COUNTY OF SANTA CRUZ
PLANNING DEPARTMENT

Date: April 2,2004
Agenda Item: # 4
Time: After 11:00 a.m.

STAFF REPORT TO THE ZONING ADMINISTRATOR

APPLICATION NO.: 03-0151 **APN:** 025-131-13
APPLICANT: Ron Powers
OWNER: Samuel and Carol Robins

PROJECT DESCRIPTION: Proposal to grade approximately 2,750 cubic yards of material and construct a 7,367 square foot commercial structure for use as an animal hospital, and to construct related parking lot improvements and landscaping.

LOCATION: Project located in Live *Oak* on the north side of intersection of Soquel Avenue and 7" Avenue at 2651 Soquel Ave.

PERMITS REQUIRED: Commercial Development Permit, Preliminary Grading Approval, and a Riparian Exception
ENVIRONMENTAL DETERMINATION: Negative Declaration with Mitigations
COASTAL ZONE: —Yes _X_ No APPEALABLE TO CCC: ___Yes ___No

PARCEL INFORMATION

PARCEL SIZE: 23,696 square feet (EMIS Estimate)
EXISTING LAND USE:
PARCEL: Vacant
SURROUNDING: Commercial
PROJECT ACCESS: Soquel Ave
PLANNING AREA: Live *Oak*
LAND USE DESIGNATION: C-S (Service Commercial)
ZONING DISTRICT: C-4 (Commercial Service)
SUPERVISORIAL DISTRICT: 3rd

ENVIRONMENTAL INFORMATION

a. Geologic Hazards	a.	Small area of lot in flood plan (Arana Gulch)
b. Soils	b.	Poor soils to be removed--see soils report
c. Fire Hazard	C	None mapped
d. Slopes	d.	Building area 0 to 15%, other areas very steep
e. Env. Sen. Habitat	e.	Riparian area of Arana Gulch
f. Grading	f.	Grading Permit required
g. Tree Removal	g.	12 (8 Live *Oak*, 4 non-native)
h. Scenic	h.	None mapped
i. Drainage		Off-site drainage easement required
j. Traffic	j.	Impact fees required

SERVICES INFORMATION

Inside Urban/Rural Services Line: _X_ Yes N o
Water Supply: City of Santa Cruz
Sewage Disposal: County Sanitation
Fire District: Central Fire
Drainage District: Zone 5

PROJECT SETTING

The project site is located in Live *Oak* on a vacant 0.54 acre **(23,696** square feet) parcel on the north side of Soquel Avenue at the its intersection with the northern terminus of 7'' Avenue. The parcel is zoned C-4 (Commercial Service) with a General Plan designation of Commercial *Service*. The parcel has about 145 feet of Soquel Avenue frontage.

The southern two thirds of the site is generally level and contains mature some *oak* trees as well as some smaller ground cover vegetation. The northern portion of the site contains a mix of *oak* and buckeye trees. The northern third of the site slopes steeply (30% to 70%) down to Arana Gulch.

The property is part of the Soquel Avenue commercial corridor, a major east-west transportation **artery** in the County. The parcels on both sides (east and west) of the property are also zoned C-4, while the property to the north is zoned PF (Public Facility). Properties across Soquel Avenue to the south are zoned C-2 (Community Commercial). All neighboring zone districts are consistent with the underlying General Plan designations.

Existing land use in the area is consistent with the above stated zone district, although some parcels are underdeveloped with modest and/or dated structures. Parcels on both sides of the subject property are developed with relatively small quonset hut style buildings containing small businesses. Two gas stations occupy the properties to the south across Soquel Avenue. One station (east of 7th Ave) is relatively new, while the other (west of 7th Ave) is under construction to completely redevelop the site in kind. The property to the north is a vacant parcel adjacent to Harbor High School, which is owned by the Santa Cruz School District.

ANALYSIS AND DISCUSSION

The project consists of constructing a 5,849 square foot, one-story commercial structure with a 1,518 square foot basement/storage area. The proposed animal hospital is a permitted use within the site's C-4 zoning designation, which is consistent with the C-S General Plan Designation. Approval of this application includes the shot-term boarding of animals only as an ancillary use to the animal hospital and does not include the overnight boarding of animals as the primary use of the property.

To prepare the site the preliminary grading plans indicate the excavation of approximately 2,750 cubic yards of fill with the site to then be recompacted. The stated grading figures include the removal of a significant amount of unconsolidated fill, as is recommended by the required geotechnical report (Attachment 7 of Exhibit D). The unconsolidated material is non-engineered

fill, and is not suitable for bearing loads. The material will be either be recompaced in lifts to engineered specifications or be exported to a County approved site.

Improvements along the site's Soquel Ave frontage will consist only of a driveway apron, as curb, gutter and sidewalk currently exist. Off-site improvements include the installation of a bus shelter within the Countyright ofwayjust west of the site, with the final location subject to the approval of the Department of Public Works.

The project proposes one access driveway from Soquel Avenue to serve a 15-spaceparking lot Per County Code 13.10.552, 13 on-site parking spaces are required for the stated number of practitioners (2) for the hospital. Bicycle parking has also been provided in accordance with County requirements.

Site development includes removing eight **(8)** *oak* trees. These *oaks* are along the eastern and northern portions of the property. All other *oak* and buckeye trees will be preserved along the Arana Gulch corridor at the northern portion of the property. Fifteen new trees, including nine live *oak* trees are to be planted.

RIPARIAN EXCEPTION

The project drainage improvements include a new stormwater pipe to convey runoff from the improved area to Arana Gulch. The outlet of the pipe is within the riparian corridor and therefore a Riparian Exception is required (see Exhibit B). The plans have been reviewed and details added to insure that the outlet will not cause erosion or disturb existing riparian vegetation in the creek channel. The applicant is further required to revegetate any disturbed areas created by the installation of the pipe. To protect water quality, a stormwater treatment system is to be installed to remove hydrocarbons, heavy metal, and contaminated sediments from the runoff. The system will consist of a silt and grease trap or Stormceptor in the parking area. The application also requires a Stream Bed Alteration Permit from the California Department of Fish & Game.

DESIGN REVIEW

The new structure is one story with a flat roof surrounded by a pitched standing seam metal roof above all elevations. Other exterior finish materials include stucco siding, aluminum doors and windows, steel rackets under the pitched roof sections, galvanized gutters on the exposed rafter tails of the pitch roof section. The design has been reviewed and approved by the County's Urban Designer (See Attachment 11 of Exhibit D).

ENVIRONMENTAL REVIEW

In accordance with the California Environmental Quality Act (CEQA) and the County Environmental Review Guidelines, County staff prepared an Initial Study for the project that was reviewed by the Environmental Coordinator on February **9,2004.** Following the preliminary determination to issue a Negative Declaration and the mandatory 30-day public comment period, a final Negative Declaration with Mitigations was issued on March 19,2004. No comments

from the public were received during the comment period.

As proposed and conditioned, the project is consistent with all applicable codes and policies of the Zoning Ordinance and General Plan/LCP. Please see Exhibit "B" ("Findings") for a complete listing of findings and evidence related to the above discussion.

RECOMMENDATION

Staff recommends:

1. **APPROVAL** of Application Number **03-0151,** based on the attached findings and conditions.

2. **CERTIFICATION** of the **mitigated Negative Declaration** in accordance with the California Environmental Quality Act.

EXHIBITS

A. Project plans
B. Findings
C. Conditions
D. Negative Declaration with Mitigations and Initial Study
E. Comments & Correspondence

SUPPLEMENTARY REPORTS AND INFORMATION REFERRED TO IN THIS REPORT ARE ON FILE AND AVAILABLE FOR VIEWING AT THE SANTA CRUZ COUNTY PLANNING DEPARTMENT, AND ARE HEREBY MADE A PART OF THE ADMINISTRATIVE RECORD FOR THE PROPOSED PROJECT.

Report Prepared By: John Schlagheck
Santa Cruz County Planning Department
701 Ocean Street, 4th Floor
Santa Cruz CA 95060
Phone Number: **(831) 454-3012** or, john.schlagheck@co.santa-cruz.ca.us

DEVELOPMENT PERMIT FINDINGS:

1. THAT THE PROPOSED LOCATION OF THE PROJECT AND THE CONDITIONS UNDER WHICH IT WOULD BE OPERATED OR MAINTAINED WILL NOT BE DETRIMENTAL TO THE HEALTH, SAFETY, OR WELFARE OF PERSONS RESIDING OR WORKING IN THE NEIGHBORHOOD OR THE GENERAL PUBLIC, AND WILL NOT RESULT IN INEFFICIENT OR WASTEFUL USE OF ENERGY, AND WILL NOT BE MATERIALLY INJURIOUS TO PROPERTIES OR IMPROVEMENTS IN THE VICINITY.

The location of the proposed commercial structure and the conditions under which it would be operated or maintained will not be detrimental to the health, safety, or welfare of persons residing or working in the neighborhood or the general public, and will not result in inefficient or wasteful use of energy, and will not be materially injurious to properties or improvements in the vicinity in that the project is located in an area designated for animal hostipal uses and is not encumbered by physical constraints to development in the immediate area of the proposed construction. Construction will comply with prevailing building technology, the Uniform Building Code, and the County Building ordinance to insure the optimum in safety and the conservation of energy and resources. The proposed commercial structure will not deprive adjacent properties or the neighborhood of light, air, or open space, in that the structure meets all current setbacks that ensure access to light, air, and open space in the neighborhood.

2. THAT THE PROPOSED LOCATION OF THE PROJECT AND THE CONDITIONS UNDER WHICH IT WOULD BE OPERATED OR MAINTAINED WILL BE CONSISTENT WITH ALL PERTINENT COUNTY ORDINANCES AND THE PURPOSE OF THE ZONE DISTRICT IN WHICH THE SITE IS LOCATED.

The project site is located in the C-4 (Commercial Service) zone district. The proposed location of the commercial structure and the conditions under which it would be operated or maintained will be consistent with all pertinent County ordinances and the purpose of the C-4 zone district in that the primary use of the property will be one commercial structure that meets all current site standards for the zone district.

3. THAT THE PROPOSED USE IS CONSISTENT WITH ALL ELEMENTS OF THE COUNTY GENERAL PLAN AND WITH ANY SPECIFIC PLAN WHICH HAS BEEN ADOPTED FOR THE AREA.

The project is located in the Service Commercial (C-S) land use designation. The proposed animal hostipal use is consistent with the General Plan in that it meets the requirements specified in General Plan Objective (Service Commercial).

The proposed animal hospital is a permitted use within the site's C-4 zoning designation, which is consistent with the C-S General Plan Designation. Approval of this application includes the short-term boarding of animals only as an ancillary use to the animal hospital and does not include the overnight boarding of animals as the primary use of the property.

The proposed commercial structure will not adversely impact residential uses or other commercial structures properties, and meets the intent of the General Plan to concentrate Commercial uses in established commercial areas as specified in Policy 8.5.1 (Concentrate Commercial Uses), in that the commercial structure is situated within the Soquel Drive commercial corridor and is surrounded by commercial uses of a similar type and commercial structures of a similar design.

A specific plan has not been adopted for this portion **of** the County.

4. THAT THE PROPOSED USE WILL NOT OVERLOAD UTILITIES AND WILL NOT GENERATE MORE THAN THE ACCEPTABLE LEVEL OF TRAFFIC ON THE STREETS IN THE VICINITY.

The proposed use will not overload utilities or generate more than the acceptable level of traffic on the streets in the vicinity in that it is a commercial structure on an existing undeveloped lot. The expected level of traffic generated by the proposed project **is** anticipated to be 10 peak trips per day. Such an increase will not adversely impact existing roads and intersections in the surrounding area.

5. THAT THE PROPOSED PROJECT WILL COMPLEMENT AND HARMONIZE WITH THE EXISTING AND PROPOSED LAND USES IN THE VICINITY AND WILL BE COMPATIBLE WITH THE PHYSICAL DESIGN ASPECTS, LAND USE INTENSITIES, AND DWELLING UNIT DENSITIES OF THE NEIGHBORHOOD.

The proposed commercial structure will complement and harmonize with the existing and proposed land uses in the vicinity and will be compatible with the physical design aspects, land use intensities **of** the area in that the proposed structure is one story with a flat roof surrounded by a pitched standing seam metal roof above all elevations. Other exterior finish materials include stucco siding, aluminum doors and windows, steel rackets under the pitched roof sections, galvanized gutters on the exposed rafter tails of the pitch roof section.

The commercial nature of the property will harmonize with the existing development in the area, as this property is part of the Soquel Avenue commercial corridor, a major east-west transportation artery in the County. The parcels on both sides (east and west) of the property are also zoned C-4 and have been developed consistent with the zoning while the property to the north is zoned PF (Public Facility). Properties across Soquel Avenue to the south are zoned C-2 (Community Commercial) and contain similar commercial uses (gas stations).

6. THE PROPOSED DEVELOPMENT PROJECT IS CONSISTENT WITH THE DESIGN STANDARDS AND GUIDELINES (SECTIONS **13.1**1.070 THROUGH 13.11.076). AND ANY OTHER APPLICABLE REQUIREMENTS OF THIS CHAPTER.

The proposed development is consistent with the Design Standards and Guidelines of the County Code in that the proposed commercial structure will be of an appropriate scale and type of design that will enhance the aesthetic qualities **of** the surrounding properties and will not reduce or visually impact available open space in the surrounding area.

The new structure is one story with a flat roof surrounded by a pitched standing seam metal roof above all elevations. Other exterior finish materials include stucco siding, aluminum doors and windows, steel rackets under the pitched roof sections, galvanized gutters on the exposed rafter tails of the pitch roof section. Fifteen new trees, including nine live *oak* trees are to be planted.

Existing land use in the area is consistent similar to the proposed project, although some parcels are underdeveloped with modest and/or dated structures. Parcels on both sides **of** the subject property are developed with relatively small quonset hut style buildings containing small businesses, but these property will likely be redeveloped with building similar to that which is proposed.

The proposed building is compatible with the two gas stations that occupy the properties to the south across Soquel Avenue. One station (east of *7''* Ave) is relatively new, while the other (west of *7''* Ave) is under construction to completely redevelop the site in kind. The property to the north is a vacant parcel adjacent to Harbor High School, which is owned by the Santa **Cruz** School District.

RIPARIAN EXCEPTION FINDINGS

1. THAT THERE ARE SPECIAL CIRCUMSTANCES OR CONDITIONS AFFECTING THE PROPERTY. The property is constrained by steep. unstable slopes and the close proximity of the riparian zone for most of its extent. The zoning for the parcel is Commercial Services and. in order to provide service to an animal hospital. a number of parking spots would be required. Based on the limited area outside of the riparian zone and area of slope instability. it is not practical for a commercial enterprise to exist entirely outside of these constraints. For the viability of the commercial enterprise as well as public safety concerns, a Riparian Exception is necessary for this commercial use and for the regarding of the slope at the rear of the property.

2. THAT THE EXCEPTION IS NECESSARY FOR THE PROPER DESIGN AND FUNCTION OF SOME PERMITTED OR EXISTING ACTIVITY ON THE PROPERTY.
   For the proper design and function of a commercial enterprise on this property, a Riparian Exception would be necessary to provide adequate parking and to create a stable slope adiacent to the facility.

3. THAT THE GRANTING OF THE EXCEPTION WILL NOT BE DETRIMENTAL TO THE PUBLIC WELFARE OR INJURIOUS TO OTHER PROPERTY DOWNSTREAM OR IN THE AREA IN WHICH THE PROJECT IS LOCATED.
   The granting of the exception will not be detrimental to the public welfare or injurious to other property downstream with the implementation of mitigations that include: engineered erosion control and restoration plans. removal of non-native invasive plant species, revegetation with native tree and shrub species, and silt and grease traps to Prevent drainage discharges into the creek. Additionally. the proposed re-grading of the steep slope adiacent to the creek will protect against future slope failures and attendant stream sedimentation.

4. THAT THE GRANTING OF THE EXCEPTION, IN THE COASTAL ZONE, WILL NOT REDUCE OR ADVERSELY IMPACT THE RIPARIAN CORRIDOR, AND THERE IS NO FEASIBLE LESS ENVIRONMENTALLY DAMAGING ALTERNATIVE.
   The proiect is not located in the Coastal Zone.

5. THAT THE GRANTING OF THE EXCEPTION IS IN ACCORDANCE WITH THE PURPOSE OF THIS CHAPTER AND WITH THE OBJECTIVES OF THE GENERAL PLAN AND ELEMENTS THEREOF, AND THE LOCAL COASTAL PROGRAM LAND USE PLAN.
   The granting of the exception is in accordance with the purpose of this Chapter, the objectives of the General Plan and the LUP in that the proposed project will

provide commercial services (as zoned), remove invasive non-native plants, and will provide protection and restoration of the riparian habitat through site-sensitive design and revegetation.

CONDITIONS OF APPROVAL

Exhibit A: Plans by Thacher & Thompson, dated March 2,2004

I. This permit authorizes the construction of a one-story 5,849 square foot commercial structure with a 1,518 square foot basement/storage area. Prior to exercising any rights granted by this permit including, without limitation, any construction or site disturbance, the applicant/owner shall:

A. Sign, date, and return to the Planning Department one copy of the approval to indicate acceptance and agreement with the conditions thereof.

B. Obtain a Stream Bed Alteration Permit from the California Department of Fish and Game.

C. Obtain a Building Permit from the Santa Cruz County Building Official.

D. Obtain a Grading Permit from the Santa Cruz County Building Official.

E. Obtain an Encroachment Permit from the Department of Public Works for all off-site work performed in the County road right-of-way.

F. Obtain any required permits from County's Environmental Health Services Department for the safe disposal of biological waste resulting from the use **of** the structure as an animal hospital.

11. Prior to issuance of a Building Permit the applicant/owner shall:

A. Submit Final Architectural and civil Plans for review and approval by the Planning Department. The final plans shall be in substantial compliance with the plans marked Exhibit "A" on file with the Planning Department. The final plans shall include the following additional information:

1. Identify finish of exterior materials and color of roof covering for Planning Department approval. Any color boards must be in 8.5" x 11" format.

2. Revised plans showing a specific location for the placement of the required bus shelter within the County right **of** way just west of the project on the north side of Soquel Drive. The location will be reviewed and must be approved by the Department of Public Works, Road Engineering Section. The plans shall include engineered improvement plans needed for the installation of the bus shelter.

3. Final grading plans showing the extent of all land disturbance, limits of grading, and grading volumes. Receipts are required for all exported fill to verify the fill is received by a County approved destination.

EXHIBIT C

4. Final drainage plans showing all paths of runoff and the destination of all runoff. The plan must show construction details of the detention system as well as drainage calculations verifying that the detention system is sufficient to meet County requirements for release rates. DPW staff may modify requirements once the building plans have been received. Further, DPW staff may require mitigations for the handling of runoff that does not pass through the detention system, if any, consistent with geotechnical recommendation.

A stamped and signed geotechnical letter of approval is required for the outfall location if the lower slopes exceed **25** percent. Note the actual slope between the outfall and the creek channel of the plans.

Sign and record a silt and grease trap/Stormceptor/detention system maintenance agreement and provide a copy to DPW. Traps shall be inspected to determine if they need cleaning or repair prior to October 15 each year, at a minimum interval of once per year. A brief annual report shall be prepared by the trap inspector at the conclusion of each October inspection and submitted to the Drainage Section of the Department of Public Works within **5** days of inspection. This monitoring report shall specify any repairs that have been done or that are needed to allow the trap to function adequately.

Provide evidence that a final and legal drainage easement has been established and recorded for construction of drainage improvements and the release of drainage on parcel #025-131-11.

The drainage plans must be consistent with all conditions of the required Stream Bed Alteration Permit and Riparian Exception.

5. Final detailed erosion control plans that indicate protections for both the stability of the slope during and after construction, and for the protection of water quality in Arana Gulch. No sediment is allowed to reach the creek channel. Erosion control plans are subject to review an approval by Environmental Planning staff. *Also,* a restoration plan must show the proposed disturbance envelope (including construction access for earthwork, retaining structure and drainage improvements) pipe and dissipater, top of slope, edge of riparian buffer, and identifying those native trees that have canopy fully or partly within the riparian buffer and that will be removed. The plans must show temporary six-foot chain link fencing to be erected at the perimeter of the riparian area. Fencing must be installed prior to the preconstruction survey.

6. **A** final landscape plan. The plan must show a total of 16 replacement trees in accordance with the 2:1 replacement ratio. The plan must include

native shrubs in and around the drainage pipe and dissipater construction areas. The plan must verify that the location of the outlet pipe will not disturb native trees. The plan shall also indicate that all acacia trees, French broom, and Himalaya berry shall be eradicated from all areas within 30 feet of the proposed development. An automatic irrigation system is required for landscape areas on the property and in the public right of way.

7. Engineered improvement plans are required for all utility work as well as for all improvements in the public right *of* way, parking lot, detention system, silt and grease traps, and drainage improvements. Improvements shall occur with the issuance of building permits. All utilities shall be installed underground.

8. Details showing compliance with fire department requirements.

B. Meet all requirements of and pay Zone 5 drainage fees to the County Department of Public Works, Stormwater Management section. Drainage fees will be assessed on the net increase in impervious area.

C. Obtain an Environmental Health Clearance for this project from the County Department of Environmental Health Services for the disposal of biological waste and/or animal excrement.

D. Meet all requirements and pay any applicable plan check fee of the Central Fire Protection District.

E. Pay the current Category II fees for Child Care mitigation for 7,367 square feet of new construction. Currently, these fees are $.23 per square feet.

F. Pay the current fees for Roadside and Transportation improvements for 87 new daily trip ends. Currently, these fees are, respectively, $200 and $200 per daily trip end for a total of $34,800.

G. Provide required off-street parking for 13 cars. Parking spaces must be 8.5 feet wide by 18 feet long and must be located entirely outside vehicular rights-of way. Parking must be clearly designated on the plot plan.

H. Submit a written statement signed by an authorized representative of the school district in which the project is located confirming payment in full of all applicable developer fees and other requirements lawfully imposed by the school district.

I. Sign and record a final drainage easement agreement for drainage improvements and the release of drainage on parcel #025-131-11.

J. Sign and record an Indemnification Agreement with the Office of the County Recorder.

K. Provide evidence that these conditions of been recorded with the Office of the County Recorder.

III. All construction shall be performed according to the approved plans for the Building Permit. Prior to final building inspection, the applicant/owner must meet the following **conditions:**

A. Prior to any disturbance on the property the applicant shall convene a pre-construction meeting on the site. The following parties shall attend: applicant, grading contractor supervisor, and Santa Cruz County Resource Planning staff. The temporary construction fencing demarcating the disturbance envelope, tree protection fencing, and silt fencing will be inspected at that time.

B. All site improvements shown on the final Building Permit plans shall be installed.

C. All inspections required by the building permit shall be completed to the satisfaction of the County Building Official.

D. The project must comply with all recommendations of the approved soils reports.

E. Pursuant to Sections 16.40.040 and 16.42.100 of the County Code, if at any time during site preparation, excavation, or other ground disturbance associated with this development, any artifact or other evidence of an historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and notify the Sheriff-Coroner if the discovery contains human remains, or the Planning Director if the discovery contains no human remains. **The** procedures established in Sections 16.40.040 and 16.42.100, shall be observed.

IV. Operational Conditions

A. In the event that future County inspections of the subject property disclose noncompliance with any Conditions of this approval or any violation of the County Code, the owner shall pay to the **County** the full cost of such County inspections, including any follow-up inspections and/or necessary enforcement actions, up to and including permit revocation.

B. The number of practitioners using the animal hospital shall not exceed two (2) at the same time.

C. **Any** change of use of the structure shall be processed at Level III to allow for an evaluation of the on-site parking requirements.

EXHIBIT C

D. This application includes the short-term boarding of animals **only** as an ancillary use to the animal hospital and does not include the overnight boarding of animals as the primary use of the property.

E. The property owner shall be responsible for the ongoing maintenance of all street trees and landscaping within the County right of way including the maintenance of the required automatic irrigation system and the replacement of all dead plant material and trees.

Minor variations to this permit which do not affect the overall concept or density may be approved by the Planning Director at the request of the applicant or staff in accordance with Chapter 18.10 of the County Code.

PLEASE NOTE: THIS PERMIT EXPIRES TWO YEARS FROM THE EFFECTIVE DATE UNLESS YOU OBTAIN THE REQUIRED PERMITS AND COMMENCE CONSTRUCTION.

Approval Date: _____

Effective Date: _____

Expiration Date: _____

Don Bussey	John Schlagheck
Deputy Zoning Administrator	Project Planner

Appeals: Any property owner, or other person aggrieved, or my other person whose interests are adversely affected by my act or determination of the Zoning Administrator, may appeal the act or determination to the Planning Commission in accordance with chapter 18.10 of the Santa **Cruz** County Code.

