Modesto City-County Airport

Oakdale Municipal Airport

Crows Landing Airport

STANISLAUS COUNTY AIRPORT LAND USE COMPATIBILITY PLAN

Stanislaus County
Striving to be the Best

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Prepared for

Stanislaus County
Airport Land Use Commission

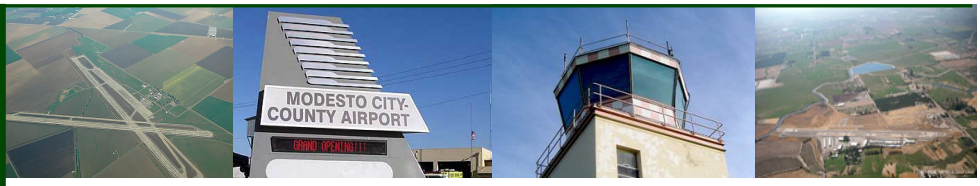
EXHIBIT B

Table of Contents

Chapter 2, continued

Chapter 4, continued

Appendices



Chapter 1

INTRODUCTION

Stanislaus County
Striving to be the Best

1

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 former Crows Landing Air Facility. 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).

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 (forthcoming) (see Map 1-1). The Patterson Airport has closed, and the Turlock Airpark is in the process of being sold for non-aeronautical use.[1] Safety inspectors from the Caltrans Division of Aeronautics report that the Airport Operating permit associated with Turlock Airpark is no longer valid.[2]

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

[1] 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.

[2] 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 a 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 formers 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. Following appropriate review of the proposed airport layout plan and accompanying ALUCP pursuant to the California Environmental Quality Act (CEQA), 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 ALUCP will be amended to include the Crows Landing General Aviation Airport following the certification of the associated CEQA document and approval by the County Board of Supervisors. Until that time, the airport-specific ALUCP policies associated with the Crows Landing Air Facility set forth in the County's 2004 ALUCP shall remain in place.

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) will be

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.

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.

Chapters 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 and Oakdale Municipal. The individual policies associated with the Crows Landing Airport, which will comprise Chapter 6, will not be presented at this time; specific policies for the Crows Landing Airport included following a separate CEQA process for the proposed Airport Layout Plan and its airport-specific ALUCP policies.

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.

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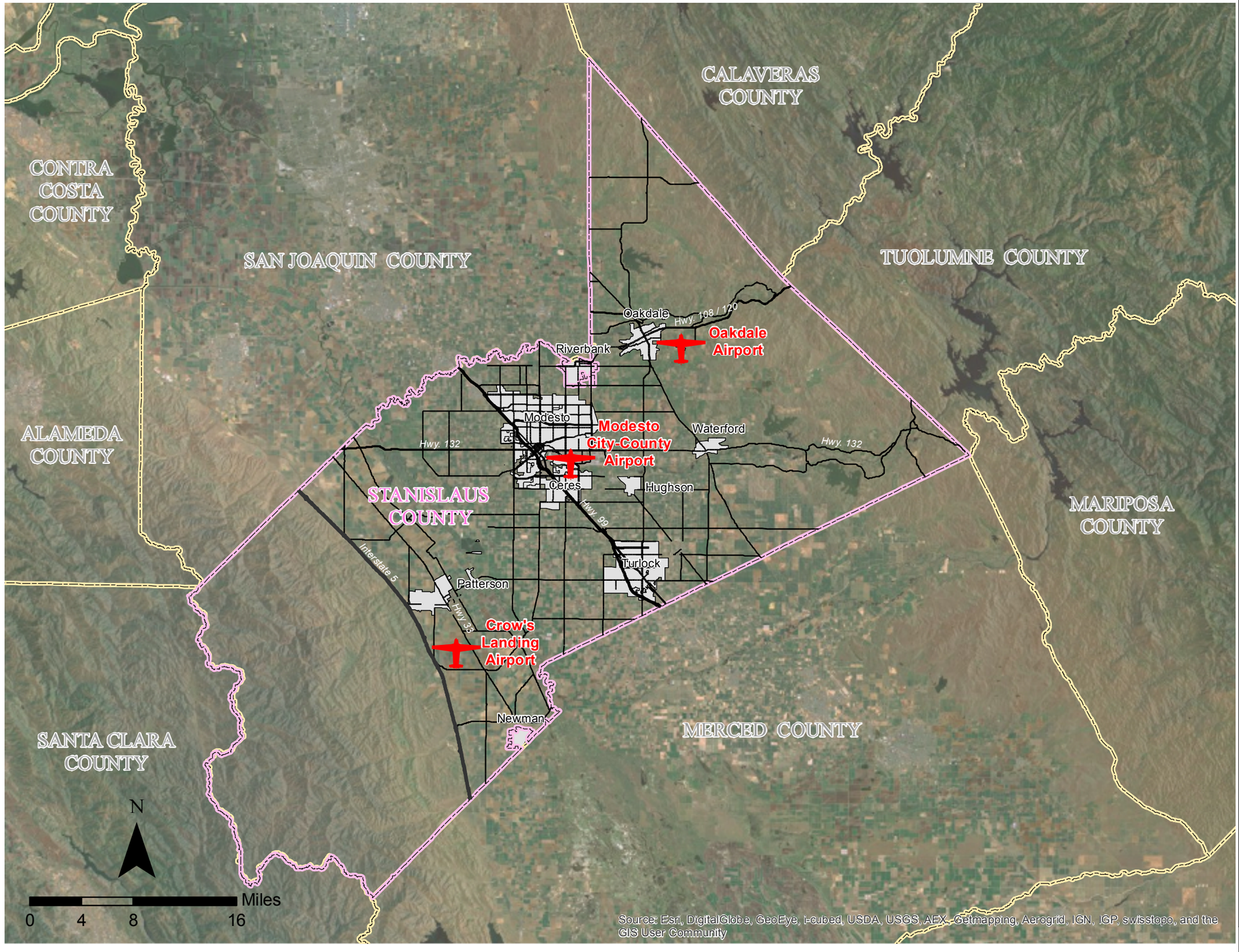


Legend

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

Stanislaus County

Airport Land Use Compatibility Plans

(January 2014, Draft)

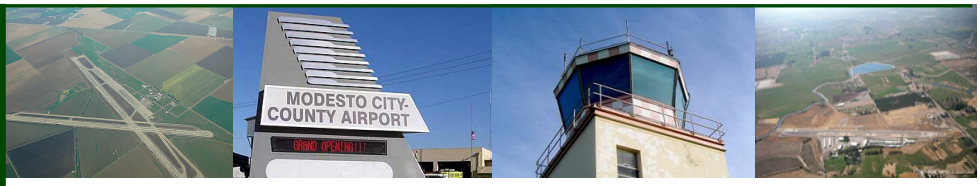
Map 1-1

Airport Locations

Stanislaus County

Mead&Hunt

Sources: City and County GIS Data (2009)



Chapter **2**

POLICIES

2

Policies

1. General Applicability

1.1. Purpose and Use

1.1.1. *Airport Land Use Commission:* Stanislaus County Airport Land Use Commission (ALUC) is formed and operates in accordance with the requirements of California State Law. The Stanislaus County Planning Commission plus two additional members with aviation expertise, comprise the ALUC which is designated to serve Stanislaus County.

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 Aernautics. This ALUCP will be amended to include site-specific data pertaining to the Crows Landing Airport upon permit receipt.

(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 and Oakdale Municipal airorts (Crows Landing Airport policies and maps will be added at a later date). 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 to 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) 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 or Oakdale Municipal Airport.

(6) 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*.[1]

(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*.[2]

(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.

(3) Refer proposed *Land Use Actions* for review by the ALUC as specified by Policies 1.5.1 and 1.5.2 herein.

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[1] 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 Aeronautic be utilized as a technical resource.

[2] 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.

(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 1.5.5). 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 - [date to be inserted].

(2) Oakdale Municipal Airport - [date to be inserted].

(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 1.4.4) 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** and **OAK-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 *Airpor*t.

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** and **OAK-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. *Overrule:* 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[3] or, under conditions specified in Section 1.5.24, a *Major Land Use Action*[4] 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).

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.

[3] Public Utilities Code Sections 21676(a), (b), and (c).
[4] 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** and **OAK-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.[5] 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).[6]

(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*.[7] 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:

[5] This is an explicit limitation of state law under Public Utilities Code Section 21674(e).
[6] See Public Utilities Code Sections 21676(c) and 21664.5.
[7] 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*:[8]

(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.[9]

[8] Public Utilities Code Section 21676(b).

[9] 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.[10]

(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.

[10] 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 proposed 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.[11]

(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.[12]

(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.

[11] Public Utilities Code Section 21676(c).
[12] 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.[13]

(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

[13] 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.[14]

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.[15]

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

[14] In accordance with Public Utilities Code Section 21675.2(d).
[15] 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[16] 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.[17]

(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.

[16] Government Code Section 65302.3.
[17] 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.[18]

(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.

[18] 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.[19]

(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

[19] 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.[20]

(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.

[20] 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 conmpatibility maps (MOD-2 and OAK-2) were developed for each airport based upon the existing and project aircraft fleet mix and number of opertations 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* is 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, portions of new residential lots are allowed as long as the dwelling unit site is not situated within zone boundaries.

(3) Within Safety Zones 3 and 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).

(4) Within Safety Zone 5, new Residential Development shall be prohibited.

(5) 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.[21]

(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.

(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

[21] 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).

- 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.

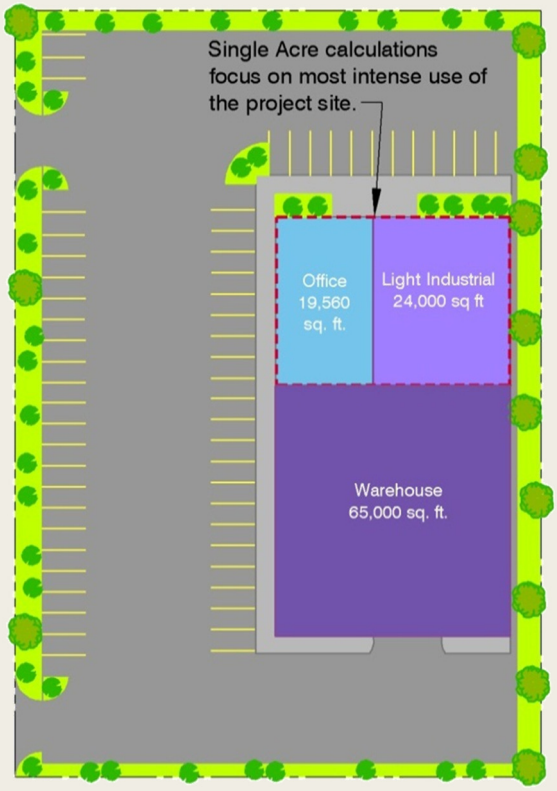


Table 2 Safety Criteria Data

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: $\frac{19{,}560 \text{ s.f}}{215 \text{ s.f. per person}} = 91$ people

L-industrial: $\frac{24{,}000 \text{ s.f.}}{350 \text{ s.f. per person}} = 69$ people

Warehouse: $\frac{65{,}000 \text{ s.f.}}{1{,}000 \text{ s.f. per person}} = 65$ 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*

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

Single-Acre Intensity

$\frac{\text{Total people}}{\text{Single-Acre}} = \frac{91 + 69 \text{ people}}{1 \text{ acre}} = 160$ 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.[22] 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

[22] 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 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 facilitie.
- 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 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 inclueing 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 3.3.9, new residential and *Nonresidential Development* 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 as shown in **Table 2**.

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.

(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

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: 50,000 s.f. / 170 s.f. per person = 294 people

Restaurant: 50% of 18,000 s.f. / 60 s.f. per person = 150 people

Office: 50% of 24,000 s.f. / 215 s.f. per person = 56 people

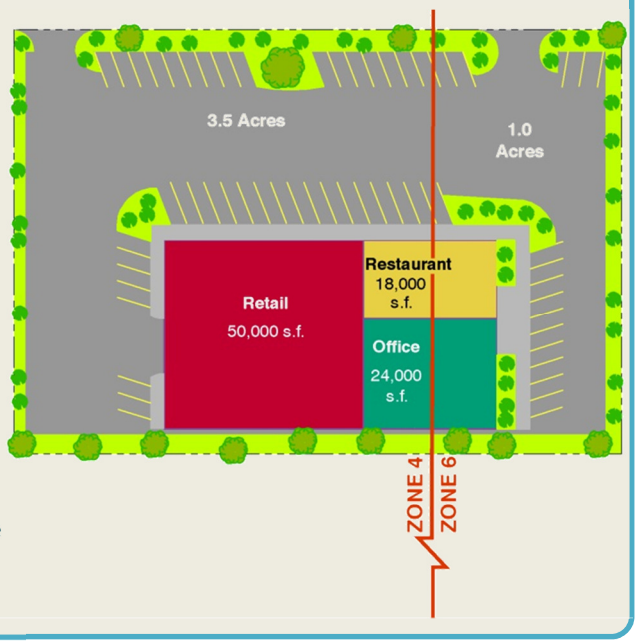
Total Occupancy = 500 people

Intensity: 500 people / 3.5 acres = 143 people/acre*

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

Safety Zone 6

All proposed uses are normally compatible.



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. *Airpspace 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*.[23]

(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:

[23] 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.[24]

(4) An *Avigation 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 agriculatural uses that attract large flocks of birds which pose hazards to aircraft operations.[25]

(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.[26] The following is *ALUC* policy on this topic.

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

[25] 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."

[26] 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 i*n 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."[27] *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 **Maps MOD-5** and **OAK-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*.

[27] 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** and **OAK-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** and **OAK-2**.
- All locations within Safety Zones 1 through 5 as depicted on **Maps MOD-3** and **OAK-3**.
- All locations within the *Critical Airspace Protection Zone* as depicted on **Maps MOD-4** and **OAK-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.[28]

(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*.

[28] 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:[29]

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*.[30]

(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.

[29] See Chapter 1 and **Appendix G** for additional guidance.
[30] 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*.

(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, *Avigation 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 › Multiple land use categories and compatibility criteria may apply to a project › Land uses not specifically listed shall be evaluated using the criteria for similar uses	**Exterior Noise Exposure** [1] **(CNEL dB)**					**Criteria for Conditional Uses** › Interior noise level limits shown in yellow cells also apply *(see Policy 3.2.3)* › 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))*
	≤ 55	**55-60**	**60-65**	**65-70**	**≥ 70**	
Legend *(see last page of table for interpretation)*	***Normally Compatible***			***Conditional***		***Incompatible***
Outdoor Uses (limited or no activities in buildings)						
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 [2]
Outdoor Major Assembly Facilities (capacity ≥1,000 people): spectator-oriented outdoor stadiums, amphitheaters, fairgrounds, zoos						Exercise caution if clear audibility by users is essential [3]
Group Recreation (limited spectator stands): athletic fields, water recreation facilities, picnic areas						Exercise caution if clear audibility by users is essential [3]
Small/Non-Group Recreation: golf courses, tennis courts, shooting ranges						Exercise caution if clear audibility by users is essential [3]
Local Parks: children-oriented neighborhood parks, playgrounds						Exercise caution if clear audibility by users is essential [3]
Camping: campgrounds, recreational vehicle/motor home parks						
Cemeteries (excluding chapels)						Compatible at levels indicated, but noise disruption of outdoor activities will occur
Residential and Lodging Uses						
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**				
Educational and Institutional Uses						
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 › Multiple land use categories and compatibility criteria may apply to a project › Land uses not specifically listed shall be evaluated using the criteria for similar uses	**Exterior Noise Exposure** [1] **(CNEL dB)**					**Criteria for Conditional Uses** › Interior noise level limits shown in yellow cells also apply *(see Policy 3.2.3)* › 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))*
	≤ 55	**55-60**	**60-65**	**65-70**	**≥ 70**	
Legend *(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		
Commercial, Office, and Service Uses						
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 › Multiple land use categories and compatibility criteria may apply to a project › Land uses not specifically listed shall be evaluated using the criteria for similar uses	**Exterior Noise Exposure** [1] **(CNEL dB)**					**Criteria for Conditional Uses** › Interior noise level limits shown in yellow cells also apply *(see Policy 3.2.3)* › 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))*
	≤ 55	**55-60**	**60-65**	**65-70**	**≥ 70**	
Legend *(see last page of table for interpretation)*	***Normally Compatible***			***Conditional***		***Incompatible***
Industrial, Manufacturing, and Storage Uses						
Hazardous Materials Production: oil refineries, chemical plants				**50**	**50**	Noise attenuation required for office areas *See Policy 3.2.3*
Heavy Industrial				**50**	**50**	Noise attenuation required for office areas *See Policy 3.2.3*
Light Industrial, High Intensity: food products preparation, electronic equipment				**50**	**50**	Noise attenuation required for office areas *See Policy 3.2.3*
Light Industrial, Low Intensity: machine shops, wood products, auto repair				**50**	**50**	Noise attenuation required for office areas *See Policy 3.2.3*
Research & Development				**50**		Noise attenuation required for office areas *See Policy 3.2.3*
Indoor Storage: wholesale sales, warehouses, mini/other indoor storage, barns, greenhouses						
Outdoor Storage: public works yards, automobile dismantling						
Mining & Extraction						
Transportation, Communication, and Utilities						
Rail & Bus Stations					**50**	Noise attenuation required for public and office areas *See Policy 3.2.3*
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
	Normally Compatible	*Indoor Uses:* 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. *Outdoor Uses:* Except as noted in the table, activities associated with the land use may be carried out with minimal interference from aircraft noise.
	Conditional	*Indoor Uses:* 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 *Policy 4.2.3*. *Outdoor Uses:* 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.[2]
	Incompatible	*Indoor Uses:* 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. *Outdoor Uses:* Severe noise interference makes the outdoor environment unacceptable for performance of activities associated with the land use.

Notes

[1] 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 *Compatibility Plan*.

[2] This caution is directed at the project proponent and is not intended to preclude approval of the project.

[3] 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 *Policy 1.2.26* for examples of noise-sensitive uses.

Table 1, continued

Land Use Category › Multiple land use categories and compatibility criteria may apply to a project › Land uses not specifically listed shall be evaluated using the criteria for similar uses › Numbers in brackets for some uses are occupancy load factors [1]	**Safety Zone**						**Criteria for Conditional Uses** › Numbers below indicate zone in which condition applies › Nonresidential development must satisfy both forms of intensity limits *(see Policy 3.3.3)* › Up to 10% of total floor area may be devoted to ancillary use *(see Policy 3.3.3(d))* › See *Policy 3.3.4* for information on how to calculate nonresidential intensity › Maximum Intensity criteria apply to Normally Compatible as well as Conditional land uses
	1	**2**	**3**	**4**	**5**	**6**	
Max. Sitewide Average Intensity (people/acre) **Max. Single-Acre Intensity (people/acre)** *applicable to all nonresidential development*	**10** **20** [2]	**60** **120**	**100** **300**	**150** **450**	**100** **300**	**300** **1000**	
Legend *(see last page of table for interpretation)*	***Normally Compatible***				***Conditional***		***Incompatible***
Outdoor Uses (limited or no activities in buildings)							
Natural Land Areas: woods, brush lands, desert							1: Objects above runway elevation not allowed in Object Free Area (OFA) [3] All: Also see Airspace Protection Policy 3.4.3 regarding wildlife hazards to flight
Water: flood plains, wetlands, lakes, reservoirs [4]							1: Objects above runway elevation not allowed in Object Free Area (OFA) [3] 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							1: Not allowed in Object Free Area (OFA) [3] All: Also see Airspace Protection Policy 3.4.3 regarding wildlife hazards to flight
Livestock Uses: feed lots, stockyards, breeding, fish hatcheries, horse stables [4]							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 [5]							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							3, 4: Allowed only if alternative site outside zone would not serve intended function
Small/Non-Group Recreation: golf courses,[4] tennis courts, shooting ranges							2: Allowed only if alternative site outside zone would not serve intended function and intensity criteria met
Local Parks: children-oriented neighborhood parks, playgrounds							
Camping: campgrounds, recreational vehicle/ motor home parks							3, 4: Allowed only if intensity criteria met
Cemeteries (except chapels)							
Residential and Lodging Uses							
Single-Family Residential (<8 d.u./acre): individual dwellings, townhouses, mobile homes, bed & breakfast inns [6]							2: Acceptable only if dwelling site is not within of zone boundaries 3, 4: Incompatible at density >1 d.u./5.0 acres sitewide average or >2.0 d.u. per any single acre *See Policy 3.3.2*
Multi-Family Residential (≥8 d.u./acre): condominiums, apartments, agricultural-related housing [6]							
Long-Term Lodging (>30 nights): extended-stay hotels, dormitories							

