ADDENDUM TO EIR-79-8, HIDDEN VISTA VILLAGE (TERRA NOVA) 12-10-84

A. INTRODUCTION

The environmental review procedures of the City of Chula Vista and Section 15126 of the State CEQA Guidelines provide that when an EIR has been completed, no additional EIR need be prepared unless one of the following conditions exist:

1. Changes are proposed in the project which will involve new significant environmental impacts not considered in the previous EIR;

2. Substantial changes have occurred with respect to the circumstances under which the project is undertaken which involve significant environmental impacts not considered in the previous EIR; or

3. New information which could identify significant environmental impacts or measures which could reduce the severity of significant environmental impacts have been identified and were not discussed in the previous EIR.

Section 15164 of the CEQA Guidelines provides that an agency may prepare an addendum to an EIR when the above noted circumstances exist. This document is to describe the proposed project revisions and evaluate any potential impacts which could result and establishes the reasons that no significant impacts would result from the project revisions. This addendum does not have to be circulated for public review but must be considered by the decision-making authority along with the Final Environmental Impact Report prior to a decision being made on the project.

B. PROJECT DESCRIPTION

The following is a summary of the proposed revisions to the Terra Nova Project in the El Rancho del Rey Specific Plan. (Additional specific information is provided in attachments to this addendum. They include: 1) a statistical breakdown of the original Rice Canyon Sectional Planning Area, the currently approved plan, and the proposed revisions, 2) a land use map indicating the changes in commercial acreage and number of various dwelling units and 3) a revised phasing schedule for the project.)

1. Redesignation of the commercial recreation land use on the south side of East "H" Street to retail commercial. The existing land use plan for the Rice Canyon SPA has approximately 3 acres of commercial recreation land use designated for the area south of East "H" Street between the retail commercial center and the higher density residential uses to the east. This proposal would change that designation to a retail commercial use so that the proposed retail shopping center could be expanded in this area.

2. Density transfer from the north side of "H" Street to the area on the south side of "H" Street. The approved design for the residential land use on the north side of "H" Street includes a series of condominiums contained in buildings with 4, 6, and 8 dwelling units with some standard flats over townhouse residential units. The project proponent is proposing to redesign this site at a lower density permitting dwelling units and structures of 2 and 4 dwelling units. This would result in the reduction of 36 dwelling units on the north side of East "H" Street that the applicant is proposing to transfer to the south side of East "H".

3. Reduction of the dwelling units for low and moderate income families from 232 to 153 units. The approved residential land use on the south side of East "H" includes the construction of 232 low/moderate income units under a Section 8 New Construction Program. This program is no longer funded by the Federal Government and, therefore, it is proposed that 81 low income households be provided on the south side of East "H" Street and 72 for-sale moderate income households be provided on the north side of East "H" Street in the condominium project area.

4. Construction Schedule. Because of the delays in construction of the condominium and multi-family areas due to revisions in the project and the reconfiguration of commercial land uses, the original development schedule is no longer viable. Therefore, the project applicant has provided a new construction phasing schedule which is shown in the attachment to this addendum.

5. Authorization to construct two-story houses on corner lots. The current regulations on this Sectional Planning Area include the prohibition of two-story dwelling units on corner lots in the single family area. The developer is requesting that in two instances (lots 296 and 314), two-story structures be allowed subject to design review by the Planning Department.

C. PROJECT IMPACT ANALYSIS

The Environmental Impact Report for this project includes an evaluation of 23 issues. Most of the mitigation for potential impacts have been implemented prior to construction, during construction, or are ongoing over the development of the project. There are, however, several issues which could be affected by the proposed revisions in the project. These include community social factors, air quality impacts, acoustical affects, and transportation and access.

1. Community Social Factors. Although there is proposed to be a substantial reduction in the provision of housing for low and moderate income families, the impacts relative to those identified in the Final EIR are not significant. At the time that the EIR was prepared, it was anticipated that between 100 and 140 units would be

available for low and moderate income housing (Section 3.14.3, page 114). With the project now proposing to provide 153 units of low and moderate income housing, there is no substantial difference between the impacts identified in the EIR and those which would result due to project revisions.

2. Air Quality/Noise. As is noted later in this addendum, the increase in vehicle trips resulting from the proposed revision is not substantial and would not create any perceivable difference insofar as air quality impacts or acoustics. The traffic generated by the residential uses would be the same or slightly less than the existing approved plan. There would be a shift of dwelling units from a medium density area to a higher density area which could result in a slightly lower traffic generation factor per dwelling unit while maintaining the same number of total dwelling units. The commercial development would generate 3% more ADT (626 trips) than the approved project. This increase is not substantial enough to result in air quality or acoustical impacts.

3. Transportation/Access. The project proponent has submitted a traffic study to the City of Chula Vista which was prepared by Federhart and Associates (9/20/84) which was subsequently reviewed by the City's Traffic Engineer and several questions and comments were made to the traffic consulting firm. Subsequently, on December 3, 1984, a letter responding to those questions was submitted. Both of those documents are attached to this addendum.

   The previous traffic study was prepared for a project which included a 190,000 sq. ft. center including a variety of uses including retail, office, restaurants, banks, and a theater as well as an 8.5 acre auto sales park. The current proposal contains approximately 295,000 sq. ft. of floor area including retail, office, and restaurant-type uses. These subsequent documents have been evaluated by the City's Traffic Engineer and they substantiate the determination that the analysis in the Final EIR for Hidden Vista Village is adequate for this proposed project. This conclusion is reached subject to two assumptions. They are:

   (1) That the improvements (i.e., travel lanes, turning lanes, traffic signals, interchange/intersection geometrics, etc.) will be installed to accommodate the traffic as projected in these traffic studies.

   (2) The intersection of East "H" Street with Hidden Vista Village Drive and the main access drive to Terra Nova Plaza will function marginally with the improvements as stated in the traffic study. These improvements include signalization, the provision of dual left hand turn lanes, deceleration lanes for the major entrance to the shopping center, adequate for through traffic lanes, and generally adequate geometrics for the proposed street system and its intersections.

D. CONCLUSION

The evaluation of the proposed project revision, the approved Final Environmental Impact Report and the subsequent information submitted by the applicant and reviewed by City staff indicates that there will be no significant environmental impacts that will result from the project revisions which were not evaluated in the Final EIR for the Hidden Vista Village project (EIR-79-8). Therefore, it is recommended that the Planning Commission and City Council recertify EIR-79-8 along with this addendum prior to their consideration of the proposed project revisions.

WPC 1538P

FINAL
ENVIRONMENTAL IMPACT REPORT

RICE CANYON SECTIONAL PLANNING AREA
EIR-79-8

ISSUED FOR REVIEW BY THE
CHULA VISTA
ENVIRONMENTAL REVIEW COMMITTEE

OCTOBER 10, 1979

PREPARED FOR THE CITY OF CHULA VISTA

by

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APR #79-0206

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1.0 INTRODUCTION

1.1 PURPOSE

This document addresses the potential environmental impacts of the proposed Rice Canyon Sectional Planning Area (SPA) of El Rancho del Rey, a 419-acre Planned Community (PC) project, located at the end of East H Street, just east of Interstate 805, bounded at the north and south by housing developments and to the east by vacant land.

The project, which would include 224 multi-family units, 334 single-family dwellings, 638 condominiums, and 188,000 square feet of commercial, office and retail space, is the initial phase of development in the El Rancho del Rey Specific Plan Area.

An Environmental Impact Report (EIR 78-2) was prepared by the City of Chula Vista Environmental Review Committee and Planning Department for the overall Specific Plan Area on December 23, 1977, and certified by the Chula Vista Planning Commission on February 22, 1978. Later, on August 8, 1978, the plan diagram and text of the Specific Plan of El Rancho del Rey was adopted by the Chula Vista City Council.

The purpose of this EIR is to investigate and evaluate environmental issues related to the proposed development plan for the Rice Canyon Sectional Planning Area (SPA), some of which have been previously addressed in the original El Rancho del Rey EIR. The report is intended to inform the general public and enable appropriate public agencies to evaluate environmental impacts, mitigation measures, and alternatives of the Rice Canyon SPA.

This report has been prepared in accordance with the State of California Guidelines for the Preparation and Evaluation of Environmental Impact Reports under the California Environmental Quality Act of 1970, with recent ammendments, as well as procedures established by the City of Chula Vista.

1.2 EXECUTIVE SUMMARY

The Rice Canyon SPA is the initial phase of the El Rancho del Rey Specific Plan Area. The owner/developer of the property has applied the name Hidden Vista Village to the project. Some of the references to the project, particularly in the technical attachments, will refer to the project using the Hidden Vista Village name. The project design is intended to be in accordance with the land use prescribed for the project site. The mixed residential and commercial development would occur at the specified densities and locations established in the El Rancho del Rey Plan.

The project is to be a planned community which would integrate a number of land uses. Single-family and multi-family dwellings would be built on either side of East H Street. East H Street would be improved to the southeast corner of the project. Within the residential area to the north of East H Street are lots which would be improved and dedicated as sites for a fire station, junior high school, elementary school, and park. South of East H Street, land use would include a shopping center, park-and-ride lot, recreation club, office space, and multi-family dwellings. The possibility of low-cost housing in the multi-family units exists.

While the project is substantially in conformance with the zoning and planning for the project, implementation of the project would result in a number of environmental effects. Likewise, existing conditions on the property, i.e., fault traces, would affect development. Mitigation does exist which, as incorporated into project design, would substantially reduce the impacts associated with the project. Despite the ability to minimize the effect, many of the impacts cannot be completely avoided.

Grading would have an adverse effect on the subject property. Major landform modification would be necessary to create the building sites. In the process of site preparation, a number of large cut and fill banks would be created. The aesthetic value of the project site would also be affected by grading as natural topography is modified and natural vegetation is removed. Grading would have the most effect on landform and aesthetic characteristics of the project.

Geologic conditions present on the subject property could also impact the proposed development. Seismic hazard would be the principal geologic feature affecting future buildings and occupants of the proposed Rice Canyon SPA. Several fault traces, including the Sweetwater Fault Zone, have been found on the project site. Although considered only potentially active, these zones of weakness do present a hazard on the property should earth movement occur along these zones. The impact can be

substantially reduced through setback or construction regulations.

Several areas of expansive or alluvial soil exist on the property. Standard grading and building code requirements would mitigate potential effects of these soils on development.

The Rice Canyon SPA would increase the volume of surface water runoff which could have an affect on-site and off-site. Erosion and subsequent sedimentation of drainage structures downstream could result. Although specific drainage control within the project has not been designed, it is expected that surface water can be collected and transported in a manner which would avoid erosion.

Prehistoric archaeological resources do occur on the property. All but two of these sites are located in areas which would be graded. These sites appear to be relatively small finds which, if necessary, can easily be mitigated by a surface collection, subsurface testing and micromapping program. Urbanization of the Rice Canyon SPA would adversely affect the existing biologic habitat. Grading would remove vegetation from something less than three-quarters of the property. In the process, portions of populations of sensitive plant species identified in the biology survey may be destroyed. Transformation of the natural habitat on the site would force wildlife to retreat to undeveloped land within, and east of, the project, thus increasing competition for food and range limitations which would ultimately decrease populations. The preservation of 125 acres with the project would partially mitigate this impact. Further mitigation of clearing on specific sensitive plants could be made through a transplanting program, although these techniques have not been thoroughly evaluated for their effectiveness.

The commercial and residential land uses proposed by the project would generate a substantial amount of traffic. Streets and intersections within the project have been designed to adequately handle project-generated traffic. However, limitations may become evident as traffic increases along the Rice Canyon SPA circulation system with the completion of the entire El Rancho del Rey Specific Plan Area. The capacity of the system can be improved by widening major streets in order to accommodate future traffic volume generated off-site. Other alternatives for alleviating traffic congestion include left-turn lanes and a median opening at the northwest access point for the commercial center.

The traffic generated by the project would increase air pollutant emissions. Motor vehicle emissions are the major source of air quality degradation. When viewed from a regional perspective, the project would not significantly increase air pollutants but would represent an incremental increase. Several features of the Rice Canyon SPA including: the park-and-ride facility; proximity of schools and shopping; and bicycle paths; would partially reduce the potential impact. State and Federal laws are also expected to lower vehicular emissions.

Noise levels would be raised on the property following development. Traffic would be the principal source. Interstate 805 would continue to produce high levels of noise. East H Street, "Street K", and Ridgeback Road, would eventually carry enough traffic to result in unacceptable noise. However, unacceptable noise levels, as indicated by contours generated in the noise analysis, would not be expected to significantly affect residential areas.

Demand on local public services would increase as the development phases are completed. Correspondence with the various districts and companies responsible for providing these services revealed a general ability to absorb the development without significant effect on staff or facilities. However, the local school districts and the Metropolitan Sewer District would be significantly affected. Both the elementary and high school district facilities are overcrowded. The students to be generated by the project would further crowd the districts. Fees would be assessed to the developer to provide temporary facilities. In addition, dedicated school sites are proposed within the Rice Canyon SPA. The Metropolitan Sewer District indicates that it has no excess capacity. A new treatment facility is planned by 1985; in the interim, the District is contractually obligated to accept sewage from the property, but its ability to process it could be uncertain.

The consumption of energy for construction, transportation, commercial, and domestic purposes, would further increase the demand for non-renewable resources. Available mitigation to reduce this effect include: carpooling; governmental regulation; energy-efficient appliances and insulation; as well as incorporating alternative energy systems such as solar.

2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

The proposed project site lies east of Interstate 805 at the East H Street extension, within the City of Chula Vista in San Diego County. The approximate travel distances to downtown Chula Vista and San Diego are 1 mile and 14 miles, respectively. See Figure 1 for a site and vicinity map. An aerial photograph of the site is included in Figure 2.

2.2 PROJECT OBJECTIVES

The Rice Canyon SPA is one of the initial development phases of the planned implementation of the El Rancho del Rey Specific Plan. One of the overall objectives of the El Rancho del Rey Specific Plan is to develop areas tributatry to East H Street from west to east, thus insuring coordinated development of streets, sewers, utilities, as well as urban order.

A 188,000 square-foot Commercial Center, including restaurants, retail stores, offices, a bank, a theater, adjacent auto park and park-and-ride facilities, is planned for the west side of the property along East H Street. A recreation club and spa are planned in the multi-family units south of East H Street. Proposed residential land uses would include apartments, condominiums, and single-family homes. A park site, elementary school site, junior high school site, fire station site, and designated open-space areas are also proposed as part of the project.

The 419-acre property would be subdivided into 348 lots. All improvements, including roads and utilities, would be made by the developer. The residential and commercial buildings would be constructed for sale or lease as part of the proposed project. Construction for the entire project would be expected to occur over a 2 - 5 year period. Development of the property would necessitate the eventual construction of a new fire station, elementary school, junior high school, and 7.3 acres of developed park. The developer would provide for park and recreation through a combination of dedication of improved park land and payment of fees. School fees would be assessed upon issuance of building permits.

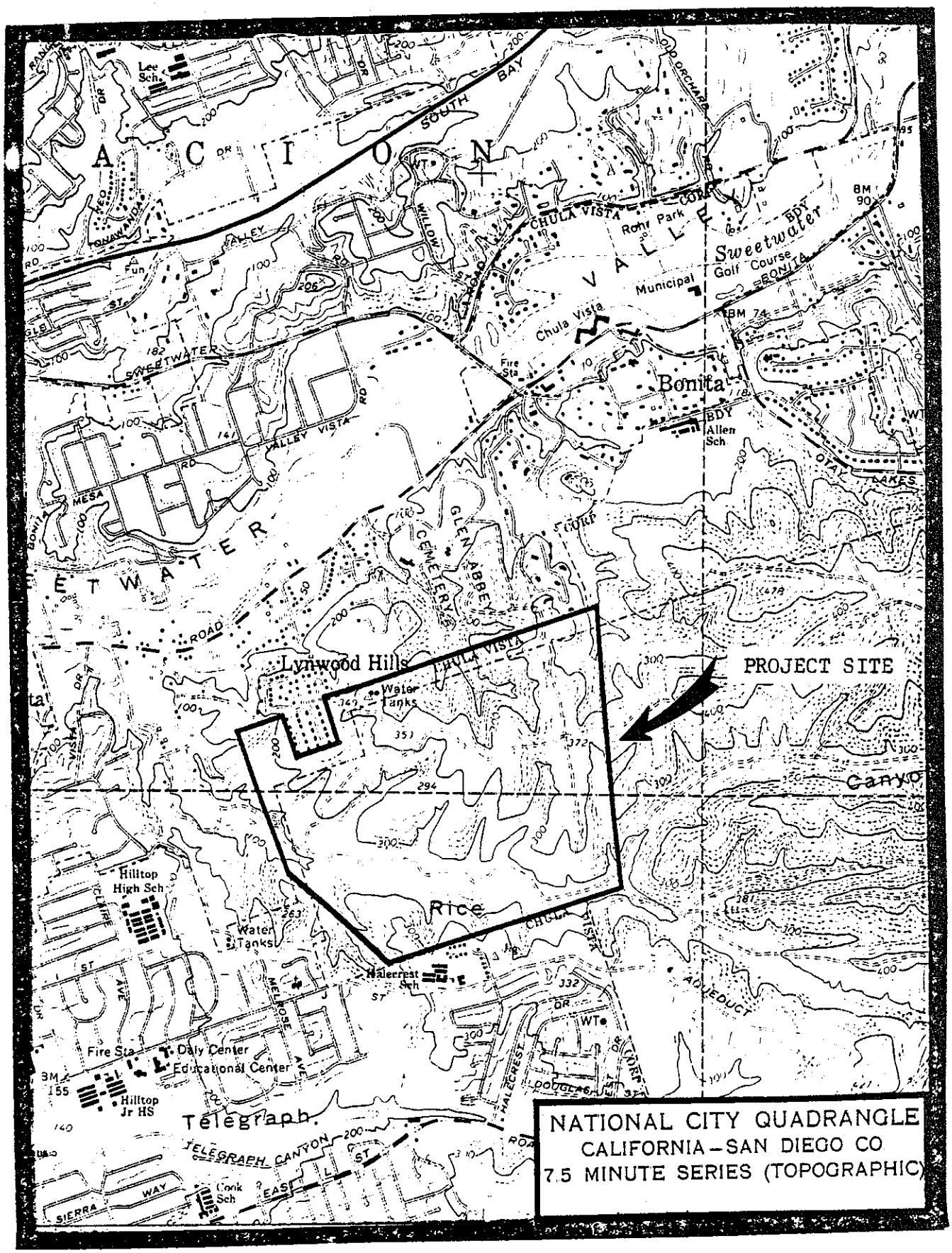


Figure 1. SITE AND VICINITY MAP

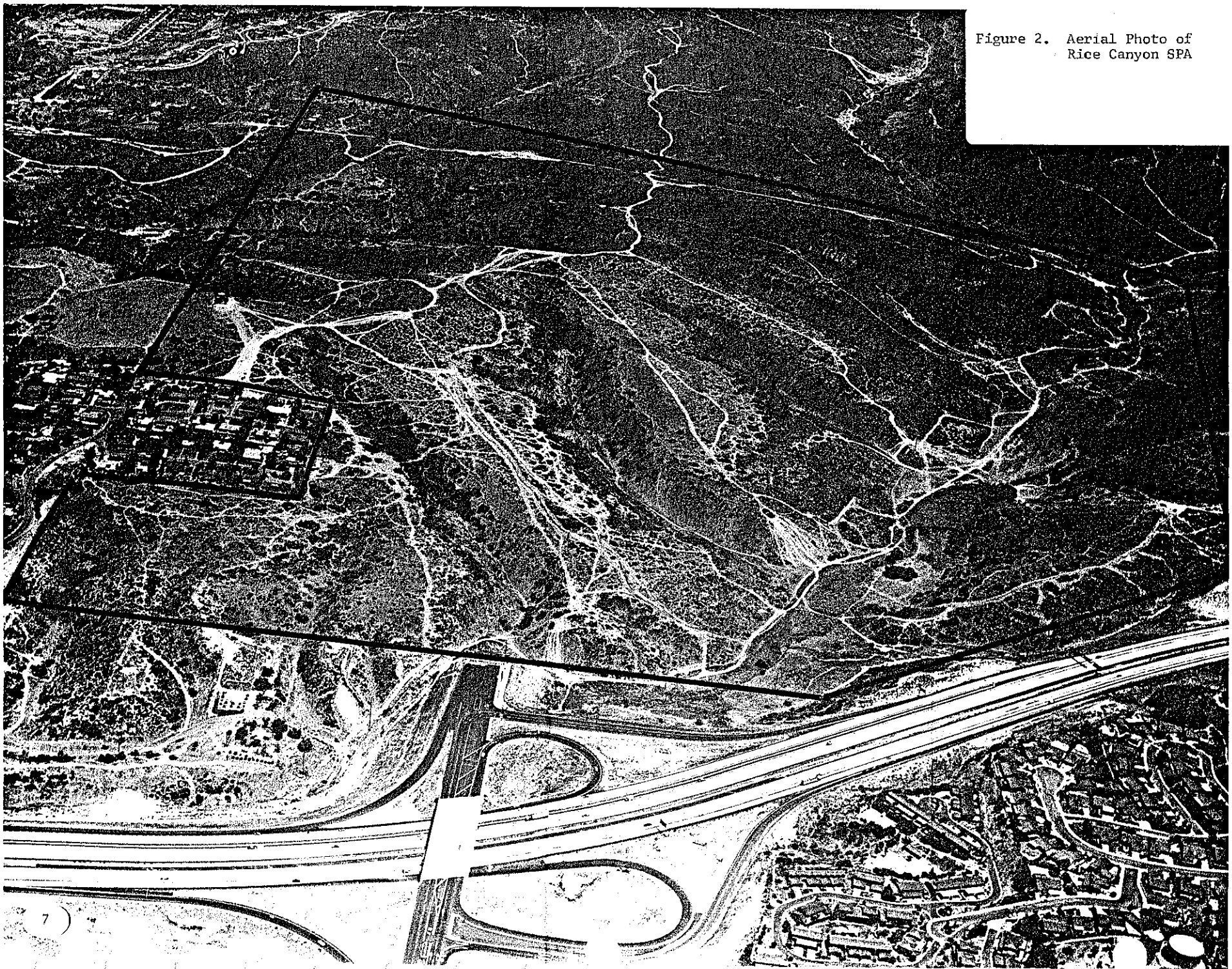


Figure 2. Aerial Photo of Rice Canyon SPA

It is expected that development of the Planned Community would be completed through a series of phased developments. No specific schedule, as yet, has been put forth by the developer. It does appear likely that, in order to achieve a balanced operation, all grading for roads and building sites would be performed at one time and would be the initial phase. Residential development north of East H Street would probably take place first and the commercial development would be one of the last phases. The expense and generation of revenue to offset the cost of extending East H Street is likely to dictate the phasing. East H Street would be improved in segments and only for the distance necessary to serve each phase as it is developed.

2.3 PROJECT CHARACTERISTICS

The project would encompass 334 single-family homes with lots ranging from 6,000 - 18,000 square feet, 224 apartments, 638 condominiums, a 188,000 square-foot commercial center, a one-acre park-and-ride facility, a 4.6-acre park site, 125 acres of open space, a fire station, a 9-acre elementary school site, and a 22-acre junior high school site, as delineated in Figure 3 - Rice Canyon SPA Plan, (Hidden Vista Village) and Table I - Land Use.

The commercial center would include an 840-seat theater, 2 restaurants, 2 banks, 40,000 square feet of office space, and 8 retail stores ranging from 5,400 - 32,000 square feet.

The Rice Canyon SPA would require the extension of existing water, sewer, telephone, gas, and electric lines. Water would be provided by tying into an existing 20-inch line from Telegraph Canyon Road to the east, and a proposed one million-gallon reservoir south of H Street, with a 18-inch transmission main along the proposed alignment of East H Street. City of Chula Vista Department of Public Works Improvement Drawing Number 71-139D shows an existing 15-inch sewer pipe along East H Street which terminates about 1,300 feet south of the northwest corner of the project. This sewer would be extended through the Rice Canyon SPA.

Traffic generated by the project would be accommodated by extending East H Street eastward with 6 lanes to the eastern boundary of the project. Bike lanes and sidewalks are planned for each side of East H Street and Ridgeback Street, and an existing equestrian trail would be preserved along the northern border of the project site. The street improvements are fully described in the Transportation/Access section of this report.

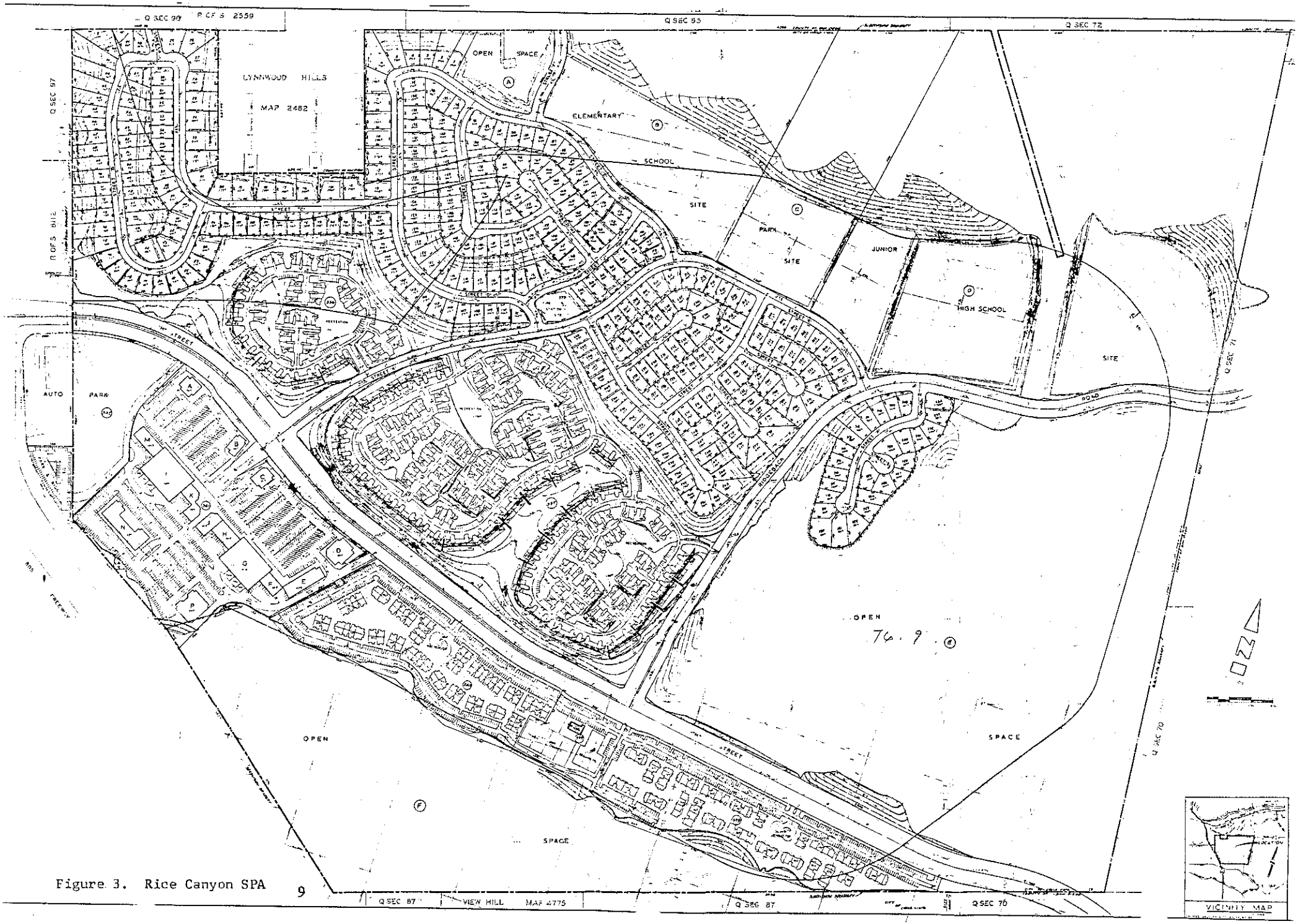


Figure 3. Rice Canyon SPA

Grading would require balanced cut-and-fill of four and one-half million cubic yards, including schools and park sites, or three and one-half million cubic yards not including schools and park sites. The grading of the entire property is scheduled to occur in a single phase to allow balance of operation.

The Rice Canyon SPA proposes 125 acres of open space in the southeast and southwest quadrants of the project site. Areas in the notheast which are not included in the park or school sites would eventually become open space. The open space areas are of steep terrain and generally coincide with open space as designated by the El Rancho del Rey Specific Plan Area.

No changes in zoning would be required. Discretionary permits which are necessary include the approval of the proposed Sectional Plan Area, tentative map, and grading permit and review of architecture and site plan.

TABLE I

PROPOSED LAND USES - RICE CANYON SPA

Residential Land Use	Acres (Approximate)	Number DUs
Apartments	11	224
Condominiums	67	638
Single-Family	82.3	334
Commercial Land Use		**Number Buildings**
Commercial	20	14
Auto Park	8	--
Recreation Club	3	1
Public Uses		
Elementary School	20	*
Junior High School	66	*
Parks	15	--
Fire Station	0.7	1
Open Space	125	--
Park-and-Ride	1	--

(Total Land Area = 419 Acres)

* Planned for future construction

3.1 LAND USE/ZONING/PLANNING

3.1.1 Project Setting

The project site is situated ~~West~~ East of Interstate 805 in an area which is only sparsely developed. Currently, the subject parcel is vacant. Dirt roads worn by off-road activity, three powerline easements, two water storage tanks, and a 42-inch domestic water pipeline are the only disturbances present on the property. Native vegetation covers the property. Off-road vehicle activity, common on undeveloped land near urban areas, has resulted in a network of bare trails criss-crossing the property. Utilities which cross the property, water and electricity, are located within easements owned by the San Diego Gas & Electric Company and the City of San Diego. The principal powerline (69KV) corridor follows the floor of Rice Canyon. The water line is a 42-inch aqueduct which is an emergency water service connection to the City of San Diego steel pipeline.

Surrounding land uses fall into three classifications: transportation, residential, and vacant. Most of the property to the east is vacant. Land to the north, south, and west is residential. Interstate 805, an 8-lane freeway, essentially parallels the western boundary of the Rice Canyon SPA property.

A specific description of land use adjacent to the project site is as follows: (Refer to Figure 4 - Project Area Zoning, which is a composite of the zoning maps of the City of Chula Vista.)

NORTH

Lynwood Hills, an existing subdivision with lot sizes ranging from 10,000 square feet to an acre, forms a pocket of existing residential development along the northern boundary. Bordering the property along the eastern portion of the northern boundary is the Glen Abbey Memorial Park Cemetery. A City of San Diego aqueduct easement extends through the property to the north. The remaining land is undeveloped.

EAST

Land east of the project is presently vacant. As in the case of the subject property, off-road activity has created a series of dirt roads.

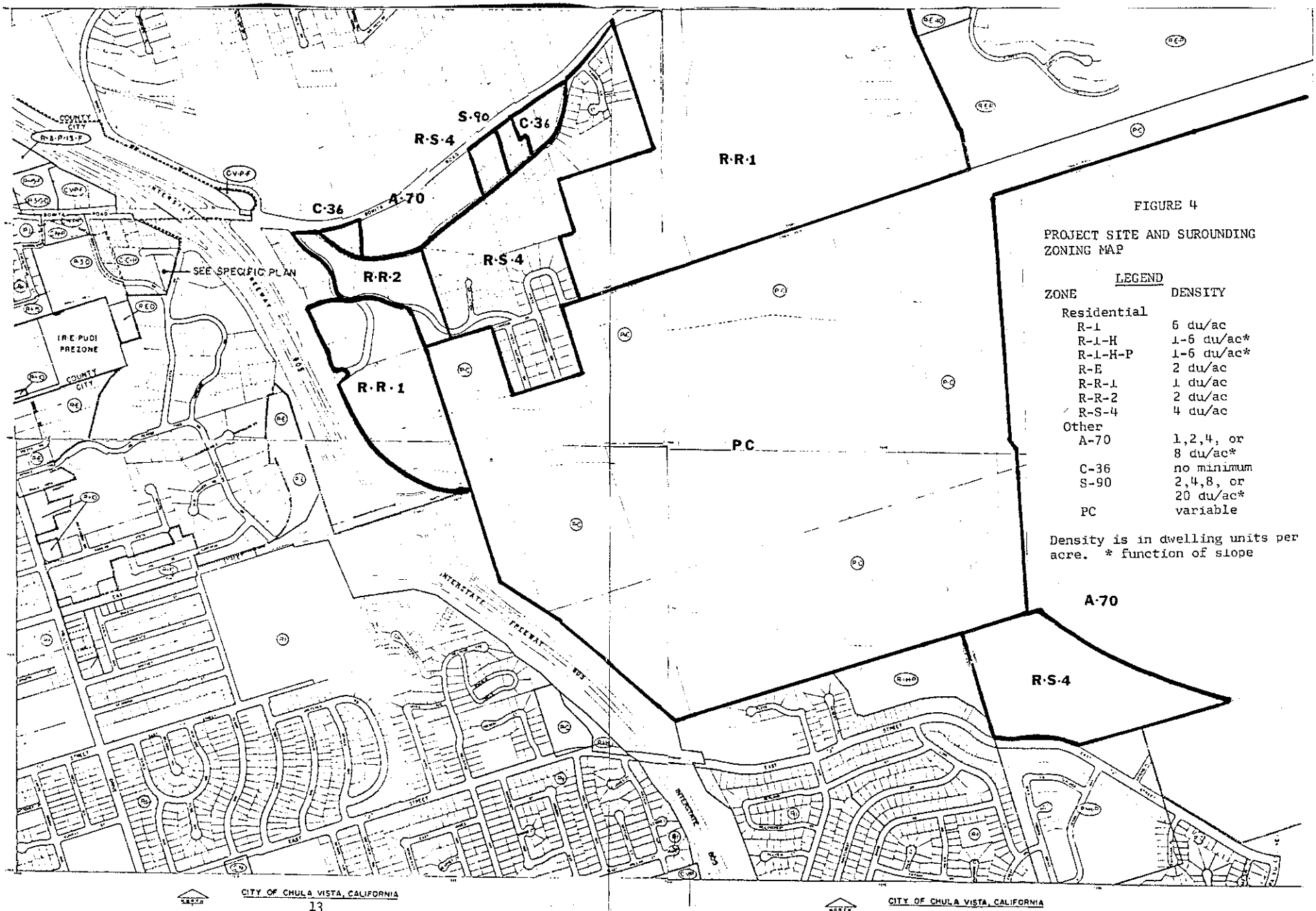


FIGURE 4

PROJECT SITE AND SURROUNDING ZONING MAP

LEGEND

ZONE	DENSITY
Residential	
R-1	6 du/ac
R-1-H	1-6 du/ac*
R-1-H-P	1-6 du/ac*
R-E	2 du/ac
R-R-1	1 du/ac
R-R-2	2 du/ac
R-S-4	4 du/ac
Other	
A-70	1,2,4, or 8 du/ac*
C-36	no minimum
S-90	2,4,8, or 20 du/ac*
PC	variable

Density is in dwelling units per acre. * function of slope

SOUTH

Land use south of the property is comprised of an existing subdivision, a small park (Halecrest Park), and the Halecrest Elementary School. The subdivision is a single-family residential development with a minimum lot size of 7,000 square feet.

WEST

Single-family development, on 7,000 square-feet minimum lots, has already taken place to the west of the proposed project across Interstate 805. Immediately adjacent to the project site is Interstate 805, an eight-lane freeway. An interchange was completed with construction of the freeway and the connection for the proposed East H Street is provided. Between the project site and Interstate 805 is scattered housing and a greenhouse.

Zoning

Zoning classification for the Rice Canyon SPA and adjacent properties are controlled by two jurisdictions: the County of San Diego, and the City of Chula Vista. A composite of the zoning is shown in Figure 4. The Rice Canyon SPA and land to the west, south, and northeast, is within the City of Chula Vista while areas to the north and east are unincorporated and controlled by the County.

The Rice Canyon SPA is classified as a Planned Community Zone. This designation provides for orderly development of large tracts of land, which may contain a variety of land uses but are under unified ownership or control.

All land surrounding the project which is within the City of Chula Vista jurisdiction is zoned for single-family residential development, with the exception of a P-C zone to the southwest. Specific designations include R-1-H, R-1-H-P, R-1, and R-E-D. Minimum lot sizes range from 5,000 square feet to one acre.

County land is zoned residential (R-S-4 and R-R-1) to the north, and agricultural (A-70) and residential (R-3-4) to the east. The residential zones allow for construction of one single-family dwelling on minimum lot sizes of 10,000 square feet (R-S-4) and 1 acre (R-R-1). The A-70 zone is designed to promote a variety of agricultural uses and to provide for the construction of one single-family residence on minimum lot sizes of 2, 4, and 8 acres, dependent on the average slope.

Planning

Land use planning for the project site and vicinity is also divided between the City of Chula Vista and the County of San Diego. The unincorporated land around the project is included in the Sweetwater Community Plan; a portion of the Plan map is shown in Figure 5. The City of Chula Vista has prepared a General Plan to serve as a land use planning guide for the City. The project site and undeveloped land to the east are governed by the Text and Plan the El Rancho del Rey Specific Plan, which is incorporated into the General Plan and is used in lieu of the General Plan. Portions of the Plan map from each of these documents are reproduced in Figures 6 and 7, respectively.

The Sweetwater Community Plan calls for residential development of land adjacent to the north and east of the Rice Canyon SPA, except for the Glen Abbey Memorial Park, which is designated Cemetery. Suggested density ranges are: very low density (1 du/acre), medium low density (2 du/acre) and low medium density (4.3 du/acre). A small area of retail commercial occupies the southeast corner of the Bonita Road Interchange with Interstate 805.

The Rice Canyon SPA is the most westerly portion of a large area, which is mostly undeveloped. The City of Chula Vista recognized a rare opportunity to determine the character of this area and prepared and incorporated the El Rancho del Rey Specific Plan into the General Plan. The Specific Development Plan of the El Rancho del Rey is contained in Figure 7.

This Plan is, to a large degree, conceptual in order to provide flexibility in implementation of its goals and objectives. Residential and commercial development land uses are defined and located in specific areas. Necessary public services are described and shown on the map. One of the basic criteria of the Plan is to bring about development of El Rancho del Rey in a west-to-east progression. The Rice Canyon SPA is the initial phase of this Plan. The extension of East H Street by the proposed project would allow development of easterly Sectional Planning Areas.

