Airport Land Use Compatibility Plan Update For

IMPERIAL COUNTY

DRAFT

AIRPORT LAND USE COMPATIBILITY PLAN UPDATE

PREPARED FOR

The County of Imperial, California

BY

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Chapter 1

Purpose and Scope

Chapter One

PURPOSE AND SCOPE

1.1 INTRODUCTION

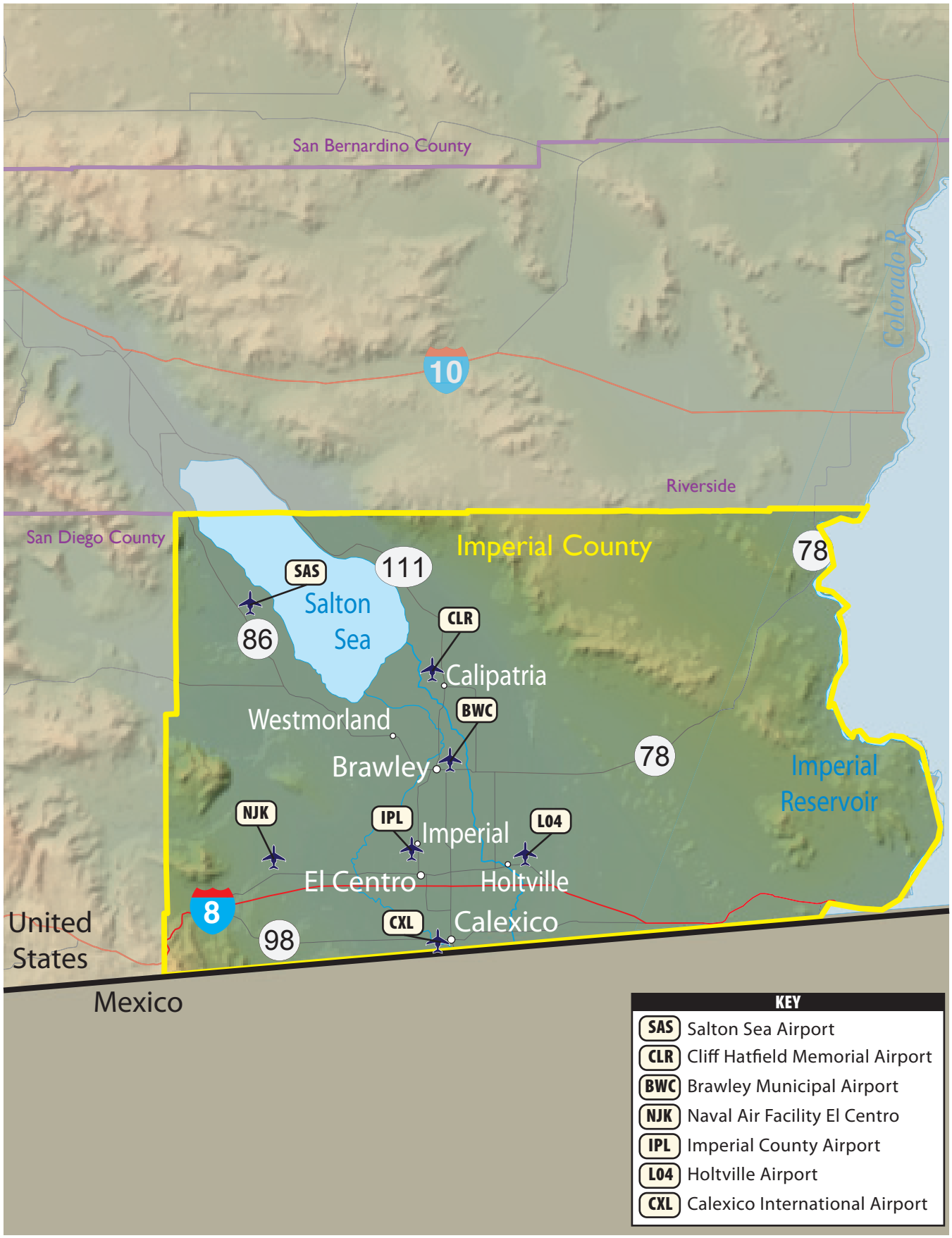
This document represents an update of the state-mandated airport land use compatibility plan (ALUCP) for the environs of the six public use airports in Imperial County. Additionally, this plan incorporates the recommendations from the May 2010 *Air Installations Compatible Use Zones (AICUZ) Report for Naval Air Facility (NAF) El Centro, California* that apply within Imperial County. The Imperial County public use airports include Brawley Municipal Airport, Calexico International Airport, Calipatria Municipal Airport, Holtville Airport, Imperial County Airport and Salton Sea Airport. **Exhibit 1A** depicts the location of these six public use airports and NAF El Centro. This ALUCP was prepared by the Airport Land Use Commission (ALUC) for Imperial County, under the authority of the *California State Aeronautics Act*, California Public Utilities Code Section 21001 et seq.

This ALUCP replaces the *Airport Land Use Compatibility Plan for Imperial County Airports* that was published in June 1996.

This ALUCP has also been prepared with reference to, and is consistent with, the guidance provided by the California Department of Transportation Division of Aeronautics (Division) in the 2011 version of the *California Airport Land Use Planning Handbook* (Handbook) pursuant to California Public Utility Code (PUC) Sections 21674.5 and 21674.7.

This ALUCP update considers the current and future use of the county's airports, including future aviation demand forecasts and the potential for new development throughout Imperial County. Energy projects have dominated new development in the county for the last several years, and this ALUCP works in conjunction with plans such as the Lithium Valley Specific Plan to provide a comprehensive framework to transform Imperial Valley into a hub for renewable energy, mineral extraction, logistics, and manufacturing.

Like the 1996 plan, this ALUCP is intended to protect and promote the safety and welfare of residents, businesses, and airport users located near the aforementioned public use airports and NAF El Centro in Imperial County, while also supporting the continued operation of these facilities. Specifically, the plan seeks to: ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents; protect the public from the adverse effects of airport noise; and ensure that no structures or activities encroach upon or adversely affect the use of navigable airspace.


San Bernardino County
Colorado R.
10
Riverside
San Diego County
Imperial County
78
111
SAS
Salton Sea
86
CLR
Calipatria
BWC
Westmorland
Brawley
78
Imperial Reservoir
NJK
IPL
Imperial
L04
El Centro
Holtville
8
98
CXL
Calexico
United States
Mexico
KEY
SAS Salton Sea Airport
CLR Cliff Hatfield Memorial Airport
BWC Brawley Municipal Airport
NJK Naval Air Facility El Centro
IPL Imperial County Airport
L04 Holtville Airport
CXL Calexico International Airport

1.2 PURPOSE

1.2.1 Purpose of the Airport Land Use Compatibility Plan (ALUCP)

Airports play a vital role in the transportation system and economy of cities and counties throughout the nation. The public use airports in Imperial County provide services such as business travel, tourism, emergency response, fire suppression, law enforcement, and agricultural support. NAF El Centro plays a vital role in our country's military preparedness and security as it provides a location for tactical training for Navy fleet air squadrons.

1.2.2 Purpose of the Airport Land Use Commission (ALUC)

In recognition of the important role airports play and proper land use compatibility planning within the State of California, the California State Legislature enacted laws that mandate the creation of Airport Land Use Commissions (ALUCs). Adopted in 1967 to assist local agency land use compatibility efforts, these laws were implemented with the intent to protect "public health, safety, and welfare by encouraging orderly expansion of airports and the adoption of land use measures that minimizes 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."

To achieve this goal, the ALUC has two primary functions:

1. To prepare and adopt an airport land use compatibility plan (ALUCP) with a 20-year planning horizon for each airport within its jurisdiction
2. Review the land use actions and airport plans of local agencies for consistency with the land use compatibility policies and criteria in the ALUCP

The Imperial County ALUCP is key to the implementation of land use compatibility policies and criteria related to the proposed development in the vicinity of public use airports and NAF El Centro. It also establishes the planning boundaries around each of these airport facilities that define their respective safety areas, noise contours, and height/airspace protection for policy implementation and for identification of areas within which notification is required as part of real estate transactions.

1.3 RESPONSIBILITIES AND REQUIREMENTS

Airport land use compatibility involves two overarching concepts: a community's need for safe and efficient air transportation and orderly, compatible land use development within the airport environs. These two concepts need to be balanced to achieve a favorable result for the airport as well as the residents and businesses in the airport's vicinity.

Airport land use compatibility planning can be a complicated matter when considering the various levels of government and documentation involved. The sections below briefly discuss the specific responsibilities

of each governmental entity, with respect to aviation and land use as necessary. It is important to note that some levels of government are limited in the actions they may take with respect to airport land use compatibility, and care has been taken to describe these limitations where appropriate.

1.3.1 Federal Government

The federal government, primarily through the Federal Aviation Administration (FAA), has the authority and responsibility to control aircraft operations associated with airport noise impacts through the following methods:

- **Implement and Enforce Aircraft Operational Procedures**. These include pilot responsibilities, compliance with Air Traffic Control instructions, flight restrictions and monitoring careless and reckless operation of aircraft. Where and how aircraft are operated while not on the ground at an airport is under the complete jurisdiction of the FAA.

- **Manage the Air Traffic Control System**. The FAA is responsible for the control of navigable airspace and reviews any proposed alterations in flight procedures for noise abatement based on the safety of flight operations, the safe and efficient use of navigable airspace, management and control of the national airspace and air traffic control systems, effects on security and national defense, and compliance with applicable laws and regulations.

- **Certification of Aircraft**. The FAA requires the reduction of aircraft noise through certification, modification of engines, or aircraft replacement as defined in Code of Federal Regulations Title 14 (14 CFR) Part 36.

- **Pilot Licensing**. Individuals licensed as pilots are trained under strict guidelines concentrating on safe and courteous aircraft operating procedures, many of which are designed to lessen the effects of aircraft noise.

- **FAA Airport Compliance and Grant Assurances:** FAA Order 5190.6B, *FAA Airport Compliance Manual,* states that the airport sponsor's role regarding land use planning and implementation actions is "to reduce the effect of noise on residents of the surrounding area. Such actions include optimal site location, improvements in airport design, noise abatement ground procedures, land acquisition, and restrictions on airport use that do not unjustly discriminate against any user, impede the federal interest in safety and management of the air navigation system, or unreasonably interfere with interstate or foreign commerce." Additionally, upon receipt of FAA grant funding, the airport sponsor agrees to take appropriate action, including the adoption of zoning laws, to the extent reasonable to restrict the use of land next to or near the airport to uses that are compatible with normal airport operations. This is in accordance with FAA Grant Assurance 21, Compatible Land Use.

- **Noise Compatibility Studies**. 14 CFR Part 150 establishes procedures and criteria for the evaluation of airport noise-related impacts. Although the FAA may provide guidance for airport land use compatibility, it has no jurisdiction over local planning decisions.

1.3.2 State of California

- **Aviation:** With respect to aviation, the California Department of Transportation Division of Aeronautics is directed by the *State Aeronautics Act* to engage in activities that protect the public interest in aeronautics and aeronautical progress. In cooperation with, and in support of, the FAA, the Division serves as the advisor to Caltrans, ALUCs, and airport sponsors as they work to better include safe aviation into the fabric of California communities and multimodal transportation planning.

- **Land Use:** The State of California grants the authority of land use regulation to local governments. This regulation is accomplished through the use of general plans and zoning ordinances. The state has also established airport noise standards, noise insulation standards, and requirements for the establishment of an ALUC. State staff may also coordinate with local agencies to encourage environmental mitigation measures intended to discourage the encroachment of incompatible land uses near airport facilities. As with the federal government, local planning decisions are at the discretion of the local jurisdiction and the state may not interfere with these decisions.

- **Real Estate Disclosure:** California State law requires sellers of real property to disclose any facts materially affecting the value and desirability of the property. Such disclosure is required when the property is either within two miles of an airport or if it is within an Airport Influence Area (AIA). The law defines the AIA as the area where airport-related factors may significantly affect land uses, or necessitate restrictions on those uses, as determined by an airport land use commission. As outlined in PUC 21675(c), the AIA is usually the planning area designated by an airport land use commission for each airport.

- **Noise Insulation Standards:** The California Noise Insulation Standards are found in California Building Code Title 24, Chapter 12, Section 1207. These are uniform minimum noise insulation performance standards to protect persons within new buildings from the effects of noise, requiring the Community Noise Equivalent Level (CNEL) to not exceed 45 decibels (dB) in any habitable room with all doors and windows closed.

1.3.3 City and County Governments

Cities and counties may be engaged in the national aviation system by owning and operating an airport. As airport proprietors, cities and counties have limited power to control what types of civil aircraft use the airport or to impose curfews or other use restrictions if the airport has received federal funds. This power is limited by the rules of 14 CFR Part 161, which states that airport proprietors may not take actions that (1) impose an undue burden on interstate or foreign commerce, (2) unjustly discriminate between different categories of airport users, or (3) involve unilateral action in matters pre-empted by the federal government.

Within the limits of the law and financial feasibility, airport proprietors may mitigate noise or acquire land or partial interests in land, such as air rights, easements, and development rights, to assure the use of property for purposes that are compatible with airport operations.

Cities and counties are responsible for the orderly development of areas surrounding the airports within their respective jurisdiction. To achieve this goal, each jurisdiction is charged with making sure all applicable planning documents and building codes are consistent with the ALUCP or go through the overrule process as outlined in Government Code, Section 65302.3. Local jurisdictions that include territory within the AIA boundary are also obligated to make their local plans consistent with the ALUCP. Local jurisdictions' land use actions, such as general plan or specific plan amendments, revisions to ordinances or regulations, airport plans, and individual development projects, must be submitted to the ALUC for a determination of consistency under Public Utility Code (PUC) Section 21676.

1.3.3.1 Airport Land Use Commission

At the county level of government exists a unique intersection of airport and land use compatibility planning under the administration of the Airport Land Use Commission. As previously discussed, the establishment of an airport land use commission is required for any county with an airport that is operated for the benefit of the public. The role of the commission is to "formulate a comprehensive plan that will provide for the orderly growth at each public use airport and the area surrounding the airport within the jurisdiction of the commission" (State of California, Public Utilities Code Section 21675).

In Imperial County, membership of the ALUC is comprised of seven commissioners: two representatives of the county, two representatives of the cities in the county, two representatives that are airport managers, and one representative of the general public. Staff for the ALUC are provided by the Imperial County Planning & Development Services Department.

1.4 SCOPE OF THE ALUCP

1.4.1 ALUCP Assumptions

The updated ALUCP is based on three key planning assumptions for each of the public use airports:

1. The Airport Layout Plan (ALP)/approved airport diagrams;
2. The aviation activity forecasts; and
3. The future noise exposure contours.

These three key planning assumptions are provided by the individual airports or prepared in coordination with individual airports as part of the ALUCP update. State law requires that ALUCs base their ALUCPs on up-to-date airport master plans or ALPs (Pub. Util. Code §21675(a)). Additionally, as discussed in the Handbook, Caltrans "will accept a signed ALP drawing in lieu of an FAA-approved ALP as the basis of an ALUCP update, provided the drawing is prepared consistent with the California Code of Regulations, Title 21, Section 3534."

1.4.2 Geographic Scope

The geographic scope for this ALUCP is demarcated by an airport influence area (AIA) boundary for each airport within this plan. The AIA is "the area in which current and projected future airport-related noise, safety, airspace protection, or overflight factors/layers may significantly affect land use or necessitate restrictions on uses by an airport land use commission." The AIA boundary for each airport was established using the outer boundary of the 14 CFR Part 77 Conical Surface for the six public use airports. 14 CFR Part 77 defines a series of airspace boundaries around an airport to determine if there are obstructions to air navigation. The Conical Surface is the outer boundary of the 14 CFR Part 77 airspace boundaries and generally represents the traffic pattern for an airport. The AIA boundaries are depicted on the following exhibits:

- Brawley Municipal Airport (BWC) Appendix A, Exhibit A1
- Calexico International Airport(CXL) Appendix B, Exhibit B1
- Calipatria Airport (CLR) Appendix C, Exhibit C1
- Holtville Airport (L04) Appendix D, Exhibit D1
- Imperial County Airport (IPL) Appendix E, Exhibit E1
- Salton Sea Airport (SAS) Appendix F, Exhibit F1
- NAF El Centro (NJK) Appendix G, Exhibit G1

The AIA boundary for NAF El Centro is based on the outer boundary of the Imaginary Surfaces for Class B Fixed Wing Runways, noise exposure contours, and Accident Potential Zones (APZs) as described in the May 2010 *Air Installations Compatible Use Zones (AICUZ) report for Naval Air Facility (NAF) El Centro* prepared by the United States Navy.

1.4.3 Limitations of the ALUCP

The ALUC has no authority over airport operations (Pub. Util. Code, Section 21674[e]). Therefore, nothing in this ALUCP shall be interpreted as regulating or conveying any recommendations concerning aircraft operations to, from, or at the airport (See Section 2.3.2).

The ALUCP is not a specific development plan. This ALUCP does not designate specific land uses for any particular parcel or parcels of land.

The land use compatibility policies and criteria contained within this document are intended to promote compatible land development in the vicinity of the airports contained with this ALUCP. They are not intended to remove existing incompatible uses. ***None of the compatibility criteria contained herein are retroactive to existing land uses***.

Incompatible development that currently exists is recognized as existing nonconforming land use by the ALUC. Although this nonconforming land use is recognized, neither this ALUCP nor the ALUC finds these uses to be consistent with this ALUCP.

In addition to land uses that are currently developed and in use, "existing land uses" shall also include vested development projects that have not yet been built, provided they meet at least one of the conditions outlined in Section 2.4.1.

1.5 ALUCP ADOPTION, IMPLEMENTATION, AND AMENDMENTS

1.5.1 ALUCP Adoption

Adoption of this ALUCP is coordinated through the Imperial County ALUC. The ALUC is obligated to involve the affected local agencies in the adoption process by holding a public hearing on the document prior to formal adoption. For the purposes of this plan, affected local agencies include, but are not limited to, Imperial County and the cities of Brawley, Calexico, Calipatria, El Centro, Holtville, and Imperial (see Section 2.3). As discussed in the Handbook, adoption of the ALUCP begins a statutory 180-day period within which each affected local agency (Imperial County and the cities of Brawley, Calexico, Calipatria, El Centro, Holtville, and Imperial) must either modify its general plan as well as any applicable specific plans or take the steps necessary to overrule the ALUC (Government Code, Section 65302.3) using the process outlined in Section 1.5.2 below.

1.5.2 Overrule Policy

1.5.2.1 Overrule Process

As outlined in the Handbook, Government Code (Gov. Code) Section 65302.3 (a) states that a county's or city's general plan, as well as any applicable specific plans, "shall be consistent" with an ALUCP and that every affected county or city must amend its general and specific plans as necessary to keep them consistent with the ALUCP. If the ALUC determines the local plan to be inconsistent with the ALUCP, each local agency (Imperial County and the cities of Brawley, Calexico, Calipatria, El Centro, Holtville, and Imperial) shall reconsider its plan, or overrule the ALUC's decision.

The overrule process involves three mandatory steps:

1) Holding a public hearing
2) Making specific findings that the action proposed is consistent with the purposes of the ALUC statute
3) Approval of the proposed action by a two-thirds vote of the agency's governing body

In accordance with PUC 21676, at least 45 days prior to the decision to overrule the ALUC, the local agency shall provide the ALUC and the Division a copy of the proposed overrule decision and accompanying findings. The ALUC and the Division may provide comments to the local agency's governing body within 30 days of receiving the proposed decision and findings. While the ALUC and Division comments are advisory, they must be included in the public record of any decision to overrule the ALUC.

1.5.2.2 Substance of Finding

The essential substance of the findings that accompany a local agency overruling of an ALUC decision is indicated in PUC Section 21670. Section 21670(a) states five separate purposes for the legislation:

- "…to provide for the orderly development of each public use airport in this state…"
- "…to provide for the orderly development of…the area surrounding these airports so as to promote the overall goals and objectives of the California airport noise standards…"
- "…to provide for the orderly development of…the area surrounding these airports so as…to prevent the creation of new noise and safety problems."
- "…to protect the public health, safety, and welfare by ensuring the orderly expansion of airports…"
- "…to protect the public health, safety, and welfare by…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."

Although the findings do not need to address each of these purposes point by point, it is essential that, collectively, all the purposes be addressed. The following sections outline possible approaches to demonstrating a proposed action that would indeed be consistent with these purposes.

a. **Providing for Orderly Development of the Airport.** The findings shall document:
    1. How the local agency has considered any adopted long-range development plans that may exist for the airport;
    2. How the local agency plans to support development of the airport over at least the next 20 years; and
    3. How local land use planning and zoning actions would serve to protect the approaches to the airport runways.

b. **Relationship to California Airport Noise Standards.** The findings should:
    1. Document any inconsistencies between noise element policies and noise compatibility criteria in the ALUC compatibility plan, and attempt to resolve why these differences exist;
    2. Show how noise element policies will ensure conformance with the state noise airport standards; and
    3. Identify any measures to be incorporated into local development to mitigate existing and foreseeable airport noise problems.

c. **Preventing Creation of New Noise and Safety Problems.** The findings should:
    1. Document any inconsistencies between the proposed land use action and safety compatibility criteria in the ALUC compatibility plan;
    2. Describe the measures taken to assure that risks – both to people and property on the ground and to aircraft occupants – associated with the land use proposal are held to a minimum; and
    3. Indicate that the proposed land use action falls within a level of acceptable risk considered to be a community norm.

d. **Protecting Public Health, Safety, and Welfare by Ensuring Orderly Expansion of the Airport.** The findings should:

    1. Document any inconsistencies between the proposed land use action and safety compatibility criteria in the ALUC compatibility plan;
    2. Describe the measures taken to assure that risks – both to people and property on the ground and to the occupants of aircraft – associated with the land use proposal are held to a minimum; and
    3. Indicate that the proposed land use action falls within a level of acceptable risk considered to be a community norm.

e. **Minimizing the Public's Exposure to Excessive Noise and Safety Hazards.** The statute requires a quantitative assessment of noise exposure and safety hazards. The purpose of the statute is not merely to reduce the public's exposure to noise and safety hazards, but to minimize exposure in areas with excessive noise or safety concerns. To adopt a finding demonstrating consistency with this purpose, the local agency first must determine whether the existing noise exposure or safety hazards are excessive.

    1. If existing noise and safety hazards are not excessive, then the actions taken by the local agency must "prevent the creation of new noise and safety problems" (see the third bullet above).
    2. If the existing exposure is excessive, the local agency would have to show how its action in overruling an ALUC determination of inconsistency nonetheless minimizes additional exposure to those noise and safety concerns that have been identified.
    3. Finally, the local agency needs to show the extent to which land uses in the area in question are already incompatible with airport operations and how an action to overrule would not create a new incompatible use nor expose additional persons or property to noise and safety hazards associated with existing compatible uses.

1.5.3 ALUCP Implementation

Once the ALUCP has been adopted and local agencies have amended their general and specific plans to be consistent with it, the following types of actions proposed within the airport influence area must be submitted to the ALUC for determination of consistency prior to approval by the local jurisdiction:

- Adoption of a general plan, specific plan, or any amendments
- Airport and heliport plans, including master plans, expansion plans and plans for the construction of a new facility (See Policy 2.9)

1.5.4 ALUCP Amendments

Major amendments (revising the policies in a manner that would change their applicability to a public agency, adding new policies, or revising maps) to the compatibility plan cannot be done more than once

per calendar year.[1] Minor amendments (addressing grammatical, typographical, or minor technical errors that do not affect policies or the manner in which those policies are applied) can be done as often as needed.[2] ALUCP amendments may address any issue deemed appropriate by the ALUC. State law also requires that the ALUC review updates to airport master plans, airport layout plans, and proposals for airport expansion.[3] The ALUCP must be amended as needed to reflect updates and revisions to airport plans.

1.6 ENVIRONMENTAL REVIEW

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

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

In accordance with Public Resources Code, Section 21096, the ALUCP and Handbook shall be utilized as technical resources to assist in the preparation of environmental documentation as the report relates to airport-related safety hazards and noise problems. Additionally, a lead agency shall not adopt a negative declaration for a development action unless the lead agency considers whether or not the project will result in a safety hazard or noise problem, as defined by this ALUCP, for persons using the airport or for persons residing or working in the project area.

1.7 ABOUT THIS DOCUMENT

This document includes all components of the updated ALUCP for the six public use airports and NAF El Centro within Imperial County. In addition to this chapter, which outlines the ALUCP purpose and scope, the remaining two chapters provide the following information:

[1] California Public Utilities Code §21675(a).
[2] California Department of Transportation, Division of Aeronautics, *California Airport Land Use Planning Handbook*, October 2011, § 2.4.2 ALUCP Amendments,
[3] California Public Utilities Code §§21674(d), 21676(c).

- Chapter Two, Implementation and Definitions, includes all applicable implementation policies and guidance for this ALUCP and definitions of land use compatibility terms used in this plan.
- Chapter Three, Compatibility Policies and Criteria, includes the safety, noise, and height restriction guidelines to be used when considering land use developments within the vicinity of the airport influence area boundaries for six public use airports and NAF El Centro.

Note: Compatibility policies for the area within Imperial County near NAF El Centro can be found in **Appendix G**.

Additionally, appendices to supplement the analysis are presented in the ALUCP. These include airport facilities, operations, area land use, noise analysis, and safety information for all six public use airports in Imperial County as well as NAF El Centro.

Appendices that include implementation materials are also provided for use by Imperial County Planning Department staff and local planning agencies to achieve the land use compatibility goals of this plan.

Chapter 2

Implementation and Definitions

Chapter Two

IMPLEMENTATION AND DEFINITIONS

2.1 EFFECTIVE DATE

This ALUCP becomes effective on the date of its adoption by the ALUC, superseding the previous ALUCP for Imperial County. Following the adoption of this plan, the previous plan shall not be used to make any consistency determinations.

If any portion of this ALUCP or another Imperial County ALUCP is invalidated by court action, all other portions of this ALUCP are to remain unaffected and in full force.

2.2 STATE REQUIREMENTS AND GUIDANCE

2.2.1 State ALUC Statute

In the development of ALUCPs, state law requires:

- The Imperial County ALUC to prepare ALUCPs for all public use and military airports in the County.
- The California Department of Transportation (Caltrans) to provide guidance to ALUCs in preparation of ALUCPs. The Caltrans Division of Aeronautics publishes the California *Airport Land Use Planning Handbook* (Handbook) to fulfill this responsibility.
- The ALUCs to be guided by the information in the California *Airport Land Use Planning Handbook,* published by the Caltrans Division of Aeronautics, when preparing ALUCPs.
- The ALUCs to base ALUCPs on a long-range airport master plan and/or airport layout plan (ALP), which reflects the anticipated growth of the airport for at least the next 20 years. In the absence of an FAA-approved ALP, the ALUC may use a signed ALP drawing, with Caltrans concurrence, that is consistent with the California Code of Regulations, Title 21, Section 3534.

In addition to agencies with land use regulatory authority (such as cities and counties), special districts, community college districts and school districts are also subject to the requirements of the state ALUC statute.

2.2.2 California Airport Land Use Planning Guidelines

The latest edition of the Handbook was released in October 2011. The Handbook provides guidance on the delineation of airport compatibility factor boundaries, the policies that should apply within those areas, and the administration of ALUCPs. The policies and maps in this ALUCP take into account the guidance provided by the current edition of the Handbook.

2.2.3 Other Caltrans Planning Projects

- **Caltrans 2024-2028 Strategic Plan.**[1] Caltrans aims to provide a safe, sustainable, and efficient transportation system. The Core Four Principals of the plan are safety, equity, climate action, and prosperity. Specifically, Caltrans seeks to emphasize sustainability goals within airport operations and adopt clean energy practices. This includes strategies that facilitate the transition to zero emission vehicles and infrastructure across all transportation modes, prioritize transportation projects the provide multimodal options to encourage fewer and shorter car trips, and promote low carbon/zero emission practices in project development and construction.

- **Climate Action Plan for Transportation Infrastructure (CAPTI).**[2] The CAPTI discusses Caltrans' goals for reducing greenhouse gas (GHG) impacts from transportation investments, mitigating Vehicle Miles Travelled (VMT), implementing electric vehicles, and improving transportation and land use connections for sustainability.

- **California Transportation Plan (CTP) 2050.**[3] The CTP 2050 emphasizes the need for improved and connected airports. The CTP 2050 and the California Aviation System Plan focus aviation efforts on "enhancing future connectivity between air travel and other modes, improving airport access in small and rural communities, and expanding sustainable energy solutions to curb aviation-related emissions" (page 53). Other goals addressed in the plan include:

    - "Improved airport-land use planning that incorporates airports as regional economic and transportation hubs" (page 55)
    - "Maintaining a vibrant multimodal transportation system with world class ports, airports, railways, highways, streets, and transit systems" (page 78); and
    - Emphasizing the need for a transportation system that is sustainable, integrated, reduces GHG emissions, and promotes active transportation such as walking and cycling.

    In accordance with the CTP 2050, future airport plans should include mitigating GHG impacts from airport operations, providing for public transit connectivity to airports, and including sustainable aviation technologies.

- **Connect SoCal 2024, Technical Report: Aviation and Airport Ground Access**.[4] This document provides guidance regarding passenger connectivity from transit stops to the airport. The Connect SoCal 2024 Plan includes "discussion of the regional airport and aviation system, including the regulatory, operational and planning framework; airports in the Southern California Association of Governments (SCAG) region; passenger and cargo trends; surface transportation modal choices; passenger forecasts; and highlights of airport ground-access improvement projects" (page 22).

[1] https://dot.ca.gov/-/media/dot-media/programs/risk-strategic-management/documents/2024-28-caltrans-strategic-plan- final-a11y.pdf
[2] https://calsta.ca.gov/subject-areas/climate-action-plan
[3] https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf
[4] https://scag.ca.gov/sites/main/files/file-attachments/23-2987-tr-connect-socal-2024-aviation-airport-ground-access-draft-110223.pdf?1698349253

- **California Aviation System Plan (CASP) 2020.**[5] Individual projects listed in the CASP are described in more detail in the relevant appendix for each airport.

2.3 LOCAL AGENCIES AND STAKEHOLDERS SUBJECT TO THIS ALUCP

Those affected most directly by this ALUCP include three groups of stakeholders – the ALUC, local agencies, and project sponsors. The following bullets briefly describe these stakeholders and their roles in using or implementing this ALUCP.

- **The ALUC** refers to the Imperial County Airport Land Use Commission and its staff. The role of the ALUC is to fulfill its mandate to promote airport land use compatibility in the environs of the Airport.

- **Local agency** refers to Imperial County and any municipality with land use regulatory and permitting authority, including the cities of Brawley, Calexico, Calipatria, El Centro, Holtville, and Imperial. It also includes school districts, community college districts, and special districts. Local agencies must incorporate compatibility policies and standards into their land use plans, ordinances, and regulations or overrule the ALUCP, in whole or in part.

- **Project sponsor** refers to any person or entity with legal interest in a property, including a local agency, landowner, or nonresidential tenant, who submits an application to a local agency for review of a project proposed on that property. Project sponsors must comply with the compatibility policies and standards of this ALUCP when designing and building projects.

2.3.1 Property Not Subject to this ALUCP

This ALUCP does not apply to any property owned by the United States government, State of California, or any Native American tribe.

2.3.2 Limit of ALUC Authority Over Airport

Public Utilities Code § 21674 provides that the ALUC has certain powers and duties, subject to the limitations on its jurisdiction set forth in Public Utilities Code § 21676. Those powers include, but are not limited to, reviewing the plans, regulations, and other actions of local agencies and airport operators pursuant to Section 21676. However, Public Utilities Code § 21674 states that the powers of the ALUC shall in no way be construed to give the commission jurisdiction over the operation of any airport.

Other potential impacts created by airports within their environs (e.g., air or water quality, resource impacts, or surface traffic) are addressed by other federal and state laws and are not within the statutory authority of the ALUC to review.

[5] https://dot.ca.gov/programs/aeronautics/california-aviation-system-plan

2.4 EXEMPTIONS FROM ALUC REVIEW

2.4.1 Existing Land Uses

Under state law, an ALUC has no authority over existing land use. A land use project will be considered an existing land use when a "vested right" is obtained in any of the following ways:

- An approved and unexpired vesting tentative map (pursuant to Cal. Gov. Code § 66498.1)
- An executed and valid development agreement (pursuant to Cal. Gov. Code § 65866)
- Issuance of a valid building permit with substantial work performed and substantial liabilities incurred in good faith reliance on the building permit

An extension of time, or a proposed modification to an existing land use project that the local agency has determined to be in substantial conformance with previous approvals, is not subject to consistency review regardless of if a consistency determination was previously made. If the proposed modification is determined by the local agency to not be in substantial conformance, it must be submitted for consistency review.

The determination of whether a land use plan, ordinance, regulation, or project meets the criteria of an existing land use must be made by the ALUC (or the local agency post-ALUCP implementation).

2.4.2 Repair, Maintenance, and Modification

Repair and maintenance of existing buildings are compatible with this ALUCP and are not subject to consistency review. Modification of existing nonconforming land uses shall be permissible, provided that the modification does not increase the magnitude of the nonconformity when compared to **Table 3A**, on page 3-4. The magnitude of nonconformity shall be measured by:

- For residential land uses, the number of dwelling units and size of the structure on the lot
- For nonresidential land uses, the size of the nonconforming use in terms of lot area and building floor area

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

2.4.3 Resumption of a Discontinued Use

A land use that has been discontinued for more than 24 months is not considered an existing use. A use may be re-established within 24 months (as determined by the local agency) following initial discontinuance without being subject to consistency review.

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

2.4.4 Single-Family Residence Development Right

Notwithstanding any other policies of this ALUCP, construction of a single-family residence, including a second dwelling unit, is allowed on a legal lot of record if the following conditions are met:

1. The property is located outside of Safety Zone 1 – Runway Protection Zone (RPZ),
2. The project is permitted by the local agency, and
3. The project complies with a land use ordinance that has been determined by the ALUC and local agency to be consistent with this ALUCP.

2.5 GOVERNING ALUCP

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

2.5.1 Development Actions with Previous Airport Land Use Commission Consistency Determinations

Proposed development actions determined to be consistent or conditionally consistent with the compatibility plan in effect at the time of ALUC project review do not require further review under this compatibility plan, unless the proposed development is within the airport influence area (AIA) and one or more of the following conditions occur:

1. Increase in the proposed residential density or nonresidential intensity, which would exceed the limits in **Table 3A**
2. Alteration or reconstruction of a non-residential use expanding a portion of the site or the floor area of the building, therefore increasing above existing levels the maximum intensity limits (number of people per acre) or the floor area ratio
3. Addition of a land use incompatible with this ALUCP
4. Structure height increase creating a hazard or obstruction as determined by the FAA
5. Addition of a characteristic that would create a hazard to air navigation (e.g., glare, thermal plumes, wildlife attractants) or impact airport operations, as determined by the airport operator
6. Consistency determination is not more than five years old

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

An ALUC consistency determination does not expire, but it is limited to the project plans and description submitted with its application as reviewed by the ALUC.

A consistency determination is transferable to a modified project only if there are no changes as listed in any of the preceding bullets. Any change in these characteristics requires a new consistency determination. If the ALUC makes a new consistency determination, the previous determination will be rescinded.

Once a land use plan, ordinance, or regulation has been found consistent with this ALUCP, future land use projects within the plan area must be reviewed for consistency if, at the time of original review, the plan consisted of only generalized land use designations without project details (e.g. site layout, density/ intensity, building heights).

2.5.2 Development Actions in the Review Process Before the Adoption Date of this Compatibility Plan

Any proposed development action within the AIA that has an application deemed complete by the Imperial County Planning Department staff per the California Government Code (§ 65943) prior to adoption of this compatibility plan will be evaluated by the ALUC under the previous ALUCP plans.

2.6 ALUC CONSISTENCY REVIEW AFTER ALUCP ADOPTION, PRIOR TO LOCAL AGENCY CONSISTENCY FINDINGS

This section describes the process for consistency determinations before a local agency amends its land use plans and/or regulations to be consistent with this ALUCP or overrules all or part of this ALUCP. **Exhibit 2A** depicts the ALUC review process for land use plans, regulations, and projects prior to local agency implementation or overrule of ALUC findings.

2.6.1 Consistency Determination Review Process

Local agencies must submit an application for consistency determination to the ALUC for proposed land use plans, regulations, and projects as required by this ALUCP. Proposed land use plans, regulations, and projects should be referred to the ALUC at the earliest reasonable point in time so that the ALUC's review can be duly considered by the local agency prior to formalizing its decision. Depending on the type of plan or project and the normal scheduling of meetings, ALUC review can be completed before, after, or concurrently with a review by the planning commission (and other advisory bodies) but must be done before final action by the local agency.

The application must contain the information described in **Appendix J**. The procedures discussed in the following sections apply.

ALUC REVIEW BEFORE LOCAL AGENCY IMPLEMENTATION

PROJECT SPONSOR

Submits land use plans, regulations and projects to local agency for approval[1]

LOCAL AGENCY

Submits land use plans, regulations and projects to the ALUC for consistency determination

ALUC

Reviews land use plans, regulations and projects and makes consistency determination (with conditions, if required)

IF CONSISTENT

LOCAL AGENCY

Land use projects: local agency informs project sponsor of determination of consistency and issues permit(s) for consistent or conditionally consistent projects

OR

Land use plans and regulations: local agency adopts/approves the land use plans or regulations

IF NOT CONSISTENT

LOCAL AGENCY

Land use projects: local agency informs project sponsor of determination of inconsistency and denies the land use projects. The local agency has three options.

OR

Land use plans and regulations: local agency informs project sponsor of determination of inconsistency and denies land use plans or regulations. The local agency has three options.

- Local agency amends the project/plan/ regulation and resubmits to ALUC for consistency determination
- OR
- Local agency overrules the ALUC
- OR
- Project/plan/ regulation denied

PROJECT SPONSOR

Proceeds with the implementation of the land use plans and regulations, or the development of the land use projects

Note: 1. This includes land use plan amendments proposed by a project sponsor and rezones.
Source/Prepared by: Coffman Associates, Inc.

2.6.2 Review of Application for Completeness

Imperial County Planning Department staff will verify completeness of the application for consistency determination from the local agency and notify the local agency of application completeness in writing within 30 calendar days after receipt of an application.

If the application for consistency determination is deemed incomplete, Imperial County Planning Department staff will identify the information required to complete the application and inform the local agency. If additional information is required, a new 30-calendar day review period begins after the additional information is received by Imperial County Planning Department staff.

If the Imperial County Planning Department staff does not make a written determination of completeness within 30 calendar days after receipt of an application for consistency determination, the application is considered complete.

2.6.3 Consistency Review Timeframe

The ALUC must respond to a local agency's request for consistency determination no more than 60 calendar days after the application is deemed complete by Imperial County Planning Department staff.

The 60 calendar-day review period may be extended if the local agency agrees in writing or verbally consents to the extension at an ALUC meeting.

If the ALUC fails to act within 60 calendar days or within a mutually agreed upon extended timeframe, the proposed land use plan, regulation, or project is considered consistent with this ALUCP.

2.6.4 Public Notice

The ALUC will provide public notice before acting on any land use plan, regulation, or project under consideration. Approximately one week prior to the ALUC meeting, an annotated agenda and meeting package will be made available on the ALUC website at https://www.icpds.com/hearings/airport-land-use-commission. Staff will notify commissioners and all interested members of the public via email regarding the available meeting agenda.

2.6.5 Consistency Determination Result

The ALUC will notify the local agency in writing of its consistency determination. A proposed land use plan, regulation, or project will be determined by the ALUC to be one of the following:

- **Consistent with all four compatibility factors in this ALUCP** – The local agency may proceed with its decision.

- **Conditionally consistent with this ALUCP** – Any specified conditions must correspond to the policies and standards of this ALUCP. Unless a condition specifies subsequent review by the ALUC, it is the responsibility of the permittee to meet any specified conditions and the responsibility of the local agency with permit approval authority to ensure compliance with conditions.

- **Not consistent with this ALUCP** – The ALUC must explain the specific conflicts with ALUCP policies and standards. The local agency may not approve the proposed land use plan, regulation, or project unless it overrules the ALUC's finding of inconsistency in accordance with applicable state law. See Section 1.5.2.

Exhibit 2B presents a flow diagram summarizing the consistency determination review process.

2.6.6 Findings as to Similar Uses

Cases may arise where a proposed development project involves a land use that is not explicitly provided for by the land use criteria addressed in Tables 3A and 3B, found in Chapter Three of this document. In such cases, the applicant shall request a "similar use" determination from the Imperial County Planning Commission in accordance with Imperial County Land Use Code § 90203.10, *Similarity in use(s)*, prior to ALUC review. Imperial County Planning Department staff shall then review the proposed development project based on criteria of the approved similar use listed in Table 3A and Table 3B.

The ALUC shall make the final determination with respect to appropriate land use classification for local agencies (including the cities of Brawley, Calexico, Calipatria, El Centro, Holtville, and Imperial), following the process outlined in Imperial County Land Use Code § 90203.10, *Similarity in use(s).*

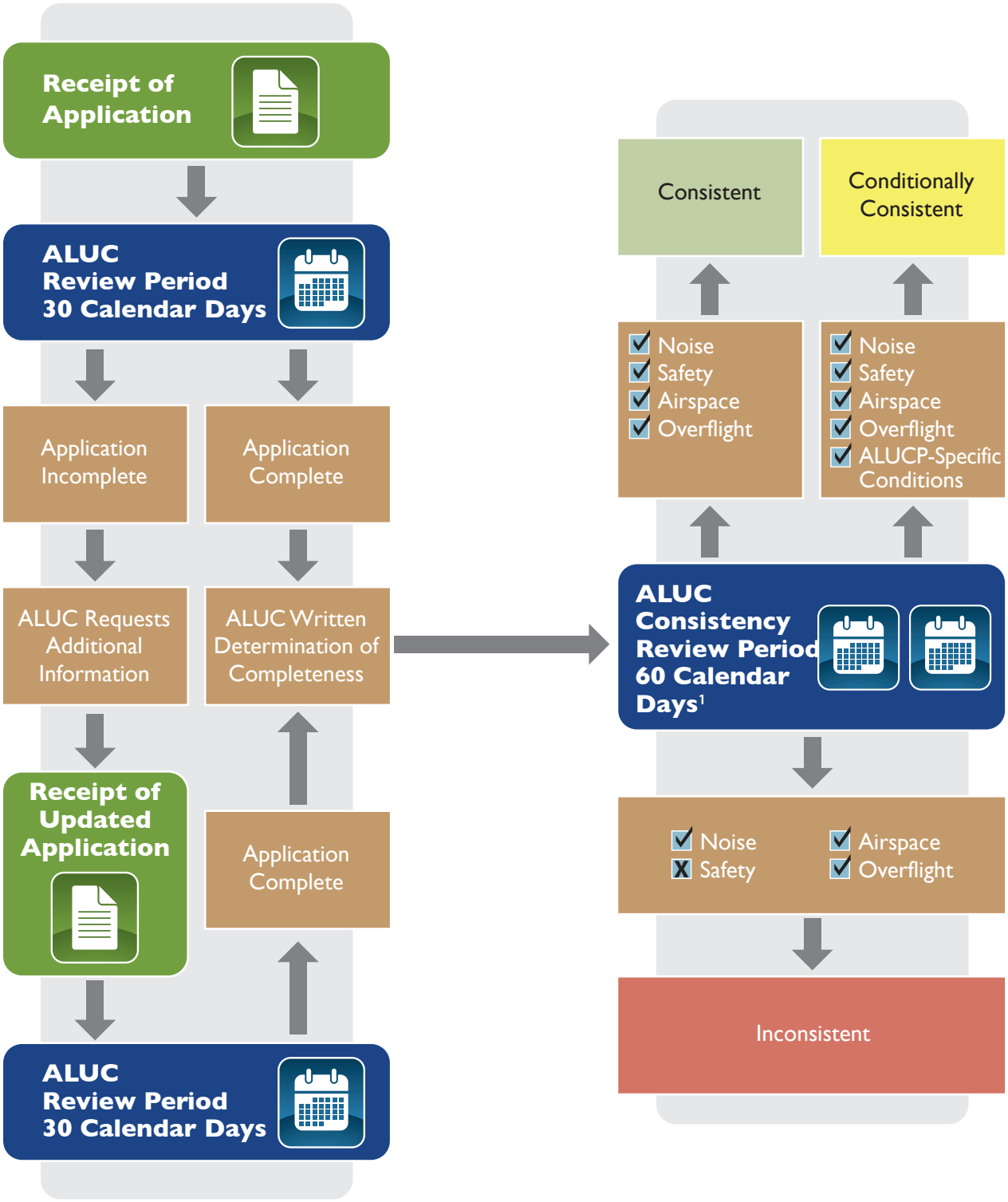
2.6.7 Properties Divided by Compatibility Zone Boundary

For the purpose of evaluating consistency with the compatibility criteria set forth in this ALUCP, any parcel larger than one acre that is split by compatibility zone boundaries shall be considered as if it were multiple parcels divided at the compatibility zone boundary line. Parcels less than one acre shall be evaluated for consistency based upon the compatibility zone that covers more than 50% of the parcel.

2.6.8 Land Use Compatibility Planning Coordination

An important purpose and function of the compatibility plan is to coordinate airport land use compatibility planning across jurisdictions. To further that purpose, policies 2.6.8.1 through 2.6.8.3 shall apply.

CONSISTENCY DETERMINATION REVIEW PROCESS



Note: 1. California Public Utilities Code §21676(d).
Source/Prepared by: Coffman Associates, Inc.

2.6.8.1 Notification and Review of Proposed Land Use Policies

Any proposed land use policy action that affects property within the AIA must be referred to the Airport Land Use Commission for a determination of consistency. Local jurisdictions shall notify the Airport Land Use Commission of every such proposed land use policy action as required by state law.

2.6.8.2 Notification to Airport Management of Proposed Land Use Policy Actions

The ALUC shall encourage local governments to inform airport operators of proposed land use policy actions within the Imperial County AIAs. This should be done in a manner and at a time that enables ALUC and airport operators to review the proposed land use policy action concurrently.

2.6.8.3 Voluntary Advisory Review of Development Proposals

After a jurisdiction's general plan and/or specific plan has been determined to be fully consistent with this ALUCP, local governments may continue submitting development proposals within the AIA to the Airport Land Use Commission for voluntary, non-binding advisory review. If a jurisdiction's general plan and/or specific plan is not consistent with this ALUCP, then ALUC review of development proposals is mandatory. The Airport Land Use Commission shall encourage local governments to submit the following types of development proposals within the AIA for voluntary advisory review:

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

The local jurisdiction does not need to take the special steps necessary to overrule the ALUC if it disagrees with the outcome of an advisory review.

2.7 LOCAL AGENCY IMPLEMENTATION

2.7.1 Local Agency Requirements and Responsibilities

Within 180 calendar days of the ALUC's adoption or amendment of this ALUCP, each local agency affected by this ALUCP must:

1. Amend its land use plans and regulations to be consistent with this ALUCP, if needed; or
2. Overrule this ALUCP by a two-thirds vote of its governing body after adopting findings that justify the overrule and providing notice, as required by law (See Section 1.5.2)

If a local agency fails to take either action, it must follow the review process detailed in **Section 2.6**.

If the ALUC "finds that a local agency has not revised its general plan or specific plan or overruled the commission by a two-thirds vote of its governing body after making specific findings that the proposed action is consistent with the purposes of the Aeronautics Act, as stated in Public Utilities Code Section 21670, the ALUC may require that the local agency submit all subsequent actions, regulations, and permits to the ALUC for review until the local agency's general plan or specific plan is revised or the specific findings are made" pursuant to Public Utilities Code Section 21676.5.

2.7.2 Establishing Consistency of Local Agency Land Use Plans and Regulations

To establish consistency of land use plans and regulations with this ALUCP, local agencies must eliminate conflicts that may include the following:

- Land use plan or zoning designations that permit incompatible uses within noise contours or safety zones
- Permissible residential densities and nonresidential intensities that exceed this ALUCP's density and intensity limits in any safety zone
- Permissible heights that would either constitute a hazard as determined by the FAA or penetrate the 14 CFR Part 77 surfaces

Land use designations in local agency land use plans that reflect existing land uses do not render the local agency plans inconsistent with this ALUCP. However, local agencies must limit the expansion and reconstruction of existing land uses that are not consistent with this ALUCP in accordance with the existing incompatible land use policies and standards of this ALUCP.

2.7.3 Ensuring Long-Term Compliance with this ALUCP

Local agency land use plans and regulations must include provisions for long-term compliance with this ALUCP. Local agencies must define the process they will follow when revising or amending land use plans and regulations, or when reviewing and approving land use projects within the AIA to ensure that they will be consistent with this ALUCP. Land use plans and regulations, including zoning, subdivision and building regulations, must include standards for reviewing land use projects for consistency with this ALUCP.

2.8 ALUC REVIEW AFTER ALUCP ADOPTION AND LOCAL AGENCY CONSISTENCY FINDINGS

Exhibit 2C depicts the ALUC review process of land use plans, regulations and projects after a local agency has implemented this ALUCP. **Sections 2.6.2** through **2.6.8** also apply after local agency implementation of this ALUCP.

ALUC REVIEW AFTER LOCAL AGENCY IMPLEMENTATION

PROJECT SPONSOR

Submits land use plans, regulations and projects to local agency for approval and permitting[1]

LOCAL AGENCY

Submits only land use plans and regulation updates/changes within AIA (not projects) to the ALUC for consistency determination

ALUC

Reviews land use plans and regulation updates/changes and makes consistency determination (with conditions, if required)

IF CONSISTENT

LOCAL AGENCY

Informs project sponsor of determination of consistency and adopts/approves land use plans and regulations (with ALUC conditions, if required)

IF NOT CONSISTENT

LOCAL AGENCY

Informs project sponsor of determination of inconsistency and denies land use plans and regulations. The local agency has three options.

- Local agency amends the plan/regulation and resubmits to ALUC for consistency determination
- OR
- Local agency overrules the ALUC
- OR
- Local agency denies the project

STOP

PROJECT SPONSOR

Proceeds with the implementation of the land use plans and regulations

Note: 1. This includes land use plan amendments proposed by a project sponsor and rezones.
Source/Prepared by: Coffman Associates, Inc.

2.8.1 Review of Land Use Plans and Regulations

Local agencies must submit an ALUC application for consistency determination per **Section 2.6.1** for proposed land use plans and regulations. If a land use plan has been found consistent with this ALUCP and, at the time of original review, the plan consisted of only generalized land use designations without project-specific details (e.g., site layout, density/intensity, building heights), then future projects within the plan area must also be reviewed for consistency.

2.8.2 Review of Land Use Projects

After local agency implementation or overrule of this ALUCP, land use projects are required to be submitted to the ALUC per **Section 2.6.1** for review only if the land use project:

- Includes a land use plan amendment or rezoning application
- Has received a determination from the FAA that it will constitute a hazard or obstruction to air navigation
- Has characteristics that may result in the creation of a hazard to air navigation, as discussed in **Chapter Three, Section 3.4**

2.8.3 Voluntary Review of Land Use Projects

After implementation, local agencies may choose to submit land use projects, according to **Section 2.6.8.3**, to the ALUC for advisory review. Any ALUC recommendation would be non-binding and not subject to any overrule requirements.

2.9 ALUC REVIEW OF PROPOSED AIRPORT PLANS AND PROJECTS

Airport Land Use Commission review of three categories of airport plans is required by state law – (1) airport and heliport master plans; (2) plans for construction of new airports and heliports; and (3) airport expansion plans.

- **Airport Master Plans.** Public Utilities Code, Section 21676(c), mandates that "each public agency owning an airport within the boundaries of an airport land use commission plan shall, prior to modification of its master plan, refer such proposed change to the airport land use commission." The Airport Land Use Commission must then determine if the proposed master plan is consistent with the adopted compatibility plan. This requirement also applies to airport layout plans that would effectively modify any provisions of a previously adopted airport master plan.

- **Construction Plans for a New Airport.** State law also requires that no application for the consideration of plans for a new airport may be submitted to any local, regional, state, or federal agency unless the plans have been: (1) approved by the board of supervisors or the city council of the jurisdiction in which the airport is to be located; and (2) submitted to and acted upon by the airport land use commission in the county in which the airport is to be located.

Neither this chapter nor the following chapter relating to airport expansion plans is intended to require that ALUCs review the actual engineering drawings, only the overall layout plan.

- **Airport Expansion Plans.** Section 21664.5 of the *State Aeronautics Act* requires any airport expansion project which entails amendment of the Airport Permit issued by the California Department of Transportation to be reviewed by the ALUC for a consistency determination. Airport expansion is defined to include: (1) the construction of a new runway; (2) the extension or realignment of an existing runway; (3) the acquisition of runway protection zones or of any interest in land used for the purposes of any other expansion stated herein; and (4) any other expansion of the airport's physical facilities for the purpose of accomplishing or which are related to purposes 1-3 above.

Under state law (Pub. Util. Code, Section 21676[c]), any public agency owning an airport must, prior to the adoption or modification of its airport master plan, refer the proposed action to the Airport Land Use Commission. According to the Handbook, "the question to be examined [by airport land use commissions] is whether any components of the airport plan would result in greater noise and safety impacts on surrounding land uses than are assumed in the adopted compatibility plan." Components of the airport plans that merit consideration in the consistency review include:

1. Aviation activity forecasts
2. Changes to runway layout
3. Changes to flight tracks resulting from the proposed action
4. Changes to airspace parameters
5. Noise impacts, which refer to changes in any of the above items resulting in significantly increased noise impacts on surrounding land
6. Plans for non-aviation development on airport property (such as hotels, office buildings, or industrial buildings), which should be evaluated during the Airport Master Plan process and in the same manner as projects proposed elsewhere in the AIA.

There are no current or ongoing Master Plans or plans to construct new airports that would be subject to this compatibility plan. The compatibility plan accounts for future airport expansion plans according to the most recent Airport Layout Plan drawings included in Appendix A through F.

The Airport Land Use Commission should update the compatibility plan to account for new Airport Master Plans, airport construction plans, and airport expansion plans (as depicted on an Airport Layout Plan update) as any new plans arise. When an inconsistency exists between a proposed airport master plan and this compatibility plan, the ALUC has the option of first modifying its plan to reflect the assumptions and proposals of the master plan. (Under state law, Airport Land Use Commissions have no jurisdiction over the operation of airports [Pub. Util. Code, Section 21674(e)].) If the ALUC determines that the proposed action is inconsistent with the ALUCP, the referring airport sponsor shall be notified. As outlined in Pub. Util. Code, Section 21676(c), the airport sponsor may, after a public hearing, propose to overrule the ALUC by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of Pub. Util. Code, Section 21670.

2.9.1 ALUC Actions on Airport Plans

The ALUC must determine if an airport master plan, airport layout plan, or expansion plan is consistent or inconsistent with this ALUCP. When an inconsistency exists, the ALUC will amend this ALUCP to reflect the assumptions and proposals in the airport plans.

