



Williams Aviation Consultants

Century Communities Upland, CA - Airspace and Safety Analysis

Williams Aviation Consultants, Inc. (WAC) was retained by Century Communities to complete a safety and airspace analysis of the single-family residential subdivision project located south of Cable Airport (CCB) in Upland, CA. (**Figure 1**).



Figure 1 – Study Area

The objective of this analysis is twofold:

1. To evaluate the compatibility of the proposed single-family residential development with the 2015 Cable Airport Land Use Compatibility Plan, ensuring it aligns with applicable land use, safety, and noise criteria.
2. To identify the maximum allowable elevation for any proposed structures at the project site that would not adversely impact the safe and efficient use of navigable airspace.

The analysis is divided into two primary sections:

- **Part One – Land Use Compatibility Analysis**
- **Part Two – Airspace Analysis**

Part One – Land Use

The 2015 Cable Airport Land Use Compatibility Plan establishes both a Compatibility Policy Map and Compatibility Criteria for each designated zone. The study area lies within Zone C3 as depicted on the Compatibility Policy Map. The C3 Additional Criteria, Zone C3 states: “Avoid new subdivisions,” thereby requiring additional analysis of the proposed single-family residential development.

It is Williams Aviation Consultants’ professional opinion that the proposed development should be considered compatible, as the additional zoning designations established in the 2015 Cable Airport Land Use Compatibility Plan are unnecessary and excessive. This position is supported by the following analysis:

Land Use Compatibility Analysis:

Cable Airport Land Use Compatibility Plan – 2015

The proposed single-family residential study area is located within Zone C3 of the Cable Airport Compatibility Policy Map (**Figure 2**).

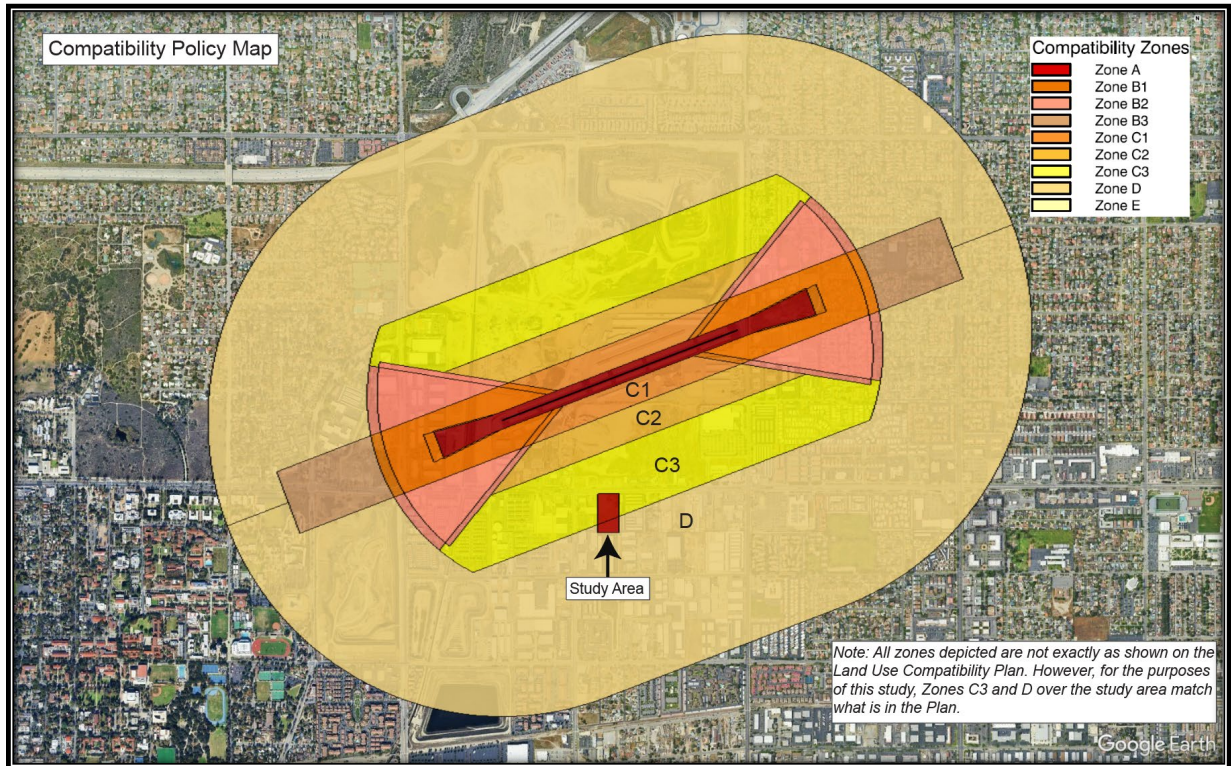


Figure 2 – Location of Study Area in Compatibility Policy Map

The Compatibility Criteria for Zone C3 is shown in **Figure 3**. As highlighted, the Additional Criteria for a single-family residential use within Compatibility Zone C3 states “Avoid new subdivisions.”

Section 3.1.2 (a) (2) Basic Compatibility Criteria Table states: “‘Conditional’ means that the proposed land use is compatible if the indicated usage intensity, lot coverage, and other listed conditions are met. For the purposes of these criteria, **“avoid” is intended as cautionary guidance, not a prohibition of the use.**”

Land Use Category ¹ <i>Multiple land use categories and compatibility criteria may apply to a project</i>	Compatibility Zone										Additional Criteria ² <i>Intensity and lot coverage criteria apply to all nonresidential uses including ones shown as "Normally Compatible" (green) Additional conditions listed below apply to uses listed as "Conditional" (yellow) in a particular zone</i>
	A	B1	B2	B3	C1	C2	C3	D	E		
Max. Sitewide Avg. Intensity (people/acre)	10	40	80	120	120	240	no	no	no		
Max. Single-Acre Intensity (people/acre) ³	20	80	160	300	300	600	limit	limit	limit		
Maximum Lot Coverage (bldg footprint)	0%	35%	45%	60%	45%	100%	100%	100%	100%		
Local Parks: neighborhood parks, playgrounds →											B2/3, C2: Must have little or no permanent recreational facilities (ball fields, etc.); exercise caution if clear audibility by users is essential
Camping: campgrounds, recreational vehicle/motor home parks →											B3, C1: Ensure intensity criteria met
Cemeteries (except chapels)											B1: Ensure airspace obstruction does not occur (see Maps 3B and 3C) B1/2/3, C2: Noise-compatible at levels indicated, but noise disruption of outdoor activities may occur
<i>Residential and Lodging Uses</i>											
Single-Family Residential (<8 d.u./acre): detached dwellings, townhouses, mobile homes, bed & breakfast inns →											B3, C3: Avoid new subdivisions; sound attenuation design required [see Criteria 3.2.1(a)(2) and 3.2.2] B3: Maximum 4 d.u./acre sitewide average, 8 d.u./single acre

Figure 3 – Compatibility Criteria – Zone C3

WAC Comment: Zone C3 states “avoid new subdivisions”; the term “avoid” serves as cautionary guidance rather than an explicit prohibition of such use. Accordingly, the following sections provide supporting evidence as to why the proposed single-family residential project should be considered compatible.

3.1 – Basic Criteria for Review of Land Use Actions

Table 3B, Compatibility Zone Factors, identifies the relative contributions of noise, safety, airspace protection, and overflight factors to the delineation of each of the compatibility zones in **Map 3A**. This information can be used to help assess how heavily each compatibility factor should be weighed when evaluating proposed projects in a particular zone.

Table 3B is displayed in **Figure 4**. As shown in Table 3B:

Zone C3:

- Noise Impact: Moderate
 - Mostly above projected 60 Db CNEL
- Risk Level: Low
 - Most of the area is not normally overflown except on overhead pattern; few accidents
 - Object heights limited to less than 150 feet

CHAPTER 3 COMPATIBILITY CRITERIA		
Zone	Noise and Overflight Factors	Safety and Airspace Protection Factors
A Runway Protection Zone and Primary Surface	Noise Impact: Very High <ul style="list-style-type: none"> Mostly above projected 65 dB CNEL High single-event noise levels FAA-defined safety and airspace factors are primary determinants of zone boundaries 	Risk Level: Very High <ul style="list-style-type: none"> Lateral to runway, zone boundary defined by Primary Surface as depicted on approved Airport Layout Plan drawing Length set to include Runway Protection Zones as indicated on Airport Layout Plan drawing Nationally, nearly 40% of off-runway general aviation accidents near airports occur in this zone
B1 Inner Approach/Departure Zone	Noise Impact: High <ul style="list-style-type: none"> Mostly above projected 60 dB CNEL; much above projected 65 dB CNEL High single-event noise levels 	Risk Level: High <ul style="list-style-type: none"> Encompasses areas overflown by aircraft at low altitudes—typically only 200 to 400 feet above runway For runways similar in length to that at Cable Airport, about 20% of near-airport, off-runway general aviation accidents take place here Object heights restricted to as little as zero closest to runway end
B2 Inner Turning Zone	Noise Impact: Moderate to High <ul style="list-style-type: none"> Much of area above projected 60 dB CNEL Single-event noise sufficient to disrupt many land use activities including indoors if windows open Aircraft typically below 1,000 feet altitude 	Risk Level: Moderate <ul style="list-style-type: none"> On arrival, aircraft flying close-in base leg overfly this area, sometimes making sharp turns to final approach; overflight altitude usually below 300 feet On departure, aircraft normally complete transition from takeoff power and flap settings to climb mode and begin turns to en route heading; to west, aircraft regularly overfly this area for noise abatement purposes About 5% of off-runway general aviation accidents near airports occur in this zone Object heights restricted to as little as 50 feet
B3 Extended Approach/Departure Zone	Noise Impact: Moderate <ul style="list-style-type: none"> Mostly above projected 55 dB CNEL Single-event noise sufficient to disrupt some land use activities including indoors if windows open 	Risk Level: Low to Moderate <ul style="list-style-type: none"> On arrival, aircraft below traffic pattern altitude on or entering final approach On departure, aircraft nearing traffic pattern altitude Less than 5% of accidents occur in this area Object heights restricted to as little as 100 feet
C1 Adjacent to Runway	Noise Impact: High <ul style="list-style-type: none"> All above projected 65 dB CNEL; some areas above projected 70 dB CNEL Exposed to loud single-event noise from takeoffs and jet thrust-reverse on landing; also from pre-flight run-ups 	Risk Level: Moderate <ul style="list-style-type: none"> Area not normally overflown; primary risk is with aircraft (especially twin-engine planes) losing directional control on takeoff About 5% of off-runway general aviation accidents near airports happen in this zone Object heights restricted to as little as zero
C2 Lateral to Runway	Noise Impact: Moderate to High <ul style="list-style-type: none"> Mostly above projected 65 dB CNEL 	Risk Level: Low to Moderate <ul style="list-style-type: none"> Area not normally overflown except on overhead pattern; some risk from takeoff loss of directional control; less than 5% of accidents occur in this area Object heights restricted to as little as 50 feet
C3 Lateral to Runway	Noise Impact: Moderate <ul style="list-style-type: none"> Mostly above projected 60 dB CNEL 	Risk Level: Low <ul style="list-style-type: none"> Most of area not normally overflown except on overhead pattern; few accidents Object heights limited to less than 150 feet
D Primary Traffic Patterns	Noise Impact: Moderate <ul style="list-style-type: none"> Contains remaining 55-CNEL contour More concern with respect to individual loud events than with cumulative noise contours 	Risk Level: Low <ul style="list-style-type: none"> On approach, aircraft at traffic pattern altitude or beginning descent On departure, or closed pattern, aircraft at or above pattern altitude; engine failure on takeoff could result in aircraft reaching this area About 20% of general aviation accidents take place in this zone, but large area encompassed means low likelihood of accident occurrence in any given location Object heights limited to less than 150 feet
E Other Airport Environs	Noise Impact: Low <ul style="list-style-type: none"> Beyond 55-CNEL contour Occasional overflights intrusive to some outdoor activities 	Risk Level: Low <ul style="list-style-type: none"> Wide area overflown by aircraft entering or leaving traffic pattern Less than 10% of near-airport accidents take place at this distance from the runway
* High Terrain Zone	Noise Impact: Low <ul style="list-style-type: none"> Individual noise events slightly louder because high terrain reduces altitude of overflights 	Risk Level: Moderate <ul style="list-style-type: none"> Modest risk because high terrain constitutes airspace obstruction Concern is tall single objects (e.g., antennas)

