

MENDOCINO COUNTY AIRPORT COMPREHENSIVE LAND USE PLAN



**AIRPORT LAND USE COMMISSION
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Part I

Policies

1

Introduction

FUNCTION AND AUTHORITY

The basic purpose of airport land use commissions is to help ensure that proposed development in the vicinity of airports will be compatible with airport activities.

This *Airport Land Use Compatibility Plan* sets forth the criteria and policies which the Mendocino County Airport Land Use Commission will use in assessing the compatibility between the public-use airports in Mendocino County and proposed land use development in the areas surrounding them. The emphasis of the Plan is on review of local general and specific plans, zoning ordinances, and other land use documents covering broad geographic areas. Certain individual land use development proposals also may be reviewed by the Commission as provided for in the policies enumerated in the next chapter. The Commission does not have authority over existing incompatible land uses or the operation of any airport.

The Plan specifically pertains to the land uses surrounding the following airports:

- Boonville Airport
- Ells Field
- Little River Airport
- Ocean Ridge Airport
- Round Valley Airport

Additionally, the Plan provides guidance for Commission review of new airports and heliports proposed for construction in the County.

State Statutes

The statutory authority for establishment of airport land use commissions and the adoption of airport land use compatibility plans is provided in the California Public Utilities Code, Sections 21670 et seq. (Chapter 4, Article 3.5 of the State Aeronautics Act). Every county in which a public-use airport is located is required to establish an airport land use commission. The commissions' charge is expressly stated as being:

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

As a means of fulfilling this responsibility, each commission is required to formulate a comprehensive land use plan for the areas surrounding the airports within its jurisdiction. The plan must reflect the anticipated growth of the airports during at least the next 20 years. Limitations on building heights, restrictions on the use of land, and standards for building construction can be specified in the plan.

The state legislation establishing airport land use commissions was originally enacted in 1967. Since that time, several major revisions and numerous minor ones have been adopted.

MENDOCINO COUNTY AIRPORT LAND USE COMMISSION

The Mendocino County Airport Land Use Commission was formed in 1993. Its first meeting was held on April 1 of that year. The Commission has seven members: three are appointed by the Board of Supervisors from the County Planning Commission; three are appointed by the city selection committee; and one member at large is appointed by the other six Airport Land Use Commissioners. Two of the seven members are required to have aviation expertise. Staff for the Commission is provided by the Mendocino County Department of Planning and Building Services.

RELATIONSHIP TO LOCAL JURISDICTIONS AND PLANS

The fundamental relationships between the Mendocino County Airport Land Use Commission and local jurisdictions – as well as their respective plans – is set by state law. Although the Commission functions under the general auspices of Mendocino County government, it is not controlled by the County. In this respect, the Airport Land Use Commission is similar to the Local Agency Formation Commission. Within the bounds provided by state law, the decisions of the Commission – including the adoption of this plan – are final. The County does not have any greater legal authority over the Commission than do the individual cities in the County.

The major power which the local governments hold over the Airport Land Use Commission is the ability to override certain Commission decisions. If the Commission rules that a local plan or land use action is inconsistent with the Commission's plan, state law allows the local agency to override the Commission by a two-thirds vote of its governing body. Before doing so, the local agency must hold a public hearing on the matter and must make specific findings that the proposed action is consistent with the purposes of the state law. However, if a public agency overrides an Airport Land Use Commission decision regarding an airport not operated by that agency, state law (Section 21678) provides that the airport operator "... shall be immune from liability for damages to property or personal injury caused by or resulting directly or indirectly from the public agency's decision to override the commission's action or recommendation."

USING THIS DOCUMENT

This *Airport Land Use Compatibility Plan* document is divided into three parts:

- Part I — Policies
- Part II — Supporting Information
- Part III — Appendices

Policies

The compatibility criteria, compatibility maps, and review process policies set forth in Part I (Chapters 2 and 3) are the core of the document. The most vital pieces of these chapters are the Compatibility Criteria table in Chapter 2 and the Compatibility Map for each airport in Chapter 3. The table and maps provide a single, combined set of zones and associated criteria covering each of the basic types of airport impacts — noise, safety, airspace, and overflight. This combined approach is intended as a means of facilitating projected review. It is anticipated that the compatibility of the majority of land use proposals can be evaluated with reference to these elements alone. More detailed supporting criteria policies and policies applicable to individual airports are provided as clarification and to aid in review of proposals that are not clearly compatible or incompatible.

An important point to note about this plan is that the criteria are performance-oriented rather than list-oriented. That is, the criteria contain standards to be achieved (e.g., occupancy limits), rather than a list of specific uses which are permitted in each zone. This format directly relates a concern (e.g., safety) to a criterion (e.g., occupancy limits).

State law requires that local entities, including the county, submit copies of their general and specific plans, and future amendments, to the Commission for review as to consistency with the Commission's plan. When the local jurisdictions modify their individual land use plans to be

consistent with this *Airport Land Use Compatibility Plan*, they have the option of developing a detailed land use list by applying the performance criteria to the individual land use designations included in their local plans and zoning ordinances.

Additional Contents

Part II of the document contains background information used in development of the policies. Chapter 4 supplies essential data regarding each of the airports and their environs. Chapter 5 discusses some of the strategies which local jurisdictions can use to implement the *Airport Land Use Compatibility Plan* criteria and policies.

The final part of the document, Part III, provides various materials useful in implementation of the Plan.

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Policies

1. SCOPE OF REVIEW

1.1. Geographic Area of Concern

The Mendocino County Airport Land Use Commission's planning area encompasses:

- 1.1.1. *Airport Vicinity* – All lands on which the uses could be negatively affected by present or future aircraft operations at the following airports in the County and lands on which the uses could negatively affect said airports. The specific limits of the planning area for each airport are depicted on the respective *Compatibility Map* for that airport as presented in Chapter 3.
 - (a) Boonville Airport.
 - (b) Ells Field.
 - (c) Little River Airport.
 - (d) Ocean Ridge Airport.
 - (e) Round Valley Airport.
- 1.1.2. *Countywide Impacts on Flight Safety* – Those lands, regardless of their location in the County, on which the uses could adversely affect the safety of flight in the County. The specific uses of concern are identified in Paragraph 1.2.
- 1.1.3. *New Airports and Heliports* – The site and environs of any proposed new airport or heliport anywhere in the County.

1.2. Types of Airport Impacts

The Commission is concerned only with the potential impacts related to aircraft noise, land use safety (with respect both to people on the ground and the occupants of air-

craft), airspace protection, and aircraft overflights. Other impacts sometimes created by airports (e.g., air pollution, automobile traffic, etc.) are beyond the scope of this plan. These impacts are within the authority of other local, state, and federal agencies and are addressed within the environmental review procedures for airport development.

1.3. Types of Actions Reviewed

- 1.3.1. *General Plan Consistency Review* — Within 180 days of adoption of the *Comprehensive Land Use Plan*, the Commission shall review the general plans and specific plans of affected local jurisdictions to determine their consistency with the Commission's policies. At the time the Commission reviews the general and specific plans of the local agencies, the local agency should submit a map which identifies those areas it believes meets the definition of "infill" contained in Policy 2.1.6. The Commission will include a determination on the infill as part of its action on the consistency of the general and specific plans. Until such time as (1) the Commission finds that the local general plan or specific plan is consistent with the *Comprehensive Land Use Plan*, or (2) the local agency has overruled the Commission's determination of inconsistency, the local jurisdiction shall refer all actions, regulations, and permits (as specified in Paragraph 1.3.3) involving the airport area of influence to the Commission for review (Section 21676.5 (a)).
- 1.3.2. *Statutory Requirements* — As required by state law, the following types of actions shall be referred to the Airport Land Use Commission for determination of consistency with the Commission's plan *prior to their approval* by the local jurisdiction:
 - (a) The adoption or approval of any amendment to a general or specific plan affecting the property within an airport's planning area (Section 21676 (b)).
 - (b) The adoption or approval of a zoning ordinance or building regulation which (1) affects property within an airport's planning area and (2) involves the types of airport impact concerns listed in Paragraph 1.2 (Section 21676 (b)).
 - (c) Adoption or modification of the master plan for an existing public-use airport (Section 21676 (c)).
 - (d) Any proposal for a new airport or heliport whether for public use or private use (Section 21661.5) which requires a state airport permit.
- 1.3.3. In the interim period between the adoption of a Comprehensive Land Use Plan and the time that the ALUC either (1) finds that the local general plan or specific plan is consistent with the CLUP, or (2) the local agency has overruled the ALUC's determination of inconsistency, State law empowers the Commis-

sion to review additional types of land use "actions, regulations, and permits" which might affect airport/land compatibility within an airport planning area. The Commission must act to require the local agency to submit these individual actions under the provisions of Section 21676.5(a).

For the purposes of this plan, the specific "actions, regulations, and permits" located in the A and B zones which the Commission shall review include:

- (a) Any proposed expansion of a city's sphere of influence.
- (b) Proposed land use project by a government entity which exceeds 10,000 square feet.
- (c) Proposed storage of more than 2,000 gallons of fuel or flammables per parcel in portions of the B Zone not lateral to the runway.
- (d) Reconstruction of existing incompatible development within Compatibility Zone A.
- (e) Any proposed land use action, as determined by the local planning agency, involving a question of compatibility with airport activities.

1.3.4. Following the interim period referenced in Policy Section 1.3.3, local agencies will continue to refer the following individual actions/projects located in the A and B zones to the ALUC:

- (a) Any proposed expansion of a city's sphere of influence.
- (b) Proposed land use project by a government entity which exceeds 10,000 square feet.
- (c) Proposed storage of more than 2,000 gallons of fuel or flammables per parcel in portions of the B Zone not lateral to the runway.
- (d) Reconstruction of existing incompatible development within Compatibility Zone A.
- (e) Any proposed land use action, as determined by the local planning agency, involving a question of compatibility with airport activities.

1.4. Review Process

1.4.1. *Timing of Project Submittal* — Proposed actions listed in Paragraph 1.3.2 and 1.3.3 must be submitted to the Commission for review prior to approval by the local government entity. All projects should be referred to the Commis-

sion at the earliest reasonable point in time so that the Commission's review can be duly considered by the local jurisdiction prior to formalizing its actions. At the local government's discretion, submittal of a project for Airport Land Use Commission review can be done before, after, or concurrently with review by the local planning commission or other local advisory bodies. This discretion gives the local agency the ability to obtain the ALUC review at the most effective point in the review process. The timing may vary depending upon the nature of the specific project.

- 1.4.2. *Commission Action Choices* — When reviewing a land use project proposal, the Airport Land Use Commission has a choice of either of two actions:
(1) find the project *consistent* with the *Airport Land Use Compatibility Plan*; or,
(2) find the project *inconsistent* with the Plan. In making a finding of inconsistency, the Commission may note the conditions under which the project would be consistent with the Plan. The Commission cannot, however, find a project consistent with the Plan subject to the inclusion of certain conditions in the project.
- 1.4.3. *Subsequent Review* — Once a project has been found consistent with the *Airport Land Use Compatibility Plan*, it need not be referred for review at subsequent stages of the planning process (e.g., for a general plan amendment and again for a zoning change) unless: (1) major changes to the project are made during subsequent review and consideration by the local jurisdiction; or (2) the local jurisdiction agrees that further review is warranted.
- 1.4.4. *Response Time* — The Airport Land Use Commission must respond to a local agency's request for a consistency determination on a project within 60 days of referral (Section 21676 (d)). If the Commission fails to make the determination within that period, the proposed action shall be deemed consistent with the *Airport Land Use Compatibility Plan*. Regardless of Commission action or failure to act, the proposed action must also comply with other applicable local, state, and federal regulations and laws.
- 1.4.5. *Airport Master Plans* — When reviewing airport master plans for existing airports, the Commission has three action choices:
 - (a) Find the airport master plan consistent with the *Airport Land Use Compatibility Plan*.
 - (b) Disapprove the airport master plan on the basis that it is inconsistent with the Commission's Plan.
 - (c) Modify the *Airport Land Use Compatibility Plan* (after duly noticed public hearing) to reflect the assumptions and proposals in the airport master plan.
- 1.4.6. *New Airports and Heliports* — When reviewing proposals for new airports or heliports, the Commission's choices of action are:

- (a) Approve the proposal as being consistent with the specific review policies listed in Section 2.3 below.
- (b) Approve the proposal and adopt a Compatibility Plan for that facility. Adoption of such a plan is required if the airport or heliport will be a public-use facility.
- (c) Disapprove the proposal on the basis that the noise, safety impacts it would have on surrounding land uses are not adequately mitigated.

2. PRIMARY REVIEW POLICIES

2.1. Land Use Actions

- 2.1.1. *Project Submittal Information* — A proposed land use action submitted to the Commission for review shall include the following information:
 - (a) An accurately scaled map showing the relationship of the project site to the airport boundary and runways.
 - (b) If applicable, a detailed site plan showing ground elevations, the location of structures, open spaces, and water bodies, and the heights of structures and trees.
 - (c) A description of permitted or proposed land uses and restrictions on the uses.
 - (d) For residential uses, an indication of the potential or proposed number of dwelling units per acre; or, for non-residential uses, the number of people potentially occupying the total site or portions thereof at any one time.
- 2.1.2. *Primary Criteria* — The compatibility of land uses in the vicinity of the airports covered by this plan shall primarily be evaluated in terms of: (1) the Compatibility Criteria table (Table 2A) and accompanying notes; (2) the Compatibility Plan for each airport; and (3) specific policies established for individual airports.
- 2.1.3. Parcels less than two acres which are intersected by airport compatibility zones shall be considered to be entirely within the less restrictive zone. For example, a parcel less than two acres intersected by a Zone B and Zone C shall be determined to be entirely within Zone C for the purposes of compatibility criteria on Table 2A.
- 2.1.4. *Supporting Policies* — Additional evaluation criteria are provided in the Supporting Policies which follow (Section 3). The Commission may refer to these additional policies to clarify or supplement its review.

Table 2A
Compatibility Criteria
Mendocino County Airport Land Use Commission

Zone	Location	Impact Elements	Maximum Densities		Open Land ³
			Residential ¹	Other Uses (people/ac) ²	
A	Runway Protection Zone or within Building Restriction Line	<ul style="list-style-type: none"> • High Risk • High noise levels 	0	10	All Remaining Required
B1	Approach/Departure Zone and Adjacent to Runway	<ul style="list-style-type: none"> • Substantial risk - aircraft commonly below 400 ft. AGL or within 1,000 ft. of runway • Substantial noise 	10 acres	60	30% Required
B2	Extended Approach/Departure Zone	<ul style="list-style-type: none"> • Moderate risk - aircraft commonly below 800 ft. AGL • Significant noise 	2 acres	60	30% Recommended
C	Common Traffic Pattern	<ul style="list-style-type: none"> • Limited risk - aircraft at or below 1,000 ft. AGL • Frequent noise intrusion 	15 units per acre	150	15% Recommended
D	Other Airport Environs	<ul style="list-style-type: none"> • Negligible risk • Potential for annoyance from overflights 	No Limit	No Limit	No Requirement

Zone	Additional Criteria		Examples	
	Prohibited Uses ¹	Other Development Conditions	Normally Acceptable Uses ⁴	Uses Not Normally Acceptable ⁵
A	<ul style="list-style-type: none"> • All structures except ones with location set by aeronautical function • Assemblages of people • Objects exceeding FAR Part 77 height limits • Hazards to flight⁶ 	<ul style="list-style-type: none"> • Dedication of aviation easement 	<ul style="list-style-type: none"> • Aircraft tiedown apron • Pastures, field crops, vineyards • Automobile parking 	<ul style="list-style-type: none"> • Heavy poles, signs, large trees, etc.
B1 and B2	<ul style="list-style-type: none"> • Schools, day care centers, libraries • Hospitals, nursing homes • Highly noise-sensitive uses (e.g. amphitheaters) • Storage of highly flammable materials⁶ • Hazards to flight⁶ 	<ul style="list-style-type: none"> • Locate structures maximum distance from extended runway centerline • Dedication of aviation easement 	<ul style="list-style-type: none"> • Uses in Zone A • Single-story offices • Single-family homes on an existing lot • Low-intensity retail, office, etc. • Low-intensity manufacturing • Food processing 	<ul style="list-style-type: none"> • Residential subdivisions • Intensive retail uses • Intensive manufacturing or food processing uses • Multiple story offices • Hotels and motels • Multi-family residential
C	<ul style="list-style-type: none"> • Schools • Hospitals, nursing homes⁵ • Hazards to flight⁶ 	<ul style="list-style-type: none"> • Dedication of overflight easement for residential uses 	<ul style="list-style-type: none"> • Uses in Zone B • Parks, playgrounds • Two-story motels • Residential subdivisions • Intensive retail uses • Intensive manufacturing or food processing uses • Multi-family residential 	<ul style="list-style-type: none"> • Large shopping malls • Theaters, auditoriums • Large sports stadiums • Hi-rise office buildings
D	<ul style="list-style-type: none"> • Hazards to flight⁶ 	<ul style="list-style-type: none"> • Deed notice required for residential development 	<ul style="list-style-type: none"> • All except ones hazardous to flight 	

Table 2A Continued
Compatibility Criteria
Mendocino County Airport Land Use Commission

NOTES

- 1 Residential parcels should not be smaller than the indicated size nor have more than the indicated number of units per acre. Maximum densities expressed in acres are gross acres; those expressed in units per acre are net acres.
- 2 The land use should not attract more than the indicated number of people per acre at any time. This figure should include all individuals who may be on the property (e.g., employees, customers/visitors, etc.). These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses. Special short-term events related to aviation (e.g., air shows), as well as non-aviation special events, are exempt from the maximum density criteria.
- 3 Open land requirements are intended to be applied with respect to the entire zone. This is typically accomplished as part of the community's master plan or a specific plan.
- 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 and other development conditions listed. They should be allowed only if a major community objective is served by their location in this zone and no feasible alternative location exists.
- 6 See Policy Section 3.3.
- 7 May be modified by airport-specific policies.
- 8 In those portions of the B Zones located lateral to the runway, no restrictions on the storage of flammables apply. Within the balance of the B1 and B2 Zones, up to 2,000 gallons of fuel or flammables is allowed per parcel. More than 2,000 gallons of fuel or flammables per parcel within the balance of the B1 and B2 Zones requires the review and approval by the ALUC. See Appendix G for a diagram of typical area lateral to the runway.
- 9 Refer to Policy 3.2.3. for definitions which distinguish between hospitals and medical clinics.

- 2.1.5. *Reconstruction* — Where an *existing* incompatible development has been partially or fully destroyed, it may be allowed to be rebuilt to a density not exceeding that of the original construction. Reconstruction within Compatibility Zone A requires review and approval of the ALUC.
- 2.1.6. *Infill* — Where substantial incompatible development already exists, additional infill development of similar land uses may be allowed to occur even if such land uses are to be prohibited elsewhere in the zone. This exception does not apply within the Compatibility Zone A. Projects can be considered "infill" if they meet *all* of the following criteria:
- (a) The Airport Land Use Commission has determined that "substantial development" already exists.
 - (b) The project site is bounded by uses similar to those proposed.
 - (c) The proposed project would not extend the perimeter of the area developed with incompatible uses.
 - (d) The proposed project does not otherwise increase the intensity and/or incompatibility of use through use permits, density transfers or other strategy.
 - (e) The infill area has been identified by the local jurisdiction in its general plan or related document and approved by the Commission.
- 2.1.7. *Land Use Conversion* — The compatibility of uses in the airport planning areas shall be preserved to the maximum feasible extent. The conversion of land from existing or planned agricultural, industrial or commercial use to residential uses within Compatibility Zones A and B is strongly discouraged. With respect to Compatibility Zone C, discretionary activities such as general plan amendments, rezonings, subdivisions, use permits, etc., which propose conversions to residential land uses, or increased intensity of residential uses, should be subject to careful consideration of maximum permissible noise levels.
- 2.1.8. Within the context of the CLUP, expansion of non-conforming uses up to 20% of the existing structure floor area or 1,000 square feet, whichever is greater, is exempt from ALUC formal consistency review and findings. Other expansions outside of the identified "infill" areas discussed in Section 2.1.6 are subject to the discretionary review process normally imposed by the local jurisdictions with review and formal consistency finding by the ALUC. Expansion of a single-family residence is exempt from ALUC consistency review and formal consistency finding unless the expansion is considered both an expansion of a nonconforming use and an increase in residential density, i.e., additional living unit.

2.2. Master Plans for Existing Airports

- 2.2.1. *Project Submittal Information* — An airport master plan submitted to the Commission for review shall contain sufficient information to enable the Commission to adequately assess the noise, safety, overflight, and height restriction impacts of airport activity upon surrounding land uses. A master plan report should be submitted, if available. At a minimum, information to be submitted shall include:
- (a) A layout plan drawing of the proposed facility showing the location of: (1) property boundaries; (2) runways or helicopter takeoff and landing areas; and (3) runway protection zones or helicopter approach/departure zones.
 - (b) Airspace surfaces in accordance with Federal Aviation Regulations, Part 77.
 - (c) Activity forecasts, including the number of operations by each type of aircraft proposed to use the facility.
 - (d) Proposed flight track locations and projected noise contours or other relevant noise impact data.
 - (e) A map showing existing and planned land uses in the vicinity of the proposed airport or heliport.
 - (f) Identification and proposed mitigation of impacts on surrounding land uses.
- 2.2.2. *Substance of Review* — When reviewing airport master plans, the Commission shall determine whether activity forecasts or proposed facility development identified in the plan differ from the forecasts and development assumed for that airport in this *Airport Land Use Compatibility Plan*. Attention should specifically focus on:
- (a) Activity forecasts that are: (1) significantly higher than those in the *Airport Land Use Compatibility Plan*; or which (2) include a higher proportion of larger or noisier aircraft.
 - (b) Proposals to: (1) construct a new runway or helicopter takeoff and landing area; (2) change the length, width, or landing threshold location on an existing runway; or (3) establish an instrument approach procedure.
- 2.2.3. *Consistency Determination* — The Commission shall determine whether the proposed airport master plan is consistent with the *Airport Land Use Compatibility Plan*. The Commission shall base its determination of consistency on findings that the forecasts and development identified in the airport master plan would not result in greater noise, overflight, and safety impacts or height restrictions on surrounding land uses than are presently assumed in the *Airport Land Use Compatibility Plan*.

2.3. Plans for New Airports or Heliports

- 2.3.1. *Project Submittal Information* — When submitted to the Commission for review, a proposal for a new airport or heliport shall include the same types of information required by Paragraph 2.2.1.
- 2.3.2. *Substance of Review* — In reviewing proposals for new airports and heliports, the Commission shall focus on the noise, safety, overflight, and height limit impacts upon surrounding land uses.
 - (a) Other types of environmental impacts (e.g., air quality, water quality, natural habitats, vehicle traffic, etc.) are not within the scope of Commission review.
 - (b) The Commission shall evaluate the adequacy of the facility design (in terms of federal and state standards) only to the extent that it affects surrounding land use.
 - (c) The Commission must base its review on the proposed airfield design. The Commission does not have the authority to require alterations to the airfield design.
- 2.3.3. *Airport/Land Use Relationships* — The review shall examine the relationships between existing and planned land uses in the vicinity of the proposed airport or heliport and the impacts that the proposed facility would have upon these land uses. Questions to be considered should include:
 - (a) Would the existing or planned land uses be considered incompatible with the airport or heliport if the latter were already in existence?
 - (b) What measures are included in the airport or heliport proposal to mitigate the noise, safety, and height restriction impacts on surrounding land uses? Such measures might include: (1) location of flight tracks so as to minimize the impacts; (2) other operational procedures to minimize impacts; (3) acquisition of property interests (fee title or easements) on the impacted land.

3. SUPPORTING COMPATIBILITY CRITERIA

3.1. Noise

- 3.1.1. *Projected Noise Levels* — The evaluation of airport/land use noise compatibility shall consider the *future* Community Noise Equivalent Level (CNEL) contours of each airport. These contours are calculated based upon aircraft activity

forecasts which are set forth in adopted airport master plans or which are considered by the Commission to be plausible (refer to Chapter 4 for noise exposure maps). The Commission should periodically review the projected noise level contours and update them if appropriate.

- 3.1.2. *Application of Noise Contours* — The locations of CNEL contours are one of the factors used to define compatibility zone boundaries and criteria. It is intended that noise compatibility criteria be applied at the general plan, specific plan, or other broad-scale level. Because of the inherent variability of flight paths and other factors that influence noise emissions, the depicted contour boundaries are not absolute determinants of the compatibility or incompatibility of a given land use. Noise contours can only quantify noise impacts in a general manner; except on large parcels or blocks of land, they should *not* be used as site design criteria.
- 3.1.3. *Noise Exposure in Residential Areas* — The maximum CNEL considered normally acceptable for residential uses in the vicinity of the airports covered by this plan is 60 dBA.
- 3.1.4. *Noise Exposure for Other Land Uses* — Noise level standards for compatibility with other types of land uses shall be applied in the same manner as the above residential noise level criteria. Examples of acceptable noise levels for other land uses in an airport's vicinity are presented in Table 2B.
- 3.1.5. *Other Noise Factors* — The extent of outdoor activity associated with a particular land use is an important factor to be considered in evaluating its compatibility with airport noise. In most locations, noise level reduction measures are only effective in reducing interior noise levels.
- 3.1.6. *Single-Event Noise Levels* — Single-event noise levels should be considered when evaluating the compatibility of highly noise-sensitive land uses such as schools, libraries, and outdoor theaters. Single-event noise levels are particularly important in areas which are regularly overflowed by aircraft, but which do not produce significant CNEL contours. Flight patterns for each airport (illustrated in Chapter 4) should be considered in the review process. Acoustical studies or on-site noise measurements may be required to assist in determining the compatibility of sensitive uses.

3.2. Safety

- 3.2.1. *Objective* — The intent of land use safety compatibility criteria is to minimize the risks associated with an off-airport aircraft accident or emergency landing.
 - (a) Risks both to people and property in the vicinity of an airport and to people on board the aircraft shall be considered.

Table 2B
Noise Compatibility Criteria

LAND USE CATEGORY	CNEL, dBA				
	50-55	55-60	60-65	65-70	70-75
Residential					
single family, nursing homes, mobile homes	+	o	-	--	--
multi-family, apartments, condominiums	++	+	o	--	--
Public					
schools, libraries, hospitals	+	o	-	--	--
churches, auditoriums, concert halls	+	o	o	-	--
transportation, parking, cemeteries	++	++	++	+	o
Commercial and Industrial					
offices, retail trade	++	+	o	o	-
service commercial, wholesale trade, warehousing, light industrial	++	++	+	o	o
general manufacturing, utilities, extractive industry	++	++	++	+	+
Agricultural and Recreational					
cropland	++	++	++	++	+
livestock breeding	++	+	o	o	-
parks, playgrounds, zoos	++	+	+	o	-
golf courses, riding stables, water recreation	++	++	+	o	o
outdoor spectator sports	++	+	+	o	-
amphitheaters	+	o	-	--	--

LAND USE AVAILABILITY

INTERPRETATION/COMMENTS

++	Clearly Acceptable	The activities associated with the specified land use can be carried out with essentially no interference from the noise exposure.
+	Normally Acceptable	Noise is a factor to be considered in that slight interference with outdoor activities may occur. Conventional construction methods will eliminate most noise intrusions upon indoor activities.
o	Marginally Acceptable	The indicated noise exposure will cause moderate interference with outdoor activities and with indoor activities when windows are open. The land use is acceptable on the conditions that outdoor activities are minimal and construction features which provide sufficient noise attenuation are used (e.g., installation of air conditioning so that windows can be kept closed). Under other circumstances, the land use should be discouraged.
-	Normally Unacceptable	Noise will create substantial interference with both outdoor and indoor activities. Noise intrusion upon indoor activities can be mitigated by requiring special noise insulation construction. Land uses which have conventionally constructed structures and/or involve outdoor activities which would be disrupted by noise should generally be avoided.
--	Clearly Unacceptable	Unacceptable noise intrusion upon land use activities will occur. Adequate structural noise insulation is not practical under most circumstances. The indicated land use should be avoided unless strong overriding factors prevail and it should be prohibited if outdoor activities are involved.

- (b) More stringent land use controls shall be applied to the areas with greater potential risk.
- 3.2.2. *Risks to People on the Ground* — The principal means of reducing risks to people on the ground is to restrict land uses so as to limit the number of people who might gather in areas most susceptible to aircraft accidents.
- (a) A method for determining the concentration of people for various land uses is provided in Appendix C.
- 3.2.3. *Land Uses of Particular Concern* — Land uses of particular concern are ones in which the occupants have reduced effective mobility or are unable to respond to emergency situations. Schools, hospitals, nursing homes, and other uses in which the majority of occupants are children, the elderly, and the handicapped shall be prohibited within Compatibility Zones A, B, and C. This general policy may be superseded by airport specific policies (see Chapter 3). Hospitals are medical facilities which include provision for overnight stays by patients. Medical clinics are permitted in B and C zones as long as these facilities meet the maximum density standards found in Table 2A, "Compatibility Criteria".
- 3.2.4. *Other Risks* — Any use, other than aviation related uses, involving the potential for aboveground explosion or the release of toxic or corrosive materials shall be prohibited in Compatibility Zone A and subject to restrictions in Zone B as identified in Table 2A.
- 3.2.5. *Open Land* — In the event that an aircraft is forced to land away from an airport, the risks to the people on board can best be minimized by providing as much open land area as possible within the airport vicinity. This concept is based upon the fact that the large majority of aircraft accidents occurring away from an airport runway are controlled emergency landings in which the pilot has reasonable opportunity to select the landing site.
- (a) To qualify as open land, an area must be: (1) free of structures and other major obstacles such as walls and overhead wires. Roads and automobile parking lots are acceptable as open land areas if they meet the preceding criteria.
 - (b) Open land requirements for each compatibility zone are to be applied with respect to the entire zone. Individual parcels may be too small to accommodate the minimum-size open area requirement. Consequently, the identification of open land areas must initially be accomplished at the general plan or specific plan level or as part of large-acreage projects.
 - (c) Clustering of development and providing contiguous landscaped and parking areas is encouraged as a means of increasing the size of open land areas.

- (d) Building envelopes and the approach zones should be indicated on all development plans and tentative maps within an airport's planning area in order to assure that individual development projects provide the open land areas identified in a general plan, specific plan, or other large-scale plan.

3.3. Airspace Protection

- 3.3.1. *Height Limits* – The County of Mendocino (or any city located within the airport planning area) shall establish a means of limiting the height of structures, trees, and other objects in the vicinity of an airport in accordance with Part 77, Subpart C, of the Federal Aviation Regulations and with the United States Standard for Terminal Instrument Procedures (TERPS). Airspace plans for each airport which depict the critical areas for airspace protection are provided in Chapter 4.
- 3.3.2. *Avigation Easement Dedication* – The owner of any property proposed for development within Compatibility Zones A and B may be required to dedicate an avigation easement to the jurisdiction owning the airport. In cases where the airport is privately owned, the avigation easement may be dedicated to the County/City in the name of the airport. An easement dedicated for the benefit of a private airport shall remain in force only as long as the airport remains a public use airport. An airport shall be considered to be a public use airport only if it has a current state airport permit in either the "public-use" or "special-use" category.
 - (a) The avigation easement shall: (1) provide the right of flight in the airspace above the property; (2) allow the generation of noise and other impacts associated with aircraft overflight; (3) restrict the height of structures, trees and other objects; (4) permit access to the property for the removal or aeronautical marking of objects exceeding the established height limit; and (5) prohibit electrical interference, glare, and other potential hazards to flight from being created on the property. An example of an avigation easement is provided in Appendix E.
 - (b) Within Compatibility Zones A and B, height restrictions of less than 35 feet may be required. See the adopted airspace plan for the specific airport or review FAR Part 77.
- 3.3.3. *Minimum Restriction* – Other than within Compatibility Zones A and B, no restrictions shall be set which limit the height of structures, trees, or other objects to less than 35 feet above the level of the ground on which they are located even if the terrain or objects on the ground may penetrate Federal Aviation Regulations Part 77 surfaces.

- (a) In locations within Compatibility Zone C where the ground level exceeds or comes within 35 feet of a Part 77 surface, dedication of an aviation easement limiting heights to 35 feet shall be required in accordance with Paragraph 3.3.2. (This policy may be applicable to future airports; there are no such locations near the existing airports in Mendocino County.)
- 3.3.4. *FAA Notification* — Proponents of a project which may exceed a Part 77 surface must notify the Federal Aviation Administration as required by FAR Part 77, Subpart B, and by the California State Public Utilities Code Sections 21658 and 21659. (Notification to the Federal Aviation Administration under FAR Part 77, Subpart B, is required even for certain proposed construction that does not exceed the height limits allowed by Subpart C of the regulations. Refer to Appendix B for the specific Federal Aviation Administration notification requirements.)
 - (a) Local jurisdictions shall inform project proponents of the requirements for notification to the Federal Aviation Administration.
 - (b) The requirement for notification to the Federal Aviation Administration shall not necessarily trigger review of an individual project by the Airport Land Use Commission if the project is otherwise in conformance with the compatibility criteria established in the *Airport Land Use Compatibility Plan*.
 - (c) Any project coming before the Airport Land Use Commission for reason of height-limit issues shall include a copy of FAR Part 77 notification to the Federal Aviation Administration.
- 3.3.5. *Other Flight Hazards* — Land uses which may produce hazards to aircraft in flight shall not be permitted within any airport's planning area. Specific characteristics to be avoided include: (1) glare or distracting lights which could be mistaken for airport lights; (2) sources of dust, steam, or smoke which may impair pilot visibility; (3) sources of electrical interference with aircraft communications or navigation; and (4) any use which may attract large flocks of birds, especially landfills and certain agricultural uses.

3.4. Overflight

- 3.4.1. *Nature of Impact* — All locations within an airport's planning area are regarded as potentially subject to routine aircraft overflight. Although sensitivity to aircraft overflights varies from individual to individual, overflight sensitivity is particularly important within residential land uses.
 - (a) The County of Mendocino (or any city located within the airport planning area) shall establish a zoning district or overlay zone for all properties located within the airport's planning area. The purpose is to provide constructive notice that real property is within the airport planning area

and thus necessitates that this information be disclosed by a seller of real property to any prospective buyer.

- (b) The County of Mendocino (or any city located within the airport planning area) may require other appropriate measures, including, but not limited to, requiring the dedication of avigation or overflight easements and deed noticing. See "Other Development Conditions" in Table 2A for guidance on where measures should be applied.

