

DRAFT

SOUTHEAST ROSEVILLE SPECIFIC

PLAN 1987 AMENDMENT

ENVIRONMENTAL IMPACT REPORT

SCH # 870 40605

PREPARED FOR
CITY OF ROSEVILLE

AUGUST 13, 1987

PREPARED BY
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CITY OF ROSEVILLE

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August 14, 1987

To: Interested Parties

From: City of Roseville Planning Department
316 Vernon Street
Roseville, CA 95678

Subject: Draft Environmental Impact Report for the Southeast Roseville Specific Plan

The Roseville Planning Department is forwarding this document for review and comment to all agencies, organizations, and interested persons indicated on the enclosed distribution list. Reviewers should focus on the comprehensiveness and accuracy of the E.I.R. in discussing possible impacts upon the environment, mitigation measures, and alternatives to the project.

The Draft Environmental Impact Report is being circulated for a 30-day review period. Persons responding are urged to submit their comments in writing. All comments should be received by the Planning Department at the above address no later than 5:00 p.m., September 14, 1987. Both written comments and oral testimony from the public hearings will be incorporated into the Final E.I.R. Please retain a copy of the Draft E.I.R. Unless substantial modifications are needed, the Draft E.I.R. plus an addendum may serve as the final document.

A copy of this document has been forwarded for public review to the main branch of the Roseville City Library at 225 Taylor Street. In addition, a copy may be reviewed at the City Planning Department.

If you have any questions regarding this Draft E.I.R., please contact Daniel E. Dameron at (916) 781-0276.

Sincerely,

Daniel E. Dameron
Associate Planner

DED:ns

Enclosure

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I. INTRODUCTION

A. Project Overview

The **Southeast Roseville Specific Plan** was approved by the Roseville Planning Commission on August 9, 1984 and adopted by the Roseville City Council on February 20, 1985. As approved, the Specific Plan area encompasses approximately 637.4 acres south of Douglas Boulevard and west of Sierra College Boulevard. In March of 1987, the City of Roseville circulated the Initial Study which described proposed amendment of the **Southeast Roseville Specific Plan** as addressed in this EIR. An amended Specific Plan text and map have been prepared by Wade Associates. Adoption of the proposed amendment would add approximately 367 acres to the Plan area. All of the added area is located on the eastern side of Sierra College Boulevard, south of Eureka Road and north of the Placer/Sacramento County line. The proposed Specific Plan area encompasses approximately 1,004.4 acres.

In addition to increasing the Plan area size, reallocation of land use within the amended Plan area is proposed. For the most part, the proposed land use modification consists of the transfer of residential densities, primarily from higher density parcels within the already adopted Specific Plan area to less intensely designated parcels which are proposed to be added to the Plan.

The essential impetus for the proposed density reallocation is the existing low density presently assigned to the parcels east of Sierra College Boulevard, those parcels which are being added to the already adopted Plan area. These parcels currently are assigned a total of 167 residential units. Under the proposed revision, an additional 783 residential units would be transferred from the already adopted Specific Plan area bringing the total to 950 residential units assigned to the portion of the amended Specific Plan area located east of Sierra College Boulevard.

In summary, the proposed amendment of the Southeast Roseville Specific Plan includes increasing the size of the already adopted



Specific Plan area. Some density transfer is proposed to allow more equitable distribution of residential housing throughout the amended Specific Plan area. However, the overall total number of units will not change from existing designations. The ultimate number of units proposed for inclusion in the amended Specific Plan area is 3,965, and an overall total acreage of 1,004 acres.

Pursuant to the direction of the City Council, an amended Draft Specific Plan for the Southeast Roseville area has been prepared by Wade Associates. This Plan, and its accompanying land use map, provide the basic information upon which this Specific Plan EIR is based. The **Southeast Roseville Specific Plan** is incorporated into this document by reference, and appended this report.

The Specific Plan is a policy document which bridges the gap between the City's General Plan and individual development proposals. Items established by the Specific Plan include:

- 1) Development standards and design guidelines for land use, buildings, public facilities, roadways; and landscaping.
- 2) Population density and building intensity standards;
- 3) Open Space;
- 4) Project phasing in relation to infrastructure requirements;
- 5) Capital improvement financing requirements; and provisions for promoting community identity.

A Specific Plan is required to be consistent with the **General Plan**. In instances where inconsistencies exist, the discrepancy must be resolved prior to adoption of the Specific Plan. Required action may take the form of modification of the Specific Plan, or amendment of the **General Plan**.

As proposed, the amended Southeast Roseville Specific Plan provides for a total of 3,965 dwelling units, with proposed residential land uses including low, medium, and high density



residential. Using the current City average of 2.6 persons per unit, the Plan would provide housing for 10,309 persons, assuming full buildout to the densities proposed. This figure includes dwellings within the Specific Plan which are already occupied. The anticipated population represents no net change in City population, as no dwelling units are being added as a result of the proposed amendment. From the point of view of the Southeast Roseville Specific Plan, a potential population of approximately 434 persons is being added to the Plan area from the 359 acres not presently included in the Specific Plan area.

The amount of commercially designated land use proposed in the Amended Specific Plan is 8.3 acres greater than that in the currently adopted Specific Plan. Park acreage is proposed to increase by 56.1 acres.

B. EIR Author

This environmental impact report has been prepared by R.C. Fuller Associates, a Sacramento based firm which specializes in research and analysis relating to land use change. Previous studies relating to the project area prepared by R.C. Fuller Associates include the Broken Spur project EIR, which includes the land proposed to be added to the Specific Plan area, the Treelake Village EIR, located to the east of the Specific Plan boundary within Placer County, the Woodbridge Ranch EIR, located to the south of the Plan area at the southwest intersection of Sierra College Boulevard and Old Auburn Road, the Maidu Park EIR, located to the west of the Plan area, and several studies on the Johnson Ranch property, both north and south of Douglas Boulevard.

C. Project Developer

This Specific Plan EIR does not include any individual development proposals. Identification of specific developers will occur as individual projects are proposed within the Plan area.



D. Public Agencies Affected

The City of Roseville is the Lead Agency for the Specific Plan. No Responsible Agencies have been designated by the City.

E. Source of Funding

No specific funding source for development within the Specific Plan area has been identified at this stage. Funding for development of the residential, commercial, and business/professional portion of the Plan area is anticipated to be from private sources. Development of roadways, utilities and other infrastructure will be from both public and private developer sources. Parks and schools are generally anticipated to be funded from public sources. Funding for the preparation of the Specific Plan and the EIR has been provided by the major land owners within the Plan area.

F. Purpose and Scope of EIR

As provided in the California Environmental Quality Act (CEQA) Guidelines, public agencies are charged with the duty to avoid or minimize environmental damage where feasible. In discharging this duty, the public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social (Section 15021). The EIR is an informational document, the purpose of which is to inform public agency decision makers and the general public of the significant environmental effects of a proposed project, to identify possible means to minimize the significant effects, and to describe reasonable alternatives to the project. The public agency is required to consider the information in the EIR along with any other information available in making its decision (Section 15121). Sections 15122 through 15132 describe the content requirement for Draft and Final EIRs. This information includes the environmental setting, environmental impact, mitigation measures, alternatives, short term uses vs. long term productivity, significant irreversible changes, growth inducing



II. SUMMARY

Summary of Impacts and Mitigation Measures

Tables B1 and B2 contain recommendations for findings of significance for project specific and cumulative impacts. A summary of the anticipated impacts of the project along with a general summary of the measures which are available to mitigate the identified impacts are presented in Table B3. Further information and detail regarding these subjects is presented in the appropriate sections of the text of this report. In accordance with CEQA Guidelines Section 15126 (a), all of the impacts examined in detail in the body of this report are potentially significant. However, the Guidelines (CEQA Sections 15064, 15382 and CEQA Appendix G) require a very specific examination of significance in light of mitigation measures which can be utilized to reduce the impact. Project specific impacts refers to those impacts which are generated solely by implementation of this project, irrespective of other growth in the vicinity. Project specific impacts in the areas of air quality, vegetation/wildlife, recreation, and visual/aesthetic impacts are suggested to be significant. Cumulative impacts refer to the impacts which could result from regional growth, and are evaluated on a larger scale than that considered in the evaluation of impacts associated with a single project. Although this project may negligibly contribute to the impacts in a given subject, the combined effect of regional development may produce significant impacts. In some instances, such as air quality, an unacceptable condition already exists, and regardless of the magnitude of the contribution of this project, any additional contribution must be considered significant, both on a project specific and cumulative scale. Cumulative impacts which are anticipated to occur with continued regional growth for which mitigation has not been identified or implemented include air quality, hydrology, vegetation and wildlife, traffic, visual/aesthetics, and archaeology/history. The final determination as to which impacts are judged to be significant is made by the City of Roseville, so the classification given must be considered as suggestive.



**Table B1
Suggested Findings of Significance for Project Specific Impacts**

Project Specific Impacts

Less than Significant Impacts		Significant Impacts not fully Mitigated w/ identified Measures
with existing Mitigation Measures	with Project Specific Mitigation	

Natural Environment

Geology & Soils		X	
Hydrology		X	
Vegetation/Wildlife			X
Air Quality			X
Noise		X	

Cultural Environment

Land Use		X	
Population	X		
Employment	X		
Housing		X	
Job Housing Balance		X	
Traffic			X

Utilities

Water		X	
Sewer		X	
Natural Gas	X		
Electricity	X		
Telephone	X		
Energy		X	



Project Specific Impacts (Con't)

Less than Significant Impacts		Significant Impacts not fully Mitigated w/ identified Measures
with existing Mitigation Measures	with Project Specific Mitigation	

Public Services

Police protection		X	
Fire Protection		X	
Solid Waste	X		
Hazardous Materials	X		
Schools		X	
Parks & Recreation			X

Visual & Aesthetic			X
Fiscal		X	
Archaeology/History		X	



**Table B2
Suggested Findings of Significance
for Impacts Associated with Regional Cumulative Growth**

Cumulative Impacts

Impacts for which currently identified mitigation exists	Impacts for which full mitigation has not been Implemented
--	--

Natural Environment

Geology & Soils	X	
Hydrology		X
Vegetation/Wildlife		X
Air Quality		X
Noise	X	

Cultural Environment

Land Use	X	
Population	X	
Employment	X	
Housing	X	
Job Housing Balance	X	
Traffic		X

Utilities

Water	X	
Sewer	X	
Natural Gas	X	
Electricity	X	
Telephone	X	
Energy	X	



Cumulative Impacts (Con't)

Impacts for which currently identified mitigation exists	Impacts for which full mitigation has not been Implemented
--	--

Public Services

Police Protection	X	
Fire Protection	X	
Solid Waste	X	
Hazardous Materials	X	
Schools	X	
Parks & Recreation	X	
Visual & Aesthetic		X
Energy	X	
Archaeology/History		X



Table B3
Summary of Impacts and Mitigation Measures

<u>Impacts</u>	<u>Mitigation Measures</u>
<p>Geology & Soils. Development within the Plan area will require grading for implacement of roadways, building pads, and utility lines, and will increase the potential for erosion. Development will increase the number of structures within the Plan area which will be susceptible to earthquake activity.</p>	<p>Geology & Soils. Grading will be conducted using acceptable practices. Measures have been identified to minimize erosion. Structures will be constructed to appropriate earthquake standards. A geotechnical engineer has been retained to provide project specific recommendations (developer).</p>
<p>Hydrology & Water Quality. Construction in the Plan area will increase the opportunity for sedimentation of area watercourses. Overall runoff volume will increase as a result of urban development, however the magnitude of increase will not be regionally substantial. The potential for urban pollution of waterways will increase.</p>	<p>Hydrology & Water Quality. In accordance with City policy, the Specific Plan includes dedication of the 100 year floodplain to the City. This EIR identifies measures which should be implemented by individual projects as they are developed to reduce erosion, siltation, and pollutant impacts. (Developer, Future Residents, City)</p>
<p>Vegetation & Wildlife. Implementation of the project will result in the reduction of natural vegetation, wildlife habitat, and displacement of wildlife populations. Vernal pools will be directly lost as a result of implementation of this project.</p>	<p>Vegetation & Wildlife. Loss of vernal pools and wildlife habitat cannot be avoided with implementation of the project. Some vernal pool habitat will be included in park or open space areas (Developer). Further, the developer proposes that a City-wide program be implemented to facilitate preservation of the most valuable habitat areas, and that individual developers be assessed fees to offset the costs of acquiring and establishing such preserves (City). Mitigation has not been proposed which would reduce vegetation and wildlife impacts to less than significant levels. As required by City Ordinance, the 100 year floodplain will be dedicated to the City (Developer, City).</p>



Air Quality. Implementation of the project will contribute to the volume of air pollutants generated in the region. Short term impacts will primarily consist of dust generation from construction activity. The magnitude of this impact is directly related to the level and location of construction. The potential for local violation of Federal air quality standards will increase with development of the Plan area. Modelling of worst case CO concentrations at major intersections in the Plan area indicate that local violations will occur.

Noise. Implementation of the project will increase noise levels on the site. The primary source of this noise will be traffic on the arterial roadways.

Land Use. The proposed land uses included in the Specific Plan area are in accordance those allowed under the **General Plan**. The only substantial land use change from the adopted Specific Plan is the addition of additional acreage and a subsequent redistribution of approved units in order to provide a more equitable distribution of densities throughout the Amended Plan Area.

Population. Assuming 2.6 persons per household, this project could generate a future population of 10,309 persons.

Employment. Buildout of the Plan area is predicted to generate approximately 4,198 direct jobs, and 3,910 secondary jobs.

Air Quality. Planning of a "balanced" community with mixed land uses is proposed to reduce the number and length of future vehicular trips. A "Park and Ride" lot should be designated in the Specific Plan document. TSM measures will be implemented in accordance with City Ordinance at the individual project level (Developer, City). Since the region is a non-attainment area for CO and ozone, the addition of any new sources represents a significant impact which cannot be mitigated.

Noise. Construction equipment will be properly equipped with mufflers and noise reduction devices (Developer). The need for walls, berms, landscaping or other noise reduction measures will be evaluated on a project by project basis in order to ensure attainment of the noise standards. Mitigation will be determined on a project specific basis (Developer, City).

Land Use. A fundamental advantage of the preparation of a Specific Plan is that planning can be completed for a larger area than would likely occur with "project-by-project" development. The proposed land uses include parks, habitat preserves, and major roadways. The redistribution of land uses will result in more even distribution of residential dwellings and should be viewed as a positive impact to the already adopted Plan.

Population. Since buildout of the proposed project is predicted to generate the same number of future residents as would be expected with development of the existing land use designations, no mitigation is required.

Employment. Since additional jobs are considered a positive benefit, no mitigation is proposed. However, creation of jobs in excess of local employees could have negative impacts.



Housing. In accordance with the **General Plan**, the Specific Plan includes 3,965 dwellings which contains both low and high density housing. Consistency with the affordable housing program is intended.

Job Housing Balance. Buildout of the Plan area is predicted to generate approximately 4,198 direct jobs, and 3,910 secondary jobs. The "working population" of the Plan area is predicted to be roughly 5,154 persons.

Traffic. At buildout of the Specific Plan area, approximately 64,864 average daily trips will be generated. Cumulative studies indicate that LOS C will not be maintained on all area roadways.

Water. Development of the Specific Plan will generate the need for domestic water service to the site. Service will be provided by the City of Roseville Public Works Department and the San Juan Suburban Water District.

Sewer. Sewer service will be provided in accordance with City of Roseville requirements. As a result of the proposed redistribution of densities, a transfer line and lift station will be required to maintain the proper percentage of flows in the respective trunklines in accordance with the sizing of the sewer system Developer).

Housing. Since proposed housing is in agreement with the **General Plan**, and intended to comply with the future affordable housing program, no mitigation is required.

Job Housing Balance. The seriousness of the imbalance cannot be evaluated without analysis on a City-wide scale. However, long term planning should include measures to achieve a more equitable balance. Monitoring of the job housing balance throughout the City should be continued (City).

Traffic. A traffic analysis has been prepared which identifies required roadway improvements. Even with these improvements major intersections in the vicinity are predicted to operate at less than LOS C. At the Specific Plan level, proposed amenities include parks, a pedestrian pathway system, commercial uses, a recreation center, and a daycare center. These uses will reduce the number and length of vehicular trips. At the project level, bus turnouts and pathway alignments will need to be identified (Developer).

Water. Both water suppliers have indicated a willingness and ability to serve the Plan area.

Sewer. The developer will provide the necessary infrastructure to ensure proper distribution of wastewater flows for which the regional system was designed.



Natural Gas. Development of the Plan will generate the need for extension of natural gas facilities.

Electricity. Development of the Plan area will generate the need for extension of electric facilities.

Telephone. Development of the Plan Area will generate the need for extension of telephone services to the Plan Area.

Energy. Development of the property will result in a substantial increase in energy consumption on the site. Homes and businesses will utilize electricity and natural gas. Automobile usage on the site will increase petroleum fuel consumption.

Police & Fire Protection. Development will require extension of police, fire, and emergency services to the Plan area.

Solid Waste. Development of the site will increase the amount of solid waste generated, and will require the extension of disposal services to the area.

Natural Gas. Pacific Gas and Electric Company has indicated a willingness and ability to serve the Plan area. Development of facilities will be in accordance with Public Utilities Commission (PUC) rules, and City of Roseville standards.

Electricity. The Roseville Electric Department has indicated a willingness and ability to serve the Plan area. Development of facilities will be in accordance with Public Utilities Commission (PUC) rules, and City of Roseville standards.

Telephone. The Roseville Telephone Company has indicated a willingness and ability to serve the Plan Area. Development of facilities will be in accordance with Roseville Telephone and City of Roseville standards.

Energy. Construction of well insulated structures and use of energy efficient appliances will reduce energy impacts over those which occur in older neighborhoods. (Individual developers) Efficient land use planning, inclusion of park & ride lots, and design of a pedestrian/bicycle system could reduce the number and length of vehicular trips undertaken (Specific Plan). The community should more actively promote conservation through recycling programs (City).

Police & Fire Protection. A fire station is proposed within the Plan area. Quality homes and a thoughtful systematic area Plan will contribute to crime prevention and allow timely emergency response in the vicinity (Developer, City). Developer fees and future taxes will provide support for the extension of services.

Solid Waste. Fees assessed future residents will offset the cost of extension of services to the area (City). Programs which encourage recycling of resources should be developed (City).



Hazardous Materials. Development of the Plan area will result in an increased quantity of hazardous materials being utilized in the vicinity, principally by homeowners.

Schools. Buildout of the Specific Plan area will generate approximately 1,178 elementary students and 683 high school students. These students will create a need for additional school facilities.

Park & Recreation. Development of the Plan area will increase the need for recreation facilities.

Visual/Aesthetic Resources. The project will result in significant aesthetic impacts. The undeveloped character of the site will be replaced with homes, businesses, streets, and irrigated landscaped vegetation.

Fiscal. The fiscal analysis prepared for this EIR indicates that a slightly positive impact will be generated.

Archaeology and History. Development of the Specific Plan area has the potential to disturb archaeological sites in the vicinity.

Hazardous Materials. Although none is currently proposed, commercial use of hazardous materials would have to be in compliance with State and City programs (State, City). Educational programs should be implemented to reduce the potential for contamination through use of products by private citizens (City).

Schools. The Specific Plan includes policies to ensure that school sites are provided in accordance with the needs of the individual School Districts. There are 31.7 acres of school sites included within the Plan area. However, due to concern regarding the proximity of a powerline easement, the location and configuration of the sites may be changed to better meet the needs of the School Districts.

Parks & Recreation. The Specific Plan includes designation of open space, parks and school sites. However, the proposed acreage of park land is not in accordance with that required by City ordinance. The Specific Plan document specifies that a bicycle/pedestrian pathway system will be developed. This system should align with other pathways adjacent to the Plan area.

Visual/Aesthetic Resources. Assuming implementation of the Specific Plan, it is not feasible to fully mitigate the aesthetic change. However, careful planning and review of individual projects, and implementation of the parks and open space areas which have been designated will reduce visual/aesthetic impacts.

Fiscal. No mitigation is required for a positive fiscal impact.

Archaeology and History. Measures have been identified which will mitigate impacts to known sites. Several sites are within designated open space or floodway areas. If any unknown sites are discovered during construction, a qualified archaeologist will be contacted to evaluate the find and recommend proper mitigation (Developer).



III. PROJECT DESCRIPTION

A. Location

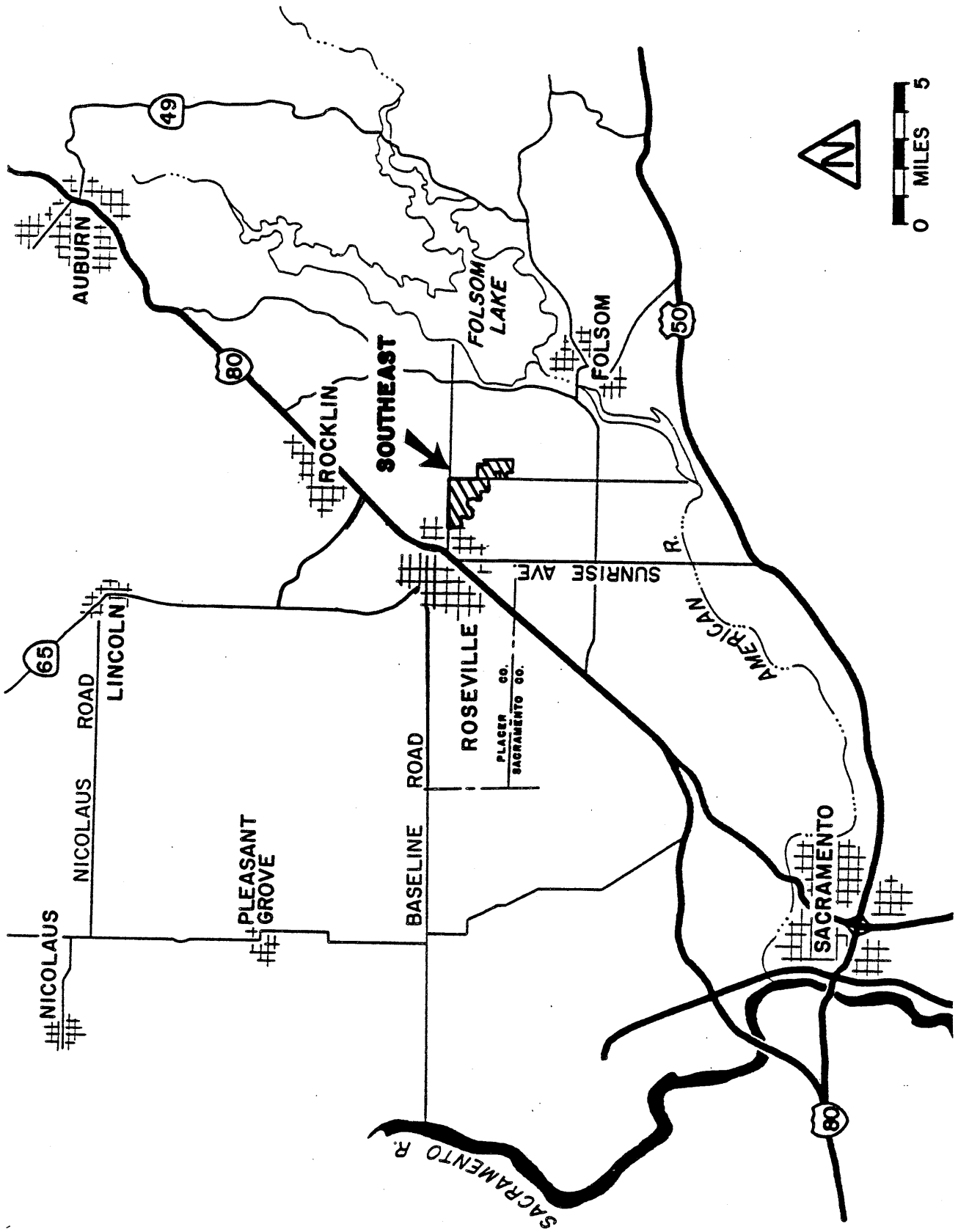
The Southeast Roseville Specific Plan area is located within the southeastern portion of the City of Roseville as shown on Figure C1, the Regional Location Map. The currently adopted Southeast Roseville Specific Plan encompasses approximately 637 acres located south of Douglas Boulevard and west of Sierra College Boulevard. The proposed boundaries of the amended Plan area include an additional 367 acres located east of Sierra College Boulevard and south of Eureka Road, as shown in Figure C2, the Vicinity Map. The total size of the proposed amended Plan area is approximately 1,004 acres. The boundaries of the revised plan area are Rocky Ridge Drive on the west, Douglas Boulevard and Eureka Road on the north, and the City corporate limits on the east and south.

B. Project Site Description

The amended 1,004 acre Southeast Roseville Specific Plan area consists for the most part of gently rolling hills, interspersed with scattered stands of trees, particularly along the major drainages. The major species of trees include native Live Oak, Blue Oak, and Digger Pine. Riparian vegetation along the drainage courses includes blackberries, cattails, Oregon Grape, willows, tamarack, and cottonwood trees. Drainage is typically to the southwest, concentrated into two major drainage courses, Strap Ravine to the north, and North Branch Linda Creek which traverses the site.

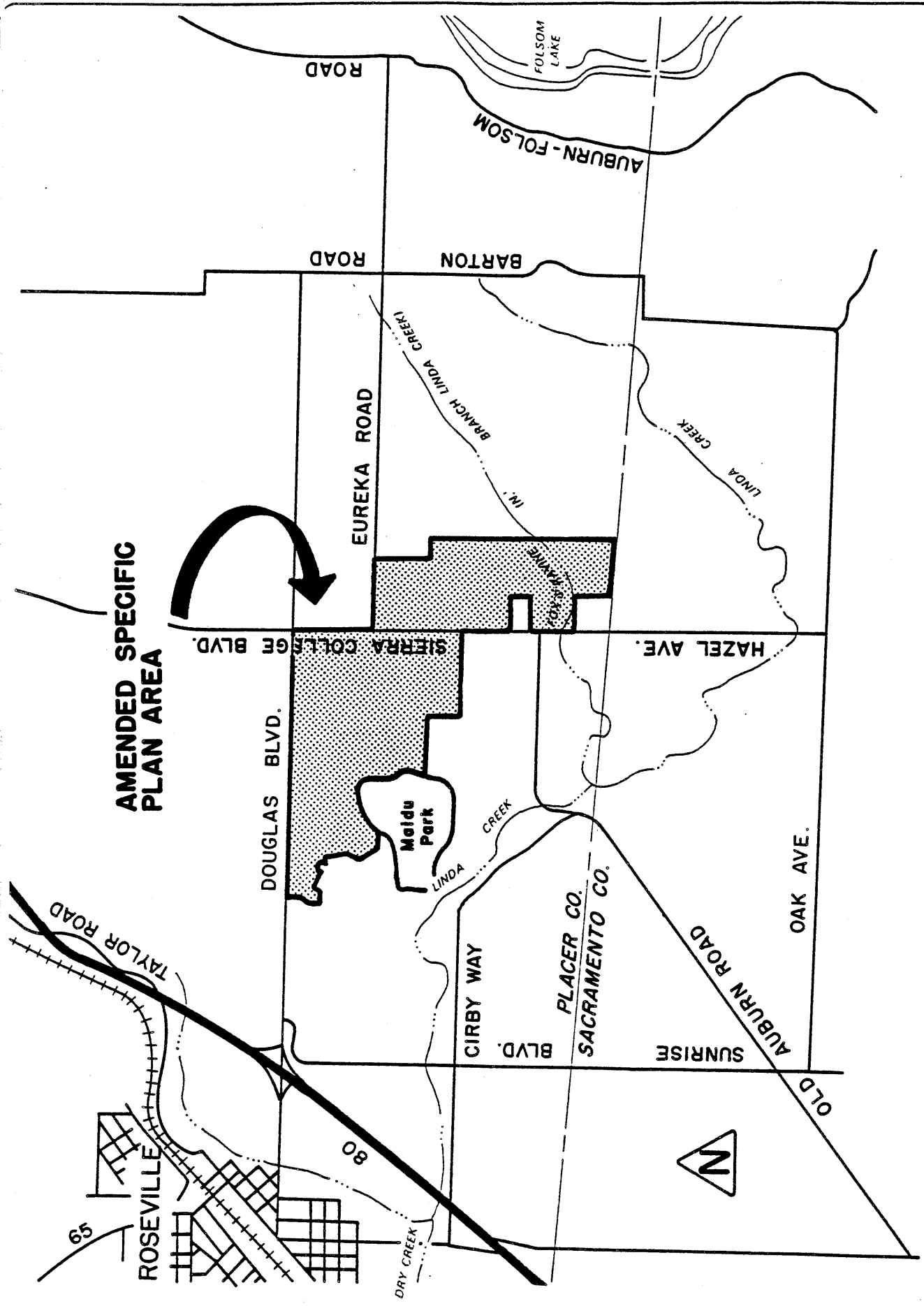
The steepest slopes on the site are concentrated around the North Branch Linda Creek area in the extreme southeastern portion of the amended Plan area. The major concentration of trees within the Plan area is north of North Branch Linda Creek and east of Sierra College Boulevard. Elevations on the site range from a high of 298 feet above mean sea level, located on an isolated knoll in the southeastern corner of the property, to a low of





REGIONAL LOCATION MAP

FIGURE C1



**AMENDED SPECIFIC
PLAN AREA**



VICINITY MAP

FIGURE C2

approximately 180 feet above mean sea level, within the Strap Ravine stream channel.

Due to the limitations presented by the shallow soils in the vicinity, the vast majority of the expanded Plan area is covered with sparse grassland. Notable exceptions to this vegetative cover include concentrations of native oak trees which extend across the approximate center of the expanded site, and along the northern boundary near Eureka Road. Isolated riparian vegetation exists along the creek, and an abandoned orchard is located in the northeastern portion of the site. The dominant past use of the site has been low intensity agriculture, primarily grazing. Scattered granite outcrops are found in several portions of the site. Some structural remains of past uses occur throughout the site, including building foundations, fences, and an open well. A 465 foot wide power line easement roughly bisects the site from northwest to southeast.

C. Existing Use of Site and Adjacent Parcels

As stated previously, the major historic use of the site has been grazing, both of sheep and cattle. Grazing is currently the only use, with some corrals, loading chutes, and other accouterments of livestock operations still in evidence, particularly of the portion east of Sierra College Boulevard. The only exception to this is the currently developing portion of the Plan area, which contains recently developed residential, commercial, and business/professional uses, concentrated south of Douglas Boulevard and east of Rocky Ridge Drive.

The surrounding existing and proposed land uses in the vicinity of the plan area include the Northeast Roseville Specific Plan area across Douglas Boulevard to the north. To the west is the proposed regional Maidu Park. The existing Annabelle tract (in the county) and the Huntington Oaks residential subdivision (in the City) are to the south. Outside the City Limits, west of Sierra College Boulevard and south of Old Auburn Road is the Woodbridge Ranch single family subdivision, which extends into Sacramento County. To the east of the City Limits, the eastern



boundary of the 1987 Amendment area, is the proposed Treelake Village project, a 1100 unit residential development within Placer County. South of Eureka Road, east of the City Limit line, are the sites of two proposed new schools: a new high school for the Roseville Joint Union High School District, and a combined K-3/4-6 facility for the Eureka District. Directly north of Eureka Road, and east of Sierra College Boulevard is the site of a currently developing commercial area within Placer County.

D. Project Description

The existing Southeast Roseville Specific Plan was approved by the Roseville Planning Commission on August 9, 1984 and adopted by the Roseville City Council on February 20, 1985. As approved, the Specific Plan area encompasses approximately 637 acres south of Douglas Boulevard and west of Sierra College Boulevard as shown in Figure C3, the Existing Specific Plan Map.

Proposed amendment of the existing Specific Plan includes addition of approximately 367 acres to the plan area, all east of Sierra College Boulevard and south of Eureka Road, as shown in Figure C4, the Amended Specific Plan Area Map. A full size copy of this map is located inside the back cover of this document. Table C1 presents a detailed breakdown of land uses adopted under the current Southeast Specific Plan as well as land uses in the proposed Plan amendment.

The proposed project which is the subject of this environmental impact report, consists of the adoption of an amended Specific Plan for the project area. In general, the major purpose of a Specific Plan is to establish goals, policies, and guidelines for development within the plan area. In this instance, the immediate purpose of the proposed amendment to the Southeast Specific Plan is to reallocate land use throughout the newly defined plan area.

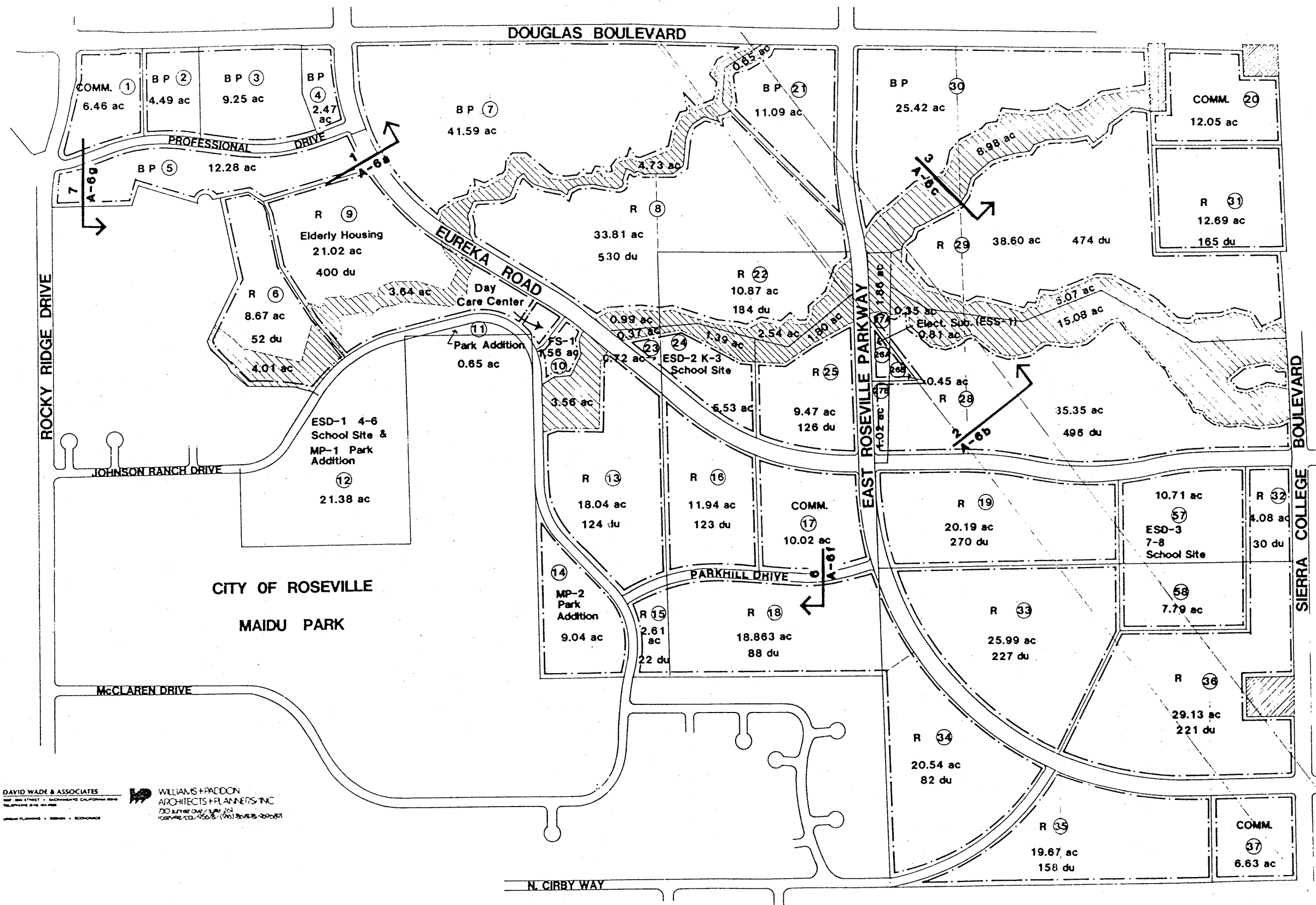
The essential impetus for the proposed density reallocation is the existing low density presently assigned to the parcels east of Sierra College Boulevard. Under the existing land use



Table C1
Existing Land Use Designations and Proposed Specific Plan Land Uses

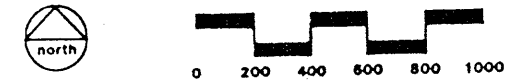
Existing Designations				Proposed Specific Plan			
Parcel	Acres	Units	Land Use	Parcel	Acres	Units	Land Use
1	6.5		Comm.	1	6.5		Comm.
2	4.5		BP	2	4.5		BP
3	9.3		BP	3	9.3		BP
4	2.5		BP	4	2.5		BP
5	12.3		BP	5	12.3		BP
6	8.7		R-4	6	8.7		R-5
7	41.6		BP	7	41.6		BP
8	33.8	530	R-16	8a	12.7	234	R-19
9	21.0	400	R-22 (Elderly)	8b	9.5	174	R-19
10	1.6		FS	9	19.6	400	FS
11	1.0		Park	9b	1.1		Daycare
12	21.4		Park/School	10	1.8		FS
13	18.0	124	R-7	13	18.0	114	R-7
14	9.0		Park Addition	16	11.9	114	R-10
15	2.6	22	R-4	17	10.0	80	R-8
16	11.9	123	R-10	18	21.5	106	R-5
17	10.0		Comm.	19	30.7	138	R-5
18	18.9	88	R-4	20	12.1		Comm.
19	20.2	270	R-15	21	11.1		BP
20	12.1		Comm.	22	16.7	306	R-19
21	11.1		BP	23	0.7		School
22	10.9	184	R-16	24	5.5		School
23	1.0			25	9.5	76	R-8
24	5.5		School Site	26	2.1		ES
25	9.5	126	R-14	27	11.9		Racquet Club
26A	1.0		ES	28	18.5		School
26B	0.5		Misc.	29	38.6	612	R-16
27A	0.4		Misc.	30	25.4		BP
27B	1.0		Misc.	31	12.7	165	R-13
28	35.6	496	R-13	32	5.5	110	R-20
29	38.6	474	R-12	34	20.5	82	R-4
30	25.4		BP	35	19.7	78	R-4
31	12.7	165	R-15	37	6.6		Commercial
32	4.1	30	R-7	40	13.8		Commercial
33	26.0	227	R-12	41	102.0	383	R-4
34	20.5	82	R-4	42	76.3	248	R-4
35	19.7	158	R-8	43	47.3	145	R-4
36	29.1	221	R-7	44	3.3	10	R-3
37	6.6		Comm.	45	47.7		Park
57	10.7		School	46	45.0	164	R-4
58	7.8		School	47	9.0		Park
	<u>92.8</u>	----	Flood/Road/Misc	48	16.0		Nursery
	637.4	3798		49	42.2	189	R-5
				50	9.1		Park
	367.0	167	Outside Current	51	14.4		Park
			Specific Plan	52	7.0		School
			Area		75.7		Floodway/Open
	<u>1,004.4</u>	<u>3965</u>			<u>56.3</u>	----	Roads
					1,004.4	3965	





PREPARED BY: DAVID WADE & ASSOCIATES
 WILLIAMS + PADDON ARCHITECTS + PLANNERS, INC.

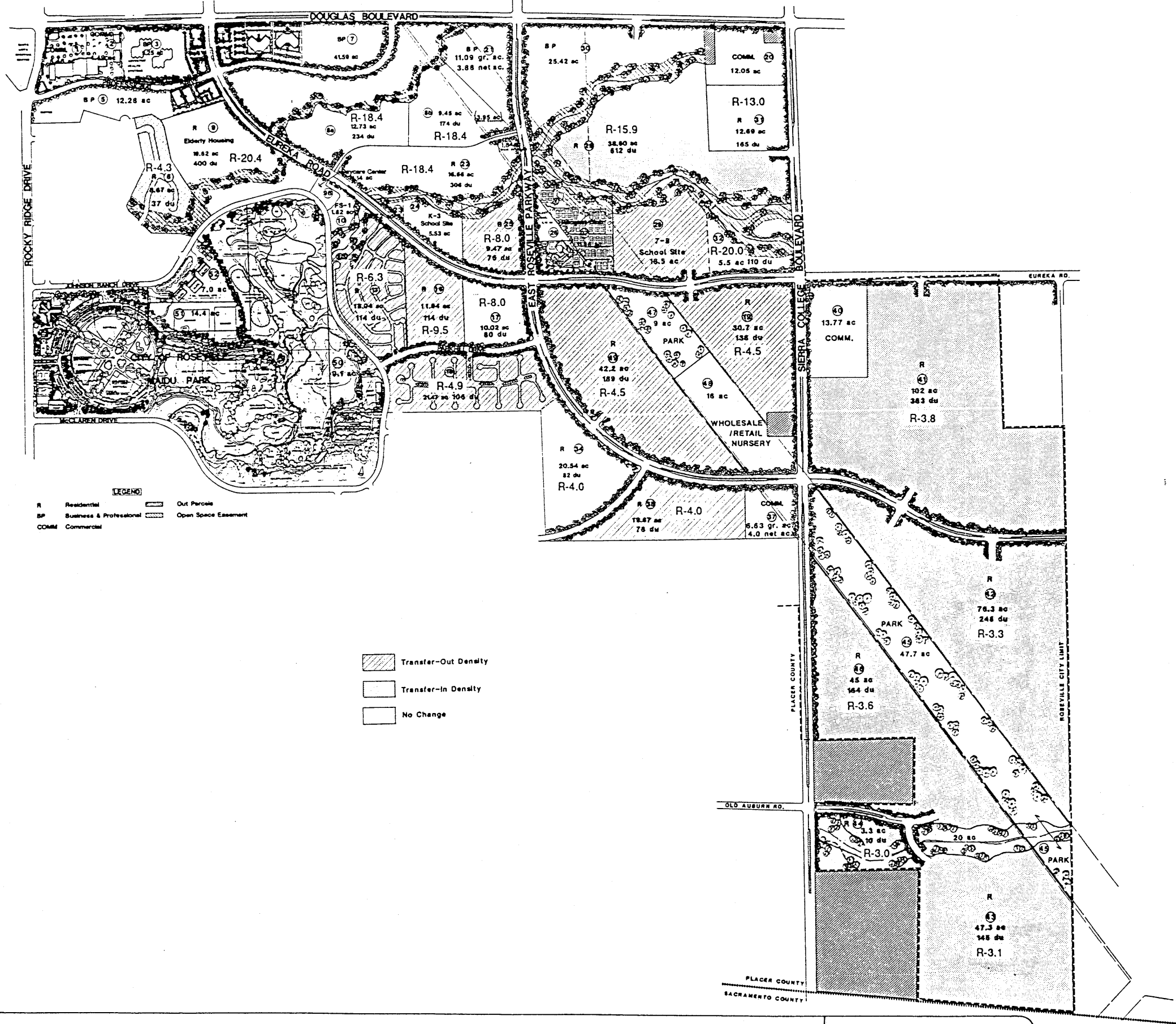
LAND USE PLAN
 EXHIBIT "A-1"



EXISTING PLAN MAP FIGURE C3

SOUTHEAST ROSEVILLE C-7 SPECIFIC PLAN AMENDMENT



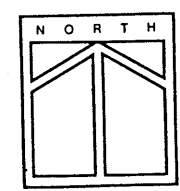


LEGEND

R Residential
 BP Business & Professional
 COMM Commercial

Out Parcels
 Open Space Easement

Transfer-Out Density
 Transfer-In Density
 No Change



0 400 800 1200
 SCALE IN FEET

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AMENDED SPECIFIC PLAN AREA MAP **FIGURE C4**

SOUTHEAST ROSEVILLE C-8 SPECIFIC PLAN AMENDMENT



designations, the 367 acres east of Sierra College can accommodate 167 residential dwelling units. As proposed, the Amended Specific Plan includes addition of this area to the Southeast Specific Plan area, and the redistribution of density from the existing plan area to the newly added portion of the amended Specific Plan. Proposed density transfers would allow development of 950 units east of Sierra College Boulevard, a net transfer of 783 units from the existing Plan area. Other proposed changes to land use within the existing Specific Plan area include addition of parkway area, transfer of a school site, creation of a tree nursery area, and transfer of 13.8 acres of commercial.

E. Required Approvals

Full implementation of the land uses described in the Specific Plan would require the following approvals:

- 1) EIR Certification
- 2) Specific Plan approval
- 3) Development Agreement
- 4) Tentative Subdivision Map approval for the major parcels into which the plan area is to be subdivided.
- 5) Approval of zoning consistent with specific plan land uses.
- 6) Granting of use permits for individual projects.
- 7) Approval of Engineering Improvement Plans and final maps for individual projects.
- 8) Building permits for all structures within the Plan area.
- 9) Stream Alteration Agreements from the California Department of Fish and Game may be required for individual projects which could affect streambeds within the Plan Area.



F. Objectives of Project

The project, upon which this EIR is based, is a specific plan, the purpose of which is to establish a planning framework of greater specificity than the General Plan, but which further implements the goals of the General Plan, and is fully consistent with the General Plan. In a more general sense, the purpose of the plan is to provide for the ultimate orderly and efficient development of the plan area.

The specific purpose of the proposed amendment to the Southeast Roseville Specific Plan is reallocate land usage in accordance with the current market situation and to add recently acquired property to the Plan area.

G. Project Costs and Development Schedule

The Specific Plan proposed does not contain any individual development proposals, so no particular schedule or cost information is available on a project by project basis. For regional planning and forecasting purposes, it has been assumed that approximately two thirds of the plan area will build out by the year 2005. Other buildout assumptions have been made for comparison as spelled out in the appropriate sections of this report.



IV. General Plan Consistency

This chapter evaluates the consistency of policies contained within the proposed **Amended Southeast Roseville Specific Plan** with those identified in the **City of Roseville General Plan**. Individual policies are identified within their respective General Plan element. Only those policies which are pertinent to the proposed Plan are evaluated.

