

FINAL
ENVIRONMENTAL IMPACT REPORT
FOR BONITA EAST
EIR-79-7

Issued by the
Environmental Review Committee
February 22, 1979

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prc
PRC Toups Corporation
2223 Avenida de la Playa La Jolla California 92037
Telephone (714) 454-9162
A Planning Research Company

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- B Letter from Local Agency Formation Commission (LAFCO)
- C Geology/Soils Report
- D Grading Concept
- E Biology Report
- F Archaeology Report
- G Noise Calculations
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- J Fire Protection Service Letter - City of Chula Vista
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- O Water Service Letter
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INTRODUCTION

1.1 PURPOSE

This Environmental Impact Report provides a detailed review and analysis of the potential environmental impacts that would result from the implementation of the proposed Bonita East development. This report is informational in nature and is intended for use by the City of Chula Vista and other responsible agencies in evaluating the potential environmental impacts of the proposed project. The EIR also contains an analysis of mitigation measures and alternatives to the project.

The EIR has been prepared in accordance with the requirements of the City of Chula Vista Environmental Review Policy, and complies with all criteria, standards and procedures of the California Environmental Quality Act of 1970 (PRC 21000 et. seq.) and State EIR Guidelines (Administrative Code 15000 et.seq.).

This report has been prepared by the Environmental Studies Group at PRC Toups Corporation, La Jolla, in cooperation with the Environmental Review Coordinator of the City of Chula Vista.

1.2 EXECUTIVE SUMMARY

1.2.1 Project Description

The proposed Bonita East development would provide 151 residential units and 20,000 square feet of commercial space. The development would be located on 18.14 acres in the Bonita area at the intersection of Bonita Road and Otay Lakes Road. Consideration of visual quality has been incorporated into the project design through plans for extensive landscaping and construction of exteriors using materials intended to create rural atmosphere.

1.2.2 Environmental Analysis

This environmental analysis indicates that landform alteration would be one of the most important effects of the project. An estimated 50,000 cubic yards of on-site cut and fill plus an additional 50,000 cubic yards of fill material would be required during site development. These grading operations are necessary to produce suitable safe roadways and building sites on the property.

In order to make the southeastern portion of the property suitable for development, stabilization of an ancient landslide would be necessary. This would involve major grading operations which, if recommendations of the geological engineer are followed, should sufficiently reduce risk of further movement of the slide area to allow safe development.

Extensive grading would also be required to raise the elevation of the lower portions of the property in order to avoid inundation during a 100-year flood. This should mitigate drainage-related impacts to a level of insignificance.

The land uses proposed for the project site conflict with both the Chula Vista General Plan and the Sweetwater Community Plan. The residential density proposed for the site is not in conformance with proposed or existing densities in adjacent areas. The commercial phase of the development would represent a minor extension of the "strip commercial" development along Bonita Road. Because of its size and location, however, this project would not induce further commercialization along Bonita Road. It would, though, generate substan-

tially more traffic than would the residential area.

The annexation of the property by the City of Chula Vista and construction of the project would add urban character to the Sweetwater Valley. Various aspects of the project design, such as extensive landscaping, construction of a five-foot earthen berm along Bonita Road and Otay Lakes Road and use of western exterior designs, would reduce the aesthetic and land use related impacts of the project.

Noise levels on the project site currently exceed City of Chula Vista standards for residential development. Measures such as construction of five-foot earthen berms along the major roadways and satisfaction of state noise insulation requirements, should reduce both interior and exterior noise to acceptable levels.

The project would increase the demands for utilities, energy resources and services. All utilities and services are currently available to serve the project. The incremental increase in demand is not expected to overburden existing urban support systems. In order to provide adequate water flows for the commercial development, however, greater water circulation capacity would have to be installed to serve the project.

The Bonita East project will generate approximately 1,100 daily residential trips and 3,500 daily commercial trips. These trips will enter and leave the project site via four access points: two commercial access points, one on Bonita Road and one on Otay Lakes Road; and two residential access points set further back from the intersection, one on Bonita Road and one on Otay Lakes Road.

The project generated trips will be generally distributed 50 percent or 2,300 trips west on Bonita Road, 40 percent or 1,840 trips east on Bonita Road and ten percent or 460 trips south on Otay Lakes Road. A detailed intersection capacity analysis of the Bonita Road/Otay Lakes Road intersection was performed during the three peak periods of the day as specified by the Chula Vista Traffic Engineer (7-8 a.m., 3-4 p.m., 6-7 p.m.). This analysis showed that the project-generated trips would not have a significant adverse effect on the operation or capacity of the existing intersection, even during the peak periods.

The roadway capacity analyses of Bonita and Otay Lakes Road were based on ultimate capacities of 25,000 ADT for each of those roads. The existing traffic counts for Bonita Road were 20,800 ADT west of Otay Lakes Road and 13,900 ADT east of Otay Lakes Road. These 1978 counts were provided by the Chula Vista Traffic Engineer in January - February, 1979.

There were several conflicting existing traffic counts for Otay Lakes Road. The City of Chula Vista Traffic Engineering Department provided a 1977 count of 21,800 ADT, a 1978 count of 15,568 ADT and a 1979 count of 19,250, which was extrapolated from a manual count of traffic during one peak hour. The 1978 count for Otay Lakes Road shown on the CPO 1978 Average Daily Traffic Volumes Map is 17,400 ADT. It was generally agreed that the 21,800 figure was in error, particularly since it exceeds the count on the more heavily traveled Bonita Road. The 19,250 figure was finally used based on the fact that it was the most recent and appeared to be the most reasonable number.

Based on the conditions described above, it was determined that the project would reduce the existing Level of Service on Bonita Road east of Otay Lakes Road from A to B; that it would reduce the existing Level of Service on Bonita Road west of Otay Lakes Road from D to E; and that it would not affect the existing C Level of Service on Otay Lakes Road.

While the conditions on Bonita Road west of Otay Lakes Road with the project just exceed the D/E Level of Service threshold, those conditions can be expected to worsen as regional traffic levels increase in the future.

The future (1995) traffic volumes on both Bonita Road and Otay Lakes Road have been estimated to be 25,000 ADT (Doug Reid, February 20, 1979). Included in these projections are trips generated by future developments along Otay Lakes Road such as El Rancho del Rey and Long Canyon Estates. These developments would have a much greater effect on local traffic circulation than would the proposed Bonita East project. All new development in this area, however, including the proposed project, the Assembly of God church and school on Bonita Road, El Rancho del Rey and Long Canyon Estates, would contribute to cumulative traffic impacts in the vicinity until parallel east-west roadways are built.

The planned construction of East H Street to Otay Lakes Road and the completion of the Telegraph Canyon Road improvements (both roadways are parallel to and south of Bonita Road) will greatly relieve the congestion on Bonita Road west of Otay Lakes Road. These future road improvements will provide alternate east/west access for through trips in the general area. Although such an improvement in Level of Service can be expected in the future, the exact timing and effectiveness of the improvements is as yet unclear to all the jurisdictions involved (including CPO, IPO and the City of Chula Vista). Until these off-site improvements are constructed, Level of Service E (unstable flow) can be expected on Bonita Road west of Otay Lakes Road during peak traffic periods whether or not the proposed Bonita East development is constructed.

The project would not directly stimulate growth through the extension of public roads or services. The cumulative effect of this and other projects in the area, however, would be to increase the level of urbanization in the Sweetwater Valley.

A variety of alternatives are addressed in the EIR. The first alternative would construct residential units at a density of ten dwelling units per acre. This development would be in conformance with the overall density specified by the Chula Vista General Plan for the project site. The impacts related to geology, mobile noise and services would be similar between this alternative and the proposed project. By eliminating commercial development on the site, this alternative would reduce the aesthetic impacts of the development and also would generate a lower amount of traffic than would the proposed project.

Strict conformance with the Chula Vista General Plan would further reduce the impacts of development. Impacts related to geology would be avoided by limitation of development on the landslide area in the southern portion of the property. Similarly, extensive land form alteration would not be necessary under this alternative since only low-density development could occur on the hillside portions of the property.

The Sweetwater Community Plan would allow two dwelling units per acre over the entire site. This alternative would further reduce the impacts of development by generating very low traffic levels and by requiring very low levels of public services.

In the final review of the project plan, environmental considerations and economic and social factors should be weighed to determine the most appropriate form of development.

PROJECT DESCRIPTION

2.1 LOCATION

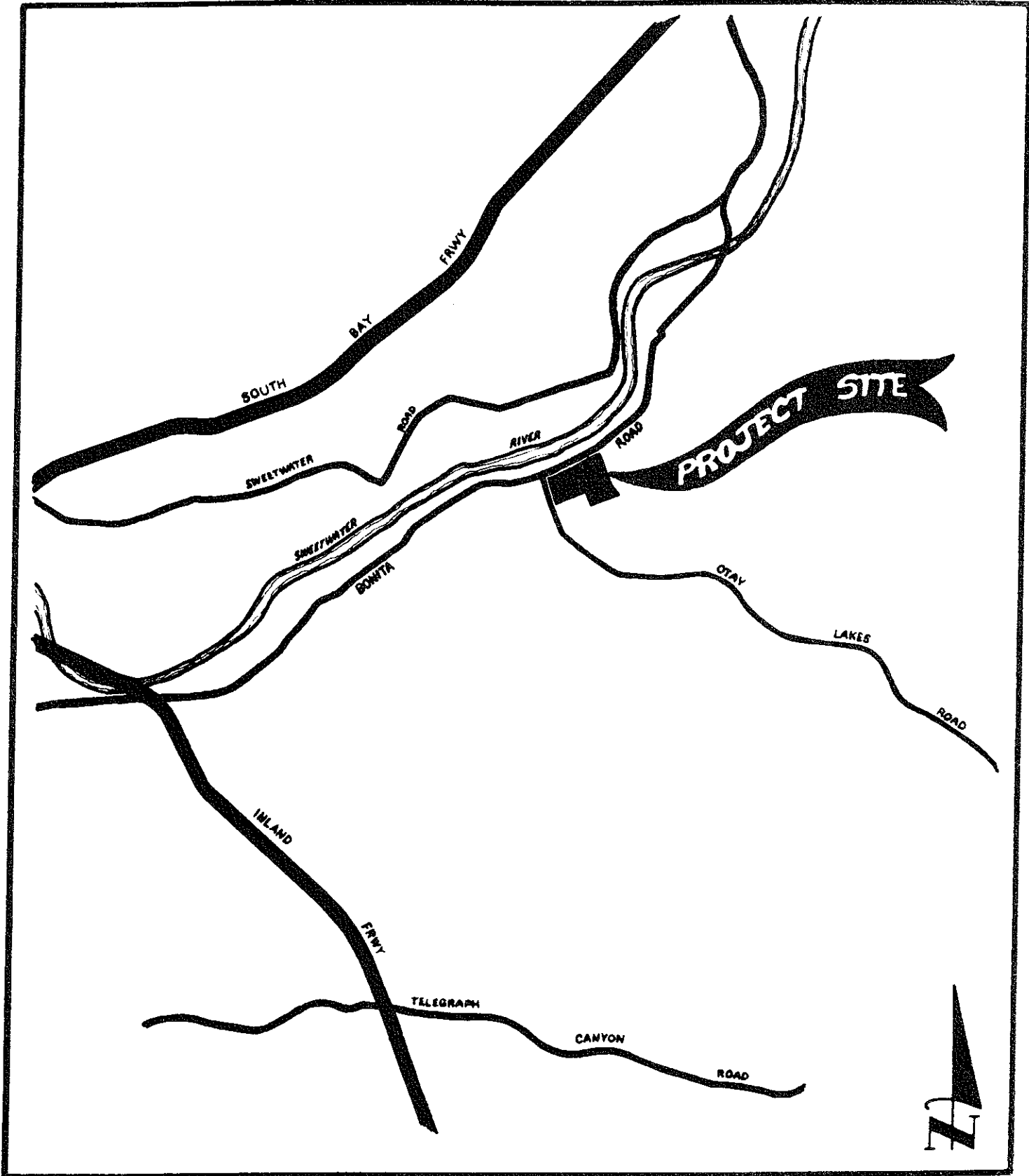
The site of the proposed project, Bonita East, is located in an unincorporated area of the County of San Diego (Figures 2.1-1 and 2.1-2). If the project is implemented, the land would be annexed by the City of Chula Vista. The site consists of four legal parcels which have a total area of 18.14 acres. It is bounded on the north by Bonita Road, on the west by Otay Lakes Road and on the east and south by individually owned lots utilized for single-family dwellings. Most of the project site lies on the nearly flat, alluvial floor of the Sweetwater River Valley. Site elevations vary from a high of approximately 225 feet on a hill near the southern property line to a low of 74 feet near the northwest corner of the property. The topography varies from relatively level to very hilly.

2.2 SITE PLAN

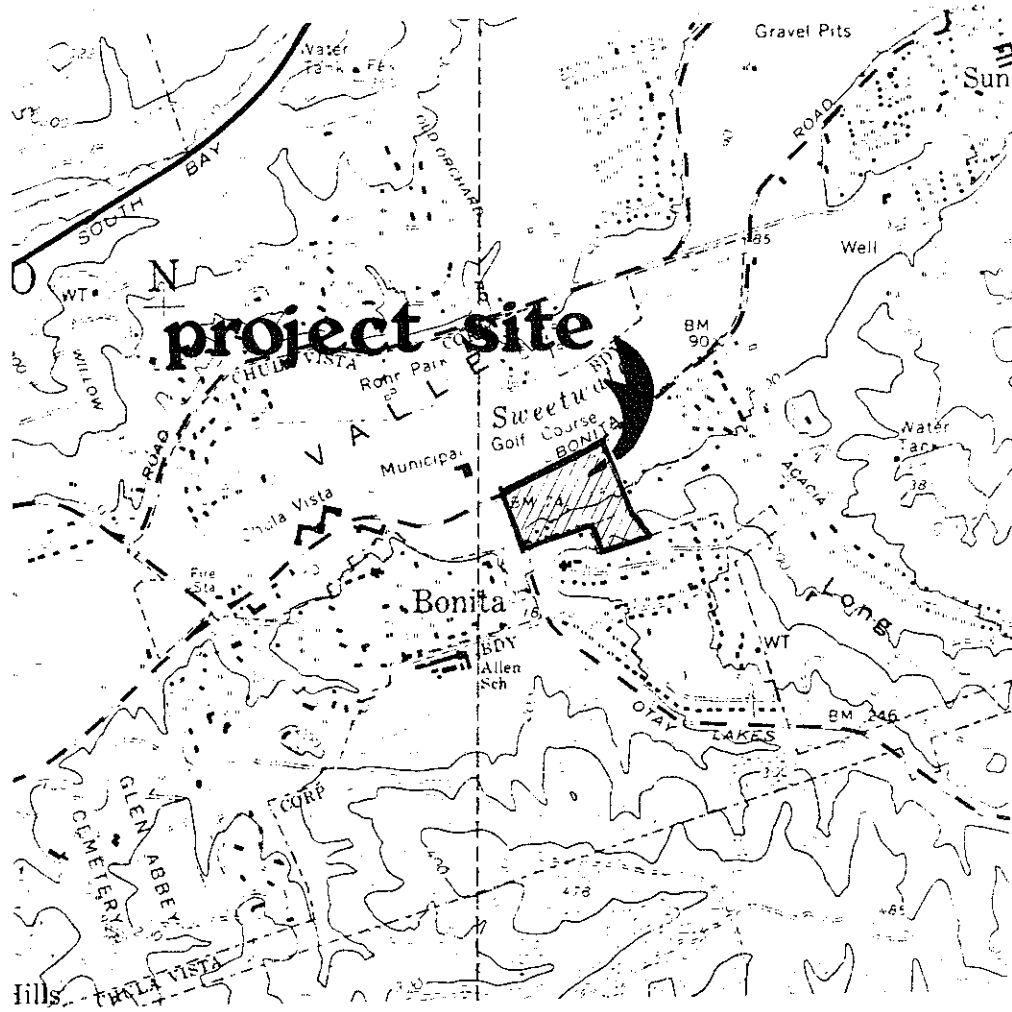
The objective of the proposed project is to provide a 151-unit residential development and 20,000 square feet of commercial space. The residential units would cover 15.14 acres and would consist of one- and two-story single family, duplex, triplex and fourplex condominiums. Each unit would have a private yard area. The focal point of the residential development would be a water-filled open space area.

The remaining three acres at the intersection of Otay Lakes Road and Bonita Road would be used for retail/commercial development. The commercial development would consist of 15,000 square feet of retail lease space, to be divided into shops of approximately 1,000 square feet each. Also included on this three-acre parcel would be a restaurant or financial building of approximately 5,000 square feet.

Consideration of visual quality has been incorporated into the site plan. The residential and commercial areas would be separated by a landscaped "buffer" zone. Substantial additional landscaping would be provided throughout the development. The project has been designed to be visually compatible with nearby development along Bonita Road.



vicinity map



NATIONAL CITY QUADRANGLE



U.S.G.S. Map

2.3 CIRCULATION AND ACCESS

Separate access to the commercial and residential portions of the property would be provided from both Bonita Road and Otay Lakes Road. Roads within the residential development would be two-way, privately maintained and have a curb-to-curb width of 24 feet. Visitor parking spaces have been planned throughout the residential area. Within the three-acre commercial development, 124 parking spaces would be provided.

Pedestrian circulation would be facilitated by sidewalks along one side of all internal roads. Walkways also would be provided between the pedestrian and commercial portions of the development.

3.0 ENVIRONMENTAL ANALYSIS

3.1 GEOLOGY

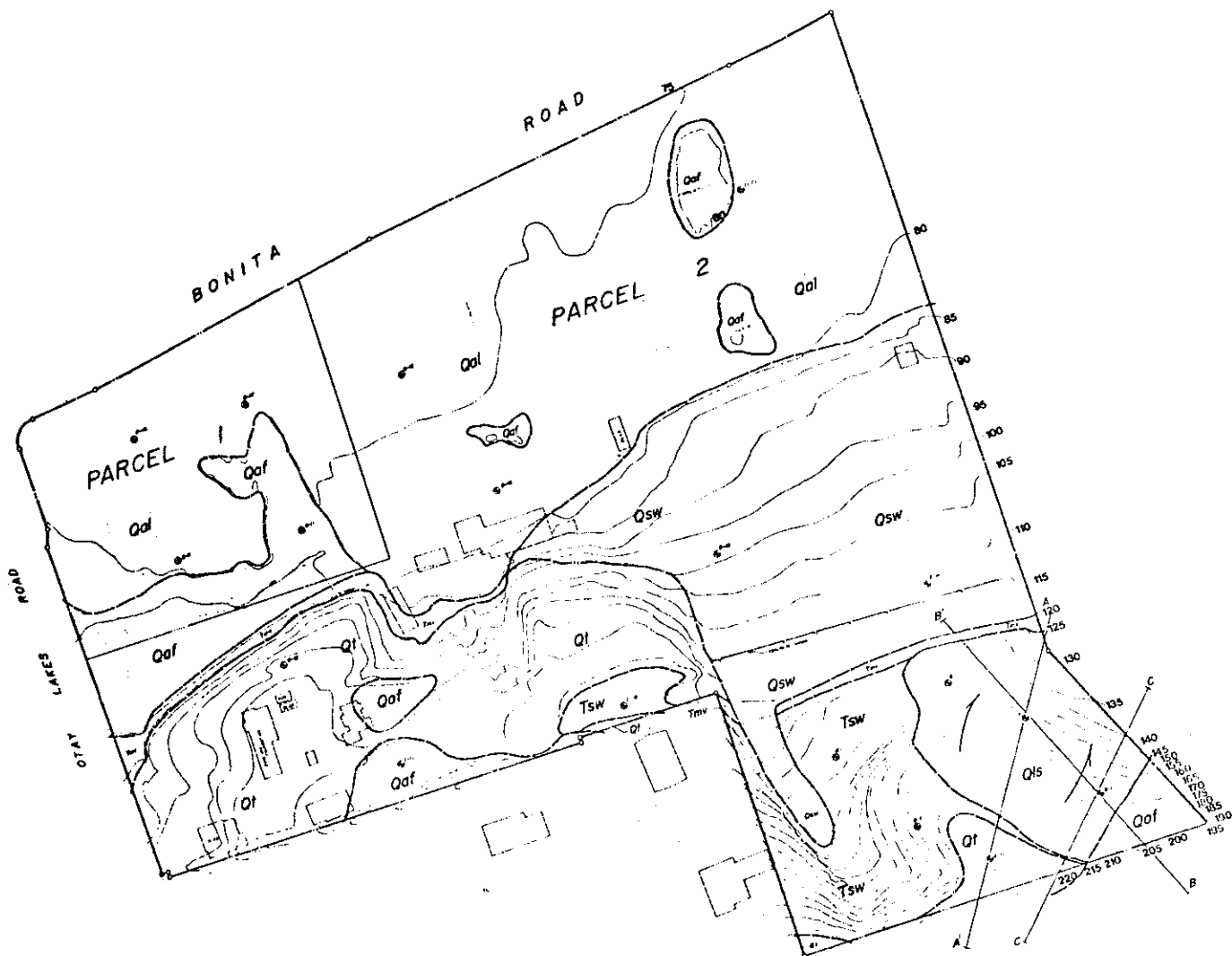
3.1.1 Project Setting

A detailed geology and soils study was conducted in December, 1978 by Geocon, Inc. Their report is included in the Appendix and is abstracted below and in Sections 3.2 through 3.5. The site of the proposed Bonita East development is underlain by geologic formations consisting of Quaternary- to Eocene-aged sedimentary rocks (Figure 3.1.1-1). The earliest unit is the Mission Valley Formation which consists of Eocene-aged, dense, well cemented, silty sandstone. This formation lies below the 125-foot elevation and possesses excellent foundation characteristics.










Overlying the Mission Valley Formation, over much of the higher portions of the site, is the Sweetwater Formation. This unit is Miocene-aged and consists of dense, cemented, gritty, clayey sandstones and silty claystones. It occurs up to the 210-foot elevation. Landsliding has occurred within Sweetwater Formation materials on a hill near the southwest corner of the property. Fill material from the adjacent subdivision to the south rests on a portion of this landslide.

Two types of terrace deposits overlay the Mission Valley and Sweetwater Formations in some areas of the property. In the extreme southern part of the site, the terrace deposits consist of well-cemented, very coarse Pleistocene conglomerates. River deposits of the late Pleistocene are located in the east-central part of the property above about the 100-foot elevation and consists of weakly- to moderately-well cemented, coarse conglomerates.

No known active faults cross the site or adjacent areas. The closest known active fault is the Elsinore Fault, which lies 38 miles northwest of the property. The La Nacion Fault lies about 2,500 feet west of the site and is considered to be potentially active. The Sweetwater Fault, which is also potentially active, lies parallel to and between one and three miles west of the La Nacion Fault. The greatest seismic risk in the area probably comes from the Elsinore Fault which is considered capable of producing an earthquake measuring 7.3 on the Richter Scale. The earthquake hazard for this property is not unusual for Southern California.