EXHIBIT C

Mitigation Monitoring Program

The mitigation measures listed under this heading have been incorporated into the conditions of approval for this project in order to mitigate or avoid significant effects on the environment. **As** required by Section **21081.6** of the California Public Resources Code, a monitoring and reporting program for the above mitigations is hereby adopted as a condition of approval for this project. This monitoring program is specifically described following each mitigation measure listed below. The purpose of this monitoring is to ensure compliance with the environmental mitigations during project implementation and operation. Failure to comply with the conditions of approval, including the terms of the adopted monitoring program, may result in permit revocation pursuant to Section **18.10.462** of the Santa Cruz County Code.

A. Mitigation Measure: Pre-Construction Meeting (Condition III.A)

Monitoring Program: In order to ensure that the mitigation measures B - D (below) are communicated to the various parties responsible for constructing the project, prior to any disturbance on the property the applicant shall convene a pre-construction meeting on the site. The following parties shall attend applicant, grading contractor supervisor, and Santa Cruz County Resource Planning staff. The temporary construction fencing demarcating the disturbance envelope, tree protection fencing, and silt fencing will be inspected at that time. The Project Planner and the Environmental Planning staff shall insure the meeting is held as required.

B. Mitigation Measure: Riparian Area Protection (Conditions N/A—Required prior to public hearing)

Monitoring Program: In order to mitigate potential impacts to the riparian area and to Arana Gulch from grading and from installation of the proposed drain and energy dissipater on the downslope parcel, the applicant was required to submit revised plans that showed details of how the installation would avoid impacts to the riparian area of Arana Gulch. These plans were review and approved by Environmental Planning staff.

C. Mitigation Measure: Tree Protection (Conditions N/A—Required prior to public hearing)

Monitoring Program: In order to minimize impacts from the loss of trees, the applicant was required to submit revised plans that showed accurately the trees to remain and trees to be removed and that indicated replacement trees. The plans also included protection measures for trees to remain. These plans were review and approved by Environmental Planning staff.

D. Mitigation Measure: Erosion Control (Conditions **II.A.3** and **4)**

Monitoring Program: To prevent project drainage discharges from carrying silt, grease, and other contaminants into Arana Gulch the owner/applicant shall install silt and grease traps according to the approved plans. The traps shall be maintained and monitored by the Department **of** Public Works.

County of Santa Cruz

PLANNING DEPARTMENT
701 OCEAN STREET, 4TH FLOOR. SANTA CRUZ, CA 95060-4000
(831)454-2580 FAX (831)454-2131 TOD (831)454-2123
TOM BURNS. DIRECTOR

NEGATIVE DECLARATION AND NOTICE OF DETERMINATION

Application Number: **03-0151**

Ron Powers of Richard Beale Land Use Planning, for Samuel & Carol Robin!

Application 03-0151 is a proposal to grade about 2,750 cubic yards of material and construct a 7,466 square foot animal hospital with related parking lot and landscaping. The project requires a Commercial Development Permit, Preliminary Grading Approval, a Geologic Report Review, Riparian Exception, and Soils Report Review. The project is located on the north side of intersection of Soquel Avenue and 7'' Avenue. The exact address is 2651 Soquel Avenue, Soquel, California.

APN: 025-131-13

John Schlagheck, Staff Planner

Zone District: C-4 (Commercial Service)

ACTION: Negative Declaration with Mitigations
REVIEW PERIOD ENDS: March 18,2004

This project will be considered at a public hearing by the Zoning Administrator. The time, date and location have not been set. When scheduling does occur, these items will be included in all public hearing notices for the project.

Findinas:
This project, if conditioned to comply with required mitigation measures or conditions shown below, will not have significant effect on the environment. The expected environmental impacts of the project are documented in the Initial Study on this project attached to the original of this notice on file with the Planning Department, County of Santa Cruz, 701 Ocean Street, Santa Cruz, California.

Required Mitigation Measures or Conditions:
_____ None
__XX__ Are Attached

Review Period Ends March 18.2004

Date Approved By Environmental Coordinator March 19, 2004

KEN HART

Environmental Coordinator
(831) 454-3127

If this project is approved, complete and file this notice with the Clerk of the Board:

NOTICE OF DETERMINATION

The Final Approval of This Project was Granted by _____

on _____. No EIR was prepared under CEQA

THE PROJECT WAS DETERMINED TO NOT HAVE SIGNIFICANT EFFECT ON THE ENVIRONMENT

Date completed notice filed with Clerk of the Board: _____

NAME: Beale Land Use Planning for Carol Robins
APPLICATION: 03-0151
A.P.N: 025-131-13

NEGATIVE DECLARATION MITIGATIONS

A. In order to ensure that the mitigation measures B - D (below) are communicated to the various parties responsible for constructing the project, prior to any disturbance on the property the applicant shall convene a pre-construction meeting on the site. The following parties shall attend: applicant, grading contractor supervisor, and Santa Cruz County Resource Planning staff. The temporary construction fencing demarcating the disturbance envelope, tree protection fencing, and silt fencing will be inspected at that time.

B. **In** order to mitigate potential impacts to the riparian area and to Arana Gulch from grading and from installation of the proposed drain and energy dissipater on the downslope parcel, the owner/applicant shall:

1. Locate the drainage pipe on the slope such that no native trees are disturbed or damaged by the installation of the pipe or dissipater. This includes avoidance of tree trunks and important roots and branches. Prior to scheduling the public hearing the applicant shall stake the proposed location of the pipe in the field, the location and design of the dissipater shall be approved by Planning staff, and drainage plans modified as necessary to show the approved location;

2. Prior to scheduling the public hearing the applicant shall submit an erosion control and restoration plan for the riparian area for review and approval by Planning staff. The plan shall consist of:

   a) An exhibit showing the proposed disturbance envelope (including construction access for earthwork, retaining structure and drainage improvements), pipe and dissipater, top of slope, edge of riparian buffer, and identifying those native trees that have canopy fully or partly within the riparian buffer and that will be removed. The exhibit shall indicate temporary six foot chain link fencing shall be erected at the perimeter of the riparian area to prevent incursion by equipment and unauthorized encroachment. The fencing shall be installed prior to the pre-grading site meeting and shall be verified as adequate by County grading staff at that meeting. No disturbance shall begin prior to the field approval of the construction fencing. Fencing shall remain in place until after final inspection of the project:

   b) Replacement of any trees which contribute to the canopy as described above, and which will be removed, at the ratio of 2:1 on the slope down to Arana Gulch with a plan for maintenance until they are successfully established. The proposed species shall be either Coast Live Oak or other native tree that currently occurs in the riparian area.

c) A planting plan indicating that disturbance around the pipe and dissipater shall be mitigated by planting native shrubs compatible with the oak understory and riparian area;

d) Detailed erosion control measures to prevent sediment from reaching the creek. The plan shall include but not be limited to: a silt fence barrier around the work area prior to the start of work on the site, clearing and grading schedule indicating no earthwork between October 15 and April15, prohibition on straw bales except at drain inlets on the flat portion of the property, temporary erosion control seeding limited to Hordeum *vulgare*, instructions for the drainage improvements to be placed using hand labor, prohibition on storage of spoils and excess fill on the site, etc. The plan shall show either that spoils material will be transported to the County landfill or another fill site that operates under valid permit.

C. In order to minimize impacts from the loss of trees, prior to Public Hearing the applicant shall:

a. Submit a revised landscape plan that accurately depicts trees to remain, trees to be removed, and which indicates the replacement trees specified in mitigation measure B.2(b);

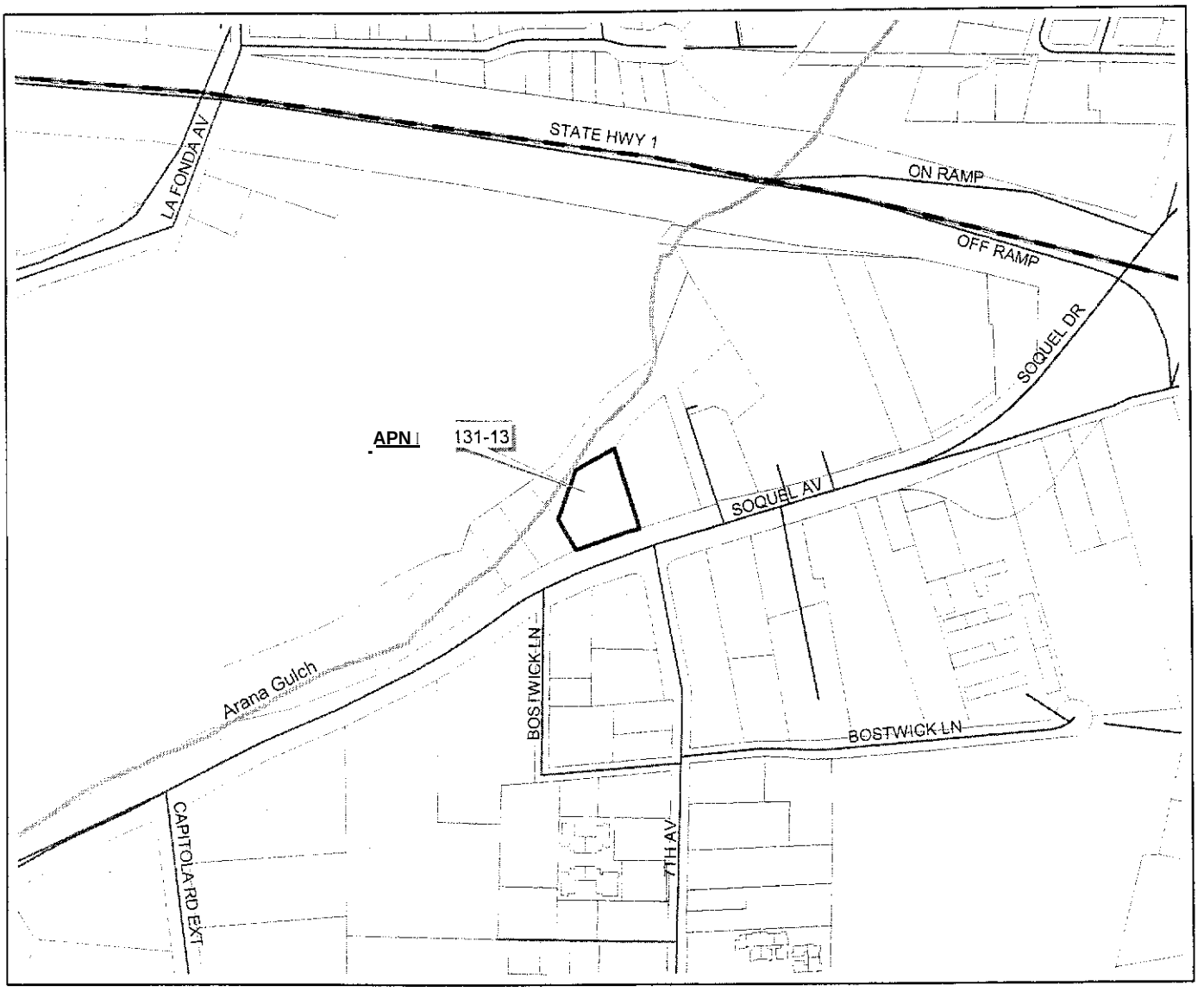
b. Add notes to the improvement plans to indicate that trees to remain shall be protected by barrier at the dripline that is in place prior to any disturbance. No disturbance or storage of materials shall be allowed within the barrier.

D. To prevent project drainage discharges from carrying silt, grease, and other contaminants into Arana Gulch the owner/applicant shall install silt and grease traps according to the approved plans. The traps shall be maintained according to the following monitoring and maintenance schedule:

1. The traps shall be inspected to determine if they need cleaning or repair prior to October *15* each year, at a minimum interval of once per year;

2. A brief annual report shall be prepared by the trap inspector at the conclusion of each October inspection and submitted to the Drainage Section of the Department of Public Works within 5 days of inspection. This monitoring report shall specify any repairs that have been done or that are needed to allow the trap to function adequately.

Location Map



1000 0 1000 Feet

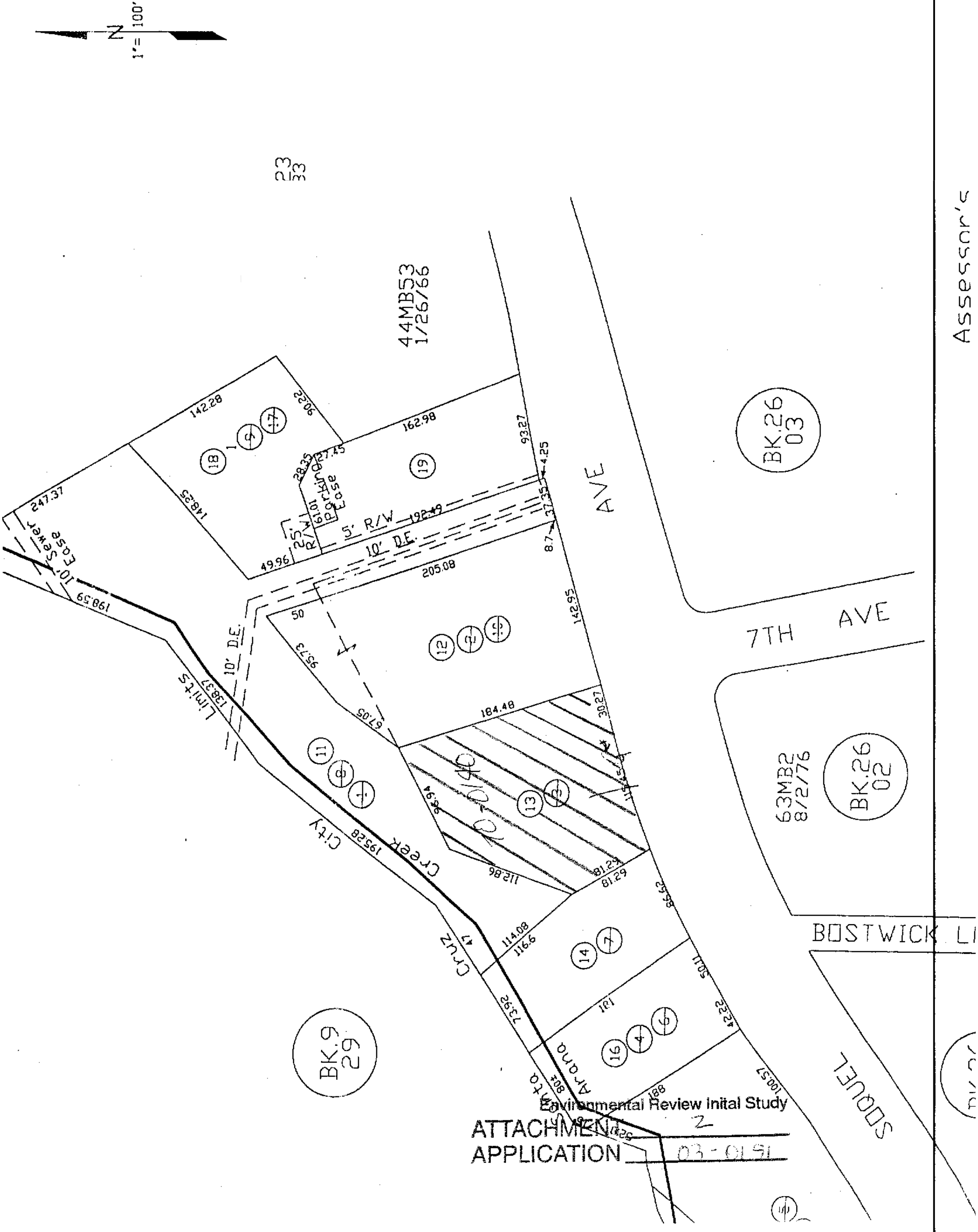
Environmental **Review** Inital **Study**

ATTACHMENT 1

APPLICATION 03-0151

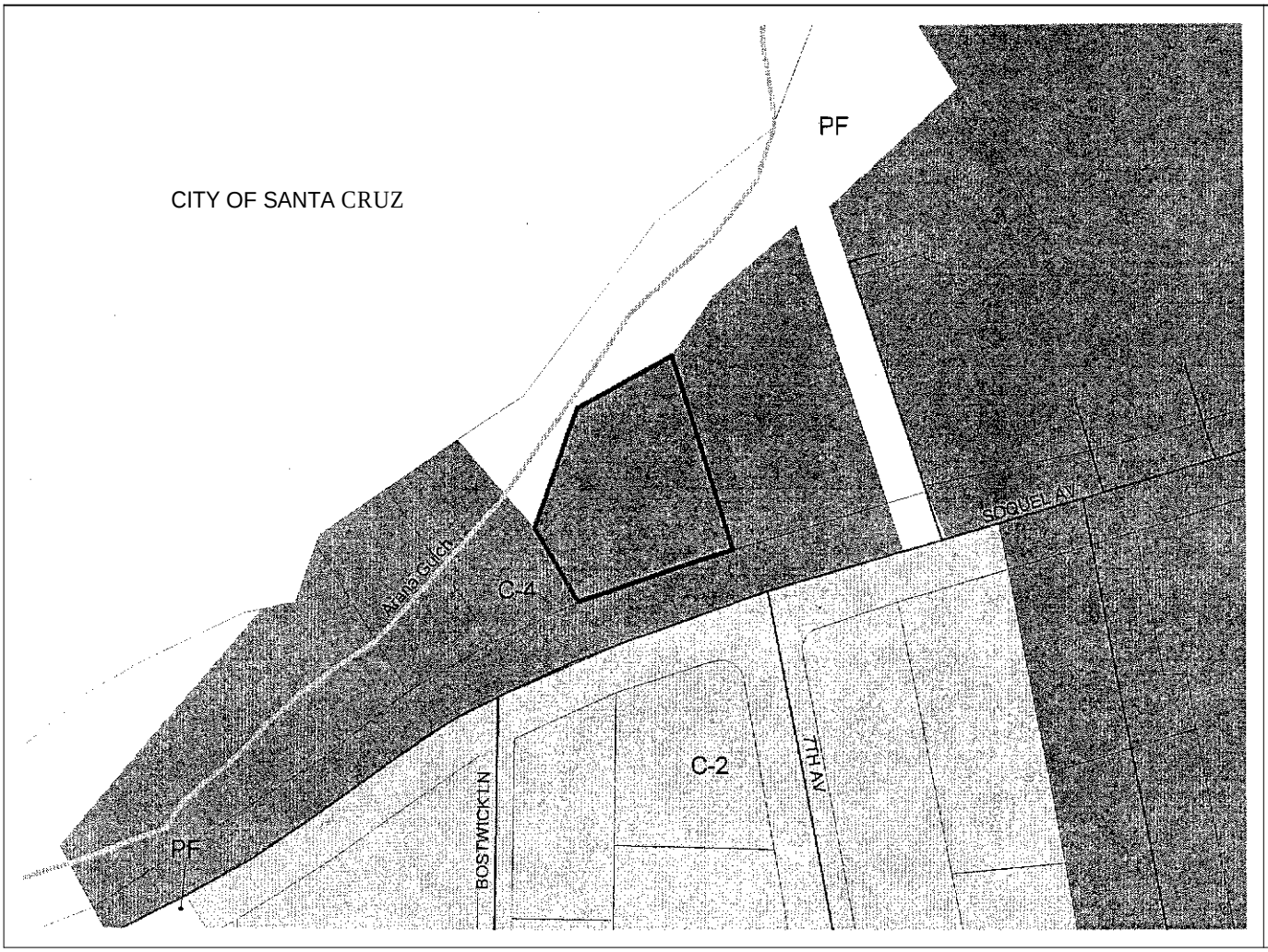
N

Map created by Santa Cruz County:
Planning Department:
January 2004



Environmental Review Inital Study
ATTACHMENT 2
APPLICATION 03-0191

Zoning Map



500 0 500 Feet

N

Legend

- APN 025-131-13
- Streets
- Perennial Stream
- c-4
- C-2
- PF

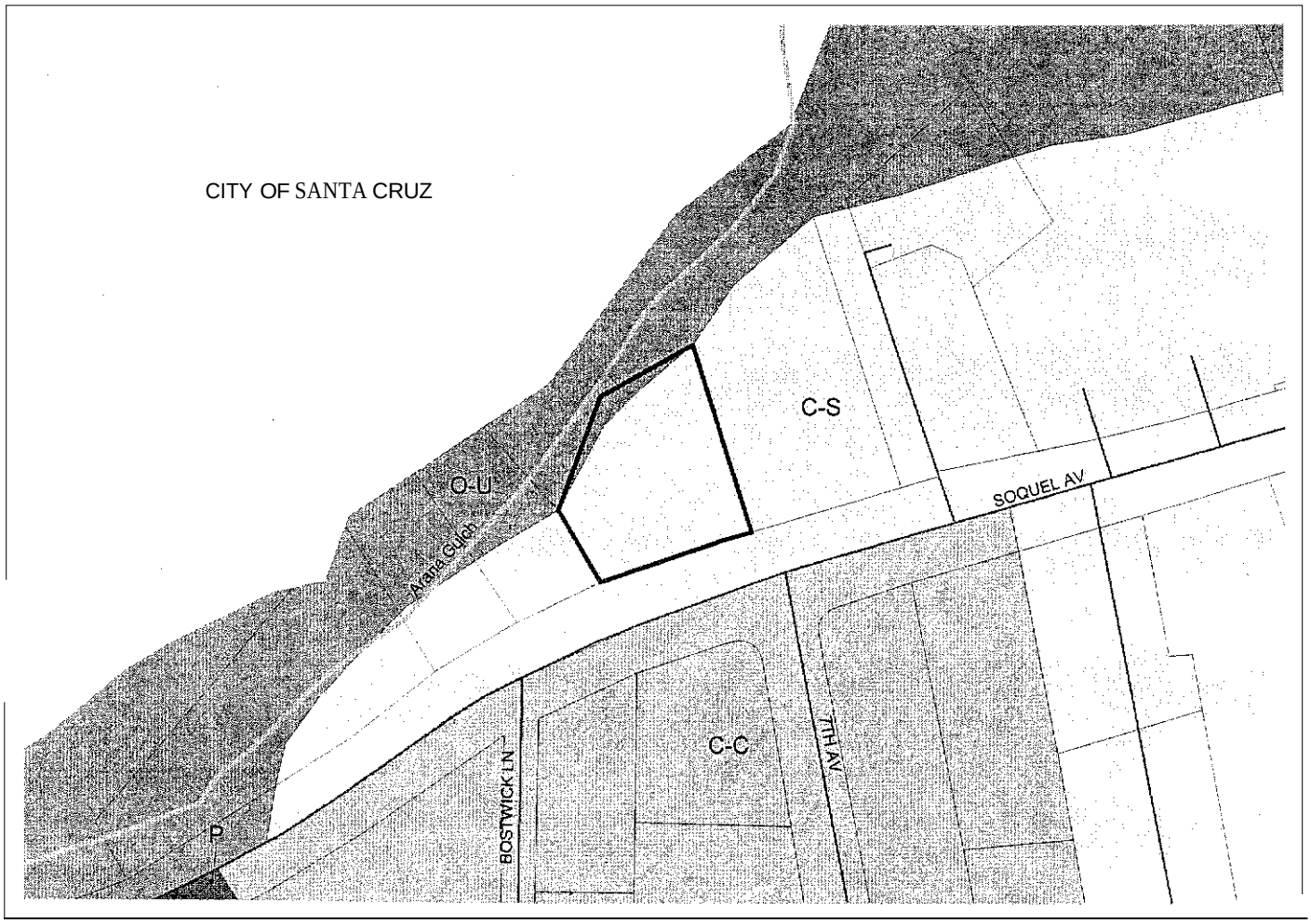
Map created by Santa Cruz County Planning Department: January 2004

