FINAL ENVIRONMENTAL IMPACT REPORT

Ellwood Ranch / Doty Sand Quarry

87-EIR-3

June 1987

Prepared for: County of Santa Barbara
Division of Environmental Resources

PERSE
PLA

County of Santa Barbara
RESOURCE MANAGEMENT DEPARTMENT

Dianne Guzman, AICP, Director

TO: Albert J. McCurdy, Deputy Director
Development Review Division

FROM: Jeffrey T. Harris, Deputy Director
Division of Environmental Review

DATE: June 19, 1987

RE: Transmittal of 87-EIR-3, Ellwood Ranch/Doty Sand Quarry, 86-CP-60
86-RP-3

Attached is the Final Environmental Impact Report for the proposed Ellwood Ranch/Doty Sand Quarry, located on the Ellwood Ranch in the western portion of Goleta. A summary of environmental impacts and mitigation measures is included on pages S-2 to S-12 of the EIR.

This document fulfills environmental review requirements for this project, and discretionary processing may now proceed. Any substantial changes in the project description will require additional environmental review.

JTH:mas
3441A

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ELLWOOD RANCH/DOTY SAND QUARRY

FINAL ENVIRONMENTAL IMPACT REPORT

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STATEMENT OF AUTHORSHIP

This EIR was prepared for the County of Santa Barbara under an independent consultant contract with Perspective Planning of San Luis Obispo, California.

Perspective Planning has used its best efforts to prepare a complete and reliable report which conforms to the highest professional standards as well as the CEQA and the State EIR Guidelines. Perspective Planning shall not be liable for damages or costs of any client or third party caused by delay, alteration or termination of any project due to judicial or administrative action, whether or not such action is based on the form and/or content of this EIR or any portion thereof.

SUMMARY

This Environmental Impact Report has been prepared by the County of Santa Barbara to assess the impacts and potential mitigation measures and alternatives to a proposed sand quarry on the Ellwood Ranch near the community of Goleta, California.

Project Description

The 915-acre Ellwood Ranch has been owned since 1921 by the Doty family, and has been in continuous agricultural use with groves of lemons and other tree crops. The proposed sand quarry would be situated on a knoll near the southern boundary of the ranch, on a site about 11.5 acres in size. During the proposed life of the project, the quarry is expected to generate a total of 1.3 million cubic yards of Vaqueros Yellow Sand to be used in area construction projects. The sand has other uses, as well, including chemical spill containment and cleanup.

The proposed site of the quarry overlooks a valley planted in lemon trees, and lies about 1,500 feet north of an existing residential subdivision. See Figure 1, Site Vicinity and Parking Site, page 1-3, and Figure 2, Surrounding Land Use and Ownership, page 1-4. The site is currently unused, except for a small portion in avocados and occasional grazing on flatter parts of the upper portion of the site. Surrounding uses are rural and agricultural in nature. An existing sand quarry lies about 600 feet east of the site, and is operated by Santa Barbara Sand and Topsoil Company. It is expected that this company would be the operator for the new quarry, and that the existing quarry will be phased out as the new quarry is brought on line. The applicant has indicated that during the transition phase, the combined truck traffic from the two quarries would not exceed the current activity at the existing quarry. Furthermore, the applicant states that after the transitional phase is complete, truck traffic from the proposed quarry would not exceed levels generated by the existing quarry.

Access to the proposed quarry would be via Winchester Canyon Road and a private road easement; the applicants intend to improve this easement by widening, realigning, and re-paving the road where needed. A de-silting and detention basin would also be constructed on the west side of the orchard in order to regulate drainage and reduce siltation from the quarry. See Figure 3 on page 1-6, Project Location, Access, and Drainage Facilities.

The quarry would be operated for about 15 years, producing 80,000 to 100,000 cubic yards of sand each year. Truck traffic hauling the sand would result in about 96 daily trips, 48 each direction. The quarry would be excavated in four phases, with revegetation of the cut slopes to be undertaken at the completion of each phase. Avocados are to be planted as a cover crop over the cut slopes. Water would be supplied by existing ranch wells that draw water from the Ellwood Creek watershed. See Figures 4a-4c on pages 1-8 through 1-10.

General Plan Consistency

The proposed quarry does not appear to represent any significant conflict with the four fundamental goals of the Land Use Element, nor with the specific goals for the Goleta area. Policies of the County's Circulation, Housing, Noise, and Environmental Resources Management Elements of the Comprehensive Plan would also not appear to be compromised by the proposal. See the discussion of general plan consistency beginning on page 1-11.

Summary of Environmental Impacts and Mitigation

This EIR has focussed on six areas of potentially significant environmental impacts: Traffic, air quality, noise, biological resources, archaeological resources, and aesthetics. The following table summarizes the findings of this impact analysis and proposed mitigation measures. This table is organized in the manner specified by Santa Barbara County, with Site-Specific Impacts listed first and Cumulative Impacts second. For the Site-Specific Impacts, the summary table presents the impacts and mitigation measures in the following sequence: Category I (significant/unavoidable); Category II (significant but mitigable); Category III (not significant); and Category IV (beneficial). In each case, impacts cited are those relating to the project; cumulative impacts are summarized in narrative form following the summary table.

The summary table will also summarize the major alternatives identified for the project, as well as the possible "growth-inducing" impact of the quarry.

Table S-1:
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATIONS

I. SITE SPECIFIC IMPACTS

Category I Impacts: Those impacts which are determined to be significant and not subject to effective or feasible mitigation. Decision-makers must issue a "statement of over-riding considerations" prior to approving the project.

Topic	Description of Impact	Mitigation Measures
AIR QUALITY	The proposed quarry would generate an estimated 26.10 lbs/hr of NOx emissions, exceeding the County's threshold of significance for that pollutant of 2.5 lbs/hr.	Diesel equipment shall be required to be well-maintained. Use of pre-chamber diesel engines or equivalent shall be required. Diesel engines on trucks shall be subjected to 4% timing retard. Initial warm-up of diesel trucks shall take place 2240 feet north of the sand loading site. Combined truck traffic from the existing and proposed quarries shall not exceed 96 ADT. To be consistant with the Air Quality Attainment Plan, the applicant must obtain a permit from the County Air Pollution Control District to operate the shaker-stacker.

Residual Impact = Significant

Category II Impacts: Those impacts that are considered potentially significant, but can be mitigated as set forth below. Decision-makers must make findings under Section 15091 of the State EIR Guidelines if the project is approved.

Topic	Description of Impact	Mitigation Measures
TRAFFIC	Quarry-generated truck traffic of 96 trips/day would accelerate deterioration of area streets, including Winchester Canyon Road and Calle Real.	The applicant shall be required to investigate structural road sections affected by truck traffic, and to upgrade any road sections that warrant improvement. Project access should be designed to Winchester Canyon Road, until such time as Cathederal Oaks Road is continued through and intersects with the access road. If this completion of Cathedral Oaks Road occurs during the life of the quarry, the applicant would be required to design and construct the access at Cathedral Oaks satisfactory to the Director of Public Works, including turning lanes and speed-change lanes where necessary. Once Cathedral Oaks is connected to Calle Real, all project traffic would be required to exit via Calle Real.
	Access road to quarry site across private land is not adequate to support heavy truck traffic, in places.	The access road shall be upgraded to the satisfaction of the County Resource Management Director. The need for any additional road easement

Category II Impacts, cont.

Topic	Description of Impact	Mitigation Measures
TRAFFIC (cont.)		right-of-way shall also be resolved prior to approval of the quarry. Diesel truck traffic connected with operation of the quarry shall be limited to 96 ADT (48 trips out of the site and 48 trips into the site).
	Quarry trucks would exit private road onto Winchester Canyon Road by crossing a route used by school children to and from a school bus stop.	Require installation and maintenance of a stop sign at that intersection to control truck traffic.
	Residual Impact = Less than significant	
AIR QUALITY	Emissions of dust and other particulates would be significant, both from disturbance of site soils and emissions from vehicles.	Require upgrading of access roads to oil or pave any dirt surfaces, and maintain in a compacted condition. Require that all loads be lightly watered before transport. Place tarpaulins over all sand loads hauled from the quarry. Control dust in the loading area by liberal applications of water at least once each day, or more often when winds exceed 15 mph. Treat all disturbed areas not subject to immediate quarrying with water/chemical mix to control dust, adding

Category II Impacts, cont.

Topic	Description of Impact	Mitigation Measures
AIR QUALITY (cont.)		grass if undisturbed for over 1 year. Limit area of active disturbance to 1 acre or less.
	Residual Impacts = Less than Significant	
NOISE	Quarry operations will be conducted at a higher elevation than the existing site, radiating noise of the equipment and shaker over a wider area. Worst case noise modeling indicates that noise would not exceed 60 dBA at 1,500 feet.	An 8-12' berm shall be maintained on the south side of the quarry at all times. Excavation to an edge or shelf shall be avoided, where such grading would allow noise to radiate to the south.
	Truck traffic would be expected to continue to generate noise on street sections used for access to the site (Winchester Canyon Road, Calle Real, U.S. 101).	Require lease to same operator as existing quarry, and submit lease agreement to County for approval. Require limit of truck trips to not more than 10 during PM peak hour (4-5 pm). Trucks shall be required to use the same streets as currently in use, until the Cathedral Oaks Road is completed. Prohibit use of "Jakes Brakes" off highway. Limit hours of operation to 7 am to 5 pm. Improvements to access road would reduce noise levels from trucks due to braking and deceleration.
	Residual Impact = Less than Significant	

Category II Impacts, cont.

Topic	Description of Impact	Mitigation Measures
BIOLOGICAL RESOURCES	Project would disturb habitat by removing about 75 mature oak trees as well as related chamise/chaparral area.	The applicant shall be required to replant oaks on 3:1 basis in a site to be identified through consultation with DER staff and U.S. Forest Service. Require maintenance and monitoring of this replanting program.
		If revegetation is not complete before the quarry is begun, require a bond in the amount of $10,000 to assure completion of the planting. It is also advisable that a seperate maintenance bond of $10,000 be required for the first 2 years after planting.
	Potential grading for access road on southwestern side of quarry may disrupt riparian corridor in this area.	Prohibit access road to top of quarry for bulldozer and loader access along southwestern side of site, close to riparian corridor. Fencing with chain link would be advisable along the western edge of the quarry, at least 50 feet from the riparian corridor.
	Soil erosion from the quarry site could impact Ellwood Creek.	The primary de-silting basin should be of sufficient size to contain the storm runoff from a 10-year-event.

Category II, cont.

Topic	Description of Impact	Mitigation Measures
BIOLOGICAL RESOURCES (cont.)	Soil erosion from the overnight truck parking area could impact Ellwood Creek.	An additional de-silting basin of sufficient size to contain a 10-year-storm should be built to service the overnight truck parking area.
	Residual Impact = Less than Significant	
ARCHAEOLOGICAL RESOURCES	Isolated artifacts were identified over a 200' x 50' area representing a potential temporary habitation or subsistence activity.	Systematically re-survey with more rigorous coverage areas where some artifacts were found. Require review and monitoring by professional archaeologist and Native American observer during excavation of topsoil areas to 5' depth or bedrock. Permanently stockpile soils known to contain artifacts seperately and record location of such stockpiles.
	Residual Impact = Less than Significant	
AESTHETICS AND TRAILS	Quarry could cause significant disruption of slope face if not carefully conducted, that would be visible from residential areas below.	Maintain an 8-12' berm on south side of quarry as recommended for Noise impacts above. Require any stockpiling of sand at the southern edge to be out of sight of all residences to the south of the project, except in southwest corner where there is previous surface disturbance.
	Potential grading for access road in southwestern part of site could disturb slope face as seen from below.	Prohibit road from disturbing slope face in southwestern part of site, beyond area of existing disturbance.

Category II, cont.

Topic	Description of Impacts	Mitigation Measures
AESTHETICS AND TRAILS (cont.)	Project would affect property subject to the County Parks, Recreation, & Trails Plan.	Trail easements shall be granted as required by the County Parks Department along a route in Ellwood Canyon to be determined by the Parks Department.
	The proposed excavation plan would leave the south-facing hillside at a 2:1 slope, thereby creating dip-slope conditions.	A 3:1 final slope should be considered for the south-facing hillside, instead of the 2:1 slope proposed by the applicant.*

* The Division of Mines and Geology suggested a 4:1 slope on the south-facing hillside. After reviewing the natural slope for the hillside, we felt that a 3:1 final slope was adequate.

Residual Impact = Less than Significant

Category III Impacts: Impacts considered to be non-significant. Any mitigation measures presented are non-mandatory.

Topic	Estimated Impact	Mitigation Measures
BIOLOGICAL RESOURCES	Quarry trucks would pass by eucalyptus grove used as roost by turkey vultures. Tolerance to increased noise and traffic appears to be high.	None required.

Residual Impact = Less than Significant

Category III Impacts cont.

II. CUMULATIVE IMPACTS

Topic	Estimated Impact	Mitigation Measures
TRAFFIC (Cumulative)	Areawide development will generate about 32,300 daily trips or 4,500 peak hour trips, significantly affecting at least two nearby intersections.	Require quarry applicant to contribute to Road Improvement Trust Fund. Such contribution to be based on $1,100/peak hour trip, or $18,700 for estimated 17 peak hour trips.*
AIR QUALITY (Cumulative)	While cumulative air quality impacts have not been quantified, it is likely that thresholds of significance would be exceeded for NOx and possibly RHC.	Construction projects in the vicinity should be phased to reduce NOx emissions from each project's construction, to the degree feasible. Cumulative air quality mitigation measures have also been identified in the County's Air Quality Attainment Plan.

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* Note: This impact fee could be reduced to $11,000 if the County elects to enforce the requirement that truck trips be limited to not more than 10 trips during the PM peak hour, and if this conditions is regarded as enforceable.

IV. BENEFICIAL IMPACTS: Those impacts that are considered to be beneficial effects of the project on physical environmental characteristics of the subject area. No mitigation measures are presented.

The quarry would assure a continued supply of Vaqueros Yellow Sand for local contractors and related purposes, and would supply employment to about 12 persons as well as additional tax revenues to the County of Santa Barbara. The quarry would also provide supplemental income to the Ellwood Ranch, which will use the income to sustain and enhance agricultural uses on the remaining

parts of the ranch. The finished quarry would result in an area sufficient for a reservoir, which could be used to supply nearby avocado and citrus orchards with the requisite water storage.*

* The applicant has withdrawn his proposal to establish a reservoir. The area will be planted with fruit orchards instead.

V. PROJECT ALTERNATIVES

Four alternatives were identified and discussed for the proposed project:

No Project: If the proposed quarry were denied, the site would continue to be undisturbed, and may be used for grazing or other agricultural uses. Its mineral values would remain unexploited. Direct impacts associated with the project would not occur. The on-project alternative would be environmentally-superior, since it would avoid air, traffic, visual, and biological effects.

Alternative Quarry Designs: Alternative designs for the quarry could be considered, including a more irregular shape for the quarry walls to represent more closely the convex contours of the surrounding foothills.

Alternative Uses: Several types of agriculture or agriculture-related uses might be considered for the nearby area or the site itself, consistent with the current general plan designation and zoning for the site. There are few alternative uses, however, which would generate equivalent financial returns or provide essential road-building materials to the region.

Alternative Location: The sand pit could be located in a different watershed along the south coast; however, deposits of similar quality sand do not occur in other nearby parts of the south coast.* Such sand is a required material for many building applications, especially roads, and it is essential that such materials be derived in close proximity to the areas where most development is occuring. Environmental impacts from a similarly-size quarry in a different location may be higher or lower, but would probably be similar to impacts in the proposed location. Impacts of the quarry operations on NOx would be unchanged, as long as the quarry is located on the South Coast where ozone levels currently exceed Federal and State standards.