Growth Management Element

Policy 1: Potential population growth in Roseville must be based on the long term carry capacities of the roadway system, calculated by Level of Service "C", sewer and water treatment facilities, and electrical utility service, as defined in the Circulation and Public Services and Facilities Element.

Potentially Consistent. Providers of public utilities have indicated an ability and willingness to extend services to the Specific Plan area. The project traffic study projects that Level of Service "C" will not be maintained at all intersections in the Plan vicinity. However, according to the consulting traffic engineer, parallel roadways can be provided to mitigate this impact to less than a significant level.

Policy 2: For purposes of land use allocation, the potential population of Roseville, based on infrastructure limits, must not exceed 92,000 people.

Consistent. The number of units, and therefore the calculated population, of the proposed Specific Plan is consistent with the **Roseville General Plan**. The projected population of the **General Plan** is approximately 91,500.

Policy 3: Growth and development must occur at a rate commensurate with the availability of desired facilities capacity and the attainment of desired level of service for public activities as defined in the Public Services and



Facilities Element.

Consistent. Individual projects will require review and approval at the time of submittal of the Tentative Map(s). Adoption of the Specific Plan does not preclude this process which allows for evaluation of the adequacy of facility plans prior to approval of the map(s).

Policy 4: Growth must occur in a manner that makes efficient use of the land, but recognizes the need to preserve environmentally sensitive areas.

Potentially Consistent. The Specific Plan includes measures for the preservation of vernal pools, oak woodland, and riparian habitats, however, further clarification of the precise methods proposed must be obtained before a definitive finding is possible.

Policy 5: Growth must provide a strong diversified economic base and a balance between new employment and affordable housing opportunities.

Potentially Consistent. The Amended Specific Plan includes a balance of commercial, business/ professional and residential land uses to create an approximate jobs/housing balance within the Plan area. The Plan includes high density housing geared to selected low income groups. However, a finding of consistency must await the implementation of the City's Affordable Housing Program which is currently being developed.

Policy 6: Growth and development must occur on the basis that projected revenues shall be sufficient to meet public costs.

Consistent. The fiscal analysis prepared for this EIR projects a net positive fiscal impact associated with implementation of the Amended Specific Plan.

Policy 7: Because of common concerns and problems, growth and development must be viewed in a regional perspective by



coordinating activities with adjacent jurisdictions.

Consistent. The City of Roseville is a member of the South Placer Policy Committee, and as a result, the **Roseville General Plan** was developed in a regional context. The Amended Specific Plan is in conformance with the overall level of development as identified in the **General Plan**.

Policy 10: Growth management techniques to be utilized in addition to existing methods include the use of specific plans for new growth areas.

Consistent. Preparation of this Specific Plan is in accordance with Policy 10.

Land Use Element

Policy 1: To provide sufficient affordable housing in conjunction with anticipated employment, the allocation of an additional 12,000 dwelling units, City-wide, shall be at an average density of not less than 6 dwelling units per acre or not to exceed a maximum of an additional 2000 acres of residential land use.

Potentially Consistent. The Specific Plan was informally allocated 3,200 of the additional 12,000 units. This additional allocation, coupled with the previously assigned units, has result in an average density of 6.8 units per acre proposed within the Specific Plan area. Although the Specific Plan is consistent with the informal allocation, currently proposed densities in other plan areas of the City are less than that necessary to achieve the city wide objective of 12,000 units at densities of six units per acre.

Policy 2: In order to provide the basic commercial goods and services for an ultimate population of 92,000, a maximum of 2000 acres shall be allocated for commercial land use.



Consistent: The total acreage which has been developed, or is proposed for commercial development within the City, is less than the maximum 2,000 acres identified in the **General Plan**.

Policy 4: The allocation of land use shall not occur unless public facility needs have been thoroughly calculated and the mechanism for implementation of such facilities has been determined. However, the City may grant land use to a property owner or owners if it is determined to be in the public interest and if such land use commitment is contingent upon the property owners guaranteeing to provide a fair and equitable share of public facilities costs that is yet to be determined.

Consistent: The Specific Plan includes policies for the establishment of funding mechanisms to accomplish the above policy.

Policy 5: The method of guaranteeing land use in return for some public improvements shall be done by either formal development agreement at the time land use is adopted, as part of the adoption of a specific plan, or as a conditional action on adopting land use that requires a formal development agreement prior to the adoption of zoning.

Consistent. The Amended Specific Plan proposes that a development agreement be concluded prior to the adoption of zoning.

Policy 6: Urban land use on the Mehrten formation shall be limited to non-residential activities or high-density residential where normal landscaping amenities can be provided.

Consistent. The limited area underlain by Mehrten formation within the Southeast Plan area is proposed for development as commercial and business professional land use in accordance with **General Plan** policy.



Policy 7: The City should include as part of the Land Use Plan, designated vernal pool sites, or portions of sites that coincide with designated sites (Nos. 1, 2, 7, 17, 19, 20, 22 and 24) as shown on the exhibit map Vernal Pool Resources, Inventory and Evaluation, City of Roseville, prepared by Western Ecological Services Company, August 31, 1982, on file in the Roseville Planning Department.

Not Applicable. None of these pool site are within the adopted or proposed Amended Specific Plan Area.

Policy 8: Unsurveyed vernal pool sites shall be analyzed as part of any land use, zoning or development plan applications. These sites are designated as Nos. 1, 2, 7, 17, 19, 20, 22 and 24, as shown on the exhibit map, Vernal Pool Resources, Inventory and Evaluation, City of Roseville, prepared by Western Ecological Services Company, August 31, 1982, on file in the Roseville planning Department.

Not Applicable. None of these pool sites are within the existing or proposed Amended Specific Plan area.

Policy 9: Preliminary allocation of additional residential units, according to development area, shall be as follows:

East Area 5,000 units

Consistent. The Specific Plan was allocated 3,200 of the 5,000 units assigned to the East Planning Area. The remaining 1,800 were included in the Northeast Specific Plan.

Policy 10: Preliminary allocation of additional residential units by density average, according to development area, shall be as follows:

East Area:

Avg. 3 DU/Acre -- max. 1,000 units
Avg. 10 DU/Acre -- min. 2,000 units
Avg. 15 DU/Acre -- min. 2,000 units



Potentially Consistent. The combined NE and SE Specific Plans include proposals to develop fewer than 1,000 units at densities of 3 units per acre. The total units proposed in both Specific Plans include 1,098 dwelling units in the 10 to 14 DU/Acre range, and 1,836 units in the 15+ DU/Acre range; both less than the 2,000 unit requirement for housing in the east planning area. However, Planning Department staff has indicated that other projects in the East Planning Area may make up the deficit of appropriate high density housing in the east planning area.

Policy 11: For the purpose of allocating residential land use, total allowable dwelling units shall not exceed 34,700, or 12,000 above the current adopted General Plan.

Consistent. The proposed Specific Plan includes residential land uses for 3,965 dwelling units. This total is in accordance with the number of units allowed by the **General Plan** for the area.

Policy 13: Residential land use with the average of 3 dwelling units per acre shall be located in accordance with the following general criteria: a. not adjacent to heavy industrial areas; b. not adjacent to intensive commercial development unless appropriately buffered; c. not adjacent to freeways or railroads; d. not adjacent to arterial roadways unless appropriate noise attenuation can be implemented.

Consistent. There is no residential development with a density of three units per acre or less proposed within the Southeast Specific Plan area.

Policy 14: Residential land use with an average of 10 dwelling units per acre shall be located in accordance with the following general criteria: a. adjacent to or as part of a low-density-mixed development if in a predominantly undeveloped area; b. not in a predominantly established single-family residential area unless as an in-fill project adjacent to a major arterial roadway; c. adjacent to higher-density developments, serving as a transition from lower -



density projects.

Consistent. The sole parcel proposed for development at a density between R-10 and R-15 is located on Sierra College Boulevard, an arterial roadway. This parcel is a buffer between proposed higher density housing within the Specific Plan area on the west and existing lower density zoning in Placer County on the east side of Sierra College Boulevard. Sound attenuation will be achieved as required by City policy.

Policy 15: Residential land use with an average of 15 dwelling units per acre shall be located in accordance with the following general criteria: a. only along arterial roadways providing appropriate sound attenuation can be implemented; b. adjacent to commercial areas where possible; c. adjacent to residential density range of 6-9 dwelling units per acres or as a part of a mixed development or specific plan that is preplanned; d. not adjacent to single-family residential unless appropriate design controls are associated with the zoning; e. adjacent to freeways only if appropriate noise attenuation and site design can be implemented.

Potentially Consistent. Residential development is located within the Specific Plan area in accordance with this policy with one notable exception. A multiple area, proposed as elderly housing, is located adjacent to a proposed single family area. Since the elderly project will not constitute a typical high density project, and is anticipated to be less obtrusive than a typical high density project, it is recommended that the Plan be considered consistent with this Policy in spite of the noted aberration. Sound attenuation will be achieved as required by City policies. Impacts will be mitigated through design and buffering.

Policy 16: Commercial land uses shall consist primarily of those activities that involve retail trade and services, and secondarily business profession office uses.

Consistent. The Specific Plan distinguishes between



commercial and business/ professional land uses.

Policy 17: Commercial land uses shall be located in accordance with the following general criteria: a. adjacent to arterial roadways, and, if possible, adjacent to intersections of arterial roadways or at the intersection of an arterial roadway and collector street; b. commercial land uses located in predominantly residential areas or or in close proximity to residential areas shall consist primarily of retail activities; c. commercial land use sites located in predominantly residential areas shall be a minimum of 10 acres in size and shall, when possible, include a retail food market; d. intensive commercial uses, serving other than local residential neighborhoods, shall be located on sites of over 10 acres where surrounding land use is predominantly non-residential (except for high-density residential); e. continuous commercial development along arterial roadways (where development does not currently exist) shall be prohibited unless such development is part of a specific development plan that coordinates use and design with adjacent properties; minimizes access to arterial roadways; and, maintains aesthetic standards of the Scenic Highway Element.

Potentially Inconsistent. Commercial development proposed within the Specific Plan area is in accordance with this policy with a possible single exception, a 6.63 acre commercial parcel located at the intersection of East Roseville Parkway and Sierra College Boulevard, which is less than 10 acres is size and could possibly serve other than local residential neighborhoods.

Policy 21: The number and location of Public elementary and secondary school facilities shall be in accordance with the following general criteria: 1. Elementary schools shall be located to serve neighborhoods and secondary schools shall be centralized to serve a larger population; 2. Elementary school sites under this criteria of site selection, should be ten (10) net acres and planned cooperatively with the City Parks and Recreation Department. The actual school site may



be less than 10 acres when the total school/park site equals or exceeds ten (10) acres; 3. Secondary intermediate school sites would be fifteen (15-20 net) acres depending upon educational programs and planned cooperatively with the City Parks & Recreation Department. The actual school site may be less than fifteen (15) acres when the total school/park site equals or exceeds fifteen (15) acres. High school sites should be 40-45 net acres; 4. Schools should be located in an area that is safe and easily accessible away from major street arterials; 5. Elementary schools should be master planned to accommodate approximately 400-600 students depending upon the educational program; 6. Secondary intermediate schools should be master planned to accommodate approximately 600-850 students depending upon the educational program; 9. Size, capacity, and number of buildings for initial construction shall be determined by each individual district's enrollments, both current and anticipated. Changes and/or additions may result from district revisions regarding pupil/teacher ratios and other related variables.

Potentially Inconsistent. The Specific Plan designates adequate area for school sites. However, two of the sites are located on arterial roadways, one at the request of the school district. Due to the proximity to an electrical transmission line, the 7-8 school site may be unacceptable, to State officials.

Policy 24: A land use category shall be created for designating areas as open space where development cannot or shall not occur because of physical, cultural or historical qualities. Use of such property may be public or private.

Consistent. Open space is properly designated in the Specific Plan.

Policy 25: All lands subject to flooding, according to the most accurate and current data, shall be designated as Floodway land use, and where there is not a conflict with some reasonable and environmentally acceptable urban land use, such areas shall be designated as open space. Periodic



review of conditions and data shall be made, and boundaries shall be modified, if necessary.

Consistent. All area within the 100 year flood plain has been identified, and will be dedicated to the City as required by ordinance.

Policy 26: An Urban Reserve land use designation shall be used for all lands where future urban expansion may occur, but such urban expansion development cannot take place in the immediate future because of unavailable utility lines, utility capacities, roadways, or public services.

Consistent. Utilities and services can be extended to all portions of the Amended Plan area, and as such, no "Urban Reserve" is designated.

Housing Element

Policy 1: Roseville will work to accommodate the housing needs of its current and future residents by providing a range of purchase and rental units affordable to all income groups and to guarantee affordability over time through the adoption of policies and implementation of action plans listed in the Housing Element.

Potentially Consistent. The Specific Plan includes opportunities for development of affordable housing. Projects within the Specific Plan will be subject to the Affordable Housing Implementation Program being prepared by the City. However, since the program is not yet completed, nor implemented, it is not possible to evaluate the consistency of the Plan with this program.

Policy 4: Provide adequate housing at affordable costs for existing and future residents from all income groups by establishing a minimum number of housing units needed each year, broken down by unit type and targeted to specific income groups.



Encourage the production of high density multi-family units, both rental and purchase, to meet the needs of very low, low and moderate income groups.

Establish a monitoring program to determine whether the City is making progress toward meeting its Housing Element goals.

Potentially Consistent. The Specific Plan includes High Density residential uses which should facilitate implementation of the Affordable Housing Program currently being developed, however, as in the previous policy, until the Affordable Housing Program is implemented, it is not possible to evaluate the consistency of the Specific Plan.

Policy 12(a): An affordable housing development agreement shall be required whenever the land use on a piece of property is being changed to a density in excess of ten (10) dwelling units per acre. The affordable housing agreement will be a part of the land use and zoning change and will stipulate the number of affordable units to be constructed, the unit price or rent range, the income group to which the affordable units will be targeted, and the length of time the units will remain affordable.

Potentially Consistent. The developer will enter into such an agreement with the City as a part of the development agreement, however, until the program is implemented the consistency of the Specific Plan cannot be determined.

Policy 23: Encourage land holders to open their properties up to residential construction, particularly higher density, multi-family units.

Consistent. In excess of 50% of proposed housing in the Amended Specific Plan will be developed at densities equal or greater than ten units per acre.



Circulation Element

Policy 1: For the City of Roseville, the Level of Service C shall be used in determining the roadway capacities and intersection delays for all freeway, arterial and collector streets. For long-range development, Level of Service C need not be strictly maintained if other policies and action plans indicate that a lesser level of service may be acceptable on a short-term basis providing there are sufficient overriding considerations.

Potentially Inconsistent. The project traffic analysis indicates that LOS C will not be maintained at all intersections within the City. However, the analysis also indicates that traffic generated by this Specific Plan amendment will not substantially impact the concerned intersections, which would function at the same LOS with or without implementation of the Amended Specific Plan.

Policy 2: If an ultimate population of 92,000 is to be allowed in the City of Roseville, then the incremental growth of 22,000 to 27,000 additional people should be allocated on the basis of maintaining a balance of jobs and housing to minimize impacts on the intra-city road systems.

Consistent. The Specific Plan includes an approximate balance between new jobs and increased households. As discussed in the body of this EIR, development of the Plan area is projected to generate a working population of approximately 5,100 people and 4,200 direct jobs. Further, approximately 3,900 secondary jobs could be generated throughout the community.

Policy 3: In order to meet the project travel demands, major additional highway capacity (expressed as screenlines that are a composite of individual roadways within a corridor) that will be needed City-wide includes:

- Eight (8) highway lanes east of I-80, running in an



east/west direction, to supplement existing capacity on Douglas and Cirby;

- Twelve (12) additional lanes across I-80;
- Six to eight (6-8) lanes across the railroad tracks in the central area of Roseville;
- Major improvements in highway capacity between I-80/Riverside and Subway undercrossing of the railroad;
- Eight to twelve (8-12) lanes in a north/south direction to supplement existing highway lanes in the northwest of the City on the existing Route 65 corridor between Baseline and Blue Oaks;
- Six to eight (6-8) lanes in an arc across the northern side of the City from Douglas/Rocky Ridge to Highway 65;
- Four (4) additional highway lanes on the east side of the City in a north/south direction;
- An east west arterial system in the northwest of the City.

Consistent. The cumulative traffic analysis prepared for this project identifies the necessary roadways to fulfill the roadway requirements in the eastern portion of the City, and the proposed arterial roadways within the Specific Plan area are principal components of this ultimate roadway network.

Policy 4: In order to meet projected travel demands in the eastern area of the City, the following improvements need to be implemented:

- Douglas to six-lane arterial;
- Rocky Ridge to four-lane arterial;
- Sierra College to four-lane arterial;
- Possible need for improvements to Sunrise Avenue;
- North Cirby Way as four-lane arterial;
- New two-lane roadway running north and/or west from Rocky Ridge/Douglas, to connect across I-80 to north of the City.

Consistent. The Specific Plan includes policies to facilitate these improvements, as appropriate.



Policy 5: In order to meet the projected travels demands in the center area of the City, the following improvements need to be implemented:

- Placer Center overcrossing as a four-lane arterial;
- New I-80 overcrossing as a four-lane arterial;
- Reconstruction of the Subway undercrossing to a four- or six-lane highway;
- Provision of two additional lanes across the tracks, somewhere between Route 65 and the southern City limit;
- Major improvements to the approach roads on either side of the railroad, including Vernon, Cirby, and Riverside;
- New Foothills Boulevard extension from Baseline to Riverside as four- or six-lane arterial.

Consistent. The Amended Southeast Roseville Specific Plan includes measures for implementation of roadway improvements, as appropriate, within the Plan area and the City. The cumulative traffic analysis prepared for this report assumed the roadway improvements identified by this policy.

Transportation Element

Policy 2: Provide bicycle routes on major streets leading through the City and into outlying areas.

Consistent. The Specific Plan includes policies for development of bicycle lanes and pathways throughout the Plan area.

Policy 3: Provide an internal system leading to and from convenient shopping and public service areas.

Potentially Consistent. The Amended Southeast Roseville Specific Plan includes an internal circulation system which will connect residential neighborhoods with the commercial, business professional, and park facilities within the Plan area. However, a notable exception to this is the relative isolation of the commercial parcel at the intersection of Sierra College and Douglas Boulevards.



Policy 4: Provide adequate bike lanes to allow children easy access to and from existing schools and recreation areas.

Potentially Consistent. The Specific Plan contains policies requiring bike lanes or separate pathways along major streets. Whether such a system would provide easy access for children to and from schools and recreation areas has not yet been examined.

Transit Element.

Policy 1: Provide a mass transit system that is most suited in convenience and efficiency for the citizens of Roseville at a cost that is not prohibitive to any segment of the community.

Consistent. The Specific Plan supports the Transit Element in that it includes policies requiring development of bus turn-outs, and shelter facilities within the Plan area. Further, the proposed design of the arterial roadway network provides efficient routes of travel within the Plan area and adjoining areas.

Scenic Highways Element.

Policy 1: Preserve, enhance and create the necessary amenities along major roadways linking Roseville with adjacent jurisdictions in order to maintain the community identity of Roseville.

Consistent. The Specific Plan contains landscape design guidelines to implement this policy.

Policy 2: Designate which major roadways should serve as corridors to preserve community identity.

Consistent. The Specific Plan contains recommendations to implement this policy.



Open Space and Conservation Element.

Policy 1: Open space shall be treated as a by-product of other land uses where the primary land use function establishes the need for preservation.

Consistent. The Specific Plan designates open space in accordance with this policy.

Policy 3: Provide for the preservation of diverse habitats (e.g.-- riparian habitats), native trees and unique plant species or habitats.

Consistent. The Specific Plan provides for implementation of this policy.

Policy 4: Provide for the preservation of the streambed systems to insure (a) public safety from storm runoff; (b) to allow for proper maintenance; and (c) public access, use and enjoyment.

Consistent. The Specific Plan provides for implementation of this policy.

Policy 5: Those soils which currently support viable agricultural activities, such as grain production, shall not be converted to urban development prior to development of the less valuable, for agricultural uses, lands consisting of the Mehrten formations and associated soils.

Potentially Inconsistent. No areas within the Southeast Specific Plan area are currently utilized for viable agricultural production. However, some of the property is included under Williamson Act contracts. Areas underlain by Mehrten formation within the Plan area are already developed, or currently being developed. As such, development will not begin in areas covered by Williamson Act contracts until all of the Mehrten area within the Plan area is developed. However, other areas within the City contain Mehrten soils where development has not yet occurred.



Policy 9: Provide for the preservation of lands that possess scenic qualities or are associated with roadways that are recognized as community corridors in the Scenic Highway Element.

Consistent. Preservation and enhancement of scenic vistas is encouraged by the Specific Plan.

Policy 10: Provide for the preservation and identification of historically and culturally significant sites within the Plan area.

Consistent. An archaeological/ historic survey of the area has been conducted, which identified such sites and provided recommendations for preservation as appropriate.

Policy 11: Provide for adequate park and recreational facilities for all existing and future neighborhoods.

Inconsistent. An adequate amount of park acreage to meet the requirements of the City is proposed for dedication within the Specific Plan area. However, the breakdown of this acreage is not in accordance with the Neighborhood, Community, and City-wide park designations recognized by the City.

Policy 12: Provide for a hierarchy of public parks and recreational programs to serve the entire Plan area.

Consistent. The Specific Plan provides for neighborhood and community parks.

Policy 13: Provide for continued public park/school development.

Inconsistent. The Specific Plan includes provisions for parks and school sites, however, not all of these sites are colocated as specified by City policy.

Policy 14: Provide for use of all major utility easements to encourage intra-city recreational link up.



Potentially Consistent. The Specific Plan provides for this conceptually, but has not mapped specific link up routing.

Policy 16: Provide for park trails to be used by pedestrians, bicyclists and other alternative transportation modes.

Potentially Consistent. The Specific Plan provides space which could be utilized. Further detailed planning by the City or developers will be required to assure that adequate facilities are developed.

Noise Element.

Policy 2: Provide a land use plan that considers proper noise levels between various land uses.

Consistent. The proposed Specific Plan includes land uses located in accordance with the policies of the Land Use Element of the General Plan. Design and location of land uses within the Plan area is proposed to minimize the potential for land use conflicts, including noise. Where appropriate, noise mitigation measures will be implemented as required by law.

Seismic Safety Element.

Policy 1: Insure that future land uses are compatible with the goal and policies of this element.

Consistent. All land use proposed in the Specific Plan area are recognized by the **Roseville General Plan** and, as such, are in accordance with this element.

Policy 2: Insure that future development is designed and sited in a way which will reduce any potential seismic hazard to an "acceptable level of risk" as defined in the Technical Addendum of this element. A registered geologist should be consulted, as necessary, during the actual siting of specific projects.



Consistent. All structures within the Plan area will be constructed to the appropriate building codes as established by the State and the City of Roseville. These codes specify the level of structural integrity required based upon the calculated geologic hazard of the area. Roseville is generally regarded as a low risk seismic area. A geotechnical engineering firm has been retained by the project proponent. A complete geotechnical survey has been completed, and the geotechnical engineer will be present during site preparation and construction as required.

General Safety Element.

Flooding.

Policy 1(d): Use the concept of floodway zoning to restrict development in areas which are susceptible to flooding.

Consistent. The Specific Plan specifies that floodways will be excluded from development.

Policy 1(e): Provide appropriate facilities for reducing the likelihood of flooding in all parts of the community through such means as retention ponds and enlarged culverts.

Potentially Consistent. The level of planning presently completed does not include the proposal of specific facilities, however, it is likely that the City will require such facilities as a part of specific projects.

Geologic Hazard.

Policy 2 : It is the policy of the City of Roseville to:

(a) Identify areas having erosion, subsidence, or expansive soil problems.

(b) Continue to mitigate the potential impacts of geologic



hazards through subdivision reviews and building permit inspections.

- (c) Minimize soil problems by maintaining compatible land use and suitable building designs and construction techniques.

Potentially Consistent. Assuming the **General Plan Action Plan** is fully implemented, current City policy should assure compliance with this policy.



V. NATURAL ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

Geology

The Southeast Roseville Specific Plan area is located within the Central Valley Region of California. The Central Valley extends from south of Bakersfield to north of Redding and is bounded by the Sierra Nevada Mountains on the east and the smaller coastal ranges to the west. The Carquinez Strait, which opens the Central Valley to the Pacific coast, constitutes the only major gap in the surrounding mountains. The Specific Plan area is located approximately three-fourths of the way across the valley, nearer to the Sierras than to the coast ranges. The terrain of the Plan area and vicinity is more rolling than that found farther west in the valley, and represents a transition area between the flatter valley areas and the more rolling Foothill Region of the Sierra Nevada Mountains. The terrain of the study area is undulating with elevations ranging from approximately 200 to 300 feet above mean sea level. The highest elevation on the site is approximately 292 feet above mean sea level and occurs on a small plateau near the southeast corner of the study area. The lowest elevation within the study area is approximately 180 feet above mean sea level and is located within the stream channel of North Branch Linda Creek. Relief of the study area is generally described as subdued and rarely exceeds 20 feet per acre, with gradients of 7.5 percent or less. In contrast, the portion of the study area located south of North Branch Linda Creek includes areas with gradients up to 23 percent and slopes of 4 to 1. North Branch Linda Creek flows westerly and represents the predominant intermittent watercourse on the site. In addition to drainage into North Branch Linda Creek, a portion of the north quarter of the site is drained by an intermittent drainageway which passes under Eureka Road and continues toward Strap Ravine Creek.

According to the **Geologic Map of California, Sacramento Sheet**, underlying material of the Central Valley is largely composed of alluvial deposits from the adjoining Sierra Range. As described, the Roseville vicinity represents a transition zone between the alluvial deposits of the valley and the more prominent granitic



and volcanic material characteristic of the Sierra Nevada Mountains.

An on site soils/geologic/ seismic risk evaluation for the property being added to the Specific Plan, referred to as the "study area", has been conducted by Lowry & Associates. The text of this study, dated March 26, 1987, is appended to this report and summarized throughout this section. Boring logs and other technical data have not been appended, but are on file with the Roseville Planning Department.

A complete geologic survey of the existing Specific Plan area has not been completed. Projects in this area are subject to preparation of geotechnical reports on a project by project basis. However, a complete geotechnical study has been completed for the property proposed for annexation into the Plan area. According to the preliminary geotechnical report prepared for this project, there are seven distinct geologic formations or units beneath the new area, however, the presence of three of these is extremely limited beneath the study area, and not of sufficient quantity to be presented in Figure D1, the Geologic Map. Distribution of the four principal geologic formations which underlie the study area is presented in the Geologic Map.

The three geologic units which do not comprise a substantial portion of the Plan area, and are not shown on the Geologic Map, are generally described as recent deposits less than 10,000 years old. Included in these deposits are sinuous bands of alluvium in Linda Creek; placer tailings composed of sand, gravel and cobbles near the banks of the tributary to Strap Ravine Creek; the colluvial mantle which has developed over areas outside of the drainages, and small slides that have developed on naturally oversteepened, north facing slopes in Ione terrain, particularly south of the North Branch Linda Creek channel. The combined area of these deposits is less than one percent of the study area.

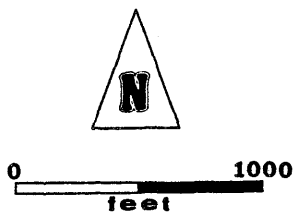
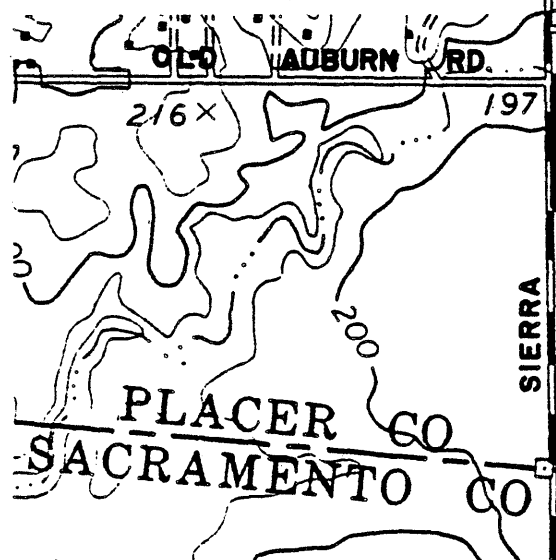
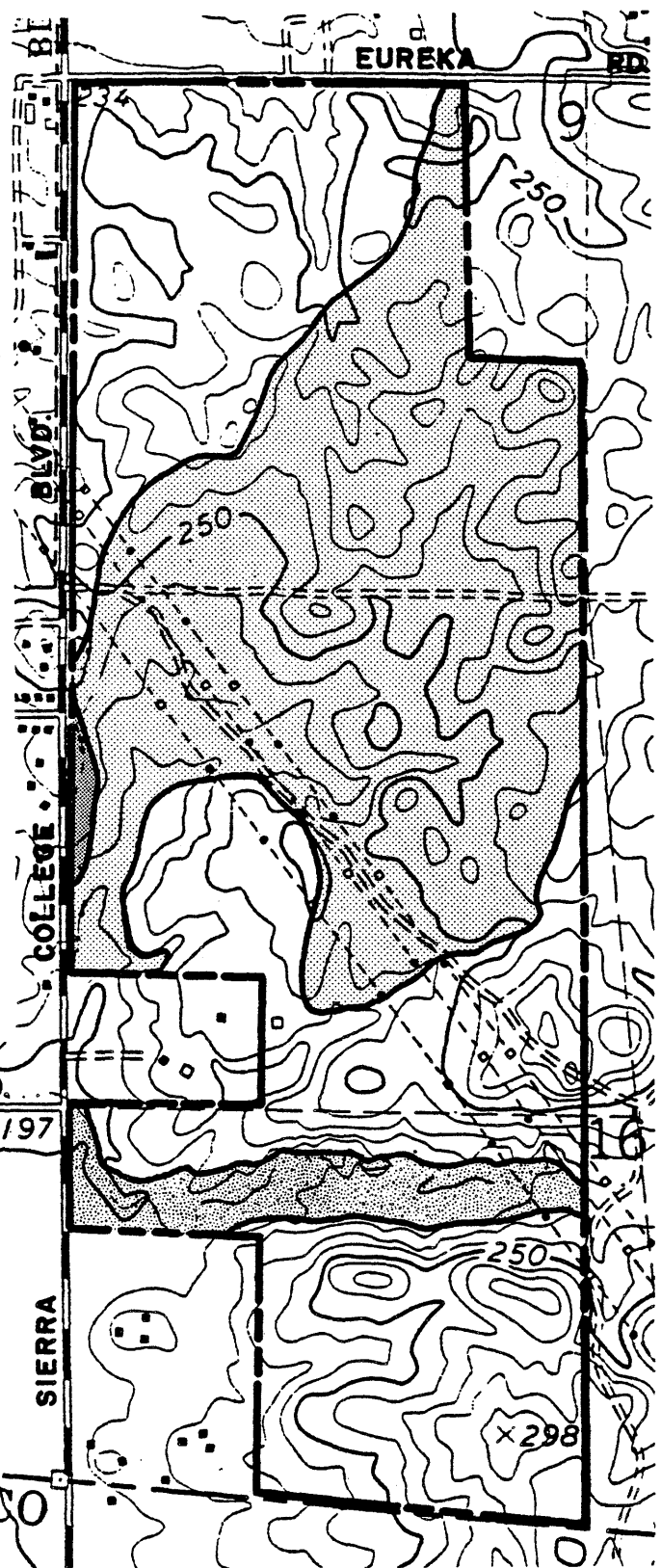
The most extensive geologic formation which exists in the area proposed for addition to the Specific Plan is the Ione formation. This material occurs extensively throughout the Loomis basin, and consists of nonmarine sedimentary material



LEGEND

- Gm** Modesto Formation.
Silty to Clayey
Gravel and Sand.
- Gtl** Turlock Lake Formation.
Cemented Silt and
Sand.
- Ti** Ione Formation.
Sandstone, Siltstone
and Claystone.
- Kgr** Rocklin Pluton.
Silicic quartz diorite
[trondjhemite].

Source:
 Preliminary Geotechnical Report
 Johnson Ranch 392
 Lowry & Associates
 March 26, 1987.



GEOLOGIC MAP **FIGURE D1**

SOUTHEAST ROSEVILLE D-3 SPECIFIC PLAN AMENDMENT



including argillaceous siltstone and sandstone with anauxiteclaystone and subordinate layers or lenticles of gravel-cobble conglomerate. This material was deposited approximately 38-42 million years ago and comprises roughly 53 percent of the project site.

The oldest and second most prevalent geologic formation beneath the study area is an igneous intrusive body composed of silica quartz diorite, or trondjhemite. This material, which is recognized as part of the Rocklin Pluton, comprises approximately 42 percent of the study area and was formed during the Early Cretaceous period approximately 128-135 million years ago. This granitic bedrock is typically composed of approximately 30 percent quartz, 65 percent feldspar, and 5 percent accessory minerals.

Approximately five percent of the study area is underlain by materials associated with the Modesto formation. These materials, which are found in most major drainages throughout southeastern Placer County, were deposited approximately one-half a million years ago and consist of sand and gravels with incidental amounts of silt and clay. Material in the Modesto formation is often obscured by more recent stream deposits.

A small area of Turlock Lake formation exists along the western side of the study area. Materials which comprise this formation consist of cemented silt and sand, commonly known as "hardpan". This formation comprises less than one percent of the Plan area.

Seismicity

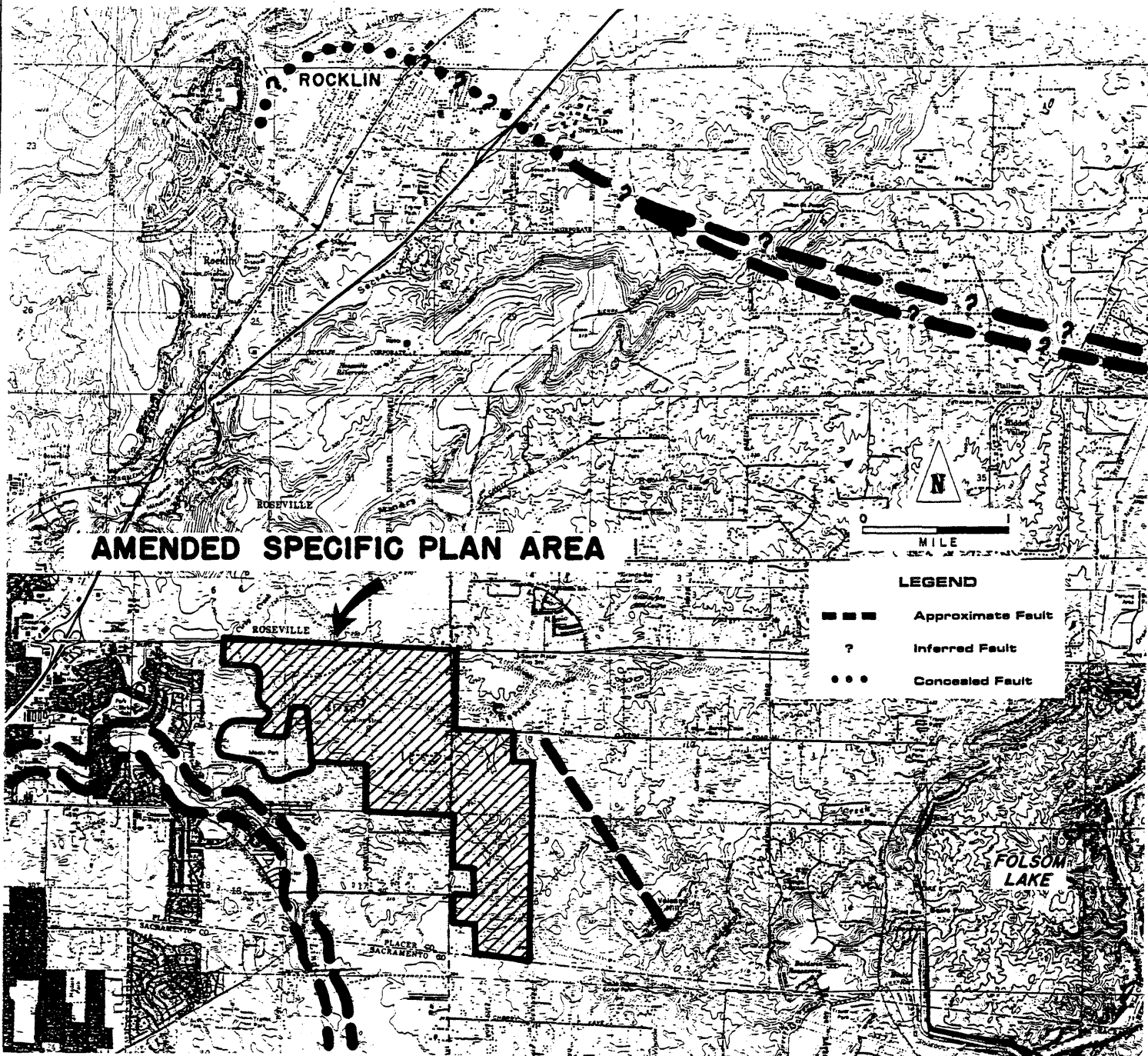
Simply as a result of its location in central California, the Plan area will likely be subjected to geologically induced groundshaking at some point in time. However, according to the California Division of Mines and Geology bulletin, **Urban Geology - Master Plan for California**, the Sacramento/Roseville area is classified as a low severity earthquake zone. The probable maximum expected earthquake intensity which may be anticipated in this zone would be VI or VII on the Modified Mercalli Scale.



Typical effects of such an event would likely include: some cracks in weak masonry and chimneys; trees and bushes may be visibly shaken or heard to rustle; furniture could be moved; pictures, knickknacks, glasses, or china could be broken. The last geologic activity recorded in the area with an intensity of 4 or greater, measured on the Richter Scale, occurred in 1908. The epicenter of this event was located on a north/south line between Folsom and Auburn and on an east/west line between Placerville and Roseville. There have been several less severe events since 1908, but no significant activity has been recorded in the Plan vicinity. According to a spokesman for the California Department of Mines and Geology, increased volcanic activity ranging from Alaska to South America, and increased earthquake activity along the Pacific coast, including throughout California, may be indicative of increasing tectonic movement and represent potential reactivation of many currently "inactive" fault systems. The Bear Mountain Fault zone, which runs northwest/southeast, passing near Placerville and Auburn, is one of the faults which has exhibited increased activity and potential reactivation.

No known active faults are located within Placer County, and therefore, not within the City of Roseville. However, several inactive faults have been identified in the vicinity, and are shown on Figure D2, the Geologic Fault Map. The **Draft Loomis Basin Environmental Impact Report** identifies two inactive faults which at some point lie within the limits of the City of Roseville. The first of these faults extends east/west between the City of Roseville and Folsom Lake. Although the alignment of this fault is uncertain, it is feasible that it connects to the Bear Mountain fault system, branches of which are known to lie beneath Folsom Lake. The identified alignment of this fault is located approximately three miles northeast of the Southeast Specific Plan area. The second inactive fault identified within the City of Roseville is known as the "Linda Creek Fault". This fault has been identified by the California Department of Mines and Geology. As the name implies, this fault is believed to follow the channel alignment of Linda Creek eastward from Roseville. Geologic consultants hired by the City of Roseville investigated this "supposed fault" and determined that the





GEOLOGIC FAULT MAP **FIGURE D2**

SOUTHEAST ROSEVILLE D-6 SPECIFIC PLAN AMENDMENT



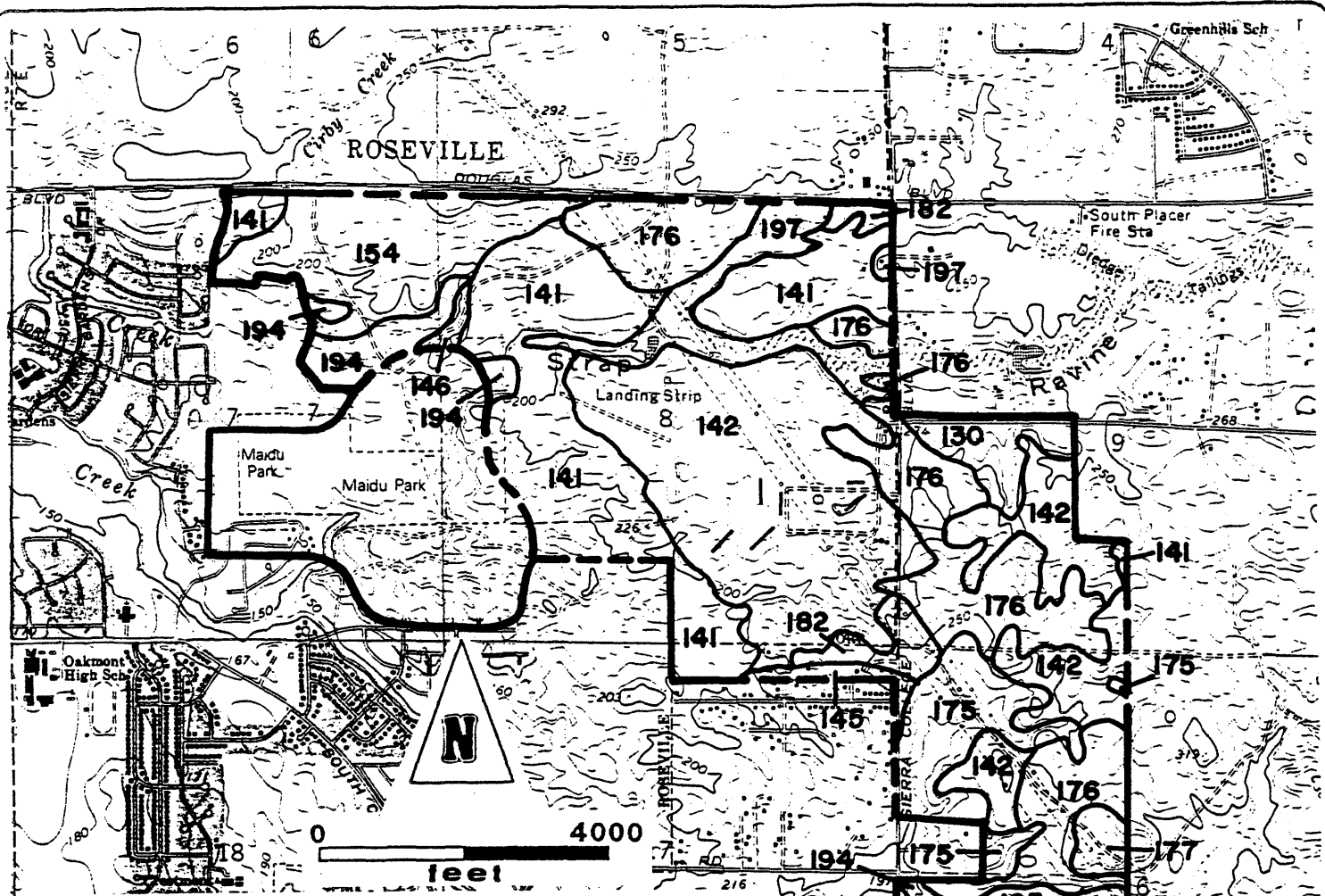
"fault" is not actually a fault, but rather one of a number of northwest/southeast alignments linking drainage features, depressions, slumps, and sinks. The State, in disagreement with the findings of the private study, contends that the fault exists; the City concurs with the findings of the private consultant. This discrepancy has not been resolved. The Linda Creek "fault" generally lies approximately one mile southwest of the Specific Plan area. A third fault which has been identified in the vicinity, but located outside of the Roseville municipal limits is the Volcano Hill Fault. This fault is approximately one mile in length and extends northwest from Volcano Hill. The northwestern termination of this fault is approximately one-half mile east of the project site near Eureka Road. There has been no recorded activity along the Volcano Hill fault in recent history, and as such, the fault is considered inactive.

Soils

According to the **Soil Survey of Placer County, California, Western Part**, the geography in the Roseville vicinity is predominantly composed of soils associated with stream terraces and alluvial bottoms. Principal soils identified within the study area include San Joaquin-Cometa sandy loam, 1 to 5 percent slopes; Fiddymment loam, 1 to 8 percent slopes; Cometa-Fiddymment complex, 1 to 5 percent slopes; Caperton-Andregg coarse sandy loam, 2 to 15 percent slopes; Cometa-Ramona sandy loams, 1 to 5 percent slopes; Ramona sandy loam, 2 to 9 percent slopes; Redding and Corning gravelly loams, 2 to 9 percent loams; Redding and Corning gravelly loams, 9 to 15 percent slopes; Inks-Exchequer complex, 2 to 25 percent slopes; Alamo Variant clay, 2 to 15 percent slopes; Xerofluvents, frequently flooded; and Xerofluvents, hardpan substratum. The distribution of these soils throughout the Specific Plan area is presented in Figure D3, the Soils Map.

Cometa-Ramona sandy loam soils, 1 to 5 percent slopes, comprise approximately 24 percent of the study area. In addition, Ramona sandy loam, 2 to 9 percent slopes occurs as an individual soil type over 18 percent of the study area. The Cometa-Ramona





LEGEND

- 130** Caperton - Andregg coarse sandy loam, 2 to 15 percent slopes.
- 141** Cometa-Fiddymont complex, 1 to 5 percent slopes.
- 142** Cometa-Ramona sandy loams, 1 to 5 percent slopes.
- 146** Fiddymont loam, 1 to 8 percent slopes.
- 154** Inks-Exchequer complex, 2 to 25 percent slopes.
- 175** Ramon sandy loam, 2 to 9 percent slopes.
- 176** Redding and Corning gravelly loams, 2 to 9 percent slopes.
- 177** Redding and Corning gravelly loams, 9 to 15 percent slopes.
- 182** San Joaquin - Cometa sandy loam, 1 to 5 percent slopes.
- 194** Xerofluvents, frequently flooded.
- 195** Xerofluvents, hardpan substratum.