Environmental Review Inital Study

ATTACHMENT 3

APPLICATION 03-0151

General Plan Map



500 0 500 **Feet**

Environmental Review Inital Study
ATTACHMENT 4
APPLICATION 02-0154

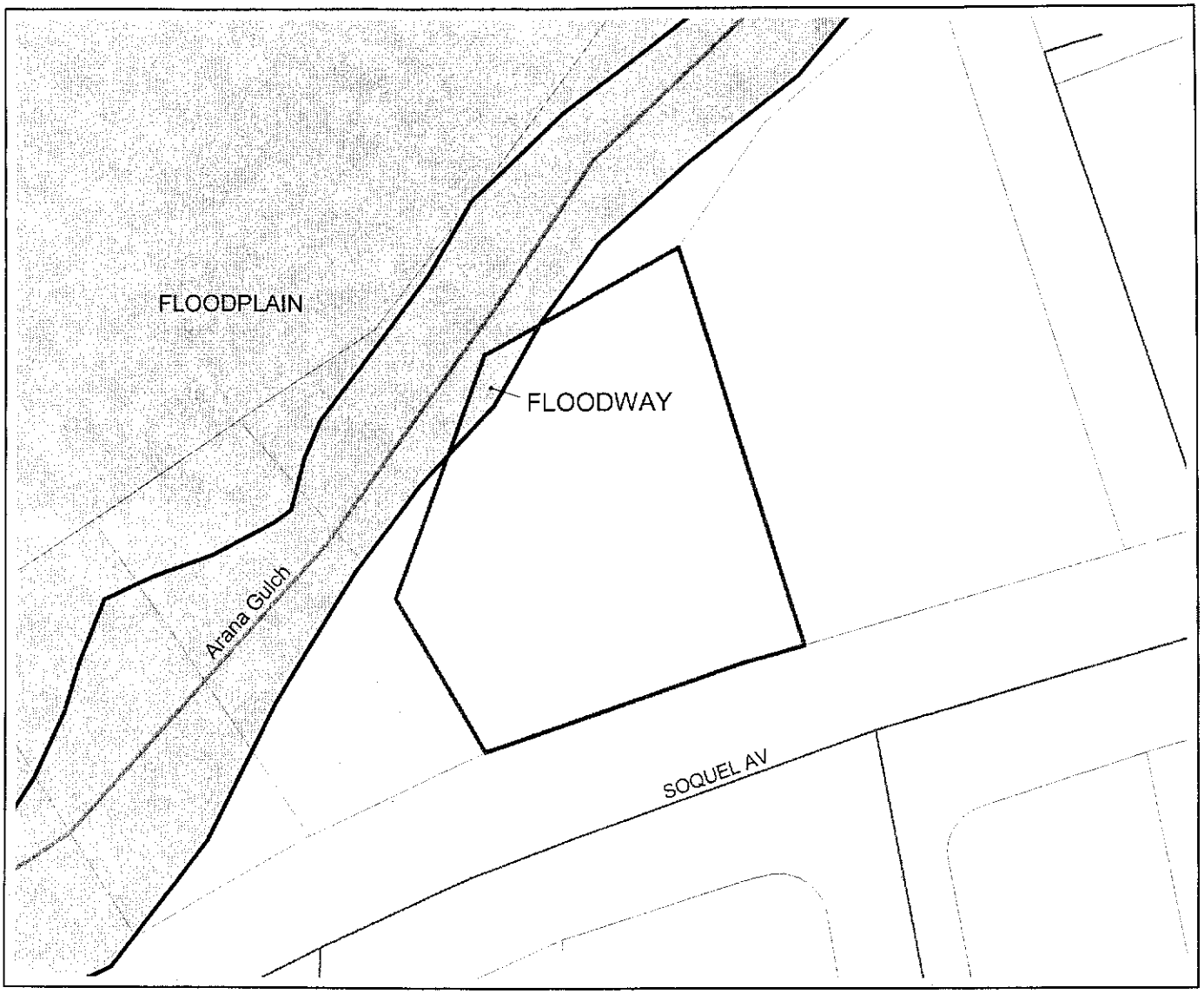
N

Legend

- APN 025-131-13
- Streets
- Perennial Stream
- Service Commercial
- Community Commercial
- Urban Open Space
- Public Facilites

Map created by Santa Cruz County Planning Department: January 2004

Flood Zone Map



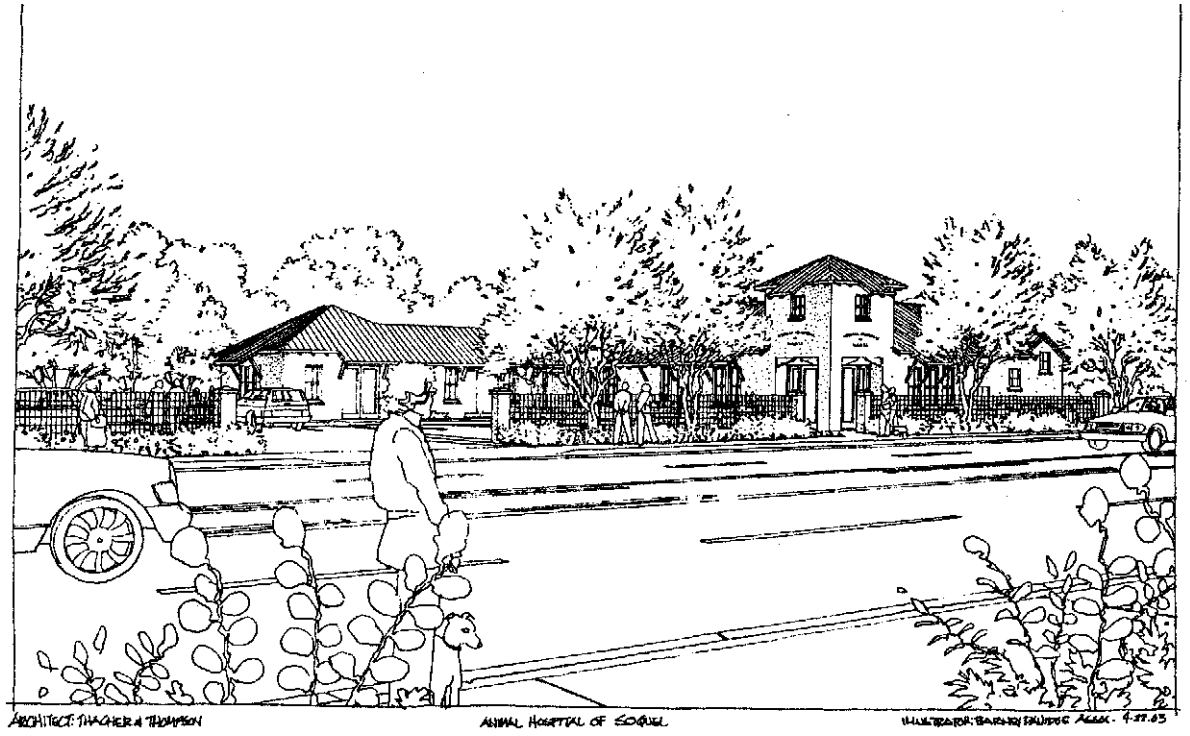
200 0 200 Feet

Environmental Review Inital Study
ATTACHMENT 5
APPLICATION 03-0151

N

Map created by Santa Cruz County
Planning Department:
January 2004

ANIMAL HOSPITAL OF SOQUEL



Environmental Review Initial Study
ATTACHMENT
APPLICATION 03-01

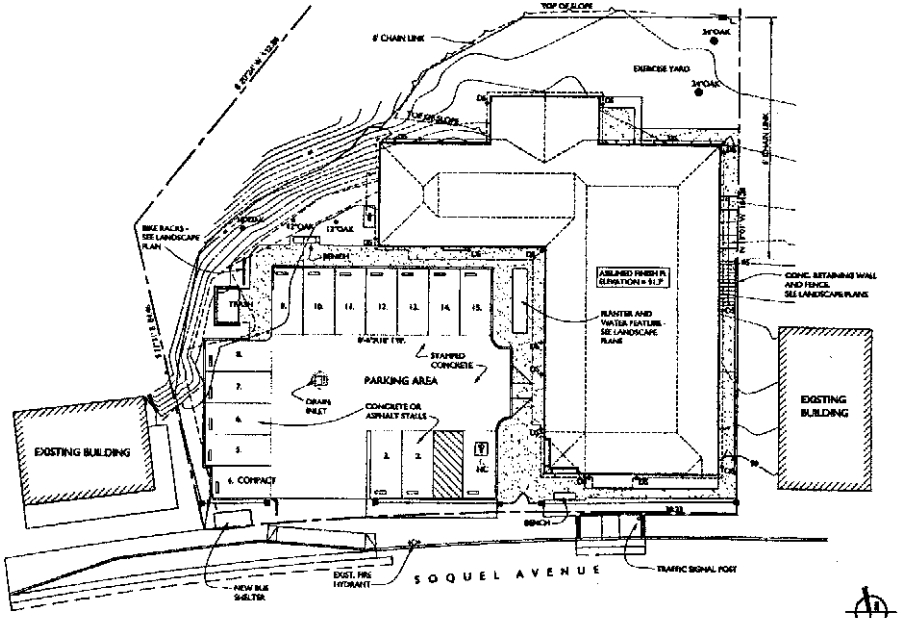
0

COVER SHEET

ANIMAL HOSPITAL OF SOQUEL
2651 SOQUEL AVENUE, SANTA CRUZ APN: 025-131-13

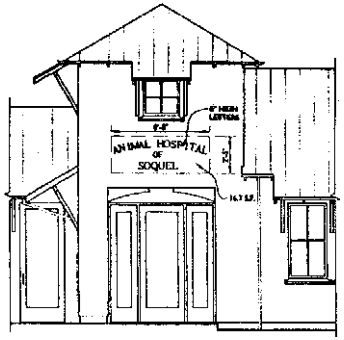
APRIL 25, 2003
REVISED:
SEPT. 23, 2003

SCALE: 1/16" = 1'-0"



SIGNAGE

SCALE: 1/4" = 1'-0"



PROJECT DATA

OWNER:	JAN BRENNAN CAROL ROBINS 2380 N. RODEO GULCH ROAD SOQUEL, CA 95073 TEL. (408) 382-3036	
PROJECT SITE:	2651 SOQUEL AVE SANTA CRUZ, CALIFORNIA	
GENERAL PLAN SERVICE COMMERCIAL		
ZONING:	C - 4	
APN:	025-131-13	
LOT SIZE:	IRREGULAR	
LOT AREA:	24,268 S.F.	0.56 ACRES
1ST FLOOR AREA:	5936.18 S.F.	
BASEMENT FLOOR AREA:	1193.51 S.F.	
TOTAL FLOOR AREA:	7129.69 S.F.	
BUILDING COVERAGE:	5936.18 S.F.	24.5 %
IMPERVIOUS AREA:	7141.63 S.F.	29.4 %
LANDSCAPE / OPEN SPACE:	11190.19 S.F.	46.1 %

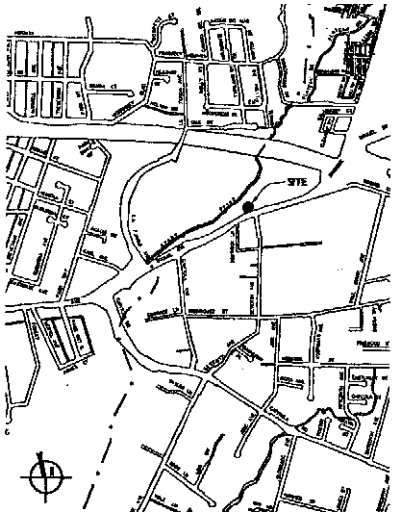
PARKING REQUIRED

UNCOVERED PARKING	13 SPACES
BICYCLE PARKING	7 SPACES

PARKING PROVIDED

COVERED PARKING:	0 SPACES
UNCOVERED PARKING:	15 SPACES
TOTAL PARKING PROVIDE ON-SITE:	15 SPACES
BICYCLE PARKING (2' x 6'):	7 SPACES

VICINITY MAP



CONSULTANTS

ARCHITECT:	THACHER AND THOMPSON ARCHITECTS 200 WASHINGTON STREET, SUITE #201 SANTA CRUZ, CA 95060 TEL. (831) 457-3939
CIVIL:	BOWMAN & WILLIAMS 1011 CEDAR STREET SANTA CRUZ, CA 95060 TEL. (831) 426-3560
STRUCTURAL:	DONALD C. UNVER & ASSOCIATES 2215 PORTER STREET #3 SOQUEL, CA 95073 TEL. (831) 476-3681
LANDSCAPE:	SSA LANDSCAPE ARCHITECTS 303 POTRERO SOQUEL, CA 95060 TEL. (831) 459-0455
GEOTECHNICAL:	BRIAN BAULDRY GEOTECH ENGRS. 147 SOUTH MORISSEY BLVD. SANTA CRUZ, CA 95062 TEL. (831) 4597-1223

Environmental Review Initial Study
ATTACHMENT - APPLICATION -
2 - 0157

1

SITE PLAN AND PROJECT DATA

ANIMAL HOSPITAL OF SOQUEL

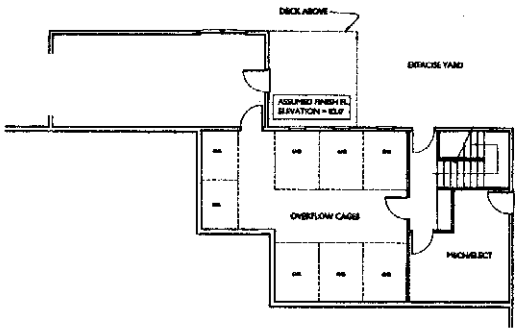
2651 SOQUEL AVENUE, SANTA CRUZ APN: 025-131-13

0' 16' 32' 64'

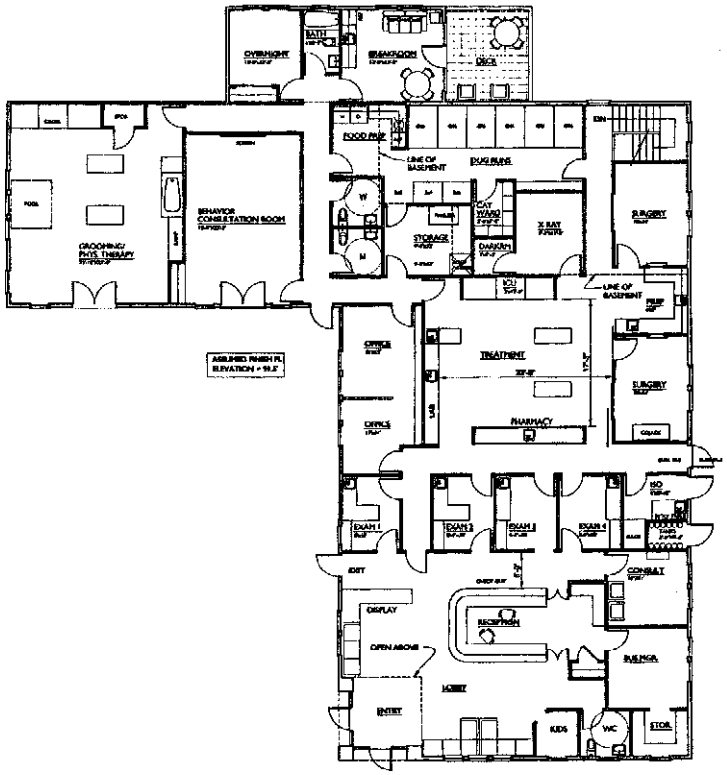
THACHER & THOMPSON ARCHITECTS

APRIL 25, 2003
REVISED:
SEPT. 23, 2003

BASEMENT PLAN



FIRST FLOOR PLAN



Environmental Review Initial Study
ATTACHMENT 2 & 11
APPLICATION 25-0151

2

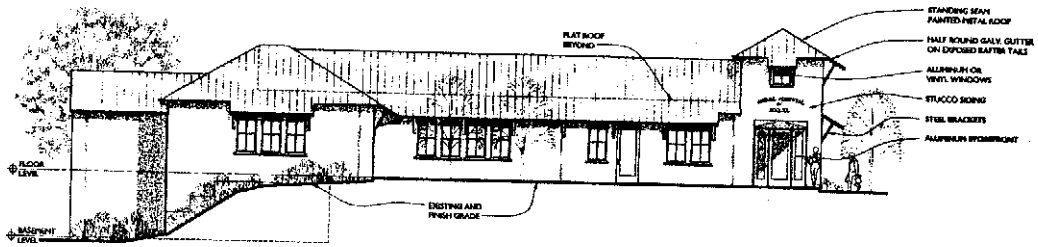
FLOOR PLANS

0' 5' 10' 12'

THACHER & THOMPSON ARCHITECTS

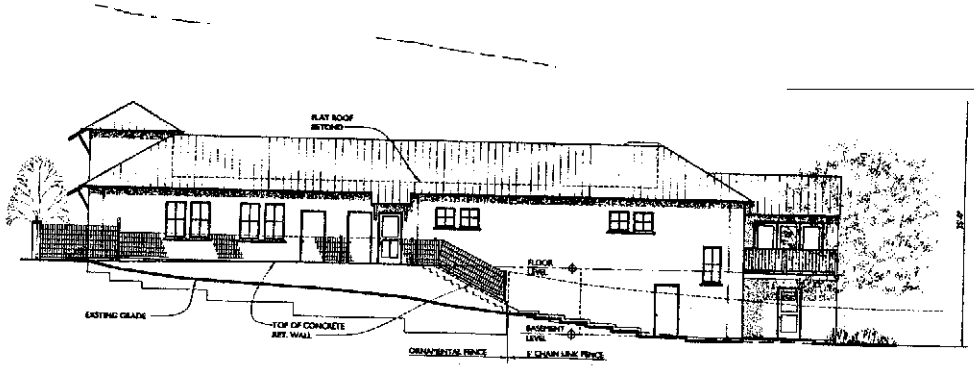
PRIMARY HOSPITAL OF SOQUEL

2651 SOQUEL AVENUE, SANTA CRUZ APN: 025-131-13



WEST

SOUTH



EAST

NORTH

3

ELEVATIONS

ANIMAL HOSPITAL OF SOQUEL

2651 SOQUEL AVENUE, SANTA CRUZ APN: 025-131-13

0' 8' 16' 32'

THACHER & THOMPSON ARCHITECTS

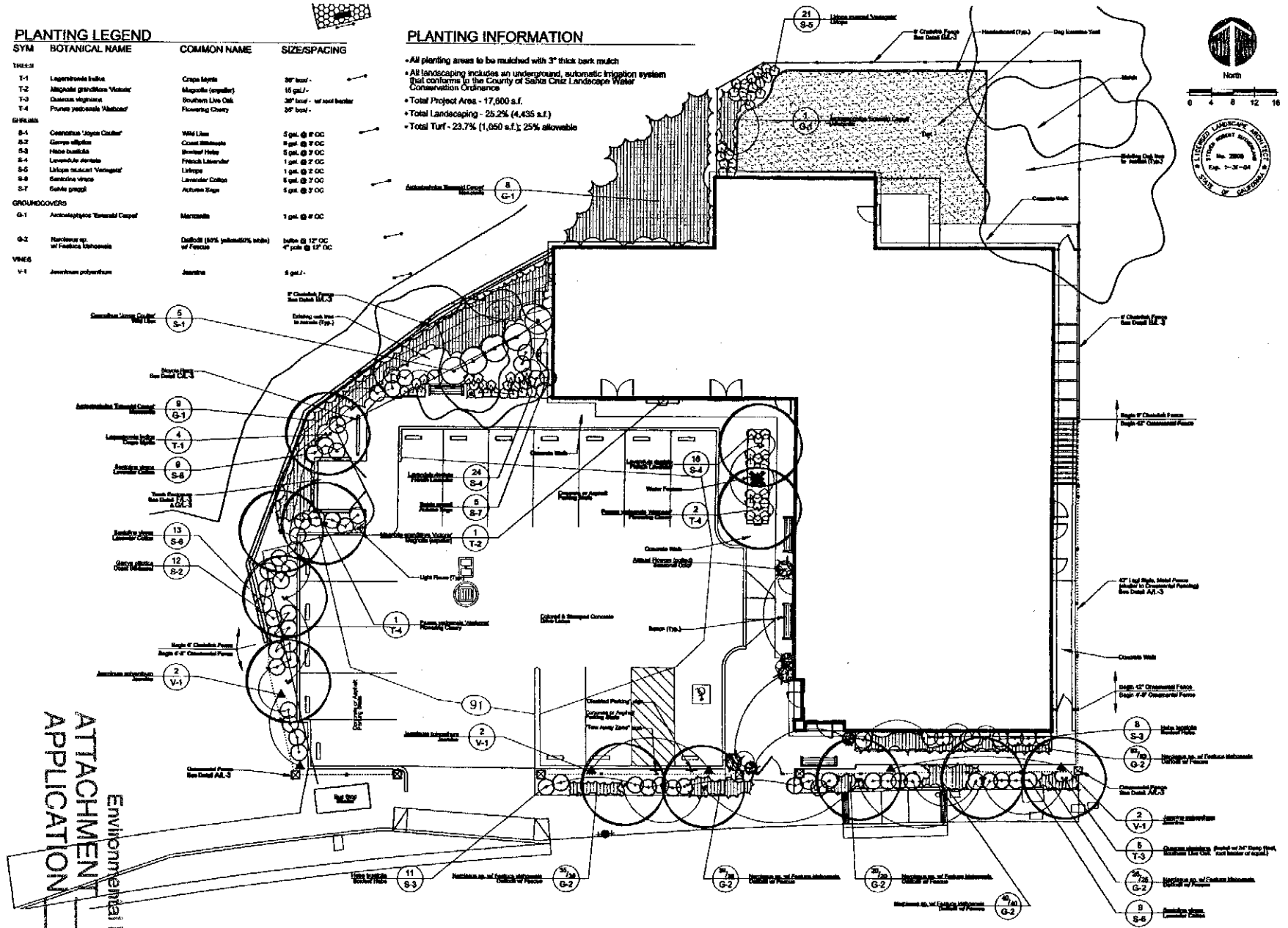
APRIL 25, 2003

PLANTING LEGEND

SYM	BOTANICAL NAME	COMMON NAME	SIZE/SPACING
TREES			
T-1	Lagerstroemia indica	Crape Myrtle	36" box/ -
T-2	Magnolia grandiflora 'Victoria'	Magnolia (espalier)	15 gal./-
T-3	Quercus virginiana	Southern Live Oak	36" box/ - w/ root barrier
T-4	Prunus yedoensis 'Akebono'	Flowering Cherry	36" box/ -
SHRUBS			
S-1	Ceanothus 'Joyce Coulter'	Wild Lilac	5 gal. @ 6' OC
S-3	Garrya elliptica	Coast Silktassle	5 gal. @ 3' OC
S-5	Hesperaloe parviflora	Brakelight Yucca	5 gal. @ 3' OC
S-6	Lavandula dentata	French Lavender	1 gal. @ 2' OC
S-7	Liriope muscari 'Variegata'	Liriope	1 gal. @ 2' OC
S-8	Santolina virens	Lavender Cotton	5 gal. @ 3' OC
S-9	Salvia greggii	Autumn Sage	5 gal. @ 3' OC
GROUNDCOVERS			
G-1	Arctostaphylos 'Emerald Carpet'	Manzanita	1 gal. @ 6' OC
G-2	Hardenbergia sp. w/ Festuca Idahoensis	Daffodil (50% yellow/50% white) w/ Fescue	bulbs @ 12" OC 4" pots @ 12" OC
VINES			
V-1	Jasminum polyanthum	Jasmine	5 gal./-

PLANTING INFORMATION

- All planting areas to be mulched with 3" thick bark mulch
- All landscaping includes an underground, automatic irrigation system that conforms to the County of Santa Cruz Landscape Water Conservation Ordinance
- Total Project Area - 17,600 s.f.
- Total Landscaping - 25.2% (4,435 s.f.)
- Total Turf - 23.7% (1,050 s.f.); 25% allowable



LANDSCAPE ARCHITECTS INCORPORATED
303 Potrero St. Ste. 40-C
Santa Cruz, CA 95060-2756
PH: (831)459-0455
FX: (831)459-0464
www.sala.com
CRLA #2805

