



Sent by e-mail to:

John McDowell, [john.mcdowell@countyofnapa.org](mailto:john.mcdowell@countyofnapa.org)

May 6, 2021

John McDowell  
Napa County Airport Land Use Commission Staff  
Napa County Planning, Building and Environmental Services Department  
1195 Third St – Suite 210  
Napa, CA 94559

**Subject: Oat Hill Project Application (P21-00056) for the Napa County Airport Land Use Commission – 2<sup>nd</sup> Response**

Dear Mr. McDowell,

Staff received the incompleteness letter for the Oat Hill Project dated April 23, 2021. Please see the following for responses.

1. Please provide the Land Use and Noise Element of the current City of American Canyon General Plan, either by publicly accessible link to the City's webpages or as a PDF document. In addition, please verify that the proposed General Plan Amendment for the project is limited to a land use map change with no corresponding changes to current General Plan's airport compatibility related policies, exhibits and tables which indicate residential uses as prohibited within Airport Land Use Compatibility Zone D.

*Response #1: Electronic copies of the Land Use and Noise Elements of the current American Canyon General Plan was provided to Mr. John McDowell by sharefile on April 26, 2021. Staff confirms that the Oat Hill project is limited to a land use map change with no corresponding changes to the City's General Plan airport compatibility related policies, exhibits, and tables.*

2. Please provide the ordinance and City Council staff report for the City's previous action rescinding the Airport Compatibility Overlay Zoning District, which once applied to all City parcels located within the Airport Influence Area for Napa County Airport including the subject property for this proposal.

*Response #2: To be provided separately by the City Attorney.*

3. The upper portion of the project site penetrates navigable airspace generally above 183 ft. in elevation which triggers FAA (FAR Part 77) aircraft hazard obstruction review, and as set forth in



ALUCP Policy 3.3.4. Please provide documentation of compliance with the FAA (FAR Part 77) notice of proposed construction process.

*Response #3: To be provided separately by the Applicant's CEQA consultant.*

4. Please provide copies, preferably as a PDF, of the Mead & Hunt (2005) and Walter Gillfilland and Associates (2005) studies and the City's September 18, 2020 comment letter titled *Item 9A – Comments on the Initial Study/Mitigated Negative Declaration for the Terminal Area Redevelopment (IS/MND)* cited in your documents as supporting conversion of this project site to residential uses.

*Response #4: Applicant's CEQA consultant will provide the Mead & Hunt (2005) and Gillfilland (2005) studies. See attached file for the City's comment letter on the ISMND for the Terminal Area Redevelopment.*

5. Please update the noise impact analysis to address potential for noise impacts resulting from single event aircraft overflight.

*Response #5: To be provided separately by the Applicant's CEQA consultant.*

6. Please provide building and site densities (persons per acre) calculations.

*Response #6: Please see the table below for density and other site related information. For persons per acre, staff used ACMC Chapter 18.44, which estimates population at 3.49 persons per dwelling unit.*

**Table 1 – Parcel A (206 units) Development Standards**

<b>Development Standard (RH-1 Zone)</b>	<b>Required</b>	<b>Provided</b>
Minimum Lot Size	20,000 SF	13.6 acres
Max Density (dwelling units per acre)	16 DU/AC	15.1 DU/AC
Persons per acre (estimated at 719 people)	N/A	52.9 persons / AC
Minimum Width	100 feet	600+ feet
Minimum Depth	100 feet	900+ feet
Max Lot Coverage	50%	17.6%
Max Building Height	42 feet	40 feet

**Table 2 – Parcel B (85 units) Development Standards**

<b>Development Standard (RM Zone)</b>	<b>Required</b>	<b>Provided</b>
Minimum Lot Size	20,000 SF	7.2 acres
Max Density	12 DU/AC	11.8 DU/AC
Persons per acre (estimated at 297 people)	N/A	41.2 persons / AC
Minimum Width	100 feet	600+ feet
Minimum Depth	100 feet	300+ feet
Max Lot Coverage	50%	13%
Max Building Height	42 feet	40 feet

Sincerely,

A handwritten signature in blue ink, appearing to read "W. He". The signature is stylized with a long horizontal stroke above the letters.

William He, AICP  
Associate Planner, Community Development Department

Attachments: 1. City's comment letter on the ISMND for the Terminal Area Redevelopment.

EC: Rick Hess, RH Hess Development Co.  
Brent Cooper, AICP, Community Development Director  
William D. Ross, City Attorney



DATE: September 18, 2020

TO: Minh Tran, County Executive Officer

C/C: Greg Baer, Airport Manger  
Steve Lederer, Public Works Director

RE: Item 9A – Comments on the *Initial Study/Mitigated Negative Declaration for the Terminal Area Redevelopment (IS/MND)*

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As Napa County’s largest aviation asset, the City of American Canyon recognizes the importance of the Napa County Airport and supports efforts to chart a course for its long-term economic sustainability. Given the fervent pace of technological innovation occurring in the Personal Aerial Vehicle space and its location proximate to potential future extension of Sonoma-Marin Area Rail Transit (SMART) to Solano County<sup>1</sup>, it is exciting to consider the future of a re-imagined Napa County Airport from a regional context and the City applauds the Board of Supervisor’s desire to invest in South County transportation infrastructure.

Notwithstanding the excitement of future expansion of the Airport, the City submits the following comments regarding the *Initial Study/Mitigated Negative Declaration for the Terminal Area Redevelopment (IS/MND)*. Specifically, our comments relate to the following issues: water and noise.

As the potable water purveyor to the Airport, the City is unable to determine the amount of water needed by the future uses based on the information provided in the IS/MND. While the IS/MND analyzes the amount of *solid* waste generated by the land use increase (Table 26), it does not analyze the amount potable water needed. Thus, the statement that the potential impact is “Less Than Significant” is not supported by substantial evidence.

While consistency with the City’s Zero Water Footprint Policy (ZWF Policy) is a prerequisite for the issuance of a Will-Serve Letter, without sufficient analysis of water demand, it is not possible to determine whether this reasonably achievable. Importantly, consistency with the City’s ZWF Policy is not also identified as a Mitigation Measure. The City respectfully suggests a different approach to environmental review on this topic – namely, the IS/MND should identify the impact as “Less than Significant with Mitigation Incorporated” and identify a Mitigation Measure requiring consistency with American Canyon’s ZWF Policy.

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<sup>1</sup> [https://scta.ca.gov/wp-content/uploads/2019/09/SMART-Passenger-Rail-Service-Novato-to-Suisun-City-Report\\_reduced.pdf](https://scta.ca.gov/wp-content/uploads/2019/09/SMART-Passenger-Rail-Service-Novato-to-Suisun-City-Report_reduced.pdf)

Regarding potential noise impacts, it is noted residential uses are considered “noise-sensitive” and there are several existing residences south of the Airport. The IS/MND demonstrates the 65 decibel (dB) Community Noise Equivalent Level (CNEL) boundary (also known as the “Noise Annoyance Zone” or “Zone ‘D’”) is contained entirely within the Airport property under existing and future conditions. The IS/MND concludes that in areas where the 65 CNEL threshold is exceeded, noise-sensitive land uses are compatible only if specified noise level reductions are secured, but further concludes all types of land uses are acceptable in areas outside the Noise Annoyance Zone (ie. below the 65 CNEL threshold)<sup>2</sup>. It is worth noting the Airport Land Use Compatibility Plan includes a significantly larger boundary for Zone D – including lands within American Canyon - that are well below the 65 CNEL threshold.

The City is in the process of considering residential development on a portion of these lands. The City agrees the IS/MND contains the substantial evidence to support a reduced “Zone D” and notes this evidence forms the basis for “Impact Analysis XIV.(a-b): No Impact”<sup>3</sup>. Likewise, this evidence provides the basis for subsequently accurately depicting a reduced Zone D through revisions to the Airport Land Use Compatibility Plan – albeit by separate action at a later date by the Board.

Thank you for the opportunity to provide comment on the IS/MND and best of luck in your pursuit of a second Fixed Base Operator.

Regards,

A handwritten signature in black ink that reads "Jason B. Holley". The signature is written in a cursive, flowing style.

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Jason B. Holley, City Manager

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<sup>2</sup> 14 CFR 150, Airport Noise Compatibility Planning.

<sup>3</sup> “..... The proposed Project is Non-Residential in nature and will provide facilities for up to two FBOs. It will not cause displacement of existing community members or housing, nor will it necessitate the construction of temporary housing



May 7, 2021

**VIA E-MAIL**

John McDowell  
ALUC Staff Liaison  
Napa County Airport Land Use Commission  
1195 Third Street, Room 210  
Napa, California 94559

Re: Supplement to May 6, 2021 Letter of William He Re: Oat Hill Project  
Application (P21-00056) for the Napa County Airport Land Use Commission -  
2nd Response

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Dear Mr. McDowell:

This communication supplements and incorporates the May 6, 2021 communication from William He, Associate Planner, Community Development Department of the City of American Canyon ("City"), specifically responding to questions from your April 23, 2021 communication related the referral to the Napa County Airport Land Use Commission ("ALUC") of the Oat Hill Multi-Family Project ("Project") for a consistency determination with the Napa County Airport Land Use Compatibility Plan ("ALUCP").

**SCOPE OF ALUC REVIEW**

The Public Utilities Code ("PUC"), specifically the State Aeronautics Act gives the ALUC the ability to review local land use decisions such as the Project.

Under PUC Section 21676(b), prior to the amendment of its general plan related to a project within the vicinity of the Napa Airport identified in the ALUCP, the City must refer the proposed action to the ALUC. As part of this referral, the City must provide analysis of project consistency with the ALUCP.

PUC Section 21670 provides that the intent of the Aeronautics Act is to prevent the creation of new noise and safety problems and to protect public health, safety, and welfare by ensuring the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards.

The ALUC thus reviews proposed projects for consistency; it does not approve or deny the projects.

### **SUPPLEMENT TO RESPONSES**

The following are responses 2, 3, 4, and 5 referenced in the He communication:

*2. Please provide the ordinance and City Council staff report for the City's previous action rescinding the Airport Compatibility Overlay Zoning District, which once applied to all City parcels located within the Airport Influence Area for Napa County Airport including the subject property for this proposal.*

**Response 2:** There are no official records of a City action rescinding the Airport Compatibility Overlay Zoning District.

The General Plan and Zoning Code was brought into conformance with the ALUCP back in 2010. Attached as Exhibit A are the General Plan Amendment and Zoning Ordinance that brought about the conformance. There is no action creating the Airport Compatibility Overlay Zoning District.

Prior to Council adoption but after Planning Commission review, per ALUC policy, the ALUC considered these changes and deemed them consistent with the ALUCP on February 3, 2010. Attached as Exhibit B is a copy of the confirming ALUC letter.

On January 21, 2020 the City Council adopted a resolution (Resolution 2020-06) declaring that residential uses are the best use of the Rick Hess property on Oat Hill. In that resolution the City noted the next steps that require a full project approval process be followed to allow for any proposed change of use. The request for an ALUC consistency determination is part of that process. Attached as Exhibit C is a copy of the January 21, 2020 resolution.

*3. The upper portion of the project site penetrates navigable airspace generally above 183 ft. in elevation which triggers FAA (FAR Part 77) aircraft hazard obstruction review, and as set forth in ALUCP Policy 3.3.4. Please provide documentation of compliance with the FAA (FAR Part 77) notice of proposed construction process.*

**Response 3:** The applicant will be conditioned by the City to submit FAA Form 7460-1, Notice of Proposed Construction or Alteration and to receive an FAA Determination of No Hazard to Air Navigation, prior to receiving any permits associated with the Project. The applicant has indicated that they will be submitting the FAA Form 7460-1 for the project in the coming week and will provide the FAA Aeronautical Study numbers for each of these cases as information to the ALUC. While it is unlikely that the FAA Determination of No Hazard will be received by the June 16, 2021 ALUC hearing on the

Project, the City would accept a conditionally consistent determination from the ALUC reiterating the City's requirement for an FAA Determination of No Hazard to Air Navigation.

*4. Please provide copies, preferably as a PDF, of the Mead & Hunt (2005) and Walter Gillfilland and Associates (2005) studies and the City's September 18, 2020 comment letter titled Item 9A - Comments on the Initial Study/Mitigated Negative Declaration for the Terminal Area Redevelopment (IS/MND) cited in your documents as supporting conversion of this project site to residential uses.*

**Response 4.** Attached as Exhibits D and F are the referenced Mead & Hunt and Gillfilland studies and supporting communications. The IS/MND for the Terminal Area Redevelopment was provided in the referenced communication by Mr. He.

*5. Please update the noise impact analysis to address potential for noise impacts resulting from single event aircraft overflight.*

**Response 5.** There is no new updated analysis regarding noise impacts resulting from single event aircraft overflight.

As previously furnished to the ALUC Staff, a portion of the Oat Hill Project Parcel A is located in Napa County Airport Compatibility Zone "D". Zone D restricts development to industrial or other non-residential uses.<sup>1</sup> Noise and safety criteria were analyzed in the IS/MND prepared for the Project that determined that, based on the IS/MND recently prepared for the Napa County Airport Terminal Area Redevelopment project ("Terminal IS/MND"), the Airport's 65 decibel (dB) Community Noise Equivalent Level (CNEL) boundary is located entirely within the Airport property and does not cover any area of the Oat Hill Project.<sup>2</sup>

Stated differently, evidence exists to conclude the 65 decibel (dB) Community Noise Equivalent Level (CNEL) boundary (also known as the "Noise Annoyance Zone" or "Zone 'D'") is contained entirely within the Airport property under existing and future conditions. Thus, as noted in the Oat Hill Multi-family Project MND, the project is not located within the regular flight-path/overflight for normal airport operations, nor would the project result in buildings that would obstruct established flight paths. Development within the Project site would not conflict with Napa County Airport noise contours or any of the "three established sources of guidance on safety compatibility" for Zone D.

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<sup>1</sup> ALUCP, Table 3-2, p. 46.

<sup>2</sup> Neither the ALUC nor ALUC Staff commented on the Project MND, during the public review period, and the City was entitled to assume that the ALUC Staff silence indicated it had no comment. *Cf. Cleary v. County of Stanislaus*, 118 Cal.App.3d 348, 355 (1981).



As previously indicated, the City Manager pointed this out in a September 20, 2020 comment to on the Draft Terminal IS/MND<sup>3</sup> for the Napa County Terminal Area Redevelopment project:

Regarding potential noise impacts, it is noted residential uses are considered “noise-sensitive” and there are several existing residences south of the Airport. The IS/MND demonstrates the 65 decibel (dB) Community Noise Equivalent Level (CNEL) boundary (also known as the “Noise Annoyance Zone” or “Zone ‘D’”) is contained entirely within the Airport property under existing and future conditions. *The IS/MND concludes that in areas where the 65 CNEL threshold is exceeded, noise-sensitive land uses are compatible only if specified noise level reductions are secured, but further concludes all types of land uses are acceptable in areas outside the Noise Annoyance Zone (i.e., below the 65 CNEL threshold)*<sup>4</sup>. It is worth noting the Airport Land Use Compatibility Plan includes a significantly larger boundary for Zone D – including lands within American Canyon - that are well below the 65 CNEL threshold. (Emphasis added).

Anticipating the City need for new housing consistent with its current Housing Element, the City Manager pointed out that the existing ALUCP Zone D was acknowledged by the Terminal IS/MND to provide substantial evidence supporting a reduced Zone D:

The City is in the process of considering residential development on a portion of these lands. The City agrees the IS/MND contains the substantial evidence to support a reduced “Zone D” and notes this evidence forms the basis for “Impact Analysis XIV.(a-b): No Impact”. Likewise, this evidence provides the basis for subsequently accurately depicting a reduced Zone D through revisions to the Airport Land Use Compatibility Plan – albeit by separate action at a later date by the Board.

Further, a noise report prepared for the Project by Saxelby Acoustics demonstrates that the exterior noise levels within the Project would not exceed 65 dBA for outdoor activity areas, nor would interior noise levels within both parcels exceed the 45 dBA standards for interior noise exposure levels. Thus, noise impacts typically associated with Zone D *do not impact the Project*. The Saxelby Acoustics report is part of the Project MND which was furnished to the ALUC Staff on February 8, 2021.

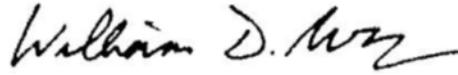
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<sup>3</sup> The City Comment Letter was provided in the communication by Mr. He.

<sup>4</sup> This footnote from the quoted text references 14 CFR 150, Airport Noise Compatibility Planning.

If there are any additional questions prior to the June 16, 2021 ALUC review, please contact any of the City or applicant representatives.

Very truly yours,

A handwritten signature in black ink, appearing to read "William D. Ross".

William D. Ross  
City Attorney

enclosures

cc: Jason B. Holley, City Manager

Brent Cooper, Community Development Director

William He, Associate Planner

Rick Hess

[rick@rhess.com](mailto:rick@rhess.com)

Clark Morrison, Esq.

[cmorrison@coxcastle.com](mailto:cmorrison@coxcastle.com)

# **EXHIBIT A**

## RESOLUTION # 2010-47

### A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON APPROVING GENERAL PLAN AMENDMENT GP10-0001 TO ACHIEVE CONSISTENCY WITH THE NAPA COUNTY AIRPORT LAND USE COMPATIBILITY PLAN

**WHEREAS**, pursuant to Section 65300 of the State Planning and Zoning Law, the City of American Canyon has adopted a General Plan to provide comprehensive long-range planning and a blueprint of the city's future form, including land use and circulation maps that specify the roadway network and the distribution of types and intensities of land; and

**WHEREAS**, Section 65358 of the State Planning and Zoning Law provides that the City Council may amend all or part of the General Plan if it deems the amendment to be in the public interest; and

**WHEREAS**, the City's General Plan is inconsistent with the County's Airport Land Use Compatibility Plan as revised in 1999, requiring the revision and addition of policies related to Airport Land Use Compatibility; and

**WHEREAS**, pursuant to the California Environmental Quality Act, the proposed General Plan Amendments are exempt per CEQA Guidelines Section 15320, Changes in Organization of Local Agencies; and

**WHEREAS**, the City of American Canyon Planning Commission unanimously recommended adoption of General Plan Amendment GP-10-0001 on December 17, 2009; and

**WHEREAS**, the Napa County Airport Land Use Commission unanimously deemed General Plan Amendment GP-10-0001 consistent with the Napa County Airport Land Use Compatibility Plan on May 3, 2010; and

**WHEREAS**, a duly-noticed public hearing was held by the City of American Canyon City Council on May 18, 2010, at which time all those in attendance were given the opportunity to speak on the proposal; and

**WHEREAS**, the City Council considered all of the written and oral testimony presented at the public hearing in making its decision.

**NOW, THEREFORE, BE IT RESOLVED** that the City Council does hereby:

1. Find, based on the following evidence and as required by State Law on General Plan Amendments:

a. The proposed amendment is deemed to be in the public interest.

*The proposed amendment is in the public interest, as it will render the General Plan consistent with state law concerning airport compatibility, and county polices and regulations of the Airport Land Use Commission and the Airport Land Use Compatibility Plan.*

b. The proposed amendment is consistent and compatible with the rest of the General Plan and any implementation programs that may be affected.

*Objective 1.27 states: "Ensure that lands in American Canyon are developed in a manner which protects them from the noise and operational impacts of and does not adversely constrain the Napa County Airport." The revisions to the General Plan make the plan consistent with currently applicable policies and regulations within areas affected by the airport. The amendments are compatible with and there are no conflicts with the rest of the General Plan.*

c. The potential impacts of the proposed amendment in the land use designation have been assessed, and have been determined not to be detrimental to the public health, safety, or

welfare.

*There are no changes to the land use designations of the General Plan. When the amendment is adopted, the plan will be consistent with state law and current county regulations for the Airport Compatibility Zones. Potential impacts will not be detrimental to the public health, safety, or welfare.*

- d. The proposed amendment has been processed in accordance with the applicable provisions of the California Government Code and the California Environmental Quality Act (CEQA).

*The amendment has been processed in accordance with CEQA. The project is exempt per CEQA Guidelines Section 15320, Changes in Organization of Local Agencies, as the authority for reviewing land use compatibility for discretionary applications is moving from the County to the City as a result of this amendment making the General Plan consistent with the County Airport Land Use Compatibility Plan.*

- 2. Adopt the following General Plan Amendment (GP10-0001):

### **Land Use Element:**

#### **CITYWIDE LAND USE POLICY: KEY ISSUES**

The following prescribes goals, objectives, and policies applicable to development in general, regardless of type, density, or location. Pertinent policies must be considered for any land use or development activity.