SOILS MAP

FIGURE D3

SOUTHEAST ROSEVILLE D-8 SPECIFIC PLAN AMENDMENT



association is commonly found on low terraces throughout the Roseville and Lincoln areas. This soil unit typically includes about 50 percent Cometa soil, 30 percent Ramona soils, ten percent San Joaquin sandy loam, five percent Fiddymment loam, and five percent Alamo clay. Cometa soils are considered deep with a brown dense clay subsoil. Dense clay is encountered at 10 to 22 inches in depth with compacted sandy loam occurring at approximately 24 inches. Ramona soils are very deep in nature. The surface layer of sandy loam extends to a depth of 14 inches, where a sandy clay loam is encountered. This subsoil is about 41 inches thick and is underlain by a substratum of gravelly sandy loam which extends to about 73 inches in depth. These soils typically exhibit slight erosion potential, slow to medium runoff, and effective rooting depths of 60 or more inches. Due to the clay content of the subsoils, permeability of these soils is very slow to moderate. After intense rainstorms, these soils may remain saturated for a short period. The Ramona sandy loam, 0 to 2 percent slopes, is recognized as a prime agricultural soil by Placer County and the USDA Soil Conservation Service. The soil has an irrigated capability class of I, a nonirrigated class of IIIe, and a Storie index of 72. Class I is indicative of soils with little restriction to use. Class III soils have serious constraints to use, and the "e" indicates that erosion represents the principal constraint.

Two variations of Redding and Corning gravelly loams occur within the study area, 2 to 9 percent slopes and 9 to 15 percent slopes. These soils comprise 40 percent and 8 percent of the study area respectively. The majority of this soil unit is composed of either the Redding and/or Corning soils. About 5 percent of this mapped unit consists of deep soils without a hardpan. These areas generally support extensive stands of native oak trees. Another five percent of the mapped unit consists of a soil similar to the redding except for coloring of the subsoil. Along the contact with low terraces, there are small areas of Cometa, Fiddymment, and San Joaquin soils. The most notable characteristic of the Redding and Corning soils is the presence of a clay hardpan. The Redding is a well drained claypan soil that is moderately deep over a hardpan. It formed in gravelly old valley fill from mixed sources. The Corning is a well



drained, very deep claypan soil that is underlain by gravelly alluvium. It formed in old valley fill from mixed sources. The productivity of the Redding and Corning soils is restricted by the presence of a clay hardpan at depths of approximately 22 to 28 inches. Below the claypan roots are generally limited to fractures and the face of peds. Permeability of the soils is very slow; erosion potential is slight to moderate; and following intense rainstorms the soils have a tendency to remain saturated for a short time.

Caperton-Andregg coarse sandy loams, 2 to 15 percent slopes, are described as hilly soils typically located on granitic foothills in the Folsom Lake-Loomis Basin area at elevations of 200 to 1,000 feet. The unit is about 60 percent Caperton soil and 35 percent Andregg soil. The Caperton soil is on rounded knolls. The Andregg soil is on foot slopes. The Caperton is a shallow, somewhat excessively drained soil that formed in residuum from granitic rock. Typically, the surface layer is grayish brown and brown coarse sandy loam about 12 inches thick. The next 6 inches is pale brown gravelly coarse sandy loam. At a depth of 18 inches is weathered granodiorite. The Andregg is a moderately deep, well drained soil that also formed in residuum from granitic rock. The surface layer is grayish brown coarse sandy loam about 15 inches thick. The subsoil is pale brown and very pale brown coarse sandy loam. At a depth of 29 inches is highly weathered granodiorite. Both soils have moderately rapid permeability, medium to rapid surface runoff, and a moderate erosion hazard.

San Joaquin-Cometa sandy loams, 1 to 5 percent slopes, are undulating soils on low terraces at elevations of 50 to 200 feet. The unit is about 40 percent San Joaquin soil and 30 percent Cometa soil. The San Joaquin is a well drained claypan soil that is moderately deep over a hardpan. It formed in alluvium from predominantly granitic sources. Typically, the surface layer is reddish yellow sandy loam about 15 inches thick. The subsoil is reddish yellow clay loam and yellowish red clay. The hardpan is typically at a depth of 35 inches and permeability is slow. The Cometa soil is a deep, well drained claypan soil which also formed in alluvium from granitic sources and has slow



permeability. Typically, the surface layer is brown sandy loam about 18 inches thick. The subsoil is brown clay. At a depth of about 29 inches is compacted very pale brown sandy loam.

Fiddymment loam, 1 to 8 percent slopes a moderately deep, is a well drained soil located on low terraces at elevations of 75 to 135 feet. Typically, the surface layer of this soil is light yellowish brown loam and silt loam about 12 inches thick. The subsoil is brown and yellowish brown dense clay loam. At a depth of 28 inches is silica-indurated siltstone.

Cometa-Fiddymment complex, 1 to 5 percent slopes, are undulating soils found on low terraces generally west of State Route 65 and south of Auburn Ravine. They occur at elevations of 75 to 200 feet. The unit is about 35 percent Cometa soil and 35 percent Fiddymment soil. The Cometa soil is on the younger land surfaces, and the Fiddymment on the older surfaces. In some areas the Cometa soil is in the higher positions and in other areas in the lower positions, depending on the geologic deposition and erosion cycle. In general, the surface of the Cometa soil has a brown cast and that of the Fiddymment has a yellower or grayer cast.

Inks-Exchequer complex, 2 to 25 percent slopes, is generally located on long broad volcanic ridges and side slopes at elevations of 200 to 1,200 feet. The Inks soils generally formed from andesitic conglomerate and, as a result, are well drained and cobbly in nature. The Exchequer soils evolved for the volcanic breccia, or mudflow. Both soils have effective rooting depths of less than 20 inches, however, the breaking character of the andesitic conglomerate allows roots to follow fracture lines to much greater depths. As a result, stands of native oaks are common on this soil unit. These soils are classified as capability class VI(18) irrigated or nonirrigated, and have a Storie index of 18.

Alamo Variant clay, 2 to 15 percent slopes, is a deep somewhat poorly drained clay located in the alluvial bottoms between volcanic ridges. Typically, the surface layer is approximately 25 inches thick and dark gray. The clay has very slow permeability and may extend to a depth of 60 inches. The major



limitations of the soil include wetness, the limited permeability, high shrink-swell potential, and ability to support a limited load.

Xerofluvents, frequently flooded and with a hardpan substratum, are generally composed of recent alluvial deposits and are limited to areas immediately adjacent to the watercourses within the study area. The material is of varied coloring and includes stratified gravelly sandy loams, gravelly loams, and gravelly clay loams that generally grade to sand and gravel with increasing depth. The depth to underlying restrictive material in the frequently flooded soil is greater than 36 inches. Where present, the hardpan is encountered at depths of 20 to 36 inches. The major limitations of these soils include susceptibility to frequent flooding and shallowness of soil over the impermeable hardpan.

The major limitations of the identified soils to urban development are shown in Table D1.

Table D1
Soil Limitations to Urban Development

<u>Soil Type</u>	<u>Limitations</u>
Cometa-Ramona	<ol style="list-style-type: none">1. very slow permeability2. high shrink swell potential3. limited load bearing strength
Cometa-Fiddymment	<ol style="list-style-type: none">1. very slow permeability2. high shrink swell potential3. limited load bearing strength4. moderate depth to hardpan
Fiddymment loam	<ol style="list-style-type: none">1. very slow permeability2. limited load bearing strength3. moderate depth to hardpan
Caperton-Andregg	<ol style="list-style-type: none">1. shallow to moderate depth to rock



Table D1 (Con't)
Soil Limitations to Urban Development

<u>Soil Type</u>	<u>Limitations</u>
Inks-Exchequer	<ol style="list-style-type: none"> 1. shallow depth to rock 2. slope
Ramona	<ol style="list-style-type: none"> 1. moderately slow permeability
Redding and Corning	<ol style="list-style-type: none"> 1. very slow permeability 2. high shrink swell potential 3. limited load bearing strength 4. moderate depth to hardpan
San Joaquin-Cometa	<ol style="list-style-type: none"> 1. very slow permeability 2. high shrink swell potential 3. limited load bearing strength 4. moderate depth to hardpan
Xerofluvents, frequently flooded	<ol style="list-style-type: none"> 1. frequent flooding
Xerofluvents, hardpan substratum	<ol style="list-style-type: none"> 1. moderate depth to hardpan 2. moderately slow permeability 3. occasionally flooded

Impacts. Although adoption of the Specific Plan will not result in any substantial alteration of the geologic characteristics of the site, Development of the Plan area will result in the following impacts:

- o The likelihood of seismic activity occurring within the Plan area will not be impacted by urban development of the site. However, the potential for personal and/or property damage to result from seismic activity within the Plan area will be increased due to the increased presence of people and property on the site.



- o Development of the area will result in disturbance of soils and topographic alterations of the site. Development of roadways, building pads, and utility trenches pose the greatest potential for soil disturbance. Grading and trenching activities will be required for development of the area.
- o Development of the area as proposed by the Specific Plan would include construction of structures and support facilities on soil types which have identified constraints to urban development. Specific constraints include the shallowness to clay hardpan, steepness of slopes near North Branch Linda Creek, and slow permeability.
- o The potential for erosion will be increased in areas where grading and trenching occur. Associated with the increased erosion is the potential for siltation of area waterways including North Branch Linda Creek and Strap Ravine Creek.
- o Development of the area will result in an increased amount of impervious surface within the Plan area, resulting in an increase in runoff during mild rain events. However, since soils in the study area tend to saturate relatively easily, the runoff from the unimproved area during a heavy rainstorm tends to be heavy. Taking this into consideration, runoff conditions during a heavy storm are not anticipated to substantially increase as a result of urbanization of the area. This impact is discussed in detail in the hydrology section of this EIR.

Mitigation Measures.

- o Project specific geotechnical investigations should be required for individual projects within the Plan area to identify specific development constraints and mitigation measures. A geotechnical engineer should be retained in order to make project specific recommendations.
- o The potential for personal and property damage which could result from seismic activity cannot be totally mitigated; however, adherence to the Uniform Building Code and City of



Roseville building standards will reduce the potential for such damage to less than significant levels. All developers are required to develop structures in accordance with these standards.

o Accepted engineering and construction techniques can be utilized to mitigate the identified development constraints of the soils. Examples of such practices include rip-rap, diversion dams, gravel subdrains, cut and fill practices, or similar measures to stabilize soil on slopes; storm drain systems, artificial swales, dry well culverts, and/or domestic vegetation can be utilized to compensate for impermeable soils; strengthened building foundations, concrete piers, imported base material, and/or subdrains can be utilized to compensate for high shrink swell potential or low weight bearing capability beneath building pads. Site specific measures will be recommended by a geotechnical engineer.

o Development of storm drain facilities in accordance with City ordinance and connection to the regional sewer system will compensate for the slow permeability characteristics of the soils.

o Mitigation of the erosion impacts associated with grading and trenching can be minimized through the implementation of several practical measures. These measures can and should be included on tentative maps as conditions for development. Implementation of the following measures is suggested to reduce erosion and siltation impacts to less than significant levels.

-Grading or activities which directly disrupt the natural environment should be minimized throughout the Plan area. These activities should only be necessary where roadway, utility line, or building pad construction is proposed.

-Grading and trenching activities should be restricted to the dry season, and should not be permitted during rainy weather or high wind conditions.

-Sprinkling should be required during dry weather to minimize



soil loss due to wind erosion. Grading and similar activities should not be permitted during exceptionally windy weather.

-In areas where exposed soil results from construction activities, prompt replanting with native compatible, drought resistant vegetation should be required. No areas should be left exposed during the winter season.

-Measures to prevent eroded soil from entering area waterways should be implemented throughout developing properties, but should be especially required adjacent to major swales, watercourses, or North Branch Linda Creek. Measures should include placement of hay bales, development of temporary settling areas, energy dissipaters, and other acceptable means of reducing sediment loads.

Additional mitigation for impacts associated with erosion, is contained in the Hydrology and Water Quality Chapter of this EIR.

- o In accordance with City ordinance, areas within the 100 year flood plain will be dedicated to the City of Roseville. It is recommended that these areas be left as undeveloped corridors in order to provide natural vegetation buffers along North Branch Linda Creek. Parks, and similar land uses which are compatible with the "undeveloped corridor" concept may be appropriate along the watercourses.

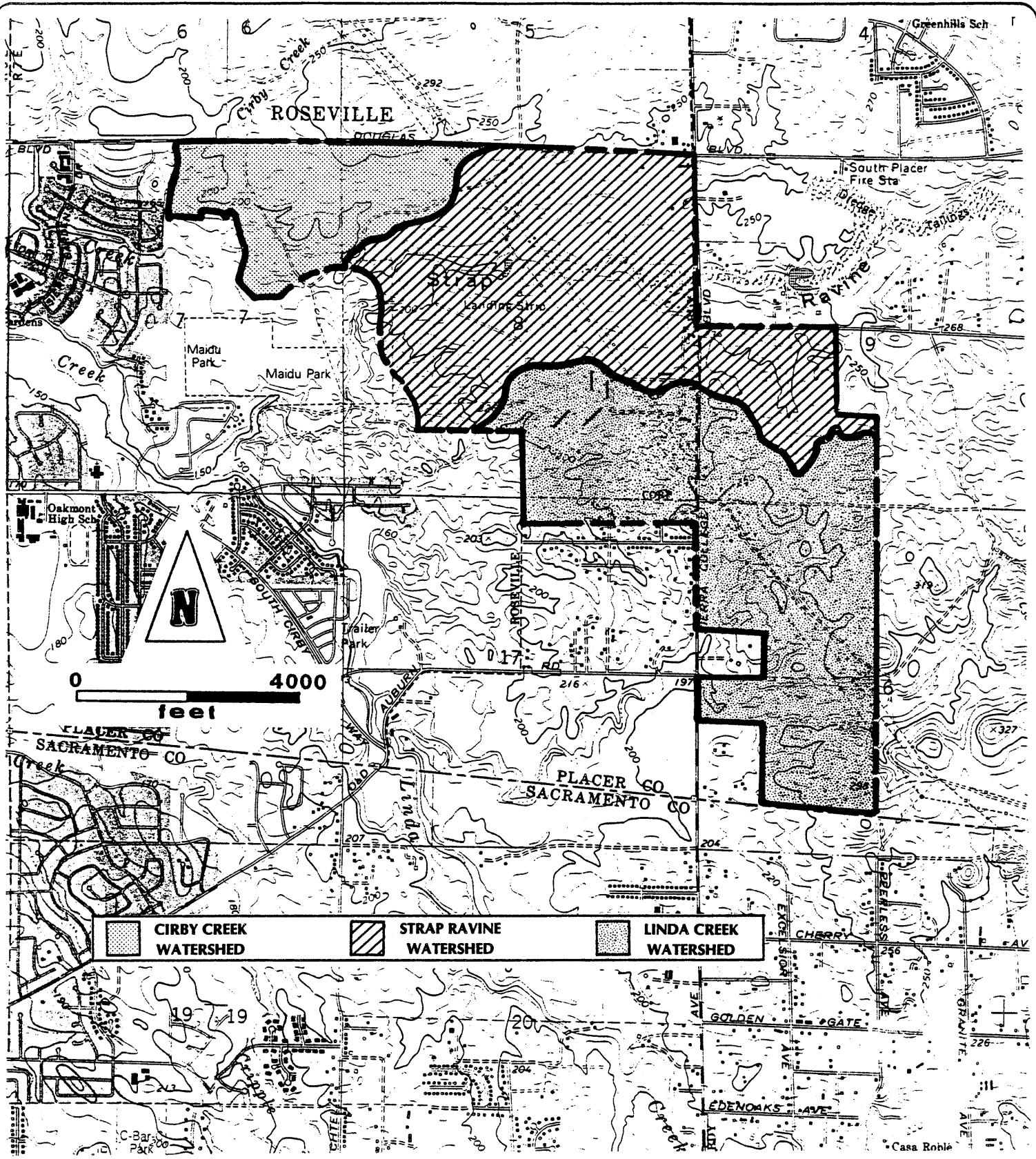


Hydrology and Water Quality

The rolling topography of the Specific Plan area consists of a series of minor ridges dissected by shallow swales and drainage courses. The Plan Area is drained by three watercourses, Cirby Creek, Strap Ravine Creek and North Branch Linda Creek. The relative distribution of these watersheds in the Plan area is shown in Figure E1, the Watershed Map. Of the approximately 1,004 acres within the Specific Plan area, roughly 17% is within the Cirby Creek watershed, 41% in the Strap Ravine Creek watershed, and 42% within the North Branch Linda Creek watershed. The location of the watercourses within the Plan Area is shown in Figure E2. Strap Ravine Creek and North Branch Linda Creek empty into Linda Creek, which in turn discharges into Cirby Creek, which joins Dry Creek within the City. Dry Creek flows westward, passing through Roseville, and the rural residential communities of Rio Linda and North Highlands, eventually discharging into the East Natomas Main Drainage Canal and ultimately the American River. Agriculture represents the most predominant land use in the watershed. In areas where soils are shallow and underlain by rock, grazing is the principal activity. In the portion of the watershed west of Roseville, soils are deeper, and crop production, most notably rice, is the principal activity. The vicinity surrounding the confluence of the Sacramento and Feather Rivers includes large areas of slough and floodplain which absorb excess flows from the above watersheds during heavy rains and spring floods. Much of the stormwater storage capacity of this floodplain area is maintained through a complex system of levees and dikes. Unusually heavy flows during the spring season have generated concern regarding the ability of the system to handle increasing runoff volumes. Sutter County has requested that projects within the concerned watersheds, implement measures to minimize downstream drainage impacts.

No data was located concerning the quality of runoff from the Plan area. However, since the area is largely undeveloped and not actively farmed, runoff is assumed to be of high quality. The only exception to this would be sites within the portion of the already adopted Plan Area where ongoing construction and completed urban land uses are present. Although practices to

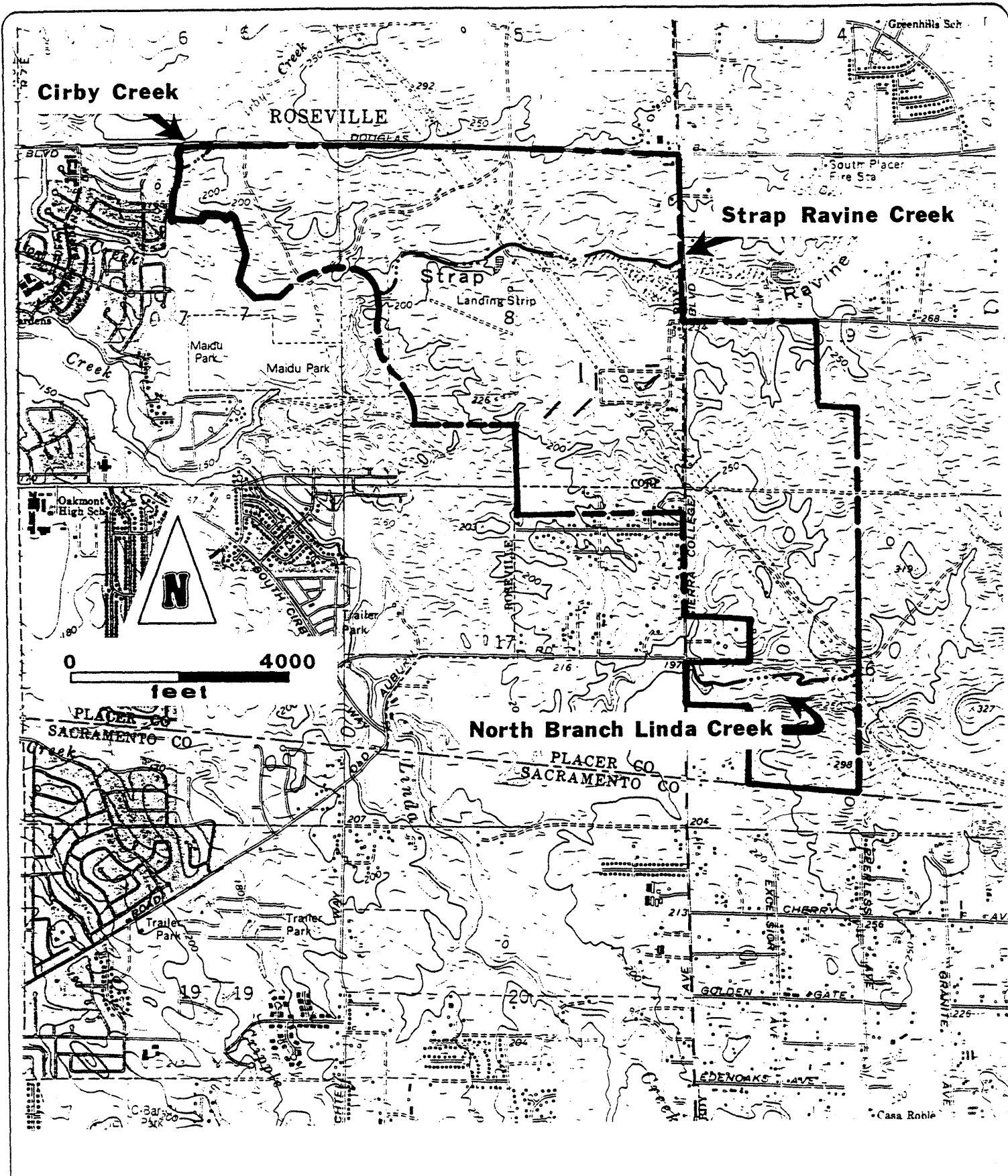




WATERSHED MAP **FIGURE E1**

SOUTHEAST ROSEVILLE E-2 SPECIFIC PLAN AMENDMENT





WATERCOURSE MAP **FIGURE E2**

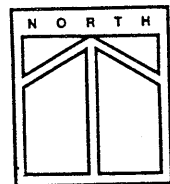
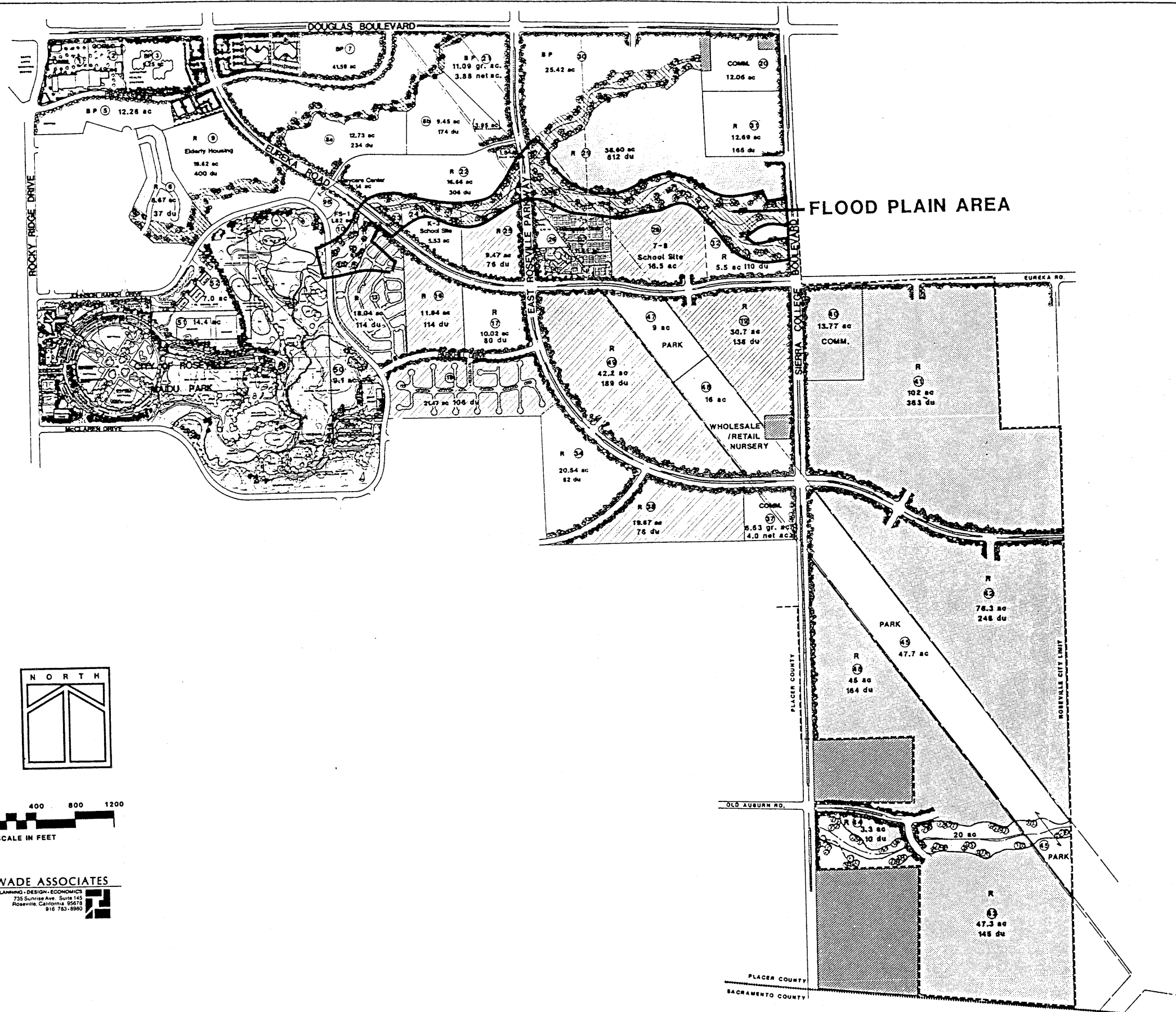


minimize hydrologic impacts have been, and are being implemented, increased pollutant levels and erosion/siltation are, to some degree, an unavoidable consequence of urban land development. In the presently undeveloped portion of the Plan area there are limited occurrences of exposed soils, but these areas do not represent a substantial portion of the site.

Runoff characteristics of the Plan area are a product of the soils and varying slopes which comprise the Plan area. The shallow soils and impervious clay subsoils, naturally produce high runoff rates from the majority of the site. However, as a result of the seasonal rainfall distribution, all of the watercourses within the Plan Area are intermittent in nature and support limited fisheries. With the exception of the obvious drainage channels, flooding is not a potential problem within the Plan area, however, areas which are relatively level or include shallow depressions may retain water for short periods following rainstorms. Increasing amounts of developed area within the watershed are anticipated to create higher peaking characteristics in the future.

The firm of Nolte and Associates were retained by the City to prepare a complete flood plain study for the principal watersheds within Roseville. The resulting report, **Supplemental Flood Plain Study, City of Roseville, California, Placer County**, was completed in August of 1986, and is available from the Roseville Public Works Department. The study examined existing and future flow conditions of all major watercourses within the City. Calculation of future volumes were based upon assumed buildout of the respective **General Plans** for the City of Roseville and relevant portions of Placer County. Flood conditions were predicted for 10-, 50-, 100-, and 500-year events, and the corresponding water surface elevations were calculated at each cross-section. Assuming that future development conforms to the existing designations of the **General Plan**, these elevations represent "worst case" projections. Although future flows are predicted to increase as a result of development, available channel capacity and natural floodplain may exist to contain this additional flow. Figure E3 shows the extent of the 100 year flood plain within the Specific Plan area that has been mapped.





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MAPPED 100 YEAR FLOOD PLAIN FIGURE E3

SOUTHEAST ROSEVILLE E-5 SPECIFIC PLAN AMENDMENT



Impacts.

- o Since Sutter County has indicated that any increase in runoff will adversely impact offsite flooding conditions, and a formal request for upstream mitigation has been made, the increase in runoff which will be produced by development of the Plan area, no matter how small, must be considered significant.

- o Development of the Specific Plan area will result in a change in the runoff characteristics of the site including an increase in runoff quantity and a decrease in time required to reach peak runoff conditions. This increase will result from increased amounts of impervious surfaces within the Plan area, including roadways, roofs and other paved areas. Although the actual contribution of runoff from the Specific Plan area cannot be determined from the available information, it can be put into perspective by comparing the relative size of the Plan area with that of the Linda Creek watershed. The total area of the Linda Creek watershed is approximately 17 square miles (10,880 acres). The Amended Specific Plan area is approximately 1,004 acres in size, or approximately one percent of the watershed area. According the Nolte study, the water surface elevation, calculated just upstream of the watershed mouth, is predicted to increase from 146.4 feet to 147.3 feet, or approximately 0.9 feet as a result of development of the watershed. Based on the relatively small size of the Plan area compared to the watershed, and assuming a proportionate contribution to future runoff conditions, the contribution of runoff from the Plan area to increases in future water elevations will be less than significant.

- o Construction will invariably produce a short term increase in the sediment load of adjacent waterways. During construction, runoff from disturbed areas will likely contain silt and debris. The significance of this impact will vary depending on the level of construction activity, weather conditions, site conditions, etc. However, if left unmitigated the increased silt load could result in significant short term impacts.



- o Prior to development adjacent to the watercourses, the 100 year flood plain must be identified in segments where mapping has not been completed.
- o A long term change in the quality of runoff from the site will result from urban development. Runoff from urban areas typically contains petroleums, phosphates, nitrates, metals, chlorides, and uncountable other "by products" of the urban lifestyle. Table E1 identifies the concentrations of principal pollutants in selected area waterways.

Table E1
Water Quality Characteristics of Selected Urban Waterways

<u>Water Characteristics</u>	<u>Sacramento*</u> <u>River</u>	<u>Arcade*</u> <u>Creek</u>	<u>Dry**</u> <u>Creek</u>
pH	7.3-7.9	-	7.0
Temp (C)	7.7-13.2	-	18.0
DO (mg/l)	10.4-11.6	-	8.7
 <u>Common Pollutants</u>			
Nitrate (mgN/l)	0.03-28.0	0.43-0.57	0.02
Nitrite (mgN/l)	0.02-0.02	-	<0.01
Total (NH ₃)	-	-	0.30
Total Kjeldahl N (mgN/l)	0.10-1.20	1.20-2.90	0.61
Total Phosphate (mgP/l)	0.03-0.50	0.12-0.57	0.16
Oil and Grease (mg/l)	10.0-11.3	0.60-23.2	-

- not measured

* SRAPC, 1978

** Dewante and Stowell, 1980

- o Development will produce a change in the availability of water on the site, and an unknown impact to ground water recharge in the vicinity. Development of the Specific Plan site will bring



with it lawns and landscaped areas which will require year round irrigation. The impact of this watering will be twofold. Runoff from watered areas will represent a year round source of water for many of the swales and intermittent streams in the Plan area, and secondly, water which infiltrates the soil will add to ground water supplies. The net impact on ground water in the Plan area vicinity could be positive or negative.

Mitigation Measures.

Although complete mitigation of project impacts on the hydrologic conditions of the site cannot be realistically achieved, many of the potential impacts to water quantity and quality can be mitigated to a less than significant level.

- o As specified by ordinance, structures will not be built within the 100 year flood plain. These areas will be dedicated to the City. Policy dictates that these areas be maintained as vegetated corridors in order to provide natural filters for runoff as well as storm runoff capacity. Developers will be required to delineate areas within the 100 year flood plain on all tentative maps.
- o Drainage swales, culverts, bridges, or other structures built within the floodplain will be required to be sized and installed to accommodate existing plus anticipated drainage flows with no obstruction.
- o Implementation of erosion control and topsoil conservation mitigation measures, including prompt revegetating of disturbed areas, development of temporary silt traps and energy dissipaters, avoidance of grading and construction activities during wet weather, and avoidance of disturbance within drainageways should be required of all developments within the Specific Plan area.
- o Roseville, Rocklin, Lincoln, Loomis, Auburn, Colfax, and Placer County have recently formed a flood control district. The



policies of the Flood Control District should be implemented in all developments within the Specific Plan area.



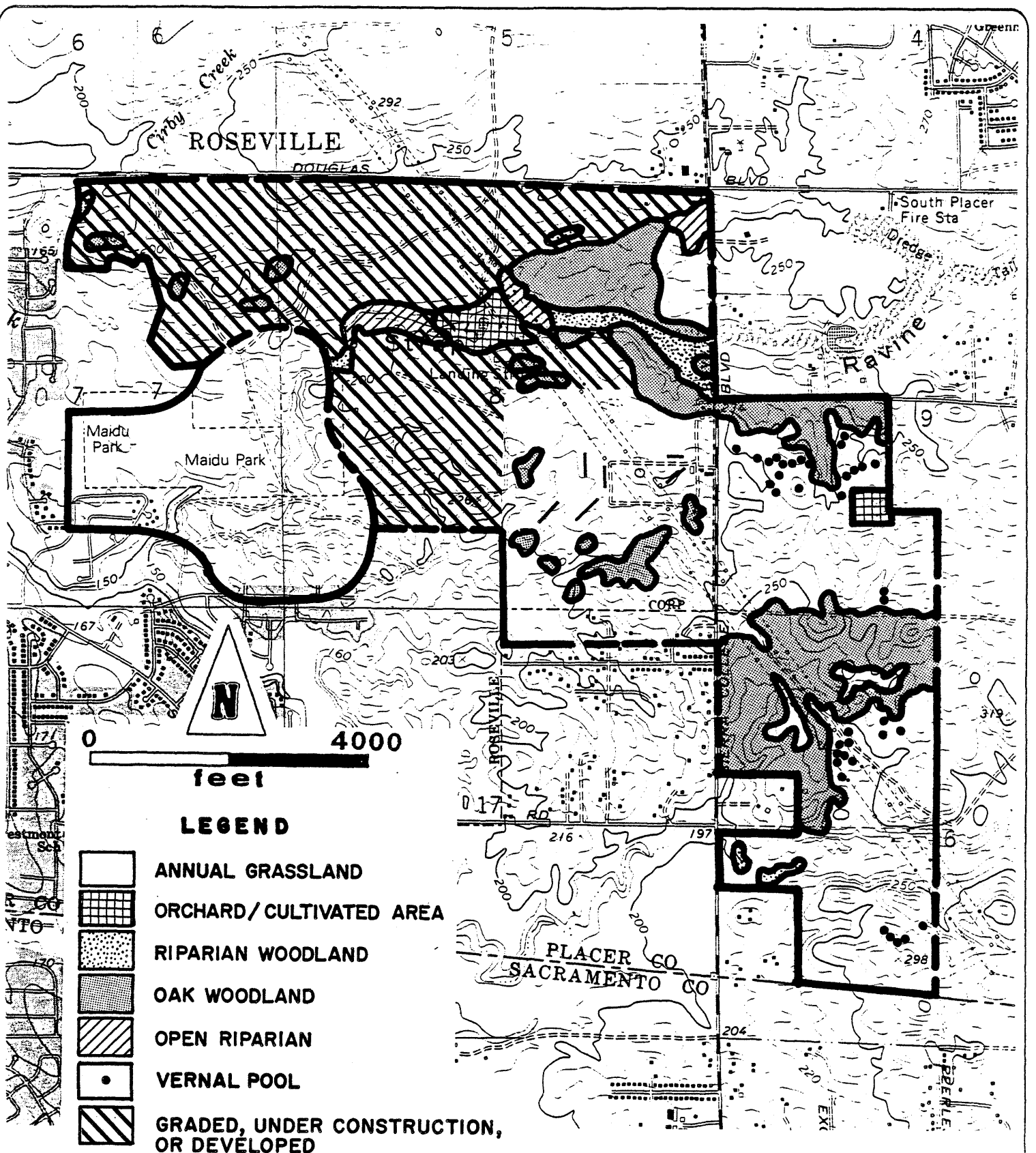
Vegetation and Wildlife

Although the portions of the Specific Plan area are largely undeveloped, the vicinity represents an area which has been altered by man. Historically, portions of the Plan area have been cleared for grazing, trees have been removed as timber or for firewood, fences have been erected, roads have been constructed, and other impacts associated with rural use of the area have occurred. More recent urban development has entirely altered the habitat of some areas within the Specific Plan. Species which are sensitive to human presence, or which require extensive undisturbed habitat, were likely displaced to the more rugged areas of the foothills long ago. Those species which are less sensitive likely remain in the area, but as continuing urban development occurs, the availability of natural habitat will be reduced and many of these species will also be displaced from the vicinity.

The basis for the assessment of biological resources on the site includes a series of general site visits, a survey of the vernal pools and oak woodland for rare and endangered plant species, a survey of the pools and creek channel for the tiger salamander, and an inspection of elderberry plants on the site for evidence of the presence of the valley elderberry longhorn beetle. Survey efforts were concentrated in the undeveloped parcel proposed for addition to the already adopted Specific Plan area. A more cursory survey was performed on the area included in the already adopted Specific Plan. A complete copy of the biotic report is included in the Technical Appendix of this EIR. In addition, a search of the California Department of Fish and Game's Natural Diversity Data Base (NDDB), which includes the California Native Plant Society listing of rare and endangered plants, was conducted to ascertain the existence of rare and endangered species in the vicinity.

The Amended Specific Plan area is approximately 1,004 acres in size and includes two distinct areas. The area on the west side of Sierra College Boulevard is included in the already adopted **Southeast Roseville Specific Plan**. As shown in Figure F1, the Vegetation Map, approximately three-fourths of this area has





VEGETATION AND VERNAL POOL MAP

FIGURE F1

SOUTHEAST ROSEVILLE F-2 SPECIFIC PLAN AMENDMENT



been disturbed by development of the adopted Specific Plan. The most common disturbance includes grading and construction of buildings and roadways. In some areas, construction has been completed and occupied residential or business professional land uses exist. The major portion of the existing Plan area which remains largely undisturbed includes vegetation within the Cirby Creek corridor, and approximately 160 acres in the southeastern portion of the adopted Plan area. This approximate 160 acre area is currently covered by a Williamson Act contract which expires in 1991. The area is currently utilized for grazing or as vacant land. Annual grassland interspersed with oak woodland, common throughout the area, is the predominant vegetation on the site. The extreme southern end of the area supports some riparian area associated with an intermittent swale.

The portion of the amended Specific Plan area located on the east side of Sierra College Boulevard represents the most extensive area of natural habitat within the Amended Specific Plan area. This parcel, consisting of approximately 367 acres, includes roughly 100 acres of oak woodland, 250 acres of annual grassland. The balance of the acreage supports an abandoned almond orchard, riparian woodland, and vernal pools.

As shown in Figure F1, the oak woodland occurs in bands across the northern and approximate center of this property. Blue oak (*Quercus douglasii*), live oak (*Quercus wizlizenii*) and digger pine (*Pinus sabiniana*) represent the dominant tree species in the oak woodland association. The oaks in this area range in height from 30 to 60 feet with trunk diameters (dbh) of 8 to 36 inches. The digger pine are substantially taller than the oaks. Predominant species in the understory include poison oak (*Toxicodendron diversiloba*), buckbrush (*Ceanothus cuneatus*), and toyon (*Heteromeles arbutifolia*). A few elderberry (*Sambucus caerulea*) occur along the woodland margin. A listing of herbaceous species common to the oak woodland is included in the appended biotic report. Past grazing of the site has prevented natural regeneration of the oak trees, and surviving seedlings and saplings are typically small. The lack of competitive young trees in the canopy has allowed existing mature trees to flourish. A large proportion of the overstory consists of



quality individuals in excess of 12 inches dbh. As well as being recognized as valuable trees because of their native status, these trees qualify as heritage trees, under Roseville's preliminary tree preservation policies.

The distribution of riparian vegetation is limited to locations immediately adjacent the intermittent watercourses. There are generally two types of riparian areas identified in the Plan area, open riparian areas and riparian woodland. As the name implies, open riparian areas consist of areas where adequate moisture is available to support lush vegetation than found in the grassland, but for numerous reasons, overstory and woody vegetation is conspicuously absent. The more traditional areas of riparian woodland vegetation include any of several common woody species. Common species found in the riparian vegetation association include willows (*Salix* sp.), cottonwood (*Populus fremonti*), California blackberries (*Rubus ursinus*), wild rose (*Rosa californica*), wild grape (*Vitus californica*), and blue elderberry (*Sambucus mexicanus*). The riparian areas located on within the existing Plan area are located in close proximity to Cirby Creek, and with the exception of road crossings, have remained minimally disturbed. The riparian area on the eastern side of Sierra College is limited and poorly developed, largely a result of cattle grazing impacts. This area is immediately adjacent to the intermittent Linda Creek channel, and as such, direct disturbance of this area will be minimal.

The annual grassland, which is the predominant vegetation association in the Plan area, occurs between the oak woodland and isolated riparian areas. Species in this association are dominated by introduced and native grasses and herbs, the most prominent of which are soft chess (*Bromus mollis*) and filarees (*Erodium* sp.). Scattered throughout the grassland are isolated, open grown, blue oak which typically have diameters in excess of 36 inches, and qualify as heritage trees. A listing of herbaceous species common to the grassland are included in the appended biotic report.

The primary botanical value of the annual grassland is associated with the occurrence of vernal pools on the site. Much of the



uniqueness of vernal pools lies in their relatively limited natural occurrence and distribution. Outside of California, similar pools are only known to occur in Africa. Once common throughout the margins of the Central Valley, it is estimated that they have been reduced to less than 12 percent of their original abundance. As a rule, vegetation inventories in the vicinity have been historically limited to site specific studies mandated by CEQA prior to implementation of proposed projects. However, the realization that vernal pool habitat is becoming exceptionally rare, and that several rare plant species are known to only occur in association with the pools, has triggered State-wide concern for the inventory and preservation of such areas. During 1982, the City of Roseville retained Western Ecological Services Company (WESCO) to complete an inventory and evaluation of vernal pool resources in the City.

The water regime of a vernal pool is seasonal, generally involving recharge during the winter and spring seasons, then relying on stores of water into the summer, eventually drying up until the winter season. Individual pools may vary in the length of time they remain wet. The real value of the pools evolves around the unique assemblage of native plant species which are often associated with them. Many of the native plant species have adapted to the unique pool habitat, and as such are limited in their distribution to pool areas. Disturbance of areas around vernal pools or interruption of their seasonal water regime can result in loss of the plants which naturally occur in the pools or in destruction of the pools themselves.

The NDDB, which incorporates the **1984 Inventory of Rare and Endangered Vascular Plants of California**, compiled by the California Native Plant Society (CNPS), includes those species officially listed as (State and Federal) endangered, rare, and threatened animals and plants plus those species considered by the scientific community to be deserving of such listing. Numerous vernal pool species are included on this list. Table F1 is a listing of selected species known to occur in vernal pool habitat comparable to that which exists in Roseville. Following extensive field survey, a single occurrence of Vernal pool brodiaea was located in the Plan area.



Table F1
Special Plant Species Which May Occur
Within the Specific Plan Area

<u>Species</u>	Federal	State	CNPS	CNPS
	<u>Status</u>	<u>Status</u>	<u>Status</u>	<u>R-E-D Code</u>
Sacramento Orcutt Grass (<i>Orcuttia viscida</i>)	C1	E	1b	3-3-3
Slender Orcutt Grass (<i>Ocuttia tenuis</i>)	C1	E	1b	3-3-3
Greene's tuctoria (<i>Tuctoria greenei</i>)	C1	E	1b	3-3-3
Hoover's spurge (<i>Chamaesyce hooveri</i>)	-	-	1b	3-3-3
Bogg's Lake hedge hyssop (<i>Gratiola heterosepala</i>)	C2	E	1b	3-3-2
Green's legenera (<i>Legenera limosa</i>)	C2	-	1b	3-3-3
Dwarf dowingia (<i>Dowlingia humilis</i>)	C3c	-	4	1-2-3
Red Bluff rush (<i>Juncus leiospermus</i>)	-	-	4	1-1-3
Vernal pool brodiaea (<i>Dichelostemma lacuna-vernalis</i>)	-	-	4	1-1-3
Bogg's Lake Dodder (<i>Cuscuta howelliana</i>)	C3c	-	4	1-1-3

Notes:

Federal Status- C1 species which are candidates for federal listing but which have not been listed; C2 species for which data regarding distribution or threat is inadequate to support listing; C3c species are too widespread and/or not seriously enough threatened to support listing.

State Status- E indicates that the species is listed by the State as endangered.

CNPS Status- List 1b species are considered rare and endangered in California and elsewhere; List 4 species are on the "watch list" and are of sufficiently limited distribution to warrant continued monitoring.



As presented in Table F1, special plants have been assigned a Rarity-Endangerment-Distribution (R-E-D) code. The R-E-D code was created by the CNPS in order to more accurately evaluate the status of individual plant species throughout the State. Explanation of the R-E-D classification system is presented in Table F2.

Table F2
R-E-D Classification System

R (Rarity)

- 1 - Rare, but found in sufficient numbers and distributed widely enough that the potential for extinction or extirpation is low at this time
- 2 - Occurrence confined to several populations or to one extended population.
- 3 - Occurrence limited to one or a few highly restricted populations, or present in such small numbers that it is seldom reported.

E (Endangerment)

- 1 - Not endangered
- 2 - Endangered in a portion of its range
- 3 - Endangered throughout its range

D (Distribution)

- 1 - More or less widespread outside of California
- 2 - Rare outside of California
- 3 - Endemic to California

Reported locations of special plant species in the vicinity include an occurrence of Sacramento orcutt grass located approximately 2.5 mile south of the Plan area. Green's legenera is known from sites in the region. Recent inventories of the Northwest and North Central Plan areas have identified the presence of vernal pool brodiaea (*Dischlostemma lacuna-vernalis*), Bogg's lake hedge-hyssop (*Gratiola heterosepala*), and dwarf downingia (*Downingia humilis*).