3

Individual Airport Policies and Compatibility Maps

GENERAL

The Compatibility Maps contained in this chapter are to be used in conjunction with the Compatibility Criteria set forth in Table 2A. The Compatibility Zones shown on each map represent areas in which the land use compatibility concerns are similar in character. The zone boundaries reflect a composite of the four basic compatibility concerns: noise, safety, overflight and airspace.

The boundaries of the four compatibility zones were initially set according to the methodology described below. These boundaries were then modified to take into account aircraft traffic pattern restrictions, distinct geographic features, and other factors unique to each airport.

Zone A: The building restriction lines were used to define the lateral limits of this zone. Building restriction lines are commonly set so that structures up to 35 feet in height remain below the airspace surfaces defined by Federal Aviation Regulations Part 77. The length of this zone is defined by the runway protection zones (formerly called clear zones). Runway protection zone dimensions are set in accordance with Federal Aviation Administration standards for the proposed future runway location, length, width, and approach type. Building restriction lines and runway data were taken from the approved Airport Layout Plan for each airport.

Zone B1: The outer boundary of the Approach/Departure Zone is defined as the area where aircraft are commonly below 400 feet above ground level. For visual runways, this location encompasses the base leg of the traffic pattern as commonly flown. For instrument runways, the altitudes established by approach procedures are used. Zone B1 also includes areas within 1,000 feet laterally from the runway centerline.

Zone B2: The Extended Approach/Departure Zone includes areas where aircraft are commonly below 800 feet above ground level on a straight-in approach or straight-out departure. It applies to runways with more than 500 operations per year by large aircraft (i.e., over 12,500 pounds maximum gross takeoff weight) and/or runway ends with more than 10,000 total annual takeoffs.

Zone C: The outer boundary of the Common Traffic Pattern Zone is defined as the area where aircraft are commonly below 1,000 feet above ground level (i.e., the traffic pattern and pattern entry points). This area is considered to extend 5,000 feet laterally from the runway centerline. Length along the runway's axis will vary from 5,000 to 10,000 feet from the end of the runway's primary surface. The length depends upon the runway classification (visual versus instrument), and the type and volume of aircraft accommodated. For runways having an established track solely on one side, the shape of the zone is modified accordingly.

Zone D: The outer boundary of the Other Airport Environs Zone conforms to the Federal Aviation Regulations Part 77 horizontal surface.

INDIVIDUAL AIRPORT POLICIES

The policies listed in Chapter 2 are intended to apply broadly to all of the airports in Mendocino County. In some instances, however, policies addressing concerns specific to a single airport are necessary. Such policies are presented on the pages which follow.

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1. Boonville Airport

- 1.1.** The planning area is 2,000 feet longer than standard to encompass the common traffic pattern. Arriving aircraft typically make their turn to the base leg south of town. Aircraft typically make their crosswind turn (following departure) so as to avoid overflying the Anderson Valley School.
- 1.2.** Residential parcels located laterally from the runway and designed to provide aircraft access to the airport may be as small as 1 acre in size. Residences may be placed as close as 250 feet from the runway centerline if the structure would not penetrate FAR Part 77 surfaces. If this setback is not feasible, the greatest possible setback should be provided.
- 1.3.** New schools, hospitals, and nursing homes may be permitted in Zone C, following a project-specific review by the ALUC. Existing school facilities may be expanded through the construction of new structures or additions as long as no habitable structures penetrate FAR Part 77 surfaces or are located closer than 250 feet from the runway centerline.

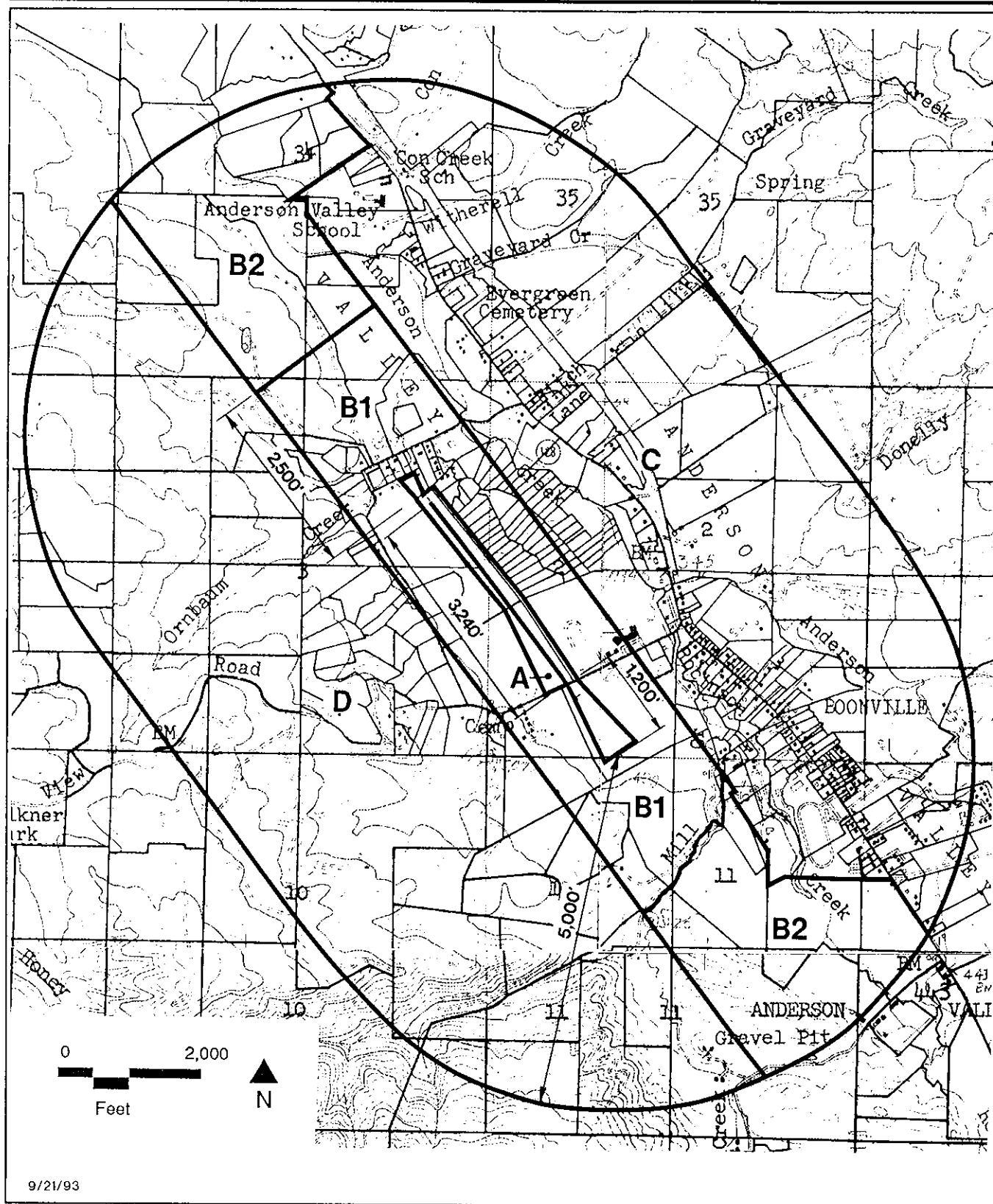


Figure 3A

Compatibility Map

Boonville Airport

2. Ells Field

- 2.1. The compatibility zones include provisions to protect the planned 1,000-foot runway extension. Once the runway is extended, the dashed portion of the B1 zone may be converted to a C zone.
- 2.2. A single-family dwelling may be constructed on any existing lot in Zone B1.
- 2.3. Multi-family units in Zone B1 shall not qualify as infill development as defined in Section 2.1.6.

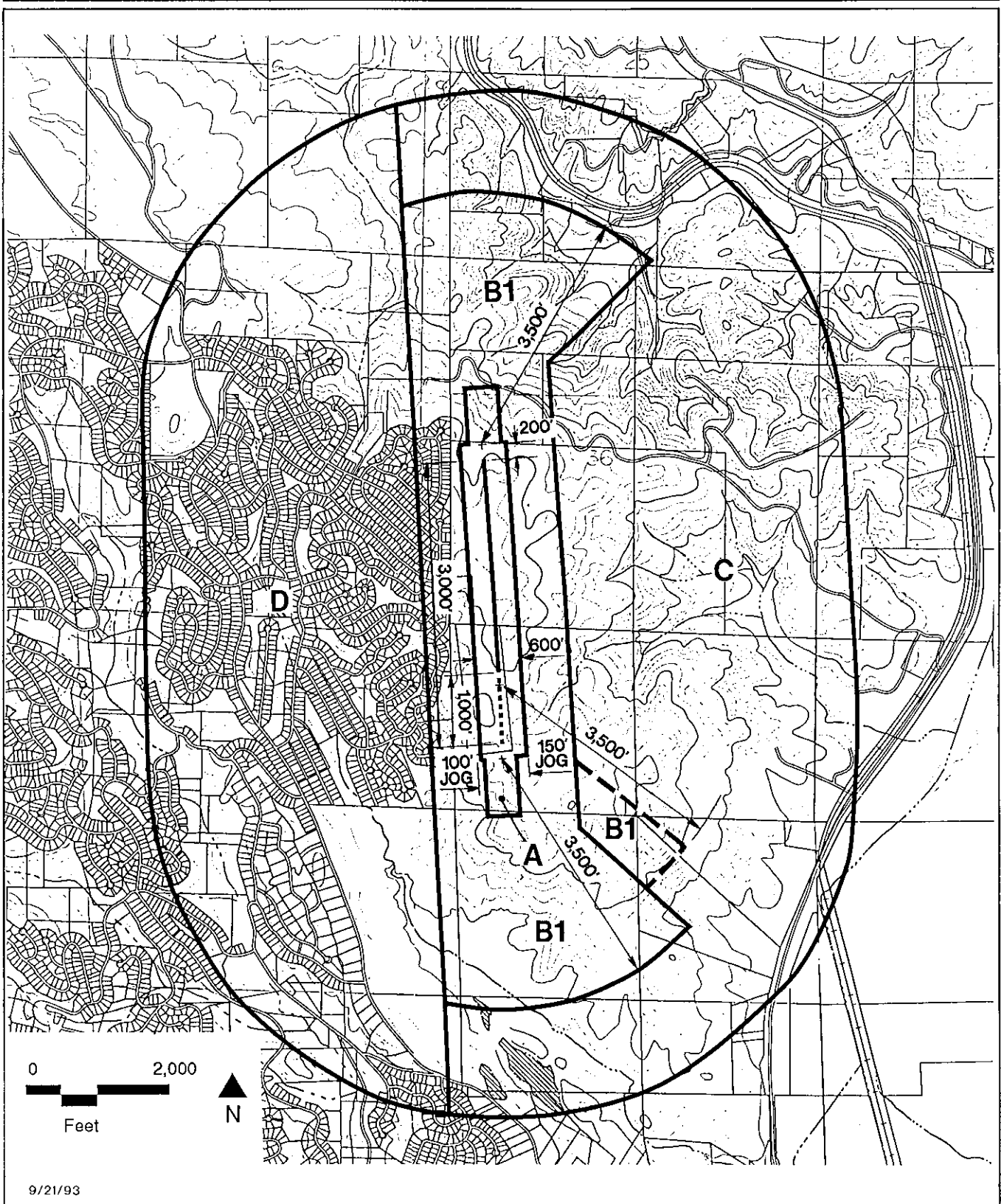


Figure 3B

Compatibility Map Ells Field

3. Little River Airport

- 3.1.** There are relatively few landings on Runway 11. Therefore, land use restrictions are applied to only those areas where aircraft turn to the base leg during approaches.

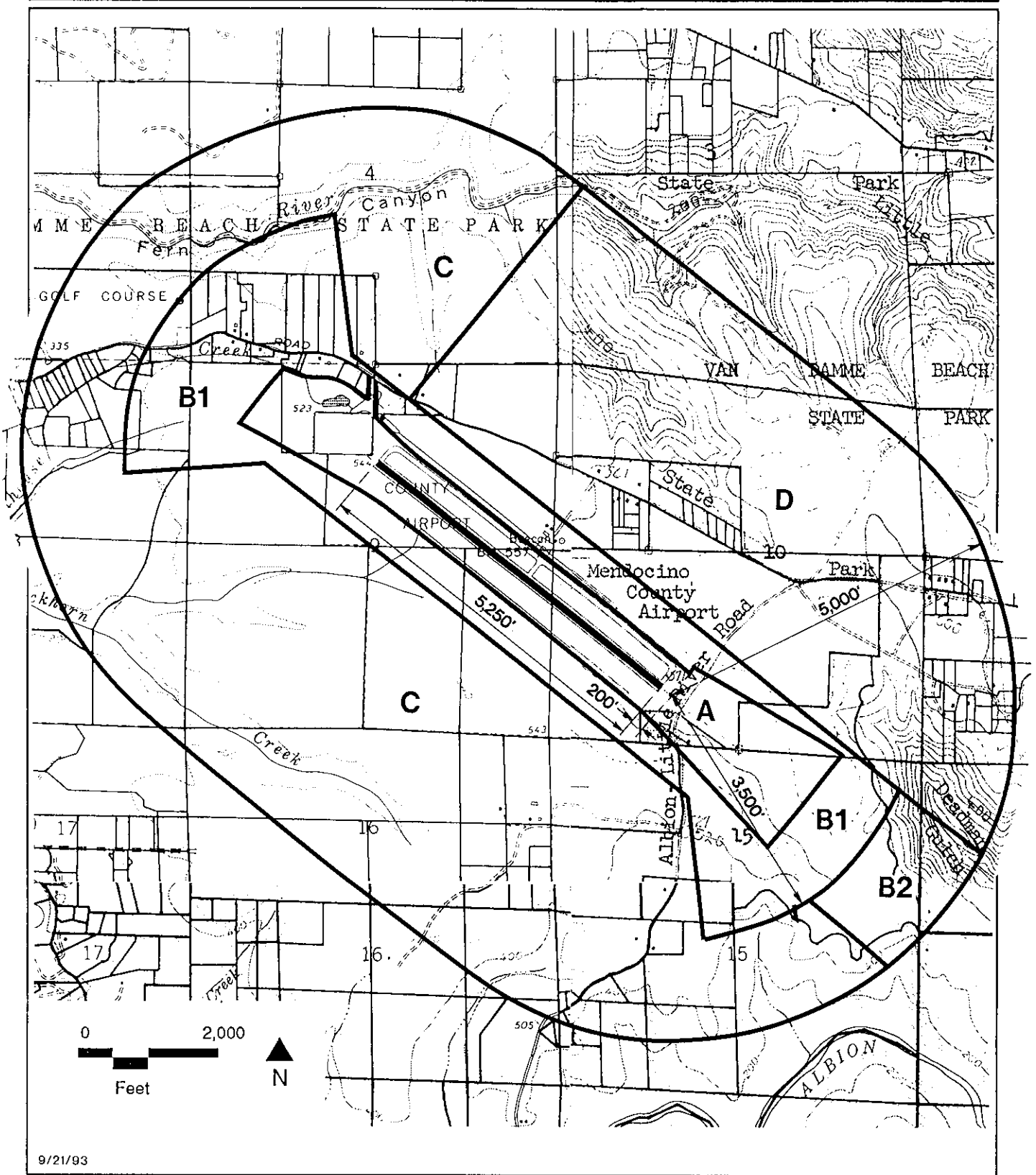


Figure 3C

Compatibility Map **Little River Airport**

4. Ocean Ridge

- 4.1.** In order to simplify implementation of the Compatibility Map for Ocean Ridge Airport, Old Stage Road is used to define the boundary of the D Zone.

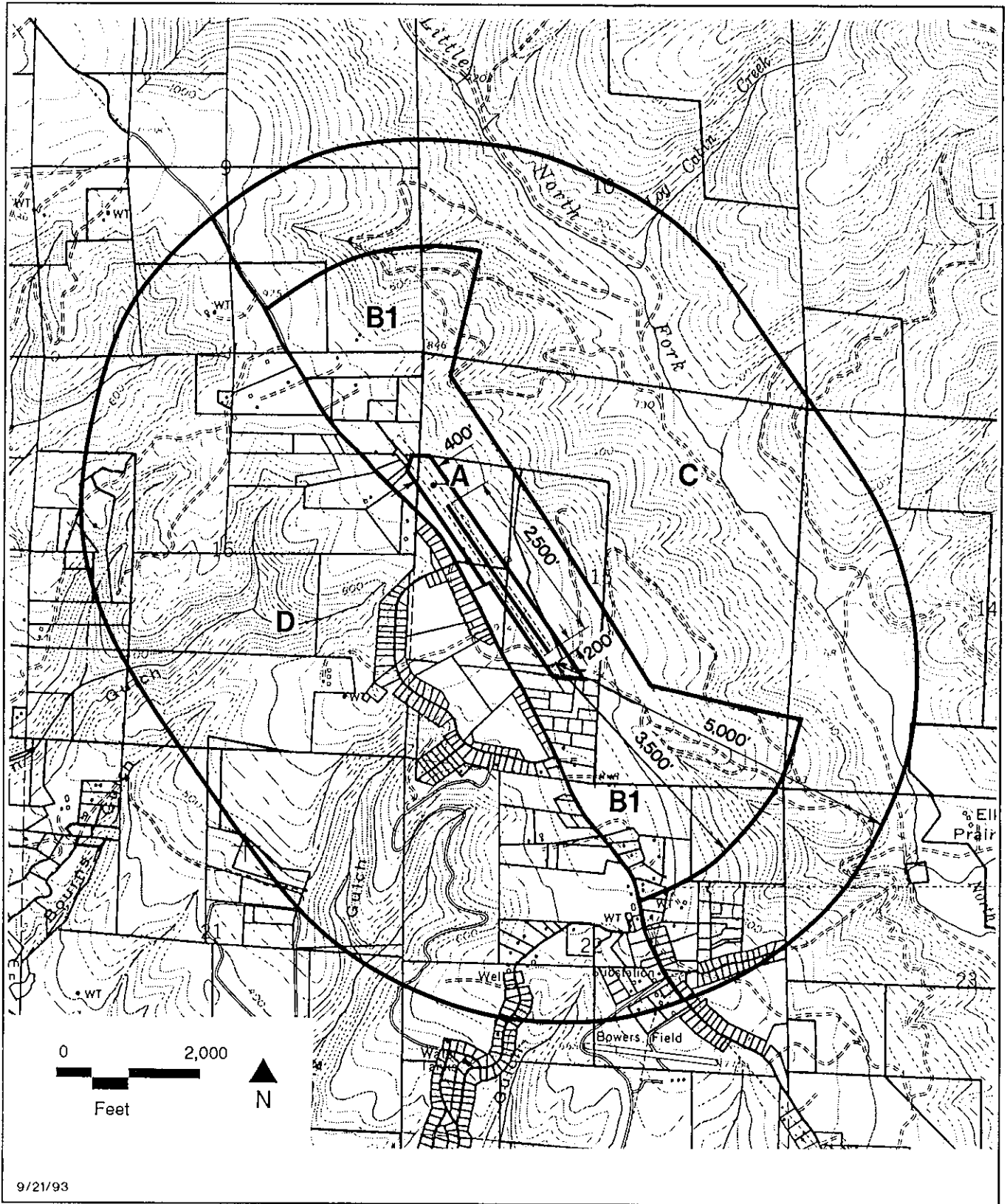


Figure 3D

Compatibility Map Ocean Ridge Airport

5. Round Valley Airport

- 5.1.** ALUC policies are not applicable on Tribal lands. However, the tribal council should consider these policies when making land use decisions.
- 5.2.** The B1 zone is narrower than standard on the southeastern end. The width reflects the fact that arriving aircraft typically do not overfly the town of Covelo.
- 5.3.** Schools, hospitals and nursing homes may be permitted in Zone C, following a project-specific review by the ALUC.

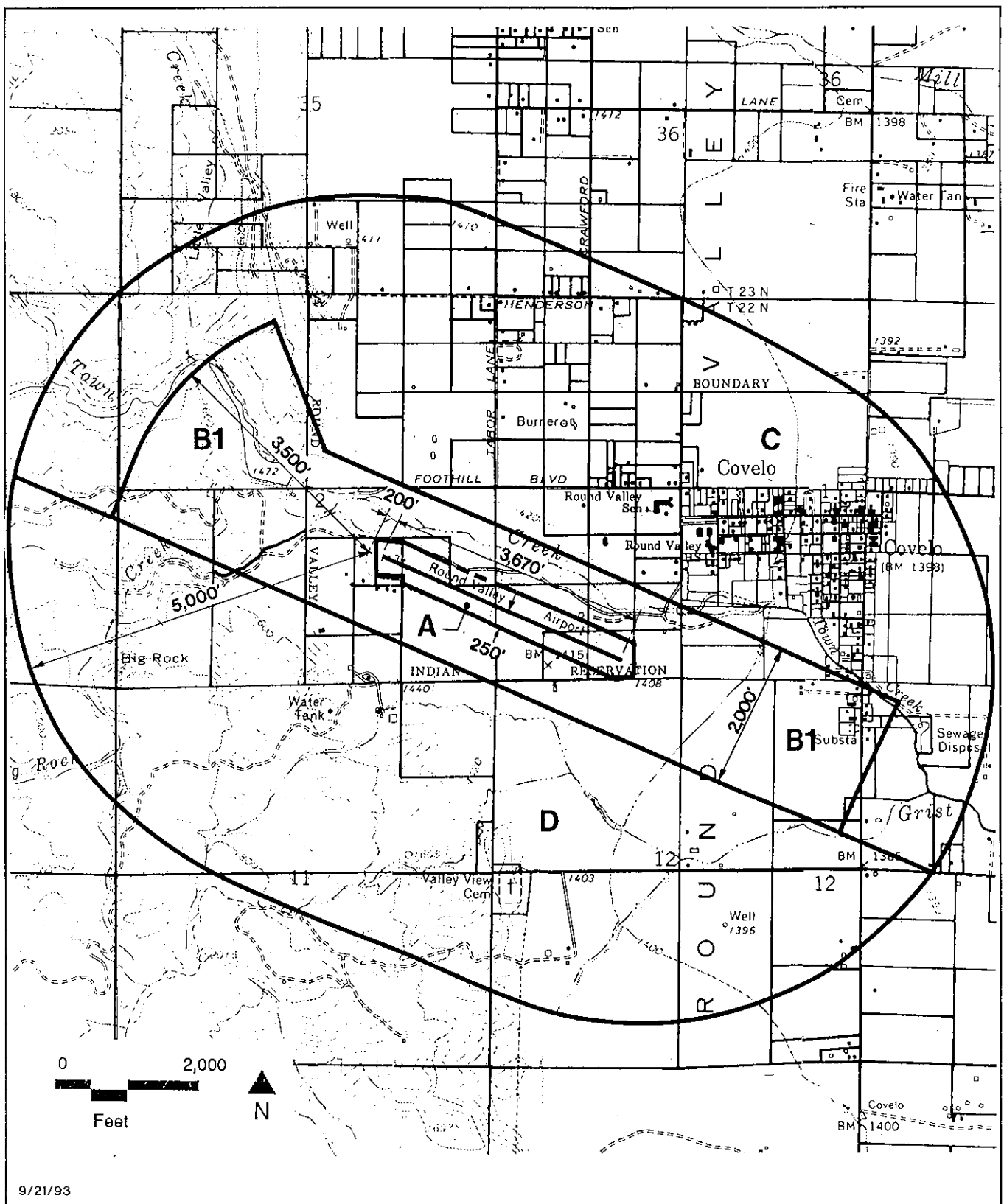


Figure 3E

Compatibility Map **Round Valley Airport**

6. Ukiah Municipal Airport

- 6.1.** Lands within the A* and B1* zones are currently not under airport ownership. However, it is the intention of the City of Ukiah to provide long-term control of the land uses within these areas by either acquiring the property in fee or obtaining approach protection easements restricting the type and density of land uses permitted.
- 6.2.** The B2 zone north of the Airport largely encompasses existing development. Some vacant land remains, however, and redevelopment of other parcels is anticipated. The Infill policy (Policy 2.1.6) of the County-wide Compatibility Plan is applicable to the entirety of this B2 zone. This policy allows new development of a similar intensity to that of surrounding, already existing, uses.

A survey of the area has been conducted to determine the current types and intensity of uses. The following limits on future development of this zone are set accordingly:

- (1) New residential development is discouraged in this zone. However, where such development is considered the best land use for a particular parcel with regard to general city planning factors, high-density, multifamily residential development shall – because of its lower sensitivity to noise compared to single-family residential uses – be deemed normally acceptable. Any new multifamily residential development shall not exceed 28 dwelling units per acre. Any proposed multifamily residential development greater than four acres shall maintain a minimum of 30 percent open lands including non enclosed automobile parking lots, major landscaping areas and a share of adjacent roads. New single-family residential uses shall continue to be regarded as normally unacceptable.
- (2) Non-residential uses shall not exceed 90 people per acre.
- Amended* (3) ~~Routinely-occupied portions of buildings shall not exceed two stories in height (equipment rooms, etc., are exempt).~~
- (4) Restaurants and motels are acceptable uses in the B2 infill zone provided that they do not exceed the above two criteria.
- (5) An existing school or hospital located within the B2 infill zone may be expanded provided that the buildings are single story and the use does not exceed an intensity of 60 people per acre.

- 6.3.** Recording of a Deed Notice is considered an acceptable alternative to dedication of an avigation or overflight easement in the B2 and C zones.
- 6.4.** Establishment of a Real Estate Noise Disclosure requirement shall be considered an acceptable alternative to a Deed Notice requirement in the D zone.



COUNTY OF MENDOCINO

DEPARTMENT OF PLANNING AND BUILDING SERVICES

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Amended

FINAL FINDINGS AND CONDITIONS OF APPROVAL
CASE # CLUP 1-2010 – CITY OF UKIAH
JANUARY 20, 2010

The Mendocino County Airport Land Use Commission approved Comprehensive Land Use Plan # CLUP 1-2010 per the findings and conditions of approval contained in the staff report under Alternative #2, further amending Section 6.2(3) of the Comprehensive Land Use Plan as follows;

Mendocino County Comprehensive Land Use Plan, Section 6.2 (3)

- (3) Routinely occupied portions of **Public Facility** buildings shall not exceed two stories in height (equipment rooms, etc. are exempt), unless:
 1. Specific design includes features that would provide the occupants with an equivalent evacuation risk as those in a two-story building. The design features may include, but not necessarily be limited to fire sprinkler systems zoned for individual floor operation; limited size and number of windows on the flight path side of the structure; additional and/or direct fire exits on floors above the second story; application of noncombustible construction materials; application of escape and rescue windows/exits to floors above the second story; stronger structural and roof designs; and strategically locating the building on the site such that the profile presents the least exposure to air traffic and increased accessibility for Fire Department emergency rescue apparatus. The determination of equivalent evacuation risk shall be made by project decision makers with review, direction and recommendations received from local public safety personnel and other appropriate staff.
 2. Each project shall include a Disaster Management/Emergency Evacuation Plan to facilitate the rapid evacuation of building occupants in the event of an aircraft accident involving the building. The contents of the Plan shall be generally consistent with the U.S. Department of Labor Occupational Safety and Health Administration.

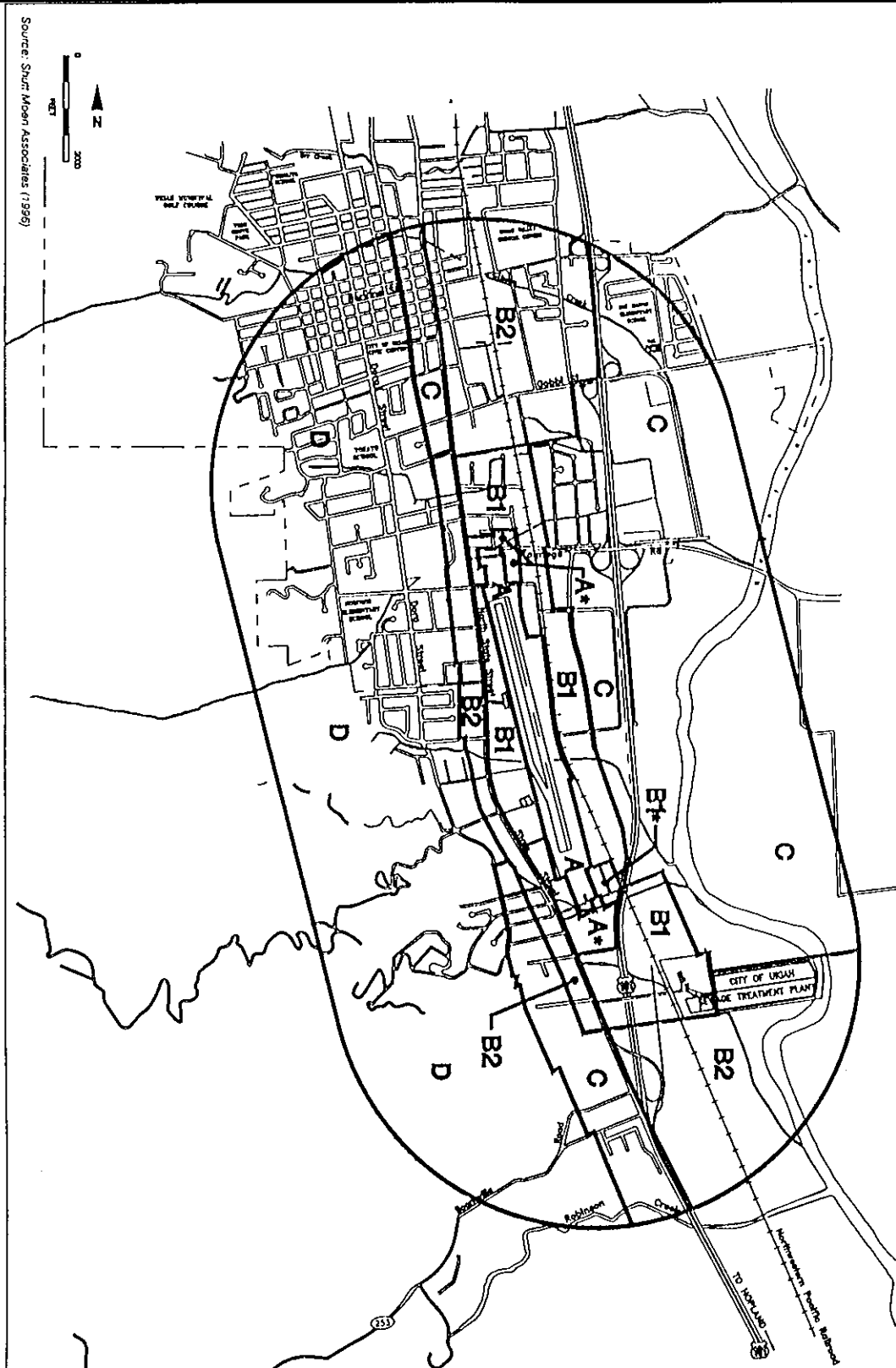


Figure 3F

Compatibility Map Ukiah Municipal Airport

Part II

Supporting Information

4

Background Data

INTRODUCTION

This chapter contains background information relevant to land use compatibility planning for the areas surrounding each of the airports covered by this plan. The information is current as of May 1993.

For each airport, the following information is presented:

- **Airport Environs** — A description of existing and planned land uses in the vicinity of the airport.
- **Airport Features** — A listing of the principal physical features and services of the airport. The emphasis is on data having potential implications for land use compatibility.
- **Airport Plan** — A copy of the most recent airport layout plan for each airport. Where an airport layout plan did not exist, an airport layout diagram was prepared as part of this study. In such cases, the airport owner reviewed the diagram and approved its accuracy.
- **Airport Activity** — Data regarding forecast airport activity. The only official forecasts which exist for four of the airports were those in the California Aviation System Plan. The state forecasts are for no growth. Therefore, for compatibility planning purposes, these forecasts were increased 50% for: Round Valley, Boonville, and Ocean Ridge Airports. The forecast for Ells Field was increased by 100% due to the anticipated large increase in population associated with the build-out of Brooktrails.
- **Noise Contours** — A map depicting future noise contours for each airport. The contours are generated from the forecast activity levels indicated in the airport activity table.
- **Airspace Plan** — Height limit surfaces defined by Part 77 of the Federal Aviation Regulations.

OVERVIEW OF KEY ISSUES

Boonville Airport

The runway protection zones do not lie on airport property. Land use regulation cannot secure the same level of protection that ownership would confer. It would be highly desirable for the Anderson Valley Community Services District, which owns the airport, to acquire all of the land which lies within the runway protection zones. Funding this acquisition, however, may be beyond the District's means, even if grant funds are used.

Additionally, the permitted residential parcel sizes in the immediate vicinity of the airport are significantly smaller than desirable. It is particularly important to minimize the number of additional residences constructed along the extended runway centerline.

Ells Field

There are about 100 parcels located within the B1 Zone which are part of the Brooktrails subdivision. Although undesirable from a compatibility standpoint, there are only a few modifications which could potentially be achieved through land use regulation to improve the compatibility. Every opportunity should be taken to reduce the number of potential residential units. Approximately 35 of these parcels are designated neighborhood commercial, but are undeveloped. The neighborhood commercial designation permits the development of multifamily housing. Compatibility would be improved if either: multifamily housing were prohibited on these lots or the parcels were redesignated for single-family dwellings.

Southwest of the airport substantial acreage has been designated suburban residential. With sewer and water service, residential parcels as small as 6,000 square feet could be created. No investment in infrastructure has yet been made and the land remains in large parcels. It is appropriate to change the existing land use designations to conform to the CLUP for this airport.

Little River Airport

The airport master plan for this airport identifies the need to acquire additional property in the approaches to its runway. Implementation of this measure is important to the maintenance of the existing level of compatibility.

Many of the parcels within the B1 Zone have been divided into parcels smaller than recommended. It would be desirable to prevent additional redivision within the remaining parcels.

Ocean Ridge Airport

Ocean Ridge is a privately-owned airport. Given the size of the airport, it is likely that the airport does not financially support itself. Revenues from the industrial uses on the airport are probably needed to support continued operation of the facility. It is important to avoid restricting the nonaviation uses to the point where the financial consequences force closure of the airport. It is believed that the recommended occupancy levels will permit a wide range of potential uses. However, this issue should be carefully evaluated. Additional clarification of the policies may be appropriate.