#### **AIRPORT COMPATIBILITY**

##### **Goal**

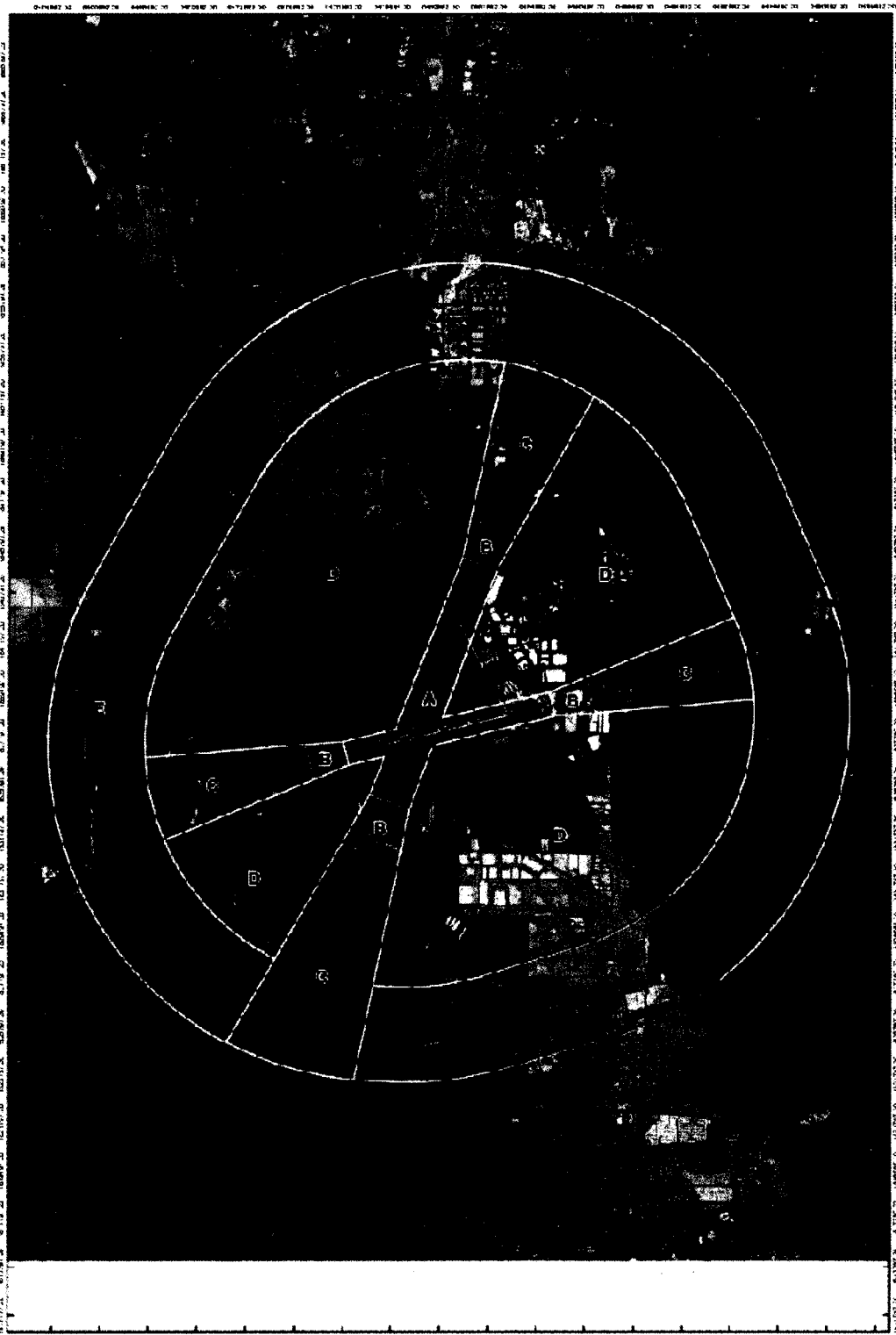
- 1N**            **Ensure the compatibility of development within American Canyon with the Napa County Airport.**

##### **Objective**

- 1.27**            Ensure that lands in American Canyon are developed in a manner which protects them from the hazards, noise and operational impacts of, and does not adversely constrain, the Napa County Airport.

## Policies

- 1.27.1 Require that development comply with the land use and development conditions stipulated in the Napa County Airport Land Use Compatibility Plan (ALUCP) and **Tables 1-1** and **1-2** for areas within the jurisdiction of the Napa County Airport Land Use Commission (ALUC), as depicted on **Figure 1-3**. (*1.1.1, 1.1.4, 1.1.5, 1.1.8, and 1.1.11*)
- 1.27.2 Review all discretionary applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones "A" through "E" for compliance with the appropriate compatibility policies, use, density and design criteria provided in the ALUCP through Design Permit and/or Conditional Use Permit reviews. (*1.1.11*)
- 1.27.3 Require the dedication of avigation or overflight easements and/or deed restrictions and real estate disclosure notifications, consistent with the requirements of the ALUCP, when new development or subdivisions are permitted on property within the jurisdiction of the Napa County Airport Land Use Commission (ALUC).
- 1.27.4 Limit building heights for airspace protection in accordance with Federal Aviation Regulations (FAR) Part 77.
- 1.27.5 To the extent feasible, development in Zones C and D shall be clustered to preserve open land for safety purposes in accordance with the ALUCP.
- 1.27.6 Give consideration to the proximity of flight patterns, frequency of overflight, terrain conditions, and type of aircraft in determining the acceptable locations for residential uses in Zone E.
- 1.27.7 Refer helipad proposals anywhere within the City's Planning Area to the ALUC for a consistency determination.
- 1.27.8 Refer all General Plan, Zoning Ordinance, Subdivision Ordinance, Specific Plan and building regulation amendments that affect areas within the ALUCP zones to the ALUC for a consistency determination.
- 1.27.9 Coordinate with the Napa County Airport Land Use Commission (ALUC) to ensure that onsite ground activities of the Airport do not adversely impact (e.g., noise, vibration, air emissions, or other pollution) businesses or residents of the City of American Canyon. (*1.1.22*)
- 1.27.10 Work with the ALUC to ensure that airport vehicular access does not adversely impact the City of American Canyon. (*1.1.22*)
- 1.27.11 Coordinate with the ALUC to ensure that any expanded operations of the Airport do not adversely impact existing land uses and development in the City of American Canyon. (*1.1.22*)
- 1.27.12 Work with the ALUC and other appropriate agencies to ensure that emergency preparedness plans are maintained to protect American Canyon residents and development. (*1.1.22*)
- 1.27.13 Recognize the importance of the Napa County Airport to City residents, including the economic, transportation and recreational benefits, and ensure that land use decisions rendered for this area do not negatively impact Airport operations (*1.1.22*).



**Napa County Airport  
Land Use Compatibility Zones**

**FIGURE 1-3**

**TABLE 1-1**  
**Compatibility Zone Definitions**

ZONE A	Runway Protection Zone: Dimensioned to encompass the current and future Runway Protection Zones for the runways of the Napa County Airport, as defined under FAA regulations and shown on Figure 3. The zones also include areas lateral to the runway. These areas are regularly overflowed by aircraft below 50 feet above the ground. For this reason, these areas are considered high risk with regard to accident potential and any structures, buildings, trees or obstacles may create a flight hazard. These areas are also affected by high noise levels.
ZONE B	Approach/Departure Zone: This zone is defined as the areas where aircraft will be below 100 feet above ground level as determined by the type of approach anticipated for that runway. Approach slopes are designated on the Airport Compatibility Zones map, Figure 1-3. These areas are affected by substantial risk of accident potential due to the frequency of overflights at low altitudes. Noise levels are generally high with frequent loud single-events.
ZONE C	Extended Approach/Departure Zone: This zone is defined as the area where aircraft will be below 300 feet above ground level as determined by the type of approach. The low altitude of aircraft in these areas indicates moderate to high risk of accident potential. Properties in this zone will be affected by substantial noise.
ZONE D	Common Traffic Pattern: This area is defined by the flight pattern for the Napa County Airport as illustrated on Figure 1-3. These areas are routinely overflowed by aircraft operating to and from the airport with frequent single-event noise intrusion. Overflights in these areas can range from near the traffic pattern altitude (about 1,000 feet above the ground) to as low as 300 above the ground. Accident risk varies from low to moderate. Areas where aircraft are near pattern altitude (e.g., downwind leg) have the lowest risk. In areas where aircraft are at lower altitudes (especially on circle-to-land instrument approaches) a moderate level of risk exists.
ZONE E	Other Airport Environs: An airport's influence area often extends beyond the typically defined compatibility zones during busy traffic hours and when larger aircraft are in the pattern. Aircraft overflights can occur anywhere in these areas when aircraft are departing or approaching an airport. Overflight annoyance is the primary impact element in these areas. The risk of accident is very low.



**TABLE 1-2**

**Airport Vicinity Land Use Compatibility Criteria**

ZONE	LOCATION	IMPACT ELEMENTS	MAXIMUM DENSITIES <sup>8</sup>		
			Residential <sub>1</sub>	Other Users (people/ac) <sup>2</sup>	
				In Structures	Total in and out of Structures
A <sup>9</sup>	Runway Protection Zone and Primary Surface	<ul style="list-style-type: none"> <li>• High Risk</li> <li>• High noise levels</li> <li>• Low overflights below 50' AGL</li> </ul>	0	0	10
B	Inner Approach/Departure Zone	<ul style="list-style-type: none"> <li>• Substantial risk</li> <li>• High noise levels</li> <li>• Low overflights below 100' AGL</li> </ul>	0	10	25
C	Approach/Departure Zone	<ul style="list-style-type: none"> <li>• Moderate risk</li> <li>• Substantial noise</li> <li>• Low overflights below 300' AGL</li> </ul>	0	50	75
D	Common Traffic Pattern	<ul style="list-style-type: none"> <li>• Moderate risk</li> <li>• Frequent noise intrusion</li> <li>• Routine overflights below 1000' AGL</li> </ul>	0	100	150
E	Other Airport Environs	<ul style="list-style-type: none"> <li>• Low risk</li> <li>• Overflight annoyance</li> </ul>	See Note 7		

1. Residential land use and zoning designations are considered incompatible uses within the traffic pattern area (Zones A, B, C, and D) where aircraft overflights are frequent and at low altitude. The residential restrictions do not apply to residential uses allowable under agricultural land use and zoning designations.
2. The use should not attract more than the indicated number of persons per net acre. Net acreage is the total site area inclusive of parking areas and landscaping, less the area dedicated for streets. These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses. Clustering of development within the density parameters should be encouraged to protect and provide open land/safety areas. However, in Zones A, B, and C the density on any one acre of a parcel should not exceed twice the indicated number of people per acre.
3. Dedication of an avigation or overflight easement or deed notice is required as a condition for new development within all zones. Also, height limit restrictions are applicable to structures and trees in all zones in accordance with Federal Aviation Regulation Part 77 and local ordinances. Uses which may be hazardous to flight are prohibited in all zones.
4. These uses typically can be designed to meet the density requirements and other development conditions listed.
5. These uses typically do not meet the density requirements and other development conditions listed. They should be allowed only if a major community objective is served by their location in this zone and if mitigation measures (i.e., noise attenuation) are incorporated that will minimize potential conflicts.

6. NLR = Noise Level Reduction; i.e., the attenuation of sound level from outside to inside provided by the structure. Noise level reduction measures may be required in areas with high single-event noise levels and where noise-sensitive uses (schools, libraries, etc.) are proposed. Refer to Appendix C for criteria and noise attenuation measures.
7. Maximum residential densities in accordance with local adopted General Plans and zoning designations. Consideration should be given to the proximity of flight patterns, frequency of overflight, terrain conditions, and type of aircraft in determining acceptable locations of residential uses. Referral to the ALUC for review of development plans prior to approval is recommended.
8. The purpose of these criteria is to provide a basis for determining those land uses which are compatible with airport activities. Specific land uses will be allowed only if they are also consistent with applicable General Plan policies and zoning ordinances.
9. All lands in Zone A are either within the Airport's boundaries or are designated for acquisition in the Airport Master Plan.
10. Includes objects that penetrate FAR Part 77 surfaces, uses that would attract large numbers of birds (e.g. landfills), and uses that would create smoke, glare, distracting lights, or electronic interference.
11. Avigation easements will be required in lieu of overflight easements or deed notices where there is an appropriate public agency to review them.

**TABLE 1-2 (cont.)**

Zone	Prohibited Uses	Other Development Conditions <sup>3</sup>	Examples of Normally Acceptable Uses <sup>4</sup>	Examples of Uses not Normally Acceptable <sup>5</sup>
<b>A</b>	<ul style="list-style-type: none"> <li>• All residential uses</li> <li>• Any assemblage of people</li> <li>• Any new structure which exceeds height limits</li> <li>• Noise-sensitive uses</li> <li>• Uses hazardous to flight<sup>10</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Avigation easement required</li> </ul>	<ul style="list-style-type: none"> <li>• Pasture, open space</li> <li>• Aircraft tiedowns</li> <li>• Auto parking</li> <li>• Most agricultural uses</li> </ul>	<ul style="list-style-type: none"> <li>• Heavy poles, signs, large trees, etc.</li> <li>• Ponds</li> </ul>
<b>B</b>	<ul style="list-style-type: none"> <li>• All residential uses</li> <li>• Any noise-sensitive uses</li> <li>• Schools, libraries, hospitals, nursing homes, daycare centers</li> <li>• Uses hazardous to flight<sup>10</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Avigation easement required</li> <li>• Structures to be as far as possible from extended runway centerline</li> <li>• Clustering is encouraged to maximize open land areas</li> <li>• Minimum NLR of 25 dBA in office buildings<sup>6</sup></li> <li>• Building envelopes and approach surfaces required on all subdivision maps and development plans</li> </ul>	<ul style="list-style-type: none"> <li>• All uses from Zone A</li> <li>• Parks with low-intensity uses, golf courses</li> <li>• Nurseries</li> <li>• Mini-storage</li> </ul>	<ul style="list-style-type: none"> <li>• Retail uses</li> <li>• Office uses (except as accessory uses)</li> <li>• Hotels, motels, resorts</li> <li>• Theaters, assembly halls, and conference centers</li> <li>• Ponds</li> </ul>
<b>C</b>	<ul style="list-style-type: none"> <li>• All residential uses</li> <li>• Schools, libraries, hospitals, nursing homes, daycare centers</li> <li>• Uses hazardous to flight<sup>10</sup></li> <li>• Landfills</li> </ul>	<ul style="list-style-type: none"> <li>• Avigation easement required</li> <li>• Structures to be set back as far as possible from extended centerline</li> <li>• Clustering is encouraged to maximize open land areas</li> <li>• Building envelopes and approach surfaces required on all subdivision maps</li> <li>• NLR measures may be required for noise-sensitive uses (offices)<sup>6</sup></li> </ul>	<ul style="list-style-type: none"> <li>• All uses from Zone B</li> <li>• Warehousing and low-intensity light industrial</li> <li>• Small retail uses</li> <li>• Outdoor recreation uses; marina, ballpark</li> <li>• Office uses</li> </ul>	<ul style="list-style-type: none"> <li>• Large retail buildings</li> <li>• Hotels, motels, resorts, health clubs</li> <li>• Restaurants, bars</li> <li>• Multi-story buildings</li> <li>• Theaters, assembly halls, and conference centers</li> <li>• Ponds</li> </ul>
<b>D</b>	<ul style="list-style-type: none"> <li>• All residential uses</li> <li>• Uses hazardous to flight<sup>10</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Overflight easement or deed notice required<sup>11</sup></li> <li>• Building envelopes and approach surfaces required on all development plans within 100 feet of approach zones</li> <li>• Clustering is encouraged to maximize open land areas</li> <li>• NLR measures may be required for noise-sensitive uses<sup>6</sup></li> </ul>	<ul style="list-style-type: none"> <li>• All uses from Zone C</li> <li>• Most nonresidential uses</li> <li>• Accessory daycare centers</li> </ul>	<ul style="list-style-type: none"> <li>• Schools, libraries, hospitals, nursing homes</li> <li>• Large shopping malls</li> <li>• Amphitheatres</li> <li>• Ponds</li> </ul>
<b>E</b>	<ul style="list-style-type: none"> <li>• Noise-sensitive outdoor uses</li> </ul>	<ul style="list-style-type: none"> <li>• Overflight easement or deed notice required<sup>11</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Any permitted use</li> </ul>	<ul style="list-style-type: none"> <li>• Amphitheatres</li> <li>• Landfills</li> <li>• Ponds</li> </ul>

**Noise Element:**

**STATUTORY REQUIREMENTS**

*[no changes]*

**OPPORTUNITIES AND CONSTRAINTS (ISSUES)**

*[no changes]*



**Napa County Airport  
Land Use Compatibility Zones**

**FIGURE 11-1**

**OVERVIEW OF NOISE POLICIES**

*[no changes]*

**GOALS, OBJECTIVES AND POLICIES**

*[no changes]*

**NOISE ORDINANCES, REGULATIONS, AND GUIDELINES**

*[no changes]*

**AMBIENT NOISE IMPACTS ON THE COMMUNITY**

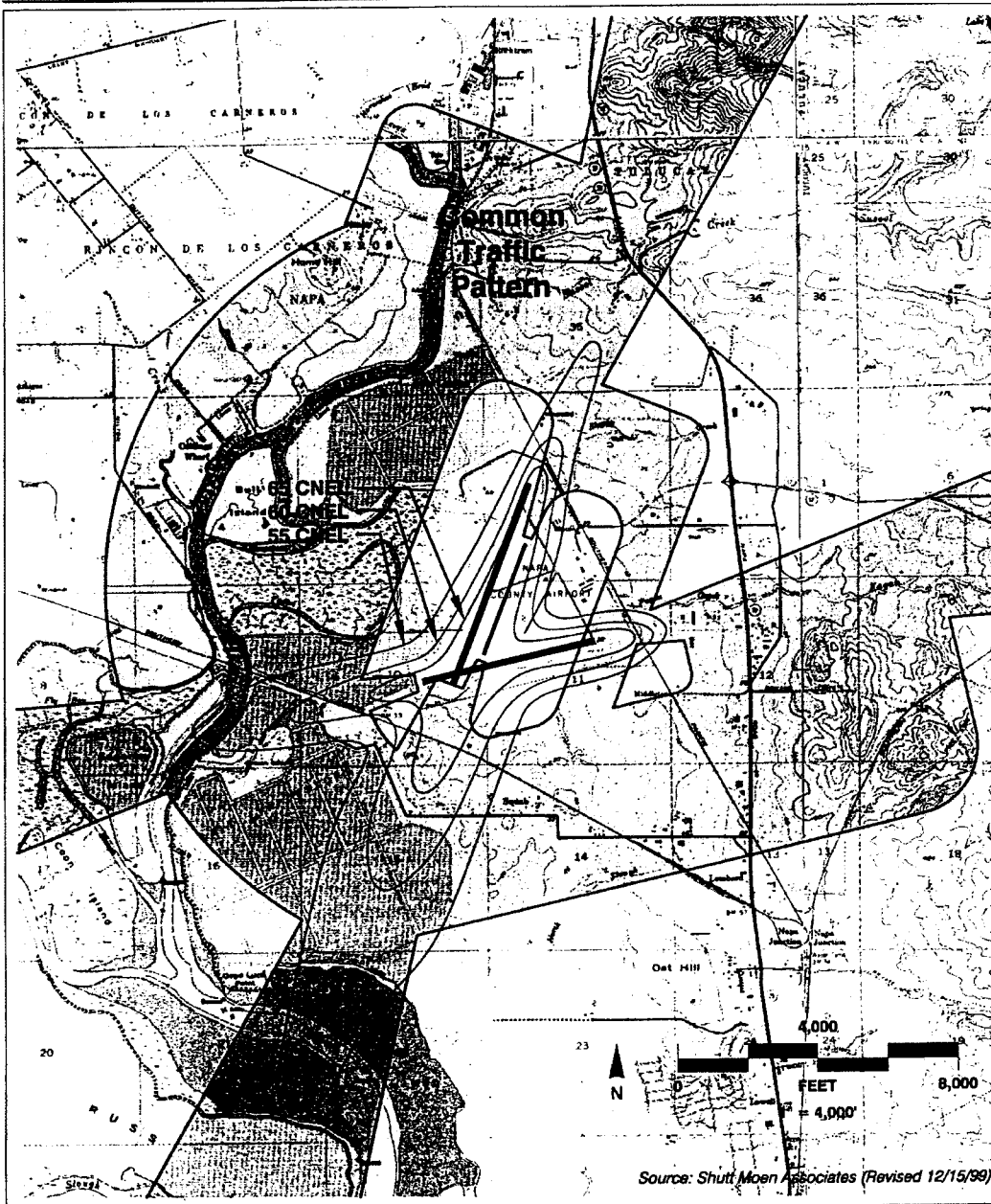
*[no changes].*

**FIGURE 11-2** *[no changes]*

**FIGURE 11-3** *[no changes]*

**FIGURE 11-4** *[no changes]*

**FIGURE 11-4a** *[no changes]*



**NAPA COUNTY  
AIRPORT NOISE IMPACTS**

**FIGURE 11-5**

**TRAFFIC-RELATED NOISE IMPACTS**

*[no changes]*

**AIRCRAFT-RELATED NOISE IMPACTS**

**Objective**

11.4 Minimize the adverse impacts of aircraft generated noise on residential and other "noise-sensitive" uses.

**Policies**

11.4.1 Restrict the development of uses located within the 65 CNEL contour of Napa Airport to industrial, agricultural, or open space uses (see **Figure 11-5**). (I 11.23)

11.4.2 Require that development in the vicinity of Napa Airport comply with the noise standards contained in the Napa County Airport Land Use Compatibility Plan (ALUCP). (I 11.24)

11.4.3 Work closely with the Napa County Airport to ensure that the airport's operations do not generate adverse noise conditions in the City of American Canyon. (I 11.21)

*[No changes to remaining sections of Noise Element.]*

**PASSED, APPROVED AND ADOPTED** at a regular meeting of the City Council of the City of American Canyon on the 18th day of May, 2010, by the following vote:

**AYES: Council Members Bennett, Callison, Coffey, Vice Mayor West & Mayor Garcia**

**NOES:**

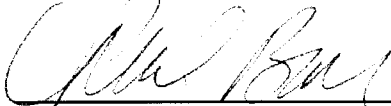
**ABSTAIN:**

**ABSENT:**



**Leon Garcia, Mayor**

**ATTEST:**



**Rebekah Barr, CMC, City Clerk**

**APPROVED AS TO FORM:**



**William D. Ross, City Attorney**

**ORDINANCE #2010-03**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON APPROVING ZONING ORDINANCE AMENDMENT PL09-0035 TO ACHIEVE CONSISTENCY WITH THE NAPA COUNTY AIRPORT COMPATIBILITY PLAN**

**WHEREAS**, pursuant to Section 65850 of the State Planning and Zoning Law, the City of American Canyon adopted a Zoning Ordinance in 1996 to implement the General Plan and regulate the use of land, buildings and structures, the size and use of lots; the intensity of land uses; and to establish other requirements to provide a clear and concise guide for the physical development of the City and to protect and promote the public health, safety, peace, comfort, convenience, aesthetics, prosperity, and general welfare; and

**WHEREAS**, Zoning Ordinance Chapter 19.48 provides that the City Council may amend the Zoning Ordinance after the amendment is referred to the Planning Commission for review and recommendation to the City Council; and

**WHEREAS**, minor revisions are being proposed to the Zoning Ordinance to meet state and county requirements for airport land use compatibility; and

**WHEREAS**, pursuant to the California Environmental Quality Act, the proposed Zoning Ordinance Amendments are exempt per CEQA Guidelines Section 15320, Changes in Organization of Local Agencies; and

**WHEREAS**, the City of American Canyon Planning Commission unanimously recommended City Council approval of the draft ordinance on April 22, 2010; and

**WHEREAS**, the Napa County Airport Land Use Commission unanimously found the draft ordinance consistent with the Napa County Airport Land Use Compatibility Plan on May 5, 2010; and

**WHEREAS**, a duly-noticed public hearing was held by the City of American Canyon City Council on May 18, 2010, at which time all those in attendance were given the opportunity to speak on the proposal; and

**WHEREAS**, the City Council considered all of the written and oral testimony presented at the public hearing in making its decision.

