recorded Overflight Notification* does not convey property rights from the property owner to the airport and does not restrict the height of objects. See Policy 3.5.2 for applicability. Also see Policy 1.2.6 for a related buyer awareness tool, *airport proximity disclosure*.
- 1.2.33. *Redevelopment*: Development of a new use (not necessarily a new type of use) to replace an existing use at a *Density* or *Intensity* that may vary from the existing use. *Redevelopment Projects* are subject to the provisions of this *Compatibility Plan* to the same extent as other forms of proposed development.
- 1.2.34. *Residential Development*: Any subdivision of land for residential purposes or any construction of residential units other than on an existing designated single-family residential parcel.

<sup>3</sup> Public Utilities Code Sections 21676(a), (b), and (c).

<sup>4</sup> Public Utilities Code Section 21676.5(a).

- 1.2.35. *Routine Overflight Zone*: The area commonly overflown by aircraft at an altitude of approximately 1,500 feet or less as they approach, depart, or engage in flight training at an airport.

### 1.3. Geographic Scope

- 1.3.1. *Airport Influence Area*: As defined in accordance with state law, an influence area encompasses all lands on which the uses could be negatively affected by present or future aircraft operations at the *Airport* as well as lands on which the uses could negatively affect *Airport* use.
- (a) The *Airport Influence Area* constitutes the area within which certain *Land Use Actions* are subject to *ALUC* review to determine consistency with the *Compatibility Plan*.
  - (b) In delineating the *Airport Influence Area* for each airport, the geographic extents of four types of compatibility concerns are considered:
    - (1) Noise: Locations exposed to potentially disruptive levels of aircraft noise.
    - (2) Safety: Areas where the risk of an aircraft accident poses heightened safety concerns for people and property on the ground.
    - (3) Airspace Protection: Places where height and various other land use characteristics need to be restricted in order to prevent creation of physical, visual, or electronic hazards to flight within the airspace required for operation of aircraft to and from the *Airport*.
    - (4) Overflight: Locations where aircraft overflying can be intrusive and annoying to many people.
  - (c) Each of these four concerns is separately addressed in this *Compatibility Plan* within its own “layer” representing that particular compatibility factor. See Section 3 for the policies and maps associated with each layer.
  - (d) Other impacts sometimes created by airports (e.g., air pollution, automobile traffic, etc.) are not addressed herein and are not factors that the *ALUC* shall consider in reviewing land use *Projects*.
- 1.3.2. *Referral Areas*: Each *Airport Influence Area* is divided into two areas, *Referral Area 1* and *Referral Area 2*. Requirements for referral of *Land Use Actions* to the *ALUC* for review differ between these two areas (see Section 1.4). The airport influence area maps presented as **MOD-1**, **OAK-1**, and **CRO-1** illustrate these areas.
- (a) *Referral Area 1* encompasses locations where noise and/or safety represent compatibility concerns and airspace protection and overflight may also be concerns.
  - (b) *Referral Area 2* includes locations where airspace protection and/or overflight are compatibility concerns, but not noise or safety.

### 1.4. Limitations of this Compatibility Plan

- 1.4.1. *Agencies Not Affected by the ALUCP*: Lands controlled by federal or state agencies or by Native American tribes are not subject to the provisions of this *ALUCP*.
- 1.4.2. *Airport Operations*: In general, neither the *ALUC* nor this *Compatibility Plan* have authority over the planning and design of on-airport facilities or over *Airport* operations including

where and when aircraft fly, the types of aircraft flown, and other aspects of aviation.<sup>5</sup> Exceptions to this limitation are as follows:

- (a) State law requires *ALUC* review of airport master plans and certain development plans to the extent that aviation-related facilities or activities could have off-airport land use compatibility implications (see Policy 1.5.5).<sup>6</sup>
- (b) *Non-aviation Development* of *Airport* property is subject to *ALUC* review in the same manner that *ALUC* review is required for non-aviation development actions off *Airport* property. The review may take place as part of an airport master plan or on an individual development *Project* basis (see Policy 1.5.4(c)).

1.4.3. *Existing Land Uses*: The policies of this *Compatibility Plan* do not apply to *Existing Land Uses*.<sup>7</sup> A land use is considered to be “existing” when one or more of the below conditions has been met prior to the adoption date of the *Compatibility Plan* by the *ALUC*.

- (a) **Qualifying Criteria:** An *Existing Land Use* is one that either physically exists or for which *Local Agency* commitments to the proposal have been obtained in one or more of the following manners:
  - (1) A tentative parcel or subdivision map has been approved and not expired;
  - (2) A vesting tentative parcel or subdivision map has been approved;
  - (3) A development agreement has been approved and remains in effect;
  - (4) A final subdivision map has been recorded;
  - (5) A use permit or other discretionary entitlement has been approved and not yet expired; or
  - (6) A valid building permit has been issued and not yet expired.
- (b) **Revisions to Approved Development:** Filing of a new version of any of the approval documents listed in Paragraph (a) of this policy means that the use no longer qualifies as existing and, therefore, is subject to *ALUC* review in accordance with the policies of *ALUCP* Chapter 2, Section 2.
- (c) **Expiration of Local Agency Commitment:** If a *Local Agency*’s commitment to a *Development Proposal*, as set forth in Paragraph (a) of this policy, expires, the proposal will no longer qualify as an *Existing Land Use*. As such, the proposal shall be subject to the criteria of this *Compatibility Plan*.
- (d) **Existing Nonconforming Uses:** The *ALUC* has no ability to reduce or remove *Nonconforming* or otherwise incompatible *Existing Land Uses* from the airport environs. However, proposed changes to existing uses (i.e., *Reconstruction*, *Redevelopment*) are subject to *ALUC* review if the changes would result in increased nonconformity with the compatibility criteria (see Policy 4.1.3).

1.4.4. *Development by Right*:

- (a) Nothing in this *Compatibility Plan* prohibits:

<sup>5</sup> This is an explicit limitation of state law under Public Utilities Code Section 21674(e).

<sup>6</sup> See Public Utilities Code Sections 21676(c) and 21664.5.

<sup>7</sup> This is an explicit limitation of Public Utilities Code Sections 21670(a) and 21674(a).



- (1) Construction of a single-family home on a legal lot of record as of the date of adoption of this *Compatibility Plan* provided that the home is not within Safety Zone 1 or the CNEL 65 dB contour and the use is permitted by local land use regulations.
  - (2) Construction of a secondary unit as defined by state law.
  - (3) Lot line adjustments provided that new developable parcels would not be created and the resulting *Density* or *Intensity* of the affected property would not exceed the applicable safety criteria indicated in **Table 2**, *Safety Compatibility Criteria*.
  - (4) Construction or establishment of a family day care home serving 14 or fewer children either in an existing dwelling or in a new dwelling permitted by the policies of this *Compatibility Plan*.
- (b) The sound attenuation and *Avigation Easement* dedication requirements set by Policies 3.2.4 and 4.1.1 shall apply to development permitted under this policy.

## 1.5. Types of Actions Subject to ALUC Review

1.5.1. *Land Use Actions for which Referral is Always Mandatory*: Prior to approving any of the following types of *Land Use Actions*, the *Local Agency* (see Policy 1.2.23) always must refer the *Land Use Action* to the *ALUC* for determination of consistency with the *Stanislaus County Airport Land Use Compatibility Plan*.<sup>8</sup>

- (a) *Local Agency* adoption or approval of any new general or specific plan or any amendment thereto that affects lands within the *Airport Influence Area*.
- (b) *Local Agency* adoption or approval of a zoning ordinance or building regulation, including any proposed change or variance to any such ordinance or regulation, that (1) affects land within the *Airport Influence Area* and (2) involves the types of airport impact concerns listed in Policy 1.3.1(b).

1.5.2. *Interim Mandatory Referral of Major Land Use Actions*: In addition to the actions listed in Policies 1.5.1 and 1.5.5 for which referral to the *ALUC* is always required, referral of certain other actions is mandatory as follows.

- (a) *Local Agencies* must refer all *Major Land Use Actions* (see list in Policy 1.5.4) to the *ALUC* for review until such time as:
  - (1) The *ALUC* finds that a *Local Agency*'s general plan or specific plan is consistent with the *Compatibility Plan*; or
  - (2) The *Local Agency* has overruled the *ALUC* determination of inconsistency (see Section 1.6).
- (b) Referral of lesser actions of types not included on the *Major Land Use Actions* list is optional.<sup>9</sup>

<sup>8</sup> Public Utilities Code Section 21676(b).

<sup>9</sup> Under the conditions indicated in Policy 1.5.2(a), state law (Public Utilities Code Section 21676.5(a)) allows *ALUCs* to require *Local Agencies* to refer all actions, regulations, and permits involving land within an *Airport Influence Area* to the *ALUC* for review. The *ALUC* has opted to reduce this all inclusive list to just *Major Land Use Actions*.

- 1.5.3. *Voluntary Referral of Major Land Use Actions:* After a *Local Agency* has revised its general plan or specific plan to be consistent with this *Compatibility Plan* (see Section 4.3) or has overruled the *ALUC*, referral of *Major Land Use Actions* for *ALUC* review is voluntary.<sup>10</sup>
- (a) The *ALUC* requests *Local Agencies* to continue to refer *Major Land Use Actions* as listed in Policy 1.5.4 for informal review and comment. *ALUC* review of these types of *Projects* can serve to enhance their compatibility with *Airport* activity.
  - (b) The *ALUC Secretary* is authorized on behalf of the *ALUC* to provide comments on *Major Land Use Actions* referred to the *ALUC* on a voluntary basis.
  - (c) Because the *ALUC* reviews of *Land Use Actions* under these circumstances do not represent formal consistency determinations as is the case with actions referred under Policies 1.5.1 or 1.5.5, *Local Agencies* are not required to adhere to the overruling process if they elect to approve a *Project* without incorporating design changes or conditions recommended by the *ALUC* or *ALUC Secretary*.
- 1.5.4. *Major Land Use Actions:* The scope or character of certain *Major Land Use Actions*, as listed below in Paragraphs (a) through (e), is such that their compatibility with *Airport* activity is a potential concern. Even though these actions may be basically consistent with the local general plan or specific plan, sufficient detail may not be known to enable a full airport compatibility evaluation at the time that the general plan or specific plan is reviewed. To enable better assessment of compliance with the compatibility criteria set forth herein, *ALUC* review of these actions may be warranted. The circumstances under which *ALUC* review of these actions is to be conducted are indicated in Policies 1.5.2 and 1.5.3 above.
- (a) *Actions Affecting Land Uses within Referral Area 1:*
    - (1) Any proposed expansion of the sphere of influence of a city or special district.
    - (2) Proposed pre-zoning associated with future annexation of land to a city.
    - (3) Proposed development agreements or amendments to such agreements.
    - (4) Proposed *Residential Development*, including land divisions, consisting of 5 or more dwelling units or parcels.
    - (5) Any discretionary *Development Proposal* for *Projects* having a building floor area of 20,000 square feet or greater unless only ministerial approval (e.g., a building permit) is required.
    - (6) Any discretionary *Development Proposal* for *Projects* expected to attract more than 100 people (including employees, customers/visitors) to outdoor activities to the *Project* site during a typical busy period.
    - (7) Major infrastructure or other capital improvements (e.g., water, sewer, or roads) that would promote urban uses in undeveloped or agricultural areas to the extent that such uses are not reflected in a previously reviewed general plan or specific plan.
    - (8) Any proposal for non-aviation use of land within Safety Zone 1.
    - (9) Proposed land acquisition by a government entity for any facility (for example, a school or hospital) designed to accommodate more than 100 people during a typical busy period.

<sup>10</sup> Once the conditions indicated in Policy 1.5.2(a) have been met, the *ALUC* no longer has authority under state law to require that all actions, regulations, and permits be referred for review. However, the *ALUC* and the *Local Agency* can agree that the *ALUC* should continue to receive, review, and comment upon individual *Projects*.

- (10) Any proposed object (including buildings, poles, antennas, and other structures) having a height that requires review by the Federal Aviation Administration in accordance with Part 77 of the Federal Aviation Regulations.
  - (11) Any project or plan (e.g., Habitat Conservation Plan) proposing open water areas or landscaping features having the potential to cause an increase in the attraction of birds or other wildlife that can be hazardous to aircraft operations in the vicinity of the airport.
  - (12) Any *Project* having the potential to create electrical or visual hazards to aircraft in flight, including:
    - ▶ Electrical interference with radio communications or navigational signals;
    - ▶ Lighting which could be mistaken for Airport lighting;
    - ▶ Glare in the eyes of pilots of aircraft using the Airport; and
    - ▶ Impaired visibility near the Airport.
  - (13) Any project having the potential to create a thermal plume extending to an altitude where aircraft fly.
- (b) Actions Affecting Land Uses within *Referral Area 2*: Only the actions listed in Paragraphs (a)(10) through (a)(13) of this policy require referral to the *ALUC* for review.
  - (c) Proposed non-aviation development of *Airport* property if such development has not previously been included in an airport master plan or community general plan reviewed by the *ALUC*. (See Policy 1.2.10 for definition of *aviation-related use*.)
  - (d) Proposed Redevelopment (see Policy 1.2.33) if the *Project* is of a type listed in Paragraph (a) of this policy.
  - (e) Any other proposed *Land Use Action*, as determined by the *Local Agency*, involving a question of compatibility with *Airport* activities.
- 1.5.5. *Mandatory Referral of Airport Planning and Development Actions*: Prior to approving either of the following types of airport planning and development actions, the airport operator, including the County of Stanislaus for the Crows Landing Airport, must refer the action to the *ALUC* for determination of consistency with the *Stanislaus County Airport Land Use Compatibility Plan*.
- (a) Adoption or modification of a master plan for a public-use airport.<sup>11</sup>
  - (b) Any proposal for “expansion” of an airport that would require an amended Airport Permit from the State of California. As used in the statutes, “expansion” primarily includes construction of a new runway, extension or realignment of an existing runway, or related acquisition of land.<sup>12</sup>
  - (c) Any proposal for a new airport or heliport whether for public use or private use must be submitted for ALUCP review if the facility requires a State Airport Permit.
- 1.5.6. *Submittal of Environmental Documents*: The *ALUC* does not have a formal responsibility to review the environmental document associated with *Land Use Actions* or *Airport* actions referred to it for review.

<sup>11</sup> Public Utilities Code Section 21676(c).

<sup>12</sup> Public Utilities Code Section 21664.5.

- (a) The *ALUC* authorizes the *ALUC Secretary* to provide comments on environmental documents submitted to the *ALUC* for comment.
- (b) If an environmental document has been prepared at the time that the *Land Use Action* or *Airport* action is referred for review and the document contains information pertinent to the review, then a copy must be included with the referral.

## 1.6. Overruling the ALUC

- 1.6.1. *ALUC Determination of "Inconsistent"*: If the *ALUC* determines that a proposed *Land Use Action*, regulation, or permit or a proposed *Airport* project is inconsistent with this *Compatibility Plan*, the *ALUC* must notify the *Local Agency* and shall indicate the reasons for the inconsistency determination.
- 1.6.2. *Overruling of ALUC by Local Agency*:
  - (a) If a *Local Agency* wishes to proceed with a proposed *Land Use Action*, regulation, permit, or *Project* or *Airport* project that the *ALUC* has determined to be inconsistent with the *Compatibility Plan*, or if the *Local Agency* wishes to ignore a condition for consistency, the *Local Agency* must overrule the *ALUC* determination in accordance with the provisions of state law.<sup>13</sup>
  - (b) The overruling process applies only to determinations made by the *ALUC*, not ones made by the *ALUC Secretary* in accordance with Policy 2.3.2. Disagreements over determinations made by the *ALUC Secretary* are first to be appealed to the *ALUC*. See Policy 2.3.4.
- 1.6.3. *ALUC Comments on Proposed Overruling*: The *ALUC* may provide comments on the proposed overruling decision. The *ALUC* delegates to the *ALUC Secretary* the authority to provide comments.

## 2. ALUC REVIEW PROCESS

### 2.1. General Requirements

- 2.1.1. *Timing of Project Submittal by Local Agency*: The precise timing of the *ALUC*'s or *ALUC Secretary*'s review of a proposed *Land Use Action* may vary depending upon the nature of the specific *Project*.
  - (a) Referrals to the *ALUC* should be made at the earliest reasonable point in time so that the *ALUC*'s review can be duly considered by the *Local Agency* prior to when the agency

---

<sup>13</sup> For a *Local Agency* to overrule the *ALUC*, that agency must: (1) prepare specific findings that the proposed action is consistent with the purposes of the *ALUC* statutes as defined in Public Utilities Code Section 21670(a); (2) provide the *ALUC* and the California Division of Aeronautics a copy of the proposed decision and findings at least 45 days prior to the decision to overrule; (3) hold a public hearing on the matter; (4) take action by a two-thirds vote of the agency's governing body; and (5) include the comments, if any, received from the *ALUC* and the Division of Aeronautics in the public record of the final decision to overrule the *ALUC*. See Public Utilities Code Sections 21676 and 21676.5 for specific procedures for overruling the *ALUC*. Further guidance is provided in the *California Airport Land Use Handbook* published by the California Division of Aeronautics (see beginning on page 5-15 of the 2011 edition). Also see Chapter 1 of this *Compatibility Plan* for a summary of the statutory requirements.

formalizes its actions. Depending upon the type of plan or *Project* and the normal scheduling of meetings, *ALUC* review can be completed before, after, or concurrently with review by the local planning commission and other advisory bodies, but *must* be accomplished before final action by the *Local Agency*.

- (b) Completion of a formal application with the *Local Agency* is not required prior to a *Local Agency's* referral of a proposed *Land Use Action* to the *ALUC*. Rather, a *Project* applicant may request, and the *Local Agency* may refer, a proposed *Land Use Action* to the *ALUC* for early review, so long as the *Local Agency* is able to provide the *ALUC* with the *Project* submittal information for the proposal, as specified and required in Section 2.3.1 of this *Compatibility Plan*.
- 2.1.2. *Responsibilities for Project Consistency Analysis:* The *ALUC* and *Local Agencies* are each responsible for analyzing a *Project* proposal for compliance with the compatibility criteria set forth in this *Compatibility Plan*.
- (a) *Local Agency* staff may choose to initially evaluate proposed *Projects* and work with the *Project* applicant to bring the proposal into compliance with *Compatibility Plan* criteria. The *ALUC Secretary* will provide informal input at this stage if requested.
  - (b) When a proposed *Project* is formally referred to the *ALUC*, the *ALUC Secretary* shall review the proposal to determine if it is consistent with the *Compatibility Plan* policies. *Projects* of a type that require a formal consistency determination by the *ALUC* (those listed in Policy 1.5.1) will be placed on the agenda for action.
  - (c) Subsequent to when a *Local Agency's* general plan and applicable specific plans have been determined by the *ALUC* to be consistent with the *Compatibility Plan*, the *Local Agency* and its staff are responsible for the consistency analysis of *Major Land Use Actions*. The *ALUC Secretary* will provide informal input if requested or the *Local Agency* can voluntarily refer the *Land Use Action* to the *ALUC* for a consistency determination. *Land Use Actions* for which referral to the *ALUC* is mandatory regardless of the general plan and specific plan consistency status (actions listed in Policy 1.5.1) must continue to be referred for a consistency determination by the *ALUC*.
  - (d) The *Local Agency* and its staff are responsible for ensuring that a development continues to comply with *Compatibility Plan* criteria on an on-going basis following completion of the *Project* (*Intensity* and height limitations in particular).
- 2.1.3. *Public Input:* Where applicable, the *ALUC* shall provide public notice and obtain public input before acting on any plan, regulation, or other land use proposal under consideration.<sup>14</sup>
- 2.1.4. *Fees:* Any applicable review fees as established by the *ALUC* shall accompany the submittal of actions for *ALUC* or *ALUC Secretary* review.<sup>15</sup>

## 2.2. Review Process for General Plans, Specific Plans, Zoning Ordinances, and Building Regulations

- 2.2.1. *Required Submittal Information:* Copies of the complete text and maps of the plan, ordinance, or regulation proposed for adoption or amendment must be submitted to the *ALUC*. Any

<sup>14</sup> In accordance with Public Utilities Code Section 21675.2(d).

<sup>15</sup> Public Utilities Code Section 22671.5(f) allows for *ALUCs* to charge fees for *Project* reviews.

supporting material, such as environmental documents, assessing the proposal's consistency with the *Compatibility Plan* should be included. If the amendment is required as part of a proposed *Major Land Use Action*, then the information listed in Policy 2.3.1 shall also be included to the extent applicable.

- 2.2.2. *Initial ALUC Review of General Plan Consistency:* In conjunction with adoption or amendment of this *Stanislaus County Airport Land Use Compatibility Plan*, the *ALUC* shall review the general plans and specific plans of affected *Local Agencies* to determine their consistency with the *ALUC's* policies.
- (a) State law<sup>16</sup> requires that, within 180 days of the *ALUC's* adoption or amendment of this *Compatibility Plan*, each *Local Agency* affected by the plan must amend its general plan and any applicable specific plan(s) to be consistent with the *ALUC's Compatibility Plan* or, alternatively, provide required notice, adopt findings, and overrule the *ALUC* in accordance with statutory requirements.<sup>17</sup>
  - (b) Prior to taking action on a proposed amendment of a general plan or specific plan as necessitated by Paragraph (a) of this policy, the *Local Agency* must submit a draft of the proposal to the *ALUC* for review and approval.
  - (c) In conjunction with its referral of a general plan or specific plan amendment to the *ALUC* in response to the requirements of Paragraphs (a) and (b) above, a *Local Agency* must identify areas that it requests the *ALUC* to consider as *Infill* in accordance with Policy 4.1.2 if it wishes to take advantage of the *Infill* policy provisions. The *ALUC* will include a determination on the *Infill* as part of its action on the consistency of the general plan and/or applicable specific plan(s).
- 2.2.3. *Subsequent Reviews of Related Land Use Development Proposals:* Once a *Local Agency's* general plan and applicable specific plans have been made consistent with this *Compatibility Plan*, or the *Local Agency* has overruled an *ALUC* finding of inconsistency regarding those plans, subsequent land use development actions that are consistent both with those local plans and with any related ordinances and regulations also previously reviewed by the *ALUC* are subject to *ALUC* review only under the conditions indicated in Policies 1.5.2 and 2.3.7.
- 2.2.4. *ALUC Action Choices:* When reviewing a general plan, specific plan, zoning ordinance, or building regulation for consistency with the *Compatibility Plan*, the *ALUC* has three choices of action:
- (a) Find the plan, ordinance, or regulation consistent with the *Compatibility Plan*. To make such a finding with regard to a general plan, the conditions identified in Section 4.3 must be met.
  - (b) Find the plan, ordinance, or regulation consistent with the *Compatibility Plan*, subject to conditions and/or modifications that the *ALUC* may require. Any such conditions should be limited in scope and described in a manner that allows compliance to be clearly assessed.
  - (c) Find the plan, ordinance, or regulation inconsistent with the *Compatibility Plan*. In making a finding of inconsistency, the *ALUC* shall note the specific conflicts or shortcomings upon which its determination is based.

<sup>16</sup> Government Code Section 65302.3.

<sup>17</sup> Public Utilities Code Section 21676(b).

- 2.2.5. *Response Time:* The *ALUC* must respond to a *Local Agency's* request for a consistency determination on a general plan, specific plan, zoning ordinance, or building regulation within 60 days from the date of referral.<sup>18</sup>
- (a) The date of referral is deemed to be the date on which all applicable *Project* information as specified in Policy 2.2.1 is received by the *ALUC Secretary* and the *ALUC Secretary* determines that the application for a consistency determination is complete.
  - (b) If the *ALUC* fails to make a determination within the 60-day period, the proposed *Land Use Action* shall be deemed consistent with the *Compatibility Plan*.
  - (c) The 60-day review period may be extended if the referring *Local Agency* or *Project* applicant agrees in writing or so states at an *ALUC* public hearing on the *Land Use Action*.
  - (d) Regardless of *ALUC* action or failure to act, the proposed *Land Use Action* must comply with other applicable local, state, and federal regulations and laws.
  - (e) The referring *Local Agency* shall be notified of the *ALUC's* action in writing.

### 2.3. Review Process for Major Land Use Actions

- 2.3.1. *Required Submittal Information:* A proposed *Major Land Use Action* referred for *ALUC* (or *ALUC Secretary*) review shall include the following information to the extent applicable:
- (a) Property location data (assessor's parcel number, street address, subdivision lot number).
  - (b) An accurately scaled map depicting the *Project* site location in relationship to the airport boundary and runways.
  - (c) A description of the proposed use(s), current general plan and zoning designations, and the type of *Land Use Action* being sought from the *Local Agency* (e.g., zoning variance, special use permit, building permit).
  - (d) A detailed site plan and supporting data showing: site boundaries and size; existing uses that will remain; location of existing and proposed structures, open spaces, and water bodies; ground elevations (above mean sea level) and elevations of tops of structures and trees. Additionally:
    - (1) For residential uses, an indication of the potential or proposed number of dwelling units per acre (excluding any secondary units as defined by state and local law).
    - (2) For nonresidential uses, the total floor area for each type of proposed use, the number of auto parking spaces, and, if known, the maximum number of people potentially occupying the total site or portions thereof at any one time.
  - (e) Identification of any features, during or following construction, that would increase the attraction of birds or cause other wildlife hazards to aircraft operations at the *Airport* or in its environs (see Policy 3.4.3). Such features include, but are not limited to the following:
    - (1) Open water areas.
    - (2) Sediment ponds, retention basins.
    - (3) Detention basins that hold water for more than 48 hours.

<sup>18</sup> Public Utilities Code Section 21676(d).

- (4) Artificial wetlands.
  - (f) Identification of any characteristics that could create electrical interference, confusing or bright lights, glare, smoke, or other electrical or visual hazards to aircraft flight.
  - (g) Any environmental document (initial study, draft environmental impact report, etc.) that may have been prepared for the *Project*.
  - (h) Staff reports regarding the *Project*.
  - (i) Other relevant information that the *ALUC* or *ALUC Secretary* determine to be necessary to enable a comprehensive review of the proposed *Land Use Action*.
- 2.3.2. *Review by ALUC Secretary:* The *ALUC* delegates to the *ALUC Secretary* the review and consistency determination of *Major Land Use Actions* referred on a mandatory basis under Policy 1.5.2 or on a voluntary basis under Policy 1.5.3. In reviewing these actions, the *ALUC Secretary* shall:
- (a) Consult with the airport manager on *Land Use Actions* within the *Airport Influence Area*.
  - (b) Provide to the *ALUC*, at its next regular meeting, a list of all *Projects* reviewed and the determination made.
- 2.3.3. *ALUC Secretary's Choices:* The *ALUC Secretary* is authorized, on behalf of the *ALUC*, to make consistency determinations on *Major Land Use Actions* reviewed in accordance with Policy 1.5.2. Such determinations shall be made in writing and shall describe the consistency analysis and the basis for the determination. The *ALUC Secretary* may opt to forward complex or controversial actions to the *ALUC* for a consistency determination. For actions not forwarded to the *ALUC*, the *ALUC Secretary* has three choices of action:
- (a) Find the *Project* consistent with the *Compatibility Plan*.
  - (b) Find the *Project* consistent with the *Compatibility Plan*, subject to compliance with such conditions as the *ALUC Secretary* may specify. Any such conditions should be limited in scope and described in a manner that allows compliance to be clearly assessed (e.g., the height of a structure).
  - (c) Find the *Project* inconsistent with the *Compatibility Plan*. In making a finding of inconsistency, the *ALUC Secretary* shall note the specific conflicts upon which the determination is based.
- 2.3.4. *Appeal of ALUC Secretary's Action:* The affected *Local Agency*, *Project* applicant, the *Airport* owner, or other directly interested party may appeal to the *ALUC* a consistency determination made by the *ALUC Secretary* on a *Major Land Use Action* reviewed in accordance with Policy 1.5.2. The *ALUC* shall then review the proposed *Land Use Action*, the *ALUC Secretary's* determination, and information supporting the appeal and make a final determination regarding the proposed *Land Use Action's* consistency with the *Compatibility Plan*. Any appeal of the *ALUC Secretary's* determination must be submitted within 30 days of the date when the determination was issued.
- 2.3.5. *ALUC Action Choices:* When reviewing appealed *Major Land Use Actions*, the *ALUC* has the same three action choices provided for the *ALUC Secretary* in Policy 2.3.3.
- 2.3.6. *Response Time:* In responding to *Major Land Use Actions* referred for review, the policy of the *ALUC* is that:



- (a) When a *Major Land Use Action* is referred for review on a mandatory basis as required by Policy 1.5.2:
  - (1) The date of referral is deemed to be the date on which all applicable *Project* information as specified in Policy 2.3.1 is received by *ALUC Secretary* and the *ALUC Secretary* determines that the application for a consistency determination is complete.
  - (2) Reviews by the *ALUC Secretary* shall be completed within 30 days of the date of referral.
  - (3) Reviews of *Projects* appealed to the *ALUC* for a consistency determination shall be completed within 60 days of the date of the appeal.<sup>19</sup>
  - (4) If the *ALUC Secretary* or the *ALUC* fail to make a determination within the above time periods, the proposed *Land Use Action* shall be deemed consistent with the *Compatibility Plan*.
- (b) When a *Major Land Use Action* is referred on a voluntary basis in accordance with Policy 1.5.3, review by the *ALUC Secretary* and/or the *ALUC* should be completed in a timely manner enabling the comments to be considered by decision-making bodies of the referring *Local Agency*.
- (c) Regardless of action or failure to act on the part of the *ALUC Secretary* or the *ALUC*, the proposed *Land Use Action* must comply with other applicable local, state, and federal laws and regulations.
- (d) The referring *Local Agency* shall be notified of the *ALUC Secretary's* and/or the *ALUC's* action in writing.

2.3.7. *Subsequent Reviews of Related Land Use Development Proposals:* Once a *Project* has been found consistent with the *Compatibility Plan*, it generally need not be referred for review at subsequent stages of the planning process (e.g., for a use permit after a zoning change has been reviewed). However, additional *ALUC* review is required if any of the following are true:

- (a) At the time of the original *ALUC* review, the *Project* information available was only sufficient to determine consistency with compatibility criteria at a planning level of detail, not at the *Project* design level. For example, the proposed land use designation indicated in a general plan, specific plan, or zoning amendment may have been found consistent, but information on site layout, maximum *Intensity* limits, building heights, and other such factors that may also affect the consistency determination for a *Project* may not have yet been known.
- (b) The design of the *Project* subsequently changes in a manner that affects previously considered compatibility issues and could raise questions as to the validity of the earlier finding of consistency. Proposed changes warranting a new review include, but are not limited to, the following:
  - (1) For residential uses, any increase in the number of dwelling units;
  - (2) For nonresidential uses, a change in the types of proposed uses, any increase in the total floor area, and/or a change in the allocation of floor area among different

---

<sup>19</sup> For *Major Land Use Actions*, this 60-day limit is not a statutory requirement, but is set by the *ALUC* to be consistent with Policy 2.2.5 and Public Utilities Code Section 21676(d) regarding general plans, specific plans, zoning ordinances, and building regulations.

- types of uses in a manner that could result in an increase in the *Intensity* of use (more people on the site) to a level exceeding the criteria set forth in this *Compatibility Plan*;
- (3) Any increase in the height of structures or other design features such that the height limits established herein would be exceeded or exceeded by a greater amount;
  - (4) Major site design changes (such as incorporation of clustering or modifications to the configuration of open land areas proposed for the site) if site design was a factor in the initial *Project* review;
  - (5) Any significant change to a proposed *Project* for which a special exception was granted in accordance with Policy 4.1.5;
  - (6) Any new design features that would create visual hazards (e.g., certain types of lights, sources of glare, and sources of dust, steam, or smoke);
  - (7) Any new equipment or features that would create electronic hazards or cause interference with aircraft communications or navigation; and/or
  - (8) Addition of features that could attract wildlife that is potentially hazardous to aircraft operations.
- (c) At the time of original *ALUC* review, conditions were placed on the *Project* that require subsequent *ALUC* review.
  - (d) The local jurisdiction concludes that further review is warranted.

## 2.4. Review Process for Airport Master Plans and Development Plans

- 2.4.1. *Required Submittal Information:* A master plan, airport layout plan, or development plan referred to the *ALUC* for review shall contain sufficient information to enable the *ALUC* to adequately assess the noise, safety, airspace protection, and overflight impacts of *Airport* activity upon surrounding land uses.
- (a) When a new or amended master plan is the subject of the *ALUC* review, the noise, safety, airspace protection, and overflight impacts should be addressed in the plan report and/or in an accompanying environmental document. Proposed changes in *Airport* facilities and usage that could have land use compatibility implications should be noted.
  - (b) For *Airport* development plans, the relationship to a previously adopted master plan or other approved plan for the *Airport* should be indicated—specifically, whether the proposed development implements an adopted/approved plan or represents an addition or change to any such previous plan. Any environmental document prepared for the *Project* should be included in the submittal.
  - (c) For either airport master plans or development plans, the following specific information should be included to the extent applicable:
    - (1) A layout plan drawing of the proposed facility or improvements showing the location of:
      - ▶ Property boundaries;
      - ▶ Runways or helicopter takeoff and landing areas;
      - ▶ Runway or helipad protection zones; and
      - ▶ Aircraft or helicopter approach/departure flight routes.
    - (2) A revised map of the *Airspace Protection Surfaces* as defined by Federal Aviation Regulations Part 77 if the proposal would result in changes to these surfaces. Maps

reflecting the current and future configurations of the *Airspace Protection Surfaces* associated with each airport are included in Chapters 3, 4, and 5.

- (3) Updated activity forecasts, including the number of operations by each type of aircraft proposed to use the facility, the percentage of day versus night operations, and the distribution of takeoffs and landings for each runway direction. The effects of the proposed development on the forecast *Airport* usage indicated in Chapter 3 of this *Compatibility Plan* should be described.
- (4) Proposed flight track locations and projected noise contours. Differences from the flight track data and noise contours presented in Chapter 3, 4, and 5 of this *Compatibility Plan* should be described.
- (5) A map showing existing and planned land uses in the areas affected by aircraft activity associated with implementation of the proposed master plan or development plan.
- (6) Identification and proposed mitigation of impacts on surrounding land uses to the extent that those impacts would be greater than indicated by the Policy Maps included in this chapter.

2.4.2. *ALUC Action Choices for Airport Plans*: When reviewing a proposed new or revised airport master plan or new development plans for an airport included in the *ALUCP*, the *ALUC* has three action choices (see Section 4.4 for policies pertaining to the substance of the *ALUC* review of *Airport* plans):

- (a) Find the *Airport* plan consistent with the *Compatibility Plan*.
- (b) Find the *Airport* plan consistent with the *Compatibility Plan* with the condition that the *Compatibility Plan* be modified to reflect the assumptions and proposals of the *Airport* plan.
- (c) Find the *Airport* plan inconsistent with the *Compatibility Plan*.

2.4.3. *Response Time*: The *ALUC* must respond to the referral of an airport master plan or development plan within 60 days from the date of referral.<sup>20</sup>

- (a) The date of referral is deemed to be the date on which all applicable *Project* information as specified in Policy 2.4.1 is received by *ALUC Secretary* and the *ALUC Secretary* determines that the application for a consistency determination is complete.
- (b) If the *ALUC* fails to make a determination within the specified period, the proposed *Land Use Action* shall be deemed consistent with the *Compatibility Plan*.
- (c) Regardless of *ALUC* action or failure to act, the proposed *Land Use Action* must comply with other applicable local, state, and federal regulations and laws.
- (d) The *Airport* owner shall be notified of the *ALUC*'s action in writing.

<sup>20</sup> Public Utilities Code Section 21676(d).

### 3. COMPATIBILITY CRITERIA

#### 3.1. Evaluating Land Use Consistency

- 3.1.1. *Evaluating Compatibility of New Development:* The compatibility of proposed land uses within an *Airport Influence Area* shall be evaluated in accordance with:
- (a) The specific noise, safety, airspace protection, overflight, and other compatibility policies set forth in Sections 3.2 through 3.5 and in Section 4;
  - (b) The criteria listed in **Table 1**, Noise Compatibility Criteria, and **Table 2**, Safety Compatibility Criteria, and
  - (c) The Compatibility Zones depicted on the Compatibility Policy Maps in this chapter.
- 3.1.2. *Compatibility Criteria Tables:* **Table 1**, *Noise Compatibility Criteria*, and **Table 2**, *Safety Compatibility Criteria*, list general land use categories and indicate each use as being either “normally compatible,” “conditionally compatible,” or “incompatible” depending upon the noise and safety *Compatibility Zones* in which it is located. These three compatibility determinations are defined in Policies 3.2.1 and 3.3.1 as well as in the respective criteria tables.
- (a) When evaluating a proposed development, each component land use category (e.g., agriculture, industrial, office) of a *Project* shall be evaluated as a separate development and shall individually satisfy the criteria for the respective land use category in the noise and safety criteria tables.
  - (b) Land uses not specifically listed in the noise and safety criteria tables shall be evaluated using the criteria for similar listed uses.

#### 3.2. Noise Compatibility

##### **Background**

The following Noise Policy Background Information has been considered in formulating the Noise Compatibility policies and criteria in this section, and it is provided for informational purposes only. For additional discussion of noise compatibility concepts, see **Appendix D**.

##### **Policy Objective**

The purpose of noise compatibility policies is to avoid establishment of *Noise-Sensitive Land Uses* in the portions of the *Airport* environs that are exposed to significant levels of aircraft noise.

##### **Measures of Noise Exposure**

As is standard practice in California, this *Compatibility Plan* uses the *Community Noise Equivalent Level* (CNEL) metric as the primary basis for evaluating the degree to which lands around the *Airport* are exposed to airport-related noise. CNEL is a cumulative noise metric in that it takes into account not just the loudness of individual noise events, but also the number of events over time. Cumulative exposure to aircraft noise is depicted by a set of contours, each of which represents points having the same CNEL value. The noise contours depict the greatest annualized noise impact, measured in terms of CNEL, which is anticipated to be generated by the aircraft operating at the *Airport* over the planning time frame.

The noise contours included in the noise compatibility maps (MOD-2 and OAK-2) were developed for each airport based upon the existing and project aircraft fleet mix and number of operations forecasted for a 20-year period.

##### **Factors Considered in Setting Noise Compatibility Criteria**

Factors considered in setting the criteria in this section include the following:

- Established state regulations and guidelines, including noise compatibility recommendations in the *California Airport Land Use Planning Handbook* (2011).
- Ambient noise levels in the community, as well as noise from other transportation noise sources. Ambient noise levels influence the potential intrusiveness of aircraft noise upon a particular land use and vary greatly between rural, suburban, and urban communities.
- The extent to which noise would intrude upon and interrupt the activity associated with a particular use. Susceptibility to speech interference or sleep disturbance as a result of single-event noise levels is a factor in this regard. Noise levels above approximately 65 dBA are sufficient to cause speech interference. Highly Noise-Sensitive Land Uses include residences, schools, libraries, and outdoor theaters.
- The extent to which the land use activity itself generates noise.
- The extent of outdoor activity, particularly noise-sensitive activities, associated with a particular land use.
- The extent to which indoor uses associated with a particular land use may be made compatible with application of sound attenuation. (Typical new building construction provides sufficient insulation to attenuate outdoor-to-indoor noise by at least 20 dB.)

3.2.1. *Evaluating Noise Compatibility for New Development*: The noise compatibility of proposed land uses within the an *Airport Influence Area* shall be evaluated in accordance with the policies set forth in this section, including the criteria listed in **Table 1**, *Noise Compatibility Criteria* and the noise exposure contours depicted on the respective *Compatibility Policy Map: Noise* for the affected airport (see **Maps MOD-2** and **OAK-2**).

- (a) The criteria in **Table 1** indicate the maximum acceptable *Community Noise Equivalent Level* (CNEL) exposure for new residential land uses and a range of nonresidential land uses. Within the various noise exposure ranges, each land use type is shown as being either “normally compatible,” “conditional,” or “incompatible.”
- (b) “Normally Compatible” means that the proposed land use shall be presumed to be acceptable within locations having the indicated noise exposure.
  - (1) Indoor uses are “normally compatible” if either: they involve activities that are inherently noisy; or, standard construction methods will sufficiently attenuate exterior noise to an acceptable indoor CNEL. For land use types that are compatible because of noise levels inherent with the activity, sound attenuation must be provided for associated office, retail, and other noise-sensitive indoor spaces sufficient to reduce exterior noise to an interior maximum of CNEL 50 dB.
  - (2) Outdoor uses are “normally compatible” if the activities associated with the land use may be carried out with minimal interference from aircraft noise at the indicated CNEL.
- (c) “Conditional” means that the conditions indicated in **Table 1** must be satisfied in order for the proposed land use to be acceptable.
  - (1) Indoor uses must have building structures that are capable of attenuating exterior noise from all noise sources to the indoor CNEL indicated by the number in the cell.
  - (2) The acceptability of outdoor uses is dependent upon characteristics of the specific use. Caution should be exercised with regard to *Noise-Sensitive Outdoor Land Uses* because these uses are likely to be disrupted by aircraft noise events. This caution

is directed at the *Project* proponent and is not intended to preclude approval of the *Project*.

- (d) “Incompatible” means that the proposed land use shall not be allowed under any circumstances except as noted in Paragraph (3) below.
  - (1) Indoor uses would have unacceptable noise levels if windows are open. At exposures above CNEL 65 dB, extensive mitigation techniques would be required to make the indoor environment acceptable for performance of activities associated with the land use even with windows closed.
  - (2) Outdoor uses would be exposed to severe noise interference that would prevent performance of activities associated with the land use.
  - (3) Exceptions to an “incompatible” designation may only be made if site-specific special conditions exist. See Policy 4.1.5.

3.2.2. *Maximum Acceptable Exterior Noise Levels:* To minimize noise-sensitive development in noisy areas around an *Airport*, new land use development shall be restricted in accordance with the following:

- (a) Residential Development and Children’s Schools:
  - (1) All new *Residential Development* and children’s schools are deemed incompatible within the projected CNEL 60 dB contour of each airport.
  - (2) The noise compatibility policy maps presented for each airport (Maps MOD-2, and OAK-2) depict the area within which this restriction applies.
  - (3) Exceptions are also provided for existing residential lots. See Policy 1.4.4.
- (b) Nonresidential Development: New *Nonresidential Development* is deemed incompatible in locations where the airport-related noise exposure would be highly disruptive to the specific land use. Applicable criteria are indicated in **Table 1**.

3.2.3. *Maximum Acceptable Interior Noise Levels:* To the extent that the criteria in **Table 1** and other policies herein permit the development, land uses for which interior activities may be easily disrupted by noise shall be required to comply with the following interior noise level criteria.

- (a) The maximum, aircraft-related, interior noise level that shall be considered acceptable for land uses near airports is:
  - (1) CNEL 45 dB in:
    - ▶ Any habitable room of single- or multi-family residences
    - ▶ Children’s schools (K-12)
    - ▶ Libraries
    - ▶ Long-term lodging (e.g., dormitories), congregate care facilities, and nursing homes
    - ▶ Hotels, motels, and other short-term lodging;
    - ▶ Hospitals;
    - ▶ Adult educational and institutional facilities;
    - ▶ Places of worship, meeting halls, theaters, and mortuaries; and
    - ▶ Miscellaneous other uses as listed in **Table 1**, *Noise Compatibility Criteria*.
  - (2) CNEL 50 dB in:

- ▶ Offices and office areas of industrial facilities and research and development facilities;
  - ▶ Retail centers and stores; and
  - ▶ Personal and miscellaneous services.
- (b) The noise contours depicted in **Maps MOD-2** and **OAK-2** shall be used in calculating compliance with these criteria. The calculations should assume that windows are closed.
- (c) When a proposed building lies within multiple CNEL range zones (e.g., partly in 60-65 dB and partly in 65-70 dB), the higher range zone shall apply for the purposes of determining sound attenuation requirements unless less than 25% of the building floor area is within that zone. In such case, the lower range zone may be used.
- (d) Where **Table 1** indicates that buildings associated with a particular land use must be capable of attenuating exterior noise to the specified maximum interior noise level, acoustical data documenting that the structure will be designed to comply with the criterion shall be provided to the *Local Agency* as part of the building permit process. The *Local Agency* shall be responsible for assuring compliance.
- (e) Exceptions to the interior noise level criteria in Paragraph (a) of this policy may be allowed where evidence is provided that the indoor noise generated by the use itself exceeds the listed criteria.
- 3.2.4. *Avigation Easement Dedication Requirements*: Dedication of an *Avigation Easement* is required as a condition for approval of certain proposed development situated within the CNEL 60 dB contour in accordance with Policy 4.1.1 (see **Maps MOD-2** and **OAK-2** and **MOD-5** and **OAK-5**).

### 3.3. Safety Compatibility

#### **Safety Policy Background Information**

The following Safety Policy Background Information (in different typeface) has been considered in formulating the Safety Compatibility policies and criteria in this section, but is provided for informational purposes only does not itself constitute *ALUC* policy. For additional discussion of safety compatibility concepts, see **Appendix D**.

#### **Policy Objective**

The intent of land use safety compatibility criteria is to minimize the risks associated with an off-airport aircraft accident or emergency landing. The policies focus on reducing the potential consequences of such events should they occur. Risks both to people and property in the vicinity of an airport and to people on board the aircraft are considered (land use features that can be the *cause* of an aircraft accident are addressed under Airspace Protection, Section 3.4).

#### **Measures of Risk Exposure**

This *Compatibility Plan* evaluates the risk that potential aircraft accidents pose to lands and people around the *Airport* in terms of two parameters: the likelihood of an accident occurring in a given location near the *Airport*; and the potential consequences if an accident occurs in that location.

- ▶ The accident likelihood is measured in terms of the geographic distribution of where accidents have historically occurred around other airports having similar types of activity. Because aircraft accidents are infrequent occurrences, the pattern of accidents at any one airport cannot be used to predict where future accidents are most likely to happen around that airport. Reliance must be placed on

data about aircraft accident locations at comparable airports nationally, refined with respect to information about the types and patterns of aircraft use at the individual airport. This methodology, as further described in **Appendix D**, is used to delineate the safety zones depicted in **Maps MOD-3** and **OAK-3**, *Compatibility Policy Map: Safety*.

- ▶ The consequences component of the risk considers the number of people in harm's way and their ability to escape harm. For most *Nonresidential Development*, potential consequences are measured in terms of the usage *Intensity*—the number of people per acre on the site. For *Residential Development*, *Density*—the number of dwelling units per acre—is substituted for *Intensity*. Additional criteria are applicable to specific types of uses.

#### **Factors Considered in Setting Safety Compatibility Criteria**

Factors considered in setting the criteria in this section include the following:

- ▶ The locations, delineated with respect to the Airport runway, where aircraft accidents typically occur near airports and the relative concentration of accidents within these locations. The most stringent land use controls are applied to the areas with the greatest potential accident exposure. The risk information utilized is the transport (air carrier) and general aviation accident data and analyses contained in the California Airport Land Use Planning Handbook.
- ▶ Handbook guidance is also used to delineate the safety zone boundaries for the Airport as depicted on Map 3, *Compatibility Policy Map: Safety*. The zone shapes and sizes reflect the existing and future runway length, approach categories, aircraft fleet mix, and normal flight patterns for the Airport. Specific factors considered in adjusting the generic Handbook zones to reflect the conditions at the Airport are indicated on the Safety Compatibility Factors map in Chapter 3.
- ▶ Handbook guidance regarding the maximum usage intensities (people per acre) considered acceptable is used for new development near airport runways.
- ▶ Residential Density limitations cannot be equated to the usage Intensity limitations for nonresidential uses. Consistent with pervasive societal views and as suggested by the Handbook guidelines, a greater degree of protection is warranted for residential uses.
- ▶ The presence of certain land use characteristics that represent safety concerns regardless of the number of people present; specifically: vulnerable occupants (children, elderly, disabled), hazardous materials, and critical community infrastructure.
- ▶ The extent to which development covers the ground and thus limits the options of where an aircraft in distress can attempt an emergency landing.

3.3.1. *Evaluating Safety Compatibility for New Development*: The safety compatibility of proposed land uses within the an *Airport Influence Area* shall be evaluated in accordance with the policies set forth in this section, including the criteria listed in **Table 2**, *Safety Compatibility Criteria*, and the safety zones depicted on **Maps MOD-3** and **OAK-3**, *Compatibility Policy Map: Safety*.

- (a) The criteria in **Table 2** indicate whether a particular type of land use is “normally compatible,” “conditional,” or “incompatible” with the exposure to aircraft accident risks.
- (b) “Normally Compatible” means that the proposed *Land Use Action* is presumed to comply with the indicated *Intensity* limits and other criteria for the zone. However, atypical examples of a use may require review to ensure compliance with the criteria.
- (c) “Conditional” means that the proposed *Land Use Action* must comply with the conditions listed in the table.
- (d) “Incompatible” means that proposed *Land Use Action* shall not be permitted under any normal circumstances within the indicated safety zone. Limited exceptions are possible for site-specific special conditions. See Policy 4.1.5.



3.3.2. *Residential Development Criteria:* Proposed *Residential Development* shall be evaluated in accordance with the following criteria:

- (a) The *Density* of *Residential Development* shall be measured in terms of dwelling units per acre. The maximum allowable *Densities* in each safety zone are as follows. Exceptions are provided for existing single-family homes and residential lots (see Policy 1.4.4).
  - (1) Within Safety Zones 1, new *Residential Development* shall be prohibited.
  - (2) Within Safety Zone 2, New residential development shall be limited to a maximum Density of 1 dwelling unit per 10 acres (0.1 dwelling unit per acre) and the dwelling unit site shall be situated outside of the safety zone where feasible.
  - (3) Within Safety Zone 3, new Residential Development shall be limited to a maximum Density of 1 dwelling unit per 5.0 acres (0.2 dwelling unit per acre), except in the Airport influence Area associated with the Modesto City-County Airport, where the maximum Density shall be 1 dwelling unit per 2.0 acres (0.5 dwelling unit for acre).
  - (4) Within Safety Zone 4, new Residential Development shall be limited to a maximum Density of 1 dwelling unit per 5.0 acres (0.2 dwelling unit per acre), except in the Airport influence Area associated with the Modesto City-County Airport, where the maximum Density shall be 1 dwelling unit per 2.5 acres (0.4 dwelling unit for acre).
  - (5) Within Safety Zone 5, new Residential Development shall be prohibited.
  - (6) Within Safety Zone 6, new *Residential Development* shall not be restricted for safety compatibility purposes.
- (b) For *Projects* that are solely residential, the acreage evaluated equals the *Project* site size which may include multiple parcels. See Policy 3.3.8 with regard to mixed-use development.
- (c) Density bonuses and other bonuses or allowances that *Local Agencies* may provide for affordable housing developed in accordance with the provisions of state and/or local law or regulation shall be included when calculating residential *Densities*. The overall *Density* of a development *Project*, including any bonuses or allowances, must comply with the allowable *Density* criteria in **Table 2, Safety Compatibility Criteria**.
- (d) Secondary units, as defined by state and local law, shall be excluded from *Density* calculations.
- (e) See Policy 1.4.4 regarding *Residential Development* by right on existing legal lots of record.
- (f) In accordance with state law, a family day care home serving 14 or fewer children may be established in any existing dwelling or in any new dwelling permitted by the policies of this *Compatibility Plan*.
- (g) See Policy 3.3.9(a) for limitations on clustering of development within a single acre and Policy 4.1.2 for *Infill* criteria.

3.3.3. *Nonresidential Development Criteria:* Proposed *Nonresidential Development* shall be evaluated in accordance with the following criteria:

- (a) The usage *Intensity* (people per acre) limit indicated in **Table 2** for each safety zone is the fundamental criterion against which the safety compatibility of most nonresidential land uses shall be measured. The *Intensity* limits equals the total number of occupants

allowed on the *Project* site during normal busy use. Other criteria may be applicable to uses of special concern (see Policy 3.3.7).

- (b) All nonresidential uses, including uses listed in **Table 2, Safety Compatibility Criteria**, as “Normally Compatible,” must comply with both the “sitewide average” and “single-acre” usage *Intensity* limits indicated below and listed in **Table 2** for each safety zone.

Safety Zone	1	2	3	4	5	6
	People per Acre					
Maximum Sitewide Average Intensity	10	60	100	150	100	300
Maximum Single-Acre Intensity	20	120	300	450	300	1,000

- (1) The “sitewide average” *Intensity* equals the total number of people expected to be on the entire site divided by the site size in acres.
  - (2) The “single-acre” *Intensity* equals the number of people expected to occupy the most intensively used 1.0-acre area(s) of the site.
- (c) The need to calculate the usage *Intensity* of a particular *Project* proposal for compliance with the *Intensity* criteria in the Paragraph (b) table is to be governed by the following:
- (1) Land use categories indicated in **Table 2** as “Normally Compatible” for a particular safety zone are presumed to meet the *Intensity* criteria indicated in the Paragraph (b) table. Unless the particular *Project* proposal represents an atypical example of the usage type, calculation of the usage *Intensity* is not required.
  - (2) Calculation of the usage *Intensity* must be done for all proposed *Projects* where the land use category for the particular safety zone is indicated in **Table 2** as “Conditional” and the criteria column says “Ensure *Intensity* criteria are met.”
  - (3) Where **Table 2** indicates that land use category is “Conditional” for the particular safety zone, but the criteria are other than “Ensure *Intensity* criteria are met,” calculation of the usage *Intensity* is not necessary for typical examples of the use. However, the *Project* proposal must comply with the other criteria listed for the applicable land use category and safety zone.
- (d) No new structures intended to be occupied regularly are allowed in Safety Zone 1.
- (e) Usage *Intensity* calculations shall include all people (e.g., employees, customers/visitors) who may be on the *Project* site at any single point in time, whether indoors or outdoors.
- (1) For the purposes of these calculations, the total number of occupants during normal busiest periods shall be used.<sup>21</sup>
  - (2) The *Project* site may be composed of multiple parcels.
- (f) Each component use within a *Nonresidential Development* that has multiple types of uses shall comply with the safety criteria in **Table 2, Safety Compatibility Criteria**, unless the use is ancillary to the primary use.

<sup>21</sup> This number will typically be lower than the absolute maximum number of occupants the facility can accommodate (such as would be used in determining compliance with building and fire codes).

- (1) To be considered an *Ancillary Use*, the use must be associated with the primary use (e.g. a cafeteria in an office building) and occupy no more than 10% of total building floor area.
  - (2) *Ancillary Uses* must be considered in the sitewide average *Intensity* limits, but may be excluded from the single-acre *Intensity* calculations.
  - (3) An *Ancillary Use* may be more intensively occupied (more people in a given area) than the primary use, provided that the *Ancillary Use* is neither:
    - ▶ An assembly room having more than 750 square feet of floor area (this criterion is intended to parallel building code standards) and a capacity of 50 people; nor
    - ▶ A K-12 school, day care center, or other risk-sensitive use that is “incompatible” within the safety zone where the primary use is to be located.
- (g) Other criteria may be applicable to uses of special concern (see Policy 3.3.7 and conditions in **Table 2**, *Safety Compatibility Criteria*).
- (h) *Local Agencies* may make exceptions for “Conditional” or “Incompatible” land uses associated with rare special events (e.g., an air show at the *Airport*) for which a facility is not designed and normally not used and for which extra safety precautions can be taken as appropriate.
- 3.3.4. *Methods for Determining Compliance with Sitewide Average Intensity Criteria*: Determination of compliance with the sitewide average *Intensity* criteria indicated in Policy 3.3.3(b) requires calculating the total occupancy of the site at any given time under normal busy use (see Policy 3.3.3(e)), then dividing by the total acreage of the *Project* site (see **Exhibit 1**). Alternatively, the Floor Area Ratio (FAR) criteria indicated in **Table 2** for most nonresidential uses may be used. Additional guidance is found in **Appendix E**. Regardless of the method or methods used, the proposed *Project’s* compliance with the *Intensity* criteria in Policy 3.3.3(b) must be demonstrated by the applicant or referring *Local Agency*.
- (a) Floor Area Ratio (FAR) Criteria: Where a floor area ratio limit is cited in **Table 2** as the condition to be met, the indicated numbers should be treated as a tool by which compliance with the usage *Intensity* criteria can be evaluated.
    - (1) The limit listed for each use is based upon a typical Occupancy Load Factor (floor area square footage per person) for that use. The allowable FAR in a particular safety zone thus varies from one land use category to another. The assumed Occupancy Load Factors are shown in the table.
    - (2) If a higher or lower Occupancy Load Factor can be documented for a particular *Project* (see Paragraph (b) of this policy), then the allowable FAR would be correspondingly lower or higher, but in all cases the basic usage *Intensity* criterion must be met.
  - (b) Alternative Methodologies for Calculation of Sitewide Average Usage Intensities: Application of the FAR methodology for determining compliance with usage *Intensity* criteria is not required. Usage intensities may also be determined by first calculating the total occupancy of the site. The following methods may be used to determine the total occupancy for any category of use. For *Projects* involving multiple nonresidential land

### Exhibit 1: Intensity Calculation Example

In this example, both the sitewide and single-acre *Intensity* of a proposed warehouse facility is calculated using the common Occupancy Load Factors [number of square feet per person] information in Table 2, Safety Criteria together with *Project* specifications. The results are then compared with the maximum sitewide and single-acre *Intensity* limits in Table 2 to determine consistency of the *Project* with the safety criteria.



#### Table 2 Safety Criteria Data

##### Safety Zone 3 Intensity Limits

Max. Sitewide Average: 100 people per acre  
 Max. Single-Acre: 300 people per acre

##### Common Occupancy Load Factors

Office: approx. 215 s.f. per person  
 Light Industrial, Low Intensity: approx. 350 s.f. per person  
 Warehouse: approx. 1,000 s.f. per person

##### Project Data

Site Acreage: 3 acres  
 Office: 19,560 s.f.  
 Light Industrial: 24,000 s.f.  
 Warehouse: 65,000 s.f.

##### Occupancy

Office:  $\frac{19,560 \text{ s.f.}}{215 \text{ s.f. per person}} = 91 \text{ people}$   
 L-industrial:  $\frac{24,000 \text{ s.f.}}{350 \text{ s.f. per person}} = 69 \text{ people}$   
 Warehouse:  $\frac{65,000 \text{ s.f.}}{1,000 \text{ s.f. per person}} = 65 \text{ people}$   
 Total: = 225 people

#### Intensity Results

The results of the *Intensity* calculations indicate that the proposed development satisfies the sitewide and single-acre *Intensity* criteria.

##### Sitewide Average Intensity

$\frac{\text{Total people}}{\text{Site Acreage}} = \frac{225 \text{ people}}{3 \text{ acres}} = 75 \text{ people per acre}$

##### Single-Acre Intensity

$\frac{\text{Total people}}{\text{Single-Acre}} = \frac{91 + 69 \text{ people}}{1 \text{ acre}} = 160 \text{ people per acre}$

use categories, the occupancy for each use must be calculated separately, then added to produce the total occupancy. See Policy 3.3.8 for criteria pertaining to mixed-use *Projects* having both residential and nonresidential components.

- (1) Fixed Seating: For uses with fixed seats, such as restaurants and theaters, the occupancy should be based upon the number of customer seats plus the number of employees.
- (2) Occupancy Load Factors: The square footage of the building divided by the typical square footage occupied by each person yields the total occupancy. **Table 2, Safety**

*Compatibility Criteria*, lists typical occupancy load factors for various land use categories.

- (3) **Vehicle Parking Requirements:** For many commercial and industrial uses, the occupancy can be estimated by considering the number of parking spaces required by the *Local Agency* and multiplying by the average occupancy per vehicle. This method is not suitable for land uses where many users arrive on foot or by transit, bicycle, or other means of transportation (see **Appendix E**).
  - (4) **Building and Fire Codes:** This method is essentially the same as the Occupancy Load Factor method in that the codes provide a square footage per person for various types of building uses. Building and Fire Codes, though, are based on a maximum, never to be exceeded, number of occupants rather than the average busy period that is the basis for airport land use compatibility planning. As such, the total occupancy calculated using these codes must be reduced by some factor—approximately one half for most uses—to provide a number consistent with the *Intensity* limits listed in Policy 3.3.3(b).
- (c) **Projects Containing Mixed Nonresidential Uses:** Where a proposed development will contain a mixture of the nonresidential uses listed separately in **Table 2**, the FAR values cannot be directly used as an evaluation tool unless each component use is to be situated on its own distinct site. Instead, it is necessary to apply the occupancy load factors or use other information to calculate the total number of occupants expected within the overall development. This number is then used to determine compliance with the usage *Intensity* criteria.
- ▶ See Policy 3.3.8 for mixed residential/nonresidential uses.
  - ▶ See Policy 3.3.11 with regard to criteria for *Project* sites that occupy two or more safety zones.
- (d) **Selection of Calculation Method:** When evaluating *Major Land Use Actions* referred for *ALUC* review on a mandatory basis in accordance with Policy 1.5.2, the *ALUC* shall normally use the Floor Area Ratio methodology (Paragraph (a) of this policy). Occupancy within a single acre shall normally be calculated as described in Paragraph 3.3.5 of this policy. However, the *ALUC* shall consider usage *Intensity* data that the *Local Agency* or *Project* applicant has provided for the *Project* using an alternative calculation method.
- (1) If the *Local Agency* or *Project* applicant provides definitive information that a particular *Development Proposal* is atypical—that is, there would be more floor area per person and thus a lower usage *Intensity*—the *ALUC* may consider that information in determining the safety compatibility of the proposal. In considering any such exceptions, the *ALUC* shall also take into account the potential for the use of a building to change over time (see Paragraph 3.3.6 of this policy).
  - (2) In conjunction with modifying its general plan for consistency with this *Compatibility Plan* or as part of a separate ordinance or other adopted policy, a *Local Agency* may propose a particular method for measuring compliance with the usage *Intensity* limits.<sup>22</sup> The *ALUC* shall evaluate the proposed method to determine whether it would provide an equivalent *Intensity* outcome to that of the floor area ratio method. Once

<sup>22</sup> For example, a method based upon the agency's parking space requirements may be used together with an assumed number of people per vehicle as a means of determining the number of occupants for uses that are vehicle oriented.

the *ALUC* has determined that the general plan is consistent with this *Compatibility Plan*, referral of *Major Land Use Actions* to the *ALUC* becomes voluntary. Therefore, subject to *ALUC* acceptance of the alternative calculation method, the *Local Agency* may then use that method when internally reviewing individual development *Projects* for compliance with the usage *Intensity* criteria.

- 3.3.5. *Methodology for Calculation of Single-Acre Intensity*: The single-acre *Intensity* of a proposed non-residential or mixed-use development shall be calculated by determining the total number of people expected to be within any 1.0-acre portion of the site, typically the most intensively used building or part of a building. Calculation of the single-acre *Intensity* depends upon the building footprint and site sizes and the distribution of activities on the site.
- (a) For sites less than 1.0 acre, the single-acre *Intensity* equals the total number of people on the site divided by the site size.
  - (b) For sites more than 1.0 acre and a building footprint less than 1.0 acre, the single-acre *Intensity* equals the total number of building occupants unless the *Project* includes substantial outdoor occupancy in which case such usage should be taken into account.
  - (c) For sites having both site size and building footprint of more than 1.0 acre, the single-acre *Intensity* shall normally be calculated as the total number of building occupants divided by the building footprint in acres. This calculation assumes that the occupancy of the building is evenly distributed. However, if the occupancy of the building is concentrated in one area—the office area of a large warehouse, for example—then the occupants of that area shall be included in the single-acre calculation.
  - (d) The 1.0-acre areas to be evaluated shall normally match the building footprints provided that the buildings are generally rectangular (reasonably close to square) and not elongated in shape and, for buildings larger than 1.0 acre, may represent a portion of the building.
  - (e) If a building has multiple floors, then the total number of occupants on all floors falling within the 1.0-acre footprint shall be counted.
- 3.3.6. *Long-Term Changes in Occupancy*: In evaluating compliance of a proposed *Nonresidential Development* with the usage *Intensity* criteria, the *ALUC* shall take into account the potential for the use of a building to change over time. A building could have planned low-*Intensity* use initially, but later be converted to a higher-*Intensity* use. *Local Agencies* must provide permit language or other mechanisms to ensure continued compliance with the usage *Intensity* criteria. (Note that this provision applies only to new development and *Redevelopment—Projects* for which discretionary *Local Agency* action is required—not to tenant improvements or other changes to existing buildings for which local approval is ministerial.)
- 3.3.7. *Land Uses of Special Concern*: Certain types of land uses represent special safety concerns irrespective of the number of people associated with those uses.
- (a) Land uses of particular concern and the nature of the concern are:
    - (1) Uses Having Vulnerable Occupants: These uses are ones in which the majority of occupants are children, elderly, and/or disabled—people who have reduced effective mobility or may be unable to respond to emergency situations. The primary uses in this category are:
      - ▶ Children’s schools (grades K–12).

- ▶ Day care centers (facilities with 15 or more children, as defined in the California Health and Safety Code).
  - ▶ Hospitals, mental hospitals, nursing homes, and similar facilities where patients remain overnight.
  - ▶ Congregate care facilities including retirement homes, assisted living, and intermediate care facilities.
  - ▶ Penal institutions.
- (2) Hazardous Materials Storage: Materials that are flammable, explosive, corrosive, or toxic constitute special safety compatibility concerns to the extent that an aircraft accident could cause a release of the materials and thereby pose dangers to people and property in the vicinity. Facilities in this category include:
- ▶ Facilities such as oil refineries and chemical plants that manufacture, process, and/or store bulk quantities of hazardous materials generally for shipment elsewhere.
  - ▶ Facilities associated with otherwise compatible land uses where hazardous materials are stored in smaller quantities primarily for on-site use.
- (3) Critical Community Infrastructure: This category pertains to facilities the damage or destruction of which would cause significant adverse effects to public health and welfare well beyond the immediate vicinity of the facility. Among these facilities are:
- ▶ Public safety facilities such as police and fire stations.
  - ▶ Communications facilities including emergency communications, broadcast, and cell phone towers.
  - ▶ Primary, peaker, and renewable energy power plants, electrical substations, and other utilities.

(b) The safety criteria for the land uses in Paragraph (a) of this policy are included in **Table 2, Safety Compatibility Criteria**. These criteria shall be applied when evaluating these uses.

- (1) In some cases, these uses are not allowed in portions of the *Airport* environs regardless of the number of occupants associated with the use.
- (2) In other instances these uses should be avoided (that is, allowed only if a site outside the zone would not serve the intended function).
- (3) When allowed, special measures for the particular use, such as those listed in **Table 2, Safety Compatibility Criteria**, must be taken as appropriate to minimize hazards to the facility and occupants if the facility were to be struck by an aircraft.

3.3.8. *Mixed-Use Development*: For *Projects* involving a mixture of residential and nonresidential uses, the following policies apply:

- (a) Where the *Residential Development* and *Nonresidential Development* are proposed to be situated on separate parts of the *Project* site, the *Project* shall be evaluated as separate developments. The residential *Density* shall be calculated with respect to the area(s) to be devoted to *Residential Development* and the nonresidential *Intensity* calculated with respect to the area(s) proposed for nonresidential uses. This provision means that the residential *Density* cannot be averaged over the entire *Project* site when nonresidential uses will occupy some of the area. The same limitation applies in reverse—that is, the nonresidential *Intensity* cannot be averaged over an area that includes residential uses.

- (b) Development in which *Residential Development* is proposed to be located in conjunction with *Nonresidential Development* in the same or nearby buildings on the same site must meet both residential *Density* and nonresidential *Intensity* criteria. The number of dwelling units shall not exceed the *Density* limits indicated in **Table 2**, *Safety Compatibility Criteria*. Additionally, the normal occupancy of the residential portion shall be added to that of the nonresidential portion and the total occupancy shall be evaluated with respect to the nonresidential usage *Intensity* criteria cited in **Table 2**.
- (c) Mixed-use development shall not be allowed where the residential component would be exposed to noise levels above the limits set in **Table 1**, *Noise Compatibility Criteria*.
- 3.3.9. *Limits on Clustering*: As used in this *Compatibility Plan*, “clustering” refers to the concentration of development (measured in terms of dwellings or people per acre) into a portion of the site, leaving other portions of the site relatively less developed or as open land. To a degree, clustering of development can be desirable from an airport land use safety compatibility perspective if more places where an aircraft can attempt an emergency landing potentially remain. However, clustering can pose greater risks that an aircraft could strike the location where the development is clustered. To guard against this risk, limitations on the maximum concentrations of dwellings or people in a small area of a large *Project* site are appropriate.
- (a) Clustering of new *Residential Development* in airport environs is limited as follows:
- (1) Clustering is not applicable in Safety Zones 1 and 5 as new *Residential Development* is not permitted in these zones.
  - (2) In Safety Zones 3 and 4, up to 2 dwellings may be built in a single acre area, provided that the average *Density* of the development does not exceed 1 dwelling unit per 5.0 acres. Where new *Residential Development* is allowed as *Infill* in these zones, the single-acre *Density* shall not exceed that typical of the surrounding development.
  - (3) There is no limit on site-wide or single-acre residential *Densities* in Safety Zone 6.
- (b) For nonresidential land uses, the usage *Intensity* on a single 1.0-acre portion of a *Project* site shall not exceed the limits specified in **Table 2**.
- (c) For the purposes of the above policies, the 1.0-acre areas to be evaluated shall be rectangular (reasonably close to square, not elongated or irregular) in shape.
- 3.3.10. *Lot Coverage Limits*: In addition to the single-acre *Density* and *Intensity* limits set by Policy 3.3.92 and 3.3.3, new residential and *Nonresidential Development* associated with the Airport Influence Area for the Oakdale Municipal Airport and the Crows Landing Airfield shall also be limited with respect to lot coverage—the percentage of the *Project* site covered by buildings. The specific limits for each safety zone are:
- Zone 1: No coverage
  - Zone 2: 35%
  - Zones 3–5: 45%
  - Zone 6: 100% (no limit)
- 3.3.11. *Parcels Lying within Two or More Safety Zones*: For the purposes of evaluating consistency with the compatibility criteria set forth in **Table 2**, any parcel that is split by safety zone boundaries shall be considered as if it were multiple parcels divided at the safety zone boundary line (see **Exhibit 2**).



- (a) The preceding notwithstanding, where no part of the building(s) or areas of outdoor congregation of people proposed on the *Project* site falls within the more restrictive safety zone, the criteria for the safety zone where the proposed building(s) or outdoor uses are located shall apply.

**Exhibit 2: Site Split by Safety Zones**

In this example, the restaurant and office uses are split between Safety Zones 4 and 6. When determining compliance with the Zone 4 *Intensity* limits, only the portions of the uses in Zone 4, together with the retail use that is fully in Zone 4 are considered and the site size is the 3.5 acres in Zone 4.

**Safety Zone 4**

Retail:  $\frac{50,000 \text{ s.f.}}{170 \text{ s.f. per person}} = 294 \text{ people}$

Restaurant:  $\frac{50\% \text{ of } 18,000 \text{ s.f.}}{60 \text{ s.f. per person}} = 150 \text{ people}$

Office:  $\frac{50\% \text{ of } 24,000 \text{ s.f.}}{215 \text{ s.f. per person}} = 56 \text{ people}$

Total Occupancy = 500 people

Intensity:  $\frac{500 \text{ people}}{3.5 \text{ acres}} = 143 \text{ people/acre}^*$

\* Meets Zone 4 sitewide average limit of 150 people/acre

**Safety Zone 6**

All proposed uses are normally compatible.

Refer to Policy 3.3.9, Limits on Clustering, on guidance for the development of multiple dwellings on parcels split by multiple safety zones.

- (b) Modification of the *Project* site plan so as to transfer the allowed *Density* of *Nonresidential Development* or *Intensity* of *Nonresidential Development* from the more restricted portion to the less restricted portion is encouraged. The purpose of this policy is to move people outside of the higher-risk zones.
- (1) This full or partial reallocation of *Intensity* is permitted even if the resulting *Intensity* in the less restricted area would then exceed the sitewide average *Intensity* limits that apply within that safety zone (see **Exhibits MOD-3 and OAK-3**).
  - (2) The single-acre criterion for the zone to which the use is transferred must still be satisfied.

3.3.12. *Avigation Easement Dedication Requirements*: Dedication of an *Avigation Easement* is required as a condition for approval of certain proposed development situated within Safety Zones 1 through 5 in accordance with Policy 4.1.1 (see **Maps MOD-3 and OAK-3 and MOD-5 and OAK-5**).

**Exhibit 3: Transferring Usage Intensity**

An example of transferring usage *Intensity* to the less restrictive safety zone is provided below.

**Project Site**

Zone 3: 1.0 acres  
Zone 4: 2.0 acres

**Allowable Total Occupancy**

Zone 3: 100 people/acre = 100 people  
Zone 4: 150 people/acre = 300 people  
Total Allowed on Site: 400 people

**Transfer People from Zone 3 to Zone 4**

Zone 3: 0 people  
Zone 4: 300 + 100 = 400 people

\* 400 people in 2.0 acres exceeds 160 people/acre limit for Zone 4, but is allowable under usage *Intensity* transfer policy

### 3.4. Airspace Protection

#### **Airspace Protection Policy Background Information**

The following Airspace Protection Policy Background Information (in different typeface) has been considered in formulating the Airspace Protection Compatibility policies and criteria in this section, but is provided for informational purposes only and does not itself constitute *ALUC* policy. For additional discussion of airspace protection concepts, see **Appendix D**.

