



PROPOSED

**NORTH ROCKLIN CIRCULATION ELEMENT
AND TRAFFIC STUDY**

APRIL 1993

CITY OF ROCKLIN

COMMUNITY DEVELOPMENT DEPARTMENT

NORTH ROCKLIN CIRCULATION ELEMENT

1.1 INTRODUCTION

The North Rocklin Circulation Element (NRCE) consists of a draft circulation system referred to as the Base Circulation Plan (Exhibit 3) plus the Long Range Planning Options (Exhibit 4). The NRCE also includes all circulation improvement projects that are currently contained in the Rocklin General Plan as shown on Exhibit 2.

There are three documents that provide background information on the NRCE. These reference documents are as follows:

1. Final Report prepared for the City of Rocklin by DKS Associates on the North Rocklin Traffic Study dated March 19, 1993, which includes various alternatives.
2. Technical memorandum dated April 14, 1993 from DKS Associates to the City of Rocklin regarding the Base Circulation Plan for North Rocklin Traffic Study.
3. Memorandum dated April 20, 1993 to Rocklin City Council/City Manager regarding the North Rocklin Traffic Study.

1.2 SETTING

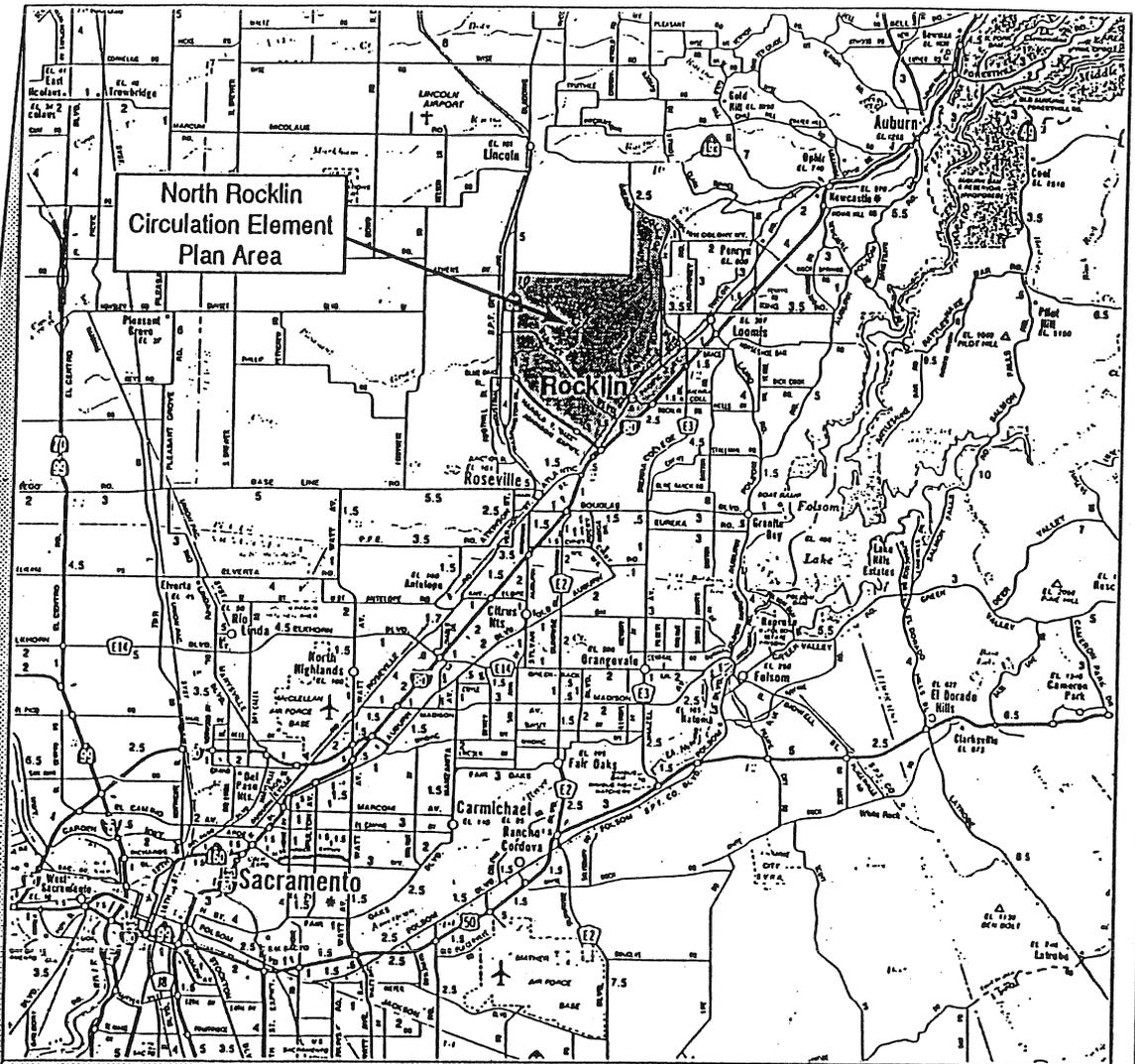
The plan area is located in the northern portions of the City of Rocklin (Exhibit 1). This area is generally bounded by Interstate 80 (I-80) to the south, State Route 65 (SR-65) to the west, and the City of Rocklin municipal boundaries to the north and east.

The project consists of existing and planned roadways located in areas that are generally planned for development. The easterly and northerly portions of the study area are primarily undeveloped. Roadways, and roadway improvements proposed for this portion of the plan area generally traverse hillsides, creeks, and oak woodlands. The southeasterly portion of the plan area, along I-80, is more developed, with residential and employment-related uses already largely in place.

1.3 PROJECT HISTORY

The proposed North Rocklin Circulation Element project (proposed project) is the outcome of the North Rocklin Traffic Study (Traffic Study), conducted by the City of Rocklin between October 1992 and April 1993. The main purpose of the Traffic Study was to explore alternatives to explore alternatives to maintain uncongested roadways in the City in anticipation of planned growth. The Traffic Study entailed development of a citywide travel model to identify possible problem areas in the northern component of the City's planned future transportation system, as defined in the City's Circulation Element, and to evaluate transportation planning options to alleviate those identified problem areas.

During the preparation of the Traffic Study, a number of public meetings were held with the community to identifying issues and concerns, and to solicit feedback on preliminary alternatives being considered by the City of Rocklin. Public meetings were held on November 5, 1992, and January 13, March 3, March 30, and April 20, 1993. Records of those public meetings are available through the City of Rocklin Community Development Department, P.O. Box 1138, 3970 Rocklin Road, Rocklin, California, 95677.



North Rocklin
Circulation Element
Plan Area



Source: AAA Sacramento Valley Region Map, 1992.

Vicinity Map

North Rocklin
Circulation Element

EXHIBIT 1

Not To Scale

At the conclusion of the Traffic Study, the Rocklin City Council approved, for additional study, the following recommendations:

- ▶ use the year 2020 and the anticipated level of development at that point in time in the City of Rocklin and surrounding areas as the basis for determining the "base circulation plan" for updating the City's Circulation Element;
- ▶ use the base circulation plan identified in an April 14, 1993 Technical Memorandum prepared by DKS Associates (as modified by City Council action) as the "proposed project" for further environmental evaluation;
- ▶ include certain alternatives in the environmental evaluation (as indicated on Exhibit 7 of the DKS Associates Technical Memorandum dated April 14, 1993); and,
- ▶ consider the long-range planning options described in Exhibit 8 of the DKS Associates Technical Memorandum dated April 14, 1993 (and described in Section 1.4 of the Initial Study).

The year 2020 was selected as the planning year because it represents a time period for which a reasonably foreseeable level of development, consistent with the General Plan, could be forecast. Each of these approved recommendations are incorporated into the Proposed Project being considered in this Initial Study.

1.4 PROJECT DESCRIPTION

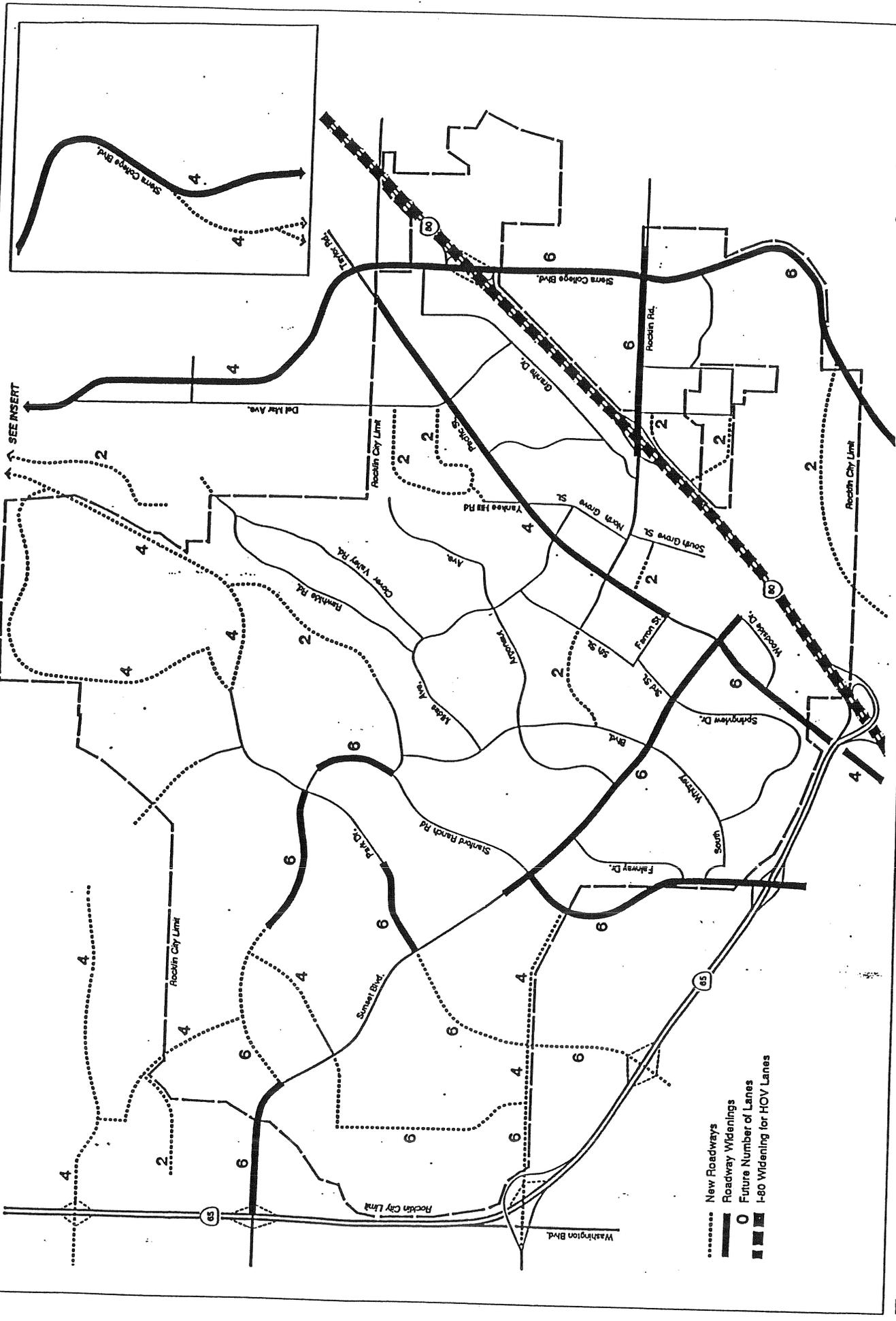
The project description consists of two parts: the Base Circulation Plan for the year 2020 and Long-Range Planning Options. The components together comprise the North Rocklin Circulation Element.