Permitted residential lot sizes within the B1 Zone are smaller than recommended. The land use designation should be changed so that further redivisions below the recommended level do not occur.

Mendocino County has an airport height overlay zone ordinance which limits the height of objects near airports. However, this zoning has not been applied to the Ocean Ridge Airport. It is desirable to do so.

Round Valley Airport

The runway protection zones do not lie on airport property. As was noted for the Boonville Airport, land use regulation cannot secure the same level of protection that ownership would confer. It would be highly desirable for Mendocino County, which owns the airport, to acquire all of the land which lies within the runway protection zones. Funding this acquisition, however, may be beyond the County's means, even if grant funds are used. Changes to land use designation to ones which would permit additional residential uses within the airport's approaches should be prohibited.

The Round Valley Airport planning area encompasses a significant portion of Indian Reservation lands. ALUC policies are not applicable to Tribal lands, however, the Tribal Council should consider these policies when making land use decisions.

Ukiah Municipal Airport

Although convenient for users, the Airport's location immediately adjacent to developed residential and commercial/residential areas presents problems in terms of land use compatibility and facility expansion potential. Noise-sensitive land uses, primarily nearby residences, schools, and churches, are located within the Airport's environs. Also impacting airport operations is the presence of high mountainous terrain located to the east, south, and west of the Airport. The location of the Ukiah Municipal Airport within this physical environment creates interactions which restrict both aircraft and airport operational flexibility.

Table 4A
Airport Environs
Boonville Airport

AIRPORT LOCATION AND ACCESS

- Located 0.5 miles from the center of Boonville.
- Airport and approaches in county jurisdiction.
- Airport access via State Highway 128, then 0.3 mile west to south end of airport.

EXISTING AIRPORT AREA LAND USES

General Character

- Mostly agricultural with rural residential immediately north and along highway to the east.
- Mixture of residential and commercial in town of Boonville to southeast.

Runway Approaches

- *Runway 13 (northwest) Approach* — Three houses within the runway protection zone; open land beyond.
- *Runway 31 (southeast) Approach* — Mountain View Road at end of runway; pasture and open land beyond.

Traffic Pattern

- Mostly agricultural with scattered rural residential.
- No pattern on west side.

LOCAL LAND USE PLANS AND ZONING

- *County of Mendocino General Plan* — Adopted in September 1981 with subsequent amendments; remains current land use plan for area.

PLANNED LAND USES IN AIRPORT AREA

- Continued infill of low density residential and small-scale commercial uses.
- No major development proposals currently active.

ESTABLISHED APPROACH PROTECTION MEASURES

- Airport Height Combining District restricts the height of objects in the airport's vicinity.

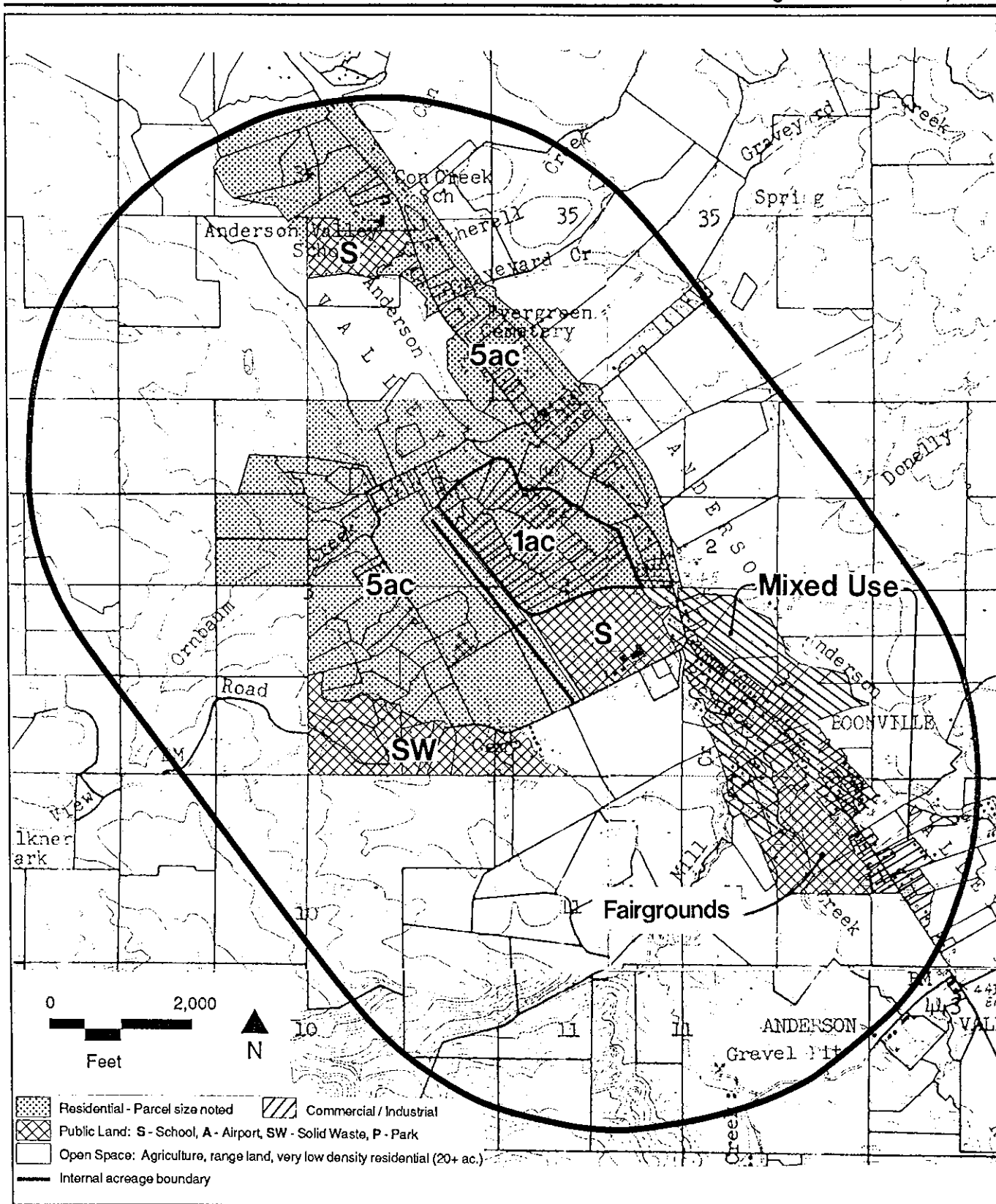


Figure 4A

Land Use Designations

Boonville Airport

Table 4B
Airport Features
Boonville Airport

AIRPORT PROPERTY

- *Ownership* — Boonville Community Services District.
- *Size* — 26 acres in fee.
- *Elevation* — 371 feet MSL.

AIRPORT PLANNING

- *Adopted Plans*
 - Master Plan adopted in March 1991.
- *Planned Improvements*
 - No runway extension or other changes which would change off-airport effects.

BUILDING AREA

- *Location* — Transient tie-downs are adjacent to runway. All hangars are on adjacent private property.
- *Aircraft Parking Capacity* — Seven designated tie-downs and space for approximately 40 in grass.
- *Other Major Facilities* — None.
- *Services* — None.

RUNWAY SYSTEM**Runway 13-31**

- *Critical Aircraft* — Single-engine propeller; also occasional small twin-engine propeller aircraft.
- *Classification* — Airport Reference Code A-I.
- *Dimensions* — 3,240 feet long, 50 feet wide; Runway 13 threshold displaced 448'; Runway 31 threshold displaced 252'.
- *Lighting* — None.
- *Surface* — Asphalt, excellent condition, repaved Summer 1992.
- *Primary Taxiways* — None.

RUNWAY APPROACHES**Runway 13**

- *Approach Type* — Visual.
- *Runway Protection Zone* — Off airport property; land not covered by approach protection easement.
- *Approach Obstacles* — Trees 400' from runway end.

Runway 31

- *Approach Type* — Visual.
- *Runway Protection Zone* — Off airport property; land not covered by approach protection easement.
- *Approach Obstacles* — Hill 3,345' from runway end.

Traffic Pattern

- *Location* — Established pattern east of runway only.
- *Altitude* — 800 feet above airport elevation.
- *Approach Procedure* — Avoid overflying town of Boonville and Anderson Valley School.

Source: Hodges & Shutt (August 1992)

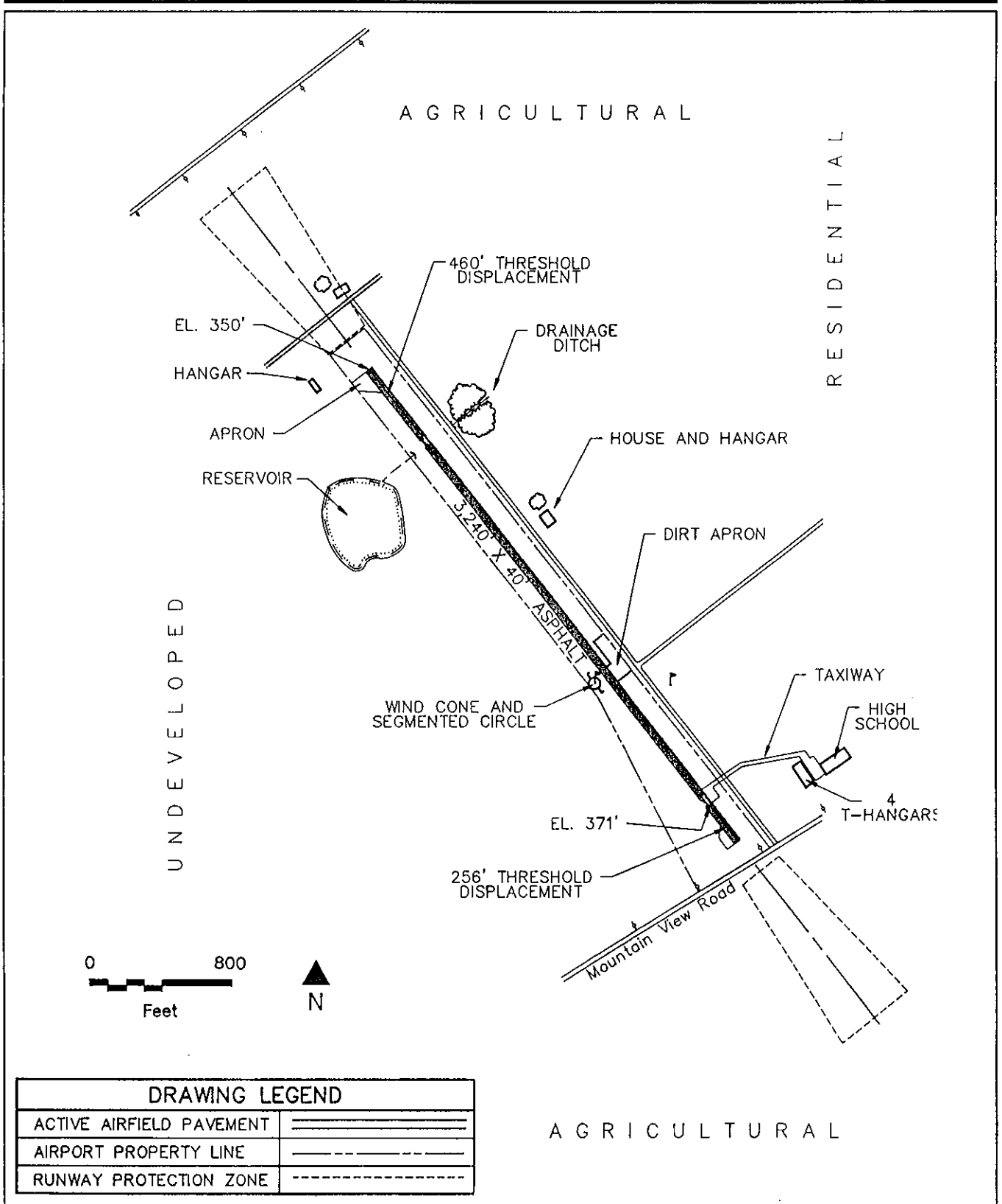


Figure 4B

Airport Layout Diagram

Boonville Airport

Table 4C
Forecast Airport Activity
Boonville Airport

AIRCRAFT OPERATIONS

Total	
Annual	6,000
Average Day	16
Distribution	
Single-Engine	90.0%
Twin-Engine	10.0%

TIME OF DAY DISTRIBUTION

All Aircraft	
Day (0700-1900)	99.0%
Evening (1900-2200)	1.0%
Night (2200-0700)	0.0%

RUNWAY USE DISTRIBUTION

All Aircraft	
All Operations	
Runway 13	8.0%
Runway 31	92.0%

FLIGHT TRACK DATA

- Pattern Altitude – 800 feet AGL.
- Right traffic on Runway 31 (no west side pattern).

Source: Hodges & Shutt (May 1993 - for year 2013)

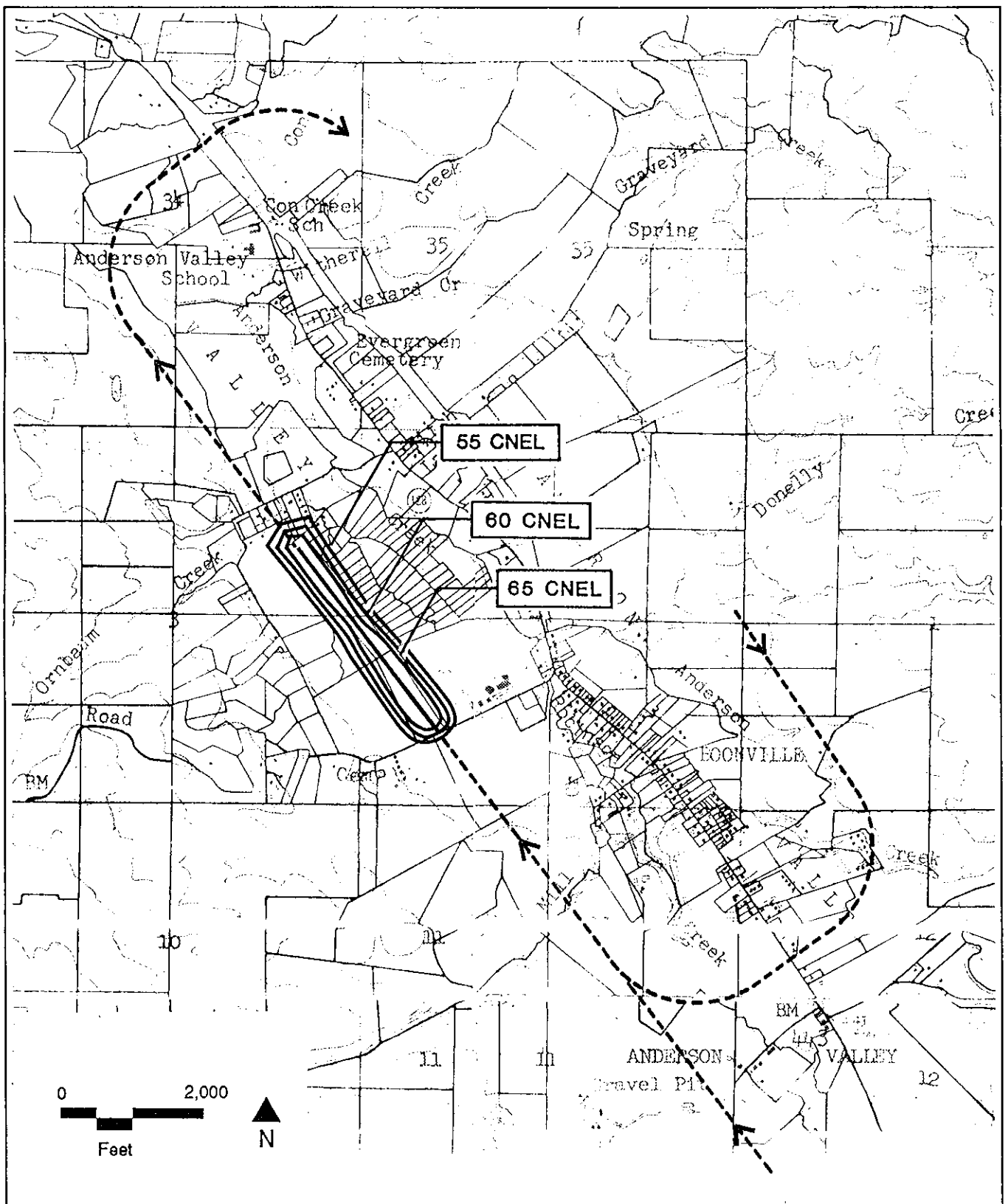


Figure 4C

Noise Contours 2013

Boonville Airport

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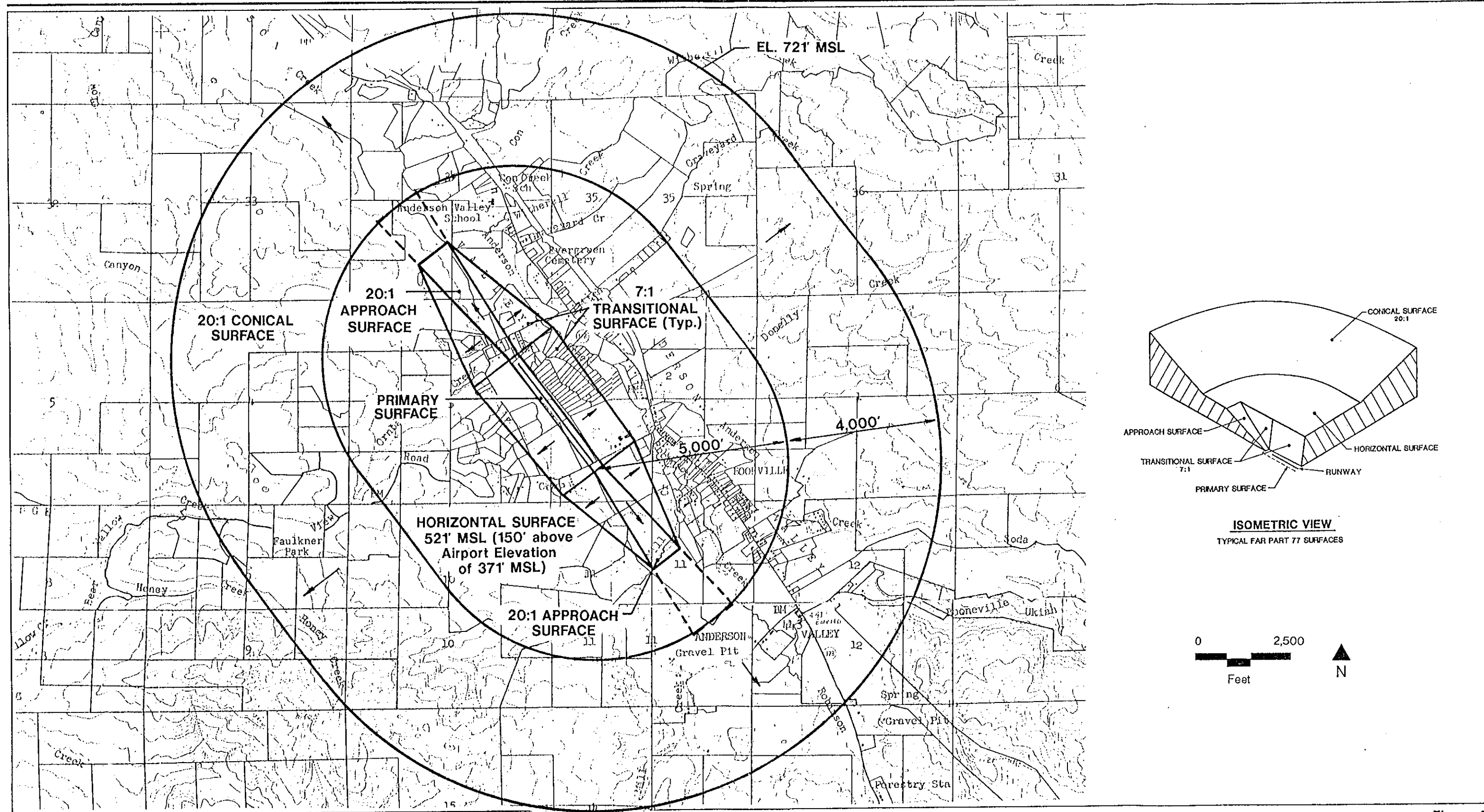


Figure 4D

Airspace Plan
Boonville Airport

Table 4D
Airport Environs
Ells Field

AIRPORT LOCATION AND ACCESS

- Approximately 3 miles north of the City of Willits.
- Airport and approaches within unincorporated portion of County.
- Access via Poppy Drive; access to area via Sherwood Drive from State Highway 101.

EXISTING AIRPORT AREA LAND USES
General Character

- Urban density residential in Brooktrails subdivision to west.
- Undeveloped within 1 mile to north, east and south.

Runway Approaches

- *Runway 16 (north) Approach* — Undeveloped.
- *Runway 34 (south) Approach* — Undeveloped.

Traffic Pattern

- Pattern only on east side; widely scattered rural residential.

LOCAL LAND USE PLANS AND ZONING

- *Mendocino County General Plan* — Adopted by County September 1981; subsequently amended; sets land use policies for environs.
- *Brooktrails Specific Plan* — Currently under preparation; adoption likely in 1993.

PLANNED LAND USES IN AIRPORT AREA

- Brooktrails Specific Plan may recommend some changes in land use designations; however most of the designations are anticipated to remain unchanged.
- Continuing infill of Brooktrails subdivision with residential and small scale commercial.
- No major projects currently under consideration.

ESTABLISHED APPROACH PROTECTION MEASURES

- Airport Height Combining District restricts the height of objects in the airport's vicinity.

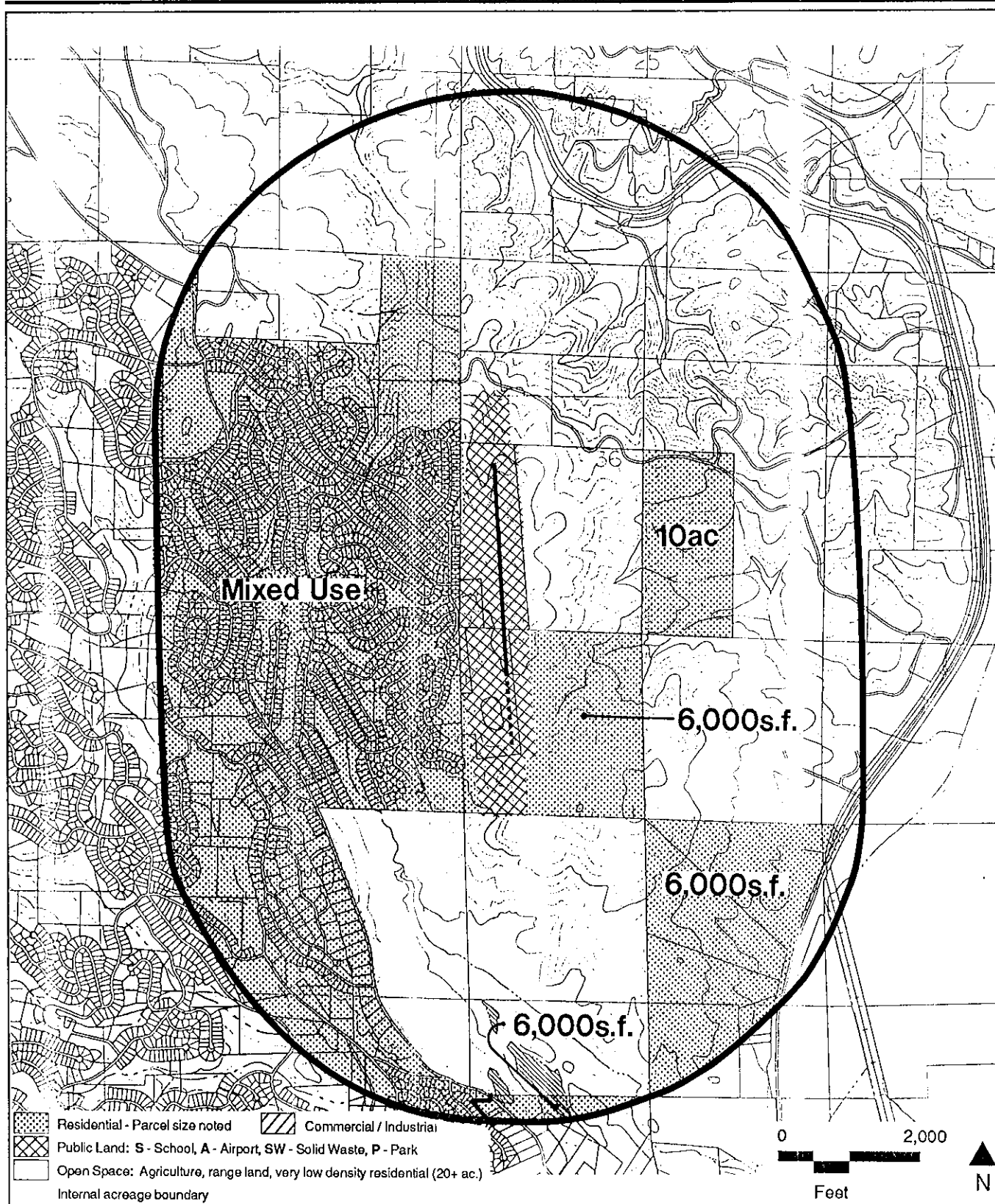


Figure 4E

Land Use Designations

Ells Field

Table 4E
Airport Features
Ells Field

AIRPORT PROPERTY

- *Ownership* — City of Willits.
- *Size* — Approx. 75 acres fee title.
- *Elevation* — 2,085 feet MSL.

AIRPORT PLANNING

- *Adopted Plans*
 - Airport Layout Plan adopted in 1991.
- *Planned Improvements*
 - 1,000-foot extension of the runway to the south.

BUILDING AREA

- *Location* — North end west of runway.
- *Aircraft Parking Capacity* — Approximately 30 based and transient tie-downs.
- 20 T-hangar units in two banks and one portable hangar.
- *Other Major Facilities* — Two fixed base operations' maintenance hangars and offices.
- *Services* — Fixed base operator services include fuel, aircraft sales, engine and airframe maintenance, and flight instruction.

RUNWAY SYSTEM**Runway 16-34**

- *Critical Aircraft* — Light twin-engine propeller.
- *Classification* — Airport Reference Code B-I, small aircraft.
- *Dimensions* — 3,000 feet long, 75 feet wide.
- *Lighting* — Medium-intensity runway edge lighting.
- *Surface* — Asphalt, good condition.
- *Primary Taxiways* — One exit taxiway to building area.

RUNWAY APPROACHES**Runway 16**

- *Approach Type* — Visual.
- *Runway Protection Zone* — Essentially all is within airport property line.
- *Approach Obstacles* — No penetrations of approach surface.

Runway 34

- *Approach Type* — Visual.
- *Runway Protection Zone* — All of existing RPZ is on airport property, but 3 acres of future RPZ is not on airport property.
- *Approach Obstacles* — No penetrations of approach surface.

Traffic Pattern

- *Location* — Established pattern east of runway only.
- *Altitude* — 1,000 feet above airport elevation.

Source: Hodges & Shutt (August 1992)

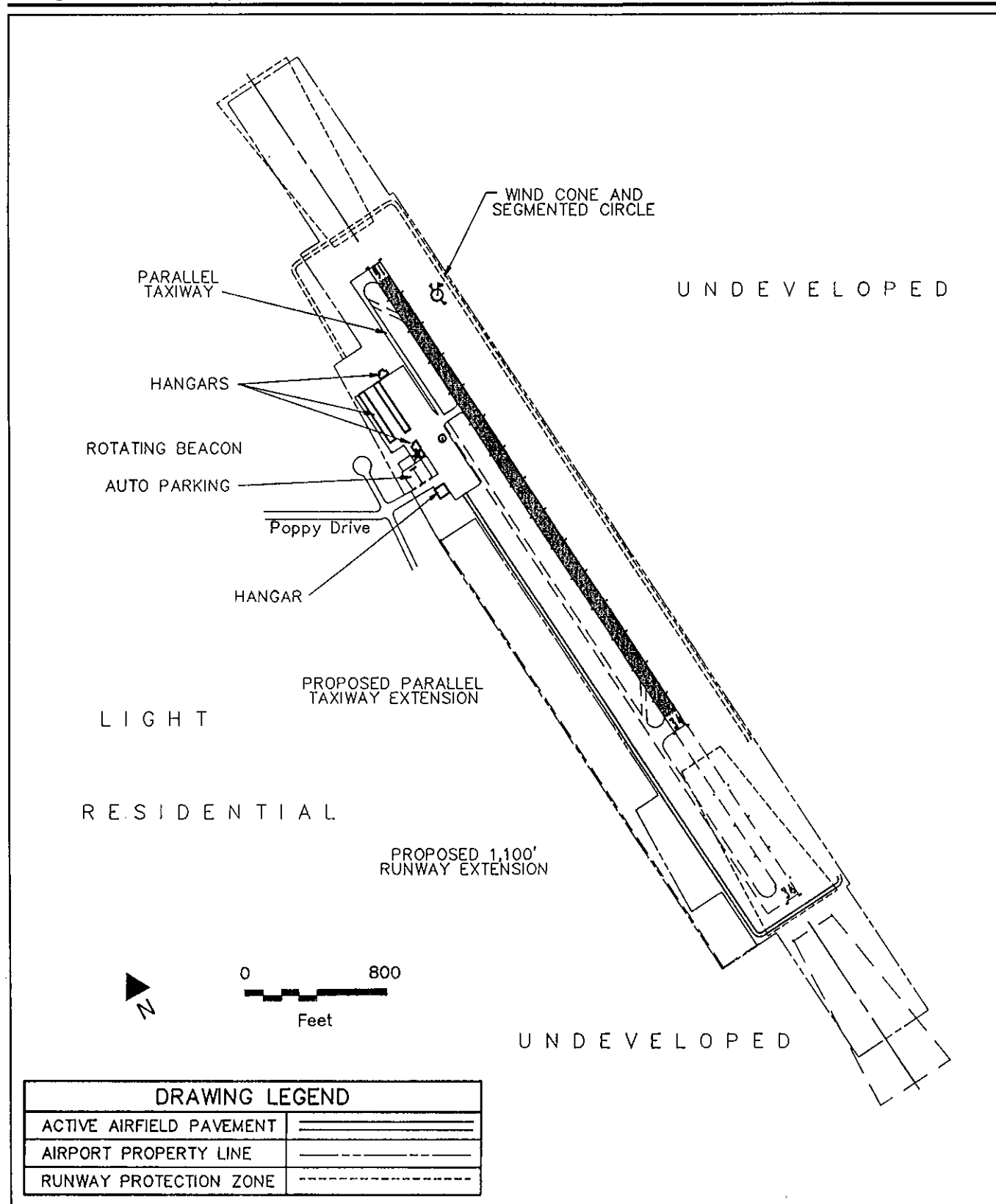


Figure 4F

Airport Layout Diagram

Ellis Field

Table 4F
Future Airport Activity
 Ells Field Airport

AIRCRAFT OPERATIONS

Total	
Annual	13,000
Average Day	36
Distribution	
Single-Engine	85.0%
Twin-Engine	15.0%

TIME OF DAY DISTRIBUTION

All Aircraft	
Day (0700-1900)	94.0%
Evening (1900-2200)	5.0%
Night (2200-0700)	1.0%

RUNWAY USE DISTRIBUTION

All Aircraft	
All Operations	
Runway 16	90.0%
Runway 34	10.0%

FLIGHT TRACK DATA

- Pattern Altitude – 1,000 feet AGL.
- Right traffic on Runway 34 (no west side pattern).