Table 2

Safety Compatibility Criteria

Modesto City-County Airport, Oakdale Municipal Airport

Land Use Category › Multiple land use categories and compatibility criteria may apply to a project › Land uses not specifically listed shall be evaluated using the criteria for similar uses › Numbers in brackets for some uses are occupancy load factors [1]	**Safety Zone**						**Criteria for Conditional Uses** › Numbers below indicate zone in which condition applies › Nonresidential development must satisfy both forms of intensity limits *(see Policy 3.3.3)* › Up to 10% of total floor area may be devoted to ancillary use *(see Policy 3.3.3(d))* › See *Policy 3.3.4* for information on how to calculate nonresidential intensity › Maximum Intensity criteria apply to Normally Compatible as well as Conditional land uses
	1	**2**	**3**	**4**	**5**	**6**	
Max. Sitewide Average Intensity (people/acre) **Max. Single-Acre Intensity (people/acre)** *applicable to all nonresidential development*	**10** **20** [2]	**60** **120**	**100** **300**	**150** **450**	**100** **300**	**300** **1000**	
Legend *(see last page of table for interpretation)*	***Normally Compatible***				***Conditional***		***Incompatible***
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 [7]							
Educational and Institutional Uses							
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 [7]							3, 4: No new sites or land acquisition 6: No new sites or land acquisition within ½ mile of runway 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
Indoor Major Assembly Facilities (capacity ≥1,000 people): auditoriums, conference centers, concert halls, indoor arenas [4]							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 [4] [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 [7]							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

Table 2, continued

Land Use Category › Multiple land use categories and compatibility criteria may apply to a project › Land uses not specifically listed shall be evaluated using the criteria for similar uses › Numbers in brackets for some uses are occupancy load factors [1]	**Safety Zone** 1	2	3	4	5	6	**Criteria for Conditional Uses** › Numbers below indicate zone in which condition applies › Nonresidential development must satisfy both forms of intensity limits *(see Policy 3.3.3)* › Up to 10% of total floor area may be devoted to ancillary use *(see Policy 3.3.3(d))* › See *Policy 3.3.4* for information on how to calculate nonresidential intensity › Maximum Intensity criteria apply to Normally Compatible as well as Conditional land uses
Max. Sitewide Average Intensity (people/acre) **Max. Single-Acre Intensity (people/acre)** *applicable to all nonresidential development*	**10** **20** [2]	**60** **120**	**100** **300**	**150** **450**	**100** **300**	**300** **1000**	
Legend *(see last page of table for interpretation)*	***Normally Compatible***				***Conditional***		***Incompatible***
Penal Institutions: prisons, reformatories [7]							
Public Safety Facilities: police, fire stations [7]							3, 4: Allowed only if alternative site outside zone would not serve intended public function 5: Allowed only if airport serving
Commercial, Office, and Service Use							
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
Personal & Miscellaneous Services: barbers, car washes, print shops [approx. 200 s.f./perso							2-5: Ensure intensity criteria met
Vehicle Fueling: gas stations, trucking & transportation terminals							5: Allowed only if airport serving
Industrial, Manufacturing, and Storage Uses							
Hazardous Materials Production: oil refineries, chemical plants [7]							6: Allowed only if alternative site outside zone would not serve intended function
Heavy Industrial [7]							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

Table 2, continued

Land Use Category › Multiple land use categories and compatibility criteria may apply to a project › Land uses not specifically listed shall be evaluated using the criteria for similar uses › Numbers in brackets for some uses are occupancy load factors [1]	**Safety Zone** 1	2	3	4	5	6	**Criteria for Conditional Uses** › Numbers below indicate zone in which condition applies › Nonresidential development must satisfy both forms of intensity limits *(see Policy 3.3.3)* › Up to 10% of total floor area may be devoted to ancillary use *(see Policy 3.3.3(d))* › See *Policy 3.3.4* for information on how to calculate nonresidential intensity › Maximum Intensity criteria apply to Normally Compatible as well as Conditional land uses
Max. Sitewide Average Intensity (people/acre) **Max. Single-Acre Intensity (people/acre)** *applicable to all nonresidential development*	**10** **20** [2]	**60** **120**	**100** **300**	**150** **450**	**100** **300**	**300** **1000**	
Legend *(see last page of table for interpretation)*	***Normally Compatible***				***Conditional***		***Incompatible***
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 [8]							2: Allowed only if intensity criteria met
Transportation, Communication, and Utilities							
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) [2]
Auto Parking: surface lots, structures							1: Not allowed in Object Free Area (OFA) [2]
Communications Facilities: emergency communications, broadcast & cell towers [7, 9]							3-5: Allowed only if alternative site outside zone would not serve intended public function; not allowed within ½ of runway 6: Not allowed within ½ mile of runway
Power Plants [7, 9]							
Electrical Substations [7]							2, 5: Allowed only if alternative site outside zone would not serve intended public function
Wastewater Facilities: treatment, disposal [7]							2, 5: Allowed only if alternative site outside zone would not serve intended public function
Solid Waste Disposal Facilities: landfill, incineration [4]							2: Allowed only if alternative site outside zone would not serve intended public function
Solid Waste Transfer Facilities, Recycle Centers [3]							

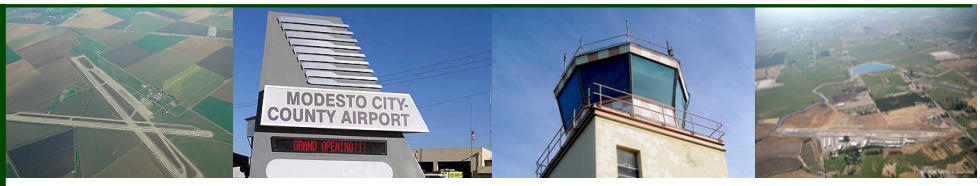
Table 2, continued

Land Use Acceptability		Interpretation/Comments
	Normally Compatible	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.
	Conditional	Use is compatible if indicated conditions are met.
	Incompatible	Use should not be permitted under any circumstances.

Notes

1 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.
2 No new structures intended to be regularly occupied are allowed.
3 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.
4 These uses may attract birds or other wildlife that could pose hazards to flight. See *Section 3.4* for applicable airspace protection policies.
5 Occupancy limits for Large and Major Assembly Facilities coincide with International Building Code categories.
6 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).*
7 These uses constitute uses of special concern for which safety restrictions apply irrespective of usage intensities. See Policy 3.3.5.
8 These uses may generate dust or other hazards to flight. See *Section 3.4* for applicable policies.
9 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



Chapter **3**

INDIVIDUAL AIRPORT POLICIES AND COMPATIBILITY MAPS

Stanislaus County
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3

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 (forthcoming). 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:

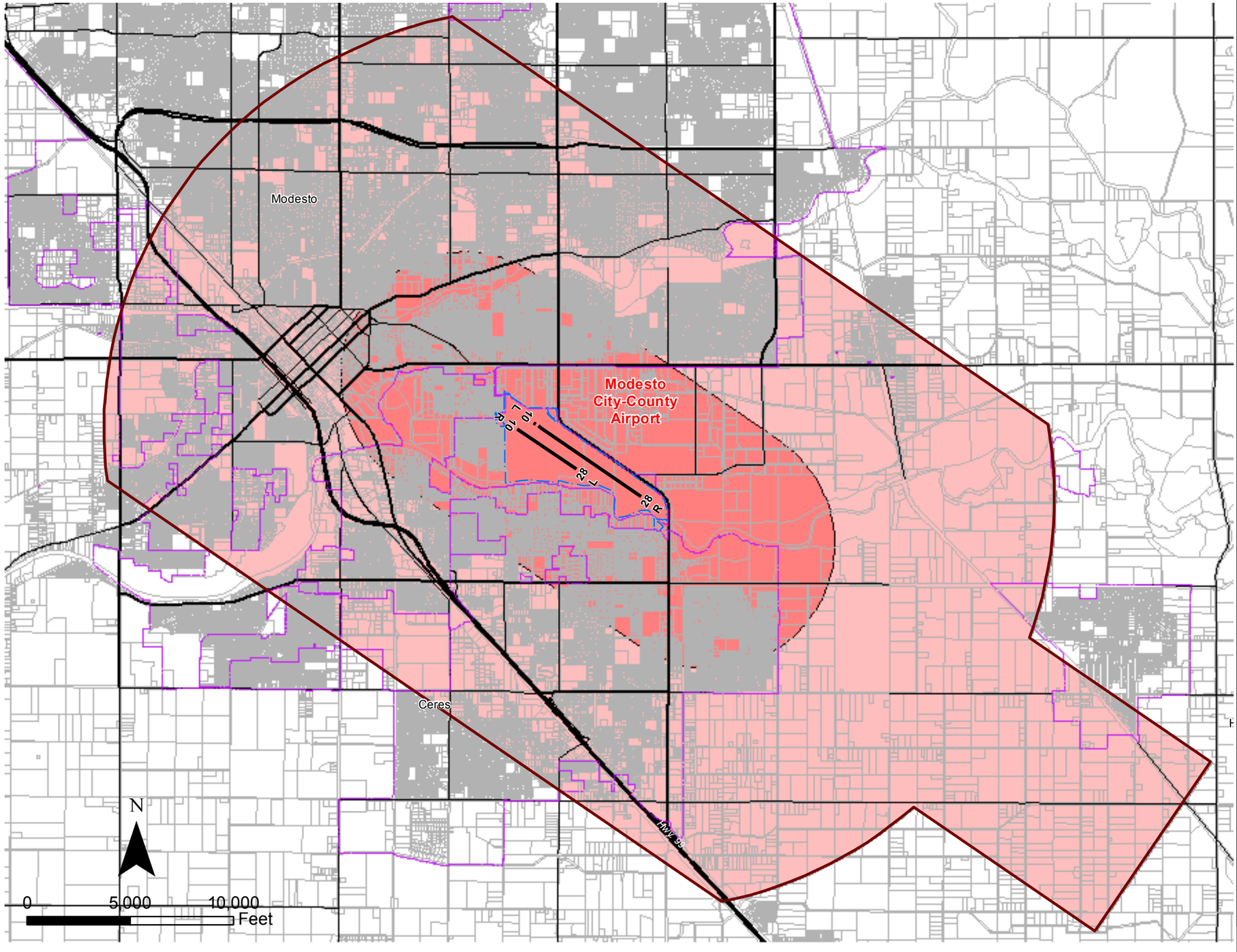
- *Airport Influence Area Policy Maps* indicate the overall boundary of the area, as well as the two subareas—Referral Areas 1 and 2—within which certain land use actions are subject to ALUC review.
- *Airport Noise Zones Policy Maps* depict the locations within which criteria addressing noise impacts 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

(January 2014, Draft)

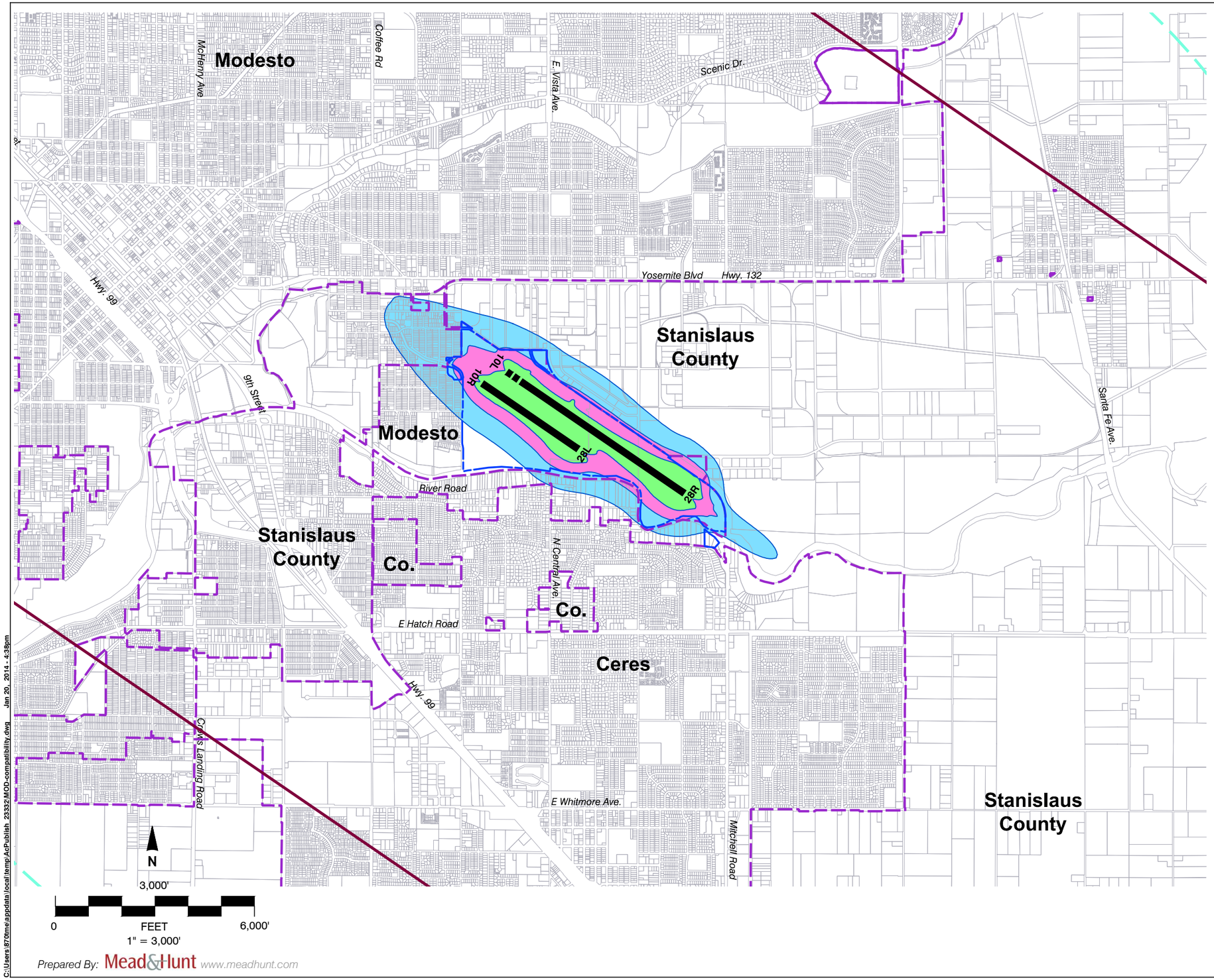
Map MOD-1

Airport Influence Area Policy Map

Modesto City-County Airport

Mead&Hunt

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[1]

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

Notes

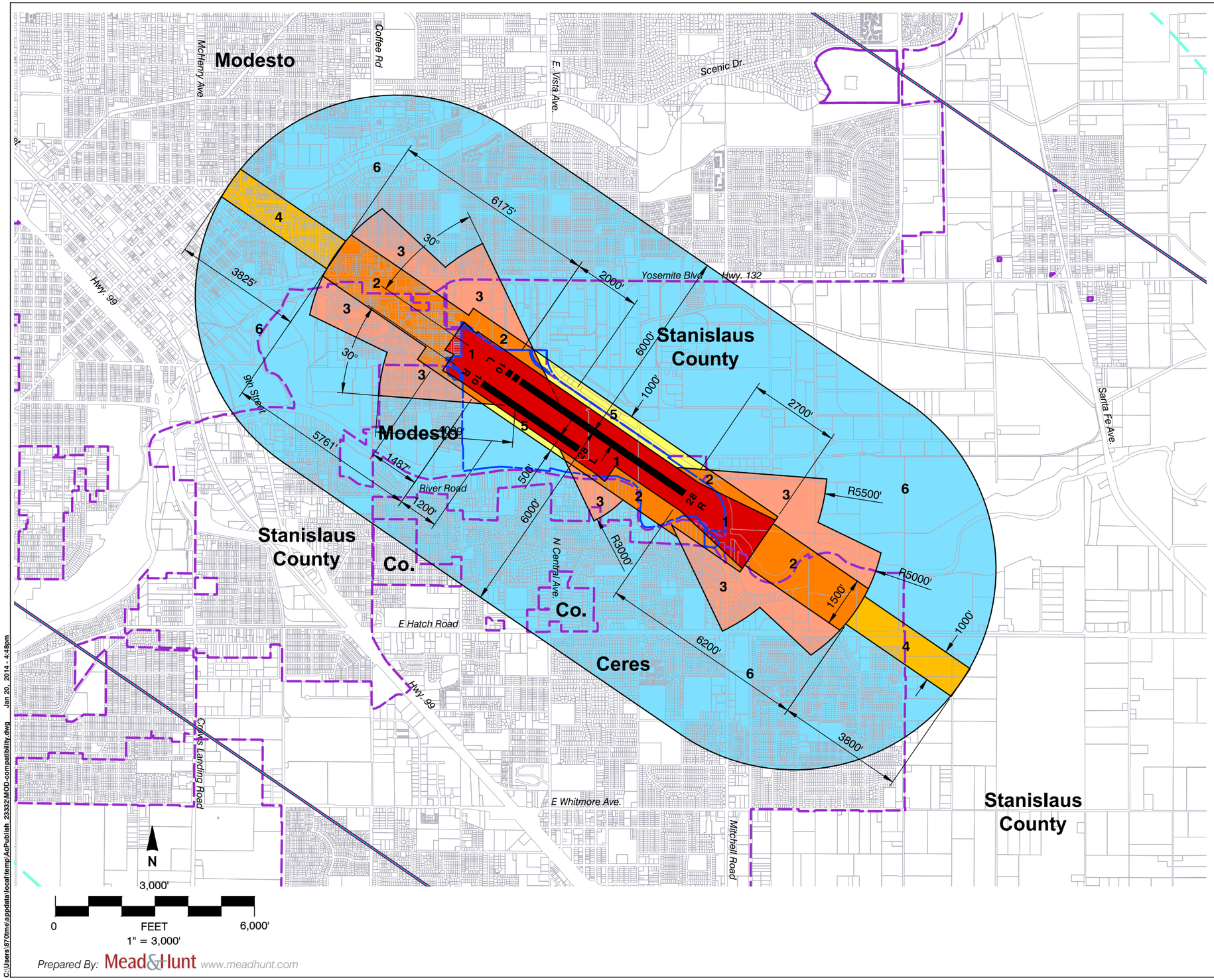
1. Noise Contours reflect long range scenario with 141,000 annual operations.

Stanislaus County
Airport Land Use Compatibility Plans
(January 2014, Draft)

Map MOD-2

Airport Noise Zones Policy Map

Modesto City-County Airport



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

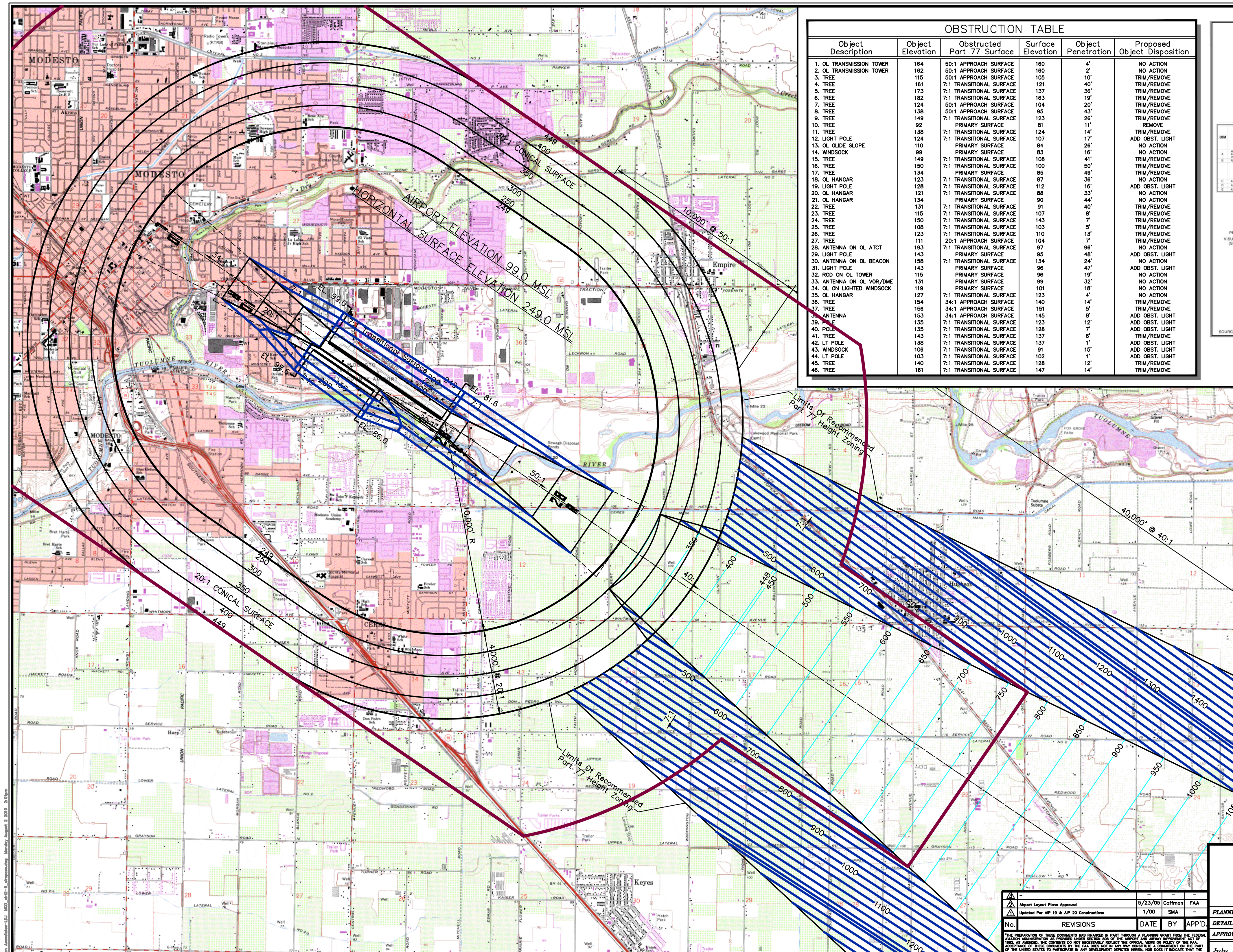
1. Safety zone source: California Airport Land Use Planning Handbook (January 2002).
2. Composite safety zones reflect existing runway configuation and 500' extension.Composite zones combine large air carrier runway zones, medium general aviation runway zones, and long general aviation runway zones for 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).