*The applicant points out that because of the importance of the Vaqueros yellow sand to the building industry, it would probably be "imported" from other areas or counties. The resultant poll-

ution associated with trucking the sand in from elsewhere would be an environmental impact of undetermined magnitude.

In summary, the proposed quarry is considered to be the environmentally-superior alternative, except for the no-project alternative. The design of the quarry could be modified, however, to achieve a more attractive appearance.

1.0 INTRODUCTION AND PROJECT DESCRIPTION

1.1 Authorization and Purpose

This Environmental Impact Report was authorized by the County of Santa Barbara pursuant to the California Environmental Quality Act (CEQA), and the latest amended version of the CEQA Guidelines.

This Report will identify the potential environmental impacts of a proposed sand quarry to be located within Ellwood Creek Canyon, near the northwestern boundary of Goleta. The project would extend over 11.7 acres of the 915-acre Ellwood Ranch. During the proposed 15 year life of the project, a total of 1.3 million cubic yards of Vaqueros Yellow Sand would be surface mined and trucked to off-site regional building sites.

This EIR will be used by County officials to evaluate the applicant's request for a New Mining Permit and a Conditional Use Permit (86-CP-60) from Santa Barbara County's Resource Management Department.

When the project was first proposed on July 3, 1986, the County's Division of Environmental Review (DER) conducted an Initial Study as required by the California Environmental Quality Act. This study raised concerns about future activity on an existing quarry site adjacent to the proposed site. Because the applicant could not guarantee when the existing quarry would be abandoned, impacts from the proposed quarry were originally considered to be in addition to the existing quarry impacts, by the DER staff. Subsequent to authorizing the EIR, the DER staff was assured, in writing by the applicant, that truck traffic from the proposed project would not exceed existing traffic conditions at any time, including the transitional phase when operations are shifted from the existing quarry to the proposed site. Nevertheless, the Initial Study also identified potential significant impacts from air pollution and noise, thus warranting the EIR.

This EIR focusses primarily on traffic impacts; air quality impacts; noise impacts; biological resources; archaeological resources; and impacts on aesthetics related to the project. The results of this study will provide useful data on the environmental impacts of this proposed project to the public and County decision-makers as well as any "responsible agencies" having jurisdiction over the project. Any questions regarding this EIR should be addressed to Mr. David Doerner, Santa Barbara County Resource Management Department, Division of Environmental Review, 105 E. Anapamu St., Santa Barbara, CA 93101, or by calling 805/963-7171.

1.2 Project Description

This section will describe the location and operational plan of the proposed Doty Sand Quarry Project. The site will be characterized with respect to surrounding property, topography, access and other factors. Phasing and time frame of the project also will be presented here.

1.2.1 Project Location

The proposed quarry site lies within the rolling foothills of the Santa Ynez Range, approximately one mile north of Highway 101. Locally, the area is known as the El Encanto Heights. The site is just northwest of Goleta, at the southern terminus of a ridge which forms the western margin of Ellwood Canyon. This ridge is bounded on the east by Ellwood Creek and on the west by a short unnamed drainage swale. See Figure 1, Site Vicinity and Parking Site.

The valley below the lower south-facing portion of this ridge is covered by a 20-acre mature lemon orchard. The upper slopes and flanks of the ridge are covered by native grasses, low shrubs and oak trees. Slope varies from 10 percent to near vertical in all directions of the site. The on-site slope averages approximately 50 percent. Five oak trees are located on the south facing slope above the lemon orchard. Approximately 70 oak trees are scattered on the flanking slopes, constituting a chamise-oak woodland. No rare or endangered species are known on the site, according to Dave Doerner of the County's Division of Environmental Review.

Surrounding Uses

Surrounding uses are agricultural, rural residential and quarrying. There are four single family dwellings on parcels larger than one acre, located within 500 yards of the project site. Numerous residences on lots smaller than one acre are located in subdivisions at least 700 yards to the south of the project site. See Figure 2, Surrounding Land Use and Ownership.

Agricultural production on properties adjacent to the project site consists of cattle grazing, the aforementioned lemon orchards, avocado orchards, and some grain production. Historically, the Ellwood Ranch has been used for a variety of crops, including olives and walnuts as well as various citrus. The Doty family has had at least partial interest in the property since 1921.

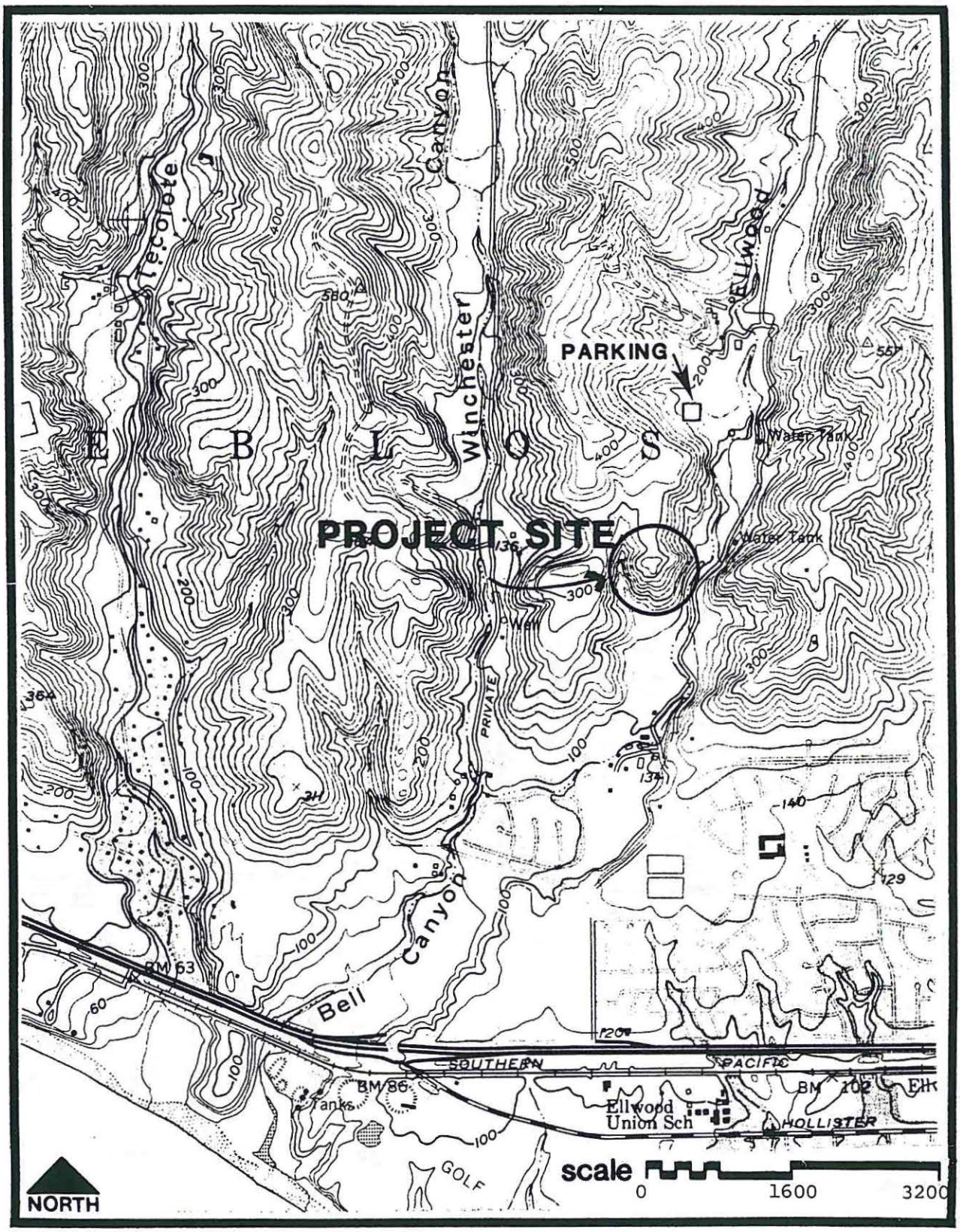
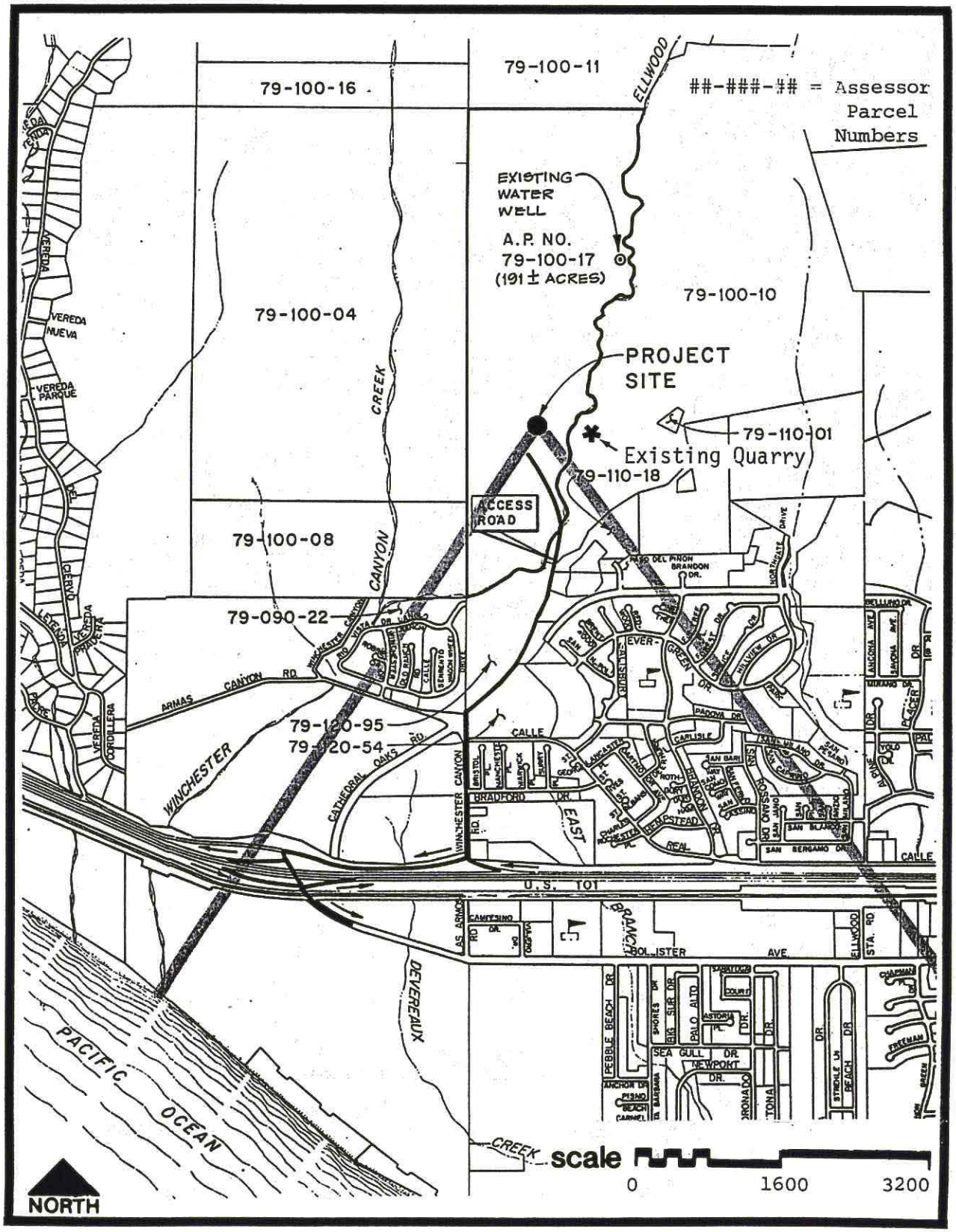


fig. 1

Site Vicinity and Parking Site



Surrounding Land Use and Ownership fig. 2

An existing sand quarry, operated by Santa Barbara Sand and Topsoil, is located 200 yards east of the proposed quarry. This company intends to lease the proposed quarry site from the project applicants. The existing quarry, known as the Pulice Ranch Sand Quarry, generates approximately 5,700 truck loads of sand annually, or 85,500 tons. Equipment utilized in the existing quarry operation includes one bulldozer, two skip loaders, one shaker-stacker and eight diesel dump-trucks. The owners of Santa Barbara Sand and Topsoil intend to begin excavating the proposed site as productivity declines at the existing quarry. As pointed out earlier, the temporary, combined activity on the two sites shall not exceed current conditions at the existing quarry. No additional equipment would be used to operate the two quarries during the transition phase. Eventually all operations would be transferred to the proposed quarry site.

The project is located in relatively close proximity to residential neighborhoods in the northwestern part of Goleta. These neighbors have complained of the impacts from the existing sand quarry in the past, particularly due to dust emissions. See Table 3: Air Pollutants Generated at Pulice Ranch Sand Quarry, in Section 2.2, for data on existing air quality conditions.

Two housing developments with a total of 256 units have been proposed on property nearby the proposed quarry site:

1) The "Timm Mountain View" Project proposes an 73-unit development to be located east of Winchester Canyon Road at Calle Real. At this writing, an EIR for this project was being prepared by a consultant for the County's Division of Environmental Review.

2) The "Winchester Commons Project" proposes a 176-unit development located west of Winchester Canyon Road at Calle Real. At this writing, an EIR for this project is being prepared by a consultant for the County's Division of Environmental Review.

Project Access

Proposed access to the project site from Highway 101, would be via the Hollister Avenue exit (SB) or Winchester Canyon Road (NB). From the Hollister Avenue exit trucks would use a short section of Calle Real before turning onto Winchester Canyon Road. Access to the site from Winchester Canyon Road is via a half-mile stretch of 16- to 24-foot wide asphalt road, which crosses neighboring property over an easement held by the applicants. From this road, the access route enters onto the applicant's property and follows the Ellwood Ranch Road to an existing dirt

road that ends at the project site. See Figure 3, Project Location, Access, and Drainage Facilities. (Note: the applicant has reached a verbal agreement with the neighboring property owners to expand the easement to 60 feet wide.)

Project Operational Plan

The applicant proposes to quarry sand from the site for a period of 15 years. The project would be divided into four phases starting at the top of the ridge. Initial grading and quarrying operations of each phase would be conducted in east-west oriented channels starting at the northernmost margin of that phase. All quarried material would be transported to and loaded from the drainage swale at a point on the southwest side of the project site. See Figure 4a, Project Phasing Plan--Plan View.

The applicant proposes that the sides of the quarry be graded to a 2:1 slope and planted in avocadoes. Benches would be graded at intervals of 100 feet, 16' in width and sloping at about 3%, to separate the 2:1 slopes. The benches would help to slow storm runoff as it moves downslope and divert it to improved channels where it would be carried to the west into the existing drainage and thence down to the proposed de-silting basin. See Figure 4b, Site Sections. Based on comments by the California Division of Mines and Geology, the EIR recommends that the south-facing slope be graded 3:1 instead of 2:1, to avoid potential slumping conditions. Minimizing the final graded slope to 3:1 would affect the design of the quarry and possibly reduce the total amount of sand excavated. This issue is discussed in more detail within Section 2.6, "Aesthetics".

