

CITY OF RIALTO
PLANNING DEPT.

JULY 1986

AGUA MANSA INDUSTRIAL CORRIDOR
SPECIFIC PLAN

Prepared for:
County of San Bernardino
County of Riverside
City of Colton
City of Rialto

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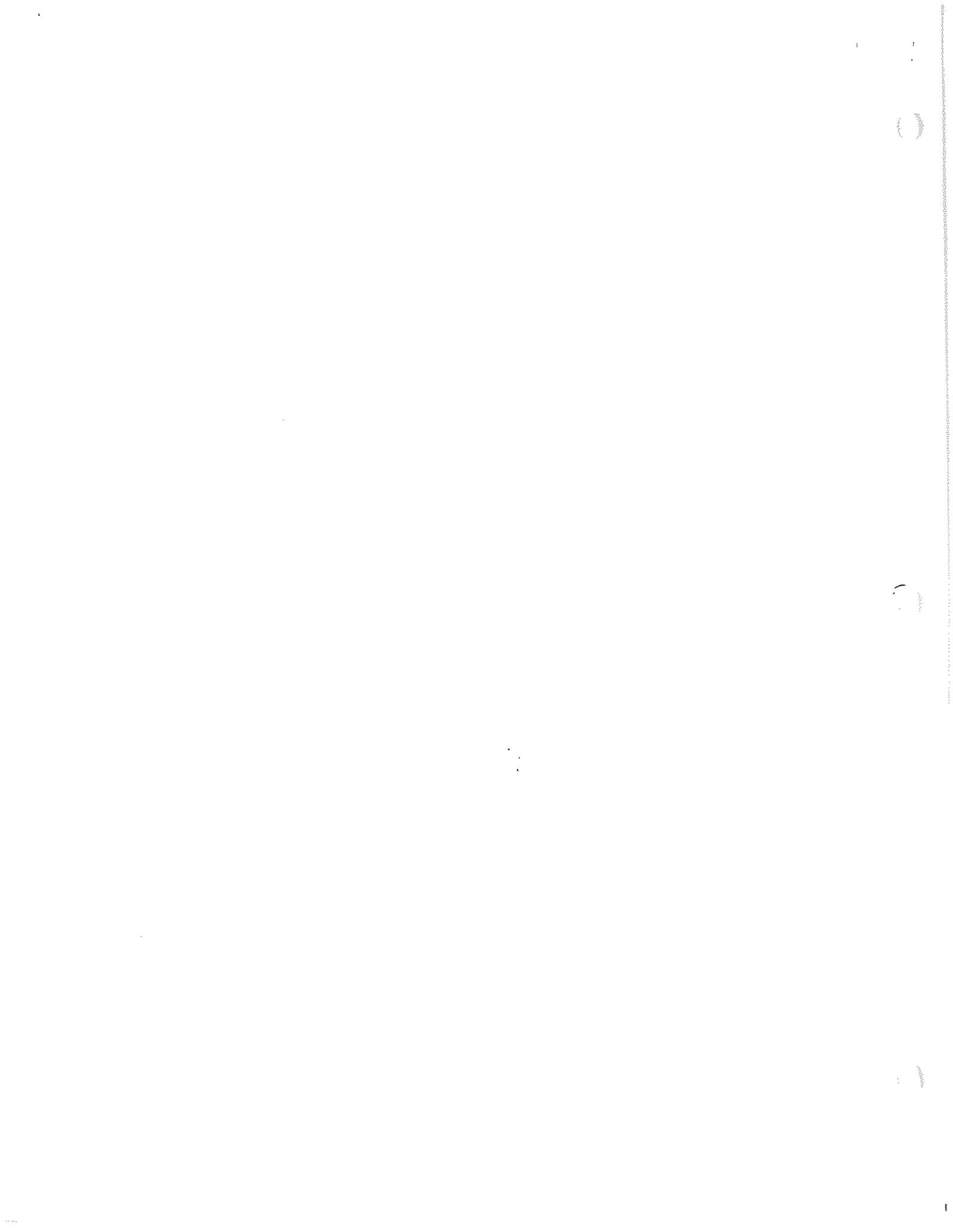
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PREFACE

The Agua Mansa Industrial Corridor and adjoining area, from a historic perspective, includes the joint settlement of La Placita and Agua Mansa ("Calm Water") which is often referred to as San Salvador, which is contained in the San Bernardino Valley portion of inland Southern California. This community was originally created by a group of Mexican citizens who migrated westward from New Mexico to California in the mid-nineteenth century. Their descendants to this day reportedly still live along the banks of the Santa Ana River.

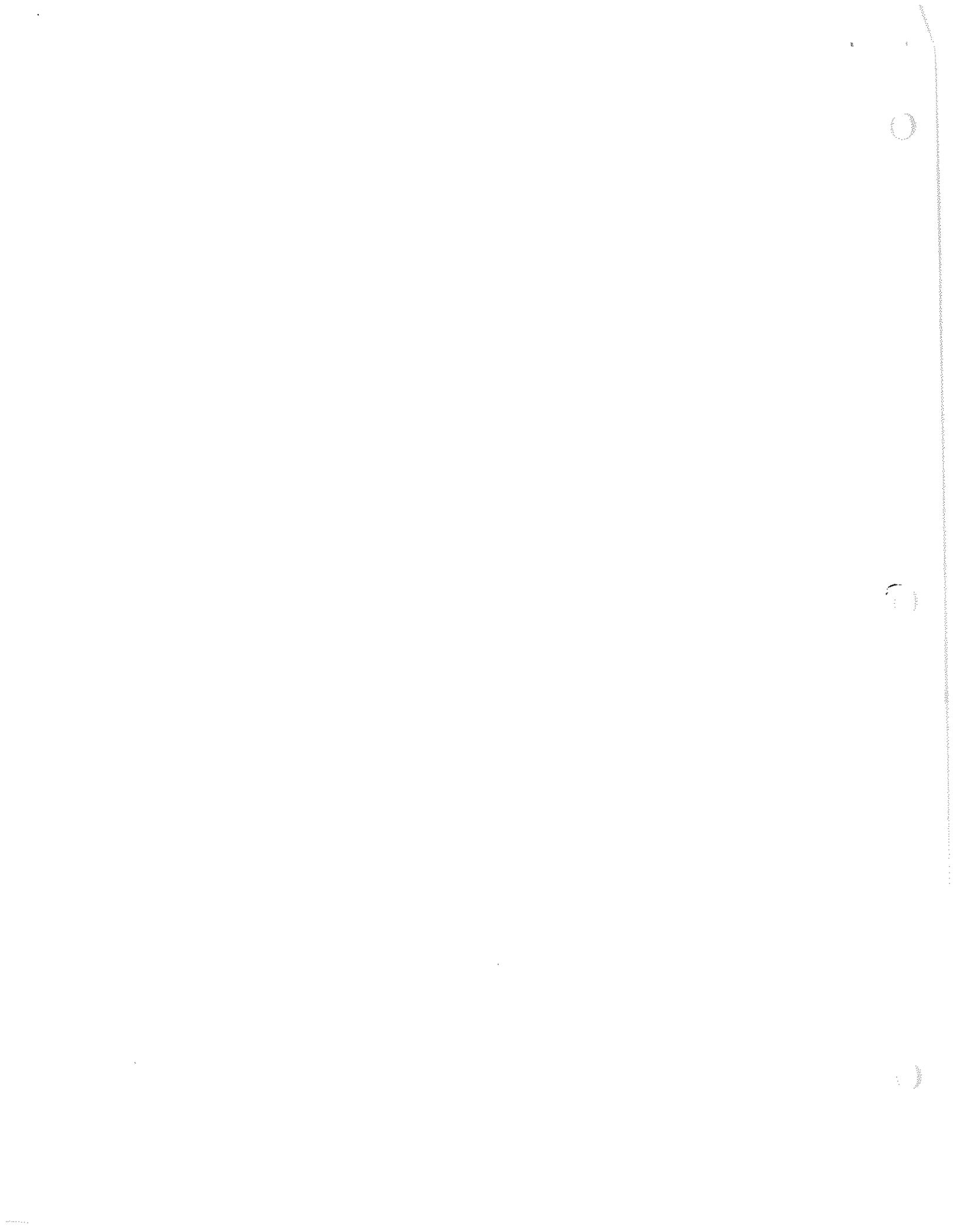
The truly pioneer phase of the area's development involved Indian, Spanish, Mexican, and Anglo colonists which has evolved into a society of continuing juxtaposition of people of different coexisting cultures. The current character of the Study Area is a marginally developed industrial area, which has been subject to extensive surface and sub-surface mining.

The Agua Mansa Industrial Corridor Specific Plan study is intended to result in a master economic development plan to improve intergovernmental coordination and to facilitate the logical, planned development of the 4,285 acre study area. Moreover, this planning effort is intended to serve as a precursor to an intensive marketing effort to attract industry to the Agua Mansa Corridor for the purpose of stimulating employment opportunities in the region. The project's intended emphasis is on the attraction of employee-intensive heavy industrial users which provide employment opportunities for all income levels, but especially for low and moderate income individuals.

The study contained in this document was funded jointly by the Counties of San Bernardino and Riverside and the Cities of Colton and Rialto. Each of these agencies contributed Community Development Block Grant (CDBG) funds and designated the County of San Bernardino as the lead agency for the preparation of this study.



SECTION 1.0
EXECUTIVE SUMMARY



1.0
EXECUTIVE SUMMARY

Introduction

The Agua Mansa Industrial Corridor Specific Plan is intended to be a master plan for the economic development of the 4,285 acre project area which comprises segments of unincorporated San Bernardino and Riverside Counties and the Cities of Colton and Rialto.

It is intended that the Land Use Plan and Development Standards (Sections 4.2.1, 4.2.2, and 4.2.3) become the prevailing land use regulations, thereby being pre-eminent over the existing General Plan and Zoning Standards presently in effect in the respective jurisdictions. It is felt that it is critical to maintain consistency with respect to land use, permitted uses, and site development standards throughout the Agua Mansa Corridor.

The other components of the Plan (specifically including public facility systems, roadways, utilities, urban design standards, phasing, governmental framework, and financing methods) should be regarded as guidelines. Due to the significant uncertainty regarding future market conditions, the development desires of the various property owners, and the political climate, it is undesirable to be overly specific in these areas. The studies conducted relative to infrastructure and financing can be used as guidelines in evaluating major projects and backbone facility needs.

The study contained in this document has been funded jointly by the Counties of San Bernardino and Riverside and the Cities of Colton and Rialto. Each of these agencies have contributed Community Development Block Grant (CDBG) funds and have designated the County of San Bernardino as the lead agency for the preparation of this study.

The Agua Mansa Corridor is located southwesterly of the junction of Interstate 10 and Interstate 215 on the westerly bank of the Santa Ana River. The study area is bounded by Interstate 10 on the north, the Santa Ana River and Rancho Avenue on the east, Market Street and Rubidoux Boulevard on the southwest, and the unincorporated community of Bloomington to the west.

The project area presently contains a mixture of scattered development, although resource extraction and other intensive industrial activities dominate the study area. The major focal points in the project area include Slover Mountain and the California Portland Cement (Calmat) plant, the Riverside Cement plant, the Butler Industrial Park, the Agua Mansa Landfill and the Union Oil petroleum tank farm.

Of the 4,285 acre total area, 175 acres (41 percent of the study area) is presently utilized for industrial or other intensive uses, such as resource extraction, railroad yard, landfill, or sewage treatment facilities. A total of 957 acres is in agricultural or equestrian use and 1,500 acres are currently vacant, of which 544 acres have been previously mined. Residential uses comprise of 119 acres or less than three percent of the study area.

The land use trend within the study area has been primarily towards heavy industrial development. In recognizing this trend as well as the physical suitability of the area for the concentration of industrial activities, particularly large land-intensive operations, the four local jurisdictions have General Planned and zoned a vast majority of the land for industrial uses.

Purpose of the Study

The major goal of the Agua Mansa Industrial Corridor Study is the preparation of a master economic development plan for the region. The emphasis on subsequent marketing efforts will be on the attraction of large employee-intensive industry which typically has a base of employment for low and moderate income individuals.

Based on an employment density of 12 workers per developable acre, it is estimated that the project has the potential for creating as many as 40,000 jobs, more than half of which would be expected to be assumed by low and moderate income individuals.

Opportunities, Constraints and Critical Issues

A detailed analysis was conducted of physical environmental and public service and facility considerations (please refer to Section 3.0). This analysis culminated in a statement of significant issues which is summarized in the following paragraphs.

The following development opportunities were identified:

- Access and Location - The study area benefits from excellent vehicular access. The Interstate 10 freeway, which comprises the northerly boundary of the Agua Mansa Corridor, is the most significant east-west route for the entire Southwestern United States and connects the study area to the entire sunbelt. I-10 connects the study area to Interstates 15 and 215 for convenient access north to the High Desert and south to Riverside and San Diego. The I-10, as well as Highway 60 (located just to the south of the study area via Rubidoux Boulevard or Market Street), provides excellent access west to Los Angeles and Orange County and east to the Coachella Valley. Four existing interchanges directly connect the Corridor to the I-10 freeway. In addition, Highway 91 connects to I-215 and State Route 60 for convenient access to Orange County and the Beach Communities.
- Physical Character - The study area is in many ways ideal for industrial development, particularly heavier forms of industry which find it difficult to locate in a compatible environment.

The nature of existing development is largely consistent with heavier forms of industry as is evidenced by two active mining operations, a landfill, a petroleum tank farm and the Southern Pacific Railroad Classification Yard as well as various types of industrial uses. The study area is buffered on two sides by physical barriers - the Santa Ana River on the east and the San Bernardino Freeway on the north. Existing and potential conflicts with sensitive land uses are relatively few.

The project site is also suitable from a soils and geologic standpoint for intensive industrial development.

- Suitability for Large Uses - A unique trait of the study area is its ability to support the large industrial uses. Large vacant expanses suitable for such development are available with minimal potential for land use conflicts. The area could be very desirable for large manufacturing and processing operations.
- Low Traffic Volumes - The Agua Mansa Corridor presently does not suffer from any traffic congestion problems nor do any of the major freeways in the immediate vicinity. As planned, the on-site circulation system is capable of supporting significantly greater intensities of development and accompanying traffic increases.
- Brine Line - The prospect for the extension of the Santa Ana River Industrial "Brine Line" into the study area, at this time, appears favorable. The availability of a waste water treatment system which could accommodate most forms of industrial liquid wastes would be a tremendous impetus for the location of processing industries in the Corridor and would offer a marketing tool available to very few prospective industrial areas in the state.
- Rail Service - The project area can easily be supplied with rail service by both the Southern Pacific Railroad (northerly portion) and the Union Pacific Railroad (southern portion). SPRR maintains the largest railroad classification yard in the northwesterly corner of the study area. Individual uses will be able to attain rail service upon bearing the costs for drill tracks from the main lines.
- Local Planning Efforts - All four jurisdictions present within the Agua Mansa Corridor have, through their planning efforts, identified the study area for large industrial uses. The industrial Zoning and General Plan designations prevalent for most of the study area are indicative of the desire of these agencies to stimulate industrial development in the Corridor. Most areas within the Corridor would not require zone changes or General Plan Amendments prior to the introduction of industrial uses.
- Local Growth Patterns - The study area is located in what is perhaps the fastest growing area in the United States and certainly within the State of California. Population and housing growth in the area continues to occur at a rapid rate while manufacturing employment has lagged in recent years. Many of the nearby residents commute to Orange and Los Angeles Counties for employment. The provision of job opportunities nearby to extensive housing development would help solidify and balance the local economy, while potentially reducing congestion and air pollution in other Southern California areas.

- Affordable Housing Market - Housing prices in the San Bernardino-Riverside area are widely considered to be among the lowest in Southern California. This could prevent situations similar to those occurring in Orange County where housing is simply not affordable for most industrial workers. This effect has resulted in industry exiting from Orange County or deciding against locating in this area for this reason. The ingredients for a healthy job/housing balance are believed to be present in the vicinity of the Agua Mansa Corridor.
- Available Workforce - Due to the recent closure of Kaiser Steel Corporation in Fontana, it is believed that a substantial number of potentially employable blue-collar workers are available in the area. Many of these former employees may have skills which are directly transferable to other industrial activities.

Following is a list of factors which were identified as constraints to potential industrial development in the Agua Mansa Corridor:

- Santa Ana River Floodplain - Approximately 718 acres of the project area are constrained by the floodplain of the Santa Ana River. This area is also subject to liquefaction and, as a whole, can be considered unsuitable for intensive development. The areas east of the bluff can be considered part of the effective river channel.
- Noise - Several significant noise sources impact the study area as described in Section 3.1.5. These impacts, however, are negligible for non-sensitive uses such as industrial development.
- Air Quality - The study area is located in the South Coast Air Basin which is designated as a non-attainment area because of violations of national standards for carbon monoxide, ozone, nitrogen dioxide and total suspended particulates. Limits have been established for new or modified stationary air pollution emitters along with a requirement for the use of the Best Available Control Technology (BACT). Projects must also be found consistent with the Air Quality Management Plan (AQMP).
- Infrastructural Deficiencies - Substantial infrastructural deficiencies are evident in the study area which must be alleviated prior to intensive development. Most of the roadways in the area, with the exception of Riverside Avenue, Rancho Avenue, Cedar Avenue, and Rubidoux Boulevard, are not constructed to master plan standards. Major upgrading of drainage facilities will be required throughout the project area. Sewer lines are largely absent from most of the project area, although two treatment facilities are located in the Corridor. Similarly, water and utility facilities will have to be upgraded to accommodate additional development.
- Toxic and Hazardous Waste Disposal - There are presently no toxic and hazardous waste disposal facilities (Class I Landfills) located in Southern California. This may prevent the attraction of certain types of industry which produces toxic and/or hazardous wastes or by-products.

- Competition for Industry - Other jurisdiction (e.g., Rancho Cucamonga, Riverside, Ontario) have captured a large segment of the industrial market and pose formidable competition. The Agua Mansa Area, however, can offer an environment conducive to heavy industry which likely would not be desired by the other jurisdictions.

From an overall physical standpoint, the Agua Mansa Corridor appears to be a very conducive location for industrial development. The study area has excellent access, a variety of parcel sizes with large land areas available, uncongested circulation system and rail access. In addition, it is likely that the "Brine Line" can be routed through the study area to support industrial wastewater disposal. Furthermore, land costs and prospects for housing affordability in the area may be attractive for prospective industries as is the fact that the study area is located in the fastest growing area in California. The recent closing of Kaiser may lend an available skilled workforce for a prospective new industry.

The study prepared by the economic consultant indicated a projected low figure market absorption rate of 25 acres per year of industrial land in the Corridor. The property owners and the Technical Advisory Committee considered this projection to be low as it did not give adequate consideration to the fact that the Corridor has physical amenities desirable to industry which cannot be expressed with or related to regional absorption trend numbers. It was the desire of the property owners to make available maximum areas of land as soon as possible. Based on infrastructure phasing concepts, it was determined that a maximum absorption rate of 148 acres per year should be used for planning purposes. It is believed that an ample supply of "ready to develop" land will accelerate development in the area.

It appears that the positive physical factors attributable to the project outweigh the constraints. If an economical method can be developed to provide the necessary infrastructure, the attractiveness of the area for new users can be enhanced significantly. The prospect of being able to attract very large users is a significant positive attribute, as is the fact that intensive industrial facilities can be developed in a compatible environment unlike the various competing light industrial facilities in the market area.

The positive nature of a majority of the physical factors along with the potential extension of the Brine Line offer an industrial environment for heavy industry which cannot be matched by scarcely any area in Southern California.

Proposed Land Use Plan

Figure 20 of this report represents the recommended ultimate land use distribution for the Agua Mansa Industrial Corridor. This Land Use Plan was developed by the consultant team with extensive input from the Committee of Major Property Owners and the Agua Mansa Technical Advisory Committee which consists of representatives from the four local jurisdictions and other affected agencies. The Land Use Plan should be used as a guide in reviewing and encouraging future land uses. The Plan should be reviewed by the governmental agencies periodically to assure that it is responsive to market demands and local desires and needs.

The Land Use Plan, in addition to reflecting the needs and desires of the major property owners and local jurisdictions, is based on the assessment of existing environmental conditions as well as the concept of developing industrial land uses to the maximum holding capacity of the land within the established environmental parameters. Following is a summary of the land use designations established by the Plan.

A. Heavy Industrial (3,094 Acres)

Areas designated for Heavy Industrial will be utilized for manufacturing, resource extraction, compounding of material, packaging, treatment, processing or assembly of goods. Heavy industrial uses generally are more land extensive than lighter industrial uses and usually employ processes which produce more measurable externalities. Activities in the heavy industrial areas are likely to have frequent rail and/or truck traffic and the transportation of heavy, large scale products.

B. Medium Industrial (265 Acres)

General uses permitted within the Medium Industrial designation will include manufacturing, compounding of material, processing, assembly, packaging, treatment, metal fabrication and warehousing. All industrial activities occurring under this designation will be required to be conducted in enclosed buildings due to the proximity of this designation relative to the fringe of the rural Bloomington Community. Specific performance standards will be applicable to any development which occurs in order to protect the residential neighborhoods.

C. Industrial Park (130 Acres)

The intent of this designation is to develop light industrial uses without the potentially environmentally objectionable side effects of a large industry. The Industrial Park designation should facilitate development which caters to small industrial users who conduct activities such as small-scale assembly, research and development, and warehousing. This designation has been applied to areas on the west side of Rancho Avenue due to the location of the South Colton neighborhood to the east.

D. Public Facilities (80 Acres)

This designation is intended to identify and protect existing public facilities within the Agua Mansa Industrial Corridor. This category includes the sewage treatment plants of the Cities of Colton and Rialto, and the Agua Mansa Cemetery. No changes to these uses are proposed.

E. Single-Family Residential (94 Acres)

The designation of Single-Family Residential is applicable to the existing neighborhood located at El Rivino Road and Hall Avenue. The density of up to four units per acre is commensurate with the existing development of this area. The residential designation is appropriate at least in the short- to mid-term. The development standards applicable under this designation will be the zoning limitations presently in force under the respective jurisdiction.

F. Open Space/Agriculture/Equestrian (622 Acres)

This designation is applicable to the floodplain of the Santa Ana River as defined by the bluff which defines the riverbed. This designation represents what should be the ultimate use on this constrained land area. The development standards applicable under this designation will be the zoning limitations presently in force under the respective jurisdiction.

Proposed Implementation Plan

It is strongly recommended that a multi-jurisdictional arrangement be developed to permit the unification of the four local agencies' powers in taking the necessary steps to facilitate the full development of the Agua Mansa Corridor. In fact, the AMIGA Joint Powers Authority has been enacted in recognition of these needs. Various administrative and/or financing mechanisms are analyzed for applicability within the Specific Plan text, including:

- Joint Powers Authority
- Redevelopment Agency
- Assessment Districts
- Mello Roos Community Facilities Act of 1982
- Special Fee Districts
- Industrial Development Bonds
- Community Development Block Grant Funds
- Enterprise Zones

The local agencies which are involved in the Agua Mansa project have gained approval from the State of California to have the Agua Mansa Corridor and adjoining areas designated as an "Enterprise Zone". This new State program will provide tax incentives to businesses and their employees which locate in a designated project area and will also make substantial bond funds available for capital improvements.

The general principle of sharing backbone infrastructure system costs by both public and private sectors is one which is supported by both the major property owners within the Corridor as well as local agency staff members which comprise the Technical Advisory Committee.

In the event that further analysis reveals that a redevelopment project is not feasible, it is recommended that a Mello Roos Community Facility District be established to finance backbone infrastructure development. This type of District has the legal ability to address the various local infrastructure problems by issuing general obligation bonds supported by special tax levies.

Beyond the above "centralized" financing mechanisms, the use of Industrial Development Bonds, various Federal and State grants, and Community Development Block Grant funds by each of the local agencies acting individually could assist development on a limited basis in the Agua Mansa Industrial Corridor.

The administration of the Specific Plan and the review of specific development proposals should not occur without input (on an advisory basis, as a minimum) from AMIGA. The review of developments and potential plan amendments is considered desirable to ensure that the integrity of the industrial area is not compromised and that the goals and objectives of the Specific Plan are upheld.

SECTION 2.0
INTRODUCTION AND BACKGROUND



2.0
INTRODUCTION AND BACKGROUND

2.1 - PROJECT SETTING

2.1.1 General and Specific Location

The Agua Mansa Industrial Corridor is located in the inland Southern California Region southwesterly of the junction of Interstate 10 and Interstate 215 (see Regional Map, Figure 1). The study area, which encompasses 4,285 acres, contains areas lying within the Cities of Colton (984 acres) and Rialto (1,304 acres), and within the Counties of San Bernardino (1,251 acres) and Riverside (746 acres).

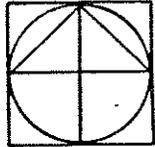
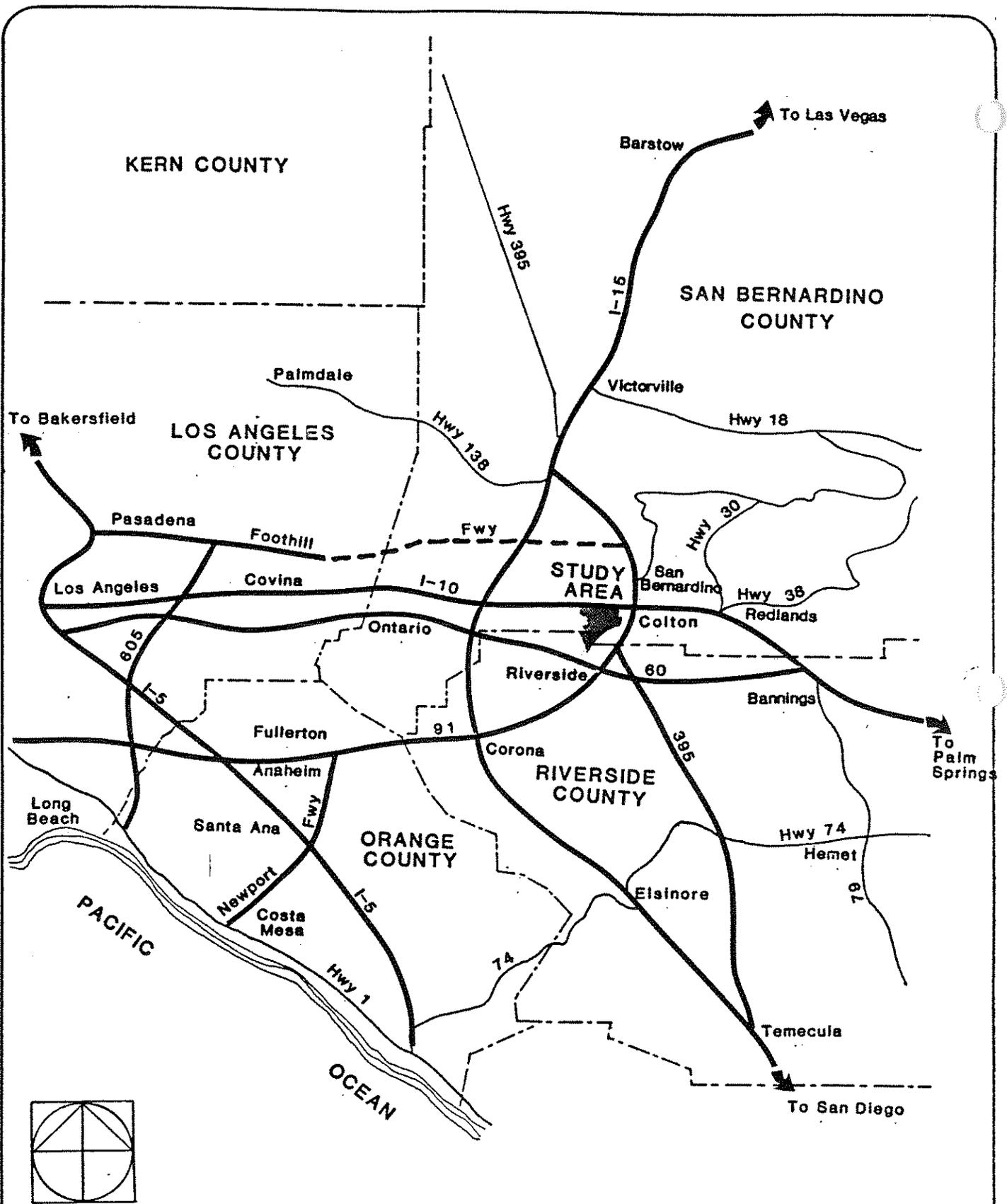
The study area is bounded by Interstate 10 on the north, Rancho Avenue on the east and the Santa Ana River on the southeast. The southwesterly boundary is formed by Market Street and Rubidoux Boulevard; the northwesterly boundary varies from I-10 and Lilac Avenue on the north to Hall Avenue (see Figure 2, Specific Location). The easterly portion of the study area is located in the flood plain of the Santa Ana River on the westerly bank of the main channel.

2.1.2 Community Setting and Characteristics

The Agua Mansa Corridor presently contains a mixture of scattered development, although resource extraction and other intensive industrial activities dominate the study area. The major focal points on the property include Slover Mountain and the California Portland Cement plant, the Riverside Cement plant, the Butler Industrial Park, the Agua Mansa Landfill, the petroleum tank farm, and the Southern Pacific Railroad Classification Yard.

Of the 4,285-acre total area, 1,751 acres (41 percent of the study area) is presently utilized for industrial or other intensive uses, such as resource extraction, landfill, or sewage treatment facilities. A total of 957 acres is in agricultural or equestrian use and 1,500 acres are currently vacant, of which 544 acres have been previously mined. Residential uses comprise 119 acres or less than three percent of the Study Area.

The residential uses contained in the Corridor are scattered generally along the northwesterly project boundary and along the Santa Ana River. A majority of the residential properties in the Corridor include equestrian uses.

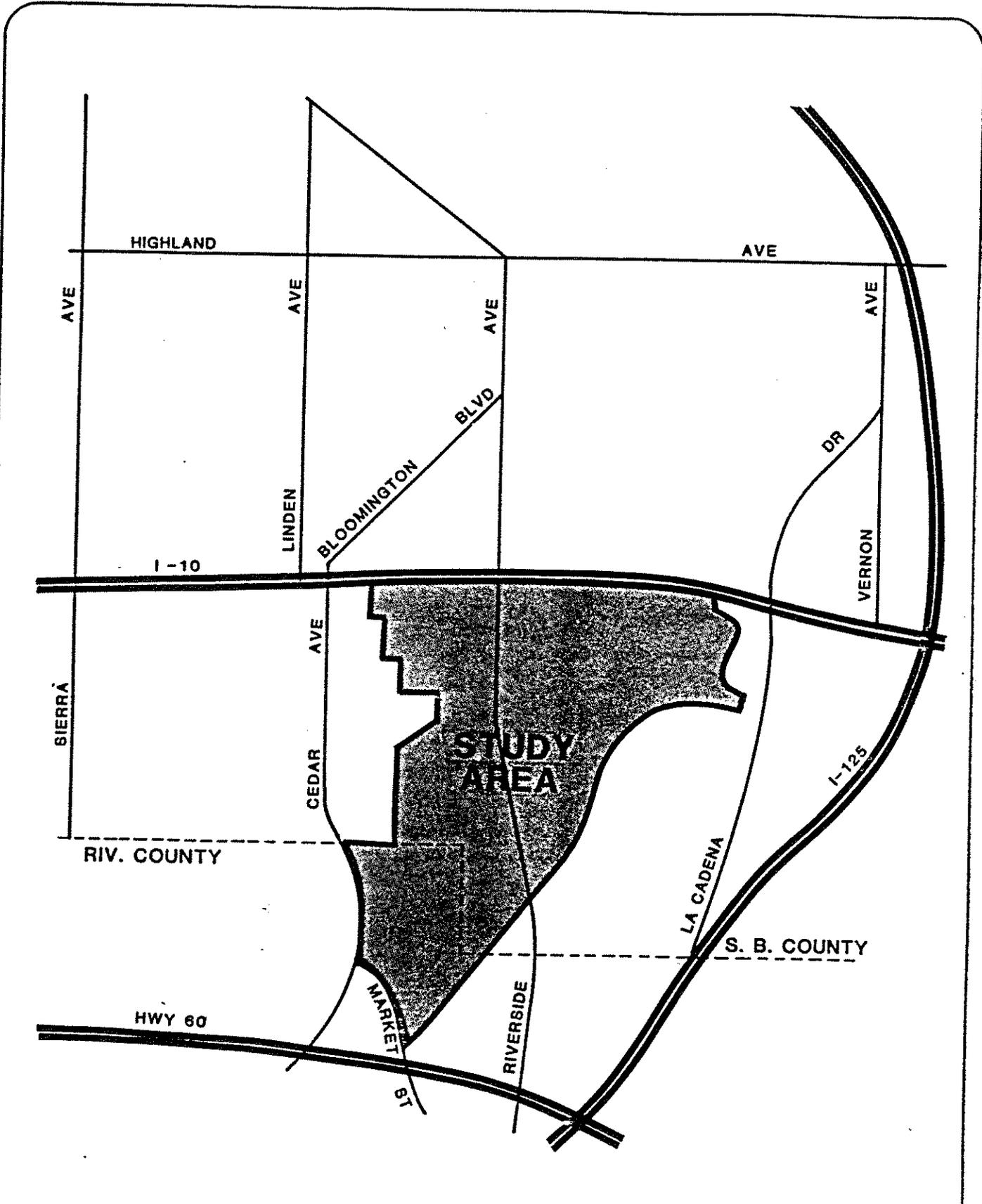


REGIONAL LOCATION



AGUA MANSA INDUSTRIAL CORRIDOR

FIGURE 1



SPECIFIC LOCATION



WILLDAN ASSOCIATES
ENGINEERS AND PLANNERS

**AGUA MANSA
INDUSTRIAL
CORRIDOR**

**FIGURE
2**

Following is a distribution of existing land uses in the Agua Mansa Corridor:

TABLE 1
AGUA MANSA INDUSTRIAL CORRIDOR STUDY
DISTRIBUTION OF EXISTING LAND USES

<u>Land Use Type</u>	<u>Acreage</u>	<u>% of Study Area</u>
Residential	119	2.8
General Industrial (including manufacturing, warehouse, construction, etc.)	1,536	12.5
Industrial Resource Extraction and Processing	861	20.1
Industrial Tank Farms	82	1.9
Landfill	72	1.7
Public Facilities	80	1.9
Abandoned Facilities (recyclable)	78	1.8
Agriculture and Equestrian Uses	957	22.3
Vacant - Unused Property	956	22.3
Vacant - Mined Out Property	544	12.7
Total	4,285	100.0

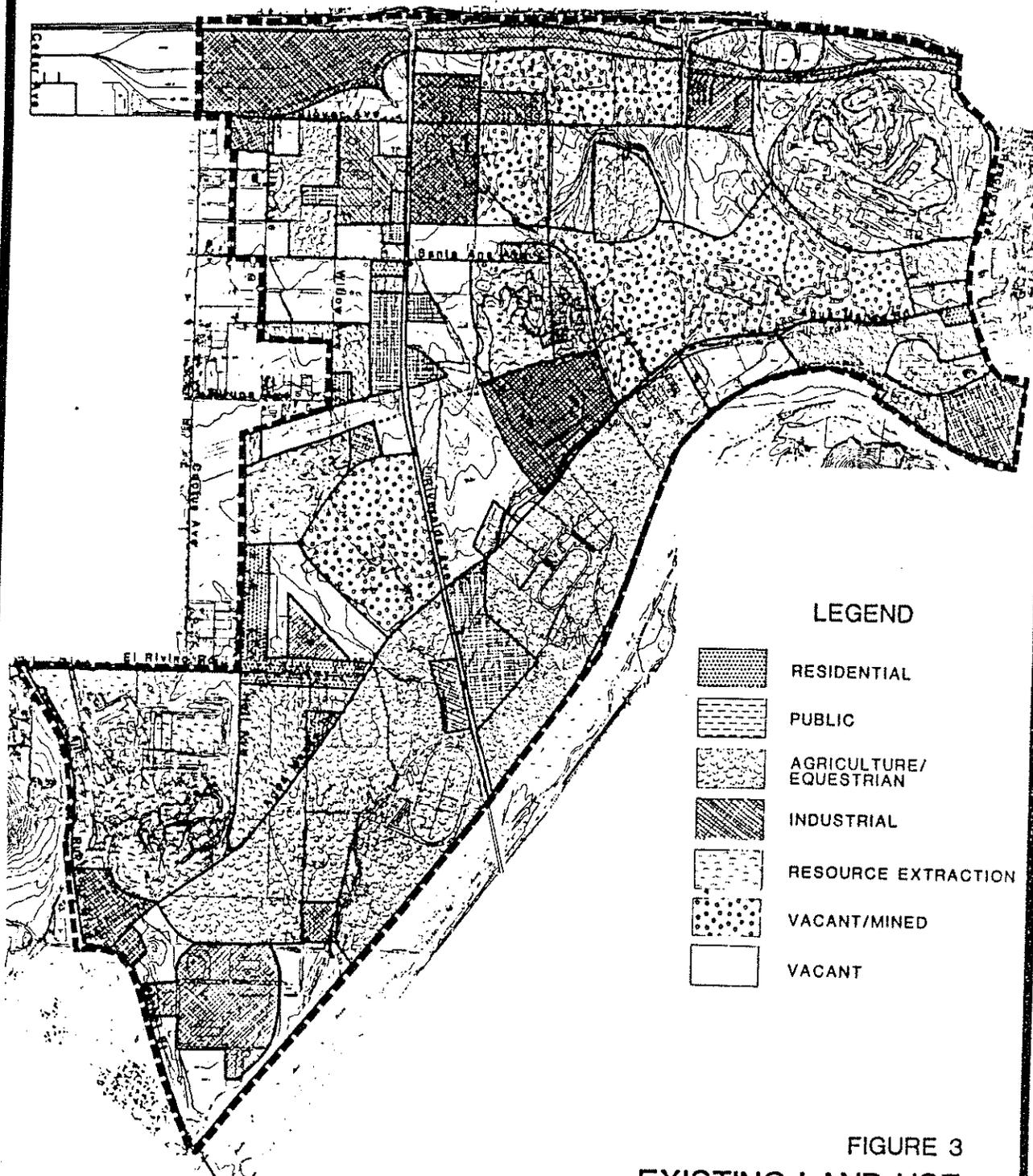
Source: Willdan Associates, April 1984.

A graphic portrayal of existing land uses is contained in Figure 3.

2.1.3 Area Development Trends

The Agua Mansa Corridor is part of the "Inland Empire" area of Southern California, one of the fastest growing regions in the United States over the past decade with similar growth foreseen in the near to mid-term future. Between 1970 and 1983, a four percent annual growth rate in the number of housing units occurred within the market area (please refer to Appendix E of the EIR for a definition of "market area" and for a detailed analysis of housing, population and industrial development trends). A three percent annual growth in population occurred over the same time frame within the market area. Manufacturing employment for the Riverside-San Bernardino SMSA increased at an annual rate of 2.9 percent between 1970 and 1980, however, an annual decrease of 6.4 percent has occurred between 1980 and 1983.

The Agua Mansa Corridor itself is presently sparsely developed, although several major users dominate certain portions of the study area. The California Portland Cement Company (Calmat) conducts its resource extraction and processing operations at Slover Mountain in the northeasterly corner of the study area. The Southern Pacific Railroad



LEGEND

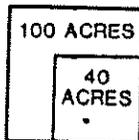
-  RESIDENTIAL
-  PUBLIC
-  AGRICULTURE/
EQUESTRIAN
-  INDUSTRIAL
-  RESOURCE EXTRACTION
-  VACANT/MINED
-  VACANT

**FIGURE 3
EXISTING LAND USE**



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AND
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AGUA MANSA INDUSTRIAL CORRIDOR

Classification Yard is located in the northwesterly portion. This yard is the largest of its kind west of the Mississippi River. The Riverside Cement Company (subsidiary of Gifford-Hill) extraction and processing facility is located at the Crestmore Quarry site in the southerly portion of the study areas, as is the E. L. Yeager Company construction yard.

Five major property owners exist in the study area (see Figure 4). Following is a brief description of the holdings of each of these entities, which comprise approximately 50 percent of the project area:

1. California Portland Cement Company (Calmat)

The California Portland Cement Company (Calmat) is the largest land owner in the Agua Mansa Corridor with a total holding of 1,045 acres. This firm maintains a cement and limestone plant at Slover Mountain. California Portland owns substantial land areas around the perimeter of the plant, portions of which are utilized for the disposal of spoil materials. Various forms of Portland cement and limestone products are produced at the site with the operation expected to continue until the Year 2034.

2. Gifford-Hill (Riverside Cement Company)

The Riverside Cement Company operates two cement plants at the Crestmore Quarry site. Riverside Cement owns a total of 630 acres, which includes the quarry and surrounding agricultural lands. Both gray and white concrete are produced and extracted from an underground mine. The white cement plant is only one of five nationwide and is the only operation of its kind west of Dallas, Texas.

3. Owl Rock Company

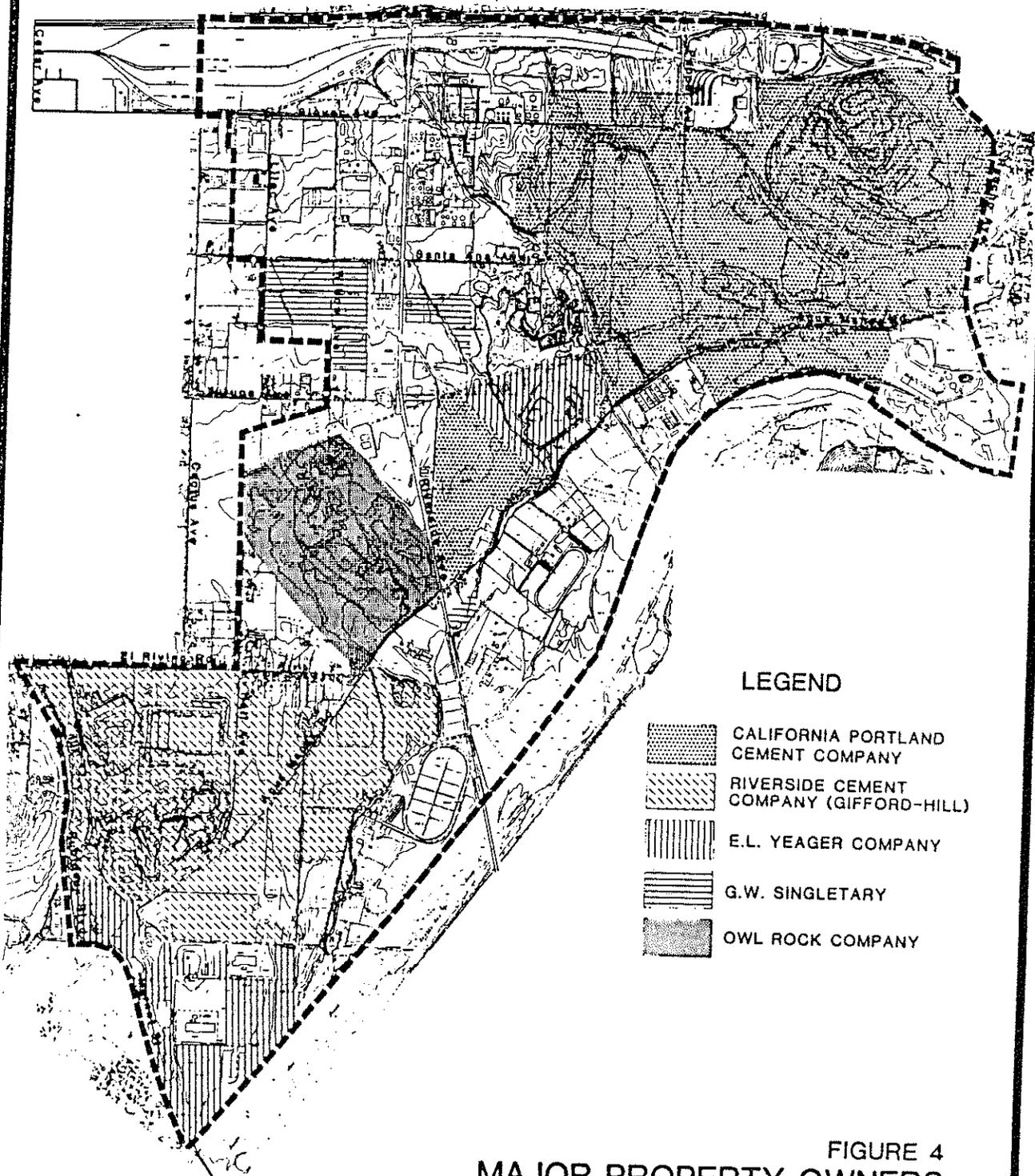
Owl Rock owns a 230-acre site which was previously used for extraction of rock. The site has been depleted and mining operations have ceased. The property can generally be characterized as a shallow pit.

4. E. L. Yeager Company

The E. L. Yeager Company maintains a 225-acre holding in the Agua Mansa Corridor. The company's corporate office and construction yard are located northerly of the intersection of Market Street and Rubidoux Boulevard. The firm is generally involved in road and highway construction. E. L. Yeager also owns a portion of the Butler Industrial Center and owns and operates the Agua Mansa Landfill site in the study area.

5. G. W. Singletary

G. W. Singletary owns approximately 90 acres of largely vacant land in the project area with very good physical development potential.

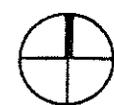
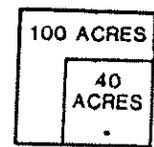


LEGEND

-  CALIFORNIA PORTLAND CEMENT COMPANY
-  RIVERSIDE CEMENT COMPANY (GIFFORD-HILL)
-  E.L. YEAGER COMPANY
-  G.W. SINGLETARY
-  OWL ROCK COMPANY

**FIGURE 4
MAJOR PROPERTY OWNERS**

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AND
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AGUA MANSA INDUSTRIAL CORRIDOR

6. Southern Pacific Railroad

The Southern Pacific Transportation Company owns property along the entire northerly boundary of the project area, including the classification yard at the northwest corner of the study area.

New industrial development is occurring in the study area consistent with the land use designations of the responsible jurisdictions. The Butler Industrial Park is developing in the southerly (Riverside County) portion of the Corridor. Full public improvements have already been installed and several medium sized users have begun operations in the development. Relatively new industrial facilities also exist along the westerly side of Rancho Avenue (City of Colton) with attractive architectural features and landscaping. Additionally, the South Rialto Industrial Park is emerging on the east side of Riverside Avenue north of Agua Mansa Road.

In developing an ultimate land use plan and a phasing scheme to accomplish the ultimate land use distribution, the study area was broken down into twelve (12) development sub-areas. This methodology was instrumental in determining the infrastructural capabilities and needs for specific geographic locales in the study area as well as the development potential of the land in each sub-area. Figure 5 reflects the development sub-areas. Following is a discussion of the physical land use characteristics of each of the sub-areas.

Sub-Area 1

Sub-Area 1 is bounded by the San Bernardino Freeway on the north, Riverside Avenue on the east, the edge of the Bloomington Community on the west, and a Southern California Edison easement on the south. This area is characterized by three dominant land uses including industrial, agricultural, and vacant properties. The industrial areas are dispersed along Riverside and Slover Avenues and include a portion of the S.P.R.R. Classification Yard. There are also a few single-family residences located on Lilac and Willow Avenues. This sub-area is directly adjacent to the community of Bloomington and portions are located in the City of Rialto and the County of San Bernardino.

Sub-Area 2

Sub-Area 2 is bounded by a Southern California Edison easement on the north, by a residential community on the south, by Riverside Avenue to the east, and to the west by vacant land in the County of San Bernardino. The majority of this sub-area (230 acres) is owned by Owl Rock Products which was previously used for the extraction of rock. The area is basically characterized by a shallow pit. The remainder of the sub-area is either used for agriculture or is occupied by the Southern California Edison easement. This sub-area is located in both the City of Rialto and in San Bernardino County.

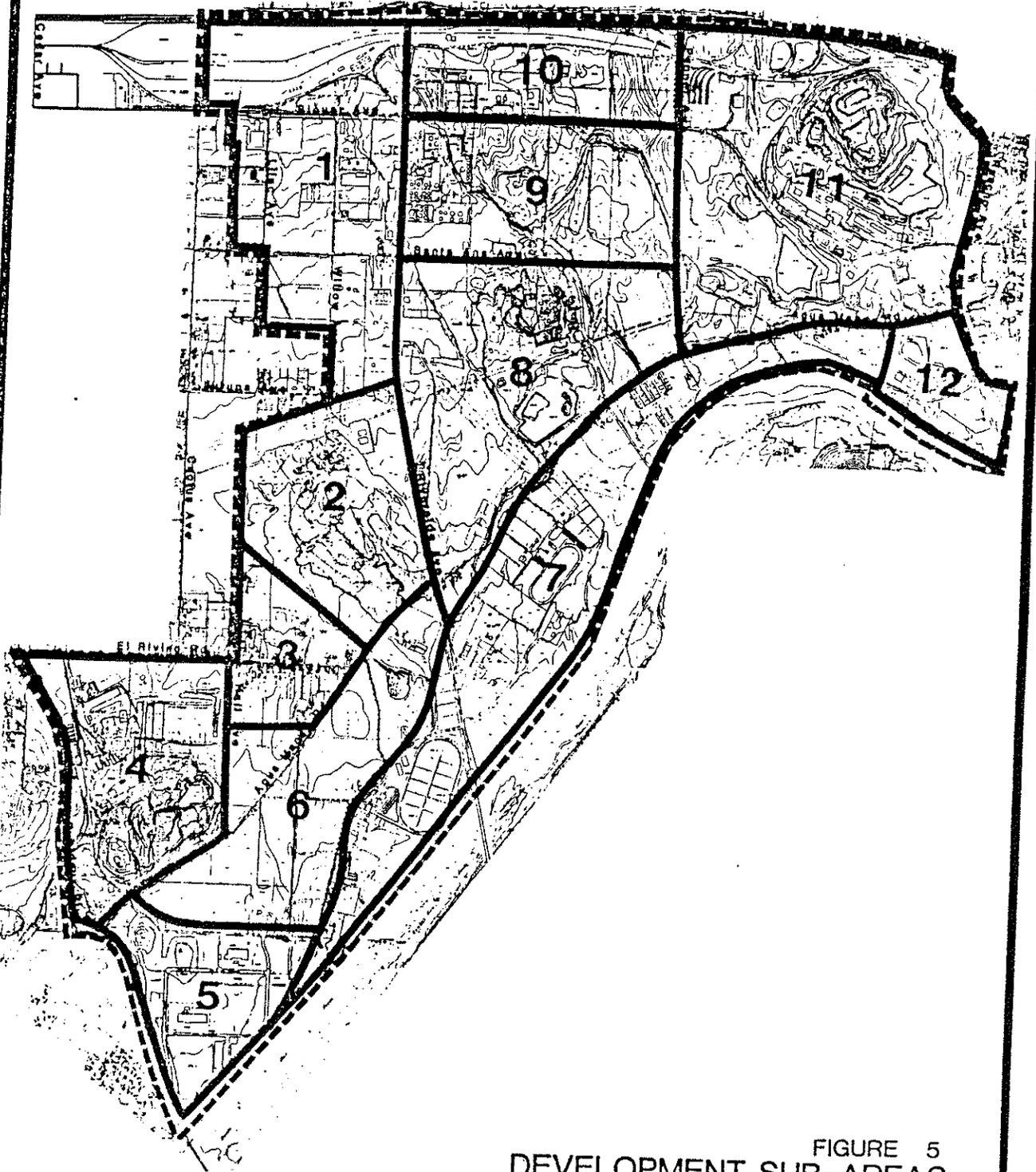
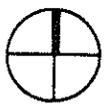
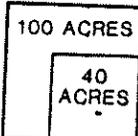


FIGURE 5
DEVELOPMENT SUB-AREAS

 **WILLDAN ASSOCIATES**
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AND
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AGUA MANSA INDUSTRIAL CORRIDOR

Sub-Area 3

Sub-Area 3 is located directly south of the Owl Rock quarry and is bounded by Agua Mansa Road to the southeast and by Hall Avenue to the west. This area is comprised predominantly by single-family homes located on one- to three-acre lots. Directly north of the homes is an industrial storage yard and a vacant parcel. This primarily residential area is located in both San Bernardino and Riverside Counties.

Sub-Area 4

This sub-area is bounded by El Rivino Road to the north, to the southeast by Agua Mansa Road, and to the west by Rubidoux Boulevard. This area is generally characterized by industrial uses and is surrounded by an agricultural buffer which separates industry from a residential area. The industrial area includes the Riverside Cement Company which operates two cement plants. Riverside Cement owns a total of 630 acres which includes the quarry and the surrounding agricultural areas. Also included adjacent to the cement plant is the operations yard and an asphalt plant for the E. L. Yeager Construction Company. The entire area is located in Riverside County.

Sub-Area 5

This sub-area is bounded by Wilson Street to the north, the Santa Ana River to the southeast, and Market Street to the west. This sub-area is characterized by either industrial development or vacant land awaiting development. The Butler Industrial Park is located in the center of the sub-area (72 acres) and is fully improved for M-2 (Heavy Industrial) development. The entire sub-area is located in Riverside County.

Sub-Area 6

Sub-Area 6 is bounded by Agua Mansa Road to the north, parallels the Santa Ana floodplain to the south and extends southerly to the Butler Industrial Park. Most of the sub-area is presently used for agriculture or equestrian-related uses. The majority of the land is owned by the Riverside Cement Company.

Sub-Area 7

This sub-area is bounded by Agua Mansa Road to the north and to the south by the Santa Ana River. Nearly the entire sub-area lies within the 100-year floodplain of the Santa Ana River. The current uses include agricultural and equestrian-related activities. This sub-area will largely preclude industrial development because of its location on the floodplain. Sub-area 7 is located within portions of the City of Colton and the Counties of Riverside and San Bernardino.

Sub-Area 8

Sub-Area 8 is bounded by Santa Ana Avenue to the north, Agua Mansa Road to the south, Riverside Avenue to the west, and the California Portland Cement Company plant to the east. A Southern California Edison easement traverses from west to east through the sub-area. Many differing land uses are found in this area including industrial, resource extraction, vacant mined areas, a sewage treatment plant, and a few single-family residences found along Agua Mansa Road. The remainder of the sub-area is presently vacant (primarily along Riverside Avenue). Along the easterly extension of Santa Ana Avenue is the City of Rialto Sewage Treatment Plant and a privately owned mine operation. The Agua Mansa Landfill is located directly south of the sewage treatment plant and is owned by E. L. Yeager. This landfill is a Class III facility which can only accept inert earth materials. The Agua Mansa Cemetery is located on Agua Mansa Road near the corner of Riverside Avenue, and the California Portland Cement Company has its spoil area on the northeast portion of this sub-area. Sub-Area 8 is located within the Cities of Colton and Rialto.

Sub-Area 9

This sub-area is bounded by Slover Avenue to the north, Pepper Avenue and its future right-of-way to the east, Santa Ana Avenue to the south, and to the west by Riverside Avenue. The four land use categories in this sub-area include industrial, vacant mined, agriculture and vacant. The industrial uses include an oil tank farm located on the corner of Slover and Riverside Avenues. Directly east of the tank farm is a quarry that has been mined out. An agricultural area also exists within the area and the remainder of the sub-area is vacant. This Sub-area is located within the Cities of Rialto and Colton.

Sub-Area 10

This sub-area is bounded by Interstate 10 to the north, Pepper Avenue to the east, Santa Ana Avenue to the south, and Riverside Avenue to the west. The Southern Pacific Railroad crosses the sub-area from east to west directly south of Interstate 10. The land uses found in this area include industrial and vacant mined areas. Industrial land uses in the area include a tank farm. This Sub-area is contained within the Cities of Colton and Rialto.

Sub-Area 11

Sub-Area 11 is bounded by Interstate 10 to the north, Rancho Avenue to the east, Agua Mansa Road to the south and to the west by Pepper Avenue. The Southern Pacific Railroad crosses the northerly portion of this area from east to west. The remainder of the area is owned by the California Portland Cement Company which maintains a cement and limestone plant at Slover Mountain. Slover

Mountain, located in the northeast portion of the area is approximately 200 feet in elevation from surrounding ground levels. The remaining land around Slover Mountain is utilized for the disposal of spoil materials. Several light industrial buildings are located along Rancho Avenue in the City of Colton with the remaining portions of the Sub-area located in San Bernardino County.