#### **Policy Objective**

Airspace protection compatibility policies seek to prevent creation of land use features that can pose hazards to the airspace required by aircraft in flight and have the potential for causing an aircraft accident.

#### **Measures of Hazards to Airspace**

Three categories of hazards to airspace are a concern: physical, visual, and electronic.

- *Physical hazards* include tall structures that have the potential to intrude upon protected airspace as well as land use features that have the potential to attract birds and certain other potentially hazardous wildlife to the *Airport* area.
- *Visual hazards* include certain types of lights, sources of glare, and sources of dust, steam, or smoke.
- *Electronic hazards* are ones that may cause interference with aircraft communications or navigation.

#### **Factors Considered in Setting Airspace Protection / Object Height Compatibility Criteria**

The *Compatibility Plan* airspace protection policies rely upon the regulations and standards enacted by the Federal Aviation Administration (FAA) and the State of California. The FAA has well defined standards by which potential hazards to flight, especially airspace obstructions, can be assessed. The following FAA regulations and documents, and any later versions of these documents, are specifically relevant.

- *Federal Aviation Regulations (FAR) Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace* (provides standards regarding FAA notification of proposed objects and height limits of objects near airports).
- *FAA Advisory Circular 150/5300-13, Airport Design* (provides standards regarding safety-related areas in the immediate vicinity of runways).
- *Advisory Circular 70/7460-1K, Obstruction Marking and Lighting* (sets standards for how essential marking and lighting should be designed).

These regulations and standards do not give the FAA authority to prevent the creation of hazards to flight. That authority rests with state and local government. The State of California has enacted regulations enabling state and *Local Agencies* to enforce the FAA standards. The *ALUC* policies are intended to help implement the federal and state regulations.

#### **Factors Considered in Setting Airspace Protection / Wildlife Hazard Compatibility Criteria**

Natural features and agricultural practices near airports include open water and food sources that are attractive to wildlife, especially waterfowl and other bird species. FAA data indicates that aircraft using the *Airport* have experienced a high incidence of bird strikes compared to other airports nationwide. The *Compatibility Plan* relies upon the wildlife hazard guidelines established by the FAA in the following Advisory Circulars:

- *FAA Advisory Circular 150/5200-33B, Hazardous Wildlife Attractants On or Near Airports* (provides guidance on types of attractants to be avoided).
- *FAA Advisory Circular 150/5200-34A, Construction or Establishment of Landfills near Public Airports* (sets guidelines on proximity of these facilities to airports).

- 3.4.1. *Evaluating Airspace Protection / Object Height Compatibility for New Development:* The object height compatibility of proposed land uses within an *Airport Influence Area* shall be evaluated in accordance with the policies in this section, including the *Airspace Protection Surfaces* depicted on **Maps MOD-4** and **OAK-4**, *Compatibility Policy Maps: Airspace Protection / Object Heights*.
- (a) The airspace protection surfaces are drawn in accordance with FAR Part 77, Subpart C, and reflect the runway lengths, runway end locations, and approach types for each of the three runway configuration scenarios: existing, north-only extension of east runway, and split extension of east runway. **Maps MOD-4** and **OAK-4** depict the approach protection / height limit surfaces for these respective scenarios.
  - (b) The *Critical Airspace Protection Zone* consists of the FAR Part 77 primary surface and the area beneath portions of the approach and transitional surfaces to where these surfaces intersect with the horizontal surface.
  - (c) The *High Terrain Area* encompasses locations where the ground elevation exceeds or is within 35 feet beneath an airspace protection surface as defined by FAR Part 77 for an airport.
- 3.4.2. *Airspace Obstruction / Object Height Criteria:* The criteria for determining the acceptability of a *Project* with respect to height shall be based upon the standards set forth in Federal Aviation Regulations (FAR) Part 77, Subpart C, *Safe, Efficient Use and Preservation of the Navigable Airspace* and applicable airport design standards published by the FAA. Additionally, where an FAA aeronautical study of a proposed object is required as described in Policy 3.4.4, the results of that study shall be taken into account by the *ALUC* and the *Local Agency*.
- (a) Except as provided in Paragraphs (b) and (c) of this policy, no object, including a mobile object such as a vehicle or temporary object such as construction crane, shall have a height that would result in penetration of an *Airspace Protection Surface* are depicted on **Maps MOD-4** and **OAK-4**. Any object that penetrates one of these surfaces is, by FAA definition, deemed an *obstruction*.<sup>23</sup>
  - (b) Objects not situated within a *Critical Airspace Protection Zone* (see Policy 3.4.1(b)) may be allowed to have heights that penetrate the *Airspace Protection Surfaces* defined by FAR Part 77 criteria.
    - (1) The maximum allowable height for these objects is 35 feet above ground level.
    - (2) The height of all objects is subject to *Local Agency* zoning limits.
  - (c) Unless exempted under Paragraph (b) of this policy, a proposed object having a height that exceeds the *Airport's Airspace Protection Surface* shall be allowed only if *all* of the following apply:
    - (1) As the result of an aeronautical study, the FAA determines that the object would not be a *hazard* to air navigation.
    - (2) FAA or other expert analysis conducted under the auspices of the *ALUC* or *Airport* owner concludes that, despite being an airspace obstruction (not necessarily a *hazard*), the object would not cause any of the following:

---

<sup>23</sup> An *obstruction* may or may not be a *hazard*. The purpose of FAA aeronautical studies is to determine whether an obstruction is a hazard and, if so, what remedy is recommended. The FAA's remedies are limited to making changes to the airspace and an airport's approach procedures, but it also can indicate an objection to proposed structures that it deems to be a hazard.

- ▶ An increase in the ceiling or visibility minimums of the *Airport* for an existing or planned instrument procedure (a planned procedure is one that is formally on file with the FAA);
  - ▶ A reduction of the established operational efficiency and capacity of the *Airport*, such as by causing the usable length of the runway to be reduced; or
  - ▶ A conflict with the visual flight rules (VFR) airspace used for the *Airport* traffic pattern or en route navigation to and from the *Airport*.
- (3) Marking and lighting of the object will be installed as directed by the FAA aeronautical study or the California Division of Aeronautics and in a manner consistent with FAA standards in effect at the time the construction is proposed.<sup>24</sup>
- (4) An *Aviation Easement* is dedicated, in accordance with Policy 4.1.1, to the *Local Agency* that owns the *Airport*—County of Stanislaus, City of Modesto or City of Oakdale.
- (5) The proposed *Project*/plan complies with all policies of this *Compatibility Plan* related to noise and safety compatibility.
- 3.4.3. *Other Flight Hazards*: Land uses that may cause visual or electronic hazards, to aircraft in flight or taking off or landing at the *Airport* shall be allowed within the *Airport Influence Area* only if the uses are consistent with FAA rules and regulations.
- (a) Specific characteristics to be avoided include:
- (1) Sources of glare (such as from mirrored or other highly reflective buildings or building features) or bright lights (including search lights and laser light displays);
  - (2) Distracting lights that could be mistaken for airport lights;
  - (3) Sources of dust, steam, or smoke that may impair pilots' vision;
  - (4) Sources of steam or other emissions that cause thermal plumes or other forms of unstable air; and
  - (5) Sources of electrical interference with aircraft communications or navigation.
  - (6) Any proposed use that creates an increased attracton for wildlife and that is inconsistent with FAA rules and regulations. Of particular concern are landfills, conservation areas, open water, and certain recreational or agricultural uses that attract large flocks of birds which pose hazards to aircraft operations.<sup>25</sup>
- (b) To resolve any uncertainties with regard to the significance of the above types of flight hazards, *Local Agencies* should consult with FAA and airport officials.
- 3.4.4. *Requirements for FAA Notification of Proposed Construction or Alteration*: *Project* proponents are responsible for notifying the FAA about proposed construction that may affect navigable airspace.<sup>26</sup> The following is *ALUC* policy on this topic.

<sup>24</sup> Advisory Circular 70/7460-1J, *Obstruction Marking and Lighting*, or any later FAA guidance.

<sup>25</sup> See FAA Advisory Circular 150/5200-33b, "Hazardous Wildlife Attractants On and Near Airports" and 150/5200-34A, "Construction or Establishment of Landfills Near Public Airports."

<sup>26</sup> FAR Part 77 requires that a *Project* proponent submit notification of a proposal to the FAA where required by the provisions of FAR Part 77, Subpart B. California Public Utilities Code Sections 21658 and 21659 likewise includes this requirement. FAA notification requirements apply to all objects including structures, antennas, trees, mobile objects, and temporary objects such as construction cranes. The FAA will conduct an "aeronautical study" of the object(s) and determine whether the object(s) would be of a height that would constitute a hazard to air navigation. (See **Appendix C** of this *Compatibility Plan* for a copy of FAR Part 77 and online procedures for filing Form 7460-1.) FAA notification is required under the following circumstances:

- (a) The boundary of the FAA notification area for each airport is depicted on **Maps MOD-4** and **OAK-4**. Reference to FAA notification requirements is included here for informational purposes only, not as an *ALUC* policy.
- (b) *Local Agencies* should inform *Project* proponents of the requirements for notification to the FAA.
- (c) Any proposed development *Project* that includes construction of a structure or other object and that is required to be submitted to the *ALUC* for a consistency review in accordance with Policy 1.5.2 shall include a copy of the completed FAR Part 77 notification form (Form 7460-1) submitted to the FAA, if applicable, and of the resulting FAA findings from its aeronautical study (i.e., notice of determination letter). A proposed *Project* may be referred to the *ALUC* in advance of the completion of the FAA aeronautical study. However, the completed aeronautical study must be forwarded to the *ALUC* when available and the *ALUC* may reconsider its previous consistency determination if the FAA study provides new information and airspace protection was a factor in the *ALUC*'s determination.

3.4.5. *ALUC Review*: The requirement for notification to the FAA shall not by itself trigger an airport compatibility review of an individual *Project* by the *ALUC*. If the general plan of the *Local Agency* in which the *Project* is to be located has been determined by the *ALUC* to be consistent with this *Compatibility Plan*, then no *ALUC* review is required. If the general plan has not been made consistent, then the proposed *Project* must be referred to the *ALUC* for review if it qualifies as a *Major Land Use Action* (see Policy 1.5.2).

### 3.5. Overflight Compatibility

#### **Overflight Policy Background Information**

The following Overflight Compatibility Policy Background Information (in different typeface) has been considered in formulating the Overflight Compatibility policies and criteria in this section, but is provided for informational purposes only and does not itself constitute *ALUC* policy. For additional discussion of overflight compatibility concepts, see **Appendix D**.

#### **Policy Objective**

Noise from individual aircraft operations, especially by comparatively loud aircraft, can be intrusive and annoying in locations beyond the limits of the noise exposure areas addressed by the policies in Section 3.2. Sensitivity to aircraft overflight varies from one person to another.

The policies in this section serve primarily to establish the form and requirements for notification about airport proximity and aircraft overflight to be given in conjunction with *Local Agency* approval of new *Residential Development* and with certain real estate transactions involving existing *Residential Development*. Overflight policies do not apply to *Nonresidential Development*.

(a) The *Project* contains proposed structures or other objects that exceed the height standards defined in FAR Part 77, Subpart B. Objects shielded by nearby taller objects are exempted in accordance with FAR Part 77, Paragraph 77.15. Note that notification to the FAA under FAR Part 77, Subpart B, is required even for certain proposed construction that does not exceed the height limits allowed by Subpart C of the regulations. Also, the FAA notification area extends beyond the *Airport Influence Area* depicted on **Map 1, Airport Influence Area**.

(b) Any proposal for construction or alteration of a structure, including antennas, taller than 200 feet above the ground level at the site regardless of proximity to any airport.

### **Measures of Overflight Exposure**

The loudness and frequency of occurrence of individual aircraft noise events are key determinants of where airport proximity and aircraft overflight notification is warranted. Single-event noise levels are especially important in areas that are overflown regularly by aircraft, but that do not produce significant CNEL contours.

### **Factors Considered in Setting Overflight Compatibility Criteria**

Factors considered in establishing overflight criteria include the following:

- The boundary of the overflight area for the *Airport*, as depicted on **Maps MOD-5** and **OAK-5 Compatibility Policy Map: Overflight**, is drawn to encompass locations where aircraft approaching and departing from a commercial service airport typically fly at an altitude of less than approximately 1,500 feet above the *Airport* elevation. For a general aviation airport, the overflight envelope encompasses the area where approximately 80% or more of the aircraft overflight occurs, but not where every aircraft or helicopter flies when using the airport.
- Note that the flight altitude above ground level will be more or less than this amount depending upon the terrain below. Areas of high terrain beneath the traffic patterns are exposed to comparatively greater noise levels, a factor that is considered in the overflight policies.
- To be most effective, overflight policies should establish notification requirements for transactions involving *Existing Land Uses*, not just future development. However, the *ALUC* only has authority to set requirements for new development and to define the boundaries within which airport proximity disclosure in conjunction with real estate transactions should be provided as specified under state law.
- State airport proximity disclosure law applies to existing development, but not to all transactions. [California state statutes (*Business and Professional Code Section 11010* and *Civil Code Sections 1102.6, 1103.4, and 1353*) require that, as part of many residential real estate transactions, information be disclosed regarding whether the property is situated within an *Airport Influence Area*. These state requirements apply to the sale or lease of newly subdivided lands and condominium conversions and to the sale of certain existing residential property. In general, *Airport Proximity Disclosure* is required with existing residential property transfer only when certain natural conditions (earthquake, fire, or flood hazards) warrant disclosure.]

- 3.5.1. *Evaluating Overflight Compatibility*: Unlike the function of the noise, safety, and airspace protection compatibility policies in this *Compatibility Plan*, the overflight compatibility policies set forth in this section do not restrict the manner in which land can be developed or used. The policies in this section serve primarily to establish the form and requirements for notification about airport proximity and aircraft overflights to be given in conjunction with *Local Agency* approval of new development and with certain real estate transactions involving existing development. An additional function of the overflight compatibility policies is to provide non-mandatory guidance to *Local Agencies* regarding the suitability of *Residential Development* within overflight impacted areas of the *Airport* environs. The boundaries of the overflight zones are shown on **Maps MOD-5** and **OAK-5, Compatibility Policy Map: Overflight**.
- 3.5.2. *Recorded Overflight Notification*: As a condition for *Local Agency* discretionary approval of residential land use development within the secondary approach area indicated on **Maps MOD-5** and **OAK-5**, an overflight notification shall be recorded.
- (a) The notification shall be of a format similar to that indicated in **Appendix H** and shall contain the following language dictated by state law with regard to *Airport Proximity Disclosure* in conjunction with real estate transfer:

**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.

- (b) The notification shall be evident to prospective purchasers of the property and shall appear on the property deed.
  - (c) A separate *Recorded Overflight Notification* is not required where an *Avigation Easement* is provided.
  - (d) Recording of an *Overflight Notification* is not required for Nonresidential Development.
- 3.5.3. *Airport Proximity Disclosure:* State law requires that notice disclosing information about the presence of a nearby airport be given to prospective buyers of certain residential real estate within an *Airport Influence Area*. The statutes define an *Airport Influence Area* as “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.”<sup>27</sup> *ALUC* policy with regard to *Airport Proximity Disclosure* is as follows:
- (a) For existing residences:
    - (1) State law indicates that the *ALUC* is responsible for delineating the area within which *Airport Proximity Disclosure* is appropriate. The recommended *Airport Proximity Disclosure* area for each airport is identified on **Map MOD-5, OAK-5 and CRO-5**, and includes the entire *Airport Influence Area*.
    - (2) To the extent that real estate transactions involve existing residences, *Airport Proximity Disclosure* is a matter between private parties. The *ALUC* has no authority to mandate that *Airport Proximity Disclosure* be provided and neither the *ALUC* nor *Local Agencies* have any enforcement responsibilities.
    - (3) *Airport Proximity Disclosure* should be provided as part of *all* real estate transactions (sale, lease, or rental) involving residential property anywhere within the *Airport Influence Area*.
  - (b) For proposed Residential Development:
    - (1) The disclosure provisions of state law are deemed mandatory for *new Residential Development* anywhere within the *Airport Influence Area* and shall continue in effect as *ALUC* policy even if the state law is made less stringent or rescinded. The disclosure shall be of a format similar to that indicated in **Appendix H** and shall contain the language dictated by state law (see Policy 3.5.2(a)).
    - (2) Signs providing the above notice and a map of the *Airport Influence Area* shall be prominently posted in the real estate sales office and/or other key locations at any new *Residential Development* within the *Airport Influence Area*.

<sup>27</sup> See *California Business and Professions Code Section 11010(b)* and *Civil Code Section 1353(a)*.

## 4. OTHER COMPATIBILITY POLICIES

### 4.1. Policies for Special Circumstances

- 4.1.1. *Avigation Easement Dedication*: As a condition for approval of *Projects* that are subject to the review provisions of this *Compatibility Plan* and that meet the conditions in Paragraphs (a) and (b) of this policy, the property owner shall be required to dedicate an *Avigation Easement* to the County of Stanislaus, City of Modesto, or City of Oakdale.
- (a) Avigation easement dedication is required for all off-airport *Projects* situated within the following portions of the *Airport Influence Area* as depicted on **Maps MOD-5, OAK-5, and CRO-5**:
- (1) All locations within the Primary Approach Area. This area is comprised of:
    - ▶ All locations within the CNEL 60 dB contour depicted on **Maps MOD-2, OAK-2, and CRO-2**.
    - ▶ All locations within Safety Zones 1 through 5 as depicted on **Maps MOD-3, OAK-3, and CRO-3**.
    - ▶ All locations within the *Critical Airspace Protection Zone* as depicted on **Maps MOD-4, OAK-4, and CRO-4**.
- (b) *Avigation Easement* dedication shall be required for any proposed development, including *Infill* development, for which discretionary local approval is required. *Avigation Easement* dedication is not required for ministerial approvals such as building permits. Further, unless previously required prior to the Effective Date of this *Compatibility Plan*, the requirement to dedicate an *Avigation Easement* shall not be applicable to *Existing Land Uses* located within the area where dedication is required for new land use *Projects*.
- (c) The *Avigation Easement* shall:
- (1) Provide the right of flight in the airspace above the property;
  - (2) Allow the generation of noise and other impacts associated with aircraft overflight;
  - (3) Restrict the height of structures, trees and other objects in accordance with the policies in Section 3.4;
  - (4) Permit access to the property for the removal or aeronautical marking of objects exceeding the established height limit (if not accomplished by the property owner, these actions can be taken by the *Airport* at the property owner's expense); and
  - (5) Prohibit electrical interference, glare, and other potential hazards to flight from being created on the property.
- (d) An example of an *Avigation Easement* is provided in **Appendix H**.
- 4.1.2. *Infill*: Where land uses not in conformance with the criteria set forth in this *Compatibility Plan* exist at the time of the plan's adoption, *Infill* development of similar land uses may be allowed to occur in that area even if the proposed new land use is otherwise incompatible with respect to the compatibility criteria for that location.
- (a) *Infill* development is not permitted in the following locations.
- (1) Within Safety Zones 1 and 5 (the runway protection zones and within the runway primary surface), no infill development shall be permitted.
  - (2) Within Safety Zone 2, residential *Infill* development shall not be permitted except as allowed by Policy 1.4.4 regarding existing residential parcels.



- (3) Within the CNEL 65 dB noise contour as depicted on **Map 2, Compatibility Policy Map: Noise**, residential *Infill* development shall not be allowed.<sup>28</sup>
- (b) In other locations within *Referral Area 1*, a *Project* site can be considered for *Infill* development if it either:
- (1) Is part of a cohesive area, defined by the local land use jurisdiction and accepted by the *ALUC*, within which at least 65% of the uses were developed prior to the *Compatibility Plan* adoption with uses not in conformance with the plan; or
  - (2) Meets *all* of the following conditions:
    - ▶ At least 65% of the site's perimeter is bounded (disregarding roads) by existing (as of the Effective Date of this *Compatibility Plan*) uses similar to, or more intensive than, those proposed;
    - ▶ An individual *Project* site within an identified *Infill* area must be no larger than 20 acres;
    - ▶ The proposed *Project* would not extend the perimeter of the area defined by the surrounding, already developed, incompatible uses; and
    - ▶ Land uses proposed for the *Infill* area are consistent with the *Local Agency's* zoning regulations governing the existing, already developed, surrounding area.
- (c) The *Density* of *Infill Residential Development* in Safety Zones 3 and 4, the average development density (dwelling units per acre) of the site shall not exceed the median density represented by all existing residential lots that lie fully or partially within a distance of 300 feet from the boundary of the defined infill area.
- (d) For *Infill Nonresidential Development*, the average usage *Intensity* (the number of people per acre) of the site's proposed use shall not exceed the lesser of:
- (1) The median *Intensity* of all existing nonresidential uses that lie fully or partially within a distance of 300 feet from the boundary of the defined *Infill* area; or
  - (2) Double the *Intensity* permitted in accordance with the criteria for that location as indicated in **Table 2**.
- (For example, if the zone allows 100 people per acre and the median of nearby *Existing Land Uses* is 150 people per acre, the *Infill* development would be limited to 150 people per acre rather than 200.)
- (e) The single-acre *Density* and *Intensity* limits described in Policies 3.3.9 and listed in **Table 2** are applicable to *Infill* development. Also, the sound attenuation and *Avigation Easement* dedication requirements set by Policies 3.2.3 and 4.1.1 shall apply to *Infill* development.
- (f) The *ALUC* prefers that all parcels eligible for *Infill* be identified at one time by the *Local Agency*.
- (1) The *Local Agency* is responsible for identifying, in its general plan or other adopted planning document approved by the *ALUC*, the qualifying locations that lie within that *Local Agency's* boundaries. This action may take place in conjunction with the process of amending a general plan for consistency with the *ALUC* plan or may be submitted by the *Local Agency* for consideration by the *ALUC* at the time of initial adoption of this *Compatibility Plan*.

<sup>28</sup> The effect of this policy is that *Infill Residential Development* is allowed at a 5 dB higher noise level than is the acceptable limit for other new *Residential Development* as set by Policy 3.2.2(a).

- (2) If a map identifying locations suitable for *Infill* has not been submitted by the *Local Agency* and approved by the *ALUC* or the site of an individual *Project* proposal does not fall within the identified *Infill* area, the *ALUC* may evaluate the *Project* to determine whether it would meet the qualifying conditions listed in Paragraphs (a) and (b) of this policy.
  - (3) In either case, the burden for demonstrating that an area or an individual site qualifies as *Infill* rests with the affected *Local Agency* and/or *Project* proponent and is not the responsibility of the *ALUC*.
- 4.1.3. *Existing Nonconforming Uses*: Proposed changes to *Existing Land Uses* that are not in conformance with the compatibility criteria in this *Compatibility Plan* are subject to *ALUC* review if the changes would result in increased nonconformity with the compatibility criteria. Proposed changes, whether to a parcel or building, are limited as follows:
- (a) Residential uses:
    - (1) A *Nonconforming* residential land use may be continued, sold, leased, or rented without *ALUC* restriction or review.
    - (2) A *Nonconforming* single-family dwelling may be maintained, remodeled, reconstructed (see Policy 4.1.4(a)), or expanded in size. The lot line of an existing single-family residential parcel may be adjusted. Also, a new single-family residence may be constructed on an existing lot in accordance with Policy 1.4.4. However:
      - ▶ Any remodeling, *Reconstruction*, or expansion must not increase the number of dwelling units. For example, a bedroom could be added to an existing residence, but an additional dwelling unit could not be built on the parcel unless that unit is a secondary dwelling unit as defined by state and local laws.
      - ▶ A single-family residential parcel may not be divided for the purpose of allowing additional dwellings to be constructed.
    - (3) Nonconforming multi-family residential dwellings may be maintained, remodeled, or reconstructed (see Policy 4.1.4(a)). The size of individual dwelling units may be increased, but additional dwelling units may not be added.
    - (4) Sound attenuation and *Avigation Easement* dedication shall be provided where required by Policies 3.2.3 and 4.1.1.
  - (b) Nonresidential uses (other than children's schools):
    - (1) A nonconforming nonresidential use may be continued, sold, leased, or rented without *ALUC* restriction or review.
    - (2) Nonconforming nonresidential facilities may be maintained, altered, or, if required by state law, reconstructed (see Policy 4.1.4). However, any such work:
      - ▶ Must not result in expansion of either the portion of the site devoted to the *Nonconforming Use* or the floor area of the buildings; and
      - ▶ Must not result in an increase in the usage *Intensity* (the number of people per acre) above the levels existing at the time of adoption of this *Compatibility Plan*.
    - (3) Sound attenuation and *Avigation Easement* dedication shall be provided where required by Policies 3.2.3 and 4.1.1.
  - (c) Children's schools (including grades K-12, day care centers with more than 14 children, and school libraries):

- (1) Land acquisition for new schools or expansion of existing school sites is not permitted where projected noise impacts exceed CNEL 60 dB (see **Map 2**) or in Safety Zones 1 through 5.
  - (2) Replacement or expansion of buildings at existing schools is also not allowed in these noise or safety zones, except that one-time expansion accommodating no more than 50 students is permitted where projected noise impacts are between CNEL 60 and 65 dB. This limitation does not preclude work required for normal maintenance or repair.
  - (3) Sound attenuation and *Avigation Easement* dedication shall be provided where required by Policies 3.2.3 and 4.1.1.
- 4.1.4. *Reconstruction*: An existing nonconforming development that has been fully or partially destroyed as the result of a calamity or natural and unavoidable catastrophe, and would otherwise not be reconstructed but for the calamity or catastrophe, may be rebuilt only under the following conditions:
- (a) Single-family or multi-family residential *Nonconforming Uses* may be rebuilt provided that the *Reconstruction* does not result in more dwelling units than existed on the parcel at the time of the damage. Addition of a secondary dwelling unit to a single-family residence is permitted if in accordance with state law and local regulations.
  - (b) A nonresidential *Nonconforming Use* may be rebuilt provided that the *Reconstruction* does not increase the floor area of the previous structure or result in an increased *Intensity* of use (i.e., more people per acre).
  - (c) Reconstruction under Paragraphs (a) or (b) above:
    - (1) Must have a permit deemed complete by the *Local Agency* within twelve (12) months of the date the damage occurred.
    - (2) Shall incorporate sound attenuation features to the extent required by Policy 3.2.3.
    - (3) Shall comply with Federal Aviation Regulations Part 77 requirements (see Policy 3.4.2).
  - (d) *Reconstruction* in accordance with Paragraphs (a), (b), and (c) of this policy shall not be allowed where it would be in conflict (not in conformance) with the general plan or zoning ordinance of the *Local Agency*.
  - (e) Nothing in the above policies is intended to preclude work required for normal maintenance and repair.
- 4.1.5. *Special Conditions Exception*: The compatibility criteria set forth in this *Compatibility Plan* are intended to be applicable to all locations within the *Airport Influence Area* for each airport that is hat are under the jurisdiction of the Airport Land Use Commission for Stanislaus County. However, there may be specific situations where a normally incompatible use can be considered compatible because of terrain, specific location, or other extraordinary factors or circumstances related to the site.
- (a) After due consideration of all the factors involved in such situations, the *ALUC* may find a normally incompatible use to be acceptable.
  - (b) In reaching such a decision, the *ALUC* shall make specific findings as to the nature of the extraordinary circumstances that warrant the policy exception and why the exception is being made. Findings also shall be made that the land use will neither create a safety

hazard to people on the ground or aircraft in flight nor result in excessive noise exposure for the proposed use.

- (c) Approval of a special conditions exception for a proposed *Project* shall require a two-thirds approval of the *ALUC* members voting on the matter and shall not be delegated to the *ALUC Secretary* for approval.
- (d) The burden for demonstrating that special conditions apply to a particular *Development Proposal* rests with the *Project* proponent and/or the referring *Local Agency*, not with the *ALUC*.
- (e) The granting of a special conditions exception shall be considered site specific and shall not be generalized to include other sites.

## 4.2. Site-Specific Exceptions

- 4.2.1. *General:* In adoption of this *Compatibility Plan*, the *ALUC* has determined that certain known *Projects* warrant special conditions treatment as envisioned by Policy 4.1.5. These site-specific exceptions and the criteria to be applied to them are as described in the following policies of this section. *[This is a placeholder policy to be included if a need for exceptions is identified during CEQA analysis and/or public review of the draft Compatibility Plan]*

## 4.3. General Plan Consistency with Compatibility Plan

- 4.3.1. *Statutory Requirement:* State law requires that each *Local Agency* having territory within an *Airport Influence Area* modify its general plan and any applicable specific plan to be consistent with the compatibility plan for the particular airport unless it takes the steps required to overrule the *ALUC*. In order for a general plan to be considered consistent with this *Compatibility Plan*, the following must be accomplished:<sup>29</sup>
- 4.3.2. *Elimination of Conflicts:* No direct conflicts can exist between the two plans.
  - (a) Direct conflicts primarily involve general plan land use designations that do not meet the *Density* or *Intensity* criteria specified in Section 3.3 of this *Compatibility Plan*. In addition, conflicts with regard to other policies—height limitations in particular—may exist.
  - (b) A general plan cannot be found inconsistent with the *Compatibility Plan* because of land use designations that reflect *Existing Land Uses* even if those designations conflict with the compatibility criteria of this *Compatibility Plan*. General plan land use designations that merely echo the *Existing Land Uses* are exempt from requirements for general plan consistency with the *Compatibility Plan*.<sup>30</sup>
  - (c) Proposed *Redevelopment* or other changes to *Existing Land Uses* are not exempt from compliance with this *Compatibility Plan* and are subject to *ALUC* review in accordance with Policies 1.5.1 and 1.5.2. To ensure that *Nonconforming Uses* do not become more nonconforming, general plans or implementing documents must include policies setting limitations on expansion and *Reconstruction* of *Nonconforming Uses* located within an the *Airport Influence Area* consistent with Policies 4.1.3 and 4.1.4.

<sup>29</sup> See Chapter 1 and **Appendix G** for additional guidance.

<sup>30</sup> This exemption derives from state law which proscribes *ALUC* authority over *Existing Land Uses*.

- (d) To be consistent with the *Compatibility Plan*, a general plan and/or implementing ordinance also must include provisions ensuring long-term compliance with the compatibility criteria. For example, future reuse of a building must not result in a usage *Intensity* that exceeds the applicable standard or other limit approved by the *ALUC*.
- 4.3.3. *Establishment of Review Process: Local Agencies* must define the process they will follow when reviewing proposed land use development within an *Airport Influence Area* to ensure that the development will be consistent with the policies set forth in this *Compatibility Plan*. Local agencies must refer all proposed actions identified in Policy 1.5.4, Major Land Use Actions, to the *ALUC* for review until such time that the *ALUC* finds that the agency's general plan or specific plan is consistent with the *ALUCP* or the local agency has overruled an *ALUC* determination of inconsistency regarding the general plan or specific plan.
- (a) The process established must ensure that the proposed development is consistent with the land use or zoning designation indicated in the *Local Agency's* general plan, specific plan, zoning ordinance, and/or other development regulations that the *ALUC* has previously found consistent with this *Compatibility Plan* and that the development's subsequent use or reuse will remain consistent with the policies herein over time. Additionally, consistency with other applicable compatibility criteria—e.g., usage *Intensity*, height limitations, *Aviation Easement* dedication—must be assessed.
- (b) The review process may be described either within the general plan or specific plan(s) themselves or in implementing ordinances. Local jurisdictions have the following choices for satisfying this review process requirement:
- (1) Sufficient detail can be included in the general plan or specific plan(s) and/or referenced implementing ordinances and regulations to enable the local jurisdiction to assess whether a proposed development fully meets the compatibility criteria specified in the applicable compatibility plan (this means both that the compatibility criteria be identified and that *Project* review procedures be described);
  - (2) The *Compatibility Plan* can be adopted by reference (in this case, the *Project* review procedure must be described in a separate policy document or memorandum of understanding presented to and approved by the *ALUC*); and/or
  - (3) The general plan can indicate that all *Land Use Actions*, or a list of *Land Use Action* types agreed to by the *ALUC*, shall be submitted to the *ALUC* for review in accordance with the policies of Section 2.3.

#### 4.4. Criteria for Review of Airport Plans

- 4.4.1. *Substance of Review:* In accordance with state law, any new or amended airport master plan or development plan is subject to *ALUC* review for consistency with this *Compatibility Plan* (see Policy 1.5.5). In conducting any such review, the *ALUC* shall evaluate whether the airport plan would result in greater noise, safety, airspace protection, or overflight impacts than indicated in this *Compatibility Plan*. Attention should specifically focus on:
- (a) Proposals for facilities or procedures not assumed herein, specifically:
- (1) Construction of a new runway or helicopter takeoff and landing area.
  - (2) Change in the length, width, or landing threshold location of an existing runway.
  - (3) Establishment of an instrument approach procedure that changes the approach capabilities at a particular runway end.

- (4) Modification of the flight tracks associated with existing visual or instrument operations procedures.
  - (b) New activity forecasts that are: (1) significantly higher than those used in developing **Map 2, Compatibility Policy Map: Noise**; or (2) assume a higher proportion of larger or noisier aircraft.
- 4.4.2. *Noise Impacts of Airport Expansion:* Any proposed expansion of airport facilities that would result in a significant increase in cumulative noise exposure (measured in terms of CNEL) shall include measures to reduce the exposure to a less-than-significant level. For the purposes of this plan, a noise increase shall be considered significant if:
- (a) In locations having an existing ambient noise level of CNEL 60 dB or less, the *Project* would increase the noise level by 3.0 dB or more.
  - (b) In locations having an existing ambient noise level of more than CNEL 60 dB, the *Project* would increase the noise level by 1.5 dB or more.
- 4.4.3. *Consistency Determination:* The *ALUC* shall determine whether the proposed airport plan or development plan is consistent with this *Compatibility Plan*. The *ALUC* shall base its determination of consistency on:
- (a) Findings that the development and forecasts identified in the airport plan would not result in greater noise, safety, airspace protection, or overflight impacts on surrounding land uses than are assumed in this *Compatibility Plan*.
  - (b) Consideration of:
    - (1) Mitigation measures incorporated into the plan or *Project* to reduce any increases in the noise, safety, airspace protection, and overflight impacts to a less-than-significant level in accordance with provisions of CEQA; or
    - (2) In instances where the impacts cannot be reduced to a less-than-significant level, a statement of overriding considerations approved by airport owner in accordance with provisions of CEQA.
  - (c) A determination that any nonaviation development proposed for locations within the *Airport* boundary (excluding federal- or state-owned property) will be consistent with the compatibility criteria and policies indicated in this *Compatibility Plan* with respect to the *Airport* (see Policy 1.2.10 for definition of aviation-related use).

Land Use Category	Exterior Noise Exposure <sup>1</sup> (CNEL dB)					Criteria for Conditional Uses
	≤ 55	55-60	60-65	65-70	≥ 70	
<ul style="list-style-type: none"> <li>Multiple land use categories and compatibility criteria may apply to a project</li> <li>Land uses not specifically listed shall be evaluated using the criteria for similar uses</li> </ul>						<ul style="list-style-type: none"> <li>Interior noise level limits shown in yellow cells also apply (see Policy 3.2.3)</li> <li>An acoustical study may be prudent for noise-sensitive uses proposed in areas exposed to CNEL 60 dB or greater (see Policy 3.2.3(d))</li> </ul>
<b>Legend</b> (see last page of table for interpretation)	Normally Compatible			Conditional		Incompatible
<b>Outdoor Uses (limited or no activities in buildings)</b>						
Natural Land Areas: woods, brush lands, desert						Compatible at levels indicated, but noise disruption of natural quiet will occur
Water: flood plains, wetlands, lakes, reservoirs						
Agriculture (except residences and livestock): crops, orchards, vineyards, pasture, range land						
Livestock Uses: feed lots, stockyards, breeding, fish hatcheries, horse stables						Exercise caution with uses involving noise-sensitive animals <sup>2</sup>
Outdoor Major Assembly Facilities (capacity ≥ 1,000 people): spectator-oriented outdoor stadiums, amphitheaters, fairgrounds, zoos						Exercise caution if clear audibility by users is essential <sup>3</sup>
Group Recreation (limited spectator stands): athletic fields, water recreation facilities, picnic areas						Exercise caution if clear audibility by users is essential <sup>3</sup>
Small/Non-Group Recreation: golf courses, tennis courts, shooting ranges						Exercise caution if clear audibility by users is essential <sup>3</sup>
Local Parks: children-oriented neighborhood parks, playgrounds						Exercise caution if clear audibility by users is essential <sup>3</sup>
Camping: campgrounds, recreational vehicle/motor home parks						
Cemeteries (excluding chapels)						Compatible at levels indicated, but noise disruption of outdoor activities will occur
<b>Residential and Lodging Uses</b>						
Single-Family Residential: individual dwellings, townhouses, mobile homes, bed & breakfast inns		45				
Multi-Family Residential (≥ 8 d.u./acre)		45				
Long-Term Lodging (> 30 nights): extended-stay hotels, dormitories		45				
Short-Term Lodging (≤ 30 nights): hotels, motels, other transient lodging (except conference/assembly facilities)		45				
Congregate Care: retirement homes, assisted living, nursing homes, intermediate care facilities		45				
<b>Educational and Institutional Uses</b>						
Family day care homes (≤ 14 children)		45				
Children's Schools: K-12, day care centers (> 14 children); school libraries		45				

Table 1

## Noise Compatibility Criteria

Modesto City-County Airport, Oakdale Municipal Airport

Land Use Category	Exterior Noise Exposure <sup>1</sup> (CNEL dB)					Criteria for Conditional Uses
	≤ 55	55-60	60-65	65-70	≥ 70	
<ul style="list-style-type: none"> <li>Multiple land use categories and compatibility criteria may apply to a project</li> <li>Land uses not specifically listed shall be evaluated using the criteria for similar uses</li> </ul>						<ul style="list-style-type: none"> <li>Interior noise level limits shown in yellow cells also apply (see Policy 3.2.3)</li> <li>An acoustical study may be prudent for noise-sensitive uses proposed in areas exposed to CNEL 60 dB or greater (see Policy 3.2.3(d))</li> </ul>
<b>Legend</b> (see last page of table for interpretation)	Normally Compatible			Conditional		Incompatible
Adult Education classroom space: adult schools, colleges, universities (excluding aviation-related schools)		45	45			Applies only to classrooms (acoustical study may be warranted); offices, laboratory facilities, gymnasiums, outdoor athletic facilities, and other uses to be evaluated as indicated for those land use categories
Community Libraries		45				
Indoor Major Assembly Facilities (capacity ≥ 1,000 people): auditoriums, conference centers, concert halls, indoor arenas			45	45		
Indoor Large Assembly Facilities (capacity 300 to 999 people): movie theaters, places of worship, cemetery chapels, mortuaries			45	45		Acoustical study may be warranted for noise-sensitive uses (e.g., places of worship) See Policy 3.2.3(d)
Indoor Small Assembly Facilities (capacity < 300 people): places of worship, cemetery chapels, mortuaries, meeting halls			45	45		Acoustical study may be warranted for noise-sensitive uses (e.g., places of worship) See Policy 3.2.3(d)
Indoor Recreation: gymnasiums, club houses, athletic clubs, dance studios				45		
In-Patient Medical: hospitals, mental hospitals			45			Acoustical study may be warranted See Policy 3.2.3(d)
Out-Patient Medical: health care centers, clinics			45	45		
Penal Institutions: prisons, reformatories			45			
Public Safety Facilities: police, fire stations				45		
<b>Commercial, Office, and Service Uses</b>						
Major Retail: regional shopping centers, 'big box' retail				50		Outdoor dining or gathering places incompatible above CNEL 65 dB
Local Retail: community/neighborhood shopping centers, grocery stores				50		Outdoor dining or gathering places incompatible above CNEL 65 dB
Eating/Drinking Establishments: restaurants, fast-food dining, bars						Outdoor dining or gathering places incompatible above CNEL 65 dB
Limited Retail/Wholesale: furniture, automobiles, heavy equipment, lumber yards, nurseries						Noise attenuation required for office areas See Policy 4.2.3
Offices: professional services, doctors, finance, civic; radio, television & recording studios, office space associated with other listed uses				50		
Personal & Miscellaneous Services: barbers, car washes, print shops				50		
Vehicle Fueling: gas stations, trucking & transportation terminals					50	Noise attenuation required for office areas See Policy 3.2.3

Table 1, continued



Land Use Category	Exterior Noise Exposure <sup>1</sup> (CNEL dB)					Criteria for Conditional Uses
	≤ 55	55-60	60-65	65-70	≥ 70	
<ul style="list-style-type: none"> <li>› Multiple land use categories and compatibility criteria may apply to a project</li> <li>› Land uses not specifically listed shall be evaluated using the criteria for similar uses</li> </ul>						<ul style="list-style-type: none"> <li>› Interior noise level limits shown in yellow cells also apply (<i>see Policy 3.2.3</i>)</li> <li>› An acoustical study may be prudent for noise-sensitive uses proposed in areas exposed to CNEL 60 dB or greater (<i>see Policy 3.2.3(d)</i>)</li> </ul>
<b>Legend</b> (see last page of table for interpretation)	<b>Normally Compatible</b>			<b>Conditional</b>		<b>Incompatible</b>
<b>Industrial, Manufacturing, and Storage Uses</b>						
Hazardous Materials Production: oil refineries, chemical plants				50	50	Noise attenuation required for office areas <i>See Policy 3.2.3</i>
Heavy Industrial				50	50	Noise attenuation required for office areas <i>See Policy 3.2.3</i>
Light Industrial, High Intensity: food products preparation, electronic equipment				50	50	Noise attenuation required for office areas <i>See Policy 3.2.3</i>
Light Industrial, Low Intensity: machine shops, wood products, auto repair				50	50	Noise attenuation required for office areas <i>See Policy 3.2.3</i>
Research & Development				50		Noise attenuation required for office areas <i>See Policy 3.2.3</i>
Indoor Storage: wholesale sales, warehouses, mini/other indoor storage, barns, greenhouses						
Outdoor Storage: public works yards, automobile dismantling						
Mining & Extraction						
<b>Transportation, Communication, and Utilities</b>						
Rail & Bus Stations					50	Noise attenuation required for public and office areas <i>See Policy 3.2.3</i>
Transportation Routes: road & rail rights-of-way, bus stops						
Auto Parking: surface lots, structures						
Communications Facilities: emergency communications, broadcast & cell towers						
Power Plants						
Electrical Substations						
Wastewater Facilities: treatment, disposal						
Solid Waste Disposal Facilities: landfill, incineration						
Solid Waste Transfer Facilities, Recycle Centers						

Table 1, continued

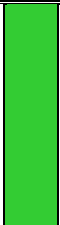
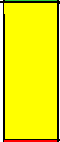
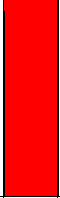
Land Use	Acceptability	Interpretation/Comments
	<i>Normally Compatible</i>	<p><i>Indoor Uses:</i> Either the activities associated with the land use are inherently noisy or standard construction methods will sufficiently attenuate exterior noise to an acceptable indoor community noise equivalent level (CNEL). For land use types that are compatible because of inherent noise levels, sound attenuation must be provided for associated office, retail, and other noise-sensitive indoor spaces sufficient to reduce exterior noise to an interior maximum of CNEL 45 dB.</p> <p><i>Outdoor Uses:</i> Except as noted in the table, activities associated with the land use may be carried out with minimal interference from aircraft noise.</p>
	<i>Conditional</i>	<p><i>Indoor Uses:</i> Building structure must be capable of attenuating exterior noise from all noise sources to the indoor CNEL indicated by the number in the cell (40, 45 or 50). See <i>Policy 4.2.3</i>.</p> <p><i>Outdoor Uses:</i> Caution should be exercised with regard to noise-sensitive outdoor uses; these uses are likely to be disrupted by aircraft noise events; acceptability is dependent upon characteristics of the specific use.<sup>2</sup></p>
	<i>Incompatible</i>	<p><i>Indoor Uses:</i> Unacceptable noise interference if windows are open; at exposures above CNEL 65 dB, extensive mitigation techniques required to make the indoor environment acceptable for performance of activities associated with the land use.</p> <p><i>Outdoor Uses:</i> Severe noise interference makes the outdoor environment unacceptable for performance of activities associated with the land use.</p>
<p><b>Notes</b></p> <p><sup>1</sup> For the purposes of these criteria, the exterior noise exposure generated by aircraft activity at airport involved is defined by the projected noise contours illustrated in Chapter 3 of this <i>Compatibility Plan</i>.</p> <p><sup>2</sup> This caution is directed at the project proponent and is not intended to preclude approval of the project.</p> <p><sup>3</sup> Noise-sensitive land uses are ones for which the associated primary activities, whether indoor or outdoor, are susceptible to disruption by loud noise events. See <i>Policy 1.2.26</i> for examples of noise-sensitive uses.</p>		

Table 1, continued

Land Use Category	Safety Zone						Criteria for Conditional Uses
	1	2	3	4	5	6	
<ul style="list-style-type: none"> <li>Multiple land use categories and compatibility criteria may apply to a project</li> <li>Land uses not specifically listed shall be evaluated using the criteria for similar uses</li> <li>Numbers in brackets for some uses are occupancy load factors <sup>1</sup></li> </ul>							<ul style="list-style-type: none"> <li>Numbers below indicate zone in which condition applies</li> <li>Nonresidential development must satisfy both forms of intensity limits (see Policy 3.3.3)</li> <li>Up to 10% of total floor area may be devoted to ancillary use (see Policy 3.3.3(d))</li> <li>See Policy 3.3.4 for information on how to calculate nonresidential intensity</li> <li>Maximum Intensity criteria apply to Normally Compatible as well as Conditional land uses</li> </ul>
<b>Max. Sitewide Average Intensity (people/acre)</b> <b>Max. Single-Acre Intensity (people/acre)</b> <i>applicable to all nonresidential development</i>	<b>10</b> <b>20</b> <sup>2</sup>	<b>60</b> <b>120</b>	<b>100</b> <b>300</b>	<b>150</b> <b>450</b>	<b>100</b> <b>300</b>	<b>300</b> <b>1000</b>	
<i>Legend (see last page of table for interpretation)</i>	Normally Compatible			Conditional		Incompatible	
<i>Outdoor Uses (limited or no activities in buildings)</i>							
Natural Land Areas: woods, brush lands, desert	Yellow	Green	Green	Green	Green	Green	1: Objects above runway elevation not allowed in Object Free Area (OFA) <sup>3</sup> All: Also see Airspace Protection Policy 3.4.3 regarding wildlife hazards to flight
Water: flood plains, wetlands, lakes, reservoirs <sup>4</sup>	Yellow	Green	Green	Green	Green	Green	1: Objects above runway elevation not allowed in Object Free Area (OFA) <sup>3</sup> All: Also see Airspace Protection Policy 3.4.3 regarding wildlife hazards to flight
Agriculture (except residences and livestock): crops, orchards, vineyards, pasture, range land	Yellow	Green	Green	Green	Green	Green	1: Not allowed in Object Free Area (OFA) <sup>3</sup> All: Also see Airspace Protection Policy 3.4.3 regarding wildlife hazards to flight
Livestock Uses: feed lots, stockyards, breeding, fish hatcheries, horse stables <sup>4</sup>	Red	Green	Green	Green	Green	Green	All: Also see Airspace Protection Policy 3.4.3 regarding wildlife hazards to flight
Outdoor Major Assembly Facilities (capacity ≥ 1,000 people): spectator-oriented outdoor stadiums, amphitheaters, fairgrounds, zoos <sup>5</sup>	Red	Red	Red	Red	Red	Yellow	6: Allowed only if alternative site outside zone would not serve intended function
Group Recreation (limited spectator stands): athletic fields, water recreation facilities, picnic areas	Red	Red	Yellow	Yellow	Red	Green	3, 4: Allowed only if alternative site outside zone would not serve intended function
Small/Non-Group Recreation: golf courses, <sup>4</sup> tennis courts, shooting ranges	Red	Yellow	Green	Green	Red	Green	2: Allowed only if alternative site outside zone would not serve intended function and intensity criteria met
Local Parks: children-oriented neighborhood parks, playgrounds	Red	Red	Red	Red	Red	Green	
Camping: campgrounds, recreational vehicle/motor home parks	Red	Red	Yellow	Yellow	Red	Green	3, 4: Allowed only if intensity criteria met
Cemeteries (except chapels)	Red	Green	Green	Green	Green	Green	

Table 2

## Safety Compatibility Criteria

Modesto City-County Airport, Oakdale Municipal Airport

Land Use Category	Safety Zone						Criteria for Conditional Uses
	1	2	3	4	5	6	
<ul style="list-style-type: none"> <li>Multiple land use categories and compatibility criteria may apply to a project</li> <li>Land uses not specifically listed shall be evaluated using the criteria for similar uses</li> <li>Numbers in brackets for some uses are occupancy load factors <sup>1</sup></li> </ul>							<ul style="list-style-type: none"> <li>Numbers below indicate zone in which condition applies</li> <li>Nonresidential development must satisfy both forms of intensity limits (see Policy 3.3.3)</li> <li>Up to 10% of total floor area may be devoted to ancillary use (see Policy 3.3.3(d))</li> <li>See Policy 3.3.4 for information on how to calculate nonresidential intensity</li> <li>Maximum Intensity criteria apply to Normally Compatible as well as Conditional land uses</li> </ul>
<b>Max. Sitewide Average Intensity (people/acre)</b> <b>Max. Single-Acre Intensity (people/acre)</b> <i>applicable to all nonresidential development</i>	10 20 <sup>2</sup>	60 120	100 300	150 450	100 300	300 1000	
<b>Legend</b> (see last page of table for interpretation)	Normally Compatible			Conditional		Incompatible	
<b>Residential and Lodging Uses</b>							
Single-Family Residential (<8 d.u./acre): individual dwellings, townhouses, mobile homes, bed & breakfast inns <sup>6</sup>							2: Incompatible at density >1 d.u./10.0 acres. Dwelling unit should be situated outside of safety zone boundaries where feasible 3: Incompatible at density >1 d.u./5.0 acres sitewide average or 0.2 d.u. per any single acre, except in the AIA for the Modesto City-County Airport, where density 1 d.u./2 acres sitewide average or 0.5 d.u. per any single acre 4: Incompatible at density >1 d.u./5 acres sitewide average or 0.2 d.u. per any single acre, except in the AIA for the Modesto City-County Airport, where density 1 d.u./2.5 acres sitewide average or 0.4 d.u. per any single acre
Multi-Family Residential (≥8 d.u./acre): condominiums, apartments, agricultural-related housing <sup>6</sup>							
Long-Term Lodging (>30 nights): extended-stay hotels, dormitories							
Short-Term Lodging (≤30 nights): hotels, motels, other transient lodging (except conference/assembly facilities) [approx. 200 s.f./person]							3, 4: Ensure intensity criteria met
Congregate Care: retirement homes, assisted living, nursing homes, intermediate care facilities <sup>7</sup>							
<b>Educational and Institutional Uses</b>							
Family day care homes (≤14 children)							3, 4: Allowed only in existing dwellings or where new single-family residential is allowed See Policy 3.3.2(d)
Children's Schools: K-12, day care centers (>14 children); school libraries <sup>7</sup>							3, 4: No new sites or land acquisition 6: Not allowed unless there are no other available/feasible sites outside of the safety zone 3, 4, 6: Bldg replacement/expansion allowed for existing school sites; expansion limited to ≤50 students (not school staff) See Policy 3.6.3(c)
Adult Education classroom space: adult schools, colleges, universities [approx. 40 s.f./person]							3, 4: Ensure intensity criteria met; also see individual components of campus facilities (e.g., assembly facilities, offices, gymnasiums)
Community Libraries [approx. 100 s.f./person]							3, 4: Ensure intensity criteria met

Table 2, continued




Land Use Category	Safety Zone						Criteria for Conditional Uses
	1	2	3	4	5	6	
<ul style="list-style-type: none"> <li>Multiple land use categories and compatibility criteria may apply to a project</li> <li>Land uses not specifically listed shall be evaluated using the criteria for similar uses</li> <li>Numbers in brackets for some uses are occupancy load factors <sup>1</sup></li> </ul>							<ul style="list-style-type: none"> <li>Numbers below indicate zone in which condition applies</li> <li>Nonresidential development must satisfy both forms of intensity limits (see Policy 3.3.3)</li> <li>Up to 10% of total floor area may be devoted to ancillary use (see Policy 3.3.3(d))</li> <li>See Policy 3.3.4 for information on how to calculate nonresidential intensity</li> <li>Maximum Intensity criteria apply to Normally Compatible as well as Conditional land uses</li> </ul>
<b>Max. Sitewide Average Intensity (people/acre)</b> <b>Max. Single-Acre Intensity (people/acre)</b> <i>applicable to all nonresidential development</i>	10 20 <sup>2</sup>	60 120	100 300	150 450	100 300	300 1000	
<b>Legend</b> (see last page of table for interpretation)	Normally Compatible			Conditional		Incompatible	
Indoor Major Assembly Facilities (capacity ≥ 1,000 people): auditoriums, conference centers, concert halls, indoor arenas <sup>4</sup>							6: Allowed only if beyond ½ mile from runway and alternative site outside zone would not serve intended function; not allowed within ½ mile of runway
Indoor Large Assembly Facilities (capacity 300 to 999 people): movie theaters, places of worship, cemetery chapels, mortuaries <sup>4</sup> [approx. 15 s.f./person]							3, 4: Ensure intensity criteria met
Indoor Small Assembly Facilities (capacity <300 people): places of worship, cemetery chapels, mortuaries, meeting halls [approx. 30 s.f./person]							3, 4: Ensure intensity criteria met
Indoor Recreation: gymnasiums, club houses, athletic clubs, dance studios [approx. 60 s.f./person]							3, 4: Ensure intensity criteria met
In-Patient Medical: hospitals, mental hospitals <sup>7</sup>							3, 4: No new sites or land acquisition; replacement/expansion of existing facilities limited to existing size
Out-Patient Medical: health care centers, clinics [approx. 240 s.f./person]							3, 4: Ensure intensity criteria met
Penal Institutions: prisons, reformatories <sup>7</sup>							
Public Safety Facilities: police, fire stations <sup>7</sup>							3, 4: Allowed only if alternative site outside zone would not serve intended public function 5: Allowed only if airport serving
<b>Commercial, Office, and Service Use</b>							
Major Retail: regional shopping centers, 'big box' retail [approx. 110 s.f./person]							3, 4: Ensure intensity criteria met; capacity <1,000 people per bldg; evaluate eating/ drinking areas separately if >10% of total floor area
Local Retail: community/neighborhood shopping centers, grocery stores [approx. 170 s.f./person]							3, 4: Ensure intensity criteria met; evaluate eating/ drinking areas separately if >10% of total floor area
Eating/Drinking Establishments: restaurants, fast-food dining, bars [approx. 60 s.f./person]							3-5: Ensure intensity criteria met
Limited Retail/Wholesale: furniture, automobiles, heavy equipment, lumber yards, nurseries [approx. 250 s.f./person]							2, 5: Ensure intensity criteria met; design site to place parking inside and bldgs outside of zone if possible
Offices: professional services, doctors, finance, civic; radio, television & recording studios, office space associated with other listed uses [approx. 215 s.f./person]							2-5: Ensure intensity criteria met 6: Review intensity compliance if >3 story bldg and <½ mile from runway

Table 2, continued

Land Use Category	Safety Zone						Criteria for Conditional Uses
	1	2	3	4	5	6	
<ul style="list-style-type: none"> <li>› Multiple land use categories and compatibility criteria may apply to a project</li> <li>› Land uses not specifically listed shall be evaluated using the criteria for similar uses</li> <li>› Numbers in brackets for some uses are occupancy load factors <sup>1</sup></li> </ul>							<ul style="list-style-type: none"> <li>› Numbers below indicate zone in which condition applies</li> <li>› Nonresidential development must satisfy both forms of intensity limits (see Policy 3.3.3)</li> <li>› Up to 10% of total floor area may be devoted to ancillary use (see Policy 3.3.3(d))</li> <li>› See Policy 3.3.4 for information on how to calculate nonresidential intensity</li> <li>› Maximum Intensity criteria apply to Normally Compatible as well as Conditional land uses</li> </ul>
<b>Max. Sitewide Average Intensity (people/acre)</b> <b>Max. Single-Acre Intensity (people/acre)</b> <i>applicable to all nonresidential development</i>	10 20 <sup>2</sup>	60 120	100 300	150 450	100 300	300 1000	
<b>Legend</b> (see last page of table for interpretation)	<b>Normally Compatible</b>			<b>Conditional</b>		<b>Incompatible</b>	
Personal & Miscellaneous Services: barbers, car washes, print shops [approx. 200 s.f./person]							2-5: Ensure intensity criteria met
Vehicle Fueling: gas stations, trucking & transportation terminals							5: Allowed only if airport serving
<b>Industrial, Manufacturing, and Storage Uses</b>							
Hazardous Materials Production: oil refineries, chemical plants <sup>7</sup>							6: Allowed only if alternative site outside zone would not serve intended function
Heavy Industrial <sup>7</sup>							3, 4: Avoid bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft
Light Industrial, High Intensity: food products preparation, electronic equipment [approx. 200 s.f./person]							2-4: Ensure intensity criteria met; avoid bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft
Light Industrial, Low Intensity: machine shops, wood products, auto repair [approx. 350 s.f./person]							2-4: Ensure intensity criteria met 5: Single story only; max. 10% in mezzanine 2-5: Avoid bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft
Indoor Storage: wholesale sales, warehouses, mini/other indoor storage, barns, greenhouses [approx. 1,000 s.f./person]							2, 5: Single story only; max. 10% in mezzanine
Research & Development [approx. 300 s.f./person]							3, 4: Ensure intensity criteria met; avoid bulk storage of hazardous (flammable, explosive, corrosive, or toxic) materials; permitting agencies to evaluate possible need for special measures to minimize hazards if struck by aircraft
Outdoor Storage: public works yards, automobile dismantling							
Mining & Extraction <sup>8</sup>							2: Allowed only if intensity criteria met

Table 2, continued

Land Use Category	Safety Zone						Criteria for Conditional Uses
	1	2	3	4	5	6	
<ul style="list-style-type: none"> <li>Multiple land use categories and compatibility criteria may apply to a project</li> <li>Land uses not specifically listed shall be evaluated using the criteria for similar uses</li> <li>Numbers in brackets for some uses are occupancy load factors <sup>1</sup></li> </ul>							<ul style="list-style-type: none"> <li>Numbers below indicate zone in which condition applies</li> <li>Nonresidential development must satisfy both forms of intensity limits (see Policy 3.3.3)</li> <li>Up to 10% of total floor area may be devoted to ancillary use (see Policy 3.3.3(d))</li> <li>See Policy 3.3.4 for information on how to calculate nonresidential intensity</li> <li>Maximum Intensity criteria apply to Normally Compatible as well as Conditional land uses</li> </ul>
<b>Max. Sitewide Average Intensity (people/acre)</b> <b>Max. Single-Acre Intensity (people/acre)</b> <i>applicable to all nonresidential development</i>	10 20 <sup>2</sup>	60 120	100 300	150 450	100 300	300 1000	
<b>Legend</b> (see last page of table for interpretation)	Normally Compatible			Conditional		Incompatible	
<b>Transportation, Communication, and Utilities</b>							
Airport Terminals: airline, general aviation							
Rail & Bus Stations							2: Allowed only if alternative site outside zone would not serve intended public function 5: Allowed only if airport serving
Transportation Routes: road & rail rights-of-way, bus stops							1: Not allowed in Object Free Area (OFA) <sup>2</sup>
Auto Parking: surface lots, structures							1: Not allowed in Object Free Area (OFA) <sup>2</sup>
Communications Facilities: emergency communications, broadcast & cell towers <sup>7,9</sup>							3-5: Allowed only if alternative site outside zone would not serve intended public function; not allowed within 1/2 of runway 6: Not allowed within 1/2 mile of runway
Power Plants <sup>7,9</sup>							
Electrical Substations <sup>7</sup>							2, 5: Allowed only if alternative site outside zone would not serve intended public function
Wastewater Facilities: treatment, disposal <sup>7</sup>							2, 5: Allowed only if alternative site outside zone would not serve intended public function
Solid Waste Disposal Facilities: landfill, incineration <sup>4</sup>							2: Allowed only if alternative site outside zone would not serve intended public function
Solid Waste Transfer Facilities, Recycle Centers <sup>3</sup>							

Land Use Acceptability	Interpretation/Comments
	<b>Normally Compatible</b> Normal examples of the use are compatible under the presumption that usage criteria will be met. Atypical examples may require review to ensure compliance with usage intensity criteria. Noise, airspace protection, and/or overflight limitations may apply.
	<b>Conditional</b> Use is compatible if indicated conditions are met.
	<b>Incompatible</b> Use should not be permitted under any circumstances.

**Notes**

- Common occupancy load factors source (approx. number of square feet per person): compiled by Mead & Hunt, Inc. based upon information from various sources including building and fire codes, facility management industry sources, and ALUC surveys.
- No new structures intended to be regularly occupied are allowed.
- Object Free Area (OFA): Dimensions are established by FAA airport design standards for the runway and are depicted on the respective Safety Zones Policy Maps in Chapter 3.
- These uses may attract birds or other wildlife that could pose hazards to flight. See Section 3.4 for applicable airspace protection policies.
- Occupancy limits for Large and Major Assembly Facilities coincide with International Building Code categories.
- Construction of a single-family home, including a second dwelling unit as defined by state law, allowed on a legal lot of record if such use is permitted by local land use regulations. A family day care home (serving ≤14 children) may be established in any dwelling. See Policies 2.3.4(a)(4) and 3.3.2(d).
- These uses constitute uses of special concern for which safety restrictions apply irrespective of usage intensities. See Policy 3.3.5.
- These uses may generate dust or other hazards to flight. See Section 3.4 for applicable policies.
- Power lines or other tall objects associated with these uses may be hazards to flight. See Section 3.4 for applicable policies.

Table 2, continued

**Table 2, continued**





Chapter **3**

**INDIVIDUAL AIRPORT POLICIES AND  
COMPATIBILITY MAPS**



---

# Individual Airport Policies and Compatibility Maps

## CHAPTER OVERVIEW

This chapter presents policies and maps that are specific to each of the three airports addressed in this document: Modesto City-County Airport, Oakdale Municipal Airport, and Crows Landing Airport. The respective section for each airport, combined with the general policies that comprise Chapter 2, represents the *Compatibility Plan* for that particular airport.

To the extent that any of the policies in Chapter 2 are not intended to apply to a particular airport, those modifications are indicated here. Any additional policies that apply only to a specific airport are listed as well. These special policies are not to be generalized or considered as precedent applicable to other locations near the same airport or to the environs of other airports addressed by this *Compatibility Plan*. Where no special policies are listed, the policies in Chapter 2 prevail.

For each airport, a set of five policy maps is provided:

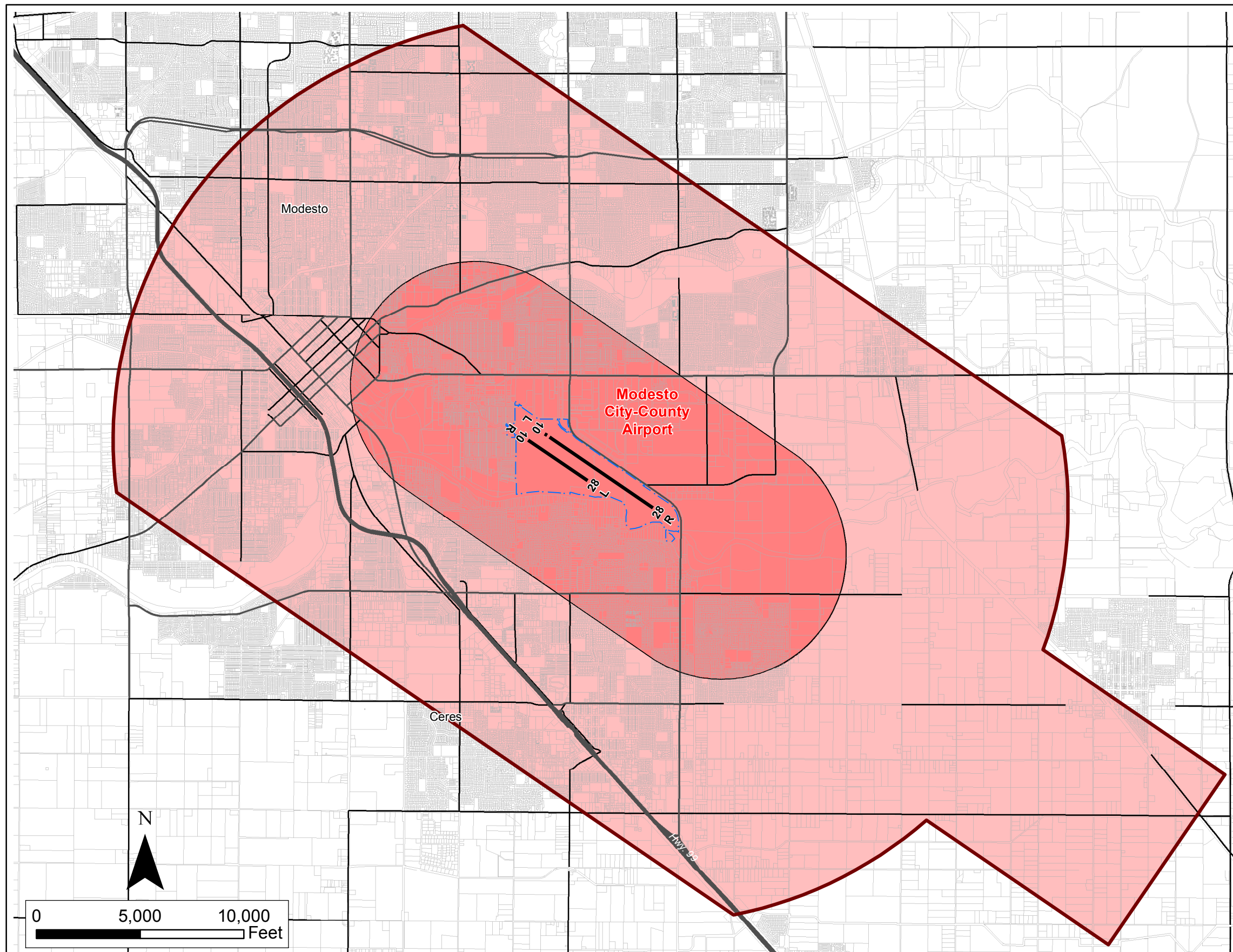
- › *Airport Influence Area Policy Maps* indicate the overall boundary of the area, as well as the two sub-areas—Referral Areas 1 and 2—within which certain land use actions are subject to ALUC review.
- › *Airport Noise Zones Policy Maps* depict the locations within which criteria addressing noise impacts are applicable.
- › *Safety Zones Policy Maps* show locations where certain types of proposed development may be restricted on the basis of safety compatibility with the airport.
- › *Airspace Protection Zones Policy Maps* define where limits on the heights of structures and other objects are necessary.
- › *Overflight Areas Policy Maps* show where policies providing certain buyer awareness measures are applicable.

These maps provide the geographic context for the compatibility policies set forth in Chapter 2. Information and other factors considered in developing the maps for each airport are described and illustrated in the background data chapters for the respective airports (Chapters 4 through 6).



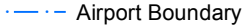
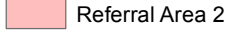
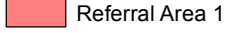

## **MOD. MODESTO CITY-COUNTY AIRPORT**

### **MOD.1 Additional Compatibility Policies**

MOD 1.1     None.



**Legend**

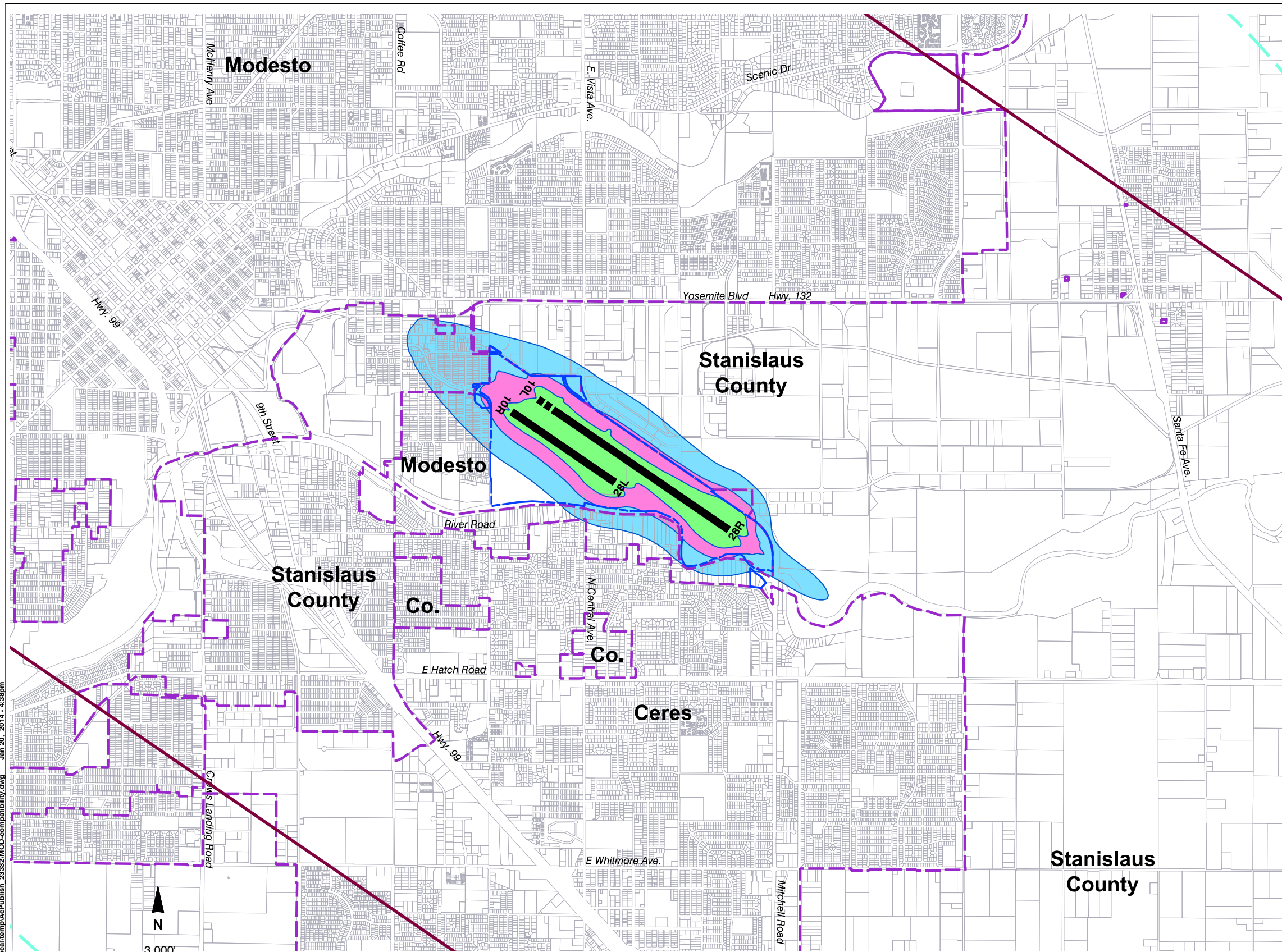
-  Road
-  City
-  Airport Boundary
-  Referral Area 2
-  Referral Area 1
-  Airport Influence Boundary

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Map MOD-1

Sources: City and County GIS Data (2009)





**Legend**

**Boundary Lines**

- Airport Property Line
- City Limits
- Existing Runway
- Future Runway
- Airport Influence Area

**Noise Impact Zones<sup>1</sup>**

- 60 - 65 dB CNEL
- 65 - 70 dB CNEL
- 70+ dB CNEL

**Notes**

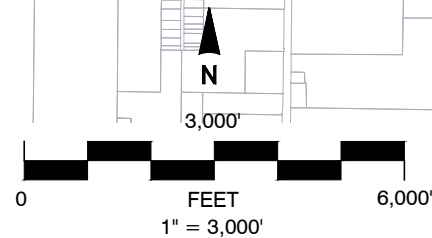
1. Noise Contours reflect long range scenario with 141,000 annual operations.