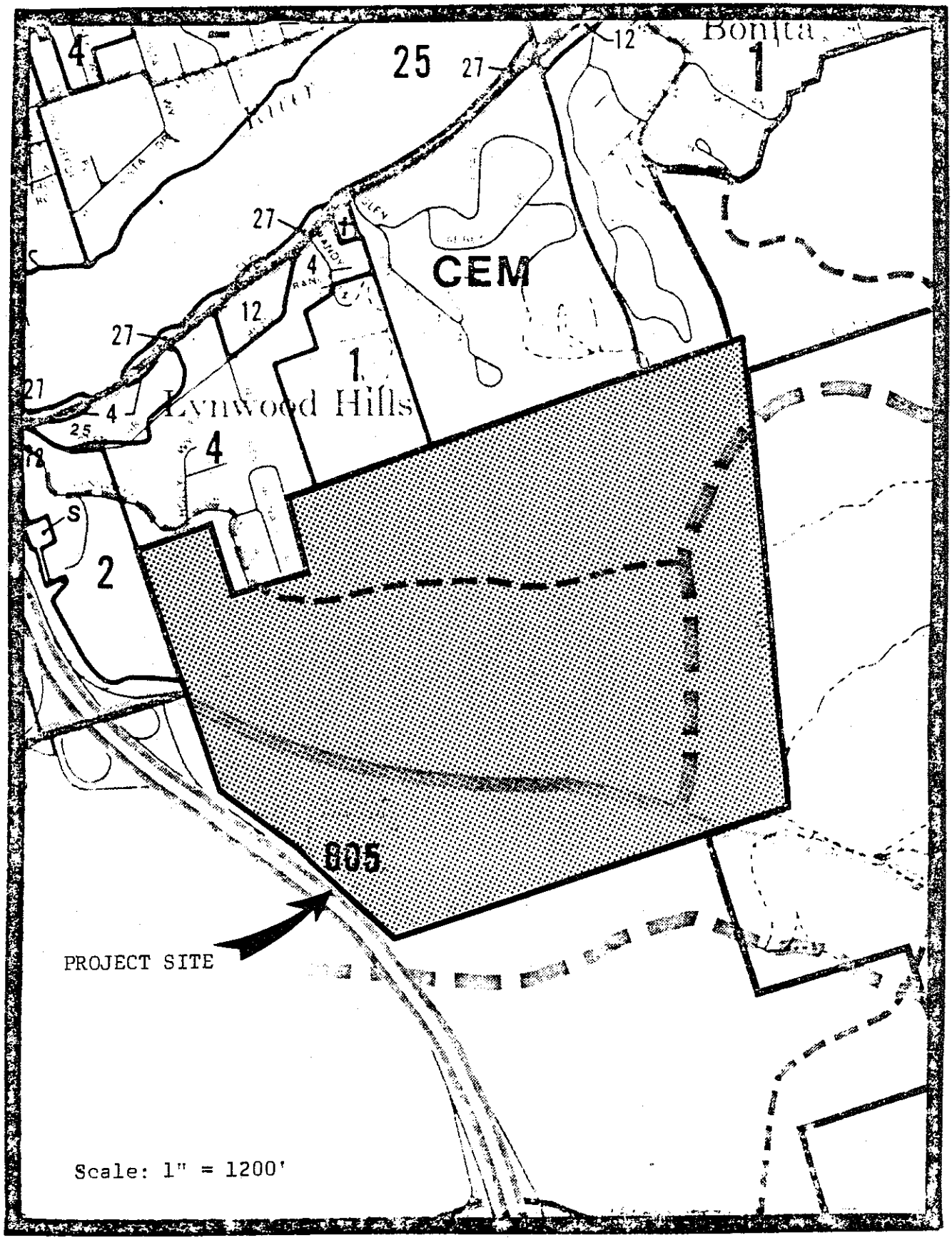


FIGURE 5 SWEETWATER COMMUNITY PLANNING PROGRAM

1 Very low residential 1 du/ac
2 Medium low residential 2 du/ac
4 Low medium residential 4.3 du/ac
25 Floodplain
S Electrical substation
12 Community commercial
CEM Cemetary
27 Open space 1 du/ac

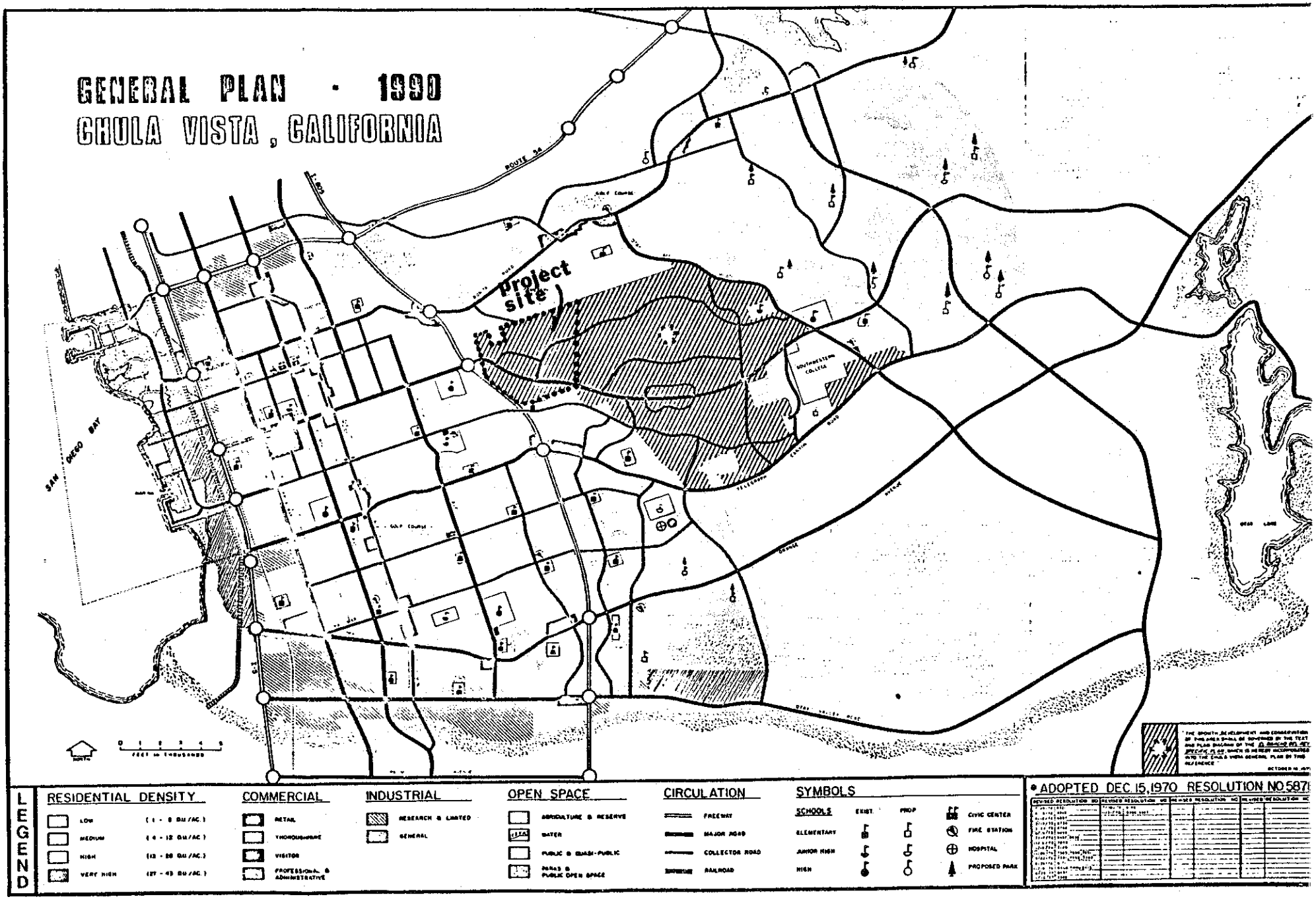


Figure 6. C a Vista General Plan Map

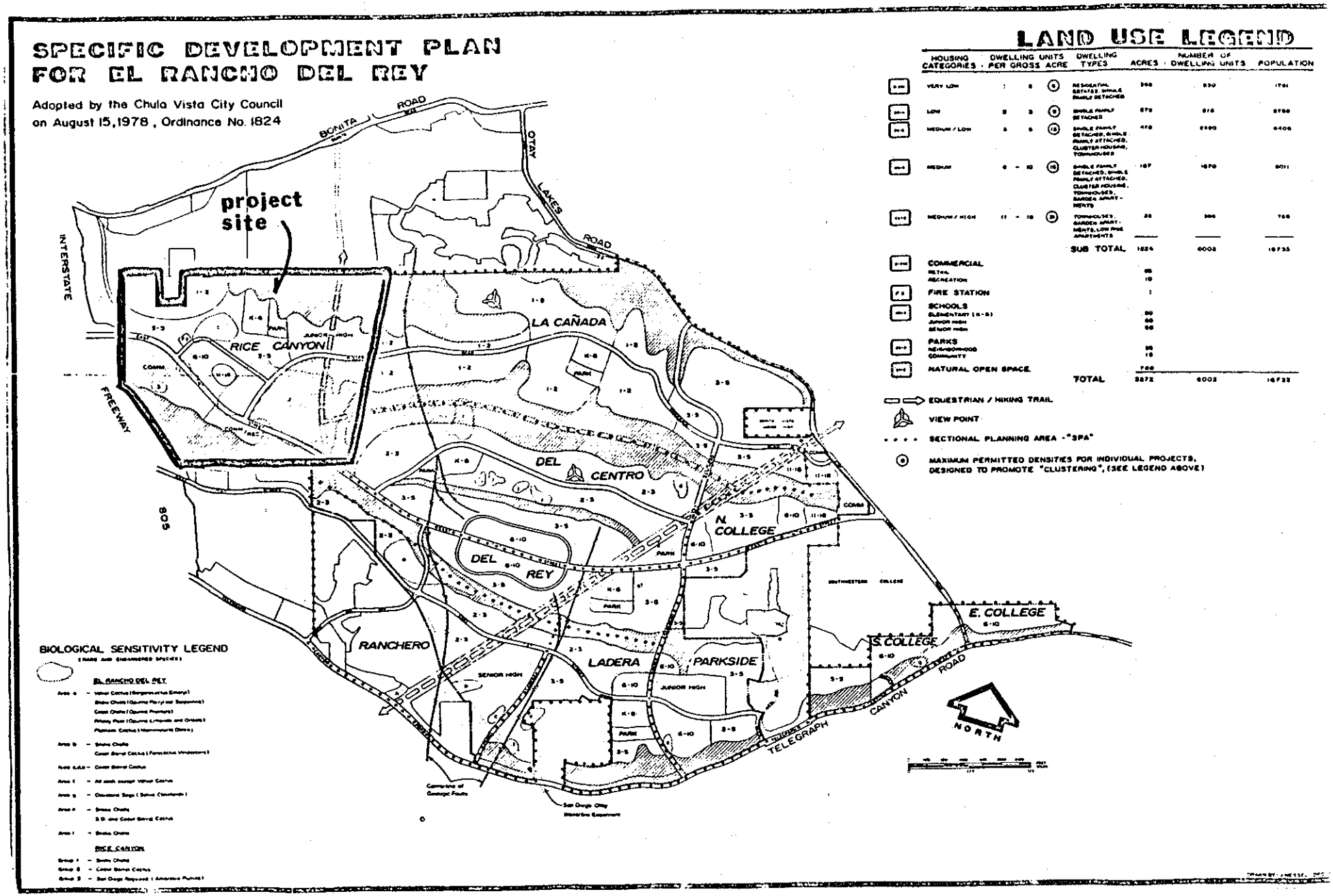


Figure 7. Specific Development Plan for El Rancho Del Rey.

3.1.2 Impact

The principal effect of the implementation of the Rice Canyon SPA would be the transformation of an undeveloped 419-acre site to a land use which integrates; residential and commercial developments; an extensive road network; public facilities; and natural open space. The character of the area would be completely changed. Commercial, residential, and open-space areas within the Rice Canyon SPA blend with surrounding land use. Low-density residential and open-space areas are situated adjacent to land which is designated for low-density development by planning or zoning restrictions. Commercial and multi-family residential uses are clustered along the major thoroughfare of East H Street and Interstate 805.

Development of the Rice Canyon SPA would provide a stimulus for development of other Sectional Planning Areas within El Rancho del Rey. These developments are contingent upon the completion of the first segment of East H Street from the freeway interchange. The subsequent development of El Rancho del Rey would be controlled by the Specific Development Plan.

The project would have no impact on zoning or planning for the area. The Rice Canyon SPA is consistent with applicable land-use determinants. The SPA plan does propose lots around the Lynwood Hills area which are smaller than the recommended densities of 1-2 dwelling units per acre. Other deviations are in the location of a residential area within proposed open space, south of Ridgeback Road and the proposed multi-family structure south of East H. Street. The Planned Community Zone is designed to promote the type of integrated land use proposed by the project. Furthermore, the project is compatible with the El Rancho del Rey Specific Plan.

3.1.3 Mitigation

As the project substantially conforms with existing Zoning and planning, and is compatible with surrounding land use, no mitigation is considered necessary.

3.1.4 Analysis of Significance

The approval of the Rice Canyon SPA would have an insignificant impact on land use, planning, and zoning.

3.2 LAND FORM

3.2.1 Project Setting

The topography of the Rice Canyon SPA property is dominated by a series of canyons which dissect a remnant marine wave-cut terrace. The canyons have isolated the original terrace into independent mesas. The elevation of the mesas is generally between 300 and 372 feet above sea level. Maximum elevations occur along the mesas in the northeastern portion of the site; the highest elevation is 372 feet above sea level. Minimum elevation occurs along the floor of Rice Canyon, where it drops to 90 feet at the western boundary of the subject property. The average natural slope for the entire property is approximately 25 percent.

Rice Canyon is the predominant topographic feature. This canyon extends diagonally across the site. The smaller canyons, which branch off Rice Canyon, are typically narrow with steep, often nearly vertical walls. Surface water on the property is distributed into three separate drainage basins. Runoff over most of the property is collected by Rice Canyon Basin and flows west-northwest. The northeastern corner of the site drains into the Glenn Abbey and Bonita Basins. Surface runoff has cut a 10 - 14 foot wide channel through Rice Canyon to a depth of approximately 10 - 12 feet. The Hydrology section of this report contains a more detailed description of site drainage.

3.2.2 Impact

Implementation of the proposed planned community would have a major effect on most of the existing topography. Those areas designated as open space would be expected to remain unchanged. The only exception to this condition would occur if cut or fill banks extend into the open space. Slope banks could be classified as open space, but not as natural open space.

Grading for the entire project is expected to occur in one operation and would be independent of phasing. This conflicts with the suggested mitigation of the El Rancho del Rey EIR which calls for controlled phasing of grading to insure adequate replanting and erosion control. The nature of the grading plan dictates this strategy. Cut and fill is projected to be balanced over the entire property. However, the operation can only balance if the grading occurs within one phase. For example, fill material for the commercial development can only be obtained on-site through the cut operation required to create the residential development north of East H Street.

The creation of building sites would involve an extensive cut-and-fill operation. Cut slopes would reach a maximum height of 50 feet and have a slope ratio of 2:1. Fill slopes would not exceed 100 feet in depth; slope ratio would be 2:1.

The floor of Rice Canyon would be raised at the western end to accommodate the commercial center, extension of East H Street, and the residential development located south of East H Street. A drainage structure would be installed through this development to carry the surface runoff. Fill depth along that portion of Rice Canyon proposed for development would be greatest in the commercial area where fill would reach a maximum depth of 40 - 45 feet. The alignment of East H Street, Ridgeback Road, and "Street K", as shown on the Plan would also require a cut-and-fill operation.

Land-form modification north of the proposed alignment of East H Street would involve lowering of ridges and hilltops and filling or recontouring of tributary canyons. Two of the main canyons branching off Rice Canyon would be filled to allow a gradual ascent from East H Street of the proposed "Street K" and Ridgeback Road into the condominium and single-family development within the Rice Canyon SPA Plan. The other two canyons within the developed area of the property would be recontoured and landscaped.

Land uses would be differentiated by elevation and separated by landscaped slope banks, often exceeding 30 feet. The school and park sites would be at the highest elevations, followed by single-family units, condominiums, and the commercial and multiple-unit development on the floor of Rice Canyon.

Architectural designs available for the condominiums north of East H Street show that split-level construction planned along the slopes overlooking Rice Canyon would reduce the amount of grading and soften the visual effect of the slope bank rising up from East H Street to the condominium units.

Erosion represents a potentially significant hazard during the grading and construction phase of any land development. The erosion potential for Rice Canyon SPA is particularly high, due to the fact that all necessary earth movement, cut-and-fill slopes, building sites, and roads would be created in one step. Since the project would most likely be developed in phases over a period of at least several years, much of the graded land would be unused for relatively long periods of time. This condition is especially undesirable during the wet months of the year when unprotected slopes would experience severe erosion.

Abnormal sediment load would be introduced into the surface runoff as a result of erosion of these prepared, but undeveloped construction areas. Increased siltation would occur in the existing culvert at the Interstate 805 and H Street

interchange, and along sections of the drainage structure completed through the Rice Canyon SPA.

The soil structure and lithology of the subject property indicate that stability of the proposed pads and slope banks is expected to be good. However, it would be important that artificial slopes be evaluated and designed by a certified soils engineer.

The 42-inch water line of the City of San Diego presents a problem for the grading of the junior high school site as it is shown on the site plan. This school site, which would be created by cutting a level pad, is bisected by the pipeline which is estimated to lie between two and three feet below the existing surface. This line is not proposed to be lowered along with the school site which would result in the pipeline being located within a 20-foot berm. This berm would then form a topographical barrier bisecting the school site. The effect of this condition cannot be predicted, as no engineering or architectural plans have been created for a junior high school facility.

3.2.3 Mitigation

The Rice Canyon SPA project has been designed in a manner which incorporates grading, construction, and landscaping techniques intended to reduce the landform modification required to implement the objectives of the development. Contour cut-and-fill banks are proposed which reflect, to a degree, the configuration of those canyons originally separating the ridges which would not serve as access routes to the residential development north of East H Street. Grading within the residential development has been terraced to reduce the volume of earth movement and to maintain the differential elevation which previously characterized the land.

Split-level architectural design would reduce the amount of landform modification by adapting the building to the slope rather than the slope to the building. Landscaping, after grading, is planned to avoid significant erosion.

The engineering design strategies, which were just discussed as mitigation measures, are embraced by the Hillside Development Policy and Design Criteria of the City of Chula Vista. As a Planned Community, the project site is not in a Hillside Development District, however, the criteria do contain valuable objectives which could be followed. While including split-level design as suggested in the Policy, the project does not strictly conform with the recommendation of the Policy that manufactured slopes greater than 30 feet in height be minimized and that contoured slopes be constructed with variable slope

ratios not exceeding 2:1. Large manufactured slopes with high public visibility are recommended to be graded in a manner which creates a natural appearance; this could include rounding the top and toe of slopes or benching the slopes. The preservation of natural land form within the open-space areas established by the El Rancho del Rey Specific Plan are designed to partially mitigate the impact of development. These areas are to be left undisturbed.

As discussed earlier in the Impacts section, the erosion potential for this project is high. Graded but as yet undeveloped land must be protected. Landscaping immediately following grading would stabilize the soil. Construction of brow ditches and sediment catch-basins would prevent sediment from being carried into the canyon and blocking drainage culverts located there.

3.2.4 Analysis of Significance

Rice Canyon SPA would result in a significant modification of the existing land form on the property. Extensive grading is unavoidable if the objectives of the planned community are to be achieved. Drainage patterns would be altered; most notably, natural drainage along Rice Canyon would be channelized in a drainage structure. Ridges would be lowered and canyons would be filled.

One of the most significant results of the extensive, as well as simultaneous, landform modification would be the erosion potential created. Adequate landscaping and runoff control would be important in reducing erosion.

Despite the mitigation measures incorporated into the proposed development, further mitigation is considered appropriate. The main focus is on those slope banks which exceed 30 feet in height. Split-level construction and variable slope ratios should be utilized to reduce these slopes. In addition, efforts should be made to achieve a smoother topographic transition between the various land uses.

Landform modification is expected to be a significant impact which cannot be fully mitigated. Reduction of the impact to an insignificant level would involve dramatic reduction in the scope of development and, therefore, is not considered feasible.

3.3 GEOLOGY

3.3.1 Project Setting

The project site of approximately 419 acres is located immediately south of the Lynwood Hills Subdivision; about 0.6 miles southeast of the intersection of Lynwood Drive and Bonita Road. This places the subject property near the easterly edge of the Southern California coastal plain. Sedimentary rocks of Tertiary age underly the majority of the project site. Bedrock formational units present are the San Diego Formation of Pliocene age, Lindavista Formation of Pleistocene age, and Holocene alluvial and River Terrace deposits. Refer to Figure 8 - Simplified Project Site Geology Map for approximate location of these units. According to a pre-preliminary geotechnical investigation by Shepardson Engineering, 1977 (Attachment A), the Otay Formation of probable Miocene age is thought to underly the above units. A very small area of it is found to outcrop in the southeastern corner of the property. The general stratigraphic relationship between these units is sketched in Figure 9.

Abbreviated characteristics of the stratigraphic units in the vicinity of the project site, as described in the Final Environmental Impact Report for the El Rancho del Rey Development (1978), are as follows:

Otay Formation

> Of Miocene age (7 to 26 million years old), the Otay Formation (Tot) underlies large portions of the Rice Canyon area. Generally, the Otay Formation is not found in surface outcrops west of the La Nacion Fault zone (located about 500 to 1,000 feet to the east of the site). However, a small area of in-place Otay Formation materials are found on-site near the southeastern property corner. The Otay Formation is believed to be more than 200 feet thick and consists of a subangular, medium-grained, well-sorted, greenish-gray to light-grah, tuffaceous sandstone. Additionally, interbedded mudstone is found in some areas, according to the Shepardson Report.

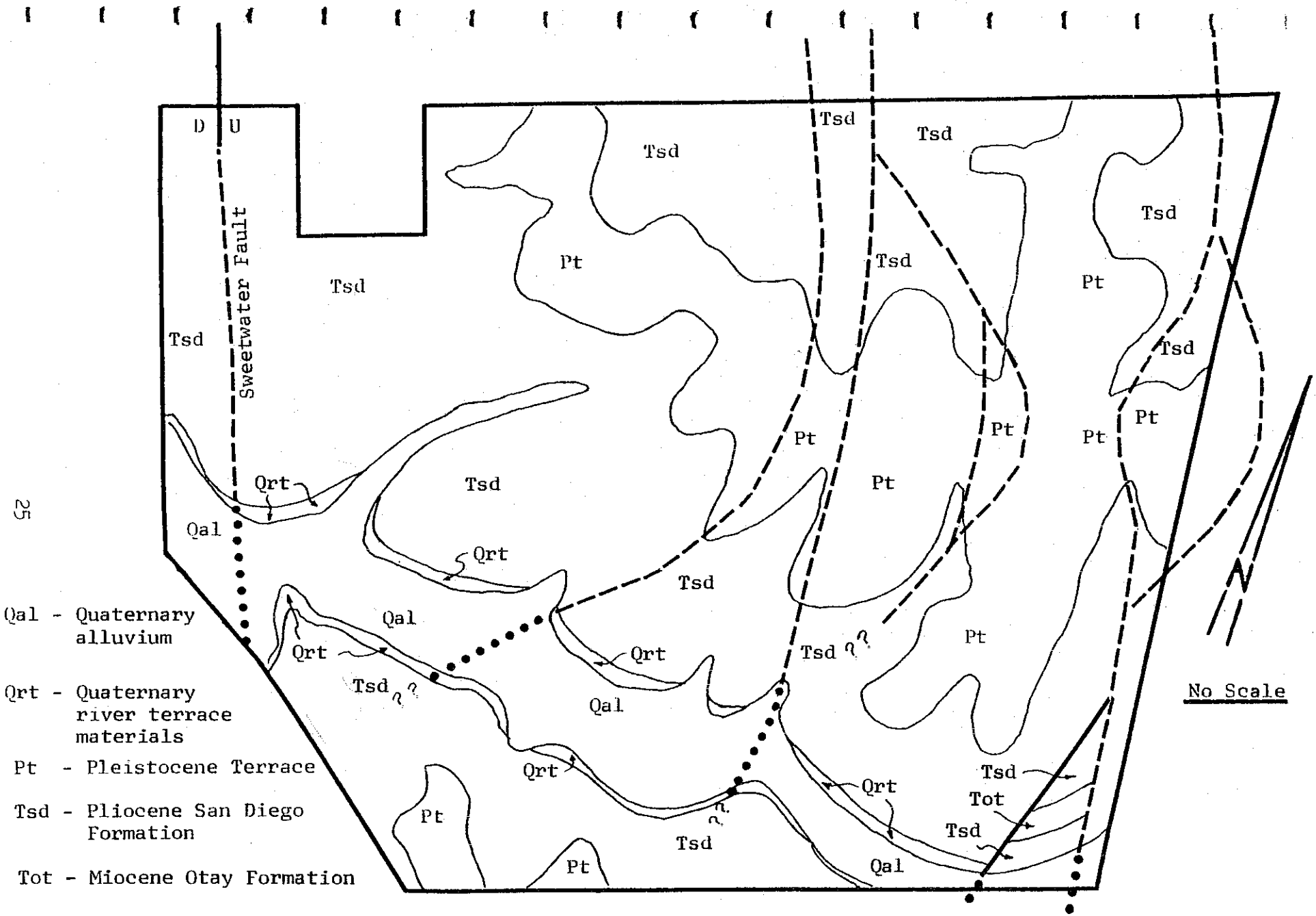


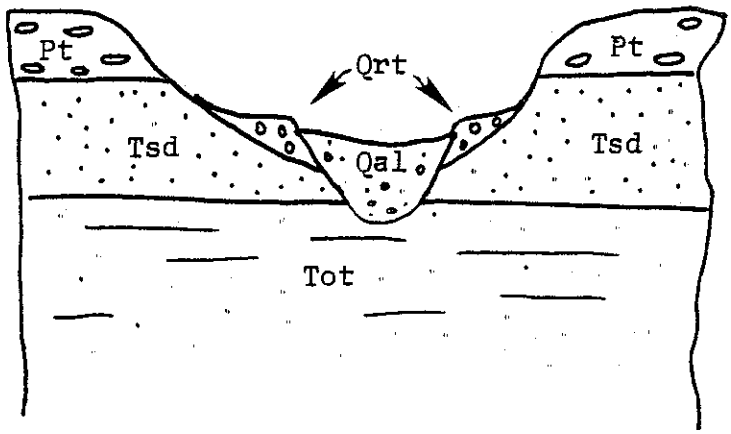
Figure 8. SIMPLIFIED PROJECT SITE GEOLOGY MAP

As Modified From H.T. Kuper 1976 , Sedway/Cooke 1977, & Shepardson Engineering 1977

Figure 9. SKETCH OF LITHOLOGIC RELATIONSHIPS

HIDDEN VISTA VILLAGE

AGE	NAME and SYMBOL	LITHOLOGY
HOLOCENE	ALLUVIAL DEPOSITS (Qal) RIVER TERRACE DEPOSITS (Qrt)	
PLEISTOCENE	MARINE TERRACE (Pt) LINDA VISTA FORMATION	
PLIOCENE	SAN DIEGO FORMATION (Tsd)	
MIOCENE	OTAY FORMATION (Tot)	



No vertical or horizontal scale

San Diego Formation

Overlying the Otay Formation is the San Diego Formation (Tsd), which is thought to be from 2.3 to 4.0 million years old. It is generally accepted that the San Diego Formation is restricted to a section approximately 100 to 200 feet thick. However, the formation is known to vary greatly in thickness. The formation is described as a light to yellowish-gray, poorly cemented, micaceous sandstone and conglomerate with dark yellow-orange laminae streaks and abundant fossil remains. Bentonite clays are not common in the San Diego Formation. The San Diego Formation is the predominant bedrock unit west of the La Nacion Fault zone.

Lindavista Formation

Early Pleistocene age Lindavista Formation (Pt) forms a thin cap over the San Diego Formation in the area of the project site. The Lindavista Formation, which is thought to have developed from 1.5 to 2.0 million years ago, is a marine terrace deposit that usually consists of a nearly flat-lying, reddish-brown conglomerate. Approximate thickness of the formation ranges between 50 and 75 feet on the project site.

River Terraces

The river terraces (Qrt), of probable Holocene age (relatively recent) are found generally along both sides of Rice Canyon. They are made up of numerous cobbles in a matrix of silty and, in some areas, clayey sand. The river terrace materials outcrop in a discontinuous manner and cover only a small portion of the project site.

Alluvium

Holocene Age (Post-Pleistocene - from 1.5 million years before present to present) alluvial deposits (Qal) are found in the bottoms of the major drainages on the subject property. In the Rice Canyon drainage floor, high volume run-off (from the high precipitation seasons of 1978 and 1979) and subsequent erosion has cut deeply into the alluvium and shows that it is at least 10 feet thick. The alluvial materials range from essentially impermeable clays to reltively pervious sands and gravels.

For a more complete and detailed analysis of the area surrounding and including the subject property, plase refer to Geologic Investigation, La Nacion Fault System, El Rancho del Rey Development (1972).

Seismicity

According to the El Rancho del Rey Geologic Investigation, La Nacion Fault System Report, bedrock and surficial units in the general area have not been subjected to intense folding and are essentially flat-lying. A regional dip of 2 to 10 degrees in a southerly direction is generally found in the vicinity of the project. Local variations in the attitude of sedimentary strata may be evident in areas near fault zones.

Several fault traces have been mapped throughout the immediate region (refer to Figure 8 - Simplified Project Site Geologic Map). These traces form the La Nacion/Sweetwater Fault zone. The La Nacion portion of this zone extends north to the vicinity of San Diego State University and south through San Ysidro and into the City of Tijuana, Mexico. Fault traces in the La Nacion zone generally trend north to north-northwest and are inclined steeply to the west. It is estimated that there is a minimum of 210 feet of normal displacement along the fault zone in the nearby vicinity of the proposed project. The aforementioned El Rancho del Rey Geologic Investigation indicates, on the La Nacion Fault, that "at least 110 feet of this (210-foot) displacement has been interpreted to have occurred since late Pleistocene time (the past 100,000 years). In addition, Van Hazihga (1973) states that the San Diego Formation is offset much more than the Lindavista Formation and thus, most of the La Nacion/Sweetwater offset was probably greatest during the Pliocene age, with small offset during the Pleistocene age.

As a part of the La Nacion Fault system, the Sweetwater Fault zone is known to enter the project site very near the westernmost property boundary. The Sweetwater Fault is located parallel to the La Nacion Fault for at least 9 miles and varies in distance from less than 1 mile to 2 miles to the west of the main trace of the La Nacion Fault. The City of Chula Vista Seismic Safety Element (1974) indicates that the fault strikes north in the vicinity of the Sweetwater Valley and dips from 60 degrees to 70 degrees to the west. In many areas faulted by the Sweetwater, the Pliocene San Diego Formation is well exposed east of the fault, while Pleistocene terrace materials (Lindavista Formation) are evidenced to the west. On the project site, however, it is thought that the Sweetwater Fault may only separate the San Diego Formation (2.3 - 4 million years old).

Please refer to Figure 8 - Simplified Project Site Geological Map, for approximate location of the Sweetwater Fault trace on-site. As mentioned earlier in this report, the preliminary results of on-site field investigation and trenching prepared by Shepardson Engineering Associates, indicated several north-south trending fault traces in the area. These fault traces are thought to be inactive, as noted in the Shepardson report. Michael Kennedy's map on the character and recency of faulting in the San Diego area (1975) indicates that the project area is between the La Nacion and Sweetwater Fault zones. The inactive faults, according to Shepardson Engineering Associates, are a result of secondary minor adjustments to major movements along the La Nacion and Sweetwater Fault zones.

Forty-two trenches, excavated at various locations on the site, show evidence of faulting as recent as Pleistocene (approximately 2.0 million years). In one trench (Figure 10 - Trench 38) offset of the Pleistocene Lindavista terrace material was noted (1.5 - 2 million years ago). Also, as further evidence of these faults, linear topographic features, and relative displacement of the Lindavista terrace across the ravines were also noted.

On September 19, 1979, Shepardson Engineering carried out another fault investigation. The complete report of these results has been included in Attachment N. The intent of this investigation was to identify fault traces in the northwest corner of the H Street Project. Specifically, the intent was to locate the fault trace shown on Kennedy's map in his 1975 report "Map Showing Character and Recency of Faulting in the San Diego Area". The fault is exposed in a road cut along Lynwood Drive and based on Kennedy's map. It appeared that the fault was a continuous feature paralleling the western property boundary approximately 400 feet inside the property line.

During this investigation, 25 trenches were extended along the east-west trending ridges in this area, attempting to locate fault traces. Based on the results of the field investigation,

it is the opinion of the engineer that the fault exposed in the road cut along Lynwood Drive is not located as Kennedy has shown, but trends approximately as shown on the attached Plate No. 1 in the engineer's supplemental report Attachment N. This conclusion is based on the measured strike and dip of the fault in the road cut and the absence of indications of faulting along the ridges to the south. According to the plot, the fault only cuts the extreme northwest corner of the project. In addition, this fault appears similar to the other faults encountered to the east, within this project, and does not appear to have any unique features which would warrant special attention.

During this investigation one other feature was encountered which was interpretted to be fault-related. The fault could not be traced any nearer than within 5 feet of the ground surface and the topsoil across the fault was very uniform. This was interpretted to mean the fault is not a recent feature and should not be considered active. This fault is believed to be of the same classification as those encountered to the east in our pre-preliminary soil investigation for the H Street project.

No evidence of Holocene (less than 10,000 years) faulting is seen in either the trenches or in the field relationships of the rock units exposed at the site. The Quaternary alluvium deposits and the mantle of soils do not show offset, according to the Shepardson Report. Therefore, the Sweetwater Fault is considered to be only potentially active. An active fault, on the other hand, shows evidence of recent activity, such as displacement of Holocene materials or indication of fault creep.

In regard to the fault traces found on the subject property, the Shepardson Report notes that although not considered active, the project site faults, including the Sweetwater trace, in fact, may be planes of weakness which could have an adverse response to a shock from a distant earthquake.

The aforementioned and possibly other inactive fault zones may be encountered during the project grading. Their presence on the property would require that structures be built with reinforced foundations, as suggested by Shepardson Engineering Associates in their pre-preliminary report.

Suitability of Project Site Earth Materials for Foundations

According to the Shepardson report, a minor amount of expansive soil was found in the topsoil horizons of the river terrace materials. Additionally, some expansive materials were found in the mudstone strata of the Otay Formation. The expansive character of the above materials is due to the presence of water-expandable clay particles in those materials. During

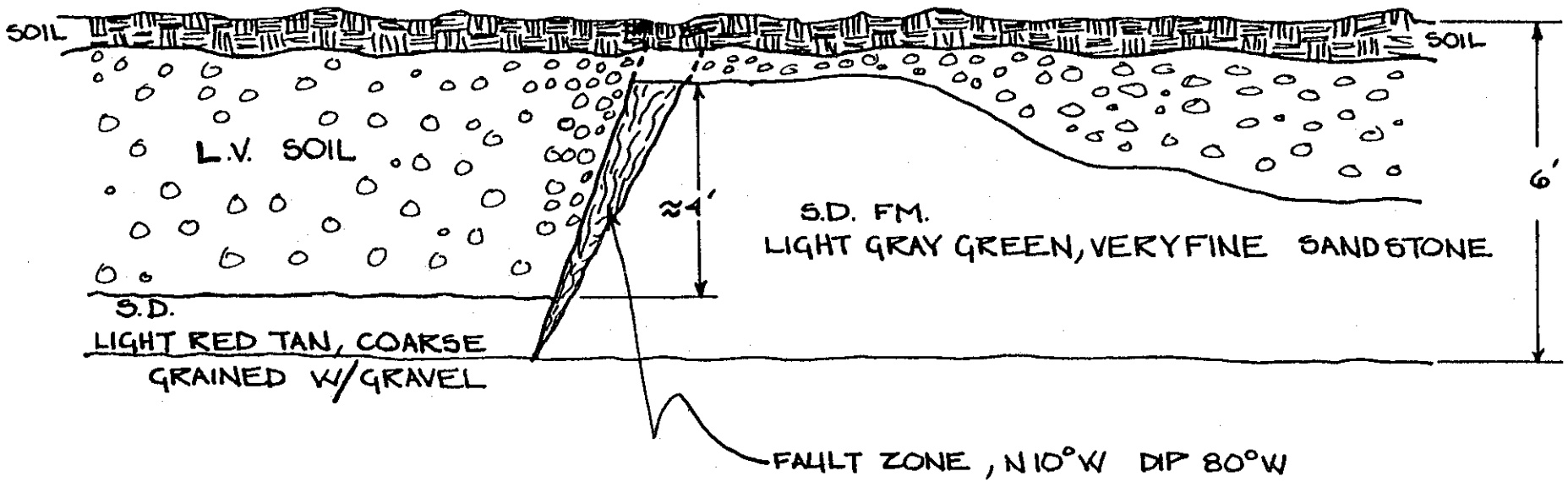
wet periods, the materials would experience swelling and expansion. Dry periods bring about shrinkage of the materials.

Fortunately, expansive materials are not found to cover large portions of the project site. According to the Simplified Geologic Map provided in this report (Figure 8), the river terrace materials (Qrt) and Otay Formation materials (Tot) occupy a very small portion of the project site. The Shepardson report states that adequate, nonexpansive material can be obtained from the San Diego Formation to provide a cap of 2.5 feet of nonexpansive soil on all of the proposed lots.

The Shepardson report also indicates the presence of compressable alluvium in the Rice Canyon area. Mitigation measures are needed to enable these areas to support foundations. For design purposes, it should be assumed that all areas containing alluvial materials are subject to adverse settlement characteristics. Specifically, the compressible materials located in the canyon bottoms are identified in this report as Quaternary alluvium (Qal).

Foundations constructed in the San Diego Formation soils would support an allowable soil bearing pressure of 2,500 pounds per square foot for continuous footings extending not less than 12 inches below the lowest adjacent grade. Two-story structures may be supported by foundations extending 12 inches into adjacent grade, provided they are constructed on San Diego Formation materials.

TRENCH 38
NORTH VIEW



S.D. = SAN DIEGO FORMATION

L.V. = LINDA VISTA FORMATION

SEA SHEPARDSON ENGINEERING ASSOCIATES, Inc.	"H" ST. CHULA VISTA
TRENCH 38	BY P.R.G. / DATE 6-26-79 JOB NO. 710153 / PLATE NO. 10

Figure 10.

Landslides

The County of San Diego Landslides Map (1974) indicates that the only landslides within several miles of the project site are found about three-quarters to one mile northeast of the site near the community of Bonita. According to Mr. Kendall L. Sherrod (personal conversation June 29, 1979) there are probably no landslide hazards on the subject property. This is because the great majority of the site consists of San Diego Formation materials, which, according to Mr. Sherrod, are good building materials. Landsliding of the San Diego Formation materials is not generally thought possible, because of the absence of clay stringers or seams which could become slide planes due to the inherent weakness of the planar structure of clay materials. The 1977 Shepardson Report indicates that maximum slope height should not be greater than 40 to 100 feet when slope ratios of 2:1 are employed.

Volcanism

The risk of volcanism is virtually nonexistent. The closest volcanic event to the property took place in early Miocene time (18.7 plus/minus 1.3 million years) in the Jacumba Valley, about 10 miles away. There has been no volcanism in the vicinity in historic times, nor is there any reason to expect any in the foreseeable future.

Other Geologic Hazards

No other geologic hazards, such as hazards from tsunamis or seiches, are found on the subject property. Please refer to Section 3.6 - Drainage Patterns, for a discussion of flood and runoff water conditions on the site. Provided no structures are built directly on alluvial materials (without a recompacted fill) no liquefaction hazards should occur from earthquakes. According to Louis J. Lee (1977), "Liquefaction is the process in which a soil deposit, or layer in a deposit, is transformed into a dense fluid which would flow as a liquid when unconfined. It occurs principally in loose saturated sands and silts when they are shaken by an earthquake. Structures located on deposits which liquify may sink into the ground or be damaged by foundation movements".

The liquefaction potentials on the project site are further reduced by the fact that normal engineering methods to prevent flooding hazards, such as the employment of storm drains,

will remove much of the subsurface water that would saturate the alluvial materials. Presently, only partial saturation of the alluvial materials occurs when the water table rises during periods of high volume water flow in Rice Canyon.

No valuable minerals, aside from possible use of San Diego Formation materials for building or foundations, are found on the site. The site has no recorded history of valuable mineral extraction activities. It is doubtful that the alluvial sand materials on-site are of construction quality.

3.3.2 Geologic Impacts

A number of geologic conditions may impact the Rice Canyon SPA project. These impacts are summarized below:

Seismicity

Several fault traces attributable to the La Nacion and Sweetwater Fault zones have been mapped throughout the immediate region and on the project site. (refer to Figure 8 - Simplified Project Site Geologic Map, for the approximate location of these traces). All of the inferred traces are thought to be inactive and are generally classified as potentially active. These inferred traces are a result of secondary minor adjustments to past major movements along the La Nacion and Sweetwater Fault zones, as suggested by K. Sherrod of Shepardson Engineering. Even though the fault traces on the subject property are not considered active, they may be planes of weakness. Prior to construction of structures on these traces, certain mitigation measures are required to ensure the structural integrity of future buildings or dwellings.

Therefore, it appears that seismic impacts, due to the presence of inactive faults on the property, should be considered only potentially significant. Structural impacts from the faults, due to possible planes of weakness, should be considered somewhat greater, however.

Suitability of Project Site Earth Materials for Foundations

Minor amounts of expansive soil were found on the project site during the pre-preliminary geotechnical investigation by Shepardson Engineering. The expansive soil materials, located in

the topsoil horizons of the river terrace materials and in mudstone stratas in the Otay Formation, could impact foundations built upon those materials. Areas containing soil or formational materials that may have high shrink-swell ratios, or are otherwise potentially expansive, need proper mitigation to prevent possible structural damage to foundations, roads, and pipelines.

The Shepardson report indicates that the alluvial areas of the project site may have adverse settlement characteristics that could cause structural damage to buildings built in those alluvial areas. Mitigation measures are needed to prevent damage to foundations or other structures built on the compressible alluvial materials.

Therefore, foundational impacts, derived from construction of buildings in alluvial areas and in areas containing expansive materials, are considered potentially significant.

Landsliding

Landsliding hazards should not impact the Rice Canyon SPA project, as the majority of construction would occur on San Diego or Lindavista Formational materials. Historically, these Formational units have provided safe, stable foundational materials for construction of both private and commercial structures.

Volcanism

No hazards from volcanism would impact the proposed Rice Canyon SPA project.

Other Geologic Hazards

No impacts from hazards such as seiches would occur on-site. For a discussion of drainage conditions on the project, please refer to Section 3.6 - Drainage Patterns.

Liquefaction should not occur, provided construction in alluvial areas is preceded by the placement of recompacted fill. Proposed storm drains and other flood control devices would probably eliminate the high water table that currently exists and prevent saturation of the alluvial materials.

Valuable Mineral Potential

The project site is not believed to possess valuable minerals.

3.3.3 Geologic Mitigation

Standard mitigation measures exist that would greatly reduce or prevent geologic hazards associated with the Rice Canyon SPA. The mitigation measures that follow address those impacts as described in the preceding section, 3.3.2 - Geologic Impacts.