Sub-Area 12

Sub-Area 12 is bounded by Agua Mansa Road to the north, Rancho Avenue to the east, the Santa Ana River to the south, and vacant land to the west. Four land use categories exist in the Sub-area including industrial, agricultural/equestrian, public/quasi-public, and residential. The City of Colton maintains a sewage treatment plant located west of Rancho Avenue and south of Agua Mansa Road. Directly south of the plant is an industrial storage yard. This Sub-area is located in the City of Colton.

2.1.4 Existing Governmental Development Controls

The Agua Mansa Corridor contains properties which are located in four separate governmental jurisdictions--within the Cities of Colton and Rialto, and unincorporated portions of the Counties of San Bernardino and Riverside. Following is a brief summary of the General Plan and Zoning Designations presently in force in the areas contained within the respective jurisdictions.

General Plans (See Figure 6)

A. City of Colton

The City of Colton's General Plan was adopted in December of 1981. Specific land use designations which exist within the Agua Mansa Industrial Corridor include General Industrial (341 acres), Industrial Park (259 acres), Agriculture (315 acres), Public/ Quasi Public (44 acres), and Open Space (25 acres).

Following is a brief discussion of the General Plan designations found in the study area as contained in the Colton General Plan:

General Industrial

This land use is proposed to provide for both heavy and light manufacturing activities within Colton. It is expected that the uses in this designation correspond to those permitted in the City's M-1 and M-2 zones. Specific zone designations should be applied in areas designated General Industrial with M-1, Light Industrial zoning being used to separate, or buffer, and residential uses from M-2 zoning where possible. The minimum lot size for future industrial development should be one-half acre with single-tenant uses predominating. Multi-tenant industrial development should be concentrated in areas designated as "Industrial Park".

Industrial Park

The purpose of this designation is to encourage the provision of master planned industrial parks within Colton which have a high level of amenities and high quality design standards. The minimum parcel size should be five acres for any individual industrial park. A review and permit process similar to the Planned Community or Conditional Use Permit could be employed, with strict guidelines as to use, landscaping and building design adopted for each parcel. Prevalent industrial uses should be light in nature. Multiple tenant uses may be permitted in this designation.

Public/Quasi-Public Land Uses

This designation generally includes all other major public and quasi-public uses within the Planning Area, including fire stations, future hospitals, cemeteries, large churches and libraries. Land for major public and quasi-public use is shown in the General Plan for community facilities, with current and potential locations identified. Not all publicly owned facilities, however, have been specified. For instance, small facilities, such as water pumps, have been included in their surrounding land uses. Others, such as streets and flood control channels, have been shown as distinct uses.

Open Space

Two types of open space land uses, including school grounds, have been identified in the General Plan in order to reflect the wide diversity of open space uses and activities available in Colton. These designations, however, are not intended to reflect the entire range of open spaces available to the City and its residents. Open space areas within private developments, and larger areas retained as open space, specifically in the Reche Canyon and La Loma Hills area, will greatly contribute to the City's resource of open, undeveloped lands. Various open space designations include:

-- Parks, Open Space and Recreation

This land use designation is intended to identify present and future publicly owned parks and recreation facilities as well as larger privately held facilities devoted to passive and active outdoor recreational pursuits.

-- School Grounds

Public school grounds at the elementary, junior high and high school levels are included in this designation. Existing schools have been identified at their current locations. Potential new schools can be identified in the General Plan by their general location with the cooperation of the Colton Joint Unified School District.

-- Agriculture

This designation is intended to protect existing areas devoted to agriculture or agriculturally related pursuits, with room for expansion if needed. Non-urbanized in nature, the Agriculture designation could allow such land uses as crop production, dairies, livestock raising, animal boarding, horse ranches and similar pursuits. The area along Agua Mansa Road southwest of La Cadena Drive, which lies in the flood plain of the Santa Ana River, is proposed for an Agricultural designation.

B. City of Rialto

The City of Rialto recently updated its General Plan, including the Land Use Element. The following discussion and figures are derived from the General Plan prepared by Beland and Associates.

The entire portion of the study area within the corporate boundaries of Rialto is designated for industrial uses (see Figure 5). A total of 921 acres are designated for General Industrial; 220 acres are designated Industrial Reserve (west of Riverside Avenue, south of Jurupa Avenue); 91 acres are designated Light Manufacturing (along Lilac Avenue and Santa Ana Avenue); and a 72-acre parcel is designated for General Industrial/Landfill.

Following is a brief discussion of each of the General Plan Land Use classifications found in the Rialto portion of the study area as contained in the Draft General Plan:

Light Manufacturing

Areas designated for light manufacturing are intended to accommodate industrial uses which would be compatible with urbanized portions of the community as well as serve as buffers between areas designated for residential uses in the northern portion of the City. Light non-polluting uses buffered to prevent potential land use incompatibilities with older land use are allowed in these areas.

General Industrial

This classification permits a wide range of industrial uses including the various types of utilitarian industries described previously.

Industrial Reserve

These areas are currently zoned Industrial, however, the development potential and range of possible uses is difficult to project at this time. Preparation of the Northwest Area Specific Plan will refine land use policy for this category.

C. County of San Bernardino

The Agua Mansa Industrial Corridor is contained in the East Valley of San Bernardino County. The County's Consolidated General Plan (June 1979) identifies portions of the study area as part of the Santa Ana River wash and other portions are identified for residential uses. The project area also contains portions of the County's Bloomington Community Plan. General Plan land use designations which presently exist within the unincorporated San Bernardino County portion include Industrial, Public, Rural Conservation, Rural Living/One Unit per Acre and Residential/Two Units Per Acre.

Following is a brief description of the designations as contained in the Consolidated General Plan which are applicable to the Agua Mansa Corridor:

Residential

This category includes the full range of urban residential land use densities, differentiated on the regional map by numbers designating the maximum number of dwelling units per gross acre for each outlined area. Generally, this covers residential neighborhoods with predominant lot sizes of less than 2-1/2 acres. Land uses which may be found consistent with this regional map category include those permitted within the single residential and multiple residential districts of the Community Plans or their equivalent districts under the Zoning Ordinance. In some instances, this category may also include supportive non-residential land uses such as schools, churches, libraries, rest homes, offices and neighborhood shopping centers, provided such uses generally serve a neighborhood service-related purpose. The primary feature distinguishing this category from other regional map categories, such as rural living or agriculture, is the commitment of a full range of urban public services, e.g., water, sewer, street systems, flood control, fire, police, schools, parks, libraries and ambulances, etc., where necessary.

Industrial

This designation includes all industrial activities normally associated with urban areas, requiring many of the essential public services needed for urban areas and requiring many of the essential public services needed for urban residential and commercial categories. Examples include light assembly plants, electronics firms, industrial parks, equipment storage yards, transportation terminals, basic manufacturing and salvage yards. Land uses which may be found consistent with this regional map category include those permitted within the limited industrial and general industrial districts of the Community Plans or their equivalent districts under the Zoning Ordinance. In some instances, this category may also include related commercial uses and public facilities, provided these uses can function in a supportive manner with the predominant industrial use.

Certain areas shown in the industrial category on the regional map contain pockets of existing residential use. It is the intent of the General Plan to encourage transition of these areas to industrial use as soon as possible in order to improve living conditions and reduce present conflicts between industrial and residential land uses. For this same reason, none of the residential districts of the Community Plans or their equivalents under the Zoning Ordinance could be found consistent with the industrial category of the regional maps.

Public and Quasi-Public

This category includes a variety of public and privately owned facilities and lands which provide a service to the general public. Examples include civic centers, high schools, regional parks, hospitals, lakes and defense installations. These uses may be either associated with or separated from urban residential, commercial and industrial categories and are labeled in many instances to indicate their general function. The outlines of areas in this category on the regional land use map do not necessarily show the exact boundaries of public or private land ownerships involved, but instead, graphically depict the general relationship of existing or proposed facilities to other land use categories.

Rural Conservation

This designation includes a wide variety of publicly and privately owned land which by its location, access limitations, natural resources or scenic qualities, lends itself to uses of very low intensity and limited human habitation. Examples include National Forest and Bureau of Land Management holdings, camps, wilderness areas, agriculture, mining, housing on lots of 40 acres or greater and other public and private activities which preserve the predominant open space character of the category. Land uses which may be found consistent with this category include those within the rural conservation district of the Community Plans or the equivalent district under the Zoning Ordinance. This category is distinguished from all other categories by the absence of any of the public services and improvements associated with urban areas.

D. County of Riverside

The County of Riverside Comprehensive General Plan (1983) does not include a Land Use Map which shows specific land use categories for areas within the County. The suitability of a parcel for a certain land use is determined through the County's "Land Use Determination System", a four-step process in which a parcel is evaluated with respect to the following topics:

- Open Space and Conservation Map Review
- Review of Environmental Hazards and Resources

- Land Use Planning Area Profiles
- Land Use Category Review and Land Use Determination

Following is a brief analysis of the 746-acre area of the study area which is located in Riverside County pursuant to the Land Use Determination System.

1. Open Space and Conservation Map Review

The review of the Open Space and Conservation Map for the purposes of the Land Use Determination System is comprised of locating the site, for which a land use is being determined, on the Open Space and Conservation Map. The site will either be identified as a specific open space or conservation land use or not be so identified. If an open space or conservation land use is identified, that is the land use designated for that site by the Land Use Element.

The areas contained within Riverside County along the Santa Ana River are identified as being susceptible to "Flooding" on the Open Space and Conservation Map (see Figure 4). The remaining acreage in Riverside County is not designated for any open space/conservation use.

2. Review of Environmental Hazards and Resources

The purpose of the second phase of review is to identify when an environmental hazard or environmental resource, that is not identified as an open space or conservation land use on the Open Space and Conservation Map, will affect the land use of the site whose potential land use is being determined. The identification of an environmental hazard or environmental resource affecting a site will either limit the specific land use of the site, or will identify the need to provide mitigation for the land use that is placed upon the site.

In many cases, a site specific study will be required to determine the extent of the identified hazard or resource affecting the site. This review consists of locating the site in question upon both the Composite Hazards map and the Composite Resource map. If an environmental hazard or resource is identified, a study or mitigation may be required.

The Composite Environmental Hazards map shows that the areas contained in the Santa Ana River flood plain are subject to liquefaction. The area designated as having liquefaction potential corresponds to the area identified for "Flooding" in the previous step.

The Composite Environmental Resource Map indicates that the agricultural lands contained within the Riverside County portion of the study area are "Prime, Unique, State-Important, Locally-Important Agricultural Land". The significance of these agricultural lands and the potential impacts of the loss of agricultural resources are discussed in detail in the appropriate sections of this document.

3. Land Use Planning Area Profiles

The Land Use Planning Area Profiles are utilized in the third step of the Land Use Determination System. This step involves the review of only that profile of the Land Use Planning Area in which the site in question is located. The Land Use Planning Area is a geographic sub-unit of Riverside County. The portions of the study area contained in Riverside County are located in the Jurupa Land Use Planning Area. More precisely, the study area is contained in the Rubidoux Sub-Area of the Jurupa Land Use Planning Area.

The Land Use Planning Area Profiles provide background information, including population and housing growth forecasts in five year increments for the unincorporated portions of the Land Use Planning Area, and descriptions of the land use potential, land use constraints, and the future land uses for each Land Use Planning Area, whose purpose is to better define the general location, distribution and extent of land uses within Riverside County.

The growth of population and housing in the Jurupa Area has been rapid, as is evidenced by a 34.5 percent increase in population between 1970 and 1980. A population growth rate of 32.3 percent is forecast to 1990; a rate of 22.7 percent is envisioned from 1990 to 2000. Slightly larger increases are foreseen in the number of housing units.

The Riverside County Comprehensive General Plan indicates that the area features "good rail and freeway access which can potentially aid commercial and industrial growth".

Other positive land use characteristics include the area's proximity to Orange and Los Angeles Counties, contiguity to existing urbanization, and lower cost land and housing. Constraints identified, which relate to the study area, include flooding and liquefaction hazards along the Santa Ana River, infrastructural deficiencies, and the impacted nature of schools which will be exacerbated through increased development and employment.

The Rubidoux Area is the most urbanized Sub-Area within the Jurupa Planning Area, presently containing a mixture of uses including commercial and industrial. The study area presently contains the Riverside Cement plant, the Butler Industrial Park, and the E. L. Yeager Construction Yard.

4. Land Use Category Review and Land Use Determination

The fourth step of the Land Use Determination System is a review of the Land Use Element's standards and locational policies for land use categories and specific land uses. The land use categories are based upon different levels of public facilities and service capabilities. Each land use category has its own set of locational policies and potential land uses. Each type of land use also has its own locational policies and building intensity standards and population density. There are five land use categories:

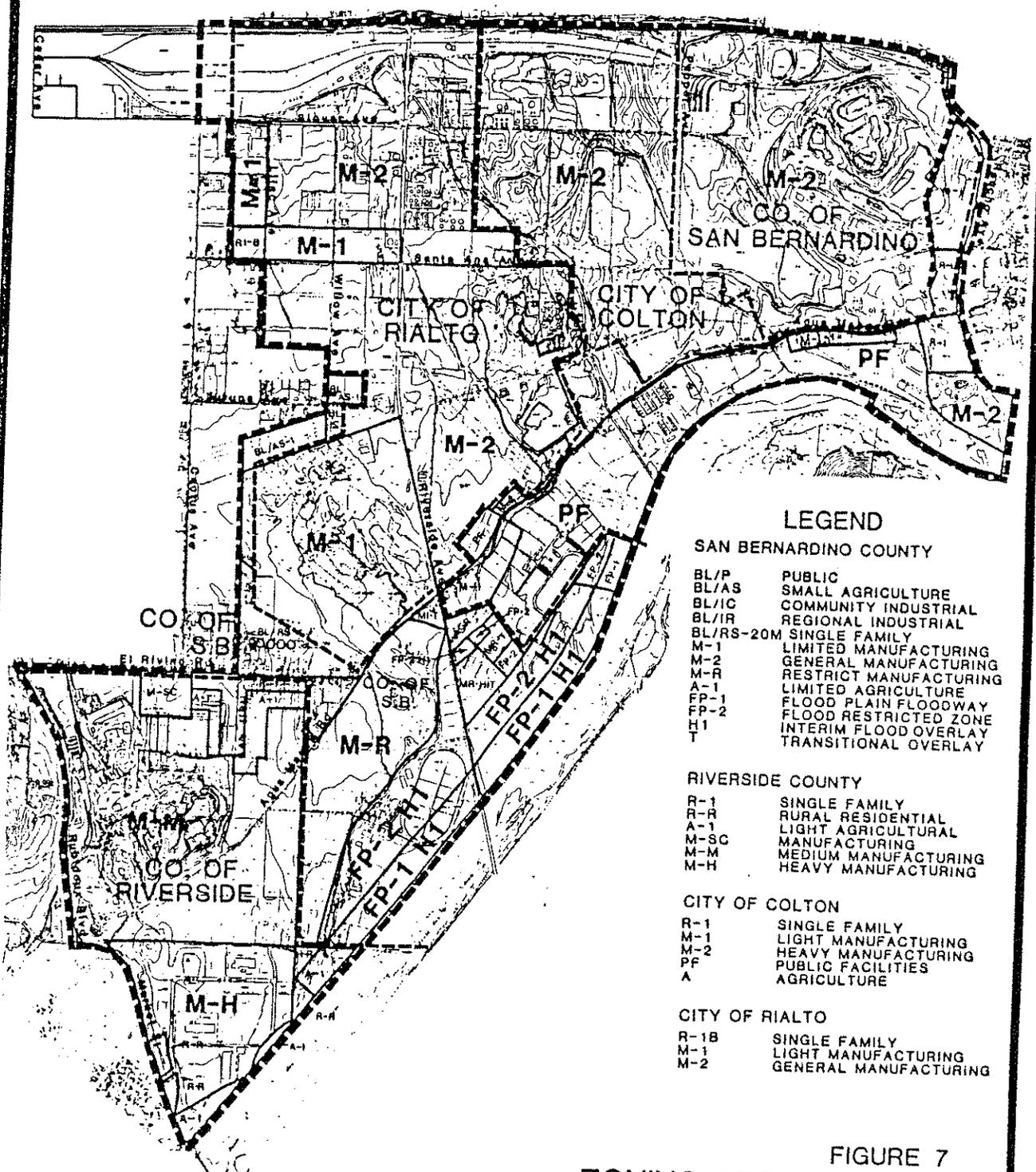
- Category I - Heavy Urban
- Category II - Urban
- Category III - Rural
- Category IV - Outlying Area
- Category V - Planned Community

Due to the nature of the study area as it presently exists, the Category I (Heavy Urban) designation is most appropriate. Following is the definition of Category I:

"Category I (Heavy Urban) land uses are characterized by intensive commercial and industrial land uses and higher residential densities. Examples of Category I land uses include regional and community commercial centers, heavy industrial uses and residential densities of eight to twenty dwelling units per acre."

Zoning (see Figure 7)

A vast majority of the 4,285-acre study area is presently zoned for Industrial uses (3,518 acres; 82 percent). Other generalized categories on a project-wide basis include Flood Plain/Conservation (404 acres; 9 percent). Agriculture (253 acres; 6.5 percent), and Residential (111 acres; 2.6 percent).



LEGEND

SAN BERNARDINO COUNTY

- BL/P PUBLIC
- BL/AS SMALL AGRICULTURE
- BL/IC COMMUNITY INDUSTRIAL
- BL/IR REGIONAL INDUSTRIAL
- BL/RS-20M SINGLE FAMILY
- M-1 LIMITED MANUFACTURING
- M-2 GENERAL MANUFACTURING
- M-R RESTRICT MANUFACTURING
- A-1 LIMITED AGRICULTURE
- FP-1 FLOOD PLAIN FLOODWAY
- FP-2 FLOOD RESTRICTED ZONE
- H1 INTERIM FLOOD OVERLAY
- T TRANSITIONAL OVERLAY

RIVERSIDE COUNTY

- R-1 SINGLE FAMILY
- R-R RURAL RESIDENTIAL
- A-1 LIGHT AGRICULTURAL
- M-SC MANUFACTURING
- M-M MEDIUM MANUFACTURING
- M-H HEAVY MANUFACTURING

CITY OF COLTON

- R-1 SINGLE FAMILY
- M-1 LIGHT MANUFACTURING
- M-2 HEAVY MANUFACTURING
- PF PUBLIC FACILITIES
- A AGRICULTURE

CITY OF RIALTO

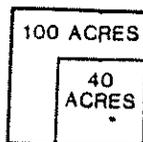
- R-1B SINGLE FAMILY
- M-1 LIGHT MANUFACTURING
- M-2 GENERAL MANUFACTURING

**FIGURE 7
ZONING DESIGNATIONS**



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AND
WILLIAMS-KUEBELBECK AND ASSOCIATES



AGUA MANSA INDUSTRIAL CORRIDOR

Following is a breakdown of existing Zoning designations by jurisdiction.

TABLE 2
EXISTING ZONING DESIGNATIONS
AGUA MANSA INDUSTRIAL CORRIDOR
CITY OF COLTON

<u>Zoning Designation</u>	<u>Acreage</u>	<u>% of Total</u>
R-1 Single Family Residential	53	5.4
M-1 Light Manufacturing	77	7.8
M-2 Heavy Manufacturing	579	58.8
PF Public Facilities*	271	27.6
A Agriculture	<u>4</u>	<u>0.4</u>
Total	<u>984</u>	<u>100.0%</u>

Source: City of Colton Zoning Map.

* Includes agricultural areas in flood plain.

TABLE 3
EXISTING ZONING DESIGNATIONS
AGUA MANSA INDUSTRIAL CORRIDOR
CITY OF RIALTO

<u>Zoning Designation</u>	<u>Acreage</u>	<u>% of Total</u>
R-1B Single Family Residential	11	0.8
M-1 Light Manufacturing	300	22.1
M-2 General Manufacturing	<u>993</u>	<u>76.1</u>
Total	<u>1,304</u>	<u>100.0%</u>

Source: City of Rialto Zoning Map

TABLE 4
 EXISTING ZONING DESIGNATIONS
 AGUA MANSA INDUSTRIAL CORRIDOR
 SAN BERNARDINO COUNTY (UNINCORPORATED)

<u>Zoning Designation</u>		<u>Acreage</u>	<u># of Total</u>
BL/AS	Small Agriculture	40	3.2
BL/IC	Community Industrial	5	0.4
BL/RS-20M	Single Family Residential	39	3.1
M-I-T	Limited Manufacturing-Transitional	10	0.8
M-I-HI-T	Limited Manufacturing- Interim Flood Hazard-Transitional	4	0.3
M-2	General Manufacturing	634	50.7
M-R	Restricted Manufacturing	190	15.2
M-R-T	Restricted Manufacturing- Transitional	6	0.5
M-R-HI-T	Restricted Manufacturing- Interim Flood Hazard-Transitional	10	0.8
A-I	Limited Agricultural	71	5.7
A-I-HI	Limited Agricultural-Interim Flood Hazard	109	8.7
FP-1	Flood Plain-Designated Floodway	5	0.4
FP-1-HI	Flood Plain-Designated Floodway-Interim Flood Hazard	18	1.4
FP-2	Flood Plain-Restricted Zone	70	5.6
FP-2-HI	Flood Plain-Restricted Zone- Interim Flood Hazard	40	3.2
	Total	<u>1,251</u>	<u>100.0%</u>

Source: County of San Bernardino Zoning Maps.

Note: BL designations are applicable to areas contained in the
 Bloomington Community Plan.

TABLE 5

EXISTING ZONING DESIGNATIONS
 ACUA MANSA INDUSTRIAL CORRIDOR
RIVERSIDE COUNTY (UNINCORPORATED)

<u>Zoning Designation</u>		<u>Acreage</u>	<u>% of Total</u>
R-I	Single Family Residential	25	3.4
R-R	Rural Residential	21	2.8
A-I	Light Agricultural	59	7.9
M-SC	Manufacturing-Service Commercial	20	2.7
M-M	Medium Manufacturing	449	60.2
M-H	Heavy Manufacturing	<u>172</u>	<u>23.0</u>
	Total	<u>746</u>	<u>100.0%</u>

2.2 - PROJECT DESCRIPTION

2.2.1 Purpose and Goals

The major goal of the Agua Mansa Industrial Corridor Study is the preparation of a master economic development plan for the region. The purpose of the master economic development plan will be to stimulate additional employment opportunities in the industrial sector, especially for low and moderate income individuals. The inland region is projected to experience unprecedented growth over the ensuing decades. Such growth can be realized only if industry and resulting employment lead the way. Housing production in the area has been prolific, however, a large number of these new residents are commuters employed in Los Angeles and Orange County. The emphasis of this study and ensuing marketing efforts will be on the attraction of employee-intensive heavy industrial users.

It is intended that the Land Use Plan and Development Standards (Section 4.2.1, 4.2.2, and 4.2.3) become the prevailing land use regulations, thereby being pre-eminent over the existing General Plan and Zoning Standards presently in effect in the respective jurisdictions. It is felt that it is critical to maintain consistency with respect to land use, permitted uses, and site development standards throughout the Agua Mansa Corridor.

The other components of the Plan (specifically including public facility systems, roadways, utilities, urban design standards, phasing, governmental framework, and financing methods) should be regarded as guidelines. Due to the significant uncertainty regarding future market conditions, the development desires of the various property owners, and the political climate, it is undesirable to be overly specific in these areas. The studies conducted relative to infrastructure and financing can be used as guidelines in evaluating major projects and backbone facility needs.

A market analysis was conducted for the area by Williams-Kuebelbeck and Associates. This analysis surveyed the major industrial developments in the Inland Empire area and found that an average of 23 employees per developed industrial acres was typical of the market area. Based on this figure, the Agua Mansa Corridor could ultimately produce approximately 77,500 jobs. This estimate may be high in light of the low employment density of resource extraction and other industries typical of the area. Based on a probable estimated employment density of 12 workers per developable acre, it is projected that up to 40,000 jobs can be realized within the project area. It is expected that more than half of these jobs would be assumed by low and moderate income individuals.

The actual number of jobs generated depends on the type of industrial uses which locate in the area. For example, warehousing uses have a very low concentration of employees while some intensive manufacturing uses have higher concentrations. The figure developed by the economic consultant appears to be typical of general industry in the region and the State of California.

Industrial uses typically provide a wide array of employment opportunities ranging from top-level executives to skilled, semi-skilled, and unskilled labor. It is expected that many of the employment prospects will be absorbed by low and moderate income individuals in the vicinity, permitting such individuals possible increases in income which may elevate them into higher income categories.

A vast majority of the property within the study area is zoned for manufacturing and industrial use, however, the region is divided between the Cities of Rialto and Colton and the Counties of San Bernardino and Riverside. Consequently, while each separate jurisdiction has attempted to complete some economic development planning for its respective area, some portions of the planning work accomplished to date have not been consistent with the needs and desires of the adjoining jurisdictions. It is the underlying assumption of the Agua Mansa Industrial Corridor Study that the region represents a contiguous whole and that there is a significant economic benefit to be derived from the development of a master plan that integrates the land use plans and infrastructure needs of the four governing jurisdictions.

2.2.2 Market Objectives

The objective of the Agua Mansa project is to provide a marketing package suitable for attracting heavy industry to the Corridor. Although light industrial uses can certainly be accommodated in the study area, the emphasis of this study is to maximize the unique characteristics of the study area which are conducive to heavy industrial development.

It is also desired to attract industry which is employee-intensive to stimulate economic development in the four participating jurisdictions. The maximization of the inherent positive characteristics in the study area will provide a desirable environment for intensive processing and manufacturing operations with minimal intrusion of incompatible uses.

2.2.3 Project Characteristics and Phasing

The Land Use Plan, shown in Figure 20, in addition to reflecting the needs and desires of the major property owners and local jurisdictions, is based on the assessment of existing environmental conditions as well as the concept of developing industrial land uses to the maximum holding capacity of the land within the established environmental parameters. The following land use categories have been established:

- Heavy Industrial (3,094 Acres)
- Medium Industrial (265 Acres)
- Industrial Park (130 Acres)
- Public Facilities (80 Acres)
- Single-Family Residential (94 Acres)
- Open Space/Agricultural/Equestrian (622 Acres)

The existing planned backbone circulation system will be adequate to convey traffic to and from as well as within the project area. It is anticipated that no major roadways will be required beyond the planned network, however, numerous short access roads and/or cul-de-sacs will have to be developed to facilitate individual developments as they occur.

Detailed development standards have been formulated for industrial development which will occur in the Corridor. These standards as well as additional performance standards are contained in Section 4.2.2 of this study.

Section 4.3 of this study comprises the Implementation Plan for the achievement of the desired land use distribution. This Plan contains recommendations for phasing, the method of governmental administration and for the financing of infrastructure facilities within the Agua Mansa Industrial Corridor.

The projected phasing schedule for the project is described in Section 4.3.4. It is anticipated that the project will not be fully built out until well past the year 2000. As such, no specific attempt has been made to estimate the rate of development beyond this point in time.

It is anticipated that development will occur at the following rate, as depicted in Figure 22:

<u>Phase</u>	<u>Anticipated Buildout</u>	<u>No. Acres</u>	<u>No. Acres Heavy Industrial</u>	<u>No. Acres Medium Industrial</u>	<u>No. Acres Industrial Park</u>	<u>No. Acres Projected Year</u>
I	1990	740	548	62	130	148
II	1995	618	469	149	---	124
III	2000	393	339	54	---	79
IV	Beyond 2000	<u>1,520</u>	<u>1,520</u>	---	---	N/A
TOTAL		3,271	2,876	265	130	

2.2.4 Basis for the Specific Plan

The purpose of the "Agua Mansa Industrial Corridor Specific Plan of Land Use" (hereinafter referred to as Specific Plan) is to develop an implementation strategy for development of the site within the framework of the goals, policies, and objectives of the General Plans of the Cities of Colton and Rialto and the Counties of Riverside and San Bernardino. The Specific Plan will facilitate the logical extension of public services and phasing of development based on market absorption rates and sound planning practices.

This Specific Plan and the associated Environmental Impact Report define the long-term comprehensive planning of the site and set forth detailed development standards necessary to implement the General Plans, zoning regulations, environmental impact mitigation, and capital improvement requirements.

The adoption of the Specific Plan by the four jurisdictions is authorized by Sections 55450 through 65507 of the State of California Government Code.

3.0
SITE DEVELOPMENT OPPORTUNITIES AND CONSTRAINTS



3.0
SITE DEVELOPMENT OPPORTUNITIES AND CONSTRAINTS

3.1 - ENVIRONMENTAL CONSIDERATIONS

3.1.1 Land Use Issues

The Agua Mansa Corridor presently contains a mixture of developed and undeveloped land with mining and extrusion and processing activities dominating the area. The study area includes the active mining operations of the California Portland Cement Company (Calmat) and the Riverside Cement Company as well as the site of a former rock quarry owned by the Owl Rock Company. Other major uses in the study area include the Southern Pacific Railroad Classification Yard and the E. L. Yeager Company Construction Yard and three new industrial parks which are under development, including the Butler Industrial Park, the South Rialto Industrial Park, and new industrial uses along Rancho Avenue.

The tone of the project area is clearly industrial, although agricultural and equestrian uses are also prevalent. Such uses are generally concentrated in areas east of Agua Mansa Road in the Santa Ana River flood plain. This area is considered infeasible for industrial development due to its flood hazard potential, but is appropriate for the "low risk" types of uses presently developed. The fact that this area is generally unsuitable for capital-intensive uses will likely serve to protect the existing uses well into the future.

There are several residential areas on the fringe of the study area which require analysis, particularly at the time when land use alternatives will be developed. These areas exist along Hall Avenue north of El Rivino Road and in the northwesterly portion of the study area in the Community of Bloomington. Special treatment may be necessary upon plan formulation to protect these residential properties. A total of 144 acres of residential development exists in the Corridor.

Due to the fact that industrial uses presently dominate the study area and because the four jurisdictions have largely planned the Corridor for industrial development, there is no question that such uses will ultimately prevail. The sensitive areas identified, however, do warrant consideration prior to the formulation of development plans because they, in many cases, represent substantial personal investments.

3.1.2 Landform and Topography

The Agua Mansa Corridor study area is located in the eastern portion of the Upper Santa Ana Valley adjacent to the Santa Ana River. The major natural topographical features present in the study area include Slover Mountain, the bluff along Agua Mansa Road overlooking the Santa Ana River flood plain, and the small mountains of the Crestmore Quarry site. Much of the study area's physical character, however, is a function of man's presence and mining activities. Of the 4,285-acre study area,

1,405 acres are presently being mined or were previously mined. In addition, 951 acres are in agricultural and/or equestrian use. It is estimated that only 973 acres (23 percent of the study area) remains in a natural condition.

Topographical variations in the study area range from peak elevations of approximately 1,200 feet above sea level (asl) on Slover Mountain and a peak at the Crestmore Quarry site to a low of 820 feet as at the southerly corner adjacent to the Santa Ana River. The portions of the study area which have not been mined are generally very gentle in relief and could be developed with fewer problems. A notable exception is the bluff and flood plain along the Santa Ana River.

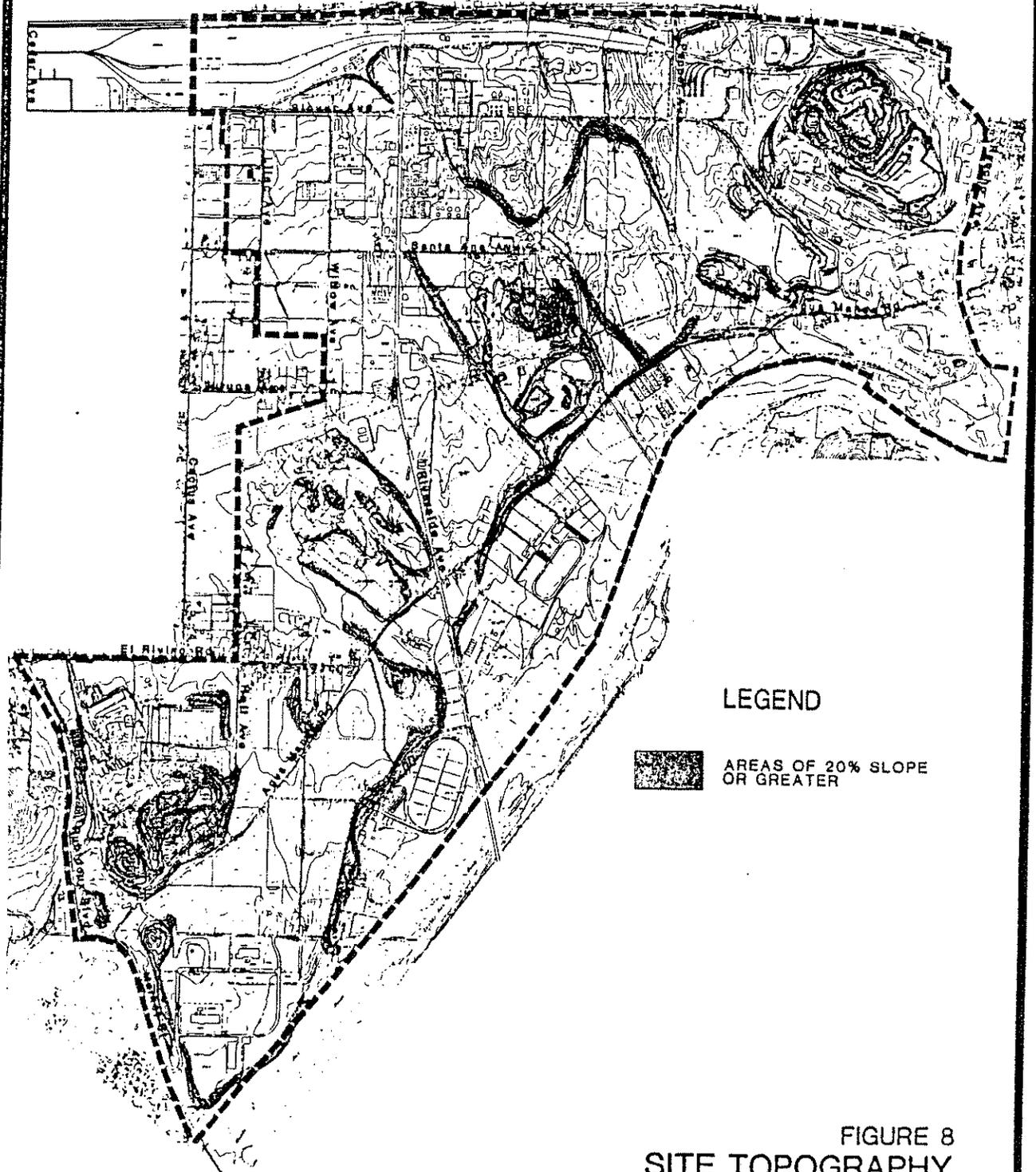
The areas which are being or have been mined can be characterized as rugged with major variations in topography. California Portland Cement's property in the northeasterly corner of the study area includes Slover Mountain and adjacent areas are used for the storage and disposition of spoil materials. The Owl Rock Company property, a closed sand and gravel extraction operation west of the intersection of Riverside Avenue and Agua Mansa Road, can be described as a large depression with numerous small pits with depths of up to 50 feet with respect to surrounding natural grade. The Agua Mansa landfill site (south of Rialto's sewage treatment facility) and the Riverside Cement Plant and E. L. Yeager Construction Yard (north of the intersection of Rubidoux Boulevard and Market Street/Agua Mansa Road) are also largely reflective of man-made landform modifications.

Figure 8 provides a landform analysis of the Agua Mansa Corridor by identifying areas which may be undevelopable for anticipated land uses due to slope (in excess of 20 percent), areas which have been mined out and require extensive grading to accommodate development, and areas which are subject to flooding by the Santa Ana River.

3.1.3 Soils and Geology

Soils

Soil conditions and types for the study area are identified and described in detail in the "Soil Survey of the Western Riverside Area, California" (1971) and the "Soil Survey of San Bernardino County, Southwestern Part, California" (1971), published by the U. S. Department of Agriculture. Individual soils were grouped into general soil associations which are composed of "soil series" which define subgroups within an association in greater detail. The soil series are further divided into "capability groupings", the purpose of which is to determine the suitability of the soil for various land uses. The capability system is comprised of three levels: the "capability class", "subclass", and "unit". Capability classes, the broadest group, are designated by Roman numerals I through VIII. The numerals indicate progressively greater limitations and narrower choices for practical uses. For the sake of simplicity, the classes of soil have, in this study, been regrouped in three general classes designated A, B and C.

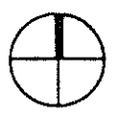
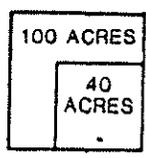


LEGEND

 AREAS OF 20% SLOPE OR GREATER

FIGURE 8
SITE TOPOGRAPHY

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AGUA MANSÁ INDUSTRIAL CORRIDOR

Classes I, II and III were grouped into "Class A". Classes IV and V were grouped into "Class B". Classes VI, VII and VIII were grouped into "Class C".

The Soil Classes are generalized as follows:

Class A

Class A soils are the least restrictive in the area. They consist of moderately deep to very deep, moderately well-drained to well-drained, loams to coarse sandy loams. Typical soil characteristics are as follows:

- Erosion hazards: Slight to moderate.
- Permeability: Very slow to rapid.
- Shrink-swell potential: Low to moderate.
- Limitations for use as septic tank filter: Severe.
- Runoff potential: Moderately low to moderately high.
- Slope: 0-8 percent.
- Crop suitability: These soils are generally suited for grain, forage truck, citrus and avocado crops.

Class B

Class B soils are more restrictive than Class A and consist of shallow to very deep, well-drained to somewhat excessively drained, loams to sandy loams. Typical soil characteristics are as follows:

- Erosion hazard: Moderate to high.
- Permeability: Very slow to moderately rapid.
- Shrink-swell potential: Low to moderate.
- Limitations for use as septic tank filter field: Severe.
- Runoff potential: Moderately low to moderately high.
- Slope: 5-15 percent.
- Crop suitability: These soils are generally suited for avocado, citrus, and small grain crops.

Class C

Class C soils are most restrictive, consisting of shallow to deep, well-drained to excessively well-drained, loams to coarse sandy loams. Typical soil characteristics are as follows:

- Erosion hazard: Moderate to very high.
- Permeability: Very slow to rapid.
- Shrink-swell potential: Low.
- Limitations for use as septic tank filter field: Severe.
- Runoff potential: Moderately low to rapid.
- Slope: 5-75 percent.
- Crop suitability: These soils are generally suited for limited citrus crops, range, dry land pasture, wildlife, and watershed.

The various soil types found in the study area are summarized in Table 6 and illustrated in Figure 9.

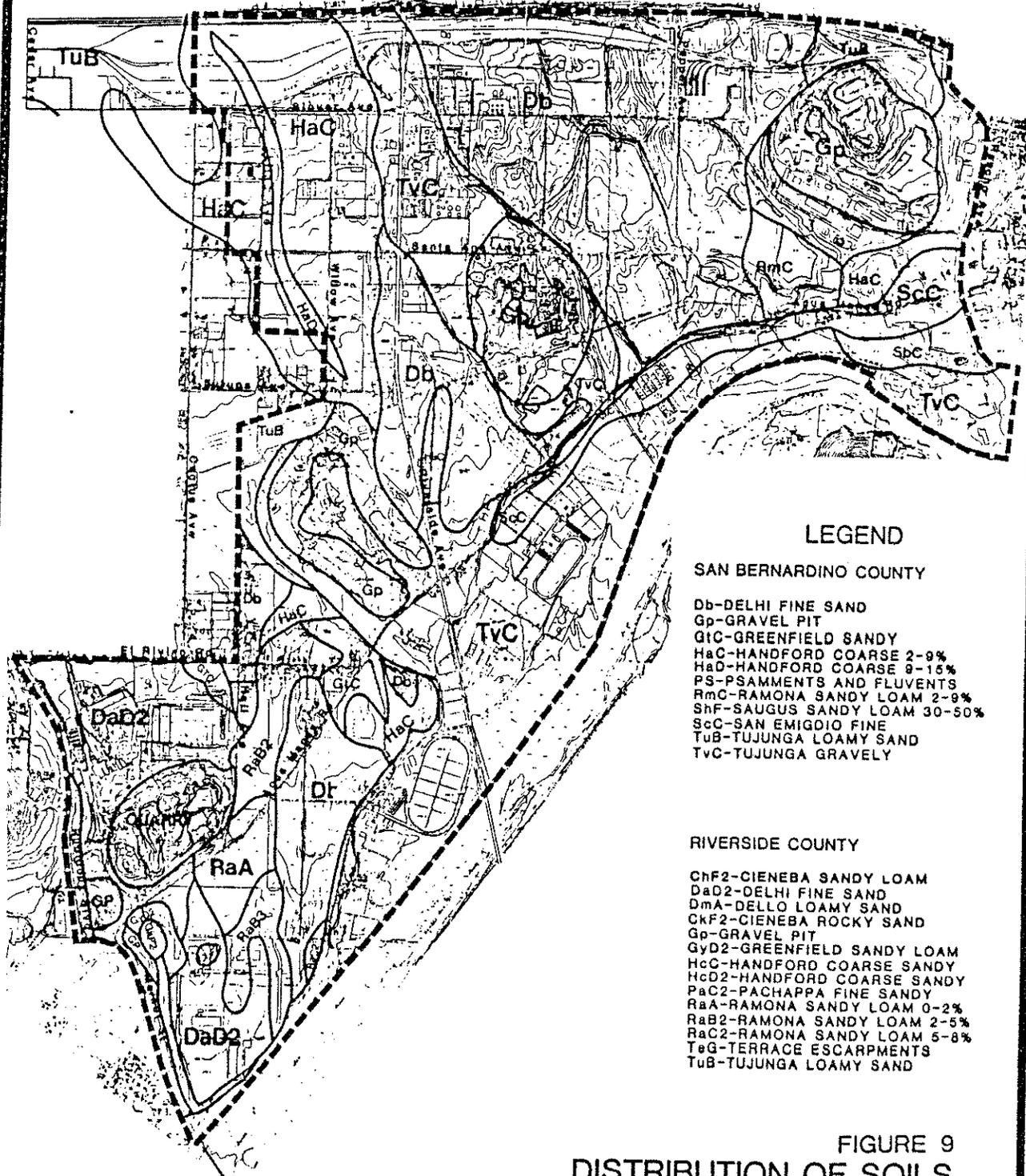
TABLE 6
AGUA MANSA INDUSTRIAL CORRIDOR
SOIL CHARACTERISTICS

<u>Soil Type (Symbol)</u>	<u>Runoff</u>	<u>Erosion Hazard</u>	<u>Shrink-Swell Potential</u>	<u>Soil Class</u>
<u>Riverside County</u>				
Cieneba Sandy Loam (ChF2). 15-20% Slopes, Eroded	Rapid	High	Low	C
Cieneba Rocky Sandy Loam (CkF2), 15-20% Slopes, Eroded	Rapid	High	Low	A
Delhi Fine Sand (DaD2). 2-15% Slopes, Wind-eroded	Very Slow	High	Low	A
Dello Loamy Sand, Poorly Drained (DmA). 0-2% Slopes	Very Slow	Slight	Low	C
Greenfield Sandy Loam (GyD2). 8-15% Slopes, Eroded	Slow to Medium	Slight to Moderate	Low	A
Hanford Coarse Sandy Loam (HcC). 2-8% Slopes	Slow to Medium	Slight to Moderate	Low	A
Hanford Coarse Sandy Loam (HcD2). 8-15% Slopes, Eroded	Medium	Medium	Low	A
Pachappa Fine Sandy Loam (PaC2). 2-8% Slopes, Eroded	Medium	Moderate	Low	A
Ramona Sandy Loam (RaA). 0-2% Slopes	Medium	Moderate	Low	A
Ramona Sandy Loam (RaB2), 2-5% Slopes, Eroded	Medium	Moderate	Low	A
Ramona Sandy Loam (RaC2). 5-8%, Eroded	Medium	Moderate	Low	A

Table 6 (Cont.)

<u>Soil Type (Symbol)</u>	<u>Runoff</u>	<u>Erosion Hazard</u>	<u>Shrink-Swell Potential</u>	<u>Soil Class</u>
Terrace Escarpments (TeG), 30-75% Slopes	Rapid	High	Low	C
Tujunga Loamy Sand (TuB), 0-5% Slopes	Very Slow	High	Low	B
<u>San Bernardino County</u>				
Delhi Fine Sand (Db)	Very Slow	Moderate	Low	A
Greenfield Sandy Loam (GtC), 2-9% Slopes	Medium	Moderate	Low	A
Hanford Coarse Sandy Loam (HaC), 2-9% Slopes	Slow to Medium	Slight to Moderate	Low	A
Hanford Coarse Sandy Loam (HaD), 9-15% Slopes	Medium	Medium	Low	A
Psamments and Fluvents (Ps), Frequently Flooded	Rapid	High	Low	C
Ramona Sandy Loam (RmC), 2-9% Slopes	Medium	Moderate	Low to Moderate	A
San Emigdio Fine Sandy Loam (ScC), 2-9% Slopes	Slow	Slight	Low	A
Saugus Sandy Loam (ShF), 30-50% Slopes	Rapid to High	Moderate	Low to Moderate	C
Tujunga Loamy Sand (TuB), 0-5% Slopes	Slow to Very Slow	Slight	Low	A
Tujunga Gravelly Loamy Sand (TvC), 0-9% Slopes	Very Slow to Slow	Slight	Low	B

Source: U.S.D.A., Soil Conservation Service, Soil Survey of the Western Riverside Area, California, November 1971, Soil Survey of San Bernardino County, Southwestern Part, California, 1971.



LEGEND

SAN BERNARDINO COUNTY

- Db-DELHI FINE SAND
- Gp-GRAVEL PIT
- G1C-GREENFIELD SANDY
- HaC-HANDFORD COARSE 2-9%
- HaD-HANDFORD COARSE 9-15%
- PS-PSAMMENTS AND FLUVENTS
- RmC-RAMONA SANDY LOAM 2-9%
- ShF-SAUGUS SANDY LOAM 30-50%
- ScC-SAN EMIGDIO FINE
- TuB-TUJUNGA LOAMY SAND
- TvC-TUJUNGA GRAVELY

RIVERSIDE COUNTY

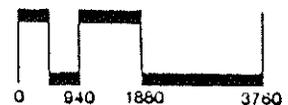
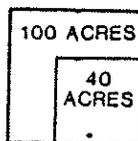
- ChF2-CIENEGA SANDY LOAM
- DaD2-DELHI FINE SAND
- DmA-DELLO LOAMY SAND
- ChF2-CIENEGA ROCKY SAND
- Gp-GRAVEL PIT
- GyD2-GREENFIELD SANDY LOAM
- HcC-HANDFORD COARSE SANDY
- HcD2-HANDFORD COARSE SANDY
- PaC2-PACHAPPA FINE SANDY
- RaA-RAMONA SANDY LOAM 0-2%
- RaB2-RAMONA SANDY LOAM 2-5%
- RaC2-RAMONA SANDY LOAM 5-8%
- Tg-TERRACE ESCARPMENTS
- TuB-TUJUNGA LOAMY SAND

**FIGURE 9
DISTRIBUTION OF SOILS**



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WILLIAMS-KUEBELBECK AND ASSOCIATES



AGUA MANSA INDUSTRIAL CORRIDOR

Geology

The Agua Mansa Industrial Corridor is located in the eastern portion of the Upper Santa Ana Valley on the west side of the Santa Ana River. The Upper Santa Ana Valley is defined by the San Gabriel Mountains on the north and the Santa Ana Mountains on the south.

The northwesterly portion of the study area is part of a gently sloping alluvial plain. The alluvial material present is as deep as 1,000 feet in some locations. The areas located along the Santa Ana River generally reflect this watercourse's activities over time as is evidenced by the presence of dune sands and river-deposited alluvial materials. Areas located in the Santa Ana River floodplain are subject to liquefaction hazards due to a very high groundwater level.

From a planning standpoint, seismicity is a major concern with respect to any land development in the region. Earthquakes are caused by the release of energy which is stored within the earth and is released as major sections of bedrock located below the earth's surface move relative to one another. The majority of damage caused by this energy release occurs due to ground shaking. Damage from ground shaking at any given site is dependent on three main factors. First is the amount of energy released during the fault movement. Second is the distance between the site and the location of the fault movement. The greater the distance, the less the damage. Third is the nature of the soil beneath the site.

Geologists have created a scale for measuring the amount of energy released by fault movement. This scale, called the Richter Scale, is logarithmic in nature which means that an increase of one full number in magnitude represents a many fold increase in energy released. For example, a magnitude 7.0 earthquake releases 32 times more energy than a quake of 6.0 magnitude. Geologists have also developed a way of predicting the largest earthquake which may theoretically occur along any given fault. This largest theoretical earthquake, known as the Maximum Credible Event, is determined by examining the geologic framework of any area, the nature of the fault in question, and the history of past fault movement.

Fault movement is measured on a geologic time scale. Faults are classified as being "historically active" if they have moved within the last 200 years; "active" faults have moved between 200 and 11,000 years ago; while faults which have moved between 11,000 and 2,000,000 years ago are classified as "potentially active." Geologists generally agree that the more recently a fault has experienced movement, the more likely it is to move again in the near future. The study area is located near two historically active faults, the San Jacinto and the San Andreas. The Cucamonga Fault, considered to be active, is located approximately eight miles to the northwest of the study area.

The San Jacinto Fault has been active very recently and is considered the most active fault of importance to the study area. It runs generally on a northwest-southeast vector to the north and northeast of the study area (see Figure 10). Geologists estimate that the San Jacinto Fault is capable of producing a Maximum Credible Event of magnitude 7.5 on the Richter Scale. During such an event, ground shaking would have a duration of approximately 30 seconds. An earthquake of this size would cause buildings located near the origin of the quake to shift off their foundations with resulting partial collapse.

The San Andreas Fault also has been historically active and is considered to be capable of producing the largest earthquake within the area. It is located east of, and runs approximately parallel to, the San Jacinto Fault. Geologists estimate that the San Andreas Fault is capable of producing a Maximum Credible Event of magnitude 8.5 on the Richter Scale. During the maximum event, ground shaking would have a duration of approximately 37 seconds. An earthquake of this size would cause the destruction of many wood-frame buildings and most masonry structures which were located close to the origin of the quake.

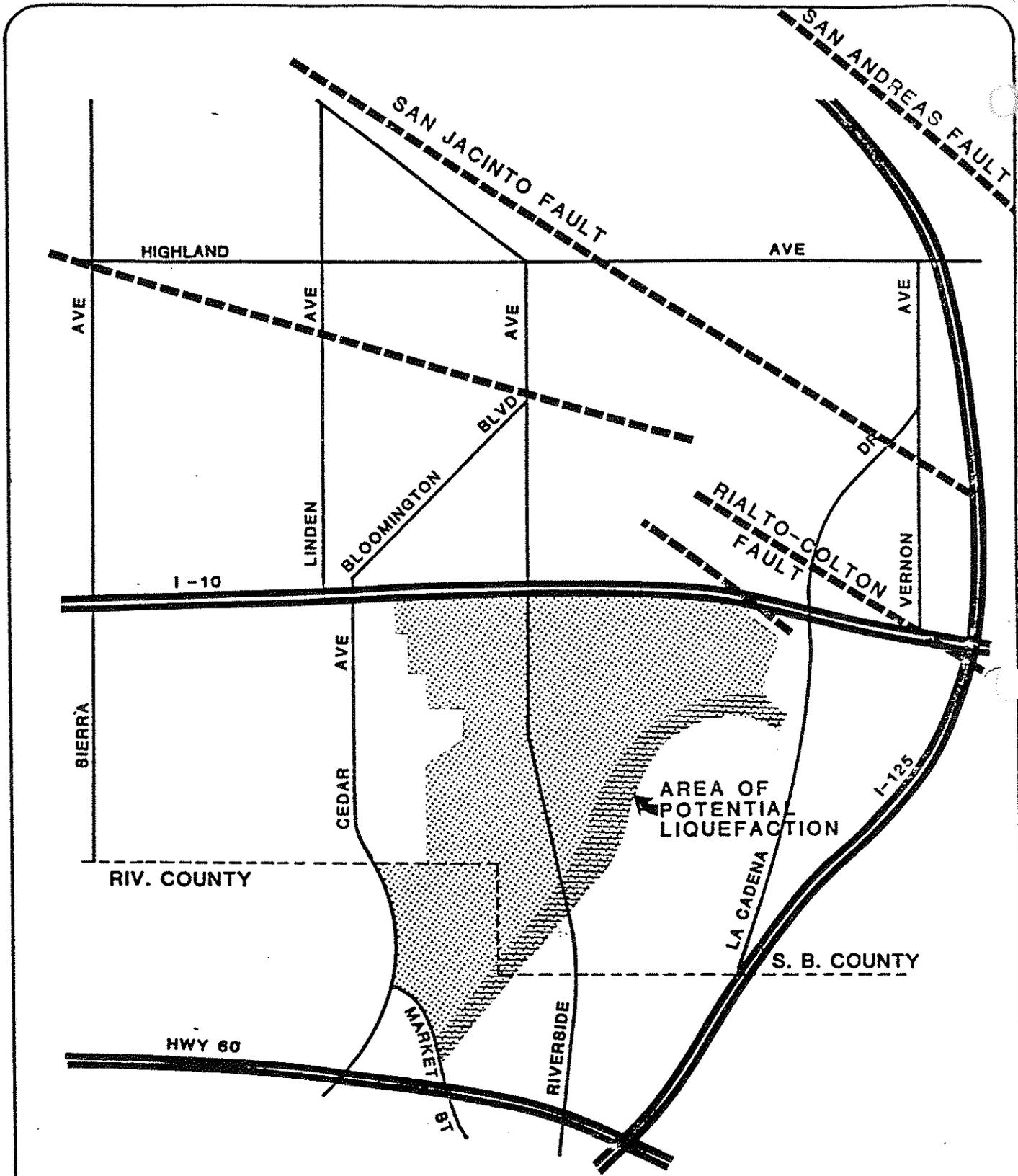
The Cucamonga Fault has been active within the last 11,000 years. It runs on an east-west vector to the north of the study area. Geologists estimate that the Cucamonga Fault is capable of producing a Maximum Credible Event of magnitude 6.5 on the Richter Scale with a ground shaking duration of approximately 18 seconds. An earthquake of this size would do considerable damage to many structures located near the origin of the quake.

In addition to the above mentioned faults, several other faults exist to the north of the study area (see Figure 10). The Colton-Rialto Fault is located closest to the study area and a buried trace thereof crosses the northeasterly portion of the site. This fault is believed to be an ancient system which does not represent a hazard. The Glen Helen and Lytle Creek Fault Systems are located further to the north. The Glen Helen System is relatively inactive, however, the Lytle Creek System merges with the San Jacinto Fault System and, therefore, may be subject to ground displacement.

Historic Earthquake Activity

Within the past one hundred fifty years, the region has been an area of high seismic activity. During that period, five earthquakes of magnitude 6.0 or greater on the Richter Scale have occurred within a fifty mile radius of the study area. These include:

- The earthquake of January 9, 1857, which was centered near Fort Tejon and which had a magnitude of approximately 8.3 on the Richter Scale.
- The earthquake of July 22, 1899, which was centered near the Cajon Pass and which had a magnitude of approximately 6.5 on the Richter Scale.



POTENTIAL GEOLOGIC HAZARD



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**AGUA MANSA
INDUSTRIAL
CORRIDOR**

FIGURE
10

- The earthquake of April 21, 1918, which was centered near Hemet in Riverside County and which had a magnitude of approximately 6.8 on the Richter Scale.
- The earthquake of July 22, 1923, which was centered near Highgrove in Riverside County and which had a magnitude of approximately 6.3 on the Richter Scale.
- The earthquake of December 4, 1948, which was centered near Desert Hot Springs in Riverside County and which had a magnitude of approximately 6.5 on the Richter Scale.

Earthquake Related Risks

Ground Shaking: Ground shaking is potentially the most damaging earthquake effect within the study area. The northeasterly portion of the study area is located in Ground Shaking Zone V, which indicates the possibility of severe ground shaking. The Riverside County portion is located in Zone III. Most of the study area is located in Ground Shaking Zone IV and is subject to moderate ground shaking hazards.