The applicant proposes that total truck traffic originating from the project will be limited to 96 ADT. Furthermore, the applicant proposes that the diesel trucks be parked overnight in an area to be located approximately 2240 feet north of the proposed quarry (see Figure 1, Site Vicinity and Parking Site). Such a parking arrangement would help to minimize project-generated noise and air pollution impacts on the nearby residential areas, located 1,500 feet south of the proposed quarry.

Water for dust control would be obtained from existing ranch wells and would be minimal in amount (less than 6.3 acre-feet per year). The Doty Ranch wells draw their water from the alluvial acquifer in Ellwood Canyon. No other existing users of the acquifer are known. Calculated safe yield for this acquifer is greater than 200 AFY. Bottled drinking water would be supplied to the quarry and portable toilet facilities would be used.

Project Location, Access, and Drainage Facilities

fig. 3

Project Phasing

The project would be completed in four phases. See Figure 4c, Section of Phasing Plan. At the completion of each phase, reclamation would take place consistent with the project's reclamation plan. Phase I would last 2-3 years; Phases II and III would last five years each; and Phase IV would last about two years. Phase IV was originally proposed to be excavation of a proposed reservior site. Subsequent to submitting his proposal for the quarry, the applicant abandoned plans for the reservoir. The area will be planted with fruit orchards, instead.

The general process of quarrying occurs in four steps:

1) Bulldozing compacted native sandstone to the shaker;

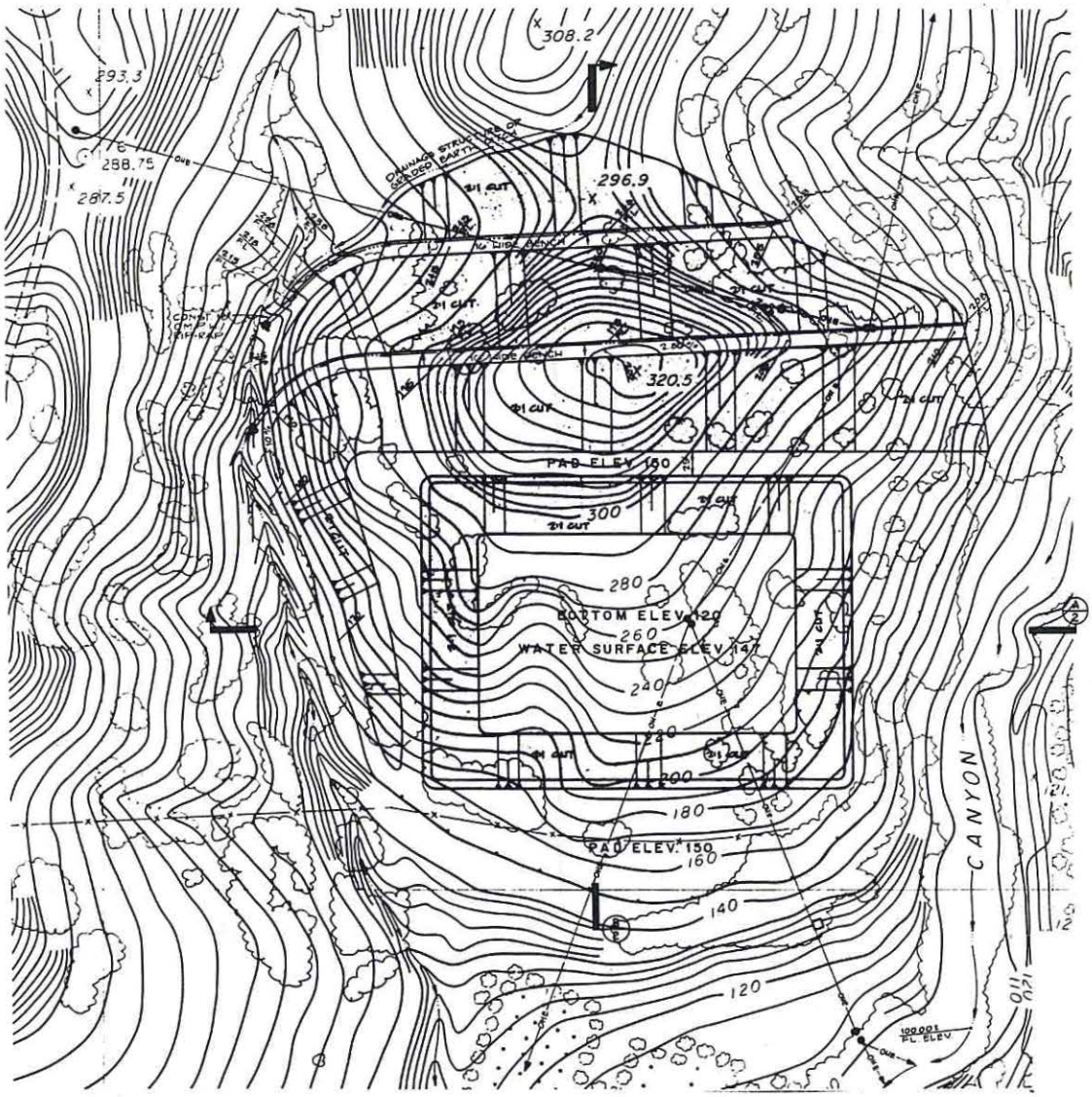
2) Processing the material through a mechanical shaker to remove cobbles and stones. These tailings will be used on property to repair previously eroded areas;

3) Stacking the processed material in stockpiles, with either loaders or a mechanical stacker;

4) Transporting the sand to final destination.

The material is neither physically nor chemically altered, and none of the equipment is permanently installed. Equipment for the proposed project would include one diesel tractor, two skip-loaders, one shaker-stacker, and eight transport trucks, capable of carrying an average of about 15 cubic yards of fill material.

In addition to the quarry excavation, the applicants propose certain drainage and road improvements. A de-silting basin is to be constructed on the west side of the lemon orchard in the valley below the quarry (see Figure 3). In addition, the road leading to the quarry would be upgraded by widening, paving, and straightening. No specific engineering plans were submitted for this road improvement, however.



DESIGNED BY W.L.N.	SAND QUARRY AND RESERVOIR SITE GRADING PLAN	
CHECKED BY C.A.S.	ELLWOOD RANCH INC.	
DATE / REVISED DESCRIPTION / APP'D	ASSESSOR'S PARCEL NO. 79-100-17	
	COUNTY OF SANTA BARBARA, CALIFORNIA	
	Penfield & Smith ENGINEERS INC.	SCALES AS NOTED
REVIEWED		SHEET 2 OF 3 SHEETS
DATE	BY	

LEGEND

EXISTING OAK TREES

—OHE— EXISTING OVERHEAD ELECTRIC LINES (EDISON)

Project Phasing Plan -- Plan View

fig. 4a

Note: The applicant has withdrawn the plans for the proposed reservoir (Phase IV).

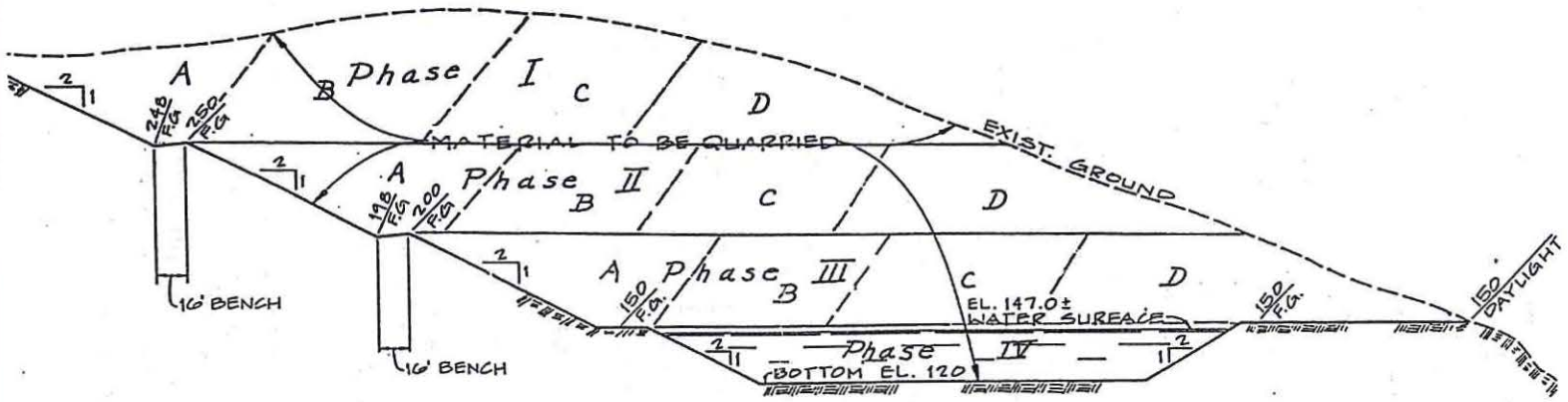
The EIR recommends that the south-facing quarry sides be graded to a 3:1 slope instead of the proposed 2:1.

Site Sections

fig. 4b

Project Phasing Plan -- Site Section

fig. 4c



SECTION B/3
SCALE: HORIZ. 1"=50'
VERT. 1"=50'

Note: The applicant has withdrawn the plans for the proposed reservoir (Phase IV).

The EIR recommends that the south-facing quarry sides be graded to a 3:1 slope instead of the proposed 2:1 slope.

Phase I part A would be mined out in an east-west direction before Phase I part B was started. Each succeeding part would be started only after quarrying had been completed in the preceding part. Prior to start of quarrying of part D the 2:1 slope at the back of part A (already mined out) would be prepared and planted with grass and fruit trees. The above sequence would be applied to each of Phases I, II and III in turn.

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1.3 Consistency with Applicable Plans and Zoning

Development in the unincorporated areas of the County is subject to certain land use controls and policies adopted by the Board of Supervisors. The most general regulations, and the most important in the legal heirarchy, are contained in the County's Comprehensive Plan. More specific regulations are contained in the Zoning Ordinance.

The Comprehensive Plan contains specific goals, objectives, policies and recommendations that apply to the Ellwood Ranch Sand Quarry Project. These text statements operate in conjunction with Comprehensive Plan maps, which must be reviewed for applicability to this project. The State CEQA Guidelines require that an EIR discuss any inconsistencies between the proposed project and applicable general plans and regional plans. In order to assist with this process, the following discussion of applicable plan policies is provided. Fundamental goals and policies of the Comprehensive Plan that pertain to the proposed project are listed below:

1. Regional Goals (Land Use Element, p. 80-81)

   Environment: "Environmental constraints on development* shall be respected. Economic and population growth shall proceed at a rate that can be sustained by available resources."

   Agriculture: "In rural areas, cultivated agriculture shall be preserved and, where conditions allow, expansion and intensification should be supported. Lands with both prime and non-prime soils shall be reserved for agricultural uses."

   Open Lands: "Certain areas may be unsuited for agricultural uses due to poor or unstable soil conditions, steep slopes, flooding or lack of adequate water. These lands are usually so located that they are not necessary or desirable for urban uses. There is no basis for the proposition that all land, no matter where situated or whatever the need, must be planned for urban purposes if it cannot be put to some other profitable use."

   * "Development" means any man-made change to improved or unimproved real property including but not limited to buildings or structures, mining, dredging, filling, grading, excavation, or drilling operations. Sand and gravel operations may be allowed in the same sense as flood control operations are allowed. Agriculture is not development within the meaning of the Element.

Comment: The proposed project appears to be consistent with all of the above goals, although there is some question as to its compatibility with agriculture. Agriculture would be marginally impacted due to the loss of some grazing area, but its overall position on the Ellwood Ranch may be enhanced by the quarry project because of the additional cash flow that would be available to support agricultural operations on the ranch. Also, the mined slopes are proposed to be planted with avocadoes as the mining progresses.

2. Land Use Developement Goals and Policies (Land Use Element, p. 81-82b)

> Policy #4: "Prior to the issuance of a use permit, the County shall make the finding, based on information provided by environmental documents, staff analysis, and the applicant, that adequate public or private services and resources (i.e., water, roads, sewer, etc.) are available to serve the proposed development. The applicant shall assume full responsibility for costs incurred in service extensions or improvements that are required as a result of the proposed project. Lack of available public or private services or resources shall be grounds for denial of the project or reduction in the density otherwise indicated in the land use plan.

Comment: There are no conflicts between the above policy and the proposed project. The applicant stated that water supplies will originate from private wells already in existence on the property. There is no potential for overdraft of the watershed due to this project. Portable toilets will be maintained on-site. The site is currently served with electricity.

Goleta Valley Area Goal #3 (Land Use Element p. 106)

> "Provisions should be made for the systematic reclamation of lands that have been misused through destruction of natural habitats, inappropriate construction, erosion, grading, mining, or disposal of wastes."

Comment: The applicant has submitted a proposed reclamation plan for the mining operation to avoid conflict with this goal. Methods of reclamation include grading to 2:1 slope, temporary revegetation with grasses and permanent revegetation with an avocado orchard and oak trees. (Note: The finished slopes are recommended to be graded to 3:1 in this EIR).

3. Hillside and Watershed Protection Policies (Land Use Element, p. 86-88)

Policy #1: "Plans for development shall minimize cut and fill operations. Plans requiring excessive cutting and filling may be denied if it is determined that the development could be carried out with less alteration of the natural terrain"

Policy #2: "All development shall be designed to fit the site, topography, soils, geology, hydrology, and any other existing conditions and be oriented so that grading and other site preparation is kept to an absolute minimum. Natural features, landforms, and natural vegetation, such as trees, shall be preserved to the maximum extent feasible. Areas of the site which are not suited to the development because of known soil, geologic, flood, erosion or other hazards shall remain in open space."

Policy #3: "For necessary grading operations on hillsides, the smallest practical area of land shall be exposed at any one time during developemt, and the length of exposure shall be kept to the shortest practicable amount of time. The clearing of land should be avoided during the winter rainy season and all measures for removing sediments and stabilizing slopes should be in place before the beginning of the rainy season."

Policy #4: "Sediment basins (including debris basins, desilting basins, or silt traps) shall be installed on the project site in conjunction with the initial grading operations and maintained through the development to remove sediment from runoff waters. All sediment shall be retained on-site unless removed to an appropriate dumping location"

Policy #5: "Temporary vegetation, seeding, mulching, or other suitable stabilization methods shall be used to protect soils subject to erosion that have been disturbed during grading or development. All cut and fill slopes shall be stabilized as rapidly as possible with planting of native grasses and shrubs, appropriate non-native plants, or with accepted landscaping practices."

Policy #6: "Provisions shall be made to conduct surface water to storm drains or suitable watercourses to prevent erosion. Drainage devices shall be designed to accomodate increased runoff resulting from modified soil and surface conditions as a result of development. Water runoff shall be retained onsite whenever possible to facilitate groundwater recharge."

Comment: While these policies are aimed primarily at residential developments, they also pertain indirectly to mining operations. Although most surface mining operations require excessive slope cutting, it appears that the applicant has taken reasonable measures to minimize alteration of the natural terrain. These measures include the following: 1) Phasing the excavation to avoid excessive soil exposure; 2) Creating benches to slow water runoff; 3) Reshaping the finished cutslopes to a 2:1 grade***; 4) Revegetating the 2:1 slopes with avocado orchards to help stabilize the soil; and 5) Installation of a sediment catchment basin to retain soil erosion onsite. Because of these measures, the project can be considered to be consistent with the above policies.

> Policy #9: "Where agricultural development will involve the construction of service roads and the clearance of natural vegetation for orchard and vineyard development on slopes of 30 percent or greater, cover cropping or any other comparable means of soil protection shall be utilized to minimize erosion until orchards and vineyards are mature enough to form a vegetative canopy over the exposed earth, or as recommended by the County Public Works Department."