Seismicity

According to the Shepardson report:

> The potential for minor differential movement, due to the weakened plane of the inactive fault zones and the distinct possibility of encountering disturbed soils in the fault zones, would require that foundations for structures which are constructed directly over the fault zones contain not less than two #4 bars, placed 3 inches above the base of the footing, and two #4 bars, 1-1/2 inches clear below the top of the footing, for all interior and exterior footings. Foundations for structures constructed within the fault zones should be not less than 18 inches in depth.
>
> During site grading, a lot-by-lot inspection would be made on those lots which are in the existing fault zones. In the event these inspections indicate the presence of disturbed soils in the fault zone, recommendations would be submitted for removal of not more than 4 feet of existing material from within an area extending not less than 5 feet outside the proposed

> structure. The resulting void should then be backfilled with suitable, nonexpansive material, compacted in accordance with the project grading specifications.

The author of the Shepardson report believes that the above mitigation would be sufficient for the Sweetwater Fault trace located near the western project boundary. Alternative mitigation would be to provide setbacks from known fault traces to eliminate "plane of weakness" problems. Shepardson Engineering Associates indicates that this may be very impractical, due to the difficulty of locating all of the possible inactive fault zones. This is especially difficult in areas where the San Diego Formation is offset by distances, which are often less than one or two inches.

Suitability of Project Site Earth Materials for Foundations

In reference to the expansive soil materials found on-site, K. Sherrod states in the Shepardson investigation:

> Based on our understanding of the proposed site grading, it is our opinion that adequate, nonexpansive material can be obtained from the San Diego Formation to provide a cap of 2.5 feet of nonexpansive soil on all of the proposed lots.
>
> This cap is to be recompacted (as specified by the Office of the City Engineer, Chula Vista) to enable construction of permanent structures.

Again, from the Shepardson study:

> Based on the information available at this time, it appears that the alluvial soils

in the Rice Canyon area must be considered moderately to highly compressible to depths on the order of approximately 7 feet below existing grade. In considertion of the quantity of alluvial removal and recompaction required to reduce the potential differential settlements to tolerable limits, consideration should be given to performing the major removal and recompaction in only those areas which would be influenced by rigid structures.

Based on the information available at this time, it appears that the removal and recompaction would be required for depths on the order of 6 feet below existing grade. The alluvial soils outside the influenced area of rigid structures would require recompaction to a depth on the order of 2 feet or more below existing grade. Final recommendations would be submitted after we have reviewed the preliminary grading plans.

Flood control impacts are discussed in Section 3.6.2 of this report, and mitigation measures appropriately suggested.

Liquefication is not considered a significant environmental hazard. Liquefication impacts occur in loose, saturated materials during intense ground-shaking events from large magnitude earthquakes. The Rice Canyon valley floor is only partially saturated during heavy rains in the winter season. The combination of the infrequent occurrence intervals of earthquakes and the seasonal partial saturation is, in itself, natural mitigation to a degree. Additional mitigation would involve the construction of flood control devices and storm drains to prevent the alluvial soils from becoming saturated. The placement of recompacted materials over the alluvium would further mitigate potential liquifaction impacts.

3.3.4 Analysis of Significance

Seismic hazard and its potential impact on the proposed project are considered to be potentially significant, although the likelihood of a major earthquake impacting structures built on or near traces of those faults attributable to the La Nacion and Sweetwater Fault zones on-site, is considered small. Several investigations have shown that offset or separation of Holocene age materials on-site, and in the nearby areas, has not occurred.

The most recent movement on the La Nacion and Sweetwater Faults is thought to have occurred during Pleistocene times and thus the fault zone is thought to be only potentially active. As discussed in the preceding subsections, proper planning, design and construction can, for the most part, alleviate the potential for seismic damage. As in virtually all portions of Southern California, the Rice Canyon SPA property is subject to seismic impacts. In spite of the location of the site astride the La Nacion and Sweetwater Fault systems, economically viable engineering subdivision design and construction techniques are available to reduce seismic risk to an acceptable level.

As the actual area of expansive materials on the property is small, the significance of shrink/swell is, likewise, small. Mitigation measures can readily prevent foundation damage due to expansive soil materials.

The significance of compressible materials impacts on-site is somewhat higher. Mitigation measures would have to be employed to properly prepare the compressible areas for construction of permanent structures.

3.4 SOILS

3.4.1 Project Setting

The Soils section of this report is adapted from the U.S. Department of Agriculture (U.S.D.A.) Soil Survey, San Diego Area (1973). The survey is general in nature and, when more specific geotechnical information is required, the services of a registered soils engineer or specialist would be necessary.

Although no attempt to verify the accuracy of soil mapping from the U.S.D.A. Survey was made, the mapping is generally representative of the soils found in the vicinity of the project area. This section is not intended to be a geotechnical foundational report and addresses only those surficial soil materials developed on-site. No direct shear tests, expansion tests, grain-size analysis nor maximum density and optimum moisture content tests were performed.

Approximately nine soil types are found on the entire 419-acre project site (Figure 11 - Soils Coverage Map). These soils are: Graviota fine sandy loam, 9 to 30% slopes (GaE); Olivenhain cobbly loam, 2 to 9% slopes (OhC); Olivenhain cobbly loam, 9 to 30% slopes (OhE); Linne Clay loam, 9 to 30% slopes (LsE); Linne Clay loam, 30 to 50% slopes (LsF); Salinas Clay loam, 2 to 9% slopes (SbA); Salinas Clay loam, 2 to 9% slopes (SbC); Salinas Clay, 0 to 2% slopes (ScA); and Terrace Escarpments (TeF). The approximate soil coverages are summarized below:

Soil Symbol	Percent of Coverage	Coverage in Acres
GaE	6.0	25.1
OhC	8.0	33.5
OhE	13.5	56.6
LsE	11.0	46.1
LsF	26.0	108.9
SbA	11.0	46.1
SbC	3.0	12.6
ScA	0.5	2.1
TeF	21.0	88.0
	100%	419 acres

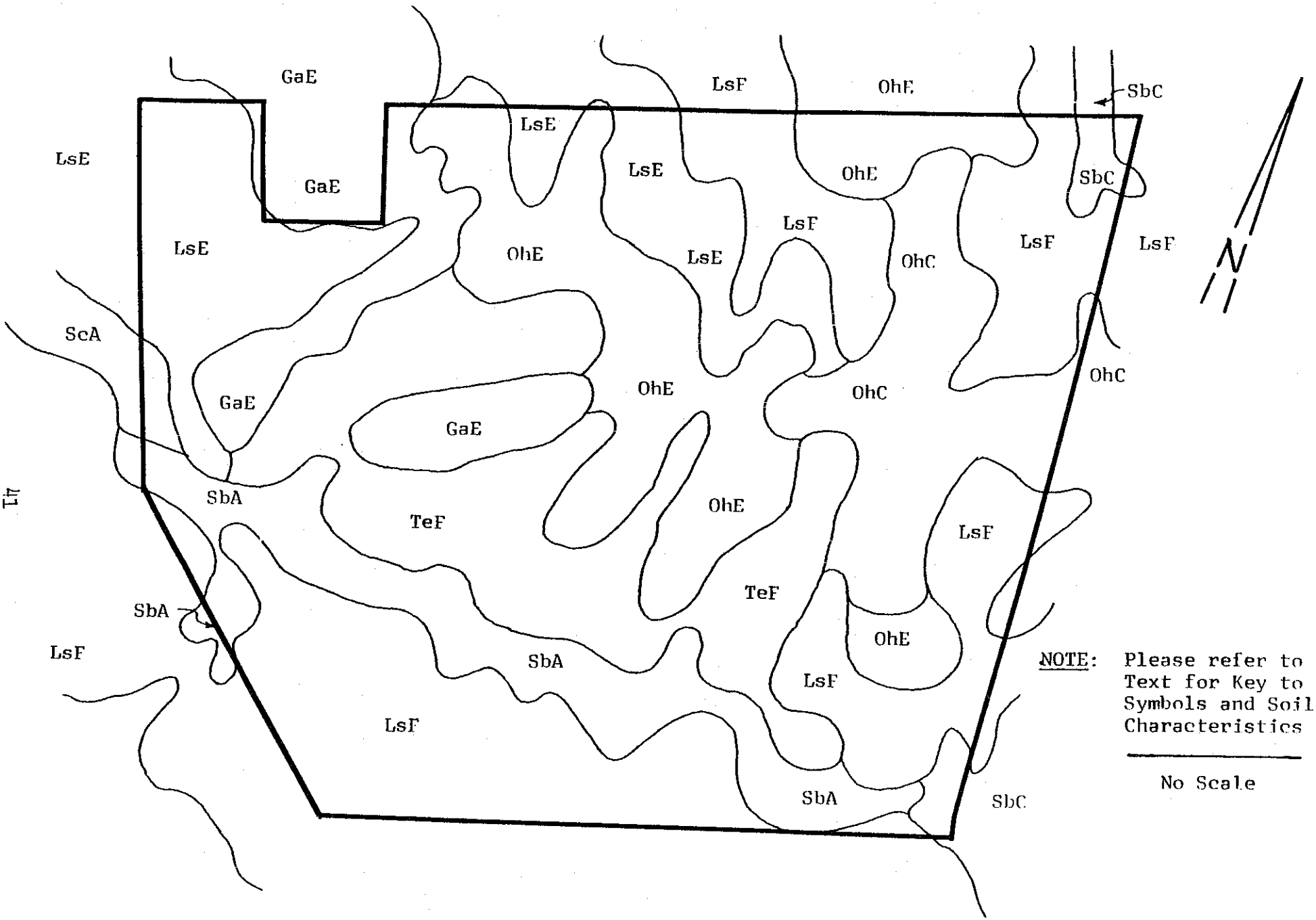


Figure 11. SKETCH OF APPROXIMATE SOIL COVERAGE

From U.S.D.A. Soil Survey, San Diego Area, 1973

The above project site soils and soil series are further described, from the U.S.D.A. Survey:

Gaviota Series

The Gaviota series consists of well-drained, shallow fine sandy loams that formed in material weathered from marine sandstone. These soils are on uplands and have slopes of 9 to 50 percent. The vegetation is mainly Chamise, cactus, Scrub Oak, Sumac, Flattop Buckwheat, and annual grasses and forbs.

In a representative profile the surface layer is brown and yellowish-brown, mildly alkaline fine sandy loam about 16 inches thick. The substratum is very pale brown semiconsolidated sandstone.

Gaviota soils are used for range, watershed, and small housing developments.

Gaviota fine sandy loam, 9 to 30 percent slopes (GaE)

This rolling to hilly soil is on uplands. The slope averages 27 percent.

The A horizon changes from brown to dark or yellowish brown in color, from fine sandy loam to sandy loam in texture, and from 9 to 20 inches in thickness.

Fertility is low. Permeability is moderately rapid. The available water holding capacity is 1 to 2 inches. Available water holding capacity is defined as the difference between the amount of soil water at field capacity and the amount at wilting point. It is commonly expressed as inches of water per inch of soil. Runoff is medium to rapid, and the erosion hazard moderate to high. The rooting depth is 9 to 20 inches.

This soil is used mainly for watershed and small housing developments. Capability unit VIe-8 (19); Shallow Loamy range site.

This soil is commonly used for range and watershed. Capability unit VIIe-8 (19); Shallow Loamy range site.

Olivenhain Series

The Olivenhain series consists of well-drained, moderately deep to deep cobbly loams that have a very cobbly clay subsoil. These soils formed in old gravelly and cobbly alluvium. They are on dissected marine terraces and have slopes of 2 to 50 percent. The vegetation in uncultivated areas is mainly Chamise, Scrub Oak, Flattop Buckwheat, Wild oats, Sugarbush, Soft Chess, and cactus.

In a representative profile the surface layer is brown and reddish-brown, medium acid cobbly loam about 10 inches thick. The subsoil is reddish-brown, red, and pink, strongly acid very cobbly clay and clay loam about 32 inches thick. The substratum is pinkish-white, strongly acid cobbly loam.

Olivenhain soils are used mainly for range and watershed. Small areas are used for housing developments and for citrus.

Olivenhain cobbly loam, 2 to 9 percent slopes (OhC)

This soil is gently sloping to moderately sloping. In many places microrelief of broad-base low hummocks, locally called mimamounds, is evident. The slope averages 7 percent.

The A horizon ranges from brown or reddish brown to yellowish brown in color, from cobbly loam to cobbly sandy loam in texture, and from 8 to 14 inches in thickness. The B horizon has colors of reddish brown to red and pink or dark reddish brown and mixed colors resembling reticulate mottling, including reddish brown, yellowish red, pinkish white, and pinkish gray. This

horizon ranges from 22 to 41 inches in thickness and from very cobbly clay to very cobbly sandy clay and very cobbly clay loam in texture. The depth to the C horizon ranges from 30 to 55 inches. This soil is 25 to 35 percent cobblestones.

Fertility is low. Permeability is very slow. The available water holding capacity is 2 to 3 inches. Runoff is slow to medium, and the erosion hazard slight to moderate. The rooting depth is 29 to 42 inches. The surface layer is 20 to 30 percent cobblestones, and the subsoil 35 to 45 percent.

This soil is used mainly for range, watershed, and citrus. A limited acreage is used for housing developments. Capability unit VIe-7 (19); Claypan range site.

Olivenhain cobbly loam, 9 to 30 percent slopes (OhE)

This soil is strongly sloping to moderately steep and has an effective rooting depth of 20 to 27 inches. The available water holding capacity is 2 to 2.5 inches. Runoff is medium to rapid, and the erosion hazard moderate to high. In other features, this soil is similar to Olivenhain cobbly loam, 2 to 9 percent slopes.

This Olivenhain soil is used for range, watershed, small housing developments, and citrus. Capability unit VIe-7 (19); Claypan range site.

Linne Series

The Linne series consists of well-drained, moderately deep clay loams derived from soft calcareous sandstone and shale. These soils are on uplands and have slopes of 9 to 50 percent. The vegetation is chiefly Flattop Buckwheat, California sagebrush, Sugarbush, and Scrub Oak.

In a representative profile the surface layer is gray, moderately alkaline, calcareous heavy clay loam about 15 inches thick. Below this is gray, moderately alkaline, calcareous heavy clay loam about 13 inches thick. Below this is gray and white, moderately alkaline, calcareous clay loam. The substratum is soft, white, calcareous shale. It occurs at a depth of about 37 inches.

Linne soils are used mainly for range. Small acreages are used for farm crops.

Linne clay loam, 9 to 30 percent slopes (LsE)

This rolling to hilly soil is on uplands. The slope averages 16 percent.

The A horizon ranges from gray to dark gray in color, from heavy clay loam to silty clay loam in texture, and from 12 to 18 inches in thickness. The A&C1 horizon ranges from gray to light gray in color, from clay loam to sandy loam in texture, and from 10 to 16 inches in thickness. The C horizon ranges from gray to white in color, from clay loam to loam in texture, and from 7 to 12 inches in thickness. This soil is calcareous throughout the profile. The Linne soil in this area has a thinner, darker colored A horizon than the Linne soils mapped elsewhere in California.

Fertility is medium. Permeability is moderately slow. The available water holding capacity is 5 to 7 inches. Runoff is medium to rapid, and the erosion hazard moderate to high. The rooting depth is 28 to 40 inches.

This soil is used mostly for range. A small acreage is used for farming. Capability unit IVe-1 (19); Clayey range site.

Linne clay loam, 30 to 50 percent slopes (LsF)

This soil is steep and is about 26 to 38 inches deep over soft shale. Runoff is rapid, and the erosion hazard high. In other features, this soil is similar to Linne clay loam, 9 to 30 percent slopes.

This Linne soil is used for range. Capability unit VIe-1 (19); Clayey range site.

Salinas Series

The Salinas series consists of well-drained and moderately well-drained clay loams that formed in sediments washed from the Diablo, Linne, Las Flores, Huerhuero, and Olivenhain soils. These soils are on flood plains and alluvial fans and have slopes of 0 to 9%. In uncultivated areas, the vegetation is chiefly annual grasses and forbs and scattered trees and shrubs.

In a representative profile the surface layer is dark grayish-brown, neutral and mildly alkaline clay loam about 22 inches thick. The next layers are very dark grayish-brown, mildly alkaline and moderately alkaline, calcareous clay loam about 24 inches thick. The substratum is dark-brown, moderately alkaline, calcareous clay loam and loam. It extends to a depth of more than 60 inches. In some areas the surface layer is clay.

In some areas of the County, Salinas soils are used for citrus, truck crops, tomatoes, flowers, and small pasture lots.

Salinas clay loam, 0 to 2 percent slopes (SbA)

This soil is in small drainageways or in the center of relatively large valleys. The slope averages 2 percent.

The A horizon ranges from dark grayish brown to dark gray in color and from 20 to 25 inches in thickness. The C1 And C2 horizons range from very dark grayish brown to dark grayish brown in color, from clay loam to clay in texture, and from 19 to 29 inches in thickness. The IIC horizon ranges from brown to dark brown in color and from clay loam to heavy loam in texture. It extends to a depth more than 60 inches. The C and IIC horizons have lime filaments ranging from few to many. Cobblestones and gravel occur in the surface layer adjacent to drainageways.

Fertility is high. Drainage is good, and permeability is moderately slow. The available water holding capacity is 10 to 11.5 inches. Runoff is very slow, and the erosion hazard is slight. The rooting depth is 60 inches or more.

This soil is used in some areas for citrus, truck crops, tomatoes, flowers, and small pasture lots. Capability unit I-1 (19).

Salinas clay loam, 2 to 9 percent slopes (SbC)

This soil is gently to moderately sloping. Runoff is slow to medium, and the erosion hazard slight to moderate. In other features, this soil is similar to Salinas clay loam, 0 to 2 percent slopes.

This Salinas soil is used for tomatoes and pasture. Capability units IIs-t (19).

Salinas clay, 0 to 2 percent slopes (ScA)

This soil is nearly level. It has a surface layer of clay and a substratum of clay to clay loam. Drainage is moderately good. Permeability is slow. The available water holding capacity is 7.5 to 10 inches. Runoff is very slow, and the erosion hazard is slight. In other features, this soil is similar to Salinas clay loam, 0 to 2 percent slopes.

Salinas soil is commonly used for tomatoes and pasture in several areas of the County. Capability unit IIs-5 (19).

Terrace Escarpments

Terrace escarpments (TeF) consists of steep to very steep escarpments and escarpment-like landscapes. The terrace escarpments occur on the nearly even fronts of terraces or alluvial fans. The escarpment-like landscapes occur between narrow flood plains and adjoining uplands and the very steep sides of drainageways that are entrenching into fairly level uplands. In most places there is 4 to 10 inches of loamy or gravelly soil over soft marine sandstone, shale, or gravelly sediments. The vegetation ranges from a sparse cover of brush and annual forbs and grasses on south-facing slopes, to a fairly dense cover on north-facing slopes.

This land type occurs mainly on the coastal plain and as small areas in the foothills and the desert. It is used chiefly for watershed. Capability unit VIIIe-1 (19, 20, 30).

From Table 2, Abbreviated Soils Characteristics, several soil parameters are discussed below. Note that the characteristics, values, and ratings given in that table as derived from the U.S.D.A. Soil Survey, are general in nature, not measured on-site parameters. Therefore, considerable variability of these characteristics may be found when comparing actual field/laboratory values with the Soil Survey Values.

TABLE 2.

ABBREVIATED SOIL CHARACTERISTICS

SYMBOL	NAME	COVERAGE in (%)	(Acres)	RUNOFF POTENTIAL	EROSIONAL HAZARDS	DEPTH	SHRINK-SWELL POTENTIALS	SEPTIC EFFLUENT DISPOSAL SYSTEMS LIMITATIONS	PUBLIC SEWAGE DISPOSAL SYSTEMS LIMITATIONS	HYDROLOGIC GROUP
GaE	Gaviota fine Sandy loam, 9% to 50% slopes	6.0	25.1	Medium to Rapid	Moderate to High	9"-20"	Low	Severe 1	Moderate: erosion	D
OhC	Olivenhain cobbly loam 2% to 9% slopes	8.0	33.5	Slow to Medium	Slight to Moderate	29"-42"	Moderate	Severe 1	Severe: Shrink - Swell, runoff	D
OhE	Olivenhain cobbly loam 9% to 30% slopes	13.5	56.6	Medium to Rapid	Moderate to High	20"-27"	Moderate	Severe 1	Severe: Shrink-Swell, runoff	D
LsE	Linne clay loam, 9%to 30% slopes	11.0	46.1	Medium to Rapid	Moderate to High	28"-40"	Moderate	Severe 1	Moderate: Shrink-Swell	C
LsF	Linne clay loam, 30% to 50% slopes	26.0	108.9	Rapid	High	26-38"	Moderate	Severe 1	Severe: slope, erosion	C
SbA	Salinas clay loam, 0 to 2% slopes	11.0	46.1	Very slow	Slight	60"plus	Moderate	Severe 7	Slight	C
SbC	Salinas clay loam, 2% to 9% slopes	3.0	12.6	Slow to Medium	Slight to Moderate	NG	Moderate	Severe 7	Slight	C
ScA	Salinas clay 0 to 2% slopes	0.5	2.1	Very slow	Slight	NG	High	Severe 7	Moderate: Shrink-Swell	C
TeF	Terrace Escarpments	21.0	88.0	NG	NG	NG	Variable	Severe 1	Severe: Slope, erosion	D
		100%	419 acres							

Notes: (1) The above soils and descriptions are from the U.S.D.A. Dept. of Agriculture, Soil Survey, San Diego area - 1973. The survey is general in nature and the soils listed are typical of soils found in nearby areas of the project site.
(2) NG - Ratings or values not given in the U.S.D.A. Survey.
(3) Refer to the following classification of hydrologic soil groups*

Group A
Soils have high infiltration rate when thoroughly wetted; chiefly deep, well-drained to excessively drained sand, gravel, or both. Rate of water transmission is high; thus runoff potential is low.

Group B
Soils have moderate infiltration rate when thoroughly wetted; chiefly soils that are moderately deep to deep, moderately well drained to well drained, and moderately coarse textured. Rate of water transmission is moderate.

Group C
Soils have slow infiltration rate when thoroughly wetted; chiefly soils that have a layer impeding downward movement of water, or moderately fine to fine textured soils that have a slow infiltration rate. Rate of Water transmission is slow.

Group D
Soils have very slow infiltration rate when thoroughly wetted; chiefly clays that have a high shrink-swell potential, soils that have a high permanent water table, soils that have a claypan or clay layer at or near the surface, or soils that are shallow over nearly impervious material. Rate of water transmission is very slow.

*Values and Ratings given are general in nature and are not measured on-site parameters and may not reflect actual on-site soil characteristics.

On the subject property, runoff potentials range from very slow to rapid with subsequent erosion hazards rated from slight to high. Roughly 11.5% of the soils may exhibit very slow runoff and slight erosion hazards with about 11.0% of the project soils having slow to medium runoff potentials and slight to moderate erosion hazards. Approximately 30.5% of the soils may exhibit medium to rapid runoff potentials and moderate to high erosion hazards, with 26.0% of the on-site soils having rapid runoff ratings and subsequent high erosion hazards. About 21% of the project soils were not rated by the Soil Survey for the above characteristics, however, it is thought that these soils would probably have medium runoff potentials and moderate erosion hazards.

The project site soils are expected to exhibit low to high shrink-swell potentials. The shrink-swell ratings are based on the percent of water-expandable clay particles present in a certain soil sample. Approximately 6% of the site soils are rated low in respect to shrink-swell potentials with 72.5% of the project soils rated moderate. Only 0.5% of the on-site soils are expected to have high shrink-swell ratings. About 21% of the site, specifically the TeF soils, have variable shrink-swell characteristics.

Although individual septic tank effluent disposal systems are not proposed, the Soil Survey ratings for such systems are presented should alternative land uses be implemented. All the project soils are rated severe with respect to septic tank effluent disposal. Roughly 14.5% of the site soils are rated severe due to permeability restrictions. The remaining 85.5% of the project soils are characterized by severe ratings due to slope constraints.

The suitability of the project site soils for use in the development of public sewage disposal systems varies wth slight to severe limitations. About 14% of the site is expected to exhibit slight public sewage disposal limitations with 17.5% of the soils having moderate limitations. Roughly 68.5% of the site soils may have severe limitations due to erosion, shrink-swell, and runoff constraints.

Water infiltration rates indicate which hydrologic group a particular soil belongs to. The project site soils are generally assigned to hydrologic groups C & D. Roughly 51.5% of the project soils belong in hydrologic group C wth the remaining 48.5% in group D. As indicated in the Abbreviated Soil Characteristics Table, Group C soils have slow infiltration and slow water transmission rates. Group D soils are characterized by very slow infiltration rates, very slow water transmission rates and are of chiefly clay materials.

The following Table (Table 3, Abbreviated Soil Engineering Parameters) gives U.S.D.A. Soil Survey ratings for such

engineering parameters as unified soil classification and Atterberg values (including liquid limit and plasticity index).

TABLE 3

ABBREVIATED SOIL ENGINEERING PARAMETERS

Soil Symbol	Unified Soil Classification	Atterberg Values	
		Liquid Limit	Plasticity Index
GaE	SM	---	N. P.
OhC	ML or CL	15-30%	5-10%
OhE	ML or CL	15-30%	5-10%
LsE	CL	25-40%	15-30%
LsF	CL	25-40%	15-30%
SbA	CL or ML	30-45%	10-25%
SbC	CL or ML	30-45%	10-25%
ScA	CH	50-70%	25-40%
TeF	N. G.	N. G.	N. G.

NOTES: N. G. - Rating not given in U.S.D.A. Soil Survey
--- - No Liquid Limit
N. P. - Not plastic

Unified System

In the Unified System (10) soils are classified according to their texture and plasticity and their performance as engineering construction material. Soils are grouped in 15 classes. There are eight classes of coarse-grained soils, identified as GW, GP, GM, GC, SW, SP, SM, and SC; six classes of fine-grained soils, identified as ML, CL, OL, MH, CH, and OH; and one class of highly organic soils, identified as Pt. GP and GW are clean gravels, and GM and GC are gravels that include, respectively, an appreciable amount of nonplastic and plastic fines. SP and SW are clean sands. SM and SC are sands that include fines of silt and clay. ML and CL are silts and clays that have a low liquid limit and MH and CH are silts and clays that have a high liquid limit. Soils on the borderline between two classes are designated by symbols for both classes; for example, ML-CL.

Atterberg Limits

Liquid Limit and Plasticity Index (Atterberg Limits) tests for plastic limit and liquid limit measure the effect of water on the consistence of the soil. As the moisture content of a plastic, of clayey soil increases from a dry state, the soil changes from a semisolid state to a plastic state. As the moisture content is further increased, the material changes from a plastic state to a liquid state. The plastic limit is the moisture content at which the material passes from a semisolid state to a plastic state. The liquid limit is the moisture content at which the soil passes from a plastic state to a liquid state. The plasticity index is the numerical difference between the liquid limit and plastic limit. It indicates the range in moisture content within which the soil is in a plastic condition. Moisture content, liquid limit, and plasticity index are expressed as a percentage of dry weight of the soil. Atterberg limits do not apply to predominantly gravelly or sandy soils.

3.4.2 Impact

Several impacts may occur from construction on or alteration of soil materials on the Rice Canyon SPA property. These impacts are interpretations from the U.S.D.A. Soils Survey, San Diego Area, 1973. Information from the Survey is general in nature and does not represent actual on-site measured parameters. Subsequent preliminary geotechnical investigation has provided specific data. Therefore, potential impacts, as described below, are to be used only as general guidelines for future soil

studies.

Approximately 30.5% of the project site soils may exhibit medium to rapid surface water runoff potentials and moderate to high erosion hazards. Another 26% of the site's soils may have rapid runoff ratings and subsequent high erosion hazards. Rapid runoff could, in unprotected areas, remove sufficient soil or foundational materials by erosion to undermine or otherwise affect the structural integrity of buildings, sewer lines, pavements and streets. Runoff and subsequent erosion increases in intensity with increasing slope angle, therefore, those areas of the project site which are to remain as steep slopes may be subject to severe erosion. Compounding this would be additional surface water runoff generated from runoff via rooftops, sidewalks and streets.

About 72.5% of the project site soils have moderate shrink-swell ratings with 0.5% of the surface soils rated high. About 21% of the site has variable shrink-swell characteristics. In several areas of San Diego County, damage has been done to buildings and roads due to the highly expansive character of soils containing high percentages of water expandable clay particles. It is difficult to properly assess the potential impact of those soils suspected of having moderate to high shrink-swell ratios until further on-site geotechnical testing has been completed.

As the project is not planned for septic tank effluent disposal systems at this time, the severe septic disposal ratings of all of the on-site soils would not prove to be an impact. However, should the property be put into other alternative land uses, these severe ratings could be used as a guide for the planning of those land uses.

Due to steep slopes, erosion, and possible shrink-swell constraints, roughly 68.5% of the project soils may have severe limitations in regards to the use of public sewage disposal systems. It is possible, in the event no mitigation measures were imposed, that shrinking and swelling of soil or foundational materials could break or damage sewage pipe systems; that erosion may expose pipes; and that the generally steep slopes may hinder proper sewage flow.

Despite the slow to very slow water infiltration and transmission rates, no impacts, aside from very temporary ponding of surface water after heavy precipitation events, should occur.

3.4.3 Mitigation

Standard mitigating measures are available for all potential soil impacts as described in the preceding section (3.4.2 - Impacts).

Increased runoff would undoubtedly occur after completion of construction activities due to paving of permeable areas and from excess water derived from rooftops, sidewalks, etc. Proper design of streets, gutters, sewers, subsurface and surface drainage systems (french drains, diversion ditches, dikes, and energy dissipation devices) should prevent serious erosion impacts. Surface water should be directed away from foundations and into gutters, sewers, and storm drains. Sound engineering design would probably result in less erosion at project completion than occurs at present. Much of the project site would be graded to eliminate some of the steeply sloping areas. This would, in effect, slow down runoff and help prevent erosional impacts.

It should be noted that during actual construction phases the soil and foundational materials may be altered by grading activities and thus are more susceptible to erosion effects. It is, therefore, suggested that appropriate measures be instituted during construction phases to prevent runoff and erosion. These measures would involve grading during dry months to avoid winter rains, use of temporary diversion ditches, protective berms and other control devices. The use and description of adequate erosion control techniques are further described in EPA 440/3-78-003, Erosion and Sediment Control Handbook, 1978.

As stated previously, many of the project soils may have the characteristics of swelling and shrinking, due to the presence of water expandable clay materials. It is suggested that further on-site geotechnical testing be completed to fully ascertain the percentage of possible expansion. If the shrink-swell tests suggest potential impacts, mitigation would involve the removal of expansive materials in some areas and the placement and recompacted fill over those and other areas. The pre-preliminary report by Shepardson Engineering (Attachment 1) describes these methods in more detail.

Public sewage systems may be impacted from highly expansive soils, and erosion associated with steep slopes. Mitigation would involve close coordination between the City of Chula Vista and/or County of San Diego and the project engineer. A complete sewage, storm drainage plan for the project would be required by the City of Chula Vista before project implementation. This plan would use established engineering techniques and proven design standards to prevent future impacts. Of prime concern is to plan the sewage, storm drainage system so

that pipes or other drainage devices are not placed in highly expansive or easily erodable soil.

3.4.4 Analysis of Significance

In general, the close coordination with City of Chula Vista officials, observance of the City of Chula Vista grading ordinance, and incorporation of standard engineering techniques would mitigate potential soil impacts. Several potential impacts are possible, but the strict implementation of the above items would likely reduce those impacts. The use of a geotechnical or engineering soils company would be required during grading and building site preparation.

3.5 GROUNDWATER

3.5.1 Project Setting

No groundwater was discovered in any of the trenches excavated during the pre-preliminary geotechnical investigation prepared by Shepardson Engineering Associates (1977). According to the El Rancho del Rey EIR (1978), groundwater of low quality has been extracted in the past from wells near the project site that were drilled deeper than 1,000 feet and which penetrated the San Diego and Otay Formations. Total dissolved solids (TDS) in water from these wells ranged from 2,000 to 5,000 (milligrams per liter) mg/l. Shallow, perched groundwater has been noted in the general vicinity of the El Rancho del Rey site. This occurs in larger valleys, such as in Rice Canyon and is well above the regional groundwater table.

The low permeability clay (bentonite) horizon in the Otay Formation, as well as the faults in the area, may locally pond groundwater. The generally poor water quality is probably a result of salt water intrusion and the interception of connate water trapped within the marine formations that underlie the area. However, because the project would be served by the Otay Municipal Water District, the quality of the groundwater would not affect the project.

On the project site, several phreatophytic-type plants were noted in the alluvial valleys. This type of vegetation is usually indicative of a shallow localized water table.

The project site, as defined by the County of San Diego Hydrology Report - 1975 Season, is located in the Sweetwater Hydrologic Unit. Surface water in this unit eventually drains into San Diego Bay. The southern 3/4 of the project site drains into Rice Canyon, whereas the northern 1/4 drains into the Sweetwater River located about 1,000 feet north of the site.

3.5.2 Impacts

Groundwater recharge, accomplished by infiltration through the soil cover into the aquifer would be affected by the urbanization of this site. Decreasing the area in which infiltration occurs by construction of buildings, roads, and parking areas, may result in the lowering of the water table. This is especially true for the local perched water table. The regional water table is primarily recharged by regional groundwater flow and the effects of the lost recharge by infiltration are not yet clearly understood. The loss of

infiltration due to urbanization, however, may be offset by an increase in water availability derived from excess mitigation of landscaping on-site.

The greatest impacts may occur within the small perched aquifers in the area. These aquifers are more susceptible to varying groundwater conditions. Springs periodically occur in these types of aquifers after extended periods of rainfall. Excess water used for landscaping may result in fluctuation in these local perched aquifers.

3.5.3 Mitigation

As the proposed project would not likely have a serious impact on the regional groundwater system, minor mitigation measures are recommended. Mitigating measures for fluctuations in the local perched aquifers would empirically require balancing the negative effects of loss of infiltration by urbanization, and the increase in groundwater availability due to infiltration from landscaping. The development of open space areas and parks, along with homesite and commercial development, should provide some of this balance.

3.5.4 Analysis of Significance

The proposed Rice Canyon SPA development, with a balance of developed and undeveloped land, as stated above, should not significantly affect regional groundwater conditions. Deleterious local groundwater flow within the project, such as perched aquifer seepage after storms, can be alleviated by sound engineering practices following recommendations of the City of Chula Vista Grading Ordinance.

3.6 DRAINAGE PATTERN

3.6.1 Project Setting

About three-fourths of the project site is located in the Rice Canyon Basin; the remainder lies in the Glen Abbey Basin and the Bonita Basin (Sedway/Cooke, 1977). Most of these basins exhibit relatively undisturbed topographic features, consisting of steep-sided canyons incised into the relatively flat terrace surface. Some alteration to these basins has taken place, however, particularly outside of the project site. The Rice Canyon drainage has been blocked by the Interstate 805/H Street interchange and water is conveyed under the interchange through culvert pipes with a carrying capacity of 1600 cubic feet per second (cfs) (Sedway/Cooke, 1977). Development has occurred on the hilltops at the edge of the basins at Lynwood Hills, along J Street on the south side of the Rice Canyon Basin, and near Southwestern College at the eastern edge of the Rice Canyon Basin. Erosion of the Otay and San Diego Formations, which form the sides of the Canyon, has been rapid where runoff from buildings and paved surfaces has been allowed to run down the unprotected canyon sides. Erosion of the alluvium along the bottom of Rice Canyon has also been rapid, particularly during the recent wet years of 1977-78 and 1978-79.

There is a discrepancy between the capacity of the culverts (1600 cfs) under the Interstate 805/H Street interchange and the "ultimate" 50-year flood of about 2100 cfs predicted by the Fogg Report (1964). Although the density of development would probably not be as great as that assumed in the Fogg Report, flood flows of greater rates than the capacity of the culverts may occur, both because the 50-year flood may be greater than the culvert capacity and because larger floods of a greater recurrence interval may occur (such as a 100-year flood). These culverts have functioned adequately since their construction, although a considerable amount of sediment was deposited downstream from the culvert outlet during the wet winters of 1977-78 and 1978-79. This sediment has choked the culvert beneath Bonita Road and increases the likelihood of flooding on that road. Blockage of Bonita Road culvert would affect drainage of the Rice Canyon SPA.

3.6.2 Impact

The development of this site may impact the surface-water drainage by increasing the amount and intensity of runoff as natural vegetation is replaced by buildings and paved surfaces. The rate of erosion and sediment deposition may be increased if uncontrolled runoff or excess irrigation water from the developed

areas flows over unprotected slopes. Furthermore, the project includes commercial and residential development in Rice Canyon at its lower end which would be subject to the floodwater and sediment from the upper parts of the basin. Flood flows in excess of the capacity of the culvert beneath the Interstate-805/H Street interchange would cause ponding at the upstream end of the culvert. The commercial buildings shown on the preliminary project plan would not likely be affected as they are expected to be above the highest water level that would result from a 2100 cfs flow.

Runoff from precipitation will increase as a result of the proposed development. In the "Fogg Report" (1964) prepared for the City of Chula Vista, the expected natural discharge through Rice Canyon at the Interstate 805/H Street interchange was calculated to be 1668 cfs for a 50 year event. A discharge of 2113 cfs was calculated for this point when the entire canyon would be fully developed.

Calculations, using the Rational Formula, show that the expected discharge at the Interstate 805/H Street interchange will be 2070 cfs after the proposed development is completed. This is an increase of 402 cfs, or 24% over the natural runoff of 1668 cfs. It should be noted that the Rational Formula is considered to be valid for deriving a good approximation of expected discharge.

The sediment produced in the Rice Canyon Basin, both from the project site and from development upstream, would probably have the greatest impact on the surface drainage at the project site; particularly, if this site is developed before the upper part of the basin. Sediment production from this basin is already heavy during wet years, and it would be very difficult to prevent an increase in sediment production, at least temporarily, during construction. Sediment production could be great enough to block the water flow in Rice Canyon which would almost certainly result in the flooding of the lower portions of the development proposed in the present canyon bottom.

3.6.3 Mitigation

Specific engineering and design for drainage structures for handling storm runoff and floodwaters have as yet not been proposed. Initial discussions with the project engineer indicate that two basic alternative drainage structures along Rice Canyon through the project are being considered. Sedimentation is the most serious problem which faces the design of this structure, as a high volume of sediment is expected to be carried in surface runoff. In view of the sedimentation potential, an open channel, probably lined with concrete, appears to be the most practical solution because it can easily be cleaned out periodically as

sediment accumulates. Such a channel could also include a series of sediment traps specifically designed to localize sedimentation.

The alternative to an open channel is an enclosed culvert, which would run beneath the multi-family and commercial units. This option could be more appealing from an aesthetic and land use intensity perspective. It would also remove the temptation open channels represent to juveniles for recreation. Underground culverts, however, do have a strong disadvantage from a maintenance standpoint. Sediment removal would be difficult unless sedimentation basins were included which were designed for easy removal of sediment.

The project drainage design and facilities must be designed to interface with the culvert at the Interstate 805/H Street interchanges to prevent sediment from being deposited over the intake of this existing culvert. A retention basin at the eastern boundary of the project could decrease the rate of runoff as well as trap sediments before they enter the project site.

It would be safer to design structures for carrying floodwaters with a capability of handling more than the 1600 cfs capacity of the existing culvert, perhaps large enough to handle a 100-year flood or at least, the 2100 cfs predicted for the 50-year flood by the Fogg report.

Care must be taken to ensure that storm runoff and excess irrigation water is not allowed to run down unprotected steep slopes, including those left as open space. Lots and paved areas must slope toward the internal streets with storm drains adequate to handle storm runoff. Runoff from the school and park sites at the north edge of the project should be conducted to a lined channel or equivalent drainage facility.

Both cut and fill slopes must be protected from erosion by planting with suitable erosion-resistant vegetation. It may be necessary to erect temporary sediment-trapping structures during the grading operations and before the permanent vegetation has been established; particularly, if any grading is initiated during a rainy season.

3.6.4 Analysis of Significance

Drainage on and off the project site is a potentially significant impact, which can be mitigated through a carefully planned system of a drainage control and transport system. Rice Canyon carries a large amount of runoff. The drainage system must be designed to accommodate current runoff, as well as that anticipated with future development of the drainage basin to the east of the Rice Canyon SPA.

It is very likely that sediment production would be increased in the upper part of the Rice Canyon Basin as it is developed. This would create a problem in structures that carry runoff water, particularly if construction occurs during years of high intensity rainfall.

3.7 WATER QUALITY

3.7.1 Project Setting

The Rice Canyon SPA project site is located near the confluence of the Rice Canyon water drainage, which is an ephemeral stream, and the Sweetwater River. The northern quarter of the area's natural drainage is to the north into the Sweetwater River whereas the rest of the site's natural drainage is into Rice Canyon where it eventually flows into the Sweetwater River and into San Diego Bay approximately 4 miles downstream.

Urbanization within the flood-fringe areas downstream is generally limited. Most development in the past has been designed for compatibility with land uses commonly found in flood-fringe areas. The Bonita Golf Course and the proposed Bonita Shopping Center are approximately 1.5 miles downstream from the boundary of the site and are typical of land uses developed in flood zones.

3.7.2 Impacts

The impacts from this project would be similar to those described in the nearby El Rancho del Rey EIR, dated December 23, 1977.

