

A SPECIFIC PLAN
FOR THE REDDING MUNICIPAL AIRPORT
AND SURROUNDING AREA
(SP 2-82)

Adopted October 5, 1982
And Subsequently Amended

Prepared for
Redding Municipal Airport Plan Committee

Shasta County • City of Redding • City of Anderson

Blayney-Dyett, Urban and Regional Planners, San Francisco
Hodges & Shutt, Aviation Planning Services, Santa Rosa
Planning Associates, Redding

Board of Supervisors

ADOPTION/AMENDMENT HISTORY

Resolution #82-239

Plan Adoption

Resolution #83-294

Amended Plan (map) for
Northeast Corner of
Rancho and Airport Roads

Resolution #84-231

Amended Plan (map) for
Northeast Corner of
Rancho & Airport Roads
and Southwest Corner of
Old Oregon Trail & Rancho
Road

Resolution #90-212

Amended Plan (text &
maps) based on the Noise
Management Study &
Consultant
Recommendations,
excluding the Breese &
Crippa properties.

Resolution #90-281

Amended the Plan (map)
for Breese & Crippa
properties

TABLE OF CONTENTS

	<u>Page</u>
LIST OF TABLES.....	i
LIST OF FIGURES.....	i
BOARD OF SUPERVISORS RESOLUTION ADOPTING ENVIRONMENTAL FINDINGS.....	ii
BOARD OF SUPERVISORS RESOLUTION OF ADOPTION..... REDDING MUNICIPAL AIRPORT AREA COMPREHENSIVE LAND USE PLAN	iii
I. INTRODUCTION.....	1
A. BACKGROUND.....	1
B. PLANNING PROCESS.....	3
C. NATURE OF THE PLAN.....	4
D. REGULATORY STATUS.....	5
E. OBJECTIVES.....	6
F. ASSUMPTIONS.....	6
G. ENVIRONMENTAL REVIEW, SIGNIFICANT IMPACTS AND FINDINGS.....	7
H. PLAN ASSUMPTIONS SUMMARY.....	11
II. SPECIFIC PLAN DESCRIPTION AND POLICIES.....	12
A. AIRPORT DEVELOPMENT.....	12
B. NOISE.....	14
C. SAFETY.....	21
D. LAND USE.....	27
Residential.....	27
Airport Service.....	31
Offices.....	32
Retail Commercial.....	33
Highway Commercial.....	34

Service Commercial.....	35
Planned Industrial.....	37
Parking.....	41
Design Review; Site Development Standards; Non-Conforming Uses and Structures.....	44
E. OPEN SPACE AND CONSERVATION.....	45
Parks and Recreation.....	45
Agriculture.....	45
Creeks, Riparian Vegetation, and Floodplains.....	46
Greenway.....	46
F. PUBLIC FACILITIES AND UTILITIES.....	47
Parks.....	47
Schools.....	47
Water.....	47
Wastewater.....	47
Fire Protection.....	48
Surface Drainage.....	48
G. CIRCULATION.....	48
BIBLIOGRAPHY.....	55
PERSONS CONTACTED.....	59
REPORT PREPARATION.....	61
AIRPORT PLAN COMMITTEE.....	62
<hr/>	
APPENDIX A - Traffic Analysis and Projections.....	Printed as separate document
APPENDIX B - Circulation Element - Supplementary Report..	Printed as separate document
APPENDIX C - Plan Map	63

LIST OF TABLES

<u>No.</u>	<u>Title</u>	<u>Page</u>
1	Aviation Forecast Summary.....	12
2	Airport/Land Use Safety Compatibility Criteria.....	26
3	Land Use Summary, Redding Municipal Airport Area Specific Plan.....	30
4	Parking.....	41
5	Existing and Proposed Trafficway System.....	49

LIST OF FIGURES

<u>No.</u>	<u>Title</u>	<u>Page</u>
1	Plan Area.....	2
2	Airport Development Schematic.....	16
3	Noise Impact Area - 1981.....	17
4	Noise Impact Area - 2000.....	18
4.5	Airport Impact Zones.....	19
5	Safety Zones.....	20
5.5	Schematic Diagram of Area Affected by Policy 3.c.... (North of Airport)	23
5.6	Schematic Diagram of Area Affected by Policy 3.c.... (South of Airport)	24
5.7	Industrial Occupancy Classifications.....	25
6	Alternative Buffering Required for a Commercial or Industrial Use Adjoining an "R" District.....	40
7a	Street Standards, Cross-Sections.....	50
7b	Street Standards, Cross-Sections.....	51
7c	Street Standards, Cross-Sections.....	52
7d	Street Standards, Cross-Sections.....	53
7e	Street Standard Cross Section.....	54

RESOLUTION NO. 82-234

A RESOLUTION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF SHASTA ADOPTING ENVIRONMENTAL FINDINGS FOR SPECIFIC PLAN NO. 2-82, REDDING MUNICIPAL AIRPORT AREA.

WHEREAS, the Board of Supervisors of the County of Shasta has considered Specific Plan No. 2-82, for the Redding Municipal Airport area, in accordance with Articles 8 and 9 of Chapter 3 of the State Planning and Zoning Law (Government Code Section 65450 et seq); and

WHEREAS, said specific plan was referred to various affected public and private agencies, County departments, and the Staff Advisory Committee for review and comments; and

WHEREAS, the Planning Commission held a public hearing on the Specific Plan and EIR and recommended adoption of specific environmental findings, in accordance with Section 4030 (A) of Division 2 of Part 7 of the Shasta County Ordinance Code; and

WHEREAS, a public hearing on the Specific Plan was held jointly before the Board of Supervisors and the City Councils of Redding and Anderson on August 25, 1982; and

WHEREAS, the Board of Supervisors certified Final Environmental Impact Report No. 7-82, which identifies four significant effects on the environment, regarding agricultural lands, traffic noise, air pollution and drainage; and

WHEREAS, the Shasta County Environmental Review Officer recommends specific environmental findings for the significant effects identified.

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of the County of Shasta adopts the following environmental findings for the identified significant effects on the environment:

1. Mitigation measures have been incorporated into the Specific Plan and, therefore, the General Plan amendment, which mitigates the significant agricultural lands, traffic noise, air pollution and drainage impacts as identified in the final EIR; however, these measures will not reduce these impacts to insignificant levels.
2. Specific economic, social or other considerations make infeasible the project alternatives as identified in the final EIR in that:
 - a) In view of the technical data developed by the Plan regarding noise and air safety, Alternative #1 is overly conservative and unnecessarily restrictive in nature.
 - b) Alternative #1 places severe and financial burdens on the Airport operator by requiring that nearly seven times the amount of land designated for acquisition by the other alternatives be purchased under this alternative.
 - c) Alternative #2 would not comply with noise standards mandated by the State of California and would subject a larger resident population to a noisy environment.

- d) Alternative #2 would establish the largest resident population for all the Plans, thereby, building potential for inherent long-term land use conflicts.
 - e) Alternative #3 utilizes the large lot agricultural designation for lands that, although they may have a soil capability of Class II, have low fertility. As a consequence, the cost of production is high and other more suitable lands outside the Plan area are being used to continue growing of the high value, capital intensive crops formerly associated with the plains.
 - f) The conversion of agricultural lands is already occurring. The high cost of agricultural activity in this area does not justify an agricultural designation if airport and community related land use concerns can be adequately addressed by the use of land use designations other than "agricultural".
3. As "statements of overriding considerations" for the unavoidable significant effects on the environment regarding agricultural lands, traffic noise, air pollution and drainage impacts, the following:
- a) That the Plan addresses safety and noise, land use, circulation and public facility concerns and will provide the guidance necessary to ensure that development in the Airport planning area will be compatible with and supportive of the Airport function and will maximize its contribution to the growth and development of Redding, Anderson and Shasta County and will protect the health and safety of present and future residents and property owners within the planning area.
 - b) That the current General Plan does not address in sufficient detail the concern for long-term operational capability of the Airport nor the desire to adequately provide for and yet protect future residents and other property users.
 - c) That the Plan will safeguard the airport from intrusion by uses that could limit the expansion of air service to Redding, Anderson, Shasta County and the Northern California region by recognizing the vital service provided by the Airport and the need to maintain a level of operation necessary to satisfy existing and future aviation requirements of the user communities.
 - d) That the Plan is designed to prevent development that could lead to safety problems for air travelers and persons residing or working in the airport environs.
 - e) That the Plan will permit persons who live, work and own property near the Airport to enjoy a maximum amount of freedom from noise and other impacts generated by the operation of the Airport.
 - f) That the Plan will comply with Airport noise standards mandated by the State of California and will ensure a development pattern that is compatible with airport-generated noise.

- g) That the Plan will protect the public investment in the Airport, a facility for which there is no feasible replacement.
- h) That the Plan will recognize the airport's role as a major entry point for the cities of Redding, Anderson and Shasta County, and protect and enhance the appearance of the Airport area.
- i) Although feasible, the alternatives do not substantially alter the total level of environmental impact.
- j) That the selection of the "no project" alternatives could mean that the objectives of the Plan would not be achieved.

DULY PASSED this 29th day of Sept. 1982, by the following vote:

AYES: Supervisors Strange, Caton, Maddox, Gover, Swendiman
NOES: None
ABSENT: None
ABSTAIN:

/s/ R. D. Gover
DAN G. GOVER, CHAIRMAN
Board of Supervisors
County of Shasta
State of California

ATTEST:

/s/ Richard C. Brennan
RICHARD C. BRENNAN, County Clerk and
Ex-officio Clerk of the
Board of Supervisors
County of Shasta
State of California

This instrument is a correct copy
of the original on file in this office.

ATTEST: OCT 5 1982

RICHARD C. BRENNAN
COUNTY CLERK AND EX-OFFICIO CLERK OF THE BOARD OF
SUPERVISORS OF THE COUNTY OF SHASTA, STATE OF CALIFORNIA
BY W. Brennan DEPUTY

RECEIVED

OCT 6 1982

SHASTA COUNTY
PLANNING

RESOLUTION NO. 82-239

A RESOLUTION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF SHASTA AMENDING THE SHASTA COUNTY GENERAL PLAN AND ADOPTING SPECIFIC PLAN NO. 2-82, REDDING MUNICIPAL AIRPORT AREA SPECIFIC PLAN.

WHEREAS, the Board of Supervisors of the County of Shasta has considered General Plan Amendment No. 1-82 and Specific Plan No. 2-82 (the Airport Plan), for the Redding Municipal Airport Area, in accordance with Articles 5,6,7,8 and 9 of Chapter 3 of the State Planning and Zoning Law (Government Code Section 65300 et seq); and

WHEREAS, the Airport Plan was referred to various affected public and private agencies, County departments, and the Staff Advisory Committee for review and comments; and

WHEREAS, the Planning Commission has jointly held public hearings with the Planning Commissions of Redding and Anderson and has reviewed and considered the Airport Plan and subsequently recommended that the Board of Supervisors adopt the Plan, in accordance with Section 4030 of the Shasta County Ordinance Code; and

WHEREAS, a public hearing on the Airport Plan was held before the Board of Supervisors on August 25, 1982; and

WHEREAS, the Board of Supervisors referred to the Planning Commission a list of specific changes to the Plan map and text; and

WHEREAS, the Planning Commission has reviewed the specific changes referred by the Board of Supervisors; and

WHEREAS, the Board of Supervisors has certified Final Environmental Impact Report No. 7-82, which identifies four significant effects on the environment, regarding agricultural lands, traffic noise, air pollution and drainage; and

WHEREAS, the Board of Supervisors has adopted specific environmental findings for the significant effects identified.

NOW, THEREFORE BE IT RESOLVED that the Board of Supervisors of the County of Shasta hereby amends the affected elements of the Shasta County General Plan (i.e., Land Use, Circulation, Conservation and Open Space) to reflect the land uses and densities shown on the Airport Plan based on the finding that these amendments to the General Plan directly reflect and are limited to the proposals of the Airport Plan.

BE IT FURTHER RESOLVED that the Board of Supervisors of the County of Shasta hereby adopts Specific Plan 2-82 as recommended by the Planning Commission on July 8, 1982, with certain changes reviewed and considered by the Planning Commission on September 23, 1982, and listed herein:

1. Map Changes:

- a. Delete the depicted "Bypass" route and the map wording which reads "Alternative #1: Install Bypass" and "Alternative #2: Widen (Airport Road) to 6 lanes". Show Airport Road as an "expressway" from Meadowview South to Riverside Drive.
- b. Designate the Emma Jean Gordon property, being Assessors Parcels # 54-03-51, 52, 53 and 54 (approximately 10 acres), as "Service Commercial" rather than nine (9) dwelling units per acre.
- c. Designate the Shasta Enterprises property west of Airport Rd., adjacent to and south of Rancho Rd., being Assessors parcels #54-200-01 and 54-210-01 (approximately 76 total acres) as "Retail Commercial" (a five acre parcel adjacent to and south of Rancho Road at the Airport Road intersection) rather than "Office Commercial" and the balance of the property as "Planned Industrial" rather than "Office Commercial" (approximately 71 acres).
- d. Designate the residential portion of UP 73-77 (known as Tucker Oaks East, Tract 1544) and land immediately adjacent to the west between the Tract and Clover Creek, being a portion of A.P. #056-350-37 and all those parcels shown in Assessor's Book 56 on page 56 & 57 as "Residential - 2 DU/AC" rather than "Planned Industrial" (approximately 45 acres).

2. Text Changes:

a. Pages 11 and 30a:

1. Delete Policy 2c.
2. Reword Policy 4t to

- a) Add the sentence "uses which continue to be or which become non-conforming uses upon adoption of zone ordinances necessary to implement this plan shall be subject to the provisions of the zoning plan regarding non-conforming uses."
- b) Delete language referencing amendment of the zoning ordinance and
- c) Delete language prohibiting expansion of non-conforming residential dwelling units.

- b. Page 14: Reword the last paragraph of policy 3c as follows "For area 3c.1 the 20% open area required by Item F of Table 2, Policy 3a shall be situated along the extended runway centerline. This open area shall be computed on the basis of the configuration of those Assessor's Parcels in existence at the time of adoption of the Plan as shown by Figure 5.5."

RESOLUTION NO.
REDDING MUNICIPAL AIRPORT SPECIFIC PLAN
PAGE 3

- c. Page 14: Add the designation of "3c". to the sentence beginning "specify the following limitations within the traffic pattern zone". Also change the word "should" of the last sentence to "shall".
- d. Page 15: Table 2, line F, delete the italicized language.
- e. Page 18: Change the maximum Planned Development density (units/acre) from "14" to "15".
- f. Page 23: Policy 4j, delete the reference to property on the east side of Airport Road and add, after the word "ownership", the phrase "or ground lease".
- g. Page 28a: Reword the Landscaping And Screening policy for the Planned Industrial designation to read as follows: "Landscaping and Screening: Plant materials shall be required in yards adjoining any street or frontage road and adjacent to a residential district, an eight foot high solid masonry wall or planted berm shall be provided together with a row of trees. Within off-street parking areas, one shade tree per eight parking spaces shall be provided." The landscaping references for the other districts remain as drafted.
- h. Page 31: Delete policy 4u. and add an introduction section to the Plan which shall include the references to other ordinances and policies that may affect the Plan.
- i. Page 34: Policy 7c, add a sentence to clarify that selection of one alternative is deemed abandonment of the other.
- j. Page 34a: Delete policy 7g.
- k. The Planning Department is authorized and directed to make those changes in the text of the Airport Plan and General Plan and on the related maps, for each Plan as may be necessary to effectuate the above changes to the draft plan prepared by the plan consultant.

BE IT FURTHER RESOLVED that action to adopt the Airport Plan is based on the following findings:

- 1) That the Airport Plan satisfies the objectives set forth in the Plan.
- 2) That the Airport Plan revises and updates land use forecasts for the area around the Airport in light of the most current technical information available.

BE IT FURTHER RESOLVED that it is the intent of the Board of Supervisors in adopting this resolution to merge the Airport Plan into the General Plan and to thereby amend the General Plan.

DULY PASSED this 5th th day of October 1982, by the following vote:

AYES: Supervisors Caton, Maddox, Gover, Swendiman, Strange
NOES: None
ABSENT: None

/s/ R. D. Gover
R. D. GOVER, CHAIRMAN
Board of Supervisors
County of Shasta
State of California

ATTEST:

/s/ Richard C. Brennan
RICHARD C. BRENNAN, County Clerk and
Ex-officio Clerk of the
Board of Supervisors
County of Shasta
State of California

This instrument is a correct copy
of the original on file in this office.

ATTEST: OCT 5 1982

RICHARD C. BRENNAN
COUNTY CLERK AND EX-OFFICIO CLERK OF THE BOARD OF
SUPERVISORS OF THE COUNTY OF SHASTA, STATE OF CALIFORNIA
BY Richard C. Brennan DEPUTY

I. INTRODUCTION

A. BACKGROUND

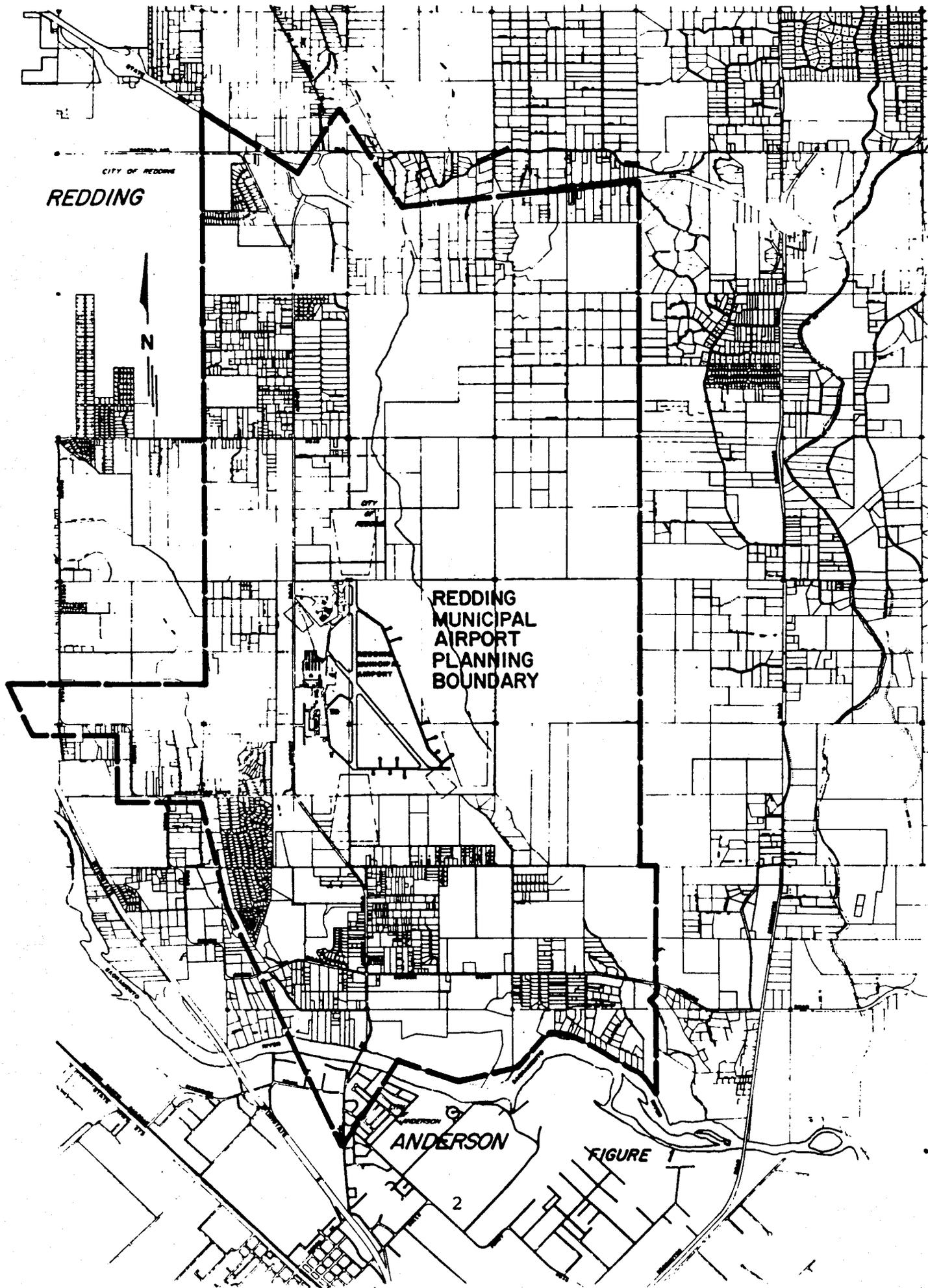
The cities of Redding and Anderson and the County of Shasta combined resources under a joint powers agreement to sponsor the preparation of a Specific Plan for the Redding Municipal airport area. The 8,500-acre planning area as depicted on Figure 1 is defined on the north and south by the 55 CNEL (Community Noise Equivalent Level) contour projected for 1995 by the 1976 Redding Airport Master Plan. On the west, the boundary is 2,200 feet west of the 55 CNEL contour and extends to the I-5 Freeway at the Knighton Road interchange from which the main access to the airport has been planned. The eastern boundary is the north-south extension of the Eastern boundary of the airport property, about 1,800 to 2,500 feet east of the 1976 55 CNEL contour.

The planning boundary was expanded one mile to the east in December, 1988. Land use designations and related densities were also amended, for the most part, for the area south of the Airport. The amendments reflected recommendations of the Noise Management Plan. Acreages and related units are shown in Table 3.