Ground shaking hazards are influenced by the nature of the soils underlying the study area. With the exception of the areas along the Santa Ana River, most of the study area is underlain by deep alluvium deposits. These deposits tend to increase the effect of ground shaking on structures typically found within the study area. In general terms, masonry structures are the most damaged under these conditions, and single-story, wood-frame buildings are the least damaged. The areas along the Santa Ana River are subject to liquefaction during a seismic event. Special site specific studies are necessary prior to the development of any such areas.

Ground Rupture: The second most potentially damaging earthquake effect is ground rupture. Ground rupture occurs when the displacement along a fault causes the surface of the Earth to tear or split. When this occurs, buildings which happen to straddle the area of displacement are destroyed by the tearing action. Ground rupture is not considered to be a constraint within the study area.

Other Risks: Other normal earthquake-related risks include phenomena such as mass ground movement, ground lurching, liquefaction, tsunami or seiche. Of these, only liquefaction may be a concern within the study area. Liquefaction is a phenomenon characterized by the temporary change of normally solid ground into a muddy liquid. When this occurs, buildings supported by the affected areas tend to sink into the temporarily liquified ground. Liquefaction occurs during earthquakes in areas where very fine soils are combined with high water levels.

Slope Instability Hazards

Slope instability is the result of both natural and man-made erosional processes by which soil and rock materials move downhill. The speed of this movement varies widely. It can range from an almost imperceptible creep to the high speed movement of a landslide.

No significant past slope stability problems are known to exist within the study area. However, landslide potential exists to some degree in almost every hillside area. This potential increases with slope steepness and as the slopes become steeper than 20%. Such areas are best kept in open space. The high risk areas are illustrated in Figure 7.

3.1.4 Hydrology and Flood Control

The Santa Ana River forms the southeasterly boundary of the Agua Mansa Industrial Corridor project area. Runoff generated within the project area generally flows from north to south, ultimately draining into the river. Although the prevailing slope of the land within the project area is on the order of 1.5 to 2 percent, the terrain varies greatly at certain locations within the project area, ranging from very steep terrain such as Slover Mountain with slopes exceeding 1 to 1 to flat terrain such as the area between the Santa Ana River and the bluff at Agua Mansa Road. Approximately 760 acres of the project area lie within the floodplain of the Santa Ana River. This area is located between the river and the bluff extending for a distance of nearly 5,000 feet west of Riverside Avenue.

The Santa Ana River is presently improved with interim level improvements constructed by the San Bernardino County Flood Control District. The approximate hydraulic capacity of the river through the project area, based on existing conditions, varies from about 27,000 cfs to 34,000 cfs. According to Flood Control District staff, no construction projects are currently included in the District's 5-Year Capital Improvement Program for upgrading the Santa Ana River.

Within the project area, only two improved drainage facilities presently exist. The largest of these facilities is the San Bernardino County Flood Control District's Rialto Channel, which extends through the project area from its confluence with the Santa Ana River at a point approximately 6,000 feet upstream (east) of Riverside Avenue to the San Bernardino Freeway at a point just west of Riverside Avenue. This facility serves a total tributary drainage area of more than 16,000 acres, extending a distance of more than 5 miles north of the San Bernardino Freeway and includes over 80 percent of the land area in the City of Rialto. The other existing drainage facility within the project area is the City of Colton's Southwest Colton Storm Drain which runs along the easterly edge of the project area, mostly in Rancho Avenue from the Santa Ana River to the San Bernardino Freeway. This facility serves a tributary drainage area of approximately 850 acres extending for a distance of approximately 1 mile north of the San Bernardino Freeway.

Both of these facilities are partially improved with interim improvements only, and are severely undersized for the drainage areas they serve. The Rialto Channel is improved with culverts at the San Bernardino Freeway, the Southern Pacific Railroad yard, Riverside Avenue and Agua Mansa Road. The approximate hydraulic capacities of these culverts are 2,800 cfs, 16,900 cfs, 6,200 cfs, and 2,200 cfs respectively. Only the culvert across the railroad yard is adequate for ultimate peak runoff rates. The channel conditions vary considerably from unimproved earthen ditch to concrete lined channel. The most substantial improvements exist in the reach between Santa Ana Avenue and Agua Mansa Road, a length of about 3,800 linear feet, where the trapezoidal channel is lined with concrete. Hydraulic capacities in the various channel sections vary considerably between approximately 1,100 cfs and 5,000 cfs.

The Southwest Colton Storm Drain consists of a culvert at the San Bernardino Freeway, a 48-inch reinforced concrete pipe in Rancho Avenue from the railroad crossing to near La Cadena Avenue, and a variable width earthen ditch from Rancho Avenue to the Santa Ana River (2,200+ L.F.). The hydraulic capacity of the system varies from about 90 cfs to 100 cfs.

A Storm Drain Master Plan covering most of the project area was prepared for the San Bernardino County Flood Control District by Verpet Engineering Company in 1973. In addition to the two drainage facilities identified above, the Drainage Master Plan contained recommendations for two additional major drainage facilities within the Agua Mansa project area. The two additional facilities shown in the Master Plan include a storm drain or channel extending through the project area approximately midway between the Rialto Channel and the Southwest Colton Storm Drain on the west side of Slover Mountain, and a major facility to serve the entire portion of the project area west of Riverside Avenue within San Bernardino County. These two facilities would also outlet into the Santa Ana River.

The proposed drainage facility located between the Rialto Channel and the Southwest Colton Storm Drain is shown on the Master Plan to cross through the California Portland Cement Company property several hundred feet east of Pepper Avenue, and to cross the San Bernardino Freeway to serve a tributary drainage area extending approximately 3 miles north of the freeway. The California Portland Cement Company has indicated that the alignment shown for this facility is not compatible with their long-range site planning and operations. Another alignment will need to be developed for this facility. Preliminary engineering studies indicate that it is feasible to reroute drainage from this area over to Rancho Avenue, likely more economically than the master planned alignment.

The proposed drainage facility serving the westerly portion of the project area in San Bernardino County would outlet into the Santa Ana River near Riverside Avenue, and would extend northerly into the project area with a system of storm drain conduits in El Rivino Road, Agua Mansa Road, Willow Avenue, Lilac Avenue and other streets.

The approximate peak flow rates shown in the Master Plan for each of the four major drainage facilities at their outlets to the Santa Ana River are as follows:

Riverside Avenue Drain	2,000 cfs
Rialto Channel	15,000 cfs
Pepper Avenue Drain	1,900 cfs
Southwest Colton Storm Drain	650 cfs

It should be noted that drainage facilities shown in the Master Plan were based on runoff rates obtained using criteria that have since been updated. The criteria prescribed in the current San Bernardino County Hydrology Manual (1983) are somewhat more conservative than the criteria used for the preparation of the Master Plan. Using the current criteria, the peak runoff rates for these facilities would be approximately 25 percent to 50 percent greater than the peak rates shown in the Master Plan. However, it should also be noted that for the Rialto Channel, the Master Plan did not consider the use of a series of proposed detention basins in the upper portions of the watershed for reducing flow rates in the downstream channel. The County of San Bernardino, together with the City of Rialto, are currently conducting new hydrology and hydraulic studies for the Rialto Channel based on current hydrology criteria and use of the detention basins. These studies will result in new recommendations for the Rialto Channel improvements.

Another point that should be noted is that the U.S. Army Corps of Engineers is considering a "small project" on a reach of the Rialto Channel downstream from the San Bernardino Freeway. At this time, it appears likely that the Corps will fund up to \$4 million for improving a portion of the channel in this area.

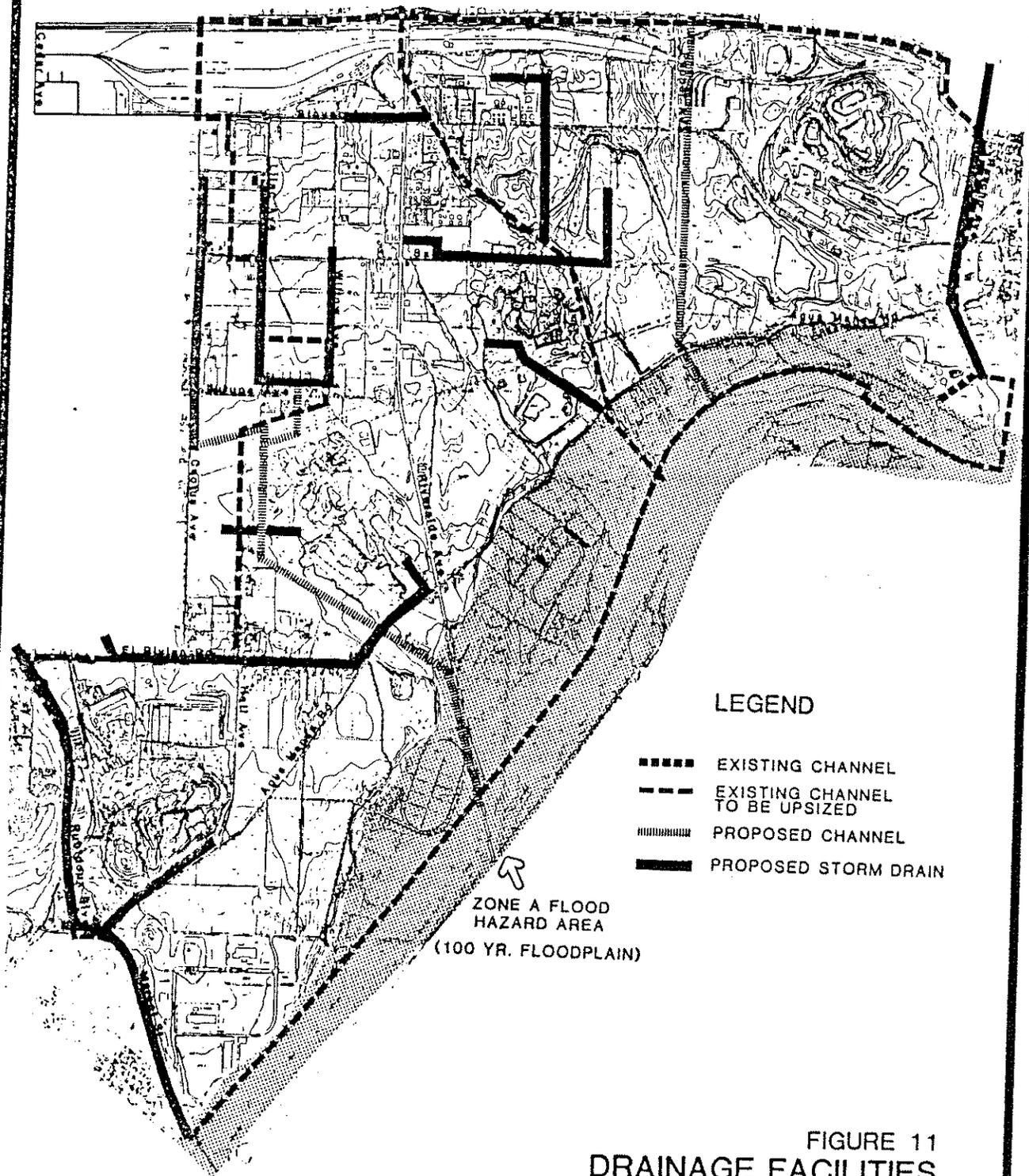
No Drainage Master Plan has been prepared for the portion of the project area in Riverside County and no drainage facilities presently exist. As new development occurs in this area, drainage improvements will be needed. A preliminary analysis of this area has resulted in a conceptual design for a drainage system to serve this area, with storm drains extending from the Santa Ana River into this area in Market Street, Agua Mansa Road and Rubidoux Boulevard.

Existing and proposed drainage systems for the Agua Mansa Corridor project area are shown in Figure 11.

3.1.5 Noise Environment

Several major noise sources presently affect the Agua Mansa study area, including:

1. Vehicular traffic on the San Bernardino (Interstate 10) Freeway.
2. Vehicular traffic on Riverside Avenue, Rubidoux Boulevard and Market Street.



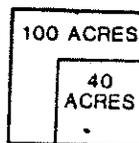
LEGEND

- EXISTING CHANNEL
- - - - EXISTING CHANNEL TO BE UPSIZED
- ||||||| PROPOSED CHANNEL
- PROPOSED STORM DRAIN

↑
 ZONE A FLOOD
 HAZARD AREA
 (100 YR. FLOODPLAIN)

**FIGURE 11
 DRAINAGE FACILITIES**

 **WILLDAN ASSOCIATES**
 ENGINEERS AND PLANNERS
 IN ASSOCIATION WITH
 DENNIS HANSBERGER & ASSOCIATES
 AND
 WILLIAMS-KUEBELBECK AND ASSOCIATES



AGUA MANSA INDUSTRIAL CORRIDOR

3. Railroad activity associated with the Southern Pacific Railroad main lines and railroad classification yard.
4. Mining and processing activities conducted by California Portland Cement and Riverside Cement.
5. Aircraft Flyovers from Norton Air Force Base.

Noise intensity is most frequently discussed in terms of the Community Noise Equivalent Levels (CNEL). This measure presents a weighted average noise level that increases the relative significance of evening and nighttime noises. It recognizes that noises which occur during the evening and night are less tolerable than noises occurring at other times of the day. CNEL expresses a standard acoustical scale that includes both magnitude and frequency of occurrence. The accepted exterior noise level for this scale is generally 65 dB CNEL for most land uses, excluding schools, churches and other sensitive uses.

The major noise sources listed above can all be expected to exceed 65 dB CNEL. Such noise levels, by themselves, limit the use of a significant portion of the study area to uses which are not overly sensitive to high noise levels. Existing noise levels are, however, acceptable for non-residential and non-institutional uses, such as commercial, industrial and agriculture, based on a review of the General Plan standards of the two cities and two counties which comprise the study area. Uses within the Study Area which are currently impacted are primarily limited to the small residential area located near the intersection of Hall Avenue and El Rivino Road. Areas impacted outside the Study Area include the Bloomington fringe on the westerly periphery and the South Colton neighborhood east of Rancho Avenue.

Potential development of the Agua Mansa Corridor, particularly for industrial uses, could impact existing and planned noise-sensitive uses on the periphery of the study area. In developing the land use plan, consideration will have to be given to the protection of sensitive receptors.

3.1.6 Biological Resources

The Agua Mansa Corridor lies within the broad physical-geographical region described as cismontane, which is generally described as the land in lower elevations between the mountains and the ocean. Within this area, the vegetative community described as Coastal Sage Scrub is typified, and can be delineated by several indicator plants. These include Artemisia californica (Coast Sagebrush or Old Man), Encelia californica (California Encelia), E. farinosa (Brittlebush or Incienso), Erigeron fasciculatum (California-Buckwheat Brush), Eriophyllum confertiflorum (Yellow Yarrow), Salvia apian (White Sage), S. mellifera (Black Sage), S. leucophylla (Gray Sage), all of which exist on the land.

A majority of the area in the corridor has been disturbed by man, whether through surface mining, agriculture or actual development.

Faunal species present are also largely related to man's activities in the vicinity. Typical species encountered might include skunks, opossums, snakes, lizards, rabbits, squirrels and gophers. Likewise, the birds of the area are common sparrows, quail, doves and the usual migration birds.

The riparian vegetative community directly along the bank of the Santa Ana River may contain some resources which are significantly in a natural state. It is, however, not envisioned that any of the areas directly adjacent to the river will be developed or improved in any manner.

As a whole, the plant and animal species found are very typical for semi-developed areas in the inland area. No rare or endangered plant or animal species exist in the area.

3.1.7 Archaeological/Historical Resources

In order to assess existing known and potential archaeological and historical resources in the study area, a records search was conducted by the Archaeological Research Unit, UC Riverside (Riverside County portion) and the San Bernardino County Museum Association (San Bernardino County portion).

No archaeological studies have, to date, been performed in the Riverside County portion of the study area. As such, the presence of archaeological artifacts cannot be ruled out without a systematic site survey. In addition, no archaeological sites have been recorded in Riverside County within one mile of the project area.

The records search conducted for the San Bernardino County portion of the study area indicates that, due to its location on the bank of the Santa Ana River, the project area is sensitive from a standpoint of both archaeological and historical resources.

Although no formal cultural resources investigation has ever been conducted on the project site, a number of recorded archaeological and historical sites are present, distributed relatively evenly throughout the San Bernardino County Portion of the study area. In spite of the substantial amount of previous disturbance, there is some possibility that unrecorded sites are also present within the study area, although surface evidence may have already been destroyed.

Previously recorded sites are listed as follows:

SBr-1572: Originally recorded as SBCM-57 by Gerald A. Smith in 1956, this site consisted of charcoal pits exposed from 5 to 8 feet below the surface during gravel pit operations. Most or all of the site is believed to have been destroyed, although it is possible that additional subsurface material could be found in the area.

SBr-1575: Originally recorded as SBCM-34 by Gerald A. Smith in 1946, this site consists of manos (grinding stones) which were recovered during construction at the San Salvador School.

SBr-1576: Originally recorded as SBCM-40 by Gerald A. Smith in 1938, this site consists of a series of prehistoric campsites in dunes overlooking the river. A wide variety of artifacts were observed in blow-outs in the dunes over a wide area. As late as 1977, archeological material was still present on the surface. Although subsurface materials are still present on the site, most of the surface has been covered by spoils from the California Portland Cement Company.

SBr-1578-H: First recorded by Smith in 1964 as SBCM-113, this site consists of the historic Agua Mansa Cemetery, now owned by the County of San Bernardino, and a satellite museum facility. An Indian campsite may have predated the cemetery as artifacts including pottery, and a projectile point has also been found there.

SBr-1579: First recorded by Smith in 1963 as SBCM-711, artifacts were found in this location which were believed to represent a former campsite on an old channel of Lytle Creek. The area has been completely destroyed (on the surface at least) by construction and expansion of the Southern Pacific Railroad Classification Yard.

SBr-1580: A metate (milling stone) was found at this location during cultivation of the area.

SBr-4314-H: This designation is for Slover Mountain, which has historic significance as the starting point and southwestern corner for the original surveys of the San Bernardino Rancho.

SBr-4952-H: As part of the Agua Mansa complex, this location is the site of the adobe chapel which dates from 1853. The chapel has additional significance in that the historic references to the great flood of 1862 indicate that the waters rose as high as the steps of the chapel. This information was later used to calculate the volume of water in the flood and has provided valuable planning data related to modern flood control. The remains of the adobe chapel are now, and have been for the past few years, the subject of ongoing archaeological investigations under the direction of Dr. Philip Wilke of the University of California, Riverside.

It should be noted that the location of each of the above sites was provided to the consultant with the expressed stipulation that these locations not be made known to the general public.

In addition to the archaeological site numbers for the above list of sites, the Agua Mansa cemetery is also listed as California State Historical Landmark #121 and Slover Mountain is listed as San Bernardino County Point of Historical Interest #18.

No large-scale documented cultural resource investigations have been previously conducted within the San Bernardino County portion of the study area. Several previous investigations for narrow corridors have passed through the study area. These include one transmission line and two pipelines for which reports have been prepared.

Mr. Michael Lerch of the San Bernardino County Museum Association recommends that all new development in previously undisturbed areas be preceded by a cultural resources survey conducted by a professional archaeological consultant, and that consideration be given to subsurface testing or other evaluation of cultural resources for all proposed development in proximity to areas with previously recorded sites, even in cases where surface evidence has been destroyed since the site was originally recorded. Some levels of evaluation of potential impacts to cultural resources should be undertaken by a qualified archaeologist for every proposed project within the study area due to the overall prehistoric and early historic significance of the region.

3.1.8 Air Quality/Climatology

An air quality analysis was performed by the firm of Endo Engineering. This study is reproduced in Appendix G of the EIR and is summarized below.

The study area is located within the South Coast Air Basin. The air quality of the basin is determined by the primary pollutant emissions added daily, and by the primary and secondary pollutants already present in the air mass. Primary pollutants are those emitted directly from a source and include carbon monoxide (CO), nitric oxide and nitrogen dioxide (NO and NO₂), sulfur dioxide (SO₂), particulates, and various hydrocarbons (HC). Secondary pollutants are created with the passage of time, in the air mass, and include ozone (O₃), photochemical aerosols, peroxyacetylnitrate (PAN), and nitrogen dioxide (NO₂). Oxidants (90 percent of which are ozone) represent the major air quality problem basinwide. Ambient air quality at the site is a function of the primary pollutants emitted locally, the existing regional ambient air quality, and the meteorological and topographic factors which influence the intrusion of pollutants into the area from sources outside the immediate vicinity.

Climate and Meteorology

The study area has a mediterranean climate with warm summers, mild winters and moderate rainfall. Average monthly temperatures recorded at the Riverside Fire Station No. 3 range from 51.5 degrees Fahrenheit in January to 79.9 degrees Fahrenheit in August. During 1982, temperature extremes ranged from a high of 111 degrees during September to a low of 29 degrees in January. Precipitation averages about 13.84 inches annually in the project vicinity, with more than 90 percent occurring between November and April (Department of Commerce "Climatological Data", 1982).

The land/sea breeze is the primary factor affecting the region's mild climate. The daytime winds are sea breezes predominantly from the west which flow at relatively low velocities. These sea breezes exhibit velocities below 13 mph approximately 96 percent of the time, and below 4 mph about half of the time, with an average velocity of 5.7 mph. During the night, the winds across the basin usually reverse direction. These land breezes flow from the east at one to two miles per hour.

During the fall and winter months the study area is subject to moderate and strong Santa Ana winds. These dry warm northerly and north-easterly winds typically last for several days and exhibit velocities which exceed 40 mph at times.

Throughout the basin, the vertical dispersion of air pollutants is restricted by the presence of a persistent temperature inversion near the surface (when temperature increases with altitude, it reduces the mixing height). Winter inversions frequently weaken and erode by mid-morning, thereby preventing the accumulation of contaminants. On hot summer days, however, the inversion layer often remains, trapping pollutants in a limited mixing area until middle or late afternoon when the inversion layer lifts, erodes, or surface winds are sufficient to disperse the pollutants horizontally. Thus, a combination of low wind speeds and low inversions creates the highest pollutant concentrations.

Four key elements are required to specify the meteorological conditions affecting the transport and dispersion of air pollutants. These include the wind direction, wind speed, atmospheric stability, and mixing height. Although regional meteorological conditions (such as temperature inversions, Santa Ana wind conditions, etc.) will dominate localized conditions for the most part, wind direction, wind speed, and localized turbulence generated by site specific topographical conditions can play a key role in determining site specific ambient air quality.

Wind direction and speed (which in turn affect atmospheric stability) are probably the most important climatological elements affecting the ambient air quality on-site. The on-shore dominant daytime wind pattern occurs between noon and 7:00 p.m., following the peak travel period (6:00 a.m. - 9:00 a.m.) in the Los Angeles/Orange County area. Consequently, during periods of low inversions and low wind speeds, the photochemical smog formed in these areas is transported downwind into Riverside County and San Bernardino County.

Effects of Pollutants on Receptors

Demonstrated effects of air contaminants on health and vegetation are discussed briefly below. Oxidants at high enough concentrations can cause eye irritation; aggravate respiratory disease; suppress the body's capacity to fight infection; impair athletes' performance and cause growth retardation in sensitive trees. Hydrocarbons in the presence of other primary pollutants (particularly oxides of nitrogen) lead to the formation of oxidants. Hydrocarbons also damage plants by inhibiting growth and causing flowers and leaves to fall.

Carbon monoxide is essentially colorless, odorless and toxic to humans. It enters the blood stream and interferes with the transfer of fresh oxygen, thereby depriving sensitive tissues in the heart and brain of oxygen. At high enough concentrations it can impair visual function, psychomotor performance and time discrimination.

Nitrogen dioxide, at high enough exposures, can cause fibrotic lung changes, bronchostriction, and acute bronchitis among infants and school children. In sensitive plants over several months, it can cause collapsed lesions near the leaf margin and moderate injury.

Lead at high enough concentrations impairs hemoglobin synthesis by increasing the lead levels in the blood. Whereas sulfur dioxide and suspended particulate exposures cause higher frequencies of acute respiratory symptoms and diminished ventilatory function in children. Sulfur oxides, in combination with moisture and oxygen, can yellow the leaves of plants, dissolve marble, and erode iron and steel.

Ambient Air Quality

The South Coast Air Quality Management District (SCAQMD) maintains ambient air quality monitoring stations at numerous locations throughout the basin. The stations located closest to the study area and most indicative of the study area's ambient air quality are the Riverside, Fontana, and San Bernardino stations. Ambient air quality data from these stations are given in terms of state and federal standards which were adopted to protect public health with a margin of safety (See Appendix D). In addition, California has adopted episode criteria for oxidant, carbon monoxide and sulfur dioxide. Episode criteria represent short-term exposures at concentrations which actually threaten public health.

The South Coast Air Basin has been designated a non-attainment area because of violations of the national ambient air quality standards for carbon monoxide, ozone, nitrogen dioxide and total suspended particulates. Air quality trends, which have developed at the three air quality monitoring stations between 1980 and 1982, are discussed below. From this information, it can be seen that carbon monoxide, sulfur dioxide and lead have not equalled or exceeded the relevant state standards. All other major pollutants monitored have exceeded the standards at these three stations.

Of all the pollutants, total suspended particulates equal or exceed the California standard most often. Suspended particulates exceeded the California 24-hour standard of 100 micrograms per cubic meter on 75 percent of the days monitored at the San Bernardino station and 60 percent of the days monitored at the Fontana station. Particulates exceeded the Federal 24-hour standard of 260 micrograms per cubic meter on 4 percent of the days in Fontana, 7 percent of the days monitored in San Bernardino, and 15 percent of the days monitored in Riverside.

The California one-hour ozone standard (0.10 ppm) was equalled or exceeded on 52 percent of the days monitored in San Bernardino, 46 percent of the days monitored at the Riverside station and 45 percent of the days monitored at the Fontana station. The Federal one-hour standard (0.12 ppm) was equalled or exceeded on 34 percent of the days monitored in San Bernardino, 33 percent of the days monitored at the

Riverside station, and 34 percent of the days monitored in Fontana. Between 1980 and 1982, the Fontana station had 190 first stage ozone episodes, the most declared, followed by the San Bernardino station with 168, and the Riverside station with 127. During 1980 and 1981, the Fontana station had 7 second stage ozone episodes declared, followed by 4 at the Riverside station, and 3 at the San Bernardino station. None of the second stage episodes were declared in 1982.

Between 1980 and 1982, the 24-hour State standard for sulfate (25 ug/m³) was exceeded on 6 percent of the days monitored at the Fontana station, on 3 percent of the days monitored at the San Bernardino station and 2 percent of the days monitored at the Riverside station. In addition, the California 1-hour nitrogen dioxide standard of 0.25 ppm was exceeded once, at the Riverside station.

The California Air Resources Board (CARB) periodically reviews the State's ambient air quality standards considering new health effect studies and recommendations by the Department of Health Services. On September, 1982, new sea level carbon monoxide standards were adopted by the CARB. The one-hour standard was revised downward from 40 to 20 ppm. The 12-hour standard of 10 ppm was dropped in favor of an 8-hour standard of 9.0 ppm. These revised standards were designed to prevent carboxyhemoglobin concentrations from exceeding 2 percent in the blood and thereby avoid adverse health effects in persons with heart disease, chronic obstructive pulmonary disease, anemia or pregnant women and their unborn fetuses. The national ambient carbon monoxide standards are also under review by the U.S. Environmental Protection Agency. They are currently set at 35 ppm for one-hour averages and 9.0 ppm for an eight-hour average.

The state 24-hour standard for total suspended particulates (TSP₃) was changed (effective July 1, 1983) from 100 ug/m³ to 50 ug/m³ for particulate matter with an aerodynamic diameter equal to or less than 10 microns. In addition, the 60 ug/m³ annual geometric mean (AGM) standard for TSP was replaced by a 30 ug/m³ standard for total thoracic particulates (TTP). Both of these changes reflect health concerns related to smaller particles that penetrate deeply into the human respiratory tract.

Exposure to Local Pollutant Sources

The most significant local source of air pollution is the San Bernardino Freeway, located along the 2.8 mile northern boundary of the study area. Recent traffic counts by Caltrans (1982) shows that 72,000 vehicles per day use the freeway in this vicinity. Consequently, 201,600 vehicle miles of travel occur daily, adjacent to the study area. If this traffic were to flow at an average speed of 55 mph, it would be generating 5,644 pounds of carbon monoxide, 786 pounds of hydrocarbons, 1,500 pounds of nitrogen oxides, 107 pounds of sulfur oxides and 106 pounds of particulates daily. Carbon monoxide emissions

represent over 69 percent of the total emission burden. At lower speeds, the carbon monoxide and hydrocarbon emissions would be higher. NOx emissions increase with speed. SOx and particulate emissions are not speed dependent.

In addition to the San Bernardino Freeway, eight stationary point sources with total weighted emissions greater than 25 tons per year, are located within a 5-mile radius of the project area. Combined, these sources annually generate 839 tons of reactive organic gases, 2,641 tons of carbon monoxide, 2,420 tons of oxides of nitrogen, 192 tons of sulfur oxides, and 296 tons of particulates.²

SCAQMD Rules and Regulations

The 4,285 acre Agua Mansa area lies within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Formed in 1977, the SCAQMD is responsible for regulating stationary sources of air pollutants in the four county basins. A stationary source is defined as air contaminant emitting equipment which is located on one property (or on contiguous properties) and is under the same ownership or entitlement to use. Stationary sources of air pollutants can be divided into six broad categories:

1. Fuel Combustion - oil and gas production, agricultural, electric utilities, etc.;
2. Solvent Use - dry cleaning, degreasing, coatings, asphalt paving, printing;
3. Industrial Processes - chemical, mineral, metal, food, and agricultural;
4. Petroleum Process, Storage and Transfer;
5. Waste Burning;
6. Miscellaneous Processes - construction and demolition, pesticide application, farming, fugitive dust.

Through its "Rules and Regulations", the District regulates stationary sources of air contaminants. Of the twelve regulations, two are applicable to the industrial and manufacturing - zoned Agua Mansa: Regulation VII (Emergencies) and Regulation XIII (New Source Review).

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1. Total weighted emissions are the sum of reactive organic gases (ROG), NOx, SOx, and TSP emissions, plus 10 percent of the CO emissions.
 2. Data from the 1982 AQMP, Appendix No. IV-A.

Regulation VII establishes the actions to be taken by industry, business, government, and educational institutions during air pollutant episodes (ozone, carbon monoxide, sulfur dioxide, ozone in combination with sulfur dioxide, and ozone in combination with sulfate). Rule 708 details two plans that are to be implemented during first, second, or third stage episodes: a "Stationary Source Curtailment Plan" and a "Transportation Management Plan".

The Stationary Source Curtailment Plan indicates, for that particular industry or source, what steps should be taken to lower the concentrations of ozone, sulfur dioxide, and ozone/sulfate. These steps may include reducing production at the facility to the point of shutdown. The Transportation Management Plan indicates what steps should be taken to curtail or cease mobile source emissions. These steps may include the use of carpooling and mass transportation or operating as though the day were a major national holiday.

Regulation XIII sets forth pre-construction review requirements for new or modified stationary source emissions and establishes the requirements and procedures for emission reduction banking. Table 7 indicates the ceiling amount of air emissions allowed for any new or modified stationary source in the basin. The limit on the emissions can be increased through a process of off-setting emissions (either modify or close down an existing source and use the resulting air emissions credit).

Emission reduction banking is the process whereby a stationary source which has reduced its air emissions (either through modification of its equipment or shutdown of its equipment) can "bank" those emissions for use by another stationary source, which would exceed the limits in Table 7. New or modified stationary sources are also required to implement the Best Available Control Technology (BACT) to reduce air pollutant emissions (e.g. adsorbers, scrubbers, filters, etc.).

Air Quality Management Plan

The AQMP, adopted by the California Air Resources Board on May 10, 1979, is the air quality management plan for the South Coast Air Basin. It was designed to meet and maintain federal and state ambient air standards by 1987. Required by the Clean Air Act (Amendments of 1977), the AQMP was included in the State Implementation Plan and submitted to the Environmental Protection Agency (EPA) in July 1979. In January 1981, the EPA approved portions of the AQMP with conditions, but disapproved the ozone and carbon monoxide portions because of the failure of the California Legislature to adopt a Vehicle Inspection Maintenance (I & M) Program. In April 1982, the EPA approved submittals to remove the conditions, but continued ozone and carbon monoxide disapprovals until an AQMP revision could demonstrate attainment by 1987 or show that all possible reasonable and available control measures have been implemented by 1987.

TABLE 7
STATIONARY SOURCE EMISSIONS
CEILING AMOUNTS

Air Contaminants	Net Cumulative Emissions (lbs./day)
Carbon Monoxide	550
Sulfur Dioxide	150
Nitrogen Oxides	100
Particulate Matter	150
Reactive Organic Gases	75
Lead Compounds	3

Source: Taken from Rule 1303 of the SCAQMD "Rules and Regulations".

The "Draft AQMP 1982 Revision", adopted in October 1982, included measures available for implementation by 1987 as well as long range strategies to bring the basin into late compliance. These measures will meet the Federal standard for nitrogen dioxide by 1987 and the State standard by 2000. There will be continuous attainment of federal sulfur dioxide standards; however, violations will continue for particulates, hydrocarbons, carbon monoxide and ozone after the 1987 attainment deadline. A 1987 Implementation Plan Alternative with four severe control strategies could bring about attainment of all national standards except particulates by 1987.

On September 10, 1982, the Governor signed a state Vehicle Inspection Maintenance Program into law with inspections beginning on March 15, 1984, in conjunction with yearly vehicle registration. By March 15, 1986, every vehicle required to have an emission control inspection should have been inspected at least once. It has been speculated that this program may reduce motor vehicle emissions by as much as 25 percent. Based upon this act, the EPA has removed constraints affecting federally funded transportation and sewage treatment projects in California.

The AQMP has been based upon the growth forecast adopted by the Southern California Association of Governments (SCAG 82). For a project to be consistent, it must conform to the local general plan and SCAG Development Guide. A project is inconsistent with the AQMP if: (1) it does not conform with the local general plan; or (2) it uses a disproportionately large portion of the forecast growth increment. Although the degree of inconsistency is a matter of judgement, any inconsistency is considered a significant adverse impact.

The AQMP also contains a number of energy conservations and other strategies which can be applied to projects to help improve air quality. Consistency with these strategies should also be demonstrated.

Several options are available if a project proves to be inconsistent with the AQMP including:

- Modifications to the project to achieve consistency with the AQMP:
- Preparation of a general plan amendment for the project; and
- An EIR could be certified for an inconsistent project if a finding is so made and a Statement of Overriding Considerations is included. This option is not available if a Negative Declaration is used.

3.1.9 Energy Consumption and Conservation

Conventional sources of both electricity and gas are available to the study area via the major utility companies. Given the climatic conditions of the area, the site has the potential to utilize alternative sources of energy, specifically solar energy.

Operation of completed industrial facilities and other development will result in the consumption of substantial quantities of natural gas, electricity, and especially gasoline. Reductions of 70 percent and higher in the use of gas for hot water heating can be achieved through the use of solar energy. However, with the limited heating load in the area, solar energy is not cost effective for space heating using active solar systems. Passive design elements, such as extensive insulation, can play a major part in reducing the heating and cooling loads.

The following site planning measures to maximize energy-efficiency can be included in site specific developments in the study area:

- Lots should be oriented to facilitate southern and northern exposures.
- Setbacks and height restrictions should facilitate solar access for all portions of the development.
- Location of buildings to facilitate natural ventilation and cooling.
- Minimization of paved areas.
- Provision of shade trees in parking areas.

Measures which can be incorporated into the design of individual buildings, which will reduce the consumption of energy and the utilization of alternative energy sources, include the following:

- Use of fluorescent lighting rather than less efficient lighting.
- Installation of attic fans or other ventilation devices.
- Installation of thermal insulation in walls and ceilings which meets or exceeds standards established by the State of California.

- Use of tinted or solar reflective glass on appropriate exposures.
- Use of heat-reflecting glass and drapery on all office window glass to reduce cooling loads.
- Use of active and/or passive solar energy systems for heating and cooling.
- Use of windowless walls for southern and western exposures.
- Use of air conditioning which will have a 100 percent outdoor air economizer cycle to obtain free cooling during cool and dry outdoor climatic periods.
- Use of a water-cooled cooling system as they operate at a lower condensing temperature resulting in less electrical usage.
- Use of individual meters versus multiple meters to encourage conservation of energy.
- Lighting switches and multi-switch provisions for control by occupants and building personnel to permit optimum energy use.
- Solid state control console linked to a control system to perform energy conservation functions such as automatic temperature reset, start/stop time programming of motor equipment, data logging of energy consumption, and maintenance and service scheduling.
- Public area lighting, both interior and exterior, should be time-controlled and limited to that necessary for the safety of persons and property.

The following planning measures can be implemented to minimize or reduce the consumption of gasoline:

- To reduce the amount of energy consumed by mobile sources, encourage the extension of bus transportation to the site and the enactment of ride-sharing programs.
- The provision of bus stop facilities within the project site.
- The location of eating facilities in the study area to minimize off-site trips during lunch times.

3.1.10 Man-Made Hazards

The major hazard relating to the Study Area is the existing and future presence of flammable, explosive, hazardous and toxic materials. Major quantities of petroleum products are stored at the tank farm at Slover Avenue and Riverside Avenue and are conveyed via pipelines both easterly and westerly along the Southern Pacific Railroad right-of-way.

Any new development which takes place in proximity to or adjoining operations which store flammable or explosive liquids will be subject to meet the HUD federal standards for potential thermal radiation, not exceeding 450 B.T.U./ft.² hour in areas open to public access, and 10,000 B.T.U./ft.² hour where no public access exists.

The location of new industries in the area will likely increase the presence of potentially hazardous materials in the area as such materials are routinely required for industrial activities. Significant quantities of toxic and hazardous materials pass through the area on the Southern Pacific Railroad and I-10 on a daily basis as well.

The Study Area contains no known toxic and/or hazardous waste dumps. The only landfill site present is a Class III landfill operated by E. L. Yeager Company on Agua Mansa Road. This facility only accepts solid inert materials.

Although the subject area is the scene of daily overflights from military aircraft from Norton Air Force Base, no portions are located in a hazard or crash zone.

3.2 - PUBLIC FACILITIES AND SERVICE CONSIDERATIONS

3.2.1 Water Supply

The Agua Mansa Industrial Corridor study area is largely undeveloped and unserved. It encompasses four separate water purveying agencies. The West San Bernardino County Water District has jurisdiction over the majority of the study area, the City of Colton will supply the easterly portion, the Rubidoux Community Services District will supply that portion of the study area which lies within Riverside County limits, and the Inter-County Water Company currently serves a small area of residential development along the county boundary.

The West San Bernardino County Water District (W.S.B.C.W.D.) will provide service to that portion of the study area within the County of San Bernardino which lies west of Pepper Avenue, the District's common service boundary with the City of Colton's Water Department.

Water quality from sources within the Study Area itself varies from site to site, but generally, wells within the Study Area produce water which is high in nitrates. For that reason, water supplied to the area is pumped from the Lytle Creek, Rialto-Colton or the Bunker Hill Basins.

The W.S.B.C.W.D. provides water for both domestic and irrigation use derived from wells in the Lytle Creek and Rialto-Colton basins, and is distributed by an existing network which is, according to District representatives, reliable and well maintained. The District is confident that, with the combined capacity of currently developed sources and the pumping rights they hold to other sources, they have sufficient available capacity to provide service to that portion of the Study Area within their service area boundaries without importing water from other water purveyors. The District also has a Master Plan which proposes a number of facilities which would be necessary to expand their service capabilities within the Study Area.

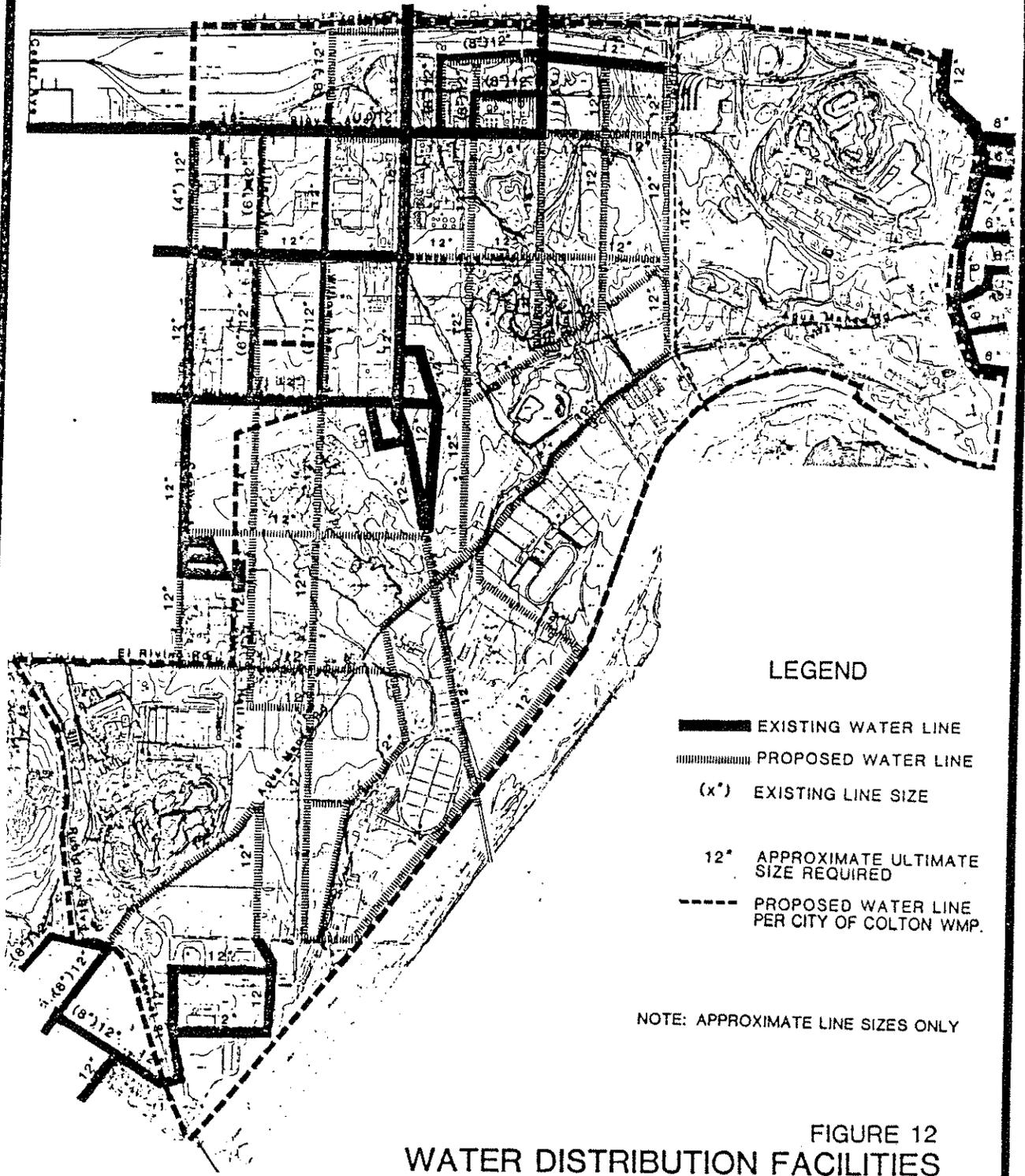
The District's Master Plan, however, was based on several assumptions which do not adequately address the intensity and rapidity of development that this Specific Plan is proposing, nor does it adequately address the fire flow requirements for the Study Area at its proposed intensity and type of development. Since fire flow requirements are generally determined at the time of development and are related to the size and type of facility to be developed, specific fire flow requirements are currently unavailable. For the purpose of this study, certain assumptions have been made which allow long-term planning of facilities and construction cost estimates to be determined. This study assumes that a looped distribution network of 12" pipeline would be required to provide the necessary volumes and pressures needed to adequately provide service and fire flow requirements, and that fire flow requirements would not exceed 5000 gallons per minute for a five hour duration. Based on these assumptions, the existing distribution and storage facilities and the District's Master Plan were analyzed. Those distribution facilities in the Study Area which are currently existing or

are planned at less than the 12" size anticipated by this Specific Plan will need to be upsized and the District's existing storage capacity of approximately 2.5 million gallons will need to be increased to an ultimate storage capacity in excess of the 10.1 million gallons shown in the District's Master Plan. Existing water demand for the District's portion of the Study Area has not been accurately defined by the District, however, the existing demand is estimated to be approximately 0.7 M.G.D., with ultimate demand estimated at 5.5 M.G.D. It should be noted that a focused Master Plan element for the Study Area should be prepared which encompasses the type and intensity of development proposed for the Study Area and which will more accurately define those facilities necessary to provide adequate service to the Study Area and the construction costs thereof.

The W.S.B.C.W.D. is currently investigating the purchase of Inter-County Water Company, a small, aging private system currently providing water to approximately 75 domestic users along El Rivino Road, Hall Avenue, north of the County boundary, and Cactus Avenue from the County boundary north to Katydid Avenue. Inter-County Water Company's distribution system is inadequate, providing users with water whose quality is substandard and is delivered at substandard pressures. Their well, however, is providing water of reasonable quality and is producing sufficient quantity to be a contributing source of water for the study area. The availability of this source of water is dependent upon the upgrading of their hydro-pneumatic and distribution systems or the sale of the water company to the County Water District, who would construct the necessary improvements. The W.S.B.C.W. District's purchase of the Inter-County Water Company will have little, if any, effect on the Study Area.

The City of Colton's Water Department derives its water primarily from wells in the Bunker Hill basin, and it is their intent to provide service to that portion of the Study Area within their service boundaries. Their distribution system is currently in existence only as far west as Rancho Avenue, however, they recently completed a Master Water Plan which will provide for the backbone infrastructure for that portion of the Study Area east of Pepper Avenue. The Master Plan was prepared using the type and intensity of development presented in this Specific Plan. Existing demand in the Colton portion of the Study Area is estimated at 0.1 M.G.D. and Colton plans, in their Master Water Plan, to provide a total of 15.8 M.G.D. to the area. The Master Plan finds that an adequate quantity of water exists in the Bunker Hill basin, allowing the City to provide service without importing water from other purveyors.

Rubidoux Community Services District is presently providing adequate supplies to the portion of the study area within Riverside County and intends to continue to maintain their level of service within their service area boundaries. The Services District currently owns and maintains new distribution mains which provide domestic water to the Butler Industrial Park in the southerly most portion of the study area, and intend to expand their distribution network to encompass further development in the District. The source of their water is a system of wells which provide adequate capacity to provide service to their jurisdictional portion of the study area.



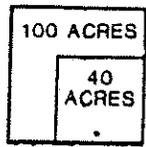
LEGEND

-  EXISTING WATER LINE
-  PROPOSED WATER LINE
-  (x") EXISTING LINE SIZE
-  12" APPROXIMATE ULTIMATE SIZE REQUIRED
-  PROPOSED WATER LINE PER CITY OF COLTON WMP.

NOTE: APPROXIMATE LINE SIZES ONLY

**FIGURE 12
WATER DISTRIBUTION FACILITIES**

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AGUA MANSA INDUSTRIAL CORRIDOR

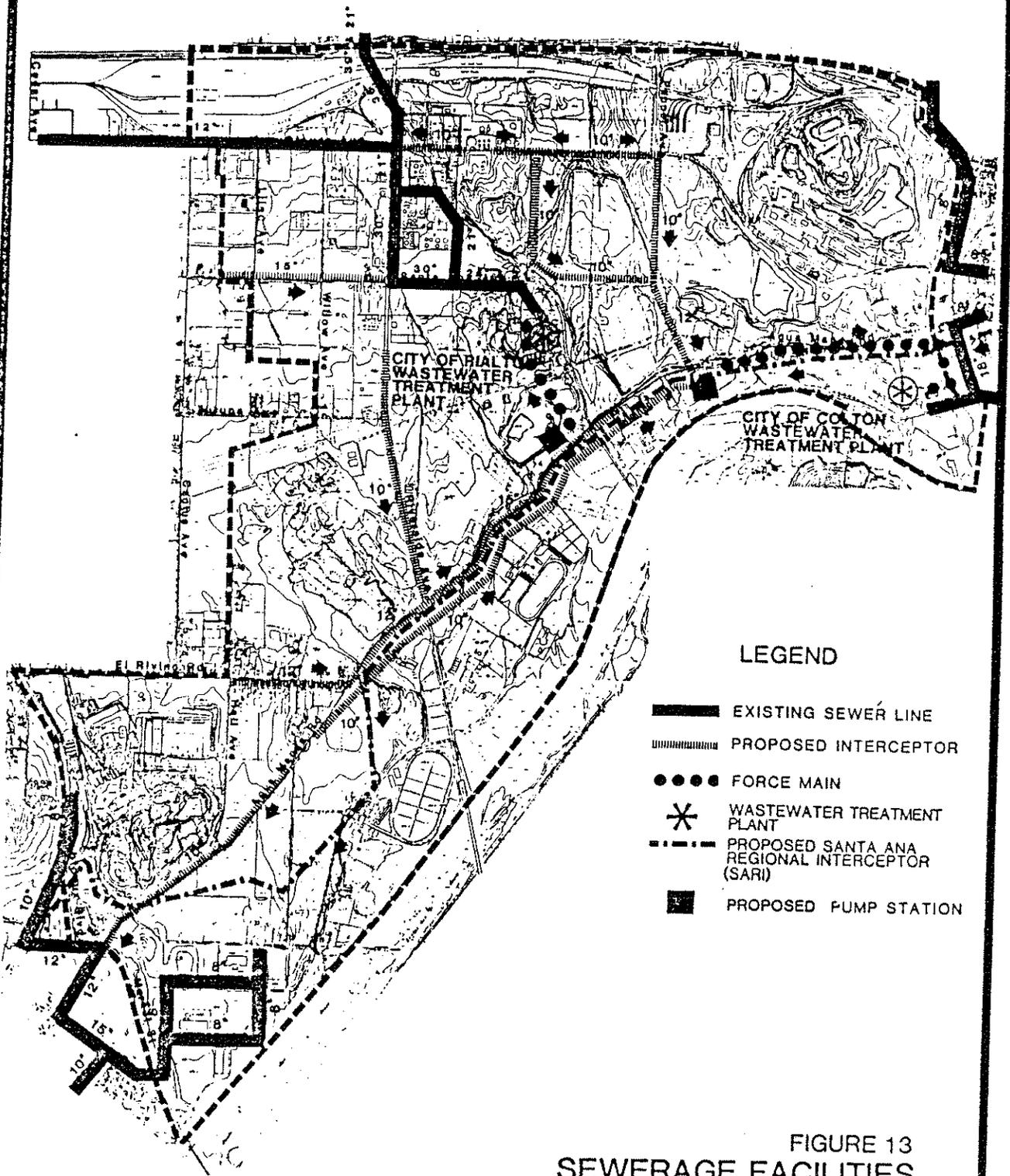
3.2.2 Wastewater Disposal

Most of the Agua Mansa Industrial Corridor is presently lacking in adequate wastewater disposal facilities. The deficiencies take three forms, including:

1. Lack of adequate sewers for collecting domestic sewage and conveying the flows to wastewater treatment facilities within the project area.
2. Lack of adequate capacity for treatment of domestic sewage at the two treatment plants located within the project area.
3. Lack of facilities for handling non-reclaimable industrial wastewater.

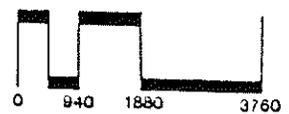
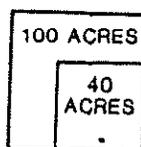
The problem of providing adequate wastewater disposal facilities for the Agua Mansa Industrial Corridor is complicated somewhat by the multiple jurisdictions involved that have varying responsibilities and policies in regard to the collection and treatment of wastewater. The primary agencies involved in this issue are listed below with a brief description of their existing facilities and basic responsibilities.

1. City of Rialto - The City of Rialto owns and maintains its own domestic wastewater collection system as well as its own treatment plant. At the present time, the City has trunk sewer facilities in the northwest portion of the Agua Mansa Corridor that carry flows generated mostly from north of the I-10 Freeway to the City's treatment plant located south of Santa Ana Avenue and east of Riverside Avenue (See Figure 13). The City presently collects sewage from a small number of businesses within the Study Area, with these connections gathering less than 0.02 Million Gallons per Day (MGD). The remainder of the Study Area within Rialto's boundaries currently utilizes individual on-site sub-surface disposal systems. Rialto's treatment plant recently underwent expansion and has approximately 2 Million Gallons per Day (M.G.D.) available capacity. Under its present policy, the City will not accept sewage flows from any areas outside the City limits without City Council approval. Currently, charges for treating flows from outside the City limits are increased by a factor of three times the fees charged for flows generated within City limits.
2. City of Colton - The City of Colton also owns and maintains its own domestic wastewater collection system and treatment plant. At the present time, the only domestic sewer facilities Colton operates within the Agua Mansa Corridor are trunk sewers in Rancho Avenue that carry flows generated from east of Rancho Avenue to the City's treatment plant located just west of Rancho Avenue and north of the Santa Ana River. Most of the project area within Colton High is not sewered and flows to the plant from the Study Area, is less than the 0.02 M.G.D. existing flows in Rialto. Domestic sewage generated by existing development in this area is generally discharged into individual subsurface disposal systems. Colton's



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AGUA MANSA INDUSTRIAL CORRIDOR

treatment plant is also presently operating near its maximum treatment capacity. However, the major difference between Colton and Rialto is that the Colton treatment plant is recognized as a regional wastewater treatment facility since it was constructed with mostly Federal and State funding. As a result, Colton is essentially responsible to provide wastewater treatment for other agencies within the region on a contract basis with those agencies.

3. West San Bernardino County Water District - The West San Bernardino County Water District is responsible for constructing and maintaining sewage collection facilities to serve the unincorporated portions of the project area located in San Bernardino County. W.S.B.C.W.D. presently has no wastewater facilities in the Agua Mansa Corridor. If and when W.S.B.C.W.D. is required to construct sewage collection facilities within the Agua Mansa Corridor, the flows would be transported to either the Rialto or Colton treatment plants for treatment on a contract basis; depending on whether the flows are generated from areas within Rialto's sphere of influence or Colton's sphere of influence. Within the San Bernardino County portions of the Agua Mansa project area, the vast majority of unincorporated land is within the City of Colton sphere of influence.

In 1977, W.S.B.C.W.D. prepared a Wastewater Facilities Plan which evaluated alternate methods of sewerage portions of the District, including the Community of Bloomington and the Agua Mansa Corridor. While the study was not adopted by either Rialto or Colton and some of the recommendations presented in the study are not appropriate today, some of the concepts presented in the study are still appropriate and are included as part of the recommended system of wastewater facilities.

4. Rubidoux Community Services District - The Rubidoux Community Services District is responsible for construction and maintenance of the domestic wastewater collection system in the Riverside County portion of the Agua Mansa Corridor. Much of this area is presently served by a gravity sewer system, however, existing flows are minimal with an estimated 0.3 M.G.D. collected and treated. Sewage generated from this area was formerly treated at the Rubidoux Community Services District treatment plant which is no longer in service. The sewage from this area is now treated at the City of Riverside treatment plant.
5. Santa Ana Watershed Project Authority - The Santa Ana Watershed Project Authority (S.A.W.P.A.) is the agency with responsibility for collection of non-reclaimable industrial wastewater within the Agua Mansa Corridor. At the present time, S.A.W.P.A. is planning the construction of a major extension of the Santa Ana Regional Interceptor (S.A.R.I.) line from its present terminus in the City of Chino on an alignment that would extend through the southerly portion of the study area in Agua Mansa Road to its upstream terminus at the City of San Bernardino's existing

wastewater treatment plant, located along the Santa Ana River easterly of the Study Area boundary. The total length of the S.A.R.I. line construction is approximately 25 miles, including approximately four miles within the Study Area. The S.A.R.I. line would provide ample capacity for industrial wastewater and could also provide interim capacity for domestic sewage generated within the project area. While the timing of this construction is uncertain, S.A.W.P.A. is presently evaluating several possible options for financing the project. The total cost of the project is estimated at \$30 million.

Financing options being considered by SAWPA include the following:

1. Additional capacity sales to serve existing generators of non-reclaimable wastewater.
2. Advance sales of capacity to future generators.
3. State loans or grants.
4. Public Purpose Investment Bonds.
5. Temporary capacity leases.