Three types of water quality effects are associated with the development of this site. These processes are: siltation, urban runoff, and liquid waste disposal. Siltation is chiefly a short-term effect created by grading, site preparation, and road building, although siltation would continue to occur at a lesser rate. Crucial to this is the loss of the protective layer of vegetation which protects the soil from eroding and gullying.

The degradation of water quality is a long-term impact from increased urban runoff and liquid waste disposal. Urban runoff consists of storm-water runoff contaminated by such urban pollutants as hydrocarbons, rubber, metal, dust particles, and small objects derived from streets and parking areas; fertilizer and pesticides from landscaped areas; pet wastes and possibly several others.

According to the El Rancho del Rey EIR,

> As development of the subject property proceeds and urban utilization of the project area intensifies, a concommitant increase in the level of urban runoff would result. Of

particular interest is runoff from streets and parking areas. Materials in this drainage have been found to contribute substantially to urban pollution. The Environmental Protection Agency has found that this runoff is similar in many respects to sewage flows. In the first rain of a moderately heavy storm, more pollution is washed from these parking and travel areas than a sewer line carries in a similar period. However, because the watersheds below the subject property are already largely urbanized, the increased level of urban runoff from the fully developed site would represent a relatively insignificant contribution.

Liquid waste disposal is largely carried through the Chula Vista Sanitary Sewer Utility System and the Metropolitan Sewer System to the Metropolitan Treatment Plant on Point Loma. This treatment facility is approaching its design capacity. The City of San Diego has plans to upgrade the treatment capacity; however, this additional capacity won't be available for several years. Therefore, continued urban growth, of which this project is a part, would increase sewage flow to the system and cause a worsening of the treatment facility problem and a lowering of water quality in the discharge area.

The residences in the Lynwood Hills subdivision, which are contiguous with the northern boundary of the H Street project, utilize vertical seepage pits for disposal of sewage effluent. Seepage from these vertical pits could daylight along the faces of the proposed cut slopes shown on the preliminary grading studies for the H Street project. It appears that the only areas of concern would be along the southern and eastern boundaries of the Lynwood Hills subdivision.

Based on a review of the cross sections through the maximum cuts proposed in this area, and assuming that the vertical pits were installed in accordance with the County standards which require a 25-foot setback from property line and a capped depth of at least 6 feet below the surface, and a knowledge of the underlying geologic formations in this area, which consist of relatively uniform permeable sandstones for considerable depths, it is the opinion of the soils engineer that the probability of seepage occurring from the proposed cut slopes is highly unlikely.

3.7.3 Mitigation

Short-term degradation of water quality is unavoidable during urbanization. However, activities such as grading, construction, and road building should, if possible, be carried out in the spring and summer months to avoid winter rains. Also, measures are suggested to limit erosion of on-site building materials by storms by using appropriate covers. Landscaping of denuded areas after work is completed is essential to maintaining good water quality from runoff from the project site.

Treatment of urban runoff to reduce urban pollutants is costly and frequently ineffective. A more realistic approach toward mitigating this problem is to adopt a rigid program of clean-up techniques. The pollution due to street surface contaminants, for instance, can be significantly reduced by proper street cleaning operations. By maximizing the open space, urban runoff could be held to a minimum.

In order to prevent any possibility of effluent seeping from the cut slopes, the engineer has applied the most conservative methods possible to estimate potential seepage heights in the cut slopes and has designed effluent cut-off subdrains to intercept this potential seepage and dispose of it in the sewers which will be installed for the H Street project. For a complete explanation of the estimation technique and the system design, please refer to Attachment O.

3.7.4 Analysis of Significance

The lowered quality of water resulting from runoff on the fully developed site, as mentioned, would represent a relatively insignificant contribution to present levels. Of regional significance is the incremental decrease in the water quality due to further urbanization and development with respect to San Diego Bay. San Diego Bay is approximately 4 miles downstream where some of the urban runoff generated by this project and others, existing or proposed, would probably encounter the ecologically sensitive tidal flats and salt water marshes of the Bay. Addressing this problem may require a regional effort with local, state and possibly federal agencies to provide a viable solution.

This project would further test the capability of the metropolitan treatment facility on Point Loma. The plant is currently operating at full capacity and an increased volume of sewage produced by this and other projects could overload the treatment facility and decrease water quality in the vicinity of the ocean outfall.

3.8 ARCHAEOLOGY

3.8.1 Project Setting

On March 3, 1979, Mary Lou Heuett and other crew members performed an archaeological reconnaissance of the Rice Canyon SPA. The entire crew surveyed the flatter terrain, then split into two crews and surveyed the steeper terrain.

Attachment B contains the full survey report. Each ridge top was studied on foot by a series of north/south transects, except for the floor of Rice Canyon and the southern periphery of the property which was studied by a series of east/west transects.

Record searches were conducted by the Museum of Man and San Diego State University. Both institutions indicated recorded sites adjacent to the project site, but no resources had been previously recorded within the boundaries of the subject property.

The survey yielded eight prehistoric finds, including: six shell scatters, one flake isolate located primarily on a major southwest-trending ridge, and one additional flake isolate on a northwest-trending ridge on the southern portion of the property. No artifacts or midden is believed to be associated with the shell scatters and the two isolated flakes were the only artifacts found during the survey. In addition to the prehistoric finds, an area in which paleontological fossils was located. A brief description of each site follows:

RC-1 is a meta-volcanic macro-flake isolate, unifacially chipped along one circumpherial edge. The flake was found adjacent to a jeep trail. No midden or other associated artifacts were noted.

RC-2 is a scatter of pectin shell fragments. No midden or other associated artifacts were recovered. The scatter measured 3 meters by 3 meters.

RC-3 is a shell scatter on a washed slope. Fossil pectin shell was noted along with more contemporary shell. Midden was not apparent on the site surface nor were artifacts. The site measured 3 meters by 3 meters.

RC-4 is a shell scatter with neither midden nor artifacts on the surface of the activity area. The site surface is washed and slightly eroded and roughly measures 6 meters by 3.6 meters. The shell concentration was very light.

RC-5 is a scatter of fossilized and more modern pectin shell. The site lies on a slope on the edge of one of the finger-like ridges adjacent to RC-6. Again, washing and erosion were noted. Midden and artifacts were not present. The site measures 5 meters in diameter.

RC-6 is a shell scatter without apparent midden or artifacts. The site area measures roughly 25 meters (east/west) by 15 meters (north/south). The scatter appears to parallel the 72-meter contour line and is adjacent to RC-5 and 6, and above RC-8.

RC-7 is a light shell scatter with neither midden nor other associated artifacts located on a slightly washed and eroded slope. Fossil pectin shell was noted.

RC-8 is an area in which paleontological material was found eroding from the face of the ridge near the floor of Rice Canyon, and below Sites RC-5, 6 and 7. Some of the fossilized shell noted appears to have been removed from its original context. Neighbors in the adjoining housing development indicated that "fossil hunting activities" were prevalent in this area.

RC-9 is a flake isolate of meta-volcanic material. The primary flake had a prominant bulb of percussion with some cortex present on the flake surface. No midden or other artifacts were noted in the area. The flake was found at an elevation of 72 meters on a ridge above the canyon floor in an eroded motorcycle trail. RC-9 is directly south of sites 5, 6, 7, 8, and slightly to the west of sites 2, 3, and 4.

3.8.2 Impacts

The proposed development would have direct impact on the archaeological resources located on the subject property, as well as posing an indirect impact on SDi. 4776, 4677 and 4889, archaeological sites located on surrounding properties. Grading of the ridges on the site would destroy all but two of the archaeological sites. Increased human activity, e.g., hiking, off-road vehicle, exploration, etc., as a result of the development might cause disruption and/or destruction to identified archaeological sites on the subject property not impacted directly by grading or adjacent properties.

3.8.3 Mitigation

Two alternatives exist for preserving the artifacts and research values attributed to the archaeological resources identified on the project site: preservation or salvage. Preservation would involve the protection of the resources in their present location. This could be accomplished by placing a clean fill covering over the resources or through fencing installed around each of the resource locations. It may be necessary to perform limited excavation of the site in order to determine if subsurface archaeological deposits exists, and the extent of any subsurface deposits found. This information, along with the extent of surface scatter of artifacts, would delineate the boundaries of the area to be preserved.

In the event that preservation is incompatible with the proposed development, a more in-depth subsurface testing program could be warranted to determine the significance of the resources present. A salvage or recovery program could be required in the event that sufficient significance appears to be related to the various archaeological resources present on the property. This testing/salvage program could include: collection and mapping of surface artifacts, posthole series, test pit excavation and analysis and cataloging of recovered information.

3.8.4 Analysis of Significance

Archaeological resources on the property appear to be of only limited significance. The resources found on the property are mostly shell scatters, which are geographically separated from each other. No artifacts were found in the vicinity of the shell scatters and no subsurface deposits (midden) appear to be associated with any of these scatters.

3.9 BIOLOGY

3.9.1 Project Setting

A biological survey of the Rice Canyon SPA was made by R. Mitchel Beauchamp, botanist and Steven J. Montgomery, zoologist. The study was made on foot and encompassed all ridge areas and all major canyon areas. Approximately 40% of the property was examined in detail on foot with the remainder viewed from vantage points.

Indirect means were used to identify unobserved species. See Attachment C for the complete Biological Survey Report.

The property contains four types of vegetation; Inland Sage Scrub, Maritime desert sage scrub, Riparian Vegetation, flora and various species of the vernal pool habitat. Please refer to Figure 12 for specific vegetation locations.

Inland Sage Scrub (Coastal Sage Scrub) covers about 35% of the property. This type of vegetation is generally found on ridge tops, but does appear in canyons in several areas as well. This association is characterized by the dominance of Coastal Sagebrush and Flat-top Buckwheat.

The second vegetation type, Maritime Desert Sage Scrub, is unique to undeveloped coastal regions of San Diego and occurs nowhere else in the United States. Maritime Desert Sage Scrub covers nearly 40 percent of the property. It is comprised of cactus and succulants. Two categories appear on the vegetation map: Cholla Stands and Rhus Woodlands. Species which characterize the Maritime Desert Scrub are Opuntia prolifera, Opuntia littoralis, Mammilaria dioca, Simmondsia chinensis, Rhus integrifolia, Encelia californica, Ferrocactus viridescens, Lycium ssp.

The third vegetation type is riparian, found in the drainage bottom. Elderberry is the only indicator of this habitat. However, the side canyons contain a substantial growth of mesic-adopted herbs. Together, the two types of plants occupy 25% of the property.

The fourth vegetation type is evidenced in the vernal pool habitat. The habitate, located on the eastern edge of the main ridge of the property, possesses plants of the Sunflower, Plaintain, Water Starwort, Stonecrop, Borage, Rush and Lily families.

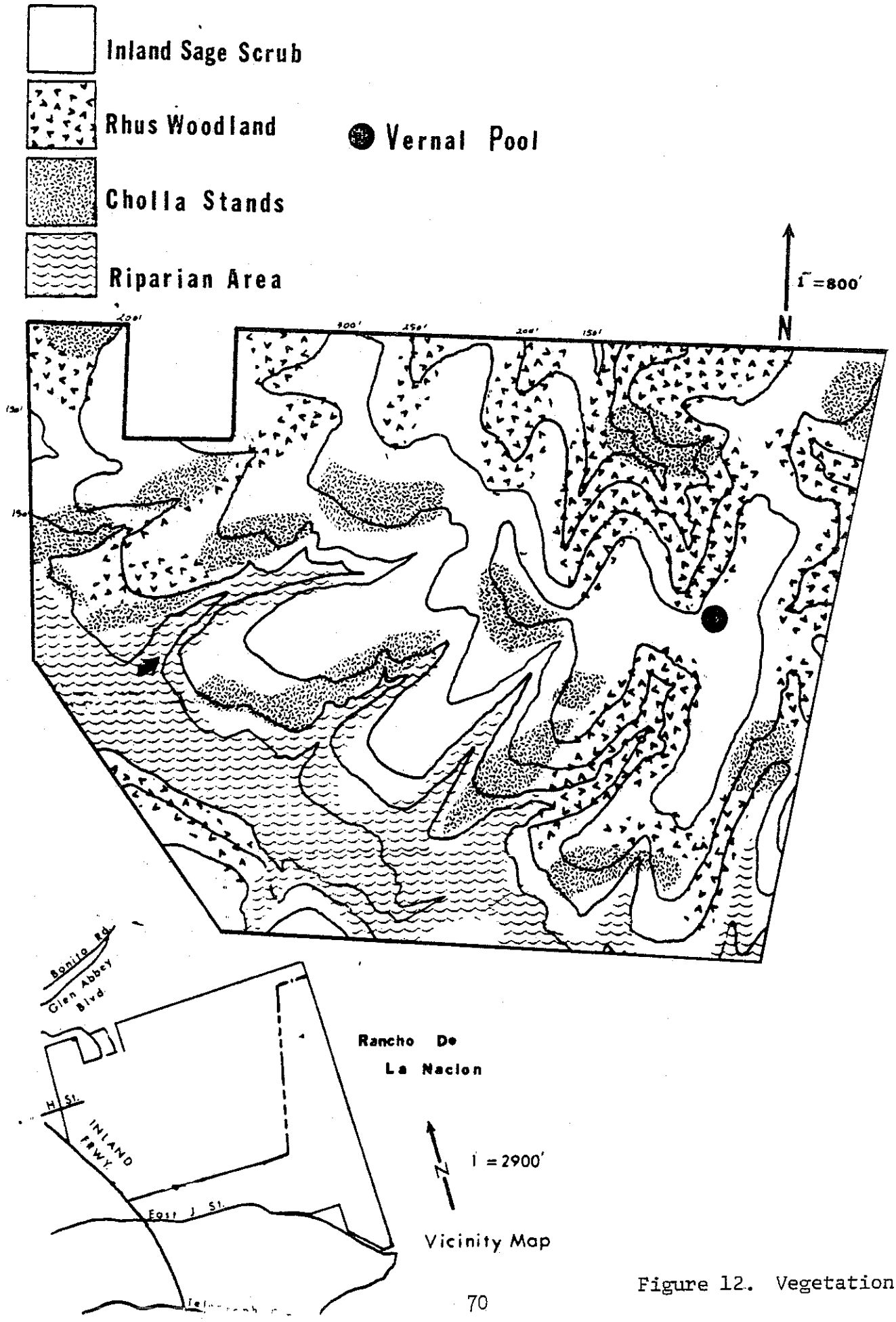


Figure 12. Vegetation Map

Flora

The property has a diverse flora which is representative of the extreme southwestern portion of San Diego County. Because of the disturbance of natural habitats found in various locations on the property, 33 of the 140 total plant taxa observed on the property are non-native, mostly European species of grasses and forbs. This disturbance-associated floral element is a significant factor in the floral diversity of the property only in terms of numbers.

The natural component of the flora was very diverse at the time of the survey due to the development of the annual species. The presence of the vernal pool adds significantly to the natural floral diversity encountered. Regions within Chula Vista and even coastal southwestern San Diego County which display such a high degree of natural floral diversity are rapidly becoming rare.

Zoology

Nine mammals, three herptiles, thirty-three birds and a limited number of reptiles were directly or indirectly observed on the property. A more complete description of these animals can be found in the Zoology section of the Biological Technical Report (See Attachment C).

Amphibians and Reptiles

Three common herptiles, the Pacific Treefrog, Western Spadefoot Toad, and Western Fence Lizard, were observed on the property. Due to cool temperatures of the season in which the survey was conducted and the secretive nature of these animals, only a limited number of reptiles were encountered. Additional species of reptiles unduoubtedly exist, especially in sandy habitats such as Rice Canyon and its associated side canyon.

Birds

The most notable group among the species observed is the raptors, including Cooper's Hawk, American Kestrel and the Red-tailed Hawk. Though these birds hunt on the property, only Kestrels are likely nesters, due to the absence of suitable trees. Loggerhead Shrike, a common species that hunts and nests in Rice Canyon, was also observed.

Two infrequently encountered species, Cactus Wren and Black-tailed Gnatcatcher, were abundant on the property.

Mammals

Small mammals are important prey for mammals, reptiles and birds. Their presence attracts these predators and has contributed to the diversity of the site's animal population.

Tracks of two skunks were observed in Rice Canyon. Coyotes regularly visit the property and may den there, though no dens were observed during the field survey.

3.9.2 Impact

Development of the Rice Canyon SPA would result in grading over approximately three-quarters of the property. In the process of building site preparation, vegetation would be removed and several of the canyons would be filled and recontoured. The only areas which would remain undisturbed are those which are included in the open space shown on the plan. Completion of the development would introduce acts brought about by urban noise, use of open space by residents, and disturbance of wildlife by domestic pets.

Several sensitive plant populations and one rare vegetation type exist in areas which are proposed for development. Most of the stands of Snake Cholla would be impacted by development. The subject property is suspected to have some of the most extensive population of Snake Cholla known in the area. Other sensitive plant populations would be disturbed, including Coast Barrel Cactus, San Diego Sunflower and Pygmy Spike-moss. The Snake Cholla would be the most affected as few of their populations coincide with the proposed open space lots. The rare habitat which would be threatened is the Maritime Desert Scrub, located on the property. Regionally, Maritime Desert Scrub occurs only in undeveloped canyons in the coastal areas of San Diego, and is a unique vegetation found nowhere else in the world. The association present on the subject property is particularly rich although, just to the south, four additional species occur in the Scrub. A small vernal pool (in the vicinity of Ridgeback Road) could be impacted by the proposed development as Ridgeback Road is constructed.

The impact of the development on wildlife would be experienced primarily by raptors, such as Red-tailed and Cooper's Hawks. These birds depend on large areas fields and low

vegetation for their foraging. Fragmentation of the property as it develops would diminish these foraging areas. Existing roads and utility easements have already resulted in some fragmentation. The Cactus Wren may be displaced in proportion to the amount of Cholla Cactus, which has been destroyed. Development in Rice Canyon would eliminate the Yellowthroat Lizard and any San Diego or Orange-throated Whiptail Lizards present.

The large canyon, along which "Street K" is proposed, is considered to be especially valuable as a secluded wildlife area. Filling of this canyon would preclude its use by wildlfie.

3.9.3 Mitigation

The large lots within the project, which have been identified as open space would provide mitigation for a portion of the project's impact on biological resources. These lots of open space coincide closely with those open space areas shown on the El Rancho del Rey Development Plan. As a result of this open space, relatively large areas of natural vegetation would remain within the project. Foraging fields for raptors would be preserved and sensitive plant populations existing in the open space would be undisturbed.

The density allowed under the El Rancho del Rey Development Plan and the locations specified for development cannot occur without the complete destruction of the biologic habitat in that area. Internal access would be along Rice Canyon and its tributaries, which would preclude their usefulness as a wildlife habitat. Little mitigation is available for impacts within the area to be developed.

Mitigation for the graded areas, which is not a part of the project design, would include fencing and preserving the small Vernal Pool area near the school sites and transplanting. The transplanting of sensitive plant species in the path of grading could allow their continued existence within the project boundaries. However, transplantation is a difficult process. Certainty of success cannot be assured and few case histories are available for the plants, which would be transplanted.

3.9.4 Analysis of Significance

The project site does exhibit two vegetation associations which are considered sensitive by local or regional authorities (Maritime Desert Scrub and Vernal Pool). Several plant species exist on the property which have varying degrees of sensitivity. Wildlife value of the property is primarily as a foraging area

for predatory birds. Faunal diversity is somewhat low. In a general sense, the biological value of the property is as a large undeveloped area.

Although no specific sensitive habitats exist, the biological resource present on the property should be considered important. The Rice Canyon SPA would have a significant impact on that biological resource. The loss of the canyon to be filled for "Street K" represents the loss of one of the main wildlife habitats on the property. Partial mitigation is available through the open space provided and possible transplant programs. The magnitude of landform modification necessary to achieve the development density allowed under the El Rancho del Rey Development Plan precludes any major in-situ preservation of the resource within the area to be developed.

3.10 TRANSPORTATION/ACCESS

3.10.1 Project Setting

There are no improved roads across the Rice Canyon SPA. A random network of dirt roads has been created through the use of the property for off-road vehicles and in association with the various utility easements occuring on the site. The nearest improved road is Interstate 805 which borders the property to the west. The freeway generally precludes vehicular access from the west at the present time.

Ingress and egress for the Rice Canyon SPA would initially occur entirely at the Interstate 805/East H Street interchange. From this point, traffic leaving the project could travel north and south along the freeway or west along East H Street toward downtown Chula Vista. Access to the east would be less direct as drivers would have to use the freeway to reach either Bonita Road or Telegraph Canyon Road.

The 1978 traffic flow patterns for the surrounding City of Chula Vista area indicates that the highest 1978 traffic volumes on a city street is shown on E Street between Interstate 5 and Broadway, with a two-way average daily traffic (ADT) of 25,200. H Street immediately west of Interstate 805 served about 19,000 vehicles daily in 1978. Two-way average daily traffic along Interstate 805 at East H Street is 57,000 ADT. East H Street and Interstate 805 are both operating below their design capacity at the present time.

The principal street which would serve the project would be the extension of East H Street through the southerly portion of the tract, as a 6-lane divided thoroughfare within a 126 foot-wide right-of-way. Left-turning channelization would be limited to two principal intersections.

The two secondary thoroughfares that would be connected to East H Street are "Street K" and Ridgeback Road, both of which would serve as collector-type streets in the proposed tract. "Street A", located in the northwest corner of the tract would provide access to the adjacent Bonita community served by Lynwood Drive and Bonita Road. "Street F" would terminate at the northern tract boundary and would be available to connect wth any future developments that occur south of Bonita Road. The remaining access streets would provide direct access to the single-family and condominium residential dwelling units.

East H Street and Ridgeback Road would terminate at the eastern boundary and the developer does not intend to extend these roads past that point. However, the circulation system within the El Rancho del Rey Specific Plan does provide for these roads to be extended, in segments from west to east, as development occurs in the same direction. Therefore, eventually the Rice Canyon SPA would be accessible from Otay Lakes Road as East H Street is extended.

3.10.2 Impacts

A traffic study including: an examination of the planned local street system, within and external to the project site, and its geometrics; a review of current traffic usage of the existing supportive system; and a translation of the proposed land uses within the project into an estimate of traffic to be generated was conducted to determine the circulation impacts associated with the Rice Canyon SPA. The full Transportaion Impacts and Access Stuey is appended as Attachment D.

The 1985 and 1995 traffic patterns to/from the project site were described with the aid of computer printouts of the respective regional trip tables for the traffic zone which included the project. The trip generated analysis was further translated into a detailed trip table, Table 4, for internal-to-internal travel, as well as, for internal travel to/from project.

The 1985 average weekday traffic volumes were estimated on each link of the local circulation system of the Rice Canyon SPA, and its connection to East H Street and Interstate 805 interchange. The traffic volumes were estimated for two conditions, with and without the further extension of East H Street easterly of the project site.

To assess the long range impacts, the El Rancho del Rey Development Plan area, located esterly of the Rice Canyon SPA, was translated into average weekday traffic volumes on the proposed circulation system of the Rice Canyon SPA, added to the traffic generated by the proposed project and summarized. The resultant traffic impacts on the circulation system as well as at selected critical intersections, were assessed and mitigating measures were identified and recommended.

The 419-acre development of Rice Canyon SPA would generate about 34,810 weekday daily vehicular trips after full occupancy. The 1985 traffic volume estimates, with and without the extension of East H Street easterly of the project site, are graphically represented in Figures 13 and 14.

Table 4.

TRIP GENERATION ANALYSIS

Subzone	Land Use Activity	Bldg. or Lot Code	No. D.U.'s	Land or Floor Space	Trip Gen. Rate	Total Trip Ends	
01	Residential		83		11.8/DU[1]		980
02	Residential		121		11.8/DU		1,430
03	Residential		103		11.8/DU		1,220
04	Residential		27		11.8/DU		320
05	Condominium	337	160		8.5/DU[2]		1,360
06	Condominium	337	236		8.5/DU		2,010
07	Condominium	336	102		8.5/DU		870
08	Auto Park	342		8.3 AC	386/AC[3]	3,200	
	Park-and-Ride			94 Spaces	-[4]	380	
	08 Subtotal						3,580
09	Restaurant	A		90 Seats 5,200 SF	34/Seat[5]	3,100	
	Bank	B		5,000 SF	148/1,000[6]	740	
	Bank	C		6,000 SF	148/1,000	890	
	Restaurant	D		120 Seats 9,500 SF	16.7 Seat[7]	2,000	
	Retail	E-M		110,500 SF	761/10,000[8]	8,410	
	Offices	N		40,902 SF	15/1,000[9]	610	
	Theatre	P		840 Seats	-[10]	760	
	09 Subtotal						16,510
10	Recreational Facility	339		3 AC	526/AC[11]	1,580	
	Apartments	340	224		7.5/DU[12]	1,680	
	10 Subtotal						3,260
11	Condominium	338	140		8.5/DU		1,190
12	Open Space						
13	Open Space			82 AC			-
14	Jr. High School	D		12-1500 Students	1/Student[13]		1,350
15	Park	C		15 AC	10/AC[14]		150
16	Elem. School	B		5-600 Students	1/Student[15]		550
17	Open Space	A		3 AC			-
18	Fire Station			0.64 AC	40/AC[16]		30
					TOTAL TRIP ENDS		34,810

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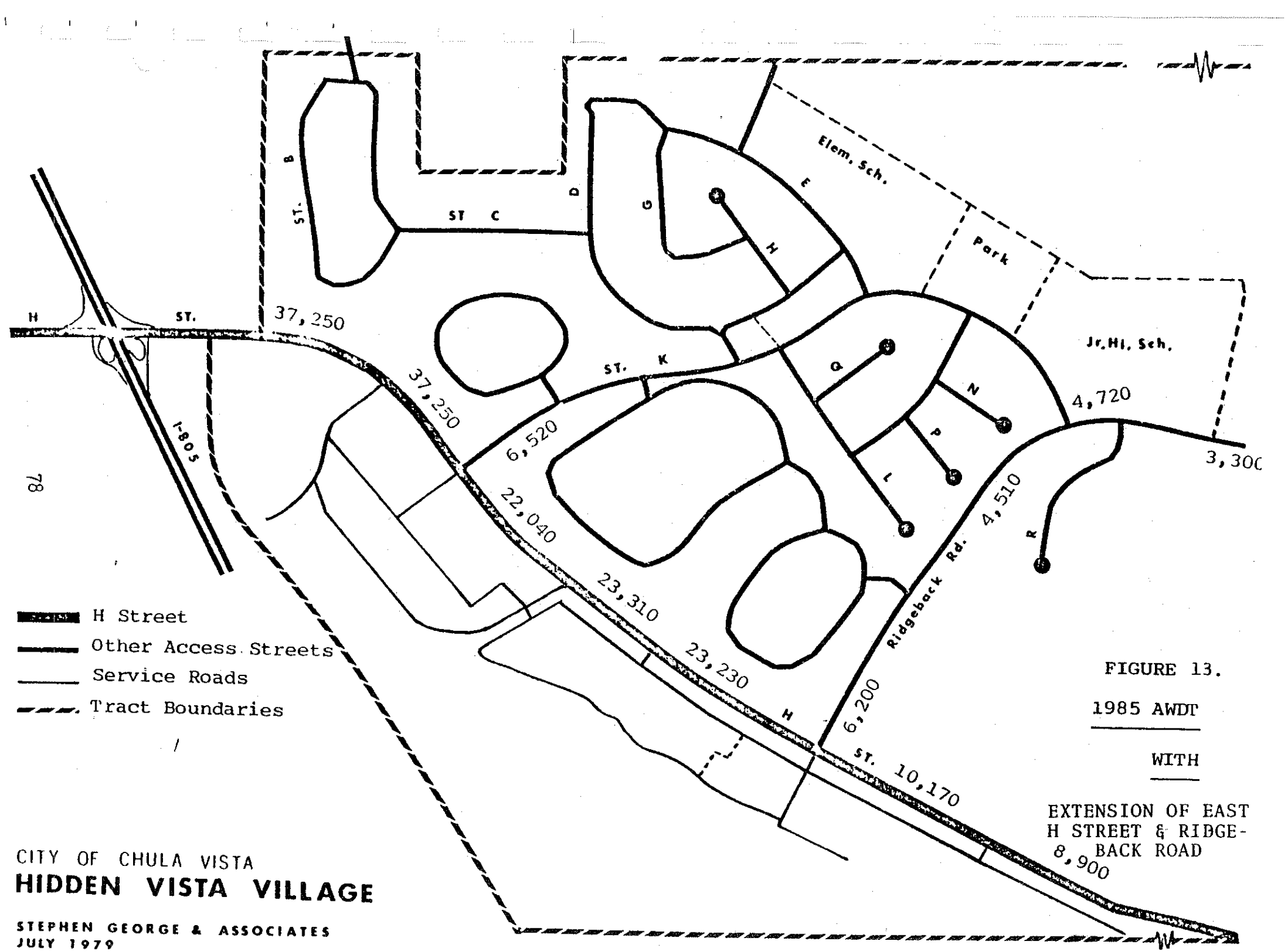


FIGURE 13.

1985 AWDT

WITH

EXTENSION OF EAST H STREET & RIDGEBACK ROAD

CITY OF CHULA VISTA

HIDDEN VISTA VILLAGE

STEPHEN GEORGE & ASSOCIATES
JULY 1979

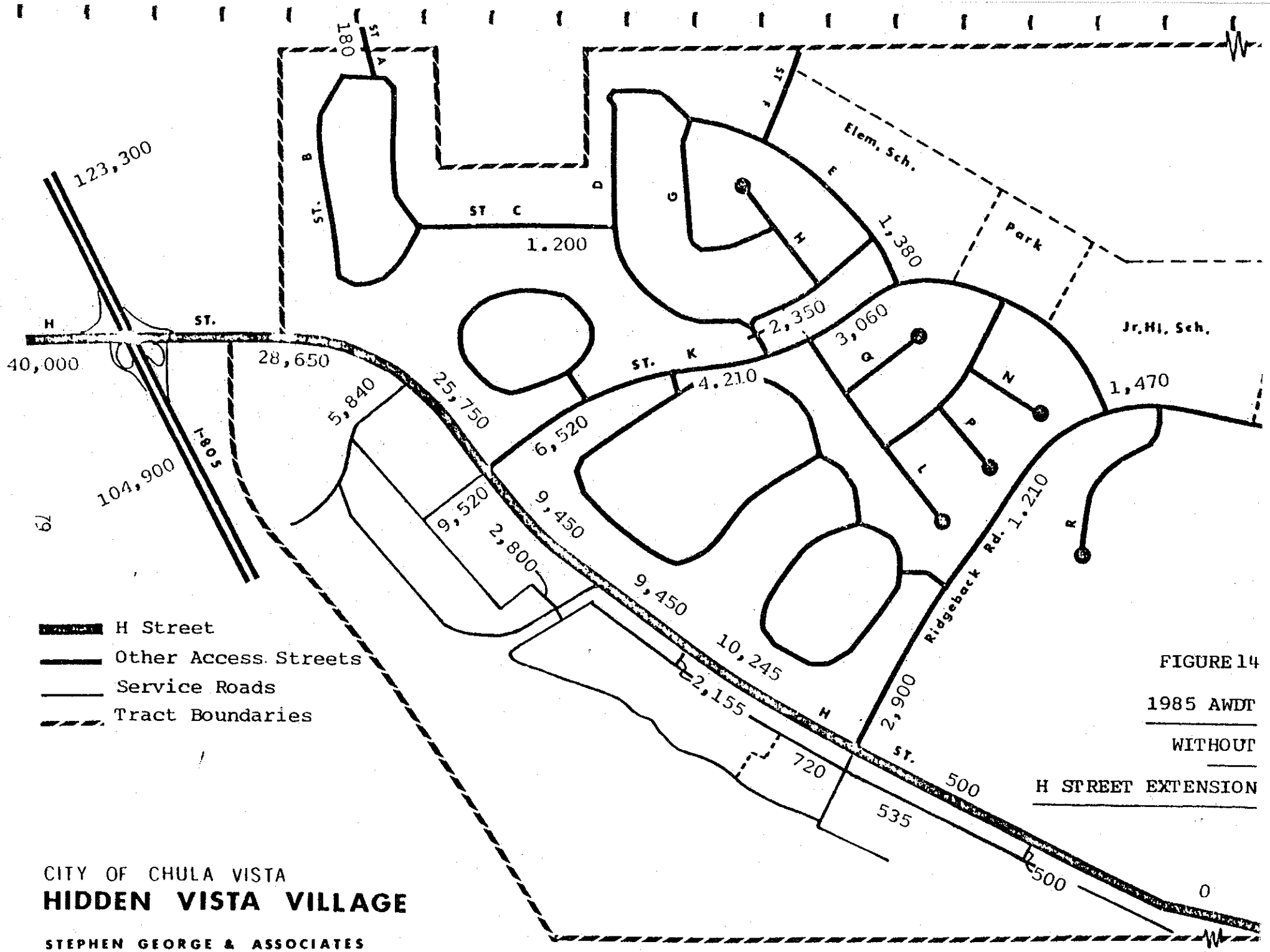


FIGURE 14

1985 AWDT

WITHOUT

H STREET EXTENSION

CITY OF CHULA VISTA

HIDDEN VISTA VILLAGE

STEPHEN GEORGE & ASSOCIATES

JULY 1 9

Under the condition proposed without the extension of East H Street and Ridgeback Road easterly, the projected 1985 traffic volumes on the project circulation system would increase from zero at the eastern boundary of the tract to 28,650 on H Street just east of the Interstate 805 interchange. Under the second condition, with the extension of East H Street and Ridgeback Road easterly, the projected 1985 traffic volumes would increase from 0 to 3,300 ADT on Ridgeback Road, and 0 to 8,900 ADT on East H Street at the easterly boundary of the tract, to about 37,000 on East H Street just east of Interstate 805 interchange.

In 1995, assuming the El Rancho del Rey Development Plan area would develop as planned by the City, the accumulated traffic volumes on the eastern boundary of the Rice Canyon SPA are projected to be about 10,300 on Ridgeback Road and 26,400 on East H Street. See Figure 15. With the addition of the traffic generated by the Rice Canyon SPA (34,810), the projected traffic volumes on East H Street east of the Interstate 805 interchange would be about 63,000 daily on an average weekday.

The impact of the added traffic on East H Street westerly of the Interstate 805 interchange would be 3,200 in 1985 without the East H Street extension easterly of the project site, and 4,200 with the East H Street extension assumed in 1985. The combined traffic volume on East H Street west of Interstate 805 interchange was projected at 30,400 and 31,400, with and without the East H Street extension, respectively.

Overall, the circulation system proposed should accommodate the traffic generated by the Rice Canyon SPA. However, several areas of congestion may occur based on the the traffic analysis. Approach to and exiting traffic along "Street K" north of East H Street is expected to congest traffic. Turning movements at the two access points for the condominiums may further congest this portion of "Street K". The condition is likely to create the need for a curb-to-curb width increase to 64 feet from East H Street to the most northerly condominium access (Street L). Left-turn lanes may be necessary at many of the six access point along "Street K" to avoid congestion by turning movements.

The restriction of right-turn in and left-turn out for the westerly access to the commercial and park-and-ride facilities may create traffic flow congestion at the primary intersection of "Street K" and East H Street. Traffic within the commercial could be adversely impacted as drivers approaching the center from the west are forced to drive through the center to reach facilitis at the west end. Likewise, drivers wishing to reach Interstate 805 from within the center would also have to drive through the center. An additional problem created by the right-turn in and right-turn out access could arise if a significant number of drivers chose to reach Interstate 805 by leaving the center through this exit and then making a U-turn to

head west on East H Street.

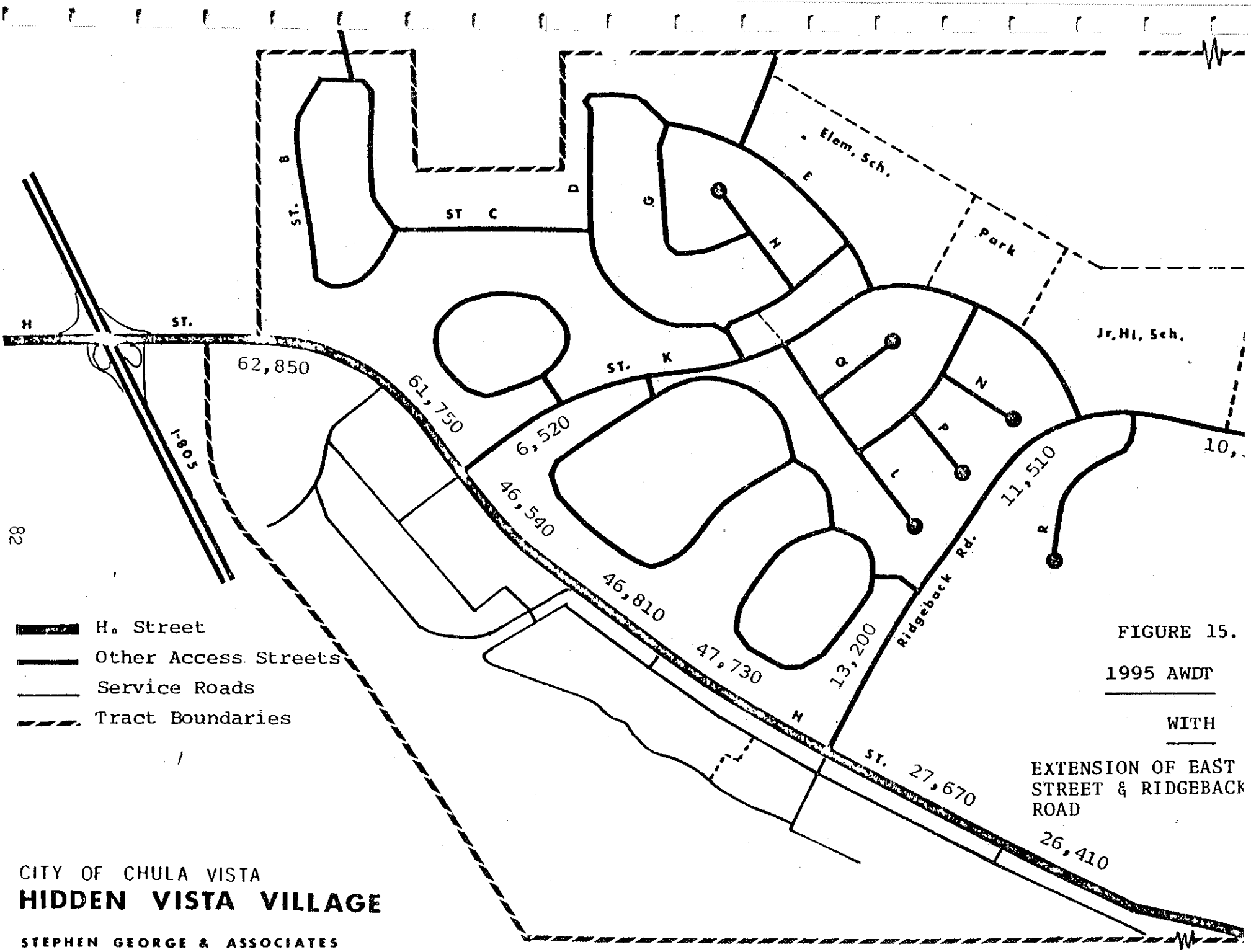


FIGURE 15.

1995 AWDT

WITH

EXTENSION OF EAST STREET & RIDGEBACK ROAD

CITY OF CHULA VISTA

HIDDEN VISTA VILLAGE

STEPHEN GEORGE & ASSOCIATES
JULY 1979

Although the proposed improvement of East H Street to six lanes would carry the traffic generated by the Rice Canyon SPA, estimates of traffic generated from the El Rancho del Rey Planning Area by 1995 indicate that average daily trips along this segment of East H Street may exceed its carrying capacity. Therefore, it is conceivable that East H Street may eventually have to be widened as El Rancho del Rey is completed.

3.10.3 Mitigation

The congestion expected on "Street K", between East H Street and "Street L" due to the approaching and exiting traffic at its intersection with East H Street as well as turning movements into the condominium areas, can be alleviated by extending the curb-to-curb width to 64 feet along this segment. The road need not be widened past the condominiums. The number of trips on "Street K" (north of "Street L") would not be high enough to require widening. However, elimination of on-street parking at intersections should be considered, to allow for the installation of left-turn lanes in order to avoid congestion from turning movements.

To avoid the undesirable traffic flow created by the restriction of left-turn from the access point in the northwest corner of the commercial center, a standard median opening could be provided. Alowing cars to turn west on East H Street at that point would prevent the congestion which might otherwise result as drivers are forced to make a U-turn on East H Street intersection or drive through the shopping center to reach the "Street K"/East H Street intersection.

Right-of-way along East H Street could provide for future construction of eight lanes, in the event that widening the proposed six-lane street is necessary.

As traffic along East H Street increases, particularly at the Interstate 805 interchange, signalization of the ramps at this interchange and at other critical intersections along East H Street may be necessary. The benefit/need for these signals would be best established after a more intensive traffic study as El Rancho del Rey is completed.

Expected off-site impacts due to eventual development of the El Rancho del Rey Specific Plan Area could be mitigated by revising the El Rancho del Rey Development Plan to reduce land use density east of the project. Construction of additional north/south accesses would reduce the dependence of the residents of El Rancho del Rey on East H Street, although topographic conditions represent a major obstacle to constructing new north/south access and would, in all liklihood, render this alternative unfeasible.