LEGEND

-  LOCATION OF TEST BORING
-  EXISTING STRUCTURE
-  GEOLOGIC CROSS-SECTION
-  UNCOMPACTED FILL
-  ALLUVIUM
-  LANDSLIDE DEBRIS
-  TERRACE DEPOSITS
-  SWEETWATER FORMATION
-  MISSION VALLEY FORMATION



geologic map

3.1.2 Potential Impacts

Construction of homes has been proposed for the landslide area. Construction activity could cause additional movement of the landslide in the southwest portion of the site. Such an unconsolidated area is, therefore, not suitable for development unless remedial stabilization measures are taken. Stabilization of the slope could involve disturbance of fill slopes supporting adjacent property. The developers will be required to avoid adversely affecting adjoining property during development.

Southern California is definitely susceptible to seismic hazards. The project site does not lie close to any known active faults and carries no greater risk of seismic damage than most areas of the County. No other geologic hazards pose a significant risk to the proposed project.

3.1.3 Mitigation Measures

In order to stabilize the site of the landslide in the southeast corner of the property, remedial grading would be necessary. The attached geology report indicates that compaction of the slide material and either a stability canyon fill or a buttress fill would stabilize the landslide against future deep-seated failure. The report further suggests that the final design of the remedial grading in the landslide area be reviewed by geologic engineers when complete grading plans become available.

The site may be utilized for the proposed development provided the recommendations of the soil and geologic investigation are followed. Risk of damage to buildings by seismic activity would be reduced by the adherence to the Uniform Building Code. This code has established building design criteria based on the region's seismic potential.

3.1.4 Analysis of Significance

The majority of the site is geologically stable and not subject to substantial geologic risk. However, according to the attached geology/soils report, development of areas in the southeastern portion of the site, where ancient landslides have occurred, involves inherent risks, which may be impractical to eliminate completely. Highly variable soil characteristics may occur in landslide deposits and the location of unstable areas is not always predictable and may go undetected. If the recommendations of the geologic engineers are followed, however, the site would be suitable for the proposed development provided that the inherent risks discussed above can be tolerated.

3.2 SOILS

3.2.1 Project Setting

According to maps compiled by the Soil Conservation Service, three soils types exist on the property (Table 3.2.1-1; Figure 3.2.1-1). The Diablo-Urban Land Complex, 15 percent to 50 percent slopes, overlies most of the site and is not rated for agricultural suitability. Diablo soils tend to be well-drained, moderately deep to deep clays which are derived from soft, calcareous sandstone and shale. Inclusion of this soil into the Diablo-Urban Land Complex indicates that the landscape has been altered through cut and fill operations and leveling for building sites. The clay which is present in this formation has a high shrink-swell potential.

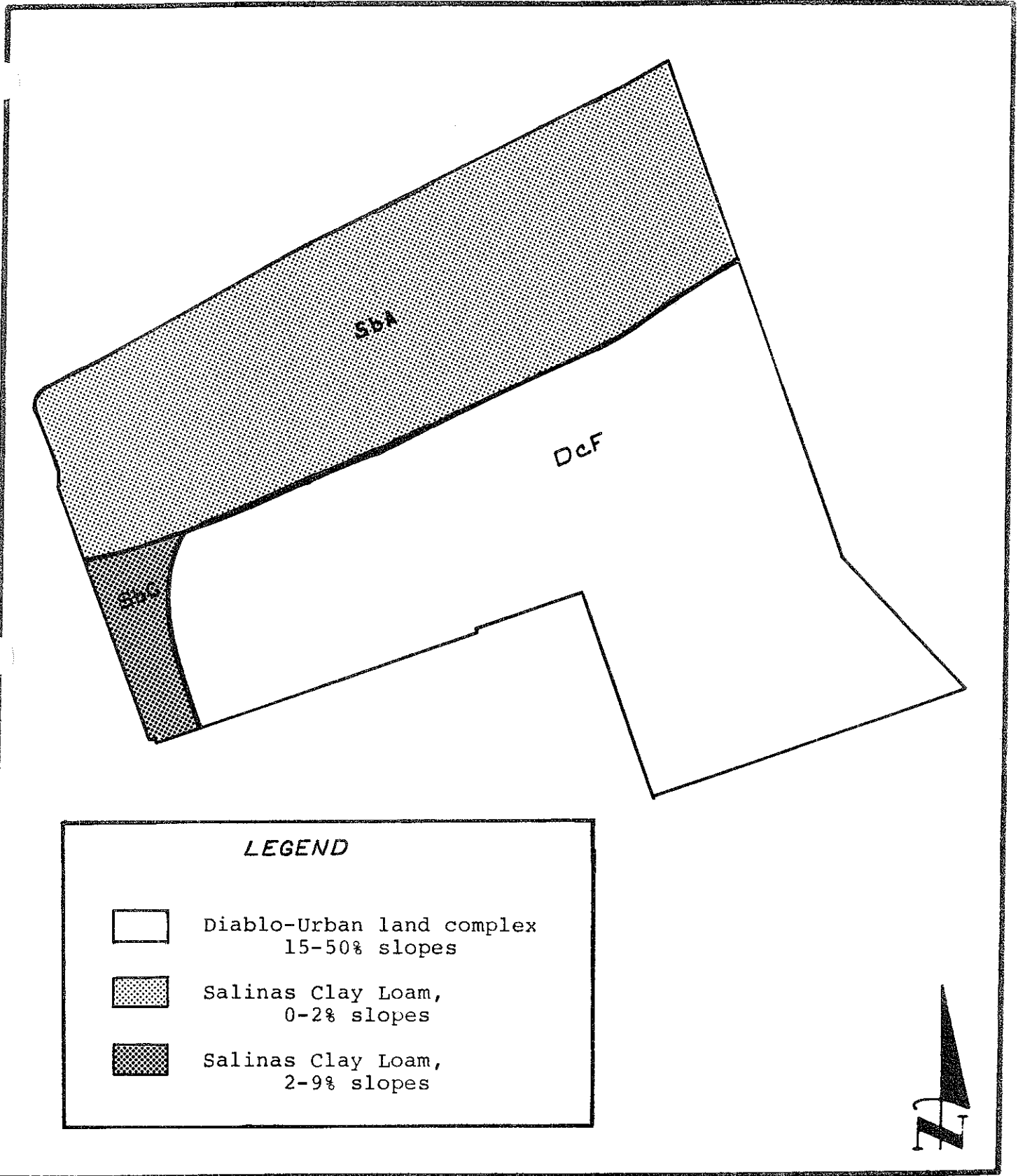
Soils of the Salinas series cover the remainder of the property. These soils consist of well-drained and moderately well-drained clay loams that were formed from sediments washed from Diablo, Linne, Las Flores, Huerhuero and Olivenhain soils. The clays in this soil have moderate shrink-swell behavior. The Salinas clay loam, zero to two percent slope, has high fertility, good drainage and moderately slow permeability. It can support a wide variety of crops. Its capability grouping indicates that it has no limitations for agricultural use. The Salinas Clay loam, two to nine percent slope, is slightly limited for agriculture due to risk of erosion. According to the geology/soils investigation conducted by Geocon, Inc., fill soils also exist on the property. In certain areas in the northern part of the site, soils contain highly organic residues from the dairy farm which used to occupy the site. Fill from adjacent subdivisions covers a small area in the southern part of the site.

Liquefaction is a soil-related geologic hazard which should be considered in the San Diego area. It is the process in which a soil deposit acts as a dense fluid which will flow like a liquid when unconfined. It occurs primarily in loose, saturated sands and silts when they are shaken by an earthquake. Structures located in deposits which liquefy may sink into the ground or be damaged by the movements of their foundations. Due to the presence of large amounts of clay in the soils on the site of the proposed Bonita East development, liquefaction would not be a problem. Clays are very cohesive and do not liquefy in the sense described here.

Table 3.2.1-1

Soil Types

<u>Name</u>	<u>Symbol</u>	<u>Percent of Property</u>	<u>Capability Unit</u>	<u>Storie Index</u>
Diablo-Urban Land Complex, 15 to 50 percent slopes	DCF	55	-	-
Salinas Clay Loam, zero to two percent slopes	SbA	40	I - 1(19)	81
Salinas Clay Loam, two to nine percent slopes	SbC	5	Iie - 1(19)	73



soils map

In the San Diego area, liquefaction is a significant hazard only in the Mission Bay and San Diego Bay areas. (Lee, 1977).

3.2.2 Potential Impacts

Development of the proposed project would have several soil-related impacts. A high degree of erosion risk already exists on parts of the property, and the extensive cut and fill operations necessary for development could intensify this risk. In addition, the high shrink-swell capacity of some of the clays on the property would interfere with foundation stability unless remedial grading is performed. The project could have indirect impacts on other areas because some non-expansive soils might have to be "borrowed" to cap roadways and building pads. Also, development would remove about seven acres of fertile, well-drained soil from potential agricultural use.

3.2.3 Mitigation Measures

If the recommendations presented in the geology/soils report are followed, erosion risk would be minimized during cut and fill operations. Nearly vertical cut banks presently on the site would be properly modified such that their erosion would be halted. Erosion impacts could be minimized by several measures, including direction of runoff away from cut and fill slopes and rapid re-vegetation of graded areas.

Effects of expansive soils on future building pads and roadways can be mitigated by replacement with non-expansive soils. Due to the high density of the proposed development, the amount of on-site replacement material might not be adequate. Should "borrowing" of soil be necessary, care should be taken to minimize impacts on the borrow sites. Environmental review of these procedures might be necessary. The geology/soils report recommends that footings and foundations placed into expansive soils (or into compacted fill) should be reinforced with steel bars. (For detailed recommendations, see the Appendix.) Loss of agricultural soils cannot be feasibly mitigated.

3.2.4 Analysis of Significance

The project would convert a vacant site into a residential development. This project would require soil importation and significant landform alteration.

The potential for erosion on the steep southern part of the property is significant in view of the extensive grading procedures which are planned. Subdivision and development within the watershed has contributed to water quality problems, including cumulative off-site siltation impacts in the Sweetwater River watershed. This type of impact has occurred in areas upstream from the Sweetwater Reservoir, but erosion and sediment transport due to construction practices are not major water quality problems in the Lower Sweetwater Hydrographic Subunit (CPO, 1977). If properly managed, the proposed development should not significantly contribute to siltation problems in the Sweetwater Hydrographic Unit. Careful management of the cut and fill operations and very rapid re-vegetation of the disturbed land should reduce the erosion potential below present levels.

Substantial amounts of expansive soils may have to be replaced in order to produce suitable building areas and off-site soils might be needed. Use of soils from other grading operations in the area and careful management to avoid extensive landform alteration and erosion hazard at donor sites would reduce this impact to a level of insignificance.

Loss of the acreage from potential agricultural use is not considered significant for several reasons. The size of the suitable land is only approximately seven acres which precludes a large agricultural operation. This land has a very high market value and a correspondingly high tax assessment, which would make such a small-scale agricultural venture impractical. In addition, although the land has a Capability Grouping of I, its location on the valley floor reduces its attractiveness as an agricultural site due to risk of frost.

3.3 GROUNDWATER

3.3.1 Existing Setting

The project site lies in the Sweetwater Hydrographic Unit which encompasses an area of about 230 square miles. Groundwater in the area is generally of poor quality due to limited rainfall and the high total dissolved solids (TDS) content of Colorado River water used for irrigation. Very little groundwater is used for either domestic or agricultural purposes (CPO, 1977).

Groundwater was detected in ten of 18 borings on the project site during the geology/soils study conducted by Geocon, Inc. Groundwater was encountered at depths varying between ten to 33 feet.

3.3.2 Potential Impacts

Over most of the project site, groundwater would not interfere with construction because it exists at a depth below ground that would be disrupted by planned grading procedures. Groundwater would be encountered, however, during landslide stabilization procedures in the southeastern portion of the property.

Major impacts to groundwater quality would not be expected because septic systems would not be used for liquid waste disposal. Irrigation of landscaped areas could, however, contribute slightly to already high TDS levels. Construction of large areas of impermeable surfaces could reduce the degree of groundwater recharge in the area.

3.3.3 Mitigation Measures

Installation of a subdrain at the base of the stability canyon fill or buttress used to stabilize the landslide area would mitigate the impact of construction on groundwater flow in the southeastern section of the property.

Use of native plants in landscaping would reduce the need for irrigation and decrease the contribution to groundwater TDS levels. Minimization of impermeable areas could be achieved by use of porous paving where possible. For example, areas such as visitor parking spaces could be covered with open brickwork, rather than pavement and planted with grass between the bricks.

3.3.4 Analysis of Significance

Impacts to area groundwater resources would be minimal and could be mitigated to a level of insignificance.

3.4 DRAINAGE PATTERN

3.4.1 Existing Setting

The project site is drained by small, natural channels in the southern, hilly section and by overland sheet flow in the northern section. Some drainage is channeled along unimproved dirt roads.

At the southeast corner of the intersection of Bonita Road and Otay Lakes Road, water enters a drop inlet and flows into a 36-inch reinforced concrete pipe. This pipe extends northwest across Bonita Road to an open channel. Water in this channel then flows into the Sweetwater River. (This information was supplied by Bill Ullrich of the Chula Vista Department of Public Works.)

During floods of 100-year frequency, the property would be subject to ponding (Figure 3.4.1-1). Ponding would occur over approximately one-third of the property below an elevation of 80 feet. (This information was supplied by the San Diego County Department of Sanitation and Flood Control.)

3.4.2 Potential Impacts

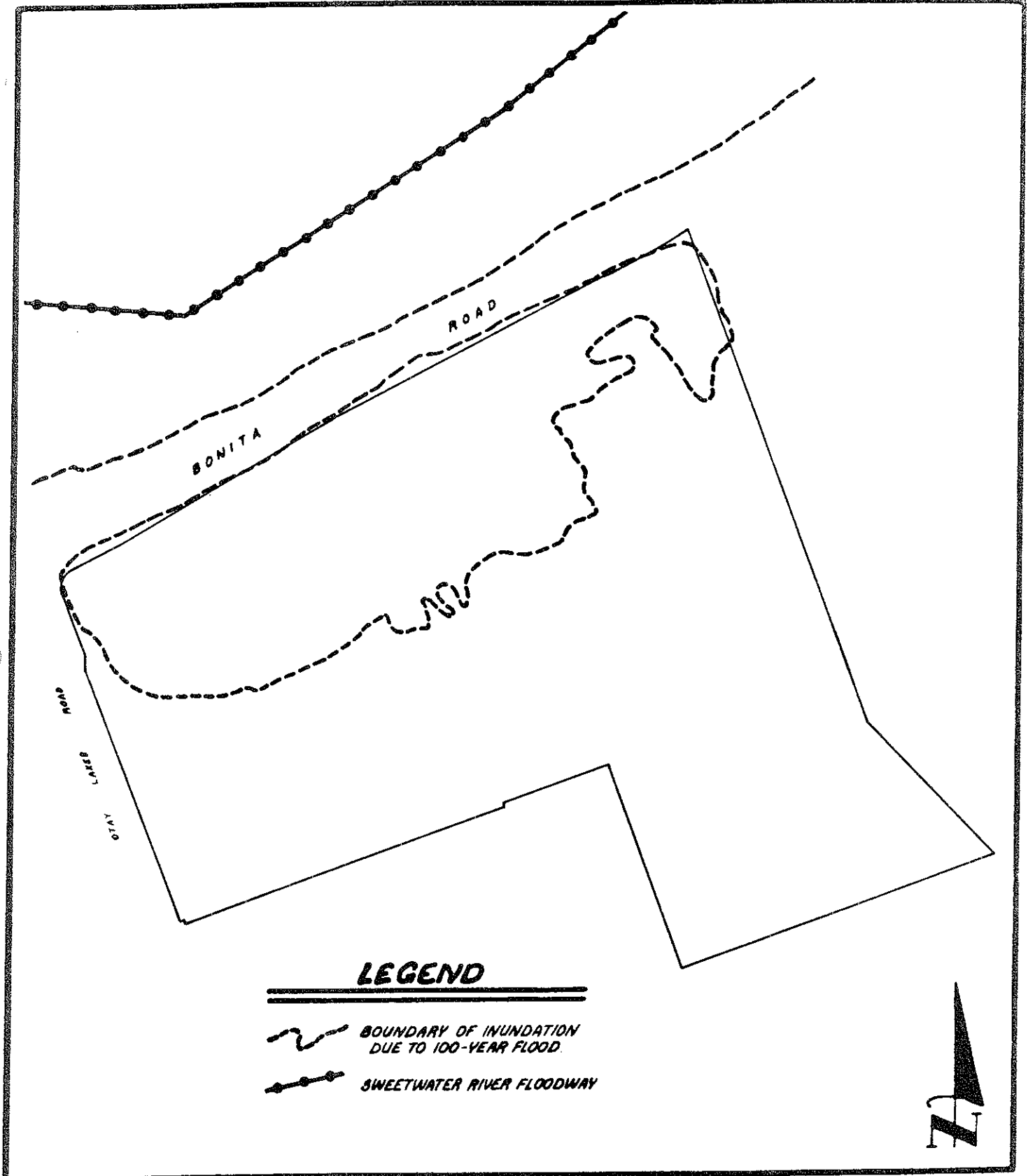
Construction of large areas of impervious surfaces would increase the runoff from the property. Also, surface seepage was detected in a canyon in the southern section of the property and could interfere with future structures.

In the event of a severe flood, water probably would damage structures existing on the property unless remedial grading occurs during project construction.

3.4.3 Mitigation Measures

Increased runoff would be accommodated by proposed storm drain systems within the property. Runoff could be minimized by a reduction in the amount of impervious surfaces. The attached geology/soils analysis suggests that a sub-drain be installed in the canyon in the southeast portion of the site and be connected with the storm-water system.

Grading plans for the proposed project include the addition of five feet of compacted fill to the flat portion of the property. This would eliminate the potential flood hazard.



100-year floodway

3.4.4 Analysis of Significance

The proposed Bonita East project is part of the Sweetwater Hydrographic Unit and lies partially within the floodplain of the Sweetwater River. The watershed of the Sweetwater River encompasses a large area upstream from the project site, and large volumes of water enter the Sweetwater River channel as runoff from these surrounding areas during storms. Construction of the project would result in an increase in impervious surfaces and a corresponding increase in runoff. However, this increase in runoff would be extremely small in relation to the total discharge within the drainage basin. No significant impact to drainage in the area would result from the proposed project.

If action is taken to raise the level of land within the project site above the 100-year flood area, the risk of damage due to flooding would be insignificant.

3.5 LANDFORM

3.5.1 Project Setting

Most of the project site lies on the nearly flat, alluvial floor of the Sweetwater River Valley. Site elevations vary from a high of approximately 225 feet, on a hill near the southern property line, to a low of 74 feet, near the northwestern corner of the property. The topography varies from relatively level to very hilly. Several previously graded areas exist, resulting in nearly vertical cut slopes up to 40 feet in height.

3.5.2 Potential Impacts

Implementation of the project would require extensive landform alterations. The preliminary grading plan is included in the appendix and summarized below.

In order to eliminate the possibility of flooding, the flat portion of the site would be elevated approximately five feet by the addition of compacted fill. Construction in the southern, hilly areas of the project site would require substantial cut and fill operations. Cuts of up to 40 feet and fills of up to ten feet in height would be required in the southeastern portion of the site. The maximum cut in the southwestern section would be 20 feet in height and the maximum height of fill would be 30 feet. The maximum fill slopes would be 2:1 and the maximum cut slopes would be 1½:1. The latter ratio is in conflict with the Chula Vista standard of 2:1 for cut slopes. Construction of retaining walls and buttressing of existing vertical cut slopes would also be necessary. The grading would require approximately 50,000 cubic yards of balanced cut and fill and 50,000 cubic yards of imported fill.

3.5.3 Mitigation Measures

Although the project has been designed to minimize the amount of grading, substantial landform alteration would occur. Certain measures are available to reduce the impact of these alterations.

To insure maximum slope stability, all cut and fill areas should conform with the recommended slopes given in the soils report or Chula Vista standards. The standard which insures greater stability should be used. Furthermore all slopes should

be landscaped immediately to reduce the risk of erosion and to enhance the visual quality of the site. Drainage should be channeled away from cut and fill slopes.

In addition to creating on-site impacts, grading procedures would require the use of at least 50,000 cubic yards of fill material from off-site locations. To minimize this impact, fill should be obtained from other grading operations in the area. Additional environmental review might be necessary to minimize impacts at borrow sites.

Recommendations of the geological engineers should be followed at all stages of grading and construction to ensure proper stabilization of the ancient landslide area and the cut and fill slopes.

3.5.4 Analysis of Significance

Although the project has been designed to minimize grading, implementation of the plan would require extensive landform alteration. If properly completed, cut and fill operations should provide stable slopes and adequate building sites. Strict adherence to City grading standards, proper management of cut and fill slopes, careful management of borrow sites, and buttressing of existing vertical cut slopes should significantly reduce the landform-related impacts of the project.

3.6 MOBILE NOISE

3.6.1 Project Setting

Current levels of traffic noise at the project site were estimated using the Wyle Laboratories method of analysis and CalTrans estimates of average daily trips on Bonita Road and Otay Lakes Road. According to these calculations, an Ldn of 65 dBA, which is the tolerance limit for residential development, would be exceeded over approximately one-fourth of the property (Figure 3.6.1-1).