2.9.2 Consistency Determination Result

When reviewing airport master plans or expansion plans for existing public use airports, the Commission has three action choices:

1. Find the airport plan consistent with the ALUCP
2. Find the airport plan inconsistent with the ALUCP
3. Modify the ALUCP (after a duly noticed public hearing) to reflect the assumptions and proposals in the airport plan

Non-aviation uses are determined to be one of the following:

- Consistent: the ALUC does not need to amend this ALUCP
- Conditionally consistent: the airport operator can proceed with the plan or project with conditions as required by the policies and standards of this ALUCP
- Inconsistent: the ALUC must identify the specific conflicts with ALUCP policies and standards

2.10 DEFINITIONS

2.10.1 ***Aeronautics Act*:** Except as indicated otherwise, the article of the California Public Utilities Code (Sections 21670 et seq.) pertaining to airport land use commissions in the State of California.

2.10.2 Airport Influence Area (AIA): The area in which current or future airport-related noise, overflight, safety, and/or airspace protection factors may significantly affect land use compatibility or necessitate restrictions on those uses. For the purposes of this plan, AIA is the area which establishes the Airport Land Use Commission's jurisdictional authority and boundary. See Section 1.4.2.

2.10.3 Airport Land Use Commission (ALUC): A commission authorized under the provisions of California Public Utilities Code, Sections 21670, et seq. and established for the purpose of promoting compatibility between airports and the land uses surrounding them. When capitalized in this document, unless the context clearly indicates otherwise, the ***Airport Land Use Commission*** refers to the Airport Land Use Commission for Imperial County.

2.10.4 Airport Layout Plan: A scaled drawing, prepared in conformance with criteria promulgated by the ***FAA***, depicting existing and proposed airport facilities, their location on an airport, and pertinent clearance and dimensional information. The Airport Layout Plan may be used as the basis of a compatibility plan adoption or update.

2.10.5 Airport Master Plan: A long-range feasibility plan for development of an airport, including descriptions of the data and analyses on which the plan is based.

2.10.6 Airspace Protection Area: The area beneath the ***airspace protection surfaces*** for the ***Airport***. Airspace protection primarily involves limitations on the height of objects on the ground near the Airport. Other concerns include activities which can cause electronic or visual impairments to navigation or that could attract wildlife.

2.10.7 Airspace Protection Surfaces: Imaginary surfaces in the airspace surrounding airports defined in accordance with criteria set forth in 14 Code of Federal Regulations Part 77, Subpart C. An object would be an obstruction to air navigation if it is of a greater height than any of the imaginary surfaces.

2.10.8 ALUC: See Airport Land Use Commission.

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

2.10.10 Avigation Easement: A type of easement that typically conveys a limited real property right that is granted by a property owner to an airport proprietor that provides for a right-of-way for free and unobstructed passage of aircraft through the airspace over the property at any altitude above a surface specified in the easement (usually set in accordance with Part 77 criteria). An ***avigation easement*** typically also allows for the creation of effects that are attendant to normal airport activity and operation of aircraft in flight, such as noise, vibrations, fumes, dust, and fuel particle emissions, and others, that may affect the subject real property. Depending on the specific language of the easement document, it may also limit the height of structures, trees, or other objects on the property that would enter the acquired airspace.

Avigation easements also typically provide a right-of-entry onto the property, with proper advance notice, for the purpose of removing, marking, or lighting any structure or other object that enters the acquired airspace, as well as a right to prohibit electrical interference, glare, misleading lights, visual impairments, and other hazards to aircraft flight from being created on the property. As a legal instrument that is officially recorded with the county in which the subject real property is located, it provides the current property owner and subsequent property owners with formal notice that his or her property is located near an airport and may be subject to impacts from airport and aircraft operations.

2.10.11 California Building Code (CBC): The CBC governs general building construction standards. It contains standards for allowable interior noise levels associated with exterior noise sources (California Building Code, 2016 edition, Part 2, Volume 1, Chapter 12, Section 1207.4). The standards apply to new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family residences.

2.10.12 ***California Environmental Quality Act*** **(CEQA):** CEQA is a statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible (Pub. Resources Code, § 2100 et seq.; Cal. Code Regs., tit. 14, § 15000 et seq.).

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

2.10.14 **Code of Federal Regulations (CFR) Part 77:** The part of the Federal Aviation Regulations (Title 14 of the Code of Federal Regulations) that deals with objects affecting navigable airspace in the vicinity of airports. 14 CFR 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.

2.10.15 **Community Noise Equivalent Level (*CNEL*)**: A 24-hour cumulative noise metric used in the State of California for describing aircraft noise exposure. It represents the average daytime noise level during a 24-hour day, adjusted to an equivalent level to account for the lower tolerance of people to noise during evening and nighttime periods relative to the daytime period. In computing ***CNEL***, a 4.77 decibel (dB) weight is assigned to sounds during the evening hours from 7:00 p.m. to 10:00 p.m. A 10 dB weight is assigned to sounds during the nighttime hours after 10:00 p.m. and before 7:00 a.m.

2.10.16 **dB or Decibel:** A unit used to measure the intensity of a sound or the power level of an electrical signal by comparing it with a given level on a logarithmic scale.

2.10.17 **Development Actions:** See the definition of local agency action, regulation, permits, and/ or project.

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

2.10.19 **Dwelling:** A building, or a portion thereof, used or designed and intended to be used for human habitation.

2.10.20 **Easement:** Convey certain enumerated property rights from the property owner to the holder of the easement. Easements continue in place as the underlying property is bought and sold (they "run with the land"). Moreover, their existence is documented during the title search conducted at the time of a property transfer.

2.10.21 **Existing Land Use:** The actual use of land or the proposed use of the land evidenced by a ***vested right*** to proceed with development or occupancy (provided the new occupancy remains within the same or reduced level of occupancy as the most recent one) as of the effective date of this compatibility plan. Vested means the irrevocable right to complete construction notwithstanding an intervening change in the law that would otherwise preclude it.

2.10.22 **FAA:** The Federal Aviation Administration.

2.10.23 General Plan: For this compatibility plan, this term means any general plan, community plan, or specific plan, zoning ordinance, building regulation, land use policy document, or implementing ordinance or any change thereto, and any amendment thereto (see Pub. Util. Code § 21676 and Policy 2.9).

2.10.24 Habitable Space: Defined as living, sleeping, eating, or cooking areas within a dwelling unit as defined in the uniform building code.

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

2.10.26 Infill: Development of vacant land (as defined specifically for this compatibility plan) within established communities or neighborhoods that: 1) are already served with streets, water, sewer, and other infrastructure; and/or 2) may be comprised of existing land uses inconsistent with the compatibility criteria in this compatibility plan.

2.10.27 Land Use Intensity: A measure of the concentration of nonresidential development in a given area. Intensity can be expressed as a number of people per acre using a net acreage calculation. See Appendix J, pages L-6 through L-8 for guidance on calculating land use intensity.

2.10.28 Land Use Jurisdiction: Imperial County and the municipalities with land use regulatory jurisdiction within each ***Airport Influence Area***.

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

2.10.30 Local Agency: A land use jurisdiction, school district, community college district, or other special district subject to the provisions of this ALUCP. The ALUC does not have authority over land use actions of federal agencies or Native American tribes.

2.10.31 Local agency actions, regulations, and permits: Any human-caused change to improved or unimproved real property that requires a discretionary permit or approval from any ***local agency*** or that is sponsored and proposed to be built by a ***local agency***, developer, or the real property owner. ***Actions*** include, but are not limited to, buildings or other structures, mining, dredging, filling, grading, paving, an excavation or drilling operation, and/or storage of materials.

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

2.10.33 Lot Coverage: The ratio between the ground floor area of the building(s) and the total area of the lot or parcel on which the building(s) is/are placed.

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

2.10.35 Project: Any land use matter, either publicly or privately sponsored, that is subject to the provisions of this compatibility plan analysis. For this compatibility plan, this term means any action, regulation, or permit (see Pub. Util. Code § 21676.5).

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

2.10.37 Residential Density: For airport compatibility purposes, the chief distinguishing feature among residential land uses is the number of dwelling units per acre. To be compatible with airport activities, the number of dwelling units per acre should not exceed the criterion specified for the compatibility zone where the use would occur.

2.10.38 Runway Protection Zone: Runway protection zones are trapezoidal-shaped areas located at ground level beyond each end of a runway. Ideally, each runway protection zone should be entirely clear of all objects. The dimensions for the RPZ are taken from the respective airport's airport layout plan or diagram, and are based on FAA's Advisory Circular 150/5300-13A, *Airport Design*.

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

1. A vesting tentative map that has been approved pursuant to California Government Code Section 66498.1, and has not expired
2. A development agreement that has been executed pursuant to California Government Code Section 65866, and remains in effect
3. A valid building permit that has been issued, substantial work that has been performed, substantial liabilities that have been incurred in good faith reliance on the permit, pursuant to the California Supreme Court decision in *Avco Community Developers, Inc. v. South Coast Regional Com* (1976) 17 Cal.3d 785,791, and its progeny

Chapter 3

Compatibility Policies and Criteria

Chapter Three
COMPATIBILITY POLICIES AND CRITERIA

3.1 AIRPORT COMPATIBILITY ZONES AND CRITERIA

This chapter presents policies and maps relating to the state-mandated airport compatibility factors as defined in Public Utilities Code § 21670. The specific airport-related factors discussed below include safety, noise, airspace protection, overflights, and other hazards, such as wildlife attractants and flight interference.

Note: The following compatibility zones and criteria apply to the six public use airports in Imperial County. Compatibility policies for the area within Imperial County near NAF El Centro can be found in **Appendix G**.

3.2 SAFETY COMPATIBILITY CRITERIA

The overall objective of safety compatibility criteria is to minimize the risks associated with potential aircraft accidents. There are two components to this objective:

- ***Safety of Persons on the Ground*** – The most fundamental safety compatibility component is to provide for the safety of people and property on the ground in the event of an aircraft accident near an airport.
- ***Safety of Aircraft Occupants*** – The second safety compatibility component is to enhance the chances of survival of the occupants of an aircraft involved in an accident that occurs beyond the runway environment.

3.2.1 Safety Zones

The 2011 *California Airport Land Use Planning Handbook* (Handbook) provides guidance on the delineation of safety zones and the application of land use policies in those zones. The safety zones are based on the Handbook guidance, with adjustments made to reflect the specific operating characteristics of the airport (type of aircraft activity, runway length, traffic pattern, etc.). The safety compatibility policy framework is also based on Handbook guidance. The safety compatibility policies of this compatibility plan work in tandem with the airspace protection policies to be described in Section 3.4. Safety zones are depicted in the following appendices of this document:

- Brawley Municipal Airport (BWC) — Appendix A, Exhibit A1
- Calexico International Airport (CXL) — Appendix B, Exhibit B1
- Calipatria Airport (CLR) — Appendix C, Exhibit C1
- Holtville Airport (L04) — Appendix D, Exhibit D1

- Imperial County Airport (IPL) — Appendix E, Exhibit E1
- Salton Sea Airport (SAS) — Appendix F, Exhibit F1
- NAF El Centro (NJK) — Appendix G, Exhibit G1

Based on guidance provided in the Handbook, there are six safety zones, which include:[1]

Zone 1 – Runway Protection Zone (RPZ): Runway protection zones are trapezoidal-shaped areas located at ground level beyond each end of a runway. Ideally, each runway protection zone should be entirely clear of all objects. The dimensions for the RPZ are taken from the respective airport's airport layout plan or diagram and are based on the FAA's Advisory Circular 150/5300-13A, *Airport Design*. The accident risk level is considered to be very high within RPZ zones, encompassing approximately 20 to 21 percent of accidents that occur at general aviation airports.

Zone 2 – Inner Approach/Departure Zone (IADZ): This zone encompasses area that is overflown at low altitudes, typically only 200 to 400 feet above runway elevation. The accident risk level is considered to be high within the IADZ zones, accounting for approximately 10 percent of general aviation aircraft accidents.

Zone 3 – Inner Turning Zone (ITZ): This zone encompasses locations where aircraft are typically turning from the base to final approach legs of the standard traffic pattern and are descending from traffic pattern altitude. The ITZ also includes the area in which departing aircraft normally complete the transition from takeoff power and flap settings to a climb mode and begin to turn to their en-route heading. The accident risk level is considered to be moderate to high within the ITZ zones, encompassing approximately 7 percent of general aviation aircraft accidents.

Zone 4 – Outer Approach/Departure Zone (OADZ): The OADZ is situated along the extended runway centerline beyond the IADZ. Approaching aircraft are usually at less than traffic pattern altitude in the OADZ. The accident risk level is considered moderate within the OADZ, accounting for approximately 5 percent of general aviation aircraft accidents.

Zone 5 – Sideline Zone (SZ): The SZ encompasses the close-in area lateral to runways. The primary risk in SZ is with aircraft losing directional control on takeoff. The accident risk level is considered low to moderate within the SZ, accounting for approximately 5 percent of general aviation aircraft accidents.

Zone 6 – Traffic Pattern Zone (TPZ): The TPZ zone includes the majority of other portions of regular aircraft traffic patterns and pattern entry routes.

Zone 7 – 14 CFR Part 77 Conical Surface: This zone represents the outer Conical Surface for each airport based upon 14 CFR Part 77.

[1] For additional information regarding the safety zones, see Appendix J.

3.2.2 Safety Zone Criteria

The safety zone land use compatibility standards in **Table 3A** restrict the development of land uses that could pose hazards to the public or to vulnerable populations in the case of an aircraft accident. **Table 3A** also provides a breakdown of the intensity criteria for the compatibility zones, and **Appendix H** provides the methodology for calculating land use intensity.

TABLE 3A | Safety Zone Compatibility Criteria Matrix

Dwelling Units (d.u.) per Acre[1]	Max. Nonresidential Intensity[2]	Required Open Land	Allow	Allow With Conditions	Not Recommended[3]	Other Development Conditions[4]
Zone 1: Runway Protection						
• None	• None	• All Remaining	• None	• None	• All new structures and residential land uses • Parking lots, streets, roads	• Not Applicable
Zone 2: Inner Approach/Departure						
• 1 d.u. per 10 acres	• 40 persons per acre	• 30%	• Agriculture; non-group outdoor recreational uses	• Residential uses • Warehouses, mini-storage • Industrial uses; vehicle, aircraft, marine repair services • All uses are subject to height limitations for airspace protection	• Major shopping centers, theaters, meeting halls, and other assembly facilities • Children's schools, day-care centers, hospitals, nursing homes • Stadiums, recreation facilities • Hazardous materials	• Airspace review in accordance with 14 CFR Part 77.9 (FAA Form 7460)[5] • Dedication of avigation easement[6] • Locate structures maximum distance from extended runway centerline • Minimum NLR to 45 dB residences (including mobile homes) and office buildings[7]
Zone 3: Inner Turning						
• 1 d.u. per 2 acres	• 70 persons per acre	• 20%	• Uses allowed in Zone 2 • Greenhouses	• Uses allowed with conditions in Zone 2 • Office, retail, and other commercial uses	• Major shopping centers, theaters, meeting halls, and other assembly facilities • Children's schools, day-care centers, hospitals, nursing homes • Stadiums, recreation facilities • Hazardous materials	• Airspace review in accordance with 14 CFR Part 77.9 (FAA Form 7460)[7] • Dedication of avigation easement[6] • Locate structures maximum distance from extended runway centerline • Minimum NLR to 45 dB residences (including mobile homes) and office buildings[7]
Zone 4: Outer Approach/Departure						
• 1 d.u. per 2 acres	• 100 persons per acre	• 30%	• Uses allowed in Zone 2-3	• Uses allowed with conditions in Zone 2-3	• Theaters, meeting halls, and other assembly facilities • Children's schools, day-care centers, hospitals, nursing homes • Stadiums, recreation facilities • Hazardous materials	• Airspace review in accordance with 14 CFR Part 77.9 (FAA Form 7460)[5] • Dedication of avigation easement[6] • Minimum NLR to 45 dB in residences (including mobile homes) and office buildings[7]
Zone 5: Sideline						
• 1 d.u. per acre	• 70 persons per acre	• 30%	• Uses allowed in Zone 2-4	• Uses allowed with conditions in Zone 2-4 • Residential uses	• Stadiums, recreation facilities • Children's schools, day-care centers, hospitals, nursing homes	• Airspace review in accordance with 14 CFR Part 77.9 (FAA Form 7460)[5] • Dedication of avigation easement[6]

Continues on next page

TABLE 3A | Safety Zone Compatibility Criteria Matrix (continued)

Dwelling Units (d.u.) per Acre[1]	Max. Nonresidential Intensity[2]	Required Open Land	Allow	Allow With Conditions	Not Recommended[3]	Other Development Conditions[4]
Zone 6: Traffic Pattern						
• No Limit	• 200 persons per acre	• 10%	• Uses allowed in Zone 2-5	• Uses allowed with conditions in Zones 2-5 • Children's schools, day-care centers, hospitals, and nursing homes • Outdoor stadiums and similar uses with high concentration of people	• None	• Airspace review in accordance with 14 CFR Part 77.9 (FAA Form 7460)[5] • Deed notice required for residential uses[6]
Zone 7: Conical Surface						
• No Limit	• No Limit	• None	• Uses Allowed in Zone 2-6	• Any	• None	• Airspace review in accordance with 14 CFR Part 77.9 (FAA Form 7460)[5]

Notes:

[1] Residential development containing more than the indicated number of dwelling units per gross acre (d.u./ac) is not recommended. Clustering of units is encouraged. Gross acreage includes the property at issue plus a share of adjacent roads and any adjacent, permanently dedicated, open lands.

[2] Usage intensity calculations include the peak number of people per gross acre (e.g., employees, customers/visitors, etc.) who may be on the property at a single point in time, whether indoors or outside. Gross acreage includes the property at issue plus a share of adjacent roads and any adjacent, permanently dedicated, open lands. See **Appendix D** for more detailed information on calculating usage intensity.

[3] The uses listed here are not recommended regardless of whether they meet the intensity criteria, subject to applicable state or federal law. In addition to these uses, other uses that are normally permitted may not be recommended in the respective compatibility zones because they do not meet the usage intensity criteria.

[4] Additional resources may be found on the Imperial County Planning and Development Service Department's website: https://www.icpds.com/

[5] Information regarding FAA airspace review filing requirements may be found on the FAA's Obstruction Evaluation/Airport Airspace Analysis (OE/AAA) portal: https://oeaaa.faa.gov/oeaaa/external/portal.jsp

[6] As part of certain real estate transactions involving residential property within any compatibility zone (that is, anywhere within an airport influence area), disclosure of information regarding airport proximity and the existence of aircraft overflights must be disclosed. This requirement is set by state law.

[7] NLR = Noise Level Reduction: the outside-to-inside sound level attenuation the structure provides.

Legend:

RPZ = Runway Protection Zone
TPZ = Traffic Pattern Zone
ITZ = Inner Turning Zone
IADZ = Inner Approach/Departure Zone
SZ = Sideline Safety Zone
OADZ = Outer Approach/Departure Zone

3.2.3 Infill Development

Where development that already exists is not in conformance with the criteria set forth in this compatibility plan, additional infill development of similar land uses may be allowed to occur, even if such land uses are to be prohibited elsewhere in the zone.

This exception does not apply within Zone 1 (RPZ).

(a) A parcel can be considered for infill development if it meets <u>all</u> of the following criteria, plus the applicable provisions of either Sub-policy (b) or (c) below:

(1) The parcel size is no larger than 10.0 acres.

(2) At least 65 percent of the site's perimeter is bounded (disregarding roads) by existing uses similar to or more intensive than those proposed. For projects adjacent to an undeveloped parcel, the nearest developed lot may be used.

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

(4) Further increases in the residential density, nonresidential usage intensity, and/or other incompatible design or usage characteristics (e.g., through use permits, density transfers, addition of second units on the same parcel, height variances, or other strategies) are prohibited.

(5) The area to be developed cannot previously have been set aside as open land in accordance with policies contained in this compatibility plan unless replacement open land is provided within the same compatibility zone.

(b) For residential development, the average development density (dwelling units per gross acre) of the project site shall not exceed the average density represented by all existing lots that lie fully or partially within a distance of 300 feet from the boundary of the parcel to be divided.

(c) For nonresidential development, the average land use intensity (the number of people per gross acre) of the site's proposed use shall not exceed the lesser of:

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

(2) Double the intensity permitted in accordance with the criteria for that location as indicated in the Compatibility Criteria matrix, as seen in **Table 3A**.

(d) Infill development on some parcels should not enable additional parcels to then meet the qualifications for infill. The Airport Land Use Commission's intent is that parcels eligible for infill shall only be determined once. Thus, in order for the Airport Land Use Commission to consider proposed development under these infill criteria, the entity having land use authority must first identify the qualifying locations in its general plan or other adopted planning document that has been approved by the Airport Land Use Commission. This action may take place in conjunction with the process of amending a general plan for consistency with the compatibility plan, or may be submitted by the local agency for consideration by the Airport Land Use Commission at the time of initial adoption of this compatibility plan. In either case, the burden for demonstrating that a proposed development qualifies as infill development rests with the affected land use jurisdiction and/or project proponent.

3.2.4 Hazardous Materials

Facilities with the primary purpose of manufacturing, processing, or storing hazardous materials can pose serious physical and health risks to the public in the case of aircraft accidents. The following flammable, combustible, and/or toxic materials are of particular concern with respect to the safety compatibility criteria provided in **Table 3B:**

(a) Petroleum products: Produced, distributed, dispensed at gas stations, or stored in aboveground tanks with capacities greater than 10,000 gallons;[2]

[2] State of California Health and Safety Code, Section 25270.

(b) Extremely hazardous substances (EHS) as defined by the Environmental Protection Agency (EPA);[3]

(c) Explosives and fireworks;[4]

(d) Infectious agents with Biosafety Levels (BSL) 2, 3, or 4.[5]

3.2.5 Expansion or Reconstruction of Existing Building

An existing land use is incompatible if the land use either exceeds the residential density and/or nonresidential intensity levels, or the land use is designated as Not Recommended in **Table 3A**. If the existing land use is incompatible, enlargement and reconstruction are subject to consistency review and the following requirements:

Residential Uses Only: An existing residential building may be expanded in building area or reconstructed if there is no increase in density. An accessory dwelling unit, as defined by state law,[6] is not counted toward this limitation.

Nonresidential Uses Only: An existing nonresidential building may be expanded in building area or reconstructed if there is no increase in the intensity of the use. Any additional space must not be occupied, such as for storage or mechanical equipment.

Additional Limitations for Safety Zone 1: Reconstruction of an existing building is allowed only if the building is destroyed by calamity (e.g., fire, earthquake, etc.).

3.2.6 Mixed-Use Projects

For a proposed project with a mix of residential and nonresidential uses, residential density is converted to intensity and the total number of residential occupants is limited to half the maximum nonresidential intensity specified in **Table 3A**. For live/work projects, each dwelling unit is to be counted towards density, and only the square footage devoted to nonresidential use is to be used in the calculation of nonresidential intensity. When converting residential density to intensity, the average number of people per household for the jurisdiction, as most recently made available by the U.S. Census Bureau, should be used.

3.2.7 Change of Use in Existing Buildings

Consistency review is required when a new use is proposed within an existing building. A change of use is defined as a change in density for residential land uses or intensity for non-residential land uses.

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[3] 40 CFR Part 355

[4] Cal. Code Regs. Tit. 8, § 5252

[5] Centers for Disease Control and Prevention, National Institute of Health. *Biosafety in Microbiological and Biomedical Laboratories, 6th Edition, 2020*

[6] California Government Code §§ 65852.150, 65852.

Nonresidential Projects: The maximum intensity of a proposed non-residential project must not exceed the maximum allowable intensity as shown in **Table 3A.**

Residential Projects: The total density of a conditionally compatible residential project must not exceed the maximum allowable density as shown in **Table 3A**. Construction of a single-family residence, including an accessory dwelling unit, is allowed on a legal lot of record if permitted by the local agency as described in **Section 2.4.4** in Chapter Two.

Mixed-use Projects: The maximum density and intensity for conditionally compatible projects are limited as described in **Policy 3.2.6**.

3.3 NOISE COMPATIBILITY CRITERIA

The objective of noise compatibility criteria is to minimize the number of people exposed to frequent and/or high levels of airport noise considered disruptive to noise-sensitive activities.

3.3.1 Aircraft Noise Contours

Existing and 20-year future Community Noise Equivalent Level (CNEL) aircraft noise exposure contours are depicted in the following appendices of this document:

- Brawley Municipal Airport (BWC) — Appendix A, Exhibit A2
- Calexico International Airport (CXL) — Appendix B, Exhibit B2
- Calipatria Airport (CLR) — Appendix C, Exhibit C2
- Imperial County Airport (IPL) — Appendix E, Exhibit E2
- NAF El Centro (NJK) — Appendix G, Exhibit G2

Note: Noise exposure contours were not completed for Holtville Airport and Salton Sea Airport due to low activity levels.

3.3.2 Noise Compatibility Criteria

The basic strategy for achieving noise compatibility in an airport vicinity is to limit the development of land uses which are particularly sensitive to noise. The compatibility of proposed land uses located in the airport noise compatibility contours shall be determined according to the noise/land use compatibility criteria shown in **Table 3B**. The criteria indicate the maximum acceptable airport noise levels, described in terms of CNEL, for the indicated land uses. The compatibility criteria also indicate whether a proposed land use is “compatible,” “conditionally compatible,” or “not compatible” within each contour zone, designated by the identified CNEL ranges.

- “Compatible” means that the proposed land use is compatible with the CNEL level indicated in the table and may be permitted without any special requirements related to the attenuation of aircraft noise.

- "Conditionally compatible" means that the proposed land use is compatible if the conditions described in **Table 3B** are met.
- "Not compatible" means that the proposed land use is incompatible with aircraft noise at the indicated CNEL level.

TABLE 3B | Noise Compatibility Criteria Matrix, Imperial County Airport Land Use Compatibility Plan

	CNEL			
	60-64	65-69	70-74	75+
RESIDENTIAL				
Single units – detached	C[1]	N	N	N
Singe units – semi-detached	C[1]	N	N	N
Single units – attached row	C[1]	N	N	N
Two units	C[1]	N	N	N
Multi-family, three or more units (rental and ownership)	C[1]	N	N	N
Group quarters (including retirement homes; assisted living; nursing homes, college dormitories, military barracks, correctional residential facilities, extended stay hotels*)	C[1]	N	N	N
Mobile home park or courts	C[1]	N	N	N
PUBLIC/INSTITUTIONAL FACILITIES				
Education facilities (including daycare centers (> 14 children), children schools (K-12 grade), adult schools, colleges, universities)	C[1]	N	N	N
Religious facilities, libraries, museums, galleries, clubs, lodges	C[1]	N	N	N
Hospitals, nursing homes, and other health care services	Y	N	N	N
Governmental services (administrative, police, fire stations**)	Y	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N
Cemeteries, cemetery chapels; mortuaries	Y	Y	Y	N
RECREATIONAL				
Outdoor sport events, stadiums, playgrounds, campgrounds, and recreational vehicle parks	Y	N	N	N
Nature exhibits, wildlife reserves, and zoos	Y	N	N	N
Indoor recreation, amusements, athletic clubs, gyms and spectator events, movie theaters, parks, outdoor recreation: tennis, golf courses, riding trails, etc.	Y	Y	N	N
COMMERCIAL				
Wholesale Trade	Y	Y	Y	N
Retail trade (eating and drinking establishments, personal services, and dance studios)	Y	Y	Y	N
Finance, insurance, and real estate services	Y	Y	Y	N
Business services	Y	Y	Y	N
Repair services	Y	Y	Y	N
Professional services	Y	Y	Y	N
Hotels, motels, transient lodgings, and bed and breakfasts	Y	Y	N	N
INDUSTRIAL				
Manufacturing	Y	Y	Y	Y
Printing, publishing, and allied industries	Y	Y	Y	Y
Chemicals and allied products manufacturing	Y	Y	Y	Y
Miscellaneous manufacturing	Y	Y	Y	Y
Highway and street right-of-way and other transportation, communication, and utilities	Y	Y	Y	Y
Automobile parking car dealerships, car washes, indoor/outdoor storage facilities, gas stations, truck stops, and transportation terminals	Y	Y	Y	Y
Processing of food, wood, and paper products; printing and publishing; warehouses, wholesale and storage activities	Y	Y	Y	Y
Refining, manufacturing and storage of chemicals, petroleum and related products, manufacturing and assembly of electronic components, etc.	Y	Y	Y	Y
Salvage yards, solid waste facilities, natural resource extraction and processing, agricultural, mills and gins	Y	Y	Y	Y

Continues on next page

TABLE 3B | Noise Compatibility Criteria Matrix, Imperial County Airport Land Use Compatibility Plan (continued)

	CNEL			
	60-64	65-69	70-74	75+
AGRICULTURE				
Agriculture (except livestock)	C[1]	C[1]	C[2]	N
Livestock farming and animal breeding, animal shelters, and kennels	C[1]	C[1]	C[2]	N
Agricultural-related activities	Y	C[1]	C[2]	N
Forestry activities and related services	Y	C[1]	C[2]	N
Fishing activities and related services	Y	C[1]	C[2]	N

Table Notes:
CNEL – Community Noise Equivalent Level, in A-weighted decibels.
Y (Yes) – Land use and related structures compatible without restrictions.
C (Conditionally compatible) - Land use and related structures are permitted, provided that sound insulation is provided to reduce interior noise levels from exterior sources to CNEL 45 dB or lower.
N (No) – Land use and related structures are not compatible.
[1]Residential buildings must be sound insulated to achieve an indoor noise level of CNEL 45 dB or less from exterior sources (See Policy 3.2.5).
[2]Accessory dwelling units are not compatible.

Note:
Land uses not specifically listed shall be evaluated, as determined by the ALUC, using the criteria for similar uses.
* Lodging intended for stays by an individual person of no more than 25 days consecutively and no more than 90 days total per year; facilities for longer stays are in the extended-stay hotel category
** Airport Rescue and Fire Fighting (ARFF) facilities are exempt from this requirement per FAA regulations.

3.3.3 Residential Uses

Residential uses are not considered compatible above 65 CNEL. This is consistent with the Handbook and the California Code of Regulations.

3.3.4 Noise Exposure for Other Land Uses

Noise level compatibility standards for other types of land uses shall be applied in the same manner as the above residential noise level criteria. The extent of outdoor activity associated with a particular land use is an important factor to be considered in evaluating its compatibility with airport noise. Examples of acceptable noise levels for other land uses in an airport's vicinity are presented in **Table 3B**.

3.3.5 Mixed Use Projects

When a land use project involves a combination of different land uses, as listed in **Table 3B**, each component use must comply with the applicable noise standards.

3.3.6 Interior Noise Levels

Land uses within 60 CNEL noise exposure contours for which interior activities may be easily disrupted by noise, as provided below, 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 45 CNEL in:

- Any habitable room of single- or multi-family residences;
- Hotels and motels;
- Hospitals and nursing homes;
- Places of worship meeting halls, theaters, and mortuaries;
- Office buildings; and
- Schools, libraries, and museums.

(b) The noise contours identified in Section 3.2.1 depict use of this compatibility plan in determining compliance with these criteria. The calculations should assume that all windows are closed.

3.3.7 Expansion, Reconstruction, or Change of Use in an Existing Building

When a project involves expansion, reconstruction, or change of use in an existing building, sound attenuation, outlined in **Table 3B**, must be achieved for land uses classified as Conditionally Compatible. Regarding noise, reconstruction of an incompatible land use may occur if the building was destroyed by a calamity, and the reconstructed building meets the 45 dB CNEL sound performance level. An avigation easement, consistent with **Table 3B**, is also required.

3.3.8 Construction of New or Expanded Airports or Heliports

Any proposed construction of a new airport or heliport, or expansion of facilities at the airports included in this plan, which would result in a significant increase in cumulative noise exposure (measured in terms of CNEL), shall include measures, consistent with FAA regulations and federal aviation laws, 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 less than 60 CNEL, the project would increase the noise level by 5.0 CNEL or more.

(b) In locations having an existing ambient noise level of between 60 and 65 CNEL, the project would increase the noise level by 3.0 CNEL or more.

(c) In locations having an existing ambient noise level of more than 65 CNEL, the project would increase the noise level by 1.5 CNEL or more.

3.4 AIRSPACE PROTECTION

The objective of airspace protection is to avoid development of land use conditions which, by posing hazards to flight, can increase the risk of an accident occurring. The specific hazards of concern are: (1) airspace obstructions; (2) wildlife hazards, particularly bird strikes; and (3) land use characteristics which pose other potential hazards to flight by creating a visual or electronic interference with air navigation.

Tall structures, trees, and other objects, particularly when located near airports or on high terrain, may constitute hazards to aircraft in flight. Federal regulations establish the criteria for evaluating potential obstructions. These regulations also require that the Federal Aviation Administration be notified of proposals for the creation of certain objects. The FAA conducts aeronautical studies of these objects and determines whether they would be hazards, but it does not have the authority to prevent their creation. During this process, the FAA may issue a Determination of No Hazard to Air Navigation, which addresses airport operations only and does not apply to land use decisions. The purpose of compatibility plan airspace protection policies, together with regulations established by local land use jurisdictions and the state government, is to ensure that hazardous obstructions to the navigable airspace do not occur.

3.4.1 Basis for Height Limits

The criteria for limiting the height of structures, trees, and other objects in the vicinity of an airport shall be based upon 14 CFR Part 77, Subpart C, and applicable airport design standards published by the Federal Aviation Administration. Airspace plans depicting the critical areas for airspace protection can be found in the following appendices of this document:

- Brawley Municipal Airport (BWC) — Appendix A, Exhibit A3
- Calexico International Airport (CXL) — Appendix B, Exhibit B3
- Calipatria Airport (CLR) — Appendix C, Exhibit C3
- Holtville Airport (L04) — Appendix D, Exhibit D3
- Imperial County Airport (IPL) — Appendix E, Exhibit E3
- Salton Sea Airport (SAS) — Appendix F, Exhibit F3
- NAF El Centro (NJK) — Appendix G, Exhibit G3

3.4.2 ALUC Review of Height of Proposed Objects

All proposed objects must comply with the height limitations set forth by the FAA criteria, including 14 CFR Part 77. Proponents of development projects within the AIA must notify the Federal Aviation Administration as required by 14 CFR Part 77, Subpart B which states that a Form 7460-1 - Notice of Proposed Construction or Alteration must be filed at least 45 days prior to construction if:

- the structure will exceed 200ft above ground level;
- the structure will be in proximity to an airport and will exceed the slope ratio;
- the structure involves construction of a traverseway (i.e. highway, railroad, waterway, etc.) and once adjusted upward with the appropriate vertical distance would exceed a standard of 14 CFR Part 77, Section 9 (a) or Section 9 (b);
- the structure will emit frequencies, and does not meet the conditions of the FAA Co-location Policy;
- the structure will be in an instrument approach area and might exceed Part 77 Subpart C;

- the proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception;
- the structure will be on an airport or heliport; or
- the filing has been requested by the FAA.

The FAA's Notice Criteria Tool assists in applying Part 77 Notice Criteria: https://oeaaa.faa.gov/oeaaa/external/gisTools/gisAction.jsp?action=showNoNoticeRequiredToolForm.

Under this policy:

(a) Local jurisdictions shall inform project proponents of the requirements for notification to the FAA.

(b) The requirement for notification to the FAA shall not necessarily trigger an airport compatibility review of an individual project by the ALUC if the project is otherwise in conformance with the compatibility criteria established herein.

(c) FAA review is required for any proposed structure more than 200 feet above the surface level of its site. All such proposals shall also be submitted to the ALUC for review, regardless of where in the county they would be located.

(d) Any project submitted for airport land use compatibility review shall include a copy of the results of the FAA's Notice Criteria Tool.

(e) If required based on the results of the FAA's Notice Criteria Tool, any project submitted for airport land use compatibility review for which FAA notification is required shall include a copy of the CFR Part 77 notification to the Federal Aviation Administration and the FAA findings.

In addition, FAA notification is required for owners or operators proposing to site new, or expand existing, Municipal Solid Waste Landfills (MSWLFs) within a five-mile radius of any airport runway (CFR 40, Subchapter 1, Part 258, Subpart B, Section 258.10). FAA Form 7460-1, Notice of Proposed Construction or Alteration, or another suitable document similar to FAA Form 7460-1 may be used to notify the appropriate FAA Regional Airports Division Office of a planned siting or expansion of a MSWLF, as well as other potential wildlife attractants.

3.4.3 Avigation Easement Dedication

As a condition for development approval, the owner of any property proposed for development within Safety Zones 1 (RPZ), 2 (IADZ), 3 (ITZ), 4 (OADZ), and 5 (SZ) *s*hall be required to dedicate an avigation easement to the entity owning the affected airport. The avigation easement shall:

(a) Provide the right of flight in the airspace above the property;

(b) Allow the generation of noise and other impacts associated with aircraft overflight;

(c) Restrict the height of structures, trees, and other objects;

(d) Permit access to the property for the removal or aeronautical marking of objects exceeding the established height limit; and

(e) Prohibit electrical interference, glare, and other potential hazards to flight from being created on the property. An example of an avigation easement is provided in **Appendix H**.

3.4.4 Other Flight Hazards

New land uses that may cause visual, electronic, or increased bird strike hazards to aircraft in flight shall not be permitted within any airport's influence area. Specific characteristics of land use proposals to be evaluated include:

(a) Glare or distracting lights which could be mistaken for airport lights;

(b) Sources of dust, steam, or smoke which may impair pilot visibility;

(c) Sources of electrical interference with aircraft communications or navigation; and

(d) Any proposed use, especially landfills and certain agricultural uses, that creates an increased attraction for large flocks of birds. (Refer to FAA Advisory Circular 150/5200-33B, *Hazardous Wildlife Attractants On or Near Airports* and Advisory Circular 150/5200-34A, *Construction or Establishment of Landfills Near Public Airports,* or latest versions of these advisory circulars.)

3.5 OVERFLIGHT

Noise from individual operations, especially by comparatively loud aircraft, can be intrusive and annoying in locations beyond the limits of the mapped noise contours. Sensitivity to aircraft overflights varies from one person to another. The purpose of overflight compatibility policies is to help notify people about the presence of overflights near airports so that they can make more informed decisions regarding acquisition or lease of property in the affected areas. Overflight compatibility is particularly important with regard to residential land uses.

California state statutes (Business and Professional Code Section 11010 and Civil Code Sections 1102.6, 1103.4, and 1353) require, as part of residential real estate transactions, that information be disclosed regarding whether the property is situated within an airport influence area.

(a) With certain exceptions, these state requirements apply both to the sale or lease of newly subdivided lands and to the sale of existing residential property.

(b) The statutes define an airport influence area (AIA) 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." The AIA for each airport is depicted on the exhibits listed below.

- Brawley Municipal Airport (BWC) — Appendix A, Exhibit A1
- Calexico International Airport (CXL) — Appendix B, Exhibit B1

- Calipatria Airport (CLR) — Appendix C, Exhibit C1
- Holtville Airport (L04) — Appendix D, Exhibit D1
- Imperial County Airport (IPL) — Appendix E, Exhibit E1
- Salton Sea Airport (SAS) — Appendix F, Exhibit F1
- NAF El Centro (NJK) — Appendix G, Exhibit G1

(c) Where disclosure is required, the following statement shall be provided:

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

(d) For the purposes of this compatibility plan, the above real estate disclosure provisions of state law shall continue in effect as Airport Land Use Commission policy with respect to new development, even if the law is rescinded. Furthermore, each land use jurisdiction affected by this compatibility plan should adopt a policy designating the airport influence area as the area wherein disclosure of airport influences is required in conjunction with the transfer of residential real estate. Such a policy should require signs providing the above notice be prominently posted in the real estate sales office and/or other key locations at any new project within the AIA. Such local jurisdiction policies should also be applied to lease or rental agreements for existing residential property.

Appendices

Imperial County Airport Land Use Compatibility Plan

Appendix A

Brawley Municipal Airport (BWC)

Imperial County Airport Land Use Compatibility Plan

Appendix A

BRAWLEY MUNICIPAL AIRPORT (BWC)

Appendix A provides an overview of Brawley Municipal Airport's (Airport) setting, airport influence area (AIA), safety zones, noise, airspace, and overflight areas. This Appendix will also discuss the existing and planned land uses, as well as current and future Airport facilities.

Brawley Municipal Airport (BWC) is a public use airport located two miles northeast from the center of the City of Brawley, CA, which is situated in western Imperial County. The Airport sits on approximately 126 acres of land, 112 feet below mean sea level. The 2023–2027 *National Plan of Integrated Airports* (NPIAS) classifies the Airport as a local general aviation facility, and the 2020 *California Aviation System Plan* (CASP) considers it a community airport. The City of Brawley owns the Airport, and the Airport is located within City limits, surrounded by areas of unincorporated Imperial County to the north and east.

SAFETY ZONES

The AIA and Safety Zones for Brawley Municipal Airport are shown on **Exhibit A1**. Figure 3A of the California Airport Land Use Planning Handbook (Handbook) provides three example zones for general aviation airports, which are differentiated by runway length. The Handbook zone examples are provided as a starting point for developing safety zones specific to an airport. As discussed below, Brawley Municipal Airport has one runway, Runway 8-26, which is 4,166 feet long. The Federal Aviation Administration (FAA)-approved Airport Layout Plan (ALP) proposes a runway extension on Runway 26 of 803 feet, resulting in an ultimate runway length of 4,969 feet. Using this length, the Medium General Aviation Runway classification was assumed. For this plan, an outer zone was added based on the 14 CFR Part 77 Conical Surface, which also represents the airspace and overflight review area boundary. Additional information regarding the safety compatibility zones can be found in **Appendix J**.

NOISE

The standard methodology for analyzing noise conditions at airports involves the use of a computer simulation model. The Airport Environmental Design Tool (AEDT) Version 3f is accepted by the State of California and required by the FAA to be used in developing noise exposure contours. This is the model used to develop the noise exposure contours for this Airport Land Use Compatibility Plan (ALUCP). The following sections describe the noise modeling inputs for the Brawley Municipal Airport noise exposure contours shown on **Exhibit A2**. Additional information regarding the noise modeling process and land use compatibility thresholds can be found in **Appendix K**.

AIRCRAFT OPERATIONS AND FLEET MIX

As outlined in Public Utilities Code (PUC) Section 21675(a), the noise contours included in an ALUCP must reflect the anticipated growth of the airport throughout at least the next 20 years. **Table A1** summarizes the 2044 operations for the Airport using the FAA's Terminal Area Forecast, Fiscal Years 2023-2050 (published January 2024), and also includes the aircraft types used in the noise model.

Airfield observations and based aircraft lists were used to determine the types of aircraft which frequently use the Airport. To accurately represent the noise conditions at the Airport, the AEDT provides aircraft noise data for many of the aircraft operating in the national fleet.

The selection of individual aircraft types is important to the modeling process because different aircraft types generate different noise levels. The aircraft fleet mix for Brawley Municipal Airport was derived from the Airport's 2003 Airport Master Plan, FAA's Traffic Flow Management System Counts (TFMSC) for calendar year 2023, and interviews with the Airport manager. **Table A1** summarizes the generalized fleet mix data input into the AEDT.

A variety of general aviation, single engine fixed-propeller aircraft are modeled with the GASEPV and GASEPF aircraft in the AEDT. The GASEPV represents many single engine general aviation aircraft including the Mooney M-20, Cessna 172 and 180, and Piper Cherokee Arrow. The general aviation, single engine fixed-pitch propeller model, the GASEPF, also represents several single engine general aviation aircraft. These include the Cessna 150, Piper Archer, and the Piper Tomahawk.

TABLE A1 | Brawley Municipal Airport – Aircraft Fleet Mix and Operations

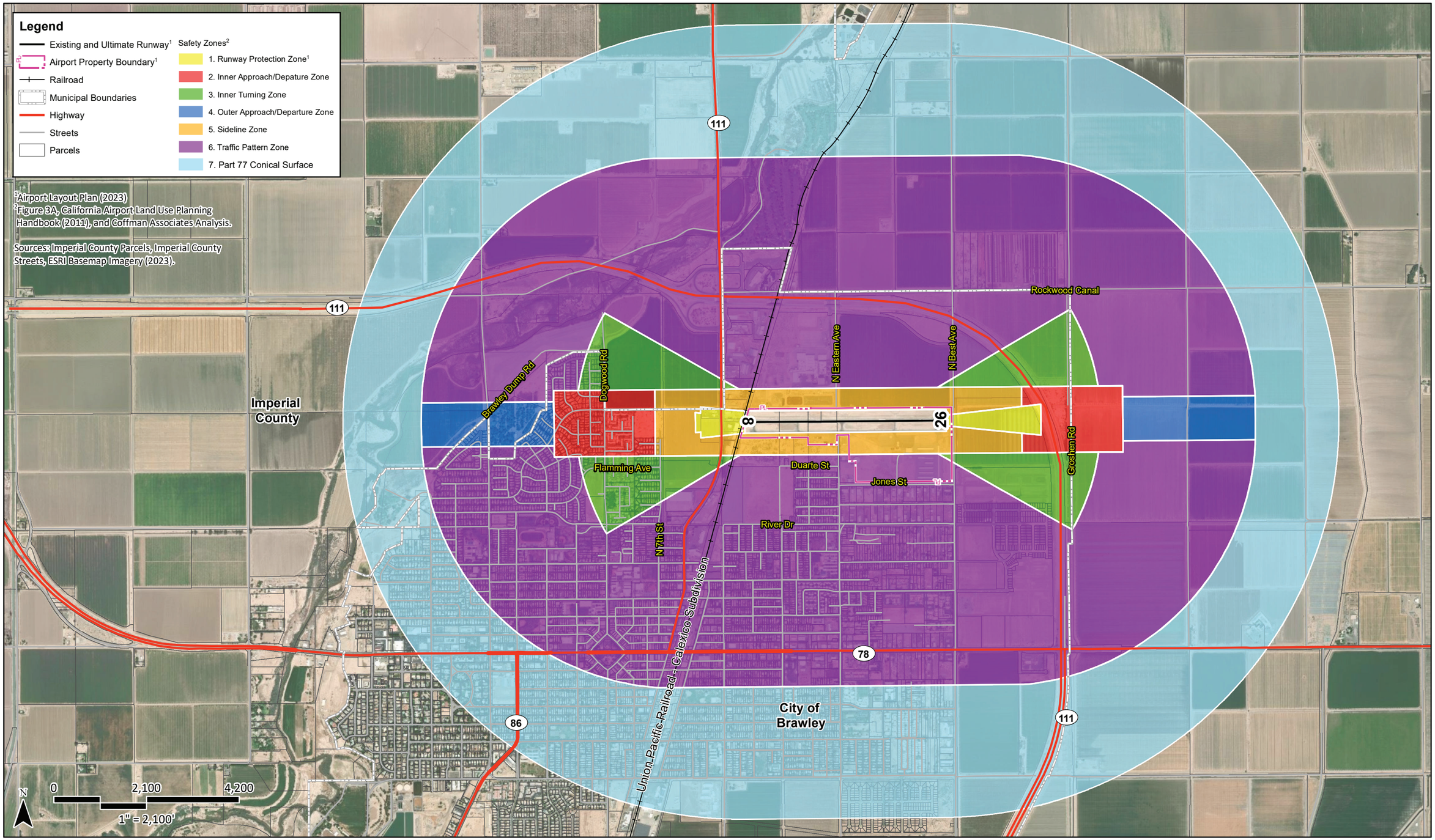
Operations	AEDT Designator	2044[1]
Itinerant		
Single Engine, Fixed	GASEPF	309
Single Engine, Variable	GASEPV	309
Multi-Engine Piston	BEC58P	162
Turboprop	DHC6	174
Turboprop	Pilatus PC-12	174
Helicopter	SA350D	200
Itinerant Subtotal		***1,328***
Local		
Single Engine, Fixed	GASEPF	409
Single Engine, Variable	GASEPV	409
Multi-Engine Piston	BEC58P	162
Local Subtotal		***980***
Grand Total		**2,308**

Source: [1]FAA Terminal Area Forecast, Fiscal Years 2023-2050, January 2024

Time-of-Day

The time-of-day which aircraft operations occur is an important input to the AEDT due to the 10-decibel nighttime (10:00 p.m. to 7:00 a.m.) and 4.8-decibel evening (7:00 p.m. to 10:00 p.m.) weighting of aircraft noise.

Since the Airport is not equipped with an airport traffic control tower (ATCT), time-of-day information was estimated based upon Airport staff interviews, time-of-day activity levels at similar airports, and information described in the 2003 Airport Master Plan. Currently, most operations occur during the daytime hours, with an estimated 4.5 percent of turboprop operations occurring during evening hours and no turboprop activity occurring during nighttime hours, and 15 percent of single and multi-engine piston operations occurring during evening hours and one percent of single and multi-engine piston operations occurring during nighttime hours.


Legend
Existing and Ultimate Runway[1]
Airport Property Boundary[1]
Railroad
Municipal Boundaries
Highway
Streets
Parcels
Safety Zones[2]
1. Runway Protection Zone[1]
2. Inner Approach/Depature Zone
3. Inner Turning Zone
4. Outer Approach/Departure Zone
5. Sideline Zone
6. Traffic Pattern Zone
7. Part 77 Conical Surface
[1]Airport Layout Plan (2023)
[2]Figure 3A, California Airport Land Use Planning Handbook (2011), and Coffman Associates Analysis.
Sources: Imperial County Parcels, Imperial County Streets, ESRI Basemap Imagery (2023).
111
Rockwood Canal
Imperial County
Brawley Dump Rd
Dogwood Rd
N Eastern Ave
N Best Ave
8
26
Groshen Rd
Flamming Ave
Duarte St
Jones St
River Dr
N 7th St
Union Pacific Railroad - Calexico Subdivision
78
City of Brawley
86
111
N
0
2,100
4,200
1" = 2,100'

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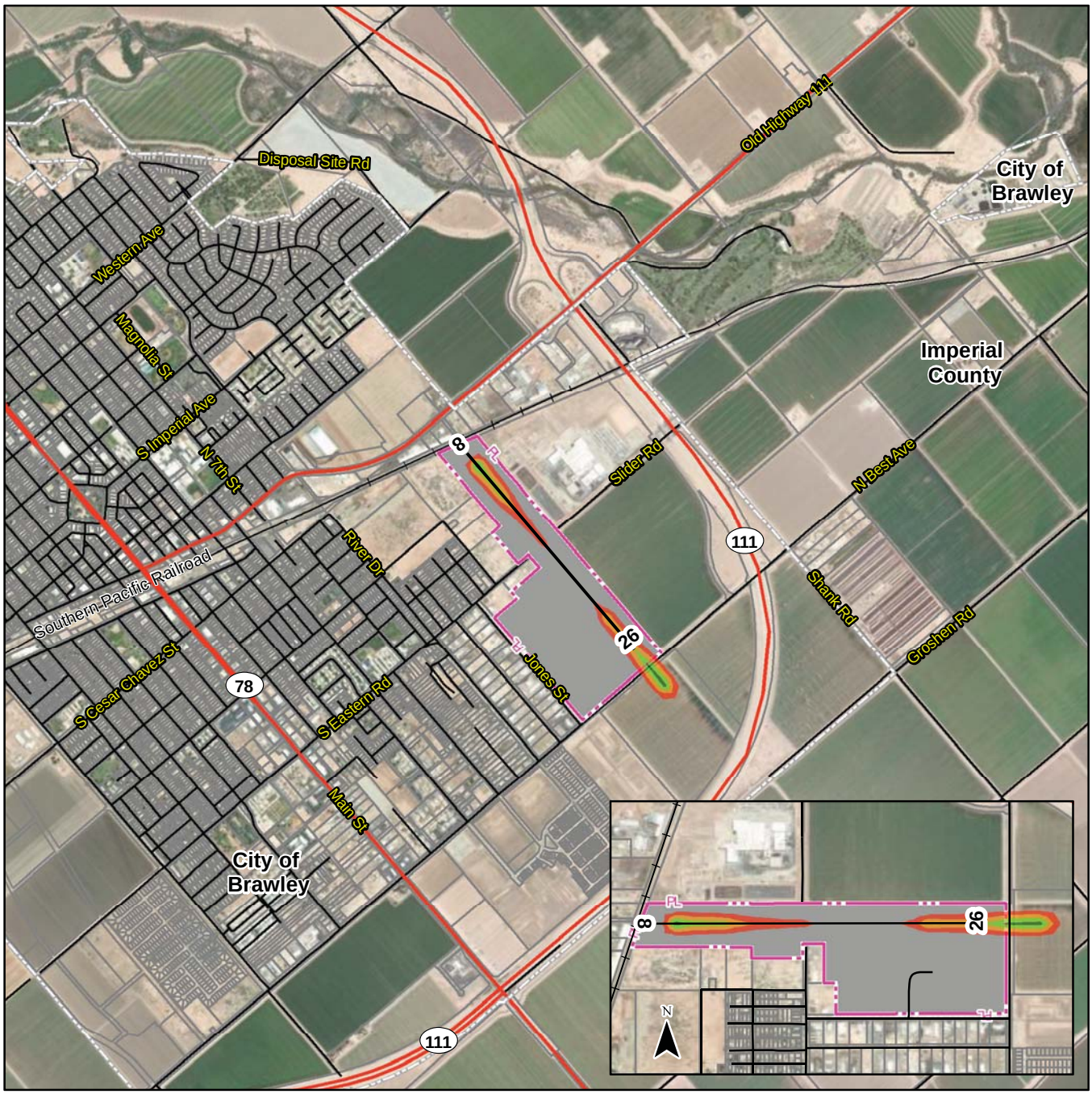

Legend

- Existing and Ultimate Runway[1]
- Airport Property Boundary[2]
- Municipal Boundaries
- Highway
- Railroad
- Streets
- Parcel Boundary

2044 Noise Contour

- 60 CNEL
- 65 CNEL
- 70 CNEL
- 75 CNEL

CNEL: Community Noise Equivalent Level

0 2,500 5,000
FEET

[1]5010 Airport Master Record
[2]Airport Layout Plan (2023)

Sources: Imperial County Parcels, Imperial County Streets, ESRI Basemap Imagery (2023).

Exhibit A2: BRAWLEY MUNICIPAL AIRPORT (BWC) NOISE CONTOURS

Runway Use

Runway usage data is also an essential component for developing noise exposure contours. Based on a review of regional airport activity and wind conditions, as well as information contained in the 2003 Airport Master Plan, the following assumptions were made for runway use:

- Runway 8 – 40 percent
- Runway 26 – 60 percent

Flight Tracks

A review of local flight procedures was used to develop consolidated flight tracks for use in the AEDT. As discussed below, the traffic pattern for Runway 8 is left-hand, and the traffic pattern for Runway 26 is right-hand. Accordingly, it is assumed that touch-and-go traffic occurs to the north of the Airport.

Flight Profiles

The standard arrival profile used in the AEDT program is a three-degree approach. No indication was given by Airport staff that there was any variation on this standard procedure for civilian aircraft. Therefore, the standard approach was included in the model to represent local operating conditions.

AIRSPACE AND OVERFLIGHT

Exhibit A3 depicts the airspace plan for Brawley Municipal Airport. This exhibit includes the 14 CFR Part 77 approach surfaces, including the Transitional, Horizontal, Conical, Primary, and Approach Surfaces. The Conical Surface makes up the Airport Influence Area for Brawley Municipal Airport.

AIRPORT INFORMATION

AIRPORT FACILITIES

Brawley Municipal Airport has one runway, 8-26. **Table A2** provides additional details about the Airport's facilities. **Exhibit A4** shows the ALP.