Source: Hodges & Shutt (May 1993 - for year 2013)

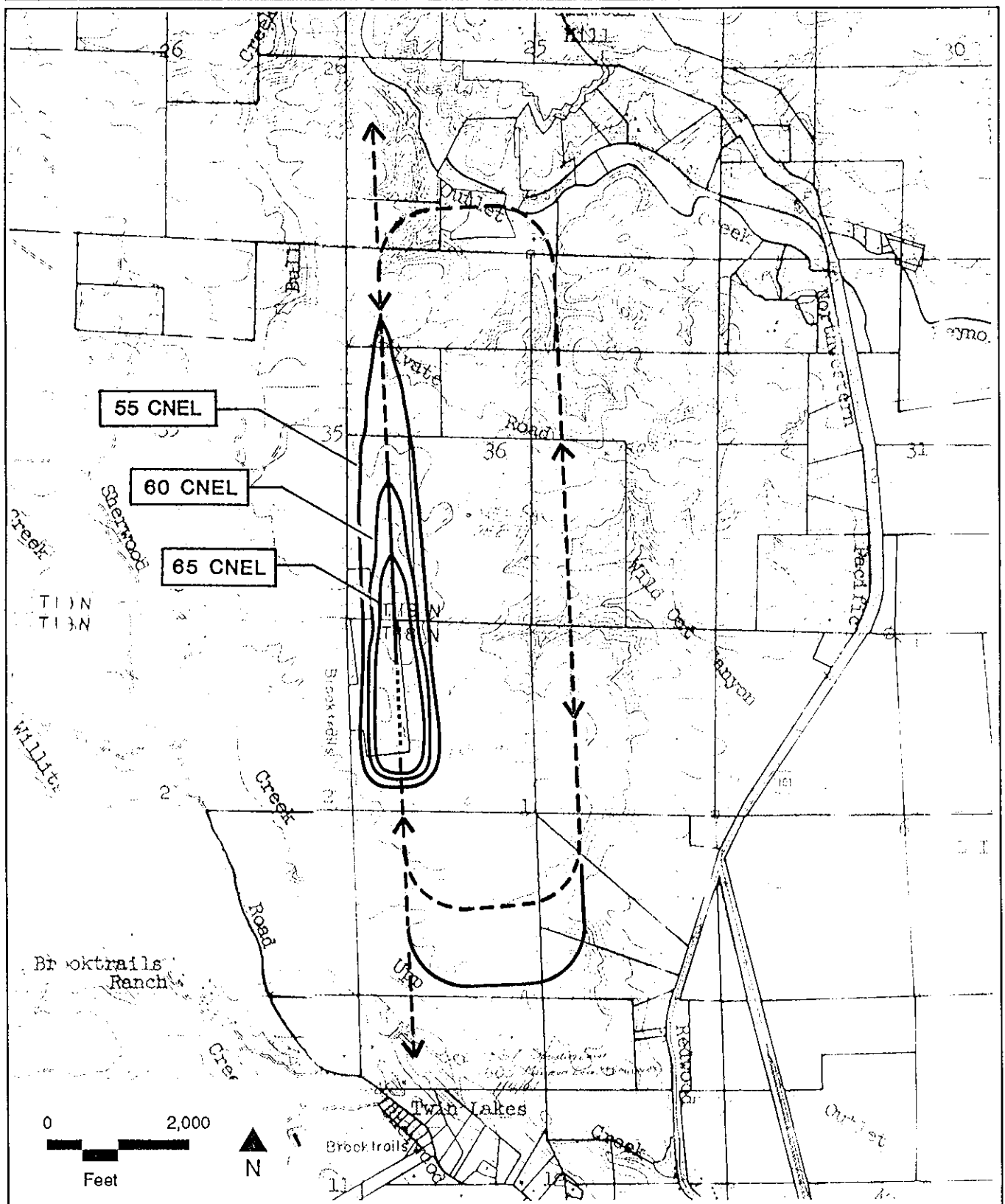


Figure 4G

Noise Contours - 2013

Ells Field

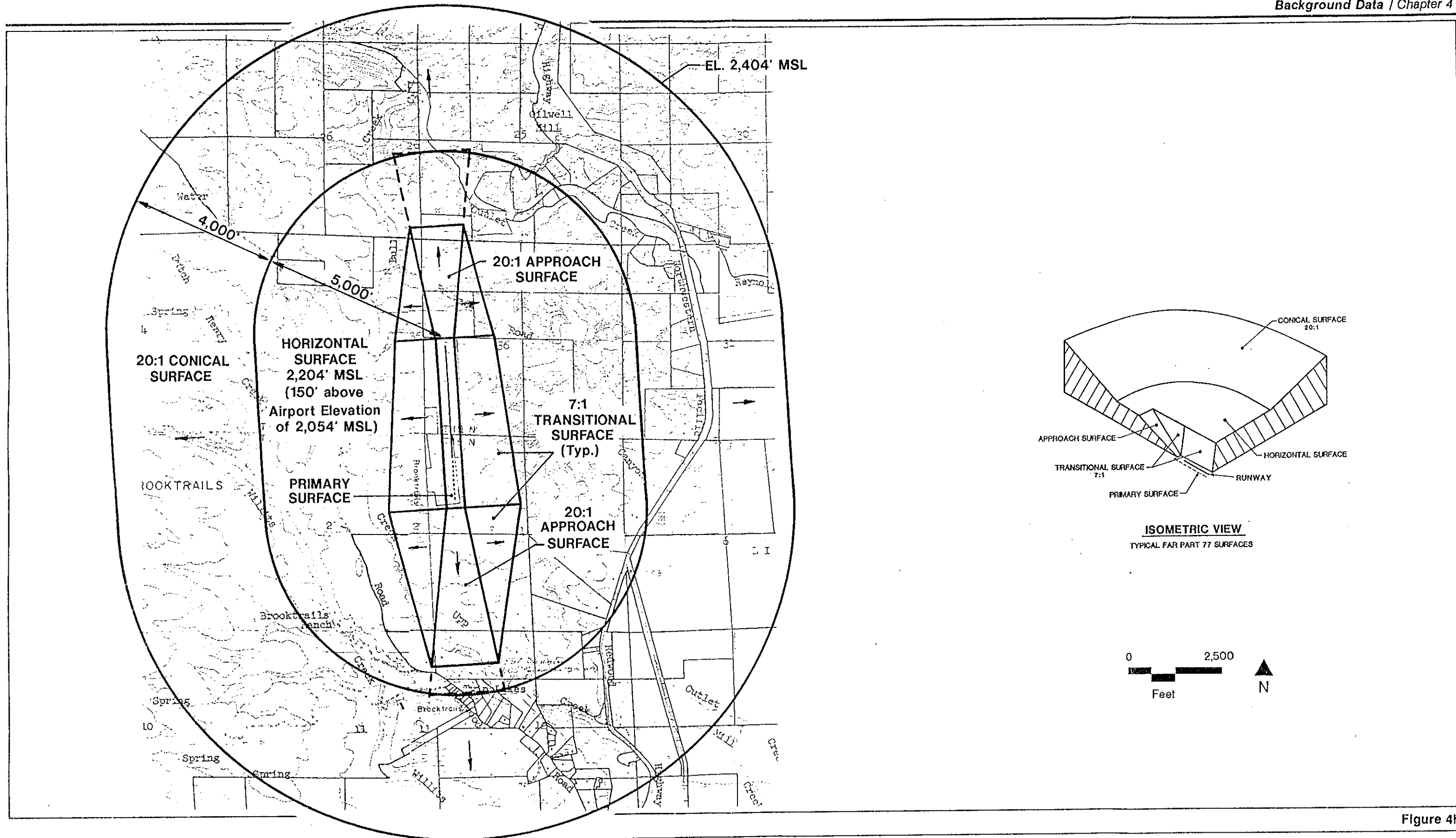


Figure 4H

Airspace Plan

Ells Field

Table 4G

Airport Environs**Little River Airport****AIRPORT LOCATION AND ACCESS**

- Located approx. 3 miles southeast of the community of Little River.
- Airport and approaches totally in county jurisdiction.
- Access from State Highway 1 via Little River Airport Road.

EXISTING AIRPORT AREA LAND USES**General Character**

- A mixture of scattered rural residential and forest.

Runway Approaches

- *Runway 11 (northwest) Approach* — Three ponds, one group of residences with majority of area forested.
- *Runway 29 (southeast) Approach* — Forested area sloping down to Albion River.

Traffic Pattern

- One residential subdivision immediately north of airport; widely scattered residences elsewhere.

LOCAL LAND USE PLANS AND ZONING

- *Mendocino County General Plan* — Adopted in September 1981 with subsequent amendments; remains current land use plan for area.
- *Coastal Element* — Adopted by county November 1985; sets land use policies for western edge of airport's environs.

PLANNED LAND USES IN AIRPORT AREA

- Continued residential infill on large lots.
- Residential care center proposed in subdivision north of airport.

ESTABLISHED APPROACH PROTECTION MEASURES

- Airport Height Combining Zone limits the height of objects in the vicinity of the airport.

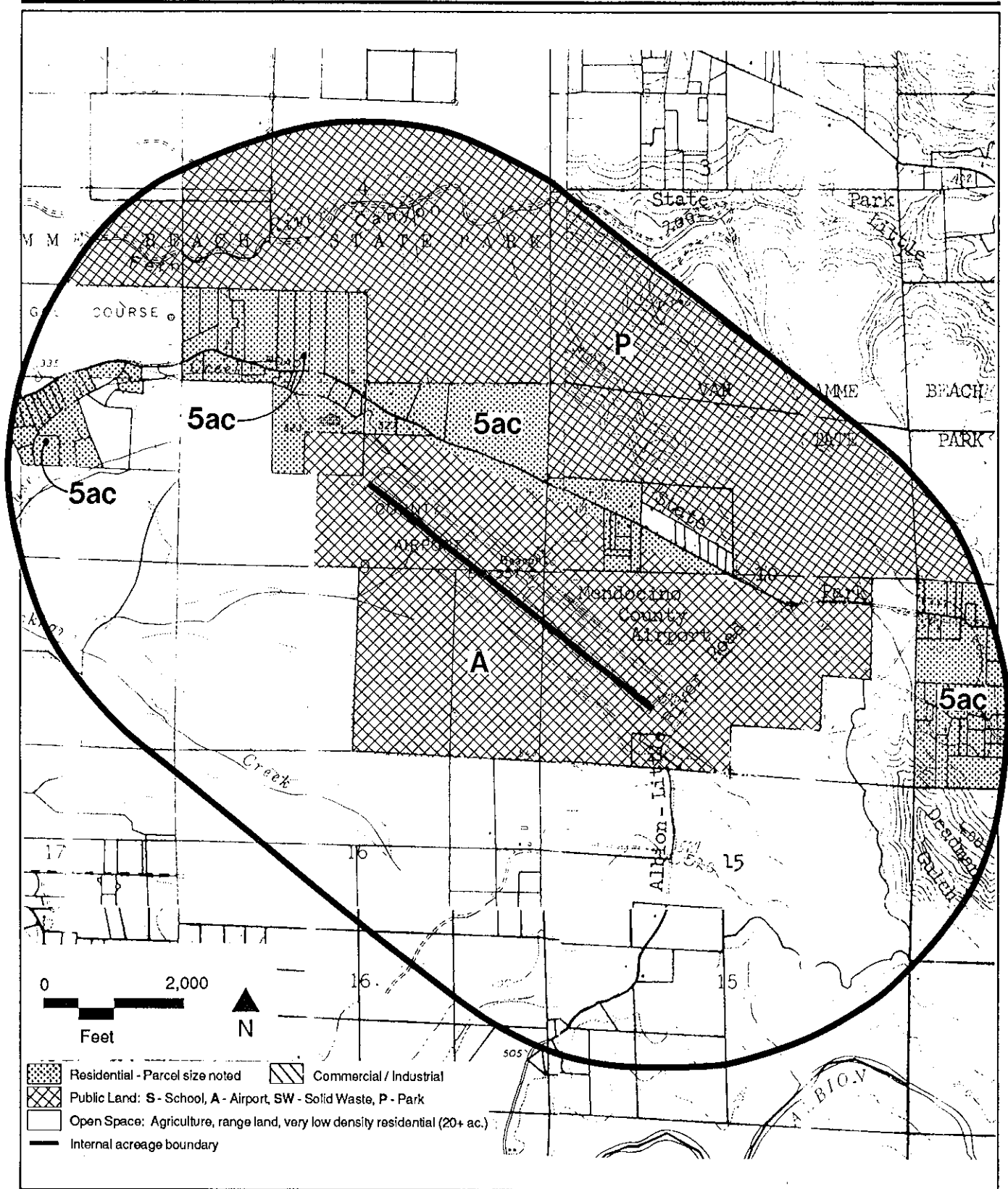


Figure 41

Land Use Designations

Little River Airport

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Table 4H
Airport Features
Little River Airport

AIRPORT PROPERTY

- *Ownership* – County of Mendocino
- *Size* – 548 acres in fee.
- *Elevation* – 572 feet MSL.

AIRPORT PLANNING

- *Adopted Plans*
 - 1990 Master Plan adopted by County Board of Supervisors.
- *Planned Improvements*
 - No change to runway proposed.
 - Additional areas for hangars provided.

BUILDING AREA

- *Location* – On north side of runway.
- *Aircraft Parking Capacity* – 48 tiedown spaces, and 13 T-hangars.
- *Other Major Facilities* – Fixed base operations maintenance hangar; offices; fuel facilities.
- *Services* – Fuel only. FBO services discontinued.

RUNWAY SYSTEM**Runway 11-29**

- *Critical Aircraft* – Medium business jet.
- *Classification* – Airport Reference Code C-II.
- *Dimensions* – 5,250 feet long, 150 feet wide; Runway 11 displaced 200 feet.
- *Lighting* – Medium-intensity runway edge lighting.
- *Surface* – Asphalt.

RUNWAY APPROACHES**Runway 11**

- *Approach Type* – Visual.
- *Runway Protection Zone* – All but approx. one-half acre on airport property.
- *Approach Obstacles* – Trees located 500 feet from runway end penetrate the approach surface.

Runway 29

- *Approach Type* – Visual.
- *Runway Protection Zone* – All but approximately 1 acres on airport property.
- *Approach Obstacles* – Trees 700 feet from runway end penetrate approach surface.

Source: Hodges & Shutt (August 1992)

Table 4I
Forecast Airport Activity
Little River Airport

AIRCRAFT OPERATIONS

Total	
Annual	19,500
Average Day	53
Distribution	
Single-Engine	80.0%
Twin-Engine	18.0%
Business Jet (Cessna)	1.0%
Business Jet (Lear)	1.0%

TIME OF DAY DISTRIBUTION

All Aircraft	
Day (0700-1900)	85.0%
Evening (1900-2200)	10.0%
Night (2200-0700)	5.0%

RUNWAY USE DISTRIBUTION

All Aircraft	
All Operations	
Runway 11	3.0%
Runway 29	97.0%

FLIGHT TRACK DATA

- Pattern Altitude — 800 feet AGL.
- Standard left traffic to both runway ends.

Source: Hodges & Shutt (May 1993 - for year 2013)

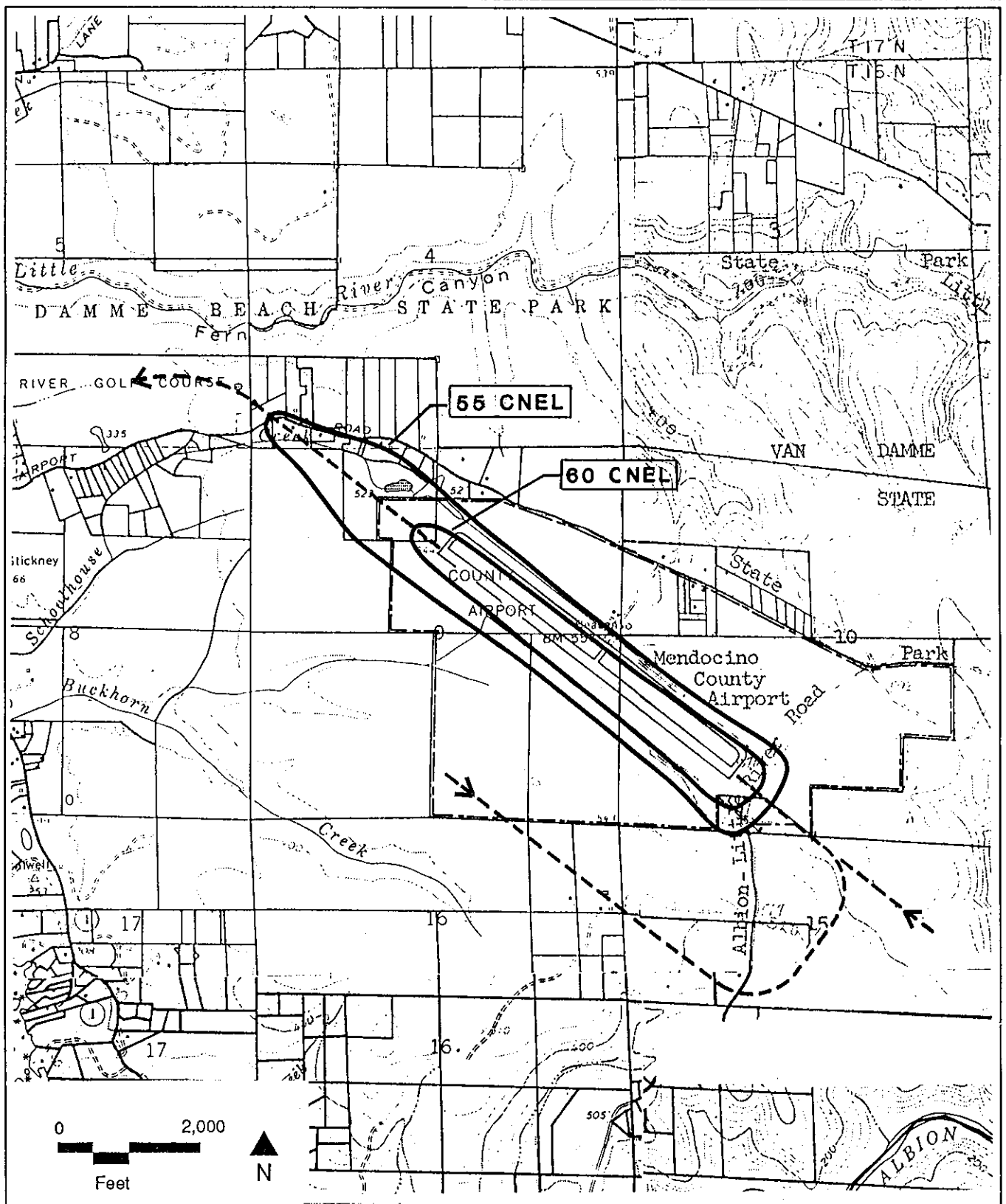


Figure 4K

Noise Contours - 2007

Little River Airport

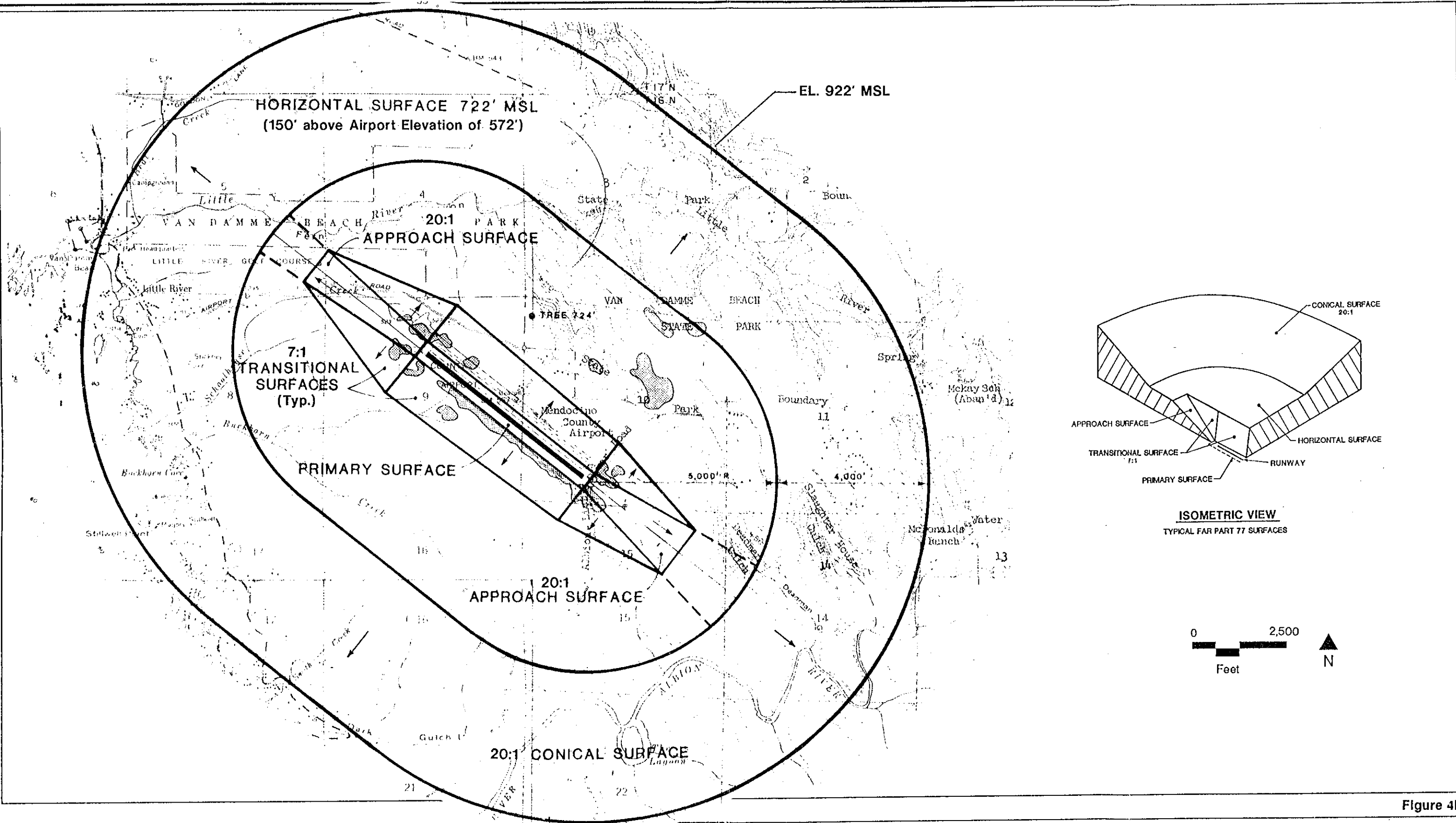


Figure 4L

Airspace Plan
Little River Airport

Table 4J
Airport Environs
Ocean Ridge Airport

AIRPORT LOCATION AND ACCESS

- Located 2 miles from the center of Gualala.
- Airport and approaches in county jurisdiction.
- Airport access via State Highway 1, then 2 miles east along Old Stage Road to airport entrance.

EXISTING AIRPORT AREA LAND USES
General Character

- Rural residential except to east where land is in timber production.
- Industrial/commercial uses on west side of airport.

Runway Approaches

- *Runway 13 (northwest) Approach* — One house 2,000 feet from runway end; forest elsewhere.
- *Runway 31 (southeast) Approach* — Access road to east side of airport below end of runway; scattered houses beyond.

Traffic Pattern

- Forested, hilly terrain.
- No pattern on west side.

LOCAL LAND USE PLANS AND ZONING

- *Mendocino County General Plan* — Adopted in September 1981 with subsequent amendments; remains current land use plan for area.
- *Coastal Element* — Adopted November 1985; remains current land use plan for western half of planning area.

PLANNED LAND USES IN AIRPORT AREA

- Continued infill of low density residential and small-scale industrial/commercial uses.
- No major development proposals currently active.

ESTABLISHED APPROACH PROTECTION MEASURES

- Airport owner has easement over one adjacent property.

Source: Hodges & Shutt (August 1992)

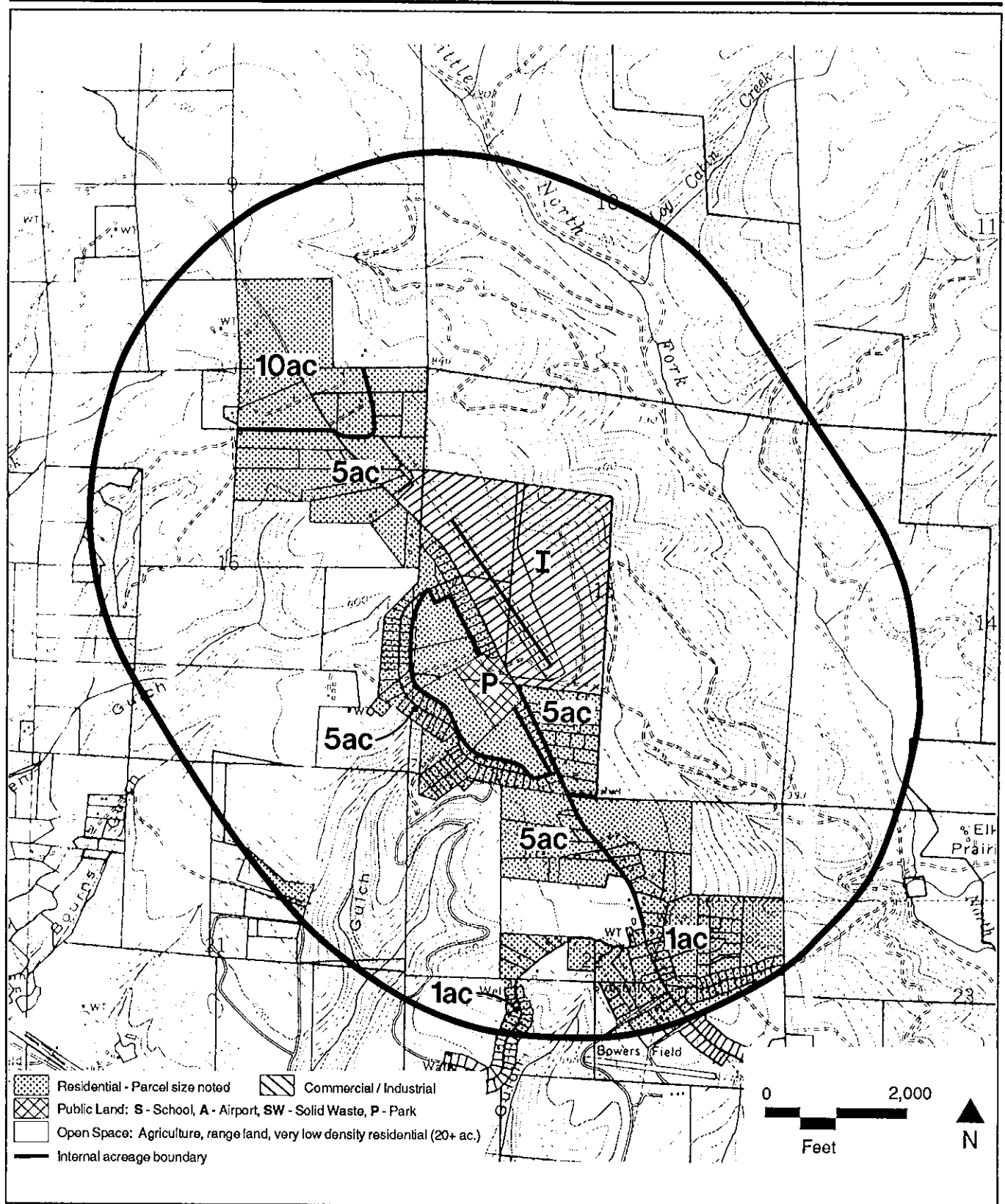


Figure 4M

Land Use Designations

Ocean Ridge Airport

Table 4K
Airport Features
Ocean Ridge Airport

AIRPORT PROPERTY

- *Ownership* — privately owned.
- *Size* — 30 acres in fee.
- *Elevation* — 940 feet MSL.

AIRPORT PLANNING

- *Adopted Plans* - Site plan developed for owner dated 6/3/84.
- *Planned Improvements* - No runway extension or other changes which would change off-airport effects.

BUILDING AREA

- *Location* — Transient tiedowns are northeast of runway. Hangars are located on both sides of runway.
- *Aircraft Parking Capacity* — Eleven tiedowns.
- *Other Major Facilities* — seven hangar buildings and pilots' lounge.
- *Services* — None.

RUNWAY SYSTEM**Runway 13-31**

- *Critical Aircraft* — Single-engine propeller; also occasional small twin-engine propeller aircraft.
- *Classification* — Airport Reference Code A-I.
- *Dimensions* — 2,500 feet long, 50 feet wide; Runway 13 threshold displaced 400'; Runway 31 threshold displaced 300'.
- *Lighting* — Low intensity runway edge lighting.
- *Surface* — Asphalt, good condition.
- *Primary Taxiways* — Partial parallel on northeast side; one exit taxiway on southwest side.

RUNWAY APPROACHES**Runway 13**

- *Approach Type* — Visual.
- *Runway Protection Zone* — All but about 5% on airport property.
- *Approach Obstacles* — Trees 200' from runway end.

Runway 31

- *Approach Type* — Visual.
- *Runway Protection Zone* — Mostly off airport property; one parcel covered by approach protection easement.
- *Approach Obstacles* — Trees 300' from runway end.

Traffic Pattern

- *Location* — Established pattern northeast of runway only.
- *Altitude* — 800 feet above airport elevation.
- *Approach Procedure* — Calm wind land Runway 31 and take-off Runway 13.

Source: Hodges & Shutt (August 1992)

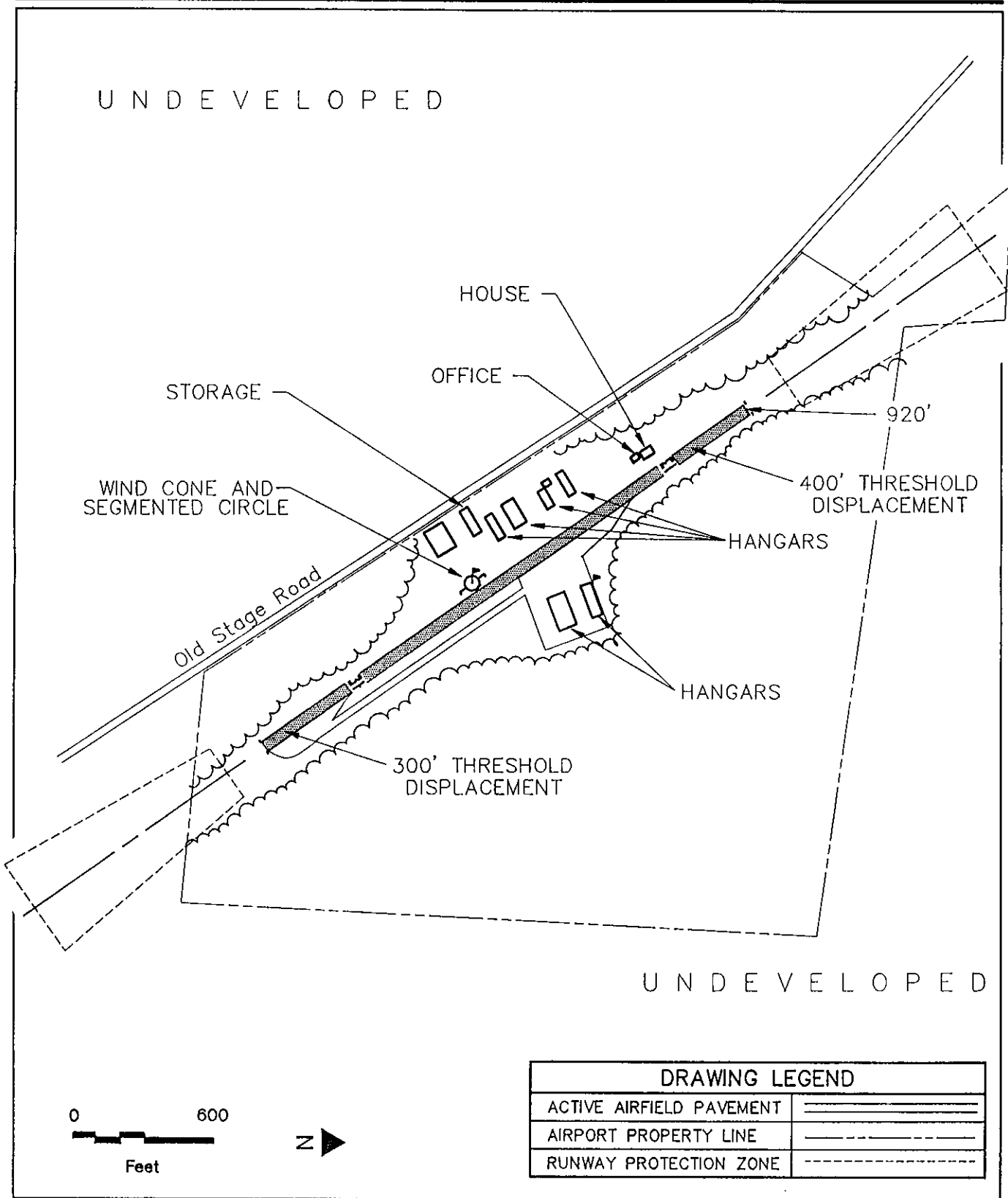


Figure 4N

Airport Layout Diagram

Ocean Ridge Airport

Table 4L
Airport Activity
 Ocean Ridge Airport

AIRCRAFT OPERATIONS

Total	
Annual	7,500
Average Day	21
Distribution	
Single-Engine	90.0%
Twin-Engine	10.0%

TIME OF DAY DISTRIBUTION

All Aircraft	
Day (0700-1900)	95.0%
Evening (1900-2200)	5.0%
Night (2200-0700)	0.0%

RUNWAY USE DISTRIBUTION

All Aircraft	
All Operations	
Runway 13	25.0%
Runway 31	75%

FLIGHT TRACK DATA

- Pattern Altitude – 800 feet AGL.
- Right traffic on Runway 31 (no west side pattern).