Note: All zones reflect a composite of factors for both existing and proposed runway positions; see Criterion 3.1.3

Table 3B

Figure 4 – Compatibility Zone Factors – Zone C3

WAC Comment: The compatibility criteria for Zone C3 identify the noise impact as moderate, due to the project site being located within the 60 dB CNEL noise contour. The Cable Airport Land Use

Compatibility Plan notes that “typical new building construction provides sufficient insulation to attenuate outdoor-to-indoor noise by at least 20 dB.” Based on our professional experience, standard construction techniques and materials are sufficient to achieve the necessary noise attenuation for residential use in areas exposed to up to 65 dB CNEL. Therefore, the 60 dB CNEL noise level should not be considered a negative factor when evaluating the compatibility of the proposed single-family residential project with the Cable Airport Compatibility Zone Map.

The compatibility criteria for Zone C3 also state that the risk level for safety factors is low. It is the professional opinion of Williams Aviation Consultants that the study area is indeed located in a low-risk zone for aircraft accidents, and this factor should not weigh against the proposed residential development.

In addition, the compatibility criteria for Zone C3 specify that object heights should be limited to less than 150 feet. The proposed project, with a height of 36 feet, is well below this threshold. Therefore, airspace height restrictions are not a concern for this development.

In summary, it is the professional opinion of Williams Aviation Consultants that, based on the Noise, Overflight, Safety, and Airspace factors outlined in the Compatibility Criteria for Zone C3, the proposed single-family residential project should be considered compatible with the 2015 Cable Airport Land Use Compatibility Plan.

3.2 Noise Compatibility Criteria

Section 3.2.1. Maximum Acceptable Exterior Noise Exposure: To minimize noise-sensitive development in noisy areas around Cable Airport, new land use development shall be restricted in accordance with the following.

- (a) New residential development shall be deemed incompatible within the projected CNEL 60 dB contour of Cable Airport depicted on Map 3E, Future Noise Impact and is one of the factors considered in establishing the Compatibility Zone boundaries in Map 3A. For the purposes of implementing this policy:
 - (1) No new dwelling shall be permitted within Compatibility Zones A, B1, B2, C1, or C2 except as allowed by right in accordance with Policy 2.4.3 in Chapter 2.
 - (2) New residential development either single-family or multi-family should be avoided in Compatibility Zones B3 and C3.

WAC Comment: The noise compatibility criteria state that new residential development is deemed incompatible within the projected 60 dB CNEL contour shown on the Future Noise Impact Map (Figure 5). Williams Aviation Consultants believes that relying on a projected future noise contour to impose land use restrictions on current development is imprudent and unnecessarily detrimental to the City of Upland’s need for economic and residential growth.

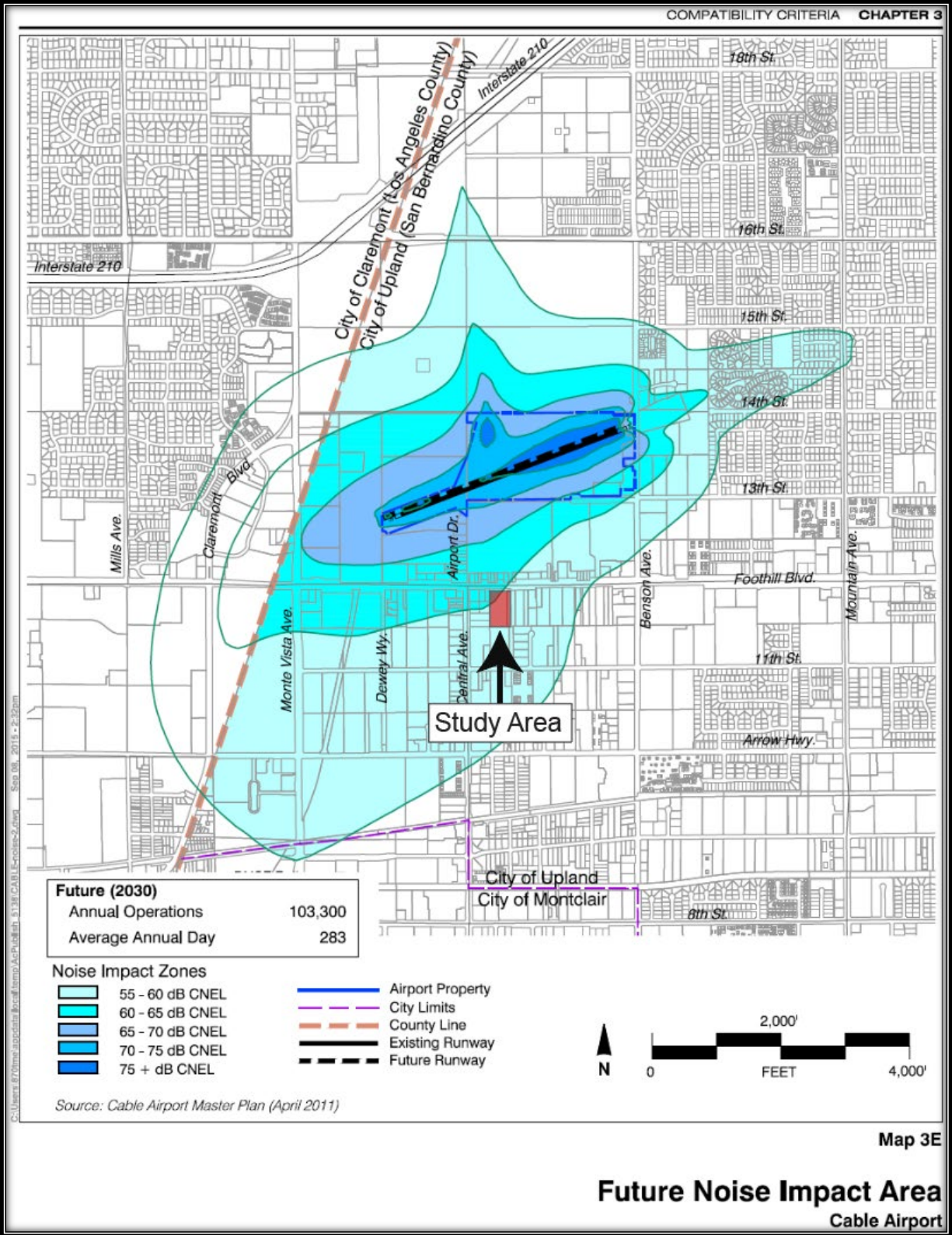


Figure 5 – Study Area in Future Noise Impact Area

WAC Comment: Williams Aviation maintains that the use of the 60 dB CNEL threshold is overly conservative. The more widely accepted standard, as outlined in FAA 14 CFR Part 150 – Airport Noise Compatibility Planning (Figure 6), identifies 65 dB CNEL as the threshold below which residential land use is considered compatible without restrictions. As such, applying a 60 dB contour to limit residential development does not align with established FAA guidance and should not be used to justify incompatibility within Zone C3.

14 CFR Part 150 (up to date as of 6/20/2025) Airport Noise Compatibility Planning		14 CFR Appendix-A-to-Part-150(f)(4)				
TABLE 1—LAND USE COMPATIBILITY* WITH YEARLY DAY-NIGHT AVERAGE SOUND LEVELS						
Land use	Yearly day-night average sound level (L _{dn}) in decibels					
	Below 65	65-70	70-75	75-80	80-85	Over 85
Residential						
Residential, other than mobile homes and transient lodgings	Y	N(1)	N(1)	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N

Figure 6 – FAA 14 CFR Part 150 – Airport Noise Compatibility Planning

WAC Comment: The 2008 Cable Airport Existing Noise Impact Map (Figure 7) indicates that the study area is located within the 55–60 dB CNEL noise contour, thereby supporting the conclusion that the proposed residential project is compatible when evaluated against the existing noise environment, as opposed to the future projected contours.