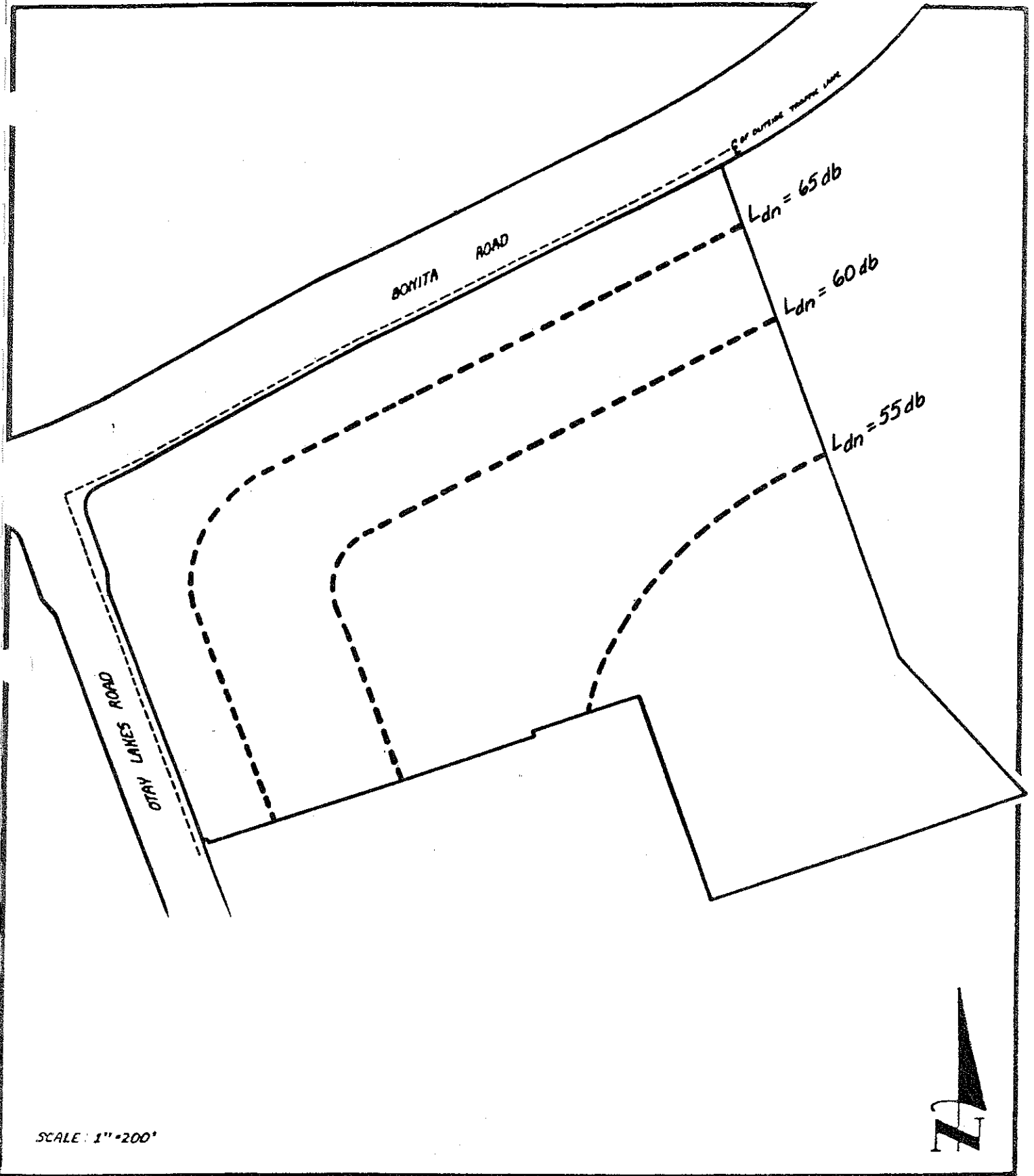
In the future, traffic levels are expected to increase in the area of the project. Using traffic projections for 1995 supplied by the City of Chula Vista Planning Department, future noise levels for the property due to mobile noise sources were calculated. Because future cars are expected to be quieter than those in use today, traffic noise levels in the area would decrease by 1995. However, an Ldn of 65 dBA would still be exceeded on a portion of the property (Figure 3.6.1-2).

3.6.2 Potential Impacts

Residents of the proposed project would be exposed to noise levels above an Ldn of 65 dBA. This level would be in excess of City of Chula Vista standards for residential development. Traffic generated by the proposed project would add to the noise level experienced by residents along Bonita Road and Otay Lakes Road. This additional traffic would be a very small percentage of the total and, therefore, would not significantly increase noise levels in the area.

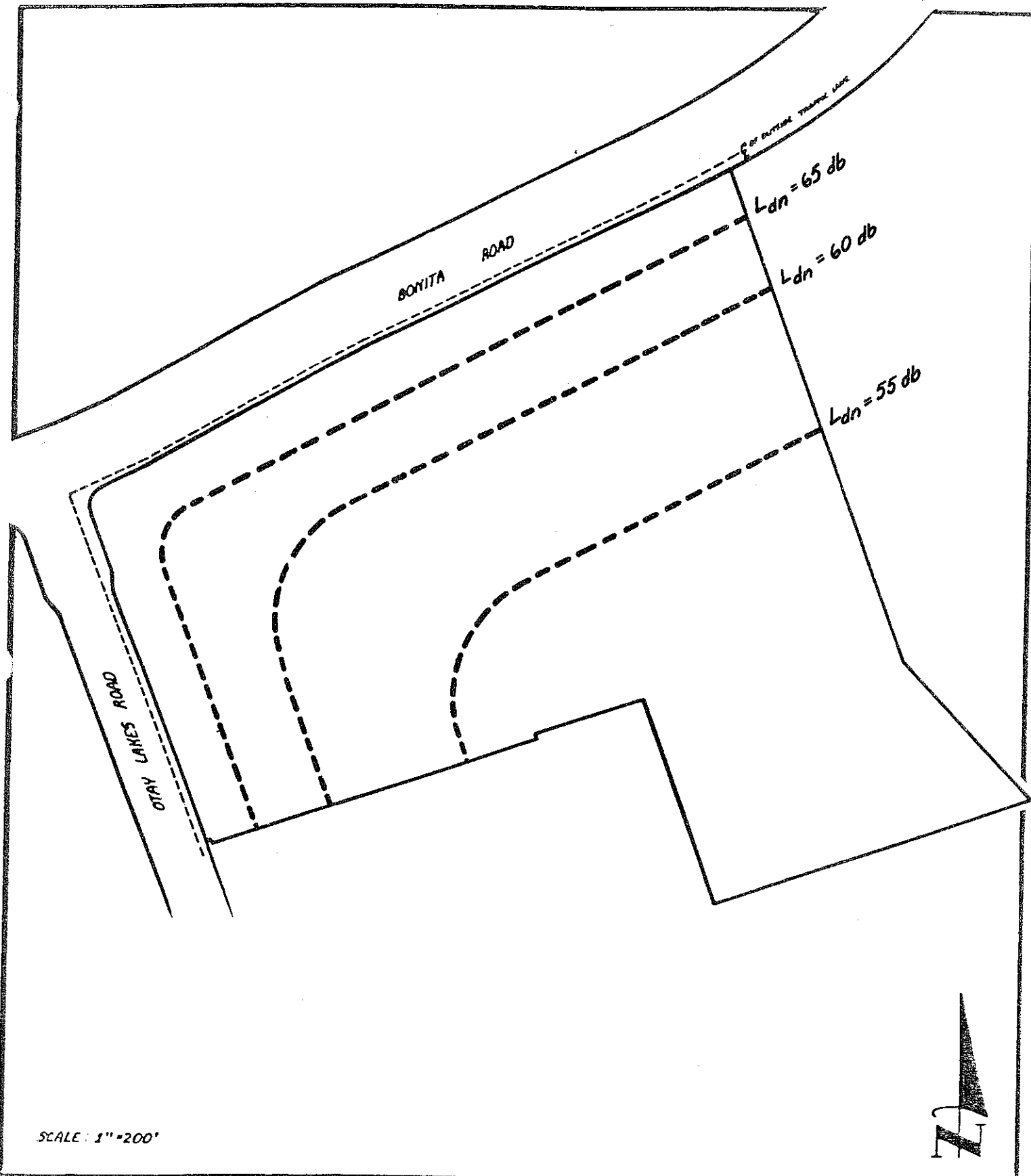
3.6.3 Mitigation Measures

Mitigation of high levels of traffic noise has been considered in the design for the proposed Bonita East project. A five-foot, landscaped earth berm would be constructed along both Bonita Road and Otay Lakes Road. This should be very effective in reducing noise levels within the project site. Further mitigation might be required, however, for those residences closest to the roadways. For example, double glazed windows might be necessary in some homes, especially on the second story. According to Mr. Gene Grady of the Chula Vista Building and Housing Department, noise standards would be strictly enforced in the construction of the project. Satisfaction of state noise insulation requirements would be expected to mitigate the impact of traffic noise on residents.



SCALE: 1" = 200'

present mobile noise



future mobile noise

Placement of the three-acre commercial center on the northwest corner of the property would be compatible with the high levels of traffic noise in that area.

3.6.4 Analysis of Significance

Current and projected noise levels on the property exceed City of Chula Vista standards for residential development. Therefore, remedial measures are necessary to reduce high levels of traffic noise. Construction of a five-foot earth berm and satisfaction of state noise insulation requirements would mitigate noise impacts on residences to a level of insignificance.

HIGHWAY NOISE ANALYSIS WORKSHEET

Wyle Laboratories Job No. _____

Route _____

Map Sheet _____

Ref.	Segment	Lanes/ Median	A. D. T.	Average Hourly Flow		% Truck	L _{eq} dB		L _{dn} at 50 ft	% Grade	Roadway			Sideline		Dist. to L _{dn} = 65 dB (feet)	Distance to L _{dn} = 60 dB Note: 55 dB	
				Day	Night		Day	Night			E	L	D	Lt	Rt			
C6	Bonita Road Present	*	13,900	806	201	4	65.8	61	68.2	-	X					95	220	430
C6	Otay Lakes Road Present	*	19,250	1116	278	4	69	62.5	71	-	X					125	325	490
C14	Bonita Road 1995	*	25,000	1450	361	4	65	59	68	-	X					90	205	425
C14	Otay Lakes Road 1995	*	25,000	1450	361	4	65	59	68	-	X					90	205	425

*The existing lane configurations of both Bonita Road and Otay Lakes Road do not conform exactly to curves used as the basis for Wyle calculations. For the purpose of this analysis, a 4-lane, 0-foot median width was assumed because the actual paved road widths conform to standards for 4-lane, 0' median width roads and because traffic patterns along the road tend to approach this usage even though the striping does not conform. Therefore, curves C6 and C14 were used as the basis of these calculations.

Addition for Intersection: Present: 65 dB: 230' 60 dB: 425' 55 dB: 850'
 " 1995: 65 dB: 140' 60 dB: 340' 55 dB: 625'

Prepared by _____

Figure C-1. L_{dn} Worksheet.

3.7 BIOLOGY

3.7.1 Project Setting

A biological survey of the site of the proposed project was conducted on January 20 and 21, 1979 by John P. Rieger, zoologist and R. Mitchel Beauchamp, botanist. Their report is included in the Appendix and is abstracted below.

3.7.1.1 Vegetation

Vegetation on the property is characteristic of a highly disturbed site. A few ornamental species exist near the abandoned homesite. Most vegetation in the northern portion of the property consists of a heavy growth of disturbance-related taxa. Non-native grasses and forbs cover the southeastern portion of the property. A few remnants of the native Inland Sage Scrub plant association still remain on this upper slope. No rare, endangered, or otherwise sensitive plant taxa were observed on the property.

3.7.1.2 Zoology

The resident animal population of the property is very limited due to the disturbed condition of the property. Most of the bird and mammal species observed or detected are characteristic of disturbed or urban areas. Three mammal species were detected: striped skunk, California ground squirrel and cottontail. Populations of these three species are very low due to the small area and the isolated nature of the property. No reptiles or amphibians were observed on the property.

3.7.2 Potential Impacts

Development of the property would result in removal of most of the existing vegetation. This vegetation helps to control erosion, and removal of the plants might result in an increased level of runoff. Because no rare or endangered species exist on the property, implementation of the project would not result in significant impacts to biological resources.

3.7.3 Mitigation Measures

To reduce erosion risk following cut and fill procedures, slopes should be planted immediately with seeds of drought-tolerant plants. The attached biology report recommends several appropriate species. In addition, the report indicates that landscaping of the development with drought-tolerant trees and shrubs would further mitigate the impact of the proposed development on biological resources.

3.7.4 Analysis of Significance

Implementation of the project would involve removal of nearly all the existing vegetation on the property. Therefore, construction would enhance the risk of erosion.

Completely landscaping all areas of the development with drought-tolerant species should mitigate this impact to a level of insignificance.

Due to the highly disturbed condition of the site and because no sensitive taxa exist on the property, the project would not have a significant impact on biological resources.

3.8 ARCHAEOLOGY

3.8.1 Project Setting

An archaeological survey of the proposed site for the Bonita East development was conducted on January 18, 1979 by Stanley R. Berryman of Archaeology Consulting and Technology. Only one possible artifact was noted and may have been imported to the site. No other archaeological resources were observed. Due to the amount of alteration which has occurred on the property, the possibility of finding an intact archaeological site is extremely low.

Archaeological record searches were conducted at both the San Diego Museum of Man and at San Diego State University. Five sites within one mile of the project are recorded at the two institutions. These sites consist of a La Jolla artifact scatter, a Kumeyaay lithic workshop, two scatters of flaking debris and a prehistoric mano scatter.

3.8.2 Potential Impacts

No archaeological sites exist on the property. Therefore, the project would not have an impact on area archaeological resources. Also, no indirect impacts to nearby sites would be expected.

3.8.3 Mitigation Measures

No mitigation of impacts to archaeological resources would be necessary.

3.8.4 Analysis of Significance

The on-site archaeological survey revealed only one possible artifact. This item could not be positively identified. Because it was found in a roadway, its origin is uncertain. The possibility of finding an intact archaeological site is very low due to the amount of alteration that has taken place on the property. Therefore, the project would not have a significant impact on archaeological resources.

3.9 LAND USE

3.9.1 Project Setting

The project site was formerly used as a dairy farm and homesite. The property has been vacant for many years; several abandoned structures, such as concrete and woodframe buildings, a swimming pool, walls, steps and concrete building slabs are remnants of former uses. More recently, the property has been used as a dump by area residents.

Land uses in areas surrounding the site reflect the recent growth of the area. A small subdivision of spacious lots and large, single-family homes lies immediately south of the project site. Further south is a subdivision of approximately 120 single-family homes. Vacant land and several residences lie to the east of the site; a church is planned for this area. Rural land uses including stables are found further east on Bonita Road.

West of the site, commercial development is located on the south side of Bonita Road, including large businesses, such as banks and a supermarket and small retail stores. Large-lot subdivisions lie south of the commercial strip.

Most of the area to the north of the project is occupied by the Chula Vista Municipal Golf Course and by parks which line the Sweetwater River. On the north side of Bonita Road, about one quarter mile west of the project site, are the closest multi-family residential developments in the area, a series of multi-unit structures containing condominiums.

At the present time, the project site is in the County of San Diego. Development in the area is governed by the Land Use Element of the San Diego County General Plan. The Land Use Element is one aspect of the implementation of the Regional Growth Management Plan and addresses regional issues, local issues and issues pertaining to individual parcels.

Regional issues are addressed in the text of the Regional Land Use Element which indicates the broad goals and policies with respect to growth and development in the area. The Regional Land Use Map indicates that the entire Bonita area is in a "Current Urban Development Area" which is defined

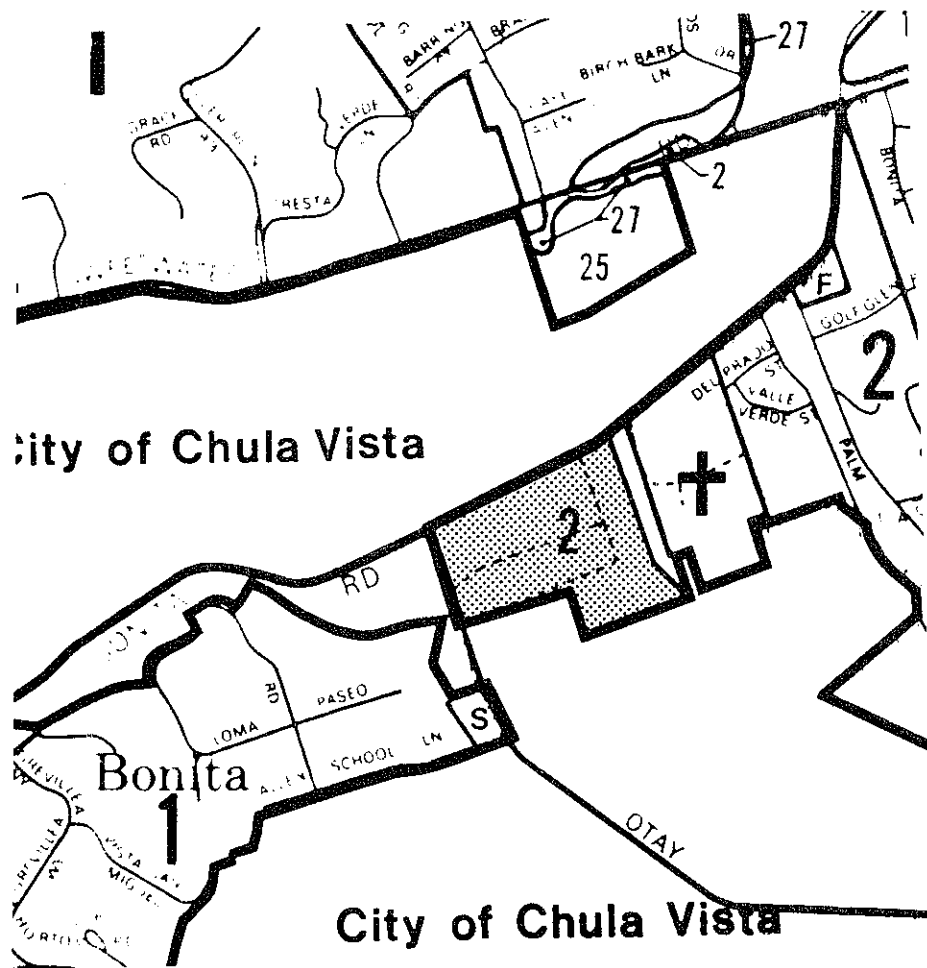
as those County lands to which near-term urban development should be directed. In such areas, the uses permitted will be those indicated by the applicable land use designations on the Community Plan maps.

Local growth issues are addressed in detail in the adopted Community Plans. The proposed subdivision lies within the Sweetwater Community Planning Area, (Figure 3.9.1-1). The Community Plan maps delineate land use designations. These designations have recently been updated by the Land Use Element, and the current terminology is used in this discussion.

The Sweetwater Community Plan designates the project site as Residential (two dwelling units per acre). The same designation applies to land east of the site of the proposed development, including the church property. County land immediately west of the site, south of the shopping center, is designated Residential (one dwelling unit per acre). In addition to applying land use designations, the Sweetwater Plan lists 18 objectives, including several that are relevant to this project:

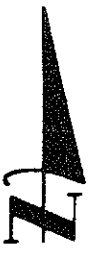
- o Strictly maintain the present rural and semi-rural characteristics of the planning area.
- o Discourage the development of rough terrain, floodplain and natural drainage areas.
- o Strictly control residential development to properly correlate with adequate public services, facilities and utilities.
- o Encourage future residential areas adjacent to existing residential development to have compatible densities.
- o Restrict the development of commercial businesses to compact configurations and thereby discourage expansion of "strip" or "strung out" type commercial development along major and secondary traffic arteries.
- o Restrict the expansion of businesses to existing commercial land use designations.

The use of individual parcels of County land is governed by the recently-adopted County Zoning Ordinance. Zones applicable to the site and surrounding areas are shown in Figure 3.9.1-2. The



LEGEND

1	RESIDENTIAL (1 D.U./AC.)
2	RESIDENTIAL (2 D.U./AC.)
25	FLOOD PLAIN
27	OPEN SPACE
†	CHURCH
S	ELECTRIC SUBSTATION



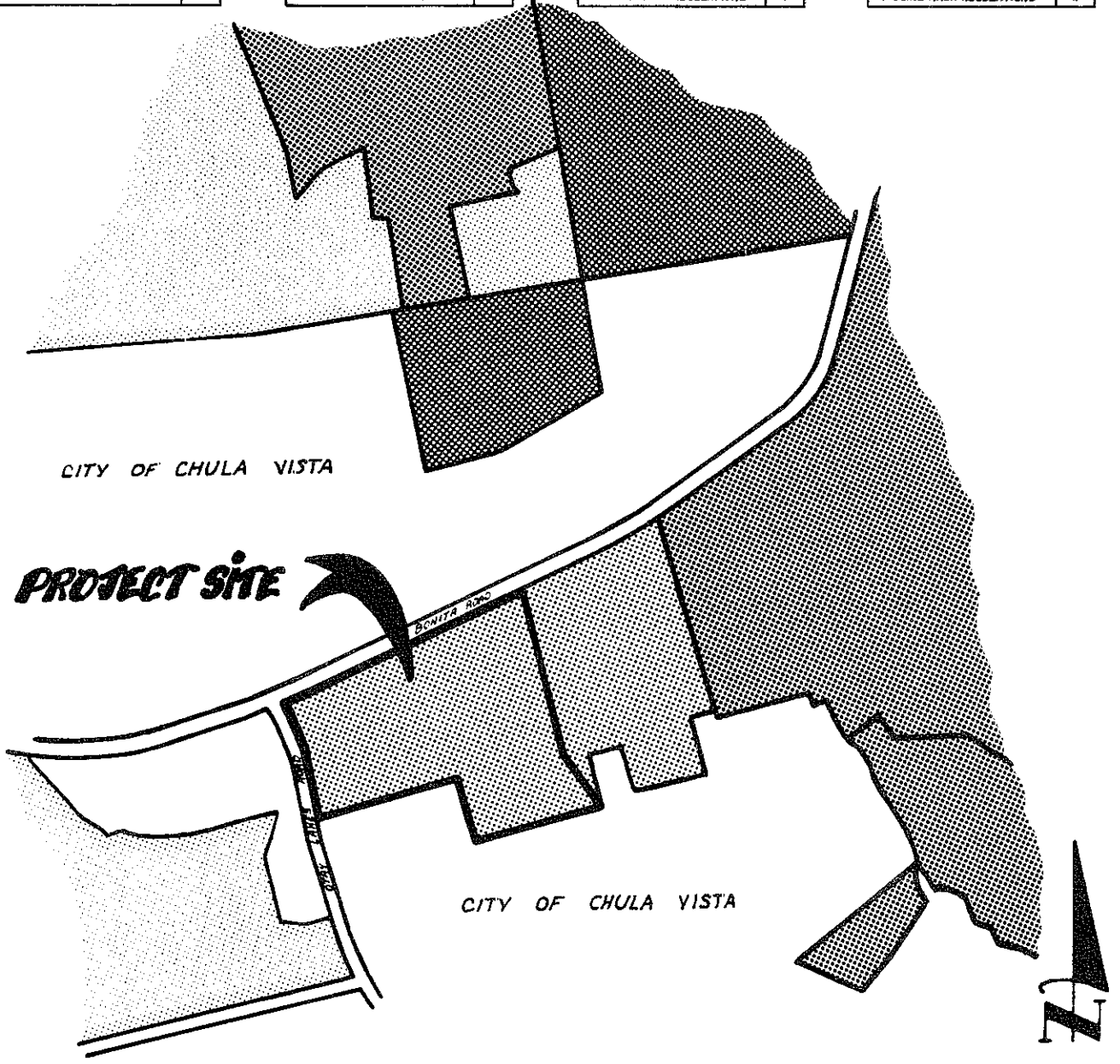
sweetwater community plan

USE REGULATIONS		A-R-1
NEIGHBORHOOD REGULATIONS		J
DEVELOPMENT REGULATIONS	DENSITY	1
	LOT SIZE	1AC
	BUILDING TYPE	C
	MAXIMUM FLOOR AREA	-
	FLOOR AREA RATIO	-
	HEIGHT	G
	COVERAGE	-
	SETBACK	B
	OPEN SPACE	-
	SPECIAL AREA REGULATIONS	

USE REGULATIONS		A-10
NEIGHBORHOOD REGULATIONS		L
DEVELOPMENT REGULATIONS	DENSITY	.5
	LOT SIZE	2AC
	BUILDING TYPE	C
	MAXIMUM FLOOR AREA	-
	FLOOR AREA RATIO	-
	HEIGHT	G
	COVERAGE	-
	SETBACK	C
	OPEN SPACE	-
	SPECIAL AREA REGULATIONS	