Comment: The applicant states that the finished graded slope will be 2:1 (50%)***. Revegetation and planting of the proposed orchard will be required to maintain consistency with this policy.

4. Historic and Archaeological Sites Recommendations (Conservation Element, P. 253-256)

> Archeological Recommendations #5b.(1): "A systematic ground survey of the project area and alternative areas should be carried out by the archaeologist ... Preliminary testing of sites within the designated construction area may be included."

Comment: The applicant has hired Larry R. Wilcoxon as a Consulting Archaeologist to conduct a Phase 1 Cultural Resource Evaluation for the proposed project site. His report is discussed in section 2.5 below, Archaeological Resources.

*** The applicant has proposed that the final finished grade for the south-facing slope be 2:1. However, based on comments from the California Division of Mines and Geology, the EIR recommends that this slope be 3:1 to avoid potential slumping conditions (See Mitigation Measures in Section 2.6, Aesthetics).

5) Noise Policies, (Noise Element, PP. 58-61)

Noise Policy #1: "In the planning of the land use, 65 dB Day-Night Average Sound Level should be regarded as the maximum exterior noise exposure compatible with noise-sensitive uses unless noise mitigation features are included in the project designs."

Noise Policy #2: "Noise-sensitive land uses should be considered to include: Residential, including single and multi-family dwellings, mobile home parks, dormitories, and similar uses."

Noise Policy #9: "Noise level limits, applicable to new noise sources, should be incorporated into all commercial and industrial zoning districts and into conditional use permit requirements."

Comment: Consistency with these standards will be assured through mitigation measures described in Section 2.3, Noise.

6) Air Quality Policies, (Air Quality Supplement to Land Use Element, pp. 16-20)

Goleta Valley Area/Community Goals: 1) "A prime consideration in determining the land use should be air quality. Present air quality should not be degraded; 2) Transportation pollution (noise and fumes) should be minimized and energy conservation should be encouraged."

Comment: See Section 2.2, Air Quality, for further discussion of the project's impacts on air quality.

7) Ecological Communities Area/Community Goals (Land Use Element, pp. 95-126.

Goleta Valley Area/Community Goals: 2) "Alteration of topography, vegetation, and biological communities should be regulated in order to mininize the destruction of natural habitats".

Comment: Consistency with this standard will be assured through mitigation measures described in sections 2.4 and 2.6 below, Biological Resources and Aesthetics respectively.

8) Mineral Resources Policies, Recommendations, Text Excerpts and Area/Community Goals (ERME, pp. 193-197; and Land Use Element, pp. 96-126; and Conservation Element, pp.181-182).

Mineral Resources Policy #1: Mineral Resources Sites: "Mineral resources are important to the County economy and, in some cases, to the National and state economies as well. However, mineral extraction can have adverse environmental impacts, and existing operations should be monitored and proposed new or extended operations subjected to review and imposition of conditions necessary to protect the environment. Site rehabilitation and new plans should be required for mineral extraction sites; and when the resource is depleted, the ERME should be revised to fit the new use."

Goleta Valley Community Goals: "All mineral resources extraction should be regulated to minimize adverse impacts; rehabilitation and ultimate use plans should be required".

Conservation Element Recommendations: "Mineral resource extraction in the County makes a relatively important contribution to the local, state, and national economies, and, as such, should be encouraged. At the same time, every effort should be made to minimize direct and indirect adverse environmental impacts, and to achieve and maintain federal and State standards of emissions controls and environmental quality. Much already has been done by the County to achieve these goals, the oil drilling ordinances and the air and water pollution control regulations being prime examples. However, the County and the cities should continue to push for necessary environmental safeguards, as well as to encourage exploration for new resource sites. To meet these general objectives, the County and the cities should adopt the following policies on mineral resource extraction:

a. No mineral resource extraction should be permitted in the County if significant adverse impacts on the air, water, or land environment would result, if flooding and erosion problems would be increased, or if polluting emissions likely to be generated directly or indirectly by the activity in question would result in adopted federal or State environmental quality standards being exceeded.

b. Under provisions of the Surface Mining and Reclamation Act of 1975, the County must adopt ordinances to establish procedures for the review of site reclamation plans and issuance of permits to conduct surface mining operations. Within one year after State geologists map areas of mineral deposits, the County must establish resource

management policies for incorporation into the Comprehensive Plan. The Board of Supervisors on October 23, 1978, adopted Ordinance No. 3065 (Case No. 77-0A-33), amending Santa Barbara County Zoning Ordinance No. 661 relative to surface mining operations and reclamation plan requirements. The State has not yet mapped County minerals resources in the Goleta Valley area.

c. The County, in cooperation with responsible federal and State agencies, should undertake a study to evaluate its mineral resources, particularly rock, sand, and gravel, to determine how to protect and exploit them to meet future needs without adverse environmental impacts. The Comprehensive Plan then should be examined in light of the new information gleaned from this analysis, and revisions of the plan made as necessary to achieve maximum compatibility of mineral resource extraction programs, with other planned land uses. The results of studies of offshore oil drilling also should be considered in this analysis."

Conservation Element Text Excerpts:

a) "In order for the County to be able to minimize adverse direct or indirect environmental impacts, it should have discretionary review authority over all mineral extraction activities on an annual basis particularly over the expansion of present activities. This review should be conducted as prescribed under the California Environmental Quality Act. It may be that certain small operations do not have significant adverse environmental impacts, in which case they should be allowed to continue or to expand if desired. However, in those instances in which the impacts of mining would pose a serious threat to the natural or the human environment, the County should be able to curtail operations or to require that remedial action be taken in a timely fashion. In reviewing mineral resource activities' potential impacts, cumulative impacts on the environment must be considered, as well as the impacts of the individual operations."

b) "A vital component of a program for the protection and exploitation of the County's mineral resources is the rehabilitation and ultimate use of depleted or abandoned mineral resource sites. In this context, operators should be required to provide plans for rehabilitation of their sites, once all of the commercial grade deposits have been extracted, and to indicate the ultimate use of the site."

Comment: The project is generally consistent with the above statements in the Conservation Element text. Conditions on the use permit will be imposed to assure continuing County monitoring of the site to assure compatibility with adjacent uses. It must be acknowledged, however, that operation of the proposed quarry (and for that matter, of the existing quarry as well) is estimated to have NOx emissions exceeding the County's threshold of significance. As a result, it might be argued that the quarry would not be consistent with the recommendation "a" of the Conservation Element stated above, which prohibits mineral resource extraction if significant adverse impacts on air quality would result.

2.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

This section will first present the regional setting of the project, and describe its context within the community of Goleta and El Encanto Heights. Detailed studies are then provided of six "focuses" of this EIR, as follows:

2.1 Traffic
2.2 Air Quality
2.3 Noise
2.4 Biological Resources
2.5 Archaeological Resources
2.6 Aesthetics

The above sections will each be organized as follows: Existing Setting, Environmental Impacts, and Mitigation Measures. The discussion of Mitigation Measures will distinguish those measures proposed by the applicant, standard County requirements, and additional measures proposed by this EIR. At the end of each of these sections, a summary is provided of the "residual impact" of the project as mitigated. Section 3 will then assess cumulative impacts, unavoidable adverse impacts, project alternatives, and growth-inducing effects.

Regional Setting

The nearby community of Goleta is one of the fastest-growing areas of Santa Barbara County, although it is currently subject to very restrictive ordinances regulating the provision of water to new development. The economic base of the community is largely oriented to the nearby campus of the University of California, to light manufacturing and retail sales, and to a growing office sector. Increasingly, tourism services are developing that capitalize on the area's outstanding natural setting. Offshore oil development is also a significant part of its economic base. Much of the County's economy is dependent on its attractiveness as a residential area, and it is particularly noted for its advantages to retirees.

The El Encanto neighborhood below the proposed quarry site is developed with about 120 single-family homes on quiet, tree-lined streets. Through-traffic is confined to Calle Real and Winchester Canyon Road. Several sandy beaches may be found along the shoreline about 1 mile to the south, and the Sandpiper Golf Course is located to the south, across Highway 101.

Above and on each side of the quarry site, agricultural uses predominate. The major exception is the existing quarry on the east side of Ellwood Canyon, which quarries the same type of sand

deposit that is sought on the Doty ranch. This quarry is described in Section 1.2 above.

The next sections will address the project's impact on specific environmental issues and recommend mitigation measures where necessary.

2.1 Traffic Circulation and Roads

2.1.1 Existing Conditions

See Figure 3, Project Location, Access, and Drainage Facilities.

Access to the proposed site would be obtained via Highway 101 or Calle Real to Winchester Canyon Road. A private road intersects Winchester Canyon Road at a point 100' north of the intersection of Winchester Canyon Road and Calle Real. From that point, it proceeds in a general northerly direction across APN's 79-120-54 (the Timm/Mountain View project site); 79-120-95; 79-110-18; and 79-100-10 (see Figure 2). It then diverges westerly onto the project parcel, 79-100-17, at a point about 2,500' from Winchester Canyon Road. The road surface to this point is asphalt, the width from 16-24'. The quarry site is situated about 1,500' northwest of the road's entry onto the owner's property. That distance is improved with unsealed shale base, 20-24' wide.

Traffic levels on the private access road are generally very light at present. Ellwood Ranch traffic is estimated by the applicant to be less than 100 daily trips during the peak harvest season of the summer, and very light traffic is associated with nearby residences (see below regarding the Pulice quarry).

The Santa Barbara County Public Works Department estimates that an average of 3,560 vehicles passed along Winchester Canyon Drive each day during 1986. See Table 1, Daily Traffic Levels Along Winchester Canyon Road, 1976-86.

Table 1: Daily Traffic Levels Along Winchester Canyon Road, 1976-86

Year	Daily Traffic
1976	2133
1977	2177
1978	2633
1979	2703
1980	2235
1981	2351
1982	2103
1983	2540
1984	2886
1985	2888
1986	3560

Source: Department of Public Works

It should be noted that the 1986 traffic level was far above the trend line for previous years. Using the data shown in the above table ahd projecting the trend line by standard statistical techniques, the 1987 traffic level would be forecast at 3,142 daily trips. This would correspond to a Level of Service of A for that 2-lane roadway with shoulders, generally free of any significant congestion.

Table 2 below presents the existing levels of service for three intersections involving nearby through roads and U.S. 101. As indicated in Table 2, all intersections within the project vicinity have service levels of A.

Table 2: Existing Intersection Levels of Service

Intersection	Peak Hour % of Capacity (LOS) Existing AM/PM	1986 Base AM/PM
Winchester Canyon/Calle Real/US 101 NB Off	0.31(a)/0.34(A)	0.32(A)/0.36(A)
Hollister/Calle Real/ US 101 NB On	0.34(A)/0.28(A)	0.36(A)/0.29(A)
Hollister/US 101 SB Ramps	0.43(A)/0.37(A)	0.45(A)/0.40(A)

Source: Hyatt Hotel EIR, 84-EIR-4.

Approximately 96 daily truck trips along Winchester Canyon Road to Highway 101 originate in the existing Pulice Ranch sand quarry, just east of the project site. The Pulice Ranch quarry operators estimate that trucks leave the site 140 days each year. This estimate has not been verified, however.

2.1.2 Environmental Impacts

Traffic generated by the quarrying operation would be continuing at existing levels rather than increasing during the transition phase or as a result of operation of the new sand pit. This would be insured by the mitigation measures limiting sand hauling trips (see Applicant-Proposed Mitigation Measures, p. 2-7). Sand delivery trucks carrying about 15 cubic yards (c.y.) each from the proposed project site would produce about 96 average daily trips (ADT) for about 140 days each year in order to deliver the

100,000 cublic yards quarried annually. This includes 48 in-bound and 48 out-bound trips each day. Employees' transportation would add an estimated 16 ADT, for a total of 112 ADT and 17 peak hour trips attributable to the quarry.

This level of truck and passenger car traffic is not expected to have a significant effect on the operating level of service for any affected road section, nor at any of the intersections affected by the project. There are three concerns, however, with respect to the traffic loading by the project:

1. First, the structural section of the County-maintained roads leading to the proposed quarry site appears to be inadequate to support even the truck traffic levels now experienced, according to the County Public Works Department. Sections of Calle Real and Winchester Canyon Roads that would be used by the quarry trucks should be reviewed by the County Department of Public Works prior to issuance of the use permit. This investigation may be conducted by a Registered Civil Engineer approved by the Public Works Department, if preferred by the applicant. This review should establish the appropriate "traffic index" for the roads based upon the number of trips and the size of the trucks. A condition should be imposed on the project requiring that wherever a substandard road section exists, such section shall be rebuilt or otherwise improved to support the traffic index required by Public Works.

2. A second concern lies in the fact that access to the proposed quarry site across the private easements has been challenged as insufficient by a neighboring property owner. A letter was received by the County on November 6 from the law firm of Eckert, Smith, and Tyler representing Mr. and Mrs. G. Bradley. This letter stated that the owners of the Ellwood Ranch only possess a 15' easement across the Bradley's property. The Pulice property where the existing quarry is located has a 60' easement, however, over the same road. The Bradleys also state that the alignment and sight distances of this easement would be insufficient for the large trucks proposed to use the quarry. This concern must be resolved prior to issuance of a use permit. The applicant shall be required to demonstrate access rights to the site via an easement at least 20' in width, as required by the County Fire Department. Road widths below 20' would be unacceptable to the Fire Department at this time. The access roads shall also be improved to an all-weather surface to the satisfaction of the County. On May 4, 1987 the applicant and the Bradleys stated that a verbal agreement has been reached, expanding the easement from 15' to 60'.

3. Finally, there is a school bus stop for neighborhood children near the northeast intersection of Winchester Canyon Road and Calle Real. Children in the Rio Vista Drive area must walk approximately 1/3 mile from this stop to their neighborhood, and must in the process cross the access road used by the quarry trucks. A stop sign should be placed and maintained at the intersection to control truck traffic entering Winchester Canyon Road.

2.1.3 Mitigation Measures

Applicant-Proposed Mitigation Measures

1. The applicant shall oil the road section on his property that is currently only unsealed shale, a distance of about 1,500 feet. This upgrading will be required of the project.

2. The owner of the property, Ellwood Ranch, Inc., and the operator of the sand quarry, Santa Barbara Sand and Topsoil, shall limit diesel sand transport trucks to 96 ADT (48 trips in and 48 trips out per day) during both the transition period and the full operational phase of the new quarry. (Letter in file).

3. An agreement in principle has been concluded between Ellwood Ranch, Inc. and Gerard Bradley granting an improved easement 60 feet in width for the access to Ellwood Ranch, Inc. sand quarry along the existing access route. The existing access road shall be widened to 20 feet wide, the existing sharp curve shall be straightened, and an all-weather oiled surface on the access road shall be maintained.

County Standard Mitigation Measures

1. The County would require normally that the structural section of Calle Real and Winchester Canyon Roads be investigated and upgraded where necessary to accommodate the quarry trucks. A condition should be imposed on the project requiring that wherever a substandard road section exists, such section shall be rebuilt or otherwise improved to support the traffic index required by Public Works.

2. An encroachment permit would also be required by the Public Works Department for any work to be done in the right-of-way of any County-maintained road.

3. Project access shall be designed to Winchester Canyon Road,

until such time as Cathedral Oaks Road is continued through and intersects with the access road.

4. If this completion of Cathedral Oaks Road occurs during the life of the sandpit, the applicant shall design and construct his access at Cathedral Oaks satisfactory to the Director of Public Works, including turning lanes and speed-change lanes where necessary.