Figure 13 shows the recommended ultimate trunk wastewater facilities that would be needed to serve the project area assuming a domestic discharge rate of 5,000 gallons/day/acre for industrial land use. Non-reclaimable industrial wastewater and large discharges from "wet processing" type industries would be discharged into the S.A.R.I. line.

The recommended ultimate sewer system would convey all domestic flows generated from areas within the City of Rialto and its sphere of influence to the Rialto treatment plant. This would result in ultimate flows of approximately 8.7 MGD (Million Gallons per Day) generated from areas within the Agua Mansa Corridor that would be tributary to the Rialto treatment plant. The new facilities required in this portion of the Corridor would include gravity trunk sewers in Santa Ana Avenue, Slover Avenue, El Rivino Road, Riverside Avenue and Agua Mansa Road. A pump station and force main will be required to pump flows from the trunk sewer in Agua Mansa Road to the Rialto treatment plant.

All domestic flows generated from areas in the City of Colton, its sphere of influence, and unincorporated portions of San Bernardino County would be conveyed to the Colton treatment plant. This would result in ultimate flows of approximately 8.3 MGD. This volume includes ultimate flows generated from future development of the California Portland Cement Company property, but includes no flows from the agricultural/equestrian area located within the floodplain area along the Santa Ana River. Because the present policy of the City of Rialto is to not accept any flows from areas outside the City limits, it will be necessary to construct a parallel sewer in Agua Mansa Road to provide sewer service to development areas in San Bernardino County located on the bluff

between Agua Mansa Road and the Santa Ana River. It should be noted that on-site sewer lift stations may be required for some development sites on the bluff in order to pump flows from these sites to the sewer in Agua Mansa Road. In addition, a pump station will be required for the sewer in Agua Mansa Road near the future intersection of Pepper Avenue in order to pump flows in a force main to the Colton treatment plant. Additional sewer lines will be required in Slover Avenue, Santa Ana Avenue and future Pepper Avenue in order to provide sewer service to much of the area between Riverside Avenue and Pepper Avenue north of Santa Ana Avenue. Since much of this area is presently owned by the California Portland Cement Company, the final configuration of the sewer system in this area will depend on the California Portland Cement Company's proposed uses and grading in this area.

In the Riverside County portion of the Agua Mansa Corridor, a gravity trunk sewer would need to be constructed in Agua Mansa Road from Market Street to the east County boundary to provide sewer service to the future development areas along both sides of Agua Mansa Road. Most of this property is presently owned by the Riverside Cement Company (Gifford-Hill). The total ultimate domestic flows from these areas would be approximately 4 MGD.

The timing and phasing of constructing sanitary sewer facilities within the Agua Mansa Corridor is complicated by the limited treatment plant capacity at the Rialto and Colton treatment plants. Provision of adequate sewerage facilities for new development within the Agua Mansa Corridor will eventually require expansion of the treatment plants to handle the additional discharges from the project area. Furthermore, it is anticipated that tertiary treatment will be required for any additional plant expansions (both plants presently provide secondary treatment). This study is not intended to address the questions of ultimate treatment plant capacities, service area boundaries, extent of plant expansions, or timing and funding of plant expansions. These questions involve evaluation and analysis of wastewater conditions and requirements for a much larger area than the Agua Mansa Corridor. Answers to these questions and decisions on these issues must be made through the joint efforts of the agencies and jurisdictions involved.

At this time, there are no plans or programs in effect to provide additional wastewater treatment capacity within the Agua Mansa Corridor. Based on recent cost data published by the Water Pollution Control Federation for treatment plant construction, it is estimated that the treatment plant expansions required at the Rialto and Colton plants for the additional discharges from the project area would cost about \$30 - 35 million each.

If the S.A.R.I. line is constructed in the near future, this line would provide ample capacity for industrial wastewater and could also provide interim capacity for domestic sewage generated within the Study Area. Capacity in the S.A.R.I. line could be sold to users of the line, and the funds generated from such sales would be used to offset the construction costs of the line. It should be noted, however, that the use of the

S.A.R.I. line for discharge of domestic sewage should be viewed as a short-term solution to be utilized only until adequate treatment plant capacity is available and the infrastructure necessary to carry domestic sewage to the appropriate wastewater facilities can be constructed.

Liquid toxic wastes are presently hauled to a Class I landfill site either at Casmalia in Santa Barbara County or Kettleman Hills in Kern County. Until a Class I landfill site is sited in Southern California, this practice will continue indefinitely. The proposed S.A.R.I. line will be able to accommodate some types of hazardous liquids, but will not provide a solution for toxic liquid waste disposal.

3.2.3 Fire Protection

A major factor in the protection of life and property is the time required for men and equipment to arrive at the scene of a fire. In general, response times in the range of five to eight minutes are considered maximum in the case of structural fires. A longer response time will result in the loss of most of the structural value. In the case of wildland fires, the variability of other factors makes response times somewhat less crucial; however, rapid response can greatly reduce the acreage involved. Four factors affect response times: fire station organization, distance, grade, and road conditions (physical conditions, weather and traffic).

The Agua Mansa Corridor is served by both City and County Fire Departments. The Cities of Colton and Rialto operate their own fire departments located within the respective cities. The County Fire Departments each serve the unincorporated portions of the counties of San Bernardino and Riverside. Following is a discussion of the operation characteristics of each of the four departments.

A. City of Colton

The City of Colton Fire Department headquarters is located at 303 East "E" Street in Colton. The response time for the portion of Agua Mansa Corridor within the City of Colton is approximately six (6) minutes. The City of Colton Fire Department has entered into a mutual aid agreement with the City of Rialto and the Central Valley Fire District. A mutual aid agreement allows each of the Fire Departments to back up one another in case of a major fire or in situations where specialized equipment is required. The City of Colton Fire Department also maintains a hazardous materials vehicle which is equipped to deal with emergency situations involving hazardous materials.

B. City of Rialto

The City of Rialto also maintains their own fire department located at 131 South Willow Street in Rialto. The response time for the portion of the Agua Mansa Corridor within the City of Rialto is also approximately six (6) minutes. The City of Rialto has also entered into the mutual aid agreement with the City of Colton and the Central Valley Fire District.

C. San Bernardino County

The County of San Bernardino serves two unincorporated areas within the Agua Mansa Corridor. The actual servicing agency is County Service Area 38, which contracts the California Division of Forestry for fire protection. The Grand Terrace Station serves the project area, which for unincorporated San Bernardino County is divided into Area 1 and Area 2. Area 1 is comprised by Slover Mountain and the California Portland Cement Company operations, whereas Area 2 includes areas south of the intersection of Riverside Avenue and Agua Mansa Road. The response times are approximately six (6) minutes for Area 1 and nine (9) minutes for Area 2.

D. Riverside County

The Riverside County portion of the study area is served by the Riverside County Fire Department which is headquartered in the City of Perris. The nearest serving station is the Rubidoux Station which is located in Rubidoux. A mutual aid agreement is in effect between the various Riverside County stations and response times to the study area are estimated to be between eight (8) and nine (9) minutes.

3.2.4. Police Protection

Police protection, as with fire protection, is an important service for the protection of life and property and traffic control. Relatively fast response times are desirable in cases of crime, vandalism and major traffic collisions to support intensive development. As with fire response, response times by law enforcement agencies are influenced by several physical factors, including personnel organization, distance, grade and road conditions.

Following is a discussion of existing methods of police protection of each jurisdiction in the study area.

A. City of Colton

The City of Colton maintains its own police department. The station located at 650 North La Cadena Drive in the City of Colton. It is estimated that personnel could respond to an emergency in the northeasterly portion of the study area within two (2) to three (3) minutes.

B. City of Rialto

The City of Rialto also maintains its own police department. The servicing station is located at 128 North Willow Street in Rialto. Response time to the Rialto portion of the study area is estimated at three (3) to four (4) minutes.

C. County of San Bernardino

The unincorporated portions of San Bernardino County within the study area are served by the County Sheriff's Department and the City of Fontana Police Department. Fontana's Police Department serves the areas west of Riverside Avenue and the Bloomington area through a contractual agreement with the County. Response times to the area west of Riverside Avenue (in the southerly portion of the study area) are approximately ten (10) minutes, whereas calls from the community of Bloomington can be responded to in approximately five minutes.

Areas served by the County Sheriff and Grand Terrace Division, include the Slover Mountain Area and (three to five minute response time) and the Agua Mansa Road/Riverside Avenue area (ten [10] minute response time).

D. County of Riverside

Law enforcement services in the Riverside County portion of the study area are provided by the Rubidoux Station of the Riverside County Sheriff's Department. Response times to the Crestmore area are estimated at eight (8) to nine (9) minutes.

3.2.5 Traffic, Circulation and Public Transportation

The study area is well served by Interstate 10, an eight (8) lane freeway with interchanges at Rancho Avenue, Pepper Avenue, Riverside Avenue and Cedar Avenue. The freeway connects the study area with the Cities of Ontario and Los Angeles to the west and provides quick access from the study area to connecting freeways to San Bernardino, Riverside, Orange County, San Diego, Las Vegas and the desert communities.

Because the Agua Mansa Industrial Corridor encompasses portions of four separate governmental agencies, the standards and nomenclatures for roadways designated in the Circulation Elements of the General Plans for each of the agencies are not in complete agreement. The County of San Bernardino and the Cities of Rialto and Colton, while using slightly different designations for roadway classification, all use identical roadway sections for Secondary Highways (City of Colton designation is Secondary Street). Both Rialto and San Bernardino provide typical sections for major thoroughfares with a right-of-way width of 120 feet which are identical in number and width of driving lanes, median width, and parkway width. Rialto designates these roadways as Major Arterial Highways while San Bernardino County uses the Divided Major Highway designation. The City of Colton uses the County's Standard Section for Divided Major Highways as its standard. The three agencies also have slightly varying standard sections for roadways designated Major Highways (City of Colton designation is Major Street). While the right-of-way width shown in the standard sections varies from 96 feet in

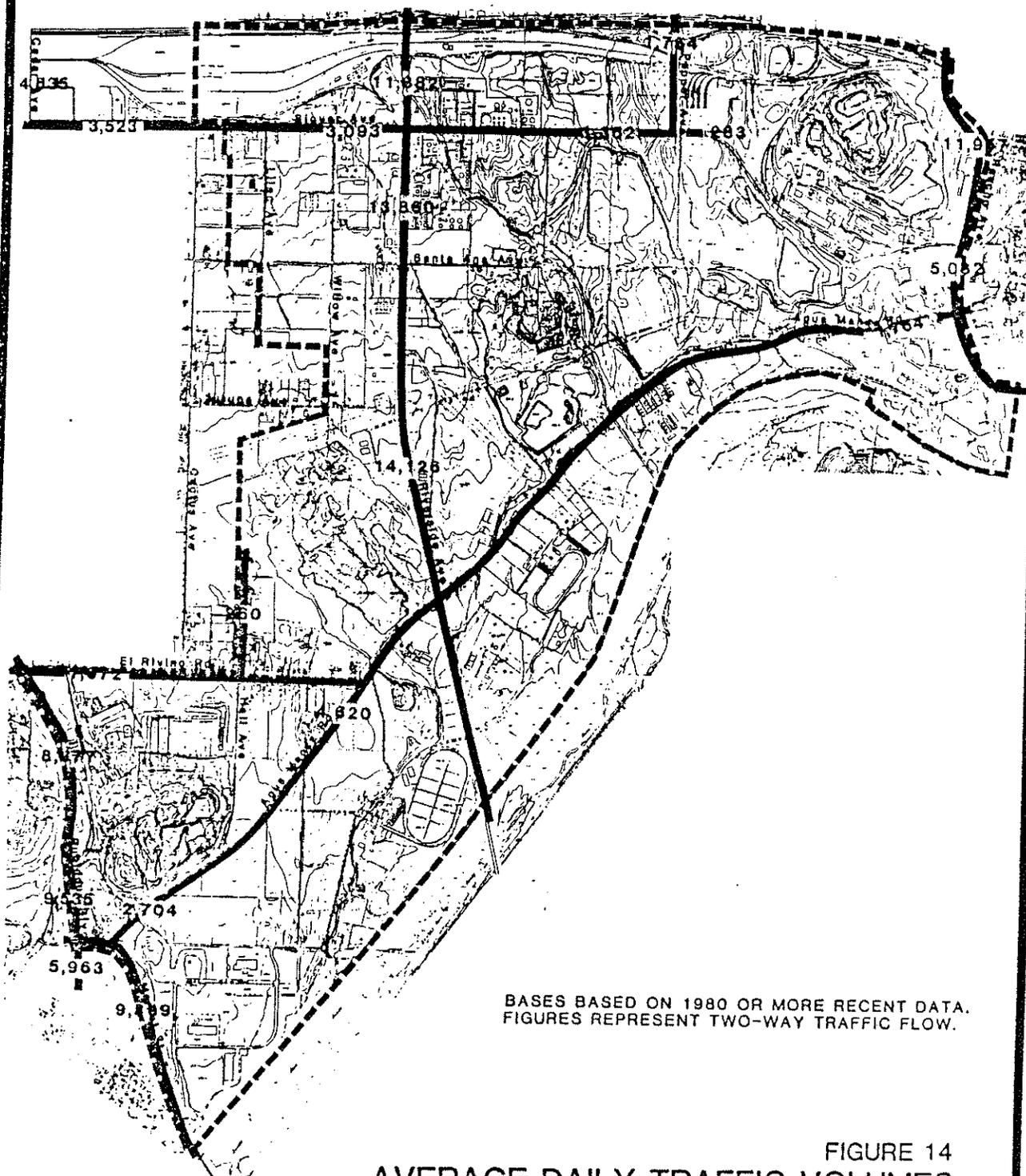
Colton to 104 feet in San Bernardino County. The only significant difference is that San Bernardino County designates a curb-to-curb width of 80 feet while Colton and Rialto call for a curb-to-curb width of 64 feet, the difference in width being taken up by a median and differing shoulder and parking widths. Each agency's section agrees on two 12-foot driving lanes.

When these roadway sections are compared with those proposed for Riverside County, some significant differences in the overall right-of-way width and the total number of driving lanes become apparent. Riverside County's Arterial Highway designation refers to a roadway section with 110 feet of right-of-way and provides a divided roadway of two 12 foot driving lanes and an 8 foot parking lane in each direction. This designation correlates directly with the San Bernardino County Divided Major Highway designation, which refers to a roadway section which provides for 120 feet of right-of-way and a divided roadway with one 14-foot and two 12-foot driving lanes in each direction with no parking lane. Riverside County's Major Highway designation also differs from the San Bernardino County Major Highway designation. Riverside County indicates a roadway section of 100 feet of right-of-way, a painted median and two 12 foot driving lanes with an 8 foot parking lane in each direction; whereas, San Bernardino County's section eliminates the painted median and parking lane and provides for two 14 foot and one 12 foot driving lane in each direction within 104 feet of right-of-way. These differences are significant when viewed in the context of the future ultimate build-out of the study area since the Riverside roadway sections, with their reduced number of driving lanes, will not handle the traffic volumes that the corresponding sections for San Bernardino will carry. However, this difference will have little effect on the study area in the foreseeable future.

Traffic volumes are presently very low in the study area with no notable degree of congestion (See Figure 14). Most of the existing roadways, with the exception of Riverside Avenue, Cedar Avenue, and Rancho Avenue have not been developed to master plan standards. Figure 15 provides an inventory of existing roadway conditions and intersection controls.

The General Plans for the Cities of Colton and Rialto and the County of San Bernardino identify the ultimate right-of-way widths and pavement widths for three classifications of roadways including Divided Major Highway (Major Arterial Highway in Rialto), Major Highway and Secondary Highway. In Riverside County, the designations are Arterial Highway, Major Highway and Secondary Highway. Typical cross sections showing dimensions and number of lanes of these designations are shown in Appendix C.

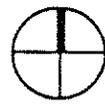
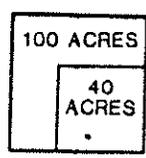
The General Planned Circulation System for the project area is depicted on Figure 16.



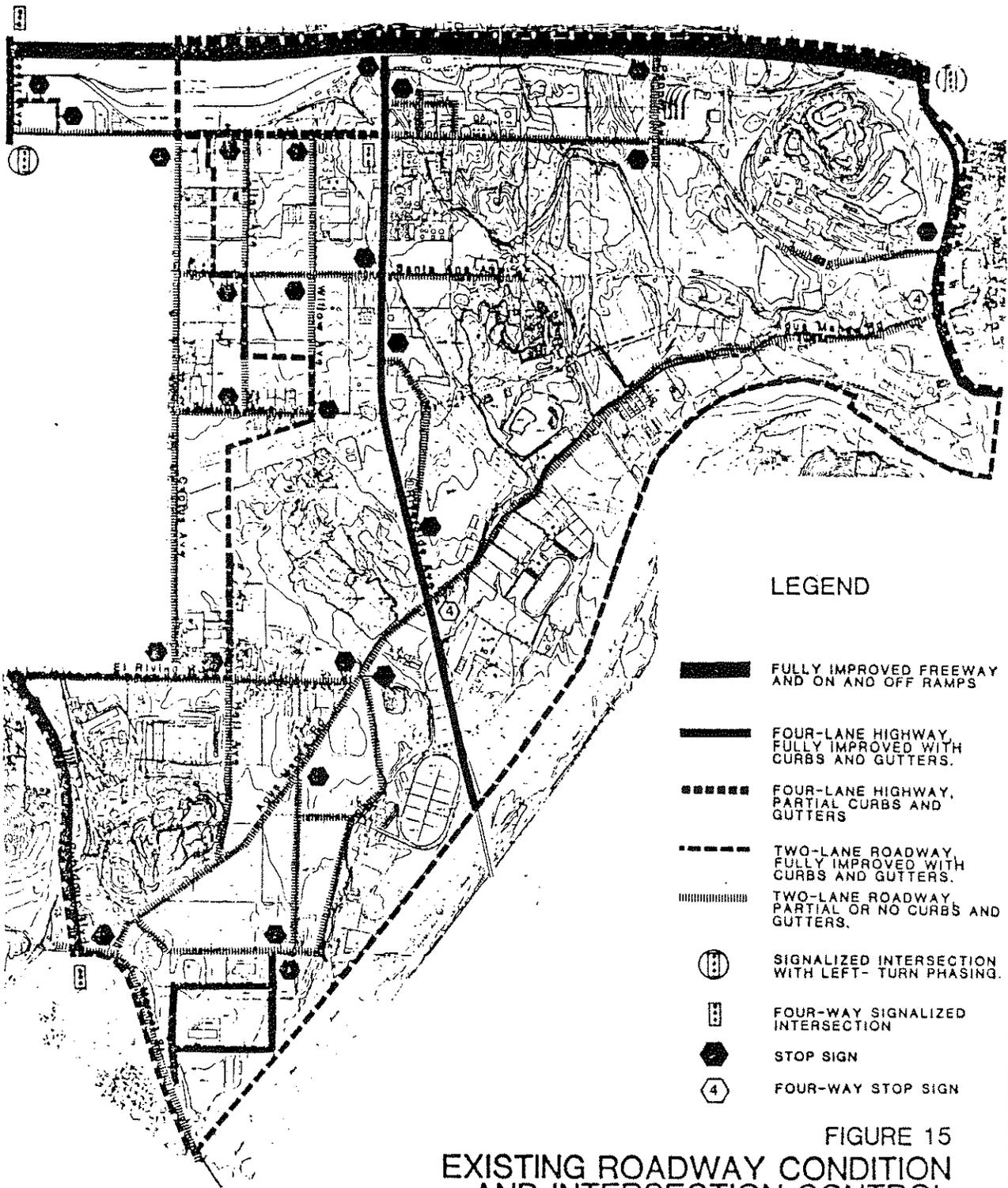
BASES BASED ON 1980 OR MORE RECENT DATA.
 FIGURES REPRESENT TWO-WAY TRAFFIC FLOW.

FIGURE 14
 AVERAGE DAILY TRAFFIC VOLUMES

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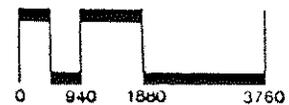
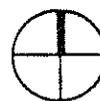
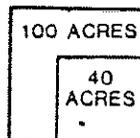


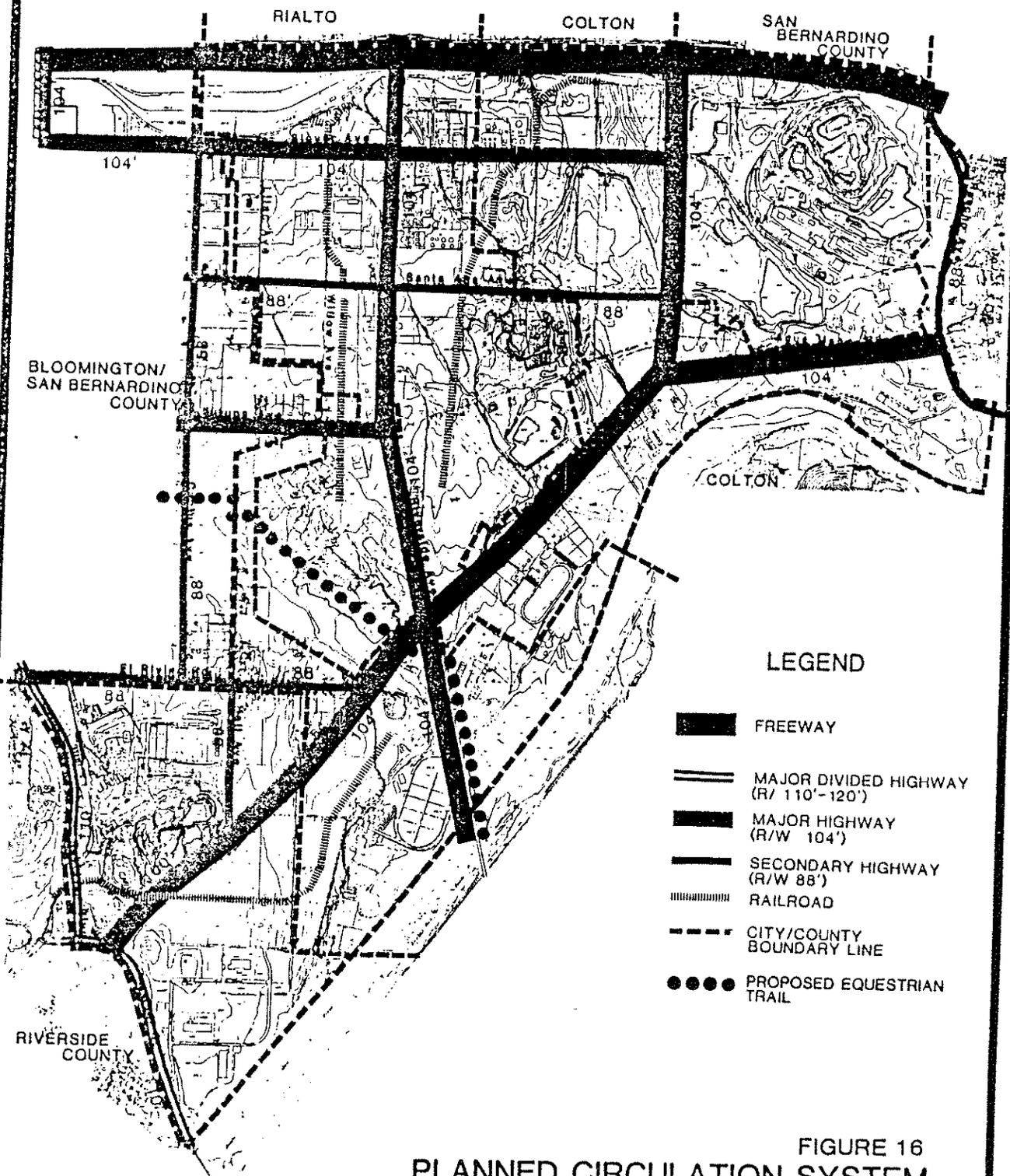
LEGEND

-  FULLY IMPROVED FREEWAY AND ON AND OFF RAMPS
-  FOUR-LANE HIGHWAY, FULLY IMPROVED WITH CURBS AND GUTTERS.
-  FOUR-LANE HIGHWAY, PARTIAL CURBS AND GUTTERS
-  TWO-LANE ROADWAY, FULLY IMPROVED WITH CURBS AND GUTTERS.
-  TWO-LANE ROADWAY, PARTIAL OR NO CURBS AND GUTTERS.
-  SIGNALIZED INTERSECTION WITH LEFT-TURN PHASING.
-  FOUR-WAY SIGNALIZED INTERSECTION
-  STOP SIGN
-  FOUR-WAY STOP SIGN

**FIGURE 15
EXISTING ROADWAY CONDITION
AND INTERSECTION CONTROL**

 **WILLDAN ASSOCIATES**
ENGINEERS AND PLANNERS
IN ASSOCIATION WITH
DENNIS HANSBERGER & ASSOCIATES
AND
WILLIAMS-KUEBELBECK AND ASSOCIATES



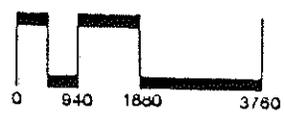
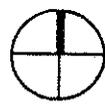
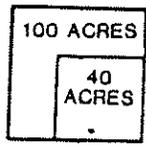


LEGEND

-  FREEWAY
-  MAJOR DIVIDED HIGHWAY (R/ 110'-120')
-  MAJOR HIGHWAY (R/W 104')
-  SECONDARY HIGHWAY (R/W 88')
-  RAILROAD
-  CITY/COUNTY BOUNDARY LINE
-  PROPOSED EQUESTRIAN TRAIL

**FIGURE 16
PLANNED CIRCULATION SYSTEM**

 **WILLDAN ASSOCIATES**
ENGINEERS AND PLANNERS
IN ASSOCIATION WITH
DENNIS HANSBERGER & ASSOCIATES
AND
WILLIAMS-KUEBELBECK AND ASSOCIATES



AGUA MANSA INDUSTRIAL CORRIDOR

Roadways designated as Major Highways in the study area are Slover Avenue, Jurupa Avenue, Riverside Avenue, Cedar Avenue to Linden Street, Linden Street to the County boundary, Agua Mansa Road, Pepper Avenue, and Rubidoux Boulevard, which is the southerly extension of Linden Avenue into Riverside County. In Riverside County, Agua Mansa Road from the County boundary to Market Street is designated as an Arterial Highway.

Cactus Avenue, Santa Ana Avenue, El Rivino Road and Agua Mansa Road east of Pepper are planned to be improved to Secondary Highway status.

Of all the planned roadways, the only portion which is currently not improved at all, is approximately two miles of Pepper Avenue from its existing intersection with Slover Avenue south to its proposed intersection with Agua Mansa Road. The majority of the existing roadways are not yet improved to their ultimate widths, except in partial areas of recent development.

As well as the system of roadways, there are three major rail carriers with facilities in the study area. The Atchison, Topeka and Santa Fe Railway Company has a spur which enters the study area from the east which serves the California Portland Cement Company property, the Union Pacific Railroad Company has a spur which enters the study area from the south which serves the Riverside Cement Company property, and the Southern Pacific Company has extensive facilities just south of the I-10 Freeway, including a railroad classification yard located south of the freeway between Cedar and Riverside Avenues.

In discussions with representatives of the railroads in regard to future service for the study area, it was determined that the Southern Pacific Company and the Union Pacific Railroad Company would be able to provide rail service to the study area. The Southern Pacific Company would most likely serve the entire area east of Riverside Avenue and the northerly portion of the study area west of Riverside Avenue. The Union Pacific Railroad Company would serve the southerly portion of the study area west of Riverside Avenue.

Public Transportation

The two agencies who will provide the principal public transportation are Omnitrans in San Bernardino County and the Riverside Transit Authority in Riverside County.

3.2.6 Solid Waste Disposal

The collection and particularly the disposal of residential and commercial refuse is an important consideration for any potential major development project. Collection of solid waste in the Agua Mansa area is primarily being conducted by private haulers who haul collected refuse to various landfill sites. An exception to the private collection service is the City of Colton, which provides its own collection services and disposes of refuse at the County Disposal Facility on South La Cadena Drive in Colton.

The Agua Mansa Landfill is located in the study area on the north side of Agua Mansa Road northeasterly of the intersection of Agua Mansa with Riverside Avenue. This site, privately owned and operated by E. L. Yeager Company, however, is a Class III facility which cannot accommodate most forms of municipal and commercial solid waste. Wastes accepted at this facility are limited primarily to construction debris and other relatively inert substances.

Other landfills available to the general area include the Fontana Site, operated by the County of San Bernardino, and the West Riverside facility, operated by the County of Riverside (See Figure 17). Because the capacity of the various sites are relatively limited, alternative sites or disposal methods will have to be developed in the future. The role for alternative forms of disposal and resource extraction will become increasingly more important as landfill capacities diminish in the future.

With the recent closing of the BKK site in West Covina, no Class I landfill sites presently exist in Southern California. The nearest sites to which toxic and hazardous wastes can be hauled is either the Casmalia site in Northern Santa Barbara County, or the Kettleman Hills site in Kern County. Until a Class I site is selected and developed in the Southern California area, hauling of such wastes to the above distant locations is expected to continue.

3.2.7 Utilities

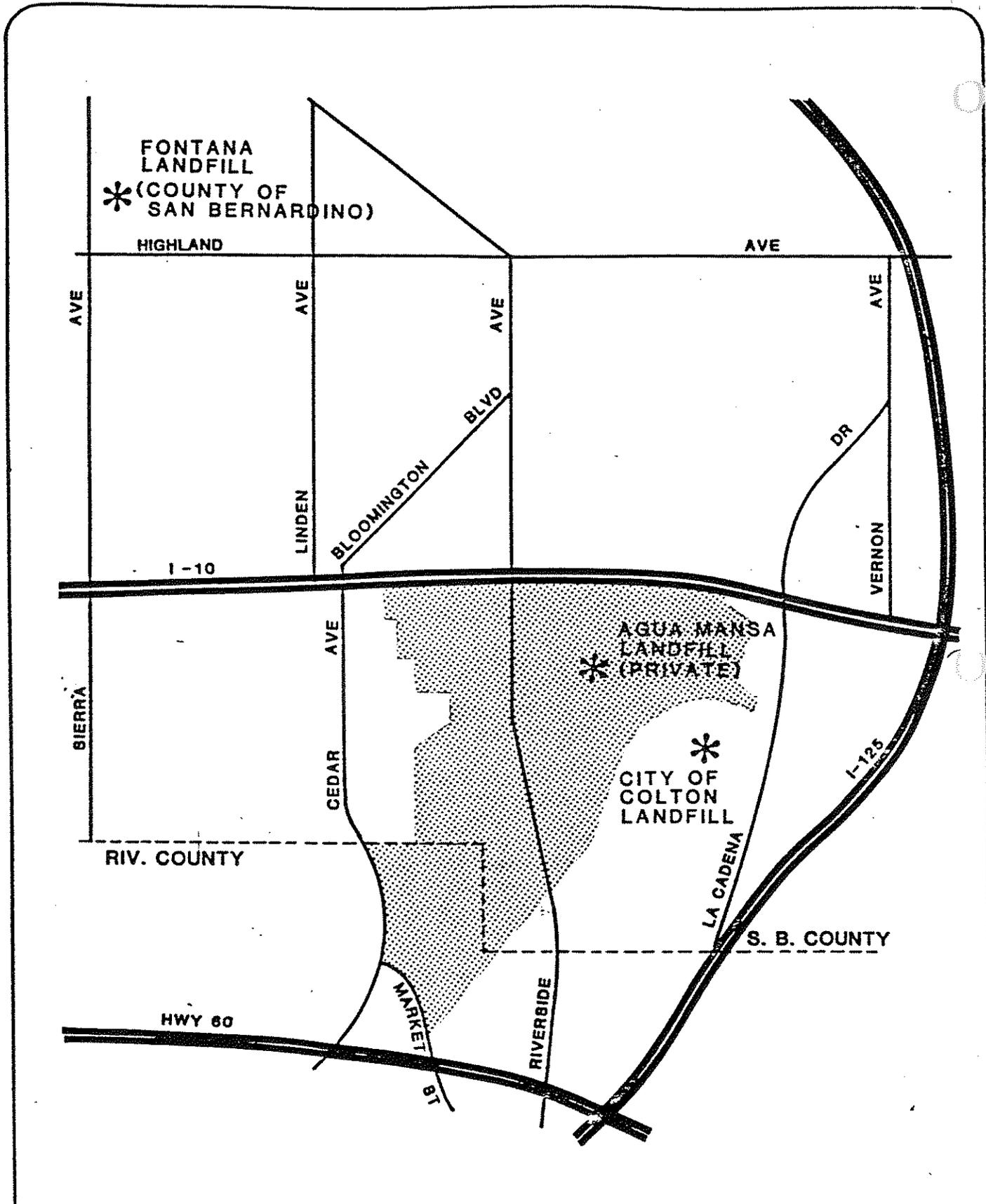
Electricity in the study area is provided by both Southern California Edison, which services the San Bernardino and Riverside County and City of Rialto portions of the study area; and the City of Colton, which supplies the portion of the study area within Colton City boundaries. Both agencies are confident that, although their distribution systems would need to be extended to accommodate the proposed development, the capacity to adequately serve the study area exists.

Southern California Gas Company provides service throughout the study area. While they do own and maintain the backbone infrastructure, it will be necessary for the system to be upsized and extended in order to bring the available capacity to the specific developments as they occur within the study area.

The study area lies within Pacific Bell's service area, and existing telephone cables are found both overhead and underground. Their representatives indicate Pacific Bell will provide service to the study area.

3.2.8 Fiscal Considerations

The proposed project has a beneficial financial impact in the long-term for each of the four governmental entities. A capsulization of the Fiscal Impact Study prepared by Williams-Kuebelbeck and Associates can be found in Section 6.2.9 of the accompanying Environmental Impact Report, while the entire study is reproduced in Appendix E of the EIR.



LOCATION OF LANDFILL SITES



WILLDAN ASSOCIATES
ENGINEERS AND PLANNERS

**AGUA MANSA
INDUSTRIAL
CORRIDOR**

FIGURE
17

3.3 DESIGN AND OTHER SPECIAL CONSIDERATIONS

3.3.1 Visual Resource Analysis/Natural Features

The study area cannot, for the most part, be considered aesthetically pleasing. A large portion of the land in the study area is heavily scarred from mining activities or is developed in a piecemeal fashion with marginal residential structures, the railroad yard and industry with unsightly outdoor storage. There are, however, several natural features which warrant description and subsequently special treatment in the development program. These features which are considered significant are described below and are illustrated in Figures 18 and 19.

Slover Mountain

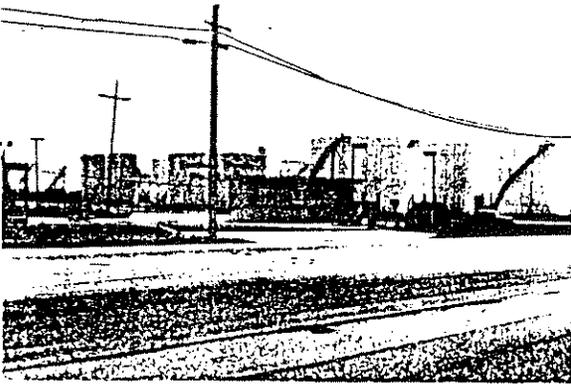
Slover Mountain is a regional landmark located in the northeasterly corner of the study area. The historic significance of this landmark is the fact that it was used as the starting point and southwestern corner of the original surveys of the San Bernardino Rancho.

Slover Mountain is presently the site of the mining operations of the California Portland Cement Company. Limestone is extracted from the site and is processed into various types of portland cement and limestone products. The activities undertaken by California Portland Cement are anticipated to continue until the year 2034. At this point the site will be characterized by a pit and Slover Mountain will no longer exist.

Santa Ana River Floodplain/Bluffs

The floodplain of the Santa Ana River and the bluffs which define these lowlands constitute the single most significant visual resource within the Agua Mansa Corridor. A rugged bluff exists along Agua Mansa Road roughly between the California Portland Cement property and the Agua Mansa Cemetery, acting as a physical barrier between the Santa Ana River flood plain and lands at a higher elevation which have been mined or used for a landfill. This bluff continues southwesterly of Riverside Avenue as a barrier between equestrian uses and the floodplain, and agricultural lands and the Butler Industrial Park on higher ground to the west. The major use of the floodplain area is for equestrian activities. Several well-developed horse ranches and a duck farm exist which serve to enhance the scenic rural character of this area. These uses are considered highly appropriate for this area and warrant preservation.

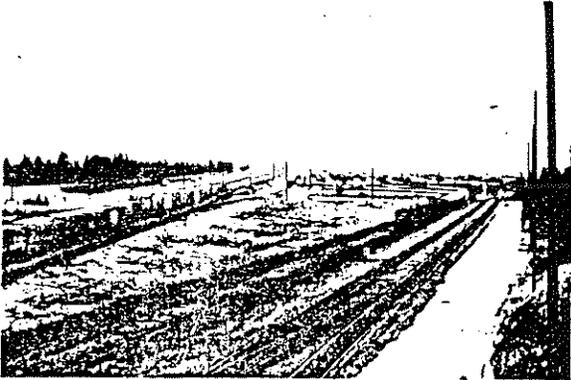
The actual riverbed is also a component of this area's scenic character as it exists in a largely unimproved state with lush riparian vegetation. The riverbed projects a very unique scenic quality with the La Loma Hills as a backdrop to the east.



TANK FARM ON RIVERSIDE AVENUE



TANK FARM ON RIVERSIDE AVENUE



S.P. RAILROAD CLASSIFICATION YARD



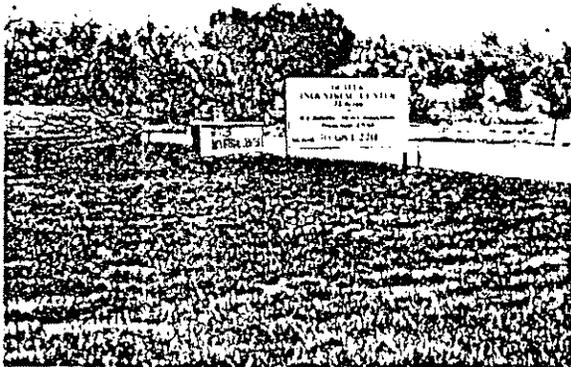
CRESTMORE QUARRY



RIVERSIDE CEMENT COMPANY PLANT



CRESTMORE QUARRY/RIVERSIDE CEMENT



ENTRANCE TO BUTLER INDUSTRIAL PARK



NEW DEVELOPMENT ON RANCHO AVENUE

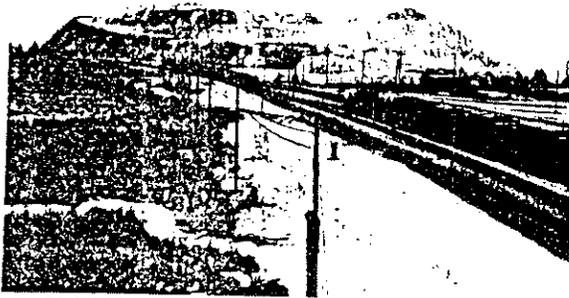


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ENGINEERS AND PLANNERS

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AND
WILLIAMS-KUEBELBECK AND ASSOCIATES

FIGURE 18
VISUAL FEATURES

AGUA MANSA INDUSTRIAL CORRIDOR



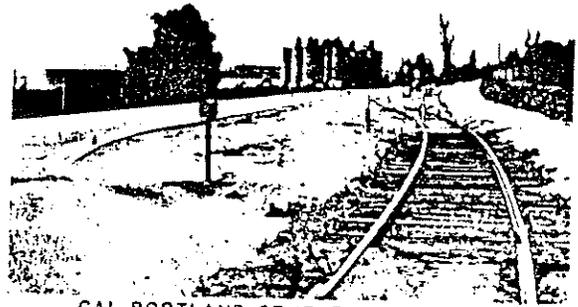
SLOVER MOUNTAIN VIEWED FROM WEST



CAL PORTLAND CEMENT FROM SOUTHEAST



CAL PORTLAND CEMENT FROM WEST



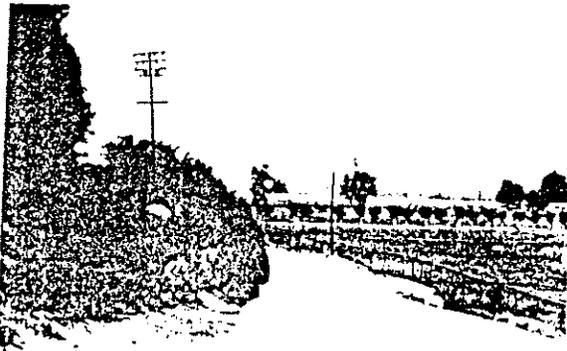
CAL PORTLAND CEMENT FROM EAST



AGUA MANSA LANDFILL ENTRANCE



AGUA MANSA LANDFILL



AGUA MANSA ROAD



SANTA ANA RIVER FLOODPLAIN



WILLDAN ASSOCIATES
ENGINEERS AND PLANNERS

IN ASSOCIATION WITH
DENNIS HANSBERGER & ASSOCIATES
AND
WILLIAMS-KUEBELBECK AND ASSOCIATES

FIGURE 19
VISUAL FEATURES

AGUA MANSA INDUSTRIAL CORRIDOR

Crestmore Quarry

The two peaks at the Crestmore Quarry represent the dominant physical features in the southerly portion of the study area and constitute a focal point as one enters the Corridor from either Market Street or Rubidoux Boulevard. The Crestmore Quarry constitutes the source of raw materials for the Gifford-Hill owned Riverside Cement Company plant which is located to the north of the peaks.

New Industrial Development

Several developing industrial park areas are located in the Agua Mansa Corridor which are creating a positive visual impact. These include the Butler Industrial Park in the southerly tip of the study area east of Market Street; the South Rialto Industrial Park located on the east side of Riverside Avenue south of Santa Ana Avenue; and several new light industrial buildings along Rancho Avenue in the City of Colton.

Each of the aforementioned developments are in the process of introducing an aesthetically pleasing form of industrial use into each respective area. These developments include modern variations in building design, color and textures and demonstrate the use of good site development standards including adequate landscaping.

New Residential Development

Relatively new equestrian-oriented residential structures exist on Hall Avenue north of El Rivino Road. Additionally, older but structurally sound and well maintained residences exist along El Rivino Road west of its intersection with Agua Mansa Road.

The neighborhood described above represents a stable neighborhood in which substantial funds have recently been invested. This neighborhood must be considered in the development of a land use plan and should be protected and buffered from intense industrial and otherwise incompatible uses.

3.3.2 Market Analysis

A market analysis has been performed by the firm of Williams-Kuebelbeck and Associates. The objective of this study is to examine the industrial development potential of the Agua Mansa Industrial Corridor and to project the capture of heavy industrial development likely to occur within the study area during the balance of this decade. This study is intended to aid both Riverside and San Bernardino Counties as well as the Cities of Colton and Rialto in strengthening their respective economic development programs in a fashion that would cause new heavy manufacturing firms which are entering the Southern California area to consider a location in the Agua Mansa Corridor.

Given the objectives stated above, the methods of approaching the market analysis comprised the following work elements:

1. Analysis of national, state and regional manufacturing employment trends by industry based on a definition of the heavy manufacturing industrial sector.
2. Examination of the competitive industrial market area including: a) recent socioeconomic growth trends; b) historical increases of new industrial permit valuation throughout the region; c) competitive locational advantages of the market area; d) an inventory of the major industrial parks within the primary market area; and e) historical absorption of industrial space.
3. Projection of the heavy industrial development potential for the Agua Mansa Corridor through 1990 based on: a) projections of heavy industrial employment for the region; b) projected market wide demand for industrial acreage; and c) Agua Mansa's capture of projected demand.

Summary of Findings

The essential conclusions of the study performed are:

1. Numerous heavy manufacturing industries are projected to out-perform average manufacturing employment growth at the national level during the next few years including primary metals, clay, glass and stone; fabricated metals, transportation equipment, lumber and chemical manufacturing.
2. The locational advantages of the Agua Mansa Market Area, including availability of large parcels, lower industrial land costs and considerably less expensive housing costs relative to other Southern California locations will allow it to capture an ever increasing share of new industrial development in the region.
3. Based on the Agua Mansa Corridor's location and amenities within the larger competitive market, it is reasonable to expect that it would capture up to 172 acres of heavy manufacturing development between 1983 and 1990 equal to an average absorption rate of 25 acres per year.

The 25-acre per year absorption figure developed by the economist should be viewed as a "low figure", whereas the property owners and Technical Advisory Committee have opted to plan for greater levels of land absorption (up to 148 acres per year initially). The economic consultant's "textbook" approach is predicated simply on regional absorption statistics and largely ignores the tremendous competitive advantage of the study area and its ability to cater to very large and heavier than normal industrial activities.

Highlights of the market analysis are presented below:

1. Manufacturing Employment Trends

- It has been suggested that the Agua Mansa Corridor would be an appropriate location for new heavy industry within Riverside and San Bernardino Counties. The term heavy manufacturing as used in this study defines a range of industry types which are engaged in the significant alteration in the form of primary commodities and secondary products in the manufacturing of intermediate and finished goods. Heavy manufacturing industries are distinguished as capital and land intensive.

The economic analysis recognizes the following industry and the Standard Industrial Classification (SIC) code types as comprising the heavy manufacturing sector:

<u>SIC Code</u> <u>Major Group</u>	<u>Industry Group</u>
28	Chemicals and Allied Products
30	Rubber and Plastics Products
33	Primary Metals
34	Fabricated Metals
35	Machinery
36	Electrical and Electronic Machinery
37	Transportation Equipment

- At the national level, historical employment growth within the target heavy manufacturing sector has closely matched the rise in employment of all manufacturing industries. In 1980, total manufacturing employment in the United States equalled 21,165,000 jobs which resulted from a 0.9 percent average annual growth rate over the 1970 level of 19,369,000. Employment within the heavy manufacturing sector increased at a similar rate of 0.7 percent per year during the same period.
- The top performing industries at the national level during the 1970's included rubber and plastics; food, tobacco, and textiles; machinery; and instruments manufacturers which added employment at 2.9 percent, 2.8 percent, 2.4 percent, and 2.0 percent, respectively per year. The key factors which explain the sustained growth of these particular industries are: a) their commanding penetration of worldwide markets; b) their ability to maintain high market capture rates despite growing foreign competition; and c) the structural changes in the national economy which have helped to sustain demand for these manufacturers.

- California is characterized as a rapidly growing manufacturing State in contrast to the nation. During the last decade, the number of manufacturing jobs within the State rose at the average rate of 2.7 percent per year, totalling 2,100,000 in 1980. This growth is compared to the national rate of 0.9 percent annually during the same period. Growth industries at the State level included: instruments; leather; food; tobacco, and textiles; and rubber and plastics.
- Southern California has historically been the manufacturing center of the State. As of 1980, the combined Counties of Riverside, San Bernardino, Los Angeles, Orange and San Diego contained 1,358,700 manufacturing employees or 65 percent of the State-wide total. During the period from 1970 to 1980, the five-county region added manufacturing employment at the rate of 2.1 percent per annum. The Riverside San Bernardino Standard Metropolitan Statistical Area (SMSA) experienced a rise in manufacturing employment of 17,300 jobs from 52,700 to 70,000 between 1970 and 1980. This 2.9 percent annual increase outpaced both the Southern California region and the State as a whole during the decade.

2. Competitive Market Overview

- The Agua Mansa competitive market area includes portions of Riverside and San Bernardino Counties and the incorporated Cities of Colton and Rialto. The market area extends along the I-10 Freeway from Ontario and Rancho Cucamonga east of San Bernardino and south along the 15E/91 Freeway to include north and central Riverside.
- The Agua Mansa primary market has experienced a consistent rise in total new industrial permit valuation over time. During 1983, the market area recorded \$60,967,000 in new industrial valuation. By comparison, eight years earlier in 1975, the market totalled only \$4,534,000 in industrial permit valuation.
- The primary market area contains 37 individual industrial parks which total 7,800 acres. The City of Ontario contains the largest share of industrial land with three major developments totalling 3,666 acres nearly one half of the competitive supply. Fontana, with 1,377 acres, represents the second largest concentration of industrial land and the City of Riverside ranks third representing 1,096 acres. There is no shortage of developable industrial land within the market.

Based on a survey conducted by Williams-Kuebelbeck and Associates, Inc., of the competitive industrial parks only 1,898 acres, or less than one quarter of the market's supply has been absorbed to date.

- The industrial parks throughout the market area each tend to attract varying tenant types based on their location and general marketing effort. Industrial parks within Ontario, Riverside and San Bernardino attract the range of industrial operations from heavy manufacturers to light assembly operations and warehouse facilities. By comparison, the industrial developments in Colton and Rialto are made up exclusively of multi-tenant industrial buildings erected on a speculative basis for smaller tenants. Fontana developments, on the other hand, are marketed towards heavy manufacturers. Characteristic of developments in Fontana are the build-to-suit arrangement where an industrial developer offers an approved lot for sale and will construct a building to fit the specific requirements of the industrial tenant. Finally, Rancho Cucamonga has emerged as the premier location for large regional warehouse distribution facilities for major retail franchises throughout Southern California. The City's proximity near the confluence of the 15 and I-10 Freeways makes this a natural location for such activities which require easy transportation access and large land parcels.
- The Agua Mansa industrial area is a relatively young yet rapidly growing market area. During the last five years from 1978 to 1984, the market captured a total of 9,552,000 square feet of new industrial space. This figure represents an 11 fold increase over the previous five year period when the market captured only 863,300 square feet. Based on an observed 35 percent site coverage ratio, the Agua Mansa primary market has captured 119 acres per year of new industrial development between 1978 and 1984. By contrast, during the previous five year period from 1973 to 1978 industrial absorption amounted to only 11 acres annually.
- The growth centers for industrial development within the market have shifted dramatically during the last 11 years. Throughout the first half of the 1970's San Bernardino and Riverside dominated the industrial market accounting for a combined 80 percent of all new development. However, within the last five years these two communities have captured only 15 and 20 percent respectively of new industrial construction. Developers are now focusing their attention on Ontario and Rancho Cucamonga. Between 1973 and 1978 these two cities represented only 4 percent of market penetration. By contrast, from 1978 to 1984 Ontario and Rancho Cucamonga have captured one quarter and one third of the market respectively. This shift is largely explained by three major points: 1) the availability of large (20 plus acres) tracts in Ontario and Rancho Cucamonga; 2) slightly more competitive land prices than those in San Bernardino and Riverside; and 3) the western market location of Ontario and Rancho Cucamonga which has attracted firms relocating and expanding out of Los Angeles County.

3. Projected Heavy Manufacturing Employment

- The national economy is projected to sustain the current recovery at least for the short term with an annual rise in gross national product (GNP) of between 3.5 percent and 4.5 percent. Within this recovery environment of projected short-term employment outlook of heavy manufacturing industries is mixed. The industries expected to outperform the national average would include electrical machinery, electronics, components, rubber and plastics, chemicals, transportation equipment and fabricated metals. Most of the rise in employment among these industries, however, will not be new growth but instead represents recovery to employment levels formed in the mid-1970's.
- California is projected to experience rapid employment growth within the heavy manufacturing sector between 1983 and 1985. It is forecasted that 258,200 heavy manufacturing jobs would be added during this period at the average annual rate of 10.8 percent. In the longer term, from 1985 to 1990 the rise in heavy manufacturing employment is expected to level off at the annual growth rate of 2.2 percent. A total of 161,500 new jobs would be demanded during the last half of this decade which would increase total heavy manufacturing employment to 1,556,700 within the State. In the short term, manufacturing industries which are expected to outperform the average growth in total state-wide employment include stone, clay and glass, lumber, furniture, electrical machinery and nonelectrical machinery.
- The five-county Southern California region, which has historically represented the largest concentration of heavy manufacturing employment in the State, is forecasted to recover 112,400 jobs at the average rate of 7.1 percent per year between 1983 and 1984. During the latter half of this decade heavy manufacturing job growth is projected to add 95,000 new workers at the average annual rate of 2.1 percent.
- Overall, it is expected that Southern California will continue to account for one half of state-wide heavy manufacturing job growth projections from both the Center for Continuing Study of the California Economy as well as the research department of Security Pacific Bank support this position and indicate that the following manufacturing sectors would experience above-average growth during the remainder of this decade:

Electronics, transportation equipment (especially aircraft components), fabricated metal products and nonelectrical machinery. These represent the target manufacturing industries most likely to prefer a location within the Agua Mansa Corridor.

- The Riverside - San Bernardino Standard Metropolitan Statistical Area (SMSA), which is composed of the two counties, is projected to recover, by 1985, many of the heavy manufacturing jobs lost during the 1981-1982 economic recession. Between 1983 and 1985 the SMSA is forecasted to 10,300 additional heavy manufacturing workers equal to an average annual increase of 13.8 percent. By the mid-decade, the total employment in the heavy manufacturing sector would approach 45,300 jobs - equal to levels found within the SMSA during the early 1970's. By 1990 demand would call for 5,500 new workers thereby raising heavy manufacturing employment 50,800 jobs equal to a 2.3 percent average annual increase. Moreover, it is logical to expect that the Riverside - San Bernardino SMSA would continue to represent its historical share of approximately 4 to 5 percent of state-wide heavy manufacturing employment gain.

4. Industrial Development Potential for the Agua Mansa Corridor

- Between 1983 and 1990 it is projected that growth in heavy manufacturing employment would equal 15,800 new workers within the Riverside San Bernardino SMSA. Based on the average observed employment density of 23 workers per acre, the demand for industrial acreage to supply heavy manufacturers would equal 687 acres during the balance of this decade or 98 acres per year.
- Numerous factors provide the Agua Mansa market area with a competitive advantage vis-a-vis the larger SMSA and overall Southern California region. Pre-eminent among these advantages are: 1) The availability of large industrial parcels easily served by adjacent transportation facilities; 2) industrial land prices which are generally one-and-one-half to four times less expensive than comparable sites in Orange and Los Angeles Counties; and 3) the availability of new housing at median sales prices 40 to 60 percent less than median prices in other Southern California locations.
- In light of its competitive advantages, it is reasonable to expect that the market area would capture 85 percent of projected industrial demand within the Riverside - San Bernardino SMSA between 1983 and 1990. This capture rate translates into the development of 584 heavy manufacturing acres within the market at the average rate of 83 acres per year during the balance of this decade.
- Provided the Agua Mansa Corridor can offer improved parcels for competitive rates, its locational advantages would allow it to capture one quarter of projected market demand for heavy industrial acreage through 1990. This projected capture rate translates into the demand for 172 acres during the seven years from 1983 to 1990. Average absorption during this

projection period would equal 25 acres per year. Based on the current availability of 839 developable acres, the Agua Mansa corridor could sustain heavy manufacturing development for the next 34 years.

3.3.3 Project Area Relationship to Regional Plans SCAG '82 Growth Forecast Policy

The Southern California Association of Governments (SCAG) adopted a Growth Forecast Policy in October of 1982 which presents forecasts for population, housing and employment. The adopted growth forecast policy represents regional and local growth policies and is intended to represent the best judgment of association membership in terms of a likely and viable direction for the region.

Of particular interest in regard to the Agua Mansa Industrial Corridor is the forecast for employment as the major focus of this development plan is to expand employment opportunities in the inland region. The SCAG-82 document indicates that employment is likely to grow rapidly in Riverside and San Bernardino Counties, particularly in the more urbanized westerly portions. This forecast reflects the policy to balance jobs with population and housing. The SCAG-82 study indicates that Riverside County's growth patterns have the potential to follow the patterns shown in Orange County in the 1950's, 60's, and 70's: employment growth following population growth. With regard to San Bernardino County, significant increases in employment are projected, however, it is noted that considerable governmental action will be required to achieve such growth.

The Agua Mansa Industrial Corridor, with its primary objective of stimulating employment opportunities, is consistent with the intent and policies of the SCAG-82 Policy. The lead status taken by San Bernardino County in pursuing this study represents a governmental action such as is suggested in the SCAG-82 document. The project area is located in what is defined as an urban area by SCAG.

SCAQMD Air Quality Management Plan (AQMP)

The AQMP, adopted by the California Air Resources Board on May 10, 1979, is the air quality management plan for the South Coast Air Basin. It was designed to meet and maintain federal and state ambient air standards by 1987. Required by the Clean Air Act (Amendments of 1977), the AQMP was included in the State Implementation Plan and submitted to the Environmental Protection Agency (EPA) in July 1979. In January 1981, the EPA approved portions of the AQMP with conditions, but disapproved the ozone and carbon monoxide portions because of the failure of the California Legislature to adopt a Vehicle Inspection Maintenance (I & M) Program. In April 1982, the EPA approved submittals to remove the conditions, but continued ozone and carbon monoxide disapprovals until an AQMP revision could demonstrate attainment by 1987 or show that all possible, reasonable and available control measures have been implemented by 1987.