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Map MOD-2

**Airport Noise Zones Policy Map**  
 Modesto City-County Airport

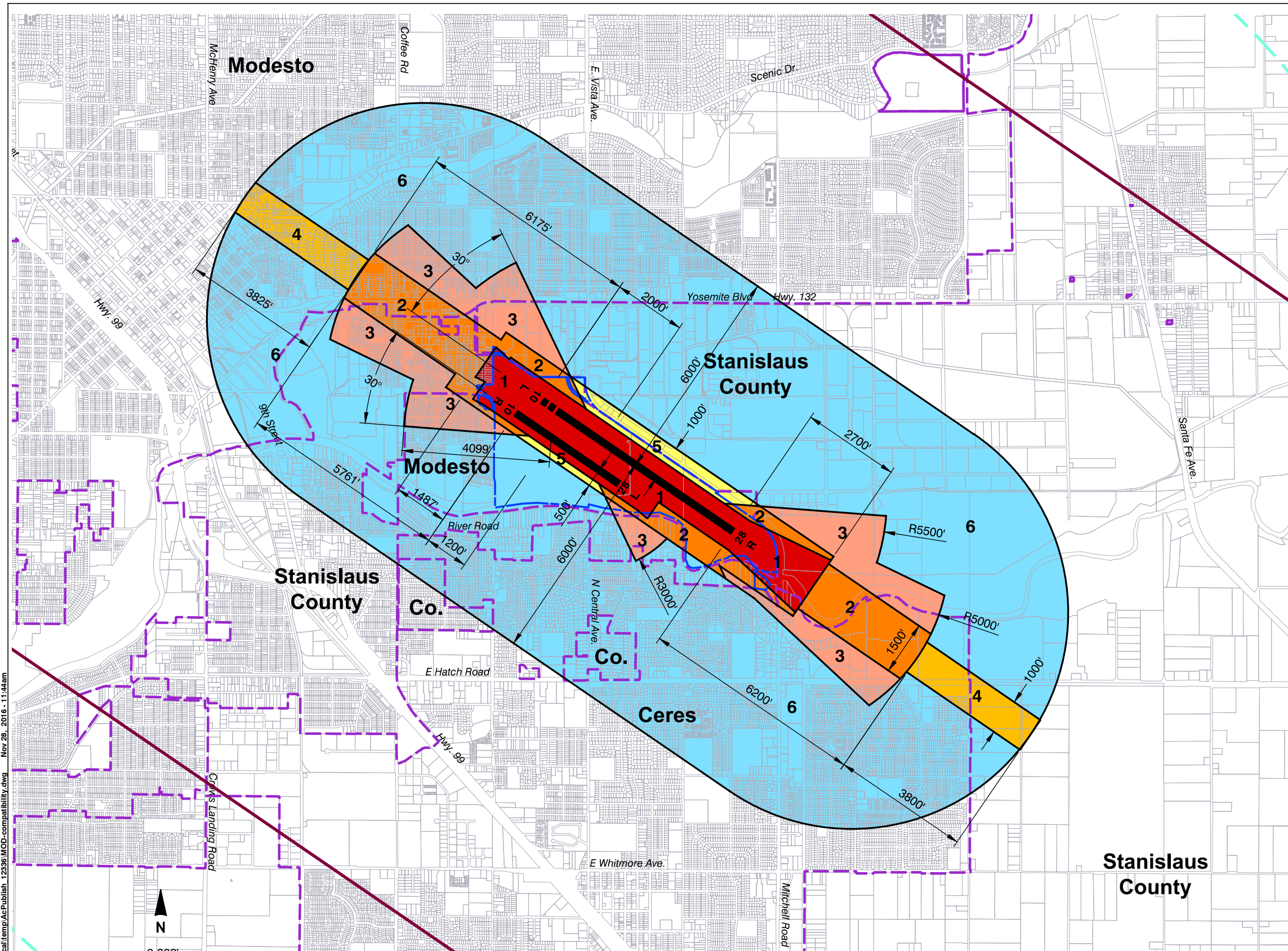
C:\Users\B70me\appdata\local\temp\AcPublish\_23332\MOD-compatibility.dwg Jun 20, 2014 - 4:39pm



Prepared By: **Mead&Hunt** www.meadhunt.com







**Legend**

**Boundary Lines**

- Airport Property Line
- City Limits
- Existing Runway
- Future Runway
- Airport Influence Area

**Safety Zones (Composite)**

- Zone 1 Runway Protection Zone
- Zone 2 Approach/Departure Zone
- Zone 3 Inner Turning Zone
- Zone 4 Outer Approach/Departure Zone
- Zone 5 Sideline Zone
- Zone 6 Traffic Pattern Zone

**Notes**

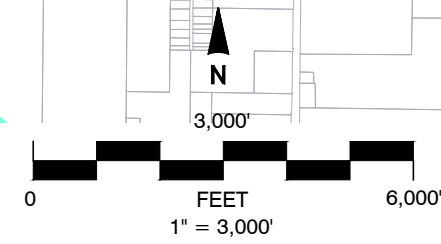
1. Safety zone source: California Airport Land Use Planning Handbook (January 2002).
2. Composite safety zones reflect existing runway configuration and 500' extension. Composite zones combine large air carrier runway zones, medium general aviation runway zones, and long general aviation runway zones for Runway 10L-28R.
3. Short general aviation zones were used for Runway 10R-28L.
4. Zone 1 has been adjusted to reflect runway protection zones depicted on the Airport Layout Plan (December 2009).
5. Safety Zone 3 for Runway 10L-28R, was modified from the Caltrans template for safety zones for runways of this length based on the traffic pattern. The smaller area south of approach end of Runway 28R is consistent with Caltrans guidance for a runway with single-sided traffic pattern.

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Map MOD-3

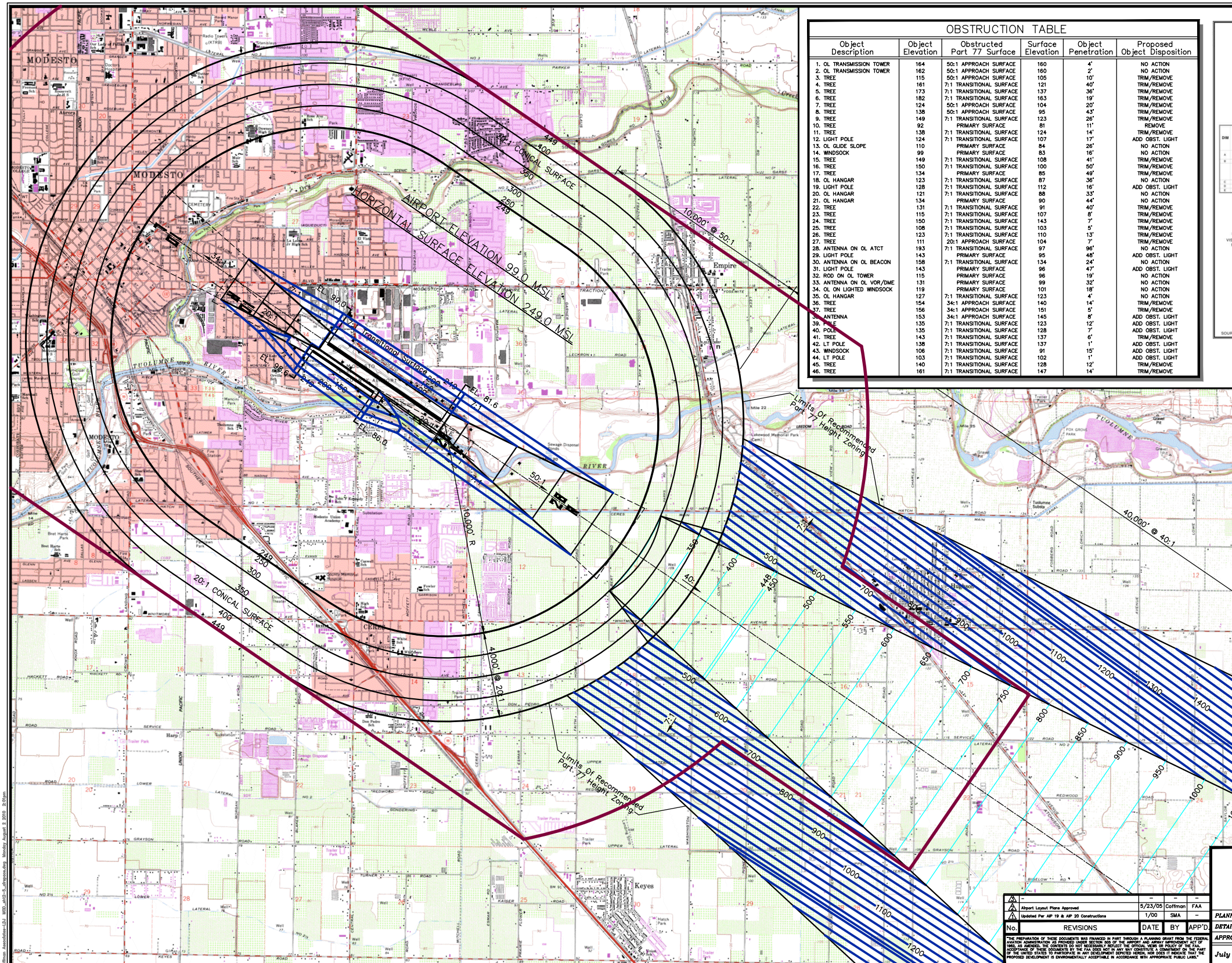
**Airport Safety Zones Policy Map**  
 Modesto City-County Airport

C:\Users\B70me\AppData\Local\Temp\AcPublish\_12336\MOD-compatibility.dwg Nov 28, 2016 - 11:44am



Prepared By: **Mead&Hunt** www.meadhunt.com





C:\Users\870me\appdata\local\temp\AcSublist\_23332\MCD-airspace.dwg Jan 20, 2014 5:33pm

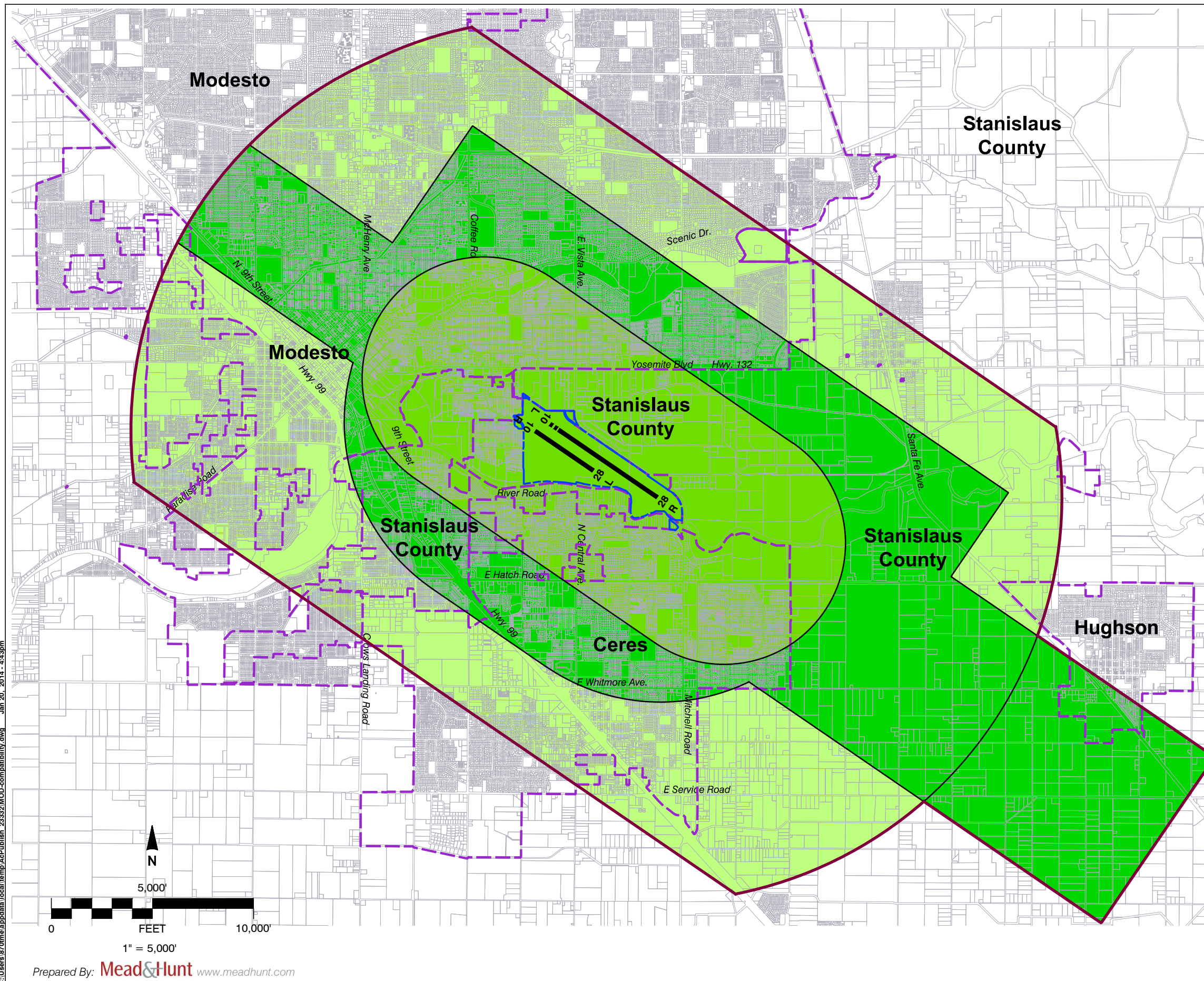
This is a reduced version of a large size drawing.



No.	REVISIONS	DATE	BY	APP'D
1	Initial Issue	5/23/05	Coffman	FAA
2	Updated for AP 19 & AP 20 Construction	1/00	SMA	

PLANNED BY: Stephen E. Wagner, Vicki L. Rogers  
 DETAILED BY: Larry S. Johnson  
 APPROVED BY: James M. Harris, P.E.  
 July 22, 2010 SHEET 2 OF 15





**Legend**

- Boundary Lines**
- — — — — Airport Property Line/Easements
  - - - - - City Limits
  - Existing Runway
  - - - - - Future Runway
  - Airport Influence Area

- Overflight Zones**
- Avigation Easement Dedication <sup>1</sup>
  - Recorded Deed Notice <sup>2</sup>
  - Real Estate Disclosure <sup>3</sup>

**Notes**

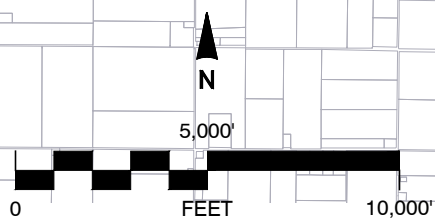
1. Avigation Easement Dedication required within CNEL 60dB noise contour and safety zones 1 through 6 and critical portions of approach and transitional surfaces to where these surfaces intersect the horizontal surface.
2. Recorded Deed Notice required in areas commonly overflowed by low flying aircraft (1,500 feet or less above the airport elevation). Along the straight-in/straight-out corridors, zone boundary extends 30,000 feet southeast of Runway 28R and 20,000 feet northwest of Runway 10L. Lateral to the runways, this boundary encompasses the downwind pattern north and south of the airport. For the area south of the airport, zone boundary matches the outer limits of the horizontal surface as defined by FAR Part 77. For the area north of the airport, zone boundary extends 10,000 feet lateral (north) of Runway 10L-28R, 16,000 feet southeast of Runway 28R, and 12,000 feet northwest of Runway 10L. This boundary encompasses outermost touch-and-go pattern and extended downwind pattern used by pilots when the airport is busy (flight track not depicted). Recorded deed notice requirement applies to proposed residential development on parcels of more than 10 acres.
3. Real Estate Disclosure required within entire airport influence area. Zone boundary matches the outer boundary of the FAA height notification surface northwest and southeast of airport runways. Lateral to the runways, zone boundary matches outer limits of the conical surface as defined by FAR Part 77. Real Estate Disclosure requirement applies to existing and future residential development.

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Map MOD-5

**Overflight Zones Policy Map**  
 Modesto City-County Airport

C:\Users\B70me\AppData\Local\Temp\AcPublish\_23332\MOD-compatibility.dwg Jun 20, 2014 - 4:43pm



1" = 5,000'

Prepared By: **Mead & Hunt** www.meadhunt.com



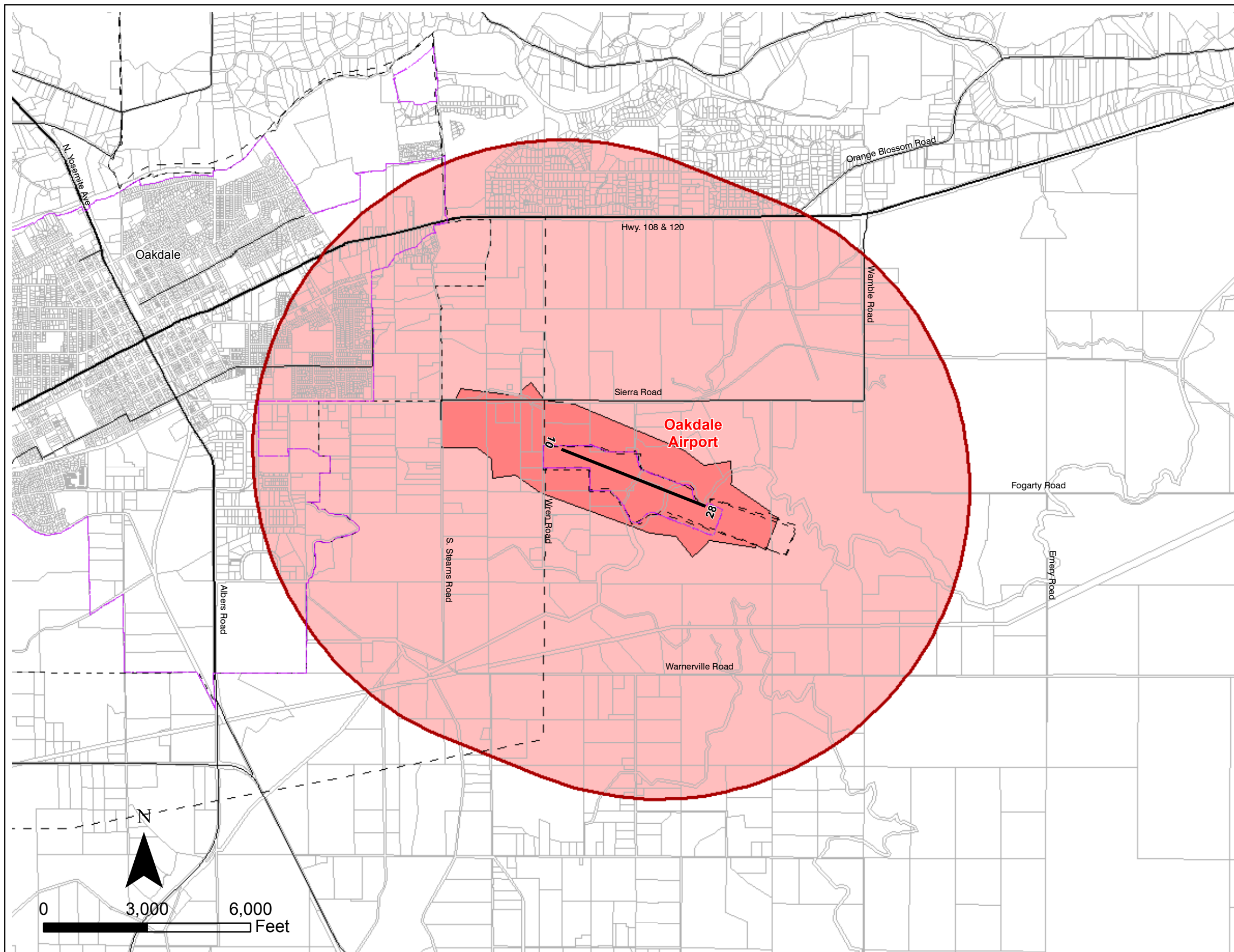
## **OAK. OAKDALE MUNICIPAL AIRPORT**

### **OAK.1 Additional Compatibility Policies**

OAK.1.1 None.

This page intentionally blank





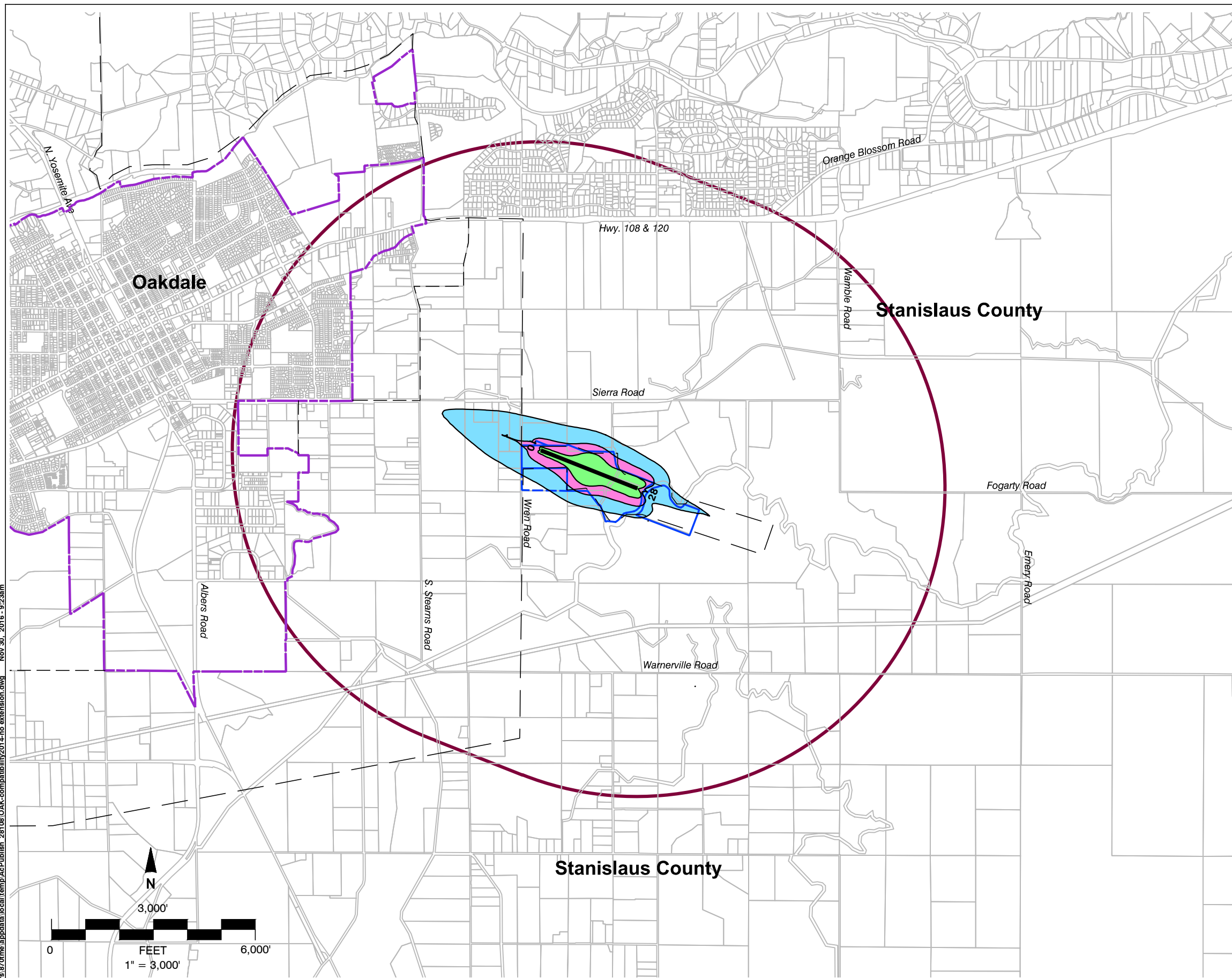
**Legend**

- Road
- City of Oakdale
- - - Existing Sphere of Influence
- - - Future Sphere of Influence
- - - Airport Boundary
- Referral Area 1
- Referral Area 2
- Airport Influence Area

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Map OAK-1





**Legend**

**Boundary Lines**

- Existing Airport Property Line
- - - Future Airport Property Line
- - - City Limits
- - - Existing Sphere of Influence
- - - Future Sphere of Influence
- Runway
- Airport Influence Area

**Noise Zones**

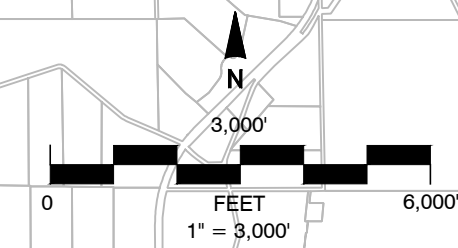
- 60 - 65 dB CNEL
  - 65 - 70 dB CNEL
  - 70+ dB CNEL
- } 52,200 Annual Operations

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Map OAK-2

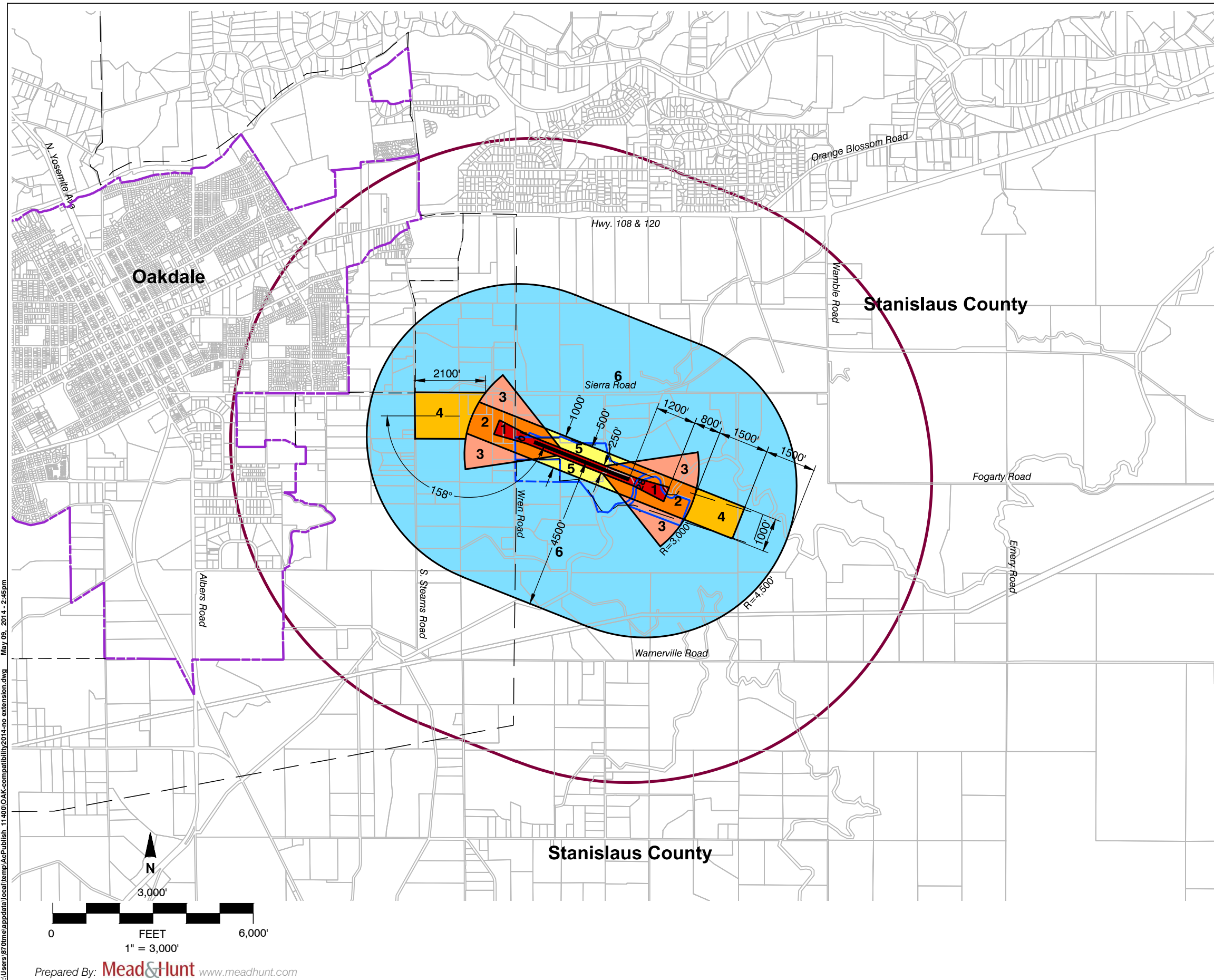
**Airport Noise Zones Policy Map**  
 Oakdale Municipal Airport

C:\Users\B70me\AppData\Local\Temp\AcPublish\_28108\OAK-compatibility2014-no-extension.dwg Nov 30, 2016 - 9:23am



Prepared By: **Mead&Hunt** www.meadhunt.com





- Legend**
- Boundary Lines**
- Existing Airport Property Line
  - - - Future Airport Property Line
  - - - City Limits
  - - - Existing Sphere of Influence
  - - - Future Sphere of Influence
  - Runway
  - Airport Influence Area

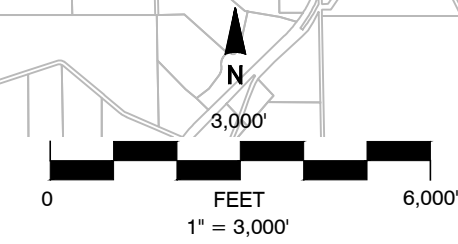
- Safety Zones**
- Zone 1
  - Zone 2
  - Zone 3
  - Zone 4
  - Zone 5
  - Zone 6

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Map OAK-3

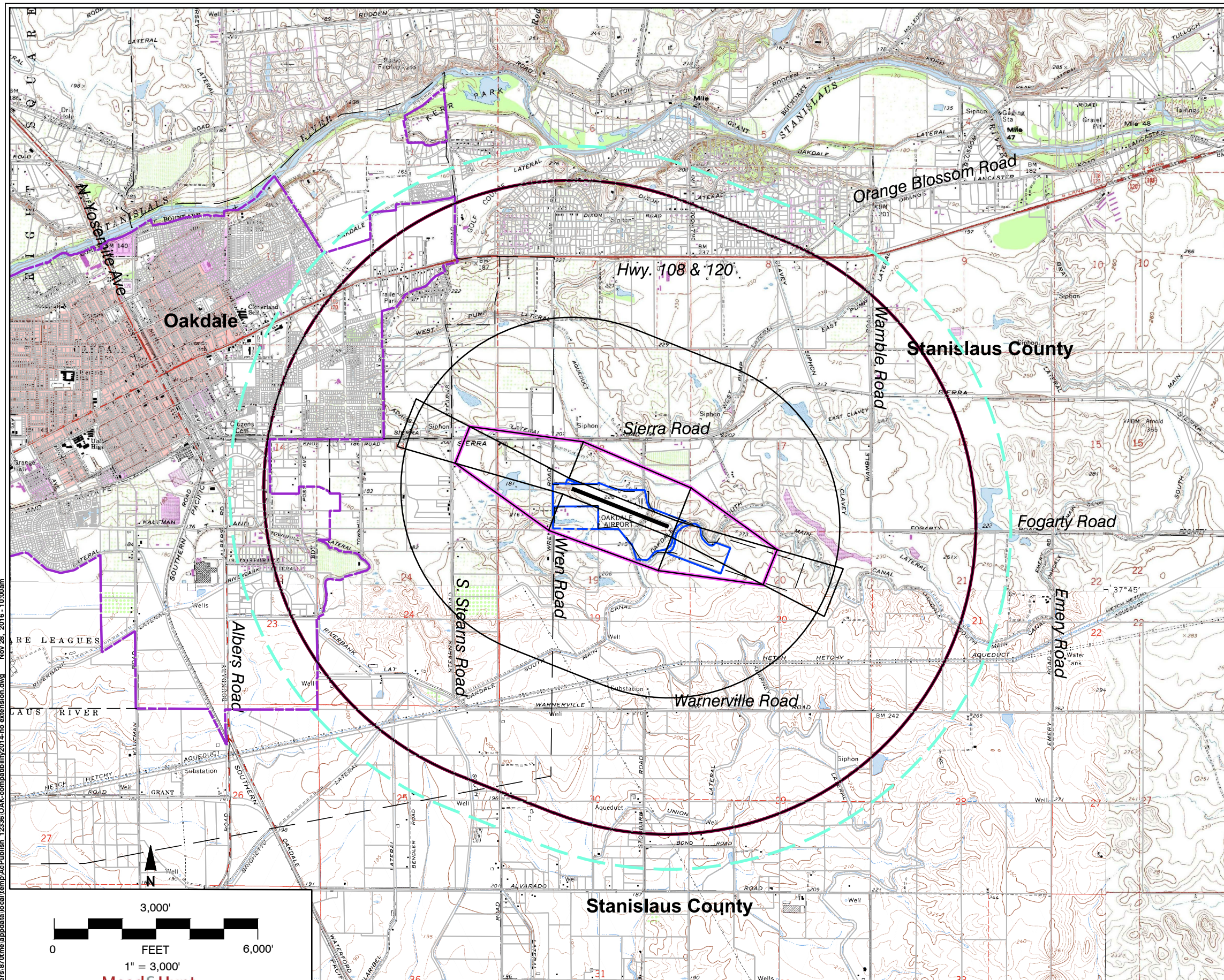
**Airport Safety Zones Policy Map**  
 Oakdale Municipal Airport

C:\Users\B70me\appdata\local\temp\AcPublish\_11400\OAK-compatibility\2014-no extension.dwg May 09, 2014 - 2:45pm



Prepared By: **Mead&Hunt** www.meadhunt.com





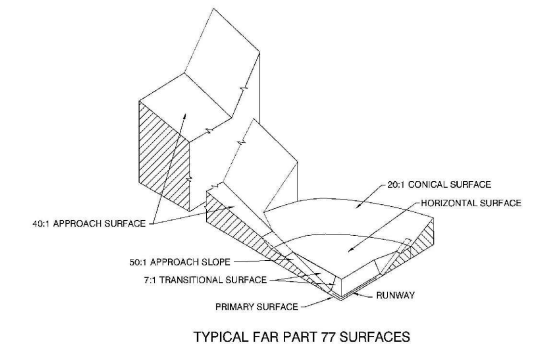
**Legend**

- Boundary Lines**
- Airport Property Line
  - Future Airport Property Line
  - City Limits
  - Existing Sphere of Influence
  - Future Sphere of Influence
  - Runway
  - Airport Influence Area

- Airspace Protection Zones<sup>1</sup>**
- FAA Height Notification Surface<sup>2</sup>
  - FAR Part 77 Surfaces<sup>3</sup>
  - Critical Airspace Protection Zone

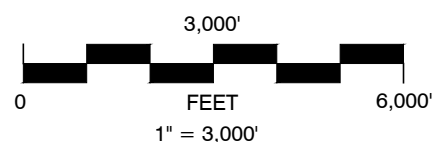
**Notes**

1. Airspace surfaces reflect the existing runway configuration and nonprecision approaches to Runway 10-28. Airport elevation is 237.0' above mean sea level (MSL).
2. Based on FAR Part 77, Subpart B, which requires that the FAA be notified of any proposed construction or alteration having a height greater than an imaginary surface extending 50 feet outward and 1 foot upward (slope of 50 to 1) for a distance of 10,000 feet from the nearest point of any runway. Beyond FAA Height Notification Area boundary, any object taller than 200 feet requires FAA notification.
3. FAR Part 77 Obstruction Surfaces: Based on FAR Part 77, Subpart C, which establishes standards for determining obstructions to air navigation. Source: Oakdale Municipal Airport Airspace Drawing (November 2013 Draft).



**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Map OAK-4  
**Airspace Protection Zones**  
**Policy Map**  
 Oakdale Municipal Airport



Prepared By: **Mead&Hunt** www.meadhunt.com

C:\Users\B70me\AppData\Local\Temp\AcPublish\_12336\OAK-compatibility2014-no-extension.dwg Nov 28, 2016 - 10:00am







**Legend**

**Boundary Lines**

- Existing Airport Property Line
- Future Airport Property Line
- City Limits
- Existing Sphere of Influence
- Future Sphere of Influence
- Runway
- Airport Influence Area

**Overflight Zones**

- Avigation Easement Dedication <sup>1</sup>
- Recorded Deed Notice <sup>2</sup>
- Real Estate Disclosure <sup>3</sup>

**Notes**

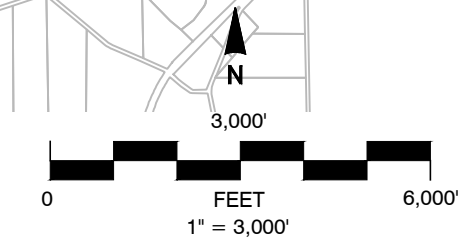
1. Avigation Easement Dedication required within CNEL 60dB noise contour, safety zones 1 through 5, and critical portions of approach and transitional surfaces to where these surfaces intersect the horizontal surface.
2. Recorded Deed Notice required in areas commonly overflown by low flying aircraft. Aircraft on straight-in/straight-out departure are less than 600 feet above the airport elevation. Aircraft entering the traffic pattern are flying at an altitude of about 1,000 feet above airport elevation. Zone boundary matches the outer boundary of the horizontal surface as defined by FAR Part 77.
3. Real Estate Disclosure required within all areas where aircraft are 1,500 feet or less above the airport elevation. Zone boundary matches the outer boundary of the conical surface as defined by FAR Part 77.

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Map OAK-5

**Overflight Zones Policy Map**  
 Oakdale Municipal Airport

C:\Users\B70me\appdata\local\temp\AcPublish\_11400\OAK-compatibility\2014-no extension.dwg May 09, 2014 - 2:39pm



Prepared By: **Mead&Hunt** www.meadhunt.com

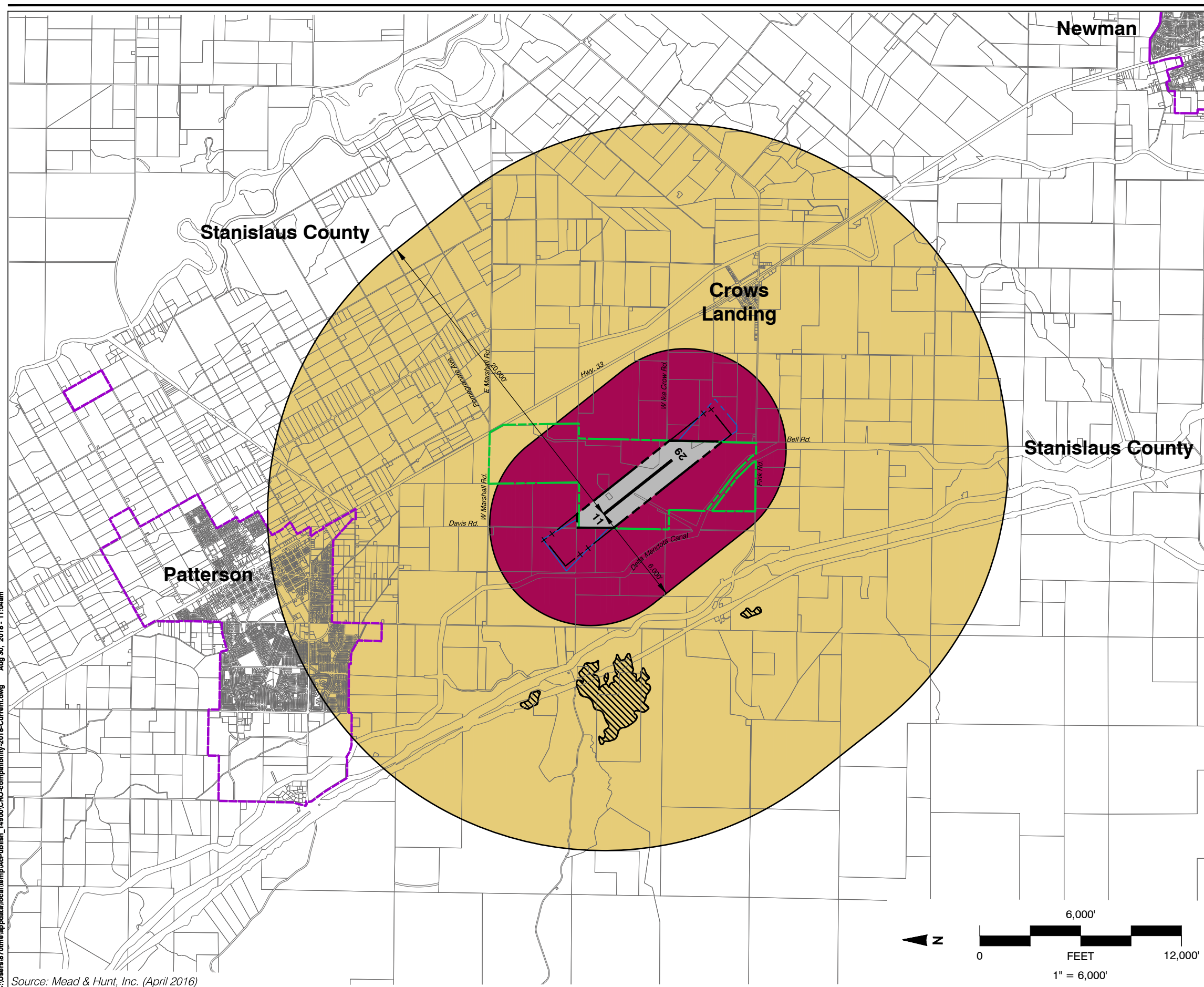
## **CRO. CROWS LANDING AIRPORT**

### **CRO.1 Additional Compatibility Policies**

*CRO 1.1 Crows Landing Industrial Business Park Specific Plan.* The Crows Landing Airport is located on 370-acres within the 1,528-acre Crows Landing Industrial Business Park (CLIBP) Specific Plan Area.

- a) CLIBP Specific Plan policies incorporate the *Stanislaus County Airport Land Use Compatibility Plan* by reference.
- b) In the event that ALUCP policies and *Specific Plan* policies are found to be inconsistent with one another, the more stringent policy shall apply.

This page intentionally blank



**Legend**

**Boundary Lines**

- Airport Property (Existing)
- Airport Property (Future)
- Avigation Easement (Existing)
- Crows Landing Industrial Business Park
- City/County Limits
- Parcel Line
- Runway (Existing Length of 5,175')
- FAR PART 77 High Terrain Penetrations

**Airport Influence Area**

- Review Area 1
- Review Area 2

**Crows Landing Airport  
Land Use Compatibility Plan  
(April 2016 Draft)**

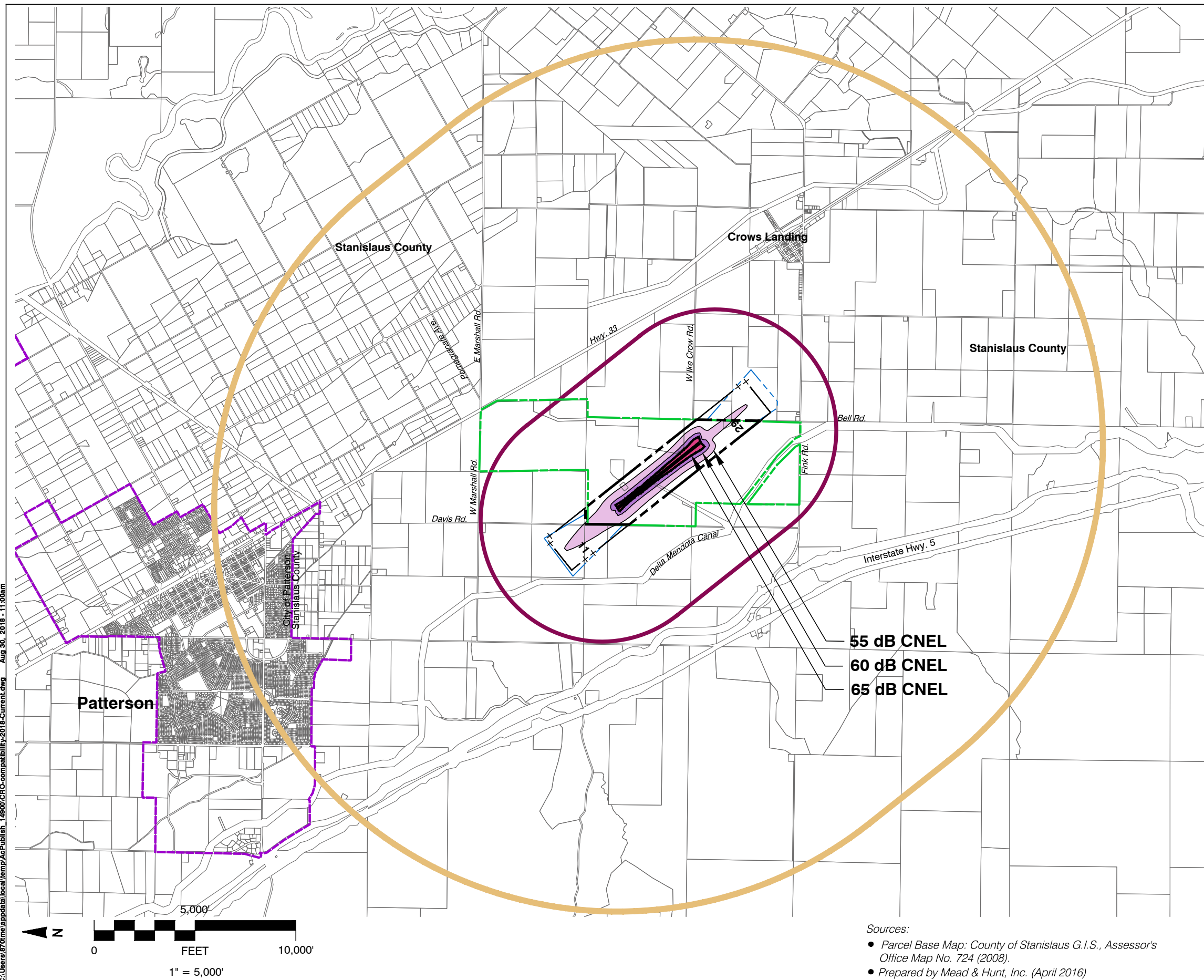
Map CRO-1

**Airport Influence Area Policy Map  
Crows Landing Airport**

C:\Users\870me\appdata\local\temp\AcPublish\_14800\CRO-compatibility-2018-Current.dwg Aug 30, 2018 - 11:04am

Source: Mead & Hunt, Inc. (April 2016)





**Legend**

**Boundary Lines**

- Airport Property (Existing)
- Airport Property (Future)
- Aviation Easement (Existing)
- Crows Landing Industrial Business Park
- City/County Limits
- Parcel Line
- Runway (Existing Length of 5,175')

**Airport Influence Area**

- Review Area 1
- Review Area 2

**Noise Impact Zones<sup>1</sup>**

- 55 - 60 dB CNEL
- 60 - 65 dB CNEL
- 65 - 70 dB CNEL

**Notes**

1. Noise contours reflect future scenario (through phase 3) with 34,000 annual operations.

**Crows Landing Airport  
Land Use Compatibility Plan  
(April 2016 Draft)**

Map CRO-2

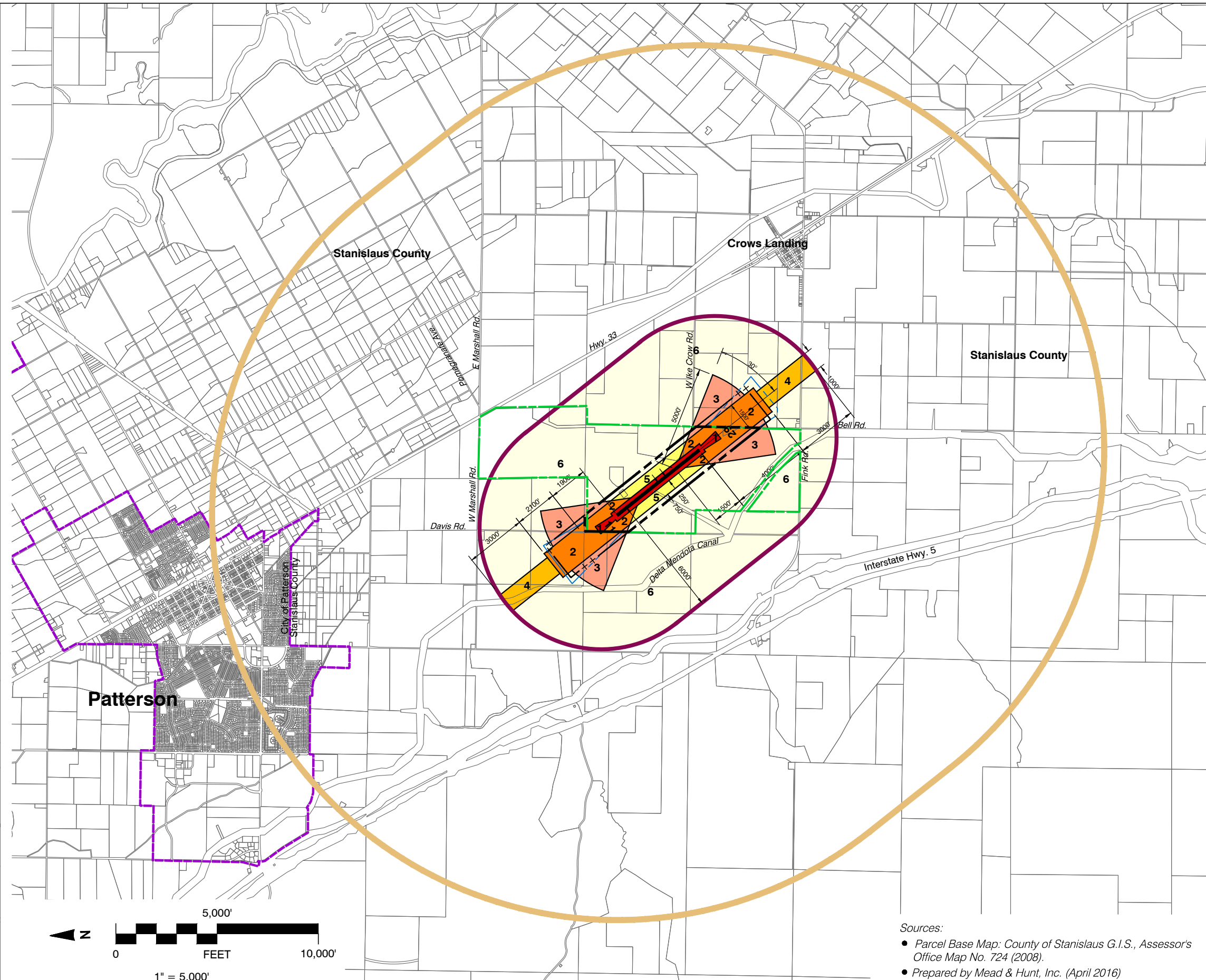
**Airport Noise Zones Policy Map  
Crows Landing Airport**

**Sources:**

- Parcel Base Map: County of Stanislaus G.I.S., Assessor's Office Map No. 724 (2008).
- Prepared by Mead & Hunt, Inc. (April 2016)

C:\Users\170rme\appdata\local\temp\ac\publish\_14900\CRC-compatibility-2016-Current.dwg Aug 30, 2016 - 11:00am





**Legend**

**Boundary Lines**

- Airport Property (Existing)
- +-+ Airport Property (Future)
- .-.- Avigation Easement (Existing)
- .-.- Crows Landing Industrial Business Park
- .-.- City/County Limits
- Parcel
- Runway (Existing Length of 5,175')

**Airport Influence Area**

- Review Area 1
- Review Area 2

**Safety Zones**

- Zone 1 - Runway Protection Zone
- Zone 2 - Inner Approach/Departure Zone
- Zone 3 - Inner Turning Zone
- Zone 4 - Outer Approach/Departure Zone
- Zone 5 - Sideline Zone
- Zone 6 - Traffic Pattern Zone

**Notes**

1. Source: Long General Aviation Safety Zones - California Airport Land Use Planning Handbook (2012).
2. Avigation easement dedication required for areas outside existing property and within Zones 1-5.
3. See Table 2 for criteria applicable within each zone.

**Crows Landing Airport  
Land Use Compatibility Plan  
(April 2016 Draft)**

Map CRO-3

**Airport Safety Zones Policy Map  
Crows Landing Airport**

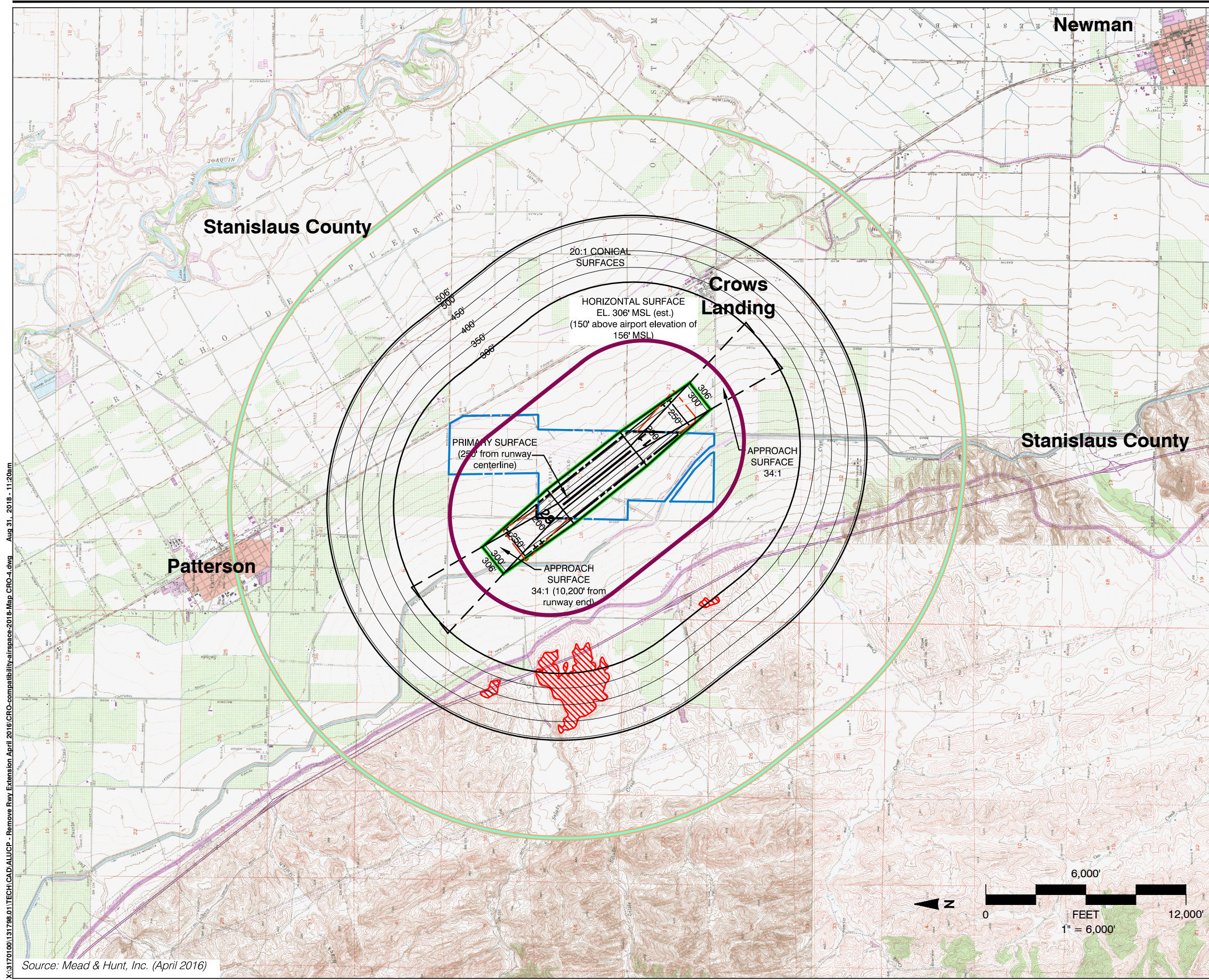
**Sources:**

- Parcel Base Map: County of Stanislaus G.I.S., Assessor's Office Map No. 724 (2008).
- Prepared by Mead & Hunt, Inc. (April 2016)

C:\Users\l70me\AppData\Local\Temp\AcPublish\_14900\CRC-compatibility-2016-Current.dwg Aug 30, 2016 - 11:01am







**Legend**

- Boundary Lines**
- Airport Property (Existing)
  - ++ Airport Property (Future)
  - - - - - Aviation Easement (Existing)
  - - - - - Crows Landing Industrial Business Park
  - Runway (Existing Length of 5,175')
- Airspace Protection Surfaces**
- FAA Height Notification<sup>1</sup>
  - FAR Part 77 Obstruction Surfaces<sup>2</sup>
  - Aviation Easement Dedication<sup>3</sup>
  - Terrain Contours
  - Part 77 High Terrain Penetrations<sup>3</sup>
- Airport Influence Area**
- Review Area 1
  - Review Area 2

**Notes**

1. Based on FAR Part 77, Subpart B, which requires that the FAA be notified of any proposed construction or alteration having a height greater than an imaginary surface extending 100 feet outward and 1 foot upward (slope of 100 to 1) for a distance of 20,000 feet from the nearest point of any runway. Beyond FAA Height Notification Area boundary, any object taller than 200 feet requires FAA notification.
2. FAR Part 77 Obstruction Surfaces: Based on FAR Part 77, Subpart C, which establishes standards for determining obstructions to air navigation.
3. Aviation easements beneath the approach and transitional surfaces up to the horizontal surface and the high terrain penetrations.
4. Heliport airspace surfaces not shown: surfaces remain on airport property or subsumed in Runway 29 airspace surfaces.
5. All elevations in feet above mean sea level (MSL).

Vertical datum in NAVD88.

**Crows Landing Airport  
Land Use Compatibility Plan  
(April 2016 Draft)**

Map CRO-4

**Airspace Protection Zones Policy Map  
Crows Landing Airport**

X:\31701\001\31798.01\TECH\CAD\ALUCP - Remove Rwy Extension April 2016\CRO-compatibility-airspace-2018-Map CRO-4.dwg Aug 31, 2018 - 11:20am

Source: Mead & Hunt, Inc. (April 2016)





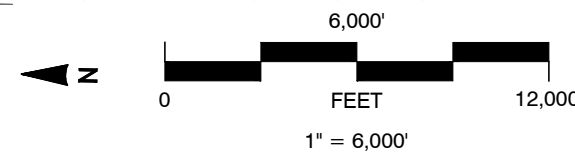
- Legend**
- Boundary Lines**
- Airport Property (Existing)
  - Airport Property (Future)
  - Avigation Easement (Existing)
  - Crows Landing Industrial Business Park
  - City/County Limits
  - Parcel Line
  - Runway (Existing Length of 5,175')
  - FAR PART 77 High Terrain Penetrations
- Airport Influence Area**
- Review Area 1
  - Review Area 2
- Overflight Zones**
- Avigation Easement Dedication
  - Overflight Notification
  - Disclosure in Real Estate Transaction (throughout AIA)

**Crows Landing Airport**  
**Land Use Compatibility Plan**  
 (April 2016 Draft)

Map CRO-5

**Overflight Zones Policy Map**

Crows Landing Airport



C:\Users\70me\appdata\local\temp\AcPublish\_14900\CRO-compatibility-2018-Current.dwg Aug 30, 2018 - 11:02am

Source: Mead & Hunt, Inc. (April 2016)



Chapter **4**

**MODESTO CITY-COUNTY AIRPORT  
AND ENVIRONS  
BACKGROUND DATA**





---

# Background Data: Modesto City-County Airport and Environs

## INTRODUCTION

Modesto City-County Airport is located within the heart of the San Joaquin Valley. The airport is located in the central portion of Stanislaus County approximately 2 miles southeast of the City of Modesto, 10 miles northwest of the City of Turlock and 18 miles southeast of the City of Manteca. Located south of Yosemite Boulevard (Highway 132), the primary means of accessing the airport is via Mitchell Road.

The airport opened in 1920 and was the nation's first municipally owned airport. Later in 1929, the airport was relocated to its current location. During World War II, the airport was used as a training center for the US Army. Today, the airport is owned by the City of Modesto, however, a nine-member committee appointed by the member agencies of Modesto City Council, Stanislaus County Board of Supervisors, and Cities of Ceres and Turlock act in an advisory capacity on airport policy matters. Modesto City-County Airport is the only commercial service airport in the County, although it primarily serves general aviation.

## STATUS OF AIRPORT PLANS

The City of Modesto undertook a master planning effort for Modesto City-County Airport in 2002. However, due to changes in airport management and the expiration of the federal grant, the plan was never completed.

In 2008, the City prepared a noise compatibility study in accordance with FAR Part 150. This noise study was updated in February 2009. The Part 150 study included a baseline (2008) and two forecast levels of activity (2015 and "Long Range"). The "Long Range" forecast presented in the Part 150 study is the basis for the forecast operations and resulting noise contours used in this ALUCP update. The assumptions of the long-range forecast are discussed later in this paper.

In December 2009, an Airport Layout Plan (ALP) and Narrative Report were published for Modesto City-County Airport. The purpose of the ALP is to depict the currently planned airport improvements for the airport. The 2009 ALP and Narrative Report were approved by the FAA in February 2011. Pertinent airport data from the 2009 ALP are summarized in **Exhibit MOD-2**. The ALP is provided in **Exhibit MOD-3**.

The long term airport improvements as described in the 2009 ALP Narrative Report are not reflected in the 2004 ALUC Plan for the airport. For comparison purposes, **Exhibit MOD-4** summarizes pertinent airport data upon which the 2004 ALUC Plan and this ALUCP update are based.

## AIRFIELD CONFIGURATION

Modesto City-County Airport has two parallel runways. Runway 10L-28R is 5,911 feet long and is designated as the air carrier runway for the airport. The smaller of the two runways is 10R-28L and is 3,459 feet long. The runways are aligned with the prevailing wind direction in a northwest/southeast alignment—winds are commonly out of the northwest.

Modesto City-County Airport is currently, and is planned to remain, designated Airport Reference Code (ARC) C-III. Runway 10L-28R is designated as ARC C-III to accommodate commercial aircraft (e.g., Boeing 737). The second runway, 10R-28L is designated as ARC B-I to accommodate general aviation aircraft (e.g., Cessna 421).

Runway 28R is equipped with straight-in precision instrument approach capabilities providing visibility minimums as low as ½ statute mile and a decision altitude of 288 feet MSL (200 AGL). Currently, this is the only runway at the airport with instrument approach procedures.

The principal change proposed for the airfield is extending Runway 28R–10L by 500 feet to the northwest for a total length of 6,411 feet. This extension is proposed so that the airport can fully accommodate the Canadair Challenger without payload or stage length restrictions.

The size of the runway protection zone (RPZ) at each runway end is a function of the type of aircraft and approach visibility minimums associated with that runway end. All four existing and ultimate RPZs meet current FAA standards. The established RPZs are as follows:

- ▶ 28R: Existing and Ultimate – 1,000 foot inner width, 1,750 foot outer width, and a length of 2,500 feet.
- ▶ 10L: Existing and Relocated – 500 foot inner width, 1,010 foot outer width, and a length of 1,700 feet.
- ▶ 28L: Existing and Ultimate – 500 foot inner width, 700 foot outer width, and a length of 1,000 feet.
- ▶ 10R: Existing and Relocated – 500 foot inner width, 700 foot outer width, and a length of 1,000 feet.

None of the four RPZs are contained entirely on airport. Additional information pertaining to the individual RPZs can be found in the Airport Features, **Exhibit MOD-2**.

The 2010 Airspace Plan for Modesto City-County Airport depicts the Federal Aviation Regulations (FAR) Part 77 imaginary airspace surfaces for a precision instrument runway. A precision instrument runway is a runway equipped with electronic and visual navigation aids for which a precision approach procedure having straight-in landing minimums has been approved. Precision instrument approaches provide both horizontal and vertical guidance for aircraft during approach and landing. The airspace surfaces for Modesto City-County Airport reflect the ultimate runway lengths (500' northwest extension to Runway 10L-28R), existing precision approach to Runway 28R and future non-precision approach to Runway 10L. Visual approaches are in place to Runways 10R and 28L. Portions of the airspace surfaces for the visual runways are included in the airspace plan, but are subsumed by the precision and non-precision approach surfaces for the primary runway.



## ACTIVITY

The Federal Aviation Administration’s (FAA) National Plan of Integrated Airport Systems (NPIAS) classifies Modesto City-County Airport as Non-Hub Commercial Service-Primary. The airport has an Airport Traffic Control Tower (ATCT), which operates during the hours of 7 am to 9 pm. The air traffic controllers direct the movement of aircraft on and around the airport.

In 2008, the airport experienced an estimated 84,185 annual operations. The majority (62%) of these operations were conducted by itinerant aircraft including air carrier, military, and general aviation. The balance of the activity (some 32,000 annual operations) is generated primarily by local general aviation aircraft conducting flight training.

### Activity Forecast

The 2009 Part 150 Noise Compatibility Study provides a “Long Range” forecast of aviation activity for the airport. For airport planning purposes, it is recommended that this long range forecast (approximately 141,000 annual operations) be used as the basis for the ALUCP for Modesto City-County Airport as it represents the highest anticipated use of airport. Operations by all aircraft categories other than airlines were based on counts provided by the air traffic control tower.

Airline operations were based on the current schedule at the time the forecasts were generated. **Exhibit MOD-4** summarizes the existing and forecast aviation activity for Modesto City-County Airport.

### Noise Contours

The “Long Range” noise contours depicted in **Exhibit MOD-5** are noticeably smaller than the noise contours which are provided in the current 2004 ALUC Plan for the airport. The ALUCP does not document the activity forecast and noise assumptions upon which the plan is based. It is presumed that the recently created “long range” forecast and noise contours contained assumptions of a much more modern fleet of aircraft. Advances in engine and airframe technology have effectively reduced noise contours even with an increase in annual operations.

### Overflight Patterns

The 2009 Part 150 Study includes modeled flight tracks, which were used to create the noise contours for the study. These flight tracks depict the arrival and departure tracks, which aircraft use at the airport. The flight tracks are shown on **Exhibit MOD-5**.

For Modesto City-County Airport, three sets of generic safety zones are proposed to be applied to the existing and future runways configurations to derive a set of composite safety zones. The proposed safety zones are a composite of several types of generic safety zones because the airport does not necessarily fit into only one category. Runway 10L-28R is technically an air carrier runway. However, the vast majority of traffic using the runway is general aviation. For this reason, the following generic safety zones are applied:

- ▶ “Large Air Carrier” to represent the air carrier activity;
- ▶ “Medium General Aviation Runway (4,000 to 5,999 feet in runway length)” for the existing runway length and general aviation activity levels;
- ▶ “Long General Aviation Runway ( $\geq$  6,000 feet in runway length)” for the ultimate runway length; and

- › “Small General Aviation Runway (<4,000 feet in runway length)” which is used for Runway 10R-28L.

The recommended composite safety zones reflect the most restrictive set of safety zones for Modesto City-County Airport (see **Exhibit MOD-6**). FAR Part 77 Airspace surfaces are depicted in **Exhibit MOD-7**.

## Airport Environs

**Exhibits MOD-9A** through **9-C** show a detailed summary of Modesto City-County Airport’s existing and planned environs, including airport compatibility policies adopted by the local agencies. Stanislaus County and the cities of Modesto and Ceres are within the airport’s influence area.

As shown in the exhibits, the airport is surrounded by urban development on all sides. An open space corridor exists south of the airport along the Tuolumne River. The City of Modesto is located north and west of the airport, although small areas of unincorporated lands separate the City from the airport. Planned uses within the City’s sphere of influence for the unincorporated lands immediately adjacent to the airport include residential (<7.5 dwelling units per acre) immediately northwest of the airport and industrial uses west and east of the airport. Commercial uses are planned along Yosemite Boulevard (Highway 132) with residential uses to the north. The City of Ceres is located south of the airport and Tuolumne River. Planned land uses include residential uses of mixed densities and pockets of commercial and light industrial uses. Very Low Density Residential uses (<4.5 dwelling units per acre) are planned about 1 mile south of the approach end of Runway 28R. Unincorporated lands of Stanislaus County border the airport to the east. Planned land uses include industrial adjacent to the airport and agricultural to the southeast.

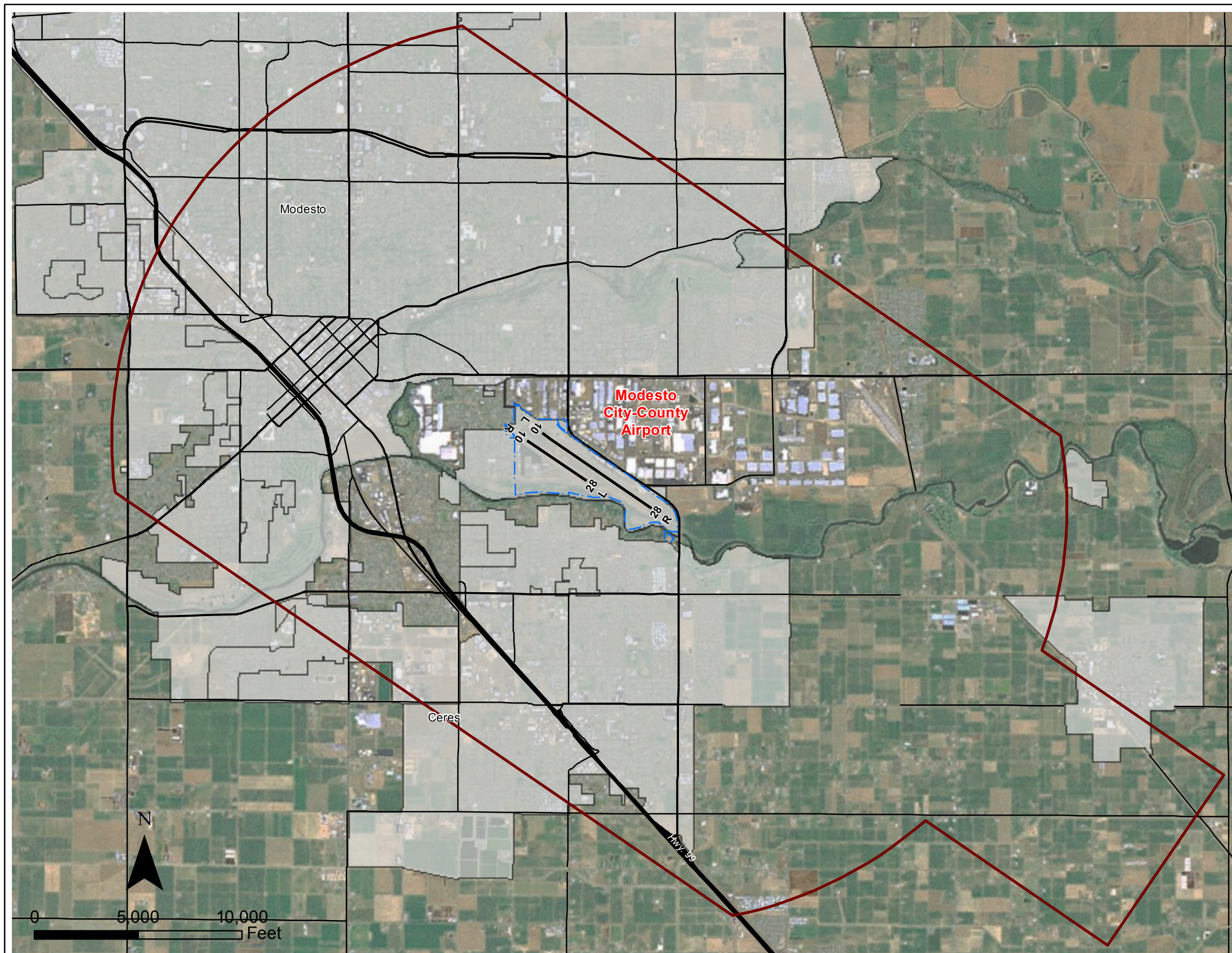
## BACKGROUND INFORMATION

The following exhibits present the data upon which *Compatibility Plan* policy maps are based:




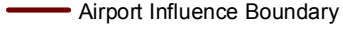
- › **Exhibit MOD-1**—Airport Location: Presents the location of the airport in the context of existing environment (aerial photograph).
- › **Exhibit MOD-2**—Airport Features Summary: Presents data pertaining to existing and proposed infrastructure (runways, taxiways, etc.), traffic patterns, and approach data.
- › **Exhibit MOD-3**—Airport Layout Plan (ALP): Presents existing airport facilities and proposed facilities as conditionally approved by FAA.
- › **Exhibit MOD-4**—Airport Activity: Presents aviation forecasts for the planning period.
- › **Exhibit MOD-5**—Noise and Overflight Factors: Presents the geographic area over which aircraft operating at the airport routinely fly, as well as the noise contours based on the planning period forecasts.
- › **Exhibit MOD-6**—Safety Factors: Presents the locations of safety zones using the guidance and templates presented by the California Division of Aeronautics in its manual, *California Airport Land Use Planning Handbook*. Adjustments to the generic zones are also depicted.
- › **Exhibit MOD-7**—Part 77 Airspace Surfaces: Depicts the Federal Aviation Regulations Part 77 airspace surfaces which should be kept free of obstructions.

- › **Exhibit MOD-8**—Airport Environs: Presents site data, existing and planned land uses, affected jurisdictions, and compatible land use measures.
- › **Exhibit MOD-9A**—Existing Land Uses: Presents existing land uses from the City of Modesto General Plan.
- › **Exhibit MOD-9B**—Existing Land Uses: Presents existing land uses from the City of Ceres General Plan.
- › **Exhibit MOD-9C**—Existing Land Uses: Presents existing land uses from the County of Stanislaus General Plan.