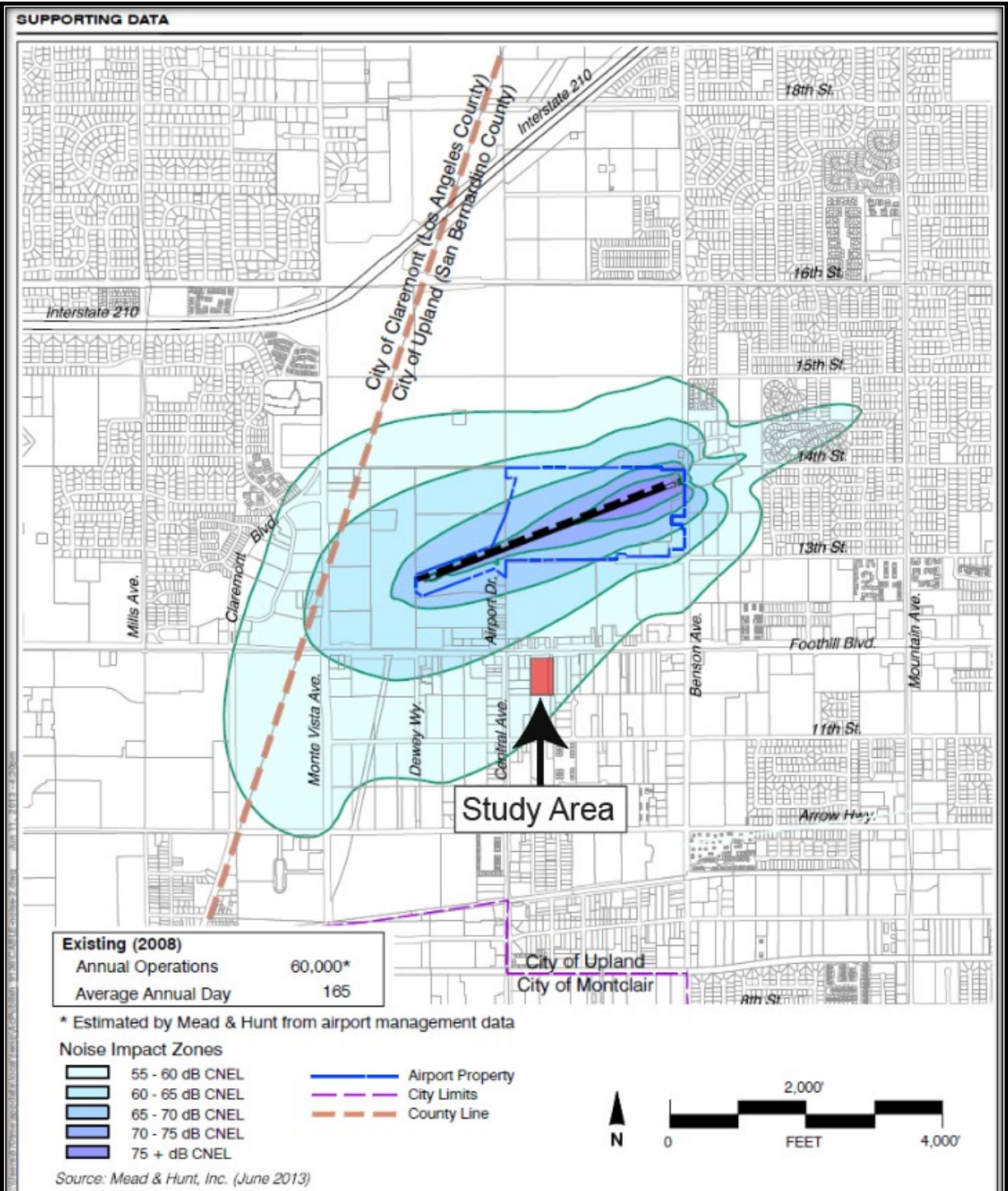


Exhibit 8

Existing Noise Impact - 2008
Cable Airport

Figure 7 – Study Area in Existing Noise Impact Area

WAC Comment: Williams Aviation Consultants believes that future airport noise contours are often unreliable, unpredictable, and inflated, primarily due to speculative assumptions regarding future air traffic volumes and aircraft types. For example, the supporting data used to generate the Future Noise Impact Map is provided in Figure 8, which includes projected based aircraft counts through 2035. However, Figure 9, which displays the current Cable Airport Master Record, shows only 233 single-engine and 9 multi-engine aircraft based at the airport, significantly lower than the figures projected in 2009 and for 2035.

Given the discrepancy between actual and projected based aircraft, any related assumptions about future operations or aircraft mix, which serve as the foundation for the 2030 Cable Airport Noise Impact analysis, should be viewed with caution. Speculative forecasts of this nature should not be used to impose land use compatibility restrictions on current development, particularly when existing conditions support compatibility.

BASED AIRCRAFT		
	Current ^a	Future ^b
<i>Aircraft Type</i>	<i>2009 data</i>	<i>2035</i>
Single-Engine	330	363
Twin-Engine Piston & Turboprop	21	29
Business Jet	1	2
Helicopter	3	7
Sailplanes/Other	3	9
<i>Total</i>	<i>358</i>	<i>404</i>
AIRCRAFT OPERATIONS		
	Current ^a	Future ^b
<i>Total</i>	<i>2009 data</i>	<i>2033</i>
Annual	41,000	103,300
Average Day	112	283
<i>Distribution by Aircraft Type</i>		
Single-Engine	92%	90%
Twin-Engine Piston & Turboprop	6%	7%
Business Jet	<1%	<1%
Helicopter	1%	2%
Sailplanes/Other	1%	<1%
<i>Distribution by Type of Operation</i>		
Local (incl. approx 75% touch-and-goes)	80%	80%
Itinerant	20%	20%

Figure 8 – Based Aircraft from 2015 Cable Airport Compatibility Plan Supporting Data

AIRPORT MASTER RECORD				
Data Source: https://www.faa.gov/air_traffic/flight_info/aero/hav/aero_data/ Print Date: 06/24/2025				
1 ASSOC CITY:	UPLAND	4 STATE: CA	LOC ID: CCB	FAA SITE NR: 02385.*A
2 AIRPORT NAME:	CABLE	6 REGION/ADO: AWP /LAX	5 COUNTY: SAN BERNARDINO, CA	7 SECT AERO CHT: LOS ANGELES
3 CBD TO AIRPORT (NM): 2 NW				
GENERAL		SERVICES		BASED AIRCRAFT
10 OWNERSHIP:	PRIVATE	70 FUEL:	100LL A	Validated by basedaircraft.com
11 OWNER:	CABLE LAND CO - A PARTNERSHIP	71 AIRFRAME RPRS:	MAJOR	90 SINGLE ENG: 233
12 ADDRESS:	1749 WEST 13TH STREET	72 PWR PLANT RPRS:	MAJOR	91 MULTI ENG: 9
	UPLAND, CA 91786-2199	73 BOTTLE OXYGEN:	HIGH/LOW	92 JET: 0
13 PHONE NR:	909-982-6021	74 BULK OXYGEN:	HIGH/LOW	93 HELICOPTERS: 3
14 MANAGER:	BOB CABLE	75 TSNT STORAGE:	TIE	TOTAL: 245
15 ADDRESS:	1749 WEST 13TH STREET	76 OTHER SERVICES:	AVNCS,INSTR,RNTL, SALES	94 GLIDERS: 4
	UPLAND, CA 91786-2199			95 MILITARY: 0
16 PHONE NR:	909-573-5558			96 ULTRA-LIGHT: VTOL:
17 ATTENDANCE SCHEDULE:				
MONTHS	DAYS	HOURS		
ALL	ALL	DALGT		

Figure 9 – Current Based Aircraft from Cable Airport Master Record

3.3 Safety Compatibility Criteria

3.3.1. *Residential Development Density Criteria:* Proposed residential development shall be evaluated in accordance with the following criteria:

- (a) For projects that are solely residential, the acreage evaluated equals the project site size (gross acreage) which may include multiple parcels. See Criterion 3.1.4 with regard to mixed-use development.
- (b) Except as allowed by right in accordance with Policy 2.4.3 in Chapter 2, the maximum allowable residential density within each compatibility zone is as indicated below (**Figure 10**) and shown in Table 3A:

Compatibility Zone	A	B1	B2	B3	C1	C2	C3	D	E
	Dwelling Units per Acre								
Maximum Sitewide Average Density	0	0*	0*	4.0	0*	0*	15.0	25.0	No Limit
Maximum Single-Acre Density	0	0	0	8.0	0	0	30.0	50.0	No Limit
* Portions of a project site may extend into these zones provided that no dwelling is located there.									

Figure 10 – Residential Development Density Criteria

WAC Comment: As shown in Figure 11, the proposed residential density within Zone C3 is approximately 14.96 dwelling units per acre, which is below the maximum allowable density of 15.0 dwelling units per acre as specified in the Zone C3 compatibility criteria. Therefore, the proposed project complies with the residential density limitations established for Zone C3.

<u>DENSITY CALCULATIONS:</u>	
SITE AREA:	= 4.422 ACRES
PORTION OF THE SITE IN C3 ZONE	= 3.141 ACRES
PROPOSED NO. OF UNITS IN C3 ZONE	= 47 EA
DENSITY IN C3 ZONE	= 14.96 UNITS/ACRE
PORTION OF THE SITE IN D ZONE	= 1.281 ACRES
PROPOSED NO. OF UNITS IN D ZONE	= 25 EA (UNITS 37-61)
DENSITY IN D ZONE	= 19.51 UNITS/ACRE

Figure 11 – Proposed Residential Development Density

3.4 Airspace Protection Compatibility Criteria

A CFR Part 77 and Terminal Instrument Procedures (TERPS) Analysis was completed and included in Part Two of this document.

***WAC Comment:** A comprehensive evaluation under CFR Part 77 and Terminal Instrument Procedures (TERPS) criteria determined that the proposed project does not penetrate any protected airspace surfaces associated with Cable Airport (CCB). The project was formally submitted to the FAA Obstruction Evaluation Group on June 17, 2025, under Case Numbers 2025-AWP-10587, 10588, 10589, and 10591-OE. Although the cases remain under FAA review, it is the professional opinion of Williams Aviation Consultants that the proposed structures will ultimately receive Determinations of No Hazard (DNH) from the FAA.*

3.5 Overflight Compatibility Criteria

3.5.1. *Recorded Overflight Notification:* As a condition for local agency approval of residential land use development within Compatibility Zones C3 and D as defined by **Map 3A**, an overflight notification shall be recorded in the chain of title of the property.

- (a) The notification shall be of a format similar to that indicated in Appendix H and shall contain the following language dictated by state law with regard to Airport Proximity Disclosure in conjunction with real estate transfer:

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

- (b) The notification shall be evident to prospective purchaser(s) of the property and shall appear on the property deed.

3.5.2. *Airport Proximity Disclosure*: State law requires that notice disclosing information about the presence of a nearby airport be given to prospective buyers of certain residential real estate within an airport influence area. The statutes define an airport influence area as “the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission.”¹⁴ *Compatibility Plan* criteria with regard to airport proximity disclosure is as follows

(b) For proposed residential development:

- (1) The disclosure provisions of state law are deemed mandatory for new residential development anywhere within the Airport Influence Area and shall continue in effect as *Compatibility Plan* criteria even if the state law is made less stringent or rescinded. The disclosure shall be of a format similar to that indicated in **Appendix H** and shall contain the language dictated by state law (see Policy 3.5.1(a)).
- (2) Signs providing the notice included in Criterion 3.5.1(a) and a map of the Airport Influence Area shall be prominently posted in the real estate sales office and/or other key locations at any new residential development within the Airport Influence Area.

WAC Comments: Recorded Overflight Notification and Airport Proximity Disclosure will be required.

3.6 Criteria for Special Circumstances

3.6.1. *Avigation Easement Dedication*: As a condition for approval of projects that are subject to the review provisions of this *Compatibility Plan* and that meet the conditions in Paragraphs (a) and (b) of this criterion, the property owner shall be required to dedicate an avigation easement to Cable Airport.

(b) Avigation easement dedication shall be required for any proposed development, including infill development, for which discretionary local agency approval is required.

WAC Comments: An Avigation Easement may be required for the approval of the proposed project.

3.7 Criteria for Review of Airport Plans

3.7.1. *Substance of Review*: If a review of a Cable Airport master plan or development plan is required in accordance with Chapter 2, the review shall evaluate whether the airport plan would result in greater noise, safety, airspace protection, or overflight impacts than indicated in Chapter 3 of this *Compatibility Plan*.

WAC Comments: No Runway or Airport expansion plans were found at the time of this study.

California Airport Land Use Planning Handbook (2011):

The California Airport Land Use Planning Handbook (2011) provides guidance for California airports in establishing safety zones surrounding runways. The following sections are extracted from the 2011 Handbook:

Section 3.2.3 Safety

Because aircraft accidents happen infrequently and the time, place, and consequences of their occurrence cannot be predicted, the concept of *risk* is central to the assessment of safety

compatibility. From the standpoint of land use planning, two variables determine the degree of risk posed by potential aircraft accidents:

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

Appendix E - Aircraft Accident Characteristics

2010 Aircraft Accident Research – Accident Points and Procedure

The California Airport Land Use Planning Handbook (2011) studied accidents that occurred between the years 2000 and 2009. The 2002 Handbook studied accidents between 1983 and 1992.

Generic Safety Zones

This edition of the Handbook does not change the safety zone guidance provided in the 2002 edition. As described above, evidence from analysis of the limited new data gathered for this edition was insufficient to conclude that the geographic distribution of accidents has significantly changed during the past decade compared to the pattern from the 1983-1992 period that served as the basis for the previously suggested zones.