Base Circulation Plan-Year 2020

The Base Circulation Plan for the Year 2020 (Base Plan) includes all of the roadway improvement projects that could be accommodated under Rocklin's current Circulation Element of its General Plan (see Exhibit 2) plus additional roadway improvement projects (improvements) recommended at the conclusion of the Traffic Study. The additional improvements were recommended for the following reasons:

- ▶ Some would resolve anticipated level of service problems under forecasted year 2020 development levels.
- ▶ Some would tend to reduce traffic on certain key collector roadways that have residential frontage, such as portions of Midas Avenue and Argonaut Avenue.
- ▶ Some would provide improved circulation in some of the high growth areas of the City.

The Base Plan improvements proposed in addition to the existing City of Rocklin Circulation Element are shown in Exhibit 3. It is important to note that the proposed project does not include a reevaluation of the existing Circulation Element components, but includes only the following additional improvements, and long-range planning options discussed below. These Base Plan improvements are as follows:



- New Roadways
- Roadway Widening
- Future Number of Lanes
- I-80 Widening for HOV Lanes

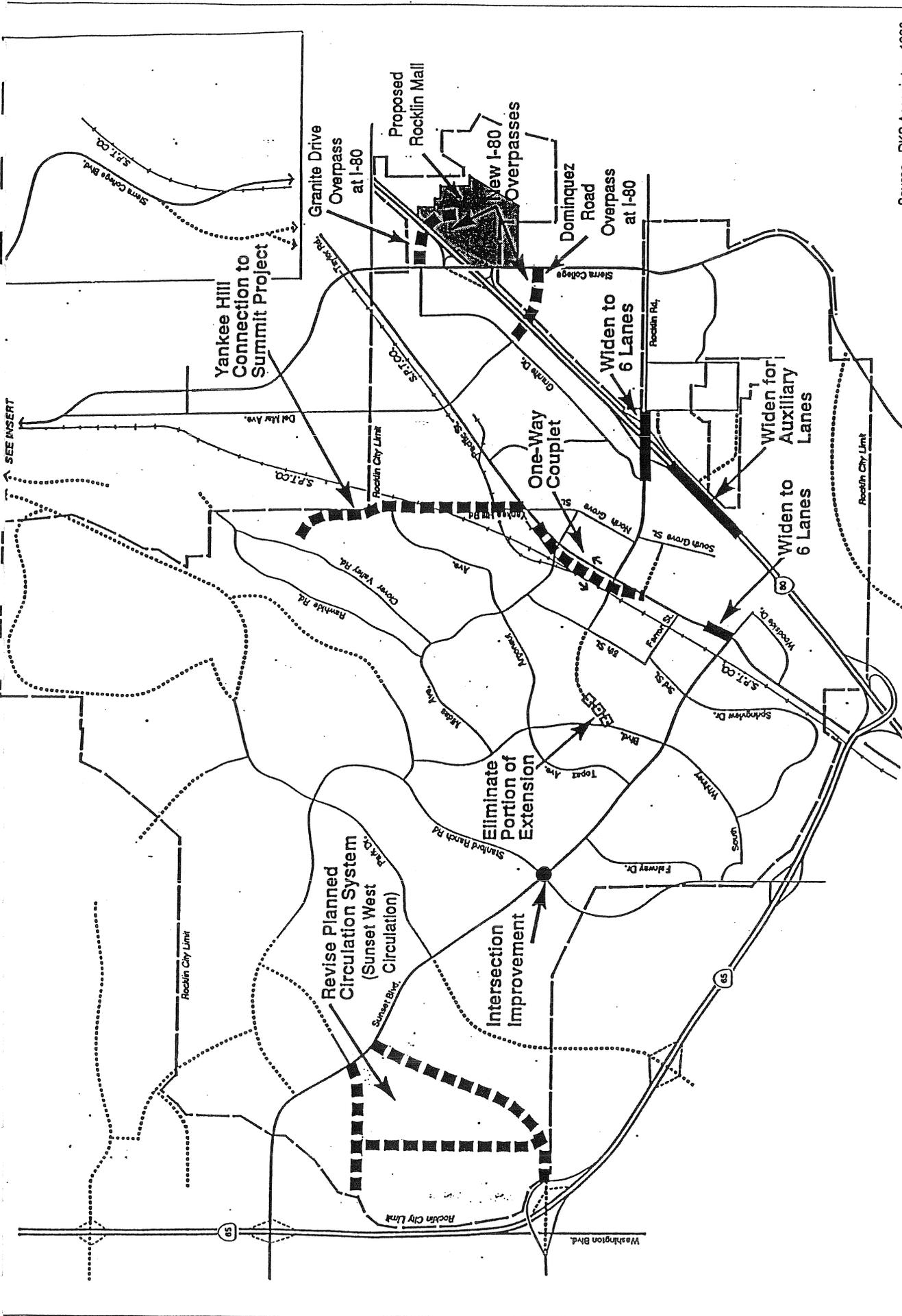
Existing General Plan Circulation Element Roadway System

North Rocklin Circulation Element

Source: DKS Associates, 1993.

EXHIBIT 2





Source: DKS Associates, 1993.

EXHIBIT 3

Base Circulation Plan (In Addition to General Plan Improvements)

North Rocklin
Circulation Element



Not To Scale



- ▶ **Pacific Street/Railroad Avenue One-way Couplet.** This improvement would create a one-way couplet using Pacific Street for eastbound traffic and Railroad Avenue for westbound traffic. This couplet could begin and end at a variety of locations with transition sections between Pacific Street and Railroad Avenue. The project being evaluated begins east of Midas Avenue and extends west of Rocklin Road to the vicinity of Bush Street. This couplet configuration would extend beyond the limits of Railroad Avenue. This improvement is intended to relieve anticipated congestion problems along Pacific Street, particularly at its intersections with Rocklin Road and Midas Avenue.
- ▶ **New I-80 Overpasses.** Two new overpasses of I-80 are proposed; one would connect Dominguez Road north of I-80 with Sierra College Boulevard south of I-80 at the proposed entrance to Rocklin Mall; the other would connect Granite Drive at Sierra College north of I-80 with the north side of the proposed Rocklin Mall. The Dominguez Road overpass would be needed to relieve traffic congestion on Rocklin Road at I-80. The Granite Drive overcrossing would improve circulation to the proposed Rocklin Mall.
- ▶ **Widen Rocklin Road at I-80.** This improvement involves a reconstruction of the Rocklin Road underpass I-80 so that it can accommodate six (6) traffic lanes plus pedestrian/bike facilities on both sides of Rocklin Road. This capacity improvement could be tied to a potential future widening of I-80 by Caltrans, and may not be needed until after the year 2010. The intersections on Rocklin Road at Granite Drive and the I-80 eastbound and westbound on/off-ramps would need additional turn lanes to accommodate year 2020 traffic demands. Also, I-80 would be widened west of Rocklin Road to provide "auxiliary lanes" for on-and off-ramp traffic.
- ▶ **Elimination of a Portion of Rocklin Road Extension.** The extension of Rocklin Road between 5th Street and Whitney Boulevard is included in the City's current Circulation Element. Under year 2020 development levels, the full Rocklin Road extension does not appear to be needed to relieve traffic on Midas Avenue, Sunset Boulevard or Pacific Street. Therefore, the portion of this extension near Whitney Boulevard, including a bridge over Antelope Creek, could be eliminated in the year 2020 plan. The portion of the extension between Fifth Street and Antelope Creek would be needed to provide access to proposed new development in that area.
- ▶ **Extension of Yankee Hill Road to the Summit Project.** This project extends the current Yankee Hill Road alignment to the eastern end of the Summit project and includes a connection to Argonaut Avenue. This improvement is intended to reduce traffic demand on Midas Avenue between Argonaut Avenue and Pacific Street.
- ▶ **Sunset West Circulation Plan.** These improvements reflect the proposed circulation system for the Sunset West development that involves a revised circulation system from that shown in the City's Circulation Element. It calls for a connection between Sunset Boulevard and the Blue Oaks Boulevard interchange with Highway 65 that is generally parallel with the proposed Park Drive/Pleasant Grove connection to Highway 65. This set of roadway projects would provide improved circulation for the western portion of Rocklin compared to the roadway system in Rocklin's current Circulation Element.
- ▶ **Widen Pacific Street Near Sunset Boulevard.** The City's current Circulation Element allows Pacific Street to be widened to six (6) lanes between the Roseville City Limits and Sunset Boulevard. To accommodate year 2020 traffic demand levels, Pacific Street for