Stanislaus County
Airport Land Use Compatibility Plans
(January 2014, Draft)

Map MOD-3

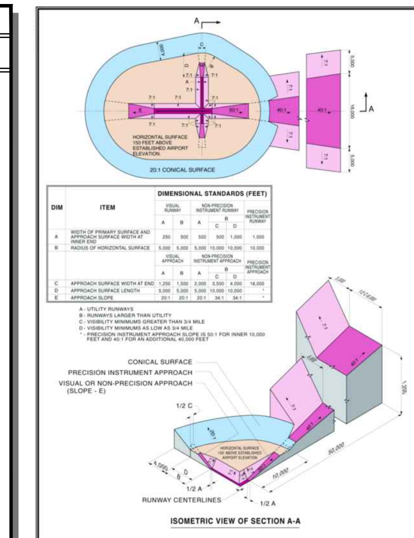
Airport Safety Zones Policy Map

Modesto City-County Airport



OBSTRUCTION TABLE

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	182	7:1 TRANSITIONAL SURFACE	163	19'	TRIM/REMOVE
7. TREE	124	50:1 APPROACH SURFACE	104	20'	TRIM/REMOVE
8. TREE	138	50:1 APPROACH SURFACE	95	43'	TRIM/REMOVE
9. TREE	149	7:1 TRANSITIONAL SURFACE	123	26'	TRIM/REMOVE
10. TREE	92	PRIMARY SURFACE	81	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	193	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	143	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	143	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	102	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



SOURCE: 14 CFR Part 77, Section 77.25, Civil Airport Imaginary Surfaces.

OBSTRUCTION LEGEND

- •1 OBSTRUCTION
- GROUP or MULTIPLE OBSTRUCTIONS TOPOGRAPHIC OBSTRUCTION

GENERAL NOTES:

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

Airport Influence Area

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

0 2000 4000 6000
SCALE IN FEET

TRUE NORTH 14° 7' East

No.	REVISIONS	DATE	BY	APP'D.
3	–	–	–	–
2	Airport Layout Plans Approved	5/23/05	Coffman	FAA
1	Updated Per AIP 19 & AIP 20 Constructions	1/00	SMA	–

"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."

MODESTO CITY-COUNTY AIRPORT
HARRY SHAM FIELD

AIRPORT AIRSPACE DRAWING

Modesto, California

PLANNED BY: Stephen C. Wagner/Vicki L. Rogers
DETAILED BY: Larry D. Johnson
APPROVED BY: James M. Harris, P.E.

July 22, 2010 SHEET 2 OF 15

Coffman Associates Airport Consultants www.coffmanassociates.com

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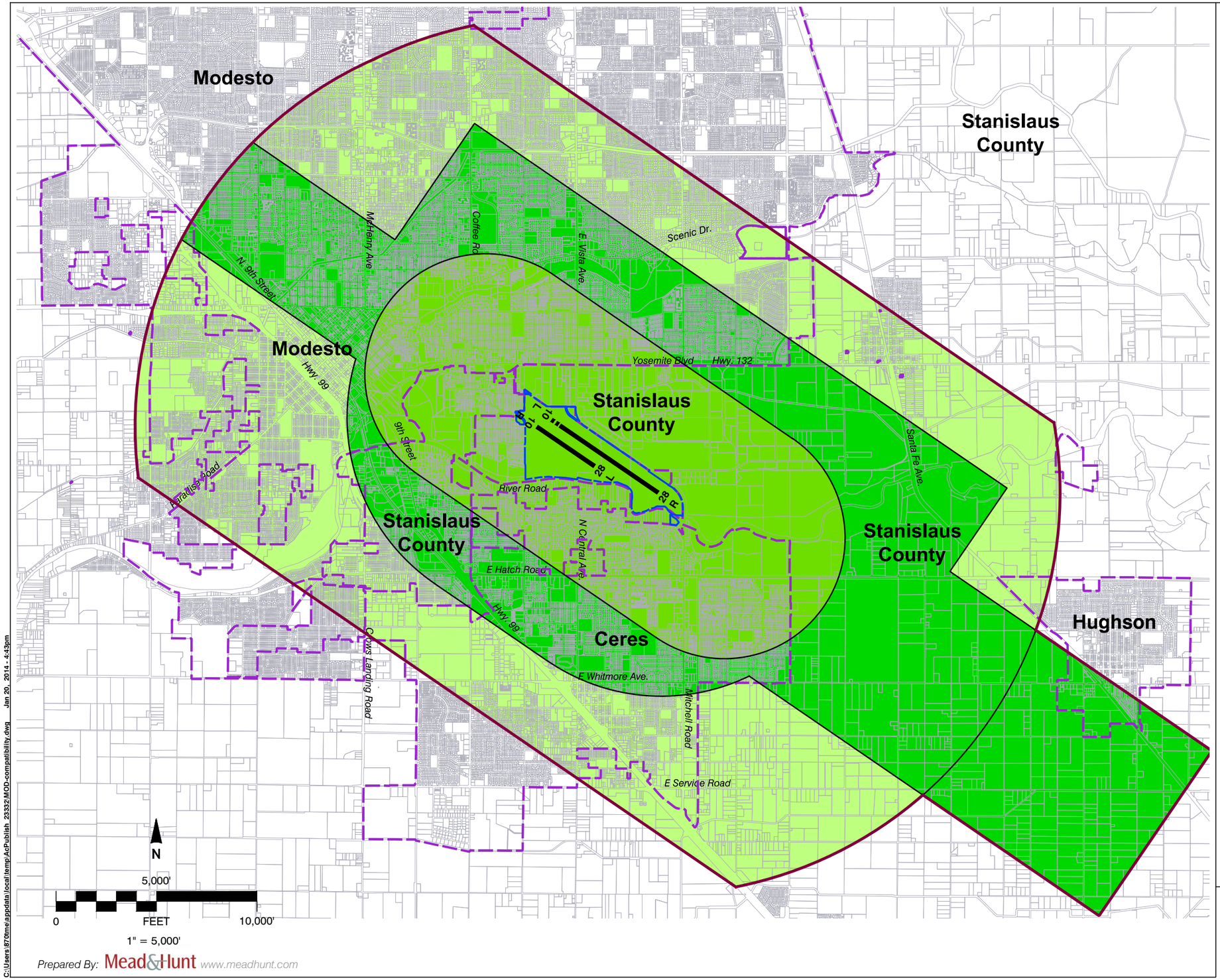
This is a reduced version of a large size drawing.

Map MOD-4

Airspace Protection Zones Policy Map

Modesto City-County Airport



Legend

Boundary Lines

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

Overflight Zones

- Avigation Easement Dedication [1]
- Recorded Deed Notice [2]
- Real Estate Disclosure [3]

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 overflown 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 of 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
(January 2014, Draft)

Map MOD-5

Overflight Zones Policy Map

Modesto City-County Airport

OAK. OAKDALE MUNICIPAL AIRPORT

OAK.1 Additional Compatibility Policies

OAK.1.1 None.

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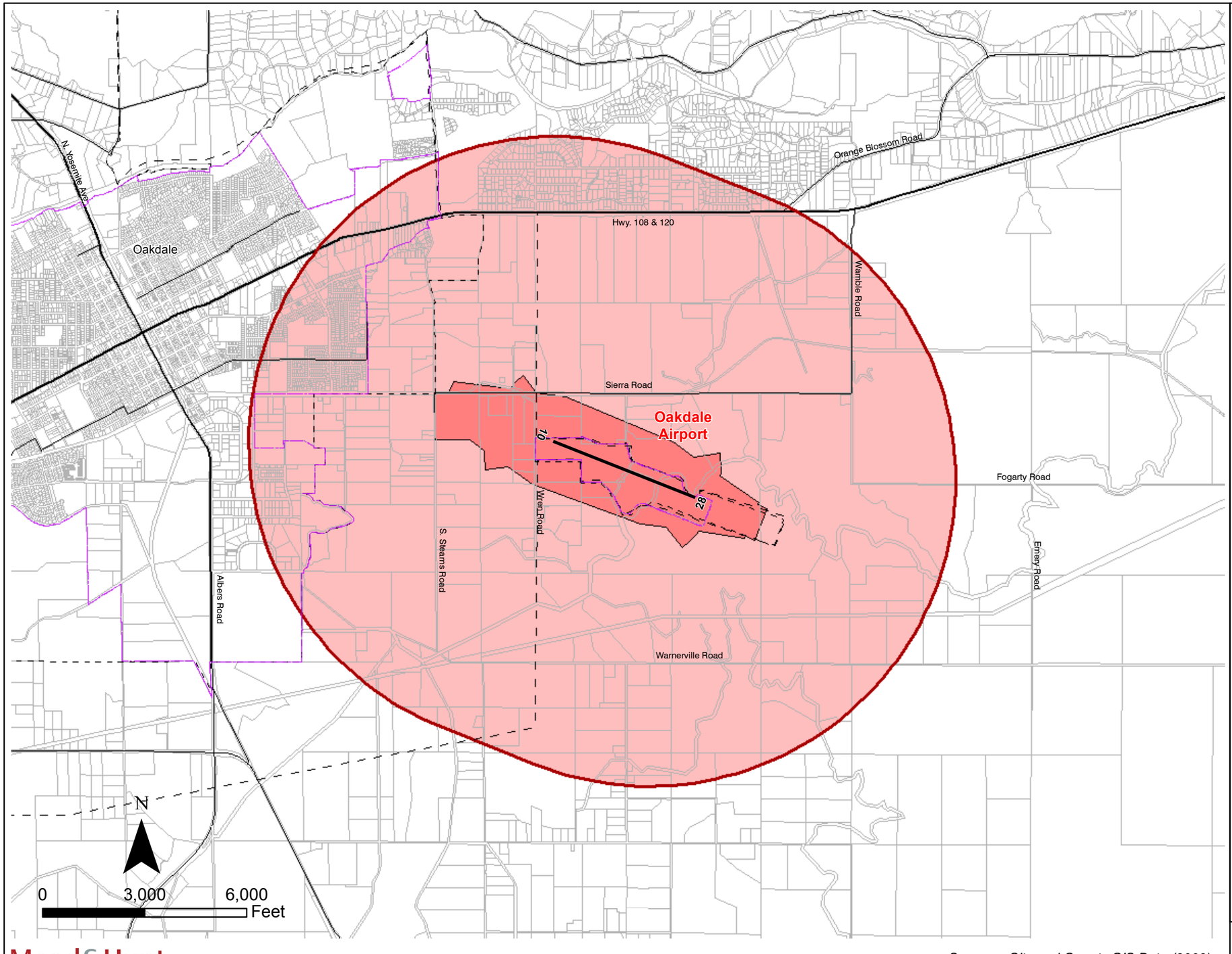


Legend

- 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

(May 2014, Draft)

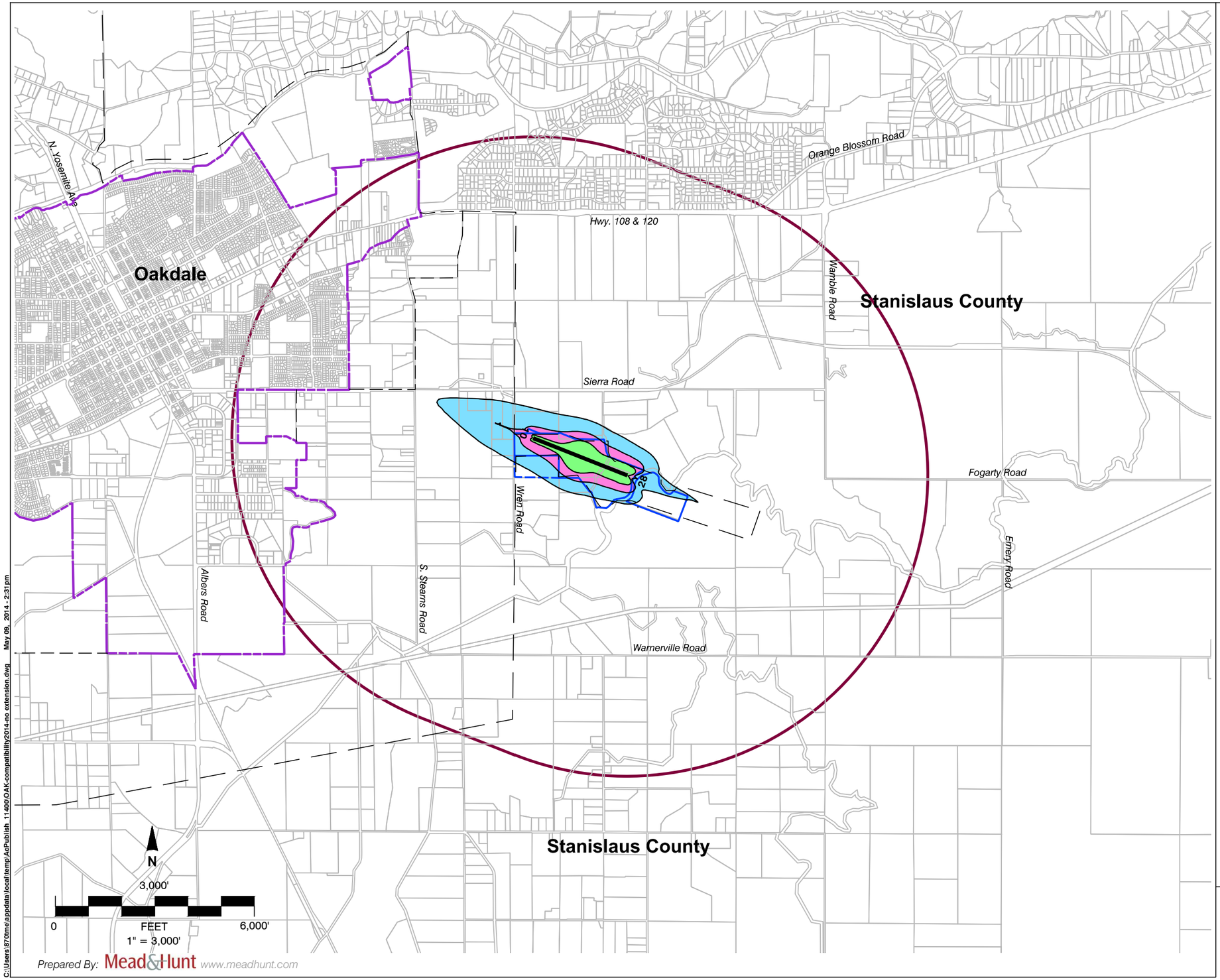
Map OAK-1

Airport Influence Area Policy Map

Oakdale Municipal Airport

Mead&Hunt

Sources: City and County GIS Data (2009)



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

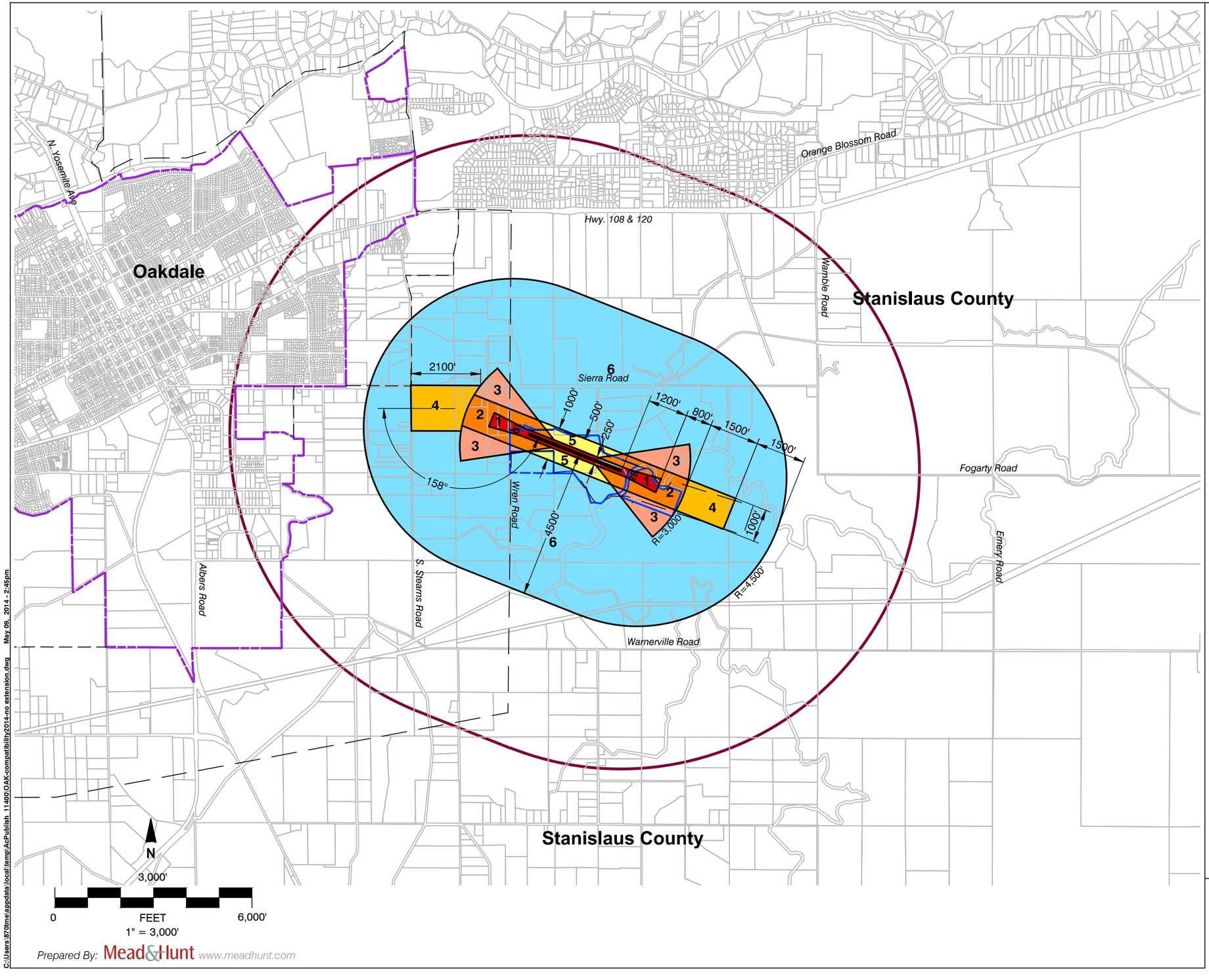
Airport Land Use Compatibility Plans

(May 2014, Draft)

Map OAK-2

Airport Noise Zones Policy Map

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

Safety Zones

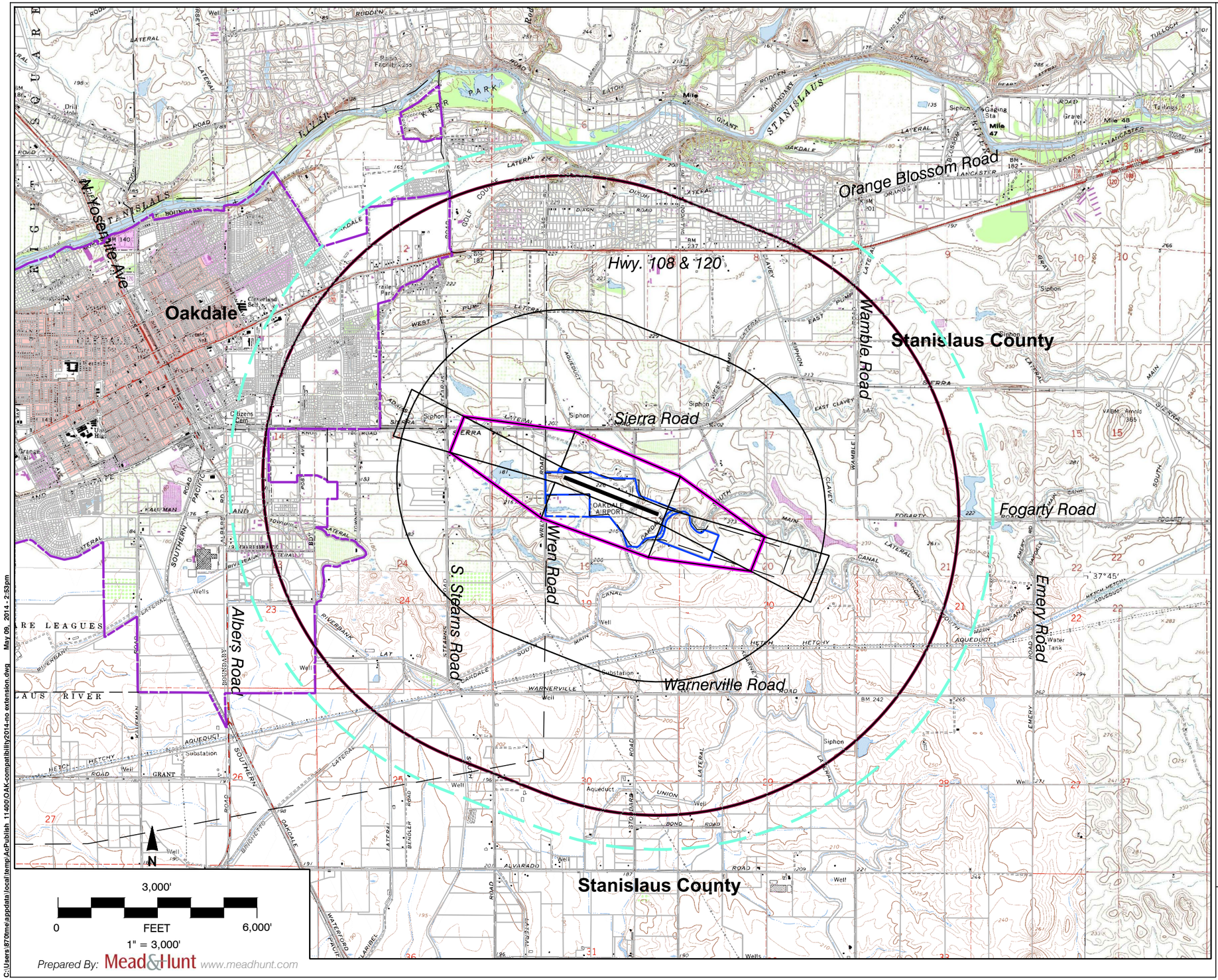
- Zone 1
- Zone 2
- Zone 3
- Zone 4
- Zone 5
- Zone 6

Stanislaus County
Airport Land Use Compatibility Plans
(May 2014, Draft)

Map OAK-3

Airport Safety Zones Policy Map

Oakdale Municipal Airport



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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[1]

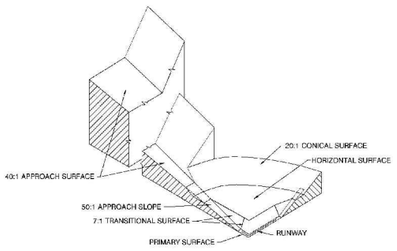
- FAA Height Notification Surface [2]
- FAR Part 77 Surfaces [3]
- Critical Airspace Protection Zone

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).