The AQMP has been based upon the growth forecast adopted by the Southern California Association of Governments (SCAG-82). For a project to be consistent, it must conform to the local general plan and SCAG Development Guide. A project is inconsistent with the AQMP if (1) it does not conform with the local general plan, or (2) it uses a disproportionately large portion of the forecast growth increment. Although the degree of inconsistency is a matter of judgment, any inconsistency is considered a significant adverse impact.

The Agua Mansa Industrial Corridor project is consistent with the AQMP because it is consistent with the SCAG-82 forecasts. It's located in an urbanized area as designated by SCAG, and is largely consistent with the General Plans of the Counties of San Bernardino and Riverside and the Cities of Colton and Rialto. Where minor General Plan conflicts exist, amendments can be processed to bring the project into complete conformance with the AQMP.

Section 208 Areawide Waste Treatment Management Plan

The Southern California Association of Governments (SCAG) prepared the Section 208 Areawide Waste Treatment Management Plan in 1979, as mandated by the Federal Clean Water Act.

The local agencies who participated in the plan's development, under formal cooperative agreement, included: The City of Los Angeles, the Counties of Los Angeles, Orange, Riverside and San Bernardino, the Newport-Irvine Waste Management Planning Agency, the Santa Ana Watershed Project Authority and the Ventura Regional County Sanitation District.

The Los Angeles, Santa Ana, and San Diego Regional Water Quality Control Boards, under formal agreement with SCAG, prepared the following portions of the 208 Plan: water quality assessment and segment classifications; water quality standards; total maximum daily loads; and point source load allocations. The Regional Boards also assisted in the review of preliminary reports of participating agencies and provided general assistance to SCAG staff.

The 208 Plan has three parts: 1) Water Quality Planning Framework, 2) Water Quality Action Plan, and 3) Implementation Plan.

The Action Plan portion of the 208 Plan sets forth 21 policies, which if undertaken, would protect water quality in the South Coast planning area. The Action Plan is broken down into five sections: 1) Nonpoint Source Waste Management Plan; 2) Municipal and Industrial Waste Management Plan; 3) Water Conservation and Reuse; 4) Residual Waste Management Plan; and 5) Integrated Programs-Priority Plan for Newport Bay.

Implementation of the policies and action plans of the 208 Plan rely primarily on local governments and special districts designated as management agencies.

Water quality control measures recommended in the 208 Plan which are applicable to the Agua Mansa Industrial Corridor include measures which protect and, where possible, enhance water quality; prevent water quality problems from occurring; provide for compliance with State and Federal law; and take into consideration related social, economic and environmental factors.

Any specific developments which occur in the Agua Mansa Study Area will be subject to the approval of the local agency and the California Regional Water Quality Control Board, Santa Ana Region, as will public improvements which affect water quality and waste treatment.

3.4 IDENTIFICATION OF SIGNIFICANT ISSUES

3.4.1 Opportunities

Following is a discussion of the significant opportunities relating to industrial development of the Agua Mansa Corridor:

- Access and Location - The study area benefits from excellent vehicular access. The Interstate 10 freeway, which comprises the northerly boundary of the Agua Mansa Corridor, is the most significant east-west route for the entire Southwestern United States. I-10 connects the study area to Interstates 15 and 215 for convenient access north to the High Desert and south to Riverside and San Diego. The I-10, as well as Highway 60 (located just south of the study area via Rubidoux Boulevard or Market Street), provide excellent access west to Los Angeles and Orange County and east to the Coachella Valley. In addition, Highway 91 connects to I-215 and State Route 60 for convenient access to Orange County and the Beach Communities.

The study area is directly accessible from I-10 via the Cedar Avenue, Riverside Avenue, Pepper Avenue and Rancho Avenue interchanges. Access from Highway 60 requires only short surface street trips on Rubidoux Boulevard or Market Street.

- Physical Character - The study area is in many ways ideal for industrial development, particularly heavier forms of industry which find it difficult to locate in a compatible environment.

The nature of existing development is largely consistent with heavier forms of industry as is evidenced by two active mining operations, a landfill, a petroleum tank farm and the Southern Pacific Railroad Classification yard as well as various types of industrial uses. The study area is buffered on two sides by physical barriers-the Santa Ana River on the east and the San Bernardino Freeway on the north. Existing and potential conflicts with sensitive land uses are relatively few.

The area is also largely suitable from a standpoint of geotechnical considerations. Soils are generally more than adequate to accommodate industrial development while potential seismic problems are essentially similar to most areas in the region.

- Suitability for Large Uses - A unique trait of the study area is its ability to support the large industrial uses. Large vacant expanses suitable for such development are available with minimal potential for land use conflicts. The area could be very desirable for large manufacturing and processing operations.

- Low Traffic Volumes - The Agua Mansa Corridor presently does not suffer from any traffic congestion problems nor do any of the major freeways in the immediate vicinity. As planned, the onsite circulation system is capable of supporting significantly greater intensities of development and accompanying traffic increases.
- Brine Line - The prospect for the extension of the Santa Ana River Industrial "Brine Line" into the study area is at this time appears favorable. The availability of a waste water treatment system which could accomodate most forms of industrial liquid wastes would be a tremendous impetus for the location of processing industries in the Corridor and would offer a marketing tool available to very few prospective industrial areas in the State.
- Rail Service - The project area can easily be supplied with rail service by both the Southern Pacific Railroad (northern portion) and the Union Pacific Railroad (southern portion). SPRR maintains the largest railroad classification yard in the west in the northwesterly corner of the study area. Individual uses will be able to attain rail service upon bearing the costs for drill tracks from the main lines.
- Local Planning Efforts - All four jurisdictions present within the Agua Mansa Corridor have, through their planning efforts, identified the study area for largely industrial uses. The industrial Zoning and General Plan designations prevalent for most of the study area are indicative of the desire of these agencies to stimulate industrial development in the Corridor. Most areas within the Corridor would not require zone changes or General Plan Amendments prior to the introduction of industrial uses.
- Local Growth Patterns - The study area is located in what is perhaps the fastest growing area in the United States and certainly within the State of California. Population and housing growth in the area continues to occur at a rapid rate while manufacturing employment has lagged in recent years. Many of the nearby residents commute to Orange and Los Angeles Counties for employment. The provision of job opportunities nearby to extensive housing development would help solidify and balance the local economy, while potentially reducing congestion and air pollution in other Southern California areas.
- Affordable Housing Market - Housing prices in the San Bernardino Riverside area are widely considered to be among the lowest in Southern California. This could prevent situations similar to those occurring in Orange County where housing is simply not affordable for most industrial workers. This effect has resulted in industry exiting from Orange County or deciding against locating in this area for this reason. The ingredients for a healthy jobs/housing balance are believed to be present in the vicinity of the Agua Mansa Corridor.

- Available Workforce - Due to the recent closure of Kaiser Steel Corporation in Fontana, it is believed that a substantial number of potentially employable blue-collar workers are available in the area. Many of these former employees may have skills which are directly transferable to other industrial activities.

3.4.2 Constraints

Following is a discussion of factors which are believed to constrain potential industrial development in the Agua Mansa Corridor:

- Limited Projected Absorption Potential - The economic analysis conducted for the study area anticipates a "low figure" absorption rate of approximately 25 acres per year. Compared to the quantity of land available in the study area this projected absorption potential is rather minimal. It should be noted, however, that the possibility exists for attracting single uses which would absorb significant land areas. Due to this fact, the projected absorption rates cannot be solely relied upon in foreseeing potential development.
- Santa Ana River Floodplain - Approximately 718 acres of the project area are constrained by the floodplain of the Santa Ana River. This area is also subject to liquefaction and as a whole can be considered unsuitable for intensive development. The areas east of the bluff can be considered part of the effective river channel.

The U.S. Army Corps of Engineers may soon construct a dam at Mentone which will reduce the flow of the Santa Ana River at this location from 270,000 cfs to 135,000 cfs for standard project storm. However there are no plans to improve the river channel along the study area boundary and thus the flood hazard potential will not be markedly reduced.
- Noise - Several significant noise sources impact the study area as described in Section 3.1.5. These impacts, however, are negligible for non-sensitive uses such as industrial development.
- Air Quality - The study area is located in the South Coast Air Basin which is designated as a non-attainment area because of violations of national standards for carbon monoxide, ozone, nitrogen dioxide and total suspended particulates. Limits have been established for new or modified stationary air pollution emitters along with a requirement for the use of the Best Available Control Technology (BACT). Projects must also be found consistent with the Air Quality Management Plan (AOMP). Any inconsistency with this plan must be considered a significant adverse impact pursuant to CEQA.
- Seismic Considerations - The general region in which the project is located is subject to seismic hazards posed by regional fault systems. The areas below the bluff adjacent to the Santa Ana River may be subject to liquefaction.

- Toxic and Hazardous Waste Disposal - There are no Class I disposal sites in Southern California which can accommodate many of the by-products and wastes of numerous industrial processes. This may limit the type of industry which can locate in the Corridor until such a site can be located in the region.
- Man-Made Hazards - Hazards which constrain the development of the Study Area include the presence of flammable and explosive liquids at the tank farm at Slover and Riverside Avenues, and noise generated by existing transportation sources.
- Incompatible Land Uses - Sensitive residential uses are located within the project area at El Rivino Road and Hall Avenue. In addition, residential uses are located to the west in the Bloomington area and to the east in the South Colton neighborhood.
- Historic Resources - In the event that significant archaeological resources are located, such finds could deter industrial development.
- Infrastructural Deficiencies - Substantial infrastructural deficiencies are evident in the study area which must be alleviated prior to intensive development. Most of the roadways in the area, with the exception of Riverside Avenue, Rancho Avenue, Cedar Avenue, and Rubidoux Boulevard, are not constructed to master plan standards. Major upgrading of drainage facilities will be required throughout the project area. Sewer lines are largely absent from most of the project area, although two treatment facilities are located in the Corridor. Similarly, water and utility facilities will have to be upgraded to accommodate additional development. Please refer to the appropriate report sections for a detailed description of the existing study area infrastructure.
- Competition for Industry - As is demonstrated by the market analysis, other jurisdiction (e.g., Rancho Cucamonga, Riverside, Ontario) have captured a large segment of the industrial market and pose formidable competition. The Agua Mansa Area, however, can offer an environment conducive to heavy industry which likely would not be desired by the other jurisdictions. This factor is thus not seen as a significant constraint.

3.4.3 Critical Issues/Conclusions

From an overall physical standpoint the Agua Mansa Corridor appears to be a very conducive location for industrial development. The study area has excellent access, a variety of parcel sizes with large land areas available, uncongested circulation system and rail access. In addition, it is likely that the "Brine Line" can be routed through the study area to support industrial wastewater disposal. Furthermore, land costs and prospects for housing affordability in the area may be attractive for prospective industries as is the fact that the study area is located in the fastest growing area in California. The recent closing of Kaiser may lend an available skilled workforce for prospective new industry.

From a negative standpoint, projected "low figure" land use absorption potential appears relatively minimal (25 acres per year) and public improvements require substantial upgrading prior to intensified development. In addition, the air basin has one of the worst air quality problems in the nation.

It appears that the positive physical factors attributable to the project outweigh the constraints. If an economical method can be developed to provide the necessary infrastructure, the attractiveness of the area for new users can be enhanced significantly. The prospect of being able to attract very large users is a significant positive attribute, as is the fact that intensive industrial facilities can be developed in a compatible environment unlike the various competing light industrial facilities in the market area. The positive nature of a majority of the physical factors along with the potential extension of the Brine Line offer an industrial environment for heavy industry which cannot be matched by scarcely any area in Southern California.

SECTION 4.0
SPECIFIC DEVELOPMENT PLAN AND PROGRAM



4.0
SPECIFIC DEVELOPMENT PLAN AND PROGRAM

4.1 - PROJECT DESIGN GOALS, OBJECTIVES AND STRATEGIES

4.1.1 Environmental Issues

The Agua Mansa Industrial Corridor study area should be developed in a manner which maximizes the potential for intensive industrial development while at the same time creating a harmonious relationship with the existing development and environment. The Agua Mansa Industrial Corridor will be a location where industry can operate with minimal intrusion from other land uses. Conversely, the Corridor will also function to contain industrial development in a manner and location which will not encroach onto more sensitive land uses in the vicinity.

The following goals and strategies have been utilized as a guide in developing the implementation program for the 4,285 acre Corridor with respect to environmental values:

1. To maximize the productive use of the study area for heavy industrial development while at the same time minimizing adverse impacts on the environment by avoiding the placement of heavy industrial uses at sensitive locations.
2. To maximize the generation of employment opportunities in a region which has a significant imbalance of housing versus employment opportunities. Significant numbers of the residents in the surrounding communities are presently commuting to Los Angeles and Orange Counties for employment, thus having a severe adverse impact on regional air quality due to the numbers of vehicle miles travelled.
3. To respect the scenic quality and natural beauty of the Santa Ana River floodplain and portions of Agua Mansa Road located alongside the bluff which defines the floodplain by maintaining these areas in the present agricultural and equestrian uses.
4. To encourage the use of alternative modes of transportation for employees by encouraging the use of car and van pooling and public transit and to reduce the length of commuter trips in the region by providing inland employment opportunities.
5. To develop an industrial area which provides a safe and healthy environment for workers including adequate levels of police and fire protection.
6. To ensure the compliance of all HUD-funded developments with the Federal environmental standards discussed in Section 6.3 of the accompanying Environmental Impact Report.

4.1.2 Public Facilities Issues

The following objectives and strategies reflect the development philosophy of this planning endeavor:

1. To extend public services in a logical and functional manner to minimize impacts on service purveyors while at the same time maximizing the areas that can be made available for development in the near future.
2. To encourage and to support the extension of the Brine Line (industrial waste sewer line) into the Agua Mansa Corridor to facilitate industrial uses which are dependent upon this type of liquid waste treatment capability.
3. To phase development within the project site to allow for orderly site development while minimizing environmental impacts and economic costs.
4. To develop a phased circulation system which will be functionally efficient in the movement of people and goods and which will be functional upon completion of the entire site as well as in the interim.
5. To develop innovative financing techniques to provide the extension of infrastructure facilities in the project area and to encourage all levels of government to participate, as well as the private sector, in funding for local infrastructure.
6. To encourage the participating local agencies and special districts to coordinate their activities with the proposed land use scheme and phasing plan to maximize the efficiency of service delivery.

4.1.3 Special and Design Issues

Numerous natural physical and man-made features are present in the Agua Mansa Corridor which merit special consideration in the development of the Specific Plan and ensuing site-specific projects. These considerations and the goals and strategies relating thereto are the following:

1. To promote the maximization of employment generation in the Agua Mansa Corridor, particularly employment targeted to low and moderate income individuals.
2. To maximize the utility of the existing vehicular transportation system. Of particular significance is the project's proximity to major freeways. The San Bernardino Freeway (I-10) comprises the project's northerly boundary and four on and off ramps from this freeway serve the project area. State Highway 60 and Interstate 215 are located within minutes of the project area and supplement the regionwide east-west access afforded by I-10.

3. To maximize the utility of the existing rail lines in the project area. The Southern Pacific Railroad maintains main lines and a railroad classification yard in the northerly portion of the project area while the Union Pacific Railroad services portions of the southerly half of the project area. Prospective industries will have rail service available upon their development of drill tracks to connect to existing tracks.
4. To expand upon the existing industrial character of the Corridor to ultimately create a compatible cohesive enclave where industry can locate and operate without the encroachment of other noncompatible urban uses. The fact that the project is bounded at most peripheries by either the Santa Ana River or major transportation arteries provides tangible boundaries identifying the limits of the project and affords protection for industrial development.
5. To protect the existing scenic resources in the study area, particularly the Santa Ana River floodplain and areas adjoining Agua Mansa Road northeasterly of Riverside Avenue.
6. To facilitate equestrian access to the Santa Ana River for residents of the Bloomington community.
7. To facilitate the location in the project area of non-industrial uses which provide necessary services to industrial users and/or their employees. Such uses may include, but are not necessarily limited to, restaurants, sandwich shops, public safety facilities, print shops, etc.
8. To provide identifiable entrance ways to the Agua Mansa Industrial Corridor. Of particular significance is Riverside Avenue as it enters the project area from the north and south and from the San Bernardino Freeway, and Pepper Avenue from the north and from I-10, and the corner of Market Street and Rubidoux Boulevard.

4.1.4 General Plan Issues

The goals and strategies reflected in this Specific Plan relative to General Plan policies of the four responsible local governments are the following:

1. To develop the site in conformance with, and to implement the policies of, the General Plans of the Counties of San Bernardino and Riverside and the Cities of Rialto and Colton.
2. To resolve any conflicts between the General Plan and Zoning designations of the four local agencies and, further, to resolve any inconsistencies between the proposed Specific Plan land uses and the underlying General Plan and Zoning designations.

3. To recognize the Scenic Highway designation of Agua Mansa Road northwesterly of Riverside Avenue and to develop the proposed project in harmony with this scenic quality.
4. To ensure that all structures are designed to meet seismic safety standards.
5. To design a circulation system consistent with the two Counties' Master Plans and to adequately serve projected transportation needs.
6. To utilize the Specific Plan tool to logically implement the goals, policies and objectives of the General Plans of the four local jurisdictions.

4.1.5 Regional Planning Issues

The goals and strategies reflected in the development plan related to the various regional plans in effect include the following:

1. It is the goal of the Plan to facilitate growth in the industrial sector consistent with the SCAG-82 philosophy to balance the provision of jobs and housing in the Inland Empire region and to provide employment for a wide range of individuals and income groups.
2. Consistent with the regional Air Quality Management Plan, it is the intent of this planning effort to aid in basin wide efforts to attain Federal and State Air Quality Attainment standards.
3. Consistent with the 208 Waste Treatment Management Plan, it is the intent of this Plan to protect regional groundwater resources and, where possible, to enhance water quality.

4.2 - DEVELOPMENT PLAN

4.2.1 Land Use Types and Intensities

Figure 20 represents the ultimate land use distribution for the Agua Mansa Industrial Corridor. This Land Use Plan was developed through the public hearing process by each local agency and by the consultant with extensive input from the Committee of Major Property Owners and the Agua Mansa Technical Advisory Committee which consists of representatives from the four local jurisdictions and other affected agencies.

It is intended that the Land Use Plan and Development Standards (Sections 4.2.1, 4.2.2, and 4.2.3) become the prevailing land use regulations, thereby being preeminent over the existing General Plan and Zoning Standards presently in effect in the respective jurisdictions. It is felt that it is critical to maintain consistency with respect to land uses and site development standards throughout the Agua Mansa Corridor.

The other components of the Plan (specifically including public facility systems, roadways, utilities, urban design standards, phasing, governmental framework, and financing methods) should be regarded as guidelines. Due to the significant uncertainty regarding future market conditions, the development desires of the various property owners, and the political climate, it is undesirable to be overly specific in these areas. The studies conducted relative to infrastructure and financing can be used as guidelines in evaluating major projects and backbone facility needs.

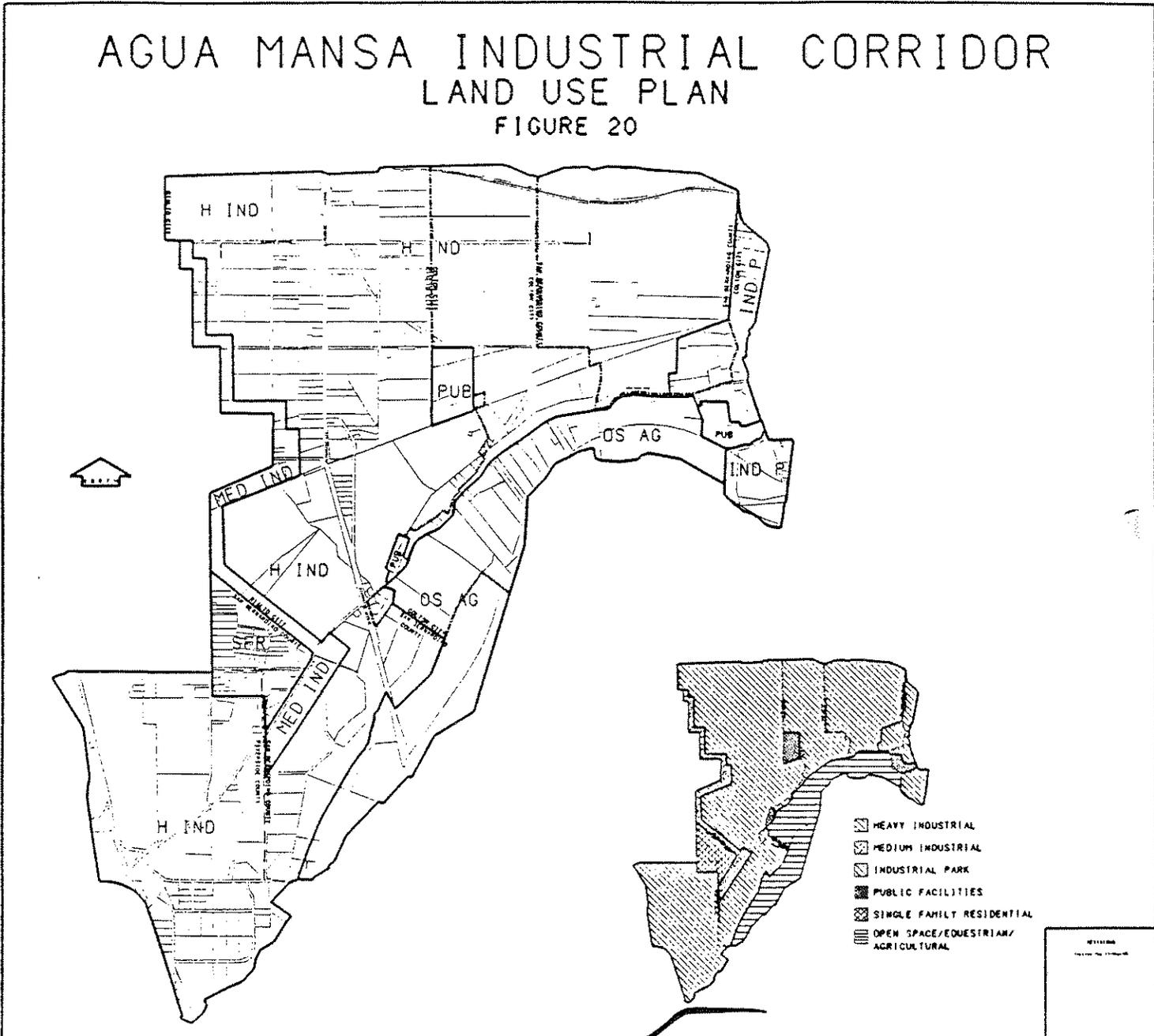
The Plan should be reviewed by the governmental agencies periodically to assure that it is responsive to market demands and local desires and needs. Upon application to amend the plan, the respective local agencies should consult the other local agencies prior to approval of the amendment to ensure that the overall plan goals will not be compromised.

There are a number of uses existing in the Agua Mansa Corridor which are in conflict with the established land use designations. Such uses will become legal non-conforming uses which may operate indefinitely at their present level or based on approved permits. The Specific Plan does not require amortization of these uses, but will rely on market forces to ultimately transition the non-conforming uses to uses consistent with the Plan.

The Land Use Plan, in addition to reflecting the needs and desires of the major property owners and local jurisdictions, is based on the assessment of existing environmental conditions as well as the concept of developing industrial land uses to the maximum holding capacity of the land within the established environmental parameters.

AGUA MANSA INDUSTRIAL CORRIDOR LAND USE PLAN

FIGURE 20



Following is a discussion of the land use types established by the Land Use Plan.

A. Heavy Industrial (3,094 Acres)

Areas designated for Heavy Industrial will be utilized for manufacturing, resource extraction, compounding of material, packaging, treatment, processing or assembly of goods. Heavy industrial uses generally are more land extensive than lighter industrial uses and usually employ processes which produce more measurable externalities. Activities in the heavy industrial areas are likely to have frequent rail and/or truck traffic and the transportation of heavy, large scale products. Activities related to heavy industrial uses may generate noise, odor, vibration, illumination or release of particulates and may generally be incompatible with less intense land uses. Characteristics of the types of uses permitted within this designation may include massive appurtenant structures outside of enclosed buildings such as conveyor systems, cranes, cooling towers and outside storage of large quantities of raw, refined or finished products. The specific uses which will be permitted under this designation are listed in Section 4.2.2.

B. Medium Industrial (265 Acres)

General uses permitted within the Medium Industrial designation will include manufacturing, compounding of material, processing, assembly, packaging, treatment, metal fabrication and warehousing. All industrial activities occurring under this designation will be required to be conducted in enclosed buildings. The specific permitted uses and development standards are contained in the ensuing section.

C. Industrial Park (130 Acres)

The intent of this designation is to develop light industrial uses without the potentially environmentally objectionable side effects of large industry. The Industrial Park designation should facilitate development which caters to small industrial users who conduct activities such as small-scale assembly, research and development, and warehousing. This designation has been applied to areas on the west side of Rancho Avenue due to the location of the South Colton neighborhood to the east. Performance standards for land use compatibility as well as expanded landscape standards for this designation are contained in Section 4.2.2.

D. Public Facilities (80 Acres)

This designation is intended to identify and protect existing public facilities within the Agua Mansa Industrial Corridor. This category includes the sewage treatment plants of the Cities of Colton and Rialto, and the Agua Mansa Cemetery. No changes to these uses are proposed.

E. Single-Family Residential (94 Acres)

The designation of Single-Family Residential is applicable to the existing neighborhood located at El Rivino Road and Hall Avenue. The density of up to four units per acre is commensurate with the existing development of this area. The residential designation is appropriate at least in the short- to mid-term. The development standards applicable under this designation will be the zoning limitations presently in force under the respective jurisdictions.

F. Open Space/Agriculture/Equestrian (622 Acres)

This designation is applicable to the floodplain of the Santa Ana River as defined by the bluff which defines the riverbed. This designation represents what should be the ultimate use on this flood-constrained land area. The development standards applicable under this designation will be the zoning limitations presently in force under the respective jurisdictions.

As is evident from Figure 20, a vast majority of the study area was deemed to be appropriate for Heavy Industrial development. The specific rationale for exceptions to this category is summarized as follows:

A. Santa Ana River Floodplain (Southeasterly of Agua Mansa Road)

All of the areas below the bluff, the low-lying land adjacent to the Santa Ana River, will be maintained in a use identified as Open Space/Agriculture/Equestrian. This land use designation will ensure that these lands are maintained in their present usage, or a use similar thereto indefinitely. Due to the physical constraint of flooding, this is considered to be the highest and best use for this area. In addition, this land use serves to protect the existing scenic, and rural setting of this unique area and of Agua Mansa Road northeast of Riverside Avenue.

B. Residential Area East of Intersection of El Rivino Road and Hall Avenue

The appropriate designation for this existing neighborhood is Single-Family Residential in the short- and mid-term. Although relatively substantial investments have been made by private individuals for new residences on the east side of Hall Avenue, this neighborhood presently is and will continue to be adversely affected by industrial uses and traffic generated therefrom. Structural housing quality in this neighborhood is, in many cases, poor and some residents are operating what in effect are industrial uses from their residences. It is recommended that, upon development of the vacant surrounding areas for industrial uses, the designation in this area be reevaluated to determine whether residential uses remain viable in this area.

C. Colton and Rialto Sewage Treatment Plants

The sewage treatment plants of the cities of Colton and Rialto are located within the Agua Mansa Industrial Corridor. The designation of Public Facilities is appropriate for these uses which are entirely compatible with surrounding industrial designations.

D. Agua Mansa Cemetery

This facility, which includes a museum, is a notable historical resource which warrants preservation. A designation of Public Facilities will ensure its continued protection.

E. Rancho Avenue (Easterly Project Boundary)

All of the remaining developable property along the westerly side of Rancho Avenue is designated for Industrial Park use consistent with existing new development on the east and west side of Rancho Avenue. The Industrial Park usage of the Rancho Avenue frontage will provide a transitional area between residences in South Colton and the Agua Mansa Industrial area.

F. Bloomington Area

The rural residential community of Bloomington adjoins the westerly periphery of the project area. A transitional area designated "Medium Industrial" is proposed along this boundary to lessen the potential impacts on the Bloomington community.

4.2.2 Development Standards

Following are the permitted uses, specific site development, signing and performance standards which are applicable to each industrial land use designation contained in this Specific Plan. The industrial development standards contained in this section shall be pre-eminent over the existing zoning designations and standards.

A. Permitted Uses

Table 8 which follows portrays the permitted uses under each land use classification. It should be noted that specific uses which are not specified may be found to be compatible with and similar to specified uses in a given designation. Such a determination shall be made by the Planning Commission of the respective jurisdiction.

TABLE 8

PERMITTED USES
AGUA MANSA INDUSTRIAL CORRIDOR

"INDUSTRIAL PARK" AREAS

The following uses shall be permitted subject to non-hearing site approval by the responsible local jurisdiction based on the development standards contained in this section:

Table 8 (Cont.)

1. Research and design facilities.
2. Office buildings.
3. Light manufacturing conducted in an enclosed building.
4. Warehousing.
5. Wholesale distribution of manufactured products.
6. Public utility substations, not including power generation.
7. Animal hospitals.
8. Restaurants.
9. Financial institutions, insurance and real estate services.
10. Industrial medical facilities.
11. Administrative, professional and business offices accessory to principally permitted uses.
12. Printing and/or blueprinting establishments.
13. Agricultural uses of the soil for crops or grazing of animals.

The following uses may be permitted subject to a public hearing and the approval of a conditional use permit* by the responsible local jurisdiction:

1. Gasoline service stations.
2. Homes for caretakers or watchmen and their families, provided no rent is paid, where a permitted and existing commercial or manufacturing use is established. Not more than one caretakers home shall be allowed for a parcel of land or a manufacturing complex. Such homes shall be site-built. The use of mobilehomes is prohibited.

"MEDIUM INDUSTRIAL" AREAS

The following uses shall be permitted subject to non-hearing site approval by the responsible local jurisdiction based on the development standards contained in this section:

1. All uses indicated as permitted uses under the Industrial Park designation.
2. Boat building and repair.
3. Building materials sales establishments.
4. Contractors' equipment and storage yards.
5. Feed and fuel sales, retail and wholesale.
6. Lumber yards, including only incidental mill work.
7. Motor vehicle and farm equipment sales, service and repair.
8. Nurseries and garden supply sales.
9. Recreational vehicle and boat storage.
10. Dog kennels, catteries and horse stables.
11. Equipment rental services.

* "Conditional Use Permit" is used herein as a generic planning term. In the City of Rialto, the proper term for such approval is Conditional Development Permit"; in the County of San Bernardino, the appropriate term is "Site Approval".

Table 8 (Cont.)

12. Manufacturing, assembly, processing or repair of the following products:
 - a. Articles or merchandise from the following previously prepared materials: cork, feathers, fiber, hair, horn, glass, leather, paper, tobacco, and paint, not employing a boiling or rendering process.
 - b. Ceramic products, provided there is no pulverizing of clay.
 - c. Drugs, pharmaceuticals, and toiletries, not including refining or rendering of fats or oils.
 - d. Furniture, cabinets, sash and doors, including only incidental mill work.
 - e. Garments and any other products made of fabric.
 - f. Jewelry, optical goods, scientific or musical instruments and equipment, toys, novelties, and metal stamps.
 - g. Office machines.
 - h. Signs, electrical and neon, commercial advertising structures.
 - i. Aircraft and aircraft accessories.
 - j. Aluminum products.
 - k. Cutlery, hardware, hand tools and utensils.
13. Bakeries and candy factories; distribution and sale of bakery or candy products on a retail or wholesale basis.
14. Ice or cold storage plants; bottling or canning of fruit, vegetable or soft drink products.
15. Motion picture studios.
16. Machine, welding, and blacksmith shops, provided that impact machines shall not exceed a capacity of 2 tons and non-impact machines shall be limited to 50 horse-power.
17. Distribution plants; parcel delivery services.
18. Cabinet shops.
19. Catering services.
20. Feed and flour mills.
21. Metal plating, finishing, engraving, heat treating or pickling.

The following uses may be permitted subject to a public hearing and the approval of a conditional use permit by the responsible local jurisdiction:

1. All uses listed as permitted subject to the approval of a conditional use permit under the "Industrial Park" designation.
2. Transportation and/or trucking terminals.

* "Conditional Use Permit" is used herein as a generic planning term. In the City of Rialto, the proper term for such approval is "Conditional Development Permit"; in the County of San Bernardino, the appropriate term is "Site Approval".

Table 8 (Cont.)

3. Brewery, distillery, winery, or the bottling or packaging of spiritous or malt liquor products.
4. Meat packing plants, provided there is no slaughtering of animals or rendering of meat.
5. Riding academies.
6. Manufacturing, assembly, processing or repair of the following products:
 - a. Food products, human or animal, not including meat packing plants.
 - b. Sheet metal products, such as heating and ventilating ducts, cornices and eaves.
 - c. Dairy products.
 - d. Paper products.
 - e. Plastics (fabricating from).
 - f. Rubber products if:
 1. The rubber is not melted.
 2. An internal type mixer is used.
7. Carpet cleaning plants.
8. Cleaning and dyeing plants.

"HEAVY INDUSTRIAL" AREAS

The following uses shall be permitted subject to non-hearing site approval by the responsible local jurisdiction based on the development standards contained in this section:

1. All uses listed as permitted or conditionally permitted uses under the "Medium Industrial" designation.
2. Manufacturing, assembling, repairing, testing, processing and warehousing of:
 - a. Automobiles, trucks and trailers.
 - b. Battery rebuilding and manufacture.
 - c. Candles.
 - d. Canvas.
 - e. Carpets and rugs.
 - f. Chalk.
 - g. Clay pipe and clay products.
 - h. Concrete products.
 - i. Glass, but excluding blast furnaces.
 - j. Glazed tile.
 - k. Graphite and graphite products.
 - l. Hemp products.
 - m. Ink.
 - n. Missiles and missile components.
 - o. Motors and generators.
 - p. Plastics.
 - q. Porcelain products.
 - r. Railroad equipment.
 - s. Sand, lime and rock products.
 - t. Steel products.
 - u. Wire and wire products.

Table 8 (Cont.)

3. Machinery manufacture, including electrical, agricultural, construction, air conditioning equipment, dishwashers, dryers, furnaces, heaters, stoves and washing machines.
4. Machine tool manufacture, including metal latches, presses and stamping machines, and woodworking machines.
5. Manufacture of chemicals and chemical products, except those requiring a conditional use permit.
6. Transit and transportation terminals, repair and storage facilities.
7. Lumber processing and woodworking, including planing mills, plywood, veneering, wood-preserving and laminating.
8. Foundries.
9. Forging works.
10. Concrete batch plants.
11. Minor surface mining operations of 1,000 cubic yards or less.

The following uses may be permitted subject to a public hearing and the approval of a conditional use permit* by the local jurisdiction:

1. Manufacturing of:
 - a. Acetylene
 - b. Ammonia
 - c. Aniline dyes
 - d. Asphalt or asphalt products
 - e. Bleaching powder
 - f. Bronze, babbitt metal and similar alloys
 - g. Carbide
 - h. Carbolic, hydrochloric, picric and sulphuric acid
 - i. Caustic soda
 - j. Cellulose and celluloid
 - k. Cellophane
 - l. Cement and cement products.
 - m. Charcoal, lampblack or fuel briquettes
 - n. Chlorine
 - o. Creosote
 - p. Exterminating agents
 - q. Fertilizer
 - r. Film
 - s. Gas
 - t. Lacquer, shellac, turpentine, varnish or calcimine (Kalsomine)

* "Conditional Use Permit" is used herein as a generic planning term. In the City of Rialto, the proper term for such approval is "Conditional Development Permit"; in the County of San Bernardino, the appropriate term is "Site Approval".

Table 8 (Cont.)

- u. Linoleum or oil cloth
- v. Matches
- w. Nitrating of cotton and other materials
- x. Phenol
- y. Potash
- z. Phroxylin
- aa. Rubber (natural or synthetic)
- bb. Soap, tallow, grease and lard
- 2. Storage of:
 - a. Automobiles and other vehicles purchased for wrecking operations.
 - b. House mover's equipment and buildings moved from other locations.
 - c. Oil or gas in amounts of two thousand, five hundred (2,500) barrels or more.
- 3. Salvage yards, wrecking and disposal activities of the following kind:
 - a. Automobile wrecking and salvage.
 - b. Dumps, including garbage and trash disposal.
 - c. Industrial waste material salvage, waste metal, rag, clothing, glass and other salvage operations.
 - d. Sewage disposal plants.
- 4. Refining or petroleum and petroleum products.
- 5. Distilling of alcohol.
- 6. Asphalt and earth products activities of the following kinds:
 - a. Asphalt batching plants.
 - b. Rock crushing plants and aggregate dryers.
 - c. Sandblasting plants.
 - d. Major mining operations of 1,000 cubic yards or more.
- 7. The manufacturing, testing, or commercial use of explosives or explosive fuels for any purpose.
- 8. Accumulation, storage, rendering, disposal or otherwise processing the remains of dead animals.
- 9. Oil, gas and steam wells, including drilling and storage.
- 10. Any mining operation which is exempt from the provisions of the California Surface Mining and Reclamation Act of 1975.
- 11. The production or manufacture of chemicals or acids.
- 12. Glass manufacturing employing a blast furnace.
- 13. Commercial plant food operations; the manufacturing, mixing bagging, packaging and sale of commercial plant foods and fertilizers.

Table 8 (Cont.)

"PUBLIC FACILITIES"

The following uses shall be permitted subject to a public hearing and the approval of a Conditional Use Permit* by the responsible local jurisdiction based on the development standards contained in this section:

1. Schools and educational facilities.
2. Education Centers.
3. Sewage treatment facilities.
4. Water filtration plants.
5. Water storage tanks.
6. Cemeteries.
7. Hospitals.
8. Convalescent and rest homes.
9. Government Services, including administrative facilities and maintenance yards.

"SINGLE-FAMILY RESIDENTIAL AREAS"

The existing zoning regulations of the respective governing jurisdiction shall be applicable within this land use designation.

"OPEN SPACE/AGRICULTURE/EQUESTRIAN AREAS"

The existing zoning regulations of the respective governing jurisdiction shall be applicable within this land use designation.

B. Site Development Standards

The basic site development and sign standards for each land use designation within the Agua Mansa Industrial Corridor are contained in Tables 9 through 12. Off-street parking standards follow in Table 13. Loading spaces shall be provided as indicated in Section 4.2.2.C.

C. Performance Standards

Following is a description of additional development and performance standards applicable to all land use designations within the Agua Mansa Corridor.

* "Conditional Use Permit" is used herein as a generic planning term. In the City of Rialto, the proper term for such approval is "Conditional Development Permit"; in the County of San Bernardino, the appropriate term is "Site Approval".

NOISE

<u>Receiving Land Use</u>	<u>Noise Standard</u>	<u>Time</u>
Residentially Zoned Property	55 dB (A)	7:00 a.m. - 10:00 p.m. (daytime)
	50 dB(A)	10:00 p.m. - 7:00 a.m. (nighttime)

1. No person shall operate or cause to be operated any source of sound at any location or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level, when measured on any other property, either incorporated or unincorporated, to exceed:
 - a. The noise standard for that receiving land use for a cumulative period of more than thirty (30) minutes in any hour; or
 - b. The noise standard plus 5 dB(A) for a cumulative period of more than fifteen (15) minutes in any hour; or
 - c. The noise standard plus 10 dB(A) for a cumulative period of more than five (5) minutes in any hour; or
 - d. The noise standard plus 15 dB(A) for a cumulative period of more than one (1) minute in any hour; or
 - e. The noise standard plus 20 dB(A) for any period of time.
2. If the measured ambient level exceeds any of the first four noise limit categories above, the allowable noise exposure standard shall be increased to reflect said ambient noise level. If the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under this category shall be increased to reflect the maximum ambient noise level.
3. If the alleged offense consists entirely of impact noise or simple tone noise, the noise standard for the receiving land use shall be reduced by 5 dB(A).
4. Exempt Noises
 - a. Motor vehicles not under the control of the industrial use.
 - b. Emergency equipment, vehicles and devices.

- c. Temporary construction, repair, or demolition activities between 7:00 a.m. and 7:00 p.m, except Sundays and Federal Holidays.

VIBRATION

No ground vibration shall be permitted by any industrial or other use which can be felt without the aid of instruments at or beyond the boundary line. In addition, vibration which results in a particle velocity greater than 0.2 inches per second measured at or beyond the property line is not permitted.

ELECTRICAL DISTURBANCES

No activity or land use shall cause electrical disturbance that adversely affects persons or the operation of any equipment across lot lines and is not in conformance with the regulations of the Federal Communications Commission.

FIRE AND EXPLOSION HAZARDS

All activities involving, and all storage of, flammable and explosive materials shall be provided with adequate safety devices against hazards of fire and explosion by adequate fire-fighting and firesuppression equipment and devices standard in industry. The requirements of the applicable Health Departments and Fire Departments shall be adhered to.

SMOKE

No emission of smoke shall be permitted unless the discharge is specifically approved by the South Coast Air Quality Management District and Air Pollution Control District.

ODORS

No emission shall be permitted of odorous gases or other odorous matter which are not consistent with State, Federal and local standards.

AIR POLLUTION

No airborne emission shall be permitted which causes any damage to health, animals, vegetation or other form of property, or which causes soiling at or beyond the property line of the property where the emission is produced.

LIGHT

Lighting, where provided to illuminate private property, shall be so arranged as to reflect away from adjoining property or any public way and be arranged so as not to cause a nuisance either to

highway traffic or to the living environment. Illumination levels at residential property lines shall not exceed one (1) foot candle intensity.

GLARE

No direct or reflected glare, whether produced by floodlight, high temperature processes, such as combustion or welding, or other processes, so as to be visible from the boundary line of property on which the same is produced, shall be permitted. Sky-reflected glare from buildings or portions thereof shall be so controlled by such reasonable means as are practical to the end that the sky-reflected glare will not inconvenience or annoy persons or interfere with the use and enjoyment of property in and about the area where it occurs.

THERMAL RADIATION

Thermal radiation potential generated on any site shall not exceed 450 B.T.U./ft.² hour as experienced in any areas subject to public access. In areas where no public access exists, the standard shall be 10,000 B.T.U./ft.² hour.

BLAST OVERPRESSURE

Blast overpressure potential shall not exceed 0.5 PSI at the property line to any site.

TOXIC AND HAZARDOUS WASTE STORAGE AND DISPOSAL

Toxic and hazardous wastes which are stored, handled, or produced on a particular site shall be treated on-site to the greatest extent technologically feasible. Such techniques include, but are not limited to, dewatering, various methods of detoxification, and acid neutralization.

Site plans for industrial uses which involve the handling, storage, processing, or generation of hazardous materials will be reviewed on a case-by-case basis by local fire and health department personnel. Double-lined retention and storage devices, monitoring wells, and other on-going surveillance devices may be required. Permits shall be obtained by individual users consistent with local health and safety regulations and all applicable State and Federal laws.

TABLE 9

DEVELOPMENT STANDARDS FOR "INDUSTRIAL PARK" LAND USE CATEGORY
 AGUA MANSA INDUSTRIAL CORRIDOR

SITE DEVELOPMENT STANDARDS		SIGN STANDARDS	
Minimum Lot Size	10,000 sq. ft.	Total Allowable Area per Lot/Development	200 sq. ft.
Minimum Lot Width & Depth	75 ft.	Freestanding Signs:	
Minimum Setbacks:		-- Number Permitted	One
-- Front	25 ft.	-- Maximum Area	100 sq. ft.
-- Side	15 ft.	-- Maximum Height	15 ft.
-- Rear	20 ft.	Monument Signs:	
Maximum Lot Coverage (by Structure)	50%	-- Number Permitted	One
Minimum Site Landscaping	15% of total net area	-- Maximum Area	100 sq. ft.
Maximum Building Height	35 ft.	-- Maximum Height	5 ft.
Minimum Distance between Buildings	20 ft.	Wall, Roof, or Projecting Signs:	
Outdoor storage	Not Permitted	-- Number Permitted	Two
		-- Maximum Area	75 sq. ft.
		-- Maximum Height (above finished grade)	20 ft.

Source: Willdan Associates, September 1985.

TABLE 10

DEVELOPMENT STANDARDS FOR "MEDIUM INDUSTRIAL" LAND USE CATEGORY
AGUA MANSA INDUSTRIAL CORRIDOR

SITE DEVELOPMENT STANDARDS		SIGN STANDARDS	
Minimum Lot Size	10,000 sq. ft.	Total Allowable Area per Lot/Development	300 sq. ft.
Minimum Lot Width & Depth	75 ft.	Freestanding Signs:	
Minimum Setbacks:		-- Number Permitted	One
-- Front	25 ft.	-- Maximum Area	200 sq. ft.
-- Side	15 ft.	-- Maximum Height	30 ft.
-- Rear	20 ft.	Monument Signs:	
Maximum Lot Coverage (by Structure)	50%	-- Number Permitted	One
Minimum Site Landscaping	25 feet of landscaping shall be provided along public street frontages, measured from the face of curb.	-- Maximum Area	100 sq. ft.
Maximum Building Height	45 ft.	-- Maximum Height	5 ft.
Minimum Distance between Buildings	None Required.	Wall, Roof, or Projecting Signs:	
Outdoor storage	Permitted, but must be screened completely from public view.	-- Number Permitted	Two
		-- Maximum Area	100 sq. ft.
		-- Maximum Height (above finished grade)	30 ft.

Source: Willdan Associates, September 1985.

TABLE 11

DEVELOPMENT STANDARDS FOR "HEAVY INDUSTRIAL" LAND USE CATEGORY
AGUA MANSA INDUSTRIAL CORRIDOR

SITE DEVELOPMENT STANDARDS	
Minimum Lot Size	15,000 sq. ft.
Minimum Lot Width & Depth	100 ft.
Minimum Setbacks:	
-- Front	25 ft.
-- Side	None*
-- Rear	None*
Maximum Lot Coverage (by Structure)	No Maximum
Minimum Site Landscaping	20 feet of landscaping shall be provided along public street frontages measured from face of curb
Maximum Building Height	No Limit**
Minimum Distance between Buildings	None Required
Outdoor storage	Permitted, but must be screened completely from view of residential properties located within 300 feet.***

* Where Heavy Industrial development is located across a street from residential, a 50-foot front setback shall be maintained. Of this 50 feet, the exterior 20 shall be landscaped while the remaining area may be used for parking. If the industrial development abuts a residential area, a 7-foot masonry wall shall be constructed on the property line and a 20-foot building setback shall be maintained in the side or rear yard, whichever is the case.

** Within 100 feet of an existing or planned residential area, the maximum building height shall be 35 feet.

*** Where outdoor storage is proposed adjacent to Riverside Avenue, a 6-foot high wall shall be erected.

TABLE 11 (Cont.)
 DEVELOPMENT STANDARDS FOR "HEAVY INDUSTRIAL" LAND USE CATEGORY
 AGUA MANSA INDUSTRIAL CORRIDOR

SIGN STANDARDS	
Total Allowable Area per Lot/Development	300 sq. ft.
Freestanding Signs:	
-- Number Permitted	One
-- Maximum Area	200 sq. ft.
-- Maximum Height	30 ft.
Monument Signs:	
-- Number Permitted	One
-- Maximum Area	150 sq. ft.
-- Maximum Height	5 ft.
Wall, Roof, or Projecting Signs:	
-- Number Permitted	Two
-- Maximum Area	150 sq. ft.
-- Maximum Height (above finished grade)****	30 ft.

**** Signs may be permitted at a height in excess of 40 feet if the building on which the sign is contained is more than 40 feet in height and the sign is affixed below the roof eave or parapet. Signs may exceed the stated maximum size subject to the approval of a conditional use permit if it is found that the sign is in keeping with the scale and design of the building.

Source: Willdan Associates, September 1985.

TABLE 12

DEVELOPMENT STANDARDS FOR "PUBLIC FACILITIES" LAND USE CATEGORY
AGUA MANSA INDUSTRIAL CORRIDOR

SITE DEVELOPMENT STANDARDS		SIGN STANDARDS	
Minimum Lot Size	10,000 sq. ft.	Total Allowable Area per Lot/Development	200 sq. ft.
Minimum Lot Width & Depth	100 ft.	Freestanding Signs:	
Minimum Setbacks:		-- Number Permitted	One
-- Front	25 ft.	-- Maximum Area	48 sq. ft.
-- Side	15 ft.	-- Maximum Height	15 ft.
-- Rear	20 ft.	Monument Signs:	
Maximum Lot Coverage (by Structure)	50%	-- Number Permitted	One
Minimum Site Landscaping	10% for developed sites	-- Maximum Area	16 sq. ft.
Maximum Building Height	40 ft.	-- Maximum Height	5 ft.
Minimum Distance between Buildings	10 ft.	Wall, Roof, or Projecting Signs:	
		-- Number Permitted	One
		-- Maximum Area	100 sq. ft.
		-- Maximum Height (above finished grade)	15 ft.

Source: Willdan Associates, September 1985.

TABLE 13
 OFF-STREET PARKING REQUIREMENTS
 APPLICABLE TO ALL
 LAND USE DESIGNATIONS
AGUA MANSA INDUSTRIAL CORRIDOR

<u>USE TYPE</u>	<u>PARKING SPACES REQUIRED</u>
Administrative and Professional Offices	1 space per 300 sq. ft. of gross floor area.
Manufacturing/ Processing	1 space per 500 sq. ft. of gross floor area, or 1 space for each employee on the largest shift.
Warehousing/ Storage	1 space per 1,000 sq. ft. of gross floor area up to 10,000 sq. ft.; 1 space per 2,000 sq. ft. for areas beyond 10,000 sq. ft.
Restaurant and Other Eating Places	1 space per 50 sq. ft. of gross floor area up to 5,000 sq. ft.; 1 space per 100 sq. ft. areas beyond 5,000 sq. ft.
Financial Institutions	1 space per 200 sq. ft. of gross floor area.
Mixed Uses	The requirements for off-street parking shall be the sum of the requirements for each of the various uses contained in the respective development.

- Minimum parking stall sizes shall be 9 ft. x 20 ft. for standard stalls.
- Minimum driveway width is 12 ft. for one-way and 18 ft. for two-way drives. A 25-ft. aisle is required for 90 degree parking areas.
- All parking areas shall be all-weather surfaced.

Source: Willdan Associates, September 1985.

Following are additional performance standards for each specific industrial designation.

1. Heavy Industrial

Outdoor Storage - Open air storage of materials and products is permitted except where visible from existing or planned residential properties located within 300 feet. Screening, where required, may be accomplished through the use of landscaping, walls and/or the use of solid fences. Outdoor storage along the Riverside Avenue frontage shall be screened with a six-foot high concrete block wall.

Refuse Storage - Each industrial facility shall provide an adequate trash disposal area. Where visible from residential properties, a trash enclosure with gates shall be provided to screen trash receptacles from public view. The specific volume requirements for trash storage space shall be determined at the site review stage.

Loading Facilities - All industrial uses shall provide loading facilities commensurate with the specific use. All loading docks and doors shall be oriented so as not to be visible from residential properties within 300 feet of the industrial use. The exact nature, capacity and number of loading facilities shall be determined for each specific use at the site review stage.

2. Medium Industrial

Outdoor Storage - Open air storage of materials and products shall only be permitted when screened entirely from view from public rights-of-way and nearby nonindustrial uses.

Refuse Storage - Each industrial use shall provide an enclosed trash enclosure of masonry construction with visually solid gates, the size and capacity of which will be determined at the site review stage.

Loading Facilities - All uses shall provide adequate loading facilities which shall be oriented so as not to be visible from public rights-of-way and nearby nonindustrial uses. The exact nature, capacity and number of loading facilities shall be determined for each specific use at the site review stage.

3. Industrial Park

Outdoor Storage and Operations - Open air storage shall not be permitted. All materials and products shall be stored within fully enclosed buildings. All industrial operations shall be conducted within fully enclosed structures.

Refuse Storage - Each industrial use shall provide a masonry trash enclosure with visually solid gates. Where possible, such enclosures shall be placed in the rear of primary buildings so as to not be visible from public rights-of-way. The specific volume requirements for trash storage shall be determined at the site review stage.

Loading Facilities - All uses shall provide adequate loading facilities which shall be oriented so as to not be visible from public rights-of-way or nearby nonindustrial uses. The exact nature, capacity and number of loading facilities shall be determined for each specific use at the site review stage.

Roof- and Ground-Mounted Equipment - All roof- and ground-mounted equipment shall be screened completely from public view. All screening shall be architecturally integrated with the building design and, where possible, a roof parapet shall be used to screen roof equipment.

4.2.3 Overlay Districts

Overlay districts are established in order to recognize and map environmental constraints or environmental amenities which should be taken into consideration when land development is being proposed. Overlay Districts will be designated in conjunction with the Specific Plan Land Use designations that are affected by an environmental constraint or an environmental amenity.

All Overlay Districts are mapped over any Land Use designation. The development standards used for that site shall be as set forth in the Overlay District or the Land Use designation, whichever is more restrictive.

The following Overlay Districts shall be applicable within the Agua Mansa Industrial Corridor. The corresponding maps for each hazard-related District are contained in Appendix D.

A. Riverside Avenue Corridor Design Overlay District

Riverside Avenue is the major entryway and thoroughfare for the Agua Mansa Industrial Corridor, thereby necessitating a greater degree of development control as opposed to less visually sensitive areas within the Agua Mansa Corridor.

Table 14 provides supplemental development standards which are applicable to all properties having frontage on Riverside Avenue. The standards contained in Table 14 are in addition to the base standards contained in Table 11.

TABLE 14
RIVERSIDE AVENUE CORRIDOR OVERLAY DISTRICT
SUPPLEMENTAL DEVELOPMENT STANDARDS
AGUA MANSA INDUSTRIAL CORRIDOR

SITE DEVELOPMENT STANDARDS	SIGN STANDARDS
Minimum Lot Size	10,000 sq. ft.
Minimum Lot Width & Depth	100 ft.
Minimum Setbacks:	
-- Front	25 ft.
-- Side	None
-- Rear	None
Maximum Lot Coverage (by Structure):	None
Minimum Site Landscaping:	30 feet of landscaping shall be provided along public street frontages measured from face of curb
Landscape Maintenance:	All new developments shall be annexed either into Rialto City Landscape Maintenance District No. 1 or into the appropriate Colton Landscape Maintenance District.
Maximum Building Height:	None
Minimum Distance between Buildings:	None
Outdoor storage:	Permitted but must be screened by a minimum six (6) foot high decorative block wall along the street frontage.
Total Allowable Area per Lot/Development	200 sq. ft.
Freestanding Signs:	
-- Number Permitted	One
-- Maximum Area	100 sq. ft.
-- Maximum Height	25 ft.
Monument Signs:	
-- Number Permitted	One
-- Maximum Area	100 sq. ft.
-- Maximum Height	5 ft.
Wall, Roof, or Projecting Signs:	
-- Number Permitted	One
-- Maximum Area	100 sq. ft.
-- Maximum Height (above finished grade)	20 ft.

* No portion of any sign shall project above a canopy, eave line or parapet wall of a building or structure.

B. Flood Hazard Overlay District

1. Locational Standards

- a. The Flood Hazard Overlay has been applied to those areas contained within any 100-year floodplain shown on maps prepared by the Federal Flood Insurance Administration, the County Flood Control Districts, or the U. S. Army Corporation of Engineers.
- b. The Flood Hazard Overlay identifies flood hazard areas in order to maintain eligibility for the receipt of Federal Flood Insurance from the Federal Flood Insurance Administration and thereby protect the public health, welfare, and safety.

2. Development Standards

When a land use is proposed within a Flood Hazard Overlay, the following standards apply:

No structures shall be constructed, located or substantially improved, and no land shall be graded or developed, and no permit or approval shall be granted within any one hundred (100) year flood plain as mapped by the U.S. Army Corps of Engineers, County Flood Control District, or the Federal Flood Insurance Administration unless the standards enumerated herein are complied with.