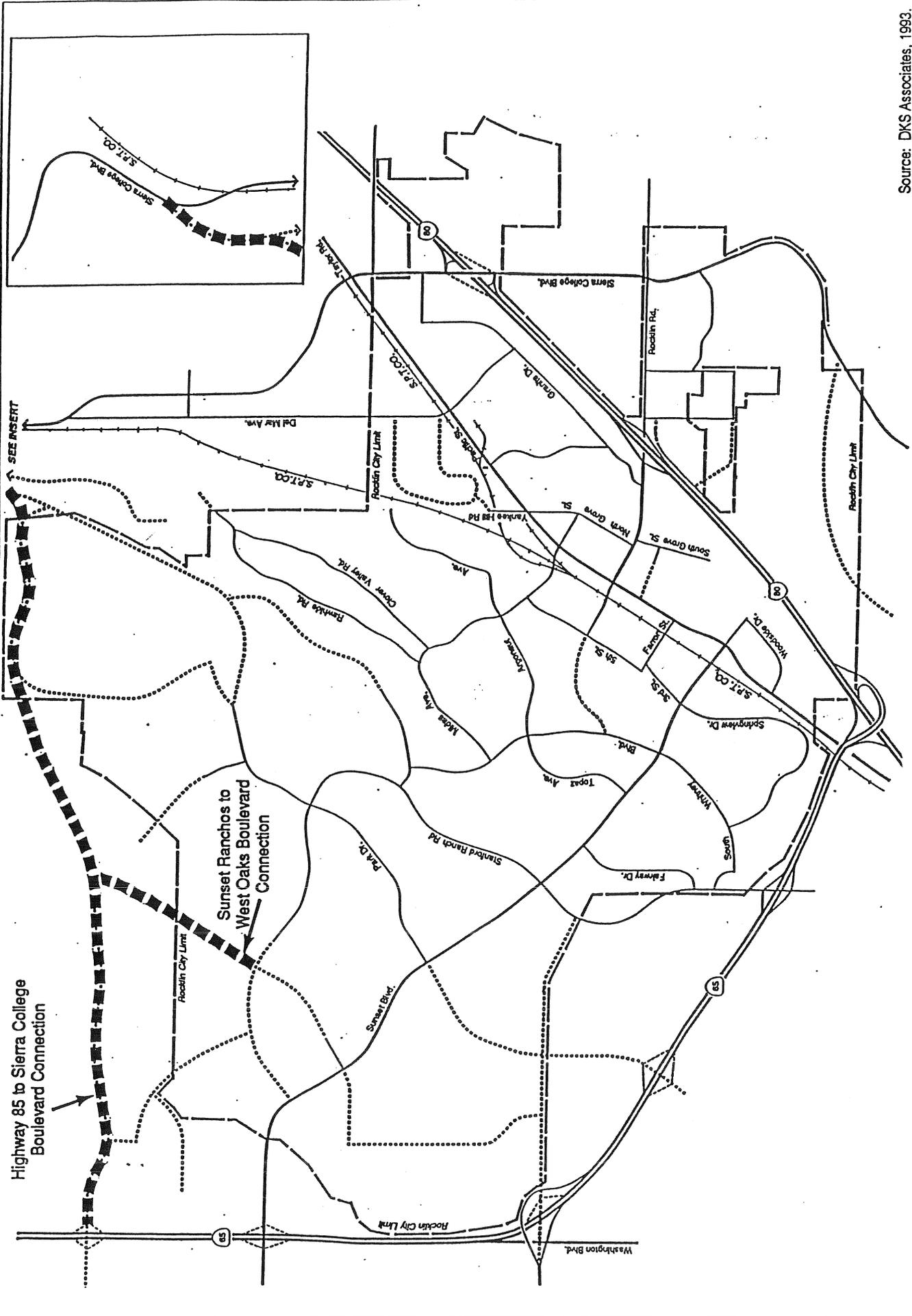
several hundred feet east (northeast) of Sunset Boulevard should also be widened to six (6) lanes, instead of the four (4) allowed under the Circulation Element.

- ▶ **Stanford Ranch Road/Sunset Boulevard Intersection Improvement.** The intersection of Stanford Ranch and Sunset Boulevard would need to be improved to accommodate year 2020 development levels. The existing geometry of this intersection consists of single left turn lanes, two through lanes, and exclusive right turn lanes from all four approaches, with the exception of southbound Sunset Boulevard, which has a second left turn lane. Sunset Boulevard could be widened to a six lane facility under the current Circulation Element. Based on this assumption, the proposed geometry of the intersection in year 2020 consists of dual left turn lanes, three through lanes, and exclusive right turn lanes from both directions of Sunset Boulevard. The only change required to the geometry of Stanford Ranch Road is the addition of a second eastbound left turn lane.

Long-Range Planning Options

The Base Plan, described above, would provide an adequate circulation system for the projected year 2020 development levels. In addition to the Base Circulation Plan, the City of Rocklin is including evaluation of some new roadway concepts in the proposed North Rocklin Circulation Element to preserve options for long-range planning. The principal reason for these options is that the City may in the future consider allowing higher densities in its planning reserves not currently contemplated in existing City of Rocklin or Placer County General Plans; these areas include, for example, Sunset Ranchos or annexation areas. Consequently, future roadways are being considered to reserve long-range options, even if such roadways are not required by year 2020. The key locations for these long-range planning projects are shown in Exhibit 4 and are described as follows:

- ▶ **Highway 65 to Sierra College Boulevard Connection.** This roadway concept would start at a future interchange at Highway 65 and Whitney Boulevard and extend eastward through the Sunset Ranchos property along the Whitney Boulevard alignment. It would then extend to the northeast through North Stanford Ranch and the proposed Clover Valley Lakes development to intersect Sierra College Boulevard. This concept is intended to provide alternative routes for traffic from the northern portions of Rocklin to reach I-80 and the southern portions of the City via Highway 65 and Sierra College Boulevard.
- ▶ **Sunset Ranchos to West Oaks Boulevard Connection.** This roadway concept would connect the eastern portion of the Sunset Ranchos property with West Oaks Boulevard and thereby improve connections between potential future neighborhoods in North Rocklin. This connection would also provide an alternative north-south route other than Highway 65 for traffic from the potential development on the Sunset Ranchos property.



Source: DKS Associates, 1993.

EXHIBIT 4



Long Range Planning Options

North Rocklin Circulation Element

**MEMORANDUM DATED APRIL 20, 1993 TO
ROCKLIN CITY COUNCIL/CITY MANAGER**

MUNICIPALITY OF ROCHESTER
CITY COUNCIL

MEMORANDUM

TO: City Council/City Manager

FROM: Terry A. Richardson
Community Development Director

David R. Woltering, Principal Planner

DATE: April 20, 1993

SUBJECT: North Rocklin Traffic Study

RECOMMENDATION

It is staff's recommendation that the City Council give the following direction:

1. That based on review of the North Rocklin Traffic Study, dated March 19, 1993 that the City Council direct staff to use the planning year of 2020 and the associated level of development at that point in time in the City of Rocklin and surrounding areas as the basis for determining the "base circulation plan" for updating the City's Circulation Element.
2. That the City Council direct staff to use the base circulation plan as described in the attached Technical Memorandum dated April 14, 1993, from DKS Associates (Figure 4) as the "proposed project" for the environmental impact report that will be prepared in conjunction for the North Rocklin Traffic Study.
3. That the City Council direct staff to include in the alternative analysis of the North Rocklin Traffic Study EIR, those alternatives to the base circulation plan as listed in the attached Technical Memorandum from DKS Associates (Figure 7).
4. That the City Council direct staff to address inclusion in the proposed Circulation Element those options listed for long-range planning purposes in the attached Technical Memorandum dated April 14, 1993, from DKS Associates (Figure 8).

DISCUSSION

I. Adoption of the Year 2020 Planning Horizon

At the special March 30, 1993 community meeting involving a joint session of the Planning Commission and City Council regarding the North Rocklin Traffic Study, it was determined by a consensus of the City Council and Planning Commission members

that a point in time (planning horizon) other than 2010 or buildout should be considered for transportation planning purposes for the City of Rocklin.

During the presentation by representatives of DKS Associates and Recht-Hausrath Associates it was pointed out that complete buildout of all the land uses within the City of Rocklin land use plan would not occur, based on historical absorption rates, until the year 2126. It was further indicated that there is a large discrepancy in expected year of buildout between residential (2026) and retail (2048) and industrial (2126) land uses. This information was particularly important, given that the focus of the North Rocklin Traffic Study had primarily been buildout of the City of Rocklin. The study had also looked at a 2010 point in time consistent with the City's current General Plan.

This information provided by the consultants suggests that the current land use scheme for the City of Rocklin likely has a substantial excess of industrially, and perhaps retail, zoned properties. It also suggests that a buildout planning horizon that is in excess of 130 years, given historic absorption rates and amount of undeveloped acreage in the various land use categories, may be impractical for transportation planning purposes. Over this very extended planning horizon we can expect substantial technological changes that would, most likely, change the way we would plan today. In addition, it is likely that those land use categories (e.g., industrial and retail) excessive would be amended to bring the overall land use scheme for the City into balance. This future scheme, however, would be based on market conditions and the desires of the community well beyond the City's current planning horizon of 2010.

Based the general consensus of the Planning Commission and City Council at the March 30, 1993 community meeting concerning the North Rocklin Traffic Study, City staff has worked with representatives of DKS Associates and Recht-Hausrath Associates to determine a more reasonable planning horizon for transportation planning purposes here in the City of Rocklin. It was suggested that we focus on residential development, which could be more realistically and accurately forecasted, as a basis for our transportation planning. The year 2020, which represents 89% of residential buildout (i.e., approximately 24,000 dwelling units), was determined to be a point in time that would provide a reasonable planning horizon for transportation planning purposes for the City.