This page intentionally blank



**Legend**

-  Road
-  City
-  Airport Boundary
-  Airport Influence Boundary

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Exhibit MOD-1



**GENERAL INFORMATION**

- Airport Ownership – City of Modesto
- Property size
  - Fee title: 455 acres
  - Avigation easements: 275 acres
- Airport Classification – Primary Non-hub Commercial
- Airport Elevation — 99 feet MSL (surveyed)
- Access
  - Via Airport Way or Tioga Dr from Highway 132
  - 0.5 miles from Highway 132; 2 miles from central Modesto

**RUNWAY SYSTEM**

**Runway 10L-28R**

- Critical Aircraft — Boeing 737-300
- Classification — Airport Reference Code C-III
- Dimensions — 5,911 feet long; 150 feet wide
- Pavement Strength — 60,000 lbs for aircraft with single-wheel main landing gear; 200,000 lbs dual-wheel; 400,000 dual tandem wheel
- Average Gradient — 0.3%
- Lighting — High-intensity edge lighting
- Primary Taxiways — Full length parallel on northeast

**Runway 10R-28L**

- Critical Aircraft — Cessna 421
- Classification — Airport Reference Code B-I
- Dimensions — 3,459 feet long; 100 feet wide
- Pavement Strength — 30,000 lbs for aircraft with single-wheel main landing gear; Closed to aircraft over 12,500 lbs
- Average Gradient — 0.36%
- Lighting — Medium-intensity edge lighting
- Primary Taxiways — Full length parallel on southwest

**APPROACH PROTECTION**

**Runway 10L-28R**

- Runway Protection Zones
  - Runway 10L: 1,700 feet long; nearly all on airport
  - Runway 28R: 2,500 feet long; about 50% on airport property
  - All portions of RPZs off airport property fall on Stanislaus County land
- Approach Obstacles
  - Runway 10L: 73-foot tree , 2,700 feet from runway, 450 feet right of centerline, 34:1 to clear
  - Runway 28R: Road 1,600 feet from runway, on centerline, 50:1 to clear

**Runway 10R-28L**

- Runway Protection Zones
  - Runway 10R: 1,000 feet long; nearly all on airport
  - Runway 28L: 1,000 feet long; nearly all on airport
  - All portions of RPZs off airport property fall on unincorporated land
- Approach Obstacles
  - Runway 10R: 56-foot tree , 1,340 feet from runway, 75 feet left of centerline, 20:1 to clear
  - Runway 28L: 47-foot tree, 1,700 feet from runway, on centerline, 31:1 to clear

**AIRPORT PLANNING**

- Airport Planning Documents
  - Airport Layout Plan and Narrative Report (December 2009)
  - Part 150 Study (February 2009)
  - Airport Master Plan (not completed)

**BUILDING AREA**

- Location – Northeast side of runway
- Aircraft Parking Capacity
  - Hangar spaces for 175 aircraft
  - Approx. 100 tiedown spaces on apron (incl. FBO/transient areas)
- Services
  - Maintenance, supplies, aircraft rental, charter, instruction, car rental
  - Fuel (aviation gasoline and jet fuel)
  - Airport has commuter airline service
- Other Major Facilities
  - Airline terminal building
  - Air traffic control tower
  - Fixed base operator

**TRAFFIC PATTERNS AND APPROACH PROCEDURES**

- Airplane Traffic Pattern
  - Right traffic on Runway 28R and 10R
  - Pattern altitude – 1,000 feet AGL (single-engine aircraft excluding warbirds); 1,500 AGL all other aircraft
- Instrument Approaches
  - Runway 28R GPS-LPV: precision straight-in (½-mile visibility, 288 ft. minimum descent height); missed approach straight-out
  - Runway 28R ILS: precision straight-in (½ mi. visibility, 200 ft. min. descent height); missed approach climbs to 1,500 feet AGL then climbing right turn
  - Runway 28R VOR: nonprecision straight-in (½-mile visibility, 392 ft. minimum descent height); missed approach climbs to 900 feet AGL then climbing right turn
- Visual Navigational Aids
  - Runway 10L: REILS, 4-VASI (3.0°)
  - Runway 28R: MALSR
  - Runway 10R: 2-PAPI (3.5°)
  - Runway 28L: 2-PAPI (3.0°)
- Noise Abatement Procedures
  - Runways 28R/28L designated as calm wind runways
  - During calm winds (less than 5 knots), departures on Runway 10L encouraged for all large and jet aircraft, when feasible
  - No turns until at least 1,500 feet MSL (single-engine 600 feet MSL) for departures on Runway 10L-28R and 600 feet MSL for departures on Runway 10R-28L
  - Remain at pattern altitude over residential areas, when practical
  - Additional procedures available at: <http://modairport.com>
- Helicopters
  - Avoid overflight of residential areas where possible
  - Climb to 500 feet MSL over the airport before departing enroute
  - Remain at or above 500 feet MSL until over airport when landing

**PROPOSED FACILITY IMPROVEMENTS**

- Runway/Taxiway System
  - Extend Runway 10L-28R 500 feet to east
- Approach Protection
  - ALP proposes easement for off airport portion of Runway 28R RPZ
- Building Area
  - Relocated and expanded terminal building
  - Expanded terminal parking area
  - Construction of additional Executive and T-hangars

**Exhibit MOD -2**

**Airport Features Summary  
Modesto City-County Airport**

Source: Data compiled by Mead & Hunt, Inc. (October 2010)









**BASED AIRCRAFT <sup>a</sup>**

Aircraft Type	Current	Future
Single Engine	150	181
Multi Engine	25	47
Jet	1	6
Helicopter	8	11
Total	184	245

**AIRCRAFT OPERATIONS**

	Current <sup>b</sup>	Future <sup>b</sup>
Total		
Annual	84,185	141,000
Average Day	230	386
Distribution by Aircraft Type		
Airline	7%	6%
GA/Air Taxi	56%	56%
GA Local	38%	38%
Military	<1%	<1%

Distribution by Type of Operation <sup>b</sup>

Local		
(incl. touch-and-goes)	38%	No
Itinerant	62%	Change

**TIME OF DAY DISTRIBUTION**

	Current and Future <sup>b</sup>
Airlines	
Day	88%
Evening	12%
Night	<1%
GA/Air Taxi	
Day	87%
Evening	5%
Night	8%
Military	
Day	94%
Evening	3%
Night	2%
GA/Local	
Day	95%
Evening	3%
Night	2%

**RUNWAY USE DISTRIBUTION <sup>b</sup>**

	Current	Future
Business/Regional Jet & Turboprop/Multi-Engine		
<i>Takeoffs and Landings</i>		
Runway 10L	20%	No
Runway 28R	80%	Change
Runway 10R	0%	No
Runway 28L	0%	Change
Single & Multi-Engine Piston		
<i>Takeoffs and Landings</i>		
Runway 10L	12%	No
Runway 28R	48%	Change
Runway 10R	8%	No
Runway 28L	32%	Change

**FLIGHT TRACK DISTRIBUTION**

Data Not Available

**Notes:**

<sup>a</sup> Source: *Modesto City-County Airport Layout Plan Narrative Report* (December 2009)

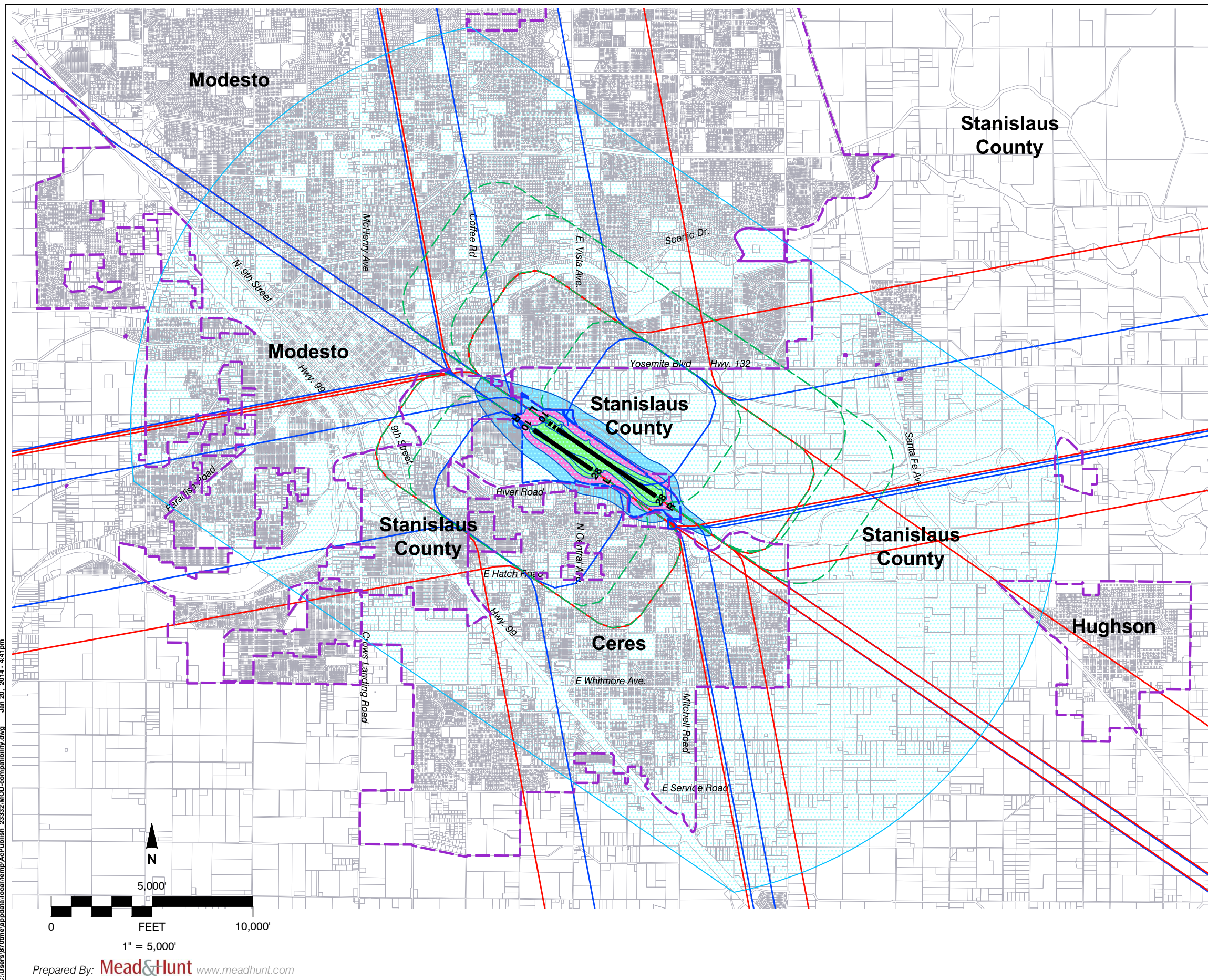
<sup>b</sup> Source: *Modesto City-County Airport Part 150 Study* (February 2009).

\* Figures may not add up to 100%, due to rounding.

**Exhibit MOD-4**  
**Airport Activity Data**  
**Modesto City-County Airport**

Data compiled by Mead & Hunt, Inc.





**Legend**

- Boundary Lines**
- Airport Property Line/Easements
  - - - City Limits
  - Existing Runway
  - - - - - Future Runway

- 2009 Part 150 Study Noise Contours<sup>1</sup>**
- 60 - 65 dB CNEL
  - 65 - 70 dB CNEL
  - 70+ dB CNEL

- Overflight Factors<sup>1</sup>**
- Arrival
  - Departure
  - - - Touch and Go
  - ▨ Aircraft Traffic Envelope<sup>2</sup>

**Notes**

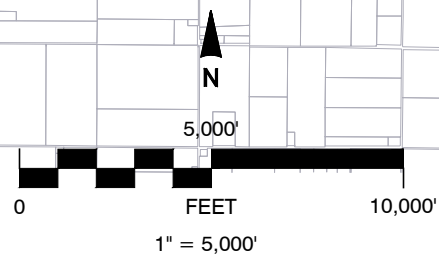
1. Flight track source: 2009 Part 150 study. Noise contours and flight tracks shown reflect long range scenario with 141,000 annual operations.
2. Approximately 80% of aircraft overflights estimated to occur within these limits at an altitude of 1,500 feet AGL or less. The traffic pattern altitude is established at 1,000 feet above the airport elevation for small aircraft and 1,500 feet for large aircraft.

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Exhibit MOD-5

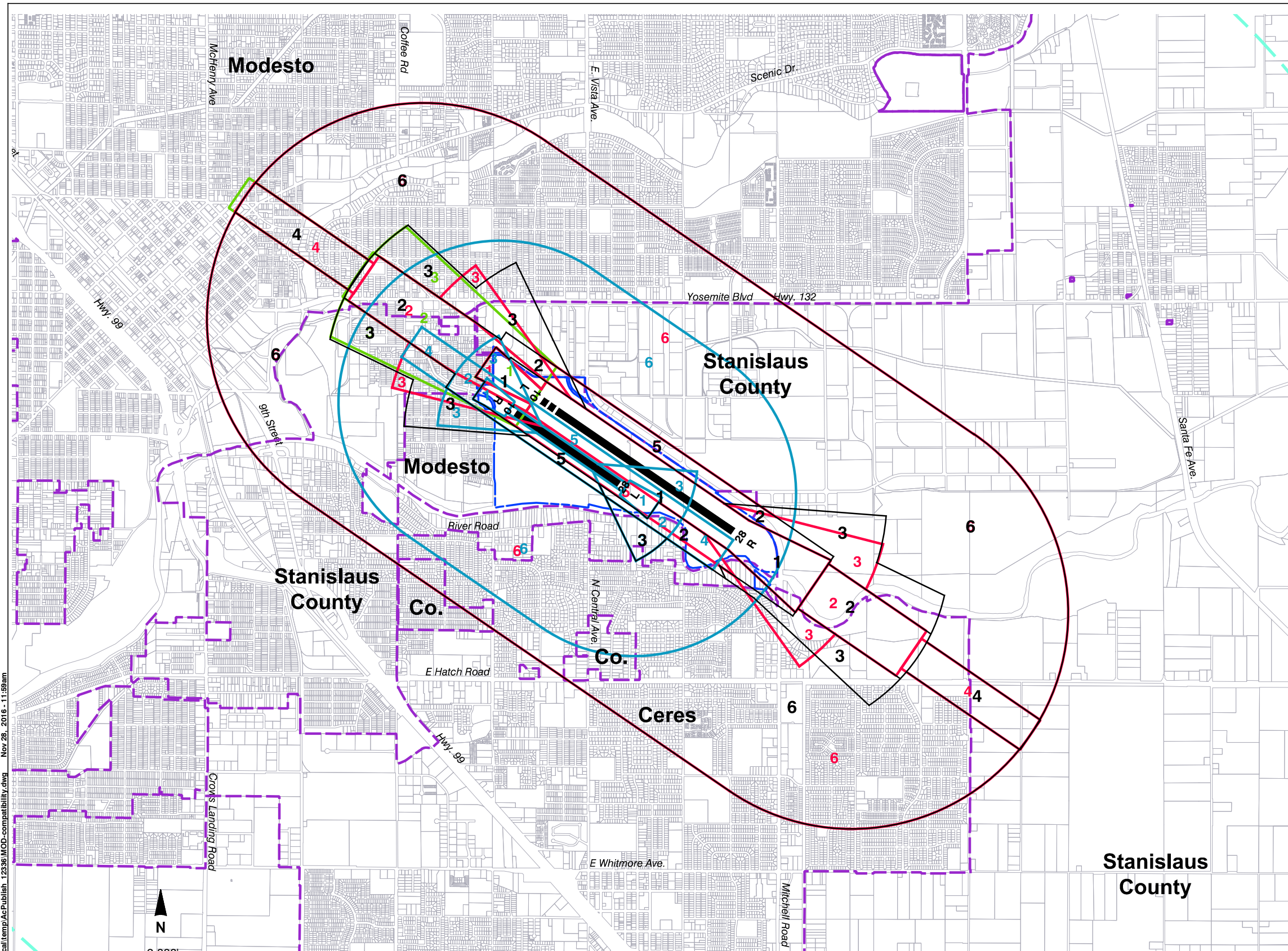
**Noise and Overflight Factors**  
 Modesto City-County Airport

C:\Users\B70me\AppData\Local\Temp\AcPublish\_23332\MOD-compatibility.dwg Jun 20, 2014 - 4:41pm



Prepared By: **Mead&Hunt** www.meadhunt.com





**Legend**

- Boundary Lines**
- — — — — Airport Property Line
  - - - - - City Limits
  - Existing Runway
  - - - - - Future Runway

**Safety Zone Factors**

- Generic Long Length General Aviation Runway
- Generic Short Length General Aviation Runway
- Generic Large Air-Carrier Length General Aviation Runway
- Safety Policy Zones

**Notes**

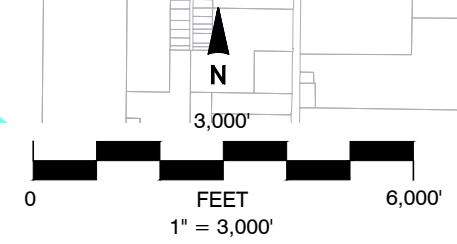
1. Safety zone source: California Airport Land Use Planning Handbook (January 2002).
2. Composite safety zones reflect existing runway configuration and 500' extension. Composite zones combine large air carrier runway zones, medium general aviation runway zones, and long general aviation runway zones for Runway 10L-28R.
3. Short general aviation zones were used for Runway 10R-28L.
4. Zone 1 has been adjusted to reflect runway protection zones depicted on the Airport Layout Plan (December 2009).
5. Safety Zone 3 for Runway 10L-28R, was modified from the Caltrans template for safety zones for runways of this length based on the traffic pattern. The smaller area south of approach end of Runway 28R is consistent with Caltrans guidance for a runway with single-sided traffic pattern.

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Exhibit MOD-6

**Safety Factors**  
 Modesto City-County Airport

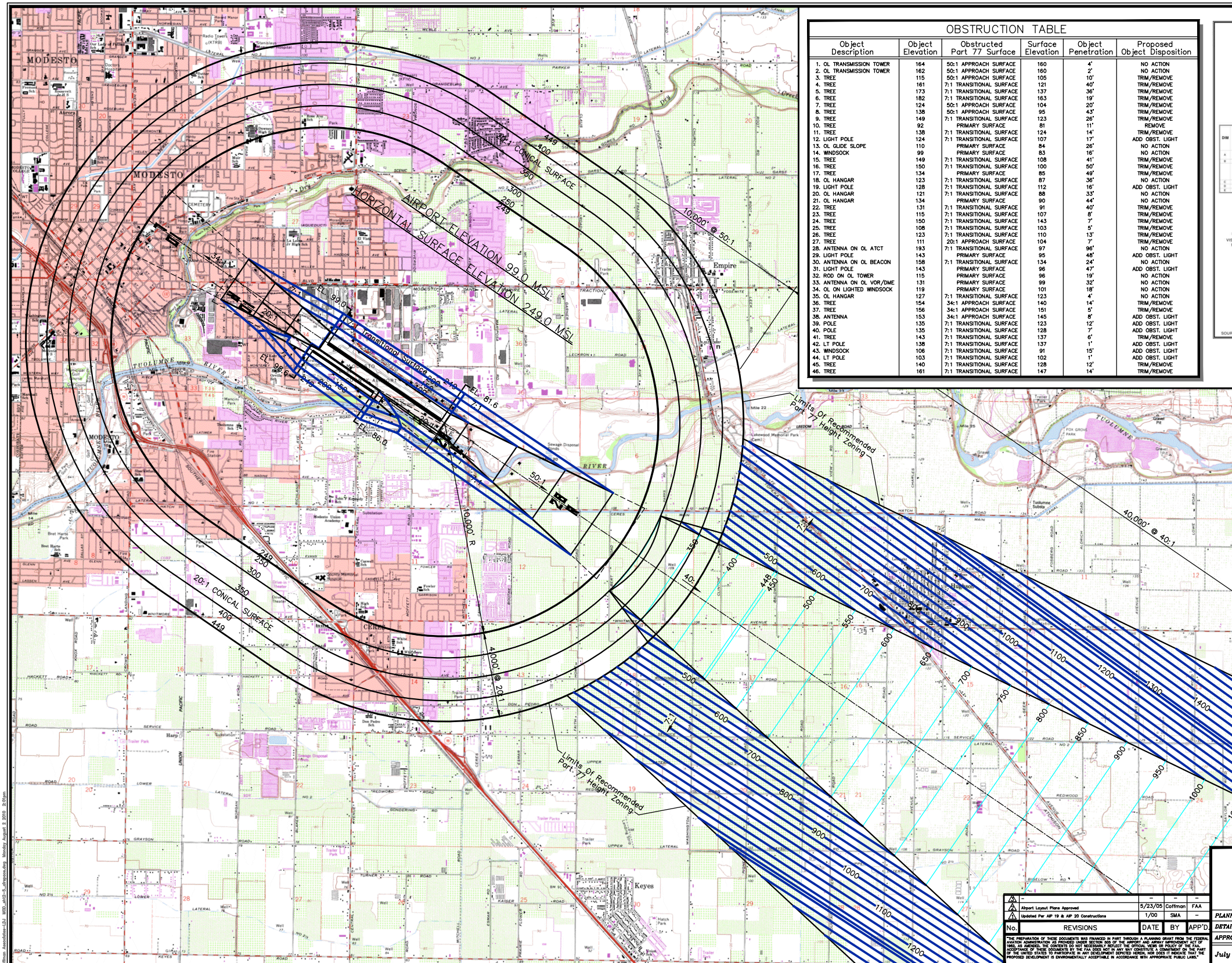
C:\Users\B70me\AppData\Local\Temp\AcPublish\_12336\MOD-compatibility.dwg Nov 28, 2016 - 11:59am



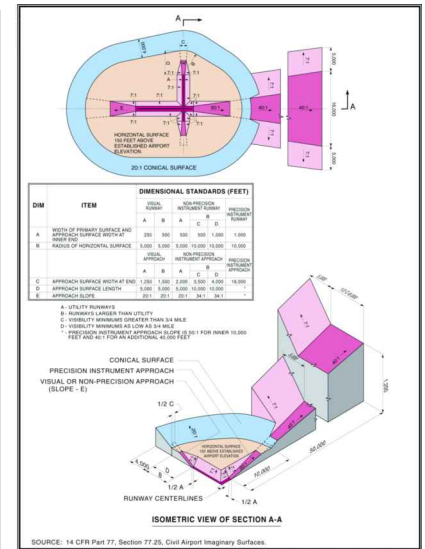
Prepared By: **Mead&Hunt** www.meadhunt.com







Object Description	Object Elevation	Obstructed Part 77 Surface	Surface Elevation	Object Penetration	Proposed Object Disposition
1. OL TRANSMISSION TOWER	164	50:1 APPROACH SURFACE	160	4'	NO ACTION
2. OL TRANSMISSION TOWER	162	50:1 APPROACH SURFACE	160	2'	NO ACTION
3. TREE	115	50:1 APPROACH SURFACE	105	10'	TRIM/REMOVE
4. TREE	161	7:1 TRANSITIONAL SURFACE	121	40'	TRIM/REMOVE
5. TREE	173	7:1 TRANSITIONAL SURFACE	137	36'	TRIM/REMOVE
6. TREE	162	7:1 TRANSITIONAL SURFACE	163	19'	TRIM/REMOVE
7. TREE	124	50:1 APPROACH SURFACE	104	20'	TRIM/REMOVE
8. TREE	136	50:1 APPROACH SURFACE	95	43'	TRIM/REMOVE
9. TREE	149	7:1 TRANSITIONAL SURFACE	123	26'	TRIM/REMOVE
10. TREE	92	PRIMARY SURFACE	87	11'	REMOVE
11. TREE	138	7:1 TRANSITIONAL SURFACE	124	14'	TRIM/REMOVE
12. LIGHT POLE	124	7:1 TRANSITIONAL SURFACE	107	17'	ADD OBST. LIGHT
13. OL GLIDE SLOPE	110	PRIMARY SURFACE	84	26'	NO ACTION
14. WINDSOCK	99	PRIMARY SURFACE	83	16'	NO ACTION
15. TREE	149	7:1 TRANSITIONAL SURFACE	108	41'	TRIM/REMOVE
16. TREE	150	7:1 TRANSITIONAL SURFACE	100	50'	TRIM/REMOVE
17. TREE	134	PRIMARY SURFACE	85	49'	TRIM/REMOVE
18. OL HANGAR	123	7:1 TRANSITIONAL SURFACE	87	36'	NO ACTION
19. LIGHT POLE	128	7:1 TRANSITIONAL SURFACE	112	16'	ADD OBST. LIGHT
20. OL HANGAR	121	7:1 TRANSITIONAL SURFACE	88	33'	NO ACTION
21. OL HANGAR	134	PRIMARY SURFACE	90	44'	NO ACTION
22. TREE	131	7:1 TRANSITIONAL SURFACE	91	40'	TRIM/REMOVE
23. TREE	115	7:1 TRANSITIONAL SURFACE	107	8'	TRIM/REMOVE
24. TREE	150	7:1 TRANSITIONAL SURFACE	143	7'	TRIM/REMOVE
25. TREE	108	7:1 TRANSITIONAL SURFACE	103	5'	TRIM/REMOVE
26. TREE	123	7:1 TRANSITIONAL SURFACE	110	13'	TRIM/REMOVE
27. TREE	111	20:1 APPROACH SURFACE	104	7'	TRIM/REMOVE
28. ANTENNA ON OL ATCT	113	7:1 TRANSITIONAL SURFACE	97	96'	NO ACTION
29. LIGHT POLE	143	PRIMARY SURFACE	95	48'	ADD OBST. LIGHT
30. ANTENNA ON OL BEACON	158	7:1 TRANSITIONAL SURFACE	134	24'	NO ACTION
31. LIGHT POLE	134	PRIMARY SURFACE	96	47'	ADD OBST. LIGHT
32. ROD ON OL TOWER	115	PRIMARY SURFACE	96	19'	NO ACTION
33. ANTENNA ON OL VOR/DME	131	PRIMARY SURFACE	99	32'	NO ACTION
34. OL ON LIGHTED WINDSOCK	119	PRIMARY SURFACE	101	18'	NO ACTION
35. OL HANGAR	127	7:1 TRANSITIONAL SURFACE	123	4'	NO ACTION
36. TREE	154	34:1 APPROACH SURFACE	140	14'	TRIM/REMOVE
37. TREE	156	34:1 APPROACH SURFACE	151	5'	TRIM/REMOVE
38. ANTENNA	153	34:1 APPROACH SURFACE	145	8'	ADD OBST. LIGHT
39. POLE	135	7:1 TRANSITIONAL SURFACE	123	12'	ADD OBST. LIGHT
40. POLE	135	7:1 TRANSITIONAL SURFACE	128	7'	ADD OBST. LIGHT
41. TREE	145	7:1 TRANSITIONAL SURFACE	137	6'	TRIM/REMOVE
42. LT POLE	138	7:1 TRANSITIONAL SURFACE	137	1'	ADD OBST. LIGHT
43. WINDSOCK	106	7:1 TRANSITIONAL SURFACE	91	15'	ADD OBST. LIGHT
44. LT POLE	103	7:1 TRANSITIONAL SURFACE	103	1'	ADD OBST. LIGHT
45. TREE	140	7:1 TRANSITIONAL SURFACE	128	12'	TRIM/REMOVE
46. TREE	161	7:1 TRANSITIONAL SURFACE	147	14'	TRIM/REMOVE



OBSTRUCTION LEGEND	
	OBSTRUCTION
	GROUP OF MULTIPLE OBSTRUCTIONS
	TOPOGRAPHIC OBSTRUCTION

- GENERAL NOTES:**
- Obstructions, clearances, and locations are calculated from ultimate survey and elevations and ultimate approach surfaces, unless otherwise noted.
  - Depiction of features and objects within the primary, transitional, and horizontal Part 77 surfaces, as illustrated on the PART 77 AIRSPACE DRAWING, sheets 2 and 3 of these plans.
  - Depiction of features and objects within the outer portion of the approach surfaces, as illustrated on the RUNWAY APPROACH SURFACE PROFILES, sheets 4 and 5 of these plans.
  - Depiction of features and objects within the inner portion of the approach surfaces, as illustrated on the INNER PORTION OF RUNWAY APPROACH SURFACE DRAWINGS, sheets 6, 7, 8 and 9 of these plans.

Magnetic Declination  
 14° 7' E (August 2009)  
 Annual Rate of Change 6" West

SCALE IN FEET

No.	REVISIONS	DATE	BY	APP'D
1	Updated the AP 18 & AP 20 Construction	5/23/05	Coffman	FAA
2		1/00	SMA	

MODESTO CITY-COUNTY AIRPORT  
 HARRY SHAM FIELD

**AIRPORT AIRSPACE DRAWING**

Modesto, California

PLANNED BY: Stephen E. Wagner/Chris L. Rogers  
 DETAILED BY: Larry S. Johnson  
 APPROVED BY: James M. Harris, P.E.

July 22, 2010 SHEET 2 OF 15

C:\Users\870me\appdata\local\temp\AcSublist\_23332\MCD-airspace.dwg Jan 20, 2014 - 5:31pm

This is a reduced version of a large size drawing.



**AIRPORT LOCATION AND NEARBY TOPOGRAPHY**

- Location
  - Airport in city of Modesto, 2.0 miles southeast of city center
  - City of Ceres borders airport on south
  - Unincorporated land borders airport on east
- Topography
  - Situated on floor of San Joaquin Valley; no major high terrain in vicinity
  - Elevation: 97 feet Above Mean Sea Level (MSL)

**EXISTING AIRPORT AREA LAND USES**

- General Character
  - Urban development to north, east, west and southwest
  - Agricultural land to southeast
- Runway Approaches
  - Northwest (Rwy 10): residential neighborhoods and commercial and industrial uses
  - Southeast (Rwy 28): open space and residential neighborhoods
- Traffic Pattern
  - Industrial park to northeast and residential neighborhoods to southwest

**AIRPORT ENVIRONS AND LAND USE JURISDICTIONS**

- City of Modesto
  - Airport property and portions of Runway Protection Zones (RPZs) within city limits
- City of Ceres
  - Portions of southeastern RPZs, runway approaches and southwestern traffic pattern over city
- County of Stanislaus
  - Portions of southeastern RPZs and southwestern traffic pattern over unincorporated lands

**STATUS OF LOCAL AGENCY PLANS**

- City of Modesto
  - Urban Area General Plan adopted October 2008
- City of Ceres
  - General Plan adopted February 1997
- Stanislaus County
  - General Plan adopted December 1995
  - Undergoing a General Plan update; anticipated adoption early 2012

**PLANNED AIRPORT AREA LAND USES**

- City of Modesto General Plan
  - Planned residential (<7.5 du/ac) to west, commercial to northwest, and industrial to east
- City of Ceres General Plan
  - Very low density residential (<4.5 du/ac) proposed immediately south/southeast of airport
- Stanislaus County General Plan
  - Maintain agriculture to southeast

**ESTABLISHED COMPATIBILITY MEASURES**

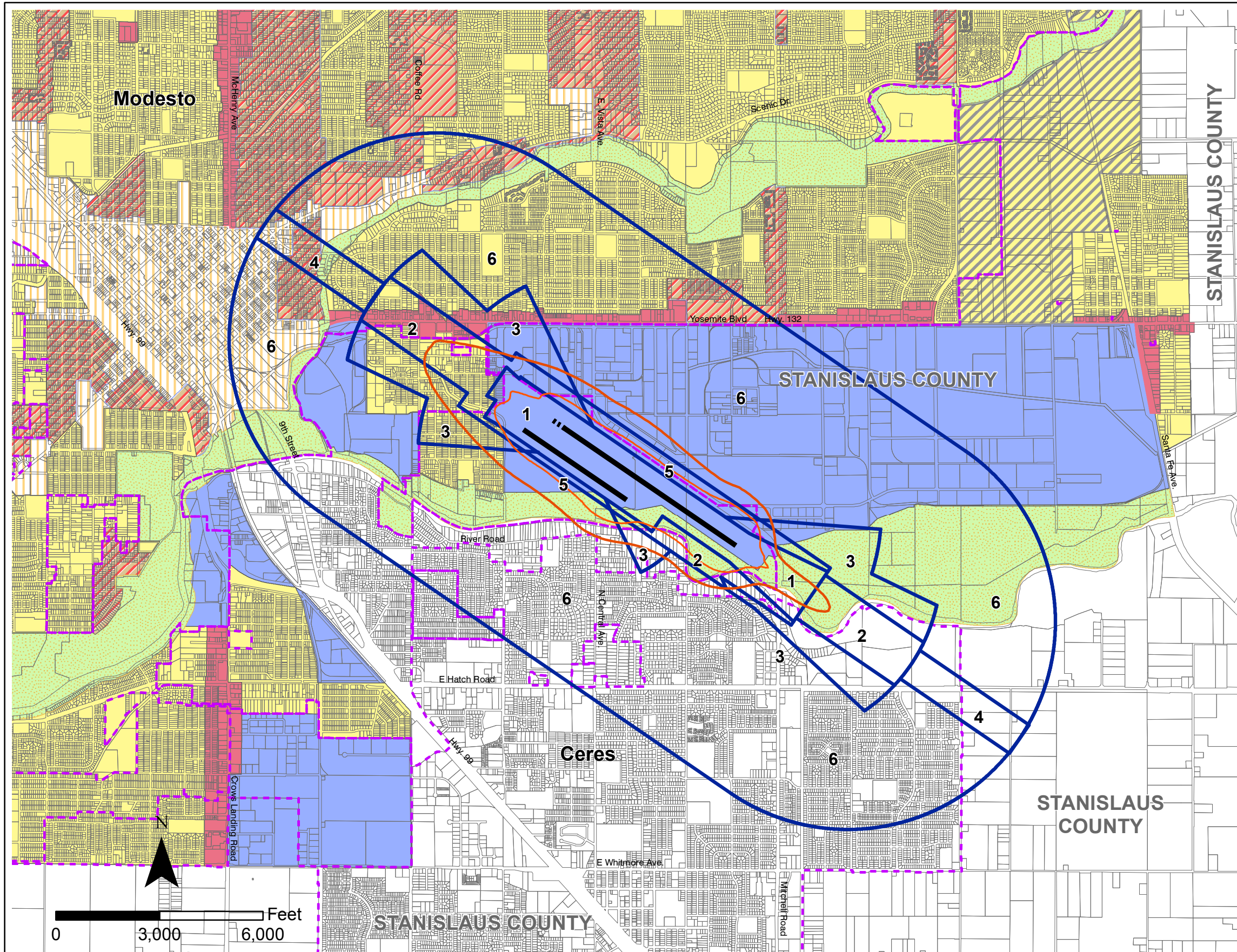
- City of Modesto 2008 Urban Area General Plan
  - Land use around Airport will be consistent with Stanislaus County Airport Land Use Commission (ALUC) Plan (p. V-26)
- City of Modesto 2008 Urban Area General Plan (continued)
  - Mitigation required for new construction to meet noise compatibility standards of General Plan (p. VII-25)

**ESTABLISHED COMPATIBILITY MEASURES (continued)**

- City of Ceres 1997 General Plan
  - Emphasize compatibility of land uses for both urban development and for airport facilities to ensure availability of local air transportation services and a quality living environment (p. 1-25).
  - All new development within Airport Safety Zones to be developed according to General Plan standards (p. 1-27).
  - Work with appropriate agencies, including ALUC, to ensure compatibility of land uses with airport facilities and operations (p. 1-27).
  - Limit building heights for airspace protection in accordance with Federal Aviation Regulation Part 77 (p. 1-27).
  - Require dedication of overflight easements and/or deed notices when development is proposed on property within airport safety zones (p. 1-27).
  - Ensure new development around Airport does not create safety hazards such as lights from direct or reflective sources, smoke, electrical interference, hazardous chemicals, or fuel storage in violation of adopted safety standards (p. 7-6).
  - Oppose changes in flight patterns that would increase flight activity over Ceres and significantly increase noise or safety concerns (p. 7-6).
  - Prohibit new development of noise-sensitive land uses in areas exposed to existing or projected levels of noise from transportation noise sources, unless project design includes effective mitigation measures to reduce exterior noise and noise levels in interior spaces to specified levels (p. 7-11).
- Stanislaus County 1995 General Plan
  - Policy LU-4. Applications for development in areas with growth-limiting factors such as airport hazards shall include measures to mitigate problems. County will continue to enforce height limiting ordinance near airports (p. 1-3).
  - Policy LU-5. Residential development shall not be approved at maximum density if it does not comply with airport height limiting ordinance restrictions (p. 1-4).
  - Policy C-9. Support development of public use airports consistent with airport master plans developed for Oakdale Municipal and Modesto City-County Airports (p. 2-35).
  - Policy N-2. New development of noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into project design reducing noise levels to following levels: 60 CNEL or less in outdoor activity areas of single family residences, 65 CNEL or less in community outdoor space for multi-family residences, and 45 CNEL or less within noise-sensitive interior spaces. Where it is not practical to reduce exterior noise, an exterior level of up to 65 CNEL will be allowed. Under no circumstances will interior noise levels be allowed to exceed 45 CNEL with windows and doors closed in residential uses (p. 4-15).
  - Policy S-12. Development within areas protected by ALUC Plan shall only be approved if they meet requirements of the Plan. All amendments to a land use designation, zoning district, or zoning regulation affecting land within Plan boundary shall be referred to ALUC for comment. If ALUC recommends denial, Board of Supervisors may overrule that recommendation only by a two-thirds majority vote. Height and exterior materials of new structures in Airport Zone require review (p. 5-9).

Data compiled by Mead & Hunt





**Legend**

- City Boundary
- Existing Runway
- Future Runway Extension
- 60dB CNEL Noise Contour
- 65dB CNEL Noise Contour
- Safety Zones (composite)

**City of Modesto General Plan**

- Business Park
- Commercial
- Industrial
- Mixed Use
- Open Space
- Residential
- Commercial - Regional
- Redevelopment Planning District
- Salida Community Plan
- Residential - Village

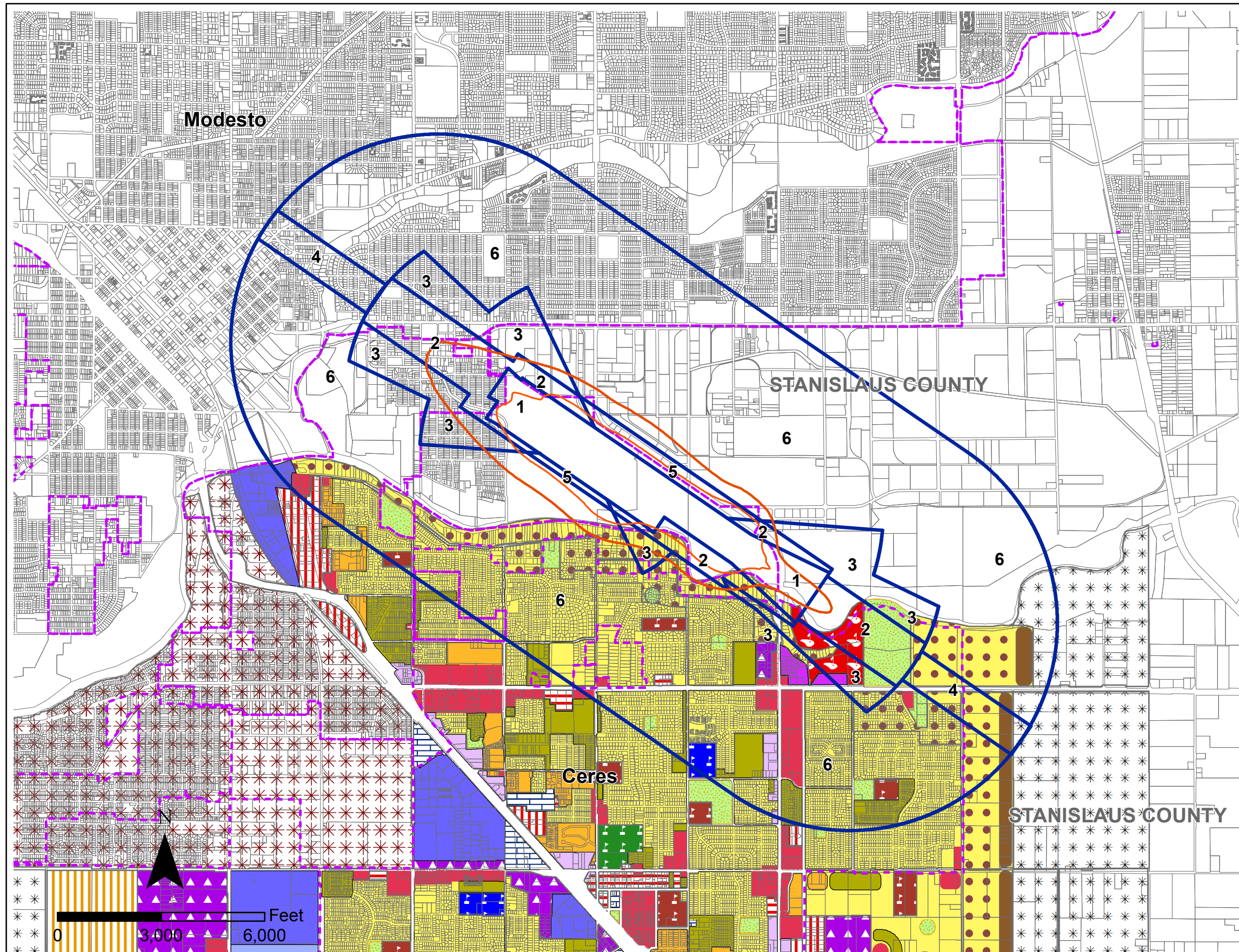
**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Exhibit MOD-9A

Sources: City and County GIS Data (2009)

**Modesto General Plan**  
 Modesto City-County Airport





**Legend**

- City Boundary
- 60dB CNEL Noise Contour
- 65dB CNEL Noise Contour
- Layer**
- Safety Zones (composite)
- City of Ceres General Plan**
- Agriculture
- Adjacent Urban
- Business Park
- Commercial - General
- Community Facilities
- Community Facilities - PSF
- Commercial - Recreation
- School - Elementary
- Industrial - General
- School - High
- Residential - High Density
- School - High
- Industrial - Reserve
- School - Junior High
- Residential - Low Density
- Industrial - Light
- Residential - Medium Density
- Commercial - Neighborhood
- Office
- Parks
- Residential - Agriculture
- Residential - Reserve
- Commercial - Service
- Residential - Very Low Density

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

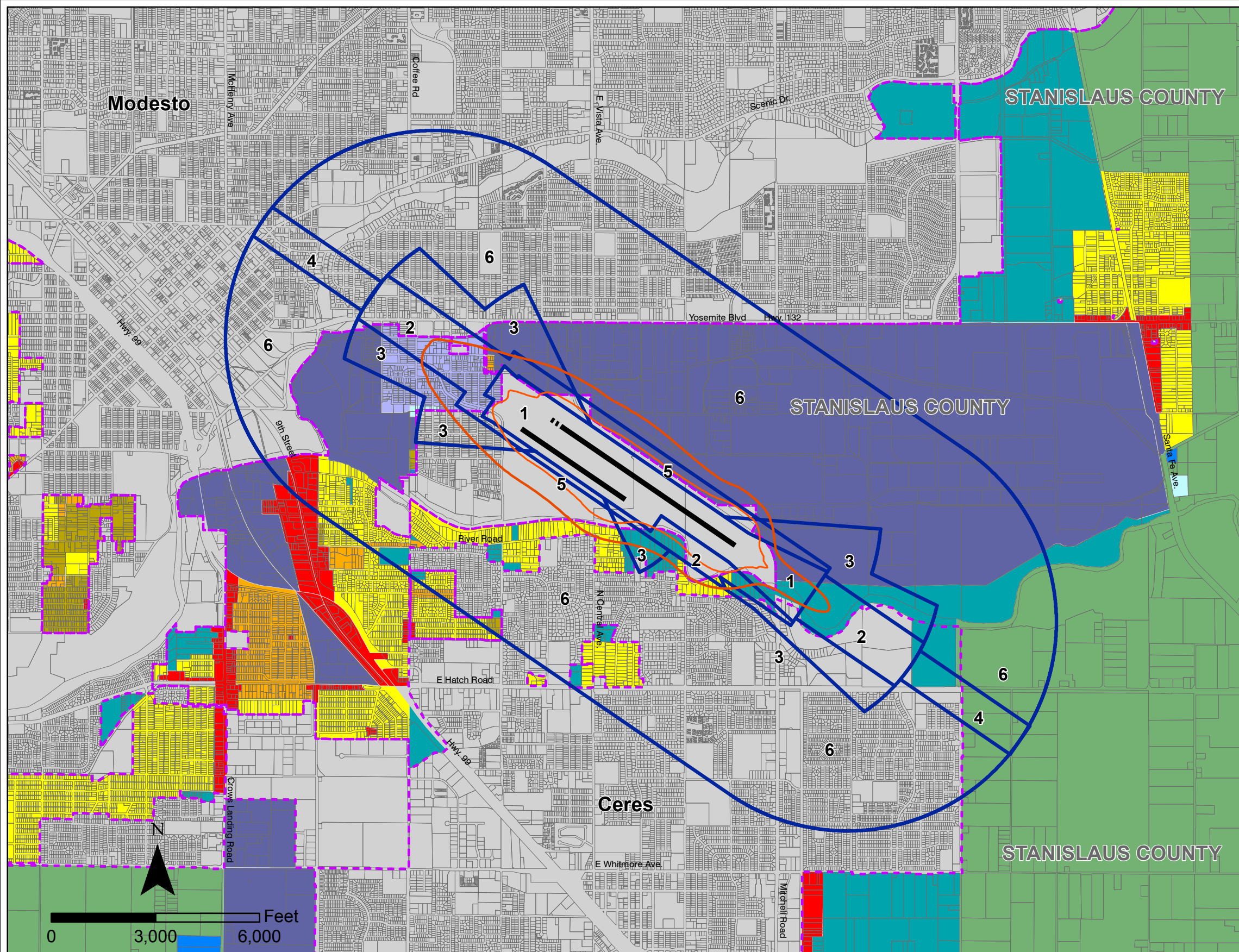
Exhibit MOD 9B

Sources: City and County GIS Data (2009)

**Ceres General Plan**  
 Modesto City-County Airport







**Legend**

- City Boundary

**Layer**

- Airport Safety Zones
- Existing Runway
- Future Runway Extension
- 60dB CNEL Noise Contour
- 65dB CNEL Noise Contour
- Safety Zones (composite)

**Stanislaus County General Plan**

- Agriculture
- Commercial
- Estate Residential
- Hwy. Commercial/Planned Devpt.
- Historical
- Industrial Business Park
- Industrial
- Industrial Transition
- Low Density Residential
- Medium Density Residential
- Medium High Density Residential
- Planned Development
- Planned Industrial
- Specific Plan 1
- Urban Transition
- City



**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Exhibit MOD 9C

Sources: City and County GIS Data (2009)

**Stanislaus County General Plan**  
 Modesto City-County Airport





Chapter **5**

**OAKDALE MUNICIPAL AIRPORT  
AND ENVIRONS  
BACKGROUND DATA**



---

# Background Data: Oakdale Municipal Airport and Environs

## INTRODUCTION

Oakdale Municipal Airport is a general aviation (GA) facility that is owned and operated by the City of Oakdale. The airport was established as a private aviation facility in 1947 and then purchased by the City of Oakdale in 1960. Although the airport is located on City property, the airport property is not contiguous to the remainder of the City. The City of Oakdale is located approximately 2.5 miles west of the airport. Access to the airport is from Laughlin Road from Sierra Road. The airport lies at an elevation of 237 feet above Mean Sea Level (MSL) and encompasses 117 acres.

## STATUS OF AIRPORT PLANS

The Oakdale City Council adopted the most recent Master Plan for Oakdale Municipal Airport in 1998 (Resolution 98-88). The 1998 Master Plan includes a long-term development plan for the airport covering a planning horizon of 20 years. A legible copy of the Master Plan was not available for use in preparation of the ALUCP.

In 2006, the City prepared an Airport Layout Plan to assist airport staff in implementing short-term improvements to the airfield. As an administrative drawing, the 2006 ALP was never submitted or approved by the Federal Aviation Administration (FAA).

In 2013, the City prepared an ALP drawing set and associated Narrative Report. The ALP drawing set includes the ALP, Airspace Plan and Airport Property Map. The ALP Narrative report describes existing and planned airport facilities and documents existing and forecast aircraft activity. Based on discussions with FAA, the proposed ALP does not include all of the long-term Master Plan development projects, such as the runway extension and upgrade to ARC B-II. The ALP is FAA pending approval. In accordance with Section 21675(a) of the California Public Utilities Code, the 2013 ALP was presented to the Caltrans Division of Aeronautics with a request that it serve as the basis of the Oakdale Municipal Airport Land Use Compatibility Plan.

The 2013 ALP, together with supplemental information provided by airport personnel, forms the foundation for this ALUCP. Existing and future airport features are summarized in **Exhibit OAK-2** and discussed further below. The proposed 2014 ALP is presented as **Exhibit OAK-3**.

## AIRFIELD CONFIGURATION

Oakdale Municipal Airport has a single paved runway (Runway 10-28) 3,013 feet long and 75 feet wide. The runway is aligned with the prevailing wind direction in a nearly northwest/southeast alignment. Winds at the airport are primarily out of the northwest. The airport building area is located north of the airfield. Air transportation services include flight instruction, charter service, rentals, and engine repair and maintenance.

Oakdale Municipal Airport has an Airport Reference Code (ARC) classification of B-I (small) which means that the airport is designed to accommodate small aircraft weighing less than 12,500 pounds (e.g., Cessna 172). Both ends of Runway 10-28 are equipped with straight-in, non-precision instrument (GPS) approach capabilities providing visibility minimums as low as one statute mile and a decision altitude of 519 feet MSL (295 feet above ground level [AGL]) for Runway 10 and 7/8 statute mile and a decision altitude of 532 feet MSL (295 feet AGL) for Runway 28.

The Runway Protection Zones (RPZs) for each runway reflect FAA criteria for an ARC B-I (small) runway. Each RPZ has an inner width of 250 feet, an outer width of 450 feet and a length of 1,000 feet. Less than 15% of the Runway 10 RPZ is located on airport property, while nearly 90% of the RPZ for Runway 28 is off-airport.

As described in the 2013 ALP and Narrative Report, the long-term development plans for the airport include:

- ▶ Property acquisition north and south of Runway 10 for future airport development; Acquisition of easements for the portions of the RPZs located outside of the airport property boundaries; and
- ▶ Construction of future aircraft hangars and parking aprons.

## AIRSPACE PLAN

The 2013 ALP includes an Airspace Plan which depicts the future Federal Aviation Regulations (FAR) Part 77 imaginary airspace surfaces (see **Exhibit OAK-7**). The 2013 Airspace Plan reflects the existing airfield configuration and design of the runway (i.e., ARC B-I (small)) and non-precision instrument approaches to both runway ends.

## EXISTING ACTIVITY

The FAA's National Plan of Integrated Airport Systems (NPIAS) classifies Oakdale Municipal Airport as a general aviation facility. As is typical with most small general aviation facilities, Oakdale Municipal Airport does not have an Airport Traffic Control Tower (ATCT). As such, existing aircraft activity levels must be estimated based upon observations by airport management, airport users, and activity data provided in the 2013 ALP Narrative Report. Current (2013) aircraft activity levels are estimated at 42,200 annual operations. Most of this activity (85%) is local operations, which includes flight training exercises known as touch-and-go's.

Based on information provided by airport personnel, up to one-third of the local operations are conducted by helicopters arriving from other airports to conduct training exercises at the airport. Helicopters enter the left-hand traffic pattern on the south side of the airport to land on the runway.

Helicopter training exercises can take place for up to 6 hours at a time, 2 to 3 times a month. The remaining local operations are by fixed-wing aircraft, typically single-engine aircraft, also flying the left-hand closed-circuit pattern south of the airport. Itinerant operations make up 15% of the total activity. Although the airport is used predominantly by single-engine aircraft, a small percentage of multi-engine (3%), turboprop (3%), and jet (1%) aircraft use the airport on a regular basis.

## Activity Forecast

As provided in the 2013 ALP Narrative report, a forecast of 52,200 annual operations assumes that aircraft activity will increase at a rate of 1.1 percent from the base year level of some 42,200 annual operations (2012). No change in the fleet mix is anticipated over the planning horizon.

The activity forecast of 52,200 annual operations provided in the 2013 ALP Narrative Report is brought forward and used as the basis of this ALUCP. Existing and future aircraft activity assumptions are summarized in **Exhibit OAK-4**.

## Noise Contours

Future noise contours were generated reflecting the new activity forecast of 52,200 annual operations. The future noise contours for Oakdale Municipal Airport are shown in **Exhibit OAK-5**.

## Overflight Patterns

The typical aircraft traffic patterns at Oakdale Municipal Airport are illustrated on **Exhibit OAK-5**. The airport has standard left-hand traffic patterns to Runway 10 and Runway 28. Runway 28 is the primary runway for landings and takeoffs. Due to prevailing winds, an estimated 90% of operations take place on Runway 28 and operate into the wind in an east to west direction. Arriving aircraft usually enter the pattern downwind at a 45° angle. Airport management indicates that 30% of aircraft arrive from the west, 30% from the north, 30% from the south, and 10% from the east. It is also estimated that 40% of aircraft depart straight out and 60% turn left (westward). The traffic pattern altitude is established at 1,000 feet above the established airport elevation of 237 feet MSL. Aircraft following straight-in approach procedures will be at a lower altitudes relative to the runway ends than aircraft entering the traffic pattern.

## Safety Zones

For Oakdale Municipal Airport, the generic safety zones for a short general aviation runway (< 4,000 feet in length) were applied to the existing runway configuration.<sup>1</sup> Adjustments to the generic safety zones were made to reflect the following:

- ▶ Zone 1 reflects the existing RPZs;
- ▶ Zone 4 at the northwest end of the runway is modified to reflect that aircraft departing the airport will typically make a left-hand turn at Sierra Road to head south or west.

The safety zones for Oakdale Municipal Airport are shown in **Exhibit OAK-6**.

---

<sup>1</sup> Source: *California Airport Land Use Planning Handbook* (October 2011).

## Airport Environs

**Exhibit OAK-8** provides a detailed summary of Oakdale Municipal Airport’s existing and planned environs, including airport compatibility policies adopted by the local agencies. The City of Oakdale and Stanislaus County are within the airport’s influence area. Planned land use designations are provided in **Exhibits OAK-9A** and **OAK-9B**.

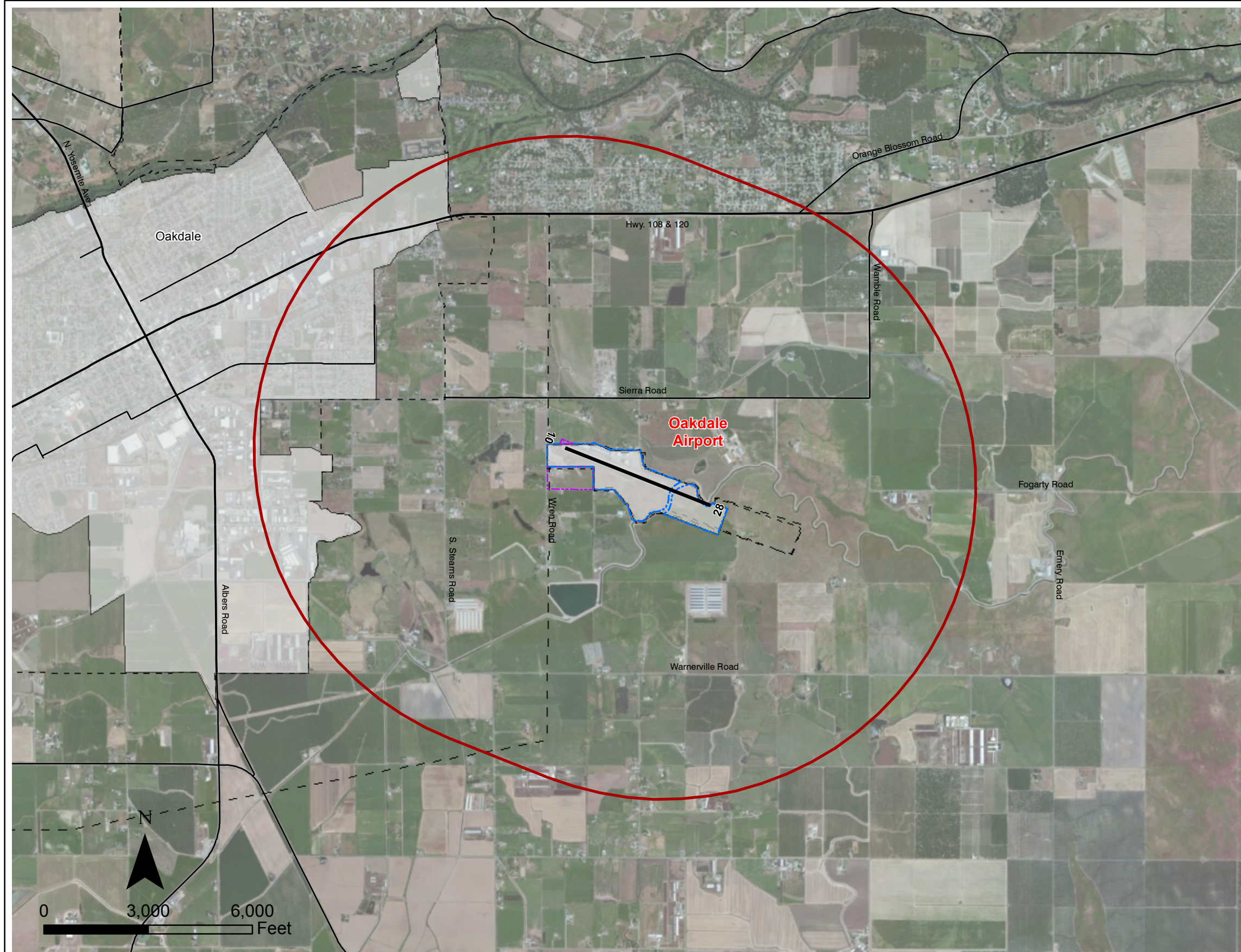
As shown in the exhibits, unincorporated lands entirely surround the airport. Much of the airport is adjacent to large tracts of agricultural and undeveloped land. Some scattered housing is located on this agricultural land. The airport is located approximately 1 mile east of the nearest point of the urbanized areas of the City of Oakdale. Industrial uses exist 1.5 miles west of the airport. Low-density residential development is planned less than 0.5 mile northwest from the approach end of Runway 10.

## BACKGROUND INFORMATION








The following exhibits present the data upon which *Compatibility Plan* policy maps are based:

- ▶ **Exhibit OAK-1**—Airport Location: Presents the location of the airport in the context of existing environment (aerial photograph).
- ▶ **Exhibit OAK-2**—Airport Features Information: Presents data pertaining to existing and proposed infrastructure (runways, taxiways, etc.), traffic patterns, and approach data.
- ▶ **Exhibit OAK-3**—Airport Layout Plan: Presents existing and proposed airport facilities as provided in the 2013 ALP and Narrative Report. FAA approval is anticipated in summer of 2014.
- ▶ **Exhibit OAK-4**—Airport Activity Data: Presents aviation forecasts for the 20-year planning period of this ALUCP based on forecast data provided in the 2013 ALP Narrative Report.
- ▶ **Exhibit OAK-5**—Noise and Overflight Factors: Presents the geographic area over which aircraft operating at the airport routinely fly, as well as the noise contours based on the planning period forecasts.
- ▶ **Exhibit OAK-6**—Safety Factors: Presents the locations of safety zones using the guidance and templates presented by the California Division of Aeronautics in its manual, *California Airport Land Use Planning Handbook*. Adjustments to the generic zones are also depicted.
- ▶ **Exhibit OAK-7**—Airspace Protection Surfaces: Depicts the Federal Aviation Regulations Part 77 airspace surfaces which should be kept free of obstructions.
- ▶ **Exhibit OAK-8**—Airport Environs: Presents site data, existing and planned land uses, affected jurisdictions, and compatible land use measures.
- ▶ **Exhibit OAK-9A**—Oakdale General Plan: Presents land uses based on City of Oakdale General Plan and GIS parcel data (adopted 2013).
- ▶ **Exhibit OAK-9B**—Stanislaus County General Plan: Presents land uses based on County of Stanislaus General Plan and GIS parcel data.





**Legend**

-  Road
-  City of Oakdale
-  Existing Airport Property
-  Future Airport Property
-  Existing Sphere of Influence
-  Future Sphere of Influence
-  Airport Influence Area

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
*(Adopted October 2016)*

Exhibit OAK-1



**GENERAL INFORMATION**

- Airport Ownership – City of Oakdale
- Property size
  - Fee title: 117 acres
  - Avigation easements: 21.2 acres
- Airport Classification –General aviation
- Airport Elevation — 237' feet MSL (surveyed)
- Access
  - Via Laughlin Road from Sierra Road
  - 2.5 miles from central Oakdale and Highway 108

**RUNWAY SYSTEM****Runway 10-28**

- Critical Aircraft — Cessna 421
- Classification — Airport Reference Code B-I (small)
- Dimensions —3,013 feet long; 75 feet wide
- Pavement Strength — 20,000 lbs for aircraft with single-wheel main landing gear
- Average Gradient — 0.48%
- Lighting — Medium intensity edge lighting, runway edge identifier lights
- Primary Taxiways — Full length parallel north of runway

**APPROACH PROTECTION**

- Established Runway Protection Zones
  - Runway 10: 1,000 feet long, outer width 450 feet; 14% on airport
  - Runway 28: 1,000 feet long, outer width 450 feet; 99% off airport
- Approach Obstacles
  - Runway 10: No close-in obstructions (50:1 clear)
  - Runway 28: No close-in obstructions (50:1 clear)

**BUILDING AREA**

- Location – North-northeast side of runway
- Aircraft Parking Capacity
  - Hangar spaces for 61 aircraft (2013 ALP)
  - 20 tiedown spaces (2013 ALP)
- Services
  - Airframe and powerplant maintenance
  - Fuel (100LL)

**TRAFFIC PATTERNS AND APPROACH PROCEDURES**

- Airplane Traffic Pattern
  - Left traffic
  - Pattern altitude – 1,000 feet AGL
- Instrument Approaches
  - Runway 10 RNAV (GPS): nonprecision straight-in (1-mile visibility, 519 ft. MSL [295 ft. AGL] minimum descent height); missed approach climbs to 2,000'
  - Runway 28 RNAV (GPS): nonprecision straight-in (7/8-mile visibility, 532 ft. MSL [295 ft. AGL] minimum descent height); missed approach climbs to 3,000'
- Visual Navigational Aids
  - Runway 10: REILS, 2-box VASI (2.50° glide path)
  - Runway 28: REILS, 2-light PAPI (3.00° glide path)
- Noise Abatement Procedures
  - None
- Helicopters
  - Substantial helicopter training activity
  - Typically fly pattern and hover on runway or parallel taxiway

**PROPOSED FACILITY IMPROVEMENTS**

- Property Acquisitions
  - 19 acres south of airport and east of Wren Road
  - 0.6 acres north of Runway 10 and east of Wren Road
- Approach Protection
  - Easements for off airport portions of RPZs for Runways 10 and 28
- Building Area
  - Construction of additional hangars

**AIRPORT PLANNING**

- Airport Planning Documents
  - Airport Master Plan and ALP (1998)
  - Airport Layout Plan (2006)
  - Airport Layout Plan and Narrative Report (2013 Draft)

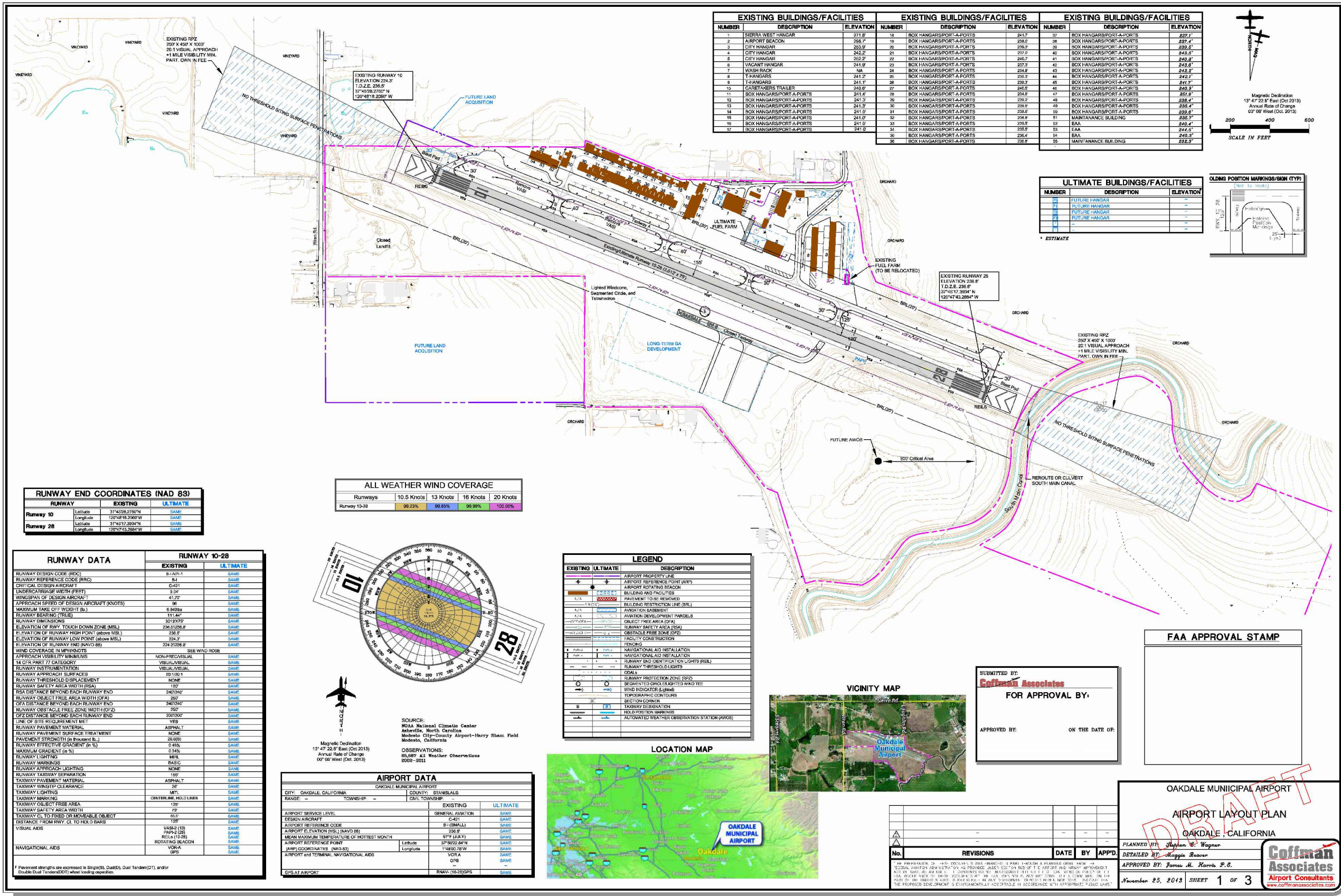
*Source: Data compiled by Mead & Hunt, Inc.*

**Exhibit OAK-2**

## **Airport Features Information**

**Oakdale Municipal Airport**





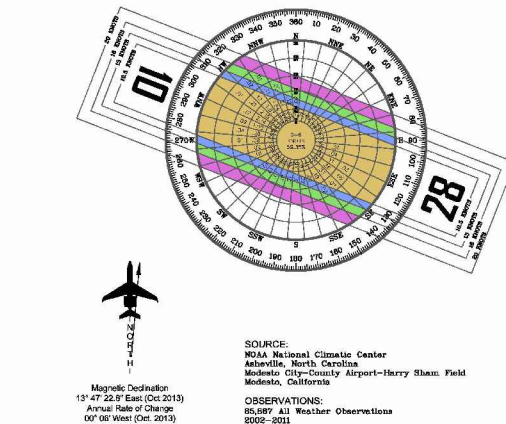
EXISTING BUILDINGS/FACILITIES			EXISTING BUILDINGS/FACILITIES			EXISTING BUILDINGS/FACILITIES		
NUMBER	DESCRIPTION	ELEVATION	NUMBER	DESCRIPTION	ELEVATION	NUMBER	DESCRIPTION	ELEVATION
1	SERRA WEST HANGAR	211.8'	19	BOX HANGARSPORT-A-PORTS	241.7'	37	BOX HANGARSPORT-A-PORTS	237.1'
2	AIRPORT BEACON	268.7'	20	BOX HANGARSPORT-A-PORTS	238.7'	38	BOX HANGARSPORT-A-PORTS	239.4'
3	CITY HANGAR	263.9'	21	BOX HANGARSPORT-A-PORTS	237.7'	39	BOX HANGARSPORT-A-PORTS	238.5'
4	CITY HANGAR	242.2'	22	BOX HANGARSPORT-A-PORTS	245.7'	40	BOX HANGARSPORT-A-PORTS	243.8'
5	CITY HANGAR	262.2'	23	BOX HANGARSPORT-A-PORTS	237.7'	41	BOX HANGARSPORT-A-PORTS	240.8'
6	VACANT HANGAR	241.9'	24	BOX HANGARSPORT-A-PORTS	237.7'	42	BOX HANGARSPORT-A-PORTS	243.8'
7	WASH RACK	18'	25	BOX HANGARSPORT-A-PORTS	238.7'	43	BOX HANGARSPORT-A-PORTS	242.2'
8	T-HANGARS	241.2'	26	BOX HANGARSPORT-A-PORTS	238.7'	44	BOX HANGARSPORT-A-PORTS	242.1'
9	T-HANGARS	241.1'	27	BOX HANGARSPORT-A-PORTS	238.7'	45	BOX HANGARSPORT-A-PORTS	241.7'
10	CORRETT'S TRAILER	245.8'	28	BOX HANGARSPORT-A-PORTS	245.8'	46	BOX HANGARSPORT-A-PORTS	240.2'
11	BOX HANGARSPORT-A-PORTS	241.4'	29	BOX HANGARSPORT-A-PORTS	234.6'	47	BOX HANGARSPORT-A-PORTS	231.9'
12	BOX HANGARSPORT-A-PORTS	241.3'	30	BOX HANGARSPORT-A-PORTS	238.2'	48	BOX HANGARSPORT-A-PORTS	238.4'
13	BOX HANGARSPORT-A-PORTS	241.2'	31	BOX HANGARSPORT-A-PORTS	238.2'	49	BOX HANGARSPORT-A-PORTS	238.4'
14	BOX HANGARSPORT-A-PORTS	241.0'	32	BOX HANGARSPORT-A-PORTS	238.6'	50	BOX HANGARSPORT-A-PORTS	239.6'
15	BOX HANGARSPORT-A-PORTS	241.0'	33	BOX HANGARSPORT-A-PORTS	238.6'	51	MAINTENANCE BUILDING	236.7'
16	BOX HANGARSPORT-A-PORTS	241.0'	34	BOX HANGARSPORT-A-PORTS	238.6'	52	EAA	244.4'
17	BOX HANGARSPORT-A-PORTS	241.0'	35	BOX HANGARSPORT-A-PORTS	238.6'	53	EAA	244.5'
			36	BOX HANGARSPORT-A-PORTS	238.6'	54	EAA	240.9'
			38	BOX HANGARSPORT-A-PORTS	238.6'	55	MAINTENANCE BUILDING	238.9'

ULTIMATE BUILDINGS/FACILITIES		
NUMBER	DESCRIPTION	ELEVATION
01	FUTURE HANGAR	-
02	FUTURE HANGAR	-
03	FUTURE HANGAR	-
04	FUTURE HANGAR	-
05	FUTURE HANGAR	-
06	FUTURE HANGAR	-
07	FUTURE HANGAR	-
08	FUTURE HANGAR	-
09	FUTURE HANGAR	-
10	FUTURE HANGAR	-
11	FUTURE HANGAR	-
12	FUTURE HANGAR	-
13	FUTURE HANGAR	-
14	FUTURE HANGAR	-
15	FUTURE HANGAR	-
16	FUTURE HANGAR	-
17	FUTURE HANGAR	-
18	FUTURE HANGAR	-
19	FUTURE HANGAR	-
20	FUTURE HANGAR	-
21	FUTURE HANGAR	-
22	FUTURE HANGAR	-
23	FUTURE HANGAR	-
24	FUTURE HANGAR	-
25	FUTURE HANGAR	-
26	FUTURE HANGAR	-
27	FUTURE HANGAR	-
28	FUTURE HANGAR	-
29	FUTURE HANGAR	-
30	FUTURE HANGAR	-
31	FUTURE HANGAR	-
32	FUTURE HANGAR	-
33	FUTURE HANGAR	-
34	FUTURE HANGAR	-
35	FUTURE HANGAR	-
36	FUTURE HANGAR	-
37	FUTURE HANGAR	-
38	FUTURE HANGAR	-
39	FUTURE HANGAR	-
40	FUTURE HANGAR	-
41	FUTURE HANGAR	-
42	FUTURE HANGAR	-
43	FUTURE HANGAR	-
44	FUTURE HANGAR	-
45	FUTURE HANGAR	-
46	FUTURE HANGAR	-
47	FUTURE HANGAR	-
48	FUTURE HANGAR	-
49	FUTURE HANGAR	-
50	FUTURE HANGAR	-
51	FUTURE HANGAR	-
52	FUTURE HANGAR	-
53	FUTURE HANGAR	-
54	FUTURE HANGAR	-
55	FUTURE HANGAR	-
56	FUTURE HANGAR	-
57	FUTURE HANGAR	-
58	FUTURE HANGAR	-
59	FUTURE HANGAR	-
60	FUTURE HANGAR	-
61	FUTURE HANGAR	-
62	FUTURE HANGAR	-
63	FUTURE HANGAR	-
64	FUTURE HANGAR	-
65	FUTURE HANGAR	-
66	FUTURE HANGAR	-
67	FUTURE HANGAR	-
68	FUTURE HANGAR	-
69	FUTURE HANGAR	-
70	FUTURE HANGAR	-
71	FUTURE HANGAR	-
72	FUTURE HANGAR	-
73	FUTURE HANGAR	-
74	FUTURE HANGAR	-
75	FUTURE HANGAR	-
76	FUTURE HANGAR	-
77	FUTURE HANGAR	-
78	FUTURE HANGAR	-
79	FUTURE HANGAR	-
80	FUTURE HANGAR	-
81	FUTURE HANGAR	-
82	FUTURE HANGAR	-
83	FUTURE HANGAR	-
84	FUTURE HANGAR	-
85	FUTURE HANGAR	-
86	FUTURE HANGAR	-
87	FUTURE HANGAR	-
88	FUTURE HANGAR	-
89	FUTURE HANGAR	-
90	FUTURE HANGAR	-
91	FUTURE HANGAR	-
92	FUTURE HANGAR	-
93	FUTURE HANGAR	-
94	FUTURE HANGAR	-
95	FUTURE HANGAR	-
96	FUTURE HANGAR	-
97	FUTURE HANGAR	-
98	FUTURE HANGAR	-
99	FUTURE HANGAR	-
100	FUTURE HANGAR	-

RUNWAY END COORDINATES (NAD 83)			
RUNWAY	EXISTING	ULTIMATE	
Runway 10	Latitude 37°45'28.2767" N	SAME	
Runway 10	Longitude 120°48'18.2066" W	SAME	
Runway 28	Latitude 37°45'17.3944" N	SAME	
Runway 28	Longitude 120°47'43.2884" W	SAME	

ALL WEATHER WIND COVERAGE			
Runways	10.5 Knots	13 Knots	16 Knots
Runway 10-28	99.23%	99.85%	99.99%
	100.00%		

RUNWAY DATA		
	EXISTING	ULTIMATE
RUNWAY DESIGN CODE (RCD)	B-I-AP-1	SAME
RUNWAY REFERENCE CODE (RRC)	B-I	SAME
CRITICAL DESIGN AIRCRAFT	C-421	SAME
UNDERCARRIAGE WIDTH (FEET)	110'	SAME
WINGSPAN OF DESIGN AIRCRAFT	41.72'	SAME
APPROACH SPEED OF DESIGN AIRCRAFT (KNOTS)	98	SAME
MAXIMUM TAKE OFF WEIGHT (LBS)	6,840LBS	SAME
RUNWAY BEARING (TRUE)	111.44°	SAME
RUNWAY DIMENSIONS		SAME
ELEVATION OF RWY TOUCHDOWN ZONE (MSL)	207.9729'F	SAME
ELEVATION OF RUNWAY HIGH POINT (above MSL)	238.2'	SAME
ELEVATION OF RUNWAY LOW POINT (above MSL)	224.2'	SAME
ELEVATION OF RUNWAY END (NAV D 83)	224.9228'F	SAME
WIND COVERAGE IN MPH/KNOTS	SEE WIND ROSE	SAME
APPROACH VISIBILITY MINIMUMS	NON-PRECIPITATIONAL	SAME
14 CFR PART 77 CATEGORY	VISUAL/VISUAL	SAME
RUNWAY INSTRUMENTATION	VISUAL/VISUAL	SAME
RUNWAY APPROACH SURFACES	20-120-1	SAME
RUNWAY THRESHOLD DISPLACEMENT	NONE	SAME
RUNWAY SAFETY AREA WIDTH (RSA)	150'	SAME
RSA DISTANCE BEYOND EACH RUNWAY END	240/240'	SAME
RUNWAY OBJECT FREE AREA WIDTH (OFA)	150'	SAME
OFA DISTANCE BEYOND EACH RUNWAY END	240/240'	SAME
RUNWAY OBSTACLE FREE ZONE WIDTH (OFZ)	150'	SAME
OFZ DISTANCE BEYOND EACH RUNWAY END	200/200'	SAME
LINE OF SITE REQUIREMENT MET	YES	SAME
RUNWAY PAVEMENT MATERIAL	ASPHALT	SAME
RUNWAY PAVEMENT SURFACE TREATMENT	NONE	SAME
PAVEMENT STRENGTH (in thousand LBS)	20,000	SAME
RUNWAY EFFECTIVE GRADIENT (in %)	0.49%	SAME
MAXIMUM GRADIENT (in %)	0.54%	SAME
RUNWAY LIGHTING	MIRL	SAME
RUNWAY MARKINGS	BASIC	SAME
RUNWAY APPROACH LIGHTING	NONE	SAME
RUNWAY TAXIWAY SEPARATION	165'	SAME
TAXIWAY PAVEMENT MATERIAL	ASPHALT	SAME
TAXIWAY WIDTH OR CLEARANCE	20'	SAME
TAXIWAY LIGHTING	MIL	SAME
TAXIWAY MARKINGS	CENTRALINE, HOLD LINES	SAME
TAXIWAY OBJECT FREE AREA	120'	SAME
TAXIWAY SAFETY AREA WIDTH	75'	SAME
TAXIWAY CL TO FROED OR MOVABLE OBJECT	65'F	SAME
DISTANCE FROM RWY, CL TO HOLD BARS	120'	SAME
VISUAL AIDS	VAS-2 (10) VAS-2 (20) RELA (15-20)	SAME
NAVIGATIONAL AIDS	ROTATING BEACON VOR GPS	SAME



LEGEND		
EXISTING	ULTIMATE	DESCRIPTION
---	---	AIRPORT PROPERTY LINE
+	+	AIRPORT REFERENCE POINT (ARP)
+	+	AIRPORT ROTATING BEACON
+	+	BUILDING AND FACILITIES
---	---	PAVEMENT TO BE REMOVED
---	---	BUILDING RESTRICTION LINE (BRL)
---	---	AVIATION DEVELOPMENT PARCELS
---	---	OBJECT FREE AREA (OFA)
---	---	RUNWAY SAFETY AREA (RSA)
---	---	OBSTACLE FREE ZONE (OFZ)
---	---	FACILITY CONSTRUCTION
---	---	FENCING
---	---	NAVIGATIONAL AID INSTALLATION
---	---	NAVIGATIONAL AID INSTALLATION
---	---	RUNWAY END OBSTRUCTION LIGHTS (REOL)
---	---	RUNWAY THRESHOLD LIGHTS
---	---	SEALS
---	---	RUNWAY PROTECTION ZONE (RPZ)
---	---	SEGMENTED CIRCULAR LIGHTED WING TEE
---	---	WIND INDICATOR LIGHTS
---	---	TOPOGRAPHIC CONTOURS
---	---	SECTION CORNER
---	---	TAXIWAY DISCREGATION
---	---	HOLD POSITION MARKINGS
---	---	AUTOMATED WEATHER OBSERVATION STATION (AWOS)

AIRPORT DATA			
	EXISTING	ULTIMATE	
CITY: OAKDALE, CALIFORNIA			COUNTY: STANISLAUS
RANGE: --			CIVIL TOWNSHIP: --
AIRPORT SERVICE LEVEL	GENERAL AVIATION	SAME	
DESIGN AIRCRAFT	C-421	SAME	
AIRPORT REFERENCE CODE	B-I (SMALL)	SAME	
AIRPORT ELEVATION (MSL) (NAD 83)	224.2'	SAME	
MEAN MAXIMUM TEMPERATURE OF HOTTEST MONTH	97°P (JULY)	SAME	
AIRPORT REFERENCE POINT	Latitude 37°45'28.2767" N	SAME	
ARP COORDINATES (NAD 83)	Longitude 120°48'18.2066" W	SAME	
AIRPORT AND TERMINAL NAVIGATIONAL AIDS	VOR A	SAME	
	GPS	SAME	
GPS AT AIRPORT	RNAV: (15-20)RPS	SAME	



SUBMITTED BY:  
**Coffman Associates**

FOR APPROVAL BY:

APPROVED BY: \_\_\_\_\_ ON THE DATE OF: \_\_\_\_\_

FAA APPROVAL STAMP

APPROVED BY: \_\_\_\_\_ ON THE DATE OF: \_\_\_\_\_

OAKDALE MUNICIPAL AIRPORT  
AIRPORT LAYOUT PLAN  
OAKDALE, CALIFORNIA

PLANNED BY: Stephen B. Wagner  
DETAILED BY: Maggie Seaman  
APPROVED BY: James M. Harris, P.E.