Redding Municipal Airport is owned by the City of Redding, but it is within the jurisdiction of the County of Shasta. The planning area includes portions of the spheres of influence of both the City of Redding and the City of Anderson. The City of Redding is currently considering annexation of 3,215 acres of the planning area (Annex No. 80-18, November 1980) between Rancho Road and the airport, and southeast of the airport between the airport and Fig Tree Lane and the airport property. Shasta County is currently updating the countywide General Plan. This revision will include the Redding Municipal airport area at the same level of detail as the rest of the countywide plan. The City of Redding planning area includes the airport study area north of Dersch Road. The city's Department of Planning and Community Development is nearing completion of a revised Draft General Plan, the first major revision since 1970.

The airport is recognized by all three jurisdictions as a primary element in the transportation system and the economy of the County. Its regional significance extends to Trinity, Siskiyou, Modoc, Lassen, and Tehama counties. Since it is situated in the path of urban expansion and adjoining land is suited for urban development, increasing pressures for development that could conflict with airport use are inevitable. The need to assure compatible adjoining development has resulted in the drafting of Airport Land Use Commission policies in 1978 and revisions of the zoning regulations in 1979 and early 1981. Recognizing that the 1976 Airport Master Plan needed updating and that land use issues in the environs still were unsettled, the three jurisdictions decided to prepare the Specific Plan. Their intent is to reach agreement on uniform policies for development in the planning area.

The Municipal Airport Plan Committee, consisting of seven members including a Councilman and a Planning commissioner from each of the two cities, a Supervisor and a Planning Commissioner from the County, and a seventh member appointed by the Committee to represent the public at large, was charged with the preparation of the Redding Municipal Airport Plan.



CITY OF REDDING
REDDING



**REDDING
MUNICIPAL
AIRPORT
PLANNING
BOUNDARY**

REDDING
MUNICIPAL
AIRPORT

ANDERSON

FIGURE 1

2

B. PLANNING PROCESS

The proposed Specific Plan and Draft EIR were prepared by the consultants with the assistance of the planning staffs of the County and the two cities under the direction of the Municipal Airport Plan Committee. The Committee held three public meetings, including a public hearing on Alternative Sketch Plans. Three working papers prepared by the consultants were discussed at these meetings:

- #1: Airport Master Plan Update, June 1981
- #2: Existing conditions, June 1981
- #3: Issues and Options; Alternative Sketch Plans, July 1981

Most of the material in those papers is incorporated in the Proposed Specific Plan and Draft EIR, but readers seeking detailed information, particularly on noise measurements and aviation forecasts, should refer to the working papers. These and other source documents are listed in the Plan Bibliography.

Following the public hearing on three alternative sketch plans in August, 1981, the combined planning staffs prepared a plan incorporating their recommended selection among the planning options presented. In November, 1981 the committee submitted the draft plan and a draft environmental impact report to the three Planning Commissions with a recommendation to hold joint public hearings and to adopt the plan.

The Planning Commissions of Anderson, Redding and Shasta County met jointly in a public hearing format in January and April of 1982. On May 6, 1982, the Commissions, meeting as a combined group, recommended certification of the environmental impact report on the Plan. On June 9, 1982, the three Commissions jointly advised their three legislative bodies "that they had agreed upon a Specific Plan for the Airport, with the exception of the Circulation Element, and each agency had the right to go back to their own legislative body in regard to the Circulation Element."

Subsequent to that action, the Shasta County Planning Commission on July 8, 1982, recommended approval of the Plan to the Board of Supervisors. On July 12, 1982, the Anderson Planning Commission recommended adoption of the plan to their Anderson City Council. The one significant difference between the Plan as recommended by the County and the Anderson Planning Commissions was the Airport bypass. The County Plan included the bypass, the Anderson Plan did not. On July 27, 1982, the Redding Planning Commission recommended approval of the plan with the bypass included.

Following the Planning Commission review, the Board of Supervisors on August 25, 1982 met jointly with the City Councils of Anderson and Redding to hold a public hearing on the Plan. Following the hearing, each legislative body met separately to consider the testimony received at the hearing and issues raised. On September 14, 1982, the Board of Supervisors referred to the Planning Commission a list of specific additions or changes to the Plan. The Planning Commission on September 23, 1982 reviewed the list and made certain recommendations to the Board of Supervisors. The Board on September 29, 1982 certified the Environmental Impact Report, made the necessary environmental findings and approved the Specific Plan. The Resolution confirming the action of the Board of Supervisors, with certain amendments, was adopted on October 5, 1982.

C. NATURE OF THE PLAN

California enabling legislation for Specific Plans (Gov. Code, Section 65450, et seq.) allows wide latitude in the content and function of a Specific Plan. It may contain complete and detailed development regulations and be adopted as an ordinance. The Redding Municipal Airport Specific Plan is adopted by resolution, because it contains standards that are intended to be put in ordinance form for adoption by each of the jurisdictions that will be administering development in the planning area.

For the City of Redding, the Plan is the incorporation of an area Plan into the Redding General Plan. For Shasta County, the Plan is both a general plan amendment and a specific plan. For Anderson, the Plan is a general plan amendment. Major issues raised during the public-hearing process concerning the Plan included:

1. Traffic and street patterns.
2. The amount and location of industrial land.
3. Protection of private property rights.
4. Noise
5. Airport operations.
6. Development standards.

In addition to use of the reports cited in Section B and the draft specific plan and draft EIR, substantial oral and written testimony was submitted by many interested parties and supplementary papers and staff reports were prepared by the staffs of the three agencies together with the final Environmental Impact Report and this document.

In preparing the Plan the consultant used the following methodology:

Review of Federal and State Laws.

Update of Aviation Activity Forecasts.

Identify Future Airport Improvements.

Develop Airport Noise and Safety Guidelines.

Review Existing Conditions, Development Constraints, and Development Opportunities.

Review Plan and Development Applications of Each Jurisdiction.

Identify Issues.

Develop Three Alternative Sketch Plans.

Public Input.

Refine the Plan Selected by Committee or a Specific Plan.

Prepare Environmental Impact Report.

Once these activities were completed, the Plan was subject to the public-hearing process.

D. REGULATORY STATUS

The Municipal Airport Plan will serve as a guide for future private and public development in the plan area. Periodic updating of the Plan will be necessary as conditions in the area change. Once adopted, any addition or deletion from the document will require the Planning Commission and the Board of Supervisors to follow the same procedures as were used in adopting the Plan originally.

A determination of consistency with the specific Plan will be the same as a determination of consistency with the General Plan. Through adoption as a general plan, the land-use pattern of the Specific Plan is directly incorporated into the land-use map of the County General Plan, thereby superseding previous land-use designations for the plan area.

By adopting this Plan, the County has amended its General Plan to include goals, policies, standards and diagrams set forth in the document for the area covered by this Plan. The Plan provides long range goals and proposals together with recommendation and standards for immediate action in the plan area. This Plan prepared in conjunction with the Cities of Anderson and Redding represents a significant cooperative venture bringing the major interests within the area together for the first time.

The plan is a positive step taken to realize the full potential of the Plan area in the metropolitan area of the County. Paramount concerns were to protect the Airport, to ameliorate serious circulation problems and to protect public health and safety.

While this plan sets forth many proposals for implementation, it does not establish new regulations or legislation nor does it rezone property. The preparation or amendment of any County ordinances such as zoning, subdivision, housing, building, or other development control must be enacted separately through the regular legislative process. In the absence of such regulations or when already adopted regulations clearly conflict with the Plan, the Plan shall act as a guide for the development of public and private projects and the making of findings of consistency until such time as new regulations are adopted to implement the Plan. Regulations contained in this Plan do not apply outside of the plan area.

The Specific Plan is intended to comply with the provisions of Division 9, Part 1, Chapter 4, Article 3.5 of the California Public Utilities code so that it can be adopted by the Airport Land Use Commission as the Redding Municipal Airport Comprehensive Land Use Plan.

It is also intended that the policies and standards of the the Airport Zoning Commission and the Airport Hazard Zoning Ordinance will be updated, where appropriate, to reflect the conclusions reached in the Plan and will be applicable within the plan area, where appropriate.

E. OBJECTIVES

Major objectives of the Municipal Airport Plan Committee addressed in the Specific Plan are:

- Safeguard the airport from intrusion by uses that limit the expansion of air service to Redding, Anderson, Shasta County, and the Northern California region by recognizing the vital service provided by the airport and the need to maintain a level of operations necessary to satisfy existing and future aviation requirements of the user communities.
- Prevent development that will lead to safety problems for air travelers and persons residing or working in the airport environs.
- Permit persons who live, work, and own property near the airport to enjoy a maximum amount of freedom from noise and other impacts generated by the operation of the airport.
- Comply with airport noise standards mandated by the State of California and ensure a development pattern that is compatible with airport-generated noise.
- Protect the public investment in the airport, a facility for which there is no feasible replacement.
- Recognize the airport's role as a major entry point for the cities of Redding and Anderson and Shasta County, and protect and enhance the appearance of the airport area.
- Provide sufficient development opportunities for airport-related uses, including those which offer goods and services to air travelers and those which benefit from the proximity to the passenger and air cargo service provided by the airport.
- Comply with the operational and safety requirements of the Federal Aviation Regulations.

F. ASSUMPTIONS

The Specific Plan is based on projection of a 160 percent increase in commercial air passengers enplaned during the next 20 years and on a shift to new technology aircraft. However, the rate of growth of Shasta County's South Central Region (SCR) and the availability of wastewater disposal systems will be more important determinants of development within the planning area than air travel growth.

The planning area represents 15 percent of the SCR land having moderate to very high suitability for urban development as defined for the county's General Plan revision program. In 1980, the study area population consisted of about 3,250 residents in unincorporated Shasta County and about 650 in the City of Anderson (estimated at 2.7 persons per housing unit). The Specific Plan assumes an annual growth rate in the SCR of three to four percent—comparable to the assumptions used by Shasta County and Redding in revising their General Plans. If these growth rates apply in the planning area, it will not be fully developed during the next 20 years.

All sewage in the unincorporated portion of the study area currently is treated by individual septic systems. The Ott report, "Redding Airport Area Wastewater Alternatives," 1980, contains a thorough analysis of eight alternative systems leading to a conclusion that the best long-run solution is construction of a new treatment plant on the Sacramento River at the south end of the study area.¹ The Clover Creek Sewer Assessment District north of Rancho Road soon may provide service to nearly all portions of the study area that can use the present City of Redding treatment plant without construction of lift stations.

The Airport Specific Plan will require sewers in most of all of the planning area west of Stillwater Creek if the uses and densities proposed are to be fully developed. The cost will be substantial and will be borne by development through formation of one or more assessment districts. Lack of sewers is likely to slow development in the years immediately ahead, but once sewers are available, growth will be rapid because similarly served land elsewhere in the metropolitan area likely will be scarce and the burden of sewer assessments on undeveloped land will be high.

G. ENVIRONMENTAL REVIEW, SIGNIFICANT IMPACTS AND FINDINGS

The Environmental Report on the Plan was found to be adequate by the joint Commissions on May 6, 1982. The EIR contains the draft EIR, the Traffic analysis, written comments from agencies or interested persons, response to comments, a supplementary circulation report and Planning Commission meeting minutes.

In the final EIR, nine significant impacts were identified; however, a number of these are social impacts. Based on a change in State law effective January 1, 1982, the determination of "significant effect on the environment" is limited to substantial, or potentially substantial, adverse changes in the physical conditions which exist in the area which will be affected by the proposed project, including land, air, water, minerals, flora, fauna, noise and objects of historic or aesthetic significance. It is the opinion of County Counsel that impacts which do not relate to these issues are not required to be addressed in EIR's, and a determination of "significant effect on the environment" is limited to only the issues concerning physical conditions. Accordingly, although the usual scope of issues normally discussed in EIR's has been addressed to determine potential impacts, only significant effects associated with the above-referenced issues has been determined to constitute a "significant effect on the environment."

There were then four remaining items of impact on the environment listed in the final EIR. These are the conversion of agricultural lands, noise impacts from traffic, potential for increased air pollutants, and adverse impacts on soils in terms of stream sedimentation and stream or ground water pollution.

Impact No. 1:

660 acres of land currently used for agriculture will be converted to urban land uses over a period of more than 20 years.

Findings: Changes, alterations or specific policies or other criteria have been incorporated into the Specific Plan which mitigate the loss of agricultural land; however, these measures will not reduce this impact to an insignificant level.

¹Ott Water Engineers, Inc., Redding Airport Area Wastewater Alternatives, City of Redding and U.S. Forest Service, Redding, July 1980.

Facts:

1. Large lot zoning can be applied to the majority of those parcels that have current agricultural potential until the lands are converted to the more intense land uses forecast by the Plan. This option is listed as Policy 5c of the Plan.
2. The existing agricultural designations for that portion of Churn Creek Bottom which is included in the plan area will not be changed by the Plan. Thus, any agricultural potential for those more fertile lands remain unchanged.
3. Ultimate maximum densities and uses require public water and sewerage systems which are not now present in the plan area. Such systems will not be available in the near future and may not be available for some area of the Plan in the determinable future. Consequently, the immediate conversion of all lands with agricultural potential located in the plan area is not possible. The conversion of agricultural lands will be a gradual process, thus allowing continued production. Those designations of the Plan, which affect current agricultural lands, such as Policy 4o, expressly provide for accommodation of current and future desired agricultural activities as permitted uses. In addition, lands east of Stillwater Creek are designated for larger parcels, which provides for continued agricultural options.
4. Land owned by the airport operator but unnecessary for Airport operation will likely continue to be managed in an agricultural manner.

Impact No. 2

The high vehicular traffic volumes predicted will cause noise impacts on lands adjacent to high capacity roads. Mitigation will require changes in regulations, to require setbacks, noise barriers and noise insulation.

Findings: Changes, alterations or specific policies or other criteria have been incorporated into the Specific Plan which mitigate the noise impacts associated with traffic as identified in the final EIR; however, these measures will not reduce this impact to an insignificant level.

Facts:

1. Design criteria set forth by Policies 2g, 4g, 4i, 4k, 4m, 4o, 4q, and applies specifically to design techniques intended to reduce noise impacts as well as visual effects of high intensity uses established next to residential zones or adjacent to major traffic ways.
2. The Plan forecasts those land-use types and densities along major traffic ways that are either more noise tolerant than other uses or which, with the use of design criteria, can be made compatible.

Impact No. 3

Projected increases in vehicular traffic, and in industrial and construction activity may result in an increased concentration of air pollutants.

Findings: Changes, alterations or specific policies or other criteria have been incorporated into the Specific Plan, which mitigate the air quality impact as identified in the final EIR; however, these measures will not reduce this impact to insignificant levels.

Facts:

1. For regulated projects the standards of the Shasta County Air Pollution Control District must be met as listed by Policy 40.
2. The Plan utilizes and builds upon the existing residential communities established in Anderson and in the Enterprise area by providing work centers around the Airport that will reduce the amount of travel necessary and therefore reduce vehicular pollutants that might otherwise be generated if persons had to travel to other work centers in the valley.
3. The street standards for all new roads within the study area depict paving as the surface material which will reduce particulates normally attributable to unpaved roads.
4. State or Federal mandated air pollution control equipment on air and ground vehicles should help reduce overall air degradation.
5. An adequate circulation system should reduce congestion, reduce travel distances and overall vehicle pollution.
6. It is anticipated that a public transportation system will be extended to the area as density increases.

Impact No. 4:

Adverse impacts such as soil erosion, stream sedimentation and stream and ground-water pollution could occur if development in the plan area were to continue to rely on the area's natural drainage.

Findings: Changes, alterations or specific policies or other criteria have been incorporated into the Specific Plan, which mitigate the drainage impact as identified in the final EIR; however, these measures will not reduce the impact to insignificant levels.

Facts:

1. The drainage channels of Clover Creek and Stillwater Creek will be recognized by the Plan.
2. Street standards call for incorporation of curbs and gutters and drainage works to adequately carry off-site the drainage waters.
3. Ultimately, a master drainage study and drainage plan will have to be developed to address the subject of an urban drainage system before the area is developed in an urban theme to urban densities.
4. Individual projects will be conditioned to mitigate adverse offsite drainage effects.

On September 29, 1982, the Board of Supervisors adopted the following environmental findings:

1. Changes, alterations or specific plan policies or other criteria have been incorporated into the Specific Plan which mitigate the effect on the significant agricultural lands, traffic noise, air pollution and drainage impacts as identified in the final EIR; however, these measures will not reduce these impacts to insignificant levels.

2. Specific economic, social or other considerations make infeasible the project alternatives as identified in the final EIR in that:
 - a) In view of the technical data developed by the Plan regarding noise and air safety, Alternative #1 is overly conservative and unnecessarily restrictive in nature.
 - b) Alternative #1 places severe and financial burdens on the Airport operator by requiring that nearly seven times the amount of land designated for acquisition by the other alternatives be purchased under this alternative.
 - c) Alternative #2 would not comply with noise standards mandated by the State of California and would subject a larger resident population to a noisy environment.
 - d) Alternative #2 would establish the largest resident population of all the Plans, thereby, building potential for inherent long-term land use conflicts.
 - e) Alternative #3 utilizes the large lot agricultural designation for lands that, although they may have a soil capability of Class II, have low fertility. As a consequence, the cost of production is high and other more suitable lands outside the Plan area are being used to continue growing of the high value, capital intensive crops formerly associated with the plains.
 - f) The conversion of agricultural lands is already occurring. The high cost of agricultural activity in this area does not justify an agricultural designation if airport and community related land use concerns can be adequately addressed by the use of land use designations other than "agricultural".
3. As "statements of overriding considerations" for the unavoidable significant effects on the environment regarding agricultural lands, traffic noise, air pollution and drainage impacts, the Board adopted the following:
 - a) That the Plan addresses safety and noise, land use, circulation and public facility concerns and will provide the guidance necessary to ensure that development in the Airport planning area will be compatible with and supportive of the Airport function and will maximize its contribution to the growth and development of Redding, Anderson and Shasta County and will protect the health and safety of present and future residents and property owners within the planning area.
 - b) That the current General Plan does not address in sufficient detail the concern for long-term operational capability of the Airport nor the desire to adequately provide for and yet protect future residents and other property users.
 - c) That the Plan will safeguard the Airport from intrusion by uses that could limit the expansion of air service to Redding, Anderson, Shasta County and the Northern California region by recognizing the vital service provided by the Airport and the need to maintain a level of operation necessary to satisfy existing and future aviation requirements of the user communities.
 - d) That the Plan is designed to prevent development that could lead to safety problems for air travelers and persons residing or working in the Airport environs.

- e) That the Plan will permit persons who live, work and own property near the Airport to enjoy a maximum amount of freedom from noise and other impacts generated by the operation of the Airport.
- f) That the Plan will comply with Airport noise standards mandated by the State of California and will ensure a development pattern that is compatible with airport-generated noise.
- g) That the Plan will protect the public investment in the Airport, a facility for which there is no feasible replacement.
- h) That the Plan will recognize the airport's role as a major entry point for the cities of Redding, Anderson and Shasta County, and protect and enhance the appearance of the Airport area.
- i) Although feasible, the alternatives do not substantially alter the total level of environmental impact.
- j) That the selection of the "no project" alternatives could mean that the objectives of the Plan would not be achieved.

H. PLAN ASSUMPTIONS SUMMARY

In summary, the major assumptions made in order to prepare this plan were as follows:

1. Airport aircraft operations will increase by 134 percent.
2. The plan area will grow and will become more urban.
3. The area will be served by sanitary sewers.
4. There is a need to develop industrial land in the South Central Region of Shasta County.
5. The Airport needs to be protected from incompatible development.
6. The Airport is a needed regional facility that is expensive to relocate.
7. Alone, the City of Redding does not have the resources to protect the Airport.
8. There will be thirteen near-airport aircraft accidents within the next twenty years.
9. Impacts from urbanization of the area can be mitigated to a reasonable level.

In addition, the State Division of Aeronautics, in its comment on the draft environmental impact report, made the following statement which is pertinent to the objectives of the Plan.

"Residential developments in the area should be discouraged as they inevitably lead to attempts to coerce curtailment of operations at the airport, or close the airport. Existing residences should not be allowed as a precedent for further residential development."

II. SPECIFIC PLAN DESCRIPTION AND POLICIES

A. AIRPORT DEVELOPMENT (1)

Airport development policies are based on the findings of Working Paper #1 (Airport Master Plan Update).

FINDINGS

-- A 134 percent increase in total aircraft operations between 1980 and 2000 is projected:

TABLE 1
AVIATION FORECAST SUMMARY

<u>Enplaned Passengers</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>2000</u>
Airline	53,000	77,000	97,000	134,000
Commuter	<u>9,000^a</u>	<u>13,000</u>	<u>18,000</u>	<u>26,000</u>
Total	62,000	90,000	115,000	160,000
<u>Based Aircraft</u>				
Shasta County	316	400	480	600
Redding Municipal Airport	140	180	230	300
<u>Aircraft Operations</u>				
Airline	4,225	4,600	5,000	6,000
Commuter	2,320	4,800	5,200	5,800
General Aviation	27,488	35,000	43,000	55,000
General Aviation Itinerant	<u>53,611</u>	<u>75,000</u>	<u>102,000</u>	<u>140,000</u>
Total General Aviation	81,099	110,000	145,000	195,000
Military	1,039	1,000	1,000	1,000
Total Aircraft Operations	88,683	120,400	156,200	207,800

a 1979 figures rounded

Source: Hodges & Shutt, Aviation Planning Services

See Working Paper #1 for forecast method and assumptions.