Source: Hodges & Shutt (May 1993 - for year 2013)

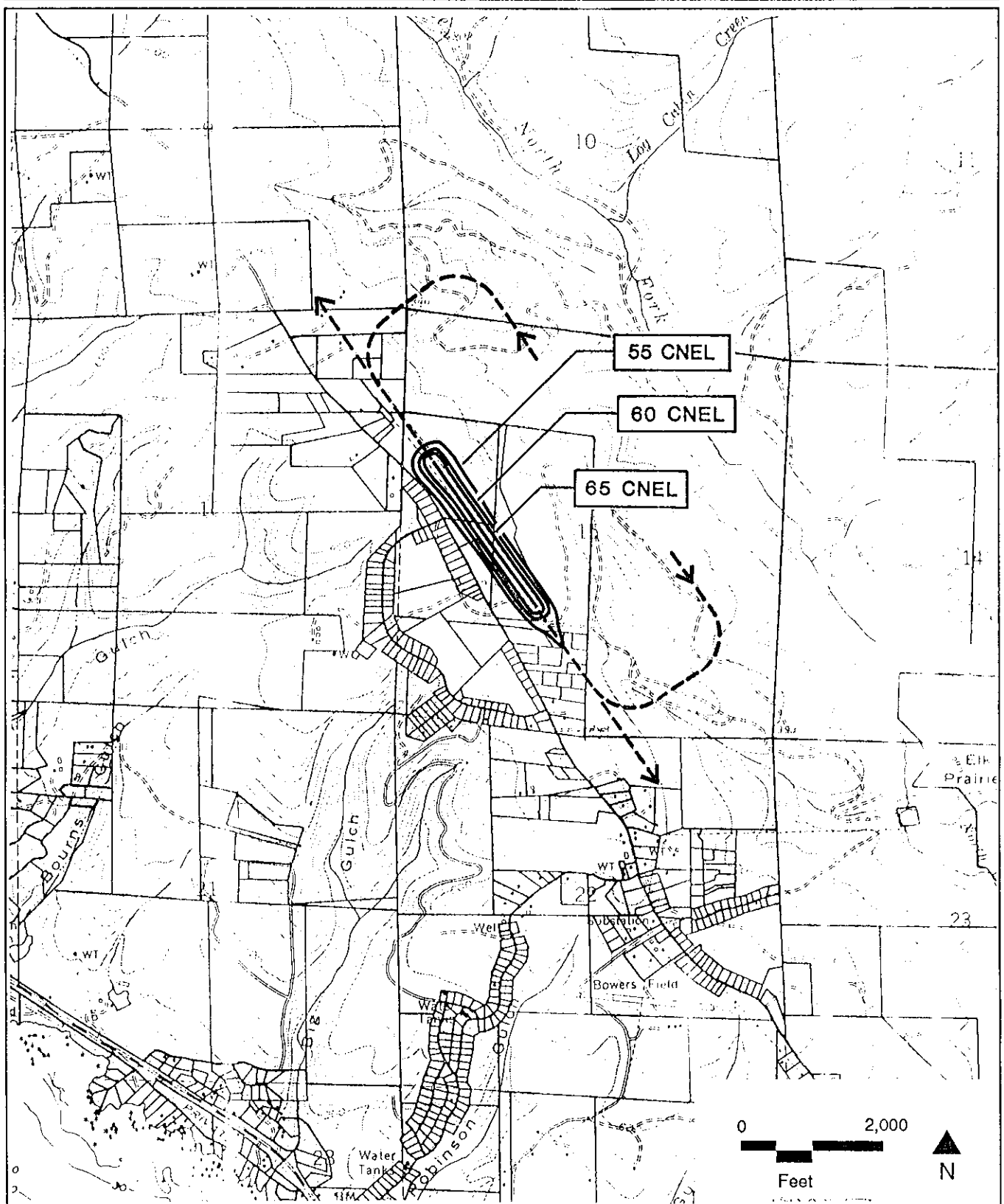


Figure 40

Noise Contours - 2013

Ocean Ridge Airport

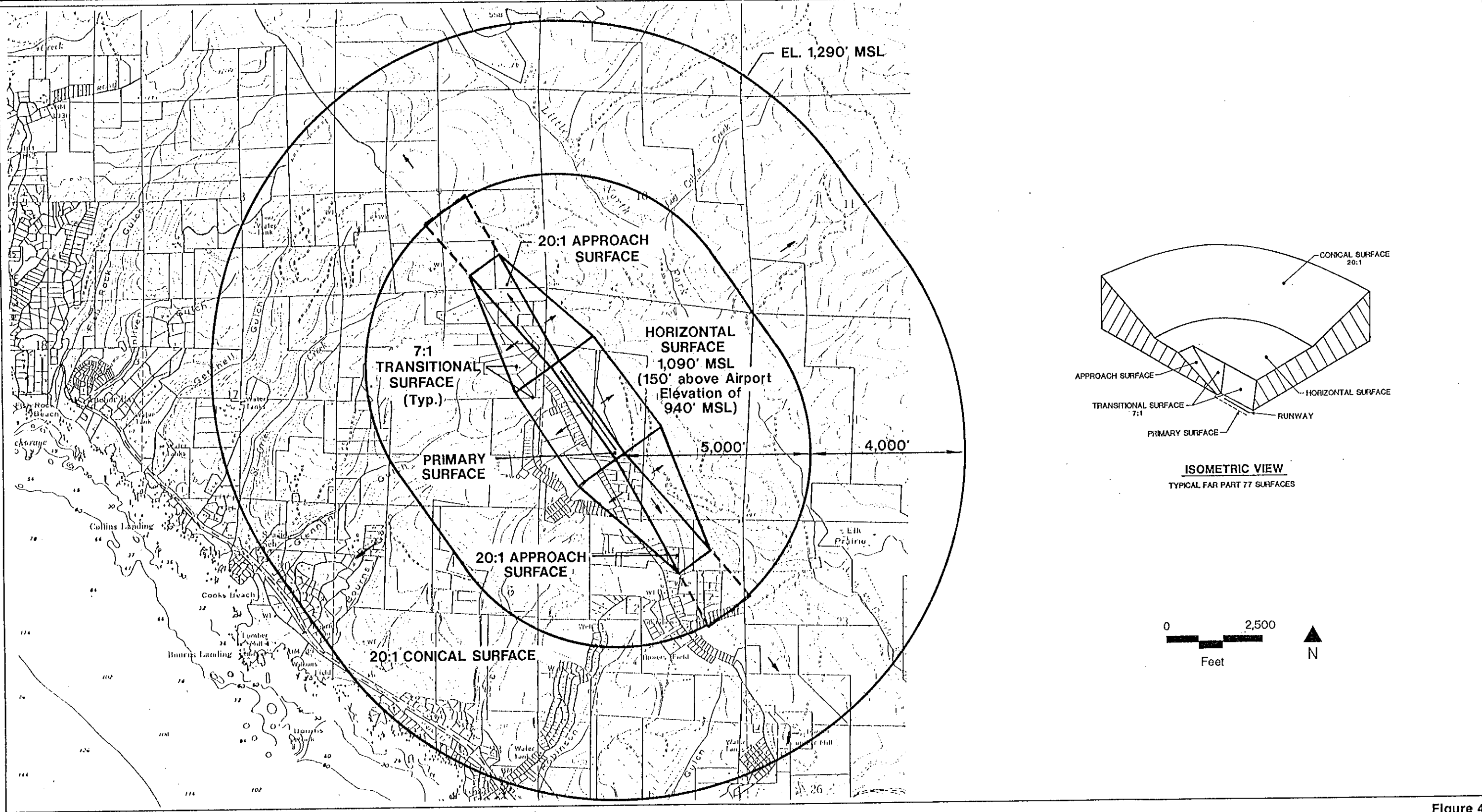


Figure 4P

Table 4M

Airport Environs

Round Valley Airport

AIRPORT LOCATION AND ACCESS

- Approximately one-half mile west of the town of Covelo.
- Airport and approaches within unincorporated portion of County.
- Access from State Highway 162 via Howard Drive and South Airport.

EXISTING AIRPORT AREA LAND USES

General Character

- Urban density residential and commercial in town of Covelo to west.
- Scattered rural residential to north and immediately west.
- Agricultural uses to south; mountains to west.

Runway Approaches

- *Runway 10 (west) Approach* — Undeveloped.
- *Runway 28 (south) Approach* — Agriculture.

Traffic Pattern

- Pattern only on north side; scattered rural residential and portions of town of Covelo.

LOCAL LAND USE PLANS AND ZONING

- *Mendocino County General Plan* — Adopted by County September 1981; subsequently amended; sets land use policies for airport environs.

PLANNED LAND USES IN AIRPORT AREA

- Continuing infill of Covelo with residential and small scale commercial/industrial.
- Continuing infill of rural residential north of airport.
- No major projects currently under consideration.

ESTABLISHED APPROACH PROTECTION MEASURES

- Airport Height Combining District limits the height of objects in the vicinity of the airport.

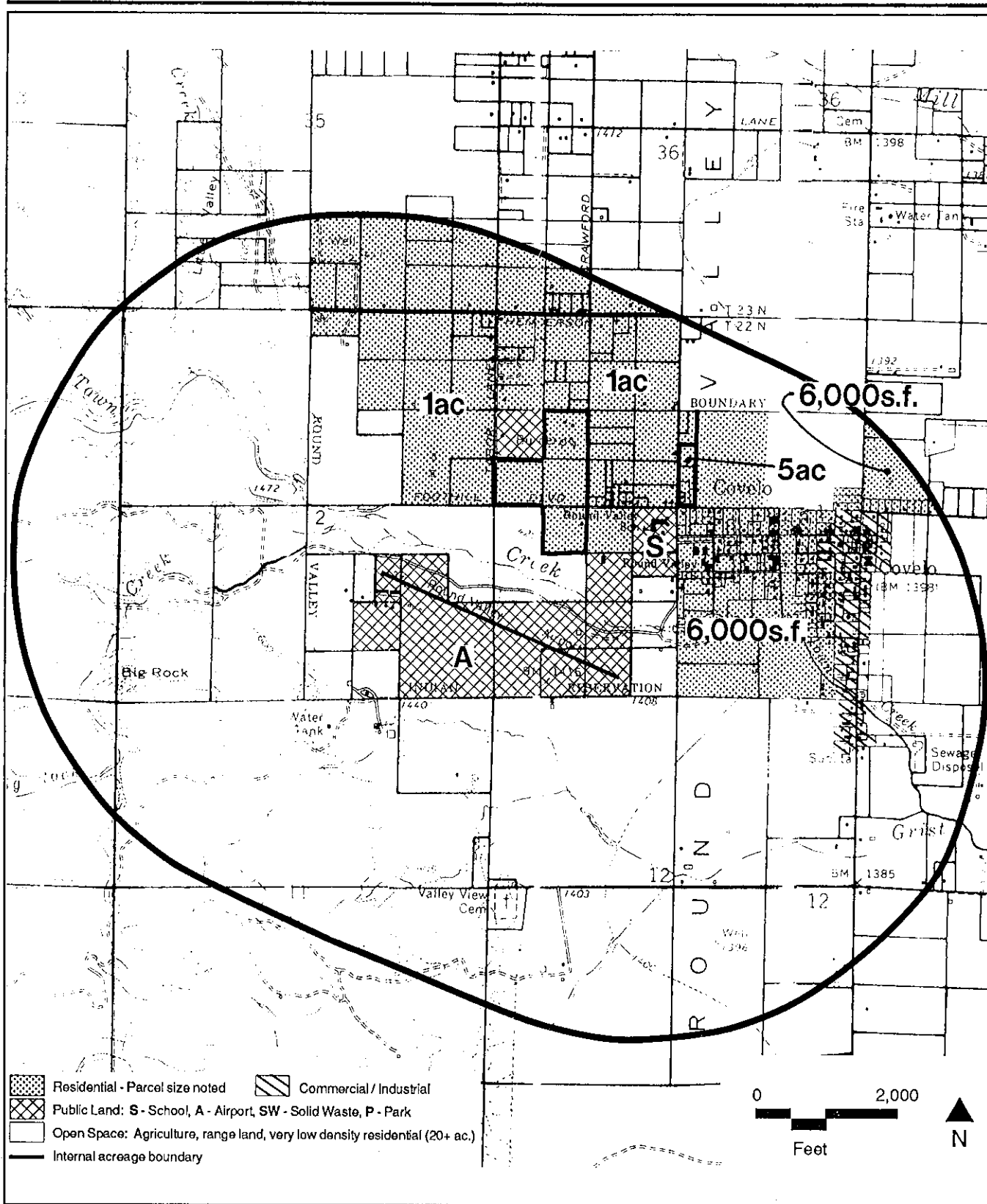


Figure 4Q

Land Use Designations Round Valley Airport

Table 4N
Airport Features
Round Valley Airport

AIRPORT PROPERTY

- *Ownership* — County of Mendocino.
- *Size* — Approx. 110 acres fee title.
- *Elevation* — 1,434 feet MSL.

AIRPORT PLANNING

- *Adopted Plans*
 - None
- *Planned Improvements*
 - No change to runway.

BUILDING AREA

- *Location* — East end north of runway.
- *Aircraft Parking Capacity* — Six based and transient tie-downs.
 - Seven individual T-hangars; one large box hangar.
- *Other Major Facilities* — Fuel island, pilots lounge.
- *Services* — Flying club; charter.

RUNWAY SYSTEM**Runway 10-28**

- *Critical Aircraft* — Light twin-engine propeller.
- *Classification* — Airport Reference Code B-I, small aircraft.
- *Dimensions* — 3,670 feet long, 75 feet wide; 210' displaced threshold for Runway 10; 270' displaced threshold for Runway 28.
- *Lighting* — Medium-intensity runway edge lighting.
- *Surface* — Asphalt, fair condition.
- *Primary Taxiways* — One paved exit taxiway to tiedown apron.

RUNWAY APPROACHES**Runway 10**

- *Approach Type* — Visual.
- *Runway Protection Zone* — Essentially all is off of airport property line.
- *Approach Obstacles* — Hill penetrates approach surface 2,500 from runway end.

Runway 28

- *Approach Type* — Visual.
- *Runway Protection Zone* — Essentially all of existing RPZ is off airport property.
- *Approach Obstacles* — Road passes near end of runway.

Traffic Pattern

- *Location* — Established pattern north of runway only.
- *Altitude* — 800 feet above airport elevation.

Source: Hodges & Shutt (August 1992)

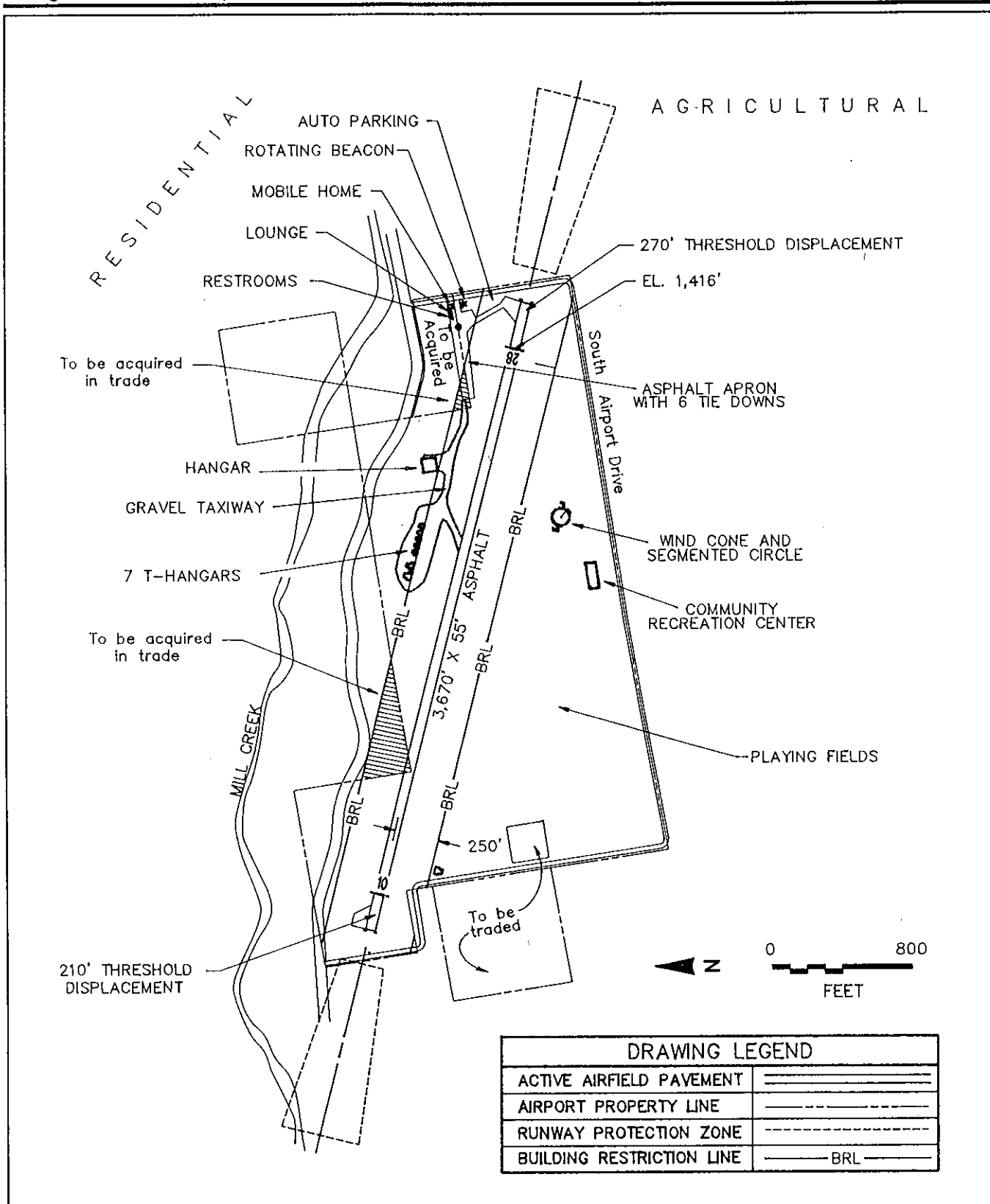


Figure 4R

Airport Layout Diagram

Round Valley Airport

Table 4O
Future Airport Activity
Round Valley Airport

AIRCRAFT OPERATIONS

Total	
Annual	12,000
Average Day	33
Distribution	
Single-Engine	89.0%
Twin-Engine	9.5%
Business Jets	1.0%
Turboprop	0.5%

TIME OF DAY DISTRIBUTION

All Aircraft	
Day (0700-1900)	95.0%
Evening (1900-2200)	4.0%
Night (2200-0700)	1.0%

RUNWAY USE DISTRIBUTION

All Aircraft	
All Operations	
Runway 10	43.0%
Runway 28	57.0%

FLIGHT TRACK DATA

- Pattern Altitude — 800 feet AGL.
- Right traffic on Runway 28 (no south side pattern).

Source: Hodges & Shutt (May 1993 - for year 2013)

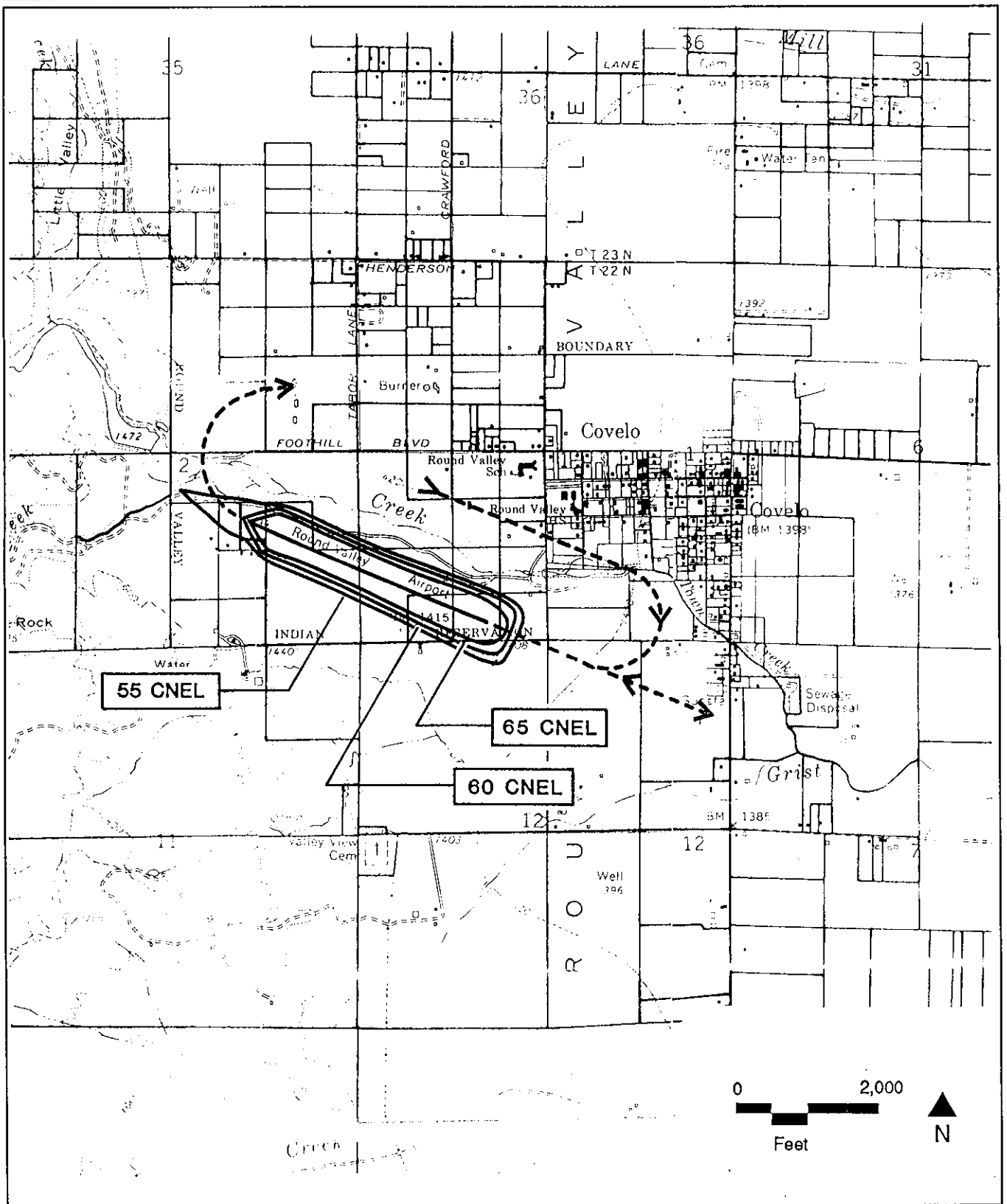


Figure 4S

Noise Contours - 2013

Round Valley Airport

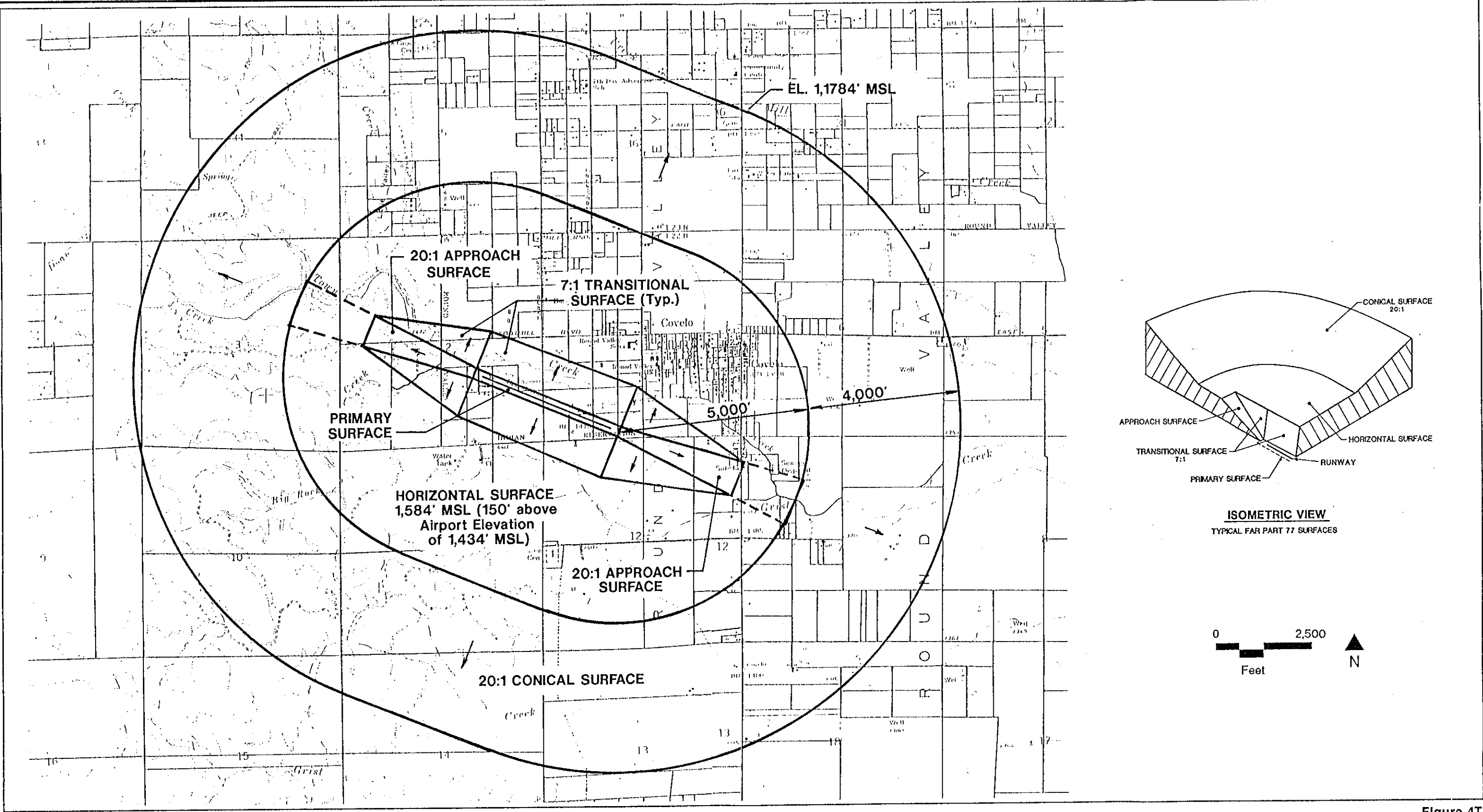


Figure 4T

Airspace Plan
Round Valley Airport

Table 4P
Airport Facilities
Ukiah Municipal Airport

RUNWAY/TAXIWAY SYSTEM**Runway 15-33**

- Pavement – 4,415' long; 150' wide. Effective gradient: 0.27%. Section (estimated): 4" asphalt course; 6" base aggregate. Strength: 28,000# (single-wheel).
- Shoulders – West Side: Dirt/grass; surface graded and level. East Side: Dirt/Grass; surface graded and level.
- Runway Safety Areas – Length: Minimum of 300' beyond runway departure ends. Width: Minimum of 150' (225' recommended).
- Markings – Nonprecision. Relocated threshold Runway 15: 585'.
- Lighting – Medium-intensity runway edge lights.

Taxiways

- West Side Parallel – 50' wide; asphalt full length of runway. Runway-to-taxiway separation: 300' along northern 2/3 to 225' at southern end. Low-intensity taxiway edge lights and centerline/edge reflectors. Exit signs.
- Runway Entrances/Exits – Four designated entrances/exits – one at each end, one 1,400' southeast of the Runway 15 threshold, and one 1,000' northwest of the Runway 33 threshold. Hold lines: 200' from runway centerline at Runway 33 threshold taxiway and 150' all others.
- Blast Pads – None. Entrance taxiway on approach end of Runway 15 serves as blast pad.
- Holding Bays – Located adjacent to each runway entrance taxiway.
- Marking – Standard centerline stripes. Standard holdline stripes. Standard runway designation numbers. "Ukiah" is painted on the east side of the runway.
- Visual Approach Aids – Four-box VASI serving Runway 15. REILs serving Runways 15 and 33. No VGSI on Runway 33 due to terrain constraints. Runway 15: V4L @3.0° GA with TCH of 27'.

Other

- Wind Indicators – Lighted wind cone on east side of runway. Unlighted wind cone in southwest corner of airport property near Runway 33 threshold. Segmented circle with traffic pattern indicators and wind tee on east side of runway.
- Radio Aids – On-Airport Localizer/DME (109.1 mHz IUKI) and LOM (KEARN NDB-371 mHz). Off-Airport VORTAC (MENDOCINO-112.3 mHz) located 5.5 m.n. at 202°. On-Airport Flight Service Station (1615Z-0145Z).
- Rotating Beacon – One beacon located on T-hangar in airport building area and one beacon located on mountain 250° and 2 miles from the Airport.

BUILDING AREA**Aircraft Aprons**

- North Apron (North of FSS) – 1.1 acres; asphalt. 15 aircraft parking positions.
- Central Apron (East of FSS to CDF apron) – 1.9 acres; asphalt and concrete. 20 based tiedown positions. 15 transient parking positions. Aviation fuel storage facility (one 12,000 gallon 100LL aboveground tank).
- CDF Apron (South of aviation fuel storage facility) – 1.0 acres; asphalt and concrete. 4 CDF aircraft parking positions.

Other Facilities

- Fuel Storage – One aboveground steel tank (12,000 gal. 100LL octane). Jet-A stored in 750 gallon refueler truck. Various tenants also have on-site fuel storage facilities.
- Fuel Dispensing – All fuel (100LL and Jet A) dispensed by two 750 gallon refueler trucks.
- Perimeter Fencing – Security fencing completely encloses Airport perimeter. Primary controlled-access (push-button code) entrance gate to main apron from terminal auto parking area. Secondary controlled-access (push button code) entrance gate serving south FBO apron area.

ROADS AND PARKING

- Main Public Access Point – Off South State Street. Serves various FBO areas via internal access roads.
- Controlled Access Points – From main auto parking lot near airport terminal building (serves main apron area) and from side street off of South State Street (serves south FBO apron area).
- Public Auto Parking – Adjacent to airport terminal building area and various FBO offices/hangars.

UTILITIES

- Electricity – Supplier: City of Ukiah.
- Telephone – Supplier: Pacific Bell. Public phones located at terminal and FBO facilities.
- Water – Supplier: City of Ukiah.
- Sewer – City of Ukiah sewer system.
- Natural Gas – Supplier: PG&E.

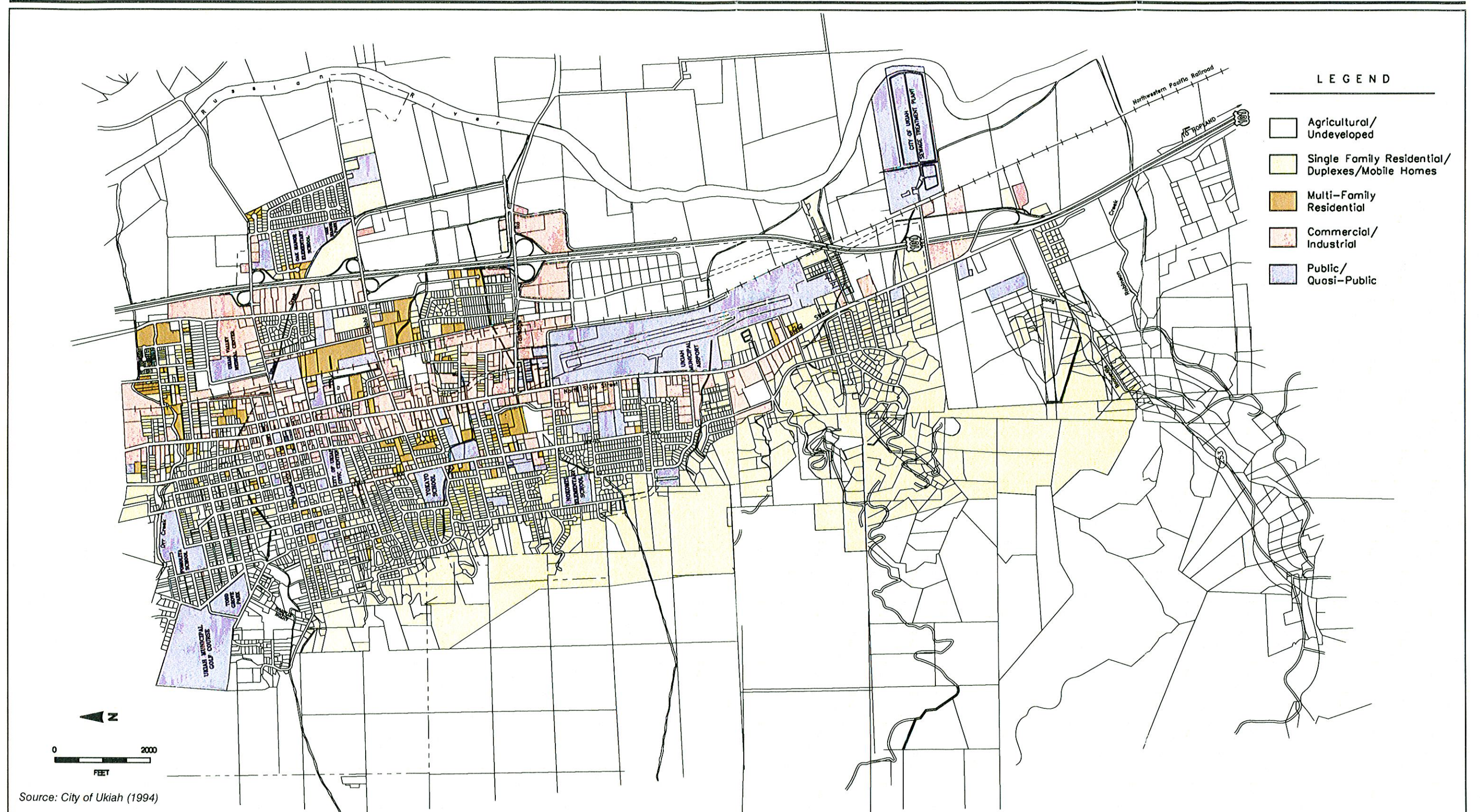


Figure 4U

Existing Airport Vicinity Land Uses

Ukiah Municipal Airport

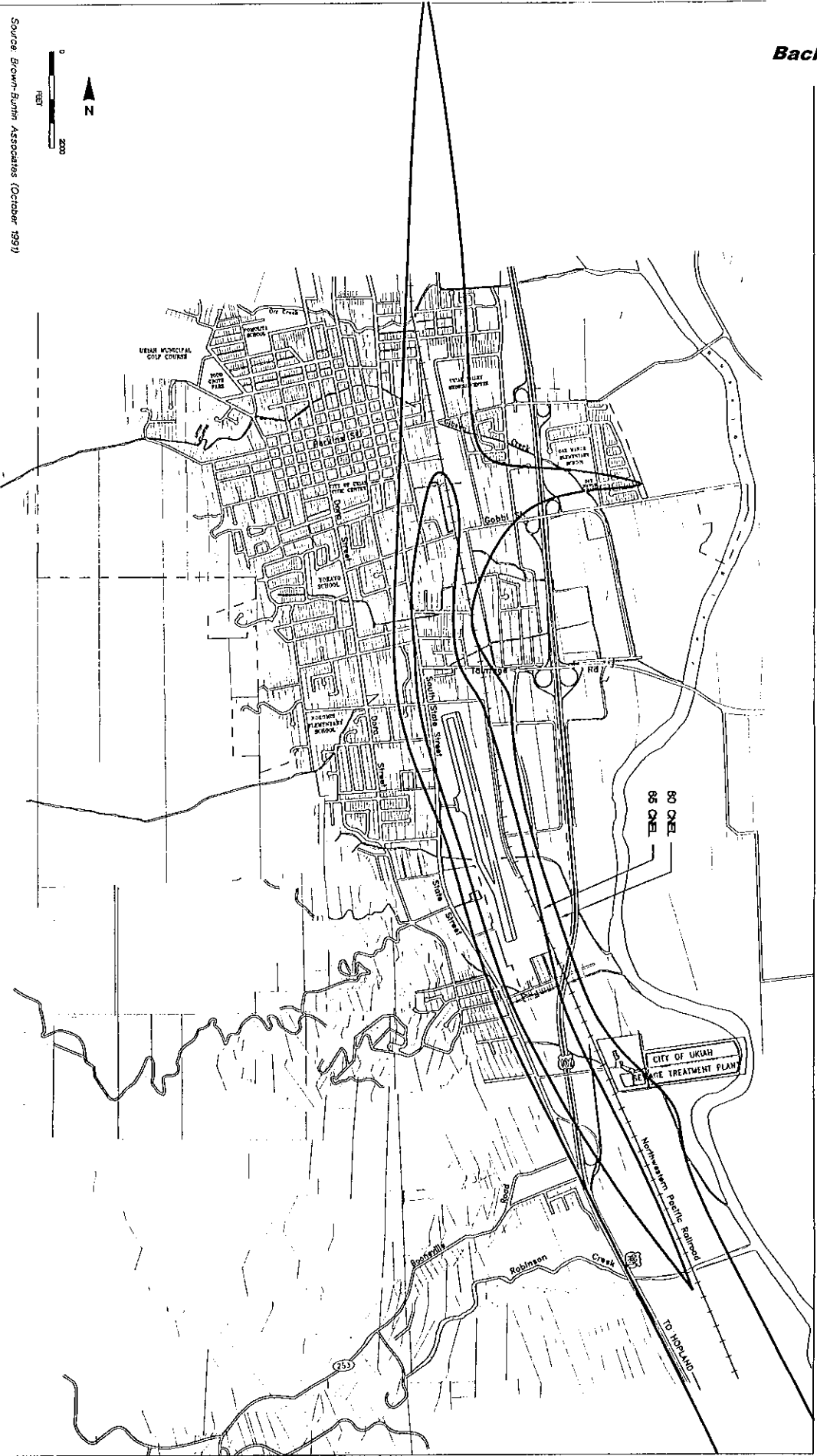


Figure 4V

Figure

Noise Impacts -
1994 Peak Fire Attack Day
Ukiah Municipal Airport

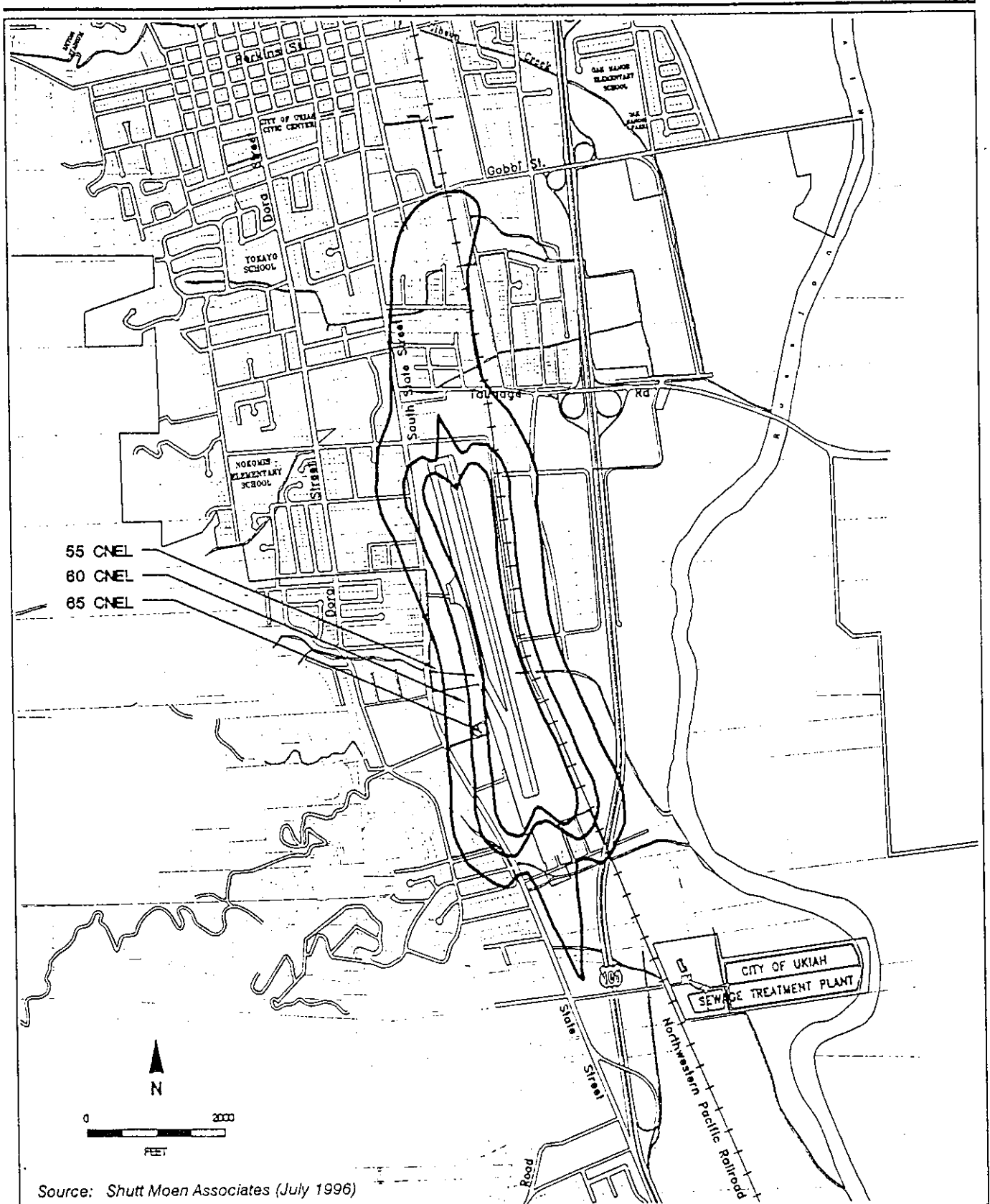
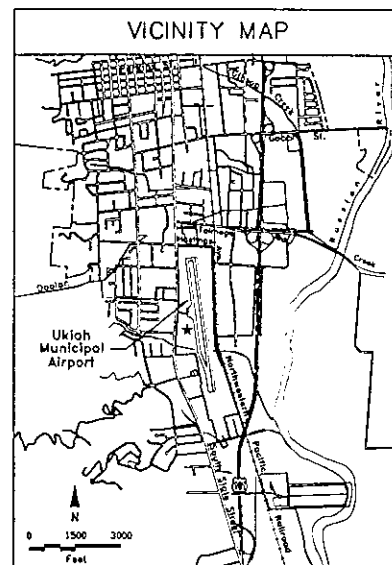