3.10.4 Analysis of Significance

The impacts resulting from development of the Rice Canyon SPA are not expected to be significant. Only two major recommendations are made for mitigation: widening of "Street K" between "Street L" and East H Street; and provision of a median opening at the western end of the commercial center. However, as the remaining Sectional Planning Areas within El Rancho del Rey are developed, additional trips would occur along Ridgeback Road, East H Street and, possibly "Street K". Future traffic along East H Street within the Rice Canyon SPA as it is presently designed, would be expected to approach and possibly exceed design capacity. This impact is not a direct cause and effect relationship inherent in the Rice Canyon SPA but is rather a long-term cumulative impact on the project which would be generated off-site. Mitigation, specifically widening of right-of-way, has been suggested to mitigate this expected long-term impact. The intent is to allow East H Street, within the project, to be constructed to specifications which would provide for future traffic.

3.11 NOISE

3.11.1 Project Setting

As the Rice Canyon SPA is undeveloped, there are no land uses which produce noise with the exception of occasional operation of offroad vehicles on the property and low-level noise generated by electrical transmisson lines. Off-site factors which contribute to the noise levels experienced on the project site are the freeway and, to a small degree, surrounding residential development.

The ambient noise level on the subject property is dominated by Interstate 805. Its influence extends a considerable distance away from the freeway. Table 5 lists the existing noise levels based on actual measurements taken at different locations on the property. The values that were obtained from those measurements were used to generate noise contours which reflect present acoustic conditions. These contours appear in Figure 16.

TABLE 5

EXISTING NOISE LEVELS ON THE PROJECT SITE

	Measurement Location	Distance from Freeway	CNEL in db(A)
1.	End of East H Street	1000 feet	62
2.	Halecrest Park	800 feet	60
3.	End of Vista Nacion Dr.	2100 feet	58
4.	End of Vista Coronado Dr.	2300 feet	53

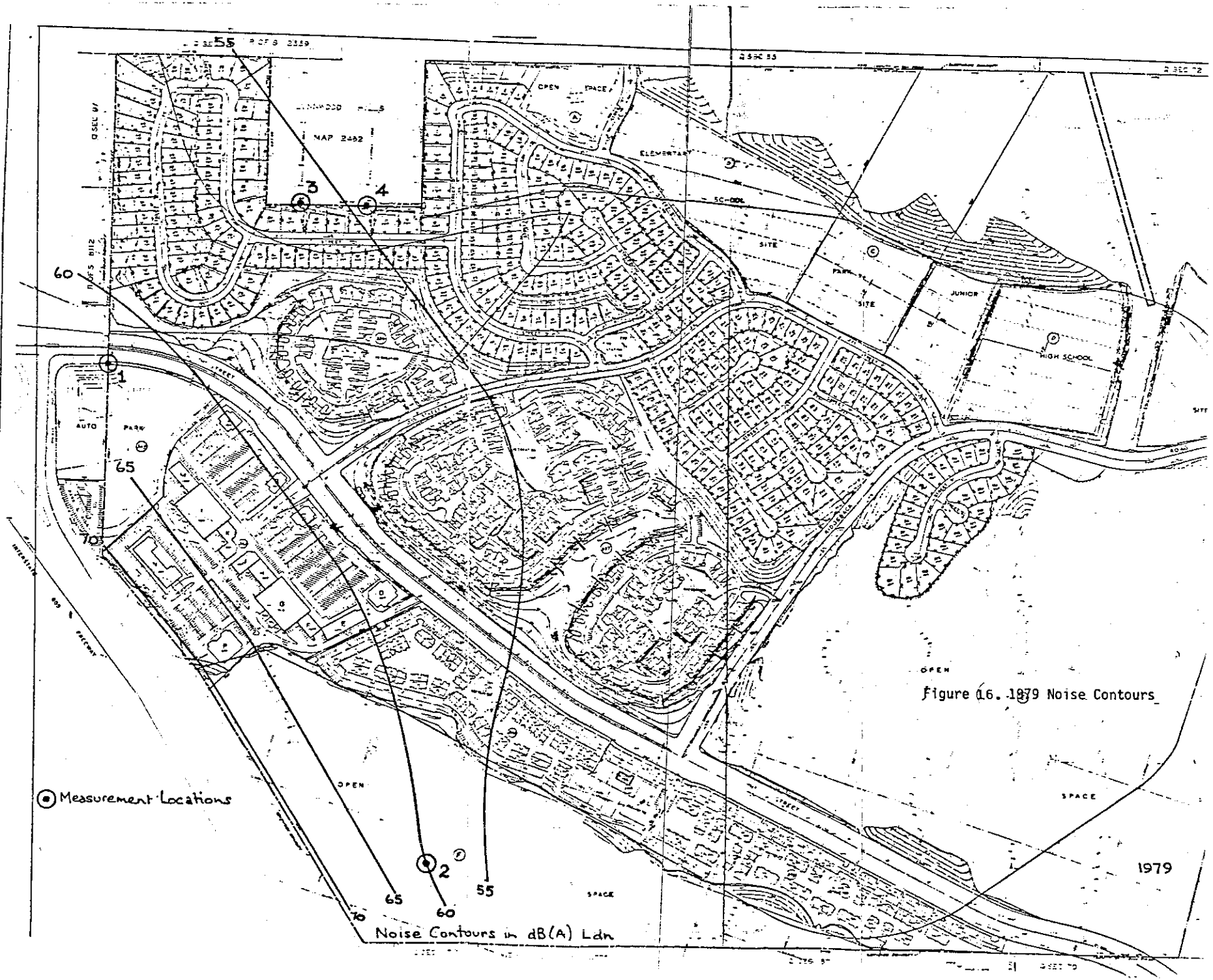


Figure 16. 1979 Noise Contours

3.11.2 Impacts

An environmental noise analysis was carried out for the proposed project. The analysis determined the existing conditions on the property in order to provide a base for comparison of the expected noise conditions on the project during and after completion of the development. The complete text of the analysis, including description of methodologies employed to generate noise level estimates, is contained in Attachment E of the report. The noise analysis considers the effect of external noise sources, i.e., Interstate 805 and the effect of internal sources such as traffic, construction, stationary sources, and population (residential development and schools). These factors are addressed under individual headings in the following discussion.

Traffic

Traffic noise is considered to represent the major sources of noise to be experienced by people visiting or residing on the property. Traffic impacts are assessed for the years of 1985 and 1995 as well as its current condition described in the Project Setting subsection. Unlike other noise sources, traffic and related noise is expected to noticeably increase over time. The major influence is, and would be expected to remain, Interstate 805, however, as the remainder of El Rancho del Rey is developed the number of vehicular trips along East H Street and Ridgeback Road would naturally increase. This increase in traffic would change the acoustic environment of adjacent development.

The predicted traffic volumes contained in the Transportation Impacts and Access Study, Attachment D, served as the basis for calculating the changes in noise levels on the subject property by the years 1985 and 1995. For the 1985 calculation, East H Street terminated at the eastern boundary of the Rice Canyon SPA. The 1995 figures took into consideration the complete development of El Rancho del Rey and the extension of East H Street to Otay Lakes Road. Other assumptions that were made were: that the peak rush hour would be 10 percent of the ADT; that there would be 5 percent heavy vehicles; that the noise source is the centerline of the nearest traffic lane and that the posted speed limits would be 55 mph on Interstate 805, 40 mph on Ridgeback Road, 30 mph on "Street K" and 25 mph on all others. For the purpose of this traffic analysis, heavy vehicles are defined as large trucks and buses with diesel engines. Gasoline driven buses and trucks, including pickups, are found to have similr noise levels to passenger cars.

The noise calculations, based on all the above assumptions were made to identify the major noise contours at 5 dB intervals. These contours are shown in tabular form in Tables 6 and 7. The

contours were then combined graphically with those predicted for Highway 805 and are shown in Figures 17 and 18.

Table 6 - 1985 Noise Contours - H St and Ridgeback Road Dead End

Distance of Contours from Centerline of Street (ft)					Ldn in dB(A)			
Street	From	To	ADT	Speed	70	65	60	55
H	I-805	Comm. 1st. Ent.	28560	40	72	108	186	355
"	Comm. 1st. Ent.	K	25750	40	72	108	186	355
"	K	Comm. 3rd. Ent.	9450	40	57	77	119	211
"	Comm. 3rd. Ent.	Apt. 1st. Ent.	9450	"	57	77	119	211
"	Apt. 1st. Ent.	Ridgeback	10245	"	57	77	119	211
"	Ridgeback	Apt. 3rd. Ent.	500	"	--	--	60	83
"	Apt. 3rd. Ent.	East	0	"	--	--	--	--
Ridgeback	H	Cond. 1st. Ent.	2900	35	--	33	50	86
"	Cond. 1st. Ent.	K	1210	35	--	--	38	61
"	K	R	1470	"	--	--	41	68
	R	East	0	"	--	--	--	--
K	H	Cond. 2nd Ent.	6520	30	--	23	43	85
"	Cond. 2nd. Ent.	D	4210	"	--	21	38	74
"	D	M		"	--	--	29	56
	M	Ridgeback		"	--	--	--	29
D	K	J		25	--	--	21	38
E	K	J		"	--	--	--	29
C	D	West		"	--	--	--	26

Comm = Commercial Zone Apt. = Apartment Complex Cond = Condominiums
Ent = Entrances, Numbered from I-805.

Table 7 - 1995 Noise Contours - H St and Ridgeback Road Completed.

Distance of Contour from Centerline of Street (ft)					Ldn in dB(A)			
Street	From	To	ADT	Speed	70	65	60	55
H	I-805	K	61750	40	90	148	272	540
"	K	Comm. 3rd Ent.	46540	"	83	132	239	469
"	Comm. 3rd. Ent	Apt. 1st Ent.	46810	"	83	132	239	469
"	Apt. 1st Ent.	Ridgeback	47730	"	83	132	239	469
"	Ridgeback	Apt. 3rd. Ent.	27670	"	72	108	186	355
"	Apt. 3rd. Ent.	East	26410	"	72	108	186	355
Ridgeback	H	Cond. 1st Ent.	13200	35	41	68	126	250
"	Cond. 1st. Ent.	R	11510	"	38	61	110	217
"	R	East	10300	"	35	55	97	189
All other streets are same as for 1985								

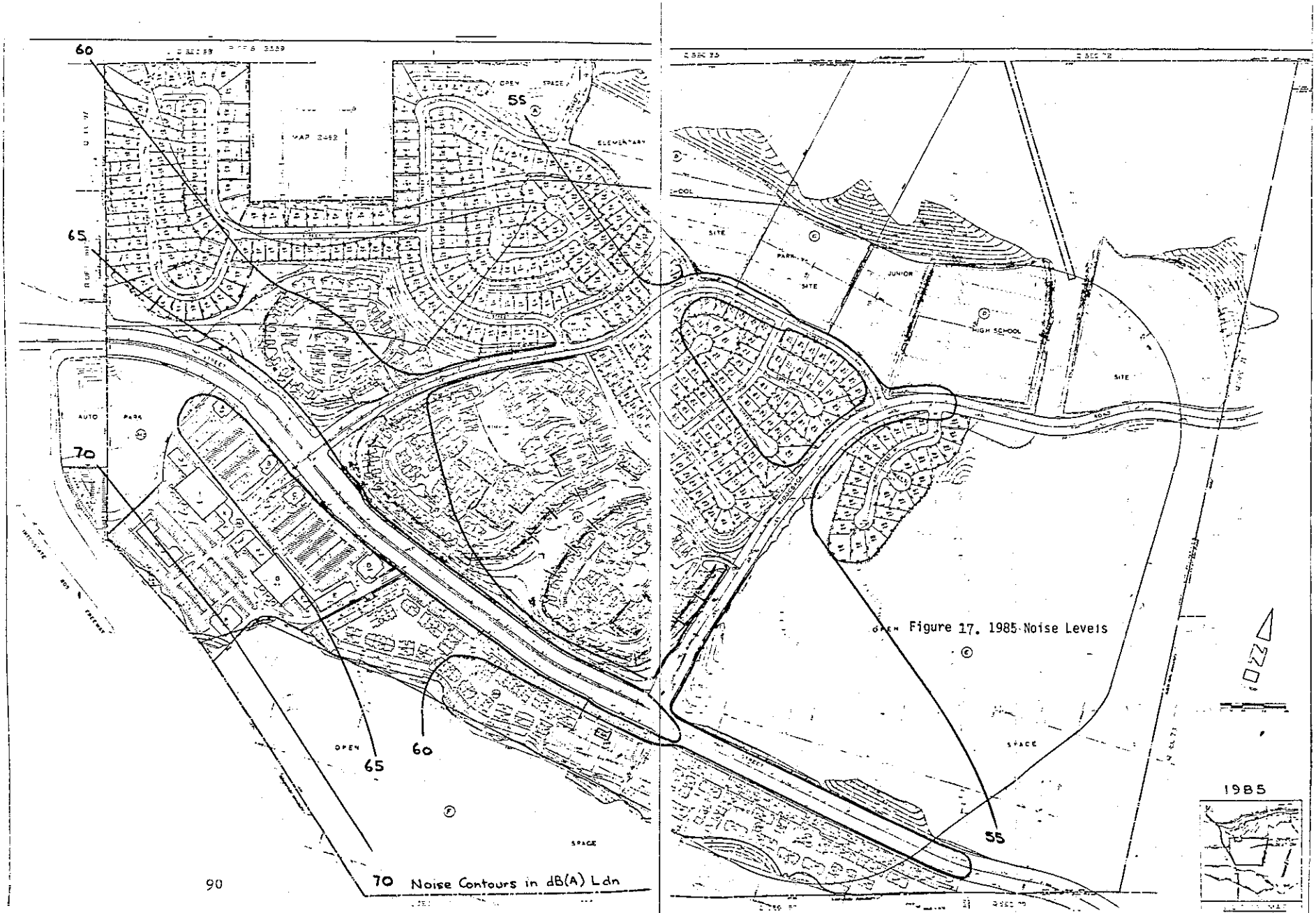


Figure 17. 1985 Noise Levels

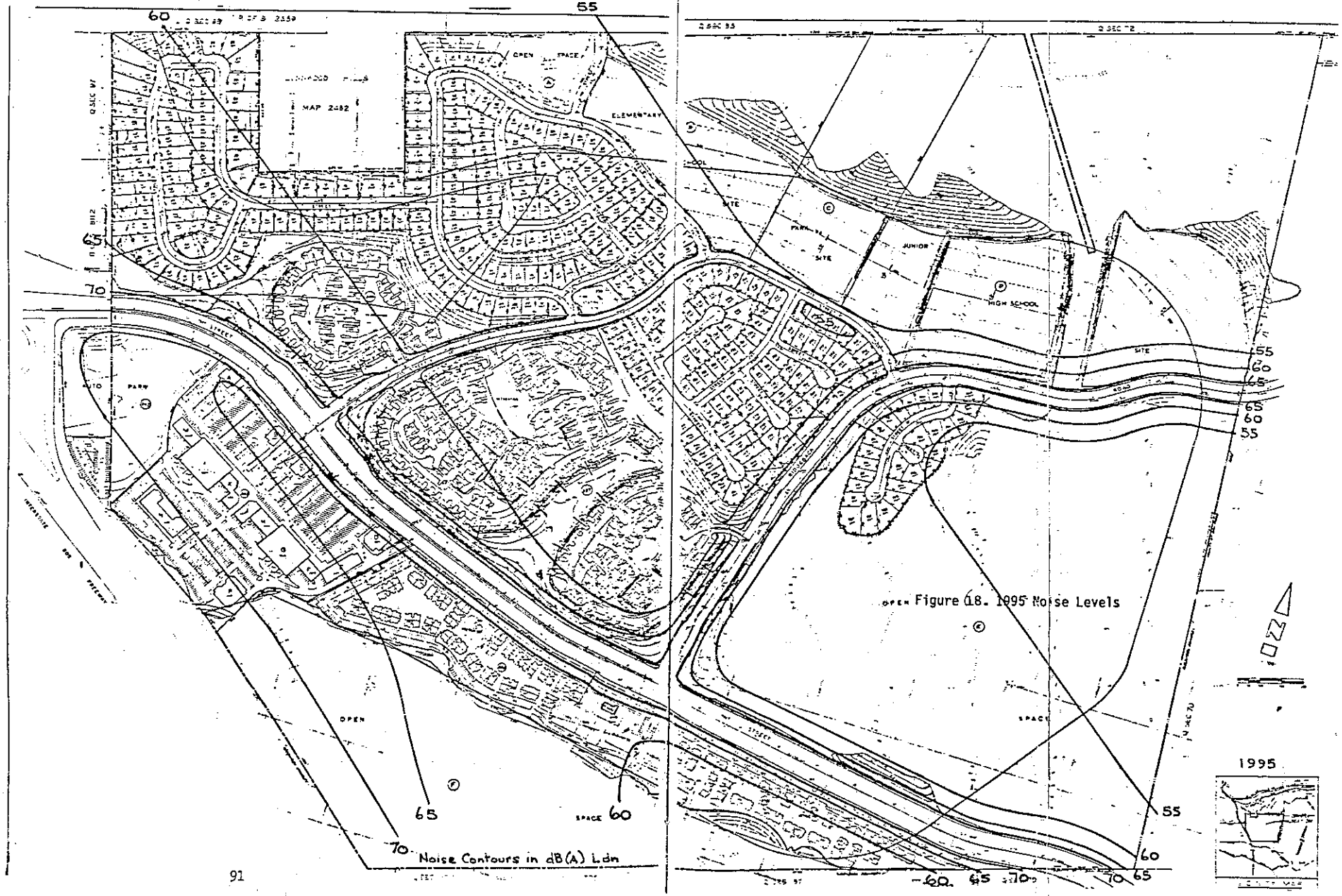


Figure 18. 1995 Noise Levels

Construction

Construction noise, by its nature, is difficult to describe accurately. The U.S. Environmental Protection Agency has attempted to define the noise from construction equipment in its report "Noise from Construction Equipment and Operations, Building Equipment and Home Appliances" No. NTID 300.1 issued December 31,1971. Construction is divided into five phases namely Ground Clearing; Excavation; Foundations; Erection; and Finishing. These phases in turn or applied to four construction types: Domestic Housing, Commercial Building, Industrial Plants, and Public Works.

Table 8 shows the range of noise level of some examples of construction equipment. Because the proposed development would take place in an area which is currently sparsely populated, the initial construction noise would disturb few people. From then on, there would be a "domino" effect in that the construction of each phase would create a noise impact on the residents of the previous phase. This impact would obviously be transitory in nature and would cease with the completion of the project.

TABLE 8

TYPICAL RAGES OF NOISE LEVELS AT CONSTRUCTION
(Site with a 50dB(A) Ambient)

Noise Levels dB(A)	Domestic Housing		Office & Schools		Industrial & Parking		Roads, Sewers & Trenches	
Operation	I.	II.	I.	II.	I.	II.	I.	II.
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	88	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

I. - All pertinent equipment present at the site.
II. - Minimum required equipment present at the site.

Stationary Noise

There are no major stationary noise sources associated with the project. Minor sources include air conditioning equipment for the shops and offices. Because of the close proxmity of these buildings to Interstate 805 and East H Street with their predominant traffic noise, the air conditioning systems are not expected to create a measureable impact.

Population Noise

The development may eventually have a junior high school and an elementary school. Noise associated with schools consists of traffic noise and playground activities. Traffic generated by the schools was considered in with the traffic noise above.

The most significant noise associated with grade schools is created on the playground. In order to provide some measure of playground noise, readings were taken at a small private school with 90 students and a typical public school with 1000 students. Students tend to shout and run around during break times and the noise level rises and falls in a fairly random pattern. A typical noise level was established making measurements over a 15 minute period and averaging the results to provide an Leq.

Important parameters are the number of students and size of the playground. The relationship between these parameters and the noise levels is complex. In fact, the small school yielded a higher noise level; 63 dB(A) Leq at the boundary, than the larger school, which showed 58 dB(A) Leq. For the purposes of this analysis it was assumed that the two schools in question would be typical public schools and that the Leq on the playground property line would be 60 dB(A) Leq.

It is assumed that playground activities would take place for about 3 hours per day. The ambient noise level in the area of these two schools is 50 dB(A) during the day and approximately 40 dB(A) at night. The daily CNEL without school operation is 50 dB(A). When the schools are in operation the daily CNEL would be 54 dB(A) and the annual CNEL, allowing for weekends and all school holidays, would be 51 dB(A) all measured at the school boundaries.

The completed project would have its usual share of lawnmowers, swimming pool pumps, loud radios, barking dogs, automobile tinkering, etc. It is impossible to quantify most of these sources and they are significant only if annoyance is caused.

3.11.3 Mitigation

The plan for the Rice Canyon SPA exhibits design features which would reduce the effect of noise generated from inside and outside the project on the future visitors and residents of the proposed development. The location of specific land uses and internal roads have been planned to separate the residential areas, on and off-site from the major noise sources. Specific mitigation which have been incorporated into the design or are recommended for each noise source are described in this section under the sub-heading of the Impacts section.

Traffic

Some noise controlling measures have been incorporated into the development. Through traffic is minimized by the use of cul-de-sacs and natural traffic growth is encouraged along the major corridors. The commercial areas and high density housing are cloistered along these corridors. Large amounts of open space are used as buffers between this and subsequent projects in the area.

Further mitigating measures must be defined in the specific plans for each phase. Buildings which are planned for construction in potentially noisy areas may require sound reducing features incorporated into their design. These features would include but not be limited to the following techniques:

1. Correct location of the building on the site to minimize the noise impact. This includes taking advantage of the site geography and toporaphy to provide shielding.

2. The provisions of walls on earth berms to provide extra shielding where required.

3. Careful attention to the number, size and location of windows and/or doors which face the noise source.

4. Provisions of special noise reducing windows and doors.

5. In special cases, provision of extra treatment on dwelling walls and/or ceilings.

Schoolroom classrooms are sensitive to excess noise. The junior high school located along Ridgeback Road may be effected by noise; the elementary school on Street E probably would not be. Noise in schools may be mitigated by locating the classrooms as far from the road as possible, perhaps shielding them with

other buildings, positioning the parking lot between the road and the schools (or providing any other open space), and applying any of techniques 2 through 5 listed above.

Construction

The major mitigation measure against construction noise is the restriction of operations to "normal" working hours and allowing no construction to take place during evenings, nights, weekends, or holidays. Exceptions can be made for emergency work. Another mitigating measure would be to place limits on the noise allowed to be created around the construction zone. The instruments for control of contruction noise by these methods exist in the Chula Vista City Code, Performance Standards and Noise Element of the General Plan.

No equipment should be used which does not meet applicable Federal, State and local noise standards. Equipment on site should be properly maintained and operated so as not to create excessive noise.

Stationary Sources

Should any air conditioning system prove to be a particular problem, mitigation may be achieved either by mounting the unit on the roof and surrounding it with a parapet or by installing a properly designed sound attenuating enclosure around the unit wherever it is mounted.

Population

Mitigation of this noise source is achieved primarily by cooperation between neighbors. If this fails, then regulations contained in the Chula Vista City Code may need to be enforced.

3.11.4 Analysis of Significance

Noise levels within the project site would be completely dominated by traffic noise generated on and off site and represents a major long-term noise source. Other noise sources, such as stationary sources and population, would not have much effect on the area. Construction noise would have a significant short-term impact on the adjacent property, especially residential areas along Vista Nacion Drive, Vista Coronado Drive and the northern extension of Floyd Avenue.

The Noise Element of the General Plan for the City of Chula Vista establishes 65 dB(A) as the highest noise level along the roadways which is considered acceptable. By 1995, segments of East H Street and Ridgeback Road crossing the project site would exceed the 65 dB(A) limit; East H Street is expected to exceed 70 dB(A).

An examination of the noise contour maps indicates that it would be possible to locate all dwelling units outside the area which would exceed 65 dB(A). Therefore, the adverse impact of residences within the Rice Canyon SPA is potentially insignificant. These contour maps also show that the commercial center would be subjected to levels which exceed 65 dB(A); however, commercial land uses are not addressed by the Noise Element with regard to restrictions as a noise receptor. Commercial areas are only reviewed as noise generators. No significant noise generation would be produced by the retail/office development proposed in the Rice Canyon SPA.

3.12 AIR QUALITY

3.12.1 Project Setting

The air quality which exists on the subject property and in the San Diego Air Basin, as a whole, is dependent on the local climate. Climatic conditions of the El Rancho del Rey area are generally comparable to that of the overall region. Due to the topographic variation within the project site, microclimatic variations, such as cold air drainage in the morning hours, are probable local occurrences.

The characteristic features of this semi-arid climatic regime include long, dry summers and short, mild winters penetrated by intermittent precipitation. While the site's proximity to the ocean allows a tempering influence due to the prevailing westerly winds, somewhat greater temperature ranges could be expected in higher elevations within the project area. Freezing temperatures are rare, while temperatures above 90 degrees occur far more frequently. Given the topographic irregularities of the subject property, it can be expected that canyon areas, deprived of full air circulation, would reach a wider extreme of temperature variation. In addition, a temperature inversion layer frequently persists in the air basin, further limiting air circulation.

Based on records of 1940 through 1970, average rainfall totals vary between 9.9 and 11.1 inches for stations in the vicinity of the project site. The highest monthly rainfall (7.86 inches) was measured at Lower Otay Reservoir; and highest annual rainfall has been recorded at slightly over 24 inches. In order to anticipate extreme conditions, the U.S. Weather Service has calculated that maximum rainfall for the coastal region (into which the project site falls) to be 4.5 inches in 24 hours.

The closest wind measurement location is Imperial Beach Naval Air Station, on the coast at Imperial Beach. Based upon their data, the estimated prevailing wind at the project site is westerly at 3-7 knots. However, it must be acknowledged that while prevailing directions and speeds may be fairly constant in coastal areas greater extremes may occur farther inland. An exception to the moderate, prevailing westerly winds is the easterly Santana winds, generally seen in late summer and early fall, bringing with them dry air, high temperatures, and concurrent fire hazards.

The climatic conditions have influenced the air quality of the projects region in that they result in a low mixing height from the ground to the inversion layer, low wind speed for horizontal mixing, little rain and a great deal of sun light. A study of these conditions by the Environmental Protection Agency

showed that the atmospheric conditions which would most frequently contribute to adverse air quality occurred at San Diego and Santa Monica more commonly than through the remainder of the Continental United States.

The project site lies within the San Diego regional air basin and the San Diego County Air Pollution Control District (SDAPCD) which maintains ten monitoring stations throughout the basin. Data from the Chula Vista monitoring station on East J Street is felt to be most indicative of air quality conditions at the project site. This assumption is based upon the fact that the prevailing westerly to northwesterly wind pattern carries the air mass from Chula Vista in the general direction of the project prior to any significant opportunity for dispersion of pollutants or the crossing of topographic barriers which might accelerate mixing of air mass.

Table 9 presents pertinent data relating pollutant levels likely to exist at the project site. Figure 19 delineates isoplots for the number of days the federal oxidant standard (8ppm) was exceeded in 1977. The current standard is 12 ppm, but no isoplot for 1978 is available.

OXIDANT

NUMBER OF DAYS WITH MAXIMUM HOURLY
AVERAGE LEVELS ABOVE 8 PPHM

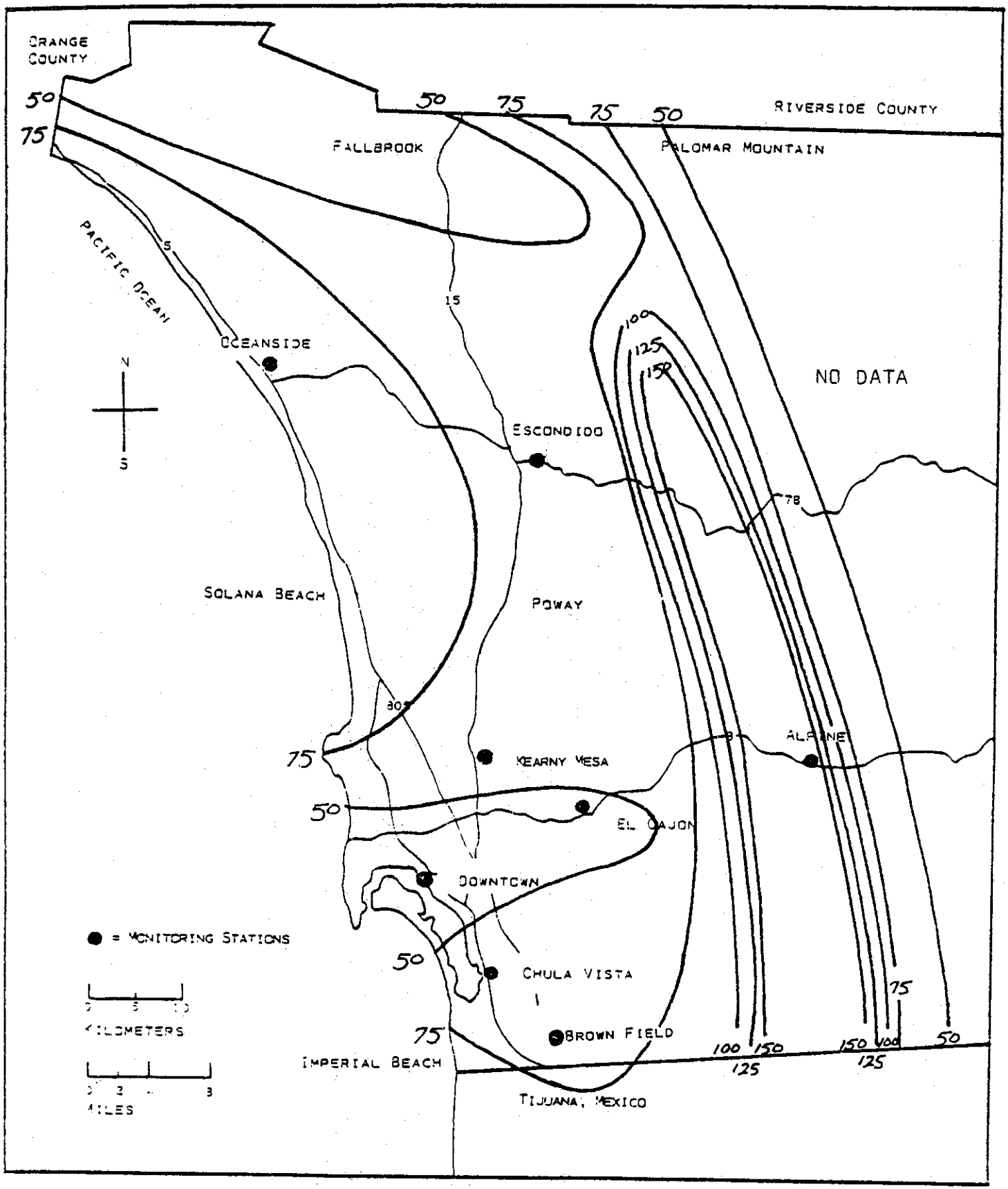


Figure 19 Isoplot of Federal Oxidant Standard (1977).

TABLE 9

EXISTING AIR QUALITY

Pollutant (Standard)	Number of Days Federal Standards Exceeded					
	1973	1974	1975	1976	1977	1978
Oxidant (½.08 ppm 1 hour average)	60	41	42	48	52	51(7***)
CO (½9 ppm 8 hour average)*	5	4	0	0	0	0
SO2 (½.14 ppm 24 hour average)*	0	0	0	0	0	0
Non-Methane HC (½.24 ppm 3 hour average)	312	298	138	294	311	232
NO2 (½.25 ppm 1 hour average)**	0	1	0	0	2	0
TSP (% Samples ½ 100 ug/m3	-	27	10	10	2	0

* Chula Vista data not available 1973-74, San Diego Downtown data was used.

** State of California Standard, no Federal Standards available.

*** Based on Federal Standard for Oxidants of 12 ppm as of February 1979.

Efforts within San Diego County have been aimed primarily at reducing the emission rates of hydrocarbons. This emphasis exists because, of all the various pollutant levels monitored, State and Federal standards for oxidants and hydrocarbons are exceeded much more frequently than are those for other recognized pollutants. For example, it can be seen from Table 9 that Federal standards for total oxidants were exceeded 12 to 16 percent of the time at the Chula Vista station and hydrocarbon limits were exceeded 38 to 85 percent of the time. Federal standards for sulfur dioxide, carbon monoxide, and nitrogen dioxide were not exceeded during any of the years between 1973 and 1978. Total suspended particulates (TSP) have declined over the past years and, in fact, in 1978 Chula Vista did not exceed the limit.

3.12.2 Impact

Development of the Rice Canyon SPA would have a cumulative impact on local and regional air quality. In and of itself, the project would not represent a large increase in air pollutant concentrations which presently exist in the area. The project would contribute air emissions as a result of construction activity, vehicular traffic and energy consumption (electricity and natural gas). Air pollutant emissions from the proposed project were calculated in accordance with the City of Chula Vista's Environmental Review Policy (Resolution No. 9217, 1978).

Mobile source emissions were based on circlation data developed by the traffic consultant and assuming project completion in 1985. Results are given in Table 10.

Stationary source emissions were calculated for both gas combustion in the project area and power plant emissions for electricity used in the project area. These results are given in Tables 11 and 12.

Total emissions are summarized in Table 13, which also shows the percentage contribution of the project emissions relative to total emissions in Chula Vista and in the entire San Diego Air Basin.

TABLE 10

ESTIMATED EMISSIONS FROM MOBILE SOURCES (1985)

Pollutant	Emission Factor gm/mi	Tons Per Day	Tons Per Year
Carbon monoxide	9.5	1.76	642
Hydrocarbons	0.75	0.14	51
Nitrogen Oxides	2.19	0.41	148
Particulates	0.58	0.10	38
Sulfur Oxides	0.20	0.04	13

Basis: 33,520 vehicular trip ends per day 5 miles average length per trip 167,600 vehicle miles traveled per day 1985 vehicle population mix emission factors per San Diego APCD (for 1985 vehicles).

TABLE 11

EMISSIONS FROM STATIONARY SOURCES FROM COMBUSTION OF NATURAL GAS IN PROJECT AREA

Total Suspended Particles (TSP)	0.54 tons/year
Sulphur Dioxide (SO2)	0.033 tons/year
Carbon Monoxide (CO)	1.079 tons/year
Nitrous Oxides (NOx)	5.4 tons/year

Basis: 1. 95,000 therms/mo. gas usage.
2. Emission factors per SD APCD (1978).

TABLE 12

EMISSIONS FROM STATIONARY SOURCES
(Due to Electricity Generation at Power Plant)

Total Suspended Particulates (TSP)	3.8 tons/year
Sulphur Dioxide (SO2)	6.1 tons/year
Carbon Monoxide (CO)	1.079 tons/year
Nitrus Oxides (NOx)	13.7 tons/year

Basis: 1. 933,200 kwh/mo. electricity usage, per code Table.
2. Emission factors per SD APCD (1978).

Table 13

TOTAL ESTIMATED INCREMENTAL INCREASE IN EMISSIONS

ALL SOURCES

(ton/day)

Pollutant	San Diego Air Basin Tons/Day	Chula Vista contribution to S.D. Air Basin	Proposed Development (Estimated 1985 emmissions)			Incremental Increase Relative to San Diego Air Basin (Percent)	Incremental Increase in Chula Vista's contribution to San Diego Air Basin (Percent)
			Stationary	Mobile	Total		
Carbon Monoxide	1049.85	51.97	0.009	5.73	5.74	0.55	11
RHC	292.35	14.48	0	0.74	0.74	0.25	5.1
Nitrogen Oxides	190.36	9.35	0.040	0.68	0.72	0.38	7.7
Particulates	490.11	24.26	-	0.10	0.10	0.02	0.4
Oxides of Sulfur	40.97	2.03	0.012	0.04	0.05	0.12	2.5

(Rev. 1974 Emission Inv. for SD. Air Basin)

The foregoing calculations assume maximum or "worst case" contribution of emissions from the project, in the sense that all project emissions are assumed to be increases, while some portion would, in fact, result from transfers within the City and within the Basin.

Impacts of the project emissions on the San Diego Basin pollutant load are very small, amounting to less than 1% of the total. The percentage relative to emissions in Chula Vista is higher, in the range of 5-10% for carbon monoxide, hydrocarbons and nitrogen oxides, but still only around 1% for particulates and sulfur oxides.

Impacts of emissions in the project area were estimated by dispersion calculations. A worst-case calculation of carbon monoxide concentration in the center of the project area showed an incremental concentration of 32 ppm, which is below, although close to the federal one-hour standard of 35 ppm. This concentration is the highest ever likely to occur as it assumed that all vehicle miles traveled associated with the project took place entirely within the project boundaries (an extreme situation which would never actually occur) and worst atmospheric conditions (low wind speed, and stable air mass).

A similar calculation for a more typical situation (9 mph wind, neutral air stability) gave an incremental carbon monoxide concentration of 2.5 ppm in the center of the project area.

Calculation of the effects of carbon monoxide on the project from the Interstate 805 freeway showed that the worst case increment would be 10.7 ppm at the location in the project area closest to the freeway. This is the west side of the shopping center parking lot, which is 200 feet from the freeway.

The residential property nearest the freeway is 900 feet from the freeway. The impact of freeway cabon monoxide emissions on this location is very small, accounting for an incremental concentration of 2 ppm at peak traffic hours.

The overall concentration of carbon monoxide expected to be present on the property would be less than 35 ppm. Ambient CO concentration is very low and created solely from traffic along Interstate 805. Worst-case calculations demonstrate that the concentration drops off rapidly on the property. Concentration in the residential areas would be expected to be less than 2 ppm. Therefore, the total CO concentration would be approximately 34 ppm, except in the parking areas nearest the freeway where the 35 ppm standard may be exceeded.

While regional air quality would be affected primarily by motor vehicle emissions, the predominant localized impact on air quality of the project would be the introduction of dust and particulate matter from the construction process. Grading

activity, which would generate dust and fumes during road construction and the preparation of building sites, would be a major contributor. Additionally, the movement of construction vehicles over dirt roads and construction sites, as well as temporarily exposed graded areas would create a further source of dust, albeit of a short-term nature.

3.12.3 Mitigation Measures

Mitigation measures to reduce the air quality degradation associated with the project should focus on mobile sources. Traffic emissions would represent the major contribution to local air pollutants. Stationary sources are expected to be negligible. Construction activity would increase particulate levels and heavy equipment emissions over the short-term.

One of the most effective means available to reduce emissions from mobile sources, is to cut the number and length of trips taken by the private automobile. The provision of schools, recreation and a shopping center within the Rice Canyon SPA has this effect. Furthermore, the inclusion of a park-and-ride facility is the commercial center allows future residents to conveniently car-pool. The park-and-ride would also be served by a mass transit bus system which would reduce the reliance of residents on the private automobile.

The project design includes bike lanes along East H Street as well as a system of sidewalks. Pedestrian and bicycle routes linking residential and commercial areas would allow residents to walk or ride to their destinations, thereby decreasing auto emissions within the project.

Particulates generated during the grading and construction phases of the project can be minimized through dust control measures such as wetting soil and landscaping.

The contribution of stationary sources to air quality impacts can be reduced by incorporating energy efficient appliances, solar power and insulation into the construction of commercial and residential structures.

Beyond these project-specific mitigations, additional mitigation would be provided by the Revised-Regional Air Quality Strategy compiled by the San Diego County Air Pollution District in cooperation with the Comprehensive Planning Organization.

3.12.4 Analysis of Significance

Completion of the Rice Canyon SPA would have an incremental effect on the local and regional air quality. In and of itself, the project would not significantly impact air quality. It would, however, increase emissions, particularly from traffic, in the Chula Vista and the San Diego air sheds. Of particular importance are the increased levels oxidants and non-methane hydrocarbons brought about by the project; these two pollutants represent the biggest air quality factors plaguing San Diego.

Mitigation available for limiting the impact of the project on air quality is limited. Many of the solutions to the problem rest with governmental agencies. Air quality problems are regional in nature and for the most part outside the control of individual projects. The Rice Canyon SPA does include features which would minimize its effect on air quality, including the park-and-ride lot, bike and pedestrian paths and proximity of schools, recreation and shopping facilities for residents.

3.13 AESTHETICS

3.13.1 Project Setting

Open and undeveloped land within the limits of urban development is traditionally viewed as a desirable resource. Such open areas provide for recreational activities which are closely tied with natural surroundngs such as: bird watching, plant study and horseback riding. Vacant land breaks up the frequent monotony of development.

The principal aesthetic attributes of the subject property are the landform which is comprised of a series of mesas and canyons and the vegetation which covers these features. The Open Space Element of Chula Vista General Plan has designated specific areas within the boundaries of the Rice Canyon SPA as desirable open space which also indicates the intrinsic aesthetic value of the subject property.

Presently, the project site is vacant and covered with natural vegetation. Although the land is crisscrossed, particularly in the main canyon, with bare dirt trails, the series of canyons and mesas which characterize the project represent an aesthetic resource. In addition to the destructive use of the land by ORV enthusiasts, and discharging of firearms, the Rice Canyon area is enjoyed for more passive recreation such as animal observation, hiking, horseback riding and jogging.