- The two air carriers serving Redding, Republic Airlines and Frontier airlines, expect to continue using twin-engine, turbo-fan aircraft. Their fleets are almost entirely DC-9s and Boeing 737s, and all orders for new equipment are for new technology (quieter, more fuel efficient) aircraft.
- The main runway (Runway 16-34) is of adequate length to accommodate existing demands and those that realistically can be projected. Assuming a stage length of 800 nautical miles (encompassing Denver, Los Angeles, and Seattle), the existing 7,000-foot runway is adequate for 737s and DC-9s on a 100°F day.
- Based upon the projections of air traffic movements prepared for the Specific Plan and the capacity of the airfield system as defined in the 1976 Master Plan, a parallel runway will be required to accommodate light aircraft training movements in the forecast period (1995-2000) (see Figure 2).
- The role of Runway 12-30 (5,077 feet) is to provide crosswind coverage and to improve overall airport capacity. Current plans call for lengthening to 6,500 feet and strengthening to allow its use by heavy fire attack aircraft and as a backup runway for the airlines when Runway 16-34 is inoperative.
- There are properties off the ends of Runway 16-34 that are significantly affected by airport activity and are eligible for acquisition under federal aid programs.
- Approximately 110 acres of airport property west of Airport Road is considered surplus to aviation needs. The Federal Aviation Agency (FAA) has indicated that this property could be released from aviation commitments, which would allow Redding to sell or lease it if the revenue is spent on grant-eligible airport improvements within five years. This offers a logical method of financing land acquisition in the approaches to Runway 16-34.
- Redding Municipal Airport's State airport Permit has no attached conditions or indicated variances to state and federal safety-related dimensional standards, including clear zone ownership, building setback requirements, etc.
- Noise contours were plotted using 1981 noise measurements (updated in 1989). The 55 CNEL contour cannot be accurately determined and is not needed for regulation, so no attempt was made to map it. Projections of the year 2000 noise environment were prepared using assumptions about the number of flights by type of aircraft and time of day (see Figures 3 and 4). The area of noise impact caused by jet aircraft will be smaller in 2000 than it is in 1981 because future airline and business jet aircraft will be substantially less noisy than current models.

Noise levels are expected to increase at the southeast end of Runway 12-30 as a result of increased use by non-jet aircraft. Noise at the northwest end of this runway will not increase because it rarely is used for either takeoffs or approaches due to the long taxi distance to or from the southeast corner of the airport.

- The impact of a parallel runway on off-airport land use will be insignificant since the noise impact will be engulfed in that of Runway 16-34 and no significant new flight tracks will be required to service the runway. A parallel runway at Redding Municipal airport may be beneficial in ultimately diverting traffic from Benton field, where off-airport conflicts may arise in the future.
- Construction of a parallel runway and extension of Runway 12-30 will have no significant effect on building height restrictions off airport property.

(1) Policies

- 1a. Sell or lease airport property west of Airport Road and apply proceeds to purchase of property in the approach areas to Runway 16-34 (see Figure 2).
- 1b. Acquire, clear, and retain properties shown on the plan north of Fig Tree Lane and five parcels fronting on Skyway Street, including the Anderson Grange.
- 1c. Construct a 2,700-foot parallel runway 700 feet east of Runway 16-34 late in the forecast period (1995-2000) to accommodate light aircraft training movements (see Figure 2).
- 1d. As funds permit, crosswind runway 12-30 should be lengthened to 6,500 feet and strengthened to allow its use by heavy fire attack aircraft and to allow it to serve as backup runway for the airlines when the runway is inoperative (see Figure 2).
- 1e. Develop airport service uses including restaurants, motels, car rental agencies, and aviation services on leasehold sites or airport property on the east frontage of Airport Road.
- 1f. Airport operations shall be evaluated regularly to assess the impact of aircraft operations on surrounding land uses and determine appropriate changes in Airport operations, where practical, to minimize impacts.

B. NOISE (2)^{2.5}

Aircraft noise has become the dominant airport issue in the environs of virtually all airports in California's larger metropolitan areas. A primary reason for preparation of the Specific Plan is to avoid this problem in the Redding area. Noise complaints currently are only occasional, but noise potentially could become a major nuisance for some residents of areas currently designated for residential use.

California Airport Noise Standards (California Administrative Code, Title 21, Sections 5000 et seq.) define the level of noise acceptable to a reasonable person residing in the vicinity of any airport as community noise equivalent level (CNEL) value of 65 dB. Section 5005(c) states that "This criterion level has been chosen for reasonable persons residing in urban residential areas where houses are of typical California construction and may have windows partially open. It has been selected with reference to speech, sleep, and community reaction." Section 5012(b) reads "Giving due consideration to economic and technological feasibility, the criterion CNEL for existing civilian airports is 70 dB until December 31, 1985 and 65 dB thereafter.

Federal "Guidelines for Considering Noise in Land Use Planning and Control"² discourage residential use within the 65 CNEL contour, stating that "The absence of viable alternative development options should be determined and an evaluation indicating that a demonstrated community need for residential use would not be met if development were prohibited in these zones, should be conducted prior to approvals".

²Federal Interagency Committee on Urban Noise, June 1980.

^{2.5}The policies are numbered in a progressive sequence to maintain numerical relationships and references established by the consultant in the draft specific plan.

Within the 65 CNEL contour, there currently are 2 churches, the Anderson Grange, 59 single-family homes on foundations, and 15 mobilehomes. Although the area of impact will be less in the year 2000 than it is in 1981, significant changes are not expected until near the end of that period when virtually all of the older, noisier aircraft have been retired. Consequently, the Specific Plan map shows the composite 1981-2000 60 and 65 CNEL contours. These contours bound the maximum area subject to each noise level within the projection period.

California Noise Insulation Standards (California Administrative Code, Title 25, Section 28) are applicable to new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings. These standards require interior CNEL with windows closed to be 45 dB or less in an habitable room. They also require new residential structures (excluding single-family detached units) within the 60 CNEL contour to have an acoustical analysis showing that the structure has been designed to limit intruding noise to the prescribed level. This law does not take into consideration regional climatic conditions that cause residents either to open windows or consume large amounts of energy for air conditioning nor does it address the problem of modifying the acoustical properties of existing residential structures within the 60 CNEL contour.

Fund for Purchase of Noise-Impacted Properties. FAA grants may be used to acquire land within the current or projected 65 CNEL contour, but Redding would not be high enough on the priority list to qualify, given current funding levels. However, the FAA would agree to the sale of 110 acres of surplus airport property west of Airport Road if the revenue were used for grant-eligible airport improvements within 5 years. Assuming sale at \$25,000 per acre, \$2.75 million could be raised. Land purchased with these funds could be leased to compatible uses, but approval for sale may be difficult to obtain.

Noise Management Plan, Part 150 Study. This study was completed in 1987 and adopted in August, 1989. It served as the basis for the December, 1988 and November, 1989 amendments of this Plan.

(2) Policies

- 2a. Designate certain land within the south Inner Approach Zone, as shown on the Specific Plan, for airport acquisition as availability of funds permits. The designation of "Acquisition" is made based on the concerns of noise impact and safety and the potential for conflict between Airport operations and future users of the affected properties.
- 2b. Designate land within the 60 CNEL contour (See Figure 4.5) for non-residential use in order to attain consistency with noise standards of the City of Redding and Shasta County General Plans.
- 2c. Notify owners of developed residential property within the designated airport acquisition area and the designated industrial area (as shown on Figures 5.5 and 5.6) subject to the 60 CNEL (as shown on Figure 4.5) of the City of Redding's willingness to purchase, subject to availability of funds, requesting first refusal purchase opportunity.

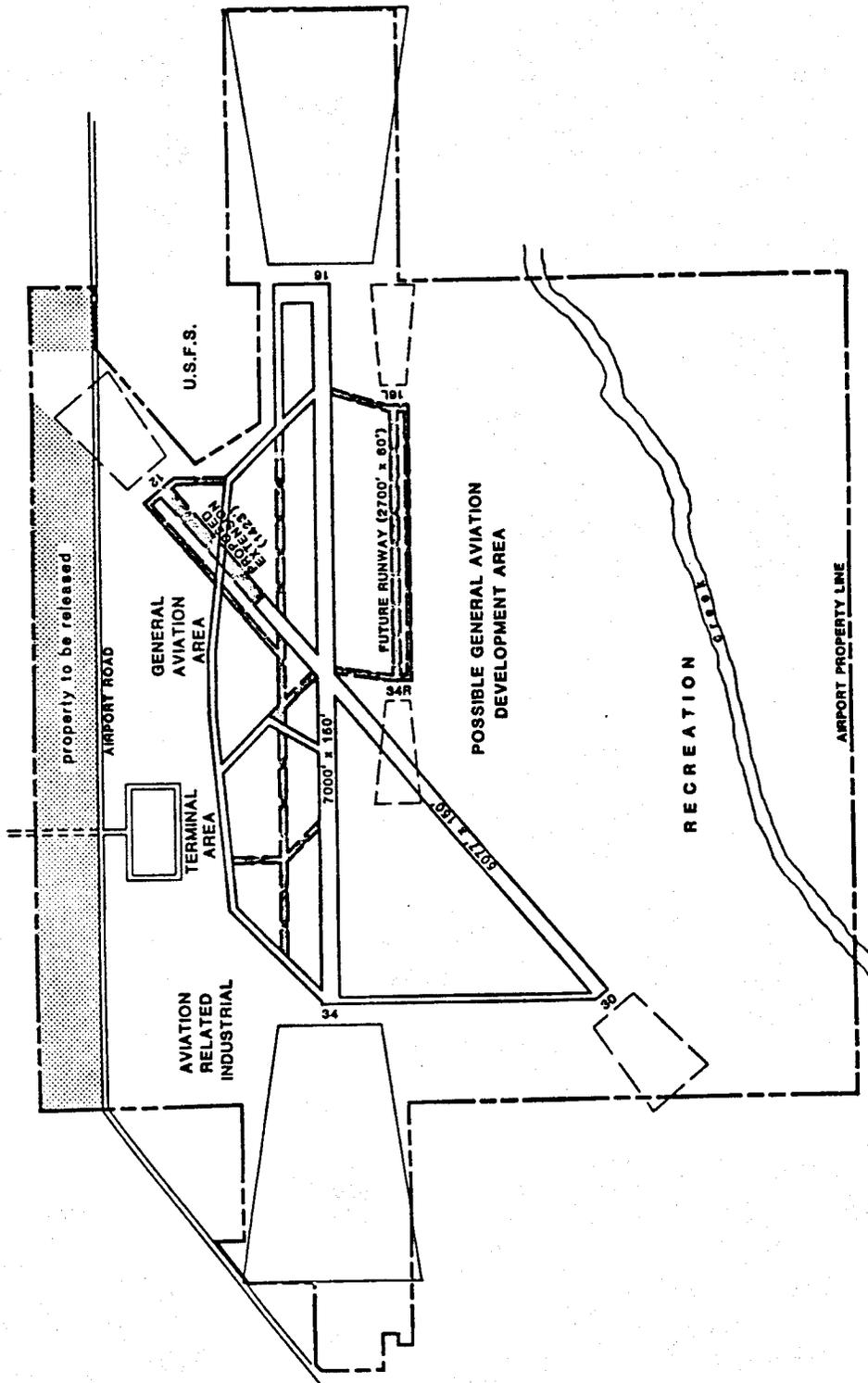


Figure 2.

AIRPORT DEVELOPMENT SCHEMATIC



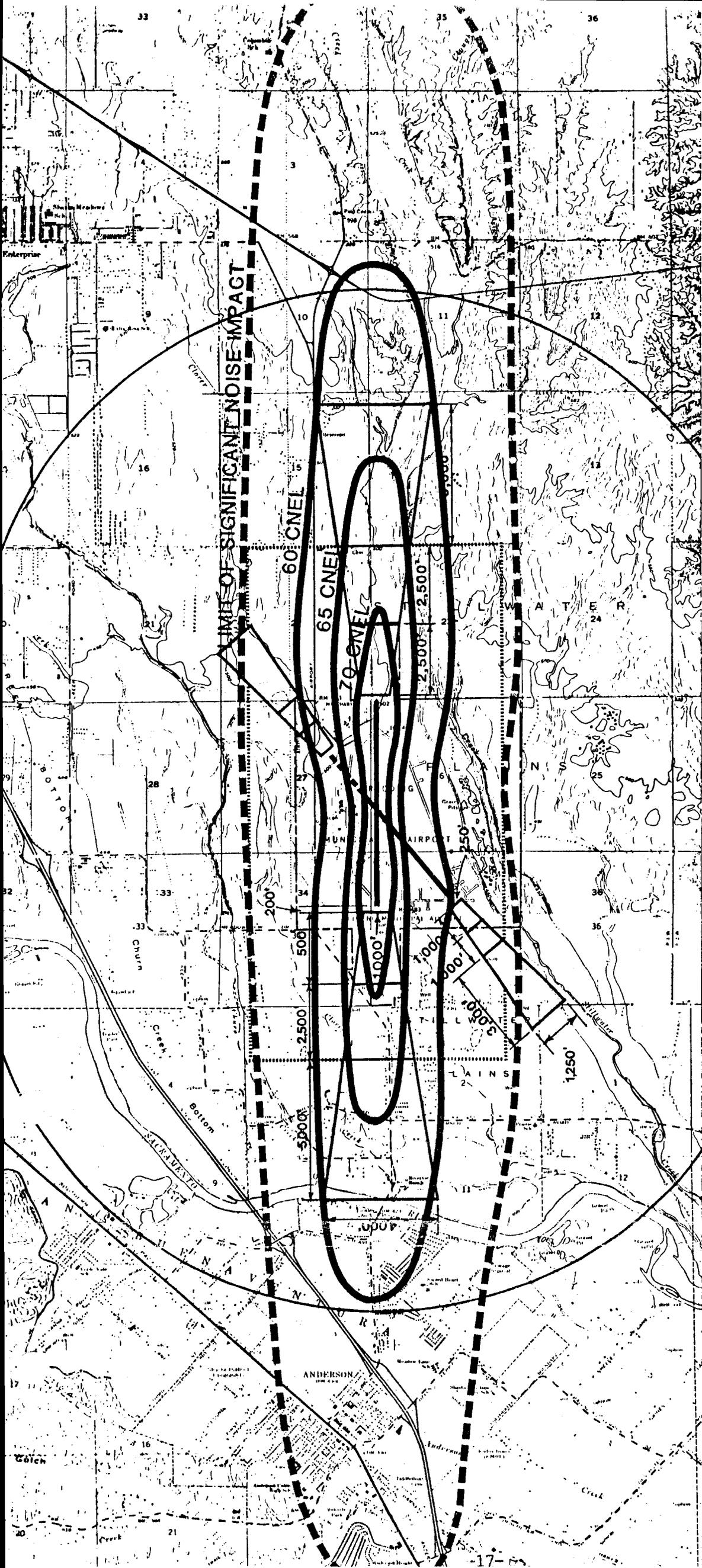


Figure 3. NOISE IMPACT AREA - 1981



- 1/ Primarily U.S. Forest Service and California Division of Forestry fire attack aircraft. Total operations figures represent average day of 4-month fire season.
- 2/ No night operations on Runway 12-30.

Aircraft Mix	Total Operations Average Day	Runway Utilization						Time of Day				
		Takeoff		Landing		Day (0700-1900 hours)	Evening (1900-2200 hours)	Night (2200-0700 hours)				
DC-9/737	14	16	34	12	30	16	34	12	30	78%	15%	7%
Business or Military Jet	6	40%	60%	—	—	40%	60%	—	—	84%	16%	—
4-engine propeller	4	60%	40%	—	—	25%	75%	—	—	75%	25%	—
2-engine propeller: heavy	2	60%	40%	—	—	25%	75%	—	—	75%	25%	—
2-engine propeller: light	30	28%	42%	30%	—	32%	48%	2%	18%	84%	14%	2%
1-engine propeller	218	26%	39%	34%	1%	30%	45%	3%	22%	86%	12%	2%

Aircraft Mix

DC-9/737

Business or Military Jet

4-engine propeller

2-engine propeller: heavy

2-engine propeller: light

1-engine propeller

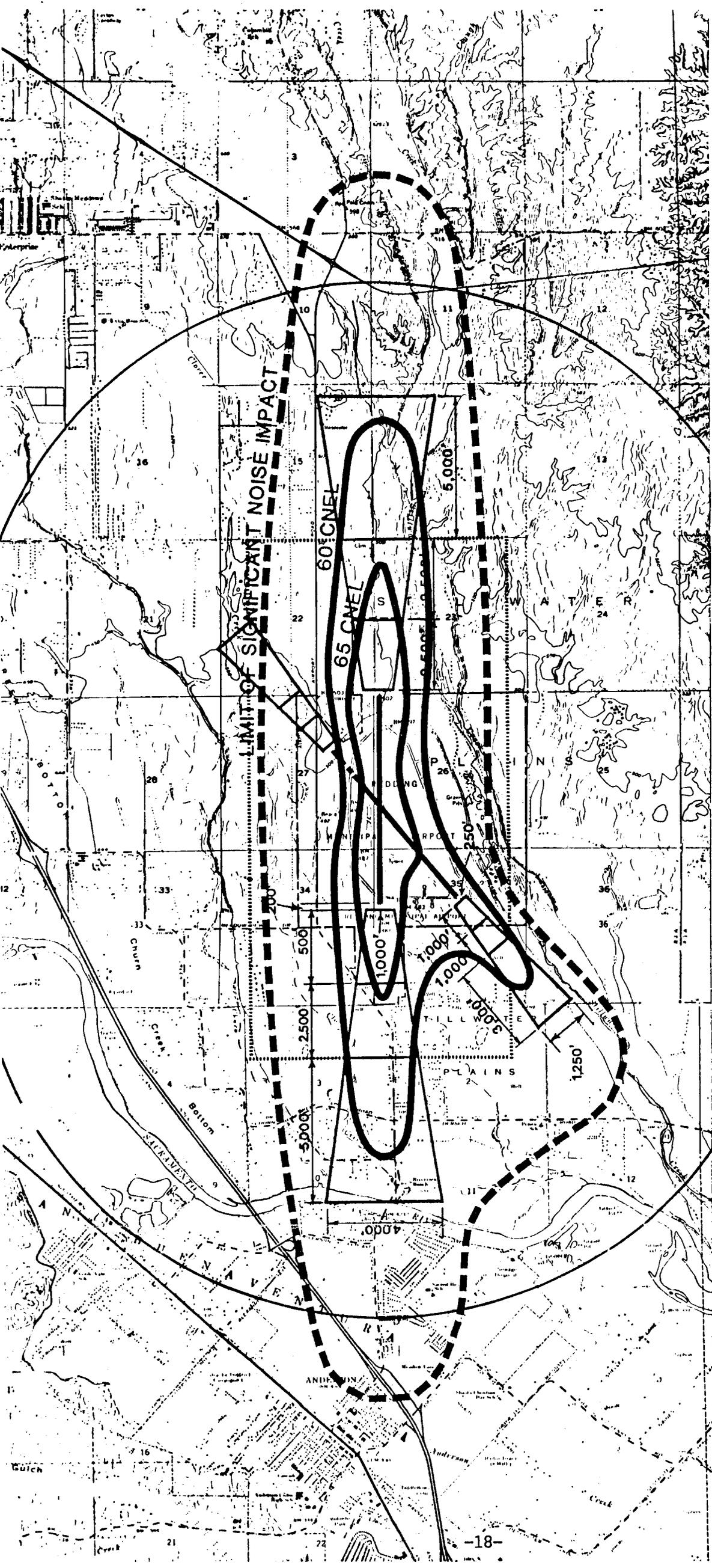
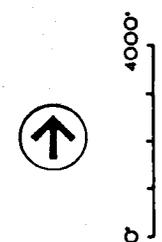


Figure 4. NOISE IMPACT AREA - 2000



- 1/ Primarily U.S. Forest Service and California Division of Forestry fire attack aircraft. Total operations figures represent average day of 4-month fire season.
 - 2/ No night operations on Runway 12-30.
- NOTE: 70 CNEL contour remains within 200 feet of runway.