USE REGULATIONS		A-R-2
NEIGHBORHOOD REGULATIONS		J
DEVELOPMENT REGULATIONS	DENSITY	2
	LOT SIZE	5AC
	BUILDING TYPE	C
	MAXIMUM FLOOR AREA	-
	FLOOR AREA RATIO	-
	HEIGHT	G
	COVERAGE	-
	SETBACK	G
	OPEN SPACE	-
	SPECIAL AREA REGULATIONS	

USE REGULATIONS		A-10
NEIGHBORHOOD REGULATIONS		L
DEVELOPMENT REGULATIONS	DENSITY	.125
	LOT SIZE	5AC
	BUILDING TYPE	C
	MAXIMUM FLOOR AREA	-
	FLOOR AREA RATIO	-
	HEIGHT	G
	COVERAGE	-
	SETBACK	C
	OPEN SPACE	-
	SPECIAL AREA REGULATIONS	



county of san diego zoning map

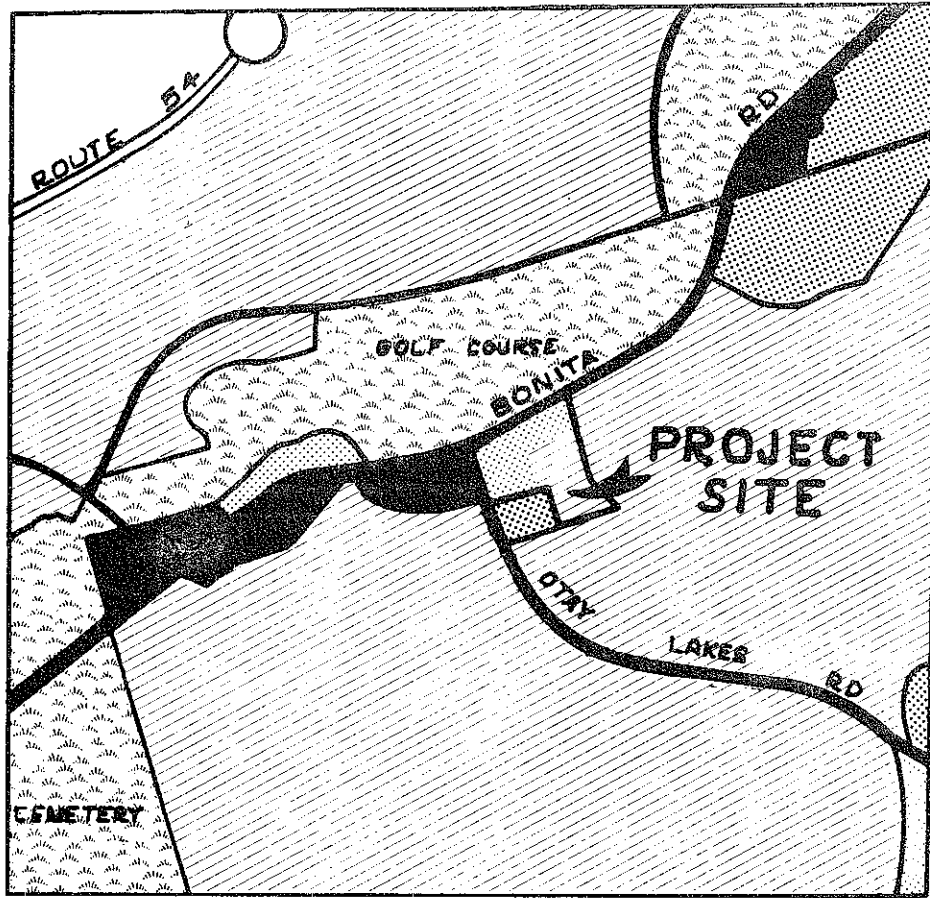
major element of the zone is the Use Regulation. The Use Regulation applicable to the property is A-70. This zone indicates that the maximum allowable density is one dwelling unit per two acres. This zone is intended for small-scale agricultural use with a small amount of animal husbandry allowed. This zone would permit less dense development than the designation in the Sweetwater Community Plan; the zone designation would probably be updated to conform with the plan in the near future. Most County residential areas in the vicinity of the project carry the R-R-1 Use Regulation, which is an estate designation allowing one dwelling unit per acre.

The developer is currently applying for annexation of the property to the City of Chula Vista, in which case City land use designations would apply to the site. The Chula Vista General Plan covers the entire Bonita-Sunnyside area including the site of the proposed project (Figure 3.9.1-3). The northern and western portions of the property are designated for High Density Residential use (13-26 dwelling units per acre). Land in the southeast area of the site is designated for Low Density Residential development (one to three dwelling units per acre). Residential land to the east, south and west is designated for Low Density Residential use, except the parcel immediately south of the property which is intended for Medium Density Residential development (four to 12 dwelling units per acre).






Although the project site currently lies within the County, the City of Chula Vista has pre-zoned the property A-8, which is an agricultural zone allowing one dwelling unit per eight acres. According to the Chula Vista Planning Department, this designation was applied several years ago and was intended as a "holding zone". City land surrounding the property has a variety of zones (Figure 3.9.1-4).

3.9.2 Potential Impacts

Conflicts exist in the many levels of land use policy relevant to the site of the proposed development. The project, which proposes both commercial and medium-density residential development, is not entirely compatible with any of the planning and zoning designations. If the property is annexed to the City of Chula Vista, considerable modifi-

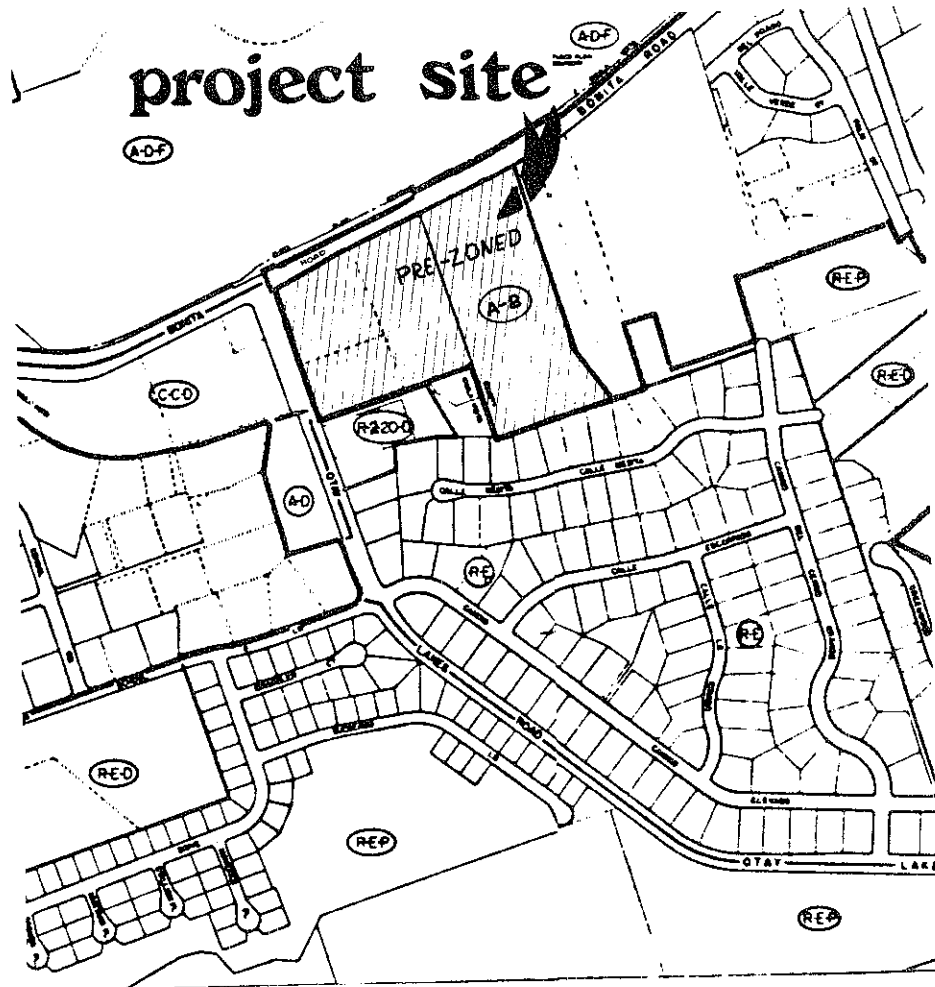


LEGEND

	OPEN SPACE
	HIGH DENSITY RESIDENTIAL (13-26 D.U./AC.)
	MEDIUM DENSITY RESIDENTIAL (4-12 D.U./AC.)
	LOW DENSITY RESIDENTIAL (1-3 D.U./AC.)
	RETAIL



chula vista general plan



city of chula vista zoning map

cations of the Chula Vista General Plan and zoning ordinance would be required prior to the implementation of the project. In order for the site to become part of Chula Vista, the Local Agency Formation Commission (LAFCO) would have to approve the annexation. The relative impacts of the various land uses proposed by the developer, the City and the County are analyzed in Section 6.0 of this report, Alternatives to the Proposed Action.

Implementation of the proposed project would increase the extent of urbanization in the Sweetwater Valley both by the development of medium-density residential housing and by the addition of three acres of commercial use. Such development would not conform with the rural character of areas east of the site or with several objectives of the Sweetwater Community Plan.

The proposed density of the residential portion of the project is not similar to existing or proposed land uses nearby. The density does generally conform with the overall density intended for the parcel in the Chula Vista General Plan. However, the intention of the General Plan differs from the plan of the proposed project. The General Plan designates low-density housing for the steeper, southeastern portion of the property, with high-density development intended for the northern and western portions of the site.

Another basic conflict of the development with the various plans lies in the proposal of a three-acre commercial site. This phase of the proposed project would produce greater traffic impacts than would the proposed residential development. The retail/commercial development would further the proliferation of "strip commercial" land use along Bonita Road. Further spread along the road to the east would be precluded, however, by the proposed residential development and by a large church lot east of the property. The golf course effectively eliminates the possibility of more commercial development on the north side of Bonita Road in the vicinity of the project.

3.9.3 Mitigation Measures

Several approaches to mitigating the impacts of the proposed project to area land uses have been incorporated into the project design. Five-foot

high landscaped berms, constructed primarily as noise barriers, would serve to reduce the visual impact of the project and would de-emphasize the contrast with surrounding land use. Also, residential and commercial areas of the project would be physically separated by a landscaped "buffer zone". This would serve to isolate the commercial use and to associate it more with the commercial development to the west than with the residential uses to the east. Also, by using natural wood materials and western design in construction of the exteriors, the proposed project would encourage a rural atmosphere. Also, the design reflects a commitment to extensive landscaping which would improve the present appearance of the site.

If annexed to the City of Chula Vista, a "neighborhood commercial" (C-N) zoning designation would probably be applied to the commercial portion of the land. In order to apply such a zone, a market analysis must be completed to determine the need for additional commercial development. The results of this study could serve to further mitigate the impact of the proposed project by justifying the need for such development in the area.

3.9.4 Analysis of Significance

The proposed project is in conflict with the intentions of all applicable planning and land use documents. Annexation of the property to Chula Vista in itself would probably not significantly impact land use in the area. Existing urban services in the area would not be affected seriously by annexation. Furthermore, City land lies on three sides of the property and annexation would not represent a major outward extension of the City's jurisdiction.

Development of the parcel with medium-density housing would generally conform with the Chula Vista General Plan, but would be in direct conflict with the Sweetwater Community Plan. This project would contribute to the urbanization of the Sweetwater Valley and therefore, would represent a significant departure from the intentions of the Sweetwater Plan. The project would not, however, induce further urbanization by creating additional service capacity in the area since adequate services for the project already exist. The mitigation measures incorporated into the project design should serve to reduce the impact of the creation of land uses incompatible with those surrounding the site.

The proposed commercial development is relatively isolated in the northwest corner of the project, and as such, does not represent a significant extension of "strip commercial" development. Small retail stores will be developed rather than a large supermarket or department store. Also, further commercial development adjacent to the proposed commercial development would be precluded by the proposed residences and by the large church lot to the east of the project site. The major significance of the proposed commercial development lies in the increased traffic levels that would occur if it were implemented. The commercial portion would be responsible for many more trips than would the residential portion.

The overall medium-density development would conflict with existing low-density residential development immediately south of the project site. This impact could be reduced by strict adherence to the Chula Vista General Plan, which calls for low-density development on the steep hillsides on the southern portion of the site.

The proposed project would be a significant departure from the land uses outlined for the project site in both the Sweetwater Community Plan and the Chula Vista General Plan. However, due to the project's relative isolation in the corner lot between Otay Lakes Road and the site of the proposed church, the adequacy of existing services in the area, and the mitigation measures incorporated into the design, the project would not significantly encourage additional commercialization or urbanization of the Sweetwater Valley.

3.10 AESTHETICS

3.10.1 Existing Setting

At the present time, the site of the proposed development is vacant and covered with scrub vegetation. Several deposits of trash lie along unimproved dirt roads. Abandoned, dilapidated structures are partially hidden by overgrown vegetation. Along the southwest border of the property, a bare, vertical cut slope shows evidence of severe erosion. The lot is in keeping with the rural atmosphere of the area, but it is very disturbed and recent misuse has degraded its aesthetic qualities.

Both the Chula Vista General Plan and the Sweetwater Community Plan recognize Otay Lakes Road and Bonita Road in their Scenic Highways Element. Scenic Highway status is intended to protect a road from uses offering low visual quality and to provide "aesthetically pleasing vehicular travel."

3.10.2 Potential Impacts

The proposed project would produce a high density residential development with a small commercial center. It would be developed by the same firm responsible for the shopping center west of the project across Otay Lakes Road. This should serve to insure visual compatibility and continuity along Bonita Road. Architecture would be in keeping with the "western" theme of the other developments along Bonita Road. Open space and landscaping planned for areas within the development would enhance the visual quality of the area. A berm or wall, which would be installed for noise mitigation, would not detract if it were well landscaped. The proposed development would be in keeping with the Scenic Highway status of the adjacent roadways.

Residents of the property immediately south of the development should not be significantly affected by the project. According to the architect, proposed structures would lie below existing homes so that views of the Sweetwater Valley would not be obscured.

3.10.3 Mitigation Measures

No mitigation would be required.

3.10.4 Analysis of Significance

The assessment of the aesthetic significance of the property would vary depending upon the attitudes of the viewer. Given the present disturbed nature of the property and the attention to aesthetic quality in the architectural design, the project is not likely to have a significant adverse effect on the visual quality of the area.

3.11 COMMUNITY TAX STRUCTURE

3.11.1 Project Setting

The land to be used for construction of the proposed project is owned by the developer, A & D Partnership. It has an assessed value of \$187,200.00. Current County of San Diego property tax assessments total \$9,189.64 per year. The City of Chula Vista receives a fixed percentage of the total property tax revenues collected by the County.

3.11.2 Potential Impacts

Implementation of the planned project and annexation of the property by the City of Chula Vista would not result in a direct increase in the amount of property tax received by the City. Property tax assessments would increase substantially after the construction of the proposed project; but, as currently required by California law, the fixed percentage received by the City from the County would remain the same. The California state legislature may alter the laws governing this arrangement in July, 1979.

Other taxes would directly increase the revenues collected by the City. The City would realize a revenue increase through sales tax collected by the commercial portion of the development. The City could also receive revenue from the property in the form of assessments to relieve the City's bonded indebtedness.

3.11.3 Mitigation Measures

Implementation of the proposed project would not have an adverse effect on the community tax structure and, therefore, no mitigation would be required.

3.11.4 Analysis of Significance

The amount of property tax collected by the County would increase upon implementation of the project. The fixed percentage of the total tax revenues which the City of Chula Vista would receive would not change unless laws governing taxation of annexed property are altered by the California state legislature. Implementation of the proposed project would not have a significant adverse effect on the County tax base.

3.12 SCHOOLS

3.12.1 Project Setting

The site of the proposed project is within the Chula Vista Elementary School District and the Sweetwater Union High School District. The development is within the attendance boundaries of the following schools:

<u>School</u>	<u>Grades</u>	<u>Enrollment</u>	<u>Capacity</u>
Allen School 4300 Allen School Road	K-6	402	500
Bonita Vista Junior High School 650 Otay Lakes Road	7-9	1,527	1,410 (has portable classrooms)
Bonita Vista High School 751 Otay Lakes Road	10-12	1,671	1,512 (has portable classrooms)

Although the project is within these attendance boundaries, new developments are not assigned to specific schools in the District. This is to maintain the greatest amount of flexibility in dealing with problems resulting from crowding, population fluctuation and integration programs.

Bus service is provided according to the following criteria:

<u>Grades</u>	<u>Minimum Distance of Residence from School (miles)</u>
K	0.75
1-2	1.00
3-4	1.25
5-6	1.50
7-9	1.75
10-12	2.50

Although no cuts in bus service are expected, it cannot be assumed that the current level of service will continue indefinitely due to uncertainty about the financing of public education in recent years.

3.12.2 Potential Impacts

The Districts estimate that the project would generate 0.2 students per dwelling unit for grades K-6 and 0.5 students per dwelling unit for grades

7-12. This would mean an increase of 30 elementary students and 75 secondary students. Both Districts believe they can accommodate this increase.

3.12.3 Mitigation Measures

To offset the cost of new facilities needed to accommodate population increases, the City of Chula Vista assesses new developments on behalf of the District. At the present time, each housing unit is assessed according to the following schedule:

Unattached Housing

<u>Size</u>	<u>Assessment</u>
1 bedroom	\$ 50
2 bedrooms	150
3 bedrooms	250
4 bedrooms	300

Attached Housing

<u>Size</u>	<u>Assessment</u>
1 bedroom	\$ 0
2 bedrooms	100
3 bedrooms	200

These assessments may increase as the need arises. This procedure would help to mitigate effects resulting from project implementation.

3.12.4 Analysis of Significance

The proposed project would be expected to increase the demand for school services in the area. With the help of assessment fees, however, the Districts would be able to adequately accommodate students generated by the proposed development. Therefore, no substantial adverse impacts on schools are envisioned.

3.13 PARKS, RECREATION AND OPEN SPACE

3.13.1 Project Setting

Three parks and/or recreation areas lie immediately north of the site of the proposed project. Also, the 5,000-acre Sweetwater Regional Park is planned for the area. The following table summarizes important aspects of the three existing parks.

<u>Name</u>	<u>Jurisdiction</u>	<u>Acreage</u>	<u>Improvements</u>
Fred H. Rohr Park	Chula Vista	23.2	Rohr Manor, swimming pool, turfed play area, picnic facilities, recreation hall, tot lot, restrooms
Sweetwater Park	County of San Diego	21	Playground, two ball-fields, jogging course, horseshoe pit, volleyball area, group picnic pavilion, restrooms
Chula Vista Municipal Golf Course	Chula Vista	270	18-hole golf course, putting and chipping greens, restaurant, bar, restrooms

The proposed project lies within the community park service Districts 10 and 14 and neighborhood park service Districts 10.07 and 14.01. The City parks situation for these districts is summarized in the following table which is based on data from the Parks and Recreation Element of the Chula Vista General Plan.

<u>District</u>	<u>Existing Population</u>	<u>Existing Park Acreage*</u>	<u>1995 Projected Population</u>	<u>Park Acreage Required**</u>
10	716	23.2	10,270	76.4
10.07	0	0	2,786	11.0
14	544	0	8,544	34.0
14.01	544	0	2,868	11.4

* Only includes City parks, excludes golf course

** Based on four acres required per 1,000 population

For the combined populations of Districts 14 and 10, 111 acres of parkland would be necessary to serve the future population. Considering all the City and County park and recreation land in the immediate vicinity, existing and proposed parks should be adequate to serve the projected populations.

3.13.2 Potential Impacts

The proposed project would add approximately 430 residents to the area. Given the large amount of City and County parkland in the region, existing and proposed parks should adequately serve even the projected population. Because only one swimming pool exists in the area, this facility may be subject to overcrowding as residential developments are added to the area.

Implementation of the proposed development would increase the demand for parkland. The plans for the project do not include any recreational improvements such as tennis courts or a swimming pool. Implementation of the project would also result in the substitution of a commercial and residential development for 18.14 acres of open space.

3.13.3 Mitigation Measures

The planned landscaping and use of attractive open areas within the project would mitigate the impact of the removal of the land from an open space classification.

Park fees will be assessed from the new development in accordance with Ordinance No. 1805, which was adopted on June 29, 1978. Because the area contains a large amount of parkland, additional mitigation of the impact of the new residents on recreational space is probably not necessary.

3.13.4 Analysis of Significance

The significance of the absence of recreational improvements within the development is lessened by the presence of large amounts of parkland near the project. The existence of Silver Strand State Beach within one half hour's driving distance, also serves to reduce the significance of the lack of a swimming pool facility within the project.

The significance of the removal of 18.14 acres from an open space classification is reduced by the highly disturbed nature of the property. Its value as parkland is minimal due to incompatible surrounding land uses, high traffic noise levels and inadequate parking.

3.14 FIRE AND POLICE PROTECTION

3.14.1 Project Setting

The project currently lies within the jurisdiction of the Bonita-Sunnyside Fire Protection District. The District supplies both fire and rescue service. Ambulance service would be provided by Bay Cities Ambulance, headquartered at 645 Third Avenue in Chula Vista. Two fire stations lie within one-half mile of the project: The District headquarters at 4035 Bonita Road and another station at 4940 Bonita Road. Response times to the proposed project would be less than one minute. The District maintains the following equipment:

3 pumpers	1 rescue truck
1 grass unit	2 resuscitators
1 utility pickup	

If the project is implemented as planned, the site would be annexed by the City of Chula Vista. The site then would be within the jurisdiction of the Chula Vista Fire Department (CVFD). The Department has a contract with the Bonita-Sunnyside Fire Protection District which allows for cooperative fire protection in the Bonita area. Should a fire occur in the proposed development, the homeowner or merchant would call either company. The dispatchers would instruct Bonita-Sunnyside to answer the call first, and the CVFD would respond later if necessary.

The CVFD maintains a station on Otay Lakes Road near Sweetwater Community College. The following equipment, staffed by a total of approximately ten men and one chief officer, would respond to a call:

- One engine company from Bonita-Sunnyside Fire Department
- One engine company from Chula Vista Fire Department
- One truck company from Chula Vista Fire Department

At the present time, neither company has proposed or budgeted increases in staff or equipment.

The parcel lies within the jurisdiction of the Chula Vista Police Department, Reporting District #72. The Department has three regular shifts:

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<u>Shift</u>	<u>Hours</u>	<u>Patrol Units</u>
Day	7:00 a.m. - 3:00 p.m.	12
Swing	2:00 p.m. - 12:00 a.m.	8
Midnight	9:30 p.m. - 7:00 a.m.	7

The rate of crime in the area is low and is comparable to other nearby rural and residential areas. Most reported crimes are burglaries.

Response times to the proposed project would be between four and five minutes for high priority calls and between 17 and 20 minutes for low priority calls.