REVISIONS

DATE	DESCRIP.	BY

PLANTING PLAN

ANIMAL HOSPITAL OF SOQUEL
SANTA CRUZ, CA

DRAWING ISSUED

DATE	PURPOSE	BY
4-11-03	PLANNING	MD
4-18-03	REVIEW	MD
4-25-03	PLANNING SUBMITTAL	MD
9-26-03	SUBMITTAL II	MD

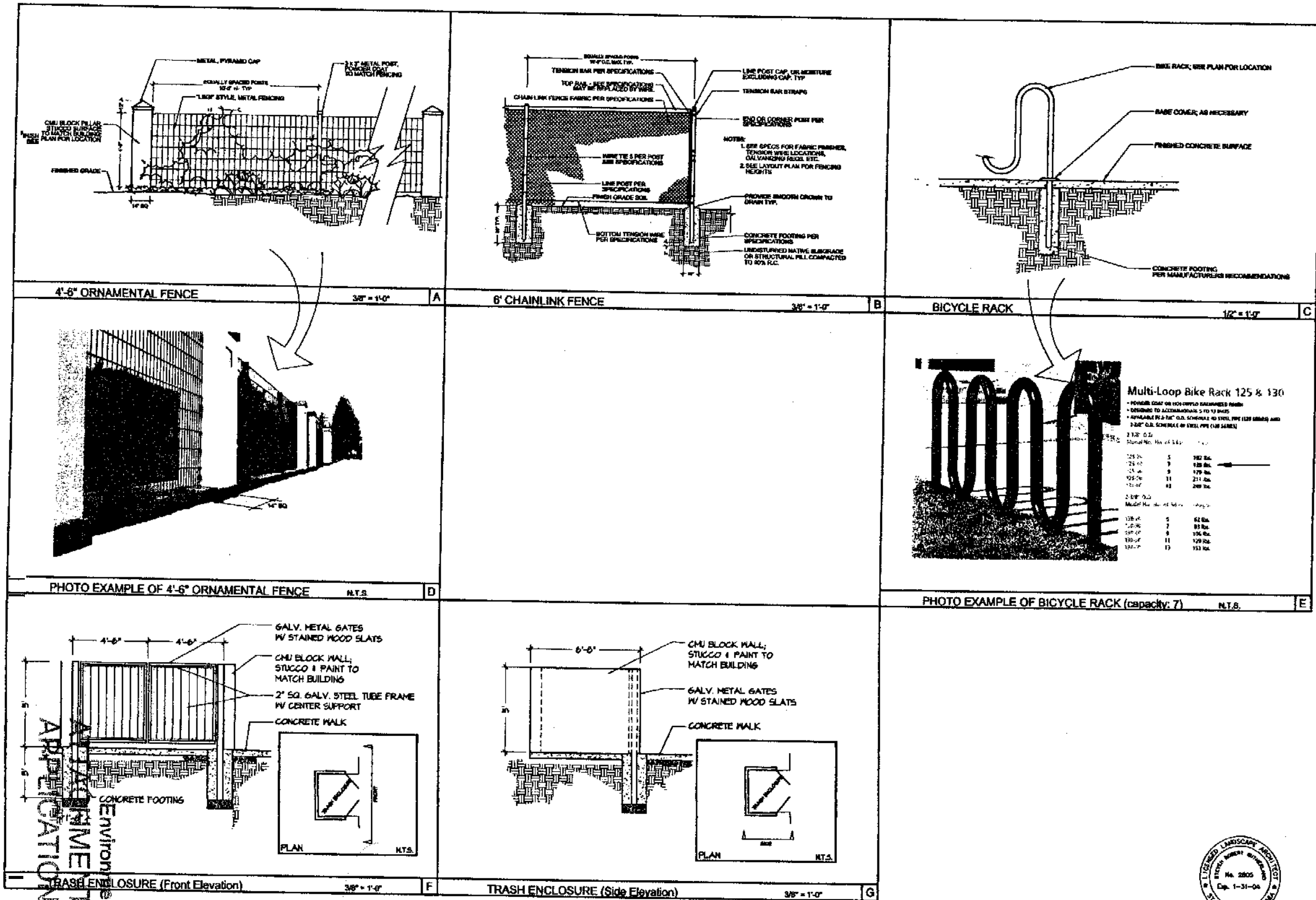
PROJECT: 20301

SCALE: 1/8" = 1'-0"

SHEET TITLE: PLANTING PLAN

SHEET NUMBER: L-2

ATTACHMENT 6
APPLICATION 03-0151
Environmental Review Initial Study



LANDSCAPE ARCHITECTS INCORPORATED
303 Potrero St. Ste 40-C
Santa Cruz, CA 95060-2756
PH: (831) 459-0455
PH: (831) 459-0484
CRLA #2805

REVISIONS

DATE	DESCRIP.	BY

CONSTRUCTION DETAILS

ANIMAL HOSPITAL OF SOQUEL
SANTA CRUZ, CA

DRAWING ISSUED

DATE	PURPOSE	BY
4-18-03	REVIEW	MD
4-28-03	PLANNING SUBMITTAL	MD
9-26-03	SUBMITTAL 2	MD

PROJECT: 20301

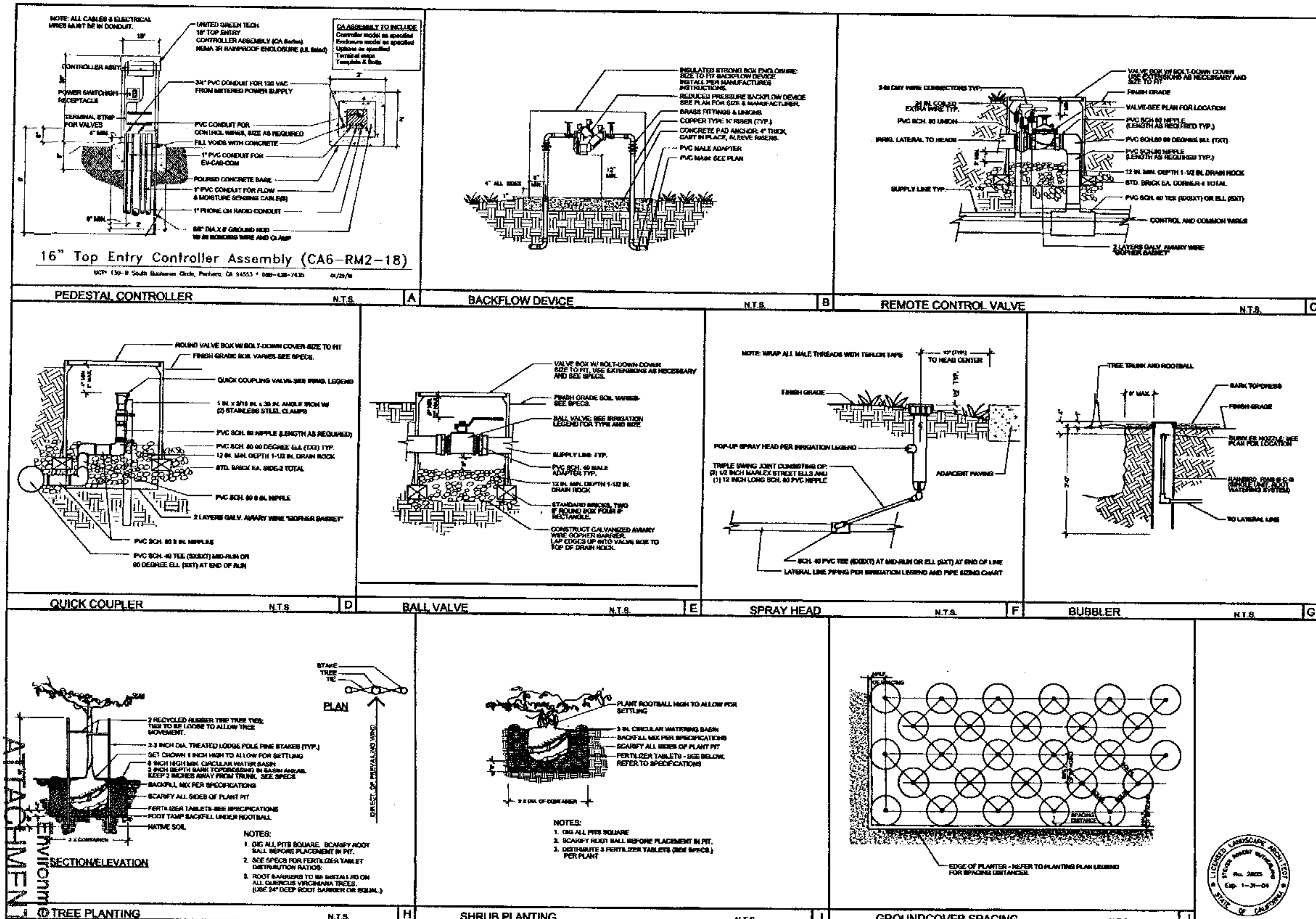
SCALE: NOTED

SHEET TITLE: CONSTRUCTION DETAILS

SHEET NUMBER: L-3

LICENSED LANDSCAPE ARCHITECT No. 2805 Exp. 1-31-04 STATE OF CALIFORNIA

Environmental Review Inital Study
ATTACHMENT 6, 6 of 11
APPLICATION 03-0151



LANDSCAPE ARCHITECTS INCORPORATED
303 Potrero St. Ste 40-C
Santa Cruz, CA 95060-2756
PH: (831) 459-0455
FX: (831) 459-0484

REVISIONS		
DATE	DESCRIP.	BY

PLANTING & IRRIGATION DETAILS

ANIMAL HOSPITAL OF SOQUEL
SANTA CRUZ, CA

DRAWING ISSUED		
DATE	PURPOSE	BY
4-11-03	[illegible]	MD
4-18-03	[illegible]	MD
4-25-03	[illegible]	MD
9-26-03	[illegible]	MD

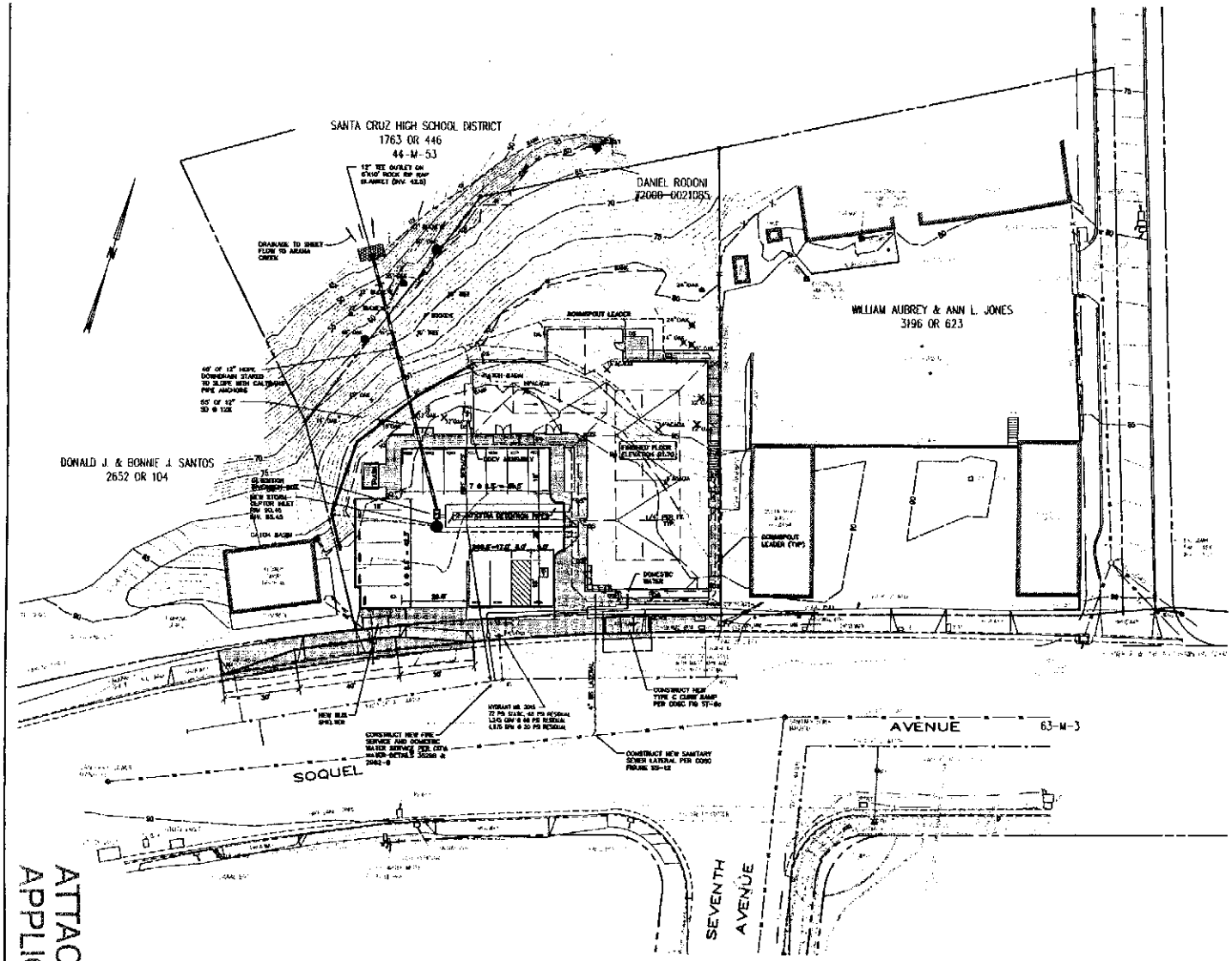
PROJECT: 20301

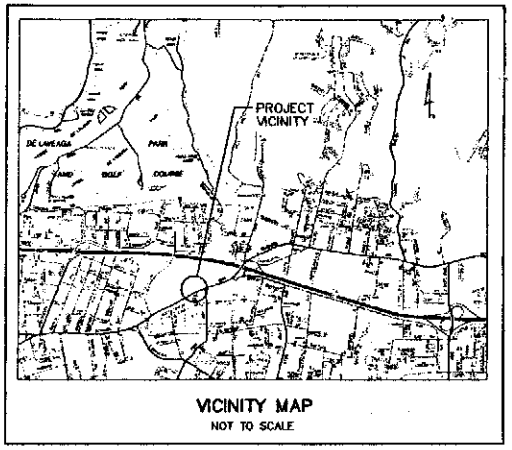
SCALE: NOTED

SHEET TITLE: PLANTING & IRRIGATION DETAILS

SHEET NUMBER: L-4

Environmental Review Inital Study
ATTACHMENT 6, 7 of 11
APPLICATION 03-0151





VICINITY MAP
NOT TO SCALE

LEGEND

NEW SPOT ELEVATION

NEW FINISHED GRADE CONTOUR

EXISTING CONTOUR

NEW CATCH BASIN ENCIRCLED WITH SILT FENCE OR STRAW BALES

NEW STORM DRAIN LINE

PARKING STALL PAVING CONCRETE OR ASPHALT PAVING

ARMOR AISLE & SOQUEL AVE PAVING OR STAMPED COLORED CONCRETE (IN PARKING LOT ONLY, OPTIONAL)

NEW CONCRETE FLATWORK FOR SIDEWALKS AND WALKWAYS

EXISTING TREE TO BE REMOVED

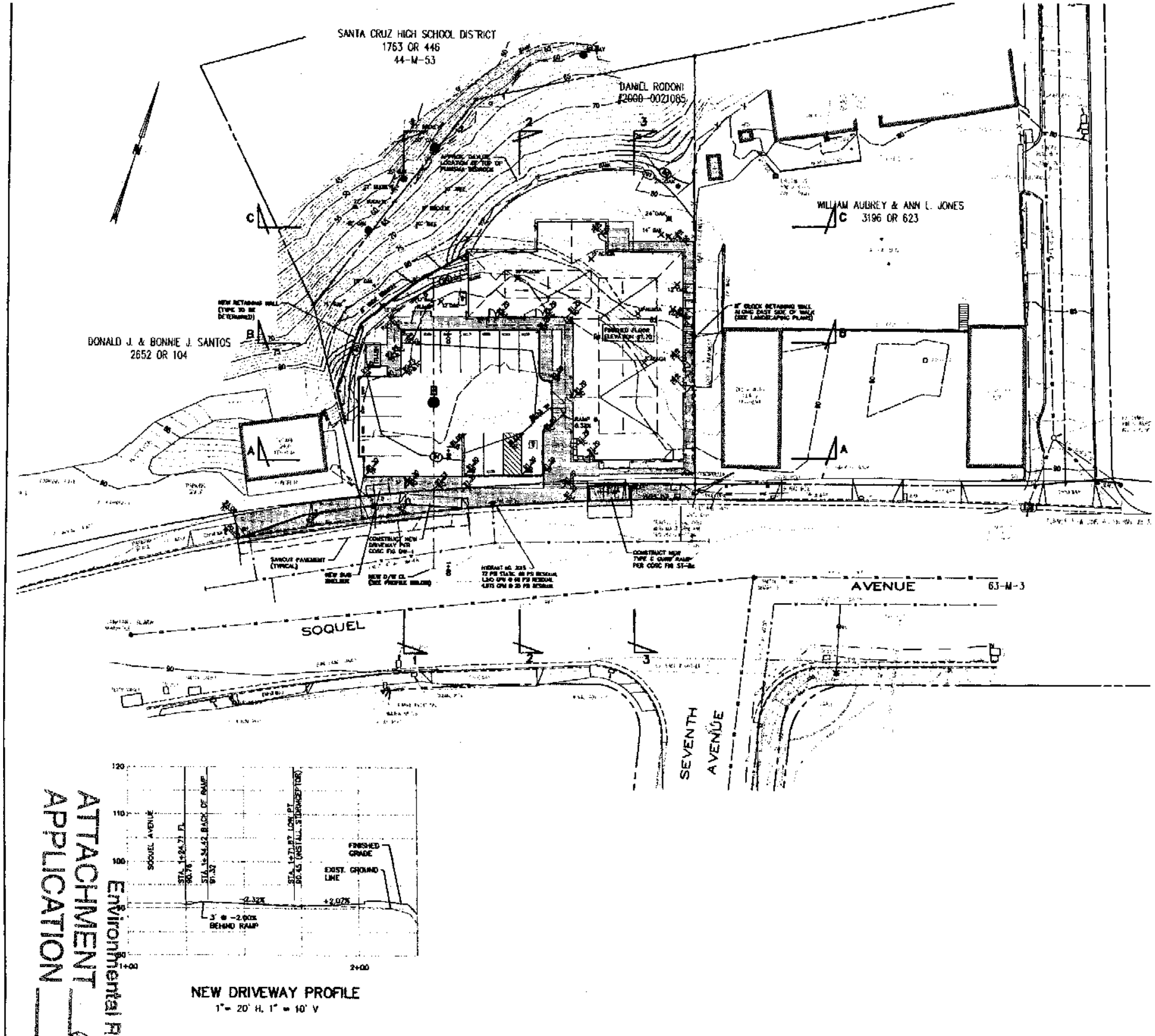
BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS
1011 CEDAR STREET
SANTA CRUZ, CA 95060
(831) 426-3560
REGISTERED CIVIL ENGINEER NO. 43644

UTILITY & SITE PLAN

ANIMAL HOSPITAL OF SOQUEL
STRAUB M
THE COUNTY OF SANTA CRUZ,
STATE OF CALIFORNIA

SCALE 1"=30'	DRAWN BCS	JOB NO. 22800	SHEET
DATE SEPT 23, 2003	CHECKED JRM	INDEX RODEO 8	C1
DESIGN BCS	DWG NAME 22800C1	FILE NO. 22800	OF

Environmental Review Inital Stud
ATTACHMENT 6 pg 1
APPLICATION 03-057



IMPERVIOUS SURFACES

APN	EXISTING	PROPOSED	DIFFERENCE
025-131-13	0 sq. ft.	13,273 sq. ft.	(+) 13,273 sq. ft.

GRADING INTENT

THE INTENT OF GRADING FOR THIS PROJECT IS TO CONSTRUCT A NEW ANIMAL HOSPITAL BUILDING ON NEW COMBINED LOT AND PROVIDE A PARKING LOT FOR EMPLOYEES AND PATRONS.

GRADING QUANTITIES

THE FOLLOWING ESTIMATED GRADING QUANTITIES WERE CALCULATED BASED ON THE COUNTY OF SANTA CRUZ REQUIREMENTS FOR GRADING AS OUTLINED IN CHAPTER 16.20 "GRADING" OF THE COUNTY CODE.

TOTAL REMOVE & RECOMPACT EXISTING FILL AS ENGINEERED FILL = [illegible] CUBIC YARDS

EROSION CONTROL PLANTING:

1. EROSION IS TO BE CONTROLLED AT ALL TIMES DURING PROJECT DURATION. BETWEEN OCTOBER 15 AND APRIL 15, EROSION CONTROL MEASURES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY.
2. RUNOFF SHALL BE DIRECTED TOWARDS THE NEAREST CATCH BASIN WITH TEMPORARY EARTHEN BERMS UNTIL FINAL GRADING IS PERFORMED. (SEE NOTE 4 BELOW)
3. SILT BARRIERS SHALL BE CONSTRUCTED ALONG THE BOTTOM OF ALL GRADED SLOPES AND ALONG BOUNDARIES OF DISTURBED AREAS WHERE SILT OR SEDIMENT LADEN WATER COULD BE CARRIED OFF SITE OR INTO DRAINAGES OR VEGETATED AREAS TO REMAIN.
4. CATCH BASINS SHALL BE ENCIRCLED BY A SILT BARRIER ON ALL FOUR SIDES.
5. REVEGETATE DISTURBED AREAS WITH THE FOLLOWING NATIVE PERENNIAL BUNCHGRASS SEED MIX:

SEED TYPE	SEED APPLICATION RATE
BROMUS CARINATUS (CALIFORNIA BROME)	12# PER ACRE
NASSELLA PULCRA	8# PER ACRE
HORDEUM BRACHYANTHERUM (MEADOW BARLEY)	12# PER ACRE

ONCE SLOPES AND GRADED AREAS ARE SEEDED AND RAKED, COVER THEM WITH TWO INCHES (2") OF STRAW. IF AVAILABLE, USE NATIVE BUNCHGRASS STRAW (PREFERABLY BROMUS CARINATUS). IF NOT AVAILABLE, USE COMMERCIALLY AVAILABLE TYPES (E.G. RICE OR BARLEY).
FERTILIZER REQUIRED FOR THIS SEED MIX IS AMMONIUM PHOSPHATE AT AN APPLICATION RATE OF [illegible] PER ACRE.

6. THE CONTRACTOR SHALL ADHERE TO THE STATE WATER RESOURCES CONTROL BOARD'S (SWRCB) REQUIREMENTS FOR BEST MANAGEMENT PRACTICES (BMPs) TO ELIMINATE ALL NON STORM WATER POLLUTION POINT SOURCES.

LEGEND

- NEW SPOT ELEVATION
- NEW FINISHED GRADE CONTOUR
- EXISTING CONTOUR
- NEW CATCH BASIN ENCIRCLED WITH SILT FENCE OR STRAW BALES
- NEW STORM DRAIN LINE
- PARKING STALL PAVING CONCRETE OR ASPHALT PAVING
- DRIVING AISLE & SOQUEL AVE PAVING OR STAMPED COLORED CONCRETE (IN PARKING LOT ONLY, OPTIONAL)
- NEW CONCRETE FLATWORK FOR SIDEWALKS AND WALKWAYS
- EXISTING TREE TO BE REMOVED

APN 025-131-13

REVISED

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS
1011 CEDAR STREET
SANTA CRUZ, CA 95060
(831) 426-3560

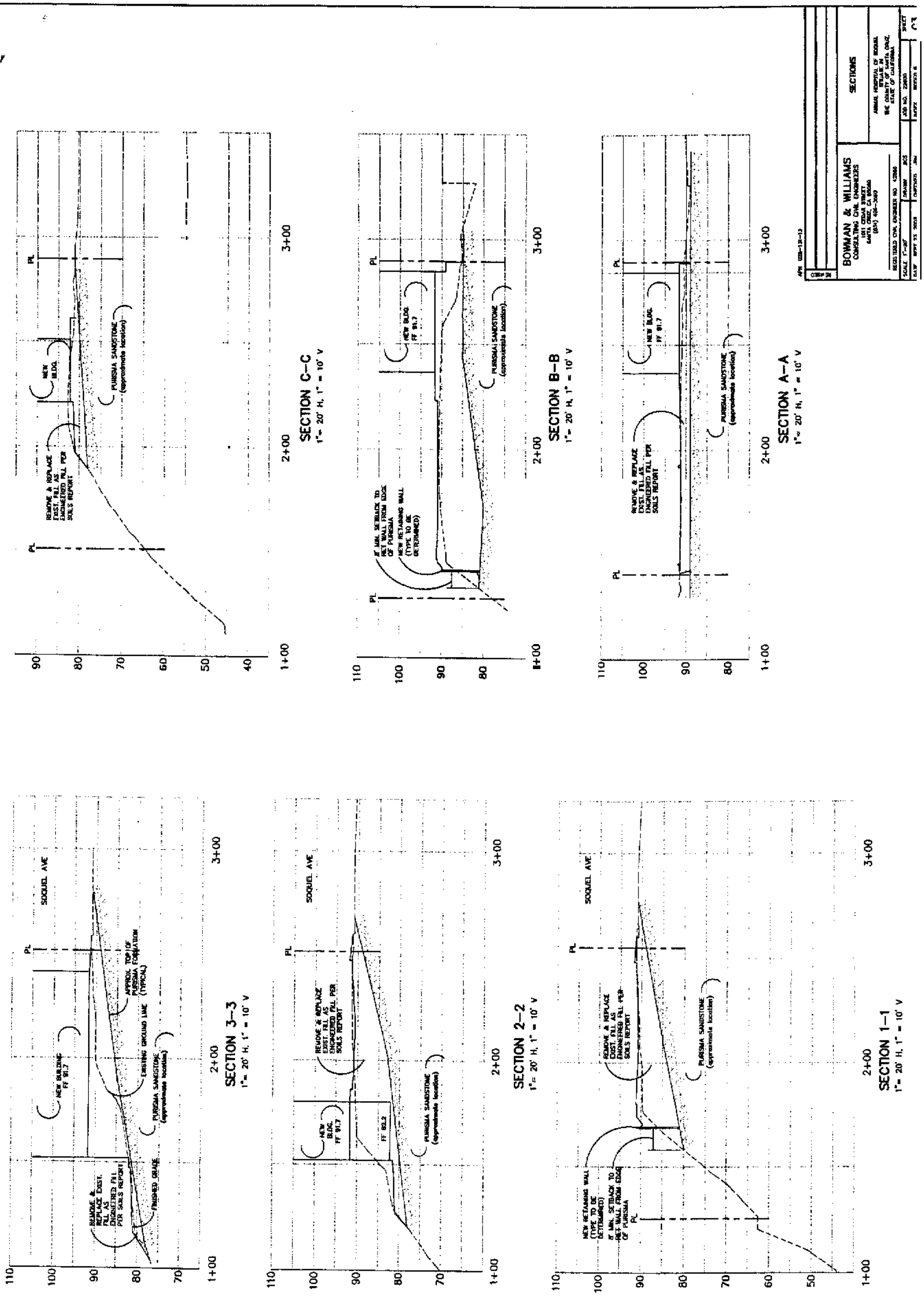
REGISTERED CIVIL ENGINEER NO. 42666

PRELIMINARY GRADING & DRAINAGE PLANS

ANIMAL HOSPITAL OF SOQUEL
SITUATE IN
THE COUNTY OF SANTA CRUZ
STATE OF CALIFORNIA

SCALE 1"=20'	DRAWN BCS	JOB NO. 22600	SHEET C2
DATE SEPT 23, 2003	CHECKED JBN	INDEX BOOK 8	
DESIGN BCS	DWG NAME 22600C1	FILE NO. 22600	OF