5. Once Cathedral Oaks is connected to Calle Real, all project traffic shall be required to exit via Calle Real rather than Winchester Canyon Road.

Additional Mitigation Measures

1. The applicant shall be required to demonstrate access rights to the site via appropriate easements. Such access road shall also be improved to the satisfaction of the County Director of Resource Management.

2. The applicant shall also be required to install and maintain, in coorindation with the Department of Public Works, a stop sign at the intersection of the private road entering Winchester Canyon Road. The applicant would be responsible for funding and maintenance of the referenced stop sign.

Residual Impact: Not significant.

2.2 Air Quality

2.2.1 Existing Conditions

The proposed project site currently has no significant activity that contributes to air pollution. Much of the site remains in its natural condition, covered with grasses, low shrubs and oak trees. The remaining portion is planted in citrus and avocado orchards.

The climate of the region is described in several recent EIR's, most notably the Hyatt Resort and Hotel (84-EIR-6). Santa Barbara's south coast region is not currently in "attainment" status for ozone, although it is in attainment for all other contaminants. Presently, the County's Air Pollution Control District has established a Threshold of Significance of 5 lbs/hour for emissions of particulate matter, and 2.5 lbs/hour for emissions of oxides of nitrogen (NOx). NOx, with reactive hydrocarbon, is a precursor to ozone.

2.2.2 Environmental Impacts

The proposed quarry project is expected to use similar machinary as currently used at the Pulice Ranch quarry nearby. Levels of air pollution originating from the new project should be similar to the estimated quantities generated at the Pulice Ranch quarry.

The Pulice Ranch sand quarry, located 200 yards east of the proposed quarry site, utilizes one diesel tractor, two skip loaders, one shaker-stacker and eight diesel transport trucks. These vehicles do not operate all day, however. The skip loader is only operated when loading a dump truck, and the shaker-stacker is only operated while sifting out the cobbles and stones. Furthermore, the diesel dump trucks are often contracted out when they are not operating between the site and the destination for the sand, and therefore air emissions are distributed over a wider area than for the other equipment. Nevertheless, staff of the County's Air Pollution Control District (APCD) have, received numerous complaints about air pollution caused by the Pulice Ranch sand quarry, according to Bobbie Bratz, Air Quality Planner at the APCD.

The limitation of total diesel truck trips to 96 ADT (48 trips out and 48 trips in) would insure that the operation would continue at already existing levels rather than increasing during transition or the operation of the new quarry. (see traffic mitigation measures proposed on page 2-7).

Table 3 shows the estimated quantity of air pollutants in pounds per hour generated by the Pulice Ranch sand quarry.

Table 3: Air Pollutants Generated at the Pulice Ranch Sand Quarry
(pounds per hour)

Equipment:	Bull-Dozer	Skip Loaders	Shaker-Stacker	Diesel Trucks	Total lbs./ Hour
Number in operation	1	2	1	8	--
Approx. HP	200	150	20	250	--
Pollutant Emissions:					
SOx	0.15	0.425	0.005	1.99	2.57
NOx	2.10	4.06	0.088	19.85	26.10
THC	0.31	0.49	0.12	3.31	4.23
CO	1.30	1.35	3.51	55.19	61.35
TSP	0.23	0.40	0.006	No ref.	0.64

Source: Perspective Planning, based upon emission factors provided by Santa Barbara County Air Pollution Control District.

Assumptions: 100% capacity, usage factors of 40% for the bulldozer and shaker/stacker, 50% for the trucks, and 75% for the skip-loader. See appendix for calculations of above emissions.

Table 3 demonstrates that emissions of NOx would exceed threshold levels for new emissions. There are few ways to reduce these emissions to less than 2.5 lbs/hour, although some limited mitigation measures are recommended below. Because of this finding, air quality impacts are considered a significant and unavoidable impact (see Category I of the summary table).

CO emissions would appear to be very high--over 60 pounds per hour--but the County has established a different threshold for this pollutant. This threshold would be triggered if the project makes any significant contribution to traffic loading at any intersection that presently operates at Level of Service "D" or worse. There are no such intersections to which this quarry would be contributing traffic; thus, no significant CO impact is demonstrated.

Dust would be generated during grading and quarrying activities in the proposed sandpit and by truck operations along the access

roads. These dust emissions would be about 3.0 tons per month, based on an emission factor of 1.2 tons/ac/month and a 2.5-acre area of disturbance on the site. This source of air pollution would be most significant during the dry summer months. Because 3 tons per month would equate to an hourly emission rate of over 20 lbs/hour, dust emissions would be considered to be significant impacts--even though the South Coast air basin is in attainment for particulate concentrations at this time.

2.2.3 Mitigation Measures

To control dust:

1. The dirt access roads shall be oiled and maintained in a compacted condition.

2. After loading the sand into trucks, the load shall be sprinkled with water to control dust. Dust shall be controlled in the loading area by liberal applications of water by sprinkler truck or hose at least once a day, and as frequently as needed to prevent dust generation--particularly during windy conditions.

3. Each load of sand to be hauled from the proposed sand quarry shall be covered with tarpaulins prior to leaving the site.

4. The area of active disturbance in the quarry shall be limited to not more than one acre at a time.

5. All parts of the quarry which have been disturbed, but are temporarily not subject to further quarrying shall be specially treated with a water/dust control chemical mix such as a polyvinyl acetate emulsion on an as-needed basis to control dust generation. For bared portions of the site to remain undisturbed for a year or more, grass seed shall be added to control water erosion.

To reduce emissions of NOx, five additional measures are recommended:

5. All diesel equipment shall be maintained in the best possible working order, with servicing undertaken at least as often as recommended by the manufacturer.

6. The use of prechamber diesel engines or equivalent shall be required, if feasible and available. Such engines have been shown to be effective in reducing NOx emissions up to 20%, but availability is uncertain.

7. Proposed by the applicant. A special overnight parking area for all the diesel sand transport trucks shall be established 2240 feet north of the sand loading site at the proposed quarry. All diesel trucks of the operator would be parked there overnight and would preform their initial warm-up at that site before going to the sand pit. This measure would also reduce noise impacts somewhat.

8. Diesel engines of the sand transporting trucks shall be subjected to 4% timing retard to reduce NOx emissions.

9. To be consistent with the County's Air Quality Attainment Plan, the applicant must obtain a permit from the County Air Pollution Control District to operate the shaker-stacker.

Residual Impact: Dust (particulate matter) and most other pollutants can be controlled within thresholds of significance, although fugitive dust emissions may continue to be a source of annoyance to the neighborhood. By reducing the area of disturbance to 1 acre, and by maintaining a rigorous watering schedule, dust emissions should not exceed 5 lbs/hour.

Emissions of nitrogen oxides would still be above the threshold of significance. There is no effective means of reducing these emissions to the degree required to fall within the County's threshold. A finding of overriding considerations would be necessary to approve the project.

It should also be pointed out that the analysis in this EIR has generated data on emissions at the source, but our scope of work did not include estimating the resulting concentrations of pollutants downwind from the quarry. Methods to translate emission data to ambient concentrations of any given pollutant are practiced in the County and State air pollution offices. However, no methodology is practical for obtaining specific answers for a specific project such as this, due to the small scale and complexity of terrain and air currents. Neither the County APCD nor the State ARB are conducting programs that can effectively estimate resulting concentrations of dust or NOx in the neighborhood. Furthermore, the health effects of any given concentration of dust or other pollutants in an air basin are not fully known. Thus, it is not possible at this point to resolve the issue of how air pollutants from the quarry would impact health within the neighborhood.

2.3 Noise

The following section was prepared with data from a report supplied by Thomas P. Mitchell, Ph.D. of Santa Barbara. This report appears as Appendix A to this environmental impact report.

2.3.1 Existing Conditions

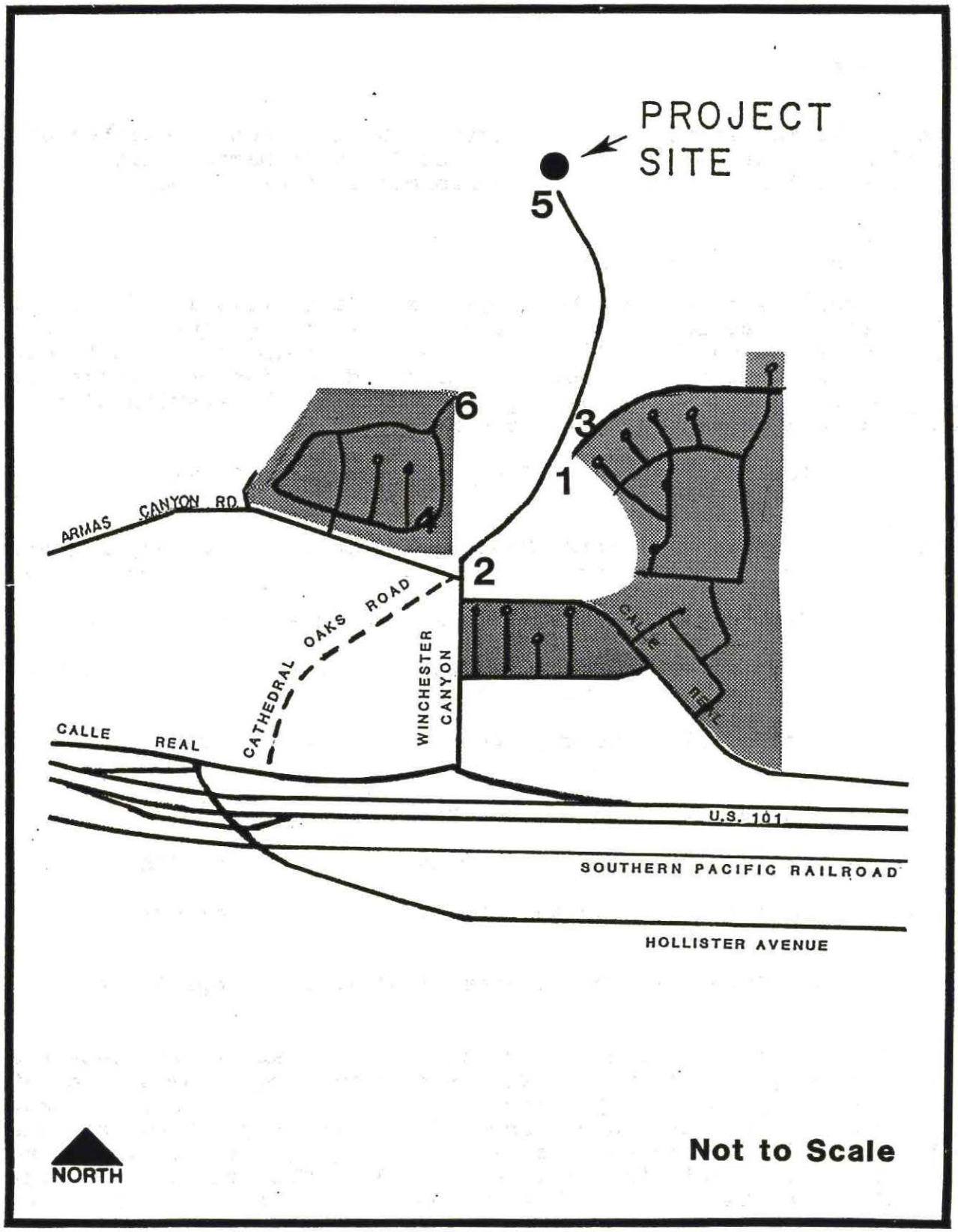
Noise conditions around the project site are relatively quiet, with the exception of noise from the existing quarry across Ellwood Canyon on the Pulice property. The noise consultant took acoustical samplings at six locations identified on Figure 5, Residential Areas Surrounding Project Site. The results of this analysis are presented in Table 4 below.

Table 4: Noise Conditions at Sampling Sites

Site # (Fig. 5)	Location	Noise Source(s)	Lmax	Leq(30")	Leq(hr)
1	Timm site	Quarry trucks	86 dBA	--	60 dbA
2	Timm site	Quarry trucks, local traffic	82 dBA	--	62 dbA
3	Cathedral Oaks Rd.	Quarry trucks	61 dBA	48 dBA	--
4	Wagon Wheel	Quarry trucks	66 dBA	45 dBA	--
5	Proj. Site	Quarry oper'ns	--	64 dBA	--
6	Langlo Ranch Rd.	Quarry oper'ns	--	42 dBA	--

Source: Dr. Thomas Mitchell, Acoustical Report (Appendix A)

The "Lmax" values shown in the center column above represent the sound energy levels emitted from a time-varying noise source at its loudest point--for instance, a quarry truck at its closest approach. The "Leq" values shown in the two right-hand columns of Table 4 above represent a way of averaging time-varying sound levels so as to make them more comparable. The Leq(30 min.), for example, is the level of steady sound which, over 30 minutes at



Noise Sampling Sites

fig. 5

the same location, contains the same A-weighted acoustical energy as the actual time-varying sound.

All sound measurements were taken with precision instruments as set forth in Appendix A, with clear and windless weather conditions.

From the Leq levels derived from the noise measurements, the noise analyst has calculated Community Noise Equivalent Levels, which average the noise levels over a 24-hour period. This "CNEL" measure is commonly used as the basis for noise regulations, and is derived by adding a 5- to 10-decibel weighting to noise levels occuring in evening or night-time periods.

The CNEL for the six locations in the noise survey varied widely, and the highest noise level was found at Site #2 (the intersection of Winchester Canyon Road and Calle Real) where CNEL is projected to be about 59 dBA. All other locations were found to be less than, or far below, 59 dBA.

Santa Barbara County has established in its Noise Element of the general plan a limit of 65 dBA for exterior noise levels in residential areas, and 45 dBA for interior noise levels. Thus, the existing quarry truck traffic does not appear to be causing excessive noise conditions on the neighboring residential areas.

2.3.2 Environmental Impacts

Noise will be generated by the new quarry from two sources: 1) The noise of excavation and screening, which is generated on-site and is not readily distinguishable at a distance from the quarry; and 2) Transport of the material off-site by the trucks.

Quarry Site Operations

The existing quarry site will be phased out over the early years of the new quarry, but there may a time when both quarries are operated simultaneously. Relocating the quarry to a higher elevation than the existing quarry will allow the sound of the actual operations to radiate over a larger area. The potential impact has been estimated by analyzing the project's proposed equipment schedule correlated with high usage factors (see Table 5 on the following page).

Table 5: Operational Characteristics of Quarry Equipment

Equipment: One bulldozer
Two front loaders
One shaker-stacker
Eight-ten dump trucks

Operational data:

	Dozer Time	Loader Time	Shaker Time	Truck Trips
Daily		8 hrs		20- 50
Monthly	40 hrs	176 hrs	40 hrs	440- 1100
Yearly	480 hrs	2112 hrs	480 hrs	5280-13200

Source: Dr. Thomas Mitchell, Acoustical Report, Appendix A

After allowing for geometric divergence and atmospheric absorption, it was estimated that a one-hour Equivalent Continuous Sound Level (Leq (h)) under heavy usage would not exceed 60 dBA at a distance of 1,500 feet. This value could not be quantified exactly, however, because of the irregular topography in the area. Furthermore, refraction due to wind effects could not be included in the estimate. The Leq (h) of 60 dBA is considered to be a "worst case" estimate.

Truck Operations

The truck traffic from the quarry is not expected to increase significantly over current levels, unless both quarries are operated concurrently and by different operators. Even should this concurrent operation occur, any increase in truck traffic would be expected to be marginal. The demand for the type of sand to be extracted from the quarry would be unlikely to increase to such a degree over the long term that each of the two quarries would be sending out truck traffic in the same volume that the existing quarry is now generating.