WAC Comment: The 2011 California Airport Land Use Planning Handbook studied aircraft accident data from 1983–1992 and 2000–2009. This data was analyzed to assess accident risk in specific areas, leading to the establishment of safety zones. The safety zone land use planning incorporated two primary variables, accident frequency and accident consequences, to evaluate the degree of risk posed by potential aircraft accidents. Williams Aviation Consultants believes the safety zones established in the 2011 Handbook provide more than adequate protection for public safety against potential aircraft accidents.

Delineation of Geometric Zones

A detailed analysis of aircraft accident location patterns, together with consideration for where aircraft fly and how they are being operated during takeoff departures and landing approaches, provides the best basis for determining optimum safety zone shapes and sizes. An ideal set of safety zones should have four characteristics:

- The zones should have easily definable geometric shapes;
- The number of zones should be limited to a realistic number (five or six should be adequate in most cases);
- The set of zones should have a distinct progression in the degree of risk represented (that is, the distribution of accidents within each zone should be relatively uniform, but less concentrated than in the zones closer to the runway ends); and
- Each zone should be as compact as possible.¹

WAC Comment: The 2011 California Airport Land Use Planning Handbook advises that safety zones established around California airports should be limited to a realistic number, typically five or six zones.

¹ California Airport Land Use Planning Handbook (2011)

The 2015 Cable Airport Land Use Compatibility Plan, however, designates nine safety zones, significantly exceeding and surpassing the number recommended by the Handbook.

The 2011 Handbook further recommends that each zone be as compact as possible. Williams Aviation Consultants believes the addition of the C2 and C3 zones in the 2015 Cable Compatibility Plan not only disregards the guidance on a realistic and manageable number of zones, but also fails to meet the compactness recommended for effective land use planning. The excessive zoning regulations unnecessarily constrain development in the area surrounding Cable Airport.

Figure 12 displays the 2011 Handbook Safety Compatibility Zones for Cable Airport, which is defined as a general aviation runway with a length of less than 4,000 feet. The study area is located within Safety Zone 6 - Traffic Pattern Zone. **Figure 13** displays the basic safety compatibility criteria for Safety Zone 6 – Traffic Pattern Zone.

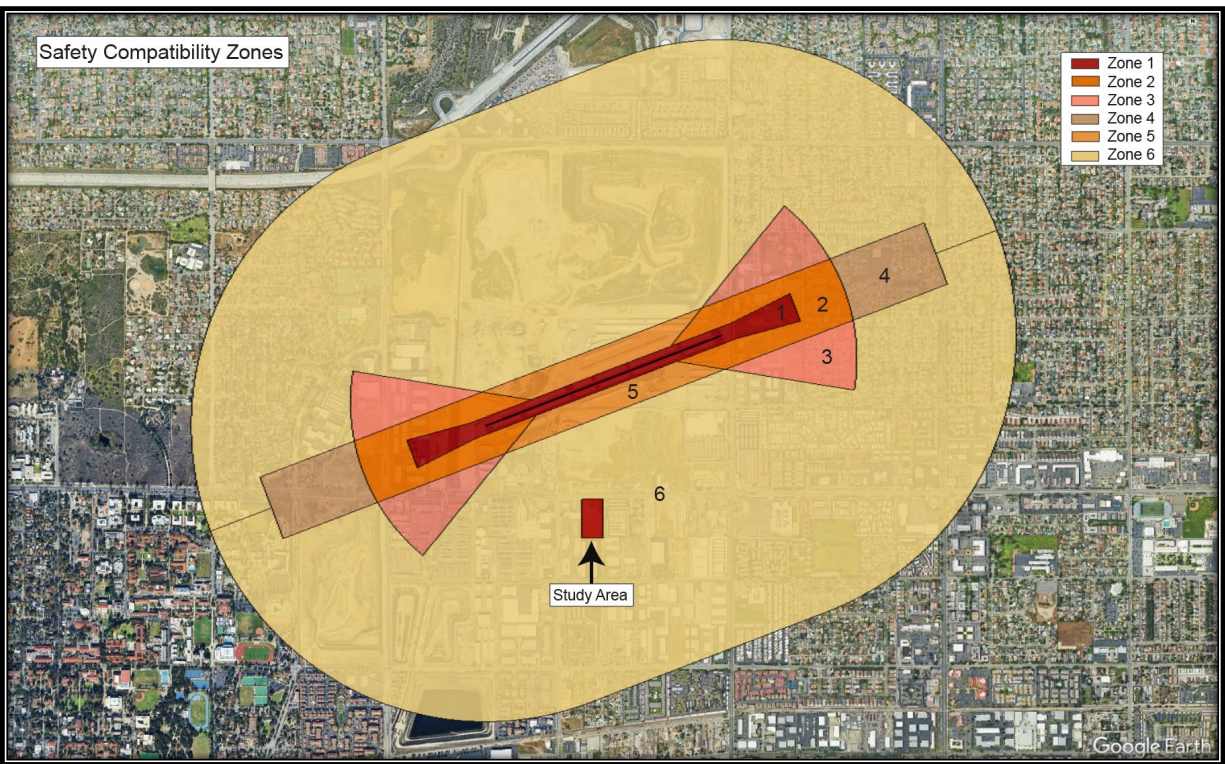


Figure 12 –2011 Handbook Safety Compatibility Zones - Cable Airport

Nature of Risk

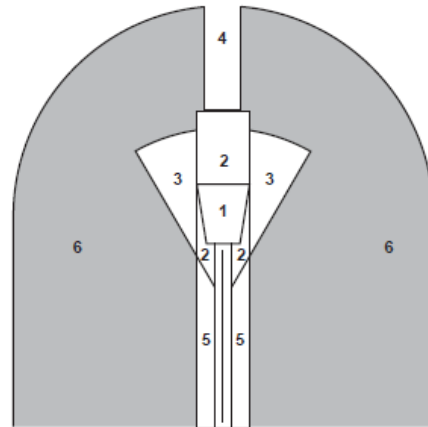
- Normal Maneuvers
 - Aircraft within a regular traffic pattern and pattern entry routes
- Altitude
 - Ranging from 1,000 to 1,500 feet above runway
- Common Accident Types
 - Arrival: Pattern accidents in proximity of airport
 - Departure: Emergency landings
- Risk Level
 - Low
 - Percentage of near-runway accidents in this zone: 18% - 29% (percentage is high because of large area encompassed)



IN TRAFFIC PATTERN

Basic Compatibility Policies

- Normally Allow
 - Residential uses (however, noise and overflight impacts should be considered where ambient noise levels are low)
- Limit
 - Children's schools, large day care centers, hospitals, and nursing homes
 - Processing and storage of bulk quantities of highly hazardous materials
- Avoid
 - Outdoor stadiums and similar uses with very high intensities
- Prohibit
 - None



Refer to Chapter 3 for dimensions.

	Maximum Residential Densities	Maximum Nonresidential Intensities	Maximum Single Acre
	Average number of dwelling units per gross acre	Average number of people per gross acre	4x the Average number of people per gross acre
Rural	No Limit – See Note A	150 – 200	600 – 800
Suburban	No Limit – See Note A	200 – 300	800 – 1,200
Urban	No Limit – See Note A	No Limit – See Note B	No Limit – See Note B
Dense Urban	No Limit – See Note A	No Limit – See Note B	No Limit – See Note B

Note A: Noise and overflight should be considered.

Note B: Large stadiums and similar uses should be avoided.

FIGURE 4G

Safety Zone 6 – Traffic Pattern Zone

Figure 13 –2011 Handbook Safety Compatibility Zones – Safety Zone 6

WAC Comment: The study area is located within Safety Zone 6 – Traffic Pattern Zone. As outlined in the 2011 California Airport Land Use Planning Handbook, Safety Zone 6 allows for residential use and does not establish limits on maximum residential densities. It should also be noted that the 2011 Handbook defines the risk level for Zone 6 as Low.

FAA Land Use Compatibility and Airports:

The FAA Land Use Compatibility and Airports document outlines guidelines on establishing Airport Impact Zones. The FAA Land Use documents states:

“The specific areas, both on and off airport property, that are included in the impact zones are based on aircraft incident investigation data provided by the National Transportation Safety Board (NTSB).

Recommended land uses and densities of land development are different depending on the particular Airport Impact Zone. For example, the recommended land use in Zones 1, 2 and 5 would prohibit residential development and allow low-density (less than five people per acre) industrial development. Recommended land uses in Zones 3 and 4 would range from zero to low-density residential development and industrial development ranging from 25 to 40 people per acre. Recommended land uses in Airport Impact Zone 6 would allow low density residential development and industrial development accommodating fewer than 100 people per acre.”²

Figure 14 displays the FAA Airport Impact Zones for Cable Airport, classified as an airport with a runway less than 4,000 feet in length.

² FAA Land Use Compatibility and Airports

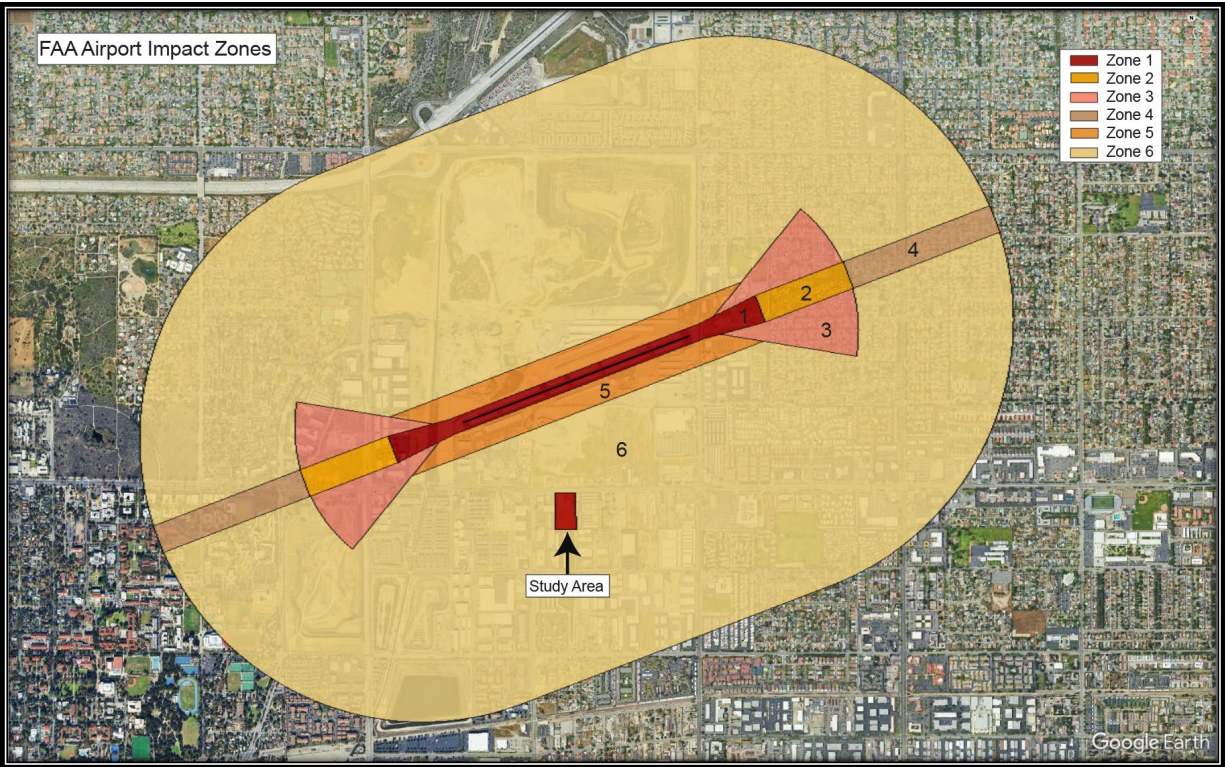


Figure 14 – FAA Airport Impact Zones - Cable Airport

WAC Comment: The study area is located within Zone 6 – Traffic Pattern Zone, where FAA-recommended land use guidance generally supports low-density residential development as a compatible use. The FAA’s Land Use Compatibility and Airports recommendations are based on analyses of aircraft accident data that assist local agencies in establishing appropriate airport impact zones.