**NOW, THEREFORE, BE IT ORDAINED** that the City Council does hereby approve and adopt Zoning Ordinance Amendment PL09-0035 based on the following:

**SECTION 1: Compliance with California Environmental Quality Act**

The City Council finds that this Ordinance is not subject to the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines Section 15320, Changes in Organization of Local Agencies.

**SECTION 2: Findings.** The City Council finds, based on the following evidence and as required by Zoning Ordinance Section 19.48.040 C, that:

1. The amendments are consistent with the goals and policies of the General Plan.

*The proposed amendment complies with the goals and policies of the General Plan, including Goal 1N, to "Ensure the compatibility of development within American Canyon with the Napa County Airport," and Policy 1.27.2, to "Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones "A" through "F" for compliance with the appropriate use and development conditions."*



2. The amendments are consistent with the purposes of the Zoning Ordinance, as set forth in Chapter 19.01, *Authority, Purposes, and Effects of the Zoning Ordinance*.

The amendment is consistent with the purpose of the Zoning Ordinance to protect and promote the public health, safety, peace, comfort, convenience, aesthetics, prosperity, and general welfare. More specifically, the amendments serve to establish clear, understandable and applicable land use regulations that comply with state law.

**SECTION 3: Zoning Amendment.** The City Council of the City of American Canyon hereby amends the Zoning Ordinance as follows:

1. **Chapter 19.10 Residential Districts**  
**19.10.040 Permitted uses.**

Table 19.10.040 of this section sets forth the permitted and conditionally permitted uses for each residential district. A “P” designates a permitted use. A “C” indicates a conditionally permitted use subject to approval of a use permit by the planning commission. An “M” indicates a minor use permit is required pursuant to Chapter 19.42. If no letter is found opposite a particular use, it is not permitted in that district.

<b>Table 19.10.040</b>						
<b>PERMITTED AND CONDITIONALLY-PERMITTED USES RESIDENTIAL DISTRICTS<sup>1</sup></b>						
<b>RESIDENTIAL DISTRICT Use Classifications</b>	<b>ZONING DISTRICTS</b>					<b>Related Provisions</b>
	<b>RE</b>	<b>RR</b>	<b>RS</b>	<b>RM</b>	<b>RH</b>	
<b>Residential</b>						
<b>[Note to Codifier: <i>only the sections of the table that have been modified are included below</i>]</b>						
Single-family residential	-	-	-	-	-	
- Detached	P	P	P	P <sup>2</sup>	P <sup>2</sup>	<sup>2</sup> GP Policy 1.8.3
- Semidetached	-	P <sup>3</sup>	P <sup>4</sup>	P	P	<sup>3</sup> GP Policy 1.7.1 <sup>4</sup> GP Policy 1.7.2
Townhouses	-	-	-	P	P	

<sup>1</sup>NOTE: Permitted and conditionally permitted uses on parcels located within a designated Napa County Airport Compatibility Zone may be restricted or prohibited subject to the requirements of the policies related to airport compatibility in the American Canyon General Plan and the Napa County Airport Land Use Compatibility Plan. Restrictions may include the requirement for recordation of overflight or avigation easements.

2. **Chapter 19.11: Community Commercial and Neighborhood Commercial Districts**  
**19.11.040 Permitted uses.**

Table 1 of this section sets forth the permitted and conditionally permitted uses for each commercial district. A “P” designates a permitted use. A “C” indicates a conditionally permitted use subject to approval of a use permit by the planning commission. An “M” indicates a minor use permit is required pursuant to Chapter 19.42. If no letter is found opposite a particular use, it is not permitted in that district.

**Table 1  
PERMITTED AND CONDITIONALLY PERMITTED USES<sup>1</sup>  
COMMUNITY COMMERCIAL AND NEIGHBORHOOD COMMERCIAL DISTRICTS**

Use Classification	Zoning District		Related Provision
	CN	CC	
<b>Residential</b>			
<b>[Note to Codifier: only the sections of the table that have been modified are included below]</b>			
Congregate living facility	-	-	
Farm employees housing	-	C	
Garden apartments	-	-	
Mobilehome	-	-	
Mobilehome park	-	-	
Multifamily residential	P <sup>2</sup>	P <sup>3</sup>	<sup>2</sup> GP Policy 1.14.1 <sup>3</sup> GP Policy 1.15.1
Residential care home	-	-	
Second residential unit	-	-	
Single-family residential			
- Detached	-	-	
- Semidetached	-	-	
Townhouses	-	-	
<b>Accessory</b>			
Accessory dwelling unit	C	C	Chapter 19.10
Livestock keeping	-	-	
Cafeteria	-	P	
Caretaker's quarters	-	-	
Family Child care home, large	-	-	
Family Child care home, small	-	-	
Guest house	-	-	
Home occupation	-	-	Chapter 19.29
Horticulture, limited	P	P	
Recreational facilities, private	-	-	
Room rentals	-	-	

<sup>1</sup>NOTE: Permitted and conditionally permitted uses on parcels located within a designated Napa County Airport Compatibility Zone may be restricted or prohibited subject to the requirements of the policies related to airport compatibility in the American Canyon General Plan and the Napa County Airport Land Use Compatibility Plan. Restrictions may include the requirement for recordation of overflight or aviation easements.

### 3. **Chapter 19.13 Public District**

#### **19.13.020 Permitted uses.**

Table 19.13.020 of this chapter sets forth the permitted and conditionally-permitted uses for each public district. A "P" designates a permitted use. A "C" indicates a conditionally permitted use subject to approval of a use permit by the planning commission. If no letter is found opposite a particular use, it is not permitted in that district.

**Table 19.13.020 PUBLIC DISTRICT<sup>1</sup>**

[No changes to table—add note after end of table]

<sup>1</sup>NOTE: Permitted and conditionally permitted uses on parcels located within a designated Napa County Airport Compatibility Zone may be restricted or prohibited subject to the requirements of the policies related to airport compatibility in the American Canyon General Plan and the Napa County Airport Land Use Compatibility Plan. Restrictions may include the requirement for recordation of overflight or avigation easements.

**4. Chapter 19.14 Industrial Districts**

**19.14.050 Permitted uses.**

Table 19.14.050 of this section sets forth the permitted and conditionally permitted uses for each industrial district. A “P” designates a permitted use. A “C” indicates a conditionally-permitted use subject to approval of a use permit by the planning commission. An “M” indicates a minor use permit is required pursuant to Chapter 19.42. If no letter is found opposite a particular use, it is not permitted in that district.

**Table 19.14.050  
PERMITTED AND CONDITIONALLY-PERMITTED USES<sup>1</sup>  
INDUSTRIAL DISTRICTS**

Use Classifications	Zoning District		Related Provisions
	LI	GI	
<b>[Note to Codifier: only the sections of the table that have been modified are included below]</b>			
<b>Accessory</b>			
Accessory dwelling unit	-	-	
Livestock keeping	-	-	
Cafeteria	P	P	
Caretaker’s quarters	C	C	
Family Child care home, large	-	-	
Family Child care home, small	-	-	
Guest house	-	-	
Home occupation	-	-	
Horticulture, limited	-	-	
Room rentals	-	-	

<sup>1</sup>NOTE: Permitted and conditionally permitted uses on parcels located within a designated Napa County Airport Compatibility Zone may be restricted or prohibited subject to the requirements of the policies related to airport compatibility in the American Canyon General Plan and the Napa County Airport Land Use Compatibility Plan. Restrictions may include the requirement for recordation of overflight or avigation easements.

**5. Chapter 19.15: Recreation and Open Space District**

**19.15.020 Permitted uses.**

Table 19.15.020 of this chapter sets forth the permitted and conditionally-permitted uses for each public district. A “P” designates a permitted use. A “C” indicates a conditionally-permitted use subject to approval of a use permit by the planning commission. If no letter is found opposite a particular use, it is not permitted in that district.

**Table 19.15.020**  
**PERMITTED AND CONDITIONALLY-PERMITTED USES<sup>1</sup>**  
**RECREATION AND OPEN SPACE DISTRICT**

[**Note to codifier:** *no other changes to table are proposed—modify notes after end of table as follows:*]

Note:

OS denotes Open Space District

OS-CRW denotes Open Space – Clarke Ranch West District

REC denotes Recreation District

<sup>1</sup>NOTE: Permitted and conditionally permitted uses on parcels located within a designated Napa County Airport Compatibility Zone may be restricted or prohibited subject to the requirements of the policies related to airport compatibility in the American Canyon General Plan and the Napa County Airport Land Use Compatibility Plan. Restrictions may include the requirement for recordation of overflight or avigation easements.

**6. Chapter 19.16: Planned Community District**

**19.16.050 Permitted uses.**

There shall be no principally permitted uses other than those approved under a conceptual master plan and approved planned community development permit or modification thereof. (Ord. 2001-02 § 1 (part), 2001)

NOTE: Permitted and conditionally permitted uses on parcels located within a designated Napa County Airport Compatibility Zone may be restricted or prohibited subject to the requirements of the policies related to airport compatibility in the American Canyon General Plan and the Napa County Airport Land Use Compatibility Plan. Restrictions may include the requirement for recordation of overflight or avigation easements.

**7. Chapter 19.19: Specialty Commercial Overlay District**

**19.19.020 Allowable uses.**

A. Property in the CS overlay district may be used either for industrial purposes, consistent with the permitted and conditionally-permitted uses allowed by this title for the underlying LI base zone district, or for specialty commercial purposes<sup>1</sup>.

B. Should the owner of property in the CS overlay district decide to use the property for the purpose set forth in Section 19.19.010, the following uses as defined in use classifications, may be permitted<sup>1</sup>:

1. Public and quasi-public uses:
  - a. Public information center,
  - b. Public parking,
  - c. Utilities, minor;
2. Commercial Uses:
  - a. Bank, savings and loan, including walk-up service
  - b. Entertainment, indoor,
  - c. Lodging services,
  - d. Personal services,
  - e. Restaurant,
  - f. Retail sales, visitor-oriented.

C. Should the owner of property in the CS overlay district decide to use the property for the purpose set forth in Section 19.19.010, the following uses as defined in use classifications, may be permitted subject to a conditional use permit<sup>1</sup>:

1. Public and quasi-public uses:
  - a. Charitable uses;

2. Commercial uses:
  - a. Entertainment, indoor; amusement center,
  - b. Lodging services adjacent to a residential district,
  - c. On-premises liquor consumption, tasting room,
  - d. Liquor store;
3. Temporary uses:
  - a. Commercial filming,
  - b. Live entertainment,
  - c. Mobile structure (subject to Chapter 19.30),
  - d. Tent;
4. Public and quasi-public uses:
  - a. Antenna, commercial,
  - b. Antenna exceeding height limitations;
5. Commercial uses:
  - a. Entertainment, indoor, gaming,
  - b. On-premises liquor consumption,
  - c. Restaurant, night use adjacent to residential district,
  - d. Restaurant, take-out; night use adjacent to residential district.

<sup>1</sup>NOTE: Permitted and conditionally permitted uses on parcels located within a designated Napa County Airport Compatibility Zone may be restricted or prohibited subject to the requirements of the policies related to airport compatibility in the American Canyon General Plan and the Napa County Airport Land Use Compatibility Plan. Restrictions may include the requirement for recordation of overflight or avigation easements.

## 8. **Chapter 19.41 Design Permits**

### **19.41.050 Required Findings.**

Approval of a design permit application may be granted by the appropriate decision-making authority only if all of the following findings are made:

- A. The project complies with all applicable provisions of this Title and any applicable approvals granted for the project by any decision-making authority.
- B. The project and its design complies with any applicable design guidelines.
- C. The project and its design complies with all applicable General Plan policies.
- D. The project complies with applicable policies of the Napa County Airport Land Use Compatibility Plan.
- E. The project's quality and character are compatible with the surrounding area, unless physically deteriorated or blighted, and will not be materially detrimental to existing development.
- F. The proposed design is compatible with existing development in the area in terms of scale, height, bulk, proportion, materials, cohesiveness, color, and the preservation of privacy.
- G. The design improves the community's appearance by avoiding both excessive variety and monotonous repetition.
- H. The proposed design promotes a harmonious transition in terms of scale and character between areas of different General Plan land use designations and zoning districts.
- I. The proposed design provides for adequate and safe on-site vehicular and pedestrian circulation.

## 9. **Chapter 19.42 Conditional Use Permits**

### **19.42.020 Review and Approval Procedures.**

- D. Required Findings. The Planning Commission may approve or conditionally-approve an application for a conditional use permit or minor use permit if it makes all of the following findings:
  1. The proposed use is consistent with the policies and programs of the General Plan and any applicable master or specific plan.

2. The proposed use is consistent with the purpose(s) and standards of the applicable zoning district(s).
3. The proposed use complies with applicable policies of the Napa County Airport Land Use Compatibility Plan.
4. The project site is physically suitable for the type and intensity of land use being proposed.
5. The proposed use will not be a nuisance or materially detrimental to the general health, safety, and welfare of the public or to property and residents in the vicinity.
6. The site for the proposed use has adequate access, and meets parking and circulation standards and criteria.
7. There are adequate provisions for water and sanitary services, and other public utilities to ensure that the proposed use would not be detrimental to public health and safety.

10. **Chapter 19.43 Variances**

**19.43.030 Review and Approval Procedures.**

C. Required Findings. The Planning Commission may approve or conditionally approve a variance application if it makes all of the following findings:

1. Special circumstances exist applicable to the subject property, including size, shape, topography, location, existing improvements, or surroundings, such that the strict application of this Title deprives such property of privileges enjoyed by other property in the vicinity and in the same zoning district(s).
2. Granting of the variance does not constitute a grant a special privileges inconsistent with the limitations upon other properties in the vicinity and zoning district(s) in which such property is located.
3. Granting of the variance will not be materially detrimental to the public health, safety, or welfare or to property or residents in the vicinity.
4. Granting of the variance does not allow a use or activity that is not otherwise expressly authorized by the regulations governing the subject parcel.
5. Granting of the variance will not result in an inconsistency with the General Plan, including policies related to airport compatibility.

11. **Chapter 19.46 Zoning Clearances and Certificates of Occupancy**

**19.46.030 Review and Approval Procedures.**

A. Zoning Clearances.

1. Prior to the issuance of a business license or building permit for any establishment of use or construction of a building or structure, a zoning clearance shall be issued by the Planning Director, certifying that the business license or building permit complies with all provisions of this Title and any discretionary approvals, and with the Napa County Airport Compatibility Plan policies and regulations where applicable.
2. Prior to the issuance of a zoning clearance, the applicant shall provide evidence to the Director of approval from any appropriate agencies and city departments.

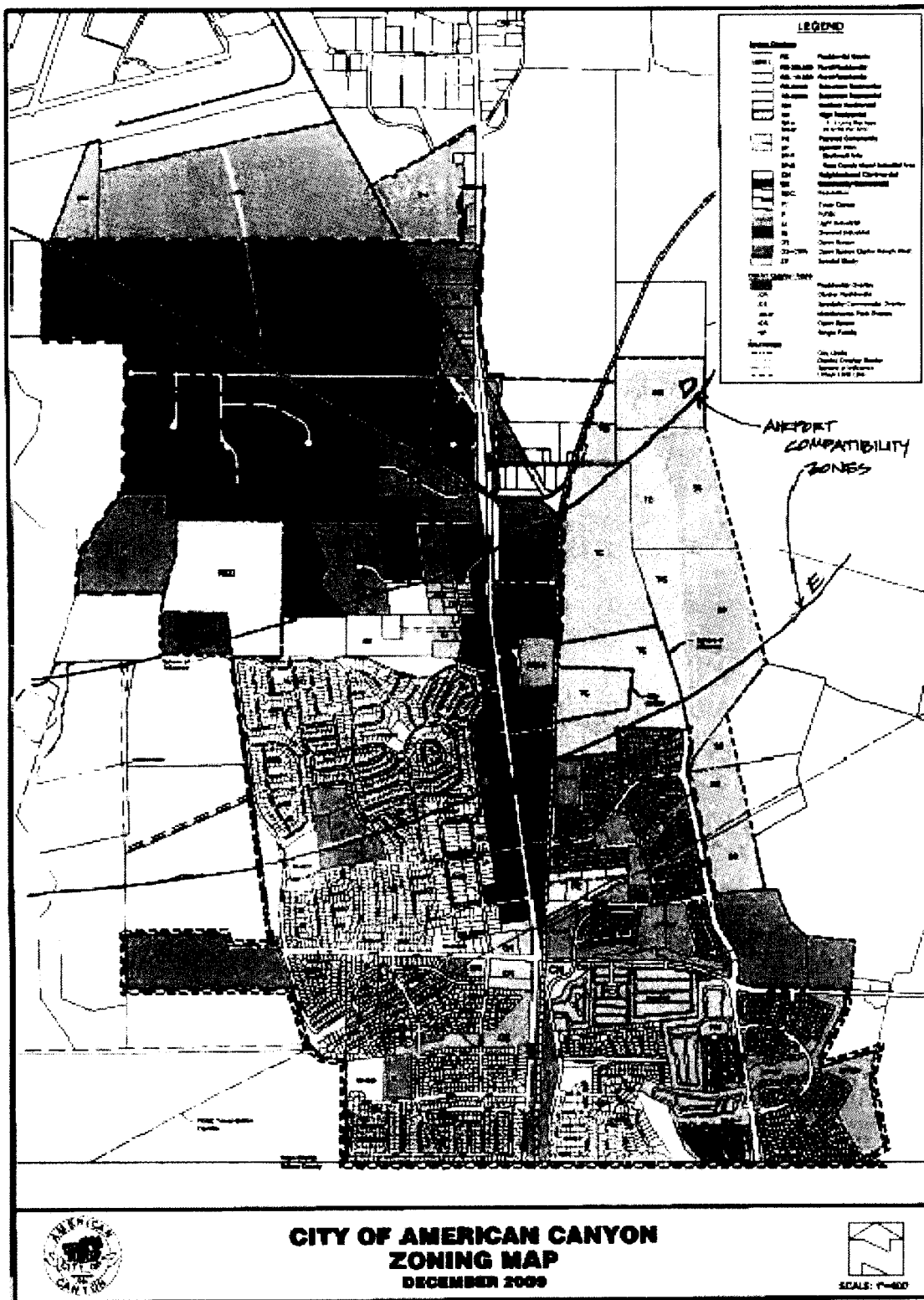
B. Certificates of Occupancy. A certificate of occupancy shall state that the building or proposed use of a building or land complies with all of the provisions of the Municipal Code and all other building codes applicable to occupancies within the City. A record of all certificates shall be kept on file at the City offices and copies shall be furnished on request to any person having a proprietary or tenancy interest in the affected building or land.

1. Building certificates of occupancy. A certificate of occupancy for a new building or the alteration of an existing building shall be applied for concurrently with the application for a final inspection permit. The certificate shall be issued after final

inspection has been completed and it has been determined that construction conforms to the Municipal Code's building regulations, as well as to the provisions of this Title.

2. Use certificates of occupancy. A certificate of occupancy for a change in the use of a building or structure shall be applied for concurrently with an application for a business license before any such new use commences. The certificate shall be issued within 10 days after the application has been made, provided that such use is in conformity with the provisions of this Title\_ and with the Napa County Airport Compatibility Plan policies and regulations where applicable.

**Zoning Map with graphic “indicator” lines showing airport zones D & E added:**



**SECTION 4: Severability**

The City Council hereby declares that if any section, subsection, sentence, clause or phrase of this Ordinance is, for any reason, held to be invalid or unconstitutional such decision shall not affect the validity or constitutionality of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed this Ordinance, and each section, subsection, clause or phrase hereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases may be declared invalid or unconstitutional.