In the "worst case" condition, however, where projected truck traffic from the new quarry occurs in addition to existing trucks, noise levels on streets used by the trucks would be expected to increase accordingly. These levels may exceed 65 dbA at the corner of Winchester Canyon Road and Calle Real, where noise levels are already estimated to be 59 dbA (CNEL). This 65 dbA level would be a function of the number of truck trips generated during the peak hour, particularly when cumulative peak hour traffic levels are reached with areawide development.

2.3.3 Mitigation Measures

Proposed by Applicant

1. See applicant-proposed mitigations under Sec. 2.1, Traffic.

2. Truck traffic shall be directed to use the same streets as are currently in use by the existing quarry--i.e. Winchester Canyon Road to U.S. 101--until the Cathedral Oaks Road is completed (See additional mitigation measures under Section 2.1, Traffic Circulation and Roads).

3. The operator shall direct his truck drivers to disable the noisy "Jakes brakes" in use on the dump trucks for highway driving whenever the trucks leave the highway.

4. Truck traffic from the quarry shall be limited to normal weekday daytime hours of 7:00 am to 5:00 pm.

5. Finally, the improvements to the existing access road proposed by the applicant would help to reduce traffic noise due to braking, acceleration, deceleration, and body rattles.

Standard County Mitigation Measures

It is customary for the County to limit the hours of operation in a use permit for a noise-generating activity such as this, near residential neighborhoods.

Additional Mitigation Measures

1. The applicant shall be required to maintain a berm on the south side of the excavation areas as the projected Phase I, II, and III proceed. Such a berm in conjunction with the gradual reduction in elevation of the excavation site would considerably reduce any impact of operations on residences to the south as the project progresses over time. This berm would be 8-10 feet high, and should be maintained as a mitigation measure to the greatest extent possible. (See additional mitigations under Section 2.6, Aesthetics).

2. The applicant shall be required to submit any agreement with a lessee for the quarry to the Resource Management Department for approval with respect to those items necessary to reduce noise or other impacts. Such agreement shall limit the number of truck trips during the afternoon peak hour to not more than 10 trips (including both inbound and outbound).

Residual Impact: Not Significant.

2.4 Biological Resources

2.4.1 Existing Conditions

Native vegetation on the project site varies from open grassland to a scrub oak woodland community. Immediately adjacent to the project site on two sides are small riparian communities, the more significant of which is on the other side of the Ellwood Ranch access road and lines Ellwood Canyon creek. A minor gully leads northwesterly from the project site and supports riparian and oak woodland. (See Figure 3 above).

About 75 oak trees inhabit the portion of the site that would be excavated. These trees survived the Eagle Canyon fire of 1979, and range in trunk diameter from 12" to 30" and up to 30' in height.

Grazing activities over the project site have kept down the growth of chamise or chaparral vegetation in the flatter parts of the site. On steeper slopes, however, scrub species such as chamise, coastal sage, and bacharis are present. On the flat valley bottom below the project site, vegetation is limited to the aforementioned lemon orchard and occasional weed species.

The existence of a nearby roost for Turkey Vultures (Cathartes aura) has also been noted in an Environmental Assessment for the Timm Mountain View project, proposed to be developed just below the quarry project. This roost is located in a tall row of eucalyptus trees adjacent to the access road to the site, north of Winchester Canyon Road and adjacent to the residential area along Wagon Wheel Road. These vultures tend to be fairly tolerant of human activity, although this roost should be considered a potentially sensitive area. (Reference: Joan Lentz, Mountain View Project Biological Report, February 9, 1987).

2.4.2 Environmental Impacts

About 75 mature oak trees and their associated wildlife habitat would be removed during the phases of the project. A total of 11.7 acres of chamise-oak woodland habitat would be lost to direct removal and excavation of supporting soil and bedrock formations. The applicant does not intend to re-vegetate the site with natives, however a re-planting strategy is proposed for adjacent areas as described under "Mitigation Measures" below.

There is also potential for disturbance to a small portion riparian habitat in oak woodland area near the southwestern part of the site. This woodland area is close to the site of the

proposed quarrying activity, and may be a logical route for an access road linking the lower, stockpiling and loading area with the upper excavation area. The applicant has stated an intent to avoid construction of this road, however, and instead would discharge or side-cast the quarried material after shaking down an existing disturbed "chute" of slope for stockpiling.

Dust from the project would cover portions of the nearby oaks as well as the avocado orchard, reducing photosynthesis and promoting disease. The quarry would also create noise that could disrupt nesting and mating activities of small mammals, birds, and other species in the nearby riparian habitats.

The spread of avocado root rot fungus is of concern to avocado growers in the region. Increased human activity at the quarry site has the potential to increase the dispersion of root rot disease in the immediate area. The planting of avocados on the mined-off back slope, which is proposed as a part of the reclamation plan, would occur after the quarry activity had moved to the next lower step in the phasing plan. This would prevent "tracking-in" of fungus spores by workers or equipment from the sand quarry. The applicant would place a prohibition on the operation of the sand quarry to restrict all foot and equipment traffic to the mining site, loading area, and/or access road. Fencing should be installed as each section of avocodos is installed to protect the orchard from animal intrusion.

Water runoff from the overnight truck parking area could carry sediments to the nearby Ellwood Creek and degrade the aquatic habitat.

Truck traffic associated with the quarry would pass right by the turkey vulture roost discussed above. Some truck activity from the existing quarry occurs at this time, however, and the birds have obviously adapted to the trucks. The vultures may even benefit from scavenging opportunities provided by the new quarry. Other raptors such as hawks and kestrels could be attracted to the project site during the time that topsoil is being disturbed; rather heavy gopher and ground squirrel populations are evident on the project site. There may be some disturbance, however, from the road widening that is planned for this area as a future extension of Cathedral Oaks Road. This road widening is not directly associated with the quarry project.

2.4.2 Mitigation Measures

Applicant-Proposed

1. To compensate for the loss of the chamise-oak woodland habitat, the applicant shall plant a four-acre portion of land adjacent to the project site with at least 225 oak trees, emulating the existing oak woodland. This planting program shall be initiated prior to initiating quarry activity upon approval of the Conditional Use Permit, and shall be completed on a timely basis. If the revegetation project has not been completed prior to the initiation of the quarry, a $10,000 bond should be secured from the applicant to assure completion of the planting. Oak trees from the same species would be started from acorns collected on the site by germination in 8" x 15" growing tubes and planted at a density of one tree per 400 square feet among existing trees along the top and flanks of the ridge. New plantings would need to be protected from gophers and deer with one-half inch chicken wire tubes installed with the growing tube and supported above ground with adequate stakes. Long term maintenance would include occasional watering during the first three years with tapering off of the watering schedule to promote drought hardening in each tree. Also, any failed trees should be replaced to promote as rich a chamise-oak habitat as possible. It is also advisable that a seperate maintenance bond of $10,000 be required for the first two years after planting. This program shall be coordinated with Mark Borchard, oak tree specialist at Los Padres National Forest.

2. Reports detailing the results of this program would be submitted by the applicant to the County's Department of Environmental Review and the Los Padres National Forest staff at 2, 5 and 10 year stages of the program. The reports would indicate the tree's annual height increases; survival rates of all trees in the replanted habitat; causes of failure and recommendations for improving the experiment. It is believed that chamise and other understory species would move in on their own as the oak trees mature.

3. To protect the riparian habitat of the drainage immediately west of the proposed quarry, the applicant shall restrict the tractor and skiploader access to roads already existing on the site. Truck access shall be limited to the southwest corner of the quarry site. There shall be no intrusion into the drainage on the west side of the site.

4. Special care shall be exercised in all dust control measures at the quarry to prevent distribution of dust to avocado

orchards.

5. A prohibition shall be placed by the applicant on the operation of the sand quarry to restrict all foot and equipment traffic to the immediate mining site, the loading area, and/or the access road. This will reduce the potential of inducing root fungus into nearby orchards.

Standard County Mitigation Measures

None.

Additional Mitigation Measures

1. The U.S. Forest Service shall be consulted prior to approval of the oak re-planting scheme identified by the applicant. Copies of any agreement with the Forest Service as to the replanting program shall be submitted to the Resource Management Department for review and approval. The Forest Service recommendations as to siting of the oaks or vegetation management strategies shall be followed wherever practical. (Note: Contact person at U.S. F.S. is Mark Borchard).

2. The primary desilting basin shall be of sufficient size to contain a storm run-off from a 10-year event.

3. Chain link fencing shall be installed along the western edge of the quarry, providing at least a 50 foot buffer for the riparian habitat.

4. An additional desilting basin of sufficient size to contain a ten-year-storm shall be built to service the overnight truck parking area.

Residual Impact: Not significant.

2.5 Archaeological Resources

Larry R. Wilcoxon, Consulting Archaeologist, conducted a Phase 1 Cultural Resource Evaluation for the proposed project site. His report, released August 26, 1986, had the following scope of work:

A) A cultural resource records search of archaeological documents pertaining to the project area and immediate environs;

B) An intensive field survey to locate potentially significant cultural resources;

C) An assessment of project impacts on these resources with the formulation of appropriate mitigation recommendations.

The full text of this report is provided in Appendix B of this EIR. A summary of his recommendations follows.

2.5.1 Existing Conditions

Few details are known of the earliest Indian roots in the region because few sites of this tradition have been discovered in datable contexts. Some experts believe that sites earlier than 9,000 years ago have either been covered by deep sediments or were inundated by rising post-Pleistocene sea levels.

The best evidence available from the archaeological records begins with a tradition known locally as the Oak Grove or Early Period Culture, a hunting and gathering adaptation with a specialized emphasis on the collection and processing of wild plant seeds. This culture is represented by a large number of grinding implements in the cultural deposits, and the situation of sites on elevated landforms near areas of high plant biomass--such as the subject site. Hunting tools are rarely found. This culture dated generally between 6000 and 2400 years B.C.

By 5,000 years ago, hunting of large land mammals (such as deer, elk, and bear) emerged as a major economic activity. This period is known as the Hunting People or Middle Period, and dates between 2400 and 800 B.C. Sites of this era are found in a wide variety of habitats throughout the Goleta area and surrounding foothills. Major settlements with residential features and cemeteries, minor seasonal settlements, and occasional camps are among the types of sites that have been recognized.

By about 800 A.D., Indian populations in the Santa Barbara Chan-

nel areas evolved into a complex society specializing in marine resources. The Chumash culture during this Late Period is recognized for its high population densities, large coastal communities, and extended trade networks. Chumash sites are found in almost every major habitat, and include complex tools and structures. The project site was once part of territory occupied by the Barbareno Chumash.

The modern history of the project site began with the acquisition of the ranch property by Ellwood Cooper in 1869 from the estate of Nicholas A. Den, who received the title from the Santa Barbara Mission Lands. Cooper was a noted horticulturalist and planted 400 acres in the canyon bottom in olive and walnut trees in 1872. The ranch has continued in citrus and dairy cattle activity through subsequent owners; the Doty's originally acquired an interest in the property in 1921.

An archaeological records search at the UCSB Regional Office of the California Archaeological Site Survey revealed that three archaeological sites are located within a 1 kilometer radius of the project area. Only one of these sites, SBa-1746, has been recorded.

The project site was subject to a surface survey at intervals of approximately 5 meters on the upper portion of the knoll as well as in the area of the proposed desilting basin in the lemon orchard. The area of gentler slopes at the top of the knoll was disced by the applicant prior to the search to facilitate the investigation. In other areas, hand mattocks were used at 10-15 meter intervals to clear exposures of ground surface.

The survey resulted in the discovery, recording, and mapping of seven chipped stone artifacts in the area of the proposed quarry. These included one projective point fragment of Monterey chert, three Franciscan chert flakes, and three Monterey chert flakes spread over an area approximately 200' long by 50' wide. Surface visibility in this area was poor due to dense coastal sagebrush. An additional Franciscan chert flake was located by the survey crew outside the proposed area of impact approximately 500 feet northwest of the knoll top. The projectile point fragment is typical of the arrow points which occur locally after 500 B.C.

In addition, a ledge-like sandstone exposure in the southern slope of the knoll has the characteristics of a former rock shelter that has since collapsed. While neither this site nor any artifacts discovered at the proposed quarry site are impressive with respect to their nature and quantity, their presence does provide additional information about prehistoric use of the foothill zone above Goleta. Experts know very little about this

area at this time. The artifacts may be associated with seasonal or intermittent settlement activity in this habitat, such as hunting of larger game. It is possible that additional cultural remains are present underneath the dense vegetation cover.

Impacts of the proposed quarry could be significant, unless some additional investigation is permitted during the initial excavation period. The archaeologist has recommended a limited monitoring program, as set forth below. These mitigations have been made consistent with County Archaeological guidelines and CEQA Appendix K.

2.5.3 Mitigation Measures

The archaeological study concludes that the following recommendations should be explicitly incorporated into any conditional use or surface mining permit granted:

1. Prior to the initiation of quarrying activity, the 200'x 50' area of the landform where artifacts were recovered shall be resurveyed with 2 meter (6') transect intervals and all artifacts mapped and collected.

2. All excavation on the landform within the upper five feet of soil or to bedrock shall be monitored by a DER-qualified archaeologist and a Native American funded by the applicant. These individuals shall be empowered to temporarily suspend or redirect grading and/or excavation should potentially significant cultural resources be encountered. Work in such areas should cease until the finds can be recorded, evaluated, and an appropriate mitigation program developed by the archaeologist and funded by the applicant.

3. All soils removed from areas known to contain artifacts shall be stockpiled at a central location to prevent their transport to other locations beyond the project area. The stockpiling would be permanent to concentrate any potential archaeological materials in one recorded site and prevent the misinterpretation of them by later students. The location of the stockpiled soils shall be recorded by the archaeological monitor on a project map filed with the County of Santa Barbara and the Regional Office of the California Archaeological Site Survey, USCB.

Residual Impact: Not significant.

2.6 Aesthetics and Trails

2.6.1 Existing Conditions

The project site consists of a convex-shaped knoll at the head of a flat valley. Its location is at a transition point between the marine terrace and the steep foothills that provide the visual backdrop to Goleta.

The site is vegetated with chaparral with scattered oak trees and natural grasses. A small portion of the site has been planted with an avocado orchard.

The quarry would be visible from parts of Hollister Avenue, Calle Real, Highway 101, and Winchester Canyon Road. It would be visible from a few homes and some streets in the Winchester Canyon subdivision and from four homes located on higher ground to the north and the east of the site.