TABLE A2 | Airport Facilities – Brawley Municipal Airport

	Runway 8-26
RUNWAY(S)	
Length (feet)	4,166'
Width (feet)	60'
Threshold Displacement (feet)	394' | 160'
Runway Pavement Surface Material	Asphalt
Runway Pavement Surface Treatment	N/A
Runway Pavement Condition	Excellent

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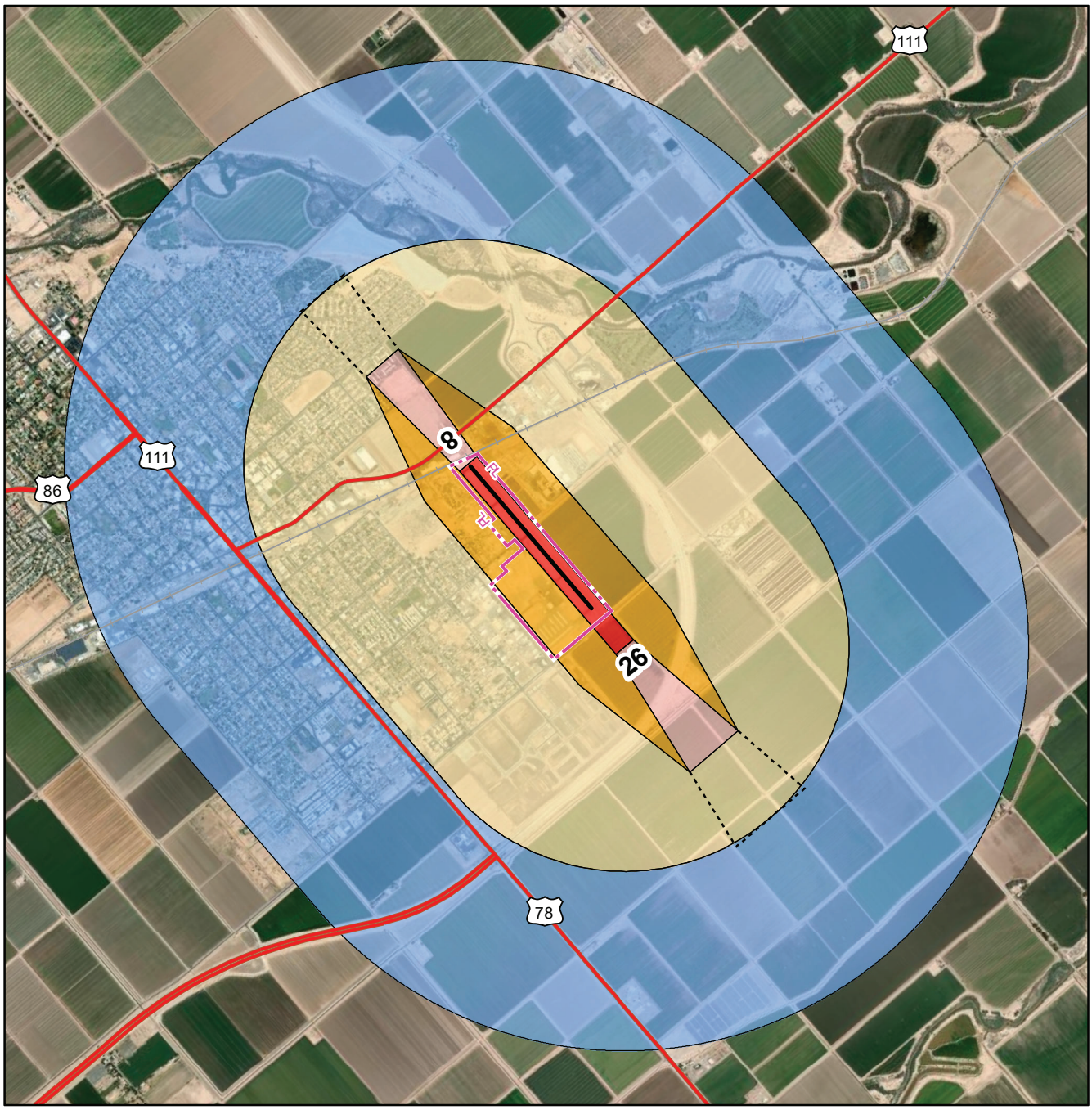


Legend

- Runway Centerline[1]
- Outer Approach Surface Extents
- Airport Property Line
- Highways

- Primary
- Approach

Part 77 Surfaces[2]

- Transitional
- Horizontal
- Conical

0 3,500 7,000
FEET

[1]5010 Airport Master Record

[2]Part 77 Surfaces reflect future condition as planned in ALP Set dated 12/15/2023 (see 14 CFR, Subchapter E, Part 77).

Source: ESRI Basemap Imagery (2023),

Exhibit A3: BRAWLEY MUNICIPAL AIRPORT (BWC) PART 77 SURFACES

TABLE A2 | Airport Facilities – Brawley Municipal Airport (continued)

	Runway 8-26
Runway Pavement Load Bearing Strength (lbs)	
Single Wheel	20,000
Dual Wheel	N/A
Dual Tandem	N/A
Double Tandem	N/A
Double Dual Tandem	N/A
Runway Pavement Markings	
Type	Non-precision
Condition	Good
Runway Lighting	
Runway Edge Lighting	MIRL
Approach Lighting System (ALS)	No
Touchdown Point	Yes, no lights
Traffic Pattern	Left | Right
Runway End Identifier Lights (REILs)	Yes
VISUAL APPROACH AIDS	
Type	2-Light PAPI
Glide Path	3.00 degrees
INSTRUMENT APPROACH AIDS	
Instrument Landing System (ILS)	LOC/DME | ILS/DME
Global Positioning System (GPS)	No | Yes
VOR/DME or TACAN	Yes
High-VOR/DME or TACAN	No
NAVIGATION AIDS	
Lighted beacon, lighted wind cone	

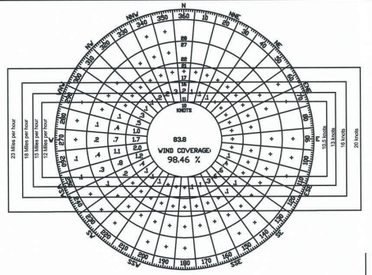
N/A: Not Applicable
MIRL: Medium Intensity Runway Lights
PAPI: Precision Approach Path Indicator
VOR/DME: Very High Frequency Omnidirectional Range Distance Measuring Equipment

Source: AirNav (July 2024)

Runway 8-26 is 4,166 feet long and 60 feet wide. It is constructed of asphalt and is in excellent condition. The runway load-bearing strength for single-wheel landing gear aircraft is up to 20,000 pounds. There are non-precision runway pavement markings that are in good condition and medium intensity runway lights (MIRL) with non-lighted touchdown points, runway end identifier lights (REILs), and taxiway lights.

The traffic pattern for Runway 8 is a standard left-handed pattern whereas Runway 26 is a non-standard right-handed traffic pattern. Both runway ends have a two-light precision approach path indicator (PAPI) on the left with a three-degree glide angle. There is an RNAV (GPS) non-precision instrument approach procedure for Runway 26 and a very high frequency omni-directional range (VOR) non-precision instrument circling approach procedure for the airport.

In addition to the runway, the Airport offers 100LL fuel, tiedowns, hangars, and passenger facilities provided by the airport's fixed-base operator (FBO), Imperial Flying Service, Inc. There are two businesses located on the airport: an air ambulance facility, REACH Air Medical Services, and a farm aerial application business. The Airport is surrounded by a secure perimeter fence.



ALL WEATHER WIND ROSE

WIND COVERAGE

	CROSSWIND COVERAGE ALL WEATHER			
RUNWAY	10.5 Kts.	13 Kts.	16 Kts.	20 Kts.
8	41.00%	41.72%	42.12%	42.24%
26	75.13%	75.82%	76.33%	76.47%
8-26	97.35%	98.74%	99.65%	99.91%

Source: National Climatic Data Center Asheville, NC.
Based on 84,333 observations 2004-2013 taken at Imperial, CA.

AIRPORT DATA

		EXISTING	ULTIMATE
AIRPORT ELEVATION		129' BELOW MSL	130' BELOW MSL
AIRPORT REFERENCE POINT (ARP) COORDINATES	LATITUDE	32° 59' 34.58" N	32° 59' 34.58" N
	LONGITUDE	115° 31' 02.15" W	115° 30' 55.93" W
MEAN MAX. TEMP. OF HOTTEST MONTH		108° F (AUGUST)	SAME
AIRPORT AND TERMINAL NAVAIDS		PAPI, GPS	SAME
AIRPORT REFERENCE CODE		B-II	SAME
MISCELLANEOUS FACILITIES		BEACON	SAME
		WIND CONE	SAME
DESIGN AIRCRAFT		BEECH KING AIR	BEECH KING AIR
RUNWAY DESIGN CODE (RDC)	RW 8	B-II-VIS	SAME
	RW 26	B-II-5000	SAME
RUNWAY REFERENCE CODE (RRC)	RW 8	B/II/VIS	SAME
	RW 26	B/II/5000	SAME

LEGEND

	EXISTING	ULTIMATE
AIRFIELD EDGE OF PAVEMENT		
AIRPORT PROPERTY BOUNDARY		
AIRPORT REFERENCE POINT (ARP)		
BUILDING		
BUILDING RESTRICTION LINE (BRL)		
FENCE		
GROUND CONTOUR		SAME
OBSTACLE FREE ZONE (OFZ)		
ROADWAY EDGE OF PAVEMENT		
RUNWAY OBJECT FREE AREA (ROFA)		
RUNWAY PROTECTION ZONE (RPZ)		
RUNWAY SAFETY AREA (RSA)		
WIND CONE		

CURRENT DEVIATIONS FROM STANDARDS

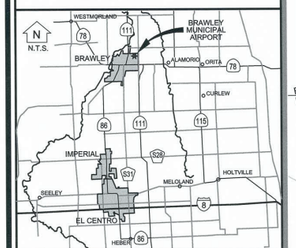
DEVIATION	LENGTH FROM RUNWAY END STANDARD	LENGTH FROM RUNWAY END EXISTING
R/W 8 OBSTACLE FREE ZONE	200'	195'
R/W 8 RUNWAY SAFETY AREA	300'	195'
R/W 8 RUNWAY OBJECT FREE AREA	300'	195'
R/W 8-26 RUNWAY WIDTH	75'	60'

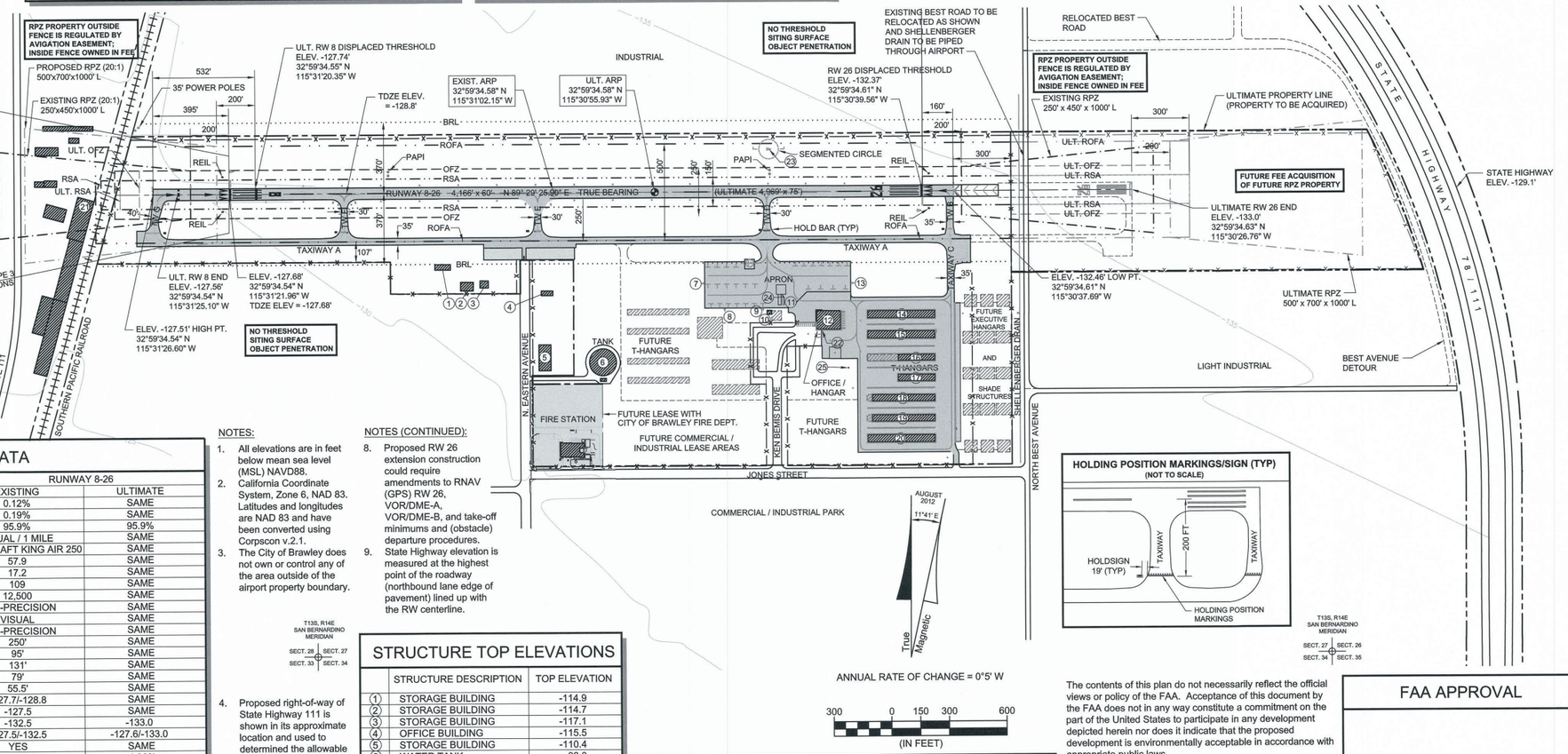
* NOTE:
THE EXISTING OFZ, RSA AND ROFA ARE OBSTRUCTED AT R/W 8 BY POWER LINES, FENCES, AND RAILROAD. BY CONSTRUCTING THE RUNWAY EXTENSION THE RUNWAY 8 END WILL BE MOVED TO RESTORE STANDARDS. RW EXTENSION IS NOT PLANNED FOR AT LEAST 8 YEARS OUT FROM 2016.

ABBREVIATIONS

ARP	Airport Reference Point
BRL	Building Restriction Line
MIRL	Medium Intensity Runway Edge Lights
OFZ	Obstacle Free Zone
PAPI	Precision Approach Path Indicator
ROFA	Runway Object Free Area
RPZ	Runway Protection Zone
RSA	Runway Safety Area
RW	Runway
TW	Taxiway
VASI	Visual Approch Slope Indicator

LOCATION MAP





RUNWAY DATA

			RUNWAY 8-26 EXISTING	RUNWAY 8-26 ULTIMATE
EFFECTIVE GRADIENT (%)			0.12%	SAME
MAXIMUM GRADIENT (%)			0.19%	SAME
WIND COVERAGE % (10.5 KNOTS)			95.9%	95.9%
APPROACH VISIBILITY MINIMUMS			VISUAL / 1 MILE	SAME
DESIGN AIRCRAFT	MAKE AND MODEL		BEECHCRAFT KING AIR 250	SAME
	WINGSPAN (FEET)		57.9	SAME
	UNDERCARRIAGE WIDTH		17.2	SAME
	APPROACH SPEED (KNOTS)		109	SAME
	MAX. TAKEOFF WEIGHT (LBS)		12,500	SAME
RUNWAY MARKING			NON-PRECISION	SAME
APPROACH CATEGORY (FAR PART 77)		RUNWAY 8	VISUAL	SAME
		RUNWAY 26	NON-PRECISION	SAME
RUNWAY ℄ TO PARALLEL TAXIWAY ℄			250'	SAME
TAXIWAY ℄ TO FIXED OR MOVABLE OBJECT			95'	SAME
TAXIWAY OBJECT FREE AREA WIDTH			131'	SAME
TAXIWAY SAFETY AREA WIDTH			79'	SAME
TAXIWAY WINGTIP CLEARANCE			55.5'	SAME
RUNWAY ELEVATIONS (NAVD 83) (See Notes 1, 2)	TOUCHDOWN ZONE (TDZ)		-127.7/-128.8	SAME
	HIGH POINT		-127.5	SAME
	LOW POINT		-132.5	-133.0
	END POINT (RUNWAY 8/26)		-127.5/-132.5	-127.6/-133.0
LINE OF SIGHT REQUIREMENT MET			YES	SAME
RUNWAY LENGTH			4,166'	4,969'
RUNWAY WIDTH			60'	75'
RUNWAY SHOULDER WIDTH			10'	SAME
RUNWAY/TAXIWAY PAVEMENT MATERIAL			ASPHALT	SAME
APPROACH SURFACES			20:1	SAME
PAVEMENT STRENGTH (1000 LBS)			20.0 (SINGLE WHEEL)	SAME
RUNWAY LIGHTING			MIRL	SAME
NAVIGATIONAL AIDS			NONE	GPS
VISUAL AIDS			MIRL, PAPI, REIL	SAME
RUNWAY SAFETY AREA WIDTH			150'	SAME
RUNWAY SAFETY AREA		RUNWAY 8	195' *	300'
LENGTH FROM RUNWAY END		RUNWAY 26	300'	SAME
RUNWAY OBJECT FREE AREA WIDTH			300'	SAME
RUNWAY OBJECT FREE AREA		RUNWAY 8	195' *	300'
LENGTH FROM RUNWAY END		RUNWAY 26	300'	SAME
OBSTACLE FREE ZONE LENGTH/WIDTH			4,561' (L) / 250'(W)	5,369' (L) / 250' (W)
OBSTACLE FREE ZONE		RUNWAY 8	195' *	200'
LENGTH FROM RUNWAY END		RUNWAY 26	200'	SAME
RUNWAY CENTERLINE TO HOLDLINE			126'	200'
TAXIWAY LIGHTING			MITL	SAME

NOTES:
1. All elevations are in feet below mean sea level (MSL) NAVD88.
2. California Coordinate System, Zone 6, NAD 83. Latitudes and longitudes are NAD 83 and have been converted using Corpscon v.2.1.
3. The City of Brawley does not own or control any of the area outside of the airport property boundary.
4. Proposed right-of-way of State Highway 111 is shown in its approximate location and used to determined the allowable length of runway extension.
5. The Runway Extension is planned over a 6 to 10 year time frame; Executive hangars are planned over a 0 to 5 year time frame.
6. Not used.
7. Survey coordinates for proposed RW 26 extension will need to be submitted through the FAA's AGIS process as part of the planning and construction.

NOTES (CONTINUED):
8. Proposed RW 26 extension construction could require amendments to RNAV (GPS) RW 26, VOR/DME-A, VOR/DME-B, and take-off minimums and (obstacle) departure procedures.
9. State Highway elevation is measured at the highest point of the roadway (northbound lane edge of pavement) lined up with the RW centerline.

T13S, R14E SAN BERNARDINO MERIDIAN
SECT. 28 SECT. 27 SECT. 33 SECT. 34

STRUCTURE TOP ELEVATIONS

	STRUCTURE DESCRIPTION	TOP ELEVATION
①	STORAGE BUILDING	-114.9
②	STORAGE BUILDING	-114.7
③	STORAGE BUILDING	-117.1
④	OFFICE BUILDING	-115.5
⑤	STORAGE BUILDING	-110.4
⑥	WATER TANK	-93.3
⑦	LIGHT POLE	-100.7
⑧	LIGHT POLE	-80.3
⑨	LIGHT POLE	-80.0
⑩	RESTROOM	-119.9
⑪	AVIATION FUEL TANK	-121.9
⑫	HANGAR	-108.8
⑬	LIGHT POLE	-101.1
⑭	HANGAR	-115.6
⑮	HANGAR	-115.4
⑯	HANGAR	-117.7
⑰	HANGAR	-116.7
⑱	HANGAR	-116.2
⑲	HANGAR	-116.2
⑳	HANGAR	-114.8
㉑	STORAGE BUILDING	-95.8
㉒	BEACON	-96.0
㉓	WIND CONE	-109.2
㉔	LIGHT POLE	-119.4
㉕	LIGHT POLE	-101.2

RUNWAY END DATA

RUNWAY		EXISTING	ULTIMATE	EXIST. ELEV.	ULT. ELEV.
8	LATITUDE	32° 59' 34.54" N	32° 59' 34.54" N	-127.5'	-127.6'
	LONGITUDE	115° 31' 26.60" W	115° 31' 25.10" W		
26	LATITUDE	32° 59' 34.61" N	32° 59' 34.63" N	-132.5'	-133.0'
	LONGITUDE	115° 30' 37.69" W	115° 30' 26.76" W		

T13S, R14E SAN BERNARDINO MERIDIAN
SECT. 27 SECT. 26 SECT. 34 SECT. 35

The contents of this plan do not necessarily reflect the official views or policy of the FAA. Acceptance of this document 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.

APPROVED - CITY OF BRAWLEY
Director of Public Works

12-15-23
DATE

FAA APPROVAL

JUL 2018	AE	AIRFIELD LIGHTING REHAB UPDATE
MAY 2017	AE	ADDRESSED FAA COMMENTS; WINDROSE UPDATED
MAR 2017	AE	RUNWAY COORDINATES
APR 2016	AE	ALP UPDATED AFTER RELOCATION OF RW 26 END
DEC 2014	AE	NEW DRAWING CREATED; ALP UPDATED
DEC 2000	P&D	APPROVED ALP
DATE	BY	DESCRIPTION

REVISIONS

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143 Yorba Street
Tustin, CA 92780
(714) 573-1211

CITY OF BRAWLEY

BRAWLEY MUNICIPAL AIRPORT

AIRPORT LAYOUT PLAN

JOB | DWG BWC ALP | SHEET 1 OF 1

CADD PROJECT FILE NAME: BWC-ALP.DWG
CHECKER: PDB
DESIGNER: JAB / PDB
DRAFTER: JAB

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The following Imperial Valley Transit routes exist in the airport vicinity:

- 2N: El Centro to Niland/ 2S: Niland to El Centro
- 22N: IVC Express- IVC to Niland/ 22S: IVC Express- Niland to IVC
- 31D: Brawley to Calexico/ 32D: Calexico to Brawley
- Gold: Brawley

Additionally, Appendix F: Regional Highway & Roadway Projects of the Imperial County Transportation Long Range Transportation Plan (ICTC LRTP) identifies the following project near the airport: RC-5: Construct Roadway/Rail Grade Separation and upgrade to current County standards (SR-78/SR-111 (West).

FUTURE AIRPORT PLANS

Future plans for the Airport are explained below and shown on the ALP (**Exhibit A4**).

According to the most recent Airport Layout Plan (ALP) for Brawley Municipal Airport, published in December 2023, it is recommended that the City acquire property to the east of Runway 26 for the future runway protection zone (RPZ). This RPZ would be necessary for the ultimate extension of Runway 8-26 to the east, lengthening the runway to 4,969 feet. To accommodate this future runway length, the ALP shows Taxiway A to the south of the runway extending east to become a full-length parallel taxiway. A new entry/exit taxiway is planned at the east end of the ultimate Runway 8-26. New executive hangars and shade structures to the east of the existing apron are also planned, as are areas designated for future commercial or industrial leases. The runway design aircraft, design code, and reference code are the same for the existing and ultimate conditions.

The California Aviation System Plan (CASP) 2020 lists the following future projects for Brawley Municipal Airport:

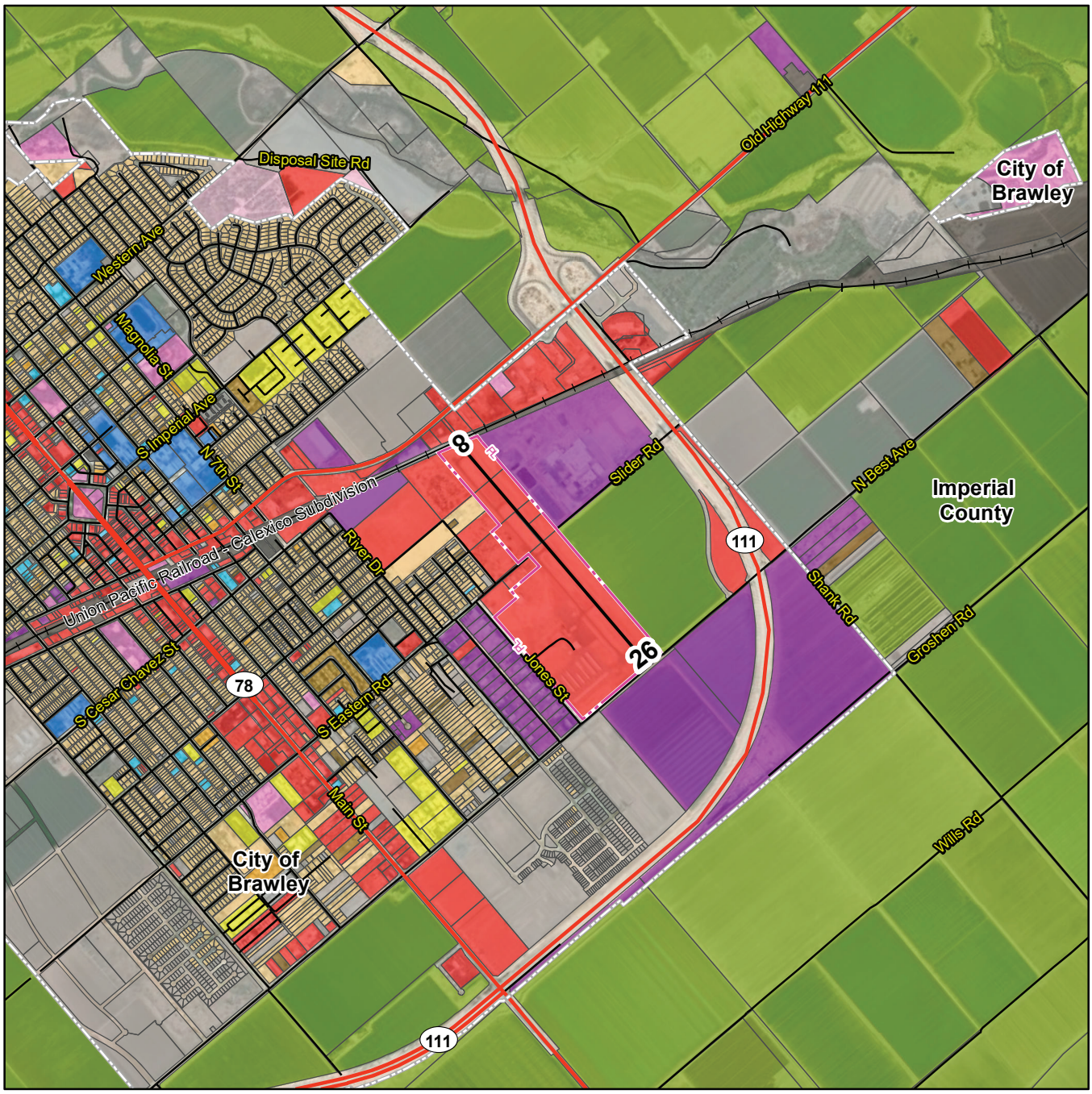
- Airport Layout Plan Narrative (2024)
- Seal Airfield Pavements and Stripe (2024)
- Reconstruct Ken Bemis Drive (2026)

AIRPORT ENVIRONS

EXISTING LAND USES

Existing land uses are shown on **Exhibit A5**.

The airport property is located entirely within the City of Brawley's jurisdiction. Commercial and industrial land uses exist in the areas immediately surrounding the airport to the north, east, and south, and agricultural land uses exist to the north and east. Nearby residential land uses are within the City of Brawley to the east and south of the airport. A solid waste facility is located directly west of the airport, and a golf course has been developed to the north.



Legend

- Existing and Ultimate Runway[1]
- Airport Property Boundary[1]
- Municipal Boundaries
- Highway
- Railroad
- Streets
- Parcels

Existing Land Use[2]

- Commercial
- Industrial
- Government
- Cemetery
- Noise Sensitive - Places of Worship
- Noise-Sensitive - School
- Residential Single-Family
- Residential - Mobile Home Park
- Multifamily Residential - High Density
- Multifamily Residential - Medium Density
- Multifamily Residential - Low Density
- Agricultural
- Vacant
- Right of Way & Utilities

0 2,500 5,000

1" = 2,500'

[1]Airport Layout Plan (2023)
[2]Imperial County Assessor's Office Tax Parcels

Sources: Imperial County Assessor's Office Parcel Data (2024), Imperial County Streets, Airport Layout Plan (2023), ESRI Basemap Imagery (2023).

ZONING

Exhibit A6 shows zoning in the AIA.

Areas within City limits, including airport property, are primarily zoned for manufacturing and commercial uses. This includes the areas in unincorporated Imperial County which have been assigned prezoning designations by the City of Brawley for cases of future annexation. Imperial County zoning designates the area surrounding the airport primarily as limited agriculture, with three areas designated as mixed-use.

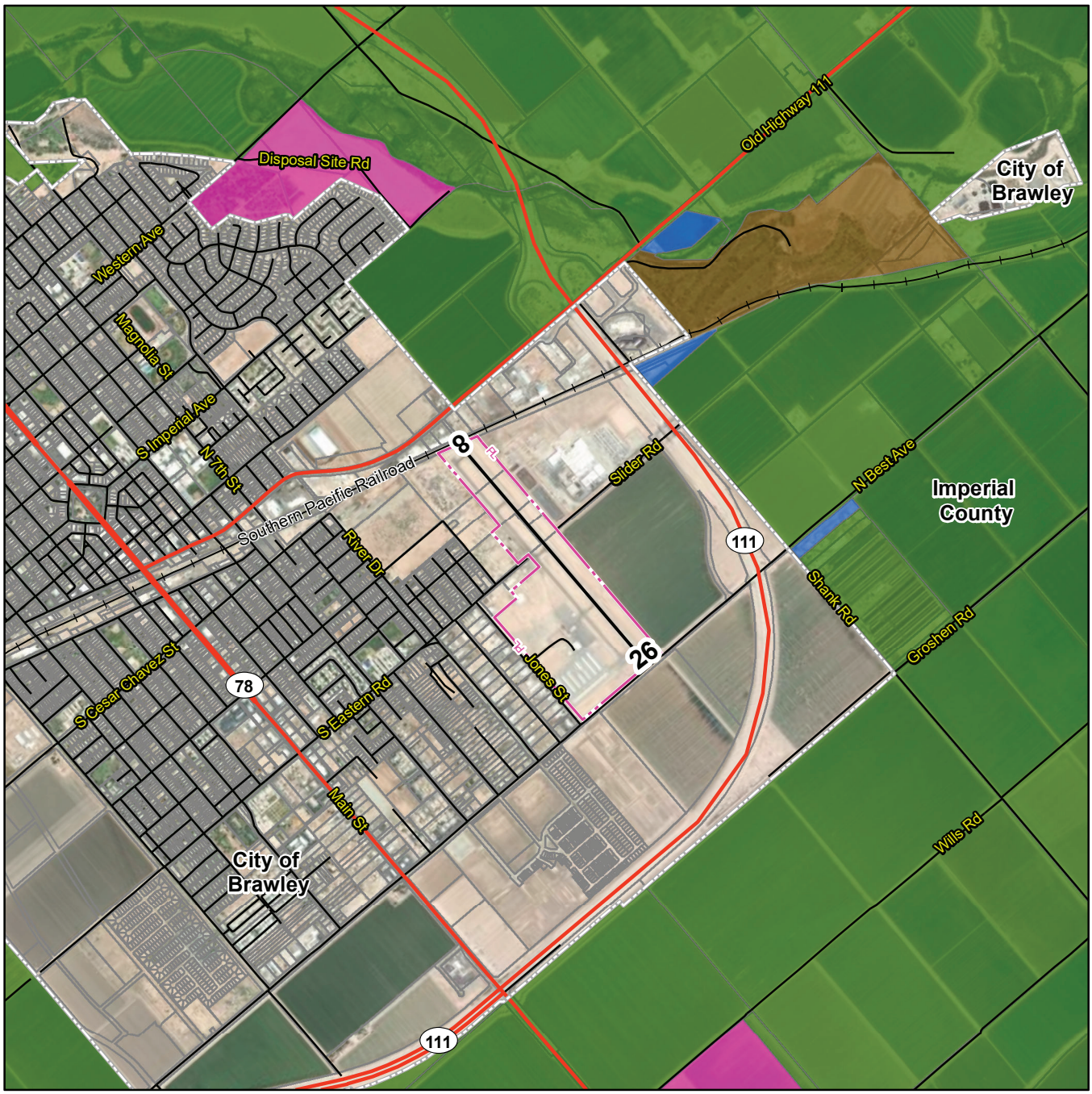
GENERAL PLAN

General plan land uses are shown on **Exhibit A7**.

Imperial County updated its General Plan in 1993, and the Land Use Element of the General Plan was updated in 2015. **Exhibit A7** represents the planned land uses for the county based on the goals and objectives outlined in this plan. The Imperial County General Plan designates the area immediately surrounding the airport as urban. Further to the north and east, land within the AIA is designated as agriculture. The City of Brawley updated its General Plan in September 2008. The City of Brawley General Plan Land Use Map designates airport property as Public Facilities (PF) and land to the south and east as Industrial (I). In September 2000, the Luckey Ranch Specific Plan was adopted for the area immediately north of the airport.

COMPATIBILITY FACTORS

Exhibit A8 is a compatibility factors map, which compiles National Transportation Safety Board flight accident data for all airports in the United States, noise exposure contours, and arrival and departure flight tracks from the noise exposure contours. The purpose of this exhibit is to illustrate the methodology behind the shape and size of the safety, noise, and airspace compatibility zones.



Legend

- Existing and Ultimate Runway[1]
- Airport Property Boundary[2]
- Municipal Boundaries
- Highway
- Railroad
- Streets
- Parcel Boundary

Zoning[3]

- Mixed Use
- Public Facitlity
- Rural Residedntial
- Limited Agriculture

N

0 2,500 5,000

FEET

[1]5010 Airport Master Record

[2]Airport Layout Plan (2023)

[3]Imperial County ArcGIS website, Derek Newland

Sources: Imperial County Parcels, Imperial County Streets, Airport Layout Plan (2023), ESRI Basemap Imagery (2023).

Legend

- Existing and Ultimate Runway[1]
- Airport Property Boundary[1]
- Municipal Boundaries
- Highway
- Railroad
- Streets
- Parcels

General Plan[2]

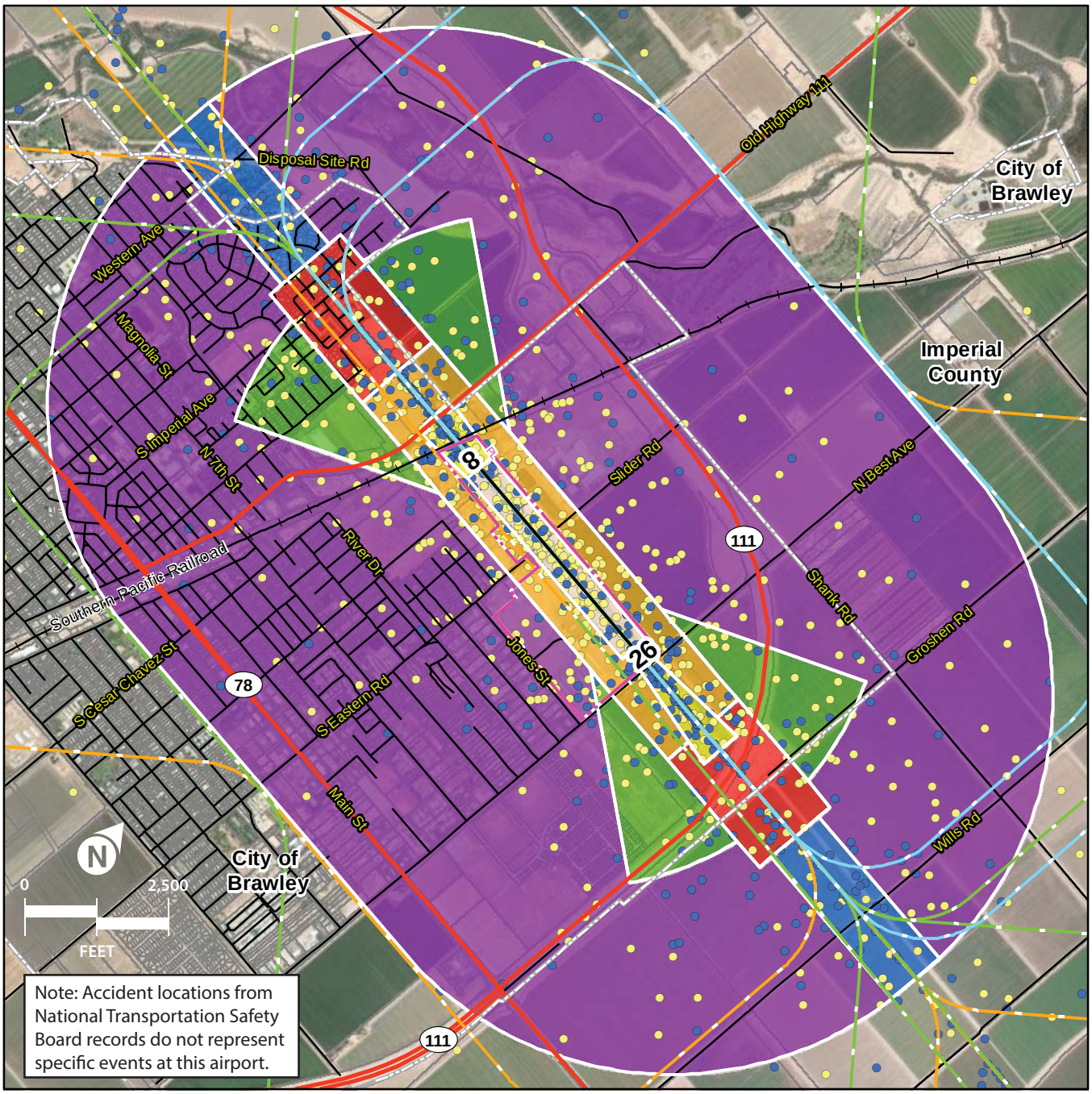
- Agriculture
- Industrial
- Light Industrial
- Commercial
- Medium Density Residential
- Low Density Residential
- Rural Residential
- Open Space
- Public Facilities

0 2,500 5,000

1" = 2,500'

[1]Airport Layout Plan (2023)
[2]Imperial County General Plan (1993) and City of Brawley General Plan 2030 Land Use Map (2008)

Sources: Imperial County Parcels, Imperial County Streets, Airport Layout Plan (2023), ESRI Basemap Imagery (2023).



LEGEND

- P/L — Airport Property Line[3]
- Parcels
- Municipal Boundaries
- Existing and Ultimate Runway[1]
- Streets
- Arrival Accidents[4]
- Departure Accidents[4]

BWC FLIGHT TRACKS

- Approach
- Departure
- Touch and Go
- Highway
- Railroad

SAFETY ZONES[2]

- Traffic Pattern Zone
- Inner Approach/Depature Zone
- Inner Turning Zone
- Outer Apporach/Departure Zone
- Sideline Zone
- Runway Protection Zone[3]

[1]5010 Airport Master Record

[2]Figure 3A, California Airport Land Use Planning Handbook (2011), and Coffman Associates Analysis

[3]Airport Layout Plan (2023)

[4]California Airport Land Use Planning Handbook, 2011. Normalized from airports in United States.

Sources: Imperial County Parcels, Imperial County Streets, Airport Layout Plan (2023), (1996). ESRI Basemap Imagery (2023).

Appendix B

Calexico International Airport (CXL)

Imperial County Airport Land Use Compatibility Plan

Appendix B

CALEXICO INTERNATIONAL AIRPORT (CXL)

Appendix B provides an overview of Calexico International Airport's (Airport) setting, airport influence area (AIA), safety zones, noise, airspace and overflight areas. This Appendix will also discuss the existing and planned land uses, as well as current and future Airport facilities.

Calexico International Airport (CXL) is a public use airport located within the City of Calexico, CA, in western Imperial County. The Airport sits on approximately 284 acres of land, 6 feet above mean sea level. The 2023–2027 *National Plan of Integrated Airports* (NPIAS) classifies the Airport as a basic general aviation facility, and the 2020 *California Aviation System Plan* (CASP) considers it a community airport. The City of Calexico owns the Airport, and the Airport is located entirely within city limits. There is a canal immediately to the west, separating the airport from unincorporated Imperial County, and the Mexico-United States border lies immediately to the south.

SAFETY ZONES

The AIA and Safety Zones for Calexico International Airport are shown on **Exhibit B1**. Figure 3A of the California Airport Land Use Planning Handbook (Handbook) provides three example zones for general aviation airports, which are differentiated by runway length. The Handbook zone examples are provided as a starting point for developing safety zones specific to an airport. As discussed below, Calexico International Airport has one runway, Runway 8-26, which is 4,683 feet long. The Federal Aviation Administration (FAA)-approved Airport Layout Plan (ALP) proposes a runway extension of 300 feet on Runway 8, resulting in an ultimate runway length of 4,983 feet. Using this length, the Medium General Aviation Runway classification was assumed. For this plan, an outer zone was added based on the 14 CFR Part 77 Conical Surface, which also represents the airspace and overflight review area boundary. Additional information regarding the safety compatibility zones can be found in **Appendix J**.

NOISE

The standard methodology for analyzing noise conditions at airports involves the use of a computer simulation model. The Airport Environmental Design Tool (AEDT) Version 3f is accepted by the State of California and required by the FAA to be used in developing noise exposure contours. This is the model used to develop the noise exposure contours for this Airport Land Use Compatibility Plan (ALUCP). The following sections describe the noise modeling inputs for the Calexico International Airport noise exposure contours shown on **Exhibit B2**. Additional information regarding the noise modeling process and land use compatibility thresholds can be found in **Appendix J**.

AIRCRAFT OPERATIONS AND FLEET MIX

As outlined in Public Utilities Code (PUC) Section 21675(a), the noise contours included in an ALUCP must reflect the anticipated growth of the airport throughout at least the next 20 years. **Table B1** summarizes the 2044 operations for the Airport using the FAA's Terminal Area Forecast, Fiscal Years 2023-2050 (published January 2024), and also includes the aircraft types used in the noise model. Airfield observations and based aircraft lists were used to determine the types of aircraft which frequently use the Airport. To accurately represent the noise conditions at the Airport, the AEDT provides aircraft noise data for many of the aircraft operating in the national fleet.

The selection of individual aircraft types is important to the modeling process because different aircraft types generate different noise levels. The aircraft fleet mix for Calexico International Airport was derived from the 2001 *Calexico International Airport Master Plan*, FAA's Traffic Flow Management System Counts (TFMSC) for calendar year 2023, and interviews with the Airport manager. **Table B1** summarizes the generalized fleet mix data input into the AEDT.

A variety of general aviation, single engine fixed-propeller aircraft are modeled with the GASEPV and GASEPF aircraft in the AEDT. The GASEPV represents many single engine general aviation aircraft including the Mooney M-20, Cessna 172 and 180, and Piper Cherokee Arrow. The general aviation, single engine fixed-pitch propeller model, the GASEPF, also represents several single engine general aviation aircraft. These include the Cessna 150, Piper Archer, and the Piper Tomahawk.

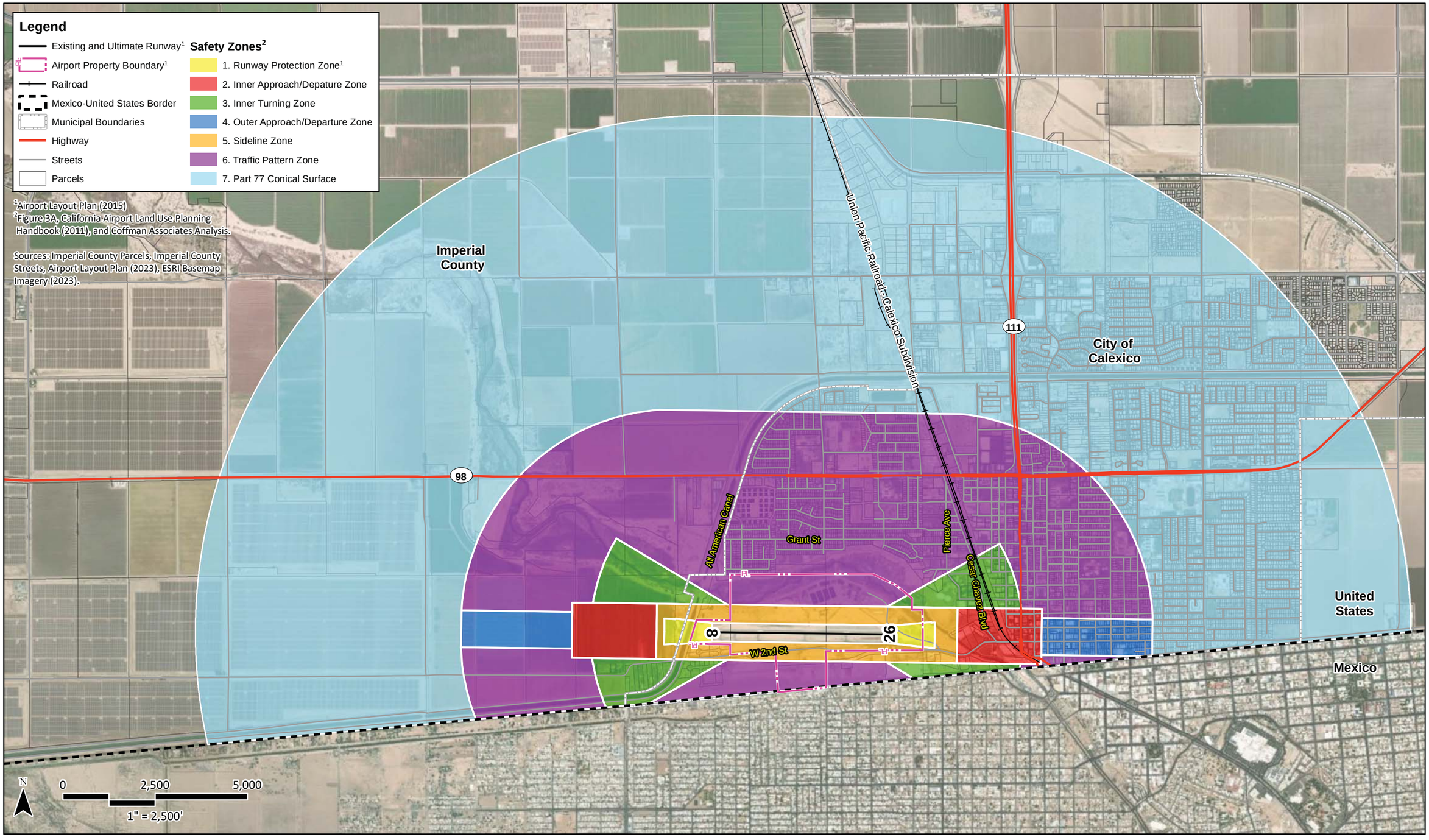
TABLE B1 | Calexico International Airport – Aircraft Fleet Mix and Operations

Operations	AEDT Designator	2044[1]
Itinerant		
Single Engine, Fixed	GASEPF	508
Single Engine, Variable	GASEPV	507
Multi-Engine Piston	BEC58P	385
Turboprop	DHC6	233
Turboprop	Pilatus PC-12	169
Turbojet, Small	SA350D	245
Turbojet, Medium	CNA55B	120
Itinerant Subtotal		***2,167***
Local		
Single Engine, Fixed	GASEPF	121
Single Engine, Variable	GASEPV	120
Local Subtotal		***241***
Grand Total		**2,408**

Source: [1]FAA Terminal Area Forecast, Fiscal Years 2023-2050, January 2024

Time-of-Day

The time of day which aircraft operations occur is an important input to the AEDT due to the 10-decibel nighttime (10:00 p.m. to 7:00 a.m.) and 4.8-decibel evening (7:00 p.m. to 10:00 p.m.) weighting of aircraft noise.


Legend
Existing and Ultimate Runway[1]
Airport Property Boundary[1]
Railroad
Mexico-United States Border
Municipal Boundaries
Highway
Streets
Parcels
Safety Zones[2]
1. Runway Protection Zone[1]
2. Inner Approach/Depature Zone
3. Inner Turning Zone
4. Outer Approach/Departure Zone
5. Sideline Zone
6. Traffic Pattern Zone
7. Part 77 Conical Surface
[1]Airport Layout Plan (2015)
[2]Figure 3A, California Airport Land Use Planning Handbook (2011), and Coffman Associates Analysis.
Sources: Imperial County Parcels, Imperial County Streets, Airport Layout Plan (2023), ESRI Basemap Imagery (2023).
Imperial County
City of Calexico
United States
Mexico
Union Pacific Railroad-Calexico Subdivision
All American Canal
Grant St
Pierce Ave
Cesar Chavez Blvd
W 2nd St
111
98
8
26
N
0
2,500
5,000
1" = 2,500'

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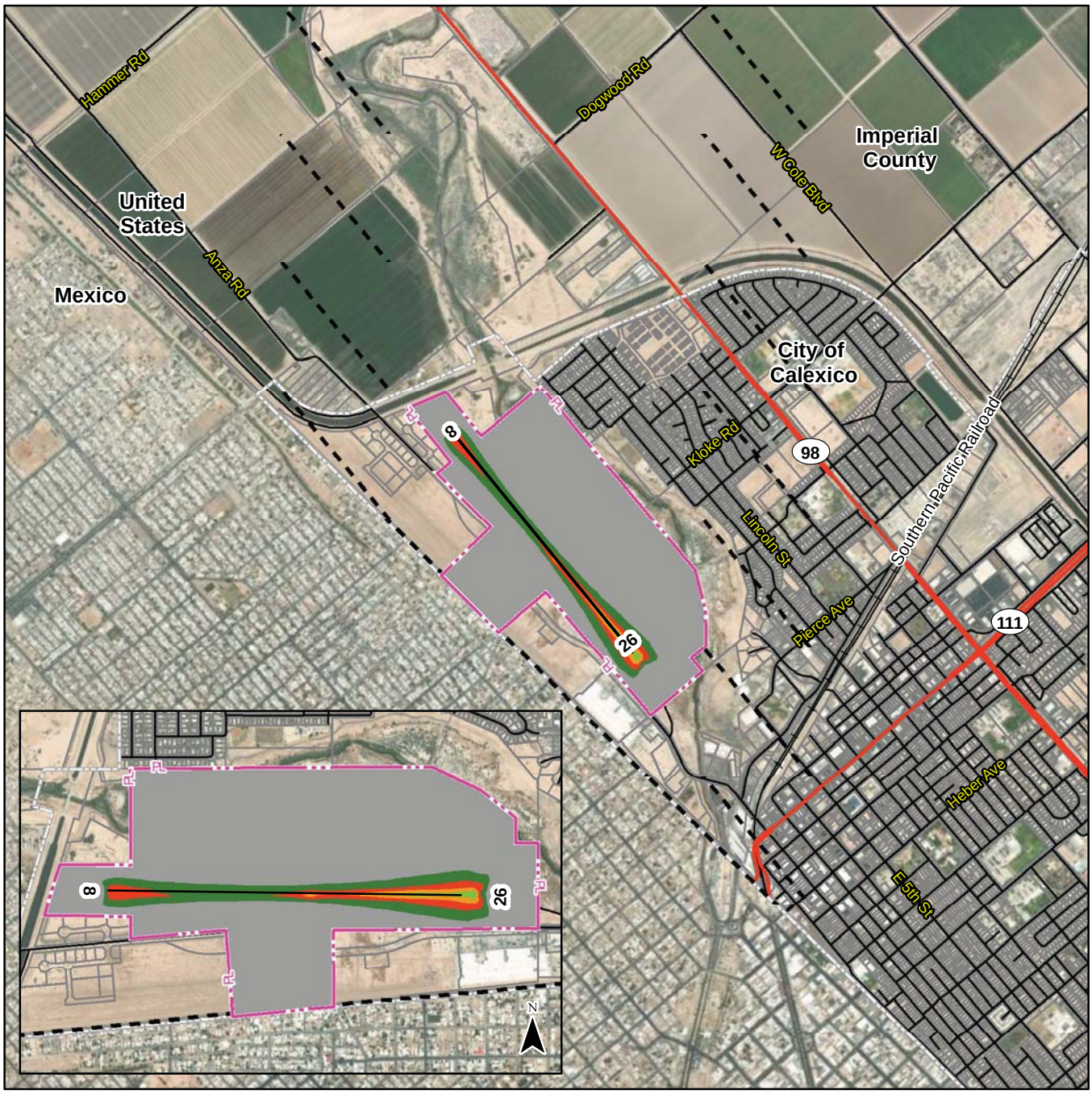


Legend

- Existing and Ultimate Runway[1]
- Airport Property Boundary[2]
- Mexico-United States Border
- Municipal Boundaries
- Highway
- Railroad
- Streets
- Parcel Boundary

2044 Noise Contour

- 60 CNEL
- 65 CNEL
- 70 CNEL
- 75 CNEL

CNEL: Community Noise Equivalent Level

0 2,500 5,000
FEET

[1]5010 Airport Master Record
[2]Airport Layout Plan (2015)

Sources: Imperial County Parcels, Imperial County Streets, Airport Layout Plan (2023), ESRI Basemap Imagery (2023).

Exhibit B2: CALEXICO INTERNATIONAL AIRPORT (CXL) NOISE CONTOURS

Since the Airport is not equipped with an airport traffic control tower (ATCT), time-of-day information was estimated based upon Airport staff interviews, time-of-day activity levels at similar airports, and information described in the 2001 *Calexico International Airport Master Plan*. Currently, most operations occur during the daytime hours, with an estimated nine percent of operations occurring during evening hours and one percent of operations occurring during nighttime hours.

Runway Use

Runway usage data is also an essential component for developing noise exposure contours. Based on a review of regional airport activity and wind conditions, as well as information contained in the 2001 *Calexico International Airport Master Plan*, the following assumptions were made for runway use:

- Arrivals, Runway 8 – 20 percent
- Arrivals, Runway 26 – 80 percent
- Departures, Runway 8 – 30 percent
- Departures, Runway 26 – 70 percent

Flight Tracks

A review of local flight procedures was used to develop consolidated flight tracks for use in the AEDT. As discussed below, the traffic pattern for Runway 8 is left-hand, and the traffic pattern for Runway 26 is right-hand. Therefore, it is assumed that touch-and-go traffic occurs to the north of the Airport.

Flight Profiles

The standard arrival profile used in the AEDT program is a three-degree approach. No indication was given by Airport staff that there was any variation on this standard procedure for civilian aircraft. Therefore, the standard approach was included in the model to represent local operating conditions.