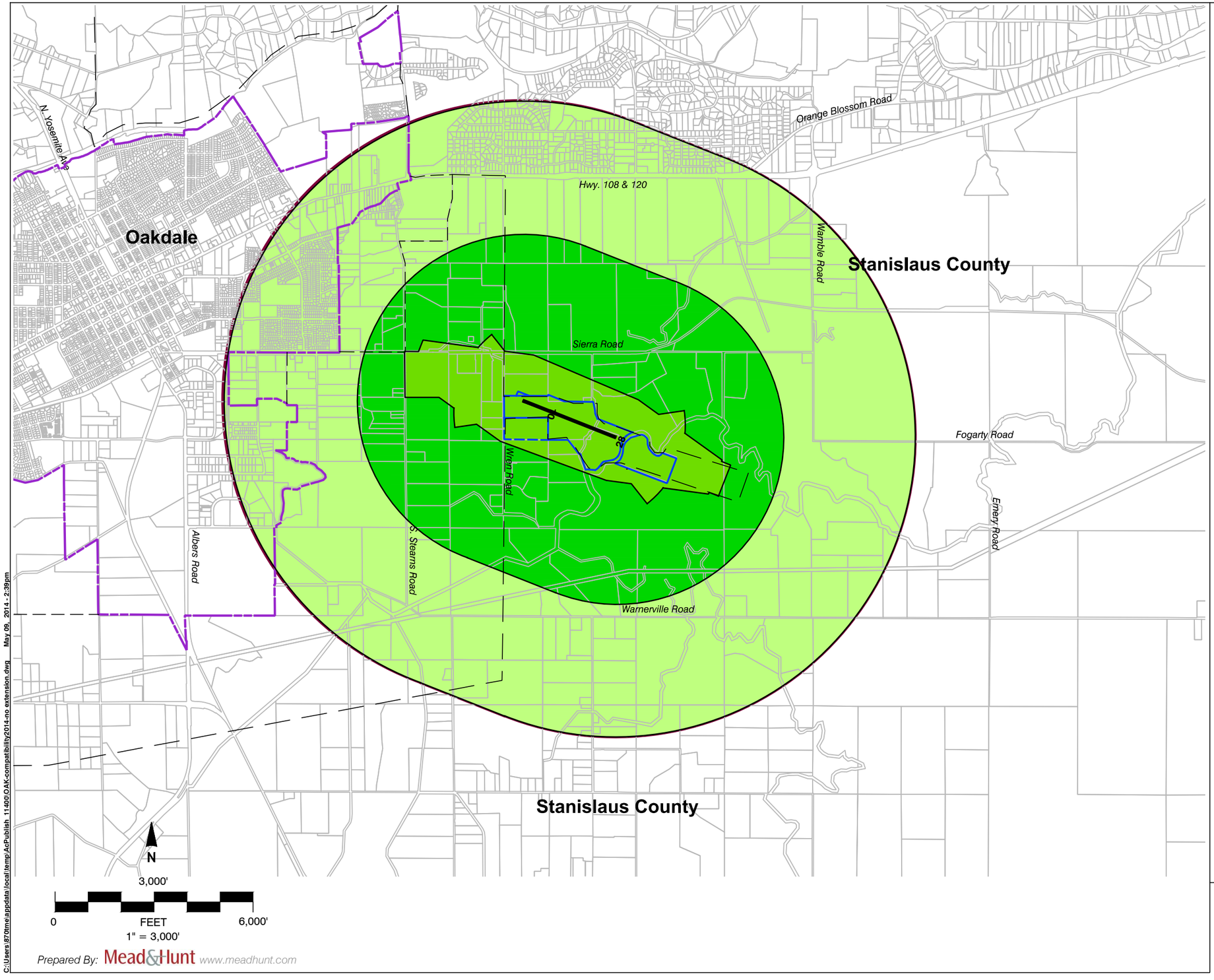
TYPICAL FAR PART 77 SURFACES

Stanislaus County
Airport Land Use Compatibility Plans
(May 2014, Draft)

Map OAK-4

Airspace Protection Zones Policy Map

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

Overflight Zones

- Avigation Easement Dedication [1]
- Recorded Deed Notice [2]
- Real Estate Disclosure [3]

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
(May 2014, Draft)

Map OAK-5

Overflight Zones Policy Map

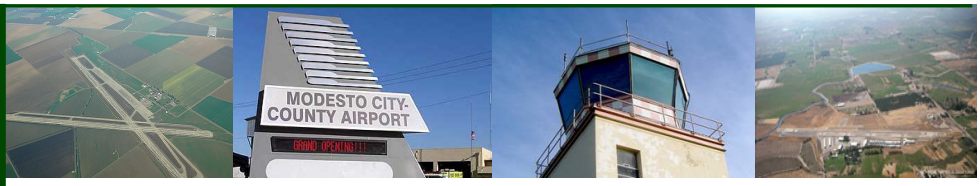
Oakdale Municipal Airport

CRO. CROWS LANDING AIRPORT

CRO.1 Additional Compatibility Policies

CRO 1.1 *FORTHCOMING*

Policies for the former Crows Landing Airfield, as presented in the 2004 ALUCP, will remain in force until the County receives an airport operating permit from the Caltrans Division of Aeronautics to re-open the airfield for general aviation use.



Chapter **4**

MODESTO CITY-COUNTY AIRPORT AND ENVIRONS BACKGROUND DATA

Stanislaus County
Striving to be the Best

4

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 (≥ 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.

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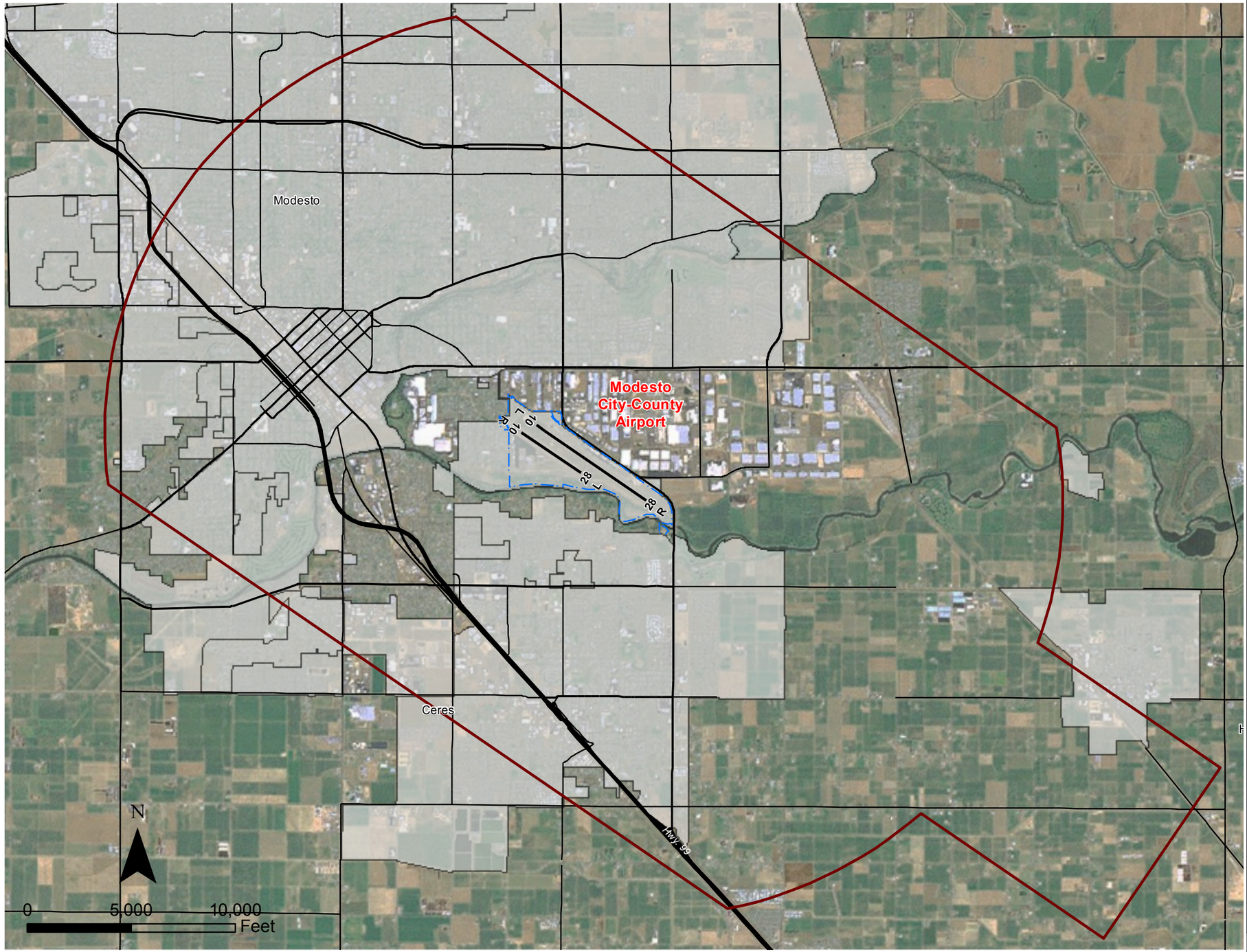


Legend

- Road
- City
- Airport Boundary
- Airport Influence Boundary

Stanislaus County
Airport Land Use Compatibility Plans
(January 2014, Draft)

Exhibit MOD-1

Airport Location
Modesto City-County Airport

Mead&Hunt

Sources: City and County GIS Data (2009)

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 potions 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)

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

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

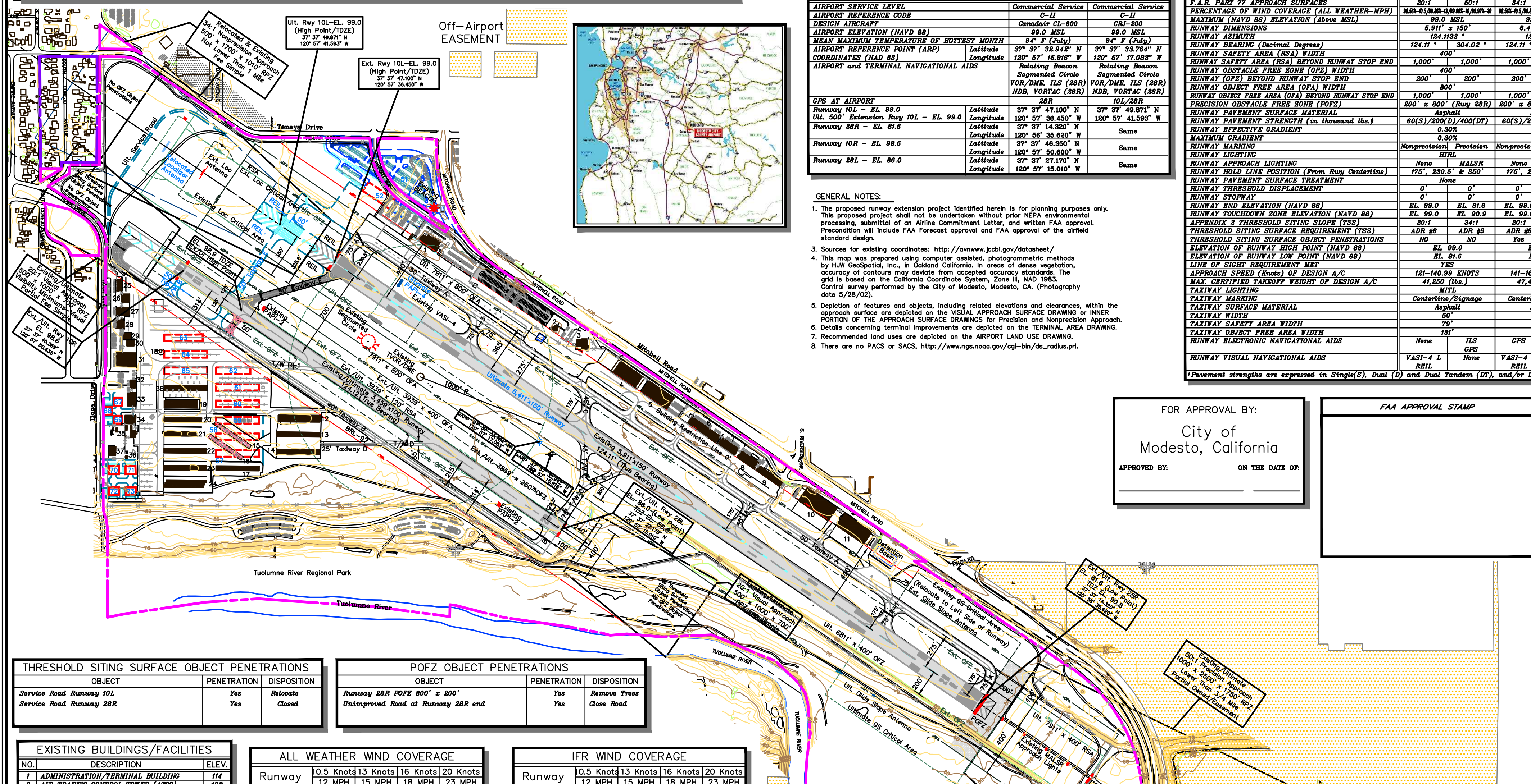
Exhibit MOD -2

Airport Features Summary

Modesto City-County Airport

MODIFICATION OF AIRPORT DESIGN STANDARDS TABLE

DEVIATION DESCRIPTION	EFFECTED DESIGN STANDARD	EXISTING	PROPOSED DISPOSITION
Runway (10L-28R)-Taxiway "A" Separation	400' For Design Group C-II Precision	275'	Requested Modification Of Airport Design Standards (4/8/2005)
Runway (10R-28L)-Taxiway "B" Separation	225' For Design Group B-I Visual	215'	Requested Modification Of Airport Design Standards (4/8/2005)
Runway (10L-28R) – Hold Line Separations	250' For Design Group C-II Precision	175'	Requested Modification Of Airport Design Standards (4/8/2005)
Runway (10L-28R)-Aircraft Parking Area Limit	500' For Design Group C-II Precision	345'	Requested Modification Of Airport Design Standards (4/8/2005)



AIRPORT DATA

Modesto City-County-Harry Sham Field (MOD)	
OWNER: City of Modesto, CA/County of Stanislaus, CA	AIRPORT NPAIS CODE: Primary
CITY: Modesto, California	COUNTY: Stanislaus, California
RANGE: 9 East TOWNSHIP: 3 South	CIVIL TOWNSHIP: N/A

		EXISTING	ULTIMATE
AIRPORT SERVICE LEVEL		Commercial Service	Commercial Service
AIRPORT REFERENCE CODE		C-II	C-II
DESIGN AIRCRAFT		Canadair CL-600	CRJ-200
AIRPORT ELEVATION (NAVD 88)		99.0 MSL	99.0 MSL
MEAN MAXIMUM TEMPERATURE OF HOTTEST MONTH		94° F (July)	94° F (July)
AIRPORT REFERENCE POINT (ARP) COORDINATES (NAD 83)	Latitude	37° 37' 32.942" N	37° 37' 33.764" N
	Longitude	120° 57' 15.916" W	120° 57' 17.083" W
AIRPORT and TERMINAL NAVIGATIONAL AIDS		Rotating Beacon Segmented Circle VOR/DME, ILS (28R) NDB, VORTAC (28R)	Rotating Beacon Segmented Circle VOR/DME, ILS (28R) NDB, VORTAC (28R)
GPS AT AIRPORT		28R	10L/28R
Runway 10L – EL. 99.0 Ult. 500' Extension Rwy 10L – EL. 99.0	Latitude	37° 37' 47.100" N	37° 37' 49.871" N
	Longitude	120° 57' 36.450" W	120° 57' 41.593" W
Runway 28R – EL. 81.6	Latitude	37° 37' 14.320" N	Same
	Longitude	120° 56' 35.620" W	
Runway 10R – EL. 98.6	Latitude	37° 37' 46.350" N	Same
	Longitude	120° 57' 50.600" W	
Runway 28L – EL. 86.0	Latitude	37° 37' 27.170" N	Same
	Longitude	120° 57' 15.010" W	

GENERAL NOTES:

1. The proposed runway extension project identified herein is for planning purposes only. This proposed project shall not be undertaken without prior NEPA environmental processing, submittal of an Airline Commitment Letter, and written FAA approval. Precondition will include FAA Forecast approval and FAA approval of the airfield standard design.
3. Sources for existing coordinates: http://avnwww.jccbi.gov/datasheet/
4. This map was prepared using computer assisted, photogrammetric methods by HJW GeoSpatial, Inc., in Oakland California. In areas of dense vegetation, accuracy of contours may deviate from accepted accuracy standards. The grid is based on the California Coordinate System, Zone III, NAD 1983. Control survey performed by the City of Modesto, Modesto, CA. (Photography date 5/28/02).
5. Depiction of features and objects, including related elevations and clearances, within the approach surface are depicted on the VISUAL APPROACH SURFACE DRAWING or INNER PORTION OF THE APPROACH SURFACE DRAWINGS for Precision and Nonprecision Approach.
6. Details concerning terminal improvements are depicted on the TERMINAL AREA DRAWING.
7. Recommended land uses are depicted on the AIRPORT LAND USE DRAWING.
8. There are no PACS or SACS, http://www.ngs.noaa.gov/cgi-bin/ds_radius.prl.