II. Summary of DKS Associates Technical Memorandum dated April 14, 1993

A. Base Circulation Plan

The Technical Memorandum prepared by DKS Associates, dated April 14, 1993 supplements the final North Rocklin Traffic Study dated March 19, 1993. The memorandum suggests that the large amount of retail and industrial land in the City of Rocklin may never be absorbed in that manner. It suggests further that planning for full buildout, based on the current land use scheme, would involve planning for some major roadway improvements which may never be required.

As compared with buildout, the technical report suggests that 2010 may be too short-sided for planning purposes. It is indicated in the memorandum that at year 2010 the City of Rocklin is expected to only absorb 68% of its residentially zoned land. The year 2020 suggested in the report for use in planning Rocklin's future transportation system and for updating its Circulation Element would acknowledge 89% of expected residential buildout in Rocklin, plus very "aggressive" estimates of capture rate for retail and industrial projects in the City of Rocklin. The existing levels of development as well as the proposed levels of development at 2010, 2020 and at buildout are listed in the Technical Memorandum in Table 1, page 3. The relative high level of residential absorption and aggressive capture rates for non-residential uses should assure conservative transportation requirements for the City of Rocklin.

The year 2020 development estimates were used by DKS Associates when running the Rocklin travel model to determine the year 2020 travel demand levels and the necessary roadway improvements. In addition, DKS Associates considered two primary objectives in suggesting appropriate roadway improvements for the City of Rocklin at year 2020 as follows:

1. Provide acceptable levels of service on Rocklin's arterial /collector roadway system through the year 2020.
2. Minimize traffic levels on those collector roadways that have residential frontage in the City of Rocklin.
3. The base circulation plan suggested by DKS Associates is indicated on Figure 4, page 8, of the Technical Memorandum. It should be noted that the base circulation plan indicated in that figure also includes all of the projects on Rocklin's current Circulation Element for its General Plan (see Figure 3) key elements of the base circulation plan as described in the report are as follows:
 - a. Pacific Street/Railroad Avenue one-way couplet.
 - b. New I-80 overpasses.
 - c. Widen Rocklin Road at I-80.
 - d. Elimination of a portion of Rocklin Road Extension.
 - e. Extension of Yankee Hill Road to the Summit Project
 - f. Sunset West Circulation Plan.

- g. Connection of Rawhide Road to the Clover Valley Lakes Project.
- h. Widen Pacific Street to Sunset Boulevard.
- i. Improvements to the Stanford Ranch Road/Five Star Boulevard intersection.

B. Alternatives to Base Circulation Plan

In addition to suggesting a base circulation plan for purposes of the North Rocklin Traffic Study Circulation Element and as the proposed project description to be analyzed in the North Rocklin Traffic Study Environmental Impact Report, DKS Associates suggested certain other transportation planning alternatives that should also be considered in the Environmental Impact Report. These alternatives to the base circulation plan are described in the Technical Memorandum on page 13 and listed as follows:

1. An alternative connection to the Summit project involving an extension to Dominguez Road instead of Yankee Hill Road.
2. Alternatives to the one-way couplet involving difficult improvements to Pacific Street intersections at Midas Avenue and Rocklin Road.
3. An alternative circulation system for the Sunset West Area involving a more direct extension of west Oaks Blvd. extending to the blue oaks Blvd. Interchange.

C. Long-Range Planning Options

DKS Associates also suggest in its Technical Memorandum that in addition to the alternative improvements suggested in the proposed base circulation plan, that the City of Rocklin may want to address preserving certain long-range transportation planning options that were developed as part of the North Rocklin Traffic Study. It is suggested in the Technical Memorandum that these projects or concepts be described in the City's Circulation Element so that future development proposals involving these options would trigger there further consideration. These long-range planning options are options that may be desirable well after the year 2020. The long-range planning projects are described on page 15 of DKS Associates Technical Memorandum and are listed as follows:

1. The "ring road" concept described in the North Rocklin Traffic Study which essentially provides for a roadway around the western, northern, and eastern portions of the City.

2. A full extension of Rocklin Road. As discussed in the memorandum, the base circulation plan, which addresses roadway need in the City of Rocklin at the year 2020, does not require a full extension of Rocklin Road to Whitney Boulevard. However, it may be desirable to keep the option open at some future date beyond 2020 to fully extend Rocklin Road to Whitney.

D. Projects That Could Be Dropped From Consideration

The DKS Associates memorandum describes on page 17 and lists in Table 3 at the end of the memorandum certain projects that were developed as part of the North Rocklin Traffic Study that would not be needed to satisfy the study objectives mentioned earlier in this staff memorandum for the year 2020 with respect to transportation planning in the City of Rocklin.

E. Summary

In summary, the DKS Associates Technical Memorandum that was prepared in conjunction with City staff, recommends the following:

1. Using the year 2020 for transportation planning purposes in the City of Rocklin.
2. A base circulation plan as described in the memorandum for the year 2020.
3. Certain alternative improvements to the base circulation plan that should be considered in the North Rocklin Traffic Study environmental impact report.
4. Some long-range transportation planning options that should be addressed in the City's Circulation Element update.

Besides the Technical Memorandum from DKS Associates concerning the North Rocklin Traffic Study, staff has also attached a copy of a letter from the law offices of Gregory D. Thatch, dated April 9, 1993. This letter generally indicates support for including the E-2 alignment within the Sunset West area as part of the base circulation plan. Please note that the base circulation plan described in the DKS Associates Technical Memorandum does include this alignment in the base circulation plan. However, because of certain long-range circulation benefits that may be attributable to the E-3 alignment, it is suggested that this other alignment be included in the alternatives analysis of the project environmental impact report.

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**TECHNICAL MEMORANDUM DATED
APRIL 14, 1993 FROM DKS ASSOCIATES**

8950 Cal Center Drive, Suite 340

Sacramento, CA 95826-3259

Phone: (916) 368-2000

Fax: (916) 368-1020

TECHNICAL MEMORANDUM

TO: Terry Richardson, Community Development Director
David Woltering, Principal Planner

FROM: John P. Long, P.E., DKS Associates

DATE: April 14, 1993

RE: Base Circulation Plan for North Rocklin Traffic Study

P92166-27/SA

At the March 30, 1993 Community Meeting on the North Rocklin Traffic Study, DKS Associates and City staff received input from the public and from a joint workshop of the Planning Commission and City Council. During the workshop, the Commission and Council were asked to provide guidance on the appropriate year that should be used for the evaluation of roadway needs in North Rocklin, and ultimately for an update to the City's Circulation Element of the General Plan. In response to that meeting, this technical memorandum outlines the following:

- A recommendation from DKS and City staff on the planning year and level of development that should be used for the analysis of Circulation needs; based on the guidance received from the Planning Commission and City Council.
- Estimates of development within the City of Rocklin for the recommended planning year.
- Identifications of a set of roadway improvements that would meet the study objectives (i.e., acceptable levels of service and lower traffic volumes on collector roadways with residential frontage) for the recommended planning year. This set of projects could form the "Base Circulation Plan" for an update of the Circulation Element and thus the "proposed project" for an EIR on that update.
- Identification of those improvements that should be tested in the EIR as alternatives to the projects on the Base Circulation Plan.
- Identifications of projects that are not needed for the development levels estimated for the planning year, but should be considered for inclusion in the City's Circulation Element to preserve options for long-range planning.

Recommended Planning Year

The North Rocklin Traffic Study evaluated transportation issues and needs under full development of Rocklin assuming the land uses allowed under the City's General Plan. The study indicates that residential development in the City could be fully developed in 30 to 35 years, while non-residential uses would take much longer to be fully developed. The land use economic consultant for the study, Recht Hausrath and Associates, found that Rocklin's retail and industrial land could take about 60 and 130 years respectively to be fully absorbed; if they ever do fully develop given the extensive amount of non-residential land available in South Placer County. The transportation and economic analysis indicates that the large amount of retail and industrial development at buildout must draw from a very large market area, and would thus cause heavy traffic demands at the "gateways" to the City, particularly the Rocklin Road/I-80 interchange. Thus by planning for full buildout, the City must plan for some major roadway improvements which may never be required.

On the other hand, DKS has found that planning for the year 2010, the planning year used in the City's General Plan, may be too short-sighted for the following reasons:

- Residential development in Rocklin, which is expected to maintain a strong absorption rate for years to come, would be only 68 percent developed by 2010.
- With few exceptions, the roadway improvements allowed under the General Plan would provide acceptable traffic operations at 2010. But shortly after 2010, some major improvements will be needed, particularly near I-80; and thus should be planned for now so that right-of-way can be preserved.

Therefore, the City staff asked the Planning Commission and City Council at the March 30, 1993 Community Meeting to provide guidance on the appropriate year, or level of development, that should be used to evaluate roadway needs in North Rocklin. The Commission and Council generally agreed that the year 2010 may be too short of a planning horizon, and that a planning year between 2015 and 2025 would be appropriate.

Based on this guidance, DKS and the City staff recommend that the year 2020 be used for planning Rocklin's future transportation system and for updating its Circulation Element.

Year 2020 Development Estimates

Table 1 and 2 and Figures 1 and 2 summarize the residential and non-residential development levels for 1992, 2010, 2020 and buildout of the City. The year 2010 development levels were estimated by City staff and assume that 80 percent of the 1.15 million square feet in the proposed Rocklin Mall would be occupied by 2010, plus about 2 million square feet of other retail uses would develop. These estimates involve an "aggressive" capture rate of the total retail development projected for South Placer County by 2010.