All new structures and exterior improvements to existing structures that involve an expansion of fifty percent (50%) or more of the existing floor area shall be constructed on a pad, the elevation of which is up to or above the base flood elevation, except that:

- a. Nonresidential structures may alternatively comply with the following requirements upon approval of the Flood Control District:
 - Utilize structural components capable of resisting the pressures, velocities, impact and uplift forces associated with floodwaters.
 - Be floodproofed so that the structure is watertight, with walls below the base flood level being substantially impermeable to the passage of water.
- b. All new structures and exterior improvements to existing structures that require building permits shall:
 - Be constructed and adequately anchored to prevent flotation, collapse or lateral movement of the structure.

- Be constructed by methods and practices that minimize flood damage.
- c. All on-site water supply and waste disposal systems shall be constructed and located to minimize infiltration of floodwaters and to avoid impairment to or contamination to, or from utilities during flooding.

C. Noise Overlay District

1. Locational Standards

- a. The Noise Overlay has been established for those areas where the Community Noise Equivalency Level (CNEL) is 65 decibels or greater (65db[A]).

2. Development Standards

- a. When a residential land use is proposed within a Noise Overlay, the following standards shall apply with respect to residential uses:
 - Noise levels shall be identified. An acoustical report shall be performed to identify noise impacts and land uses.
 - Interior noise levels in all one-family and multi-family residences and educational institutions shall not exceed 45 db(A) CNEL as emanating from sources outside of the residential building.
 - Exterior noise levels in all one-family residential land use areas and multi-family residential land use areas should not exceed 65 db(A) CNEL. Exterior noise levels shall not exceed 70 db(A) CNEL for any non-residential use areas.
 - Ability to mitigate exterior noises to the levels of 65 db(A) CNEL and 70 db(A) CNEL shall be considered by the reviewing authority when determining the actual CNEL level with which the land uses must comply.
 - In areas where noise exceeds the noise standard, measures shall be taken to mitigate noise levels. An acoustical report identifying these mitigation measures shall be required and reviewed by Environmental Health Services Department prior to site approval/tract recordations or prior to the issuance of building permits.

- b. All other structures shall be sound attenuated against the combined input of all present and projected exterior noise to meet the following criteria:

<u>Typical Uses</u>		<u>12-Hr. Equivalent Sound Level Interior (Leq)</u>
Educational Institutions, Libraries, Churches, etc.....	45	8 A.M. to 8 P.M.
General Office, Reception, etc.....	50	8 A.M. to 8 P.M.
Retail Stores, Restaurants, etc.....	55	10 A.M. to 10 P.M.

D. Liquefaction Hazard Overlay District

1. Locational Requirements

- a. The Liquefaction Overlay has been applied to those areas which are known to possess sandy/silty soils and a high groundwater table.

2. Development Standards

- a. A liquefaction potential study shall be performed by a certified specialist prior to the issuance of any permits for the construction of structures within the Liquefaction Hazard District.
- b. All proposed facilities located within liquefaction hazard areas shall be constructed in a manner to minimize or eliminate subsidence damage.

E. Fire/Thermal Radiation Hazard Overlay District

1. Locational Requirements

- a. The Fire/Thermal Radiation Hazard Overlay has been applied to those areas within the influence of petroleum product storage operations.

2. Development Standards

- a. The following standards shall apply to all discretionary and non-discretionary application/permits proposed within the Fire/Thermal Radiation Hazard Overlay, that would lead to the construction of structures or the subdivision of land.

- Fire access shall be provided as specified by the responsible fire agency.

- All site plans shall be reviewed by the responsible fire and health agencies to ensure that public exposure to potential hazards is minimized.
- The construction of buildings, and particularly open public areas, shall be discouraged within designated hazard areas.

4.2.4 Composite Circulation Concept

The existing planned backbone circulation system will largely be adequate to convey traffic to and from as well as within the project area. It is anticipated that no major roadways will be required beyond the planned network, however, numerous short access roads and/or culde-sacs will have to be developed to facilitate individual developments as they occur.

The planned circulation system for the Agua Mansa Corridor consists of two basic components as shown on Figure 16, including roadways and railroads. As indicated in Section 3.2.5, the only roadways within the Agua Mansa Corridor currently improved to ultimate design standards are Riverside Avenue, Cedar Avenue, Rancho Avenue and Rubidoux Boulevard. Most of the other major and secondary highways will eventually need extensive improvements to meet the ultimate design standards called for in the General Plans of each governmental jurisdiction. At the present time, no railroad lines exist within the regions of the Corridor where near-term development potential exists.

The approach that is followed in constructing the ultimate circulation system could depend somewhat on the method or methods of financing that are used for construction of the public improvements. It is generally recommended, however, that an approach involving the construction of interim improvements in a phased program be followed with ultimate improvements constructed at a later date when traffic volumes require the full improvements. This approach would provide improved circulation and access conditions for new development at a minimum initial cost. This would also provide for greater flexibility in the location of local streets and driveways that will provide access to future developments as well as greater flexibility in the timing of construction of other infrastructure improvements such as drainage and utility facilities.

The standards for each classification or roadway are portrayed below. It should be noted that modifications to right-of-way widths have been made in some cases where such roadways cross jurisdictional boundaries and where standards conflict.

No modifications to the roadway network planned by the local jurisdictions are considered necessary except that Riverside Avenue will ultimately carry more traffic than can be accommodated by Riverside County's four-lane design for an Arterial Highway. This can be remedied by adjusting the Riverside County Section consistent with the

six-lane design of San Bernardino County. It is believed that if this backbone system is developed as planned with the above modification, local streets can be constructed in concert with occurring development which will provide satisfactory on-and off-site circulation. Access to the San Bernardino Freeway (I-10) is considered to be adequate via the existing on- and off-ramps at Cedar Avenue, Riverside Avenue, Pepper Avenue and Rancho Avenue.

Railroad lines are shown in Figure 16 to extend into the project area at three locations, including two lines extending southerly from the SPTC tracks and generally paralleling Riverside Avenue (one line west of Riverside Avenue and one line east of Riverside Avenue) and a third line extending easterly from the UPRR track that serves the Riverside Cement Company near the intersection of Robidoux Boulevard and Market Street. The final alignments of these lines could be somewhat different from the preliminary alignments shown depending on ultimate development conditions and uses within the corridor and on operational requirements of the railroads and the industrial users.

For the purpose of this study, it is assumed that all railroad crossings of highways will be at-grade crossings since the number of train movements would most likely be relatively few and the length of trains would be short. Also, grade separations are very costly to construct. Two railroad lines from the north are recommended in order to provide rail service to the entire project area without having to cross Riverside Avenue.

One additional facility shown on Figure 16 is an equestrian trail extending from the equestrian center in Bloomington to the Santa Ana River. It is recommended that this facility be located within the right-of-way of the proposed Riverside Avenue storm channel (see Figure 11) which is shown extending for a distance along Riverside Avenue north of the Santa Ana River and then around the south and west sides of the Owl Rock property.

One final consideration is the preclusion of truck traffic from certain roadways, although it should be noted that probably all roadways within the project area presently carry some truck traffic. The specific roadways upon which truck traffic should be limited include El Rivino Road and Hall Avenue (north of El Rivino). Properties abutting these roadways should be developed by deriving access from Agua Mansa Road and Riverside Avenue to discourage truck traffic on residential streets.

TABLE 15
ROADWAY STANDARDS
AGUA MANSA INDUSTRIAL CORRIDOR

SAN BERNARDINO COUNTY, COLTON AND RIALTO

<u>Roadway Type</u>	<u>Right-of-Way</u>	<u>Curb-to-Curb Width</u>	<u>No. Travel Lanes</u>	<u>Median Width</u>
Divided Major Highway	120 ft.	94 ft.	6	18 ft.
Major Highway	104 ft.	80 ft.	6	12 ft.
Secondary Highway	88 ft.	64 ft.	4	N/A
Industrial Local Street	72 ft.	48 ft.	4	N/A
Collector Street	64 ft.	40 ft.	2	N/A
<u>RIVERSIDE COUNTY:</u>				
Arterial Highway	110 ft.	86 ft.	4*	22 ft.
Major Highway	100 ft.	76 ft.	4*	12 ft.
Secondary Highway	88 ft.	64 ft.	4	N/A
Industrial Local Street	78 ft.	56 ft.	2-4	12 ft.

* Includes on-street parking on each side.

4.2.5 Urban Design Concepts

Architecture and Design

The following policy guidelines should be considered upon the design of specific industrial structures in the Agua Mansa Corridor during the site review process:

- The design of buildings and surrounding environment should be compatible with surrounding land use and architecture, and should recognize the climate, the physical setting, and the architectural traditions of Southern California.
- All exterior wall elevations of buildings and screen walls should be architecturally compatible with the surrounding land use and architecture.
- Colors, materials and finishes should be coordinated in all exterior elevations of the buildings to achieve a continuity of design.

- At ground level, expanses of blank building walls shall be minimized with encouragement of architectural embellishment within the structures.
- The landscape design of open spaces shall be harmonious with the design of the buildings on the site and shall enhance their appearance.
- Where possible, open spaces shall be accessible to the public and equipped with benches and other seating.

Entryway Treatments

A uniform entryway treatment should be developed for placement at the entries to the project area. Such treatment could include a monument sign for identification with landscaping or stone treatments depicting the logo of the Agua Mansa Industrial Corridor. The most significant approaches to the Corridor include Riverside Avenue (from north, south and I-10), Pepper Avenue (from north and I-10), and the corner of Market Street and Rubidoux Boulevard. Typical forms of entryway treatments are shown in Figure 21 for street corners and for street medians at entrances to the Agua Mansa Corridor.

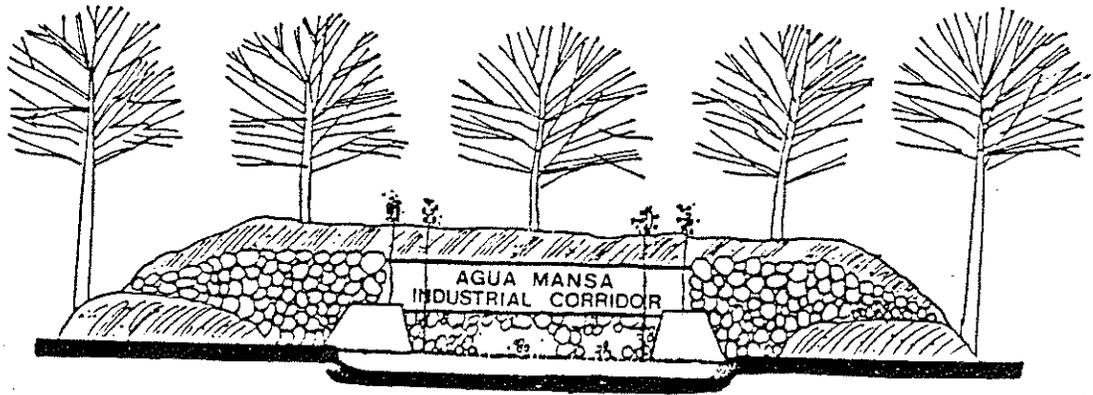
The development and maintenance of this type of amenity could most easily be handled through a landscape maintenance district or some similar structure.

Signing

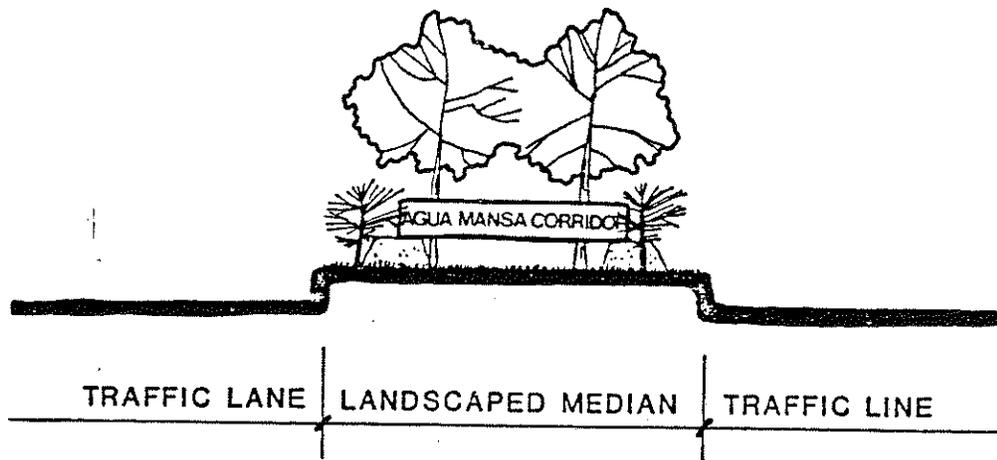
Detailed standards for sign control are contained in Section 4.2.2. Signing is an important determinant in the aesthetic character of an industrial area. Of particular significance is the visual character of development from the San Bernardino Freeway (I-10) and major thoroughfares such as Riverside Avenue.

The following guidelines should be considered in the development of signage programs for specific industrial sites:

- A maximum of two freestanding signs shall be permitted for industrial sites, one of which shall be a monument sign.
- Signs designed primarily for advertising directed at motorists on I-10 or on major thoroughfares should be prohibited. Signs should serve the primary purpose of identifying industries and directing visitors to appropriate destinations.
- Signs should be architecturally integrated into the design of new industrial structures where possible.



STREET CORNER ENTRYWAY SIGN



ROADWAY MEDIAN ENTRYWAY SIGN

TYPICAL ENTRY DESIGN



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INDUSTRIAL CORRIDOR

FIGURE

21

Landscaping

The specific area requirements for site landscaping are portrayed in Tables 9 through 12. The following landscape treatments shall be incorporated into site design of the required landscape areas:

- Bermed landscaping should be incorporated wherever possible within the landscape setback and landscape areas surrounding parking and loading areas.
- The design of the berms should be undulating to provide interest and visual access to buildings.
- All landscaped areas shall be served by an automatic irrigation system.
- Property owners will be responsible for the development and maintenance of landscaping on-site and for the contiguous planted right-of-way, unless a maintenance district is established for right-of-way areas.
- The use or combination of berming, landscape materials, low level walls, and building mass should be used to screen parking and loading areas and refuse collection areas from public view.
- To increase the chances of survival of various landscape materials, the use of indigenous, low-water requiring species should be encouraged.
- A landscape maintenance district could be formed to insure the continued maintenance for roadway medians and other landscaped areas in public rights-of-way.

4.2.6 Energy

Energy considerations applicable to the proposed project can be grouped into two areas: 1) energy consumption on-site for industrial activities; and 2) energy consumed by employees commuting to and from the project site.

In order to maximize energy efficiency for on-site industrial activities, the following considerations should be addressed at the site review stage:

1. Building location, orientation, and bulk should consider the use of solar energy and conversely, should not prevent solar access for other structures. Solar energy can be an extremely valuable resource in the region with its nearly perennial sunshine.

2. Industrial buildings today are almost exclusively single story, but comprise extensive floor areas. This type of construction results in expansive roof areas of which very little space is actually utilized. Such building rooves ideally leno themselves to the use of solar collector systems which can be screened from view through the use of parapet walls or mansard roofs.
3. The use of cogeneration facilities should be encouraged for individual users which are physically able to utilize this measure.
4. The use of energy-efficient exterior lighting fixtures such as high-pressure sodium shall be encouraged.

The following measures can help maximize energy efficiency for employees commuting to the industrial park:

1. A bus stop and shelter should be located in appropriate locations within the project site. Local service purveyors should be encouraged to extend bus service to the site.
2. Car and van pooling programs should be encouraged by individual industrial users. An incentive for such a program can be the designation of preferential parking areas for car poolers.
3. Restaurants and other service facilities should be established in the Corridor to minimize off-site trips by employees during lunch time.

4.2.7 Public Facilities and Utilities

Following is a discussion of the potential solutions to the infrastructural deficiencies which exist in the project area. It should be noted that further detailed site-specific studies will be necessary in each of these areas.

Drainage Facilities

The lack of adequate drainage facilities represents the most serious infrastructure deficiency for the Agua Mansa Corridor. As described in Section 3.1.4, only two mainline drainage facilities presently exist within the project area, and both of these are severely undersized. Three other mainline drainage facilities are needed together with systems of lateral storm drains and catch basins to provide adequate flood protection for the project area (see Figure 11).

The phasing of constructing drainage facilities within the Agua Mansa project area could be partly influenced by conditions that exist outside the limits of the Agua Mansa Corridor. All five (5) of the mainline drainage facilities shown on Figure 11 extend beyond the limits of the Agua Mansa project boundaries to serve upstream tributary drainage areas. The drainage deficiencies that characterize the Agua Mansa Corridor also characterize large areas outside Agua Mansa. Therefore, the construction of mainline drainage facilities within Agua Mansa is

needed not only for Agua Mansa, but also for large areas outside Agua Mansa. The most notable example of this is the Rialto Channel system which extends to a distance of 5 miles north of the San Bernardino Freeway and serves a total tributary area of approximately 16,000 acres.

In terms of overall regional significance, the Rialto Channel is by far the most important drainage facility in this area. Because of the serious flooding problems and flood damage that has occurred in recent years along the Rialto Channel in the City of Rialto (north of the freeway), the County of San Bernardino and the City of Rialto are currently conducting studies of this facility to determine a course of action for improving the system upstream of the freeway. The Corps of Engineers is also conducting design studies for the Rialto Channel downstream of the freeway within the Agua Mansa Corridor and will most likely construct improvements for a portion of this facility to a maximum cost of \$4 million.

In terms of providing drainage facilities to developable areas within the Agua Mansa Corridor, the Riverside Avenue Channel and its laterals is the most important facility to be constructed. The proposed facility would consist of an open channel extending along a portion of Riverside Avenue north of the Santa Ana River, then extend northwesterly along the south side of the Owl Rock property, then north with a series of storm drain laterals to drain the northwesterly portions of Agua Mansa and much of the Bloomington area. Because this facility does not presently exist in any form, it will be necessary to obtain right-of-way for the channel before any facilities can be constructed. Underground storm drain laterals would be constructed mostly within street rights-of-way.

The Southwest Colton Storm Drain in Rancho Avenue needs to be enlarged to provide adequate flood protection for development sites along Rancho Avenue. The other two mainline drainage facilities are mostly needed to provide drainage to areas outside Agua Mansa and for areas within Agua Mansa that will not be available for near-term development.

The recommended phasing scheme for drainage improvements is described in detail in Section 4.3.4 and Appendix A.

Sewers

As indicated in Section 3.2.2, most of the Agua Mansa Corridor is lacking in adequate wastewater disposal facilities, including a lack of sewers for collecting domestic sewage and industrial wastewater as well as a lack of adequate capacity at the two treatment plants located within the project area. Figure 13 shows the recommended ultimate trunk sewer facilities that would be needed to serve the project area.

The recommended ultimate sewer system would convey all domestic flows generated from areas within the City of Rialto and its sphere of influence to the Rialto treatment plant. This would result in ultimate flows of approximately 8.7 MGD (Million Gallons per Day) generated from

areas within the Agua Mansa Corridor that would be tributary to the Rialto treatment plant. The new facilities required in this portion of the Corridor would include gravity trunk sewers in Santa Ana Avenue, Slover Avenue, El Rivino Road, Riverside Avenue and Agua Mansa Road. A pump station and force main will be required to pump flows from the trunk sewer in Agua Mansa Road to the Rialto treatment plant.

The construction of sewers in Slover Avenue and Santa Ana Avenue can be accomplished at any time since the downstream trunk facilities are already in place. These new lines should be constructed as a part of the improvements associated with the development of the northwesterly portion of the study area.

All domestic flows generated from areas in the City of Colton, its sphere of influence and unincorporated portions of San Bernardino County would be conveyed to the Colton treatment plant. This would result in ultimate flows of approximately 8.3 MGD. It will be necessary to construct a sewer in Agua Mansa Road to provide sewer service to development areas in San Bernardino County located on the bluff between Agua Mansa Road and the Santa Ana River. In addition, a pump station will be required for the sewer in Agua Mansa Road near the future intersection of Pepper Avenue in order to pump flows in a force main to the Colton treatment plant. Additional sewer lines will be required in Slover Avenue, Santa Ana Avenue and future Pepper Avenue in order to provide sewer service to much of the area between Riverside Avenue and Pepper Avenue north of Santa Ana Avenue. Since much of this area is presently owned by the California Portland Cement Company, the final configuration of the sewer system in this area will depend on the California Portland Cement Company's proposed uses and grading in this area.

In the Riverside County portion of the Agua Mansa Corridor, a gravity trunk sewer would need to be constructed in Agua Mansa Road from Market Street to the east County boundary to provide sewer service to the future development areas along both sides of Agua Mansa Road. Most of this property is presently owned by the Riverside Cement Company (Gifford-Hill). The total ultimate domestic flows from these areas would be approximately 4 MGD.

As indicated in Section 3.2.2, the timing and phasing of constructing sanitary sewer facilities within the Agua Mansa Corridor is complicated by the limited treatment plant capacity at the Rialto and Colton treatment plants. Provision of adequate sewerage facilities for new development within the Agua Mansa Corridor will eventually require expansion of the treatment plants to handle the additional discharges from the project area. At this time, there are no plans or programs in effect to provide additional wastewater treatment capacity within the Agua Mansa Corridor.

If the S.A.R.I. line is constructed in the near future, this line would provide ample capacity for industrial wastewater and could also provide interim capacity for domestic sewage generated within the Study Area until such time as the treatment plants are expanded.

If adequate capacity exists at the Rialto treatment plant, it is recommended that the proposed interceptor sewer in Agua Mansa Road from Rancho Avenue to Riverside Avenue be constructed as the highest priority sewer project. If the interceptor sewer in Agua Mansa Road cannot be constructed in the near future due to insufficient treatment plant capacity, it may be possible to temporarily connect the Riverside Avenue sewer to the S.A.R.I. industrial wastewater line that is proposed to be constructed in Agua Mansa Road by the Santa Ana Watershed Project Authority (S.A.W.P.A.) if the S.A.R.I. line is constructed first.

Water

As indicated in Section 3.2.1, the backbone water system for the Agua Mansa Corridor shown on Figure 12 is based on existing Water Master Plans for the project area and on input obtained from the various water agencies serving the project area. The majority of the project area is served by the West San Bernardino County Water District.

Backbone water distribution facilities presently exist within the northwest portions of the Agua Mansa Corridor. Water distribution facilities also exist in the Butler Industrial Park and along Rancho Avenue.

The development of the remaining water system improvements can be accomplished generally in conformance with the phasing of development within the Agua Mansa Corridor. No attempt has been made to identify the future internal network of water facilities that will eventually be required for development of much of the California Portland Cement Company and Riverside Cement Company properties. However, backbone facilities on the perimeter of these properties would be adequate to meet future internal demands.

Utilities

Electricity in the study area is provided by both Southern California Edison, which services the San Bernardino and Riverside Counties, and the City of Rialto portions of the study area, and the City of Colton which supplies the portion of the study area within Colton City boundaries. Both agencies are confident that, although their distribution systems would need to be extended to accommodate the proposed development, the capacity to adequately serve the study area exists.

Southern California Gas Company provides service throughout the study area. While they do own and maintain the backbone infrastructure, it will be necessary for the system to be upsized and extended in order to bring the available capacity to the specific developments as they occur within the study area.

The study area lies within Pacific Bell's service area and existing telephone cables are found both overhead and underground. Their representatives indicate Pacific Bell will provide service to the study area.

4.3 - IMPLEMENTATION PLAN

4.3.1 Governmental Framework

One of the primary reasons for undertaking this study was to end the fragmented approach to planning and land development which has historically occurred as a result of the singular actions of the four local jurisdictions present in the Agua Mansa Corridor. As a result, it is essential that a centralized authority be established to facilitate a concerted unified approach to planning, administration, financing and development review/approval in the Agua Mansa Industrial Corridor. Such a centralized organization could also focus much more clearly on the implementation of the Specific Plan than four local jurisdictions acting independently.

The specific nature of the central body depends largely on the type of administrative/financing mechanisms selected (i.e. Redevelopment, Economic Development Corporation, Assessment District, Community Facilities District, Fee Districts, etc.), however, it is recommended that a Joint Powers agreement be formulated by the four agencies to form an Authority.

A Joint Powers Authority (JPA) is formed when it is to the advantage of multiple public entities with common powers to consolidate their forces to construct joint-use facilities. A "joint exercise of powers" agreement must initially be approved by all participating entities.

A JPA, by itself, is empowered by State law to issue revenue bonds to construct various public facilities including, but not limited to, power generating plants, storm drain systems, and sewerage systems. As such a JPA may function as an administrative body as well as constituting a financing mechanism through its ability to issue bonds.

In the context of the Agua Mansa Industrial Corridor, the JPA could be used to administer a variety of financing functions as mentioned previously and could function as a Redevelopment Agency. The JPA should be formulated with legislative representation from all four jurisdictions, such as the two respective District Supervisors from the Counties and a Council member from each of the two cities. At the option of the local agencies, representation from the Corridor's major property owners could also be included. This would appear to be desirable due to the extensive involvement the property owners have had in providing the impetus for authorizing this study and during its preparation, as well as anticipated future involvement.

A JPA, "AMIGA," has been formed by the Counties of San Bernardino and Riverside and the Cities of Rialto, Colton, and Riverside. This JPA was formed for both the Agua Mansa Enterprise Zone and the Industrial Corridor, although the City of Riverside is not party to the latter. The powers and responsibilities of the newly formed JPA are not completely identical to the recommendations contained in the Specific Plan.

Following is a discussion relating to the AMIGA JPA. The five jurisdictions have entered into a Joint Powers agreement which establishes the "Agua Mansa Industrial Growth Association" (AMIGA), which is a Joint Powers Authority (JPA) pursuant to the provisions of Article I, Chapter 5, Division 7, Title 1 of the Government Code of the State of California. The Joint Powers agreement is contained in the Appendix of this document.

As stated in the Agreement, AMIGA shall be a separate public agency established to coordinate, market, and administer economic development programs within the Enterprise Zone area. More precisely, AMIGA is charged to:

- a. Implement a joint marketing program for the Enterprise Zone's designated areas;
- b. Coordinate the development of a needs analysis to arrive at a comprehensive economic development plan and implementation strategy for designated Enterprise Zone areas;
- c. Assist in the coordination of the Parties implementing the Agua Mansa Industrial Corridor Specific Plan and E.I.R.;
- d. Act as a clearinghouse for small business assistance to aid start-up and business expansion efforts;
- e. Assist development of joint powers financing, inter-jurisdictional capital improvements, infrastructure improvements, and other uses, through various financial mechanisms;
- f. Serve as a one-stop assistance center for various development needs, services, jobs creation efforts, and other economic development incentives;
- g. Assist coordination and targeting of available federal, state, and local funds and development programs;
- h. Assist development of computerized economic information systems, establishing and/or utilizing data bases necessary for economic growth;
- i. Coordinate private sector input to financial programs, development programs, and other AMIGA projects;
- j. Perform such other functions as may be deemed necessary and appropriate to meet the objectives of the Enterprise Zone's areas.

The Joint Powers agreement established an Executive Committee, consisting of one member from the governing body of each jurisdiction. The Executive Committee conducts regular meetings and maintains a staffed office. AMIGA has the power to generate revenue bonds and to establish Mello-Roos Community Facilities Districts, but does not have eminent domain powers.

It should be noted that the JPA will not have control over local land use decisions. The individual agencies will retain all of their present powers in this area.

4.3.2 Rezoning and General Plan Amendments

Several minor conflicts originally existed between existing Zoning and General Plan designations and the Land Use Categories established by this Specific Plan. Each of the four local agencies has processed General Plan amendments and Zone changes where necessary to achieve 100 percent consistency. No conflicts remain at this time.

4.3.3 Phasing Concept

It should be noted that the phasing concepts developed are highly conceptual based on the possible sequence of infrastructural facilities extension. If services are fully extended to an area consistent with the overall plan, but inconsistent with the phasing scheme, development of such areas may still occur as long as the infrastructure is developed in a manner which will not constrain implementation of the remainder of the Plan.

A number of major blocks of land within the Agua Mansa Industrial Corridor will not be available for new industrial development within the foreseeable future. These "unavailable" land areas include the majority of land owned by the California Portland Cement Company and the Riverside Cement Company (Gifford-Hill) which will continue to be utilized for resource extraction purposes for the next several decades; and areas within the floodplain of the Santa Ana River which are mostly in current use for agricultural and equestrian purposes; and land areas which are already developed under a variety of uses such as the railroad classification yard along the freeway, the tank farm in the vicinity of Slover Avenue and Riverside Avenue, portions of the Butler Industrial Park in the southerly tip of the Corridor, the residential area along El Rivino Road, a few industrial park sites along Rancho Avenue, the wastewater treatment plant sites for the Cities of Colton and Rialto, and several other small industrial sites scattered throughout the project area. These uses occupy roughly 2,500 acres of the total project area of 4,285 acres.

The remaining 2,000± acres within the Agua Mansa Corridor is generally available for development within the foreseeable future. Some of this area is in a condition where near-term development is possible, while other portions of this area would not likely be developable until somewhat later when adequate infrastructure is constructed to support new development. The vast majority of developable land within the Agua Mansa Corridor is located generally within a wide belt of land running along both sides of Riverside Avenue from Slover Avenue to Agua Mansa Road, and within a belt of land southerly of Agua Mansa Road from Riverside Avenue to Market Street. Additional developable land area is available along the north side of Slover Avenue and along the west side of Rancho Avenue. Developable land areas as well as land areas that are not available for new development are shown on Figure 22.

Development Phasing

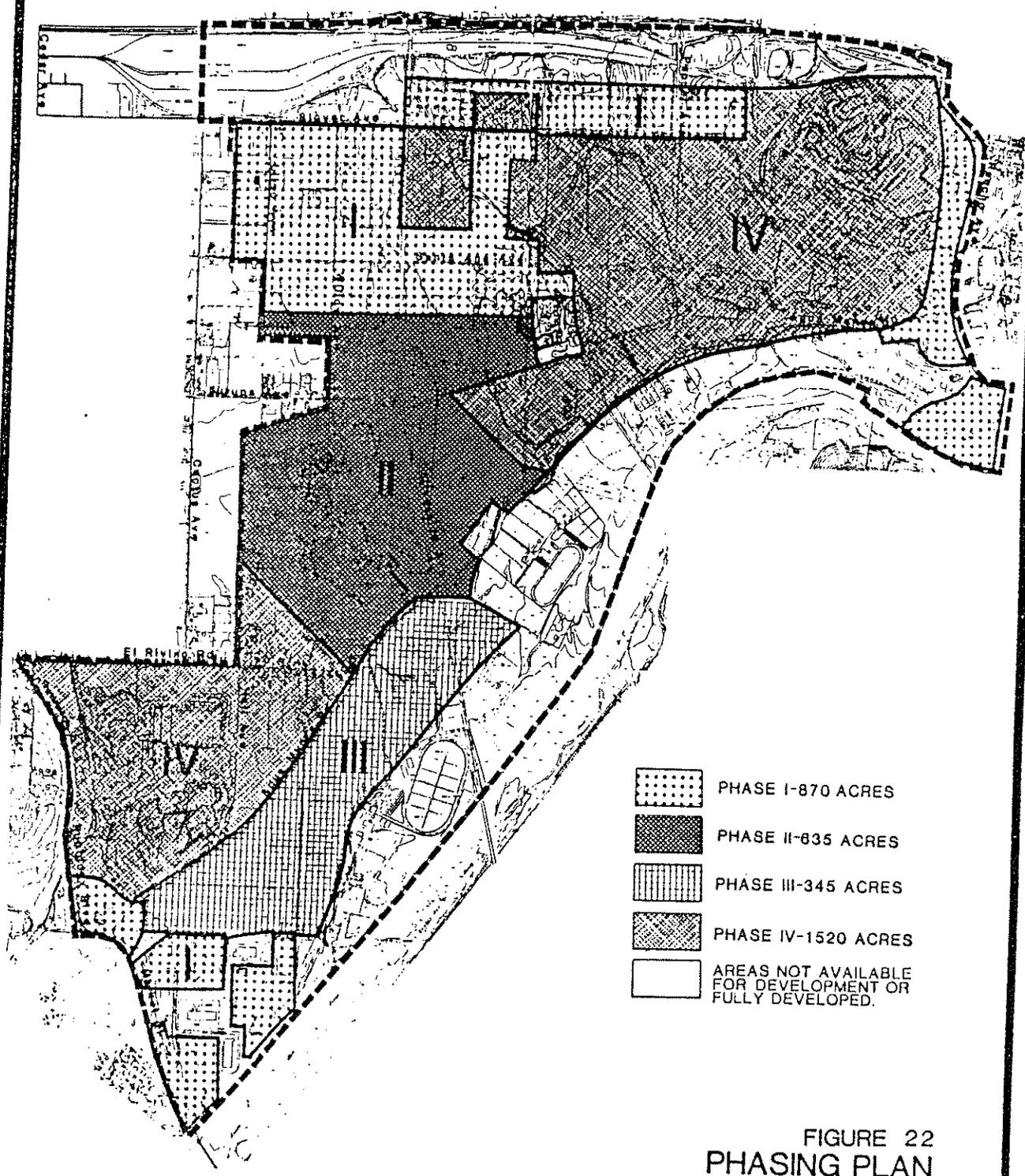
New industrial development within the Agua Mansa Corridor is expected to occur first in areas where existing infrastructure can support new development, and later in other areas as additional infrastructure is completed. Areas of the Corridor where adequate infrastructure exists to support near-term development includes the land belt along Riverside Avenue from Slover Avenue to south of Santa Ana Avenue, as well as various sites along the north side of Slover Avenue, the west side of Rancho Avenue and within the Butler Industrial Park (designated I on Figure 22). All of these areas presently have adequate water, sewer and roadway backbone facilities to support new development with relatively minor requirements for additional improvements needed for these systems. The single greatest infrastructure deficiency within these areas is the lack of adequate drainage facilities, a condition which generally applies to all of the developable land area within the Agua Mansa Corridor.

The land belt along Riverside Avenue from south of Santa Ana Avenue to Agua Mansa Road (designated II on Figure 22) is generally considered to have good near-term development potential, if the various infrastructure deficiencies are resolved. In addition to lacking adequate drainage facilities, this area is totally lacking in sewer facilities and needs additional water mains to support development in most portions of the area except in the immediate vicinity of Riverside Avenue. Also, the Owl Rock property (230 acres) located within this area would require extensive grading work in order to make the site suitable for development.

The land belt along the south side of Agua Mansa Road from Riverside Avenue to the Butler Industrial Park (designated III on Figure 22) is considered to have good development potential, but is probably not likely to develop prior to Areas I and II due to greater infrastructure deficiencies and the desire expressed by Riverside Cement Company (Gifford-Hill) to maintain a portion of their vacant property within this area as a buffer area. This area is totally lacking in drainage, sewer and water facilities.

Land areas designated IV on Figure 22 include properties with existing uses that may be available for new industrial development at some time in the relatively distant future. These include most of the California Portland Cement Construction Company property, the tank farm and the residential area along El Rivino Road.

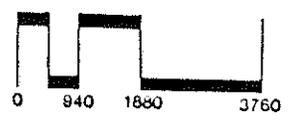
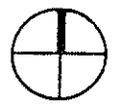
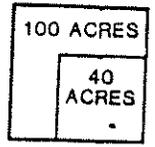
Following is a tabular summary of the anticipated phasing schedule. It should be noted that this schedule is at this time a rough estimate based on potential land availability and the anticipated completion of infrastructure facilities in the Agua Mansa Corridor. The phasing schedule is not predicated directly on the identified market absorption



-  PHASE I-870 ACRES
-  PHASE II-635 ACRES
-  PHASE III-345 ACRES
-  PHASE IV-1520 ACRES
-  AREAS NOT AVAILABLE FOR DEVELOPMENT OR FULLY DEVELOPED.

FIGURE 22
PHASING PLAN

 **WILLDAN ASSOCIATES**
ENGINEERS AND PLANNERS
IN ASSOCIATION WITH
DENNIS HANSBERGER & ASSOCIATES
AND
WILLIAMS-KUEBELBECK AND ASSOCIATES



AGUA MANSA INDUSTRIAL CORRIDOR

rate, but rather on the estimates of the Planning team and Technical Advisory Committee based on the locational and physical competitive advantages of the Agua Mansa area. Table 16 presents the anticipated development based on industrial designations.

TABLE 16
PROJECTED DEVELOPMENT PHASING/
LAND ABSORPTION
AGUA MANSA INDUSTRIAL CORRIDOR

Phase	Anticipated Buildout	No. Acres	No. Acres Heavy Industrial	No. Acres Medium Industrial	No. Acres Industrial Park	No. Acres Projected/Year
I	1990	740	548	62	130	148
II	1995	618	469	149	---	124
III	2000	393	339	54	---	79
IV	Beyond 2000	1,520	1,520	---	---	N/A
TOTAL		3,271	2,876	265	130	

Source: Willdan Associates, January 1985.

Table 17, which follows, provides a breakdown of acreages of industrial development by phase and by jurisdiction.

TABLE 17
PROJECTED DEVELOPMENT PHASING/
LAND ABSORPTION BY JURISDICTION
AGUA MANSA INDUSTRIAL CORRIDOR

Phase	Anticipated Buildout	No. Acres Total	No. Acres S. B. Co.	No. Acres Riv. Co.	No. Acres Colton	No. Acres Rialto
I	1990	740	0	130	290	320
II	1995	618	38	0	15	565
III	2000	393	268	125	0	0
IV	Beyond 2000	1,520	620	395	360	145
Total		3,271	926	650	665	1,030

Source: Willdan Associates, January 1985.

It should be noted that any detailed financing plans developed will be based on a more detailed implementation schedule.

Infrastructure Phasing

The phasing of infrastructure improvements for the Agua Mansa Corridor is discussed in the following paragraphs, including a review of the circulation, drainage, water and sewer facilities needed to support development within the Corridor. The phasing of certain infrastructure improvements is oftentimes determined by the nature of the system itself, such as drainage and sewer systems which generally require that downstream trunk facilities be constructed prior to the construction of upstream lateral lines. Other infrastructure facilities can often be phased in conjunction with the timing or phasing of development, such as street and water improvements.

An attempt has been made to identify the major infrastructure improvements that are required to support development within Areas I, II, III and IV. In addition to identifying the specific facilities, the costs of the various facilities required to support development within these areas has been evaluated (See Appendix A). For Development Area IV, major infrastructure facilities are generally shown only on the perimeter of these large sites with very little shown in the interior of the site. It is likely that additional infrastructure will ultimately be required to support new development within these areas. However, no attempt has been made to evaluate the costs of facilities required for the interior portions of Development Area IV since the timing of new development within these areas is most likely so far in the future that present day cost estimates would be meaningless. Also, the uncertain future development patterns within these large land areas makes it very difficult to identify future infrastructure requirements with much degree of accuracy.

It should be noted that the phasing of infrastructure facilities shown in Appendix A is intended only as a general guideline based on the assumption that new development within the Agua Mansa Corridor will generally occur from north to south within the land belts along Riverside Avenue and Agua Mansa Road, as described earlier. If development projects or patterns differ from the assumed sequence, then infrastructure improvements should be phased in a way that will support the actual development condition. Also, the priority given to certain infrastructure improvements may not necessarily always conform to the order of assumed phasing of new development. Some facilities associated with later phases of development could have a higher construction priority because they may be more important in terms of providing support to development of large land areas when compared with facilities required to support development of smaller areas. An example of this would be the proposed sewer lines in Agua Mansa Road and Riverside Avenue which are considered the highest priority sewer system improvements because they would provide sewer service to Areas II and III where no sewer lines presently exist. This would enable near-term development to occur on various sites in Areas II and III (particularly along Riverside Avenue and Agua Mansa Road) even though Area I is considered the area where widespread development will occur first.

It should also be noted that a number of infrastructure facilities shown for construction in early phases are also needed to support later phases of development. For example, to provide adequate drainage facilities for the northerly portions of the Corridor where development is assumed to occur first (Area I), it is necessary to construct mainline facilities through Areas II and III to the Santa Ana River to provide an outlet for the upstream lateral drains. While the initial large cost of constructing these facilities is required to serve the upstream areas, the downstream areas which may develop at a later date also benefit from this work. Therefore, there is not a direct relationship between the costs of certain infrastructure improvements shown for various development areas with the benefits provided for those areas since the benefits of these improvements may also apply to other areas.

A detailed breakdown of each type of infrastructure facility and the costs associated therewith are presented in Appendix A.

4.3.4 Financing Options

Several alternative financing methods appear to be appropriate for implementation within the Agua Mansa Industrial Corridor. A discussion of these measures as well as the potential positive and negative considerations related thereto follows.

1. Redevelopment Agency

The formulation of a multi-jurisdictional Redevelopment Agency through a Joint Powers Agreement involving the four local jurisdictions would facilitate the existence of a strong centralized authority with substantial flexibility in respect to financing mechanisms and development administration. The multi-jurisdictional approach to the formulation of a Redevelopment Agency, Project Area and Redevelopment Plan as well as the actual execution of the program is authorized by California Government Code Sections 33210 through 33213.

A Redevelopment Agency has great flexibility in implementing its Plans. Some of the most commonly utilized Redevelopment Agency financing tools include:

A. Tax Increment Financing

Tax increment financing is the primary funding tool available in redevelopment project areas. However, the reduction in property tax rates resulting from Proposition 13 has somewhat limited the funds this technique can generate from development which occurred prior to Proposition 13 and has not changed ownership. Nevertheless, tax increment financing remains as the most used method. Tax increment financing can be used to reduce such development costs as land assembly, relocation of existing structures and households, site improvements and public facilities, and especially infrastructure.

Briefly, tax increment financing functions as follows:

- When a redevelopment project area is created, the total amount of property tax collected the previous year is established as the "base" amount.
- As new facilities are constructed and existing facilities appreciate, property values and consequently tax revenues increase. The amount of annual property tax revenues collected in excess of the base amount is the tax increment and these revenues accrue to the Redevelopment Agency. The various taxing districts continue to receive the base amount, although school districts are reimbursed for tax revenue losses by the State of California.
- The Redevelopment Agency can use the increment funds to cover the debt service on tax exempt bonds which the Agency can issue to finance capital improvements in project areas. Tax increment financing has been used extensively throughout California.

B. General Obligation and Other Bonds

A Redevelopment Agency may issue and sell general obligation bonds for the purpose of raising revenue. The Agency has the power to determine what types of bonds may be issued and how the principle and interest on such bonds are to be repaid, including the following methods:

1. Exclusively from the income and revenues of the redevelopment projects financed with the proceeds of the bonds, or with such proceeds together with financial assistance from the State or Federal Government in aid of the projects.
2. Exclusively from the income and revenues of certain designated redevelopment projects whether or not they were financed, in whole or in part, with the proceeds of the bonds.
3. In whole or in part from tax increment allocated to, and paid into a special fund of, the Agency.
4. In whole or in part from sales and use taxes which are pledged therefore.
5. From its revenues generally.
6. From any contributions or other financial assistance, State or Federal Government.
7. By any combination of these methods.

C. Other Loans and Grants

Any other loans, grants, or other financial assistance from the Federal or State Governments or from other public and private sources may be utilized by the Agency as available. Federal Community Development Block Grant (CDBG) funds may also be used by the Agency.

D. Sales and Use Tax Financing

The Agency may adopt a sales and use tax ordinance pursuant to the applicable provisions of the California Revenue and Taxation Code; imposing a tax for the privilege of selling tangible personal property at retail upon every retailer in the Project Area, which taxes shall be pledged towards the payment of principal and interest on bonds issued by the Agency. In accordance with the applicable provisions of law, the rate of tax imposed shall be at a rate of one percent or less, with specific exemptions. The rate of tax imposed by the ordinance shall not exceed the rate of tax imposed by the local agency's sales and use tax ordinance.

A Redevelopment Agency, pursuant to State law, is formed for the purpose of eliminating or alleviating conditions of blight which exist within its adopted project area, to strive for economic revitalization and beautification, and to mitigate the negative social, physical, and environmental impacts resulting from existing and anticipated development or deterioration in the project area through any one or combination of the following activities:

1. The acquisition of real property by purchase, gift, devise, or any other lawful interest, or by exercising the power of eminent domain, where it is deemed necessary.
2. The combining of parcels or properties, site preparation, and the construction of necessary off-site improvements.
3. Providing for owner participation in the redevelopment of property in the Project Area.
4. Extending reasonable preference to persons who are engaged in businesses in the Project Area to reenter businesses within the Project Area.
5. The redevelopment of land by private enterprise or public agencies for use in accordance with the Redevelopment Plan.
6. Providing for open space and recreational land use.

7. Encouraging public and private improvements so as to prevent, mitigate, or eliminate existing and/or anticipated blight conditions in the Project Area.
8. The disposition of property including the lease or sale of land at a value determined by the Agency for reuse in accordance with a Plan and under all the conditions contained within it.
9. Providing relocation assistance to displaced residential and non-residential occupants (if any).
10. Demolition or removal of certain existing buildings and improvements on land acquired by the Agency.
11. The demolition, removal, rehabilitation, alteration, modernization, general improvements, or any combination thereof, of existing structures in the Project Area where such are permitted or required under the Redevelopment Plan.
12. The vacation or closing of certain street areas and dedication of other areas for public street purposes.
13. The preparation, by the Agency, of acquired land for building sites. In connection therewith, the Agency may cause streets, bikeways, and pedestrian ways to be designed, installed, constructed, or reconstructed; may cause sidewalks, curbs, and public utilities to be constructed and installed; and may cause landscaping and other on-site and off-site improvements to be completed in conformity with the Redevelopment Plan.
14. Provide for the use of twenty percent (20%) of tax increment resulting from the Project Area to be used for the purpose of increasing and improving the community's supply of housing for persons and families of low or moderate income.
15. Provide replacement housing for dwelling units of families of low and moderate income destroyed or removed within the Project Area.
16. Negotiate arrangements with taxing jurisdictions to alleviate any financial burden or detriment caused to the taxing entity as a result of the adoption of the Redevelopment Plan.

There are several potential negative factors associated with the use of redevelopment in the Agua Mansa Industrial Corridor. These include:

1. AB 322 - Urbanized Character of Project Area

AB 322 was recently passed by the State of California to amend the State's Redevelopment Law, specifically in regard to the required urbanized character of a project area. To qualify as an urban area, the following characteristics must apply:

- Not less than 80 percent of the privately owned property in the project area has been or is developed for urban uses;
- The area must meet the conditions described in Subdivision (a) or (b) of Section 33032 (which defines the characteristics of blight); or
- The project area is an integral part of an area developed for urban uses.

It is believed that the findings of blight can indeed be made within the Agua Mansa Corridor due to a lack of appropriate infrastructure and the presence of land deformed through surface mining as well as general conditions of visual blight and structural deficiencies.

The definition of what constitutes "urbanized land" is extremely vague and subject to considerable debate among experts, with a general agreement that no clear definition will be known until the issue is tested in the courts. It is, at this point, conceivable that mined out properties can qualify as urbanized. In any event, project area boundaries could be adjusted to accommodate the appropriate mix of urbanized land.

2. Feasibility/Financial Viability of Redevelopment

In order to ascertain whether redevelopment is truly feasible in the Agua Mansa Corridor, a Redevelopment Feasibility Study would have to be conducted. Such an analysis would examine the characteristics listed above as well as the projected financial viability of a redevelopment project. In addition, the institutional, legal and political acceptability of redevelopment in this area would need to be evaluated as would the potential acceptance by the participating agencies, taxing agencies and property owners.

3. Loss of Revenue to Taxing Agencies

Redevelopment typically includes tax increment financing as the integral financing tool. The freezing of the tax base necessary for this process prevents special taxing agencies and districts from receiving any tax revenues beyond the frozen base amount which is generated by appreciating facilities and new development. As a result, the special taxing agencies and districts are frequently opposed to this concept and must be dealt with through the fiscal review process. In the case of school districts the State maintains a supplementary reimbursement fund to provide relief from lost tax revenues due to redevelopment. No such relief is available for other taxing agencies, however, the Redevelopment Agency may provide funds to certain agencies via "pass-through" agreements.

It should be noted that, in the case of the Agua Mansa corridor, a Redevelopment Agency could spur the construction of master planned facilities within the project area at no expense to the respective special districts or agencies.

2. Assessment Districts *

The formation of assessment districts for the development of infrastructure is authorized by the Municipal Improvement Acts of 1911 and 1913, and the Improvement Bond Act of 1915. In general terms, assessment district financing provides a means to apportion the cost of a public improvement among those landowners who will benefit from the improvements.

A. General Description

More precisely, assessment district financing is a method of funding public improvements by issuing bonds which are then repaid with revenue generated by assessing those who will most directly benefit from the improvements. Assessment district financing is available to Cities, Counties, and special districts, such as sewer, water, or lighting districts. Redevelopment agencies are also becoming increasingly active in the use of bonds for funding. The agency, whether City, County or special district, is authorized by law and is responsible for the sale of the bonds and the execution of the improvements.

* This discussion is based on the following publications:

- 1) Current Procedures and Practices in Assessment Financing and Engineering, William Stookey, Willdan Associates, September 1982.
- 2) Assessment District Financing, Psomas and Associates, 1984.

The agency or municipality forms an assessment district that consists of all the properties that will receive the benefits of the improvement and which will be assessed for its costs. In addition to the agency, several individuals are involved in the formation of the assessment district, including legal counsel, an assessment engineer, and a bond writer.

The assessment district bonds are sold to a bond underwriter at a discounted rate. The bond underwriter then sells the bonds on the bond market at the fluctuating rates of the money market. The underwriter generally looks for equity in the project of two to three times the bond amount, to provide a surety for the bonds. The ceiling interest rate for bonds is established by law, and was 12% in 1984, with a twenty year maturity schedule. Since money market rates are variable, some economic climates are better than others, and the state of the market is important in timing the bond issue.

There are three types of bond financing available to assessment districts depending on the legislation used to issue the bonds: 1911, 1913, or 1915. The 1911 Legislation allows the developer/contractor to estimate and complete the project then sell it to the assessment district which acquires it using the funds generated by the bond issue. The contractor is paid after work is completed. Due to recent fluctuations in the money market, bond underwriters are reluctant to accept bonds under the 1911 Act. The delay between the time the underwriter bids on the bonds and the time the bonds are actually issued following construction may be as long as two years. The money market can change substantially during that time, reducing the underwriter's final sale price. This method also places a financial burden on the developer/contractor, since they must provide interim financing for the project.

The 1913 Legislation allows agencies to sell bonds in advance of construction, so that the progress payments can be made during the project. This method allows more competitive selection of contractors, and a quick sale of the bond issue. When bond underwriters are dealing with known market conditions, they also tend to be less conservative in the rates they will pay the agency.

The 1915 Legislation is used most often when the assessment district contains parcels that will be subdivided, because it includes favorable collection procedures that protect the agency in case of default by the assessed parcels. In the past, the 1915 Act made the agency itself liable for default by owners assessed by the district. As a result, many municipalities passed ordinances forbidding the use of the 1915 Act for development projects. The California Tax Initiative disallowed this liability as a special form of taxation, and most municipalities have repealed their restrictive ordinances.

New legislation allows the district to create a reserve fund to protect the municipality in case of delinquencies. The district may also use a quick (90-150 day) judicial foreclosure proceeding against those who are delinquent in paying the assessment included with their tax bill. This has encouraged developers to keep their taxes current, and makes the 1915 Act a more attractive vehicle for issuing assessment district bonds.

This choice of bond legislation gives the agency flexibility to be more innovative in their use of assessment district financing. For example, the agency can allow a developer to grade roadbeds along with other development project grading, to allow cost efficiency and better overall project coordination. The agency then acquires and finishes the roads themselves. In districts with multiple developers, staged construction can be financed by issuing bonds in series.

However, because the current bond market is favorable and bond interest rates have steadily increased over the past few years, bond underwriters recommend that bonds be issued as soon as possible, and all at once, rather than in series, to take advantage of today's market conditions.

B. Steps Required for Assessment District Formation

An assessment district is formed by an agency (City, County or Special Group) in response to a petition submitted to it. An attorney develops the petition, which includes the signatures of the owners to be included in the proposed assessment district. The attorney also drafts the project documents and evaluates the spread of the assessment submitted by the assessment engineer.

Design engineering is the most time consuming part of forming the assessment district. The project must be designed and submitted to the agency. Plans and specifications must be approved. This process is the same as for standard plans, except that the portions of the project to be funded by the assessment district must be identified on the title sheet and on the plans themselves. Construction bids must be obtained, and costs estimated as accurately as possible. The assessment spread must be determined and the funding amount established before the bond underwriters are approached.

Once the plans and specifications are approved, the assessment engineer prepares a report. The engineer's report lists the work to be done, the cost estimates, descriptive information about the property to be assessed, and shows a map of the property to be assessed. Upon approval of the engineer's report by the municipality, the agency solicits construction bids.

The bond underwriters subsequently reviews the engineer's estimates and decides whether to submit a proposal to the agency. A bond underwriter can generally decide within a week whether or not to fund the project. Once the agency accepts the underwriter's proposal, it schedules a public hearing and prepares a final engineer's report. This report contains the actual costs and how those assessment costs will be spread among the property owners. After the assessment spread is confirmed by the agency at a hearing, the collection of assessments will begin. If there are multiple property owners, a cash collection period of thirty days is allowed for owners to pay their assessment bills without interest. The thirty day collection period may be waived if there are only one or two owners involved.

After the cash collection period, the bonds to be issued are printed. The bond underwriter will, at this time, deliver the funds, which have been collected from bond buyers, to the agency in exchange for the bonds. At this point, the agency authorizes the contractor to begin the work.

C. Methodology for Spreading of the Assessment

Assessment district financing may only be used to fund projects with direct local benefit to identifiable parcels. The property owners are assessed according to the amount of benefit they will receive from the improvement. The assessment engineer determines the assessment spread.

The project must have local benefit rather than general benefit. A local park would qualify; a regional park would not. Thus, the intended use of the improvement must be considered, along with present zoning and the probable future use of the property to be assessed.

When considering use, the engineer forecasts the highest probable use, and does not exempt parcels due to "special voluntary use" of current owners. For example, in assessing for sanitary sewers, the engineer does not exempt agricultural uses, but considers all parcels as though they were developed to the highest and best use. This principle has been repeatedly upheld by the courts.

The formula used to determine each parcel's assessment must also be fair and equitable. While traditional measures like front footage for street work and acreage for storm drains are valid, the engineer also must actually visit the site and understand the parcels. For example, apartments or condominiums, as compared with single-family residences, are assessed on usage basis for water and sewer lines, which takes into account these units' higher density zoning. An access road is assessed higher to those without previous street frontage, not all adjacent parcels alike.

Further, the values used must not be arbitrary, but must have some foundation that justifies the spread. Zoning and usage provide a way to establish the figures used. While computer is useful, there is often some unique circumstance that makes it essential for the engineer to visit the parcels and understand the property so that the spread can be justified.

D. Boundaries of Assessment Districts

The basic rule of an assessment district is "all benefitted properties must be assessed and all properties assessed must be benefitted". This is the rule that determines the boundaries of an assessment district. Generally, reimbursement agreements are not proper instruments to be utilized by assessment districts since their very nature implies that certain properties are being benefitted and not being assessed. Often, various conditions necessitate the presetting of boundaries, in which case, the assessment engineer must be involved in the determination of just what improvements are to be constructed that are to be fully assessed within those boundaries.

In the case of developer assessment districts, the fact that the public agency has imposed certain conditions upon the development is not, in itself, conclusive that all costs for such conditions be assessed to the development since public agencies sometimes exceed in their development requirements that which may be assessed to the property by assessment proceedings or often impose requirements which are subject to reimbursement.

The boundaries of the political jurisdiction conducting the proceedings automatically limit the boundaries of the assessment district unless consent and jurisdiction can be obtained from the other political jurisdictions. Boundaries need be neither contiguous nor homogenous, yet efforts should be made to minimize such conditions. In the case of the Agua Mansa Corridor a cooperative agreement could be developed by the local agencies.

Where a single parcel is only partially benefitted by the improvements proposed, the entire parcel should be included in the assessment district boundaries and the reasons for partial benefit set forth in the engineer's report. To draw the boundary along the line of benefit in such instance could indirectly result in division of property for the purpose of financing which is in conflict with the State Subdivision Map Act.

Non-assessable properties should be recognized as such and their exclusion from the boundaries at least considered. Non-assessable properties include such parcels as State and

Federal properties, cemeteries and, under current conditions, political subdivisions of the State of California. The latter are permitted to be assessed by current statutes, but the passage of Proposition 13 eliminated a clear cut means by which these political subdivisions can raise the funds to pay their assessments. Consequently, the assessment district bond counsel is not likely to give an unqualified opinion on such bonds, thus making the bonds unsalable.