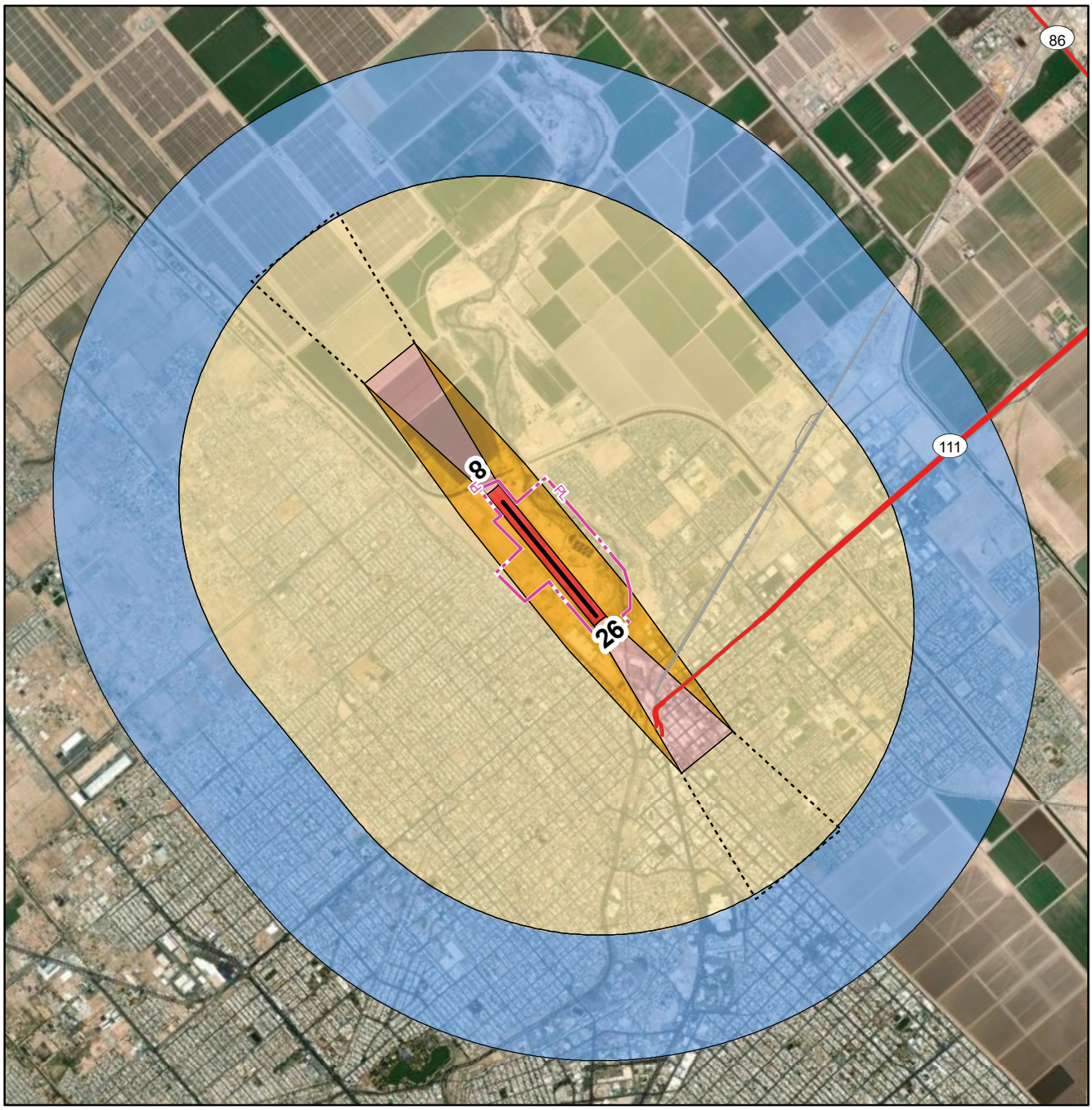
AIRSPACE AND OVERFLIGHT

Exhibit B3 depicts the airspace plan for Calexico International Airport. This exhibit includes the 14 CFR Part 77 approach surfaces, including the Transitional, Horizontal, Conical, Primary, and Approach Surfaces. The Conical Surface makes up the Airport Influence Area for Calexico International Airport.

AIRPORT INFORMATION

AIRPORT FACILITIES

Calexico International Airport has one runway, 8-26. **Table B2** provides additional details about the Airport's facilities. **Exhibit B4** shows the ALP.



Legend

- Runway Centerline[1]
- Outer Approach Surface Extents
- Airport Property Line
- Highways

- Primary
- Approach

Part 77 Surfaces[2]

- Transitional
- Horizontal
- Conical

N

0 5,000 10,000

FEET

[1]5010 Airport Master Record

[2]Part 77 Surfaces reflect future condition as planned in ALP Set dated 03/05/15 (see14 CFR, Subchapter E, Part 77).

Source: ESRI Basemap Imagery (2023),

Exhibit B3: CALEXICO INTERNATIONAL AIRPORT (CXL) PART 77 SURFACES

TABLE B2 | Airport Facilities – Calexico International Airport

	Runway 8-26
RUNWAY(S)	
Length (feet)	4,683’
Width (feet)	75’
Threshold Displacement (feet)	N/A | 160’
Runway Pavement Surface Material	Asphalt
Runway Pavement Surface Treatment	N/A
Runway Pavement Condition	Excellent
Runway Pavement Load Bearing Strength (lbs)	
Single Wheel	30,000
Dual Wheel	N/A
Dual Tandem	N/A
Double Tandem	N/A
Double Dual Tandem	N/A
Runway Pavement Markings	
Type	Basic
Condition	Good
Runway Lighting	
Runway Edge Lighting	No
Approach Lighting System (ALS)	No
Touchdown Point	Yes, no lights
Traffic Pattern	Left | Right
Runway End Identifier Lights (REILs)	Yes
VISUAL APPROACH AIDS	
Type	4-Light PAPI
Glide Path	3.00 degrees | 3.40 degrees
INSTRUMENT APPROACH AIDS	
Instrument Landing System (ILS)	N/A
Global Positioning System (GPS)	N/A
VOR/DME or TACAN	N/A
High-VOR/DME or TACAN	N/A
NAVIGATION AIDS	
Lighted beacon, lighted wind cone	

N/A: Not Applicable
MIRL: Medium Intensity Runway Lights
PAPI: Precision Approach Path Indicator
VOR/DME: Very High Frequency Omnidirectional Range Distance Measuring Equipment

Source: AirNav (July 2024)

Runway 8-26 is 4,683 feet long and 75 feet wide. It is constructed of asphalt and is in excellent condition. The runway load bearing strength for single-wheel landing gear aircraft is up to 30,000 pounds. There are non-precision runway pavement markings that are in good condition. The runway has non-lighted touchdown points and runway end identifier lights (REILs).

RUNWAY DATA

DESCRIPTION		RUNWAY 8 - 26 EXISTING	RUNWAY 8 - 26 FUTURE
EFFECTIVE GRADIENT (IN %)		0.1	SAME (Est.)
MAXIMUM GRADIENT (IN %)		1.2	SAME
WIND COVERAGE % (13 KNOTS)		98.41	SAME
APPROACH VISIBILITY MINIMUMS		VISUAL / VISUAL	>1 MILE / >1 MILE
DESIGN AIRCRAFT	MAKE AND MODEL	BEECH 1900	SAME
	WINGSPAN (FEET)	58	SAME
	UNDERCARRIAGE WIDTH	17	SAME
	APPROACH SPEED (KNOTS)	118	SAME
	MAX. TAKEOFF WEIGHT (LBS)	17,120	SAME
RUNWAY MARKING		VISUAL	NON-PRECISION
APPROACH CATEGORY' (FAR PART 77)	RUNWAY 8	VISUAL	NON-PRECISION
	RUNWAY 26	VISUAL	NON-PRECISION
RUNWAY ℄ TO PARALLEL TAXIWAY ℄		257'	SAME
TAXIWAY ℄ TO FIXED OR MOVABLE OBJECT		45.0'	65.5'
TAXIWAY OBJECT FREE AREA WIDTH		110.5'	131'
TAXIWAY SAFETY AREA WIDTH		79'	SAME
TAXIWAY WINGTIP CLEARANCE		5.5'	26'
RUNWAY ELEVATIONS (NAVD 88) (See Note 1)	TOUCHDOWN ZONE (TDZ)	NONE / NONE	SAME / SAME
	HIGH POINT	5.9'	6.1'
	LOW POINT	-1.4'	SAME
	END POINT (RUNWAY 8/26)	5.9' / 0.5'	6.1' / SAME
LINE OF SIGHT REQUIREMENT MET		YES	YES
RUNWAY LENGTH		4,683'	4,983'
RUNWAY WIDTH		75'	100'
RUNWAY/TAXIWAY PAVEMENT MATERIAL		ASPHALT/CONCRETE	SAME
APPROACH SLOPE		20:1	34:1 (Est.)
PAVEMENT STRENGTH (S)² (000 LBS)		30	SAME
RUNWAY LIGHTING		MIRL	SAME
NAVIGATIONAL AIDS		NONE	SAME
VISUAL AIDS		PAPI, REIL	SAME
RUNWAY SAFETY AREA	LENGTH¹	300' / 37'	300' / 300'
	WIDTH	150'	SAME
RUNWAY OBJECT FREE AREA	LENGTH¹	300' / 37'	300' / 300'
	WIDTH	500'	SAME
OBSTACLE FREE ZONE	LENGTH¹	200' / 32'	200' / 200'
	WIDTH	400'	SAME
RUNWAY ℄ TO HOLD LINE		200'	SAME

¹Length beyond stop end of runway
²Single Wheel

RUNWAY END DATA

RUNWAY		EXISTING	EXISTING ELEV.	FUTURE	FUTURE ELEV.
8	LATITUDE	32°40'03.24"N	5.9'	32°40'03.27"N	9.3' Est.
	LONGITUDE	115°31'30.65"W		115°31'34.16"W	
26	LATITUDE	32°40'02.28"N	0.5'	SAME	SAME
	LONGITUDE	115°30'35.88"W		SAME	

Data obtained from FAA databases online, accessed February 2015, future endpoint data calculated in Corpscon v.6.0.1, See Note 1.

PRECISION APPROACH DESIGN STANDARDS

ITEM	EXISTING	LOWER THAN 3/4 MILE*
RSA (LENGTH/WIDTH)	300'/150'	600'/300'
ROFA (LENGTH/WIDTH)	300'/500'	600'/800'
POFZ (LENGTH/WIDTH)	NOT REQUIRED	200'/800'
RUNWAY TO TAXIWAY SEPERATION	257'	300'
RPZ (LENGTH/WIDTH¹/WIDTH²)	1,000'/500'/700'	2,500'/1,000'/1,700'

Width¹ - Inner width
Width² - Outer width
*See Note 15

AIRPORT DATA

		EXISTING	FUTURE
AIRPORT ELEVATION		5.9' MSL	9.3' Est.
AIRPORT REFERENCE POINT (ARP) COORDINATES	LATITUDE	32°40'02.80"N	32°40'02.78"N
	LONGITUDE	115°31'03.30"W	115°31'05.02"W
MEAN MAX. TEMP. OF HOTTEST MONTH		103.9°F JULY	SAME
AIRPORT AND TERMINAL NAVAIDS		VORTAC	VORTAC, GPS
AIRPORT REFERENCE CODE		B-II	SAME
RUNWAY DESIGN CODE		B/II/VIS	B/II/5000
AIRPORT WIND COVERAGE % (13 KNOTS)		98.41	SAME
MISCELLANEOUS FACILITIES		PAPI, REIL, BEACON WIND CONE	PAPI, REIL, BEACON WIND CONE, AWOS
DESIGN AIRCRAFT		BEECH 1900	SAME
GPS AT AIRPORT¹		NO	YES

¹ See Note 15

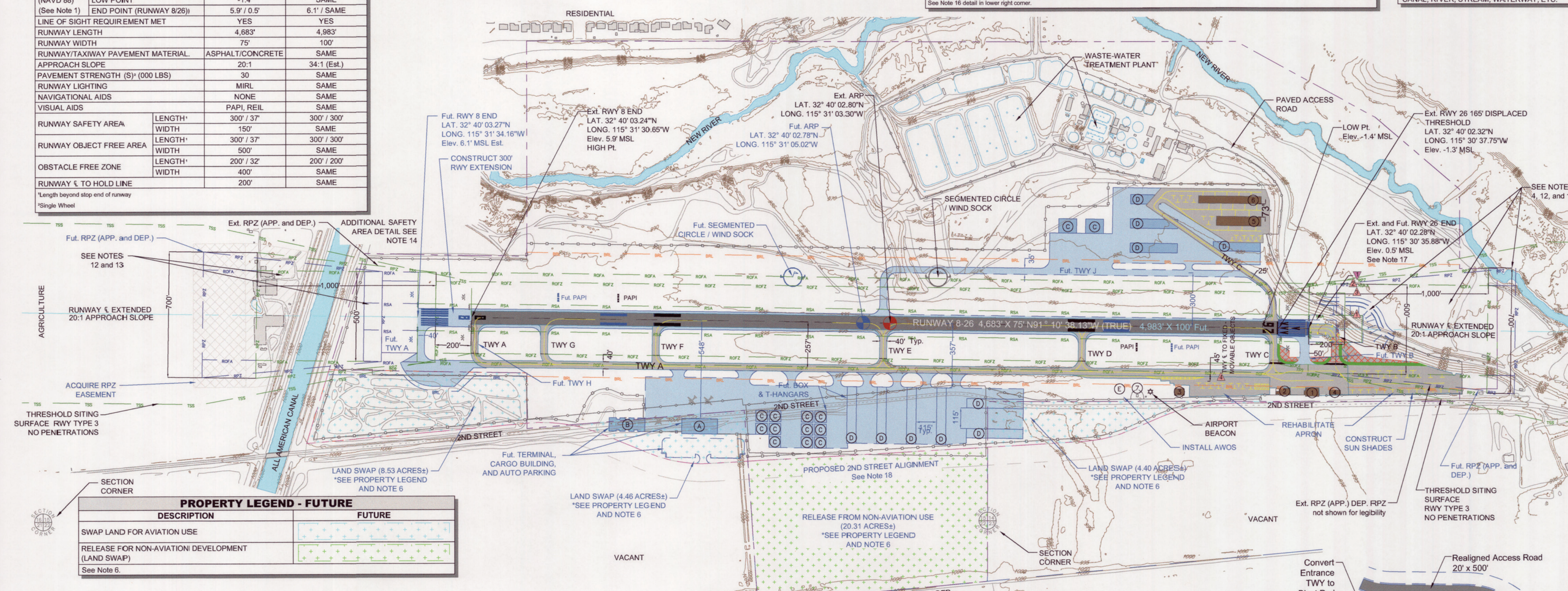
DEVIATIONS FROM FAA DESIGN STANDARDS

#	DESIGN STANDARD	REQUIRED	EXISTING	ACTION
1	RSA LENGTH BEYOND END OF RWY 26	300'	37'	PLANNED DESIGN AWAITING FUNDING
2	ROFA LENGTH BEYOND END OF RWY 26	300'	37'	PLANNED DESIGN AWAITING FUNDING
3	ROFZ LENGTH BEYOND END OF RWY 26	300'	37'	PLANNED DESIGN AWAITING FUNDING
4	TAXIWAY ℄ TO FIXED / MOVEABLE OBJECT	65.5'	45.0'	TO BE RELOCATED

See Note 16 detail in lower right corner.

LEGEND

	EXISTING	FUTURE
AIRPORT BOUNDARY		
AIRPORT REFERENCE POINT (ARP)		
VISUAL NAVAID - AIRPORT BEACON		SAME
VISUAL NAVAID - REIL		
VISUAL NAVAID - 4 BOX PAPI		
VISUAL NAVAID - THRESHOLD LIGHT		
VISUAL NAVAID - WINDSOCK / WINDCONE		
AIRFIELD PAVEMENT (RWY AND TWY / APRON)		
AIRFIELD PAVEMENT TO BE REMOVED	N/A	
BUILDINGS		
FENCE		
GROUND CONTOURS	995'	SAME
ROADS / PAVED AND UNPAVED, AIRPORT PARKING		
BUILDING RESTRICTION LINE (BRL)	BRL	BRL
RUNWAY PROTECTION ZONE (RPZ)	RPZ RPZ	RPZ RPZ
RUNWAY PROTECTION ZONE (RPZ) EASEMENT		
RUNWAY SAFETY AREA (RSA)	RSA	RSA
RUNWAY OBJECT FREE AREA (ROFA)	ROFA	ROFA
RUNWAY OBSTACLE FREE ZONE (ROFZ)	ROFZ	ROFZ
THRESHOLD SITING SURFACE (TSS)	TSS	NOT SHOWN
CANAL, RIVER, STREAM, WATERWAY, ETC.		SAME

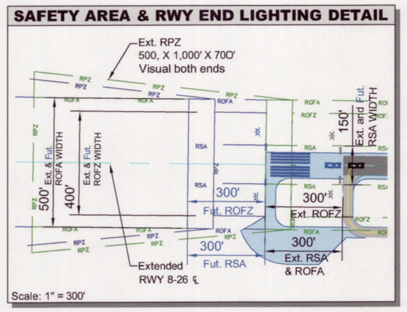


PROPERTY LEGEND - FUTURE

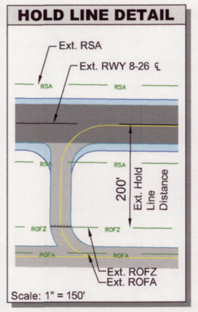
DESCRIPTION	FUTURE
SWAP LAND FOR AVIATION USE	
RELEASE FOR NON-AVIATION DEVELOPMENT (LAND SWAP)	

See Note 6.

SAFETY AREA & RWY END LIGHTING DETAIL



HOLD LINE DETAIL



FAA APPROVAL

Approved conditionally MAR 30 2015

Subject to comments contained in our letter dated: MAR 30 2015
FEDERAL AVIATION ADMINISTRATION
Western-Pacific Region

By ____ Manager - LAX/ADO

ROFZ PENETRATIONS

#	PENETRATION TYPE	PROPOSED ACTION
1	GROUND	TO BE GRADED

TAXIWAY DATA

DESIGNATOR	EXISTING LENGTH	EXISTING WIDTH	FUTURE LENGTH	FUTURE WIDTH
TAXIWAY A	4,683'	40'	4,983'	SAME
TAXIWAY B	200'	40'	TO BE REMOVED	
TAXIWAY C	200'	VARIES	SAME	SAME
TAXIWAY D	200'	40'	SAME	SAME
TAXIWAY E	200'	40'	SAME	SAME
TAXIWAY F	200'	40'	SAME	SAME
FUTURE TAXIWAY B	-	-	200'	50'
FUTURE TAXIWAY H	-	-	200'	40'
FUTURE TAXIWAY J	-	-	2,212'±	35'

See Note 7.

EXISTING BUILDING DATA

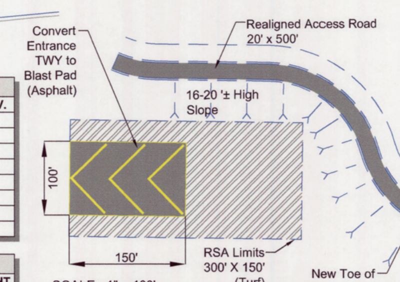
#	DESCRIPTION	TOP ELEV.
1	Terminal / Administration	20.1'
2	Restaurant	18.4'
3	Box Hangar	28'
4	Unknown Building	17.6'
5	T-Hangar	6.3'
6	T-Hangar	1.7'
7	Fuel Island	TBD

See Notes 8 and 9.

FUTURE BUILDING DATA

#	DESCRIPTION	Est. HEIGHT
A	Terminal / Administration	40'*
B	Cargo	40'*
C	Box Hangar	35'*
D	T-Hangar	15'*
E	AWOS	10'*

* See Note 10.



NOTE 16 DETAIL

SCALE: 1" = 300'

NOTES:

1. California Coordinate System, Zone 6 NAD 27. Vertical datum used is NAVD 88. Latitudes and longitudes are NAD 83 and have been converted using Corpscon v.6.0.1.
2. Ground contour elevations are in feet above mean sea level (MSL). Mean sea level is shown as 1,000 feet. Ground contours shown as less than 1,000 feet are below mean sea level.
3. Existing facilities and topography based on aerial photogrammetry dated May 1999.
4. Property within the Runway 26 RPZ is owned in fee by the City of Calexico.
5. Future threshold siting surface (TSS) is not shown.
6. Airport owned land of 20.32 acres± is being considered for release to a developer in exchange for privately held land of 8.53 acres±, 4.46 acres±, and 4.40 acres± (17.39 acres± total) to be used for aviation use. Land swap status is ongoing and subject to FAA review and approval. Once completed, the Exhibit A map should be updated.
7. Future Master Plan / ALP Update should review airfield geometry for compliance per AC 150/5300-13A and Engineering Brief 89 Taxiway Nomenclature Convention.
8. Existing topographic information should be updated to current AC 150/5300-18B standards.
9. Existing building elevation information was retrieved from third party survey published in 2012.
10. All future structure heights and elevations are estimated.
11. No known monuments exist at the airport.
12. No known areas of public assembly are within RPZ.
13. Area within RWY 8 RPZ on airport property is owned in fee; off airport property is protected through avigation easements.
14. Safety area detail is found in lower left hand corner of this drawing.
15. The 2002 Master Plan Update protected for precision GPS approaches to both runway ends as a future condition. This requires further study as part of a Master Plan or ALP with Narrative Report.
16. The FAA has plans on file that will mitigate RSA deviations. Plan is awaiting grant funding to initiate final design and construction. Upon construction completion, the RSA will meet FAA design standards. Blast pad is proposed to be 100 feet wide and 150 feet long.
17. Future runway markings will be non-precision; for clarity Runway 26 designator is not shown.
18. The roadway alignment in its current location has been validated as the finalized location by both the developer and the City of Calexico.

ANNUAL RATE OF CHANGE 5.7 MIN W/YEAR (March 2014)

AECOM
999 Town and Country Road
Orange, CA 92868
Tel: 714.567.2400
Fax: 714.567.2441

Designed By: ADC	Drafted By: JMC	Checked By: LFC	Approved By: AWS

No.	Revision	By	App.	Date
1	Master Plan	P&D	L.E.	July 29, 2002
2	Airport Layout Plan Update - 2nd Street Realignment	AECOM	N.S.	February 20, 2015

The contents of this plan do not necessarily reflect the official views or policy of the FAA. Acceptance of this plan by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted therein nor does it indicate that the proposed development is environmentally acceptable in accordance with appropriate public laws.

Approved By: City of Calexico

REGISTERED PROFESSIONAL ENGINEER NICK SALVADOR SERVIN CE #33538 Exp. 6/30/16 CIVIL STATE OF CALIFORNIA

Nick Servin, P.E., Public Works Director — Date 3/5/15

Calexico International Airport
Calexico, California

Airport Layout Plan

City of Calexico

AIP Project No. N/A
Scale: 1" = 300'
February 2015
Sheet No. 2 of 2

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The traffic pattern for Runway 8 is a standard left-handed pattern whereas Runway 26 is a non-standard right-handed traffic pattern. Both runway ends have a four-light precision approach path indicator (PAPI) on the left with a three-degree glide angle. There are no published instrument approach procedures for the airport.

In addition to the runway, the Airport offers 100LL and Jet A fuel, tiedowns, hangars, pilot supplies, and rental car service, accessible from the terminal/administration office building. U.S. Customs and Border Protection also provides service at the airport 7 days per week. The Airport is surrounded by a secure perimeter fence.

The following Imperial Valley Transit routes exist in the airport vicinity:

- 1N: Calexico to El Centro/ 1S: El Centro to Calexico
- 21N: IVC Express- Calexico to IVC/21S- IVC Express- IVC to Calexico

Additionally, Appendix F: Regional Highway & Roadway Projects of the Imperial County Transportation Long Range Transportation Plan (ICTC LRTP) identifies the following projects near the airport:

- RH-39: Anza Road Improvements (W Anza Rd & 2nd St)
- BR-9: Second Street Bridge Widening (New River)
- BR-6: Second Street Bridge Widening (W 2nd Street)

FUTURE AIRPORT PLANS

Future plans for the Airport are explained below and shown on the ALP (**Exhibit B4**).

According to the most recent Airport Layout Plan (ALP) for Calexico International Airport, published in February 2015, it is recommended that the City acquire a property easement to the west of Runway 8 for the future runway protection zone (RPZ). This RPZ would be necessary for the ultimate 300-foot extension of Runway 8-26 to the west, lengthening the runway to 4,683 feet. To accommodate this future runway length, the ALP shows Taxiway A to the south of the runway extending west to be a full-length parallel taxiway. A new entry/exit taxiway is planned at the west end of the ultimate Runway 8-26. The ALP considers relocation of the main apron to a new apron with hangar development, new terminal and cargo buildings, parking, and several box and T-hangars. The addition of an AWOS is also included on the ALP. New executive hangars and shade structures to the west of the existing apron are also planned, as are areas designated for future commercial or industrial leases. The runway design aircraft and reference code are the same for the existing and ultimate conditions; however, the runway design code changes from B/II/VIS to B/II/5000 in the ultimate condition, due to the planned addition of GPS approaches.

The California Aviation System Plan (CASP) 2020 lists the following future projects for Calexico International Airport:

- Construct TW Pavement Rehabilitation (2021)

- Develop Pavement Management Program (2022)
- Airfield Lighting Rehab Design (2029)
- Airfield lighting Rehab and Widen Connections Construction (2030)

AIRPORT ENVIRONS

EXISTING LAND USES

Existing land uses are shown on **Exhibit B5**.

The airport property is located entirely within the City of Calexico's jurisdiction. Commercial and industrial land uses exist in the areas immediately north of the airport, including the City's water treatment plant and animal shelter. The airport is bounded by the All-American Canal to the west, the New River to the north, Animal Shelter Dr to the east and W 2nd St to the south. There is an existing shopping center south of the airport across W 2nd St and vacant land to the west of the existing shopping center.

ZONING

Exhibit B6 shows zoning in the AIA.

Airport property is zoned Industrial (IND) with all the surrounding property to the north zoned Open Space (OS). Property to the south of W 2nd Street is zoned Commercial Highway (CH). To the east but separated from the airport by the New River is an area designated Commercial Neighborhood (CN). Within the AIA and the Calexico city limits, there are parcels zoned Residential Single Family (R1), Residential Condominium (RC), and Residential Apartment (RA). In unincorporated Imperial County to the west of the airport, zoning is primarily limited agriculture, with one parcel immediately west of Runway 8 zoned multifamily residential and several parcels zoned mixed-use to the south. To the northwest of Runway 8, there are additional parcels zoned multifamily residential, mixed-use, and commercial.

GENERAL PLAN

General plan land uses are shown on **Exhibit B7**.

Imperial County updated its General Plan in 1993, and the Land Use Element of the General Plan was updated in 2015. **Exhibit B7** represents the planned land uses for the county based on the goals and objectives outlined in this plan. The Imperial County General Plan designates the area immediately surrounding the airport as urban, and areas to the west within the AIA are designated as agriculture. The City of Calexico updated its General Plan in September 2015. The Land Use Element of the City's General Plan designates the airport property as Airport (AP), with surrounding land to the south of W 2nd St designated as Commercial Highway (CH), land to the north designated as Open Space (OS) or Public Facilities (PF), and land to the east designated as Open Space with Airport Expansion Overlay (OSw/AEO).

Legend

- Existing and Ultimate Runway[1]
- Airport Property Boundary[1]
- Mexico-United States Border
- Municipal Boundaries
- Highway
- Railroad
- Streets
- Parcels

Existing Land Use[2]

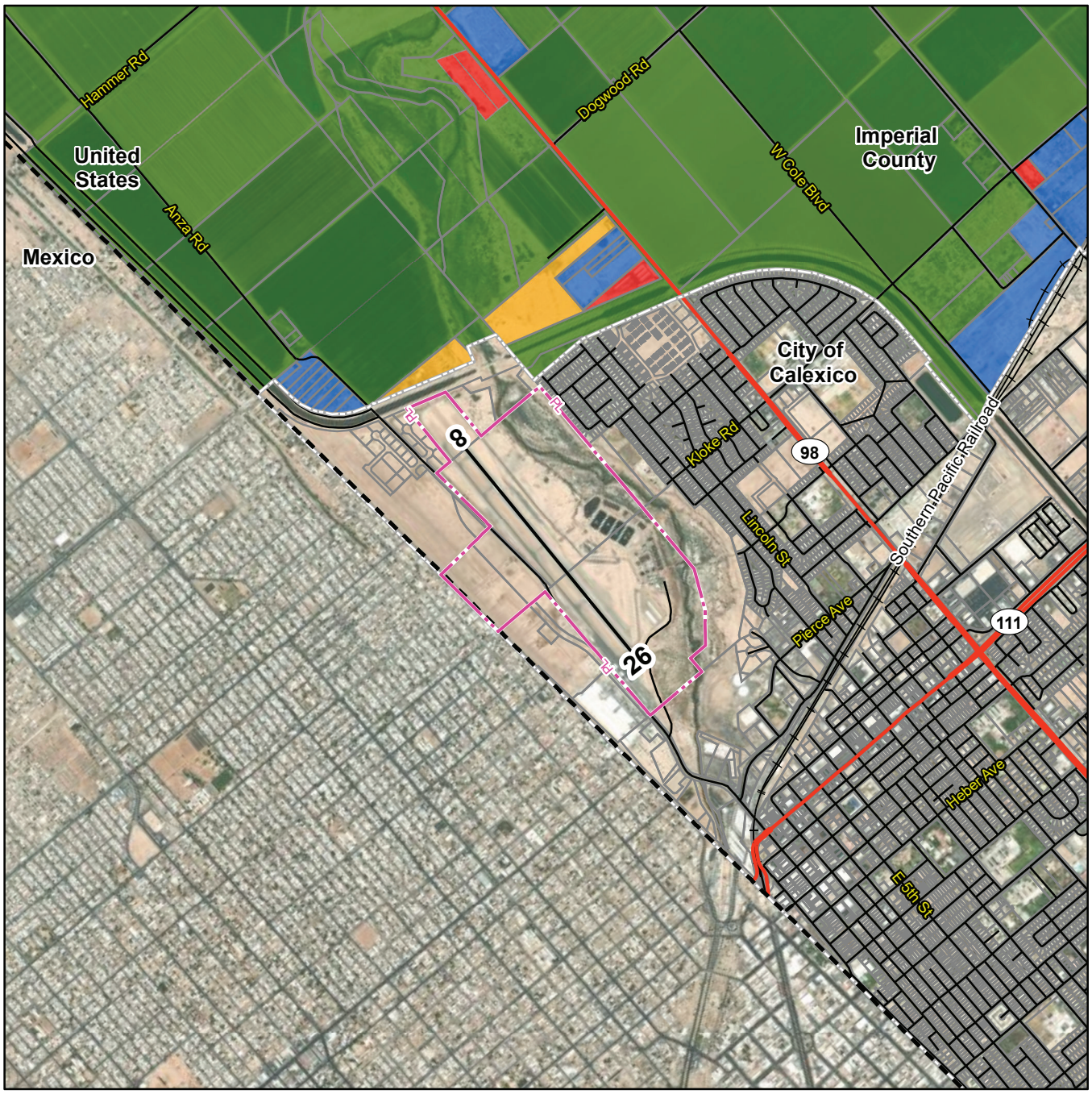
- Commercial
- Industrial
- Government
- Cemetery
- Noise Sensitive - Places of Worship
- Noise-Sensitive - School
- Residential Single-Family
- Residential - Mobile Home Park
- Multifamily Residential - High Density
- Multifamily Residential - Medium Density
- Multifamily Residential - Low Density
- Agricultural
- Vacant
- Right of Way & Utilities

0 2,500 5,000

1" = 2,500'

[1]Airport Layout Plan (2015)
[2]Imperial County Assessor's Office Tax Parcels

Sources: Imperial County Assessor's Office Parcel Data (2024), Imperial County Streets, ESRI Basemap Imagery (2023). Coffman Associates Analysis



Legend

- Existing and Ultimate Runway[1]
- Airport Property Boundary[3]
- Mexico-United States Border
- Municipal Boundaries
- Highway
- Railroad
- Streets
- Parcel Boundary

Zoning[2]

- Commercial
- Mixed Use
- Multi-Family Resisdential
- Limited Agriculture

N

0 2,500 5,000

FEET

[1]5010 Airport Master Record
[2]Imperial County ArcGIS Website, Derek Newland
[3]Airport Layout Plan (2015)

Sources: Imperial County Parcels, Imperial County Streets, Airport Layout Plan (2023), ESRI Basemap Imagery (2023). Coffman Associates Analysis

Exhibit B6: CALEXICO INTERNATIONAL AIRPORT (CXL) ZONING

Legend

- Existing and Ultimate Runway[1]
- Airport Property Boundary[1]
- Mexico-United States Border
- Municipal Boundaries
- Highway
- Railroad
- Streets
- Parcels

General Plan[2]

- Industrial
- Commercial
- High Density Residential
- Medium Density Residential
- Low Density Residential
- Residential Specific
- Open Space
- Public Facility

0 2,500 5,000

1" = 2,500'

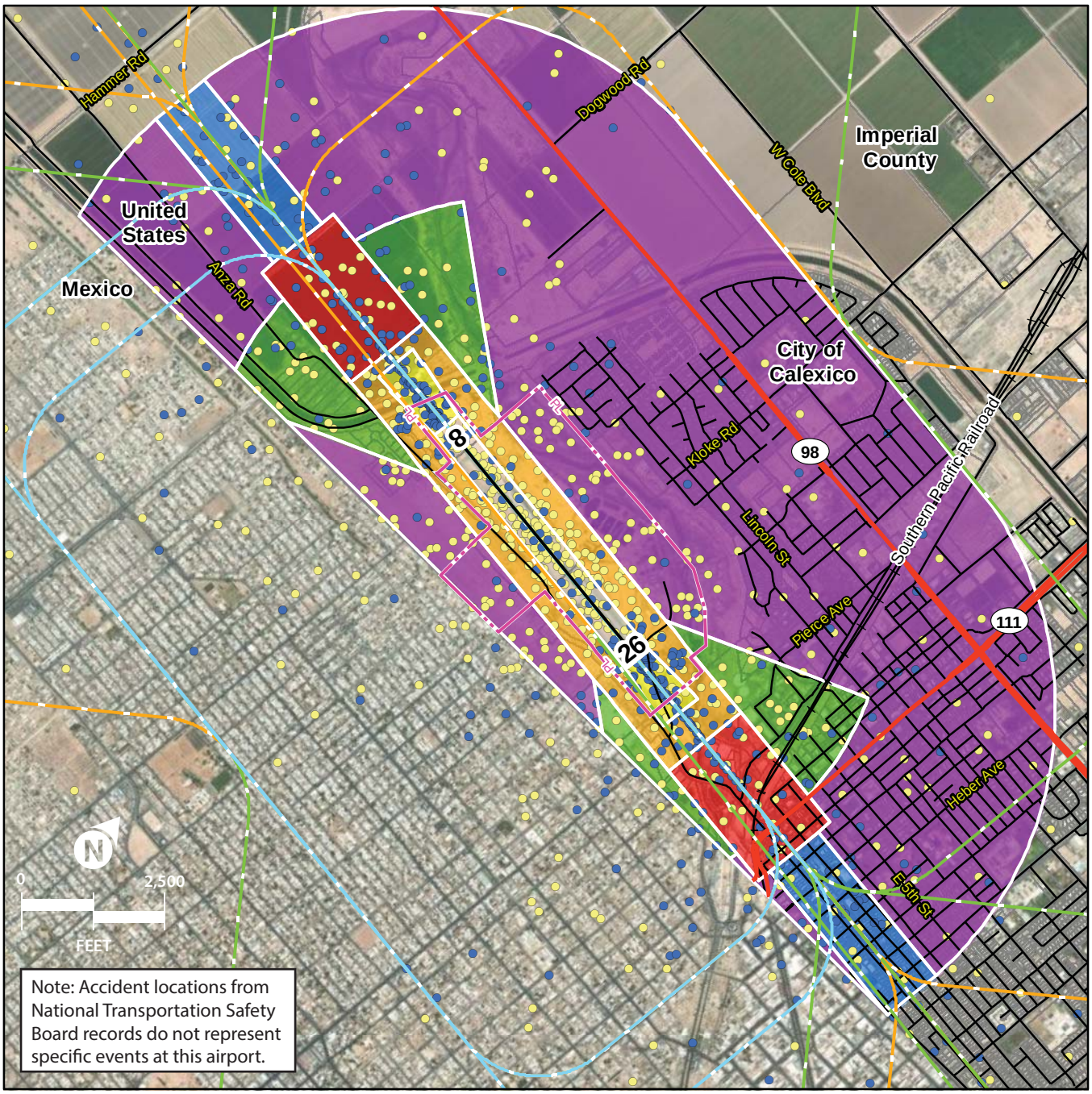
[1]Airport Layout Plan (2015)
[2]Imperial County General Plan (1993) and City of Calexico General Plan Land Use Map (2007)

Sources: Imperial County Parcels, Imperial County Streets, Airport Layout Plan (2023), ESRI Basemap Imagery (2023). Coffman Associates Analysis

Exhibit B7: CALEXICO INTERNATIONAL AIRPORT (CXL) GENERAL PLAN

COMPATIBILITY FACTORS

Exhibit B8 is a compatibility factors map, which compiles National Transportation Safety Board flight accident data for all airports in the United States, noise exposure contours, and arrival and departure flight tracks from the noise exposure contours. The purpose of this exhibit is to illustrate the methodology behind the shape and size of the safety, noise, and airspace compatibility zones.



LEGEND

- PL Airport Property Line[3]
- Parcels
- Existing and Ultimate Runway[1]

CXL FLIGHT TRACKS

- Approach
- Departure
- Touch and Go
- Highway
- Railroad
- Streets
- Arrival Accidents[4]
- Departure Accidents[4]

SAFETY ZONES[2]

- Traffic Pattern Zone
- Inner Approach/Depature Zone
- Inner Turning Zone
- Outer Apporach/Departure Zone
- Sideline Zone
- Runway Protection Zone[3]

[1]5010 Airport Master Record

[2]Figure 3A, California Airport Land Use Planning Handbook (2011), and Coffman Associates Analysis

[3]Airport Layout Plan (2023)

[4]California Airport Land Use Planning Handbook, 2011. Normalized from airports in United States.

Sources: Imperial County Parcels, Imperial County Streets, Airport Layout Plan (2023), (1996). ESRI Basemap Imagery (2023).

Appendix C

Cliff Hatfield Memorial Airport (CLR)

Imperial County Airport Land Use Compatibility Plan

Appendix C

CLIFF HATFIELD MEMORIAL AIRPORT (CLR)

Appendix C provides an overview of Cliff Hatfield Memorial Airport's (Airport) setting, airport influence area (AIA), safety zones, noise, airspace and overflight areas. This Appendix will also discuss the existing and planned land uses, as well as current and future Airport facilities.

Cliff Hatfield Memorial Airport (CLR) is a public use airport located in the northwest corner of the City of Calipatria, CA, which is situated in northwestern Imperial County, southeast of the Salton Sea. The Airport sits on approximately 169 acres of land, 185 feet below mean sea level. The airport is not classified in the 2023–2027 *National Plan of Integrated Airports* (NPIAS) or the 2020 *California Aviation System Plan* (CASP). The City of Calipatria owns the Airport and the Airport is located within City limits, surrounded by areas of unincorporated Imperial County to the north and west.

SAFETY ZONES

The AIA and Safety Zones for Cliff Hatfield Memorial Airport are shown on **Exhibit C1**. Figure 3A of the California Airport Land Use Planning Handbook (Handbook) provides three example zones for general aviation airports, which are differentiated by runway length. The Handbook zone examples are provided as a starting point for developing safety zones specific to an airport. As discussed below, Cliff Hatfield Memorial Airport has one runway, Runway 8-26, which is 3,423 feet long. The Federal Aviation Administration (FAA)-approved Airport Layout Plan (ALP) does not include any change to the ultimate runway length. Using this length, the Short General Aviation Runway classification was assumed. For this plan, an outer zone was added based on the 14 CFR Part 77 Conical Surface, which also represents the airspace and overflight review area boundary. Additional information regarding the safety compatibility zones can be found in **Appendix J**.

NOISE

The standard methodology for analyzing noise conditions at airports involves the use of a computer simulation model. The Airport Environmental Design Tool (AEDT) Version 3f is accepted by the State of California and required by the FAA to be used in developing noise exposure contours. This is the model used to develop the noise exposure contours for this Airport Land Use Compatibility Plan (ALUCP). The following sections describe the noise modeling inputs for the Cliff Hatfield Memorial Airport noise exposure contours shown on **Exhibit C2**. Additional information regarding the noise modeling process and land use compatibility thresholds can be found in **Appendix J**.

AIRCRAFT OPERATIONS AND FLEET MIX

As outlined in Public Utilities Code (PUC) Section 21675(a), the noise contours included in an ALUCP must reflect the anticipated growth of the airport throughout at least the next 20 years. **Table C1** summarizes the 2044 operations for the Airport using the FAA's Airport Master Record, Form FAA 5010-1 for the

calendar year 2023, and also includes the aircraft types used in the noise model. To accurately represent the noise conditions at the Airport, the AEDT provides aircraft noise data for many of the aircraft operating in the national fleet.

The selection of individual aircraft types is important to the modeling process because different aircraft types generate different noise levels. The aircraft fleet mix for Cliff Hatfield Memorial Airport was derived from the FAA's Airport Master Record, Form FAA 5010-1, and interviews with the Airport manager. **Table C1** summarizes the generalized fleet mix data input into the AEDT.

A variety of general aviation, single engine fixed-propeller aircraft are modeled with the GASEPV and GASEPF aircraft in the AEDT. The GASEPV represents many single engine general aviation aircraft including the Mooney M-20, Cessna 172 and 180, and Piper Cherokee Arrow. The general aviation, single engine fixed-pitch propeller model, the GASEPF, also represents several single engine general aviation aircraft. These include the Cessna 150, Piper Archer, and the Piper Tomahawk.

TABLE C1 | Cliff Hatfield Memorial Airport – Aircraft Fleet Mix and Operations

Operations	AEDT Designator	2044[1]
Itinerant		
Single Engine, Variable	GASEPV	1,000
Itinerant Subtotal		***1,000***
Local		
N/A	N/A	0
Grand Total		***1,000***

Source: [1] FAA Terminal Area Forecast, Fiscal Years 2023-2050, January 2024

Time-of-Day

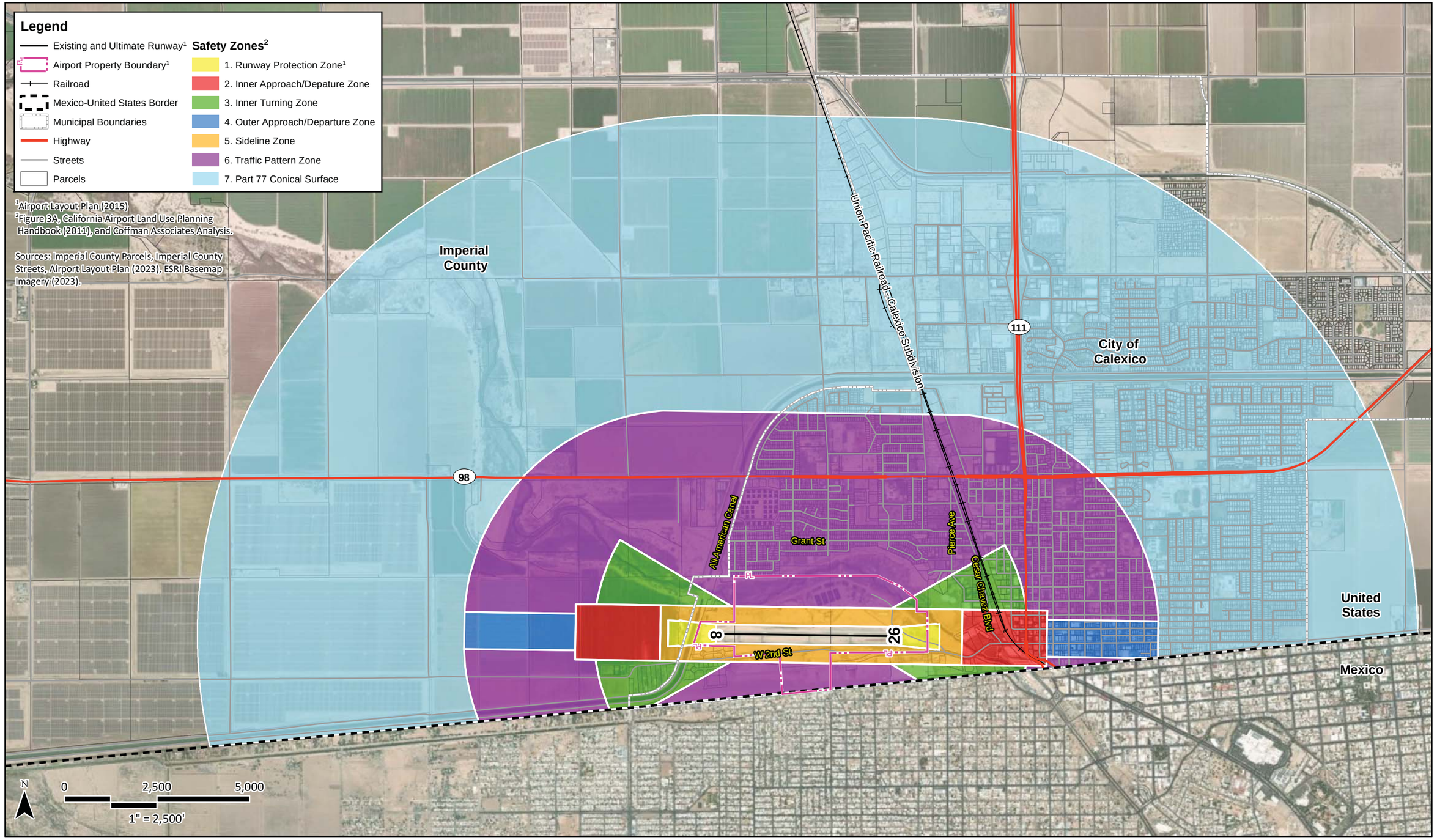
The time-of-day which aircraft operations occur is important input to the AEDT due to the 10-decibel nighttime (10:00 p.m. to 7:00 a.m.) and 4.8-decibel evening (7:00 p.m. to 10:00 p.m.) weighting of aircraft noise.

Since the Airport is not equipped with an airport traffic control tower (ATCT), time-of-day information was estimated based upon Airport staff interviews and time-of-day activity levels at similar airports. Operations are likely to occur only during the daytime hours, therefore no evening or nighttime operations were assumed.

Runway Use

Runway usage data is also an essential component for developing noise exposure contours. Based on a review of regional airport activity and wind conditions, the following assumptions were made for runway use:

- Runway 8 – 50 percent
- Runway 26 – 50 percent


Legend
Existing and Ultimate Runway[1]
Airport Property Boundary[1]
Railroad
Mexico-United States Border
Municipal Boundaries
Highway
Streets
Parcels
Safety Zones[2]
1. Runway Protection Zone[1]
2. Inner Approach/Depature Zone
3. Inner Turning Zone
4. Outer Approach/Departure Zone
5. Sideline Zone
6. Traffic Pattern Zone
7. Part 77 Conical Surface
[1]Airport Layout Plan (2015)
[2]Figure 3A, California Airport Land Use Planning Handbook (2011), and Coffman Associates Analysis.
Sources: Imperial County Parcels, Imperial County Streets, Airport Layout Plan (2023), ESRI Basemap Imagery (2023).
Imperial County
City of Calexico
United States
Mexico
Union Pacific Railroad-Calexico Subdivision
All American Canal
Grant St
Pierce Ave
Cesar Chavez Blvd
W 2nd St
111
98
8
26
FL
N
0
2,500
5,000
1" = 2,500'

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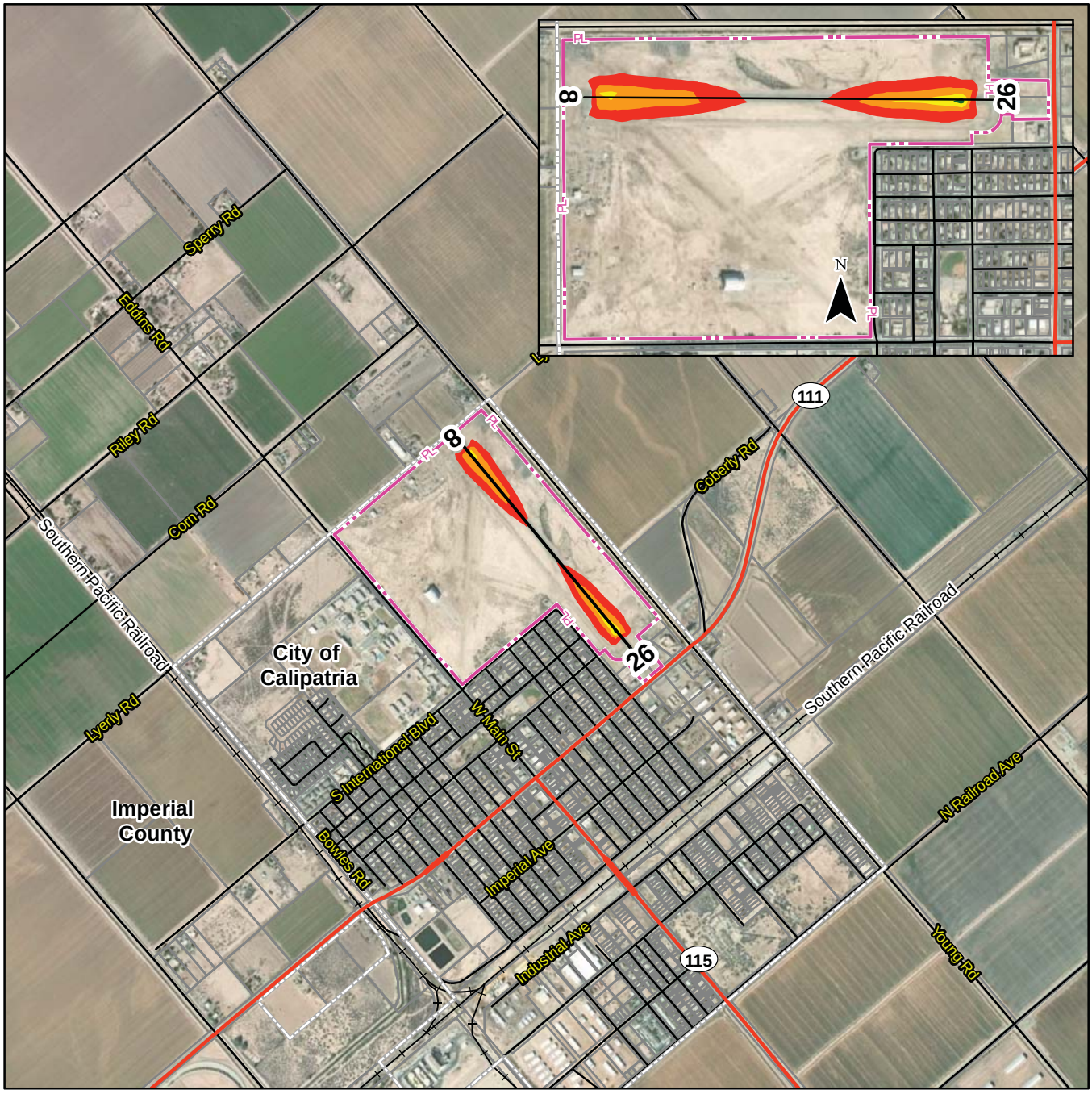


Legend

- Existing and Ultimate Runway[1]
- Airport Property Boundary[2]
- Highway
- Municipal Boundaries
- Railroad
- Streets
- Parcel Boundary

2044 Noise Contour

- 60 CNEL
- 65 CNEL
- 70 CNEL
- 75 CNEL

CNEL: Community Noise Equivalent Level

0 2,000 4,000
FEET

[1]5010 Airport Master Record
[2]Airport Layout Plan (1999)

Sources: Imperial County Parcels, Imperial County Streets, Airport Layout Plan (2023), ESRI Basemap Imagery (2023).

Exhibit C2: CLIFF HATFIELD MEMORIAL AIRPORT (CLR) NOISE CONTOURS

Flight Tracks

A review of local flight procedures was used to develop consolidated flight tracks for use in the AEDT. As discussed below, the traffic pattern for Runway 8 is left-hand, and the traffic pattern for Runway 26 is right-hand. Accordingly, it is assumed that touch-and-go traffic occurs to the north of the Airport.

Flight Profiles

The standard arrival profile used in the AEDT program is a three-degree approach. No indication was given by Airport staff that there was any variation on this standard procedure for civilian aircraft. Therefore, the standard approach was included in the model to represent local operating conditions.

AIRSPACE AND OVERFLIGHT

Exhibit C3 depicts the airspace plan for Cliff Hatfield Memorial Airport. This exhibit includes the 14 CFR Part 77 approach surfaces, including the Transitional, Horizontal, Conical, Primary, and Approach Surfaces. The Conical Surface makes up the Airport Influence Area for Cliff Hatfield Memorial Airport.

AIRPORT INFORMATION

AIRPORT FACILITIES

Cliff Hatfield Memorial Airport has one runway, 8-26. **Table C2** provides additional details about the Airport's facilities. **Exhibit C4** shows the ALP.

Runway 8-26 is 3,423 feet long and 50 feet wide. It is constructed of asphalt and is in fair condition. The runway load bearing strength for single-wheel landing gear aircraft is up to 12,000 pounds. There are non-precision runway pavement markings that are in good condition and non-lighted touch down points.

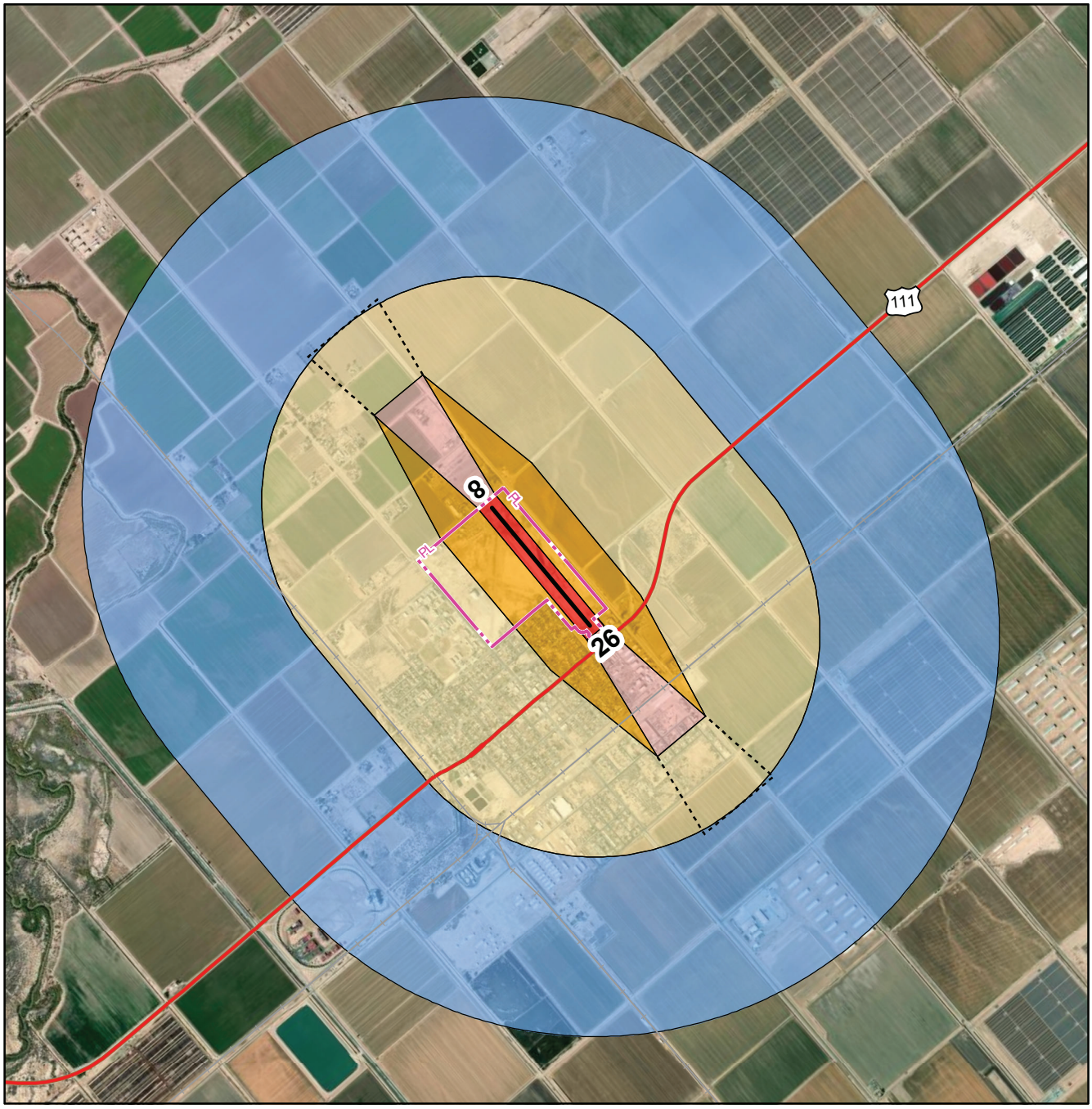
The traffic pattern for Runway 8 is a standard left-handed pattern whereas Runway 26 is a non-standard right-handed traffic pattern. There is an RNAV (GPS) non-precision instrument approach procedure for Runway 8.