November 25, 2013 SHEET 1 OF 3

**Coffman Associates**  
Airport Consultants  
www.coffmanassociates.com

C:\Users\870me\AppData\Local\Temp\AcPublish\_10888\Oak-airport layout and diagram.dwg May 08, 2014 10:32:00pm



<b>BASED AIRCRAFT</b>			<b>RUNWAY USE DISTRIBUTION <sup>b</sup></b>		
	Current	Future		Current	Future
Aircraft Type <sup>a</sup>			All Aircraft		
Single Engine	73	79	Takeoffs		
Multi Engine	8	17	Runway 10	10%	No
Jet	0	2	Runway 28	90%	Change
Helicopter	0	2	Landings		
Total	81	100	Runway 10	10%	No
			Runway 28	90%	Change
<b>AIRCRAFT OPERATIONS</b>			<b>FLIGHT TRACK DISTRIBUTION <sup>b</sup></b>		
	Current	Future		Current	Future
Total <sup>a</sup>			All Aircraft		
Annual	42,200	52,200	Takeoffs, Runway 10		
Average Day	116	143	Straight Out	40%	No
Peak Hour	25	31	Left Turn	60%	Change
<i>(avg. day, peak month)</i>			Takeoffs, Runway 28		
Distribution by Aircraft Type <sup>c</sup>			Straight Out	40%	No
Single Engine	72%		Left Turn	60%	Change
Multi-Engine	3%	No	Takeoffs, Runway 28		
Turboprop	3%	Change	Straight Out	40%	No
Business Jet	1%		Left Turn	60%	Change
Helicopter <sup>d</sup>	21%		Landings, Runway 10		
Distribution by Type of Operation <sup>a</sup>			Straight-in	5%	
Local			45° to downwind	85%	No
<i>(incl. touch-and-goes)</i>	85%	No	Crosswind	10%	Change
Itinerant	15%	Change	Landings, Runway 28		
			Straight-in	5%	
<b>TIME OF DAY DISTRIBUTION <sup>b</sup></b>			45° to downwind	85%	No
	Current	Future	Crosswind	10%	Change
Fixed Wing					
Day	92%				
Evening	5%	No			
Night	3%	Change			
Helicopters <sup>d</sup>					
Day	55%				
Evening	35%	No			
Night	10%	Change			

**Notes:**

- a. Current and projected based aircraft mix and aircraft operations source: Oakdale Airport Layout Plan Narrative Report (Coffman Associates, 2013). Narrative Report uses 2012 for base year data.
- b. Traffic patterns, time of day and runway use data source: Airport management and staff (October, 2010). Time of day activity, runway utilization, and flight tracks are expected to remain constant.
- c. Aircraft distribution source: Mead & Hunt estimates using 1997 Master Plan. Aircraft distribution not provided in 2013 Narrative Report.
- d. Helicopter training (touch-and-go) exercises are prominent at Oakdale. A dedicated helicopter flight school and some military training comprise the bulk of this activity. Helicopter training activity is expected to remain at Oakdale and growth in operations is projected.

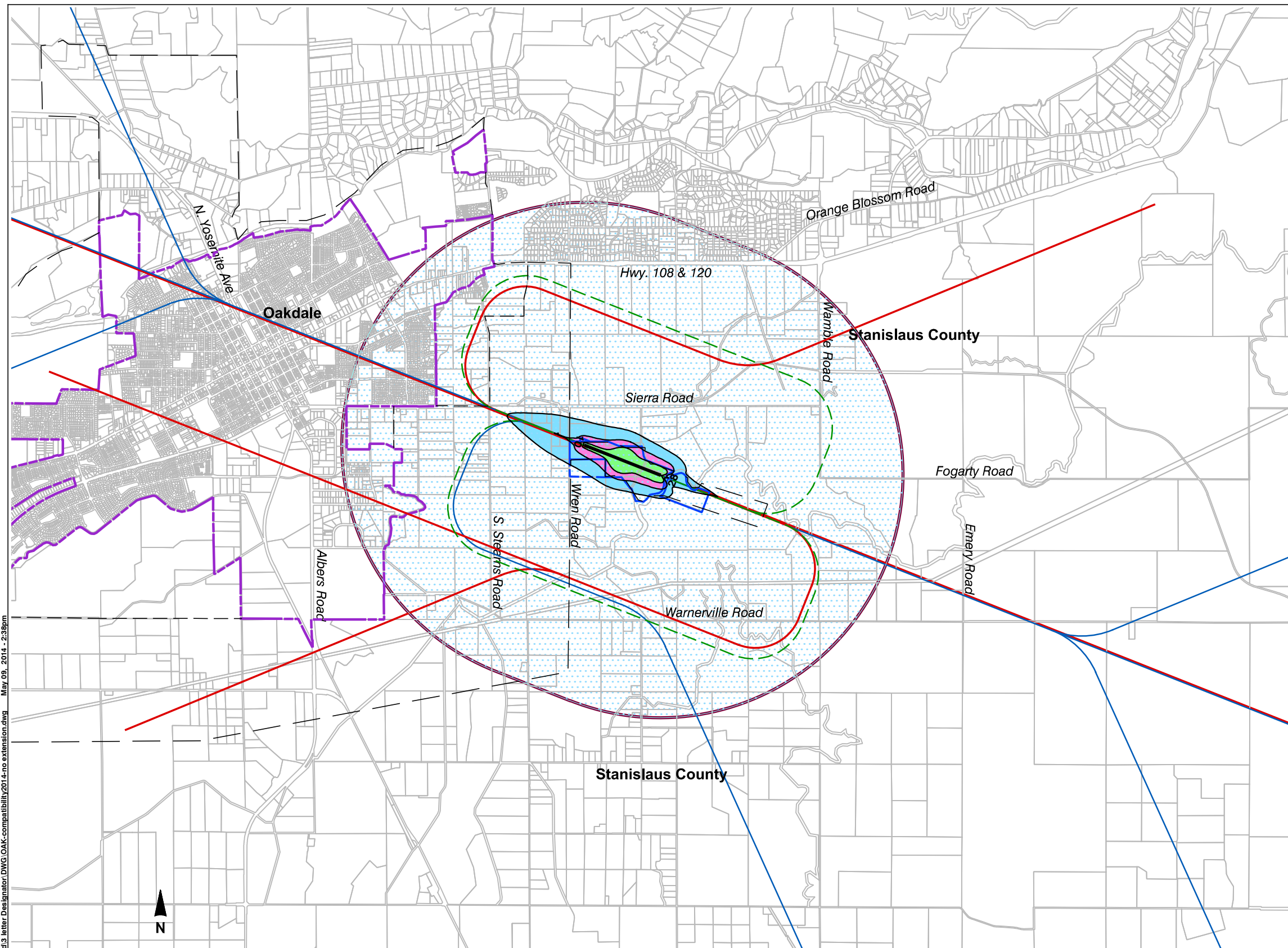
Source: Data compiled by Mead & Hunt, Inc.

**Exhibit OAK 4**

**Airport Activity Data**  
Oakdale Municipal Airport







**Legend**

- Boundary Lines**
- Existing Airport Property Line
  - - - Future Airport Property Line
  - - - City Limits
  - - - Existing Sphere of Influence
  - - - Future Sphere of Influence
  - Runway
  - Airport Influence Area

- Noise Contours<sup>1</sup>**
- 60 - 65 dB CNEL
  - 65 - 70 dB CNEL
  - 70+ dB CNEL
- } 52,200 Annual Operations

- Overflight Factors<sup>2</sup>**
- Arrival
  - Departure
  - - - Touch and Go
  - General Traffic Pattern Envelope<sup>3</sup>

**Notes**

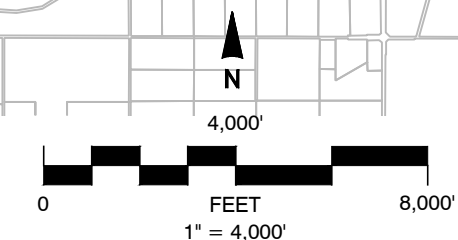
1. Noise contour source: Mead & Hunt, Inc. (May 2014) based on forecast data provided in 2013 ALP Narrative Report.
2. Flight track source: Mead & Hunt, Inc. (October 2010) based on input from Airport Management.
3. Approximately 80% of aircraft overflights estimated to occur within these limits at an altitude of 1,500' feet AGL or less. The traffic pattern altitude is established at 1,000' above the airport elevation.

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Exhibit OAK-5

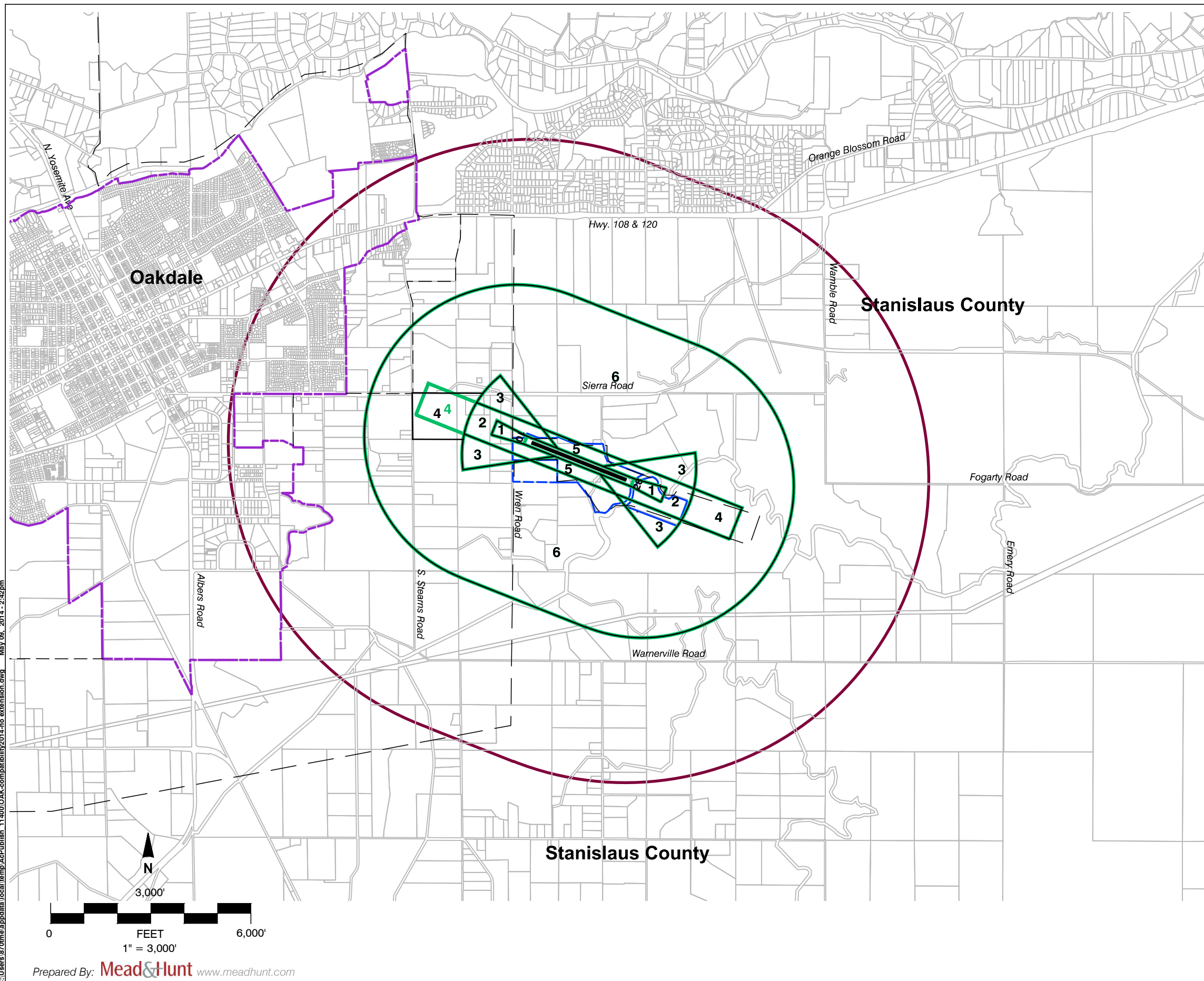
**Noise and Overflight Factors**  
 Oakdale Municipal Airport

X:\20090-00\090001\TECH\Cadd\3 Letter Designer\DWG\OAK-compatibility2014-no-extension.dwg May 09, 2014 - 2:39pm



Prepared By: **Mead & Hunt** www.meadhunt.com





**Legend**

- Boundary Lines**
- Existing Airport Property Line
  - - - Future Airport Property Line
  - - - City Limits
  - - - Existing Sphere of Influence
  - - - Future Sphere of Influence
  - Runway
  - Airport Influence Area

- Safety Zone Factors**
- Generic Short General Aviation Runway
  - Safety Policy Zones

**Notes**

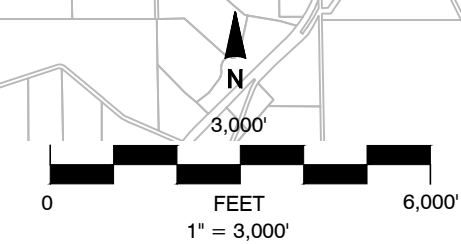
1. Generic safety zone source: California Airport Land Use Planning Handbook (October 2011).
2. Zone 1 reflects existing RPZs and Zone 4 at west end of runway reconfigured to reflect aircraft on departure typically turn left before Sierra Road when heading south or west.

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Exhibit OAK-6

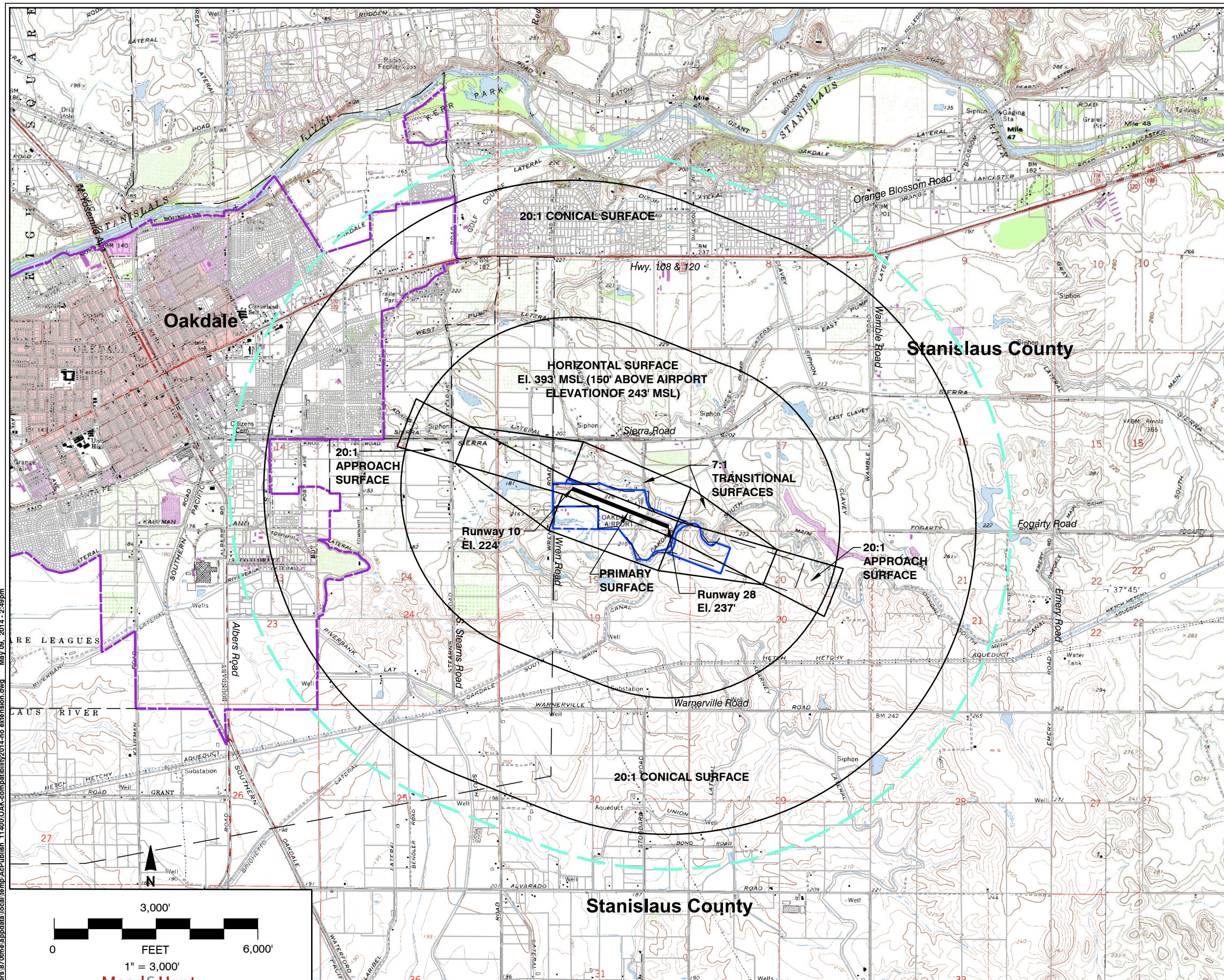
**Safety Factors**  
 Oakdale Municipal Airport

C:\Users\B70me\appdata\local\temp\AcPublish\_11400\OAK-compatibility\2014-no extension.dwg May 09, 2014 - 2:42pm



Prepared By: **Mead&Hunt** www.meadhunt.com





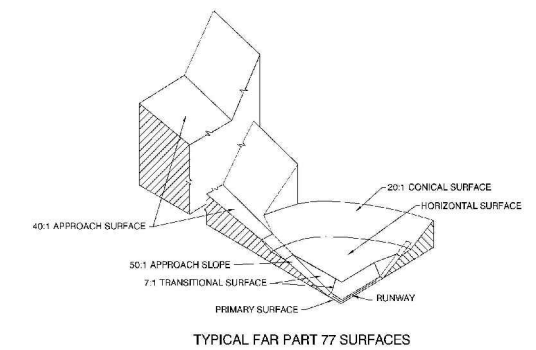
**Legend**

- Boundary Lines**
- Airport Property Line
  - Future Airport Property Line
  - City Limits
  - Existing Sphere of Influence
  - Future Sphere of Influence
  - Runway
  - Airport Influence Area

- Airspace Protection Surfaces<sup>1</sup>**
- FAA Height Notification Surface<sup>2</sup>
  - FAR Part 77 Surfaces<sup>3</sup>

**Notes**

1. Airspace surfaces reflect the existing runway configuration and nonprecision approaches to Runway 10-28. Airport elevation is 237.0' above mean sea level (MSL).
2. Based on FAR Part 77, Subpart B, which requires that the FAA be notified of any proposed construction or alteration having a height greater than an imaginary surface extending 50 feet outward and 1 foot upward (slope of 50 to 1) for a distance of 10,000 feet from the nearest point of any runway. Beyond FAA Height Notification Area boundary, any object taller than 200 feet requires FAA notification.
3. FAR Part 77 Obstruction Surfaces: Based on FAR Part 77, Subpart C, which establishes standards for determining obstructions to air navigation. Source: Oakdale Municipal Airport Airspace Drawing (November 2013 Draft).

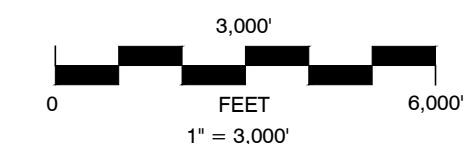


**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Exhibit OAK-7

**Airspace Protection Surfaces**  
 Oakdale Municipal Airport

C:\Users\B7ome\AppData\Local\Temp\AcPublish\_11400\OAK-compatibility\2014-no-extension.dwg May 09, 2014 - 2:49pm



Prepared By: **Mead&Hunt** www.meadhunt.com



**AIRPORT LOCATION AND NEARBY TOPOGRAPHY**

- Location
  - 2.5 miles east of central Oakdale
  - Airport property within city limits, but not contiguous to remainder of city
  - Unincorporated lands entirely surround airport
- Topography
  - Situated on floor of San Joaquin Valley; no major high terrain in vicinity
  - Elevation: 237 feet Above Mean Sea Level (MSL)

**EXISTING AIRPORT AREA LAND USES**

- General Character
  - Airport surrounded by agricultural and rural residential uses
  - Nearest urban area is 1.0 mile west
- Runway Approaches
  - West (Rwy 10): agricultural uses; residential neighborhood beyond 1 mile
  - East (Rwy 28): agricultural uses
- Traffic Pattern
  - Agricultural uses surround airport

**AIRPORT ENVIRONS AND LAND USE JURISDICTIONS**

- City of Oakdale
  - Airport property within city limits
- County of Stanislaus
  - Portions of Runway Protection Zones (RPZs) and traffic pattern over unincorporated lands

**STATUS OF LOCAL AGENCY PLANS**

- City of Oakdale
  - 2030 General Plan adopted August 2013
- Stanislaus County
  - General Plan adopted December 1995
  - General Plan map dated September 2007
  - Undergoing a General Plan update; anticipated adoption early 2014

**PLANNED AIRPORT AREA LAND USES**

- City of Oakdale General Plan
  - Agricultural uses on all sides, except small area of commercial north of runway
  - Low Density Residential less than 1/2 mile northwest
  - Industrial uses 1.5 miles west
- Stanislaus County
  - Agricultural uses on all sides
  - Urban Transition designation along westerly city limits

**ESTABLISHED COMPATIBILITY MEASURES**

- City of Oakdale 2030 General Plan (2013)
  - LU-6.5 Airport Secondary Uses. Accommodate uses that support or benefit from Oakdale Municipal Airport operations within and adjacent to the airport property when determined consistent with the City of Oakdale Municipal Airport Master Plan. (RDR, MP)

- City of Oakdale 2030 General Plan - *continued*
  - LU-6.6 Airport Operations. Protect Oakdale Municipal Airport from encroachment by ensuring that all new land uses and developments are compatible with airport operations, the adopted Oakdale Municipal Airport Master Plan and the adopted Airport Land Use Commission Plan. (RDR, MP, M-IP8). M6-1. Aviation Services. Encourage a full range of aviation services at the Oakdale Municipal Airport that meets the present and future needs of residents, businesses and the local aviation community. (MP, M-IP2)
  - M-6.2 Municipal Airport Master Plan. Update and implement the City of Oakdale Municipal Airport Master Plan to ensure that facilities keep pace with increased demand for aviation services. (MP)
  - M-6.3 Consistency with ALUC Policies. Require that all development is consistent with the policies adopted by the Stanislaus County Airport Land Use Commission. (RDR, M-IP8)
  - N-1.10 Airport Plans. Regulate development within the 65 dBA CNEL airport noise contour in accordance with plans adopted by the Airport Land Use Commission and the City. (RDR, IGC)
  - M-1P8 Participate with Stanislaus County in the update to the Airport Land Use Commission Plan.
- Stanislaus County General Plan (1995)
  - Policy LU-4. Applications for development in areas with growth-limiting factors such as airport hazards shall include measures to mitigate the problems. County will continue to enforce the height limiting ordinance near airports (p. 1-3).
  - Policy LU-5. Residential development shall not be approved at the maximum density if it does not comply with airport height limiting ordinance restrictions (p. 1-4).
  - Policy C-9. Continue to support the development of public use airports consistent with the airport master plans developed for the Oakdale Municipal Airport and Modesto City-County Airport (p. 2-35).
  - Policy N-2. New development of noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to reduce noise levels to the following levels: 60 CNEL or less in outdoor activity areas of single family residences, 65 CNEL or less in community outdoor space for multi-family residences, and 45 CNEL or less within noise-sensitive interior spaces. Where it is not possible to reduce exterior noise due to these sources to the prescribed level using a practical application of the best available noise-reduction technology, an exterior level of up to 65 CNEL will be allowed. Under no circumstances will interior noise levels be allowed to exceed 45 CNEL with the windows and doors closed in residential uses (p. 4-15).
  - Policy S-12. Development within areas protected by the ALUC Plan shall only be approved if they meet the requirements of the Plan. All amendments to a land use designation, zoning district, or zoning regulation affecting land within the ALUC Plan boundary shall be referred to the ALUC for comment. If that commission recommends denial, the Board of Supervisors may overrule that recommendation only by a two-thirds majority vote. The height and exterior materials of new structures in the Airport Zone of the Oakdale Airport as defined in the Stanislaus County Airport Regulations shall be reviewed to determine whether they conform to those regulations (p. 5-9).

Source: Data compiled by Mead & Hunt

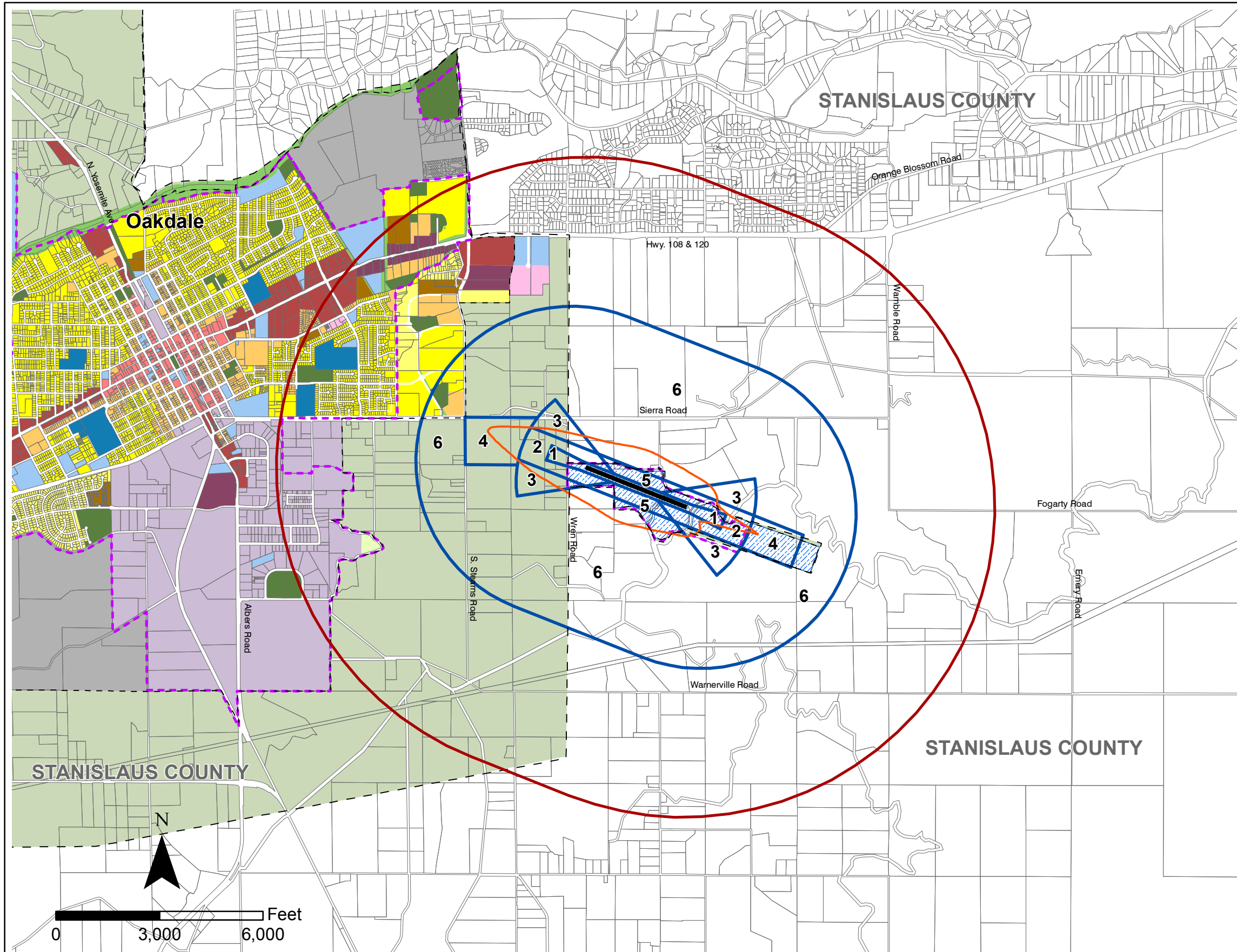
Exhibit OAK-8

## Airport Environs Table

### Oakdale Municipal Airport







**Legend**

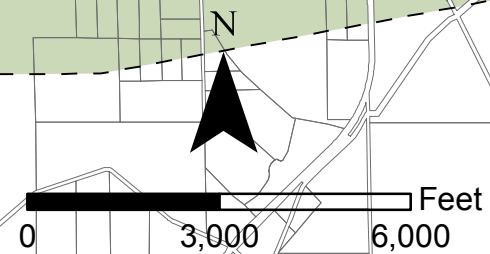
- 60dB CNEL Noise Contour
- Safety Zones
- Existing Runway
- Airport Influence Area
- City Boundary
- Existing Sphere of Influence
- Future Sphere of Influence

**City of Oakdale 2030 General Plan**

- Rural Estate (RE)
- Very Low Density Residential (VLDR)
- Low Density Residential (LDR)
- Medium Density Residential (MDR)
- High Density Residential (HDR)
- General Commercial (GC)
- Central Business District (CBD)
- Office (OFF)
- Industrial (IND)
- Flex Use (FLEX)
- Public and Semi-Public (PSP)
- Airport (AP)
- School (SCH)
- Park (P)
- Open Space (OS)
- Agriculture (AG)

**Other**

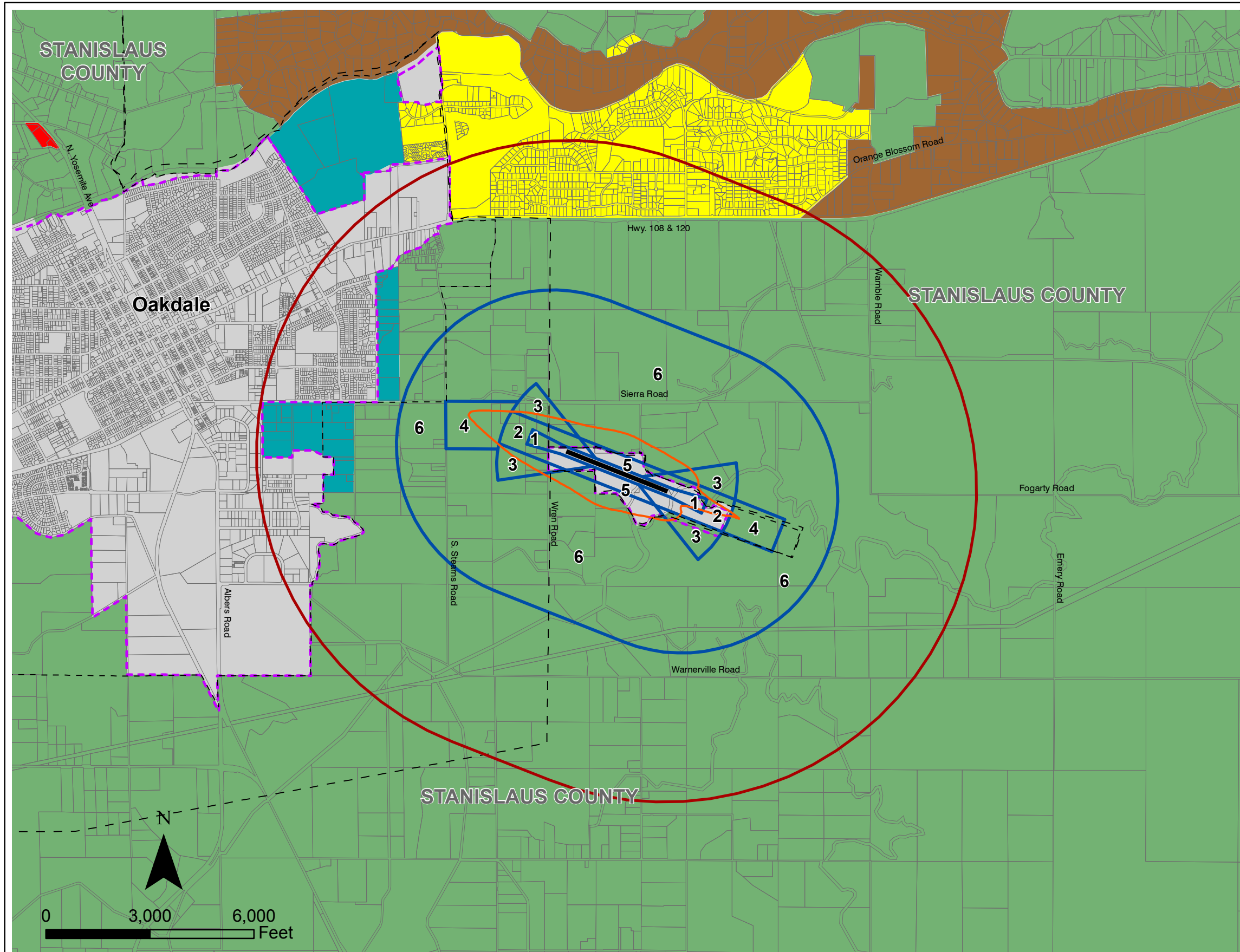
- Future Specific Plan



**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Exhibit OAK-9A





**Legend**

- 60dB CNEL Noise Contour
  - City Boundary
  - Existing Sphere of Influence
  - Future Sphere of Influence
  - Existing Runway
  - Safety Zones
  - Airport Influence Area
- Stanislaus County General Plan**
- Agriculture
  - Commercial
  - Estate Residential
  - Hwy. Commercial/Planned Devpt.
  - Historical
  - Industrial Business Park
  - Industrial
  - Industrial Transition
  - Low Density Residential
  - Medium Density Residential
  - Medium High Density Residential
  - Planned Development
  - Planned Industrial
  - Specific Plan 1
  - Urban Transition
  - City

**Stanislaus County**  
**Airport Land Use Compatibility Plans**  
 (Adopted October 2016)

Exhibit OAK-9B

Sources: City and County GIS Data (2009)

**Stanislaus County General Plan**  
 Oakdale Municipal Airport





Chapter **6**

**CROWS LANDING AIRPORT  
AND ENVIRONS  
BACKGROUND DATA**



---

## Background Data: Crows Landing Airport and Environs

### INTRODUCTION

The Crows Landing Airport is a proposed 370-acre general aviation (GA) facility that will be owned and operated by Stanislaus County. The airport will be developed using one of two runways that were developed by the U.S. Navy in 1943 as part of the Crows Landing Naval Auxiliary Air Station to Moffett Field. The 1,528-acre former Crows Landing Airfield was operated for more than five decades by various branches of service. The facility was identified for closure by the Base Closure and Realignment Commission (BRAC) in the 1990s. The United States Congress directed the National Aeronautics and Space Administration (NASA) to convey the property to Stanislaus County in 2004 through Public Law 106-82.

The proposed airport is located in an unincorporated area of the County's West Side (see **Exhibit CRO-1**). The decommissioned military facility was conveyed to the County for the purposes of economic development, and the County has designated the entire 1,528-acre property as the Crows Landing Industrial Business Park (CLIBP). The 370-acre planned airport is included in the 1,528-acre CLIBP Specific Plan Area and focuses on the reuse of a former military runway (former Runway 12-30). The proposed compatibility policies for the Crows Landing Airport and the proposed *Crows Landing Industrial Park Specific Plan* were developed concurrently to promote consistency between the envisioned airport and adjacent CLIBP land uses.

The CLIBP is located approximately 1 mile east of Interstate 5, 1 mile south of the City of Patterson, and 1.4 miles west of the Crows Landing community. Access to the airport is available from Highway 33 and Marshall Road to the north, Highway 33 and Ike Crow Road or Fink Road from the East, and from I-5 and Fink Road from the West. The airport lies at an elevation of 155.6 feet above Mean Sea Level (MSL).

### STATUS OF AIRPORT PLANS

The *Airport Layout Plan and Narrative Report for the Crows Landing Airfield* is the initial planning document for the proposed Crows Landing Airport. Following property conveyance in 2004, the Board of Supervisors (Board) directed County staff to investigate the development of a new GA airport that focused on the reuse of former military Runway 12-30, the shorter of the two former runways, and to pursue the development of adjacent areas of the former airfield for the purposes of job creation. The

Board of Supervisors adopted the Airport Layout Plan and Narrative Report on December 4, 2018, following environmental review pursuant to the California Environmental Quality Act.

The proposed Airport Layout Plan (ALP) includes a long-term development plan for the airport covering three phases:

- ▶ Existing/Opening, which identifies facilities through the first 10 years of airport operation;
- ▶ Future, which identifies facilities that would be necessary from approximately 11 to 30 years after opening.
- ▶ Ultimate, which addresses facility needs more than 30 years after airport opening. The facilities and operations associated with this period are likely to change and were provided only for long-range planning purposes.

The Airport Layout Plan set includes an index page, the ALP drawing, Airport Data Sheet, Airspace Plan Inner Approach and Plan Profile, and Exhibit A, Airport Property Map. The ALP Narrative report describes existing and planned airport facilities and documents existing and forecast aircraft activity. In accordance with Section 21675(a) of the California Public Utilities Code, the proposed ALP was presented to the Caltrans Division of Aeronautics with a request that it serve as the basis of the Crows landing Airport Land Use Compatibility Plan. All proposed policies were based on proposed airport development for the Existing and Future phases of airport operation (through 30 years of operation). The summary of proposed airport features is presented as **Exhibit CRO-2**, and the proposed ALP is presented as **Exhibit CRO-3**.

## AIRFIELD CONFIGURATION

The Crows Landing Airport will include a single concrete runway (Runway 11-29), which will be 5,175 feet long and 100 feet wide. The runway will be aligned with the prevailing wind direction in a nearly northwest/southeast alignment. The primary airport building area is located northeast of the airfield. A modular building will serve as a terminal building/pilot lounge area, and a wash rack, hangars, tiedowns, auto parking area, and fuel service are envisioned.

During the first 30 years of aircraft operations, the Crows Landing Airport will be able to accommodate an Airport Reference Code (ARC) classification of B-II, which means that the airport is designed to accommodate approach speeds from 91 to 121 knots and aircraft with wing spans from 49 to 79 feet. The most demanding class of aircraft expected to use the airport regularly, as defined by the FAA as more than 500 annual operations, is the medium-sized, twin-engine, turbo-prop aircraft, such as the Beechcraft Super King Air B200. During the first ten years of operation, the airport will support visual approaches. From years 11 to 30, visibility minimums will be as low as one statute mile.

The Runway Protection Zones (RPZs) for each runway reflect FAA criteria for an ARC B-II runway. Each RPZ has an inner width of 250 feet, an outer width of 400 feet and a length of 1,000 feet. Although portions of each RPZ extend off of airport property onto adjacent agricultural lands, the County owns an avigation easement for all of the off-site areas. All runway critical areas (runway safety and objected free areas) remain on airport property for the first 30 years of airport operation.

As described in the 2016 ALP and Narrative Report, the development plans for the airport during its first 30 years of operation include:



- ▶ Small airport operations office (e.g., modular unit) and area for wi-fi, restroom, etc.
- ▶ Aircraft parking apron (five tiedowns during first ten years).
- ▶ Ten or more privately financed hangars on County leases sited on existing concrete pavement.
- ▶ Perimeter fencing along Davis and Bell Roads and apron area.
- ▶ Basic aviation fuel services: 100LL via self-service from a skid-mount tank and maybe Jet-A using a refueler truck.
- ▶ Wash rack facility, perhaps combined with fueling facility to allow sharing of filtration system.
- ▶ Non-precision instrument approach capability (GPS based).
- ▶ Basic Fixed Base Operator (FBO) services: on-site presence, basic aircraft maintenance.
- ▶ Basic helicopter takeoff and landing area using existing hard-surface area southwest of Runway 11-29.
- ▶ Perimeter access road and perimeter fencing fully enclosing airport property.

## **AIRSPACE PLAN**

The proposed 2016 ALP includes an Airspace Plan which depicts the future Federal Aviation Regulations (FAR) Part 77 imaginary airspace surfaces (see **Exhibit CRO-7**). The 2016 Airspace Plan reflects the existing airfield configuration and design of the runway (i.e., ARC B-II) and visual approaches to both runway ends.

## **ACTIVITY FORECASTS**

### **Activity Forecast**

The FAA's Aerospace Forecast was used to define broad trends in regional and national general aviation activity. However, the FAA's forecast is of limited utility in a quantitative sense. Growth in aviation activity at the proposed Crows Landing Airport will be driven by the unique features of its location and the overall success of the CLIBP, which will include logistics, light industrial, public facilities, and business park uses.

#### *Opening through Year 10*

As provided in the 2016 ALP Narrative report, a forecast of up to 8,000 annual operations is assumed during the first ten years of airport operations. Approximately 10 based aircraft are anticipated. The majority of aircraft are likely to be single-engine, propeller airplanes, with a few multi-engine, piston airplanes, a few turbine-powered aircraft (turboprops and/or jets), and some agricultural aircraft. Some helicopter operations are possible.

#### *Years 11 to 30*

As provided in the 2016 ALP Narrative report, a forecast of up to 34,000 annual operations is assumed during the second of airport operations. Approximately 80 based aircraft are anticipated at 30 years of

operation, including tie-downs. The majority of aircraft are likely to be single-engine, propeller airplanes, with a few multi-engine, piston airplanes and turbine-powered aircraft (turboprops and/or jets). Approximately one-third of the operations would be associated with based aircraft and transient aircraft providing transportation for passengers associated with the industrial and business park, and approximately one-half would be associated with touch-and-goes by aircraft based at the airport. A summary of Airport Activity is presented as **Exhibit CRO-4**.

## Noise Contours

Future noise contours were generated reflecting the activity forecasts of 34,000 annual operations. The future noise contours for Crows Landing Airport are shown in **Exhibit CRO-5**.

## Overflight Patterns

The typical aircraft traffic patterns for the Crows Landing Airport are illustrated on **Exhibit CRO-5**. The airport has standard left-hand traffic patterns to Runway 11 and Runway 29. Runway 29 is the primary runway for landings and takeoffs. Due to prevailing winds, an estimated 80% of operations take place on Runway 29 and operate into the wind.

## Safety Zones

The generic safety zones provided by the Caltrans *Handbook* were applied to the existing runway configuration<sup>1</sup>. The only modification to the handbook was associated with Zone 1, which was adjusted to reflect the actual size of the Runway Protection Zone as prescribed by the FAA in 150.5200-13A, “Airport Design,” Change 1. The safety zones for Crows Landing Airport are shown in **Exhibit CRO-6**.

## Airport Environs

**Exhibit CRO-8** provides a detailed summary of the existing and planned airport environs, including airport compatibility policies adopted by the local agencies. The City of Patterson and Stanislaus County are within the airport’s influence area.

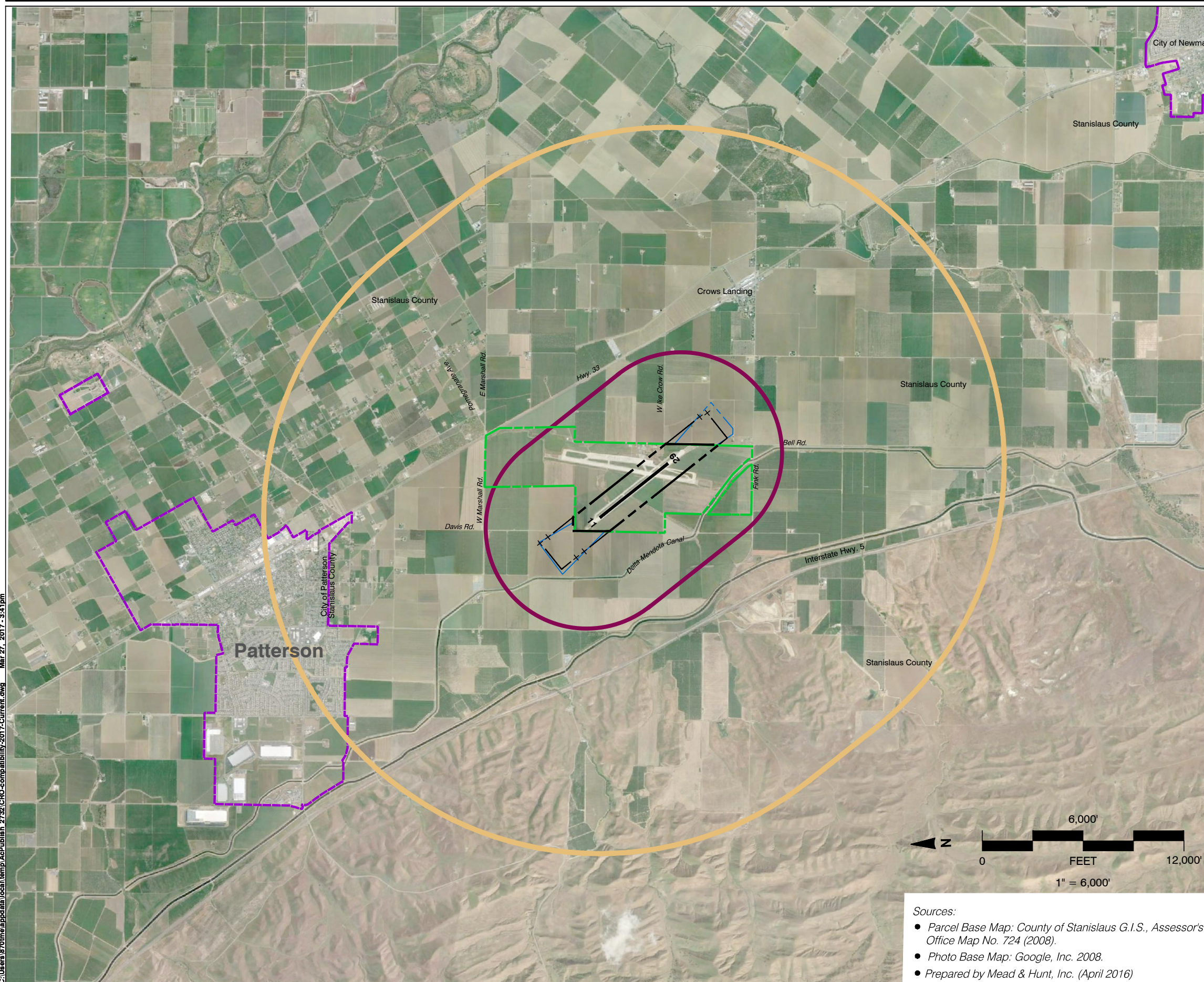
## BACKGROUND INFORMATION

The following exhibits present the data upon which *Compatibility Plan* policy maps are based:

- ▶ **Exhibit CRO-1**—Airport Location: Presents the location of the airport in the context of existing environment (aerial photograph).
- ▶ **Exhibit CRO-2**—Airport Environs Information: Presents data pertaining to local existing and planned land uses.
- ▶ **Exhibit CRO-3**—Airport Layout Plan: Presents existing and proposed airport facilities as provided in the 2016 Airport Layout Plan and Narrative Report.
- ▶ **Exhibit CRO-4**—Airport Activity Data: Presents aviation forecasts for the 30-year planning period of this ALUCP based on forecast data provided in the 2016 ALP Narrative Report.
- ▶ **Exhibit CRO-5**—Noise and Overflight Factors: Presents the geographic area over which aircraft operating at the airport routinely fly, as well as the noise contours based on the planning period forecasts.

- › **Exhibit CRO-6**—Safety Factors: Presents the locations of safety zones using the guidance and templates presented by the California Division of Aeronautics in its manual, *California Airport Land Use Planning Handbook*.
- › **Exhibit CRO-7**—Part 77 Airspace: Depicts the Federal Aviation Regulations Part 77 air-space surfaces which should be kept free of obstructions.
- › **Exhibit CRO-8**—Airport Environs: Presents site data, existing and planned land uses, affected jurisdictions, and compatible land use measures.
- › **Exhibit CRO-9A**—City of Patterson 2014 General Plan. Presents land uses based on City of Patterson General Plan and GIS parcel data.
- › **Exhibit CRO-9B**—Stanislaus County 2016 General Plan. Presents land uses based on County of Stanislaus General Plan and GIS parcel data.

This page intentionally blank



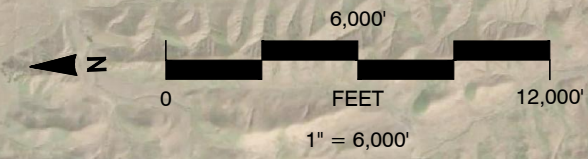
**Legend**

**Boundary Lines**

- Airport Property (Existing)
- Airport Property (Future)
- Avigation Easement (Existing)
- Crows Landing Industrial Business Park
- City/County Limits
- Parcel Line
- Runway (Existing Length of 5,175')

**Airport Influence Area**

- Review Area 1
- Review Area 2



**Crows Landing Airport  
Land Use Compatibility Plan  
(April 2016 Draft)**

- Sources:
- Parcel Base Map: County of Stanislaus G.I.S., Assessor's Office Map No. 724 (2008).
  - Photo Base Map: Google, Inc. 2008.
  - Prepared by Mead & Hunt, Inc. (April 2016)

Exhibit CRO-1  
**Airport Location**  
Crows Landing Airport

C:\Users\j701me\AppData\Local\Temp\AcPublish\2735\CRO-compatibility-2017-Current.dwg Mar 27, 2017 - 3:14 pm



<p><b>GENERAL INFORMATION</b></p> <ul style="list-style-type: none"> <li>➤ <i>Airport Ownership:</i> County of Stanislaus</li> <li>➤ <i>Year Opened:</i> tentative 2017</li> <li>➤ <i>Property Size:</i> 370 acres</li> <li>➤ <i>Airport Classification:</i> General Aviation</li> <li>➤ <i>Airport Elevation:</i> 155.6 Mean Sea Level</li> </ul> <hr/> <p><b>AIRPORT PLANNING DOCUMENTS</b></p> <ul style="list-style-type: none"> <li>➤ <i>Airport Master Plan:</i> None</li> <li>➤ <i>Airport Layout Plan:</i> Drawing and Narrative Report (Draft December 2016); adoption pending</li> <li>➤ <i>Airport Land Use Plan:</i> <ul style="list-style-type: none"> <li>• Stanislaus County Airport Land Use Commission Plan (adopted 2016, Crows Landing amendment pending)</li> </ul> </li> </ul> <hr/> <p><b>RUNWAY/TAXIWAY DESIGN</b></p> <p><b>At Opening</b></p> <p><b>Runway 11-29</b></p> <ul style="list-style-type: none"> <li>➤ <i>Airport Reference Code:</i> B-II</li> <li>➤ <i>Critical Aircraft:</i> King Air 200</li> <li>➤ <i>Dimensions:</i> 5,175' long, 100' wide</li> <li>➤ <i>Pavement Strength (main landing gear configuration)</i> <ul style="list-style-type: none"> <li>• 65,500 lbs. (single wheel)</li> <li>• 75,500 lbs. (dual wheel)</li> <li>• 135,500 lbs. (dual tandem wheel)</li> </ul> </li> <li>➤ <i>Average Gradient :</i> 0.032% (rising to the northwest)</li> <li>➤ <i>Runway Lighting:</i> none</li> <li>➤ <i>Primary Taxiways:</i> Full-length parallel to the northeast</li> </ul> <p><b>Future (11 to 30 years)</b></p> <p><b>Runway 11 – 29</b></p> <ul style="list-style-type: none"> <li>➤ <i>Airport Reference Code:</i> B-II</li> <li>➤ <i>Critical Aircraft:</i> Gulfstream III</li> <li>➤ <i>Dimensions:</i> 6,175' long, 100' wide</li> <li>➤ <i>Pavement Strength (main landing gear configuration)</i> <ul style="list-style-type: none"> <li>• 65,500 lbs. (single wheel)</li> <li>• 75,500 lbs. (dual wheel)</li> <li>• 135,500 lbs. (dual tandem wheel)</li> </ul> </li> <li>&gt; <i>Average Gradient :</i> 0.028% (rising to the northwest)</li> <li>&gt; <i>Runway Lighting:</i> MIRL, REILs</li> <li>&gt; <i>Primary Taxiways:</i> Full-length parallel to the northeast</li> </ul>	<p><b>TRAFFIC PATTERNS AND APPROACH PROCEDURES</b></p> <ul style="list-style-type: none"> <li>➤ <i>Airplane Traffic Patterns (At Opening)</i> <ul style="list-style-type: none"> <li>= Runway 11: Left Traffic</li> <li>= Runway 29: Left Traffic</li> </ul> </li> <li>➤ <i>Airplane Traffic Patterns (Years 11 to 30)</i> <ul style="list-style-type: none"> <li>= Runway 11: Left Traffic</li> <li>= Runway 29: Right Traffic</li> </ul> </li> <li>➤ <i>Approach Procedures (At Opening):</i> Visual</li> <li>➤ <i>Approach Procedures (11-30):</i> Non-precision &gt;1 mile</li> <li>➤ <i>Approach Aids (At Opening):</i> None</li> <li>➤ <i>Approach Aids (21-30 years):</i> GPS based</li> <li>➤ <i>Operational Restrictions (At Opening and 11 -30):</i> Daytime use only</li> </ul> <hr/> <p><b>APPROACH PROTECTION</b></p> <ul style="list-style-type: none"> <li>➤ <i>Existing Runway Protection Zones (RPZ)</i> <ul style="list-style-type: none"> <li>• Runway 11: 7% off property</li> <li>• Runway 29: 0% off property</li> </ul> </li> <li>➤ <i>Ultimate Runway Protection Zones (RPZ):</i> <ul style="list-style-type: none"> <li>• Runway 11: 0% off property – Easement; Future Fee Simple Acquisition</li> <li>• Runway 29: 0% off property–Easement; Future Fee Simple Acquisition</li> </ul> </li> <li>➤ <i>Approach Obstacles:</i> Trees penetrate “ultimate” precision approach surface to Runways 29L and 29R (objects to be removed)</li> </ul> <hr/> <p><b>BUILDING AREA</b></p> <p><b>At Opening</b></p> <ul style="list-style-type: none"> <li>➤ <i>Aircraft Parking Location:</i> Northeast side of Runway 11-29</li> <li>➤ <i>Aircraft Parking Capacity</i> <ul style="list-style-type: none"> <li>• Hangar spaces: 5</li> <li>• Tie Downs: 15</li> </ul> </li> <li>&gt; <i>Other Facilities and Services:</i> <ul style="list-style-type: none"> <li>• Fuel: None</li> <li>• FBO: None</li> </ul> </li> </ul> <p><b>Future (11 to 30 years)</b></p> <ul style="list-style-type: none"> <li>&gt; <i>Aircraft Parking Capacity</i> <ul style="list-style-type: none"> <li>• Hangar spaces: 35</li> <li>• Tie Downs: 15</li> </ul> </li> <li>&gt; <i>Other Facilities and Services:</i> <ul style="list-style-type: none"> <li>• Fuel: 10LL, Jet-A</li> <li>• FBO: Yes</li> </ul> </li> </ul>
--	--

Exhibit CRO-2

## Airport Features Summary

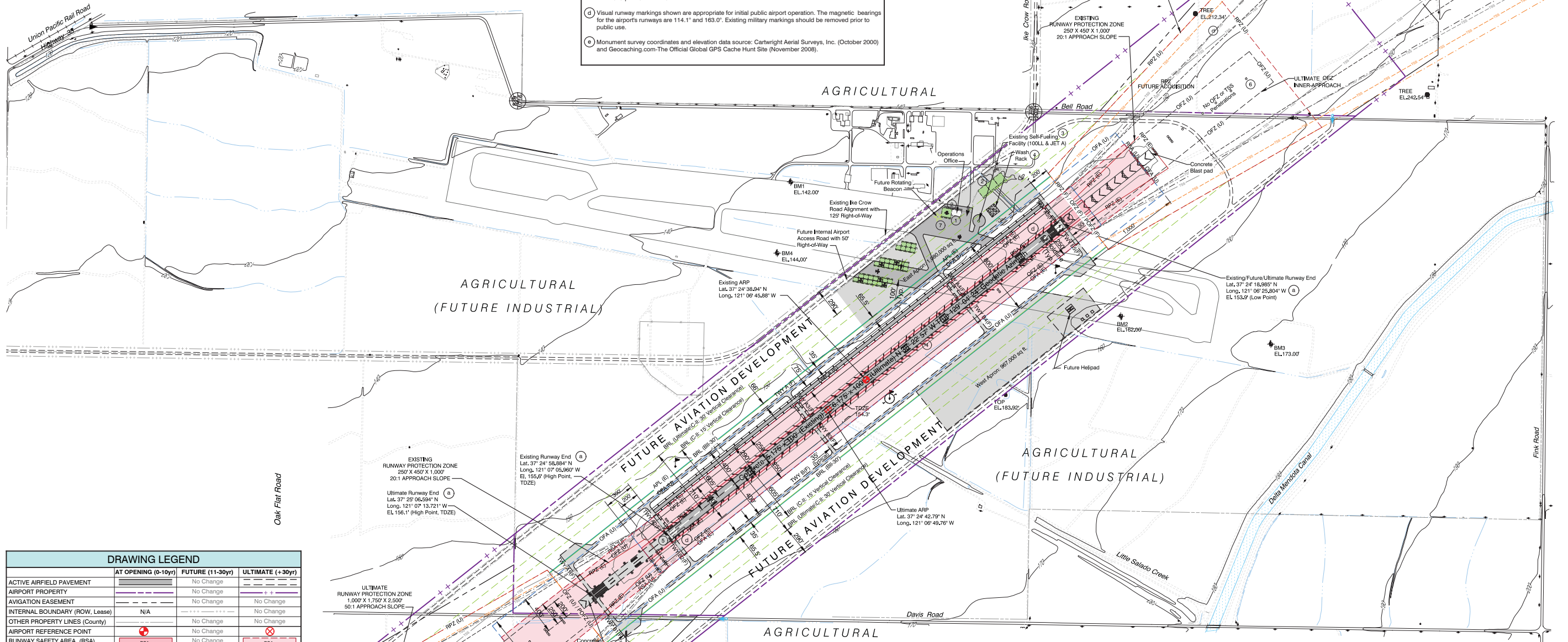
### Crows Landing Airport

BUILDING AND FACILITY LEGEND	
FACILITY	ELEVATION
① Future Operations Office	162'
② Fixed Base Operator (FBO)	162'
③ Fuel Facility	N/A
④ Future Wash Rack	N/A
⑤ Future Runway End Indicator Lights (REILS)	N/A
⑥ Future Medium Intensity Approach Light System With Rail (MALS/R)	N/A
⑦ Future Rotating Beacon	197'

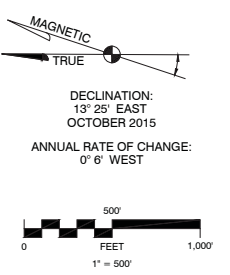
MONUMENTS					
ID #	LATITUDE	LONGITUDE	ELEVATION	DESCRIPTION	
1	HS5483	37° 24' 46.766" N	121° 06' 20.756" W	142.00'	Brass survey disk
2	HS5478	37° 24' 13.062" N	121° 06' 37.571" W	162.00'	Brass survey disk
3	HS5474	37° 23' 57.775" N	121° 06' 40.989" W	173.00'	Stainless steel rod
4	HS5477	37° 24' 48.034" N	121° 06' 29.765" W	144.00'	Brass survey disk

**ALP NOTES**

- ALP prepared using design criteria from FAA Advisory Circulars 150/5300-13A Change 1, "Airport Design", 150/5070-6A, FAA Standard Operating Procedures 2.00 and 3.00, and Part 77 of the Federal Aviation Regulations (FAR), "Safe, Efficient Use, and Preservation of the Navigable Airspace."
- Magnetic Declination source: National Geophysical Data Center.
- ① Airport coordinate and elevation data source: Photogrammetric survey conducted by Cartwright Aerial Surveys, Inc. (October 2000) and field survey by Mead & Hunt, Inc. (October 2008). Coordinates are NAD83. Elevations are NAVD88. Geodetic Azimuth is reckoned clockwise from true north.
- ② See Sheets 4 and 5 for more information on Threshold Siting Surfaces (TSS), Part 77 Surfaces and obstruction data.
- ③ Runway threshold located to meet Runway Object Free Area standards with respect to the proposed internal airport access road.
- ④ Visual runway markings shown are appropriate for initial public airport operation. The magnetic bearings for the airports runways are 114.1° and 163.0°. Existing military markings should be removed prior to public use.
- ⑤ Monument survey coordinates and elevation data source: Cartwright Aerial Surveys, Inc. (October 2000) and Geocaching.com-The Official Global GPS Cache Hunt Site (November 2008).