**PASSED, APPROVED AND ADOPTED** at a regular meeting of the City Council of the City of American Canyon on June 1, 2010, by the following vote:

**AYES:** Council Members Bennett, Callison, Coffey, Vice Mayor West & Mayor Garcia  
**NOES:**  
**ABSTAIN:**  
**ABSENT:**

  
\_\_\_\_\_  
Leon Garcia, Mayor

**ATTEST:**

  
\_\_\_\_\_  
Rebekah Barr, CMC, City Clerk

**APPROVED AS TO FORM:**

  
\_\_\_\_\_  
William D. Ross, City Attorney

# **EXHIBIT B**



A Tradition of Stewardship  
A Commitment to Service

Conservation, Development and Planning

1195 Third Street, Suite 210  
Napa, CA 94559  
www.co.napa.ca.us

Main: (707) 253-4417  
Fax: (707) 253-4336

Hillary Gitelman  
Director

NAPA COUNTY AIRPORT LAND USE COMMISSION

May 6, 2010

Mr. Brent Cooper, AICP  
City of American Canyon  
4381 Broadway, Suite 201  
American Canyon, CA 94503  
[bcooper@cityofamericancanyon.org](mailto:bcooper@cityofamericancanyon.org)

E-mail and Hard Copy Sent

City of American Canyon General Plan and Zoning Consistency Determination  
Airport Land Use Consistency Determination # P109-0002-ALUC  
City of American Canyon Files # PL 09-0035; GP 09-0002

Dear Mr. Cooper,

The Napa County Airport Land Use Commission (ALUC) considered the referral of the City of American Canyon General Plan and Zoning Consistency Determination at a public hearing on May 5, 2010, pursuant to the requirements of Section 21676.5 of the California Public Utilities Code.

The project amends and updates the City of American Canyon General Plan to bring it into compliance with the Napa County Airport Land Use Compatibility Plan (ALUCP). Included are concurrent Zoning Amendments to implement ALUCP policies. These changes affect all parcels located in approximately the north half of the City that are located within Napa County Airport Influence Areas Zone D, the Common Traffic Pattern, and Zone E, Other Airport Environs. Zone D extends approximately 1.9 miles (10,000 feet) south of the centerline of Runway 6/24 and 2.0 miles southeast of the centerline of Runway 18/36. Zone E extends an additional 4,000 feet beyond the Zone D boundary.

Please be advised that the Commission, by a unanimous vote (5-0-2 excused), found the proposed project to be **CONSISTENT** with the Napa County Airport Land Use Compatibility Plan (ALUCP). This finding of consistency with the ALUCP is limited to the specific project reviewed by the ALUC on May 5, 2010. Any variation in the plans, elevations, or other aspects of the project could affect ALUCP consistency.

Should you or the project proponent have any questions regarding compatibility for any project changes, please feel free to contact me or ALUC staff, Ronald Gee, at (707) 299-1351 or [ronald.gee@countyofnapa.org](mailto:ronald.gee@countyofnapa.org).

Very truly yours,

John McDowell  
Deputy Executive Officer

cc: Sandra Cleisz, City of American Canyon, Senior Planner  
Martin Pehl, Napa County Airport Manager  
Susan McGuigan, ALUC Counsel

# **EXHIBIT C**

**RESOLUTION NO. 2020-06**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON DECLARING THAT RESIDENTIAL USES ARE THE BEST USE OF THE RICK HESS PROPERTY ON OAT HILL**

**WHEREAS**, there is a critical shortage of residential housing for all levels of affordability in California; and,

**WHEREAS**, the State of California Department of Housing and Community Development (HCD) and the Association of Bay Area Governments (ABAG) will soon commence the process to establish Regional Housing Needs Allocations ("RHNA") for the greater San Francisco Bay Area and possibly Napa County as a Subregion; and,

**WHEREAS**, in light of the State's housing shortage, HCD and ABAG are expected to continue to emphasize the need for residential housing in Napa County and in the City of American Canyon ("City") within its municipal boundaries; and,

**WHEREAS**, at least since 2005, the City has considered the possibility of designating and rezoning the Hess Property and certain surrounding properties for residential uses but, to date, has not yet completed an evaluation of such an action; and,

**WHEREAS**, on August 20, 2019, the City Council considered the possibility of designating and rezoning approximately 30 acres on the east side of Oat Hill south of Napa Junction Road (the "Hess Property") for residential uses; and

**WHEREAS**, the City has commenced an update of the General Plan which could potentially accommodate residential uses on the Hess Property but could take approximately two (2) years to complete; and

**WHEREAS**, the General Plan update process timeframe is longer than Applicant and Owner, Mr. Hess, is willing to make his property available for residential development; and

**WHEREAS**, also on August 20, 2019, the Council concluded that residential uses are the best use for the Hess Property and directed Staff to work with Mr. Hess to identify means by which the City might evaluate and consider a residential development proposal for the Hess Property while providing Mr. Hess some certainty that his investment in a planning and California Environmental Quality Act (Pub. Res. Code § 21000 *et seq.*, "CEQA") review process would be brought to completion; and

**WHEREAS**, on November 6, 2019, Oat Hill Properties II, LLC (Rick Hess) submitted a General Plan Text Amendment and Zoning Code Overlay Study Amendment application which would allow for the filing of a subsequent General Plan Amendment and consistent Zoning Ordinance, which authorize residential development consistent with State law; and

**WHEREAS**, after consideration of the need for further study of residential development of the Hess Property compatibility with the Napa County Airport Land Compatibility Plan, on January 14, 2020, Mr. Hess transmitted a communication to the City Attorney, City Manager, and City Community Development Director stating that he could be provided with the assurance that he needs to proceed with residential development on the Hess Property if the Council confirms that direction by Resolution rather than General Plan Text Amendment and Zoning Overlay; and

**WHEREAS**, the Resolution will provide Mr. Hess with the certainty he requested on August 20, 2019 and January 14, 2020; and

**WHEREAS**, the proposed Resolution is exempt from CEQA. The Resolution does not reclassify or rezone the Hess Property for specific residential uses, but is rather a reflection of the Council's determination that the best use of the Hess Property is for residential uses. For these reasons, the action is not a project under CEQA and is exempt from CEQA review as it has no present potential impact on the physical environment. CEQA Guidelines §§ 15060(b)(3c), 15378(b); and

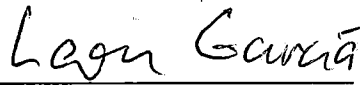
**WHEREAS**, the City Council has considered all of the written and oral testimony presented at this public hearing and its prior actions in considering this Resolution.

**NOW, THEREFORE, BE IT RESOLVED** by the City Council of the City of American Canyon that:


1. All recitals herein are incorporated and deemed true and correct;
2. The Council declares that residential uses are the best use of the Hess Property on Oat Hill, subject to consideration for General Plan Amendment.

**PASSED, APPROVED and ADOPTED** at a regularly scheduled meeting of the City Council of the City of American Canyon held on the 21<sup>st</sup> day of January 2020, by the following vote:


AYES: Council Members Aboudamous, Joseph, Leary, Vice Mayor Oro, Mayor Garcia  
NOES: None  
ABSTAIN: None  
ABSENT: None

  
\_\_\_\_\_  
Leon Garcia, Mayor

ATTEST:

  
\_\_\_\_\_  
Suellen Johnston, City Clerk

APPROVED AS TO FORM:

  
\_\_\_\_\_  
William D. Ross, City Attorney

# **EXHIBIT D**

# Oat Hill Development Land Use Compatibility Analysis



Prepared for the  
Napa County Airport Land Use Commission

Prepared by

**MEAD  
&  
HUNT**

September 2005



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## Location

The Oat Hill properties are located southeast of the Napa County Airport. The site is on the northern edge of the City of American Canyon, west of Highway 29. At its closest point, the project site is about 7,500 feet from the nearest runway (Runway 6-24) at the Napa County Airport (Figures 1 and 2). The project would consist of a variety of housing types, expansion of an existing school site, and possibly some commercial uses.

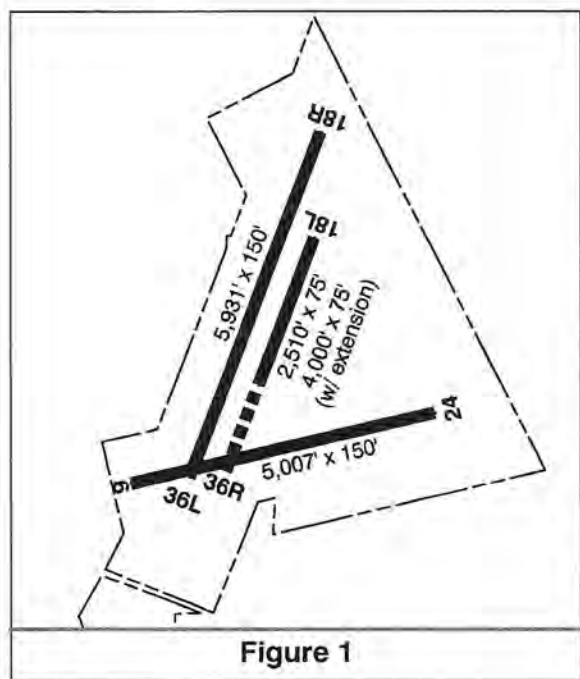


Figure 1

## Analytical Task

The Napa County Airport Land Use Commission (ALUC) charged Mead & Hunt with assessing the compatibility of the proposed Oat Hill development with operations at the Napa County Airport. The assessment was to evaluate compatibility based upon:

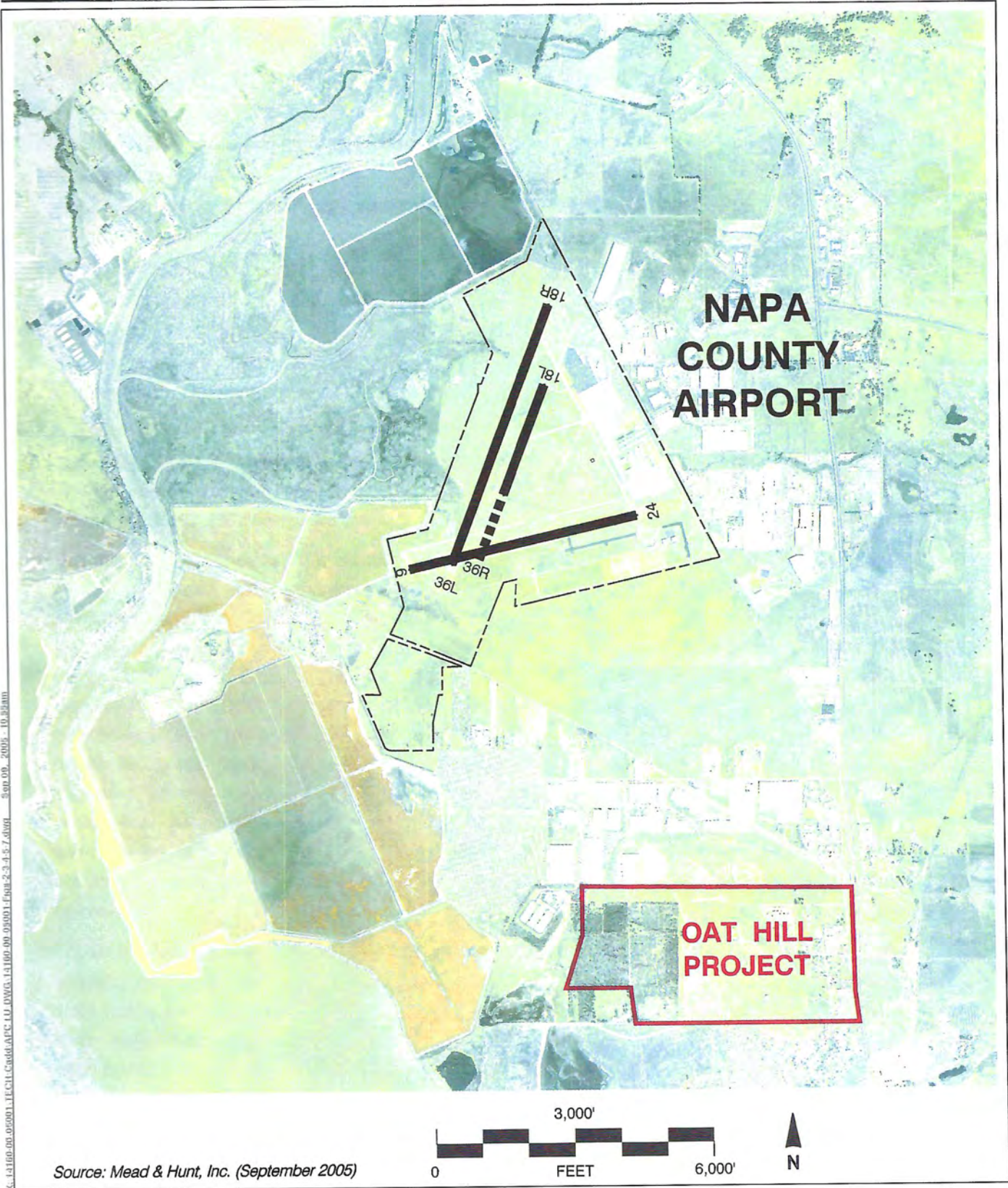
- Safety
- Noise
- Overflight
- Airspace

Assessment of each of these factors is to be based upon the 2002 *California Airport Land Use Planning Handbook* and current aviation industry practice. The purpose of the analysis is to determine whether the boundaries of compatibility zone "D" should be modified. The boundary of the D Zone passes through the Oat Hill site. Napa County ALUC policies do not permit new residential uses within this zone.

## Sources of Data

Data for this analysis came from a variety of sources. Noise contours and airspace surfaces were taken from the draft Napa County Airport Master Plan which was released in June 2004. The 2004 draft *Master Plan* is conceptually identical to the master plan adopted in 1990. Both plans included only one change to the runways at Napa County Airport: extension of the parallel runway (Runway 18L-36R) to accommodate Japan Air Lines (JAL) training operations. The 1990 and 2004 plans differ in the length that the runway would be extended. Under the 1990 plan the parallel runway would be extended to 3,380 feet, under the 2004 plan the length would be increased to 4,000 feet. The greater length is required because the aircraft types and operating requirements used for JAL training have changed. The 2004 version has been used in this analysis because its adoption is expected to occur within a few months. Environmental documentation for the runway extension and other projects is being prepared.

Safety factors were taken from the California Airport Land Use Planning Handbook. Detailed flight tracks developed to assess overflight impacts were developed from interviews with knowledgeable individuals associated with the Napa County Airport on the dates noted, including:



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Figure 2

**Location Map**  
Napa County Airport

## Oat Hill Development Land Use Compatibility Analysis

- Tom Shannon, Air Traffic Manager, Napa Airport Traffic Control Tower, Federal Aviation Administration and his staff (June 20, 2005)
- Bob Berthold, JAL Chief Flight Instructor, IASCO (June 6, 2005)
- Susan Chambers, Chief Flight Instructor, Bridgeford Flying Services (June 6, 2005)
- Wayne Lackey, President, Wine County Helicopters (June 6, 2005 at Airport Advisory Commission meeting)
- Napa County Airport Advisory Commission (at its public meeting on June 6, 2005)
- Members of the Napa Area Pilots Association (June 6, 2005)

The individuals interviewed are aviation professionals with direct, daily experience with flight operations at Napa County Airport. The two chief flight instructors oversee most flight training operations at the airport. The Napa County Airport Advisory Commission was used as a forum for public input. Members of the Napa Area Pilots Association were invited to contribute their insight on flight operations.

Those interviewed were asked to define common flight tracks based upon their experience. In each case, a scaled aerial photograph of the Napa County Airport environs was provided as an aid. In many cases those interviewed sketched the flight tracks on the drawing. Mr. Shannon, Air Traffic Manager was interviewed last. As the air traffic controllers now have radar

displays in the tower, they were asked to review the flight tracks suggested by others.

### Assessment

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#### Safety

Safety is in many respects a more difficult concern to address in airport land use compatibility policies than noise. A major reason for this difference is that safety policies address uncertain events which may occur with occasional aircraft operations, whereas noise policies deal with known, more or less predictable events which do occur with every aircraft operation. Because aircraft accidents rarely happen and the time, place, and consequences of their occurrence cannot be predicted, the concept of risk is central to the assessment of safety compatibility.

Safety criteria are currently defined in three ways. The Federal Aviation Administration's

Airport Design advisory circular (AC 150/5300-13) contains land use policies for runway protection zones. Runway protection zones are areas beyond runway ends in which residences and places of public assembly are prohibited. Under this definition, places of public assembly include churches, schools, hospitals, office buildings, shopping centers, and other uses with similar concentrations of people. The Federal Aviation Ad-

ministration recommends that airports acquire the property within their runway protection zones.



## Oat Hill Development Land Use Compatibility Analysis

The runway protection zones closest to the Oat Hill project are those for Runways 36L, 36R, and 24. Of these, the future runway protection zone for Runway 36L lies nearest to the project. However, it is over 4,500 feet from this runway protection zone to the project site.

The safety compatibility zones described in the California Airport Land Use Planning Handbook are the next source of guidance on safety policies. In Chapter 9, the Handbook provides examples of various configurations of safety compatibility zones and recommended policies for each zone. Of the five examples provided for general aviation airports (i.e., one without scheduled passenger service), Example 3 in Table 9K best fits the characteristics for Runway 36L. That is, it is a long runway at a general aviation airport with a precision instrument approach. The compatibility policies for this runway would be the most restrictive on the Oat Hill property. If these policies were applied, a portion of the Oat Hill property would lie within the traffic pattern zone (Figure 3). Within the traffic pattern zone, the Handbook would allow residential uses and most nonresidential uses. Uses to avoid include schools, hospitals, and outdoor uses with high occupancy levels.

An emerging trend in California compatibility plans is to directly use national accident data to create accident risk intensity contours. Similar in concept to noise contours, accident risk intensity contours define areas with similar probabilities of an aircraft accident. These zones vary in size based upon various factors. For a busy runway serving both large and small general aviation aircraft, these zones will extend about one mile from the runway end. The outermost accident risk intensity contour for Runway 36L (which would come closest) would be over 3,500 feet from the nearest corner of the Oat Hill project site.

**Safety Conclusion:** The proposed Oat Hill project would not conflict with any of the three established sources of guidance on safety compatibility.

### Noise

Noise is one of the most basic airport land use compatibility concerns. Moreover, at major airline airports, many busy general aviation airports, and most military airfields, noise is usually the most geographically extensive form of airport impact.

For the purposes of airport land use compatibility planning, noise generated by the operation of aircraft to, from, and around an airport is primarily measured in terms of the cumulative noise levels of all aircraft operations. In California, the cumulative noise level metric established by state regulations, including for airport noise, is the Community Noise Equivalent Level (CNEL). This metric provides a single measure of the average sound level in decibels (dB) to which any point near an airport is exposed. To reflect assumed greater community sensitivity to nighttime and evening noise, events during these periods are counted as being louder than actually measured. Cumulative noise levels are usually illustrated on airport area maps as contour lines connecting points of equal noise exposure. Mapped noise contours primarily show areas of significant noise exposures — ones affected by high concentrations of aircraft takeoffs and landings.

Single-event noise metrics are sometimes used in evaluating impacts of proposed airport modifications. They are rarely used as a means of defining land use compatibility policies.