Although the FAA does not explicitly identify Zone 6 as a low accident risk area, it is recognized that Zone 6 lies beyond the runway protection zones and the primary approach and departure surfaces, where the probability of aircraft accidents is highest. In these outer areas, the risk of an aircraft accident is inherently lower.

The FAA acknowledges that zones regularly overflown by aircraft, such as Zone 6 traffic patterns, may still be affected by aircraft noise and overflight impacts. Williams Aviation believes that the primary purpose of Zone 6 is to address the potential effects of noise and overflight, rather than accident risk.

It is our professional opinion that the addition of Zone C3 in the Cable Airport Land Use Plan is excessive and unnecessary. Without the additional Zones C2 and C3, the Zone D – Primary Traffic Patterns would correspond closely to the Zone 6 defined in FAA’s Land Use Compatibility and Airports guidance. Therefore, the study area is effectively located within the Zone D – Primary Traffic Patterns of the Cable Airport plan, where the proposed single-family residential use is considered compatible with no conditional criteria.

Existing Residential Context

WAC Comment: The proposed single-family residential project does not introduce any additional impacts on Cable Airport operations based on the following considerations:

- *The project site is situated within the airport's traffic pattern area, but not near the critical runway departure or arrival ends where the likelihood of aircraft accidents and noise exposure is typically higher.*
- *Existing residential developments are already established on both sides of the proposed project site within Zone C3.*
- *Additional existing residential areas are located within the more restrictive Compatibility Zones B1, B2, and B3, zones which are closer to the runway and subject to greater safety and noise considerations than Zone C3.*
- *Existing residential uses are also located within Cable Airport's noise contours that exceed the estimated noise exposure levels projected over the proposed development site.*

Conclusion:

Based on a comprehensive evaluation of the 2015 Cable Airport Land Use Compatibility Plan, the 2011 California Airport Land Use Planning Handbook, and FAA Land Use guidance, Williams Aviation Consultants concludes that the proposed single-family residential development within Zone C3 is compatible with applicable land use and safety criteria. This determination is supported by the following findings:

- **Guidance:**
 - The phrase "avoid new subdivisions" in the Compatibility Criteria for Zone C3 is cautionary and not a prohibition.
 - The term "conditional" in land use compatibility indicates permissibility if specified conditions (such as density and height) are met.
- **Noise Compatibility:**
 - The project site lies within the Future 60 dB CNEL contour, which is below the FAA's 65 dB CNEL threshold for restricted residential development under 14 CFR Part 150.
 - Typical building construction provides adequate insulation for areas exposed to 60 dB CNEL; therefore, noise should not be considered a negative factor.
 - The 2008 Existing Noise Impact Map places the site in the 55–60 dB range, further supporting current compatibility.
 - Future noise projections rely on speculative assumptions and show inflated based aircraft numbers not supported by the current FAA Airport Master Record.
- **Safety Compatibility:**
 - Zone C3 is classified as Low Risk, with few aircraft accidents and limited overflight activity.
 - The proposed density of 14.96 dwelling units/acre is within the allowed 15.0 units/acre limit.
 - The building height of 36 feet is well below the 150-foot limit, ensuring compliance with safety and airspace protection criteria.

- **Overflight and Notification:**
 - Required Overflight Notification and Airport Proximity Disclosure will be included in property records and sales documents.
 - An Avigation Easement may be required, as consistent with the Compatibility Plan’s special circumstances section.

- **Airport Plan Context:**
 - There are no known plans for runway extension or airport expansion that would increase impact risks.

- **Zoning Scope and Justification:**
 - The 2015 Cable Plan designates nine safety zones, which exceeds the 2011 Handbook’s recommendation of five to six zones.
 - Zones C2 and C3 are not compact and unnecessarily restrictive, in conflict with Handbook guidance promoting realistic and efficient zone structuring.
 - The project falls within Safety Zone 6 in the 2011 California Handbook, which permits residential uses with no density restrictions and defines the risk level as Low.
 - The FAA’s Zone 6 – Traffic Pattern Zone supports low-density residential use, aligning with the intended use of the study area.

- **Existing Residential**
 - The project site is situated within the airport’s traffic pattern area, but not near the critical runway departure or arrival ends where the likelihood of aircraft accidents and noise exposure is typically higher.
 - Existing residential developments are already established on both sides of the proposed project site within Zone C3.
 - Additional existing residential areas are located within the more restrictive Compatibility Zones B1, B2, and B3, zones which are closer to the runway and subject to greater safety and noise considerations than Zone C3.
 - Existing residential uses are also located within Cable Airport’s noise contours that exceed the estimated noise exposure levels projected over the proposed development site.

- **Airspace Protection (CFR Part 77 and TERPS):**
 - A CFR Part 77 and Terminal Instrument Procedures (TERPS) analysis was completed and did not identify any impacts to the protected airspace for Cable Airport (CCB).
 - The project was submitted to the FAA Obstruction Evaluation Group on June 17, 2025 under cases 2025-AWP-10587, 10588, 10589, and 10591-OE, which are currently under review.
 - It is the professional opinion of Williams Aviation that these filings will result in Determinations of No Hazard (DNH) from the FAA.

Final Determination:

Given that the proposed development complies with applicable density, height, noise attenuation, airspace protection, and overflight notification requirements, and considering the presence of existing residential uses in higher-risk and higher-noise zones, along with the excessive and unnecessary nature of Zone C3,

Williams Aviation Consultants concludes that the project is compatible with both local and federal airport land use planning standards and should be permitted to proceed.

Part Two – Airspace

FAA Review Process

The FAA utilizes the criteria contained in CFR Part 77 to determine reporting requirements, the impact of a proposed structure on navigable airspace, and whether the structure, if constructed, will require lighting and/or marking.

CFR Part 77 defines the criteria for determining if a structure will require reporting to the FAA, if the structure exceeds the stated criteria and requires the submittal of FAA Form 7460-1, and/or whether the structure has an impact on navigable airspace.

If the FAA determines that there is an impact to navigable airspace, a Notice of Presumed Hazard (NPH) will be issued, and an aeronautical study will be conducted. Concurrent with the NPH the project is distributed to the FAA divisions having the responsibility for air traffic control, flight procedures, airport infrastructure and navigational aids. Each of these divisions then evaluates the project for impacts within their area of jurisdiction. These divisions submit their comments to the Air Traffic division who will issue a determination.

If the FAA determines that the proposed structure has a substantial adverse impact, they will issue a Determination of Hazard. In some cases, they will offer the project proponent options to mitigate the adverse impact, i.e., lower the structure, redesign etc.

It is not uncommon for the FAA's initial analysis to disregard factors unique to a specific airport such as existing structures or special procedures that have been developed for that airport.

Once the FAA's initial analysis is complete, additional data can be presented to the FAA for their consideration which may result in the approval of the proposed structure.

WAC Analysis

The WAC airport and airspace compatibility analysis includes a review of the following criteria to determine possible adverse impacts to aeronautical operations:

1. Public and private airports in the vicinity of the proposed structure.
2. Federal Aviation Regulation Part 77, Objects Affecting Navigable Airspace.
3. Terminal Instrument Procedures (TERPS) including instrument approach and departure procedures.
4. Visual Flight Rule (VFR) Traffic Pattern Airspace.

Public/Private Airports:

Cable Airport (CCB) has an Airport Reference Point (ARP) elevation of 1443.5' AMSL. CCB is a public-use, privately owned airport located within the City of Upland, CA. The airport currently

maintains one runway: Runway 06/24 with a length of 3,863 feet. The study area is approximately 1,577' SE of CCB Runway Centerline (*Figure A*).

An in-depth analysis of CCB was conducted to determine possible impacts on navigable airspace, flight procedures, and determine the maximum achievable structure elevation which will not adversely impact aeronautical operations.



Figure A – Project Distance to CCB

CFR Part 77 Analysis:

CFR Part 77 Notice Requirements

The proposed housing project has a max height of 36' Above Ground Level (AGL) and a ground elevation of approximately 1,349' Above Mean Sea Level (AMSL), resulting in an overall proposed height of 1,385' AMSL.

The proposed 36' Above Ground Level (AGL) housing project was submitted to the FAA Obstruction Evaluation Group on June 17, 2025, under cases 2025-AWP-10587, 10588, 10589, and 10591-OE, which are currently under review.

CFR Part 77 Civil Airport Imaginary Surfaces

An analysis of CFR Part 77 was completed to determine the maximum elevation to which a structure could be erected without exceeding CFR Part 77 Civil Airport Imaginary Surfaces

(Figure B). As stated in FAA Order 7400.2 Procedures for Handling Airspace Matters paragraph 6-3-9b:

“Obstruction standards are used to identify potential adverse effects and are not the basis for a determination. The criteria used in determining the extent of adverse effect are those established by the FAA to satisfy operational, procedural, and electromagnetic requirements. These criteria are contained in regulations, advisory circulars, and orders (e.g., the 8260 Order series and Order 7110.65). Obstruction evaluation personnel must apply these criteria in evaluating the extent of adverse effect to determine if the structure being studied would actually have a substantial adverse effect and would constitute a hazard to air navigation.”

CFR Part 77 Obstruction Standards is not used to determine if a structure will be a hazard to air navigation, rather, structures exceeding this criterion are studied closely by the FAA to determine if the structure will require mitigation or if the structure will impact terminal instrument procedures or visual flight rule traffic pattern airspace. Generally, a structure that exceeds CFR Part 77 Obstruction Standards will require mitigation such as lighting and/or marking in order to make it more conspicuous to airmen.