3.13.2 Impacts

Implementation of the Rice Canyon SPA would transform the subject property into an urban development. Significant modification of the landform and removal of all vegetation would occur over most of the property. Large areas of natural open space would continue to exist in the southwestern, northeastern, and eastern portions of the property; however, the overall character of the property as an open space would be lost.

The land use changes would affect the views of residences located along the rim of Rice Canyon as well as those driving Interstate 805. The mesas and canyons which are most prominent from those areas would be contoured and developed.

Of particular importance, from an aesthetic viewpoint, are the cut-and-fill banks which would be created in the course of development. Many of these banks would be quite large; in some cases, they would reach heights of up to 100 feet. Fill slopes north of the school sites and west of the single family detached

residential areas represent particularly undesirable aspects of the project as they fail to soften the transition to the undeveloped adjacent land.

A short-term effect of the project would result from grading which would occur over the entire area to be developed. As development is expected to be phased, those which are not scheduled for immediate development would lay in a graded yet unimproved state although interim or permanent landscaping is likely.

3.13.3 Mitigation

Grading and landscape techniques represent the best means to mitigate the project's effect on the intrinsic aesthetic values of the property. Where possible, the development should reflect the existing terrain, and all slopes should be planted and maintained. Many of the mitigation measures suggested in the Landform section of this report would be applicable, as landform is considered to be a desirable aesthetic resource on the subject property.

Large areas of natural open space are included in the proposed project to preserve substantial portions, 125 acres, of the property. These areas surround the development and are of a sufficient size to serve as a visual amenity to those within the project and residents living above the property.

Seeding or landscaping the unimproved, yet graded portions of the project would reduce the visual impact of these areas. Landscaping, in general, would play a major role in reducing the effect of the project. Through planting, the appearance of cut-and-fill banks can be improved. Effective use of shrubs and trees can serve as screening for dwelling units, car ports, or roads as viewed from ground level or above. Compatibility with natural vegetation of adjacent property and open space areas would lend continuity to the project site and surrounding property.

Since grading of the project covers approximately 300+ acres, of which 86 acres are to be graded for future school sites containing the largest and most likely to be unmaintained slopes, it is important that specific planting and design be accomplished in the initial stages of the project and not left to future development which may not take place for several years. There is no guarantee that options would be picked up.

In order to preserve diversity in topography, development north of East H Steet has been "stepped". Elevation differences are present: within the single-family-detached housing; between

the single-family-detached and the condominium developments; and finally, between the condominiums and the commercial. Two small canyons would be preserved but recontoured to more gentle slopes.

Architectural design of the condominiums above East H Street would reduce the visual impact of the development. Those units located at the top of the slope would be split-level, to better conform with the topography and be less obtrusive when viewed from the street.

3.13.4 Analysis of Significance

The Rice Canyon SPA project site is valuable from an aesthetic standpoint. Its value does not result from the existence of extensive woodland, grassey meadows, or aquatic features (traditional aesthetic resources). The appeal of the property is as a large, natural open space adjacent to an urban area. Natural open space near urban development is important as it provides for recreation related to natural habitat and a visual relief from urban development.

Development of the Rice Canyon SPA would have a significant effect on the aesthetics of the project site. A major land use change would take place. Manufactured cut-and-fill banks would replace natural contours. Buildings and street improvements would destroy much of the existing vegetation. The impact of development on the aesthetic resources can be partially mitigated through contour grading and landscaping.

3.14 COMMUNITY SOCIAL FACTORS

3.14.1 Project Setting

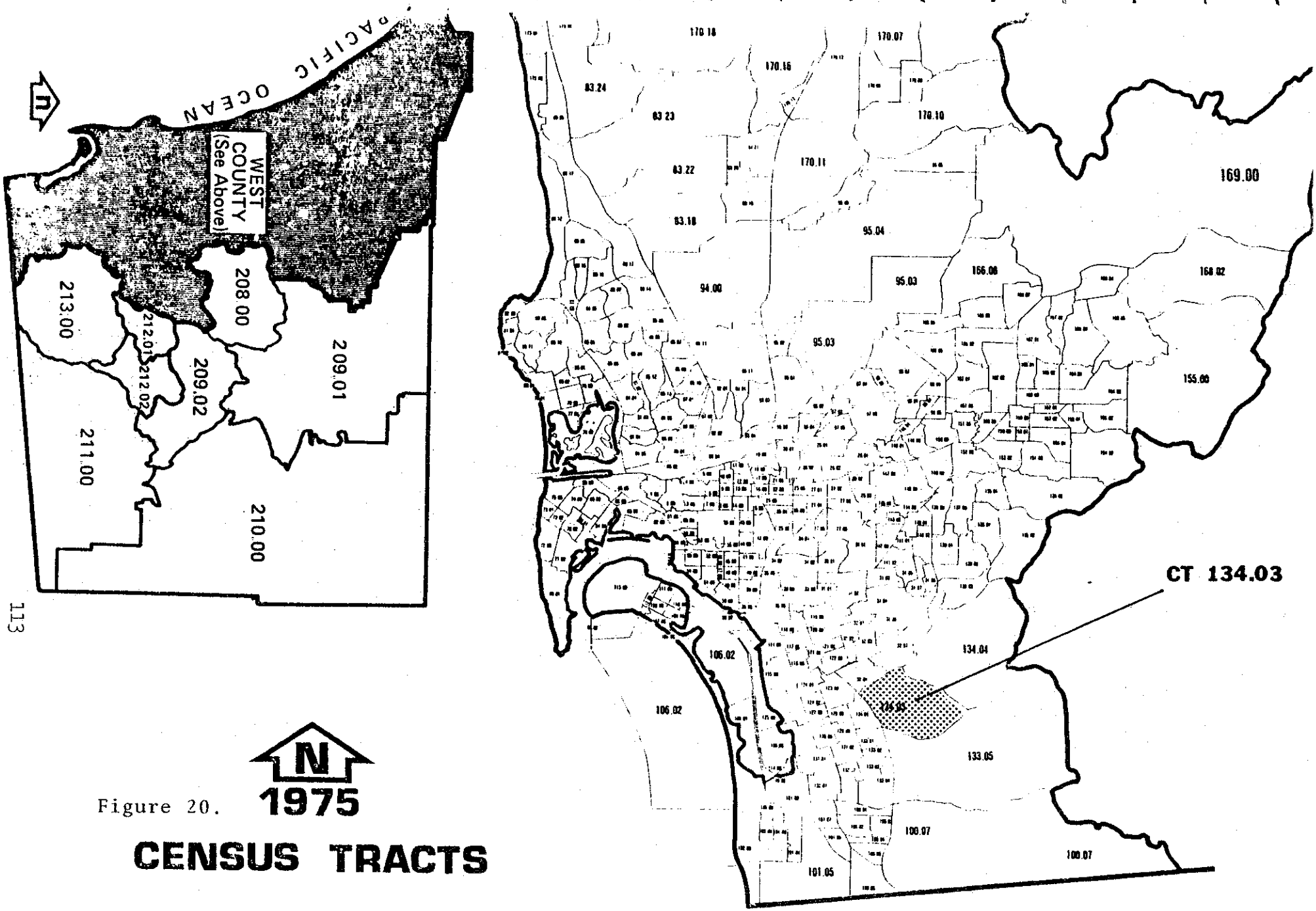
The proposed project is located within the City of Chula Vista and is part of census tract CT 134.03 (Figure 20) and the rapidly suburbanizing Sweetwater area. Homes in the vicinity are almost entirely single-family structures. The median income is higher than that of Chula Vista as a whole. A selected demographic comparison of CT 134.03 and the City, based on the 1975 Special Census, is provided in Table 14.

3.14.2 Impacts

The developer currently proposes the construction of 224 apartments, 638 condominiums and 334 single family units. The houses would have 3, 4, and 5 bedrooms in undetermined proportions. The apartments and condominiums would be distributed as follows:

Apartments	Condominiums
3 Bedrooms - 40	326
2 Bedrooms - 96	296
1 Bedroom - 72	16
Studio - 16	

New population generated by the project has been estimated at 3,260 persons. The derivation of this projection can be found in Table 15. It is anticipated that the new residents of the single-family units would demographically resemble the current residents of CT 134.03 (see Table 14). The apartment and condominium dwellers, however, would likely have a lower average household income and a higher percentage of retired heads of household.


PACIFIC OCEAN
WEST COUNTY (See Above)
213.00
208.00
212.01
212.02
209.02
209.01
211.00
210.00
170.18
170.16
170.07
83.24
83.23
170.10
170.11
83.22
169.00
83.18
95.04
94.00
95.03
166.06
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95.03
155.00
CT 134.03
134.04
106.02
106.02
133.05
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100.07
101.05
N
1975
CENSUS TRACTS

Figure 20.

Among the listed goals of the Housing Element to the City General Plan are the "dispersion of low and moderate income housing... [and] the provision of a variety of housing types, designs, and densities...". The construction of multi-family dwellings in an area which previously was built in single-family homes is a step toward realizing these goals. However, while multi-family construction is less expensive and would probably provide some moderate income housing, it is unlikely that any truly low-cost housing would be generated by the project.

The developer has estimated that a minimum selling price for a condominium would be $60,000. At current interest levels, payments would probably exceed $500/month. No rents for the apartments have been projected. Under HUD guidelines, a "low-income" family of four could be expected to pay no more than $260/month. The same size family in the "very low" classification could pay no more than $160/month.

3.14.3 Mitigation

The current high cost of construction and mortgage money generally frustrates any attempt by the marketplace to provide low-cost housing. A possible remedy may lie in government subsidies to buyers and renters. These could be made available on a Federal, State, or local level. The City of Chula Vista and the project proponent are in the process of negotiating the construction of between 100 - 140 apartment units south of East H Street, which would be low-income housing. This low-cost housing is expected to be possible through a program known as Section 8, Housing Assistance Payments Program - New Construction, sponsored by the Department of Housing and Urban Development (HUD) of the Federal government. This action would implement that portion of the Housing Element of the General Plan calling for low-cost housing to be incorporated into large residential subdivisions.

The City should require participation in an "Affirmative Fair Marketing Plan" (as recommended in the City Housing Element) in order to insure fair housing opportunities.

3.14.4 - Analysis of Significance

The proposed project represents a significant population increase for the census tract (82%) and a moderate increase for the City of Chula Vista (4.3%) over 1975 levels. This growth is part of a regional trend and has been anticipated, in a general sense, by the governments involved.

TABLE 14

DEMOGRAPHIC COMPARISON

	CT 134.03*	CV**
Industry of Household Heads		
Government	40.7%	26.9%
Unemployed	6.5%	8.2%
Retired	6.8%	20.9%
Median Household Income	$18,150	$11,810
Military as % of Employed Population	12.0%	11.3%

*Census Tract (CT)
**Chula Vista (CV)

TABLE 15

POPULATION GENERATION

Type	# DUs*	Family-Size**	New Population
Apartments	224	1.94	434
Condominiums	638	2.66	1,697
Single-Family	334	3.38	1,129
		T O T A L	- 3,260

*Dwelling Unit (DU)
**From "Environmental Review Policy", City of Chula Vista

3.15 COMMUNITY TAX STRUCTURE

3.15.1 Project Setting

The passage of Proposition 13 has produced two major impacts on local government finance that confound a cost/revenue analysis. First, City of Chula Vista property tax revenue has been drastically cut. According to City estimates, property tax revenue would be 54.4% lower than last year, resulting in property taxes which are 9% of the City income versus 20% in fiscal year 1977-78. The City budget for 1978-79 reflects a 5% deficit. Secondly, Chapter 292 of the State Government Code, passed in the wake of Proposition 13, provides for a distribution of property taxes to all jurisdictions based on their use of moneys over the past three years. Under current law, then, the Chula Vista General Fund receives less than 1.5% of the entire San Diego County property tax revenue. This percentage would not increase even though, revenues and expenses originating through new construction within Chula Vista might increase by more than the County average. Such an inequity would be corrected by pending legislation (SBI-186 and SB-383). Table 16 shows the current distribution to local jurisdictions as a percentage of all property tax collected from within Chula Vista.

3.15.2 Impacts

The following cost/revenue analysis has been prepared to examine the fiscal impacts related to the proposed project. Due to the uncertainties regarding property tax distribution, a number of simplifying assumptions have been made. These assumptions are detailed in the footnotes to the City Revenue and City Expense tables.

As shown by Tables 17 and 18, the City can expect a net fiscal gain from the project.

3.15.3 Mitigation

Solutions to the fiscal problems created by Proposition 13 are beyond the province of this report. Should revenues and expenses related to the project occur to the City as suggested in Tables 17 and 18, no mitigation would be required.

TABLE 16

CURRENT DISTRIBUTION OF PROPERTY TAX
REVENUE COLLECTED WITHIN CHULA VISTA

Agency	% of Total
County General Fund	23.8
Chula Vista General Fund	13.9
Chula Vista Elementary School District	19.3
Sweetwater Union High School District	21.9
Community College District	5.7
Other School Related Agencies	12.8
Special Districts	2.6
	100 %

Source: San Diego County Office of Management and Budget

TABLE 17

CITY REVENUES

Revenue Source	City-Wide Per Capita(a)	Rice Canyon SPA Per Capita	Rice Canyon SPA Income(b)
Property Tax	18.03	43.44	141,600(c)
Sales and Use Tax	40.98	51.23(d)	167,010
Other Taxes	23.19	23.19	75,599
Licenses and Permits	6.85	6.85	22,331
Fines, Forfeitures, Penalties	.75	.75	2,445
Use of Money and Property	1.14	1.14	3,716
Revenue from other Agencies	20.24	20.24	65,982
Charges for Current Services	5.78	5.78	18,843
Other Revenues	4.49	4.49	14,637
Other Funds	81.84	81.84	266,798
TOTALS	$203.29	$238.95	$778,961

(a) Based on City of Chula Vista Annual Budget, 1978-79, and an estimated current population of 81,000.

(b) Based on estimated population of 3,260.

(c) Based on developer's estimates as follows:

Average market price of single-family homes - $100,000
Average market price of condominiums - $70,000
Assumed market value of each apartment - $50,000

The County-wide average value of commercial property for 1977 was inflated by 20% and applied to the 31 acres proposed for commercial development (Retail, Auto Park, and Recreation Club).

Calculations:

Value/Unit		Tax Rate		# Units		Total Property Tax Revenue
$100,000	X	.01	X	334	=	$334,000
70,000	X	.01	X	638	=	446,600
50,000	X	.01	X	224	=	112,000
406,800	X	.01	X	31*	=	126,100
				Total	=	$1,018,700
				% to Chula Vista General Fund	=	x.139
				Total Chula Vista Revenue	=	$141,600

* This figure represents acres rather than residential housing units.

(d) A factor of 1.25 has been assumed due to the anticipated higher income level of the new residents and the ability of the new center to capture a share of the existing market which is currently being spent outside Chula Vista.

TABLE 18

CITY EXPENSES (PER CAPITA)

	City-Wide Per Capita(a) (Dollars)	Rice Canyon SPA Per Capita (Dollars)	Rice Canyon SPA Expenses(b) (Dollars)
General Government	22.12	22.12	72,111
Fire Department	21.01	31.52(c)	102,755
Police	38.56	38.56(d)	125,706
Public Works	26.15	26.15(d)	85,249
Building and Housing	9.08	9.08	29,601
Library	9.08	9.08	29.601
Parks and Recreation	14.20	14.20	46,292
Other Funds	73.53	73.53	239,708
TOTALS	$213.73	$213.73	$731,023

(a) Based on City of Chula Vista Annual Budget, 1978-79 and an estimated population of 81,000.

(b) Based on estimated population of 3,260

(c) The City-wide average has been increased by a factor of 1.5 to account for the cost of relocating the J Street fire station to serve the proposed project.

(d) Previous analyses of the El Rancho del Rey area have assumed an increased per capita expense for the new low-density development. Rice Canyon SPA, however, would be developed at an estimated 7.24 persons/acre; this figure is greater than the current City-wide average of 6.25 persons/acre. Increased costs for field type equipment have been assumed to be offset by a reduction of administrative and general expenses per capita, to reflect the economics of scale.

3.15.4 Analysis of Significance

If the foregoing analysis is accurate, the proposed project would result in a net fiscal gain for the City.

Given the limited size of the retail center, the demand created by the accompanying residential development and the additional projected residential development for this area, it seems unlikely that the new center would have a significantly adverse net effect on the existing commercial center of Chula Vista.

3.16 SCHOOLS

3.16.1 Project Setting

The proposed project would be served by two school districts, the Chula Vista School District (kindergarten through sixth grades) and the Sweetwater Union High School district (junior and senior high grades). July 1979 enrollment for the elementary district was 14,090 students. See correspondence in Attachment F. District capacity is 14,056 with the difference being accommodated by temporary classrooms. Enrollment for Sweetwater District reached a peak of 23,300 earlier this year. See correspondence in Attachment G. District capacity is rated at 23,500.

3.16.2 Impacts

Table 19 depicts the number of students which would be generated by the proposed project. Generation factors for junior high and high school are taken from the City Environmental Review Policy. Factors for elementary children were suggested by the elementary school district. The total number of students that would be contributed to the local school districts from the proposed project is as follows:

500 elementary
358 junior high
240 high school

Table 20 presents a cost/revenue analysis for the school districts. This analysis suggests that operating costs would be offset by revenues, if State and Federal aid continue to accrue in the same proportion to property tax receipts as in 1978-79. Additionally, there exists the capital cost of constructing new classrooms which would probably be needed to serve the project. Elementary schools cost $3,000-$4,200/student, high schools cost $6,000-$8,000/student (excluding land). At these rates, the project would result in a total school building expense of 5 to 7 million dollars. The school districts do not have these funds available. Both districts intend to assess the developer a one-time fee to defray the cost of construction of temporary facilities.

TABLE 19

STUDENT GENERATION

	#	Factor	New Students
Elementary:			
Apartments	224	.2*	45
Condominiums	638	.4*	255
Single-Family	334	.6*	200
			500
Junior High:			
Apartments	224	.3	67
Condominums	638	.3	191
Single-Family	334	.3	100
			358
Senior High:			
Apartments	224	.2	45
Condominums	638	.2	128
Single-Family	334	.2	67
			240

*Factors provided by the school districts.
Letters provided in appendix.

TABLE 20

ANNUAL OPERATING COST

	Cost/ Student	Students	Cost
Chula Vista School District	$1,500	$500	$ 750,000
Sweetwater Union High School District			
Junior High	$2,000	$358	716,000
Senior High	2,000	240	480,000
Annual Revenues			$1,196,000

	Revenue
Chula Vista School District (a)	$ 756,189
Sweetwater Union High School District (b)	$1,239,418

(a) $1,018,700* x .193** - .26***
(b) $1,018,700 x .219 - .18 = $1,239,418

* Property tax would accrue as described in the previous section.
** Current distribution to schools of property tax collected
*** State and Federal aid would continue to accrue in the same proportion to property tax receipts as in 1978-79.

An average size elementary school is estimated to hold between 500 and 600 students; Rice Canyon SPA would generate 500 elementary-age children. The 358 junior high school students would comprise a quarter of the average population (1,200-1,500) of a junior high school.

3.16.3 Mitigation

Both school districts rely heavily on State and Federal funds to operate. Significant increases in funds received from these sources would be required to educate the students generated by the proposed project.

The substantial cost of providing new classrooms could be partially mitigated by developer fees and dedication of land for school sites. The City of Chula Vista requires that, prior to consideration of a project, letters must be received from the school districts assuring that educational facilities are available. Such letters, would indicate that satisfactory mitigation of the project impact has been arranged.

3.16.4 Analysis of Significance

Local school districts are already operating above their respective design capacities. Implementation of the Rice Canyon SPA could generate a relatively large number of students depending on project phasing. This would have a significant impact on local school facilities and quality of education. Construction of interim facilities would be necessary to accommodate students. Ultimately, new school buildings may be required, especially in the case of elementary grades. These impacts would be offset by contribution of fees, dedication of improved school sites, or some combination of the two.

The construction of new school facilities required by the project would represent a significant fiscal impact upon the community.

3.17 RECREATION AND OPEN SPACE

3.17.1 Project Setting

The project site currently provides a passive open space function. There is evidence of informal, unauthorized recreational uses taking place on-site; some of these activities include hiking, horseback riding, motorcycling and off-road vehicle use. Indirect evidence (expended cartridge cases) of either casual shooting or hunting activities have also been noted.

From a broader perspective, two major County regional parks are planned in proximity to the project site. The Sweetwater Regional Park, located on the north side of Chula Vista, is projected to provide a variety of general recreation, water recreation and cultural activities. The Otay Reservoir, located east of the project site is projected to include 4,900 acres and would provide facilities for general recreation, water sports and off-road activities. There are also beaches within reasonable driving distance of the project.

3.17.2 Impacts

Without the dedication of new park land and the provision of recreational opportunities in general, an increase in population obviously results in greater use of existing facilities and incrementally diminishes the recreational enjoyment of the existing population. Based on park standards adopted by the City of Chula Vista, 322 square feet of developed park lands are required for each single-family dwelling, 272 square feet for each cluster-type unit and 174 square feet for each multiple dwelling unit. This would indicate a need for about 7.3 acres of developed park land to serve the residents of the project.

The 125 acres of open space planned by the developer closely correspond to that designated for the area in the Open Space Element of the Chula Vista General Plan. This open space was designed to provide recreation and to protect the public safety by preventing construction upon steep hillsides or within the floodplain. The easternmost residential section of the development and the fill area north of the school sites do encroach upon the open space area designated in the Open Space Element.

3.17.3 Mitigation

The developer plans to provide approximately 46 acres of developed public park land in addition to a 3-acre private recreation center and 122 acres of open space. The additional 2.7 acres of developed park land required to meet City standards woould be made up in fees collected under the Residential Construction Tax and Park Dedication Ordinance. Those fees would amount to approximately $250,000.

Areas designated as open space would be expected to be upgraded to incorporate a native and drought tolerant tree planting program. A sensible foresting of the north slopes should be one of the goals of the project, incorporating species other than the frequently overused Eucalyptus.

3.17.4 Analysis of Significance

The developer's plans for parks, recreation and open space are sufficient to meet the needs of the project residents. Construction of the project would reduce the amount of open space within the City, but would substantially comply with the Open Space Element of the General Plan.

3.18 POLICE

3.18.1 Project Setting

Police protection for the project area is provided by the Chula Vista Police Department. Patrol of the area is presently accomplished with motor vehicles and off-road motorcycles. The property lies two miles east of police headquarters from which all mobile units originate. See correspondence in Attachment H.

3.18.2 Impacts

The proposed project would create additional law enforcement burdens for the local police. In particular, the development would create the potential for burglary and other crimes associated with residential and commercial areas.

Using the general requirements of 1.1, officers per 1,000 population and an additional squad car for each four officers, four new officers, and one additional squad car would be required to serve the project. Additionally, one investigative agent would be assigned to the junior and senior high schools upon their completion.

3.18.3 Mitigation

Site and building design should be conducted with an eye toward crime prevention. Several specific safety design measures include:

1. Garages rather than carports;
2. Proper lighting in open areas;
3. Windows placed well away from doors; and
4. Deadbolt locks.

3.18.4 Analysis of Significance

The project would represent an incremental increase in demand for police service. No unusual law enforcement problems are anticipated.

3.19 FIRE

3.19.1 Project Setting

Protection for the project area is provided by the Chula Vista Fire Department with three first-line pumpers, one 50-foot telesquirt, one 100-foot aerial ladder truck, one mini-pumper, one utility truck and three reserve pumpers. The Department staff is comprised of 60 personnel in the Fire Suppression Division and a total staff of 67. The Department maintains four stations which serves an area of 20 square miles. The average response time is four minutes. The nearest existing fire station is located at 80 East J Street, approximately 1.2 miles from the western boundary of the project. See correspondence in Attachment I.

3.19.2 Impacts

The proposed development would create an incremental increase in the demand for fire protection, the relocation of one fire station, and the addition of at least three personnel. Developer plans include the dedication of a site for the new station.

The Chula Vista Fire Department does not anticipate any special problems in serving the newly-developed area, provided that City standards regarding fire hydrants and street widths are followed. However, the interface of the developed areas adjacent to undeveloped hillsides deserves some attention. The residential development would increase the brush fire potential caused by people-related activities.

The impact of a canyon fire includes removal of vegetation, baring highly visible hillsides and increasing soil erosion. The Chula Vista Fire Department possesses very limited off-road fire fighting capabilities, thus magnifying access problems in the event of a canyon brush fire.

3.19.3 Mitigation

The following measures would reduce the danger from fire:

1. Fire hydrants should conform to City standards.

2. Interior street widths should accommodate fire-fighting vehicles.

3. Each development parcel should have two means of ingress and egress.

4. Greenbelts should be maintained along the perimeter of developed areas and internal roadways.

5. The use of off-road vehicles in undeveloped areas adjacent to the project should be strictly prohibited.

6. All open space areas adjacent to homes should be planted with low fuel, drought resistant plant materials in reasonably weed-free groundcovers for a minimum of 50 feet from yard fences.

3.19.4 Analysis of Significance

The requirement for a new fire station in the area is partially attributable to the proposed development. The interface of residential development and canyon brush land creates a special fire control problem which could be reduced by the suggested mitigating measures.

3.20 UTILITIES

3.20.1 Project Setting

Electricity and natural gas are supplied to the project area by the San Diego Gas and Electric Company. Currently, electric power is available from existing lines on J Street and Bonita Road. For gas service, there are four-inch high pressure mains on both J Street and Bonita Road. See correspondence in Attachment J.

3.20.1 Impacts

Using generation factors supplied by the City of Chula Vista, the following energy consumption by the project has been computed as follows:

	Gas (Therms/mo)	Electric (KWH/mo)
Single-Family	68,000	486,000
Multi-Family	9,000	67,200
Restaurants	n/a	35,000
Retail	10,500	263,000
Office	3,300	82,000
T O T A L S	95,000	933,200

n/a - not available

The San Diego Gas & Electric Company has stated that gas and electric service can be made available to Rice Canyon SPA.

The other major source of energy consumption associated with the project would be operation of gas or diesel operated engines. Earth-moving equipment consumes large quantities of diesel fuel over a short period of time while truck and private automobiles would represent a long-term energy consumer.

A large scale grading operation using current technology requires approximately 0.1389 gallons of diesel fuel to move one cubic yard of earth. The developer has estimated that construction of the project would require the grading of between 3.5 and 4.5 million cubic yards resulting in the one-time consumption of between 486,000 and 625,000 gallons of diesel fuel.

The total Rice Canyon SPA development has been estimated to generate 35,420 trips. Assuming an average trip length of five miles and an average use of 16 miles per gallon, the project would result in the consumption of 11,069 gallons of gasoline daily for the life of the project. However, it should be noted that for all the trips generated may not be unique, but rather a portion represents redistribution of existing trips within the Chula Vista area or from other areas of the County.

3.20.3 Mitigation

Consumption of natural gas and electricity could be minimized by fully insulating all structures, providing non-mechanical ventilation, using energy efficient appliances and lighting fixtures, distribution of conservation literature to buyers, and utilizing solar energy to the greatest extent practicable.

By grading the entire site at one time and balancing cut-and-fill, the developer eliminates the need to export graded material or import fill material, thereby reducing the consumption of diesel for grading.

The location of community-serving commercial, educational, and recreational facilities within the project would serve to reduce both the number of automobile trips generated and their length. Conservation would be achieved by the proposed park-and-ride facility. Improved mass transit could provide additional energy savings.

3.20.4 Analysis of Significance

Construction of the proposed project would result in an incremental increase in the energy consumption of San Diego County, which could be reduced by incorporation of the mitigating measures mentioned above.

3.21 SEWAGE

3.21.1 Project Setting

The proposed project is located within the Chula Vista Sanitation District and would be connected to the Spring Valley Sanitation District outfall by a 15" diameter line which currently ends near the western boundary of the property. From the Spring Valley outfall, sewage flows into the Metro Sewer System and the Point Loma sewage treatment plant operated by the City of San Diego.

The City of Chula Vista is entitled by contract to 22 million gallons per day (MGD) of the Metro System capacity as it is needed. Chula Vista presently uses 7.1 MGD which, in theory, leaves 15 MGD of excess capacity. However, the Point Loma facility has no excess capacity and the U.S. Environmental Protection Agency (EPA) has ordered that a secondary treatment plant be constucted. Officials of the Metro System estimate that the new facility cannot be completed prior to 1985. In the meantime, the Point Loma plant is operating under a compliance schedule to correct the situation as approved by the EPA. See correspondence in Attachment K.

3.21.2 Impacts

Using generations figures from the City Environmental Review Policy, it has been estimated that the proposed project would produce approxmately 300,000 GPD of wastewater. (See Table 21). A prelminary assesment by the project engineer indicates that the wastewater would be carried by 8" lines throughout the project with possibly a 10" line on "Street K" and a 12" or 15" line on Ridgeback Road. The latter would be of greater diameter due to the possibility that future development of the area would use this line as well as the Rice Canyon SPA. The collection system would flow into the planned Rice Canyon Trunk (estimated to be 15" by the project engineer) which in turn would tie into the existing 15" line near the western boundary of the property which connects with the Spring Valley Outfall.

The Chula Vista Department of Public Works has stated that both the Spring Valley outfall and the planned Rice Canyon Trunk can accomodate the density proposed in the Rancho del Rey Specific Plan with which the Rice Canyon SPA substantially conforms. The Rice Canyon Trunk, which is not yet constructed, must be functional before service can be provided.

TABLE 21

SEWAGE*

Residence				
80gal/person/day	x	3260	=	260,800 gal/day
School				
15gal/person/day	x	1144	=	17,200 gal/day
Commercial				
1gal/sq.ft./day	x	146,500	=	4.900 gal/day (Approx.)
Office				
30gal/employer/day	x	165	=	5,000 gal/day

*Factors from Chula Vista Environmental Review Policy.

The proposed project would use only about 2% of the unused Metro System capacity to which Chula Vista is contractually entitled. However, the Metro System is already overloaded by EPA standards. By introducing approxmately 0.3 MGD of wastewater into the Point Loma plant which currently processes approximately 120 MGD, the proposal would increase the plant burden by 0.25%.

3.21.3 Mitigation

The volume of wastewater could be reduced by implementing the same measures suggested in section 3.23 to reduce water consumption. Additionally, the installation of a dual piping system and the construction of a local water reclamation facility would allow the re-use of water for irrigation of parks, greenbelts and common areas. Such systems are already in use at San Diego County Estates in Ramona and the Irvine Ranch in Orange County. Their applicabilty and long-range cost effectiveness for the Rice Canyon SPA should be investigated.

Solution to the problems of overloading of the Metro System are generally beyond the province of this report. Delaying implementation of the proposed project until a secondary treatment plant is operational would provide minimal relief to the system, but would result in increased development costs.

The developer should work closely with the City to ensure a smooth interface of existing and planned facilities.

3.21.4 Analysis of Significance

The carrying capacity of the local sewer system as planned is adequate to serve the Rice Canyon SPA. The Metro System, though contractually liable to treat the sewage generated, is physically unable to adequately do so until new facilities are constructed.

The volume of wastewater could be reduced by implementing the mitigating measures which have been suggested in the previous section.

3.22 SOLID WASTE

3.22.1 Project Setting

Solid waste service to Chula Vista is provided by the Chula Vista Sanitary Service Company. The service utilizes the Otay Landfill which is located approximately seven miles from the proposed project. The Otay Landfill has a life expectancy in excess of thirty years. See correspondence in Attachment L.

3.22.2 Impacts

The project is expected to generate approximately 25 tons of trash per week. This estimate represents 1% of the weekly trash disposal at the Otay Landfill.

3.22.3 Mitigation

No mitigation is required.

3.22.4 Analysis of Significance

The impact of the proposed project on solid waste disposal service is considered insignificant.

3.23 WATER

3.23.1 Project Setting

The Otay Municipal Water District provides water service to the project area. The District maintains a 13 million-gallon storage capacity which is filled primarily with water imported from Northern California and the Colorado River. Beginning in 1985, the San Diego area faces a significant cutback in supplies from the Colorado River, as water would be diverted to Arizona. The 1975-77 drought caused water to be unavailable from the State Water Project, which supplies water from Northern California. See correspondence in Attachment M.

3.23.2 Impacts

The project would require approximately 675,000 gallons of water per day as shown in Table 22, which is based on City of Chula Vista generation factors. This represents an incremental increase in the demand for imported water. The Otay Municipal Water District expects to be able to serve the needs of the proposed project with existing allocations of supply. The project would be served from an existing 20-inch water main on Telegraph Canyon Road and would require the construction of a one million-gallon storage tank and a 16-inch transmission line to the project site. The line would be expected to follow the future alignment of East H Street. The developer would be required to construct most required facilities.

3.23.3 Mitigation

The most readily available method of conserving water is the alteration of personal habits, e.g., sweeping the patio with a broom rather than a hose, turning off the water while brushing teeth, etc. A new development offers many additional opportunities for conservation. Native plants requiring less irrigation than exotic types could be used for landscaping. Current building codes require that individual pressure regulators, which are designed to lower water consumption to a practical minimum, be installed on residential units.

TABLE 22

WATER CONSUMPTION

Domestic @130 gal/person/day	x 3,260 persons = 423,800 gal/day
Commercial @2 gal/sq.ft./day	x 146,500 = 293,000 gal/mo = 9,770 gal/day
Schools:	
K-6 @20 gal/person/day	x 500 persons = 7,500 gal/day
Jr. High @20 gal/person/day	x 358 persons = 7,160 gal/day
Sr. High @25 gal/person/day	x 240 persons = 6,000 gal/day

The proposed project would fill one 10-acre elementary school (10 acres); one-third of a 30-acre junior high school (10 acres); one-fifth of a 50-acre senior high school (10 acres); a total attributable acreage of 30 acres.

Landscaping, which covers 60% of the proposed project would result in a total of 117,000 gal/day (18 acres x 6,500 gal/day = 117,000).

Additionally, if greenbelts are required for fire protection, they would use 2,200 gal/acre/day.

A water-reclamation (graywater) system using a dual piping system (one for domestic water use and one for irrigation) could be constructed at the time of development. The use of reclaimed water might prove particularly effective if substantial greenbelts are required for fire protection. Similar systems have proven cost effective on a sudivision scale in Ramona and on the Irvine Ranch. However, the cost for a system for the 419-acre Rice Canyon SPA could be prohibitive. Furthermore, it should be pointed out that an improperly designed system could bring about an undesirable build-up of salts in the root zone, due to high water table. The public health hazard potential should also be considered in any graywater system.

3.23.4 Analysis of Significance

The impact of the project on the local water district is not considered significant. Adequate supply is expected to exist to serve the project, in the near future. The Arizona project and the availability of water from the State Water project may affect the long-term availability, but extent of this effect cannot be precisely predicted at this time. Increased demand for imported water has undesirable effects upon the State water supply and the ecology of such distant areas as Northern California and the Colorado River.

4.0 ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

The development of the Rice Canyon SPA, as proposed, would result in adverse environmental effects which, although substantially mitigable, cannot be completely avoided. Adverse effects which fall into this category are discussed in more detail in the Impact Analysis section of this report. The intent of this discussion is to summarize these effects.

Grading would have an adverse effect on the subject property. Major landform modification would be necessary to create the building sites. In the process of site preparation, a number of large cut-and-fill banks would be created. The aesthetic value of the project site would also be effected by grading as natural topography is modified and natural vegetation removed. Grading would have the most effect on landform and aesthetic characteritics of the project.

Geologic conditions present on the subject property could also impact the proposed development. Seismic hazard would be the principal geologic feature affecting future buildings and occupants of the proposed Rice Canyon SPA. Several fault traces, including the Sweetwater Fault Zone, have been found on the project site. Although considered only potentially active, these zones of weakness do present a hazard on the property should earth movement occur along these zones. The impact can be substantially reduced through setback or construction regulations.

Several areas of expansive or alluvial soil exist on the property. Standard grading and building code requirements would mitigate potential effects of these soils on development.

The Rice Canyon SPA would increase the volume of surface water runoff which could have an affect on-site and off-site. Erosion and subsequent sedimentation of drainage structures downstream could result. Although specific drainage control within the project has not been designed, it is expected that surface water can be collected and transported in a manner which would avoid erosion.

Prehistoric archaeological resources do occur on the property. All but two of these sites are located in areas which would be graded. These sites appear to be relatively small finds which, if necessary, can easily be mitigated by a surface collection, subsurface testing and micromapping program. Urbanization of the Rice Canyon SPA would adversely affect the existing biologic habitat. Grading would remove vegetation from something less than three-quarters of the property. In the process, portions of populations of sensitive plant species identified in the biology survey may be destroyed. Transformation of the natural habitat on the site would force wildlife to retreat to undeveloped land within, and east of, the

project, increasing competition for food and range limitations which would ultimately decrease populations. The preservation of 125 acres with the project would partially mitigate this impact. Further mitigation of clearing on specific sensitive plants could be made through a transplanting program, although these techniques have not been thoroughly evaluated for their effectiveness.

The commercial and residential land uses proposed by the project would generate a substantial amount of traffic. Streets and intersections with the project have been designed to adequately handle project-generated traffic. However, limitations may become evident as traffic increases along the Rice Canyon SPA circulation system with the completion of the entire El Rancho del Rey Specific Plan Area. The system's capacity can be improved by widening major streets in order to accomodate future traffic volume generated off-site. Other alternatives for alleviating traffic congestion include left-turn lanes and a median opening at the northwest access point for the commercial center.

The traffic generated by the project would increase air pollutant emissions. Motor vehicle emissions are the major source of air quality degradation. When viewed from a regional perspective, the project would not significantly increase air pollutants but would represent an incremental increase. Several features of the Rice Canyon SPA including: the park-and-ride facility; proximity of schools and shopping; and bicycle paths would partially redure the potential impact. State and Federal laws are also expected to lower vehiclar emissions.

Noise levels would be raised on the property following development. Traffic would be the principal source. Interstate 805 would continue to produce high levels of noise. East H Street, "Street K" and Ridgeback Road would eventually carry enough traffic to result in unacceptable noise. However, unacceptable noise levels, as indicated by contours generated in the noise analysis, would not be expected to significantly affect residential areas.

Demand on local public services would increase as the development phases are completed. Correspondance with the various districts and companies responsible for providing these services revealed a general ability to absorb the development without significant effect on staff or facilities. However, the local school districts and the Metropolitan Sewer District would be significantly affected. Both the elementary and high school district facilities are overcrowded. The students to be generated by the project would further crowd the districts. Fees would be assessed to the developer to provide temporary facilities. In addition, dedicated school sites are proposed within the Rice Canyon SPA. The Metropolitan Sewer District indicates that it has no excess capacity. A new treatment

facility is planned by 1985; in the interim, the District is contractually obligated to accept sewage from the property but its ability to process it could be uncertain.

The consumption of energy for construction, transportation, commercial and domestic purposes would further increase the demand for non-renewable resources. Available mitigation to reduce this effect include carpooling, governmental regulation, energy-efficient appliances and insulation as well as incorporating alternative energy systems such as solar.

5.0 PROJECT ALTERNATIVES

No Project

The subject property could be allowed to remain in its present state. The "no project" alternatives would preclude the environmental effects discussed in relation to the proposed Rice Canyon SPA. No traffic and associated air and noise quality impacts would take place. Grading would not impact archaeological, biological and geological resources extant on the property. The property would remain as an open space under the "no project" alternative.

This alternate land use is not considered practical under the existing conditions. As long as the property is privately owned and the El Rancho del Rey Development Plan continues to designate this property for planned community development, it is unlikely that the "no project" alternative would be feasible in the long term. Development pressure would continue to increase as buildable areas decrease.

Park

The objectives of reducing the impacts associated with a specific use of the subject property could be accomplished through public acquisition of the property for recreation. The land would be managed by the City Park and Recreation Department. Development of the site as a park would be controlled by the City Park and Recreation Department. The Rice Canyon area is a aesthetic resource and wildlife habitat which could be valuable as regional park.

The degree to which this area is developed and the recreational use proposed may create some of the same environmental effects as the proposed Rice Canyon SPA. From an environmental impact perspective, the use of the property for natural open space would have the least impact and would essentially be identical to the "no project" alternative. As the site is developed for picnicking, camping, equestrian trails and possibly active sports, impact on archaeological, biological and air resources would increase.

Reduced Density

The environmental effects of the proposed Rice Canyon SPA would be reduced by decreasing the density within the project. One of the most important advantages this alternative offers is the potential for reducing the landform modification possible because of the lower density in the residential allowed north of East H Street. Other benefits of lower density would be the reduction in traffic and associated decreases in air emissions and noise levels, and a lower demand for public services, particularly schools and sewer.

This alternative is considered in the Environmental Impact Report prepared for the El Rancho del Rey Specific Plan and is considered to be impractical. The cost of providing the necessary public improvements to a lower density development would sharply increase housing costs. This situation is not consistent with the Housing Elements of the Chula Vista General Plan to promote affordable housing.

Sedway/Cooke Alternative

The property could be developed as suggested by the Sedway/Cooke Development Conservation Guide.

In September of 1977, Sedway/Cooke completed a development plan for the site of the proposed Rice Canyon SPA. This planning consultant was hired by the City of Chula Vista to assist the City staff and an eleven-member citizen committee (ACCORD) in determining the future use of the subject property. The provisions of the Development/Conservation Guide consist of overall use policies. It was not intended to serve as a specific development plan and provides use and development options.