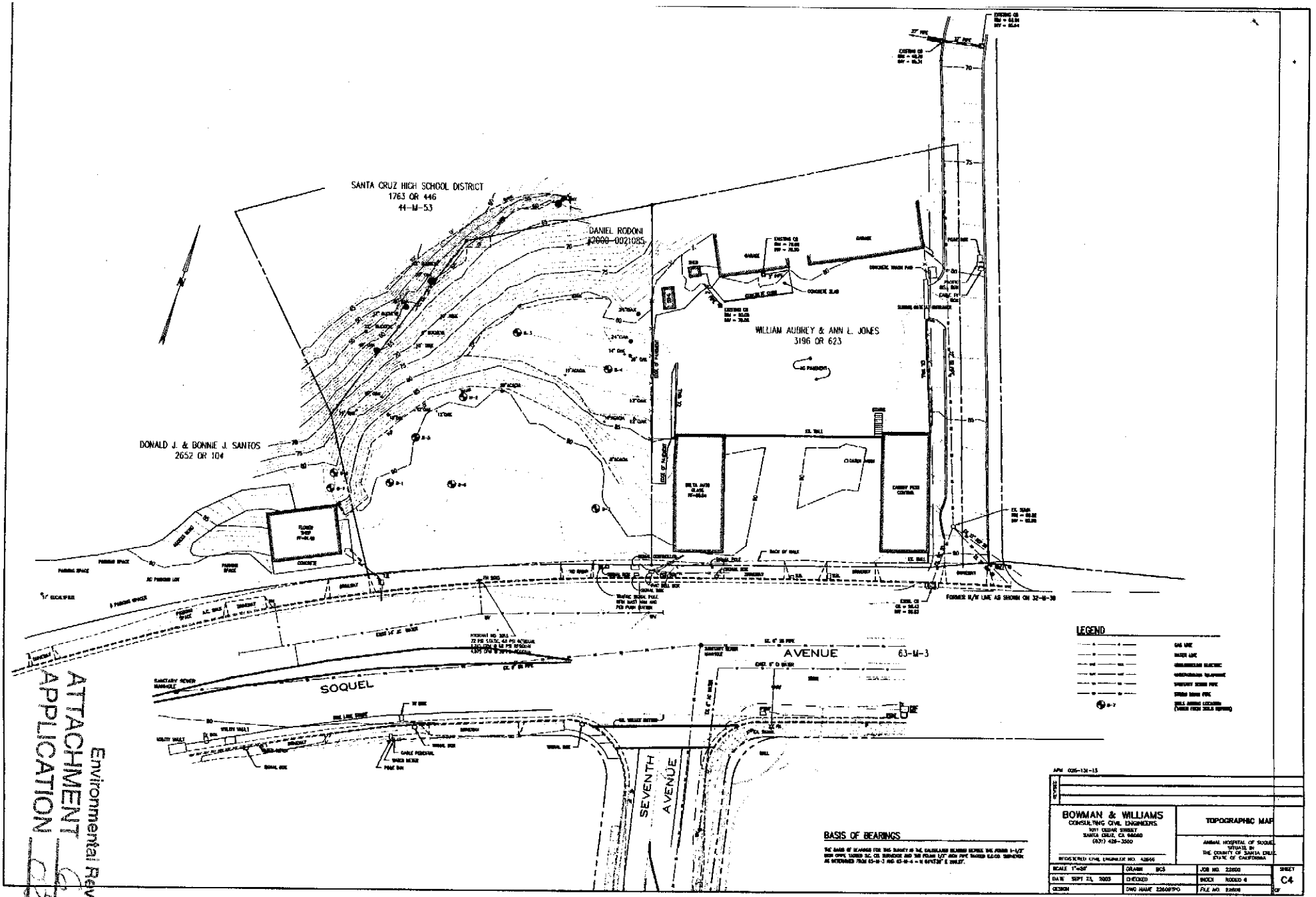
Environmental Review Inital Stud
ATTACHMENT 6, 9 of 1
APPLICATION 03-0151



Environmental Re[illegible] v Inital Study

ATTACHMENT 6 10 of 11

APPLICATION [illegible]-0151



Environmental Review Initial Study
ATTACHMENT
APPLICATION 03-0151

GEOTECHNICAL INVESTIGATION
FOR
ANIMAL HOSPITAL OF SOQUEL
2651 SOQUEL DRIVE
APN 025-131-13
SANTA CRUZ COUNTY, CALIFORNIA

FOR
MS. CAROL ROBINS
SOQUEL, CALIFORNIA

ATTACHMENT 7 Environmental Review Initial Study

APPLICATION 02-0151

BY
BAULDRY ENGINEERING
CONSULTING GEOTECHNICAL ENGINEERS
0316-SZ972-H51
APRIL 2003

CONCLUSIONS AND RECOMMENDATIONS

PRIMARY GEOTECHNICAL ISSUES

1. Site Viability

The results of our investigation indicate that from a Geotechnical Engineering standpoint the property may be developed as proposed. It is our opinion that, provided our recommendations are followed, the proposed development can be designed and constructed to an "ordinary" level of risk and performance as defined below:

> "Ordinary Risk": Resist minor earthquakes without damage: resist moderate earthquakes without structural damage, but with some non-structural damage: resist major earthquakes of the intensity or severity of the strongest experienced in California without collapse, but with some structural damage as well as non-structural damage. In most structures it is expected that structural damage, even in a major earthquake, could be limited to reparable damage. (Source: Meeting the Earthquake Challenge, Joint Committee on Seismic Safety of the California Legislature, January 1974).

If the property owner desires a higher level of performance for this project, supplemental design and construction recommendations will be required.

2 Primary Geotechnical Constraints

Based on our field and laboratory investigations, it is our opinion that the primary geotechnical issues associated with the design and construction of a single family dwelling at the subject site are the following:

a. The stability of the steep native and fill slopes that edge the terrace: There is a potential for both seismically induced and aseismic landsliding to occur along the slopes that edge the north side of the upper and lower terraces. For a detailed discussion of the stability issue refer to the Geotechnical hazards section above and to the Geologic report by Rogers Johnson & Associates.

b. The proposed building location: The northwestern section of the proposed building is located on or adjacent to the steep descending slope.

c. Settlement: The numerous pot holes covering the upper terra& may be due to settlement of the existing non-engineered fill or the result of the decomposition of organics, or other deleterious material, within the fill. There is a high potential that the existing fill soils will settle in the future. Buildings founded on the fill could suffer significant distress. Parking lots and other site improvements underlain by the fill could suffer significant distress.

d. Drainage and storm water runoff: As in all hillside environments, adequate control of storm water is essential for retarding erosion and reducing the potential for slope failure.

e. Expansive soil: An **18** inch thick localized pod of expansive soil was encountered in a shallow test pit dug in the southeast comer of the site.

3. Mitigation Measures

Fill Removal - Lower Terrace: All non-engineered **fill** on the lower terrace should be removed and replaced as an engineered **fill.**

Fill removal - Upper Terrace - Option A: One alternative for mitigating the potential for **fill** failure and **fill** settlement is to remove and replace all existing **fill** at the site. This option would allow structures, which are set back from the steep existing slopes a minimum of 20 and 8 feet from the edge of a reconstructed 2:1 (H:V) **fill** slope, to be founded on conventional footings. Option A would require a significant amount of grading. Keyways along the edge of the terrace could be **13** feet, or more, below existing grades. This could result in the loss of several of the mature trees on the face of the slope. Additionally, the adjacent building to the west could require shoring.

Fill Removal - Upper Terrace - Option B: An alternative to Option A would be to recompact the upper section of the fill and found the structures on deep piers that extend into bedrock. This alternative would not reduce the potential for **fill** failure along the edge of the existing slope. Additionally, the non-engineered fill that remains beneath the upper recompacted fill may continue to settle. It should be anticipated that settlement associated with Option B would result in increased maintenance cost and a shorter lifespan for pavement and other site improvements.

Slope Failure: To mitigate the potential for failure of the existing slopes to adversely affect the project we recommend the following, as applicable:

- Site improvements should be set back a minimum of 20 from the existing slopes, or
- Site improvements may be set back less than 20 feet of the existing slopes provided that the slopes are retained, or
- Structures may be set back less than 20 feet of the existing slope provided that the structure is founded on deep piers embedded into competent bedrock with the piers designed to retain the column of soil that overlies bedrock on their up-slope side.

Expansive Soil: To mitigate potential problems due to expansive soil, we recommend that all expansive soils encountered during the excavation and recompaction operation be segregated and removed from the site,

Drainase: Concentrated storm runoff must not be allowed to flow uncontrolled onto or over the native or fill slopes. Recommendations for controlling storm water are provided in the SURFACE DRAINAGE section of this report. Irrigation activities at the site should not be done in an uncontrolled or unreasonable manner. We recommend that landscaping be done with native and other drought tolerant plants that require minimum watering.

POST REPORT **SERVICES**

4. **Plan** Review

Grading, foundation, retaining wall and drainage plans should be reviewed by the Geotechnical Engineer during their preparation and prior to contract bidding to insure that

the recommendations of this report have been included and to provide additional recommendations, if needed.

5. Construction Observation and Testing

Field observation and testing must be provided during construction by a representative of Bauldry Engineering to enable them to form an opinion regarding the adequacy of the site preparation, the acceptability of fill materials, and the extent to which the foundation, retaining wall, drainage, and earthwork construction, including the degree of compaction, comply with the specification requirements. Any work related to foundation, retaining wall, drainage, or earthwork construction, or grading performed without the full knowledge of, and not under the direct observation of Bauldry Engineering, the Geotechnical Engineer, will render the recommendations of this report invalid.

6. Notification and Preconstruction Meeting

The Geotechnical Engineer should be notified at least four (4) working days prior to any site clearing and grading operations on the property in order to observe the stripping and disposal of unsuitable materials, and to coordinate this work with the grading contractor. During this period, a pre-construction conference should be held on the site, with at least the owner's representative, the grading contractor and one of our engineers present. At this time, the project specifications and the testing and construction observation requirements will be outlined and discussed.

EARTHWORK AND GRADING

7. Initial Site Preparation

The initial preparation of the site will consist of the removal of the remnants of the previous structures, buried foundations, abandoned underground utilities, concrete slabs, all subsurface obstructions, trees, and mot balls, as necessary. All debris must be completely removed. Septic tanks and leach lines, if found, must be completely removed. Soils contaminated with deleterious material should be removed from the site. The extent of this soil removal will be designated by the Geotechnical Engineer in the field.

All voids, including those created by the demolition of the structures, foundations, subsurface obstructions, utilities, septic tanks, leach lines, or trees and root balls must be backfilled with properly compacted non-expansive native soils that are free of organic and other deleterious materials or with approved import fill.

NOTE: Any abandoned wells encountered shall be capped in accordance with the requirements of the County Health Department. The strength of the cap shall be equal to the adjacent soil and shall not be located within 5 feet of a structural footing.

8. Stripping

Following the initial site preparation and demolition, surface vegetation and organically contaminated topsoil should be stripped from the area to be graded. This organic rich soil may be stockpiled for future landscaping. The required depth of stripping will vary with the time of year and must be based upon visual observations of the Geotechnical Engineer. It is anticipated that the depth of stripping may be 2 to 4 inches.

9. Subgrade Preparation

Upper Terrace - Option A: Following the stripping and backfilling of voids, all existing fill should be removed. The excavation beneath the building shall be deepened, where necessary, to create a uniform depth beneath the base of the footings. This may require the removal of native soils and sandstone. The earth materials exposed at the base of the excavation should be scarified, moisture conditioned and compacted. The excavated soil may then be replaced in thin lifts. There should be a uniform thickness of engineered fill under all foundation elements. Excavations to create uniform fill thicknesses should extend 3 feet beyond all building areas.

Upper Terrace - Option B: Following the stripping and backfilling of voids, the exposed soils in the building area should be removed to a minimum depth of 12 inches below existing grade or as designated by the Geotechnical Engineer. The fill soils in the parking and other exterior site improvement areas should then be removed to a minimum depth of 60 inches below the original existing grade or as designated by the Geotechnicai Engineer. The earth materials exposed at the base of the excavation should be scarified, moisture conditioned and compacted. The excavated soil may then be placed in thin lifts. Recompacted sections should extend 5 feet beyond all pavement and exterior site improvement areas.

Lower Terrace: Following the stripping and backfilling of voids, all existing fill should be removed. Following removal of the existing fill, the exposed native soils in the building and site improvement areas should be removed to a minimum depth of 12 inches below existing grade or as designated by the Geotechnical Engineer. The earth materials exposed at the base of the excavation should be scarified, moisture conditioned and compacted. The excavated soil may then be placed in thin lifts.

10. Compaction Requirements

The minimum compaction requirements are outlined in the table below:

Minimum Compaction Requirements

Percent of Maximum Dry Density	Location
95%	• All aggregate base and subbase in pavement areas • The upper 8 inches of subgrade in pavement areas • All utility trench backfill in pavement areas
90%	All remaining native soil and fill material

11. Moisture Conditioning

The moisture conditioning procedure should result in soil with a moisture content of 1 to 3 percent over optimum at the time of compaction. If the soil is dry water may need to be added. If grading is performed during or soon after the rainy season, the native soil may

require a diligent and active drying and/or mixing operation to uniformly reduce the moisture content to the levels required to obtain adequate compaction, Additionally, the base of excavations may require stabilization treatments prior to placement of fill sections.

12. Engineered Fill Material

The native soil and/or imported fill may be used as engineered fill for the project as indicated below.

Re-use of the native soil will require the following:

a. Segregation of all expansive soil encountered during the excavation operation. All excavated expansive soil should be removed from the construction area.
b. Removal of organics, deleterious material, and cobbles larger than *2* inches in size.
c. Thorough mixing and moisture conditioning of approved native soil.

All imported engineered fill material should meet the criteria outlined below.

a. Granular, well graded, with sufficient binder to allow utility trenches to stand open
b. Minimum Sand Equivalent of 20 and Resistance "R" Value of 30
c. Free of deleterious material, organics and rocks larger than 2 inches in size
d. Non-expansive with a Plasticity Index below *12*

Samples of any proposed imported fill planned for use on this project should be submitted to the Geotechnical Engineer for appropriate testing and approval not less than **4** working days before the anticipated jobsite delivery.

13. Erosion Control

The surface soils are classified as moderately to highly erodable. All finished and disturbed ground surface, including all cut and fill slopes, should be prepared and maintained to reduce erosion. This work, at a minimum, should include track rolling of the slope and effective planting. The protection of the slopes should be installed as soon as practicable **so** that a sufficient growth will be established prior to inclement weather conditions. It is vital that no slope be left standing through a winter 'season without the erosion control measures having been provided. The ground cover should be continually maintained to minimize surface erosion.

CUT **AND FILL** SLOPES

14. Cut and Fill Slope Height and Gradient

Cut and **fill** slopes shall not exceed a 2:1 (horizontal to vertical) gradient and a 5 foot vertical height unless specifically reviewed by the Geotechnical Engineer. All fill slopes should be constructed with engineered fill meeting the minimum density requirements of this report. The above recommended gradients do not preclude periodic maintenance of the slopes, as minor sloughing and erosion may take place.

15. Fill Slope Keyways

Fill slopes should be keyed into the native slopes with a 10 foot wide base keyway that is sloped negatively at least **2%** into the bank. The depth of the keyways will vary, depending on the materials encountered. It **is** anticipated that the depth of the keyways may be 3 to 6 feet, but at all locations shall be at least *2* feet into firm material. Subsequent keys may be required as the fill section progress upslope. The Geotechnical Engineer will designate keys in the field. See Figure *14* for general details.

16. Subsurface Drainage

Our recommended cut and fill slope gradients assume that the soil moisture is a result of precipitation penetrating the slope face, and not a result of subsurface seeps or springs, which can destabilize slopes with hydrostatic pressure. All groundwater seeps encountered during construction should be adequately drained to maintain stable slopes at the recommended gradients. Drainage facilities may include subdrains, gravel blankets, rock-filled surface trenches or horizontally drains. The Geotechnical Engineer will determine the drainage facilities required during the grading operations.

17. Cut and Fill Slope Setbacks

The toe of all fill slopes should be set back at least 8 feet horizontally from the top of all cut or steep native slopes.

FOUNDATIONS - GENERAL

18. General Design and Construction Recommendations

Two foundation options are provided, The spread footing option is only acceptable when the structure is entirely set back 20 feet from the existing steep slopes and when all the non-engineered fill is removed from beneath the building footprint as specified in the Option A subgrade preparation recommendations in the preceding EARTHWORK AND GRADING section.

The spread footings, or piers and grade beams, should contain steel reinforcement as determined by the Project Structural Engineer in accordance with applicable UBC or ACI Standards.

The footing excavations should be adequately moisture conditioned prior to placing concrete.

FOUNDATIONS - SPREAD FOOTINGS WITH OPTION A SITE PREPARATIONS

19. General Description *of* Foundation

It is our opinion that a reinforced concrete spread footing foundation, constructed in conjunction with the Option A site preparation procedures outlined in this report, is an appropriate system to support a structure that is set back a minimum 20 feet from the slopes. This system could consist of continuous exterior footings, in conjunction with interior isolated spread footings or additional continuous footings or concrete slabs. This option is not acceptable for buildings extending over the 20 foot set back or that are underlain in part by the existing non-engineered fill.

The footings should be bedded into properly compacted fill prepared in strict accordance with Option A of the EARTHWORK AND GRADING section of this report. Footings should be underlain by a uniform thickness of engineered fill. No existing non-engineered fill should remain below the building.

20. Minimum Footing Dimensions

Footing widths should be based on allowable bearing values but not less than the minimum requirements shown in the table below. Footing excavations must be observed by a representative of Bauldry Engineering before steel is placed and concrete is poured to insure bedding into proper material.

1 or 2 Story Structure	15 inches	18 inches
3 Story Structure	18 inches	24 inches

21. Allowable Bearing Capacity

Footings constructed to the given criteria may be designed for the following allowable bearing capacities:

- 1,800 psf for Dead plus Live Load
- a 1/3rd increase for Seismic or Wind Load

In computing the pressures transmitted to the soil by the footings, the embedded weight of the footing may be neglected.

FOUNDATION - PIER AND GRADE BEAM WITH OPTION B SITE PREPARATIONS

22. General

It is our opinion that end bearing cast-in-place reinforced concrete piers in conjunction with reinforced concrete grade beams is an appropriate foundation system to support buildings that extend closer to the slope than 20 feet or when the existing non-engineered fill beneath the building is not completely removed and replaced as an engineered fill.

23. End-Bearing Pier Design Criteria

The end bearing piers should be designed for the following criteria:

a. Minimum pier embedment should be 10 feet into competent sandstone. This will necessitate minimum pier depths of approximately 10 to 20 feet. Actual depths could depend upon a lateral force analysis performed by your structural engineer.

b. At-rest pressures against the upper section of the piers is 70 psf/ft of depth and acts on a plane which is 1½ times the pier diameter. Design for at-rest pressure acting on piers within 20 feet of the slope as follows.

Distance from Slope	Length of pier on which at-rest pressures act
0 to 5 ft.	upper 10 feet
6 to 10 ft.	upper 7.5 feet
11 to 15 ft.	upper 5 feet
16 to 20 ft.	upper 2.5 feet

c. Passive pressures of 250 psf/ft of depth can be developed in the soil, and 350 psf/ft of depth into bedrock Passive pressure can be designed as acting over a plane 1% times the pier diameter. Neglect passive pressure for those sections of the pier closer than 10 feet horizontally to the face of the slope, for those section upon which at-rest pressures act, or the top 2 feet of the pier; whichever is deeper.

d. Minimum pier size should be 24 inches in diameter and all pier holes must be free of loose material on the bottom.

e. The allowable end bearing capacity for a pier embedded 10 feet into sandstone is 8,000 psf, with a 1/3rd increase for wind or seismic loading.

f. It is possible that the piers will need to be cased during drilling and that the water will have to either be pumped before steel and concrete placement or the concrete placed through a tremie.

g. If the casing is pulled during the concrete pour, it must be Dulled slowly with a minimum of **4 feet** of casing remaining embedded within the concrete at all times.

h. If concrete is placed via a tremie, the end of the tube must remain embedded a minimum of 4 feet into the concrete at all times.

i. All pier construction must be observed by a representative of Bauldry Engineering. Any piers constructed without the full knowledge and continuous observation of Bauldry Engineering, will render the recommendations of this report invalid.

RETAINING WALLS AND LATERAL PRESSURES

24. Retaining Wall Foundations – Spread Footing

Retaining walls set back 20 feet from the face of the slope and underlain by engineered fill constructed in strict accordance with the Option B subgrade preparation recommendations provided in the EARTHWORK **AND GRADING** section of this report may be founded using a spread footing foundation. All footings should be embedded a minimum of 18 inches into firm engineered fill.

Retaining wall footings constructed in accordance with the preceding conditions may be designed for the following allowable bearing capacities. Should the footing sizes vary significantly from those provided below, supplemental design criteria should be provided.

Retaining Wall Footings

Footing Width	Embedment Depth	Bearing Capacity
3 feet	18 inches	2,400 psf
4 feet	18 inches	2,800 psf
5 feet	18 inches	3,200 psf

For resisting passive earth pressure use 250 psf/ft of depth. Neglect passive pressure in the top 18 inches of soil.

Design for a "coefficient of friction" of 0.35 between the base of the foundation and the soil.

25. Retaining Wall Foundations - Piers

Retaining walls constructed along the toe of the fill slope on the lower bench northwest of the proposed parking lot or in other areas along the slope should be founded on piers designed to the pier criteria provided in the FOUNDATION - PIER AND GRADE BEAM WITH OPTION B SITE PREPARATIONS section above.

26. Soldier Beam And Lagging Retaining Walls

Soldier pile retaining walls should be constructed with timber *or* concrete lagging spanning between steel H beams founded in cast-in-place concrete piers. The timber used as lagging should be preserved in accordance with CALTRANS Standard Specifications, Section 58.

27. Lateral Pressures

Retaining walls should be fully drained and designed using the following criteria:

a. When walls are free to yield an amount sufficient to develop the active earth pressure condition (about %% of height), design for active earth pressures as listed below. When walls are restrained at the top design for at-rest pressures.

Slope of Backfill	Active Earth Pressure	**At-Rest** Earth Pressure
Horizontal	45 psf/ft of depth	65 psf/ft of depth
2:1 (H:V)	60 psf/ft of depth	94 psf/ft of depth

b. For live or dead loads which transmit a force to the wall refer to Figure No. 15.

c. Retaining walls should be designed for the lateral seismic forces listed in the following table. The resultant seismic force on the wall acts at a point 0.6H up from the base of the wall. H is the height of the retained soil in feet. Lateral seismic forces are based on the Mononobe-Okabe method of analysis.

Restraint Condition	Resultant Seismic Force **(Ibs.)**
Free to Yield (active pressure condition)	10 H^2
Non-Yielding (at-rest pressure condition)	20 H^2

Should the slope behind the retaining walls be other than those outlined above, the active earth or at-rest pressures for the particular slope angle may be obtained by interpolation.

28. Retaining Wall Drains

The above criteria are based on fully drained conditions. We recommend the retaining wall be constructed with a drain meeting the following criteria:

a. The drain should be constructed using permeable material meeting the State of California Standard Specification Section 68-1.025, Class 1, Type A.

b. The permeable material should be a minimum of 12 inches in width and should extend to within 12 inches of the ground surface.

c. Mirafi 140 filter fabric, or equivalent, should be placed horizontally over the top of the permeable material and then compacted native soil placed to the ground surface.

d. A 4-inch diameter rigid perforated plastic or metal drainpipe should be placed 3 inches above the base of the permeable material.

e. The drain line and should be discharged to an approved location away from the footing area.

f. Weep holes that discharge in a dispersed manner may be an acceptable alternative.