# Oat Hill Development Land Use Compatibility Analysis

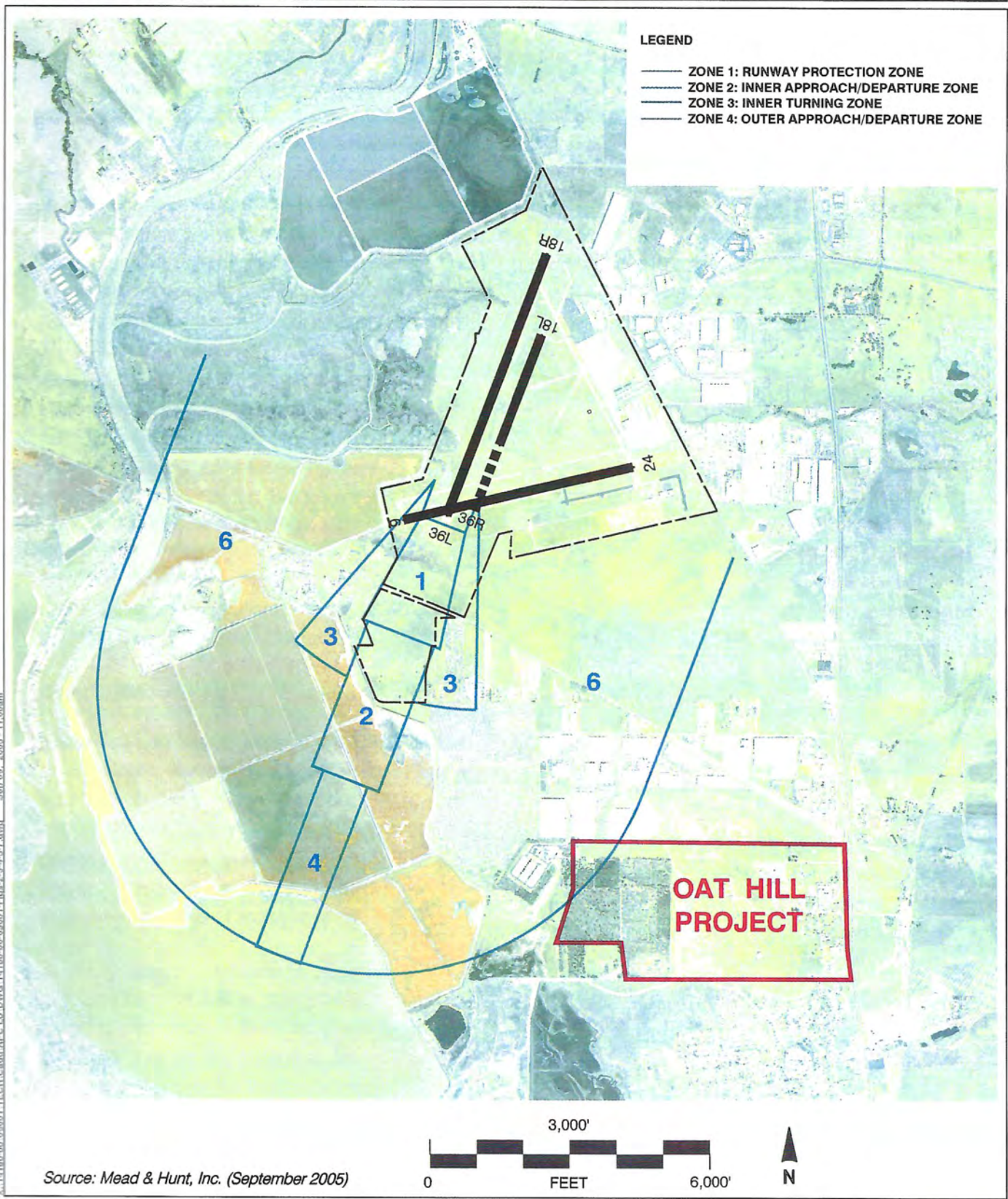


Figure 3

## Caltrans Handbook Safety Zones Napa County Airport

For general aviation airports in rural settings, the 55 CNEL noise contour is commonly used as the threshold for allowing residential uses. In suburban settings, the 60 CNEL contour is typically used. These thresholds are recommended in both the California Airport Land Use Planning Handbook and are consistent with current aviation industry practice. The Federal Aviation Administration generally limits concerns over residential uses to within the 65 CNEL contour. However, the Federal Aviation Administration has supported policies to restrict new residential uses out to the 60 CNEL contour. The nearest edge of the Oak Hill property is over 4,000 feet from the nearest point on the current 55 CNEL contour and about 3,500 feet from the 55 CNEL contour forecast for 2022 (Figure 4).

**Noise Conclusion:** The proposed uses in the Oat Hill site are compatible with the existing and forecast aviation noise contours.

### Overflight

Experience at many airports has shown that noise-related concerns do not stop at the boundary of the outermost mapped CNEL contour. Many people are sensitive to the frequent presence of aircraft overhead even at noise low levels. These reactions can mostly be expressed in the form of annoyance.

At many airports, complaints often come from locations beyond any of the defined noise contours. Areas that underlie common flight patterns are likely places for this to occur. The basis for such complaints may be a desire and expectation that outside noise sources not be intrusive — or, in some circumstances, even distinctly audible — above background noise levels. The limited numbers of complaints that have been received at Napa County Airport have been almost exclusively from outside the noise contours.

The *Handbook* discusses overflight impacts in terms of both single-event noise impacts (e.g., speech interference or sleep disturbance) and annoyance. The *Handbook* does not recommend specific policies for areas affected by overflights. It mentions excluding residential uses, insulation of residences and schools, and relying upon notification of potential buyers as possible strategies for addressing overflight effects.

Recent industry practice has been to select one of two strategies depending upon the current pattern of development. Where an airport's environs are largely free of sensitive uses (e.g., residences) and not already committed to this type of development, compatibility policies will favor retention of the non-sensitive uses (e.g., agriculture, industrial). Where the areas subject to overflights are already largely developed or are committed to sensitive uses, compatibility policies will favor a high-low strategy. A high-low strategy is based upon the premise that overflight annoyance is less likely to occur in residential areas with higher densities due to higher ambient noise levels. Therefore, in areas subject of overflight impacts can be either at rural densities (e.g., 40 acre parcels) or high densities (e.g., apartments or common-wall residences). The high-low strategy results in either a small pool of potentially annoyed residents (low density) or a large number of residents (high density), but lower likelihood of annoyance occurring.

Current and anticipated flight tracks were mapped using data collected through the interviews described above. Common flight tracks and the most commonly overflowed areas associated with Napa County Airport operations are depicted on Figure 5.

# Oat Hill Development Land Use Compatibility Analysis

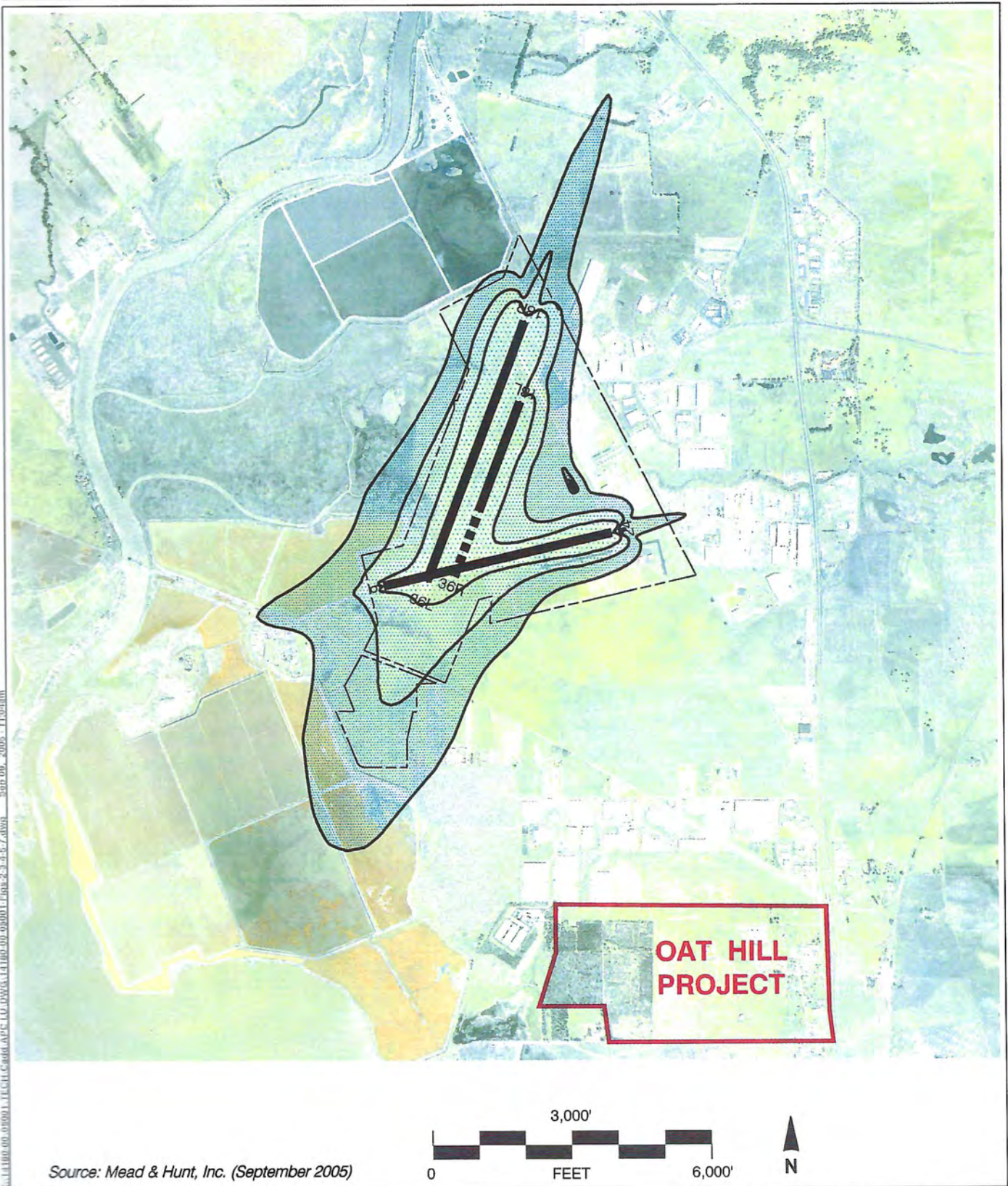


Figure 4

**Noise Contours: 2022**  
Napa County Airport



# Oat Hill Development Land Use Compatibility Analysis

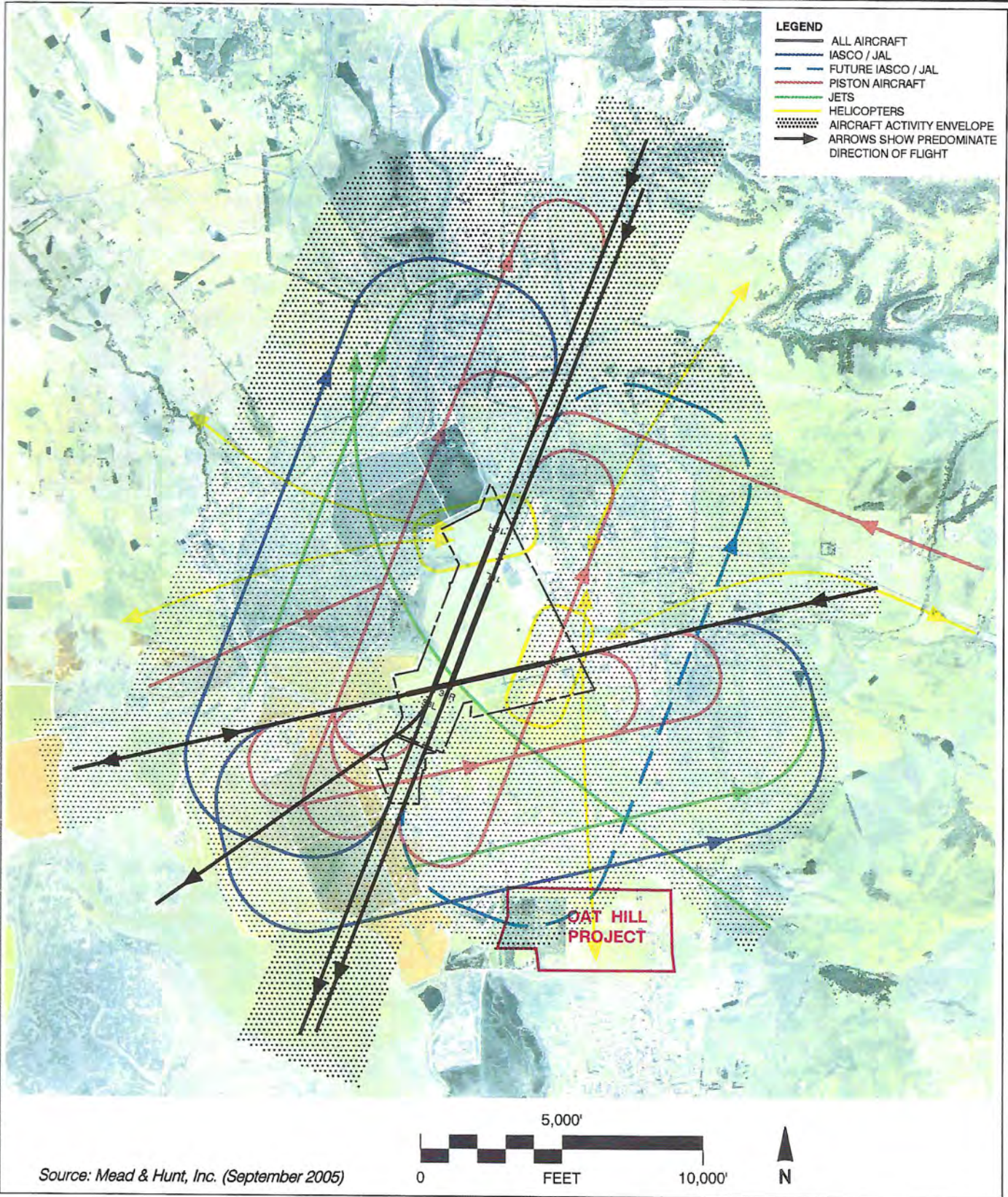


Figure 5

## Common Flight Tracks Napa County Airport

It is important to realize the variability in the flight tracks. Everywhere within five miles of the airport will be overflown in an average year. The graphic depicts only those areas that are commonly overflown near traffic pattern altitude. Typically traffic pattern altitude for small aircraft is 1,000 feet above airport elevation, for large aircraft 1,500 feet above airport elevation. Touch-and-go flight tracks have greater predictability than arrival and departure tracks.

The Oat Hill site is currently overflown during several distinct types of operations. A significant addition in overflights will occur when the parallel runway (Runway 18R-36L) is extended. An extension of this runway is included in both the 1990 and 2004 plans. The extension is expected to be operational in 3 to 5 years. Each operation that commonly overflies the Oat Hill site is discussed below. The standard names for flight track segments used in the discussion are identified in Figure 6.

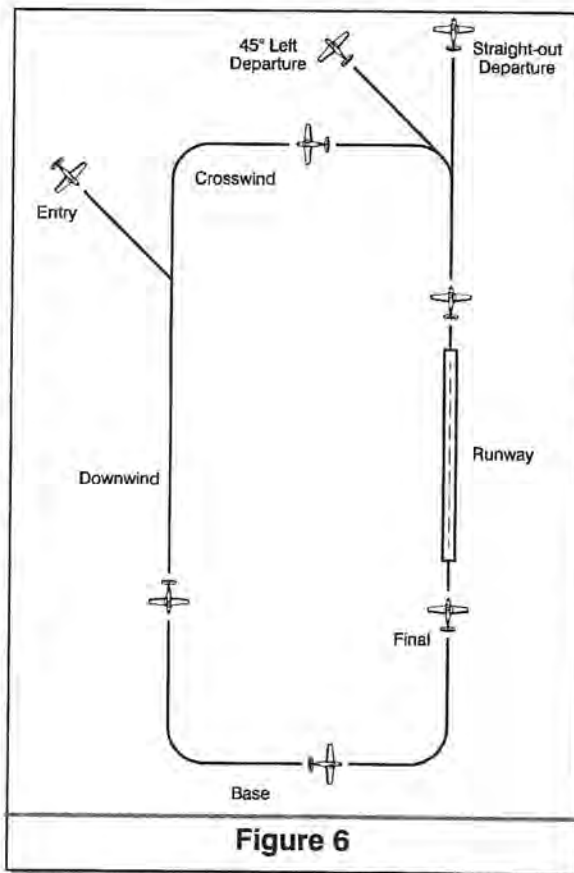
The highest volume of overflights occurs when winds favor the use of Runway 24 (the east-west runway). This occurs regularly during the spring and early summer. It will also occur sporadically during the fall and winter during the passage of storm fronts. When winds favor the use of Runway 24, all classes of aircraft will conduct landings on Runway 24. Tough-and-go operations will also fly a pattern with repeated landings and takeoffs on Runway 24. Most piston aircraft not associated with the

JAL training program will fly their downwind leg about one-half nautical mile south of Runway 6-24. Larger turboprops and jets will fly the downwind leg from one to three miles south of the runway. Because of the requirements of its training program, JAL training flights will occur about one and a quarter nautical miles south of the runway. There will typically be several JAL training aircraft in the pattern at the same time.

When winds favor Runways 18L and 18R (the wind condition most commonly experienced), jets arriving from the southeast will overfly the area in and around the Oat Hill site. The flight track shown in Figure 1 is suggestive of the general orientation of these operations. However, the individual flight tracks will vary widely from the generic track shown.

Helicopter air taxi operations to Oakland International Airport commonly overfly the western portion of the Oat Hill site at or below traffic pattern altitude during both arrivals and departures. This track is set by destination not by wind patterns. Helicopter operations by the California Highway Patrol are regularly conducted south of Napa County Airport. However, because their tracks vary greatly, they are not shown in Figure 1.

Runway 18L-36R is planned to be extended to 4,000 feet. An extension to accommodate JAL training flights has been planned since 1990. The 2004 draft master plan changes the length,



**Figure 6**

Runway 18L-36R is planned to be extended to 4,000 feet. An extension to accommodate JAL training flights has been planned since 1990. The 2004 draft master plan changes the length,

but not the purpose. Environmental review is currently being completed to support the extension. When this runway is extended, it is anticipated to be regularly used JAL training flights. Staff with IASCO, that provides the instructors for the JAL flights, indicated that lengthening Runway 18L-36R would make it usable for their tough-and-go operations. There are a couple important benefits. One, it would increase the ease with which larger aircraft could use the main runway (Runway 18R-36L). Second, it would reduce the complexity for air traffic control staff in sequencing aircraft operations on the main runway. As shown in Figure 1, these future JAL operations would overfly the north-western third of the Oat Hill property.

**Overflight Conclusion:** The Oat Hill property is subject to regular overflight by a variety of aircraft types. JAL's single-engine piston aircraft will overfly the site during training flights from Runways 18R-16L and 18L-36R when they are flying the pattern east of the airport. JAL training aircraft will also overfly the site when the wind favors the use of Runway 6-24. The noise level of individual aircraft will be comparable to a power lawnmower in a neighbor's yard. There will normally be several aircraft training at the same time. This would mean an overflight could occur about every 45 seconds. The site is overflown by helicopters traveling to or from Oakland International Airport (or other destinations south of the airport). At most these would occur a couple of times per day. Jets arriving from the southeast will sometimes overfly the Oat Hill site. Both the flight tracks and altitude will vary significantly. Noise levels will be at or above the levels of piston training aircraft. The volume of overflights is expected to increase in the near future. The extension of Runway 18L-36R is expected to occur within 3 to 5 years. Once operational, the number of JAL training flights east of the airport is expected to increase

significantly. Development of the Oat Hill property with residential uses (or other sensitive uses) could be expected to create conflicts with the Napa County Airport that do not now exist.

### Airspace

Relatively few aircraft accidents are caused by land use conditions which are hazards to flight. The potential exists, however, and protecting against it is essential to airport land use safety compatibility. Because airspace protection is in effect a safety factor, its objective can likewise be thought of in terms of risk. Specifically, the objective is to avoid development of land use conditions which, by posing hazards to flight, can increase the risk of an accident occurring. The particular hazards of concern are:

- Airspace obstructions;
- Wildlife hazards, particularly bird strikes; and
- Land use characteristics which pose other potential hazards to flight by creating visual or electronic interference with air navigation.

Whether a particular object constitutes an airspace obstruction depends upon the height of the object relative to the runway elevation and its proximity to the airport. The acceptable height of objects near an airport is most commonly determined by application of standards set forth in Part 77 of the Federal Aviation Regulations. These regulations establish a three-dimensional space in the air above an airport. Any object which penetrates this volume of airspace is considered to be an obstruction and may affect the aeronautical use of the airspace. Obstructions are evaluated using guidance contained in *United States Standards for Terminal Instrument Procedures* (called "TERPS" for historical reasons).

The significance of other potential hazards to flight is principally measured in terms of the

hazards' specific characteristics and their distance from the airport and/or its normal traffic patterns. At an airport that regularly receives use by jet aircraft, as Napa County Airport does, hazards are of most concern within 10,000 feet of runways used by jets.

Oat Hill penetrates the horizontal surface for Napa County Airport (Figure 7). This surface overlies the airport 150 feet above the airport's elevation. As the airport's elevation is 35 feet above mean sea level, the top 85 feet of Oat Hill extends past the horizontal surface.

Although a formal site design does not yet exist for the Oat Hill properties, the development team indicated that estate type single-family homes might be planned for portions of this hill. Constructing homes on the hill that extend past the horizontal surface has the potential to affect the instrument approaches to Napa County Airport. A cursory examination using TERPS criteria, suggest that it is likely that a two-story home would not affect the soon-to-be-activated ILS approach to Runway 36L. It is also not likely that a home on the hill would impact the minimums for circle-to-land approaches. However, this can only authoritatively be answered by a formal analysis by the Federal Aviation Administration.

The uses for the Oat Hill property have not been formally defined. Residential uses appear likely to be the dominant use. No uses likely to be significant wildlife attractants (e.g., golf courses or landfills) have been proposed. The project does not appear likely to create sources of visual or electronic interference. An unequivocal conclusion cannot be made until the details of the proposed development are known. Even then, specific future uses might need independent review if they have unusual characteristics that might cause these forms of interference.

It is appropriate to describe the Federal Aviation Administration's (FAA) role in reviewing the Oat Hill development. FAA's only formal role is to review the project for airspace conflicts. Developers of the Oat Hill property are required by federal statutes to have proposed development reviewed if it would penetrate the imaginary surfaces defined in Federal Aviation Regulations Part 77. Structures on Oat Hill or unusually tall structures elsewhere on the property are likely to need review. The review process is started with submission of FAA Form 7460. If the FAA concludes that the proposed development would not be a hazard to aviation, a "no objection" letter will be issued. Alternatively, the FAA can indicate that a red obstruction light is needed or that specific elements of the project would be a hazard.

The FAA does not have any direct enforcement mechanism; as a federal agency it does not have authority over local land use decisions. However, if FAA recommendations in the airspace review are not followed, operations at Napa County Airport could be directly affected. For example, visibility minimums could be raised on an existing instrument approach, existing instrument procedures could be eliminated, or proposed instrument procedures could be prohibited. All of these measures would reduce the utility of the airport.