The Guide lists eight policies that form the foundation of the development recommendations. These are stated below.

1. The valley floor of Rice Canyon should be retained in an undeveloped state and used exclusively for recreation purposes. It should serve as part of a more extensive open space corridor which includes the valley floor of Rice Canyon east of the site.

2. The south-facing slopes of Rice Canyon and intervening ravines should be

preserved in a natural state because of vegetation, visual values, and steep slopes. However, an exception can be made in the northwest portion of the site to facilitate Policy 4.

3. The future extension of H Street should be routed to minimize disruption of the Rice Canyon Valley floor and its south-facing slopes and ravines as well as to protect nearby residential areas from excessive road noise.

4. Urban uses, including commercial facilities, should be permitted in the northwest portion of the site. This clustering of urban uses should promote better use of public investments in service facilities, support established commercial areas in central Chula Vista and increase the feasibility of public transit.

5. Variations in housing types should be encouraged in order to increase housing choice, serve a broader economic spectrum of the housing market, and avoid visual monotony.

6. Residential development should be limited to ridges and the northern portion of the site where natural resource values have already been seriously degraded. Construction practices should permit retention of natural landforms.

7. Provisions should be made to ensure that adjoining residential areas are not adversely impacted by site-generated traffic, noise, and major changes in the physical scale of the surroundings.

8. Public facilities required to serve the site should be provided in a manner that ensures equitable distribution of development costs and promotes good site development practices.

Approximately 65 percent of the site would be reserved as open space. Development would be restricted to 35 percent of the property. Residential density would vary from 4 du/acre to 30 du/acre. The Guide provides for between 1,000 and 2,000 dwelling units. A portion of the site would be set aside for commercial development. Also, provided in the guide are areas for parks,

schools, fire station, and civic theater. One of the major benefits which would result from the Sedway/Cooke proposal, from an aesthetic and natural resource viewpoint, is the reduced impact on Rice Canyon by preserving it for recreation and open space. The plan also proposes grading and architecture designs which would possibly create less visual impact on the existing terrain. Under the Sedway/Cooke plan, grading would be over 35 percent of the total area, as opposed to the nearly 75 percent proposed by the Rice Canyon SPA. As a result, more open space would be provided by implementation the Sedway/Cooke Guide; however, the wildlife value of the main canyon identified in the biology section would still be lost.

The Sedway/Cooke Guide would not necessarily result in fewer dwelling units than proposed by the Rice Canyon SPA. A maximum of 2,000 units is possible under the Guide which would be greater than the 1,196 units proposed by the Rice Canyon SPA plan.

A junior high school site is not included in the Sedway/Cooke Guide. A junior high school location would be necessary; the site shown on the Rice Canyon SPA covers nearly 5 percent of the total area. Provision of this school site would increase the area required to be graded under the Sedway/Cooke plan.

The Sedway/Cooke alternative proposes an interchange design at the western boundary of the project which has not been considered efficient by the City of Chula Vista Planning Department. The location of the proposed interchange is too close to the existing Interstate 805/East H Street interchange.

Conformance to the Hillside Development Policy

The project site could be placed in a Hillside "H" Modifying District. The grading and density provisions of the Hillside "H" Modifying District are applicable to more traditional residential zoning categories. The grading and density provisions are determined by the average natural slope of the property. Average natural slope for the Rice Canyon SPA is approximately 25 percent.

Based on an R-1-H zone for the property and 25 percent average natural slope, a gross density of 1.73 dwelling units per acre would be allowed if the property were placed in a Hillside "H" Modifying District. A total of 37.5 percent of the site could be graded.

This alternative would reduce the impacts associated with the Rice Canyon SPA by minimizing grading (35.7% of the site

versus nearly 75%) and decreasing overall density (1.73 du/acre versus 2.85 du/acre). More open space would result. Fewer vehicular trips would be generated. Furthermore, the environmental effect would be diminished as no commercial development would be allowed with this alternative.

The feasibility of the Hillside "H" Modifying District is questionable. The limitation on the number of dwelling units and elimination of the commercial center could result in the lack of sufficient revenue to offset the expected high cost of constructing East H Street through the property. Construction of East H Street is vital to the development of the El Rancho del Rey Specific Planning Area.

The amount of grading necessary to accommodate major streets within the project site may represent a substantial share of the 35.7 percent total allowable grading. This could further limit the amount of development which could occur on the property.

In general, application of a Hillside "H" Modifying District to the subject property could conflict with the goals and objectives of the El Rancho del Rey Specific Plan. This Plan has already designated the Rice Canyon Sectional Plan Area for relatively high-density residential as well as commercial use.

6.0 GROWTH-INDUCING IMPACTS

The proposed development would influence growth of the surrounding area, particularly, and within the El Rancho del Rey Specific Plan Area. The impact is not considered significant due to the fact that the project conforms to public policy expressed in the El Rancho del Rey Specific Plan. The Plan is specifically designed to manage growth within the project area. One of the Specific Plan requirements is that development would progress from west to east; the project site is the most westerly portion of the Plan Area.

Completion of the project would facilitate growth by extending public improvements to the eastern boundary of the project. No roads currently exist on the property; with development, two streets, East H Street and Ridgeback Road would be extended and would be available for future connection from the east. Utilities including sewer, power and water would be brought closer to underdeveloped land. The provision of water to the site would require extension of the line from Otay Lakes Road which would make water more accessible throughout El Rancho del Rey. The new proximity of shopping facilities may, although to a lesser degree, stimulate development of surrounding property.

The provision of sewer and educational services to the project would necessitate an increase in their respective facilities. The growth expected to take place in the sewer treatment facilities of the Metro Sewer System would not be directly related to the project and is expected to occur independent of the proposed development. The growth impact on the schools would be offset by fees and land dedication.

7.0 INDIVIDUALS AND AGENCIES CONSULTED

John Linn, Ken Clark
Chula Vista School District

Joe Sanserverino
City of Chula Vista Community Development

Bill Ulrich
City of Chula Vista Engineering Department

Douglas Reid
City of Chula Vista Environmental Review Coordinator

Chief Monsel
City of Chula Vista Fire Department

Steve Griffin
City of Chula Vista Planning Department

Bill Hashman
City of Chula Vista Public Works Department

Gary R. Hansen
City of Chula Vista Traffic Engineer

Bill Bamberger, Ken Fabricotori, Walter Jacomski
County of San Diego Comprehensive Planning Office

Karen Reinker, Rick Phettyplace
County of San Diego Office of Management & Budget

R. E. Barber, Jr.
Otay Municipal Water District

Debbie Collier
San Diego Board of Realtors

Jerry Sprint
San Diego Gas and Electric Company

Ernie Clay
San Diego Water and Sewer Services Utilities Department

Phillip Jolliff
Sweetwater Union High School District

Mrs. Heaney
U. S. Department of Housing and Urban Development
San Diego Office

8.0 REFERENCES

1. City of Chula Vista, El Rancho Del Rey Specific Plan Text and Map.

2. City of Chula Vista, Environmental Review Policy, Aug. 1, 1978.

3. City of Chula Vista, General Plan Text and Map.

4. City of Chula Vista, Special Census, March 1975.

5. City of Chula Vista, Zoning Ordinance.

6. County of San Diego, Air Pollution Control District, Annual Report, Calendar Years 1974-77.

7. County of San Diego, Air Pollution Control District, Preliminary Air Pollutants Worksheets, 1978.

8. County of San Diego, Department of Land Use and Environmental Regulations - Zoning.

9. County of San Diego, Faults and Epicenters Map, Map No. 89, August 1974.

10. County of San Diego, Sweetwater Community Plan.

11. County of San Diego, Landslides Map, No. 19, August, 1974.

12. County of San Diego, Zoning Ordinance.

13. El Rancho Del Rey EIR, Chula Vista Environmental Review Committee, 1977.

14. Plaza Del Rey EIR, Westec Services, 1974.

15. Rice Canyon Development/Conservation Guide Sedway/Cooke, September 1977.

16. State of California, Environmental Impact Guidelines.

17. State of California, California Environmental Quality Act, 1970.

18. United States Department of Agriculture, Soils Survey, San Diego Area, 1973.

9.0 PARTICIPANTS IN THE ENVIRONMENTAL STUDY

Principal Investigator	- M. Bruce McIntyre Advance Planning & Research Associates
Technical Editor	- M. E. Majuri Advance Planning & Research Associates
Archaeology	- Mary Lou Heuett Archaeological Consulting & Technology
Biology	- R. Mitchel Beauchamp - Stephen J. Montgomery Pacific Southwest Biological Services
Economics/ Public Services	- Scott Griffiths Advance Planning & Research Associates
Geology/Soils	- Gary D. Beckham - Eliaz Zlotnik - Elizabeth Simkover Advance Planning & Research Associates
Noise	- Jim Berry San Diego Acoustics
Traffic	- Stephen George Stephen George & Associates

10.0 LIST OF ATTACHMENTS

A. Pre-preliminary Geotechnical Report

B. Archaeological Survey Report

C. Biological Survey Report

D. Report on Traffic Circulation and Safety

E. Environmental Noise Analysis

F. Correspondence with City of Chula Vista School District

G. Correspondence with Sweetwater Union High School District

H. Correspondence with City of Chula Vista Police Department

I. Correspondence with City of Chula Vista Fire Department

J. Correspondence with San Diego Gas & Electric Company

K. Correspondence with City of Chula Vista Department of Public Works

L. Correspondence with City of Chula Vista Sanitary Service

M. Correspondence with Otay Municipal Water District

N. Fault Investigation, Northwest corner of H Street Project

O. Effluent Disposal Cut-off Subdrains

NOTE - These reports are contained in a separate volume which is available at the City of Chula Vista Planning Department.

11.0 COMMENT RECEIVED DURING PUBLIC REVIEW

11.1 WRITTEN COMMENT

OTAY
10595 JAMACHA BOULEVARD, SPRING VALLEY, CALIFORNIA 92078
TELEPHONE: 462-2222, AREA CODE 714

August 16, 1979

City of Chula Vista
Department of Planning
Post Office Box 1087
Chula Vista, CA 92012

Attn: Mr. Douglas D. Reed

Subj: Rice Canyon Specific Plan EIR

Dear Mr. Reed:

I have reviewed the portions of the EIR for the Rice Canyon project pertaining to water supply.

I can see no additions or corrections to the text as submitted except that the size of the transmission main required has been changed to 18 inches.

If you have any questions, please give me a call.

Very truly yours,

R. E. Barber, Jr.
Chief Engineer

dm

August 17, 1979

To: Environmental Control Commission

From: John Macevicz, Chairman
Environmental Control Commission

Subject: Environmental Concerns on EIR 79-8, Rice Canyon, as follows:

1. Fault traces. Even though it has been 10,000 years since there has been movement, let's be safe rather than sorry.

2. Grading. Major adverse effect on this property. Cuts and fills are out of proportion, changing the land form to the extreme.

3. Drainage problems. Present natural drainage system under 805 cannot take care of present runoff and silting action. Main system proposed would be underground in pipes which would become plugged causing backup and much property damage, not to mention sanitary problems.

4. The total project is poorly designed. I only hope that the land form can be maintained as is; or, as closely as possible to the natural terrain*

Sincerely,

John A. Macevicz, Chairman,
Environmental Control Commission

JAM:mem

*Let's revive our hillside ordinance!

21 August 1979

Mr. Douglas D. Reid
Environmental Review Coordinator
Chula Vista Civic Center
P.O. Box 1087
Chula Vista, CA 92012

Re: EIR 79-6
Rice Canyon Sectional Plan

Dear Mr. Reid:

My interest in the report and the plan stems from living nearby and enjoying excursions in and around the canyon. The report seems adequate but I have one quarrel with the grading plan.

There exists now a high knoll on the ridge with a panoramic view probably superior to that from Deadman's Hill, to the east. On the plan, it appears to be on the Junior High School site, opposite the intersection of Street R with Ridgeback Road, and rather severe grading is planned there which would permanently reduce the view possible now.

Though this is just a matter of esthetics, it seems a shame to so degrade such a magnificent view. Hopefully, the siting of residences on Street R will exploit what view is left. Thank you for this opportunity to give input.

Sincerely,

Donald R. Atkinson
682 Floyd Avenue
Chula Vista, CA 92010

Sweetwater Union High School District

ADMINISTRATION CENTER
1130 FIFTH AVENUE
CHULA VISTA, CALIFORNIA 92011
714 425-1700

DIVISION OF BUSINESS SERVICES

August 30, 1979

Mr. Douglas D. Reid
Chula Vista Planning Department
276 Fourth Avenue
Chula Vista, CA 92010

Dear Mr. Reid:

The data relative to the Sweetwater Union High School District which is contained in the draft EIR on the Rice Canyon SPA (Hidden Vista Village) basically presents our view of current circumstances. The projections seem valid at this time.

However, as you know, the board of trustees of our district has not as yet specifically determined the total need for, nor the location of, specific junior or senior high school sites in the El Rancho del Rey area. Funding methods and a specific knowledge of site and facility needs have yet to be determined in a manner that would allow a definite decision.

Sincerely,

Philip D. Jolliff
Director of Facilities and Budgets

PDJ:cih

San Diego County Archaeological Society, Inc.

Environmental Impact Report Review Committee
2325 Loring Street San Diego, Cal. 92109

September 3, 1979

To: Mr. Douglas D. Reid
Environmental Review Coordinator
Department of Planning
City of Chula Vista
276 Fourth Avenue
Chula Vista, California 92010

Subject: Draft Environmental Impact Report EIR-79-8
Rice Canyon Sectional Planning Area

Dear Mr. Reid:

I have reviewed the subject Draft Environmental Impact Report on behalf of this committee of the San Diego County Archaeological Society.

Based on the information contained in the main body of the DEIR, we are basically in agreement with the impact and mitigation analysis given. We would suggest, however, that the presence of one site with paleontological material, plus three sites with such material as well as "more contemporary shell", calls for an inspection and recommendation by a qualified paleontologist.

Concerning the recommended mitigation measures, if the sites are to be capped, a testing program should first be made in order for future archaeologists to have some idea of what the nature of the protected resource is. For the smaller scatters, such as RC-2 and RC-3, salvage may be prefered as being the less expensive alternative unless testing shows those sites to be much larger than surface manifestations indicate.

Thank you for the opportunity to participate in the review process for this project.

Sincerely,

James W. Royle, Jr.
Chairperson, EIR Review Committee

cc: M. J. Hatley
file

Federhart & Associates
5252 Balboa Avenue, Suite 709
San Diego, CA 92117
(714) 278-3365

TRAFFIC AND PARKING STUDIES

JF7908

RECEIVED
BY
SEP 10 1979
PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA

City Planning Department
City of Chula Vista
Chula Vista, CA

RE: Draft EIR Hidden Vista Village - Transportation Impacts and Access Study

At the request of the developer, we have undertaken a review of the "Transportation Impacts and Access Study of Hidden Vista Village" a portion of the draft EIR for the Hidden Vista Village development.

The report is well developed and well documented, however, we think the combination of too high generation factors and too many external trips has resulted in estimated future traffic volumes that are excessive and well beyond the volumes that exist in similar developments today in the San Diego Metropolitan area.

In addition, while the report recommends additional north-south streets within the community to fulfill a traffic demand, no comment is made regarding the north-south Route 125 highway corridor that has been proposed but is not currently in the Regional Transportation Plan. This north-south highway or any facility on this alignment would provide relief for the east-west streets of "H" Street and Telegraph Canyon Road by drawing I-805 bound traffic from the eastern areas, to this Route 125 corridor instead.

The residential trip generation factors used in the report of 13.8 trips per dwelling unit for single family units and 8.5 for condominium units, are on the very high side of residential generation ranges. We make this statement because of the data contained in a number of residential trip generation studies. The Nation wide average, (which included the 1972 San Diego studies) for single family units is 10.0 trips per dwelling unit. 21 studies of single family subdivisions in the San Francisco Bay area show an average of 9.5 trips per dwelling unit. A recent study in Rancho Penasquitos of 507 occupied single family residences revealed a total trip per dwelling unit factor of 8.0.

In the Tierrasanta community of San Diego it is possible to isolate all of the 2310 Navy housing units. This Navy area contains elementary schools but no commercial development. 6.7 trips per dwelling unit enter and leave this Navy area.

The generation rate used by the consultant for apartments and condominiums was 8.5 trips per dwelling unit. This rate again is high in our opinion. The local studies made by CALTRANS in 1972 had an average of 7.54 trips per dwelling unit for this type of housing. A 1978 report for these same developments revealed that trip making dropped to 5. 2 trips per dwelling unit. The National average of 98 studies is 6.1 trips per dwelling unit. 17 studies in the San Francisco Bay area had an average of 5.7 trips per dwelling unit.

From the above data we think it can be concluded that the single family and condomimium/apartment traffic generation rates used in the report are too high.

In addition to the generation rates being too high, we also think the distributed external trips are too high for a community that will have all the commercial, schools, and other facilities of a completed El Rancho Del Rey. We base this statement on our studies of two existing communities in San Diego. Each community can be completely isolated so it has no through traffic. Each has land uses similar to a completed El Rancho Del Rey.

The Tierrasanta community on November 1, 1978 had 6211 occupied dwelling units with two commercial centers, a high school/Jr. Highschool and several elementary schools. It generated 35,900 total daily trips entering and leaving the community. This calculates out to 5.78 trips per dwelling unit.

The second community Rancho Penasquitos, on January 1, 1979 had 5000 dwelling units, a small amount of commercial, a high school and elementary schools. It generated 27,300 daily trips entering and leaving the community. Thus calculates outs at 5.46 trips per dwelling unit.

Because of the mix with through trips and the incomplete street system shown in Figure 7 of the El Rancho Del Rey report, it is not possible to determine the number of external trips distributed from El Rancho Del Rey to compare with Tierrasanta and Penasquitos. We feel that the report is incomplete in this respect and would request that the consultant provide such comparable data. Lacking this data,

however, and using the consultants 95,600 generated AWDT, and assuming that he deducted 17.9% for internal trips then 78,492 trips would be assigned as external trips from the community. This would calculate out as 13.08 trips per dwelling unit. Table 1 shows the three community comparison.

TABLE 1

Community	Occupied D.U.	Daily Two-Way External Trips	Daily Two-Way External Trip Rate
Rancho Penasquitos (Jan 1, 1979)	5000	27300	5.46/D.U.
Tierrasanta (Nov. 1, 1978)	6211	35900	5.78/D.U.
El Rancho Del Rey	6000	78492 ?	13.08/D.U.

As canbe seen above, if our assumptions on El Rancho Del Rey are correct (or near correct) there are many more external trips in and out of El Rancho Del Rey than the existing communities show there should be. If thesame figures were used for the dwelling units lying east of Rancho Del Rey there would also be too many through trips.

The Consultant used the results of his assignment of these very high external generation figures as the basis for his recommendation for widening "Street K" for approximately 600 feet north of H Street. Since "Street K" has an estimated traffic volume exceeding 5000 vehicles per day by 1520 vehicles it is the consultants recommendation that it be widened from 40 feet to 64 feet curb to curb. In light of doubts about his high estimate this is not reasonable, especially when existing 40 foot streets in the San Diego area can be shown to be carrying over 10000 daily vehicles - not just 6520.

We do concur that "H" Street should be designed as a six-lane major street however, eventhough we feel the 62,850 ADT estimate is far too high and is not realistic.

Provision for expansion of "H" Street to a 8-lane street as proposed by City staff is also excessive. A 8-lane roadway with bike lanes and dual left turn lanes would be in excess of 130 feet in width. Pedestrian crossings, vehicle weaving from right lane to left turn pockets and traffic signals timining would present operational problems of such a magnitude as to negate the productiveness of the added traffic lanes.

The report also discusses the lack of a north-south street in the El Rancho Del Rey community. We concur in this lack but we note that because of topography and existing development, such a street is most unlikely. We do feel that such a street will be available sometime in the Route 125 corridor - east of El Rancho Del Rey. This route is no longer in the Regional Transportation Plan but is still shown on the County Circulation Element and someday, some facility will be available here. A realistic traffic assignment which includes this street would show relief on east-west streets in the El Rancho Del Rey community.

We hope this review of the "Transportation Impacts and Access Study of Hidden Vista Village" will be of assistance in your evaluation of the Draft EIR.

Charles P. Stong P.E.

Federhart & Associates

9/7/79

11.2 PUBLIC TESTIMONY

Public Testimony presented on EIR-79-8 in a
Public Hearing before the City Planning Commission
held on September 12, 1979

Warren: Good evening, ladies and gentlemen, my name is Harvey Warren and I'm a representative of the home owners in the Lynwood Hills area. We had a meeting Monday and we all expressed some concerns on this project. It seems like they are going to be moving a lot of dirt and that does effect us and our area.

Tonight I would like to concentrate primarily on the traffic design and also hit a little bit on the natural resources. But, before I get into that I do want to express concern to you all that when we were first notified of this meeting all of us, or I should say, a few of us in that area, received a map, and on this map it clearly shows that one of the streets of this development was to go through Vista Nacion Drive. We were much concerned about this. We received another map from the City Council and that indicated that the street wasn't going to go through there but there was going to be three tiers of houses through Lynwood Hills and there is now four. So we're just kind of wondering, what's going on. Is the density changing every week; are they changing the roads every week? Since it does concern us quite a bit we'd like to know where the roads are going to be and, I guess, looking at this, this is going to be the final plan. Is that correct.

Reid: The applicant has not submitted, formally submitted, the Sectional Area Plan. We are working with the latest plan we have available and if there is any revision between now and the time the formal submission is made, we will evaluate that and test it against the final EIR. The map on the board this evening is the latest information we have.

Warren: Okay, fine. That's what we were kind of going about at our meeting. Would it be possible for me to go over to the map?

First of all, in the meeting that we had the other evening, there were a couple of concerns to us. One that all the roads in this part of the development, it seems that the people that occupy these homes can exit on to Lynwood Drive to get down to Bonita Road. Now the way the grading for this road appears, it comes in to a very bad part of Lynwood Drive. We've already had a fatality on that road and it is due to this hairpin turn and a big--well, certainly not a cliff--but there is a substantial amount of soil here that will block one's view coming down the hill, and this is where they propose, by this plan, to insert more or less an exit and onspot on to Lynwood Drive. So I would say that we are concerned: (1) That the placement of this road is in a very poor spot, and if any of you would care to drive up there and see I think it would be very noticeable to you. The other thing that concerns us about this exit here on to Lynwood Drive is that there's a substantial number of houses here now, even since the plan has been changed to four tiers rather than three. If these people chose to use the Lynwood Drive to get down to Bonita Road, then we would have quite a problem up here. It may necessitate widening Lynwood Drive and right now it is a County very narrow road and to widen that would probably be a great expense to the County and I don't know what the ramifications are, if the City gets involved with the County, and who puts in the road, or what, or who widens it and who maintains it, but this is going to present a problem. Of course, we came up with all kinds of solutions

Warren

and alternatives and, one of them being that perhaps these people could exit, rather than on to Lynwood Drive, perhaps putting a street right in through here to connect with "H" Street. So that was one of our alternatives.

Another one was to block off street "C", right here, form a cul-de-sac, in other words, change this part of the road into another lot and perhaps these people could just exit on to this portion of "H" Street, or perhaps on Lynwood Drive. But, bear in mind again, that this is a very poor place for the road to be. It may be most economical for the developer, but it is not a very practical, for anybody living in this area or our area.

The other thing that concerns me is that I was here once before when, I think it was the Gersten development, and this is now getting into this environmental impact, as far as the natural resources. There was a young man who I hope is here tonight because he had all the facts and figures about, (1) the water, and that fortunately at that time we were in a drought and he was saying that we were having a very difficult time at that time meeting just the needs of the people in Chula Vista without any development occurring. The other thing was on the sewage. Now this is reported in the EPI booklet and they state that Chula Vista has purchased the pipe running to Point Loma and we have a good pipeline there we're not filled to capacity. I can understand that; however, I understand from Point Loma they can't take any more. So, I know that the pipes here can hold more but I just wonder what happens to it when it hits Point Loma.

Also, reading the newspapers, I understand that we are now in an energy crisis. We should watch our gas and electricity. There are a lot of homes here and they are going to be consuming, along with us, gas and electricity; so that presents another problem.

So I think there are all things that you should take into consideration before we vote on a matter such as this. Thank you very much.

Fornataro:

Good evening, my name is Roland Fornataro and I live in the Lynwood Hills area. I had a series of questions I wanted to propose to this. Mr. Warren has covered a couple of the questions, one of which being, the exit to Lynwood Drive from the street "A" that's mentioned up there and the purported cutting through lots 72 through 75 to come down to pick up East "H" Street. The gentleman from Advance Research Associates made comment about the drainage coming through. As I see it, we're talking about the drainage from the easterly portion of the Rice Canyon. What is happening and how are they reconstructing the drainage coming down from the hills right behind Lynwood; where will it go, will it not be on the north side of "H" Street where they're talking about the drainage structure itself, which will then subsequently go into the Cal Trans box structure which currently is filled up. It's a soils operation right now. I don't think the environmental impact does address that.

The point, other salient point that was mentioned about bringing the road across through there, there would be no reason why there could not be a box structure, if drainage presents itself as a problem from, coming through from those lots at that level "A" Street over to "H" Street. I don't believe the drainage would be anywhere near the 1600 or 1,000 cfs they are talking about. That's because of the fact they have subsequently changed

Fornataro most of the structure.

The point that's been brought up that I don't think has been adequately answered, and I think it's a health and safety factor. They're talking about cutting approximately a 40 foot cut. May I go to the board here.

(Comments notdiscernible on tape due to lack of microphone; included concern about making a 40 foot cut along the northwest corner of the site adjacent to an area served by septic tanks, expressed concern that due to horizontal percolation sewage would come through.)

The gentleman made comment that there would be no mitigatory action from the development for the soil pollution and the fact that they are going to be moving close to four and a half billion yards over a period of two years. The phasing of construction of the homes will not take two years, they are going to do one area at a time, as I understand it from reading the book, but yet they propose to go ahead and cut the entire pattern and grade it all at one time.

I'm certain many of the people in the Chula Vista planning staff and some of the people here know, we have been in a dry cycle. Weather cycles, so many years of dry weather, so many years of wet weather. We have been in out dry weather cycle which is roughly 15 to 18 years for close to 30 years. We have broken out of it the last two years and filled some of our reservoirs up. I think we ain't seen nothing yet as far as rain. We've got about ten more years of good wet weather coming which should adversely impact, moreso than what has happened and the last two years we have seen quite a bit of soil eroded down into the canyon there from some of the development upstream or some of the areas up in Lynwood Hills in that area. I think we are going to have problems and it really should be addressed a little more thoroughly because of the erosion and also because of the noise--not the noise polution, but the soil pollution. There are still about 45 or 50 homes up there that will be adversely affected, whether it's increase in cleaning of your swimming pool or not being able to hang clothes out--which I'm not sure many women do any more--but keeping the house clean, the dust and the asthma. That, I think, is a problem that should have been addressed.

This is maybe a little bit facetious, but in all of our reading on the City of Chula Vista they are doing a lot about trying to maintain and work to save the hillsides and keep things in as pristine a nature as reasonably possible. This is a complete, almost a rape of the entire subdivision here, and very very little of it, as I understand, will be left in a vegetative manner. It's contour, a gentleman mentioned that they are going to try to hide and mitigate some of the effect of that by putting houses around the perimeter here. I don't really think that is adequate. That's a personal opinion but I think it should be addressed.

One other comment and then I'll let it go to someone else. I have checked with the County and with the City of Chula Vista. I was concerned and I asked about why was the need for that road there if they're anticipating 180 average daily trips and one of the comments I received, and I appreciate the man's candor, was that road was put in to make it easier for the people of Lynwood Hills to come down to the shopping center. From my point of view, from many people's point of view, I don't think we mind going down to the

Fornataro bottom at Lynwood, because when the new regional center is put in over at Koenig annexation--the May Company shopping center--Bonita Mesa Road is going to be revised and pushed back to coincide with Lynwood Avenue. It's like green apples, there will be a light going in there. I don't think it would be that inadequate to get across that road, swing back now to 805 south and get off on the shopping, which bring up another point.

We've addressed entirely about our little project here, but there are some regional concepts that should have been anticipated, it should have been thought about, that will cause more traffic problems here than I really think has been brought forth. Thank you.

Strong: Good evening, ladies and gentlemen, my name is Charles Strong. I'm with the firm of Federhart and Associates, traffic engineers. We have been employed by the developer, Watt Industries, to review the traffic and transportation section of the EIR. My firm has submitted a letter to the Planning Department which I presume was in your package.

The transportation section of the EIR was well developed and well documented. We have two minor--not minor--two problems with the EIR. One, we feel that the traffic generation factors used for the residential housing is excessive, thereby creating an excessive number of estimated trips that will be leaving the area, and two, the amount of trips that are assigned within the region, internal trips within the entire community, are too few in number.

To bring out these points the housing factor used was 13.8 trips per dwelling unit in the single family and 8.5 trips per dwelling unit in the condominium. These are excessively high and as I documented in my letter that the average probably is less than 10 in standard use today. It's my understanding that the material used by the consultant is being questioned right now and possibly is excessive. This could amount to approximately one-third increase in the number of trips coming from the residential units.

The second factor that I brought out is the large number of external trips going out of the area that were assigned. The regional transportation plan, which was used by Mr. George, says 17.9 per cent of the trips in 1995 will leave the zone, the zoning area he's talking about. We feel this is high and as I stated in the letter, based on evidence that we currently have in the San Diego region where we are finding areas, such as Tierra Santa, which, uniquely, has some 6,200 and 11, to be exact, dwelling units at the time of the study, which compares favorably with what this entire community will have ultimately, some 6,000 units. It compares in that it has two shopping centers, two small shopping centers to serve the area. It has a high school and the rest of the other items that would go with a development of this type. That community is exiting 5.78 trips per dwelling unit. This community, according to the traffic estimate, is exiting 13.08 trips per dwelling unit, approximately two and a half times as many trips are being assigned outward.

The same thing is true with Rancho Penasquitos which has some 5,000 trips within its area, there are some 5,000 dwelling units, and it, with a high school, a small amount of residential is exiting 5.46 trips per dwelling unit. Again, less than half of what is estimated to come out. What is the result

trong: of this? The result is that the plan shows an estimated traffic volume in the year 1995 of 62,000 trips on "H" Street. This, we feel, is excessive, tremendously excessive, and could not be obtained. It would be closer, probably, in the range of 36,000, which is a large number. For instance, the highest traffic volume you have on a through street in the City of Chula Vista is roughtly 22,000. The estimate by the consultant is three times what you are carrying on your heaviest volume street today. We do not think this is obtainable in this area and we do not think it's supported. It's a combination of compounding problems.

We feel that the results are: (1) That the EIR recommends the expansion of "K" Street for a given distance. We do not think this is needed, the traffic volumes on "K" Street are estimated in the range of some 6,000 trips. We think think this is excessive; it will be less than 5,000, and therefore, should warrant only a 40 foot street. The volumes along "H" Street, as I said, the estimate is some 62,000 at the highest point which is excessive. While the plan proposes a three lane, or six lane road, three lanes in each direction, and they are debating, or the city staff is considering requesting a 8 land road. We do not think this is practical.

I should point out that currently 805 is carrying some 68,000 vehicles per day in this exact area, to give you some feel for it. The estimate, according to the EIR, says this road will carry as much traffic as 805 carries at this time.

Unless you have any other questions . . .

O'Neill: Mr. Chairman, I would like to ask Mr. Strong a question. One of the gentlemen earlier talked about the exiting on Lynwood Drive and the problem that would ensue there. Would you have any comments on that?

trong: This is a secondary exit and it is recommended for most developments as providing a second way out of the community for fire access purposes, for safety purposes, it is a highly desirable thing. Because of the alignment of the road, it will never be a high volume road, but I think that for just normal public safety and for convenience for means of moving through, it is a desirable road.

eeves: Good evening, I'm John Reeves, Sweetwater Community Planning Group. The Sweetwater Community Planning Group has favored the annexation of this particular area and does not oppose this development per se. We also do want "H" Street to relieve the load on Bonita Road that runs through our community. We do not want, however, to bear some of the environmental impacts that appear to be possibly resulting from this if not mitigated. Some issues in this draft that appear to need some work would be the land form alteration area. One thing, and I'd offer my assistance, either officially or unofficially to my other hat, to you if you have a vernal pool. You do not know the problems you've begun to run across when you have a vernal pool. The Corps of Engineers will exercise jurisdiction over vernal pools, even if they do not have *abramsii Pogogyne* located therein, which you don't know--anyway, that's mesa mint. There are seven other species besides *abramsii Pogogyne* which are located in vernal pools, and they're all being nominated for the federal list. So, stand by. I would suggest one alternative that you discuss is moving the

eeves

vernal pool into the open space area, it may save a lot of problems later.

The alternative of transplantation should also be looked at for the other rare and endangered species. If a plant did not survive in the areas where they do not grow naturally, it probably will not survive if you transplant them there later. If they would have grown there nature would have let them grow. And the Native Plant Society, they'll probably help you on that; they've been very good in working with us.

The large cutting that's going to be involved in the land form alteration will expose the San Diego formation. The San Diego formation is the most erodable formation of the soils that are there, and does create a potential for greater siltation downstream which has been addressed by other speakers. This alternative of a little less land form alteration should be addressed in your mitigating measures.

The seismicity--the mitigation is not proposed at all in this EIR at this time and it relates to a subsequent review based upon some soils analysis. The Attorney General's indicated that where there's the risk of soils problems that the review of the seismicity problem should be conducted with the soils report that's affixed to the EIR and utilized by the decision makers at that time. It would be helpful to you, perhaps, in reviewing some of the problems.

With respect to the drainage problem, there's no mitigation proposed and how can you make the findings with respect to the drainage problems that are required under CEQA without any mitigating measures listed therein.

There are also 86 acres of unfinished property that will be located at the far end. Your drainage systems are underground. There are no mitigating measures proposed for the siltation that is bound to occur from that 86 acres of erodable soil that is going to be transmitted underground in a place where you can't get at it to fix it when it stops. This is clearly a potential problem that an EIR should discuss.

The aesthetics--one of the comments regarding the mitigating measures considers this a valuable asset. Uhh, I don't know if I'd necessarily go along with that and maybe you would want to take a look at that particular statement, that the regrading of this entire slope and creating all of these artificial slopes is really a valuable asset to the City of Chula Vista. I'm not in the City of Chula Vista, but maybe you'd like to look at that.

One other thing we were concerned with the other night is, why is "H" Street going to be done on a straight and level. It seems to me--and maybe we're wrong--that it should be discussed as an alternative of perhaps altering the grades somewhat to allow it to meander, a little bit, not a lot, and not have quite so much cut and fill. A little more rural characteristic and perhaps Mr. Strong is correct that it doesn't need to be quite that large. I don't know, it does seem like the traffic generation is a little high.

The alternatives that are in the back of the EIR, when I first read it, I completely missed them --they were so small. It seems that there's been quite a bit of work on at least one or two of these alternatives that were discussed earlier and they should be put in a little more detail and perhaps a map would be helpful as well, so that someone could look

Reeves — at those alternatives and see really what their impacts are, if an EIR is also to inform the public.

The Sweetwater Community Planning Group would like to work with you and work with you in the preparation of the EIR and we stand ready to assist you in any way you desire, and as far as joining us on the vernal pool preservation committee with the City of San Diego, I'd invite your staff to join us on that one. That's not an official comment of the City at this point in time, but I'm sure it would be offered to you.

Johenk: Good evening, ladies and gentlemen, Commission, you've got to excuse me I'm a little bit nervous, I'm not really a public speaker and not quite as eloquent as those that preceded me. But I'm a resident, my name is Dave Johenk, and I'm a resident of 4420 Vista Nacion, and we kind of face the 805 freeway. I guess that's on the west side. We moved to Chula Vista about a year ago in this place where we're living now, and before we did we looked at the Master Plan of 1990 and it showed kind of a low density and, gee, the maps have kind of changed since then.

The environmental impact study, I think it was in August, and there was a map that preced that, that showed three rows of houses below us, and now all of a sudden there are four. It looks like at the end of this thing there might be more, I don't know. But I just wanted to say something about the aesthetics. It doesn't appear to be too aesthetic.

Like I said before, when we first moved in here we envisioned that we would perhaps have a development down here, we knew that, however, according to the map of 1990 it was going to be a low density. We were willing to buy into this area and just go ahead and live with it. We think we can have a very beautiful setting down there, something in character, something perhaps in the character in which Lynwood Hills was constructed about 30 or 40 years ago.

I don't know whether you know it or not, but my wife was jogging in the neighborhood a few weeks ago and actually saw some foxes down there, some raccoon, jackrabbits and chipmunks. I think something can be built down here that would fit in with that sort of environment. We chose this area because they said in Chula Vista is where you hang your hat. I think one of the reasons why we chose Chula Vista is because it was a unique community in San Diego, we thought, and we still do. And we opted for the quality of life and not the quantity that we see in some of these maps. Like I said, we are for development, but I think we can take a closer look at this and come up with something that's a little bit more pleasing.

I just want to make one more comment, kind of a pet peeve, and that's the noise from the freeway. I am kind of interested in noise because I'm aware of the effects that it has on the human body. High noise levels are known to cause some hypertensive complications of cardiovascular disease in the human being, and according to the environmental impact study, right at the freeway it's about 70 decibels of sound, which you just can't live at that and not expect to be healthy. About halfway up the hill from my street it's registered to be 65, and that's questionable, you may or may not get sick there. Right at my back door, it's about 60 and I know I just have a real hard time taking that, and I kind of worry about my hearing and my son's hearing, and my blood pressure. They say that when the development is in it's really not going to be elevated that much more, only during the phase of

Johenk construction, it still will be habitable there. But I just can't see that considering the gentleman that preceded me a few ago that talked about traffic loads. It's just going to be unbearable to live in Lynwood Hills, or even in the development. So I think that's something that should be considered. There's an article in the New England Journal of Medicine last year some time concerning this--sound, on the effect of the human body --if you need some documentation. But, gee, I don't think they addressed it real well in the report.

So, just two things, and that's the aesthetics and poor development, however, I think we can do a better job with some of the open areas, perhapd less density, and certainly we should have a little bit more study done on the sound.

That's really all I have to say. Thank you.

McQuillan: My name is Mike McQuillan, I also live in Lynwood Hills and if you haven't guessed by now, most of us up there aren't thrilled with this project. I'd like to add a couple of animals to the list that I've observed out there while jogging and that's coyotes and, believe it or not, deer. Although it's been about two years now since I've seen any deer out there, but I used to see them regularly in the springtime.

One of the reasons, I think, we here, this is a public hearing, and this satisfies the due process requirement of our environmental laws in this State, notably that we're given notice and an opportunity to be heard, so that we might present possibly contrary views to those which the developer and the staff have presented in the environmental impact report.

One of the problems with presenting any type of opposing views, however, is that we really don't have a great deal of facts to work with. The preceding speakers have pretty well indicated that the treatment of the impacts on the environment in the Lynwood Hills area is relatively lacking. In other words, there are very few specific comments in the report directing themselves at the effect on the Lynwood Hills area. It's already been brought out that there's going to be a large cut to the left of Vista Nacion; what's going to happen to the septic tanks and the cesspools in that area when we have a 40 foot line. Well, about ten years ago I was at a meeting of the Board of Supervisors in which the people who live on Glen Abbey Road were very unhappy because some of the septic tanks of the people who live on Lynwood Hills had started leaking out on to their property on Glen Abbey. Glen Abbey Road is to the north of the Lynwood Hills area and it is in the Sweetwater Valley, and when the wind was blowing from the right direction one would much prefer that it be blowing from Bradley stables to have it blowing from Lynwood Hills. So, I think that whoever lives in this area directly west of Lynwood Hills is going to dread Santa Ana conditions.

It's been pointed out also, that as a mitigating circumstance the great convenience offered to us of finding a shopping center close by, and that the road connecting from Lynwood Drive to (I don't know the name of the roads up there) which would eventually bring us down to the shopping center, will be a convenience to us. Well, I think, I'm sure Mr. Reid and Mr. Peterson are familiar with several years ago a certain dentist from La Mesa came down to the area and tried to make things even vastly more convenient for us and we weren't too receptive then either. I don't think any of us would be particularly thrilled with having a shopping center close by, although I will say that having it on the south side of the development is vastly preferable

McQuillan to having it on the north side of the development.