The distribution of the vernal pools within the Specific Plan area is limited to the annual grassland habitat. Field survey failed to locate any vernal pools within the undeveloped portion of the Specific Plan area west of Sierra College Boulevard. Information from the WESCO Vernal Pool Study, conducted in 1982, indicates that two pool areas existed in the northwestern portion of this area. However, since preparation of the WESCO study, these areas have been developed to urban land uses resulting in loss of the vernal pools. Thirty-eight (38) vernal pools were identified on the property located east of Sierra College Boulevard. The approximate distribution of these pools are shown in Figure F1. Individual pools range in size from less than 100 square feet to greater than 4000 square feet. Comparisons among pools in the Plan area indicate that the most valuable pools, in terms of size and diversity, are located in the northern quarter of the site. The group of pools with the greatest number of vernal pool species occurs in a swale north of the abandoned almond orchard. The individual pool with the greatest number of vernal plant species (25) occurs in this area as does the occurrence of the single rare plant (vernal pool brodiaea) identified on the site. Common plant species associated with vernal pools on the site or in the vicinity include pogogyne (*Pogogyne* sp.), popcorn flower (*Allocarya stipitata*), navarretia (*Navarretia leucocephala*), toad rush (*Juncus bufonius*), goldfields (*Lasthenia chrysostoma*), coyote thistle (*Eryngium vaseyi*), hairgrass (*Deschampsia danthonioides*), and wooly marbles (*Psilocarphus*).

Wildlife species likely to frequent the project vicinity include

a) mammals: mule deer (*Odocoileus hemionus*) coyote (*Canis latrans*); Gray fox (*Urocyon cinereoargenteus*); Striped skunk (*Mephitis mephitis*); opossum (*Didelphis marsupialis*); blacktailed jackrabbit (*Lepus californicus*); California Ground Squirrel (*Citellus beecheyi*); Pocket gopher (*Thomomys bottae*); and Deer mouse (*Peromyscus maniculatus*);

b) birds: Redtailed hawk (*Buteo jamaicensis*); Kestrel (*Falco sparverius*); California quail (*Lophortyx californicus*); Mourning dove (*Zenaida macroura*); White crowned sparrow (*Zonotrichia leucophrys*); Anna's hummingbird (*Calpte anna*); Scrub jay (*Aphelocoma coerulescens*); Mockingbird (*Mimus polyglottos*); and Western meadowlark (*Sturnella neglecta*)



and c) **reptiles and amphibians:** Western toad (*Bufo boreas*); Foothill Alligator lizard (*Gerrhonotus multicarinatus*); Gopher snake (*Pituophis eatenifer*); Common kingsnake (*Lampropeltis getulus*); Western garter snake (*Thamnophis elegans*); skinks (*Eumeces* sp.); Western fence lizard (*Sceloporus occidentalis*); Slender salamander (*Batrachoseps* sp.). The appended biotic report includes a more complete list, by habitat type, of the wildlife species which are likely to utilize the site as well as those sited during the spring surveys.

Sampling of local fish populations has been conducted by the California Department of Fish and Game, and, more recently by Jones and Stokes Associates in conjunction with preparation of the Northeast Roseville Specific Plan EIR. Common species identified in area waterways included Sacramento squawfish, bluegill, green sunfish, Sacramento perch, and brown bullhead. In addition, some area streams, namely Secret Ravine and Miners Ravine Creeks, are known to support annual populations of spawning salmon and trout. However, as a result of the intermittent character of the watercourses within the Plan area, fisheries on the site are limited. Seasonal presence of the more common species, particularly various species of minnows or mosquito fish, likely occur within the Plan area. However, the limited seasonal flow coupled with the shallow nature of the channel affords minimal habitat for the larger species which commonly exist in the more stable aquatic environments downstream of the site.

No rare or endangered wildlife species are known to inhabit the project site. However, several species have been reported in the region. None were found on the project site.

The ranges of the Bald Eagle and American Peregrine Falcon, both endangered species, include the Sacramento Valley region. No falcons have been reported in the vicinity of the project site. Bald eagles have been reported in the area surrounding Folsom Lake, approximately six miles east of the Plan area.

The Cooper's Hawk (*Accipiter cooperii*) is on the California Fish and Game list of Species of Special Concern. Although no



Cooper's hawks were sighted in the Plan area or vicinity, there are known nesting sites within the City of Roseville. A Cooper's hawk was reported in the Northeast Specific Plan area, and it is likely that Cooper's hawks forage within the Southeast Plan area.

The Tiger salamander (*Ambystoma tigrinum californiense*) is a federal candidate species currently on list 2. This category contains species for which existing information warrants listing but for which the substantial biological necessary to support a proposed ruling is lacking. The salamander requires a unique mixture of habitat include very slow moving or stagnant water in which to breed, and nearby annual grassland and/or oak woodland. Because favorable habitat conditions exist on the amended property site, a salamander survey was conducted. No evidence of Tiger salamanders was discovered.

Similarly, the valley longhorn elderberry beetle (*Desmoserus californicus ssp. dimorphus*) is an invertebrate species listed as threatened by the federal government (U.S. Fish and Wildlife Service 1984). Individuals of the species have been reported in areas along the American River in Folsom. Although Elderberry growth was located on the site, investigation by a biological consultant and a representative of the U.S. Fish and Wildlife Service failed to locate evidence of the presence of the longhorn elderberry beetle.

Impacts. Implementation of the proposed Specific Plan will result in a reduction in the amount of wildlife habitat on the site. The impacts which may be anticipated can be divided into those generated by construction activities, those which will result from the change in land use, and those which will be the result of actions by future residents of the Plan area.

o During construction, many wildlife species will be temporarily displaced due to attendant noise, dust and physical disturbances created. Because construction activities are of a relatively short duration and only occur in small areas at any given time, construction impacts are not anticipated to be substantial. Wildlife will likely avoid areas where



construction activities are in progress, only to return to those areas as the activity changes location.

- o Of all the activities associated with development, grading, trenching, and roadway construction have the greatest potential to produce erosion and subsequent siltation of area watercourses resulting in degradation of aquatic habitat and thereby being a potentially significant impact.
- o The greatest impact to wildlife within the Plan area will result from the dramatic change in land use which will occur. Following construction, the change in land use will not be agreeable to some species. These species will gradually vacate the area as development continues. Species which are less sensitive to human environments will adapt to the new conditions and continue to occupy the area. Alteration of the existing vegetation and wildlife habitat conditions on the site will generally consist of construction of roadways, drainage facilities, homes, driveways, and other structures associated with urban land use.
- o Development will result in removal of native vegetation and disruption of the natural communities, including vernal pools. The amount of vegetated area will be reduced and substantially altered. Domestic species of vegetation including trees, shrubs, and grasses, accompanied by a consequent change in water application, distribution, and annual pattern, will create habitat conditions which will substantially differ from existing conditions.
- o Development of the Specific Plan area as proposed will result in the significant irreversible destruction of vernal pool habitats. The loss of vernal pools will constitute an unavoidable significant impact. Final determination as to the effectiveness of any proposed mitigation is the responsibility of the City.

Once the initial land use changes have occurred, the potential for long term wildlife impacts will continue to exist. Although areas may be set aside as open space, parks, or floodplain,



irresponsible actions by future residents could compromise the value of these areas for wildlife. Such potential impacts would include:

- o Although extensive efforts are proposed to retain native oak trees where they exist within the Plan area, overwatering and mismanagement by future residents will likely contribute to loss of some native trees.
- o The use of pesticides, herbicides, and fertilizers by future residents of the area represents a potential hazard to wildlife and natural communities. Contamination of runoff would contribute to deterioration of aquatic habitat in area streams.
- o The relatively constant presence of humans will render the area less desirable to sensitive species, and these species will likely be displaced to less intensely developed properties within and surrounding the Plan area.
- o Uncontrolled domestic pets present a direct threat to native wildlife populations. Unlike humans, who are largely unaware of wildlife presence except for occasional sightings, pets often prey upon native species and contribute to the undesirability of natural areas adjacent to residential neighborhoods as wildlife habitat.

Mitigation Measures. Measures to reduce impacts to plant and wildlife populations within the Plan area have been identified on three levels, 1) those measures which will reduce actual construction impacts, 2) measures which should be incorporated into the Specific Plan to minimize impacts associated with the proposed land use change, and 3) measures which would minimize long term impacts ensuring that the Plan area remains attractive for wildlife populations.

Construction activity is a short term disturbance which has the potential to produce significant impacts if conducted in a reckless manner. Implementation of identified mitigation measures and the application of good engineering practice and



common sense should ensure impacts of a less than significant magnitude. Some measures which should be implemented to minimize construction impacts are already mandated through ordinance by the City of Roseville, others will need to be identified as conditions on individual project maps. Measure to minimize construction impacts include:

- o Subdivisions and development projects should strictly limit grading activities to the minimum necessary for development of the project area thus reducing the loss of natural habitat.

- o Development plans for individual projects should include measures for protection and preservation of existing trees. Measures which have been recognized by the City of Roseville and specified for inclusion in this EIR include:

- Chain link fencing or similar protective barrier should be installed around the driplines of oak trees in or near impact areas prior to project construction, to avoid damage to the trees and their root systems.

- Signs, ropes, cables, and other items should not be attached to oak trees.

- No employee vehicles, construction equipment, mobile offices, supplies, materials, or facilities should be parked, stockpiled, or located within the driplines of oak trees.

- Soil surface removal greater than 1 foot should not occur within the driplines of oak trees, and no cuts whatsoever should occur within 5 feet of their trunks.

- Earthen fill greater than 1 foot deep should not be placed within the driplines of oak trees, and no fill whatsoever should be placed within 5 feet of their trunks.

- If extensive cuts or fills are made near oak trees beyond the dripline, adequate drainage and/or supplemental irrigation should be provided to mitigate the adverse effects caused by elevation changes.



- No trenching whatsoever should be allowed within the driplines of oak trees. If it is absolutely necessary to install underground utilities within the dripline of oak trees, the trench should be either bored or drilled but not within 5 feet of tree trunks.
 - Where soil compaction occurs within the dripline of an oak tree, measures should be taken to restore soil condition and integrity.
 - Paving within the driplines of oak trees should be stringently minimized. When it is absolutely necessary, porous materials should be used with consideration given to the need for aeration.
 - No artificial irrigation within the driplines of oak trees should be permitted.
 - Landscaping beneath oak trees may include nonplant materials such as boulders, cobbles, wood chips, etc. The only plant species which should be planted within the driplines of oak trees are those which are tolerant of the natural semiarid environs of the trees. Limited drip irrigation approximately twice per summer is recommended for the understory plants.
 - All tree limbs damaged during construction, or removed for other reasons, should be sawed flush to the tree trunk and painted with "tree paint".
 - In the event that tree removal is necessary, based on approved plans, the applicant should plant an equal or larger number of replacement oak trees of the same species within the landscaped portions of the project and provide for their maintenance. Other replacement plants should be replanted if necessary.
- o In conjunction with development of a tree preservation ordinance, the City should develop a program to increase the awareness of residents to the needs of native trees.



- o Implementation of erosion control measures will reduce water quality impacts and protect aquatic habitats. Specific measures for erosion control are identified in the Geology, Seismicity, and Soils section of this report, and include such measures as restricting grading to dry seasons, velocity traps, and prompt replanting of disturbed areas.

Thoughtful land use planning represents one of the primary methods of minimizing wildlife and vegetation impacts. Measures which can be implemented early in the planning stage include the provision of undeveloped space within the proposed Plan area, avoidance of development in sensitive areas, and location of compatible land uses adjacent undeveloped areas.

- o Although several of the identified vernal pools are located within a proposed park site, preservation measures have not been proposed which could protect the respective watersheds, and as a result, it is probable that even these vernal pools will be disrupted either as a direct result of development or by subsequent actions of residents.
- o Even though vernal pool habitat is recognized as unique, preservation of all pools within the City of Roseville is not feasible. The proponent of this Specific Plan has expressed a desire to participate in a program to inventory and evaluate local vernal pool resources, and to implement measures which would facilitate establishment of area-wide vernal pool preservation sites. Property owners within other developing Plan areas of the City have expressed a similar desire. It is recommended that the City initiate such a program. The extensive vernal pool studies currently being prepared for individual Plan areas could provide the foundation, and basis for initial preservation site selection.
- o The proposed Amended Southeast Specific Plan includes 155.9 acres of open space, floodway, and parks. This area includes grassland, oak woodland, vernal pools, and riparian areas.
- o Long term maintenance of quality natural areas within the



Specific Plan, will require action by the City to protect the sites similar to that afforded existing natural areas within the city. Measures should include restricted use of these areas for passive recreation and activities which are compatible with the natural communities. Operation of motorcycles, dirt bikes, etc., should be prohibited. Similarly, hunting, dumping, and the presence unleashed pets should be prohibited.

- o Ordinance mandates that areas within the 100 year flood plain cannot have structures built on them. These areas will afford some wildlife and vegetation protection.

- o Use of pesticides and herbicides is strictly regulated by the State of California, however, misuse of household products can result in contamination of neighborhoods and adjacent natural communities. Programs should be implemented in the City to increase citizen awareness and to provide practical means for the disposal of petroleum products, paints, chemical containers and other hazardous household wastes as is done in Sacramento County.



Climate

The geographic location of the City of Roseville, within the Central Valley Region of California, plays a significant role in the climate of the vicinity. The Central Valley, which extends from south of Bakersfield to north of Redding, is bounded by the Sierra Nevada Mountains on the east and the Coast Range on the west. The Coast Range forms a climatic barrier which isolates the Central Valley from the influence of the Pacific Ocean. The only break in this barrier is the Carquinez Straits which opens the Central Valley to the Pacific Coast weather regime. Roseville is located within the area of the Central Valley which is substantially affected by this marine climatic influence. The major effect of this influence is to moderate the climatic extremes which characterize the northern and southern ends of the Central Valley. This is especially evident on summer evenings when cooling occurs as a result of the penetration of the sea breeze into the central portion of the Valley.

The climate of the Roseville area is typically polarized between summer and winter seasons. The winter season is characterized by overcast days and lengthy periods of rain and drizzle. Average winter temperatures range from 39 to 52 degrees Fahrenheit, and overnight freezing temperatures are occasional. Annual precipitation averages approximately 21.5 inches in the Roseville vicinity, 90 percent of which falls from November through April. Ground fog is common during the winter months. Average summer temperatures range from 58 to 90 degrees, with temperatures in excess of 100 degrees being fairly common. This high average summer temperature, combined with very low relative humidity, produces hot, dry summers. Prevailing winds are from the southwest with a secondary concentration from the northwest. Air stagnation due to surface and/or elevated inversion formation is common in the late summer and fall. Surface inversions are formed when cool air is trapped close to the surface by a layer of warm air above it. Elevated inversions occur when a layer of cool air is suspended between warm air layers above and below it. Stagnation allows for the concentration of contaminants, subjecting persons in the region to elevated pollution levels and consequent increases in hazards to health.



Atmospheric Conditions

For purposes of air quality monitoring, the State of California has been divided into fourteen air basins. Placer County is included in the Mountain Counties Air Basin along with Plumas, Sierra, Nevada, El Dorado, Amador, Calaveras, Tuolumne, and Mariposa Counties. The project site lies within the jurisdiction of the Placer County Air Pollution Control District (APCD). Although primary responsibility for attainment and maintenance of air quality standards lies with the local air pollution control district, the area is also subject to the regulations of the Mountain Counties Air Basin, the California Air Resources Board and the United States Environmental Protection Agency. Both the State of California and the Environmental Protection Agency have established air quality standards. These standards are presented in Table G1, Ambient Air Quality Standards.

The three principal pollutants of primary concern in the Roseville vicinity are carbon monoxide (CO), ozone (O₃), and suspended particulate matter (PM₁₀). Combustion of petroleum fuels, particularly automobiles, is the principal source of unusually high CO and ozone levels in the vicinity. Because of its ability to readily combine with hemoglobin and displace oxygen in the human body, high levels of CO generation coupled with inversion conditions can produce hazardous conditions for elderly people or individuals with respiratory ailments. Ozone is not directly produced by combustion, but rather is a secondary pollutant which results from high hydrocarbon levels. Automobile emissions represent the principal, although indirect, source of this pollutant. Ozone is a major component of urban smog.

It is suspected that particulates of small enough size to be inhaled may pose a substantial health risk. Urban construction, grading, farm tilling, surface mining, or other activities which expose soil and generate dust, coupled with exceptionally dry summer conditions and daily winds, contribute to area particulate levels. Although total suspended particulates have been monitored for quite some time, only recently has a technique for measuring the concentration of "inhalable" particulates, known as PM₁₀, been implemented. Along with collection of PM₁₀ data, the



TABLE G1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
Oxidant ¹⁰	1 hour	0.10 ppm (200 ug/m ³)	Ultraviolet Photometry	-	-	-
Ozone	1 hour	-	-	0.12 ppm (235 ug/m ³)	Same as Primary Standard	Ethylene Chemiluminescence
Carbon Monoxide	8 hour	9.0 ppm (110 mg/m ³)	Non-Dispersive Infrared Spectroscopy (NDIR)	9.0 ppm (110 mg/m ³)	Same as Primary Standards	Non-Dispersive Infrared Spectroscopy (NDIR)
	1 hour	20 ppm (23 mg/m ³)		35 ppm (40 mg/m ³)		
Nitrogen Dioxide	Annual Average	-	Gas Phase Chemilumi- nescence	100 ug/m ³ (0.05 ppm)	Same as Primary Standard	Gas Phase Chemiluminescence
	1 hour	0.25 ppm (470 ug/m ³)		-		
Sulfur Dioxide	Annual Average	-	Ultraviolet Fluorescence	80 ug/m ³ (0.03 ppm)	-	Pararosaniline
	24 hour	0.05 ppm (131 ug/m ³) ⁹		365 ug/m ³ (0.14 ppm)	-	
	3 hour	-		-	1300 ug/m ³ (0.5 ppm)	
	1 hour	0.25 ppm (655 ug/m ³)		-	-	
Suspended Particulate Matter (PM ₁₀)	Annual Geometric Mean	30 ug/m ³	PM ₁₀	-	-	-
	24 hour	50 ug/m ³		-	-	
Suspended Particulate Matter	Annual Geometric Mean	-	-	75 ug/m ³	60 ug/m ³	High Volume Sampling
	24 hour	-	-	260 ug/m ³	150 ug/m ³	
Sulfates	24 hour	25 ug/m ³	Turbidimetric Barium Sulfate	-	-	-
Lead	30 day Average	1.5 ug/m ³	Atomic Absorption	-	-	-
	Calendar Quarter	-	-	1.5 ug/m ³	Same as Pri- mary Standard	Atomic Absorption
Hydrogen Sulfide	1 hour	0.03 ppm (42 ug/m ³)	Cadmium Hydrox- ide STRactan	-	-	-
Vinyl Chloride (Chloroethene)	24 hour	0.010 ppm (26 ug/m ³)	Tedlar Bag Collection, Gas Chromatography	-	-	-
Visibility Reducing Particles	1 observation	In sufficient amount to reduce the prevailing visibility ⁸ to less than 10 miles when the relative humidity is less than 70%.		-	-	-

NOTES:

- California standards, other than carbon monoxide, sulfur dioxide (1 hour) and particulate matter - PM₁₀, are values that are not to be equalled or exceeded. The carbon monoxide, sulfur dioxide (1 hour) and particulate matter - PM₁₀ standards are not to be exceeded.
- National standards, other than ozone and those based on annual averages or annual geometric means, are not to be exceeded more than once a year. The ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standard is equal to or less than one.
- Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 mm of mercury. All measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of Hg (1,013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- Any equivalent procedure which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.
- National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health. Each state must attain the primary standards no later than three years after that state's implementation plan is approved by the Environmental Protection Agency (EPA).
- National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within a "reasonable time" after the implementation plan is approved by the EPA.
- Reference method as described by the EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the EPA.
- Prevailing visibility is defined as the greatest visibility which is attained or surpassed around at least half of the horizon circle, but not necessarily in continuous sectors.
- At locations where the state standards for oxidant and/or suspended particulate matter are violated, National standards apply elsewhere.
- Measured as ozone.



State has created a new ambient air quality standard. This standard is included in Table G1.

Due to its proximity to the greater Sacramento metropolitan area, and the prevailing southwesterly winds, the ambient air quality of the Specific Plan area is subject to heavy influence from pollutants originating in Sacramento and areas to the south and west. This includes pollutants generated from urban areas, industrial areas, agricultural burning and other agricultural operations. These pollutants are carried by the prevailing winds from as far away as the San Francisco Bay area, blown by the prevailing winds through the Carquinez Straits. Because most of the pollutants in the project vicinity originate outside the area, the vicinity has been included in the Sacramento Air Quality Maintenance Area (AQMA). Efforts to reduce violations and achieve the air quality standards prescribed by State and Federal programs are set forth in the Sacramento Air Quality Plan. It has been the objective of this plan to attain the appropriate standards by 1987, however, as discussed further in this section, attainment by the end of 1987 is not expected. Continued development in the Roseville vicinity will increase the volume of locally generated pollutants. For this reason, the California Air Resources Board has requested that local planners examine the region wide picture, keeping in mind measures which will aid in the reduction or stabilization of the various potential types of pollutants which are generated locally.

The Sacramento AQMA is presently a nonattainment area for oxidant (measured as ozone) standards. Although 1987 is the year in which attainment of the Federal ozone standard was to be achieved, attainment of the standard is not expected in the imminent future. As a result, it is anticipated that the Environmental Protection Agency will impose restrictions on future industrial development in the AQMA. However, since motor vehicles represent the most substantial source of hydrocarbons, such restrictions are not expected to significantly impact local hydrocarbon production.

In addition to ozone violations, localized violation of the CO standard has been recorded within the Sacramento metropolitan



area during peak traffic periods. These violations are largely isolated to major intersections where the traffic flow bottlenecks during the PM peak hour commute. Typically, the volume of commuter traffic in the Roseville vicinity is sufficiently less, and no violations of the CO standard have been reported in the Plan area vicinity. However, unless roadway improvements and TSM measures are actively pursued, the potential for violation of the CO standard at new locations will increase with continued growth.

Carbon monoxide levels are not monitored by any stations within the Mountain Counties Air Basin. However, several stations exist in the Sacramento metropolitan area. The nearest CO monitoring station to the Plan area is located in Citrus Heights, Sacramento County. The recorded CO concentrations at this station are presented in Table G2. It should be cautioned that CO levels can vary widely, even within a relatively short distance, and that the levels recorded at the Citrus Heights station may not be representative of the conditions which would be measured within the Specific Plan area. However, since this data represents the most reliable information available for the vicinity, it is included in this EIR. As can be seen in Table G2, violation of the 8 hour standard has not been reported at this station since 1982.

Table G2
CO Levels Measured in Citrus Heights(ppm) and the
Number of Days that the Federal Standard was Exceeded

	Hourly Conc.		8 Hour Mean		Occurrences of 8 Hour	
	<u>1st high</u>	<u>2nd high</u>	<u>1st high</u>	<u>2nd high</u>	<u>Conc. > 9.0</u>	
					<u>days</u>	<u>hours</u>
1985	9.0	9.0	7.4	6.5	0	0
1984	9.0	8.0	5.1	5.1	0	0
1983	9.0	8.0	5.4	5.3	0	0
1982	10.0	9.0	8.4	6.1	0	0

SOURCE: California Air Quality Data Summaries 1982-1985, ARB



Ozone, measured as oxidant, is a secondary pollutant which commonly results from high hydrocarbon (HC's) and NO₂ levels produced during fuel combustion, particularly motor vehicle operations. Slow moving traffic during rush hour periods is a major source of HC's and NOX which result in high NO₂ levels, which in turn result in the formation of ozone. However, ozone tends to be highly reactive and readily combines with numerous other components of the atmosphere. High levels of ozone are generally observed only while NO₂ levels remain high, and decline rapidly once the excessive pollutant has been depleted. The nearest ozone measuring air sampling station to the Plan area is located in the City of Rocklin at Sierra College. However, like CO, ozone concentrations can vary substantially depending on wind and traffic conditions. For this reason, the Placer County APCD has recommended that ozone data obtained from the air monitoring station in Folsom, approximately 7 miles from the Plan area, be utilized for "worst case" analysis. The State has not established an ozone standard, but the Federal government recognizes 0.12 parts per million (ppm) as the one hour standard. The National ozone standard is attained when the expected number of days per calendar year with a maximum hourly average concentration above the standard is equal to or less than one. Recorded levels of ozone in Folsom are shown in Table G3. As can be seen in the Table, the number of days that levels greater than 0.12 ppm were recorded far exceeds that allowed by the standard.

Table G3
Ozone Mean Concentration (ppm) Recorded in Folsom

<u>Year</u>	<u>-----Mean Concentration-----</u>			<u>Days/Hours</u> <u>Over 0.12 ppm</u>
	<u>All Hours Sampled</u>	<u>Peak Hour</u>	<u>High</u>	
1985	0.027	0.058	0.17	13/37
1984	0.026	0.058	0.18	19/40
1983	0.024	0.051	0.14	7/15
1982	0.030	0.060	0.16	12/30
1981	0.026	0.058	0.17	12/30
1980	0.022	0.059	0.16	7/15

SOURCE: Placer County 1985 Air Monitoring Report, September 1986



Total suspended particulate matter (TSP) has been monitored throughout California for several years. Total suspended particulates refers to all particles with a diameter of less than 30 microns. The Federal ambient air quality standard for total suspended particulates (TSP) is 75 ug/m³ expressed as the annual geometric mean, and the 24 hour standard is 260 ug/m³.

Table G4
Total Suspended Particulate Levels
Observed at the Rocklin-Sierra College Air Sampling Station

<u>Year</u>	<u>Geometric Mean (ug/m³)</u>	<u>Highest Concentration (ug/m³)</u>
1985	46.5	98
1984	41.7	91
1983	31.3	80
1982	36.6	88
1981	48.0	97
1980	46.3	108

SOURCE: Placer County 1985 Air Monitoring Report, September 1986

Until recently, the State of California Air Resources Board recognized 100 ug/m³ as the 24 hour standard. However, attention has focused on particles which are considered "inhalable", 10 microns or smaller size. The California standard for inhalable suspended particulate matter levels is measured as the concentration of particles in a cubic meter of air which will not pass through a 10 micron screen, and designated as PM₁₀. PM₁₀ is reported in 24 hour occurrences and as annual geometric mean; the respective new PM₁₀ standards are 50 ug/m³ and 30 ug/m³.

As PM₁₀ is a relatively recent method of reporting particulate levels, PM₁₀ monitoring did not commence in the vicinity until the spring of 1986. At that time monitoring was initiated at the Sierra College air sampling station. According to Russ Roberts of the Placer APCD, for the portion of 1986 when PM₁₀ monitoring took place, the annual geometric mean was 28 ug/m³,



and the highest 24 hour concentration was 61 ug/m³. It should be cautioned that these figures reflect less than an entire year's worth of data collection. Nonetheless, this preliminary data indicates that violation of the 24 hour standard has occurred, and that the calculated geometric mean of 28 ug/m³ is uncomfortably close to the adopted standard of 30 ug/m³.

Impacts. Regardless of the actual quantities of pollutants produced as a result of development of the Specific Plan area, continued development within the Sacramento AQMA will make attainment of the air quality standards more difficult, and it is probable that the Sacramento area will continue to be a nonattainment area for ozone. Proposed development in the Southeast Roseville Specific Plan area in accordance with the City of Roseville General Plan, which was utilized to develop growth assumptions for the Sacramento Air Quality Plan. Therefore it is assumed that existing development in the adopted Plan area is consistent with the Air Quality Plan. However, proposed development in the expanded Plan area will occur later than 1987, the year for which the Air Quality Plan was developed, continued development will exacerbate an already significant noncompliance situation. Therefore, the air quality impacts of the proposed Specific Plan must be considered significant.

o The greatest short term air quality impact associated with development of the Plan area will be dust generation associated with grading and construction activities on the site. The amount of airborne particulate matter which results from construction of any project is dependent upon numerous varying factors including but not limited to the percent silt content of the soil, moisture level of the soil, wind direction and velocity, and level of construction activity. Dust emissions generated during construction can vary substantially from day to day depending on these factors. Studies indicate that assuming a medium level of construction activity, moderate silt content of the soil, and semiarid climate conditions, approximately 1.2 tons of dust per acre per month of construction activity would be generated.



Long term impacts will primarily be the result of motor vehicle traffic associated with the use of the Plan area as commercial, industrial, and residential land uses. Long term contributions of carbon monoxide, nitric oxides, and hydrocarbons were assessed using Urbemis #2, a computer model developed by the California Air Resources Board to estimate annual emissions from land uses. Outputs from the model include the estimated number of annual trips, miles traveled, and emissions. Inputs to the model include land use, cold start temperature, estimate of trips per day, estimate of trip destinations (distances) and trip speed. Average trip lengths and trip speeds utilized for this project were obtained from the Sacramento Regional Air Quality Model, provided by the Sacramento Area Council Of Governments (SACOG). These values represent average values obtained for the entire Sacramento metropolitan area and are assumed to approximate the travel characteristics of future residents of the proposed Plan area. Land use assumptions utilized in the program included anticipated buildout of the Plan area as proposed in the Southeast Specific Plan. Trip generation rates were obtained from the traffic studies prepared for the Plan.

- o The Urbemis2 model was utilized to predict the production of CO, hydrocarbons, and Nox which would be produced in the Plan area at buildout. The contribution of the Specific Plan area is shown in Table G5.

Table G5
Estimated Project Traffic Generated Emissions
2005 Buildout of the Specific Plan Area (Tons/Day)

	<u>CO</u>	<u>TOG</u>	<u>NOX</u>
RD 1 - RD 5	0.4	0.0	0.0
RD 6 - RD10	0.4	0.0	0.0
RD11 - RD15	0.8	0.1	0.1
RD16 - RD20	1.1	0.1	0.1
Commercial 0- 9 acre parcels	0.6	0.1	0.1
Commercial 10-19 acre parcels	1.0	0.1	0.1
Business/Professional	1.3	0.1	0.1
Racquet Club	0.1	0.0	0.0
Daycare Center	<u>0.1</u>	<u>0.0</u>	<u>0.0</u>
Total Plan Area	5.8	0.5	0.5



- o As ozone is a secondary pollutant, there is not an approved method for quantifying the amount of ozone generated from individual land uses. However, since ozone production is strongly related to the level of hydrocarbons present in the atmosphere, the contribution of individual land uses to ozone generation should be comparable in magnitude to the estimated production of hydrocarbons as predicted with the Urbemis #2 model. Since the vicinity is already a nonattainment area for ozone, this must be considered a significant impact.

- o The long term impacts on particulate levels in the Plan vicinity are unknown. Areas which are presently dry and dusty will be covered with landscaping and impervious surface which should reduce particulate levels. However, increased activity associated with urban use of the Plan area will generate other particulates. The amount of particulates generated by development of the Plan area are not anticipated to differ from those generated by similar development throughout the central valley, and would therefore not be considered significant in themselves.

Carbon monoxide is a principal pollutant generated by internal combustion of petroleum fuels. As such, CO levels are expected to increase in proportion to traffic volumes within the Plan area. The two intersection predicted to operate at less than LOS "C" within the Plan area were identified as the likely locations of the heaviest carbon monoxide concentrations. Future carbon monoxide concentrations at each of these intersections were predicted using CALINE4, the fourth generation California Line Source Dispersion Model, provided by the California Air Resources Board. The input data for this model are meteorology, street network geometrics, traffic information, receptor locations and surrounding land use factors. In each case, the input value corresponding to the "worst case" condition was utilized.

- o Development of the Specific Plan area will increase the CO concentrations in the vicinity, most notably near key intersections. Carbon monoxide concentrations surrounding key intersections in the Plan area were calculated for peak traffic conditions determined from the project traffic analysis. These



worst case conditions were modelled for the year 2005, the earliest year in which full buildout of the Specific Plan area could occur. Four receptors were assumed, one located at each quadrant of the intersection. Receptors were assumed to be 100 feet (30.38m) from the roadway centerline and 6.0 feet (1.8m) above the ground. In order to assess worst case CO conditions, a background concentration of 3.0 ppm was assumed at all locations. Eight hour concentrations were estimated utilizing a 0.6 persistence factor. As can be seen by the model results presented in Table G6, violation of the eight hour standard is predicted to occur at the modelled locations under worst case conditions.

Table G6

Worst Case Predicted CO Concentrations at Selected Intersections

	Concentration (ppm)	
	<u>One Hour</u>	<u>Eight Hour</u>
East Roseville Pkwy/Douglas Boulevard	17.1	10.3
East Roseville Pkwy/Eureka Road	17.9	10.7

Mitigation Measures.

- o Principal actions which can be implemented to reduce particulate generation during construction include:
 - Sprinkling of disturbed areas during construction to minimize airborne dust.
 - Reseeding of disturbed areas following construction pursuant to erosion control measures as recommended in the Geology, Seismicity, and Soils section of this report.
 - Restriction of grading activities during periods of high winds.



- o The City of Roseville should pursue aggressive implementation of the Roseville Ridesharing Ordinance.
- o Specific proposals for development of "Park & Ride" lots at appropriate locations convenient to major transportation routes should be identified in the Specific Plan. These lots would serve residents of the Plan area who commute to work. Proposed locations for such lots should be identified at the Specific Plan level to ensure that they are incorporated into tentative maps as individual projects are proposed.
- o The Specific Plan includes development of neighborhood/ convenience commercial land uses, oriented to areas of residential concentrations. Such location of commercial land use can reduce the length and number of vehicular trips undertaken for convenience shopping purposes.
- o Bus stops and public transit planning within the Specific Plan area should be coordinated with planning for a regional transit loop to facilitate the extension of services as early and as effectively as possible. Projects should be reviewed for the appropriateness of providing transit facilities.
- o Inclusion of pedestrian and bicycle pathways are proposed throughout the Plan area to provide alternate transportation opportunities and to link residential areas with major activity centers. Planning of these non vehicular links should expand beyond the Plan area to coordinate with the developing City wide network. Natural drainageways and utility easements should be utilized for such pathways. The proposed extent of the pedestrian pathway network should be shown in the Specific Plan to ensure that an adequate network is proposed.
- o Motor vehicle emissions are being mitigated on a regional scale, primarily by State mandated emission controls and the recently initiated motor vehicle emission inspection program. Table G7 shows the recent trends in carbon monoxide emissions in Sacramento County. As can be seen in the table, the trend is downward, with a more pronounced decrease when implementation of controls is considered.



Table G7
Carbon Monoxide Emissions In Sacramento County
(Average Annual Day)

	<u>1979</u>	<u>1981</u>	<u>1983</u>	<u>1985</u>	<u>1987</u>	<u>1989</u>	<u>1991</u>	<u>1993</u>	<u>1995</u>
Tons per day (Baseline)	618	582	567	547	522	504	501	499	494
Tons per day (Controlled)				453	433	419	418	417	414

SOURCE: Report on Reasonable Further Progress During Calendar Year 1983. Sacramento Area Council of Governments.

- o Particulates are more commonly recognized as dust, and it is difficult to identify specific measures which may be utilized to reduce long term dust generation rates in urban areas. Obvious, but unquantifiable, measures could include minimizing erosion and exposed soil areas, frequent cleaning of streets, sidewalks, and paved areas, and planting of trees and vegetation to reduce wind.
- o Design of the roadway network to provide level of service "C" or better conditions will reduce overall air quality impacts, and reduce the potential for violations of the CO standards at individual intersections.



Noise

Noise is a fundamental component of the urban environment. Outdoor ambient noise levels tend to be higher in urban settings than those typically associated with more rural land uses. These higher noise levels can be detrimental to the health and well being of residents of urban environs. The noise environment includes a multitude of sounds, many of which are beyond the range of human hearing. In order to realistically assess noise impacts to people, noise is generally measured with an "A" filter, and expressed in decibels, dB(A). An "A" filter replicates the human range of hearing, and thus narrows and evaluates the range of the sound spectrum to that which can be directly heard by people. Decibels may be simply thought of as the "loudness" of a sound. For reference, a "noise thermometer" is presented as Table H1, which indicates the approximate decibel levels associated with assorted noise producing activities.

Although the physical intensity of a sound can be easily measured, the seriousness of the resulting impact on individuals is a complex and intangible value which must consider both physical and social factors. Generally speaking, the seriousness of any given noise is a combination of its intensity and duration. Louder noises are only acceptable if they last for shorter periods of time. Similarly, levels which may be regarded as acceptable during the day, can be annoying or intolerable during evening or nighttime periods.

In order to assess noise levels within urban surroundings, two principal methods of noise expression have been developed, the Community Noise Equivalent Level (C_{NEL}) and the Day-Night Average Sound Level (L_{dn}). Most communities recognize one or both of these measurements. These methods are used to describe average noise levels over a period of time, generally 24 hours. Noises during evening or nighttime periods are weighted in the calculation to account for the increased sensitivity of the community to noises during these periods. These methods of assessing the severity of sounds are only applicable to noise generated over time. Generally 30 seconds is considered as the minimal duration for sounds expressed using L_{dn} or C_{NEL} .



**Table H1
Noise Thermometer
Typical Noise Levels Generated by Familiar Activities**

<u>dB(A)</u>	<u>Subjective Description</u>	
-- 120	Amplified Rock 'n Roll Band	Deafening
-- 110	Commercial Jet Takeoff (@ 200 ft.)	---
-- 100		---
-- 90	Busy Urban Street	Very Loud
-- 80		---
-- 70	Freeway Traffic (@ 50 ft.)	Loud
-- 60	Normal Conversation (@ 6 ft.)	---
-- 50	Typical Office (Interior)	Moderate
-- 40	Soft Radio Music	---
-- 30	Typical Residential (Interior)	Faint
-- 20	Typical Whisper (@ 6 ft.)	---
-- 10	Human Breathing	Very Faint

SOURCE: Brown-Buntin Associates, Fair Oaks, California

Sounds generated for shorter periods than 30 seconds are generally classified as "impulse noise". Because of the short duration of impulse noise, its potential for annoyance is generally underestimated by the Ldn and CNEL methodologies. Conversely, because of its short duration and often temporary nature, impulse noise is seldom considered a significant problem.



nature, impulse noise is seldom considered a significant problem. As a general rule, it only becomes necessary to regulate impulse noise in situations where the noise becomes a relative permanent part of the noise environment. In instances where impulse noise must be assessed, the Sound Exposure Level (SEL) method is utilized. Similar in concept to the Ldn or CNEL methodologies, SEL expresses the relative intensity of the sound for an established period of time. One second is the time interval utilized for determination of SEL.

The generally adopted practice for noise legislation in the United States is to identify acceptable noise levels associated with major land uses and zoning designations. Even though the acceptance of Ldn and Cnel is generally widespread, adopted noise standards for similar land uses vary.

In California, establishment and enforcement of noise standards is largely the responsibility of local communities, provided through enabling legislation from the State. However, stringent State requirements are specified for multi-family dwellings. Title 24 of the California Administrative Code specifically requires acoustical analysis for multi-family dwellings proposed for location within the 60 dB Ldn contour, with a maximum allowable interior noise level of 45 dB Ldn specified for habitable rooms.

Although specific noise standards for community land uses are not established at the State level, the California Department of Health, Office of Noise Control, has published extensive material to assist local communities in establishing noise standards. Perhaps the most widely cited, and utilized, noise standard publication produced by the State is **Guidelines for the Preparation and Content of Noise Elements of the General Plan**, prepared by the Office of Noise Control in coordination with the Office of Planning and Research. This publication includes recommendations for CNEL or Ldn levels associated with general land use classifications. These levels are presented in Table H2, Land Use Compatibility for Community Noise Environments. The City of Roseville Noise Element utilizes the Office of Noise Control compatibility standards.



Table H2

Land Use Compatibility for Community Noise Environments

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE L _{dn} OR CNEL, dB					
	55	60	65	70	75	80
RESIDENTIAL – LOW DENSITY SINGLE FAMILY, DUPLEX, MOBILE HOMES	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable
RESIDENTIAL – MULTI. FAMILY	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
TRANSIENT LODGING – MOTELS, HOTELS	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
SCHOOLS, LIBRARIES, CHURCHES, HOSPITALS, NURSING HOMES	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
AUDITORIUMS, CONCERT HALLS, AMPHITHEATRES	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
SPORTS ARENA, OUTDOOR SPECTATOR SPORTS	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
PLAYGROUNDS, NEIGHBORHOOD PARKS	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
GOLF COURSES, RIDING STABLES, WATER RECREATION, CEMETERIES	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
OFFICE BUILDINGS, BUSINESS COMMERCIAL AND PROFESSIONAL	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
INDUSTRIAL, MANUFACTURING UTILITIES, AGRICULTURE	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable

INTERPRETATION



NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.



CONDITIONALLY ACCEPTABLE

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.



NORMALLY UNACCEPTABLE

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.



CLEARLY UNACCEPTABLE

New construction or development should generally not be undertaken.

CONSIDERATIONS IN DETERMINATION OF NOISE-COMPATIBLE LAND USE

A. NORMALIZED NOISE EXPOSURE INFORMATION DESIRED

Where sufficient data exists, evaluate land use suitability with respect to a "normalized" value of CNEL or L_{dn}. Normalized values are obtained by adding or subtracting the constants described in Table 1 to the measured or calculated value of CNEL or L_{dn}.

B. NOISE SOURCE CHARACTERISTICS

The land use-noise compatibility recommendations should be viewed in relation to the specific source of the noise. For example, aircraft and railroad noise is normally made up of higher single noise events than auto traffic but occurs less frequently. Therefore, different sources yielding the same composite noise exposure do not necessarily create the same noise environment. The State Aeronautics Act uses 65 dB CNEL as the criterion which airports must eventually meet to protect existing residential communities from unacceptable exposure to aircraft noise. In order to facilitate the purposes of the Act, one of which is to encourage land uses compatible with the 65 dB CNEL criterion wherever possible, and in order to facilitate the ability of airports to comply with the Act, residential uses located in Com-

munity Noise Exposure Areas greater than 65 dB should be discouraged and considered located within normally unacceptable areas.

C. SUITABLE INTERIOR ENVIRONMENTS

One objective of locating residential units relative to a known noise source is to maintain a suitable interior noise environment at no greater than 45 dB CNEL of L_{dn}. This requirement, coupled with the measured or calculated noise reduction performance of the type of structure under consideration, should govern the minimum acceptable distance to a noise source.

D. ACCEPTABLE OUTDOOR ENVIRONMENTS

Another consideration, which in some communities is an overriding factor, is the desire for an acceptable outdoor noise environment. When this is the case, more restrictive standards for land use compatibility, typically below the maximum considered "normally acceptable" for that land use category, may be appropriate.

Source: California Office of Noise Control



Existing noise sources within the Plan area include wind blowing through the grass and trees, wildlife sounds such as birds chirping and frogs croaking, and other sounds from natural sources. Background noises in various portions of either Plan area originate from motor vehicle traffic on nearby roads, residential sounds from nearby neighborhoods, or from already existing neighborhoods within the Plan area. Typical existing ambient noise levels on the site vary from 40 to 50 dBA. Higher levels exist in areas near roadways or adjacent land uses.

Impacts.

o In areas of new development, the most significant initial noises will be generated by construction equipment. The noise levels produced by grading and scraping, road construction, building construction, and landscaping will be short term in nature and can be expected to generate noise levels ranging from 70 to 95 dB(A), as presented in Table H3. In addition to these "heavy" construction activities, sounds generated by builders will be produced at varying locations within the Plan area. Early residents to the Plan area and nearby neighborhoods, will be exposed to noises from ongoing home construction sounds from power tools, hammering, and other general construction noises. Although construction noises may be annoying to some residents, such activity can be performed without violation of the recognized noise standards.

**Table H3
Construction Equipment Noise Levels**

<u>Equipment Type</u>	<u>Maximum Level - dBA (Measured at 50 feet)</u>
Scrapers	88
Bulldozers	87
Heavy Trucks	88
Backhoe	85
Pneumatic Tools	85
Chain Saw	95

Source: Patrick Cuniff, Environmental Noise Pollution, 1977.



- o At locations where unrippable rock is encountered, blasting will be required for the installation of underground facilities. Blasting may produce noise in excess of 100 dB(A) within 50 feet of detonation.
- o Long term sounds, which will become characteristic of the residential noise environment in the Plan area, will include lawn mowers, stereos, traffic, and kids at play. Of all the typical residential sounds which will be generated in the Plan area, none, with the possible exception of traffic, are anticipated to violate the recognized standards.

Traffic represents the most likely source for future noise violations within the Specific Plan area. The amount of noise generated by traffic on any given roadway will be directly related to the volume and speed of the traffic. Greater traffic volumes with higher speeds tend to generate higher noise levels. Dwellings located on relatively heavily utilized streets often require mitigation measures to reduce traffic noise levels in exterior living areas.

The projected distances to the 60dB, 65dB, 70dB, and 75dB Ldn noise contours were estimated using the Federal Highway Traffic Noise Prediction Model, FHWA-RD-77-108, and traffic volume information provided by the traffic analysis for this project. In order to assume worst case inputs, buildout traffic volumes were utilized.

The FHWA methodology constitutes a worst case analysis in that it assumes the surface between the receptor and the noise source to be a flat plane with no obstructions. In actuality, numerous factors, such as type of surface, topography, walls or vegetation, reduce the distance noise can travel from its source. Because of the rolling terrain, vegetative cover, fences, and other obstructions which will exist along the roadways within the Plan area, the surface between project roadways and future receptors will not be unobstructed. As a result, actual noise levels on the site are anticipated to be less than those predicted by the FHWA model and identified in this EIR. Since mitigation is required and individual projects will be subject to



review by the City, noise impacts associated with the Specific Plan are suggested to be less than significant.

o Traffic volumes on major roadways within the Plan area will generate noise levels which exceed the acceptable levels recognized in the **Noise Element** of the **Roseville General Plan**. However, since the Specific Plan does not designate proposed locations for structures, it is impossible to determine if any violations would be produced. The noise impacts are quantified in Table H4, which shows the predicted distance from roadway centerline to the respective noise level contours.