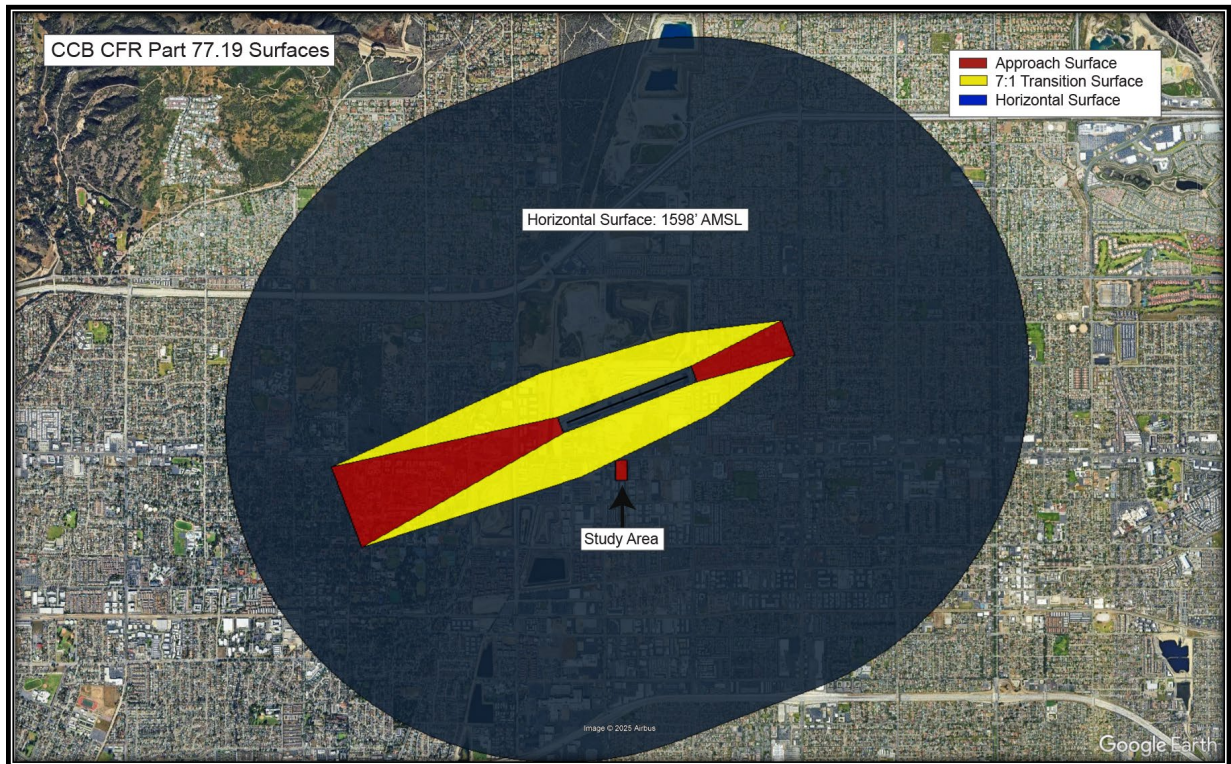


Figure B – CCB CFR Part 77 Civil Airport Imaginary Surfaces

Conclusion: The study area is located within CCB Horizontal Surface with an elevation of 1,598' AMSL. The proposed 36' AGL (1,385' AMSL) houses will not exceed CCB CFR Part 77 Civil Airport Imaginary Surfaces.

Terminal Instrument Procedures (TERPS)

An analysis of the Terminal Instrument Procedures (TERPS) criteria was completed to determine the maximum elevation to which a structure could be erected without impacting the airport's instrument approach and departure procedures.

A penetration to the Obstacle Clearance Surfaces (OCS) by a proposed structure would result in the need to increase the procedure's Minimum Descent Altitude (MDA) (the lowest altitude that a pilot can descend on an approach) and would likely receive a Hazard Determination from the FAA.

Instrument Approach Procedures (IAP)

Figures C, D, and E display an overview of the OCS associated with Instrument Approach Procedure's (IAP) to CCB.

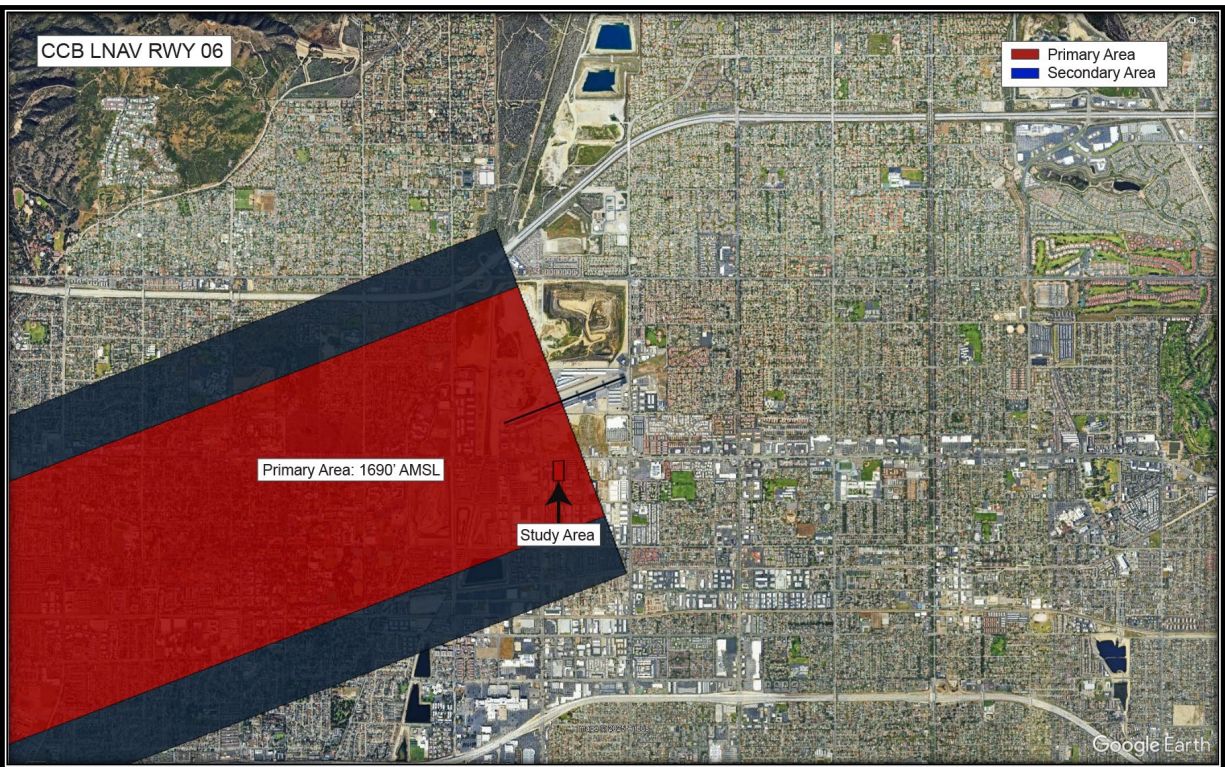


Figure C – CCB RNAV (GPS) LNAV RWY 06

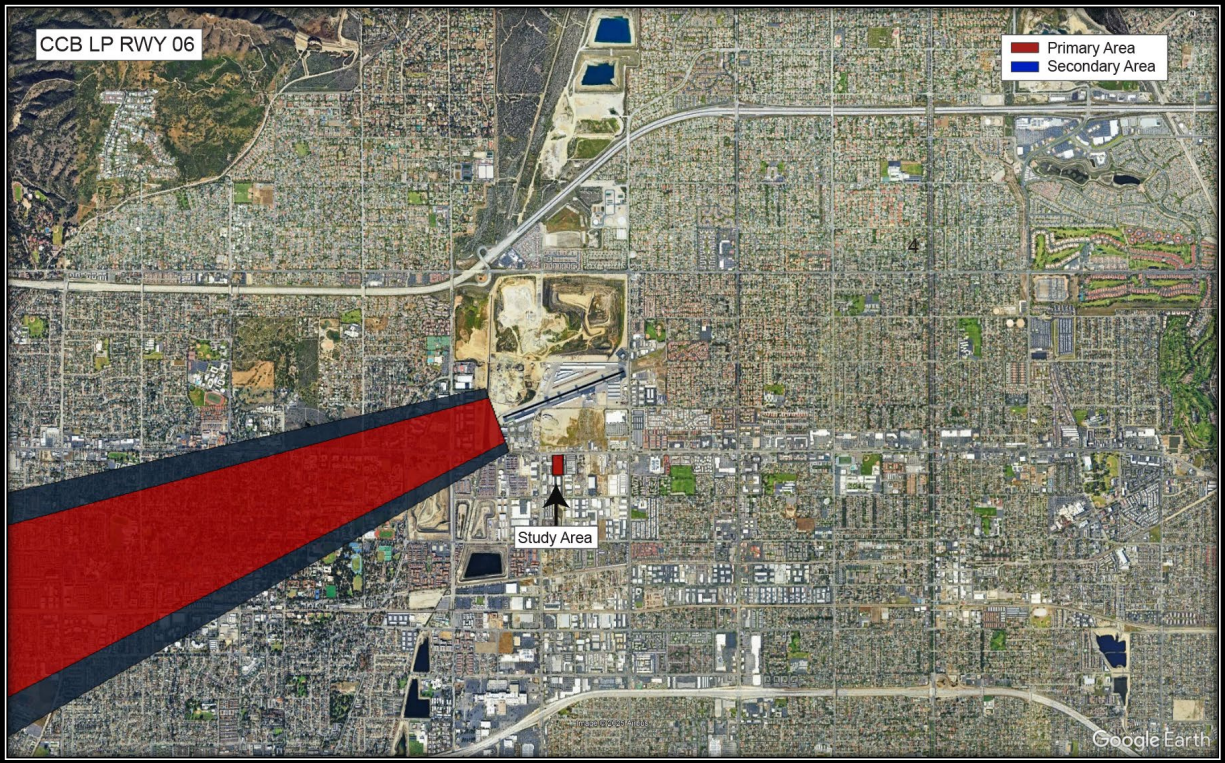


Figure D – CCB RNAV (GPS) LP RWY 06

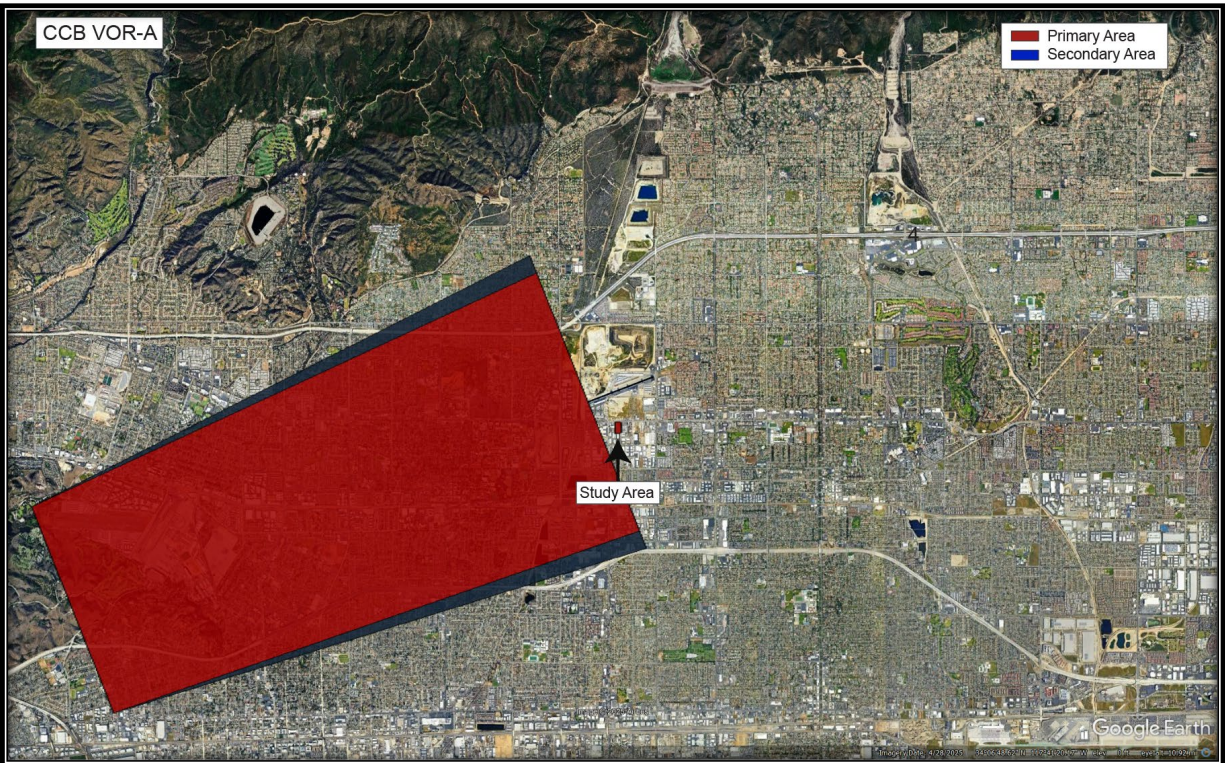


Figure E – CCB VOR-A

Conclusion: The study area is located within CCB RNAV (GPS) LNAV RWY 06 Primary Obstacle Clearance Surface (OCS) with an elevation of 1,690' AMSL. The proposed 36' AGL (1,385' AMSL) houses will not exceed CCB Instrument Approach Procedures (IAP) OCS.