3.14.2 Potential Impacts

The proposed project would increase the demand for fire protection services in the area, but this increase would not be significant. Similarly, the project should not significantly affect the level of service provided by the Police Department in the area. However, the combined effect of population from this and other developments in the vicinity during the next few years would more than likely require additional deputies and/or patrol units.

3.14.3 Mitigation Measures

Revenue from property taxes assessed from the proposed development would help to offset the cost of fire and police protection services. No other mitigation is deemed necessary.

3.14.4 Analysis of Significance

Implementation of the proposed project would not significantly affect either the Bonita-Sunnyside Fire Protection District, the Chula Vista Fire Department or the Chula Vista Police Department.

3.15 WASTE DISPOSAL

3.15.1 Project Setting

Both residential and commercial refuse in the project area is gathered by Michelson Rubbish Service and Sani-Tainer, Inc. Each homeowner or merchant contracts separately with one of the companies. If the property is annexed to the City of Chula Vista, Chula Vista Sanitary Service would collect the solid waste. In either case, trash would be deposited at Otay Sanitary Landfill, which is located on Otay Valley Road, one mile east of Interstate 805. This facility is estimated to have adequate capacity for at least an additional 20 years of operation.

3.15.2 Potential Impacts

The future commercial concerns and residents of the property would be expected to generate approximately 2,665 pounds of solid waste per day (based on estimates of five pounds/person/day and two pounds/100 square feet of commercial space/day). This amount of trash is not expected to substantially affect solid waste collection services in the area.

3.15.3 Mitigation Measures

No mitigation measures would be necessary.

3.15.4 Analysis of Significance

Impacts to area solid waste collection services would be insignificant.

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3.16 UTILITIES/ENERGY

3.16.1 Project Setting

3.16.1.1 Sewage Disposal Service

Sewage disposal service is provided by the City of Chula Vista, which is a participant in the Metropolitan Sewage System. The City of Chula Vista has a sewerage allotment of 22.1 million gallons per day (mgd). At the present time, the City is using approximately 7.0 mgd, and therefore, has considerable additional capacity for new development. The Point Loma Waste Water Treatment Plant now provides primary treatment for sewage and currently flows approach or exceed the 120 mgd design capacity. The City of San Diego is currently pursuing a waiver from federal requirements for secondary treatment of sewage and the rated capacity of the Point Loma plant is being studied.

Sewer lines from the project would connect to the eight-inch line in the center of Otay Lakes Road. This line then enters the 39-inch Spring Valley trunk, which runs along the north side of Bonita Road.

3.16.1.2 Water

Water service in the area is provided by the Sweetwater Authority. The project would be serviced by a 12-inch main, which crosses Bonita Road and extends south along the east side of Otay Lakes Road.

3.16.1.3 Gas and Electricity

Electric service is available from 12kv distribution facilities adjacent to the proposed site, emanating from Sunnyside Substation, approximately a quarter mile south of the proposed project site.

Gas service is available from a six-inch gas main running within Otay Lakes Road, a six-inch gas main running within Bonita Road and an eight-inch gas main running within Bonita Road.

3.16.2 Potential Impacts

3.16.2.1 Sewage

Based on the sewage generation factors given in the Environmental Review Policy for the City of Chula Vista, the project would be expected to generate approximately 36,900 gallons of liquid waste per day. The City has enough available capacity in the eight-inch line to serve the project without being substantially affected. (This information was supplied by Bill Ullrich of the Chula Vista Department of Public Works.)

3.16.2.2 Water

Based on consumption rates of 130 gallons per person per day for residences and two gallons per square foot per month commercial space, the project would be expected to require approximately 60,000 gallons of water per day. Available water services in the area are adequate to meet the residential demand, but additional circulation capacity would be required to adequately supply the commercial portion of the development. (This information was obtained from Don Norton of the Sweetwater Authority.)

3.16.2.3 Gas and Electricity

Based on City of Chula Vista energy consumption estimates, the commercial portion of the development would be expected to require 40,000 KWH of electricity each month. If all-electric, the condominium units would require a total of approximately 57,078 KWH per month. If both gas and electricity serve the residences, the monthly energy consumption would be a total of 32,918 KWH and 5,889 therms.

Legislation that has recently gone into effect (July 1, 1978) requires substantial changes in insulation, solar heating and energy planning systems for new development. The effect of this legislation will be to reduce the level of consumption from that estimated above.

The proposed project is not expected to significantly impact the availability of energy resources. There would be a small increase, however, in local and regional energy use, adding to the need to conserve resources and to develop new supplies.

3.16.2.4 Gasoline

The San Diego County Comprehensive Planning Organization estimates that automobile trips average seven to eight miles in length. Therefore, automobile use by project residents would result in the consumption of approximately 615 gallons of gasoline per day, based on estimates of 8,610 miles travelled per day by property residents with automobiles averaging 14 miles per gallon. This figure is for 1974 automobiles and was transmitted verbally by Eric Pulljan of the County of San Diego Integrated Planning Office. The commercial development would generate 3,525 trips per day. Assuming the County-wide average of 7.5 miles per trip, customers would use about 1,888 gallons of gasoline per day travelling to and from the commercial portion of the project. Estimates of gasoline consumption by vehicles involved in the construction of the project are not available.

3.16.3 Mitigation Measures

No measures would be required to mitigate the project's demand for sewage service.

In order to adequately supply water for the commercial portion of the Bonita East development, the water circulation capacity in the project area would have to be increased, thus increasing the volume of water available to the project. Reduction of water consumption throughout the project could be achieved by installation of low-flow water devices and by landscaping with native plant species.

Recent legislation requiring more energy efficient construction in residential buildings would serve to reduce the amount of energy consumed by the project. Voluntary conservation by individual residents would also reduce the demand for energy.

Carpooling, the use of smaller cars and the improvement of public transportation in the project vicinity would reduce the amount of gasoline used by the project residents and customers. Also, because a wide variety of commercial services are available within short walking distance of the proposed residential project, energy use should be minimal.

3.16.4 Analysis of Significance

No substantial adverse effects on sewage disposal, water supply, or energy services are envisioned through implementation of the project.

Water supply capacity would have to be increased, however, in the immediate vicinity of the project. The developer would absorb the cost of this improvement. For this reason, it is unlikely that circulation capacity would be increased beyond the needs of the proposed project. Therefore, the expansion of supply capacity for the commercial phase of the development would not be likely to have a significant growth inducing impact.

3.17 TRANSPORTATION/ACCESS

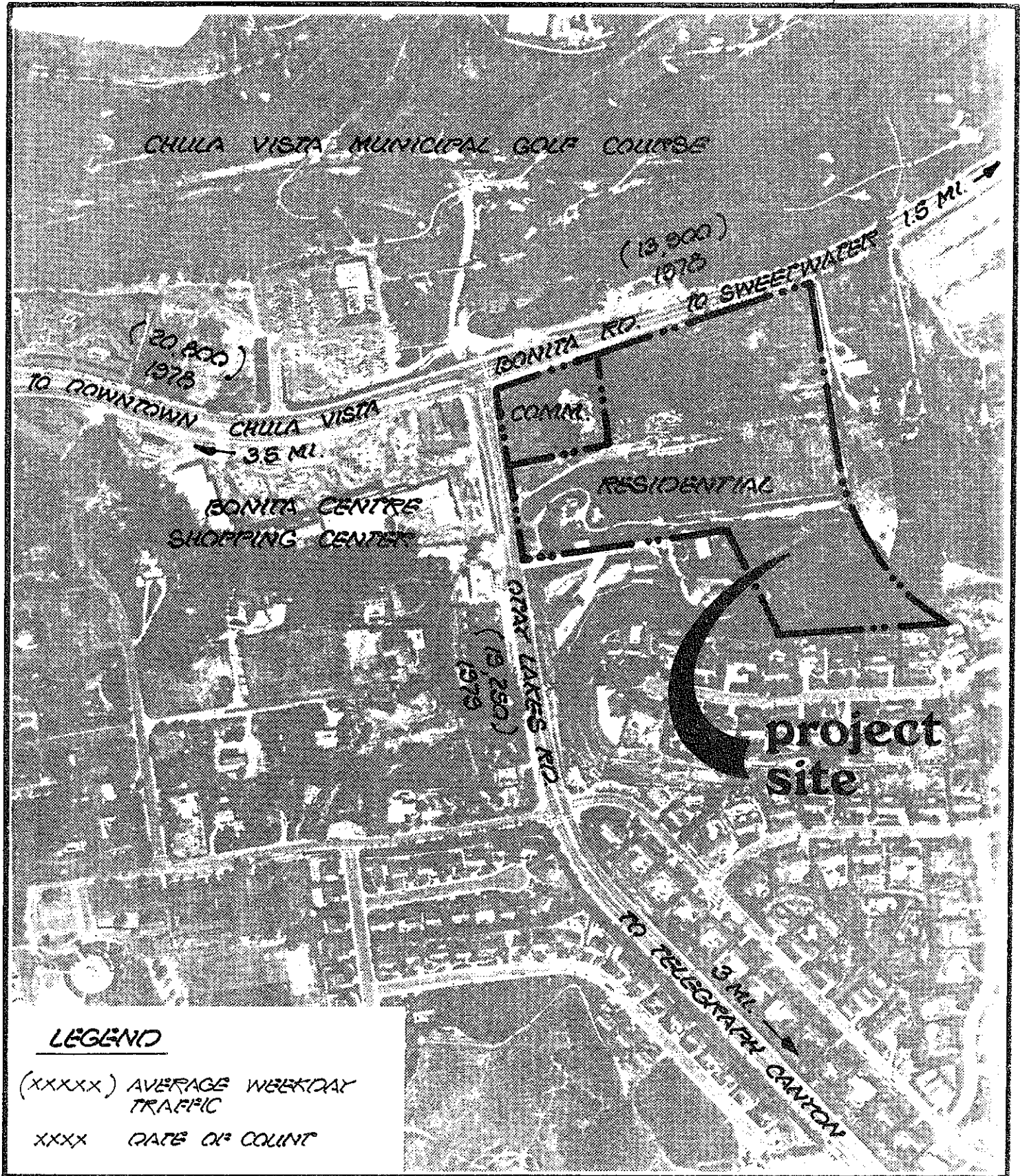
3.17.1 Project Setting

3.17.1.1 Existing Circulation

Bonita East, a 18.14-acre proposed residential/commercial development, is located in northeast Chula Vista on the southeast corner of the Bonita Road/Otay Lakes Road intersection. Three acres of the proposed development are planned for commercial use and 15.14 acres are planned for residential use.

The existing traffic circulation system within the immediate project area consists of Bonita Road and Otay Lakes Road (Figure 3.17.1-1). Bonita Road is classified on the County Circulation Element as a Major Road. While it is currently paved to a full 82 foot width at the intersection with Otay Lakes Road and to the west, it is currently only paved to a 45 foot width and three lanes (two westbound and one eastbound) east of the intersection and adjacent to the project site. The width of the intersection is sufficient to provide left and right turn pockets in the westbound and eastbound directions, respectively. Bonita Road provides access between Interstate 805 to the west and Sweetwater Road and SH 54 to the east. It would provide the major east-west access to and from the Bonita East project. Adjacent to the project, Bonita Road has a present Service Level A capacity for 10,000 ADT (City of Chula Vista Street Design Standards). When Bonita Road is improved to full Major Road standards, it should offer a Service Level A capacity for 25,000 ADT. The most recent average weekday traffic count for Bonita Road west of the Otay Lakes intersection is 20,800 ADT and 13,900 ADT east of the Otay Lakes intersection (Chula Vista Traffic Engineering Department, 1978). At present, no on-street parking is allowed on Bonita Road within the project area.

Access to the project site from the south is provided by Otay Lakes Road. Otay Lakes Road is currently three lanes (two northbound, one southbound) adjacent to



project location & existing traffic counts

the site and is classified on the County Circulation Element as a collector with a paved width of 68 feet. (Chula Vista Traffic Engineering Department.) At the intersection, the three northbound lanes divide into two westbound lanes and one eastbound lane, while the southbound lanes are currently not striped. The existing gas station and Bonita Centre Shopping Center across Otay Lakes Road from the project both have driveway exits onto Otay Lakes Road. There are signalized pedestrian crosswalks at the Bonita Road/Otay Lakes Road intersection. The latest available average weekday traffic count on Otay Lakes Road at its intersection with Bonita Road is 19,250 ADT (Chula Vista Traffic Engineering Department, 1977).

Most of the existing and future trips which utilize Bonita Road in the residential areas to the east of Otay Lakes Road travel past the project area to Interstate 805 and downtown Chula Vista in the morning and back to the residential area in the evening. The same pattern applies to trips generated south of the project site, which use Otay Lakes Road to reach Bonita Road and finally Interstate 805 and downtown Chula Vista to the west, or Sweetwater Road (SH 54) to the east.

The existing land use near Bonita East generates a large number of trips as well. This land use includes the 8.43-acre Bonita Centre Shopping Center, just west of the proposed site, and the Chula Vista Municipal Golf Course, which covers 132 acres to the immediate north. These facilities generate a combined total of about 6,400 trips per day: 5,900 trips per day for the shopping center and 500 trips per day for the golf course (Based on "Trip Generation Rate by Land Use", City of San Diego Transportation Planning Division, January 1975). (Table 3.17.1-1)

Public transportation service is currently provided by Chula Vista Transit. There is a bus stop at the intersection of Bonita Road and Otay Lakes Road. Two six-foot

Table 3.17.1-1

Project Area Land Use With Bonita East

<u>Land Use (Acreage)</u>	<u>Generation¹ Factor</u>	<u>Trips Generated</u>	
		<u>ADT²</u>	<u>Peak Hour</u>
Bonita East (18.14)			
Residential (15.14)	7.6/DU	1,100	110
Commercial (3)	1,175/acre	3,500	350
Bonita Centre Shopping Center (8.43)	700/acre	5,900	590
Chula Vista Municipal Golf Course (132)	4/acre	500	50

¹ (Based on "Trip Generation Rate by Land Use", City of San Diego Transportation Planning Division, January 1975)

² ADT's have been rounded to nearest hundred and peak hour trips have been rounded to the nearest ten.

3.17.1.1

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3.17.2.1

bike lanes exist next to the proposed site on either side of Bonita Road. Both lanes terminate temporarily at the intersection of Bonita and Otay Lakes Roads, but begin again further west on Bonita Road.

3.17.1.2 On-site Circulation and Access

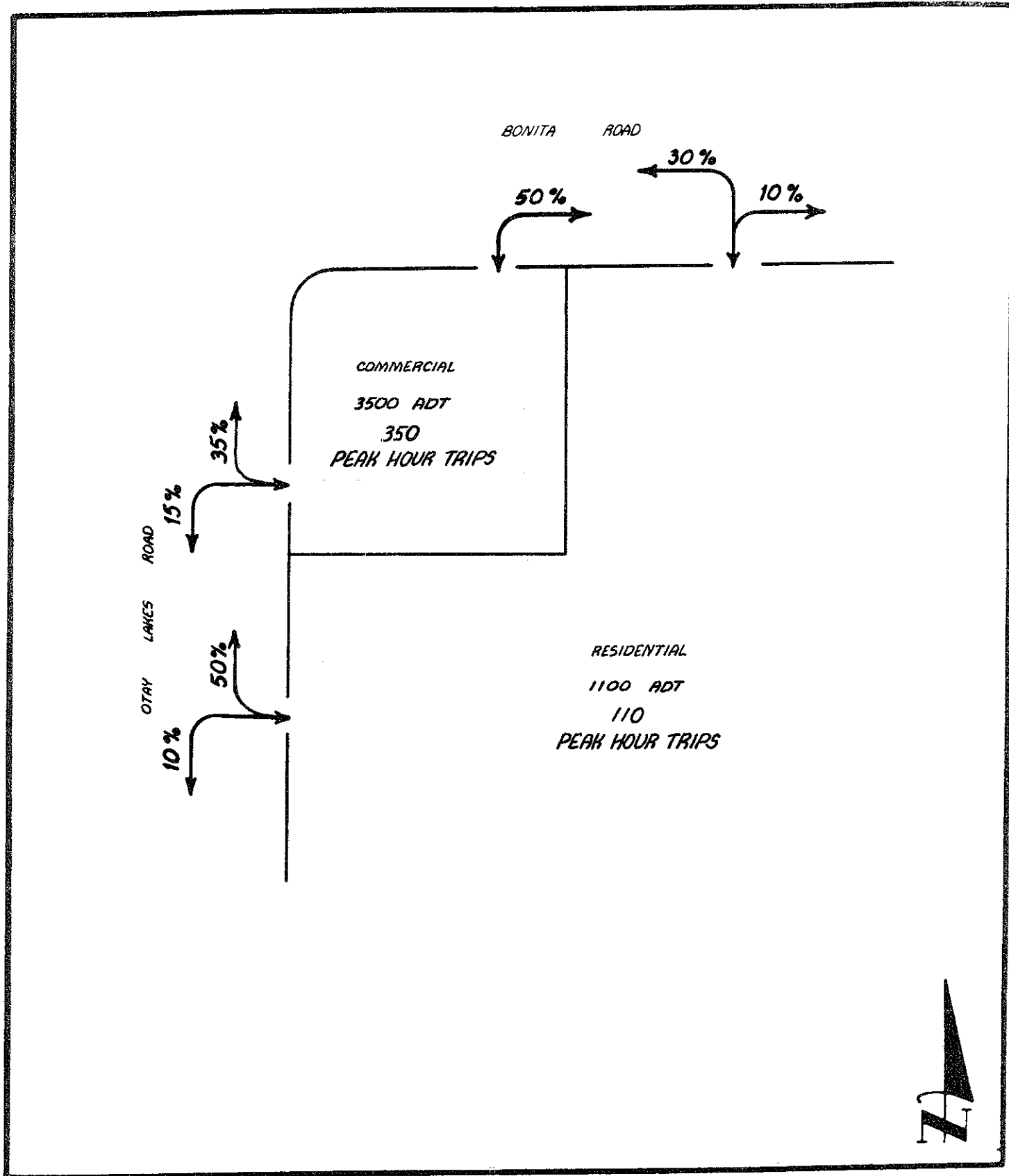
The internal traffic circulation requirements of the residents of the Bonita East project would be served by the 24-foot (curb-to-curb) private residential roads within the project boundaries. Two ingress/egress points are planned for the residential portion of the project: one on Bonita Road and one on Otay Lakes Road. The ingress/egress points are located approximately 720 feet and 400 feet, respectively, from the Bonita Road/Otay Lakes Road intersection. Access to the commercial portion of the Bonita East project would be provided by two ingress/egress points, one on Bonita Road and one on Otay Lakes Road, approximately 400 feet and 300 feet, respectively, from the intersection (see Site Plan).

3.17.2 Potential Impacts

3.17.2.1 Ingress/Egress for Residential Trips

Of all residential trips generated by the project, 80 percent are expected to go west on Bonita Road, ten percent are expected to go south on Otay Lakes Road and ten percent are expected to go east on Bonita Road (Figure 3.17.2-1).

Because of the proximity of the project access roads to the Bonita Road/Otay Lakes and Elevado/Otay Lakes traffic signals, vehicular ingress and egress to and from the project would be facilitated by the platooning effects in through traffic flows on Bonita and Otay Lakes Roads created by those traffic signals. Thus, no significant impacts on either Bonita Road or Otay Lakes Road flows due to resident-generated trips are anticipated.



trip distribution

3.17.2.2 Ingress/Egress for Commercial Trips

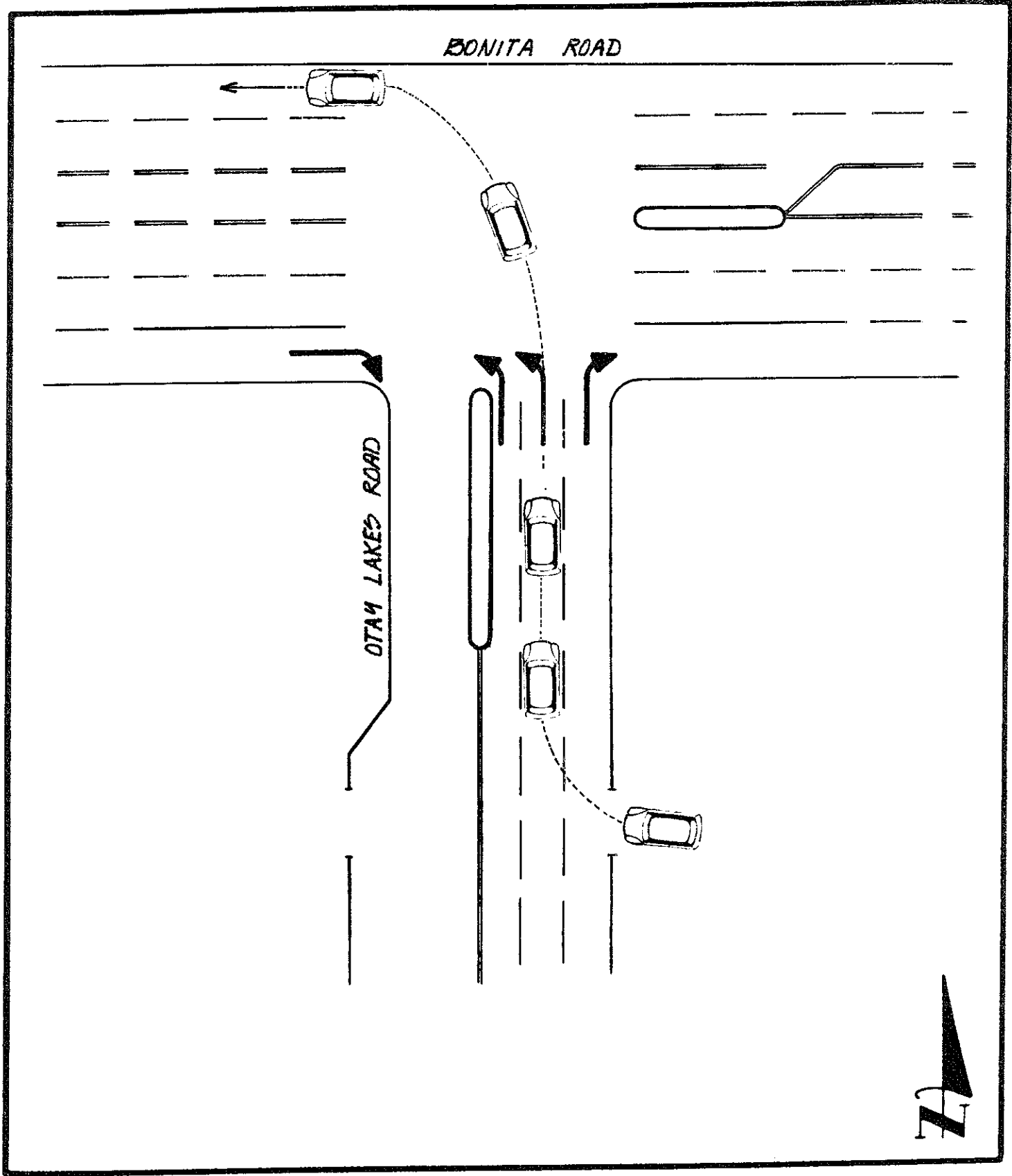
Thirty-five percent of all trips generated by the commercial portion of the development would arrive from areas to the west on Bonita Road; 15 percent from areas to the south on Otay Lakes Road; and 50 percent from areas to the east on Bonita Road (Figure 3.17.2-1).