RUNWAY DATA

RUNWAY DATA	RUNWAY 10L-28R				RUNWAY 10R-28L			
	EXISTING		ULTIMATE		EXISTING		ULTIMATE	
	10L	28R	10L	28R	10R	28L	10R	28L
AIRCRAFT APPROACH CATEGORY-DESIGN GROUP	C-II		C-II		B-I		B-I	
APPROACH VISIBILITY MINIMUMS (Lowest)	Visual	1/2 Mile	1 Mile	1/2 Mile	Visual	Visual	Visual	Visual
F.A.R. PART 77 CATEGORY	Visual (BV)	Precision	Nonprecision	Precision	Visual (BV)	Visual (BV)	Visual (BV)	Visual (BV)
F.A.R. PART 77 APPROACH SURFACES	20:1	50:1	34:1	50:1	20:1	20:1	20:1	20:1
PERCENTAGE OF WIND COVERAGE (ALL WEATHER-MPH)	98.56%-10.5/99.86%-13/99.96%-16/99.97%-20		98.56%-10.5/99.86%-13/99.96%-16/99.97%-20		98.56%-10.5/99.86%-13/99.96%-16/99.97%-20		98.56%-10.5/99.86%-13/99.96%-16/99.97%-20	
MAXIMUM (NAVD 88) ELEVATION (Above MSL)	99.0 MSL		99.0 MSL		98.9 MSL		98.9 MSL	
RUNWAY DIMENSIONS	5,911' x 150'		6,411' x 150'		3,459' x 100'		3,459' x 100'	
RUNWAY AZIMUTH	124.1133 °		124.1133 °		124.1178 °		124.1178 °	
RUNWAY BEARING (Decimal Degrees)	124.11 °	304.02 °	124.11 °	304.02 °	124.12 °	304.12 °	124.12 °	304.12 °
RUNWAY SAFETY AREA (RSA) WIDTH	400'		400'		120'		120'	
RUNWAY SAFETY AREA (RSA) BEYOND RUNWAY STOP END	1,000'	1,000'	1,000'	1,000'	240'	240'	240'	240'
RUNWAY OBSTACLE FREE ZONE (OFZ) WIDTH	400'		400'		250'		250'	
RUNWAY (OFZ) BEYOND RUNWAY STOP END	200'	200'	200'	200'	200'	200'	200'	200'
RUNWAY OBJECT FREE AREA (OFA) WIDTH	800'		800'		400'		400'	
RUNWAY OBJECT FREE AREA (OFA) BEYOND RUNWAY STOP END	1,000'	1,000'	1,000'	1,000'	240'	240'	240'	240'
PRECISION OBSTACLE FREE ZONE (POFZ)	200' x 800' (Rwy 28R)		200' x 800' (Rwy 28R)		None		None	
RUNWAY PAVEMENT SURFACE MATERIAL	Asphalt		Asphalt		Asphalt		Asphalt	
RUNWAY PAVEMENT STRENGTH (in thousand lbs.)[1]	60(S)/200(D)/400(DT)		60(S)/200(D)/400(DT)		30(S)		30(S)	
RUNWAY EFFECTIVE GRADIENT	0.30%		0.30%		0.36%		0.36%	
MAXIMUM GRADIENT	0.30%		0.30%		0.54%		0.54%	
RUNWAY MARKING	Nonprecision	Precision	Nonprecision	Precision	Basic	Basic	Basic	Basic
RUNWAY LIGHTING	HIRL		HIRL		MIRL		MIRL	
RUNWAY APPROACH LIGHTING	None	MALSR	None	MALSR	None	None	None	None
RUNWAY HOLD LINE POSITION (From Rwy Centerline)	175', 230.5' & 350'		175', 230.5' & 350'		125'		125'	
RUNWAY PAVEMENT SURFACE TREATMENT	None		None		None		None	
RUNWAY THRESHOLD DISPLACEMENT	0'	0'	0'	0'	0'	0'	0'	0'
RUNWAY STOPWAY	0'	0'	0'	0'	0'	0'	0'	0'
RUNWAY END ELEVATION (NAVD 88)	EL. 99.0	EL. 81.6	EL. 99.0	EL. 81.6	EL. 98.6	EL. 86.0	EL. 98.6	EL. 86.0
RUNWAY TOUCHDOWN ZONE ELEVATION (NAVD 88)	EL. 99.0	EL. 90.9	EL. 99.0	EL. 90.9	EL. 98.9	EL. 98.8	EL. 98.9	EL. 98.8
APPENDIX 2 THRESHOLD SITING SLOPE (TSS)	20:1	34:1	20:1	34:1	20:1	20:1	20:1	20:1
THRESHOLD SITING SURFACE REQUIREMENT (TSS)	ADR #6	ADR #9	ADR #6	ADR #9	ADR #2	ADR #2	ADR #2	ADR #2
THRESHOLD SITING SURFACE OBJECT PENETRATIONS	NO	NO	Yes	Yes	NO	NO	NO	NO
ELEVATION OF RUNWAY HIGH POINT (NAVD 88)	EL. 99.0		EL. 99.0		EL. 98.9		EL. 98.9	
ELEVATION OF RUNWAY LOW POINT (NAVD 88)	EL. 81.6		EL. 81.6		EL. 86.0		EL. 86.0	
LINE OF SIGHT REQUIREMENT MET	YES		YES		YES		YES	
APPROACH SPEED (Knots) OF DESIGN A/C	121-140.99 KNOTS		141-165.99 KNOTS		91-120.99 KNOTS		91-120.99 KNOTS	
MAX. CERTIFIED TAKEOFF WEIGHT OF DESIGN A/C	41,250 (lbs.)		47,450 (lbs.)		20,000 (lbs.)		20,000 (lbs.)	
TAXIWAY LIGHTING	MITL		MITL		MITL		MITL	
TAXIWAY MARKING	Centerline/Signage		Centerline/Signage		Centerline/Signage		Centerline/Signage	
TAXIWAY SURFACE MATERIAL	Asphalt		Asphalt		Asphalt		Asphalt	
TAXIWAY WIDTH	50'		50'		25'		25'	
TAXIWAY SAFETY AREA WIDTH	79'		79'		49'		49'	
TAXIWAY OBJECT FREE AREA WIDTH	131'		131'		89'		89'	
RUNWAY ELECTRONIC NAVIGATIONAL AIDS	None	ILS GPS	GPS	ILS GPS	None	None	None	None
RUNWAY VISUAL NAVIGATIONAL AIDS	VASI-4 L REIL	None	VASI-4 L REIL	None	PAPI-2 (L)	PAPI-2 (L)	PAPI-2 (L)	PAPI-2 (L)

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

FOR APPROVAL BY:

City of Modesto, California

APPROVED BY: ON THE DATE OF:

FAA APPROVAL STAMP

LEGEND

EXISTING	ULTIMATE	DESCRIPTION
	SAME	ABANDONED PAVEMENT (To Be Removed)
		AIRPORT PROPERTY LINE/FENCE
		AIRPORT REFERENCE POINT (ARP)
		AIRPORT ROTATING BEACON
	SAME	BUILDING ABANDONMENT (To Be Removed)
		BUILDING CONSTRUCTION (Off/on Airport)
	SAME	DRAINAGE
		FACILITY CONSTRUCTION
		FENCING
PAPI-2	SAME	NAVIGATIONAL AID INSTALLATION (GVGI)
REIL	REIL	RUNWAY END IDENTIFICATION LIGHTS
	SAME	RUNWAY THRESHOLD LIGHTS
	SAME	SECTION CORNER
		SEGMENTED CIRCLE/WIND INDICATOR
1080	SAME	TOPOGRAPHY (2005)
	SAME	WIND INDICATOR (Lighted)
		HOLDING POSITION MARKING
BRL		BUILDING RESTRICTION LINE (BRL)
		DIRT ROAD
		TREES
Ext OFZ	Ult OFZ	RUNWAY OBSTACLE FREE ZONE
xRSA	uRSA	RUNWAY SAFETY AREA
xOFA	uOFA	RUNWAY OBJECT FREE AREA
		SURVEY MONUMENT (No PACS or SACS)
		RUNWAY SHADE
	SAME	HELICOPTER PARKING
	SAME	TIE-DOWNS
		RUNWAY PROTECTION ZONE (RPZ)

ULTIMATE BUILDINGS/FACILITIES

NO.	DESCRIPTION	Elevation
51	NEW TERMINAL BUILDING PARKING	LT Poles 25'
52	NEW TERMINAL BUILDING	40' AGL
57	T-HANGAR	23' AGL
58	T-HANGAR	23' AGL
59	T-HANGAR	23' AGL
60	T-HANGAR	23' AGL
61	T-HANGAR	23' AGL
62	T-HANGAR	23' AGL
63	T-HANGAR	23' AGL
64	T-HANGAR	23' AGL
65	T-HANGAR	23' AGL
67	EXECUTIVE HANGAR	25' AGL
68	EXECUTIVE HANGAR	25' AGL
69	EXECUTIVE HANGAR	25' AGL
70	EXECUTIVE HANGAR	25' AGL
71	EXECUTIVE HANGAR	25' AGL
72	EXECUTIVE HANGAR	25' AGL
73	EXECUTIVE HANGAR	25' AGL

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

0 400 800
SCALE IN FEET

THRESHOLD SITING SURFACE OBJECT PENETRATIONS

OBJECT	PENETRATION	DISPOSITION
Service Road Runway 10L	Yes	Relocate
Service Road Runway 28R	Yes	Closed

POFZ OBJECT PENETRATIONS

OBJECT	PENETRATION	DISPOSITION
Runway 28R POFZ 800' x 200'	Yes	Remove Trees
Unimproved Road at Runway 28R end	Yes	Close Road

EXISTING BUILDINGS/FACILITIES

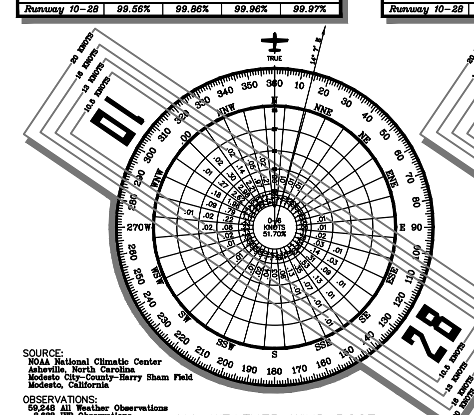
NO.	DESCRIPTION	ELEV.
1	ADMINISTRATION/TERMINAL BUILDING	114
2	AIR TRAFFIC CONTROL TOWER (ATCC)	132
3	AIRPORT RESCUE/FIREFIGHTING (ARFF)	110
4	SKY TREK AVIATION	124
5	SKY TREK AVIATION	122
6	SKY TREK AVIATION	111
7	SKY TREK AVIATION	115
8	SKY TREK AVIATION	112
9	SKY TREK AVIATION	116
10	DAN COSTA-DCAIR	126
11	FOSTER FARMS	121
12	T-HANGAR	114
13	T-HANGAR	109
14	T-HANGAR	109
15	T-HANGAR (To Be Removed)	105
16	T-HANGAR (To Be Removed)	106
17	T-HANGAR	107
18	FUEL ISLAND	N/A
19	T-HANGAR	109
20	T-HANGAR	103
21	T-HANGAR	104
22	T-HANGAR	106
23	T-HANGAR	105
24	T-HANGAR	104
25	HANGAR 7 (Tom Hillier Hangar/Museum)	112
26	HANGAR 6 (E and J Gallo Winery)	111
27	HANGAR 5 (Modesto Aviation)	111
28	HANGAR 3 (Pacific Aircraft Service)	111
29	OFFICE BUILDING (Vacant)	108
30	ADMINISTRATION (Modesto Aviation)	106
31	HANGAR 1 (Commemorative Air Force)	112
32	OFFICE BUILDING 2 (Vacant)	104
33	HANGAR 2 (Business Aircraft Maintenance)	114
34	HANGAR 4 (Pacific Aircraft Maintenance)	107
35	MAINTENANCE FACILITY	102
36	FUEL FACILITY	N/A
37	MODESTO POLICE DEPARTMENT	105
38	T-HANGAR	106

ALL WEATHER WIND COVERAGE

Runway	10.5 Knots 12 MPH	13 Knots 15 MPH	16 Knots 18 MPH	20 Knots 23 MPH
Runway 10-28	99.56%	99.86%	99.96%	99.97%

IFR WIND COVERAGE

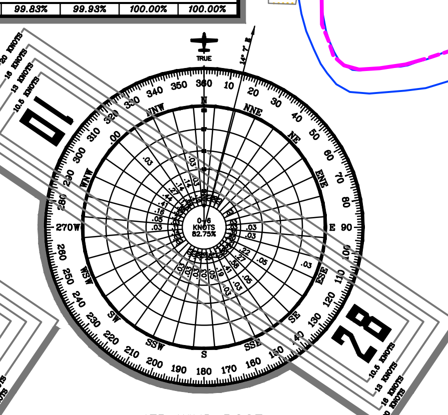
Runway	10.5 Knots 12 MPH	13 Knots 15 MPH	16 Knots 18 MPH	20 Knots 23 MPH
Runway 10-28	99.83%	99.93%	100.00%	100.00%



SOURCE:
NOAA National Climatic Center
Asheville, North Carolina
Modesto City-County-Harry Sham Field
Modesto, California

OBSERVATIONS:
59,248 All Weather Observations
3,638 IFR Observations
1992-2001

ALL WEATHER WIND ROSE



IFR WIND ROSE

No.	REVISIONS	DATE	BY	APP'D.
3	-	–	–	–
2	Airport Layout Plans Approved	5/23/05	Coffman	FAA
1	Updated Per AIP 19 & AIP 20 Constructions	1/00	SMA	–

"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."

MODESTO CITY-COUNTY AIRPORT
HARRY SHAM FIELD

AIRPORT LAYOUT PLAN

Modesto, California

PLANNED BY: Stephen C. Wagner/Vicki L. Rogers
DETAILED BY: Larry D. Johnson
APPROVED BY: James M. Harris, P.E.

July 22, 2010 SHEET 1 OF 15

Coffman Associates
Airport Consultants
www.coffmanassociates.com

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This is a reduced version of a large size drawing.

Exhibit MOD-3

Airport Layout Plan

Modesto City-County Airport

BASED AIRCRAFT [a]

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

AIRCRAFT OPERATIONS

	Current[b]	Future [b]
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 [b]		
Local		
(incl. touch-and-goes)	38%	No
Itinerant	62%	Change

TIME OF DAY DISTRIBUTION

	Current and Future [b]
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 [b]

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

FLIGHT TRACK DISTRIBUTION

Data Not Available

Notes:

[a] Source: *Modesto City-County Airport Layout Plan Narrative Report* (December 2009)

[b] Source: *Modesto City-County Airport Part 150 Study* (February 2009).

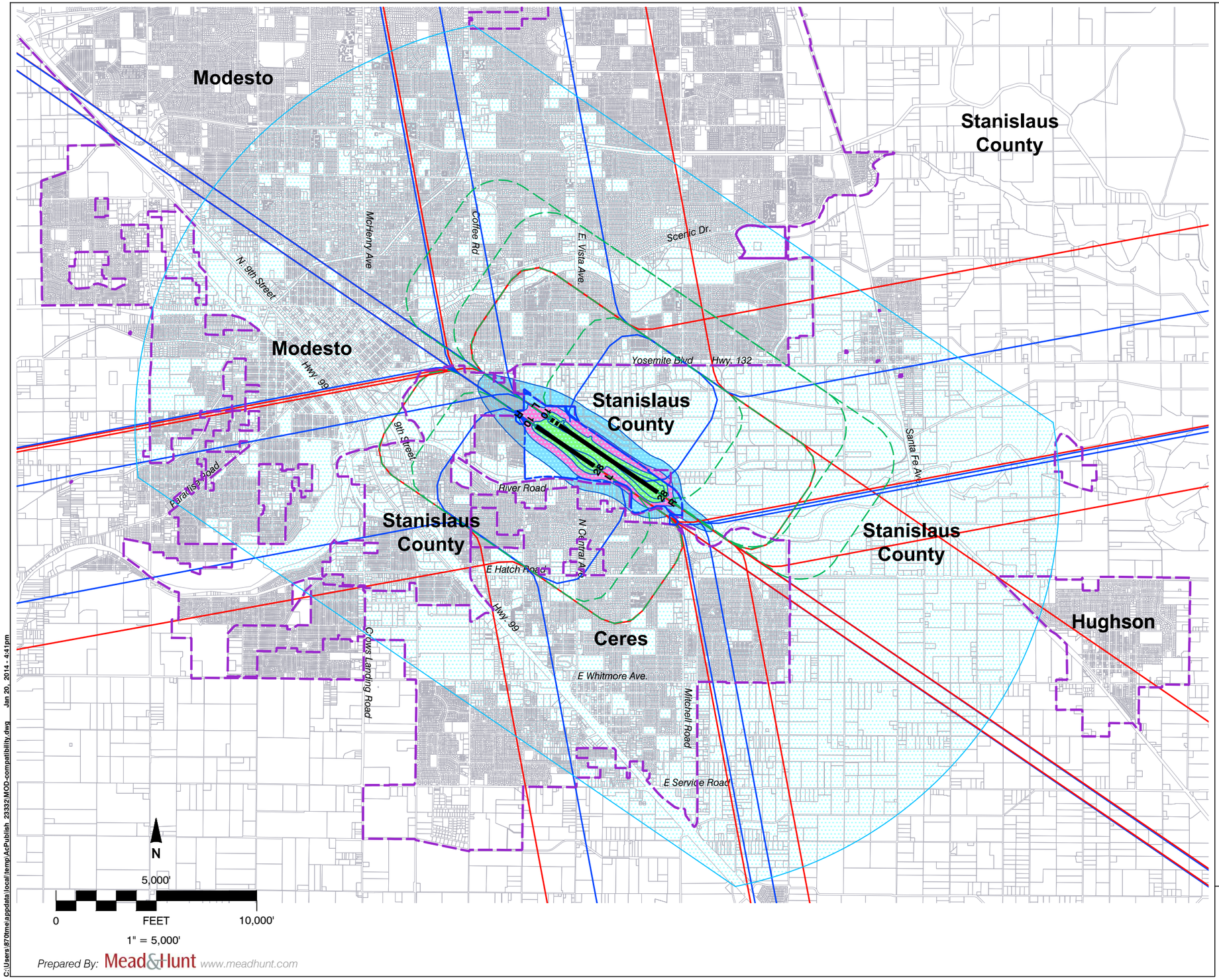
* Figures may not add up to 100%, due to rounding.

Exhibit MOD-4

Airport Activity Data

Modesto City-County Airport

Data compiled by Mead & Hunt, Inc.



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Legend

Boundary Lines

- Airport Property Line/Easements
- City Limits
- Existing Runway
- Future Runway

2009 Part 150 Study Noise Contours [1]

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

Overflight Factors [1]

- Arrival
- Departure
- Touch and Go
- Aircraft Traffic Envelope [2]

Notes

1. Flight track source: 2009 Part 150 study. Noise contours and flight tracks shown reflect long range scenario with 141,000 annual operations.

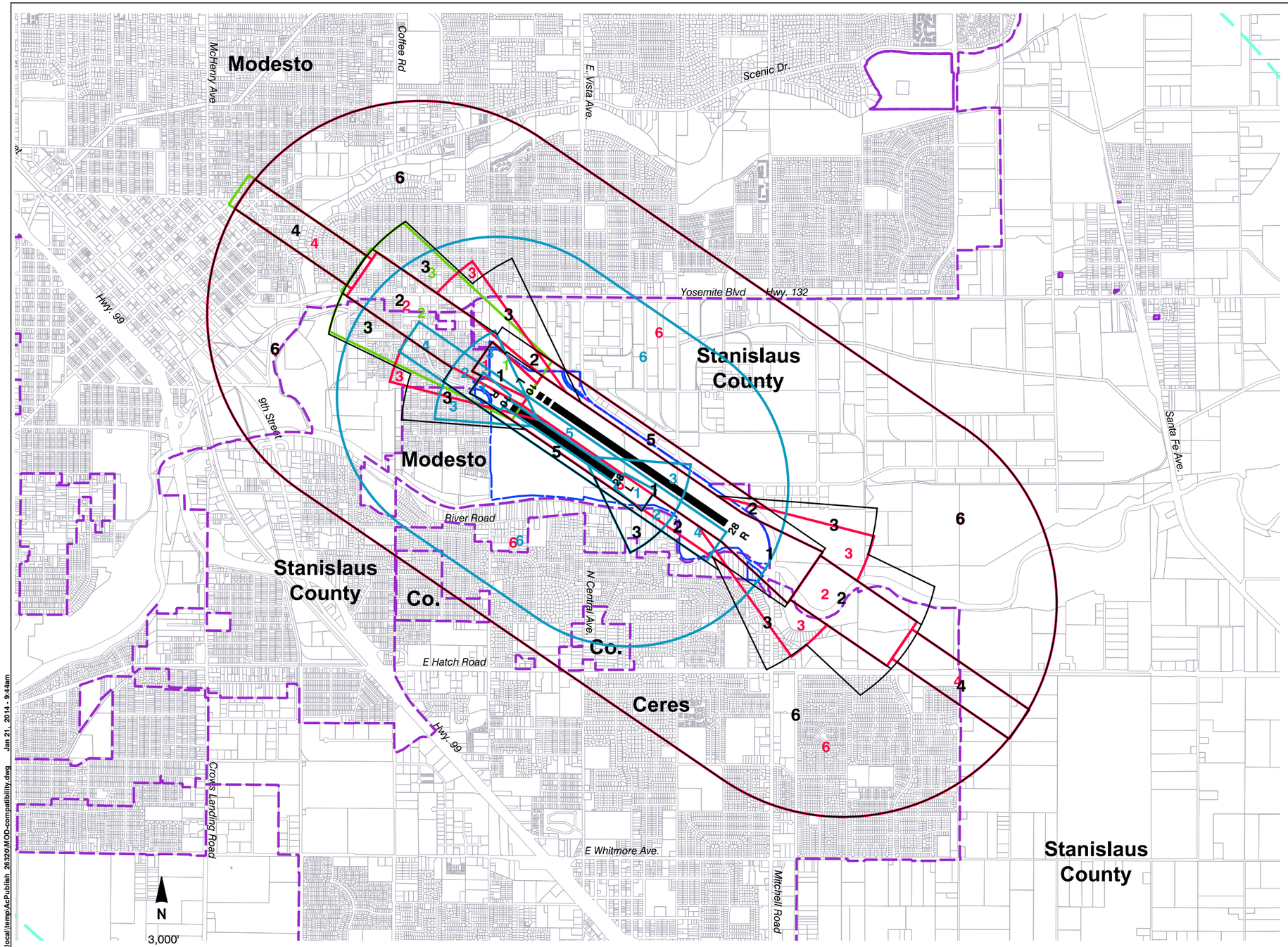
2. Approximately 80% of aircraft overflights estimated to occur within these limits at an altitude of 1,500 feet AGL or less. The traffic pattern altitude is established at 1,000 feet above the airport elevation for small aircraft and 1,500 feet for large aircraft.