But, getting back to my original premise, a notice and opportunity to be heard, the fact of the matter is, you are hearing me, you are listening to me, but I don't really have a chance to express myself to very many specifics, and if I'm going to comment meaningfully, or if any of us can comment meaningfully about the specifics of this development, we have to have some specifics presented to us to argue with, or debate, or begin with. And nothing has been brought to us concerning the specific effect on the Lynwood Hills area. I would, therefore, respectfully request that this body continue this public hearing for a period of at least 30 days so that answers might be made to the questions which have been brought up concerning the grading, concerning the drainage whereby we have more water going down the hill than the pipes further west are able to accept, concerning the traffic generation on Lynwood Hills, and even one other question I have. As was pointed out by Mr. Warren, what are the roads going to be. It seems to have changed several times. I can assure you that if Vista Nacion goes through, I think that we might end up in the courts somewhere because I'm going to be particularly disturbed at that. As I see from this chart, it doesn't appear that Vista Nacion or Vista Coronado are going through, but it does appear that some type of connection. Any time I see a connection being made, connections can always be widened from footpaths to bicycle paths, to horse paths, to automobile paths. In order that we may be meaningfully heard, so that we might have a chance to respond to the estimates that the developer and the staff may make concerning the impact on the environment, I therefore respectfully request that you continue the public hearing for a period of at least 30 days to give the developer and the staff a chance to comment on these questions, to provide answers to these questions, and then to give us a chance to respond to those and give our opinion and our factual evidence concerning those effects. Thank you.

Gathe: I made up my mind before I came down here I wasn't going to get up and say anything, but I have to, now. My name's Fred Gathe, I live at 3240 Lynwood Drive and I think that's where that target "A" road is going to intersect. And I've gotta tell you that when Mr. Walton built that house, he built that house into the bank of the dirt, and I love it. It's beautiful. If I'd invite you up some time maybe you wouldn't see the beauty that I see there but that bank of dirt behind my house, which fronts Lynwood Drive, is right on that bad bend. But that bank of dirt keeps a lot of noise out of my house, that the other gentleman talks about. These gentlemen here, that they're proposing to put all these goodies down here and they're going to cut down noise. Noise is a terrible thing, believe me, it's terrible. Fortunately, I can shut my windows and I can keep most of the noise of 805 out of my place. We bought the place before 805 opened and it was like going to heaven, I can tell you. I used to live down here on 216 Landis and that got pretty noisy and I'm from the country and I like quiet and peace. And I thank God that I can be here tonight and be heard, and I didn't, I told my daughter I'm not going to get up, I'm not going to get my blood pressure up and everything else, but gentlemen -- ladies and gentlemen-- I've got to say something.

No. 1, if they have to have that road there, then somebody's going to come along and want to take that bank out from behind my house, and if I have to go to court over that, I'm going to do it. I'm not a man of means and I'm not a trouble maker and I won't stir the pot, but don't mess with my

Gathe homestead. I say that advisedly, that's not a warning. That's as it is. There's no reason in God's green world why they can't put through, as Mr. Fornataro mentioned, another egress or ingress, anyway you want to call it, down on to "H" Street. It's ridiculous. Drive up there. Have you folks, are you familiar with Lynwood Drive? You're all familiar with it? Before I got that place I was concerned about Lynwood Drive, it's a lovely country road, and you don't have many of those left in Chula Vista. You've got Pepper Tree Lane over here, it's a beautiful road. I wonder what would happen if somebody decided they wanted to change that road. I think we'd have trouble, wouldn't we. I'm not down here to make trouble, but I'm telling you, you haven't got many country roads left. Lynwood Drive is kind of a country road and even if they move the other road over and put a light down at the bottom, where Bradley is down there, and Bob's firewood, that's fine. But, don't put any more traffic on there. Please, whatever you do, you know. And, the noise factor, too. I got the report and didn't have time to read it, either. But, I think there was a one-sided effect and I mentioned this in the previous hearing when the Sedway/Cooke people had make their report. That it's all well and good to put all the insulation you want to in the new homes and do everything for those new people that are going to buy those beautiful homes to make money for these people--and that's what we're here for, to make money, I'm not against making money--but what about the people who don't have all that acoustics in their present homes up there on Lynwood Hills, and there's lots of us. I happen to have a dirt bank, and now they're trying to threaten my dirt bank, and I just can't have that. Well, if I have to have it, I guess I have to have it, but I'm pleading with you, please, give it some serious thought. I'd only ask that you try to imagine that you live in the area. I have some big pepper trees around to help screen the noise, too; but nothing is going to screen 805 unless they put a 16 foot cement block walls down along 805 to stop that noise from coming up on us and it's never going to happen.

There's one other thing I want to mention and then I'll let you go. I know you're running late here. No, that covers it. The noise factor to the existing homes, not while the construction is going on, but all those automobiles and all those barking dogs, and all those little kiddies, and I love children and I love dogs. I have a quiet dog, my dog's been debarked. I used to have a neighbor that complained about barking dogs. And really, I think that the congestion, I was opposed somewhat to the first plan, but believe, there were going to be, I think, three-quarter of an acre parcels up on the Lynwood Hills area adjoining Lynwood Drive, and that kind of salved my conscience a little bit because I happen to have about three-quarters of an acre there, too. Mr. White down below me, I think he has an acre. I never met the gentleman, but I admire him from a distance. He has a lovely home. My place happens to look down on his--that's just a physical look down, believe me, it's nothing other than that. But, I'm sure if Mr. White got up and said anything, he would probably say something similar to what I'm saying. Please, don't cut that road through to Lynwood Drive; there must be an alternative to an ingress and egress to whatever development you put up there. Thank you for your time.

eorge: Mr. Chairman, my name is Stephen George, representing Stephen George and Associates, traffic consultants, and a member of the team of consultants selected by the City to prepare the environmental impact for this particular Hidden Vista Village. There were several misleading statements made by Mr. Strong, representing the developer, and I'd like to clarify again, we're working for the city, we're not working for the developer. I think somebody,

eorge

some of the citizens in the audience may be surprised at that statement. And I'd like to take this opportunity to clarify some of those misleading statements.

Mr. Strong referred to a four page letter which you received in your packets; I also received a copy this morning. Without going into details, I would welcome, Mr. Chairman, a brief opportunity to respond to two issues that he raises and to make you aware of the factual data upon which the comprehensive EIR was based upon, as consultants working directly for the City.

The developer's consultants cites national average statistics, published in 1976, wherein 1972 San Diego data was included as one sample out of 23 in a single family category. So, our data was laundered in the national statistics. With regard to apartment complex, the San Diego data was one sample out of 18 that was averaged together. Keep in mind this data published in 1976 also goes back to 1968 when it was actually collected.

The national statistics referred to by Mr. Strong include other states, such as Illinois, New York, Virginia, Maryland, Wisconsin, Kentucky, Ohio and Deleware. You may not be aware of it, but I brought some documentation here; the California Department of Transportation, here in San Diego, has been assembling and has a tremendous body of research on trip generation rates that goes back through the early 1970's. I brought with me three published documents; here's the 1972 report, which should be in the office of your city staff; here's the 1974 report; and last May of this year, a new publication came out, looseleaf style to allow simple updates as new information comes onstream. This is the data that was utilized, and I'll tell you why.

As a practical, practicing traffic and transportation engineer for the last 28 years--I started out in San Diego in the mid 1950's, I worked in four metropolitan areas in four states, and I can say that the San Diego area has more comprehensive, more up-to-date, more useful trip generation data than available in the national statistics, and I'm a member of the Institute of Transportation Engineers, the same way as Mr. Strong is, their data is not current and not relevant to San Diego and Chula Vista, because our one sample out of 18 or 23 has been laundered and comes out different from what went in. But that 1972 data is superseded by 1978 data published, and if there's anybody questioning this data, there's only one man I know in San Diego County, and it's Mr. Strong. This has been well received, it's been processed through a surveillance committee established by Cal Trans and CPO, which your city has representation on, and therefore, this has been accepted by the profession and has long standing of stature, going back to the 1970's.

Okay, let's talk about some of it. While the single family rate published in Cal Trans, I admit, was 13.8, and that's what I utilized in the--it was based on five samples in San Diego County, four of which were studied in 1972, the same subdivisions. Keep in mind, when you do trip generation rate, we take an isolated single family unit that doesn't have any other land use in it, and we cordone it off and we determine all of the trips that come in and out of there--a pure, single family residential activity. This is our objective. So that is the data that we utilized in the report.

Several weeks ago I went back to the original data, the raw data from which Cal Trans made their calculations and made my independent calculations, and

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like so many times when you publish a book of this magnitude, there's some typographical errors. I brought to the attention of Cal Trans and also Mr. Strong two weeks ago the fact that Cal Trans' published figure of 13.8 actually should be 11.8; Cal Trans didn't know that until I brought it to their attention, and also brought it to Mr. Strong's attention by telephone two weeks ago.

If we include this new information, it amounts to 660 trips a day out of 35,470 that are being generated by the development in question. There was a statement that the development is generating 65,000 trips--that's erroneous. The developer submitted his plans to the city, all the documentation he had. The city hired a consultant and we reassessed it independently, and one of the appendix to the EIR is a detailed comprehensive traffic study report which includes a detailed listing of the trips generated by every type of land use in this development, and it's 35,470. Not all those trips have to leave the area, because this--other than for work--because all essential community activities--recreation, school, and shopping, other than regional shopping centers--can be provided in this community. So, what is lacking is jobs, so the jobs is what's going to take people out of this particular Hidden Vista Village to earn a normal living.

Again, I mention, only 660 trips would be different from what's reported in your EIR and we certainly can make that correction, but it's insignificant, and it's well within the accuracy of the traffic counts we make. Any traffic engineer, including your own traffic engineer, recognizes that when you make a traffic count on any street, your answer is plus or minus 5 per cent, provided you have a good maintenance program on your electronic counters. So, the trip generation rates are based on a variable traffic count and so you shouldn't be using any one statistical sample, like the developer's consultant is suggesting, but you should average, and the average published in this book, I say, is more appropriate for San Diego and also Chula Vista than a national average which has only 1972 data and only one sample in 28.

What about apartment houses, the consultant's letter says that we utilize 8.5 trips per dwelling unit. If he will perform the calculations that are in that report he will see that we used 7.5 for apartments. But, there's something else that we should talk about--the condominium craze going on in this particular community as well as across all of California. The developer's consultant cites the fact that apartment trip rates have been reducing over the years; I agree with that statement. Why? As apartments become older, and now that we have condominium conversions, the only place that your elderly and your senior citizens have left is the older apartments, and therefore, I am seeing in the San Diego area by personal inspection, my in-laws who are over 80 years, have been transplanted twice in the last six months by condominium conversions, and they moved into one of the statistics in this particular report that was measured in 1978 compared to 1972 and 1974. Older apartments' trip generation has gone down because the characteristics of the renters in age have gone up, their mobility is much less, but that is not the same case for condominiums. Condominiums are much more costly, that's why my in-laws can't afford to live in a condominium--both of them are retired teachers--and their only opportunity is to find an apartment in close by. Condominiums are still generating over 8 trips per dwelling unit; we don't have statistics in San Diego to support that because we haven't studied condominiums, but I would not recommend anything less than 8.5 by my years of experience in this particular profession, and I worked for developers and I worked for cities,on both sides, but I give them the same answer. It doesn't

George make any difference whether I'm working for a developer or working for the city, I'm using the same data base. If we did reduce the condominium generation rate by one trip per DU from 8.5 to 7.5, it would only amount to 640 trips a day, so I don't know why a four page letter has to tell you this, it isn't warranted, it's insignificant, and it's well within the accuracy of the traffic counts that we make upon which these trip generation rates are based on.

Now, let me say something about trip distribution. You have one of the most comprehensive EIR's I think ever submitted to your city. I think your staff will confirm that. We utilized the latest data base. We even went and did computer runs; we requested Cal Trans and CPO to run a computer model of this particular area as part of the entire regional system. And the data base for that was series 4 B - Population/Employment Forecast, which I think have been presented to you by your planning staff. It's the most current estimates of population and employment for the Chula Vista area and this particular area on that particular matter. They ran a computer run of that, I had the pleasure of analyzing that data, and the results of that data is published in the appendix report, the last two pages, and after some 20 years in this business, I don't find anything that we can say is a discrepancy in the trip generation rate, externally. There's going to be about 17 per cent of the trips that are going to go out. Why? For job purposes, for entertainment purposes. All the life desires of the people who are agoing to live here--and I'm not going to be living there--cannot be fulfilled there. Sure, you have schools there, you have a community shopping center of 110,000 square feet, you have a couple banks and you have a couple of auto facilities there, but mostly you have residential opportunities with convenience shopping close by. They can't fulfill all their activities, they're going to have to go outside of this area, and if you look at the trip distribution pattern you'll see that the distribution is spread out.

Without taking any more of your time, I welcome this opportunity to respond to the issue. I think I've demonstrated that instead of using national statistics where San Diego data is buried, one sample out of 28, or one sample out of 18, we ought to use the current data,and to this date, no one has been able to submit any better information than this. And I invite the developer's consultant, like Cal Trans has invited him, to submit information to them, so they can make this report any better. To date he has not done so. Thank you very much.

Williams: Mr. Chairman, I have a question. Mr. George, could you comment on the use of the example of Tierra Santa as a similar type of . . .

George: I don't think it's applicable, because what he's choosing to do is to look at trips that are external only, and relating external trip generation to the number of dwelling units within the area. There are internal trips and there are external trips in any particular area. If there are convenience shopping, schools, these are trips that stay in the area. Some 83 percent of the trips that are generated by the development will stay in that area; only 17% will go outside for work, other recreational, visiting other families, vacations, and what have you, outside the area. So you can't mix up external trip generation with total trip generation done at the residential site. These are two separate and anybody that tries to mix the two is just confusing the pie. These are completely--the published data here is total trip generation by individual land use, at the origin end of the trip. That is a much more succinct, clean way of identifying it.

Skinner: I'm Harlan Skinner, I live at 4234 Lynwood Drive, on one of these curves you've been hearing about tonight. Could one of these men show us on this subdivision map where that road will enter Lynwood Hills. Let's see where that's supposed to go. It doesn't show on there.

Okay, that would go right in that subdivision now. All right, thank you.

What I would like to know, now that's a County road. Now who's going to pay for the widening and taking out of the curves, because it's obvious there's going to be a lot more traffic. It will be overwhelming. Who pays for that? I'm asking you, Mr. Chairman.

ressutti: Doug, will you please tell him?

Skinner: You know the County wasn't very enthusiastic about this the last time.

Reid: I should refer this to the City Engineer, however, the requirements for offsite improvements of the developer, what the City participation is, if any, have not been formulated at this point, so there is no response available at this point to that question.

Skinner: And that isn't the kind of answer we would expect to have on a proposal like this.

George: Mr. Chairman, I might answer that question, if I may, having studied the project. There are 83 homes in that loop on the left.

kinner: What loop are you talking about? Let's show us. Well that Lynwood Drife is one loop after another. I'm acquainted with the man who built that road so I know a little bit about that.

George: There are 83 homes in this particular area.

Skinner: Being proposed. Now we're getting somewhere.

George: Anyone from this point on, if he wants to get down to Bonita Road and 805, this is the wrong way to go, because it's too slow in speed. I agree with you it's curvalinear, it's narrow, that's why our estimates show that the amount of traffic over here is unlikely to be about 180-200 trips a day when the development is fully developed.

Skinner: Yeah, but after it starts and that traffic does go down there, who's gonna . . .

George: It's highly unlikely that 200 trips a day is going to be even noticed on that particular street.

Skinner: That's what we were told when 805 went in, you know, there was going to be nothing to it. Now you can't live within a mile of it. All right, thank you.

I'll ask another one, Mr. Commissioner. Who is going to be responsible for the traffic policing on that road. You know we just have one or two Sheriff's cars covering that whole area and we're having enough problems with that road as it is now.

Pressutti: Some of the things you are asking as questions will be embossed forever into this EIR with appropriate answers by staff. And that's exactly the kind of

Pressutti: questions we would like to have you raise, because the EIR is not complete. Your questions are very apropos but the answers at this moment, I don't have, and again I turn to staff.

Skinner: All right. I think that's important.

Reid: You are referring to police protection and maintenance up there? If the road is in the County it will be the responsibility of the County Department of Transportation, Public Works, and Sheriff Department.

Skinner: That's the way it is now, but when the subdivision is apparently under the control of the City of Chula Vista starts feeding in there and we have to put up with that, who's going to say that. . who's going to take care of it.

Reid: It would still be the County responsibility, unless it was annexed to the City then it would be the City's responsibility.

Skinner: Um-hmm, and I don't think some of those people are very enthusiastic about that. Well, okay, I want to ask you another one. In order to take care of that traffic there's going to have to be a question of relocation of water, electric and gas lines. You know when they feed into your house. With that increase in traffic, it's a two lane road now. Okay, as that traffic speeds up and increases in quantity, then it's going to be necessary pretty soon to widen that road. Now that means somebody like myself whose water meter--it's right on the edge of the pavement now. Okay, the telephone pole that provides the access has been there for 25 years, strictly satisfactory, it's going to have to be moved. And than the driveway that I enter my estate on, who's going to take care of that grading? Do we pay for that, just because somebody wants to put in a new subdivision over here. I mean, it's expensive to put in a grade on a driveway and to pave it or brick it, or whatever you do, and I think that's a question that should also be considered if you're going to go ahead and do this and expect to soak it up, or whatever you call it. And then another question is, who's going to pay for the traffic lights that will have go in on Bonita Road. That will be a four way deal. The traffic gets heavier there--I'm not telling you anything. If you put in these five or six thousand people, most of them are going to come this way. Who'd want to go on "H" Street. They'll want to take the easiest and shortest way out.

Those are the questions that we would appreciate some kind of definite answers, some commitment from your group. If you're going to go ahead and shove this down our throats I think it will be a little easier for us to live with. I thank you.

Pressutti: Mr. Skinner. Our role is somewhat different than shoving things down people's throats. We don't do that. We're simply trying to see that there is a document that poses questions like yours and that the engineers and others have looked at those questions and the developer has to address those questions when he submits a final plan. And we're very happy to have your information and it will be incorporated into the document.

Watrous I'm Marjorie Watrous, I live on Holly Way. I came late, for which I apologize and I realize that I haven't heard everything. However, I understand that nothing has been said about the light problem, of the cars which now go up the hill. I live on Holly Way in a position that

Watrous the lights from the cars do go into our living room and bedroom, but it's not to any extent during the evening that it makes any difference now, but it most certainly would if this became as busy as it looks as if Lynwood Drive could become. Not to mention the fact that there really is a great deal of noise since 805 has gone in. We are, right at, in the past, it's calmed down quite a bit with some of us taking a little action with the authorities, but we have had quite a bit of problem with the dune buggies and this kind of thing on the vacant land. So we do know, where I live, and certainly a lot of the other people do, who live in the perimeter of the area, do have a good deal of noise. Now. noise arises and we are high, so even if you, the entrance into this newly to be developed is not clear up at the top, it's going to be very bothersome. The light pollution was very very bad at a development down in the valley that you probably heard all too much about in the past, and you did do something about that, but that was really terrible for us, but it's been subdued a lot. That's off the subject, to some extent, but I wish you would consider that. I do think people have a right to improve their land but I really don't think they should do it in a way that really impinges on the rights of those people that have put their investment there and call it home. Thank you.

Pressutti: We have a problem in finalizing this document. I think I took notes carefully, there's the problem of the exit, or mitigating the problems of the exit on Lynwood Drive; there's the matter of sewage and the impact that this and subsequent development would have on the problems of sewage; energy, flora, and after while we heard some problems of fauna preservation, including vernal pools; the drainage problems and siltation--fine words--septic fields and leaching problems which could be generated by the grading; grading and control of erosion, during the interim . . until the area is built up; soil pollution, dust, and noise that's involved in construction; correlation with the spirit of the Hillside Ordinance if not the specifics; cooperation of efforts with the County in mitigating many of these impacts; projected regional projects and their cumulative effect or impact on the environment; seismicity, or whatever that is (I know what it means, but the pronunciation the gentleman used was very, it was almost poetic); the matter of aesthetics; the size, width and the grade of "H" Street; noise abatement; traffic light abatement, lights from traffic impinging on people in their homes, blocking their television sets; the clarification and identify and clarification of conflicting and misleading items, such as numbers of dwelling units, traffic estimates, trip generation rates; required offsite funding, improvements and funding, whether it's going to be by the individual, the County, the City, shared; police protection and maintenance; relocation of water, gas, power lines and other service installations of people who have been in the area for a long time if you widen roads; traffic lights and who's going to install them and where they should be. With that many--that much input into an EIR and it's all on tape, my recommendation, and I'll open it up to the Commission for action, is that we postpone action on this EIR until October 10th, and have it brought back with such comments from the Planning Department and their staff as necessary to at least address these items that were brought to our attention this evening.

Reid: Mr. Chairman, I did discuss the date for consideration of the final EIR with the consultant and October 10th was the appropriate date for them, also. I would like to point out that many of the things that you identified or were concerns identified during the public hearing are not issues that are appropriately discussed in the EIR, but will be during the consideration of the Section Area Plan and tentative subdivision.

Pressutti: I think, however, it will be necessary to, at least, itemize these specific comments with some statement to the fact this will be addressed when we address the plan, this will be addressed when we address the plan, otherwise there is the feeling, and I sense it, that people put input into the Commission's deliberation and it's meaningless.

Reid: Certainly all of the testimony in the form of a transcript will be in the final EIR and we will respond to each item.

O'Neill: Mr. Chairman, I've asked this question before, at different times over the past couple of years, but I'll ask it again. Can an EIR be said to have been prepared in accordance with CEQA if satisfactory mitigation for adverse impacts has not been proposed.

Reid: Yes, there definitely are impacts which cannot be mitigated. If those impacts are identified in a particular project, in order for the Planning Commission or the City Council to approve the project then they must make findings of overriding social or economic consideration to approve it with those adverse effects.

O'Neill: They do have to refer specifically to those adverse effects and give overriding reasons for . . .

Reid: That is correct, and prior to your consideration of the plan itself, we will formulate for you those findings on each of the impacts and where appropriate, and if appropriate, will make recommendations for overriding considerations.

Pressutti: I'm waiting for action from the Commission. I do recommend, however, that we postpone it, but I would rather it appeared as a motion from the Commission.

R. Johnson: Mr. Chairman, I would move that we postpone this hearing until October 10th.

O'Neill: Second

Pressutti: All in favor, cast your votes; or just cast your votes, even if you're not in favor. (The motion carried unanimously.)

Reid: Mr. Chairman, may I have a clarification of that. I believe the phrase was was to postpone the hearing. I believe the hearing . . .

Pressutti: No, it would be a new hearing. I closed the hearing. If, if--point of order, and I would take guidance, if we have to have the hearing continued, then I would have to reopen the hearing, but I think it will be new hearing, unless I am wrong. I could be wrong, I have been wrong once before.

Harron: Mr. Chairman, it would not be a new hearing. It would be . . .

Pressutti: Continuation of the hearing?

Harron: No, the hearing is closed. It would be action on, a vote on whether the final EIR has identified all the potential impacts.

Pressutti: Okay, it would not be a hearing, the next time, it would be consideration of the final EIR to take place on October 10th.

Johnson: Yes, I would move that.

erson: I think that's discretionary with the Commission. It's the staff's recommendation to you that you close the hearing and consider the adequacy of the RIR for final adoption on October 10th. If you think you want to hear additional testimony on October 10th, then, with the City Attorney's permission, it would be my recommendation that you reopen the hearing now and continue it to October 10th.

R. Johnson: Mr. Chairman, I think we have had nearly two hours of testimony and I did not, or I do not really want it continued; I think to take action at that time on October 10th.

Pressutti: Is there a second? Okay. Should we revote the issue with that consideration or do you think we have had--that that was your understanding when you voted.

Johnson: That was my understanding.

Pressutti: That we will not have another hearing, it will simply be an open discussion of the Commission and a determination of the adequacy of the EIR at that time.

O'Neill: I think, Mr. Chairman, though we have left some little things without response here this evening and it would appear to me that these people should have an opportunity to respond to any mitigating measures or other particulars that are brought out. I don't think we'd serve any purpose by going through another two hours of what we went throught what we went through here tonight, although this was valuable. But I do think that if there is additional information brought in that they should have an opportunity to speak to it.

Williams: I would certainly concur with that and what was suggested a minute ago was not what I thought I voted on. I thought I was voting for a continuation.

Pressutti: I have to retract myself. Have we voted yet on this issue?

Yes.

Pressutti: And it passed. Now according to Roberts Rules of Order I have to do something.

Harron: Mr. Chairman, may I make a suggestion. Move to rescind the prior motion and vote on a motion that's made clear to everyone.

Pressutti: I was going to suggest that if someone would move that we rescind the prior motion and vote on it and get that off the table, then we'll bring a new subject to the table.

Williams: I would so move.

O'Neill: Second.

essutti: We're now voting on a rescinding of the prior vote, which would make it null and void. Yes means that whatever we did before, we did not do.

(G. Johnson voted "No"; Williams, O'Neill, Pressutti, R. Johnson and Stevenson voted "Yes")

Stevenson: We've dealt with any variety and number of controversial EIR's over the last few months, what is the normal procedure? It seems to me we have always taken testimony, closed the hearing, and reviewed the final EIR as it was put before us with no further hearings, which could go on forever if we kept hearing case after case after case. What has been the normal procedure in the past?

Reid: The normal procedure has been to close the hearing, staff and consultant then prepare the final report, which is brought back for consideration by the Planning Commission without additional public hearing. One of the reasons for that is that if the hearing is continued, or there is a new public hearing, then there is the possibility of new input at which point we'd have to go back to the consultant and legally have to prepare another response.

Peterson: And that could go on and on and on, for as long as you continue the hearing. At some point you have to terminate it.

G. Johnson: Mr. Chairman, I think the thing to keep in mind is that we are not voting yes or no on the project, we are just voting on consideration of the EIR and the input from the public was made tonight and we will read that and consider that at our October meeting, if we so vote, and then the public will also be allowed to vote on the project in any of the future public hearings.

R. Johnson: Mr. Chairman, I would still move--I don't think I got a second before--but would move that we hear the final report on this on October 10th.

G. Johnson: I'll second that.

Pressutti: It is moved and seconded that we consider--receive the final EIR from staff on October 10th, and in closed session--not closed, but not a public hearing--determine whether it is adequate, and act on it at that time. That's the correct vote, any comments?

Williams: Just one comment. It seems to me that the concern of the Commission, if I read it correctly, was that we would continue to hear the same kinds of comments and discussion in a public hearing, and the concern of the staff, if I read it right, was that we would hear something new, and I would certainly be in favor of being open to hear something new, if it's appropriate and it's on the mark and if it has an impact on the EIR.

Pressutti: I think we should cast our votes and see what comes out of the water.

Votes were cast as follows:

AYES: R. Johnson, G. Johnson, Pressutti and Stevenson
NOES: Williams and O'Neill

Pressutti: Okay, it passes, that we will receive the EIR and make a determination on its effectiveness at the next, at the meeting of October 10th, and it will not be a public hearing.

12.0 RESPONSE TO COMMENT ON DRAFT EIR

12.1 Response to Written Comment

Otay Municipal Water District

The dimension of the main transmission line has been changed to 18 inches in the Final EIR.

John Macevicz, Chairman, Environmental Control Commission

The fault traces are considered to be a potential hazard to development. Although trenching operations have not, thus far, located any traces, structural reinforcement is suggested as a mitigation measure. The Soils Engineer further recommends that additional testing be made for fault traces during the grading and construction phases as a safety precaution. A supplemental trenching report has been added to the final EIR.

Grading (landform modification) is addressed in the EIR as a significant and only partially mitigable impact of the project. The height of cut-and-fill slopes is significant in several areas of development. A comparison of the project to the goals and objectives of the hillside ordinance is made in the EIR. The potential problems with drainage outlined by Mr. Macevicz are discussed in the Drainage Pattern Section (3.7) of the EIR.

Donald K. Atkinson

The location of the junior high school site is established by El Rancho del Rey Specific Plan. The creation of a building pad for the school would involve a large amount of cut and fill. The impact of this grading on landform and aesthetics is addressed in Sections 3.2 and 3.13, respectively, of the Final EIR.

Sweetwater Union High School District

No response necessary.

San Diego County Archaeological Society, Inc.

The consultatation of a qualified paleontologist will be required as part of the mitigation measures for the paleontological material, as well as the three sites which have the "more contemporary shell" associated with them.

Subsurface testing of any site to be capped will be considered during the design of the archaeological mitigation program for the property. The advantage of salvage vs. preservation are addressed in the EIR.

Charles Strong, Federhart & Associates

The majority of the points brought out in the letter from Mr. Strong was repeated during his testimony at the Planning Commission meeting on September 12. The reader is referred to the Response to Public Testimony, which follows this section for a discussion of the points made by Mr. Strong; the issues are covered in a response to his testimony, as well as testimony presented by Mr. Stephen George, the Traffic Consultant for the EIR.

The only issue not brought out during public testimony was that of Route 125. The effect of construction of Route 125 was not considered appropriate and ruled out by the Traffic Consultant in his analysis. This decision was based on Series IV-B calculations made by CPO/CALTRANS, which failed to demonstrate the necessity for construction of Route 125, partially due to the fact that excess capacity exists on I-805. Furthermore, extensive studies done in the past have failed to support the need for Route 125. The question of Route 125 will be considered again as Series V calculations are generated by CPO/CALTRANS in the future. The situation may change, based on these new conclusions, but for the present, future construction of Route 125 has been considered in the EIR to be unlikely.

12.2 Response to Public Testimony

Harvey Warren

No connection to Vista Nacion Drive is proposed as part of this project. The alternate access to the Rice Canyon SPA will be provided by a connection made to Lynwood Drive, west of the intersection of Lynwood Drive and Vista Nacion Drive; the proposed Street "A" will make the connection.

The proposed residential area west of Lynwood Hills will be comprised of three, rather than four, tiers of homes, according to the latest revision of the tentative map. The final plan will be presented to the City Council for approval. Therefore, the "final" design has not been determined at this time.

The connection of Street "A" to Lynwood Drive is considered to be a desirable aspect of the project. The placement of the intersection at the curve on Lynwood Drive was selected for several reasons. An intersection at this point provides maximum line-of-sight distance for drivers egressing from the proposed development onto Lynwood Drive, which will minimize safety hazard. The connection is made outside of the main concentration of homes within Lynwood Hills and at the point where the grades are best matched. No homes are located on the south side of Lynwood Drive at this point, which might otherwise interfere with connection.

The transportation study estimates that 180 average daily trips (ADT) will be added to Lynwood Drive, as a result of the proposed project. A check with the County Department of Transportation revealed that the most recent traffic count for Lynwood Drive (2/5/75) is 370 ADT westbound. The proposed project would increase this by approximately 25 percent or by 90 trips westbound from the project. Even with this increased traffic, it is unlikely that the capacity of Lynwood Drive would be exceeded. The Transportation Office of the Integrated Planning Office of the County of San Diego estimates that a two-lane light collector can comfortably carry up to 5,000 ADT. Even though Lynwood Drive is not improved to the two-lane light collector standard, it is obvious that Lynwood Drive, even at half the capacity of a light collector, would not be significantly impacted.

The alternative of providing another access for the single-family residences via a connection to East H Street in the area of lots 172-175 is not feasible. The intersection would be too near the East H Street/I-805 interchange, creating a potential traffic-flow problem. Furthermore, the street would not function as a real alternate access for emergency vehicles as the connection to Bonita Road via Lynwood Drive would provide. The other alternative of forming a cul-de-sac from Street "C" would also preclude the objective of creating an alternate access to the project for emergency vehicles.

The EIR makes reference to the availability of water to the project as adequate. This conclusion is based on the present conditions. The Arizona Project will affect the long-term availability of water, but the degree to which it will affect this project cannot be predicted at this time.

The capacity problems being experienced by the Point Loma facility are described in Section 3.21 of the EIR. The impact of the project on local utilities and energy consumption is addressed in Section 3.20.

Rolan Fornataro

The runoff occurring over the slopes below Lynwood Hills does not represent a significant volume of water. The Fogg Report estimates the total runoff from these drainage basins to be about 107 cfs. after development. Runoff from the slope below Lynwood Hills will be collected by a combination of subsurface french drains located in the slope and the storm drain system associated with interior residential streets. A discussion of the french drain system has been included in the Water Quality Section of the Final EIR. Conventional drainage facilities will be prepared by the applicant and subject to approval by the City Engineer, which is considered to be adequate mitigation.

Although the french drain system will help to control runoff, it has been primarily designed to intercept any sewage effluent from existing septic systems above the slope to which Mr. Fornataro refers. Horizontal percolation of effluent could come to the surface on this manufactured slope in the absence of mitigation. The drain system has been designed to intercept any effluent before it reaches the surface of the slope. It is assumed that these drains will connect with the sewer system to dispose of any effluent that may be collected. It is assumed that Mr. Fornataro is referring to erosion and siltation when he uses the term, "soil pollution". A discussion of these potential hazards, as well as recommendations for mitigation, is contained in Sections 3.2, 3.4, and 3.6.

The problems associated with dust production during the grading and construction phase are brought out in the air quality discussion. Mitigation measures are also proposed in this section.

The comments made concerning the landform modification required by the project are valid. The finding of the EIR is that the project will have a significant impact, which can be only partially mitigated. The reference to houses along the perimeter of slopes above East H Street was intended to show that homes could be fitted to slopes rather than to imply that the objective is to hide the slope. This allows structures to conform more closely with existing slopes rather than vice versa. Regional impacts of the project have been addressed throughout the EIR. The regional implications with respect to traffic were some of the most critical. However, the traffic analysis did not consider the impact on Lynwood Drive to be significant.

Charles Strong

The trip generation factor for single-family dwellings has been proven to be too high after the traffic consultant reworked the original data from CALTRANS. An error in the calculations made by CALTRANS result in a change in trip generation to 11.8 rather than 13.8 ADT. Trip generation was based on standards developed by CALTRANS because CALTRANS factors are considered to be the most comprehensive, up to date and applicable for the San Diego area, including Chula Vista.

The traffic study in the EIR utilizes two different trip generation factors for multi-family dwelling: 7.5 ADT for apartments and 8.5 ADT for condominiums. Generation from apartments is considered to be less than condominiums, due to the different economic and social lifestyles of occupants. Residents of condominiums are usually better off financially and can afford to make more trips. Apartment dwellers are frequent in the elderly or low-income brackets and, generally, are expected to take generated fewer trips.

The 17.9 percent estimate for external trips is based on CPO/CALTRANS information which, as discussed previously, is considered to be the most appropriate standard. Mr. Strong's comparisons do not appear to be applicable as only external trips are addressed; these are then being related to number of dwelling units in an area. The 13.8 (which is really 11.8) ADT per single-family dwelling used in the EIR includes internal, as well as external trips; some 83 percent of the trips will stay in the area, while 17 percent will leave the area for job or entertainment purposes. Therefore, as the 13.8 ADT generation factor (11.8) includes internal and external trips, it will naturally be higher than the external trip factors cited by Mr. Strong.

Expansion of "K" Street, north of its intersection with East H Street, is considered necessary to promote movement of traffic through the intersection and allow for left-turn pockets into the condominium developments. The proposed SPA plan already has anticipated this need by widening "K" Street for a distance. The recommendation of the traffic analysis is to continue this widening to the second condominium complex entrance.

The conclusion of the traffic consultant and the City of Chula Vista is that there is enough potential for future traffic to require the developer to dedicate right-of-way for eight lanes; only six lanes will be constructed at this time. In the event the design capacity of East H Street is exceeded, sufficient right-of-way would then be available to add two lanes.

John Reeves

The Biology Section of the EIR has been changed to reflect the sensitivity of the vernal pool. The preservation of the vernal pool will be a required mitigation. The Project Engineer has proposed to redesign the slope below the junior high school site to preserve the vernal pool area.

The transplanting of rare and endangered species is suggested as a mitigation alternative. Transplantation is not the most desirable mitigation method and is presented as an alternative to in-situ preservation. The EIR recognizes the problems associated with transplanting, as well as the uncertainty of long-range success.

The Project Alternatives Section of the EIR addresses the reduction of landform modification in the discussion of the reduced density alternative.

Mitigation for the seismic hazard is described in the Geology Section of the EIR, as well as a preliminary geotechnical investigation, which is referenced and appended to the report.

Mitigation measures are discussed with respect to drainage. Two alternatives, open channel and culverts, are discussed for handling the runoff through Rice Canyon. In addition, methods are suggested for preventing siltation problems associated with drainage structures. The impact of the project can be reduced to an insignificant level through either one of these designs. The final design and specifications will be subject to the approval of the City Engineer.

The EIR does discuss the siltation, which would be generated by undeveloped property at the far end and even further east of the property. Mitigation is also suggested; a retention basin is recommended at the eastern boundary of the property to decrease the runoff rate and trap sediments before they enter the system.

Mr. Reeves apparently misunderstood the comment concerning the aesthetic value. The statement made by Mr. McIntyre was intended to attribute aesthetic value to the property in its present undeveloped condition. The artificial slopes are not considered to be a valuable asset. In fact, the EIR identifies landform modification as a significant but only partially mitigable impact.

The configuration (cross-section, alignment, and grades) of East H Street is limited by topographic and design constraints. This street must be able to handle a large volume of traffic. In order to achieve this objective, the number and radius of curves must be minimized, as well as avoiding large gradient changes.

East H Street will not carry a rural volume of traffic and, consequently, cannot have rural characteristics. The location of the existing East H Street/I-805 interchange, the exit point at the southeastern corner of the project and the slopes forming the northern wall of Rice Canyon, essentially predetermine the alignment. There is, in fact, a gradient difference as the road runs along the Rice Canyon rim down to the canyon floor and begins to rise again at the eastern end of the property.

The Project Alternatives Section is considered to be adequate. The planned land use for this property has been determined as part of the El Rancho del Rey Specific Plan, which was itself the subject of an EIR. The primary objective of this EIR for the Rice Canyon SPA is to evaluate the specific land use proposed by the developer; a land use which substantially conforms to the Specific Plan recommendations. Alternatives are described in the EIR and do include all feasible alternatives to the project. The advantages and disadvantages of each are described.

Dave Johenk

The aesthetic impact of the development on the views of adjacent residential areas is addressed in Section 3.13 of the report. The impact of the project on the aesthetics of the areas is considered to be significant and only partially mitigable.

The conclusions drawn in the EIR, with respect to noise, are based on the Noise Element of the Chula Vista General Plan. The Noise Element establishes acceptable and unacceptable noise levels for residential areas; 65 dBA is the maximum allowed. All residential structures can be located within acceptable noise levels, according to the noise level contour maps contained in the EIR. This is not to say that traffic noise will not be annoying to future residents, but rather that it will conform to applicable acoustical standards.

Mike McQuillan

It is important to point out that the EIR has been prepared by an independent consultant in cooperation and under the direction of City staff. The developer was not involved in the formulation of this report nor the conclusions which have been made regarding the project's potential impact on the environment.

The impact of the project on Lynwood Hills residents, as well as other adjacent developments currently surrounding the project site has been addressed, where appropriate, including the following sections: Land Use/Planning/Zoning; Noise;

Transportation/Access; and Aesthetics. A discussion of the potential hazard posed by horizontal percolation of septic effluent over the surface of the proposed cut bank below Lynwood Hills has been added to the section on Water Quality (3.7) in the final EIR; a specific discussion of the significance of the problem and a mitigation program, prepared by a soils engineering firm, is contained in a report appended to the final EIR and referenced in Section 3.7.

The convenience aspect of the proposed connection of the proposed Street "A" is secondary to the primary objective, which is a provision of an alternate access for emergency vehicles.

No plans presently exist for the connection of the project to either Vista Nacion Drive nor Vista Coronado Drive. Furthermore, the current project design restricts any future connection to these streets, due to the orientation of future residences across the rights-of-way which would be necessary to accommodate such connections.

Fred Gathe

The necessity of removing the earthern bank from behind Mr. Gathe's residence canot be determined at the present time. As the bank is located across from the proposed three-way intersection, it is unlikely that it will interfere with the line-of-sight at this intersection and require removal.

The impact of the proposed connection to Lynwood Drive has been discussed earlier in response to Mr. Harvey Warren's comments. The effect of the added traffic is not considered significant.

The project itself will not significantly affect the existing noise levels in Lynwood Hills. I-805 is, and will continue to be, the dominant noise source. The proposed development will not, and cannot, change this fact.

With respect to the density question raised by Mr Gathe, the proposed development does not propose lots of .5 to 1 acre around Lynwood Hills, as recommended in the El Rancho del Rey Specific Plan. This fact has been added to the Land Use/Planning/Zoning Section of the final EIR. The development has, however, oriented the largest lots within the project around Lynwood Hills to better blend with existing lot sizes. The impact of the proposed lots adjacent to Lynwood Hills will be reduced by the topographic separation, which will exist between Lynwood Hills and future residences. The impact is not considered significant.

Harlan Skinner

Many of the issues addressed by Mr. Skinner do not relate specifically to the environmental review process, but rather to governmental jurisdictions and obligations. The concern expressed for future improvements of Lynwood Drive and the associated adverse consequences to current residents do not appear relevant as the project is not expected to create the need for improvements along Lynwood Drive. The question of who bears the cost for these improvements is not within the scope of this EIR and should be addressed to the various public agencies responsible for such matters.

Marjorie Watrous

It is unlikely that traffic leaving or entering the project site via the proposed connection to Lynwood Drive would affect this resident. Traffic from the proposed project will not generally be travelling east, up the hill, on Lynwood Drive, with the exception of trips which are made by residents of Lynwood Hills. Most turning movements will be toward Bonita Road from the proposed Street "A". Therefore, no change in the existing light problems presently experienced by Ms. Watrous would occur with implementation of the Rice Canyon SPA.

The issue of noise has been addressed in the EIR and in response to similar questions raised in public testimony.