Often, the spread formula justifiably relieves from assessment certain properties which would otherwise form a geometric boundary of benefit. These excluded properties would not receive notices, thus simplifying the public relations aspects of the process.

In summary, assessment district financing is a viable tool for the construction of public improvements within the Agua Mansa Industrial Corridor. As with most other financing methods which are applicable and are intended for use beyond jurisdictional boundaries, a substantial degree of cooperation will be required between the various local agencies.

There are two broad categories by which assessment districts are initiated. The first is by public agencies, either on their own initiative, or in response to property owners' petitions or public deficiencies. The second category is by one or more developers, seeking to meet a portion of their improvement requirements by the assessment district process. The former category often entails considerably more involvement by the public agency than does the latter. In any event, the support of the property owners within the proposed boundaries is critical.

3. Mello - Roos Community Facilities Act of 1982

This act allows the formation of a Community Facilities District by a City, County, School District, or Special District for the purpose of providing certain services and facilities in developing areas and areas undergoing rehabilitation.

A Community Facilities District may be established by a local legislative body upon the receipt of a written request from two members of the legislative body or by a petition submitted by not less than 10 percent of the registered voters within a proposed District. The petition or request from legislators must describe the proposed boundaries and must state the types of facilities to be provided within the service area.

A public hearing is held subsequent to the adoption of a resolution of intent to form a District by the legislative body. If written protests are filed by more than 50 percent of the registered voters, the proposed District formation must be abandoned.

Upon formation of the District, if a special tax levy is to be instituted, the matter must be put to a public vote with a two-thirds voter approval required to approve the tax. If there are fewer than twelve registered voters in the area, the vote is conducted based on land area (votes are weighted depending on the size of landownerships).

This tax levy may be utilized to actually construct facilities or to secure bonds for the construction of public facilities within the District.

As with other financing mechanisms, a Joint Powers Agency would be necessary to administer the infrastructure program for the entire Corridor rather than portions controlled by one single agency. This approach would have the positive aspect of being able to address numerous types of public facilities within a single administrative framework. On the negative side, the financing mechanisms stipulated by the legislation are limited to special tax levies and bond issues. In addition, unless boundaries are drawn to exclude residential areas within the Agua Mansa Corridor, residents would have the power to defeat a proposal even though the proposal would be intended primarily to develop facilities for industrial development.

4. Special Fee Districts

Special fee districts are frequently established by local agencies to address specific infrastructural needs such as sewer, water or drainage. In most instances fees are collected upon the development of land within the fee district, based on a master plan for the specific facility. Such fees are usually exacted on per acre basis.

This type of approach works well in a situation where short-term deficiencies are limited and the amassing of funds over an extended period is acceptable, with the intent of making major improvements in the long term. This type of mechanism would not be especially efficient within the Agua Mansa Corridor where numerous costly short-term, up-front improvements are necessary prior to extensive development. This is particularly true with regard to correcting deficiencies in the drainage and sewerage systems within the Corridor.

5. Industrial Development Bonds (IDB's)

Recent legislation in California has empowered all cities and counties in the State to issue Industrial Development Bonds (IDB's). IDB's are used to attract private industry by granting the private firm a tax break.

A. The Issuing Body

The California Industrial Development Financing Act (AB 74) creates within each City and County a public body called an Industrial Development Authority ("Authority"). An Authority can be activated by ordinance of the City Council/Board of Supervisors (the "governing body"). Each Authority must be governed by a Board of Directors of not less than three members, nor more than the number on the governing body. The sole function of an Authority is to issue bonds to assist financing of eligible projects. The Act contains various general provisions setting forth the powers of an Authority to accomplish these purposes. In general, the nature and functioning of these authorities should be similar to that of other limited-purpose local agencies created by State law, such as redevelopment agencies, parking authorities or housing authorities. Unlike these other agencies, however, Industrial Development Authorities are expected to function purely as conduit financing vehicles with no management or other responsibilities with respect to the projects financed and consequently no need for substantial staff time or operating expense.

As with these other entities, the governing body may declare itself to be the Board of Directors of the Authority, or else it may appoint other individuals to be the directors. Appointed directors have three-year, staggered terms. The jurisdiction of an Authority is coextensive with the area of the local government unit which activated the Authority.

B. How Authorities Assist Local Industry

The technique by which an Authority will aid a local industry is generally as follows. Once an appropriate project has been selected and all the procedural requirements have been met, the Authority proceeds to issue its bonds. (The term "bonds" also includes notes or any other authorized form of obligation). Bond proceeds will be deposited by the Authority into a Construction fund held by the trustee, or some other escrowed account, and the private company will draw down these funds as needed to pay for its project.

Simultaneously with the issuance of the bonds, the Authority and the company enter into a financing contract. Most often this will be a loan agreement, but may also be an installment sale agreement or a "full-payout" lease. The loan agreement covers, among other things, the following areas:

1. The loan of bond proceeds by the Authority to the company;

2. an unconditional promise (without allowance for any offsets or defenses) by the company to repay the loan by making payments sufficient to pay the principal of, premium, if any, and interest on the Authority's bonds, as they become due;
3. provisions to pay fees or costs of the trustee and the Authority, and to maintain any required reserves;
4. the promise of the company to build the project as planned and approved, and to maintain and use it;
5. any financial covenants, security agreements or other terms desired by the lender or underwriter to secure the bonds (the security may include a mortgage, a deed of trust, a guarantee, or other security arrangements outside the terms of the loan agreement itself); and
6. remedies on default.

At the bond closing, the Authority assigns to the trustee or the bondholder all of its rights and interest in the loan agreement and in any deed of trust or other security. The company makes its loan repayments directly to the trustee or bondholder. The Authority's role is purely to act as a conduit to provide for the tax exemption on the bonds, and after bond delivery, the Authority will have virtually no involvement with the bonds, the project or the company. Thus the bonds are limited, special obligations of the Authority, payable solely from the payments made by the company under the loan agreement, and from enforcement of any security interests. Neither the Authority nor any entity of government is required to make any payment on the bonds from any taxes, other revenues or other funds. The issuance of these bonds will not affect," or be affected by, the credit rating of the Authority's "parent governmental unit.

C. Types of Project Eligible for Financing

The Act authorizes issuance of bonds only to assist projects falling within the following two categories:

1. Industrial project, including, without limitation, assembling, fabricating, manufacturing or processing of any products of agriculture, forestry, mining or manufacture; or
2. Project for energy development, production collection, conversion, storage, or conservation, or for transmission, transportation or conveyance (but not distribution) of energy.

By reason of exclusion from the above two categories, many types of projects are not eligible for financing, including (without being comprehensive): commercial facilities, shopping centers, retail stores, offices, medical facilities, warehouses, hotels, restaurants, transportation facilities, pollution control facilities (unless part of a larger, eligible industrial plant or energy project) and industrial park land development.

The Act also limits the amount of bonds which may be issued for any eligible project to \$10 million. Limitations arising from Federal tax laws generally make it impossible to use this type of bond to pay \$10 million of the costs of a larger industrial plant or energy project whose total cost exceeds \$10 million. Therefore, in practice, the project must both fall within one of the two categories stated above, and have a total cost of less than \$10 million (in some cases, substantially less). There is, however, a related Federal tax provision which would allow issuance of up to \$1 million of bonds to finance costs of a project whose total cost exceeds \$10 million.

Assuming the project is of a permitted type, and falls within the allowable cost limits, the Act allows use of bond proceeds to pay for virtually all costs incurred by the company for the project, including: land and any interests in property; buildings; fixtures; machinery, equipment, and furnishings; landscaping; all costs for architects, engineers, surveyors, attorneys, permits, and other incidental costs; and all costs of the financing and issuance of the bonds. An eligible project can be for construction of a new plant, expansion of an existing plant, or acquisition, rehabilitation or replacement of part or all of an existing plant or its equipment.

D. Procedures for Completing Financing

The following is a summary of the major steps which must be followed to comply with the Act.

1. A company files an application for financial assistance to the Authority. At a minimum, the application will contain a description and cost estimate of the project, a summary of the financing program for the project, and information about the company. An application fee must be paid to the Authority, of not less than \$1,250 or more than 1/4 of 1 percent of the bonds requested.
2. The Authority must make a series of findings to allow the financing to proceed, including finding that the project is eligible under and in accord with the purposes of the Act, and finding that it is likely that the project will secure or increase employment or local payrolls, reduce prices or increase the quality of products to consumers, or result in savings or better utilization of energy or materials.

3. Following the Authority's approval of the project, a copy of the company's application and other data is filed with the City or County, and a brief notice is published once in a local newspaper. The notice will identify the company, briefly summarize the project, and the amount of bonds sought, and state that the company's application has been filed with the City or County.
4. Within 45 days after the publication, the City or County must act to approve or disapprove the company's financing proposal. The approval may contain conditions, which are then binding on the Authority. Notice of the approval is sent back to the Authority.
5. Issuance of the bonds must then be approved by the California Industrial Development Financing Advisory Commission, a body created by this Act. The Commission consists of five ex-officio members, chaired by the State Treasurer; the others are the State Controller, the Director of Finance, the Director of Economic and Business Development, and the Commissioner of Corporations. The Treasurer's office provides staff and assistance to the Commission.
6. The Commission establishes rules and guidelines for its actions. It prescribes the type of information which an Authority must submit with respect to each bond financing. The Act also states that the Commission shall charge a fee to the Authority to review any application. By reason of its role under this Act, and its ability to establish certain uniform rules, the Commission may well be able to set substantive standards, and affect procedures of Authorities, relating to industrial development financing.
7. Upon receiving an application from an Authority, the Commission has 60 days to approve or disapprove the bonds. (If the Commission fails to act within 60 days, the findings must be made by the Authority.) The Commission must make findings on the following subjects:
 - a. That the public benefits exceed any detriments;
 - b. that the project will not result in relocation from one area in the state to another or abandonment of any substantial operations of the company, or else that completion of the project is necessary to prevent the relocation of any substantial operations of the company out of state; and
 - c. that the bonds will be adequately secured, that the proposed issuance of the bonds will be "fair, just and equitable," and that there will be no fraud on purchasers of the bonds.

The credit review functions noted in Subsection (c) are reflected in a requirement that the Commission "qualify" each issue of bonds before it is sold. This concept of qualification has close analogy to the registration of corporate securities under the Corporate Securities Law of 1968. The Commission may impose conditions on the bond sale in order to allow qualification, including the imposition of restrictions of transfer of the bonds. At any time prior to bond delivery, the Commission may suspend any qualification previously given; procedures are set out for a notice and hearing in such a case.

8. The final step in the process, after Commission approval, will be the adoption of a final bond resolution by the Authority. This will authorize the terms of the bonds and the execution of final legal documents.

E. Terms of Financing of Other Provisions

The Act allows the bonds to be sold at public or private sale. Because the credit behind the bonds is that of the private company, the marketing and placement of these bonds will be done very similarly to other corporate debt, rather than traditional municipal debt. It can be expected that bonds will be sold almost exclusively on a negotiated basis. In most cases, the bonds will not be underwritten for public sale, but will be privately placed with institutional investors. In many of these cases, a bank will buy the bonds directly (without any underwriter) and treat the transaction as a loan to its corporate customer.

The Act has certain limits on the terms of bonds. The maximum coupon interest rate is 10% (which would make most such bonds unmarketable under current conditions, except for shorter terms). There is a maximum discount of 5% on the sale of bonds (to limit the yield) and a maximum term of the bonds of 40 years. The Act authorizes refunding of outstanding bonds.

One further limitation in the Act is that it sets an aggregate ceiling of \$200 million on all bonds issued by all authorities throughout the State. Each local authority receives an allocation which it may not exceed.

The Act provides that bonds are exempt from property taxation, and interest on bonds is exempt from all State of Local taxes on income. Property and facilities financed with bonds are not exempt from taxation assessments or other applicable charges.

One final provision of interest in the Act concerns its interaction with charter cities, which may have power under their charters to issue revenue bonds to assist local private industry. The Act declares that it is to be the exclusive method of financing for projects covered by the Act (e.g., industrial and energy project), thereby precluding charter cities from financing such projects. However, the Act has a generous "transition rule" which allows charter cities to finance industrial or energy projects under their own procedures, provided the City adopted a resolution of intent with respect to any such projects by January 1, 1982 and issued the bonds by January 1, 1984. The Act was intended to have no effect on the ability of charter cities to finance commercial or other projects which are ineligible for financing by Authorities.

This program cannot remedy the overall infrastructural deficiencies present within the Agua Mansa Corridor. Rather, this method is intended to facilitate the location of specific industrial developments in a given locality and to finance only the infrastructure necessary for the one-time development.

There is no real need to administer this type of program from a Joint Powers Agency within the Agua Mansa Industrial Corridor because it cannot provide area-wide benefits. However, each of the four localities should consider using this program to assist specific industrial developments.

6. Community Development Block Grant (CDBG) Funds

Federal CDBG funds can be used on a limited basis to further the objectives of the Agua Mansa Industrial Corridor. Economic Development Loans may be granted to individual users while other funds may be used to finance planning studies such as this particular study.

CDBG funds can also be used for job training. This could be valuable in training local low and moderate income individuals to assume positions in the project area.

It is highly unlikely that CDBG funds could be used to finance a significant portion of the required physical improvements in the Corridor, largely due to the presently limited Federal funding for this program as well as potential future cuts. That, however, is not to say that CDBG funds cannot be used to provide funds for limited projects within the Corridor.

7. Enterprise Zones

The State of California enacted two enterprise zone bills in 1984, authorizing program, tax and regulatory incentives to encourage local business development within selected areas. Both the

Enterprise Zone Act (AB 40, Nolan) and the Employment and Economic Incentives Act (AB 514, Waters) describe a process to determine eligible areas, consider local applications, invite final applications and implement tax and regulatory incentives. The two bills differ in both eligibility standards and program content. The Agua Mansa project area is not eligible under the latter act and is not considered viable for implementation.

The Agua Mansa Industrial Corridor is included in a larger area recently approved by the State for Enterprise Zone designation under the Nolan legislation. The larger area involves the four agencies included in this Specific Plan as well as the City of Riverside.

The joint proposal showed very well in the review process and has qualified as an Enterprise Zone. Out of over 100 applications which cleared the initial review, only ten (10) areas within the State received the designation.

General Description and Requirements

The Enterprise Zone Act provides for not more than ten enterprise zones, designated throughout California. Cities and counties with eligible areas may submit preliminary applications, either alone, with other eligible area jurisdictions, or with non-eligible area jurisdictions.

The State Department of Commerce has published eligible census tracts, including portions of Rubidoux and Highgrove (Riverside County), Riverside City and Colton. Petitions to expand or add eligible areas must be submitted to the State by March 18 to meet 1985 application deadlines. Such a petition was submitted for the Agua Mansa area, which has subsequently been approved for eligibility.

Preliminary applications must include at least one applicant with jurisdiction over an eligible area. The application area may include one commercial area, one industrial area, or both. The commercial area must be within or contiguous to an eligible area, the industrial area may be outside the eligible area but "adjacent" (i.e. within close proximity). Eligible commercial and industrial areas each must have continuous boundaries. The application may include two or more cities or counties, either as co-applicants, or endorsers. Predominantly residential areas and larger stable businesses may not be included in enterprise zone benefits, and should be excluded from the zone territory. Enterprise zones are intended to promote new growth, not to reward existing businesses.

Application requirements include a three-part industrial and business growth plan, an application area description, and evidence of local government action, including an Initial Study pursuant to the California Environmental Quality Act.

The industrial and business growth plan identifies impediments to growth and investment, proposes local incentives to stimulate investment, and assesses the efficacy of those incentives in reducing the impediments identified. Although the preliminary application plan may be conceptual, it forms the basis of the final application and cannot materially change in its final form.

The application area description documents enterprise zone size, location and boundaries in detail, including any larger stable businesses and residential areas. The description must justify both the size and location of the zone to reduce economic distress within the eligible area. Application area boundaries cannot be modified following submission.

Any city or county with territory inside the zone must either participate as a co-applicant, or endorse the application and agree to carry out all necessary actions applying to its territory. Applicants also must make findings that the application area is a depressed area, and that zone designation is necessary to attract private investment.

Selection Criteria

Preliminary applications will be evaluated on their potential achievement of enterprise zone goals. The evaluation will be based on five factors: a comprehensive evaluation of impediments to growth (150 points); innovative, comprehensive, and effective plan of local incentives for business growth (400 points); ability of proposed local incentives to overcome impediments to business growth (250 points); appropriateness of the size and location of the proposed enterprise zone (200 points); and comments received on the Notice of Preparation (150 points). The importance of local incentives is underscored in the selection criteria weighting. Final applicants must submit detailed descriptions of zone conditions, anticipated actions, and planning and management processes. Final enterprise zone designations may include conditional approvals, which must be satisfied within at least six months of approval. Zone designations are not final until all conditions are satisfied. Final applicants were announced on June 1, 1985, with final applications having been due on August 30, 1985, and conditional designations announced in February, 1986.

Benefits

The State's payoff for enterprise zone designations is a schedule of program and tax incentives. These benefits include State, corporate and personal income tax exclusion derived from zone investments; net operating loss carryover (now allowed under Federal, but not California, tax laws); employer and employee wage credits; preference for State contract bids, small business loans, energy loans, industrial development bonds, job training, and criminal justice programs. A Neighborhood Enterprise Assistance

Corporation may be established to provide small business assistance and to lease surplus publicly owned land for private development. The State program benefits are intended to combine with local incentives to promote enterprise zone growth.

Local Incentives

Cities and counties need to propose "innovative, comprehensive and effective" incentives to promote industrial and business growth. These incentives must be implemented as part of the final zone, and may include any of the following:

- Fee reductions
- Tax reductions
- Increased community services
- Targeted State or Federal money
- Privatization of local government services
- Infrastructure financing
- Redevelopment financing
- Bond financing
- Loan guarantees
- Public and Private partnerships
- Equity ownership by local groups
- Property acquisition, sale or lease by public agencies
- Zoning and general plan changes
- Master environmental impact report
- Streamlined permit processing
- Suspension or relaxation of local regulations
- Marketing program
- Job training, referrals
- Small business assistance program

It should be noted that many of the above "incentives" are already being fulfilled or are being studied within the context of the Agua Mansa study.

Agua Mansa is Riverside and San Bernardino County's most viable enterprise zone effort. The Specific Plan provides a basis for the local program, and a multiple party application is distinctive in itself.

4.3.5 Short-Term Action Program/Financing Plan

The following discussion outlines the recommended course of action necessary to implement this Specific Plan subsequent to adoption thereof by each of the four local jurisdictions. It will be the responsibility of each of the agencies to process and adopt the Specific Plan pursuant to the respective local procedures.

I Formulation of a Joint Powers Agreement

In order to facilitate a unison of the regulatory powers of the Cities of Colton and Rialto and the Counties of Riverside and San

Bernardino, it will be necessary for each agency to officially declare its intent to cooperate in a joint exercise of powers. As mentioned in Section 4.3.5, such an agreement may take the form of a Joint Powers Agency (JPA). A JPA may consist of one entity designated as a lead agency or a combination of officials or staff members from each agency.

It is strongly recommended that the administration of the JPA be shared among the four agencies. Furthermore, it is believed to be highly desirable to include representation from the group of major property owners, to maintain its level of involvement, on a liaison basis as a minimum.

II Enterprise Zone

The local agencies involved in the Agua Mansa Corridor and the City of Riverside have successfully had the study area designated as an Enterprise Zone. Such a designation is a tremendous competitive advantage in marketing the project with prospective industrial users. The process may also be able to provide bond financing to assist in the development of the backbone infrastructure systems in the Corridor.

It should be noted that the ensuing recommendations may still be implemented with the Enterprise Zone designation. In fact, the State legislation emphasizes that local agencies should, in concert with the Enterprise Zone concept, offer concessions and alternative administrative and financing mechanisms of their own.

III Redevelopment Feasibility Study

As indicated in Section 4.3.5., the redevelopment process appears to offer a very favorable and flexible administrative and financing framework. A Redevelopment Agency can implement virtually all financing methods generally used by government for the financing and construction of capital facilities.

It is recommended that the four agencies jointly pursue a study to determine if a redevelopment project is physically, economically and politically feasible in the Agua Mansa Corridor. In addition, the attitudes of the numerous taxing agencies would have to be determined to ascertain whether a favorable climate for such a project exists among the agencies.

If redevelopment proves to be a viable tool in the Agua Mansa Corridor, the recommendation contained in part III would be applicable, if redevelopment is determined to be inappropriate, the recommendations in part IV would apply. Part V provides a description of additional financing sources and methods which can be employed regardless whether approach III or IV is followed.

IV Redevelopment-Based Financing Plan

If a redevelopment program appears to be feasible in the Agua Mansa Corridor, the necessary steps should be taken to establish a Joint Powers Redevelopment Agency, a Redevelopment Plan to guide the Agency's actions, and the designation of a Project Area (this could conceivably encompass all or most of the Agua Mansa Corridor).

The plan which would be adopted would set forth the powers which could be used by the Agency (and any limitations thereon), the financing mechanisms to be employed, and would include a land use plan consistent with the Specific Plan and a capital improvement plan which the Agency intends to pursue.

Many of the public improvements which will require extensive funding will be required prior to development of much of the Corridor. Unless massive amounts of bond funds are generated up front, it is unlikely that a Redevelopment Agency will be initially able to generate sufficient funds using conventional financing techniques to construct many of the basic improvements. As a result the Agency should monitor any available Federal and State capital funding and grant programs which could assist in up-front infrastructure development.

The improvements which should be provided by the governmental agencies include backbone drainage facilities, major roadways and sewage treatment facilities. Public Safety Services should also be the responsibility of the public sector. Drainage improvements which are required are extremely extensive and will involve an area much larger than the Agua Mansa Corridor. In fact, the Agua Mansa project will not derive the greatest benefit from such improvements, areas to the north and northwest will benefit more.

The full development of the major roadways should be facilitated by the Redevelopment Agency, although segments adjoining developing properties will be constructed by developers. Many local streets which are constructed for specific developments will likely also be required of developers, although the Agency could provide local roadway and other improvements as development incentives if such actions are within the Agency's financial capabilities.

Sewage treatment is another regional issue which must be resolved by governmental entities, although the Redevelopment Agency could lend financial assistance to help solve the problem. The private sector can also be involved in sewage treatment funding by being required to pay fees for sewage connection.

Public services, most notably police and fire protection, will remain the responsibility of the specific local agency, however, the Redevelopment Agency should provide financial assistance for the delivery of these services, particularly for the construction of new capital facilities. (It is anticipated that a new fire station will be necessary within the Corridor.)

The Agua Mansa project is considered to be a cooperative effort between the public and private sectors, as such the private sector should also contribute funds for the required improvements. As is typical in California, developers will be required to, as a minimum, construct any necessary on-site improvements; developments which adjoin major streets which are not fully constructed will be required to provide improvements along respective street frontages.

It is recommended that the Assessment District process be employed to construct the water distribution and storage and sewage collection facilities within the Agua Mansa Corridor. Individual Assessment Districts can be enacted to correspond with the various development phases to allow the assessment of property owners who will be directly benefitting from the specific improvements in the near future subsequent to assessments.

In addition, developer fees can be instituted for various public services, particularly connection to the sewage system. The Santa Ana Watershed Project Authority (SAWPA) is already selling capacity to the brine line which is planned for future extension into the Agua Mansa Corridor. A similar approach can be taken for local domestic treatment capacity.

In summary, the Redevelopment-based plan would fund each major infrastructure and service cost as follows:

MAJOR EXPENDITURE CATEGORY	FUNDING RESPONSIBILITY	FUNDING METHOD
Water Delivery and Storage	Land Owners and Developers	Assessment District; Const. upon Development
Sewage Collection	Land Owners and Developers	Assessment District; Const. upon Development
Sewage Treatment	Local Government Agencies, Redevelopment Agency, Special Districts, and Developers	Government funding unknown; Connection fees by Developers
Roadways	Redevelopment Agency and Developers	Backbone System by Agency; Site Specific Segments by Developers
Rail Spurs	Developers	Cost included in Site Development

Redevelopment-Based Plan (Cont.)

MAJOR EXPENDITURE CATEGORY	FUNDING RESPONSIBILITY	FUNDING METHOD
Drainage	Local Govern. Agencies, Special Districts, and Redevelopment Agency	Federal and State Grants; Cooperative Funding by, various agencies
Fire Protection	Local Agency and Redevelopment Agency	Local General Funds and Agency Funds
Police Protection	Local Agency and Redevelopment Agency	Local General Funds and Agency Funds

As indicated in Section 4.3.5, a Redevelopment Agency has considerable latitude in methods of infrastructure financing, including tax increment, issuance of bonds, sales and use taxes, and obtaining loans and grants from other levels of government. In addition, the Agency has the power to acquire real property through purchase or condemnation to provide incentives to developers, to combine parcels, to prepare sites for development and to dispose of property through sale or lease. An Agency would also be obligated to assist in furthering housing opportunities for low and moderate income individuals in that all agencies which are created at this time must devote 20 percent of any tax increment garnered to this end. In summary, a Redevelopment Agency would be the definitive financing and administrative method for the Agua Mansa Corridor due to its unparalleled flexibility and control in funding major improvements and stimulating development, however, the policy-makers of each agency must make the necessary decisions and commitments to pursue this course of action.

V Non-Redevelopment Based Financing Plan

In the event that redevelopment is not determined to be a feasible financing/administrative tool in the Agua Mansa Corridor, it is recommended that a Mello Roos Community Facilities District be established through a Joint Powers Agreement. The establishment of such a District would create the authority to deal with the multi-faceted infrastructural deficiencies within the Agua Mansa Corridor.

This approach would likely necessitate the removal of existing residential areas from the Mello Roos District in order to attain voter approval. Residential property owners would most likely

be opposed to the enactment of a special tax levy which generally is the financial cornerstone of a Mello Roos District, but non-residential owners may not be opposed because they would realize direct benefits from the District's activities.

The major policy consideration relating to a Mello Roos District is that in essence the projects' property owners would ultimately bear the major burden of constructing and financing the needed infrastructure through special tax levies which would be used to either construct facilities or leverage bonds. It is, however, conceivable that external funding sources from other levels of government could be used by the District/JPA to finance improvements.

Similar to the suggested redevelopment-based actions, a Mello Roos District should be supplemented with Assessment Districts to finance localized improvements which provide primary benefits to the incremental development phases. The responsibilities suggested under the previous approach for financing the various facilities and services should not be any different with the approach. As with the redevelopment approach, the resolution of the regional drainage and sewage treatment deficiencies is clearly beyond the exclusive capability and responsibility of the Agua Mansa property owners and developers.

VI Additional Financing Sources/Measures

Whichever of the latter two suggested approaches is taken, opportunities exist and will exist for using other financing mechanisms for specific actions and improvements. An ever-changing array of Federal grants is available from various agencies including the Economic Development Administration (EDA), the Environmental Protection Agency (EPA), and the Department of Housing and Urban Development (HUD). Some of the programs provide outright grants while others require local matching funds. Typical examples include Clean Water Grants and Urban Development Action Grants (UDAG).

It is not considered feasible, however, to hinge a major financing plan on the prospect of obtaining funding from Federal agencies as such funds become available on a sporadic basis and are frequently competitive. In the present budget slashing and debt reduction atmosphere in Washington, it is likely that funding levels for most all Federal programs will be reduced for numerous years to come. A similar situation is likely for State-level funding as well.

Community Development Block Grant (CDBG) funds may likely be available at a reasonable level for sometime, although not of a magnitude to accommodate a large portion of the infrastructure needs of the Corridor. Such funds, however, could be used for further planning and for seed money for various activities.

Industrial Development Bonds (IDB's) are discussed in Section 4.3.5. IDB's will be available to individual local governments for assisting specific developments in locating in the Agua Mansa Corridor. This funding mechanism has proved to be effective for attracting industry which fits within the legal framework and financing limitations of this program.

It is also possible that the General Funds of the two cities and the two counties could have available funds which could be appropriated to construct capital facilities on a limited basis in the Agua Mansa Corridor.

4.3.6 Plan Administrative/Development Review Process

Each of the two cities and two counties should adopt its respective portion of the Specific Plan of Land Use for areas lying within its jurisdiction. Existing General Plan and Zoning designations should be modified, as necessary, to be consistent with the Specific Plan.

Where the Specific Plan standards exceed the locality's Zoning Standards, the standards of the Specific Plan should prevail. Although an attempt has been made to tailor the Plan's development standards so as to meet each locality's standards, cases may arise where local standards (particularly if new ordinances or regulations are adopted in the future) are more restrictive. In such a case, the locality will have to decide which standards will prevail. In any event the Specific Plan Standards should be treated as the minimum base standards.

The Joint Powers Agency (JPA), AMICA, should review all development within the Agua Mansa Corridor and coordinate it. Review by a joint body is considered necessary and desirable as such a body will be better able to view the development comprehensively with regard to its relationship to the overall plan, rather than dwelling on local concerns exclusively.

Any modification to the Specific Plan by any of the local agencies should be coordinated with the JPA to insure that the integrity of the planned industrial area will be maintained, and further that such an amendment will be consistent with goals and objectives of the Specific Plan.

APPENDIX A
DEVELOPMENT AND INFRASTRUCTURE
PHASING ANALYSIS



DEVELOPMENT AND INFRASTRUCTURE PHASING ANALYSIS

I. Development Phasing Overview

Within the Agua Mansa Industrial Corridor, a number of major blocks of land will not be available for new industrial development within the foreseeable future. These "unavailable" land areas include the majority of land owned by the California Portland Cement Company and the Riverside Cement Company (Gifford-Hill) which will continue to be utilized for resource extraction purposes for the next several decades; land areas within the floodplain of the Santa Ana River which are mostly in current use for agricultural and equestrian purposes; and land areas which are already developed under a variety of uses such as the railroad classification yard along the freeway, the tank farm in the vicinity of Slover Avenue and Riverside Avenue, portions of the Butler Industrial Park in the southerly tip of the corridor, the residential area along El Rivino Road, a few industrial park sites along Rancho Avenue, the wastewater treatment plant sites for the Cities of Colton and Rialto, and several other small industrial sites scattered throughout the project area. These uses occupy roughly 2,500 acres of the total project area of 4,465 acres.

The remaining 2,000 \pm acres within the Agua Mansa Corridor is mostly available for development within the foreseeable future. Some of this area is in a condition where near-term development is possible, while other portions of this area would not likely be developable until somewhat later when adequate infrastructure is constructed to support new development. The vast majority of developable land within the Agua Mansa Corridor is located generally within a wide belt of land running along both sides of Riverside Avenue from Slover Avenue to Agua Mansa Road, and within a belt of land southerly of Agua Mansa Road from Riverside Avenue to Market Street. Some additional developable land area is available along the north side of Slover Avenue and along the west side of Rancho Avenue. Developable land areas as well as land areas that are not available for new development are shown on Figure 22.

New industrial development within the Agua Mansa Corridor would be expected to occur first in areas where existing infrastructure can support new development, and later in other areas as additional infrastructure is completed. Areas of the Corridor where adequate infrastructure exists to support near-term development includes the land belt along Riverside Avenue from Slover Avenue to south of Santa Ana Avenue, as well as various sites along the north side of Slover Avenue, the west side of Rancho Avenue and within the Butler Industrial Park (designated Phase 1 or Development Area 1 on Figure 22). All of these areas presently have adequate water, sewer and roadway backbone facilities to support new development with relatively minor requirements for additional improvements needed for these systems. The single greatest infrastructure deficiency within these areas is the lack of adequate drainage facilities, a condition which generally applies to all of the developable land area within the Agua Mansa Corridor.

The land belt along Riverside Avenue from south of Santa Ana Avenue to Agua Mansa Road (designated Phase 2 or Development Area 2 on Figure 22) is generally considered to have good near-term development potential, if the various infrastructure deficiencies are resolved. In addition to lacking adequate drainage facilities, this area is totally lacking in sewer facilities and needs additional water mains to support development in most portions of this area except in the immediate vicinity of Riverside Avenue. Also, the Owl Rock property (230 acres) located within this area would require extensive grading work in order to make the site suitable for development.

The land belt along the south side of Agua Mansa Road from Riverside Avenue to the Butler Industrial Park (designated Phase 3 or Development Area 3 on Figure 22) is considered to have good development potential, but is probably not likely to develop prior to Areas 1 and 2 due to greater infrastructure deficiencies and the desire expressed by Riverside Cement Company (Gifford-Hill) to maintain a portion of their vacant property within this area as a buffer area. This area is totally lacking in drainage, sewer and water facilities.

Land areas designated Phase 4 or Development Area 4 on Figure 22 include properties with existing uses that may be available for new industrial development at some time in the relatively distant future. These include most of the California Portland Cement Company and Riverside Cement Company properties as well as the E.L. Yeager Construction Company property, the tank farm and the residential area along El Rivino Road.

II. Infrastructure Phasing Analysis

The phasing of infrastructure improvements is reviewed and analyzed for the Agua Mansa Corridor in the following paragraphs, including a review of the circulation, drainage, water and sewer facilities needed to support development within the Corridor. The phasing of certain infrastructure improvements is sometimes determined by the nature of the system itself, such as drainage and sewer systems which generally require that downstream trunk facilities be constructed prior to the construction of upstream lateral lines. Other infrastructure facilities can often be phased in conjunction with the timing or phasing of development, such as street and water improvements.

In this analysis, we have attempted to identify the major infrastructure improvements that are required to support development within Areas 1, 2, 3 and 4. In addition to identifying the specific facilities, we have evaluated the costs of the various facilities required to support development within these areas. For Development Area 4, major infrastructure facilities are generally shown only on the perimeter of these large sites with very little shown in the interior of the site. It is likely that additional infrastructure will ultimately be required to support new development within these areas. However, no attempt has been made to evaluate the costs of facilities required for the interior portions of Development Area 4 since the timing of new development within these areas is most likely so far in the future that present day cost estimates would be meaningless. Also, the uncertain future development patterns within these large

land areas makes it very difficult to identify future infrastructure requirements with much degree of accuracy.

It should be noted that the phasing of infrastructure facilities shown on the following pages is intended only as a general guideline based on the assumption that new development within the Agua Mansa Corridor will generally occur from north to south within the land belts along Riverside Avenue and Agua Mansa Road, as described earlier. If development projects or patterns differ from the assumed sequence, then infrastructure improvements should be phased in a way that will support the actual development condition. Also, the priority of importance given to certain infrastructure improvements may not necessarily always conform to the order of assumed phasing of new development. Some facilities associated with later phases of development could have a higher construction priority because they may be more important in terms of providing support to development of large land areas when compared with facilities required to support development of smaller areas. An example of this would be the proposed sewer lines in Agua Mansa Road and Riverside Avenue which are considered the highest priority sewer system improvements because they would provide sewer service to Areas 2 and 3 where no sewer lines presently exist. This would enable near-term development to occur on various sites in Areas 2 and 3 (particularly along Riverside Avenue and Agua Mansa Road) even though Area 1 is considered the area where widespread development will occur first.

It should also be noted that a number of infrastructure facilities shown for construction in early phases are also needed to support later phases of development. For example, to provide adequate drainage facilities for the northerly portions of the Corridor where development is assumed to occur first (Area 1), it is necessary to construct mainline facilities through Areas 2 and 3 to the Santa Ana River to provide an outlet for the upstream lateral drains. While the initial large cost of constructing these facilities is required to serve the upstream areas, the downstream areas which may develop at a later date also benefit from this work. Therefore, there is not a direct relationship between the costs of certain infrastructure improvements shown for various development areas with the benefits provided for those areas since the benefits of these improvements may also apply to other areas.

A. Circulation

The planned circulation system for the Agua Mansa Corridor consists of two (2) basic components as shown on Figure 16 of the Technical Report, including roadways and railroads. As indicated in Section 3.2.5 of the Technical Report, the only roadways within the Agua Mansa Corridor currently improved to ultimate design standards are Riverside Avenue, Cedar Avenue, Rancho Avenue and Rubidoux Boulevard. Most of the other major and secondary highways will eventually need extensive improvements to meet the ultimate design standards called for in the General Plans of each governmental jurisdiction. At the present time, no railroad lines exist within the regions of the Corridor where near-term development potential exists (Areas 1, 2 and 3).

The phasing of roadway improvements in the Agua Mansa Corridor can be approached in various ways. One approach would be to construct all major and secondary highways to ultimate design standards in a series of construction phases corresponding with the assumed phasing of development. Following this approach, Slover Avenue and portions of Santa Ana Avenue, Pepper Avenue and Cactus Avenue would be constructed in Phase 1; portions of Agua Mansa Road, Jurupa Avenue and Cactus Avenue would be constructed in Phase 2; portions of Agua Mansa Road and Market Street would be constructed in Phase 3; and portions of Agua Mansa Road, El Rivino Road, Cactus Avenue, Pepper Avenue, Santa Ana Avenue and Hall Avenue would be constructed in Phase 4.

Another approach would be to construct interim roadway improvements in a series of construction phases similar to the approach described above in which partial improvements for a reduced number of lanes are constructed initially while traffic volumes are low, and the final widened roadways with the full number of lanes and median and parkway improvements are constructed at a later date as development occurs and traffic volumes warrant the full improvements.

A third approach would be to construct roadway improvements in a piecemeal fashion as development occurs on a site-by-site basis.

The approach that is followed could depend somewhat on the method or methods of financing that are used for construction of the public improvements. It is generally recommended, however, that an approach involving the construction of interim improvements in a phased program be followed, with ultimate improvements constructed at a later date when traffic volumes require the full improvements. This approach would provide improved circulation and access conditions for new development at a minimum initial cost. This would also provide for greater flexibility in the location of local streets and driveways that will provide access to future developments as well as greater flexibility in the timing of construction of other infrastructure improvements such as drainage and utility facilities.

Following is a summary of preliminary estimated costs for ultimate roadway improvements associated with the four (4) general phases of development described above. The estimated costs are for full roadway improvements including grading, paving, curbs, sidewalks, medians, street lighting, traffic signals and other miscellaneous items based on 1984 unit prices. It should be noted that interim improvements could be constructed for each phase for a much lower initial cost, but that the total ultimate costs would probably be somewhat higher due to the extended time frame and the additional phases of construction for each roadway.

Phase 1

Slover Avenue (Cedar to Pepper)	\$ 3.8 Million
Santa Ana Avenue (Cactus to 2,700 feet E/O Riverside)	1.5 Million
Pepper Avenue (Freeway to Slover)	0.4 Million
Cactus Avenue (Slover to Santa Ana)	0.6 Million
	<hr/>
Sub-Total	\$ 6.3 Million

Phase 2

Cactus Avenue (Santa Ana to Jurupa)	\$ 0.7 Million
Jurupa Avenue (Cactus to Riverside)	1.3 Million
Agua Mansa Road (Riverside to 4,500 feet \pm E/O Riverside)	0.9 Million
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Sub-Total	\$ 2.9 Million

Phase 3

Agua Mansa Road (Market to Riverside)	\$ 2.8 Million
Market Street (Agua Mansa to Santa Ana River)	1.5 Million
	<hr/>
Sub-Total	\$ 4.3 Million

Phase 4

Agua Mansa (4,500 feet \pm E/O Riverside to Rancho)	\$ 2.2 Million
Pepper Avenue (Slover to Agua Mansa)	1.0 Million
El Rivino Road (Rubidoux to Agua Mansa)	1.7 Million
Cactus Avenue (Jurupa to El Rivino)	1.2 Million
Hall Avenue (Agua Mansa to N/O El Rivino)	1.4 Million
Santa Ana Avenue (2,700 feet E/O Riverside to Pepper)	0.7 Million
	<hr/>
Sub-Total	\$ 8.2 Million

TOTAL ROADWAY COST \$21.7 Million

The phasing of railroad track construction cannot be determined at this time. Tracks should be constructed when industrial development needing rail service occurs and when the operational requirements of the users can be defined. However, it must be kept in mind that track right-of-way must be provided across the northerly areas of the Corridor

where development will most likely occur first in order that future rail service to the central regions of the Corridor is not blocked.

The estimated preliminary costs of the three (3) rail lines shown on Figure 16 of the Technical Report are:

Track from SPTC (West of Riverside Avenue)	\$2.3 Million
Track from SPTC (East of Riverside Avenue)	2.0 Million
Track from UPRR	1.9 Million
	<hr/>
TOTAL RAILROAD TRACK COST	<u>\$6.2 Million</u>

B. Drainage

The lack of adequate drainage facilities represents the most serious infrastructure deficiency for the Agua Mansa Corridor. As described in Section 3.1.4 of the Technical Report, only two (2) mainline drainage facilities presently exist within the project area, and both of these are severely undersized. Three (3) other mainline drainage facilities are needed together with systems of lateral storm drains and catch basins to provide adequate flood protection for the project area (see Figure 11).

The phasing of constructing drainage facilities within the Agua Mansa project area could be partly influenced by conditions that exist outside the limits of the Agua Mansa Corridor. All five (5) of the mainline drainage facilities shown on Figure 11 extend beyond the limits of the Agua Mansa project boundaries to serve upstream tributary drainage areas. The drainage deficiencies that characterize the Agua Mansa Corridor also characterize large areas outside Agua Mansa. Therefore, the construction of mainline drainage facilities within Agua Mansa is needed not only for Agua Mansa, but also for large areas outside Agua Mansa. The most notable example of this is the Rialto Channel system which extends to a distance of 5 miles north of the San Bernardino Freeway and serves a total tributary area of approximately 16,000 acres.

In terms of overall regional significance, the Rialto Channel is by far the most important drainage facility in this area. Because of the serious flooding problems and flood damage that has occurred in recent years along the Rialto Channel in the City of Rialto (north of the freeway), the County of San Bernardino and the City of Rialto are currently conducting studies of this facility to determine a course of action for improving the system upstream of the freeway. The Corps of Engineers is also conducting design studies for the Rialto Channel downstream of the freeway within the Agua Mansa Corridor, and will most likely construct improvements for a portion of this facility to a maximum cost of \$4 million.

In terms of providing drainage facilities to developable areas within the Agua Mansa Corridor, the Riverside Avenue Channel and its laterals is the most important facility to be constructed. The proposed facility would consist of an open channel extending along a portion of Riverside Avenue north of the Santa Ana River, then extend northwesterly along the south side of the Owl Rock property, then north with a series of storm drain laterals to drain the northwesterly portions of Agua Mansa (Area 1) and much of the Bloomington area. This facility will provide drainage for most of Areas 1 and 2 and part of Area 3. Because this facility does not presently exist in any form, it will be necessary to obtain right-of-way for the channel before any facilities can be constructed. Underground storm drain laterals would be constructed mostly within street rights-of-way.

The Southwest Colton Storm Drain in Rancho Avenue needs to be enlarged to provide adequate flood protection for development sites along Rancho Avenue. The other two (2) mainline drainage facilities are mostly needed to provide drainage to areas outside Agua Mansa and for areas within Agua Mansa that will not be available for near-term development (Area 4).

Following is the recommended phasing of drainage improvements for Agua Mansa together with a summary of the estimated costs for ultimate improvement of each system. No attempt is made to associate the individual systems with assumed development phasing because of the overlapping nature of most of the individual drainage systems. As indicated above, the Riverside Avenue Channel and its laterals is the most important facility for providing drainage to the areas available for near-term development. The phasing of other drainage improvements will most likely be influenced by conditions that exist in areas outside the Agua Mansa Corridor.

1.	Riverside Avenue Channel and Laterals (Including R/W)	\$ 3.8 Million
2.	Mainline Rialto Channel	7.0 Million
3.	Rialto Channel Laterals	2.1 Million
4.	Rancho Avenue Storm Drain	2.2 Million
5.	Market Street/Rubidoux Boulevard Storm Drain	4.0 Million
6.	Pepper Street Storm Drain	1.4 Million
TOTAL DRAINAGE COST		<u><u>\$20.5 Million</u></u>

For the Riverside Avenue Channel, it may be possible to construct an earthen channel as a first phase interim improvement in order to minimize the initial construction cost, and to construct ultimate concrete lining at a later date when the watershed is more fully developed and runoff is greater. The feasibility of this approach would depend on several factors including soil conditions, physical and/or right-of-way constraints, and cost effectiveness.

C. Sewers

As indicated in Section 3.2.2 of the Technical Report, the timing and phasing of the domestic sewer facilities is complicated by the limited capacity of the treatment plants to which the project area is tributary. The proposed interceptor sewers in Agua Mansa Road and Riverside Avenue, together with the pump station and force main to the Rialto treatment plant, are essential to providing ultimate domestic sewage facilities for Development Area 2 (Phase II). Because no sewer facilities presently exist within Development Area 2, these facilities are considered the highest priority sewer improvements because of their importance to the development potential of Area 2. Near-term development within Area 2 is extremely limited without sewer facilities, whereas most of Area 1 already contains adequate sewer facilities to support much new development. However, these facilities cannot be constructed unless adequate treatment capacity is available at the Rialto treatment plant. An interim alternative would be to construct the sewer in Riverside Avenue and temporarily connect it to the S.A.R.I. line once the S.A.R.I. line is in place.

The additional sewer facilities for Development Area 1 include sewer lines in Slover Avenue and Santa Ana Avenue. The construction of these lines can be done at any time since the downstream trunk facilities are already in place provided sufficient capacity is available at the treatment plant for new development in this area.

Sewer facilities for Development Area 3 (Phase III) would include the trunk sewers in Agua Mansa Road, including a trunk sewer flowing southwesterly within the Riverside County portion of the Corridor and a lengthy gravity sewer and pump station/force main flowing northeasterly to carry flows from the San Bernardino County portions of Development Area 3 to the Colton treatment plant. Construction of these facilities could not be completed until adequate treatment capacity exists at the Riverside and Colton treatment plants. An interim alternative approach would be to make direct connections of on-site development sewers to the S.A.R.I. line once the S.A.R.I. line is in place.

Following is a summary of preliminary estimated costs for sewerage facilities associated with the four (4) general phases of development:

Phase 1

Slover Avenue Sewer (Riverside to E/O Riverside)	\$ 65,000
Santa Ana Avenue Sewer (Riverside to W/O Lilac)	200,000
	<hr/>
Sub-Total	\$ 265,000

Phase 2

Agua Mansa Road Sewer and Pump Station to Rialto Plant (El Rivino Road to W/O Pepper)	\$ 740,000
Riverside Avenue Sewer (Agua Mansa Road to 5,500 feet N/O Agua Mansa)	250,000
	<hr/>
Sub-Total	\$ 990,000

Phase 3

Agua Mansa Road Sewer (Market to 5,000 feet E/O Market)	\$ 245,000
Agua Mansa Road Sewer and Pump Station to Colton Plant (5,000 feet E/O Market to Rancho)	860,000
	<hr/>
Sub-Total	\$1,105,000

Phase 4

El Rivino Road Sewer (Agua Mansa to Hall)	\$ 150,000
Sewers in Santa Ana, Pepper and Slover Avenues	540,000
	<hr/>
Sub-Total	\$ 690,000

TOTAL SEWER COST \$3,050,000

Additional Sewer Projects (By Others)

S.A.R.I. Line Through Agua Mansa (Rubidoux Boulevard to Rancho Avenue)	\$4,000,000
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D. Water

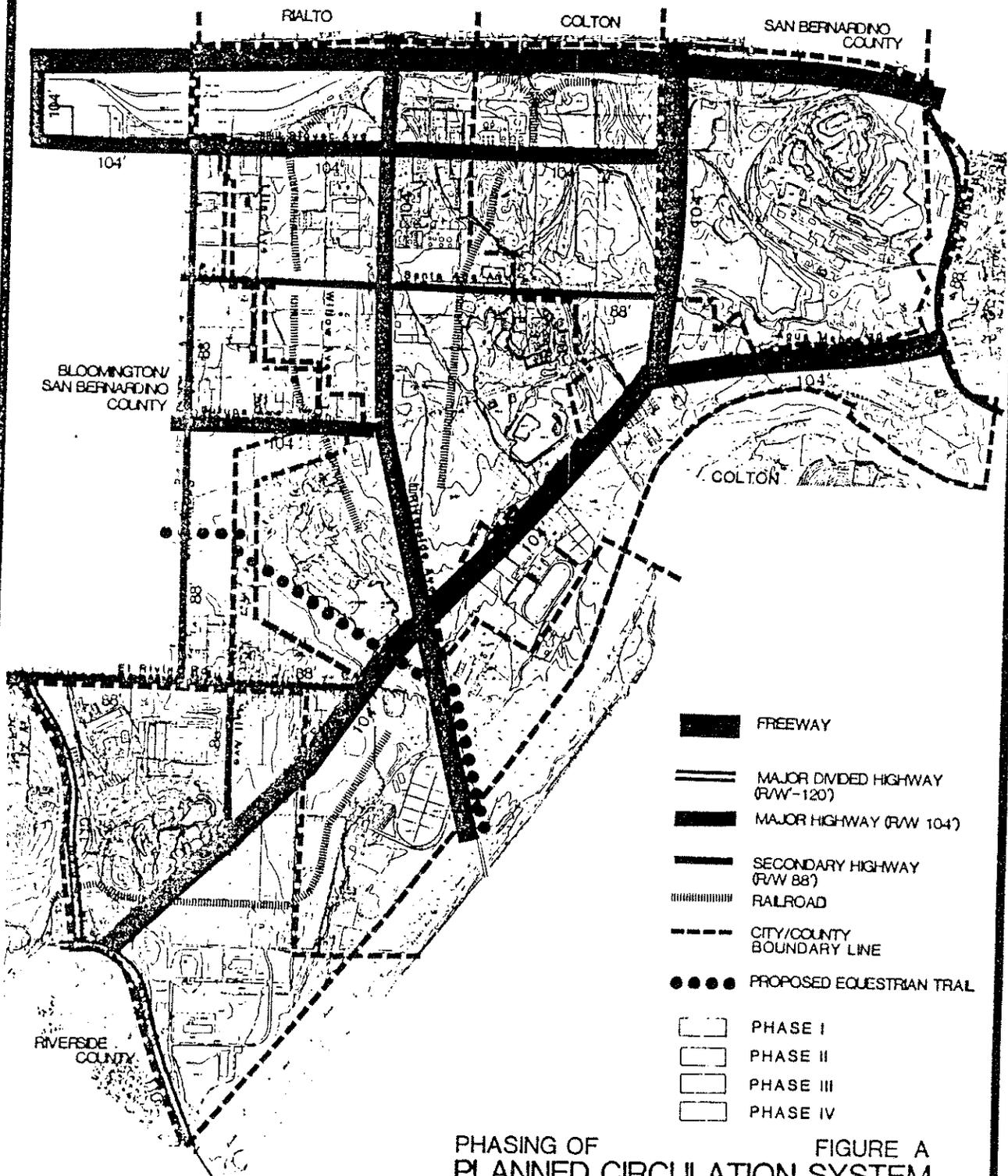
As indicated in Section 3.2.1 of the Technical Report, the backbone water system for the Agua Mansa Corridor shown on Figure 12 is based on existing Water Master Plans for the project area, input obtained from the various water agencies serving the project area and on the assumption specified in the Technical Report. The majority of the project area is served by the West San Bernardino County Water District.

Backbone water distribution facilities presently exist within the north-west portions of the Agua Mansa Corridor including most of Development Area 1 and part of Development Area 2; however, some of the existing facilities will need to be upsized in order to provide adequate service. Water distribution facilities also exist in the Butler Industrial Park and along Rancho Avenue.

The phasing of the remaining water system improvements can be accomplished generally in conformance with the phasing of development within the Agua Mansa Corridor. No attempt has been made to identify the future water facilities or the costs of facilities that will eventually be required to support development of much of the California Portland Cement Company and Riverside Cement Company properties. The costs of the additional future water facilities required to support development in these areas will need to be added to the cost of facilities shown for Phase 4.