Stanislaus County
Airport Land Use Compatibility Plans
(January 2014, Draft)

Exhibit MOD-5

Noise and Overflight Factors

Modesto City-County Airport



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 configuation 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).

Stanislaus County
Airport Land Use Compatibility Plans
(January 2014, Draft)

Exhibit MOD-6

Safety Factors

Modesto City-County Airport

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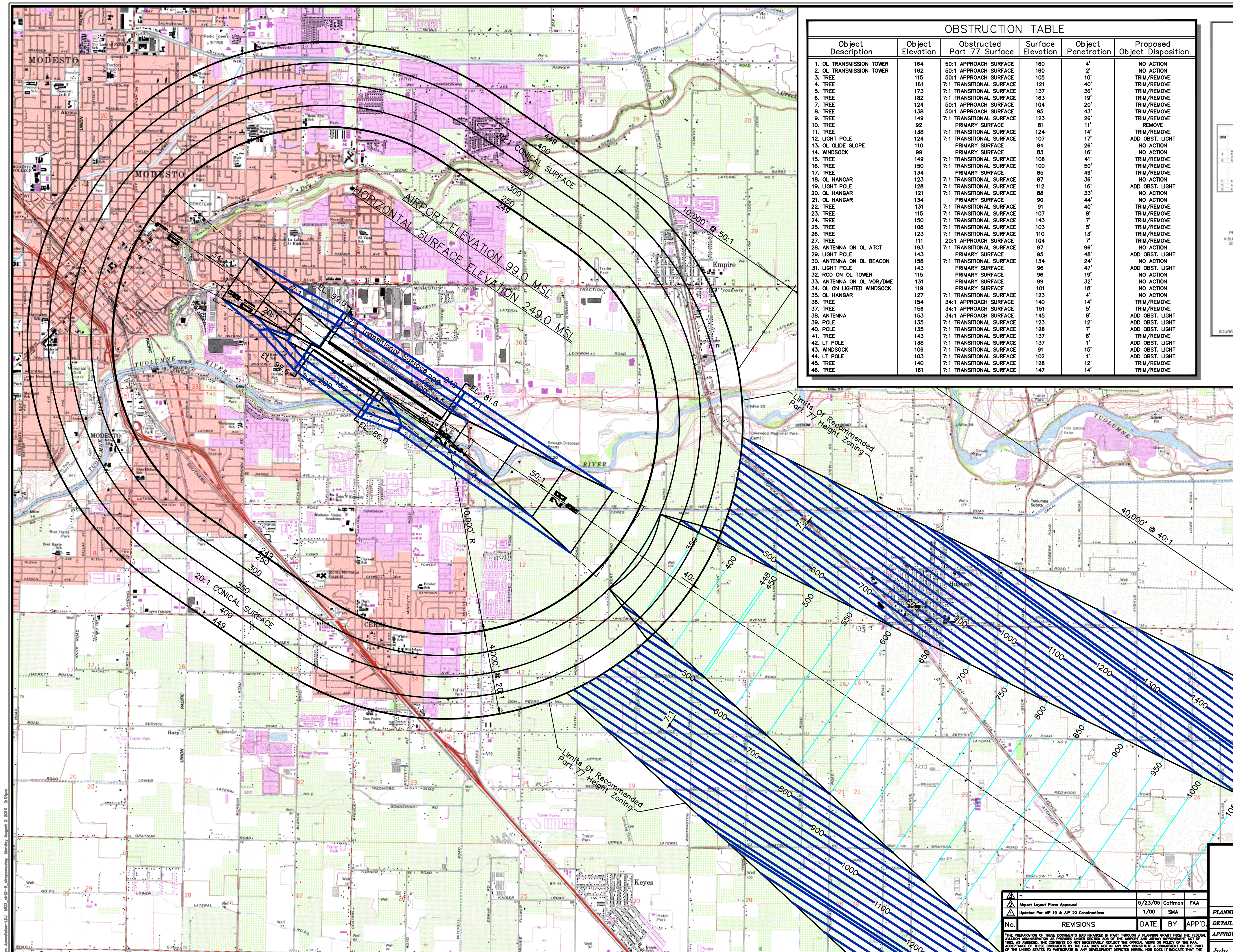
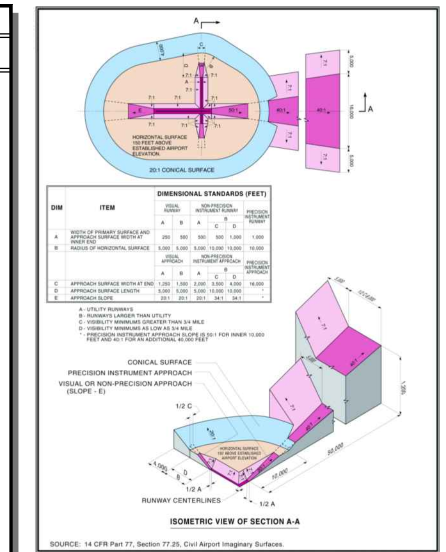


OBSTRUCTION TABLE					
Object Description	Object Elevation	Obstructed Part 77 Surface	Surface Elevation	Object Penetration	Proposed Object Disposition
1. OL TRANSMISSION TOWER	164	50:1 APPROACH SURFACE	160	4'	NO ACTION
2. OL TRANSMISSION TOWER	162	50:1 APPROACH SURFACE	160	2'	NO ACTION
3. TREE	115	50:1 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	182	7:1 TRANSITIONAL SURFACE	163	19'	TRIM/REMOVE
7. TREE	124	50:1 APPROACH SURFACE	104	20'	TRIM/REMOVE
8. TREE	138	50:1 APPROACH SURFACE	95	43'	TRIM/REMOVE
9. TREE	149	7:1 TRANSITIONAL SURFACE	123	26'	TRIM/REMOVE
10. TREE	92	PRIMARY SURFACE	81	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	193	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	143	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	143	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	102	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

- ●1 OBSTRUCTION
- GROUP or MULTIPLE OBSTRUCTIONS TOPOGRAPHIC OBSTRUCTION

GENERAL NOTES:

1. Obstructions, clearances, and locations are calculated from ultimate runway end elevations and ultimate approach surfaces, unless otherwise noted.
2. Depiction of features and objects within the primary, transitional, and horizontal Part 77 surfaces, is illustrated on the PART 77 AIRSPACE DRAWING, sheets 2 and 3 of these plans.
3. Depiction of features and objects within the outer portion of the approach surfaces, is illustrated on the RUNWAY APPROACH SURFACE PROFILES, sheets 4 and 5 of these plans.
4. Depiction of features and objects within the inner portion of the approach surfaces, is 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

TRUE NORTH 14° 7' East

0 2000 4000 6000
SCALE IN FEET

No.	REVISIONS	DATE	BY	APP'D.
3	–	–	–	–
2	Airport Layout Plans Approved	5/23/05	Coffman	FAA
1	Updated Per AIP 19 & AIP 20 Constructions	1/00	SMA	–

"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."

MODESTO CITY-COUNTY AIRPORT
HARRY SHAM FIELD

AIRPORT AIRSPACE DRAWING

Modesto, California

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

Coffman Associates
Airport Consultants
www.coffmanassociates.com

This is a reduced version of a large size drawing.

Exhibit MOD-7

Part 77 Airspace Surfaces

Modesto City-County Airport

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

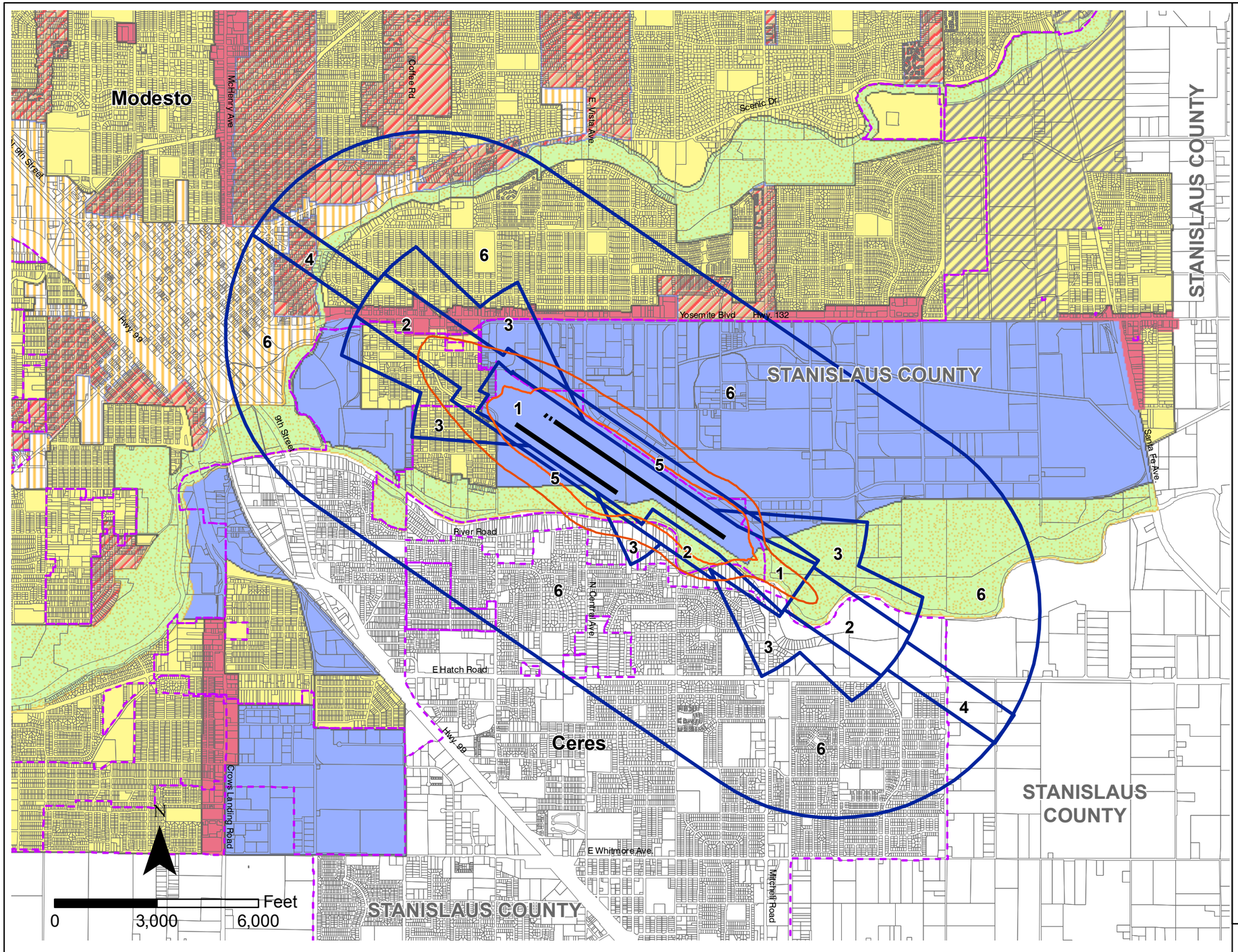
- City of Modesto 2008 Urban Area General Plan
  - Land use around Airport will be consistent with Stanislaus County Airport Land Use Commission (ALUC) Plan (p. V-26)
- City of Modesto 2008 Urban Area General Plan (continued)
  - Mitigation required for new construction to meet noise compatibility standards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

Data compiled by Mead & Hunt

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).

Exhibit MOD-8
Airport Environs Table
Modesto City-County Airport



Sources: City and County GIS Data (2009)

Legend

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

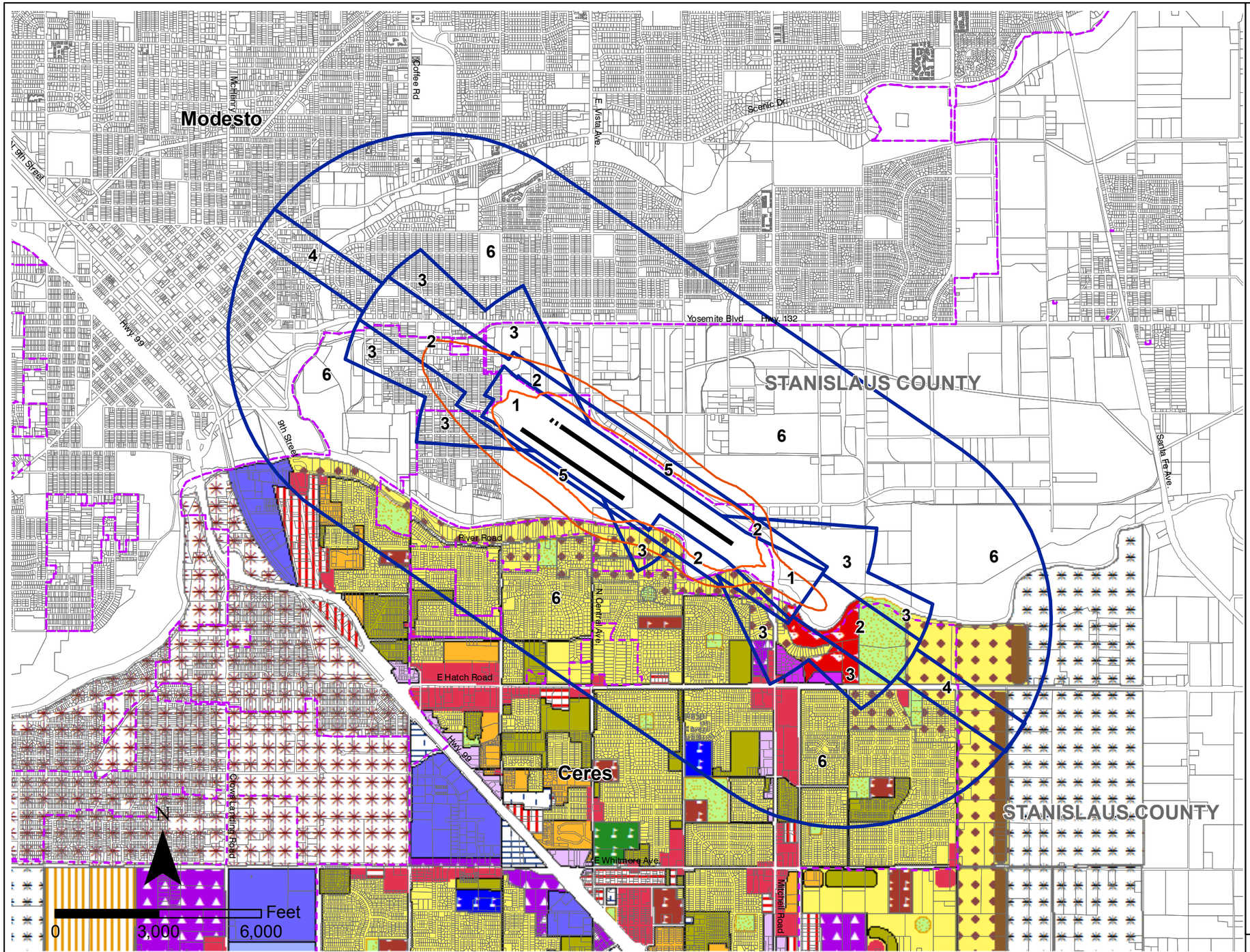
City of Modesto General Plan

- 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
(January 2014, Draft)

Exhibit MOD-9A

Modesto General Plan
Modesto City-County Airport



Legend

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

City of Ceres General Plan

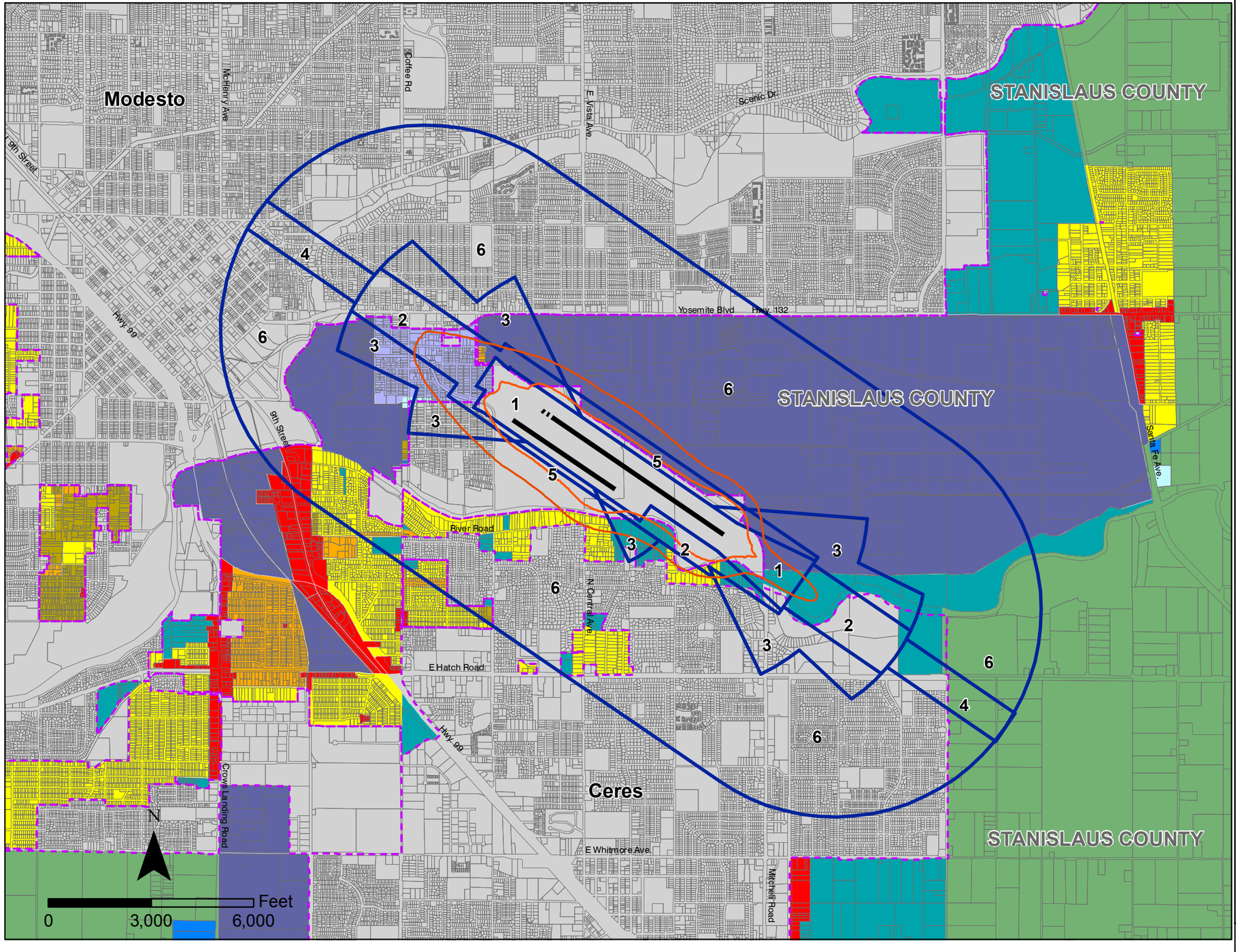
- Agriculture
- Adjacent Urban
- Business Park
- Commercial - General
- Community Facilities
- Community Facilities - PSF
- Commercial - Recreation
- School - Elementary
- Industrial - General
- School - High
- Residential - High Density
- School - High
- Industrial - Reserve
- School - Junior High
- 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
(January 2014 Draft)

Exhibit MOD 9B

Sources: City and County GIS Data (2009)

Ceres General Plan
Modesto City-County Airport



Sources: City and County GIS Data (2009)

Legend

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

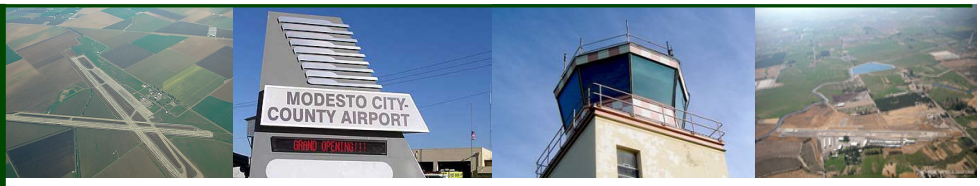
Stanislaus County General Plan

- 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
(January 2014 Draft)

Exhibit MOD 9C

Stanislaus County General Plan
Modesto City-County Airport



Chapter **5**

OAKDALE MUNICIPAL AIRPORT AND ENVIRONS BACKGROUND DATA

Stanislaus County
Striving to be the Best

5

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.[1] 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**.

[1] Source: *California Airport Land Use Planning Handbook* (October 2011).