DRAWING LEGEND			
	AT OPENING (0-10yr)	FUTURE (11-30yr)	ULTIMATE (+30yr)
ACTIVE AIRFIELD PAVEMENT	[Symbol]	No Change	[Symbol]
AIRPORT PROPERTY	[Symbol]	No Change	[Symbol]
AVIGATION EASEMENT	[Symbol]	No Change	No Change
INTERNAL BOUNDARY (ROW, Lease)	N/A	[Symbol]	No Change
OTHER PROPERTY LINES (County)	[Symbol]	No Change	No Change
AIRPORT REFERENCE POINT	[Symbol]	No Change	[Symbol]
RUNWAY SAFETY AREA (RSA)	[Symbol]	No Change	[Symbol]
AIRCRAFT PARKING LIMIT (APL)	[Symbol]	No Change	No Change
BUILDING RESTRICTION LINE (BRL)	[Symbol]	No Change	[Symbol]
RUNWAY PROTECTION ZONE (RPZ)	[Symbol]	No Change	[Symbol]
OBJECT FREE AREA (OFA)	[Symbol]	No Change	[Symbol]
OBSTACLE FREE ZONE (OFZ)	[Symbol]	No Change	[Symbol]
PRECISION OBSTACLE FREE ZONE	N/A	No Change	[Symbol]
PART 77 AIRSPACE APPROACH	[Symbol]	No Change	[Symbol]
THRESHOLD SITING SURFACE (TSS)	[Symbol]	No Change	[Symbol]
BUILDING	[Symbol]	No Change	[Symbol]
HELIPAD	N/A	[Symbol]	No Change
PUBLIC ROAD	[Symbol]	No Change	[Symbol]
DIRT OR GRAVEL ROAD	[Symbol]	No Change	[Symbol]
FENCE	[Symbol]	No Change	[Symbol]
VEHICLE GATE	[Symbol]	No Change	[Symbol]
WIND CONE	[Symbol]	No Change	[Symbol]
LIGHTS: SINGLE/GROUP/FLASHING	N/A	[Symbol]	No Change
ROTATING BEACON	N/A	[Symbol]	No Change
UTILITY POLE / POWER LINE	[Symbol]	No Change	[Symbol]
CHANNEL / WATERWAY / CULVERT	[Symbol]	No Change	[Symbol]
TOPOGRAPHIC CONTOURS	[Symbol]	No Change	[Symbol]
MONUMENT	[Symbol]	No Change	[Symbol]
SECTION CORNER	[Symbol]	No Change	[Symbol]



SUBMITTED BY:  
County of Stanislaus, California

By \_\_\_\_\_ Date \_\_\_\_\_

NO.	REVISION	SPONSOR	DATE
3	Bell Road Accommodation	Mead & Hunt, Inc.	Oct. 2014
2	Single Runway Configuration	Mead & Hunt, Inc.	Mar. 2012
1	First ALP for Airport	Mead & Hunt, Inc.	Dec. 2008

**CROWS LANDING AIRPORT  
STANISLAUS COUNTY, CALIFORNIA  
AIRPORT LAYOUT PLAN**

**Mead & Hunt**  
133 Aviation Boulevard, Suite 100  
Santa Rosa, California 95408  
(707) 526-5010  
Fax (707) 526-9721  
www.meadhunt.com

Stanislaus County

DESIGN: BM/DH DRAWN: TE/DH/BM DATE: February 2017 SHEET 2 OF 6

C:\Users\B70me\appdata\local\temp\AcPublish\_886\Crows\_ALP0017\_LayoutPlan-CURRENT.dwg Feb 27, 2017 - 3:18pm



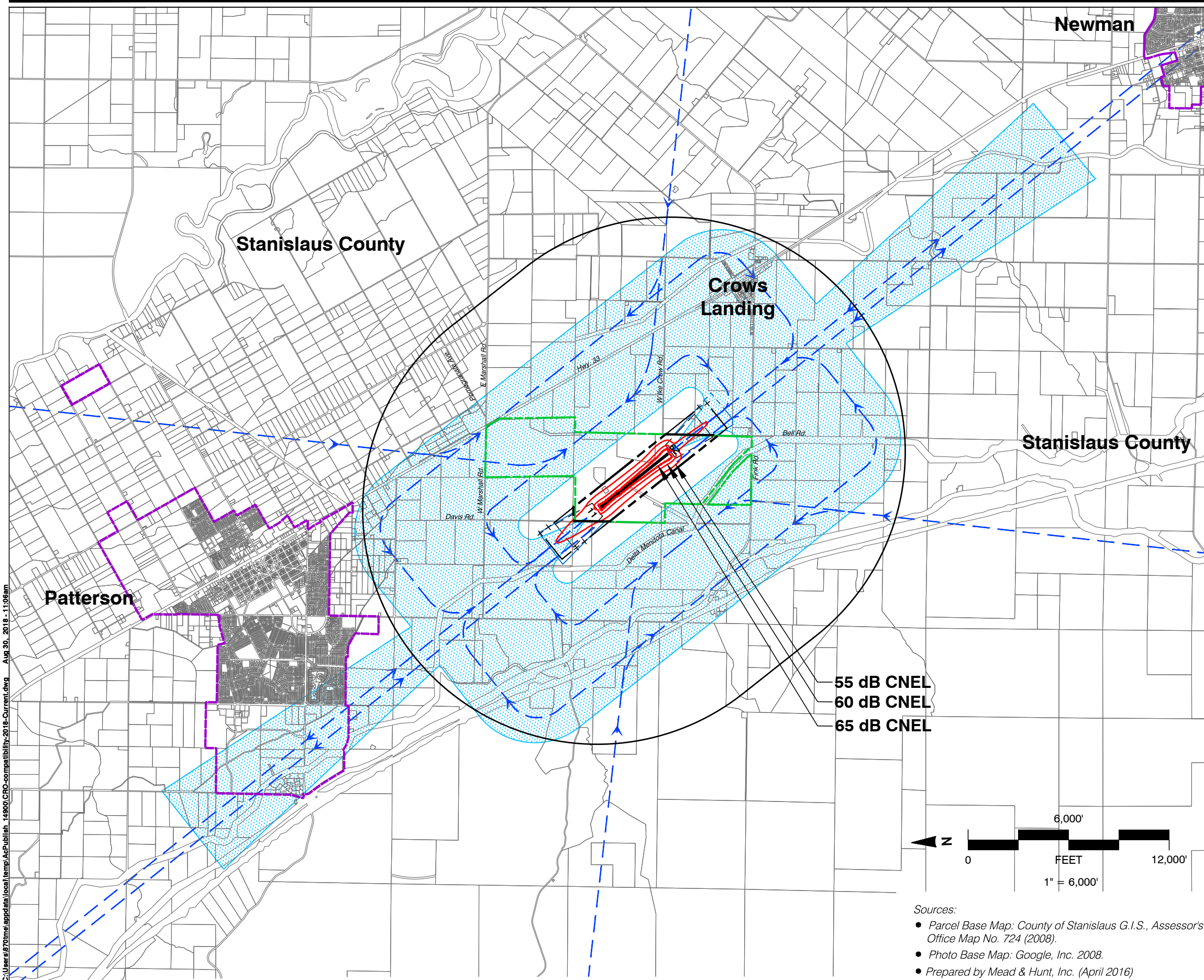


<b>BASED AIRCRAFT</b>			<b>RUNWAY USE DISTRIBUTION <sup>a</sup></b>		
	<b>At Opening <sup>a</sup></b> <i>(to 10 years)</i>	<b>Future <sup>b</sup></b> <i>(11 to 30 years)</i>		<b>At Opening</b> 2009	<b>Ultimate</b> 20+ Years
<i>Aircraft Type</i>			<i>All Aircraft Types</i>		
Single-Engine	10	50	Runway 11	20%	20%
Twin-Engine	--	10	Runway 29	80%	80%
Business Jets	--	14			
Helicopters	--	6			
<i>Total</i>	<i>10</i>	<i>80</i>			
<b>AIRCRAFT OPERATIONS</b>			<b>FLIGHT TRACK USAGE <sup>a</sup></b>		
	<b>At Opening <sup>a</sup></b> <i>(to 10 years)</i>	<b>Future <sup>b</sup></b> <i>(11 to 30 years)</i>	<ul style="list-style-type: none"> <li>➤ Runway 29:                             <ul style="list-style-type: none"> <li>• 50% straight-out departures,</li> <li>• 25 90-degree turn departures,</li> <li>• 25% 180-degree turn departures</li> </ul> </li> <li>➤ Runway 11 and 11: 100% straight-in arrivals</li> </ul>		
<i>Total</i>					
Annual	4,000	34,000			
Average Day	11	93			
<i>Distribution by Aircraft Type</i>					
Single-Engine, Piston	100%	65%			
Twin-Engine Piston	--	10%			
Turboprop	--	15%			
Business Jet	--	10%			
<i>Distribution by Type of Operation</i>					
Local (incl. touch-and-goes)	75%	45%			
Itinerant	25%	55%			
<b>TIME OF DAY DISTRIBUTION <sup>a</sup></b>					
	<b>At Opening</b> <i>(to 10 years)</i>	<b>Future</b> <i>(11 to 30 years)</i>			
<i>All Aircraft</i>					
Day (7am to 7pm)	98%	85%			
Evening (7pm to 10pm)	2%	10%			
Night (10pm to 7am)	--	5%			
<b>Notes</b>					
<sup>a</sup> Estimated by Mead & Hunt for compatibility planning purposes.					
<sup>b</sup> Estimate represents the theoretical capacity as established in the Draft Airport Layout Plan Narrative Report. This forecast scenario assumes total build-out of the adjacent industrial park. Time frame is undefined but assumed to be beyond 2028.					

Exhibit CRO-4

## Airport Activity Data Summary

Crows Landing Airport



**Legend**

**Boundary Lines**

- Airport Property (Existing)
- + - Airport Property (Future)
- - - Aviation Easement (Existing)
- - - Crows Landing Industrial Business Park
- - - City/County Limits
- - - Parcel Line
- Runway (Existing Length of 5,175')

**Noise and Overflight Compatibility Factors**

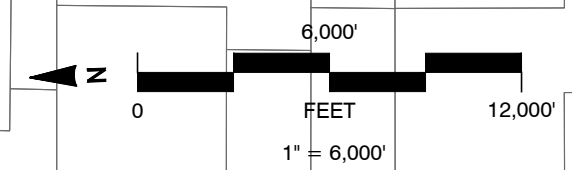
- - - Flight Tracks
- General Traffic Pattern Envelope (80% of aircraft overflights at approximately 1,500 feet or less above runway elevation estimated to occur within these limits).
- FAR Part 77 Conical Surface and Outer Approach

**Calculated Noise Contours**

- 55 dB CNEL
- 60 dB CNEL (34,000 Annual Operations)
- 65 dB CNEL

**Notes**

- Aircraft on a straight-in 3.0° approach slope will descend below 1,500 feet above the airport at distance of approximately 30,000 feet from the runway end.



- Sources:**
- Parcel Base Map: County of Stanislaus G.I.S., Assessor's Office Map No. 724 (2008).
  - Photo Base Map: Google, Inc. 2008.
  - Prepared by Mead & Hunt, Inc. (April 2016)

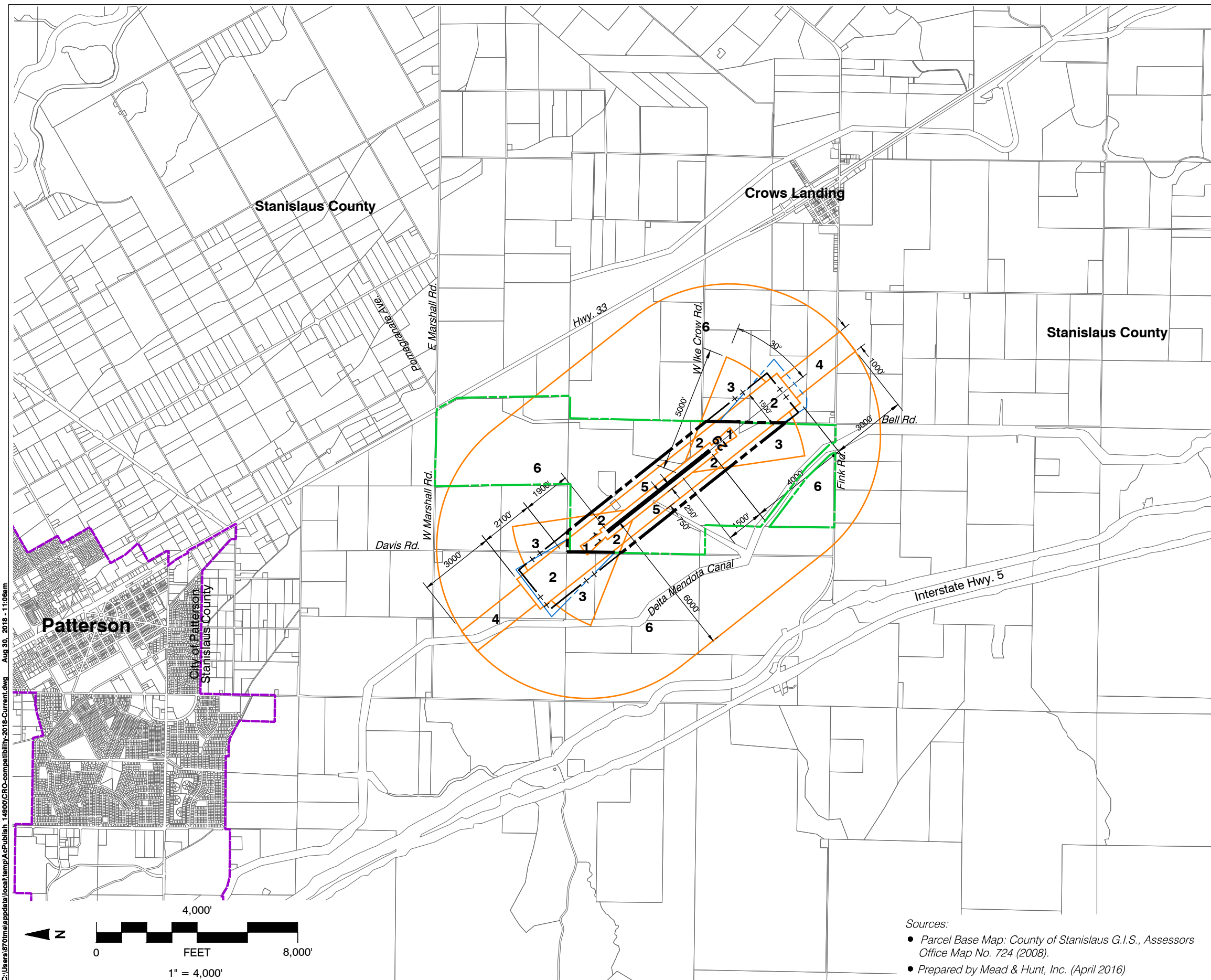
**Crows Landing Airport  
Land Use Compatibility Plan  
(April 2016 Draft)**

Exhibit CRO-5

**Noise and Overflight Factors  
Crows Landing Airport**

C:\Users\70me\AppData\Local\Temp\AcPublish\_14900\CRO-compatibility-2018-Current.dwg Aug 30, 2018 - 11:06am





**Legend**

**Boundary Lines**

- Airport Property (Existing)
- - - Airport Property (Future)
- . - . Avigation Easement (Existing)
- Crows Landing Industrial Business Park
- - - City/County Limits
- Parcel Line
- Runway (Existing Length of 5,175')

**Safety Compatibility Factors<sup>1</sup>**

- Safety Zones - 4,000' - 5,999' General Aviation Runway (Zone 1 adjusted to match Runway Protection Zone on Airport Layout Plan; 250' x 450' x 1,000' for each runway end)

**Notes**

1. Safety Zone Source: California Airport Land Use Planning Handbook (October 2011).

**Crows Landing Airport  
Land Use Compatibility Plan  
(April 2016 Draft)**

Exhibit CRO-6

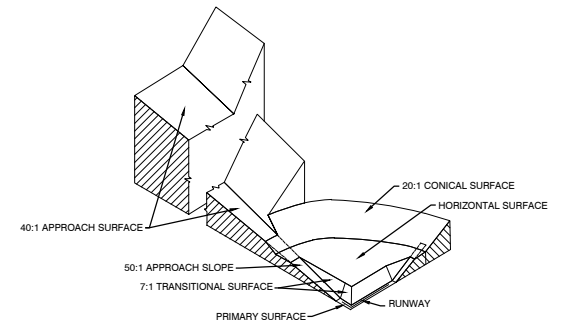
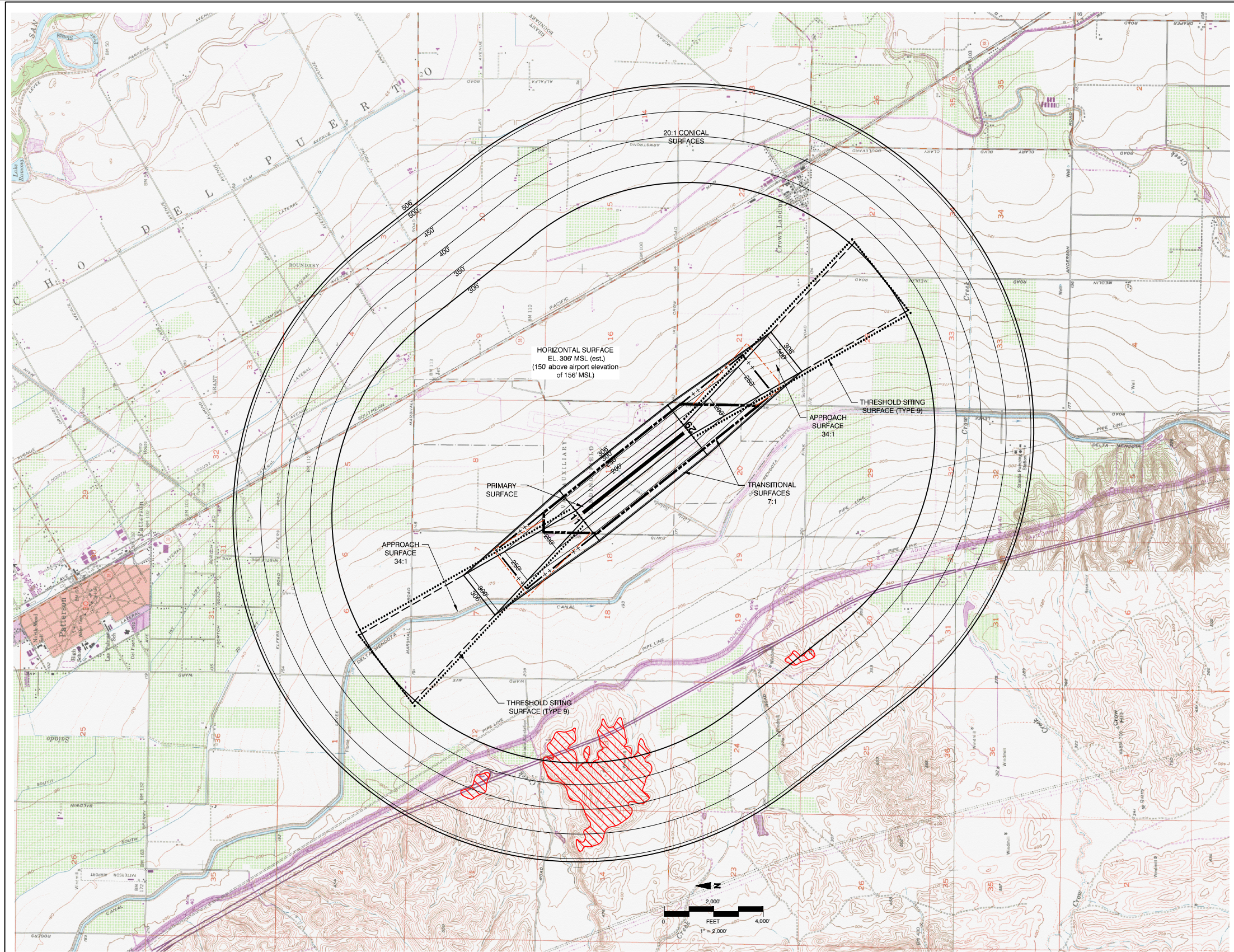
**Safety Factors  
Crows Landing Airport**

**Sources:**

- Parcel Base Map: County of Stanislaus G.I.S., Assessors Office Map No. 724 (2008).
- Prepared by Mead & Hunt, Inc. (April 2016)

C:\Users\j70me\AppData\Local\Temp\AcPublish\_14800\CRC-compatibility-2018-Current.dwg Aug 30, 2018 - 11:06am





TYPICAL FAR PART 77 SURFACES

LEGEND

- FAR Part 77 Surfaces
- ..... Threshold Siting Surface (TSS)
- Runway Protection Zone (RPZ)
- Airport Property (Existing)
- Airport Property (Future)
- ++ Aviation Easement (Existing)
- Terrain Contours
- Part 77 Surface Penetration Estimated
- (e)

NOTES:

- (a) All elevations in feet above mean sea level (MSL). Vertical datum in NAVD88.

SOURCES:

USGS Topographic Maps. Vertical datum is NGVD29 (add 2.480 feet for NAVD88).  
 Photogrammetric Survey by Cartwright Aerial Surveys, Inc. (Oct. 2000) and  
 Field Survey by Mead & Hunt, Inc. (October 2008)

AIRPORT DATA  
Runway 11-29

Runway Length	5,175'
FAR Part 77 Category	Nonprecision
Primary Surface Width	500'
Radius of Horizontal Surface	10,000'
Approach Surface Width (outer)	3,500'
Approach Surface Length	10,000'
Approach Slope	34:1

3	Revised to Show 11-30 year Runway Configuration	Mead & Hunt, Inc.	April 2016
2	Bell Road Accommodation	Mead & Hunt, Inc.	Oct. 2014
1	Single Runway Configuration	Mead & Hunt, Inc.	Nov. 2011
NO.	REVISION	SPONSOR	DATE

CROWS LANDING AIRPORT  
CROWS LANDING, CALIFORNIA

PART 77 AIRSPACE



133 Aviation Boulevard, Suite 100  
 Santa Rosa, California 95403  
 (707) 526-5010  
 Fax (707) 526-9721  
 www.meadhunt.com

DESIGN:	DH/MT	DRAWN:	TE	DATE:	April 2016	SHEET	2	OF	4
---------	-------	--------	----	-------	------------	-------	---	----	---

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





**AIRPORT SITE**

- *Location*
  - Northwestern section of the County of Stanislaus
  - Within boundaries of Crows Landing Industrial Business Park
  - 1 mile east of Interstate 5
  - 30 miles southeast of San Francisco
- *Nearby Terrain*
  - Generally level terrain, hills to the west

**STATUS OF COMMUNITY PLANS**

- *County of Stanislaus*
  - General Plan, adopted 2016
  - Crows Landing Industrial Business Park Specific Plan
  - City of Patterson
- *General Plan adopted 2010; General Plan Map, 2014*

**EXISTING AIRPORT AREA LAND USES**

- *General Character*
  - Generally undeveloped agricultural lands in the immediate vicinity
- *Runway Approaches*
  - From Southeast (Runway 29): Agriculture
  - From Northwest (Runway 11): Agriculture

**PLANNED AIRPORT AREA LAND USES**

- *County of Stanislaus General Plan (Adopted)*
  - Agricultural in immediate vicinity
  - Community of Crows Landing includes: rural residential, commercial, industrial, planned development
- *City of Patterson General Plan (Adopted)*
  - Estate residential, light industrial, commercial, warehouse/distribution adjacent to I-5
- *Crows Landing Industrial Business Park Specific Plan (Draft)*
  - Light industrial, warehouse/logistics, public facilities, Business Park, aviation-related uses, open space

**AIRPORT ENVIRONS LAND USE JURISDICTIONS**

- *County of Stanislaus*
  - Airport in unincorporated area of County
  - Community of Crows Landing located 1.4 miles southeast of Airport
- *City of Patterson*
  - Located 1 mile northwest of Airport

**AIRPORT COMPATIBILITY MEASURES**

*County of Stanislaus General Plan (Adopted)*

- *Land Use Element*
  - Urban development shall be discouraged in areas with growth-limiting factors such as airport hazard areas unless measures to mitigate the problems are included as part of the application.
  - The County will continue to enforce the height limiting ordinance near airports.
  - Residential development shall not be approved at the maximum density if growth-limiting factors such as airport hazard areas exist and it does not comply with airport height limiting ordinance restrictions.
- *Safety Element*
  - The Airport Land Use Compatibility Plan (ALUCP) and County Airport Regulations (Chapter 17 of the County Code) shall be updated as necessary, maintained, and enforced.
  - Development within areas protected by the ALUCP shall only be approved if they meet the requirements of the Plan.
  - All amendments to a land use designation, zoning district, or zoning regulation affecting land within the ALUCP boundary shall be referred to the Airport Land Use Commission (ALUC).
  - The height and exterior materials of new structures in the Airport Zone as defined in the Stanislaus County Airport Regulation shall be reviewed to determine whether they conform to those regulations.

➤ *Noise Element*

- New development of noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to reduce noise levels to the following levels: for transportation noise sources such as traffic on airports, 60 CNEL or less in outdoor activity areas of single-family residences, 65 CNEL or less in community outdoor space for multi-family residences, and 45 CNEL or less within noise sensitive interior spaces.

➤ *Agricultural Element*

- Proposed amendments to the General Plan Diagram (map) that would allow the conversion of agricultural land to non-agricultural uses shall be approved only if they considers proximity to existing airports and air-strips.

*City of Patterson General Plan (Adopted)*

- The City shall work with Stanislaus County and participate in studies concerning the possible conversion of the use of Crows Landing Naval Auxiliary Air Field. Any changes in use should be analyzed for their possible effects on Patterson.
- Transportation noise sources are defined as traffic on public roadways, railroad line operations and aircraft in flight. Control of noise from these sources is preempted by Federal and State regulations. Other noise sources are presumed to be subject to local regulations, such as a noise control ordinance.”
- County of Stanislaus Industrial Park Specific Plan (Draft)
- Information to be provided by County

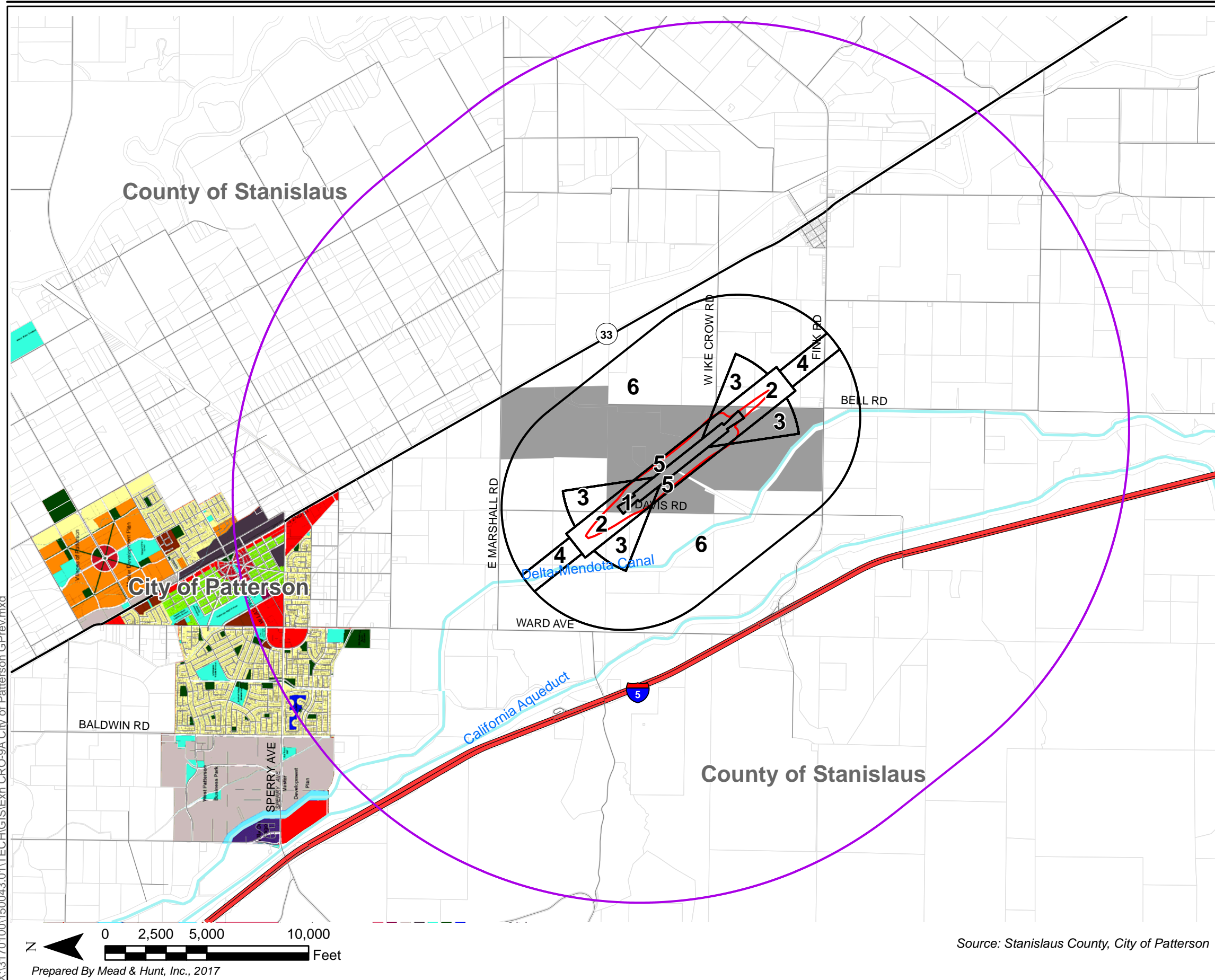
*Crows Landing Industrial Park Specific Plan (Draft)*

- Incorporates ALUCP by reference.

Exhibit CRO-8

**Airport Environs**

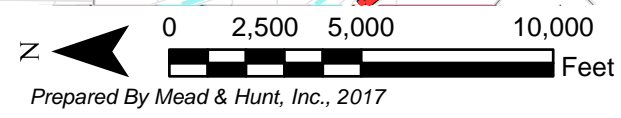
**Crows Landing Airport**



- Legend**
- 55dB CNEL Noise Contour
  - Safety Zones
  - Airport Influence Area
  - Interstate
  - State Highway
  - Road
  - Canal
  - CLIBP Plan Area
  - Stanislaus County Parcels
- City of Patterson General Plan**
- |   |   |
|---|---|
| <span style="background-color: yellow; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Estate Residential           | <span style="background-color: pink; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Mixed Use              |
| <span style="background-color: lightyellow; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Low Density Residential | <span style="background-color: purple; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Medical Professional |
| <span style="background-color: orange; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Medium Density Residential   | <span style="background-color: lightgrey; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Light Industrial  |
| <span style="background-color: brown; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> High Density Residential      | <span style="background-color: darkgrey; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Heavy Industrial   |
| <span style="background-color: limegreen; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Downtown Residential      | <span style="background-color: cyan; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Public/Quasi-Public    |
| <span style="background-color: purple; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Highway Service Commercial   | <span style="background-color: green; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Parks/Open Space      |
| <span style="background-color: red; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Downtown Core                   | <span style="background-color: blue; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> Lake                   |
| <span style="background-color: red; display: inline-block; width: 15px; height: 10px; margin-right: 5px;"></span> General Commercial              |   |

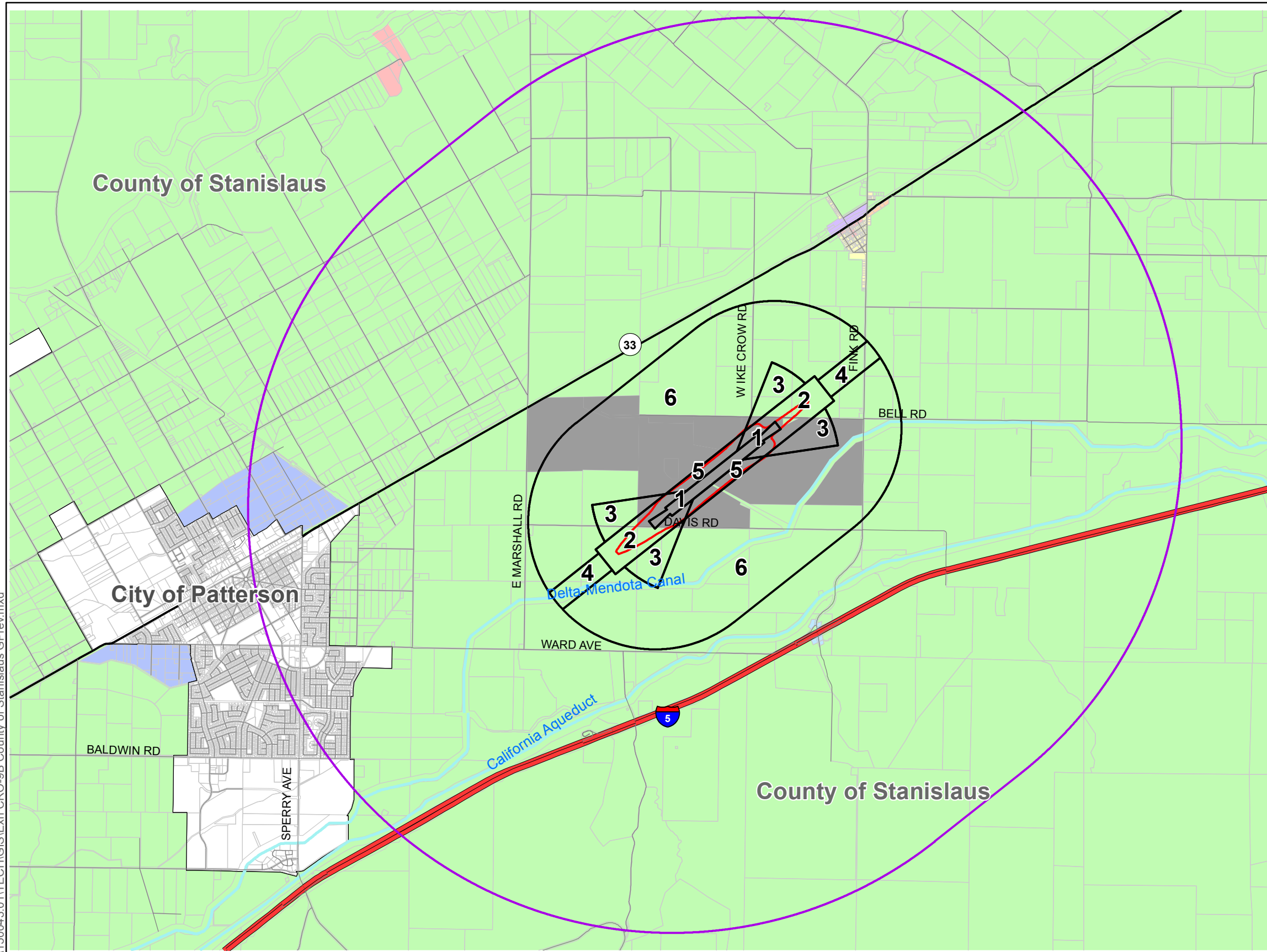
**Crows Landing Airport  
Land Use Compatibility Plan**  
(March 2017 Draft)

Source: Stanislaus County, City of Patterson



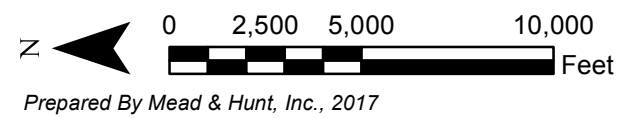
X:\3170100\150043.01\TECH\GIS\Exh CRO-9A City of Patterson GPrep.mxd





- Legend**
- 55dB CNEL Noise Contour
  - Safety Zones
  - Airport Influence Area
  - Interstate
  - State Highway
  - Road
  - Canal
  - CLIBP Plan Area
  - Stanislaus County Parcels
  - Stanislaus County General Plan
  - City
  - Agriculture
  - Residential - Low Density
  - Commercial
  - Planned Development
  - Highway Commercial / Planned Development
  - Urban Transition
  - Industrial
  - Planned Industrial

X:\13170100\150043.01\TECH\GIS\Exh CRO-9B County of Stanislaus GPrev.mxd



Source: Stanislaus County

**Crows Landing Airport  
Land Use Compatibility Plan**  
(March 2017 Draft)

Exhibit CRO-9B  
**Stanislaus County  
2016 General Plan**  
Crows Landing Airport



## APPENDICES



# Foundations of Airport Land Use Compatibility Planning

---

## INTRODUCTION

This appendix outlines the policy foundations upon which airport land use compatibility planning in California is based. Much of the material presented here is drawn from the October 2011 edition of the *California Airport Land Use Planning Handbook* published by the California Division of Aeronautics. (For those seeking more detail, the *Handbook* is available on-line at the Division's web site: [www.dot.ca.gov/hq/planning/aeronaut/htmlfile/landuse.html](http://www.dot.ca.gov/hq/planning/aeronaut/htmlfile/landuse.html).)

In beginning of this discussion, it is important to recognize that relatively little of the policy foundations for airport land use compatibility planning come directly from statutes or are otherwise regulatory in nature. The applicable California statutes deal primarily with the *process* of compatibility planning, not with *criteria* defining what land uses are or are not compatible with airports. The statutes require airport land use commissions to “be guided by” information in the state *Handbook*, but the *Handbook* does not constitute formal state policy or regulation. On the federal level, the guidance is even less regulatory in nature. The U.S. Constitution precludes federal government regulation of local land uses. Federal government direct involvement in airport land use compatibility planning occurs mostly because of the federal grant funding upon which airports rely. Beyond this type of involvement, various federal agencies have established nonregulatory guidelines that pertain to airport land use compatibility.

## FEDERAL GOVERNMENT POLICIES

Federal airport land use compatibility policies are concerned mostly with noise issues. Several statutes deal specifically with aircraft noise. These statutes are implemented through regulations and policies of individual federal agencies, in particular the Federal Aviation Administration (FAA). Guidance with regard to safety is primarily limited to FAA regulations concerning airport design and protection of airport airspace.

### Statutes

Three statutes are of particular relevance to airport land use compatibility planning in that they both support and limit the actions that airports can take to mitigate noise impacts.

- ▶ **Aviation Safety and Noise Abatement Act of 1979 (ASNA)**—Among the stated purposes of this act is “to provide assistance to airport operators to prepare and carry out noise compatibility programs.” The law establishes funding for noise compatibility planning and sets the requirements by which airport operators can apply for funding. The law does not require any airport to develop a noise compatibility program—the decision to do so is the choice of each individual airport proprietor. Regulations implementing the act are set forth in Federal Aviation Regulations Part 150.

- ▶ **Airport and Airway Improvement Act of 1982 (AAIA)**—This act established the Airport Improvement Program (AIP) through which federal funds are made available for airport improvements and noise compatibility planning. The act has been amended several times, but remains in effect as of early 2009. Land use compatibility provisions of the act are implemented primarily by means of the assurances that airports must provide in order to receive federal airport improvement grants.
- ▶ **Airport Noise and Capacity Act of 1990 (ANCA)**—In adopting this legislation, Congress’ stated intention was to try to balance local needs for airport noise abatement with national needs for an effective air transportation system. To accomplish this objective, the act did two things: (1) it directed the FAA to establish a national program to review noise and access restrictions on aircraft operations imposed by airport proprietors; and (2) it established requirements for the phase-out of older model, comparatively louder, “Stage 2” airline aircraft from the nation’s airline fleet by January 2000. These two requirements are implemented by Federal Aviation Regulations Part 161 and 91, respectively.

## Federal Aviation Administration

The most significant FAA policies having a bearing on airport land use compatibility are found in Federal Aviation Regulations and, secondarily, in certain Advisory Circulars.

- ▶ **Federal Aviation Regulations Part 36, *Noise Standards: Aircraft Type and Airworthiness Certification***—This part of the Federal Aviation Regulations sets the noise limits that all newly produced aircraft must meet as part of their airworthiness certification.
- ▶ **Federal Aviation Regulations Part 91, *General Operating and Flight Rules***—This part of the Federal Aviation Regulations sets many of the rules by which aircraft flights within the United States are to be conducted. Rules governing noise limits are set forth in Subpart I. Within this subpart is a provision which mandated that all Stage 2 civil subsonic aircraft having a maximum gross weight of more than 75,000 pounds be phased out of operation within the United States by January 1, 2000. These FAR implements the requirements set forth in the Airport Noise and Capacity Act of 1990.
- ▶ **Federal Aviation Regulations Part 150, *Airport Noise Compatibility Planning***—As a means of implementing the Aviation Safety and Noise Abatement Act of 1979, the FAA adopted these regulations establishing a voluntary program that airports can utilize to conduct airport noise compatibility planning. “This part prescribes the procedures, standards, and methodology governing the development, submission, and review of airport noise exposure maps and airport noise compatibility programs, including the process for evaluating and approving or disapproving these programs.” Part 150 also prescribes a system for measuring airport noise impacts and presents guidelines for identifying incompatible land uses. Airports that choose to undertake a Part 150 study are eligible for federal funding both for the study itself and for implementation of approved components of the local program.

The noise exposure maps are to be depicted in terms of average annual Day-Night Average Sound Level (DNL) contours around the airport. For the purposes of federal regulations, all land uses are considered compatible with noise levels of less than DNL 65 dB. At higher noise exposures, selected land uses are also deemed acceptable, depending upon the nature of the use and the degree of structural noise attenuation provided. In setting the various compatibility guidelines, however, the regulations state that the designations:



“...do not constitute a Federal determination that any use of land covered by the [noise compatibility] 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.” *[emphasis added]*

Note that the DNL noise metric is the same as the CNEL (Community Noise Equivalent Level) metric used in California except that DNL does not include a penalty weighting for evening (7:00 to 10:00 p.m.) operations—each operation is counted as if it were three operations—as does CNEL. Both metrics apply a 10-fold weighting—each operation is counted 10 times—for nighttime activity (10:00 p.m. to 7:00 a.m.).

- ▶ **Federal Aviation Regulations Part 161, *Notice and Approval of Airport Noise and Access Restrictions***—This part of the federal regulations implements the Airport Noise and Capacity Act of 1990. It codifies the analysis and notification requirements for airport proprietors proposing aircraft noise and access restrictions on Stage 2 or Stage 3 aircraft weighing 75,000 pounds or more. Among other things, an extensive cost-benefit analysis of proposed restrictions is required. The analysis requirements are closely tied to the process set forth in FAR Part 150 and are more stringent with respect to the quieter, Stage 3 aircraft than for Stage 2.
- ▶ **Federal Aviation Regulations Part 77, *Safe, Efficient Use and Preservation of the Navigable Airspace***—FAR Part 77 establishes standards for determining obstructions to navigable airspace and the effects of such obstructions on the safe and efficient use of that airspace. The regulations require that the FAA be notified of proposed construction or alteration of objects—whether permanent, temporary, or of natural growth—if those objects would be of a height that would exceed the FAR Part 77 criteria. The height limits are defined in terms of imaginary surfaces in the airspace extending about two to three miles around airport runways and approximately 9.5 miles from the ends of runways having a precision instrument approach. FAR Part 77 is applicable to both civilian and military airports although the specific standards differ.

When notified of a proposed construction, the FAA conducts an aeronautical study to determine whether the object would constitute an airspace hazard. Simply because an object (or the ground) would exceed an airport’s airspace surfaces established in accordance with FAR Part 77 criteria does not mean that the object would be considered a hazard. Various factors, including the extent to which an object is shielded by nearby taller objects, are taken into account. The FAA may recommend marking and lighting of obstructions.

The FAA has no authority to remove or to prevent construction or growth of objects deemed to be obstructions. Local governments having jurisdiction over land use are typically responsible for establishing height limitation ordinances that prevent new, and enable removal of existing, obstructions to the FAR Part 77 surfaces. Federal action in response to new airspace obstructions is primarily limited to three possibilities:

- ▶ 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.
- ▶ Airfield changes such as displacement of a landing threshold could be required (especially at airports certificated for commercial air carrier service).

- › The owner of an airport could be found in noncompliance with the conditions agreed to upon receipt of 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).
- ▶ **FAA Advisory Circular 150/5300-13, *Airport Design***—The primary function of this Advisory Circular is to establish standards for dimensions and other features of civilian airport runways, taxiways, and other aircraft operating areas. For the most part, these airport components are all on airport property. One that is sometimes not entirely on airport is the runway protection zone (RPZ). RPZs are trapezoidal-shaped areas located at ground level beyond each end of a runway. The Advisory Circular describes their function as being “to enhance protection of people and property on the ground.” The dimensions of RPZs vary depending upon:
  - › The type of landing approach available at the airport (visual, nonprecision, 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 *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 which 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).

## Other Federal Agencies

- ▶ **U.S. Environmental Protection Agency (EPA)**—A report published in 1974 by the EPA Office of Noise Abatement and Control continues to be a source of useful background information. Entitled *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, this report is better known as the “Levels Document.” The document does not constitute EPA regulations or standards. Rather, it is intended to “provide state and local governments as well as the federal government and the private sector with an informational point of departure for the purposes of decision-making.” Using Yearly Day-Night Average Sound Level (DNL) as a measure of noise acceptability, the document states that “undue interference with activity and annoyance” will not occur if *outdoor* noise levels in residential areas are below DNL 55 dB and *indoor* levels are below DNL 45 dB. These thresholds include an “adequate margin of safety” as the document title indicates.
- ▶ **Department of Housing and Urban Development (HUD)**—HUD guidelines for the acceptability of residential land use are set forth in the Code of Federal Regulations Title 24, Part 51, “Environmental Criteria and Standards.” The guidelines identify a noise exposure of DNL 65 dB or less as acceptable, between 65 and 75 dB as normally acceptable if appropriate sound attenuation is provided, and above DNL 75 dB as unacceptable. The goal for interior noise levels is DNL 45 dB. These guidelines apply only to new construction supported by HUD grants and are not binding upon local communities.
- ▶ **Department of Defense Air Installations Compatibility Use Zones (AICUZ) Program**—The AICUZ Program was established by the DOD in response to growing incompatible urban development around military airfields. DOD Instruction Number 4165.57 (November 8, 1977) provides the overall guidance for the program and mandates preparation of an AICUZ plan for each installation. Each of the military services has its own individual guidelines for implementing the basic instructions.

The Air Force guidelines, for example, are defined in Air Force Instruction 32-7063, *Air Installation Compatible Use Zone Program* (April 17, 2002) and Air Force Handbook 32-7084, *AICUZ Program Manager's Guide* (March 1, 1999). The Air Force publications describe the two objectives of the AICUZ program as being: to assist local, regional, state, and federal agencies in protecting public health, safety, and welfare by promoting compatible development within the area of influence of military installations; and to protect Air Force operational capability from the effects of land uses which are incompatible with aircraft operations. AICUZ plans prepared for individual military airfields serve as recommendations to local land use jurisdictions, but have no regulatory function.

Each AICUZ plan delineates the installation's area of influence with respect to height limitations for airspace protection, accident potential, and noise. FAR Part 77 is used for airspace protection criteria. For safety compatibility, three accident potential zones (APZs) are defined: a clear zone (equivalent to the RPZ at civilian airports), and APZs I and II. These zones extend a total of 15,000 feet beyond the ends of runways. Noise contours using the DNL metric, or CNEL in California, indicate the extent of noise impacts. Land use compatibility guidelines are provided with respect to each of these factors. Residential development is considered incompatible within all three APZs except for low-density development in APZ II, as well as within all noise contours above 65 dB.

- ▶ **Department of Defense Joint Land Use Study (JLUS) Program**—In 1985, congress authorized the DOD to make available community planning assistance grants (Title 10 U.S.C. Section 2391) to state and local government to help better understand and incorporate the AICUZ technical data into local planning programs. The Office of Economic Adjustment (OEA) manages the JLUS program. A JLUS is a cooperative land use planning effort between the affected local government and the military installation. The JLUS presents a rationale, justification, and a policy framework to support the adoption and implementation of recommended compatible development criteria. These measures are designed to prevent urban encroachment; safeguard the military mission; and protect the public health, safety, and welfare.

## STATE OF CALIFORNIA POLICIES

Unlike with federal government policies that are merely advisory as airport land use compatibility planning guidelines, some elements of state policy are regulatory in nature.

### State Aeronautics Act

The California State Aeronautics Act—Division 9, Part 1 of the California Public Utilities Code—provides the policy guidance most directly relevant to compatibility planning. Three portions of the act are of particular interest. One, beginning with Section 21670, establishes requirements for airport land use compatibility planning around each public-use and military airport in the state and the creation of an airport land use commission in most counties. Another—Section 21669—requires the State Department of Transportation to adopt, to an extent not prohibited by federal law, noise standards applicable to all airports operating under a state permit. A third effectively makes FAR Part 77 a state law.

- ▶ **Airport Land Use Commission Statutes**—Although numerous changes have been made to the ALUC statutes over the years, the basic requirements for the establishment of ALUCs and the preparation of airport land use compatibility plans have been in place since the law's enactment in 1967. The fundamental purpose of ALUCs to promote land use compatibility around airports has remained unchanged. As expressed in the present statutes, this purpose is:

“...to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public’s exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.”

As noted in the introduction to this chapter, the focus of the ALUC statutes is on the process of compatibility planning. Compatibility criteria are not defined. Rather, reference is made to other sources of compatibility criteria, specifically:

- ▶ The preamble to the law indicates that one of the purposes is “to promote the overall goals and objectives of the California airport noise standards adopted pursuant to Section 21669” i.e., the California Airport Noise Regulations.
- ▶ Section 21674.7 requires that, when adopting or amending a compatibility plan, ALUCs “be guided by” information contained in the *Airport Land Use Planning Handbook*. This section further states that “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 outlined in the *Handbook*. Highlights of the compatibility criteria set forth in the *Handbook* are included later in this chapter.
- ▶ With regard to military airports, Section 21675(b) states that ALUCs must prepare a compatibility plan for them and that such plans “shall be consistent with the safety and noise standards in the Air Installation Compatible Use Zone [plan] prepared for that military airport.”

With respect to the compatibility planning process, two sections of the law are particularly significant to local land use agencies:

- ▶ ALUC authority is limited to “areas not already devoted to incompatible uses.” This phrase is generally taken to mean that ALUCs have no authority over existing land uses. However, changing an incompatible land use in a manner that would make it more incompatible is considered to be within the jurisdiction of ALUCs.
- ▶ Section 21676 describes the types of land use actions that must be submitted to an ALUC for review. These actions include adoption or amendment of a general plan or zoning ordinance. Section 21676.5 indicates that until such time as a local agency’s general plan has been made consistent with the ALUC’s plan, the ALUC may require the local agency to submit all “actions, regulations, and permits” for review. After the agency’s general plan has been deemed consistent, then these additional actions are not subject to ALUC review unless agreed upon between the agency and the ALUC.
- ▶ **California Airport Noise Regulations**—The airport noise standards promulgated in accordance with the State Aeronautics Act are set forth in Section 5000 et seq. of the California Code of Regulations (Title 21, Division 2.5, and Chapter 6). The regulations establish criteria under which a county board of supervisors can declare an airport as having a “noise problem.” The specifics of the regulations are applicable only to a few, primarily major airline, airports that have been declared as having a noise problem. Nevertheless, some of the provisions are of interest in a nonregulatory manner to other airports.

Most relevant are the criteria that define what are considered incompatible land uses with respect to noise. Section 5006 states 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.”

Of particular note in the above is that the CNEL 65 dB criterion has been set specifically with respect to *urban* residential areas. The regulations provide no guidance with respect to other community settings.

Four types of land uses are defined as incompatible within the CNEL 65 dB contour:

- › Residences of all types;
- › Public and private schools;
- › Hospitals and convalescent homes; and
- › Churches, synagogues, temples, and other places of worship.

However, these uses are not deemed incompatible if any of several mitigative actions has been taken as spelled out in Section 5014. Among these measures are airport acquisition of an avigation easement for aircraft noise and, except for some residential uses, acoustical insulation adequate to ensure that the interior CNEL due to aircraft noise is 45 dB or less in all habitable rooms.

- ▶ **Regulation of Obstructions**—Section 21659 gives the state authority to enforce the standards set by FAR Part 77. No structure or tree is permitted to reach a height that exceeds FAR Part 77 obstruction standards unless the FAA has determined that the object would not constitute a hazard to air navigation or create an unsafe condition for flight.

## Other State Regulations

Additional state regulations having a bearing on airport land use compatibility planning include the following:

- ▶ **Government Code**—Section 65302.3 requires that local agencies must either modify their general plans and any applicable specific plans to be consistent with the compatibility plan adopted by an ALUC or take the steps indicated in Public Utilities Code Section 21676 to overrule the ALUC. The local plans are to be amended within 180 days of when the ALUC plan is adopted or amended.
- ▶ **California Building Code**—California Code of Regulations Title 24, known as the California Building Code, contains standards for allowable interior noise levels associated with exterior noise sources. 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 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 military bases, the  $L_{dn}$  shall be determined from the facility Air Installation Compatible Use Zone (AICUZ) plan. 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.”

- ▶ **Real Estate Disclosure Laws**—State legislation that took effect in January 2004 (Building and Professions Code Section 11010 and Government Code Sections 1103 and 1353) requires that the presence of an airport nearby be disclosed as part of residential real estate transactions. For all new subdivisions plus those existing residences located where other hazards (flood, fire, and earthquake) are present. This requirement applies within the airport influence area as defined by the airport land use commission in the county. The law provides the following specific language to be used in the disclosure:

“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.”

- ▶ **State Education Code**—Provisions of the Education Code applying to elementary and secondary schools (Section 17215) and community colleges (Section 81033) require the California Division of Aeronautics to review proposals for acquisition of a school site situated within two miles of an existing or planned airport runway. The Division must then investigate the proposed site and report back to the Department of Education its recommendations as to whether the site should be acquired for school purposes. The Division is also required to establish criteria to be used in this review process.
- ▶ **General Plan Guidelines**—Section 65302(f) of the California Government Code, requires that a noise element be included as part of local general plans. Airports and heliports are among the noise sources specifically to be analyzed. To the extent practical, both current and future noise contours (expressed in terms of either CNEL or DNL) are to be included. The noise contours are to be “used as a guide for establishing a pattern of land uses ... that minimizes the exposure of community residents to excessive noise.”

Guidance on the preparation and content of general plan noise elements is provided by the Office of Planning and Research in its *General Plan Guidelines* publication (last revised in 2003). This guidance represents an updated version of guidelines originally published by the State Department of Health Services in 1976. Included in the document is a table indicating noise compatibility criteria for a variety of land use categories. Another table outlines a set of adjustment or “normalization” factors that “may be used in order to arrive at noise acceptability standards which reflect the noise control goals of the community, the particular community’s sensitivity to noise..., and their assessment of the relative importance of noise pollution.”

## Airport Land Use Planning Handbook

Drawing from original research and a variety of other sources such as those described in this appendix, the 2011 edition of the *California Airport Land Use Planning Handbook* provides an extensive amount of information upon which local airport land use compatibility criteria can be based. Indeed, as noted earlier herein, local compatibility planning must “be guided by” the information in the *Handbook*. On most topics, the *Handbook* provides a significant degree of latitude in setting compatibility criteria to best suit the characteristics of a particular airport and its environs. Moreover, agencies can deviate from this guidance where there is strong rationale for doing so and compliance with the basic objectives of the statutes can still be demonstrated.

The *Handbook* discussion of compatibility issues is divided into chapters on noise and safety. The noise discussion includes overflight issues and safety includes airspace protection. A few highlights are worth noting.

- ▶ **Noise**—The *Handbook* notes that CNEL 65 dB is the maximum noise level normally compatible with urban residential land uses, but that this level is too high for many airports. The “normalization” process is cited as a means for adjusting this criterion to reflect community characteristics. Additional factors to be considered are listed in Table 7C.
- ▶ **Overflight**—Overflight concerns are addressed in terms of the need for buyer awareness measures and avoidance of particularly noise-sensitive land uses.
- ▶ **Safety**—Safety compatibility guidelines in the *Handbook* utilize accident location data to identify the areas of greatest risk near runways. Several sample sets of safety zones are depicted along with suggested maximum residential density and nonresidential intensity criteria. Distinctions between rural, suburban, and urban settings are taken into account in these criteria.
- ▶ **Airspace Protection**—The criteria for this topic stem directly from FAR Part 77 standards for avoidance of airspace obstructions and other FAA regulations with respect to bird strike concerns and other hazards to flight.

[This page intentionally blank]



## State Laws Related to Airport Land Use Planning

---

### Table of Contents

(as of January 2013)

#### Public Utilities Code

*Sections*

21670 – 21679.5	Airport Land Use Commission .....	B-3 (complete article)
21402 – 21403	Regulation of Aeronautics.....	B-16 (excerpts pertaining to rights of aircraft flight)
21655, 21658, 21659	Regulation of Obstructions.....	B-17 (excerpts)
21661.5, 21664.5	Regulation of Airports .....	B-19 (excerpts pertaining to approval of new airports and airport expansion)

#### Government Code

*Sections*

65302.3	Authority for and Scope of General Plans.....	B-20 (excerpts pertaining to general plans consistency with airport land use plans)
65943 – 65945.7	Application for Development Projects .....	B-21 (excerpts referenced in State Aeronautics Act)
66030 – 66031	Mediation and Resolution of Land Use Disputes.....	B-26 (excerpts applicable to ALUC decisions)
66455.9	School Site Review .....	B-28 (excerpts applicable to ALUCs)

#### Education Code

*Sections*

17215	School Facilities, General Provisions.....	B-29 (excerpts pertaining to Department of Transportation review of elementary and secondary school sites)
81033	Community Colleges, School Sites.....	B-30 (excerpts pertaining to Department of Transportation review of community college sites)

**Public Resources Code**

*Sections*

21096	California Environmental Quality Act, Airport Planning.....	B-32
	(excerpts pertaining to projects near airports)	

**Business and Professions Code**

*Sections*

11010	Regulation of Real Estate Transactions, Subdivided Lands .....	B-33
	(excerpts regarding airport influence area disclosure requirements)	

**Civil Code**

*Sections*

1103	– 1103.4	Disclosure of Natural Hazards upon Transfer of Residential Property .....	B-34
1353		Common Interest Developments.....	B-38
		(excerpts regarding airport influence area disclosure requirements)	

**Legislative History Summary**

	Airport Land Use Commission Statutes .....	B-39
--	--	------

**AERONAUTICS LAW**  
**PUBLIC UTILITIES CODE**  
**Division 9—Aviation**  
**Part 1—State Aeronautics Act**  
**Chapter 4—Airports and Air Navigation Facilities**  
**Article 3.5—Airport Land Use Commission**

**21670. Creation; Membership; Selection**

- (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 therefrom. 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. Action by Designated Body Instead of Commission**

- (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. Application to Counties Having over 4 Million in Population**

- (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 San Diego County**

- (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. Intercounty Airports**

- (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. Court and Mediation Proceedings**

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

**21671. Airports Owned by a City, District or County**

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) 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. Term of Office**

- (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. Rules and Regulations**

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. Initiation of Proceedings for Creation by Owner of Airport**

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 therefor to the satisfaction of the board of supervisors.

**21674. Powers and Duties**

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. Training of Airport Land Use Commission's Staff**

- (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. Airport Land Use Planning Handbook**

- (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. Land Use Plan**

- (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 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. Adoption of Land Use Plan**

- (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. Approval or Disapproval of Actions, Regulations, or Permits**

- (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. Review of Local General Plans**

- (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. Review of Local Plans**

- (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. Marin County Override Provisions**

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. Airport Owner's Immunity**

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. Court Review**

- (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. Deferral of Court Review**

- (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.

**AERONAUTICS LAW**  
**PUBLIC UTILITIES CODE**  
**Division 9, Part 1**  
**Chapter 3—Regulation of Aeronautics**  
**(excerpts)**

**21402. Ownership; Prohibited Use of Airspace**

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. Lawful Flight; Flight Within Airport Approach Zone**

- (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.



**AERONAUTICS LAW****PUBLIC UTILITIES CODE****Division 9, Part 1****Chapter 4—Airports and Air Navigation Facilities****Article 2.7—Regulation of Obstructions***(excerpts)***21655. Proposed Site for Construction of State Building Within Two Miles of Airport Boundary**

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. Construction of Utility Pole or Line in Vicinity of Aircraft Landing Area**

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. Hazards Near Airports Prohibited**

- (a) No person shall construct or alter any structure 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).

**AERONAUTICS LAW**  
**PUBLIC UTILITIES CODE**  
**Division 9, Part 1, Chapter 4**  
**Article 3—Regulation of Airports**  
**(excerpts)**

**21661.5. City Council or Board of Supervisors and ALUC Approvals**

- (a) No political subdivision, 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 such 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 such commission in accordance with the provisions of such 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. Amended Airport Permits; Airport Expansion Defined**

- (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 [*sic* – should be 150/5300-13], 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.

**PLANNING AND ZONING LAW**  
**GOVERNMENT CODE**  
**Title 7—Planning and Land Use**  
**Division 1—Planning and Zoning**  
**Chapter 3—Local Planning**  
**Article 5—Authority for and Scope of General Plans**  
*(excerpts)*

**65302.3. General and Applicable Specific Plans; Consistency with Airport Land Use Plans; Amendment; Nonconcurrency Findings**

- (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 of the provisions 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.

**PLANNING AND ZONING LAW****GOVERNMENT CODE****Title 7, Division 1****Chapter 4.5—Review and Approval of Development Projects****Article 3—Application for Development Projects****(excerpts)**

*Note: The following government code sections are referenced in Section 21675.2(c) of the ALUC statutes.*

**65943. Completeness of Application; Determination; Time; Specification of Parts not Complete and Manner of Completion**

- (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 resubmittal 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 the 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 of 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 72012 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. Acceptance of Application as Complete; Requests for Additional Information; Restrictions; Clarification, Amplification, Correction, etc; Prior to Notice of Necessary Information**

- (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.
- (d) (1) After a public agency accepts an application as complete, and if the project applicant has identified that the proposed project is located within 1,000 feet of a military installation or within special use airspace or beneath a low-level flight path in accordance with Section 65940, the public agency shall provide a copy of the complete application to any branch of the United States Armed Forces that has provided the Office of Planning and Research with a single California mailing address within the state for the delivery of a copy of these applications. This

subdivision shall apply only to development applications submitted to a public agency 30 days after the Office of Planning and Research has notified cities, counties, and cities and counties of the availability of Department of Defense information on the Internet pursuant to subdivision (d) of Section 65940.

- (2) Except for a project within 1,000 feet of a military installation, the public agency is not required to provide a copy of the application if the project is located entirely in an “urbanized area.” An urbanized area is any urban location that meets the definition used by the United State Department of Commerce’s Bureau of Census for “urban” and includes locations with core census block groups containing at least 1,000 people per square mile and surrounding census block groups containing at least 500 people per square mile.
- (e) Upon receipt of a copy of the application as required in subdivision (d), any branch of the United States Armed Forces may request consultation with the public agency and the project applicant to discuss the effects of the proposed project on military installations, low-level flight paths, or special use airspace, and potential alternatives and mitigation measures.
- (f) (1) Subdivisions (d), (e), and (f) as these relate to low-level flight paths, special use airspace, and urbanized areas shall not be operative until the United States Department of Defense provides electronic maps of low-level flight paths, special use airspace, and military installations, at a scale and in an electronic format that is acceptable to the Office of Planning and Research.
- (2) Within 30 days of a determination by the Office of Planning and Research that the information provided by the Department of Defense is sufficient and in an acceptable scale and format, the office shall notify cities, counties, and cities and counties of the availability of the information on the Internet. Cities, counties, and cities and counties shall comply with subdivision (d) within 30 days of receiving this notice from the office.

**65945. Notice of Proposal to Adopt or Amend Certain Plans or Ordinances by City or County, Fee; Subscription to Periodically Updated Notice as Alternative, Fee**

- (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 retrieve 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 proposals 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. Notice of Proposal to Adopt or Amend Rules or Regulations Affecting Issuance of Permits by Local Agency other than City or County; Fee**

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. Notice of Proposal to Adopt or Amend Regulation Affecting Issuance of Permits and Which Implements Statutory Provision by State Agency**

At the time of filing an application for a development permit with a state agency, the state 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 regulation affecting the issuance of development permits and which implements a statutory provision.

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



**65945.7. Actions, Inactions, or Recommendations Regarding Ordinances, Rules or Regulations; Invalidity or Setting Aside Ground of Error Only if Prejudicial**

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.

**65946. [Replaced by AB2351 Statutes of 1993]**

## **PLANNING AND ZONING LAW**

### **GOVERNMENT CODE**

#### **Title 7, Division 1**

#### **Chapter 9.3—Mediation and Resolution of Land Use Disputes (excerpts)**

#### **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).
  - (10) 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.
- (b) 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.
  - (c) 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 subregional 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 which 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.

**PLANNING AND ZONING LAW**

**GOVERNMENT CODE**

**Title 7—Planning and Land Use**

**Division 2—Subdivisions**

**Chapter 3—Procedure**

**Article 3—Review of Tentative Map by Other Agencies**

**(excerpts)**

**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.

**EDUCATION CODE**  
**Title 1—General Education Code Provisions**  
**Division 1—General Education Code Provisions**  
**Part 10.5—School Facilities**  
**Chapter 1—School Sites**  
**Article 1—General Provisions**  
*(excerpts)*

**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 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 proposed 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 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.

**EDUCATION CODE**  
**Title 3—Postsecondary Education**  
**Division 7—Community Colleges**  
**Part 49—Community Colleges, Education Facilities**  
**Chapter 1—School Sites**  
**Article 2—School Sites**  
*(excerpts)*

**81033. Investigation: Geologic and Soil Engineering Studies; Airport in Proximity**

- (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 a 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 a 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 shall, in lieu of notifying the Division of Aeronautics, 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 such information or assistance as 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 such community college district for expenditure in connection with that site, any state funds otherwise made available under any state law whatever for a 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 such purposes; provided that provisions of this section shall not be applicable to sites acquired prior to January 1, 1966, nor any additions or extensions to such sites.

If the recommendations of the Division of Aeronautics are unfavorable, such recommendations shall not be overruled without the express approval of the board of governors and the State Allocation Board.

**CALIFORNIA ENVIRONMENTAL QUALITY ACT STATUTES**

**PUBLIC RESOURCES CODE**

**Division 13—Environmental Quality**

**Chapter 2.6—General**

*(excerpts)*

**21096. Airport Planning**

- (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.



**BUSINESS AND PROFESSIONS CODE**  
**Division 4—Real Estate**  
**Part 2—Regulation of Transactions**  
**Chapter 1—Subdivided Lands**  
**Article 2—Investigation, Regulation and Report**  
*(excerpts)*

**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) The notice of intention shall contain the following information about the subdivided lands and the proposed offering:

[Sub-Sections (1) through (12) omitted]

- (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 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.

**CIVIL CODE**  
**Division 2—Property**  
**Part 4—Acquisition of Property**  
**Title 4—Transfer**  
**Chapter 2—Transfer of Real Property**  
**Article 1.7—Disclosure of Natural Hazards Upon Transfer of Residential Property**  
*(excerpts)*

**1103.**

- (a) Except as provided in Section 1103.1, this article applies to any transfer by sale, exchange, installment land sale contract, as defined in Section 2985, lease with an option to purchase, any other option to purchase, or ground lease coupled with improvements, of any real property described in subdivision (c), or residential stock cooperative, improved with or consisting of not less than one nor more than four dwelling units.
- (b) Except as provided in Section 1103.1, this article shall apply to a resale transaction entered into on or after January 1, 2000, for a manufactured home, as defined in Section 18007 of the Health and Safety Code, that is classified as personal property intended for use as a residence, or a mobilehome, as defined in Section 18008 of the Health and Safety Code, that is classified as personal property intended for use as a residence, if the real property on which the manufactured home or mobilehome is located is real property described in subdivision (c).
- (c) This article shall apply to the transactions described in subdivisions (a) and (b) only if the transferor or his or her agent are required by one or more of the following to disclose the property’s location within a hazard zone:
  - (1) A person who is acting as an agent for a transferor of real property that is located within a special flood hazard area (any type Zone “A” or “V”) designated by the Federal Emergency Management Agency, or the transferor if he or she is acting without an agent, shall disclose to any prospective transferee the fact that the property is located within a special flood hazard area if either:
    - (A) The transferor, or the transferor’s agent, has actual knowledge that the property is within a special flood hazard area.
    - (B) The local jurisdiction has compiled a list, by parcel, of properties that are within the special flood hazard area and a notice has been posted at the offices of the county recorder, county assessor, and county planning agency that identifies the location of the parcel list.
  - (2) ... is located within an area of potential flooding ... shall disclose to any prospective transferee the fact that the property is located within an area of potential flooding ...
  - (3) ... is located within a very high fire hazard severity zone, designated pursuant to Section 51178 of the Public Resources Code ... shall disclose to any prospective transferee the fact that the property is located within a very high fire hazard severity zone and is subject to the requirements of Section 51182 ...
  - (4) ... is located within an earthquake fault zone, designated pursuant to Section 2622 of the Public Resources Code ... shall disclose to any prospective transferee the fact that the property is located within a delineated earthquake fault zone ...

- (5) ... is located within a seismic hazard zone, designated pursuant to Section 2696 of the Public Resources Code ... shall disclose to any prospective transferee the fact that the property is located within a seismic hazard zone ...
  - (6) ... is located within a state responsibility area determined by the board, pursuant to Section 4125 of the Public Resources Code, shall disclose to any prospective transferee the fact that the property is located within a wildland area that may contain substantial forest fire risks and hazards and is subject to the requirements of Section 4291 ...
- (d) Any waiver of the requirements of this article is void as against public policy.

### **1103.1.**

- (a) This article does not apply to the following transfers:
  - (1) Transfers pursuant to court order, including, but not limited to, transfers ordered by a probate court in administration of an estate, transfers pursuant to a writ of execution, transfers by any foreclosure sale, transfers by a trustee in bankruptcy, transfers by eminent domain, and transfers resulting from a decree for specific performance.
  - (2) Transfers to a mortgagee by a mortgagor or successor in interest who is in default, transfers to a beneficiary of a deed of trust by a trustor or successor in interest who is in default, transfers by any foreclosure sale after default, transfers by any foreclosure sale after default in an obligation secured by a mortgage, transfers by a sale under a power of sale or any foreclosure sale under a decree of foreclosure after default in an obligation secured by a deed of trust or secured by any other instrument containing a power of sale, or transfers by a mortgagee or a beneficiary under a deed of trust who has acquired the real property at a sale conducted pursuant to a power of sale under a mortgage or deed of trust or a sale pursuant to a decree of foreclosure or has acquired the real property by a deed in lieu of foreclosure.
  - (3) Transfers by a fiduciary in the course of the administration of a decedent's estate, guardianship, conservatorship, or trust.
  - (4) Transfers from one coowner to one or more other coowners.
  - (5) Transfers made to a spouse, or to a person or persons in the lineal line of consanguinity of one or more of the transferors.
  - (6) Transfers between spouses resulting from a judgment of dissolution of marriage or of legal separation of the parties or from a property settlement agreement incidental to that judgment.
  - (7) Transfers by the Controller in the course of administering Chapter 7 (commencing with Section 1500) of Title 10 of Part 3 of the Code of Civil Procedure.
  - (8) Transfers under Chapter 7 (commencing with Section 3691) or Chapter 8 (commencing with Section 3771) of Part 6 of Division 1 of the Revenue and Taxation Code.
  - (9) Transfers or exchanges to or from any governmental entity.
- (b) Transfers not subject to this article may be subject to other disclosure requirements, including those under Sections 8589.3, 8589.4, and 51183.5 of the Government Code and Sections 2621.9, 2694, and 4136 of the Public Resources Code. In transfers not subject to this article, agents may make required disclosures in a separate writing.

**1103.2.**

- (a) The disclosures required by this article are set forth in, and shall be made on a copy of, the following Natural Hazard Disclosure Statement: [content omitted].
- (b) If an earthquake fault zone, seismic hazard zone, very high fire hazard severity zone, or wildland fire area map or accompanying information is not of sufficient accuracy or scale that a reasonable person can determine if the subject real property is included in a natural hazard area, the transferor or transferor’s agent shall mark “Yes” on the Natural Hazard Disclosure Statement. The transferor or transferor’s agent may mark “No” on the Natural Hazard Disclosure Statement if he or she attaches a report prepared pursuant to subdivision (c) of Section 1103.4 that verifies the property is not in the hazard zone. Nothing in this subdivision is intended to limit or abridge any existing duty of the transferor or the transferor’s agents to exercise reasonable care in making a determination under this subdivision.

[Sub-Sections (c) through (h) omitted]

[Section 1103.3 omitted]

**1103.4.**

- (a) Neither the transferor nor any listing or selling agent shall be liable for any error, inaccuracy, or omission of any information delivered pursuant to this article if the error, inaccuracy, or omission was not within the personal knowledge of the transferor or the listing or selling agent, and was based on information timely provided by public agencies or by other persons providing information as specified in subdivision (c) that is required to be disclosed pursuant to this article, and ordinary care was exercised in obtaining and transmitting the information.
- (b) The delivery of any information required to be disclosed by this article to a prospective transferee by a public agency or other person providing information required to be disclosed pursuant to this article shall be deemed to comply with the requirements of this article and shall relieve the transferor or any listing or selling agent of any further duty under this article with respect to that item of information.
- (c) The delivery of a report or opinion prepared by a licensed engineer, land surveyor, geologist, or expert in natural hazard discovery dealing with matters within the scope of the professional’s license or expertise, shall be sufficient compliance for application of the exemption provided by subdivision (a) if the information is provided to the prospective transferee pursuant to a request therefor, whether written or oral. In responding to that request, an expert may indicate, in writing, an understanding that the information provided will be used in fulfilling the requirements of Section 1103.2 and, if so, shall indicate the required disclosures, or parts thereof, to which the information being furnished is applicable. Where that statement is furnished, the expert shall not be responsible for any items of information, or parts thereof, other than those expressly set forth in the statement.
  - (1) In responding to the request, the expert shall determine whether the property is within an airport influence area as defined in subdivision (b) of Section 11010 of the Business and Professions Code. If the property is within an airport influence area, the report shall contain the following statement:

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.

[Remainder of Article 1.7 omitted]

**CIVIL CODE**  
**Division 2, Part 4**  
**Title 6—Common Interest Developments**  
**Chapter 2—County Documents**  
**Article 1—Creation**  
*(excerpts)*

**1353.**

- (a) (1) A declaration, recorded on or after January 1, 1986, shall contain a legal description of the common interest development, and a statement that the common interest development is a community apartment project, condominium project, planned development, stock cooperative, or combination thereof. The declaration shall additionally set forth the name of the association and the restrictions on the use or enjoyment of any portion of the common interest development that are intended to be enforceable equitable servitudes. If the property is located within an airport influence area, a declaration, recorded after January 1, 2004, shall contain the following statement:

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.

- (2) 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.
  - (3) [Omitted]
  - (4) The statement in a declaration acknowledging that a property is located in an airport influence area does not constitute a title defect, lien, or encumbrance.
- (b) The declaration may contain any other matters the original signator of the declaration or the owners consider appropriate.

## **LEGISLATIVE HISTORY SUMMARY**

### **PUBLIC UTILITIES CODE**

#### **Sections 21670 et seq.**

#### ***Airport Land Use Commission Statutes And Related 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.

- 1987 Senate 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 California 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 regarding San Diego County Regional Airport Authority’s responsibility for airport planning within San Diego County.
- 2002 Assembly Bill 3026 (Committee on Transportation) Chapter 438, Statutes of 2002—Changes the term “comprehensive land use plan” to “airport land use compatibility plan.”
- 2002 Assembly Bill 2776 (Simitian) Chapter 496, Statutes of 2002—Requires information regarding the location of a property within an airport influence area be disclosed as part of certain real estate transactions effective January 1, 2004.
- 2002 Senate Bill 1468 (Knight) Chapter 971, Statutes of 2002—Changes ALUC preparation of airport land use compatibility plans for military airports from optional to required. Requires that the plans be consistent with the safety and noise standards in the Air Installation Compatible Use Zone for that airport. Requires that the general plan and any specific plans be consistent with these standards where there is military airport, but an airport land use commission does not exist.
- 2003 Assembly Bill 332 (Mullin) Chapter 351, Statutes of 2003—Clarifies that school districts and community college districts are subject to compatibility plans. Requires local public agencies to notify ALUC and Division of Aeronautics at least 45 days prior to deciding to overrule the ALUC.
- 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.
- 2004 Senate Bill 1223 (Committee on Transportation) Chapter 615, Statutes of 2004—Technical revisions eliminating most remaining references to the term “comprehensive land use plan” and replacing it with “airport land use compatibility plan.” Also replaces the terms “planning area” and “study area” with “airport influence area.”
- 2005 Assembly Bill 1358 (Mullin) Chapter 29, Statutes of 2005—Requires a school district to notify the Department of Transportation before leasing property for a new school site. Also makes these provisions applicable to charter schools.
- 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.