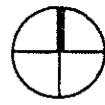
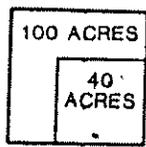
Following is a summary of preliminary estimated costs for backbone water facilities associated with the four (4) general phases of development as shown on Figure 12:

Phase 1	\$1,485,000
Phase 2	1,440,000
Phase 3	1,415,000
Phase 4	1,750,000
	<hr/>
TOTAL WATER COST	<u>\$6,090,000</u>

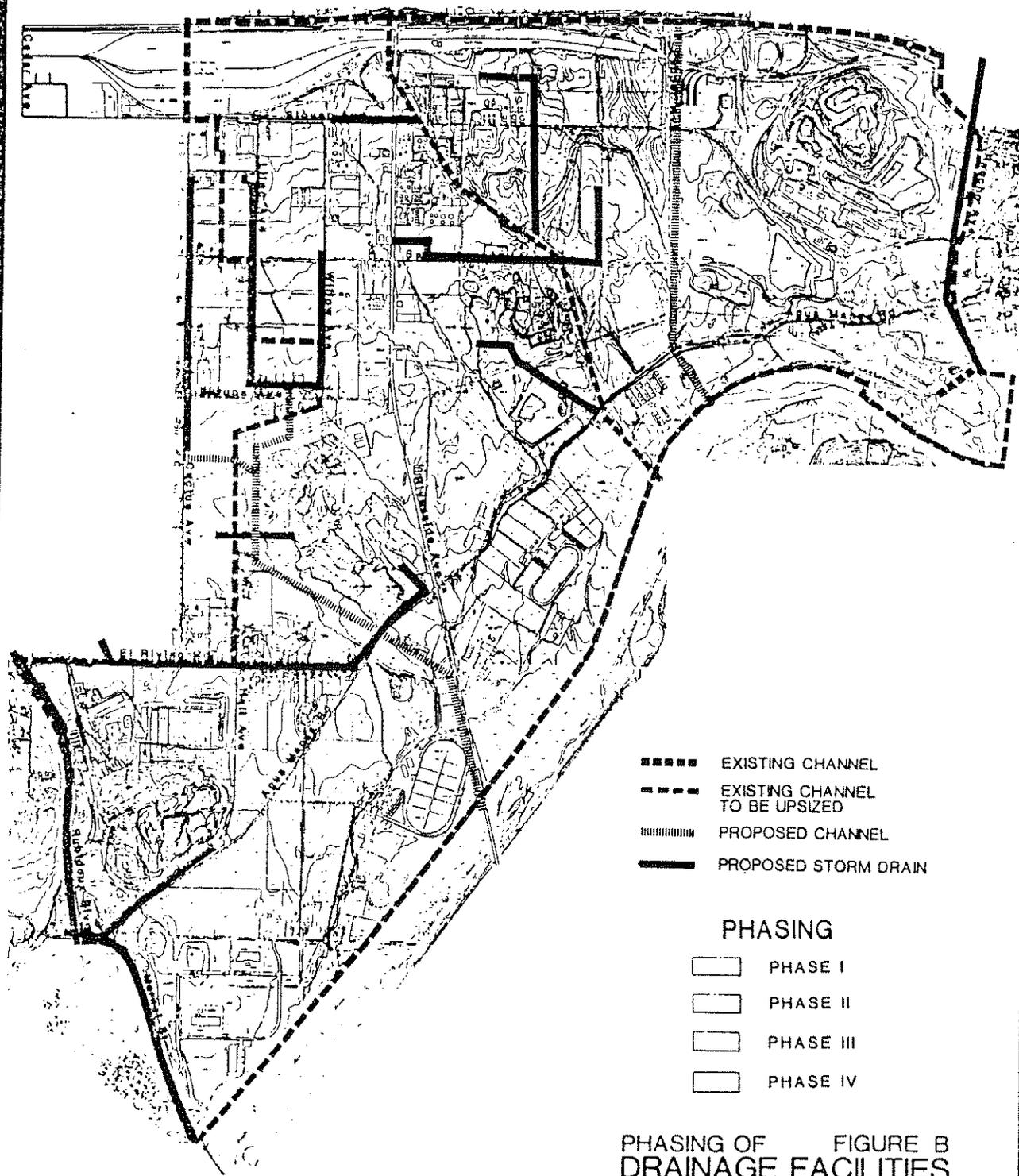


PHASING OF PLANNED CIRCULATION SYSTEM FIGURE A

W **WILLDAN ASSOCIATES**
ENGINEERS AND PLANNERS
IN ASSOCIATION WITH
DENNIS HANSBERGER & ASSOCIATES
AND
WILLIAMS-KUEBELBECK AND ASSOCIATES



AGUA MANSA INDUSTRIAL CORRIDOR



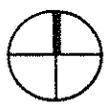
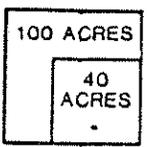
- EXISTING CHANNEL
- - - - - EXISTING CHANNEL TO BE UPSIZED
- ||||||| PROPOSED CHANNEL
- PROPOSED STORM DRAIN

PHASING

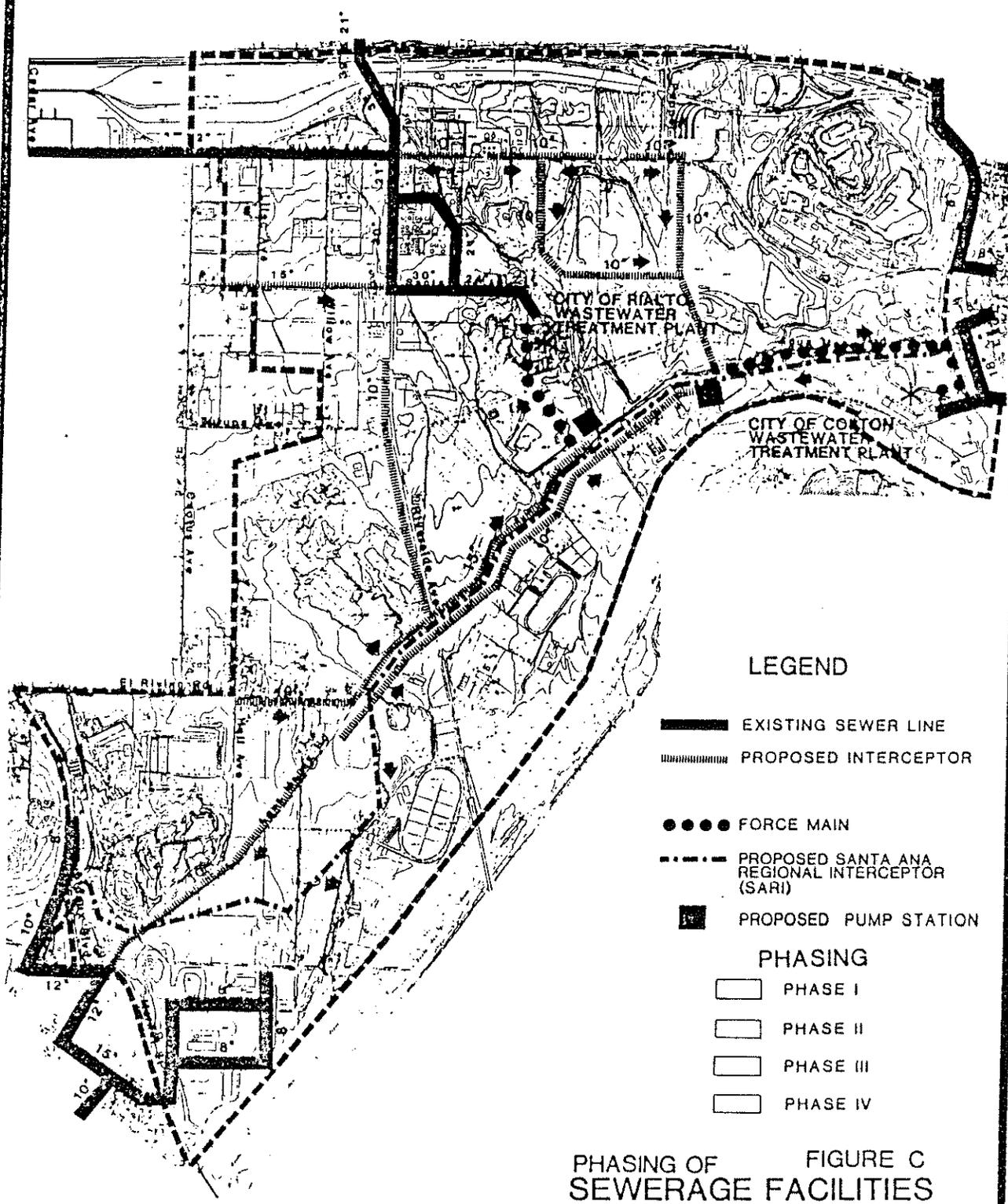
- PHASE I
- PHASE II
- PHASE III
- PHASE IV

PHASING OF DRAINAGE FACILITIES **FIGURE B**

 **WILLDAN ASSOCIATES**
ENGINEERS AND PLANNERS
IN ASSOCIATION WITH
DENNIS HANSBERGER & ASSOCIATES
AND
WILLIAMS-KUEBELBECK AND ASSOCIATES

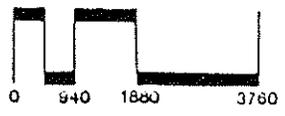
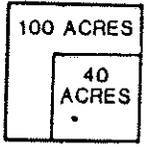


AGUA MANSA INDUSTRIAL CORRIDOR

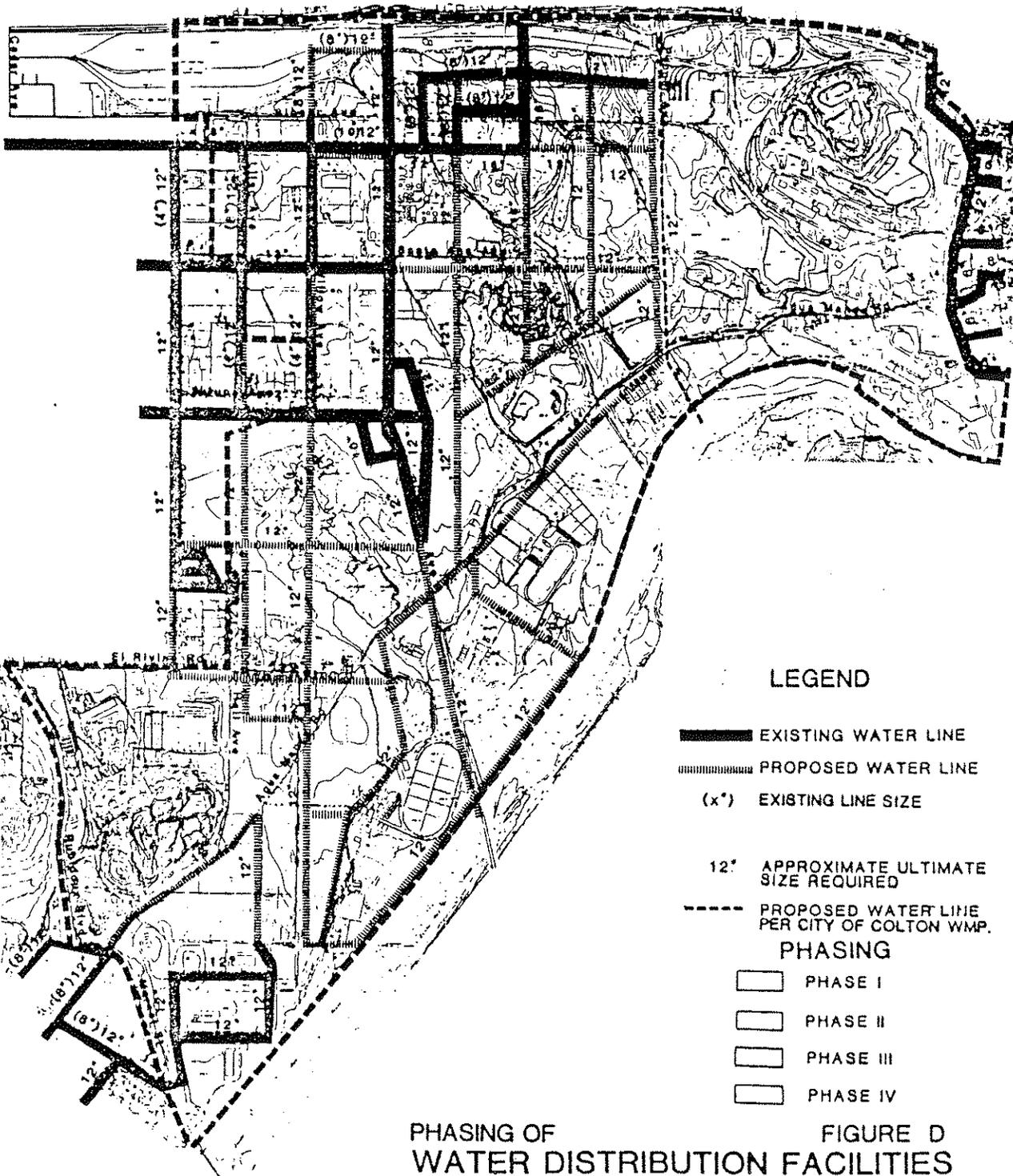


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ENGINEERS AND PLANNERS

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DENNIS HANSBERGER & ASSOCIATES
AND
WILLIAMS-KUEBELBECK AND ASSOCIATES

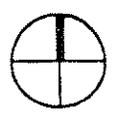
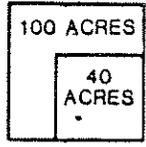


AGUA MANSA INDUSTRIAL CORRIDOR



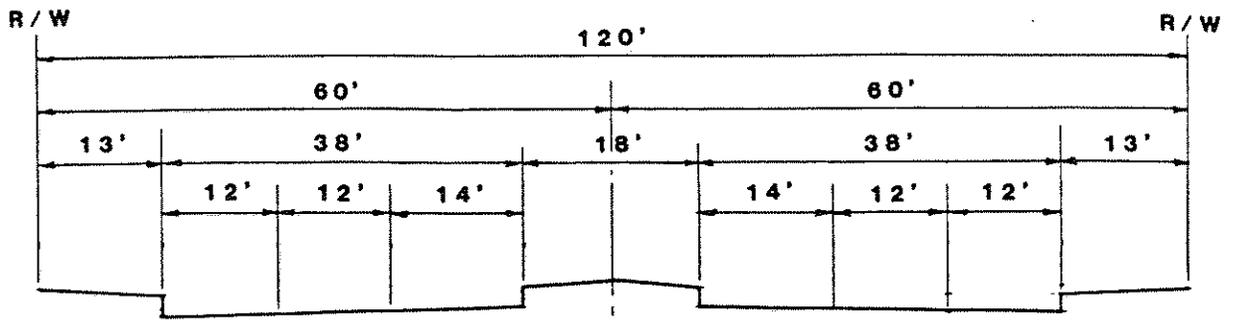
PHASING OF WATER DISTRIBUTION FACILITIES FIGURE D

 **WILLDAN ASSOCIATES**
ENGINEERS AND PLANNERS
IN ASSOCIATION WITH
DENNIS HANSBERGER & ASSOCIATES
AND
WILLIAMS-KUEBELBECK AND ASSOCIATES

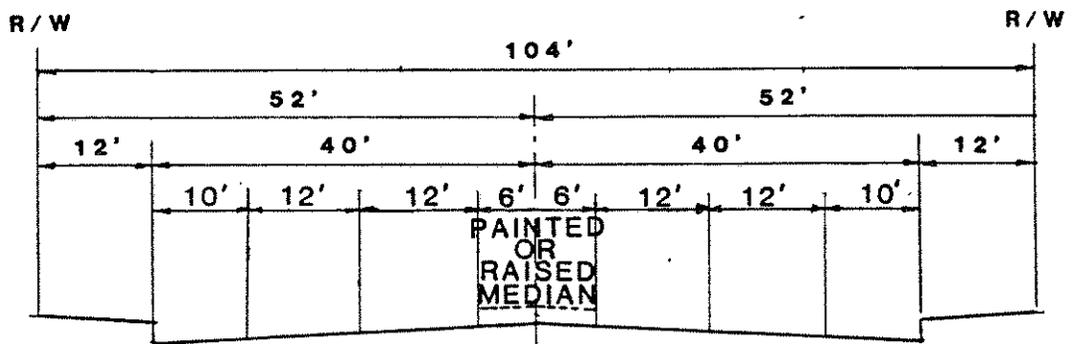


AGUA MANSA INDUSTRIAL CORRIDOR

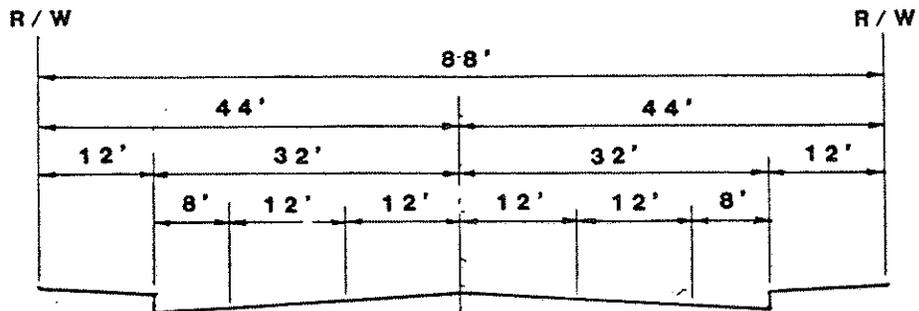
APPENDIX B
TYPICAL ROADWAY CROSS-SECTIONS



DIVIDED MAJOR HIGHWAY
 (RIALTO DESIGNATION: MAJOR ARTERIAL HIGHWAY)



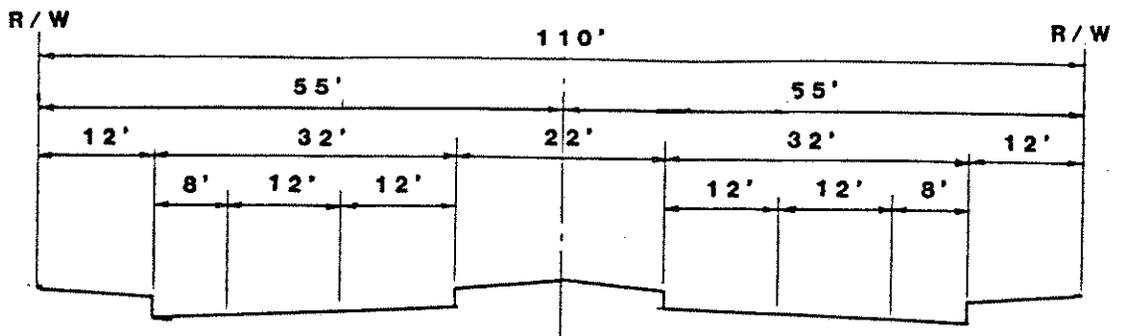
MAJOR HIGHWAY



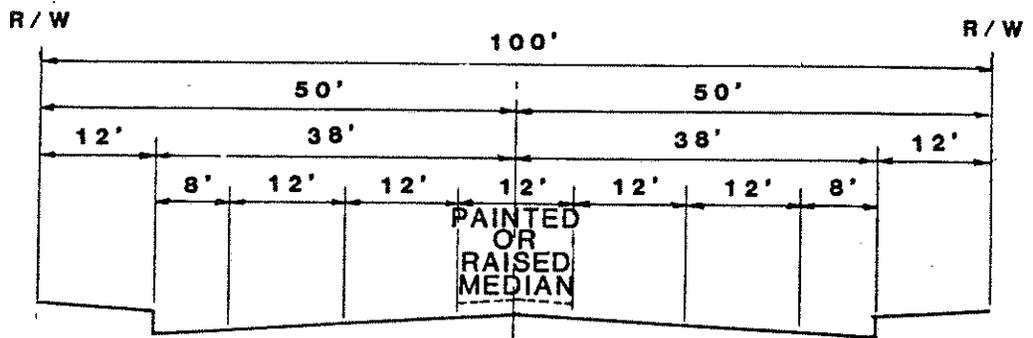
SECONDARY HIGHWAY

TYPICAL HIGHWAY SECTIONS
 for
COLTON, RIALTO & SAN BERNARDINO COUNTY

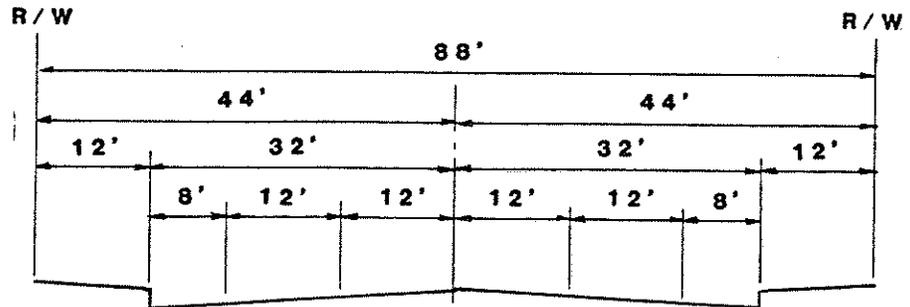
NOTE: RIALTO AND COLTON OMIT THE MEDIAN AND CALL FOR 8' CURB LANE, VARYING R/W WIDTH (100' IN RIALTO WITH 14' PARKWAY, 96' IN COLTON WITH 12' PARKWAY). ALL PROVIDE TWO 12' DRIVING LANES WITH A SHOULDER.



ARTERIAL HIGHWAY

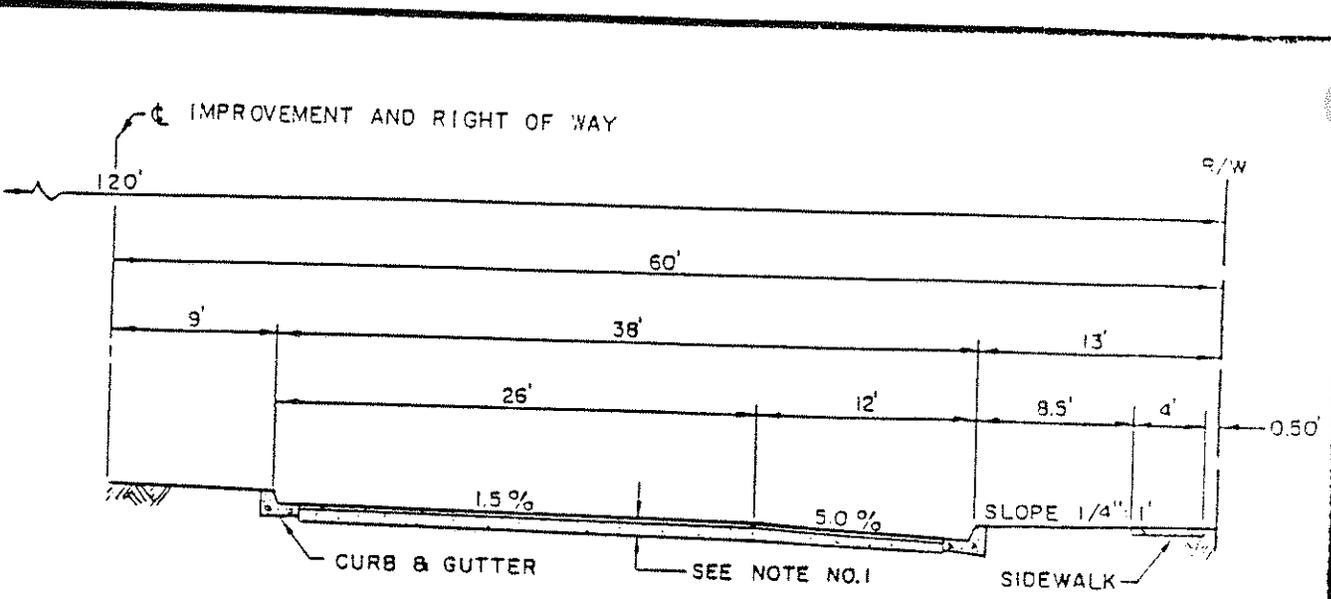


MAJOR HIGHWAY

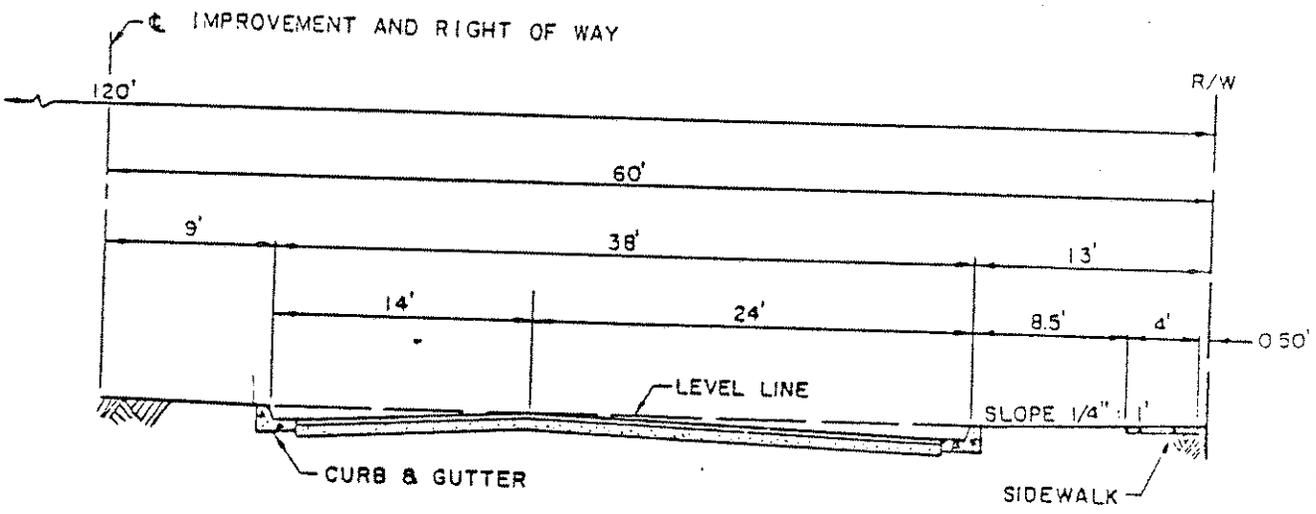


SECONDARY HIGHWAY

**TYPICAL HIGHWAY SECTIONS
for
RIVERSIDE COUNTY**



TYPICAL HALF SECTION

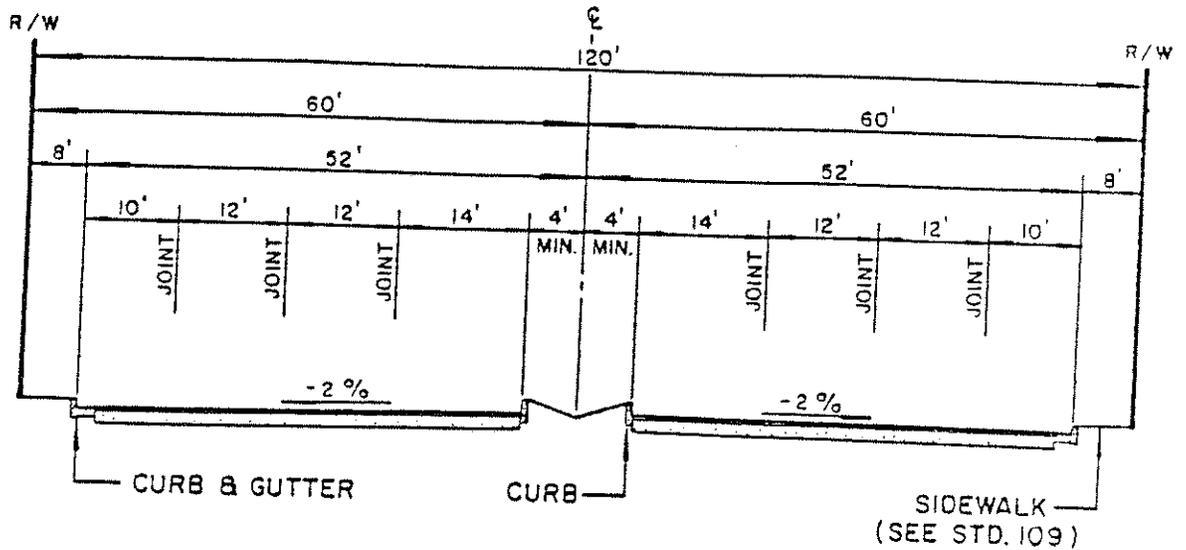


TYPICAL HALF SECTION

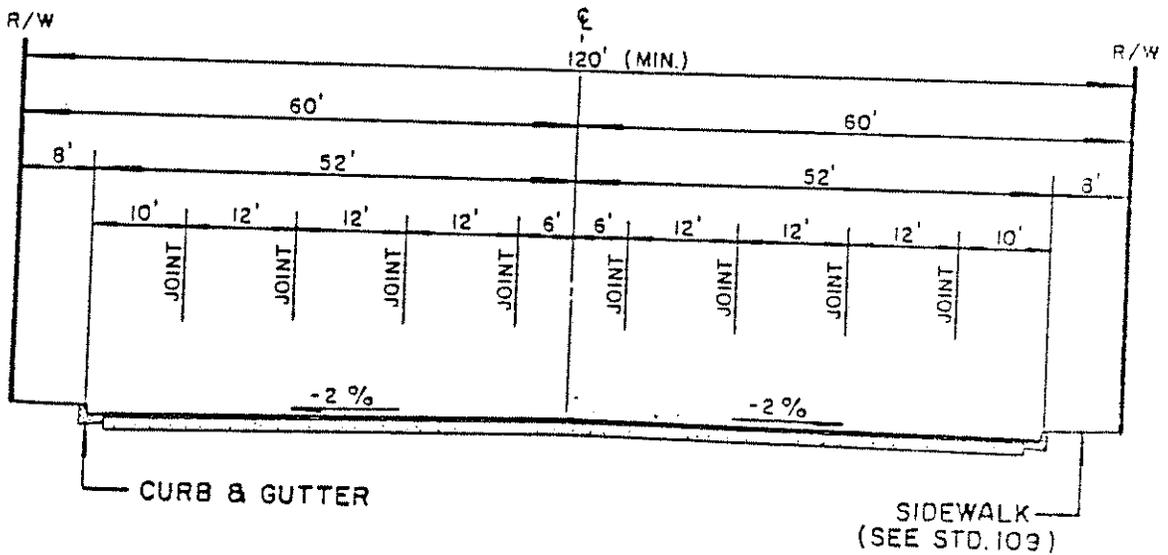
NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. CONSTRUCTION OUTSIDE R/W LINE SHALL REQUIRE SLOPE EASEMENTS.

SAN BERNARDINO COUNTY ROAD DEPARTMENT		MAJOR DIVIDED HIGHWAY	100
DATE: R.V.C. 6-65	M. A. Nicholas COUNTY ENGINEER		



**TYPICAL SECTION
WITH RAISED MEDIAN**



**TYPICAL SECTION
WITH CONTINUOUS LEFT TURN LANE**

NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. DRAINAGE FACILITIES SHALL BE PROVIDED TO DEWATER RAISED MEDIAN AREAS.
3. 10' SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.

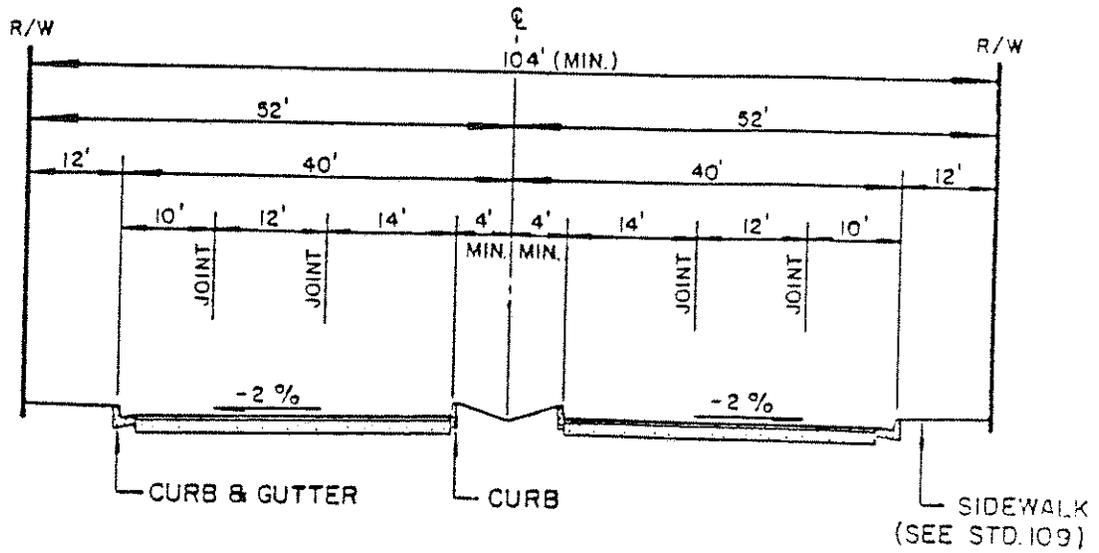
SAN BERNARDINO COUNTY TRANSPORTATION DEPARTMENT

DATE: 100 12 81

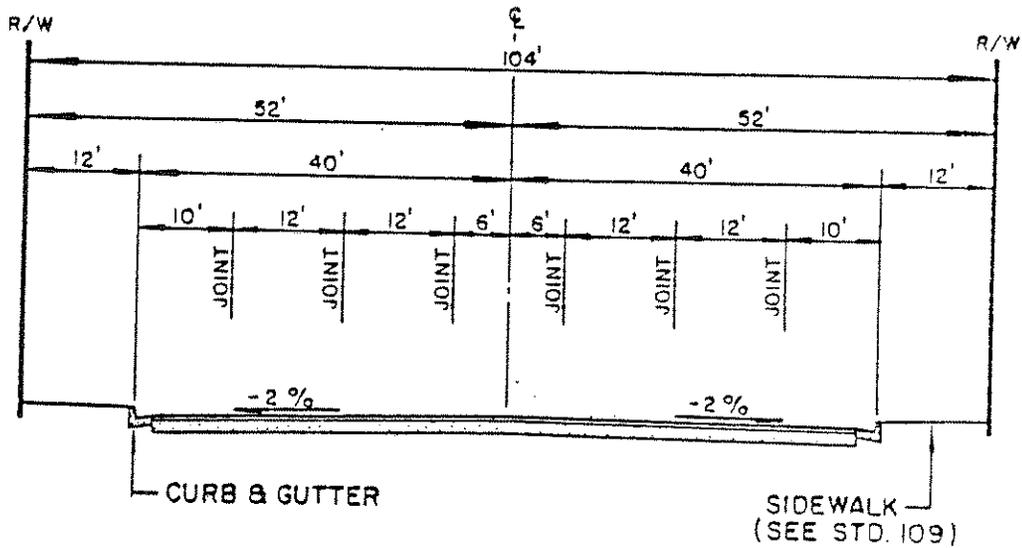
JOHN R. SHONE
DIRECTOR OF TRANSPORTATION

MAJOR ARTERIAL

**100
A**



**TYPICAL SECTION
WITH RAISED MEDIAN**



**TYPICAL SECTION
WITH CONTINUOUS LEFT TURN LANE**

NOTES:

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. DRAINAGE FACILITIES SHALL BE PROVIDED TO DEWATER RAISED MEDIAN AREAS.
3. 10' SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.

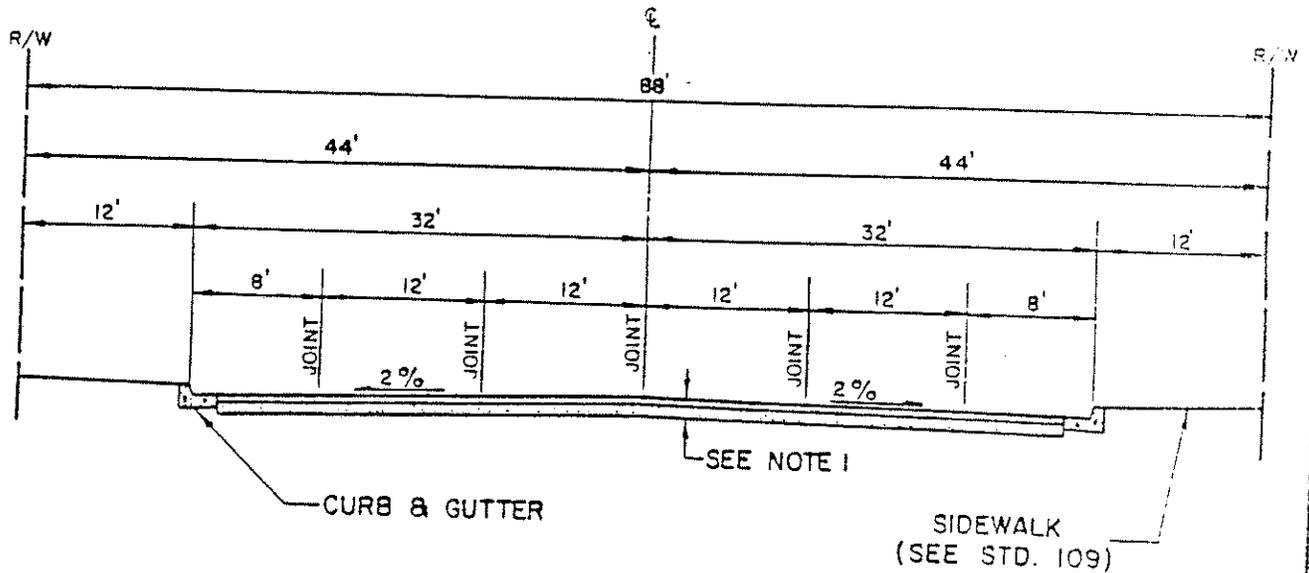
SAN BERNARDINO COUNTY TRANSPORTATION DEPARTMENT

DATE: 100 12 '81

JOHN R. SHONE
DIRECTOR OF TRANSPORTATION

MAJOR HIGHWAY

101

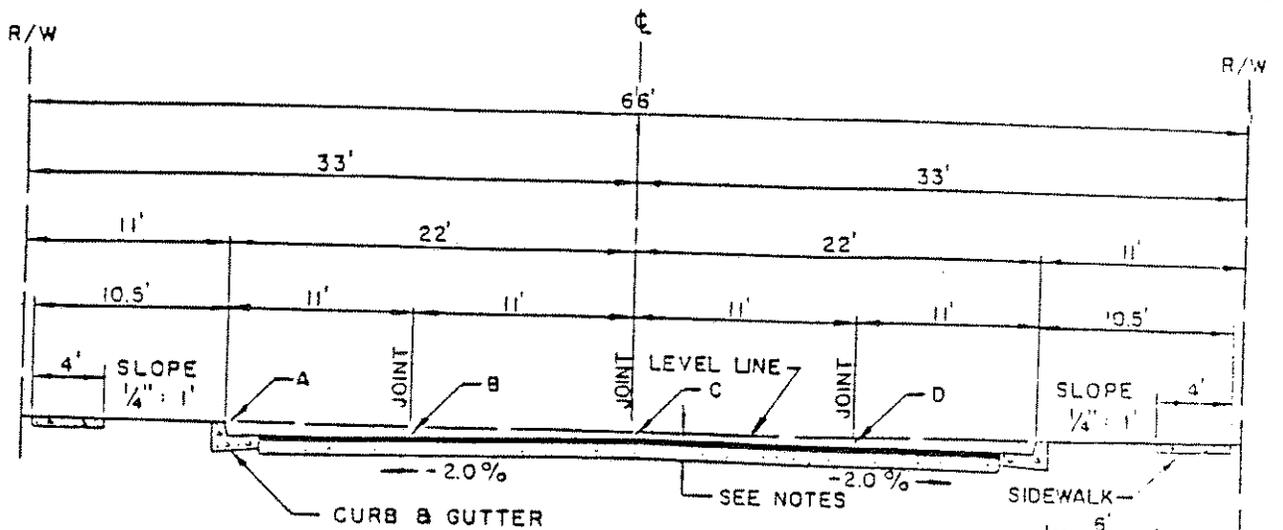


TYPICAL SECTION

NOTES:

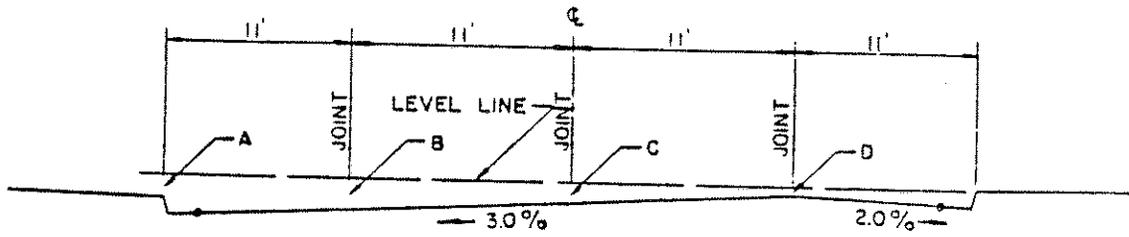
1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. 8' SHOULDER AREAS MAY BE DESIGNATED AS A BIKE LANE AND EMERGENCY PARKING ONLY.

SAN BERNARDINO COUNTY TRANSPORTATION DEPARTMENT		JOHN R. SHONE DIRECTOR OF TRANSPORTATION	SECONDARY HIGHWAY	102
DATE: V.R.K. 4 '77 R.D.L. 12 '81				



**TYPICAL SECTION
LEVEL**

ALTERNATE SIDEWALK
(IF SHOWN ON PLAN)



**TYPICAL SECTION
TILT**

		A	B	C	D
8" CURB	LEVEL	0.00'	0.36'	0.14'	0.36'
	TILT	0.76'	1.02'	0.69'	0.36'
6" CURB	LEVEL	0.00'	0.19'	(0.03)	0.19'
	TILT	0.76'	0.85'	0.52'	0.19'

() INDICATES ABOVE
LEVEL LINE

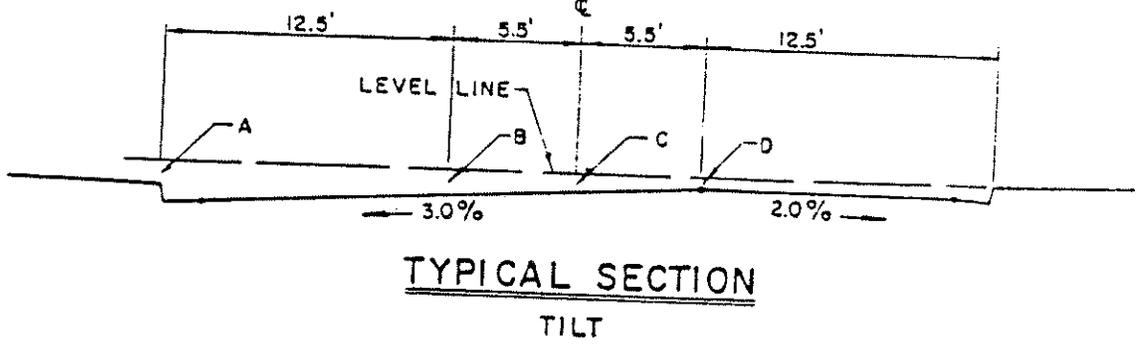
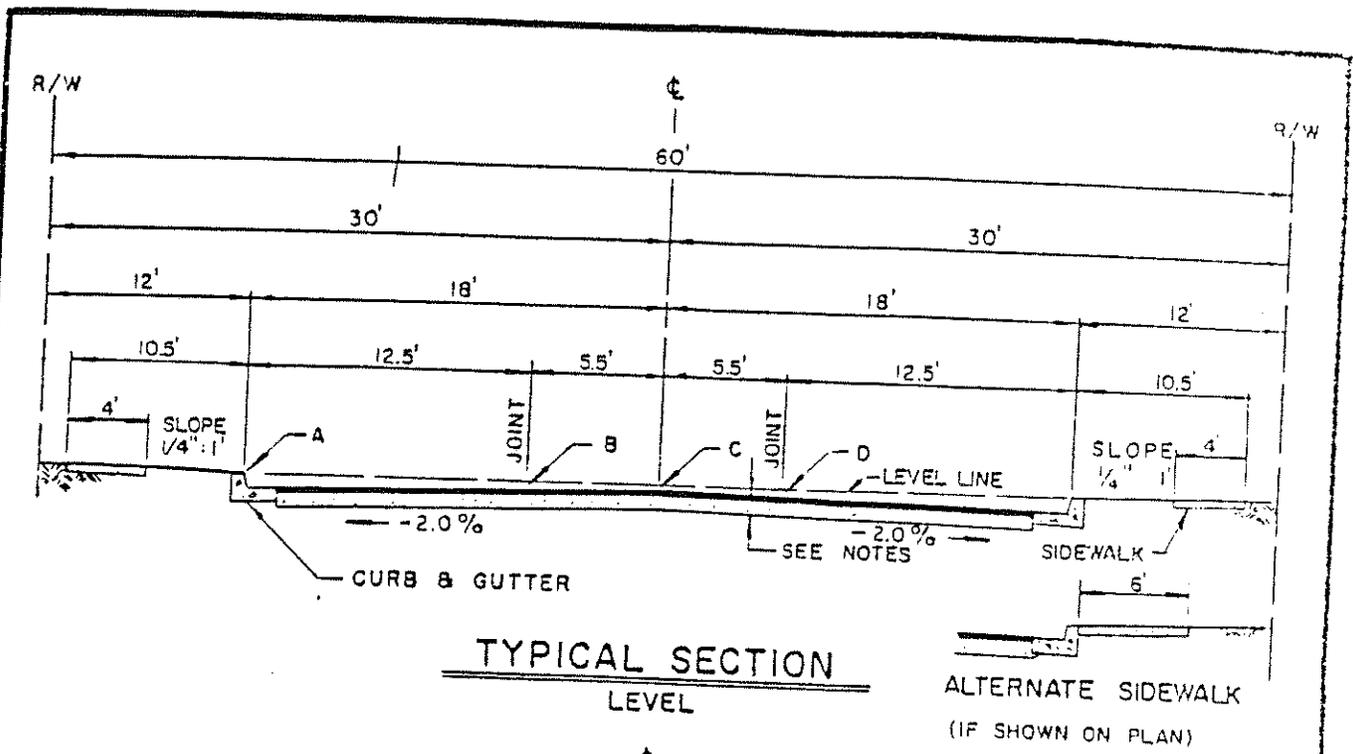
NOTE

1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
2. MINIMUM DESIGN PAVING THICKNESS SHALL BE 0.20' ASPHALT CONCRETE.
3. CONSTRUCTION OUTSIDE R/W WILL REQUIRE SLOPE EASEMENTS.

SAN BERNARDINO COUNTY ROAD DEPARTMENT
DATE: 3.V.C. 9-65
Rev. 5-74
John R. Shone
COUNTY HIGHWAY ENGINEER

COLLECTOR STREET

103

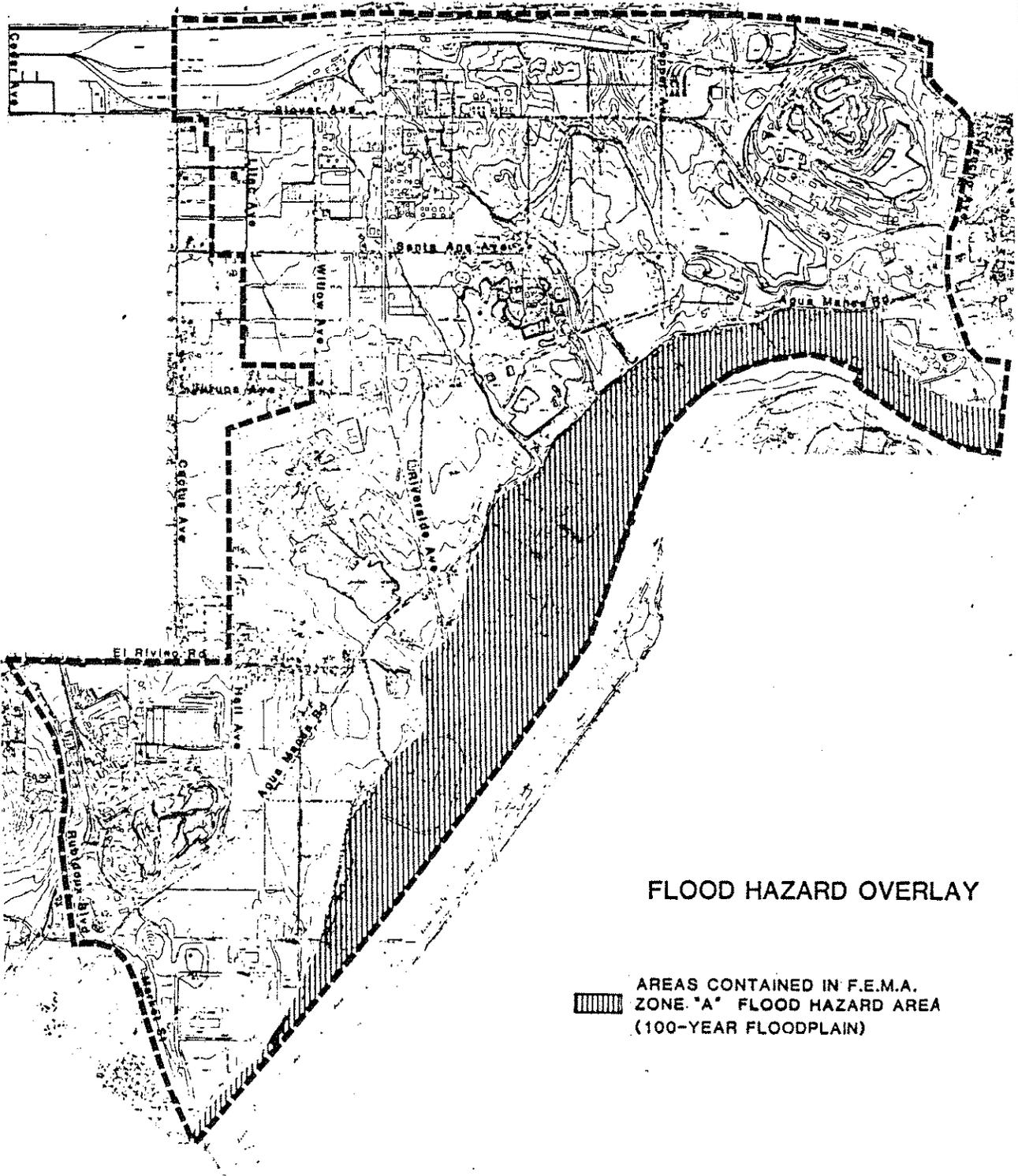


		A	B	C	D
8" CURB	LEVEL	0.00'	0.33'	0.22'	0.33'
	TILT	0.44'	0.66'	0.50'	0.33'
6" CURB	LEVEL	0.00	0.16'	0.05'	0.16'
	TILT	0.44'	0.49'	0.33'	0.16'

- NOTE**
1. STRUCTURAL SECTION OF ROADWAY SHALL BE DETERMINED FROM SOILS TESTS AND SO INDICATED ON CONSTRUCTION PLANS.
 2. MINIMUM DESIGN PAVING THICKNESS SHALL BE 0.20' ASPHALT CONCRETE.
 3. CONSTRUCTION OUTSIDE R/W WILL REQUIRE SLOPE EASEMENTS
 4. WHEN PREPARING SUBGRADE FOR PAVING, CENTERLINE CROWN ON THE "LEVEL SECTION" SHALL BE RELOCATED EITHER LEFT OR RIGHT 0.50' TO MATCH CROWN BREAK IN PAVING MACHINE.

SAN BERNARDINO COUNTY ROAD DEPARTMENT		LOCAL STREET	104
DATE: P.V.C. 9-65	John R. Shone		
Rev. 5-74	COUNTY HIGHWAY ENGINEER		

APPENDIX C
ENVIRONMENTAL HAZARD OVERLAY
DISTRICT MAPS



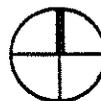
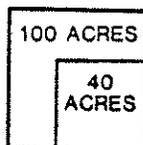
FLOOD HAZARD OVERLAY


 AREAS CONTAINED IN F.E.M.A.
 ZONE "A" FLOOD HAZARD AREA
 (100-YEAR FLOODPLAIN)

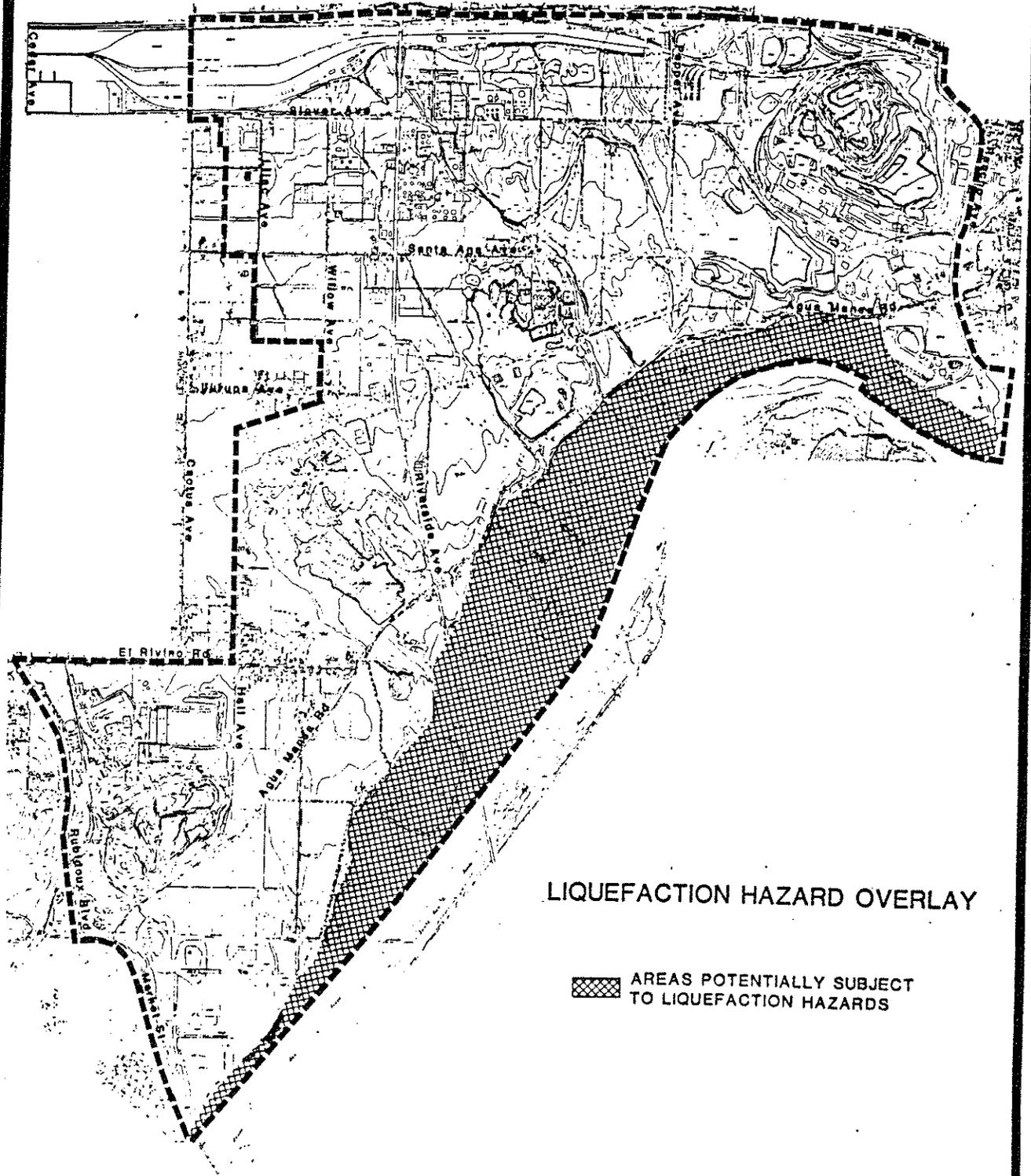


WILLDAN ASSOCIATES
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 AND
 WILLIAMS-KUEBELBECK AND ASSOCIATES



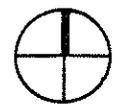
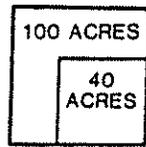
AGUA MANSA INDUSTRIAL CORRIDOR



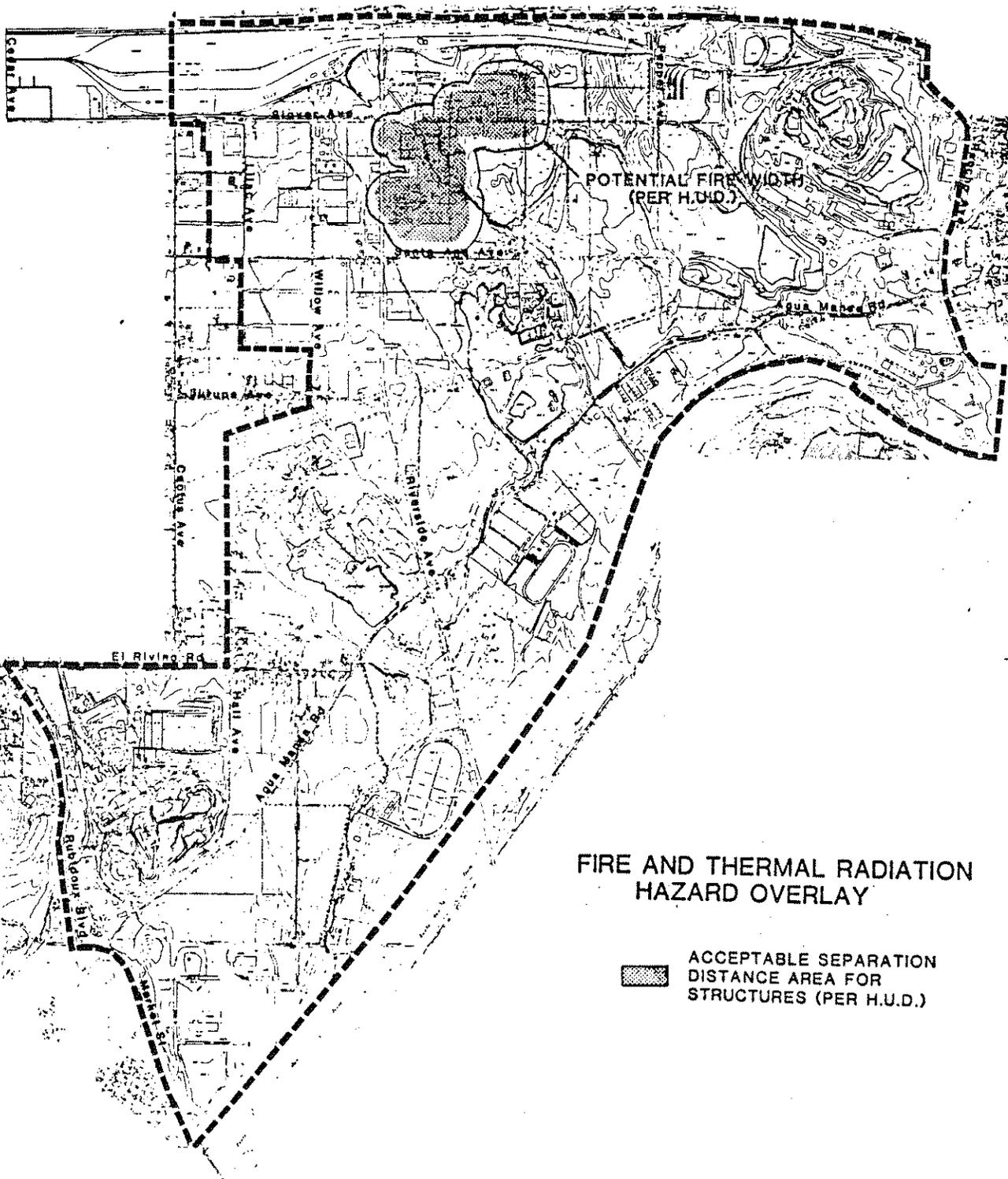
LIQUEFACTION HAZARD OVERLAY

 AREAS POTENTIALLY SUBJECT TO LIQUEFACTION HAZARDS

 **WILLDAN ASSOCIATES**
ENGINEERS AND PLANNERS
IN ASSOCIATION WITH
DENNIS HANSBERGER & ASSOCIATES
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AGUA MANSA INDUSTRIAL CORRIDOR



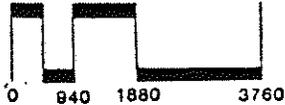
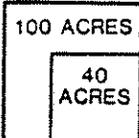
FIRE AND THERMAL RADIATION HAZARD OVERLAY


 ACCEPTABLE SEPARATION DISTANCE AREA FOR STRUCTURES (PER H.U.D.)



WILLDAN ASSOCIATES
ENGINEERS AND PLANNERS

IN ASSOCIATION WITH
DENNIS HANSBERGER & ASSOCIATES
AND
WILLIAMS-KUEBELBECK AND ASSOCIATES



AGUA MANSA INDUSTRIAL CORRIDOR