Figure 1
Rocklin Residential Land Use

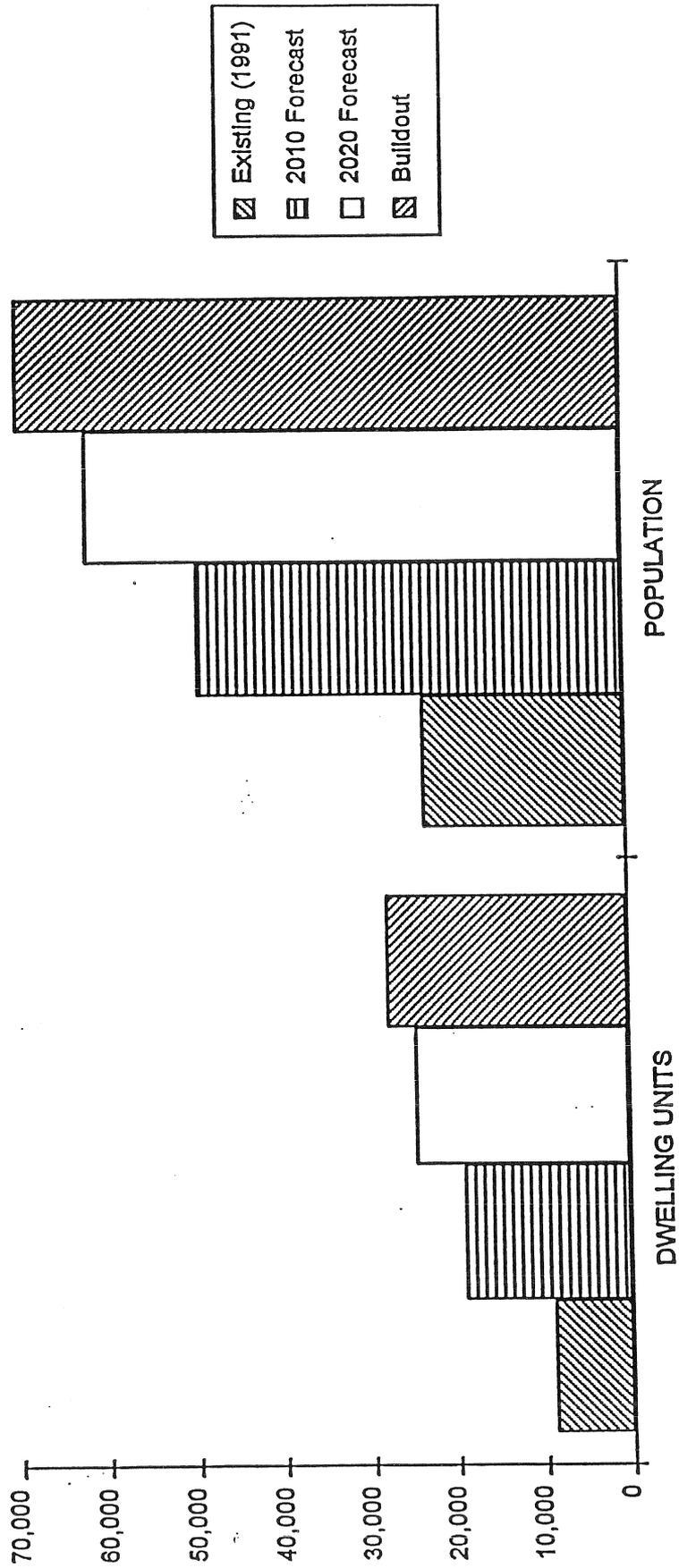
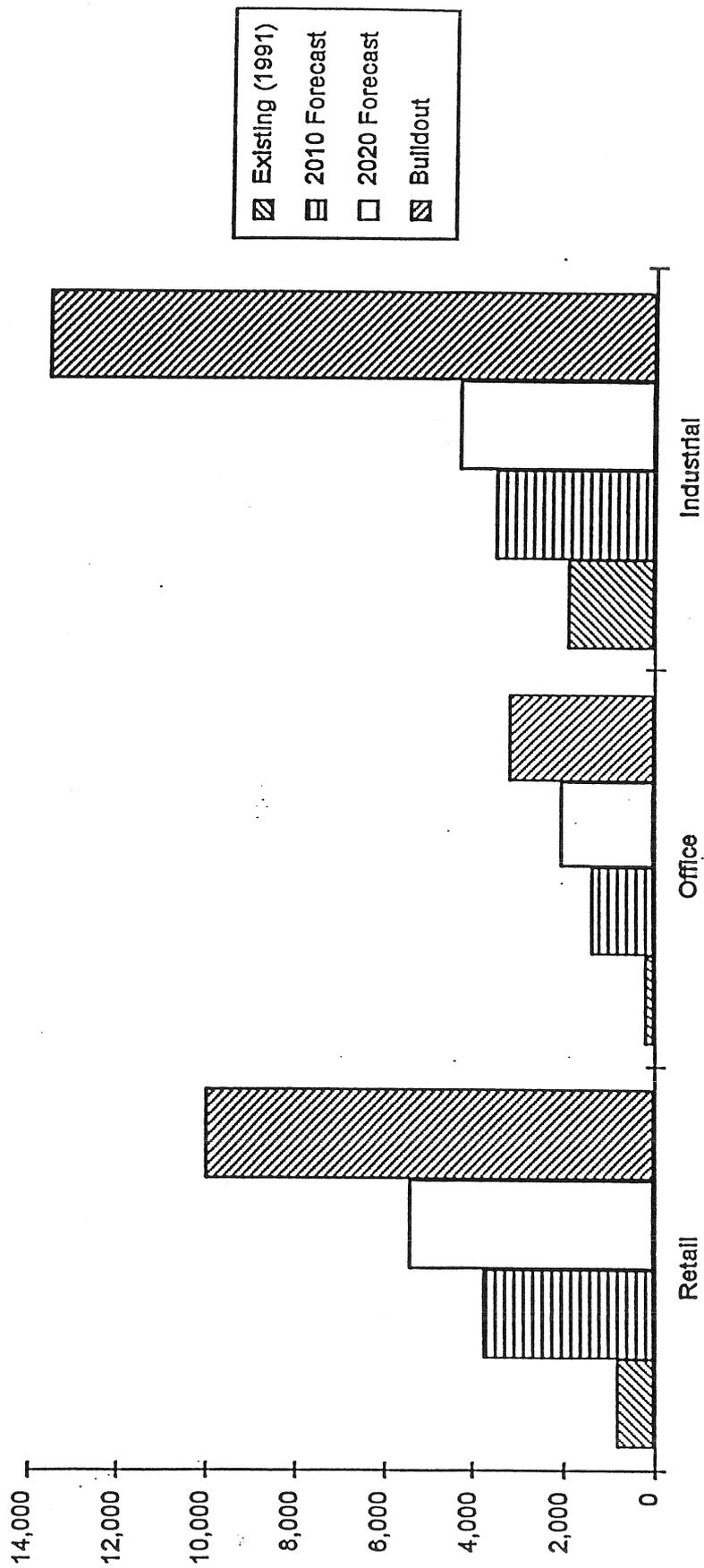


Figure 2
Rocklin Non-Residential Land Use



Land Use	1992	2010	2020	Buildout	2020 as Percent of Buildout
Residential	8,568 du	18,861 du	24,584 du	27,778 du	89%
Non-Residential (thousands of gross square feet)					
Retail	825	3,780	5,414	10,011	54%
Office	182	1,394	2,063	3,191	65%
Industrial	1,890	3,477	4,353	13,838	31%

Land Use	Growth 1992-2020	Annual Absorption 1992-2020	Total Growth 1992-Buildout	Years to Buildout	Year at Buildout
Residential	16,016	572	19,210	34	2026
Non-Residential (thousands of gross square feet)					
Retail	4,589	164	9,186	56	2048
Office	1,881	67	3,009	45	2037
Industrial	2,463	88	11,948	134	2126

MEMORANDUM

April 14, 1993

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The year 2020 development levels were estimated by assuming that the aggressive absorption rates between 1992 and 2010 would continue through 2020. They indicate that residential development would be about 89 percent absorbed by 2020, while retail and office development would be about 54 percent and 65 percent absorbed, respectively. Industrial space is expected to be only 31 percent absorbed by 2020, despite the assumption that Rocklin will capture a substantial amount of the projected industrial development in South Placer County.

Analysis of 2020 Roadway Needs

The new Rocklin travel demand model was used to test how combinations of the alternative projects in the North Rocklin Traffic Study would accommodate year 2020 travel demand levels. The objectives of this analysis are as follows:

- provide acceptable levels of service on Rocklin's arterial/collector roadway system through the year 2020.
- minimize traffic levels on those collector roadways that have residential frontage.

This analysis grouped the projects into categories that generally indicate the desirability of including an improvement in the City's Circulation Element. These categories are discussed below.

Base Circulation Plan-Year 2020

The first set of projects are recommended to be included on the "Base Circulation Plan" for the update of the City's Circulation Element for the following reasons:

- Some would resolve the anticipated level of service problems under 2020 development levels.
- Some would tend to reduce traffic at certain key collector roadways, such as portions of Midas Avenue and Argonaut Avenue.
- Some would provide improved circulation in some of the high growth areas of the City.