Aircraft Mix	Total Operations Average Day	Runway Utilization						Time of Day				
		Takeoff			Landing			Day (0700-1900 hours)	Evening (1900-2200 hours)	Night (2200-0700 hours)		
DC-9/737	19	16	34	12	30	16	34	12	30	7%	7%	7%
Business or Military Jet	30	40%	60%	15%	—	40%	60%	15%	—	15%	15%	2%
4-engine propeller	4	34%	51%	20%	—	36%	54%	15%	9%	17%	17%	2%
2-engine propeller heavy	2	48%	32%	20%	—	30%	45%	25%	25%	25%	25%	—
2-engine propeller light	73	45%	30%	25%	—	28%	42%	25%	25%	75%	75%	—
1-engine propeller	250	26%	42%	30%	—	32%	48%	25%	18%	82%	15%	3%
		26%	39%	34%	1%	30%	45%	3%	22%	84%	15%	3%

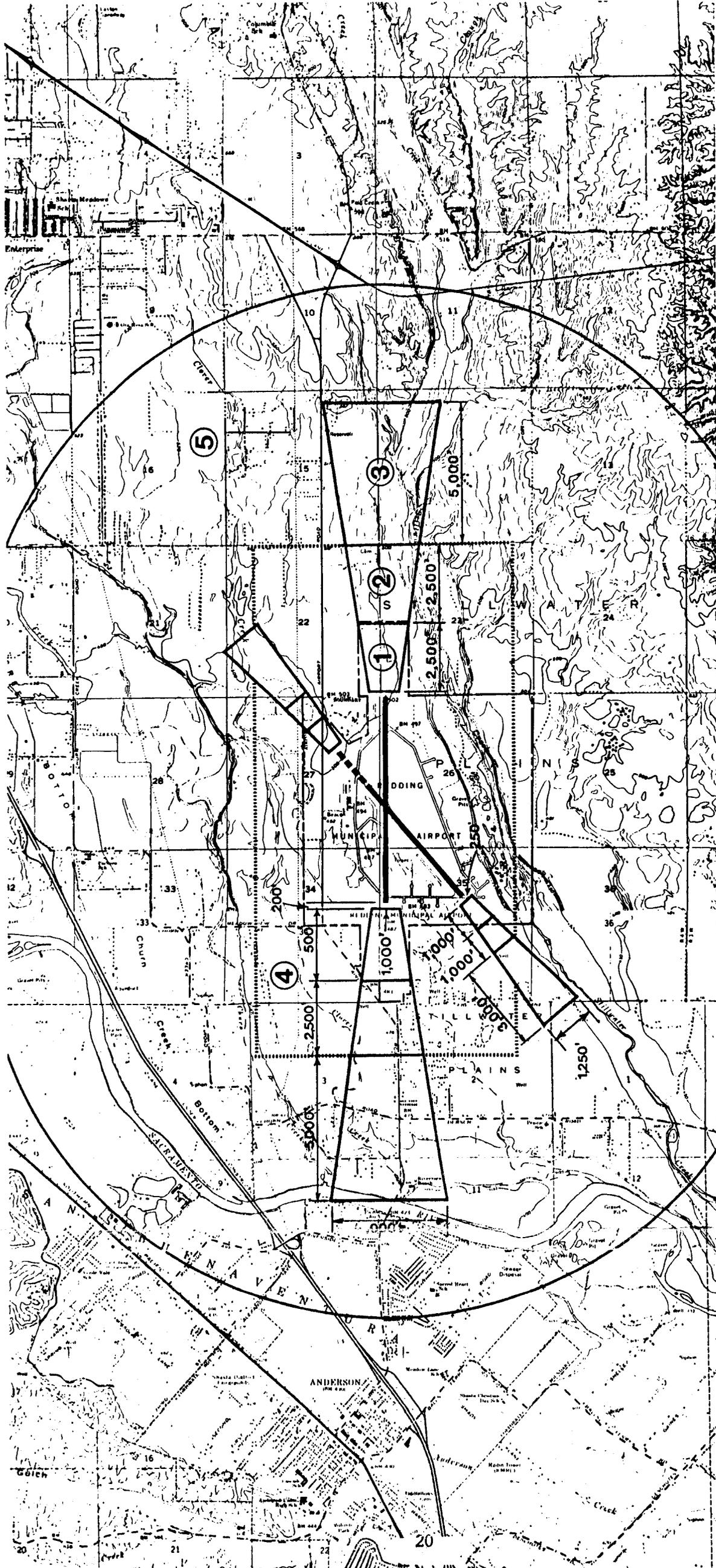


Figure 5. SAFETY ZONES

- 1 - Clear Zone
- 2 - Inner Approach Zone
- 3 - Outer Approach Zone
- 4 - Traffic Pattern Zone
- 5 - Horizontal and Conical Zones



2d. If the number of owners wishing to sell exceeds the funds available, a priority list should be established and should remain in force until all properties receiving priority 1, 2 or 3, on the initial list have been acquired or converted to a compatible use, or the request to purchase has been withdrawn.

Priority: 1. Residential units on Skyway Street and Fig Tree Lane sites designated to be acquired and retained as airport property.

2. a) The Anderson Grange and residential units adjacent to the Anderson Grange; and
- b) Land north of the runway necessary to permit extension of the primary runway.

3. Residentially developed areas north and south of the Airport designated for acquisition (Figures 5.5 and 5.6).

2e. Property acquired that is not designated for retention as airport property should be resold or released for a compatible use, subject to conservation easements and/or avigation easements where appropriate.

2f. Require noise agreements as a condition of use permit, subdivision, or parcel map approval within the projected 60 CNEL contour (shown on the Plan map) and within the Traffic Pattern Zone (shown on Figure 5). The agreements should preclude suits for damages or to enjoin airport operations to limit noise and should run with the land.

2g. Require construction of walls and/or berms as illustrated in Figure 6, adjacent to freeways and expressways in residential areas to mitigate noise impacts where CNEL noise levels will exceed prescribed State standards.

2h. Acquire conservation easements and avigation easements where feasible in areas identified on Figures 5.5 and 5.6.

2i. Develop an affirmative and effective buyer awareness program to make the public aware of aircraft overflights.

2j. Require deed notices for all future subdivisions within the airport influence area which state that the property is within the Redding Municipal Airport influence area and is subject to overflights by aircraft.

C. SAFETY (3)

National Transportation Safety Board data on all serious general aviation accidents in the U.S. during the five-year period from 1974 through 1978 indicate that nearly 50 percent of such accidents took place on an airport, another 30 percent occurred enroute (beyond 5 miles from an airport), and that only 20 percent were "near airport". Of the "near airport" accidents—there were some 4,600 in the five-year period—the majority (63 percent) were within the traffic pattern or 1/2 mile of an airport and as the distance increased, the frequency decreased. During the same five-year period, only 14 "near airport" aircraft accidents (an average of 3 per year nationwide) resulted in deaths to people on the ground. A total of 21 non-aircraft occupants (approximately 4 per year) died in these accidents.¹ By comparison, National Safety Council data indicate that for the period from 1970 through 1978, some 1,000 people (an average of 11 per year) died from lightning strikes.

¹This figure does not include the 76 non-occupant fatalities that resulted from the September 1978 crash of a Boeing 727 in San Diego following a mid-air collision with a general aviation aircraft.

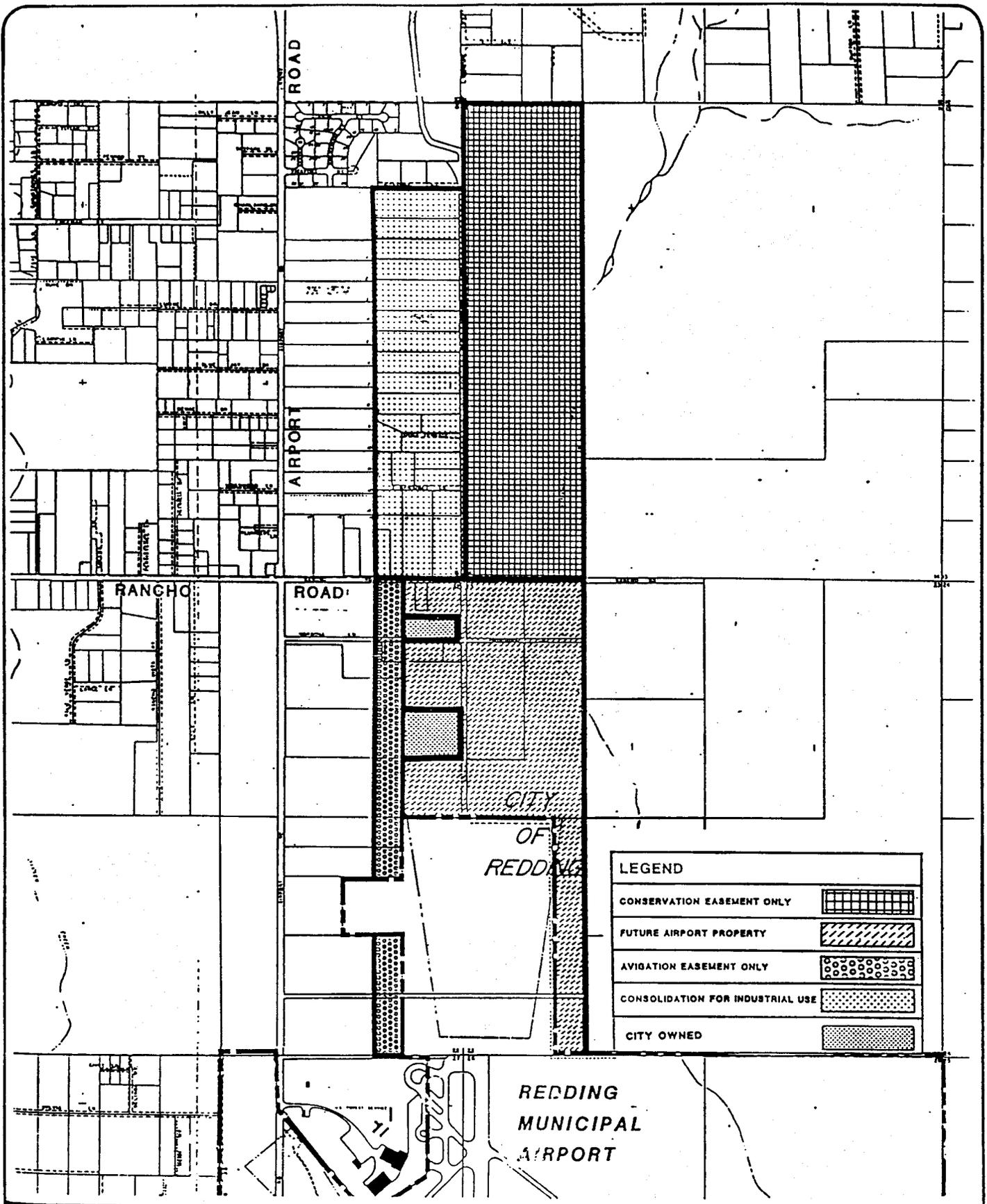
Relating these numbers to forecast aircraft activity levels at Redding Municipal Airport, 13 "near airport" accidents can be expected within the next 20 years. The expanse of the Redding Airport property, however, points to an incidence of "near airport" accidents substantially lower than this figure. Most general aviation airports have runways only one-third to one-half as long as Redding's 7,000-foot primary runway and many have property lines as close as 200 feet to the runway ends, compared to as much as 3,400 feet at Redding. An aircraft taking off, having engine failure, and making an emergency landing a mile beyond the runway end at a small airport could still be on airport property at Redding.

(3) Policies

- 3a. Land use and density regulations should be in accord with the criteria in Table 2.
- 3b. To maintain the ability to provide open areas that could be used for an emergency landing, no parcels smaller than five acres should be created within the Inner Approach Zone and no non-residential parcels smaller than five acres should be created within the Outer Approach Zone. In the area outside the Inner Approach Zone designated "Clustered Low Intensity", the minimum parcel size shall be 5 acres unless the parcels are created as part of a single parcel map totaling 15 or more acres and with the building pad areas identified on the Final Map, in which case the minimum shall be as specified by the applicable zoning. These limitations affect new industrial parcels and do not unduly limit the choice of parcel sizes within the airport environs. Residential parcel sizes in the Outer Approach Zone as designated on the Plan are consistent with existing development and are large enough to allow maintenance of open areas for safety.
- 3c. Designate for acquisition those properties as identified on Figures 5.5 and 5.6. When a development application is filed for property wholly or partially within the identified area, the affected public agency(s) shall, within 90 days of the date of filing, determine whether all or part of the development rights of the land area shall be acquired. If the acquisition option is not exercised, the development permit may be processed in accordance with remaining Plan policies and applicable standards.
- 3d. Amend the Redding Municipal Airport Hazard Zoning Ordinance to define and map Inner Approach Zones, Outer Approach Zones, and the Traffic Pattern Zone as shown on Figure 5.
- 3e. Specify the following limitations within the Traffic Pattern Zone:
- Schools, hospitals, nursing homes, and similar uses housing persons with low effective mobility shall not be permitted.

Subdivision, land division and design review should ensure that open areas remain, where feasible, having a size and shape such that a small aircraft conceivably could make an emergency landing without damage to buildings or serious injury to aircraft occupants. Conditions imposed may affect the shape of parcels, the location and alignment of streets, and the placement of buildings, but should be consistent with the bulk, coverage and site area standards established by the zoning regulations.

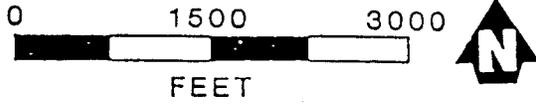
Within the Inner Approach Zone and the area identified as "Clustered Low Intensity Industrial", (Figure 5.7) uses in structures shall not attract more than 10 persons per acre and uses not in structure (open uses) shall not attract more than 25 persons per acre.



LEGEND	
CONSERVATION EASEMENT ONLY	
FUTURE AIRPORT PROPERTY	
AVIGATION EASEMENT ONLY	
CONSOLIDATION FOR INDUSTRIAL USE	
CITY OWNED	

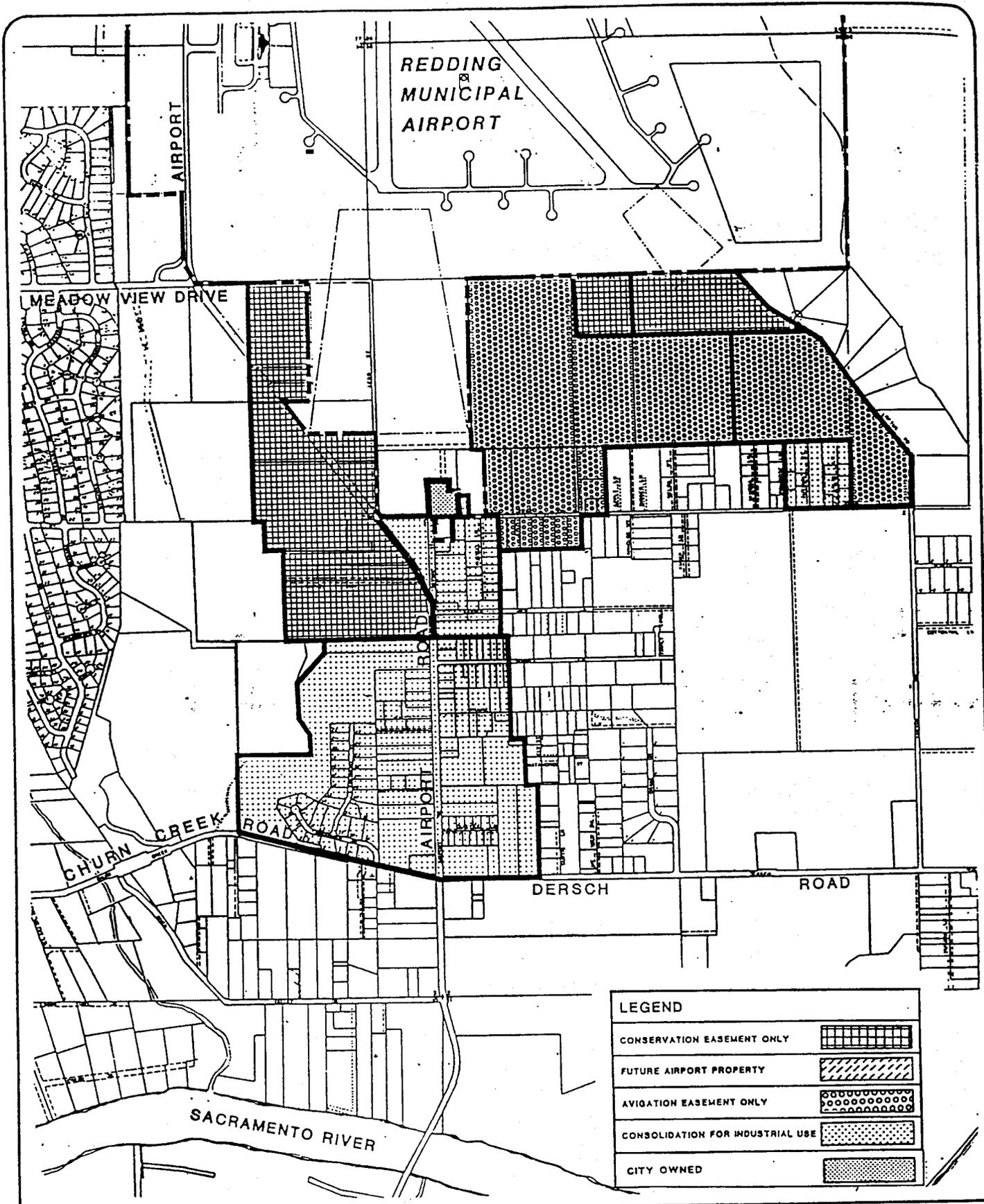
AVIATION PLANNING SERVICES

 BILL HODGES & SHUTT



PROPOSED PROPERTY ACQUISITION

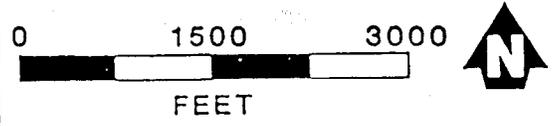
Figure 5.5



LEGEND	
CONSERVATION EASEMENT ONLY	
FUTURE AIRPORT PROPERTY	
AVIGATION EASEMENT ONLY	
CONSOLIDATION FOR INDUSTRIAL USE	
CITY OWNED	

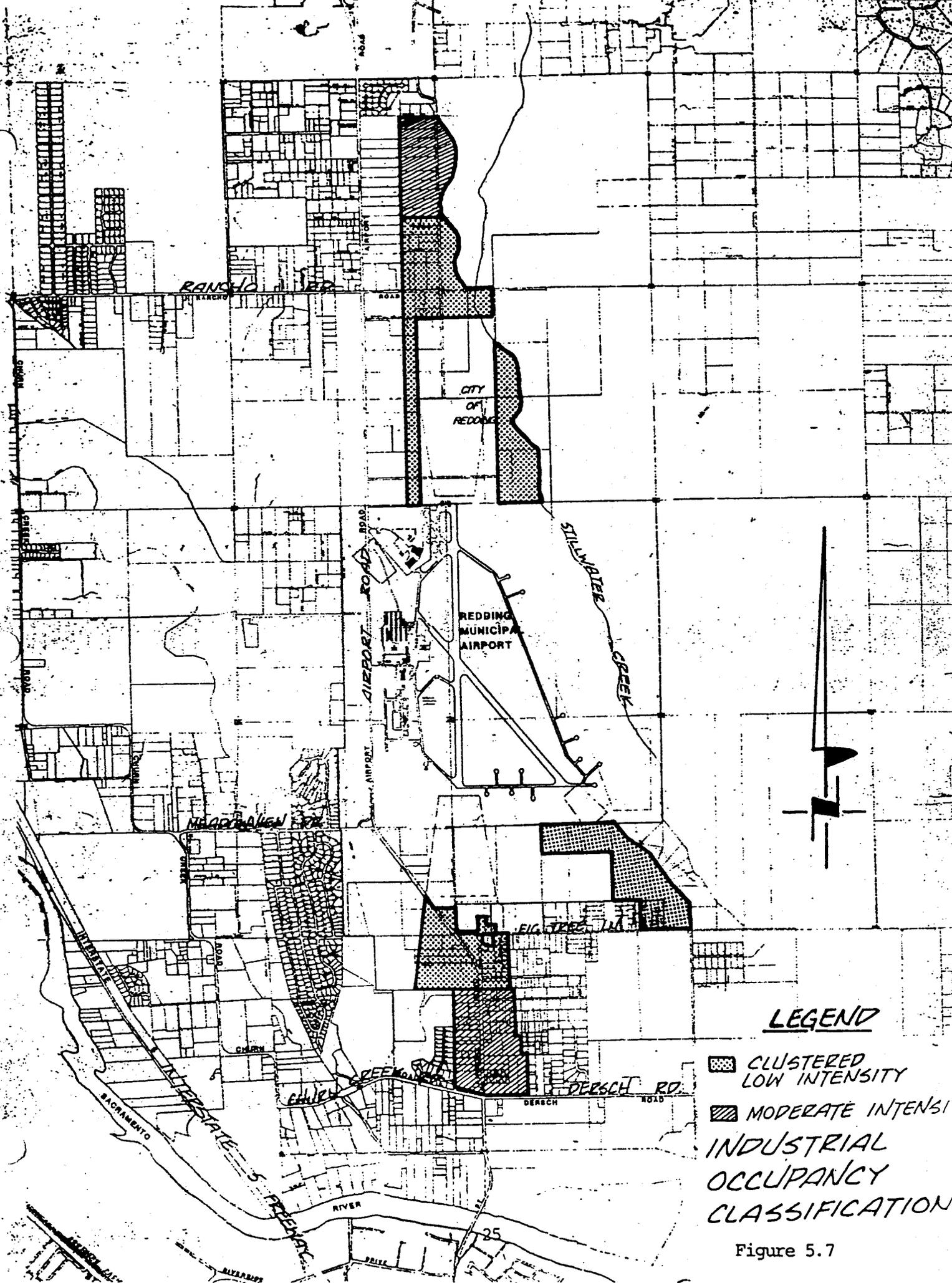
AVIATION PLANNING SERVICES

 8111 HODGES & SHUTT



PROPOSED PROPERTY ACQUISITION

Figure 5.6



LEGEND

-  CLUSTERED LOW INTENSITY
 -  MODERATE INTENSITY
- INDUSTRIAL
OCCUPANCY
CLASSIFICATION.