The airport is not attended and does not offer any services. The airport perimeter fence is not secured.

TABLE C2 | Airport Facilities – Cliff Hatfield Memorial Airport

	Runway 8-26
RUNWAY(S)	
Length (feet)	3,423'
Width (feet)	50'
Threshold Displacement (feet)	120' | 229''
Runway Pavement Surface Material	Asphalt
Runway Pavement Surface Treatment	N/A
Runway Pavement Condition	Excellent

Continues on next page



Legend

- Runway Centerline[1]
- Outer Approach Surface Extents
- Airport Property Line
- Highways

- Primary
- Approach

Part 77 Surfaces[2]

- Transitional
- Horizontal
- Conical

0 3,500 7,000
FEET

[1]5010 Airport Master Record

[2]Part 77 Surfaces reflect future condition as planned in ALP Set dated 08/1999 (see14 CFR, Subchapter E, Part 77).

Source: ESRI Basemap Imagery (2023),

Exhibit C3: CLIFF HATFIELD MEMORIAL AIRPORT (CLR) PART 77 SURFACES

TABLE C2 | Airport Facilities – Cliff Hatfield Memorial Airport (continued)

	Runway 8-26
Runway Pavement Load Bearing Strength (lbs)	
Single Wheel	12,000
Dual Wheel	N/A
Dual Tandem	N/A
Double Tandem	N/A
Double Dual Tandem	N/A
Runway Pavement Markings	
Type	Non-precision
Condition	Good
Runway Lighting	
Runway Edge Lighting	No
Approach Lighting System (ALS)	No
Touchdown Point	Yes, no lights
Traffic Pattern	Left | Right
Runway End Identifier Lights (REILs)	No
VISUAL APPROACH AIDS	
Type	4-Light PAPI
Glide Path	3.00 degrees | 3.40 degrees
INSTRUMENT APPROACH AIDS	
Instrument Landing System (ILS)	N/A
Global Positioning System (GPS)	Yes | No
VOR/DME or TACAN	N/A
High-VOR/DME or TACAN	N/A
NAVIGATION AIDS	
None	

N/A: Not Applicable
MIRL: Medium Intensity Runway Lights
PAPI: Precision Approach Path Indicator
VOR/DME: Very High Frequency Omnidirectional Range Distance Measuring Equipment

Source: AirNav (July 2024)

The following Imperial Valley Transit routes exist in the airport vicinity:

- 2N: El Centro to Niland/ 2S: Niland to El Centro
- 22N: IVC Express- IVC to Niland/ 22S: IVC Express- Niland to IVC
- 51N: Brawley to Bombay Beach/ 51S: Bombay Beach to Brawley

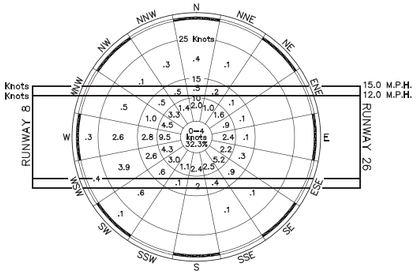
Additionally, Appendix F: Regional Highway & Roadway Projects of the Imperial County Transportation Long Range Transportation Plan (ICTC LRTP) identifies the following projects near the airport:

- RH-75: Worthington Road Siphon at Central Main Canal (Austin Rd & W Worthington Rd)
- RH-83: Aten Road Siphon at Central Main Canal (w Aten Rd & Austin Rd)
- R-9: Construct Roadway/Rail Grade Separation and upgrade to current County standards (W Aten Rd, Southern Pacific Railroad)

WIND ROSE

COVERAGE WITH 12 M.P.H. CROSSWIND = 95.5%
COVERAGE WITH 15 M.P.H. CROSSWIND = 97.8%

SOURCE: NATIONAL CLIMATIC CONTROL
STATION: N.A.F. EL CENTRO
PERIOD: NOV. 1951–OCT. 1960

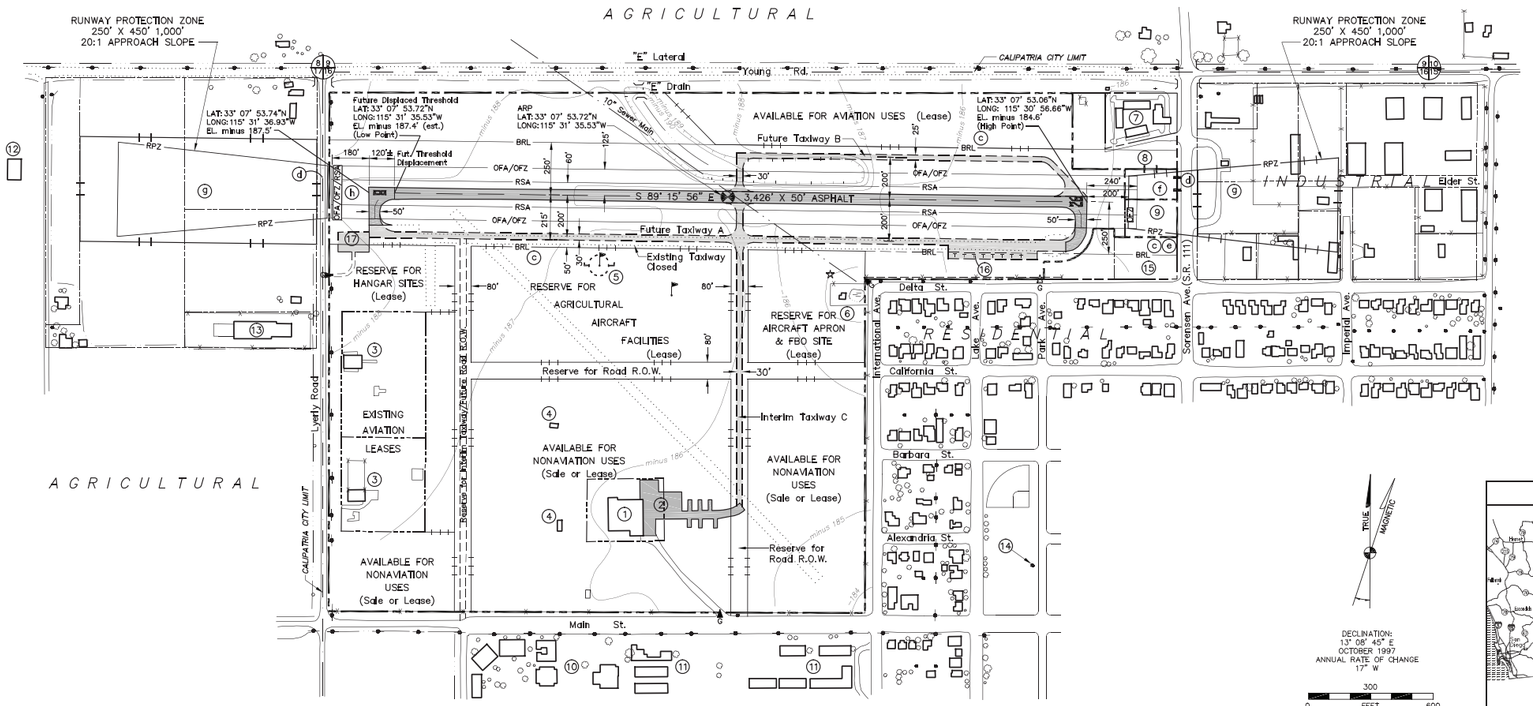


AIRPORT DATA

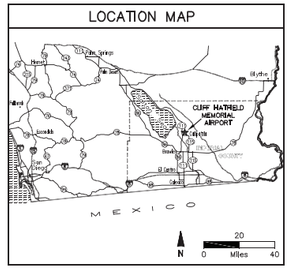
		EXISTING	FUTURE
AIRPORT SERVICE LEVEL (NPIAS)		General Aviation	No Change
AIRPORT REFERENCE CODE		B–I (Small)	No Change
CRITICAL AIRCRAFT		Light Twin	No Change
AIRPORT REFERENCE POINT (a)	Latitude	33° 07' 53.40" N	No Change
	Longitude	115° 31' 16.80" W	No Change
AIRPORT ELEVATION (Above Mean Sea Level)		minus 184.6'	No Change
MEAN MAX. TEMP. (Hottest Month)		109° F (July)	No Change
AIRPORT and TERMINAL NAVIGATIONAL AIDS		None	Beacon, GPS
GPS APPROACH ESTABLISHED		No	Proposed
AIRPORT ACREAGE	Fee Simple	169	Undetermined
	Easement	7	24.4

RUNWAY DATA

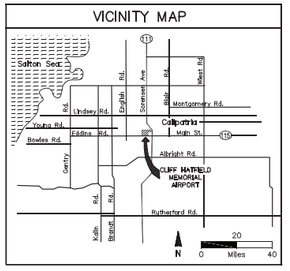
			RUNWAY 8–26	
			EXISTING	FUTURE
AIRPORT REFERENCE CODE			B–I (Small)	No Change
CRITICAL AIRCRAFT			Light Twin	No Change
WIND COVERAGE (15 M.P.H.)			97.8%	No Change
PHYSICAL LENGTH AND WIDTH			3,426' X 50'	No Change
EFFECTIVE GRADIENT			0.08%	No Change
RUNWAY/TAXIWAY SURFACE TYPE			Asphalt	No Change
PAVEMENT STRENGTH (1000#) S/D/DT			12.5/–/–	No Change
RUNWAY SAFETY AREA WIDTH			120'	No Change
RUNWAY SAFETY AREA LENGTH		8	180'ab	No Change
BEYOND RUNWAY END		26	240'	No Change
APPROACH TYPE: [FAR PART 77 CATEGORY]	Approach End of Runway	8	Visual [A(V)]	Nonprecision [A(NP)]
		26	Visual [A(V)]	Nonprecision [A(NP)]
APPROACH VISIBILITY MINIMUMS	Approach End of Runway	8	VFR	1 Mile(Circle to Land)
		26	VFR	1 Mile
APPROACH SLOPE: REQUIRED/CLEAR	Approach End of Runway	8	20:1/1:1 (d)	No Change
		26	20:1/12:1 (d)	No Change
APPROACH AND LANDING AIDS	Approach End of Runway	8	None	No Change
		26	None	No Change
RUNWAY END COORDINATES (a)	Approach End of Runway 8	Latitude	33° 07' 53.74" N	No Change
		Longitude	115° 31' 36.93" W	No Change
	Approach End of Runway 26	Latitude	33° 07' 53.06" N	No Change
		Longitude	115° 30' 56.66" W	No Change
RUNWAY LIGHTING			None	Medium Intensity
TAXIWAY LIGHTING			None	Reflectors
RUNWAY MARKING			Basic	No Change



LOCATION MAP



VICINITY MAP



DRAWING LEGEND

	EXISTING	FUTURE
ACTIVE AIRFIELD PAVEMENT		
OTHER PAVEMENT IN USE		
GRAVEL SHOULDER/ROAD/ABANDONED AIRFIELD PAVEMENT		
AIRPORT PROPERTY LINE		
OTHER PROPERTY LINES		
AVIGATION EASEMENT		
INTERNAL BOUNDARY(e.g., lease, R.O.W., etc)		
CRITICAL AIRFIELD AREAS *	XYZ	XYZ
BUILDINGS		
FENCE		
VEHICLE GATE	G	G
WIND CONE		
ROTATING BEACON		
VEGETATION		
AIRPORT REFERENCE POINT		
TOPOGRAPHIC CONTOURS (b)	XXX	
WATERWAY/CULVERT/CHANNEL		
POWER LINE		
SECTION CORNER	18 17	

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

CLPALP97, 100599

BUILDING AND FACILITY LEGEND

1	Quonset Hangar/Storage–agricultural operator (relocate in long–term)
2	Agricultural Aircraft Apron
3	Hangar/Storage
4	Storage Shed
5	Segmented Circle & Wind Cone
6	Sewer Lift Station
7	Motel
8	Unpaved Automobile/Truck Parking Area
9	Undeveloped Leasehold
10	Calipatria High School
11	Fremont Elementary School
12	Residence
13	Agricultural Shed
14	184' Lighted Flag Pole
15	Truck Stop & Fast–Food Establishment
16	Aircraft Tiedown Apron (future)
17	Aircraft Wash Rack (future)

ALP NOTES

(a) Runway coordinates data source: field survey certified by The Holt Group. Data is NAD 83.

(b) Topo contours are approximate. Ground surface on airport property is nearly flat.

(c) BRL location provides approximately 18' of clearance beneath FAR Part 77 transitional surface or 50' clearance from taxiway centerline, whichever is greater.

(d) Roads penetrate 20:1 approach surface at both ends of runway. Threshold displacement required at approach end of Runway 8.

(e) Existing avigation easement limits structures to height allowed by FAR Part 77 or maximum of 35'. Restrictions on land use by means of an approach protection easement is proposed.

(f) City acquisition of land in RPZ west of Sorensen Avenue is recommended.

(g) No city–controlled fee title or easements within outer portions of RPZ's. Acquisition of approach protection easements is proposed.

(h) Deficiencies from ARC B–I (small) airport design standards: RSA and OFA at approach end of Runway 8 is less than 240'; threshold displacement proposed.

SUBMITTED BY:
CITY OF CALIPATRIA

By_____ Date_____

FAA Approval Space

Acceptance of this document 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.

NO.	REVISION	SPONSOR	DATE

CLIFF HATFIELD MEMORIAL AIRPORT
CALIPATRIA, CALIFORNIA
AIRPORT LAYOUT PLAN

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

CITY OF CALIPATRIA

DESIGN: KAB | DRAWN: TE | DATE: August 1999 | SHEET 1 OF 2

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- RC-16: Construct Roadway/Rail Grade Separation and upgrade to current County standards (Clark Road South of Aten Road, Southern Pacific Railroad)

FUTURE AIRPORT PLANS

Future plans for the Airport are explained below and shown on the ALP (**Exhibit C4**).

According to the most recent Airport Layout Plan (ALP) for Cliff Hatfield Memorial Airport (August 1999), the existing parallel taxiway is closed. However, the ALP does include plans for a future taxiway to be constructed. The land to the south of the airport is designated for future aviation and non-aviation uses. The ALP includes a future displaced threshold of 120 feet on Runway 8. The airport reference code and critical design aircraft are the same in the existing and ultimate conditions.

AIRPORT ENVIRONS

EXISTING LAND USES

Existing land uses are shown on **Exhibit C5**.

The airport property is located entirely within the City of Calipatria's jurisdiction. Existing land uses include a hotel to the northeast of the runway and a gas station to the southeast. Agricultural land use surrounds the airport to the north and west. There are residential land uses to the southeast along W Delta St and N International Boulevard. A school complex exists south of airport property on W Main St.

ZONING

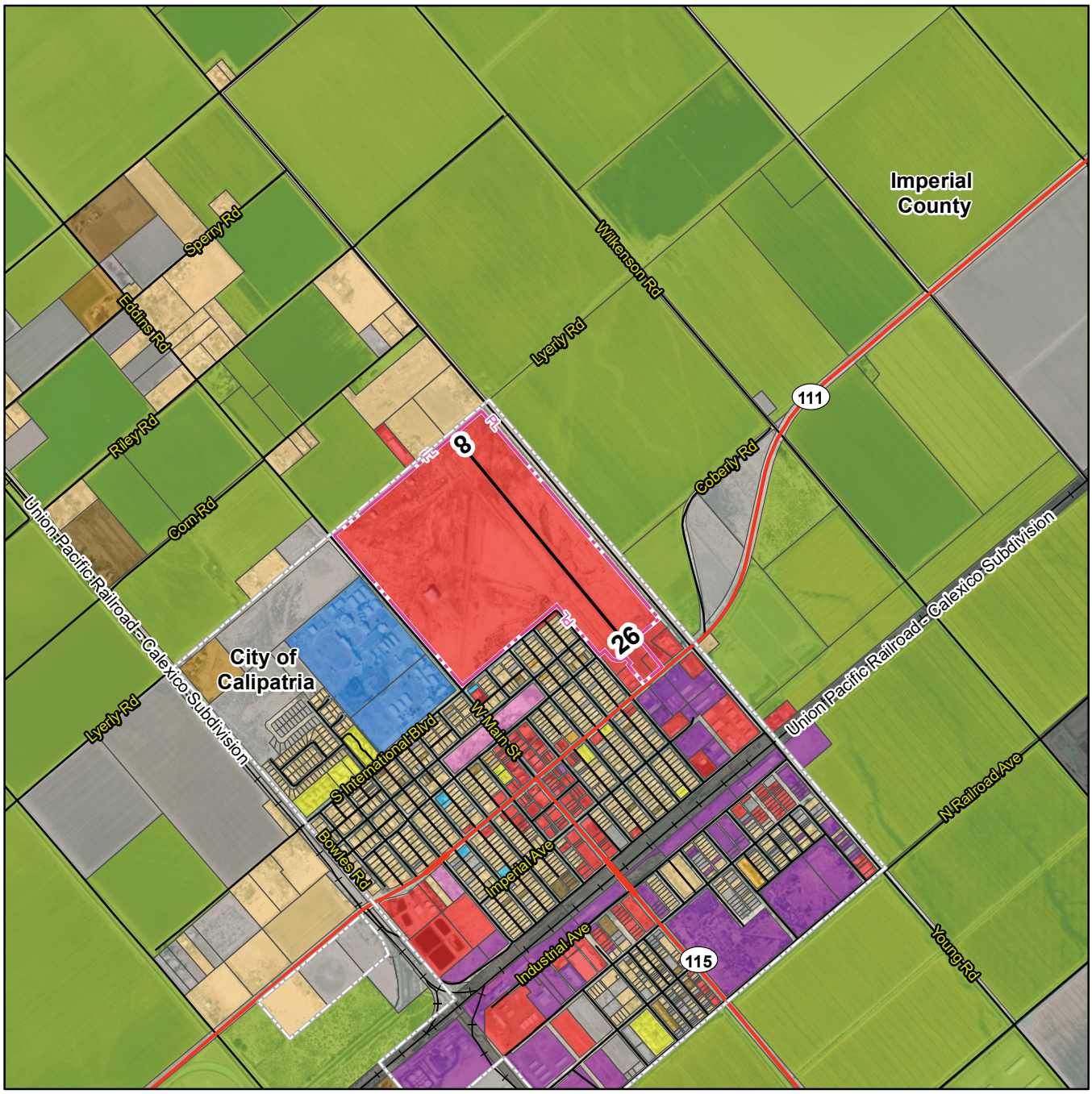
Exhibit C6 shows zoning in the AIA.

Imperial County zoning designates the area surrounding the airport primarily as limited agriculture, with an area to the east along the Southern Pacific Railroad right-of-way designated as mixed use.

GENERAL PLAN

General plan land uses are shown on **Exhibit C7**.

Imperial County updated its General Plan in 1993, and the Land Use Element of the General Plan was updated in 2015. **Exhibit C7** represents the planned land uses for the county based on the goals and objectives outlined in this plan. The Imperial County General Plan designates the area immediately surrounding the airport as urban. Land to the east within the AIA is designated as agriculture.



Legend

- Existing and Ultimate Runway[1]
- Airport Property Boundary[1]
- Municipal Boundaries
- Highway
- Railroad
- Streets
- Parcels

Existing Land Use[2]

- Commercial
- Industrial
- Government
- Cemetery
- Noise Sensitive - Places of Worship
- Noise-Sensitive - School
- Residential Single-Family
- Residential - Mobile Home Park
- Multifamily Residential - High Density
- Multifamily Residential - Medium Density
- Multifamily Residential - Low Density
- Agricultural
- Vacant
- Right of Way & Utilities

0 2,000 4,000

1" = 2,000'

[1]Airport Layout Plan (1999)
[2]Imperial County Assessor's Office Tax Parcels

Sources: Imperial County Assessor's Office Parcel Data (2024), Imperial County Streets, ESRI Basemap Imagery (2023). Coffman Associates Analysis

Legend

- Existing and Ultimate Runway[1]
- Airport Property Boundary[3]
- Municipal Boundaries
- Highway
- Railroad
- Streets
- Parcel Boundary

Zoning[2]

- Mixed Use
- Limited Agriculture

N

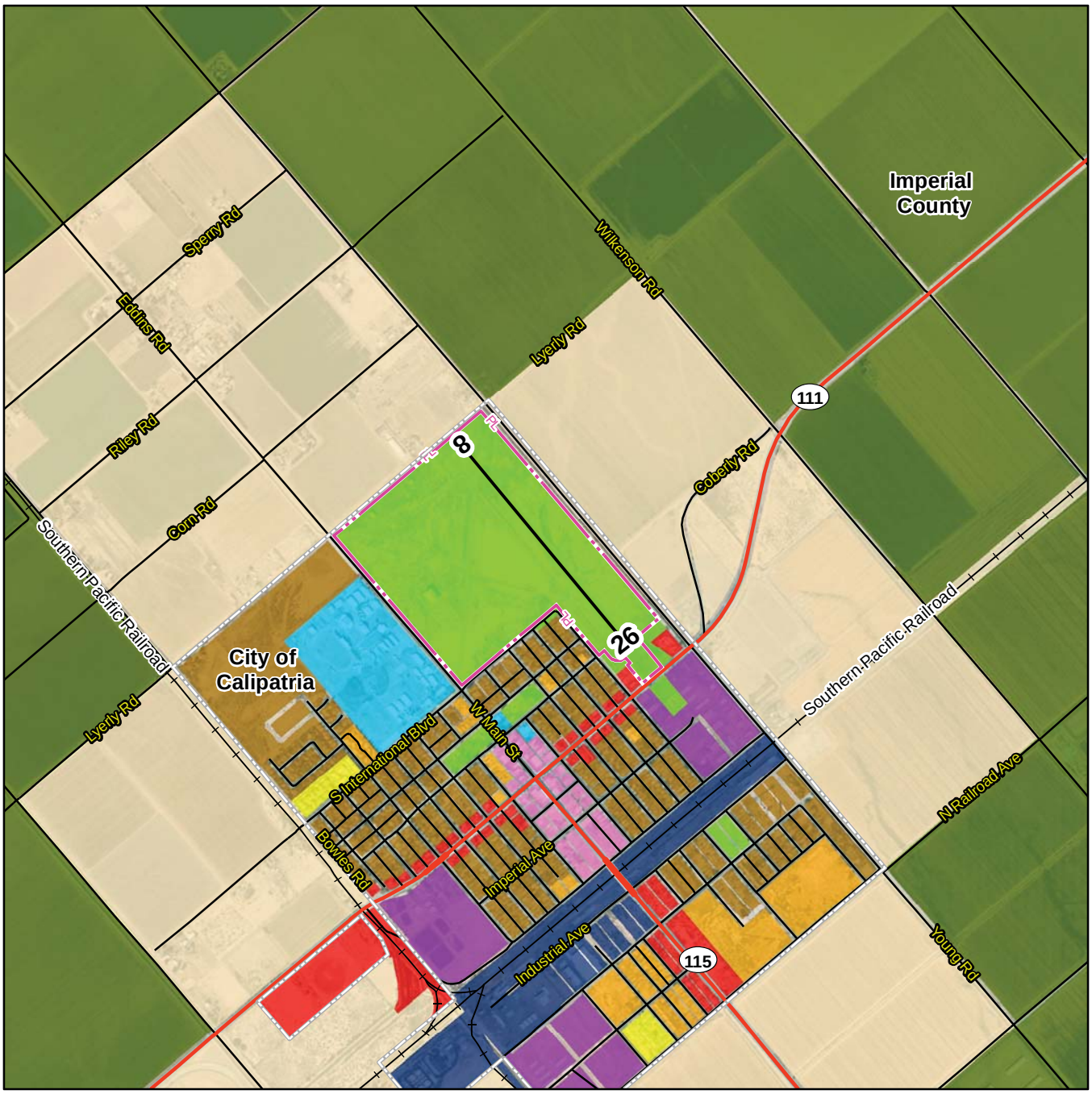
0 2,000 4,000

FEET

[1]5010 Airport Master Record
[2]Imperial County ArcGIS Website, Derek Newland
[3]Airport Layout Plan (1999)

Sources: Imperial County Parcels, Imperial County Streets, ESRI Basemap Imagery (2023). Coffman Associates Analysis

Exhibit C6: CLIFF HATFIELD MEMORIAL AIRPORT (CLR) ZONING



Legend

- Airport Property Boundary[1]
- Existing and Ultimate Runway[1]
- Municipal Boundaries
- Highway
- Railroad
- Streets

General Plan[2]

- Agriculture
- Heavy Industrial
- Light Industrial
- Commercial
- High Density Residential
- Medium Density Residential
- Low Density Residenital
- Rural Residential
- Downtown District
- Open Space
- Public Facility

0 2,000 4,000

1" = 2,000'

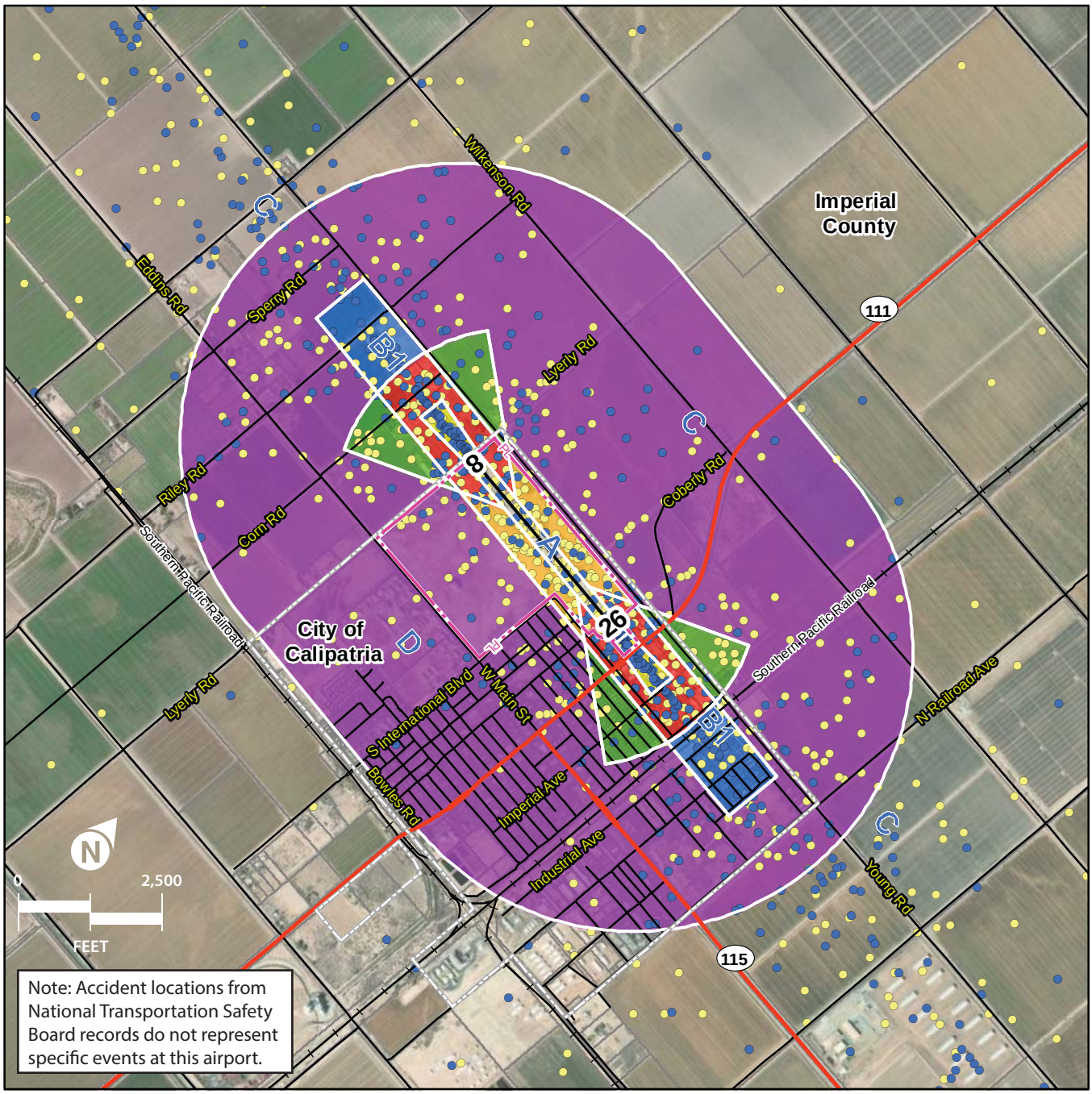
[1]Airport Layout Plan (1999)
[2]Imperial County General Plan (1993) and City of Calipatria 2035 General Plan (2013)

Sources: Imperial County Parcels, Imperial County Streets, ESRI Basemap Imagery (2023). Coffman Associates Analysis

Exhibit C7: CLIFF HATFIELD MEMORIAL AIRPORT (CLR) GENERAL PLAN

COMPATIBILITY FACTORS

Exhibit C8 is a compatibility factors map, which compiles National Transportation Safety Board flight accident data for all airports in the United States, noise exposure contours, and arrival and departure flight tracks from the noise exposure contours. The purpose of this exhibit is to illustrate the methodology behind the shape and size of the safety, noise, and airspace compatibility zones.



LEGEND

- Airport Property Line[3]
- Existing and Ultimate Runway[1]
- Municipal Boundaries
- Arrival Accidents[4]
- Departure Accidents[4]
- Highway
- Railroad
- Parcels
- Streets

SAFETY ZONES[2]

- Traffic Pattern Zone
- Inner Approach/Depature Zone
- Inner Turning Zone
- Outer Approach/Departure Zone
- Sideline Zone
- Runway Protection Zone[3]

[1]5010 Airport Master Record

[2]Figure 3A, California Airport Land Use Planning Handbook (2011), and Coffman Associates Analysis

[3]Airport Layout Plan (2023)

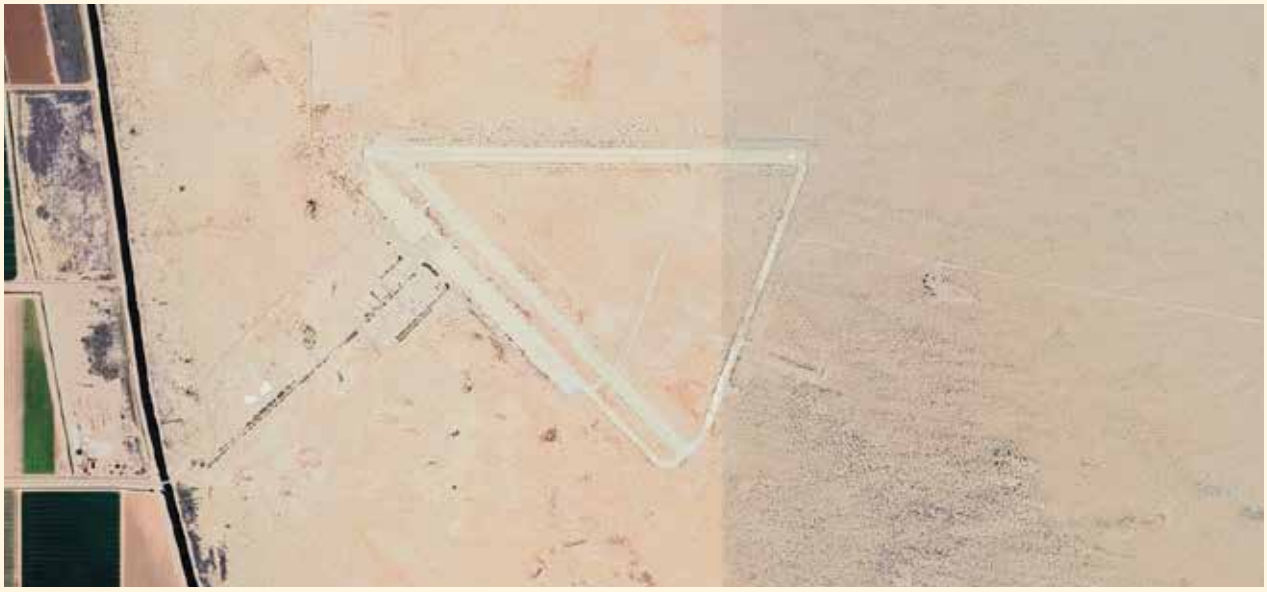
[4]California Airport Land Use Planning Handbook, 2011. Normalized from airports in United States.

Sources: Imperial County Parcels, Imperial County Streets, Airport Layout Plan (2023), (1996). ESRI Basemap Imagery (2023).

Exhibit C8: CLIFF HATFIELD MEMORIAL AIRPORT (CLR) COMPATIBILITY FACTORS

Appendix D

Holtville Airport (L04)



Imperial County Airport Land Use Compatibility Plan

Appendix D

HOLTVILLE AIRPORT (L04)

Appendix D provides an overview of Holtville Airport's (Airport) setting, airport influence area (AIA), safety zones, noise, airspace and overflight areas. This Appendix will also discuss the existing and planned land uses, as well as current and future Airport facilities.

Holtville Airport (L04) is a public use airport located approximately six miles northeast of Holtville, CA, in western Imperial County. The Airport sits on approximately 1,124 acres of land, 59 feet above mean sea level. The airport is not classified in the 2023–2027 *National Plan of Integrated Airports* (NPIAS) or the 2020 *California Aviation System Plan* (CASP). The County of Imperial owns the Airport and the Airport is located in and surrounded by unincorporated Imperial County.

SAFETY ZONES

The AIA and Safety Zones for Holtville Airport are shown on **Exhibit D1**. Figure 3A of the California Airport Land Use Planning Handbook (Handbook) provides three example zones for general aviation airports, which are differentiated by runway length. The Handbook zone examples are provided as a starting point for developing safety zones specific to an airport. As discussed below, Holtville Airport has one runway, Runway 8-26, which is 6,000 feet long. The Airport Diagram indicates that no changes to the runway length are anticipated during the planning period. Using this length, the Long General Aviation Runway classification was assumed. For this plan, an outer zone was added based on the 14 CFR Part 77 Conical Surface, which also represents the airspace and overflight review area boundary. Additional information regarding the safety compatibility zones can be found in **Appendix J**.

NOISE

Due to Runway 8-26 being listed as closed indefinitely with no civilian operations or based aircraft reported on the FAA Airport Master Records 5010-A, noise contours were generated for this airport based on military operations only.

The standard methodology for analyzing noise conditions at airports involves the use of a computer simulation model. The Airport Environmental Design Tool (AEDT) Version 3f is accepted by the State of California and required by the FAA to be used in developing noise exposure contours. This is the model used to develop the noise exposure contours for this Airport Land Use Compatibility Plan (ALUCP). The following sections describe the noise modeling inputs for the Holtville Airport noise exposure contours shown on **Exhibit D2**. Additional information regarding the noise modeling process and land use compatibility thresholds can be found in **Appendix J**.

AIRCRAFT OPERATIONS AND FLEET MIX

As outlined in Public Utilities Code (PUC) Section 21675(a), the noise contours included in an ALUCP must reflect the anticipated growth of the airport throughout at least the next 20 years. **Table D1** summarizes the 2044 operations for the Airport using information obtained from the U.S. Navy regarding operations for the calendar year 2024 and includes the aircraft types used in the noise model. To accurately represent the noise conditions at the Airport, the AEDT provides aircraft noise data for many of the aircraft operating in the national fleet.

The selection of individual aircraft types is important to the modeling process because different aircraft types generate different noise levels. The aircraft fleet mix for Holtville Airport was derived from the information obtained from the United States Marine Corps regarding operations for the calendar year 2024. Operations are affiliated with the following units: Marine Medium Tiltrotor Squadron 161 (VMM-161), Marine Medium Tiltrotor Squadron 165 (VMM-165), Marine Medium Tiltrotor Squadron 362 (VMM-362), Marine Medium Tiltrotor Squadron 364 (VMM-364), Helicopter Sea Combat Squadron Two One (HSC-21), Helicopter Sea Combat Squadron Two Three (HSC-23), and the Helicopter Sea Combat Weapon School (HSCWSP).

Table D1 summarizes the generalized fleet mix data input into the AEDT.

TABLE D1 | Holtville Airport – Aircraft Fleet Mix and Operations

Operations	AEDT Designator	2044[1]
Itinerant		
V-22 Osprey	CH47D	181
MH-60S Sea Hawk	UH60	781
Itinerant Subtotal		***962***
Local		
N/A	N/A	0
Grand Total		***962***

Source: Training operations recorded by the U.S. Navy during calendar year 2024.

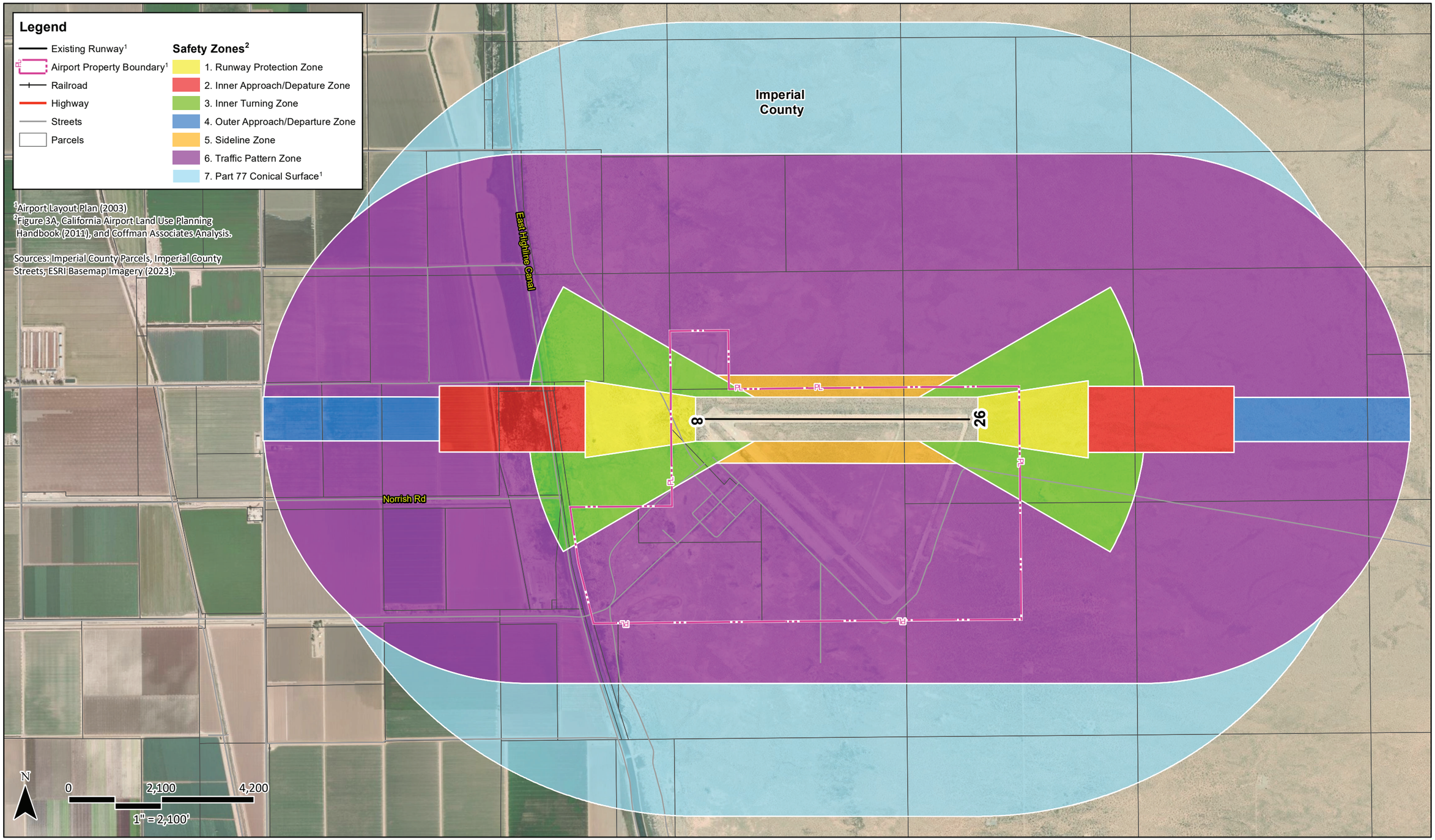
TIME-OF-DAY

The time of day which aircraft operations occur is important input to the AEDT due to the 10-decibel nighttime (10:00 p.m. to 7:00 a.m.) and 4.8-decibel evening (7:00 p.m. to 10:00 p.m.) weighting of aircraft noise. **Table D2** summarizes the time-of-day information by aircraft type.

TABLE D2 | Cliff Hatfield Memorial Airport – Aircraft Fleet Mix and Operations

Operations	Day (7:00 AM – 7:00 PM)	Evening (7:00 PM – 10:00 PM)	Night (10:00 PM – 7:00 PM)
V-22 Osprey	90.06%	7.73%	2.21%
MH-60S Sea Hawk	67.48%	25.48%	7.04%

Source: Training operations recorded by the U.S. Navy during calendar year 2024.


Legend
Existing Runway[1]
Airport Property Boundary[1]
Railroad
Highway
Streets
Parcels
Safety Zones[2]
1. Runway Protection Zone
2. Inner Approach/Depature Zone
3. Inner Turning Zone
4. Outer Approach/Departure Zone
5. Sideline Zone
6. Traffic Pattern Zone
7. Part 77 Conical Surface[1]
[1]Airport Layout Plan (2003)
[2]Figure 3A, California Airport Land Use Planning Handbook (2011), and Coffman Associates Analysis.
Sources: Imperial County Parcels, Imperial County Streets, ESRI Basemap Imagery (2023).
Imperial County
East Highline Canal
Norrish Rd
PL
8
26
N
0
2,100
4,200
1" = 2,100'

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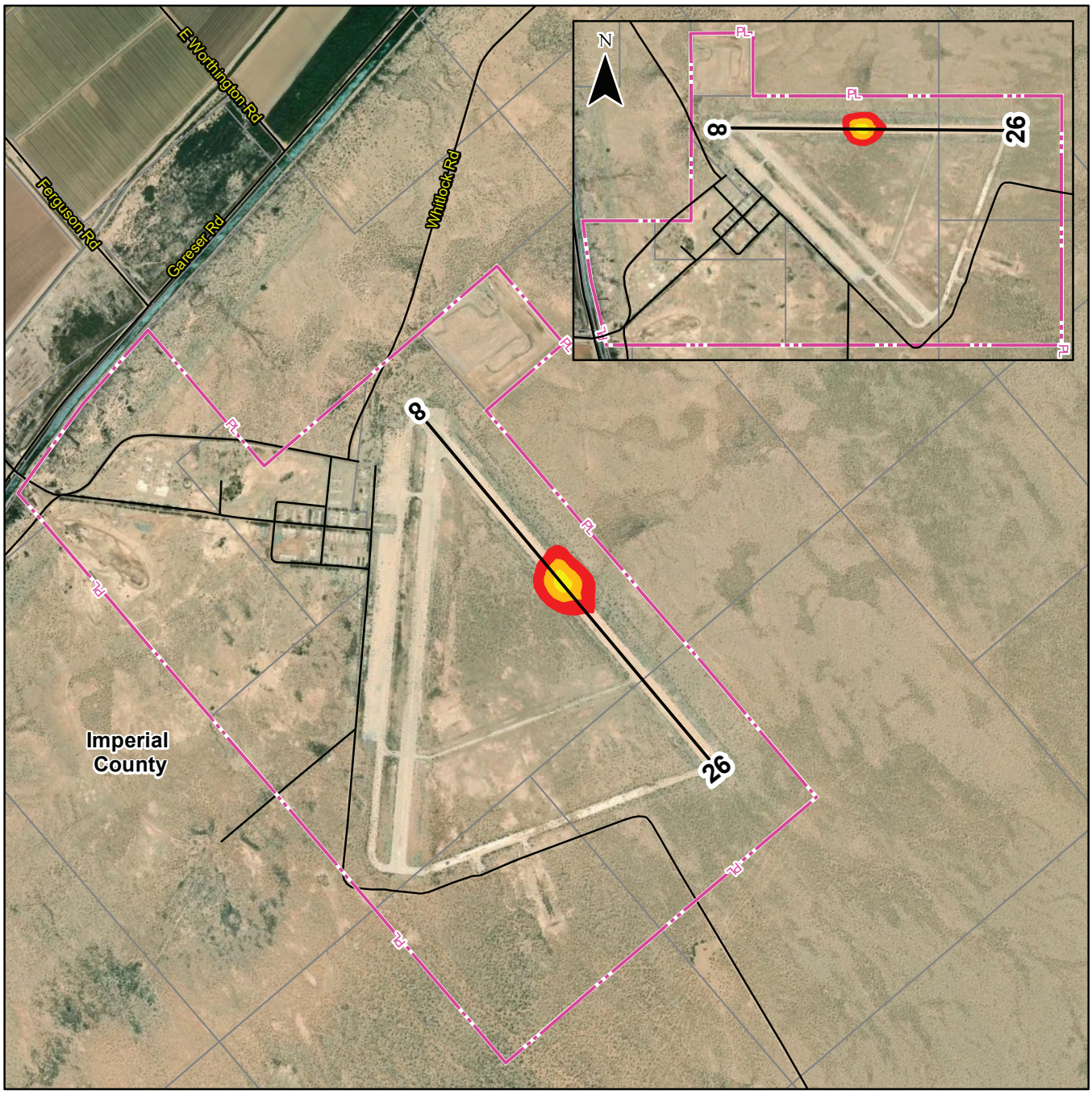


Legend

- Existing Runway[1]
- Airport Property Boundary
- Highway
- Railroad
- Streets
- Parcels APN

2024 Noise Contour[2]

- 60 CNEL
- 65 CNEL
- 70 CNEL

CNEL: Community Noise Equivalent Level

0 2,000 4,000

1" = 2,000'

[1]ADIP
[2]AEDT 3F

Sources: Imperial County Parcels, Imperial County Streets, ESRI Basemap Imagery (2023).

RUNWAY USE

Because all of the military operations at Holtville Airport are rotary aircraft, all operations were modeled from a single helicopter pad location originating at the midpoint of Runway 8-36.

FLIGHT TRACKS

A review of local flight procedures was used to develop consolidated flight tracks for use in the AEDT. As a result, it is assumed that touch-and-go traffic occurs to the south of the Airport.

FLIGHT PROFILES

The AEDT program uses the Rotocraft Performance Model (RPM) to model rotocraft performance. No indication was given of any variation from the standard procedures. Therefore, the standard time in mode for takeoff, approach, and climb out from RPM were used.

AIRSPACE AND OVERFLIGHT

Exhibit D3 depicts the airspace plan for Holtville Airport. This exhibit includes the 14 CFR Part 77 approach surfaces, including the Transitional, Horizontal, Conical, Primary, and Approach Surfaces. The Conical Surface makes up the Airport Influence Area for Holtville Airport.

AIRPORT INFORMATION

AIRPORT FACILITIES

Holtville Airport has one runway, 8-26. **Table D2** provides additional details about the Airport's facilities. **Exhibit D4** shows the Airport Diagram.

Runway 8-26 is 3,423 feet long and 50 feet wide. It is constructed of asphalt and is in fair condition. The runway load bearing strength for single-wheel landing gear aircraft is up to 12,000 pounds. There are non-precision runway pavement markings that are in good condition and non-lighted touch down points.

The traffic pattern for Runway 8 is a standard left-handed pattern whereas Runway 26 is a non-standard right-handed traffic pattern. There is an RNAV (GPS) non-precision instrument approach procedure for Runway 8.

The airport is not attended and does not offer any services. The airport perimeter fence is not secured.

Legend

- Runway Centerline[1]
- Outer Approach Surface Extents
- Airport Property Line
- Highways

- Primary
- Approach

Part 77 Surfaces[2]

- Transitional
- Horizontal
- Conical

N

0 3,500 7,000

FEET

[1]adip.faa.gov

[2]No runway end elevation was available. Part 77 surfaces were drawn assuming a non-sloping runway (see 14 CFR, Subchapter E, Part 77).

Note: This exhibit represents both existing and future conditions.

Source: ESRI Basemap Imagery (2023),

TABLE D2 | Airport Facilities – Holtville Airport

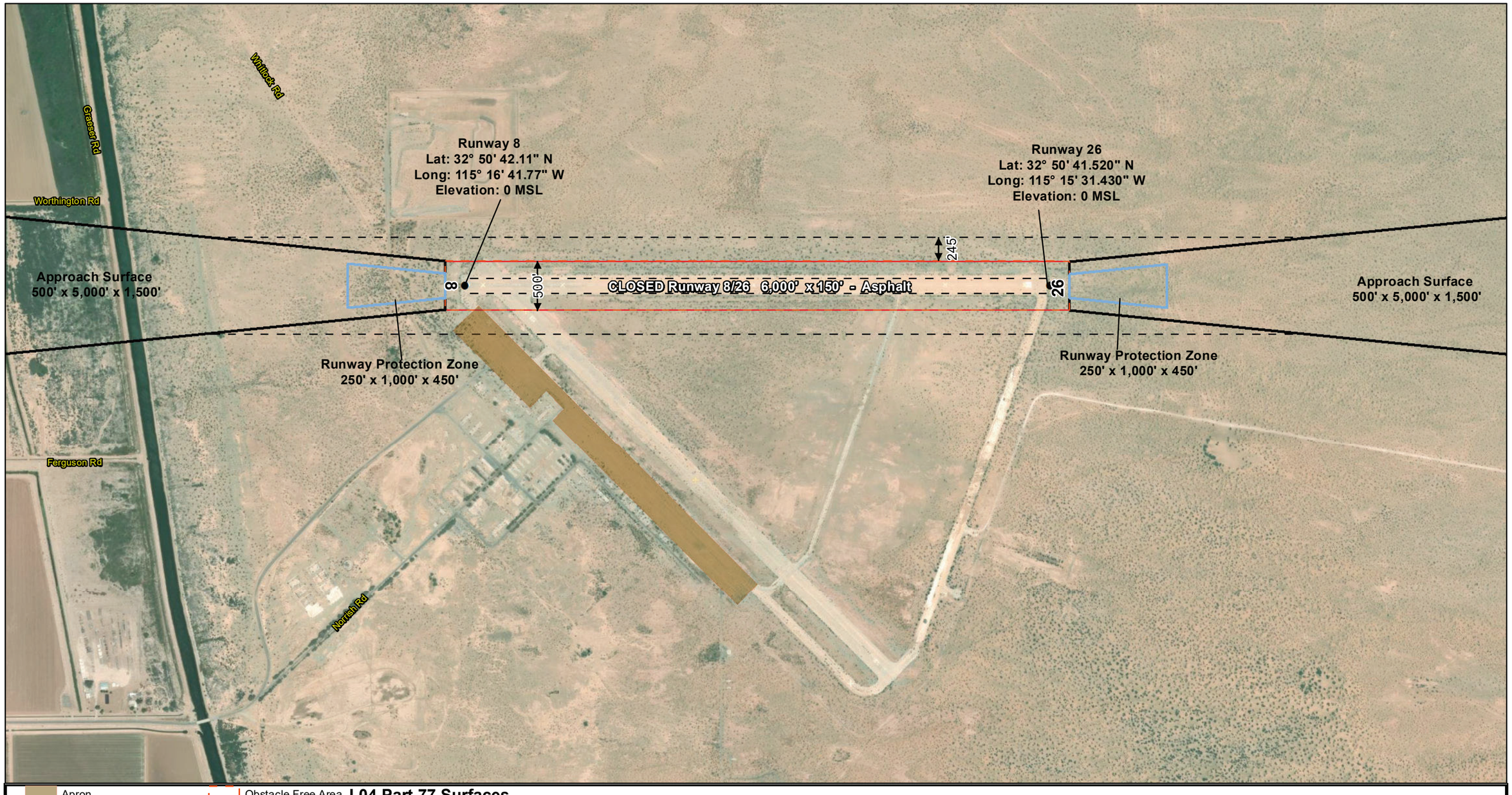
	Runway 8-26
RUNWAY(S)	
Length (feet)	6,000'
Width (feet)	150"
Threshold Displacement (feet)	N/A | 160'
Runway Pavement Surface Material	Concrete
Runway Pavement Surface Treatment	N/A
Runway Pavement Condition	1-2' holes in pavement, buckled section slabs up to 5'
Runway Pavement Load Bearing Strength (lbs)	
Single Wheel	20,000
Dual Wheel	40,000
Dual Tandem	N/A
Double Tandem	N/A
Double Dual Tandem	N/A
Runway Pavement Markings	
Type	N/A
Condition	N/A
Runway Lighting	
Runway Edge Lighting	No
Approach Lighting System (ALS)	No
Touchdown Point	Yes, no lights
Traffic Pattern	Left | Right
Runway End Identifier Lights (REILs)	No
VISUAL APPROACH AIDS	
Type	None
Glide Path	None
INSTRUMENT APPROACH AIDS	
Instrument Landing System (ILS)	N/A
Global Positioning System (GPS)	N/A
VOR/DME or TACAN	N/A
High-VOR/DME or TACAN	N/A
NAVIGATION AIDS	
None	

N/A: Not Applicable
MIRL: Medium Intensity Runway Lights
PAPI: Precision Approach Path Indicator
VOR/DME: Very High Frequency Omnidirectional Range Distance Measuring Equipment

Source: AirNav (July 2024)

The following Imperial Valley Transit routes exist in the airport vicinity:

- 3E: El Centro to Holtville/ 3W: Holtville to El Centro
- 45E: El Centro to Holtville/ 45W: FAST- Holtville



Apron
Runway End Points
35' Building Restriction Line
Runway Protection Zone
Obstacle Free Area
L04 Part 77 Surfaces
Primary
Approach

Runway Data taken from 5010 Airport Master Record
[1] AC 150-5300 13B Table G-3
Imperial County ArcGIS website, Derek Newland

Sources: Imperial County Parcels, Imperial County Streets, ESRI Basemap Imagery (2023).