29. Surface Drainage Above Retaining Walls

Water should not be allowed to flow over the top of retaining walls. A lined "V-ditch may be required adjacent to and along the top of walls to collect surface runoff from the slope. The "V"-ditch should transport the collected water to a sold pipe that discharges into a approved location away from the slopes, fill, retaining wall and other structures.

30. Compaction of Backfill

The area behind the wall and permeable material should be compacted with approved soil to a minimum relative dry density of 90%.

31. Water Proofing Retaining Walls

A water proofing system, including but not limited to water stops, bentonite board composite and/or concrete sealant or other appropriate options, should be considered to reduce moisture in below grade portions of the structure, as recommended by your architect. The retaining wall drain should not be considered to be waterproofing.

SOLDIER PIERS

32. Location and Purpose

The loose fill slopes along the northern edge of the terrace may potentially fail. A soldier pier retaining wall is an acceptable alternative for protecting the parking lot and other site improvements located within 20 feet of the slope. The piers should be constructed between the parking lot, or other site improvements, and the break-in-slope. To protect the largest expanse of land, the piers should be sited along the break-in-slope. The purpose of the soldier piers is to retard the retreat of the slope and help protect the parking lot and other site improvements from slope failure. The soldier piers will not protect the hillside down slope of the piers. It must be anticipated that the hillside down slope of the soldier piers may fail and expose the upper section of the soldier piers.

33. General Description

The soldier pier wall will consist of a single line of individual piers that form a continuous structure where the retained soil arches between the piers. Some loss of soil may occur between the piers if the downhill slope retreats and exposes the upper portion of the soldier piers. To prevent loss of soil from between the soldier piers it may be necessary to install lagging following exposure of the upper section of the soldier piers.

The project Geotechnical Engineer should be consulted if downhill slope failure exposes the soldier piers so that the failure conditions can be observed and supplemental recommendations can be provided, if necessary. Supplemental recommendations may include recommendations for lagging, tiebacks, etc. Supplemental recommendations Will depend on the failure conditions observed following pier exposure.

The piers should contain steel reinforcement as determined by the Project Structural Engineer.

34. Soldier Pier Design Criteria

Soldier piers along the terrace slopes should be designed for the following criteria:

a. Piers shall be embedded be a minimum of 10 feet into sandstone. Actual depths could be greater depending upon a lateral force analysis performed by your structural engineer.

b. Minimum pier size should be 18 inches in diameter and all pier holes must be free of loose material on the bottom. Actual pier diameters could be greater depending upon a lateral force analysis performed by your structural engineer.

c. The soldier piers should not be spaced a distance of more than 2 diameters from side to side (3 feet between piers for 18 inch piers, 4 feet between piers for 24 inch piers). Closer spacing may be acceptable.

d. The soldier piers should be designed to retain the upper soil portion of the slope. The upper section of the soldier piers should be designed as a cantilevered pier wall as follows:

Distance from Slope	Length of pier on which active pressures act
0 to 5 ft.	upper 10 feet
6 to 10 ft.	upper 7.5 feet

f. Passive pressures of 250 psf/ft of depth can be developed in the soil, and 350 psf/ft of depth into bedrock. For design purposes assume bedrock is at 10 feet below ground surface. Passive pressure can be designed as acting over a plane 1% times the pier diameter. Neglect passive pressure for those sections of the pier closer than 10 feet horizontally to the face of the slope or for those section upon which active pressures act; whichever is deeper.

g. Any live or dead loads which will transmit a force to the wall. Refer to Figure No. 15.

h. All pier construction must be observed by a Bauldry Engineering. Any piers constructed without the full knowledge and continuous observation of Bauldry Engineering, will render the recommendations of this report invalid.

The pier shafts should be drilled within 2% of vertical. To prevent the drill auger from drifting and encroaching upon the adjacent piers, we recommend that the piers be constructed using a fixed Kelly bar, or other equivalent system, that is capable of controlling drift and maintaining vertical tolerance.

SLAB-ON-GRADE FLOOR SYSTEMS

35. Slabsn-Grade Floor Design

Concrete slab-on-grade floors designed in conjunction with the pier and grade beam foundation should be designed as a pier supported structural mat.

Slab–on-grade floors may be used for ground level construction on engineered fill constructed in strict accordance with the Option B subgrade preparation recommendations provided in the EARTHWORK AND GRADING section of this report. Slabs may be structurally integrated with the footings or constructed as "free floating" slabs. Free floating slabs should be provided with a minimum ¼ inch felt separation between the slab and footings. Free floating slabs must be designed and constructed as completely independent of the foundation system.

Slab and mat thickness, reinforcement, doweling, and dummy joints or similar type crack control devices should be determined by the Project Structural Engineer.

36. Moisture Control – **Capillary** Break

All concrete slabs-on-grade and mat floor should be underlain by a minimum 4 inch thick capillary break of ¾ inch clean crushed rock. It is recommended that neither Class *2* baserock nor sand be employed as the capillary break material.

Where floor coverings are anticipated or vapor transmission may be a problem, a waterproof membrane should be placed between the granular layer and the floor slab in order to reduce moisture condensation under the floor coverings. A 2 inch layer of moist sand on top of the membrane will help protect the membrane and will assist in equalizing the curing rate of the concrete.

37. Subgrade Saturation

It is important that the subgrade soils be adequately moisture conditioned prior to concrete placement. Requirements for pre-wetting the subgrade soil will depend on soil type and seasonal moisture conditions, and will be determined by the Geotechnical Engineer at the time of construction.

UTILITY CONNECTIONS AND TRENCHES

38. Utility Connections

Utility lines connected to the pier supported structure should be designed to mitigate potential damage resulting from the settlement of the existing fill. Utility lines should be provided with flexible connections able to accommodate a few inches of soil settlement.

39. Utility Trench Set Backs

Utility trenches that are parallel to the sides of the building should be placed so that they do not extend below a line with a 2:1 (horizontal to vertical) gradient extending from the bottom outside edge of all footings or grade beams.

40. Utility Trench Backfill

Trenches may be backfilled with the native materials or approved import granular material with the soil compacted in thin lifts to a minimum of 95% of its maximum dry density in paved areas and 90% in other areas, Jetting of the trench backfill should be carefully considered as it may result in an unsatisfactory degree of compaction.

41. Shoring

Trenches must be shored as required by the local agency and the State of California Division of Industrial Safety construction safety orders.

SURFACE DRAINAGE

42. Surface Grades and Storm Water Runoff

Water must not be allowed to pond on building pads, parking areas or adjacent to foundations. Final grades should slope away from foundations such that water is rapidly transported to drainage facilities.

Concentrated surface water should be controlled using lined ditches, catch basins, and closed conduit piping, or other appropriate facilities, and should be discharged at an approved location away from structures and graded areas. We recommend that concentrated storm water be discharged to Soquel Avenue or an off-site storm drain system. Concentrated storm water must not be discharged on fill or steep native slopes. Storm water runoff systems should be provided with energy dissipators that minimize erosion, where applicable

43. Roof Discharge

All roof eaves should be guttered, with the outlets from the downspouts provided with adequate capacity to carry the storm water away from the structures and graded areas. We recommend that concentrated roof runoff be discharged to Soquel Avenue or an off-site storm drain system. Concentrated roof runoff must not be discharged on fill or steep

native slopes. Storm water runoff systems should be provided with energy dissipators that minimize erosion, where applicable

44. Protection of Cut and Fill Slopes

Cut and fill slopes shall be constructed so that surface water will not be allowed to drain over the top of the slope face. This may require berms or curbs along the top of fill slopes and surface drainage ditches above cut slopes.

45. Maintenance and Irrigation

The building and surface drainage facilities must not be altered, and there should be no modifications of the finished grades at the project site without first consulting Bauldry Engineering, the Project Geotechnical Engineer.

Irrigation activities at the site should not be done in an uncontrolled or unreasonable manner. We recommend that landscaping be done with native and drought tolerant plants.

46. Percolation Pits

Because they would increase the potential for slope failure, we do not recommend the use of percolation pits for the disposal of surface water at this site.

PAVEMENT DESIGN

47. General Pavement Recommendations

The design of the pavement section was beyond our scope of services for this project. To have the selected pavement sections perform to their greatest efficiency, it is very important that the following items be considered:

a. Properly moisture condition the subgrade and compact it to a minimum of 95% of its maximum dry density, at a moisture content 1-3% over the optimum moisture content.

b. Provide sufficient gradient to prevent ponding of water.

c. Use only quality materials of the type and thickness (minimum) specified. All baserock must meet CALTRANS Standard Specifications for Class 2 Aggregate Base, and be angular in shape.

d. Compact the base and subbase uniformly to a minimum of 95% of its maximum dry density.

e. Place the asphaltic concrete only during periods of fair weather when the free air temperature is within prescribed limits.

f. Maintenance should be undertaken on a routine basis.

Environmental Review Inital Stuc
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APPLICATION 02-0151

ROGERS E. JOHNSON & ASSOCIATES
CONSULTING ENGINEERING GEOLOGISTS
41 Hangar Way, Suite B
Watsonville, California 95076
e-mail: reja@bigfoot.com
Ofc (831) 728-7200 • Fax (831) 728-7218

FOCUSED GEOLOGIC INVESTIGATION
ANIMAL HOSPITAL OF SOQUEL
2651 SOQUEL AVENUE
SANTA CRUZ, CALIFORNIA
SANTA CRUZ COUNTY APN 025-131-13

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based on a M_w 7.9 earthquake centered on the San Andreas fault 14.5 kilometers northeast of the site. Note that this value is comparable to the "maximum considered earthquake ground motion" calculated by the FEMA method.

Naeim and Anderson (1993) found that "effective peak acceleration" (EPA) is more typically about 75 percent of the peak acceleration. Effective peak acceleration is comparable to "repeatable high ground acceleration" (after Ploessel and Slossen, 1974) and is generally considered to represent the large number of lower amplitude peaks on an accelerogram recording. This suggests that the recommended design peak ground acceleration of 0.56g would generate an EPA of approximately 0.42g.

Following the guidelines of the California Division of Mines and Geology (1997), we recommend using a minimum seismic coefficient ("k") of 0.15 in pseudostatic slope stability analysis (as necessary). Depending upon site-specific conditions (i.e., steep slopes, weakly cemented deposits and high ground accelerations), this value may be increased. Ashford and Sitar (2002) recommend a process for the determination of a seismic coefficient ("k") specifically for coastal bluff-top settings, which is somewhat analogous to the subject property.

The duration of strong shaking is dependent on magnitude. Abrahamson and Silva (1996) have suggested a relationship between magnitude, distance and duration of "significant" or strong shaking. On the basis of their relationship, the duration of strong shaking associated with a magnitude 7.9 earthquake occurring 14.5 kilometers from the site is estimated to be about 31 seconds. This long duration of seismic shaking may be even more critical as a design parameter than the peak acceleration itself.

CONCLUSIONS AND RECOMMENDATIONS

1. There is a high potential for fill settlement under loading from new structures built at the site. The fill extends to a maximum depth of approximately 11 feet; the thickness of the fill is detailed on our geologic cross sections (boring logs are provided within Appendixes A and B). We recommend that the animal hospital be built on a foundation that derives support from the underlying Purisima Formation bedrock. No foundation support should be assumed within the artificial fill. Alternately, the artificial fill could be entirely removed and replaced as properly engineered fill, under the supervision of the project geotechnical engineer.

2. The variable thickness and condition of the fill may influence foundation conditions for sidewalks; driveways, parking areas, etc. The geotechnical engineer should devise a plan to mitigate potential settlement problems.

3. We recommend a minimum setback of 20 feet from the steep slope backing the property for all permanent structures, unless appropriate remediation of the fill slope is performed.

4. Drainage from improved surfaces, such as walkways, patios, roofs and driveways, should be collected in impermeable gutters or pipes and carried to the established storm sewer at Soquel Avenue. At no time should any concentrated discharge be allowed to spill directly onto the ground or down the slope to Arana Gulch. In general, irrigation should be kept to a minimum and the site should be graded and sloped to drain towards Soquel Avenue.

5. The project engineers and architect should review our seismic shaking parameters and choose a value appropriate for their particular analyses.

6. We request the privilege of reviewing all new geotechnical engineering, civil engineering, drainage, and architectural reports and plans pertaining to the proposed development.

INVESTIGATION LIMITATIONS

1. The conclusions and recommendations contained herein are based on probability and in no way imply that the building site and slope below will not possibly be subjected to ground failure or seismic shaking causing significant damage. The report does suggest that using the site for residential purposes in compliance with the recommendations contained herein is an acceptable risk.

2. This report is issued with the understanding that it is the duty and responsibility of the owner or his representative or agent to ensure that the recommendations contained in this report are brought to the attention of the architect and engineer for the project, incorporated into the plans and specifications, and that the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.

3. If any unexpected variations in soil conditions or if any undesirable conditions are encountered during construction, Rogers E. Johnson and Associates should be notified so that supplemental recommendations can be given.

County of Santa Cruz

PLANNING DEPARTMENT
701 OCEAN STREET 4TH FLOOR SANTA CRUZ CA 95060-4000
(831) 454-2580 FAX (831) 454-2131 TDD (831) 454-2123
TOM BURNS, DIRECTOR

January 22, 2004

Ron Powers
100 Doyle Street, Suite E
Santa Cruz, CA 95062

SUBJECT: Review of Geotechnical Investigation by Soils Engineer,
Bauldry Engineers April 2003 with updates
Review of the Engineering Geology Report
Rogers Johnson and Associates April 2003 with updates
Project No.: 0316-SZ972-H51
APN: 025-131-13, Application No.: 03-0151

Dear Owner/Applicant:

Thank you for submitting the subject Soils Engineering and Engineering Geology Reports. The Reports was reviewed for conformance with County Guidelines for Soils/Geotechnical and Engineering Geology Reports and also for completeness regarding site-specific hazards and accompanying technical reports. The purpose of this letter is to inform you that the Planning Department *has* accepted the reports and that the following recommendations will become permit conditions:

1. All report recommendations must be followed.

2. An engineered foundation and grading plan(s) must be submitted with the Building Plans.

3. Final plans shall include an engineered drainage plan.

4. Final plans shall reference the approved Soils Engineering Report and shall state that all development shall conform to the Report recommendations.

5. Prior to building permit issuance, the Soils Engineer must submit a brief building, grading and drainage plan review letter to Environmental Planning staff stating that the plans and foundation design are in general conformance with the Report recommendations. If. upon plan review, the Engineer requires revisions or additions, the applicant shall submit to Environmental Planning two copies of revised plans and a final plan review letter stating that the plans, as revised, conform to the Report recommendations.

Environmental Review Initial Study
ATTACHMENT 9, 1 of 3
APPLICATION 03-0151

6. The Soils Engineer must inspect all foundation excavations, and a letter of inspection must be submitted to Environmental Planning staff and your building inspector prior to pour of concrete.

7. For all projects, the Soil Engineer must submit a final letter report to Environmental Planning staff regarding conformance with all technical recommendations of the Soils Report prior to final inspection. For all projects with engineered fills, the Soils Engineer must submit a final grading report to Environmental Planning regarding the conformance with all technical recommendations of the Soils Report prior to final inspection.

This Soils Report acceptance is limited to the technical adequacy of the Report. Other issues, such as planning, building, septic or sewer approvals, may still require resolution.

The Planning Department will check final development plans to verify project consistency with Report recommendations and Permit conditions prior to building permit issuance. If not already done, please submit two copies of the approved Soils Report at the time of building permit application for attachment to your building plans.

Please call 454-3175 if we can be of any assistance

Sincerely,

Joe Hanna
County Geologist

Kevin Crawford
Senior Civil Engineer

Cc: Robin Bolster, Resource Planner
Building Plan Check
Soils Engr

Environmental Review Initial Study
ATTACHMENT 9, 2 of 3
APPLICATION 03-0151

FINAL **SOILS** –GRADING REPORTS

Prior to final inspection clearance a final soils report must be prepared and submitted for review for all projects with engineered fills. These reports, at a minimum, must include:

1. Climate Conditions

   Indicate the climate conditions during the grading processes and indicate any weather related delays to the operations.

2. Variations **of Soil** Conditions **and/or** Recommendations

   Indicate the accomplished ground preparation including removal of inappropriate soils or organic materials, blending of unsuitable materials with suitable soils, and keying and benching of the site in preparation for the fills.

3. Ground Preparation

   The extent of ground preparation and the removal of inappropriate materials, blending of soils, and keying and benching of fills.

4. Optimum **Moisture/Maximum** Density Curves

   Indicate in a table the optimum moisture maximum density curves. Append the actual curves at the end of the report.

5. Compaction Test Data

   The compaction test locations must be shown on same topographic map as the grading plan and the test values must be tabulated with indications of depth of test from the surface of final grade, moisture content of test, relative compaction, failure of tests (i.e. those less than 90% of relative compaction), and re-testing of failed tests.

6. Adequacy **of** the **Site for** the intended **Use**

   The **soils** engineer must re-confirm her/his determination that the site is safe for the intended use.

Environmental Review Inital Study
ATTACHMENT 9, 3 of 3
APPLICATION 03-0151

BOWMAN & WILLIAMS
CONSULTING CIVIL ENGINEERS
A CALIFORNIA CORPORATION
1011 CEDAR ▪ PO BOX 1621 ▪ SANTA CRUZ CA 95061-1621
PHONE (831) 426.3560 FAX (831) 426 9182 www bowmanandwilliams com

DRAINAGE CALCULATIONS

Prepared for

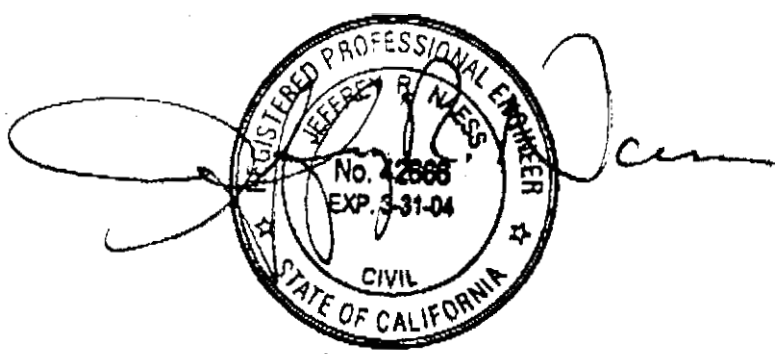
Soquel Veterinary Hospital

APN: 025-131-13

Application No. 03-0151

BOWMAN & WILLIAMS FILE NO. 22600

September 2003



10.13.03

References:

1. County of Santa Cruz, Design Criteria, Part 3, Storm Drainage

2. **ASCE** Special Report No. 43., Practices in Detention of Urban Stoimwater Runoff

Environmental Review Inital Study
ATTACHMENT 10.1 of 6
APPLICATION 03-0151

BOWMAN & WILLIAMS
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1011 CEDAR • P.O. BOX 1621 • SANTA CRUZ, CA 95061
(831) 426-3560 • FAX (831) 426-9182
www.bowmanandwilliams.com

JOB 22600
SHEET NO. 1 OF
CALCULATED BY JRN DATE 9.8.03
CHECKED BY DATE
SCALE

SOQUEL VETERINARY HOSPITAL
DRAINAGE CALCULATIONS

AFTER REVIEWING EXISTING FLOOD PROFILES FOR ARANA CREEK IT WAS DETERMINED THAT THE SPILLWAY AND CULVERT UNDER LA FONDA AVENUE ARE A RESTRICTION.

WE HAVE THEREFORE OPTED TO PROVIDE ONSITE DETENTION TO RESTRICT THE FLOW LEAVING THE SITE TO THE PRE-DEVELOPMENT LEVEL.

USE $P_{60} = 1.5$ IN/HR
USE $I = 1.15$ IN/HR FOR 10 MIN. T_C (10 YEAR STORM)
USE 13,913 SQ.FT. OF DRAINAGE AREA WITH 640 SQ.FT. OF PERVIOUS AREA.

$C_{PRE} = .30$

$C_{POST} = \frac{13,273(.9) + 640(.3)}{13,913} = .86$

SEE DETENTION CALCULATIONS ON SHEET 2, FOR A 25 YEAR STORM USING A 10 YEAR PRE-DEVELOPMENT RELEASE RATE.

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APPLICATION 03-0151

STORAGE VOLUME = 640 C.F.

USE 3' DIA UNDERGROUND PIPES, $A = \frac{\pi 3^2}{4} = 7.07$ FT^2

$L = \frac{640}{7.07} = 90.5$ L.F. OF PIPE, USE 2-45' LENGTHS WITH ELBOWS. (EXTRA 1 FT OF PIPE VOLUME IN CONNECTION)

FINAL DESIGN OF CONTROL BOX TO BE SUBMITTED WITH CONSTRUCTION DRAWINGS.

SANTA CRUZ VETERINARY HOSPITAL
DETENTION VOLUME CALCULATION

PRE-DEVELOPMENT CONDITON:	10 YEAR STORM		25 YEAR STORM		
AREA TO BE DEVELOPED	0.32	**acres**	0.32	acres	
RUNOFF COEFFICIENT (AVERAGE)	0.30		0.33		(Ca=1.1)
TIME OF CONCENTRATION	10.00	min	10.00	min	
RAINFALL INTENSITY FOR Q10	2.15	in/hr	2.58	in/hr	(Ia=1.2)
PRE-DEVELOPMENT RUN-OFF:	0.21	cfs	0.27	cfs	

POST DEVELOPMENT CONDITON:	10 YEAR STORM		25 YEAR STORM	
AREA TO BE DEVELOPED	0.32	acres	**0.32**	**acres**
RUNOFF COEFFICIENT (AVERAGE)	0.86		**0.95**	
TIME OF CONCENTRATION	10.00	min	10.00	min

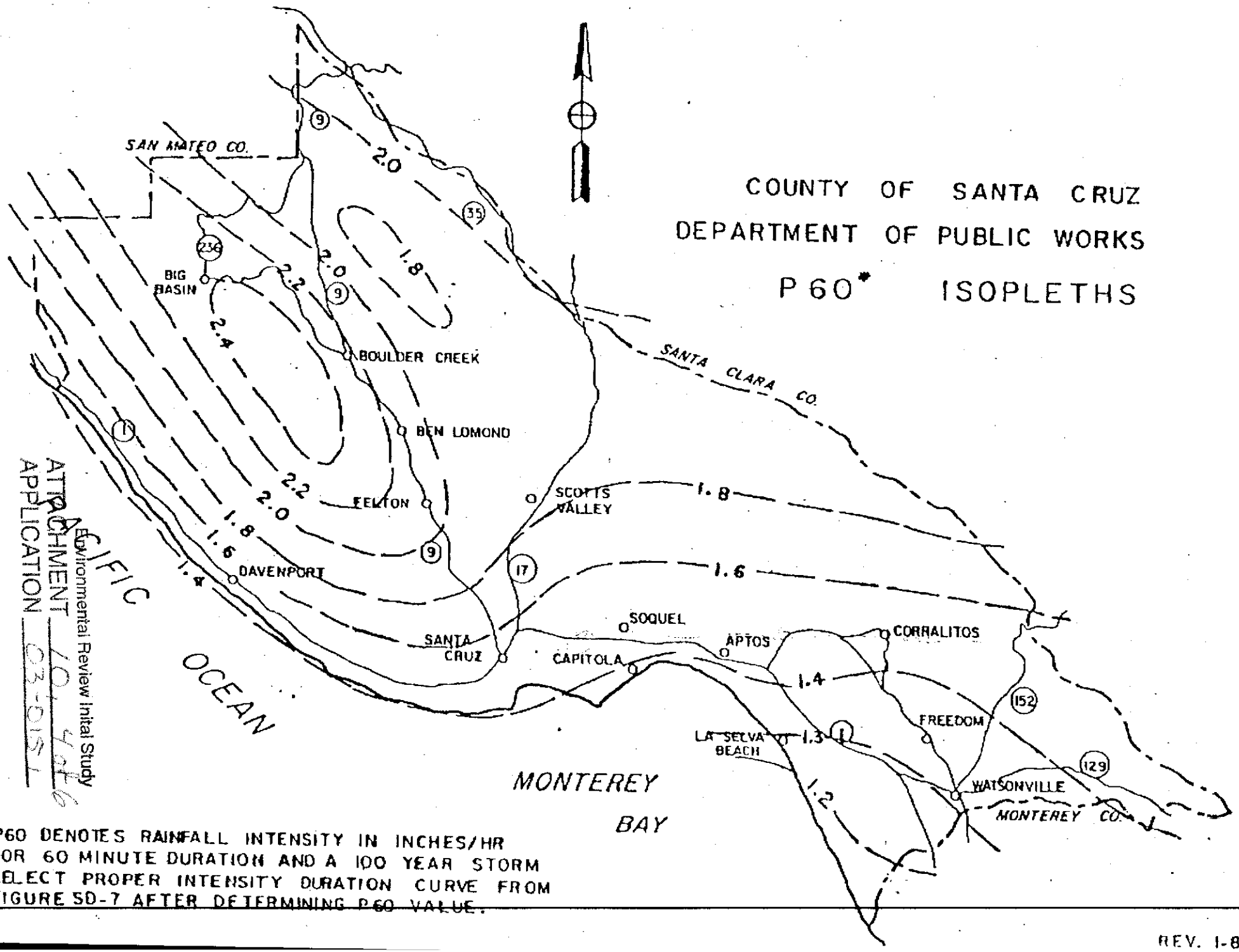
10 YEAR STORM RETENTION VOLUME W/10 YEAR PRE DEVELOPMENT RELEASE RATE

DURATION (MIN)	10 YEAR INTENSITY (IN/HR)	POST-OVLPMNT RUNOFF (Q10)	RUNOFF VOLUME (CF)	RELEASED VOLUME(CF) (Qpre)	REQ'D STORAGE (CF)	"BOTT"	"TOP"
10.00	2.15	0.59	355	**204**	151	20.00	13.04
15.00	1.81	0.50	**448**	**258**	160	25.00	1672
20.00	1.60	0.44	52.5	313	215	3000	20.63
30.00	135	0.37	666	426	240	40.00	28.86
40.00	1 19	0.33	785	540	245	5000	3740
50.00	1.08	0.30	892	658	236	60.00	46.14
60.00	1.00	0 27	990	***713***	**217**	70.00	5501
70.00	0.99	0.27	1145	895	250	80.00	64.89
			MAX VOLUME		250		
	W/ 1.25 SAFETY FACTOR		MAXVOLUME		**312**		