**Airspace Conclusion:** Portions of the Oat Hill property penetrate the horizontal surface. A Federal Aviation Administration airspace review should be conducted if any structures would penetrate this horizontal surface. No uses that would likely be wildlife attractants, or would cause visual or electronic interference have been identified. However, a final project description is needed before a conclusion on this topic could be reached.

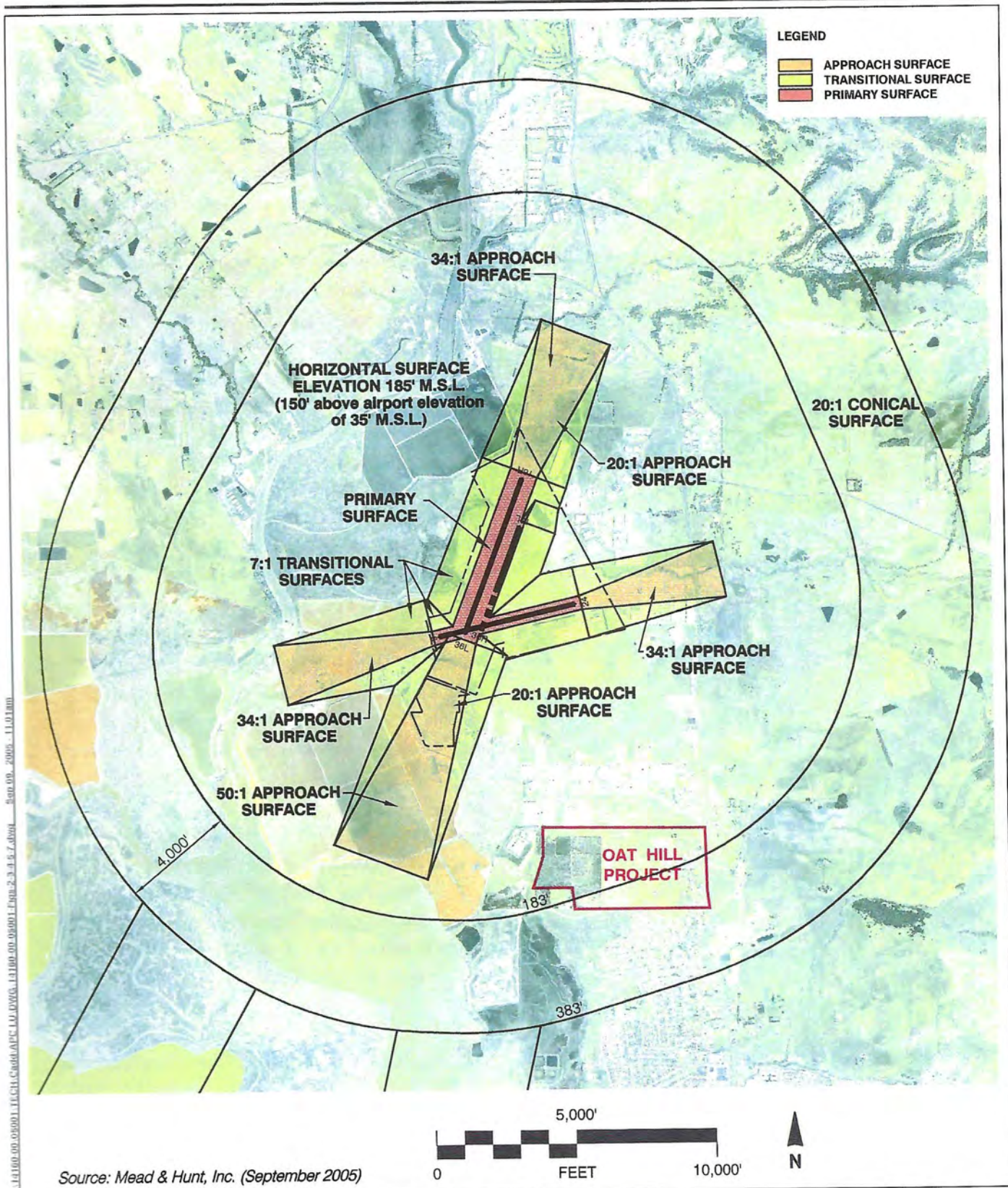


Figure 7

**Airspace Plan**  
Napa County Airport

### Implications for the Zone D Boundary

California statutes state that the purpose of airport land use compatibility plans is to "...protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses." Compatibility plans must be guided by airport plans and documentation of each airports noise and safety impacts.

The Napa County Airport has generally enjoyed a high degree of compatibility with adjacent land uses. In fact, the airport is often used as a rare example of a busy metropolitan airport that is largely free from incompatible uses. In part this was due to the luck of the airport being sited in what had been a rural area. Good planning has limited new development near the airport to compatible commercial and industrial uses. As development continues to occur in the vicinity of the Napa County Airport, the challenge will be to prevent the introduction of incompatible uses.

This analysis provides more detailed documentation of the impacts of air operations at Napa County Airport than has been previously available. This information was designed to support a determination of whether the boundaries of compatibility zone "D" should be modified near the Oat Hill property.

Based upon the earlier analysis, safety and noise do not appear to be significant concerns for the proposed uses. Airspace is of modest concern, but it has the potential to effect only structures on Oat Hill itself. On the majority of the property airspace is not a concern. Given what is known of the project's elements, neither wildlife attractants, nor visual or electronic interference are expected to be a concern.

However, overflight effects are a compatibility concern today, and are expected to increase. It would be inappropriate to permit introduction of residential uses where overflight impacts are a concern. Therefore, we conclude that there are no grounds to shift Zone D.

# **EXHIBIT E**

October 18, 2005

Napa County Airport Land Use Commission  
1125 Third Street, Room 210  
Napa, California 94559

Re: Mead & Hunt Land Use Compatibility Report

Dear Members of the Commission:

I write to you on behalf of the City of American Canyon (“the City”). We submit these written comments for consideration at your November 2, 2005 meeting, when the Commission will consider the *Oat Hill Development Land Use Compatibility Analysis* prepared by the firm of Mead & Hunt (“the M&H Report”). The City will submit additional comments at the November 2, 2005 meeting, that we will want the Commission to also consider.

As the Commission may recall, the M&H Report was initiated in response to a joint request from the County of Napa and the City, to review the boundary of Compatibility Zones D and E in the Oat Hill area of the City, as described in the current Airport Land Use Compatibility Plan of the Commission.

The City agrees with much of the analysis in the M&H Report. The City, however, does not agree with the conclusion of the M&H Report, since we believe that there are grounds to move the boundary line between Zones D and E in the Oat Hill area.

We believe that a review of pertinent historical information will help the Commission in its review of the M&H Report.

### **HISTORICAL CHRONOLOGY**

April 22, 1991      Napa County ALUC adopts its Airport Land Use Compatibility Plan (“the Plan”) for the Napa County Airport. The Plan established Compatibility Zones A through F, with development restrictions for each zone. Residential uses are significantly restricted in Zones A through D. The boundary line between Zones D and E in the Oat Hill area runs along Green Island Road, with land north of Green Island Road in Zone D, and land south of Green Island Road in Zones E and F. The Oat Hill area was included within Zones E and F. The development of



residential uses within Zones E and F was allowed in accordance with the adopted general plan for the local jurisdiction.

- May 28, 1991 Napa County adopts an update to the Airport Master Plan, for development at the Napa County Airport. The Master Plan proposes an extension of Parallel (General Aviation) Runway 18L-36R from a current length of 2,500 feet to a total length of 3,380 feet.
- 1992 The City is incorporated.
- December 15, 1999 The ALUC amends the Plan (“the 1999 Amendment”). The 1999 Amendment establishes Compatibility Zones A through E. New residential uses are determined to be non-compatible uses in Zones A through D. The Impact Assessment for the 1999 Amendment considers noise, overflight, safety, and flight hazards. The major change is to the location of the boundary line between Zones D and E. As a result, a significant portion of the Oat Hill area is included within Zone D.
- January 2002 CalTrans amends its Airport Land Use Planning Handbook (“the 2002 Handbook”). The 2002 Handbook considers risk assessment and determination of risk acceptability as key components in establishing the compatibility zones.
- October 2003 Napa County, the City of Napa and the City execute a Memorandum of Agreement (“the Housing MOU”). Relevant portions of the Housing MOU are enclosed with this letter. The Housing MOU provides, in relevant part, that the City will accept a portion of the County’s housing allocation to assist the County in meeting its Regional Housing Needs Determination, the City will undertake a planning effort on the Oat Hill area, and the City and the County will conduct a joint study to determine the

appropriate boundaries for Zones D and E as they affect Oat Hill.

- February 2004 Napa County LAFCO approves amendment to the Sphere of Influence boundary for the City, to include the Eucalyptus Grove (which is part of the Oat Hill area) within the Sphere of Influence for the City.
- March 2004 The City initiates the Oat Hill planning effort.
- June 2004 The City retains Walter Gillfillan as an airport consultant and Gillfillan submits a report (“the Gillfillan Report 1”) evaluating the Zone D and E compatibility boundaries as they affect the Oat Hill area. A copy of the Gillfillan Report 1 is enclosed with this letter. The Gillfillan Report 1 concludes that safety, air space intrusion, noise, and overflight considerations would not preclude residential development in the Oat Hill area.
- June 2004 Napa County releases a draft amendment to the Napa County Airport Master Plan (“the 2004 Airport Plan”). The 2004 Airport Plan proposes an extension of Parallel (General Aviation) Runway 18L-36R from an approved (but yet to be constructed) length of 3,380 feet to 4,000 feet
- March 2005 The ALUC commissions a study on the boundaries of Zones D and E in the Oat Hill area. The study is paid for by Napa County, the City, and the Stakeholders interested in developing the Oat Hill area.
- September 2005 The M&H Report is released. The M&H Report indicates that as a result of using the 2002 Handbook criteria, development in the Oat Hill area would not be precluded because of safety, air space intrusion, or noise considerations. The M&H Report concludes, however, that because of potential of overflight resulting from possible future extension of Parallel

(General Aviation) Runway 18L-36R from 2,500 feet to a total length of 4,000 linear feet, as suggested in the 2004 Airport Plan, there is no basis for moving the Zone D and E boundary line.

September 2005 Walter Gillfillan reviews the M&H Report (“the Gillfillan Report 2”). A copy of the Gillfillan Report 2 is enclosed with this letter. The Gillfillan Report 1 and the Gillfillan Report 2 will collectively be referred to as “the Gillfillan Report”.

October 2005 Wanda Kennedy, Napa County Airport Manager, in a meeting with the County Board of Supervisors, indicates that there are no plans to lengthen runways or expand the airport facility.

### **CRITICAL FACTORS TO CONSIDER**

The City is proceeding with a general plan study for the Oat Hill area. This study was contemplated by the City and the County of Napa in the Housing MOU. The City is in the process of conducting environmental analysis of at least two alternative plans. A copy of the two alternative plans is enclosed with this letter.

The 1999 Amendment evaluated the general plans for Napa County and the City of Napa, but did not evaluate the general plan for the City. This omission is significant, since the 1999 Amendment substantially changed the Plan, and its impact on local development.

The 1999 Amendment was primarily concerned with proposed development at Stanly Ranch. No consideration was given to the Oat Hill area or the City. The 1999 Amendment significantly increased the area within which no new residential development would occur. This expanded area covered the Stanly Ranch, and brought the new restrictions to the Oat Hill area. Unfortunately, in addressing the impacts that Stanly Ranch could have on the airport, the 1999 Amendment established policies that significantly impact the City, and will impact the County under the Housing MOU.

The 1999 Amendment was adopted prior to the 2002 Handbook. The 2002 Handbook is now the criterion by which compatibility plans should be based. This point was recognized by Mead & Hunt in the M&H Report, which specifically used the 2002 Handbook in its analysis.

The M&H Report and the Gillfillan Report agree that development in the Oat Hill

area would not be precluded because of safety, noise, and air space intrusion considerations applying the 2002 Handbook criteria and analysis. Orderly residential development of the Oat Hill area would not conflict with airport operations.

Development of Oat Hill would not conflict with any of the established sources of guidance on safety compatibility. The M&H Report acknowledges that the 2002 Handbook would allow residential uses in the Oat Hill area.

Development of Oat Hill would be compatible with existing and forecast aviation noise contours. The Oat Hill area is more than 4,000 feet from the 55 CNEL contour for existing operations, and more than 3,500 feet from the 55 CNEL contour forecast for the year 2022. The 55 CNEL contour is used to determine noise impacts on new residential development.

A portion of the Oat Hill development may penetrate the horizontal surface of the airport. Ultimately, the FAA has jurisdiction on this issue.

The M&H Report focuses on overflight. Overflight impacts are highly subjective. The Plan has taken the position that to avoid any complaints, there should be no new residential development in areas where overflight may occur. Applying this criteria to the Oat Hill area is not appropriate or reasonable.

The M&H Report acknowledges that the recent industry practice in areas that are largely developed is to use a high-low strategy. Areas subject to overflight could be limited to rural densities (one unit for 40 acres) or higher density development (apartments, common-wall developments). The higher density development brings with it higher ambient noise levels, thus making the overflight noise less noticeable and intrusive. Consequently, the overflight becomes less a significant concern with higher density development.

The M&H Report relies upon a proposed extension of Parallel (General Aviation) Runway 18L-36R, as described in the yet to be adopted 2004 Airport Plan, to conclude that overflight would occur with greater frequency. The M&H Report presumes that residential development in Oat Hill would create more conflicts. As a result, on the basis of overflight considerations alone, the M&H Report concludes that there are no grounds to move the Zone D and E boundaries.

The Gillfillan Report notes that overflight considerations would not preclude residential development of the Oat Hill area. New residential uses in areas where overflights will occur are recognized as a compatible use in the 2002 Handbook.

The lesser significance of overflight is further emphasized by the fact it is now accepted practice in preparation of environmental documents for runway extensions that overflights over existing residential areas are **not** a consideration. Rather, the analysis is based upon the 65 CNEL contour. As the M&H Report notes, the Oat Hill area is far from the boundaries of the 65 CNEL contour.

The overflight issue becomes a consideration solely because of the possible extension of the Parallel (General Aviation) Runway 18L-36R from its current length of 2,500 feet to 4,000 feet. This proposed extension is contained in the 2004 Airport Plan. As of this date, however, the 2004 Airport Plan has not completed environmental review, and has not been adopted.

The 1991 Airport Master Plan called for extension of Parallel (General Aviation) Runway 18L-36R from 2,500 feet to 3,380 feet. Fourteen years after this plan was adopted the runway is still only 2,500 feet in length.

The Airport Manager, as recently as October 12, 2005, indicated to the County Board of Supervisors that there are no plans to lengthen runways. These remarks, and the fact no action has been taken to implement the 1991 Airport Master Plan, put into serious question the statements in the M&H Report that the extension of Parallel (General Aviation) Runway 18L-36R would occur within the next 3-5 years.

The adopted 1991 Airport Master Plan proposed increasing the length of Parallel Runway (General Aviation) 18L-36R to shift noise associated with the JAL training flights to the other side of the airport. The training pattern was not as large as that shown in the M&H Report.

Airport activity has not increased significantly since 1975. There is no reason to believe that an expanded overflight area is needed to protect the airport.

The Plan takes the most conservative position possible relative to land use compatibility. The Plan states that **no** new residential development should occur in areas which are subject to overflight, regardless of the frequency, the noise level or surrounding land development patterns. This position disregards provisions of the Plan and the 2002 Handbook that provide for aviation or overflight easements and recorded deed notices as a means of dealing with the overflight issue. The Plan and the M&H Report do not further the orderly development of the Oat Hill area or the City.

The Plan is to provide for the orderly growth of the airport and the surrounding area. The Plan should safeguard the general welfare of the inhabitants within the airport area and the public in general. The Plan can accomplish these goals without an a prohibition of residential development in the Oat Hill area.

State law requires that the ALUC review the Plan in relation to **adopted** plans. The adopted Airport Master Plan calls for expansion of the Parallel (General Aviation) Runway 18-L-36R to a total length of 3,380 feet. This expansion would not cause the overflight problem. Only when looking beyond the guidance set forth in State law and using a proposed unadopted plan is there any arguable basis for maintaining the Zone D and E boundaries in their existing location.

The M&H Report fails to recognize that the Oat Hill Master Plan project is an

infill development. The Oat Hill area is bounded on three sides by development. A graphic depiction of the Oat Hill area, in relation to other development, is enclosed with this letter.

The Zone D development restrictions are designed to prevent incompatible residential uses in rural, undeveloped areas. Application of the Zone D restrictions to the Oat Hill area would be inconsistent with, and would not further, this intent. Residential uses are developed south of Oat Hill. Industrial uses are established directly to the north. There is no rural character in Oat Hill to protect or preserve.

Oat Hill is unique in its location to the airport, and the topography of the area. The Oat Hill area is not in line with the runways. The Oat Hill area is nearly 10,000 feet from the airport. Noise, safety, and airspace intrusion would not preclude development. Oat Hill is an infill development that would not promote urban development into agricultural areas.

The Napa Vallejo Waste Management Authority is one of the major property owners in the Oat Hill area. The Zone D development restrictions on the Authority's property will have significant financial impacts on all County residents.

Development of the Oat Hill area is vital to the growth of the City. The Oat Hill area is the remaining undeveloped area with the City. The Oat Hill area has a variety of existing uses and underutilized land. The City has an opportunity to provide needed resources, including housing, to its residents. The Zone D development restrictions would preclude the orderly growth of the City.

The Board of Supervisors clearly expressed its policy toward housing when it approved and entered into the Housing MOU. Napa County cannot meet its Regional Housing Needs Determination without assistance from the City. The Housing MOU recognizes that development of the Oat Hill area will enhance housing opportunities for all income groups. The Zone D development restrictions, however, would frustrate the County's housing policy.

The M&H Report, if adopted by the ALUC, would substantially preclude the City from accepting the allocation of housing units from Napa County, as is provided in the Housing MOU. There are no other areas within the City where significant residential development can occur. Thus, the M&H Report makes it much more problematic that Napa County could meet its unmet housing needs.

The City believes that the boundary line between Zones D and E in the Oat Hill area should be moved, and that residential development in the Oat Hill area should be permitted. Residential development in the Oat Hill area would not implicate safety, noise, and airspace intrusion considerations.

Furthermore, overflight concerns are not sufficient to keep the Zone D and E boundaries in their present location. The unique location of Oat Hill, the fact that Oat

Hill is an infill development project and not a development in a rural area, the fact that development of the Oat Hill area was contemplated in the Housing MOU, and the fact that higher density residential development is proposed for that portion of the Oat Hill area closest to the airport all indicate that overflight issues in Oat Hill are not significant.

When all the factors are considered, the ALUC should find that there are grounds to move the Zone D and E boundaries around the Oat Hill area. Residential development of Oat Hill will not create compatibility problems associated with safety, noise, airspace intrusion, or overflight. Amending the Plan and moving the Zone D and E boundaries around the Oat Hill area will promote orderly growth, and will provide for the general welfare, while maintaining protection for the airport.

The Zone D and E boundary line should be relocated. The boundary line should be returned to the location prior to the 1999 Amendment, or the boundary line should be moved to the north and west of the Oat Hill area.

Thank you for the opportunity to present this information to you. We look forward to discussing this with you further on November 2, 2005.

Very truly yours,

City of American Canyon

By: \_\_\_\_\_  
Barry Cromartie, Planning Director

BC:RWG

Enclosures

- (1) Housing MOU
- (2) Gillfillan Report 1
- (3) Gillfillan Report 2
- (4) Land Use Alternative 1
- (5) Land Use Alternative 2
- (6) Oat Hill infill

## MEMORANDUM

September 26, 2005

TO: Kristie Wheeler

FROM: Walter Gillfillan

SUBJECT: Initial review of the Mead & Hunt report

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Per your request, I have completed an initial review of the Oat Hill Development Land Use Compatibility Analysis report prepared by Mead & Hunt date September 2005. It is important to note that the stated purpose of the Mead & Hunt report is multifaceted. It requires, (1) an assessment the compatibility of the proposed Oat Hill development with operations at the Napa County Airport base on safety, noise, overflight and airspace using the 2002 California Airport Land Use Planning Hand book and (2) a determination whether the boundary of the ALUC compatibility zone "D" should be modified.

### ASSESSMENT OF THE COMPATIBILITY

The assessment considered four factors related to land use compatibility - safety, noise, overflight and airspace. The following conclusions were reached in the assessment of these factors:

- **Safety** – "The proposed Oat Hill project would not conflict with any of the three established sources of guidance on safety compatibility".
- **Noise** – "The proposed uses in the Oat Hill site are compatible with the existing and forecast aviation noise contours".
- **Overflight** – "Development of the Oat Hill property with residential uses (or other sensitive uses) could be expected to create conflicts with the Napa county Airport that do not now exist".
- **Airspace** – "Portions of the Oat Hill property penetrate the horizontal surface".

This assessment identifies two factors that are possible issues – overflight and airspace. The following are points to consider that relate to these two factors:

#### Overflight

- As noted in the Handbook, overflight is an annoyance issue. There are no metrics or criteria that help define the extent of the problem, except that experience suggests that it is related to frequent, low-altitude aircraft overflight. That activity



can result in noise complaints from residential areas outside of the noise contour boundaries. Aircraft noise is always considered in airport environmental impact evaluations. However, because there are no “levels of significance” for overflight noise, the effect of proposed airport expansion proposals on existing residential land uses is not commonly considered in environmental analysis.