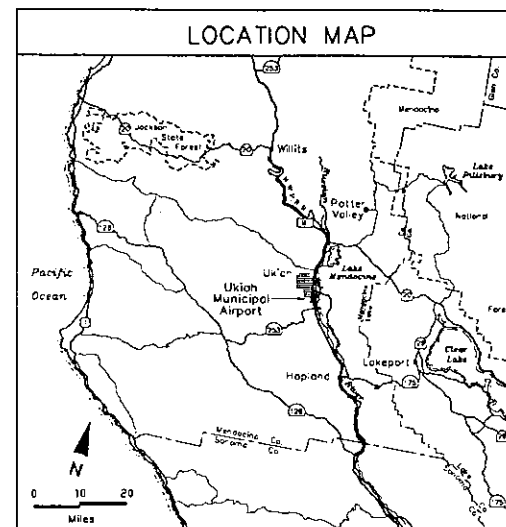
Figure 4W

Noise Impacts - 1994 Average Day

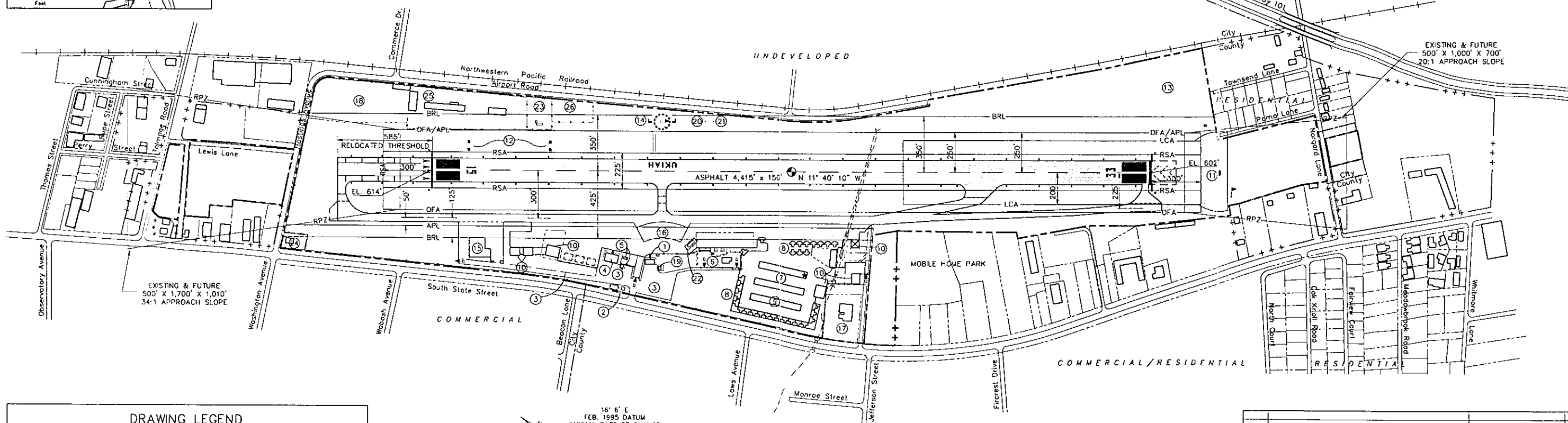
Ukiah Municipal Airport



BUILDING AND FACILITY LEGEND			
(1) Airport Terminal Building/Offices	(14) Segmented Circle, Lighted Wind Cone, & Wind Tee	(15) FEDEX Hangar	
(2) AWOS-III & Electrical Vault	(16) Concrete Apron	(17) Nursery	
(3) Automobile Parking	(18) Lumber Yard	(19) City of Ukiah Employee Credit Union	
(4) FAA Flight Service Station	(20) Ceilometer	(21) Wind Direction and Velocity Indicator	
(5) Office & Shed	(22) Aviation Fuel Storage Facility (Former Location)	(23) Aviation Fuel Storage Facility	
(6) CDF Air Attack Base (Existing)	(24) Mayocoma Industries (Landscaping)	(25) City of Ukiah Corporation Yard	
(7) T-Hangars	(26) Commercial Fence Storage Area		
(8) Portable T-Hangars			
(9) Shade Hangar			
(10) Conventional Hangar			
(11) Localizer Antenna			
(12) VASI (V4L) GA 3.0'			
(13) CDF Air Attack Base (Potential Future Site)			



- NOTES**
- Airport coordinates and approach slope data source: U.S. Department of Commerce, National Ocean Service, Ukiah Obstruction Chart (February 1993); horizontal datum is NAD 83 & vertical datum is NGVD 29.
 - The entire airport perimeter is enclosed by fence.
 - There are two existing deviations from ARC B-II standards; 1) the southern 400' of the parallel taxiway is located less than 240' and 2) the western edge of the parallel taxiway Object Free Area (also the Aircraft Parking Limit) is located 50' from the parallel taxiway centerline.
 - A second rotating beacon is located on a mountain 250' and 2 miles from the Airport.
 - Acquisition of fee simple title is encouraged as an alternative to approach protection easements wherever practical.
 - Wind Data not available.
 - The airport is also served by a nonprecision/circle-to-land instrument approach procedure based on the ENI VOR and GPS.



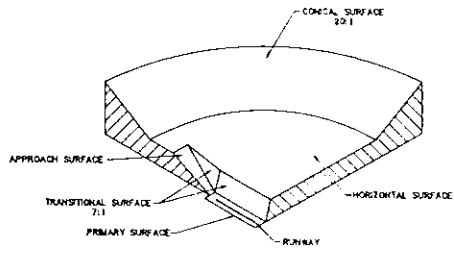
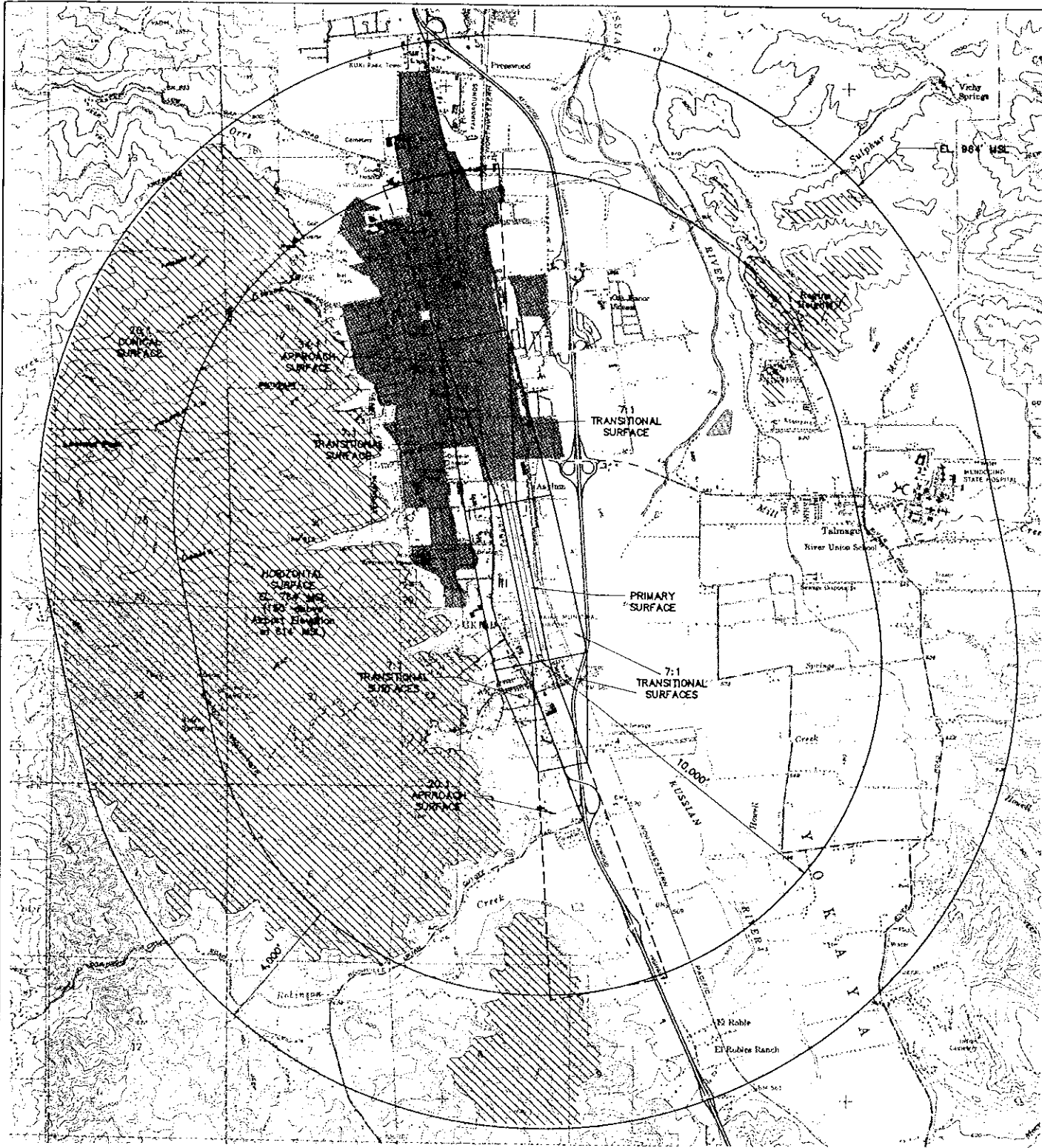
DRAWING LEGEND		
	EXISTING	FUTURE
ACTIVE AIRFIELD PAVEMENT		
OTHER PAVEMENT IN USE		
PAVEMENT TO BE REMOVED		
ABANDONED AIRFIELD PAVEMENT		
GRAVEL SHOULDER/ROAD		
AIRPORT PROPERTY LINE		
OTHER PROPERTY LINES		
INTERNAL BOUNDARY (e.g., lease, R.O.W., etc)		
APPROACH PROTECTION EASEMENT		
AIRFIELD FUNCTIONAL LINES	XYZ	-XYZ
BUILDINGS		
BUILDINGS TO BE REMOVED		
FENCE		
VEHICLE GATE		
WIND CONE		
AIRFIELD LIGHTS: SINGLE/GROUP/FLASHING		
ROTATING BEACON		
AIRPORT REFERENCE POINT		
DITCH/CULVERT/CHANNEL		

APL - Aircraft Parking Limits
 BRL - Building Restriction Line
 RSA - Runway Safety Area
 LCA - Localizer Critical Area
 RPZ - Runway Protection Zone
 OFA - Object Free Area

AIRPORT DATA			
	EXISTING	FUTURE	
AIRPORT SERVICE LEVEL (NPIAS)	GENERAL AVIATION	No Change	
AIRPORT REFERENCE POINT (a)	Latitude 39° 07' 33.45" N	No Change	
	Longitude 123° 12' 03.08" W	No Change	
AIRPORT ELEVATION (Above Mean Sea Level)	614'	No Change	
MEAN MAX. TEMP. (Hottest Month)	95°	No Change	
TERMINAL NAVIGATIONAL AIDS	VORTAC & GPS	No Change	
AIRPORT ACREAGE	Fee Simple	160	163.4
	Easement (c)	None	55
BASED AIRCRAFT SPACES	Tiedowns	30	No Change
	T-Hangars	50	No Change
	Shade Hangars	14	No Change
	FBO Area (Approx.)	20	No Change
TRANSIENT AIRCRAFT SPACES		15	20

RUNWAY DATA			
		RUNWAY 15-33	
		EXISTING	FUTURE
AIRPORT REFERENCE CODE		B-II (c)	No Change
CRITICAL AIRCRAFT		BEECH SUPER KING AIR	No Change
PHYSICAL LENGTH AND WIDTH		4,415' x 150'	No Change
EFFECTIVE GRADIENT (PERCENT)		0.27	No Change
PAVEMENT STRENGTH (1000#) S/D/DT		28/-/-	No Change
APPROACH TYPE: [FAR PART 77 CATEGORY]	Approach End of Runway	15	Nonprecision [C]
	Approach End of Runway	33	Visual [B(V)]
APPROACH SLOPE: REQUIRED/CLEAR (c)	Approach End of Runway	15	34:1/14:1
	Approach End of Runway	33	20:1/12:1
APPROACH AND LANDING AIDS (g)	Approach End of Runway	15	VASI, REIL, LOC
	Approach End of Runway	33	REIL
RUNWAY END COORDINATES (d)	Approach End of Runway 15	Latitude 39° 07' 54.81" N	No Change
	Approach End of Runway 15	Longitude 123° 12' 08.75" W	No Change
	Approach End of Runway 33	Latitude 39° 07' 12.08" N	No Change
	Approach End of Runway 33	Longitude 123° 11' 57.41" W	No Change
RUNWAY LIGHTING		Medium-Intensity	No Change
TAXIWAY LIGHTING		Low-Intensity	No Change
RUNWAY MARKING		Nonprecision	No Change

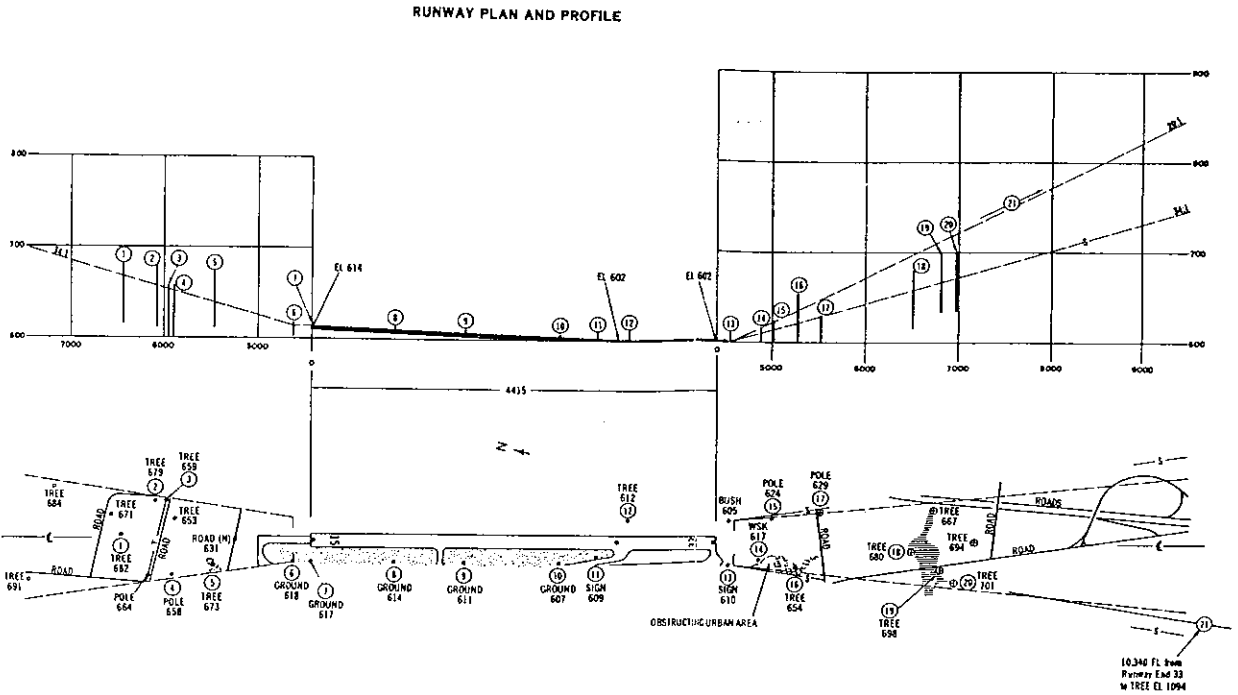
NO.		REVISION		SPONSOR		DATE	
SUBMITTED BY: CITY OF UKIAH				FAA Approval Space			
By _____				Date _____			
Figure 4X							
UKIAH MUNICIPAL AIRPORT UKIAH, CALIFORNIA							
AIRPORT LAYOUT PLAN							
SHUTT MOEN ASSOCIATES AIRPORT CONSULTANTS & ENGINEERS 707 Aviation Blvd., Santa Rosa, California 95403							
DESIGN: DBH		DRAWN: RGL		DATE: JULY 1996		SH 4-40 F 3	



TYPICAL FAR PART 77 SURFACES

Terrain penetrates specified surface

2000
0 FEET 4000



LEGEND

- - With elevation - Object does not penetrate specified surface
Without elevation - Position only
- - Object penetrates specified surface
- - Ground area penetrates specified surface
- - Wooded area penetrates specified surface
- - Object penetrates supplemental surface only
- - Wooded area penetrates supplemental surface only
- Road (I) - Interstate Highway
- Road (N) - Noninterstate Highway
- S - Supplemental Surface

NOTES

All elevations in feet above mean sea level (MSL).
Fifteen feet added to noninterstate road elevations.
Seventeen feet added to interstate road elevations.
Transitional surface slopes are 7:1 unless otherwise indicated.
Obstructing area limits are approximate.
Runway Plan and Profile: U.S. Department of Commerce, National Ocean Service, Ukiah Obstruction Chart (February 1993).

Figure 4Y

NO.	REVISION	SPONSOR	DATE
UKIAH MUNICIPAL AIRPORT UKIAH, CALIFORNIA			
AIRSPACE PLAN			
SHUTT MOEN ASSOCIATES AIRPORT CONSULTANTS & ENGINEERS 707 Aviation Blvd., Santa Rosa, California 95403			
DESIGN: MRS	DRAWN: MRS	DATE: JULY 1996	SHEET 4-41 3

Part III

Appendices

State Airport Land Use Commission Law

**AERONAUTICS LAW
STATE AERONAUTICS ACT**

**Public Utilities Code
Chapter 4, Article 3.5**

AIRPORT LAND USE COMMISSION

(As of November 1991)

Creation; Membership; Selection

21670. (a) The Legislature hereby finds and declares that:

(1) It is in the public interest to provide for the orderly development of each public use airport in this state and the area surrounding these airports so as to promote the overall goals and objectives of the California airport noise standards adopted pursuant to Section 21669 and to prevent the creation of new noise and safety problems.

(2) It is the purpose of this article to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses.

(b) In order to achieve the purposes of this article, every county in which there is located an airport which is served by a scheduled airline shall establish an airport land use commission. Every county, in which there is located an airport which is not served by a scheduled airline, but is operated for the benefit of the general public, shall establish an airport land use commission, except that the board of supervisors for the county may, after consultation with the appropriate airport operators and affected local entities and after a public hearing, adopt a resolution finding that there are no noise, public safety, or land use issues affecting any airport in the county which require the creation of a commission and declaring the county exempt from that requirement. The board shall, in this event, transmit a copy of the resolution to the Director of Transportation. For purposes of this section, "commission" means an airport land use commission. Each commission shall consist of seven members to be selected as follows:

(1) Two representing the cities in the county, appointed by a city selection committee comprised of the mayors of all the cities within that county, except that if there are any cities contiguous or adjacent to the qualifying airport, at least one representative shall be appointed therefrom. If there are no cities within a county, the number of representatives provided for by subdivisions (2) and (3) shall each be increased by one.

(2) Two representing the county, appointed by the board of supervisors.

(3) Two having expertise in aviation, appointed by a selection committee comprised of the managers of all the public airports within that county.

(4) One representing the general public, appointed by the other six members of the commission.

(c) Public officers, whether elected or appointed, may be appointed and serve as members of the commission during their terms of public office.

(d) Each member shall promptly appoint a single proxy to represent the member in commission affairs and to vote on all matters when the member is not in attendance. The proxy shall be designated in a signed written instrument which shall be kept on file at the commission offices, and the proxy shall serve at the pleasure of the appointing member. A vacancy in the office of proxy shall be filled promptly by appointment of a new proxy.

(e) A person having an "expertise in aviation": means a person who, by way of education, training, business, experience, vocation, or avocation has acquired and possesses particular knowledge of, and familiarity with, the function, operation, and role of airports, or is an elected official of a local agency which owns or operates an airport. The commission shall be constituted pursuant to this section on and after March 1, 1988.

Action by Designated Body Instead of Commission

21670.1 (a) Notwithstanding any provisions of this article, if the board of supervisors and the city selection committee of mayors in any county each makes a determination by a majority vote that proper land use planning can be accomplished through the actions of an appropriate designated body, then such body shall assume the planning responsibilities of an airport land use commission as provided for in this article, and a commission need not be formed in that county.

(b) A body designated pursuant to subdivision (a) which does not include among its membership at least two members having an expertise in aviation, as defined in subdivision (e) of Section 21670, shall, when acting in the capacity of an airport land use commission, be augmented so that the body, as augmented, will have at least two members having that expertise. The commission shall be constituted pursuant to this section on and after March 1, 1988.

Applicability to Los Angeles County

21670.2. (a) Sections 21670 and 21670.1 do not apply to the County of Los Angeles. In that county, the county regional planning commission has the responsibility for coordinating the airport planning of public agencies within the county. In instances where impasses result relative to this planning, an appeal may be made to the county regional planning commission by any public agency involved. The action taken by the county regional planning commission on such an appeal may be overruled by a four-fifths vote of the governing body of a public agency whose planning led to the appeal.

(b) By January 1, 1992, the county regional planning commission shall adopt the comprehensive land use plans required pursuant to Section 21675.

(c) Sections 21675.1, 21675.2, and 21679.5 do not apply to the County of Los Angeles until January 1, 1992. If the comprehensive land use plans required pursuant to Section 21675 are not adopted by the county regional planning commission by January 1, 1992, Sections 21675.1 and 21675.2 shall apply to the County of Los Angeles until the plans are adopted.

Airports Owned by a City, District, or County; Appointment of Certain Members by Cities and Counties

21671. In any county where there is an airport operated for the general public which is owned by a city or district in another county or by another county, one of the representatives provided by paragraph (1) of subdivision (b) of Section 21670 shall be appointed by the city selection committee of mayors of the cities of the county in which the owner of that airport is located, and one of the representatives provided by paragraph (2) subdivision (b) of Section 21670 shall be appointed by the board of supervisors of the county in which the owner of that airport is located.

Term of Office; Removal of Members; Vacancies; Compensation; Staff Assistance; Meetings

21671.5 (a) Except for the terms of office of the members of the first commission, the term of office for each member shall be four years and until the appointment and qualification of his or her successor. The members of the first commission shall classify themselves by lot so that the term of office of one member is one year, of two members is two years, of two members is three years, and of two members if four years. The body which originally appointed a member whose term has expired shall appoint his or her successor for a full term of four years. Any member may be removed at any time and without cause by the body appointing him or her. The expiration date of the term of office of each member shall be the first Monday in May in the year in which his or her term is to expire. Any vacancy in the membership of the commission shall be filled for the unexpired term by appointment by the body which originally appointed the member whose office has become vacant. The chairperson of the commission shall be selected by the members thereof.

(b) Compensation, if any, shall be determined by the board of supervisors.

(c) Staff assistance, including the mailing of notices and the keeping of minutes, and necessary quarters, equipment, and supplies shall be provided by the county. The usual and necessary expenses of the commission shall be a county charge.

(d) Notwithstanding any other provisions of this article, the commission shall not employ any personnel either as employees or independent contractors without the prior approval of the board of supervisors.

(e) The commission shall meet at the call of the commission chairperson or at the request of the majority of the commission members. A majority of the commission members shall constitute a quorum for the transaction of business. No action shall be taken by the commission except by the recorded vote of a majority of the full membership.

(f) The commission may establish a schedule of fees necessary to comply with this article. Those fees shall be charged to the proponents of actions, regulations, or permits, shall not exceed the estimated reasonable cost of providing the service, and shall be imposed pursuant to Section 66016 of the Government Code. Except as provided in subdivision (g), after June 30, 1991, a commission which has not adopted the comprehensive land use plan required by Section 21675 shall not charge fees pursuant to this subdivision until the commission adopts the plan.

(g) In any county which has undertaken by contract or otherwise completed land use plans for at least one-half of all public use airports in the county, the commission may continue to charge fees necessary to comply with this article until June 30, 1992, and, if the land use plans are complete by that date, may continue charging fees after June 30, 1992. If the land

use plans are not complete by June 30, 1992, the commission shall not charge fees pursuant to subdivision (f) until the commission adopts the land use plans.

Rules and Regulations

21672. Each commission shall adopt rules and regulations with respect to the temporary disqualification of its members from participating in the review or adoption of a proposal because of conflict of interest and with respect to appointment of substitute members in such cases.

Initiation of Proceedings for Creation by Owner of Airport

21673. In any county not having a commission or a body designated to carry out the responsibilities of a commission, any owner of a public airport may initiate proceedings for the creation of a commission by presenting a request to the board of supervisors that a commission be created and showing the need therefor to the satisfaction of the board of supervisors.

Powers and Duties

21674. The commission has the following powers and duties, subject to the limitations upon its jurisdiction set forth in Section 21676:

- (a) To assist local agencies in ensuring compatible land uses in the vicinity of all new airports and in the vicinity of existing airports to the extent that the land in the vicinity of those airports is not already devoted to incompatible uses.
- (b) To coordinate planning at the state, regional, and local levels so as to provide for the orderly development of air transportation, while at the same time protecting the public health, safety, and welfare.
- (c) To prepare and adopt an airport land use plan pursuant to Section 21675.
- (d) To review the plans, regulations, and other actions of local agencies and airport operators pursuant to Section 21676.
- (e) The powers of the commission shall in no way be construed to give the commission jurisdiction over the operation of any airport.
- (f) In order to carry out its responsibilities, the commission may adopt rules and regulations consistent with this article.

Staff Training and Development

21674.5 (a) The Department of Transportation shall develop and implement a program or programs to assist in the training and development of the staff of airport land use commissions, after consulting with airport land use commissions, cities, counties, and other appropriate public entities.

(b) The training and development program or programs are intended to assist the staff of airport land use commissions in addressing high priority needs, and may include, but need not be limited to, the following:

- (1) The establishment of a process for the development and adoption of comprehensive land use plans.
- (2) The development of criteria for determining airport land use planning boundaries.

(3) The identification of essential elements which should be included in the comprehensive plans.

(4) Appropriate criteria and procedures for reviewing proposed developments and determining whether proposed developments are compatible with the airport use.

(5) Any other organizational, operational, procedural, or technical responsibilities and functions which the department determines to be appropriate to provide the commission staff and for which it determines there is a need for staff training and development.

(c) The department may provide training and development programs for airport land commission staff pursuant to this section by any means it deems appropriate. Those programs may be presented in any of the following ways:

(1) By offering formal courses or training programs.

(2) By sponsoring or assisting in the organization and sponsorship of conferences, seminars, or other similar events.

(3) By producing and making available written information.

(4) Any other feasible method of providing information and assisting in the training and development of airport land use commission staff.

Land Use Plan

21675. (a) Each commission shall formulate a comprehensive land use plan that will provide for the orderly growth of each public airport and the area surrounding the airport within the jurisdiction of the commission, and will safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general. The commission plan shall include and shall be based on a long-range master plan or an airport layout plan, as determined by the Division of Aeronautics of the Department of Transportation, that reflects the anticipated growth of the airport during at least the next 20 years. In formulating a land use plan, the commission may develop height restrictions on buildings, specify use of land, and determine building standards, including soundproofing adjacent to airports, within the planning area. The comprehensive land use plan shall be reviewed as often as necessary in order to accomplish its purposes, but shall not be amended more than once in any calendar year.

(b) The commission may include, within its plan formulated pursuant to subdivision (a), the area within the jurisdiction of the commission surrounding any federal military airport for all the purpose specified in subdivision (a). This subdivision does not give the commission any jurisdiction or authority over the territory or operations of any military airport.

(c) The planning boundaries shall be established by the commission after hearing and consultation with the involved agencies.

(d) The commission shall submit to the Division of Aeronautics of the department one copy of the plan and each amendment to the plan.

(e) If a comprehensive land use plan does not include the matters required to be included pursuant to this article, the Division of Aeronautics of the department shall notify the commission responsible for the plan.

Date of Adoption; Review of Actions; Approval or Disapproval

21675.1 (a) By June 30, 1991, each commission shall adopt the comprehensive land use plan required pursuant to Section 21675.

(b) Until a commission adopts a comprehensive land use plan, a city or county shall first submit all actions, regulations, and permits within the vicinity of a public airport to the commission for review and approval. Before the commission approves or disapproves any actions, regulations, or permits, the commission shall give the public notice in the same manner as the city or county is required to give for those actions, regulations, or permits. As used in this section, "vicinity" means land which will be included or reasonably could be included within the plan. If the commission has not designated a study area for the plan, then "vicinity" means land within two miles of the boundary of a public airport.

(c) The commission may approve an action, regulation, or permit if it finds, based on substantial evidence in the record, all of the following:

- (1) The commission is making substantial progress toward the completion of the plan.
- (2) There is a reasonable probability that the action, regulation, or permit will be consistent with the plan being prepared by the commission.
- (3) There is little or no probability of substantial detriment to or interference with the future adopted plan if the action, regulation, or permit is ultimately inconsistent with the plan.

(d) If the commission disapproves an action, regulation, or permit, the commission shall notify the city or county. The city or county may overrule the commission, by a two-thirds vote of its governing body, if it makes specific findings that the proposed action, regulation, or permit is consistent with the purposes of this article, as stated in Section 21670.

(e) If a city or county overrules the commission pursuant to subdivision (d), that action shall not relieve the city or county from further compliance with this article after the commission adopts the plan.

(f) If a city or county overrules the commission pursuant to subdivision (d) with respect to a publicly owned airport that the city or county does not operate, the operator of the airport shall be immune from liability for damages to property or personal injury from the city's or county's decision to proceed with the action, regulation, or permit.