25 YEAR STORM RETENTION VOLUME W/10 YEAR PRE-DEVELOPMENT RELEASE RATE

DURATION (MIN)	25 YEAR INTENSITY (INIHR)	POST. OVLPMNT RUNOFF (Q25)	RUNOFF VOLUME (CF)	RELEASED VOLUME(CF) (Qpre)	REQD STORAGE (CF)	"BOTT"	"TOP"
10.00	2.59	0.70	469	215	254	20.00	**14** 73
15.00	2.17	0.66	591	270	321	25.00	18 73
20.00	1.92	0.58	697	327	370	30.00	***22*** 90
30.00	**1.62**	0.49	879	**442**	436	40.00	**31** 56
40.00	1.43	0.45	1038	559	477	50.00	40 45
50.00	1.30	0.39	1177	**677**	500	60.00	49 50
80.00	1.20	0.38	1306	795	511	70.03	56 65
70.00	1.12	0.34	1427	914	513	80.00	67 87
80.00	1.06	0.32	1540	1112	**428**	90.00	90 00
			MAXVOLUME		513		
	W/ 1 25 SAFETY FACTOR		MAX VOLUME		641		

Environmental Review Inital Study
ATTACHMENT 10 3 & 6
APPLICATION 03-0151



ATTACHMENT 10
APPLICATION 03-0151
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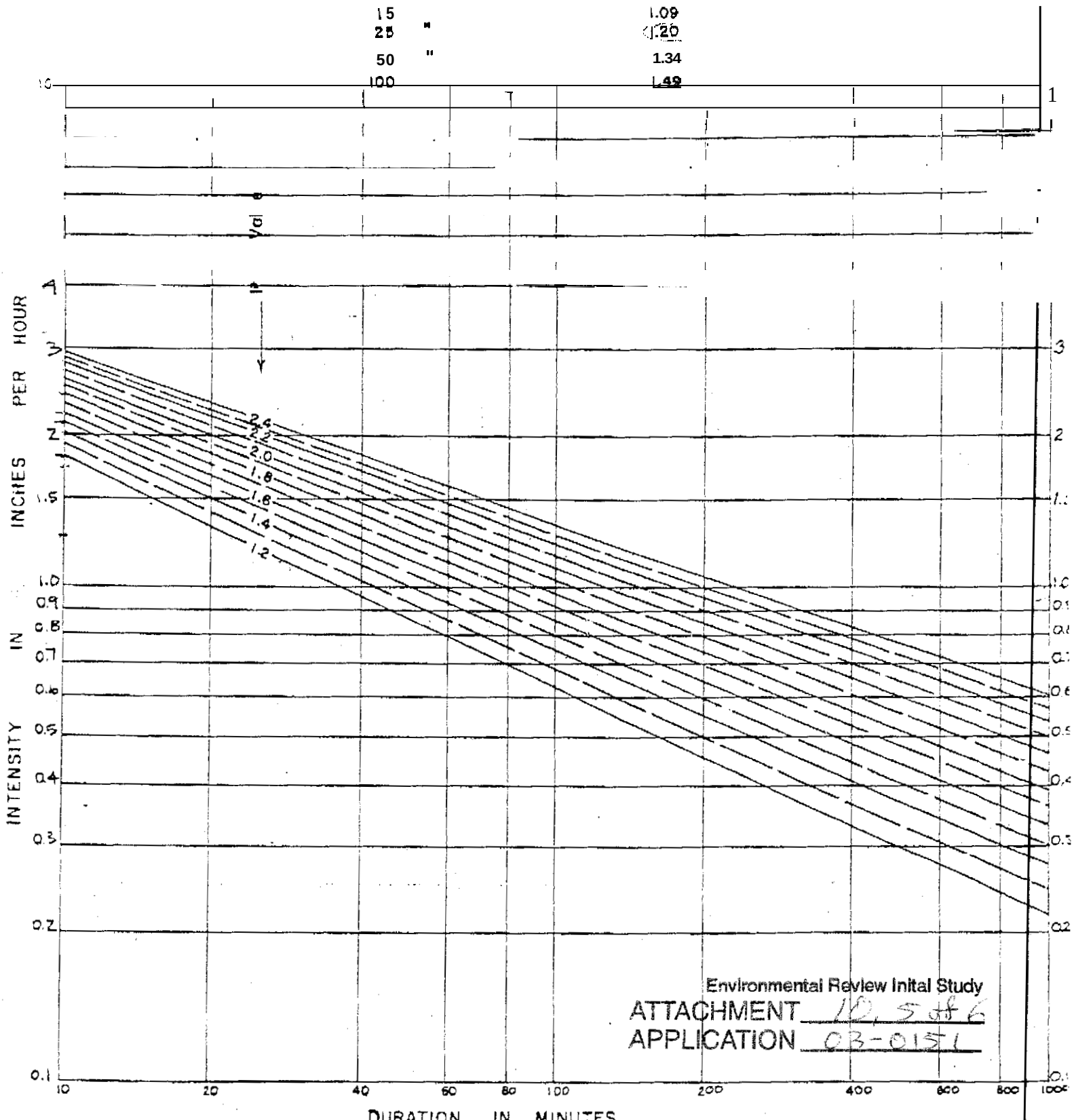
*P60 DENOTES RAINFALL INTENSITY IN INCHES/HR FOR 60 MINUTE DURATION AND A 100 YEAR STORM SELECT PROPER INTENSITY DURATION CURVE FROM FIGURE SD-7 AFTER DETERMINING P60 VALUE.

To convert curve intensities to return periods other than 10 years multipy curve intensities by the following factors.

	Factors
5	0.84
15	1.09
25	1.20
50	1.34
100	1.49

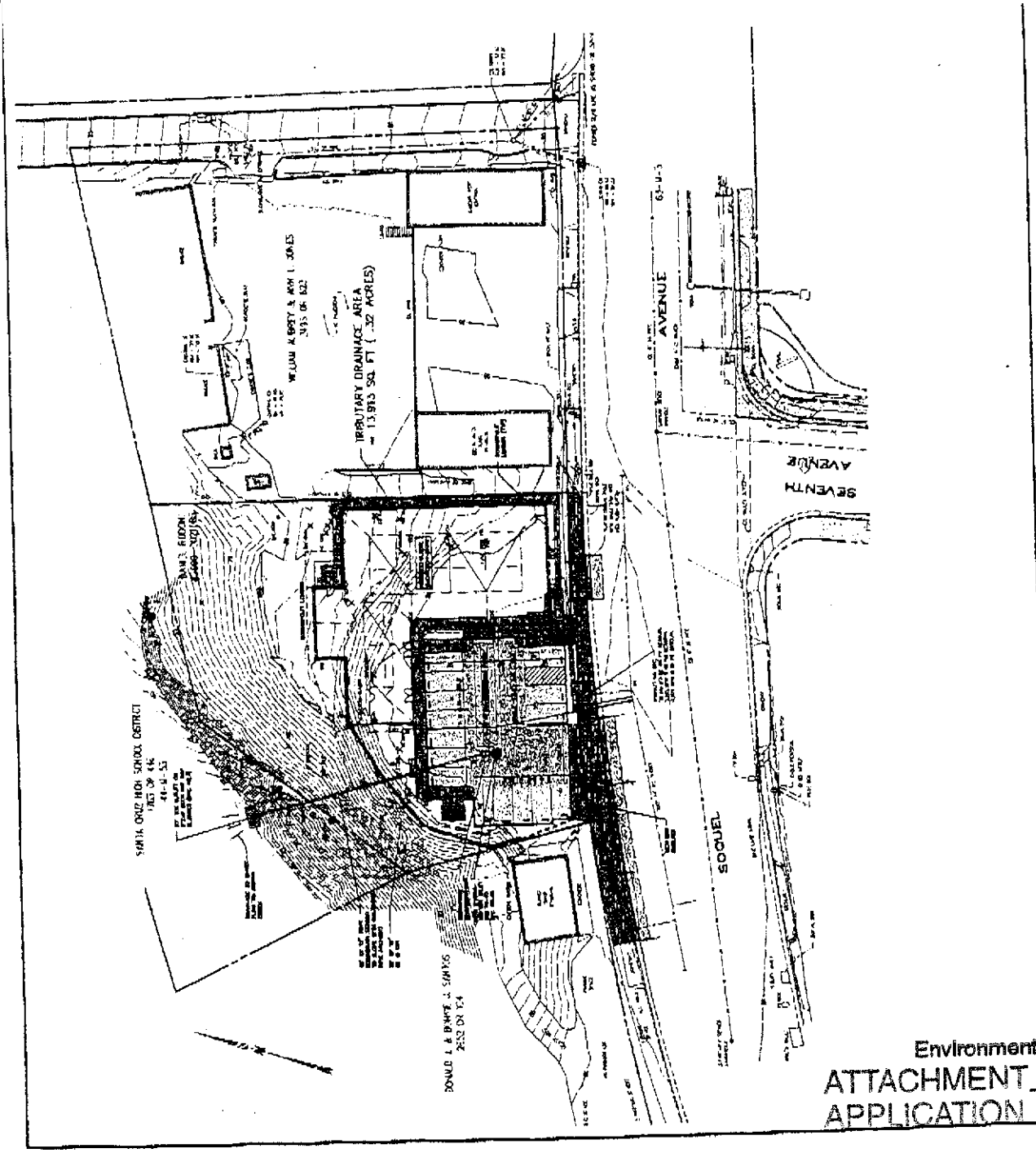


Environmental Review Inital Study
ATTACHMENT 10, 5 of 6
APPLICATION 03-015L

NOTE : SEE FIGURE 1 FOR P60 VALUES

RAINFALL INTENSITY DURATION CURVES
10 YEAR RETURN PERIOD
FIG. 6D-7

REV. 8-76



Environmental Review Inital Study
ATTACHMENT 10, 6 of 6
APPLICATION 03-0151

COUNTY OF SANTA CRUZ | **Planning Department**

INTEROFFICE MEMO

APPLICATION NO: **03-0151**

Date: May 1,2003

To: John Schlagheck, Project Planner

From: Larry Kasparowitz, Urban Designer

Re: Design Review for an animal hospital at 2651 Soquel Avenue, Santa Cruz (Samuel and Carol Robins / owner, Carol Robins (Rich Beale and Associates) / applicant)

COMPLETENESS ISSUES

- The plans as submitted are complete enough for Design Review.

GENERAL PLAN/ZONING CODE ISSUES

Design Review Authority

13.11.040 Projects requiring design review.

(e) All commercial remodels or new commercial construction.

Design Review Standards

13.11.072 Site design.

Evaluation Criteria	Meets criteria In code (✔)	Does not meet criteria (✔)	Urban Designer's Evaluation
Building siting in terms of its location and orientation	✔		
Building bulk, massing and scale	✔		
Parking location and layout	✔		
Relationship to natural site features and environmental influences	✔		
Landscaping	✔		
Streetscape relationship	✔		
Street design and transit facilities	✔		

Environmental Review Initial Study
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structures			
Natural Site Amenities and Features			
Relate to surrounding topography	✔		
Retention of natural amenities	✔		
Siting and orientation which takes	3		
Ridgeline protection			N/A
Views			
Protection of public viewshed	✔		
Minimize impact on private views	✔		
Safe and Functional Circulation			
Accessible to the disabled, pedestrians, bicycles and vehicles	✔		
Solar Design and Access			
Reasonable protection for adjacent properties	✔		
Reasonable protection for currently occupied buildings using a solar energy system	✔		
Noise			
Reasonable protection for adjacent properties	✔		

13.11.073 Building design.

Evaluation Criteria	Meets criteria In code (✔)	Does not meet criteria (✔)	Urban Designer's Evaluation
Compatible Building Design			
Massing of building form	✔		
Building silhouette	✔		
Spacing between buildings			N/A
Street face setbacks	✔		
Character of architecture	✔		
Building scale	✔		
Proportion and composition of projections and recesses, doors and windows, and other features	✔		
Location and treatment of entryways	✔		
Finish material, texture and color	✔		
Scale			

Environmental Review Inital Study
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Scale is addressed on appropriate levels	✔		
Design elements create a sense of human scale and pedestrian	✔		
Building Articulation			
Variation in wall plane, roof line, detailing, materials and siting	✔		
Solar Design			
Building design provides solar access that is reasonably protected for adjacent properties	✔		
Building walls and major window areas are oriented for passive solar and natural lighting			

13.11.074 Access, circulation and parking.

Parking			
Minimize the visual impact of pavement and parked vehicles.	✔		
Parking design shall be an integral element of the site design.	✔		
Site buildings toward the front or middle portion of the lot and parking areas to the rear or side of the lot is encouraged where appropriate.	✔		
Lighting			
All site, building, security and landscape lighting shall be directed onto the site and away from adjacent properties.			***Suggest* as *Condition of Approval.***
Area lighting shall be high-pressure sodium vapor, metal halide, fluorescent, or equivalent energy-efficient fixtures.			***Suggest* as *Condition of Approval.***
All lighted parking and circulation areas shall utilize low-rise light standards or light fixtures attached to the building. Light standards to a maximum height of 15 feet are allowed.			***Suggest as Condition of Approval.***
Building and security lighting shall be integrated into the building design.			***Suggest* as *Condition of Approval.***
Light sources shall not be visible form adjacent properties.			***Suggest as Condition of Approval.***

A minimum of one tree for each five parking spaces should be planted along each single or double row of	✔		
A minimum of one tree for each five parking spaces shall be planted along rows of parking.	✔		
Trees shall be dispersed throughout the parking lot to maximize shade and visual relief.	✔		
At least twenty-five percent (25%) of the trees required for parking lot screening shall be 24-inch box size when planted; all other trees shall be 15 gallon size or larger when planted.	✔		
Parking Lot Design			
Driveways between commercial or industrial parcels shall be shared where appropriate.			**N/A**
Avoid locating walls and fences where they block driver sight lines when entering or exiting the site.	✔		
Minimize the number of curb cuts.	✔		
Driveways shall be coordinated with existing or planned median openings.			**N/A**
Entry drives on commercial or industrial projects greater than 10,000 square feet should include a 5-foot minimum net landscaped median to separate incoming and out aoina traffic, where appropriate			**N/A**
Service Vehicles/Loading Space. Loading space shall be provided as required for commercial and industrial		✔	*An area should be denoted (the end of the parking?) for service onl,.*
Where an interior driveway or parking area parallels the side or rear property line, a minimum 5-foot wide net landscape strip shall be provided between the driveway and the property line	✔		
Parking areas shall be screened form public streets using landscaping, berms, fences, walls, buildings, and other means, where appropriate.	✔		

Environmental Review Inital Study
ATTACHMENT 11, 4 of 6
APPLICATION 03-0151

Bicycle parking spaces shall be provided as required. They shall be appropriately located in relation to the major activity area.	✔		
Reduce the visual impact and scale of interior driveways, parking and paving.	✔		
to accent the importance of driveways from the street, frame the major circulation aisles, emphasize pedestrian pathways, and provide shade and screening.	✔		
Parking lot landscaping shall be designed to visualiy screen parking from public streets and adjacent uses.			NIA
Parking lots shall be iandscaped with large canopy trees.	✔		
A landscape strip shall be provided at the end of each parking aisle.	✔		
A minimum 5-foot wide landscape strip (to provide necessary vehicular back-out movements) shall be provided at dead-end aisles.			NIA
Parking areas shall be landscaped with large canopy trees to sufficiently reduce glare and radiant heat from the asphalt and to provide visual relief from large stretches of pavement.	✔		
Variation in pavement width, the use of texture and color variation is paving materials, such as stamped concrete, stone, brick, pavers, exposed aggregate, or colored concrete is encouraged in parking lots to promote pedestrian safety and to minimize the visual impact of large expanses of pavement.	✔		
As appropriate to the site use, required landscaped areas next to parking spaces or driveways shall be protected by a minimum six-inch high curb or wheel stop, such as concrete, masonry, railroad ties, or other durable	✔		
On-site pedestrian pathways shall be provided form street, sidewalk and parking areas to the central use area. These areas should be deiineated from the parking areas by walkways, landscaping, changes in paving	✔		

materials, narrowing of roadways, or other design techniques.			
Plans for construction of new public facilities and remodeling of existing facilities shall incorporate both architectural barrier removal and physical building design and parking area features to achieve access for the physically disabled.		✔	*A loading area must be adjacent (on the passenger side) to the disabled parking space. Other requirements may apply regarding path of travel.*
Separations between bicycle and pedestrian circulation routes shall be utilized where appropriate.	✔		

Environmental Review Initial Study
ATTACHMENT 11 6 of 6
APPLICATION 03-0151

County of Santa Cruz

PLANNING DEPARTMENT

701 OCEAN STREET, SUITE 400, SANTA CRUZ, CA 950604073
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123
ALVIN D. JAMES, DIRECTOR

PROJECT COMMENT SHEET

DATE: April 28,2003

IN BUILDING:

1 Supervisor Mardi Wormhoudt

TO BE MAILED:

___ City of	___ Cal Trans
1 Santa Cruz City Water	1 Transit District
___ School District	___ Department of Fish and Game
___ Sanitation	___ Pacific Bell
___ Other	___ Pacific Gas & Electric
___ Other	1 ~~Transportation Commission~~

FROM: DEVELOPMENT REVIEW DIVISION
PROJECT PLANNER: John Schlagheck 454-3012
SUBJECT APN: ~~025-013-13~~ 025-131-13
APPLICATION NUMBER: 03-0151
SEE ATTACHED FOR PROJECT DESCRIPTION

THE ATTACHED APPLICATION FOR A DEVELOPMENT PERMIT, LAND DMSION PERMIT, GENERAL PLAN AMENDMENT HAS BEEN RECEIVED BY THE PLANNING DEPARTMENT.

If you have any comments, please contact the planner or submit written comments below:

Minimum 1.5" meter required. Need to review landscape plan for requirements. All backflow prevention devices must be installed within 5' of meter(s). Info sent to applicant 5/13/03

Reviewer's name (not initials): Mary Fisher

Environmental Review Inital Study
ATTACHMENT 12, 1 of 3
APPLICATION 03-0151

Return to Project Planner by this date: May 16.2003

MF (Faxed to us)

CITY OF SANTA CRUZ

WATER DEPARTMENT

Water Conservation Office
809 Center Street, Room 101
Santa Cruz, CA 95060
Phone: (831) 420-5230
FAX: (831) 420-5231

May. 16, 03

Cathy Graves, Principal Planner
County of Santa Cruz
Planning Department
701 Ocean Street, Suite 400
Santa Cruz, CA 95060-4073

Subject: Review for Application No. 03-0151
APN: 025-131-13
2651 Soquel Ave
Soquel Animal Hospital

Dear Ms Graves;

Thank you for sending the above project to the Santa *Cruz* Water Department for our review. Water Conservation has reviewed the plan and found much of the plan to he consistent with the City of Santa Cruz's Water Efficient Landscape Ordinance. I do have the following comments and would appreciate it if you advise the applicant of the following:

1. The proposed plant list appears to meet the City's landscape water conservation standards. However, the planting plan does not specify the variety of turf grass. Turf varieties must be moderate water using varieties, such as hard and tall fescue.

2. A complete imgation plans is required for this project. The plan should include the location, type and size of all components of the imgation system, including the point of connection to the water system, main and lateral lines, the automatic controller, valves, sprinkler heads or emitters, backflow prevention devices, and related imgation equipment. Each imgation station should be clearly identified by station number, flow rate in gallons per minute, and valve size.

Environmental Review Inital Study
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APPLICATION 03-0151

3. The irrigation plan should incorporate the following: Drip irrigation should be used in sloping areas. Spray irrigation must be used only in areas where irrigation water will not run-off site onto pavement. Spray irrigation must be set back from pavement by a two-foot landscape treatment that is not spray irrigated.

4. This is a commercial project with landscape area under 5,000 square feet, and does require an irrigation meter. **A** private sub-meter is acceptable and must be shown on the irrigation plans located after the POC and before the first irrigation valve.

5. Complete planting and irrigation plans are required at the time of the application for water service.

Please have the applicant or his landscape architect contact me at (831) 420-6217 if I can be of assistance or if there are any further questions.

Sincerely,

F. Graziano

Francesca Graziano
Water Conservation Representative

cc: Water Engineering

Environmental **Review** Inital Study
ATTACHMENT 12, 3 of 3
APPLICATION 03-0151

SANTA CRUZ COUNTY SANITATION DISTRICT

INTER-OFFICE CORRESPONDENCE

DATE: May 14, 2003

TO: Planning Department, ATTENTION: JOHN SCHLAGHECK

FROM: Santa Cruz County Sanitation District

SUBJECT: SEWER AVAILABILITY AND DISTRICT'S CONDITIONS OF SERVICE FOR THE FOLLOWING PROPOSED DEVELOPMENT:

APN: 25-013-13 APPLICATION NO.: 03-0151

PARCEL ADDRESS: 2651 SOQUEL AVENUE, SANTA CRUZ

PROJECT DESCRIPTION: ANIMAL HOSPITAL

Sewer service is available for the subject development upon completion of the following conditions. This notice is effective for one year from the issuance date to allow the applicant the time to receive tentative map, development *or* other discretionary permit approval. If after this time frame this project has not received approval from the Planning Department, a new sewer service availability letter must be obtained by the applicant. Once a tentative map is approved this letter shall apply until the tentative may approval expires.

Proposed location of on-site sewer lateral(s), clean-out(s), and connection(s) to existing public sewer must be shown on the plot plan of the building permit application.

Department of Public Works and District approval shall be obtained for an engineered sewer improvement plan, showing on-site and off-site sewers needed to provide service to each lot or unit proposed, before sewer connection permits can be issued. The improvement plan shall conform to the County's "Design Criteria" and shall also show any roads and easements. Existing and proposed easements shall be shown on any required Final Map. If a Final Map is not required, proof of recordation of existing *or* proposed easement is required.

Water use data (actual and/or projected), and other information as may be required for this project, must be submitted to the District for review and use in fee determination and waste pretreatment requirements before sewer connection permits can be approved.

The plan shall show all existing and proposed plumbing fixtures on floor plans of building application. Completely describe all plumbing fixtures according to table 7-3 of the uniform plumbing code.

Environmental Review Inital Study
ATTACHMENT 13, 1 of 2
APPLICATION 03-0151

Other: For X-ray, photo processing operations:

- Existing plans illustrate veterinary facilities. However, no plumbing plans were included in the permit application. Final permit review will require a plumbing plan to review.

- Photo processing waste from x-ray processing and any associated treatment systems must have secondary containment capable of holding up to 110% of the volume capacity.

- It is also recommended that floor drains be installed on a curb at least 2" above the floor surface so that in the event of a spill, untreated wastewater would not be able to enter the sanitary sewer.

- Discharge of treated photoprocessing waste requires a permit from the Santa Cruz County Sanitation District. Each facility will be required to fulfill all requirements of the permit, including sampling the wastewater at least twice a year. Alternatively, the waste may be treated off-site.

- Spill response material must be present in the area to prevent untreated waste from entering the floor drain.

- The Sanitation District must be allowed to review plans for all x-ray processing waste treatment units and to inspect installation, where planned. Any questions regarding these criteria should be directed to the Santa Cruz County Sanitation District Environmental Compliance Section (831) 462-5462.