It must be noted that the "Base Circulation Plan" also includes all of the projects on Rocklin's Current Circulation Element of its General Plan (see Figure 3). The proposed additional projects on the "Base Circulation Plan" are shown in Figure 4. They include several of the alternative projects from the North Rocklin Traffic Study; yet they involve less extensive improvements to the Rocklin Road/I-80 interchange compared to those considered for full buildout development levels. These projects are as follows:

- **Pacific Street/Railroad Avenue One-way Couplet.** This improvement would create a one-way couplet using Pacific Street for eastbound traffic and Railroad Avenue for westbound traffic. This couplet could begin and end at a variety of locations with transition sections between Pacific Street and Railroad Avenue. The project that was

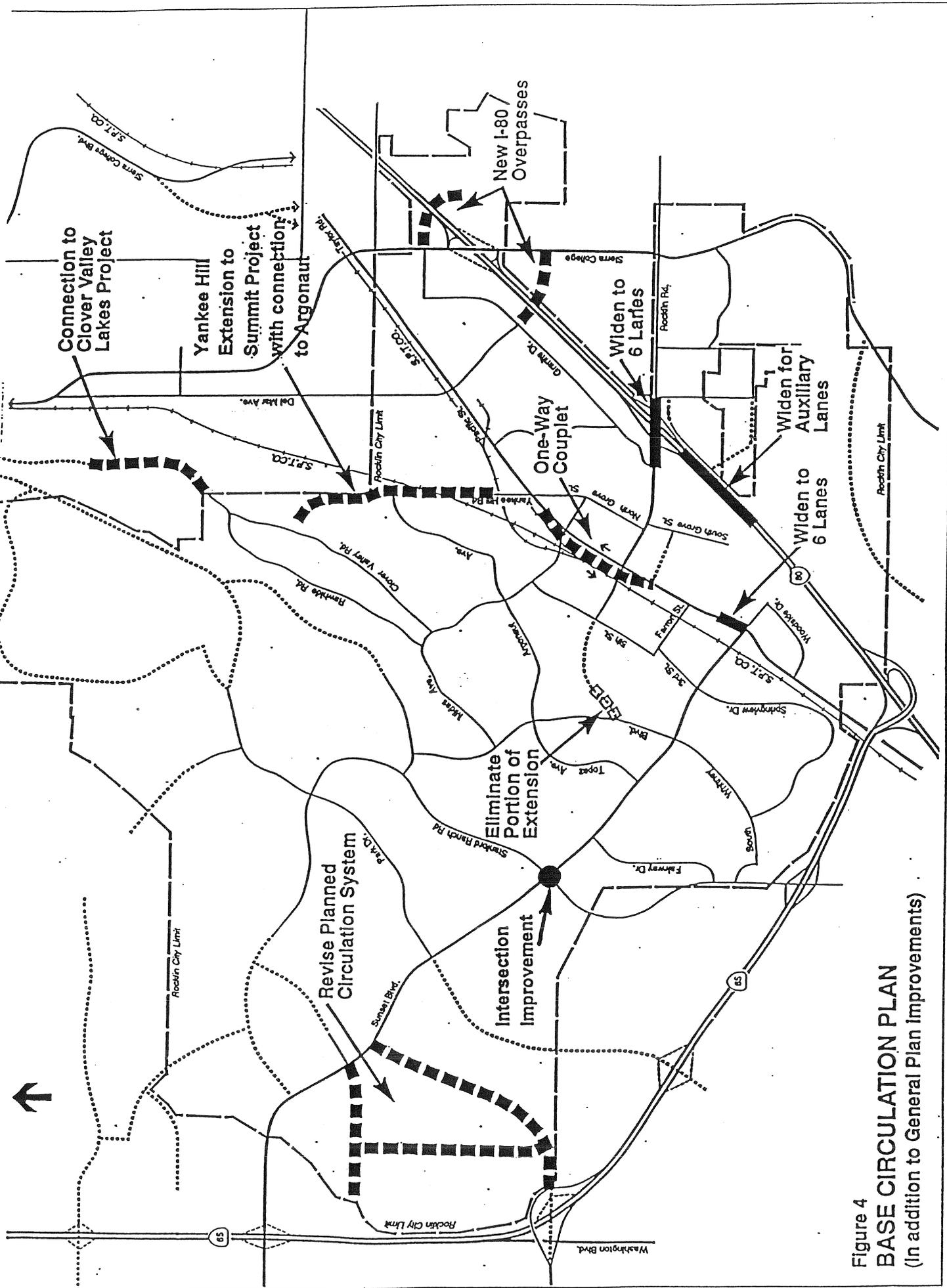


Figure 4
BASE CIRCULATION PLAN
 (In addition to General Plan Improvements)

MEMORANDUM

April 14, 1993

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evaluated would begin east of Midas Avenue and extend west of Rocklin Road to the vicinity of Bush Street. Such a couplet would extend beyond the limits of Railroad Avenue. There are several possible transition sections east of Midas Avenue; or the couplet could extend east of Yankee Hill Road.

- **New I-80 Overpasses.** These two improvements involve new overpasses of I-80; one would connect Dominguez Road north of I-80 with Sierra College Boulevard south of I-80 at the proposed entrance to Rocklin Mall; while the other would connect Granite Drive at Sierra College north of I-80 with the north side of the proposed Rocklin Mall. The Dominguez Road overpass would be needed to relieve traffic volumes on the critical section of Rocklin Road at I-80, while the Granite Drive overcrossing is intended to improve circulation to Rocklin Mall.
- **Widen Rocklin Road at I-80.** This improvement involves a reconstruction of the Rocklin Road underpass to I-80 so that it can accommodate six (6) traffic lanes plus pedestrian/bike facilities on both sides of Rocklin Road. This improvement could be tied to a potential future widening of I-80 by Caltrans, and may not be needed until 2010, but right-of-way should be preserved for this improvement. Unlike conditions under buildout levels, traffic demand at 2020 will not require a new on-ramp to allow two westbound "merge points" onto the I-80 westbound mainline. The existing ramps will be adequate if I-80 is widened west of Rocklin Road to provide "auxiliary lanes" for on and off ramp traffic.
- **Elimination of a Portion of Rocklin Road Extension.** Under 2020 development levels, it was found that the full Rocklin Road extension to Whitney Boulevard does not appear to be needed to relieve traffic on Sunset Boulevard. Therefore, the portion of this extension near Whitney Boulevard could be eliminated in the 2020 plan. The analysis of full buildout of the City found that the full Rocklin Road extension would be needed to allow acceptable traffic operations on Sunset Boulevard and Pacific Street. Therefore, as discussed later in this memorandum, the City should preserve the option to complete the Rocklin Road extension to Whitney Boulevard, if it is ever needed. The portion of the extension between Fifth Street and Antelope Creek would be needed to provide access to proposed new development in that area. A bridge across Antelope Creek would not have to be constructed to accommodate 2020 traffic demands. But the right-of-way for this creek crossing and the extension of Rocklin Road to Whitney should be preserved to provide options for long-range planning.
- **Extension of Yankee Hill Road to the Summit Project.** This extension to the eastern end of the Summit project includes a connection to Argonaut Avenue. This improvement would reduce traffic demand on Midas Avenue between Argonaut Avenue and Pacific Street. By utilizing the Yankee Hill alignment, the connection to Argonaut Avenue would not tend to attract "cut through" traffic on Argonaut Avenue (as compared to an extension of either Sierra Meadows Drive or Dominguez Road).

MEMORANDUM

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- **Sunset West Circulation Plan.** These improvements reflect the proposed circulation system for the Sunset West development that involves a revised circulation system from that shown in the City's General Plan. It calls for a connection between Sunset Boulevard and the Blue Oaks Boulevard interchange with Highway 65 that is generally parallel with the proposed Park Drive/Pleasant Grove connection to Highway 65.
- **Connection of Rawhide Road to the Clover Valley Lakes Project.** This connection was proposed by City staff to improve overall circulation between the Clover Valley Lakes project and the rest of Rocklin.
- **Widen Pacific Street Near Sunset Boulevard.** The City's current General Plan allows Pacific Street to be widened to six (6) lanes between the Roseville City Limits and Sunset Boulevard. To accommodate 2020 traffic demand levels, Pacific Street for several hundred feet east (northeast) of Sunset Boulevard should also be widened to six (6) lanes, instead of four (4) allowed under the General Plan. This limited additional widening was included in the improvements to the Pacific Street/Sunset Boulevard intersection that was discussed in the North Rocklin Traffic Study (Project D3).
- **Stanford Ranch Road/Sunset Boulevard Intersection Improvement.** In addition to roadway improvements described above, the intersection of Stanford Ranch and Sunset Boulevard would also need to be improved to accommodate 2020 development levels; but not as much, or to the extent required under buildout development levels. Therefore, this improvement appears to be feasible. The existing geometry of this intersection consists of single left turn lanes, two throughs, and exclusive right turn lanes from all four approaches, with the exception of southbound Sunset Boulevard, which has a second left turn lane. It is assumed that by 2020, Sunset Boulevard will have been widened to a six lane facility. Based on this assumption, the proposed geometry of the intersection in 2020 consists of dual left turn lanes, three throughs, and exclusive right turn lanes from both directions of Sunset Boulevard. The only change required to the geometry of Stanford Ranch Road is the addition of a second eastbound left turn lane.

Figure 5 shows the forecasted daily traffic volumes on the major street system of North Rocklin under 2020 development levels with the Base Circulation Plan, which assumes full implementation of the improvements allowed under the General Plan shown in Figure 3, plus the recommended projects described above and shown in Figure 4. Figure 6 presents the projected peak hour levels of service in the year 2020 for the major intersections in North Rocklin assuming that the improvements in Figures 3 and 4 are constructed. It indicates that all of the major intersections would operate at acceptable levels of service in the year 2020, if the Base Circulation Plan is fully implemented.

Alternatives to the Base Circulation Plan

If the City decides that it should update its Circulation Element to include a set of improvements that will accommodate the projected 2020 development levels, then the updated Circulation Element must be evaluated in a full environmental impact report (EIR); and the City could