Figure 5.7

**TABLE 2
AIRPORT/LAND-USE SAFETY COMPATIBILITY CRITERIA**

LAND-USE CHARACTERISTIC	SAFETY ZONES				
	Clear Zone	Clustered Low Intensity Industrial Including Inner Approach Zone	Moderate Intensity Industrial Including Outer Approach Zone	Traffic Pattern Zone	Horizontal and Conical Zone
Residential Uses	-	-	(A,F)	+	+
Other Uses in Structures	-	(C,E,F)	(D,E,F)	+	+
Other Uses Not in Structures	(C,G)	(D)	+	+	+
Special Characteristics:					
Distracting lights or glare	-	-	-	(G)	(G)
Sources of smoke or electronic interference	-	-	-	(G)	(G)
				+	+

INTERPRETATION:

+ ACCEPTABLE: Use is acceptable with little or no risks.

() CONDITIONALLY ACCEPTABLE: Risks exist, but use is acceptable under conditions cited below:

- A Density no greater than 1 dwelling unit per 5 acres.
- B Density no greater than a maximum of 3 dwelling units per acre.
- C No uses attracting more than 10 persons per acre.
- D No uses attracting more than 25 persons per acre.
- E No schools, hospitals, nursing homes, or similar uses.
- F Each parcel created within a safety zone shall retain at least 20 percent of the area in an open condition (having a size and shape such that a small aircraft could conceivably make an emergency landing without damage to buildings or serious injury to aircraft occupants).
- G Characteristic cannot reasonably be avoided or located outside the indicated safety zone.

- UNACCEPTABLE: Use is unacceptable due to associate high risks.

Source: Hodges and Shutt, Aviation Planning Services.

D. LAND USE (4)

The specific Plan designates a parcel-specific land use pattern for portions of the planning area east of Churn Creek. Each use designation is intended to be translated to existing or new zoning district regulations to be adopted by each affected jurisdiction.

Table 3 summarizes the land use allocations of the Specific Plan, and the following sections list policies relevant to each land use category.

Residential

The highest densities permitted in most of the study area by the Redding Draft General Plan and County zoning are 2 units per gross acre, exemplified by the 20,000-square-foot lots typical of the Wooded Acres subdivision. The current County General Plan allows densities up to 3 dwelling units per acre. The only areas of significantly higher density are in Anderson and in Fairway Oaks Mobilehome Park with 197 units at 8.2 units per acre. No sewers exist outside Anderson, so the effective minimum lot size has been determined by septic system needs—typically 20,000 square feet. However, the Regional Water Quality Control Board recently has required sewers for development at this density north of Rancho Road. The plan assumes that new residential development west of Stillwater Creek will have sewers.

The Specific Plan provides 10 residential density classifications, ranging from 1 unit per 10 acres to 12 units per acre. At full development, 44 percent of the homes will be at a density of 2 units per acre and 8 percent will be at 3 units per acre; the average urban residential density (1 unit per acre or greater) will be 1.6 units per acre. The total of 6,554 units will accommodate 19,662 persons at an average of 3 persons per unit. There were about 1,445 units in the planning area in June 1981.

The various Residential designations are defined as follows:

- a. 1.0 Dwelling Unit per ten (10) or one (1) Dwelling Unit per five (5) Gross Acres These single-family densities are used where neither public sewer nor water service are available and on certain hillside areas. Such designated areas generally have no accessibility or only limited accessibility via maintained public roads. The rural setting and agricultural potential are recognized.
- b. 1.0 Dwelling Unit per Two (2) Gross Acres - This single family density is used where neither public sewer nor water are available and on certain hillside areas. The use of this category should be limited in order to prevent premature land fragmentation in advance of urban services or reduction of agriculture lands.
- c. 1.0 Dwelling Unit per Gross Acre - This is essentially a large single-family-lot urban density where public sewer is not available and where soil conditions are such as to allow the use of septic tanks on one-acre parcels. This designation is suitable for steeper hillside areas and in areas where either City does not plan to extend sewer service due to topographic reasons. It is essentially an urban fringe classification for use in areas exclusive of "Greenway" and "Agriculture", in which the one acre pattern is substantial.

D. LAND USE (4)

The specific Plan designates a parcel-specific land use pattern for portions of the planning area east of Churn Creek. Each use designation is intended to be translated to existing or new zoning district regulations to be adopted by each affected jurisdiction.

Table 3 summarizes the land use allocations of the Specific Plan, and the following sections list policies relevant to each land use category.

Residential

The highest densities permitted in most of the study area by the Redding Draft General Plan and County zoning are 2 units per gross acre, exemplified by the 20,000-square-foot lots typical of the Wooded Acres subdivision. The current County General Plan allows densities up to 3 dwelling units per acre. The only areas of significantly higher density are in Anderson and in Fairway Oaks Mobilehome Park with 197 units at 8.2 units per acre. No sewers exist outside Anderson, so the effective minimum lot size has been determined by septic system needs—typically 20,000 square feet. However, the Regional Water Quality Control Board recently has required sewers for development at this density north of Rancho Road. The plan assumes that new residential development west of Stillwater Creek will have sewers.

The Specific Plan provides 10 residential density classifications, ranging from 1 unit per 10 acres to 12 units per acre. At full development, 44 percent of the homes will be at a density of 2 units per acre and 8 percent will be at 3 units per acre; the average urban residential density (1 unit per acre or greater) will be 1.6 units per acre. The total of 6,554 units will accommodate 19,662 persons at an average of 3 persons per unit. There were about 1,445 units in the planning area in June 1981.

The various Residential designations are defined as follows:

- a. 1.0 Dwelling Unit per ten (10) or one (1) Dwelling Unit per five (5) Gross Acres These single-family densities are used where neither public sewer nor water service are available and on certain hillside areas. Such designated areas generally have no accessibility or only limited accessibility via maintained public roads. The rural setting and agricultural potential are recognized.
- b. 1.0 Dwelling Unit per Two (2) Gross Acres - This single family density is used where neither public sewer nor water are available and on certain hillside areas. The use of this category should be limited in order to prevent premature land fragmentation in advance of urban services or reduction of agriculture lands.
- c. 1.0 Dwelling Unit per Gross Acre - This is essentially a large single-family-lot urban density where public sewer is not available and where soil conditions are such as to allow the use of septic tanks on one-acre parcels. This designation is suitable for steeper hillside areas and in areas where either City does not plan to extend sewer service due to topographic reasons. It is essentially an urban fringe classification for use in areas exclusive of "Greenway" and "Agriculture", in which the one acre pattern is substantial.

- d. 2.0 Dwelling Units per Gross Acre - This is a single family category with full urban services available. Typical lots range from 15,000 to 22,000 square feet in area. Planned-unit developments may be constructed in this classification as discussed later in this section. This density is suitable for areas where this lot-size pattern is predominantly suitable for conventional single-family subdivisions, cluster subdivisions or planned developments.
- e. 3.0 Dwelling Units per Acre - This is a single-family residential density with lots ranging from 9,000 to 12,000 square feet in area. This classification is suitable for conventional single-family subdivisions, cluster subdivisions or planned developments.
- f. 4.0 Dwelling Units per Acre - This is a single-family residential density with lots varying in area from 5,000 to 10,000 square feet. This is suitable for areas of flat to nearly level slopes. Good access is important to those areas so as not to overburden nearby residential streets suitable for conventional single-family subdivisions, cluster subdivisions or planned developments.
- g. 6.0 Dwelling Units per Gross Acre - This is a transition classification that can be developed as small lot, single-family residential; duplexes; planned unit development; low-density multiple-family apartments; and mobilehome parks in appropriate areas. Full urban services would be available and there would be adequate street access and utility capacities. This classification is suitable for areas of flat to low slopes, depending upon the form of development. The minimum lot size for single-family homes would be 6,000 square feet and for duplexes or multiple-family developments, 11,000 square feet.
- h. 9.0 Dwelling Units per Gross Acre - This is a low-density multiple-family classification suitable for duplexes, apartments, dwelling groups, planned developments, condominiums or mobilehome parks. Minimum lot sizes for duplexes and apartments should not be less than 11,000 square feet. Full urban services would be available, and there would be reasonable proximity to a major arterial.
- i. 12 Dwelling Units per Acre - This is a multiple-family density for apartments, dwelling groups, planned developments and condominiums. The minimum lot size should not be less than 12,000 square feet. Full urban services would be available, and there would be reasonable proximity to a major arterial.
- j. Office/Residential - The "Office/Residential" classification is conceived as a transition use within commercial areas or between commercial and residential areas. It is especially suitable for areas where there is some mixed office and residential use occurring already.

When property is used for residential purposes, the density should not exceed 14 dwelling units per gross residential acre. When used for office purposes, the office development and its accompanying off-street parking should be sited and arranged to protect the living environment of the adjoining residences while meeting the standards of the "Office" category.

(4) Policies

- 4a. Limit density of new residential development within the Traffic Pattern Zone to a maximum of 3 units per gross acre in accordance with Table 2.
- 4b. Provide housing opportunities for a variety of dwelling types and densities. Within the Traffic Pattern Zone, encourage but do not require clustered housing including attached units.
- 4c. Apply existing City and County zoning regulations appropriate to the designated Plan density. Amend Shasta County zoning regulations to include districts permitting 6, 9, and 12 residential units per gross acre. Amend County and City of Redding regulations to require design review for projects including 6 or more attached units or 6 or more units per gross acre.

TABLE 3
LAND USE SUMMARY, REDDING MUNICIPAL AIRPORT AREA

<u>Land Use Designation</u>	<u>Number of Acres</u>	<u>Potential Housing Units</u>
<u>Airport and Airport Service</u>	1,103 ³	
<u>Residential</u>		
1 unit/10 acres	0	0
1 unit/5 acre	1,378	275
1 unit/3 acres	0	0
1 unit/2 acres	3,915	1,957
1 unit/acre	39	39
2 units/acre	1,468	2,936
3 units/acre	192	576
6 units/acre	42	252
9 units/acre	47	423
12 units/acre	8	96
<u>Commercial</u>		
Office	94	
Retail	52	
Highway Service	15	
	113	
<u>Industrial</u>	1,364	
<u>Schools</u>	5	
<u>Public Institutional</u>	110	
<u>Park</u>	381	
<u>Greenway and Roads</u> ⁴	1,693	
<u>Totals</u>	12,019 ⁵	6,554
<u>Population</u> (@ 3 persons/household)		19,662

³Figure includes airport acquisition area.

⁴Figure is residual after measurement of other uses.

⁵Total acreage here is less than the total acreage in the planning area because land uses have not been designated west of Churn Creek.

Greenway areas consisting of slopes in excess of 20 percent or 100-year floodplains should be deducted when computing allowable densities, but planned developments may be granted density bonuses up to but not exceeding the following:

<u>Specific</u> Plan Density (Units/Acre)	<u>Maximum Planned</u> Development Density (Units/Acre)
1	1.25
2	1.50
6	7.50
9	12.0
12	15.0

2. Airport Service - This classification includes activities more specifically depicted on the Airport Master Plan,⁴ which are typically associated with a municipal airport and described as follows:

Those activities involving the sale of aviation services for profit to the general public, including maintenance, storing and servicing of aircraft; sale of aircraft parts and accessories; sale of aircraft fuel, lubricants and propellants; sale of aerial survey photography and mapping services; sale of aerial taxi and sightseeing services; and mapping services; sale of aerial taxi and sightseeing services; operation of nonscheduled and chartered transportation; etc.

Those activities which involve the maintenance of facilities for the basing and servicing of the aircraft of an individual, private organization, or corporation solely for its own benefit and not for the public.

Those activities which do not require direct airfield access such as transient retail service, and lodging uses such as hotels, motels, restaurants, conference centers, car rental agencies, lounges, and service stations, provided all applicable safety criteria are met.

Areas set aside or used for the operation of aircraft, including areas to be reserved for protection from encroaching obstructions or facilities such as clear zones, runways and taxiways.

Areas required for airport maintenance or operating services such as fuel storage, air navigational aids and hanger and tie down areas.

Areas encompassing the passenger terminal buildings, automobile parking lots, service and passenger roads, and portions of aprons adjacent to the terminal buildings.

⁴Master Plan for Redding Municipal Airport, City of Redding. Prepared by R. Dixon Speas Associates, Los Angeles, California

3. Offices

Airport Road offers a potentially attractive environment for region-serving offices, assuming high design standards are maintained. The first two or three projects will set the standard for the planning period. The airport will provide identity; access to air transportation will be a secondary attribute. Once Airport Road becomes established as an office address, related retail and service enterprises, supported in part by airport activity and in part by office patronage, can survive.

(4) Policies

- 4d. Locate offices on portions of Airport Road and Hartnell Avenue frontage as designated on the Plan map.
- 4e. Amend County and Redding zoning ordinances, or set permit conditions to create an office district including the following regulations:

Purpose: To provide a high quality environment for region-serving offices in an office park setting.

Permitted Uses:

Professional and administrative office
Business support service

Conditional Uses:

Public utility and public service structures
Retail sales of food to be consumed primarily by persons working on the site.

Maximum Height: 40 feet; not to exceed 15 feet within 80 feet of an "R" District.

Minimum Site Area and Width: 1 acre, 150 feet.

Maximum Building Coverage and Floor Area Ratio: 30 percent of site area.

Minimum Yards: Front yard 30 feet; street side yard 15 feet; interior rear and side yards 10 percent of parcel depth or width, minimum 10 feet.

Landscaping and Screening: Required yards adjoining streets and required yards adjoining "R" Districts should be landscaped with plant materials; total minimum planted area 20 percent of site area; 6-foot solid masonry wall or wall of block posts with solid wood inserts on property line adjoining an "R" District; minimum 1 shade tree per 8 parking spaces plus row of trees in yards adjoining "R" Districts.

Parking: See Table 4.

Signs: 90 square feet per sign face; maximum 2 sign faces per site. Signs not to exceed 12 feet in height or to be closer than 12 feet to a property line. Illumination to be indirect. A freestanding sign should be located in a landscaped island.

4. Retail Commercial

Convenience shopping and the airport have little functional relationship, but Airport Road will be the access route serving a tributary population of about 20,000 persons at full development—enough to support two neighborhood shopping centers. Currently, there are no supermarkets in the study area, and the nearest ones are on Hartnell Avenue or in Anderson.

The proposed plan designates three locations for retail shopping:

Hartnell Avenue west of Airport Road (existing zoning)
Rancho Road and Airport Road, northwest quadrant (existing zoning) and southwest quadrant.
Meadow View Drive at Airport Road

(4) Policies

4f. On sites designated for retail development by the Plan that are not currently zoned for that use, withhold zoning designation until assurance is provided that a supermarket of 12,000 square feet or more will be an anchor tenant.

4g. Amend County and Redding zoning ordinances, or set permit conditions to create a retail commercial district including the following regulations:

Purpose: To provide shopping centers or stores within a building grouped within walking distance of each other to meet the daily shopping needs of persons residing and working in the vicinity of the airport.

Permitted Uses:

Banks
Bars
Professional and administrative offices
Personal services
Restaurants
Retail stores, provided that no store other than a food store should have more than 12,000 square feet of floor area
Service stations

Conditional Uses

Public utility and public service structures
Nurseries

Maximum Height: 40 feet; not to exceed 15 feet within 80 feet of an "R" District.

Minimum Site Area and Width: 1 acre, 150 feet.

Maximum Building Coverage and Floor Area Ratio: 30 percent of site area.

Minimum Yards: Front yard 30 feet; street side yard 15 feet; rear and interior side yards 10 feet.

Landscaping and Screening: Required yards adjoining streets should have a 15-foot strip landscaped with plant materials adjoining the property line; total minimum planted area 20 percent of site area; 8-foot solid masonry wall or planted berm adjoining an "R" District; minimum 1 shade tree per 8 parking spaces plus row of trees adjoining "R" Districts (see Figure 6).

Parking: 1 space per 200 gross square feet of floor area.

Signs: Signs visible from a public street not to exceed a total for all faces of 1 square foot per lineal foot of building adjoining the street. No sign face should exceed 90 square feet. Maximum 1 freestanding sign, not exceeding 25 feet in height or closer than 12 feet to a property line. No sign or lighting should move. Internally lighted signs should be shielded from "R" Districts within 200 feet. Freestanding signs should be located in landscaped islands.

5. Highway Commercial

Unlike some large metropolitan airports, Redding Airport is not likely to become a major destination point for air travelers. Still, the combination of nearby offices, industries, and air travelers, coupled with the location identity furnished by the airport, make it a logical location for restaurants and possibly for one or more motels.

(4) Policies

4h. Designate Airport property on the west side of Airport Road at Knighton Road (where fee ownership or ground lease is available) for highway commercial uses.

4i. Amend County and Redding zoning ordinances, or set permit conditions to create a Highway Commercial District including the following regulations:

Purpose: to provide for the needs of the traveling public and to provide sites for automobile-oriented businesses other than retail stores that need high visibility and highly accessible locations and can maintain design standards that will create a positive image of the community.

Permitted Uses:

Automotive services, including automotive washing, service stations, and automotive rentals, but excluding sales and repair except as accessory uses
Nurseries
Professional and administrative offices
Restaurants and bars

Conditional Uses:

Commercial recreation, including theaters, bowling alleys, electronic games
Hotels, motels, and campgrounds
Public utility and public service structures

Maximum Height: 40 feet; not to exceed 15 feet within 80 feet of an "R" District.

Minimum Site Area and Width: 1 acre, 150 feet.

Maximum Building Coverage and Floor Area Ratio: 30 percent of site area.

Minimum Yards: Front yard 30 feet; street side yard 15 feet; rear and side yards 10 feet, provided that a rear yard adjoining an "R" District should be not less than 10 percent of the parcel depth and a side yard adjoining an "R" District should be not less than 10 percent of the parcel width.

Landscaping and Screening: Required yard adjoining streets should have a 15-foot strip landscaped with plant materials adjoining the property line; 8-foot solid masonry wall or planted berm adjoining an "R" District; minimum 1 shade tree per 8 parking spaces plus row of trees in yards adjoining "R" Districts. (See Figure 6.)

Parking: See Table 4.

Signs: 90 square feet per sign face; maximum 2 sign faces per site; maximum 1 freestanding sign. Signs not to exceed 25 feet in height or be closer than 12 feet to a property line. No sign or lighting should move. Internally lighted signs should be shielded from "R" Districts within 200 feet. Freestanding signs should be located in landscaped islands.

6. Service Commercial

Auto repair, storage yards, and retail businesses not normally found in shopping centers are representative service commercial uses. A small grouping of such uses exists on the west side of Airport Road south of the Brentwood Subdivision, and additional zoning for commercial services adjoins the north side of Highway 44 at the Airport Road interchange.

(4) Policies

4j. Recognize existing commercial service development and designate additional space north and south of Highway 44 at the Airport Road interchange.

4k. Amend County and Redding zoning ordinances, or set permit conditions to create a Service Commercial District including the following regulations:

Purpose: To provide suitable locations for service establishments and commercial uses that usually cannot meet the design standards prescribed for other commercial uses in the Airport Specific Plan area and that usually need screening from adjoining thoroughfares and adjoining properties.

Permitted Uses:

- Agricultural sales and services
- Automotive sales and services
- Building maintenance services
- Building materials sales
- Business support services
- Communications services
- Consumer repair services
- Construction equipment sales and services
- Convenience storage
- Laundry services
- Nurseries
- Personal improvement services; business and trade schools
- Pet services
- Professional and administrative offices
- Research services
- Veterinary services
- Warehousing and distribution

Conditional Uses:

- Kennels
- Public utility and public service structures
- Recycling centers entirely within a structure
- Outdoor sales establishments

Maximum Height: 40 feet; not to exceed 15 feet within 80 feet of an "R" District

Minimum Site Area and Width: 12,000 square feet, 150 feet on expressways, arterials and collectors; 80 feet on other streets.

Minimum Yards: Front 30 feet adjoining an expressway or major thoroughfare, 20 feet elsewhere; rear and side 5 feet, provided that a rear yard adjoining an "R" District should be not less than 10 percent of the parcel depth and a side yard adjoining an "R" District should be not less than 10 percent of the parcel width.

Screening; Buffer: Exterior storage other than parking should be screened by an opaque wall or dense planting; 8-foot solid masonry wall or planted berm adjoining an "R" District. (See Figure 6.)

Parking: See Table 4.

Signs: 90 square feet per sign face; maximum 180 square feet per site; maximum 1 freestanding sign. Signs not to exceed 25 feet in height or be closer than 12 feet to a property line. No sign or lighting should move. Internally lighted signs should be shielded from "R" Districts within 200 feet. Freestanding signs should be located in landscaped islands.

7. Planned Industrial

Industry is the only urban use that is compatible with noise and safety standards applying to land within the airport approach zones extending about 1½ miles from the ends of the main runways. Industry can accept the 65-70 CNEL noise levels, and within the Inner Approach Zone (½ mile to 1 mile from the end of the runway), it can maintain densities below 10 persons per acre in structures in accord with the safety standards.

The rate of industrial land absorption is difficult to project. Mountain Lakes Industrial Park is the best model available in the South Central Urban Region of Shasta County. With the important benefits of unified ownership and marketing, rail access, and federal EDA grants to help finance streets and utilities, Mountain lakes has marketed an average of about 20 acres per year since its inception in 1970. Industry at the Airport will have the advantages of a location central to its labor supply and distribution area and Airport identity. The proportion of aviation-related industry will be small, based on experience at similar airports.