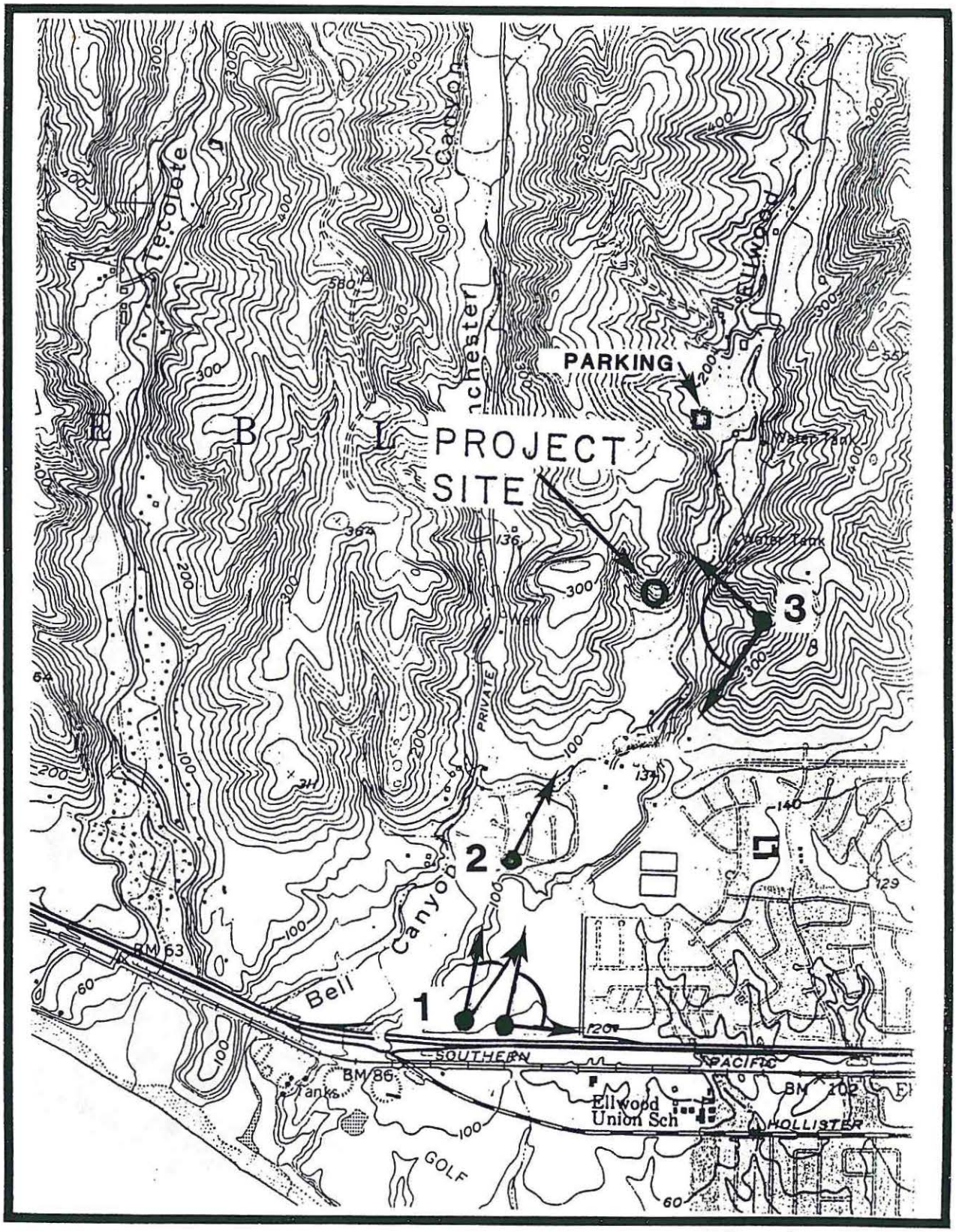
The basic concepts involved in analyzing the site's viewshed include the following:

1) A wide-angle view of the site from below would include rolling foothills of the Santa Ynez Range covered with grassland, alternating with scattered trees or clusters of oaks or sycamores and many boarder areas of lemon and avocado orchards. The steeper slopes of the range, in the background, alternate darker areas of chaparral with lighter areas of sandstone outcrops and a few avocado orchards.

2) There is substantial variety of color and texture in the viewshed, consisting of foothills, steeper mountain slopes, lighter-covered grasslands and rock outcrop areas and darker areas with trees and/or chaparral. Deviations from the natural landscape consist of lemon and avocado orchards.

The contrasts, colors and textures of these features are irregularly distributed with little influence from such factors as linear form, convergence, or enframement. The scene is not dominated by one or more of its landscape characteristics. Light angle, sunlight intensity, and changing atmospheric conditions make the site visibility variable. Presence of mountain haze often makes the site less visible. Distance from the site and the generally lower level of the viewer also tend to reduce the prominence of the site to most viewers.

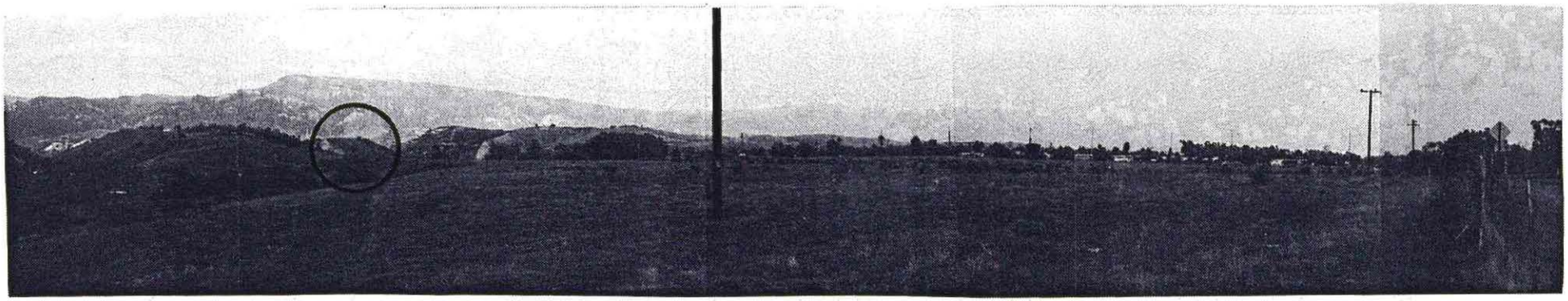
Photographs were taken from three positions to illustrate the visibility of the site. These positions are illustrated in Figure 6 below. The first position includes two views, plates 1

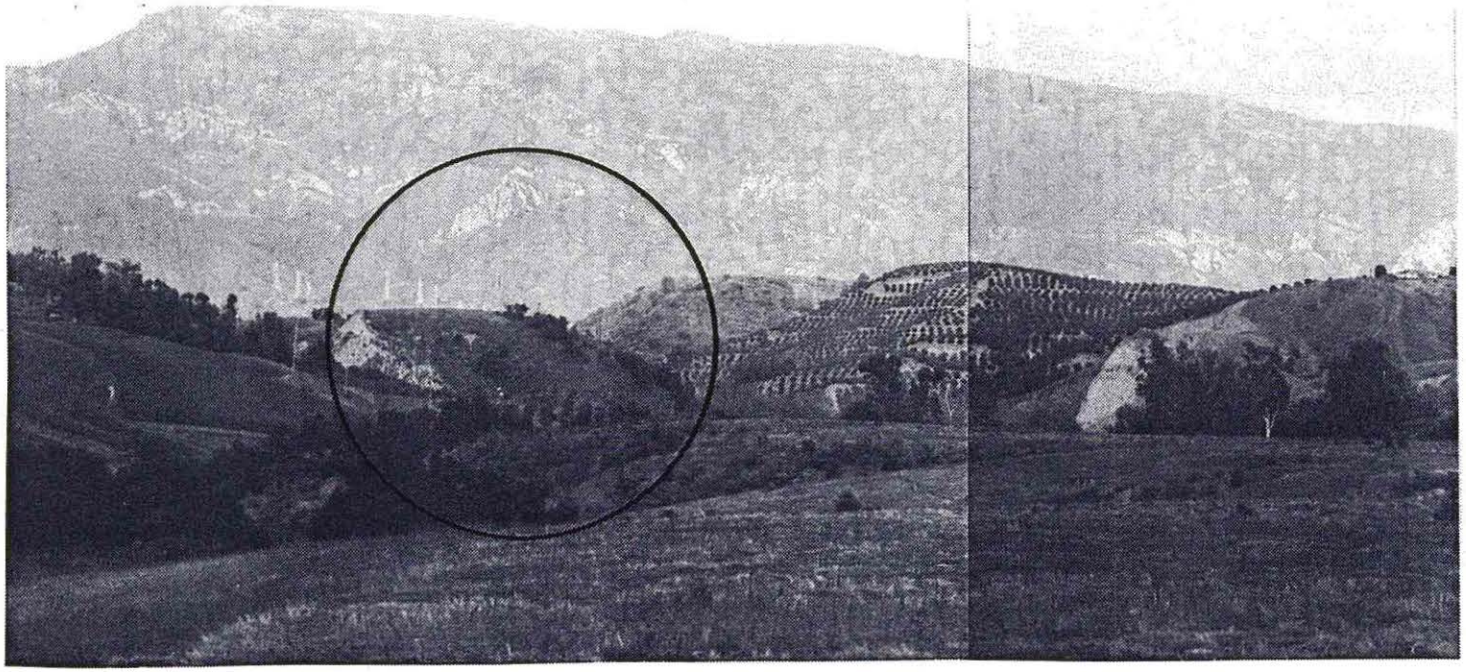


Index to Site Photographs

fig. 6

Wide-angle View from Frontage Road

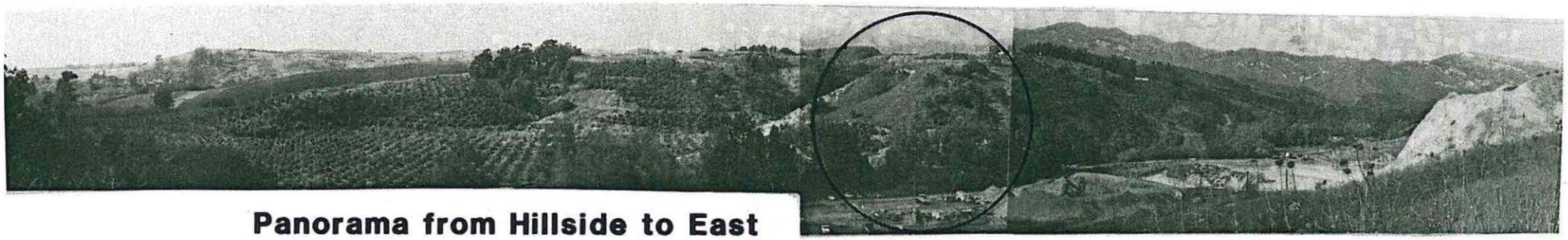




Telephoto View from Frontage Road

PHOTOGRAPH POSITION 1

POSITION #3



Panorama from Hillside to East

POSITION #2 **View from Winchester Canyon Road above Rio Vista Drive**

and 2, one of which is a wide-angle panorama and the other a telephoto view. The knoll is quite apparent in the telephoto view, but recedes into the landscape in the wide-angle panorama.

The second position is taken from the side of Winchester Canyon Road above Wagon Wheel Road. The roofs of houses in this subdivision appear in the bottom of the photograph. The knoll is quite distinct in the center of this view.

The third position is taken from above the existing quarry, to the west of the knoll. The lemon orchard is visible to the left, and the existing quarry to the right.

County Trails Map PRT 3 of the Comprehensive Plan shows a proposed trail in Ellwood Canyon. Exact location of the trail will be further studied by the County Parks Department and specific conditions relative to this project placed prior to final approval of the project.

2.6.2 Environmental Impacts

As noted above, the proposed quarry site can now be seen from parts of Hollister Avenue, Calle Real, Highway 101 and Winchester Canyon Road. It would also be visible from a few homes and some streets in the Winchester Canyon Subdivision and from four homes located on higher ground to the north and east of the site.

The site can also be seen from some of the homes and streets on the proposed Winchester Commons and Mountain View subdivisions. It would generally not be visible from any of the other existing or proposed homes east of Winchester Canyon Road.

Visual impacts would be greatest during those phases of the long-term project when cut slopes may be partly visible from some viewpoints, and before the cutslopes are revegetated. At that time, the contrast of the buff colored rock of the slope would be heightened, particularly during spring when neighboring slopes would be green.

Distance from the scene controls the scale that would be apparent to the viewer. For a few close viewers from neighboring ridges or from Winchester Canyon Village, the site would represent about one-twentieth of the view in that direction. For middle distances greater than 2000 feet, such as Winchester Common, the scale of the site to the overall view in that direction would be something on the order of one-fiftieth.

The largest number of views from residences would likely be from the proposed Winchester Common project, which includes a total

of 176 single family dwellings.

The view of the project site from traffic on Highway 101 is partially obstructed by surrounding hills, making it marginally noticable. Nevertheless, because of the large volume of traffic on Highway 101, this is probably the most significant source of potential visual impact of the project. Construction of the Winchester Common housing project will interrupt to some degree this view of the quarry site from Highway 101, depending on the ultimate density and intensity of development approved there.

The ability to absorb the impact of a view of the quarry site is moderately good because the scene is very wide for most views and the project would make up only a fraction of it. Also, the scene presently contains numerous features such as massive and bare rock outcrops, and existing avocado orchards which are similar in appearance to some stages of the the quarry project. The final stage of the project would be conversion to an avocado orchard, resulting in a 2-3 percent increase in orchard area within the viewshed. See Figure 7, Proposed Revegetation Program.

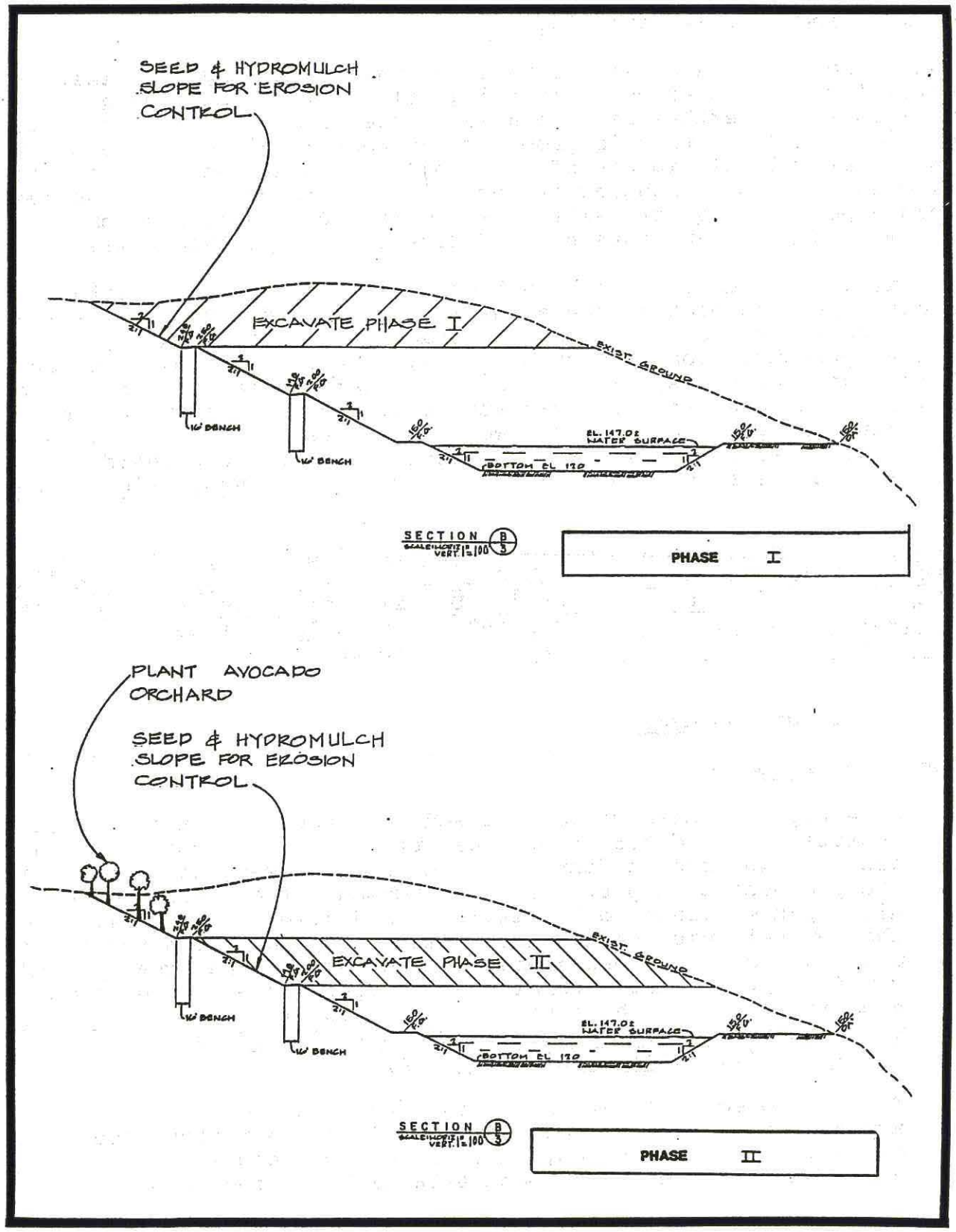
Under the applicant's proposed final grading plan, the south-facing hillside would be graded to a 2:1 slope. Upon reviewing this proposal, the California Division of Mines and Geology expressed concern that a 2:1 cut slope could create dip-slope conditions and disrupt revegetation efforts.