This page intentionally blank

# Federal Aviation Regulations Part 77

## Safe, Efficient Use and Preservation of the Navigable Airspace

---

*Amdt. 77-13, 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:

“Non-precision 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 non-precision 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” is an airport available for use by the general public without a requirement for prior approval of the airport owner or operator.

“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 ft. 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 ft. 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 ft. 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 ft. in actual length, excluding heliports.
  - (2) 50 to 1 for a horizontal distance of 10,000 ft. 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 ft. in actual length, excluding heliports.
  - (3) 25 to 1 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport described 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 AGL 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 a 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 non-precision 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 non-precision instrument runways having visibility minimums greater than three-fourths statute mile.
    - (iii) 1,000 feet for a non-precision instrument runway having a non-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 non-precision instrument approach;
    - (iv) 3,500 feet for that end of a non-precision 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 non-precision instrument runway, other than utility, having a non-precision 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 non-precision 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 a 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 take-off 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.
- (c) Transitional surfaces. These surfaces extend outward and upward from the lateral boundaries of the 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) A determination issued under this subpart is effective 40 days after the date of issuance, unless a petition for discretionary review is received by the FAA within 30 days after issuance. The determination will not become final pending disposition of a petition for discretionary review.
- (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.

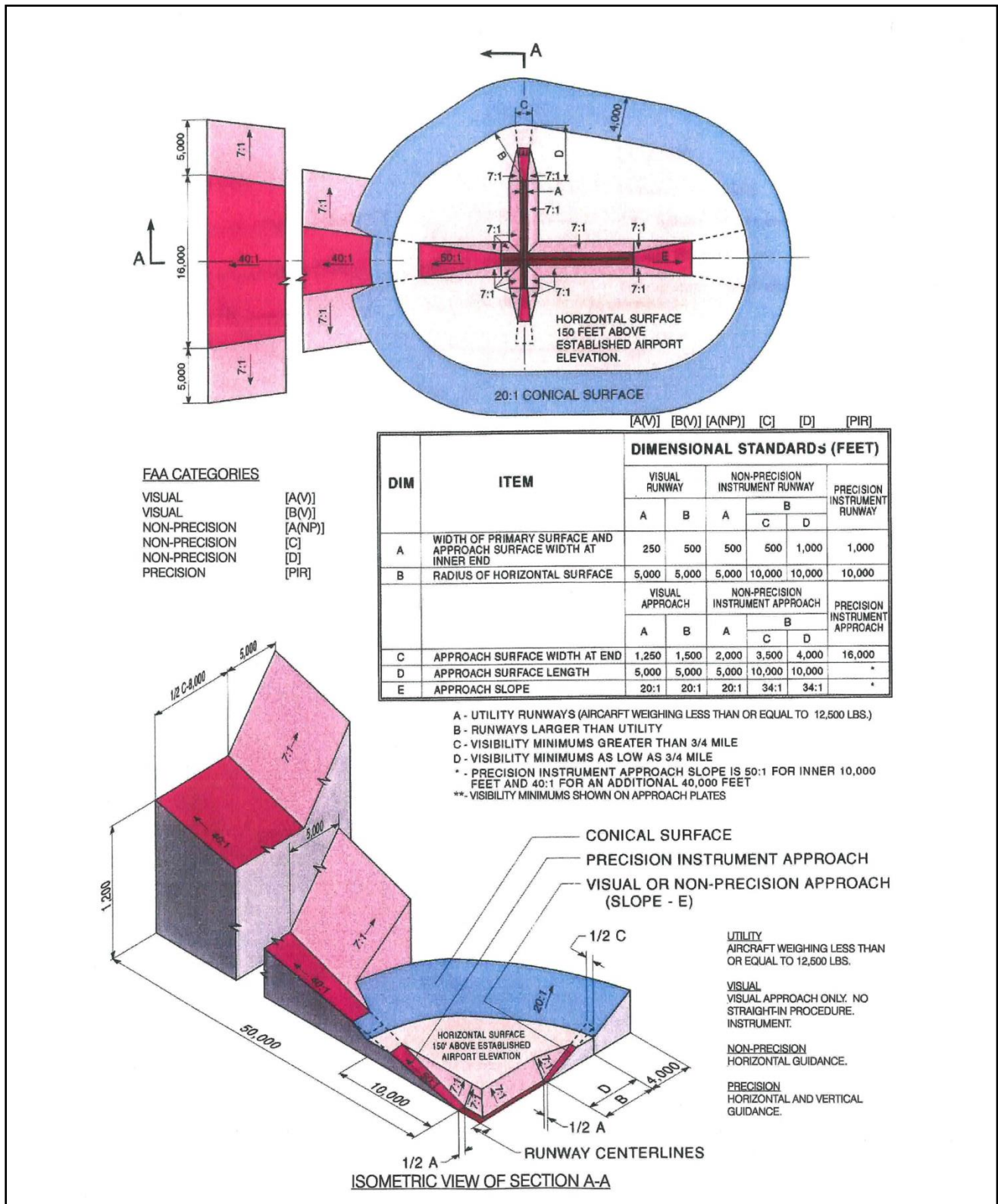


Figure C1

## FAR Part 77 Imaginary Surfaces





Figure C-3

## Online Submittal of Form 7460-1: Notice of Proposed Construction or Alteration

Historically a paper form called a “7460-1” was required to be submitted to the FAA for any project proposed on airport property and certain projects near airports. Recently, the FAA has moved from paper forms to an on-line system of evaluating the effects of a proposed project on the national airspace system.

- ▶ The on-line system can be accessed at <https://oeaaa.faa.gov>.

This new system allows project proponents to submit and track their proposal as it progresses through the FAA evaluation process.

The purpose of this guidance is to supplement and clarify the FAA user guide for the 7460 website.

- ▶ available at: [https://oeaaa.faa.gov/oeaaa/external/content/OEexternal\\_Guide\\_v3.1.pdf](https://oeaaa.faa.gov/oeaaa/external/content/OEexternal_Guide_v3.1.pdf)

We recommend that the user first read the entire guide provided by the FAA, and then use this document to clarify some of the more complicated aspects of the online 7460 system.

### When a project must be submitted to the FAA

CFR Title 14 Part 77.13 states that any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA:

- ▶ Any construction or alteration exceeding 200 ft. above ground level
- ▶ Any construction or alteration:
  - ▶ within 20,000 ft. of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 ft.
  - ▶ within 10,000 ft. of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 ft.
  - ▶ within 5,000 ft. of a public use heliport which exceeds a 25:1 surface
- ▶ Any highway, railroad or other traverse way whose prescribed adjusted height would exceed the above noted standards
- ▶ When requested by the FAA
- ▶ Any construction or alteration located on a public use airport or heliport regardless of height or location.

The FAA has been continuously improving the oe/aaa website to be more user friendly and increase the on-line functionality. The look and feel of the website may change in the future, but the majority of the content should remain as is.

### Create an account

Before accessing the features of the website, the user will be required to create a username and password to access the website.

**Obstruction Evaluation**  
Version 2010.1.0

- Home
- FAA OE/AAA Offices
- View Determined Cases
- View Proposed Cases
- View Supplemental Notices (Form 7460-2)
- View Circularized Cases
- Search Archives
- Download Archives
- Circle Search for Cases
- Circle Search for Airports
- Discretionary Review FAQs
- Notice Criteria Tool
- DoD Preliminary Screening Tool
- Distance Calculation Tool

**OE/AAA Account**

- Login
- New User Registration

**Information Resources**

- FAA Acronyms
- Forms
- Regulatory Policy

## Obstruction Evaluation / Airport Airspace Analysis (OE/AAA)

faa.gov Tools: [Print this page](#)


In administering Title 14 of the Code of Federal Regulations CFR Part 77, the prime objectives of the FAA are to promote air safety and the efficient use of the navigable airspace. To accomplish this mission, aeronautical studies are conducted based on information provided by proponents on an FAA Form 7460-1, Notice of Proposed Construction or Alteration.

[Advisory Circular 70/7460-1K](#), Obstruction Marking and Lighting, describes the standards for marking and lighting structures such as buildings, chimneys, antenna towers, cooling towers, storage tanks, supporting structures of overhead wires, etc.

**OE/AAA Filing Process**

If your organization is planning to sponsor any construction or alterations which may affect navigable airspace, you must file a **Notice of Proposed Construction or Alteration** (Form 7460-1) with the FAA.

**CLICK HERE**  
for Instructions on how to E-file  
your proposal with the FAA



If construction or alteration IS NOT LOCATED on an airport:	If construction or alteration IS LOCATED on an airport:
<p>You may file forms 7460-1 and 7460-2 electronically via this website - <a href="#">New User Registration</a>.</p> <p style="text-align: center;"><b>or</b></p> <p>You may file forms 7460-1 and 7460-2 via US Postal Mail to:</p> <p>Mail Processing Center Federal Aviation Administration Southwest Regional Office Obstruction Evaluation Service, AJR-322 2601 Meacham Boulevard Fort Worth, TX 76193</p> <p><b>Questions?</b> Please contact the <a href="#">appropriate representative</a>.</p>	<p>You may file forms 7460-1 electronically via this website - <a href="#">New User Registration</a>.</p> <p style="text-align: center;"><b>or</b></p> <p>Find the <a href="#">FAA Airports Region / District Office</a> having jurisdiction over the airport on which the construction is located, and file to that address.</p>

Once a user has created an account, they will be able to log in and will be directed to the OE/AAA Portal Page. This page displays a summary of any projects which have been entered into the website, categorized by off-airport and on-airport projects.

### Adding a Sponsor

Before a user can enter project specific information, a project sponsor must be created. A sponsor is the person who is ultimately responsible for the construction or alteration. All FAA correspondence will be addressed to the sponsor. The sponsor could be the airport manager for projects proposed by the airport, or the developer proposing off airport construction. To create a sponsor contact, click “Add New Sponsor” on the “portal” page. From there the user can add sponsors for various projects.

<p align="center"><b>My Account</b></p> <p><b>Name:</b>  <b>User Name:</b>  <b>Login Time:</b>  <b>IP Address:</b></p> <p><b>Actions:</b>  <a href="#">What's New</a>  <a href="#">Update Account Information</a>  <a href="#">Change Password</a>  <a href="#">Logout</a></p>	<p align="center"><b>Off Airport Construction (includes on Military Airport)</b></p> <p><a href="#">My Cases (Off Airport)</a>   <a href="#">Add New Case (Off Airport)</a>  <a href="#">My Sponsors</a>   <a href="#">Add New Sponsor</a>  <a href="#">Air Traffic Areas of Responsibility</a></p> <p><b>My Cases by Status:</b></p> <table border="1"> <tr><td>Draft</td><td>0</td></tr> <tr><td>Accepted</td><td>0</td></tr> <tr><td>Add Letter</td><td>0</td></tr> <tr><td>Work in Progress</td><td>0</td></tr> <tr><td>Determined</td><td>0</td></tr> <tr><td>Circularized</td><td>0</td></tr> <tr><td>Terminated</td><td>0</td></tr> <tr><td>All</td><td>0</td></tr> </table> <p><b>Draft:</b> Cases that have been saved by the user but have not been submitted to the FAA.  <b>Accepted:</b> Cases that have been submitted to the FAA.  <b>Add Letter:</b> Cases that have been reviewed by the FAA and require additional information from the user.  <b>Work in Progress:</b> Cases that are being evaluated by the FAA.  <b>Determined:</b> Cases that have a completed aeronautical study and an FAA determination.  <b>Terminated:</b> Cases that are no longer valid.                  Please allow the FAA a minimum of 30 days to complete a study.  <a href="#">Click here to contact the appropriate representative.</a></p>	Draft	0	Accepted	0	Add Letter	0	Work in Progress	0	Determined	0	Circularized	0	Terminated	0	All	0	<p align="center"><b>On Airport Construction (excludes on Military Airport)</b></p> <p><a href="#">My Cases (On Airport)</a>   <a href="#">Add New Case (On Airport)</a>  <a href="#">My Sponsors</a>   <a href="#">Add New Sponsor</a> ←  <a href="#">Airports Regional Contacts</a></p> <p><b>My Cases by Status:</b></p> <table border="1"> <tr><td>Draft</td><td>0</td></tr> <tr><td>Waiting</td><td>0</td></tr> <tr><td>Accepted</td><td>179</td></tr> <tr><td>Add Letter</td><td>0</td></tr> <tr><td>Work In Progress</td><td>64</td></tr> <tr><td>Determined</td><td>4</td></tr> <tr><td>Terminated</td><td>0</td></tr> <tr><td>Deleted</td><td>0</td></tr> <tr><td>All</td><td>247</td></tr> </table> <p><b>Draft:</b> Cases that have been saved by the user but have not been submitted to the FAA.  <b>Waiting:</b> Cases that have not been submitted to the FAA and are waiting for an action from the user, either to verify the map or attach a sketch.  <b>Accepted:</b> Cases that have been submitted to the FAA.  <b>Add Letter:</b> Cases that have been reviewed by the FAA and require additional information from the user.  <b>Work in Progress:</b> Cases that are being evaluated by the FAA.  <b>Determined:</b> Cases that have completed a aeronautical study and an FAA determination.  <b>Terminated:</b> Cases that are no longer valid.</p> <p>NOTE: Please use this section for filing on-airport constructions electronically.</p>	Draft	0	Waiting	0	Accepted	179	Add Letter	0	Work In Progress	64	Determined	4	Terminated	0	Deleted	0	All	247
Draft	0																																			
Accepted	0																																			
Add Letter	0																																			
Work in Progress	0																																			
Determined	0																																			
Circularized	0																																			
Terminated	0																																			
All	0																																			
Draft	0																																			
Waiting	0																																			
Accepted	179																																			
Add Letter	0																																			
Work In Progress	64																																			
Determined	4																																			
Terminated	0																																			
Deleted	0																																			
All	247																																			
<p align="center"><b>Email Notifications</b></p> <p><a href="#">Circularized Case Notification</a></p>	<p align="center"><b>Help</b></p> <p>OE/AAA Support Desk  <b>Phone:</b> 202-580-7500  <b>Email:</b> oeaaa_helpdesk@cghitech.com</p>	<p align="center"><b>Documents</b></p> <ul style="list-style-type: none"> <li>• OE/AAA System User Guide</li> <li>• FAA Acronyms</li> </ul>																																		

When the user selects “Add New Sponsor”, they will be presented with the following screen:

**Add New Sponsor**

- The Sponsor can be you, your company, or your client. The sponsor is the person or business ultimately responsible for the construction or alteration. The sponsor appears as the addressee on all correspondence from the FAA.
- Please populate the following form to add or update a Sponsor.
- Required fields indicated with \*

\* Sponsor Name:

\* Attention Of:

\* Address:

Address2:

\* City:

\* State:

-OR-

\* Non-US State:

\* Country:

\* Zip / Post Code:

\* Phone:  -  -  ext.

\* Fax:  -  -

\* Email:

**NOTE:** The party submitting information through the FAA website **DOES NOT** have to be the same as the sponsor. Often, a consultant or other party under direction from the sponsor makes the submittal through the website

## Creating a New Submittal

There are two options for creating a new 7460 submittal. Again on the left side, either click “Add New Case (off airport)” or “Add New Case (on airport)”

The screenshot displays the OE/AAA Portal Page. On the left is a navigation menu with the following items: Home, FAA OE/AAA Offices, View Determined Cases, View Proposed Cases, View Supplemental Notices (Form 7460-2), View Circularized Cases, Search Archives, Download Archives, Circle Search for Cases, Circle Search for Airports, Discretionary Review FAQs, Notice Criteria Tool, DoD Preliminary Screening Tool, Distance Calculation Tool, OE/AAA Account, Portal Page, My Cases (Off Airport), My Cases (On Airport), My Sponsors, Add New Case (Off Airport), Add New Case (On Airport), Update User Account, What's New, Change Password, and Logout. Two red arrows point to the 'Add New Case (Off Airport)' and 'Add New Case (On Airport)' options. The main content area is titled 'OE/AAA Portal Page' and features a 'My Account' section with fields for Name, User Name, Login Time, and IP Address. Below these are 'Actions' including What's New, Update Account Information, Change Password, and Logout. At the bottom, there is an 'Email Notifications' section with a link for Circularized Case Notification.

There are some differences in the required fields for “on airport” vs. “off airport” but the differences are minor and self-explanatory. One tip: for off airport submittals there is a field for “requested marking/lighting”. If the user does not have a preference, select other from the pull down menu and in the “other field” state “no preference”.

Accurate lat/long and site elevation is critical for an accurate airspace determination.

It is recommended that survey quality data be obtained from a recent survey, a GPS unit, or worst case, scaled from a topo quad.

Notice of Proposed Construction or Alteration - Off Airport

faa.gov Tools: Print this page

**Sponsor (person, company, etc. proposing this action)**

\* Sponsor:

**Construction / Alteration Information**

\* Notice Of:

\* Duration:

*if Temporary :* Months:  Days:

Work Schedule - Start:  (mm/dd/yyyy)

Work Schedule - End:  (mm/dd/yyyy)

State Filing:

**Structure Summary**

\* Structure Type:

\* Structure Name:

FCC Number:

Prior ASN:  -  -  - OE

**Structure Details**

\* Latitude:  °  '  " N

\* Longitude:  °  '  " W

\* Horizontal Datum:  NAD83

\* Site Elevation (SE):  (nearest foot)

\* Structure Height (AGL):  (nearest foot)

\* Requested Marking/Lighting:  None

*Other :*

Audio Visual Warning System(AVWS):  Yes

\* Current Marking/Lighting:  Select One

*Other :*

\* Nearest City:

\* Nearest State:

\* Description of Location:

\* Description of Proposal:

**Common Frequency Bands**

<input type="checkbox"/>	Low Freq	High Freq	Freq Unit	ERP	ERP Unit
<input type="checkbox"/>	806	824	MHz	500	W
<input type="checkbox"/>	824	849	MHz	500	W
<input type="checkbox"/>	851	866	MHz	500	W
<input type="checkbox"/>	869	894	MHz	500	W
<input type="checkbox"/>	896	901	MHz	500	W
<input type="checkbox"/>	901	902	MHz	7	W
<input type="checkbox"/>	930	931	MHz	3500	W
<input type="checkbox"/>	931	932	MHz	3500	W
<input type="checkbox"/>	932	932.5	MHz	17	dBW
<input type="checkbox"/>	935	940	MHz	1000	W
<input type="checkbox"/>	940	941	MHz	3500	W
<input type="checkbox"/>	1850	1910	MHz	1640	W
<input type="checkbox"/>	1930	1990	MHz	1640	W
<input type="checkbox"/>	2305	2310	MHz	2000	W
<input type="checkbox"/>	2345	2360	MHz	2000	W

**Specific Frequencies**

[Add Specific Frequency](#)

**Additional Location(s)**

[Add New Location\(s\)](#)

- The most common “notice of” is construction. Select from pull down menu.
- Latitude and longitude must be entered for the structure/construction activity.
- Most 7460 submittals will require multiple points with lat/long unless the 7460 is for a pole/tower/ or other single point object. Buildings and construction areas all require points indicating the extents of the building or area. More information is provided below on how to add additional points to a submittal.
- There is a field to describe the activity taking place. In some complex activities the field does not provide enough room for the required text. An additional explanatory letter can be attached. Additional information is provided in this section on how to add a letter or document to the submittal.
- Red asterisks indicate the required fields.

C-20

Stanislaus County Airport Land Use Compatibility Plan (Adopted October 2016, Revised November 2018)

- Unless there has been a previous aeronautical study for this submittal leave the “prior study” fields blank.
- Only select “common frequency bands” if the proposed structure will transmit a signal.

If the submittal is a building or construction area that is more than a single lat/long point the user must save the data first. Click save at the bottom of the page. This will bring up a summary screen of the case. To add more points click “clone” under the heading “actions”.

Notice of Proposed Construction or Alteration - Off Airport

faa.gov Tools: Print this page

Project Name: TEST1-000119804-09 Sponsor: test10

Project Summary : TEST1-000119804-09

[Add Another Case to this Project](#)

Structure	City, State	Lat/Long	Map	Actions
sadv Draft	edfv, TX	30° 30' 30.00" N 95° 30' 30.00" W	Verify Map	Delete Clone Upload a PDF
sadv Draft	edfv, TX	30° 30' 3.00" N 95° 41' 1.00" W	Verify Map	Delete Clone Upload a PDF
sadv Draft	edfv, TX	30° 30' 30.00" N 95° 1' 1.00" W	Verify Map	Delete Clone Upload a PDF
sadv Draft	edfv, TX	30° 30' 9.00" N 94° 4' 7.00" W	Verify Map	Delete Clone Upload a PDF
sadv Draft	edfv, TX	30° 30' 15.00" N 95° 41' 4.00" W	Verify Map	Delete Clone Upload a PDF

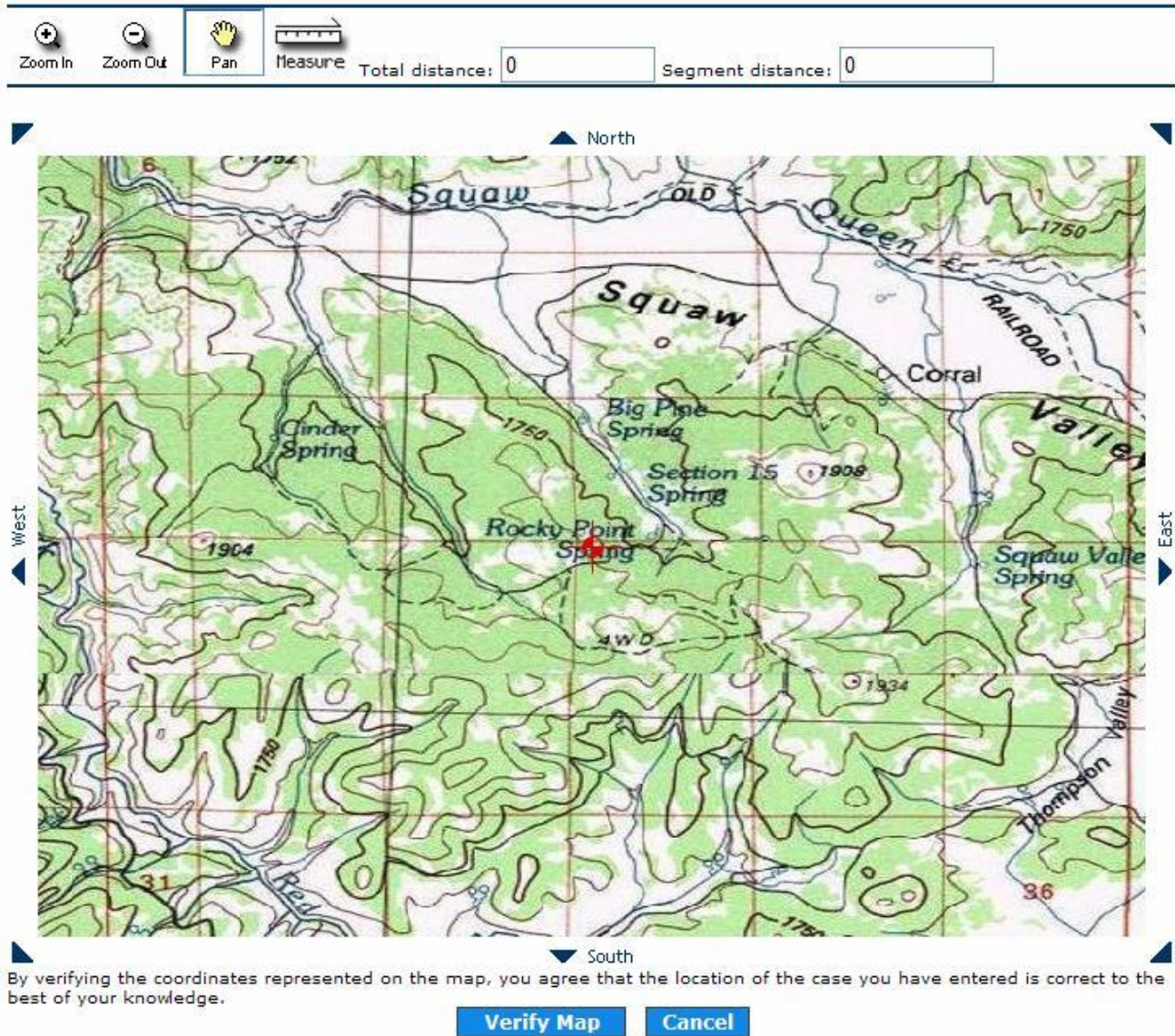
To submit this project, you must verify the coordinates of each case listed above.

The clone tool copies all the relevant information to a new page where an additional lat/long and elevation can be entered. However, the clone process does not number the various points of a proposed project. When entering the details for a point (see Image 5) it is helpful if the user assigns a number to the point and references the total number of points for the project (e.g. point 2 of 20). The numbering can be included in the project “description/remarks” field for each point.

It should be noted that each individual point associated with a project (e.g. each corner of a building) is evaluated individually, thus the importance of including a numbering system (2 of 20) in the text/description box.

Once done, click “save” again. Now the user will see two records under the “project summary” heading. Continue this process of cloning for all the remaining points.

Once all the points have been entered, each point must be verified. There is a red X with the words “verify map” indicating the user has not verified the location. Click Verify Map, a popup will display the lat/long point on a topo map and the user must verify that it is in the correct location. After clicking “verify map” on the popup, the red X will become a blue checkmark. It seems to be more efficient to enter all of the points associated with a project and then return to verify each point on the map at one time.



All on-airport project submittals must have a “project sketch” included. Under the “actions” column select “upload a PDF”. Once you have uploaded a sketch for all the points associated with the project the red X under “sketch” will turn to a green check mark. Off-airport projects do not require a “project sketch”, but the user can still upload one for informational purposes.

If the user needs to add any other information such as an explanatory letter, clicking on “upload a PDF” will allow the user to upload more documents, although only one at a time. Keep in mind that if additional PDFs or information are being provided, like the project sketch it must be uploaded to every point associated with the project.

Once the maps have been verified and sketches uploaded for all points associated with the case, the user will be able to submit the 7460 to the FAA for review.



## Status of Submitted Projects

To check the status of a submittal, click on either “my cases (off airport)” or “my cases (on airport)” to see a list of what has been submitted. Each of the multiple points associated with one project will be listed as if they are separate, although still associated. The points will have a status:

### ALL of My Cases (Off Airport)

faa.gov Tools: [Print this page](#)

All Cases	Filter by Case Status	Cases Requiring Action
<a href="#">Show All Cases (31)</a>	<a href="#">Draft (15)</a>   <a href="#">Accepted (0)</a>   <a href="#">Work in Progress (0)</a> <a href="#">Determined (0)</a>   <a href="#">Circularized (0)</a>   <a href="#">Terminated (16)</a>	<a href="#">7460-2 Required (0)</a>   <a href="#">Add Letter (0)</a>

Records 1 to 20 of 31

Page 1 of 2

[Next page →](#)

Project Name	Structure Name	ASN	Status	Date Accepted	Date Determined	City	State
CITY -000038834-06	Test	2007-ASW-11935-OE	Terminated	12/27/2007	12/27/2007	Test	TX
CITY -000059482-07	sdv		Draft			ljkvnasd	AS
CITY -000059483-07			Draft			1WADC	TX
CITY -000060676-07	Clearing		Draft			Loackhaven	PA
GLYN -000102789-08	Belgrade		Draft			Memphis	TN
TEST -000017393-05			Draft			Test	TX
TEST -000017393-05			Draft			Test	VA
TEST -000026823-05	-2 Test	2005-ASW-5900-OE	Terminated	10/24/2005	01/26/2006	Test	TX
TEST-000042518-06			Draft			Test	PW
TEST-000054890-06			Draft			Miami	HI
TEST-000062979-07	Test	2007-ASW-2891-OE	Terminated	03/31/2007	03/31/2007	Test	TX
TEST-000068585-07	Test	2007-ASW-4498-OE	Terminated	06/06/2007	06/06/2007	Test	TX
TEST-000070702-07	Test	2007-AAL-169-OE	Terminated	06/28/2007	06/28/2007	test	AK
TEST-000073196-07	Test	2007-ASW-6665-OE	Terminated	07/28/2007	07/28/2007	Test	TX
TEST-000076148-07	Test Case	2007-ASW-7840-OE	Terminated	08/30/2007	09/24/2007	Test	TX
TEST-000080619-07	Test	2007-ASW-9818-OE	Terminated	10/25/2007	10/25/2007	Test	TX
TEST-000089176-08	Test	2008-ASW-1637-OE	Terminated	02/28/2008	02/28/2008	Test	TX
TEST-000100444-08	test	2008-ASW-5488-OE	Terminated	08/04/2008	08/04/2008	Test	TX
TEST-000102395-08	test	2008-ASW-5898-OE	Terminated	08/28/2008	10/03/2008	Test	TX
TEST-000104649-08	test	2008-ASW-6317-OE	Terminated	10/03/2008	10/09/2008	test	TX

Rows per Page: 20

[Next page →](#)

Records 1 to 20 of 31

Page: 1 2

Page 1 of 2

## Project Status Definitions:

**Draft:** Cases that have been saved by the user but have not been submitted to the FAA.

**Waiting:** Cases that have not been submitted to the FAA and are waiting for an action from the user, either to verify the map or attach a sketch.

**Accepted:** Cases that have been submitted to the FAA.

**Add Letter:** Cases that have been reviewed by the FAA and require additional information from the user.

**Work in Progress:** Cases that are being evaluated by the FAA.

**Determined:** Cases that have a completed aeronautical study and an FAA determination.

**Terminated:** Cases that are no longer valid.

These definitions are also shown at the bottom of the summary screen.

[This page intentionally blank]

# Airport Land Use Compatibility Concepts

---

## INTRODUCTION

This appendix provides basic information regarding the concepts and rationale used to develop the compatibility policies and maps set forth in Chapter 2 of this *Stanislaus County Airport Land Use Compatibility Plan*. Some of the material is excerpted directly from the *California Airport Land Use Planning Handbook* published by the California Division of Aeronautics in October 2011. Other portions are based upon concepts that evolved from technical input obtained during review and discussion of preliminary drafts of key policies.

State law requires that airport land use commissions “be guided by” the information presented in the *Handbook*. Despite the statutory reference to it, though, the *Handbook* does not constitute formal state policy or regulation. Indeed, adjustment of the guidelines to fit the circumstances of individual airports is suggested by the *Handbook*. The *Handbook* guidance does not supersede or otherwise take precedence over the policies adopted by the Stanislaus County Airport Land Use Commission (ALUC) in this *Compatibility Plan*. Furthermore, this appendix itself does not constitute ALUC policy. If the material herein conflicts in any manner with the actual policy language or maps, the policies and maps prevail.

As outlined in the *Handbook*, the noise and safety compatibility concerns of ALUCs fall into four categories. This *Compatibility Plan* refers to these categories as “layers:”

- › *Noise*: As defined by cumulative noise exposure contours describing noise from aircraft operations near an airport.
- › *Overflight*: The impacts of routine aircraft flight over a community.
- › *Safety*: From the perspective of minimizing the risks of aircraft accidents beyond the runway environment.
- › *Airspace Protection*: Accomplished by limits on the height of structures and other objects in the airport vicinity and restrictions on other uses that potentially pose hazards to flight.

The documentation in the remainder of this appendix is organized under these four categories. Under each of the four compatibility category headings, the discussion is organized around four topics:

- › *Compatibility Objective*: The objective to be sought by establishment and implementation of the compatibility policies;
- › *Measurement*: The scale on which attainment of the objectives can be measured;
- › *Compatibility Strategies*: The types of strategies which, when formulated as compatibility policies, can be used to accomplish the objectives; and
- › *Basis for Setting Criteria*: The factors which should be considered in setting the respective compatibility criteria.

## **NOISE**

Noise is perhaps the most basic airport land use compatibility concern. Certainly, it is the most noticeable form of airport impact.

### **Compatibility Objective**

The purpose of noise compatibility policies is to avoid establishment of new noise-sensitive land uses in the portions of an airport environs that are exposed to significant levels of aircraft noise, taking into account the characteristics of the airport and the community surrounding the airport.

### **Measurement**

For the purposes of airport land use compatibility planning, noise generated by the operation of aircraft to, from, and around an airport is primarily measured in terms of the cumulative noise levels of all aircraft operations. In California, the cumulative noise level metric established by state regulations, including for measurement of airport noise, is the Community Noise Equivalent Level (CNEL). Cumulative noise level metrics measure the noise levels of all aircraft operating at an airport on an average day (1/365) of the year. The calculations take into account not only the number of operations of each aircraft type and the noise levels they produce, but also their distribution geographically (the runways and flight tracks used) and by time of day. To reflect an assumed greater community sensitivity to nighttime and evening noise, the CNEL metric counts events during these periods as being louder than actually measured.

Cumulative noise level metrics provide a single measure of the average sound level in decibels (dB) to which any point near an airport is exposed over the course of a day. Although the maximum noise levels produced by individual aircraft are a major component of the calculations, cumulative noise level metrics do not explicitly measure these peak values. Cumulative noise levels are usually illustrated on airport area maps as contour lines connecting points of equal noise exposure. Mapped noise contours primarily show areas of significant noise exposures—ones affected by high concentrations of aircraft takeoffs and landings.

For civilian airports, noise contours are typically calculated using the Federal Aviation Administration's Integrated Noise Model (INM) computer program. For military airports, the similar Department of Defense NOISEMAP model is used. Inputs to these models are of two basic types: standardized data regarding aircraft performance and noise levels generated (this data can be adjusted for a particular airport if necessary); and airport-specific data including aircraft types and number of operations, time of day of aircraft operations, runway usage distribution, and the location and usage of flight tracks. Airport elevation and surrounding topographic data can also be entered. For airports with airport traffic control towers, some of these inputs can be obtained from recorded data. Noise monitoring and radar flight tracking data available for airports in metropolitan areas are other sources of valuable information. At most airports, though, the individual input variables must be estimated.

### **Compatibility Strategies**

The basic strategy for achieving noise compatibility in an airport's vicinity is to limit development of land uses that are particularly sensitive to noise. The most acceptable land uses are ones that either involve few people (especially people engaged in noise-sensitive activities) or generate significant noise levels themselves (such as other transportation facilities or some industrial uses).

California state law regards any residential land uses as normally incompatible where the noise exposure exceeds 65 dB CNEL (although the state airport noise regulations explicitly apply only to identified “noise problem airports” in the context of providing the ability of these airports to operate under a noise variance from the State, the *Handbook* and other state guidelines extend this criterion to all airports as discussed below). This standard, however, is set with respect to high-activity airports, particularly major air carrier airports, in urban locations, where ambient noise levels are generally higher than in suburban and rural areas. As also discussed below and as provided in the *Handbook*, a lower threshold of incompatibility is often appropriate at certain airports, particularly around airports in suburban or rural locations where the ambient noise levels are lower than those found in more urban areas.

In places where the noise exposure is not so severe as to warrant exclusion of new residential development, the ideal strategy is to have very low densities—that is, parcels large enough that the dwelling can be placed in a less impacted part of the property. In urban areas, however, this strategy is seldom viable. The alternative for such locations is to encourage high-density, multi-family residential development with little, if any, outdoor areas, provided that the 65 dB CNEL standard and limitations based upon safety are not exceeded. Compared to single-family subdivisions, ambient noise levels are typically higher in multi-family developments, outdoor living space is less, and sound insulation features can be more easily added to the buildings. All of these factors tend to make aircraft noise less intrusive.

Sound insulation is an important requirement for residential and other noise-sensitive indoor uses in high noise areas. The California Building Code requires that sufficient acoustic insulation be provided in any habitable rooms of new hotels, motels, dormitories, dwellings other than detached single-family residences to assure that aircraft noise is reduced to an interior noise level of 45 dB CNEL or less. To demonstrate compliance with this standard, an acoustical analysis must be done for any residential structure proposed to be located where the annual CNEL exceeds 60 dB. This *Compatibility Plan* extends the 45 dB CNEL interior noise limit standard to single-family dwellings. The *Compatibility Plan* further requires dedication of an aviation easement (see later discussion in this appendix) as a condition for development approval in locations where these standards come into play.

## Basis for Setting Criteria

Compatibility criteria related to cumulative noise levels are well-established in federal and state laws and regulations. The California Airport Noise Regulations (California Code of Regulations Section 5000 *et seq.*) states 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.”

No airport declared by a county’s board of supervisors as having a “noise problem” is to operate in a manner that result in incompatible uses being located within the 65 dB CNEL contour. Incompatible uses are defined as being: residences of all types; public and private schools; hospitals and convalescent homes; and places of worship. However, these uses are not regarded as incompatible where acoustical insulation necessary to reduce the interior noise level to 45 dB CNEL has been installed or the airport proprietor has acquired an aviation easement for aircraft noise.

As noted in the regulations, the 65 dB CNEL standard is set with respect to urban areas. For many airports and many communities, 65 dB CNEL is too high to be considered acceptable to “reasonable

persons.” Through a process called “normalization,” adjustments can be made to take into account such factors as the background noise levels of the community and previous exposure to particular noise sources. This process suggests, for example, that 60 dB CNEL may be a more suitable criterion for suburban communities not exposed to significant industrial noise and 55 dB CNEL may be appropriate for quiet suburban or rural communities remote from industrial noise and truck traffic. On the other hand, even though exceeding state standards, 70 dB CNEL may be regarded as an acceptable noise exposure in noisy urban residential communities near industrial areas and busy roads.

Industrial activity and transportation noise are undoubtedly two of the most prominent contributors to background noise levels in a community. According to a U.S. Environmental Protection Agency (EPA) study however, the variable that correlates best with ambient noise levels across a broad range of communities is population density (*Population Distribution of the United States as a Function of Outdoor Noise Level*, EPA Report No. 550/9-74-009, June 1974). This study established the following formula as a means of estimating the typical background noise level of a community:

$$DNL_{EPA} = 22 + 10 * \log(p)$$

where “p” is the population density measured in people per square statute mile.

These factors are reflected in the policies of this *Compatibility Plan*. The ALUC considers 60 dB CNEL to be the maximum normally acceptable noise exposure for new residential development near Nevada County Airport. Based upon the above EPA equation, these criteria are a minimum of 5 dB above the predicted ambient noise levels in the respective communities.

Similar considerations come into play with respect to establishing maximum acceptable noise exposure for nonresidential land uses, particularly those that are noise sensitive. For schools, lodging, and other such uses, a higher noise exposure may be tolerated in noisy urban communities than in quieter suburban and rural areas. For uses that are not noise sensitive or which generate their own noise, the maximum acceptable noise exposure levels tend to be the same regardless of ambient noise conditions. The criteria listed in Chapter 2 of this *Compatibility Plan* are set with these various factors in mind.

## OVERFLIGHT

Experience at many airports has shown that noise-related concerns do not stop at the boundary of the outermost mapped CNEL contours. Many people are sensitive to the frequent presence of aircraft overhead even at low levels of noise. These reactions can mostly be expressed in the form of *annoyance*.

The *Handbook* notes that at many airports, particularly air carrier airports, complaints often come from locations beyond any of the defined noise contours. Indeed, heavily used flight corridors to and from metropolitan areas are known to generate noise complaints 50 miles or more from the associated airport. The basis for such complaints may be a desire and expectation that outside noise sources not be intrusive—or, in some circumstances, even distinctly audible—above the quiet, natural background noise level. Elsewhere, especially in locations beneath the traffic patterns of general aviation airports, a fear factor also contributes to some individuals’ sensitivity to aircraft overflights.

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 impacts or otherwise address the concerns. Commonly, when overflight impacts are under discussion in a community, the focus is on modification of the flight routes. Indeed, some might argue that overflight impacts 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. Such changes are not always possible because of terrain, aircraft performance capabilities, FAA regulations, and other factors. In any case, though, ALUCs are particularly limited in their ability to deal with overflight concerns. Most significantly, they have no authority over aircraft operations. The most they can do to bring about changes is to make requests or recommendations. Even with regard to land use, the authority of ALUCs extends only to proposed new development and the delineation of an airport's overall influence area. The authority and responsibility for implementing the *Compatibility Plan's* policies and criteria rests with the local governments.

These limitations notwithstanding, there are steps which ALUCs can and should take to help minimize overflight impacts.

## Compatibility Objective

In an idealistic sense, the compatibility objective with respect to overflight is the same as for noise: avoid new land use development that can disrupt activities and lead to annoyance and complaints. However, given the extensive geographic area over which the impacts occur, this objective is unrealistic except relatively close to the airport. A more realistic objective of overflight compatibility policies therefore is to help notify people about the presence of overflights near airports so that they can make more informed decisions regarding acquisition or lease of property in the affected areas.

## Measurement

Cumulative noise metrics such as CNEL are well-suited for use in establishing land use compatibility policy criteria and are the only noise metrics for which widely accepted standards have been adopted. However, these metrics are not very helpful in determining the extent of overflight impact areas. Locations where overflight concerns may be significant are typically well beyond where noise contours can be drawn with precision. Flight tracks tend to be quite divergent and noise monitoring data is seldom available. Moreover, even if the contours could be drawn precisely, the noise levels they would indicate may not be much above the ambient noise levels.

For the purposes of airport land use compatibility planning, two other forms of noise exposure information are more useful. One measure is the momentary, maximum sound level ( $L_{max}$ ) experienced on the ground as the aircraft flies over while landing at and taking off from a runway. These noise levels can be depicted in the form of a noise "footprint" as shown in Figure D1 for a variety of airline and general aviation aircraft. Each of these footprints is broadly representative of those produced by other aircraft similar to the ones shown. The actual sound level produced by any single aircraft takeoff or landing will vary not only among specific makes and models of aircraft, but also from one operation to another of identical aircraft.

In examining the footprints, two additional points are important to note. One is the importance of the outermost contour. This noise level (65 dBA  $L_{max}$ ) is the level at which interference with speech begins to be significant. Land uses anywhere within the noise footprint of a given aircraft would experience a noise level, even if only briefly, that could be disruptive to outdoor conversation. Indoors, with windows closed, the aircraft noise level would have to be at least 20 dBA louder to present similar impacts. A second point to note concerns the differences among various aircraft, particularly business jets. As the data shows, business jets manufactured in the 1990s are much quieter than those of 10 and 20 years earlier. The impacts of the 1990s era jets are similar to those of twin-engine piston aircraft and jets being made in the 2000s are quieter yet. At many general aviation airports, the size of the CNEL contours is driven by a relatively small number of operations by the older, noisier business jets. These aircraft are

gradually disappearing from the nationwide aircraft fleet and will likely be mostly gone within 20 years, but at this point in time it is uncertain when they will be completely eliminated.

Another useful form of overflight information is a mapping of the common flight tracks used by aircraft when approaching and departing an airport. Where available, recorded radar data is an ideal source for flight track mapping. Even more revealing is to refine the simple flight track mapping with data such as the frequency of use and/or aircraft altitudes. Chapter 3 includes maps showing areas frequently overflown by aircraft and the resulting noise contours.

## Compatibility Strategies

As noted above, the ideal land use compatibility strategy with respect to overflight annoyance is to avoid development of new residential and other noise-sensitive uses in the affected locations. To the extent that this approach is not practical, other strategies need to be explored.

The strategy emphasized in this *Compatibility Plan* is to help people with above-average sensitivity to aircraft overflights—people who are highly *annoyed* by overflights—to avoid living in locations where frequent overflights occur. This strategy involves making people more aware of an airport’s proximity and its current and potential aircraft noise impacts on the community before they move to the area. This can be accomplished through buyer awareness measures such as dedication of avigation or overflight easements, recorded deed notices, and/or real estate disclosure statements. In new residential developments, posting of signs in the real estate sales office and/or at key locations in the subdivision itself can be further means of alerting the initial purchasers about the impacts (signs, however, generally do not remain in place beyond the initial sales period and therefore are of little long-term value).

A second strategy is to minimize annoyance in by promoting types of land uses that tend to mask or reduce the intrusiveness of aircraft noise. Although this strategy does not directly appear in the overflight policies of this *Compatibility Plan*, the objectives of the plan would be well-served if local jurisdictions take this concept into consideration in their own planning efforts. To the extent that residential land uses must be located in aircraft overflight areas, multi-family residences—because they tend to have comparatively little outdoor living areas, fewer external walls through which aircraft noise can intrude, and relatively high noise levels of their own—are preferable to single-family dwellings. Particularly undesirable are “ranchette” style residential areas consisting of large (about an acre on average) lots. Such developments are dense enough to expose many people to overflight noise, yet sufficiently rural in character that background noise levels are likely to be low.

## Basis for Setting Criteria

In California, the most definitive guidance on where overflight impacts are significant or what actions should be taken in response comes from a state law that took effect in January 2004. California statutes (Business and Profession Code Section 11010 and Civil Code Sections 1103 and 1353) now require most residential real estate transactions, including all involving new subdivisions, to include disclosure that an airport is nearby. The area encompassed by the disclosure requirements is two miles from the airport or the airport influence area established by the county’s airport land use commission. The law defines the airport influence area as “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.” This *Compatibility Plan* requires that the disclosure of airport proximity be applied to all new development within both the primary and secondary airport influence areas and recommends that disclosure be provided as part of all real estate transactions involving private property, especially any sale, lease, or rental of residential property.



## SAFETY

Compared to noise, safety is in many respects a more difficult concern to address in airport land use compatibility policies. A major reason for this difference is that safety policies address uncertain events that *may occur* with *occasional* aircraft operations, whereas noise policies deal with known, more or less predictable events which *do occur* with *every* aircraft operation. Because aircraft accidents happen infrequently and the time, place, and consequences of an individual accident's occurrence cannot be predicted, the concept of *risk* is central to the assessment of safety compatibility.

### Compatibility Objective

The overall objective of safety compatibility criteria is to minimize the risks associated with potential off-airport aircraft accidents and emergency landings beyond the runway environment. There are two components to this objective:

- › *Safety on the Ground:* The most fundamental safety compatibility component is to provide for the safety of people and property on the ground in the event of an aircraft accident near an airport.
- › *Safety for Aircraft Occupants:* The other important component is to enhance the chances of survival of the occupants of an aircraft involved in an accident that takes place beyond the immediate runway environment.

### Measurement

Because aircraft accidents happen infrequently, measuring the risks associated with their occurrence is difficult. It is necessary to look beyond an individual airport in order to assemble enough data to be statistically valid. It is beyond the intent of this discussion to provide statistical data about aircraft accidents. Much can be found on that topic in the *Handbook*. However, certain aspects of aircraft accidents are necessary to discuss in that they have a direct bearing on land use compatibility strategies.

From the standpoint of land use planning, two variables determine the degree of risk posed by potential aircraft accidents: frequency and consequences.

The frequency variable measures *where* and *when* aircraft accidents occur in the vicinity of an airport. More specifically, these two elements can be described as follows:

- › *Spatial Element:* The spatial element describes *where* aircraft accidents can be expected to occur. Of all the accidents that take place in the vicinity of airports, what percentage occurs in any given location?
- › *Time Element:* The time element adds a *when* variable to the assessment of accident frequency. In any given location around a particular airport, what is the chance that an accident will occur in a specified period of time?

### Spatial Distribution of Aircraft Accidents

Of these two elements, the spatial element is the one most meaningfully applied to land use compatibility planning around an individual airport. Looking at airports nationwide, enough accidents have occurred to provide useful data regarding where they mostly occur in the environs of airports. As described below, the *Handbook* uses this data to define a set of safety zones. Additionally, the relative concentration of

accidents in certain parts of the airport environs is a key consideration in the establishment of compatibility criteria applicable within those zones.

In contrast, the time element is not very useful for land use compatibility planning purposes for several reasons. First, at any given airport, the number of accidents is, with rare exceptions, too few to be statistically meaningful in determining where future accidents might occur. Secondly, a calculation of accident frequency over time depends upon the size of the area under consideration—the smaller the area examined, the less likely it is that an accident will occur in that spot. Lastly, even if the accident frequency over a period of time is calculated, there are no clear baselines with which to compare the results—is once per 100 or 1,000 years significant or not?

The *Handbook* presents a set of diagrams indicating where accidents are most likely to occur around airline and general aviation airports. Figures D-2 and D-3 show the spatial distribution of general aviation aircraft accidents in the vicinity of airports. (Note that these charts show data for all general aviation accidents in the *Handbook* database. Data on accidents associated with different lengths of runway is also provided, though, and is considered in delineation of the safety zones depicted in Chapter 3 of this *Compatibility Plan*.)

The charts reveal several facts:

- › About half of arrival accidents and a third of departure accidents take place within the FAA-defined runway protection zone for a runway with a low-visibility instrument approach procedure (a 2,500-foot long trapezoid, varying from 1,000 feet wide at the inner edge to 1,750 feet in width at the outer end). This fact lends validity to the importance of the runway protection zones as an area within which land use activities should be minimal.
- › Although the runway protection zones represent the locations within which risk levels are highest, a significant degree of risk exists well beyond the runway protection zone boundaries. Among all near-airport (within 5 miles) accidents, over 80% are concentrated within 1.5 to 2.0 miles of a runway end.
- › Arrival accidents tend to be concentrated relatively close to the extended runway centerline. Some 80% occur within a strip extending 10,000 feet from the runway landing threshold and 2,000 feet to each side of the runway centerline.
- › Departure accidents are comparatively more dispersed laterally from the runway centerline, but are concentrated closer to the runway end. Many departure accidents also occur lateral to the runway itself, particularly when the runway is long. Approximately 80% of the departure accident sites lie within an area 2,500 feet from the runway centerline and 6,000 feet beyond the runway end or adjacent to the runway.

To provide some sense of order to the scatter of individual accident points, an analysis presented in the *Handbook* involves aggregating the accident location points (the scatter diagrams of where accidents have occurred relative to the runway) in a manner that better identifies where the accident sites are most concentrated. The results are presented as risk intensity contours—Figure D-2 shows arrival accident risks and Figure D-3 portrays departure accident risks. The two drawings divide the near-airport accident location points into five groups of 20% each (note that only accident sites that were not on a runway, but were within 5 miles of an airport are included in the database). The 20% contour represents the highest or most concentrated risk intensity, the 40% contour represents the next highest risk intensity, and so on up to 80%. The final 20% of the accident sites are beyond the 80% contour. Each contour is drawn so as to encompass 20% of the points within the most compact area. The contours are irregular in shape. No attempt has been made to create geometric shapes. However, the risk contours can serve as the basis

for creating geometric shapes that can then be used as safety zones. The *Handbook* contains several examples. The Department of Defense, through its *Air Installation Compatible Use Zones (AICUZ)* program, has followed a similar process to establish safety zone guidelines for military airports.

The *Handbook* takes the additional step of translating the risk contours into several sets of generic safety zones having regular geometric shapes. Generic safety zones are illustrated for different types and lengths of runways. The shapes of these zones reflect not just the accident distribution data, but also the ways in which different phases of aircraft operations create different accident risk characteristics near an airport. For most runways, the *Handbook* suggests creation of six zones. The locations, typical dimensions, and characteristics of the accident risks within each zone are outlined in Table D1. In more general terms, the relative degree of the risk exposure in each zone can be described as listed below.

- › *Zone 1* clearly is exposed to the greatest risk of aircraft accidents. For civilian airports, the dimensions of this zone are established by FAA standards. The FAA encourages airport ownership of this zone and provides specific land use standards to the extent that land is airport owned. Where the land is not airport owned, the FAA says these standards serve as recommendations. *Zone 1* at military airports matches the clear zones defined by the Department of Defense.
- › *Zone 2* lies beyond *Zone 1* and also has a significant degree of risk as reflected in both national and local accident location data. At military airports, this zone is equivalent to Accident Potential Zone I.
- › *Zone 3* has less risk than *Zone 2*, but more than *Zones 4, 5, or 6*. *Zone 3* encompasses locations where aircraft often turn at low altitude while approaching or departing the runway.
- › *Zone 4* lies along the extended runway centerline beyond *Zone 2* and is especially significant at airports that have straight-in instrument approach procedures or a high volume of operations that result in an extended traffic pattern. This zone is equivalent to Accident Potential Zone II at military airports.
- › *Zone 5* is a unique area lying adjacent to the runway and, for most airports, lies on airport property. The risk is comparable to *Zone 4*.
- › *Zone 6* contains the aircraft traffic pattern. Although a high percentage of accidents occur within *Zone 6*, for any given runway *Zone 6* is larger than all the other zones combined. Relative to the other zones, the risks in *Zone 6* are much less, but are still greater than in locations more distant from the airport.

Although accident location data, together with information on how aircraft flight parameters affect where accidents occur, are the bases for delineation of the generic safety zones, the *Handbook* indicates that adjustments to the zone sizes and shapes must be made in recognition of airport-specific characteristics. Among these characteristics are:

- › The particular mix of aircraft types operating at the airport. Larger aircraft generally are faster than smaller planes and thus fly longer and wider traffic patterns or make straight-in approaches.
- › The overall volume of aircraft operations. At busy airports, a larger traffic pattern is common because aircraft have to get in sequence for landing.
- › Nearby terrain or other airports. These physical features may, for example, limit a traffic pattern to a single side of the airport or dictate “nonstandard” approach and departure routes.

- › Instrument approach procedures. Aircraft following these procedures typically fly long, straight-in, gradual descents to the runway. In some cases, though, an approach route may be aligned at an angle to the runway rather than straight in.
- › Existence of an air traffic control tower. When a tower is present, controllers may direct or allow pilots to fly unusual routes in order to expedite traffic flow. By comparison, at relatively busy but non-towered airports, aircraft mostly follow the “standard” pattern dictated by federal aviation regulations.
- › A dominant direction of traffic flow. As reflected in the *Handbook* analysis of accident locations, landing aircraft tend to follow routes directly in line with the runway during final descent and thus accident sites also are concentrated along this alignment. Departing aircraft are more likely to turn to head to their intended destination and the accident pattern is thus more dispersed. On runways where the flow of aircraft operations is almost always in one direction, this distinction in accident patterns is considered.

Radar data is particularly helpful in showing exactly where aircraft fly when approaching or departing an airport. This data can be used to further support adjustments to the safety zones based upon the above characteristics. Radar data, though, is not available for many of outlying airports. In these instances, information on normal traffic pattern locations can be obtained through contact with local flight instructors and others highly familiar with a particular airport.

### ***Accident Consequences***

The consequences variable describes *what* happens when an aircraft accident occurs. Specific measures can be defined in terms of deaths, injuries, property damage, or other such characteristics. In many respects, the consequences component of aircraft accident risk assessment is a more important variable than accident frequency. Not only can a single accident cost many lives, it can indirectly force operational changes or even airport closure.

Relatively little data is available specifically documenting the consequences of aircraft accidents. Except with regard to numbers of deaths or injuries to people on the ground, data on various aspects of aircraft accidents must be used to infer what the consequences have been. Swath size is one useful piece of information. It indicates the area over which accident debris is spread. Swath size in turn depends upon the type of aircraft and the nature of the accident: was the aircraft in controlled flight (an engine failure for example), but then collided with something on the ground or did a catastrophic event (such as a mid-air collision or stall-spin) result in the aircraft making an uncontrolled descent? For small general aviation aircraft, the swath size data suggests that a controlled emergency landing in which the aircraft occupants have a strong chance of surviving is possible in an area about the size of a football field: 75 feet by 300 feet or about 0.5 acre. For larger aircraft, the minimum flight speed is so much higher that the consequences for people on board and anyone on the ground are likely to be high regardless of the land use or terrain characteristics.

### **Compatibility Strategies**

The relatively low numbers of deaths and injuries from aircraft accidents is sometimes cited as indicating that the risks are low. Clearly, though, the more people occupying the critical areas around airports, the greater the risks are. Aircraft accidents may be rare occurrences, but when they occur, the consequences can be severe.

From a land use compatibility perspective, it is therefore essential to avoid conditions that can lead to catastrophic results. Basically, the question is: what land use planning measures can be taken to reduce the severity of an aircraft accident if one occurs in a particular location near an airport? Although there is a significant overlap, specific strategies must consider both components of the safety compatibility objective: protecting people and property on the ground; and, primarily for general aviation airports, enhancing safety for aircraft occupants. In each case, the primary strategy is to limit the intensity of use (the number of people concentrated on the site) in locations most susceptible to an off-airport aircraft accident. This is accomplished by three types of criteria.

### ***Density and Intensity Limitations***

Establishment of criteria limiting the maximum number of dwellings or people in areas close to the airport is the most direct method of reducing the potential severity of an aircraft accident. In setting these criteria, consideration must be given to the two different forms of aircraft accidents: those in which the aircraft is descending, but is flying and under directional control of the pilot; and those in which the aircraft is out of control as it falls. Additionally, these data do not include the incidents in which the pilot made a successful emergency landing—the latter generally are categorized as “incidents” rather than as accidents and do not appear in the National Transportation Safety Board data from which the database in the *Handbook* is drawn.

Limits on usage intensity—the number of people per acre—must take into account both types of potential aircraft accidents. To the extent that accidents and incidents are of the controlled variety, then allowing high concentrations of people in a small area would be sensible, as long as intervening areas are little populated. However, concentrated populations present a greater risk for severe consequences in the event of an uncontrolled accident at that location. The policies in Chapter 2 address both of these circumstances. Limiting the average usage intensity over a site reduces the risks associated with either type of accident. In most types of land use development, though, people are not spread equally throughout the site. To minimize the risks from an uncontrolled accident, the policies also limit the extent to which people can be concentrated and development can be clustered in any small area.

### ***Open Land Requirements***

Creation of requirements for open land near an airport addresses the objective of enhancing safety for the occupants of an aircraft forced to make an emergency landing away from a runway. If sufficiently large and clear of obstacles, open land areas can be valuable for light aircraft anywhere near an airport. For large and high-performance aircraft, however, open land has little value for emergency landing purposes and is useful primarily where it is an extension of the clear areas immediately adjoining a runway.

### ***Highly Risk-Sensitive Uses***

Certain critical types of land uses—particularly schools, hospitals, and other uses in which the mobility of occupants is effectively limited—should be avoided near the ends of runways regardless of the number of people involved. Critical community infrastructure also should be avoided near airports. These types of facilities include power plants, electrical substations, public communications facilities and other facilities, the damage or destruction of which could cause significant adverse effects to public health and welfare well beyond the immediate vicinity of the facility. Lastly, aboveground storage of large quantities of highly flammable or hazardous materials may pose high risks if involved in an aircraft accident and therefore are generally incompatible close to runway ends.

## Basis for Setting Criteria

As with noise contours, risk data by itself does not answer the question of what degree of land use restrictions should be established in response to the risks. Although most ALUCs have policies that restrict certain land use activities in locations beyond the runway protection zones, the size of the area in which restrictions are established and the specific restrictions applied vary from one county to another.

Data useful in defining the geographic extent of airport safety areas was discussed above. To set safety compatibility criteria applicable within these zones presents the fundamental question of what is safe. Expressed in another way: what is an *acceptable risk*? In one respect, it may seem ideal to reduce risks to a minimum by prohibiting most types of land use development from areas near airports. However, as addressed in the *Handbook*, there are usually costs associated with such high degrees of restrictiveness. In practice, safety criteria are set on a progressive scale with the greatest restrictions established in locations with the greatest potential for aircraft accidents.

Little established guidance is available to ALUCs regarding how restrictive to make safety criteria for various parts of an airport's environs. Unlike the case with noise, there are no formal federal or state laws or regulations which set safety criteria for airport area land uses for civilian airports except within *runway protection zones* (and with regard to airspace obstructions as described separately in the next section). Federal Aviation Administration safety criteria primarily are focused on the runway and its immediate environment. Runway protection zones—then called *clear zones*—were originally established mostly for the purpose of protecting the occupants of aircraft which overrun or land short of a runway. Now, they are defined by the FAA as intended to enhance the protection of people and property on the ground.

The most useful place from which ALUCs can begin to determine appropriate safety compatibility criteria for airport environs is the *Handbook* itself. Although not regulatory in nature, state law obligates ALUCs to “be guided by” the information presented in the *Handbook*. Suggested usage intensity limitations, measured in terms of people per acre, are set forth along with other safety criteria. Reference should be made to that document for detailed description of the suggested criteria. Three risk-related variables discussed in the *Handbook* are worth noting here, however.

- › *Runway Proximity*: In general, the areas of highest risk are closest to the runway ends and secondarily along the extended runway centerline. However, many common aircraft flight tracks do not follow along the runway alignment, particularly on departures. Also, where an aircraft crashes may not be along the flight path that was intended to be followed. As indicated in Figures D2 and D3, these factors affect the risk distribution.
- › *Urban versus Rural Areas*: Irrespective of airports, people living in urban areas face different types of risks than those living in rural areas. The cost of avoiding risks differs between these two settings as well. The *Handbook* acknowledges these differences by indicating that usage intensities can be higher in heavily developed urban areas compared to partially undeveloped suburban areas or minimally developed rural locations, yet be equivalent in terms of the level of acceptable risk.
- › *Existing versus Proposed Uses*: Another distinction in compatibility policies can be drawn between existing and proposed development. It is reasonable for safety-related policies to be established which prohibit certain types of new development while considering identical existing development to be acceptable. The *Handbook* notes that cost is an important factor in this regard. The range of risks can be divided into three levels. At the bottom of this scale are negligible and acceptable risks for which no action is necessary. At the top are intolerable risks for which action is necessary regardless of the cost. In between are risks that are significant, but tolerable. Whether action should be taken

to reduce these risks depends upon the costs involved. Typically, the cost of removing an incompatible development is greater than the cost of avoiding its construction in the first place.

Preparation of this *Compatibility Plan* has been greatly guided by the *Handbook* information. The *Handbook*, though, also recognizes the importance of tailoring compatibility plans to local circumstances. Such has been the case with the safety compatibility criteria included in this *Compatibility Plan*.

## AIRSPACE PROTECTION

Relatively few aircraft accidents are caused by land use conditions that are hazards to flight. The potential exists, however, and protecting against it is essential to airport land use safety compatibility. In addition, and importantly, land use conditions that are hazards to flight may impact the continued viability of airport operations and limit the ability of an airport to operate in the manner identified by the airport proprietor in an adopted airport master plan and airport layout plan.

### Compatibility Objective

Because airspace protection is in effect a safety factor, its objective can likewise be thought of in terms of risk. Specifically, the objective is to avoid development of land use conditions that, by posing hazards to flight, can increase the risk of an accident occurring. The particular hazards of concern are:

- › Airspace obstructions;
- › Wildlife hazards, particularly bird strikes; and
- › Land use characteristics that pose other potential hazards to flight by creating visual or electronic interference with air navigation.

The purpose of the airspace protection policies is to ensure that structures and other uses do not cause hazards to aircraft in flight in the airport vicinity. Hazards to flight include physical obstructions to the navigable airspace, wildlife hazards, particularly bird strikes and land use characteristics that create visual or electronic interference with aircraft navigation or communication. This purpose is accomplished by policies that place limits on the height of structures and other objects in the airport vicinity and restrictions on other uses that potentially pose hazards to flight.

### Measurement

The measurement of requirements for airspace protection around an airport is a function of several variables including: the dimensions and layout of the runway system; the type of operating procedures established for the airport; and, indirectly, the performance capabilities of aircraft operated at the airport.

- › *Airspace Obstructions*: Whether a particular object constitutes an airspace obstruction depends upon two factors: the height of the object relative to the runway elevation; and its proximity to the airport. The acceptable height of objects near an airport is most commonly determined by application of standards set forth in Federal Aviation Regulations (FAR) Part 77, *Safe, Efficient Use, and Preservation of the Navigable Airspace*. These regulations establish a three-dimensional space in the air above an airport. Any object which penetrates this volume of airspace is considered to be an “obstruction” and may affect the aeronautical use of the airspace. Additionally, as described below, another set of airspace protection surfaces is defined by the U.S. *Standard for Terminal Instrument Procedures*, known as TERPS. Although the intended function of these standards is in design of instrument approach

and departure procedures, they can be important in land use compatibility planning in situations where ground elevations near an airport exceed the FAR Part 77 criteria.

- › *Wildlife and Other Hazards to Flight:* The significance of other potential hazards to flight is principally measured in terms of the hazards' specific characteristics and their distance from the airport and/or its normal traffic patterns.

## Compatibility Strategies

Compatibility strategies for the protection of airport airspace are relatively simple and are directly associated with the individual types of hazards:

- › *Airspace Obstructions:* Buildings, antennas, other types of structures, and trees should be limited in height so as not to pose a potential hazard to flight.
- › *Wildlife and Other Hazards to Flight:* Land uses that may create other types of hazards to flight near an airport should be avoided or modified so as not to include the offending characteristic.

## Basis for Setting Criteria

The criteria for determining airspace obstructions have been long-established in FAR Part 77. Also, state of California regulation of obstructions under the State Aeronautics Act (Public Utilities Code, Section 21659) is based on FAR Part 77 criteria. A shortcoming of FAR Part 77 criteria, however, is that they often are too generic to fit the conditions specific to individual airports. The airspace protection surfaces defined in these regulations can be either more or less restrictive than appropriate for a particular airport. The surfaces can be less restrictive than essential in instances where an instrument approach procedure or its missed approach segment are not aligned with the runway. FAR Part 77 also does not take into account instrument departure procedures which, at some airports, can have critical airspace requirements. Oppositely, FAR Part 77 provides no useful guidance as to acceptable heights of objects located where the ground level already penetrates the airspace surfaces.

To define airspace protection surfaces better suited to these situations, reference must be made the TERPS standards mentioned above. These standards are used for creation of instrument approach and departure procedures. Thus they exactly match the procedures in effect at an individual airport. Unlike the FAR Part 77 surfaces, the elevations of which are set relative to the runway end elevations irrespective of surrounding terrain and obstacles, the TERPS surface elevations are directly determined by the location and elevation of critical obstacles. By design, neither the ground nor any obstacles can penetrate a TERPS surface. However, construction of a tall object that penetrates a TERPS surface can dictate immediate modifications to the location and elevation of the surfaces and directly cause minimum flight visibility and altitudes to be raised or the instrument course to be realigned. In severe instances, obstructions can force a procedure to be cancelled altogether. A significant downside to use of TERPS surfaces for compatibility planning purposes is that they are highly complex compared to the relative simplicity of FAR Part 77 surfaces. Also, the configuration and/or elevations of TERPS surfaces can change not only in response to new obstacles, but as implementation of new navigational technologies permits additional or modified instrument procedures to be established at an airport.

In the Compatibility Policy Map: Airspace Protection Zones presented in Chapter 3 of this *Compatibility Plan*, primary reliance is placed upon FAR Part 77 criteria. Where an instrument approach procedure is established, the associated TERPS surfaces are depicted as well. In most locations, the TERPS surfaces are well above the underlying terrain and present no significant constraint on land use development. As



a precaution to help ensure that tall towers or antennas located on high terrain do not penetrate a TERPS surface, places where the ground elevation comes within 100 feet of a TERPS surface are shown on the map.

Among other hazards to flight, bird strikes no doubt represent the most widespread concern. The FAA recommends that uses known to attract birds—sanitary landfills being a primary example—be kept at least 10,000 feet away from any runway used by turbine-powered aircraft. More information regarding criteria for avoidance of uses that can attract wildlife to airports can be found in FAA Advisory Circulars 150/5200-34A, *Construction or Establishment of Landfills near Public Airports*, and 150/5300-33B, *Hazardous Wildlife Attractants On or Near Airports*.

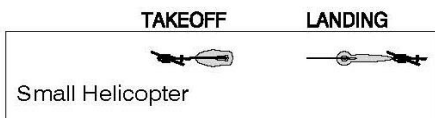
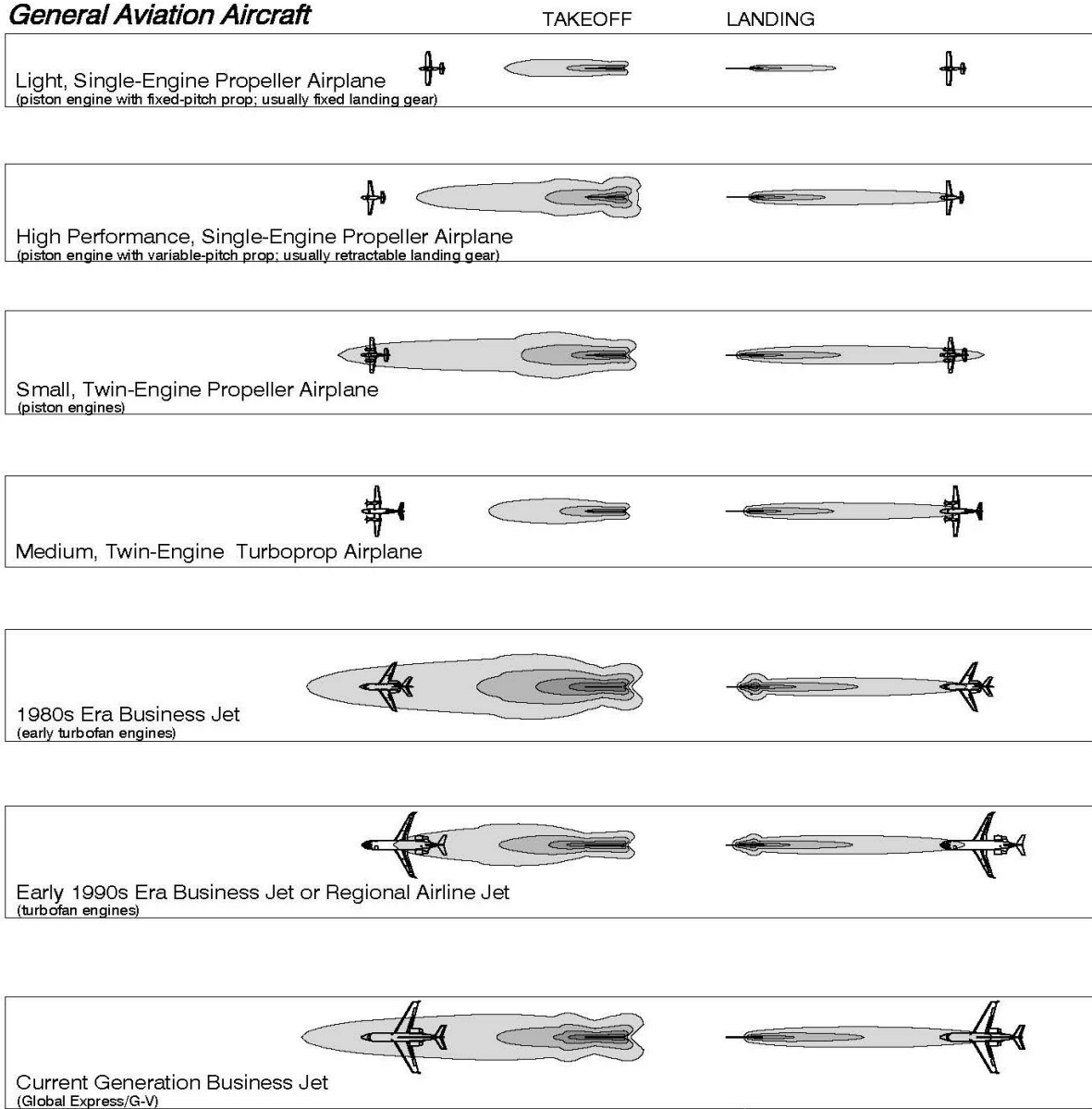
Other flight hazards include land uses that may cause visual or electronic hazards to aircraft in flight or taking off or landing at the airport. Specific characteristics to be avoided include sources of glare or bright lights, distracting lights that could be mistaken for airport lights, sources of dust, steam, or smoke that may impair pilot visibility, and sources of electrical interference with aircraft communications or navigation.

<b>Zone</b>	<b>Description</b>	<b>Nominal Dimensions</b> (California Airport Land Use Planning Handbook)	<b>Relative Risk Level</b>	<b>Nature of Accident Risk</b>	<b>% of Accidents in Zone</b> (Handbook Database)
1	Runway Protection Zone and within Runway Primary Surface  primarily on airport property; airport ownership encouraged	Depending upon approach visibility minimums: 1,200 feet minimum, 2,700 feet maximum beyond runway ends; 125 to 500 feet from centerline adjacent to runway (zone dimensions established by FAA standards)  Acreage (one runway end): 8 to 79 (RPZ only)	Very High	Landing undershoots and overshoots; overruns on aborted takeoffs; loss of control on takeoff	Arrivals: 28%–56% Departures: 23%–29% Total: 33%–39%
2	Inner Safety Zone	Along extended runway centerline, to a distance of 2,000 feet minimum, 6,000 feet maximum beyond runway ends  Acreage (one runway end): 44 to 114	High	Aircraft at low altitude with limited directional options in emergencies: typically under 400 feet on landing; on takeoff, engine at maximum stress	Arrivals: 9%–15% Departures: 3%–28% Total: 8%–22%
3	Inner Turning Zone	Fan-shaped area adjacent to Zone 2 extending 2,000 feet minimum, 4,000 feet maximum from runway ends  Acreage (one runway end): 50 to 151	Moderate	Turns at low altitude on arrival for aircraft flying tight base leg present stall-spin potential; likely touchdown area if emergency at low altitude on takeoff, especially to left of centerline	Arrivals: 2%–6% Departures: 5%–9% Total: 4%–7%
4	Outer Safety Zone	Along extended runway centerline extending 3,500 feet minimum, 10,000 feet maximum beyond runway ends  Acreage (one runway end): 35 to 92	Low to Moderate	Low altitude overflight for aircraft on straight-in approaches, especially instrument approaches; on departure, aircraft normally complete transition from takeoff power and flap settings to climb mode and begin turns to en route heading	Arrivals: 3%–8% Departures: 2%–4% Total: 2%–6%
5	Sideline Zone primarily on airport property	Adjacent to runway, 500 feet minimum, 1,000 feet maximum from centerline  Acreage: varies with runway length	Low to Moderate	Low risk on landing; moderate risk from loss of directional control on takeoff, especially with twin-engine aircraft	Arrivals: 1%–3% Departures: 5%–8% Total: 3%–5%
6	Traffic Pattern Zone	Oval area around other zones: 5,000 feet minimum, 10,000 feet maximum beyond runway ends; 4,500 feet minimum, 6,000 feet maximum from runway centerline  Acreage: varies with runway length	Low	Significant percentage of accidents, but spread over wide area; widely varied causes	Arrivals: 10%–21% Departures: 24%–39% Total: 18%–29%

Table D1

## Safety Zone Aircraft Accident Risk Characteristics

**General Aviation Aircraft**



0 Miles 4  
(aircraft not to scale)

The drawings on these two pages show the relative noise levels produced by different types of aircraft during landing and takeoff.