N
0 1,000 2,000
1" = 1,000'

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FUTURE AIRPORT PLANS

As shown on the Airport Diagram on **Exhibit D4**, the airport is expected to remain the same in the future condition.

AIRPORT ENVIRONS

EXISTING LAND USES

Existing land uses are shown on **Exhibit D5**.

The airport property is located entirely within incorporated Imperial County jurisdiction. Existing land parcels are limited to agricultural uses to the west, and conservation uses to the north, east, and west. The airport is surrounded by land that is preserved by the U.S. Department of the Interior, Bureau of Land Management, as part of the California Desert Conservation Area.

ZONING

Exhibit D6 shows zoning in the AIA.

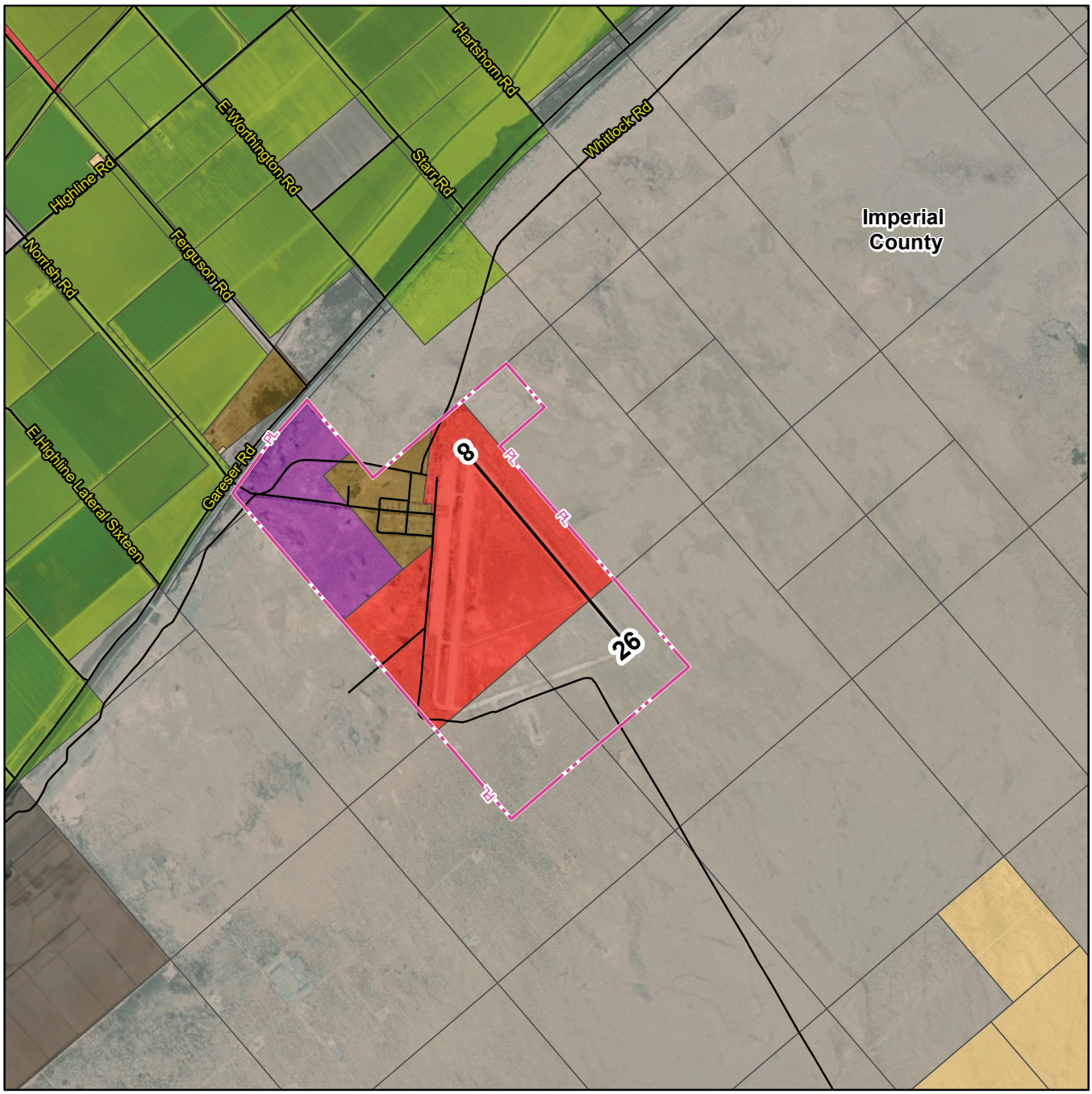
Imperial County zoning designates the eastern portion of airport property as Public Facility (SPA-G & SPA-RE) and the western portion as Rural Residential (GS-RE). Zoning to the west of the airport is Limited Agriculture. The land to the east is designated as Bureau of Land Management (BLM).

GENERAL PLAN

Imperial County updated its General Plan in 1993, and the Land Use Element of the General Plan was updated in 2015. **Exhibit D7** represents the planned land uses for the county based on the goals and objectives outlined in this plan. The Imperial County General Plan designates airport property as the Holtville Air Strip Specific Plan area, with a portion of airport property to the north of the runway designated as a Special Purpose Facility. The land to the east of the airport is designated for open space/recreation and the land to the west is designated for agriculture.

COMPATIBILITY FACTORS

Exhibit D8 is a compatibility factors map, which compiles National Transportation Safety Board flight accident data for all airports in the United States, noise exposure contours, and arrival and departure flight tracks from the noise exposure contours. The purpose of this exhibit is to illustrate the methodology behind the shape and size of the safety, noise, and airspace compatibility zones.



Legend

- Existing Runway[1]
- Airport Property Boundary[2]
- Highway
- Railroad
- Streets
- Parcels

Existing Land Use[2]

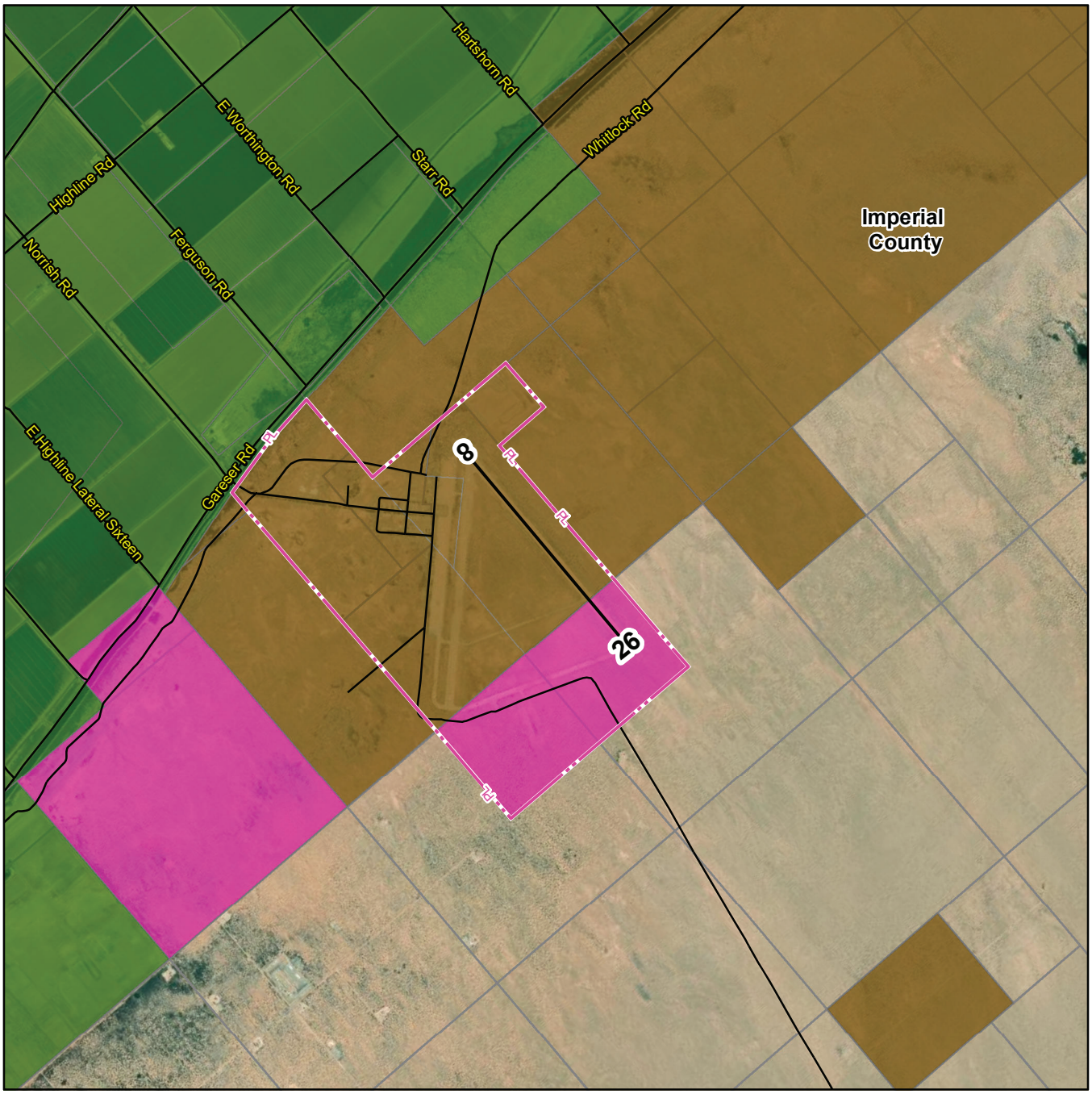
- Commercial
- Industrial
- Residential Single-Family
- Residential - Mobile Home Park
- Agricultural
- Vacant
- Right of Way & Utilities

0 3,500 7,000

1" = 3,500'

[1]FAA Form 5010 Airport Master Record
[2]Imperial County Assessor's Office Tax Parcels

Sources: Imperial County Assessor's Office Parcel Data (2024), Imperial County Streets,ESRI Basemap Imagery (2023). Coffman Associates Analysis



Legend

- Existing Runway[1]
- Airport Property Boundary
- Railroad
- Highway
- Streets
- Parcels APN

Zoning[2]

- Public Facitlity
- Rural Residedntial
- Limited Agriculture

0 3,500 7,000
FEET

[1]ADIP
[2]Imperial County ArcGIS website, Derek Newland

Sources: Imperial County Parcels, Imperial County Streets,ESRI Basemap Imagery (2023).

Legend

- Existing Runway[1]
- Airport Property Boundary
- Railroad
- Highway
- Streets
- Parcels APN

General Plan[2]

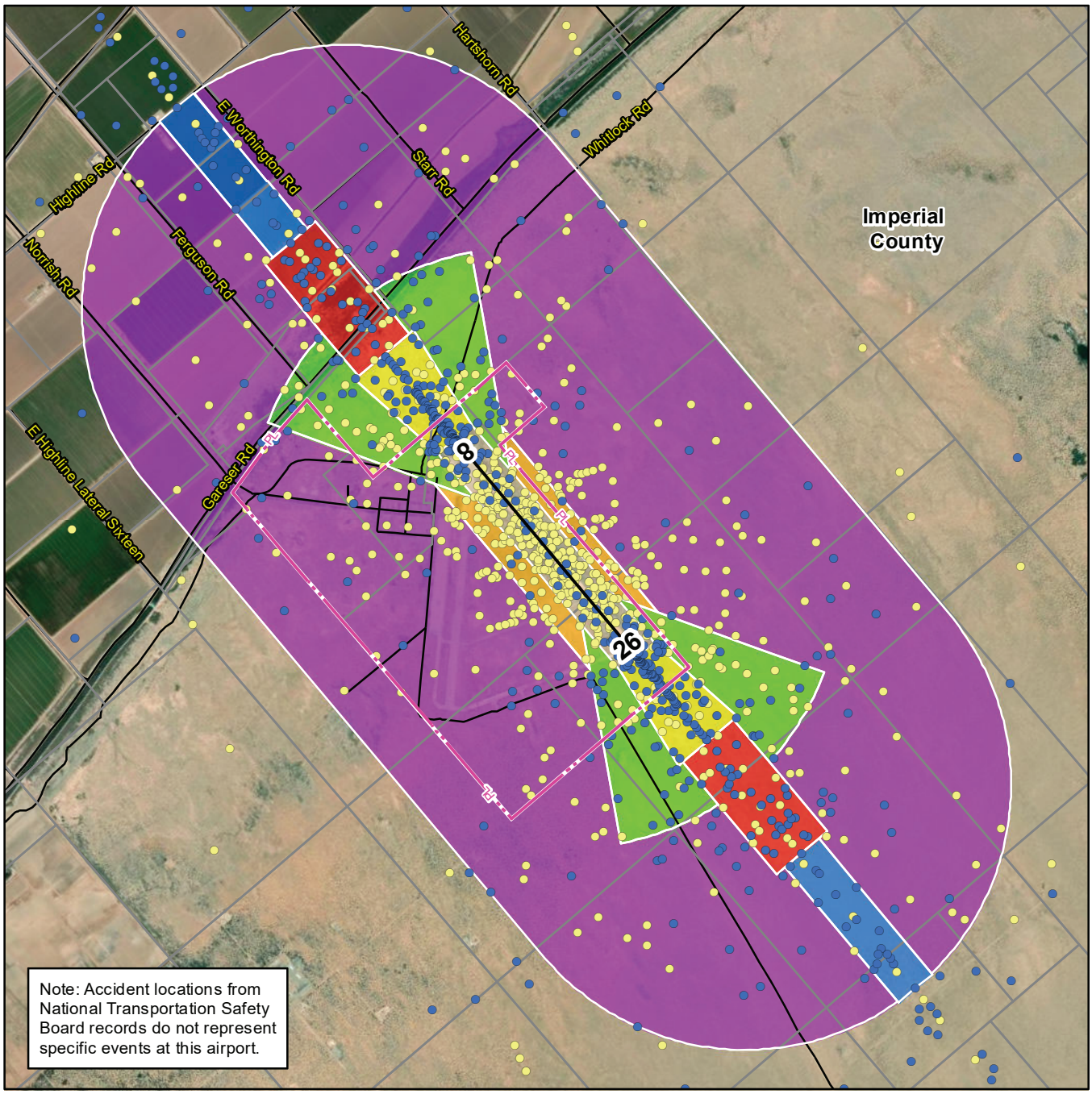
- Special
- Specific
- Urban
- Recreation
- Agriculture

0 3,500 7,000

1" = 3,500'

[1]ADIP
[2]Imperial County ArcGIS website, Derek Newland

Sources: Imperial County Parcels, Imperial County Streets,ESRI Basemap Imagery (2023).



Legend

- Existing Runway[1]
- Airport Property Boundary
- Arrival Accidents [3]
- Departure Accidents [3]
- Railroad
- Parcels
- Streets

Safety Zones[2]

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

0 3,500 7,000

1" = 3,500'

[1]5010 Airport Master Record
[2]Figure 3A, California Airport Land Use Planning Handbook (2011), and Coffman Associates Analysis.
[3] California Airport Land Use Planning Handbook, 2011. Normalized from airports in United States.

Sources: Imperial County Parcels, Imperial County Streets, Airport Layout Plan (2023), (1996). ESRI Basemap Imagery (2023).

Appendix E

Imperial County Airport (IPL)

Imperial County Airport Land Use Compatibility Plan

Appendix E

IMPERIAL COUNTY AIRPORT (IPL)

Appendix E provides an overview of Imperial County Airport's (Airport) setting, airport influence area (AIA), safety zones, noise, airspace and overflight areas. This Appendix will also discuss the existing and planned land uses, as well as current and future Airport facilities.

Imperial County Airport (IPL) is a public use airport is situated in western Imperial County, between the cities of El Centro, CA and Imperial, CA. The Airport sits on approximately 365 acres of land, 54 feet below mean sea level. The airport is in the 2023–2027 *National Plan of Integrated Airports* (NPIAS) as a nonprimary commercial services airport with a regional role. The 2020 *California Aviation System Plan* (CASP) designates the airport as non-primary commercial service. Imperial County owns the Airport and the Airport is located within the city limits of the City of Imperial, with the City of El Centro to the south and areas of unincorporated Imperial County to the north of Runway 14 and to the east and west of Runway 8-26.

SAFETY ZONES

The AIA and Safety Zones for Imperial County Airport are shown on **Exhibit E1**. Figure 3A of the California Airport Land Use Planning Handbook (Handbook) provides three example zones for general aviation airports, which are differentiated by runway length. The Handbook zone examples are provided as a starting point for developing safety zones specific to an airport. As discussed below, Imperial County Airport has two runways, Runway 14-32, which is 5,308 feet long, and Runway 8-26, which is 4,501 feet long. The Federal Aviation Administration (FAA)-approved Airport Layout Plan (ALP) does not include any change to the runway length for either runway. Using these lengths, the Medium General Aviation Runway classification was assumed for each runway. For this plan, an outer zone was added based on the 14 CFR Part 77 Conical Surface, which also represents the airspace and overflight review area boundary. Additional information regarding the safety compatibility zones can be found in **Appendix J**.

NOISE

The standard methodology for analyzing noise conditions at airports involves the use of a computer simulation model. The Airport Environmental Design Tool (AEDT) Version 3f is accepted by the State of California and required by the FAA to be used in developing noise exposure contours. This is the model used to develop the noise exposure contours for this Airport Land Use Compatibility Plan (ALUCP). The following sections describe the noise modeling inputs for the Imperial County Airport noise exposure contours shown on **Exhibit E2**. Additional information regarding the noise modeling process and land use compatibility thresholds can be found in **Appendix J**.

AIRCRAFT OPERATIONS AND FLEET MIX

As outlined in Public Utilities Code (PUC) Section 21675(a), the noise contours included in an ALUCP must reflect the anticipated growth of the airport throughout at least the next 20 years. **Table E1** summarizes the 2044 operations for the Airport using the FAA's Terminal Area Forecast (TAF) and the 2003 *Imperial County Airport Master Plan*, and also includes the aircraft types used in the noise model. To accurately represent the noise conditions at the Airport, the AEDT provides aircraft noise data for many of the aircraft operating in the national fleet.

The selection of individual aircraft types is important to the modeling process because different aircraft types generate different noise levels. The aircraft fleet mix for Imperial County Airport was derived from the FAA's Traffic Flow Management System Counts (TFMSC), interviews with the Airport staff, and with the airport's fixed base operator (FBO). **Table E1** summarizes the generalized fleet mix data input into the AEDT.

A variety of general aviation, single engine fixed-propeller aircraft are modeled with the GASEPV and GASEPF aircraft in the AEDT. The GASEPV represents many single engine general aviation aircraft including the Mooney M-20, Cessna 172 and 180, and Piper Cherokee Arrow. The general aviation, single engine fixed-pitch propeller model, the GASEPF, also represents several single engine general aviation aircraft. These include the Cessna 150, Piper Archer, and the Piper Tomahawk.

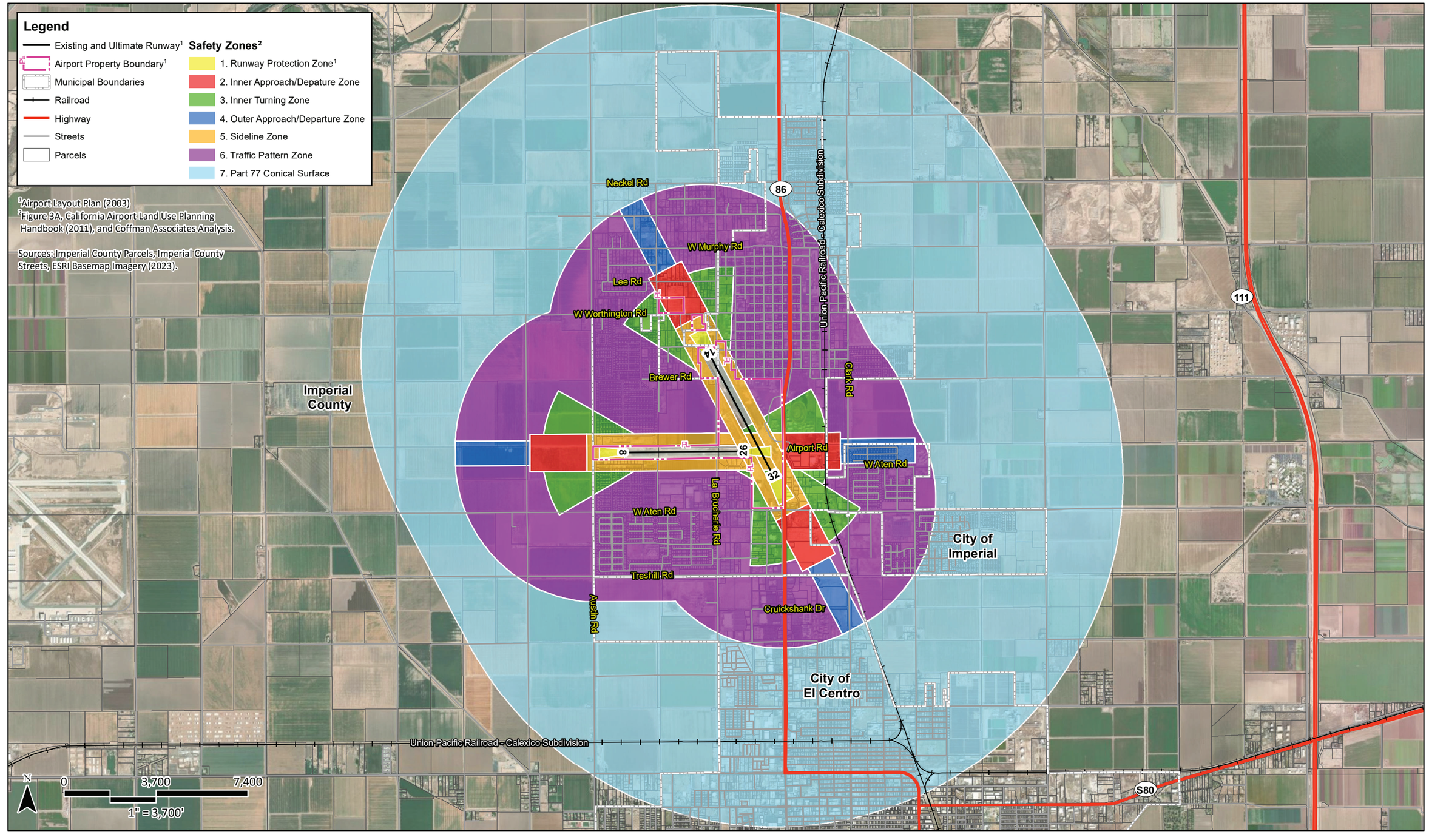
TABLE E1 | Imperial County Airport – Aircraft Fleet Mix and Operations

Operations	AEDT Designator	2044[1]
Itinerant		
Single Engine, Fixed	GASEPF	234
Single Engine, Variable	GASEPV	234
Multi-Engine Piston	BEC58P	25
Turboprop	Pilatus PC-12	1,174
Military Helicopter, V-22 Osprey	CH47D	1,221
Military Helicopter, AH-1 Huey Cobra	SA365N	1,220
Military Helicopter, CH-53 Sea Stallion	S65	1,220
Itinerant Subtotal		***5,328***
Local		
Single Engine, Fixed	GASEPF	523
Single Engine, Variable	GASEPV	522
Multi-Engine Piston	BEC58P	55
Local Subtotal		***1,100***
Grand Total		**6,428**

Source: [1]FAA Terminal Area Forecast, Fiscal Years 2023-2050, January 2024

Time-of-Day

The time-of-day which aircraft operations occur is important input to the AEDT due to the 10-decibel nighttime (10:00 p.m. to 7:00 a.m.) and 4.8-decibel evening (7:00 p.m. to 10:00 p.m.) weighting of aircraft noise.


Legend
Existing and Ultimate Runway[1]
Airport Property Boundary[1]
Municipal Boundaries
Railroad
Highway
Streets
Parcels
Safety Zones[2]
1. Runway Protection Zone[1]
2. Inner Approach/Depature Zone
3. Inner Turning Zone
4. Outer Approach/Departure Zone
5. Sideline Zone
6. Traffic Pattern Zone
7. Part 77 Conical Surface
[1]Airport Layout Plan (2003)
[2]Figure 3A, California Airport Land Use Planning Handbook (2011), and Coffman Associates Analysis.
Sources: Imperial County Parcels, Imperial County Streets, ESRI Basemap Imagery (2023).
Neckel Rd
W Murphy Rd
Lee Rd
W Worthington Rd
Brewer Rd
Airport Rd
W Aten Rd
La Brucherie Rd
Treshill Rd
Austin Rd
Cruickshank Dr
Clark Rd
Union Pacific Railroad - Calexico Subdivision
86
111
S80
8
26
32
Imperial County
City of Imperial
City of El Centro
N
0
3,700
7,400
1" = 3,700'

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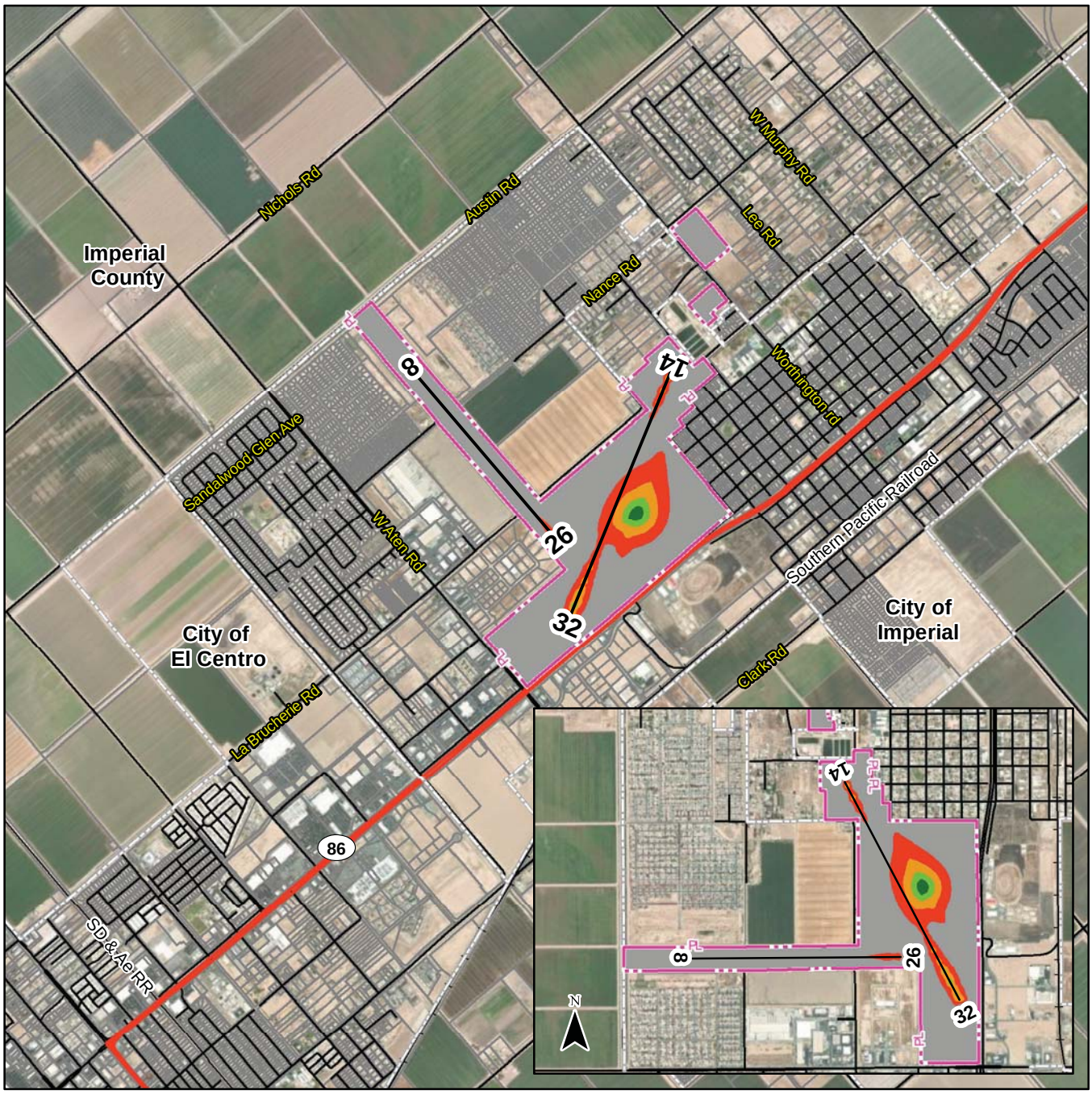


Legend

- Existing and Ultimate Runway[1]
- Airport Property Boundary[2]
- Municipal Boundaries
- Highway
- Railroad
- Streets
- Parcel Boundary

2044 Noise Contour

- 60 CNEL
- 65 CNEL
- 70 CNEL
- 75 CNEL

CNEL: Community Noise Equivalent Level

0 3,000 6,000
FEET

[1]5010 Airport Master Record
[2]Airport Layout Plan (2003)

Sources: Imperial County Parcels, Imperial County Streets, ESRI Basemap Imagery (2023).

Since the Airport is not equipped with an airport traffic control tower (ATCT), time-of-day information was estimated based upon Airport staff interviews, airline flight schedules, and time-of-day activity levels at similar airports. Most operations occur during the daytime hours, with an estimated ten percent of operations occurring during evening hours and three percent of operations occurring during nighttime hours.

Runway Use

Runway usage data is also an essential component for developing noise exposure contours. Based on a review of regional airport activity and wind conditions, the following assumptions were made for runway use:

- Runway 14 – 15 percent
- Runway 21 – 70 percent
- Runway 8 – 0 percent of departures, 1 percent of arrivals
- Runway 26 – 14 percent of departures, 14 percent of arrivals

Flight Tracks

A review of local flight procedures was used to develop consolidated flight tracks for use in the AEDT. As discussed below, the traffic patterns for Runway 14 and Runway 8 are left-hand, and the traffic patterns for Runway 32 and Runway 26 are right-hand. Accordingly, it is assumed that touch-and-go traffic occurs to the west and south of the Airport.

Flight Profiles

The standard arrival profile used in the AEDT program is a three-degree approach. No indication was given by Airport staff that there was any variation on this standard procedure for civilian aircraft. Therefore, the standard approach was included in the model to represent local operating conditions.

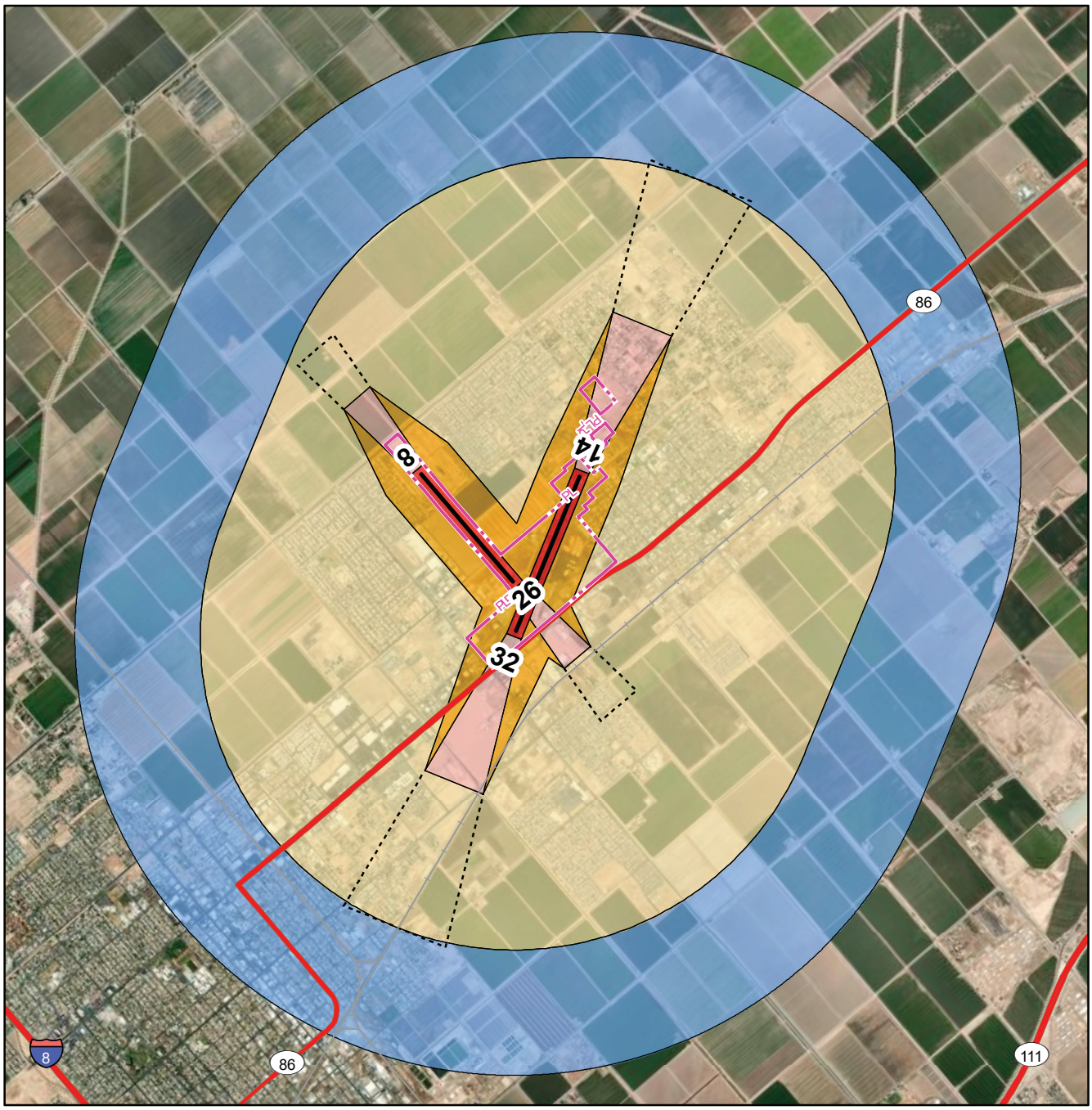
AIRSPACE AND OVERFLIGHT

Exhibit E3 depicts the airspace plan for Imperial County Airport. This exhibit includes the 14 CFR Part 77 approach surfaces, including the Transitional, Horizontal, Conical, Primary and Approach Surfaces. The Conical Surface makes up the Airport Influence Area for Imperial County Airport.

AIRPORT INFORMATION

AIRPORT FACILITIES

Imperial County Airport has two runways, 14-32 and 8-26. **Table E2** provides additional details about the Airport's facilities. **Exhibit E4** shows the ALP.



Legend

- Runway Centerline[1]
- Outer Approach Surface Extents
- Airport Property Line
- Highways

- Primary
- Approach

Part 77 Surfaces[2]

- Transitional
- Horizontal
- Conical

N

0 5,000 10,000

FEET

[1]5010 Airport Master Record

[2]Part 77 Surfaces reflect future condition as planned in ALP Set dated 11/17/03 (see14 CFR, Subchapter E, Part 77).

Source: ESRI Basemap Imagery (2023),

Runway 14-32 is 5,308 feet long and 100 feet wide. The runway is constructed of asphalt and is in good condition. The runway load bearing strength is 60,000 pounds for single-wheel landing gear aircraft, 80,000 pounds for double-wheel landing gear aircraft, 102,000 pounds for double tandem landing gear aircraft, and 130,000 pounds for dual double tandem landing gear aircraft. There are non-precision runway pavement markings that are in good condition and non-lighted touch down points. Each runway end is equipped with a four-box precision approach path indicator (PAPI) on the left with a three-degree glide angle, as well as medium intensity runway lights (MIRL).

Runway 8-26 is 4,501 feet long and 75 feet wide. The runway is constructed of asphalt and is in good condition. The runway load bearing strength for single-wheel and double-wheel landing gear aircraft is up to 50,000 pounds. There are basic runway pavement markings that are in good condition and non-lighted touch down points. Each runway end is equipped with a four-box precision approach path indicator (PAPI) on the left with a three-degree glide angle as well as medium intensity runway lights (MIRL).

The traffic patterns for Runway 14 and Runway 8 are left-hand, and the traffic patterns for Runway 32 and Runway 26 are nonstandard right-hand. The airport has one non-precision instrument approach procedure consisting of a very high frequency omnidirectional radio range (VOR) or RNAV-A (GPS) circling approach.

The airport has a terminal building with administration offices and is attended daily from 7:00 a.m. to 4:30 p.m. The airport is currently served by Southern Airways Express, a commuter airline which provides daily flights to and from Los Angeles International Airport (LAX) and Phoenix Sky Harbor International Airport (PHX) using Pilatus PC-12 aircraft. There is one FBO at the airport, Imperial County Flying Services, Inc., that provides fueling services to civilian and military aircraft. There is also a FedEx air cargo facility on site. The airport is surrounded by a secured perimeter fence.

The following Imperial Valley Transit routes exist in the airport vicinity:

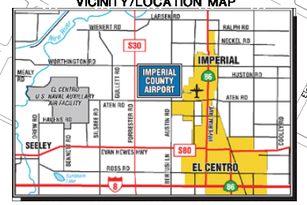
- 2N: El Centro to Niland / 2S: Niland to El Centro
- 3E: El Centro to Holtville / 3W: Holtville to El Centro
- 41N: El Centro to Brawley / 41S: FAST- Brawley
- Green: El Centro

Additionally, Appendix F: Regional Highway & Roadway Projects of the Imperial County Transportation Long Range Transportation Plan (ICTC LRTP) identifies the following projects near the airport:

- RH-75: Worthington Road Siphon at Central Main Canal (Austin Rd & W Worthington Rd)
- RH-83: Aten Road Siphon at Central Main Canal (w Aten Rd & Austin Rd)
- R-9: Construct Roadway/Rail Grade Separation and upgrade to current County standards (W Aten Rd, Southern Pacific Railroad)
- RC-16: Construct Roadway/Rail Grade Separation and upgrade to current County standards (Clark Road South of Aten Road, Southern Pacific Railroad)

On SR-86 at Postmiles 4.50/R21.90, Caltrans is currently undergoing a micro-surfacing project (road maintenance).

VICINITY/LOCATION MAP



LEGEND

EXISTING	ULTIMATE	DESCRIPTION
		PAVEMENT REMOVAL/RELOCATION
		AIRPORT PROPERTY LINE
		AIRPORT REFERENCE POINT (ARP)
		AIRPORT ROTATING BEACON
		AVIATION EASEMENT (if applicable)
		FACILITY CONSTRUCTION
		BUILDING CONSTRUCTION
BRL	BRL	BUILDING RESTRICTION LINE (BRL)
		GATES
		FENCING
VASI-4	PAPI-4	NAVIGATIONAL AID INSTALLATION
		RUNWAY END IDENTIFICATION LIGHTS (REIL)
		RUNWAY THRESHOLD LIGHTS
		SEGMENTED CIRCLE/WIND INDICATOR
		SECTION CORNER
		TOPOGRAPHIC CONTOURS
		WIND INDICATOR (lighted)
		TAXIWAY DESIGNATION
ACZ	ACZ	ASOS CRITICAL AREA

DEVIATIONS FROM FAA AIRPORT DESIGN STANDARDS

DEVIATION DESCRIPTION	EFFECTED DESIGN STANDARD	STANDARD	EXISTING	PROPOSED DISPOSITION
PERIMETER FENCING/PROPERTY LINE EXTENDS THROUGH ULT. RWY. 32 RSA	RUNWAY SAFETY AREA (RSA)	600' BEYOND RUNWAY END	405' BEYOND RUNWAY END	RELOCATE SERVICE ROAD DISPLACE LANDING THRESHOLD
PERIMETER FENCE/PROPERTY LINE EXTENDS THROUGH EXIST./ULT. RWY. 32 OFA	OBJECT FREE AREA (OFA)	600' BEYOND RUNWAY END	237' BEYOND RUNWAY END	DISPLACE LANDING THRESHOLD
PERIMETER FENCING/PROPERTY LINE EXTENDS THROUGH ULT. RWY. 14 RSA	RUNWAY SAFETY AREA (RSA)	600' BEYOND RUNWAY END	466' BEYOND RUNWAY END	DISPLACE LANDING THRESHOLD
PERIMETER FENCE/PROPERTY LINE, B ST., LA BRUCHERIE RD. EXTEND THROUGH ULT. RWY. 14 OFA	OBJECT FREE AREA (OFA)	600' BEYOND RUNWAY END	339' BEYOND RUNWAY END	RELOCATE B ST. & LA BRUCHERIE RD. REQUEST MODIFICATION TO STANDARDS
ULTIMATE RUNWAY 14-32/TAXIWAY SEPARATION	RUNWAY/TAXIWAY SEPARATION	300'	276'	REQUEST MODIFICATION TO STANDARDS

THRESHOLD SITING SURFACE OBJECT PENATRATION

OBJECT	PENATRATION	DISPOSITION
STATE HIGHWAY 86 (17' MINIMUM CLEARANCE)	6.00'	DISPLACE LANDING TRESHOLD

OBJECT FREE ZONE (OFZ) OBJECT PENATRATION

OBJECT	PENATRATION	DISPOSITION
SEGMENTED CIRCLE WIND CONE TETRAHEDRON	40.00'	RELOCATE

ALL WEATHER WIND COVERAGE

Runways	10.5 Knots 12 MPH	13 Knots 15 MPH	16 Knots 18.4 MPH	20 Knots 23 MPH
Runway 8-26	97.31%	98.72%	99.63%	99.90%
Runway 14-32	89.22%	92.45%	95.96%	98.37%
Combined	99.16%	99.72%	99.91%	99.98%

AIRPORT DATA

IMPERIAL COUNTY AIRPORT (IPL)

TOWN: IMPERIAL, CALIFORNIA — COUNTY: IMPERIAL COUNTY, CALIFORNIA
RANGE: 13/14E TOWNSHIP: 15 — CIVIL TOWNSHIP: N/A — ACRES: ± 370

		EXISTING	ULTIMATE
NATIONAL PLAN of INTEGRATED AIRPORT SYSTEMS (NPIAS) SERVICE LEVEL		PRIM. COMM. SERVICE	SAME
DESIGN AIRCRAFT		CESSNA CITATION-II	FOKKER F-27
AIRPORT REFERENCE CODE (ARC): RUNWAY CATEGORY/DESIGN GROUP		B-II	B-III
AIRPORT ELEVATION (ABOVE MEAN SEA LEVEL)		-56' MSL	SAME
MEAN MAXIMUM TEMPERATURE OF HOTTEST MONTH		107°F (July)	SAME
AIRPORT REFERENCE POINT (ARP) COORDINATES (NAD 83)	Latitude	32°50'3.19"N	SAME
	Longitude	115°34'43.48"W	SAME
AIRPORT and TERMINAL NAVIGATIONAL AIDS		ROTATING BEACON VOR	SAME --
GPS APPROACH		YES	SAME

RUNWAY DATA

	RUNWAY 14-32 EXISTING	RUNWAY 14-32 ULTIMATE	RUNWAY 8-26 EXISTING	RUNWAY 8-26 ULTIMATE
RUNWAY CATEGORY/AIRCRAFT DESIGN GROUP	B-II	B-III	B-I	B-I
RUNWAY AZIMUTH	27°40'41"	SAME	89°36'00"	SAME
RUNWAY BEARING (TRUE)	152.70°/332.70°	SAME	87.97°/269.98°	SAME
RUNWAY DIMENSIONS	5,304' x 100'	SAME	4,500' x 75'	SAME
MAXIMUM RUNWAY ELEVATION (above MSL)	minus 57.8'	SAME	minus 57.2'	SAME
WIND COVERAGE (in %)	12-89.22%/15-92.45%	12-89.22%/15-92.45%	12-97.31%/15-98.72%	12-97.31%/15-98.72%
APPROACH VISIBILITY MINIMUMS	1 MILE/1 MILE	1 MILE/1 MILE	VISUAL/VISUAL	SAME/SAME
FAR PART 77 CATEGORY	NONPREC/NONPREC	SAME/SAME	VISUAL/VISUAL	SAME/SAME
RUNWAY INSTRUMENTATION	NONPREC/NONPREC	SAME/SAME	VISUAL/VISUAL	SAME/SAME
RUNWAY APPROACH SURFACES	34:1/34:1	SAME/SAME	20:1/20:1	SAME/SAME
RUNWAY THRESHOLD DISPLACEMENT	NONE/NONE	135'/195'	NONE/NONE	SAME/SAME
RUNWAY STOPWAY	NONE	SAME	NONE	SAME
RUNWAY SAFETY AREA (RSA)	5904' X 150'	6174' X 300'	4980' X 150'	SAME
RSA DISTANCE BEYOND EACH RUNWAY END	300'/300'	465' X 405'	240'/240'	SAME/SAME
RUNWAY OBJECT FREE AREA (OFA)	5841' X 500'	5643' X 800'	4980' X 250'	SAME
OFA BEYOND EACH RUNWAY END	300'/237'	339'/0'	240'/240'	SAME
RUNWAY OBSTACLE FREE ZONE (OFZ)	5704' X 400'	5704' X 400'	4900' X 250'	SAME
TAKEOFF RUN AVAILABLE (TORA)	5304'/5304'	SAME/SAME	--	--
TAKEOFF DISTANCE AVAILABLE (TODA)	5304'/5304'	SAME/SAME	--	--
ACCELERATE-STOP DISTANCE AVAILABLE (ASDA)	5304'/5304'	5109'/5169'	--	--
LANDING DISTANCE AVAILABLE (LDA)	5304'/5304'	4974'/4974'	--	--
RUNWAY PAVEMENT MATERIAL	ASPHALT	SAME	ASPHALT	SAME
RUNWAY PAVEMENT SURFACE TREATMENT	PFC	SAME	NONE	SAME
PAVEMENT STRENGTH (in thousand lbs.)[1]	60/80/130	SAME	50/60	SAME
RUNWAY EFFECTIVE GRADIENT (in %)	0.04%	SAME	0%	SAME
RUNWAY LIGHTING	MIRL	SAME	MIRL	SAME
RUNWAY MARKINGS	BASIC	NONPRECISION	BASIC	SAME
RUNWAY APPROACH LIGHTING	NONE	SAME	NONE	SAME
TAXIWAY PAVEMENT MATERIAL	ASPHALT	SAME	ASPHALT	SAME
TAXIWAY LIGHTING	MITL	SAME	MITL	SAME
TAXIWAY MARKING	CENTERLINE, HOLDLINES	SAME	CENTERLINE, HOLDLINES	SAME
NAVIGATIONAL AIDS	VOR GPS	GPS/GPS	NONE/NONE	SAME/SAME
VISUAL AIDS	NONE/VASI-4 -- DISTANCE REMAINING	PAPI-4/PAPI-4 REIL/REIL SAME	PAPI-2/PAPI-4 -- DISTANCE REMAINING	SAME/SAME REIL/REIL SAME

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

RUNWAY END COORDINATES (NAD 83)

		EXISTING	DISPLACED THRESHOLD
RUNWAY 14	Latitude	32°50'33.02"N	32°50'34.25"N
	Longitude	115°34'45.43"W	115°34'45.43"W
RUNWAY 32	Latitude	32°49'46.39"N	32°49'48.37"N
	Longitude	115°34'16.92"W	115°34'16.92"W
RUNWAY 8	Latitude	32°49'55.56"N	N/A
	Longitude	115°35'24.44"W	N/A
RUNWAY 26	Latitude	32°49'55.56"N	N/A
	Longitude	115°34'31.69"W	N/A

BUILDINGS/FACILITIES

EXISTING	ULTIMATE	
(1)		T-HANGAR
(2)		SHADE HANGAR
(3)		FUEL STORAGE
(4)		CONVENTIONAL HANGAR
(5)		WASH RACK
(6)	--	CONVENTIONAL HANGAR/OFFICES
(7)	--	AIRPORT ADMIN./GA TERMINAL
(8)	--	FAA TRANSMITTER/RECEIVER EQUIPMENT
(9)	--	STORAGE BUILDINGS
(10)	--	ELECTRICAL VAULT
(11)	--	COMMERCIAL TERMINAL BUILDING
(12)	--	HOTEL COMPLEX
(13)	--	OFFICE BUILDING
(14)	--	OFFICE/WAREHOUSE
(15)	--	OFFICE/WAREHOUSE
(16)	--	CARGO BUILDING
(17)	--	STORAGE BUILDING/AIRPORT MAINTENANCE
(18)	--	AIRPORT TRAFFIC CONTROL TOWER (decommissioned)
(19)	--	OFFICE/WAREHOUSE
(20)	--	JOINT-USE ARFF FACILITIES

GENERAL NOTES-
1. EXISTING/ULTIMATE FENCE EXTENDS ALONG PROPERTY LINE EXCEPT WHERE SHOWN
2. ALL ELEVATIONS IN NAVD 88.

FAA APPROVAL STAMP

APPROVED BY: ON THE DATE OF:

David Conn
Airport Manager

No.	REVISIONS	DATE	BY	APP'D.
1	FAA ALP APROVAL	4-28-99	--	--
2	REVALIDATION	8-30-91	--	--

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.

IMPERIAL COUNTY AIRPORT

AIRPORT LAYOUT PLAN

IMPERIAL, CALIFORNIA

PLANNED BY: Chris Hagumin
DETAILED BY: Maggie Rogers
APPROVED BY: James M. Harris, P.E.
November 17, 2003 — SHEET 1 OF 7

Coffman Associates
Airport Consultants
www.coffmanassociates.com

Magnetic Variance
11° 31' East (November 2003)
Annual Rate of Change
2.35' West (November 2003)

SCALE IN FEET: 0, 400, 800, 1200

SOURCE:
NOAA National Climatic Center
Asheville, North Carolina
Imperial County Airport
Imperial, California

OBSERVATIONS:
81413 All Weather Observations
1991-2000

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TABLE E2 | Airport Facilities – Imperial County Airport

	Runway 14-32	Runway 8-26
RUNWAY(S)		
Length (feet)	5,308'	4,501'
Width (feet)	100'	75'
Threshold Displacement (feet)	N/A	N/A
Runway Pavement Surface Material	Asphalt	Asphalt
Runway Pavement Surface Treatment	Porous friction courses	N/A
Runway Pavement Condition	Good	Good
Runway Pavement Load Bearing Strength (lbs)		
Single Wheel	60,000	50,000
Dual Wheel	80,000	50,000
Dual Tandem	N/A	N/A
Double Tandem	102,000	N/A
Single Wheel	130,000	N/A
Runway Pavement Markings		
Type	Non-precision	Basic
Condition	Good	Good
Runway Lighting		
Runway Edge Lighting	MIRL	MIRL
Approach Lighting System (ALS)	–	–
Touchdown Point	Yes, no lights	Yes, no lights
Traffic Pattern	Left | Right	Left | Right
Runway End Identifier Lights (REILs)	No	No
VISUAL APPROACH AIDS		
Type	4-Light PAPI	4-Light PAPI
Glide Path	3.00 degrees | 3.00 degrees	3.00 degrees | 3.00 degrees
INSTRUMENT APPROACH AIDS		
Instrument Landing System (ILS)	N/A	N/A
Global Positioning System (GPS)	N/A	N/A
VOR/DME or TACAN	Yes	Yes
High-VOR/DME or TACAN	N/A	N/A
NAVIGATION AIDS		
Lighted beacon, lighted wind cone, segmented circle		

FUTURE AIRPORT PLANS

Future plans for the Airport are explained below and shown on the ALP (**Exhibit E4**).

According to the most recent Airport Layout Plan (ALP) for Imperial County Airport (November 2003), there are no planned runway extensions for the airport. The ALP includes plans for additional hangars and a new parking apron on airport property east of runway 14-32, as well as a new military helicopter parking apron directly across from the terminal building to the north of Runway 8-26. According to the 2003 ALP, the ultimate design aircraft for Runway 14-32 changes from the Cessna Citation-II (with a B-II aircraft design group) in the existing condition to the Fokker F-27 (B-III aircraft design group) over the planning period. The aircraft design group for Runway 8-26 (B-I) is the same for both the existing and ultimate conditions.

The California Aviation System Plan (CASP) 2020 lists the following future projects for Imperial County Airport:

- Pavement Rehabilitation – Construction (APMS Phase 1)(2021)
- Pavement Rehabilitation – Construction (APMS Phase 2) (2023)
- Pavement Management Study (APMS) (2024)
- Rehabilitate RW 8/26 & TW & Erosion Control (Design) (2025)
- Rehabilitate RW 8/26 & TW A & Erosion Control (Construction)(2026)
- ALP Update and Narrative Report (2027)
- Acquire Sweeper (2028)
- Install Perimeter Fencing & Gates & Video Surveillance (2030)

AIRPORT ENVIRONS

EXISTING LAND USES

Existing land uses are shown on **Exhibit E5**.

Most of the airport property is located within the City of Imperial's jurisdiction, except for the Runway 15 end to the north which is located in unincorporated Imperial County. Existing land uses surrounding the airport are varied and include mixed-use, commercial, and industrial land uses to the south, agricultural land uses to the west, and residential land uses throughout the AIA. Two schools are located to the north of Runway 14 within the City of Imperial, including Ben Hulse Elementary School and Imperial High School. The California Mid-Winter Fairgrounds are located immediately to the east across State Highway 86.

ZONING

Exhibit E6 shows zoning in the AIA.

Areas within city limits of the City of Imperial, including the airport and surrounding property, are primarily zoned General Industrial (I-1). Other prominent zoning designations within the City of Imperial include residential low density (RL) and Residential Single Family (R-1) to the north and west, with the area to the south and east primarily zoned Commercial Neighborhood (C-1) or Rail Served Industrial (I-2). Within the City of El Centro, the area to the south of the airport is zoned for Single-Family Residential (R1), Limited Use (LU), or General Commercial (GC), with one parcel designated as Multiple-Family Residential (R3). There is an area zoned light manufacturing (ML) southeast of the airport along Cruickshank Dr. The unincorporated Imperial County parcels within the AIA are zoned primarily limited agriculture, with one parcel to the north designated as mixed-use, and several to the south designated as commercial.