Drew Byrne
Sanitation Engineering

DB:abc/641

C: Applicant: Carol Robins
C/O Richard Beale Land Use Planning
100 Doyle Street, Suite E
Santa Cruz, CA 95062

Property Owner: Samuel E. & Carol A Robins
2380 North Rodeo Gulch Road
Soquel, CA 95073

Survey
(Rev. 3-96)

Environmental Review Inital Study
ATTACHMENT 13, 2 of 2
APPLICATION 03-0151

CENTRAL
FIRE PROTECTION DISTRICT
of Santa Cruz County
Fire Prevention Division

930 17th Avenue, Santa Cruz, CA 95062
phone (831) 479-6843 fax (831) 479-6847

Date:	**6** May **2003**
To:	Samuel Robins
Applicant:	RICHARD BEALE LAND USE PLANNING
From:	Tom Wiley
Subject:	03-0151
Address:	2651 Soquel Avenue, Santa Cruz
APN:	025-131-13
OCC:	2694
Permit:	030100

Environmental Review Inital Study
ATTACHMENT 14, 1 of 2
APPLICATION 03-0151

We have reviewed plans for the above subject project.

The following NOTES must be added to notes on velums by the designer/architect in order to satisfy District requirements when submitting for Application for Building Permit:

NOTE on the plans that these plans are in compliance with California Building and Fire Codes (2001) as amended by the Central Fire Protection District.

NOTE on the plans construction classification as determined by the building official and outlined in Part IV of the California Building Code.

NOTE on the plans the occupancy classification as determined by the building official and outlined in Pari III of the California Building Code.

NOTE on the plans whether the building will be either SPRINKLERED or NON-SPRINKLERED as outlined in the 2001 California Building Code and via District Amendment,

The FIRE FLOW requirement for the subjecf *property* is ***2250*** gallons *per* minute.

NOTE, on the plans. the required FIRE FLOW and the available FIRE FLOW. This information can be obtained from the water company upon request.

SHOW on the plans a public fire hydrant meeting the minimum required fire flow for the building, within 150 feet Of any portion of the building.

NOTE on the plans that an UNDERGROUND FIRE PROTECTION SYSTEM WORKING DRAWING must **be** prepared by the designer/installer. NOTE that the WORKING DRAWINGS shall comply with the District UNDERGROUND FIRE PROTECTION SYSTEM INSTALLATION POLICY HANDOUT.

NOTE on the plans that the building shall be protected by an approved automatic sprinkler system complying with the edition of NFPA 13 currently adopted in Chapter 35 of the California Building Code.

NOTE on the plans that the designer/installer shall submit three (3) sets of plans and one (1) set of calculations for the automatic sprinkler system to this agency for approval. Installation shall follow our guide sheet.

SHOW location of fire extinguishers

SHOW Occupant Load(s) and an Exiting Plan.

SHOW location of exit signs

SHOW where address numbers will be posted and maintained, plainly visible from the street. Numbers shall be a minimum of four (4) inches in height and of a color contrasting to their background.

SHOW location of Knox Box and key.

NOTE roof coverings to be no less than Class "**B**" rated roof.

The job copies of the building and fire systems plans and permits must be on-site during inspections

Submit a check in the amount of $100.00 for this particular plan check, made payable to Central Fire Protection District. A $35.00 **Late Fee** may be added to your plan check fees if payment is not received within 30 days of the date of this Discretionary Letter. INVOICE MAILED TO APPLICANT. Please contact the Fire Prevention Secretary **at** (831) 479-6843 for total fees due for your project.

If you should have any questions or comments please call me at (831) 722-2393 or email me at TornW@centralfpd.com.

CC: File & County

As a condition of submittal of these plans, the submitter, designer and installer certify that these plans and details comply with applicable Specifications, Standards, Codes and Ordinances, agree that they are solely responsible for compliance with applicable Specifications, Standards, Codes and Ordinances, and further agree to correct any deficiencies noted by this review, subsequent review, inspection or other source. Further, the submitter, designer, and installer agrees to hold harmless from any and all alleged claims to have arisen from any compliance deficiencies, without prejudice, the reviewer and the Central FPD of Santa Cruz County.

Any order of the Fire Chief shall be appealable to the Fire Code Board of Appeals as established by any party beneficially interested. except for order affecting acts or conditions which, in the opinion of the Fire Chief, pose an immediate threat lo life, property, or the environment as a result of panic, fire, explosion or release.

Any beneficially interested party has the right to appeal the order served by the Fire Chief by filing a written "NOTICE OF APPEAL" with the office of the Fire Chief within ten days afler service of such written order. The notice shall state the order appealed from, the identity and mailing address of the appellant, and the specific grounds upon which the appeal is taken.

2694–50

Environmental Review Inital Study
ATTACHMENT 14 2 of 2
APPLICATION 03-0151

HIGGINS ASSOCIATES

CIVIL & TRAFFIC ENGINEERS

Traffic Study for the Animal Hospital of Soquel in the City of Santa Cruz

Santa **Cruz** County, California

April **21,2003**

Prepared for:
Carol Robins
Santa Cruz, California

A03-36 Report wpd

1300-B First Street · Gilroy, California · *95020-4738* . VOICE/408 *848-3122* . FAX/408 848-2202 . mw.kbhiggins.com

Furthermore, the location of the traffic signal to the east of the site driveway on Soquel Avenue at 7th Avenue will create gaps that could allow left-turns to and from the site from the two-way left-turn facility. EBL movements to the site would enter the two-way left turn lane and wait for a gap to enter the driveway. SBL movements from the site would wait for a gap in westbound traffic, then enter the two-way left-turn lane and wait for a gap in eastbound traffic. The two-way left-turn lane is terminated before it reached the crosswalk.

IV. CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and recommendations are made with regard to the left turn in and out of the proposed site.

1. The proposed Animal Hospital of Soquel is estimated to generate approximately 87 daily trips and 10 PM peak hour trips. It is estimated that one left turn would be made into the site and four out of the site during the PM peak hour.

2. It is recommended that a two-way left-turn lane be striped to allow full access to and from the site.

3. The location of the signalized intersection just east of the site will create gaps in the westbound traffic stream and vehicles making SBL and EBL turns from and to the site would have an opportunity generated by non-green phases at the signal. A driver making a SBL movement would continue into the two-way left-turn lane and wait for a gap to merge with the through traffic.

Environmental Review Inital Study
ATTACHMENT 15, 2 of 2
APPLICATION 03-0151

COUNTY OF SANTA CRUZ
INTER-OFFICE CORRESPONDENCE

DATE: November 25,2003
TO: John Schlagheck, Project Planner, Planning Department
FROM: Melissa Allen, Planning Liaison to the Redevelopment Agency
SUBJECT: Application **03-0151, 2nd Routing,** Animal Hospital, APN 025-131-13, 2651 Soquel Ave.

The applicant is proposing to grade about 200 cubic yards ofmaterial and construct an animal hospital. The project requires a Commercial Development Permit, Design Review, Grading Permit, Geologic Report Review, and Soil Report Review. The property is located on the north side of Soquel Drive (2651 Soquel Drive), across from its intersection with 7"' Avenue.

The Redevelopment Agency (RDA) has the following comments regarding the proposed project. This application was discussed at the Engineering Review Group (ERG) meeting on May 7,2003 and again on November 5, 2003 and some ofthe comments below reflect those discussions. RDA previouslycommentedon this project on May 21, 2003 (*the italicized comments below' are continued).* RDA believes that the proposed plans are predominantly consistent with the Design Review Ordinance. RDA's remaining concern for this project involves the provision of adequate street frontage improvements consistent with the proposed plan-line for Soquel Drive and the adequate placement and sufficient improvements associated with the bus stop onsite or on an adjacent site.

1. *It would be preferable if the bus turnout and shelter location* **were** *moved further to the* **west,** *offsite, to separate and eliminate any potential conflict between the turnout and the proposed* **driveway** *entrance.* This application should participate in a bus pad and shelter improvement on or offsite as determined by the Depaitnient of Public Works in coordination with the Transit District.
2. Thank you for eliminating the gate across the driveway access from Soquel Avenue.
3. Thank you for changing the Olive trees to the recommended 5 new Southern Live Oak (Quercus virginiana) street trees. proposed at a 36" box size with a root barrier. If possible, *these trees should* **be** *located within a minimum 4-foot wide landscape* **strip.** **The** *street* **trees** *and landscape strip shall be permanently irrigated and maintained by the project applicant/property* **owners.**
4. It appears, based on the Utility & Site Plan that 10 out of a total of 11 trees along the rear of the development area, primarily 12" to 24" Oak trees, are proposed to be removed. This appears to be inconsistent with the trees shown to remain on the Planting Plan. Can more of these trees be retained?
5. Thank you for adding building signage for review. ***Are*** *any freestanding signs proposed?*
6. Thank you for showing the existing and proposed right-of-way improvements along Soquel Avenue on the engineering Utility & Site Plan sheet.
7. *Parking should be evaluated by staff to ensure sufficient onsite parking is being provided as* **proposed**
8. *Are the proposed colors appropriatefor the site's environment and will* **the** *metal roof material/color he treated such that the potential for glare* **is** *ininimized?*

The items and issues referenced above should be evaluated as part of this application and/or addressed by conditions of approval. RDA would like to see future routings of these plans if any changes are proposed which apply to the comments above. The Redevelopment Agency appreciates this opportunity to comment. Thank you.

Environmental Review Inital Study
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APPLICATION 03-0151

Cc: Sheryl Bailey, RDA
Paul Rodrigues, RDA

Bauldry Engineering
CONSULTING GEOTECHNICAL ENGINEERS
147 S. MORRISSEY AVENUE, SANTA CRUZ, CA 95062 (831) 457-1223 Fax (831) 457-1225

0316-SZ972-H51
August 6, 2003

Carol Robins
2380 Rodeo Gulch Road
Soquel, CA 95073

Subject: Fill Reconstruction Alternatives
Proposed Animal Hospital
Soquel Avenue and 7th Avenue
Santa Cruz County, California

Environmental Review Initial Stu
ATTACHMENT 18, 1 of 4
APPLICATION 03-0151

Dear Ms. Robins,

This letter confirms our discussion during the June 2003 meeting with the County Planning Department, Rogers E. Johnson & Associates, Bowman & Williams and you, and my subsequent discussions with Bowman & Williams and Rogers E. Johnson &Associates.

The grading recommendations provided in our Geotechnical Investigation Report were based on the assumption that the large oaks and other mature trees along the edge of the existing non-engineered fill and native slopes were not to be disturbed. During our June meeting, the County stated the following:

1. The total mass of the existing non-engineered fill should be removed from the building and parking lot areas. The existing fill should then be replaced as an engineered fill. Note: the Geologic Report by Rogers E. Johnson & Associates provides cross-sections that indicate the depth and extent of the existing non-engineered fill.

2. The large oaks and other mature trees along the existing fill slope could be removed, as necessary, during the removal of the existing non-engineered fill.

Based on the above, we have the presented the following fill reconstruction alternatives to Bowman &Williams:

1. The fill may be reconstructed at a 2:1 (horizontal to vertical) gradient with the fill keyed into the bedrock that underlies the existing non-engineered fill. The toe of the new engineered fill slope should be set back a minimum of 8 feet from the face of the bedrock slope.

2. The fill may be reconstructed as an internally reinforced soil slope using geotextile or geogrid reinforcement. The reinforced soil slope may be designed with a 1:1 (horizontal to vertical) gradient with the fill keyed into the underlying bedrock. The toe

of the slope should be set back a minimum of 8 feet from the face of the bedrock slope.

3. The fill may be reconstructed as a mechanically stabilized earth wall using commercially available systems such as a modular block retaining wall system (e. g. Allen Block ™, or equivalent), or with a welded wire mesh system (e.g. Hilfiker™, or equivalent). The base of mechanically stabilized earth walls should extend down to bedrock and should be set back a minimum of 8 feet from the face of the slope.

4. The fill may be replaced as an engineered fill behind a soldier pier and timber lagging wall. The soldier pier and lagging wall should be set back a minimum of 8 feet from the face of the bedrock slope. The retaining wall should be constructed in accordance with the recommendations outlined in our Geotechnical Investigation Report prepared for the project and dated April 24, 2003.

We recommend that Bowman & Williams assess the feasibility of the above alternatives and discuss the economic and design impact:; with you. Following the selection of an alternative from the above, we will provide detailed recommendations, as necessary, for the design and construction of the selected system.

If you have any questions, please call our office.

Very truly yours,

REGISTERED PROFESSIONAL ENGINEER BRIAN D. BAULDRY No. 2479 GEOTECHNICAL STATE OF CALIFORNIA

Baldry Engineering

Brian D. Bauldry
Principal Engineer
G. E. 2479
Exp. 12/31/06

BDB\Engineering/Projects/0316fill reconslructionalternatives doc

Copies: 1 to Carol Robins
1 to Richard Beale Land Use Planning Inc. Attention: Ron Powers
1 to Bowman & Williams, Attention: Jeff Naess
1 to Rogers Johnson & Associates
1 to Thacher & Thompson Architects, Attention: Tom Thacher
1 to Don Urfer & Associates

Environmental Review Inital Study
ATTACHMENT 16, 2 & 2
APPLICATION 03-0151

COUNTY OF SANTA CRUZ
Discretionary Application Comments

Project Planner: John Schlagheck
Application No.: 03-0151
APN: 025-131-13

Date: March 23, 2004
Time: 16:49:00

Environmental Planning Completeness Comments

1. The proposed preliminary grading plans do not show any proposed fill even though the geotechnical engineer recommends the removal and recompaction of the lower pad. Furthermore, the geotechnical engineer recommends at least some removals on the upper pad which are not yet shown on the plans. The grading plan's relief map must be extended to the flowline of the creek and at a minimum the removals recommended by the geotechnical engineer must be shown on the plans.

2. The geotechnical and engineering geologic reports appropriately recognize that the onsite fill is potentially unstable. To emphasis this concern the engineer recommends the removal all of the fill from the lower "pad" and then provides recommendations for two alternatives to the remediation of the fill on the upper pad. This second alternative appears to be suggested to both retain mature trees and to reduce cost. I would request tht the soils engineer consider removing the fill in the area immeidately adjacent to the proposed building. In any case I would recommend that we meet with the project engineer and the geotechnical engineer to determine whats feasible. ========== REVIEW ON MAY 5, 2003 BY JOSEPH L HANNA

========== UPDATED ON MAY 23, 2003 BY ROBIN M BOLSTER ==========

Based on information presented in the soils report prepared for this project. the potential additional earthwork requried to stabilize the hillside and create a feasible building padwill greatly exceed the scope of work covered by Riparian Exception 02-0527. The additional work on the adjacent hillside will likely trigger the need for a streambed alteration agreement with the California Department of Fish & Game. The grading plans should be reviewed by David Johnston at CDF so that a determination can be made about whether additional agency approvals will be required.

In any event, the existing Riparian Exception will not be sufficient to cover the current project as proposed. A new application must be made to the zoning counter, with an updated set of grading & drainage plans which reflect the recommendations made by the project soils engineer and the County Geologist.
========== UPDATED ON NOVEMBER 21, 2003 BY ROBIN M BOLSTER ==========

The preliminary grading plans and geotechnical letter dated 8/6/03 have been reviewed by the County Geologist and are satisfactory.

========== UPDATED ON NOVEMBER 25, 2003 BY KEVIN D CRAWFORD ==========
11/25/03 - Grading review should have been for "Preliminary Review of Grading". Grading plan is approved for "Prelim Rev"--a grading permit will be required later with the building permit. Also, Geology and Soils Reports were approved by Joe Hanna yesterday. ========== UPDATED ON MARCH 23, 2004 BY ROBIN M BOLSTER ==========
NO COMMENT
========== UPDATED ON MARCH 23. 2004 BY ROBIN M BOLSTER ==========
========== UPDATED ON MARCH 23. 2004 BY ROBIN M BOLSTER ==========

Dpw Drainage Completeness Comments

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

========== REVIEW ON JUNE 3. 2003 BY DAVID W SIMS ==========
The proposed drainage plan appears to be adequate for a proposal for which there are no off-site concerns. However, there is a lack of County records providing information on the design capacity of the Arana- Rodeo channel to enable review determination of potential impact. Such design data probably exists due to the nature of the existing improvements. The applicant will need to provide record that the existing channel system has a designed minimum capacity of 10-year flow, and that there is an adequate and safe overflow/floodplain for a 100-year event. If this capability is not present, on-site detention for tapplicant's project may be required. This information is likely on file with the City of Santa Cruz Public Works.

Include answers to the following questions:

1) When were the concrete channel linings and culverts under La Fonda Ave. and Soquel Ave. installed, who was responsible for the project work, and who holds design records?

2) What was the original design capacity of the channel section along the full length of the school property before flows inundate the floodplain?

3) Was the school floodplain designed to successfully contain the 100-year flood event without inundating occupied/important developments?

4) What documented design changes are available that indicates the effects from raising athletic field levels, levee creation, and floodplain in-fill on the original design and function?

See the miscellaneous comments for additional review comment. ========== UPDATED ON NOVEMBER 24, 2003 BY DAVID W SIMS ==========
2ND Routing:

Prior to public hearing submit:

1) An easement will be needed for the construction of the drainage outfall pipe on the Santa Cruz High School property. Provide evidence that the adjoining property is willing to grant such easement, and show the area on the plans. Actual acquisition and recording may take place at the time of the building application.

2) Please submit the referenced records of flood profiles for Arana Gulch that indicate the restriction conditions under La Fonda Ave. so that these may be reviewed, and it can be determined that the appropriate level of detention has been proposed (25 yr storage, 10 yr pre-development release rate). Different detention requirements could be made following review of this material.

1/14/03 FEMA flood profiles received from B&W 12/3/03 indicating Arana Gulch has 10 year capacity at downstream road structures, but overtops Soquel Ave for 50 year event and higher. Detention determination criteria still pending.

3) Provide specifically noted (not designed) onsite mitigation measures that fully

meet General Plan policies 7.23.1 New Development and 7.23.2 Minimizing Impervious Surfaces. It is recommended that rear-building downspouts be dispersed into vegetated yard areas and this runoff allowed to route as delayed overland flow to a perimeter area drain. Also recommended is for a substantial percentage of the proposed pavements to be constructed of pervious materials with appropriate sub-grade. If these recommendations are not taken. please provide measures other than detention alone that will achieve these policies.

See miscellaneous comments. ========== UPDATED ON JANUARY 14, 2004 BY DAVID W SIMS ==========

Dpw *Drainage* Miscellaneous Comments

LATEST COMMENTS HAVE **NOT YET** BEEN SENT TO PLANNER FOR THIS AGENCY

========== REVIEW ON JUNE 3, 2003 BY DAVID W SIMS ==========
The dispersion of roof runoff onto the vegetated slope is encouraged, and should be maximized so long as it does not create instability. If the slope below the dispersed release line exceeds 25% then a geotechnical engineer's letter of approval should be provided substantiating that it does not pose a stability problem. Please note the slope in this area of the plans. This may be provided at the time of building plan application.

A drainage impact fee will be assessed on the net increase in impervious area. The fees are currently $0.80 per square foot, soon to be $0.85, and are assessed upon permit issuance.

Please call the Dept. of Public Works, Stormwater Management Section, from 8:00 to 12:00 am if you have questions. ========== UPDATED ON NOVEMBER 24, 2003 BY DAVID W SIMS ==========
Deferred to the building application, submit:

1) The tributary drainage area shown for the detention calculations was not legible, but it appears that it includes significant roof area that bypasses the detention structure. The allowable release for the development area is to be the sum of the controlled and uncontrolled releases from the new development, and also must include any new impervious development offsite of the parcel, such as the sidewalks. The actual release from the detention system would therefore be a lesser rate. This should be properly accounted for in future submittal of the detention storage calculations, and most importantly in the design of the detention control box structure. Please provide a legible copy of the division of the drainage area boundaries with future submittals.

2) A stamped/signed geotechnical letter of approval will be needed for the outfall location if lower slopes exceed 25%. Note the actual slope between the outfall and the creek channel on the project plans.

3) A silt and grease trap and detention maintenance agreement will need to be recorded.

Please call the Dept. of Public Works. Stormwater Management Section, from 8:00 to

12:00 am if you have questions. ========= UPDATED ON JANUARY 14, 2004 BY DAVID W SIMS =========
NO COMMENT

Dpw Driveway/Encroachment Completeness Comments

========= REVIEW ON APRIL 29, 2003 BY RUTH L ZADESKY =========
Show driveway plan view and centerline profile.
Show existing ground and driveway elevations on profile.

Dpw Driveway/Encroachment Miscellaneous Comments

========= REVIEW ON APRIL 29, 2003 BY RUTH L ZADESKY =========
Driveway to conform to County Design Criteria Standards.
Encroachment permit required for all off-site work in the County road right-of-way.
Civil engineered plans required for curb, gutter and sidewalk.
Fencing is not allowed within the County road right-of-way.
Proposed fencing shall not block sight distance for motorists at adjacent intersections and driveways.

Dpw Road Engineering Completeness Comments

========= UPDATED ON MAY 20, 2003 BY GREG J MARTIN =========
An existing site plan and proposed site plan should be on separate sheets. The plans should show both sides of the street and 100 feet in either direction along Soquel Avenue from the property lines. The existing and proposed striping should be shown. The plans should show the profile for the centerline and flow line of Soquel Avenue. Cross sections should be shown along Soquel Avenue. Spot elevations should be given to allow verification of grades at the bus turnout, along the flow line and top of curb. and within the parking lot. The locations of the existing traffic signal equipment and luminaires should be clearly shown, and adequate sidewalk clearance provided around them. Proper access has to be provided to the pedestrian push buttons. If necessary, the standards and/or push buttons should be relocated to provide clearance and access. The landscaping should not conflict with signal equipment. The driveway should reference the correct figure in the County Design Criteria.

The handicapped ramp should reference the correct figure in the County Design Criteria. It appears that the new ramp is being located at the existing crosswalk. However. it also appears that the alignment of the existing crosswalk at the southwest corner of the intersection is non-standard. In addition, the proposed work at the gas station will include a new ramp at the corner and may result in a new alignment for the crosswalk. The new ramp on the project frontage should match the proposed improvements on the south side of Soquel Avenue, and the crosswalk should be relocated if necessary.

A 4 foot wide landscape strip is required behind the sidewalk. The flowline for the driveway should be straight in plan view. The gate should be behind the landscaping strip and the width of the path to the gate shall not exceed 6 feet. There should be a 2 foot space between the back of the bus shelter and any other improvements.

The pavement conform along Soquel Avenue appears to be two feet wide. It should be

increased as necessary to avoid a longitudinal pavement joint in the bike lane, which presents safety issues for bicyclists.

Gates are required to be set back 20 feet from the back of sidewalk.

The traffic study provided shows a 10-foot TWLTL. The minimum width for a TWLTL shall be 12 feet. There appear to be inconsistencies between the traffic study, the preliminary grading and drainage plan, the architectural plans and the as-built drawings and aerials the County has with respect to the curb to curb width along Soquel Avenue. The civil engineering plans show the curb-to-curb width at the curb return with Seventh Avenue as approximately 71 feet and this was verified in the field by Bowman & Williams as about 70 feet. This should allow five 12 foot lanes and 5 foot bike lanes.

The location of the bus shelter is non-standard. The transit district must review and approve the non-standard configuration. An offer of dedication should be made for the bus stop shelter. ========= UPDATED ON NOVEMBER 21, 2003 BY GREG J MARTIN =========
We have evaluated the bus turnout and have determined that it is infeasible to construct at this time. In the future, if the adjacent property develops, the bus turnout may be constructed at the location shown on the plans. At this time, we would like a bus pad and shelter constructed to the west of the project within the right-of-way. Please contact Greg Martin at 831-454-2811 to discuss the exact location of these improvements. ========= UPDATED ON JANUARY 5. 2004 BY GREG J MARTIN =========
Public Works has no outstanding issues with the traffic study by Higgins & Associates.

The development is subject to Soquel Transportation Improvement (TIA) fees at a rate of $400 per daily trip-end generated by the proposed use. The traffic study shows 87 daily trips. The fee is calculated as 87 trips multiplied by $400 per trip end equals $34.800. The total TIA fee of $34,800 is to be split evenly between transportation improvement fees and roadside improvement fees.

Dpw Road Engineering Miscellaneous Comments

========= REVIEW ON MAY 20, 2003 BY GREG J MARTIN =========
========= UPDATED ON NOVEMBER 21, 2003 BY GREG J MARTIN =========
========= UPDATED ON JANUARY 5, 2004 BY GREG J MARTIN =========

Environmental Health Completeness Comments

LATEST COMMENTS HAVE NOT YET BEEN SENT TO PLANNER FOR THIS AGENCY

========= REVIEW ON MAY 16, 2003 BY JIM G SAFRANEK =========
NO COMMENT

Environmental Health Miscellaneous Comments

LATEST COMMENTS HAVE NOT YET BEEN SENT TO PLANNER FOR THIS AGENCY

========== REVIEW ON MAY 16, 2003 BY JIM G SAFRANEK ==========
If hazardous materials or medical waste are to be used, stored or generated on site, contact the appropriate Hazardous Material Inspector in Environmental Health at 454-2758 to determine if a permit is required.