In keeping with the objective of enhancing the appearance of the airport area as a major entry point to the region, the standards for industrial development should be high. This policy will enhance industrial property values in the planning area over the long term.

(4) Policies

41. Designate for industrial use off-airport land within the 60 CNEL (as shown on Figure 4.5) that is suitable for industrial development giving consideration to its relationship to industrial land within the 65 CNEL contour and to the intent to minimize residential development within the 60 CNEL contour.
- 4m. Set industrial development standards that will make the area attractive to office and industrial park type uses and compatible with nearby residential development. Vary site development standards to require higher standards on larger parcels at high visibility locations adjoining thoroughfares and less demanding standards on smaller parcels.
- 4n. Assist property owners in marketing their land by helping provide preliminary engineering services leading to formation of assessment districts for wastewater collection and disposal and for other improvements.

40. Amend County and Redding zoning ordinances, or set conditions to create a special planned industrial district including the following regulations:

Purpose: To provide space for a wide variety of manufacturing, distribution, processing, and office enterprises that do not have nuisance features and that can maintain high design standards. Retail sales incidental to a non-retail use are to be conditional uses. Uses fronting on or having access from a major or secondary thoroughfare or a frontage road should meet higher design standards and should be on larger sites than other development in order to ensure the high quality appearance of the thoroughfares and to minimize the points of traffic conflict.

Permitted Uses:

Distribution
Professional and administrative offices
Warehousing
Wholesale sales, conducted within an enclosed structure or completely screened from view from adjoining sites and/or public streets
Crop and tree farming
Nursery
Light Manufacturing

Conditional Uses:

Manufacturing
Processing
Retail sales, provided that no less than 3/4 of the merchandise measured by wholesale value has been manufactured on the premises, and/or provided that the retail function should be clearly subordinate and incidental to the primary function of the establishment
Retail sales of food to be consumed primarily by persons working on the site.
Extractive industry
Public utility and public service structures
Contractors' yards or general outdoor storage activities when associated with a permitted use; truck trailer rentals; local or long distance trucking with or without onsite enclosed storage of transported goods; truck maintenance or repair when conducted as part of permitted hauling or sales activity; provided that in all cases, design review standards, including adequate screening are met and further provided that no such uses shall be established along Airport Road or along any future bypass connector.
Truck tractor trailer sales or heavy equipment sales of a wholesale or retail nature, provided that in all cases, design review standards are met.

Prohibited Uses: Include auto wrecking yards; metal salvage/storage yards.

Maximum Height: 40 feet; not to exceed 15 feet within 80 feet of an "R" District.

Minimum Site Area and Width: 50,000 square feet, 200 feet.

No land division shall create parcels smaller than 5 acres within the Inner Approach Zone.

Minimum Yards: 30 feet adjoining a major or secondary arterial or frontage road; 20 feet adjoining a minor street. Side and rear yards should be 10 percent of the parcel width or 20 feet, whichever is less; side or rear yards adjoining an "R" District should be 25 percent of the parcel width or depth or 50 feet, whichever is less.

Landscaping and Screening: Plant materials shall be required in yards adjoining any street or frontage road and adjacent to a residential district, an eight foot high solid masonry wall or planted berm shall be provided together with a row of trees. Within off-street parking areas, one shade tree per eight parking spaces shall be provided. (See Figure 6.)

Parking: See Table 4.

Signs: Maximum 1 square foot of sign face per lineal foot of street frontage, not to exceed 2 sign faces per site or 200 square feet per sign face. Signs not to exceed 30 feet in height or be closer than 12 feet to a property line. No sign or lighting should move. Internally lighted signs should be shielded from "R" Districts within 200 feet. Freestanding signs should be located in landscaped islands. A portion of the allowable sign area may be allocated to combined off-site signs identifying two or more establishments and located within the planned industrial district.

Performance Standards:

Noise: Should not exceed ambient CNEL on adjoining properties within the industrial district by more than 3 decibels; should not result in any measurable increase in the ambient noise level in residential district.

Emissions: Compliance with standards established by the Shasta County Air Pollution Control district.

Odors: No annoying odors to be readily detectable beyond the property line.

Vibration: No vibration detectable without instruments at the property line.

Electromagnetic Interference: No use should produce electromagnetic interference with normal radio or television reception in residential districts or with the function of electronic equipment beyond the property line.

Glare: No intense light or glare that creates a nuisance or hazard for aircraft or beyond the property line.

Toxic or Noxious Matter: Compliance with all applicable regulations.

Radiation: Compliance with all applicable regulations.

Heat and Humidity: No nuisance beyond the property line.

Fire and Explosive Hazards: Compliance with all applicable regulations.

Liquid and Solid Wastes: Compliance with all applicable regulations.

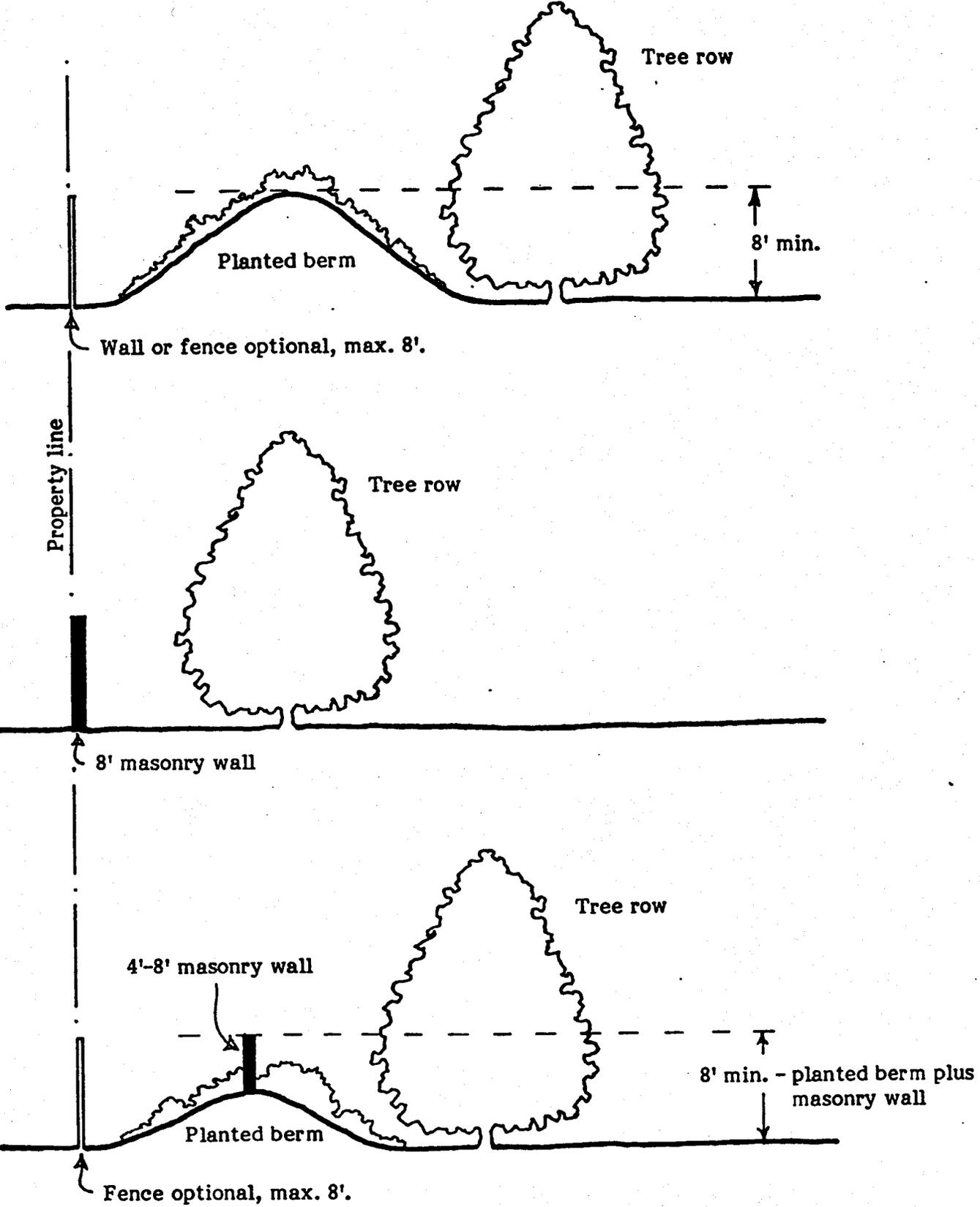


Figure 6. ALTERNATIVE BUFFERING REQUIRED FOR A COMMERCIAL OR INDUSTRIAL USE ADJOINING AN "R" DISTRICT

TABLE 4
PARKING

<u>Use</u>	<u>Minimum Off-Street Parking Requirement</u>
Accessory employee housing or guest cottage	1 space per unit
Administrative office services	1 space per 250 sq. ft. of gross floor area
Animal care facilities	1 space per 350 sq. ft. of gross floor area
Automobile service station	5 spaces, plus queue capacity equivalent to 1.5 times the service capacity of gasoline pumps
Automotive services:	
a) Enclosed	1 space per 350 sq. ft. of gross floor area
b) Open lot	1 space per 500 sq. ft. of exterior sales, display, or storage site area
Business and trade schools	1 space per 4 persons capacity, or 1 space for each 250 sq. ft. of gross floor area, whichever is greater
Churches and religious institutions	1 space per 4 seats or 4 persons capacity, based on maximum use of all facilities at the same time
Commercial recreation	1 space per 4 seats or 4 persons capacity, based on maximum use of all facilities at the same time
Public and community facilities, including swim club, tennis club, golf courses, community centers, neighborhood centers, and similar activities	1 space per 4 persons capacity, based on maximum use of all facilities
Convalescent facilities	1 space per 2.5 patient beds
Day care facility	To be established by use permit conditions
Drive-up windows providing services	Queue line for 5 cars, not blocking any parking spaces, in addition to other applicable requirements
Eating and drinking services:	
a) With drive-in or take-out	3 spaces per 100 sq. ft. of gross floor area
b) All others	1 space per 250 sq. ft. of gross floor area

Use

Minimum Off-Street Parking Requirement

Financial services:

- a) Bank, savings & loan office
- b) Others

1 space per 150 sq. ft. of gross floor area
1 space per 250 sq. ft. of gross floor area

General business services:

- a) Enclosed
- b) Open lot

1 space per 3500 sq. ft. of gross floor area
1 space per 500 sq. ft. of sales, display, or storage site area

Lodging

1 space per lodging unit, in addition to other residential use requirements

Industry

1 space per 1,000 sq. ft. of manufacturing or warehousing area, or per employee, whichever is greater, plus 1 space per 250 sq. ft. of office area plus 1 space per 250 sq. ft. of retail floor area

Medical, professional, and general

1 space per 250 sq. ft. of gross floor area

Motel

1 space per guest room, plus the applicable requirements for eating and drinking, banquet, assembly, commercial, or other as required for such use, less 75 percent of the spaces required for guest rooms

Multiple-family residential use

1.5 spaces per studio or 1-bedroom unit, and 2 spaces per 2-bedroom or larger unit, of which at least 1 space per unit must be covered

Personal services

1 space per 150 sq. ft. of gross floor area

Private clubs, lodges, and fraternal organizations

1 space per 4 seats or 4 persons capacity, based on maximum use of all space at one time

Research and development

1 space per 250 sq. ft. of gross floor area

Retail:

- a) Enclosed
- b) Open lot

1 space per 200 sq. ft. gross floor area
1 space per 500 sq. ft. of sales or display area

Schools and educational facilities:

- a) Grades K-8
- b) Grades 9-12

2 spaces per teaching station
4 spaces per teaching station

Shopping center

1 space per 275 sq. ft. of gross floor area

Use

Minimum Off-Street Parking Requirements

Single-family residential uses

2 spaces per unit, both of which must be covered

Warehousing and distribution

1 space per 1,000 sq. ft. of gross floor area

8. Design Review; Site Development Standards; Non-Conforming Uses and Structures

The future quality and profitability of non-residential development in the planning area will depend heavily on what is built during the next few years because little commercial or industrial development exists and no standards have been set by example. Most developers may perceive the desirability of high design standards, but if a few do not, investments will be at risk and the average quality of new development will start on a declining trend. Multi-family residential development is proposed at highly visible locations within the planning area and has a strong potential for enhancing or degrading overall quality. The policies will establish a design review committee which will develop standards for implementation of the Plan.

(4) Policies

- 4p. Amend County and cities zoning ordinances, or set permit conditions to prescribe site development standards including but not limited to the following:

Types of plant materials and irrigation systems
Fence and wall design
Number, width, and location of driveways
Streets, sidewalks, curbs, and gutters
Fire hydrant standards
Underground utilities
Screening and noise attenuation for mechanical equipment

- 4q. Establish a design review committee composed of staff members from each affected planning agency and other members as may be desired by mutual agreement of the participating legislative bodies. The committee shall develop design standards which can be applied to discretionary as well as ministerial permits for all non-residential development and for residential projects of six or more attached residential units or six or more units per gross acre. The design standards shall, as a minimum, set forth a single set of criteria to implement the district policies and regulations and various land uses set forth by the Plan. It is desirable that the subjects listed under Policy 4p also be included. The standards should be adopted by resolution by each legislative body for implementation by each agency through the course of normal permit processing activities.
- 4r. Uses which continue to be or which become non-conforming uses upon adoption of zone ordinances necessary to implement this plan shall be subject to the provisions of the zoning plan regarding non-conforming uses. It is intended that ordinary maintenance and routine repairs can be made to a non-conforming building in accordance with the applicable provisions of the zoning plan.

All non conforming commercial and industrial uses should be reviewed by the city or county prior to issuance of a permit for expansion or conversion to a different use, but not later than five years following adoption of the regulations implementing the Specific Plan. A non-conforming structure (as distinct from a non-conforming use) need not be reviewed unless application is made for a permit to expand the structure or change its use.

NON CONFORMING

The purpose of the review should be to establish a schedule of improvements intended progressively to bring the site development standards toward conformity with these regulations. A development agreement should be executed that specifies the schedule of improvements, the extent of permissible expansion, and the uses to which the property may be converted. The schedule for progress toward compliance with design standards should call for all required improvements to be completed within eight years. Failure to execute a development agreement should require denial of a permit to expand or convert a non-conforming use, and should require that the non-conforming use be eliminated within 20 years from the date of review.

E. OPEN SPACE AND CONSERVATION (5)

1. Parks and Recreation

Airport property adjoining and east of Stillwater Creek has been designated for recreational use by the Redding General Plan since 1970. It occasionally is used for drag races and similar recreational activities that are not acceptable near residential areas and have disturbed residents south of the airport. Revision of the Recreation Element of the Redding General Plan, now in progress, will determine the appropriate recreational uses for this land.

A small park is shown adjoining Airport Road at the Sacramento River bluff.

If neighborhood or community parks are to be provided for the 17,000 future residents of the planning area, it will be necessary to require land dedication or collect fees as a condition of subdivision approval. This practice is standard in most California cities, particularly since Proposition 13 removed alternative revenue sources, but is not followed in Shasta County. Maintenance of neighborhood parks is not normally a County service, yet failure to secure sites makes later provision of parks by an annexing city or a recreation district difficult or impossible.

(5) Policies

- 5a. Specify the recreational use of airport property in the revised Recreation Element of the Redding General Plan. Designate for recreational use on County General Plan.
- 5b. Enact a County ordinance requiring land dedication or in lieu payments to provide neighborhood park sites in accord with standards similar to those applied to subdivision within the City of Redding as a condition of residential development approval where future annexation to a city or formation of a district to maintain recreational facilities is deemed likely.

2. Agriculture

Although about one-third of the planning area currently is zoned or used for agriculture, the units, already small, will be surrounded by urban development and rendered less efficient than they are now. Strawberry plant acreage in the study area has declined even where land has not been converted to urban use.

(5) Policy

- 5c. Protect but do not require continuation of existing agricultural operations.

3. Creeks, Riparian Vegetation, and Floodplains

The intent of the plan is to preserve the natural form of the creeks and the existing riparian vegetation. Drainage plans have not been prepared, but the Ott report contains an analysis of the problems. The Clover Creek channel will need substantial enlargement, while the Stillwater Creek channel and floodplain have adequate capacity. Modifications to the existing 100-year floodplain along Clover Creek will be necessary.

The "Greenway" designation is defined as follows:

Greenway - Greenway is natural open space and includes slopes in excess of twenty percent and the 100-year floodplains of the Sacramento River and various creeks and streams. Because of the inherent dangers to life and property, and irrevocable damage to the natural environment, these natural land and water areas should not be urbanized or altered in any significant way so as to prevent severe erosion and defacement or loss of life and property. Each of these areas is identified by best available topographic maps and special floodplain studies prepared by the U.S. Army Corps of Engineers or other government agencies.

In addition to health and safety concerns, these natural areas serve as places in which natural flora or fauna can be maintained in their natural state. They provide relief from urbanization; reduce siltation from excessive grading and buffer various land use activities and can be part of an urban trail system. Areas in excess of 20 percent slope do not carry any residential credit unless an entire parcel is so designated; in which case, by use permit, one dwelling unit per 40 acres may be permitted. Areas of endangered plants or wildlife are also areas designated as permanent open space. Land shown as natural open space is predominantly along the Sacramento River, Clover Creek, Stillwater Creek, and the bluffs east of Churn Creek. Airport approach areas may also be classified as natural open space in order to prevent damage to life and property or to reduce the psychological stress of airport noise upon incompatible uses.

(5) Policies

- 5d. Clover Creek improvements should avoid an engineered look and should retain riparian vegetation where feasible. The greenway adjoining Clover Creek should be 200 feet wide, centered on the creek.
- 5e. No structures should be built in the Stillwater Creek 100-year floodplain as shown in the Army Corps of Engineers Study, Loomis Corners, California, date October, 1977, or within the floodway area shown on maps entitled Flood Hazard Boundary Maps, U.S. Department of Housing and Urban Development, December 1977, whichever is more restrictive. The floodway area shall be designated on the Specific Plan as "Greenway", provided that one residential unit may be built above flood level on an existing parcel that has no building site outside the floodplain subject to a use permit, provided that both the unit and its inhabitants are protected above the 100-year floodplain elevation. Riparian vegetation should be retained to the maximum extent feasible.
- 5f. Continue gravel extraction in Stillwater Creek under use permit control.
- 5g. Steep slopes (slopes in excess of 20 percent) located along the drainage corridors shall also be shown as "Greenway".

- 5h. In those areas where future development plans show with certainty that a parcel or a portion of a parcel is not affected by the greenway criteria (slopes, riparian vegetation, flooding) then that parcel or portion of the parcel may be developed in accordance with the adjoining land use designation.

F. PUBLIC FACILITIES AND UTILITIES (6)

1. Parks

(See 5. Open Space and Conservation.)

2. Schools

Pacheco School and Prairie School in the Pacheco Union Elementary School District are near the boundaries of the planning area. Portions of the planning area include five elementary and two high school districts. Full development will generate enough elementary school students to fill three additional schools. It is probable that no additional sites will be needed in the planning area, but the Specific Plan does not foreclose the possibility.

Shasta County has imposed fees on new development in order to finance new sites and facilities for some school districts. Cascade School District has requested that the City of Anderson collect fees from developers.

(6) Policies

- 6a. Refer development proposals to school districts and amend Specific Plan, if necessary, to include one or more school sites to be located in accord with Specific Plan policies.
- 6b. Collect fees for school facilities as a condition of development approval where a finding of overcrowdedness is demonstrated.

3. Water

(6) Policy

- 6c. Water systems adequate to handle both domestic and ISO fire-flow requirements shall be installed.

4. Wastewater

The Specific Plan does not include wastewater collection or treatment proposals. (See Assumptions.)

(6) Policy

- 6d. Wastewater treatment systems serving development outside a sewer district should be designed to be fully compatible with a future sewer system. As a condition of approval of development using an individual system other a single-family residence, the applicant should waive the right to protest future formation of an assessment district of collection and treatment of wastewater.

5. Fire Protection

(6) Policy

- 6e. Designate a fire station site in the vicinity of Rancho and Airport roads or Shasta View Drive and Airport Road.

6. Surface Drainage

(See 5. Open Space and Conservation.)

G. CIRCULATION

Major additions and improvements to the planning area's street system will be needed as the number of vehicle trips increases by eight times or more. Appendix A describes the assumptions used in projecting traffic at full development. Appendix B supplements this information.

Airport Road, as the planning area's "main street", will carry up to 27,400 vehicles per day north of Meadow View Drive and should have cross streets and left turn points spaced no closer than half-mile intervals where possible. South of Meadow View Drive, average daily traffic demand is projected at 42,000 vehicles, exceeding the potential capacity of improvements that could be constructed without relocating existing buildings. Airport Road is designated an "Expressway". The projected necessary right-of-way width is 110 feet north of Meadowview Drive and 120 feet from Meadowview Drive to the River.