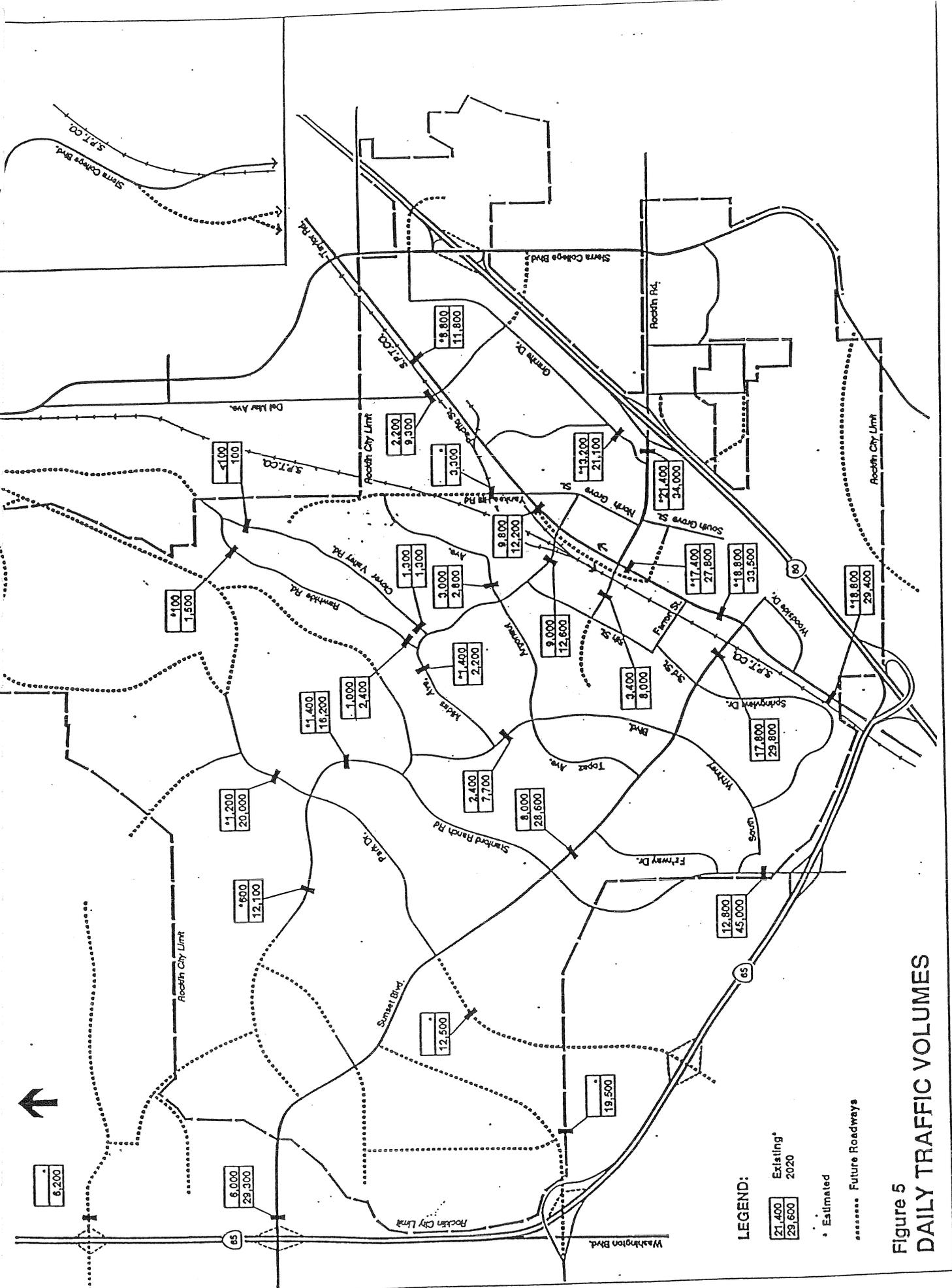


Figure 5
DAILY TRAFFIC VOLUMES

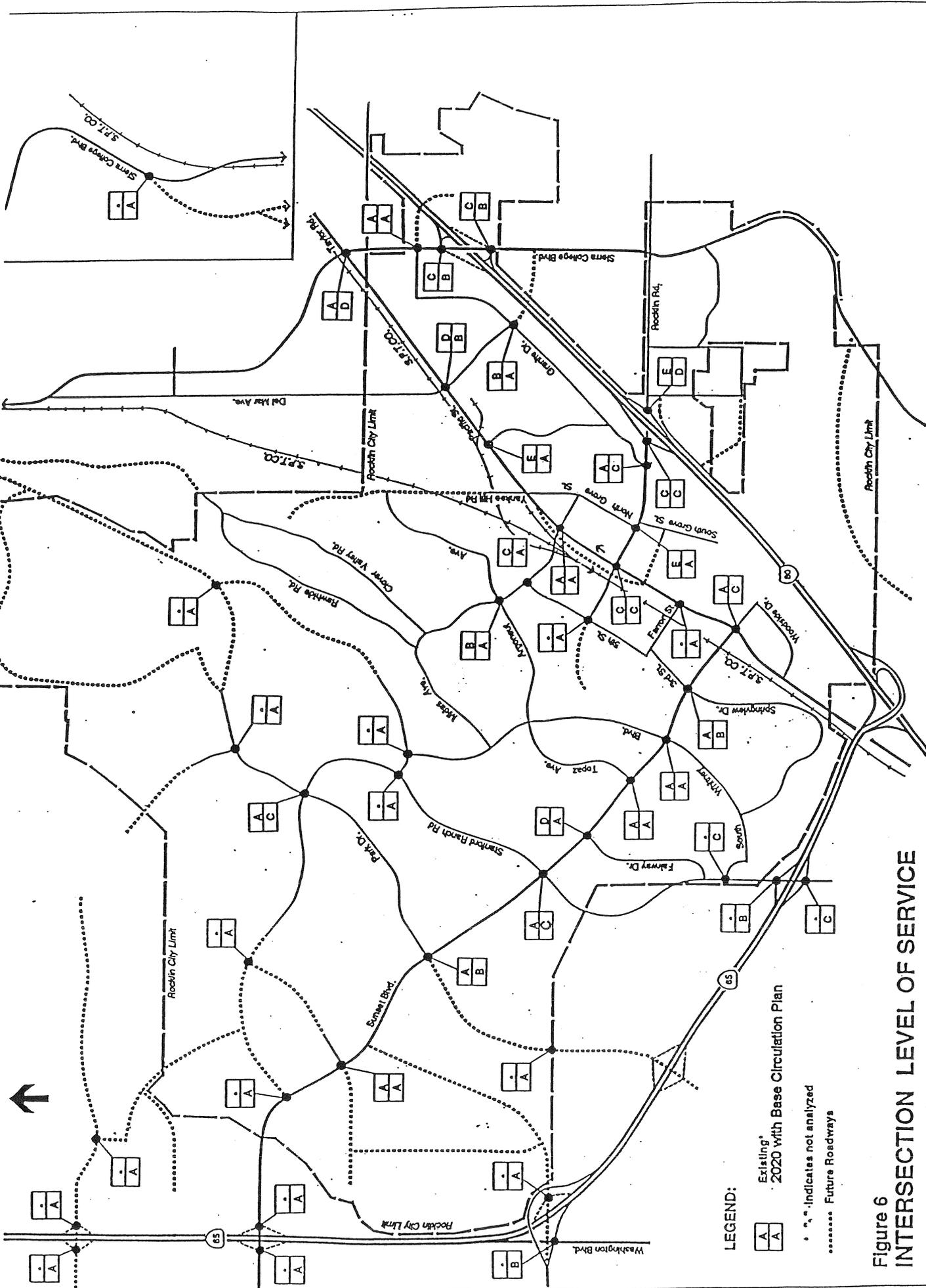


Figure 6
INTERSECTION LEVEL OF SERVICE

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choose to make the Base Circulation Plan described above as the "proposed project" in the EIR. However, alternative projects should be tested in the EIR, and DKS and the City staff have defined some possible alternatives. These alternatives (shown in Figure 7) are as follows:

- **Alternative Connection to the Summit Project.** The Yankee Hill Road extension to the Summit project should reduce traffic on Midas Avenue without causing significant "cut through" traffic on Argonaut Avenue. However, if the City wants to maintain its options for a possible "ring road" then an extension of Dominguez Road instead of Yankee Hill Road should be considered. The Dominguez extension provides a connection to the proposed I-80 overpass and, thereby, access to the proposed Rocklin Mall. This roadway could ultimately be extended beyond the Summit project to Clover Valley and North Rocklin as part of a "ring road" concept. The Dominguez extension, however, would cause more "cut through" traffic on Argonaut Avenue compared to the Yankee Hill extension.

Another alternative that could be considered in the EIR is the extension of Yankee Hill Road to the Summit project but without a connection to Argonaut Avenue.

- **Alternatives to the One-way Couplet.** The Pacific Street/Railroad Avenue one-way couplet would greatly improve traffic operations in the Old Town area. Alternative improvements to the couplet include difficult improvements to the Pacific Street intersection at Midas Avenue and Rocklin Road. These two improvements would have significant impacts on adjacent properties, but could be considered as alternatives due to the potential impacts of the one-way couplet in its transition areas between Pacific Street and Railroad Avenue.
- **Alternative Circulation System for Sunset West Area.** The roadway system proposed for the Sunset West development would provide improved circulation for the western portion of Rocklin compared to the roadway system in Rocklin's General Plan; and, it would provide acceptable levels of service at the key intersections in that area. However, its proposed extension of Blue Oaks Boulevard terminates at Sunset Boulevard. Thus traffic from areas east of Sunset Boulevard must "jog" on Sunset Boulevard to reach Highway 65. Also, this plan may not have the optimum spacing between the major connections to Highway 65. Therefore, an alternative circulation system was proposed which involves a direct connection between West Oaks Boulevard and Blue Oaks Boulevard. This alternative may have more impacts on wetlands in the Sunset West development than their proposed roadway system. However, alternative designs could be explored to minimize these impacts.