Legend

- Existing and Ultimate Runway[1]
- Airport Property Boundary[1]
- Municipal Boundaries
- Highway
- Railroad
- Streets
- Parcels

Existing Land Use[2]

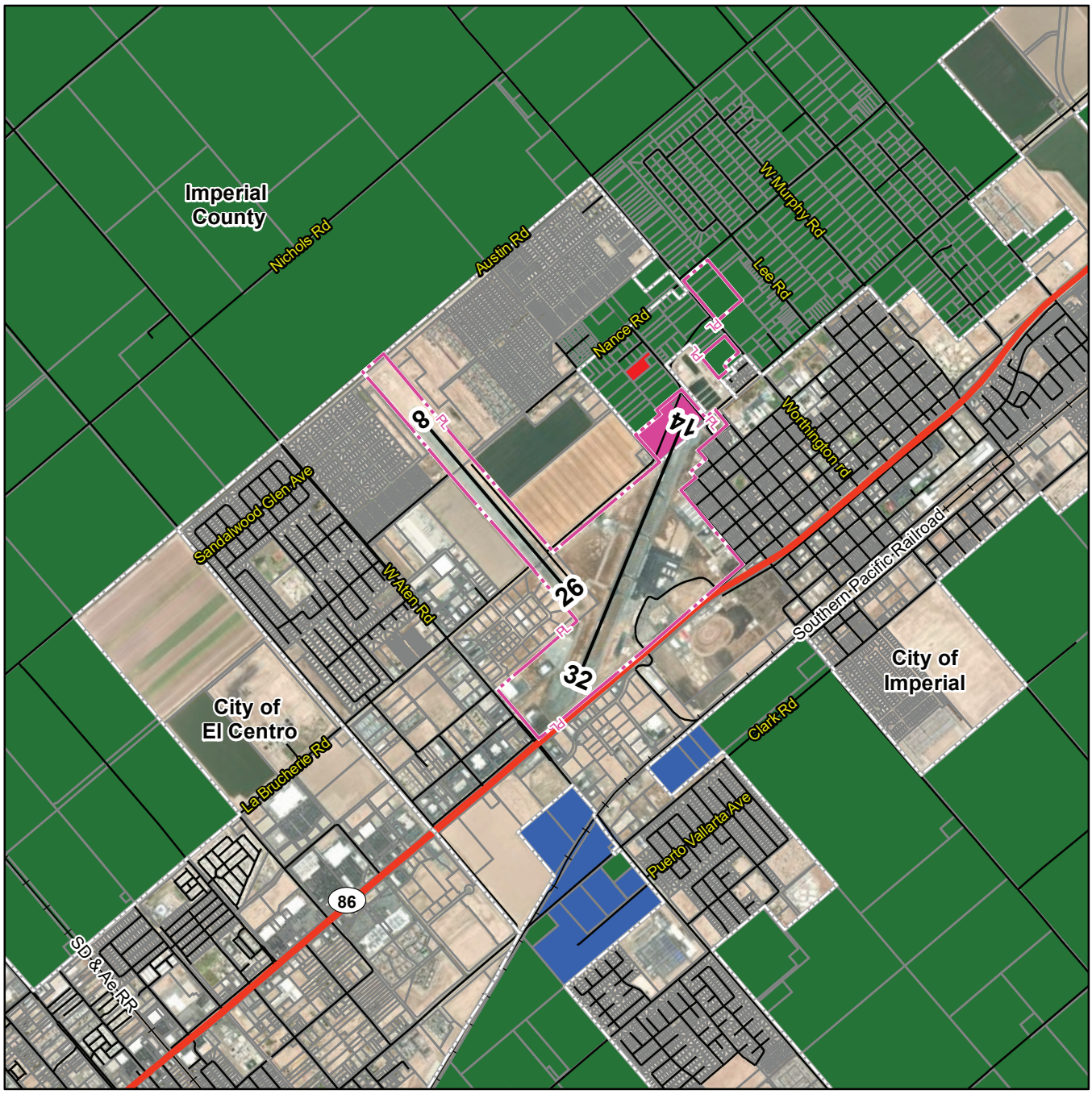
- Commercial
- Industrial
- Government
- Noise Sensitive - Places of Worship
- Noise-Sensitive - School
- Residential Single-Family
- Residential - Mobile Home Park
- Multifamily Residential - High Density
- Multifamily Residential - Medium Density
- Multifamily Residential - Low Density
- Agricultural
- Vacant
- Right of Way & Utilities

0 3,000 6,000

1" = 3,000'

[1]Airport Layout Plan (2003)
[2]Imperial County Assessor's Office Tax Parcels

Sources: Imperial County Assessor's Office Parcel Data (2024), Imperial CountyStreets, ESRI Basemap Imagery (2023). Coffman Associates Analysis



Legend

- Existing and Ultimate Runway[1]
- Airport Property Boundary[2]
- Municipal Boundaries
- Highway
- Railroad
- Streets
- Parcel Boundary

Zoning[3]

- Commercial
- Mixed Use
- Public Facitlity
- Limited Agriculture

N

0 3,000 6,000

FEET

[1]5010 Airport Master Record
[2]Airport Layout Plan (2003)
[3]Imperial County ArcGIS website, Derek Newland

Sources: Imperial County Parcels, Imperial County Streets, ESRI Basemap Imagery (2023).

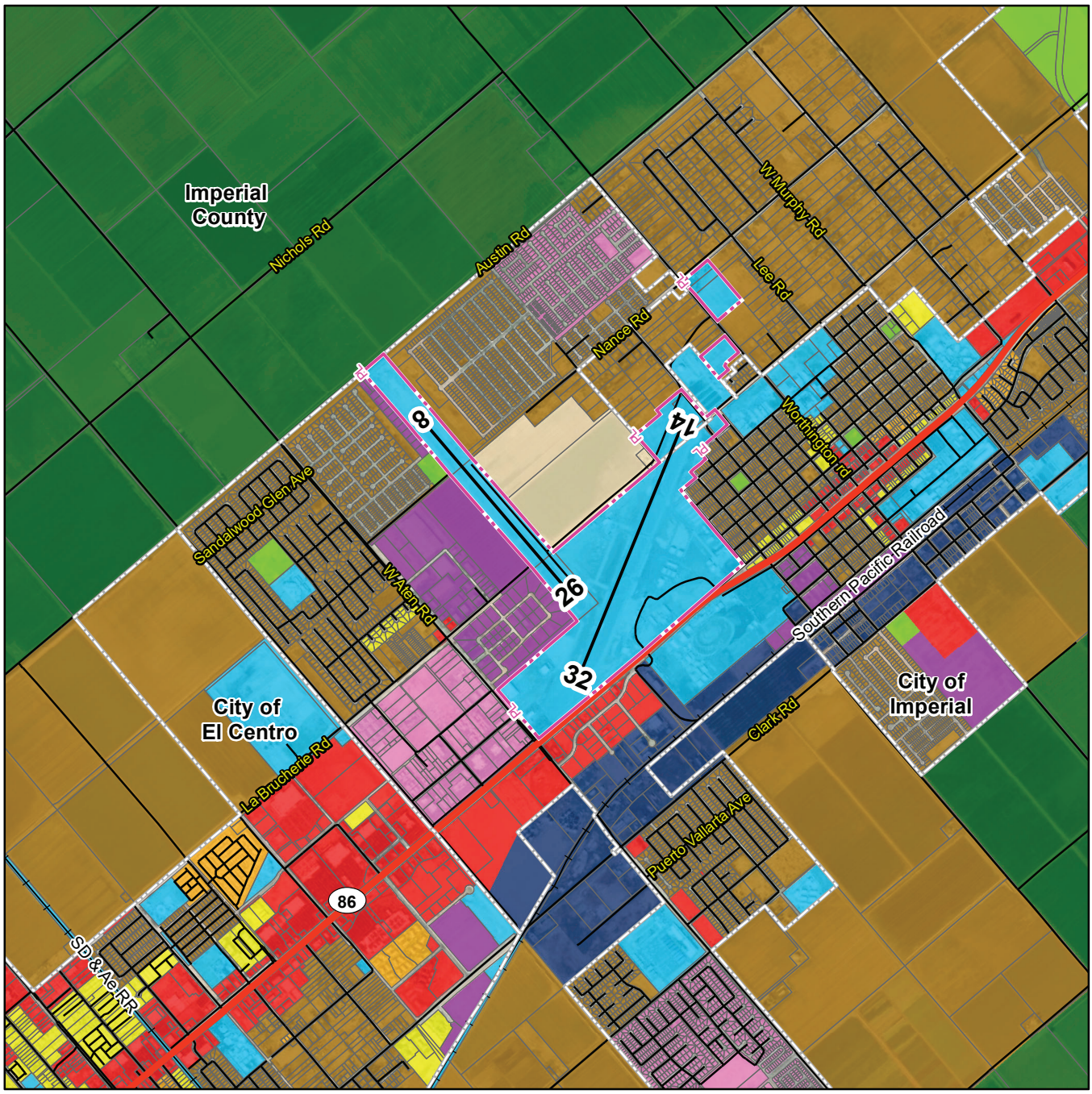
GENERAL PLAN

General plan land uses are shown on **Exhibit E7**.

Imperial County updated its General Plan in 1993, and the Land Use Element of the General Plan was updated in 2015. **Exhibit E7** represents the planned land uses for the county based on the goals and objectives outlined in this plan. The Imperial County General Plan designates most of the area within the AIA as urban, with land to the west designated as agriculture. The City of Imperial's most recent General Plan, dated June 2017, designates airport property for public use, with areas to the southwest designated for light industrial use, and areas to the immediate west for residential, rural density. The most recent General Plan Update for El Centro, dated June 2021, designates the land to the south of the airport along State Route 86 as General Commercial, with a Mixed Use 2 Overlay along N La Brucherie Rd Land to the east designated as Public and to the southwest designated as Low Density Residential.

COMPATIBILITY FACTORS

Exhibit E8 is a compatibility factors map, which compiles National Transportation Safety Board flight accident data for all airports in the United States, noise exposure contours, and arrival and departure flight tracks from the noise exposure contours. The purpose of this exhibit is to illustrate the methodology behind the shape and size of the safety, noise, and airspace compatibility zones.



Legend

- Existing and Ultimate Runway[1]
- Airport Property Boundary[1]
- Municipal Boundaries
- Highway
- Railroad
- Streets
- Parcels

General Plan[2]

- Agriculture
- Heavy Industrial
- Light Industrial
- Commercial
- High Density Residential
- Medium Density Residential
- Low Density Residential
- Rural Residential
- Open Space
- Mixed Use
- Public Facility
- Specific Plan

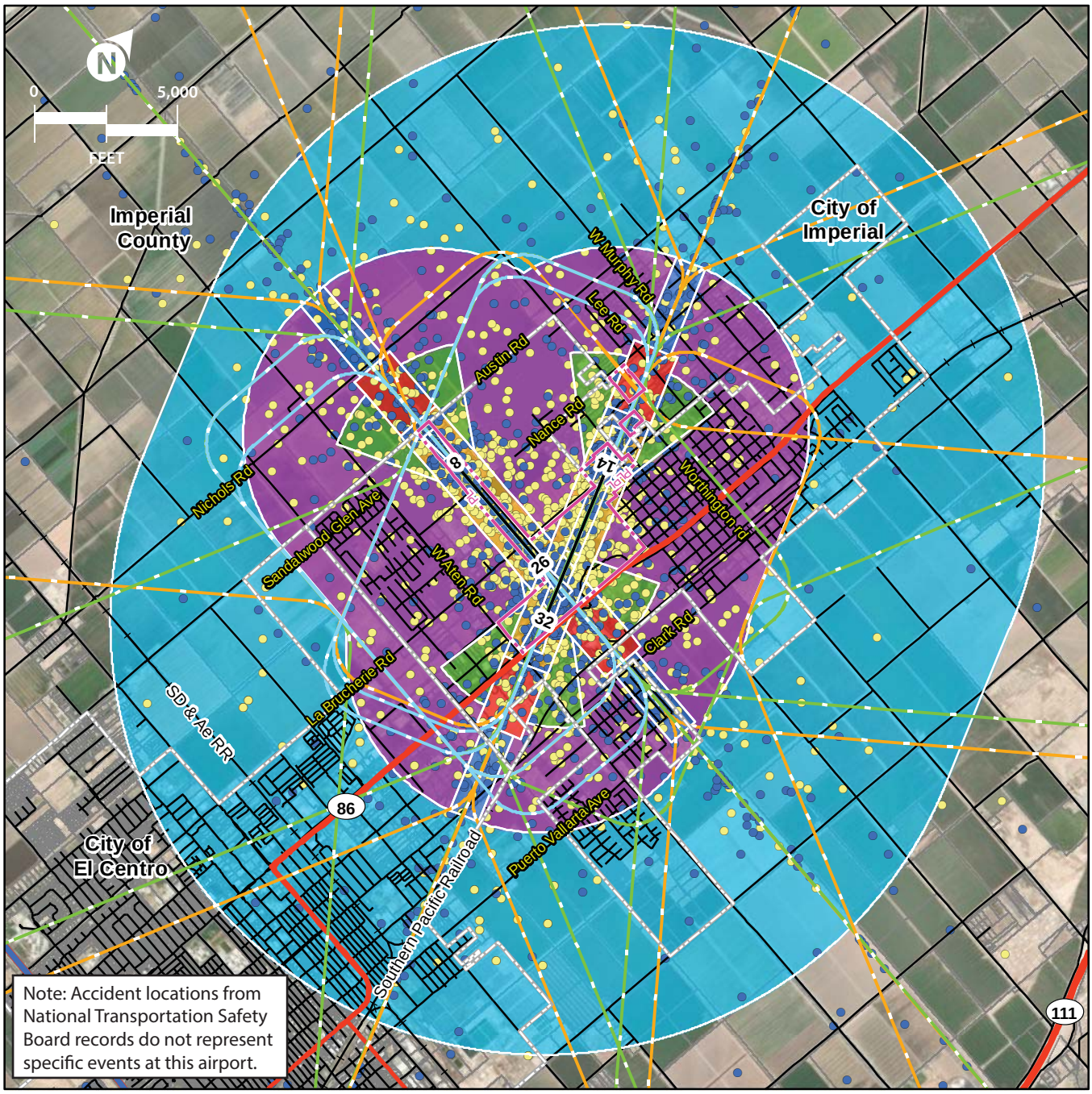
N

0 3,000 6,000

FEET

[1]Airport Layout Plan (2003)
[2]Imperial County General Plan (1993), City of Imperial General Plan Land Use Element (2017), and City of El Centro General Plan Land Use Element (2021)

Sources: Imperial County Parcels, Imperial County Streets, ESRI Basemap Imagery (2023).



LEGEND

- Airport Property Line[3]
- Municipal Boundaries
- Existing and Ultimate Runway[1]
- Parcels
- Arrival Accidents[4]
- Departure Accidents[4]

SAFETY ZONES[2]

- Traffic Pattern Zone
- Inner Turning Zone
- Sideline Zone
- Part 77 Conical
- Inner Approach/Depature Zone
- Outer Apporach/Departure Zone
- Runway Protection Zone[3]

IPL FLIGHT TRACKS

- Approach
- Departure
- Touch and Go
- Interstate
- Highway
- Railroad
- Streets

[1]5010 Airport Master Record

[2]Figure 3A, California Airport Land Use Planning Handbook (2011), and Coffman Associates Analysis

[3]Airport Layout Plan (2023)

[4]California Airport Land Use Planning Handbook

Sources: Imperial County Parcels, Imperial County Streets, Airport Layout Plan (2023), (1996). ESRI Basemap Imagery (2023).

Appendix F

Salton Sea Airport (SAS)

Imperial County Airport Land Use Compatibility Plan

Appendix F

SALTON SEA AIRPORT (SAS)

Appendix F provides an overview of Salton Sea Airport's (Airport) setting, airport influence area (AIA), safety zones, noise, airspace and overflight areas. This Appendix will also discuss the existing and planned land uses, as well as current and future Airport facilities.

Salton Sea Airport (SAS) is a privately-owned, public use airport located approximately six miles northeast of Holtville, CA, in western Imperial County. The Airport sits on approximately 258 acres of land, 84 feet below mean sea level. The airport is not classified in the 2023–2027 *National Plan of Integrated Airports* (NPIAS) and is designated as non-NPIAS in the 2020 *California Aviation System Plan* (CASP). The CASP identifies the Airport as being within two miles of the San Diego/Mexico border, and therefore part of the Inland Empire Connections Corridor.

SAFETY ZONES

The AIA and Safety Zones for Salton Sea Airport are shown on **Exhibit F1**. Figure 3A of the California Airport Land Use Planning Handbook (Handbook) provides three example zones for general aviation airports, which are differentiated by runway length. The Handbook zone examples are provided as a starting point for developing safety zones specific to an airport. As discussed below, Holtville Airport has one runway, Runway 7-25, which is 5,000 feet long. The Airport Diagram indicates that no changes to the runway length are anticipated during the planning period. Using this length, the Medium General Aviation Runway classification was assumed. For this plan, an outer zone was added based on the 14 CFR Part 77 Conical Surface, which also represents the airspace and overflight review area boundary. Additional information regarding the safety compatibility zones can be found in **Appendix J**.

NOISE

Due to there being no based aircraft and only 350 annual operations reported on the FAA Airport Master Record Form 5010-A, no noise contours were generated for this Airport.

AIRSPACE AND OVERFLIGHT

Exhibit F2 depicts the airspace plan for Salton Sea Airport. This exhibit includes the 14 CFR Part 77 approach surfaces, including the Transitional, Horizontal, Conical, Primary, and Approach Surfaces. The Conical Surface makes up the Airport Influence Area for Salton Sea Airport.

AIRPORT INFORMATION

AIRPORT FACILITIES

Salton Sea Airport has one runway, 7-25. **Table F1** provides additional details about the Airport's facilities. **Exhibit F3** shows the Airport Diagram.

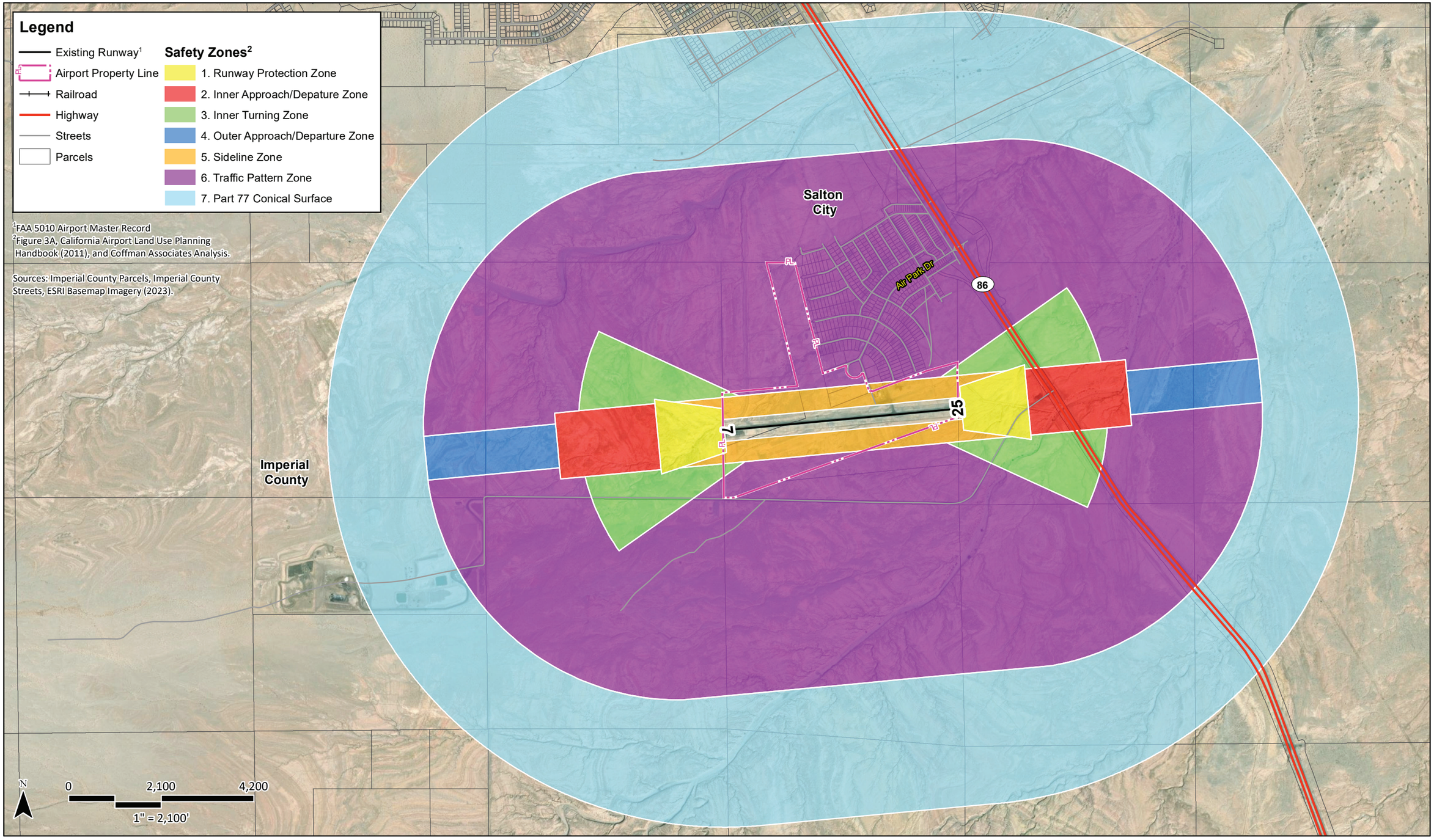
TABLE F1 | Airport Facilities – Salton Sea Airport

	Runway 7-25
RUNWAY(S)	
Length (feet)	5,000'
Width (feet)	75'
Threshold Displacement (feet)	N/A
Runway Pavement Surface Material	Gravel
Runway Pavement Surface Treatment	N/A
Runway Pavement Condition	Good
Runway Pavement Load Bearing Strength (lbs)	
Single Wheel	28,000
Dual Wheel	N/A
Dual Tandem	N/A
Double Tandem	N/A
Double Dual Tandem	N/A
Runway Pavement Markings	
Type	White threshold bars only
Condition	Good
Runway Lighting	
Runway Edge Lighting	No
Approach Lighting System (ALS)	No
Touchdown Point	Yes, no lights
Traffic Pattern	Right | Left
Runway End Identifier Lights (REILs)	No
VISUAL APPROACH AIDS	
Type	N/A
Glide Path	N/A
INSTRUMENT APPROACH AIDS	
Instrument Landing System (ILS)	N/A
Global Positioning System (GPS)	N/A
VOR/DME or TACAN	N/A
High-VOR/DME or TACAN	N/A
NAVIGATION AIDS	
None	

N/A: Not Applicable
MIRL: Medium Intensity Runway Lights
PAPI: Precision Approach Path Indicator
VOR/DME: Very High Frequency Omnidirectional Range Distance Measuring Equipment

Source: AirNav (July 2024)

Runway 7-25 is 5,000 feet long and 75 feet wide. It is constructed of gravel and is in good condition. The runway load bearing strength for single-wheel landing gear aircraft is up to 28,000 pounds. Pavement markings consist of only white threshold bars which are in good condition, and the Airport has non-lighted touch down points.


Legend
Existing Runway[1]
Airport Property Line
Railroad
Highway
Streets
Parcels
Safety Zones[2]
1. Runway Protection Zone
2. Inner Approach/Depature Zone
3. Inner Turning Zone
4. Outer Approach/Departure Zone
5. Sideline Zone
6. Traffic Pattern Zone
7. Part 77 Conical Surface
[1]FAA 5010 Airport Master Record
[2]Figure 3A, California Airport Land Use Planning Handbook (2011), and Coffman Associates Analysis.
Sources: Imperial County Parcels, Imperial County Streets, ESRI Basemap Imagery (2023).
Salton City
Air Park Dr
86
7
25
Imperial County
N
0
2,100
4,200
1" = 2,100'

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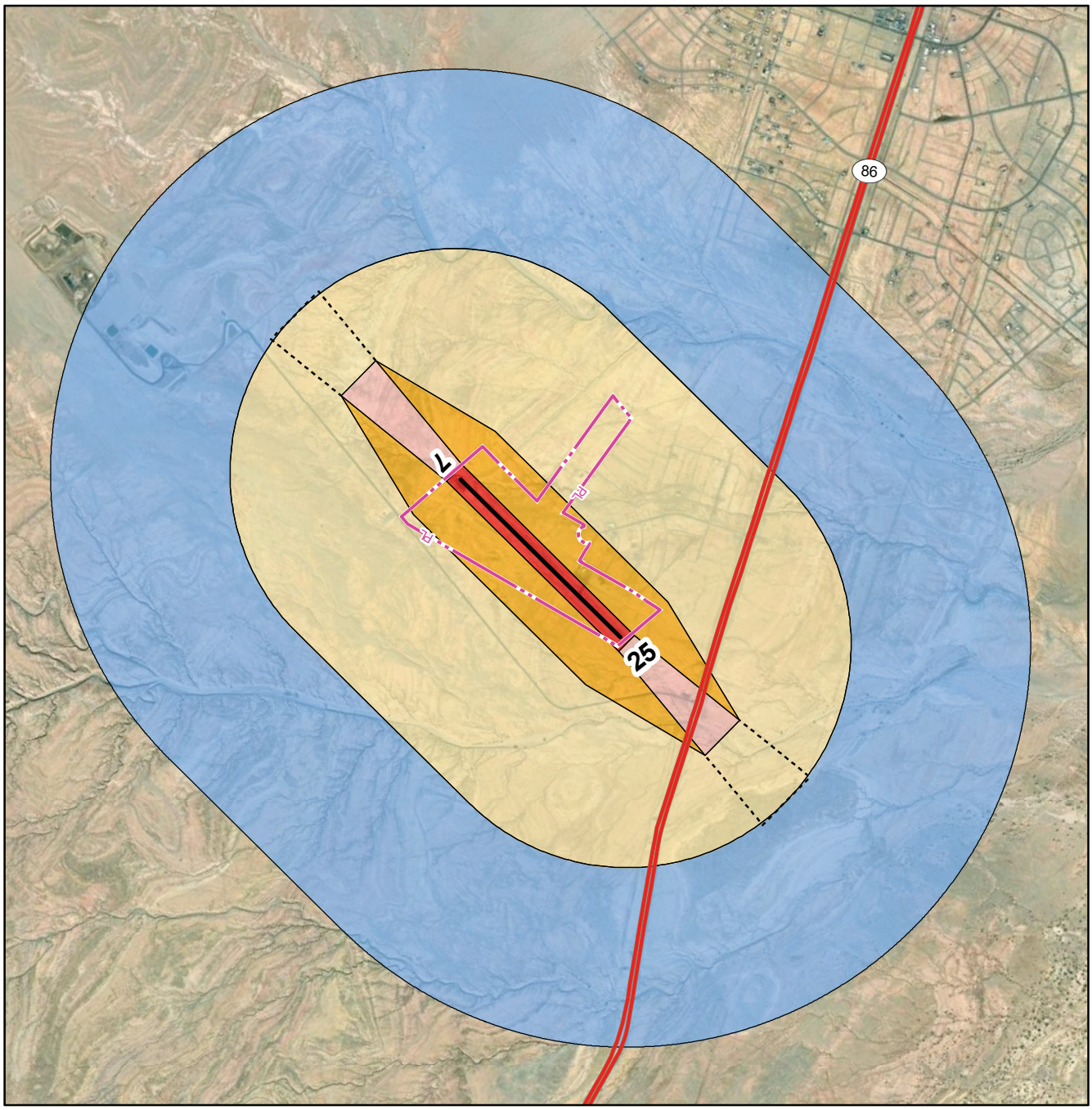


Legend

- Runway Centerline[1]
- Outer Approach Surface Extents
- Airport Property Line
- Highways
- Horizontal
- Conical

Part 77 Surfaces[2]

- Primary
- Approach
- Transitional

0 3,500 7,000

1" = 3,500'

[1]5010 Airport Master Record

[2]No runway end elevation was available. Part 77 surfaces were drawn assuming a non-sloping runway (see 14 CFR, Subchapter E, Part 77).

Note: This exhibit represents both existing and future conditions.

Source: ESRI Basemap Imagery (2022),

The traffic pattern for Runway 7 is a non-standard right-handed pattern whereas Runway 26 is a standard left-handed traffic pattern. There are no established instrument approach procedures.

The airport is not attended and does not offer any services. The airport perimeter is partially fenced.

The following Imperial Valley Transit routes exist in the airport vicinity:

- MTS 891: Borrego Springs via Shelter Valley - El Cajon
- MTS 892: Borrego Springs via Ranchita - El Cajon

FUTURE AIRPORT PLANS

As shown on the Airport Diagram (**Exhibit F3**), the airport is expected to remain the same in the future condition.

AIRPORT ENVIRONS

EXISTING LAND USES

Existing land uses are shown on **Exhibit F4**.

The airport property is located entirely within unincorporated Imperial County jurisdiction. The land surrounding the airport is mostly undeveloped. There are single-family residences to the north, and the Imperial County Landfill to the southwest.

ZONING

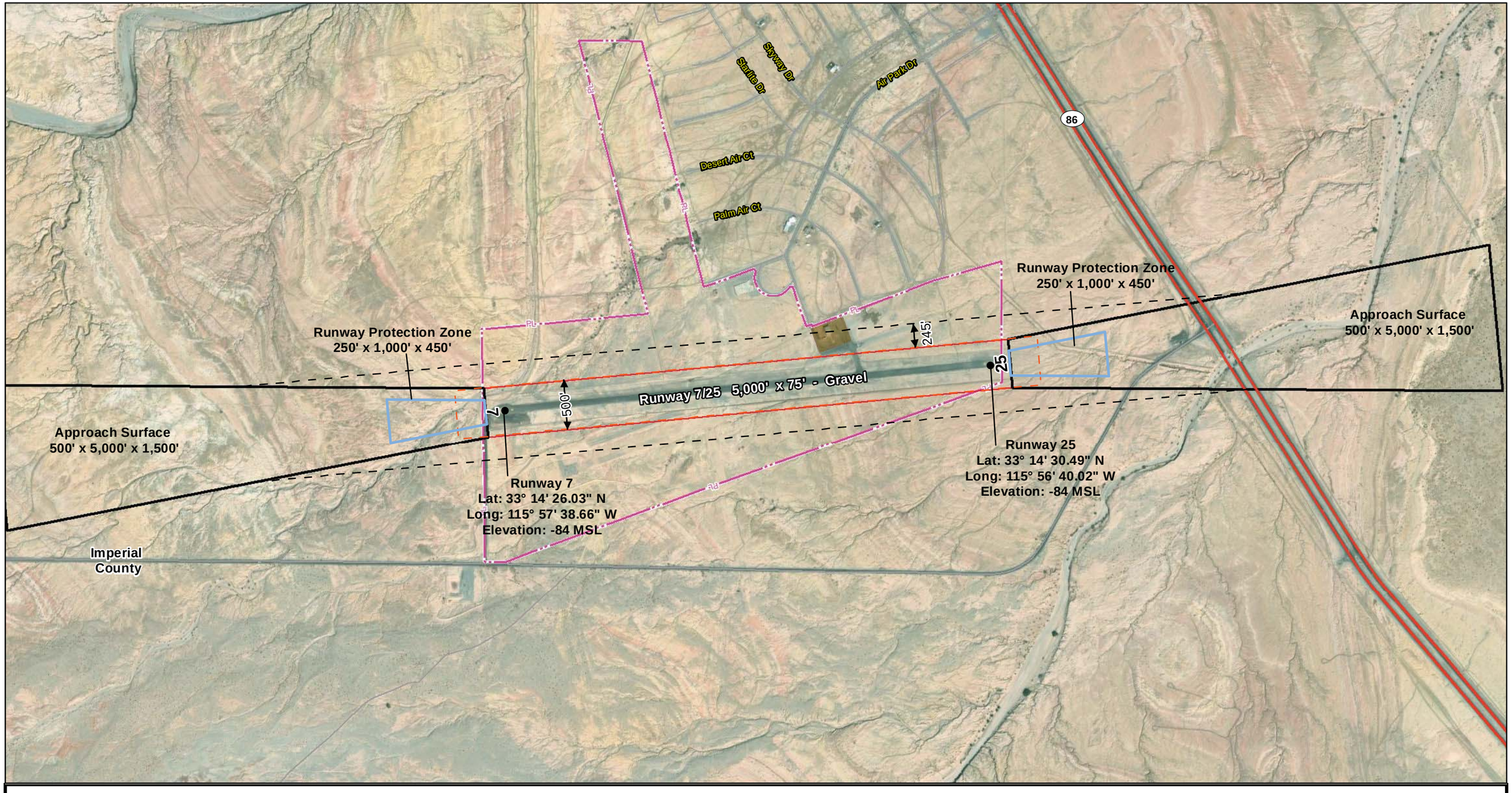
Exhibit F5 shows zoning in the AIA.

According to the Imperial County zoning map, airport property is zoned Open Space/Recreation (S-1) and Mixed Use (M-1), with land to the north zoned for Single Family Residential (S-1). To the east, lands are designated as either State or Bureau of Land Management.

GENERAL PLAN

General plan land uses are shown on **Exhibit F6**.

Imperial County updated its General Plan in 1993, and the Land Use Element of the General Plan was updated in 2015. **Exhibit F6** represents the planned land uses for the county based on the goals and objectives outlined in this plan. The Imperial County General Plan designates airport property and the area to the north as Urban, and designates the area to the south as Recreation.



- Runway End Points
- 35' Building Restriction Line
- Runway Protection Zone
- Object Free Area [1]
- Apron
- Highway
- **Part 77 Surface**
- Primary
- Approach
- Airport Property Line
- Parcels APN

Runway Data taken from 5010 Airport Master Record
[1] AC 150-5300 13B Table G-3
Imperial County ArcGIS website, Derek Newland

Sources: Imperial County Parcels, Imperial County Streets, ESRI Basemap Imagery (2023).

N

0 1,000 2,000

1" = 1,000'

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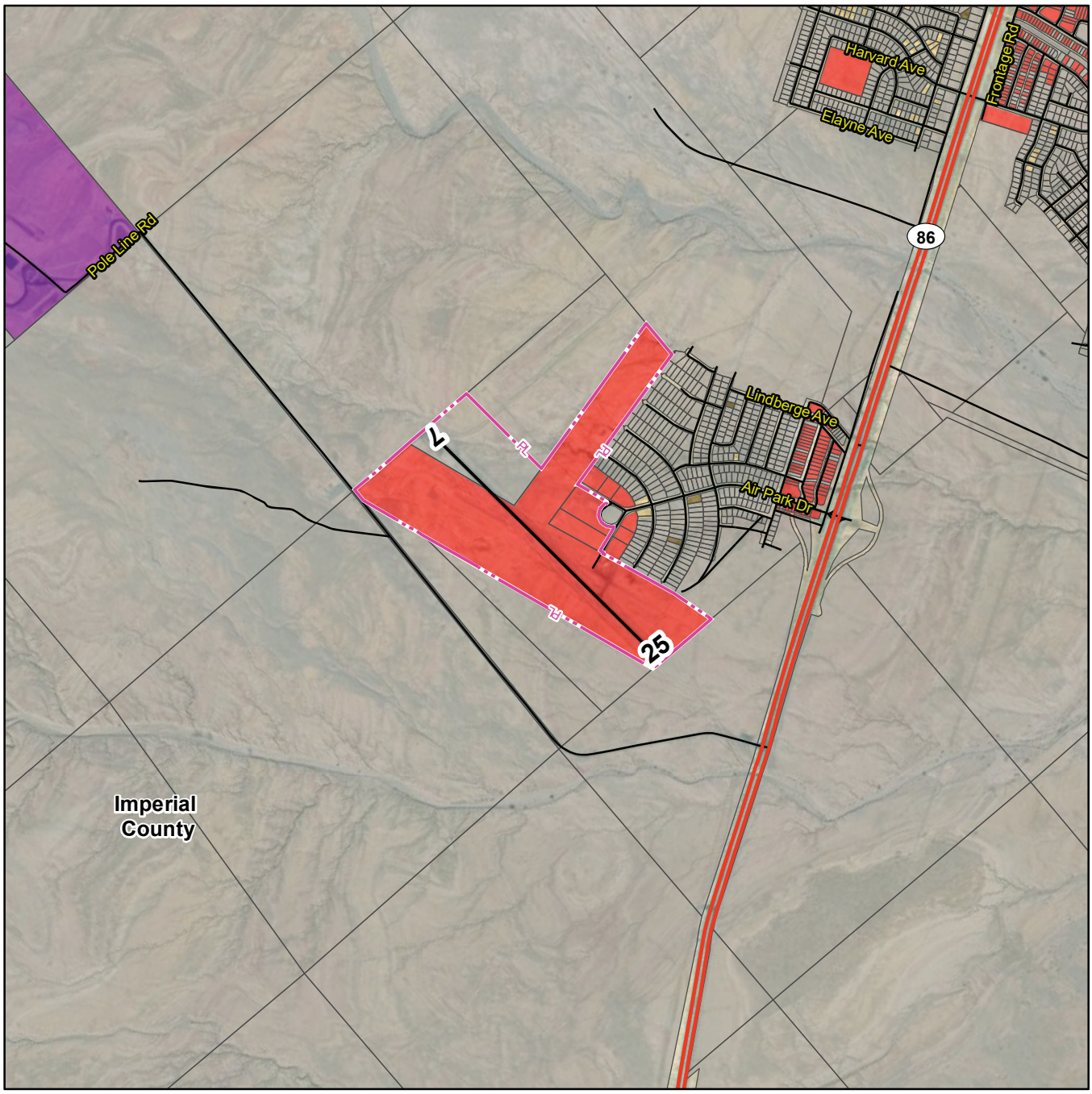


Legend

- Existing Runway[1]
- Airport Property Line[2]
- Highway
- Railroad
- Streets
- Parcels

Existing Land Use[2]

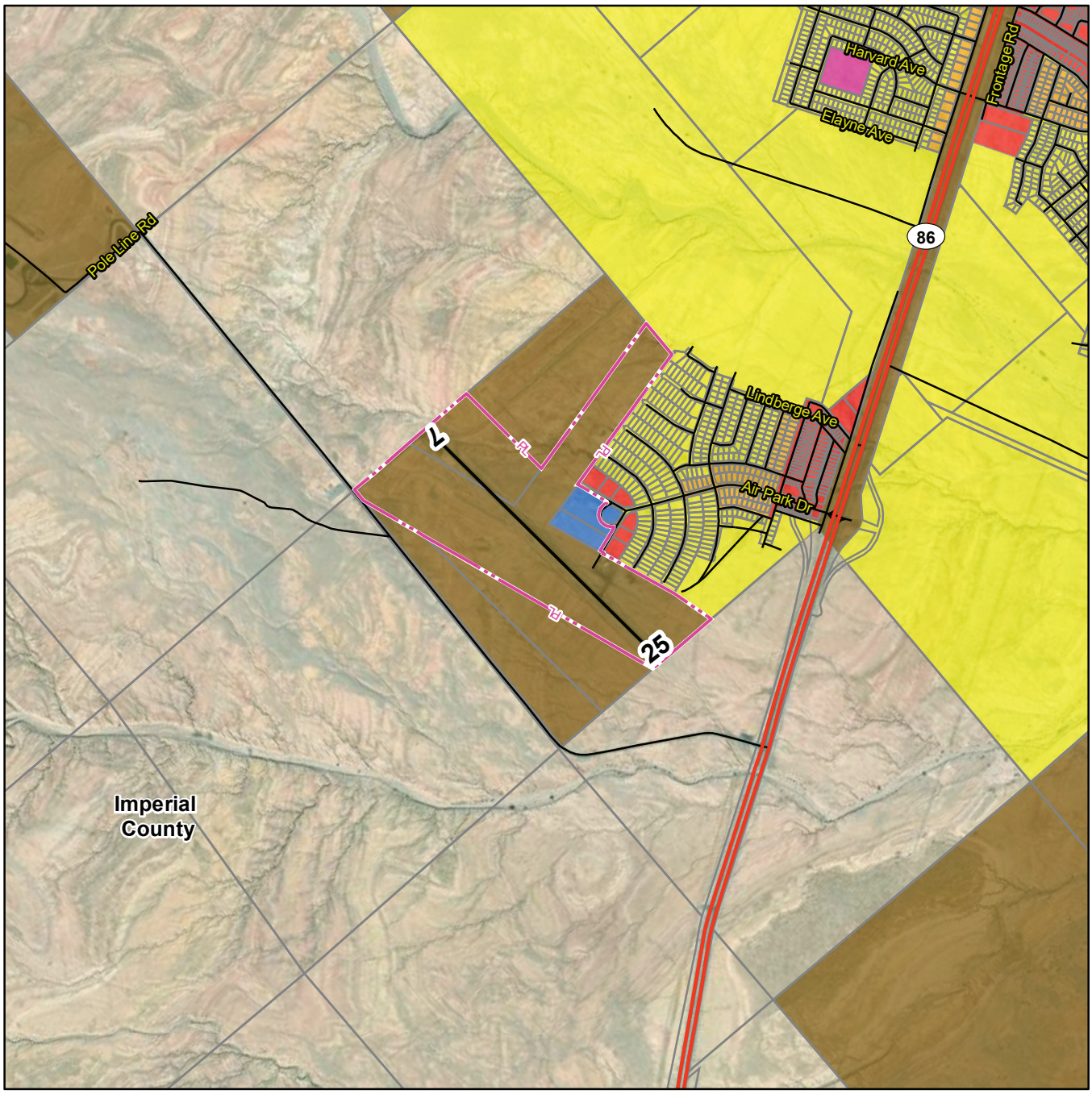
- Commercial
- Industrial
- Noise Sensitive - Places of Worship
- Residential Single-Family
- Multifamily Residential - Low Density
- Residential - Mobile Home Park
- Vacant

0 2,500 5,000

1" = 2,500'

[1]FAA Form 5010 Airport Master Record
[2]Imperial County Assessor's Office Tax Parcels

Sources: Imperial County Assessor's Office Parcel Data (2024), Imperial County Streets,ESRI Basemap Imagery (2023), Coffman Associates Analysis



Legend

- Existing Runway[1]
- Airport Property Line
- Highway
- Railroad
- Streets
- Parcels APN

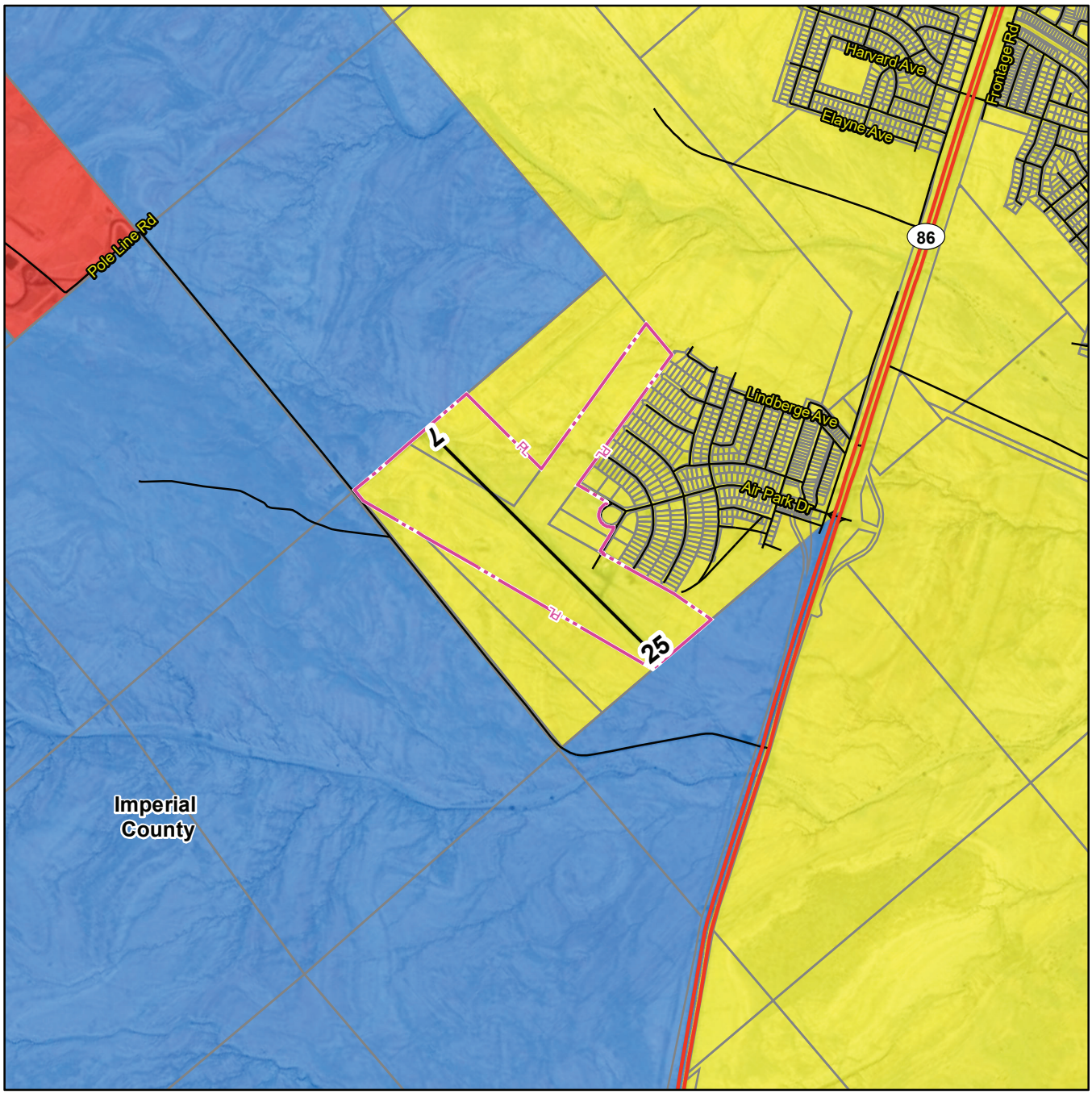
Zoning[2]

- Commercial
- Industrial
- Military Use
- Mixed Use
- Public Facitlity
- Single Family Residential
- Multi-Family Resisdential
- Rural Residedntial
- Limited Agriculture

0 2,500 5,000
FEET

[1]5010 Airport Master Record
[2]Imperial County ArcGIS website, Derek Newland

Sources: Imperial County Parcels, Imperial County Streets,ESRI Basemap Imagery (2023).



Legend

- Existing Runway[1]
- Airport Property Line
- Highway
- Railroad
- Streets
- Parcels APN

General Plan[2]

- Special
- Urban
- Recreation
- Agriculture

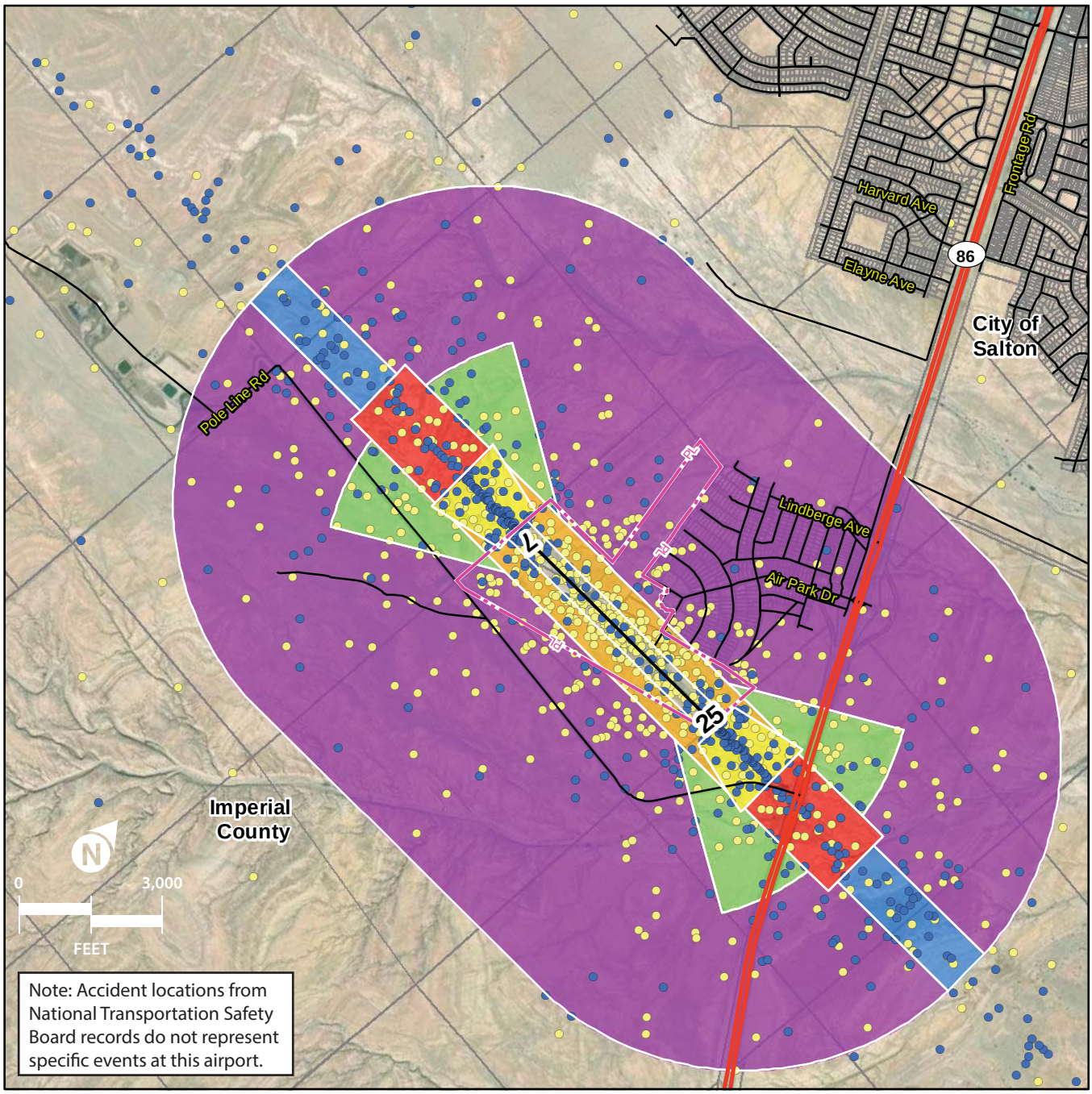
0 2,500 5,000
FEET

[1]5010 Airport Master Record
[2]Imperial County ArcGIS website, Derek Newland

Sources: Imperial County Parcels, Imperial County Streets,ESRI Basemap Imagery (2023).

COMPATIBILITY FACTORS

Exhibit F7 is a compatibility factors map, which compiles National Transportation Safety Board flight accident data for all airports in the United States, noise exposure contours, and arrival and departure flight tracks from the noise exposure contours. The purpose of this exhibit is to illustrate the methodology behind the shape and size of the safety, noise, and airspace compatibility zones.



LEGEND

- Airport Property Line
- Existing Runway[1]
- Arrival Accidents[3]
- Departure Accidents[3]
- Highway
- Railroad
- Streets
- Parcels

SAFETY ZONES[2]

- Traffic Pattern Zone
- Inner Approach/Depature Zone
- Inner Turning Zone
- Outer Apporach/Departure Zone
- Sideline Zone
- Runway Protection Zone

[1]5010 Airport Master Record

[2]Figure 3A, California Airport Land Use Planning Handbook (2011), and Coffman Associates Analysis

[3]California Airport Land Use Planning Handbook, 2011. Normalized from airports in United States.

Sources: Imperial County Parcels, Imperial County Streets, Airport Layout Plan (2023), (1996). ESRI Basemap Imagery (2023).

Appendix G

Naval Air Facility (NAF) El Centro

Imperial County Airport Land Use Compatibility Plan

Appendix G

NAVAL AIR FACILITY (NAF) EL CENTRO

Appendix G includes the land use compatibility criteria and maps for Naval Air Facility (NAF) El Centro. NAF El Centro is located in western Imperial County, approximately six miles northwest of El Centro, CA, in the Imperial Valley. This plan will focus on the policies and information relevant to the components of the Airport that are influenced by Imperial County.

The airfield at NAF El Centro was constructed in 1941 during World War II as a Marine Corps Air Station and was later commissioned as a naval facility in 1946. The facility remained in use after the war as a Joint Parachute Test Range for aeronautical escape system testing, evaluation, and design. The facility became a Naval Air Facility in 1973 and has since provided a location for active and reserve Naval aviation units to perform aviation training activities. The Blue Angels, a United States (U.S.) Navy Flight Demonstration Squadron, are based at NAF El Centro during the winter months.

The U.S Department of Defense has established two type of studies to promote compatible land use near military installations. The first is the Air Installation Compatible Use Zones (AICUZ) program, which includes noise exposure contours and accident potential zones. The second is the Joint Land Use Study, which is a cooperative effort between the Department of Defense and surrounding communities to prepare land use planning documents to establish compatibility criteria for land uses near military installations. The following two documents were prepared for NAF El Centro:

- *Air Installations Compatible Use Zones (AICUZ) Study Update for Naval Air Facility (NAF) El Centro, CA,* December 2010
- *NAF El Centro Joint Land Use Study,* June 2014

Both reports include recommended land use compatibility measures intended for implementation at and near Imperial County airports.

NOISE

Exhibit G1 depicts the noise exposure contours provided by the AICUZ for NAF El Centro. Compatibility criteria for these zones can be found in **Exhibit G2,** *Table C-1, Suggested Land Use Compatibility in Noise Zones* (OPNAVINST 11010.36C), included at the end of this appendix.

SAFETY ZONES

Exhibit G3 depicts the Accident Potential Zones for NAF El Centro provided by the AICUZ for NAF El Centro. Compatibility criteria for the zones can be found in **Exhibit G4**, *Table C-2, Suggested Land Use Compatibility in Accident Potential Zones* (OPNAVINST 11010.36C), included at the end of this appendix.

LAND USE

Exhibit G5 depicts the existing land use surrounding NAF El Centro, **Exhibit G6** depicts the General Plan land use, and **Exhibit G7** depicts the zoning designations surrounding NAF El Centro.

AIRPORT INFORMATION

AIRPORT FACILITIES

Airport Facilities are summarized in **Table G1**. The airport has an Air Traffic Control Tower (ATCT) which is attended each day except for Sundays and holidays. There is a lighted military beacon which operates from sunset to sunrise. The airport has two runways, Runway 8-26 and Runway 12-30. All runway ends have a standard left-hand traffic pattern.

Runway 8-26 is 9,503 feet long and 200 feet wide. It is made of asphalt with porous friction courses and the pavement is in good condition. The runway pavement strength rating is up to 130,000 pounds for double dual tandem, 102,000 pounds for double tandem, 80,000 pounds for dual wheel, and 60,000 pounds for single wheel landing gear aircraft. The runway has high intensity edge lighting and is equipped with an obstacle landing system. The touchdown point is nonlighted and no runway end identifier lights are present. There are no visual approach aids; however, there are non-precision GPS instrument approaches to both runway ends and a TRACAN-A circling approach at the airport.

Runway 12-30 is 6,835 feet long and 200 feet wide. It is made of asphalt and the pavement is in good condition. The runway pavement strength rating is up to 50,000 pounds for single wheel and dual wheel landing gear aircraft. The runway has high intensity edge lighting and a nonlighted touchdown point. There are no runway end identifier lights or visual approach aids; however, the airport has TRACAN-A circling approach and Runway 30 has a non-precision GPS instrument approach.

TABLE G1 | Airport Facilities – NAF El Centro

	Runway 8-26	Runway 12-30
RUNWAY(S)		
Length (feet)	9,503'	6,825'
Width (feet)	200'	200'
Threshold Displacement (feet)	N/A	N/A
Runway Pavement Surface Material	Asphalt	Asphalt
Runway Pavement Surface Treatment	Porous friction courses	N/A
Runway Pavement Condition	Good	Good
Runway Pavement Load Bearing Strength (lbs)		
Single Wheel	60,000	50,000
Dual Wheel	80,000	50,000
Dual Tandem	N/A	N/A
Double Tandem	102,000	N/A
Double Dual Tandem	130,000	N/A

Continues on next page.