(7) Policies

- 7a. As a condition of development approval, require right-of-way dedication and construction of full or partial improvements in accord with the schedule in Table 5 and the cross section standards shown in Figure 7a-7e.
- 7b. Design Airport Road with a continuous landscaped median interrupted for left turns at approximately half-mile intervals.
- 7c. Design the Knighton Road alignment, as shown, to provide direct connection between I-5 and Airport Road while minimizing severance at the Churn Creek Golf Course and adjoining parcels. Knighton Road shall be designated as a limited access facility.
- 7d. Realign Hartnell Avenue and Old Oregon Trail, as shown, to provide greater separation from Highway 44 off ramps, allowing both the ramps and Hartnell Avenue to be signalized.
- 7e. Provide sidewalks on all through streets and all streets having minimum parcel sizes smaller than 1 acre and allow sidewalk use by bicycles. The intent is that children and recreational bicyclists use the sidewalks where there will be only light pedestrian use, and experienced bicyclists and commuters use the streets.
- 7f. Limit driveways on major arterial and expressway frontage to 1 per 400 feet or 1 per parcel with less than 400 feet of frontage.

TABLE 5
EXISTING AND PROPOSED TRAFFICWAY SYSTEM

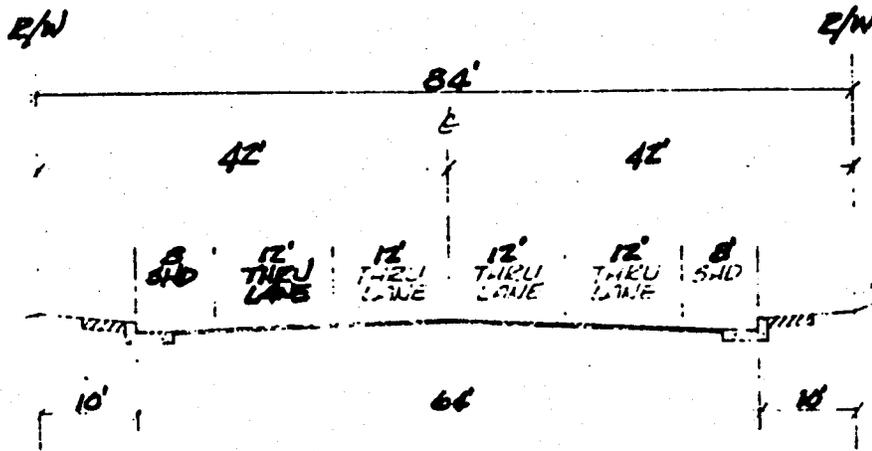
	Existing Right-of-Way (Feet)	ADT Volume 1981	Specific Plan Designation	Proposed Right-of-Way (Feet)	Lanes	Service Level C ADT Volume	Projected Volume at Full Development
<u>Airport Road</u>	84	5,500	Expressway	110	4 (Med, Pkg)	24,000	21,000
<u>Highway 44 to Venus Way</u>	84	5,500	Expressway	110	4 (Med, Pkg)	24,000	27,400
<u>Venus Way to Rancho Road</u>	84	4,700	Expressway	110	4 (Med, Pkg)	24,000	18,800
<u>Rancho Road to Shasta View Drive</u>	84	4,500	Expressway	110	4 (Med, Pkg)	24,000	24,900
<u>Shasta View Drive to Knighton Road</u>	84	4,200	Expressway	110	4 (Med Pkg)	24,000	23,500
<u>Knighton Road to Meadow View Drive</u>	84	4,900	Expressway	120	6 (Med)	20,000	26,000
<u>Meadow View Drive to Industrial Road (P)</u>	60-84	5,400	Expressway	120	6 (Med)	to	29,500
<u>Industrial Road to Dersch Road</u>	60-75	6,800	Expressway	120	6 (Med)		42,000
<u>North Street</u>	84	--	Expressway	120	6 (Med)	40,000*	42,000
<u>Hartnell Realignment (P)</u>	--	--	Major Arterial	96	4 (LT, Pkg)	17,000	8,000
<u>Argyle Road</u>	84	2,000	Collector	84	4 (Pkg)	13,000	8,000
<u>Venus Way (P)</u>	--	--	Local Collector	64	2 (Pkg)	8,000	8,000
<u>Old Oregon Trail</u>	60	--	Collector	84	2 (Pkg)	8,000	--
<u>Rancho Road</u>	60	5,500	Collector	84	4 (Pkg)	13,000	--
<u>East of Airport Road</u>	60	2,600	Collector	84	4 (Pkg)	13,000	8,000
<u>West of Airport Road</u>	--	--	Major Arterial	96	4 (LT)	17,000	15,000
<u>Shasta View Drive (P)</u>	--	--	Major Arterial	96	4 (LT)	17,000	18,000
<u>Knighton Road (P)</u>	--	--	Major Arterial (Limited Access)	96	4 (LT)	17,000	18,000
<u>Meadow View Drive</u>	60	2,400	Collector	84	2 (Pkg)	8,000	3,000
<u>Industrial Road (P)</u>	--	--	Industrial Road	64	--	--	--
<u>Frontage Road (P)</u>	--	--	Frontage Road	64	--	--	--
<u>Rancho Road to Meadow View Drive</u>	60	--	Collector	84	4 (Pkg)	13,000	--
<u>Fig Tree Lane</u>	60	2,400	Major Arterial	96	4 (LT, Pkg)	17,000	--
<u>Dersch Road</u>	60	--	Arterial	84	4 (LT, Pkg)	13,000	--
<u>Riverside Avenue</u>	60	--	Arterial	84	4 (LT, Pkg)	13,000	--

*Service level "C" ranges from 20,000 to 40,000 primarily dependent upon the design and service volumes of intersecting streets. Route design and inter-section configuration, at present and as planned, should permit achievement of the upper level of Service "C" volumes.

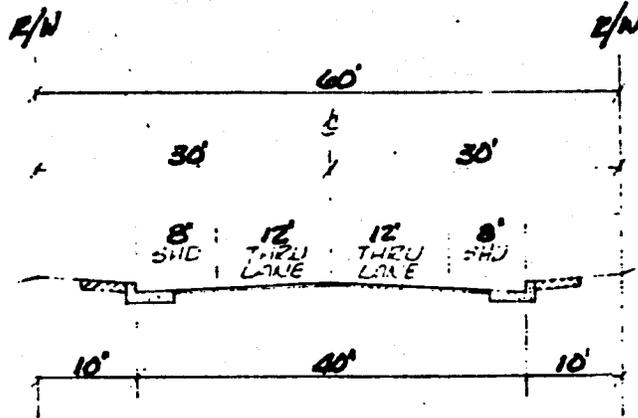
(P) = Proposed Road
Med = Median
Pkg = Parking
LT = Left Turn

90-

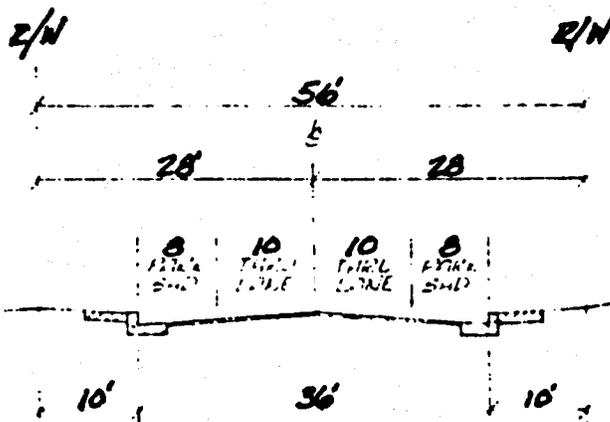
Figure 7a. STREET STANDARDS, CROSS-SECTIONS



84' R/W COLLECTOR STREET STANDARD - 4 LANES

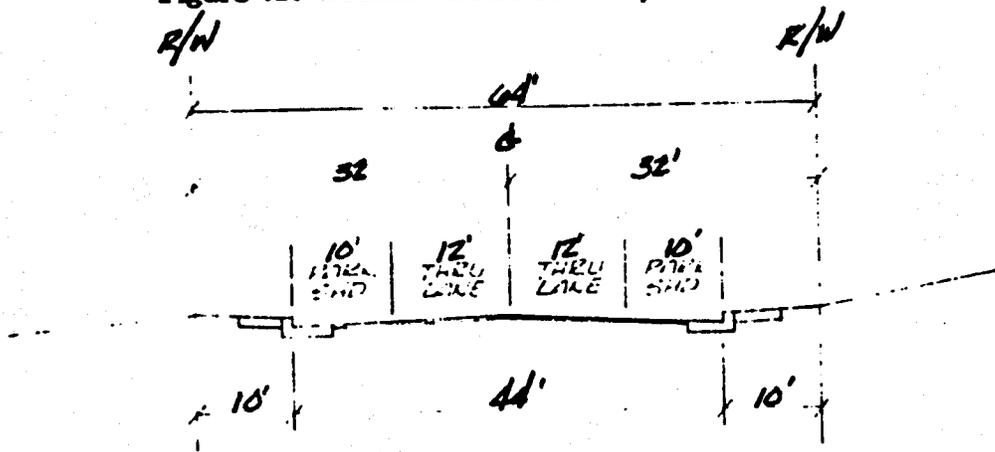


60' R/W LOCAL-COLLECTOR STANDARD - 2 LANES

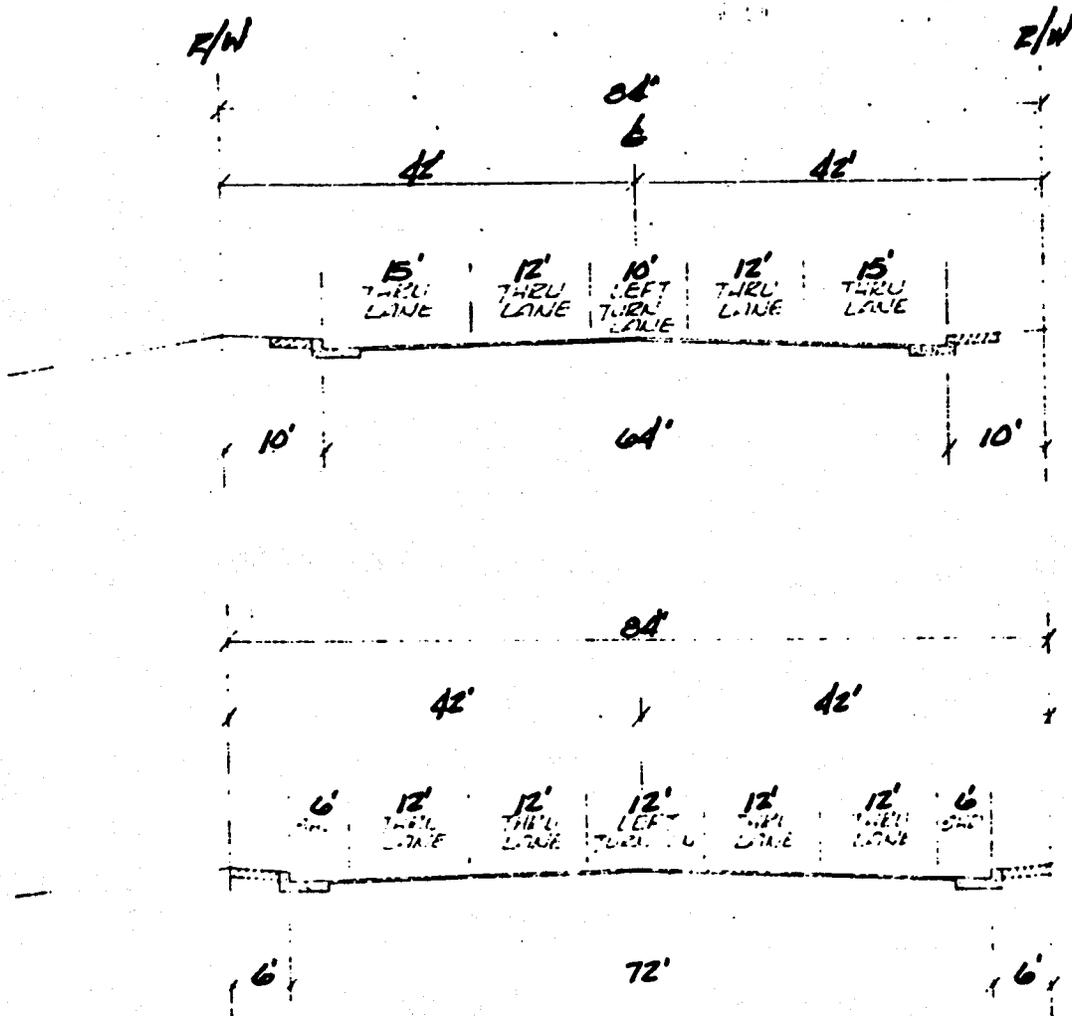


56' R/W LOCAL STREET STANDARD

Figure 7b. STREET STANDARDS, CROSS-SECTIONS

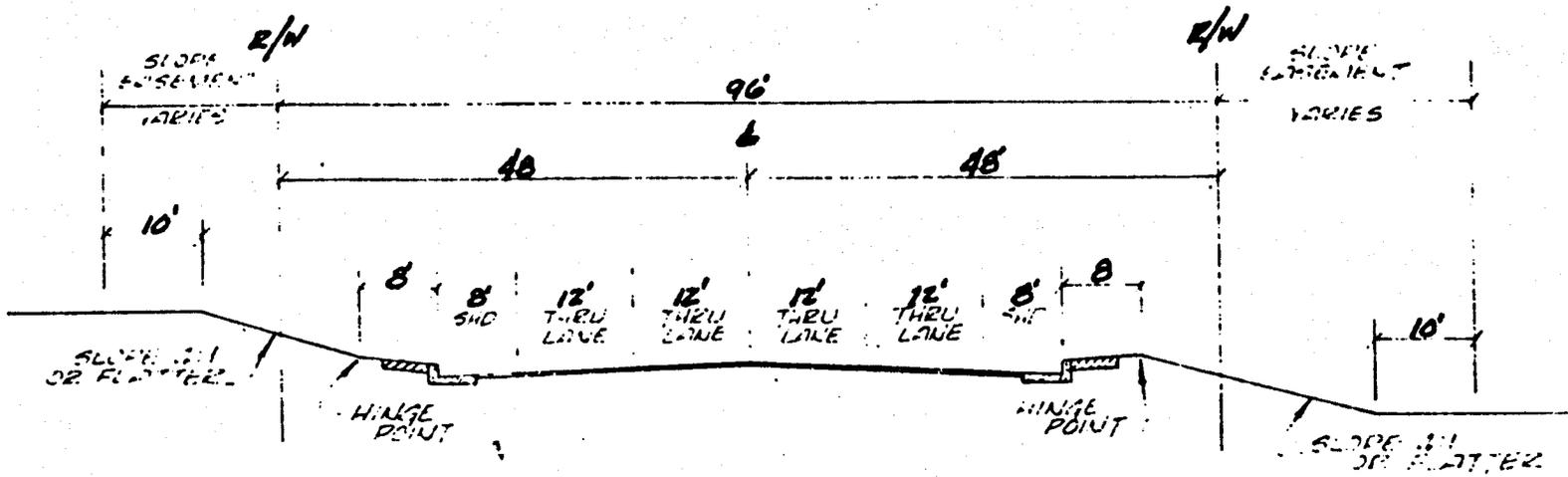


64' R/W INDUSTRIAL STREET STANDARD

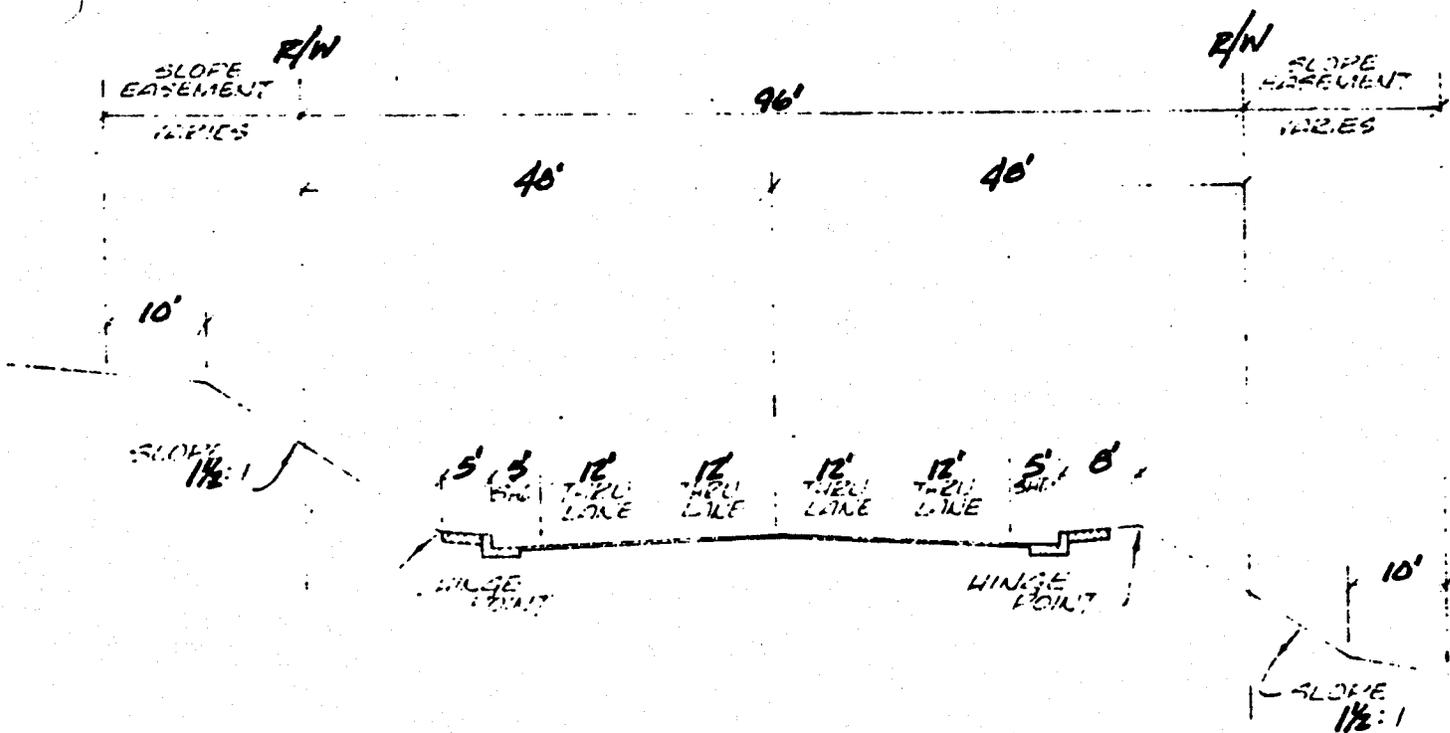


84' R/W MAJOR ARTERIAL STANDARD OPTIONS

Figure 7c. STREET STANDARDS, CROSS-SECTIONS



96' R/W MAJOR ARTERIAL THROUGHFARE STANDARD IN TERRAIN WITH MODERATE RELIEF.



96' R/W MAJOR ARTERIAL THROUGHFARE STANDARD IN TERRAIN WITH STEEP RELIEF.