The bicycle lane which exists today on Bonita Road may tend to give cyclists a false sense of security as they pass the driveway access to the commercial site. This safety impact would be particularly apparent during periods of high traffic volumes, when drivers of vehicles turning into and out of the commercial site might be paying closer attention to leaving or merging with the vehicles on Bonita Road.

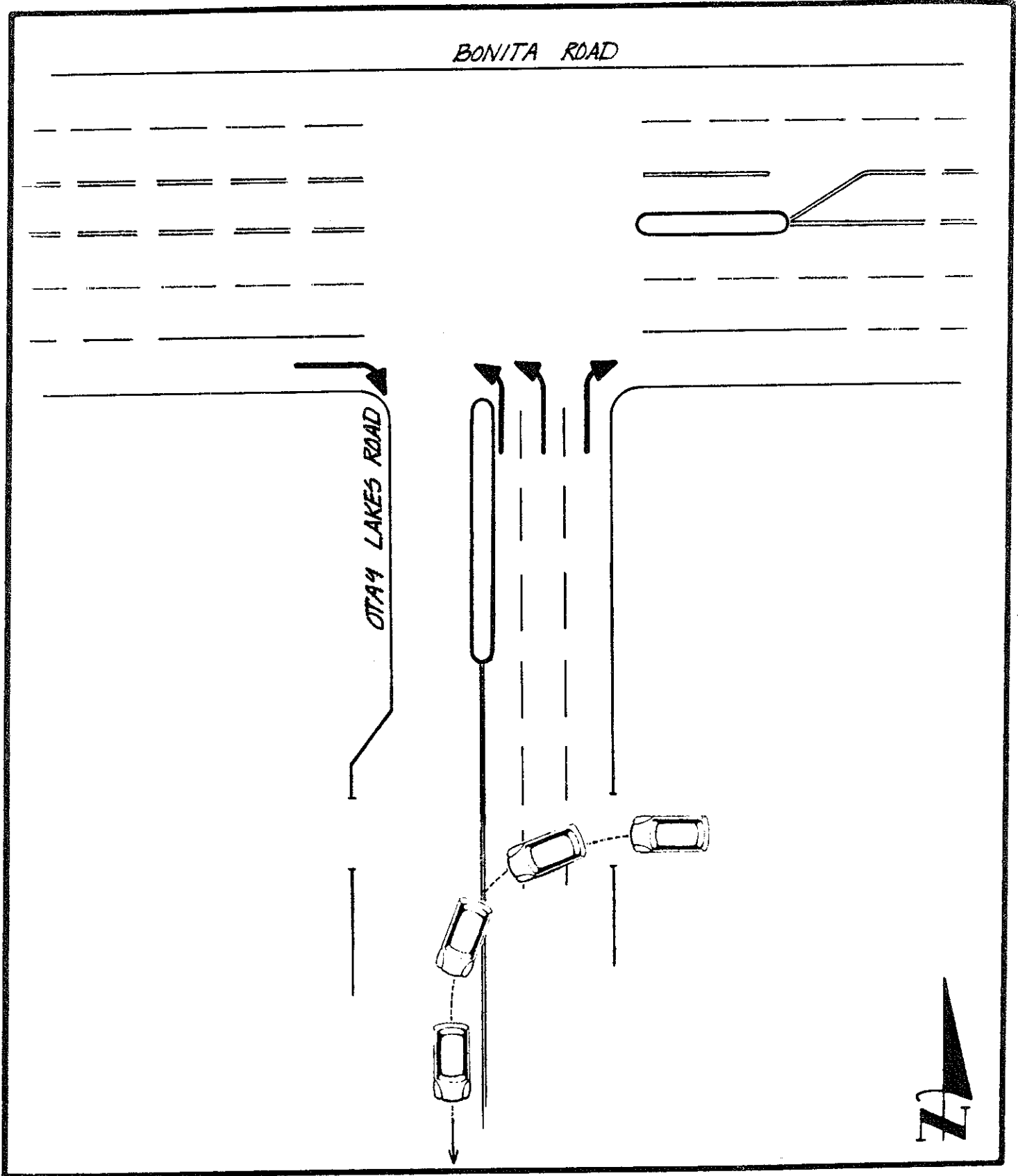
The project engineer (Robert Silva, Sholders and Sanford, January 30, 1979) confirms that while the existing medians are 100 feet in length, the commercial ingress/egress points are 200 feet south of the Bonita Road centerline on Otay Lakes Road, and 150 feet east of the Otay Lakes Road centerline on Bonita Road. Thus, no conflicts between the ingress/egress points and the existing medians are anticipated.

No other impacts are anticipated for eastbound vehicles on Bonita Road or northbound vehicles on Otay Lakes Road destined for the commercial site since right turns into the area would be unimpeded. Furthermore, no significant problems are anticipated for left turns into the site by vehicles westbound on Bonita Road or southbound on Otay Lakes Road. QUESTION
THIS.

However, some traffic impacts might occur involving vehicles leaving the commercial site and destined for areas to the west and south. Westbound vehicles would be likely to leave the site via the Otay Lakes Road exit, cut across the right turn lane and into the through left turn lanes (Figure 3.17.2-2).



WESTBOUND TRIPS LEAVING COMMERCIAL AREA



SOUTHBOUND TRIPS LEAVING COMMERCIAL AREA

During the off-peak hours, such a maneuver would be relatively unimpeded. During peak and other high volume hours, however, vehicles might queue past the commercial exit on Otay Lakes Road, with vehicles continuing through on the free right turn lane. This traffic condition could result in delays and hazardous situations whereby exiting vehicles might block the traffic in the free right turn lane while waiting for a place in the left turn queue.

A more serious impact might occur involving southbound vehicles leaving the commercial site. As long as Bonita Road east of Otay Lakes Road remains without a center turn lane, thus making left turns from the project site onto Bonita Road undesirable, these southbound vehicles would be likely to leave the site via the Otay Lakes Road exit, cut across three lanes of northbound traffic and into the southbound traffic flow (Figure 3.17.2-3).

As in the case of exiting westbound vehicles, such a maneuver would be relatively unimpeded during the off-peak hours. During peak and other high volume hours, however, exiting southbound vehicles would encounter continuous northbound free right turn lane traffic, two left turn lanes of moving or queued vehicles, and a virtually continuous flow of southbound traffic turning onto Otay Lakes Road from both directions of Bonita Road. In addition, the maneuver could conflict with vehicles turning out of the gas station and/or shopping center across the street on Otay Lakes Road.

3.17.2.3 Bonita Road/Otay Lakes Road Intersection

To determine the traffic volume impacts on the Bonita Road/Otay Lakes Road intersection due to trips generated by the proposed project, a detailed intersection capacity analysis using the Institute of Transportation Engineers (ITE) "Critical Movement Summations" method was performed. (Peterson and McInerny, 1971). The methodology used was as follows:

- 1) Existing intersection conditions were determined by analysis based on actual counts taken on Tuesday, January 23, 1979 at the intersection during peak hours between 7-8 a.m., 12-1 p.m. and 6-7 p.m. (All through trips and turns were counted.)
- 2) Existing Critical Lane Volumes (CLV's)^{FN} were calculated for each direction of travel during each of the peak hours.
- 3) The Highway Capacity Manual indicates that the accepted lane capacity is 1,500 vehicles per hour.
- 4) The ratio of the existing CLV's to the accepted lane-capacity value of 1,500 vehicles per hour was used to determine the intersection level of service without the project.
- 5) Definitions of Levels of Service are given in Table 3.17.2-1.
- 6) New CLV's were calculated for each direction of travel, incorporating the projected trips generated by the project.
- 7) The ratio of the new CLV's to the accepted lane-capacity value of 1,500 vehicles per hour was used to determine the intersection level of service with the project.
- 8) All right turns onto Otay Lakes Road from eastbound Bonita Road are continuous ("free") throughout the signal phases. The number in parentheses represents the number of trips actually turning during Phase I. The remaining trips are assumed to be distributed evenly throughout the remaining phases.

The existing and projected intersection traffic conditions and the steps performed in the analysis are described and illustrated below.

^{FN} A critical lane volume is the highest lane volume for a particular traffic signal phase.

The Petersen and McNerny method was used to find the Critical Lane Volumes (CLV's) and the lane capacities illustrated in Figures 3.17.2-4 through 3.17.2-10. The Highway Capacity Manual was used to relate the CLV/lane capacity ratio to the Level of Service (LOS) in the following table (Table 3.17.2-1).

Table 3.17.2-1

Levels of Service for Individual Isolated
Intersection Approaches*

- A There are no loaded cycles and few are even close to loaded. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically the approach appears quite open, turning movements are easily made and nearly all drivers find freedom of operation, their only concern being the chance that the light will be red, or turn red, when they approach. (CLV/Lane Capacity = 0.0)
- B Stable operation. An occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel somewhat restricted within platoons of vehicles. Under typical rural conditions this frequently will be suitable operation for rural design purposes. (CLV/Lane Capacity \leq 0.1)
- C Stable operation. Loading is still intermittent, but more frequent. Most drivers feel somewhat restricted, but not objectionably so. In the absence of local conditions dictating otherwise, this is the level typically associated with urban design practice. (CLV/Lane Capacity \leq 0.3)
- D This level encompasses a zone of increasing restriction approaching instability. Delays to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive back ups. (CLV/Lane Capacity \leq 0.7)
- E Capacity occurs at this level. There may be long queues of vehicles waiting upstream of the intersection and delays may be great. (up to several signal cycles) (CLV/Lane Capacity \leq 1.0)
- F Jammed conditions. Backups from locations downstream or on the cross-street may restrict or prevent movement of vehicles out of the approach under consideration; hence, volumes carried are not predictable. (CLV/Lane Capacity - not applicable)

* Source: Highway Capacity Manual 1965, Chapter 6.

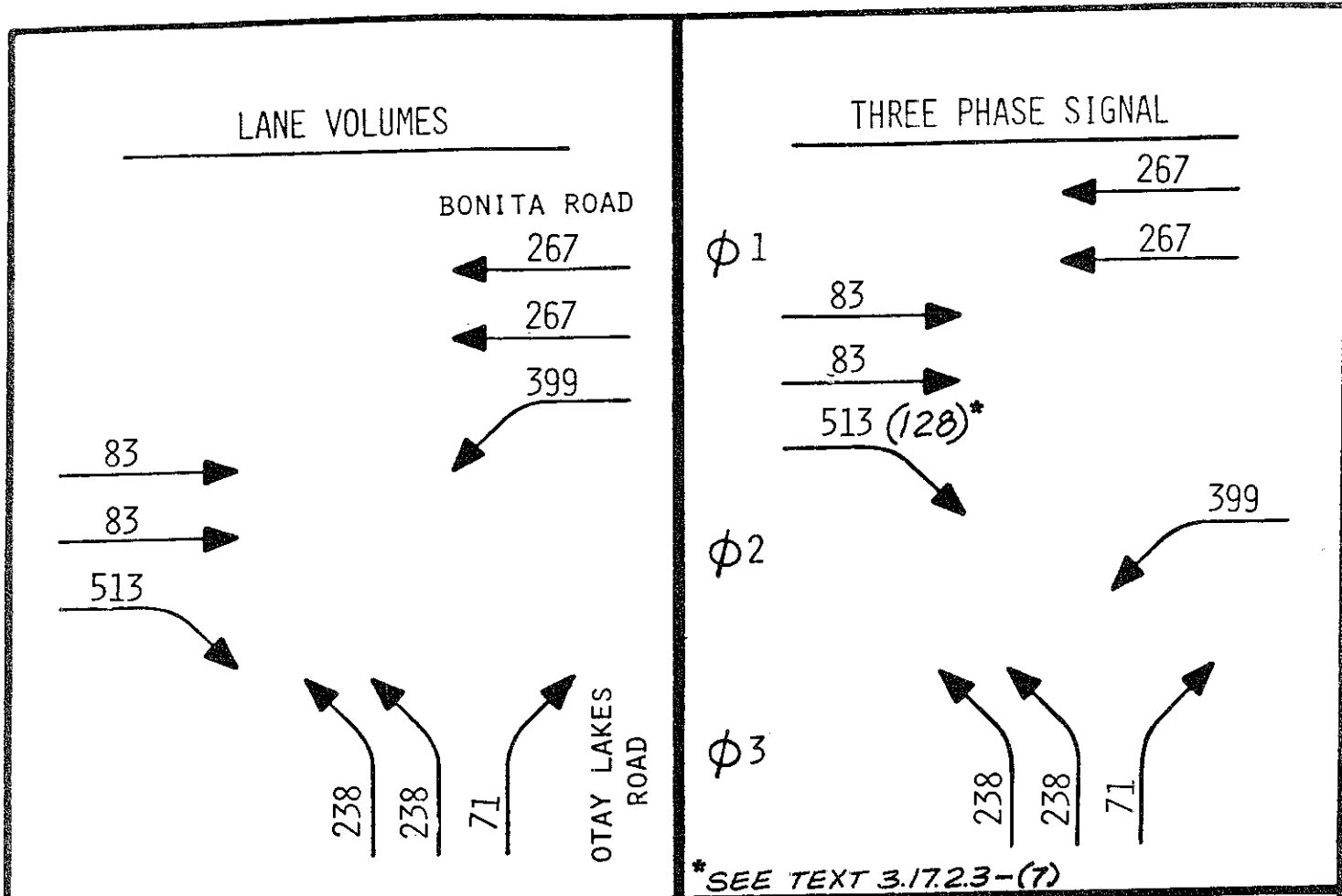
Table 3.17.2-2

BONITA ROAD/OTAY LAKES ROAD
EXISTING INTERSECTION CONDITIONS

2/22/79

Peak Hour 7-8 A.M.

Cycle Phases (Seconds)			Road and Direction	7:00 - 7:15	7:15 - 7:30	7:30 - 7:45	7:45 - 8:00	Totals
Green	Amber	Red						
17	5	36	Bonita Rd. EB	36	54	26	50	166
-	-	-	Bonita Rd. EB RT	50	122	174	167	513
12	5	40	Otay Lakes LT	107	127	145	96	475
-	-	-	Otay Lakes RT	21	16	18	16	71
21	3	71	Bonita Rd. WB LT	30	142	115	112	399
17	5	36	Bonita Rd. WB	128	138	133	135	534
Subtotals				372	599	611	576	2,158



SUMMATION OF CRITICAL LANE VOLUMES

$$CLV_1 = 267$$

$$CLV_2 = 399$$

$$CLV_3 = 238$$

$$\Sigma CLV = 904$$

$$LOS = \frac{CLV}{\text{Lane Capacity}} = \frac{904}{1,500} = .60$$

= D/C "delays to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups."



EXISTING INTERSECTION CAPACITY ANALYSIS

PEAK HOUR 7-8 AM

*Source: Highway Capacity Manual. 1965. Chapter 6: At-Grade Intersections, p. 130

Table 3.17.2-3

BONITA ROAD/OTAY LAKES ROAD
EXISTING INTERSECTION CONDITIONS

1/23/79

Peak Hour 12-1 P.M.

Cycle Phases (Seconds)			Road and Direction	12-12:15	12:15-12:30	12:15-12:45	12:45-1:00	Totals
Green	Amber	Red						
17	5	36	Bonita Rd. EB	96	89	86	101	373
-	-	-	Bonita Rd. EB RT	74	67	73	60	274
12	5	40	Otay Lakes LT	84	67	84	78	313
-	-	-	Otay Lakes RT	25	33	35	41	134
21	3	71	Bonita Rd. WB LT	31	29	28	36	124
17	5	36	Bonita Rd. WB	76	69	72	76	293
Subtotals				387	354	537	392	1,670

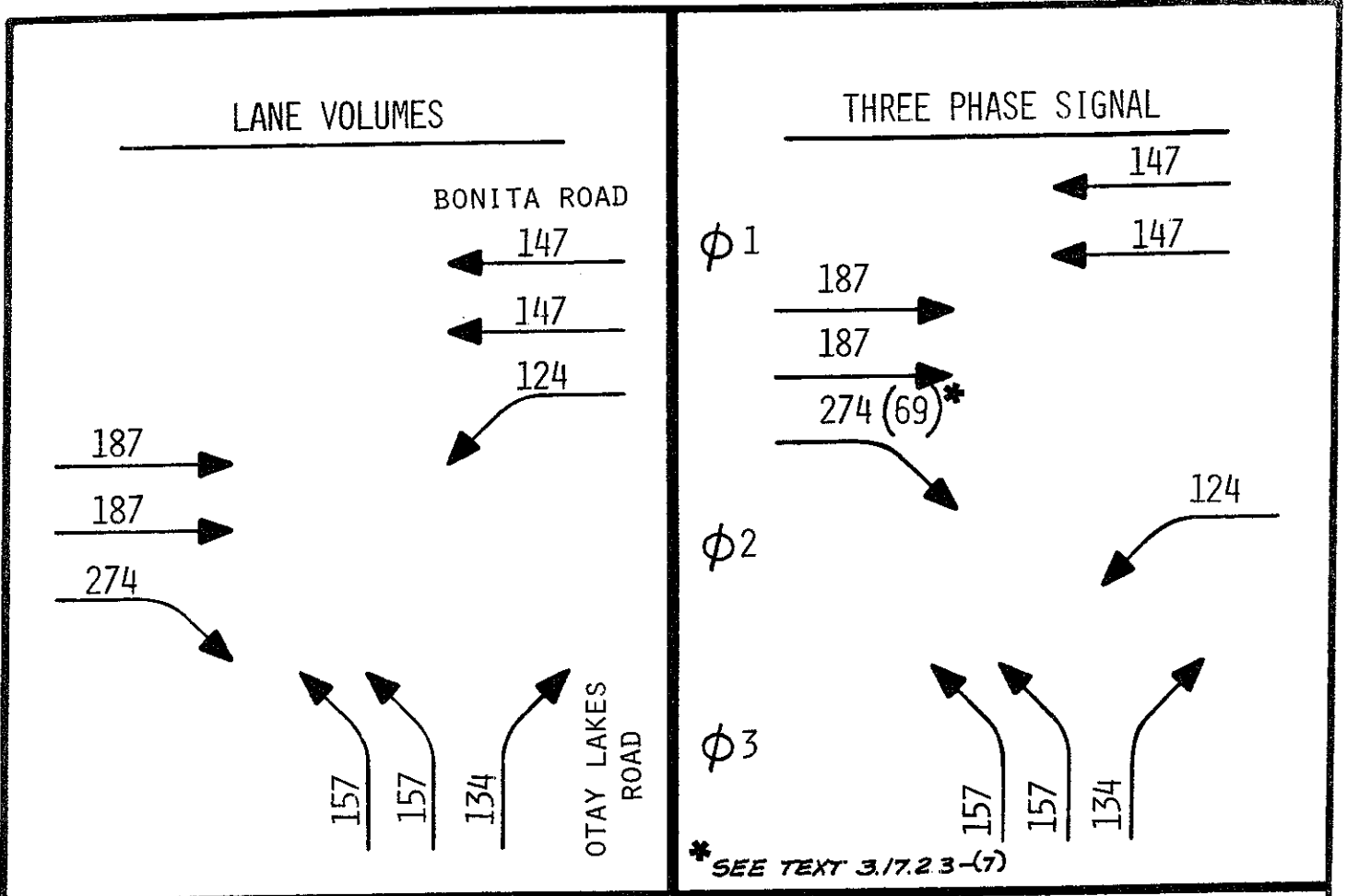
Table 3.17.2-4

BONITA ROAD/OTAY LAKES ROAD
EXISTING INTERSECTION CONDITIONS

1/23/79

Peak Hour 6-7 P.M.