Table H4
Distance to Noise Contours from Roadway Centerline (Feet)
(Calculated using FHWA Model, Ldn, dBA)

<u>Roadway</u>	<u>ADT</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>
Sierra College					
south of Douglas	14,000	99	46	21	10
Douglas Boulevard					
west of Sierra College	37,600	192	89	41	19
west of Roseville Pkwy	31,000	169	78	36	17
Eureka Road					
south of Douglas Blvd	38,600	195	91	42	20
west of Sierra College	31,000	169	78	36	17
East Roseville Pkwy					
south of Douglas Blvd	28,600	160	74	34	16
south of Eureka Road	35,700	185	86	40	19
east of Sierra College	14,100	100	46	21	10



Mitigation Measures.

- o Construction is an activity which commonly takes place in already occupied residential areas. Practical consideration and common sense have, in practice, minimized many of the potential impacts. Most contractors recognize reasonable work shifts which avoid loud activities early in the morning, late in the evening, or at unusual hours during weekends. It is assumed that future construction in the Plan area will be practiced in this manner. Similarly, all internal gas engines and equipment are assumed to have residential type mufflers and noise suppression attachments as appropriate. Since building activity is commonplace and short term in nature, it is not anticipated to produce significant noise impacts in the future.
- o Although specific builders and developers have yet to be identified, it is assumed that any required blasting will be conducted in accordance with all applicable City policies. Whenever the activity is required in the proximity of existing residential neighborhoods, nearby property owners should be notified in advance as to the time and location of the blasting, and all reasonably recognized precautions to minimize surrounding impacts should be utilized.
- o Enforcement of local noise standards can be utilized to control isolated violations which are inevitable in residential neighborhoods. No significant noise impacts are anticipated to be generated by the land uses proposed in the Specific Plan. However, as individual projects are proposed, particularly in the light industrial and commercial areas, the potential noise impacts should be reviewed in relation to the nearest residential neighborhoods.
- o As specific projects are proposed for construction, they should be subjected to a noise review, including, as appropriate, an onsite noise assessment to determine the actual location of the noise contours involved. The need for such analysis will be at the discretion of the City. In situations where the predicted 60 dB(A) noise contour falls outside of the roadway right of way and within residential property, projects will be required



to implement measures to reduce the noise to the recognized standards included in the **General Plan Noise Element**. Typical measures which may be implemented include sound walls, berms, or dense landscaping.

- o Developers of individual residential units should be encouraged to utilize construction techniques which reduce interior noise levels such as in wall insulation, double pane windows, properly sealed joints, and placement of bedrooms away from noise sources. In accordance with State standards, residential housing must attain interior noise levels of less than 45dB.



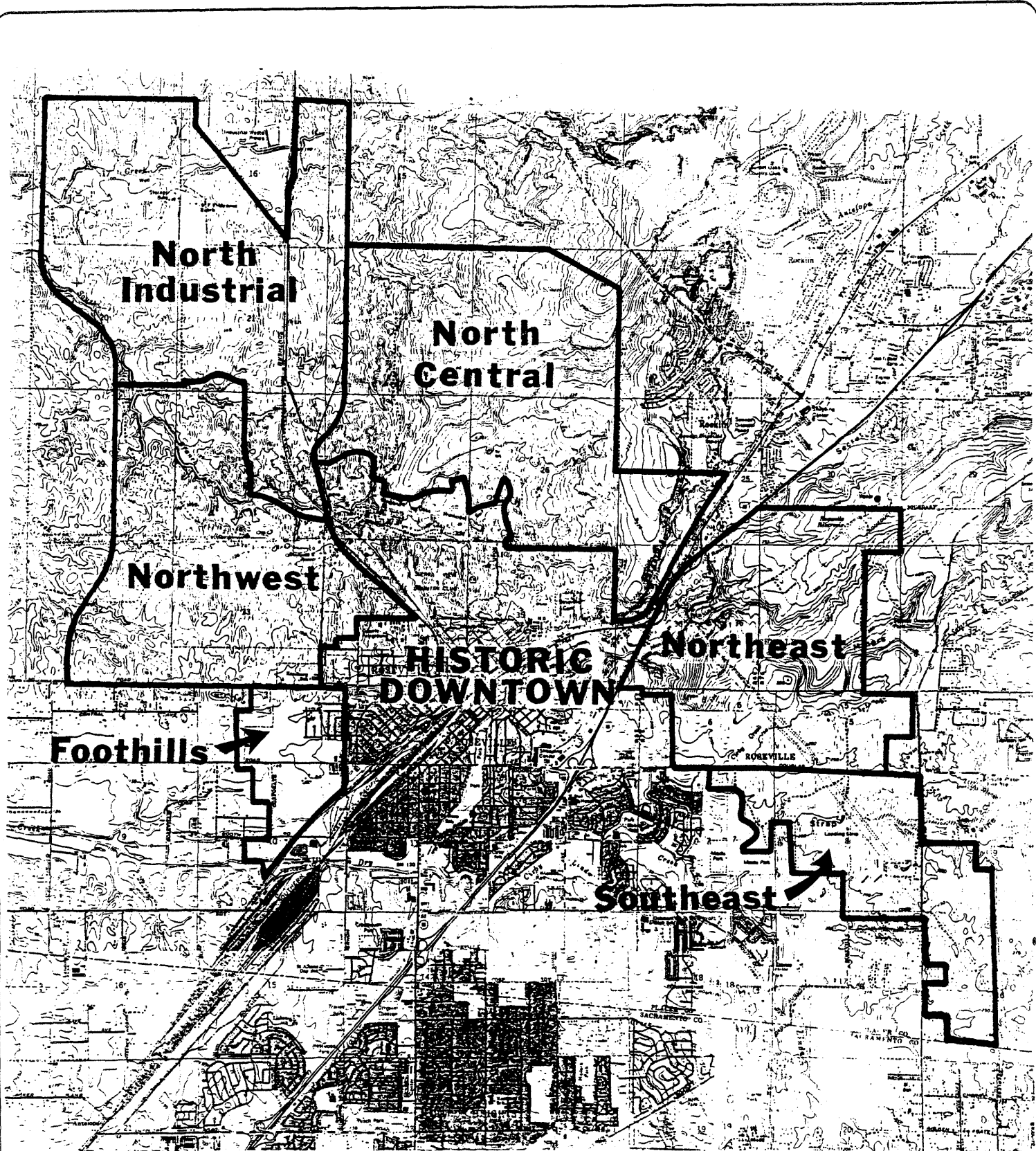
VI. EXISTING CULTURAL CONDITIONS, PROJECT IMPACTS AND MITIGATION MEASURES

Land Use

As is typical of older established municipalities, the City of Roseville consists of a central core of commercial/business area surrounded by newer predominantly residential areas. Figure 11 the Planning Areas Map, shows the currently recognized six planning areas located around the historic downtown center of the City. Associated with the residential growth, a proportionate amount of commercial and business land uses have developed in the newer areas away from the central core. However, the continued availability of low interest financing and strong economic indicators have produced an unforeseen surge in development proposals within the City. In anticipation of continuing strong regional growth, large scale land use plans for development of light industrial and regional commercial land uses have been proposed.

Historically, the City of Roseville evolved as a local center for commerce, and prospered as one of the principal railroad hubs which served the region. The advent of alternative modes of shipping, namely the national highway system and growth of trucking, resulted in the decline of the railroad industry, and with it a slowed and depressed economy for Roseville. The older downtown core area of Roseville, essentially surrounding Vernon Street/ Atlantic Street and the railroad yards, constitutes the traditional portion of the City. Historically, Vernon Street/ Riverside Avenue/Douglas Boulevard and contiguous areas have constituted the commercial center of the City of Roseville as well as meeting many of the retail needs of surrounding areas. This situation was altered significantly in the early 1960's when Roseville Square opened, and again in the early 1970's when Sunrise Mall opened in Citrus Heights to the south within Sacramento County. These changes, coupled with traffic/ circulation changes and changing patterns of commuting and shopping, have resulted in a net decline in overall retail activity within the Roseville commercial core.





ROSEVILLE PLANNING AREAS MAP

FIGURE 11



Coupled with the decline has been an overall shift in the type of business operating in the downtown area. Primarily, this has been a shift from the larger department store type of retail business to smaller specialty shops, including antique dealers, specialty restaurants, and offices. The most positive trend, from the point of view of City economics, is and has been the concentration of automobile dealers along Riverside Boulevard.

In the outward developing areas of the City, positive impacts are expected to result from new industries, most notably in the North Industrial Planning Area, and the North Central Specific Plan Area. Residential growth has invariably attracted new commercial development, and the various Specific Plan areas are developing as smaller relatively independent communities. The combination of efficient planning to reduce trip lengths and promote neighborhood identity, coupled with plans for construction of regional commercial areas in Rocklin and/or in the Northeast or North Central Specific Plan areas, and completion of the Highway 65 Bypass, could exacerbate the already less than desirable economic conditions in the central core business area. Although initial investigations have indicated that redevelopment of the downtown area appears to be financially feasible, and will likely be initiated to some degree, pressure from the newer areas of the City will almost certainly result in additional competition and continued decline of the downtown area in the short term. It is impossible to say whether the envisioned redevelopment plan will effectively reverse the trend toward outward development over a longer period of time.

The **Southeast Roseville Specific Plan** area is located within the southeastern portion of the City of Roseville as previously shown in Figure I1. The currently adopted Southeast Roseville Specific Plan encompasses approximately 637 acres located south of Douglas Boulevard and west of Sierra College Boulevard. The proposed Amended Plan area would include an additional 367 acres located east of Sierra College Boulevard and south of Eureka Road. The total size of the proposed Amended Plan area is approximately 1,004 acres. The boundaries of the revised Plan area are Rocky Ridge Drive on the west, Douglas Boulevard and Eureka Road on the north, and the City corporate limits on the east and south.



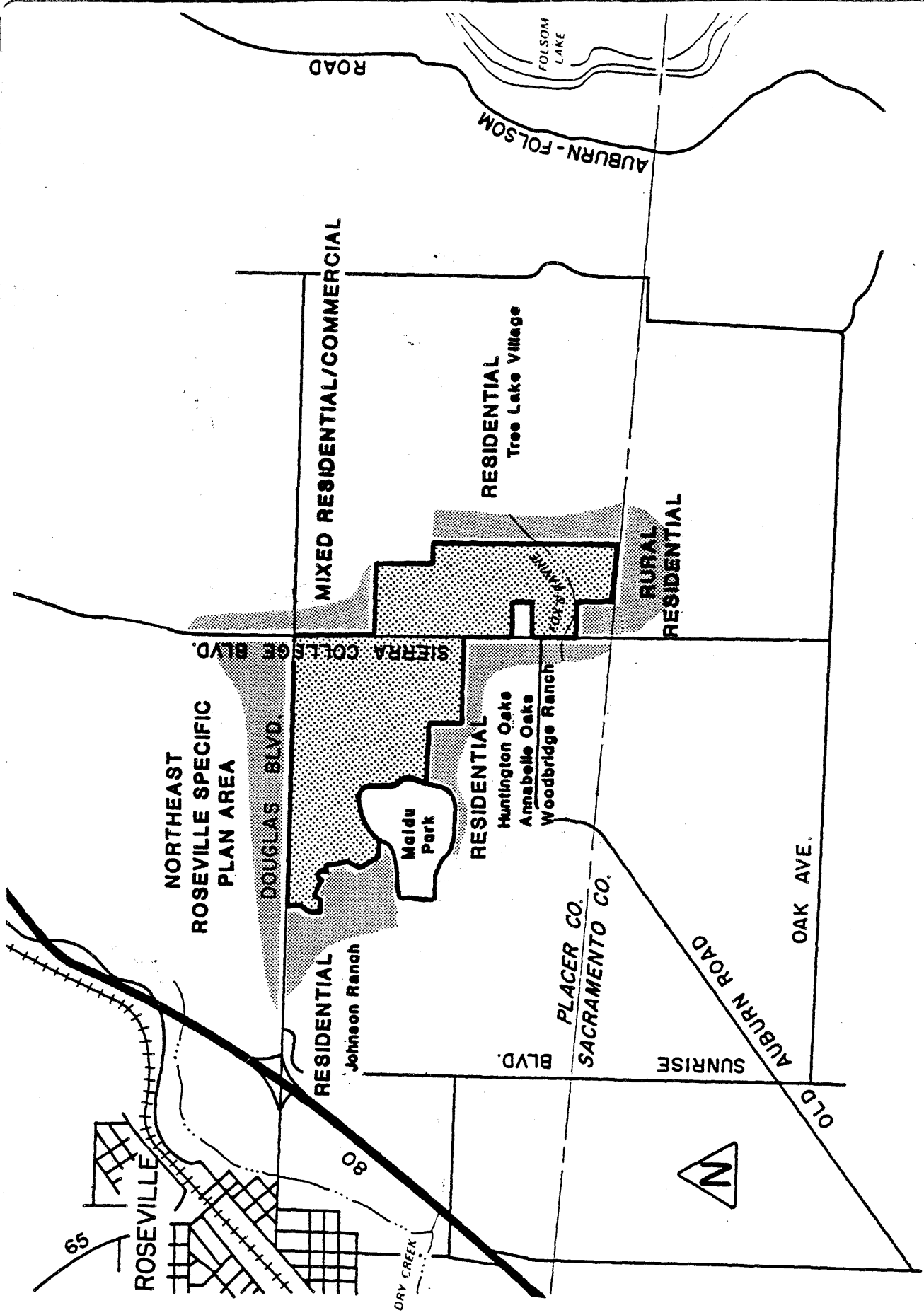
As shown in Figure I2, new growth is predominantly focused north and west of the Plan area in the largely undeveloped portions of Roseville and Placer County. Immediately north of the Southeast Plan area, development of the **Northeast Roseville Specific Plan** is proposed. Northwest of the Plan area, numerous smaller subdivisions are under construction along Douglas Boulevard between Roseville and Folsom Lake. Immediately west of the Amended Plan area is the unincorporated area of Placer County. This portion of the County, like the Plan area, has experienced substantial growth pressure. Immediately adjacent to the Plan area is the site of the proposed Treelake Village development. West of Treelake Village, Folsom Lake Estates III is proposed on Barton Road.

Existing residential neighborhoods are generally located south and west of the Plan area. South of the Plan area, the community of Orangevale is located in Sacramento County. This community has traditionally been one of low density mixed urban/rural residential neighborhoods. West of the Plan area is the relatively newer areas of Roseville which incorporate single family and higher density residential land uses with neighborhood commercial establishments. Maidu Park is located east and adjacent to the Plan area. Maidu is the first City-wide Park acquired by the City, and is presently under development. A portion of the property within park was dedicated in conjunction with implementation of the existing **Southeast Roseville Specific Plan**.

A comparison of the adopted land uses for the entire area included in the proposed Amended Specific Plan area, with the proposed land uses designated in the Amended Plan are presented in Table I1.

As currently adopted, the Southeast Roseville Specific Plan allows for construction of 3,798 dwelling units. Existing zoning of the 367 acre area proposed for inclusion in the amended Specific Plan allows 167 dwelling units to be developed, bringing the maximum allowed total to 3,965 units. As designated, residential land use would comprise approximately 712 acres or 71% of the Plan area.





ADJACENT LAND USE MAP

FIGURE I2

R.C. Fuller Associates

Table I1
Comparison of Existing and Proposed Land Uses

	Existing		Proposed		Net Change	
	Acres	Units	Acres	Units	Acres	Units
R-1	367*	167*			-367	-167
R-3			3.3	10	3.3	10
R-4	50.7	244	310.8	1100	260.1	856
R-5			103.1	470	103.1	470
R-7	51.2	375	18	114	-33.2	-261
R-8	19.8	158	19.5	156	-.3	-2
R-10	14.1	123	11.9	114	-2.2	-9
R-12	64.6	701			-64.6	-701
R-13	36.1	650	12.7	165	-23.4	-485
R-14	9.5	126			-9.5	-126
R-15	32.9	435			-32.9	-435
R-16	44.7	583	38.6	612	-6.1	29
R-19			38.9	714	38.9	714
R-20			25.1	510	25.1	510
R-22	21.2	403			-21.2	-403
PARK	23.1		80.2		57.1	0
SCHOOL	32.8		31.7		-1.1	0
BP	106.6		106.7		.1	0
COMM	29.7		39		9.3	0
MISC	100.4		164.9		64.5	0
	1004.4	3965	1004.4	3965		

* Area not within Existing Southeast Specific Plan, but proposed for inclusion in the Amended Specific Plan area.

There are approximately 160 acres of property within the currently adopted Southeast Roseville Specific Plan area which are under Williamson Act contract. This property, informally referred to as the McIntyre property, is located on the west side of Sierra College Boulevard approximately midway between Douglas



Boulevard and Old Auburn Road. The current agricultural contract remains in effect until October 23, 1991. The developer has not indicated that the contract will be terminated prior to its prescribed expiration. However, the developer can elect to terminate the contract at any time, and in doing so, would be subject to the penalty fees included in the terms of the contract.

The issue of residential development in the proximity of electrical transmission lines was specifically identified for discussion by the Planning Commission. Since recommendations and subsequent action must be based on current research, some of which is controversial, copies of the literature have been provided to the Planning Department. Following is a brief overview of the material reviewed.

In recent years, both the number and the capacity of electrical transmission lines has increased for reasons of efficiency, reliability and the need to transmit bulk power over long distances. The wide transmission corridors which traverse the landscape are constant reminders of this tremendous electrical network, and often provide natural areas of wildlife habitat, recreation space, or limited community facilities. Accepted land use planning technique often allows for development of residential uses in close but "safe" proximity to such corridors. However, traditional "safe" considerations have focused on adequate separation to prevent electrical shock.

It has long been known that electrical and magnetic fields are generated by transmission lines, household wiring, and even household appliances. The characteristics of these fields can vary depending upon thousands of independent variables such as weather, type of wiring, type of current, voltage, etc. Curiously enough, the effect of these fields on the human body is not well documented and has only relatively recently caught the attention of the public and the scientific community. In fact, research to date is severely limited, and claims that such fields cause cancer or adversely affect human growth and development may be creating undue concern. Conversely, there has been evidence that these fields may affect the human body in ways not yet fully



understood, and the potential for adverse effects has not been disproven.

The first evidence of a possible connection between high voltage fields and human health was reported in the early seventies by Soviet scientists who discovered a correlation between workers at 500 KV substations and the incidence of short-term nausea and headache. Since this initial finding, subsequent research projects, mostly in the United States, have isolated additional effects which include decreased growth in seedlings and chickens, decreased in-vitro growth of embryonic tissue cells, and behavioral and physiologic changes in laboratory rats including impaired learning ability. However, these findings were created under laboratory situations involving exposure to considerably higher fields than generally occur around power lines.

Outside of the laboratory, statistically significant evidence of correlations between power lines and human health has been much more difficult to prove. The majority of "in the field" research efforts have consistently failed to identify a correlation between exposure to power lines and any adverse effects on humans. However, some investigations of behavior and brain function showed small but consistent changes in human body rhythms relating to normal sleep patterns, and pain responses. The most highly publicized findings of research efforts to date reported an increase in the incidence of cancer cases among children living in homes located near overhead distribution lines. Although a statistical relationship was isolated, no mechanism was identified which could explain the apparent correlation, and it may be surmised that other factors beyond the scope of the research project could have contributed to the findings. According to Dr. Savitz, principal researcher on the project, "There is no solid evidence that people should be worried, even if they live under a power line. The bottom line is that the evidence falls short of proving that electric or magnetic fields are a health hazard. On the other hand, questions have been raised that haven't been answered. So from a public health perspective, there is a reason for concern."



In summary, no direct relationship has been identified between the incidence of cancer and the exposure of people to high voltage transmission lines. However, there is a considerable amount of information which implies that electromagnetic fields may contribute to human illnesses in ways which are not yet understood. There is neither sufficient evidence to support the hypothesis nor to disprove the inferred relationship.

Impacts.

- o The proposed amendment of the Southeast Roseville Specific Plan will increase the size of the Plan area by 367 acres.
- o The proposed Amended Specific Plan will maintain the same total number of units as allowed under existing land use designations, but will decrease the acreage dedicated to these residential uses by about 5% to approximately 662 acres or 66% of the Plan area.
- o Some areas adjacent to the existing electrical transmission corridor are proposed for residential development. This would result in individuals living in proximity of the power lines.
- o Land uses within the Amended Plan area will change as detailed in Table I1, Comparison of Existing and Proposed Land Uses. In summary, the principal change in residential land use entails a change in the distribution of units and densities as shown in Table I2.

**Table I2
Comparison of Adopted and Proposed Distribution
of Residential Units**

	<u>Existing</u>		<u>Proposed</u>		<u>Net Change</u>	
	% Plan		% Plan		% Plan	
	<u>Units</u>	<u>Units</u>	<u>Units</u>	<u>Units</u>	<u>Units</u>	<u>Units</u>
R-1 through R-5	411	10%	1580	40%	+1169	+29%
R-7 through R-15	2568	65%	549	14%	-2019	-50%
R-16 through R-20	986	25%	1836	46%	+ 850	+21%



The overall effect of this change will be a loss of units in the middle density ranges of R-7 through R-15, with a proportionate increase in the allowed number of dwellings in the lower and higher density categories. As shown, the existing land use designations provide for a concentration of dwellings (65%) in the middle density ranges of R-7 through R-15 with the allowed numbers tapering off in the more or less intense development densities. The proposed Amended Specific Plan provides for substantially more units in the R-1 through R-5 densities (40%), as well as in the R-16+ density categories (46%), while the allowed number of units developed at densities ranging from R-7 through R-15 will be reduced to roughly 14% of the total dwellings allowed in the Specific Plan area.

Aside from the redistribution of residential land uses, minimal other land use changes are proposed to occur within the Specific Plan area. Most notable of these other land use changes is the increase of park land acreage by approximately 57 acres. This increase constitutes an approximate 6% increase over the amount of park area designated in the currently adopted Southeast Roseville Specific Plan. In addition to increased park acreage, an additional 2% of the Amended Plan area is proposed for development of a racquet center. Other identified changes are generally \pm one percent change. These changes are summarized below in Table I3.

Table I3
Comparison of Adopted and Proposed Distribution
of Land Uses other than Residential

	<u>Existing</u>		<u>Proposed</u>		<u>Net Change</u>	
	% Plan		% Plan		<u>Acres</u>	<u>%</u>
	<u>Acres</u>	<u>Area</u>	<u>Acres</u>	<u>Area</u>		
Parks	23.1	2%	80.2	8%	+57.1	+ 6%
School Sites	32.8	3%	31.7	3%	- 1.1	0%
Commercial	29.7	3%	39.0	4%	+ 9.3	+ 1%
Business/Commercial	106.6	11%	106.7	11%	+ .1	0%
Nursery			16.0	2%	+16.0	+ 2%
Racquet Ball Center			11.9	1%	+11.9	+ 1%



Although a definite change in land use will result from adoption of the proposed Amended Specific Plan, the proposed changes utilize land use densities recognized by the City; include increased amounts of higher density housing in accordance with **General Plan** goals; and will not produce a change the overall number of dwellings developed. As such, the proposed land use changes are not significant.

Mitigation Measures.

- o The Amended Plan proposes a balance of land uses which incorporates more efficient planning of the area to allow development of the same number of units while providing increased amounts of park area, a racquet club, and additional segments of pedestrian/bicycle pathway which will connect the City and County pathway networks.
- o In order to keep the Plan consistent with long range planning for public services and facilities, the total number of dwelling units has been kept constant.

Population

The Sacramento Metropolitan area has recently been recognized as one of the fastest growing regions in the Country. There are many complex factors which affect the rate of growth of the region, and it would be impossible to discuss all of them in detail within this EIR. However, the more commonly recognized factors include:

- 1) The City of Sacramento, as capital of the State, attracts a wide variety of national and international businesses;
- 2) California has historically attracted population from other parts of the U.S., and as the larger metropolitan areas, such as Los Angeles or the Bay Area, struggle with the impacts of overpopulation, the mixed urban/agricultural setting of the Sacramento Valley has become an attractive alternative for



both immigrants from other states and countries, and for long time California residents fleeing the crowded urban zones;

- 3) As long as the economy continues to prosper and interest rates remain relatively low, young families can afford to buy homes. The availability of developable land in the Sacramento region allows for extensive construction of homes;
- 4) The potential for growth is a strong indicator of an available work force. This potential coupled with an extensive transportation network which includes a new and expanding airport, several major State and Interstate highways, regional railroad hub, and the Port of Sacramento, make the area particularly attractive to the business community. Several high tech firms have already elected to develop new facilities in the region; and
- 5) Sacramento is ideally located in the central valley. The area is served by several major State and Interstate highways. The relative short travel distances between Sacramento and the San Francisco Bay Area, the Northwest Coast, the Sierra Nevada Mountains and Lake Tahoe, make it attractive to prospective home buyers.

The combined effect of these considerations seem to indicate that continued growth of the region is inevitable. Perhaps the municipalities likely to be most impacted by this growth are the smaller outlying communities such as Roseville or Folsom who have the available space necessary for extensive development. The annual population growth rates for selected municipalities in the Sacramento region are presented in Table I4. This information was compiled by the Sacramento Area Council of Governments (SACOG). The SACOG region includes portions of Placer County, Sacramento County, Sutter County, Yolo County, and Yuba County. The "SACOG Region" estimates take into consideration all of the area within the SACOG region and not just those presented in the table. As discussed in the **General Plan**, Roseville's annual growth rate over the last forty years has lagged behind that of the Sacramento Region (3.3% compared to 3.8%). However, as



continued growth areas move outward from Sacramento, growth rates in such communities as Roseville, Rocklin, or Folsom are expected to surpass that of the established metropolitan area. This is substantiated by analysis which indicates the overall growth rate in Roseville from 1977 through 1982 was approximately 4.6%, or nearly double the rate of the previous five years.

Table I4
Annual Population Growth Rates

	<u>75-76</u>	<u>76-77</u>	<u>77-78</u>	<u>78-79</u>	<u>79-80</u>	<u>80-81</u>	<u>81-82</u>	<u>82-83</u>	<u>83-84</u>
City of Roseville	1.15	3.17	5.20	6.29	2.33	3.72	3.98	1.92	3.57
City of Folsom	-7.46	9.38	2.68	9.14	5.26	0.00	10.45	10.70	7.81
City of Rocklin	24.50	14.68	12.50	15.56	11.54	2.76	6.71	3.14	3.66
City of Sacramento	1.08	0.27	0.23	0.80	3.16	1.68	1.94	4.19	2.50
Uninc. Sacramento Co.	2.37	2.45	4.67	3.43	4.23	1.88	4.23	1.39	1.88
SACOG Region	1.89	1.83	2.75	2.75	3.83	1.66	3.39	2.28	2.07

The **Southeast Roseville Specific Plan** area is located within Census Tract 207 of the 1980 U.S. Census. According to the **Roseville General Plan**, the average persons per household in this tract was 3.02 persons, which is significantly higher than other planning areas of the City. A more recent city wide census conducted by Roseville indicates that 2.6 persons per household is a more realistic average persons per household, and that this figure should be used for planning purposes in the Specific Plans currently being developed throughout the City.

Other census data for tract 207 indicates that the east planning area of the City is typically composed of younger families. Nearly 34% of the population was reported to be under 20 years of age, 55% of work force age, and retirement aged persons constituted only 11% of the population. Married households



represented 62% of the population, and 95% of the population was of white ethnic origin.

Impacts. Since the total number of dwelling units permitted by the proposed **Amended Southeast Roseville Specific Plan** does not differ from those under the existing Plan, impacts to population will be negligible. Realizing that average family size tends to vary with housing type, it is possible that the proposed redistribution of housing densities could impact the potential population. However, assuming that the city-wide average of 2.6 persons per household holds true, the population of the Specific Plan area, as determined for planning purposes, will not change.

o Using 2.6 persons per household, the proposed **Amended Southeast Roseville Specific Plan** will not have a perceivable impact on the future population of the Plan area. Both the existing and proposed land use designations would allow up to 3,965 dwelling units, with an estimated population of 10,309 persons.

Mitigation Measures. Since the ultimate permitted number of dwellings is not proposed to change, and therefore the number of persons projected to reside in the area does not change, no mitigation measures have been identified for population.

Employment

Proposed commercial and business/professional land uses within the Plan area will create additional employment opportunities. Direct job opportunities will be created through development of the proposed land uses identified in the Specific Plan. Indirect jobs will be generated through the increased need for products and services to meet the needs of the primary businesses developed. The number of secondary jobs anticipated to be generated as a result of development in the Specific Plan area was estimated utilizing employment multipliers. Since specific industries and businesses which will eventually locate within the Plan area are unknown, representative multipliers were selected



from data developed by Engineering-Economics Associates, Inc. for the major types of businesses and industries anticipated to locate in the area.

Presently, the thriving economy has generated some of the lowest unemployment rates in recent history. However, much of this prosperity is contained within the Sacramento SMSA. Although specific figures have not been obtained for Roseville, it is assumed that the City more closely follows trends of the Sacramento region rather than Placer County, which is more rural in nature.

Future predictions based on the currently adopted **Roseville General Plan** and economic trends indicate that the City has the potential to attract substantial high tech industries. The result of such action could create a greater number of jobs in the community than employable residents. Predictions indicate that development of high tech industries within Roseville could produce as many as 30,000 basic jobs, or roughly 1.7 jobs for every employable resident. The implications of such an imbalance could be far reaching. Undesirable consequences could include inducement of growth in other areas to provide additional employees, increased traffic congestion resulting from commuters into the City, additional contributions to air and water quality degradation, and a large scale shifting of employees from existing firms to high tech companies.

Impacts.

- o Compared to predicted development within the other Plan areas of the City, the contribution of this Plan area to City-wide employment opportunities is less than substantial. Buildout of the Specific Plan area is predicted to create approximately 4,198 direct jobs and 3,910 indirect jobs, as shown in Table I5.



Table I5
Projected Employment Growth for the
Southeast Specific Plan Area

<u>Land Use</u>	<u>Acres</u>	<u>Emply/ac</u>	<u>Direct Jobs</u>	<u>Mult.</u>	<u>Indirect Jobs</u>
Commercial	28	20	560	1.5	280
Business/Professional	107	34	<u>3,638</u>	2.0	<u>3,638</u>
Potential Employment Opportunities			4,198		3,910

Mitigation Measures. No project specific mitigation is required since producing additional jobs and therefore additional opportunities is presently considered a positive impact.

o As already established in the City, a monitoring program should be continued to annually assess the local job market. Since actual development will likely differ from current predictions, a "wait and see" attitude may be justified in the short term. However, long term planning should not perpetuate the concept of attracting a greater number of jobs than employable residents. Depending on future conditions, amendment of the **General Plan** may be warranted to provide for a more equitable balance.

Housing

Recognizing that there has historically been a discrepancy between the cost of housing in the City and the ability of many residents to afford homes, a key policy of the **Housing Element of the Roseville General Plan** is to provide a range of housing varying in type and price in order to fulfill the projected needs of the future residents of Roseville. Currently, the Roseville Affordable Housing Implementation Program is being prepared by the City. This program will specifically identify the numbers and types of units which are to be provided as affordable housing



throughout the City.

Realizing that affordability tends to increase with the density of residential dwellings, the City of Roseville has initiated a program to provide increased numbers of higher density units. Policies incorporated into the most recent **General Plan Land Use Element** provide for the allocation of an additional 12,000 units to the North, East, Central and West planning areas. Of the these 12,000 units, 5,000 dwellings were allocated to the East Planning Area. In addition, policies were adopted to promote rezoning and development of higher density housing throughout the City.

According to the **General Plan Housing Element**, adequate housing at affordable costs will be provided for all income groups. This will be accomplished by establishing a minimum number of housing units needed each year, broken down by unit type and targeted to specific income groups. Additionally, the City will encourage construction of high density multi-family units, both rental and purchase, to meet the needs of very low, low and moderate income groups. A monitoring program will be set up to check the progress being made in this area. The City has projected a need for 3,659 housing units for the seven year period between 1985 and 1992. A total of 2,258 or 62% will need to be multi-family units in order to meet the projected housing demand. Of these new multi-family units, 1,359 units will need to be rental units affordable to very low or low income households.

The City of Roseville may employ several methods of providing affordable housing to its residents. Some of these methods include preserving, maintaining, and improving older housing units, using government rental assistance programs, limiting the conversion of residential units to office space, and rezoning existing single-family detached sites to include multi-family densities, thereby encouraging construction of more affordable rental and sale units. Currently, approximately 1,316 low/very low income renter households are in need of rental assistance. The City projects an additional 1,083 low income rental households that will need direct and indirect rental subsidies between 1985 and 1992.



Impacts.

- o The Amended Specific Plan does not propose to change the total number of units from that allowed under existing designations. However, the proposed Plan does redistribute these units to provide a greater number of high density dwellings than currently designated in the adopted Southeast Roseville Specific Plan.
- o The total number of units proposed in the Amended Southeast Specific Plan, the Northeast Specific Plan, and several smaller developments outside of the Specific Plan areas are expected to provide adequate high density units to satisfy the allocation requirements of the General Plan.
- o Since the City's affordable housing program is not completed at this time, the number of units required is unknown, and it is not possible to determine the consistency of the proposed project.

Mitigation Measures.

- o Since the proposed Plan is in accordance with the General Plan, no additional mitigation measures are required.
- o Developers have indicated a willingness to comply with the affordable housing program when it is completed, thereby mitigating any potential impacts in this area.

Jobs/Housing Balance

The Land Use Element of the Roseville General Plan identifies attainment of of jobs/housing balance as a goal of City-wide development.

According to forecasts prepared by McDonald & Associates, the buildout employment level of the City of Roseville is expected to provide approximately 78,000 jobs. However, additional



commercial area has been proposed in the North Central Specific Plan area since this projection, and the figure adjusted accordingly will be approximately 79,000 jobs. The **General Plan** limits buildout of the City to approximately 92,000 people. Assuming a labor force participation rate of 0.5 employed residents per capita, the ultimate number of employed residents in the City could reach 46,000 persons. Based on these figures, ultimate buildout of the City will produce a jobs housing imbalance of approximately 1.7 jobs per employed resident.

Impacts.

- o Assuming 2.6 persons per dwelling and 0.5 employed persons per capita, the ultimate population of the Specific Plan area would reach 10,309 persons of which 5,154 would be employed. As calculated in the Employment section, development of the Plan area is predicted to create approximately 4,198 direct jobs and result in 3,910 indirect jobs. Therefore, development of the Plan area is predicted to generate a surplus of jobs which will require persons from other areas to fill.

If, as predicted, buildout of the Roseville General Plan results in an excess of employment opportunities within the City, the consequences could significantly impact future conditions within the City and surrounding municipalities. Initially, by creating an excess of jobs, the City could place undo growth inducing pressure on surrounding areas which might otherwise remain in agricultural or low density residential uses. In addition, since the immediate area would not be able to provide an adequate number of employees, future employees at local firms would have to commute from other regional communities. These commuters could aggravate the already less than desirable traffic conditions on area roadways, resulting in the need for additional roadway improvements. Further, increases in vehicular traffic would contribute additional pollutants to the regional air, compounding the existing nonattainment status for selected pollutants. In addition to the obvious effects, motor vehicle operation is also a principal contributor to local noise levels and pollutants in urban runoff.



Mitigation Measures.

- o Since the job/housing projections may or may not occur as identified, it is difficult to prescribe measures to reduce their impacts. Potential solutions to the predicted situation would require either the reduction of job generating land uses within the Plan area, or an increase in the number of dwelling units within the Plan area. Since buildout is not expected to occur until sometime beyond the year 2005, and only two-thirds buildout by the year 2005, it is recommended that the job/housing balance continue to be monitored as prescribed in the **General Plan**, and that the appropriateness of individual projects be reviewed at the time of their submittal based on the most recent jobs/housing information available.



Traffic and Circulation

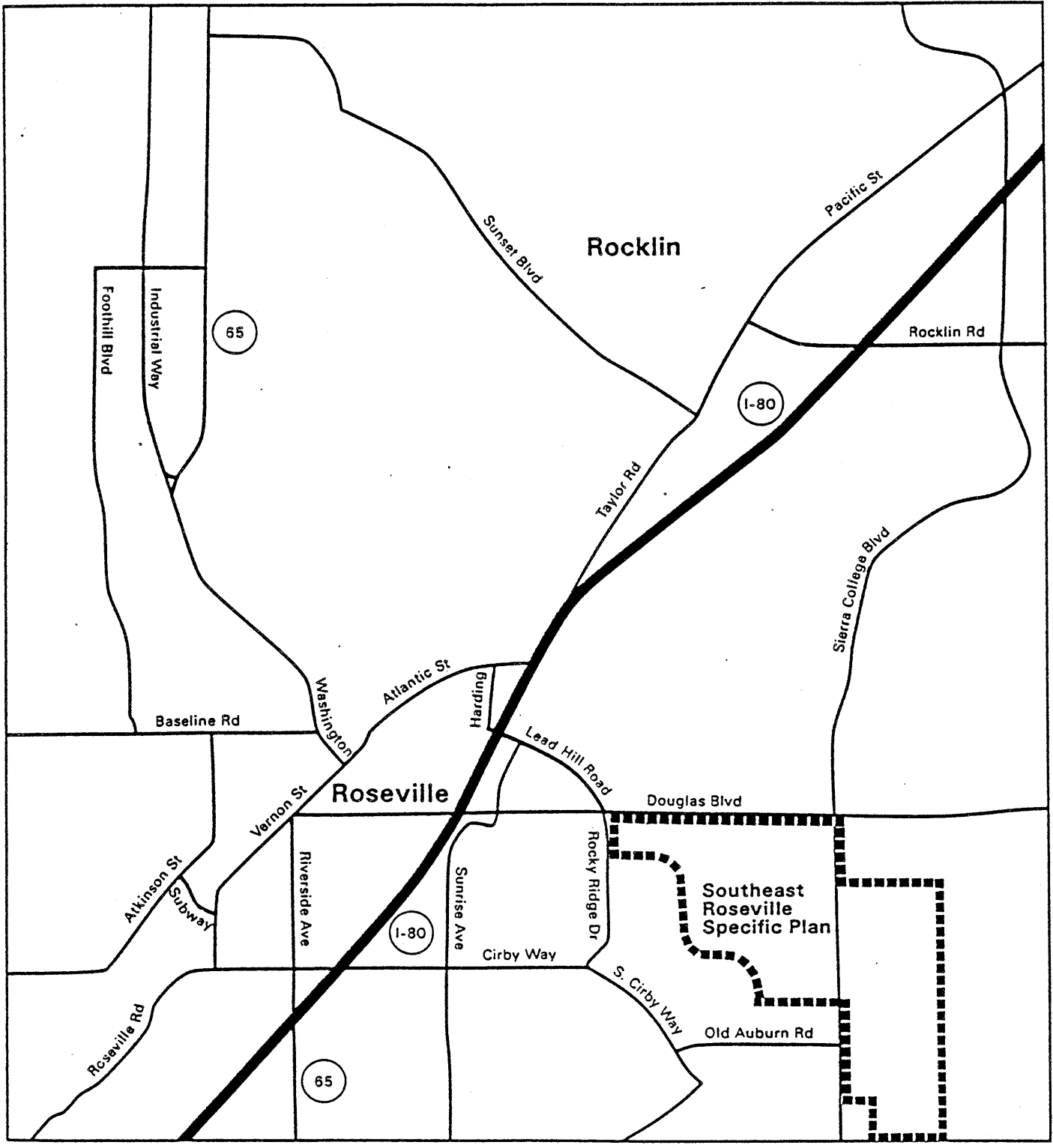
Figure J1 shows the existing roadway facilities serving the Southeast Roseville Specific Plan Area. The site is located on the fringe of the urbanized area south of Douglas Boulevard and east of Rocky Ridge Drive. Consequently, existing roadway access is limited. The site's nearest freeway access point is currently at Douglas Boulevard. In addition to Douglas Boulevard, surface streets currently serving the project area include Sunrise Avenue, Lead Hill Road, Rocky Ridge Drive, and Sierra College Boulevard. Eureka Road and East Roseville Parkway are major arterials being built in phases through the Specific Plan Area.

I-80 is a six-lane interstate freeway in the vicinity of the site. I-80 widens to eight lanes at the Riverside Avenue interchange which is about two miles west of the project site.

Douglas Boulevard is a six-lane arterial road near I-80 that narrows to four lanes east of Santa Clara Drive and two lanes east of Eureka Road. Douglas is to ultimately be widened to six lanes to Sierra College. The widening will progress incrementally as planned land use development continues to extend eastward. Harding Boulevard, Sunrise Avenue and Rocky Ridge Drive are all currently four lane facilities. The recently constructed Lead Hill Road crosses I-80 midway between Douglas and Atlantic. It does not connect with I-80. Lead Hill is currently four-lanes wide from its western terminus at Harding Boulevard to just east of Sunrise Ave. It narrows to two lanes between Sunrise and its eastern terminus at Douglas Boulevard opposite Rocky Ridge Drive. Sierra College Boulevard has two lanes.

Concurrent with development of the Southeast Specific Plan area, significant expansion of the existing roadway network is planned to take place. One major roadway project, the Route 65 Bypass, is currently nearing completion. This four-lane expressway, with freeway-upgrade potential, will connect I-80 just north of the project site to existing Route 65 near the Roseville/Rocklin City boundary. The 65-Bypass project includes several key upgrades





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Project Location

SOUTHEAST ROSEVILLE SPECIFIC PLAN | **FIGURE J1**

SOUTHEAST ROSEVILLE J-2 SPECIFIC PLAN AMENDMENT



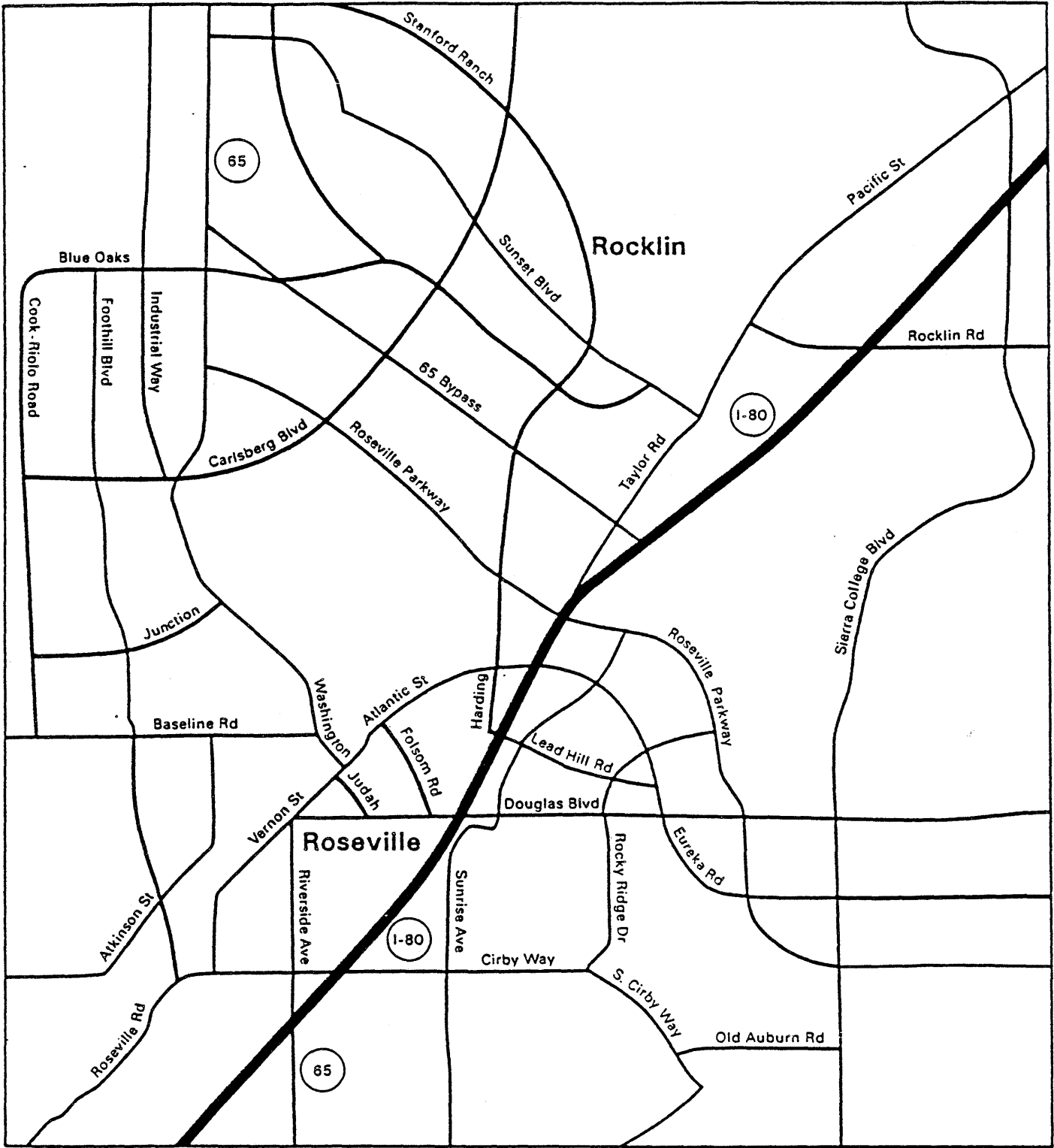
along I-80 itself, including new interchanges at Atlantic and Taylor, both with easterly access, and widening of I-80 to eight lanes between Douglas and the new 65 Bypass interchange.

Augmenting the 65 Bypass improvements are a number of additional roadway network expansions planned as part of major Roseville and Rocklin development proposals. Key roadway facilities that are to be constructed to support the major growth areas are illustrated in Figure J2. In addition to the 65 Bypass and its related freeway widening and interchange improvements, the key new facility connecting east and west Roseville is Roseville Parkway, a major expressway/arterial facility. Although Roseville Parkway is to extend through several of the major plan areas, it will not have an interchange at I-80. As the Route 65 Bypass will not extend east of I-80 (the interchange with I-80 as presently constructed will serve only travel to/from the west), the enlarged Atlantic Street interchange, with the extension of Eureka Road to and through the project site, will provide the primary access to I-80 for new development areas east of the freeway. This access and the other components of the Southeast Plan circulation are shown in Figure J3.