TABLE G1 | Airport Facilities – NAF El Centro (continued)

	Runway 8-26	Runway 12-30
Runway Pavement Markings		
Non-precision	Non-precision	Non-precision
Fair	Fair	Fair
Runway Lighting		
Runway Edge Lighting	HIRL	HIRL
Approach Lights	OLS	N/A
Touchdown Point	Yes, no lights	Yes, no lights
Traffic Pattern	Left | Left	Left | Left
Runway End Identifier Lights (REILs)	No	No
VISUAL APPROACH AIDS		
Type	N/A	N/A
Glide Path	N/A	N/A
INSTRUMENT APPROACH AIDS		
Instrument Landing System (ILS)	N/A	N/A
Global Positioning System (GPS)	Yes | Yes	No | Yes
VOR/DME	No | No	No | Yes
TACAN-A	Circling	Circling

Source: AirNav (June 2024) www.airnav.com/airport/KNJK

The following Imperial Valley Transit routes exist in the airport vicinity:

- 2N: El Centro to Niland/ 2S: Niland to El Centro
- 3E: El Centro to Holtville/ 3W: Holtville to El Centro
- 4E: Seely to El Centro/ 4W: El Centro to Seely
- Green: El Centro

Additionally, Appendix F: Regional Highway & Roadway Projects of the Imperial County Transportation Long Range Transportation Plan (ICTC LRTP) identifies the following projects near the airport:

- BR-24: Replace and/or Rehabilitate Various County Bridges along Various Major Corridors (Worthington Rd)
- TR-24: New Transit Stop at NAF El Centro (Bennett Rd)

Appendix H

Implementation Tools and Documents

Imperial County Airport Land Use Compatibility Plan

Appendix H

IMPLEMENTATION TOOLS AND DOCUMENTS

This appendix provides information helpful to the implementation of the Airport Land Use Compatibility Plan (ALUCP). This information is current as of the publication date of the ALUCP. Users are advised to check for updated documentation for these tools.

- Local Agency ALUCP Implementation Guide
- Review Procedures
- FAA Form 7460-1 Guide
- Guidance for Calculating Land Use Intensity
- General Plan Consistency Checklist
- Sample Avigation Easement
- Sample Deed Notice

Additional information regarding this topic can be found on the Caltrans Division of Aeronautics Website: http://www.dot.ca.gov/aeronaut/index.html

LOCAL AGENCY ALUCP IMPLEMENTATION GUIDE

This guide is provided to help affected local agencies when modifying their general plans and other local regulations to be consistent with the ALUCPs and to facilitate Airport Land Use Commission (ALUC) review of those local agency plans and regulations.

General Plan — A general plan, and any specific, community, or other land use plan may be more restrictive than the ALUCPs. However, these plans may not be more permissive than the ALUCPs. General plan amendments will be required if there are any conflicts with the ALUCPs (unless those conflicts represent existing conditions).

Land Use Element — General plan land use designations may not exceed ALUCP safety compatibility standards or allow land uses which are incompatible to be located within safety zones. Designations reflecting existing conditions already in excess of ALUCP safety standards do not render a general plan inconsistent with the ALUCPs. However, new development of vacant property, redevelopment, or a change of use within an existing structure must comply with ALUCP safety standards.

Noise Element — Maximum noise exposure limits for planned/proposed land uses established in a general plan may not be more permissive than the limits established by the ALUCPs. However, a general plan may establish more restrictive limits with respect to aviation-related noise than for noise from other sources, in consideration that aviation-related noise is often judged to be more objectionable than other types of noise.

Zoning Ordinance — If a local agency chooses to implement the ALUCPs through its zoning ordinance, modification of a general plan to achieve consistency with the ALUCPs is typically not necessary. Modifications should eliminate any language conflicting with the ALUCPs and make reference to the zoning ordinance.

Intensity Limitations on Nonresidential Uses — While zoning ordinances are typically not based on people per acre intensities for nonresidential land uses, such policies can be established by other performance-oriented criteria that correspond to the ALUCPs. These include limits on building area, floor area ratios, parking spaces, or other design parameters equivalent to the usage intensity criteria.

Prevention of Incompatible Uses — Provision must be made to prohibit land uses that are not consistent within the safety zones or noise contours and are not existing at the time of ALUCP adoption.

Height Limitations and Other Hazards to Flight — To protect airspace, limitations must be set on the height of new structures and other objects equivalent to the maximum heights established by 14 CFR Part 77 and codified by the ALUCPs. Restrictions must also be established on other land use characteristics that can cause hazards to flight, such as visual or electronic interference with navigation and uses that attract wildlife.

Sound Performance Requirements — The ALUCPs requires reduced sound performance levels of structures for certain noise-sensitive uses within high noise-impact areas in order to reduce aircraft-related noise to an acceptable level. Local regulations must include equivalent criteria.

Avigation Easements — As a condition of approval for new development within certain noise contours or involving airspace penetrations, the ALUCPs require dedication of an avigation easement to the airport operator. Local regulations must address these requirements for new development.

Expansion and Reconstruction — Local agency regulations regarding the expansion and reconstruction of uses must be equivalent to or more restrictive than those in the ALUCPs. Local agency regulations must ensure that existing uses which are incompatible with noise or safety policies of the ALUCPs are subject to the limitations imposed by the ALUCPs.

REVIEW PROCEDURES

In addition to incorporation of ALUC compatibility criteria, local agency implementing documents must specify the manner in which land use plans, regulations, and projects will be reviewed for consistency with the compatibility standards.

Actions Always Requiring ALUC Review — All local agency legislative actions require ALUC review regardless of whether or not the agency has an ALUCP implementation plan that has been approved by the ALUC and adopted by the local agency's governing body, or if the local agency has overruled the ALUCPs. These legislative actions include the adoption of or amendments to a general plan or any specific, community, or other land use plans. Also included are amendments to a zoning ordinance (such as rezones) or building code which would impact matters regulated by the ALUCPs.

Process for Compatibility Reviews by Local Agencies — Local agencies must establish project processing procedures that will be used to ensure that ALUCP compatibility policies and standards are addressed during project reviews, whether discretionary or ministerial. This can be accomplished by a standard review procedure checklist that includes reference to ALUCP compatibility standards and use of a GIS-based program to identify all parcels within the airport influence area.

Variances and Deviations — Local agency procedures for granting variances and deviations to a zoning ordinance must include provisions to ensure that they do not result in a conflict with ALUCP compatibility standards. Any variance or deviation that involves issues of noise, safety, or airspace protection compatibility, as addressed in the ALUCPs, should be referred to the ALUC for review.

Condition Satisfaction and Enforcement — Policies must be established to ensure compliance with ALUCP compatibility standards during both the permitting process and the lifetime of the development. Enforcement procedures are especially necessary with regard to adhering to limitations on safety zone densities and intensities.

PROJECT FAA FORM 7460-1 GUIDE

The FAA Form 7460-1 may be filed electronically at: https://oeaaa.faa.gov/oeaaa/external/portal.jsp. When FAA review is required, a copy of the FAA notice of determination letter must be included with any ALUC application for determination of consistency.

GUIDANCE FOR CALCULATING LAND USE INTENSITY

The following contains guidance on how to calculate the intensity of land uses (the number of people per acre) based on Methods for Determining Concentrations of People, Appendix G of the California Airport Land Use Planning Handbook from 2011 (hereafter referred to as Handbook).[1]

As stated on page G-1 in Appendix G of the Handbook, "the most difficult part about making a people-per-acre determination is estimating the number of people likely to use a particular facility. There are several methods which can be utilized, depending upon the nature of the proposed use:

- **Parking Ordinance:** The number of people present in a given area can be calculated based upon the number of parking spaces provided. Traffic studies can be used to develop an assumption regarding the number of people per vehicle. The number of people per acre can then be calculated by dividing the number of people on-site by the size of the parcel in acres. This approach is appropriate where the use is expected to be dependent upon access by vehicles. Depending upon the specific assumptions utilized, this methodology typically results in a number in the low end of the likely intensity for a given land use.

[1] https://dot.ca.gov/-/media/dot-media/programs/aeronautics/documents/californiaairportlanduseplanninghandbook-a11y.pdf

- **Maximum Occupancy:** The International Building Code (IBC) can be used as a standard for determining the maximum occupancy of certain uses. The chart provided as **Table H1** indicates the required number of square feet per occupant. The number of people on the site can be calculated by dividing the total floor area of a proposed use by the minimum square feet per occupant requirement listed in the table. The maximum occupancy can then be divided by the size of the parcel in acres to determine the number of people-per-acre. Surveys of actual occupancy levels conducted by various agencies have indicated that many retail and office uses are generally occupied at no more than 50 percent of their maximum occupancy levels, even at the busiest times of day. Therefore, the number of people calculated for office and retail uses should usually be adjusted (50%) to reflect the actual occupancy levels before making the final people-per-acre determination. Even with this adjustment, the IBC-based methodology typically produces intensities at the high end of the likely range."[2]

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

TABLE H1 | Maximum Floor Area Allowances per Occupant

Function of Space	Floor Area in Square Feet per Occupant
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Waiting areas	15 gross
Assembly	
Gaming floors (keno, slots, etc.)	11 gross
Exhibit gallery and museum	30 net
Assembly with fixed seats	See Section 1004.6
Assembly without fixed seats	
Concentrated (chairs only – not fixed)	7 net
Standing space	5 net
Unconcentrated (tables and chairs)	15 net
Bowling centers (allow five persons for each lane, including 15 feet of runway, and for additional areas)	7 net
Business areas	150 gross
Courtrooms – other than fixed seating areas	40 net
Daycare	35 net
Dormitories	50 gross
Educational	
Classroom area	20 net
Shops and other vocational room areas	50 net
Exercise rooms	50 gross
H-5 fabrication and manufacturing areas	200 gross

Continues on next page

[2] Page G-1, Appendix G of the California Airport Land Use Planning Handbook (2011)

TABLE H1 | Maximum Floor Area Allowances per Occupant (continued)

Function of Space	Floor Area in Square Feet per Occupant
Industrial areas	100 gross
Institutional areas	
Inpatient treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Library	
Reading rooms	50 net
Stack area	100 gross
Locker rooms	50 gross
Mercantile	60 gross
Storage, stock, shipping areas	300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross
Stages and platforms	15 net
Warehouses	500 gross
1 square foot = 0.0929 m^2	

Source: International Building Code (2018) (Note: A more current version of the IBC table may be used when available.)

IBC SECTION 1004.6 FIXED SEATING

Below is the relevant IBC section for calculating occupant load of assembly with fixed seats uses, as referenced in **Table H1**.

"For areas having *fixed seats* and *aisles*, the *occupant load* shall be determined by the number of *fixed seats* installed therein. The *occupant load* for areas in which *fixed seating* is not installed, such as waiting spaces, shall be determined in accordance with Section 1004.5 and added to the number of *fixed seats*.

The *occupant load* of *wheelchair spaces* and the associated companion seat shall be based on one occupant for each *wheelchair space* and one occupant for the associated companion seat provided in accordance with Section 1109.2.3.

For areas having *fixed seating* without dividing arms, the *occupant load* shall be not less than the number of seats based on one person for each 18 inches (457 mm) of seating length.

The *occupant load* of seating booths shall be based on one person for each 24 inches (610 mm) of booth seat length measured at the backrest of the seating booth."[3]

[3] Section 1004, Occupant Load, Subsection 1004.6, Fixed seating of the International Building Code (2018)

EXAMPLE CALCULATIONS

The following examples are adapted from the Handbook and reflect current Unincorporated Imperial County parking space requirements for illustrative purposes. Implementation of intensity guidance will require calculation by local agency planning staff and use of the most up-to-date development standards.

EXAMPLE 1

Proposed Development: Single-floor, 24,000-square-foot furniture store

A. Calculation Based on Parking Space Requirements

Assume local code requires one parking space per 250 square feet (sf) of use area for a furniture store. Next, assume 1.5 people per automobile for this type of use.

The usage intensity would be:

1) Minimum of 8 parking spaces + 24,000-sf building / 250 sf (1.0 parking space per 250 sf) = 96 additional parking spaces = 104 total required parking spaces
2) 104 parking spaces x 1.5 people per space = 156 people maximum on site
3) 24,000-sf building footprint / 43,560 sf per acre = 0.52-acre building footprint
4) Assuming a relatively balanced occupancy throughout the building and minimal outdoor uses, the usage intensity for a single acre is estimated to be:
    a) Building footprint < 1.0 acre; therefore, maximum people in one acre = building occupancy = 156 people expected per single acre

B. Calculation Based on International Building Code

For the purposes of the IBC-based methodology, the furniture store is assumed to consist of 50 percent retail sales floor (at 60 sf per occupant) and 50 percent warehouse (at 500 sf per occupant); therefore, usage intensities would be estimated as follows:

1) 12,000-sf retail floor area / 60 sf per occupant = 200-person maximum occupancy in retail area
2) 12,000-sf warehouse floor area / 500 sf per occupant = 24-person maximum occupancy in warehouse area
3) Maximum occupancy under IBC assumptions = 200 + 20 = 224 people maximum
4) Assuming typical peak occupancy is 50 percent of IBC numbers = 112 people
5) 112 people / 1 acre gross site size = 112 people expected per single acre

The two methods produce similar results.

EXAMPLE 2

Proposed Development: Single-floor industrial building containing a 95,000-sf warehouse area and 5,000-sf office

A. Calculation Based on Parking Space Requirements

Assume local code requires one parking space per 1,000 sf of use area for industrial businesses and one parking space per 250-sf office. Next, assume one person per automobile for this type of use.

The usage intensity would be:

1) 100,000-sf warehouse / 1,000 sf (1.0 parking space per 1,000 sf) = 100 required parking spaces
2) 5,000-sf office / 250 sf (1.0 parking space per 250 sf) = 20 required parking spaces
3) Maximum required parking spaces under local code = 100 warehouse + 20 office = 120 total parking spaces
4) 120 parking spaces x 1 person per space = 120 people maximum on site
5) 105,000-sf building footprint / 43,560 sf per acre = 2.41-acre building footprint
6) 120 people on site / 2.41-acre footprint = 48 people expected per single acre

B. Calculation Based on International Building Code

For the purposes of the IBC-based methodology, intensities would be estimated as follows:

1) 100,000-sf industrial area / 100sf per occupant = 1,000 people maximum occupancy in warehouse area
2) 5,000-sf business area / 150 sf per occupant = 33 people maximum occupancy in office area
3) Maximum occupancy under IBC assumptions = 1,000 + 33 = 1,033 people maximum
4) Assuming typical peak occupancy is 50 percent of IBC numbers = 517 people
5) 517 people / 2.41 acres gross site size = 214 people expected per single acre

In this instance, the two methods produce very different results. The occupancy estimate of 100 square feet per person is likely low for an industrial facility, even after the 50% adjustment. The 48 people-per-acre estimate using the parking requirement methodology is probably more realistic. The Airport Land Use Commission and local jurisdiction should decide which methodology or combination of methods to use in reviewing development proposals.

GENERAL PLAN CONSISTENCY CHECKLIST

This checklist is intended to assist local agencies with modifications necessary to make their local plans and other local policies consistent with the ALUCP. It is also designed to facilitate Airport Land Use Commission reviews of these local plans and policies.

GENERAL PLAN DOCUMENT

The following items typically appear directly in a general plan document. Amendment of the general plan will be required if there are any conflicts with the ALUCP.

General Plan Consistency Review Checklist	
General Plan Item	**Reference**
Land Use Map — No direct conflicts should exist between proposed new land uses indicated on a general plan land use map and the ALUC land use compatibility criteria	
Residential densities (dwelling units per acre) should not exceed the set limits.	
Proposed nonresidential development needs to be assessed with respect to applicable intensity limits.	
No new land uses of a type listed as specifically prohibited should be shown within affected areas.	
Noise Element — General plan noise elements typically include criteria indicating the maximum noise exposure for which residential development is normally acceptable. This limit must be made consistent with the equivalent ALUCP criteria. Note, however, that a general plan may establish a different limit with respect to aviation-related noise than for noise from other sources (this may be appropriate in that aviation-related noise is sometimes judged to be more objectionable than other types of equally loud noises).	

ZONING OR OTHER POLICY DOCUMENTS

The following items need to be reflected either in the general plan or in a separate policy document such as a combining zone ordinance. If a separate policy document is adopted, modification of the general plan to achieve consistency with the ALUCP may not be required.

Modifications would normally be needed only to eliminate any conflicting language which may be present and to make reference to the separate policy document.

General Plan Consistency Review Checklist – Zoning/Other	
Policy Item	**Reference**
Intensity Limitations on Nonresidential Uses — ALUCPs may establish limits on the usage intensities of commercial, industrial, and other nonresidential land uses. This can be done by duplication of the performance-oriented criteria—specifically, the number of people per acre—indicated in the ALUCP. Alternatively, ALUCs may create a detailed list of land uses which are allowable and/or not allowable within each compatibility zone. For certain land uses, such a list may need to include limits on building sizes, floor area ratios, habitable floors, and/or other design parameters which are equivalent to the usage intensity criteria.	The County of Imperial utilizes duplication of the performance-oriented ALUCP criteria, per Division 6, Airport Zoning, Section 90601.08 General Plan. 1. The requirements and map for each Airport identified within the Airport Land Use Compatibility Plan hereby adopted and incorporated within this Title as though full set forth herein. 2. The map of any airport enumerated or an amendment thereto, is hereby approved as the official map for the zoning purposes of this Division and shall be on file in the office of the Planning & Development Services Department; and the same shall be a part of this Division, subject to the amendments thereof from time to time as may be necessary.
Identification of Prohibited Uses — ALUCPs may prohibit schools, day care centers, assisted living centers, hospitals, and other uses within a majority of an airport's influence area. The facilities often are permitted or conditionally permitted uses within many commercial or industrial land use designations.	
Open Land Requirements — ALUCP requirements, if any, for assuring that a minimum amount of open land is preserved in the airport vicinity must be reflected in local policies. Normally, the locations which are intended to be maintained as open land would be identified on a map with the total acreage within each compatibility zone indicated. If some of the area included as open land is private property, then policies must be established which assure that the open land will continue to exist as the property develops. Policies specifying the required characteristics of eligible open land should also be established.	
Infill Development — If an ALUCP contains infill policies and a jurisdiction wishes to take advantage of them, the lands that meet the qualifications must be shown on a map.	

Continues on next page

General Plan Consistency Review Checklist – Zoning/Other (continued)	
Policy Item	**Reference**
Height Limitations and Other Hazards to Flight —To protect the airport airspace, limitations must be set on the height of structures and other objects near airports. These limitations are to be based upon FAR Part 77. Restrictions also must be established on other land use characteristics which can cause hazards to flight (specifically, visual or electronic interference with navigation and uses which attract birds). Note that many jurisdictions have already adopted an airport-related hazard and height limit zoning ordinance which, if up to date, will satisfy this consistency requirement.	
Buyer Awareness Measures — Besides disclosure rules already required by state law, as a condition for approval of development within certain compatibility zones, some ALUCPs require either dedication of an avigation easement to the airport proprietor or placement on deeds of a notice regarding airport impacts. If so, local agency policies must contain similar requirements.	
Nonconforming Uses and Reconstruction — Local agency policies regarding nonconforming uses and reconstruction must be equivalent to or more restrictive than those in the ALUCP, if any.	

REVIEW PROCEDURES

In addition to the incorporation of ALUCP compatibility criteria, the local agency implementing these documents must specify the manner in which development proposals will be reviewed for consistency with the compatibility criteria as outlined below.

Actions Always Required to be Submitted for Airport Land Use Commission Review — PUC Section 21676 identifies the types of actions that must be submitted for airport land use commission review. Local policies should either list these actions or, at a minimum, note the local agency's intent to comply with the state statute.

Other Land Use Actions Potentially Subject to Airport Land Use Commission Review — In addition to the above actions, ALUCPs may identify certain major land use actions for which referral to the Airport Land Use Commission is dependent upon agreement between the local agency and Airport Land Use Commission. If the local agency fully complies with all of the items in this general plan consistency check list or has taken the necessary steps to overrule the Airport Land Use Commission, then referral of the additional actions is voluntary. On the other hand, a local agency may elect not to incorporate all of the necessary compatibility criteria and review procedures into its own policies. In this case, referral of major land use actions to the Airport Land Use Commission is mandatory. Local policies should indicate the local agency's intentions in this regard.

Process for Compatibility Reviews by Local Agencies — A local agency chooses to submit only the mandatory actions for Airport Land Use Commission review, then it must establish a policy indicating the procedures which will be used to assure that airport compatibility criteria are addressed during review of other projects. Possibilities include: a standard review procedure checklist which includes reference to compatibility criteria; use of a geographic information system to identify all parcels within the airport influence area; etc.

Variance Procedures — Local procedures for granting of variances to the zoning ordinance must make certain that any such variances do not result in a conflict with the compatibility criteria. Any variance that involves issues of noise, safety, airspace protection, or overflight compatibility as addressed in the ALUCP must be referred to the ALUC for review.

Enforcement — Policies must be established to ensure compliance with compatibility criteria the lifetime of the development. Enforcement procedures are especially necessary with regard to limitations on usage intensities and the heights of trees. An airport combining district zoning ordinance is one means of implementing enforcement requirements.

SAMPLE AVIGATION EASEMENT

This indenture made this ____ day of _____, 20___, between _____, hereinafter referred to as Grantor, and the **[INSERT COUNTY OR CITY NAME]**, a political subdivision in the State of California, hereinafter referred to as Grantee.

The Grantor, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby grant to the Grantee, its successors and assigns, a perpetual and assignable easement over the following described parcel of land in which the Grantor holds a fee simple estate. The property which is subject to this easement is depicted as _____ on "Exhibit A" attached and is more particularly described as follows:

[INSERT LEGAL DESCRIPTION OF REAL PROPERTY]

The easement applies to the Airspace above an imaginary plane over the real property. The plane is described as follows:

The imaginary plane above the hereinbefore described real property, as such plane is defined by Part 77 of the Federal Aviation Regulations, and consists of a plane [describe approach, transition, or horizontal surface]; the elevation of said plane being based upon the _____ Airport official runway end elevation of _____ feet Above Mean Sea Level (AMSL), as determined by **[INSERT NAME AND DATE OF SURVEY OR AIRPORT LAYOUT PLAN THAT DETERMINES THE ELEVATION]** the approximate dimensions of which said plane are described and shown on Exhibit A attached hereto and incorporated herein by reference.

The aforesaid easement and right-of-way includes, but is not limited to:

(1) For the use and benefit of the public, the easement and continuing right to fly, or cause or permit the flight by any and all persons, or any aircraft, of any and all kinds now or hereinafter known, in, through, across, or about any portion of the Airspace hereinabove described; and

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

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

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

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

For and on behalf of itself, its successors and assigns, the Grantor hereby covenants with the **[INSERT COUNTY OR CITY NAME]**, for the direct benefit of the real property constituting the _____ Airport hereinafter described, that neither the Grantor, nor its successors in interest or assigns will construct, install, erect, place or grow in or upon the hereinabove described real property, nor will they permit to allow, any building structure, improvement, tree or other object which extends into or above the Airspace, or which constitutes an obstruction to air navigation, or which obstructs or interferes with the use of the easement and rights-of-way herein granted.

The easements and rights-of-way herein granted shall be deemed both appurtenant to and for the direct benefit of that real property which constitutes the _____ Airport, in the **[INSERT COUNTY OR CITY NAME]**, State of California; and shall further be deemed in gross, being conveyed to the Grantee for the benefit of the Grantee and any and all members of the general public who may use said easement or right-of-way, in landing at, taking off from or operating such aircraft in or about the _____ Airport, or in otherwise flying through said Airspace.

Grantor, together with its successors in interest and assigns, hereby waives its right to legal action against Grantee, its successors, or assigns for monetary damages or other redress due to impacts, as described in Paragraph (2) of the granted rights of easement, associated with aircraft operations in the air or on the ground at the airport, including future increases in the volume or changes in location of said operations.

Furthermore, Grantor, its successors, and assigns shall have no duty to avoid or mitigate such damages through physical modification of airport facilities or establishment or modification of aircraft operational procedures or restrictions. However, this waiver shall not apply if the airport role or character of its usage (as identified in an adopted airport master plan, for example) changes in a fundamental manner which could not reasonably have been anticipated at the time of the granting of this easement and which results in a substantial increase in the impacts associated with aircraft operations. Also, this grant of easement shall not operate to deprive the Grantor, its successors or assigns, of any rights which may from time to time have against any air carrier or private operator for negligent or unlawful operation of aircraft.

These covenants and agreements run with the land and are binding upon the heirs, administrators, executors, successors and assigns of the Grantor, and, for the purpose of this instrument, the real property firstly hereinabove described is the servient tenement and said _____ Airport is the dominant tenement.

DATED: _____

State of }

ss

County of }

On _____, before me, the undersigned, a Notary Public in and for said County and State, personally appeared _____, and _____ known to me to be the persons whose names are subscribed to the within instrument and acknowledged that they executed the same.

WITNESS my hand and official seal.

_____

Notary Public

SAMPLE DEED NOTICE

A statement similar to the following should be included on the deed for any real property subject to the deed notice requirements set forth in the Imperial County *Airport Land Use Compatibility Plan*. Such notice should be recorded by the County of Imperial. Also, this deed notice should be included on any parcel map, tentative map, or final map for subdivision approval.

> The Imperial County *Airport Land Use Compatibility Plan* and **[INSERT COUNTY/CITY NAME]** Ordinance (Ordinance No. _____) identify a **[INSERT AIRPORT NAME]** Airport Influence Area. Properties within this area are routinely subject to overflights by aircraft using this public-use airport and, as a result, residents may experience inconvenience, annoyance, or discomfort arising from the noise of such operations. State law (Public Utilities Code Section 21670 et seq.) establishes the importance of public-use airports to protect the public interest of the people of the state of California. Residents of property near such airports should therefore be prepared to accept the inconvenience, annoyance, or discomfort from normal aircraft operations. Residents also should be aware that the current volume of aircraft activity may increase in the future in response to Imperial County population and economic growth. Any subsequent deed conveying this parcel or subdivisions thereof shall contain a statement in substantially this form.

Appendix J

Supporting Materials

Imperial County Airport Land Use Compatibility Plan

Appendix J

SUPPORTING MATERIALS

This appendix includes the following supporting information related to airport land use compatibility planning:

- Title 14 Code of Federal Regulations Part 77 – *Safe, Efficient Use, and Preservation of the Navigable Airspace*
- Safety Supporting Information from the *California Airport Land Use Compatibility Planning Handbook*

Title 14 —Aeronautics and Space
Chapter I —Federal Aviation Administration, Department of Transportation
Subchapter E —Airspace

Part 77 Safe, Efficient Use, and Preservation of the Navigable Airspace
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- **Subpart E** Petitions for Discretionary Review
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PART 77—SAFE, EFFICIENT USE, AND PRESERVATION OF THE NAVIGABLE AIRSPACE

Authority: 49 U.S.C. 106 (g), 40103, 40113-40114, 44502, 44701, 44718, 46101-46102, 46104.

Source: Docket No. FAA-2006-25002, 75 FR 42303, July 21, 2010, unless otherwise noted.

Subpart A—General

§ 77.1 Purpose.

This part establishes:

(a) The requirements to provide notice to the FAA of certain proposed construction, or the alteration of existing structures;

(b) The standards used to determine obstructions to air navigation, and navigational and communication facilities;

(c) The process for aeronautical studies of obstructions to air navigation or navigational facilities to determine the effect on the safe and efficient use of navigable airspace, air navigation facilities or equipment; and

(d) The process to petition the FAA for discretionary review of determinations, revisions, and extensions of determinations.

§ 77.3 Definitions.

For the purpose of this part:

Non-precision instrument runway means a runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in non-precision instrument approach procedure has been approved, or planned, and for which no precision approach facilities are planned, or indicated on an FAA planning document or military service military airport planning document.

Planned or proposed airport is an airport that is the subject of at least one of the following documents received by the FAA:

(1) Airport proposals submitted under 14 CFR part 157.

(2) Airport Improvement Program requests for aid.

(3) Notices of existing airports where prior notice of the airport construction or alteration was not provided as required by 14 CFR part 157.

(4) Airport layout plans.

(5) DOD proposals for airports used only by the U.S. Armed Forces.

(6) DOD proposals on joint-use (civil-military) airports.

(7) Completed airport site selection feasibility study.

Precision instrument runway means a runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), or a Precision Approach Radar (PAR). It also means a runway for which a precision approach system is planned and is so indicated by an FAA-approved airport layout plan; a military service approved military airport layout plan; any other FAA planning document, or military service military airport planning document.

Public use airport is an airport available for use by the general public without a requirement for prior approval of the airport owner or operator.

Seaplane base is considered to be an airport only if its sea lanes are outlined by visual markers.

Utility runway means a runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.

Visual runway means a runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA-approved airport layout plan, a military service approved military airport layout plan, or by any planning document submitted to the FAA by competent authority.

Subpart B—Notice Requirements

§ 77.5 Applicability.

(a) If you propose any construction or alteration described in § 77.9, you must provide adequate notice to the FAA of that construction or alteration.

(b) If requested by the FAA, you must also file supplemental notice before the start date and upon completion of certain construction or alterations that are described in § 77.9.

(c) Notice received by the FAA under this subpart is used to:

(1) Evaluate the effect of the proposed construction or alteration on safety in air commerce and the efficient use and preservation of the navigable airspace and of airport traffic capacity at public use airports;

(2) Determine whether the effect of proposed construction or alteration is a hazard to air navigation;

(3) Determine appropriate marking and lighting recommendations, using FAA Advisory Circular 70/7460-1, Obstruction Marking and Lighting;

(4) Determine other appropriate measures to be applied for continued safety of air navigation; and

(5) Notify the aviation community of the construction or alteration of objects that affect the navigable airspace, including the revision of charts, when necessary.

§ 77.7 Form and time of notice.

(a) If you are required to file notice under § 77.9, you must submit to the FAA a completed FAA Form 7460-1, Notice of Proposed Construction or Alteration. FAA Form 7460-1 is available at FAA regional offices and on the Internet.

(b) You must submit this form at least 45 days before the start date of the proposed construction or alteration or the date an application for a construction permit is filed, whichever is earliest.

(c) If you propose construction or alteration that is also subject to the licensing requirements of the Federal Communications Commission (FCC), you must submit notice to the FAA on or before the date that the application is filed with the FCC.

(d) If you propose construction or alteration to an existing structure that exceeds 2,000 ft. in height above ground level (AGL), the FAA presumes it to be a hazard to air navigation that results in an inefficient use of airspace. You must include details explaining both why the proposal would not constitute a hazard to air navigation and why it would not cause an inefficient use of airspace.

(e) The 45-day advance notice requirement is waived if immediate construction or alteration is required because of an emergency involving essential public services, public health, or public safety. You may provide notice to the FAA by any available, expeditious means. You must file a completed FAA Form 7460-1 within 5 days of the initial notice to the FAA. Outside normal business hours, the nearest flight service station will accept emergency notices.

§ 77.9 Construction or alteration requiring notice.

If requested by the FAA, or if you propose any of the following types of construction or alteration, you must file notice with the FAA of:

(a) Any construction or alteration that is more than 200 ft. AGL at its site.

(b) Any construction or alteration that exceeds an imaginary surface extending outward and upward at any of the following slopes:

(1) 100 to 1 for a horizontal distance of 20,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway more than 3,200 ft. in actual length, excluding heliports.

(2) 50 to 1 for a horizontal distance of 10,000 ft. from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway no more than 3,200 ft. in actual length, excluding heliports.

(3) 25 to 1 for a horizontal distance of 5,000 ft. from the nearest point of the nearest landing and takeoff area of each heliport described in paragraph (d) of this section.

(c) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it, would exceed a standard of paragraph (a) or (b) of this section.

(d) Any construction or alteration on any of the following airports and heliports:

(1) A public use airport listed in the Airport/Facility Directory, Alaska Supplement, or Pacific Chart Supplement of the U.S. Government Flight Information Publications;

(2) A military airport under construction, or an airport under construction that will be available for public use;

(3) An airport operated by a Federal agency or the DOD.

(4) An airport or heliport with at least one FAA-approved instrument approach procedure.

(e) You do not need to file notice for construction or alteration of:

(1) Any object that will be shielded by existing structures of a permanent and substantial nature or by natural terrain or topographic features of equal or greater height, and will be located in the congested area of a city, town, or settlement where the shielded structure will not adversely affect safety in air navigation;

(2) Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device meeting FAA-approved siting criteria or an appropriate military service siting criteria on military airports, the location and height of which are fixed by its functional purpose;

(3) Any construction or alteration for which notice is required by any other FAA regulation.

(4) Any antenna structure of 20 feet or less in height, except one that would increase the height of another antenna structure.

§ 77.11 Supplemental notice requirements.

(a) You must file supplemental notice with the FAA when:

(1) The construction or alteration is more than 200 feet in height AGL at its site; or

(2) Requested by the FAA.

(b) You must file supplemental notice on a prescribed FAA form to be received within the time limits specified in the FAA determination. If no time limit has been specified, you must submit supplemental notice of construction to the FAA within 5 days after the structure reaches its greatest height.

(c) If you abandon a construction or alteration proposal that requires supplemental notice, you must submit notice to the FAA within 5 days after the project is abandoned.

(d) If the construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

Subpart C—Standards for Determining Obstructions to Air Navigation or Navigational Aids or Facilities

§ 77.13 Applicability.

This subpart describes the standards used for determining obstructions to air navigation, navigational aids, or navigational facilities. These standards apply to the following:

(a) Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used and any permanent or temporary apparatus.

(b) The alteration of any permanent or temporary existing structure by a change in its height, including appurtenances, or lateral dimensions, including equipment or material used therein.

§ 77.15 Scope.

(a) This subpart describes standards used to determine obstructions to air navigation that may affect the safe and efficient use of navigable airspace and the operation of planned or existing air navigation and communication facilities. Such facilities include air navigation aids, communication equipment, airports, Federal airways, instrument approach or departure procedures, and approved off-airway routes.

(b) Objects that are considered obstructions under the standards described in this subpart are presumed hazards to air navigation unless further aeronautical study concludes that the object is not a hazard. Once further aeronautical study has been initiated, the FAA will use the standards in this subpart, along with FAA policy and guidance material, to determine if the object is a hazard to air navigation.

(c) The FAA will apply these standards with reference to an existing airport facility, and airport proposals received by the FAA, or the appropriate military service, before it issues a final determination.

(d) For airports having defined runways with specially prepared hard surfaces, the primary surface for each runway extends 200 feet beyond each end of the runway. For airports having defined strips or pathways used regularly for aircraft takeoffs and landings, and designated runways, without specially prepared hard surfaces, each end of the primary surface for each such runway shall coincide with the corresponding end of the runway. At airports, excluding seaplane bases, having a defined landing and takeoff area with no defined pathways for aircraft takeoffs and landings, a determination must be made as to which portions of the landing and takeoff area are regularly used as landing and takeoff pathways. Those determined pathways must be considered runways, and an appropriate primary surface as defined in § 77.19 will be considered as longitudinally centered on each such runway. Each end of that primary surface must coincide with the corresponding end of that runway.

(e) The standards in this subpart apply to construction or alteration proposals on an airport (including heliports and seaplane bases with marked lanes) if that airport is one of the following before the issuance of the final determination:

(1) Available for public use and is listed in the Airport/Facility Directory, Supplement Alaska, or Supplement Pacific of the U.S. Government Flight Information Publications; or

(2) A planned or proposed airport or an airport under construction of which the FAA has received actual notice, except DOD airports, where there is a clear indication the airport will be available for public use; or,

(3) An airport operated by a Federal agency or the DOD; or,

(4) An airport that has at least one FAA-approved instrument approach.

§ 77.17 Obstruction standards.

(a) An existing object, including a mobile object, is, and a future object would be an obstruction to air navigation if it is of greater height than any of the following heights or surfaces:

(1) A height of 499 feet AGL at the site of the object.

(2) A height that is 200 feet AGL, or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 feet in actual length, and that height increases in the proportion of 100 feet for each additional nautical mile from the airport up to a maximum of 499 feet.

(3) A height within a terminal obstacle clearance area, including an initial approach segment, a departure area, and a circling approach area, which would result in the vertical distance between any point on the object and an established minimum instrument flight altitude within that area or segment to be less than the required obstacle clearance.

(4) A height within an en route obstacle clearance area, including turn and termination areas, of a Federal Airway or approved off-airway route, that would increase the minimum obstacle clearance altitude.

(5) The surface of a takeoff and landing area of an airport or any imaginary surface established under § 77.19, 77.21, or 77.23. However, no part of the takeoff or landing area itself will be considered an obstruction.

(b) Except for traverse ways on or near an airport with an operative ground traffic control service furnished by an airport traffic control tower or by the airport management and coordinated with the air traffic control service, the standards of paragraph (a) of this section apply to traverse ways used or to be used for the passage of mobile objects only after the heights of these traverse ways are increased by:

(1) 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance.

(2) 15 feet for any other public roadway.

(3) 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road.

(4) 23 feet for a railroad.

(5) For a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it.

§ 77.19 Civil airport imaginary surfaces.

The following civil airport imaginary surfaces are established with relation to the airport and to each runway. The size of each such imaginary surface is based on the category of each runway according to the type of approach available or planned for that runway. The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise approach procedure existing or planned for that runway end.

(a) ***Horizontal surface.*** A horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of a specified radii from the center of each end of the primary surface of each runway of each airport and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is:

(1) 5,000 feet for all runways designated as utility or visual;

(2) 10,000 feet for all other runways. The radius of the arc specified for each end of a runway will have the same arithmetical value. That value will be the highest determined for either end of the runway. When a 5,000-foot arc is encompassed by tangents connecting two adjacent 10,000-foot arcs, the 5,000-foot arc shall be disregarded on the construction of the perimeter of the horizontal surface.

(b) ***Conical surface.*** A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

(c) ***Primary surface.*** A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of that runway; but when the runway has no specially prepared hard surface, the primary surface ends at each end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of the primary surface is:

(1) 250 feet for utility runways having only visual approaches.

(2) 500 feet for utility runways having non-precision instrument approaches.

(3) For other than utility runways, the width is:

(i) 500 feet for visual runways having only visual approaches.

(ii) 500 feet for non-precision instrument runways having visibility minimums greater than three-fourths statute mile.

(iii) 1,000 feet for a non-precision instrument runway having a non-precision instrument approach with visibility minimums as low as three-fourths of a statute mile, and for precision instrument runways.

(iv) The width of the primary surface of a runway will be that width prescribed in this section for the most precise approach existing or planned for either end of that runway.

(d) ***Approach surface.*** A surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of each runway based upon the type of approach available or planned for that runway end.

(1) The inner edge of the approach surface is the same width as the primary surface and it expands uniformly to a width of:

(i) 1,250 feet for that end of a utility runway with only visual approaches;

(ii) 1,500 feet for that end of a runway other than a utility runway with only visual approaches;

(iii) 2,000 feet for that end of a utility runway with a non-precision instrument approach;

(iv) 3,500 feet for that end of a non-precision instrument runway other than utility, having visibility minimums greater that three-fourths of a statute mile;

(v) 4,000 feet for that end of a non-precision instrument runway, other than utility, having a non-precision instrument approach with visibility minimums as low as three-fourths statute mile; and

(vi) 16,000 feet for precision instrument runways.

(2) The approach surface extends for a horizontal distance of:

(i) 5,000 feet at a slope of 20 to 1 for all utility and visual runways;

(ii) 10,000 feet at a slope of 34 to 1 for all non-precision instrument runways other than utility; and

(iii) 10,000 feet at a slope of 50 to 1 with an additional 40,000 feet at a slope of 40 to 1 for all precision instrument runways.

(3) The outer width of an approach surface to an end of a runway will be that width prescribed in this subsection for the most precise approach existing or planned for that runway end.

(e) ***Transitional surface.*** These surfaces extend outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary surface and from the sides of the approach surfaces. Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.

§ 77.21 Department of Defense (DOD) airport imaginary surfaces.

(a) ***Related to airport reference points.*** These surfaces apply to all military airports. For the purposes of this section, a military airport is any airport operated by the DOD.

(1) ***Inner horizontal surface.*** A plane that is oval in shape at a height of 150 feet above the established airfield elevation. The plane is constructed by scribing an arc with a radius of 7,500 feet about the centerline at the end of each runway and interconnecting these arcs with tangents.

(2) ***Conical surface.*** A surface extending from the periphery of the inner horizontal surface outward and upward at a slope of 20 to 1 for a horizontal distance of 7,000 feet to a height of 500 feet above the established airfield elevation.

(3) ***Outer horizontal surface.*** A plane, located 500 feet above the established airfield elevation, extending outward from the outer periphery of the conical surface for a horizontal distance of 30,000 feet.

(b) ***Related to runways.*** These surfaces apply to all military airports.

(1) ***Primary surface.*** A surface located on the ground or water longitudinally centered on each runway with the same length as the runway. The width of the primary surface for runways is 2,000 feet. However, at established bases where substantial construction has taken place in accordance with a previous lateral clearance criteria, the 2,000-foot width may be reduced to the former criteria.

(2) ***Clear zone surface.*** A surface located on the ground or water at each end of the primary surface, with a length of 1,000 feet and the same width as the primary surface.

(3) ***Approach clearance surface.*** An inclined plane, symmetrical about the runway centerline extended, beginning 200 feet beyond each end of the primary surface at the centerline elevation of the runway end and extending for 50,000 feet. The slope of the approach clearance surface is 50 to 1 along the runway centerline extended until it reaches an elevation of 500 feet above the established airport elevation. It then continues horizontally at this elevation to a point 50,000 feet from the point of beginning. The width of this surface at the runway end is the same as the primary surface, it flares uniformly, and the width at 50,000 is 16,000 feet.

(4) ***Transitional surfaces.*** These surfaces connect the primary surfaces, the first 200 feet of the clear zone surfaces, and the approach clearance surfaces to the inner horizontal surface, conical surface, outer horizontal surface or other transitional surfaces. The slope of the transitional surface is 7 to 1 outward and upward at right angles to the runway centerline.

§ 77.23 Heliport imaginary surfaces.

(a) ***Primary surface.*** The area of the primary surface coincides in size and shape with the designated take-off and landing area. This surface is a horizontal plane at the elevation of the established heliport elevation.

(b) ***Approach surface.*** The approach surface begins at each end of the heliport primary surface with the same width as the primary surface, and extends outward and upward for a horizontal distance of 4,000 feet where its width is 500 feet. The slope of the approach surface is 8 to 1 for civil heliports and 10 to 1 for military heliports.

(c) ***Transitional surfaces.*** These surfaces extend outward and upward from the lateral boundaries of the primary surface and from the approach surfaces at a slope of 2 to 1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.

Subpart D—Aeronautical Studies and Determinations

§ 77.25 Applicability.

(a) This subpart applies to any aeronautical study of a proposed construction or alteration for which notice to the FAA is required under § 77.9.

(b) The purpose of an aeronautical study is to determine whether the aeronautical effects of the specific proposal and, where appropriate, the cumulative impact resulting from the proposed construction or alteration when combined with the effects of other existing or proposed structures, would constitute a hazard to air navigation.

(c) The obstruction standards in subpart C of this part are supplemented by other manuals and directives used in determining the effect on the navigable airspace of a proposed construction or alteration. When the FAA needs additional information, it may circulate a study to interested parties for comment.

§ 77.27 Initiation of studies.

The FAA will conduct an aeronautical study when:

(a) Requested by the sponsor of any proposed construction or alteration for which a notice is submitted; or

(b) The FAA determines a study is necessary.

§ 77.29 Evaluating aeronautical effect.

(a) The FAA conducts an aeronautical study to determine the impact of a proposed structure, an existing structure that has not yet been studied by the FAA, or an alteration of an existing structure on aeronautical operations, procedures, and the safety of flight. These studies include evaluating:

(1) The impact on arrival, departure, and en route procedures for aircraft operating under visual flight rules;

(2) The impact on arrival, departure, and en route procedures for aircraft operating under instrument flight rules;

(3) The impact on existing and planned public use airports;

(4) Airport traffic capacity of existing public use airports and public use airport development plans received before the issuance of the final determination;

(5) Minimum obstacle clearance altitudes, minimum instrument flight rules altitudes, approved or planned instrument approach procedures, and departure procedures;

(6) The potential effect on ATC radar, direction finders, ATC tower line-of-sight visibility, and physical or electromagnetic effects on air navigation, communication facilities, and other surveillance systems;

(7) The aeronautical effects resulting from the cumulative impact of a proposed construction or alteration of a structure when combined with the effects of other existing or proposed structures.

(b) If you withdraw the proposed construction or alteration or revise it so that it is no longer identified as an obstruction, or if no further aeronautical study is necessary, the FAA may terminate the study.

§ 77.31 Determinations.

(a) The FAA will issue a determination stating whether the proposed construction or alteration would be a hazard to air navigation, and will advise all known interested persons.

(b) The FAA will make determinations based on the aeronautical study findings and will identify the following:

(1) The effects on VFR/IFR aeronautical departure/arrival operations, air traffic procedures, minimum flight altitudes, and existing, planned, or proposed airports listed in § 77.15(e) of which the FAA has received actual notice prior to issuance of a final determination.

(2) The extent of the physical and/or electromagnetic effect on the operation of existing or proposed air navigation facilities, communication aids, or surveillance systems.

(c) The FAA will issue a Determination of Hazard to Air Navigation when the aeronautical study concludes that the proposed construction or alteration will exceed an obstruction standard and would have a substantial aeronautical impact.

(d) A Determination of No Hazard to Air Navigation will be issued when the aeronautical study concludes that the proposed construction or alteration will exceed an obstruction standard but would not have a substantial aeronautical impact to air navigation. A Determination of No Hazard to Air Navigation may include the following:

(1) Conditional provisions of a determination.

(2) Limitations necessary to minimize potential problems, such as the use of temporary construction equipment.

(3) Supplemental notice requirements, when required.

(4) Marking and lighting recommendations, as appropriate.

(e) The FAA will issue a Determination of No Hazard to Air Navigation when a proposed structure does not exceed any of the obstruction standards and would not be a hazard to air navigation.

§ 77.33 Effective period of determinations.

(a) The effective date of a determination not subject to discretionary review under 77.37(b) is the date of issuance. The effective date of all other determinations for a proposed or existing structure is 40 days from the date of issuance, provided a valid petition for review has not been received by the FAA. If a valid petition for review is filed, the determination will not become final, pending disposition of the petition.

(b) Unless extended, revised, or terminated, each Determination of No Hazard to Air Navigation issued under this subpart expires 18 months after the effective date of the determination, or on the date the proposed construction or alteration is abandoned, whichever is earlier.

(c) A Determination of Hazard to Air Navigation has no expiration date.

[Doc. No. FAA-2006-25002, 75 FR 42303, July 21, 2010, as amended by Amdt. 77-13-A, 76 FR 2802, Jan. 18, 2011]

§ 77.35 Extensions, terminations, revisions and corrections.

(a) You may petition the FAA official that issued the Determination of No Hazard to Air Navigation to revise or reconsider the determination based on new facts or to extend the effective period of the determination, provided that:

(1) Actual structural work of the proposed construction or alteration, such as the laying of a foundation, but not including excavation, has not been started; and

(2) The petition is submitted at least 15 days before the expiration date of the Determination of No Hazard to Air Navigation.

(b) A Determination of No Hazard to Air Navigation issued for those construction or alteration proposals not requiring an FCC construction permit may be extended by the FAA one time for a period not to exceed 18 months.

(c) A Determination of No Hazard to Air Navigation issued for a proposal requiring an FCC construction permit may be granted extensions for up to 18 months, provided that:

(1) You submit evidence that an application for a construction permit/license was filed with the FCC for the associated site within 6 months of issuance of the determination; and

(2) You submit evidence that additional time is warranted because of FCC requirements; and

(3) Where the FCC issues a construction permit, a final Determination of No Hazard to Air Navigation is effective until the date prescribed by the FCC for completion of the construction. If an extension of the original FCC completion date is needed, an extension of the FAA determination must be requested from the Obstruction Evaluation Service (OES).

(4) If the Commission refuses to issue a construction permit, the final determination expires on the date of its refusal.

Subpart E—Petitions for Discretionary Review

§ 77.37 General.

(a) If you are the sponsor, provided a substantive aeronautical comment on a proposal in an aeronautical study, or have a substantive aeronautical comment on the proposal but were not given an opportunity to state it, you may petition the FAA for a discretionary review of a determination, revision, or extension of a determination issued by the FAA.

(b) You may not file a petition for discretionary review for a Determination of No Hazard that is issued for a temporary structure, marking and lighting recommendation, or when a proposed structure or alteration does not exceed obstruction standards contained in subpart C of this part.

§ 77.39 Contents of a petition.

(a) You must file a petition for discretionary review in writing and it must be received by the FAA within 30 days after the issuance of a determination under § 77.31, or a revision or extension of the determination under § 77.35.

(b) The petition must contain a full statement of the aeronautical basis on which the petition is made, and must include new information or facts not previously considered or presented during the aeronautical study, including valid aeronautical reasons why the determination, revisions, or extension made by the FAA should be reviewed.

(c) In the event that the last day of the 30-day filing period falls on a weekend or a day the Federal government is closed, the last day of the filing period is the next day that the government is open.

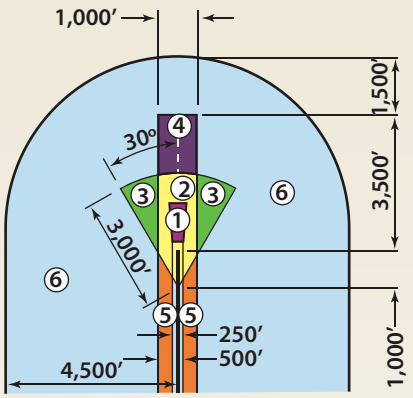
(d) The FAA will inform the petitioner or sponsor (if other than the petitioner) and the FCC (whenever an FCC-related proposal is involved) of the filing of the petition and that the determination is not final pending disposition of the petition.

§ 77.41 Discretionary review results.

(a) If discretionary review is granted, the FAA will inform the petitioner and the sponsor (if other than the petitioner) of the issues to be studied and reviewed. The review may include a request for comments and a review of all records from the initial aeronautical study.

(b) If discretionary review is denied, the FAA will notify the petitioner and the sponsor (if other than the petitioner), and the FCC, whenever a FCC-related proposal is involved, of the basis for the denial along with a statement that the determination is final.

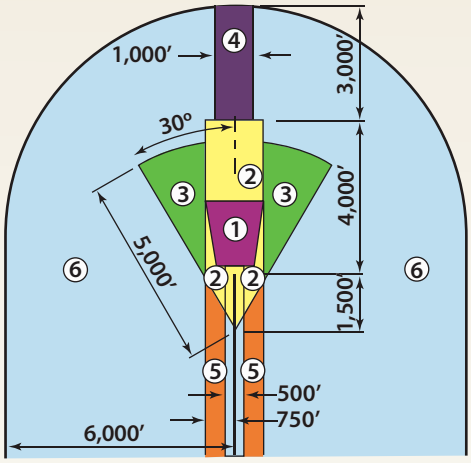
(c) After concluding the discretionary review process, the FAA will revise, affirm, or reverse the determination.



SHORT GENERAL AVIATION RUNWAY

Assumptions:

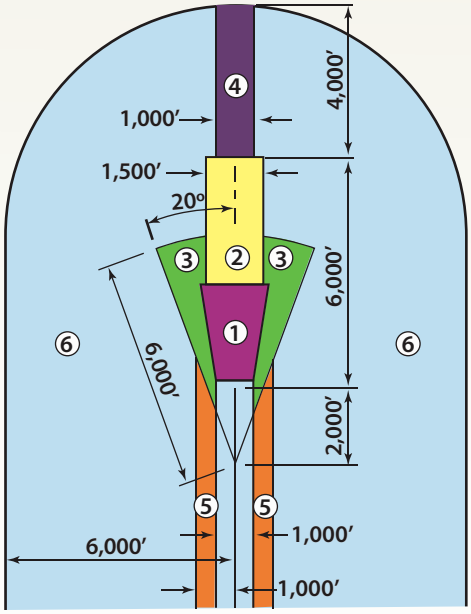
- Length less than 4,000 feet
- Approach visibility minimums ≥ 1 mile or visual approach only
- Zone 1 = 250′ x 450′ x 1,000′



MEDIUM GENERAL AVIATION RUNWAY

Assumptions:

- Length 4,000 to 5,999 feet
- Approach visibility minimums ≥ ¾ mile and < 1 mile
- Zone 1 = 1,000′ x 1,510′ x 1,700



LONG GENERAL AVIATION RUNWAY

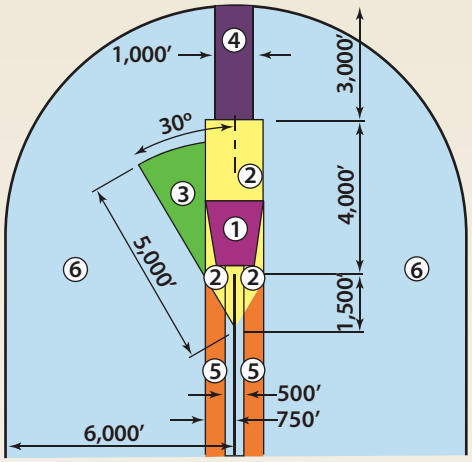
Assumptions:

- Length 6,000 or more
- Approach visibility minimums < ¾ mile
- Zone 1 = 1,000′ x 1,750′ x 2,500

LEGEND

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

Source: California Airport Land Use Planning Handbook, 2011.

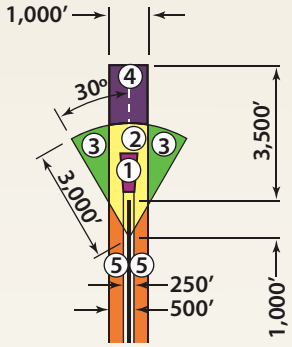


GENERAL AVIATION RUNWAY WITH SINGLE-SIDED TRAFFIC PATTERN

Assumptions:

- **Length 4,000 to 5,999 feet**
- **Approach visibility minimums ≥ ¾ mile and < 1 mile**
- **Zone 1 = 1,000′ x 1,510′ x 1,700**

See Note.

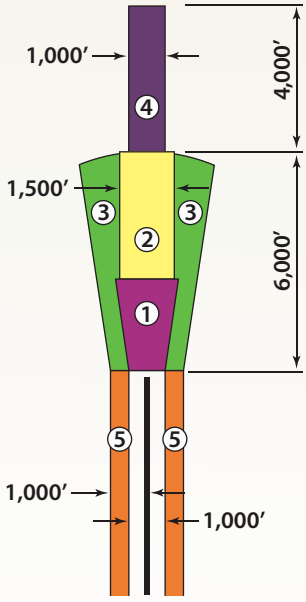


LOW ACTIVITY GENERAL AVIATION RUNWAY

Assumptions:

- **Less than 2,000 takeoffs and landings per year at individual runway end.**
- **Length less than 4,000 feet**
- **Approach visibility minimums ≥ 1 mile or visual approach only**

See Note.



LARGE AIR CARRIER RUNWAY

Assumptions:

- **Minimal light-aircraft general aviation activity**
- **Predominately straight-in and straight-out flight routes**
- **Approach visibility minimums < ¾ mile**

See Note.

Note:
RPZ (Zone 1) size in each example is as indicated by FAA criteria for the approach type assumed. Adjustment may be necessary if the Approach type differs.

These examples are intended to provide general guidance for establishment of airport safety compatibility zones. They do not represent California Department of Transportation standards of policy.

LEGEND

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

Source: California Airport Land Use Planning Handbook, 2011.

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