(g) A commission may adopt rules and regulations which exempt any ministerial permit for single-family dwellings from the requirements of subdivision (b) if it makes the findings required pursuant to subdivision (c) for the proposed rules and regulations, except that the rules and regulations may not exempt either of the following:

- (1) More than two single-family dwellings by the same applicant within a subdivision prior to June 30, 1991.
- (2) Single-family dwellings in a subdivision where 25 percent or more of the parcels are undeveloped.

Failure to Approve or Disapprove

21675.2 (a) If a commission fails to act to approve or disapprove any actions, regulations, or permits within 60 days of receiving the request pursuant to Section 21675.1, the applicant or his or her representative may file an action pursuant to Section 1094.5 of the Code of Civil Procedure to compel the commission to act, and the court shall give the proceedings preference over all other actions or proceedings, except previously filed pending matters of the same character.

(b) The action, regulation, or permit shall be deemed approved only if the public notice required by this subdivision has occurred. If the applicant has provided seven days advance notice to the commission of the intent to provide public notice pursuant to this sub-

division, then, not earlier than the date of the expiration the time limit established by Section 21675.1, an applicant may provide the required public notice. If the applicant chooses to provide public notice, that notice shall include a description of the proposed action, regulation, or permit substantially similar to the descriptions which are commonly used in public notices by the commission, the name and address of the commission, and a statement that the action, regulation, or permit shall be deemed approved if the commission has not acted within 60 days. If the applicant has provided the public notice specified in this subdivision, the time limit for action by the commission shall be extended to 60 days after the public notice is provided. If the applicant provides notice pursuant to this section, the commission shall refund to the applicant any fees which were collected for providing notice and which were not used for that purpose.

(c) Failure of an applicant to submit complete or adequate information pursuant to Sections 65943 to 65946, inclusive, of the Government Code, may constitute grounds for disapproval of actions, regulations, or permits.

(d) Nothing in this section diminishes the commission's legal responsibility to provide, where applicable, public notice and hearing before acting on an action, regulation, or permit.

Review of Local General Plans

21676. (a) Each local agency whose general plan includes areas covered by an airport land use commission plan shall, by July 1, 1983, submit a copy of its plan or specific plans to the airport land use commission. The commission shall determine by August 31, 1983, whether the plan or plans are consistent or inconsistent with the commission's plan. If the plan or plans are inconsistent with the commission's plan, the local agency shall be notified and that local agency shall have another hearing to reconsider its plans. The local agency may overrule the commission after such a hearing by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670.

(b) Prior to the amendment of a general plan or specific plan, or the addition or approval of a zoning ordinance or building regulation within the planning boundary established by the airport land use commission pursuant to Section 21675, the local agency shall first refer the proposed action to the commission. If the commission determines that the proposed action is inconsistent with the commission's plan, the referring agency shall be notified. The local agency may, after a public hearing, overrule the commission by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670.

(c) Each public agency owning any airport within the boundaries of an airport land use commission plan shall, prior to modification of its airport master plan, refer such proposed change to the airport land use commission. If the commission determines that the proposed action is inconsistent with the commission's plan, the referring agency shall be notified. The public agency may, after a public hearing, overrule the commission by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article stated in Section 21670.

(d) Each commission determination pursuant to subdivision (b) or (c) shall be made within 60 days from the date of referral of the proposed action. If a commission fails to make the determination within that period, the proposed action shall be deemed consistent with the commission's plan.

Review of Local Plans

21676.5. (a) If the commission finds that a local agency has not revised its general plan or specific plan or overruled the commission by a two-thirds vote of its governing body after making specific findings that the proposed action is consistent with the purposes of this article as stated in Section 21670, the commission may require the local agency submit all subsequent actions, regulations, and permits to the commission for review until its general plan or specific plan is revised or the specific findings are made. If, in the determination of the commission, an action, regulation, or permit of the local agency is inconsistent with the commission plan, the local agency shall be notified and that local agency shall hold a hearing to reconsider its plan. The local agency may overrule the commission after hearing by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes of this article as stated in Section 21670.

(b) Whenever the local agency has revised its general plan or specific plan or has overruled the commission pursuant to subdivision (a), the proposed action of the local agency shall not be subject to further commission review, unless the commission and the local agency agree that the individual projects shall be reviewed by the commission.

Marin County Override Provisions

21677. Notwithstanding Section 21676, any public agency in the County of Marin may overrule the Marin County Airport Land Use Commission by a majority vote of its governing body.

Airport Owner's Immunity

21678. With respect to a publicly owned airport that a public agency does not operate, if the public agency pursuant to Section 21676 or 21676.5 overrides a commission's action or recommendation, the operator of the airport shall be immune from liability for damages to property or personal injury caused by or resulting directly or indirectly from the public agency's decision to override the commission's action or recommendation.

Court Review

21679. (a) In any county in which there is no airport land use commission or other body designated to assume the responsibilities of an airport land use commission, or in which the commission or other designated body has not adopted an airport land use plan, an interested party may initiate proceedings in a court of competent jurisdiction to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, which directly affects the use of land one mile of the boundary of a public airport within the county.

(b) The court may issue an injunction which postpones the effective date of the zoning change, zoning variance, permit, or regulation until the governing body of the local agency which took the action does one of the following:

(1) In the case of an action which is a legislative act, adopts a resolution declaring that the proposed action is consistent with the purposes of this article stated in Section 21670.

(2) In the case of an action which is not a legislative act, adopts a resolution declaring that the proposed action is consistent with the purposes of this article stated in Section 21670.

(3) Rescinds the action.

(4) Amends its action to make it consistent with the purposes of this article stated in Section 21670, and complies with either paragraph (1) or (2) of this subdivision, whichever is applicable.

(c) The court shall not issue an injunction pursuant to subdivision (b) if the local agency which took the action demonstrates that the general plan and any applicable specific plan of the agency accomplishes the purposes of an airport land use plan as provided in Section 21675.

(d) An action brought pursuant to subdivision (a) shall be commenced within 30 days of the decision or within the appropriate time periods set by Section 21167 of the Public Resources Code, whichever is longer.

(e) If the governing body of the local agency adopts a resolution pursuant to subdivision (b) with respect to a publicly owned airport that the local agency does not operate, the operator of the airport shall be immune from liability for damages to property or personal injury from the local agency's decision to proceed with the zoning change, zoning variance, permit, or regulation.

(f) As used in this section, "interested party" means any owner of land within two miles of the boundary of the airport or any organization with a demonstrated interest in airport safety and efficiency.

Action to Postpone Effective Date of Zoning Change, Etc.

21679.5 (a) Until June 30, 1991, no action pursuant to Section 21679 to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, directly affecting the use of land within one mile of the boundary or a public airport, shall be commenced in any county in which the commission or other designated body has not adopted an airport land use plan, but is making substantial progress toward the completion of the plan.

(b) If a commission has been prevented from adopting the comprehensive land use plan by June 30, 1991, or if the adopted plan could not become effective, because of a lawsuit involving the adoption of the plan, the June 30, 1991 date in subdivision (a) shall be extended by the period of time during which the lawsuit was pending in a court of competent jurisdiction.

(c) Any action pursuant to Section 21679 commenced prior to January 1, 1990, in a county in which the commission or other designated body has not adopted an airport land use plan, but is making substantial progress toward the completion of the plan, which has not proceeded to final judgment, shall be held in abeyance until June 30, 1991. If the commission or other designated body does not adopt an airport land use plan on or before June 30, 1991, the plaintiff or plaintiffs may proceed with the action.

(d) An action to postpone the effective date of a zoning change, a zoning variance, the issuance of a permit, or the adoption of a regulation by a local agency, directly affecting the use of land within one mile of the boundary of a public airport for which an airport land use plan has not been adopted by June 30, 1991, shall be commenced within 30 days of June 30, 1991, or within 30 days of the decision by the local agency, or within the appropriate time periods set by Section 21167 of the Public Resources Code, whichever date is later.

Federal Aviation Regulations Part 77

Part 77—Objects Affecting Navigable Airspace

Subpart A—General

§ 77.1 Scope.

This Part—

- (a) Establishes standards for determining obstructions in navigable airspace;
- (b) Sets forth the requirements for notice to the Administrator of certain proposed construction or alteration;
- (c) Provides for aeronautical studies of obstructions to air navigation, to determine their effect on the safe and efficient use of airspace;
- (d) Provides for public hearings on the hazardous effect of proposed construction or alteration on air navigation; and
- (e) Provides for establishing antenna farm areas.

§ 77.2 Definition of terms.

For the purpose of this Part:

“Airport available for public use” means an airport that is open to the general public with or without a prior request to use the airport.

“A seaplane base” is considered to be an airport only if its sea lanes are outlined by visual markers.

“Nonprecision instrument runway” means a runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area type navigation equipment, for which a straight-in nonprecision instrument approach procedure has been approved, or planned, and for which no precision approach facilities are planned, or indicated on an FAA planning document or military service military airport planning document.

“Precision instrument runway” means a runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), or a Precision Approach Radar (PAR). It also means a runway for which a precision approach system

is planned and is so indicated by an FAA approved airport layout plan; a military service approved military airport layout plan; any other FAA planning document, or military service military airport planning document.

“Utility runway” means a runway that is constructed for and intended to be used by propeller driven aircraft of 12,500 pounds maximum gross weight and less.

“Visual runway” means a runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA approved airport layout plan, a military service approved military airport layout plan, or by any planning document submitted to the FAA by competent authority.

§ 77.3 Standards.

(a) The standards established in this Part for determining obstructions to air navigation are used by the Administrator in—

(1) Administering the Federal-aid Airport Program and the Surplus Airport Program;

(2) Transferring property of the United States under Section 16 of the Federal Airport Act;

(3) Developing technical standards and guidance in the design and construction of airports; and

(4) Imposing requirements for public notice of the construction or alteration of any structure where notice will promote air safety.

(b) The standards used by the Administrator in the establishment of flight procedures and aircraft operational limitations are not set forth in this Part but are contained in other publications of the Administrator.

§ 77.5 Kinds of objects affected.

This Part applies to—

(a) Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used therein, and apparatus of a permanent or temporary character; and

(b) Alteration of any permanent or temporary existing structure by a change in its height (including appurtenances), or lateral dimensions, including equipment or materials used therein.

**Subpart B—Notice of Construction
or Alteration**

§ 77.11 Scope.

(a) This subpart requires each person proposing any kind of construction or alteration described in § 77.13(a) of this chapter to give adequate notice to the Administrator. It specifies the locations and dimensions of the construction or alteration for which notice is required and prescribes the form and manner of the notice. It also requires supplemental notices 48 hours before the start and upon the completion of certain construction or alteration that was the subject of a notice under § 77.13(a).

(b) Notices received under this subpart provide a basis for—

(1) Evaluating the effect of the construction or alteration on operational procedures and proposed operational procedures;

(2) Determinations of the possible hazardous effect of the proposed construction or alteration on air navigation;

(3) Recommendations for identifying the construction or alteration in accordance with the current Federal Aviation Administration Advisory Circular AC 70/7460-1 entitled "Obstruction Marking and Lighting," which is available without charge from the Department of Transportation, Distribution Unit, TAD 484.3, Washington, D.C. 20590;

(4) Determining other appropriate measures to be applied for continued safety of air navigation; and

(5) Charting and other notification to airmen of the construction or alteration.

§ 77.13 Construction or alteration requiring notice.

(a) Except as provided in § 77.15, each sponsor who proposes any of the following construction or alteration shall notify the Administrator in the form and manner prescribed in § 77.17:

(1) Any construction or alteration of more than 200 feet in height above the ground level at its site.

(2) Any construction or alteration of greater height than an imaginary surface extending outward and upward at one of the following slopes:

(i) 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each airport specified in subparagraph (5) of this paragraph with at least one runway more than 3,200 feet in actual length, excluding heliports.

(ii) 50 to 1 for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each airport specified in subparagraph (5) of this paragraph with its longest runway no more than 3,200 feet in actual length, excluding heliports.

(iii) 25 to 1 for a horizontal distance of 5,000 feet from the nearest point of the nearest landing and takeoff area of each heliport specified in subparagraph (5) of this paragraph.

(3) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally

traverse it, would exceed a standard of paragraph (1) or (2) of this section.

(4) When requested by the FAA, any construction or alteration that would be in an instrument approach area (defined in the FAA standards governing instrument approach procedures) and available information indicates it might exceed a standard of Subpart C of this part.

(5) Any construction or alteration on any of the following airports (including heliports):

(i) An airport that is available for public use and is listed in the Airport Directory of the current Airman's Information Manual or in either the Alaska or Pacific Airman's Guide and Chart Supplement.

(ii) An airport under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration, and, except for military airports, it is clearly indicated that the airport will be available for public use.

(iii) An airport that is operated by an armed force of the United States.

(b) Each sponsor who proposes construction or alteration that is the subject of a notice under paragraph (a) of this section and is advised by an FAA regional office that a supplemental notice is required shall submit that notice on a prescribed form to be received by the FAA regional office at least 48 hours before the start of the construction or alteration.

(c) Each sponsor who undertakes construction or alteration that is the subject of a notice under paragraph (a) of this section shall, within 5 days after that construction or alteration reaches its greatest height, submit a supplemental notice on a prescribed form to the FAA regional office having jurisdiction over the region involved, if—

(1) The construction or alteration is more than 200 feet above the surface level of its site; or

(2) An FAA regional office advises him that submission of the form is required.

§ 77.15 Construction or alteration not requiring notice.

No person is required to notify the Administrator for any of the following construction or alteration:

(a) Any object that would be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town, or settlement where it is evident beyond all reasonable doubt that the structure so shielded will not adversely affect safety in air navigation.

(b) Any antenna structure of 20 feet or less in height except one that would increase the height of another antenna structure.

(c) Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device, of a type approved by the Administrator, or an appropriate military service on military airports, the location and height of which is fixed by its functional purpose.

(d) Any construction or alteration for which notice is required by any other FAA regulation.

§ 77.17 Form and time of notice.

(a) Each person who is required to notify the Administrator under § 77.13(a) shall send one executed form set (four copies) of FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the [Manager], Air Traffic Division, FAA Regional Office having jurisdiction over the area within which the construction or alteration will be located. Copies of FAA Form 7460-1 may be obtained from the headquarters of the Federal Aviation Administration and the regional offices.

(b) The notice required under § 77.13(a) (1) through (4) must be submitted at least 30 days before the earlier of the following dates—

(1) The date the proposed construction or alteration is to begin.

(2) The date an application for a construction permit is to be filed.

However, a notice relating to proposed construction or alteration that is subject to the licensing requirements of the Federal Communications Act may be sent to the FAA at the same time the application for construction is filed with the Federal Communications Commission, or at any time before that filing.

(c) A proposed structure or an alteration to an existing structure that exceeds 2,000 feet in height above the ground will be presumed to be a hazard to air navigation and to result in an inefficient utilization of airspace and the applicant has the burden of overcoming that presumption. Each notice submitted under the pertinent provisions of this Part 77 proposing a structure in excess of 2,000 feet above ground, or an alteration that will make an existing structure exceed that height, must contain a detailed showing, directed to meeting this burden. Only in exceptional cases, where the FAA concludes that a clear and compelling showing has been made that it would not result in an inefficient utilization of the airspace and would not result in a hazard to air navigation, will a determination of no hazard be issued.

(d) In the case of an emergency involving essential public services, public health, or public safety that requires immediate construction or alteration, the 30-day requirement in paragraph (b) of this section does not apply and the notice may be sent by telephone, telegraph, or other expeditious means, with an executed FAA Form 7460-1 submitted within five days thereafter. Outside normal business hours, emergency notices by telephone or telegraph may be submitted to the nearest FAA Flight Service Station.

(e) Each person who is required to notify the Administrator by paragraph (b) or (c) of § 77.13, or both, shall send an executed copy of FAA Form 117-1, Notice of Progress of Construction or Alteration, to the [Manager], Air Traffic Division, FAA Regional Office having jurisdiction over the area involved.

§ 77.19 Acknowledgment of notice.

(a) The FAA acknowledges in writing the receipt of each notice submitted under § 77.13 (a).

(b) If the construction or alteration proposed in a notice is one for which lighting or marking standards are prescribed in the FAA Advisory Circular AC 70/7460-1 entitled "Obstruction Marking and Lighting," the acknowledgment contains a statement to that effect and information on how the structure should be marked and lighted in accordance with the manual.

(c) The acknowledgment states that an aeronautical study of the proposed construction or alteration has resulted in a determination that the construction or alteration—

(1) Would not exceed any standard of Subpart C and would not be a hazard to air navigation;

(2) Would exceed a standard of Subpart C but would not be a hazard to air navigation; or

(3) Would exceed a standard of Subpart C and further aeronautical study is necessary to determine whether it would be hazard to air navigation, that the sponsor may request within 30 days that further study, and that, pending completion of any further study, it is presumed the construction or alteration would be a hazard to air navigation.

Subpart C—Obstruction Standards

§ 77.21 Scope.

(a) This subpart establishes standards for determining obstructions to air navigation. It applies to existing and proposed manmade objects, objects of natural growth, and terrain. The standards apply to the use of navigable airspace by aircraft and to existing air navigation facilities, such as an air navigation aid, airport, Federal airway, instrument approach or departure procedure, or approved off-airway route. Additionally, they apply to a planned facility or use, or a change in an existing facility or use, if a proposal therefor is on file with the Federal Aviation Administration or an appropriate military service on the date the notice required by § 77.13(a) is filed.

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(b) At those airports having defined runways with specially prepared hard surfaces, the primary surface for each such runway extends 200 feet beyond each end of the runway. At those airports having defined strips or pathways that are used regularly for the taking off and landing of aircraft and have been designated by appropriate authority as runways, but do not have specially prepared hard surfaces, each end of the primary surface for each such runway shall coincide with the corresponding end of the runway. At those airports, excluding seaplane bases, having a defined landing and takeoff area with no defined pathways for the landing and taking off of aircraft, a determination shall be made as to which portions of the landing and takeoff area are regularly used as landing and takeoff pathways. Those pathways so determined shall be considered runways and an appropriate primary surface as defined in § 77.25(c) will be considered as being longitudinally centered on each runway so determined, and each end of that primary surface shall coincide with the corresponding end of that runway.

(c) The standards in this subpart apply to the effect of construction or alteration proposals upon an airport if, at the time of filing of the notice required by § 77.13(a), that airport is—

(1) Available for public use and is listed in the Airport Directory of the current Airman's Information Manual or in either the Alaska or Pacific Airman's Guide and Chart Supplement; or,

(2) A planned or proposed airport or an airport under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration, and, except for military airports, it is clearly indicated that that airport will be available for public use; or,

(3) An airport that is operated by an armed force of the United States.

(d) [Deleted]

§ 77.23 Standards for determining obstructions.

(a) An existing object, including a mobile object, is, and a future object would be, an

obstruction to air navigation if it is of greater height than any of the following heights or surfaces:

(1) A height of 500 feet above ground level at the site of the object.

(2) A height that is 200 feet above ground level or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 feet in actual length, and that height increases in the proportion of 100 feet for each additional nautical mile of distance from the airport up to a maximum of 500 feet.

(3) A height within a terminal obstacle clearance area, including an initial approach segment, a departure area, and a circling approach area, which would result in the vertical distance between any point on the object and an established minimum instrument flight altitude within that area or segment to be less than the required obstacle clearance.

(4) A height within an en route obstacle clearance area, including turn and termination areas, of a Federal airway or approved off-airway route, that would increase the minimum obstacle clearance altitude.

(5) The surface of a takeoff and landing area of an airport or any imaginary surface established under §§ 77.25, 77.28, or 77.29. However, no part of the takeoff or landing area itself will be considered an obstruction.

(b) Except for traverse ways on or near an airport with an operative ground traffic control service, furnished by an air traffic control tower or by the airport management and coordinated with the air traffic control service, the standards of paragraph (a) of this section apply to traverse ways used or to be used for the passage of mobile objects only after the heights of these traverse ways are increased by:

(1) Seventeen feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance.

(2) Fifteen feet for any other public roadway.

(3) Ten feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road.

(4) Twenty-three feet for a railroad.

(5) For a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it.

§ 77.25 Civil airport imaginary surfaces.

The following civil airport imaginary surfaces are established with relation to the airport and to each runway. The size of each such imaginary surface is based on the category of each runway according to the type of approach available or planned for that runway. The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise approach existing or planned for that runway end.

(a) Horizontal surface—a horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of specified radii from the center of each end of the primary surface of each runway of each airport and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is:

(1) 5,000 feet for all runways designated as utility or visual;

(2) 10,000 feet for all other runways.

The radius of the arc specified for each end of a runway will have the same arithmetical value. That value will be the highest determined for either end of the runway. When a 5,000-foot arc is encompassed by tangents connecting two adjacent 10,000-foot arcs, the 5,000-foot arc shall be disregarded on the construction of the perimeter of the horizontal surface.

(b) Conical surface—a surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 feet.

(c) Primary surface—a surface longitudinally centered on a runway. When the runway has a specially prepared hard surface,

the primary surface extends 200 feet beyond each end of that runway; but when the runway has no specially prepared hard surface, or planned hard surface, the primary surface ends at each end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of a primary surface is:

(1) 250 feet for utility runways having only visual approaches.

(2) 500 feet for utility runways having nonprecision instrument approaches.

(3) For other than utility runways the width is:

(i) 500 feet for visual runways having only visual approaches.

(ii) 500 feet for nonprecision instrument runways having visibility minimums greater than three-fourths statute mile.

(iii) 1,000 feet for a nonprecision instrument runway having a nonprecision instrument approach with visibility minimums as low as three-fourths of a statute mile, and for precision instrument runways.

The width of the primary surface of a runway will be that width prescribed in this section for the most precise approach existing or planned for either end of that runway.

(d) Approach surface—a surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of each runway based upon the type of approach available or planned for that runway end.

(1) The inner edge of the approach surface is the same width as the primary surface and it expands uniformly to a width of:

(i) 1,250 feet for that end of a utility runway with only visual approaches;

(ii) 1,500 feet for that end of a runway other than a utility runway with only visual approaches;

(iii) 2,000 feet for that end of a utility runway with a nonprecision instrument approach;

(iv) 3,500 feet for that end of a non-precision instrument runway other than utility, having visibility minimums greater than three-fourths of a statute mile;

(v) 4,000 feet for that end of a non-precision instrument runway, other than utility, having a nonprecision instrument approach with visibility minimums as low as three-fourths statute mile; and

(vi) 16,000 feet for precision instrument runways.

(2) The approach surface extends for a horizontal distance of:

(i) 5,000 feet at a slope of 20 to 1 for all utility and visual runways;

(ii) 10,000 feet at a slope of 34 to 1 for all nonprecision instrument runways other than utility; and,

(iii) 10,000 feet at a slope of 50 to 1 with an additional 40,000 feet at a slope of 40 to 1 for all precision instrument runways.

(3) The outer width of an approach surface to an end of a runway will be that width prescribed in this subsection for the most precise approach existing or planned for that runway end.

(e) *Transitional surface*—These surfaces extend outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to 1 from the sides of the primary surface and from the sides of the approach surfaces. Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.

§ 77.27 [Revoked]

§ 77.28 Military airport imaginary surfaces.

(a) *Related to airport reference points.* These surfaces apply to all military airports. For the purposes of this section a military airport is any airport operated by an armed force of the United States.

(1) *Inner horizontal surface*—A plane is oval in shape at a height of 150 feet above the established airfield elevation. The plane

is constructed by scribing an arc with a radius of 7,500 feet about the centerline at the end of each runway and interconnecting these arcs with tangents.

(2) *Conical surface*—A surface extending from the periphery of the inner horizontal surface outward and upward at a slope of 20 to 1 for a horizontal distance of 7,000 feet to a height of 500 feet above the established airfield elevation.

(3) *Outer horizontal surface*—A plane, located 500 feet above the established airfield elevation, extending outward from the outer periphery of the conical surface for a horizontal distance of 30,000 feet.

(b) *Related to runways.* These surfaces apply to all military airports.

(1) *Primary surface*—A surface located on the ground or water longitudinally centered on each runway with the same length as the runway. The width of the primary surface for runways is 2,000 feet. However, at established bases where substantial construction has taken place in accordance with a previous lateral clearance criteria, the 2,000-foot width may be reduced to the former criteria.

(2) *Clear zone surface*—A surface located on the ground or water at each end of the primary surface, with a length of 1,000 feet and the same width as the primary surface.

(3) *Approach clearance surface*—An inclined plane, symmetrical about the runway centerline extended, beginning 200 feet beyond each end of the primary surface at the centerline elevation of the runway end and extending for 50,000 feet. The slope of the approach clearance surface is 50 to 1 along the runway centerline extended until it reaches an elevation of 500 feet above the established airport elevation. It then continues horizontally at this elevation to a point 50,000 feet from the point of beginning. The width of this surface as the runway end is the same as the primary surface, it flares uniformly, and the width at 50,000 is 16,000 feet.

(4) *Transitional surfaces*—These surfaces connect the primary surfaces, the first 200 feet of the clear zone surfaces, and the ap-

proach clearance surfaces to the inner horizontal surface, conical surface, outer horizontal surface or other transitional surfaces. The slope of the transitional surface is 7 to 1 outward and upward at right angles to the runway centerline.

§ 77.29 Airport imaginary surfaces for heliports.

(a) *Heliport primary surface.* The area of the primary surface coincides in size and shape with the designated takeoff and landing area of a heliport. This surface is a horizontal plane at the elevation of the established heliport elevation.

(b) *Heliport approach surface.* The approach surface begins at each end of the heliport primary surface with the same width as the primary surface, and extends outward and upward for a horizontal distance of 4,000 feet where its width is 500 feet. The slope of the approach surface is 8 to 1 for civil heliports and 10 to 1 for military heliports.

(c) *Heliport transitional surfaces.* These surfaces extend outward and upward from the lateral boundaries of the heliport primary surface and from the approach surfaces at a slope of 2 to 1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.

Subpart D—Aeronautical Studies of Effect of Proposed Construction on Navigable Airspace

§ 77.31 Scope.

(a) This subpart applies to the conduct of aeronautical studies of the effect of proposed construction or alteration on the use of air navigation facilities or navigable airspace by aircraft. In the aeronautical studies, present and future IFR and VFR aeronautical operations and procedures are reviewed and any possible changes in those operations and procedures and in the construction proposal that would eliminate or alleviate the conflicting demands are ascertained.

(b) The conclusion of a study made under this subpart is normally a determination as to whether the specific proposal studied would be a hazard to air navigation.

§ 77.33 Initiation of studies.

An aeronautical study is conducted by the FAA—

(a) Upon the request of the sponsor of any construction or alteration for which a notice is submitted under Subpart B of this part, unless that construction or alteration would be located within an antenna farm area established under Subpart F of this part; or

(b) Whenever the FAA determines it appropriate.

§ 77.35 Aeronautical studies.

(a) The Regional [Manager, Air Traffic Division] of the region in which the proposed construction or alteration would be located, or his designee, conducts the aeronautical study of the effect of the proposal upon the operation of air navigation facilities and the safe and efficient utilization of the navigable airspace. This study may include the physical and electromagnetic radiation effect the proposal may have on the operation of an air navigation facility.

(b) To the extent considered necessary, the Regional [Manager, Air Traffic Division] or his designee—

(1) Solicits comments from all interested persons;

(2) Explores objections to the proposal and attempts to develop recommendations for adjustment of aviation requirements that would accommodate the proposed construction or alteration;

(3) Examines possible revisions of the proposal that would eliminate the exceeding of the standards in Subpart C of this part; and

(4) Convenes a meeting with all interested persons for the purpose of gathering all facts relevant to the effect of the proposed construction or alteration on the safe and efficient utilization of the navigable airspace.

(c) The Regional [Manager, Air Traffic Division] or his designee issues a determination as to whether the proposed construction or alteration would be a hazard to air navigation and sends copies to all known interested persons. This determination is final unless a petition for review is granted under § 77.37.

(d) If the sponsor revised his proposal to eliminate exceeding of the standards of Sub-

part C of this part, or withdraws it, the Regional [Manager, Air Traffic Division], or his designee, terminates the study and notifies all known interested persons.

§ 77.37 Discretionary review.

(a) The sponsor of any proposed construction or alteration or any person who stated a substantial aeronautical objection to it in an aeronautical study, or any person who has a substantial aeronautical objection to it but was not given an opportunity to state it, may petition the Administrator, within 30 days after issuance of the determination under § 77.19 or § 77.35 or revision or extension of the determination under § 77.39(c), for a review of the determination, revision, or extension. This paragraph does not apply to any acknowledgment issued under § 77.19(c) (1).

(b) The petition must be in triplicate and contain a full statement of the basis upon which it is made.

(c) The Administrator examines each petition and decides whether a review will be made and, if so, whether it will be—

(1) A review on the basis of written materials, including study of a report by the Regional [Manager, Air Traffic Division] of the aeronautical study, briefs, and related submissions by any interested party, and other relevant facts, with the Administrator affirming, revising, or reversing the determination issued under § 77.19, § 77.35 or § 77.39(c); or

(2) A review on the basis of a public hearing, conducted in accordance with the procedures prescribed in Subpart E of this part.

§ 77.39 Effective period of determination of no hazard.

(a) Unless it is otherwise extended, revised, or terminated, each final determination of no hazard made under this subpart or Subparts B or E of this part expires 18 months after its effective date, regardless of whether the proposed construction or alteration has been started, or on the date the proposed construction or alteration is abandoned, whichever is earlier.

(b) In any case, including a determination to which paragraph (d) of this section ap-

plies, where the proposed construction or alteration has not been started during the applicable period by actual structural work, such as the laying of a foundation, but not including excavation, any interested person may, at least 15 days before the date the final determination expires, petition the FAA official who issued the determination to:

(1) Revise the determination based on new facts that change the basis on which it was made; or

(2) Extend its effective period.

(c) The FAA official who issued the determination reviews each petition presented under paragraph (b) of this section, and revises, extends, or affirms the determination as indicated by his findings.

(d) In any case in which a final determination made under this subpart or Subparts B or E of this part relates to proposed construction or alteration that may not be started unless the Federal Communications Commission issues an appropriate construction permit, the effective period of each final determination includes—

(1) The time required to apply to the Commission for a construction permit, but not more than six months after the effective date of the determination; and

(2) The time necessary for the Commission to process the application except in a case where the Administrator determines a shorter effective period is required by the circumstances.

(e) If the Commission issues a construction permit, the final determination is effective until the date prescribed for completion of the construction. If the Commission refuses to issue a construction permit, the final determination expires on the date of its refusal.

Methods for Determining Concentrations of People

One criterion used in the *Airport Land Use Compatibility Plan* is the maximum number of people per acre that can be present in a given area at any one time. If a proposed use exceeds the maximum density, it will be considered inconsistent with ALUC policies. This appendix provides some guidance on how to make the people-per-acre determination.

The most difficult part of making a people-per-acre determination is estimating the number of people likely to use a particular facility. There are several methods that can be utilized, depending upon the nature of the proposed use:

- **Parking Ordinance** — The number of people present in a given area can be calculated based upon the number of parking spaces provided. Some assumption regarding the number of people per vehicle needs to be developed to calculate the number of people on-site. The number of people per acre can then be calculated by dividing the number of people on-site by the size of the parcel in acres. This approach is appropriate where the use is expected to be dependent upon access by vehicles.
- **Maximum Occupancy** — The Uniform Building Code can be used as a standard for determining the maximum occupancy of certain uses. The chart provided as Exhibit A is taken from the 1976 edition of the UBC (Table 33-A) and indicates the required number of square feet per occupant. The number of people on the site can be calculated by dividing the total floor area of a proposed use by the minimum square feet per occupant requirement listed in the table. The maximum occupancy can then be divided by the size of the parcel in acres to determine the people per acre.

Surveys of actual occupancy levels conducted by the City of Sacramento have indicated that many retail and office uses are generally occupied at 50% of their maximum occupancy levels, even at the busiest times of day. Therefore, the number of people calculated for office and retail uses should be adjusted (50%) to reflect the actual occupancy levels before making the final people-per-acre determination.

- **Survey of Similar Uses** — Certain uses may require an estimate based upon a survey of similar uses. This approach is more difficult, but is appropriate for uses which, because of the nature of the use, cannot be reasonably estimated based upon parking or square footage.

Exhibit C1
Occupancy Levels
Uniform Building Code

Use		Minimum Square Feet per Occupant
1.	Aircraft Hangars (no repair)	500
2.	Auction Room	7
3.	Assembly Areas, Concentrated Use (without fixed seats)	7
	Auditoriums	
	Bowling Alleys (assembly areas)	
	Churches and Chapels	
	Dance Floors	
	Lodge Rooms	
	Reviewing Stands	
	Stadiums	
4.	Assembly Areas, Less Concentrated Use	15
	Conference Rooms	
	Dining Rooms	
	Drinking Establishments	
	Exhibit Rooms	
	Gymnasiums	
	Lounges	
	Skating Rinks	
	Stages	
5.	Children's Homes	.80
	Homes for the Aged	
6.	Classrooms	20
7.	Dormitories	50
8.	Dwellings	300
9.	Garage, Parking	200
10.	Hospitals and Sanitariums	.80
	Nursing Homes	
11.	Hotels and Apartments	200
12.	Kitchen – Commercial	200
13.	Library Reading Room	50
14.	Locker Rooms	50
15.	Mechanical Equipment Room	300
16.	Nurseries for Children (Day -Care)	50
17.	Offices	100
18.	School Shops and Vocational Rooms	50
19.	Stores – Retail Sales Rooms	
	Basement	20
	Ground Floor	30
	Upper Floors	50
20.	Warehouses	300
21.	All Others	100

Examples:

- A. The proposal is for a 60,000-square-foot two-story office building on 4 gross acres (including adjacent roads). The local parking ordinance requires one parking space for every 250 square feet of commercial space. Assuming that the use would generate one person per vehicle, the following calculations would derive the number of people per acre.

Steps:

- 1) $60,000 \text{ sq. ft.} + 1 \text{ vehicle per } 250 \text{ sq ft.} = 240 \text{ vehicles}$
- 2) $240 \text{ vehicles} \times 1.0 \text{ people per vehicle} = 240 \text{ people expected at any one time.}$
- 3) $240 \text{ people} + 4 \text{ acres} = 60 \text{ people per acre.}$

Under this example, the use would be estimated to generate 60 people per acre. In zones with limits of 100 people-per-acre, the use would be considered compatible assuming all other conditions were met.