Because the Southeast Plan is a part of significant citywide growth, this traffic analysis considers both the citywide and local traffic setting and impacts. The citywide analysis considers major travel corridors through the Roseville/Rocklin area. This analysis is based on existing and projected average daily traffic volumes (ADT) measured at key "screenlines" that intersect each travel corridor.

The regional screenline locations are shown in Figure J4. They are the same as the screenlines used in the 1982 Roseville Circulation Study, with certain minor modifications. For the current study, the original system has been extended to the south and east to more fully cover the local area of the Southeast Roseville Specific Plan Area, and the alignment of several screenlines was altered slightly to correspond with the roadway network as currently planned.





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Expanded Regional Roadway Network

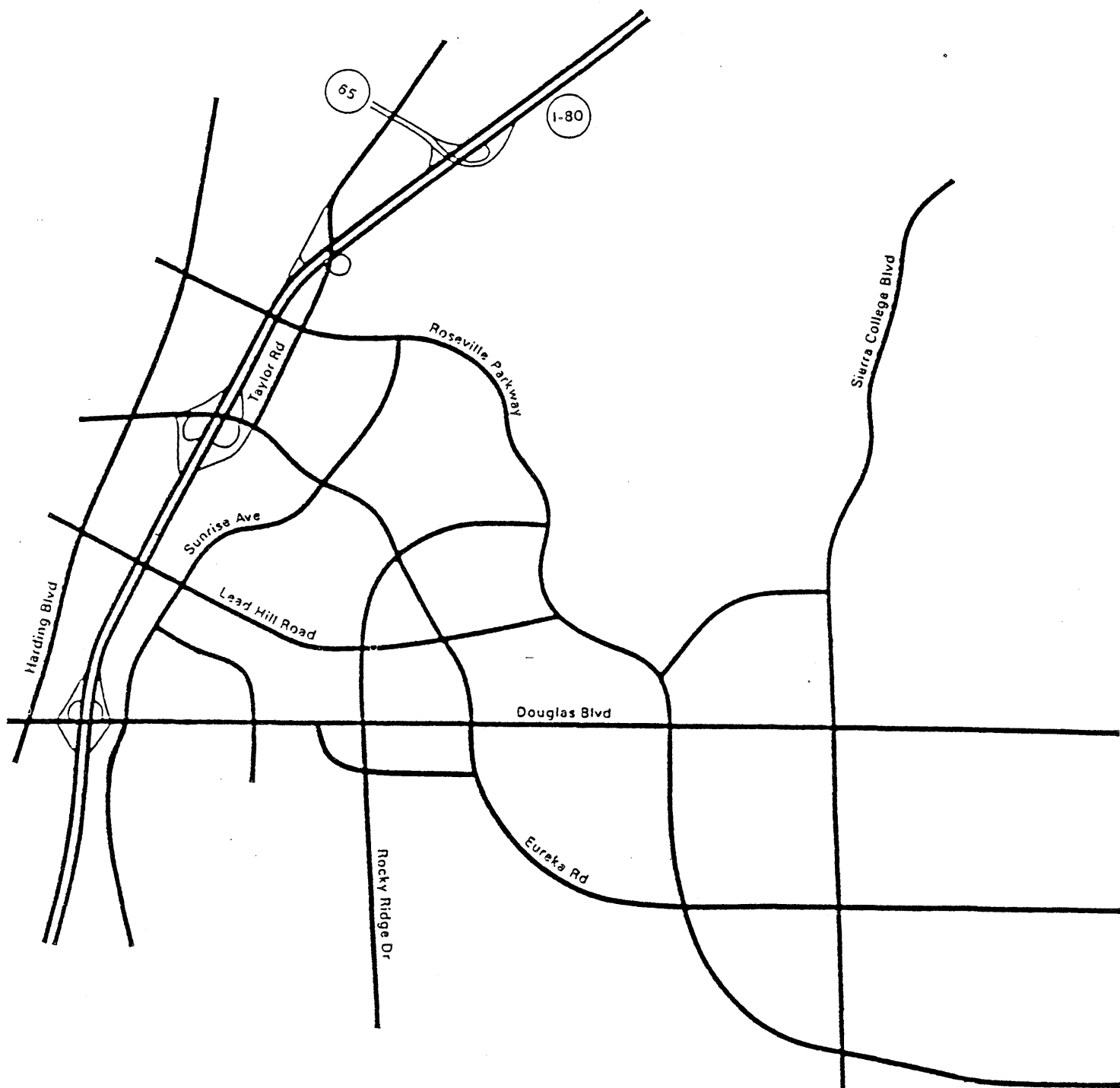
SOUTHEAST ROSEVILLE SPECIFIC PLAN

FIGURE J2

SOUTHEAST ROSEVILLE J-4 SPECIFIC PLAN AMENDMENT

R.C. Fuller Associates





Southeast Roseville Access and Circulation System

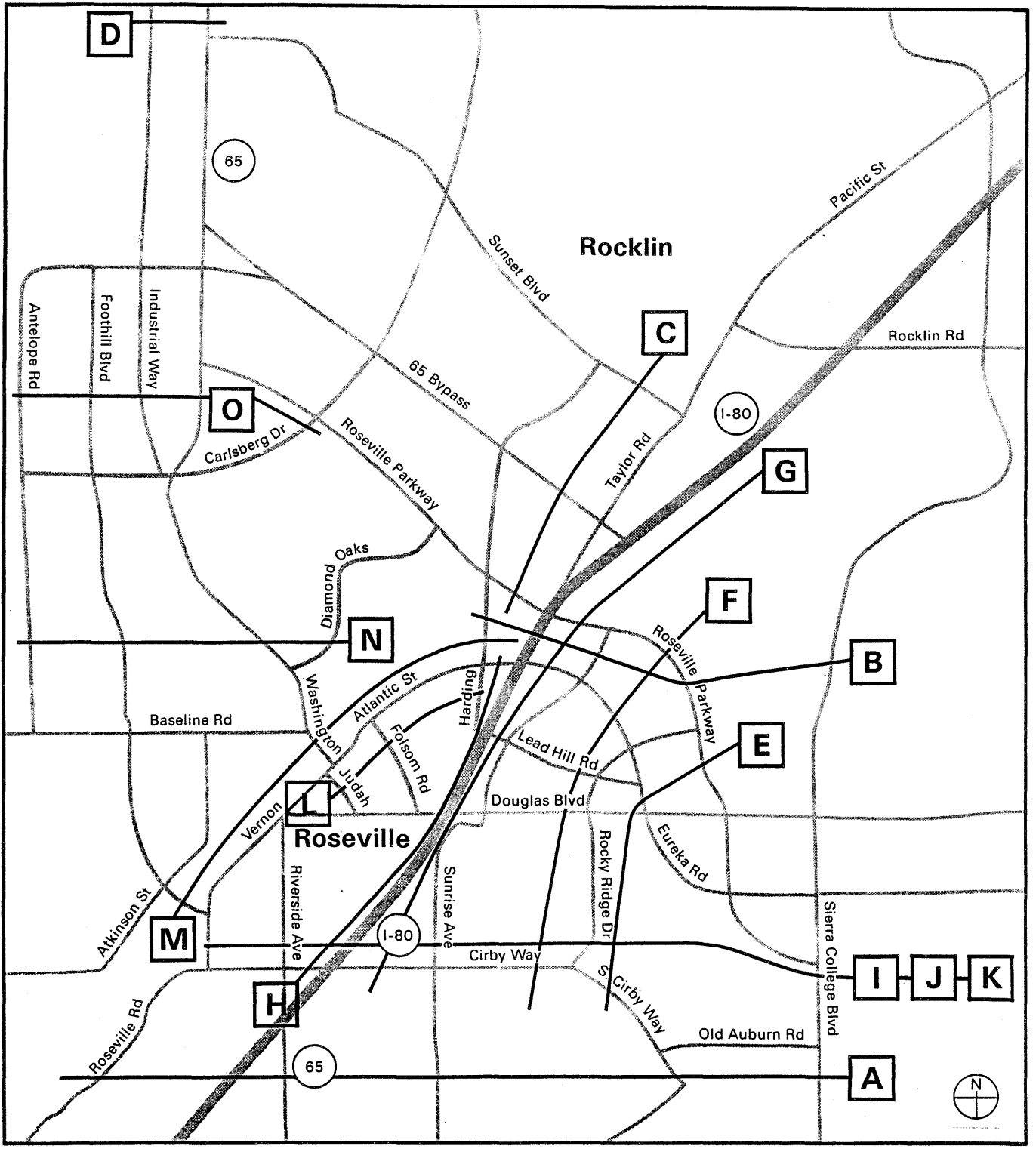
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SOUTHEAST ROSEVILLE SPECIFIC PLAN

FIGURE J3

SOUTHEAST ROSEVILLE J-5 SPECIFIC PLAN AMENDMENT





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Key Travel Screenlines

SOUTHEAST ROSEVILLE SPECIFIC PLAN	FIGURE J4
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SOUTHEAST ROSEVILLE J-6 SPECIFIC PLAN AMENDMENT



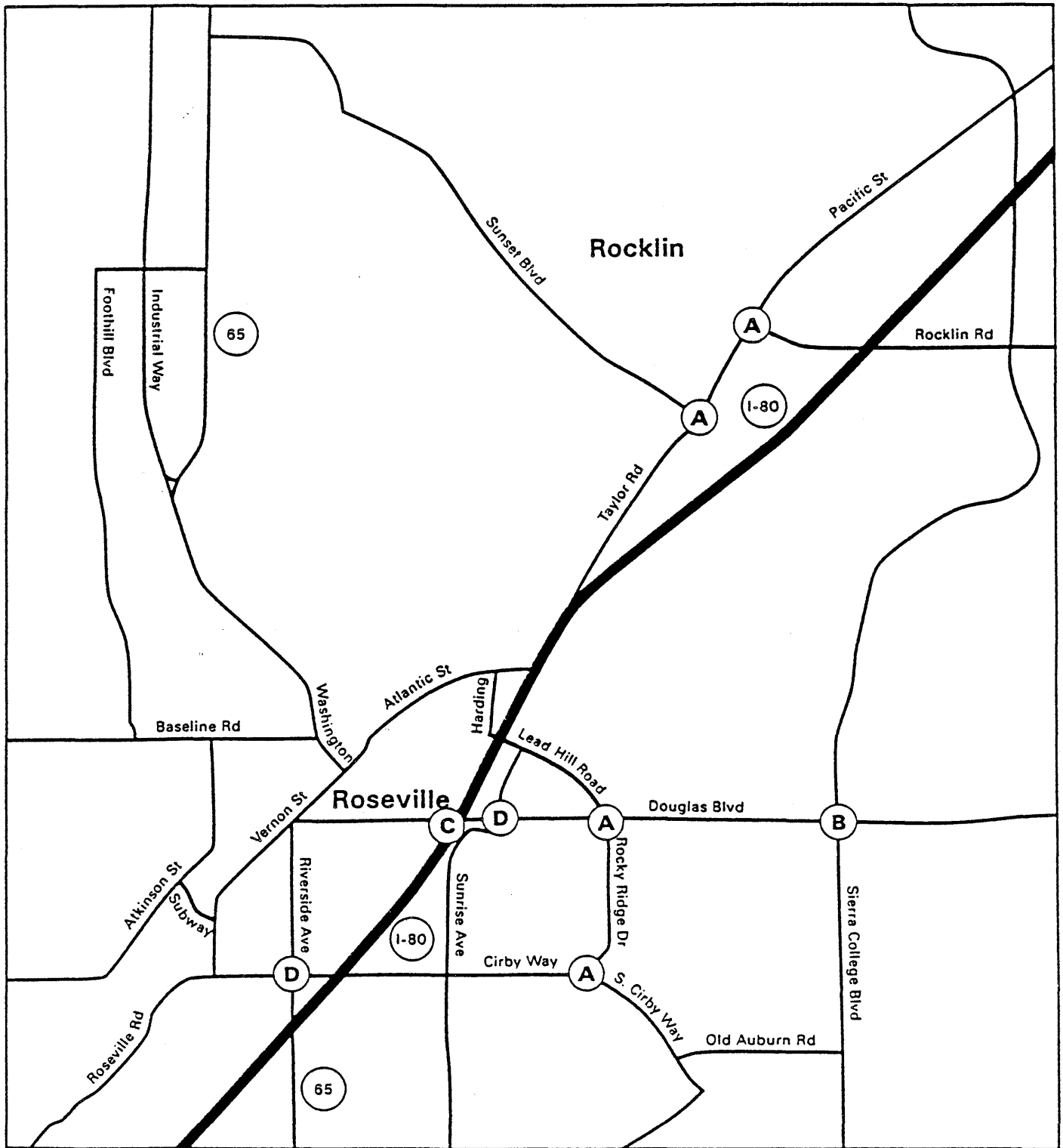
Existing traffic volumes in the study area are shown in Figure J5. I-80 carries 50,000 - 65,000 daily vehicles (ADT) in the vicinity of the site. The most heavily used surface street in the area is Douglas Blvd., with a daily volume of about 34,000 near the freeway and between 18,000 and 22,000 near Sierra College. Most facilities in the area operate well within their maximum capacities, but key freeway access facilities, such as Douglas near Sunrise and Riverside south of Cirby, operate above their design capacities.

The 1985 p.m. peak hour levels of service at local street intersections in the study are given in Figure J6. All intersections operate at service level C or better, with the exception of two: Douglas/Sunrise and Cirby/Riverside. These intersections both operated at service level D in mid-1985. However, in both cases street improvements subsequent to mid-1985 have helped. The recent opening of the Lead Hill overcrossing, which is diverting traffic off Douglas Blvd., relieved the Douglas/Sunrise intersection. Recent counts, taken in March, 1987, show that Lead Hill Road has acted as a relief arterial. However, the service level of the Douglas/Sunrise intersection has remained at D. At Cirby/Riverside, intersection improvements are planned that would create dual left-turn lanes on Riverside Ave. This additional capacity is expected to raise the p.m. peak service level to C.

Impacts.

As previously discussed, the original Southeast Roseville Specific Plan (SERSP) was approved by the City of Roseville in 1984. The focus of this EIR is the amendment of the 1984 plan to relocate some of the residential parcels under the densities outlined in the approved SERSP onto the adjacent 392-acre parcel originally called "Broken Spur". This analysis discusses the impacts that this relocation of residential dwelling units would have on traffic in the SERSP area, in the rest of Roseville, and in the region.





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Existing Intersection Service Levels

<p>SOUTHEAST ROSEVILLE SPECIFIC PLAN</p>	<p>FIGURE J6</p>
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SOUTHEAST ROSEVILLE J-9 SPECIFIC PLAN AMENDMENT



After the City of Roseville approved the SERSP in 1984, several specific plan areas in Roseville and Rocklin have been designated for future development. Detailed traffic studies have been performed to determine the impacts of each of these specific plan areas and thus the planned circulation system for the City defined in the City Circulation Plan of 1982 has changed. To serve as a basis for analyzing the impacts of the proposed SERSP on the road system, this study first needed to determine the roadways which would be needed to adequately serve traffic under the approved SERSP.

The City Council recently certified the EIR for the Northeast Roseville Specific Plan (April 1987). The EIR document identified major roadway improvements in the northeast plan area which would be required in conjunction with new development in the area. New and improved facilities in the northeast area which would directly affect the southeast area are the widening of Douglas Blvd, the construction of Roseville Parkway, and the widening and extension of Eureka Road.

Douglas Boulevard is the northern boundary of the southeast plan area. It is currently two lanes adjacent to the project, but would be widened to six lanes at expected 2005 buildout of the region. Roseville Parkway would be a new six-lane expressway in most sections from west of I-80 to the southeast plan area border. Eureka Road would be a six-lane arterial, connecting Atlantic near I-80 with its current terminus at Sierra College Blvd. Eureka Road and Roseville Parkway would traverse the southeast plan area and connect Douglas Blvd with Sierra College Blvd.

Southeast Plan Trip Generation. In the year 2005, the already approved Southeast Roseville Specific Plan is expected to generate about 41,500 daily trips, with almost 4,500 trips generated during the p.m. peak hour. The proposed SERSP would generate over 45,000 daily trips and 4,800 p.m. peak hour trips. In essence, the proposed SERSP would generate about 9 percent more daily and peak hour traffic than would the approved SERSP at expected year 2005 levels.



At full buildout, the approved SERSP would generate a total of almost 66,500 average daily and 7,100 p.m. peak hour trips. The proposed SERSP at full buildout would generate almost 74,000 average daily and 7,800 p.m. peak hour trips, again representing about a 11 percent increase in trip generation over approved SERSP on a daily and peak hour basis. Although the total number of dwelling units changes only marginally between the approved and proposed SERSP, the 11% increase in trips is primarily due to the shift of housing unit types to lower densities, with consequential trip rates/DU increases as densities drop.

Cumulative Trip Generation. By the year 2005, development in all of Roseville's major plan areas is projected to reach about two-thirds of its full buildout levels. Roseville's population would reach about 75,200 and its employment level about 56,800. Assuming a labor force participation rate of 0.5 employed residents per capita, Roseville would have about 37,600 employed residents. The result would be a job/labor force imbalance (with about 1.5 jobs for each employed resident) and a significant amount of in-commuting to Roseville from other areas.

By the year 2005, total trip generation in Roseville would reach 474,000 primary vehicle trips daily, under the approved SERSP. This represents more than a three-fold increase over the City's existing total traffic generation. The approved SERSP would generate about 7% of the year 2005 citywide total traffic. Under the proposed SERSP, a total of 478,000 primary daily trips (4,000 more than under approved SERSP) would be generated in Roseville, with the proposed SERSP representing about 7% of the total citywide traffic. Thus, on a citywide level, the increase in traffic generation under the proposed SERSP would be negligible.

By the time all of the Roseville major plan areas are built out and citywide infill reaches its expected maximum, the City's population is projected to reach 92,000 and its employment level 79,000. The resulting jobs/labor force imbalance will be even more pronounced than in the year 2005, with about 1.7 jobs in the City for each employed resident. Roseville will continue to be a net importer of work commuters and shoppers, particularly from the north and south along the I-80 corridor.



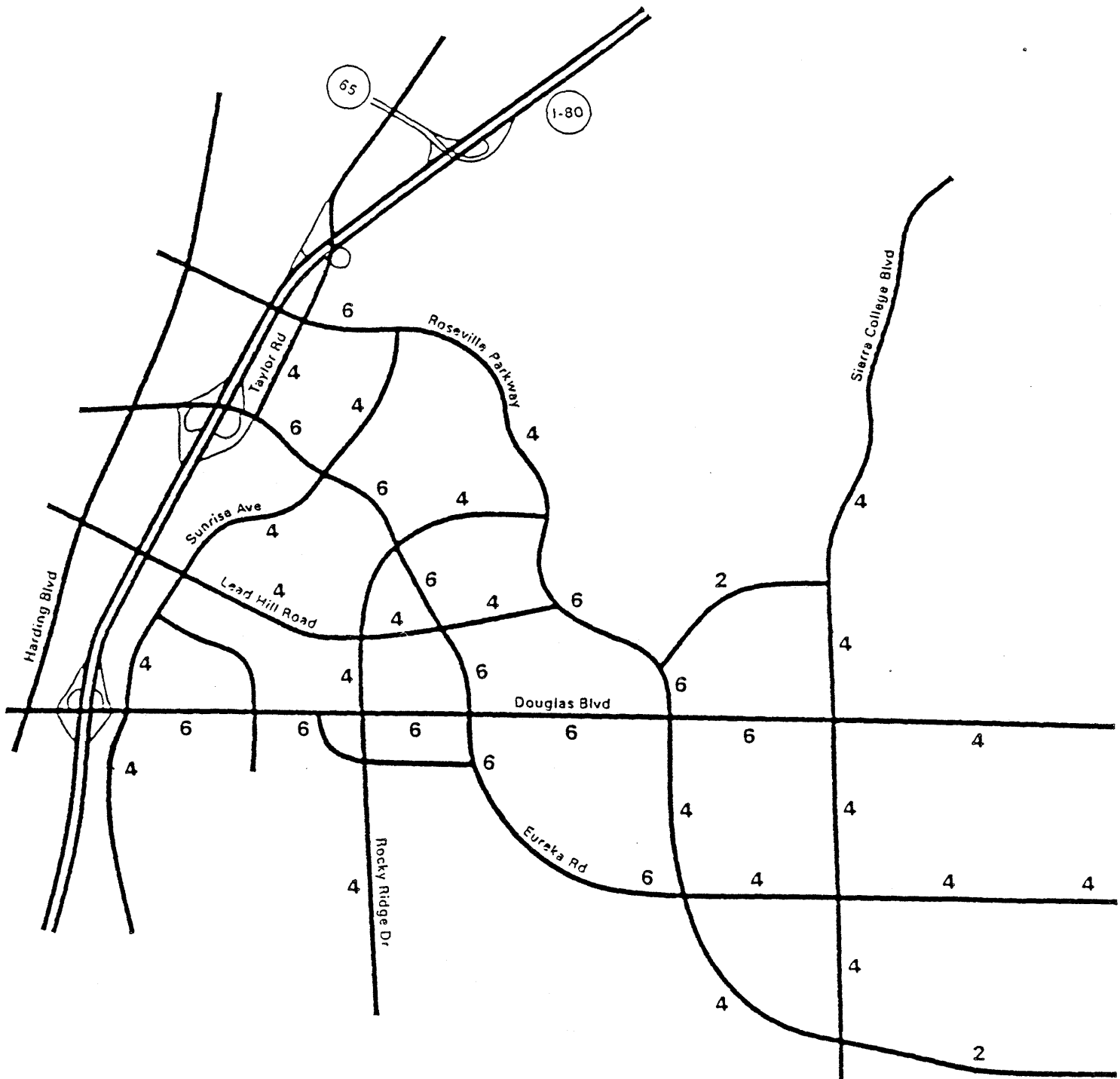
Citywide trip generation is projected to reach 619,000 vehicle trips per day at citywide buildout and buildout of approved SERSP. This represents a 30% increase over the 2005 level, and a four-fold increase over the existing levels. The 47,000 trips generated by the approved SERSP would represent about 8 percent of the citywide total. The proposed SERSP would generate about 5,000 additional daily trips over the approved SERSP and would account for about 8% of the total citywide traffic generation, again an insignificant increase over the approved plan.

Year 2005 Citywide Conditions. The roadway system planned to support cumulative year 2005 development includes the facilities called for in the city of Roseville's current circulation plan, as well as roadways proposed as part of the specific plan area proposals in Northeast, Southeast, North Central and Northwest Roseville and in Northwest Rocklin (as determined in the Stanford Ranch EIR). Within Southeast Roseville, these include the roadway facilities illustrated in Figure J7. It includes the Roseville Parkway, both north and south of Douglas Blvd, Eureka Road and the widening of Douglas Blvd.

Expected Year 2005 Approved SERSP. To determine the impact that the proposed SERSP would have on the local, citywide and regional transportation system, first it is necessary to describe the impacts that the approved SERSP would have on the system, as the impacts of the approved SERSP together with other projects defines the cumulative no-project condition.

With the planned roadway widths and the expected level of development, only screenline A (Figure J4) would exceed its design capacity in the year 2005. Screenline A measures north/south travel flow across the Sacramento/Placer county line. Four of the screenlines are located within the southeast Roseville Plan area: P, Q, R and S. Screenline P crosses the north-south roads of Eureka Road, East Roseville Parkway and Sierra College Blvd, to the south of Douglas Blvd. Screenline Q measures east-west travel west of Sierra College Blvd, and intersects Douglas Blvd, Eureka Road, East Roseville Parkway and Old Auburn Road. Screenline R is similar to Q, except it is located to the east of Sierra College Blvd. Located even further





Year 2005 Facility Requirements
 With Expected Year 2005 Approved SERSP

- 2 Number of lanes
- ② Indicates if different than approved SERSP

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SOUTHEAST ROSEVILLE SPECIFIC PLAN

FIGURE J7

SOUTHEAST ROSEVILLE J-13 SPECIFIC PLAN AMENDMENT



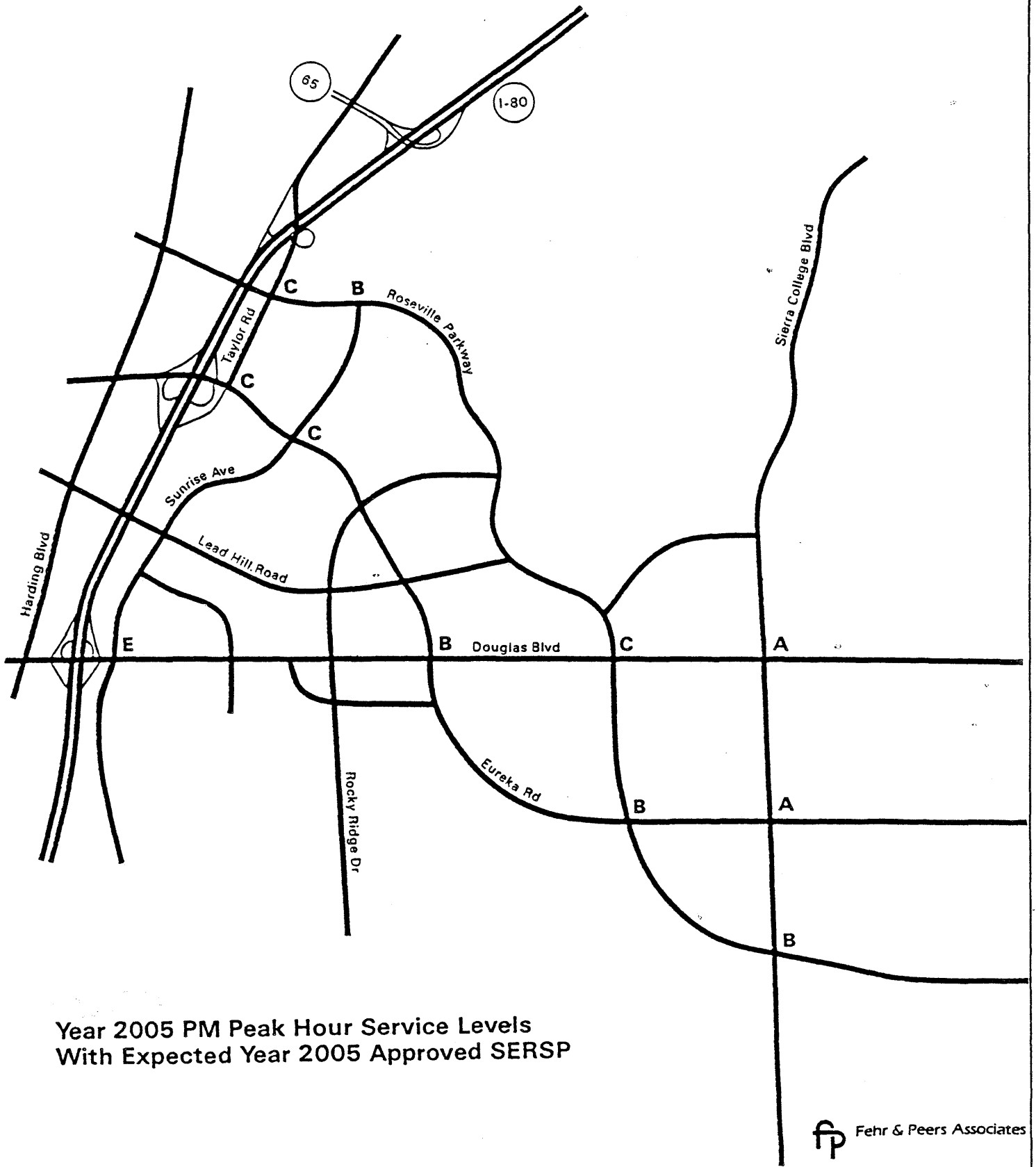
east is screenline S which measures east-west travel on Douglas Blvd, Eureka Road and Roseville Parkway.

The number of lanes for each of the planned facilities in Southeast Roseville under the approved SERSP is shown in Figure J7. Douglas Blvd be widened to six lanes eastward to Sierra College Blvd. From Sierra College Blvd to Auburn-Folsom Road it would be four lanes. Eureka Road would be six lanes from Douglas Blvd to Roseville Parkway, where it would reduce to four lanes to Auburn-Folsom Road. Four lanes would be required on Roseville Parkway between Douglas Blvd and Sierra College Blvd. East of Sierra College Blvd, East Roseville Parkway would be two lanes. Sierra College Blvd would be four lanes to the north of East Roseville Parkway, and six lanes to the south.

The p.m. peak hour Levels of Service at the critical intersections east of the freeway in southeast and northeast Roseville under the approved SERSP at expected 2005 levels is shown in Figure J8. All of the intersections in the southeast plan area would operate under Level of Service C or better. The same would hold true in the northeast plan area, except at the Douglas/Sunrise intersection, where the Level of Service would deteriorate to E. Mitigations would be required at this intersection as will be in the mitigation section below.

Expected Year 2005 Proposed SERSP. As previously discussed, the proposed SERSP is primarily a relocation of some of the residential dwelling units in the approved SERSP to parcels located to the east of Sierra College Blvd. The two screenlines that would increase by the greatest percentage are screenlines Q and R. Screenline Q would increase from 77,000 to 82,000 average daily vehicles, representing an increase of 6%. Screenline R would increase from 44,000 to 52,000, an increase of 18%. This is to be expected since these screenlines are located to each side of Sierra College Blvd, where the dwelling units are proposed to be relocated. Impacts on the other screenlines would be 2% or less. As under the approved SERSP, the only screenline which would be over design capacity is screenline A with a v/c ratio of 0.81.





Year 2005 PM Peak Hour Service Levels
With Expected Year 2005 Approved SERSP

fp Fehr & Peers Associates

SOUTHEAST ROSEVILLE SPECIFIC PLAN

FIGURE J8

SOUTHEAST ROSEVILLE J-15 SPECIFIC PLAN AMENDMENT



Figure J9 indicates the number of lanes required on the major arterials in the southeast and northeast plan areas. The only facility which would require more lanes under the proposed plan is Eureka Road, requiring 6 lanes between Roseville Parkway and Sierra College Blvd. P.M. peak hour service levels, as shown in Figure J10, would be worse under the proposed plan at two intersections: Eureka Road/Roseville Parkway (from LOS B to C), and Roseville Parkway/ Taylor in the northeast area (from LOS C to D).

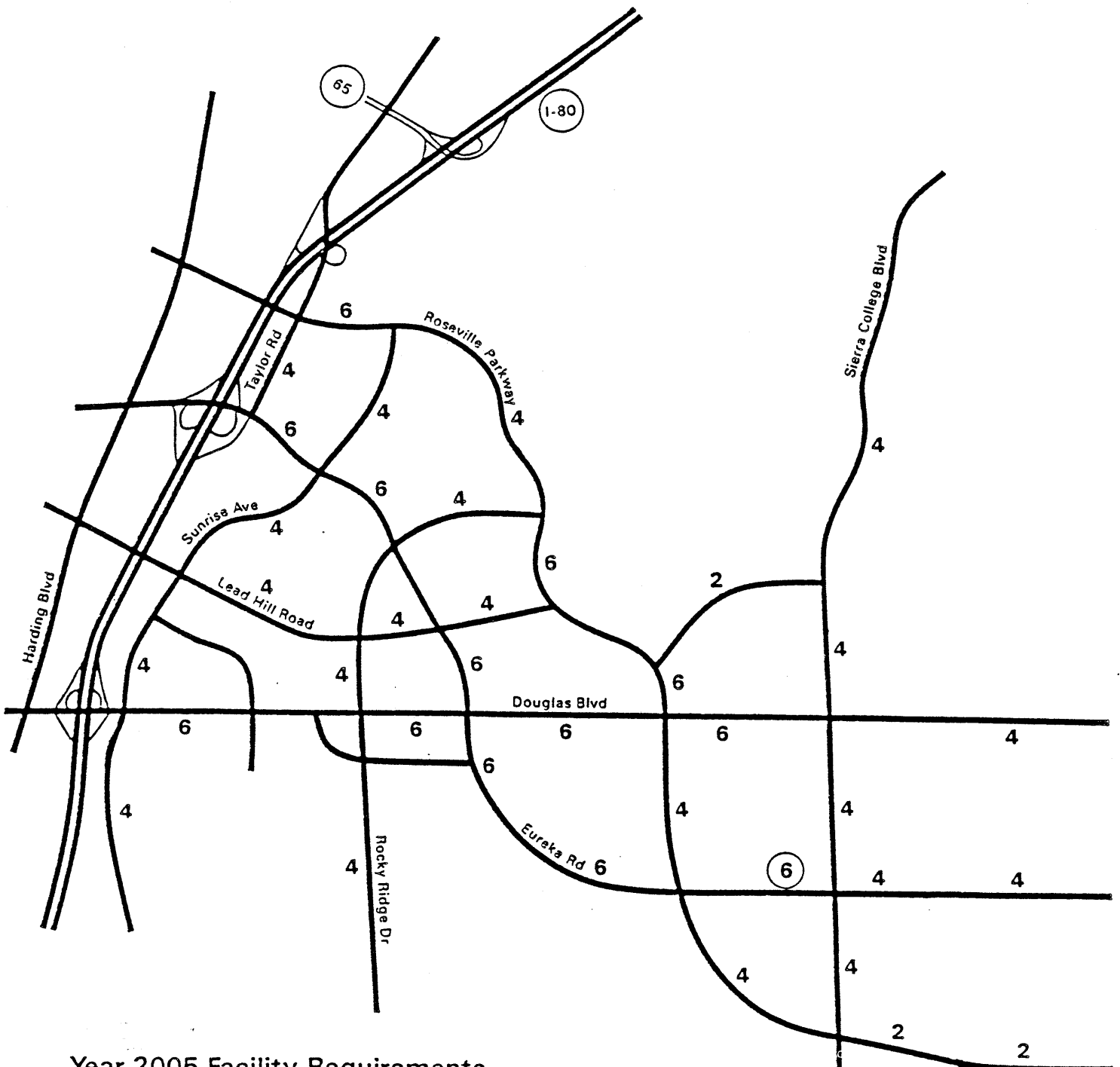
Buildout of Proposed SERSP. With buildout of the proposed SERSP, year 2005 traffic on screenlines E and F (measuring travel between southeast Roseville and areas to the west) would increase by 7% and 6%, respectively. Travel on Eureka Road, Roseville Parkway, and Sierra College Blvd south of Douglas Blvd (screenline P) would rise by 11%. The two screenlines which measure east-west travel within the southeast plan area, screenlines Q and R, would increase by 12% and 23%, respectively.

Even with these traffic increases the only screenline that would exceed its design capacity is Screenline A, which measures north-south travel across the County line, with a v/c ratio of 0.83. All other screenlines would remain at LOS C.

As a result of the traffic that would be generated by the cumulative year 2005 condition plus the proposed SERSP at buildout, Roseville Parkway would need to be widened to six lanes from Douglas Blvd to Sierra College Blvd, and to four lanes east of Sierra College Blvd. Douglas Blvd would need to be widened to six lanes from Rocky Ridge to Sierra College Blvd. This is indicated in Figure J11.

Intersections which would worsen due to buildout of the proposed SERSP are shown in Figure J12. Roseville Parkway intersections with Taylor Road, Douglas Blvd and Eureka Road would be LOS E and would require mitigations. The Roseville Parkway intersection at Sunrise Blvd would be LOS D, with a v/c ratio of 0.82.





Year 2005 Facility Requirements
With Expected Year 2005 Proposed SERSP

- 2 Number of lanes
- ② Indicates if different than approved SERSP

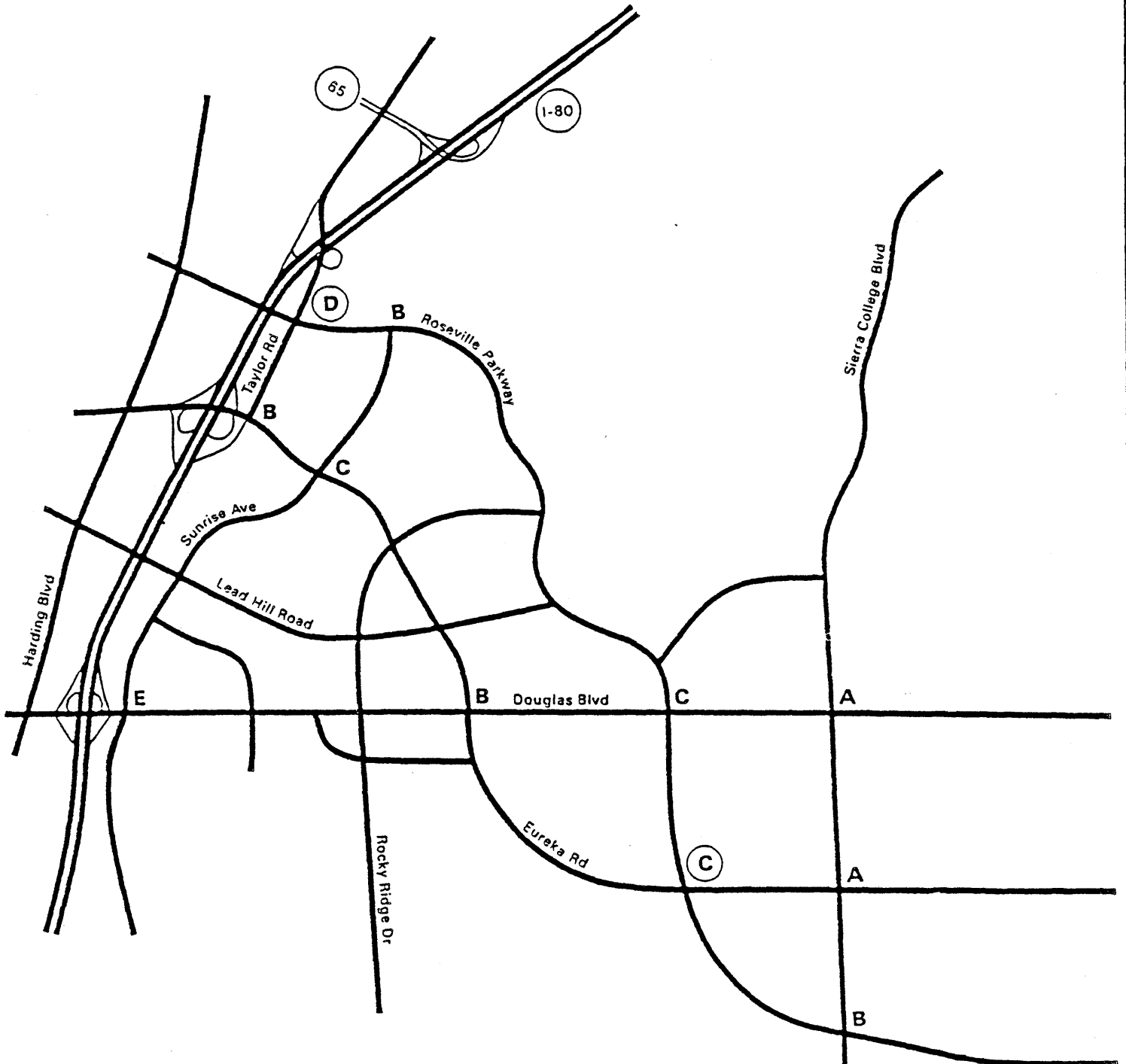


SOUTHEAST ROSEVILLE SPECIFIC PLAN

FIGURE J9

SOUTHEAST ROSEVILLE J-17 SPECIFIC PLAN AMENDMENT





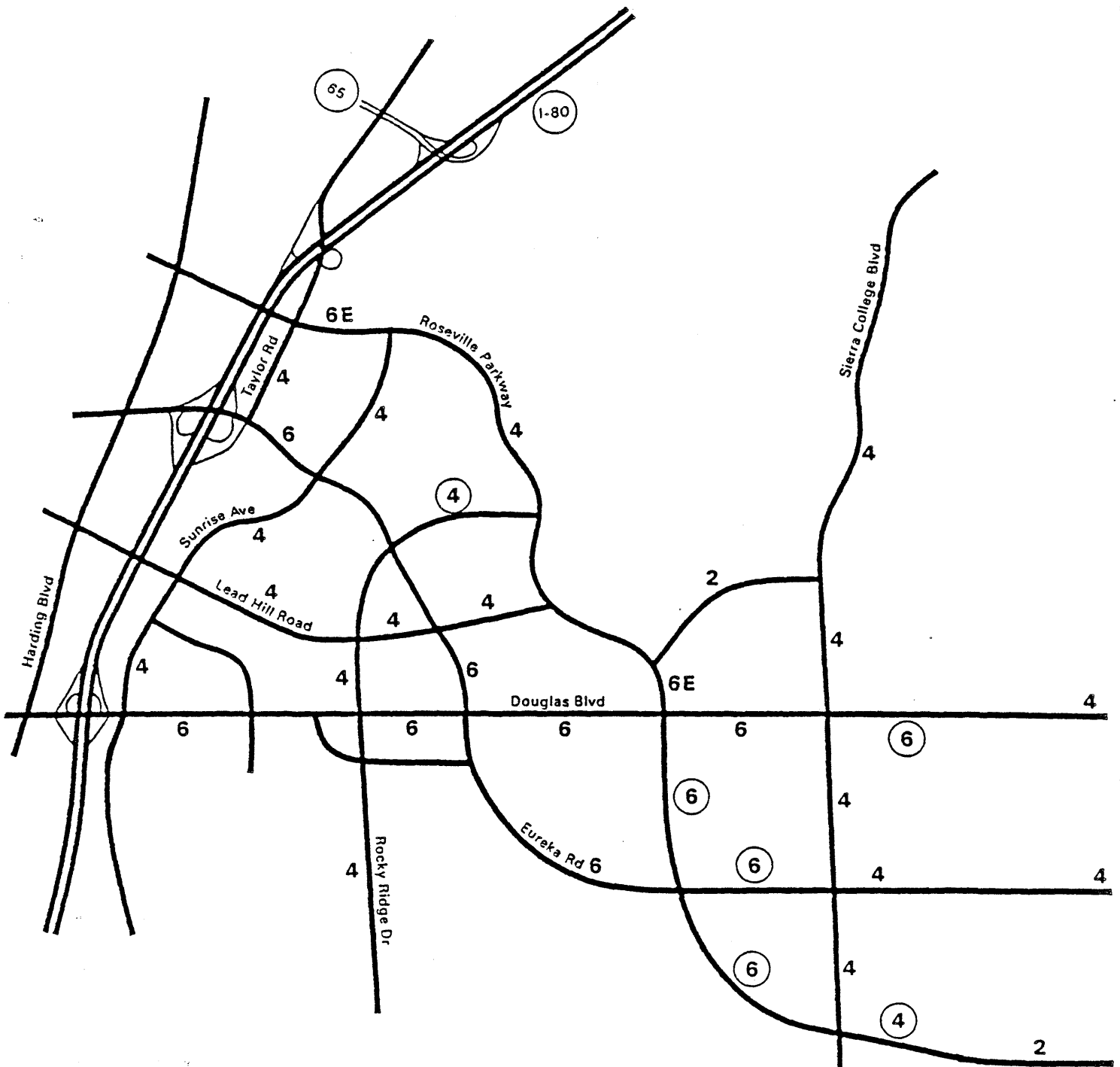
Year 2005 PM Peak Hour Service Levels
With Expected Year 2005 Proposed SERSP

- B Level of Service
- (B) Indicates if different than approved SERSP

fp Fehr & Peers Associates

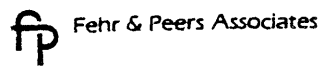
SOUTHEAST ROSEVILLE SPECIFIC PLAN | FIGURE J10





Year 2005 Facility Requirements
With Full Buildout Of Proposed SERSP

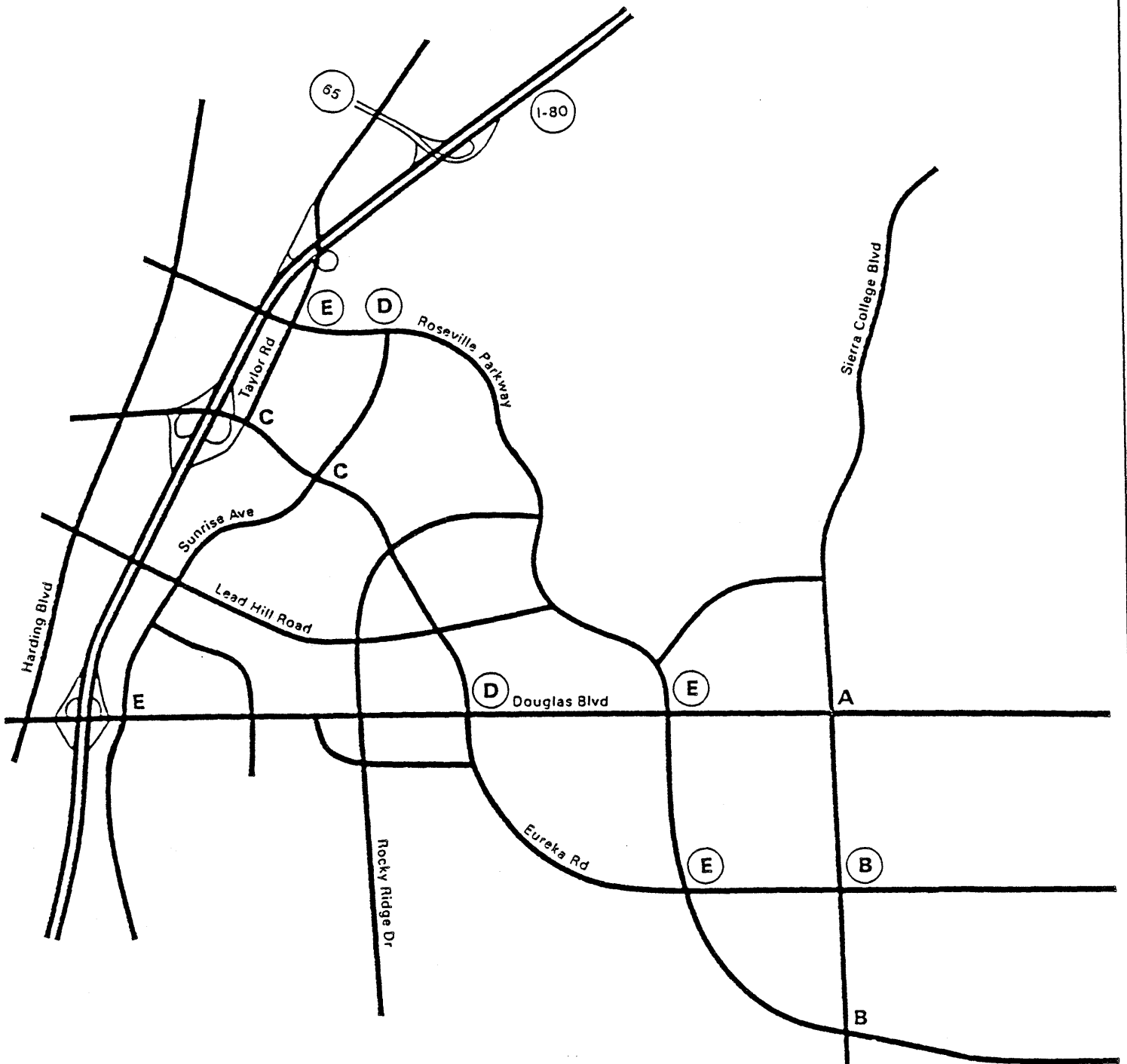
- 2 Number of lanes
- (2) Indicates if different than approved SERSP



SOUTHEAST ROSEVILLE SPECIFIC PLAN FIGURE J11

SOUTHEAST ROSEVILLE J-19 SPECIFIC PLAN AMENDMENT





Year 2005 Peak Hour Service Levels
With Full Buildout Of Proposed SERSP

B Level of Service

(B) Indicates if different than approved SERSP

fp Fehr & Peers Associates

SOUTHEAST ROSEVILLE SPECIFIC PLAN

FIGURE J12

SOUTHEAST ROSEVILLE J-20 SPECIFIC PLAN AMENDMENT



Citywide Buildout Conditions.