Cycle Phases (Seconds)			Road and Direction	6:00-6:15	6:15-6:30	6:30-6:45	6:45-7:00	Totals
Green	Amber	Red						
17	5	36	Bonita Rd. EB	136	125	120	141	522
-	-	-	Bonita Rd. EB RT	104	94	102	84	384
12	5	40	Otay Lakes LT	112	89	112	104	417
-	-	-	Otay Lakes RT	33	44	47	54	178
21	3	71	Bonita Rd. WB LT	43	41	39	50	173
17	5	36	Bonita Rd. WB	106	97	101	106	410
Subtotals				534	490	521	539	2,064



SUMMATION OF CRITICAL LANE VOLUMES

$CLV_1 = 187$

$CLV_2 = 124$

$CLV_3 = 157$

$\Sigma CLV = 468$

$LOS = \frac{CLV}{Lane\ Capacity} = \frac{468}{1,500} = .31$

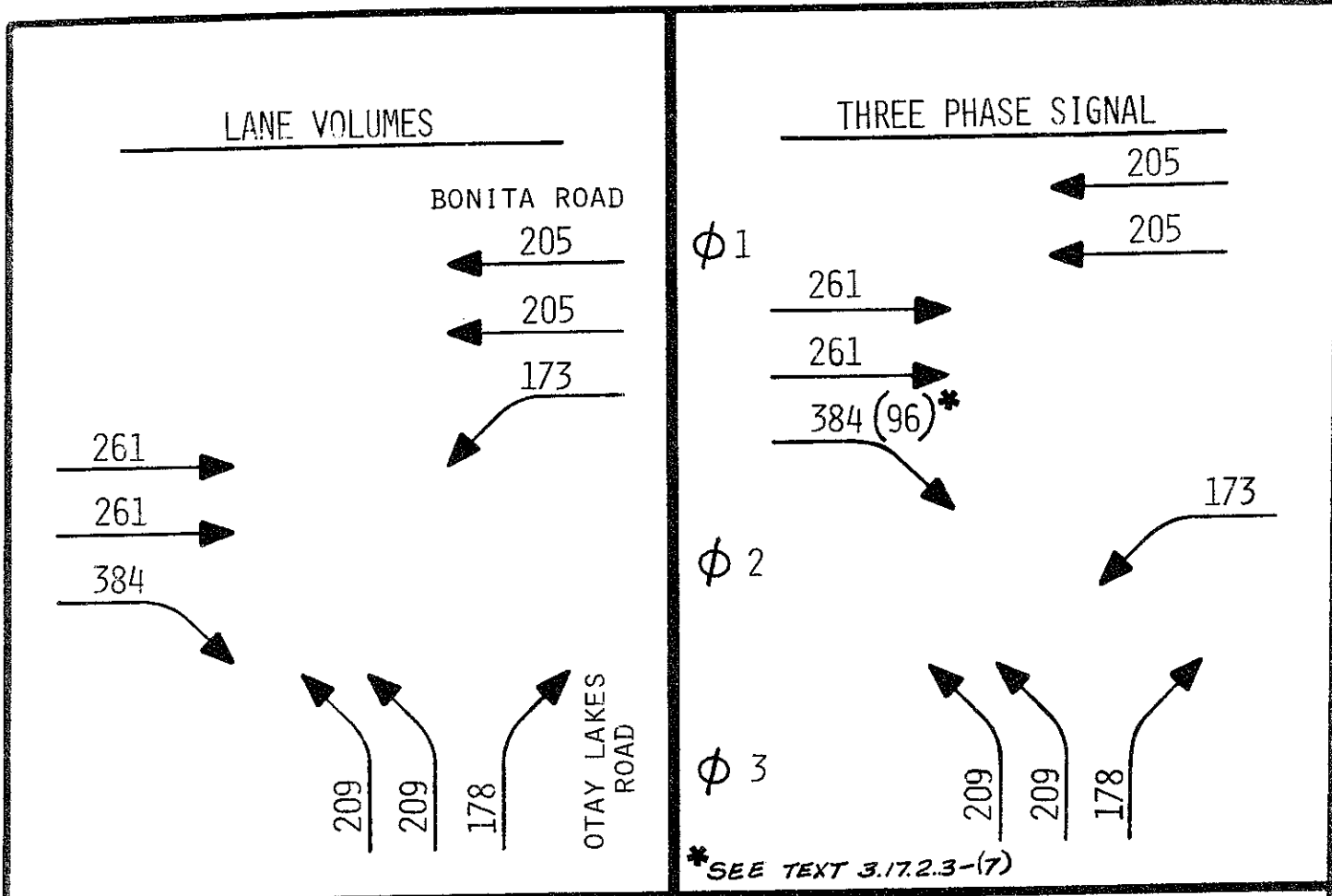
= C "Stable Operation. Loading is still intermittent, but more frequent. Most drivers feel somewhat restricted, but not objectionably so. In the absence of local conditions dictating otherwise, this is the level typically associated with urban design practice."*



EXISTING INTERSECTION CAPACITY ANALYSIS

PEAK HOUR 12-1 PM

*Source: Highway Capacity Manual, 1965. Chapter 6: At-Grade Intersections, p. 130



SUMMATION OF CRITICAL LANE VOLUMES

$$CLV_1 = 261$$

$$CLV_2 = 173$$

$$CLV_3 = 209$$

$$\underline{\underline{\Sigma CLV = 643}}$$

$$LOS = \frac{CLV}{\text{Lane Capacity}} = \frac{643}{1,500} = .43$$

= D/C "delays to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive back-ups."*



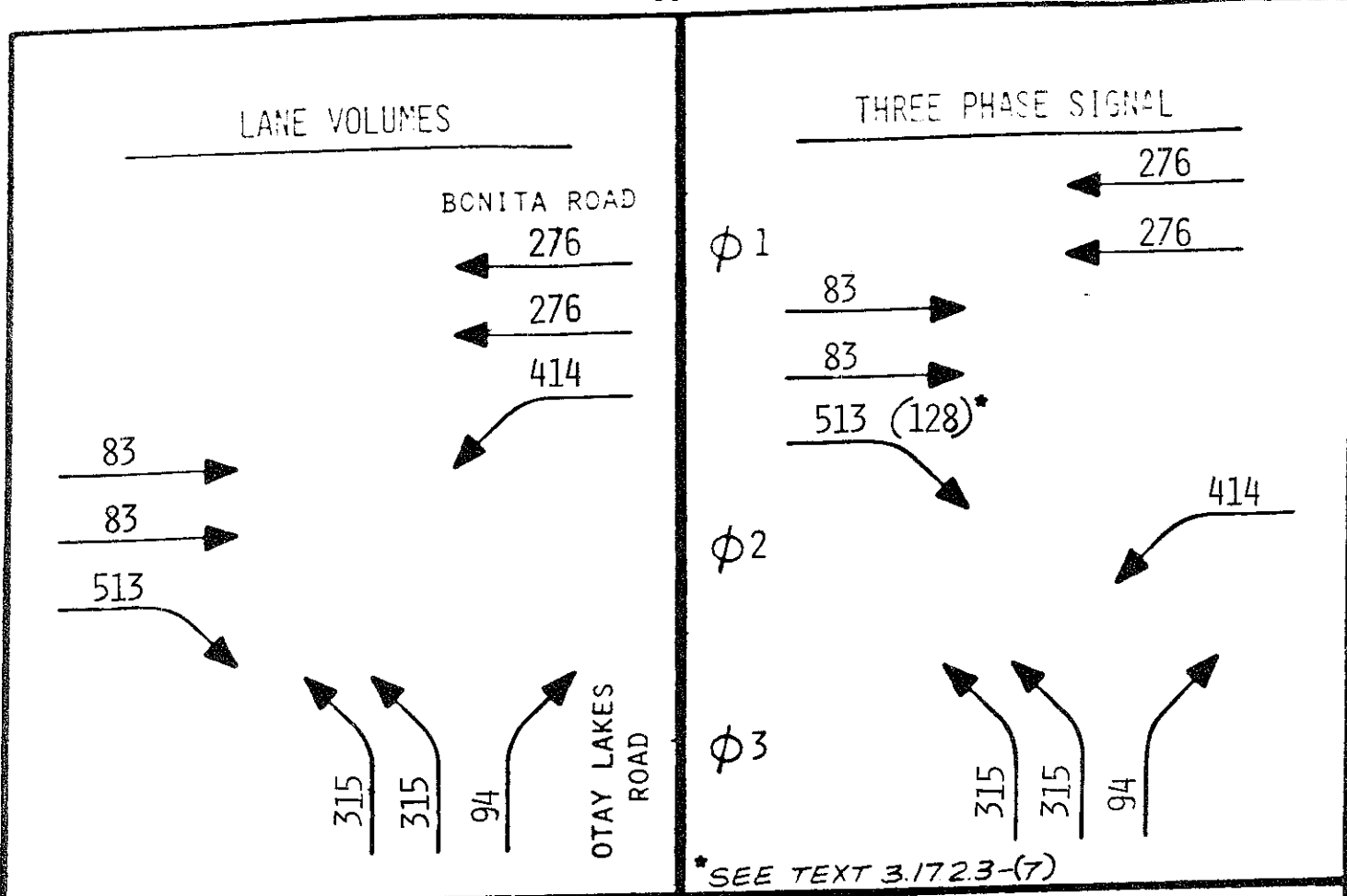
EXISTING INTERSECTION CAPACITY ANALYSIS
PEAK HOUR 6-7 PM

*Source: Highway Capacity Manual 1965. Chapter 6: At-Grade Intersections p. 130

Table 3.17.2-5

PROJECTED INTERSECTION CONDITIONS WITH BONITA EAST

<u>Road and Direction</u>	<u>Peak Hour Vehicles Per Lane</u>		<u>7-8 A.M.</u>
	<u>12-1 P.M.</u>	<u>6-7 P.M.</u>	
1. Bonita Road Eastbound	374	522	166
2. Bonita Road Eastbound right turns	274	384	513
3. Otay Lakes Road left turns	499	604	630
4. Otay Lakes Road right turns	150	194	94
5. Bonita Road Westbound left turns	134	183	414
6. Bonita Road Westbound	<u>315</u>	<u>432</u>	<u>552</u>
TOTALS	1,745	2,319	2,369



SUMMATION OF CRITICAL LANE VOLUMES

CLV₁ = 276

CLV₂ = 414

CLV₃ = 315

Σ CLV = 1,005

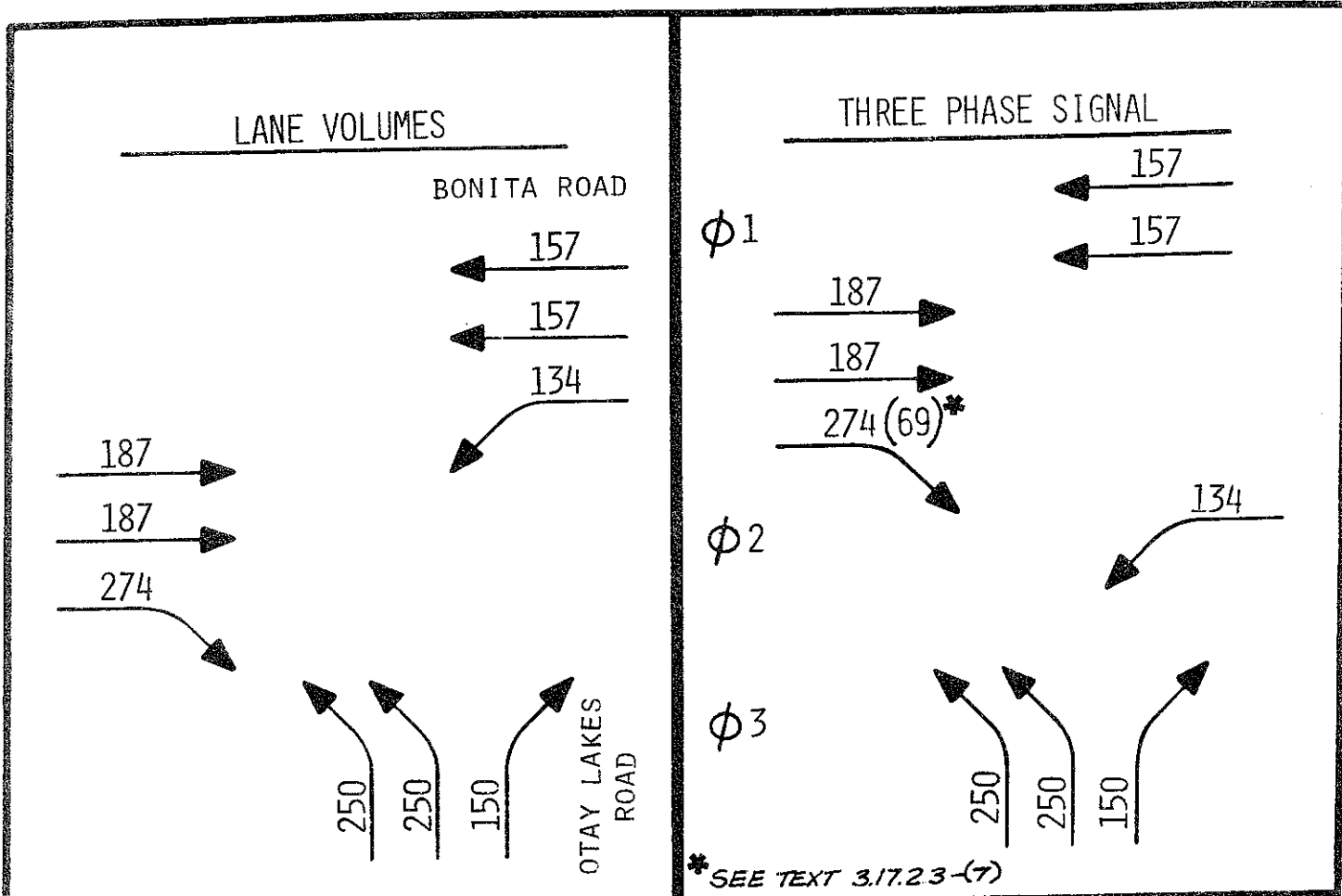
LOS = $\frac{CLV}{\text{Lane Capacity}} = \frac{1,005}{1,500} = .67$

= D/C "delays to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups."



INTERSECTION CAPACITY ANALYSIS WITH BONITA EAST PROJECT
PEAK HOUR 7-8 AM

*Source: Highway Capacity Manual. 1965. Chapter 6: At-Grade Intersections, p. 130



SUMMATION OF CRITICAL LANE VOLUMES

$$CLV_1 = 187$$

$$CLV_2 = 134$$

$$CLV_3 = 250$$

$$\Sigma CLV = 571$$

$$LOS = \frac{CLV}{Lane\ Capacity} = \frac{571}{1,500} = .38$$

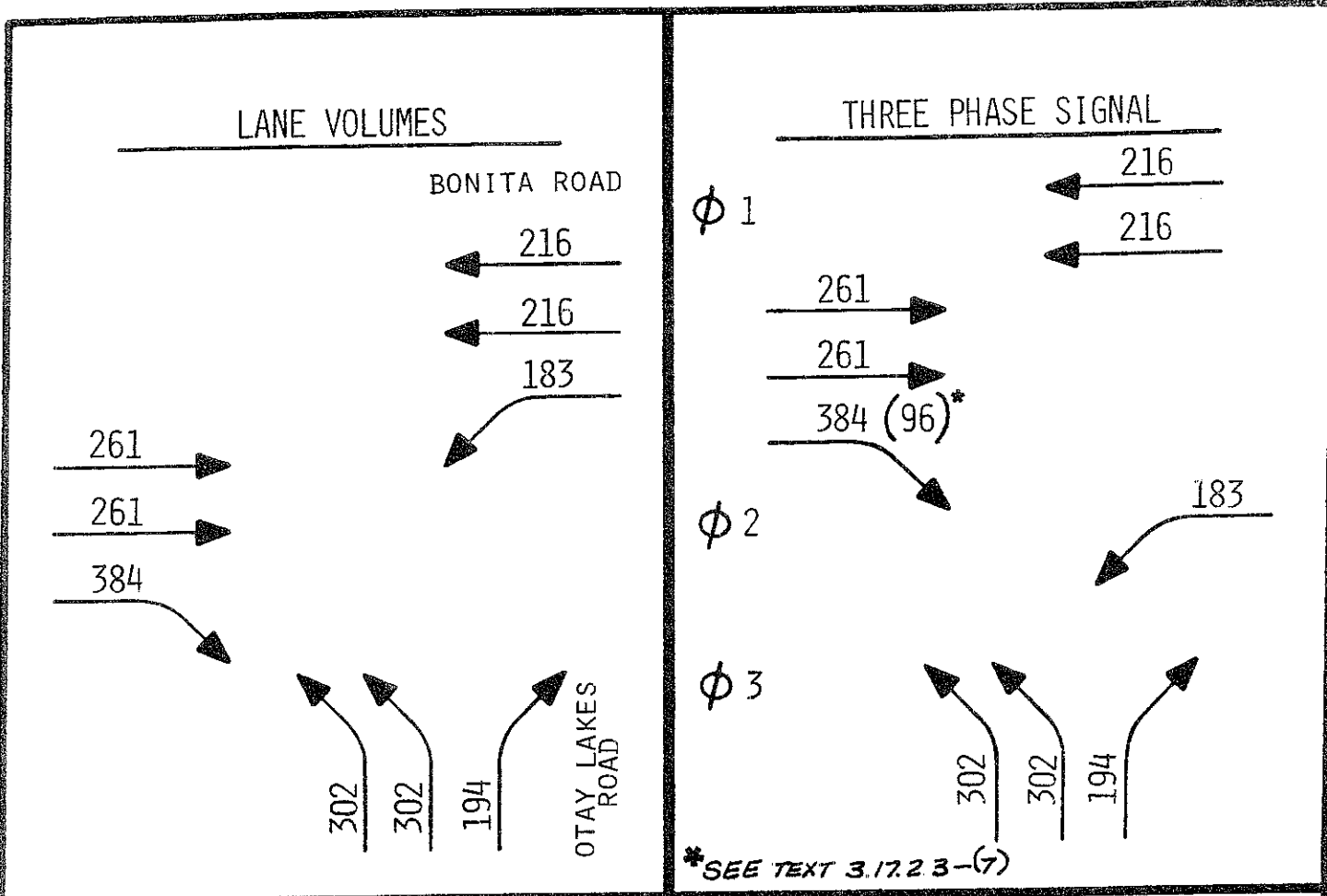
= D/C "delays to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive back-ups."*



INTERSECTION CAPACITY ANALYSIS WITH BONITA EAST PROJECT

PEAK HOUR 12-1 PM

*Source: Highway Capacity Manual 1965. Chapter 6: At-Grade Intersections p. 130



SUMMATION OF CRITICAL LANE VOLUMES

$$CLV_1 = 261$$

$$CLV_2 = 183$$

$$CLV_3 = 302$$

$$\Sigma CLV = 746$$

$$LOS = \frac{CLV}{Lane\ Capacity} = \frac{746}{1,500} = .50$$

= D/C "delays to approaching vehicles may be substantial during short peaks within the peak period, but enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive back-up."*



INTERSECTION CAPACITY ANALYSIS WITH BONITA EAST PROJECT

PEAK HOUR 6-7 PM

*Source: Highway Capacity Manual 1965. Chapter 6: At-Grade Intersection p.130

The detailed capacity analysis of the Bonita Road/Otay Lakes Road intersection indicates that a Level of Service D/C exists for the "worst case" peak hour situation. While the project would increase the existing summation of Critical Lane Volumes at the intersection by about 103 vehicles during the 7-8 a.m. peak (existing traffic levels were higher during the 7-8 a.m. peak than during either the 12-1 p.m. or the 6-7 p.m. peaks and thus the 7-8 p.m. peak was chosen as a "worst case"), the total Σ CLV = 904 is equivalent to a Level of Service D/C, still much less than the Level of Service E congestion volume Σ CLV = 1,500. (See Table 3.17.2-5).

3.17.2.4 Capacities of Bonita Road and Otay Lakes Road

The Chula Vista Planning Department assumes the capacity of Bonita Road (widened by the developer to its required width) to be 25,000 ADT (Doug Reid, February 20, 1979). The completed Bonita East project, including both residential and commercial land uses, would add approximately 1,840 ADT east of Otay Lakes Road and 2,300 ADT west of Otay Lakes Road. This will result in a projected total of 15,740 ADT and 23,100 ADT on Bonita Road east and west of Otay Lakes Road, respectively. The volume-to-capacity ratios without and with the project are:

Bonita Road (without project)

<u>East of Otay Lakes Road</u>	<u>West of Otay Lakes Road</u>
$\frac{v}{c} = \frac{13,900}{25,000} = .56$	$\frac{v}{c} = \frac{20,800}{25,000} = .83$
Level of Service A	Level of Service D

Bonita Road (with project)

<u>East of Otay Lakes Road</u>	<u>West of Otay Lakes Road</u>
$\frac{v}{c} = \frac{15,740}{25,000} = .63$	$\frac{v}{c} = \frac{23,100}{25,000} = .92$
Level of Service B	Level of Service E

According to the Highway Capacity Manual (1965), the resulting volume-to-capacity ratios indicate that the Bonita East project will lower the Level of Service on Bonita Road east of Otay Lakes Road from A to B, i.e., from "Free Flow (relatively)" to "Stable Flow (slight delay)". (See Table 3.17.2-6).

Table 3.17.2-6

Levels of Service for Urban
and Suburban Arterial Streets

Level of Service	Traffic Flow Conditions (Typical Approximations, Not Rigid Criteria)		Service Volume/ Capacity Ratio ^{a,b}
	Description	Average* Overall Travel Speed (mph)	
A	Free flow (relatively)	≥ 30	≤ 0.60 (0.80)
B	Stable flow (slight delay)	≥ 25	≤ 0.70 (0.85)
C	Stable flow (acceptable delay)	≥ 20	≤ 0.80 (0.90)
D	Approaching unstable flow (tolerable delay)	≥ 15	≤ 0.90 (0.95)
E ^c	Unstable flow (congestion; in- tolerable delay)	Approx. 15	≤ 1.00
F	Forced flow (jammed)	< 15	(Not Meaning- ful) ^d

^a Average overall travel speed and v/c rate are independent measures of level of service; both limits should be satisfied in any determination of levels, with due consideration given to the fact that they are largely rationalizations.

^b Values in parenthesis refer to near-perfect progression.

^c Capacity.

^d Demand volume/capacity ratio may well exceed 1.00, indicating overloading.

The ratios also indicate that the project will lower the Level of Service on Bonita Road west of Otay Lakes Road from D to E, i.e., from "Approaching Unstable Flow (congestion; tolerable delay)" to "Unstable Flow (congestion; intolerable delay)". (See Table 3.17.2-6).

The Planning Department also assumes the ultimate capacity of Otay Lakes Road in the vicinity of the project to be 25,000 ADT (Doug Reid, February 21, 1979). The completed Bonita East project will add approximately 460 ADT to the existing 19,250 ADT on Otay Lakes Road. The volume-to-capacity ratios are:

Otay Lakes Road (without project)

$$\frac{v}{c} = \frac{19,250}{25,000} = .77$$

Level of Service C

Otay Lakes Road (with project)

$$\frac{v}{c} = \frac{19,710}{25,000} = .79$$

Level of Service C

The resulting volume-to-capacity ratios indicate that the Bonita East project will have a minimal impact on existing Level of Service on Otay Lakes Road, i.e., "Stable Flow (acceptable delay)". (See Table 3.17.2-6).

3.17.3 Mitigation Measures

Mitigation of the traffic level impacts on Bonita Road west of Otay Lakes Road will be achieved with the completion of East H Street to Otay Lakes Road and completion of the Telegraph Canyon Road widening improvements. These roads, which lie south and parallel to Bonita Road, will serve as alternatives for east/west regional trips.

Partial mitigation of the impacts created by vehicles exiting the commercial site destined for areas to the west and south would be achieved by the widening and center turn lane striping of Bonita Road east of its intersection with Otay Lakes Road. This would allow a buffer space for westbound and southbound vehicles turning onto Bonita Road. During periods of heavy traffic volume (between 8:00 a.m. and 8:00 p.m.) when such vehicles would be hesitant to confront the complex traffic flows on Otay Lakes Road near the Bonita Road intersection,

such a buffer lane on Bonita Road might be a safer and thus more desirable alternative. Once onto Bonita Road, westbound vehicles could merge into the through traffic lanes while southbound vehicles could turn left onto Otay Lakes Road using the left turn lanes provided.

3.17.4 Analysis of Significance

The Bonita East project will generate approximately 1,100 daily residential trips and 3,500 daily commercial trips. These trips will enter and leave the project site via four access points: two commercial access points, one on Bonita Road and one on Otay Lakes Road; and two residential access points set further back from the intersection, one on Bonita Road and one on Otay Lakes Road.

The project generated trips will be generally distributed 50 percent or 2,300 trips west on Bonita Road, 40 percent or 1,840 trips east on Bonita Road and ten percent or 460 trips south on Otay Lakes Road. A detailed intersection capacity analysis of the Bonita Road/Otay Lakes Road intersection was performed during the three peak periods of the day as specified by the Chula Vista Traffic Engineer (7-8 a.m., 3-4 p.m., 6-7 p.m.). This analysis showed that the project-generated trips would not have a significant adverse effect on the operation or capacity of the existing intersection, even during the peak periods.

The roadway capacity analyses of Bonita and Otay Lakes Road were based on ultimate capacities of 25,000 ADT for each of those roads. The existing traffic counts for Bonita Road were 20,800 ADT west of Otay Lakes Road and 13,900 ADT east of Otay Lakes Road. These 1978 counts were provided by the Chula Vista Traffic Engineer in January - February, 1979.

There were several conflicting existing traffic counts for Otay Lakes Road. The City of Chula Vista Traffic Engineering Department provided a 1977 count of 21,800 ADT, a 1978 count of 15,568 ADT and a 1979 count of 19,250, which was extrapolated from a manual count of traffic during one peak hour. The 1978 count for Otay Lakes Road shown on the CPO 1978 Average Daily Traffic Volumes Map is 17,400 ADT. It was generally agreed that the 21,800 figure was in error, particularly since it exceeds the count on the more heavily traveled Bonita Road. The 19,250 figure was finally used based on the fact that it was the most recent and appeared to be the most reasonable number.