Missed Approach (MA) Procedure Surfaces

A missed approach area is evaluated to ensure that an aircraft will remain a safe distance from obstacles if a pilot cannot see the runway during an instrument approach and must therefore execute a missed approach. The area considered for obstacles has an initial width equal to the OCS and expands uniformly as it extends from the Decision Altitude (DA) point. If obstacles penetrate the missed approach procedure surface, the DA must be increased to prevent penetration.

Figure F displays the lowest Instrument Approach Procedure (IAP) Missed Approach (MA) to CCB RWY 06.

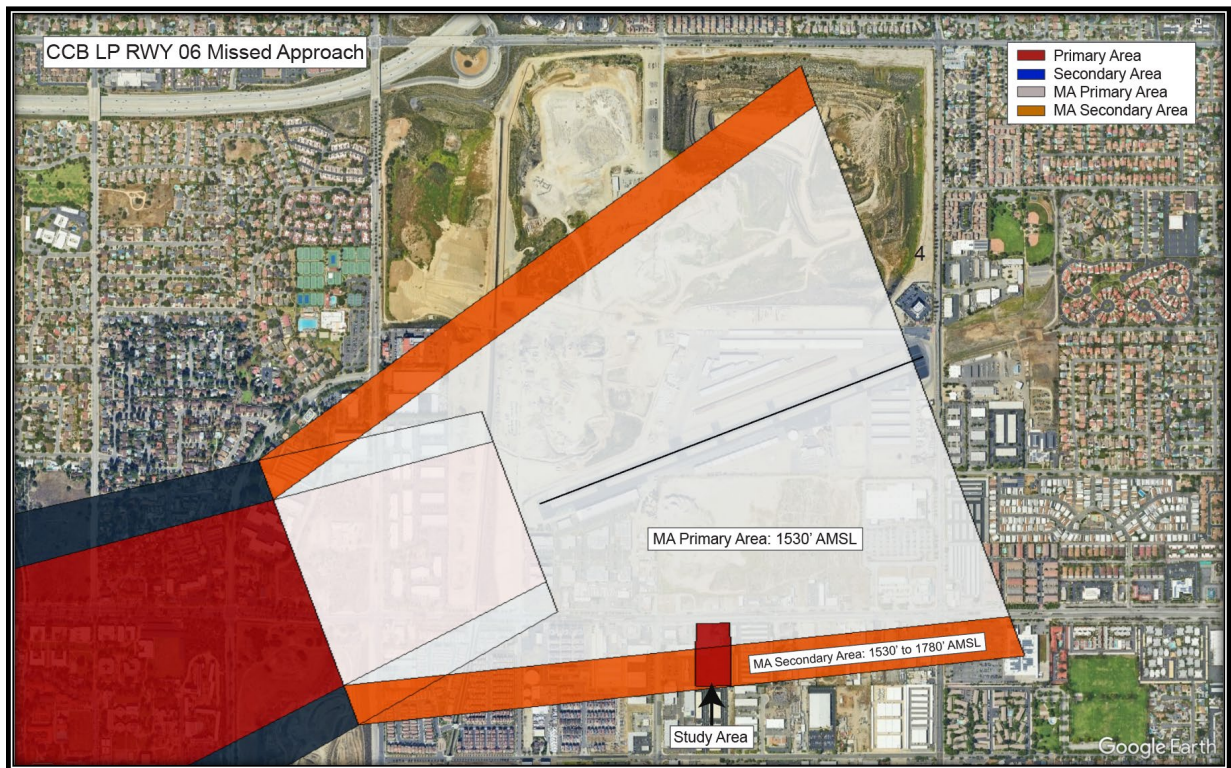


Figure F – CCB RNAV (GPS) LP RWY 06 MA

Conclusion: The study area is located within CCB RNAV (GPS) LP RWY 06 Missed Approach Primary Obstacle Clearance Surface (OCS) with an elevation of 1,530' AMSL. The proposed 36' AGL (1,385' AMSL) houses will not exceed CCB Missed Approach (MA) Procedures OCS.

Circle-to-Land Instrument Approach Procedure

Each instrument approach procedure contains a circle-to-land option. The circle-to-land portion of the procedure allows a pilot to approach the airport in instrument conditions then, once they have

the airport environment in sight, the pilot can maneuver the aircraft to the opposite end of the runway to land. A pilot would execute this type of instrument approach procedure if the winds were not favorable for landing on the primary runway for which the procedure was designed.

The surfaces which protect the circle-to-land consist of horizontal circular surfaces which extend from the end of each runway. The radius of each circle is dependent on the category of aircraft utilizing the circle-to-land approach. **Figure G** displays the Circle-to-Land at CCB for Category A aircraft.

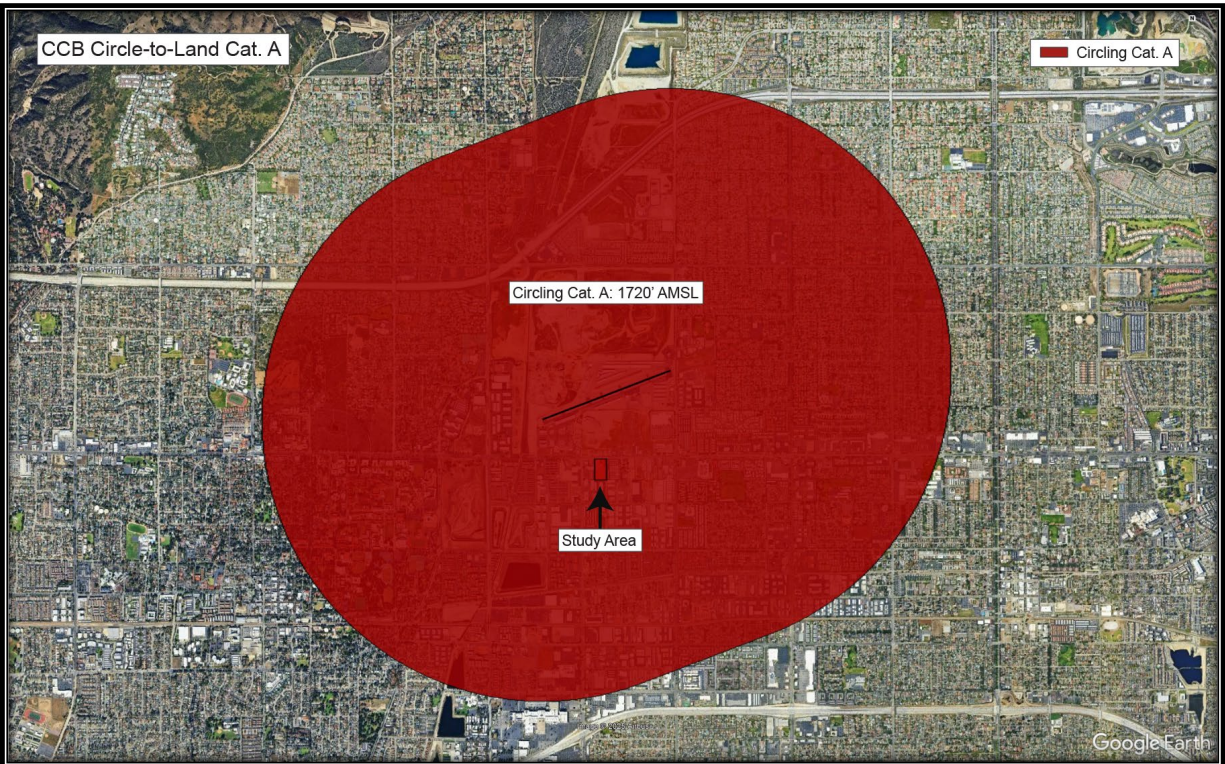


Figure G – CCB Circling Category A

Conclusion: *The study area is located within CCB Circle-to-Land Category A Obstacle Clearance Surface (OCS) with an elevation of 1,720' AMSL. The proposed 36' AGL (1,385' AMSL) houses will not exceed CCB Circling Cat. A OCS.*

Obstacle Departure Procedures

The OCS associated with CCB's departure procedures were analyzed. Penetration to the Departure procedure Initial Climb Area (ICA) could result in the need for the departure procedure to be modified.

Figures H and I display the Departure ICA CBB RWY 06 and 24.