Whereas under 2005 conditions, screenline A (which measures north-south travel across the Sacramento County line) would be the only screenline to exceed its design capacity, several screenlines would exceed their design capacities at full Citywide and approved SERSP buildout. Screenlines A, G, IJK, M and N would have v/c ratios more than 0.75 but less than 1.0 (exceeding design capacity but not maximum capacity), while screenline H, which measures east-west travel to the west of I-80, would have a v/c ratio of 1.02. A v/c ratio of 1.0 or more means that the screenline volumes exceed the maximum physical capacity.

The impact that buildout of the proposed SERSP would have over the approved SERSP at buildout is presented in Table J1. The only screenline which would significantly increase (13%) in traffic volume is screenline R. Again, screenline R measures traffic from southeast Roseville area plan east of Sierra College Boulevard to the west of Sierra College Boulevard. Since there is no development west of Sierra College Boulevard in the approved SERSP as there is in the proposed SERSP, this increase in traffic would be expected. The increased traffic does not change the v/c ratio to a value worse than LOS C.

With full citywide buildout, the screenlines with volumes exceeding design or maximum capacity are the same as under the approved SERSP.

Mitigation.

This section discusses capacity improvements that can be used to mitigate the impacts of cumulative future development, with and without the proposed Southeast Plan land use changes.

In addition to the measures presented below, traffic impacts could be reduced through the implementation of Transportation Systems Management (TSM) and transit measures. If TSM measures are implemented and aggressively applied, the predicted peak-hour traffic demands could be reduced by 5% to 10%. As a result, some



Table J1

IMPACTS ON YEAR 2016 SCREENLINE TRAFFIC
GENERATED BY FULL PROPOSED SERSP

<u>Screenline</u>	<u>With Full Approved SERSP</u> (- - - Average Daily Traffic - - -)	<u>With Full Proposed SERSP</u>	<u>Percent Change</u>
A	383,000	385,000	1%
B	225,000	225,000	0%
C	93,000	94,000	1%
D	96,000	96,000	0%
E	125,000	127,000	2%
F	146,000	148,000	1%
G	210,000	211,000	1%
H	147,000	147,000	0%
I, J, K	360,000	362,000	1%
L	36,000	36,000	0%
M	153,000	153,000	0%
N	96,000	94,000	-2%
O	102,000	102,000	0%
P	80,000	79,000	-1%
Q	94,000	98,000	4%
R	53,000	60,000	13%
S	51,000	51,000	0%



of the mitigation measures identified below could be postponed or eliminated entirely. Physical improvements that would be significantly affected by TSM are identified in the following discussion.

Year 2005 With Expected Level of Southeast Plan Development . A significant number of roadway improvements are planned for the Roseville area by the year 2005 to support currently planned and approved development. These include the Caltrans Route 65 Bypass and related I-80 projects, improvements within the current City of Roseville Circulation Plan, and improvements which are part of or mitigations for major development projects, such as the Northeast Roseville Plan. These projects would be in place by the year 2005 under the approved version of the Southeast Roseville Specific Plan. They include all of the facilities shown in Figures J2 and J3, above.

The traffic impact analysis presented in the preceding section indicated that several additional improvements would be needed by the year 2005 to mitigate the effects of already approved projects, including the approved version of the Southeast Plan and the Northeast Plan, as well as planned cumulative development. This cumulative development includes the proposed North Central and Northwest Roseville Plans and expected development in Roseville's North Industrial areas, as well as Stanford Ranch and Northwest Rocklin Plan Areas, Treelake Village and other County developments. With respect to the proposed changes to the Southeast Roseville Specific Plan these represent the mitigations for the "No Project" case.

The mitigations for this No Project case are presented below, along with those for the "With Project" case, the currently proposed land use changes. The analysis indicates that the proposed land use changes do not bring about any significant changes in the list of needed mitigations.

Citywide Screenline Capacity. In the year 2005 with the expected level of development at the Southeast Plan and all other plan areas, the following mitigation measures would be needed to preserve Level of Service C conditions on the City's key travel



screenlines:

Screenline A (north/south facilities crossing the County line):

- o Widen Roseville Road to 4 lanes.
- o Widen Sierra College Boulevard to 6 lanes.

Screenline IJK (north/south facilities from Douglas to Cirby)

- o Widen Sierra College to 6 lanes.

These same improvements would be required whether the Southeast Roseville Plan develops with the already approved land uses or with the currently proposed changes.

Intersection Capacity Outside the Southeast Plan Area. By 2005, one intersection outside of the Southeast Plan Area would operate at unacceptable peak hour Levels of Service (LOS): the Sunrise/Douglas intersection. Regardless of whether or not the proposed changes to the Southeast Plan occur, the intersection would operate at capacity (the LOS E/F threshold) for more than one full hour each day unless mitigations are applied.

Because of the constraints imposed by the nearby freeway ramps and the adjacent land uses, the potential for increasing the capacity of this location is limited. Two potentially feasible measures would be to add a second left-turn lane to westbound and eastbound Douglas and a second through traffic lane to southbound Sunrise at the intersection. These measures would improve the 2005 operating condition to LOS E. The E condition would prevail during certain intervals of the peak hour, but other intervals (totaling up to half of the entire peak hour) would operate at better service levels. The intersection could operate at LOS D in 2005 if Citywide TSM was implemented and enforced. Additionally, the road system built by the year 2005 will offer reasonable alternative paths which will allow motorists to avoid the Sunrise/Douglas intersection to the freeway (by way of Eureka Road and the rebuilt Atlantic interchange) and between east and west Roseville (by the Roseville Parkway). Travelers in



Roseville will therefore have the option to avoid LOS E conditions on the intersection by diverting their travel during the peak hour to these alternative routes.

To determine whether additional capacity mitigations are possible at Sunrise/Douglas, it would be necessary to conduct an engineering feasibility study. The study should consider a full range of interchange and/or intersection improvements which could be implemented to improve the travel flow through the Sunrise/Douglas intersection. It may be possible that capital improvements such as grade-separating the through movement on Douglas Boulevard, modifying or adding ramps to the I-80/Douglas interchange, or modifying the Sunrise/Douglas intersection would significantly improve the level of service. Although there is currently little right of way available to widen Douglas or Sunrise in this vicinity, if a long range capital improvement plan was decided upon, the City could acquire the necessary right of way over time.

The mitigation measures for this intersection and their effects would be the same for the proposed project changes as for the approved Southeast Plan project.

One additional intersection would operate at a marginally acceptable condition in the year 2005 with the proposed land use changes. The Taylor Road/Roseville Parkway intersection would operate at a C/D level of service in 2005 with the proposed revisions to the Southeast Plan. This condition is considered comfortably below capacity according to the Transportation Research Board Highway Capacity Manual, but is on the threshold of unacceptable operating conditions according to the goals of City of Roseville. Therefore, although mitigations would not be strictly required before the year 2005, the City may require them shortly thereafter. It is advised that traffic volumes at this location be closely monitored to determine the timing of needed mitigations.

Capacity of Intersections within the Southeast Plan Area. In the year 2005, with the expected level of Southeast Plan development, none of the intersections within or adjacent to the Plan Area



would operate at unacceptable Levels of Service. No mitigations would be required with either the approved land uses or the proposed changes.

Year 2005 with Full Development of Southeast Plan. If the Southeast Plan develops at a more rapid pace than anticipated in the most recent comprehensive Citywide land use projections, additional mitigation measures would be needed by the year 2005. If the Southeast Plan is fully built out by 2005, rather than about two-thirds built out as expected, the required mitigations would be as given below.

Citywide Screenline Capacity. In addition to the two screenlines that would require mitigation by 2005 if the project was only two-thirds built out, one additional screenline would require mitigation if the project was fully built out.

Screenline G (east/west facilities accessing I-80 from the east)
o Widen Roseville Parkway to 6 lanes.

Improvements to Screenlines A and IJK would be the same in the year 2005 with the full project as indicated in the previous section for the expected two-thirds project. Improvements to all three screenlines would be the same for the proposed changes to the plan as for the approved land uses.

Intersection Capacity Outside of the Southeast Plan Area. Whether or not the full Southeast Plan develops by 2005, the Sunrise/Douglas intersection will require mitigation by that year. With full development of the Southeast Plan, the same mitigations should be installed. The resulting Level of Service would be at the E/F threshold for about one full hour each weekday afternoon. If aggressive TSM programs are employed, in accordance with City ordinance, the conditions at this location would improve somewhat, but LOS E conditions would still be experienced during some part of the p.m. peak hour. Conditions with the proposed changes to the Southeast Plan would be about one-fifth of an LOS worse than under the approved Plan.

Two other intersections would require mitigation by 2005 if the



full Southeast Plan develops by that time: Roseville Parkway/Taylor and Roseville Parkway/Sunrise. At both locations, grade separated interchanges would need to be installed in order to mitigate the LOS D or E conditions that would otherwise prevail. These improvements are in keeping with the ultimate upgrading of Roseville Parkway to an expressway class facility. Because it is a threshold condition, the need for the Sunrise/Roseville Parkway improvement should be monitored to determine whether the LOS does actually rise to unacceptable levels by 2005 or at some later time. Conditions at both intersections would not be any worse with the proposed changes to the Southeast Plan than they would with the approved land uses.

Capacity of Intersections within the Southeast Plan Area. Within the Southeast Plan area, two intersections along Roseville Parkway could require mitigation by the time the project reaches full buildout. These are the Roseville Parkway intersections at Douglas Boulevard and at Eureka Road. Both would operate at the D/E to E Levels of Service with the approved land uses, and with the proposed land use changes. Mitigations could include city-wide TSM programs, which would have the effect of bringing the intersections into the D LOS. Alternatively, construction of interchanges at these locations is a mitigation that would be in keeping with the ultimate classification of Roseville Parkway as an expressway. However, such structures may not be in keeping with the general residential style of the SERSP.

A further sensitivity analysis was completed that indicated the changes in Levels of Service if even one area adjacent to SERSP developed at a lower rate than this analysis has assumed. The analysis indicates that the SERSP traffic (i.e. one end of each trip beginning or ending in SERSP) is 24% of the total traffic approaching the Douglas Blvd/East Roseville Parkway intersection. At the Eureka Road/East Roseville Parkway intersection the SERSP traffic is only 4% of the total. The largest volume of traffic, discounting SERSP traffic, at each intersection is to or from the area south and east of SERSP. For Douglas/Parkway that volume is 22% of all approach volumes. For Eureka/Parkway the volume is 44%.



The sensitivity analysis considered the impact of the areas east and south of SERSP growing at a lesser rate than anticipated. The result indicates that if the area grows to 80% of the expected the Levels of Service at Douglas/Parkway equal D and Eureka Parkway equal D/E. If the development drops to 60%, both intersections would operate at D.

Given that the right of way and landscape set-backs in the SERSP allow for interchanges to be built if needed, and that the requirement for the interchanges is likely to be more than 20 years away from the present, it is recommended that traffic be monitored, leaving the decision as to if and when interchanges be built to the responsible agencies nearer the time of need.

Another intersection that would require mitigation with the approved land uses would be the Douglas/Eureka intersection. However, with the proposed land use changes, this intersection would operate within the D LOS range. With the recommended mitigations along Roseville Parkway, it is possible that a portion of the traffic projected to use Eureka would use the improved Parkway instead. Furthermore, given its location within a business professional area, the Douglas/Eureka intersection is likely to benefit significantly from the implementation of TSM measures. Therefore, final decision on the need to mitigate this intersection should be delayed while actual traffic growth is monitored. It is possible that traffic monitoring could eliminate the projected need for mitigation at this location. Mitigation is less likely to be required under the proposed changes to the Southeast Plan than under the approved land uses.

Conditions at Full Citywide Buildout. At full buildout of the City's projected land uses and surrounding areas in Rocklin and Placer and Sacramento Counties, additional roadway widenings will be required on a number of the City's key travel screenlines. In addition to the year 2005 improvements specified above, the following mitigations will be required between 2005 and full Citywide buildout:

Screenline A (north/south facilities crossing County line):



- o Widen Watt Avenue to 6 lanes from Eureka to Atkinson.
- o Widen either Antelope or Walerga to 4 lanes from U Street to Atkinson.
- o Widen I-80 to 10 lanes from Antelope to Riverside.
- o Improve two of the following to 6 lanes and the other to 4 lanes:
 - Riverside from Antelope to I-80
 - Sunrise from Old Auburn to Cirby
 - Old Auburn Road from South Cirby to Sierra College

Although the existing right of way would not allow significant widening of Sunrise or Riverside, the added capacity is not needed until the City reaches full buildout. This suggests that the widening of Sunrise or Riverside would not be needed for at least 30 years. However, steps should be taken to acquire the necessary right of way as it becomes available.

Screenline IJK (north/south facilities from Douglas to Cirby):

- o Widen Sunrise to 6 lanes.
- o Widen Rocky Ridge and/or N. Cirby to a combined total of 8 lanes.
- o Widen I-80 to 10 lanes.
- o Widen Old Auburn and Barton Roads to 4 lanes each.

Screenline G (east/west facil. accessing I-80 from the east):

- o Widen Eureka to 8 lanes from Sunrise to Taylor.

Screenlines M and H (east/west facilities through downtown),

Screenlines B and C (east/west facilities bypassing downtown):

- o Improve Roseville Parkway to expressway from Douglas to Harding and 65 Bypass to freeway class facility from I-80 to Blue Oaks in order to divert traffic around rather than through downtown area.



Screenline N (north/south facilities in existing 65 corridor):

- o Widen Washington (existing 65) to 6 lanes from Carlsberg to Baseline.

These mitigations would be the same for the proposed land use changes at the Southeast Plan as for the approved land uses.



Public Services and Facilities

Water

Traditionally, the City of Roseville has provided water service to all areas within the corporate limit. Similarly, Sierra College Boulevard has been regarded as the unofficial boundary between the respective water service districts, and as such, pressure zones and looped water systems have been proposed or established on either side. The relatively recent annexation of area on the east side of Sierra College Boulevard by the City has created a situation where service within an area of the City may be better served by the San Juan Water District rather than the Roseville Public Works Department. Both the San Juan Water District and the City of Roseville Public Works Department agree that the most efficient means of extending water service to the Plan Area would utilize the San Juan Water District to serve the portion of the Plan east of Sierra College Boulevard. As indicated in the appended letters from each water service provider, an agreement has been reached which will allow this arrangement to be implemented.

The City obtains its water through the Federal Bureau of Reclamation from Folsom Lake. Roseville is guaranteed, by contract, 32,000 acre-feet of water per year. Of this allotment, the City presently utilizes approximately 30 percent, or 11,000 acre feet per year. In addition to Federal water sources, the City maintains a secondary water system which includes five deep wells, two reservoirs with one million gallons capacity each, and a pumping system capable of providing four million gallons per day. Of the five wells, two have been contaminated and three remain potable. Finally, the City utilizes a 6 million gallon storage tank, and has plans for construction of a second in the near future.

The Roseville water treatment plant has a peak capacity of 24 million gallons per day. Existing flows average approximately 9.5 mgd, however, peak flows of 22 mgd have occurred on three occasions during the last year. Since near capacity flows have been experienced with existing land uses, rapid development of



the various proposed Plan areas could produce water demand in excess of the current capacity of the treatment plant. Under such circumstances, the department would be forced to utilize the potable deep wells to maintain adequate water service. However, in anticipation of long term continued growth, expansion of the treatment plant to a capacity of 48 mgd is proposed for May 1989.

The Public Works Department has determined the following water usage rates for residential areas in the City:

R-1 through R-5	2,030 gallons/unit/day
R-6 through R-11	1,510 gallons/unit/day
R-12 through R-15	660 gallons/unit/day
R-16 through R-20	400 gallons/unit/day

In addition to residential uses, the Public Works Department has determined rates for business professional, commercial, and light industrial land uses to be 4,200 gal/acre/day. Elementary and intermediate schools typically use 8,150 gal/acre/day, while high schools use 9,600 gal/acre/day. Parks are estimated to use water at a rate of 8,150 gal/acre/day.

The San Juan Water District has indicated that they are capable and willing to serve the portion of the Specific Plan area located on the east side of Sierra College Boulevard. The Water District obtains all of its water from Folsom Lake, and maintains prescriptive rights to 33,000 acre-feet; obtains 11,200 acre-feet from the Bureau of Reclamation; and receives 25,000 acre-feet from the Placer County Water Agency. The San Juan Water District utilizes 3.5 acre-feet per acre of land use as an estimate of residential water consumption.

Preliminary plans by the San Juan Water District propose to extend service to the Plan area from two principal sources. First, a 24" main is proposed which will extend from the Bacon pumping station, through the Treelake Village development located east of the Plan area, to the northeast portion of the Specific Plan area. This main will be reduced to a 16" or 14" line as appropriate, and will to continue westward to Sierra College Boulevard within the alignment of Roseville Parkway. From this



arterial, water service will be supplied to the northern portion of the Plan area. Secondly, the southern portion of the Plan area is proposed to be served through extension of existing lines from the Orangevale vicinity of Sacramento County northward into the Plan Area.

Impacts.

o Based on the water consumption rates provided by the respective suppliers, ultimate buildout of the revised Specific Plan area is predicted to require approximately 5.4 million gallons per day, as calculated in Table K1.

**Table K1
Estimated Water Required to Serve the Plan Area**

<u>Land Use</u>	<u>Gallons/Day</u>
Roseville Public Works Department	
R-1 thru R-5 630 units	1,278,900
R-6 thru R-11 384 units	579,840
R-12 thru R-15 165 units	108,900
R-16+ 1,836 units	734,400
BP/Comm/LI	662,340
Schools	258,355
Parks/Open Space	653,630
FS/Daycare/Club	<u>57,960</u>
 Total Roseville Water	 4,334,325
 San Juan Water District	
355.37 acres x 3.5 acre-feet per year (converted to gal/day)	 <u>1,110,000</u>
 Total Water to Serve Entire Plan Area	 5,444,325



- o Implementation of the project will result in the need for extension of water service to the Plan area. City of Roseville ordinance specifically requires that the proposed water/sewer system to serve the Plan area be constructed to standards identified in the ordinance. Most notable of these requirements specify that the system must be looped in nature to ensure the ability to provide service under adverse conditions, minimum pressures of 35 psi to all structures, 3,000 gallon per minute (gpm) fire flows to commercial land uses, and 1,000 gpm fire flows to residential areas are the minimum acceptable.

Mitigation Measures.

- o A master water plan to serve the respective portions of Southeast Roseville Specific Plan area will be completed prior to development of individual projects within the Plan area.
- o Water facilities will be properly sized and stubbed out where appropriate so as to serve individual projects within the Specific Plan area.
- o Individual projects will be required to install water facilities of adequate capacity to accommodate the proposed project as required by City of Roseville and the San Juan Water District.
- o The property owner(s) within the Plan Area will execute a revised development agreement in accordance with Ordinance No. 802. Such agreement will set forth, with specificity, the infrastructure improvements and other contributions to be made in return for guarantees by the City that certain land uses and densities in effect at the time of agreement execution will be allowed at a later date. Assessment Districts will be utilized as appropriate to facilitate development of required facilities.



Sewer

Wastewater treatment for the City of Roseville is performed at the Roseville Wastewater Treatment Plant located on Booth Road near Dry Creek. Treated wastewater is discharged into Dry Creek. The treatment plant serves all of Roseville as well as the area served by the Southeast Placer Region Sewer System including the municipalities of Rocklin, Loomis, and a portion of the unincorporated area of the County.

The Roseville Wastewater Treatment Plant has an existing average capacity of approximately 12 million gallons per day (mgd). The public works department has indicated that for a short period (i.e. about a day) the plant can operate at a maximum rate of 21 mgd, however extended operation at this volume is not feasible. Average wastewater flows through the plant have been approximately 7 mgd. Under adverse conditions, flows of up to 18 mgd have been processed through the wastewater plant.

In anticipation of continued growth of the City, improvements are proposed to increase the capacity of the wastewater treatment facility. Specifically, the facility is proposed to be upgraded to handle an additional 6 mgd (total 18 mgd) by 1990. Subsequent improvements will be implemented as necessary until ultimate expansion of the facility to handle average flows of 30 mgd is reached. The City strives to anticipate needed upgrades and implement them prior to reaching the 75% level of treatment plant capacity. State law requires that, upon reaching 75% utilization, improvements are mandatory prior to continued growth. A spokesman for the Roseville Public Works Department has indicated that the peak capacity of the plant could be significantly increased to 84 mgd, depending on the future constraints of Dry Creek.

According to the City of Roseville, residential wastewater flows are based on the number of dwelling units. All dwelling units are assumed to produce 400 gallons of wastewater per day. Wastewater production on other types of land use is based on the square footage of buildings. For planning purposes, the City has determined that a wastewater generation rate of 133 gallons per



day per 1,000 square feet is appropriate for commercial and business/professional land uses. A maximum of 25% land coverage is assumed. The recommended wastewater generation rate for schools sites is 266 gal/day/1000 sqft. and is based upon 15% building coverage. The Public Works Department indicated, that for open and parks, no wastewater generation should be assumed.

The regional sewer trunkline serving the adopted Specific Plan area is generally located north of the Plan area. However, the area located west of Sierra College Boulevard and proposed for inclusion in the Amended Specific Plan, is served by a different trunkline which lies south of the Plan area.

Impacts.

- o The revised Southeast Roseville Specific Plan, after buildout, will generate approximately 1.6 million gallons of wastewater per day from residential land use, 211,000 gallons per day of wastewater from commercial/business professional uses, and 55,100 gallons per day from schools. A total of approximately 1.9 million gallons of wastewater per day will be generated from buildout of the revised Southeast Roseville Specific Plan.
- o A transfer of 783 units is proposed from the adopted Plan area to the parcel located west of Sierra College Boulevard. These units plus the 167 units originally allowed results in a total of 950 units west of Sierra College Boulevard. The trunkline serving the area which includes the new parcel does not have the available capacity for the proposed increases.

Mitigation Measures.

- o A new pumping station will be built by the proponents to serve the units which would be transferred to the area to the area west of Sierra Collage Boulevard as a part of this proposal. Development of the pumping station will restore wastewater flows to the respective trunklines in accordance with preproject conditions.



- o Sewer facilities will be properly sized and stubbed out where appropriate so as to serve individual projects within the Specific Plan area. Preliminary plans for the arterial components of the sewer system are present in Figure K1.
- o The property owner(s) within the Plan Area will execute a revised development agreement in accordance with Ordinance No. 802. Such agreement will set forth, with specificity, the infrastructure improvements and other contributions to be made in return for guarantees by the City that certain land uses and densities in effect at the time of agreement execution will be allowed at a later date. Assessment Districts will be utilized as appropriate to facilitate development of required facilities.

Natural Gas

Pacific Gas & Electric (PG&E), currently has natural gas distribution and transmission facilities in the proximity of the Southeast Roseville Specific Plan area. Gas mains are presently located on Sierra College Boulevard, Eureka Road, and Auburn/Folsom road. Natural gas service will be provided to the area by PG&E in accordance with standard Public Utilities Commission rules and regulations.

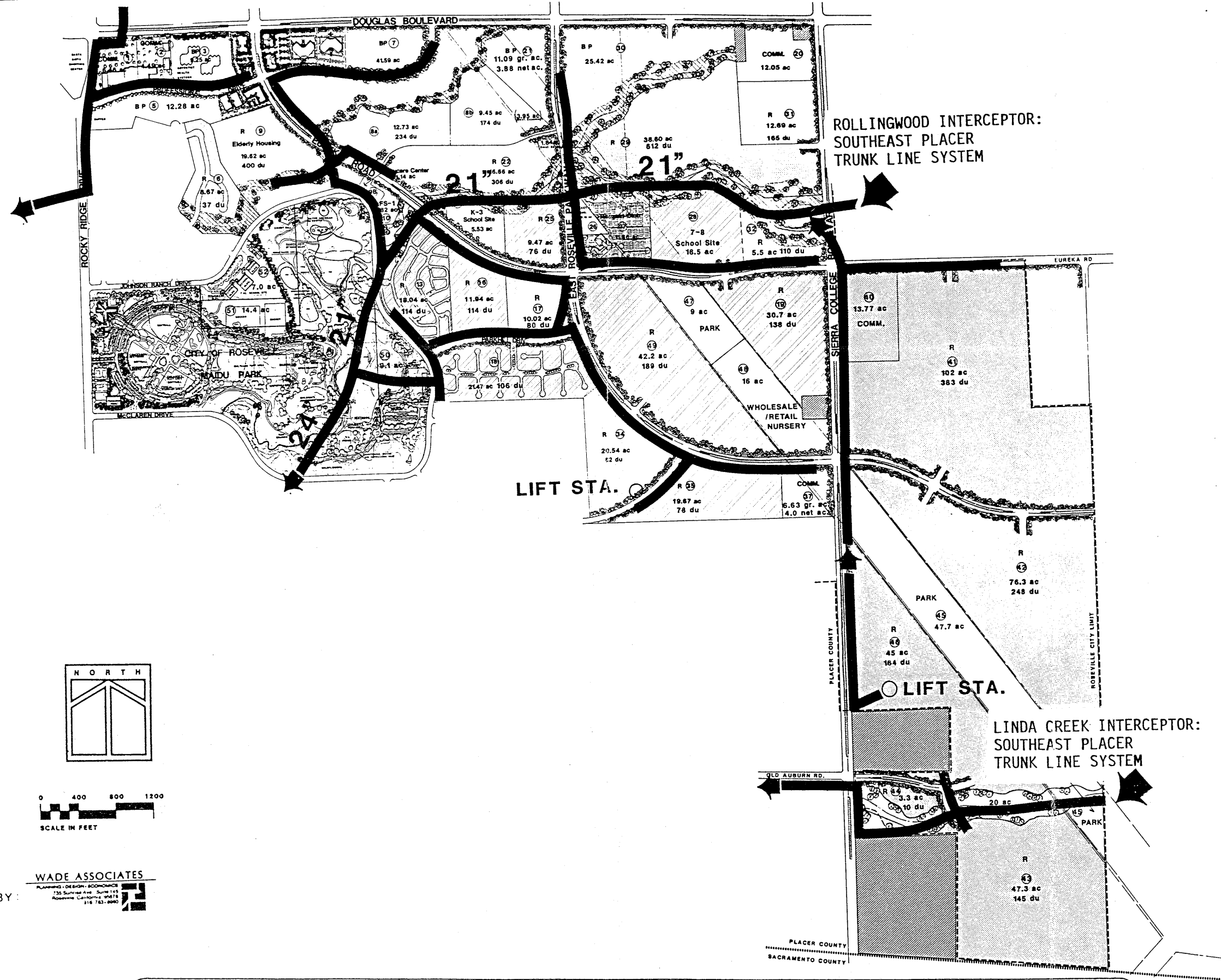
Impacts.

- o No unusual problems are anticipated with the provision of natural gas services to the Amended Southeast Roseville Specific Plan.

Electricity

Electrical services to the Specific Plan Area will be provided by the City of Roseville Electric Department. Amendment of the Specific Plan as proposed is not anticipated to create any unusual problems in the provision of electrical services to the site. However, there has been concern expressed by individuals





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PROPOSED SEWER SYSTEM FIGURE K1

SOUTHEAST ROSEVILLE K-8 SPECIFIC PLAN AMENDMENT



in the community regarding the influence of electrical fields generated from the existing electrical transmission corridor on the health of nearby residents. This issue is discussed in the Land Use section of this report.

Telephone

Roseville Telephone Company will provide service to the Specific Plan area in accordance with their filed tariffs. Telephone facilities will be constructed in conjunction with development. A possibility of line extension charges may exist, depending upon actual developmental phasing. In order to serve the area, public utility easements will be required and additional right-of-way may also be required for installation of telephone equipment. These requirements will be identified as development occurs. No unusual problems are anticipated in providing telephone service to the Amended Plan area.

Energy

Due to the relative undeveloped nature of the majority of the Plan area, energy consumption is minimal. Existing dwellings within the Plan area utilize electricity and natural gas as the principal home energy sources.

A spokesperson for Pacific Gas and Electric Company has indicated that extension of gas mains to the vicinity has already occurred and is planned to continue in conjunction with development of the area. Similarly, the Roseville Electric Company has indicated that electrical service is anticipated to be available to serve buildout conditions of the **Roseville General Plan**.

Impacts.

- o The increased numbers of proposed single family dwellings will require greater quantities of fuels than the higher density uses currently proposed within the existing Plan area.



Conversely, the increased numbers of high density dwellings proposed should use less energy than the lower density dwelling units included in the adopted Plan. Amendment of the existing Specific Plan is not anticipated to substantially effect the amount of energy which will be consumed in the Plan area.

- o Electricity and natural gas are anticipated to be the major sources of home energy utilized by future residents within the Plan area. It is noteworthy that increasing numbers of supplemental passive solar systems are becoming evident in existing neighborhoods.

Mitigation Measures.

- o Construction of well insulated quality homes with energy efficient air conditioning/heating systems will reduce the total amount of energy consumed on the site.
- o Developers should be encouraged to incorporate passive solar measures whenever feasible in their homes, and provide direction to home buyers interested in incorporating more extensive passive systems into new homes.
- o Inclusion of local commercial and professional land uses, bicycle lanes, parks, and school sites within the Specific Plan area will result in fuel savings from trips residents would otherwise have to make away from the area.
- o Public utilities should be encouraged to provide programs for conservation of electricity, gas, and water. Such programs typically include low-interest financing for energy conservation home improvements.

Police

The entire incorporated area of the City of Roseville is served by the Roseville Police Department. Presently, 38 sworn officers are employed at a ratio of approximately 1.3 officers per 1000



population. In the future, the City would like to achieve a higher ratio of two or more officers per 1000 population.

Impacts.

o Full buildout of the Specific plan area will require law enforcement services to an additional 3,965 dwelling units or approximately 10,309 new residents. In order to maintain the present level of service within the Police Department, approximately 13 additional officers and 3 support staff will be required to serve the Plan Area. Since the Amended Specific Plan does not propose to increase the overall number of units, this impact does not differ from existing conditions.

Fire Protection

The City of Roseville Fire Department currently operates three fire stations, one on Oak Street within the downtown area; one on Junction Boulevard serving the western portion of the City; and one on Cirby Way just east of Sunrise Boulevard which serves the southeastern portion of the City, including the Specific Plan area. In order to maintain an acceptable level of service, the Department strives to maintain a less than four minute response time. However, current response times to some outlying areas of the City are in excess of four minute minutes. Fortunately, most of these areas are undeveloped and rural in character creating a low demand for services.

Long range planning includes the construction of five additional stations within the City as well as improvements to existing facilities. These stations are generally proposed in conjunction with development of the various Specific Plan areas, and are intended to provide service to the entire developed portion of the City within a four minute response period.



Impacts.

- o Development of the revised Southeast Roseville Specific Plan area will require the installation and operation of one additional station to service the area.

Mitigation Measures.

- o As required, all structures will be constructed to conform to City and State Fire codes.
- o A new station is proposed within the currently adopted Southeast Roseville Specific Plan area. Funding for the proposed fire station will come from the Fire Facilities Tax, adopted by the City of Roseville in 1984. No unusual problems are anticipated in the provision of fire and emergency services to the Amended Southeast Roseville Specific Plan area.

Solid Waste

The City of Roseville uses the Western Placer Regional Landfill for solid waste disposal. The landfill is a private enterprise which operates on fees received from respective patrons, including the City of Roseville. The site is 320 acres and located just northwest of the city. The lifetime of the landfill is projected at 40 years.

Impacts.

- o The revised Southeast Specific Plan, will generate approximately 16 tons of solid waste per day. This figure is based upon generation figures of 2.64 pounds per resident per day, and 1 pound per 100 square feet per day for commercial uses.



Mitigation Measures.

- o When developed, roadways within the Specific plan area should be of adequate width to facilitate use by large trucks, including trash disposal vehicles.

- o Solid Waste disposal rates will have to be sufficient in the future to generate enough revenues to finance the growth of collection systems, including the purchase of new equipment and replacement of old equipment when needed.

- o The volume of solid waste generated by the proposed project could be reduced by separation and recycling of certain wastes such as paper, cardboard, aluminum and glass. Although such operations involve some inconvenience, they provide a means of utilizing valuable reusable resources. Residents of the proposed project could also reduce the quantity of solid waste generated by composting yard clippings and other organic materials for use in yards and gardens..

Hazardous Materials

"Hazardous materials" is a general classification which includes thousands of products, many of which are used daily by homeowners throughout the region. Pesticides, herbicides, swimming pool chemicals, solvents, cleaners, and thousands of other "everyday" products are considered hazardous materials. The consequences of misuse of any hazardous material directly increases with the quantity of material involved. Warning labels, specific instructions for limited use, and penalties for misuse are utilized to control use of small quantities of hazardous materials by consumers, and although dangerous, the small quantities do not generally have the potential for serious ecological damage if misused. The potential for serious threat to public health and ecological environments is judged to be most significant in situations where large quantities of material are involved. Specific legislation exists at all levels of government which clearly defines the acceptable methods for use, storage, transport, and disposal of hazardous materials. The



quantity of materials judged to be potentially dangerous varies, and may be determined on a material by material basis. As discussed below, the City of Roseville generally recognizes hazardous material operators as those firms handling more than 500 pounds or 55 gallons of material per month.

Legislation concerning hazardous material is extensive and administered through numerous state, federal and local regulations, of which only the most prominent are discussed in this EIR. At the Federal level, the Environmental Protection Agency is the lead agency in defining and regulating use of hazardous materials. Principal legislation which directly effects the use and disposal of hazardous materials includes the Resource Conservation and Recovery Act, the Clean Air Act, and the Clean Water Act. In conjunction with the EPA, the Department of Transportation administers the the Hazardous Materials Transportation Act which regulates the shipping of hazardous materials on the nation's highway system. Federal enabling legislation allows individual states to regulate and manage the use of hazardous materials within their domain as long as State legislation is at least as stringent as Federal standards. Within California, monitoring of air emissions are conducted under the direction of the Air Resources Board; regulation of waterborne hazardous materials is the responsibility of the State Water Resources Board; the California Highway Patrol is charged with the cleanup and control of hazardous material incidents of Sate highways; and the Department of Health Services are responsible for administration of the federal Resource Conservation and Recovery Act within the state.

At the local level, the City of Roseville manages hazardous material use through Municipal Code, Chapters 9.60 and 14.26, and through the environmental review process. Principal implementation of hazardous material policies within the city are handled directly through the Roseville Fire Department, and indirectly through the Planning and Public Works Departments.

Roseville Municipal Code, Chapter 9.6, is the principal legislation pertaining to the use of hazardous materials within the community. This code defines the public "right to know" and



requires that persons or firms handling more than 500 pounds or 55 gallons of hazardous materials per month submit an annual disclosure form to the Fire Chief describing the nature of the material, and any releases of the material within the community.

Roseville Municipal Code, Chapter 14.26, pertains to the composition of wastewater both entering and leaving the treatment facility. The City of Roseville, through the Public Works Department, has established wastewater standards which prohibit specific hazardous waste materials from being added to the system or discharged from the system into area waterways.

Finally, through implementation of the Roseville Zoning Ordinance, the planning department can facilitate development of hazardous waste operations in areas which are adequately separated from residential or other incompatible land uses. The compatibility of adjacent land uses is evaluated on a case by case basis.

Impacts.

- o Development of the area to urban uses will include the use of hazardous materials by businesses and homeowners alike. This use will likely result in the release of some materials into the environment. However, due to the small quantities which would be utilized by such users, the potential effects of occasional misuse are not anticipated to be significant.
- o Of greater significance would be the location of firms which utilize hazardous materials within the Plan area. No such firms have indicated an intent to locate within the Plan area at this time. Further, since the **Southeast Roseville Specific Plan** area does not include any industrially designated land use, it is unlikely that such operations would be able to locate within the Plan area in the future. In light of the existing legislation, City disclosure policy, and practice of compatible land use development, no significant impacts related to use of hazardous materials are anticipated.



Mitigation Measures.

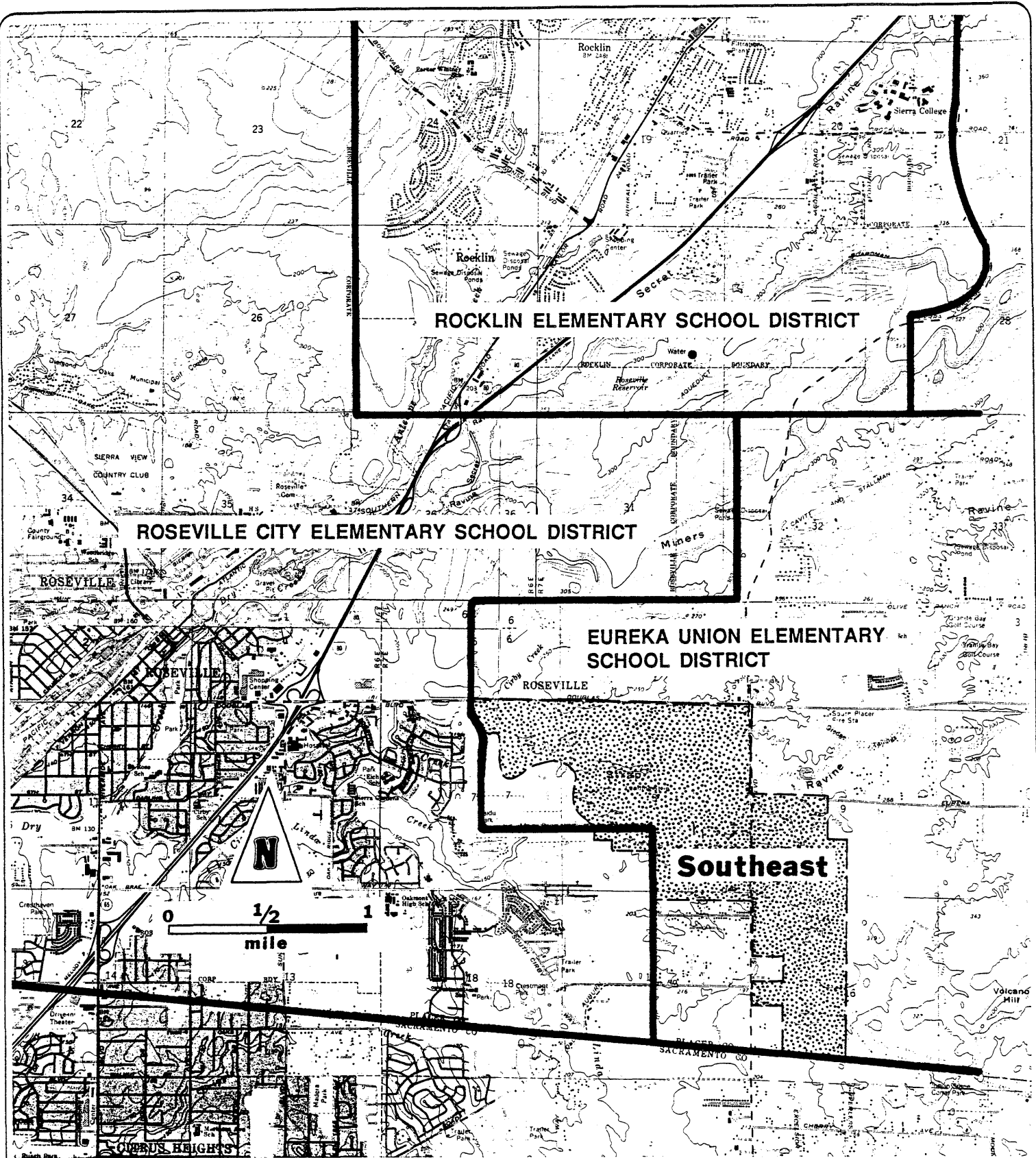
- o As potential businesses indicate an interest in locating within the Plan area, adjacent land uses and utilization of hazardous materials will need to be reviewed on a case by case basis.
- o The City should require a specific Hazardous Materials Management Plan for each hazardous material user prior to allowing operation within the Plan area.
- o Prior to permitted use of hazardous materials within the Plan area, the nearest fire station should acquire proper equipment and training to handle emergencies involving the materials in use.

Schools

The Specific Plan Area is primarily within the Eureka School District which provides education for kindergarten through eighth grade students. A small portion of the Plan Area, along the southern boundary west of Sierra College Boulevard, is within the Roseville Elementary School District. The Roseville Joint Union High School District provides education for students in grades nine through twelve. Figure K2 shows a map of the school district boundaries within the plan area. Presently, the siting of elementary schools within the Specific Plan area is not finalized due to possible problems with locating schools in the proximity of powerlines.

The Eureka Union School District assesses school impact fees under Measure E, a local assessment passed by voters during the most recent election. Measure E is in place for four years, and during that period builders will be assessed a flat per unit fee. This fee is subject to annual review to account for inflation, and is currently \$3,986 for a single family dwelling unit, \$2,392 per duplex unit, and \$1,196 per multiple family dwelling unit. The Roseville Joint Union High School District utilizes the recently adopted legislation included in Assembly Bill 2926. The High School District receives 61.5 cents per square foot of





SCHOOL DISTRICT MAP **FIGURE K2**

SOUTHEAST ROSEVILLE K-17 SPECIFIC PLAN AMENDMENT



residential housing. The Roseville Joint Union High School District is considering use of Mello-Roos legislation for construction of new facilities. It is possible that the Plan area could be included in a Mello-Roos District in the future.

At the start of the next school year, the Roseville City School District will be operating at 96% of capacity and the Eureka Union School District will have a projected capacity level of 105.6%. Elementary school facilities are considered impacted when enrollments exceed 90% of capacity. Based on this criteria, four of the seven schools in the Roseville City School District are impacted and all three schools in the Eureka Union School District are presently impacted. Generally, high school facilities are considered impacted when enrollments exceed 85% of capacity. Both high schools within the District are currently impacted.

According to the **General Plan Draft School Component**, the current State standard for determining school site acreage is .02 acres per student for grades kindergarten through sixth, .024 acres per student for seventh and eighth grades, and .03 acres per student for high schools. Table K2 shows school site acreage requirements based on these figures and current school capacity criteria adopted by each district serving the plan area.

Table K2
School Site Standards as Identified
in the Roseville General Plan Draft School Component

<u>School Type</u>	<u>School Capacity (number of students)</u>	<u>Acres per Student</u>	<u>Site Acreage Required</u>
K-3 (EUSD)	400	.02	8.0
4-6 (EUSD)	500	.02	10.0
7-8 (EUSD)	750	.024	18.0
K-6 (RCSD)	600	.02	12.0
7-8 (RCSD)	850	.024	20.0
9-12 (RJUHSD)	1500	.03	45.0

(EUSD)= Eureka Union School District

(RCSD)= Roseville City School District

(RJUHSD)= Roseville Joint Union High School District



Impacts.

o Buildout of the Specific plan area will generate approximately 1,238 students in grades kindergarten through eight, and approximately 683 in grades 9-12. These numbers are derived from student yield rates as indicated in Tables K3.

Table K3
Projected Student Yield

<u>Land use</u>	<u>Number of Units</u>	<u>Density Ratio %</u>	<u>Yield Rates</u>	<u>Students Generated</u>
<u>Grades K-8</u>				
R-3 to R-6	1580	100	.5186	819
R-7 & R-8	270	50	.5186	70
		50	.2611	35
R-9 to R-12	114	20	.5186	12
		30	.2611	9
		50	.1740	10
R-13 to R-15	165	30	.2611	13
		70	.1740	20
<u>16+</u>	<u>1436</u>	<u>100</u>	<u>.1740</u>	<u>250</u>

Total 1,238

<u>Grades 9-12</u>				
R-3 to R-6	1580	100	.30	474
R-7 & R-8	270	50	.30	41
		50	.15	20
R-9 to R-12	114	20	.30	7
		30	.15	5
		50	.08	5
R-13 to R-15	165	30	.15	7
		70	.08	9
<u>R-16+</u>	<u>1436</u>	<u>100</u>	<u>.08</u>	<u>115</u>

Total 683



- o Utilizing methodology from the City of Roseville's **General Plan School Component**, two grade school sites and a junior high site, totaling 26 acres, will be needed to serve students generated from the Southeast Roseville Specific Plan area.
- o The Roseville High School District has indicated that a high school site is not desired within the Plan Area. A new high school facility, which will ultimately serve the Plan Area, is proposed for development on a site located northeast of the Specific Plan area.