Based on the conditions described above, it was determined that the project would reduce the existing Level of Service on Bonita Road east of Otay Lakes Road from A to B; that it would reduce the existing Level of Service on Bonita Road from D to E; and that it would not affect the existing C Level of Service on Otay Lakes Road.

While the conditions on Bonita Road west of Otay Lakes Road with the project just exceed the D/E Level of Service threshold, those conditions can be expected to worsen as regional traffic levels increase in the future.

The future (1995) traffic volumes on both Bonita Road and Otay Lakes Road have been estimated to be 25,000 ADT (Doug Reid, February 20, 1979). Included in these projections are trips generated by future developments along Otay Lakes Road such as El Rancho del Rey and Long Canyon Estates. These developments would have a much greater effect on local traffic circulation than would the proposed Bonita East project. All new development in this area, however, including the proposed project, the Assembly of God church and school on Bonita Road, El Rancho del Rey and Long Canyon Estates, would contribute to cumulative traffic impacts in the vicinity until parallel east-west roadways are built.

The planned construction of East H Street to Otay Lakes Road and the completion of the Telegraph Canyon Road improvements (both roadways are parallel to and south of Bonita Road) will greatly relieve the congestion on Bonita Road west of Otay Lakes Road. These future road improvements will provide alternate east/west access for through trips in the general area. Although such an improvement in Level of Service can be expected in the future, the exact timing and effectiveness of the improvements is as yet unclear to all the jurisdictions involved (including CPO, IPO and the City of Chula Vista). Until these off-site improvements are constructed, Level of Service E (unstable flow) can be expected on Bonita Road west of Otay Lakes Road during peak traffic periods whether or not the proposed Bonita East development is constructed. These improvements will not be made until after the completion of the proposed project.

The project-generated trips would not significantly impact the operation or capacity of the existing Bonita Road/Otay Lakes Road intersection. Because of the proximity of the residential access roads to the Bonita Road/Otay Lakes Road and Elevado Road/

Otay Lakes Road traffic signals, resident-generated trips entering or leaving the residential site could take advantage of the platooning effects of the signal cycles.

During periods of heavy traffic, however, which generally occur between 8:00 a.m. and 8:00 p.m. on Bonita Road and Otay Lakes Road, westbound and southbound trips leaving the commercial area would significantly impact traffic flows on Bonita Road and Otay Lakes Road. These impacts could be partially mitigated by the provision of a center left turn lane on Bonita Road, which would aid in the merging of the westbound and southbound vehicles exiting the commercial area.

Any traffic turning impacts due to the locations of the access points to Bonita Center and Bonita East on Otay Lakes Road would be mitigated to insignificance by ensuring that the centerlines of those accesses match up across Otay Lakes Road. The Bonita East project architect and engineer have both confirmed that the final plans for the Bonita East commercial area will reflect such a matching up of centerlines.

4.0 UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS

3.1 Geology

Implementation of the proposed project would result in construction on the site of an ancient landslide. If the recommendations of the geologic consultants are followed, however, the risk to future residents of the property would probably not be significant.

3.5 Landform

Development of the proposed project would result in substantial landform alteration. Approximately 50,000 cubic yards of on-site cut and fill and 50,000 cubic yards of imported fill would be necessary. Proper construction and maintenance of cut and fill slopes should reduce the significance of this impact.

3.6 Mobile Noise

Residents of the property would experience noise levels in excess of 65 dBA. Construction of a five-foot earth berm and satisfaction of state noise insulation requirements should reduce the traffic noise impact to a level of insignificance.

3.9 Land Use

The land uses proposed for the project site are in conflict with both the Chula Vista General Plan and the Sweetwater Community Plan. The residential density proposed for the site is not in conformance with proposed or existing densities in adjacent areas. The commercial portion of the development would generate increased traffic in the area and difficult or hazardous left turns onto Otay Lakes Road and Bonita Road. Although the plan would increase the level of urbanization in the Sweetwater Valley, it would not in and of itself greatly encourage further urbanization.

3.16 Utilities/Energy

Construction of the project would require an expansion of the water delivery system to supply sufficient flow for the commercial development.

3.17 Transportation/Access

The intersection capacity of Otay Lakes Road and Bonita Road would not be significantly affected by the proposed project. However, left turns from the commercial portion of the project merging into existing traffic flows onto the two roads would be very difficult or hazardous.

5.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

In establishing the requirements for environmental review of the proposed project, the City of Chula Vista determined that the project would not result in significant impacts to the following environmental factors:

No impacts to area water quality were anticipated other than those discussed in the Soils, Drainage Patterns and Groundwater sections.

Regional air quality impacts would be insignificant due to the small size of the project.

No historically important resources would be affected by the construction.

Residents of the proposed development would be expected to have economic and social characteristics similar to those of surrounding residents. Therefore, community social factors would not be significantly affected by the project.

6.0 ANALYSIS OF ALTERNATIVES

A wide variety of alternative development designs are possible for the subject site. The following analysis addresses the potential environmental effects and consistency with surrounding land uses of each alternative. A matrix comparison of the relative environmental effects of the projects can be found in Table 6.0.-1.

1. No Project

Retention of the land in its present state would delay all of the consumptive impacts of the project, but would not resolve the conflict among the various land use designations applied by existing zoning ordinances and community plans. At the present time, the vacant, disturbed property is inconsistent with development in the area and with the well-groomed park and recreation land north of Bonita Road. In addition, degradation of the land through erosion of steep cut slopes would continue under this alternative.

2. Compliance With the Sweetwater Community Plan, Two Dwelling Units/Acre

The environmental effects of this alternative would be less significant than the impact of the proposed medium-density development. Impacts to biological and archaeological resources and groundwater would be similar, but in most respects this alternative would reduce the impacts associated with the proposed project.

Geology: Under this alternative, development in the area of the landslide could be avoided, thus eliminating the chief geology-related impact of the proposed project.

Soils: Less disruption of land would occur under this alternative and the risk of erosion would be lower. Lesser amounts of fill soils would be needed, thus avoiding the potential impacts at borrow sites located off the property and the possibility for further environmental review.

Drainage Pattern: This alternative would produce a smaller area of impervious surface, and therefore, runoff would not increase as much as it would under the proposed project. Any development in the alluvial area would probably require remedial grading to raise building sites out of the 100-year floodplain.

Landform: This alternative would permit less hillside development than would the proposed project. Therefore, less landform alteration would be necessary.

Mobile Noise: Fewer residents would be adversely affected by high traffic noise levels than would be affected under the proposed project.

Aesthetics: This alternative would preclude further expansion of "strip commercial" development which could be aesthetically displeasing.

Community Tax Structure: Under this alternative, County tax revenues would increase. However, much larger increases that would accrue to the City of Chula Vista under the proposed residential/commercial project would be eliminated.

Parks, Recreation and Open Space: Fewer people would require park and recreation services under this alternative than under the proposed project.

Services: Fewer people would require services such as schools, solid waste disposal and fire and police protection than under the proposed project. This reduction in need would not be significant since the proposed project would not substantially affect service capability. Also, this alternative would have less need for utility and energy service than would the proposed project. Expansion of water circulation capacity would not be necessary.

Transportation/Access: This alternative would generate far fewer trips than would be proposed project. Turns into and out of the property would be minimal and would not have a serious effect on traffic flow.

3. Compliance With the Overall Density of the Chula Vista General Plan, Development at Ten Dwelling Units Per Acre

The Chula Vista General Plan indicates that portions of the property could be developed for both low and high density residential use. This alternative differs from the planned project in that under this alternative no commercial development would be allowed on the property. Impacts related to geology, soils, drainage pattern, groundwater, landform, biology, archaeology, fire service, police protection and waste disposal would be similar for both this alternative and for the proposed project. Impacts related to the following factors would differ between the proposed project and this alternative.

Parks, Recreation and Open Space: This alternative would add more residents to the area than would the proposed project. In view of the large amount of park land nearby, however, this additional population would not have a significant effect on the park land in the area. Also, the developer would be assessed fees to offset the cost of additional park land.

Utilities/Energy: Because of the absence of the commercial development, implementation of this alternative, rather than the proposed project, would eliminate the need for increased water circulation capacity.

Transportation/Access: This alternative would generate far fewer trips per day than would the proposed project because of the absence of the commercial development. Impacts to traffic flow in the area would be less under this alternative, because fewer trips would be turning into and out of the development.

Mobile Noise: Residential development at the northwest corner of the property would be less compatible with high levels of traffic noise than would the proposed commercial development.

Aesthetics: Occupation of the entire property by residential units would not contribute to the extension of strip commercial development along Bonita Road, thus eliminating potentially adverse aesthetic impacts.

Community Tax Structure: Because residential development is generally assessed at a lower rate than an equal area of commercial development, the proposed project would yield more tax revenue to the City of Chula Vista than would this all-residential alternative.

Schools: This alternative would generate more school-aged children than would the proposed project. This difference would not be significant, however.

4. Strict Conformance With the Chula Vista General Plan

This alternative would allow high-density residential development in the northern, flatter portions of the property and low-density development in the southern, hilly section. In most respects this alternative would not differ substantially from the previous alternative which would allow development of the entire site at an average overall density of ten dwelling units per acre. Strict conformance with the General Plan would reduce geologic impacts by limiting construction on the landslide area. It also would have less effect on landforms than would the previous alternative because the extensive grading necessary for development of medium-density residences on the hillside would not be required. Also, low-density development in the southern section of the property would be more compatible with existing land uses adjacent to the area than would the medium-density development proposed by the previous alternative.

Under state law, the reviewing agencies are required to give major consideration to alternatives in order to prevent environmental damage. However, these agencies also have obligations to balance other public objectives, including economic and social factors, in determining whether and how a project should be approved.

Table 6.0-1

Comparison of Alternatives

	Proposed Project	Strict Conformance With Chula Vista General Plan	Conformance With Net Density Specified By C.V. Gen. Plan (10 DU's/Acre)	Conformance With Sweetwater Community Plan (2 DU's/Acre)
Geology	3	1	3	1
Soils	3	2	3	1
Groundwater	2	2	2	0
Drainage	2	2	2	1
Landform	3.5	2	3.5	2
Mobile Noise	2	2.5	2.5	1
Biology	0	0	0	0
Archaeology	0	0	0	0
Land Use	3	1	2	1
Aesthetics	2	1	1	0
Community Tax Structure	0	0	0	0
Schools	1	1.5	1.5	0.5
Parks, Recreation Open Space	1	1.5	1.5	0.5
Fire/Police	1	1	1	0.5
Solid Waste	1	1	1	0.5
Utilities/ Energy	1	1	1	1
Transportation/ Access	<u>3</u>	<u>2</u>	<u>2</u>	<u>1</u>
TOTAL	28.5	21.5	27	11

Scale: A continuum from 0-4:

- 0 No significant impacts
- 1 Slight impacts, mitigatable
- 2 Moderate but mitigatable impacts
- 3 Significant impacts, mitigatable to an acceptable level
- 4 Significant unmitigatable impacts

7.0

RELATIONSHIP BETWEEN LOCAL SHORT-TERM USE OF THE ENVIRONMENT AND MAINTENANCE AND ENHANCEMENT OF LONG TERM PRODUCTIVITY

The Bonita East project would have certain cumulative, long-term effects on the environment. The project would irreversibly commit the site to a greater residential density than that of surrounding land uses. This commitment would in turn result in continued high traffic levels in the immediate area. For these reasons, the project would narrow the range of available beneficial uses of the environment.

The project would not generate long-term risks to health or safety if measures are taken to stabilize the landslide area and if cut and fill slopes are properly constructed and managed.

Development of this land at the present time is justifiable because of the disturbed nature of the property. Unless remedial grading and landscaping occurs, further degradation of the property will continue. Environmental considerations and economic and social factors should be balanced to determine the most appropriate form of development.

8.0 IRREVERSIBLE ENVIRONMENTAL CHANGES

Irreversible environmental changes associated with the project would be primarily related to land use and landform alteration. Implementation of the proposed project would result in further urbanization of the Sweetwater Valley. Cumulative effects on this and other development in the area could serve to change the rural character of the Bonita area. Over the long term, increased population in the area would irreversibly impact natural habitats, energy consumption, traffic levels and public services. The effects of the project on this cumulative urbanization would be indirect, since the project itself would not require additional levels of urban services.

Landform alteration resulting from project construction would also be irreversible. The significance of this impact is lessened by the fact that the land has been severely disturbed in the past, and the proposed project would stabilize areas that are now subject to erosion and further deterioration. Grading operations would also have permanent off-site effects since large amounts of fill soils would be required.

Furthermore, construction of the project would involve an irreversible commitment of resources in the form of building materials and energy required for construction.

9.0 GROWTH INDUCING IMPACTS

Annexation of the property by the City of Chula Vista would increase the urbanization of the area, but the proposed development would not directly induce further growth in the Sweetwater Valley. This project would not directly stimulate further annexation since the site is surrounded on three sides by the City of Chula Vista.

Urban services currently exist in the area and with the exception of water service, are adequate to serve the needs of the project. Water capacity would be increased to serve the commercial development. Because the developer would pay for this expansion, it is unlikely that capacity would be increased beyond that required for the Bonita East project. This expansion of water availability would not be large enough to have a growth-inducing effect. Additional growth would not be dependent upon implementation of the proposed project.

While the project would not directly stimulate growth through the extension of public roads or services, the cumulative effect of this and other projects in the area would be to increase the level of urbanization and incrementally change the character of the valley.

10.0 ORGANIZATIONS AND INDIVIDUALS CONSULTED

Doug Reid	Chula Vista Planning Department
Cpt. Ted Monsell	Chula Vista Fire Department
Sgt. Sherwood George	Chula Vista Police Department
Bill Ullrich	Chula Vista Department of Public Works
Dr. Delores Wells	Chula Vista Elementary School District
Phillip Jollif	Sweetwater Union High School District
Eric Lewis	County of San Diego Department of Sanitation and Flood Control
Don Norton	Sweetwater Authority
Marge Jones	Bonita-Sunnyside Fire Protection District
Bruce Williams	San Diego Gas and Electric Company
Dale Combs	Architect Paul Thoryk, A.I.A. and Associates, Environmental Consul- tants, Inc.

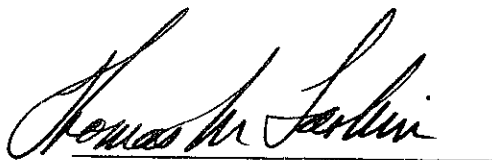
11.0 STAFF AND CONSULTANTS

This report was prepared by PRC Toups Corporation, Environmental Studies Group. Members of PRC Toups ESG professional staff contributing to this report include the following individuals:

Thomas M. Larkin	Manager, Environmental Studies Group
Debra H. Marsh	Principal Investigator
Eva Lerner-Lam	Manager, Transportation Studies Group
Rob Bonham	Transportation Planner
Terry Cooke Alexander	Graphic Artist
Mary Gardner Dawe	Technical Editor
Mary Lou Jensen	Production Typist

Consultant studies used in this report were prepared by the following firms and individuals:

Geocon, Inc.	Soil and Geologic Investigation
John P. Rieger	Biology Study
Archaeology Consulting and Technology, H. Keith Polan, Senior Archaeologist	Archaeology Study



Thomas M. Larkin,
Manager

12.0 SOURCES CITED

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13.0 PUBLIC REVIEW COMMENTS

During the public review period which began on February 22, 1979, four letters were received and are included in this section. No public testimony was heard at the Planning Commission meeting on March 28, 1979. Some portions of the EIR required elaboration which has either been incorporated into the EIR or has been responded to in Section 14.0.

Letters were received from:

County of San Diego, Environmental Analysis Division
Sweetwater Community Planning Group
Mr. and Mrs. David Wheeler
City of Chula Vista Environmental Control Commission and
Mr. John Macevicz

COUNTY OF SAN DIEGO



Environmental Analysis Division

Community Services Agency

9150 Chesapeake Road (MS 0175), San Diego, California 92123 Telephone 565-5757

March 27, 1979

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BY ER

MAR 28 1979

PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA

Mr. Douglas Reid
Environmental Review Coordinator
City of Chula Vista
276 Fourth Avenue
Chula Vista, California 92010

Dear Mr. Reid,

Subject: Environmental Impact Report for Bonita East
EAD Log Number 79-18-13

The County of San Diego has completed its review of the subject document. That review was conducted as a Responsible Agency in accordance with Section 21080.4 of the California Public Resources Code because the County of San Diego may have a responsibility for subsequent approval(s) with respect to the project.

As a result of that review we find that the subject document is adequate for our needs and we have no further comments at this time.

Respectfully,

KATHLEEN A. LEHIOLA, Director (Acting)
Environmental Analysis Division

by *Sonja P. Itson*

SONJA ITSON, Assistant Director

SI:RLR:cb

Jan
Jan 24

March 26, 1979

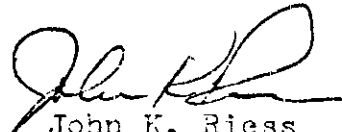
Mr. Douglas D. Reid
Environmental Review Coordinator
Chula Vista Planning Department
P. O. Box 1087
Chula Vista, California 92012

Dear Mr. Reid:

Re: Bonita East

The Sweetwater Community Planning Group reviewed the Draft EIR at its meeting March 13, 1979. We feel the document does adequately address the known impacts of this project. We would, however, appreciate an analysis of the cumulative effect of this project's traffic impact when meshed with the traffic impacts from the El Rancho del Rey project. Also, the Assembly of God church is to be built on Bonita Road, and its peak traffic may affect some of your analysis of this project.

Our group hopes that the continued cooperation between the City, Mr. Larkin, and Adma Corporation will produce another project as complimentary to Bonita as the one adjacent to this site.



John K. Riess
Vice-Chairman
Sweetwater Community
Planning Group

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BY *Blid*

MAR 27 1979

PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA

RECEIVED

BY *Reid*

MAR 22 1979

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

March 19, 1979

PLANNING DEPARTMENT
CHULA VISTA, CALIFORNIA

SUBJECT: Review of Draft Environmental Impact Report for Bonita East.

Dear Mr. Reid:

My wife and I reside at 1065 Calle Mesita in Bonita on a lot which directly abutts the porposed Bonita East project at its southeast corner. Due to the physical nearness of the two properties, we have become very concerned about information provided in the draft Environmental Impact Report -- and the project as proposed.

Specifically, we note that our property lies directly above a landslide feature on an uncompacted hill. If the development as proposed is approved, this situation could substantially affect our property's stability and our legal responsibilities. Yet we see no mention of these factors, which are serious, in the draft EIR report.

We also are much concerned about the impact on traffic which would result by an increase in the number of cars on Bonita and Otay Lakes Road. This area already is strained by the cars driven around the local community college. There also is the matter of an increase in noise which would be generated from a commercial and residential project of this magnitude.

To be considered, also, would be the profound overall impact of changing the character of our valley from semi-rural to an urban area with all the problems of a big city.

Dased on these concerns, our review of the report and recent slope failure on our property, we request the following:

- (1) Further study into the slope stability for the entire hillside and the effect on development, both environmental and legal, on adjacent and nearby properties.
- (2) Denial of the proposed project due to significant environmental effects (ie: geology and noise) which, to us, seem devastating.
- (3) Adherence with the Sweetwater Community Plan development guide for density (2 units per acre) and the restriction of the development to residential.

Sincerely,

Mr. and Mrs. David Wheeler
Mr. and Mrs. David Wheeler

March 21, 1979

TO: Planning Commission

FROM: Environmental Control Commission

SUBJECT: EIR-79-7 (BOnita Center East)

This EIR meets CEQA guidelines.

The attached written comments, prepared by Commissioner John Macevicz, were approved by the ECC at their meeting of March 19, 1979.

In addition, the following concerns were expressed by the Commission:

- (1) The General Plan needs reevaluated for this area (there is no buffer zone near the other single family dwellings, which area in proximity to the project);
- (2) Cut and fill, and the instability of the earth; and,
- (3) Drainage problems.

DDR/av

WRITTEN COMMENTS PREPARED BY JOHN MACEVICZ (ATTACHED), IN ADDITION TO THE THREE CONCERNS LISTED ABOVE, WERE APPROVED BY THE ENVIRONMENTAL CONTROL COMMISSION MEETING HELD MONDAY, MARCH 19, 1979, BY THE FOLLOWING VOTE, TO-WIT:

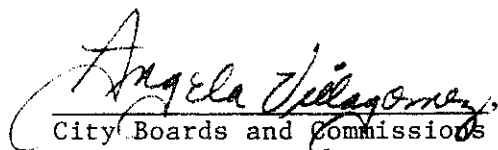
AYES: Commissioners McCandliss, Donovan, Taylor and Hodson.

Noes: None.

Abstain: None.

Absent: Commissioners Iversen, Macevicz and Hernandez.

ATTEST:

 Secretary
 City Boards and Commissions

(March 21, 1979)

February 16, 1979

RECEIVED

February 21, 1979

CITY BOARD OF COMMISSIONS

E.C.C.

To: Doug Reid,
Environmental Review Coordinator

From: E.R.C. member John Macevicz

SUBJECT: Concern about E.I.R. 79-7

1. After reviewing the subject E.I.R., the following areas are of great concern to me as a member of the Environmental Committee:

- 1. 2.2 Site plan, number of units
- 2. 3.12 Schools, secondary
- 3. 3.13 Open space
- 4. 3.17.1.2 Access
- 5. 3.4.1 Drainage
- 6. 3.6.2 Noise

2. In view of the above I could not recommend to the Committee that they approve this project.

John A. Macevicz

 John A. Macevicz

JAM:meme

14.0 RESPONSE TO PUBLIC COMMENTS

Response to letter from County of San Diego Environmental Analysis Division

The County of San Diego reviewed the draft EIR, found it adequate and submitted no further comments. Therefore, no changes in the text are required.

Response to letter from Sweetwater Community Planning Group

An analysis of the cumulative effect of the project's traffic impact when meshed with other projects in the area, such as El Rancho del Rey and Long Canyon Estates, was included in Section 3.17.4. These developments would have a much greater effect on local traffic circulation than would the proposed Bonita East project. All new development in this area, however, including the proposed project, the Assembly of God Church and School, El Rancho del Rey, and Long Canyon Estates, would contribute to cumulative traffic impacts in the vicinity until parallel east-west roadways are built.

Response to letter from Mr. and Mrs. David Wheeler

In response to the comments by Mr. and Mrs. David Wheeler, the following changes have been made in Section 3.1, Geology. "Fill material from the adjacent subdivision to the south rests on a portion of this landslide" has been added to Section 3.1.1, paragraph 2. "Stabilization of the slope could involve disturbance of fill slopes supporting adjacent property. The developers will be required to avoid adversely affecting adjoining property during development" has been added to paragraph 1, Section 4.1.2. Their additional concerns regarding geology, noise, adherence to the Sweetwater Community Plan and restriction of development to residential units have been discussed adequately in the EIR and no changes are required.

Response to letter from Environmental Control Commission and Mr. John Macevicz

The Environmental Control Commission and Mr. John Macevicz expressed several concerns about the proposed project. They do not question the validity of the analysis in the EIR, and therefore no changes are required.