- There is a significant change proposed in the Airport Master Plan now being considered by the County. Runway 18L-36R is currently 2,510 feet in length. The existing, adopted 1990 Master Plan provides for an extension of 870 feet to 3,380 feet of runway length. The Master Plan currently under consideration would provide for an additional extension of 1,490 feet to a length of 4,000 feet. According to the Public Utilities Code, Section 21675, the ALUC is required to base its Land Use Plan on the airport long-range master plan or Airport Layout Plan. In this case, the currently adopted master plan.
- This 60% increase in the length of Runway 18L-36R allows for the shifting of some JAL training flights to Runway 18L-36R, thereby significantly enlarging the traffic pattern on the south side of the airport to accommodate these aircraft. This enlarged traffic pattern will cause some overflight of the proposed Oat Hill project area under certain conditions, by some aircraft types.
- The traffic pattern for piston-powered aircraft would not overfly the Oat Hill project area with either of the runway extensions proposed for Runway 18L-36R.
- Air traffic using Runway 6-24 provides no overflight by piston-powered or jet aircraft, but does have some near-by flights by the JAL training operations.

#### Airspace

Because the actual finding of compliance with the provisions of Part 77 is a responsibility of the FAA, only the FAA can make a final finding of hazard or non-hazard. The following are important considerations:

- The Airspace Plan developed for the Napa County Airport by the ALUC does note that a portion of natural terrain of Oat Hill extends about 80 feet into the Horizontal Surface as defined by the FAA.
- The elevation of the imaginary Horizontal Surface is 150 feet above the airport elevation, or 183 feet msl. A very small portion of the hill also extends into the Conical Surface, as defined by Part 77. It should be noted that an existing water tank on Oat Hill has a top elevation of approximately 313 feet.
- This obstruction as defined by Part 77 is remote from any of the runway approaches and away from the common traffic pattern areas. As a result, this terrain feature is not likely to affect any of the existing aircraft operations. Proposed structures on the side of the hill are not likely to be found to be an obstruction, since the hill itself is the controlling obstruction in the area.
- However, structures on top of the hill could be a concern if higher than the existing terrain or water tank.
- While the principal focus of Part 77 is on the height of structures/vegetation, there is another element that should be noted. A review of the proposed project must determine that it does not create (i) electromagnetic interference with air navigation facilities, nor (ii) lighting effects, nor (iii) smoke that would interfere with aircraft in flight.

### **BOUNDARY OF THE ALUC COMPATIBILITY ZONE “D”**

The report concludes, .....“that there are no grounds to shift Zone D”. This is based principally on the factor of overflight and the annoyance that can result from frequent, low-flying aircraft. Included in the discussion are the following points:

- The preservation of the rural character of the areas surrounding the airport to minimize the public’s exposure.
- The Napa County Airport is a rare example of a busy airport that is largely free from incompatible land uses.
- Compatibility plans must be guided by airport plans
- The challenge is to prevent the introduction of incompatible land uses
- It would be inappropriate to permit the introduction of residential uses where overflight impacts are a concern.

December 10, 2005

To: Lisa Mochizuki

FROM: Walter Gillfillan

SUBJECT: Graphical depiction of Runway 18L-36R traffic pattern issue

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Per your request, I have developed a graphical display to highlight the effect of the proposed Runway 18L-36R extension, and proposed traffic pattern changes, would have on the proposed Oat Hill project.

In doing this, I have used information contained in several documents:

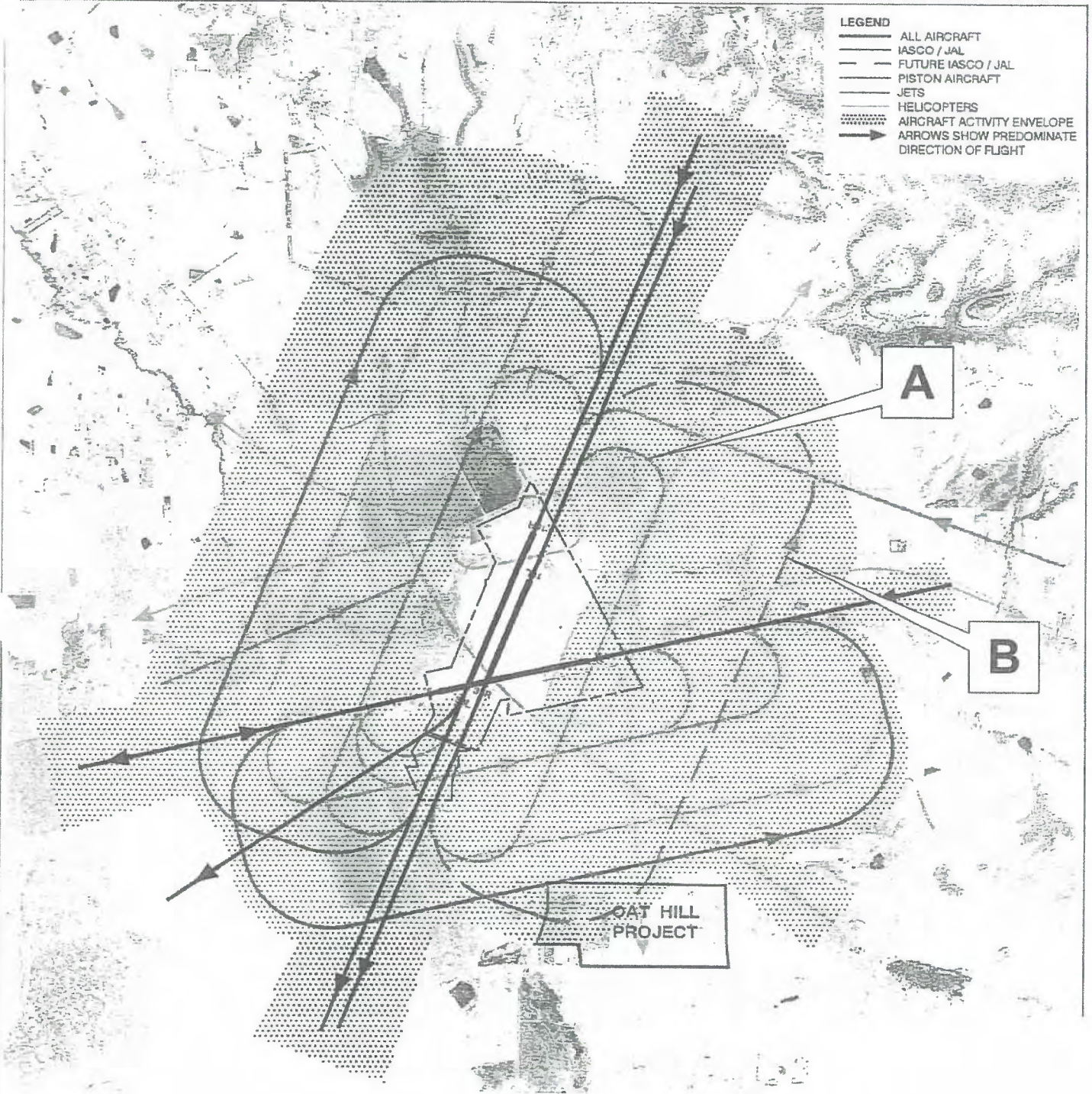
- Hodges& Shutt. Napa County Airport Master Plan Report, Adopted May 1991
- Mead & Hunt. Napa County Airport Master Plan. Revised Draft Report, June 2004
- Mead & Hunt. Oat Hill Development Land Use Compatibility Analysis. September 2005

It is important to note that there is a difference in proposed runway length between the Oat Hill Development Land Use Compatibility Analysis report and the Revised Draft Napa County Airport Master Plan report. The Oat Hill analysis assumed an extension to 4,000 ft. The Revised Draft Master Plan report indicates an extension to 3,380 ft.

Attachment I is Figure 5 from the Oat Hill Development Land Use Compatibility Analysis with notations added to identify the two traffic patterns A and B that are relevant to the proposed Oat Hill project.

Attachment II is a narrative presenting the issues associated with the proposed extension of Runway 18L-36R and the proposed future IASCO/JAL training pattern.

# Oat Hill Development Land Use Compatibility Analysis



## DESCRIPTION OF TRAFFIC PATTERN ISSUES

### Runway 18L-36R

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#### Runway 18L-36R Lengthened

- The source for these comments is Figure 5 from the Oat Hill Development Land Use Compatibility Analysis report.
- The Oat Hill Development Land Use Compatibility Analysis report indicates a runway extension from the present 2510 ft. to 4,000 ft.
- The Revised Draft Napa County Airport Master Plan report indicates an extension to 3,380 ft.

#### **A** - Traffic pattern for piston-powered aircraft

- Pattern is located 3,000 ft. from the runway centerline
- Closest point to the Oat Hill project approximately 1,700 ft.; 2,200 ft. if the runway length were 3,380 ft.
- There is no overflight of the Oat Hill project by these aircraft

#### **B** - Traffic pattern for future IASCO/JAL

- Pattern is located 7,500 ft. from the runway centerline to simulate large aircraft operations
- This pattern extends approximately 1,500 ft. in to the northwestern portion of the Oat Hill project; approximately 800 ft. if the extension to 3,380 ft. is used.
- The pattern and the aircraft activity envelop would affect approximately one-half of the Oat Hill project area
- There would be IASCO/JAL training overflights of the Oat Hill project. The number or proportion is not evident from the available material.

#### Runway 18L-36R Unchanged

#### **A** - Traffic pattern for piston-powered aircraft

- The current runway length is 2,510 ft.
- 
- Closest point to the Oat Hill project approximately 3,200 ft.
- There is no overflight of the Oat Hill project by these aircraft

#### **B** - Traffic pattern for future IASCO/JAL

- The shorter length would exclude the IASCO/JAL training pattern
- There is no overflight of the Oat Hill project

## Oat Hill Development Land Use Compatibility Analysis

### Location

The Oat Hill properties are located southeast of the Napa County Airport. The site is on the northern edge of the City of American Canyon, west of Highway 29. At its closest point, the project site is about 7,500 feet from the nearest runway (Runway 6-24) at the Napa County Airport (Figures 1 and 2). The project would consist of a variety of housing types, expansion of an existing school site, and possibly some commercial uses.

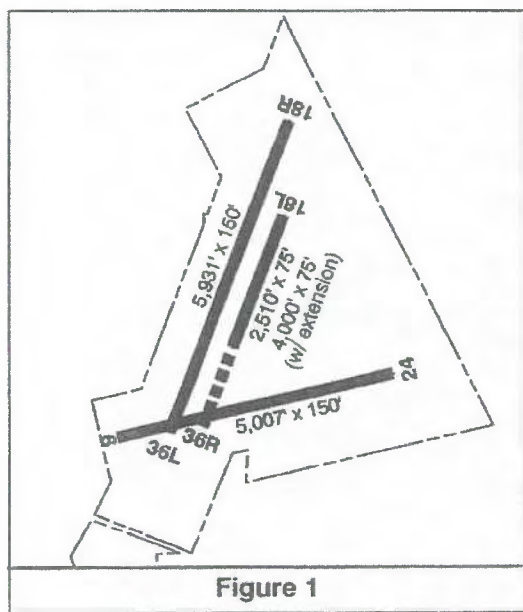


Figure 1

### Analytical Task

The Napa County Airport Land Use Commission (ALUC) charged Mead & Hunt with assessing the compatibility of the proposed Oat Hill development with operations at the Napa County Airport. The assessment was to evaluate compatibility based upon:

- Safety
- Noise
- Overflight
- Airspace

Assessment of each of these factors is to be based upon the 2002 *California Airport Land Use Planning Handbook* and current aviation industry practice. The purpose of the analysis is to determine whether the boundaries of compatibility zone "D" should be modified. The boundary of the D Zone passes through the Oat Hill site. Napa County ALUC policies do not permit new residential uses within this zone.

### Sources of Data

Data for this analysis came from a variety of sources. Noise contours and airspace surfaces were taken from the draft Napa County Airport Master Plan which was released in June 2004. The 2004 draft *Master Plan* is conceptually identical to the master plan adopted in 1990. Both plans included only one change to the runways at Napa County Airport: extension of the parallel runway (Runway 18L-36R) to accommodate Japan Air Lines (JAL) training operations. The 1990 and 2004 plans differ in the length that the runway would be extended. Under the 1990 plan the parallel runway would be extended to 3,380 feet, under the 2004 plan the length would be increased to 4,000 feet. The greater length is required because the aircraft types and operating requirements used for JAL training have changed. The 2004 version has been used in this analysis because its adoption is expected to occur within a few months. Environmental documentation for the runway extension and other projects is being prepared.

Safety factors were taken from the California Airport Land Use Planning Handbook. Detailed flight tracks developed to assess overflight impacts were developed from interviews with knowledgeable individuals associated with the Napa County Airport on the dates noted, including:

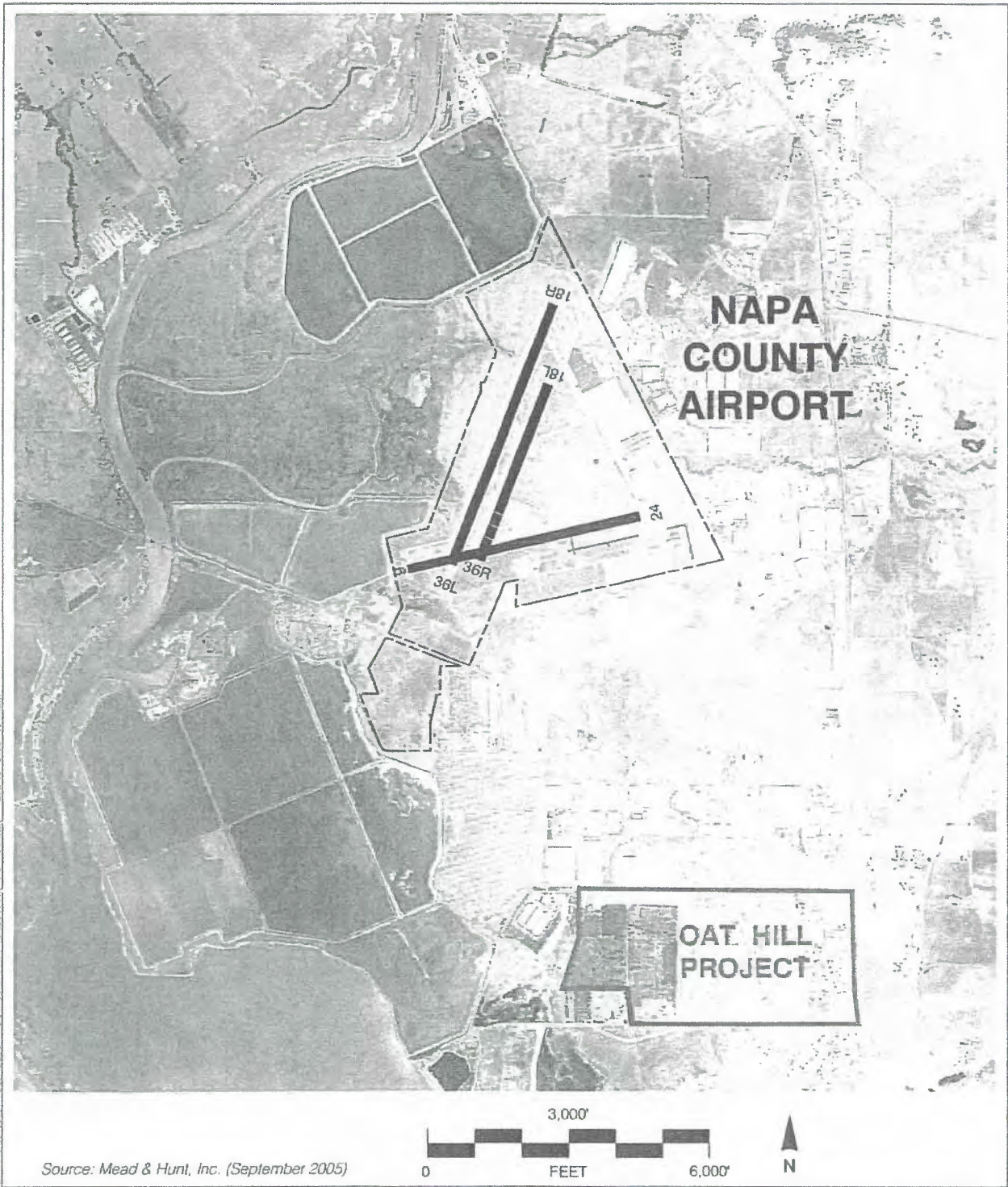


Figure 2

**Location Map**  
Napa County Airport

## Oat Hill Development Land Use Compatibility Analysis

- Tom Shannon, Air Traffic Manager, Napa Airport Traffic Control Tower, Federal Aviation Administration and his staff (June 20, 2005)
- Bob Berthold, JAL Chief Flight Instructor, IASCO (June 6, 2005)
- Susan Chambers, Chief Flight Instructor, Bridgeford Flying Services (June 6, 2005)
- Wayne Lackey, President, Wine County Helicopters (June 6, 2005 at Airport Advisory Commission meeting)
- Napa County Airport Advisory Commission (at its public meeting on June 6, 2005)
- Members of the Napa Area Pilots Association (June 6, 2005)

The individuals interviewed are aviation professionals with direct, daily experience with flight operations at Napa County Airport. The two chief flight instructors oversee most flight training operations at the airport. The Napa County Airport Advisory Commission was used as a forum for public input. Members of the Napa Area Pilots Association were invited to contribute their insight on flight operations.

Those interviewed were asked to define common flight tracks based upon their experience. In each case, a scaled aerial photograph of the Napa County Airport environs was provided as an aid. In many cases those interviewed sketched the flight tracks on the drawing. Mr. Shannon, Air Traffic Manager was interviewed last. As the air traffic controllers now have radar

displays in the tower, they were asked to review the flight tracks suggested by others.

### Assessment

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#### Safety

Safety is in many respects a more difficult concern to address in airport land use compatibility policies than noise. A major reason for this difference is that safety policies address uncertain events which may occur with occasional aircraft operations, whereas noise policies deal with known, more or less predictable events which do occur with every aircraft operation. Because aircraft accidents rarely happen and the time, place, and consequences of their occurrence cannot be predicted, the concept of risk is central to the assessment of safety compatibility.

Safety criteria are currently defined in three ways. The Federal Aviation Administration's



Airport Design advisory circular (AC 150/5300-13) contains land use policies for runway protection zones. Runway protection zones are areas beyond runway ends in which residences and places of public assembly are prohibited. Under this definition, places of public assembly include churches, schools, hospitals, office buildings, shopping centers, and other uses with similar concentrations of people. The Federal Aviation Ad-

ministration recommends that airports acquire the property within their runway protection zones.



## Oat Hill Development Land Use Compatibility Analysis

The runway protection zones closest to the Oat Hill project are those for Runways 36L, 36R, and 24. Of these, the future runway protection zone for Runway 36L lies nearest to the project. However, it is over 4,500 feet from this runway protection zone to the project site.

The safety compatibility zones described in the California Airport Land Use Planning Handbook are the next source of guidance on safety policies. In Chapter 9, the Handbook provides examples of various configurations of safety compatibility zones and recommended policies for each zone. Of the five examples provided for general aviation airports (i.e., one without scheduled passenger service), Example 3 in Table 9K best fits the characteristics for Runway 36L. That is, it is a long runway at a general aviation airport with a precision instrument approach. The compatibility policies for this runway would be the most restrictive on the Oat Hill property. If these policies were applied, a portion of the Oat Hill property would lie within the traffic pattern zone (Figure 3). Within the traffic pattern zone, the Handbook would allow residential uses and most nonresidential uses. Uses to avoid include schools, hospitals, and outdoor uses with high occupancy levels.

An emerging trend in California compatibility plans is to directly use national accident data to create accident risk intensity contours. Similar in concept to noise contours, accident risk intensity contours define areas with similar probabilities of an aircraft accident. These zones vary in size based upon various factors. For a busy runway serving both large and small general aviation aircraft, these zones will extend about one mile from the runway end. The outermost accident risk intensity contour for Runway 36L (which would come closest) would be over 3,500 feet from the nearest corner of the Oat Hill project site.

**Safety Conclusion:** The proposed Oat Hill project would not conflict with any of the three established sources of guidance on safety compatibility.

### Noise

Noise is one of the most basic airport land use compatibility concerns. Moreover, at major airline airports, many busy general aviation airports, and most military airfields, noise is usually the most geographically extensive form of airport impact.

For the purposes of airport land use compatibility planning, noise generated by the operation of aircraft to, from, and around an airport is primarily measured in terms of the cumulative noise levels of all aircraft operations. In California, the cumulative noise level metric established by state regulations, including for airport noise, is the Community Noise Equivalent Level (CNEL). This metric provides a single measure of the average sound level in decibels (dB) to which any point near an airport is exposed. To reflect assumed greater community sensitivity to nighttime and evening noise, events during these periods are counted as being louder than actually measured. Cumulative noise levels are usually illustrated on airport area maps as contour lines connecting points of equal noise exposure. Mapped noise contours primarily show areas of significant noise exposures — ones affected by high concentrations of aircraft takeoffs and landings.

Single-event noise metrics are sometimes used in evaluating impacts of proposed airport modifications. They are rarely used as a means of defining land use compatibility policies.