Long-Range Planning Options

The Base Circulation Plan, or its alternative improvements, described above would provide an adequate circulation system for year 2020 development levels. In addition, Rocklin should consider including some projects or concepts in the City's Circulation Element to preserve options for long-range planning for the following reasons:

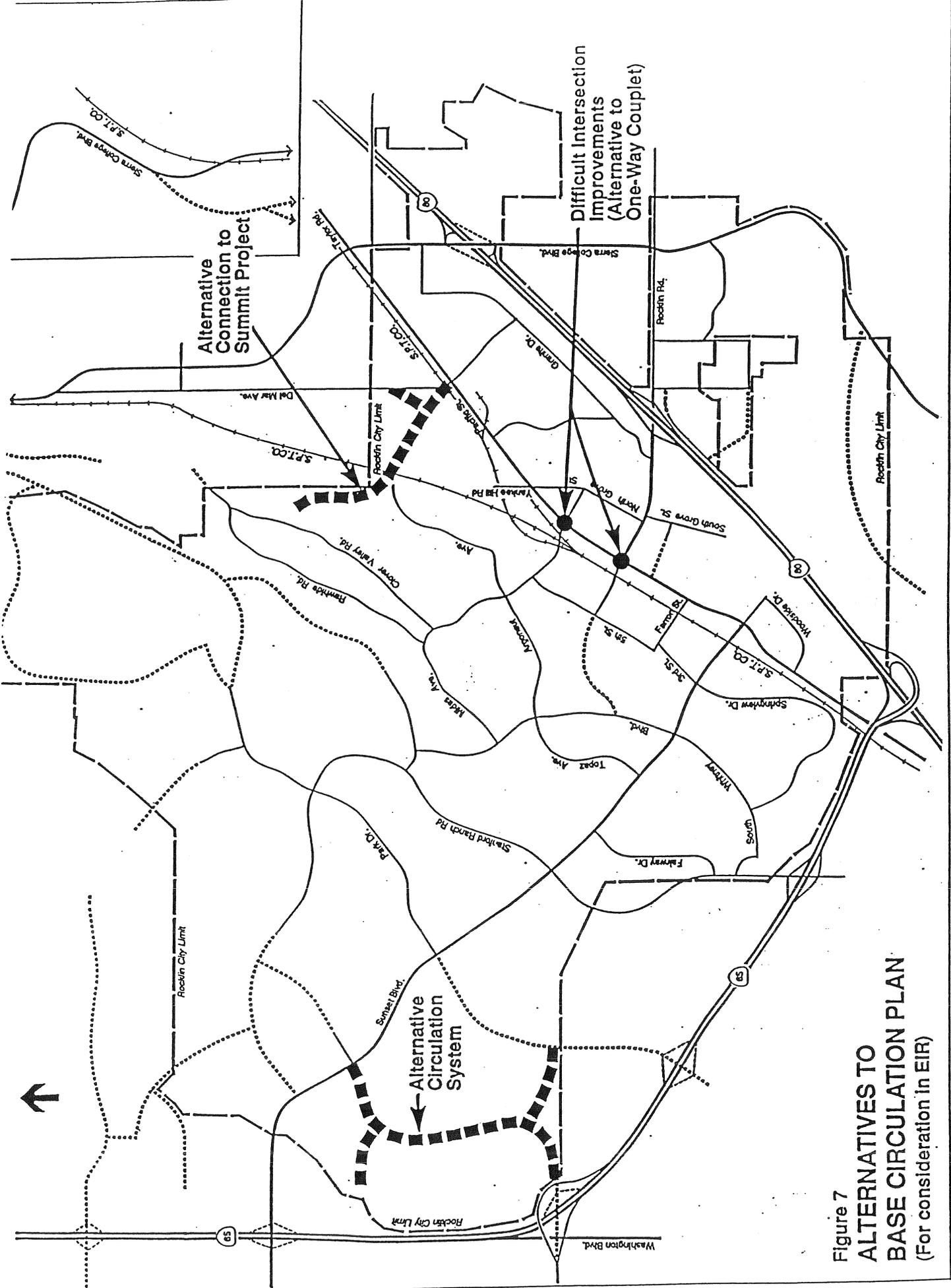


Figure 7
ALTERNATIVES TO
BASE CIRCULATION PLAN
 (For consideration in EIR)

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- The travel demand forecasts for 2020 are based on the best estimates available regarding development potential under the City's General Plan. These estimates may change as the City develops.
- The City may in the future consider allowing higher densities in its planning reserves, such as the Sunset Ranchos area, or annexation of other areas.

These issues may not become apparent to the City until some time in the future. If right-of-ways are not preserved in some key locations, however, the City's options to handle these issues may be limited. For these reasons, the City should consider showing some future roadways on its Circulation Plan to reserve its long-range options, even if such roadways are not required by 2020. The key locations for these long-range planning projects are as follows:

- **Ring Road Concept** The North Rocklin Traffic Study explored the concept of a "ring road" around the western, northern and eastern portions of the City. This concept was not needed to provide adequate levels of service on Rocklin's major roadway system even at buildout of the land uses in the City's General Plan. However, the ring road concept could be considered for inclusion on the City's Circulation Element for the following reasons:
 - This concept may be needed to allow increased densities in the Sunset Ranchos area.
 - It would improve overall circulation between the northern most portions of Rocklin and other areas of the City, particularly areas along Highway 65 and I-80, by providing more direct routes.

The North Rocklin Traffic Study considered a ring road concept that would extend from the Blue Oaks interchange through the Sunset Ranchos development, and along the northern most portion of Rocklin to the Clover Valley Lakes development. From there, this concept could utilize various alignments to extend southward to Dominguez Road, and via the proposed overcrossing of I-80 to Sierra College at the entrance to the proposed Rocklin Mall. This concept is shown in Figure 8.

Also shown in the Figure 8, is an alternative concept for the ring road. This concept would utilize the Whitney Boulevard alignment through the Sunset Ranchos development and extend eastward through the Clover Valley Lakes development to Sierra College Boulevard. This concept for the ring road uses portions of Sierra College Boulevard and Highway 65 to complete the same loop formed by the other ring road concept.

- **Full Extension of Rocklin Road.** As discussed earlier under the Base Circulation Plan, the full extension of Rocklin Road to Whitney Boulevard does not appear to be needed to accommodate 2020 development levels. The analysis of full buildout of the City,

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however, found that this full extension was needed. Therefore, the City should consider preservation of the right-of-way for a possible crossing of Antelope Creek to complete this extension if it is needed in the future.

Projects that Could be Dropped from Consideration

DKS and City staff have reviewed the alternative projects in the North Rocklin Traffic Study and categorized them based on the desirability for their inclusion in the City's Circulation Element. This memorandum has recommended a categorization of these projects into the Base Circulation Plan, alternative improvements to those in the Base Circulation Plan, as well as some long-range planning options. This categorization is shown in Table 3.

Table 3 also shows those projects that could be eliminated from further consideration in the update of the Rocklin Circulation Element.

Table 3

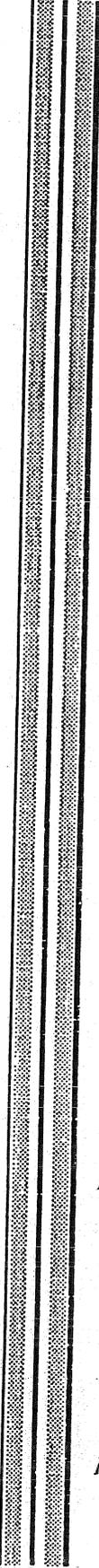
Categorization of the Alternative Projects in the North Rocklin Traffic Study

Alternative Project	2020 Base Circulation Plan	Alternative to Base Circulation Plan	Long-Range Planning Options	Projects Dropped from Consideration
Issue Area A - Feasible Intersection Improvements				
A-1 I-80/Sierra College WB ramp intersection improvements	X			X ³
A-2 Pacific St./Delmar Ave. intersection improvements				X ³
A-3 Rocklin Rd./5th St. intersection improvements				
A-4 Stanford Ranch/Five Star intersection improvements	X ¹			
A-5 Park Dr./Stanford Ranch intersection improvements				X ³
Issue Area B - I-80/Rocklin Rd. and Granite Dr. Area				
B-1 I-80 Overpass-Dominguez to Sierra College Blvd.	X			
B-2 I-80 Overpass-Granite Dr. to Rocklin Mall area	X			
B-3 I-80/Rocklin Rd. interchange improvement with split interchange				X
B-4 I-80/Rocklin Rd. interchange improvement with flyover ramp				X
N/A Widening Rocklin Rd. to 6 lanes at I-80	X ²			
Issue Area C - Yankee Hill/Delmar Area				
C-1 Yankee Hill Rd. ext. to Summit Project; with Argonaut connection	X			
C-2 Yankee Hill Rd. ext. to Summit Project; no Argonaut connection		X		
C-3 Argonaut Ave. ext. to Delmar Ave.				X
C-4 Yankee Hill Rd. ext. to Clover Valley; with Argonaut ext.				X
C-5 Yankee Hill Rd. ext. to Clover Valley; no Argonaut ext.				X
C-6 Sierra Meadows ext. to Clover Valley with Argonaut ext.				X

Table 3 (Continued)
Categorization of the Alternative Projects in the North Rocklin Traffic Study

Alternative Project	2020 Base Circulation Plan	Alternative to Base Circulation Plan	Long-Range Planning Options	Projects Dropped from Consideration
C-7 Sierra Meadows ext. to Clover Valley no Argonaut ext.				X
C-8 Dominguez Rd. ext. to Clover Valley with Argonaut ext.		X	X	
C-9 Dominguez Road ext. to Clover Valley no Argonaut extension				X
Issue Area D - Old Town				
D-1 Pacific St./Midas Ave. intersection improvements		X		
D-2 Pacific St./Rocklin Rd. intersection improvements		X		
D-3 Pacific St./Sunset Blvd. intersection improvements	X			
D-4 Sunset Blvd./3rd St. intersection improvements	X			
D-5 One Way Couplet-Pacific St./Railroad Ave.	X			
D-6 Elimination of Rocklin Rd. ext.				X
Issue Area E - Sunset West Area				
E-1 Sunset Blvd./Stanford Ranch Rd. intersection improvements	X ¹			
E-2 Proposed Sunset West circulation system	X			
E-3 Blue Oaks Blvd. to West Oaks Blvd. ext.		X		
Issue Area F - Stanford Ranch/Sunset Ranchos/Clover Valley				
F-1 West Oaks Blvd./Sunset Ranchos/North Rocklin ext.			X	
F-2 North Rocklin/Clover Valley/Pacific St. ext.			X	
N/A Whitney Blvd./Hwy 65 to Sierra College Blvd. Connection			X ²	

1. Regional intersection improvements would be less than those needed at full buildout.
 2. Projects not considered previously in North Rocklin Traffic Study.
 3. Intersection improvements not needed by 2020, but were required for full buildout.



FINAL REPORT

North Rocklin Traffic Study

prepared for
City of Rocklin

prepared by
**DKS Associates
and Associated Consultants**

March 19, 1993

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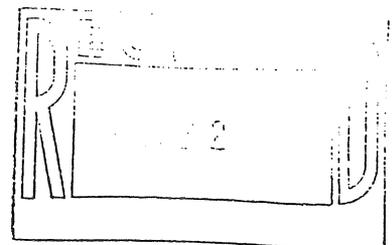
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