- B. The proposal is for a 12,000-square-foot store on a 63,000-square-foot parcel. Using the maximum occupancy table from the Uniform Building Code (Exhibit C1) and applying the assumption that the building is occupied at 50 percent of maximum nets results in the following calculations:

Steps:

- 1) $63,000 \text{ sq. ft.} + 43,560 \text{ sq. ft. (in an acre)} = 1.45 \text{ acre.}$
- 2) $12,000 \text{ sq. ft.} + 30 \text{ sq. ft./occupant} = 400 \text{ (max. building occupancy).}$
- 3) $400 \text{ max. bldg. occup.} \times 50\% = 200 \text{ people expected at any one time.}$
- 4) $200 \text{ people} + 1.45 \text{ acre} = 138 \text{ people per acre.}$

Under this example, 138 people per acre would represent a reasonable estimate. In zones with limitations of 100 people-per-acre or less, the use would be considered incompatible.

- C. The proposal is for a 3,000-square-foot office on a 16,500-square-foot parcel. Again using the table in Exhibit C1 but assuming the actual occupancy level is 50% of the maximum indicated by the UBC code provides the following result:

Steps:

- 1) $16,500 \text{ sq. ft.} + 43,560 \text{ sq. ft. (acre)} = 0.38 \text{ acre.}$
- 2) $3,000 \text{ sq. ft.} + 100 \text{ sq. ft./occupant} = 30 \text{ (max. building occupancy).}$
- 3) $30 \text{ people maximum building occupancy} \times 50\% \text{ (actual occupancy)} = 15 \text{ people in the building at any one time.}$
- 4) $15 \text{ people} + 0.38 \text{ acres} = 39 \text{ people per acre.}$

Under this example, the use would be estimated to generate 39 people per acre. In zones with occupancy limits of 100, the use would be considered compatible assuming all other conditions were met.

Compatibility Guidelines for Specific Land Uses

The compatibility evaluations listed below for specific types of land uses can be used by local jurisdictions as guidelines in implementation of the general compatibility criteria listed in Table 2A. These evaluations are not regarded as adopted policies or criteria of the Mendocino County Airport Land Use Commission. In case of any conflicts between these evaluations of specific land uses and the policies and criteria in Chapter 2 of this document, the contents of Chapter 2 shall prevail.

Land Use	Compatibility Zones			
	A	B1/B2	C	D
<i>Agricultural Uses</i>				
Truck and Specialty Crops	0	+	+	+
Field Crops	0	+	+	+
Pasture and Rangeland	0	+	+	+
Orchard and Vineyards	—	+	+	+
Dry Farm and Grain	0	+	+	+
Tree Farms, Landscape Nurseries and Greenhouses	—	0	+	+
Fish Farms	—	0	+	+
Feed Lots and Stockyards	—	0	+	+
Poultry Farms	—	0	+	+
Dairy Farms	—	0	+	+
<i>Natural Uses</i>				
Fish and Game Preserves	0	0	0	0
Land Preserves and Open Space	0	+	+	+
Flood and Geological Hazard Areas	0	+	+	+
Waterways: Rivers, Creeks, Canals, Wetlands, Bays, Lakes	0	0	0	+

-
- Incompatible
 - 0 Potentially compatible with restrictions
 - + Compatible

Land Use	Compatibility Zones			
	A	B1/B2	C	D
<i>Residential and Institutional</i>				
Rural Residential - 10 acres or more	—	0	+	+
Low Density Residential - 2 to 10 acre lots	—	0/+	+	+
Single Family Residential - lots under 2 acres	—	—	0	+
Multi Family Residential	—	—	0	+
Mobile Home Parks	—	—	0	+
Schools, Colleges and Universities	—	—	—	+
Day Care Centers	—	—	0	+
Hospitals and Residential Care Facilities	—	—	—	+
<i>Recreational</i>				
Golf Course	0	+	+	+
Parks - low intensity; no group activities	0	+	+	+
Playgrounds and Picnic Areas	—	0	+	+
Athletic Fields	—	0	+	+
Riding Stables	—	0	+	+
Marinas and Water Recreation	—	0	+	+
Health Clubs and Spas	—	—	0	+
Tennis Courts	—	0	+	+
Swimming Pools	—	0	0	+
Fairgrounds and Race Tracks	—	—	—	+
Resorts and Group Camps	—	—	0	+
<i>Industrial</i>				
Research and Development Laboratories	—	0	+	+
Warehouses and Distribution Facilities	—	0	+	+
Manufacturing and Assembly	—	0	0	+
Cooperage and Bottling Plants	—	0	+	+
Printing, Publishing and Allied Services	—	0	+	+
Chemical, Rubber and Plastic Products	—	—	0	+
Food Processing	—	—	0	+

-
- Incompatible
 - 0 Potentially compatible with restrictions
 - + Compatible

Land Use	Compatibility Zones			
	A	B1/B2	C	D
Commercial Uses				
Large Shopping Malls (500,000+ sq.ft.)	—	—	0	+
Retail Stores (one story)	—	0	0	+
Retail Stores (two story)	—	—	0	+
Restaurants and Drinking Establishments	—	0	0	+
Auto and Marine Services	—	0	+	+
Building Materials, Hardware and Heavy Equipment	—	0	+	+
Office Buildings (one story)	—	0	+	+
Multiple-story Retail, Office, and Financial	—	—	0	+
Banks and Financial Institutions	—	0	+	+
Repair Services	—	0	+	+
Gas Stations	—	0	+	+
Government Services/Public Buildings	—	0	+	+
Motels (one story)	—	0	0	+
Hotels and Motels (two story)	—	—	0	+
Theaters, Auditoriums, and Assembly Halls	—	—	0	+
Outdoor Theaters	—	—	0	+
Memorial Parks/Cemeteries	—	+	+	+
Truck Terminals	—	+	+	+
Transportation, Communications, and Utilities				
Automobile Parking	0	+	+	+
Highway & Street Right-of-ways	0	+	+	+
Railroad and Public Transit Facilities	0	+	+	+
Taxi, Bus & Train Terminals	—	0	+	+
Reservoirs	—	0	0	+
Power Lines	—	0	0	+
Water Treatment Facilities	—	0	+	+
Sewage Treatment and Disposal Facilities	—	0	0	+
Electrical Substations	—	0	0	+
Power Plants	—	—	0	+
Sanitary Landfills	—	—	—	0

-
- Incompatible
 - 0 Potentially compatible with restrictions
 - + Compatible

Sample Easement and Deed Notice Documents

The Mendocino County *Airport Land Use Compatibility Plan* requires the dedication of avigation or overflight easements or use of deed notices in selected areas around each of the airports in the county. The specific applications are as noted in the Compatibility Criteria matrix, Table 2A.

Examples of three types of documents are presented on the following pages.

Exhibit E1 — Avigation Easement

Exhibit E2 — Overflight Easement

Exhibit E3 — Deed Notice

Exhibit E1
Typical Avigation Easement

This indenture made this ____ day of _____, 19 __, between _____ hereinafter referred to as Grantor, and the [Insert County or City name], a political subdivision in the State of California, hereinafter referred to as Grantee.

The Grantor, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby grant to the Grantee, its successors and assigns, a perpetual and assignable easement over the following described parcel of land in which the Grantor holds a fee simple estate. The property which is subject to this easement is depicted as _____ on "Exhibit A" attached and is more particularly described as follows:

[Insert legal description of real property]

The easement applies to the Airspace above an imaginary plane over the real property. The plane is described as follows:

The imaginary plane above the hereinbefore described real property, as such plane is defined by Part 77 of the Federal Aviation Regulations, and consists of a plane [describe approach, transition, or horizontal surface]; the elevation of said plane being based upon the _____ Airport official runway end elevation of _____ feet Above Mean Sea Level (AMSL), as determined by [Insert name and Date of Survey or Airport Layout Plan that determines the elevation] the approximate dimensions of which said plane are described and shown on Exhibit A attached hereto and incorporated herein by reference.

The aforesaid easement and right-of-way includes, but is not limited to:

- (1) For the use and benefit of the public, the easement and continuing right to fly, or cause or permit the flight by any and all persons, or any aircraft, of any and all kinds now or hereafter known, in, through, across, or about any portion of the Airspace hereinabove described; and
- (2) The easement and right to cause or create, or permit or allow to be caused or created within all space above the existing surface of the hereinabove described real property and any and all Airspace laterally adjacent to said real property, such noise, vibration, currents and other effects of air, illumination and fuel consumption as may be inherent in, or may arise or occur from or during the operation of aircraft of any and all kinds, now or hereafter known or used, for navigation of or flight in air; and
- (3) A continuing right to clear and keep clear from the Airspace any portions of buildings, structures, or improvements of any kinds, and of trees or other objects, including the right to remove or demolish those portions of such buildings, structures, improvements, trees, or other things which extend into or above said Airspace, and the right to cut to the ground level and remove, any trees which extend into or above the Airspace; and
- (4) The right to mark and light, or cause or require to be marked or lighted, as obstructions to air navigation, any and all buildings, structures, or other improvements, and trees or other objects, which extend into or above the Airspace; and

- (5) The right of ingress to, passage within, and egress from the hereinabove described real property, for the purposes described in subparagraphs (3) and (4) above at reasonable times and after reasonable notice.

For and behalf of itself, its successors and assigns, the Grantor hereby covenants with the [Insert County or City name], for the direct benefit of the real property constituting the _____ Airport hereinafter described, that neither the Grantor, nor its successors in interest or assigns will construct, install, erect, place or grow in or upon the hereinabove described real property, nor will they permit to allow, any building structure, improvement, tree or other object which extends into or above the Airspace, or which constitutes an obstruction to air navigation, or which obstructs or interferes with the use of the easement and rights-of-way herein granted.

The easements and rights-of-way herein granted shall be deemed both appurtenant to and for the direct benefit of that real property which constitutes the _____ Airport, in the [Insert County or City name], State of California; and shall further be deemed in gross, being conveyed to the Grantee for the benefit of the Grantee and any and all members of the general public who may use said easement or right-of-way, in landing at, taking off from or operating such aircraft in or about the _____ Airport, or in otherwise flying through said Airspace.

This grant of easement shall not operate to deprive the Grantor, its successors or assigns, of any rights which may from time to time have against any air carrier or private operator for negligent or unlawful operation of aircraft.

These covenants and agreements run with the land and are binding upon the heirs, administrators, executors, successors and assigns of the Grantor, and, for the purpose of this instrument, the real property firstly hereinabove described is the servient tenement and said _____ Airport is the dominant tenement.

DATED: _____

STATE OF } ss

COUNTY OF }

On _____, before me, the undersigned, a Notary Public in and for said County and State, personally appeared _____, and _____ known to me to be the persons whose names are subscribed to the within instrument and acknowledged that they executed the same.

WITNESS my hand and official seal.

Notary Public

Exhibit E2
Typical Overflight Easement

GRANTOR hereby grants to the _____ in _____, its successors or assigns, as owners of the [Name of Airport] _____, California, an overflight easement for the following purposes and granting the following rights:

- (1) For the use and benefit of the public, and to the extent and in the manner consistent with safe operating procedures as provided under applicable governmental regulations, the right to make flights, and the noise inherent thereto, in airspace over the property described in Exhibit A (attached) in connection with landings, takeoffs, and general operation of the [Name of Airport].
- (2) The right to regulate or prohibit the release into the air of any substance which would impair the visibility or otherwise interfere with the operations of aircraft such as, but not limited to, steam, dust, and smoke.
- (3) The right to regulate or prohibit light emissions, either direct or indirect (reflective), which might interfere with pilot vision.
- (4) The right to prohibit electrical emissions which would interfere with aircraft communication systems or aircraft navigational equipment.

This easement shall be effective from this date and run with the land until such time as the [Name of Airport] _____ is no longer used as an airport.

The real property subject to this overflight easement is described as follows:

See Attachment "A"

DATED: _____ GRANTOR: _____

By: _____

Exhibit E3
Sample Deed Notice

The following statement should be included on the deed for the subject property and recorded in by the County. This statement should also be included on any parcel map, tentative map or final map for subdivision approval.

This property is in the area subject to overflights by aircraft using _____ airport, and as a result, residents may experience inconvenience, annoyance or discomfort arising from the noise of such operations. State law (public utilities code section 21670 et. Seq.) establishes the importance of public use airports to protection of the public interest of the people of the State of California. Residents of property near a public use airport should therefore be prepared to accept such inconvenience, annoyance or discomfort from normal aircraft operations. Any subsequent deed conveying parcels or lots shall contain a statement in substantially this form.

ABOVE GROUND LEVEL (AGL): An elevation datum given in feet above ground level.

AIRPORT TRAFFIC CONTROL TOWER (ATCT): A terminal facility that uses air/ground communications, visual signaling, and other devices to provide ATC services to aircraft operating in the vicinity of an airport or on the movement area. (AIM)

AIRCRAFT ACCIDENT: An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, and in which any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto, or in which the aircraft receives substantial damage. (NTSB)

AIRCRAFT OPERATION: The airborne movement of aircraft in controlled or noncontrolled airport terminal areas and about given en route fixes or at other points where counts can be made. There are two types of operations — local and itinerant. An operation is counted for each landing and each departure, such that a touch-and-go flight is counted as two operations. (FAA Stats)

AIRCRAFT PARKING LINE LIMIT (APL): A line established by the airport authorities beyond which no part of a parked aircraft should protrude. (Airport Design AC)

AIRPORT: An area of land or water that is used or intended to be used for the landing and taking off of aircraft, and includes its buildings and facilities, if any. (FAR 1)

AIRPORT ELEVATION: The highest point of an airport's usable runways, measured in feet above mean sea level. (AIM)

AIRPORT LAYOUT PLAN (ALP): A scale drawing of existing and proposed airport facilities, their location on the airport, and the pertinent clearance and dimensional information required to demonstrate conformance with applicable standards.

AIRPORT REFERENCE CODE (ARC): A coding system used to relate airport design criteria to the operational and physical characteristics of the airplanes intended to operate at the airport. (Airport Design AC)

AIRPORT LAND USE COMMISSION (ALUC): A commission established under provisions of California Public Utilities Code, Sections 12670 et seq., in each county within which a public-use airport is located for the purpose of ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive airport noise and safety hazards. (Chapter 4, Article 3.5 of State Aeronautics Act)

AMBIENT NOISE LEVEL: Background noise level, the normal or existing level of environmental noise at a given location.

APPROACH LIGHT SYSTEM (ALS): An airport lighting system which provides visual guidance enabling a pilot to align the aircraft with the extended runway centerline during a final approach to landing. Among the specific types of systems are:

- LDIN – Sequenced Flashing Lead-in Lights.
- ODALS – Omnidirectional Approach Light System, a combination of LDIN and REILS.
- SSALR – Simplified Short Approach Light System with Sequenced Flashing Lights. (AIM)

APPROACH SPEED: The recommended speed contained in aircraft manuals used by pilots when making an approach to landing. This speed will vary for different segments of an approach as well as for aircraft weight and configuration. (AIM)

AVIGATION EASEMENT: A type of easement that includes the following rights or restrictions: (1) the right of overflight above the property at any altitude above a surface specified in the easement. (2) A right to subject the property to noise, vibrations, fumes, dust, emissions associated with airport activities. (3) Prohibits the erection or growth of any object, tree or structure that would penetrate the defined airspace. (4) A right of entry to the property, with proper notice to the owner for the purpose of removing, marking, or lighting any structure or other object that may constitute a hazard or obstruction. (5) Prohibits certain land use characteristics that may create flight hazards, including electrical interference, glare, misleading light sources, smoke, steam, dust or other visual impairments and uses which may attract large flocks of birds.

BASED AIRCRAFT: Aircraft stationed at an airport on a long-term basis.

CEILING: Height above the earth's surface to the lowest layer of clouds or obscuring phenomena. (AIM)

CIRCLING APPROACH/CIRCLE-TO-LAND MANEUVER: A maneuver initiated by the pilot to align the aircraft with a runway for landing when a straight-in landing from an instrument approach is not possible or not desirable. (AIM)

COMMERCIAL OPERATOR: A person who, for compensation or hire, engages in the carriage by aircraft in air commerce of persons or property, other than as an air carrier. (FAR 1)

COMMUNITY NOISE EQUIVALENT LEVEL (CNEL): The noise measure adopted by the State of California for evaluating airport noise. It represents the composite noise levels of aircraft operations during an average annual 24-hour day. CNEL is measured in A-weighted decibels (dBA) and evening and nighttime operations are weighted to reflect a community's greater sensitivity to noise during these hours and to account for quieter ambient levels.

COMMUTER AIR CARRIER: An air taxi operator which performs at least five round trips per week between two or more points and publishes flight schedules which specify the times, days of the week and places between which such flights are performed. (FAA Census)

CONTROL ZONE: Controlled airspace surrounding one or more airports, normally a circular area. Having a radius of five statute miles plus extensions to include instrument arrival and departure

paths. Most control zones surround airports with air traffic control towers and are in effect only for the hours the tower is operational.

CONTROLLED AIRSPACE: Any of several types of airspace within which some or all aircraft may be subject to air traffic control. (FAR 1)

DAY-NIGHT AVERAGE SOUND LEVEL (Ldn): The noise descriptor adopted by the U.S. Environmental Protection Agency for measurement of environmental noise. It represents the average daytime noise level during a 24-hour day, measured in decibels and adjusted to account for the lower tolerance of people to noise during nighttime periods.

DECIBELS, A-WEIGHTED (dBA): A measure of sound level, adjusted to account for the perception range of the human ear.

DEED NOTICE: A deed notice is a formal statement which is added to the legal description of the deed for a property and on any subdivision map which states that the property is subject to aircraft overflights. Deed notices are used as a form of buyer notification as a means of ensuring that those who are particularly sensitive to aircraft overflights can avoid moving to the affected areas. (Refer to overflight easement.)

DISPLACED THRESHOLD: A landing threshold that is located at a point on the runway other than the designated beginning of the runway. (See Threshold) (AIM)

FEDERAL AVIATION REGULATIONS (FAR): Regulations issued by the FAA to regulate air commerce; issued as separate "Parts", e.g., Part 77.

FAR PART 77: The part of the Federal Aviation Regulations which deals with objects affecting navigable airspace.

FAR PART 77 SURFACES: Imaginary surfaces established with relation to each runway of an airport. There are five types of surfaces: (1) primary; (2) approach; (3) transitional; (4) horizontal; and (5) conical.

FEDERAL AVIATION ADMINISTRATION (FAA): The United States government agency which is responsible for insuring the safe and efficient use of the nation's airspace.

FIXED BASE OPERATOR (FBO): A business operating at an airport that provides aircraft services to the general public, including but not limited to sale of fuel and oil; aircraft sales, rental, maintenance, and repair; parking and tiedown or storage of aircraft; flight training; air taxi/charter operations; and specialty services, such as instrument and avionics maintenance, painting, overhaul, aerial application, aerial photography, aerial hoists, or pipeline patrol.

GENERAL AVIATION: That portion of civil aviation which encompasses all facets of aviation except air carriers. (FAA Stats)

GLIDE SLOPE: An electronic signal radiated by a component of an ILS to provide descent path guidance to approaching aircraft.

HELIPAD: A small, designated area, usually with a prepared surface, on a heliport, airport, landing/takeoff area, apron/ramp, or movement area used for takeoff, landing, or parking of helicopters. (AIM)

INSTRUMENT APPROACH PROCEDURE: A series of predetermined maneuvers for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing or to a point from which a landing may be made visually. It is prescribed and approved for a specific airport by competent authority. Refer to nonprecision and precision approach procedures. (AIM)

INSTRUMENT FLIGHT RULES (IFR): Rules governing the procedures for conducting instrument flight. Generally, IFR applies when meteorological conditions with a ceiling below 1,000 feet and visibility less than 3 miles prevail. (AIM)

INSTRUMENT LANDING SYSTEM (ILS): A precision instrument approach system which normally consists of the following electronic components and visual aids: (1) Localizer; (2) Glide Slope; (3) Outer Marker; (4) Middle Marker; (5) Approach Lights. (AIM)

INSTRUMENT OPERATION: An aircraft operation in accordance with an IFR flight plan or an operation where IFR separation between aircraft is provided by a terminal control facility. (FAA ATA)

INSTRUMENT RUNWAY: A runway equipped with electronic and visual navigation aids for which a precision or nonprecision approach procedure having straight-in landing minimums has been approved. (AIM)

ITINERANT OPERATION: An arrival or departure performed by an aircraft from or to a point beyond the local airport area.

LARGE AIRCRAFT: An aircraft of more than 12,500 pounds maximum certificated takeoff weight. (FAR 1)

LOCALIZER (LOC): The component of an ILS which provides course guidance to the runway. (AIM)

LOCALIZER TYPE DIRECTIONAL AID (LDA): A NAVAID used for nonprecision instrument approaches with utility and accuracy comparable to a localizer but which is not a part of a complete ILS and is not aligned with the runway. (AIM)

LOCAL OPERATION: An arrival or departure performed by an aircraft: (1) operating in the traffic pattern, (2) known to be departing or arriving from flight in local practice areas, or (3) executing practice instrument approaches at the airport. (FAA ATA)

MEAN SEA LEVEL (MSL): An elevation datum given in feet above mean sea level.

MICROWAVE LANDING SYSTEM (MLS): A precision instrument approach system providing a function similar to an ILS, but operating in the microwave spectrum. It normally consists of three components: azimuth station, elevation station, and precision distance measuring equipment.

MINIMUM DESCENT ALTITUDE (MDA): The lowest altitude, expressed in feet above mean sea level, to which descent is authorized on final approach or during circle-to-land maneuvering in execution of a standard instrument approach procedure where no electronic glide slope is provided. (FAR 1)

MISSED APPROACH: A maneuver conducted by a pilot when an instrument approach cannot be completed to a landing. (AIM)

NAVIGATIONAL AID/NAVAID: Any visual or electronic device airborne or on the surface which provides point-to-point guidance information or position data to aircraft in flight. (AIM)

NOISE CONTOURS: Lines drawn about a noise source indicating constant energy levels of noise exposure. CNEL and Ldn are the measures used to describe community exposure to noise.

NONPRECISION APPROACH PROCEDURE: A standard instrument approach procedure in which no electronic glide slope is provided. (FAR 1)

NONPRECISION INSTRUMENT RUNWAY: A runway with an instrument approach procedure utilizing air navigation facilities, with only horizontal guidance, or area-type navigation equipment for which a straight-in nonprecision instrument approach procedure has been approved or planned, and no precision approach facility or procedure is planned. (Airport Design AC)

OBJECT FREE AREA (OFA): A two-dimensional ground area surrounding runways, taxiways, and taxilanes which is clear of objects except for objects whose location is fixed by function. (Airport Design AC)

OBSTRUCTION: Any object of natural growth, terrain, or permanent or temporary construction or alteration, including equipment or materials used therein the height of which exceeds the obstruction standards of subpart C of FAR Part 77 "Objects Affecting Navigable Airspace".

OBSTACLE FREE ZONE (OFZ): The airspace defined by the runway OFZ and, as appropriate, the inner-approach OFZ and the inner-transitional OFZ, which is clear of object penetrations other than frangible NAVAIDs.

OBSTRUCTION: An object, including a mobile object, which penetrates an imaginary surface described in FAR Part 77.

OUTER MARKER: A marker beacon at or near the glide slope intercept position of an ILS approach. (AIM)

OVERFLIGHT EASEMENT: An easement which describes the right to overfly the property above a specified surface and includes the right to subject the property to noise, vibrations, fumes and emissions. An overflight easement is used primarily as a form of buyer notification.

OVERFLIGHT ZONE: The area(s) where aircraft are maneuvering to enter or leave the traffic pattern, typically defined by the FAR Part 77 horizontal surface.

OVERLAY ZONING: Establishes development standards in areas of special concern over and above the standards applicable to basic underlying zoning districts.

PLANNING BOUNDARY: The area designated by the ALUC surrounding each airport pursuant to Section 21675 (c) of the Public Utilities Code in which the ALUC plan applies.

PRECISION APPROACH PATH INDICATOR (PAPI): An airport landing aid similar to a VASI, but which has light units installed in a single row rather than two rows.

PRECISION APPROACH PROCEDURE: A standard instrument approach procedure in which an electronic glide slope is provided. (FAR 1)

PRECISION INSTRUMENT RUNWAY: A runway with an instrument approach procedure utilizing an instrument landing system (ILS), microwave landing system (MLS), or precision approach radar (PAR). (Airport Design AC)

PUBLIC USE AIRPORT: Publicly or privately owned airport that offers the use of its facilities to the public without prior notice or special invitation or clearance, and that has been issued a California Airport Permit by the Division of Aeronautics of the California Department of Transportation. For purposes of the ALUC plan, the State Division of Aeronautics has interpreted "public use" to include special-use airports in which commercial operators offer service to the public.

REFERRAL AREA: The area around an airport defined by the planning boundary adopted by the ALUC within which certain land use proposals are to be referred to the ALUC for review.

RUNWAY EDGE LIGHTS: Lights used to define the lateral limits of a runway. Specific types include:

- HIRL — High-Intensity Runway Lights.
- MIRL — Medium-Intensity Runway Lights.

RUNWAY END IDENTIFIER LIGHTS (REIL): Two synchronized flashing lights, one on each side of the runway threshold, which provide a pilot with a rapid and positive visual identification of the approach end of a particular runway. (AIM)

RUNWAY PROTECTION ZONE (RPZ): An area (formerly the clear zone) used to enhance the safety of aircraft operations. It is at ground level beyond the runway end. (Airport Design AC)

RUNWAY SAFETY AREA (RSA): A defined surface surrounding the runway prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway. (Airport Design AC)

SAFETY ZONE(S): For the purposes of this Plan, a safety zone is an area near an airport in which land use restrictions are established to protect the safety of the public from potential aircraft accidents.

SINGLE-EVENT NOISE: As used in this report, it refers to the noise from an individual aircraft operation or overflight.

SINGLE EVENT NOISE EXPOSURE LEVEL (SENEL) OR (SEL): The A-weighted sound level of a single noise event, such as an aircraft overflight, measured over the time interval for which the sound exceeds a threshold level and normalized to a reference duration of one second. SENEL and SEL values are identical: SENEL is used in California, SEL is adopted by the EPA and FAA.

The SENEL or SEL expresses the level of a continuous one-second signal that contains the same amount of energy as the entire noise event. This value is not equal to the maximum A-level occurring during the noise event. Aircraft noise events last more than one second. SENEL/SEL values will be higher than the maximum A-level for the same events.

SMALL AIRCRAFT: An aircraft of 12,500 pounds or less maximum certificated takeoff weight. (FAR 1)

STANDARD INSTRUMENT DEPARTURE (SID): A preplanned instrument flight rules (IFR) air traffic control departure procedure printed for pilot use in graphic and/or textual form. SID's provide transition from the terminal to the appropriate en route structure. (AIM)

STANDARD TERMINAL ARRIVAL ROUTE (STAR): A preplanned instrument flight rule (IFR) air traffic control arrival route published for pilot use in graphic and/or textual form. STARs provide transition from the en route structure to an outer fix or an instrument approach fix/arrival waypoint in the terminal area. (AIM)

STOPWAY: An area beyond the takeoff runway, no less wide than the runway and centered upon the extended centerline of the runway, able to support the airplane during an aborted takeoff, without causing structural damage to the airplane, and designated by the airport authorities for use in decelerating the airplane during an aborted takeoff. (FAR 1)

STRAIGHT-IN INSTRUMENT APPROACH: An instrument approach wherein final approach is begun without first having executed a procedure turn; it is not necessarily completed with a straight-in landing or made to straight-in landing weather minimums. (AIM)

TAXILANE: The portion of the aircraft parking area used for access between taxiways, aircraft parking positions, hangars, storage facilities, etc. (Airport Design AC)

TAXIWAY: A defined path, from one part of an airport to another, selected or prepared for the taxiing of aircraft. (Airport Design AC)

TERMINAL INSTRUMENT PROCEDURES (TERPS): Procedures for instrument approach and departure of aircraft to and from civil and military airports. There are four types of terminal instrument procedures: precision approach, nonprecision approach, circling, and departure.

TERMINAL RADAR SERVICE AREA (TRSA): Airspace surrounding designated airports wherein ATC provides radar vectoring, sequencing, and separation on a full-time basis for all IFR and participating VFR aircraft. (AIM)

THRESHOLD: The beginning of that portion of the runway usable for landing. (AIM) (Also see Displaced Threshold)

TOUCH-AND-GO: A practice maneuver consisting of a landing and a takeoff performed in one continuous movement. A touch-and-go is defined as two operations.

TRAFFIC PATTERN: The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport. The components of a typical traffic pattern are upwind leg, crosswind leg, downwind leg, base leg, and final approach. (AIM)

TRANSIENT AIRCRAFT: Aircraft not based at the airport.

UNICOM (Aeronautical Advisory Station): A nongovernment air/ground radio communication facility which may provide airport information at certain airports. (AIM)

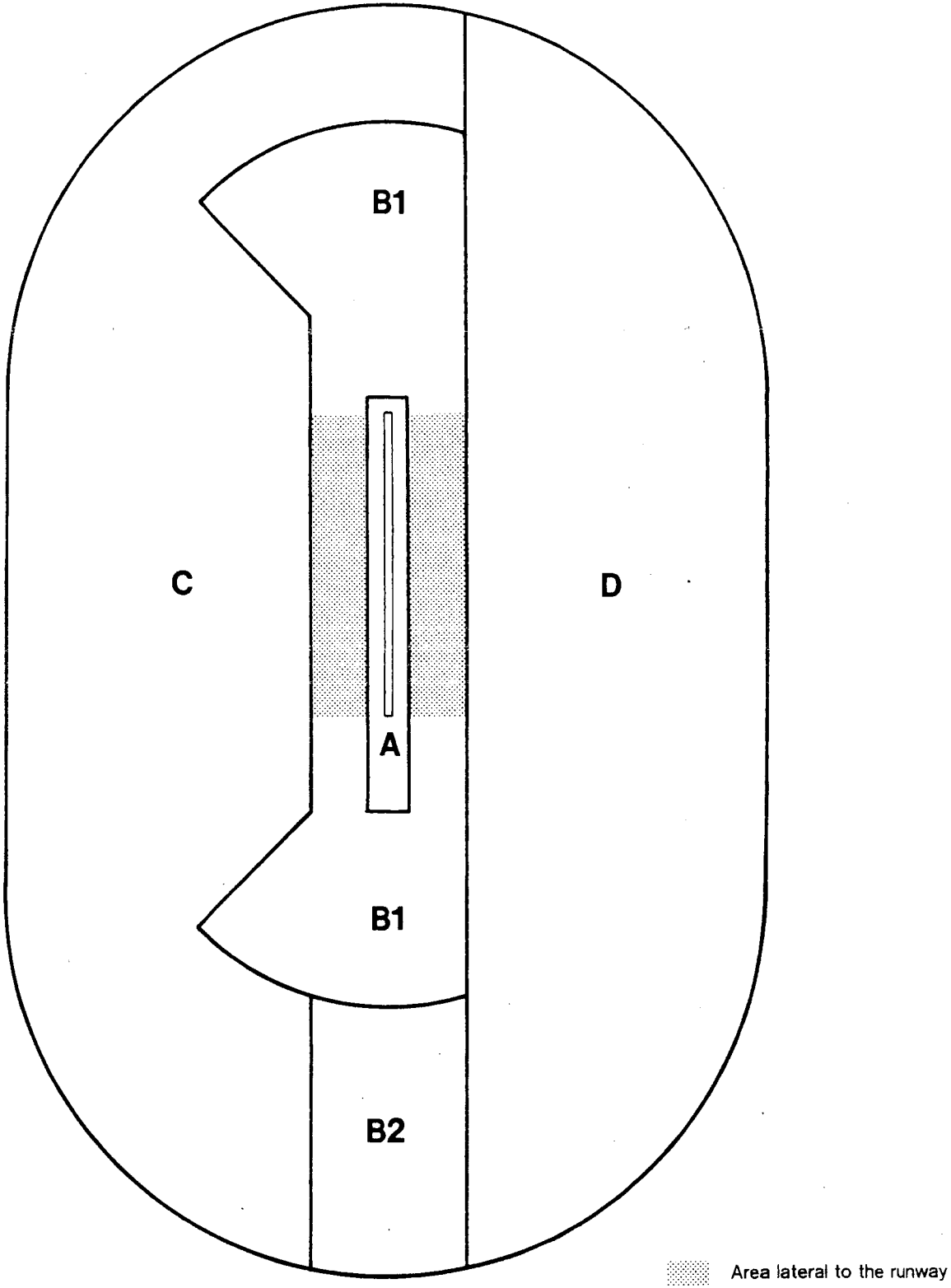
UTILITY AIRPORT: An airport designed, constructed, and maintained to serve airplanes having approach speeds less than 121 knots. (Airport Design AC)

VISUAL APPROACH: An approach where the pilot must use visual reference to the runway for landing under VFR conditions.

VISUAL APPROACH SLOPE INDICATOR (VASI): An airport landing aid which provides a pilot with visual descent (approach slope) guidance while on approach to landing. Also see PAPI.

VISUAL FLIGHT RULES (VFR): Rules that govern the procedures for conducting flight under visual conditions. VFR applies when meteorological conditions are equal to or greater than the specified minimum — generally, a 1,000-foot ceiling and 3-mile visibility.

VISUAL GLIDE SLOPE INDICATOR (VGS): A generic term for the group of airport visual landing aids which includes Visual Approach Slope Indicators (VASI), Precision Approach Path Indicators (PAPI), and Pulsed Light Approach Slope Indicators (PLASI). When FAA funding pays for this equipment, whichever type received the lowest bid price will be installed unless the airport owner wishes to pay the difference for a more expensive unit.



Typical Portion of 'B' Zone Lateral to the Runway

VISUAL RUNWAY: A runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an FAA-approved airport layout plan. (Airport Design AC)

WIND SHEER: A condition typified by rapid changes in wind velocity and duration with altitude.

REFERENCES

FAR 1: Federal Aviation Regulations Part 1, Definitions and Abbreviations. (1974)

AIM: Airman's Information Manual, Pilot/Controller Glossary. (1988)

Airport Design AC: Federal Aviation Administration. Airport Design. Advisory Circular 150/5300-13. (1989)

FAA ATA: Federal Aviation Administration. Air Traffic Activity. (1986)

FAA Census: Federal Aviation Administration. Census of U.S. Civil Aircraft. (1986)

FAA Stats: Federal Aviation Administration. Statistical Handbook of Aviation. (1984)

NTSB: National Transportation Safety Board.