2.6.3 Mitigation Measures

Applicant-Proposed

1. A mitigation measure is proposed for vegetation and habitat impacts, to add 225 or more oak trees, at a density of one tree per 400 square feet, on four acres immediately north of the proposed sand pit. This enrichment of an existing chamise oak woodland would result in a degree of improvement to the overall viewshed, since some of the oak trees would be planted on the upper slopes of the back of the quarry and would improve the natural overall appearance of the site--especially after the conclusion of Phase I. (For additional mitigation measures related to the planting of oak trees, see Section 2.4.2, Biological Resources).

2. The proposed reclamation program includes hydromulching the exposed cut slope as soon as possible to help stabilize the slope, prevent erosion, and reduce cut slope visibility. Once the first bench has been established, ending phase one,



Proposed Revegetation Program

fig. 7

preparation of the phase one cut slope for orchard use can proceed (see Fig. 7). This will involve smoothing the slope, installation of piping, and planting of the avocado trees.

3. A 3:1 final slope shall be provided for the south-facing hillside, instead of the 2:1 slope proposed by the applicant. This slope will better conform with recommendations of the Division of Mines and Geology. (Although DMG had proposed a 4:1 slope, the natural lie of the slope is 3:1 currently and would be expected to be stable if maintained at that grade).

4. The applicant shall also refrain from bulldozing or clearing any area of the site which will not be immediately quarried, thus limiting the working area, and its visual impact on the viewshed to as small an area as possible. Around the final phase, a permanent eight-foot earthen berm shall be established to screen the site from all sides. Movement of material to the loading site shall occur along the existing road cut on the west and at the southwest corner of the quarry.

Standard County Mitigation Measures

1. The applicant shall be required to provide easements as needed to implement the trail plan.

Additional Mitigation Measures

1. An 8-12' berm shall be maintained at all times on the southern side of the site throughout all phases of the project. This berm will mask visual impacts from below, as well as baffling noise.

2. In addition, it is recommended that stockpiling of the quarried material be conducted by moving it to the west side of the quarry site and thence downslope by gravity or skiploader, but that no side-casting be permitted over the south face of the quarry except for the area already disturbed by previous grading activity.

3. Finally, aesthetics shall be considered in the management of the access road along the southwest side of the quarry. This road shall not be widened or its alignment altered so as to cause excessive cuts or sidecasting of fill along the route of the access road, if such disturbance would be visible from public viewpoints to the south.

Residual Impact: Not Significant. This conclusion is based upon consideration of regionally-significant aesthetic factors, and upon long-term revegetation of the project site. It is evident from comments on the Draft EIR that the quarry will create short-term aesthetic impacts that would be perceived by local residents to be significant.

3.0 ENVIRONMENTAL EVALUATION

3.1 Cumulative Impacts

The California Environmental Quality Act requires that every environmental impact report consider cumulative impacts. Cumulative impacts are those effects of a project that may not be significant given its incremental effects, but which could be considerable when viewed in connection with the effects of past projects, other current projects, or probable future projects. This discussion must reflect the severity of the impacts and their likelihood of occurrence.

Three elements are necessary to the discussion of cumulative impacts, and are provided in the three sub-headings below:

3.1.1 Related Projects

The CEQA Guidelines require a listing of past, present, and reasonably-anticipated future projects producing related or cumulative impacts. For purposes of this project, Table 6, Development Projects in the Vicinity, shows the other projects which are considered to be in the vicinity of the quarry site.

These totals are considered "worst case", and do not consider the effects of double-counting of trips that are common to two or more projects identified in the table. For example, a visiting salesman might be counted within the Municipal Airport passenger traffic, visits to one or more of the industrial projects, as well as a hotel--and each trip between these destinations would have been counted as two trips. As stated by Associated Transportation Engineers, in their analysis in the forthcoming Winchester Commons EIR, "these long-term predictions of trips are not precise and to aply an adjustment for double counting would be applying precision to a rough estimate."

3.1.2 Summary of Cumulative Environmental Effects

The projects listed in Table 6 would contribute to cumulative impacts on traffic and air quality. Generalized impacts would also occur on noise and biological resources. These impacts may be identified as follows: (see next page)

Table 6: Development Projects in the Vicinity

Project	Size	Traffic Levels: ADT	Peak Hr.
Winchester Commons	176 MF units	1,408 trips	141
Mountain View	73 MF units	580 trips	58
Grove Condos	90 MF units	630 trips	63
S. Barbara Shores	390 room hotel	3,120 trips	624
" " "	220 MF units	1,760 trips	176
Misc. Cathedral Oaks	267 SF units	2,670 trips	267
Hollister Resid.	173 SF units	1,730 trips	173
Hollister Indust.	198,000 s.f. ind.	1,800 trips	450
Hyatt Resort	524-rm. hotel	4,370 trips	330
Coal Oil Point Proj.	Oil Fac'ty/Scenario 1	710 trips	320
Municipal Airport	Passenger growth	3,800 trips	570
West Campus Housing	65 MF/stud. units	455 trips	46
Voit Industrial	274,000 s.f. ind.	2,500 trips	500
Laurel Industrial	26,000 s.f. ind.	240 trips	48
West Devereux Hsng.	500 MF units	4,000 trips	400
BEI Motion	21,000 s.f. off.	315 trips	50
Pacific Oaks	111 MF units	888 trips	90
Towbes Research	57,000 s.f. ind.	1,290 trips	177
News Press	63,000 s.f. ind.	285 trips	17
Grove Condos #2	90 MF units	630 trips	63
New Devices	11,500 s.f. ind.	105 trips	20
Storke/Hollister	56,792 s.f. ind.	539 trips	118
	Total:	33,825 trips	4,701

Source: Adapted from the Environmental Assessment for Timm Mountain View Project, and Administrative Draft EIR for Winchester Commons EIR (in preparation).

Traffic: The listed projects could be expected to generate a significant cumulative trip loading on area roads. This cumulative trip loading would, at least in part, affect Winchester Canyon Road and Calle Real west of Winchester Canyon Road. They would also affect the intersection of Winchester Canyon Road and Calle Real with the northbound U.S. 101 offramp, as well as the Northbound On-Ramp at Hollister Avenue-Calle Real and the Southbound Ramps at U.S. 101 and Hollister Avenue. According to the Winchester Commons traffic analysis (forthcoming), the Southbound Ramps would be operating at a volume/capacity ration of greater than 1, i.e. a Level of Service of "E". This level of congestion is generally regarded as intolerable. The northbound On-Ramp would also be operating at a v/c ratio of 1.13 (LOS "E"). The Northbound Off-ramp, however, would be operating at a volume/capacity ratio of 0.64, a Level of Service of B.

Truck traffic from the quarry would constitute a small percentage of the traffic on the affected road sections and intersections, although it would probably be at least 3-4%. This would be a lower percentage of heavy-duty trucks than is normally experienced on a typical street; the typical average from all truck trips is about 5.0% (including those originating from sources other than the quarry). Cumulative traffic impacts must be considered to be significant; however, the project would make a less-than-significant contribution to the overall traffic loading. Mitigation measures are discussed below.

Air Quality: The proposed projects listed in Table 6 would also generate short-term NOx emissions during construction, and together with the quarry project they would cumulatively add to the overall pollution being experienced in the South Coast area. Cumulative air quality impacts must be considered as significant, and the project's contribution to NOx emissions is also significant (see Section 2.2 above).

Noise: Noise from the cumulative development in the vicinity will impact developing and existing residential neighborhoods. Quarry trucks will contribute to increasing noise levels on Winchester Canyon Road and Calle Real. Existing homes along the east side of Winchester Canyon Road will be most affected, since their noise levels do not exceed 65 dbA (CNEL) at this time. It is not expected, however, that noise levels would exceed 65 dbA with cumulative traffic loading. Nonetheless, an important area-wide mitigation will be the completion of Cathedral Oaks Road between its current westerly extension north of Calle Real through to the Hollister Avenue/Calle Real intersection with U.S. 101. This will divert heavy traffic volumes from and to that intersection to the west, away from the existing neighborhood. There will then be other homes affected by this traffic level, to be built on the Winchester Commons site, but this site will have been subject to noise mitigation by the time that it is built.

Biological Resources: Area development will ultimately lead to the completion of Cathedral Oaks Road through to Calle Real. Part of this road section would be used by the quarry trucks between the Hollister Avenue/U.S. 101 intersection and the project site. Impacts on the turkey vulture roost have been discussed for the project and considered to be insignificant. When Cathedral Oaks Road is completed, however, cumulative traffic noise may disturb the vulture roost. This impact cannot be effectively addressed at this time, however, without more detailed study of the projected traffic level on that road section, and estimates of the resulting noise. At this time, cumulative impacts on the turkey vulture roost are not considered to be

significant.

3.1.3 Options for Mitigating Cumulative Impacts

The primary cumulative impacts noted above are on traffic and air quality. Mitigation measures for each of the above impacts may be stated as follows:

Traffic: The Public Works Department, Road Division requires that any project in this area contribute $1,100 per peak hour trip to a Road Improvement Trust Fund. These funds are to be used for road improvements needed in the project vicinity. Based upon 17 peak hour trips associated with the quarry, this project would be required to contribute $18,700 to the fund to offset the impact of the quarry trucks on the vicinity roadways.

Air Quality: The County should consider requiring that all construction projects in the area be phased, in order to reduce the amount of NOx emissions generated by construction equipment. Grading of new development sites should be limited to the minimum necessary to complete each phase. No phase should be approved where estimated NOx emissions would exceed 2.5 lbs/hr (the current County threshold of significance).

3.2 Project Alternatives

CEQA requires that an EIR address feasible alternatives to a project, including the "no project" alternative. An "environmentally-superior" alternative must be identified, which may include the proposed project.

3.2.1 No Project

If the quarry project is denied, the site will continue in marginal grazing use. The site may be suitable for avocado groves or other uses, but these alternatives are not considered to be part of the "no project" alternative.

If the project were denied, projected impacts on traffic, air quality, noise, and other factors would not occur. Mitigation measures would be unnecessary. On the other hand, the benefits of the available sand and fill material from the quarry would be unavailable for use.

The denial of a quarry operation on this site does not necessarily mean that quarry activities would cease in this area. The Vaqueros sandstone that is sought at this site is highly desirable for building foundation work, road base, pipeline backfill, nursery and landscape work, fill material, and chemical spill containment and cleanup. Customers for the existing quarry include over 140 contractors, 13 governmental agencies or public utilities, several schools and churches, nurseries and landscapers, recreational facilities, and home improvement centers.

As a result, the "no project" alternative is not considered to be a reasonable alternative for the site. The resource that has been identified in this location represents a very valuable mineral commodity that lies in a central location and can be feasibly exploited; mitigation measures are available to reduce all impacts except air quality (NOx) to a less-than-significant level.

3.2.2 Alternative Quarry Designs

Several alternative site designs may be discussed, including the following:

- A more irregular shape to the quarry back- and side-slopes. This alternative may produce a more attractive appearance to the quarry when quarrying is completed.

The quarry walls could be contoured to reflect more closely a natural-appearing hillside, closer to the convex shape that the hillside now displays to the viewer. The current design reflects a very efficient, rectangular design, but a slight curvature to the south-facing walls could be achieved without unduly diminishing efficiency.

- Alternative locations for the access road, detention basin, or other accessory features for the site. The current proposals appear to be the most appropriate locations for these facilities. The access road follows an existing ranch road. The detention/desilting basin would be located in a natural depression on the west side of the valley, out of any public view. As a result, no alternatives for the location of these facilites appear to be appropriate for recommendation.

In summary, it is recommended that the quarry be re-designed by the applicant's engineer to reflect a more naturally-rounded appearance for the finished quarry, re-producing the convex form of the hillside to the maximum feasible extent.

3.2.3 Alternative Uses

The quarry project is permitted within the Agriculture zone applied to the site, but several other uses are also allowable within this zone. These include, for example, sale of agricultural products; animal boarding or stables; greenhouses; and wineries. Uses allowed with a major conditional use permit include recreational campgrounds and guest ranches; rifle ranges; farm product cleaning/cooling/packing/shipping facilities; livestock feed or sales yards; and certain energy facilities.

Some of the above uses are already found on the Ellwood Ranch. For example, a sales area for the ranch's citrus products is located near the entrance road. Several other uses are not considered to be practical or possible on the ranch, such as wineries. Others might conceivably be developed on the ranch, but could not reasonably be located on the quarry site itself--such as a livestock yard.

The discussion of the "no project" alternative above has highlighted some of the rationale for the quarry--its location close to a demonstrated market, the obvious fact that the deposit is located on the proposed site, and the existence of a nearby successful quarry that appears to be gradually phasing down. In light of this rationale, and the fact that there are few other

alternatives uses that can be reasonably developed on the project site, this alternative is not considered to be either feasible or environmentally-superior.

3.2.4 Alternative Locations

The sand pit could theoretically be sited in another location where the Vaqueros sand exists, possibly in a different watershed in the general vicinity. Deposits of Vaqueros Yellow Sand of similar quality are not known to occur, however, in other nearby areas of the South Coast.

Impacts of locating the quarry in a different site may be higher or lower, depending on the proximity of residential development, existing traffic and noise levels, biological and archaeological resources, and other factors. Air quality impacts would be essentially the same, however, since it is expected that the level of activity associated with this project would be the same regardless of location.

There appears to be no compelling reason at this time to require that the quarrying of the Vaqueros Yellow Sand be conducted at an alternative location. The only impact that is not sufficiently mitigated, NOx emissions from the quarry trucks and operating equipment, would not be reduced by moving to any other location on the South Coast.

To summarize the discussion of alternatives, the "no-project" alternative is considered to be the environmentally-superior project. Apart from the "no-project" alternative, the proposed quarry is considered to be environmentally superior. The design of the quarry could be modified, however, to achieve a more attractive appearance of the quarry walls.

3.3 Unavoidable Significant Adverse Effects of the Project

Only one impact is considered in this report to be significant and unavoidable: Emissions of NOx by quarry equipment would exceed the County's threshold of significance by ten-fold. It is estimated that the quarry would generate an average of about 26 lbs/hour of NOx, far in excess of the 2.5 lbs/hour threshold set by the County. There is no feasible means of reducing these emissions to less than the threshold of significance. Thus, a finding of overriding significance would appear to be required in order to approve the project, on the single issue of the NOx emissions.