Mitigation Measures.

- o Funding for schools will be generated via AB 2926 for the Roseville City School District and the Roseville Joint Union High School District and through Measure E for the Eureka Union School District.
- o Developers have identified sites for three elementary schools and one intermediate school. This is consistent with the standards set forth in the **General Plan**. However, due to the location of one site in the proximity of high voltage electrical transmission lines, it may be difficult to obtain State funding. As a result, a new site may need to be selected. The project proponents are aware of the concern, and are currently evaluating alternatives. Regardless of location, an adequate number of school sites will be provided as evaluated in this EIR.
- o Presently the elementary school sites dedicated within the Specific Plan area total 13.25 acres. In order to be consistent with the acreage requirements as set forth in the **General Plan**, a total of 26 acres are needed. Therefore, the present school site designations for the Specific Plan area are deficient by 12.75 acres which represents a potentially significant unmitigated impact.



Parks and Recreation

In 1980, the state of California conducted a statewide recreation inventory to assess recreational trends and demand. Findings of this survey are available from the California Department of Parks and Recreation. Generalized findings which are pertinent to the provision of future recreation opportunities within proposed developments include:

- o An increasing percentage of the population over the age of 55 will result in increases in demand for nonstrenuous activities in the future.
- o Total recreation participation is projected to continue to grow through the year 2000. However, per capita participation levels are expected to remain relatively constant.
- o Participation in recreational activities in California is nearly evenly divided between public and private facilities.
- o Nearly 70% of recreational pursuits occur within one hour travel distance of residence.
- o The average annual per capita recreation participation rate for northern California is 95.99 participation days. A recreation day is defined as any time spent in any single recreation activity during a calendar day. A single participant may generate more than a single participation day per calendar day if he/she participates in more than one activity.
- o The ten leading recreational activities as identified in a 1980 recreation survey conducted by the State of California are shown in Table K4.



Table K4
Ten Leading Recreational Pursuits By Northern Californians
(per capita participation rates in annual participation days)

XXXXXXXXXXXXXXXXXXXX	JOGGING	9.5
XXXXXXXXXXXX	BICYCLING	6.7
XXXXXXXXXX	PARTYING	6.3
XXXXXXXXXX	FIELD SPORTS	5.2
XXXXXXX	GAMES	4.3
XXXXXXX	NATURE APPRECIATION	4.1
XXXXXXX	PICNICKING	3.9
XXXXXX	COURT BALL	3.5
XXXXX	VISIT SCENIC AREAS	3.3
XXXXX	HIKING AND BACKPACKING	3.3

SOURCE: Recreation Activity in California, Executive Summary, 1982

The Southeast Specific Plan area is located in a region which offers extensive recreational opportunities. Folsom Lake State Recreation Area is located approximately 2.5 miles east of the plan area and the popular American River Corridor is approximately 5 miles south of the area. The communities of Sacramento and Folsom are within a short drive of the Plan Area and offer numerous public and private recreational programs and facilities. Additionally, the City of Roseville as well as Placer County maintain several recreation sites.

Folsom Lake, is the focal point of many of the recreational opportunities in the area. Folsom Lake State Park and Recreation Area, which is located along the shoreline of Folsom Lake, includes approximately 18,000 acres of property plus 12,500 acres of water surface. The park provides access for swimming, boating, picnicking, fishing, and similar recreational pursuits. Folsom State Park and Recreation Area receives approximately two million visits annually. Granite Bay and Beales Point are major facilities located on the western shore of Folsom Lake and within short driving distance of the Specific Plan Area.



The City of Roseville has established standards for the development of neighborhood, community and city-wide parks. Adopted Roseville standards require 2.5 acres of neighborhood park per 1,000 population, 1.5 acres of community park per 1,000 population, and 5 acres of City-wide park per 1,000 population.

Neighborhood parks generally serve youngsters fifteen years or younger, and may include facilities such as apparatus areas, paved areas for court games, turf areas, picnic areas, and play lots for preschoolers. Community parks are primarily used by youngsters fifteen years or older, adults and family groups. Facilities may include a sports field, paved area for court games, picnic area, special events area, night lighting, indoor center, and natural area. A city-wide park serves all age groups and may include a large picnic area, boating, swimming, athletic fields, play area, trails, and natural area.

Table K5, Roseville Park Standards, presents the Roseville park land standard, desired park size, population served, and service radius for the three different types of parks.

**Table K5
Roseville Park Standards**

	<u>Neighborhood Park</u>	<u>Community Park</u>	<u>City-wide Park</u>
Minimum acreage per 1,000	2.5 acres	1.5 acres	5 acres
Desired size	12-16 acres	20-30 acres	100 acres
Population served	4,800-6,400	13,000-20,000	20,000+
Service radius	3/4-1 mile	1-2 miles	Total City



In spite of the existing park acreage standards, the adopted Southeast Specific Plan includes only 23.5 acres of park area, all of which are within Maidu Park. Application of the park standards to existing land use designations for the adopted Specific Plan area and parcels proposed for future inclusion, approximately 92 acres of parks would be required. There is an existing deficit of approximately 69 acres.

Impacts.

- o Since the proposed Amended Specific Plan area does not include any increase in the overall number of dwellings, the park requirements of the area will remain unchanged from existing conditions. That is, the estimated population of 9,874 potential residents of the adopted Southeast Roseville Specific Plan area would require approximately 89 acres of park area to fulfill City requirements. Similarly, the area located west of Sierra College Boulevard, as currently designated, allows development of 167 dwellings, which would provide homes for roughly 434 people and would require approximately 4 acres of parks.

Mitigation Measures.

- o The Amended Southeast Specific Plan includes approximately 80 acres of designated park area. This acreage includes approximately 24 acres of area which has already been dedicated to Maidu Park, and roughly 57 acres of neighborhood and community park proposed within the remainder of the Specific Plan area. Overall, this total is roughly 11 acres less than that required by the City to serve the Plan area. Examining this acreage in more detail, the following breakdown applies:

	City Requirement	Proposed	Net
City Wide Park	51 acres	24 acres	-27 acres
Community Park	26 acres	48 acres	+22 acres
Neighborhood Park	<u>15</u> acres	<u>9</u> acres	<u>- 6</u> acres
	92 acres	81 acres	-11 acres



As can be seen above, the most substantial short fall of proposed park acreage is within the City-wide park category. However, the seriousness of this shortage is less than significant when one considers that the Plan area is immediately adjacent to Maidu Park. This 150 acre City-wide park, by City standards, is adequate to serve a population of approximately 30,000 people, or more than the total projected population of the City on the southeast side of Interstate 80. Since a City-wide park will be required on the northwest side of the Interstate to serve that area, the standard for City-wide park land for the portion of the City on the southeastern side of the Interstate should be fulfilled without additional acreage.

Since the anticipated need for City-wide park acreage in the vicinity should be satisfied through existing acreage in Maidu Park, the Specific Plan includes excess acreage in the Community park category which makes up for nearly all (81%) of the acreage which would have been required as City-wide park. However, this Community park acreage is entirely situated within the powerline easement. Although usable for picnicking, bicycling, or jogging, this area is of questionable value for such activities as baseball or softball, and is not generally available for development of permanent structures or facilities. Because of these constraints, the area in itself is probably not capable of fulfilling the requirements of a Community park. A positive attribute of this location is that a similar park is proposed within the Treelake Village project immediately east of the Plan area. The Treelake park is proposed to utilize a portion of the powerline easement which abuts this project. The combined area of these parks would be approximately 64 acres in size. Again, the development potential of this large area would be compromised by the constraints presented by the powerline easement.

- o Since the proposed acreage does not fully meet the requirements for park land as specified by the City, in lieu fees or other arrangements could be determined to provide for development of additional facilities.

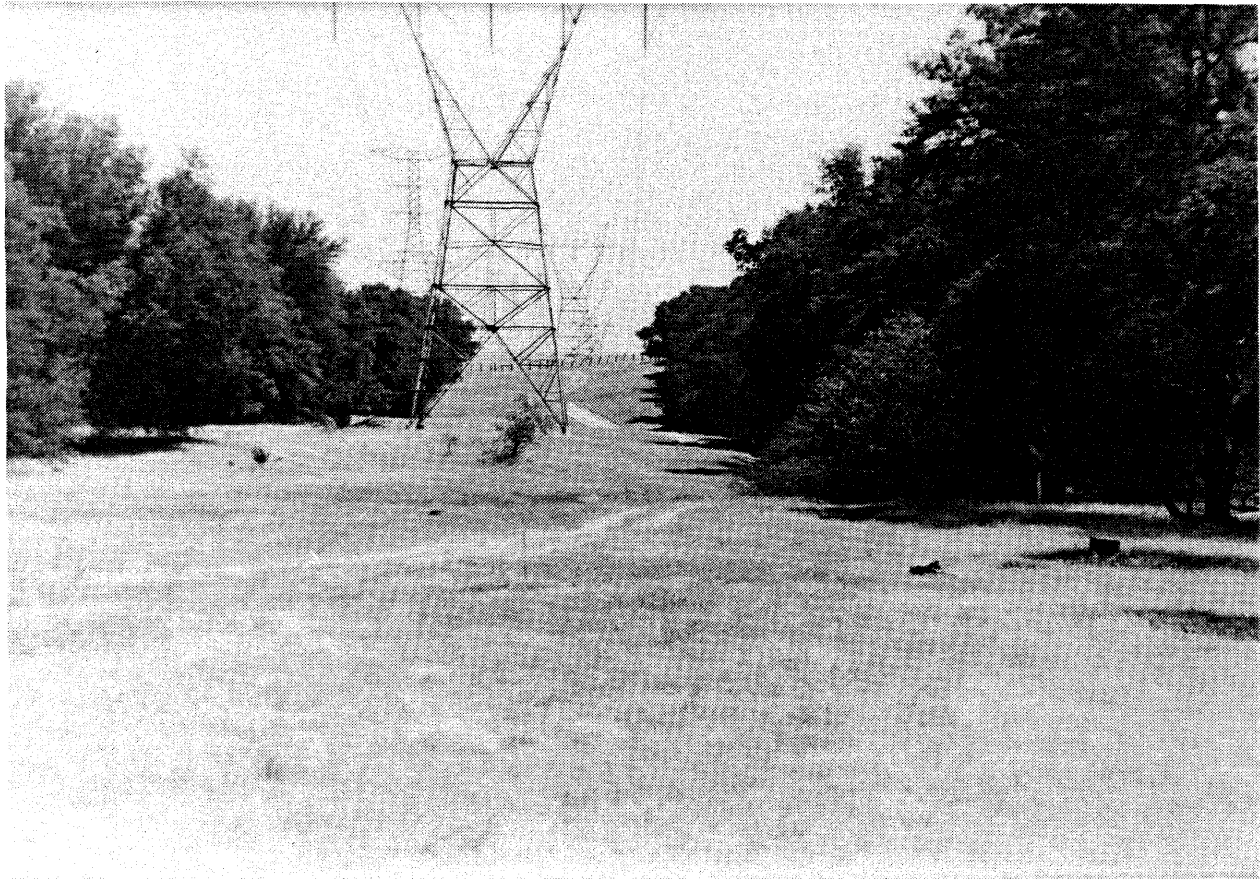


- o In addition to the formally designated park area, the Specific Plan includes a number of other amenities which will help fulfill the recreation needs of the community. Most notably of these is an extensive bicycle/pedestrian pathway network. These pathways will meander through landscaped corridors, separated from the street, and consist of eight feet of paved lane. The location and width of the corridors area as follows:
 - The pathway network will include a 50 foot wide landscaped corridor on each side of East Roseville Parkway, Sierra College Boulevard, and Douglas Boulevard where they are within the Plan area.
 - Similarly, a 35 foot wide corridor is proposed on both sides of Eureka Road through the entire length of the Plan area.
 - Finally, 25 foot wide corridors are proposed along North Cirby Way, Park Hill Drive, Professional Drive, and Park Loop Road. Since a bicycle/pedestrian pathway is proposed within Maidu Park, the corridor along Park Loop Road includes only a five foot pedestrian path.
- o Although proposed as a private enterprise, area has been designated for a racquet club within the Plan area. It is recognized that this type of facility does not compete with, but rather complements public facilities in the vicinity. Development of this facility as a private sector venture will provide benefits not typically available at public sites, such as professional instruction and training programs, ability for court reservations, and facility support including lockers and showering facilities.
- o The Specific Plan includes approximately 76 acres of Open space and floodplain. Since much of this area is unsuitable for development, it cannot be formally counted as park land. However, it is available for passive recreational use. Traditionally this type of area has been utilized for nature study, walking paths and/or bicycle trails throughout the City, and will undoubtedly provide such opportunities in this Plan area.



Visual and Aesthetic Resources

The visual and aesthetic character of the site is typical of undeveloped areas throughout the region. Generally speaking, the terrain is gently rolling and dissected deeper ravines and gullies associated with the principal watercourses. Overall, the character of the Plan area is one of rural undeveloped countryside. The atmosphere is generally tranquil and relaxed. The only substantial man-made components of the Plan area which detract from this setting are the high voltage transmission towers which traverse the site, and the isolated trash dumps which are scattered through the area. View #1 of the powerline easement within the Plan area. The presence of the power line is more pronounced within the woodland where clearing and vegetation management has occurred.



View #1: Powerline Easement within the Woodland Vegetation



Three distinctly different visual environments, which correspond to the different vegetation types exist in the Plan area, the oak woodland/grassland, oak woodland, riparian settings.

The oak woodland/grassland association is the predominant setting which typically establishes the character of the region. The open grassland component of this vegetation association allows panoramic views of the Sierra Nevada Mountains on clear days. The yellows and browns of the dry grass with the dark greens of isolated oak stands are the predominant colors. View #2 exemplifies the open nature of the grassland. Because of the extensive grassland, the area has traditionally been utilized for ranching, as demonstrated by the presence of fencing throughout the area.



View #2: Open Grassland which is predominant in area



The oak woodland areas of the site are limited to a band across the central portion of the property and along Eureka Road at the northern end of the Plan area. The character of oak woodland differs from the more open grassland areas in that a cooler shade prominent environment is created. The trees are closer together, and clustered areas of understory brush occur. The greens of the trees become the predominant color in these areas. View #3 presents a good example of an oak woodland/grassland ecotone. The relatively straight alignment of this edge and existing roadway are indicative that this particular edge is probably a result of clearing, again probably to facilitate grazing.



View #3: Oak Woodland / Grassland edge



The riparian setting on the Plan area is more "closed in" than any of the other visual components of the site. This area is within the depressed floodplain of North Branch Linda Creek. Vegetation is much thicker with more prevalent underbrush including blackberry brambles and wild rose. This is generally a cooler setting with the greens of overstory and understory vegetation obstructing views.

As mentioned above, the predominant character of the Plan area evolves around the open dry grassland which consists of yellows and browns for the majority of the year. However, as is common in the region, spring produces the exception to the dry brown landscape which persists throughout the remainder of the year. Spring views of the Plan area include lush green growth and colorful spring flowers. Perhaps the most dramatic display of natural vegetation on the Plan area can be found in the isolated vernal pools which occur in the area. Such pools are renowned for the varied and unique vegetation which exists in them. One of the most attractive characteristics of these spring flower displays are the "rings" of flowers which emerge as the water level progressively recedes until eventually drying up the pools.

Impacts. As urban growth expands throughout the region, the native character of the region will become a secondary landscape to residential homes, commercial areas and manufacturing.

o Specifically, development within the Plan area will result in a significant change in the character of the site. The open dry rural setting will be replaced with an urban environment including residential, commercial, business and light industrial land uses. Soil will be imported, landscaping and irrigation will produce green vegetation which will persist year round.

Mitigation Measures. Although a change in the undeveloped character of the Plan area is unavoidable, a number of measures can be implemented to reduce the impacts. It is not feasible to reduce the change in the aesthetic environment to less than



significant levels. However, the change will not necessarily be negative in nature. Many will find the the developed character of the area much more appealing than the natural condition. However, it is a critical objective of the Specific Plan to identify and preserve the more outstanding natural traits of the site. Measures to ensure this include:

- o As required by ordinance, all of the 100 year flood plain will be dedicated to the City. This area encompasses the riparian habitat of the Plan area. It is understood that the majority of this area will be left in its natural state.
- o Native oaks will be preserved wherever possible within the Plan area. Individual projects will need to be reviewed to ensure that the trees are incorporated into development plans. All trees will be treated in accordance with the recently adopted Roseville Tree Preservation ordinance.
- o In excess of 47 acres of the proposed amendment to the Plan area has been designated a park land. Although the majority of this area is located beneath the electrical transmission lines, the park land does include a portion of North Branch Linda Creek, oak woodland, and grassland components of the site.



Fiscal

The firm of Analytics, Inc. was retained to perform an economic analysis for this project. The complete report, entitled **Fiscal Impact Analysis of the Southeast Roseville Development** is appended to this EIR. This section is provided as a summary of the findings, and those readers requiring more detailed information, including methodologies and assumptions utilized for the analysis, are referred to the appended fiscal report.

The Amended Southeast Roseville Specific Plan provides the basis for future development of approximately 1004 acres of land near the intersection of Douglas and Sierra College Boulevards. The proposed Specific Plan includes 3,965 residential units, commercial and business/professional acreage, and other miscellaneous uses including a private racquet club, park areas, and areas designated for use by fire, electrical utilities and schools. Assuming continuation of the current average population density of 2.60 persons per household, the development would house 10,309 persons including 1,152 elementary students (K through 8) and 665 high school students. New residents will generate additional revenues for the City as well as additional costs for services provided. The objective of this study is to estimate the net fiscal impact associated with development of the proposed Specific Plan area assuming no change in service levels, complete buildout under the proposed Plan, and constant dollars based on the 1986-87 Final Budget for the City of Roseville.

Impacts. As shown in Table M1, development of the Plan area as proposed is predicted to provide the City with a net annual surplus of approximately \$23,900. The principal revenue sources identified include property taxes totaling approximately \$1,043,900 per year including residential, commercial and unsecured property taxes and penalties, sales tax totaling \$1,005,600 annually for the new population, and motor vehicle and trailer coach in lieu fees of \$294,700 annually.



Table M1
Projected Annual Revenues and Expenditures from
Development of the Amended Southeast Roseville Specific Plan

\$ Thousand

Revenues

Property Tax	
Residential	\$ 720.2
Commercial	297.0
Unsecured	25.4
Penalties	1.3
Sales and Use Tax	1,005.6
Utilities Users' Tax	318.6
Hotel-Motel Tax	55.5
Franchises	25.7
Property Transfer Tax	23.0
Business License Tax	34.1
Motor Vehicle In-Lieu	286.5
Trailer Coach In-Lieu	8.2
Other Miscellaneous Revenues	<u>8.5</u>
Total Annual Revenues	2,809.6

Expenditures

General Government	421.0
Public Safety	
Police	721.2
Fire	537.0
Other Public Safety	23.5
Streets and Highways	431.3
Library	189.5
Parks and Recreation	<u>462.2</u>
Total Annual Expenditures	2,785.7

Annual Net Revenues	23.9
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Source: Analytics Company



Principal additional costs incurred by the City are presented in greater detail in Table M2 and include net annual outlays of \$721,200 for police patrols and related activities, \$537,000 for operation of a new fire station in the southeast area of the City, \$431,300 for street and highway maintenance, and \$462,200 for maintenance and operation of new parks and recreation programming. Utilities, transportation services, and other miscellaneous functions are self-supporting funds because of special tax districts or other revenue sources.

In addition to annual revenues and expenditures, the City will receive revenue from one time developer fees which will be assessed individual projects within the Plan area. Although some development fees are uncertain or unknown at this time, the sum of known fees exceeds \$40 million. The largest items are traffic circulation fees (\$4.06 million), school and fire impact fees (\$13.0 and \$2.03 million respectively), and strong motion taxes (\$2.3 million). Additionally, building permits and related fees and permits which offset City operations total approximately \$3.0 million, and water and sewer connection fees are estimated to be in excess of \$14.1 million. Developers fees are presented in Table M3.

Total commercial fees identified at this time are \$4.3 million and residential fees thus far have been identified totaling \$35.8 million. Fees which are still unknown or not completely calculated at this time include water connection fees, electrical underground fees, electric street light fees, encroachment and grading permits, and subdivision map fees. Based on the final designation of commercial property, additional refinement of all fees must be completed.

Mitigation Measures. Development of the Plan area as proposed is predicted to produce net revenues to the City and therefore, no mitigation measures are necessary.



Table M2
Predicted Annual Increases in General Government Expenditures
Resulting from Development of the Amended Southeast Roseville
Specific Plan

CATV (Cable TV Programming)	\$ 6,900
City Clerk	20,000
Licensing	6,600
General Accounting	18,700
Independent Auditing	2,800
City Attorney	31,300
Planning	53,000
Energy Conservation	31,600
Housing Authority	22,400
Load Management Operations	6,400
Energy Finance Program	7,700
Personnel	43,200
Building Maintenance	79,900
Purchasing/Stores	23,700
Community Promotions	19,300
City Council	4,700
City Manager	15,100
Finance Administration	12,300
Bonds	5,400
Load Monitoring	5,700
Elections	4,100

Total	\$421,000



Table M3

Summary of Development Fees Associated with Implementation
of the Amended Southeast Roseville Specific Plan

	<u>Commercial</u>	<u>Residential</u>	<u>Total</u>
Building Permit	\$174,600	\$1,527,700	\$1,702,300
Plan Check Fee	113,500	993,000	1,106,500
Energy Plan Check Fee	56,700	66,600	123,300
Sewer Connection Fee	1,635,500	11,895,000	13,530,500
Water Connection Fee	unknown	589,200+	589,200+
Traffic Circulation Fee	834,500	3,225,800	4,060,300
Fire Tax Fee	417,300	n/a	417,300
Fire Services Contract Fee	n/a	1,612,900	1,612,900
Parking Fee	112,400	45,000	157,400
Strong Motion Tax	584,200	1,684,500	2,268,700
School Mitigation Fee			
Roseville High School Dist.	163,000	3,420,600	3,583,600
Eureka Elem. School Dist.	244,600	9,150,300	9,394,900
Home Improvement Fee	180,100	n/a	180,100
Park Tax Fee	n/a	1,382,700	1,382,700
Electrical Underground Fee	n/a	unknown	unknown
Electric Street Light Fee	unknown	n/a	unknown
Encroachment Permit	unknown	n/a	unknown
Grading Permit Fee	unknown	n/a	unknown
Tentative Subdivision Map	n/a	3,500+	3,500+
Final Subdivision Map	n/a	2,100+	2,100+
Traffic Signal Equip. Fee	n/a	39,500	39,500
Taxes/Fees (Developer)	\$4,336,300	\$35,818,500	\$40,154,800

+ Indicates additional fees unidentified at this time.

Source: Analytics Company



Archaeology and History

Discovery and settlement of the Sacramento Valley Region of California is one of the most colorful and thoroughly researched histories of any in the State. A large number of archaeological surveys have been conducted in recent years throughout the Valley Region in Placer and Sacramento Counties. The firm of Foothill Archaeological Services was retained to prepare a complete archaeological survey of the Plan area, and their report is appended to this EIR.

Prior to exploration by Spanish explorers and American trappers, the region was inhabited by the Valley Nisenan. The term Nisenan ("of us" or "from our side") is applied to the southern Maidu Indians who made their home along the drainages of the American, Yuba, and Bear Rivers, and the lower reaches of the Feather River. Nisenan population prior to Euro-american contact is thought to have numbered about 9,000 individuals whom were scattered throughout the region in small "triblet" groups. The Nisenan economy relied on gathering acorns, grass seeds and roots along with the hunting of deer, elk, rabbits and small game. Fishing techniques employed nets, traps, and soaproot poison. Nisenan food technology and seasonal round are well established from ethnographic accounts, but place and village names are poorly known. It is known that two principal types of habitation sites existed, seasonal camps, which were utilized for food gathering, and permanent villages.

Numerous archaeological sites have been identified in the vicinity of the project site. Many of these sites are evidenced by bedrock mortar milling stations and shallow midden deposits. A significant exception to these seasonal sites was identification of the "Evelyn" site in 1962. The Evelyn site was identified on the south bank of Dry Creek immediately downstream from the confluence of Miner's Ravine and Antelope Creek. This large site was determined to have been a permanent village and cemetery site. Unfortunately, the site was severely vandalized by relic collectors, prior to evaluation by qualified archaeologists. Other documented sites include Ba mu ma which existed where the town of Lincoln stands, Pit chi ku where



Roseville is located, and Ba ka cha at Rocklin, and a site of unknown Indian name but historically known as "Lincoln Mound" located along Auburn Ravine.

The first historical exploration of the areas is credited to the Spanish under Gabriel Moraga. The Moraga expedition visited the area between 1806 and 1808 for the purpose of identifying mission sites, searching for runaway Indians, and to punish those Indians found to be hostile to Spanish rule. There is no record of Nisenan from this vicinity being removed to the missions, but the Nisenan did accept runaways from Spanish missions.

The next recorded visitation to the area is credited to Jedediah Smith and his party of fur trappers who, with the approval of the Nisenan, established trapping camps in the area during the years of 1827 and 1828.

The most devastating blow to the Nisenan culture came in the form of a malaria epidemic in 1833. Thousands perished, and those who survived could not return to their aboriginal way of life.

By 1860, the discovery of gold had brought over 10,000 people to Placer County. Mining practices of the period varied from the traditional prospectors washing pan to elaborate systems which utilized reservoirs and "Long Tom" sluicing boxes to separate gold bearing material from cobbles and debris, which became many of the "tailing piles" which exist in the region today. A common practice of the period was for independent miners and chinese to forage these piles to find gold which was missed by the larger less careful mining operations. Initially, local watercourses including Miners Ravine, Strap Ravine, and Secret Ravine yielded easy riches, but before long, the gold played out and people were forced to move on or shift to other means of livelihood, including farming and ranching.

Historically, the City of Roseville evolved as a local center for commerce. The gold rush period produced uncounted numbers of scattered mining camps and foothill settlements, many of which grew to become permanent towns. Building materials, mining equipment, livestock, staples, and most other major commodities



were delivered to the region via railroads, of which the principal lines went through Roseville. As it became evident that the relatively flat central valley of California provided the most economic terrain for rail development, Roseville became a regional hub for trains traveling between southern California, the ports of San Francisco, the developing regions of northern California, the Pacific Northwest and eastward to Salt Lake City. With the arrival of permanent settlers and establishment of respectable towns in the region, Roseville prospered as a the principal rail heads which provided the frontier towns with goods and services. Similarly, products from the region could be sold in Roseville for rail transport to larger urban centers. A business which played a prominent role in Roseville's history was the Spring Valley Ranch. The Spring Valley Ranch was established in 1857 by George R. Whitney and expanded to include 13,000 acres by around 1867. Inherited by Joel Parker Whitney in 1872, Spring Valley Ranch became the cornerstone of a Whitney empire which included an estimated 120,000 acres in the Roseville/Rocklin area, the Sacramento/San Joaquin Delta, Arizona, Colorado, and even Maine. At one time Whitney had over 1000 Chinese "coolies" at work on the ranch building rock walls. By 1882 the ranch holdings of over 20,000 acres were completely enclosed and subdivided by an estimated 100 miles of these walls. Several of these walls survive in the region today. The major enterprise of the ranch was the raising of sheep, but other agricultural activity included wheat, grapes (dried for raisins), and oranges.

The development of alternative modes of transportation, namely advent of the national highway system and growth of trucking, resulted in the decline of the railroad industry, and with it a slowed and depressed economy for Roseville. Although recent years have witnessed a surge in growth and development of a diversified industrial base in the City, grazing and vacant area has remained the prominent land use in the region. As might be expected, this sudden growth has resulted in the identification of many previously unknown historic and prehistoric sites.

Prior to field investigation of the Specific Plan area, a complete records search was performed by the North Central Information Center of the California Archaeological Inventory.



All official site maps and archives were consulted, as were the standard published references-- The National Register of Historic Places (1985), California Inventory of Historic Resources (1976), California Historical Landmarks (1979), Gold Districts of California (1979), California Gold Camps (1975), California Place Names (1969) and Historic Spots in California (1966).

The project vicinity is rich in cultural resources. At least nine recorded sites occur within a 1.5 mile radius. They are typical archaeological manifestations of prehistoric life in the Roseville area including bedrock mortars, small midden deposits, cemeteries, and scatters of lithic tools. Indian Stone Corral county park is located about one-half mile southeast of the Specific Plan area. The nearest recorded historic site according to official records, is CA-Sac-339, a granite quarry some one-quarter mile east of the Plan area. The closest National Register site is the Strap Ravine Nisenan Maidu site complex located about one mile west of the Plan area.

Two prehistoric sites had been previously recorded within the Plan area, and are listed as CA-Pla-106 and CA-Pla-215. The first of these sites, CA-Pla-106, was located in 1965 and was described as a thin midden deposit. Petrified wood chips were reported at this location. Subsequent surveys have been unable to relocate the site. The second site, CA-Pla-215, consists of a native quarry and workshop area for the gathering and reduction of petrified wood. This material outcrops in the form of silicious rock with a chalky white cortex, and was utilized for the production of cutting tools and weapons. It is known that, even though recorded mining sites are few, petrified wood was traded by Indians of the region. The site identified within the Plan area is approximately 40 by 50 meters in size and contains evidence of native working including cores, bifaces, and numerous flakes.

The Plan area was traversed on foot in a north-south direction using zig-zag transects. Numerous historic features were identified within the Plan area. These included ditches, pits, small mounds and low terraces which exhibit evidence of historic mining operations in North Branch Linda Creek. These mining



features are not the result of mechanical dredgers, which laid waste to so many acres of American River land. Rather, they represent an earlier, more labor intensive method of ground sluicing that was carried out beginning in the 1850's and periodically thereafter into the 20th century. Although approximately 20 acres of these features were identified in the Plan area, no artifacts which could shed light on the ethnicity of the diggers or the operation, and therefore, the site was only recorded as a historic feature rather than a historic site.

In addition to the mining features, more contemporary trash dumps were located at various locations within the Plan area. These heaps typically include bailing wire, solder top cans, screw top bottles, scrap wood, discarded fruit bins, car parts, and tires.

A five acre nut orchard surrounded by a wooden fence is situated within the Plan areas. Based on the age of the trees, this is not an old feature.

Impacts.

- o Development of the area will undoubtedly result in the disturbance of the known historic features and prehistoric site. Disturbance of the historic features is not considered significant. However, the petrified wood quarry has the potential to contain valuable artifacts and will require additional investigation prior to development of the site.
- o Development will also have the potential to disrupt unknown sites which may exist within the Plan area.
- o Development of the Plan area will increase the number of residents in the vicinity, and therefore increase the potential for disturbance of other known and unknown sites in the vicinity.



Mitigation Measures.

- o In accordance with the recommendations of the archaeological report, no development will be allowed on the prehistoric site until appropriate mitigation has been conducted. Mitigation may take the form of a conservation easement or similar protection for the site. However, since it is recognized that the public value of such a site is extremely limited, the archaeology report identifies additional investigation and excavation as adequate mitigation to allow subsequent urban development of the site.

- o A copy of the archaeological study will be filed with the Planning Department, Department of Public Works, developers and landowners to assure that proper mitigation is implemented at the time that Tentative maps are filed.

- o Should additional items of historical or archaeological significance be discovered during project construction, a qualified archaeologist or historian will be called to evaluate the find and to recommend the proper disposition. The Native American Heritage Commission will also be notified as appropriate.



VII. GROWTH INDUCING IMPACTS

Development of the Amended Southeast Roseville Specific Plan area will contribute to economic and population growth within the City of Roseville. However, this contribution is not expected to substantially differ from that which would occur with development under the current land use designations. However, the Plan area is located in a region which has exhibited unprecedented growth over the last few years, and is largely in response to continued economic conditions and ongoing growth in the vicinity. Since extensive land use planning has occurred and subsequent projects have already been proposed on the undeveloped property around the Plan area, this project will have minimal impacts associated with inducing growth on adjacent properties. Similarly, the major portions of the City of Roseville, and surrounding areas of Rocklin and Placer County have already been proposed for development as well.

Specific growth impacts associated with the Amended Southeast Roseville Specific Plan are largely limited to onsite impacts. Specifically, development of the Plan area is projected to provide homes for an estimated 10,309 future residents. This will contribute to local population growth. These additional residents will pay taxes, as well as increase the demand for both public and private services. Implementation of the project will result in the extension of public utilities, especially natural gas and sewer to the project vicinity.

The commercial land use within the plan area will provide jobs and generally make the area more convenient for residential development. However, the number of jobs which are predicted to be created within the Plan area are expected to exceed the number of new employees will reside within the Plan area. Hence, development of the Plan area will contribute to the need for an increased number of employees in the vicinity. This coupled with a more dramatic excess of jobs in the North Central Specific Plan area could generate growth inducing impacts on other areas outside of the City, as well as contribute to air pollution and traffic congestion.



VIII. ALTERNATIVES TO THE PROPOSED ACTION

The most obvious alternative to the proposed Amended Southeast Roseville Specific Plan is the "no action" alternative. In this instance, the result of taking no action would produce largely the same impacts as those identified with implementation of the proposed Specific Plan. This results from the relatively unique situation where the proposed Plan contains the same overall number of residential dwellings, and similar business/professional/commercial land uses, as the currently adopted Specific Plan. However, since the proposed Specific Plan includes the transfer of densities between parcels in order to increase the number of high density (10+ per acre) and low density dwellings (5 or less per acre), fewer such dwellings would be constructed as a result of the "no action" alternative.

A second "no project" alternative could be implemented which would preclude further development of the Plan area for an undetermined length of time. Such an alternative would require action by the City Council including possible amendment of the **General Plan**. Although not proposed as a "moratorium" on development, such action would provide the City an opportunity to slow down the rate of development, and allow more time to evaluate the long range development goals of the City. Such an action could have serious implications including legal action by potential developers. However, considering the recent push for development of several Specific Plans simultaneously, and expressed concern that the latest amendment of the **City General Plan** may have been excessive in establishing new upper limits for growth, this action represents an unpopular but viable alternative.

Development of the property to a lower density than proposed is not a realistic alternative, largely due to the constraints presented in the **Land Use Element** of the **General Plan**. The City of Roseville has determined that an increased amount of higher density housing is an appropriate and necessary goal, and has initiated several policies to facilitate this type of growth. Development of the Plan area to substantially lower densities would likely result in noncompliance with the **General Plan** which



specifies an allotment of housing to be developed at higher densities. Although not likely to occur, such an alternative could be implemented through amendment of the **General Plan**. A reduction in densities would produce a proportionate reduction in the magnitude of impacts associated with development of the Plan area. Assuming that residential land use remained the prominent land use, the types of impacts would not be expected to substantially change, only the magnitude of these impacts. The most obvious and noteworthy advantages of such an action would be a greater opportunity to preserve native vegetation and vernal pools, reduce traffic and air quality impacts, and reduce the demand for public utilities and services. The major disadvantage to such an alternative would be the relative unavailability of less expensive dwellings in the area, and probable inconsistency with the affordable housing program currently under development.

Development of the Plan area to an overall higher density is a possible alternative which could be pursued. As discussed, constraints presented by the **General Plan**, and by the limited sewer capacity preclude realistic consideration of development of a greater number of dwellings. However, development of higher density housing, while maintaining the same total number of units, represents a possible alternative which would be in conformance with infrastructure and **General Plan** constraints. Implementation of a "Planned Unit Development" type of community would produce approximately the same cultural impacts as the proposed Specific Plan, but could substantially reduce impacts to natural communities on the site. A PUD could provide a greater amount of undeveloped area, open space, or park and recreation facilities, amenities which are clearly deficient in the already adopted Specific Plan. Similarly, increased area in natural vegetation would decrease vegetation, wildlife, and hydrologic impacts.

In summary, considering the limit on the number of dwellings established by the regional sewer system, coupled with City policy advocating increased amounts of higher density dwellings, development of a Plan which includes a substantially greater or less number of dwellings than proposed does not seem realistic. The most likely alternative to the proposed Specific Plan is



presently represented by the adopted Specific Plan and the **General Plan** land use designations in the area. However, an unlimited number of variations which would differ from the proposed Plan in land use configuration, project design, and/or roadway layout could be proposed as viable alternatives. Since the overall land use would not substantially differ from the proposed Plan, the overall magnitude of the impacts would also remain constant, and detailed analysis would be required to identify specific advantages or disadvantages.



IX. CUMULATIVE IMPACTS

Cumulative impacts, while discussed in the specific context of each section as appropriate, are summarized and placed in a regional perspective in this section. For the cumulative analysis, individual impacts of the Specific Plan were considered with buildout conditions of the **Roseville Specific Plan**, and as appropriate, with impacts associated with anticipated development of a larger regional area.

As required by CEQA, cumulative impacts have been evaluated with inclusion of the proposed projects, however, in no instances were impacts of the proposed Specific Plan identified as the ultimate contribution which would turn an otherwise less than significant impact into a significant finding. In some situations, hydrology and air quality most notably, the significance of the project contribution is suggested to be significant even though the quantifiable contribution of the Specific Plan is relatively small. This finding of significance results from a situation where unacceptable conditions already exist, and any contribution, no matter how small, will aggravate efforts to correct the already unacceptable condition.

Impacts of the project which, when considered with other potential growth within the region, will result in significant cumulative impacts include traffic, hydrology, vegetation/wildlife, air quality, and archaeology/history. Assuming development of the Specific Plan, the cumulative impacts will be significant, regardless of mitigation included within the Plan.

Geology and Soils

Less than Significant

Continued development of the region is not expected to alter the geologic or soils characteristics of the region. Development will substantially increase the number of people and value of property subject to earthquake damage, but this impact is considered mitigated through proper building techniques, public awareness, and emergency preparedness programs.



Hydrology.

Significant

The City of Roseville has recently had a hydrologic analysis completed. As discussed in the hydrology section of this EIR, increases in flow anticipated with buildout of the City to **General Plan** densities are not predicted to be significant, and will not, in most cases, produce a perceivable change in water surface elevations downstream of the City. However, as also discussed in the hydrology section, severe flooding conditions have occurred near the confluence of the American, Feather, and Sacramento Rivers. This area is protected by an extensive network of agricultural levees and dikes. Continuing urban development in upstream watersheds has resulted in steadily increasing flows which threaten the dike and levee system during spring storms. Although the City of Roseville's contribution to this situation may be small, the combined impacts of many small increases throughout the watersheds could produce significant flooding problems in the downstream watersheds.

Vegetation & Wildlife.

Significant

Continued growth throughout the region will reduce the amount of undisturbed habitat available for wildlife. As urban land use progresses wildlife species which are incompatible with the urban environment will be continually displaced. It is recognized that complete mitigation of this impact is not feasible as long as development continues. Mitigation to reduce the magnitude of this land use change is discussed in the body of the EIR and generally consists of providing habitat within the identified floodplain. Regionally, efforts should be initiated to provide continuous habitat corridors which would be more effective for wildlife than isolated areas. Similarly, stringent enforcement of leash laws and public education as to the needs of local wildlife populations can further reduce impacts.

Of particular concern in the Central Valley is the preservation of vernal pools. As discussed in the vegetation and wildlife



section of this EIR, such pools represent a relatively rare and rapidly disappearing natural community. Development throughout the Central Valley has extirpated thousands of pools, and proposed growth in the Roseville vicinity has the potential to essentially destroy the remaining pools in the vicinity. This Specific Plan includes minimal measures to protect pools in the Plan area. It has been suggested that a City-wide program be initiated to identify and preserve the most high quality pool areas. Although intent is good, preservation to date has been on a project by project basis, and the City of Roseville has not formally initiated a City wide program to facilitate preservation of these areas.

Air Quality

Significant

As discussed in the Air Quality section of this report, the Urbemis #2 model, developed by the California Air Resources Board, was utilized to estimate emissions from the proposed project, and are presented in the body of this report. The Sacramento AQMA, which includes southern Placer County, is designated as nonattainment area for ozone, and Sacramento County experiences localized violations of the CO standards. Compliance with either of these standards is not predicted by the end of 1987 as mandated by the Environmental Protection Agency. Since continued development in the region, including the proposed project, will contribute to an already existing unacceptable condition, and will further exacerbate efforts to attain the federal standards, the incremental impact of this project will be significant. As discussed in the Air Quality Mitigation Measures section of this report, measures have been identified which could be utilized to reduce both project and regional air quality impacts.

Noise

Less than Significant

Although development of the region will substantially alter the noise environment, Most municipalities have legislation which specifies acceptable noise levels. Further, extensive measures



are available to reduce unacceptable noise to acceptable standards. Because such mitigation is feasible, and readily implementable cumulative noise impacts are judged to be less than significant.

Land Use

Less than Significant

Continued regional growth will alter the character and existing land uses, probably to a more urban setting. However, since all regional municipalities have adopted General Plans and supporting zoning ordinances, it is assumed that future changes to land use will be in accordance with local legislation, and as such, is considered less than significant.

Traffic.

Significant

The traffic impact section of this EIR and the appended traffic analysis prepared by Fehr & Peers Associates contain an analysis of cumulative traffic conditions projected to result with buildout of the City of Roseville to **General Plan** densities. Although the predicted Level of Service (LOS) across the major screenlines within the City will be maintained at "C" or better, there are several intersections in the City which are expected to function at less than LOS "C". Regional traffic conditions are predicted to worsen as outlying areas surrounding the Sacramento metropolitan area continue to develop into "bedroom communities". Roadways which function as commuter routes, such as Highway 50, Interstate 80, Interstate 5, Interstate 99 and Highway 65 already experience congested conditions during daily commute periods. Continued growth of the commuter areas, including Roseville, are anticipated to exacerbate this situation. Presently, solutions to the predicted traffic conditions have not been identified. It is likely that the ultimate solution will include a combination of measures including increased use of regional transit, light rail, park and ride, flex time and extended work shifts, and construction of the proposed beltway or other regional arterials. Project specific measures are discussed in the body



of this EIR, and the City of Roseville has adopted an extensive TSM program aimed at minimizing traffic impacts.

Utilities

Less than Significant

As individual projects are proposed for development, concerned agencies are requested to assess their "ability to serve" the proposed development. If utilities and public services cannot be made available to a given project, it is assumed that it would not be approved for construction. Of recent concern is the availability of water to serve the Central valley. There are unquestionably existing problems with the delivery of water to various portions of the region. However, the difficulty apparently stems from inadequate transportation facilities and not lack of water supply. Upgrading of facilities is assumed to correct existing deficiencies in the system. Continued development will increase the demand for resources, however, techniques and methods of providing utilities have continually evolved to be more efficient, and it is likely that future facilities will continue to better utilize resources and provide services with less impact.

Visual and Aesthetic Resources

Less than Significant

The aesthetic resources of the region will change from rural to a more urban environment. This change will be interpreted by some as being negative and by others as positive. Most municipalities require dedication of floodways parkland, and open space, as well as preservation of native trees and vegetation. Further, it is becoming common for local homeowners associations to establish architectural guidelines for future development, and for developments to include landscaped pedestrian corridors and easements. Such amenities are not intended to mitigate the loss of the natural character of an undeveloped site, but they do serve to make the urban environments which replace the natural communities attractive and aesthetically pleasing.



Archaeology and History

Significant

Archaeological and historical resources are present throughout the region. Many sites are presently unknown, others are known and protected, and others have been discovered and vandalized. Mitigation is routinely developed at the project level. Therefore, it must be assumed that everything which can feasibly be done to preserve, protect, and record sites is in fact being implemented. However, regardless of ongoing mitigation, development of the region will slowly result in the discovery, disturbance, mitigation, and eventual disappearance of most archaeological and historic sites. This is an unmitigatable impact associated with land use change and development.



X. THE RELATIONSHIP BETWEEN LOCAL SHORT TERM USES OF THE HUMAN ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG TERM PRODUCTIVITY.

The cumulative and long term effect of the proposed Specific Plan will be to introduce a residential, industrial, and commercial environment into an area which is currently in a natural condition. This change will involve a substantial alteration of both the natural and the cultural environment of the Plan area. Considering that encroaching urban development has already surrounded much of the Plan area, and additional development is proposed in the vicinity, development of the area appears to be the logical long term use of the area. However, as discussed in the body of this report, development of areas which support vernal pools prior to identification of mitigation could be short sighted and result in an overall loss of the inherent long term value of these habitats. The resulting impacts and potential mitigation measures are discussed at length in the various sections of this EIR. Implementation of the mitigation measures described remains the major means available to assure the maintenance and enhancement of long term productivity for the site and affected area.

XI. ANY SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED.

The major irreversible change which will result from the proposed project will be the long term commitment of the resources of the property to the proposed uses. Off site irreversible changes will also result. These changes are described in detail in the appropriate sections and components of this EIR, and are summarized in Table B3 of this document. The most notable irreversible environmental changes will include those typically associated with conversion of undeveloped area to an urban setting. Changes to the existing vegetation and wildlife communities within the Plan area, loss of vernal pool habitat, the introduction of additional pollutants into the environment, and increased traffic volumes, constitute the major irreversible



impacts associated with development of the Specific Plan Area. These irreversible impacts are largely unavoidable and will continue to occur regionally whether or not this Specific Plan Area is implemented as described herein.

XII. OPPOSITION TO THE PROJECT.

No opposition to the proposed project has been expressed to date. However, the public review period for this document and subsequent public hearings have yet to occur, and opposition to the project may be voiced at these times.

XIII. PROPOSED ENVIRONMENTAL MONITORING PROGRAMS.

No monitoring programs have been proposed which are not already implemented as a result of City policies. However, a program is proposed, which may include monitoring, to identify preservation measures for, vernal pools throughout the City.



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