# Oat Hill Development Land Use Compatibility Analysis

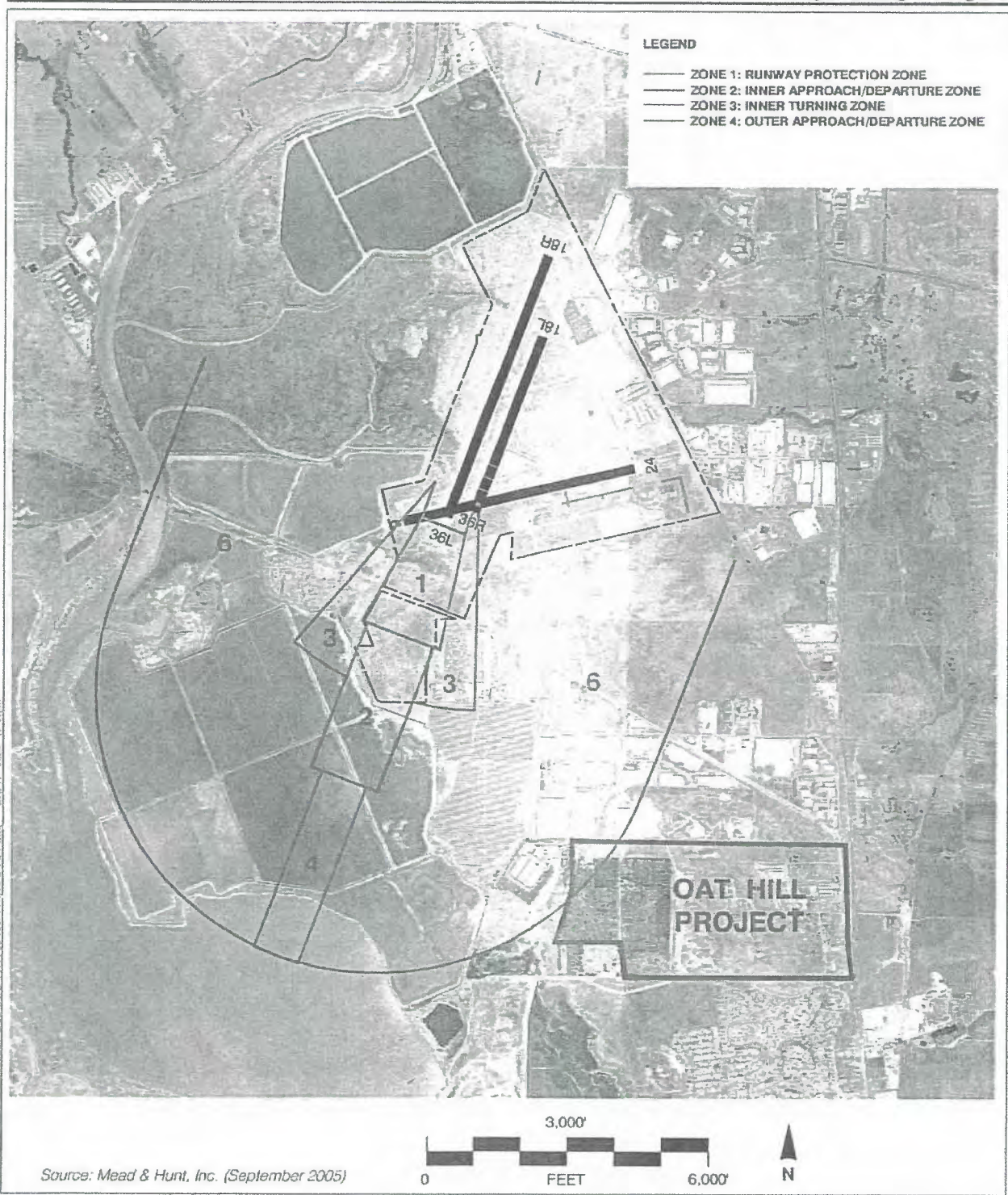


Figure 3

## Caltrans Handbook Safety Zones Napa County Airport

## Oat Hill Development Land Use Compatibility Analysis

For general aviation airports in rural settings, the 55 CNEL noise contour is commonly used as the threshold for allowing residential uses. In suburban settings, the 60 CNEL contour is typically used. These thresholds are recommended in both the California Airport Land Use Planning Handbook and are consistent with current aviation industry practice. The Federal Aviation Administration generally limits concerns over residential uses to within the 65 CNEL contour. However, the Federal Aviation Administration has supported policies to restrict new residential uses out to the 60 CNEL contour. The nearest edge of the Oak Hill property is over 4,000 feet from the nearest point on the current 55 CNEL contour and about 3,500 feet from the 55 CNEL contour forecast for 2022 (Figure 4).

**Noise Conclusion:** The proposed uses in the Oat Hill site are compatible with the existing and forecast aviation noise contours.

### Overflight

Experience at many airports has shown that noise-related concerns do not stop at the boundary of the outermost mapped CNEL contour. Many people are sensitive to the frequent presence of aircraft overhead even at noise low levels. These reactions can mostly be expressed in the form of annoyance.

At many airports, complaints often come from locations beyond any of the defined noise contours. Areas that underlie common flight patterns are likely places for this to occur. The basis for such complaints may be a desire and expectation that outside noise sources not be intrusive — or, in some circumstances, even distinctly audible — above background noise levels. The limited numbers of complaints that have been received at Napa County Airport have been almost exclusively from outside the noise contours.

The *Handbook* discusses overflight impacts in terms of both single-event noise impacts (e.g., speech interference or sleep disturbance) and annoyance. The *Handbook* does not recommend specific policies for areas affected by overflights. It mentions excluding residential uses, insulation of residences and schools, and relying upon notification of potential buyers as possible strategies for addressing overflight effects.

Recent industry practice has been to select one of two strategies depending upon the current pattern of development. Where an airport's environs are largely free of sensitive uses (e.g., residences) and not already committed to this type of development, compatibility policies will favor retention of the non-sensitive uses (e.g., agriculture, industrial). Where the areas subject to overflights are already largely developed or are committed to sensitive uses, compatibility policies will favor a high-low strategy. A high-low strategy is based upon the premise that overflight annoyance is less likely to occur in residential areas with higher densities due to higher ambient noise levels. Therefore, in areas subject of overflight impacts can be either at rural densities (e.g., 40 acre parcels) or high densities (e.g., apartments or common-wall residences). The high-low strategy results in either a small pool of potentially annoyed residents (low density) or a large number of residents (high density), but lower likelihood of annoyance occurring.

Current and anticipated flight tracks were mapped using data collected through the interviews described above. Common flight tracks and the most commonly overflowed areas associated with Napa County Airport operations are depicted on Figure 5.

Oat Hill Development Land Use Compatibility Analysis

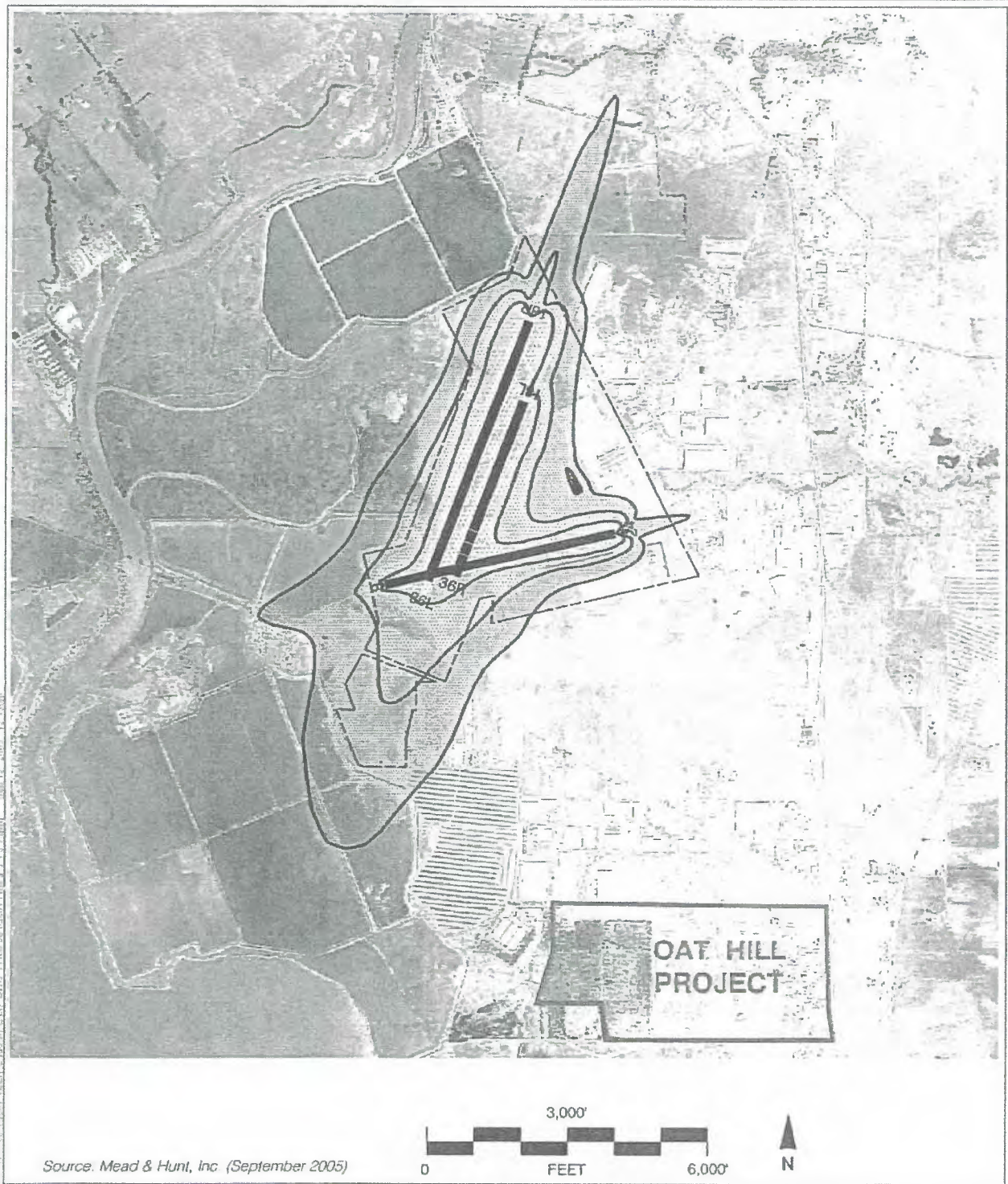


Figure 4

**Noise Contours: 2022**  
Napa County Airport

## Oat Hill Airport Compatibility Analysis

It is important to realize the variability in the flight tracks. Everywhere within five miles of the airport will be overflown in an average year. The graphic depicts only those areas that are commonly overflown near traffic pattern altitude. Typically traffic pattern altitude for small aircraft is 1,000 feet above airport elevation, for large aircraft 1,500 feet above airport elevation. Touch-and-go flight tracks have greater predictability than arrival and departure tracks.

The Oat Hill site is currently overflown during several distinct types of operations. A significant addition in overflights will occur when the parallel runway (Runway 18R-36L) is extended. An extension of this runway is included in both the 1990 and 2004 plans. The extension is expected to be operational in 3 to 5 years. Each operation that commonly overflies the Oat Hill site is discussed below. The standard names for flight track segments used in the discussion are identified in Figure 6.

The highest volume of overflights occurs when winds favor the use of Runway 24 (the east-west runway). This occurs regularly during the spring and early summer. It will also occur sporadically during the fall and winter during the passage of storm fronts. When winds favor the use of Runway 24, all classes of aircraft will conduct landings on Runway 24. Tough-and-go operations will also fly a pattern with repeated landings and takeoffs on Runway 24. Most piston aircraft not associated with the

JAL training program will fly their downwind leg about one-half nautical mile south of Runway 6-24. Larger turboprops and jets will fly the downwind leg from one to three miles south of the runway. Because of the requirements of its training program, JAL training flights will occur about one and a quarter nautical miles south of the runway. There will typically be several JAL training aircraft in the pattern at the same time.

When winds favor Runways 18L and 18R (the

wind condition most commonly experienced), jets arriving from the southeast will overfly the area in and around the Oat Hill site. The flight track shown in Figure 1 is suggestive of the general orientation of these operations. However, the individual flight tracks will vary widely from the generic track shown.

Helicopter air taxi operations to Oakland International Airport commonly overfly the western portion of the Oat Hill site at or below traffic pattern altitude during both arrivals and departures.

This track is set by destination not by wind patterns. Helicopter operations by the California Highway Patrol are regularly conducted south of Napa County Airport. However, because their tracks vary greatly, they are not shown in Figure 1.

Runway 18L-36R is planned to be extended to 4,000 feet. An extension to accommodate JAL training flights has been planned since 1990. The 2004 draft master plan changes the length,

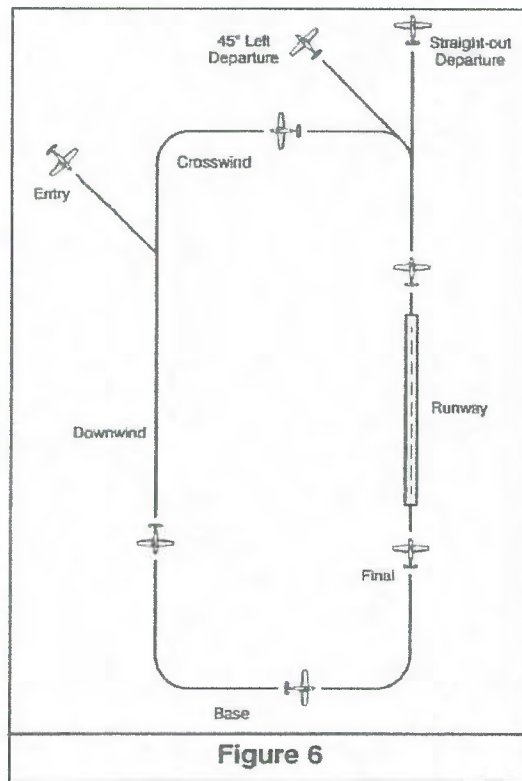


Figure 6

## Oat Hill Development Land Use Compatibility Analysis

but not the purpose. Environmental review is currently being completed to support the extension. When this runway is extended, it is anticipated to be regularly used JAL training flights. Staff with IASCO, that provides the instructors for the JAL flights, indicated that lengthening Runway 18L-36R would make it usable for their tough-and-go operations. There are a couple important benefits. One, it would increase the ease with which larger aircraft could use the main runway (Runway 18R-36L). Second, it would reduce the complexity for air traffic control staff in sequencing aircraft operations on the main runway. As shown in Figure 1, these future JAL operations would overfly the northwestern third of the Oat Hill property.

**Overflight Conclusion:** The Oat Hill property is subject to regular overflight by a variety of aircraft types. JAL's single-engine piston aircraft will overfly the site during training flights from Runways 18R-16L and 18L-36R when they are flying the pattern east of the airport. JAL training aircraft will also overfly the site when the wind favors the use of Runway 6-24. The noise level of individual aircraft will be comparable to a power lawnmower in a neighbor's yard. There will normally be several aircraft training at the same time. This would mean an overflight could occur about every 45 seconds. The site is overflown by helicopters traveling to or from Oakland International Airport (or other destinations south of the airport). At most these would occur a couple of times per day. Jets arriving from the southeast will sometimes overfly the Oat Hill site. Both the flight tracks and altitude will vary sig-

nificantly. Development of the Oat Hill property with residential uses (or other sensitive uses) could be expected to create conflicts with the Napa County Airport that do not now exist.

### Airspace

Relatively few aircraft accidents are caused by land use conditions which are hazards to flight. The potential exists, however, and protecting against it is essential to airport land use safety compatibility. Because airspace protection is in effect a safety factor, its objective can likewise be thought of in terms of risk. Specifically, the objective is to avoid development of land use conditions which, by posing hazards to flight, can increase the risk of an accident occurring. The particular hazards of concern are:

- Airspace obstructions;
- Wildlife hazards, particularly bird strikes; and
- Land use characteristics which pose other potential hazards to flight by creating visual or electronic interference with air navigation.

Whether a particular object constitutes an airspace obstruction depends upon the height of the object relative to the runway elevation and its proximity to the airport. The acceptable height of objects near an airport is most commonly determined by application of standards set forth in Part 77 of the Federal Aviation Regulations. These regulations establish a three-dimensional space in the air above an airport. Any object which penetrates this volume of airspace is considered to be an obstruction and may affect the aeronautical use of the airspace.

# Oat Hill Development Land Use Compatibility Analysis

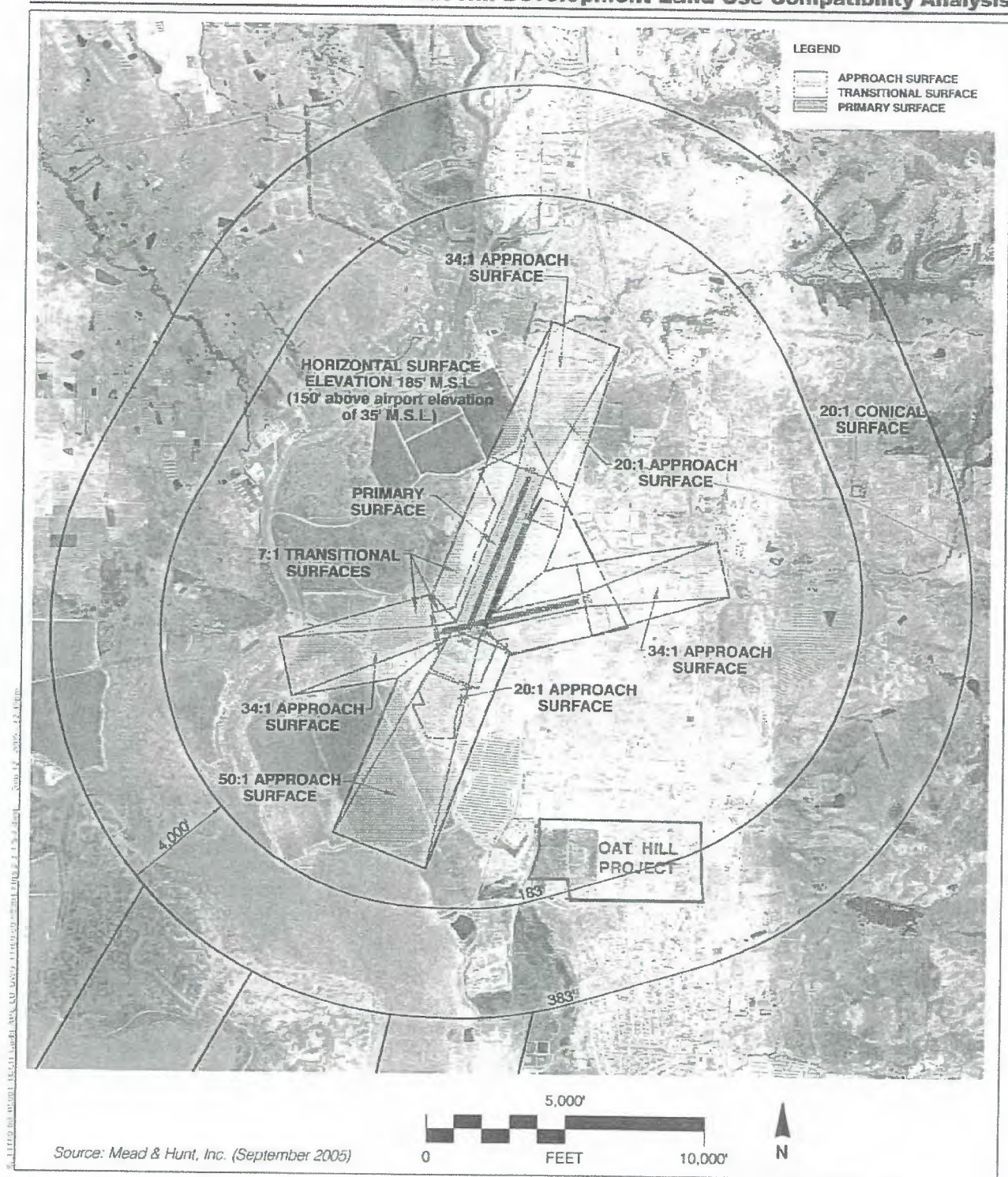


Figure 7

## Airspace Plan Napa County Airport

### Implications for the Zone D Boundary

California statutes state that the purpose of airport land use compatibility plans is to "...protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses." Compatibility plans must be guided by airport plans and documentation of each airports noise and safety impacts.

The Napa County Airport has generally enjoyed a high degree of compatibility with adjacent land uses. In fact, the airport is often used as a rare example of a busy metropolitan airport that is largely free from incompatible uses. In part this was due to the luck of the airport being sited in what had been a rural area. Good planning has limited new development near the airport to compatible commercial and industrial uses. As development continues to occur in the vicinity of the Napa County Airport, the challenge will be to prevent the introduction of incompatible uses.

This analysis provides more detailed documentation of the impacts of air operations at Napa County Airport than has been previously available. This information was designed to support a determination of whether the boundaries of compatibility zone "D" should be modified near the Oat Hill property.

Based upon the earlier analysis, safety and noise do not appear to be significant concerns for the proposed uses. Airspace is of modest concern, but it has the potential to effect only structures on Oat Hill itself. On the majority of the property airspace is not a concern. Given what is known of the project's elements, neither wildlife attractants, nor visual or electronic interference are expected to be a concern.

However, overflight effects are a compatibility concern today, and are expected to increase. It would be inappropriate to permit introduction of residential uses where overflight impacts are a concern. Therefore, we conclude that there are no grounds to shift Zone D.