Airport Environs

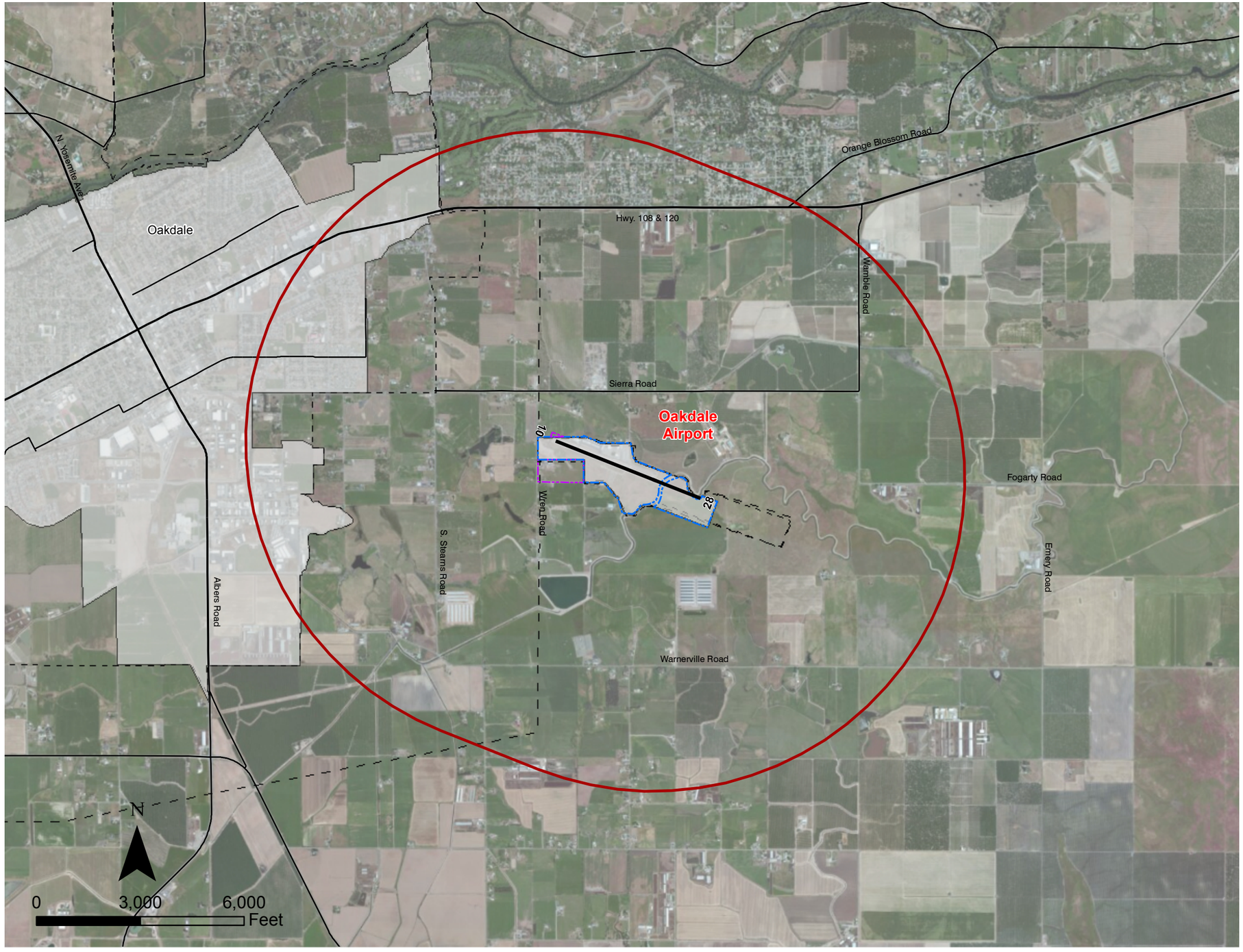
Exhibit OAK-8 provides a detailed summary of Oakdale Municipal Airport's existing and planned environs, including airport compatibility policies adopted by the local agencies. The City of Oakdale and Stanislaus County are within the airport's influence area. Planned land use designations are provided 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
(May 2014, Draft)

Exhibit OAK-1

Airport Location
Oakdale Municipal Airport

Mead&Hunt

Sources: City and County GIS Data (2012)

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

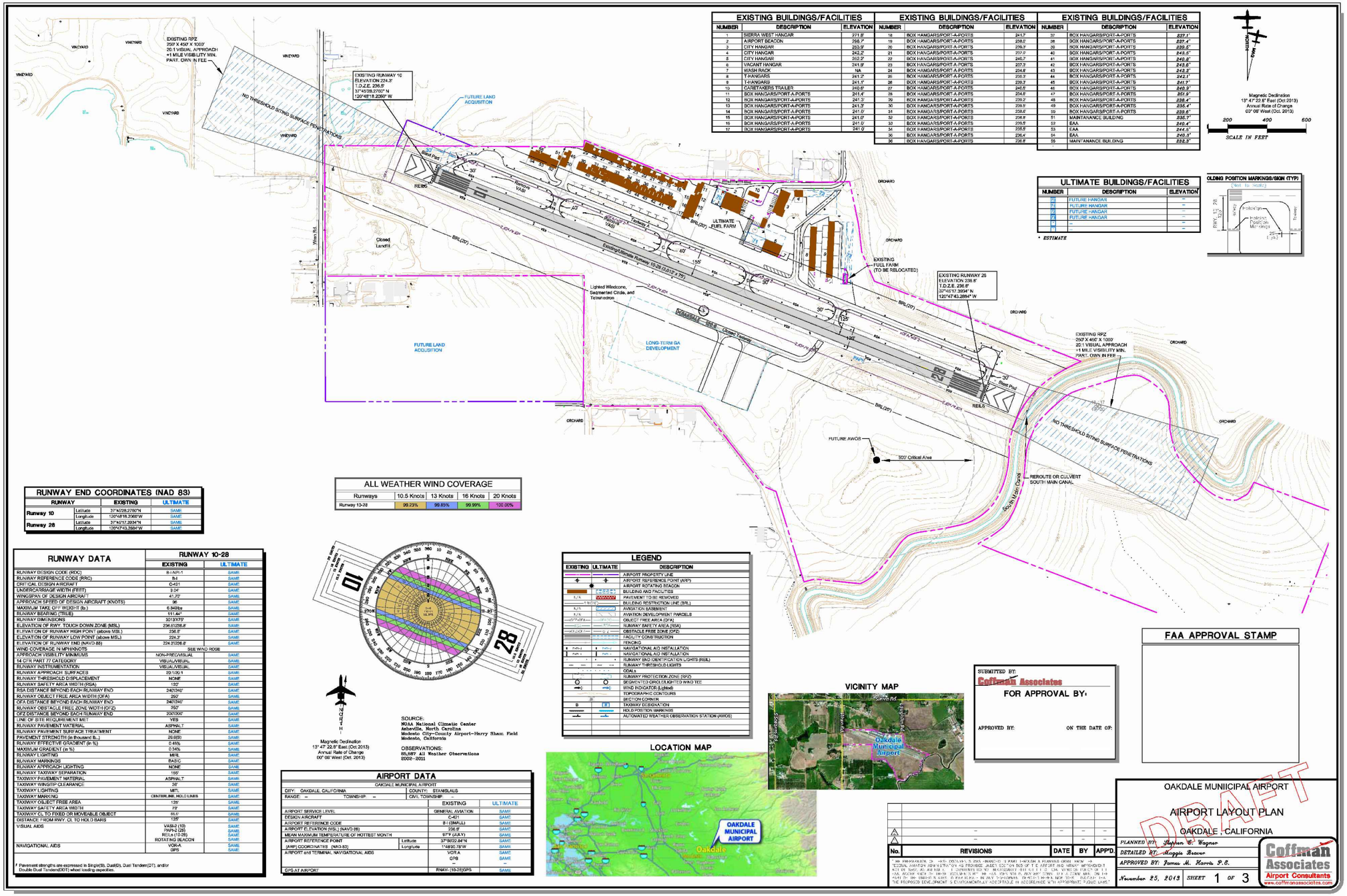
- Airport Planning Documents
  - Airport Master Plan and ALP (1998)
  - Airport Layout Plan (2006)
  - Airport Layout Plan and Narrative Report (2013 Draft)

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	SIERRA WEST HANGAR	271.8'	18	BOX HANGARS/PORT-A-PORTS	241.7'	37	BOX HANGARS/PORT-A-PORTS	237.1'
2	AIRPORT BEACON	268.7'	19	BOX HANGARS/PORT-A-PORTS	238.2'	38	BOX HANGARS/PORT-A-PORTS	237.1'
3	CITY HANGAR	253.9'	20	BOX HANGARS/PORT-A-PORTS	239.3'	39	BOX HANGARS/PORT-A-PORTS	239.6'
4	CITY HANGAR	242.2'	21	BOX HANGARS/PORT-A-PORTS	237.0'	40	BOX HANGARS/PORT-A-PORTS	243.5'
5	CITY HANGAR	253.2'	22	BOX HANGARS/PORT-A-PORTS	240.7'	41	BOX HANGARS/PORT-A-PORTS	240.8'
6	VACANT HANGAR	241.9'	23	BOX HANGARS/PORT-A-PORTS	237.7'	42	BOX HANGARS/PORT-A-PORTS	243.6'
7	WASH RACK	NA	24	BOX HANGARS/PORT-A-PORTS	234.8'	43	BOX HANGARS/PORT-A-PORTS	242.3'
8	T-HANGARS	241.2'	25	BOX HANGARS/PORT-A-PORTS	235.7'	44	BOX HANGARS/PORT-A-PORTS	242.1'
9	T-HANGARS	241.1'	26	BOX HANGARS/PORT-A-PORTS	239.3'	45	BOX HANGARS/PORT-A-PORTS	241.7'
10	CASSETT-KERS TRAILER	240.8'	27	BOX HANGARS/PORT-A-PORTS	240.5'	46	BOX HANGARS/PORT-A-PORTS	240.3'
11	BOX HANGARS/PORT-A-PORTS	241.4'	28	BOX HANGARS/PORT-A-PORTS	234.8'	47	BOX HANGARS/PORT-A-PORTS	251.9'
12	BOX HANGARS/PORT-A-PORTS	241.3'	29	BOX HANGARS/PORT-A-PORTS	239.2'	48	BOX HANGARS/PORT-A-PORTS	238.4'
13	BOX HANGARS/PORT-A-PORTS	241.3'	30	BOX HANGARS/PORT-A-PORTS	239.3'	49	BOX HANGARS/PORT-A-PORTS	236.4'
14	BOX HANGARS/PORT-A-PORTS	241.0'	31	BOX HANGARS/PORT-A-PORTS	238.6'	50	BOX HANGARS/PORT-A-PORTS	239.6'
15	BOX HANGARS/PORT-A-PORTS	241.0'	32	BOX HANGARS/PORT-A-PORTS	236.8'	51	MAINTANANCE BUILDING	235.7'
16	BOX HANGARS/PORT-A-PORTS	241.0'	33	BOX HANGARS/PORT-A-PORTS	235.5'	52	EAA	249.4'
17	BOX HANGARS/PORT-A-PORTS	241.0'	34	BOX HANGARS/PORT-A-PORTS	235.5'	53	EAA	244.5'
			35	BOX HANGARS/PORT-A-PORTS	236.4'	54	EAA	249.3'
			36	BOX HANGARS/PORT-A-PORTS	236.8'	55	MAINTANANCE BUILDING	232.3'

ULTIMATE BUILDINGS/FACILITIES		
NUMBER	DESCRIPTION	ELEVATION
70	FUTURE HANGAR	--
71	FUTURE HANGAR	--
72	FUTURE HANGAR	--
73	FUTURE HANGAR	--
74	--	--
75	--	--

* ESTIMATE

RUNWAY END COORDINATES (NAD 83)			
RUNWAY		EXISTING	ULTIMATE
Runway 10	Latitude	37°45'28.2760"N	SAME
	Longitude	120°48'18.2060"W	SAME
Runway 28	Latitude	37°45'17.3934"N	SAME
	Longitude	120°47'43.2884"W	SAME

ALL WEATHER WIND COVERAGE				
Runways	10.5 Knots	13 Knots	16 Knots	20 Knots
Runway 10-28	99.23%	99.85%	99.99%	100.00%

RUNWAY DATA	RUNWAY 10-28	
	EXISTING	ULTIMATE
RUNWAY DESIGN CODE (RDC)	B-I-NPI-1	SAME
RUNWAY REFERENCE CODE (RRC)	B-I	SAME
CRITICAL DESIGN AIRCRAFT	C-421	SAME
UNDERCARRIAGE WIDTH (FEET)	9.04'	SAME
WINGSPAN OF DESIGN AIRCRAFT	41.0"	SAME
APPROACH SPEED OF DESIGN AIRCRAFT (KNOTS)	96	SAME
MAXIMUM TAKE OFF WEIGHT (lb.)	6,940lbs	SAME
RUNWAY BEARING (TRUE)	111.44°	SAME
RUNWAY DIMENSIONS	5013'X75'	SAME
ELEVATION OF RWY. TOUCH DOWN ZONE (MSL)	236.0'/238.8'	SAME
ELEVATION OF RUNWAY HIGH POINT (above MSL)	236.8'	SAME
ELEVATION OF RUNWAY LOW POINT (above MSL)	224.2'	SAME
ELEVATION OF RUNWAY END (NAVD 88)	224.2'/236.8'	SAME
WIND COVERAGE IN MPH/KNOTS	SEE WIND ROSE	
APPROACH VISIBILITY MINIMUMS	NON-PRECVISUAL	SAME
14 CFR PART 77 CATEGORY	VISUAL/VISUAL	SAME
RUNWAY INSTRUMENTATION	VISUAL/VISUAL	SAME
RUNWAY APPROACH SURFACES	20:1/20:1	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)	250'	SAME
OFA DISTANCE BEYOND EACH RUNWAY END	240'/240'	SAME
RUNWAY OBSTACLE FREE ZONE WIDTH (OFZ)	250'	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 lb.)	29.0/30	SAME
RUNWAY EFFECTIVE GRADIENT (in %)	0.45%	SAME
MAXIMUM GRADIENT (in %)	0.34%	SAME
RUNWAY LIGHTING	MIRL	SAME
RUNWAY MARKINGS	BASIC	SAME
RUNWAY APPROACH LIGHTING	NONE	SAME
RUNWAY TAXIWAY SEPARATION	150'	SAME
TAXIWAY PAVEMENT MATERIAL	ASPHALT	SAME
TAXIWAY WINGTIP CLEARANCE	26'	SAME
TAXIWAY LIGHTING	MITL	SAME
TAXIWAY MARKING	CENTERLINE, HOLD LINES	SAME
TAXIWAY OBJECT FREE AREA	129'	SAME
TAXIWAY SAFETY AREA WIDTH	79'	SAME
TAXIWAY CL TO FIXED OR MOVEABLE OBJECT	65.5'	SAME
DISTANCE FROM RWY. CL TO HOLD BARS	129'	SAME
VISUAL AIDS	VASI-2 (10) PAPI-2 (28) REILs (10-28) ROTATING BEACON	SAME SAME SAME SAME
NAVIGATIONAL AIDS	VOR-A GPS	SAME SAME

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

Magnetic Declination
13° 47' 22.8" East (Oct 2013)
Annual Rate of Change
00° 08' West (Oct. 2013)

SOURCE:
NOAA National Climatic Center
Asheville, North Carolina
Modesto City-County Airport-Harry Sham Field
Modesto, California

OBSERVATIONS:
85,887 All Weather Observations
2002-2011

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 EASEMENT
		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 IDENTIFICATION LIGHTS (REIL)
		RUNWAY THRESHOLD LIGHTS
		ODALS
		RUNWAY PROTECTION ZONE (RPZ)
		SEGMENTED CIRCLE/LIGHTED WIND TEE
		WIND INDICATOR (Lighted)
		TOPOGRAPHIC CONTOURS
		SECTION CORNER
B		TAXIWAY DESIGNATION
		HOLD POSITION MARKINGS
		AUTOMATED WEATHER OBSERVATION STATION (AWOS)

AIRPORT DATA			
OAKDALE MUNICIPAL AIRPORT			
CITY: OAKDALE, CALIFORNIA		COUNTY: STANISLAUS	
RANGE: -- TOWNSHIP: --		CIVIL TOWNSHIP	
		EXISTING	ULTIMATE
AIRPORT SERVICE LEVEL		GENERAL AVIATION	SAME
DESIGN AIRCRAFT		C-421	SAME
AIRPORT REFERENCE CODE		B-I (SMALL)	SAME
AIRPORT ELEVATION (MSL) (NAVD 88)		236.9'	SAME
MEAN MAXIMUM TEMPERATURE OF HOTTEST MONTH		97°F (JULY)	SAME
AIRPORT REFERENCE POINT (ARP) COORDINATES (NAD 83)	Latitude	37°45'22.84"N	SAME
	Longitude	120°48'0.78"W	SAME
AIRPORT and TERMINAL NAVIGATIONAL AIDS		VOR A GPS	SAME SAME
GPS AT AIRPORT		-- RNAV- (15-23)GPS	-- SAME

VICINITY MAP

LOCATION MAP

SUBMITTED BY:
Coffman Associates
FOR APPROVAL BY:
APPROVED BY: ON THE DATE OF:

FAA APPROVAL STAMP

No.	REVISIONS	DATE	BY	APP'D
1	--	--	--	--
2	--	--	--	--

THE PREPARATION OF THIS DOCUMENT IS PARTIALLY FUNDED BY AIRPORT IMPROVEMENT PROGRAM (AIP) GRANT NUMBER 3-06-0171-XXX-2014 FROM THE FEDERAL AVIATION ADMINISTRATION AS PROVIDED UNDER SECTION 505 OF THE AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982, AS AMENDED. IT CONTAINS NO PROPRIETARY EXCLUSIVE OR CONFIDENTIAL INFORMATION AND MAY BE REPRODUCED AND/OR DISTRIBUTED IN ITS ENTIRETY WITHOUT RESTRICTION. THE PROPOSED DEVELOPMENT IS ENVIRONMENTALLY ACCEPTABLE IN ACCORDANCE WITH APPROPRIATE PUBLIC LAWS.

OAKDALE MUNICIPAL AIRPORT
AIRPORT LAYOUT PLAN
OAKDALE, CALIFORNIA

PLANNED BY: Stephen C. Wagner
DETAILED BY: Maggie Beaver
APPROVED BY: James M. Harris P.E.
November 25, 2013 SHEET 1 OF 3

Coffman Associates
Airport Consultants
www.coffmanassociates.com

DRAFT

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Prepared By: Mead&Hunt www.meadhunt.com

Exhibit OAK-3

Airport Layout Plan

Oakdale Municipal Airport

BASED AIRCRAFT

	Current	Future
Aircraft Type [a]		
Single Engine	73	79
Multi Engine	8	17
Jet	0	2
Helicopter	0	2
Total	81	100

AIRCRAFT OPERATIONS

	Current	Future
Total [a]		
Annual	42,200	52,200
Average Day	116	143
Peak Hour	25	31
(avg. day, peak month)		
Distribution by Aircraft Type [c]		
Single Engine	72%	
Multi-Engine	3%	No
Turboprop	3%	Change
Business Jet	1%	
Helicopter [d]	21%	
Distribution by Type of Operation [a]		
Local		
(incl. touch-and-goes)	85%	No
Itinerant	15%	Change

TIME OF DAY DISTRIBUTION [b]

	Current	Future
Fixed Wing		
Day	92%	
Evening	5%	No
Night	3%	Change
Helicopters [d]		
Day	55%	
Evening	35%	No
Night	10%	Change

RUNWAY USE DISTRIBUTION [b]

	Current	Future
All Aircraft		
Takeoffs		
Runway 10	10%	No
Runway 28	90%	Change
Landings		
Runway 10	10%	No
Runway 28	90%	Change

FLIGHT TRACK DISTRIBUTION [b]

	Current	Future
All Aircraft		
Takeoffs, Runway 10		
Straight Out	40%	No
Left Turn	60%	Change
Takeoffs, Runway 28		
Straight Out	40%	No
Left Turn	60%	Change
Landings, Runway 10		
Straight-in	5%	
45° to downwind	85%	No
Crosswind	10%	Change
Landings, Runway 28		
Straight-in	5%	
45° to downwind	85%	No
Crosswind	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.