Figure : STREET STANDARDS, CROSS-SECTIONS

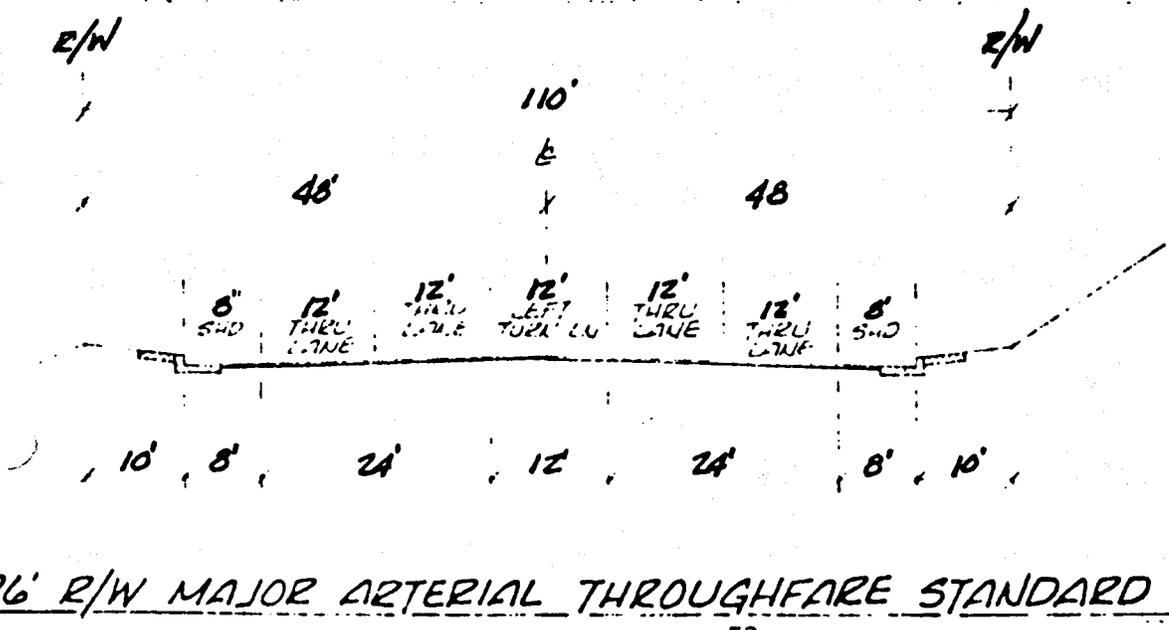
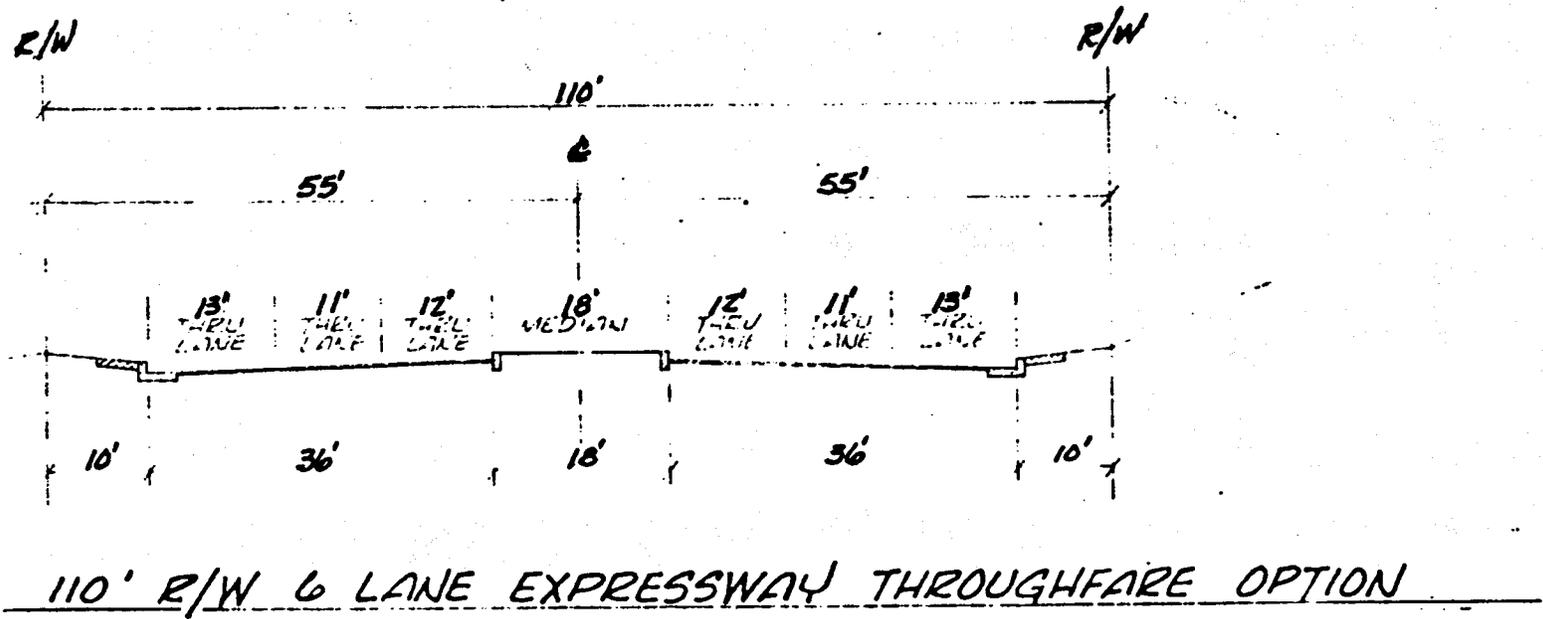
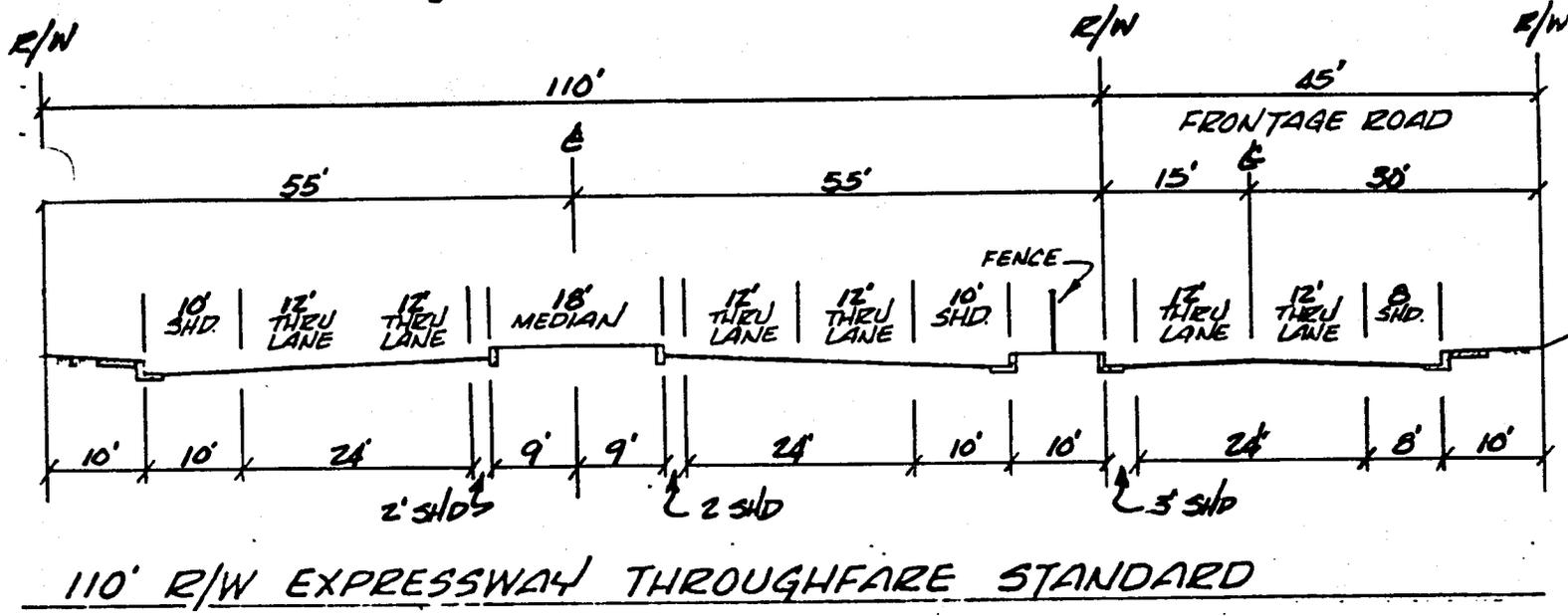
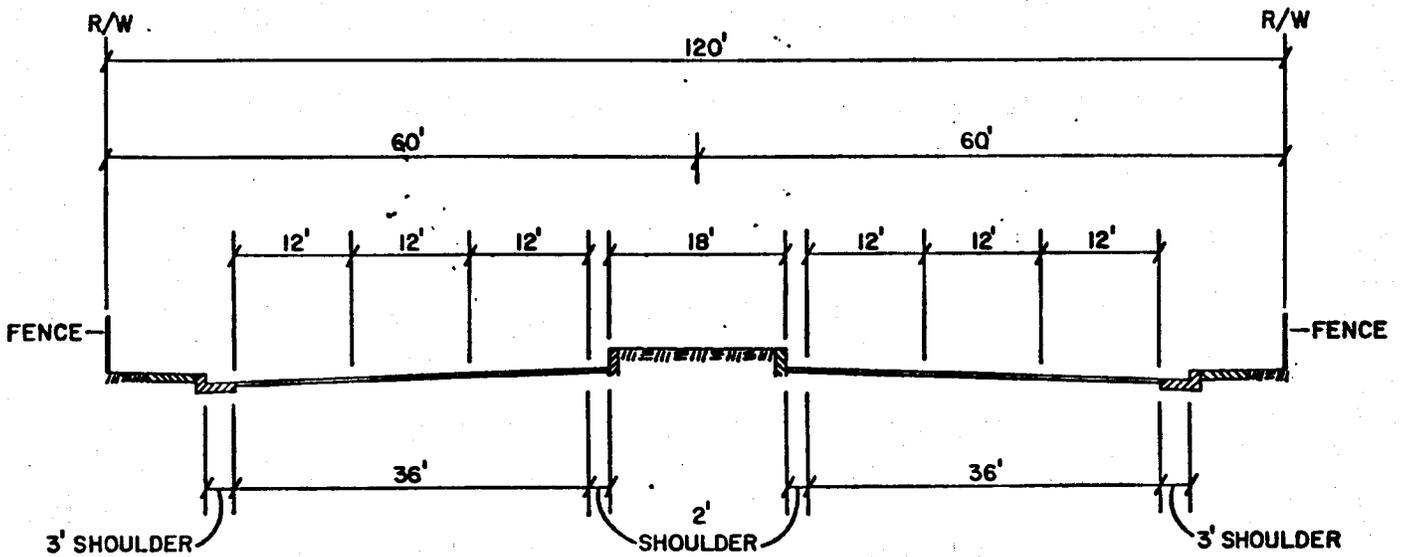


FIGURE 7e

STREET STANDARD CROSS SECTION



120' 6-LANE EXPRESSWAY THOROUGHFARE STANDARD

BIBLIOGRAPHY

Blayney-Dyett. Redding Municipal Airport Area Plan Working Paper #2: Existing Conditions. Redding Municipal Airport Plan Committee, Redding, June 1981.

Blayney-Dyett. Redding Municipal Airport Area Plan Working Paper #3: Issues and Options; Alternative Sketch Plans. Redding, July 1981.

California Air Resources Board. California Air Quality Data. (Annual Summaries 1977, 1978, 1979.) Sacramento.

CH2M Hill. Environmental Impact Report: Redding Region Wastewater Management Plan. Shasta County Water Agency, Redding, March 1975.

CH2M Hill. Project Report: Redding Region Wastewater Management Plan. Shasta County Water Agency, Redding, April 1975.

CH2M Hill. Engineering Report: Redding Region Water Supply Alternatives. Shasta County Water Agency, Redding, August 1975.

CH2M Hill. Draft Environmental Impact Report: Enterprise Public Utility District Proposed Well No. 8. Redding, July 1976.

CH2M Hill. Environmental Impact Report: City of Redding Water Supply and Treatment Facility Modifications. Dept. of Planning and Community Development, Redding, August 1978. -

City of Anderson. Zoning Ordinance. Anderson, May 1980.

City of Redding. Redding General Plan Noise Element. Redding Department of Planning and Community Development. Redding, January 1975.

City of Redding. Zoning Ordinance, Title 18. Redding, August 1977.

City of Redding. Existing Conditions and Issues Report of the Redding Planning Area (1980-2000). Dept. of Planning and Community Development, Redding, August 1980.

City of Redding. Housing and Economic Characteristics of the Redding Area. Redding Planning Department, Redding, 1980.

City of Redding. Subdivision Ordinance, Title 17. Redding, September 1978.

City of Redding and Livingston & Blayney. Redding General Plan. City of Redding, September, 1980.

City of Redding and R. Dixon Speas Associates. Master Plan for Redding Municipal Airport. Redding Planning Department, Redding, undated.

City of Redding and R. Dixon Speas Associates. Environmental Impact Assessment Report for Redding Municipal Airport Development Program, Redding, California. Dept. of Transportation, Federal Aviation Administration, April 1977.

- Hahn, Wise & Associates, Inc. Public Services and Facilities Element, Water Supply: The City of Anderson General Plan. Anderson, February 1969.
- Hahn, Wise & Associates, Inc. Housing Element: The City of Anderson General Plan. Anderson, May 1969.
- Hahn, Wise & Associates, Inc. Public Service and Facilities Element, Drainage: The City of Anderson General Plan. Anderson, September 1969.
- Hahn, Wise & Associates, Inc. Circulation Element: The City of Anderson General Plan. Anderson, November 1969.
- Hahn, Wise & Associates, Inc. Land Use Element: The City of Anderson General Plan. Anderson, November 1969.
- Hahn, Wise & Associates, Inc. Recreation Element: The City of Anderson General Plan. Anderson, November 1969.
- Hahn, Wise & Associates, Inc. Public Service and Facilities Element, Sewage Disposal: The City of Anderson General Plan. Anderson, January 1970.
- Hodges & Shutt, Aviation Planning Services. Discussion Paper #1: Airport Master Plan Update. Redding Municipal Airport Plan Committee, June 1981.
- Ott Water Engineers, Inc. Redding Airport Area Wastewater Alternatives. City of Redding and U.S. Forest Service, Redding, July 1980.
- Pace Engineering. City of Redding 1979 Master Sewer Plan for the Sewage Collection System. City of Redding, Redding, October 1979.
- Pace, Robert G. Technical Support Report: Aircraft Emission Factors. U.S. Environmental Protection Agency, March 1977.
- ReconLand Planning Services. Draft Environmental Impact Report for Wooded Acres Subdivision Sixth Addition. Shasta County Planning Department, Redding, April 1977.
- Sedway/Cooke. Preliminary Technical Report #1: Land Use Opportunities and Constraints in Shasta County. Shasta County Planning Department, Redding, November 1980.
- Sedway/Cooke. Preliminary Technical Report #2: Population, Employment, and Housing Projections for Shasta County. Shasta County Planning Department, Redding, December 1980.
- Sedway/Cooke. Preliminary Technical Report #3: Planning Issues and Objectives in Shasta County. Shasta County Planning Department, Redding, December 1980.
- Sedway/Cooke. Preliminary Technical Report #4: Development Capability Analysis and Growth Alternatives for Shasta County. Shasta County Planning Department, Redding, January 1981.

Sedway/Cooke. Preliminary Technical Report #5: Preliminary Sketch Plans and Rural Community Center Plans for Shasta County, California. Shasta County Planning Department, Redding, April 1981.

Sharrah, John S. Final Draft EIR for Construction of Residential Development in a Recreation Zoned District Approximately One Mile Northerly of the City of Anderson. Shasta County Planning Department, Redding, June 1977.

Shasta County. Scenic Highway Element. (An addendum to the general plan of the County of Shasta, State of California.) Shasta County Planning Department, Redding, 1972.

Shasta County. Shasta County General Plan Noise Element. Shasta County Planning Department, Redding, 1974.

Shasta County. Seismic Safety and Safety Element of the General Plan for Shasta County. Shasta County Planning Department, Redding, January 1975.

Shasta County. Recreation Resources Element of the General Plan for Shasta County. Shasta County Planning Department, Redding, April 1975.

Shasta County. Churn Creek Bottom Community Planning Unit. (An amendment to the general plan report of the south central urban region, Shasta County, California.) Shasta County Planning Department, Redding, September 1975.

Shasta County. Subdivision Improvement Standards. Redding, June 1976.

Shasta County. Water Wells Bulletin No. 1. Department of Public Health and Department of Environmental Health, Redding, October 1977.

Shasta County. Non-Attainment Area Plan. Redding, March 1979.

Shasta County. Environmental Impact Report—Airport Master Plan. Shasta County Planning Department, Redding, October 1979.

Shasta County. Parcel Map Road Standards. Redding, February 1980.

Shasta County. General Plan Report, Mountain Region, Shasta County, California. Shasta County Planning Department, Redding, reprinted June 1980.

Shasta County. General Plan Report, South Central Urban Region, Shasta County, California. Shasta County Planning Department, Redding, reprinted June 1980.

Shasta County. 1980 Sewage Disposal Standards. Redding, October 1980.

Shasta County. Ordinance Code, Part VII, Land Use Regulation and Planning, Division II, Zoning. Shasta County Office of Planning Administration, Redding, November 1980.

Shasta County. Fire Safety Standards for Parcel Maps and Subdivisions in Shasta County. Shasta County Planning Department, Redding, January 1981.

Shasta County. Rezoning to Implement Adopted Airport Area General Plan Amendment. Shasta County Planning Department, Redding, January 1981.

Shasta County. Land Division Ordinance. Redding, February 1981.

Shastec. Environmental Impact Report—Murray Farms. Shasta County Planning Department, Redding, August 1980.

Speas, R. Dixon, Associates. Master Plan for Redding Municipal Airport. City of Redding Planning Department, Redding, 1976.

Superior California Development Council. Overall Economic Development Program and Statistical Abstract, 1980-81 - Four-County District: Siskiyou, Modoc, Trinity, and Shasta. Redding, June 1980.

TerraScan, Draft EIR, Stillwater Gravel Company. Shasta County Planning Department, Redding, April 1978.

U.S. Dept. of Agriculture, Soil Conservation Service. Important Farmlands Inventory as Applied to the State of California, undated.

U.S. Dept. of Agriculture, Soil Conservation Service and Forest Service. Soil Survey of Shasta County Area, California. In cooperation with University of California Agricultural Experiment Station, August 1974.

U.S. Dept. of the Army, Corps of Engineers. Flood Plan Information: Churn Creek, Enterprise, California. Sacramento, June 1974.

U.S. Dept. of the Army, Corps of Engineers. Flood Plan Information: Sacramento River, Anderson and Olwda Creeks, and Spring Gulch, Anderson, California. Sacramento, June 1975.

U.S. Dept. of the Army, Corps of Engineers. Flood Plan Information: Sacramento River, Redding, California. Sacramento, December 1975.

U.S. Dept. of the Army, Corps of Engineers. Flood Hazard Information, Loomis Corners, California: Clover Creek, Stillwater Creek, and Stillwater Creek Tributaries. Sacramento, October 1977.

PERSONS CONTACTED

Jack Alward, Shasta Enterprises
Dawn Ashmun, Shasta County Planning Department
John Blama, Shasta County Sheriff
Gerald Benoit, Bella Vista Water District
Ken Berryman, Shasta County Health Department
Chuck Bononi, Anderson Union High School District
Gordon Brandt, Anderson Cottonwood Disposal Company
Lowell Britain, Shasta County Public Works Department
Gary Buzzini, Fire Warden, California Department of Forestry/
Shasta County Fire Department
Gene Calanchini, Cal-Todd Aviation
Phillip Carr, Shasta County Planning Department
Bruce Carter, Shasta County Public Works Department
Dennis Cook, Shasta County Planning Department
Jim Cook, Assistant Director, Shasta County Planning Department
Virgil Covington, OED Corporation
Joe Cresto, Superintendent, Cascade Elementary School District
Doug DeMallie, City of Redding Planning Department
Richard Eaton, Shasta County Historical Society
Lee Emrick, Shasta County Office of Special Districts
Fred Etzel, Sedway/Cooke
Gerald Ezell, Pacific Gas & Electric Company
Robin Rae Frazier, U.S. Soil Conservation Service
Bob Galusha, City of Redding Department of Public Works
Jim Gasser, City of Redding Department of Public Works
John Goodson, Anderson Cottonwood Irrigation District
Russell Gripp, Farm Advisor, U.C. Cooperative Extension
Woody Hamilton, Traffic Engineer, City of Redding Department of Public Works
Gary Hancock, California Air Resources Board
Ron Hill, Shasta County Public Works Department
Judy Hodgkins, California Air Resources Board
Joe Hunter, Director, Shasta County Planning Department
Elaine Jarris, Redding Airport Limosine Service
Edwin F. Katibah, University of California, Berkeley
Don Keeler, Columbia Elementary School District
Jim Krause, Regional Water Quality Control Board
Roger Loftus, Shasta Nursery
Don Matheson, Anderson Fire Department
Jim McCall, Airport Manager, City of Redding Municipal Airport
Ken Murray, Realtor
Jeff Ogilvie, Shasta Canyon Nursery
B.J. Olsen, Enterprise Elementary School District
Frank Payton, Anderson Solid Waste
Phill Perry, Director, City of Redding Planning Department
Mike Pierce, U.S.G.S. Water Resources Division
Gary Poertner, Shasta Union High School District
Larry Preston, Shasta County Water Resources and Special Districts
Bill Ramsdell, Shasta County Planning Department
Randy Reeves, U.S. Soil Conservation Service

Bill Rhyne, Realtor
Tom Riley, Redding Department of Parks and Recreation
Vi Roberts, Business Office, Shasta County Superintendent of Schools
Ed Seigmund, Shasta County Public Works Department
Mike Seth, Shasta County Mosquito Abatement District
John Sharrah, Sharrah & Nolte
Tony Silva, North Valley Real Estate
Colby Smith, Principal, Junction Elementary School District
Harry Smith, Shasta County Public Works Department
Spencer Smith, Principal, Pacheco Union Elementary School District
John Speth, California Department of Fish and Game
Lyle Stewart, Planning Consultant
Tom Stone, California Department of Fish and Game
Bill Thompson, Redding Fire Department.
Bruce Wade, Shasta County Agriculture Department
Dale Watson, Shasta County Health Department
Jim Wilbur, City of Anderson Planning Department
Doug Will, City of Redding Planning Department
Hank Woodrum, Assistant Airport Manager, City of Redding Municipal Airport

REPORT PREPARATION

Blayney-Dyett, Urban and Regional Planners

John Blayney
Joan Young
Nicholas von Rotz
Marlene Friedman
Sue Pena

Hodges & Shutt, Aviation Planning Services

Mike Shutt
Ken Brody

Planning Associates

Randall Hauser

REDDING MUNICIPAL AIRPORT PLAN COMMITTEE

Chairman: Steve Swendiman, Shasta County Supervisor
Marvin Bennett, Anderson City Council
Robert Bosworth, City of Redding Planning Commissioner
Kelly Combs, City of Redding Planning Commissioner
John Fitzpatrick, Member at Large
Howard Kirkpatrick, Redding City Council
Kay McQuade, City of Anderson Planning Commissioner

CITY OF REDDING PLANNING COMMISSION

Nancy Buffum
Darrell Burrell
Kelly Combs
Cynthia Gelonek
Charles Moss
Bill Potter
John Reit

CITY OF ANDERSON PLANNING COMMISSION

Paul Burdett
Don Carter
Winfield Henn
Kay McQuade
Jim Morgan
Dick Pringle
Gean Vonk

COUNTY OF SHASTA PLANNING COMMISSION

Stephen Albaugh
Bob Bosworth
Don Prielipp
Russ Reiner
Ken Murray