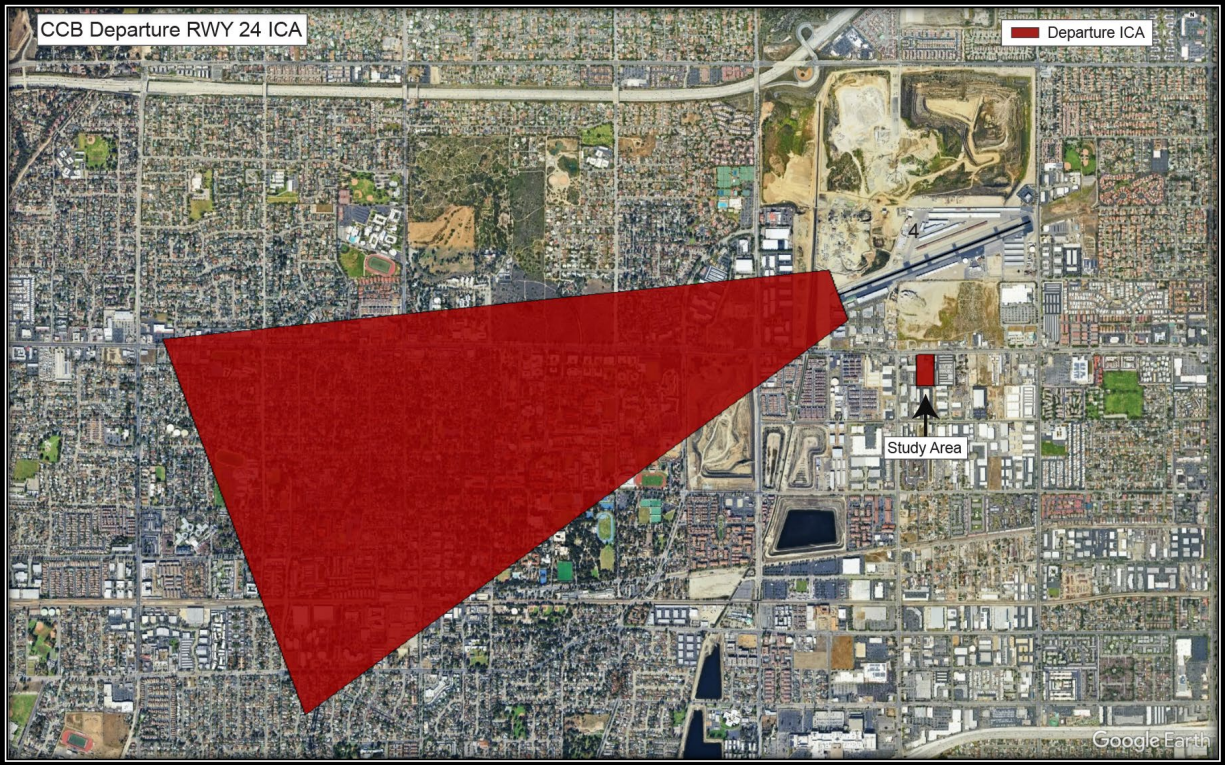


Figure H – CCB RWY 24 Departure ICA

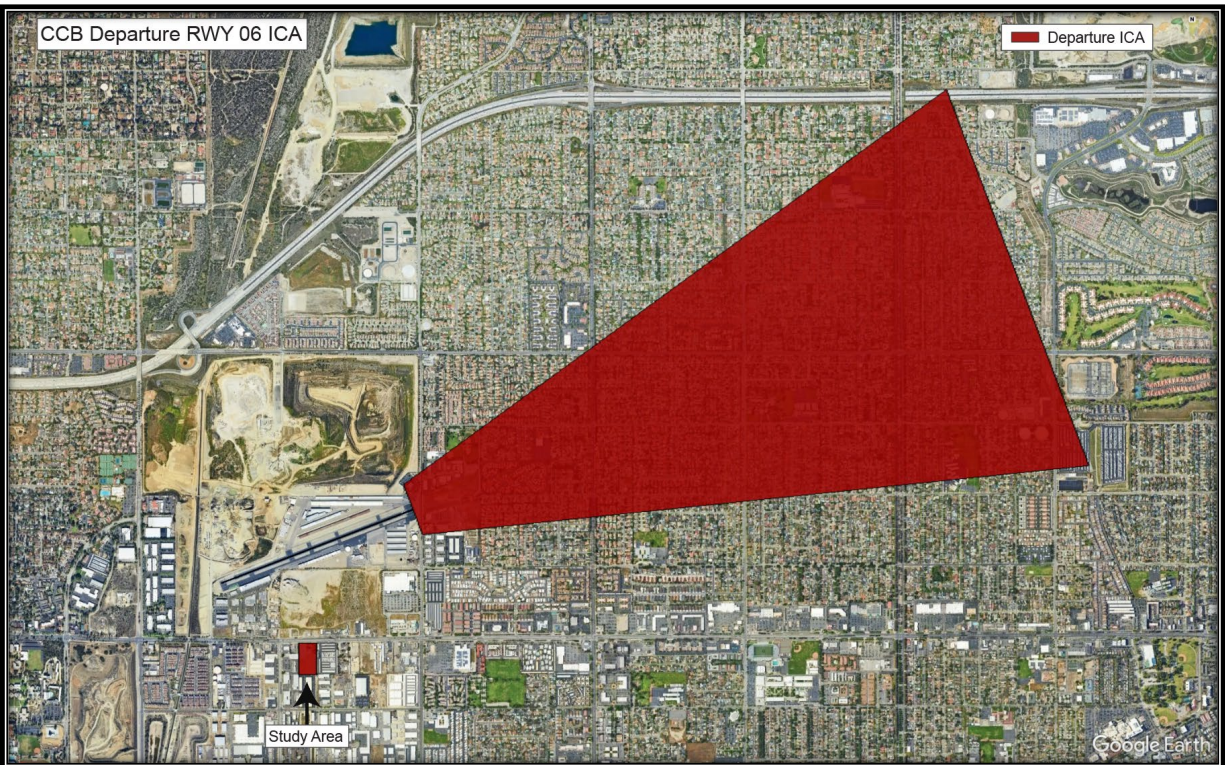


Figure I – CCB RWY 24 Departure ICA

Conclusion: *The study area is located outside the CCB Departure Initial Climb Area (ICA).*

Visual Flight Rule (VFR) Traffic Pattern Airspace

An analysis of the CCB VFR Traffic Pattern Airspace was completed to determine the maximum elevation to which a structure could be erected without impacting aircraft operating in visual conditions. A structure that exceeds VFR Part 77 Obstruction Standards (as applied to visual approach runways) could have an impact on aircraft operating in an airport's VFR Traffic Pattern.

Figure J displays an overview of the VFR Traffic Pattern Airspace for CCB.

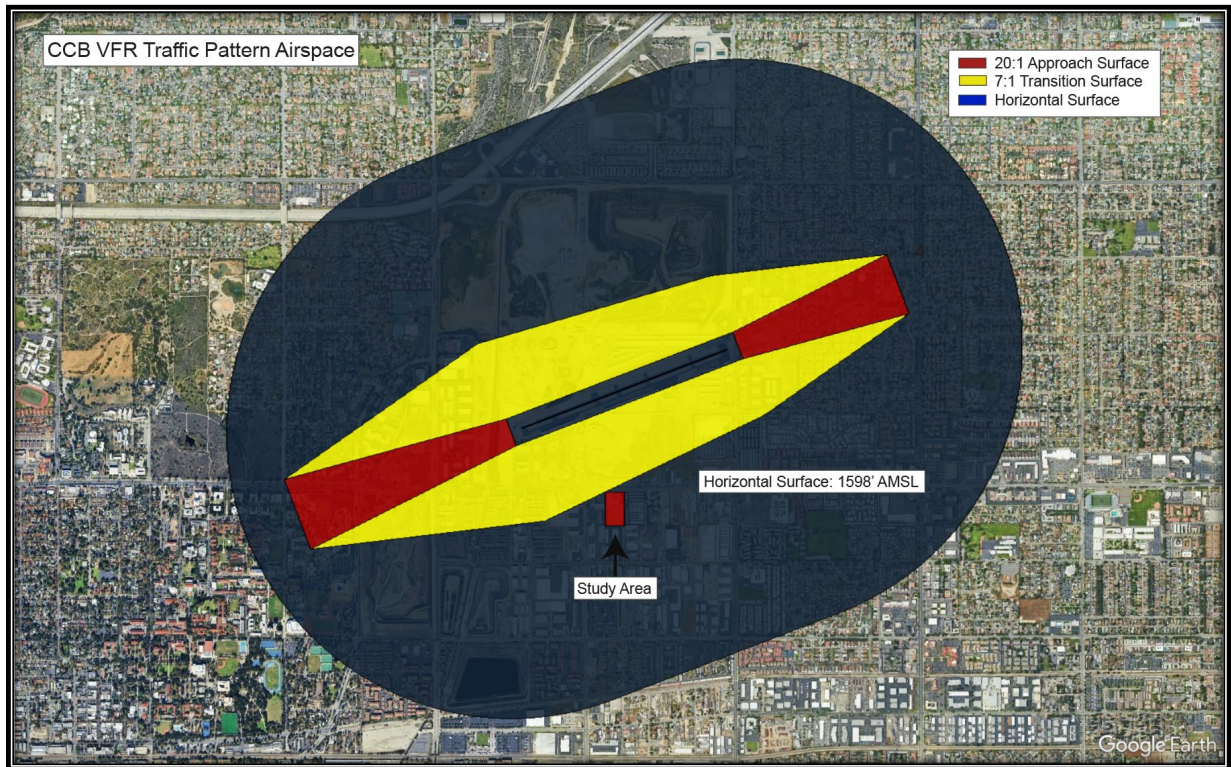


Figure J – VFR Traffic Pattern Airspace at CCB

Conclusion: *The study area is located within CCB VFR Horizontal Surface with an elevation of 1,598' AMSL. The proposed 36' AGL (1,385' AMSL) houses will not exceed CCB VFR Traffic Pattern Airspace.*

Visual Approach Slope Indicator (VASI)

Figure K displays the Visual Approach Slope Indicator (VASI) OCS for CCB Runways 06 and 24.

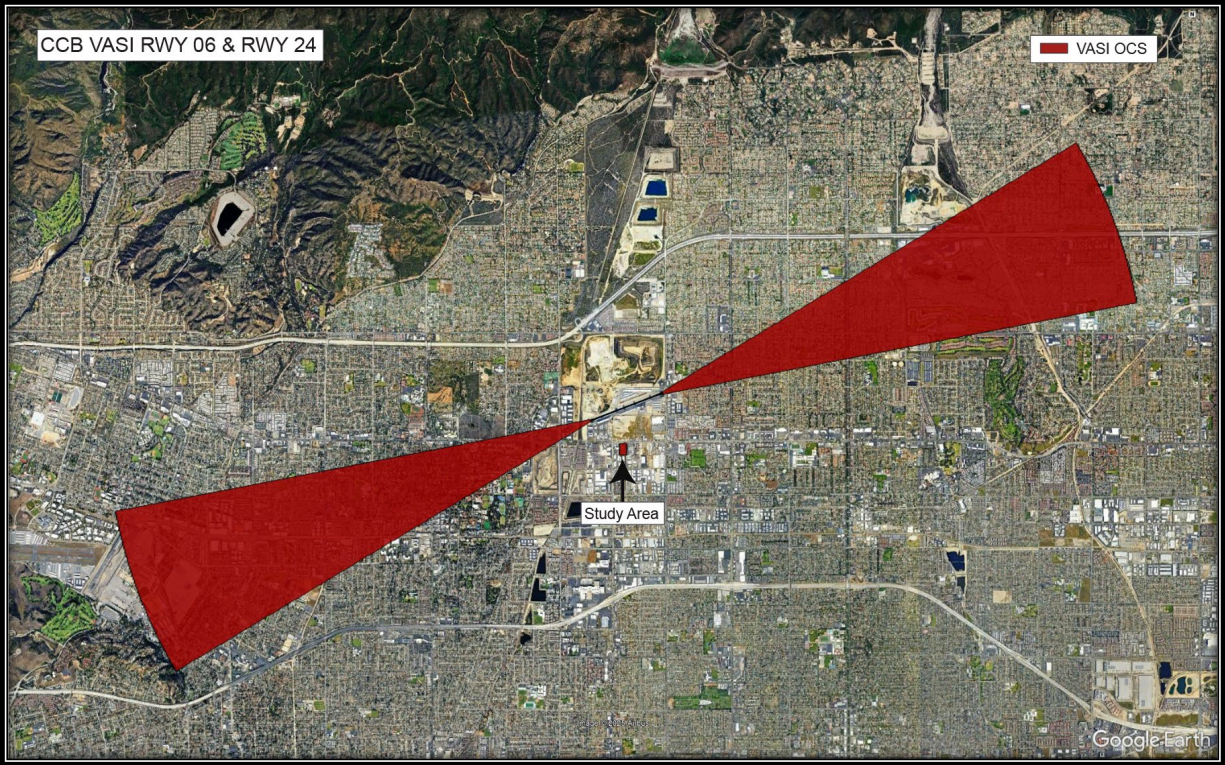


Figure K – CCB VASI RWY 06 & RWY 24

Conclusion: The study area is located outside the CCB VASI OCS.

Conclusion:

- A CFR Part 77 and Terminal Instrument Procedures (TERPS) analysis was completed and did not identify any impacts to the protected airspace for Cable Airport (CCB).
- The project was submitted to the FAA Obstruction Evaluation Group on June 17, 2025 under cases 2025-AWP-10587, 10588, 10589, and 10591-OE, which are currently under review.
- It is the professional opinion of Williams Aviation that these filings will result in Determinations of No Hazard (DNH) from the FAA.