The contours represent the momentary maximum sound level experienced on the ground as the aircraft flies over. The outermost contour for each aircraft indicates a 65 dBA sound level. Additional contours are at 10 dBA increments (75, 85, and in most cases 95 dBA).

**Figure D1**

**Noise Footprints of Selected Aircraft**

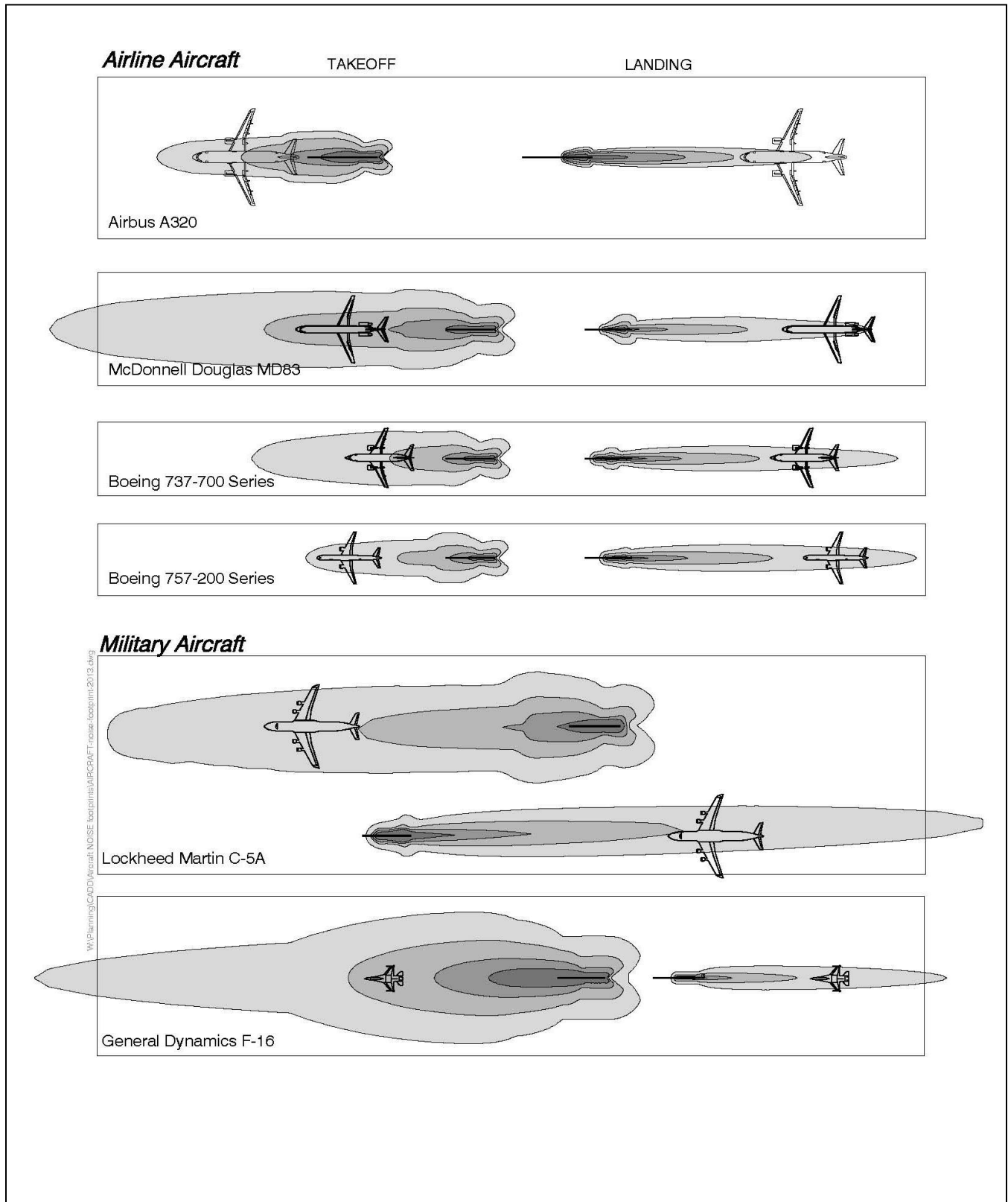
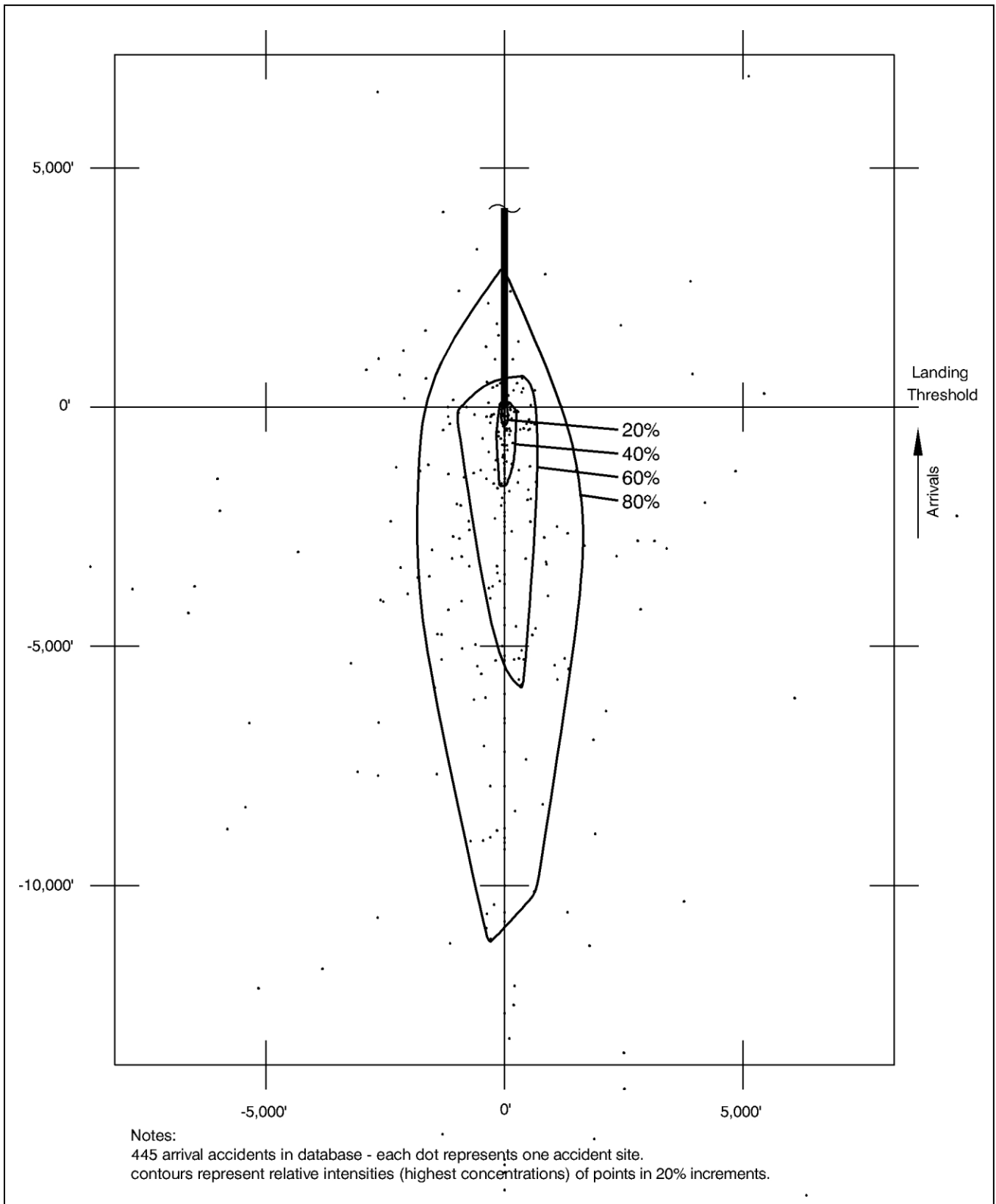


Figure D1, continued



**Figure D2**

**General Aviation Accident Distribution Contours**  
**All Arrivals**

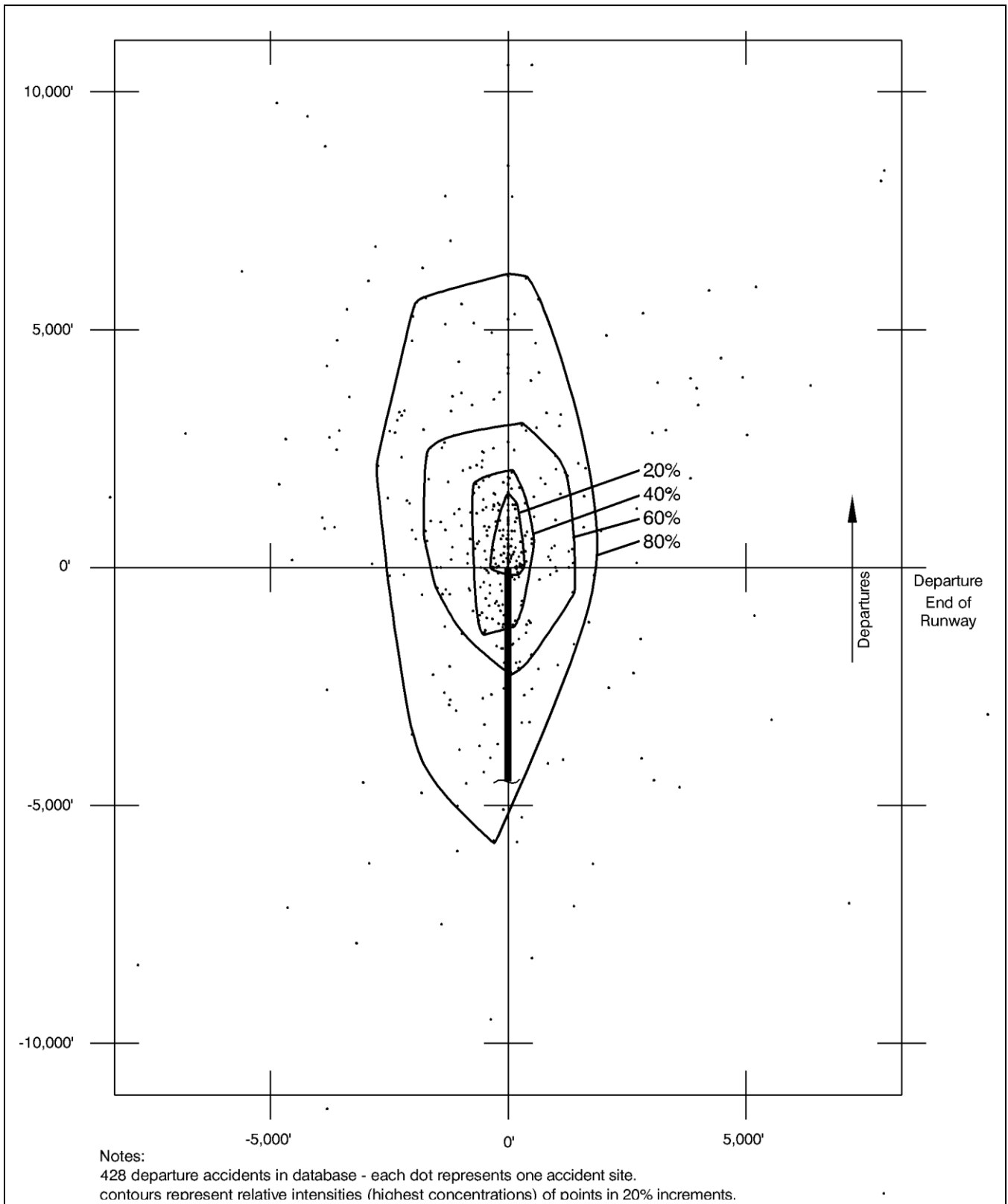


Figure D3

## General Aviation Accident Distribution Contours

All Departures

## Methods for Determining Concentrations of People

---

### INTRODUCTION

The underlying safety compatibility criterion employed in this *Compatibility Plan* is “usage intensity”—the maximum number of people per acre that can be present in a given area at any one time. If a proposed use exceeds the maximum intensity, it is considered incompatible and thus inconsistent with compatibility planning policies. The usage intensity concept is identified in the *California Airport Land Use Planning Handbook* as the measure best suited for assessment of land use safety compatibility with airports. The *Handbook* is published by the California Division of Aeronautics and is required under state law to be used as a guide in preparation of airport land use compatibility plans.

It is recognized, though, that “people per acre” is not a common measure in other facets of land use planning. This *Compatibility Plan* therefore also utilizes the more common measure of floor area ratio (FAR) as a means of implementing the usage intensity criteria on the local level. This appendix both provides guidance on how the usage intensity determination can be made and defines the relationships between this measure, FAR, and other measures found in land use planning. For a discussion of the rationale for use of people per acre as a measure of risk exposure, see Appendix D.

### COUNTING PEOPLE

The most difficult part about calculating a use’s intensity is estimating the number of people expected to use a particular facility under normal circumstances. All people—not just employees, but also customers and visitors—who may be on the property at a single point in time, whether indoors or outside, must be counted. The only exceptions are for rare special events, such as an air show at an airport, for which a facility is not designed and normally not used and for which extra safety precautions can be taken as appropriate.

Ideally, the actual number of people for which the facility is designed would be known. For example, the number of seats in a proposed movie theater can be determined with high accuracy once the theater size is decided. Other buildings, though, may be built as a shell and the eventual number of occupants not known until a specific tenant is found. Furthermore, even then, the number of occupants can change in the future as tenants change. Even greater uncertainty is involved with relatively open uses not having fixed seating—retail stores or sports parks, for example.

Absent clearly measurable occupancy numbers, other sources must be relied upon to estimate the number of people in a proposed development.

### Survey of Similar Uses

A survey of similar uses already in existence is one option. Gathering data in this manner can be time-consuming and costly, however. Also, unless the survey sample is sufficiently large and conducted at

various times, inconsistent numbers may result. Except for uncommon uses for which occupancy levels cannot be estimated through other means, surveys are most appropriate as supplemental information.

## Maximum Occupancy

A second option for estimating the number of people who will be on a site is to rely upon data indicating the maximum occupancy of a building measured in terms of Occupancy Load Factor—the number of square feet per occupant. The number of people on the site, assuming limited outdoor or peripheral uses, can be calculated by dividing the total floor area of a proposed use by the Occupancy Load Factor. The challenge of this methodology lies in establishing realistic figures for square feet per occupant. The number varies greatly from one use to another and, for some uses, has changed over time as well.

A commonly used source of maximum occupancy data is the standards set in the California Building Code (CBC). The chart reproduced as Table E1 indicates the Occupancy Load Factors for various types of uses. The CBC, though, is intended primarily for purposes of structural design and fire safety and represents a legal maximum occupancy in most jurisdictions. A CBC-based methodology consequently results in occupancy numbers that are higher than normal maximum usage in most instances. The numbers also are based upon usable floor area and do not take into account corridors, stairs, building equipment rooms, and other functions that are part of a building’s gross square footage. Surveys of actual Occupancy Load Factors 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 *Handbook* indicates that the number of people calculated for office and retail uses can usually be divided in half 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.

Another source of data on square footage per occupant comes from the facility management industry. The data is used to help businesses determine how much building space they need to build or lease and thus tends to be more generous than the CBC standards. The numbers vary not only by the type of facility, as with the CBC, but also by type of industry. The following are selected examples of square footage per *employee* gathered from a variety of sources.

› Call centers	150 – 175
› Typical offices	180 – 250
› Law, finance, real estate offices	300 – 325
› Research & development, light industry	300 – 500
› Health services	500

The numbers above do not take into account the customers who may also be present for certain uses. For retail business, dining establishments, theaters, and other uses where customers outnumber employees, either direct measures of occupancy—the number of seats, for example—or other methodologies must be used to estimate the potential number of people on the site.

## Parking Space Requirements

For many jurisdictions and a wide variety of uses, the number of people present on a site can be calculated based upon the number of automobile parking spaces that are required. Certain limitations and assumptions must be considered when applying this methodology, however. An obvious limitation is that parking



space requirements can be correlated with occupancy numbers only where nearly all users arrive by private vehicle rather than by public transportation, walking, or other method. Secondly, the jurisdiction needs to have a well-defined parking ordinance that lists parking space requirements for a wide range of land uses. For most uses, these requirements are typically stated in terms of the number of parking spaces that must be provided per 1,000 square feet of gross building size or a similar ratio. Lastly, assumptions must be made with regard to the average number of people who will arrive in each car.

Both of the critical ratios associated with this methodology—parking spaces to building size and occupants to vehicles—vary from one jurisdiction to another even for the same types of uses. Research of local ordinances and other sources, though, indicates that the following ratios are typical.

- ▶ **Parking Space Ratios**—These examples of required parking space requirements are typical of those found in ordinances adopted by urban and suburban jurisdictions. The numbers are ratios of spaces required per 1,000 square feet of gross floor area. Gross floor area is normally measured to the outside surfaces of a building and includes all floor levels as well as stairways, elevators, storage, and mechanical rooms.

▶ Small Restaurants	10.0
▶ Medical Offices	4.0 – 5.7
▶ Shopping Centers	4.0 – 5.0
▶ Health Clubs	3.3 – 5.0
▶ Business Professional Offices	3.3 – 4.0
▶ Retail Stores	3.0 – 3.5
▶ Research & Development	2.5 – 4.0
▶ Manufacturing	2.0 – 2.5
▶ Furniture, Building Supply Stores	0.7 – 1.0

- ▶ **Vehicle Occupancy**—Data indicating the average number of people occupying each vehicle parking at a particular business or other land use can be found in various transportation surveys. The numbers vary both from one community or region to another and over time, thus current local data is best if available. The following data represent typical vehicle occupancy for different trip purposes.

▶ Work	1.05 – 1.2
▶ Education	1.2 – 2.0
▶ Medical	1.5 – 1.7
▶ Shopping	1.5 – 1.8
▶ Dining, Social, Recreational	1.7 – 2.3

## USAGE INTENSITY RELATIONSHIP TO OTHER DEVELOPMENT MEASURES

### Calculating Usage Intensities

Once the number of people expected in a particular development—both over the entire site and within individual buildings—has been estimated, the usage intensity can be calculated. The criteria in Chapter 3 of this *Compatibility Plan* are measured in terms of the average intensity over the entire project site.

The average intensity is calculated by dividing the total number of people on the site by the site size. A 10-acre site expected to be occupied by as many as 1,000 people at a time, thus would have an average intensity of 100 people per acre. The site size equals the total size of the parcel or parcels to be developed.

Having calculated the usage intensities of a proposed development, a comparison can be made with the criteria set forth in the *Compatibility Plan* to determine whether the proposal is consistent or inconsistent with the policies.

## Comparison with Floor Area Ratio

As noted earlier, usage intensity or people per acre is not a common metric in land use planning. Floor area ratio or FAR—the gross square footage of the buildings on a site divided by the site size—is a more common measure in land use planning. Some counties and cities adopt explicit FAR limits in their zoning ordinance or other policies. Those that do not set FAR limits often have other requirements such as, a maximum number of floors a building can have, minimum setback distances from the property line, and minimum number of parking spaces. These requirements effectively limit the floor area ratio as well.

To facilitate local jurisdiction implementation, the Safety Compatibility Criteria table in Chapter 3 has been structured around FAR measures to determine usage intensity limits for many types of nonresidential land use development. To utilize FAR in this manner, a critical additional piece of information is necessary to overcome the major shortcoming of FAR as a safety compatibility measure. The problem with FAR is that it does not directly correlate with risks to people because different types of buildings with the same FAR can have vastly different numbers of people inside—a low-intensity warehouse versus a high-intensity restaurant, for example. For FAR to be applied as a factor in setting development limitations, assumptions must be made as to how much space each person (employees and others) in the building will occupy. The Safety Compatibility Criteria table therefore indicates the assumed Occupancy Load Factor for various land uses. Mathematically, the relationship between usage intensity and FAR is:

$$\text{FAR} = \frac{(\text{allowable usage intensity}) \times (\text{Occupancy Load Factor})}{43,560}$$

where *usage intensity* is measured in terms of people per acre and *Occupancy Load Factor* as square feet per person.

Selection of the usage intensity, occupancy level, and FAR numbers that appear in the Safety Compatibility Criteria table was done in an iterative manner that considered each of the components both separately and together. Usage intensities were initially set with respect to guidelines provided in the *California Airport Land Use Planning Handbook* (see Appendix D of this *Compatibility Plan*). Occupancy levels were derived from the CBC, but were adjusted based upon additional research from both local and national sources in the manner discussed earlier in this appendix. The FAR limits were initially calculated from these other two numbers using the formula above.

## Comparison with Parking Space Requirements

As discussed above, many jurisdictions have adopted parking space requirements that vary from one land use type to another. Factoring in an estimated vehicle occupancy rate for various land uses as described earlier, the Occupancy Load Factor can be calculated. For example, a typical parking space requirement for office uses is 4.0 spaces per 1,000 square feet or 1 space per 250 square feet. If each vehicle is assumed to be occupied by 1.1 persons, the equivalent Occupancy Load Factor would be 1 person per 227 square

feet. This number falls squarely within the range noted above that was found through separate research of norms used by the facility management industry.

As an added note, the Occupancy Load Factor of 215 square feet per person indicated in the Safety Compatibility Criteria table for office uses is slightly more conservative than the above calculation produces. This means that, for a given usage intensity standard, the FAR limit in the table is slightly more restrictive than would result from a higher Occupancy Load Factor.

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

Table E1

## Occupant Load Factors

### California Building Code

## General Plan Consistency Checklist

This checklist is intended to assist local agencies with modifications necessary to make their local plans and other local policies consistent with the ALUCP. It is also designed to facilitate ALUC reviews of these local plans and policies. The list will need to be modified to reflect the policies of each individual ALUC and is not intended as a state requirement.

### COMPATIBILITY CRITERIA

#### General Plan Document

The following items typically appear directly in a general plan document. Amendment of the general plan 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 ALUC land use compatibility criteria.
  - › Residential densities (dwelling units per acre) should not exceed the set limits.
  - › Proposed nonresidential development needs to be assessed with respect to applicable intensity limits (see below).
  - › 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. This limit must be made consistent with the equivalent ALUCP criteria. 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 sometimes judged to be more objectionable than other types of equally loud noises).

#### 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 ALUCP 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

- ▶ **Intensity Limitations on Nonresidential Uses**—ALUCPs may establish limits on 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 ALUCP. Alternatively, ALUCs 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**—ALUCPs may prohibit schools, day care centers, assisted living centers, hospitals, and other uses within a majority of an airport's influence area. The facilities often are permitted or conditionally permitted uses within many commercial or industrial land use designations.
- ▶ **Open Land Requirements**—ALUCP 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 should also be established
- ▶ **Infill Development**—If an ALUCP contains infill policies and a jurisdiction wishes to take advantage of them, the lands that meet the qualifications must be shown on a map.

**Zoning or Other Policy Documents, Continued**

- ▶ **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 FAR Part 77. 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 attract birds). 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.
- ▶ **Buyer Awareness Measures**—Besides disclosure rules already required by state law, as a condition for approval of development within certain compatibility zones, some ALUCPs require either dedication of an aviation easement to the airport proprietor or placement on deeds of a notice regarding airport impacts. If so, local agency policies must contain similar requirements.
- ▶ **Nonconforming Uses and Reconstruction**—Local agency 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 ALUC compatibility criteria, local agency 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 ALUC Review**—PUC Section 21676 identifies the types of actions that must be submitted for airport land use commission review. Local policies should either list these actions or, at a minimum, note the local agency’s intent to comply with the state statute.
- ▶ **Other Land Use Actions Potentially Subject to ALUC Review**—In addition to the above actions, ALUCPs may identify certain major land use actions for which referral to the ALUC is dependent upon agreement between the local agency and ALUC. If the local agency fully complies with all of the items in this general plan consistency check list or has taken the necessary steps to overrule the ALUC, then referral of the additional actions is voluntary. On the other hand, a local agency 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 ALUC is mandatory. Local policies should indicate the local agency’s intentions in this regard..
- ▶ **Process for Compatibility Reviews by Local Jurisdictions**—If a local agency chooses to submit only the mandatory actions for ALUC 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 that involves issues of noise, safety, airspace protection, or overflight compatibility as addressed in the ALUCP must be referred to the ALUC 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 trees. An airport combining district zoning ordinance is one means of implementing enforcement requirements.

Source: California Airport Land Use Planning Handbook (October 2011)

## Sample Implementation Documents

---

The responsibility for implementation of the compatibility criteria set forth in the *Stanislaus County Airport Land Use Compatibility Plans* rests with the Stanislaus County Airport Land Use Commission (ALUC). As described in Appendix F, the modification of general plans and specific plans for consistency with applicable compatibility plans is the primary step in this process. However, not all of the measures necessary for achievement of airport land use compatibility are necessarily included in general plans and specific plans. Other types of documents also serve to implement compatibility plan policies. Samples of such implementation documents are included in this appendix.

### Airport Combining Zone Ordinance

As noted in Chapter 1 of this document, one option that the affected local jurisdictions can utilize to implement airport land use compatibility criteria and associated policies is adoption of an airport combining zone ordinance. An airport combining zone ordinance is a way of collecting various airport-related development conditions into one local policy document. Adoption of a combining zone is not required, but is suggested as an option. Table G1 describes some of the potential components of an airport combining zone ordinance.

### Buyer Awareness Measures

Buyer awareness is an umbrella category for several types of implementation documents all of which have the objective of ensuring that prospective buyers of airport area property, particularly residential property, are informed about the airport's impact on the property. The *Stanislaus County Airport Land Use Compatibility Plan* policies include each of these measures.

- ▶ **Avigation Easement**—Avigation easements transfer certain property rights from the owner of the underlying property to the owner of an airport or, in the case of military airports, to a local government agency on behalf of the federal government (the U.S. Department of Defense is not authorized to accept avigation easements). This *Compatibility Plan* requires avigation easement dedication as a condition for approval of development on property subject to high noise levels or a need to restrict heights of structures and trees to less than might ordinarily occur on the property. Specific easement dedication requirements are set forth in Chapter 2. Also, airports may require avigation easements in conjunction with programs for noise insulation of existing structures in the airport vicinity. A sample of a standard avigation easement is included in Table G2.
- ▶ **Recorded Overflight Notification**—An overflight notification informs property owners that the property is subject to aircraft overflight and generation of noise and other impacts. No restrictions on the heights of objects, requirements for marking or lighting of objects, or access to the property for these purposes are included. An overflight notification serves only as buyer acceptance of overflight conditions. Suggested wording of an overflight notification is included in Table G3. Unlike an avigation easement, overflight easement, or other type of easement, an overflight notification is not a conveyance of property rights. However, like an easement, an overflight notification is recorded on the

property deed and therefore remains in effect with sale of the property to subsequent owners. Over-flight notifications are generally appropriate in areas outside the 60 dB CNEL noise contour, outside Safety Zones, and within areas where the height of structures and other objects would not pose a significant potential of being airspace obstruction hazards.

- ▶ **Airport Proximity Disclosure**—A less definitive, but more all-encompassing, form of buyer awareness measure is for the ALUC and local jurisdictions to establish a policy indicating that information about an airport’s influence area should be disclosed to prospective buyers of all airport-vicinity properties prior to transfer of title. The advantage of this type of program is that it applies to previously existing land uses as well as to new development. The requirement for disclosure of information about the proximity of an airport has been present in state law for some time, but legislation adopted in 2002 and effective in January 2004 explicitly ties the requirement to the airport influence areas established by airport land use commissions (see Appendix B for excerpts from sections of the Business and Professions Code and Civil Code that define these requirements). With certain exceptions, these statutes require disclosure of a property’s location within an airport influence area under any of the following three circumstances: (1) sale or lease of subdivided lands; (2) sale of common interest developments; and (3) sale of residential real property. In each case, the disclosure statement to be used is defined by state law as follows:

**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.



An airport compatibility combining zoning ordinance might include some or all of the following components:

- ▶ **Airspace Protection**—A combining district can establish restrictions on the height of buildings, antennas, trees, and other objects as necessary to protect the airspace needed for operation of the airport. These restrictions should be based upon the current version of FAR Part 77, Objects Affecting Navigable Airspace, Subpart C. Additions or adjustment to take into account TERPS surfaces should be made as necessary. Provisions prohibiting smoke, glare, bird attractions, and other hazards to flight should also be included.
  - ▶ **FAA Notification Requirements**—Combining districts also can be used to ensure that project developers are informed about the need for compliance with the notification requirements of FAR Part 77. Subpart B of the regulations requires that the proponent of any project which exceeds a specified set of height criteria submit a Notice of Proposed Construction or Alteration (Form 7460-1) to the Federal Aviation Administration prior to commencement of construction. The height criteria associated with this notification requirement are lower than those spelled out in FAR Part 77, Subpart C, which define airspace obstructions. The purpose of the notification is to determine if the proposed construction would constitute a potential hazard or obstruction to flight. Notification is not required for proposed structures that would be shielded by existing structures or by natural terrain of equal or greater height, where it is obvious that the proposal would not adversely affect air safety.
  - ▶ **State Regulation of Obstructions**—State law prohibits anyone from constructing or altering a structure or permitting an object of natural growth to exceed the heights established by FAR Part 77, Subpart C, unless the FAA has determined the object would not or does not constitute a hazard to air navigation (PUC Section 21658 and 21659).
  - ▶ **Designation of High Noise-Impact Areas**—California state statutes require that multi-family residential structures in high-noise exposure areas be constructed so as to limit the interior noise to a Community Noise Equivalent Level of no more than 45 dB. A combining district could be used to indicate the locations where special construction techniques may be necessary in order to ensure compliance with this requirement. The combining district also could extend this criterion to single-family dwellings.
  - ▶ **Maximum Densities/Intensities**—Airport noise and safety compatibility criteria are frequently expressed in terms of dwelling units per acre for residential uses and people per acre for other land uses. While general plans typically use these measures of maximum density/intensity for land uses, zoning ordinances generally use minimum lot sizes and setbacks, along with building height restrictions.
- These standards often supplement, but do not translate directly into general plan density/intensity standards. Incorporation of airport area-related density/intensity standards measured in the same manner as a General Plan can either be directly included in a combining zone or used to modify the underlying land use designations. For residential land uses, the correlation between the compatibility criteria and land use designations is direct. For other land uses, the method of calculating the intensity limitations needs to be defined. Alternatively, a matrix can be established indicating whether each specific type of land use is compatible with each compatibility zone. To be useful, the land use categories need to be more detailed than typically provided by general plan or zoning ordinance land use designations.
- ▶ **Open Areas for Emergency Landing of Aircraft**—In most circumstances in which an accident involving a small aircraft occurs near an airport, the aircraft is under control as it descends. When forced to make an off-airport emergency landing, pilots will usually attempt to do so in the most open area readily available. To enhance safety both for people on the ground and the occupants of aircraft, ALUCPs often contain criteria requiring a certain amount of open land near airports. These criteria are most effectively carried out by planning at the general or specific plan level, but may also need to be included in a combining district so that they will be applied to development of large parcels. Adequate open areas can often be provided by clustering of development on adjacent land.
  - ▶ **Areas of Special Compatibility Concern**—A significant drawback of standard general plan and zoning ordinance land use designations is that they can be changed. Uses that are currently compatible are not assured of staying that way in the future. Designation of areas of special compatibility concern would serve as a reminder that airport impacts should be carefully considered in any decision to change the existing land use designation. [A legal consideration that supports the value of this concept is that down-zoning of a property to a less intensive use is becoming more difficult. It is much better not to have inappropriately up-zoned the property in the first place.]
  - ▶ **Real Estate Disclosure Policies**—The geographic extent and specific language of recommended real estate disclosure statements can be described in an airport combining zone ordinance (Business and Professions Code Section 11010(a) and (b)(13) and Civil Code, Sections 1102.6, 1103.4, and 1353).

Source: *California Airport Land Use Planning Handbook* (October 2011)

Table G1

## Sample Airport Combining Zone Components

**TYPICAL AVIGATION EASEMENT**

[Airport Name]

This indenture made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, between \_\_\_\_\_ hereinafter referred to as Grantor, and the County of Stanislaus, a political subdivision in the State of California, hereinafter referred to as Grantee.

The Grantor, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby grant to the Grantee, its successors and assigns, a perpetual and assignable easement over the following described parcel of land in which the Grantor holds a fee simple estate. The property which is subject to this easement is depicted as \_\_\_\_\_ on “Exhibit A” attached and is more particularly described as follows:

[Insert legal description of real property]

The easement applies to the Airspace above an imaginary plane over the real property. The plane is described as follows:

The imaginary plane above the hereinbefore described real property, as such plane is defined by Part 77 of the Federal Aviation Regulations, and consists of a plane [describe approach, transition, or horizontal surface]; the elevation of said plane being based upon the [Airport Name and official runway end elevation of \_\_\_] feet Above Mean Sea Level (AMSL), as determined by the Airport Layout Plan, the approximate dimensions of which said plane are described and shown on Exhibit A attached hereto and incorporated herein by reference.

The aforesaid easement and right-of-way includes, but is not limited to:

- (1) For the use and benefit of the public, the easement and continuing right to fly, or cause or permit the flight by any and all persons, or any aircraft, of any and all kinds now or hereafter known, in, through, across, or about any portion of the Airspace hereinabove described; and
- (2) The easement and right to cause or create, or permit or allow to be caused and created within all space above the existing surface of the hereinabove described real property and any and all Airspace laterally adjacent to said real property, such noise, vibration, currents and other effects of air illumination and fuel consumption as may be inherent in, or may arise or occur from or during the operation of aircraft of any and all kinds, now or hereafter known or used, for navigation of or flight in air; and
- (3) A continuing right to clear and keep clear from the Airspace any portions of buildings, structures or improvements of any kinds, and of trees or other objects, including the right to remove or demolish those portions of such buildings, structures, improvements, trees, or other things which extend into or above said Airspace, and the right to cut to the ground level and remove, any trees which extend into or above the Airspace; and
- (4) The right to mark and light, or cause or require to be marked and lighted, as obstructions to air navigation, any and all buildings, structures or other improvements, and trees or other objects, which extend into or above the Airspace; and
- (5) The right of ingress to, passage within, and egress from the hereinabove described real property, for the purposes described in subparagraphs (3) and (4) above at reasonable times and after reasonable notice.

**Table G2**

**Typical Avigation Easement**



**RECORDED OVERFLIGHT NOTIFICATION**

This *Overflight Notification* concerns the real property situated in the County of Stanislaus and *[insert if applicable]* the City of \_\_\_\_\_, State of California, described as \_\_\_\_\_[APN No.:].

This *Overflight Notification* provides notification of the condition of the above described property in recognition of, and in compliance with, CALIFORNIA BUSINESS & PROFESSIONS CODE Section 11010 and CALIFORNIA CIVIL CODE Sections 1102.6, 1103.4 and 1353, effective January 1, 2004, and related state and local regulations and consistent with policies of the Airport Land Use Commission for Stanislaus County for overflight notification provided in the Stanislaus County Airport Land Use Compatibility Plan.

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

The Federal Aviation Administration (FAA) has regulatory authority over the operation of aircraft in flight and on the runway and taxiway surfaces at the \_\_\_\_\_ Airport. The FAA is, therefore, exclusively responsible for airspace and air traffic management, including ensuring the safe and efficient use of navigable airspace, developing air traffic rules, assigning the use of airspace and controlling air traffic. Please contact the FAA for more detailed information regarding overflight and airspace protection issues associated with the operation of military aircraft.

The airport operator, \_\_\_\_\_, maintains information regarding hours of operation and other relevant information regarding airport operations. Please contact your local airport operator for more detailed information regarding airport specific operational issues including hours of operation.

This *Overflight Notification* shall be duly recorded with the Stanislaus County Assessor’s Office, shall run with the Property, and shall be binding upon all parties having or acquiring any right, title or interest in the Property.

*Effective Date:* \_\_\_\_\_, 20\_\_

**Table G3**

**Sample Recorded Overflight Notification**

## Glossary of Terms

---

**Above Ground Level (AGL):** An elevation datum given in feet above ground level.

**Accident Potential Zones (APZs):** A set of safety-related zones defined by AICUZ studies for areas beyond the ends of military airport runways. Typically, three types of zones are established: a clear zone closest to the runway end, then APZ I and APZ II. The potential for aircraft accidents and the corresponding need for land use restrictions is greatest with the clear zone and diminish with increased distance from the runway.

**Air Carriers:** The commercial system of air transportation, consisting of the certificated air carriers, air taxis (including commuters), supplemental air carriers, commercial operators of large aircraft, and air travel clubs.

**Air Installation Compatible Use Zones (AICUZ):** A land use compatible plan prepared by the U.S. Department of Defense for military airfields. AICUZ plans serve as recommendations to local governments bodies having jurisdiction over land uses surrounding these facilities.

**Aircraft Accident:** An occurrence incident to flight in which, as a result of the operation of an aircraft, a person (occupant or nonoccupant) receives fatal or serious injury or an aircraft receives substantial damage.

- ▶ Except as provided below, *substantial damage* means damage or structural failure that adversely affects the structural strength, performance, or flight characteristics of the aircraft, and that would normally require major repair or replacement of the affected component.
- ▶ Engine failure, damage limited to an engine, bent fairings or cowling, dented skin, small puncture holes in the skin or fabric, ground damage to rotor or propeller blades, damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wingtips are not considered substantial damage.

**Aircraft Incident:** A mishap associated with the operation of an aircraft in which neither fatal nor serious injuries nor substantial damage to the aircraft occurs.

**Aircraft Mishap:** The collective term for an aircraft accident or an incident.

**Aircraft Operation:** The airborne movement of aircraft at an airport or about an en route fix or at other point where counts can be made. There are two types of operations: local and itinerant. An operation is counted for each landing and each departure, such that a touch-and-go flight is counted as two operations. (FAA Stats)

**Airport:** An area of land or water that is used or intended to be used for the landing and taking off of aircraft, and includes its buildings and facilities if any. (FAR 1)

**Airport Elevation:** The highest point of an airport's useable runways, measured in feet above mean sea level. (AIM)

**Airport Land Use Commission (ALUC):** A commission authorized under the provisions of California Public Utilities Code, Section 21670 et seq. and established (in any county within which a public-use airport is located) for the purpose of promoting compatibility between airports and the land uses surrounding them.

**Airport Layout Plan (ALP):** A scale drawing of existing and proposed airport facilities, their location on an airport, and the pertinent clearance and dimensional information required to demonstrate conformance with applicable standards.

**Airport Master Plan (AMP):** A long-range plan for development of an airport, including descriptions of the data and analyses on which the plan is based.

**Airport Reference Code (ARC):** A coding system used to relate airport design criteria to the operation and physical characteristics of the airplanes intended to operate at an airport. (Airport Design AC)

**Airports, Classes of:** For the purposes of issuing a Site Approval Permit, The California Department of Transportation, Division of Aeronautics classifies airports into the following categories: (CCR)

- ▶ *Agricultural Airport or Heliport:* An airport restricted to use only be agricultural aerial applicator aircraft (FAR Part 137 operators).
- ▶ *Emergency Medical Services (EMS) Landing Site:* A site used for the landing and taking off of EMS helicopters that is located at or as near as practical to a medical emergency or at or near a medical facility and
  - (1) has been designated an EMS landing site by an officer authorized by a public safety agency, as defined in PUC Section 21662.1, using criteria that the public safety agency has determined is reasonable and prudent for the safe operation of EMS helicopters and
  - (2) is used, over any twelve month period, for no more than an average of six landings per month with a patient or patients on the helicopter, except to allow for adequate medical response to a mass casualty event even if that response causes the site to be used beyond these limits, and
  - (3) is not marked as a permitted heliport as described in Section 3554 of these regulations and
  - (4) is used only for emergency medical purposes.
- ▶ *Heliport on Offshore Oil Platform:* A heliport located on a structure in the ocean, not connected to the shore by pier, bridge, wharf, dock or breakwater, used in the support of petroleum exploration or production.
- ▶ *Personal-Use Airport:* An airport limited to the non-commercial use of an individual owner or family and occasional invited guests.
- ▶ *Public-Use Airport:* An airport that is open for aircraft operations to the general public and is listed in the current edition of the *Airport/Facility Directory* that is published by the National Ocean Service of the U.S. Department of Commerce.
- ▶ *Seaplane Landing Site:* An area of water used, or intended for use, for landing and takeoff of seaplanes.
- ▶ *Special-Use Airport or Heliport:* An airport not open to the general public, access to which is controlled by the owner in support of commercial activities, public service operations, and/or personal use.

- ▶ *Temporary Helicopter Landing Site*: A site, other than an emergency medical service landing site at or near a medical facility, which is used for landing and taking off of helicopters and
  - (1) is used or intended to be used for less than one year, except for recurrent annual events and
  - (2) is not marked or lighted to be distinguishable as a heliport and
  - (3) is not used exclusively for helicopter operations.

**Ambient Noise Level:** The level of noise that is all encompassing within a given environment for which a single source cannot be determined. It is usually a composite of sounds from many and varied sources near to and far from the receiver.

**Approach Protection Easement:** A form of easement that both conveys all of the rights of an aviation easement and sets specified limitations on the type of land uses allowed to be developed on the property.

**Approach Speed:** The recommended speed contained in aircraft manuals used by pilots when making an approach to landing. This speed will vary for different segments of an approach as well as for aircraft weight and configuration. (AIM)

**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. Such uses specifically include runways, taxiways, and their associated protected areas defined by the Federal Aviation Administration, together with aircraft aprons, hangars, fixed base operations, terminal buildings, etc.

**Avigation Easement:** A type of easement that typically conveys the following rights:

- ▶ A right-of-way for free and unobstructed passage of aircraft through the airspace over the property at any altitude above a surface specified in the easement (usually set in accordance with FAR Part 77 criteria).
- ▶ A right to subject the property to noise, vibrations, fumes, dust, and fuel particle emissions associated with normal airport activity.
- ▶ A right to prohibit the erection or growth of any structure, tree, or other object that would enter the acquired airspace.
- ▶ A right-of-entry onto the property, with proper advance notice, for the purpose of removing, marking, or lighting any structure or other object that enters the acquired airspace.
- ▶ A right to prohibit electrical interference, glare, misleading lights, visual impairments, and other hazards to aircraft flight from being created on the property.

**Based Aircraft:** Aircraft stationed at an airport on a long-term basis.

**California Environmental Quality Act (CEQA):** Statutes adopted by the state legislature for the purpose of maintaining a quality environment for the people of the state now and in the future. The Act establishes a process for state and local agency review of projects, as defined in the implementing guidelines that may adversely affect the environment.

**Ceiling:** Height above the earth's surface to the lowest layer of clouds or obscuring phenomena. (AIM)

**Circling Approach/Circle-to-Land Maneuver:** A maneuver initiated by the pilot to align the aircraft with a runway for landing when a straight-in landing from an instrument approach is not possible or not desirable. (AIM)

**Clear Zone:** The military airport equivalent of runway protection zones at civilian airports.

**Combining District:** A zoning district that establishes development standards in areas of special concern over and above the standards applicable to basic underlying zoning districts.

**Commercial Activities:** Airport-related activities that may offer a facility, service or commodity for sale, hire or profit. Examples of commodities for sale are: food, lodging, entertainment, real estate, petroleum products, parts and equipment. Examples of services are: flight training, charter flights, maintenance, aircraft storage, and tiedown. (CCR)

**Commercial Operator:** A person who, for compensation or hire, engages in the carriage by aircraft in air commerce of persons or property, other than as an air carrier. (FAR 1)

**Community Noise Equivalent Level (CNEL):** The noise metric adopted by the State of California for evaluating airport noise. It represents the average daytime noise level during a 24-hour day, adjusted to an equivalent level to account for the lower tolerance of people to noise during evening and nighttime periods relative to the daytime period. (State Airport Noise Standards)

**Compatibility Plan:** As used herein, a plan, usually adopted by an Airport Land Use Commission that sets forth policies for promoting compatibility between airports and the land uses that surround them. Often referred to as a *Comprehensive Land Use Plan (CLUP)*.

**Controlled Airspace:** Any of several types of airspace within which some or all aircraft may be subject to air traffic control. (FAR 1)

**Day-Night Average Sound Level (DNL):** The noise metric adopted by the U.S. Environmental Protection Agency for measurement of environmental noise. It represents the average daytime noise level during a 24-hour day, measured in decibels and adjusted to account for the lower tolerance of people to noise during nighttime periods. The mathematical symbol is  $L_{dn}$ .

**Decibel (dB):** A unit measuring the magnitude of a sound, equal to the logarithm of the ratio of the intensity of the sound to the intensity of an arbitrarily chosen standard sound, specifically a sound just barely audible to an unimpaired human ear. For environmental noise from aircraft and other transportation sources, an *A-weighted sound level* (abbreviated dBA) is normally used. The A-weighting scale adjusts the values of different sound frequencies to approximate the auditory sensitivity of the human ear.

**Deed Notice:** A formal statement added to the legal description of a deed to a property and on any subdivision map. As used in airport land use planning, a deed notice would state that the property is subject to aircraft overflights. Deed notices are used as a form of buyer notification as a means of ensuring that those who are particularly sensitive to aircraft overflights can avoid moving to the affected areas.

**Designated Body:** A local government entity, such as a regional planning agency or a county planning commission, chosen by the county board of supervisors and the selection committee of city mayors to act in the capacity of an airport land use commission.

**Displaced Threshold:** A landing threshold that is located at a point on the runway other than the designated beginning of the runway (see *Threshold*). (AIM)

**Dwelling Unit:** Any building, structure or portion thereof which is occupied as, or designed or intended for occupancy as, a residence by one or more families, and any vacant land which is offered for



sale or lease for the construction or location thereon of any such building, structure, or portion thereof. (HUD)

**Easement:** A less-than-fee-title transfer of real property rights from the property owner to the holder of the easement.

**Equivalent Sound Level ( $L_{eq}$ ):** The level of constant sound that, in the given situation and time period, has the same average sound energy as does a time-varying sound.

**Federal Aviation Regulations (FAR) Part 77:** The part of Federal Aviation Regulations that deals with objects affecting navigable airspace in the vicinity of airports. Objects that exceed the Part 77 height limits constitute airspace obstructions. FAR Part 77 establishes standards for identifying obstructions to navigable airspace, sets forth requirements for notice to the FAA of certain proposed construction or alteration, and provides for aeronautical studies of obstructions to determine their effect on the safe and efficient use of airspace.

**FAR Part 77 Surfaces:** Imaginary airspace surfaces established with relation to each runway of an airport. There are five types of surfaces: (1) primary; (2) approach; (3) transitional; (4) horizontal; and (5) conical.

**Federal Aviation Administration (FAA):** The U.S. government agency that is responsible for ensuring the safe and efficient use of the nation's airports and airspace.

**Federal Aviation Regulations (FAR):** Regulations formally issued by the FAA to regulate air commerce.

**Findings:** Legally relevant subconclusions that expose a government agency's mode of analysis of facts, regulations, and policies, and that bridge the analytical gap between raw data and ultimate decision.

**Fixed Base Operator (FBO):** A business that operates at an airport and provides aircraft services to the general public including, but not limited to, sale of fuel and oil; aircraft sales, rental, maintenance, and repair; parking and tiedown or storage of aircraft; flight training; air taxi/charter operations; and specialty services, such as instrument and avionics maintenance, painting, overhaul, aerial application, aerial photography, aerial hoists, or pipeline patrol.

**General Aviation:** That portion of civil aviation that encompasses all facets of aviation except air carriers. (FAA Stats)

**Glide Slope:** An electronic signal radiated by a component of an ILS to provide vertical guidance for aircraft during approach and landing.

**Global Positioning System (GPS):** A navigational system that utilizes a network of satellites to determine a positional fix almost anywhere on or above the earth. Developed and operated by the U.S. Department of Defense, GPS has been made available to the civilian sector for surface, marine, and aerial navigational use. For aviation purposes, the current form of GPS guidance provides en route aerial navigation and selected types of nonprecision instrument approaches. Eventual application of GPS as the principal system of navigational guidance throughout the world is anticipated.

**Helipad:** A small, designated area, usually with a prepared surface, on a heliport, airport, landing/takeoff area, apron/ramp, or movement area used for takeoff, landing, or parking of helicopters. (AIM)

**Heliport:** A facility used for operating, basing, housing, and maintaining helicopters. (HAI)

**Infill:** Development that takes place on vacant property largely surrounded by existing development, especially development that is similar in character.

**Instrument Approach Procedure:** 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. It is prescribed and approved for a specific airport by competent authority (refer to *Nonprecision Approach Procedure* and *Precision Approach Procedure*). (AIM)

**Instrument Flight Rules (IFR):** Rules governing the procedures for conducting instrument flight. Generally, IFR applies when meteorological conditions with a ceiling below 1,000 feet and visibility less than 3 miles prevail. (AIM)

**Instrument Landing System (ILS):** A precision instrument approach system that normally consists of the following electronic components and visual aids: (1) Localizer; (2) Glide Slope; (3) Outer Marker; (4) Middle Marker; (5) Approach Lights. (AIM)

**Instrument Operation:** An aircraft operation in accordance with an IFR flight plan or an operation where IFR separation between aircraft is provided by a terminal control facility. (FAA ATA)

**Instrument Runway:** A runway equipped with electronic and visual navigation aids for which a precision or nonprecision approach procedure having straight-in landing minimums has been approved. (AIM)

**Inverse Condemnation:** An action brought by a property owner seeking just compensation for land taken for a public use against a government or private entity having the power of eminent domain. It is a remedy peculiar to the property owner and is exercisable by that party where it appears that the taker of the property does not intend to bring eminent domain proceedings.

**Land Use Density:** A measure of the concentration of land use development in an area. Mostly the term is used with respect to residential development and refers to the number of dwelling units per acre. Unless otherwise noted, policies in this compatibility plan refer to *gross* rather than *net* acreage.

**Land Use Intensity:** A measure of the concentration of nonresidential land use development in an area. For the purposes of airport land use planning, the term indicates the number of people per acre attracted by the land use. Unless otherwise noted, policies in this compatibility plan refer to *gross* rather than *net* acreage.

**Large Airplane:** An airplane of more than 12,500 pounds maximum certificated takeoff weight. (Airport Design AC)

**Localizer (LOC):** The component of an ILS that provides course guidance to the runway. (AIM)

**Mean Sea Level (MSL):** An elevation datum given in feet from mean sea level.

**Minimum Descent Altitude (MDA):** The lowest altitude, expressed in feet above mean sea level, to which descent is authorized on final approach or during circle-to-land maneuvering in execution of a standard instrument approach procedure where no electronic glide slope is provided. (FAR 1)

**Missed Approach:** A maneuver conducted by a pilot when an instrument approach cannot be completed to a landing. (AIM)

**National Transportation Safety Board (NTSB):** The U.S. government agency responsible for investigating transportation accidents and incidents.

**Navigational Aid (Navaid):** Any visual or electronic device airborne or on the surface that provides point-to-point guidance information or position data to aircraft in flight. (AIM)

**Noise Contours:** Continuous lines of equal noise level usually drawn around a noise source, such as an airport or highway. The lines are generally drawn in 5-decibel increments so that they resemble elevation contours in topographic maps.

**Noise Level Reduction (NLR):** A measure used to describe the reduction in sound level from environmental noise sources occurring between the outside and the inside of a structure.

**Nonconforming Use:** An existing land use that does not conform to subsequently adopted or amended zoning or other land use development standards.

**Nonprecision Approach Procedure:** A standard instrument approach procedure in which no electronic glide slope is provided. (FAR 1)

**Nonprecision Instrument Runway:** A runway with an approved or planned straight-in instrument approach procedure that has no existing or planned precision instrument approach procedure. (Airport Design AC)

**Obstruction:** Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used therein, the height of which exceed the standards established in Subpart C of Federal Aviation Regulations Part 77, *Objects Affecting Navigable Airspace*.

**Overflight:** Any distinctly visible and/or audible passage of an aircraft in flight, not necessarily directly overhead.

**Overflight Easement:** An easement that describes the right to overfly the property above a specified surface and includes the right to subject the property to noise, vibrations, fumes, and emissions. An overflight easement is used primarily as a form of buyer notification.

**Overflight Zone:** The area(s) where aircraft maneuver to enter or leave the traffic pattern, typically defined by the FAR Part 77 horizontal surface.

**Overlay Zone:** See *Combining District*.

**Planning Area Boundary:** An area surrounding an airport designated by an ALUC for the purpose of airport land use compatibility planning conducted in accordance with provisions of the State Aeronautics Act.

**Precision Approach Procedure:** A standard instrument approach procedure where an electronic glide slope is provided. (FAR 1)

**Precision Instrument Runway:** A runway with an existing or planned precision instrument approach procedure. (Airport Design AC)

**Referral Area:** The area around an airport defined by the planning area boundary adopted by an airport land use commission within which certain land use proposals are to be referred to the commission for review.

**Runway Protection Zone (RPZ):** An area (formerly called a *clear zone*) off the end of a runway used to enhance the protection of people and property on the ground. (Airport Design AC)

**Safety Zone:** For the purpose of airport land use planning, an area near an airport in which land use restrictions are established to protect the safety of the public from potential aircraft accidents.

**Secondary Dwelling Unit:** An attached or a detached residential dwelling unit which provides complete independent living facilities for one or more persons. It shall include permanent provisions for living, sleeping, eating, cooking, and sanitation on the same parcel as the single-family dwelling is situated. (California Department of Housing and Community Development)

**Single-Event Noise:** As used in herein, the noise from an individual aircraft operation or overflight.

**Single Event Noise Exposure Level (SENEL):** A measure, in decibels, of the noise exposure level of a single event, such as an aircraft flyby, measured over the time interval between the initial and final times for which the noise level of the event exceeds a threshold noise level and normalized to a reference duration of one second. SENEL is a noise metric established for use in California by the state Airport Noise Standards and is essentially identical to *Sound Exposure Level (SEL)*.

**Site Approval Permit:** A written approval issued by the California Department of Transportation authorizing construction of an airport in accordance with approved plans, specifications, and conditions. Both public-use and special-use airports require a site approval permit. (CCR)

**Small Airplane:** An airplane of 12,500 pounds or less maximum certificated takeoff weight. (Airport Design AC)

**Sound Exposure Level (SEL):** A time-integrated metric (i.e., continuously summed over a time period) that quantifies the total energy in the A-weighted sound level measured during a transient noise event. The time period for this measurement is generally taken to be that between the moments when the A-weighted sound level is 10 dB below the maximum.

**Straight-In Instrument Approach:** An instrument approach wherein a final approach is begun without first having executed a procedure turn; it is not necessarily completed with a straight-in landing or made to straight-in landing weather minimums. (AIM)

**Structure:** Something that is constructed or erected.

**Taking:** Government appropriation of private land for which compensation must be paid as required by the Fifth Amendment of the U.S. Constitution. It is not essential that there be physical seizure or appropriation for a *taking* to occur, only that the government action directly interferes with or substantially disturbs the owner's right to use and enjoyment of the property.

**Terminal Instrument Procedures (TERPS):** Procedures for instrument approach and departure of aircraft to and from civil and military airports. There are four types of terminal instrument procedures: precision approach, nonprecision approach, circling, and departure.

**Threshold:** The beginning of that portion of the runway usable for landing (also see *Displaced Threshold*). (AIM)

**Touch-and-Go:** An operation by an aircraft that lands and departs on a runway without stopping or exiting the runway. (AIM)

**Traffic Pattern:** The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport. The components of a typical traffic pattern are upwind leg, crosswind leg, downwind leg, base leg, and final approach. (AIM)

**Visual Approach:** An approach where the pilot must use visual reference to the runway for landing under VFR conditions.

**Visual Flight Rules (VFR):** Rules that govern the procedures for conducting flight under visual conditions. VFR applies when meteorological conditions are equal to or greater than the specified minimum—generally, a 1,000-foot ceiling and 3-mile visibility.

**Visual Runway:** 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. (Airport Design AC)

**Zoning:** A police power measure, enacted primarily by units of local government, in which the community is divided into districts or zones within which permitted and special uses are established, as are regulations governing lot size, building bulk, placement, and other development standards. Requirements vary from district to district, but they must be uniform within districts. A zoning ordinance consists of two parts: the text and a map.

## Glossary Sources

**FAR 1:** Federal Aviation Regulations Part 1, Definitions and Abbreviations

**AIM:** Aeronautical Information Manual

**Airport Design AC:** Federal Aviation Administration, *Airport Design* Advisory Circular 150/5300-13

**CCR:** California Code of Regulations, Title 21, Section 3525 et seq., *Division of Aeronautics*

**FAA ATA:** Federal Aviation Administration, *Air Traffic Activity*

**FAA Stats:** Federal Aviation Administration, *Statistical Handbook of Aviation*

**HAI:** Helicopter Association International

**NTSB:** National Transportation and Safety Board

This page intentionally blank

**Stanislaus County Airport Land Use Commission  
Rules and Regulations**

---

THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS  
ACTION AGENDA SUMMARY

DEPT: Planning & Community Development  
Urgent \_\_\_\_\_ Routine X  
CEO Concurs with Recommendation YES \_\_\_\_\_ NO \_\_\_\_\_  
(Information Attached)

BOARD AGENDA # \*D-1  
AGENDA DATE: September 23, 2003  
4/5 Vote Required YES \_\_\_\_\_ NO X

**SUBJECT:**

APPROVAL OF RULES AND REGULATIONS FOR THE STANISLAUS COUNTY AIRPORT LAND USE COMMISSION

**STAFF RECOMMENDATIONS:**

APPROVAL OF RULES AND REGULATIONS FOR THE STANISLAUS COUNTY AIRPORT LAND USE COMMISSION

**FISCAL IMPACT:**

None.

**BOARD ACTION AS FOLLOWS:**

No. 2003-871

On motion of Supervisor Paul, Seconded by Supervisor Caruso  
and approved by the following vote,  
Ayes: Supervisors: Paul, Mayfield, Grover, Caruso, and Chairman Simon  
Noes: Supervisors: None  
Excused or Absent: Supervisors: None  
Abstaining: Supervisor: None

- 1) X Approved as recommended
- 2) \_\_\_\_\_ Denied
- 3) \_\_\_\_\_ Approved as amended
- 4) \_\_\_\_\_ Other:

MOTION:

Christine Ferraro  
CHRISTINE FERRARO TALLMAN, Clerk

ATTEST:

File No. **BD-77-2**



**SUBJECT:** APPROVAL OF RULES AND REGULATIONS FOR THE STANISLAUS COUNTY AIRPORT  
LAND USE COMMISSION

PAGE 2

**DISCUSSION:** The Stanislaus County Airport Land Use Commission was first established on December 1, 1970, by resolution of the Board of Supervisors. In January 1988, SB 633 (Rogers) required that all airport land use commissions have at least two members with expertise in aviation by way of education, training, business, experience, vocation or avocation. The purpose of an airport land use commission is to safeguard the general welfare of the people living, working and recreating in areas surrounding public airports through the adoption and implementation of a comprehensive land use compatibility plan. Implementation requires review and findings for new development projects to determine consistency with the adopted compatibility plan.

To ensure that meetings of the Stanislaus County Airport Land Use Commission (ALUC) are held, conducted and recorded in an efficient manner, staff prepared draft rules and regulations that were considered by the Commission. These rules and regulations are modeled after those adopted by the Stanislaus County Planning Commission. The rules and regulations identify the 11-member ALUC as the nine-member Planning Commission and two members with aviation experience. The aviation experts are appointed by the Board of Supervisors based on the recommendation of the airport managers for airports that fall under the jurisdiction of the ALUC. The Chair and Vice-Chair are to be elected annually from among the Commission's membership. Meetings are held quarterly, but may be held more frequently as necessary to review local plans and projects or may be cancelled for lack of agenda items. The rules and regulations lay out the general order of business and establish meeting procedures for public hearings and public testimony. For voting purposes, a quorum will consist of six (6) members of the Commission.

The Airport Land Use Commission reviewed the attached draft Rules and Regulations at their regular meeting on August 21, 2003, after a noticed public hearing. No comments were received during the public hearing. The Commission unanimously recommended approval by the Board of Supervisors.

**POLICY  
ISSUES:** None.

**STAFFING  
IMPACT:** None.

**ATTACHMENTS:** Exhibit 1: Draft Stanislaus County Airport Land Use Commission Rules and Regulations  
Exhibit 2: Airport Land Use Commission Minutes, August 21, 2003

**STANISLAUS COUNTY AIRPORT LAND USE COMMISSION**  
**RULES AND REGULATIONS**

**ARTICLE 1 - FUNCTIONS AND DUTIES**

The Stanislaus County Airport Land Use Commission, referred to hereafter as the "Commission," functions pursuant to the California Public Utilities Code Section 21670 (et.seq.). The following articles shall govern all proceedings of the Commission.

**ARTICLE 2: MEMBERSHIP, OFFICERS, ORGANIZATION, AND ATTENDANCE**

Section 1 - Membership: The Commission shall consist of eleven (11) members appointed by the Board of Supervisors. The membership shall consist of the nine (9) member Planning Commission and two (2) additional members with aviation experience appointed by the Board of Supervisors based on the recommendations of the airport managers of airports designated in the Stanislaus County Airport Land Use Commission Plan.

Section 2 - Term of Office: Commissioners are appointed to four (4) year terms and serve at the pleasure of the Board of Supervisors. A Commissioner may serve up to two (2) consecutive four year terms.

Section 3 - Officers:

- (a) Selection. A Chair and Vice-Chair shall be elected annually from among the Commission's membership at the first meeting of the calendar year.

- (b) Succession. The Vice-Chair shall succeed the Chair if the Chair vacates the office before completion of the term and shall serve the remainder of the unexpired term. A new Vice-Chair shall be elected at the next regular meeting to fill the balance of the Vice-Chair term.
- (c) Chair and Vice-Chair Absent. In the absence of the Chair and Vice-Chair, any member may call the Commission to order, and a Chair pro tem shall be elected from the members present and shall assume the responsibilities of the Chair.
- (d) Consecutive Year. A member shall not serve as Chair for more than one consecutive year or Vice-Chair for more than one consecutive year.
- (e) Chair's Responsibilities. The responsibilities and powers of the Chair shall be as follows:
- (1) Preside at all meetings of the Commission and rule on all questions of order.
  - (2) Call special meetings of the Commission in accordance with legal requirements and the Rules of Procedure.
  - (3) Sign documents on behalf of the Commission.
  - (4) Appoint all subcommittees of the Commission.
  - (5) Direct appropriate action on items raised that are not listed on the Commission agenda.

Section 4 - Vice-Chair Responsibilities: In the absence of the Chair, or when the Chair is disqualified from participation or voting, the Vice-Chair shall assume the responsibilities of the Chair.

Section 5 - Secretary: The Stanislaus County Director of Planning and Community Development or a designated member of the Planning staff, shall function as the Secretary of the Commission. The Secretary shall notify Commission members of meetings, present the reports and recommendations of the Commission's staff, enter into the minutes all official actions or decisions of the Commission, keep the official records of the Commission, transmit the findings of the Commission to the Board of Supervisors, and perform such other duties as the Commission may require.

Section 6 - Advisory Staff: County Counsel, or their designated staff, serve as advisory staff to the Commission.

Section 7 - Standing Committees: The Commission may establish whatever standing committees it deems appropriate for the conduct of its business. The Chair shall appoint and replace the members of each standing committee.

Section 8 - Special Committees: The Commission may establish whatever special committees it deems appropriate for the conduct of its business. The Chair shall appoint and replace the members of each special committee.

Section 9 - Attendance: Any member who misses three consecutive regular meetings without a valid excuse, approved by the Commission, is subject to removal from the Commission by the Board of Supervisors.

## **ARTICLE 3 - MEETINGS**

Section 1 - Conduct of Meetings: Except as herein or otherwise provided, Robert's Rules of Order, Revised shall govern all proceedings of the Commission.

Section 2 - Regular Meetings: The Commission shall hold regular, quarterly meetings. Special meetings may be necessary to address specific land use issues. The meeting shall start at approximately 6:05 p.m. The Commission agenda shall state the location of the meeting. Any regular meeting may be adjourned from time to time.

Section 3 - No meeting on Holidays: Whenever a regular meeting falls on a public holiday, no regular meeting shall be held on that day. Such regular meeting may be rescheduled to another business day, or canceled at the direction of the Chair.

Section 4 - Adjourned Meetings: In the event it is the wish of the Commission to adjourn its regular meeting to a certain hour on a day, other than a regularly scheduled meeting, a specific date, time and place must be set by the Commission prior to the regular motion to adjourn.

Section 5 - Special Meetings: The Chair may call special meetings as necessary, providing that each member of the Commission, and each newspaper, television station, and other news media which so requests in writing, is notified at least twenty-four (24) hours before the meeting.

Section 6 - Study Sessions and Workshops: The Chair may convene the Commission as a whole or as a committee of the whole, for the purpose of holding a study session provided that no official action shall be taken and no quorum shall be required. Such meetings shall be open

to the public; but, unless the Commission invites evidence or comments to be given, participation by interested members of the public shall not take place at such study sessions.

Section 7 - Cancellation of Meetings: The Chair may cancel any regular or special meeting of the Commission if it is determined there is no significant business to be conducted. However, the Commission shall hold at least one (1) meeting each year.

#### **ARTICLE 4 - AGENDAS, ORDER OF BUSINESS**

Section 1 - Agendas: An agenda for each meeting of the Commission shall be prepared by the Secretary or assigned staff.

Section 2 - Agenda - Order of Business: Unless the Secretary determines otherwise, the following sequence shall be used in the preparation of agendas:

- I. Roll Call (silent)
- II. Pledge of Allegiance
- III. Minutes of Previous Meeting(s)
- IV. Correspondence - Included in agenda packet and received after packet has been distributed.
- V. Conflict of Interest Declarations
- VI. Public Hearings - Consent Items - Non Consent Items
- VII. Other Matters
- VIII. Citizen's Forum
- IX. Report of the Secretary

X. Additional Matters at the Discretion of the Chair

XI. Adjournment

The order of business may be altered at the discretion of the Chair.

Section 3 - Requests for Continuance. If a request is made for continuance, a motion may be made and voted upon to continue the public hearing to a definite time and date or to continue indefinitely. A motion may also be made and voted on to place the item anywhere under the "Public Hearing Items" heading on the agenda. Any person desiring to be heard on the item may be given an opportunity to make a presentation.

Section 4 - Public Hearings - Consent Items: Those applications or items which are determined by the Secretary to be consistent with all regulations and requirements and have not generated any controversy may be placed on the consent item calendar. At the hearing, the Chair shall identify each individual item on this calendar and indicate the Commission's intent to approve all items, with findings noted in the Staff Report, unless a Commissioner or member of the audience wishes a discussion of a particular item. For those items where no one wishes a discussion, a motion to approve is in order. Any item that has been requested for further discussion shall be removed from the consent portion of the calendar and placed on the non-consent portion of the calendar. A full public hearing shall be conducted on the item.

Section 5 - Public Hearings - Non-Consent Items: The Chair shall announce, open, request the Secretary's report and preside over each public hearing conducted by the Commission.

^

Section 6 - Secretary's Report: The Secretary or designated staff shall present a report on each application for which a public hearing is conducted. The report shall include the name and address of the lead agency or applicant, location of the project, any correspondence or other communication concerning the proposal, and any information which the Commission's staff feels is pertinent. The report may include a staff recommendation. The Commission may ask technical questions of staff or advisory staff.

Section 7 - Oral Public Testimony: Upon the completion of the Secretary's report, the Chair shall invite proponents and opponents of the proposal under consideration to address the Commission. The Chair shall recognize speakers and determine the order in which they address the Commission.

Section 8 - Conduct of Speakers: Each speaker shall be required to approach the microphone and give their name and address. The speaker may then proceed to offer information. However, speakers will be limited to the item under consideration and irrelevant and off-the-subject comments may be ruled out of order by the Commission. The Chair will not tolerate any complaints regarding individual Commissioners or the staff or any remarks of a personal nature during a public hearing. All comments shall be addressed to the Commission.

Section 9 - Time Limits for Testimony: In the event that a large number of speakers wish to address the Commission, the Chair may limit the amount of time afforded to each speaker to five (5) minutes. In addition, the Chair may foreclose any testimony which presents evidence which is repetitious, incompetent, irrelevant, immaterial, which constitute offensive or inappropriate language or remarks of a personal nature.



Section 10 - Written Testimony: The Commission's policy is to encourage the early submission of all written material to allow sufficient time to comprehend the material. In order to be included in the Commissioner's agenda packet, written material should be presented to the Planning and Community Development Department not later than ten (10) days prior to the scheduled Commission meeting. Written material received after the agenda has been mailed to the Commission may be presented to them at the scheduled meeting by the Secretary.

Section 11 - Documentary Evidence: Any documents, writings, pictures, exhibits, video tapes or other forms of tangible expression once submitted to the Commission shall become the property of the Commission and part of the public record.

Section 12 - Closing of Public Hearing: The Chair shall close the public hearing when it is determined that all solicited testimony has been received. Subsequently, at the discretion of the Chair, comments may be made by persons in the audience if any matter not previously discussed is introduced into the hearing or if clarification is necessary.

Section 13 - Discussion and Decision by the Commission: After the public hearing has been closed, the members of the Commission shall discuss the evidence presented and reach a decision on the proposal under consideration. The proposal may be continued to a future meeting if the Commission determines that additional information is required or additional time is necessary to consider oral and written testimony.

Section 14 - Voting Requirements:

- (1) A quorum shall consist of six (6) members. In the absence of a quorum, the members present shall constitute a committee of the Commission and shall make a report of their action at the next succeeding meeting at which a quorum is present. The actions of the committee shall become effective when ratified by the members of the Commission at such succeeding meeting.
- (2) A majority vote is required for the Commission to take action unless otherwise required by state law.
- (3) In the case of a tie vote or where less than a majority vote is cast on a motion, the motion fails and a new motion is in order. If an alternative action is not possible, the proposal shall be considered denied.
- (4) Commissioners shall not vote on a motion unless they have been present during the entire hearing on the issue or have listened to the tape recording of that portion of the hearing presented in their absence.
- (5) When a member of the Commission abstains from voting on any matter before it because of a potential conflict of interest, said abstention shall not constitute nor be considered as either a vote in favor of or opposition to the matter being considered.

Section 15 - Disqualification from Voting: Commissioners shall disqualify themselves from voting in accordance with the Stanislaus County Airport Land Use Commission Conflict of Interest Code and all applicable laws and regulations. When Commissioners disqualify themselves, they shall state prior to the consideration of such matter by the Commission that they are disqualifying themselves due to a possible conflict of interest and shall then step down from the dais.

Section 16 - Prohibition of New Items After 11:00 p.m. No new item will be started after 11:00 p.m. or discussed after 12:30 a.m. unless the rule is suspended by a majority of the Commission present.

Section 17 - Records of Meetings: Commission public hearings shall be recorded by mechanical means. When a request is made in writing for a stenographic record of a public hearing, the record shall be prepared and made available to the requesting party at cost. An advance deposit in the amount necessary for duplication will be required from the requesting party.

I:\WHITMORE\ALUC\Administration\Rules & Regs\rul-reg draft.wpd

- \*A. **AIRPORT LAND USE COMMISSION RULES AND REGULATIONS**  
Staff report: Ron E. Freitas, Director of Planning and Community Development ,  
Recommends **APPROVAL TO THE BOARD OF SUPERVISORS.**  
Public hearing opened.  
**OPPOSITION:** No one spoke.  
**FAVOR:** No one spoke.  
Public hearing closed.  
A. Souza/R. Souza, Unanimous (7-0), **RECOMMEND APPROVAL TO THE BOARD  
OF SUPERVISORS.**

<p style="text-align: center;"><b>EXCERPT</b></p> <p style="text-align: center;"><b>AIRPORT LAND USE</b></p> <p style="text-align: center;"><b>COMMISSION</b></p> <p style="text-align: center;"><b>MINUTES</b></p> <p style="text-align: center;"></p> <hr/> <p style="text-align: center;">Secretary, Airport Land Use Commission</p> <p style="text-align: center;"></p> <hr/> <p style="text-align: center;">Date</p>
---