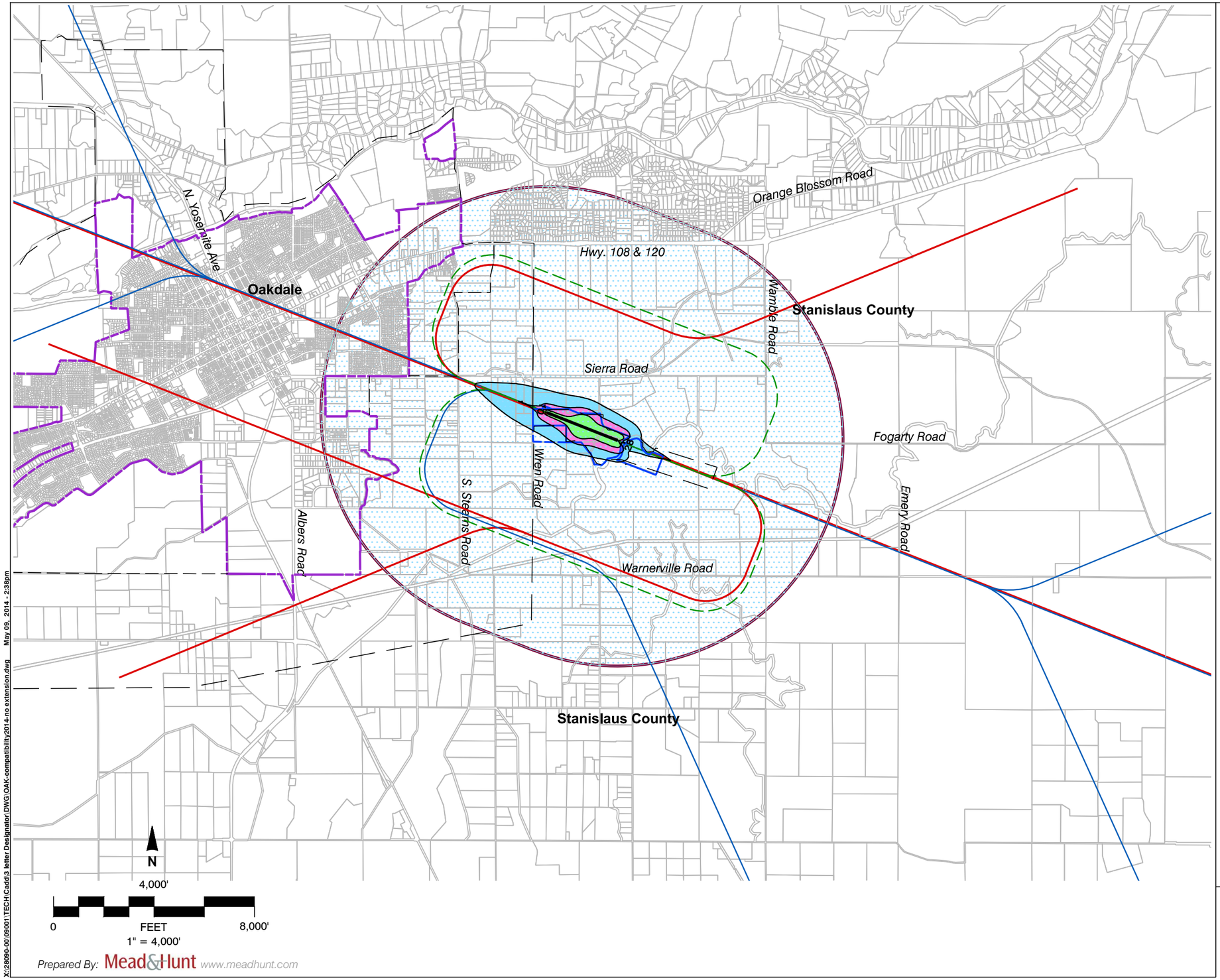
d. Helicopter training (touch-and-go) exercises are prominent at Oakdale. A dedicated helicopter flight school and some military training comprise the bulk of this activity. Helicopter training activity is expected to remain at Oakdale and growth in operations is projected.

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[1]

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

} 52,200 Annual Operations

Overflight Factors[2]

- Arrival
- Departure
- Touch and Go
- General Traffic Pattern Envelope[3]

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.

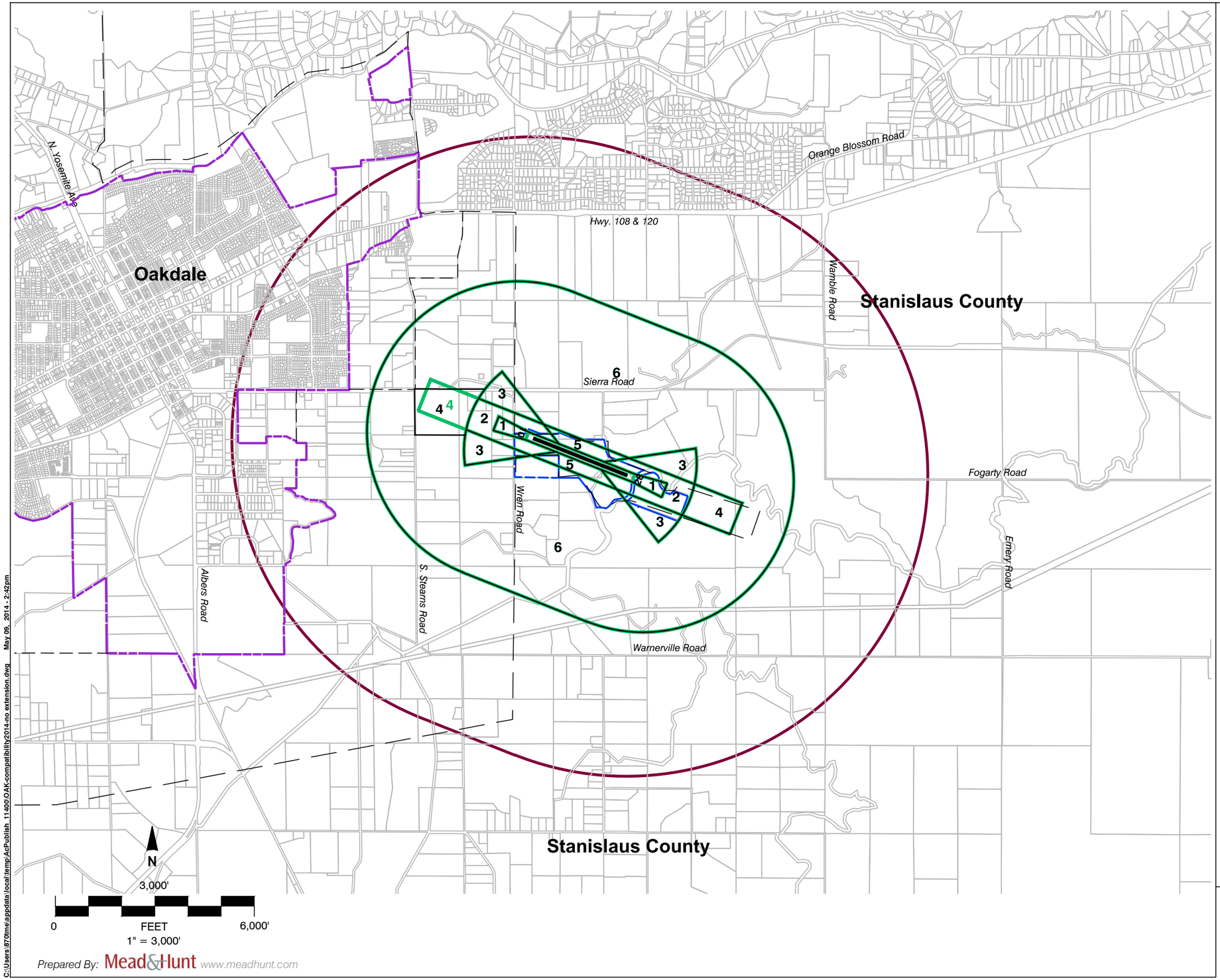
3. Approximately 80% of aircraft overflights estimated to occur within these limits at an altitude of 1,500' feet AGL or less. The traffic pattern altitude is established at 1,000' above the airport elevation.

Stanislaus County
Airport Land Use Compatibility Plans
(May 2014, Draft)

Exhibit OAK-5

Noise and Overflight Factors

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

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
(May 2014, Draft)

Exhibit OAK-6

Safety Factors

Oakdale Municipal Airport

Prepared By: Mead&Hunt www.meadhunt.com

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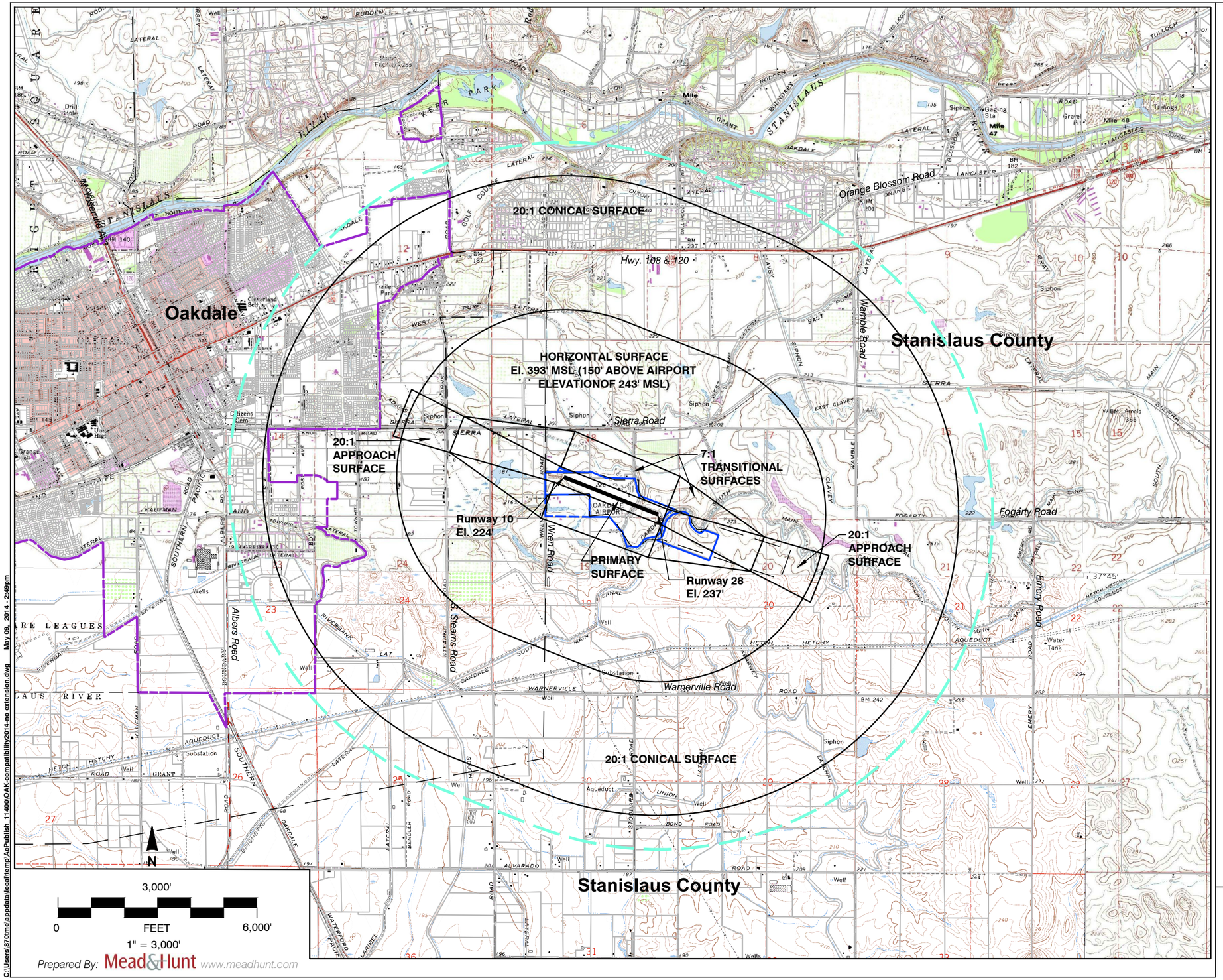

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Legend

Boundary Lines

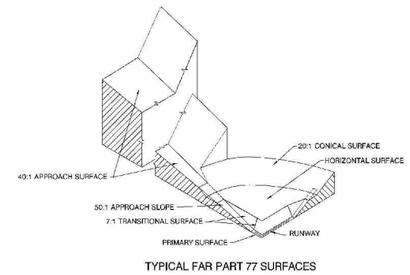
- Airport Property Line
- Future Airport Property Line
- City Limits
- Existing Sphere of Influence
- Future Sphere of Influence
- Runway
- Airport Influence Area

Airspace Protection Surfaces [1]

- FAA Height Notification Surface [2]
- FAR Part 77 Surfaces [3]

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).



TYPICAL FAR PART 77 SURFACES

Stanislaus County
Airport Land Use Compatibility Plans
(May 2014, Draft)

Exhibit OAK-7

Airspace Protection Surfaces

Oakdale Municipal Airport

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

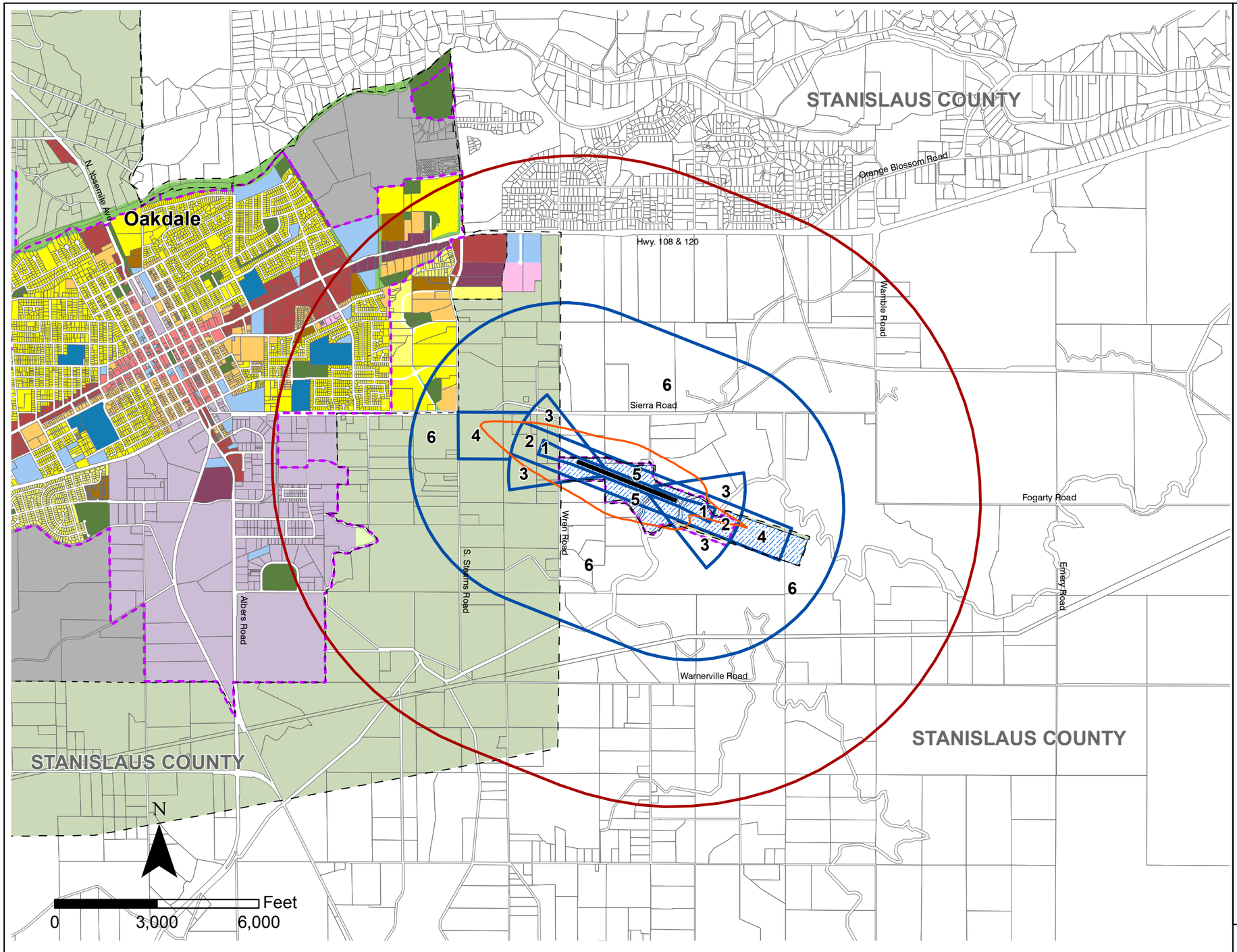
- City of Oakdale 2030 General Plan (2013)
  - LU-6.5 Airport Secondary Uses. Accommodate uses that sup-port or benefit from Oakdale Municipal Airport operations within and adjacent to the airport property when determined consistent with the City of Oakdale Municipal Airport Master Plan. (RDR, MP)
-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

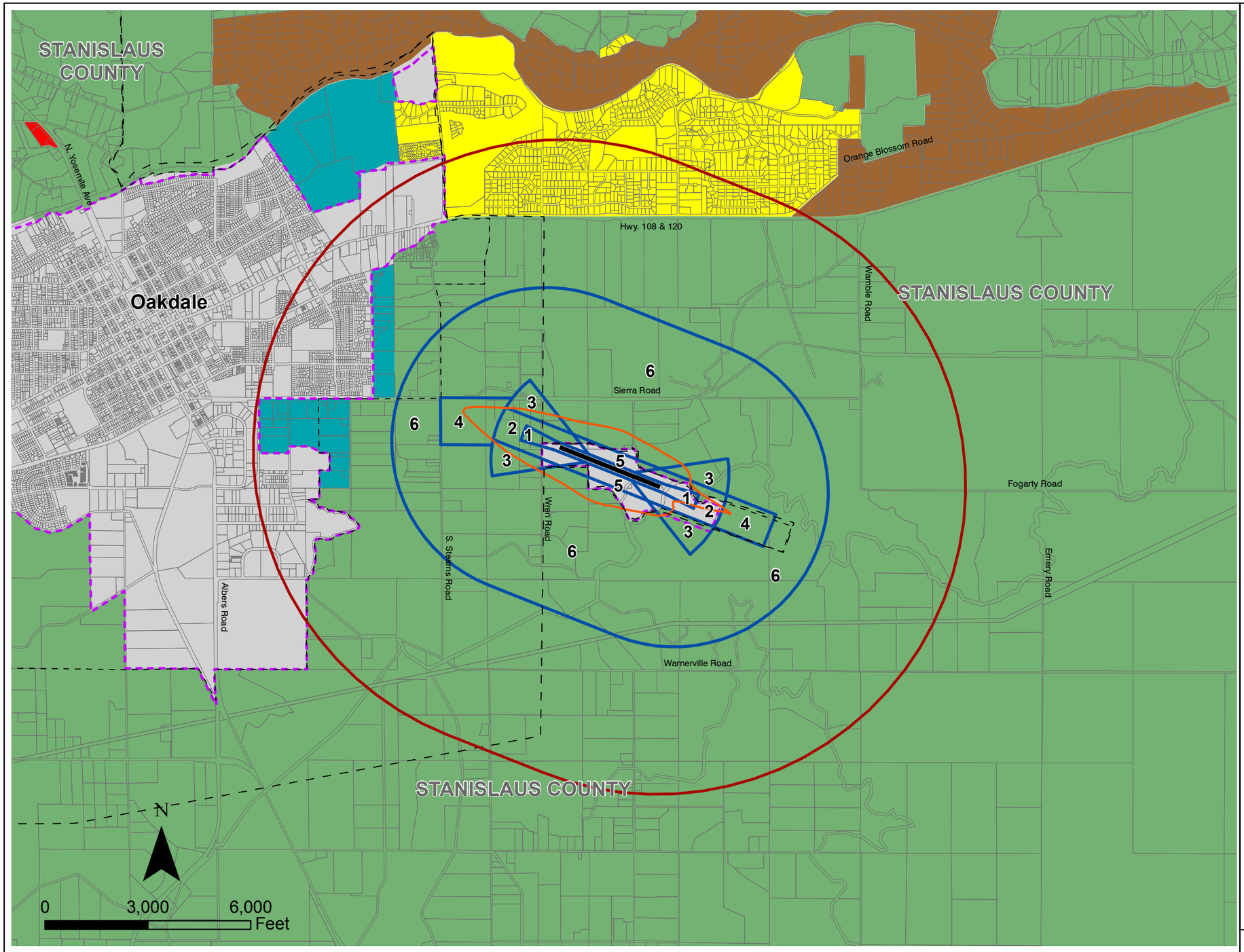
Stanislaus County
Airport Land Use Compatibility Plans
(May 2014 Draft)

Exhibit OAK-9A

Oakdale 2030 General Plan
Oakdale Municipal Airport

Sources: City and County GIS Data (2012)

Mead&Hunt



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

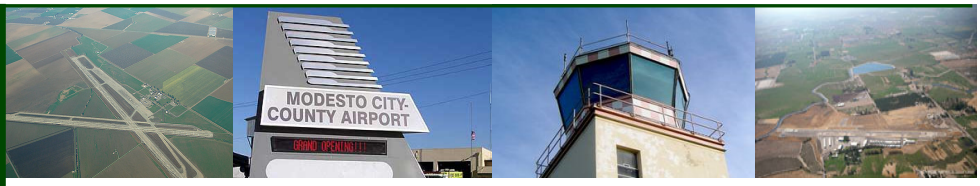
- Agriculture
- Commercial
- Estate Residential
- Hwy. Commercial/Planned Devpt.
- Historical
- Industrial Business Park
- Industrial
- Industrial Transition
- Low Density Residential
- Medium Density Residential
- Medium High Density Residential
- Planned Development
- Planned Industrial
- Specific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

Stanislaus County
Airport Land Use Compatibility Plans
(May 2014, Draft)

Sources: City and County GIS Data (2009)

Exhibit OAK-9B

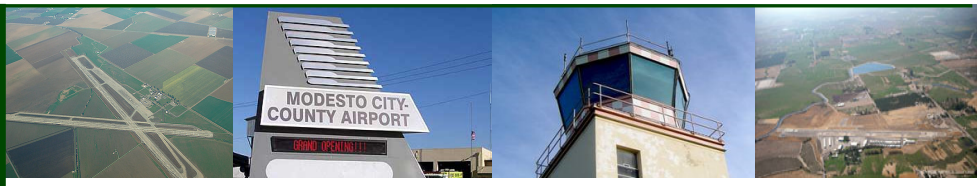
Stanislaus County General Plan
Oakdale Municipal Airport



Chapter 6

CROWS LANDING AIRPORT AND ENVIRONS BACKGROUND DATA

(FORTHCOMING)



APPENDICES